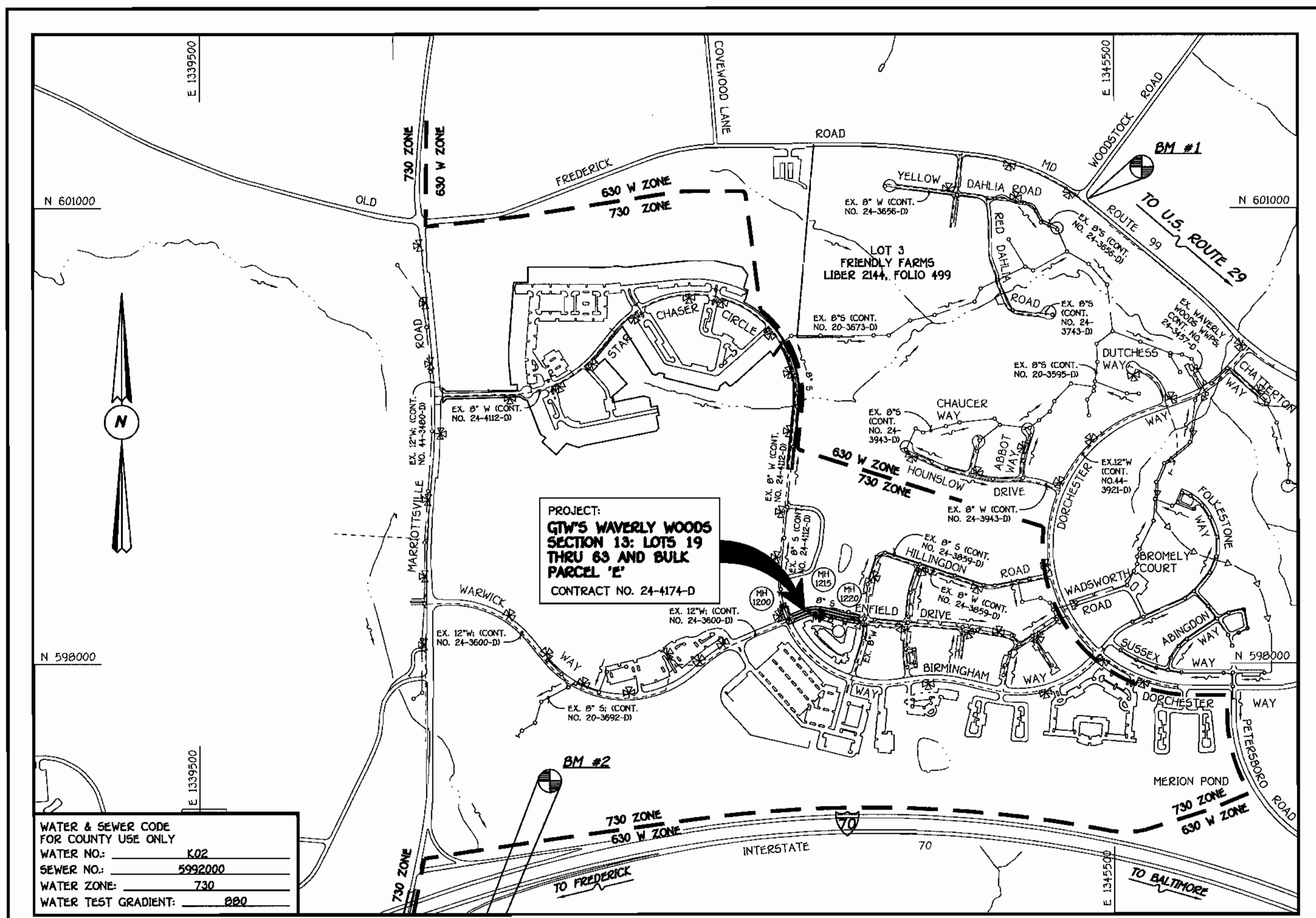


QUANTITIES		AS-BUILT		
ITEM	ESTIMATED	QUANTITIES	TYPE	SUPPLIER
8" WATER	529.37 L.F.			
6" WATER	25.06 L.F.			
1" WATER	481 L.F.			
FIRE HYDRANTS	1 EACH			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 6" TEE	1 EACH			
6" VALVE	1 EACH			
1/8 H.B.	2 EACH			
1/16 H.B.	1 EACH			
1/32 H.B.	1 EACH			
8" PLUG & BUTTRESS	1 EACH			
8" SEWER	329.50 L.F.			
8" SEWER (D.I.P.)	222.24 L.F.			
4" SEWER	278 L.F.			
MANHOLES	6 EACH			
8" PLUG	1 EACH			

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



TYPE OF BUILDING: RESIDENTIAL (TOWNHOUSES & CONDOMINIUMS)
 NUMBER OF LOTS & PARCELS: 16 BULDPABLE
 NO. OF WATER HOUSE CONNECTIONS: 16
 NO. OF SEWER HOUSE CONNECTIONS: 16
 DRAINAGE AREA: LITTLE PATUXENT
 TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT

VICINITY MAP
 SCALE: 1"=600'

PLAN REFERENCE NUMBERS:
 F04-50 (ROAD & STORM DRAINS)
 S0P04-60 (WAVERLY GARDENS)

GENERAL NOTES

- PART I
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. 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, NAD 83/91.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 9'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). 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 LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 AT&T 1-800-252-1133
 BCE (CONTRACTOR SERVICES) 410-850-4620
 BCE (UNDERGROUND DAMAGE CONTROL) 410-787-9068
 BUREAU OF UTILITIES 410-313-4900
 COLONIAL PIPELINE CO. 410-799-1590
 MISS UTILITY 1-800-257-7777
 STATE HIGHWAY ADMINISTRATION 410-531-5533
 VERIZON 1-800-743-0033/410-224-9210
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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 THE CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(d) OF THE HOWARD COUNTY CODE.
- PART II: WATER
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER
- 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.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

BENCHMARK INFORMATION
 B.M.#1 - HOWARD COUNTY CONTROL STATION #1012 (NAD '83)
 (NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)
 N 601.060177
 E 1345.336756
 ELEVATION = 45.577
 B.M.#2 - HOWARD COUNTY CONTROL STATION #16E1 (NAD '83)
 (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARRIOTTSVILLE ROAD)
 N 593.250932
 E 1342.192711
 ELEVATION = 509.924

CONTRACT No. 24-4174-D
GTW'S WAVERLY WOODS
 SECTION 13: LOTS 19 THRU 63
 AND BULK PARCEL 'E'
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

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 THE 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 I/WE DEEMED NECESSARY.
 Paul W. Koebel FOR:
 Waverly Woods Development Corp. 04/02/04
 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. Koebel
 04-02-04
 SIGNATURE OF ENGINEER DATE

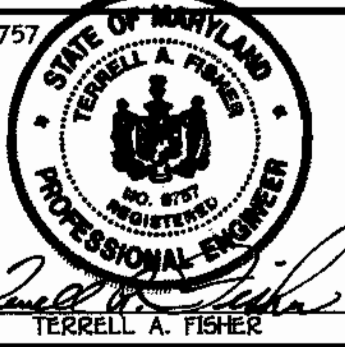
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 Jim Meyer 9/26/04
 M.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE
 APPROVED:
 John L. Robinson 9/26/04
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDDIMENT 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 BY DEVELOPING AREAS AND AS SHOWN ON S0P04-60 AND ON THESE PLANS.
 Paul W. Koebel FOR:
 Waverly Woods Development Corp. 04-02-04
 SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. J. ... 4-19-04
 CHIEF, BUREAU OF UTILITIES DATE

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

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL FREE
 ELICOTT CITY, MARYLAND 21042
 410-462-2272

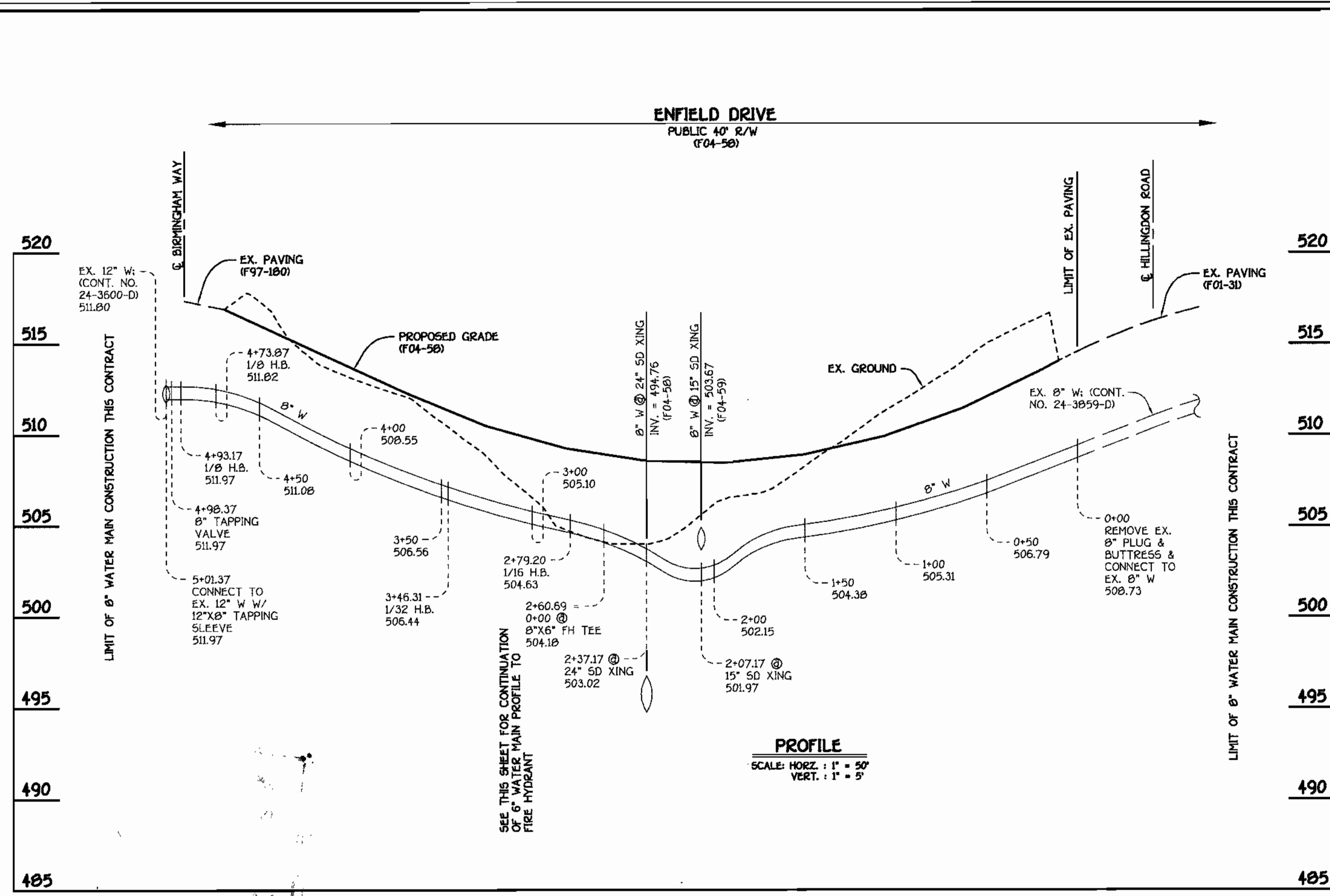


DESIGNED BY:	M.D.T.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	APRIL, 2004
BY NO.	
REVISION	
DATE	

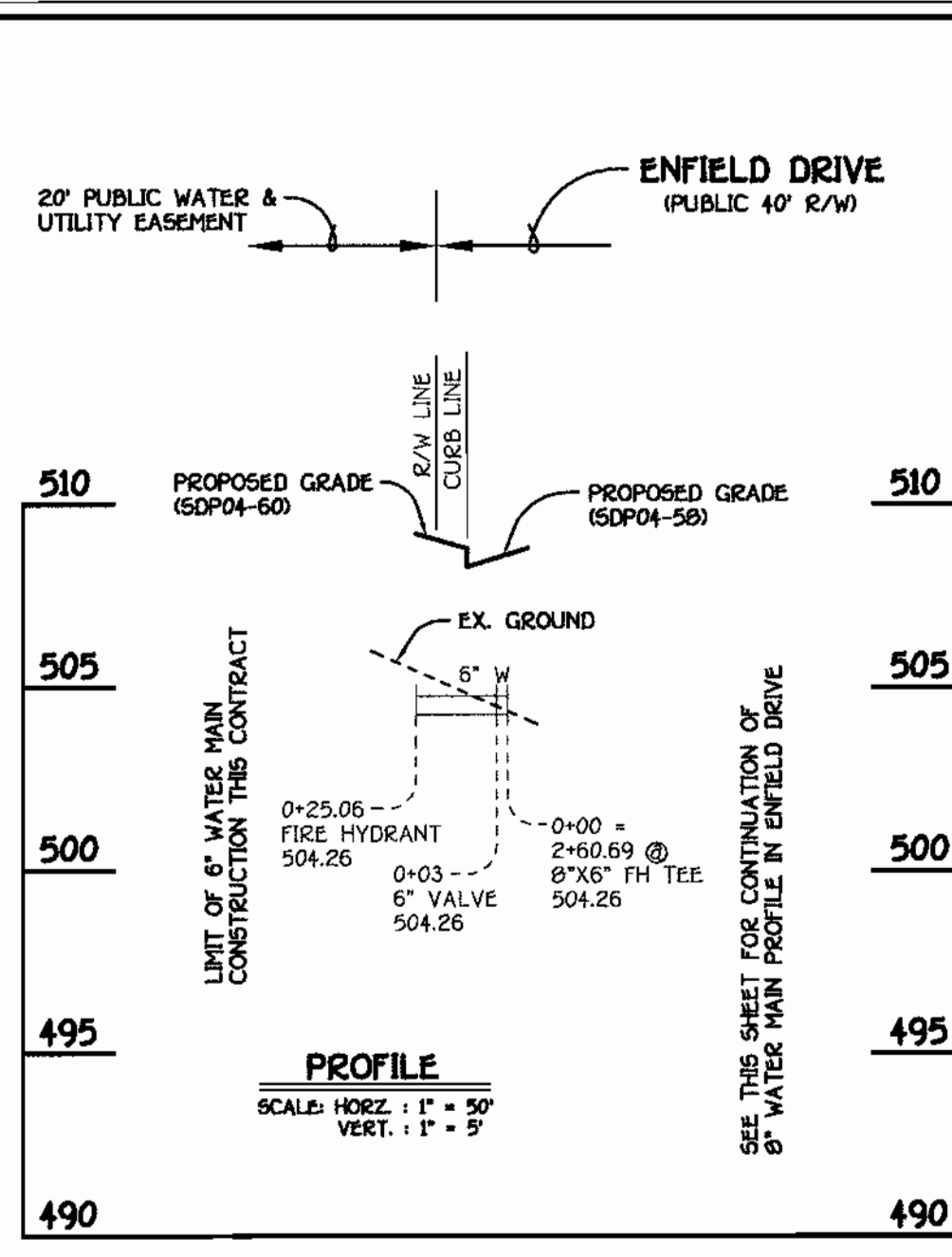
WATER AND SEWER MAINS
 TITLE SHEET
 600' SCALE MAP NO. 16 BLOCK NO. 5
 F.C.C. WORK ORDER NO. 30803
 FILE NAME: FINAL WATER AND SEWER MAINS TITLE SHEET

GTW'S WAVERLY WOODS
 SECTION 13: LOTS 19 THRU 63
 AND BULK PARCEL 'E'
 CONTRACT NO. 24-4174-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 1 OF 3

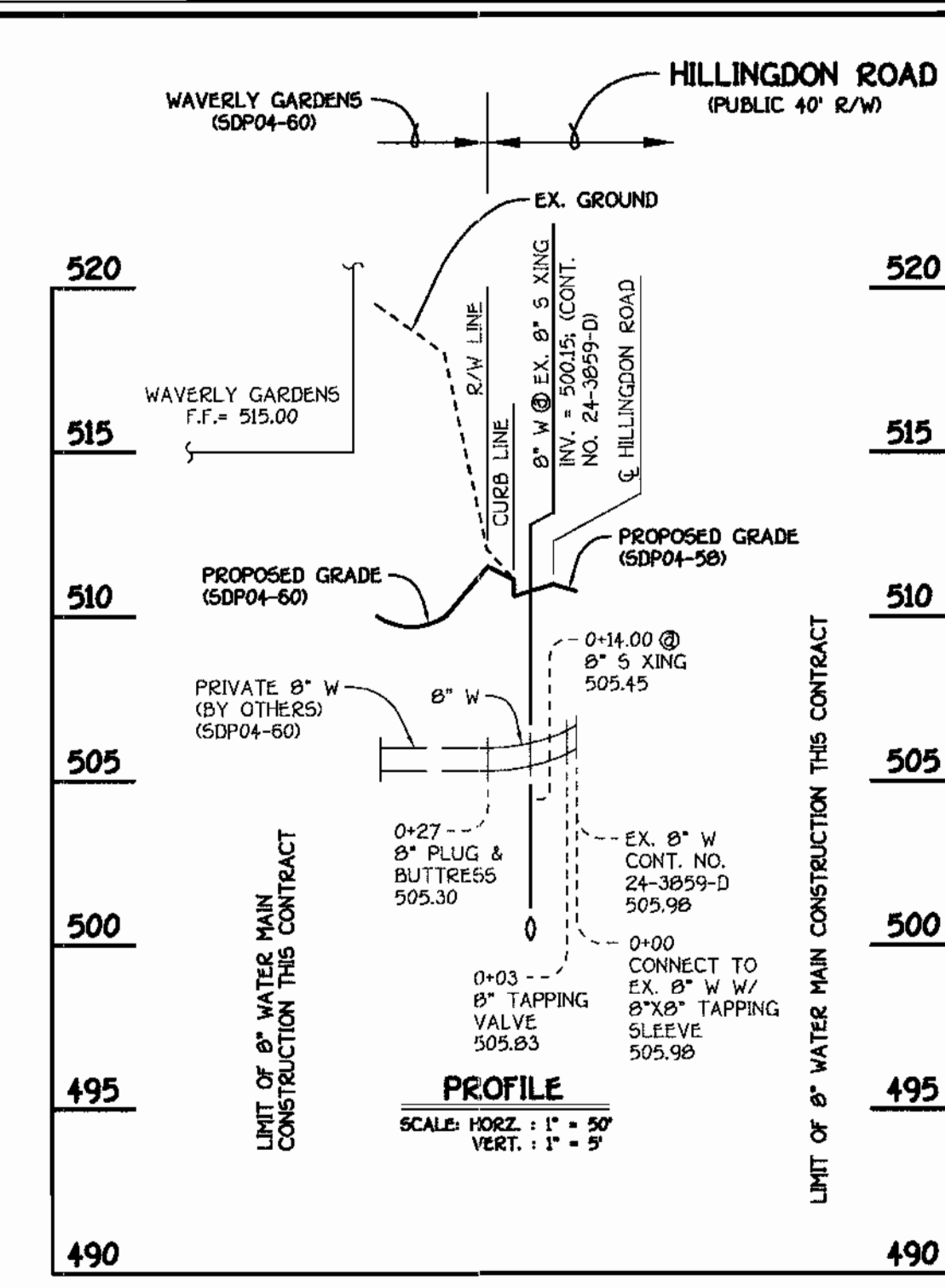
CONTRACT NO. 24-4174-D
 GTW'S WAVERLY WOODS
 SECTION 13: LOTS 19 THRU 63
 AND BULK PARCEL 'E'
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND



