
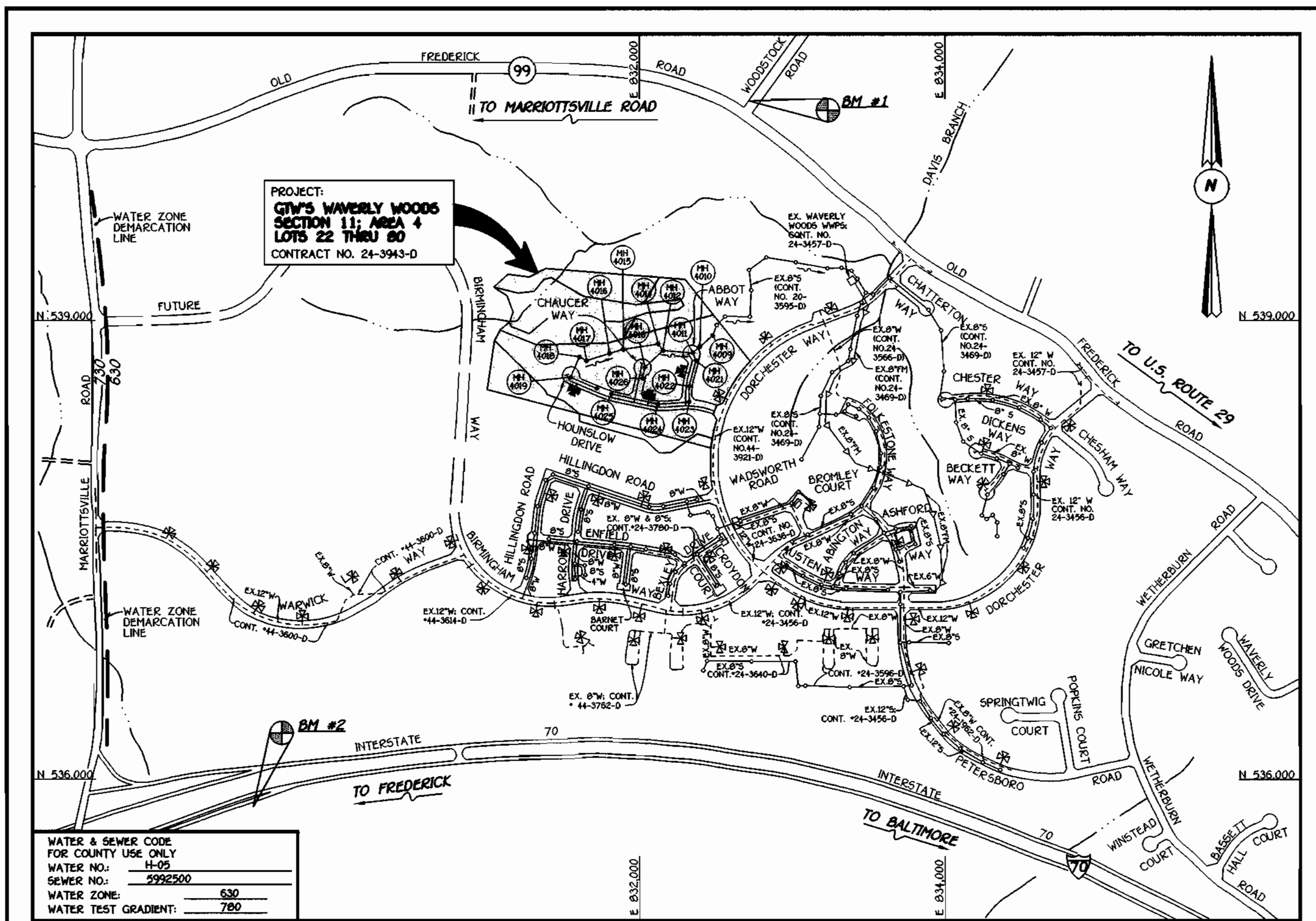


GENERAL NOTES

- 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.
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 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.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
 - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 797-9068
 - MISS UTILITY - 1-800-257-7777
 - COLONIAL PIPELINE CO. - 795-1390
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG 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.
- 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.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G. 5.52.
- 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.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G.5.51.
- 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.
- ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (W.11 AND W.213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL 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.
- 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. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.1(h)(2) OF THE HOWARD COUNTY CODE.



WATER & SEWER CODE FOR COUNTY USE ONLY

WATER NO.:	H-05
SEWER NO.:	3992500
WATER ZONE:	630
WATER TEST GRADIENT:	780

VICINITY MAP

SCALE: 1"=600'

PLAN REFERENCE NUMBERS: P00-1B, F01-93

QUANTITIES

ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" WATER	1,624 L.F.			
6" WATER	53 L.F.			
1" W.H.C.	1,581 L.F.			
FIRE HYDRANTS	3 EACH			
8" SEWER	1,114.31 L.F.			
8" SEWER (D.I.P.)	1,352.21 L.F.			
4" SEWER	1,336 L.F.			
MANHOLES	18 EACH			
8" X 8" TEE	2 EACH			
8" X 6" TEE	3 EACH			
8" VALVES	3 EACH			
6" VALVES	3 EACH			
8" - 1/8" H.B.	2 EACH			
8" PLUG & BUTTRESS	3 EACH			
OUTSIDE METER SETTINGS	2 EACH			

NAME OF UTILITY CONTRACTOR: _____
 SURVEY & DRAFTING DIVISION AS-BUILT DATE: _____

TYPE OF BUILDING: RESIDENTIAL: SINGLE FAMILY

NUMBER OF LOTS & PARCELS:	59 (51 BUILDABLE)
NO. OF WATER HOUSE CONNECTIONS:	51
NO. OF SEWER HOUSE CONNECTIONS:	51
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT VIA THE WAVERLY WOODS PUMPING STATION

CONTRACT No. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11; AREA 4
LOTS 22 THRU 80
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

BENCHMARK INFORMATION

B.M.#1 - HOWARD COUNTY CONTROL STATION #1012 (NAD '83) (NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)	N 501.060,177
E 1,345,336,756	ELEVATION = 445.577
B.M.#2 - HOWARD COUNTY CONTROL STATION #1661 (NAD '83) (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARRIOTTVILLE ROAD)	N 593,250,932
E 1,340,192,711	ELEVATION = 509.924

DEVELOPER'S CERTIFICATION

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

Paul W. Kaebel FOR: 06/12/01
 WAVERLY WOODS DEVELOPMENT CORP. DATE
 SIGNATURE OF DEVELOPER

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.

Paul W. Kaebel 06/12/01
 SIGNATURE OF ENGINEER DATE

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

Jim Myers 6/22/01
 U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED: John Robertson 6/22/01
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDMIMENT 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 AND AS SHOWN ON F01-93 & THESE PLANS.

Paul W. Kaebel, FOR: 06/12/01
 WAVERLY WOODS DEVELOPMENT CORP. DATE
 SIGNATURE OF DEVELOPER

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

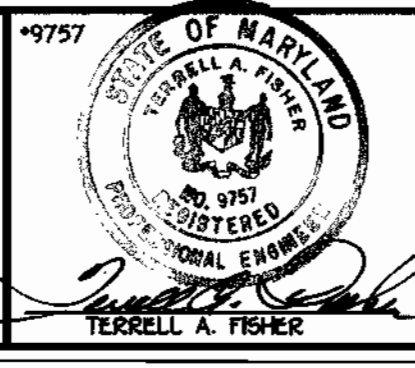
Michael A. ... 6-19-01
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

... 6/20/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELKTON CITY, MARYLAND 21921
 (410) 461-2855



DESIGNED BY:	M.D.T.
DRAWN BY:	M.D.T.
CHECKED BY:	P.M.S.
DATE:	JUNE, 2001
BY NO.	REVISION

TITLE SHEET

600' SCALE MAP NO. 16 BLOCK NO. 5

F.C.C. WORK ORDER NO. 30696

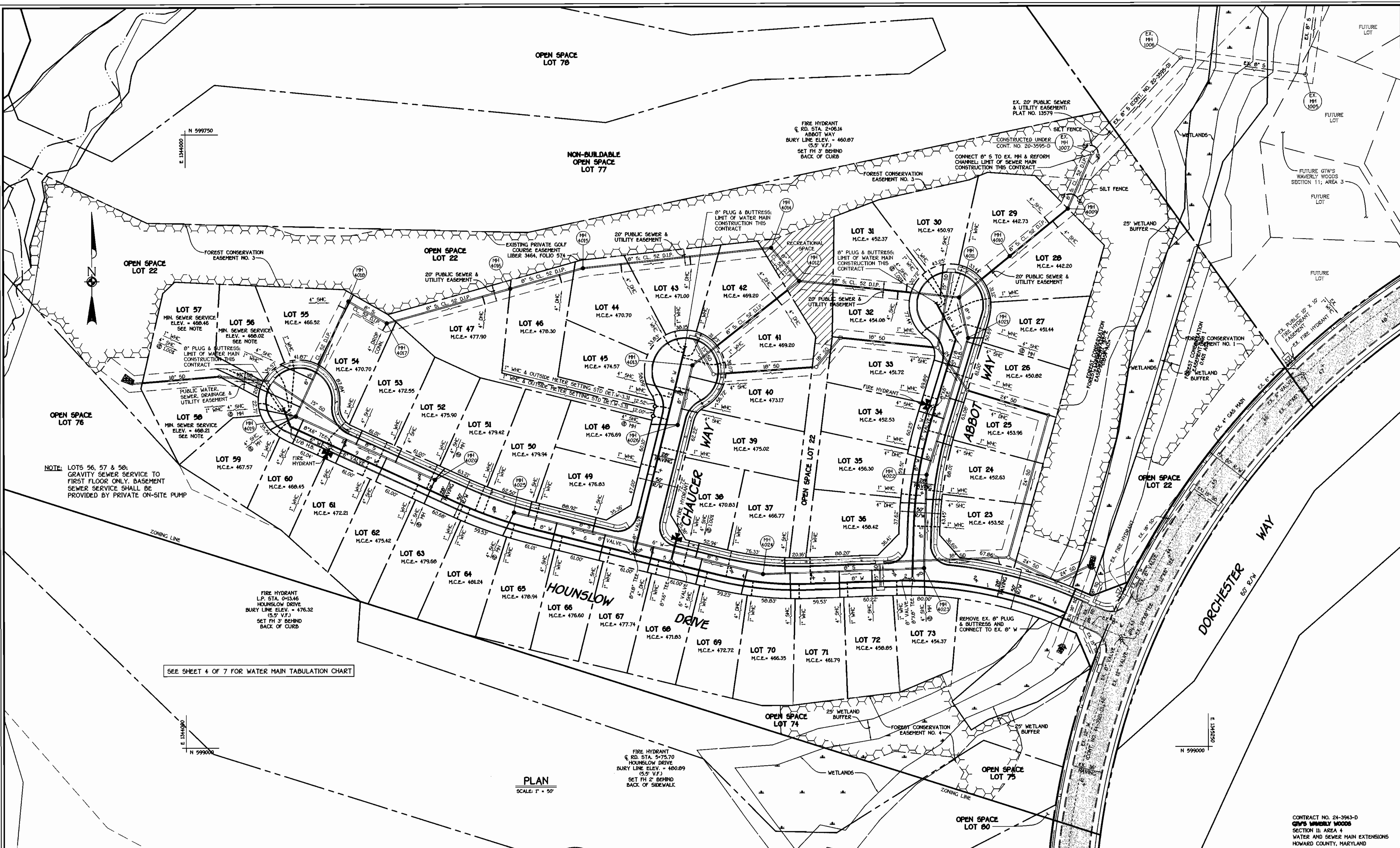
FILE NAME: 30696 FINAL WATER AND SEWER TITLE SHEET

GTW'S WAVERLY WOODS
 SECTION 11; AREA 4
 LOTS 22 THRU 80
 CONTRACT NO. 24-3943-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 of 7

CONTRACT NO. 24-3943-D
 GTW'S WAVERLY WOODS
 SECTION 11; AREA 4
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Michael D. Hinn
CHIEF, BUREAU OF UTILITIES

6-19-01
DATE

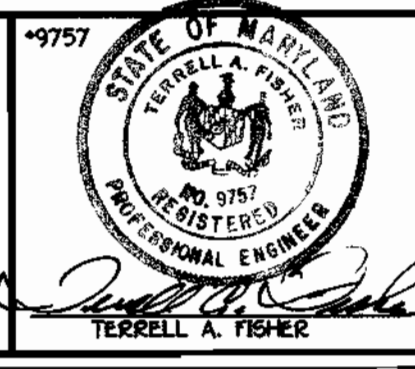
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

John P. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

6/26/01
DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTONAL SQUARE OFFICE PARK - 3872 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2995