6" WATER MAIN: ENFIELD DRIVE



6" WATER MAIN TO FIRE HYDRANT



8" WATER MAIN TO WAVERLY GARDENS

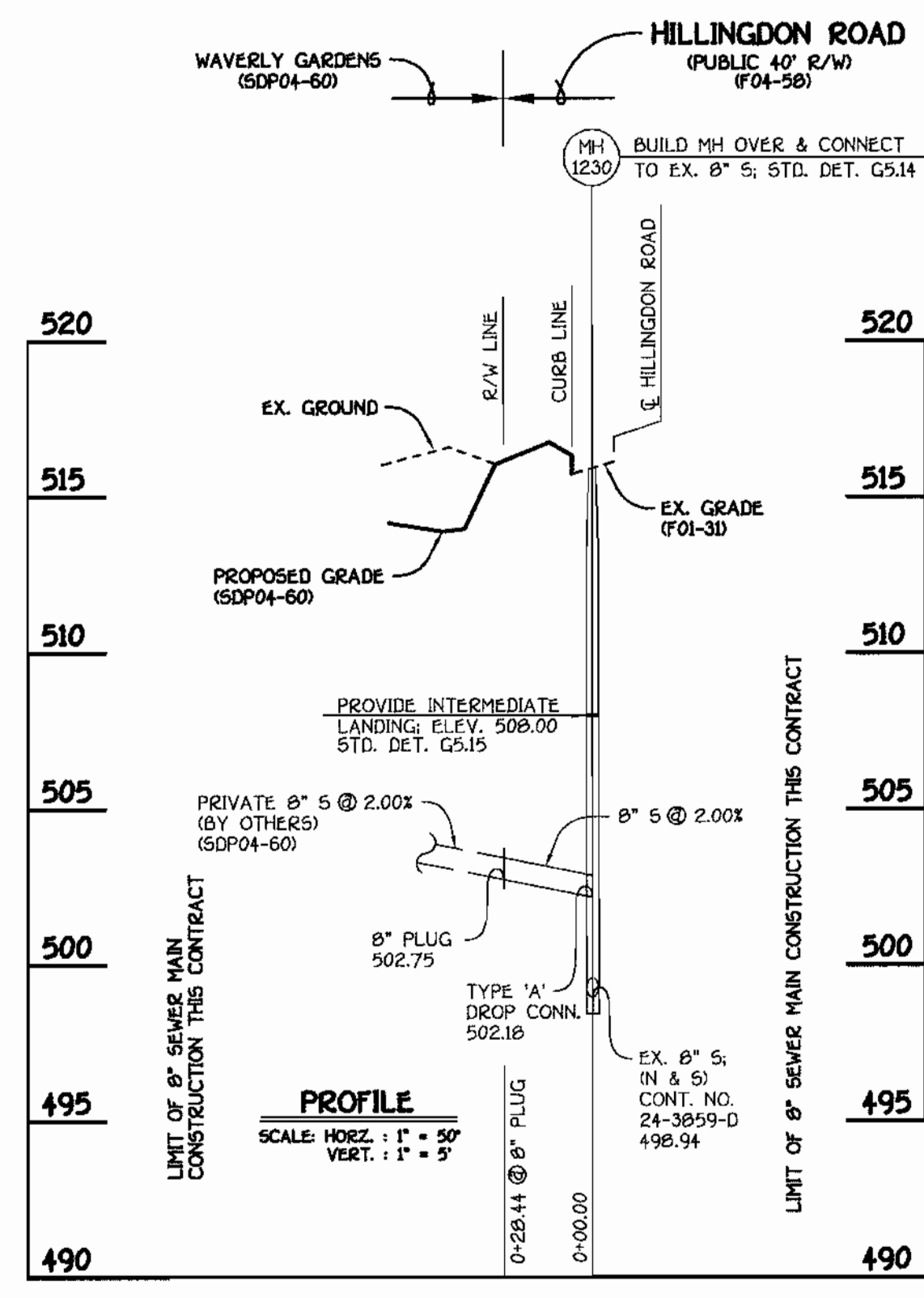
WATER MAIN TABULATION CHART				
W.M. STATION	APPURTENANCE	ROAD STATION	DISTANCE	
6" W. ENFIELD DRIVE				
0+00.00	CONNECT TO EX. 8" W	10+81.29	7.00' LT.	
0+02.09	P.C. (CRIMP RADIUS = 657')	10+83.38	7.00' LT.	
1+12.35	P.T. (CRIMP RADIUS = 657')	11+92.49	7.00' LT.	
2+60.69	8" X 6" FH TEE	13+41.50	5.86' LT.	
2+79.20	1/16 HB.	13+60.21	3.00' LT.	
3+46.31	1/32 HB.	14+29.14	6.04' LT.	
4+73.87	1/8 HB.	15+57.34	7.00' LT.	
4+93.17	1/8 HB.	15+70.56	21.06' LT.	
4+98.37	8" TAPPING VALVE	15+75.76	21.22' LT.	
5+01.37	12" X 8" TAPPING SLEEVE	15+78.76	21.31' LT.	
6" W TO FIRE HYDRANT				
0+00.00	8" X 6" FH TEE	13+41.50	5.86' LT.	
0+03.00	8" VALVE	13+41.84	8.84' LT.	
NORTHING EASTING				
6" W TO WAVERLY GARDENS (HILLINGDON ROAD)				
0+00.00	8" X 8" TAPPING SLEEVE	10+52.10	7.00' LT.	
0+03.00	8" TAPPING VALVE	10+52.10	4.00' LT.	
0+27.00	8" PLUG & BUTTRESS	10+52.10	20.00' RT.	

NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 3 OF 3, SUPERSEDES THE WATER AND SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION, DEPARTMENT OF PLANNING AND ZONING ON APRIL 30, 2004.

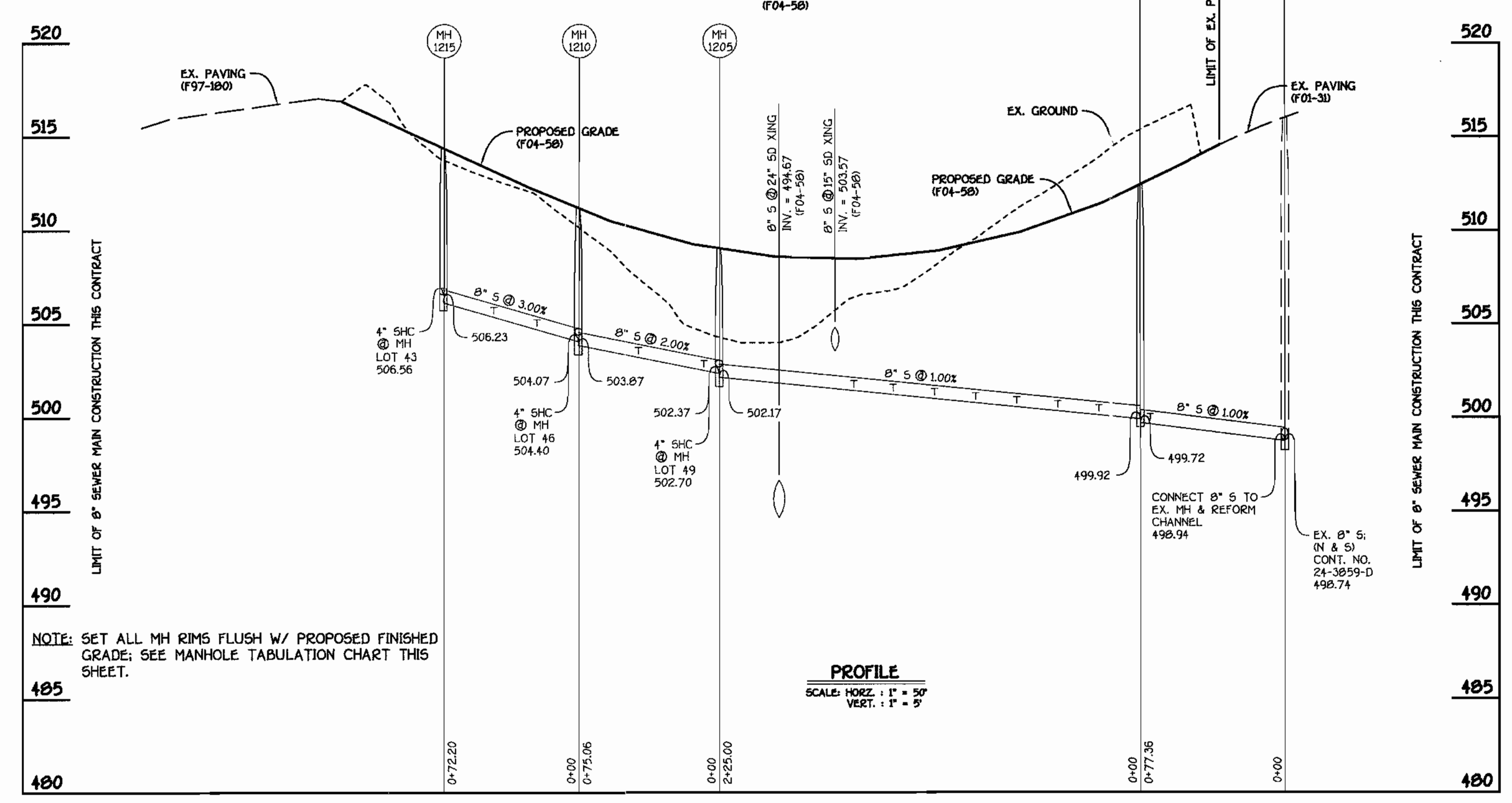
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
EX. MH 4055 TO MH 1200		
0+72 RT.	57	500.25
0+22 RT.	56	500.71
0+44 RT.	55	500.91
0+66 RT.	54	501.11
0+88 RT.	53	501.33
1+10 RT.	52	501.57
1+32 RT.	51	501.79
1+53 RT.	50	502.00
① MH 1205 RT.	49	502.84
MH 1205 TO MH 1210		
0+08 RT.	48	503.08
0+43 RT.	47	503.82
① MH 1210 RT.	46	504.56
MH 1210 TO MH 1215		
0+22 RT.	45	505.28
0+45 RT.	44	505.97
① MH 1215 RT.	43	506.94

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
1200	598297.33	1343784.57	512.44*
1205	598351.82	1343566.26	509.05*
1210	598346.44	1343491.40	511.21*
1215	598319.31	1343424.71	514.40*

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE



8" SEWER MAIN TO WAVERLY GARDENS



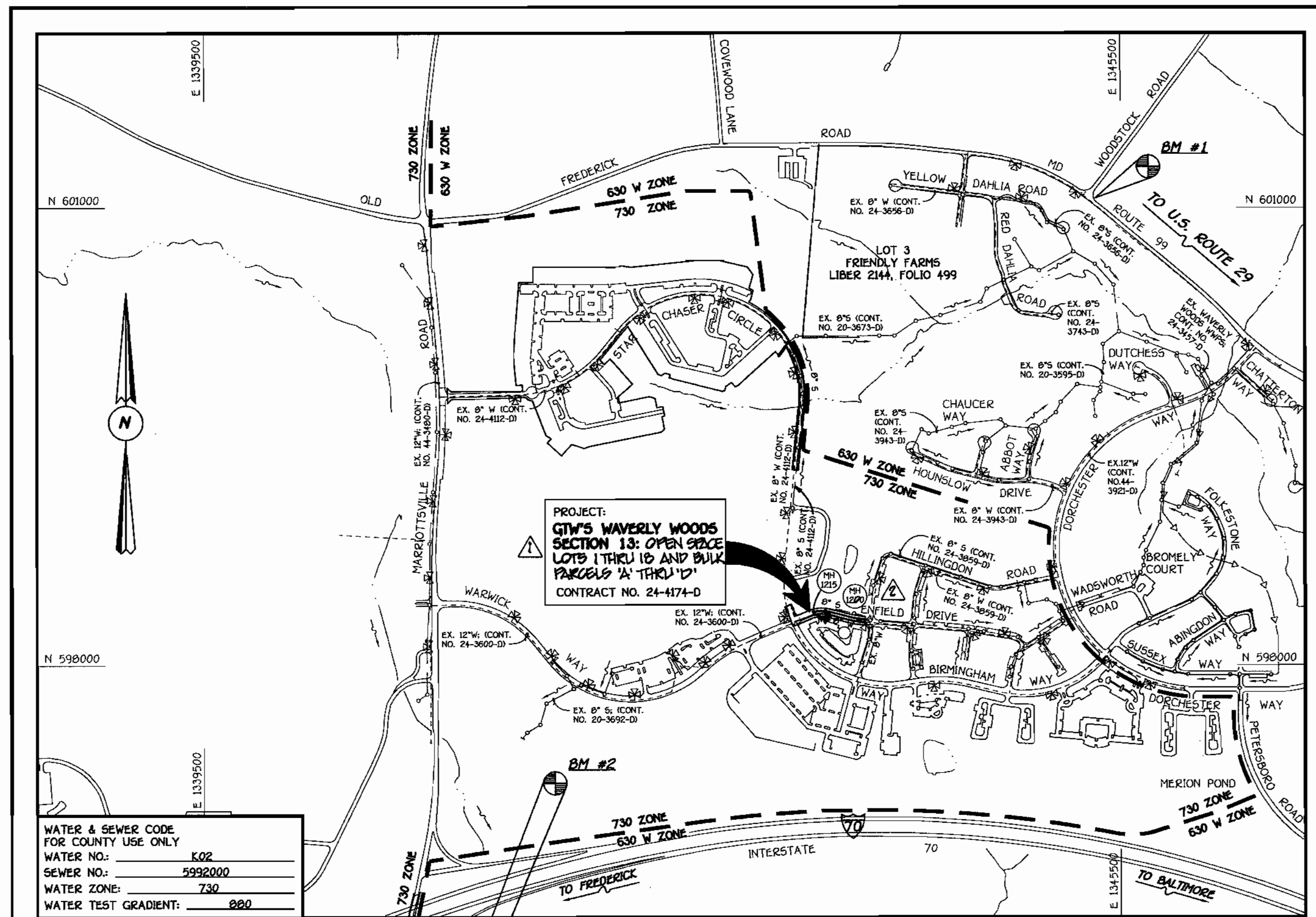
8" SEWER MAIN: ENFIELD DRIVE

CONTRACT NO. 24-4174-D
 GTP'S WAVERLY WOODS
 SECTION 13: LOTS 19 THRU 63
 AND BULK PARCEL 'E'
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF UTILITIES DATE: 11/2/04	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 11/17/04		DESIGNED BY: M.D.T. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: OCTOBER, 2004	WATER AND SEWER MAINS PROFILES 600' SCALE MAP NO. 15 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30803 FILE NAME: 30803 FINAL WATER AND SEWER MAINS PROFILES	GTP'S WAVERLY WOODS SECTION 13: LOTS 19 THRU 63 AND BULK PARCEL 'E' CONTRACT NO. 24-4174-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 3 OF 3
--	---	--	--	--	---

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	528.37 L.F.			
6" WATER	25.06 L.F.			
1" WATER	481 L.F.			
FIRE HYDRANTS	1 EACH			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 6" TEE	1 EACH			
6" VALVE	1 EACH			
1/8 H.B.	2 EACH			
1/16 H.B.	1 EACH			
1/32 H.B.	1 EACH			
8" PLUG & BUTTRISS	1 EACH			
8" SEWER	440.82 L.F.			
4" SEWER	278 L.F.			
MANHOLES	6 EACH			
8" PLUG	1 EACH			

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



GENERAL NOTES

- PART I**
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. 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, NAD 83/91.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). 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 \odot AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - AT&T 1-800-252-3133
 - BGE (CONTRACTOR SERVICES) 410-850-4620
 - BGE (UNDERGROUND DAMAGE CONTROL) 410-787-9068
 - BUREAU OF UTILITIES 410-313-4900
 - COLONIAL PIPELINE CO 410-795-1390
 - MISS UTILITY 1-800-257-7777
 - STATE HIGHWAY ADMINISTRATION 410-531-5533
 - VERIZON 1-800-743-0033/410-224-9210
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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 THE CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410-313-7450) AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.01(d) OF THE HOWARD COUNTY CODE.
- PART II: WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 - ALL FITTINGS SHALL BE BUTTRISSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER**
- 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.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

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 THE 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. Koebel FOR:
Waverly Woods Development Corp. 04/02/04
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. Koebel 04-02-04
SIGNATURE OF ENGINEER DATE

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

Jim Myers 4/26/04
S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:
John L. Robertson 4/26/04
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 S0P04-60 AND ON THESE PLANS.

Paul W. Koebel FOR:
Waverly Woods Development Corp. 04-02-04
SIGNATURE OF DEVELOPER DATE

CONTRACT No. 24-4174-D

GTW'S WAVERLY WOODS

SECTION 13: OPEN SPACE LOTS 1 THRU 18
AND BULK PARCELS 'A' THRU 'D'

WATER & SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert B. ... 4-19-04
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

... 4/30/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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

1100 481 - 2955

STATE OF MARYLAND
PROFESSIONAL ENGINEER
TERRELL A. FISHER

DESIGNED BY:	M.D.T.	
DRAWN BY:	M.D.T.	
CHECKED BY:	P.W.K.	
DATE:	APRIL, 2004	
BY NO.		

REVISION	DATE
REVISE QUANTITY FOR 8" SEWER	10/20/04
REVISE SEWER MAIN ALIGNMENT	10/20/04
REVISE TITLE FOR CORRESPONDENCE WITH RECORD PLANS	02/24/05

WATER AND SEWER MAINS
TITLE SHEET

600' SCALE MAP NO. 16 BLOCK NO. 5

F.C.C. WORK ORDER NO. 32803

FILE NAME: FINAL WATER AND SEWER MAINS TITLE SHT

GTW'S WAVERLY WOODS
SECTION 13: OPEN SPACE LOTS 1 THRU 18
AND BULK PARCELS 'A' THRU 'D'

CONTRACT NO. 24-4174-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

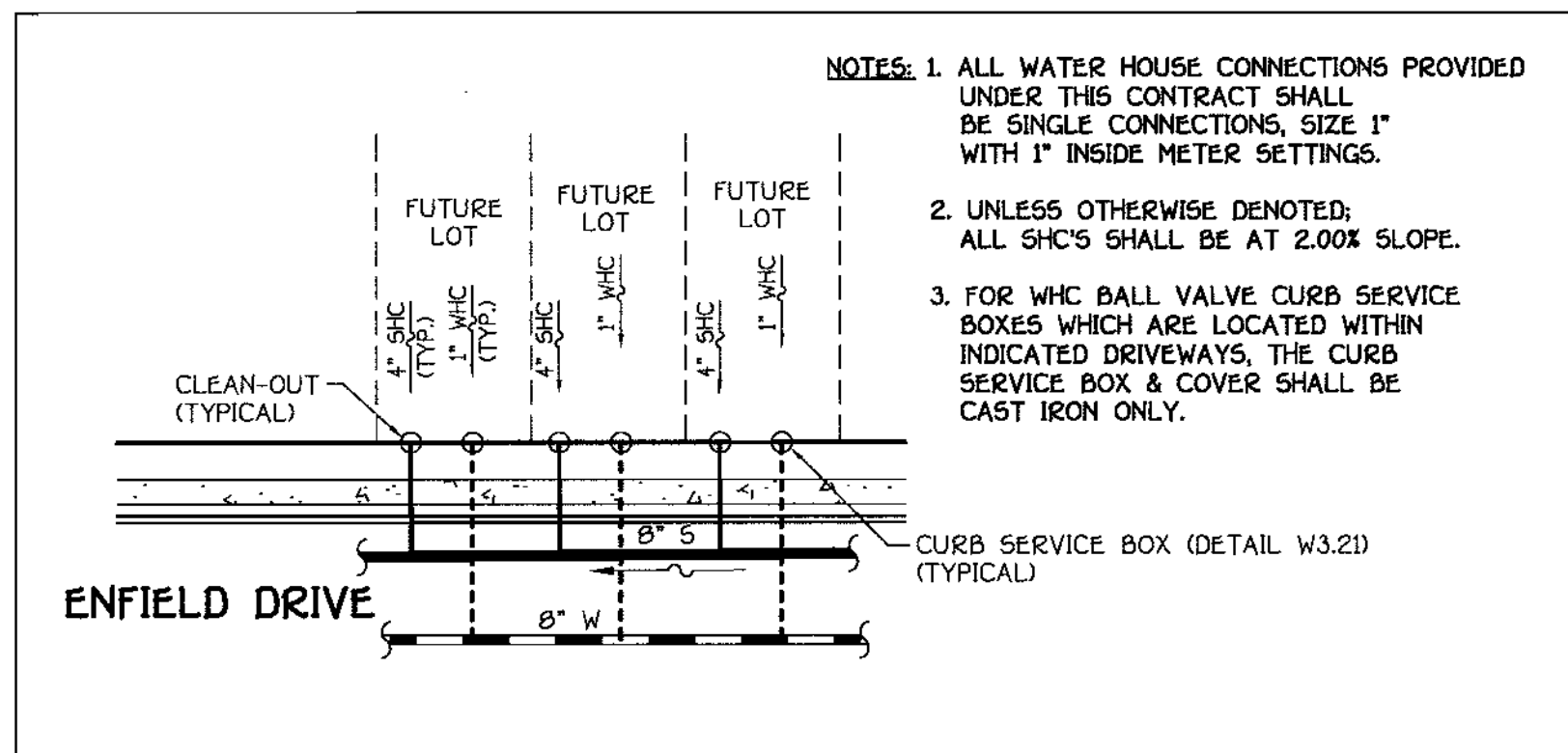
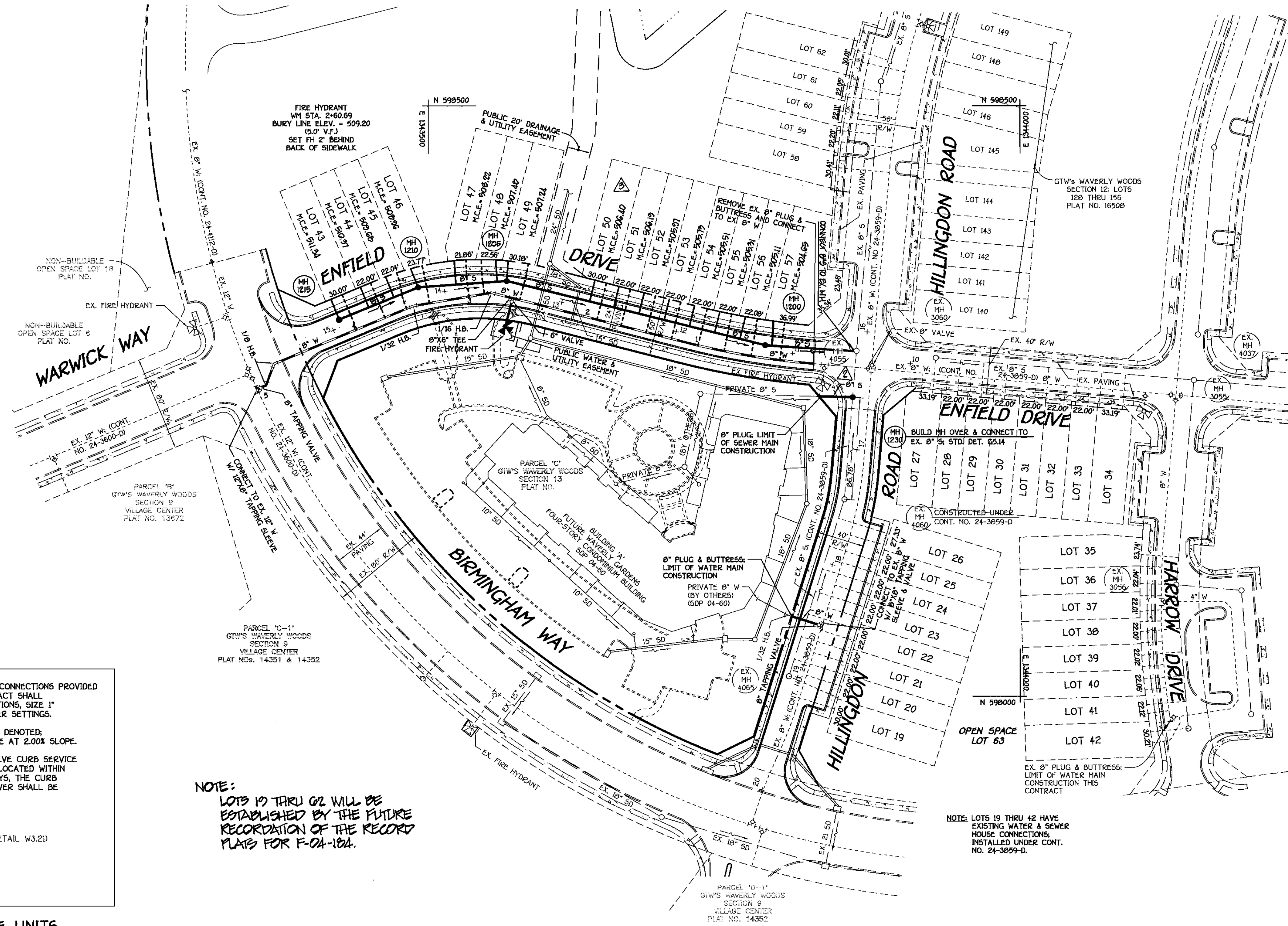
SHEET 1 OF 3

K:\SDS\PROJ\030803 GTW\ENFIELD ROAD\Wg\Wv\WvSew\Final\30803 Final Water and Sewer Title Sht.dwg, 4/22/04 10:10:13 AM

SEE SHEET 3 OF 3 FOR WATER MAIN TABULATION CHART

SEE SHEET 3 OF 3 FOR MANHOLE TABULATION CHART

NOTE: LOTS 50 THRU 62 HAVE EXISTING WATER & SEWER HOUSE CONNECTIONS INSTALLED UNDER CONT. NO. 24-3899-D.



NOTES: 1. ALL WATER HOUSE CONNECTIONS PROVIDED UNDER THIS CONTRACT SHALL BE SINGLE CONNECTIONS, SIZE 1" WITH 1" INSIDE METER SETTINGS.
 2. UNLESS OTHERWISE DENOTED, ALL SHC'S SHALL BE AT 2.00% SLOPE.
 3. FOR WHC BALL VALVE CURB SERVICE BOXES WHICH ARE LOCATED WITHIN INDICATED DRIVEWAYS, THE CURB SERVICE BOX & COVER SHALL BE CAST IRON ONLY.

NOTE: LOTS 19 THRU 42 WILL BE ESTABLISHED BY THE FUTURE RECORDATION OF THE RECORD PLATS FOR F-04-184.

NOTE: LOTS 19 THRU 42 HAVE EXISTING WATER & SEWER HOUSE CONNECTIONS INSTALLED UNDER CONT. NO. 24-3899-D.

TYPICAL WHC & SHC DETAIL @ TOWNHOUSE UNITS

NO SCALE

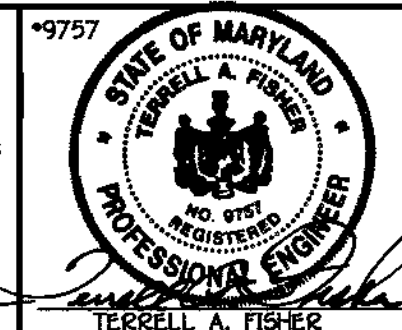
PLAN
 SCALE: 1" = 50'

CONTRACT NO. 24-4174-D
 GTW'S WAVERLY WOODS
 SECTION 13: OPEN SPACE LOTS 1-18
 AND BULK PARCELS 21-THRU 27
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

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 - 10275 BALTIMORE NATIONAL FREE
 ELLICOTT CITY, MARYLAND 21114
 (410) 461-2555



DESIGNED BY:	M.D.T.		
DRAWN BY:	M.D.T.		
CHECKED BY:	P.W.K.	REVISION	DATE
DATE:	APRIL, 2004	1	10/20/04
BY NO.		2	10/20/04
		3	08/20/04
		4	08/20/04
		5	08/20/04
		6	08/20/04
		7	08/20/04
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		100	08/20/04

WATER AND SEWER MAINS PLAN

600' SCALE MAP NO. 16 BLOCK NO. 5
 F.C.C. WORK ORDER NO. 30803
 FILE NAME: FINAL WATER AND SEWER MAINS PLAN SH1

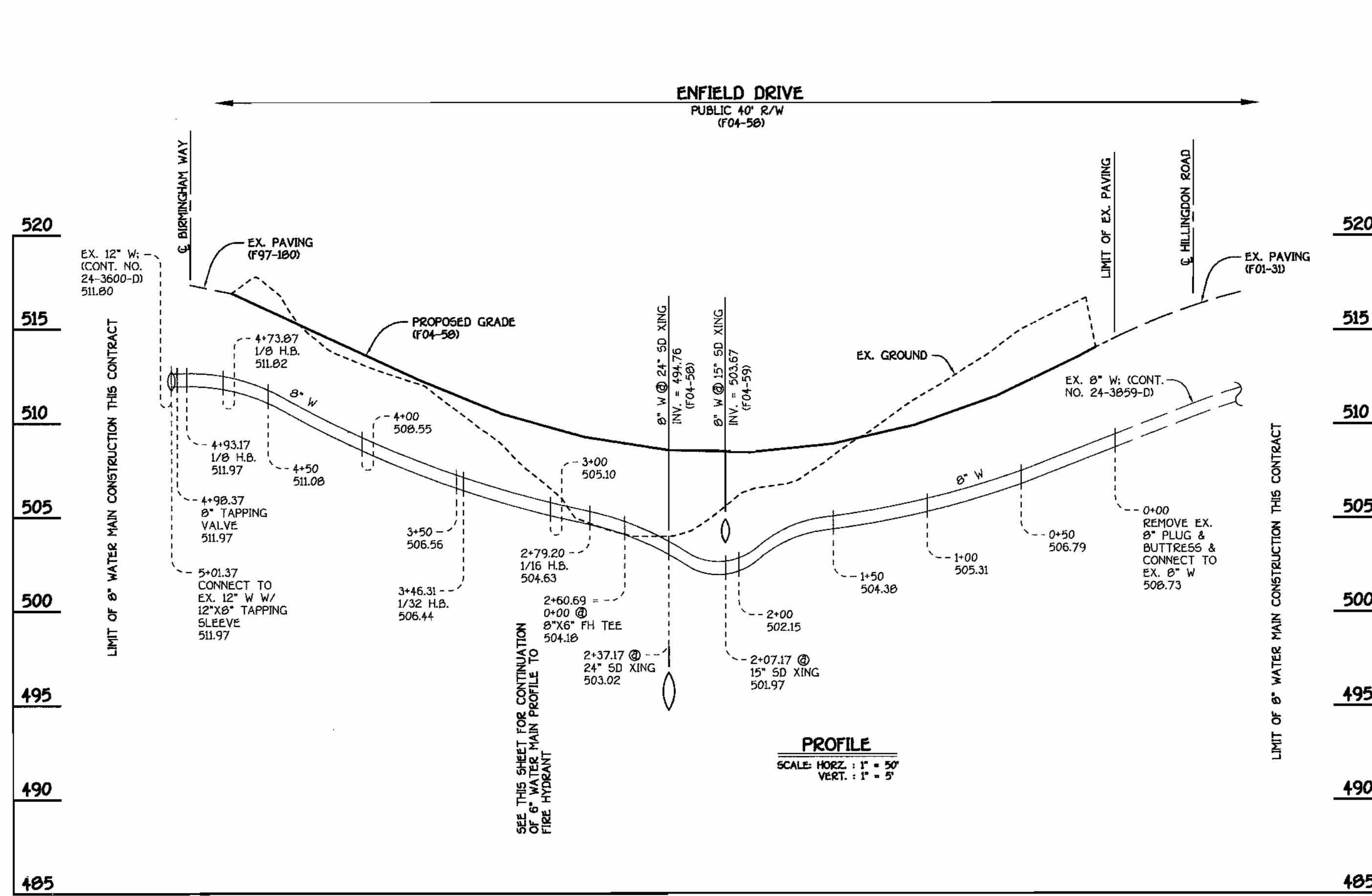
GTW'S WAVERLY WOODS
 SECTION 13: OPEN SPACE LOTS 1 THRU 18
 AND BULK PARCELS 21-THRU 27
 CONTRACT NO. 24-4174-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE
 AS
 SHOWN
 SHEET
 2 OF 3

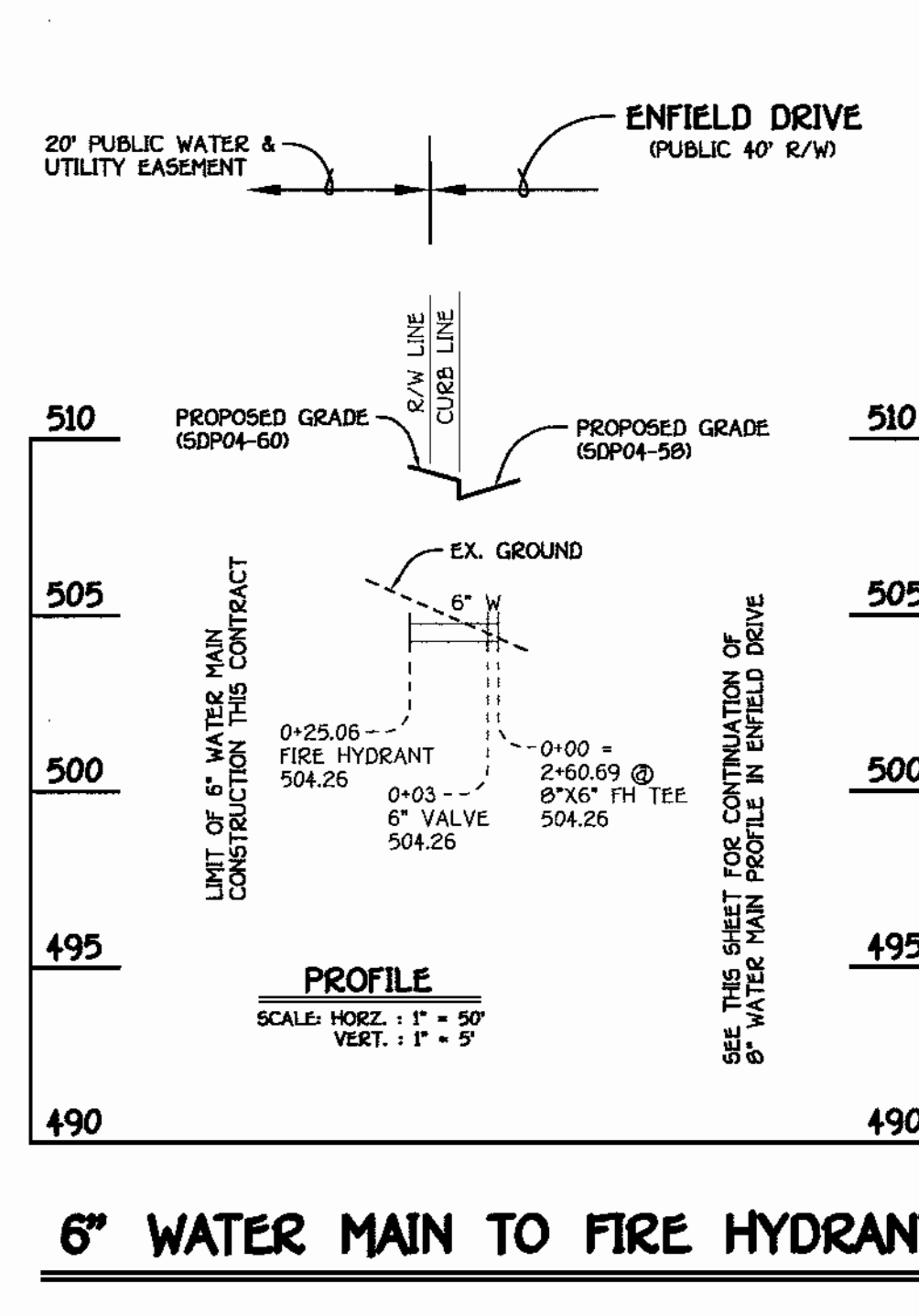
Ruth B...
 CHIEF, BUREAU OF UTILITIES
 4-19-04