Terrell A. Fisher
REGISTERED PROFESSIONAL ENGINEER



DESIGNED BY:	M.D.T.		
DRAWN BY:	M.D.T.		
CHECKED BY:	P.M.K.		
DATE:	JUNE, 2001	BY NO.	
REVISION		DATE	

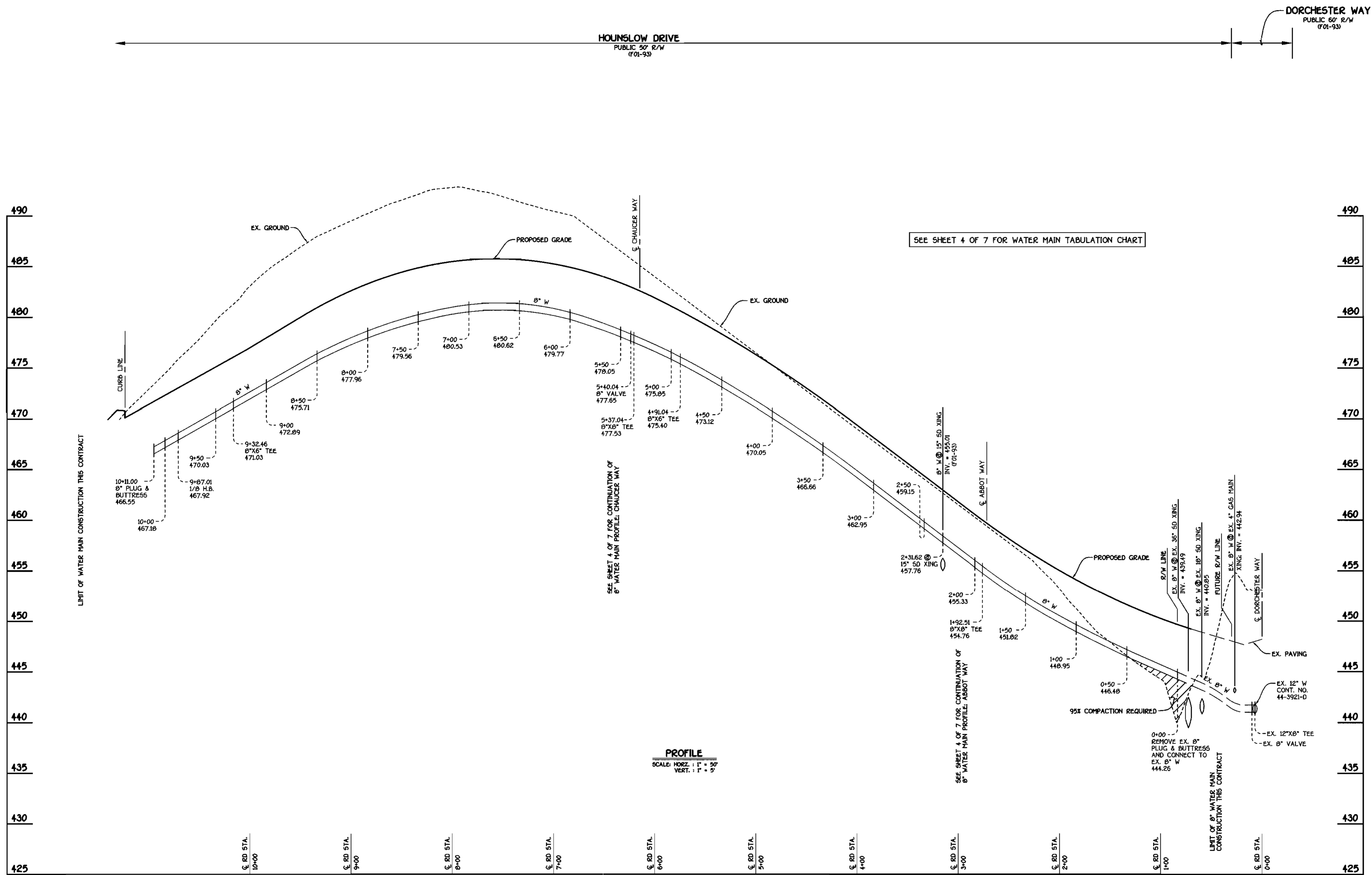
WATER AND SEWER MAINS PLAN VIEW

600' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 30685
FILE NAME: 30685 FINAL WATER AND SEWER PLAN SH2

GTW'S WAVERLY WOODS
SECTION II; AREA 4
LOTS 22 THRU 80
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 7

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8" WATER MAIN: HOUNSLOW DRIVE

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

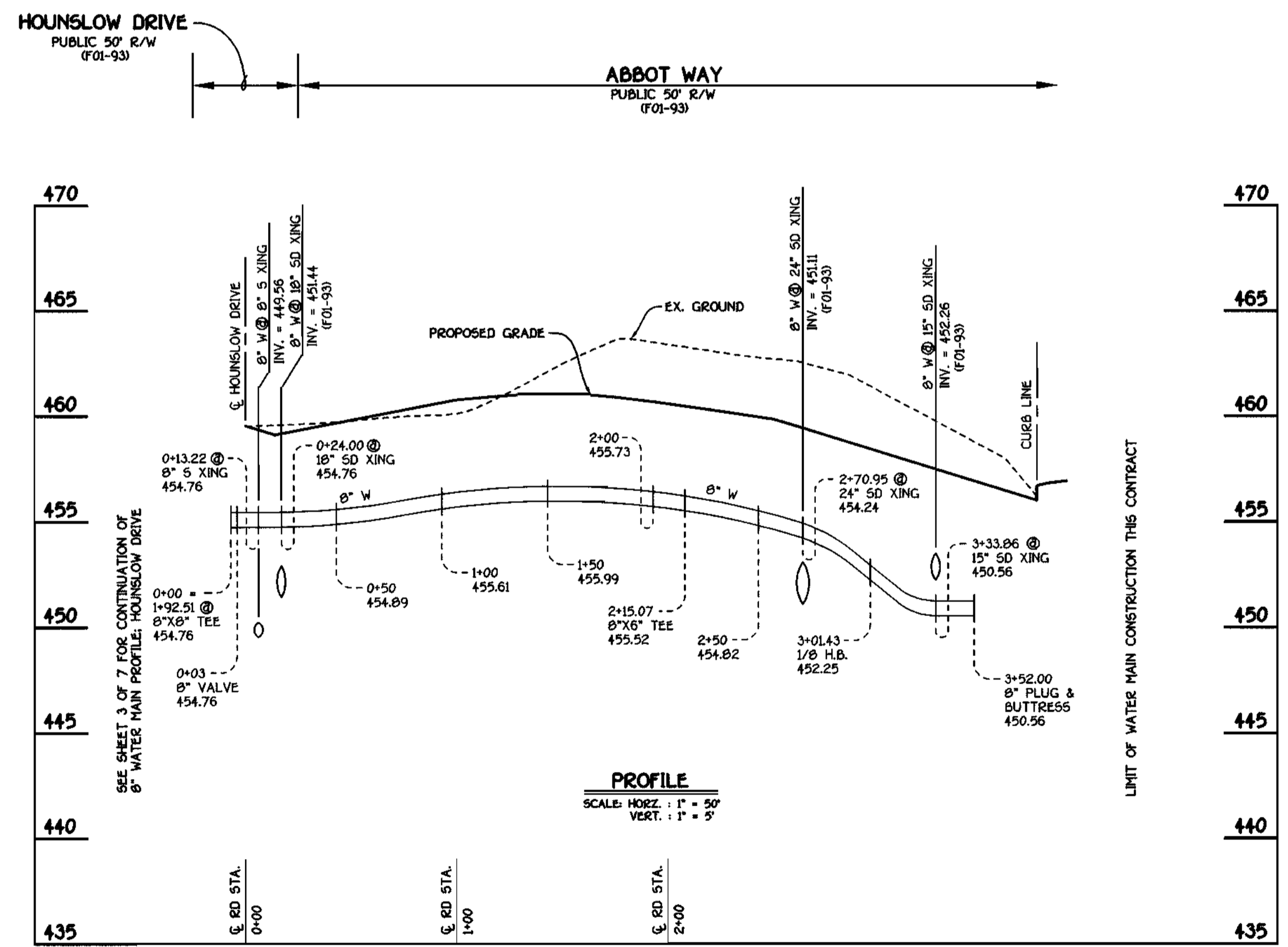
CONTRACT NO. 24-3943-D
 CITY OF HOWARD COUNTY
 SECTION II: AREA 4
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Michael D. Swann</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>Michael D. Swann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS 1000 SQUARE OFFICE PARK - 10272 BALTOUR NATIONAL PKY. ELLOTT CITY, MARYLAND 20622 (410) 461-2555 TERRELL A. FISHER	DESIGNED BY: H.D.T. DRAWN BY: H.D.T. CHECKED BY: P.W.K. DATE: JUNE, 2001 BY NO. REVISION DATE	WATER MAINS PROFILES 600' SCALE MAP NO. 16 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30586 FILE NAME: 30586.FINAL WATER AND SEWER PROFILE SHTS	GTW'S WAVERLY WOODS SECTION II: AREA 4 LOTS 22 THRU 80 CONTRACT NO. 24-3943-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 3 OF 7
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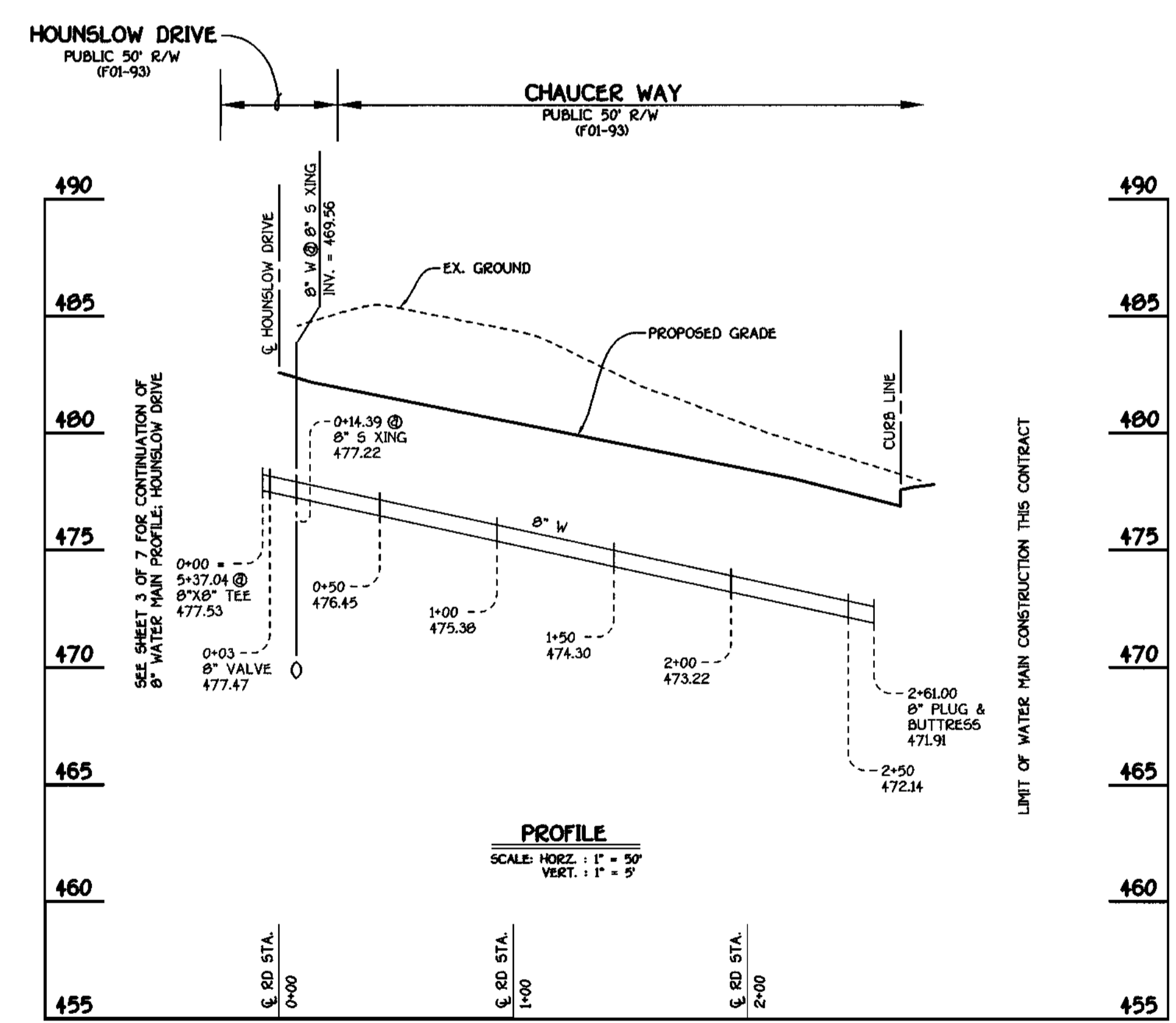
K:\Drawings\3\30586 GTW Section II\WATER\Final\Area 4\30586 Final Water and Sewer Profile Sht.3.dwg Tue Jun 12 08:24:46 2001

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	℄ ROAD STATION	DISTANCE
HOUNSLOW DRIVE			
0+00	P.C. (CRIMP RADIUS = 493.00'); CONNECT TO EX. 8" W	0+83.52	7' LT.
1+92.51	8" X 8" TEE	2+78.77	7' LT.
2+16.87	P.T. (CRIMP RADIUS = 493.00')	3+03.48	7' LT.
3+19.54	P.C. (CRIMP RADIUS = 407.00')	4+06.15	7' LT.
4+33.11	P.T. (CRIMP RADIUS = 407.00')	5+17.76	7' LT.
4+91.04	8" X 6" TEE	5+75.70	7' LT.
5+37.04	8" X 8" TEE	6+21.70	7' LT.
5+40.04	8" VALVE	6+24.70	7' LT.
6+63.60	P.C. (CRIMP RADIUS = 547.00')	7+48.25	7' LT.
7+65.76	P.T. (CRIMP RADIUS = 547.00')	8+49.11	7' LT.
9+32.46	8" X 6" TEE	10+14.95	7.78' LT.
9+87.01	1/8 H.B.	LP. STA. 0+68.01	7' RT.
10+17.00	8" PLUG & BUTTRESS	LP. STA. 1+10.84	18.62' RT.
CHAUCER WAY			
0+00	8" X 8" TEE	-0+07	7' LT.
0+03	8" VALVE	-0+04	7' LT.
2+61.00	8" PLUG & BUTTRESS	LP. STA. 1+17.77	10.17' RT.
ABBOT WAY			
0+00	8" X 8" TEE	-0+07	7' LT.
0+03	8" VALVE	-0+04	7' LT.
0+52.87	P.C. (CRIMP RADIUS = 557.00')	0+55.52	7' LT.
1+99.04	P.T. (CRIMP RADIUS = 557.00')	1+90.11	7' LT.
2+15.07	8" X 6" TEE	2+06.14	7' LT.
3+01.43	1/8 H.B.	2+93.60	1.81' LT.
3+52.00	8" PLUG & BUTTRESS	LP. STA. 0+88.36	23.05' RT.

SEE THIS SHEET FOR WATER MAIN TABULATION CHART



8" WATER MAIN: ABBOT WAY



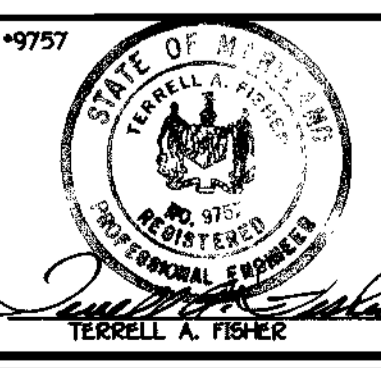
8" WATER MAIN: CHAUCER WAY

CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Michael J. Sullivan
6-19-01
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Michael J. Sullivan
6/20/01
DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 1872 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21117
410-418-2855

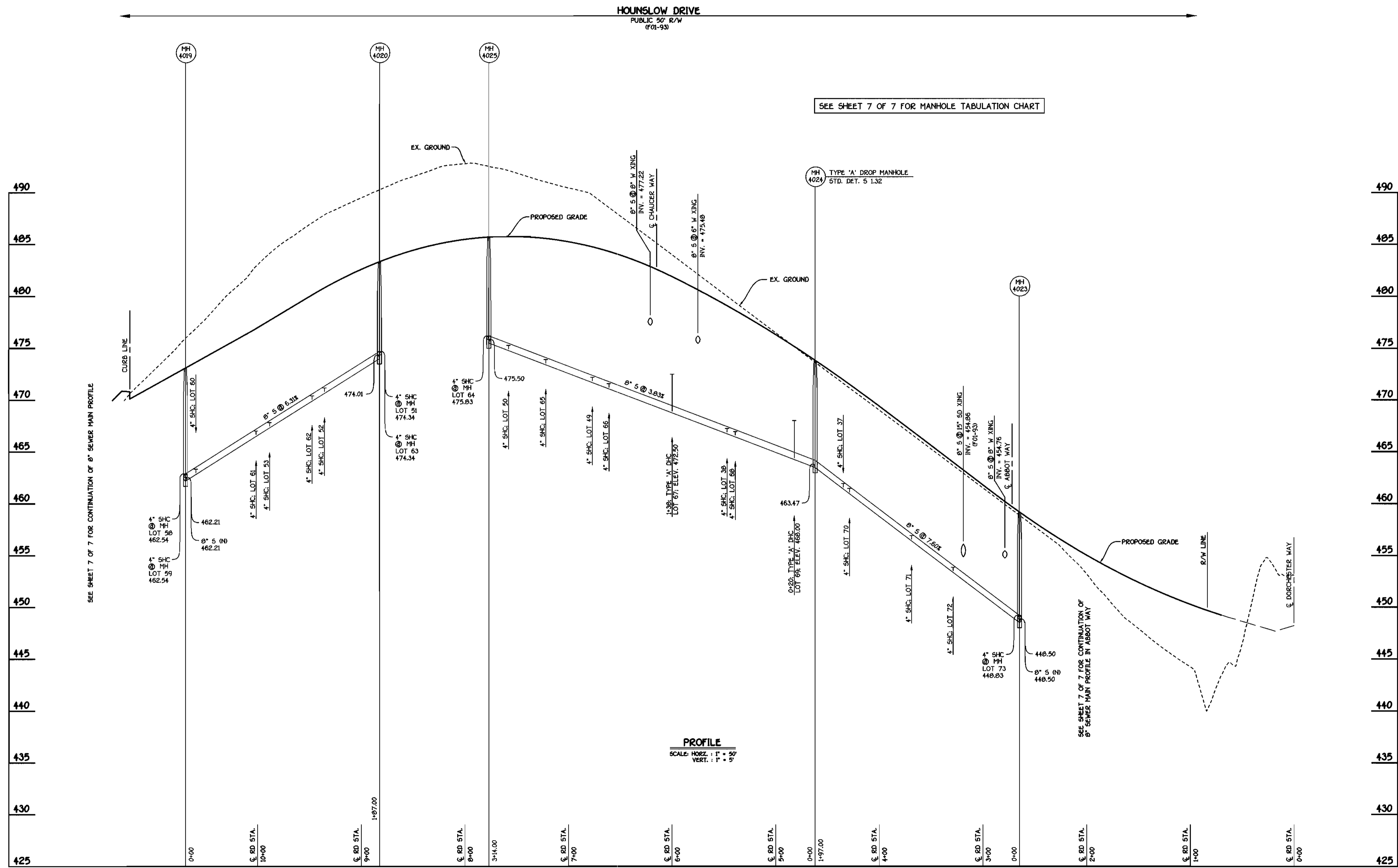


DESIGNED BY: H.D.T.
DRAWN BY: H.D.T.
CHECKED BY: P.W.K.
DATE: JUNE, 2001
BY NO. REVISION DATE

WATER MAINS PROFILES
60' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 3088
FILE NAME: 3088 FINAL WATER AND SEWER PROFILE SH14

GTW'S WAVERLY WOODS
SECTION 11: AREA 4
LOTS 22 THRU 80
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 4 OF 7

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SEE SHEET 7 OF 7 FOR MANHOLE TABULATION CHART

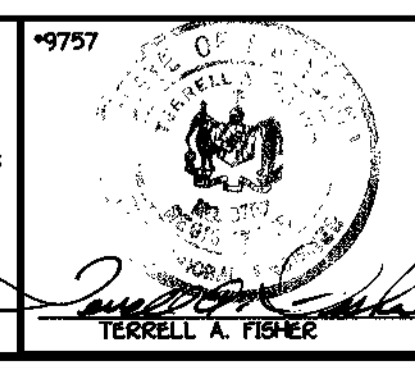
8" SEWER MAIN: HOUNSLOW DRIVE

CONTRACT NO. 24-3943-D
 GFW'S WAVERLY WOODS
 SECTION II: AREA 4
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Michael A. Ginnelli
 CHIEF, BUREAU OF UTILITIES
 DATE: 6-19-01

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 6/20/01

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 2010 WASHINGTON SQUARE OFFICE PARK - SUITE 200 BALTIMORE NATIONAL PLEX
 ELICOTT CITY, MARYLAND 21117
 (410) 461-2999



DESIGNED BY:	M.D.T.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	JUNE, 2001
BY NO.	
REVISION	
DATE	

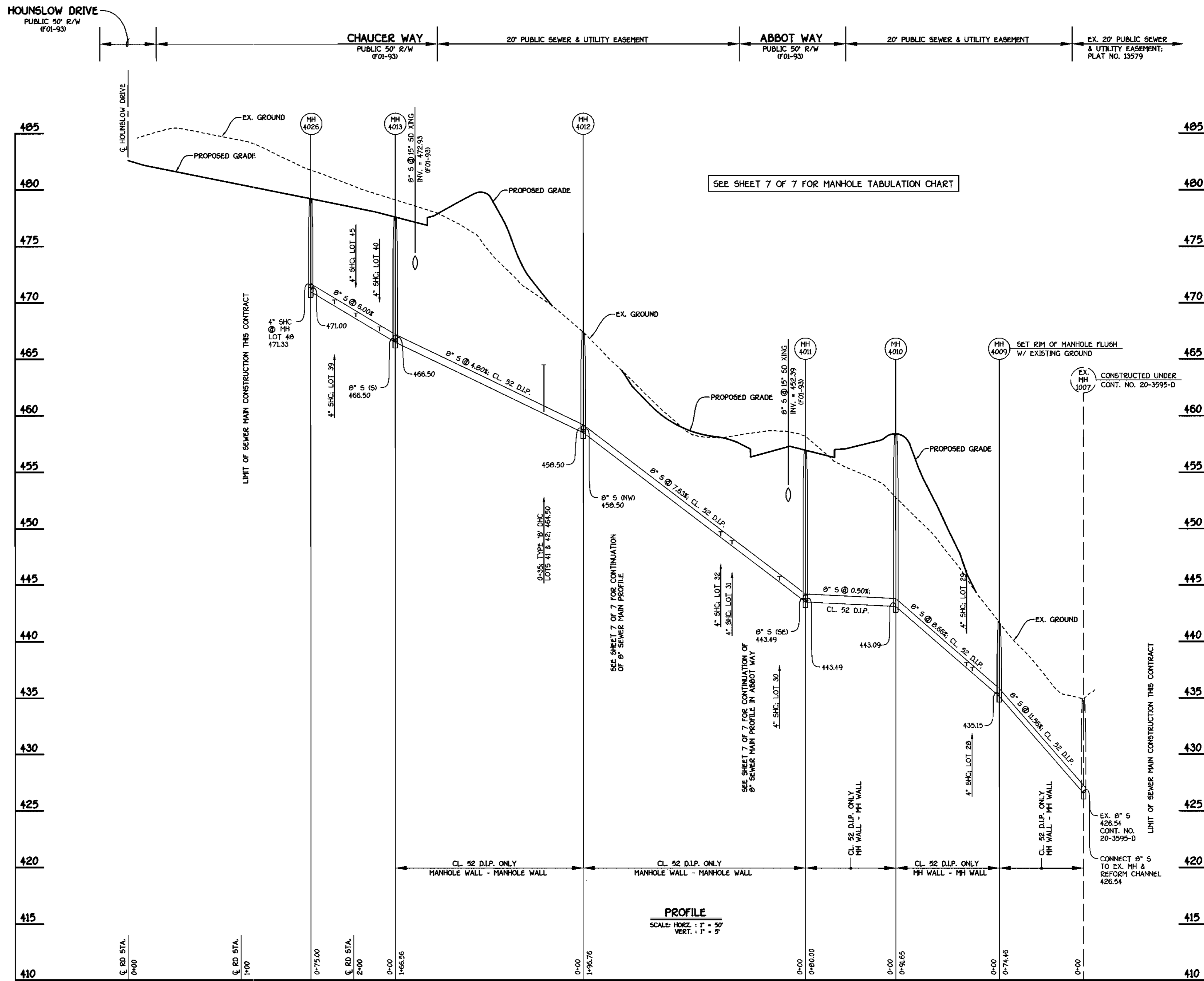
SEWER MAINS
 PROFILES
 60' SCALE MAP NO. 16 BLOCK NO. 5
 F.C.C. WORK ORDER NO. 30888
 FILE NAME: 30888.FINAL WATER AND SEWER PROFILE SHITS

GTW'S WAVERLY WOODS
 SECTION II: AREA 4
 LOTS 22 THRU 80
 CONTRACT NO. 24-3943-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 AS
 SHOWN
 SHEET
 5 of 7