...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 4/21/04

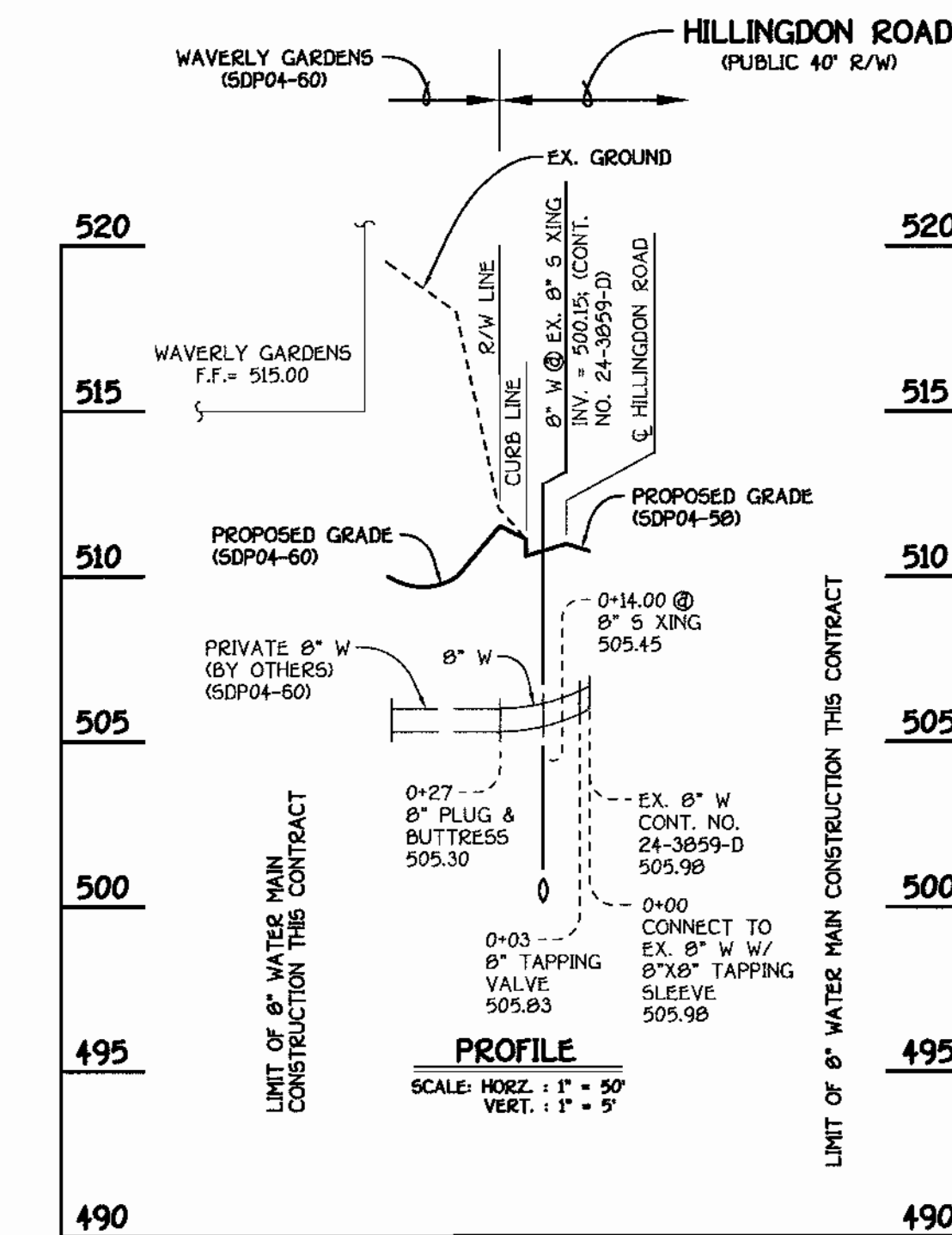
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8" WATER MAIN: ENFIELD DRIVE



6" WATER MAIN TO FIRE HYDRANT



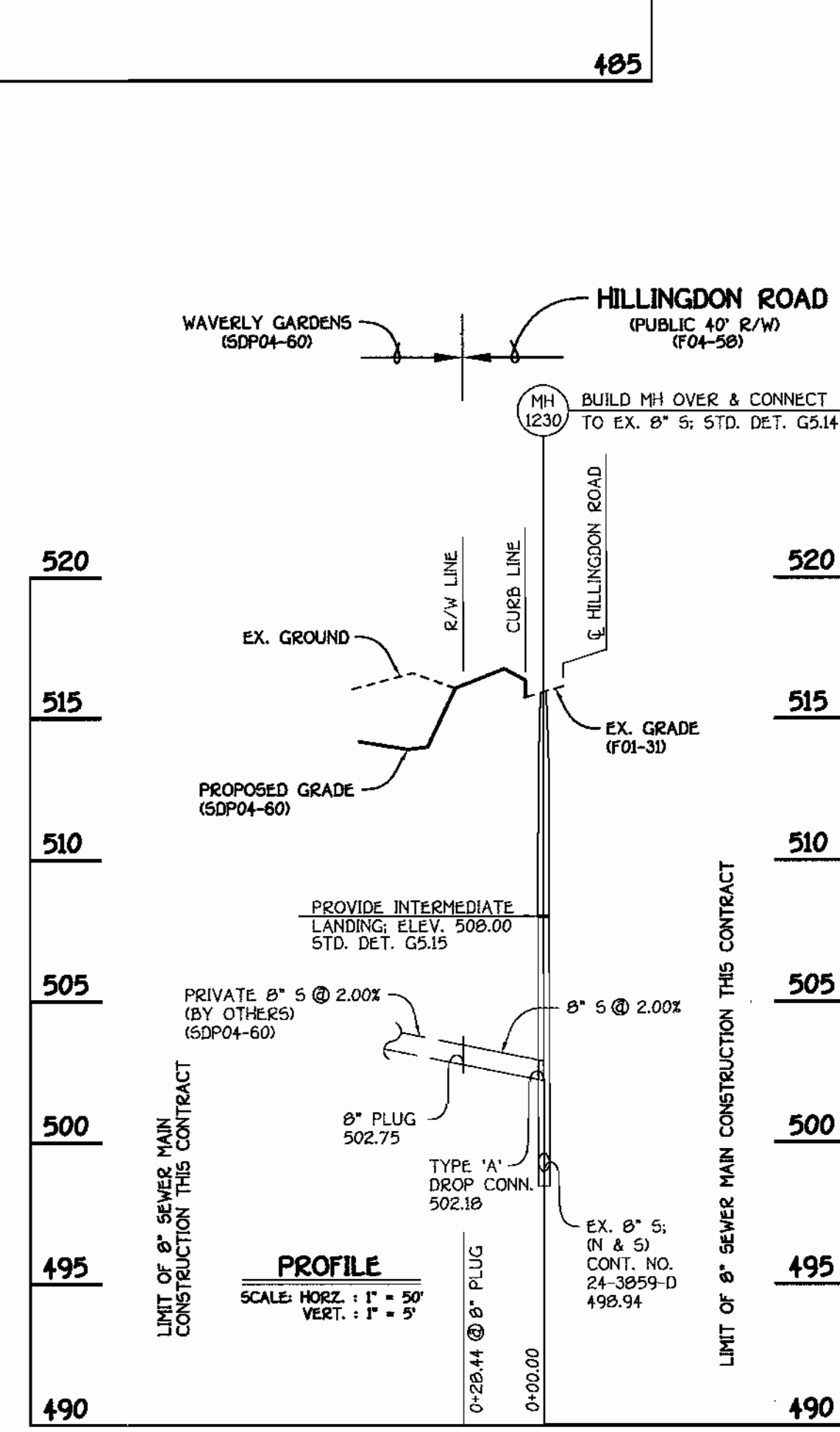
8" WATER MAIN TO WAVERLY GARDENS

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	R. ROAD STATION	DISTANCE
8" W. ENFIELD DRIVE			
0+00.00	CONNECT TO EX. 8" W	10+81.29	7.00' LT.
0+02.09	P.C. (CRIMP RADIUS = 657')	10+83.38	7.00' LT.
1+12.35	P.T. (CRIMP RADIUS = 657')	11+92.49	7.00' LT.
2+60.69	8" X 6" FH TEE	13+41.50	5.86' LT.
2+79.20	1/16 H.B.	13+60.21	3.00' LT.
3+46.31	1/32 H.B.	14+29.14	6.04' LT.
4+73.87	1/8 H.B.	15+57.34	7.00' LT.
4+93.37	1/8 H.B.	15+70.56	21.06' LT.
4+98.37	8" TAPPING VALVE	15+75.76	21.22' LT.
5+01.37	12" X 8" TAPPING SLEEVE	15+78.76	21.31' LT.
6" W TO FIRE HYDRANT			
0+00.00	8" X 6" FH TEE	13+41.50	5.86' LT.
0+03.00	6" VALVE	13+41.64	8.84' LT.
FIRE HYDRANT			
0+26.05		598312.94	1343565.01
8" W TO WAVERLY GARDENS (HILLINGDON ROAD)			
0+06.00	8" X 8" TAPPING SLEEVE	18+52.10	7.00' LT.
0+03.00	8" TAPPING VALVE	18+52.10	4.00' LT.
0+27.00	8" PLUG & BUTTRESS	18+52.10	20.00' RT.

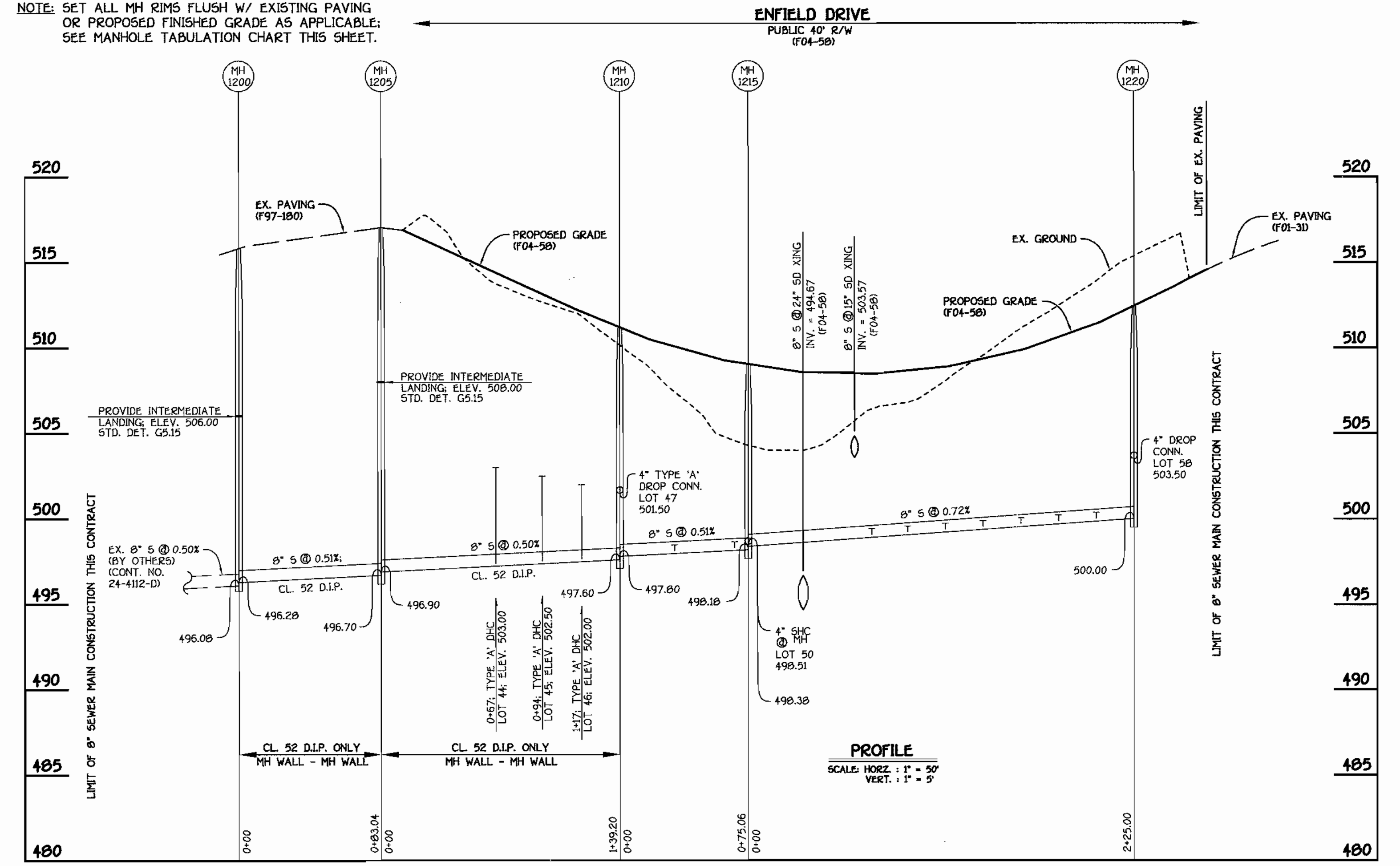
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 1205 TO MH 1210		
0+67 LT.	44 (DHC)	503.38
0+94 LT.	45 (DHC)	502.88
1+17 LT.	46 (DHC)	502.38
② MH 1210 LT.	47 (DROP CONN. @ MH)	501.84
MH 1210 TO MH 1215		
0+32 LT.	48	498.53
0+67 LT.	49	498.67
② MH 1215 LT.	50 (SHC @ MH)	498.85
MH 1215 TO MH 1220		
0+72 LT.	51	499.45
0+93 LT.	52	499.58
1+15 LT.	53	499.74
1+37 LT.	54	499.90
1+59 LT.	55	500.05
1+81 LT.	56	500.21
2+03 LT.	57	500.39
② MH 1220 LT.	58 (DROP CONN. @ MH)	503.92

MANHOLE TABULATION CHART				
NO.	R. ROAD STATION	NORTHING	EASTING	RIM ELEVATION
1200	---	598370.66	1343330.56	515.83**
1205	---	598293.96	1343362.47	517.05**
SLOPE				
1210	14+20.83 ENFIELD DRIVE	8.00' RT.	+3.64%	510.81*
1215	13+48.26 ENFIELD DRIVE	8.00' RT.	+1.44%	508.74*
1220	11+24.19 ENFIELD DRIVE	7.00' RT.	-5.12%	512.43*
1230	16+56.00 HILLINGDON ROAD	7.00' RT.	-1.04%	515.94**

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE
** SET MH RIMS FLUSH W/ EXISTING PAVING



8" SEWER MAIN TO WAVERLY GARDENS



8" SEWER MAIN: ENFIELD DRIVE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 4-19-04
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
DATE: 4/19/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
TERRELL A. FISHER
PROFESSIONAL ENGINEER

DESIGNED BY: H.D.T.
DRAWN BY: H.D.T.
CHECKED BY: P.W.K.
DATE: APRIL, 2004
REVISION

WATER AND SEWER MAINS PROFILES
60' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 32803
FILE NAME: 32803 FINAL WATER AND SEWER MAINS PROFILES

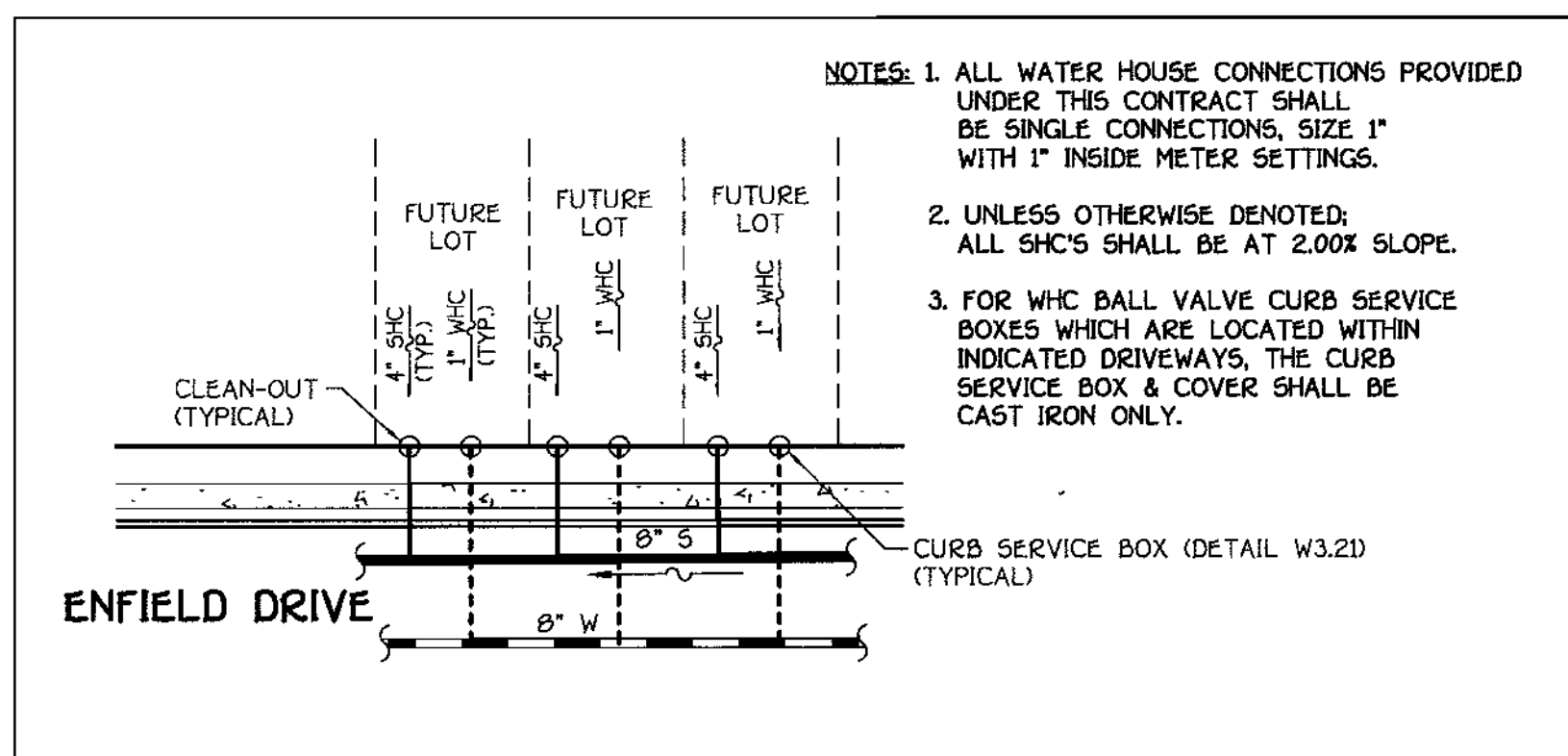
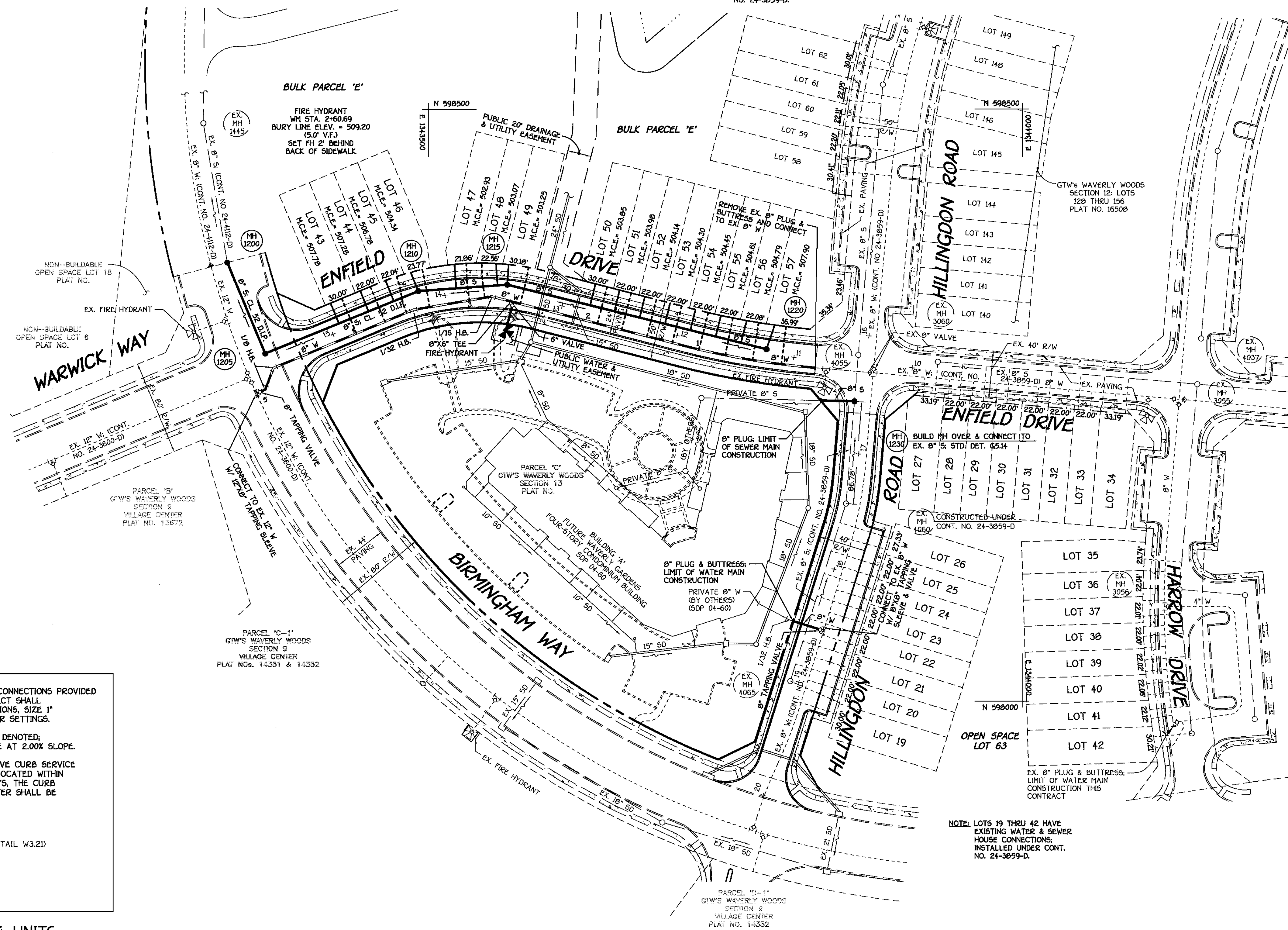
GTW'S WAVERLY WOODS
SECTION 13: OPEN SPACE LOTS 1 THRU 18
AND BULK PARCELS 'A' THRU 'D'
CONTRACT NO. 24-4174-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 3 OF 3