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SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4009 TO MH 4010		
0+24 LT.	28	437.60
0+29 RT.	29	438.03
MH 4011 TO MH 4012		
0+23 RT.	30	446.17
0+65 RT.	31 (SHC @ 1.00X)	448.72
0+75 LT.	32	449.58
MH 4012 TO MH 4013		
0+35 RT.	42 (DHC)	464.70
0+35 LT.	41 (DHC)	464.70
MH 4014 TO MH 4015		
1+00 LT.	43 (DHC)	466.70
1+85 LT.	44 (DHC)	466.20
MH 4015 TO MH 4016		
0+30 LT.	46 (DHC)	473.20
MH 4016 TO MH 4017		
0+35 LT.	47 (DHC)	473.20
⊙ MH 4017 LT.	54 (DROP CONN. @ MH)	466.20
MH 4018 TO MH 4019		
0+10 RT.	55	461.82
1+05 RT.	56	463.02
1+42 RT.	57 (SHC @ 1.00X)	463.46
⊙ MH 4019 RT.	58 (SHC @ MH)	463.01
⊙ MH 4019 CT.	59 (SHC @ MH)	462.87
MH 4019 TO MH 4020		
0+10 RT.	60	463.65
0+68 RT.	61	467.31
0+81 LT.	53	467.85
1+22 RT.	62	470.72
1+34 LT.	52	471.20
MH 4020 TO MH 4021		
⊙ MH 4020 RT.	63 (SHC @ MH)	474.98
⊙ MH 4020 LT.	51 (SHC @ MH)	474.72
MH 4011 TO MH 4021		
⊙ MH 4021 LT.	27 (SHC @ MH)	446.44
MH 4021 TO MH 4022		
0+05 LT.	28	446.32
0+38 RT.	33	447.02
0+77 LT.	25 (DHC)	449.36
1+03 RT.	34	447.83
1+32 LT.	24	447.93
1+57 RT.	35 (DHC)	451.60
MH 4022 TO MH 4023		
0+30 LT.	23	448.62
0+35 RT.	36 (DHC)	453.62
⊙ MH 4023 CT.	73	449.47
MH 4023 TO MH 4024		
0+64 LT.	72	454.15
1+04 LT.	71	457.19
1+64 LT.	70	461.75
1+70 RT.	37	461.97
MH 4024 TO MH 4025		
0+20 LT.	69 (DHC)	468.12
0+77 LT.	68	467.23
0+85 RT.	38 (SHC @ 1.00X)	467.08
1+38 LT.	67 (DHC)	473.14
1+99 LT.	66	471.90
2+15 RT.	49	472.23
2+60 LT.	65	474.24
2+96 RT.	50	475.34
⊙ MH 4025 LT.	64 (SHC @ MH)	476.44
MH 4013 TO MH 4026		
0+14 LT.	40	468.37
0+35 RT.	45	469.77
0+54 LT.	39	470.32
⊙ MH 4026 RT.	48	471.99

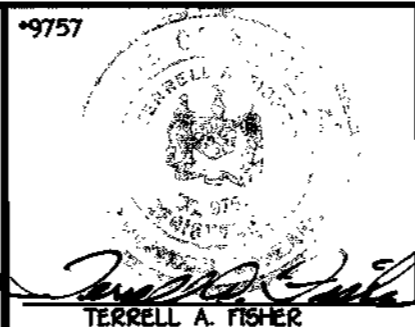


8" SEWER MAIN OUTFALL: CHAUCER WAY

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE PARK - 18772 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21117
(410) 481-2855



DESIGNED BY:	H.D.T.
DRAWN BY:	H.D.T.
CHECKED BY:	P.W.K.
DATE:	JUNE, 2001
BY NO.	
REVISION	
DATE	

SEWER MAINS PROFILES	
60' SCALE MAP NO. 16	BLOCK NO. 5
F.C.C. WORK ORDER NO. 30886	
FILE NAME: 30886 FINAL WATER AND SEWER PROFILE SHTS	

GTW'S WAVERLY WOODS
SECTION 11; AREA 4
LOTS 22 THRU 80
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 6 OF 7

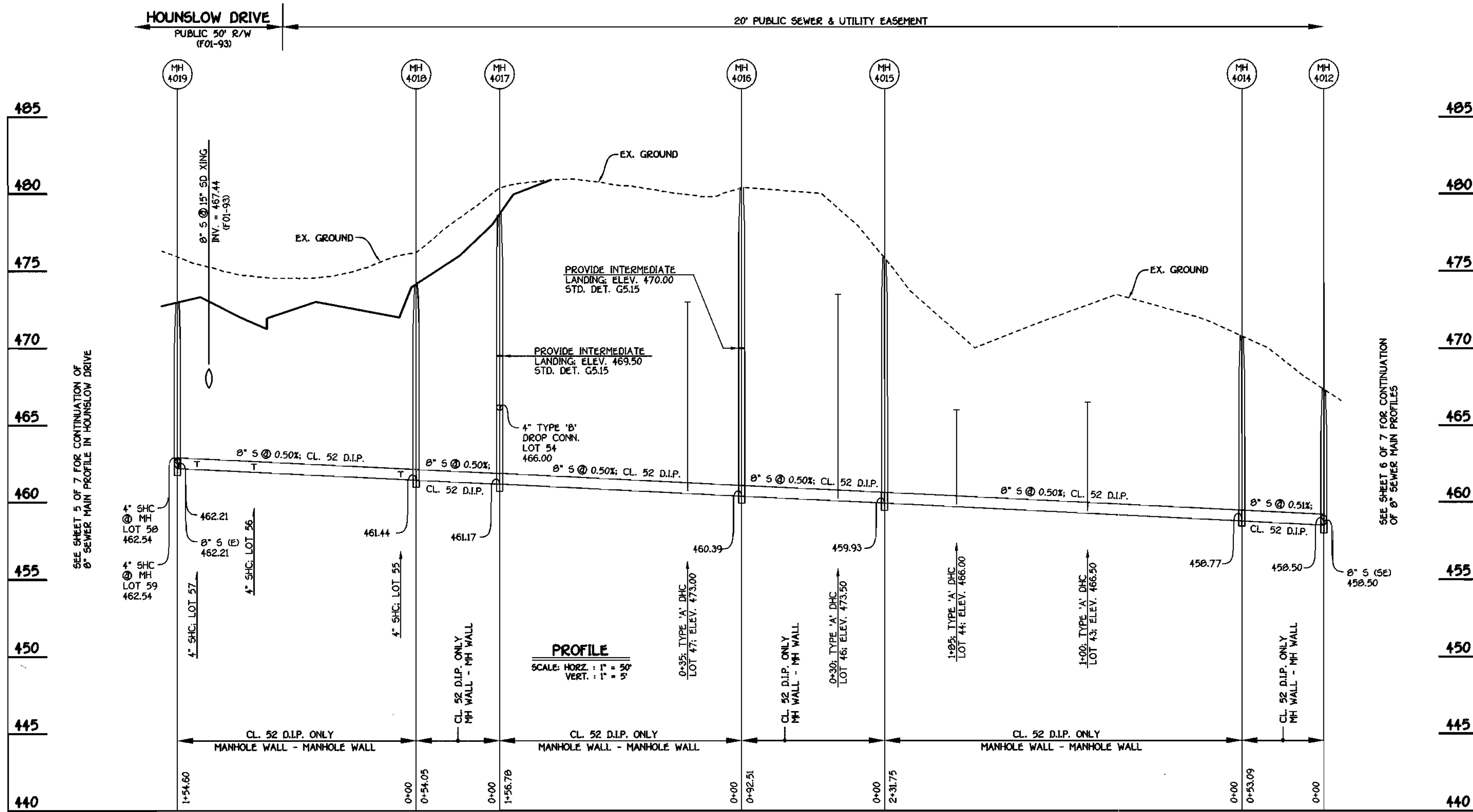
CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11; AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

K:\Drawings\3130656 GTM Section 11\WATSEKF\Final\Water and Sewer Profiles Shts6.dwg Tue Jun 12 08:26:08 2001

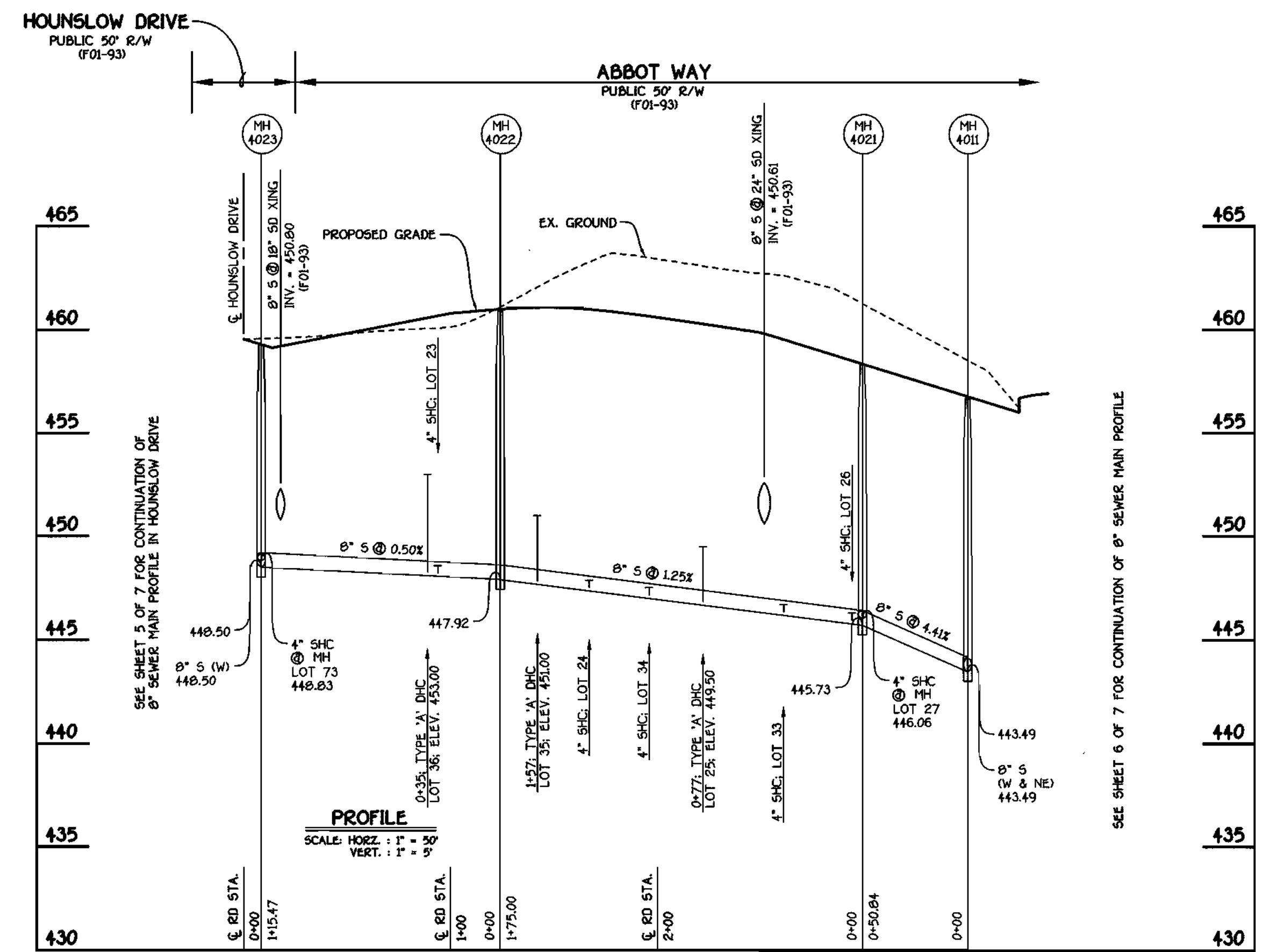
MANHOLE TABULATION CHART				
NO.	℄ ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
4023	2+64.79 HOUNSLOW DRIVE	0.52' RT.	-7.04%	458.95
4024	4+81.96 HOUNSLOW DRIVE	3.14' RT.	+6.76%	473.74
4025	7+76.92 HOUNSLOW DRIVE	6.25' RT.	-0.92%	485.50
4020	8+82.42 HOUNSLOW DRIVE	7.00' RT.	-4.04%	483.10
4019	L.P. STA. 0+67.08 (HOUNSLOW DRIVE)	2.00' RT.	-7.27%	472.80
4022	1+22.96 ABBOT WAY	2.52' RT.	+1.36%	461.02
4021	L.P. STA. 2+52.42 (ABBOT WAY)	7.00' RT.	-3.09%	458.00
4011	L.P. STA. 1+80.89 (ABBOT WAY)	25.61' RT.	-3.33%	456.55
4026	1+59.02 CHAUCER WAY	7.00' RT.	-2.00%	479.06
4013	L.P. STA. 1+53.64 (CHAUCER WAY)	28.58' RT.	-2.40%	477.35
		NORTHING	EASTING	
4009*	OUTFALL SEWER MAIN*	599657.36	1345079.71	441.68
4010*	OUTFALL SEWER MAIN*	599599.52	1345008.62	458.40
4012*	OUTFALL SEWER MAIN*	599569.65	1344750.88	467.40
4014*	OUTFALL SEWER MAIN*	599610.30	1344716.73	470.79
4015*	OUTFALL SEWER MAIN*	599585.80	1344486.28	475.85
4016*	OUTFALL SEWER MAIN*	599560.93	1344397.17	480.41
4017*	OUTFALL SEWER MAIN*	599518.78	1344246.16	478.88
4018*	OUTFALL SEWER MAIN*	599545.76	1344199.32	474.16

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE OR EXISTING GROUND AS APPLICABLE

SEE THIS SHEET FOR MANHOLE TABULATION CHART



8" SEWER MAIN OUTFALL: HOUNSLOW DRIVE

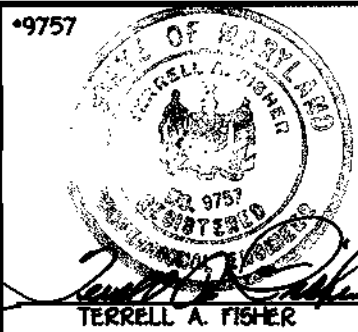


8" SEWER MAIN: ABBOT WAY

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
100 NATIONAL SQUARE, OFFICE PARK - 18272 BALTIMORE NATIONAL PARK
ELLETT CITY, MARYLAND 21743
(410) 461-2855



DESIGNED BY: M.D.T.
DRAWN BY: M.D.T.
CHECKED BY: P.W.K.
DATE: JUNE, 2001
BY NO. REVISION DATE

SEWER MAINS
PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 30888
FILE NAME: 30886 FINAL WATER AND SEWER PROFILE SH17


GTW'S WAVERLY WOODS
SECTION 11: AREA 4
LOTS 22 THRU 30
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE
AS
SHOWN

SHEET
7 of 7

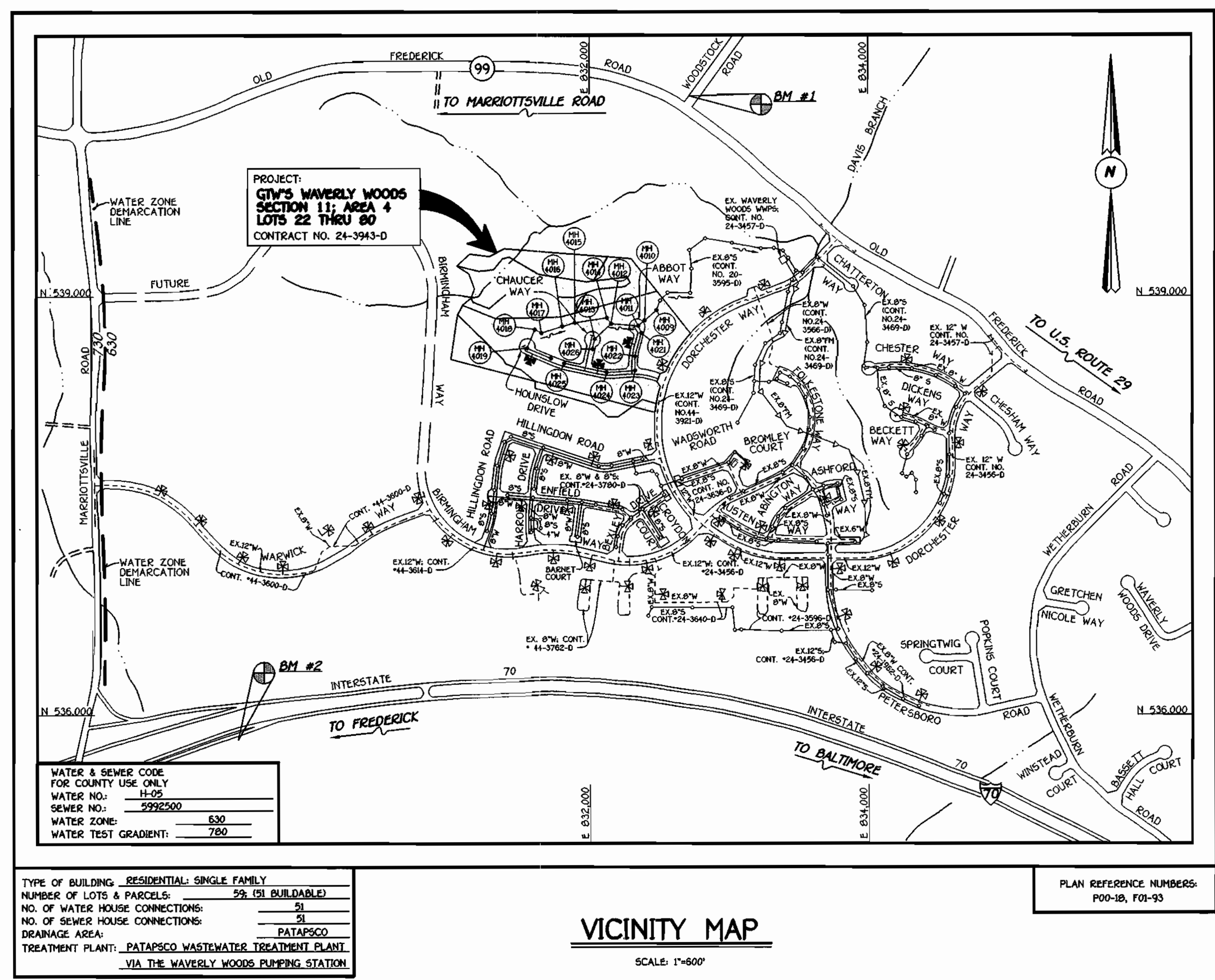
CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

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.
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 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.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
 - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
 - MS&S UTILITY - 1-800-257-7777
 - COLONIAL PIPELINE CO. - 795-1990
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG 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.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED. T.S. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.
- WHERE WATER-TIGHT 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.
- HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- 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.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE SURVEY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (M11 AND M213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL 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.
- 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. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" WATER	1,624 L.F.	1,624 L.F.	DIP CL 52	GRIFFIN PIPE
6" WATER	53 L.F.	51 L.F.	DIP CL 52	GRIFFIN PIPE
1" W/C	1,581 L.F.	1,718 L.F.	K' COPPER	BRS
FIRE HYDRANTS	3 EACH	3 EA.	MUELLER	BRS
8" SEWER	1,114.31 L.F.	1,313 L.F.	SDR 35	BRS
8" SEWER (D.I.P.)	1,382.21 L.F.	1,354 L.F.	DIP CL 52	GRIFFIN PIPE
4" SEWER	1,336 L.F.	1,272 L.F.	DIP PVC	GRIFFIN PIPE
MANHOLES	18 EACH	18 EA.	PRECAST	ATLANTIC CONC.
8" X 8" TEE	2 EACH	2 EA.	M.J.	BRS
8" X 6" TEE	3 EACH	3 EA.	FMT	BRS
8" VALVES	3 EACH	3 EA.	GATE	BRS
6" VALVES	3 EACH	3 EA.	GATE	BRS
8" - 1/8" HB.	2 EACH	2 EA.	MJ	BRS
8" PLUG & BUTTRESS	3 EACH	3 EA.	MJ	BRS
OUTSIDE METER SETTINGS	2 EACH	2 EA.		BRS

NAME OF UTILITY CONTRACTOR: **CONSOLIDATED CONSTRUCTION SERVICES INC.**
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



DEVELOPER'S CERTIFICATION
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 THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Paul W. Keubel, FOR:
WAVERLY WOODS DEVELOPMENT CORP. 06/12/01
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 CONSERVATION DISTRICT.

Paul W. Keubel
SIGNATURE OF ENGINEER 06/12/01
DATE

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

Jim Myers 6/22/01
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED
John Blanton 6/22/01
HOWARD SOIL CONSERVATION DISTRICT 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 AND AS SHOWN ON F01-93 & THESE PLANS.