CONTRACT NO. 24-4174-D
GTW'S WAVERLY WOODS
SECTION 13: OPEN SPACE LOTS 1-18
AND BULK PARCELS 'A' THRU 'D'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

SEE SHEET 3 OF 3 FOR WATER MAIN TABULATION CHART

SEE SHEET 3 OF 3 FOR MANHOLE TABULATION CHART

NOTE: LOTS 50 THRU 62 HAVE EXISTING WATER & SEWER HOUSE CONNECTIONS INSTALLED UNDER CONT. NO. 24-3859-D.



- NOTES:
1. ALL WATER HOUSE CONNECTIONS PROVIDED UNDER THIS CONTRACT SHALL BE SINGLE CONNECTIONS, SIZE 1" WITH 1" INSIDE METER SETTINGS.
 2. UNLESS OTHERWISE DENOTED, ALL SHC'S SHALL BE AT 2.00% SLOPE.
 3. FOR WHC BALL VALVE CURB SERVICE BOXES WHICH ARE LOCATED WITHIN INDICATED DRIVEWAYS, THE CURB SERVICE BOX & COVER SHALL BE CAST IRON ONLY.

TYPICAL WHC & SHC DETAIL @ TOWNHOUSE UNITS

NO SCALE

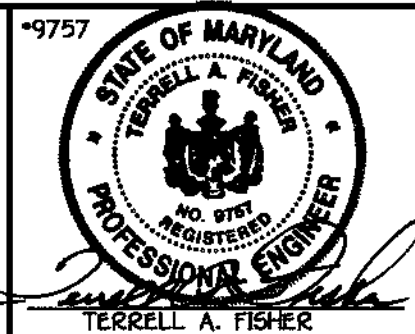
PLAN
SCALE: 1" = 50'

CONTRACT NO. 24-4174-D
GTW'S WAVERLY WOODS
SECTION 13: LOTS 19 THRU 63
AND BULK PARCEL 'E'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
PORTLAND SQUARE OFFICE PARK - 10725 BALTIMORE NATIONAL PkE
ELLIOTT CITY, MARYLAND 21615
410.461.2955



DESIGNED BY:	M.D.T.				
DRAWN BY:	M.D.T.				
CHECKED BY:	P.W.K.				
DATE:	APRIL, 2004	BY NO.		REVISION	

WATER AND SEWER MAINS
PLAN

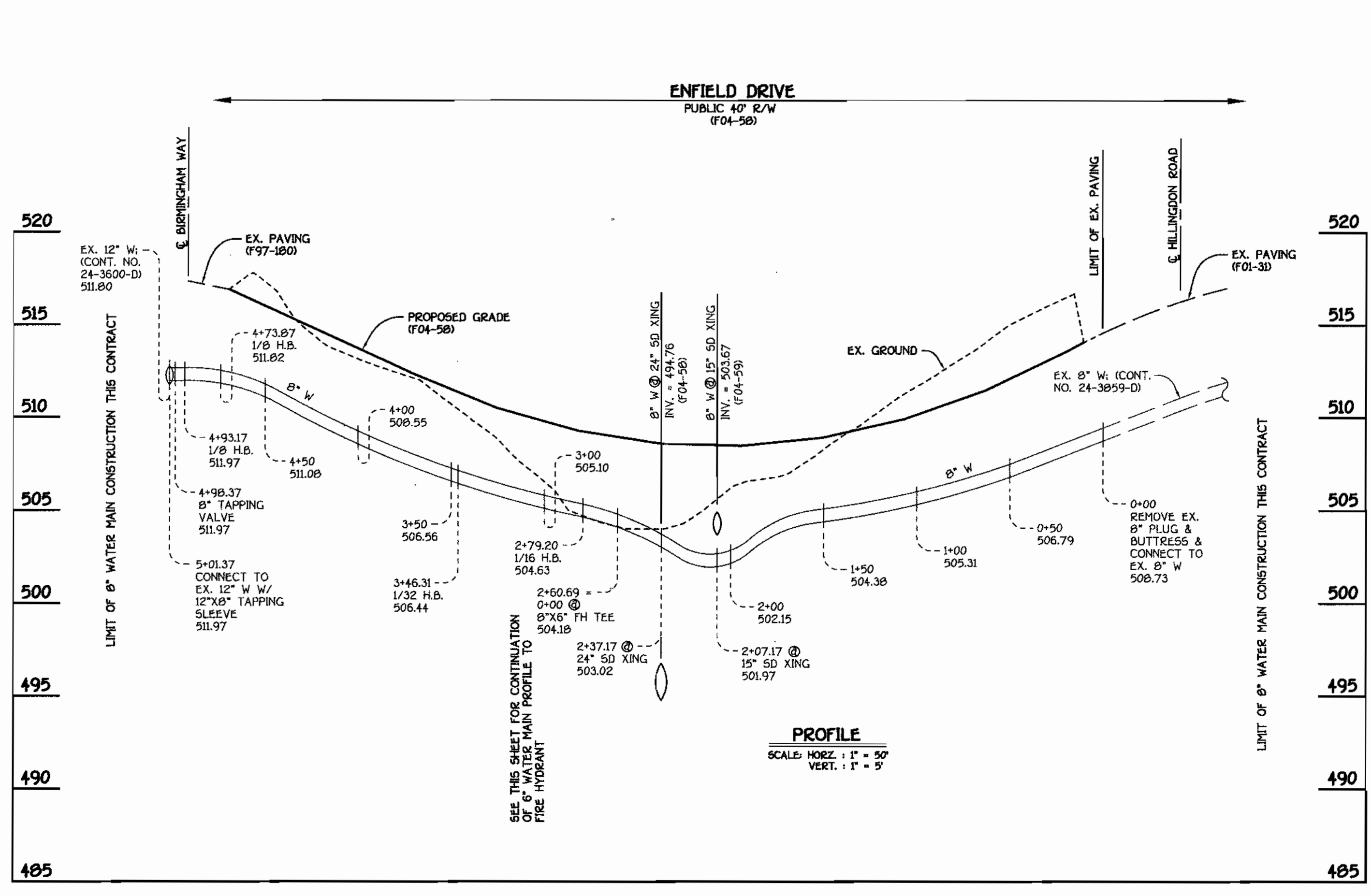
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F.C.C. WORK ORDER NO. 30803
FILE NAME: FINAL WATER AND SEWER MAINS PLAN SH1

GTW'S WAVERLY WOODS
SECTION 13: LOTS 19 THRU 63
AND BULK PARCEL 'E'
CONTRACT NO. 24-4174-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

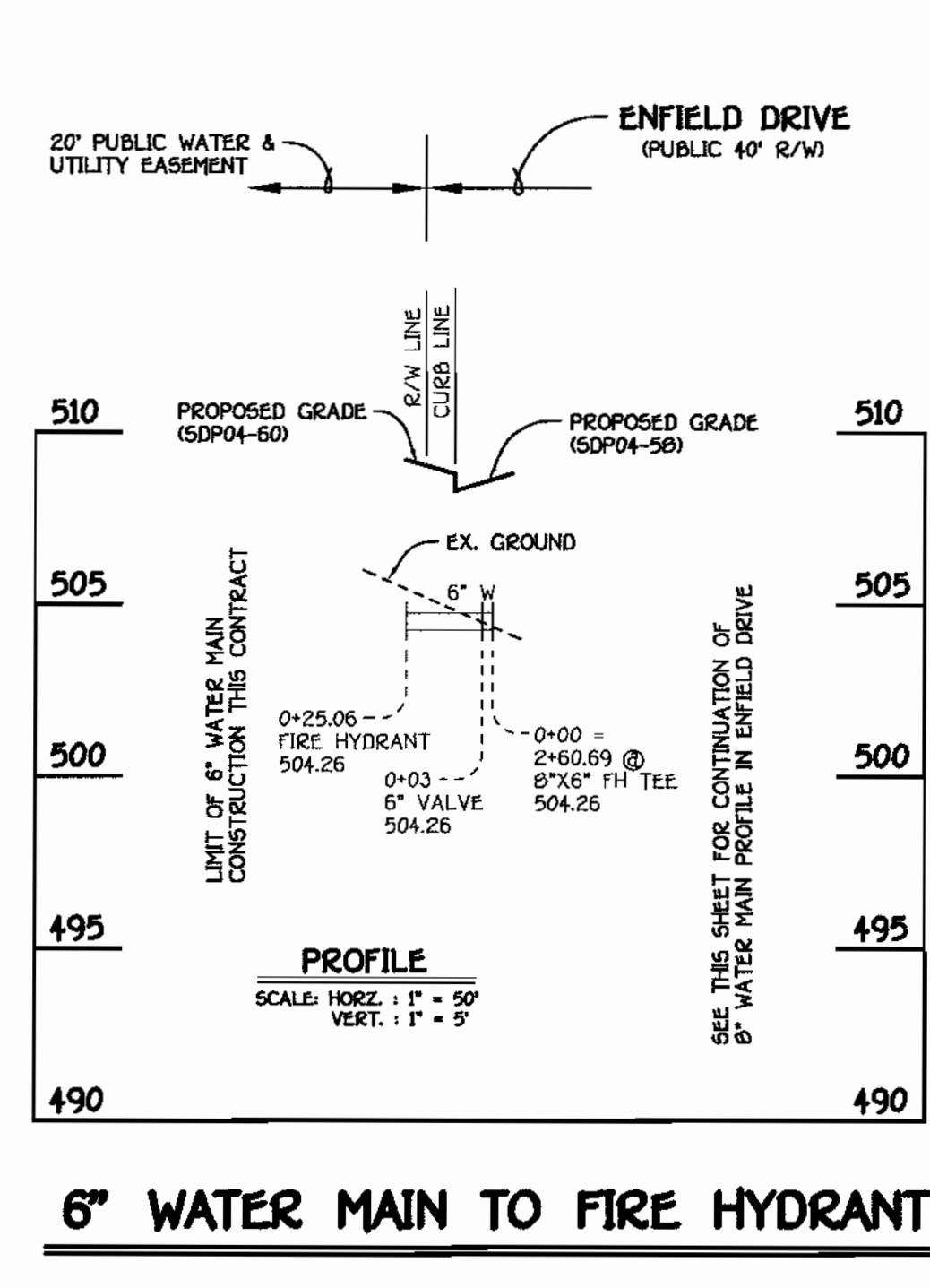
SCALE
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SHEET
2 OF 3

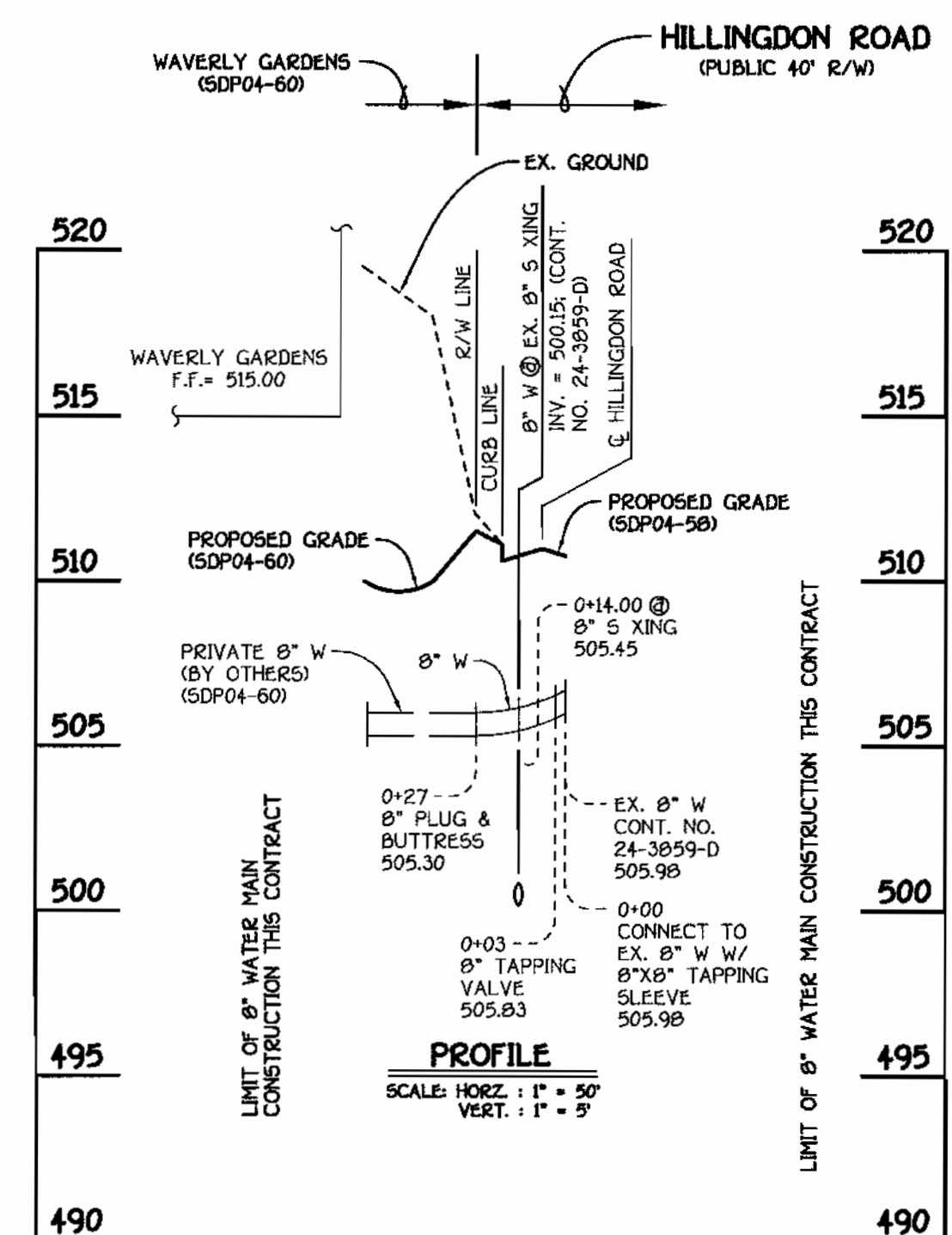
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8" WATER MAIN: ENFIELD DRIVE