Paul W. Keubel, FOR:
WAVERLY WOODS DEVELOPMENT CORP. 06/12/01
SIGNATURE OF DEVELOPER DATE


CONTRACT No. 24-3943-D

GTW'S WAVERLY WOODS

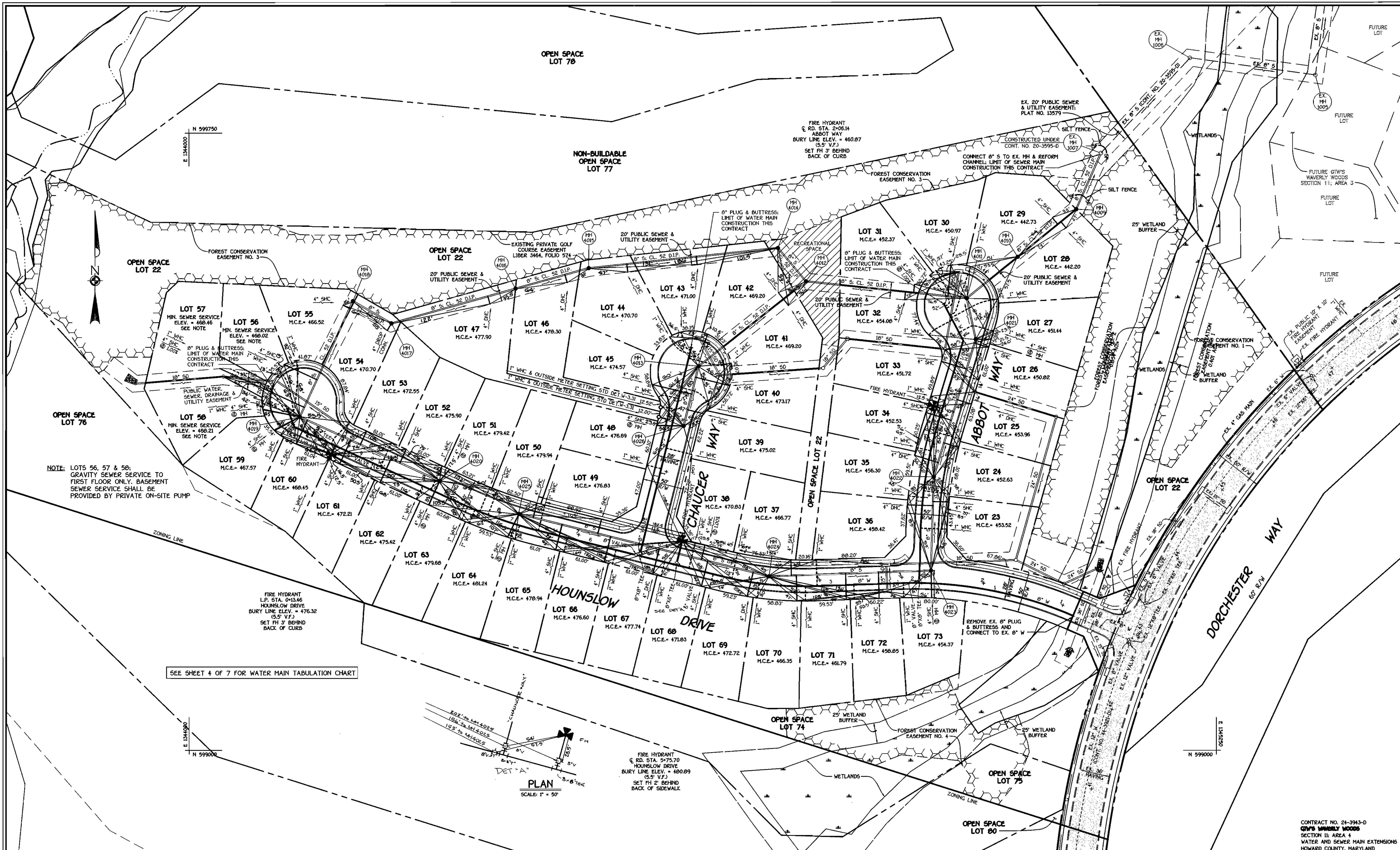
SECTION 11; AREA 4
LOTS 22 THRU 80

WATER AND SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Michael A. ...</i> 6-19-01 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>...</i> 6/22/01 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	*9757  TERRILL A. FISHER	DESIGNED BY: M.D.T. DRAWN BY: M.D.T. CHECKED BY: P.W.C. DATE: JUNE, 2001 BY NO. _____ REVISION _____	TITLE SHEET 600' SCALE MAP NO. 18 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30686 FILE NAME: 30686 FINAL WATER AND SEWER TITLE SHT	GTW'S WAVERLY WOODS SECTION 11; AREA 4 LOTS 22 THRU 80 CONTRACT NO. 24-3943-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 1 OF 7
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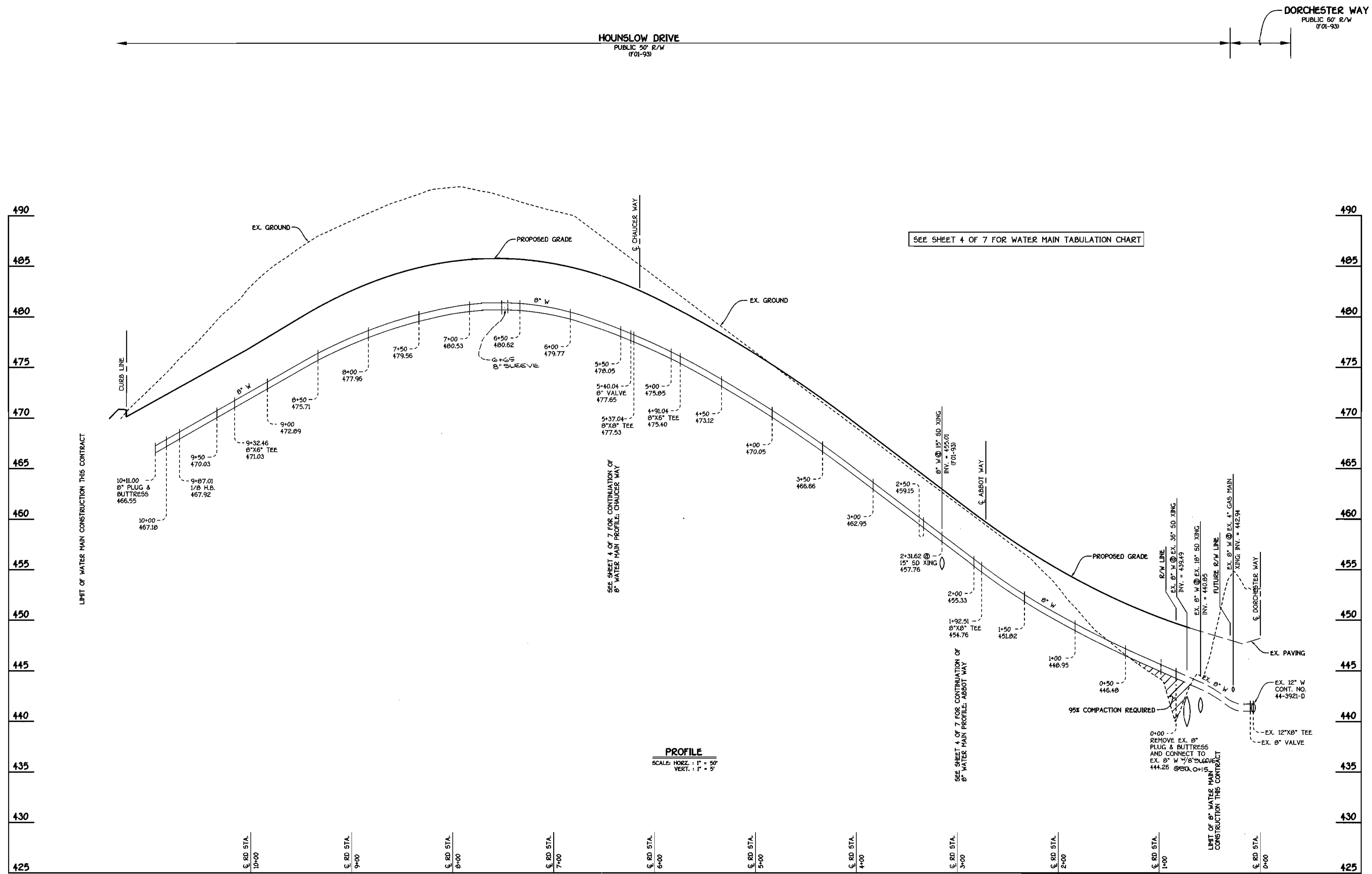
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K:\Drawings\3130686 GTW Section 11\WATSEK\Final\Area 4\30686 Final Water and Sewer Plan Sht2.dwg Tue Jun 12 08:23:22 2001

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Michael A. Hines</i> CHIEF, BUREAU OF UTILITIES</p> <p>6-19-01 DATE</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>John J. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION</p> <p>6/26/01 DATE</p>	<p>FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS</p> <p>2000 S. ... BALTIMORE, MD 21202</p> <p><i>Terrell A. Fisher</i> REGISTERED PROFESSIONAL ENGINEER</p>	<p>DESIGNED BY: M.D.T.</p> <p>DRAWN BY: M.D.T.</p> <p>CHECKED BY: P.M.K.</p> <p>DATE: JUNE, 2001</p>	<p>AS BUILT</p> <p>REVISION</p>	<p>WATER AND SEWER MAINS PLAN VIEW</p> <p>60' SCALE MAP NO. 15 BLOCK NO. 5</p> <p>F.C.C. WORK ORDER NO. 30686</p> <p>FILE NAME: 30686 FINAL WATER AND SEWER PLAN SHT2</p>	<p>GTW'S WAVERLY WOODS SECTION 11: AREA 4 LOTS 22 THRU 80 CONTRACT NO. 24-3943-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p> <p>SCALE AS SHOWN</p> <p>SHEET 2 OF 7</p>
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CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND



8" WATER MAIN: HOUNSLOW DRIVE

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

SEE SHEET 4 OF 7 FOR WATER MAIN TABULATION CHART

CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION II: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Michael J. Swann
CHIEF, BUREAU OF UTILITIES

G-R-01
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Michael J. Swann
CHIEF, DEVELOPMENT ENGINEERING DIVISION

6/26/01
DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
1000 S. QUINCY STREET, SUITE 200, BALTIMORE, MD 21225
TEL: 410-528-2255

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER
TERRELL A. FISHER

DESIGNED BY:	M.D.T.		
DRAWN BY:	M.D.T.		
CHECKED BY:	P.W.K.		
DATE:	JUNE, 2001	BY NO.	
REVISION:	AS BUILT		

WATER MAINS PROFILES

600' SCALE MAP NO. 15 BLOCK NO. 5
F.C.C. WORK ORDER NO. 30586
FILE NAME: 30586 FINAL WATER AND SEWER PROFILE SHITS

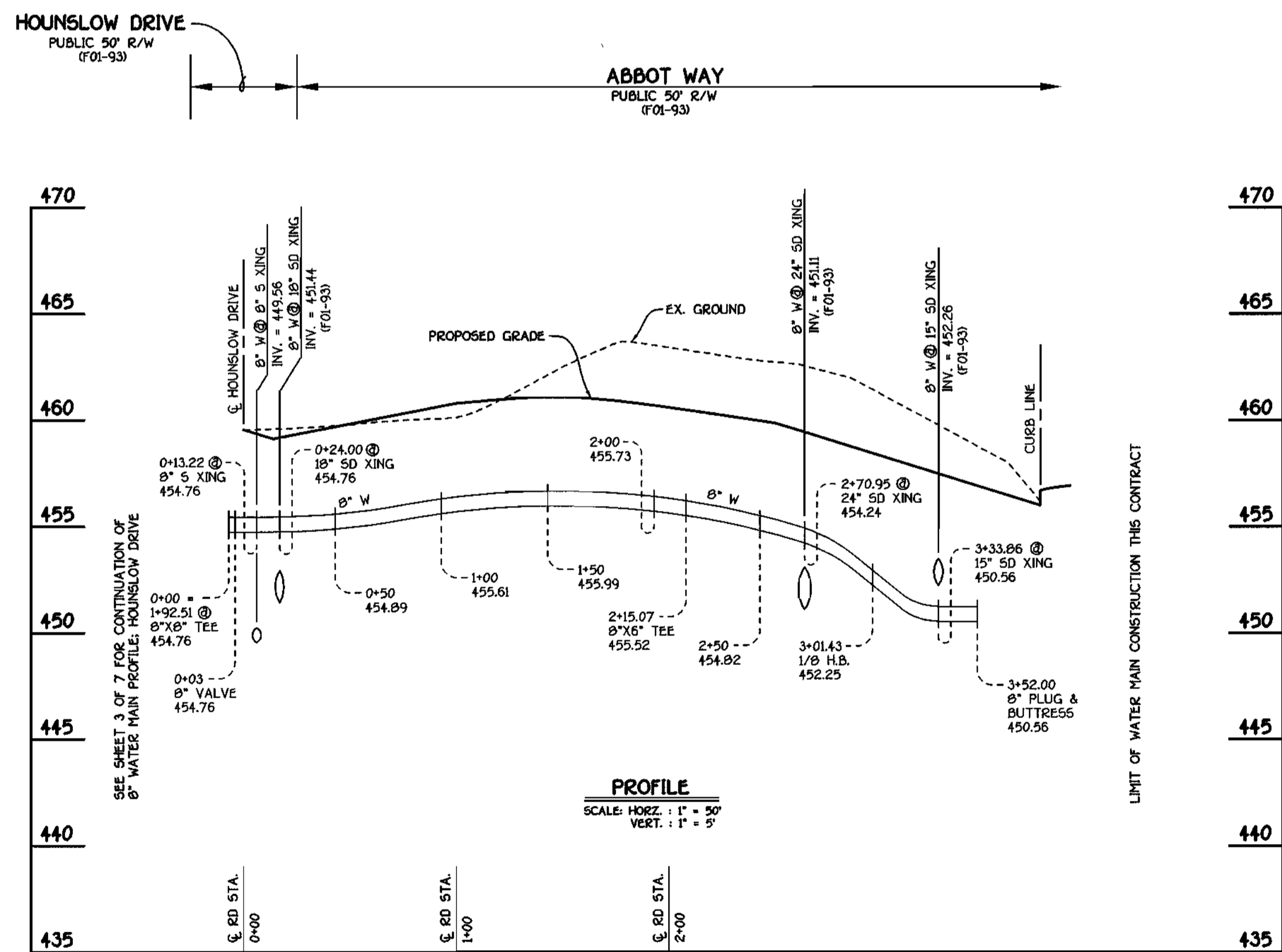
GTW'S WAVERLY WOODS
SECTION II: AREA 4
LOTS 22 THRU 30
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 3 OF 7

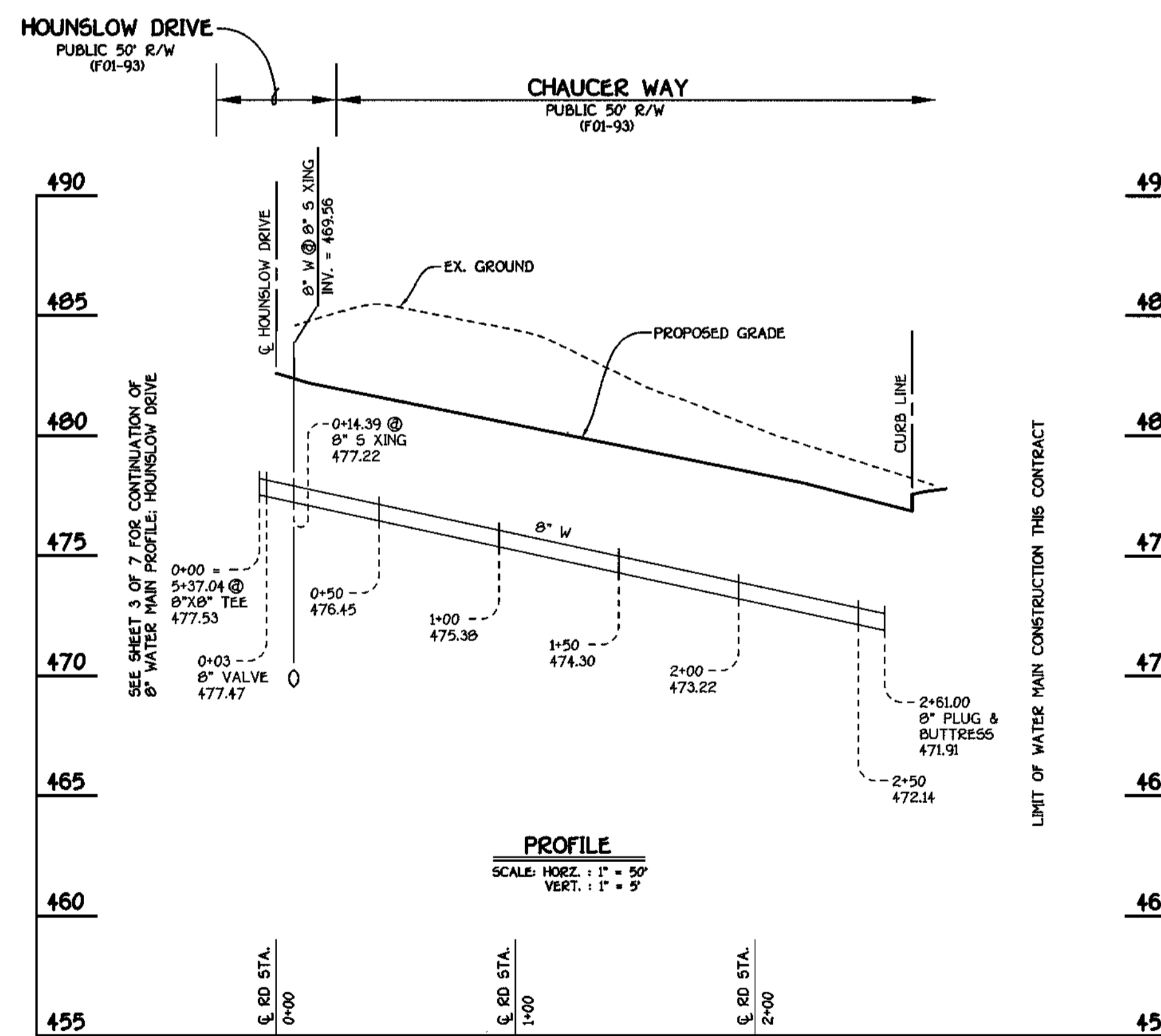
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WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	℄ ROAD STATION	DISTANCE
HOUNSLOW DRIVE			
0+00	P.C. (CRIMP RADIUS = 493.00') CONNECT TO EX. 8" W	0+03.52	7' LT.
1+92.51	8" X 8" TEE	2+70.77	7' LT.
2+16.87	P.T. (CRIMP RADIUS = 493.00')	3+03.48	7' LT.
3+19.54	P.C. (CRIMP RADIUS = 407.00')	4+06.15	7' LT.
4+33.11	P.T. (CRIMP RADIUS = 407.00')	5+17.76	7' LT.
4+91.04	8" X 6" TEE	5+75.70	7' LT.
5+37.04	8" X 8" TEE	6+21.70	7' LT.
5+40.04	8" VALVE	6+21.70	7' LT.
6+63.60	P.C. (CRIMP RADIUS = 547.00')	7+48.25	7' LT.
7+65.76	P.T. (CRIMP RADIUS = 547.00')	8+49.11	7' LT.
9+32.16	8" X 8" TEE	10+14.95	7.78' LT.
9+87.01	1/8" H.B.	L.P. STA. 0+08.01	7' RT.
10+17.00	8" PLUG & BUTTRESS	L.P. STA. 1+10.84	18.62' RT.
CHAUCER WAY			
0+00	8" X 8" TEE	-0+07	7' LT.
0+03	8" VALVE	-0+04	7' LT.
2+61.00	8" PLUG & BUTTRESS	L.P. STA. 1+17.77	10.17' RT.
ABBOT WAY			
0+00	8" X 8" TEE	-0+07	7' LT.
0+03	8" VALVE	-0+04	7' LT.
0+62.87	P.C. (CRIMP RADIUS = 557.00')	0+55.52	7' LT.
1+99.04	P.T. (CRIMP RADIUS = 557.00')	1+90.11	7' LT.
2+15.07	8" X 8" TEE	2+06.14	7' LT.
3+01.43	1/8" H.B.	2+93.60	1.81' LT.
3+52.00	8" PLUG & BUTTRESS	L.P. STA. 0+00.36	23.05' RT.

SEE THIS SHEET FOR WATER MAIN TABULATION CHART



8" WATER MAIN: ABBOT WAY

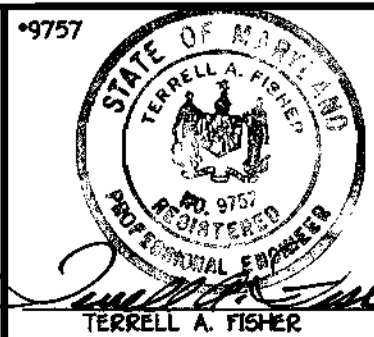


8" WATER MAIN: CHAUCER WAY

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 8072 BALTIMORE NATIONAL PKY.
ELLSWORTH CITY, MARYLAND 20622
410.481.2255



DESIGNED BY:	H.D.T.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.L.
DATE:	JUNE, 2001
BY:	NO.
REVISION:	

WATER MAINS
PROFILES

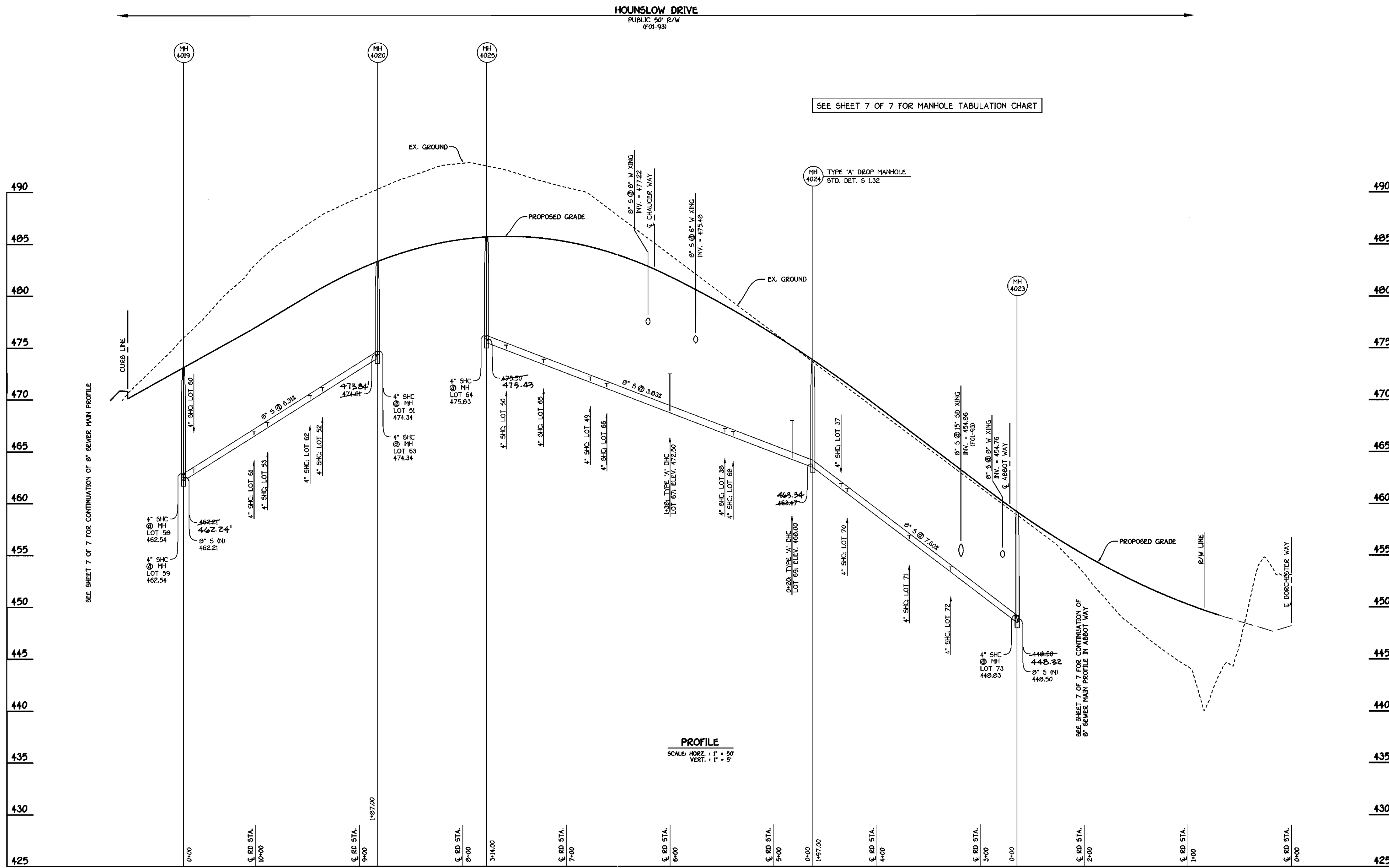
600' SCALE MAP NO.	18	BLOCK NO.	5
F.C.C. WORK ORDER NO.	30686		
FILE NAME:	30686 FINAL WATER AND SEWER PROFILE SHT4		

GTW'S WAVERLY WOODS
SECTION 11: AREA 4
LOTS 22 THRU 80
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

SCALE
AS
SHOWN

SHEET
4 of 7



SEE SHEET 7 OF 7 FOR MANHOLE TABULATION CHART

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

8" SEWER MAIN: HOUNSLOW DRIVE

CONTRACT NO. 24-3943-D
GWS WAWERLY WOODS
SECTION II: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Michael A. G... Per P.W.
6-19-01
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
...
6/20/01
DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
1600 9th St. N.W.
BETHESDA, MD 20814
410-344-2255

TERRELL A. FISHER
Professional Engineer Seal

DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
DATE:	JUNE, 2001
BY NO.	AS-BUILT
REVISION	

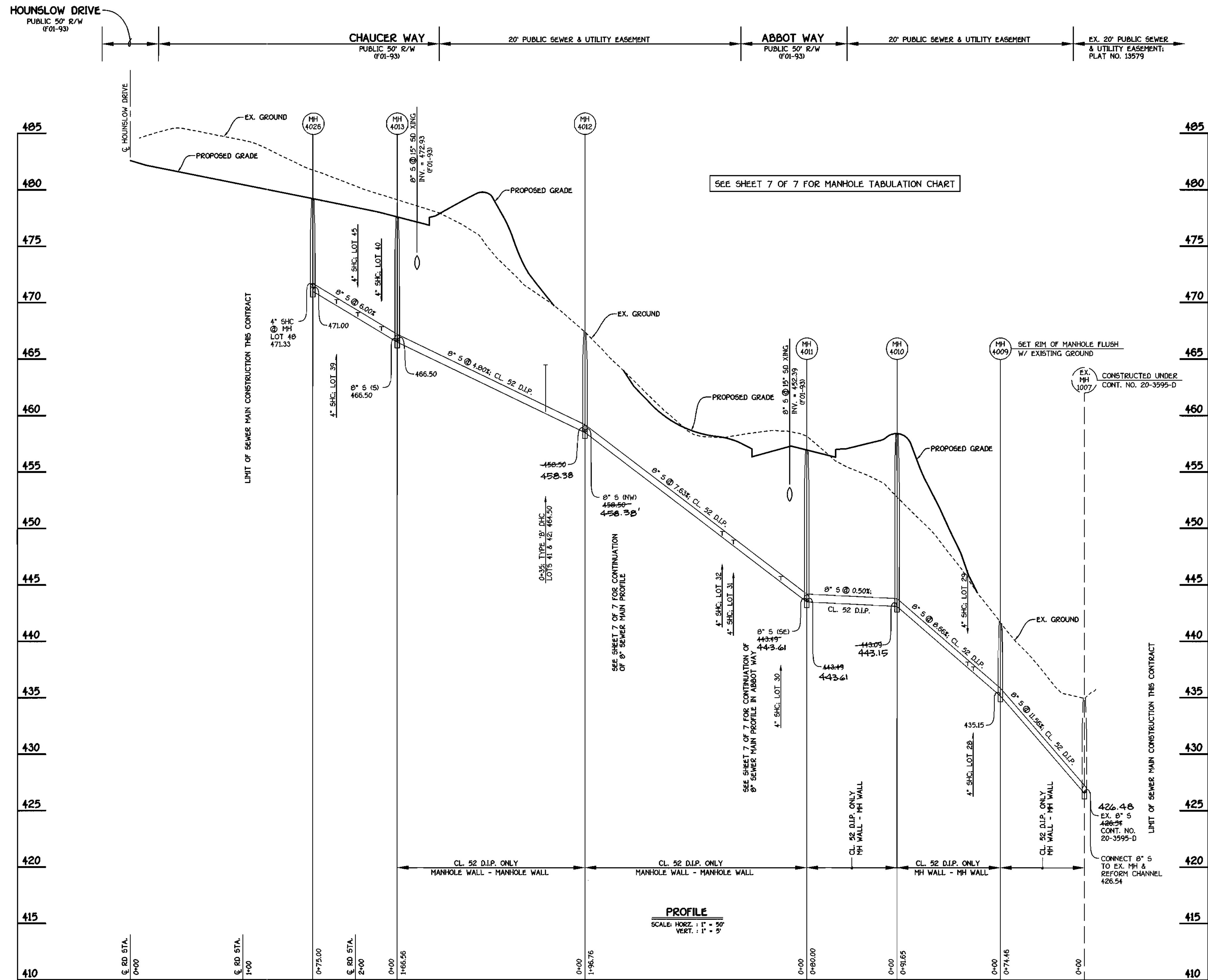
SEWER MAINS PROFILES
600' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 30588
FILE NAME: 30588.FINAL WATER AND SEWER PROFILE SHTS

GTW'S WAWERLY WOODS
SECTION II: AREA 4
LOTS 22 THRU 80
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 5 OF 7

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SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 4009 TO MH 4010		
0+24 LT.	28	437.60
0+29 RT.	29	438.03
MH 4011 TO MH 4012		
0+23 RT.	30	446.17
0+65 RT.	31 (SHC @ 1.00X)	448.72
0+75 LT.	32	449.58
MH 4012 TO MH 4013		
0+35 RT.	42 (DHC)	464.70
0+35 LT.	41 (DHC)	464.70
MH 4014 TO MH 4015		
1+00 LT.	43 (DHC)	466.70
1+85 LT.	44 (DHC)	466.20
MH 4015 TO MH 4016		
0+30 LT.	46 (DHC)	473.20
MH 4016 TO MH 4017		
0+35 LT.	47 (DHC)	473.20
⊙ MH 4017 LT.	54 (DROP CONN. @ MH)	466.20
MH 4018 TO MH 4019		
0+10 RT.	55	461.82
1+05 RT.	56	463.02
1+42 RT.	57 (SHC @ 1.00X)	463.46
⊙ MH 4019 RT.	58 (SHC @ MH)	463.01
⊙ MH 4019 CT.	59 (SHC @ MH)	462.87
MH 4019 TO MH 4020		
0+10 RT.	60	463.65
0+68 RT.	61	467.31
0+81 LT.	53	467.85
1+22 RT.	62	470.72
1+34 LT.	52	471.20
⊙ MH 4020 RT.	63 (SHC @ MH)	474.98
⊙ MH 4020 LT.	51 (SHC @ MH)	474.72
MH 4011 TO MH 4021		
⊙ MH 4021 LT.	27 (SHC @ MH)	446.44
MH 4021 TO MH 4022		
0+05 LT.	26	446.32
0+38 RT.	33	447.02
0+77 LT.	25 (DHC)	449.36
1+03 RT.	34	447.83
1+32 LT.	24	447.93
1+57 RT.	35 (DHC)	451.60
MH 4022 TO MH 4023		
0+30 LT.	23	448.62
0+35 RT.	36 (DHC)	453.62
⊙ MH 4023 CT.	73	449.47
MH 4023 TO MH 4024		
0+64 LT.	72	454.15
1+04 LT.	71	457.19
1+64 LT.	70	461.75
1+70 RT.	37	461.97
MH 4024 TO MH 4025		
0+20 LT.	69 (DHC)	468.12
0+77 LT.	68	467.23
0+85 RT.	38 (SHC @ 1.00X)	467.08
1+38 LT.	67 (DHC)	473.14
1+99 LT.	66	471.90
2+15 RT.	49	472.23
2+60 LT.	65	474.24
2+96 RT.	50	475.34
⊙ MH 4025 LT.	64 (SHC @ MH)	476.44
MH 4013 TO MH 4026		
0+14 LT.	40	468.37
0+35 RT.	45	469.77
0+54 LT.	39	470.32
⊙ MH 4026 RT.	48	471.99