6" WATER MAIN TO FIRE HYDRANT



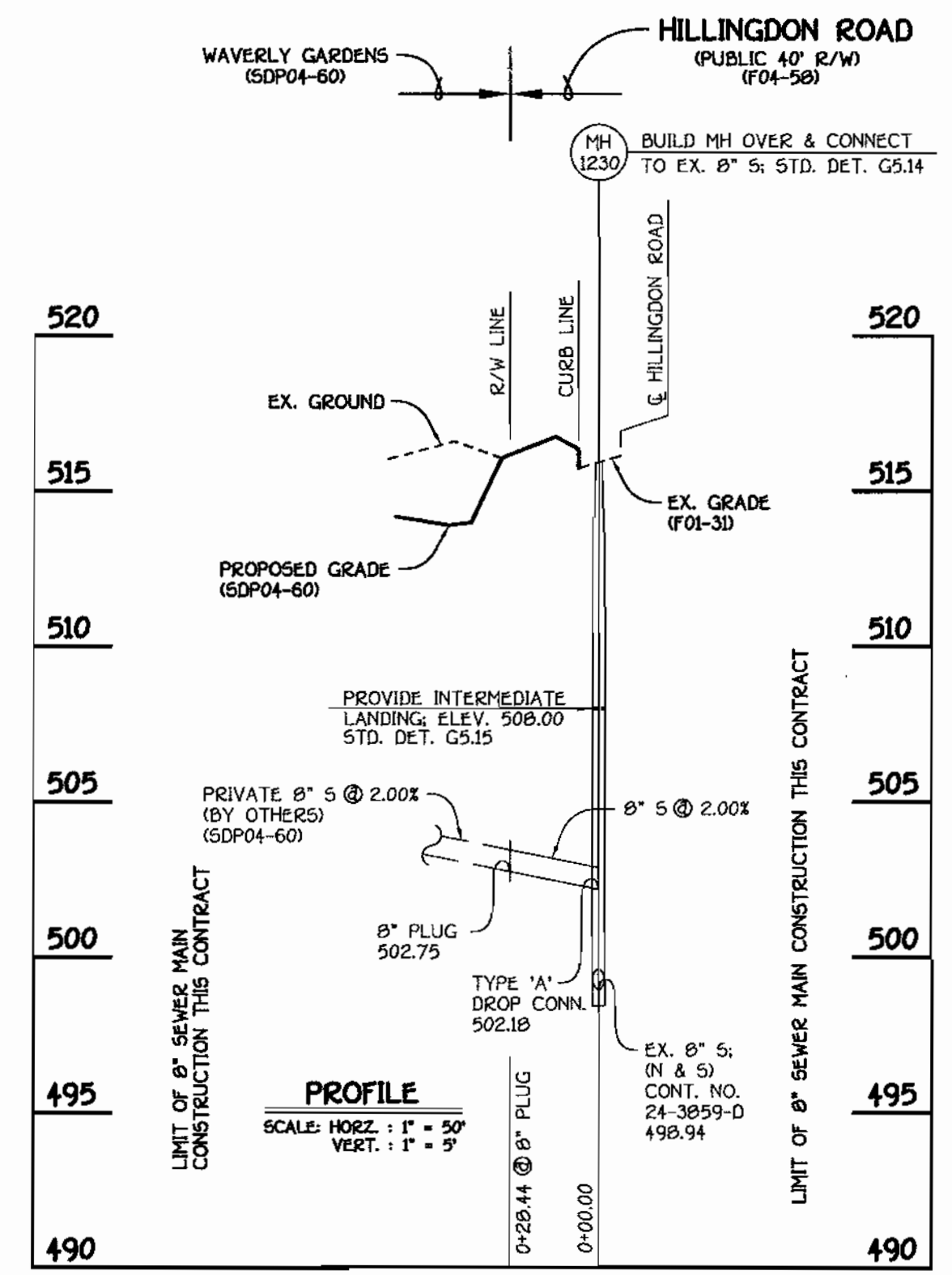
8" WATER MAIN TO WAVERLY GARDENS

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	ROAD STATION	DISTANCE
8" W. ENFIELD DRIVE			
0+00.00	CONNECT TO EX. 8" W	10+81.29	7.00' LT.
0+02.09	P.C. (CRIMP RADIUS = 657')	10+83.38	7.00' LT.
1+12.35	P.T. (CRIMP RADIUS = 657')	11+92.49	7.00' LT.
2+60.69	8" X 6" FH TEE	13+41.50	5.86' LT.
2+79.20	1/16 H.B.	13+60.21	3.00' LT.
3+46.31	1/32 H.B.	14+29.14	6.04' LT.
4+73.87	1/8 H.B.	15+57.34	7.00' LT.
4+93.17	1/8 H.B.	15+70.56	21.06' LT.
4+98.37	8" TAPPING VALVE	15+75.76	21.22' LT.
5+01.37	12" X 8" TAPPING SLEEVE	15+76.76	21.31' LT.
6" W TO FIRE HYDRANT			
0+00.00	8" X 6" FH TEE	13+41.50	5.86' LT.
0+03.00	6" VALVE	13+41.84	8.84' LT.
FIRE HYDRANT			
0+26.05		598312.94	1343565.01
8" W TO WAVERLY GARDENS (HILLINGDON ROAD)			
0+00.00	8" X 8" TAPPING SLEEVE	18+52.10	7.00' LT.
0+03.00	8" TAPPING VALVE	18+52.10	4.00' LT.
0+27.00	8" PLUG & BUTTRESS	18+52.10	20.00' RT.

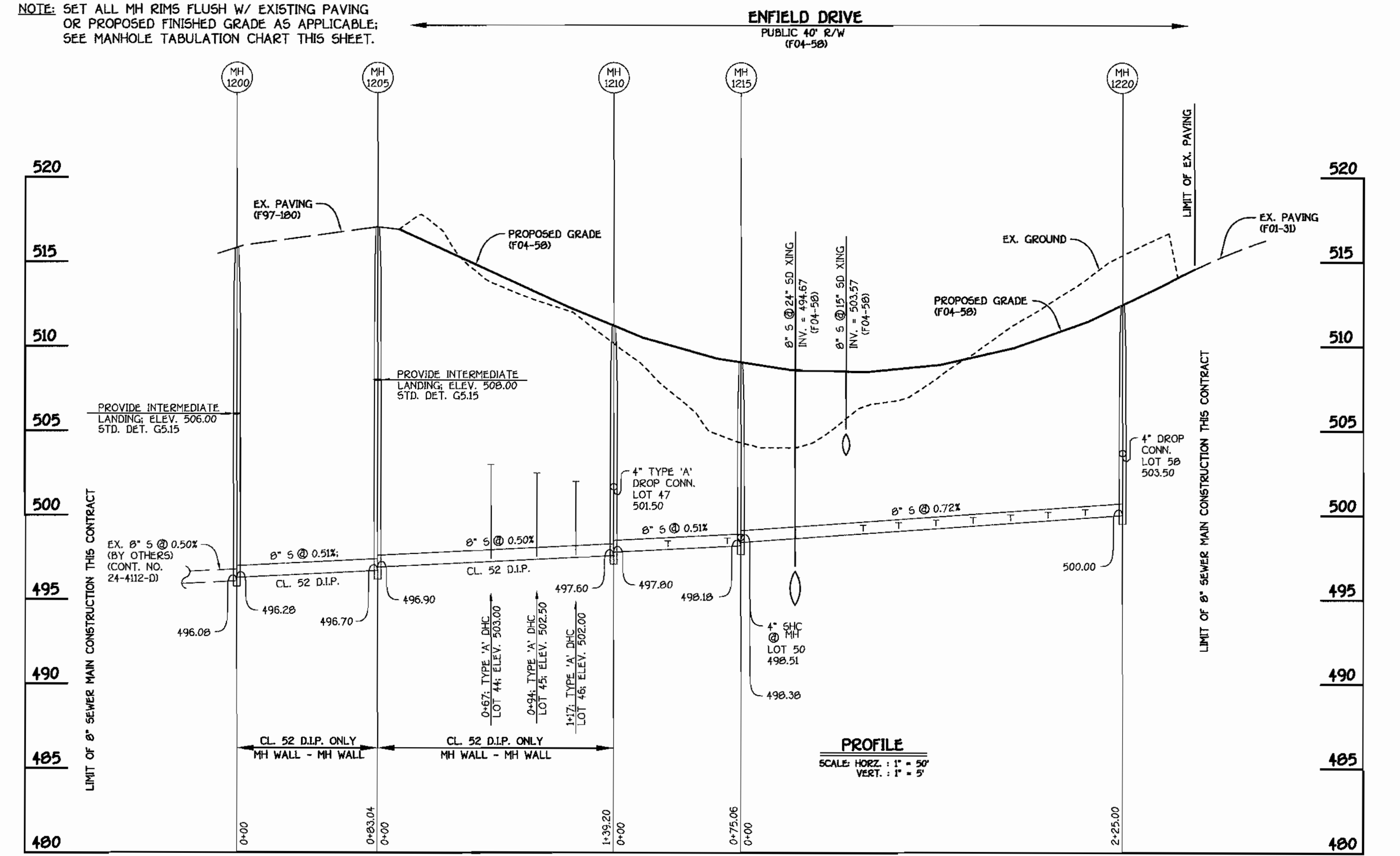
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 1205 TO MH 1210		
0+67 LT.	44 (DHC)	503.38
0+94 LT.	45 (DHC)	502.88
1+17 LT.	46 (DHC)	502.38
① MH 1210 LT.	47 (DROP CONN. @ MH)	501.84
MH 1210 TO MH 1215		
0+32 LT.	48	498.53
0+67 LT.	49	498.67
① MH 1215 LT.	50 (SHC @ MH)	498.85
MH 1215 TO MH 1220		
0+72 LT.	51	499.45
0+93 LT.	52	499.58
1+15 LT.	53	499.74
1+37 LT.	54	499.90
1+59 LT.	55	500.05
1+81 LT.	56	500.21
2+03 LT.	57	500.39
① MH 1220 LT.	58 (DROP CONN. @ MH)	503.92

MANHOLE TABULATION CHART				
NO.	ROAD STATION	NORTHING	EASTING	RIM ELEVATION
1200	----	598370.66	134330.58	515.83**
1205	----	598293.98	1343362.47	517.05**
SLOPE				
1210	14+20.83 ENFIELD DRIVE	8.00' RT.	+3.64%	510.81*
1215	13+48.26 ENFIELD DRIVE	8.00' RT.	+1.44%	508.74*
1220	11+24.19 ENFIELD DRIVE	7.00' RT.	-5.12%	512.43*
1230	16+56.00 HILLINGDON ROAD	7.00' RT.	-1.04%	515.94**

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE
 ** SET MH RIMS FLUSH W/ EXISTING PAVING



8" SEWER MAIN TO WAVERLY GARDENS



8" SEWER MAIN: ENFIELD DRIVE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

4-19-04
 DATE

4/19/04
 DATE

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

1077 BALTIMORE NATIONAL PKZ
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2955

TERRELL A. FISHER
 PROFESSIONAL ENGINEER

DESIGNED BY: M.D.T.
 DRAWN BY: M.D.T.
 CHECKED BY: P.W.K.
 DATE: APRIL, 2004

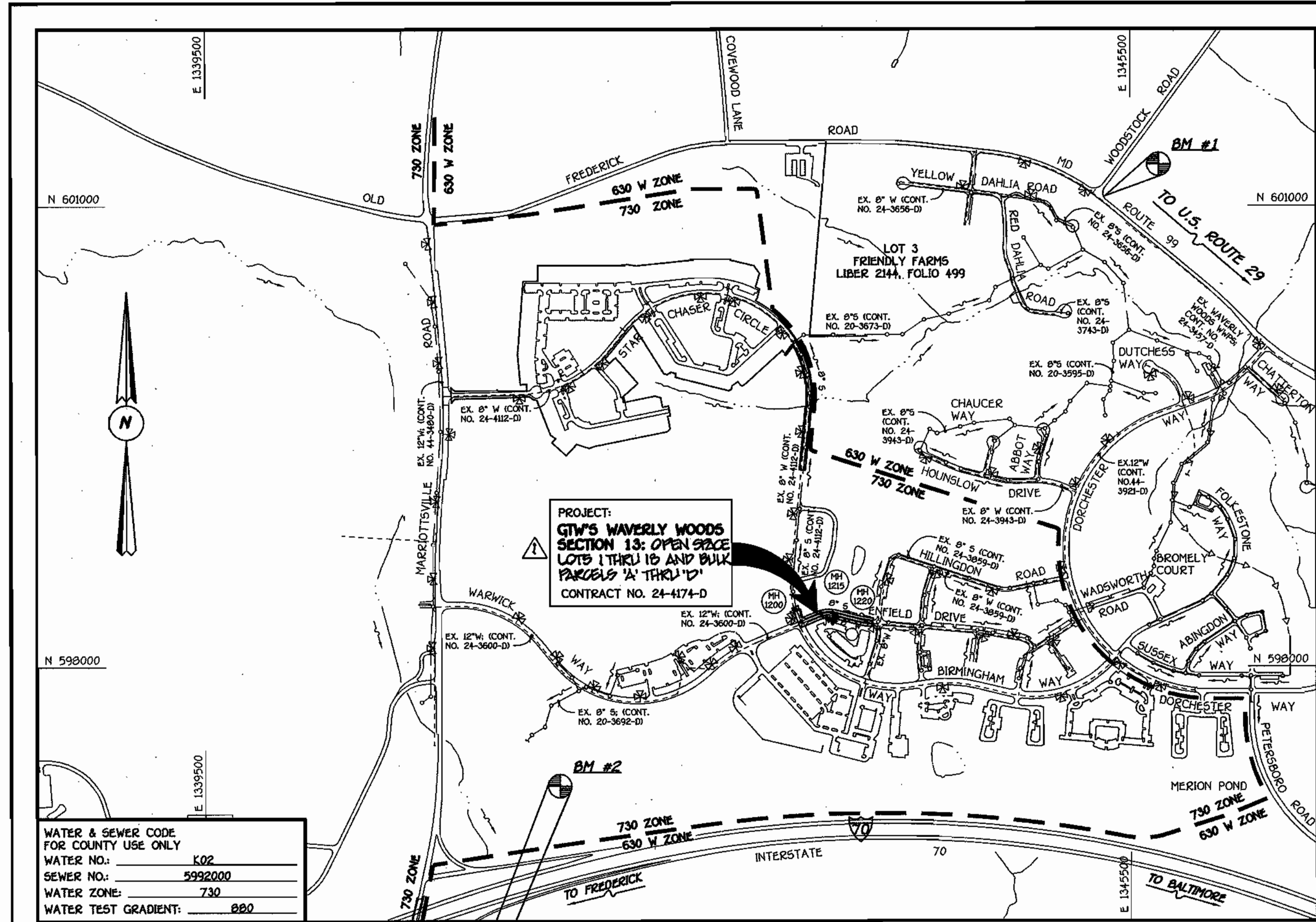
WATER AND SEWER MAINS PROFILES

60' SCALE MAP NO. 16 BLOCK NO. 5
 F.C.C. WORK ORDER NO. 30803
 FILE NAME: 30803 FINAL WATER AND SEWER MAINS PROFILES

GTW'S WAVERLY WOODS
 SECTION 13: LOTS 19 THRU 63
 AND BULK PARCEL 'E'
 CONTRACT NO. 24-4174-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 3

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	528.37 L.F.			
6" WATER	25.06 L.F.			
1" WATER	481 L.F.			
FIRE HYDRANTS	1 EACH			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 6" TEE	1 EACH			
6" VALVE	1 EACH			
1/8 H.B.	2 EACH			
1/16 H.B.	1 EACH			
1/32 H.B.	1 EACH			
8" PLUG & BUTTRESS	1 EACH			
8" SEWER	328.50 L.F.			
8" SEWER (D.I.P.)	222.24 L.F.			
4" SEWER	278 L.F.			
MANHOLES	6 EACH			
8" PLUG	1 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY & DRAFTING DIVISION AS-BUILT DATE:				



GENERAL NOTES

- PART I**
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. 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, NAD 83/91.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). 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 \oplus AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - AT&T 1-800-252-1133
 - BGE (CONTRACTOR SERVICES) 410-950-4620
 - BGE (UNDERGROUND DAMAGE CONTROL) 410-787-9068
 - BUREAU OF UTILITIES 410-313-4900
 - COLONIAL PIPELINE CO 410-795-1390
 - MESS UTILITY 1-800-257-7777
 - STATE HIGHWAY ADMINISTRATION 410-531-5533
 - VERIZON 1-800-743-0033/410-224-9210
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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 THE CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.01(d) OF THE HOWARD COUNTY CODE.
- PART II: WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER**
- 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.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - 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 COVER, STANDARD DETAIL G5.52 WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

DEVELOPER'S CERTIFICATION

I 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 THE 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. Koebel FOR:
 Waverly Woods Development Corp. 04/02/04
 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. Koebel 04-02-04
 SIGNATURE OF ENGINEER DATE

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

Jim Meyer 4/26/04
 S.O.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:
Johanna Robinson 4/26/04
 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 S0P04-60 AND ON THESE PLANS.

Paul W. Koebel FOR:
 Waverly Woods Development Corp. 04-02-04
 SIGNATURE OF DEVELOPER DATE

CONTRACT No. 24-4174-D

GTW'S WAVERLY WOODS

SECTION 13: OPEN SPACE LOTS 1 THRU 18
 AND BULK PARCELS 'A' THRU 'D'

WATER & SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

BENCHMARK INFORMATION

BM#1 - HOWARD COUNTY CONTROL STATION *1012 (NAD 83)
 (NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & WOODSTOCK ROAD)
 N 601,060.177
 E 1,345,336.756
 ELEVATION = 445.577

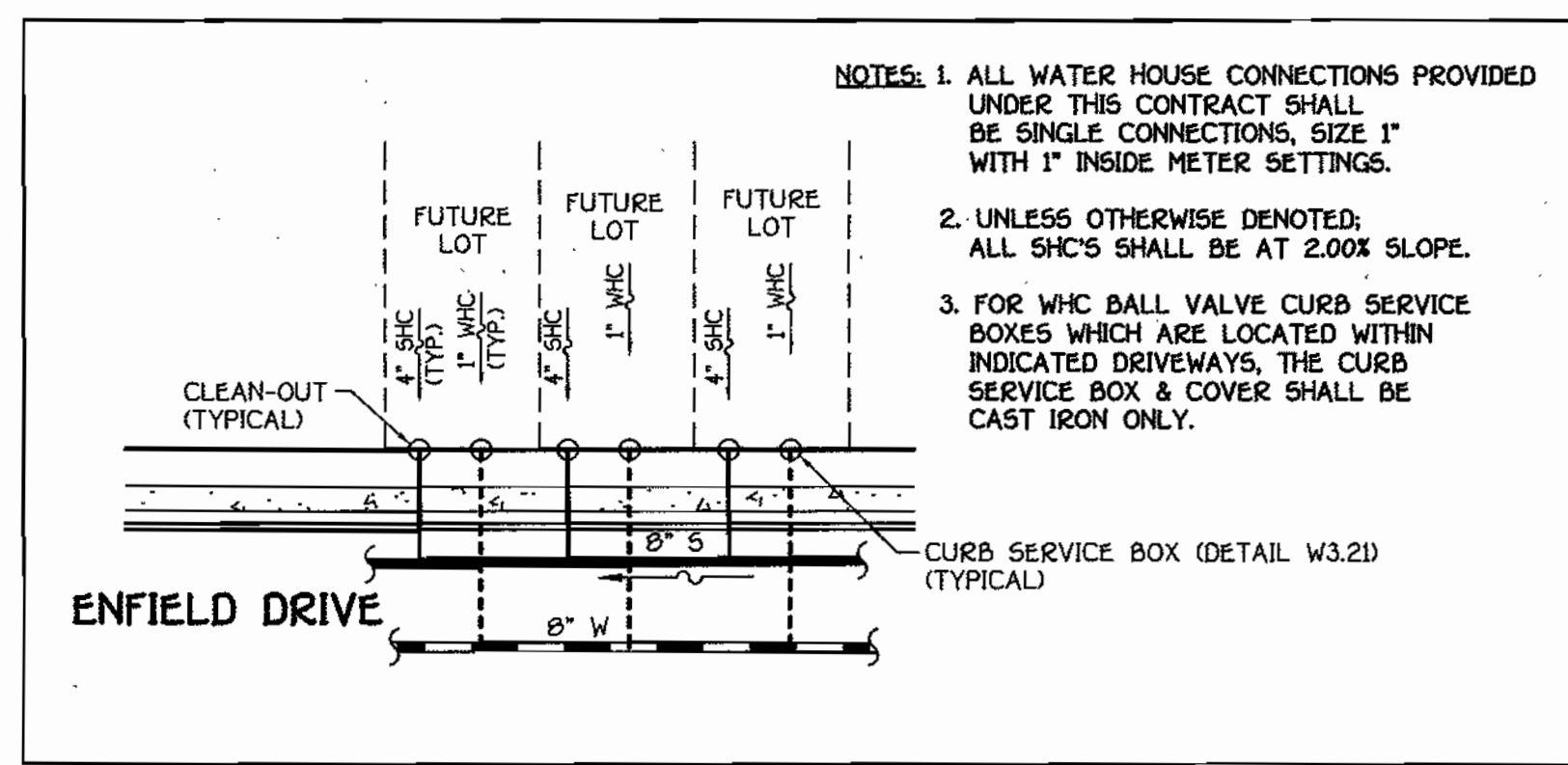
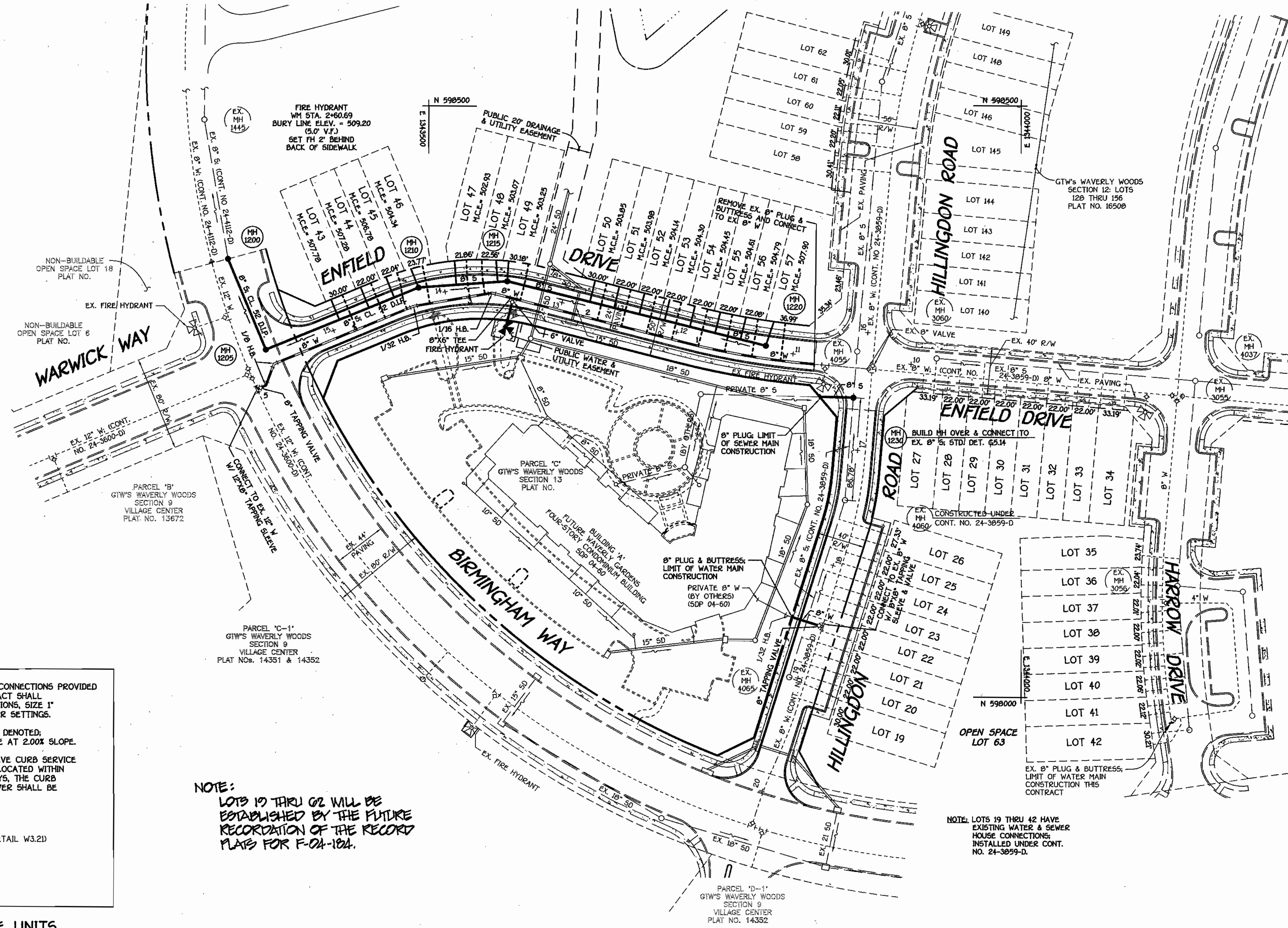
BM#2 - HOWARD COUNTY CONTROL STATION *1861 (NAD 83)
 (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTSVILLE ROAD)
 N 993,250.932
 E 1,340,192.711
 ELEVATION = 509.924

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Ralph Berman</i> 4-19-04 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>[Signature]</i> 4/30/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTRAL SQUARE OFFICE PARK - 18775 BALTIMORE NATIONAL PIKE ELICOTT CITY, MARYLAND 21041 (410) 881-2855 *9757 STATE OF MARYLAND PROFESSIONAL ENGINEER TERRELL A. FISHER	DESIGNED BY: M.D.T. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: APRIL, 2004 BY NO.	WATER AND SEWER MAINS TITLE SHEET 600' SCALE MAP NO. 16 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30903 FILE NAME: FINAL WATER AND SEWER MAINS TITLE SH	GTW'S WAVERLY WOODS SECTION 13: OPEN SPACE LOTS 1 THRU 18 AND BULK PARCELS 'A' THRU 'D' CONTRACT NO. 24-4174-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 1 OF 3
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SEE SHEET 3 OF 3 FOR WATER MAIN TABULATION CHART

SEE SHEET 3 OF 3 FOR MANHOLE TABULATION CHART

NOTE: LOTS 50 THRU 62 HAVE EXISTING WATER & SEWER HOUSE CONNECTIONS INSTALLED UNDER CONT. NO. 24-3859-D.



TYPICAL WHC & SHC DETAIL @ TOWNHOUSE UNITS

NO SCALE

NOTE: LOTS 19 THRU 42 WILL BE ESTABLISHED BY THE FUTURE RECORDATION OF THE RECORD PLATS FOR F-04-1024.

NOTE: LOTS 19 THRU 42 HAVE EXISTING WATER & SEWER HOUSE CONNECTIONS INSTALLED UNDER CONT. NO. 24-3859-D.

PLAN
SCALE: 1" = 50'

CONTRACT NO. 24-4174-D
GTW'S WAVERLY WOODS
SECTION 13: OPEN SPACE LOTS 1 THRU 18
AND BULK PARCELS A' THRU 'D'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

R. J. Berman
CHIEF, BUREAU OF UTILITIES

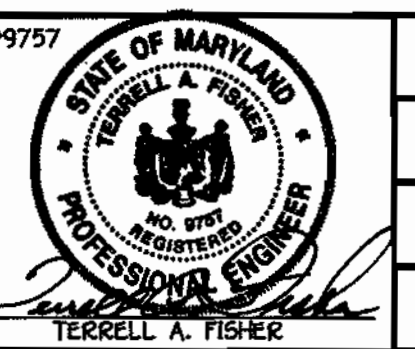
4-19-04
DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

4/21/04
DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FIRE
ELKLOTT CITY, MARYLAND 21042
(410) 461-3200



DESIGNED BY:	H.D.T.
DRAWN BY:	H.D.T.
CHECKED BY:	P.W.K.
DATE:	APRIL, 2004
BY:	NO.
REVISION:	

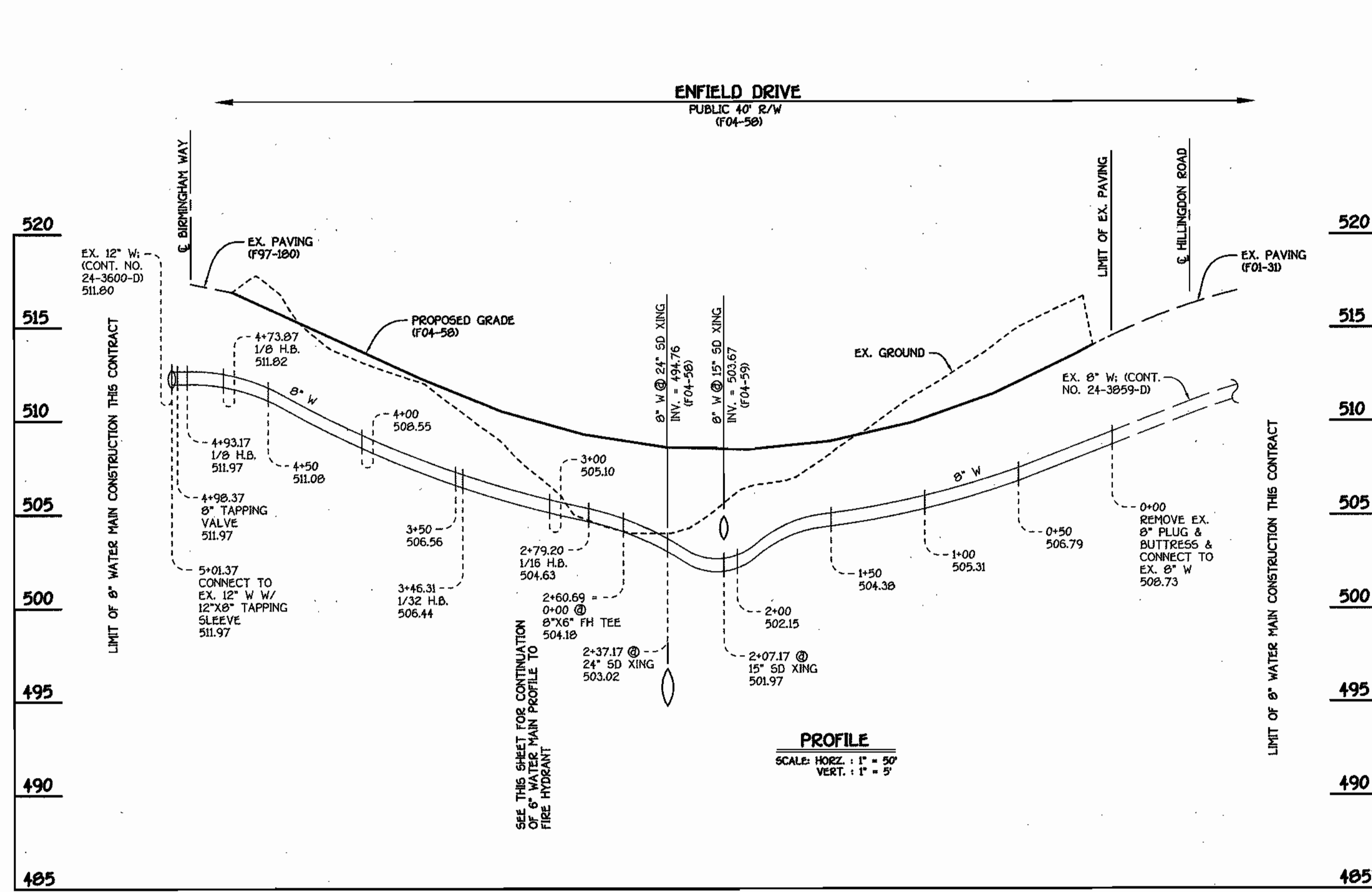
WATER AND SEWER MAINS PLAN	
60' SCALE MAP NO.	36 BLOCK NO. 5
F.C.C. WORK ORDER NO.	30903
FILE NAME:	FINAL WATER AND SEWER MAINS PLAN SH1

GTW'S WAVERLY WOODS
SECTION 13: OPEN SPACE LOTS 1 THRU 18
AND BULK PARCELS A' THRU 'D'
CONTRACT NO. 24-4174-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

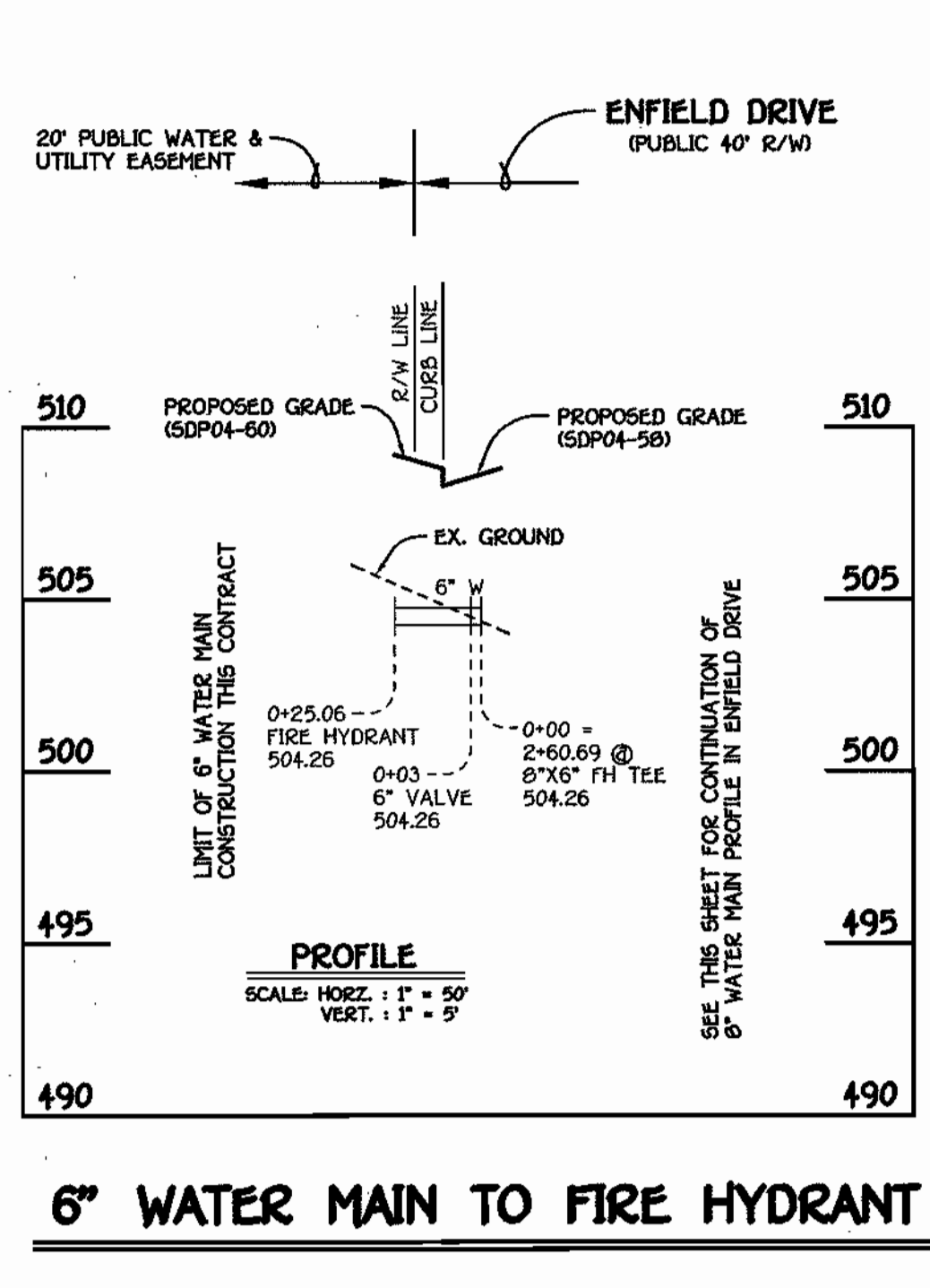
SCALE AS SHOWN

SHEET 2 OF 3

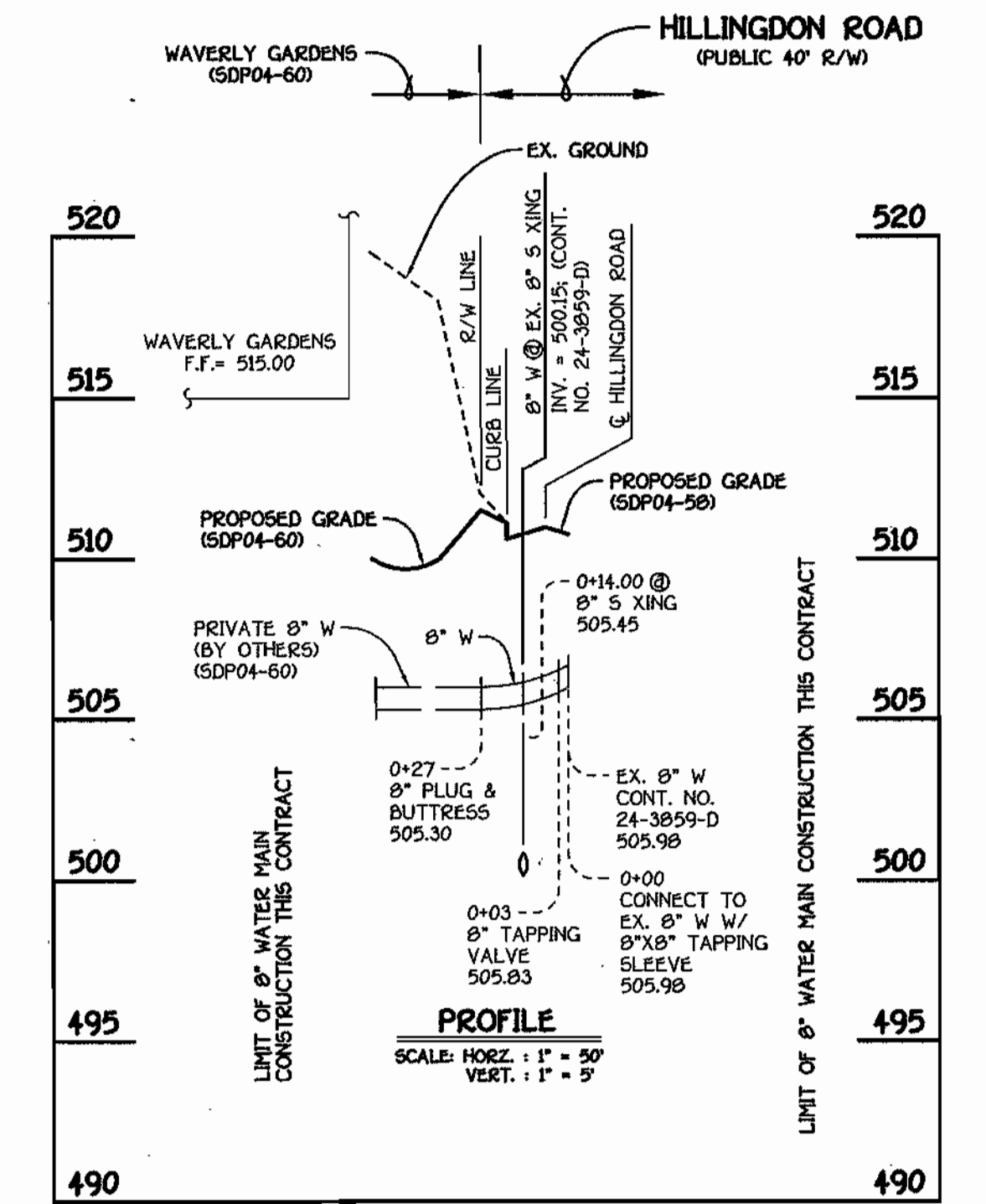
K:\ISDK\PROJ\0803 GTW\ENFIELD ROAD\DWG\WSS\WSS\Final\0803 Final Water and Sewer Plan Sh1.dwg, 4/22/04, 1:41:44 PM