8" SEWER MAIN OUTFALL: CHAUCER WAY

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
EDITIONAL SQUARE OFFICE PARK - 1822 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21112
1989 481 - 2555

DESIGNED BY: M.D.T.
DRAWN BY: M.D.T.
CHECKED BY: P.W.K.
DATE: JUNE, 2001
BY NO. REVISION

AS BUILT
DATE: JUNE, 2001
BY NO. REVISION

SEWER MAINS
PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 30686
FILE NAME: 30686.FINAL WATER AND SEWER PROFILE SH16

GTW'S WAVERLY WOODS
SECTION 11: AREA 4
LOTS 22 THRU 80
CONTRACT NO. 24-3943-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

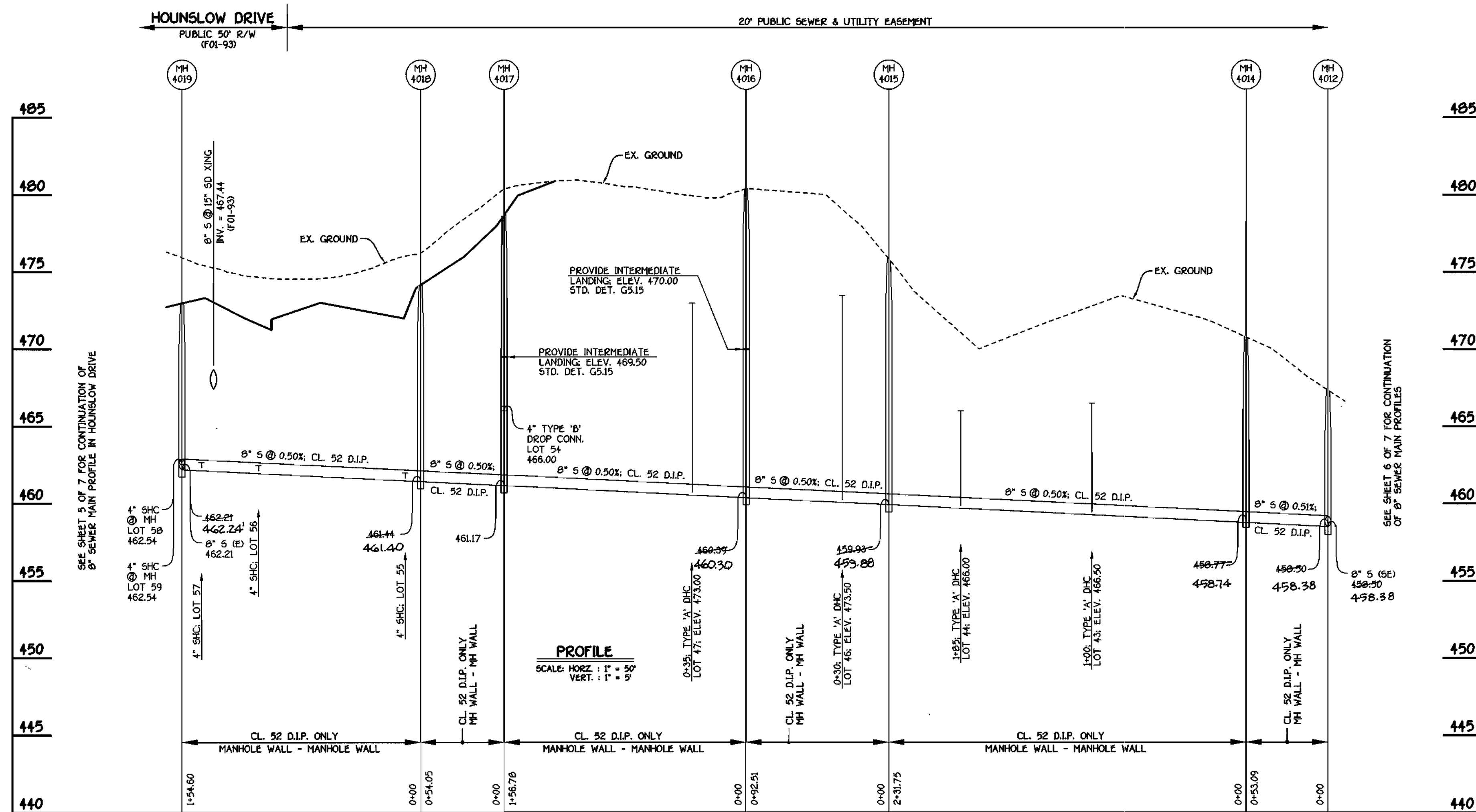
SCALE AS SHOWN
SHEET 6 OF 7

CONTRACT NO. 24-3943-D
GTW'S WAVERLY WOODS
SECTION 11: AREA 4
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

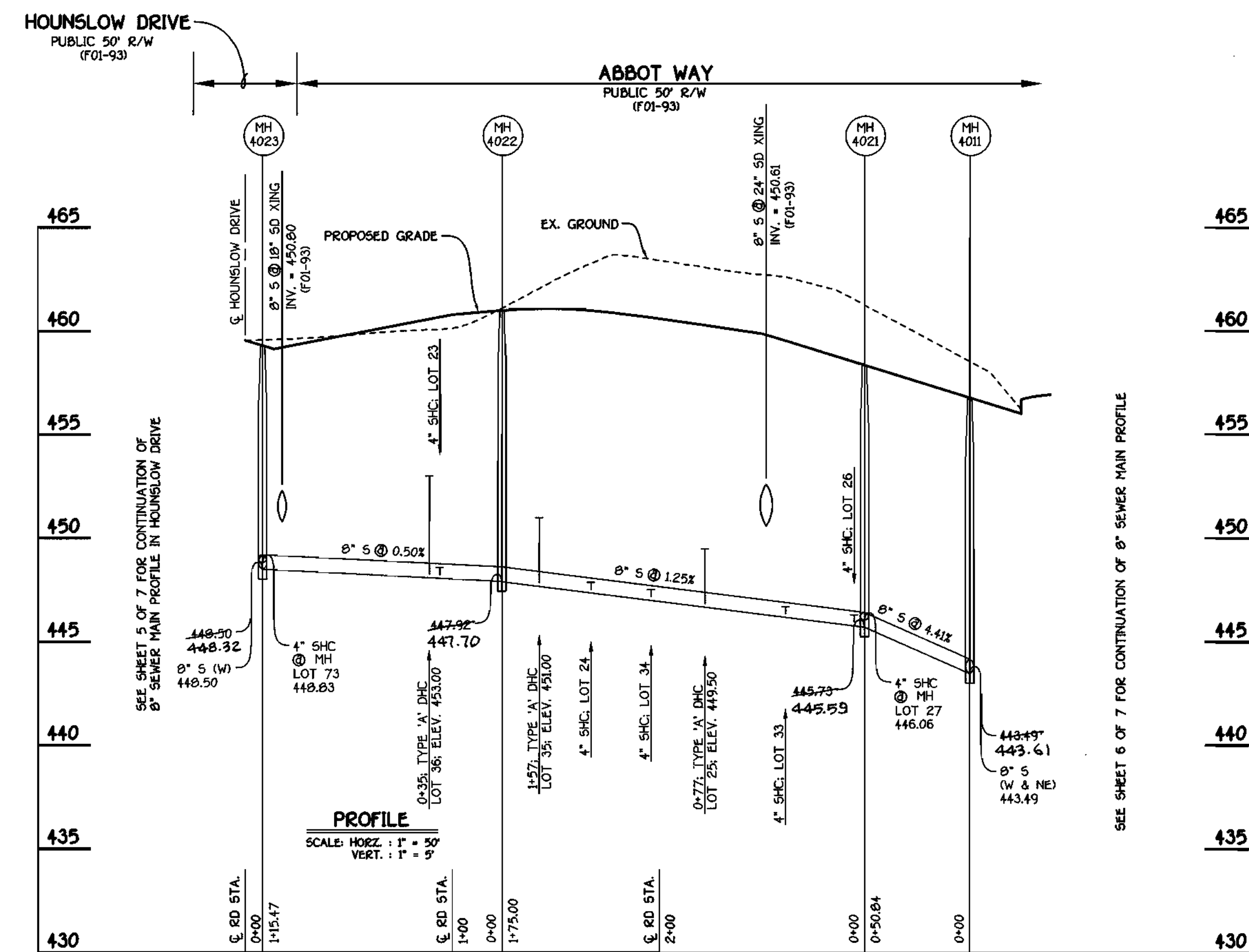
MANHOLE TABULATION CHART				
NO.	± ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
4023	2+64.79 HOUNSLOW DRIVE	8.52' RT.	+7.04%	458.95
4024	4+61.96 HOUNSLOW DRIVE	3.11' RT.	+6.78%	473.74
4025	7+76.92 HOUNSLOW DRIVE	6.25' RT.	-0.92%	485.50
4020	8+82.42 HOUNSLOW DRIVE	7.00' RT.	-4.04%	483.10
4019	L.P. STA. 0+87.08 (HOUNSLOW DRIVE)	21.00' RT.	-7.27%	472.80
4022	1+22.96 ABBOT WAY	2.52' RT.	+1.36%	461.02
4021	L.P. STA. 2+52.42 (ABBOT WAY)	7.00' RT.	-3.08%	458.00
4011	L.P. STA. 1+80.89 (ABBOT WAY)	25.61' RT.	-3.33%	456.55
4026	1+59.02 CHAUCER WAY	7.00' RT.	-2.00%	479.06
4013	L.P. STA. 1+53.64 (CHAUCER WAY)	28.58' RT.	-2.40%	477.35
		NORTHING	EASTING	
4009*	OUTFALL SEWER MAIN*	599657.36	1345079.71	441.68
4010*	OUTFALL SEWER MAIN*	599599.52	1345008.62	458.40
4012*	OUTFALL SEWER MAIN*	599569.65	1344750.88	457.40
4014*	OUTFALL SEWER MAIN*	599610.30	1344716.73	470.79
4015*	OUTFALL SEWER MAIN*	599585.80	1344486.28	475.85
4016*	OUTFALL SEWER MAIN*	599560.93	1344397.17	480.41
4017*	OUTFALL SEWER MAIN*	599318.78	1344246.16	478.88
4018*	OUTFALL SEWER MAIN*	599545.76	1344199.32	474.16

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE OR EXISTING GROUND AS APPLICABLE

SEE THIS SHEET FOR MANHOLE TABULATION CHART



8" SEWER MAIN OUTFALL: HOUNSLOW DRIVE



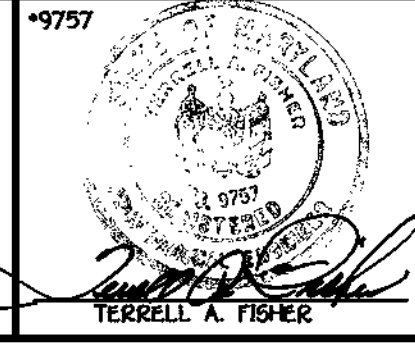
8" SEWER MAIN: ABBOT WAY

CONTRACT NO. 24-3943-D
 GW'S WAVERLY WOODS
 SECTION II: AREA 4
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Nicholas A. Swainville, P.E. 6-19-01
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 18700 NATIONAL SQUARE, OFFICE 202, PARK - 18272 BALTIMORE NATIONAL PKWY
 BLOOMING CITY, MARYLAND 21152
 (410) 461-2855



DESIGNED BY: H.D.T.
 DRAWN BY: H.D.T.
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GTW'S WAVERLY WOODS
 SECTION II: AREA 4
 LOTS 22 THRU 80
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SCALE AS SHOWN
 SHEET 7 OF 7

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