8" WATER MAIN: ENFIELD DRIVE



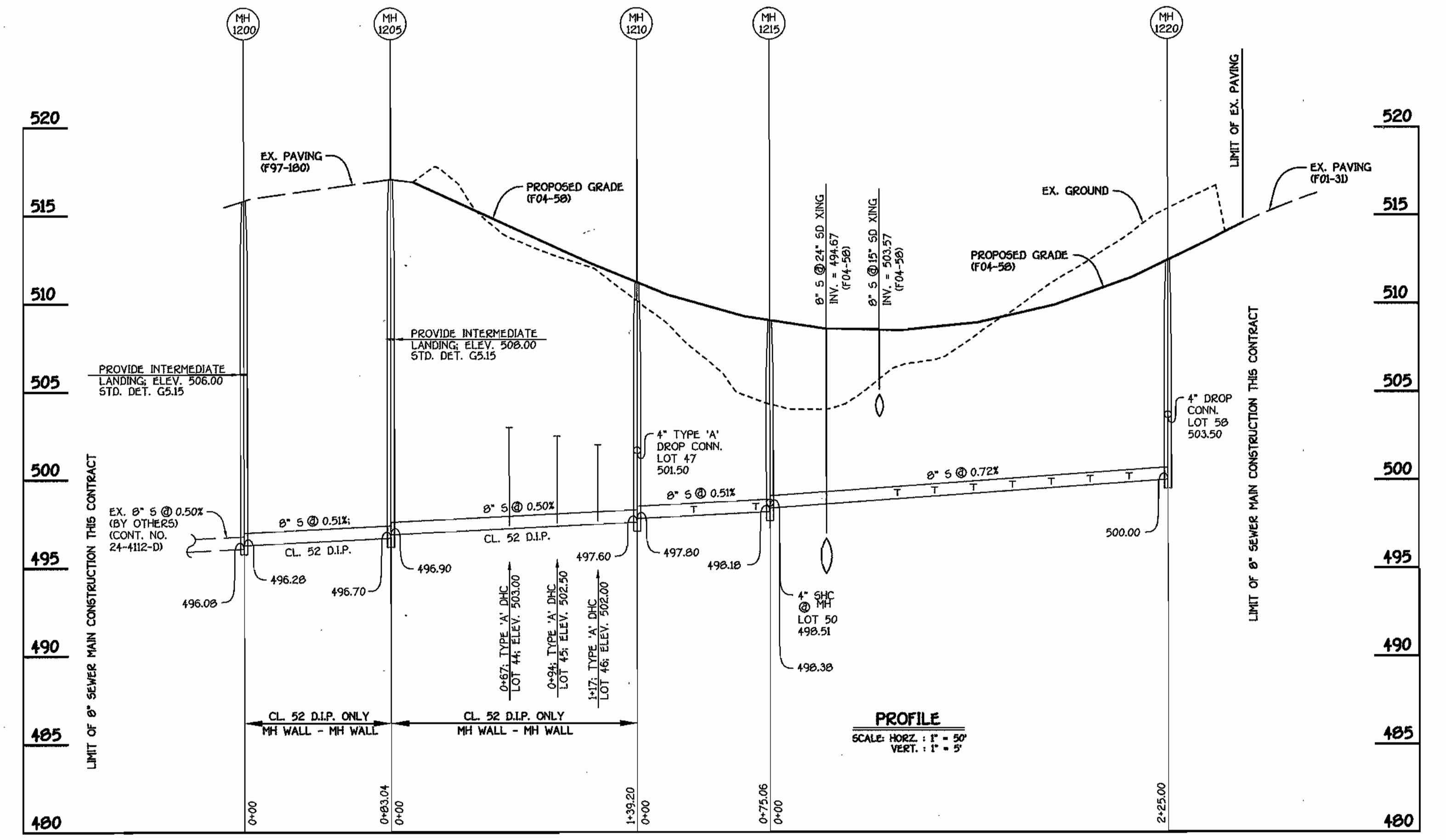
6" WATER MAIN TO FIRE HYDRANT



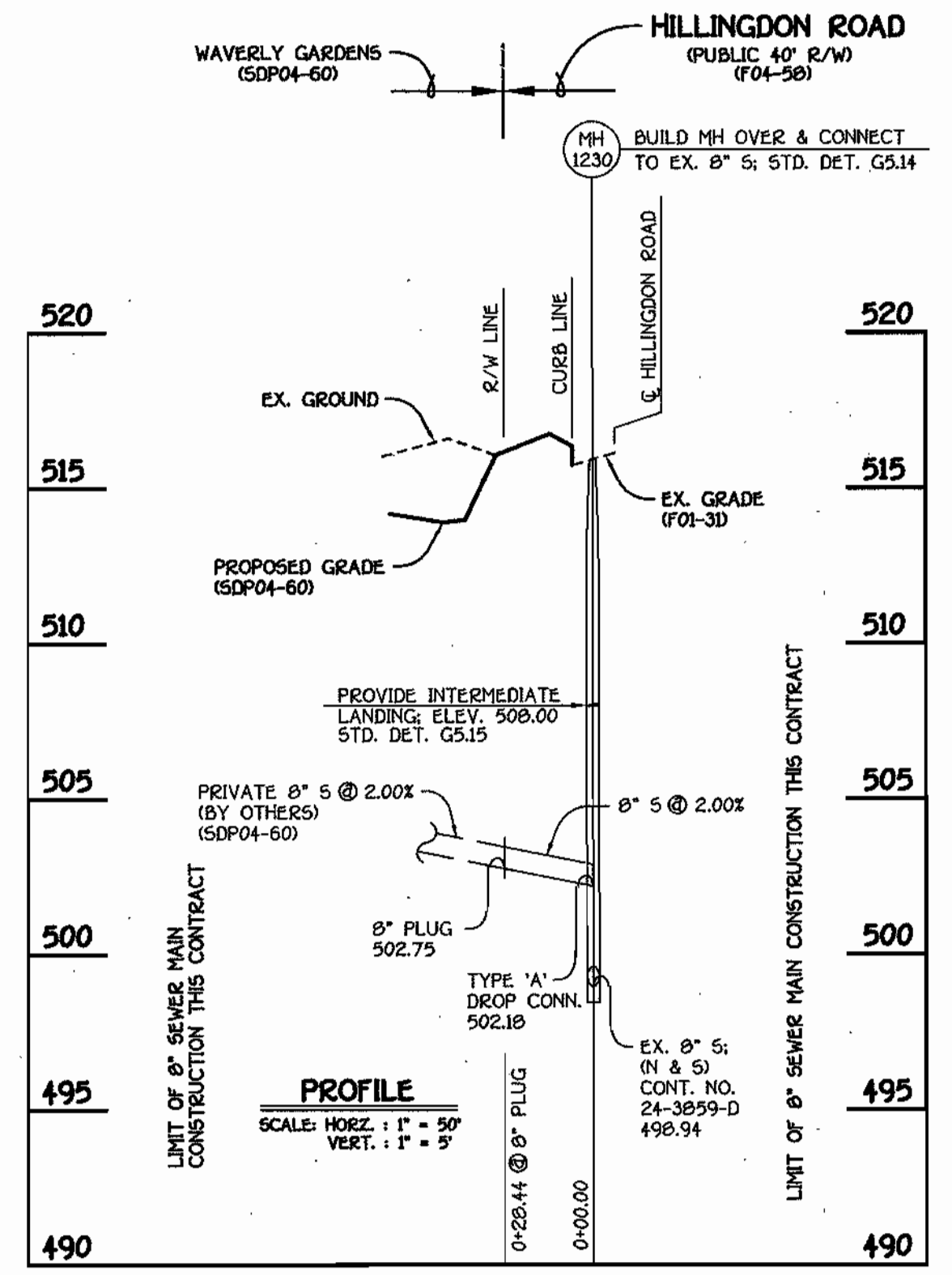
8" WATER MAIN TO WAVERLY GARDENS

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	E. ROAD STATION	DISTANCE
8" W ENFIELD DRIVE			
0+00.00	CONNECT TO EX. 8" W	10+81.29	7.00' LT.
0+02.09	P.C. (CRMP RADIUS = 657')	10+83.38	7.00' LT.
1+12.35	P.T. (CRMP RADIUS = 657')	11+92.49	7.00' LT.
2+60.89	8" X 6" FH TEE	13+41.50	5.66' LT.
2+79.20	1/16 H.B.	13+60.21	3.00' LT.
3+46.31	1/32 H.B.	14+29.14	6.04' LT.
4+73.87	1/8 H.B.	15+57.34	7.00' LT.
4+93.17	1/8 H.B.	15+70.56	21.06' LT.
4+98.37	8" TAPPING VALVE	15+75.76	21.22' LT.
5+01.37	12" X 8" TAPPING SLEEVE	15+78.76	21.31' LT.
6" W TO FIRE HYDRANT			
0+00.00	8" X 6" FH TEE	13+41.50	5.66' LT.
0+03.00	6" VALVE	13+41.84	8.84' LT.
8" W TO WAVERLY GARDENS (HILLINGDON ROAD)			
0+26.05	FIRE HYDRANT	598312.94	1343565.01
8" W TO WAVERLY GARDENS (HILLINGDON ROAD)			
0+06.00	8" X 8" TAPPING SLEEVE	10+52.10	7.00' LT.
0+03.00	8" TAPPING VALVE	10+52.10	4.00' LT.
0+27.00	8" PLUG & BUTTRESS	10+52.10	20.00' RT.

NOTE: SET ALL MH RIMS FLUSH W/ EXISTING PAVING OR PROPOSED FINISHED GRADE AS APPLICABLE. SEE MANHOLE TABULATION CHART THIS SHEET.



8" SEWER MAIN: ENFIELD DRIVE



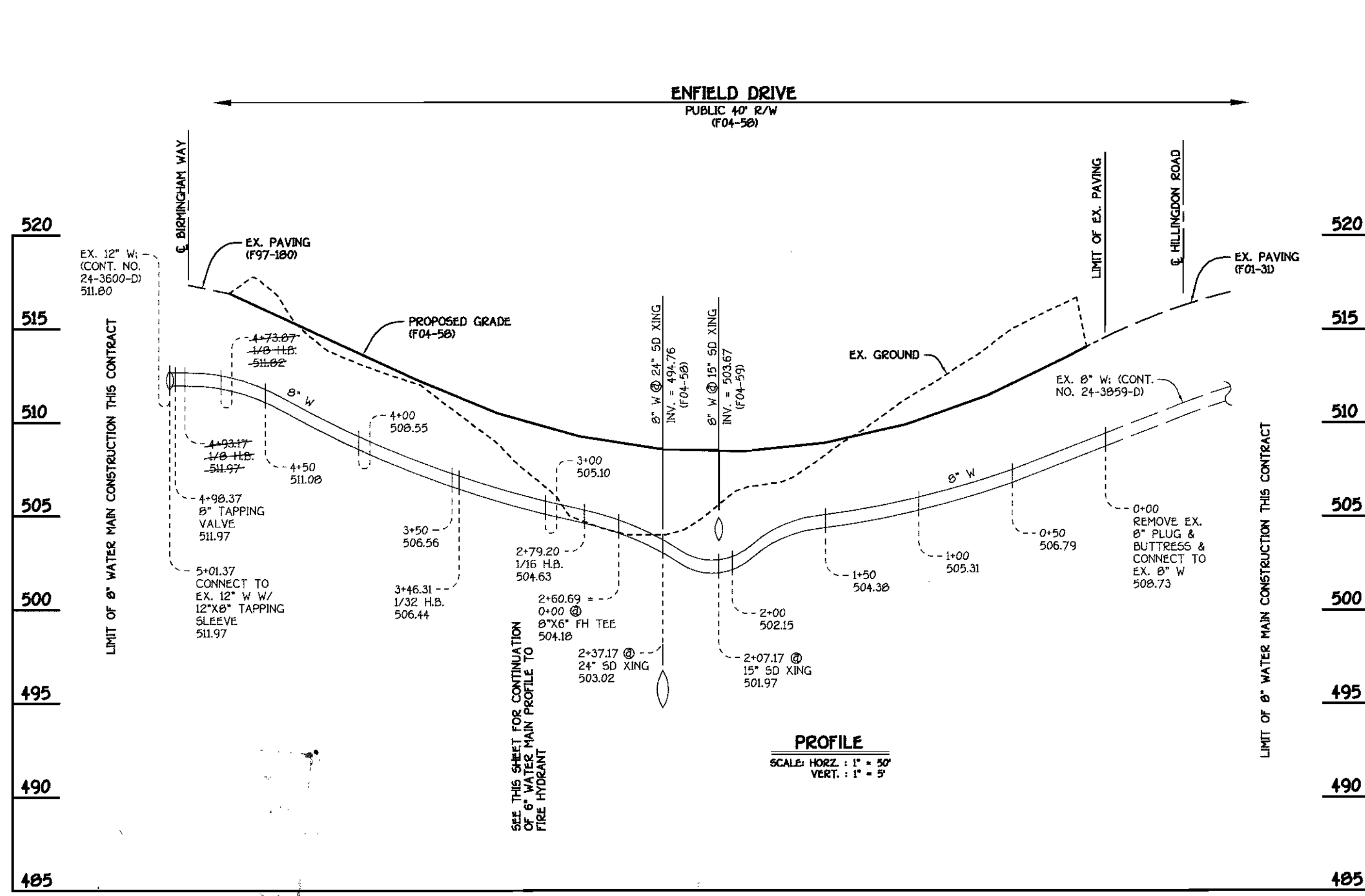
8" SEWER MAIN TO WAVERLY GARDENS

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 1205 TO MH 1210		
0+87 LT.	44 (DHC)	503.30
0+94 LT.	45 (DHC)	502.80
1+17 LT.	46 (DHC)	502.30
① MH 1210 LT.	47 (DROP CONN. @ MH)	501.84
MH 1210 TO MH 1215		
0+32 LT.	48	498.53
0+67 LT.	49	498.67
① MH 1215 LT.	50 (SHC @ MH)	498.85
MH 1215 TO MH 1220		
0+72 LT.	51	499.45
0+93 LT.	52	499.56
1+15 LT.	53	499.74
1+37 LT.	54	499.90
1+59 LT.	55	500.05
1+81 LT.	56	500.21
2+03 LT.	57	500.39
① MH 1220 LT.	58 (DROP CONN. @ MH)	503.92

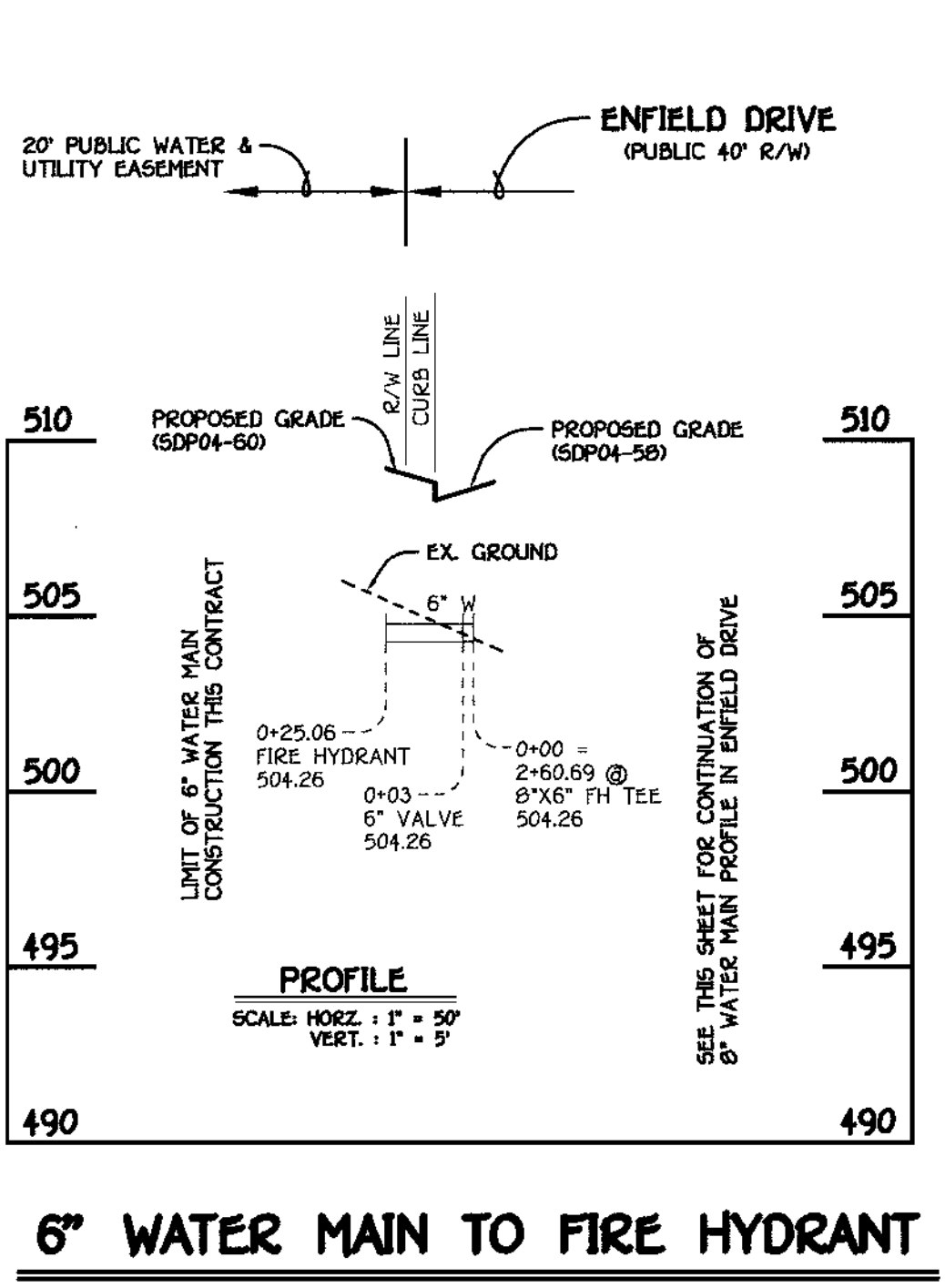
MANHOLE TABULATION CHART				
NO.	E. ROAD STATION	NORTHING	EASTING	RIM ELEVATION
1200	---	598370.66	1343330.58	515.83**
1205	---	598293.98	1343362.47	517.05**
DISTANCE				
1210	14+20.83 ENFIELD DRIVE	8.00' RT.	+3.64X	510.81*
1215	13+48.26 ENFIELD DRIVE	8.00' RT.	-1.44X	508.74*
1220	11+24.19 ENFIELD DRIVE	7.00' RT.	-5.12X	512.43*
1230	16+56.00 HILLINGDON ROAD	7.00' RT.	-1.04X	515.94**

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE
** SET MH RIMS FLUSH W/ EXISTING PAVING

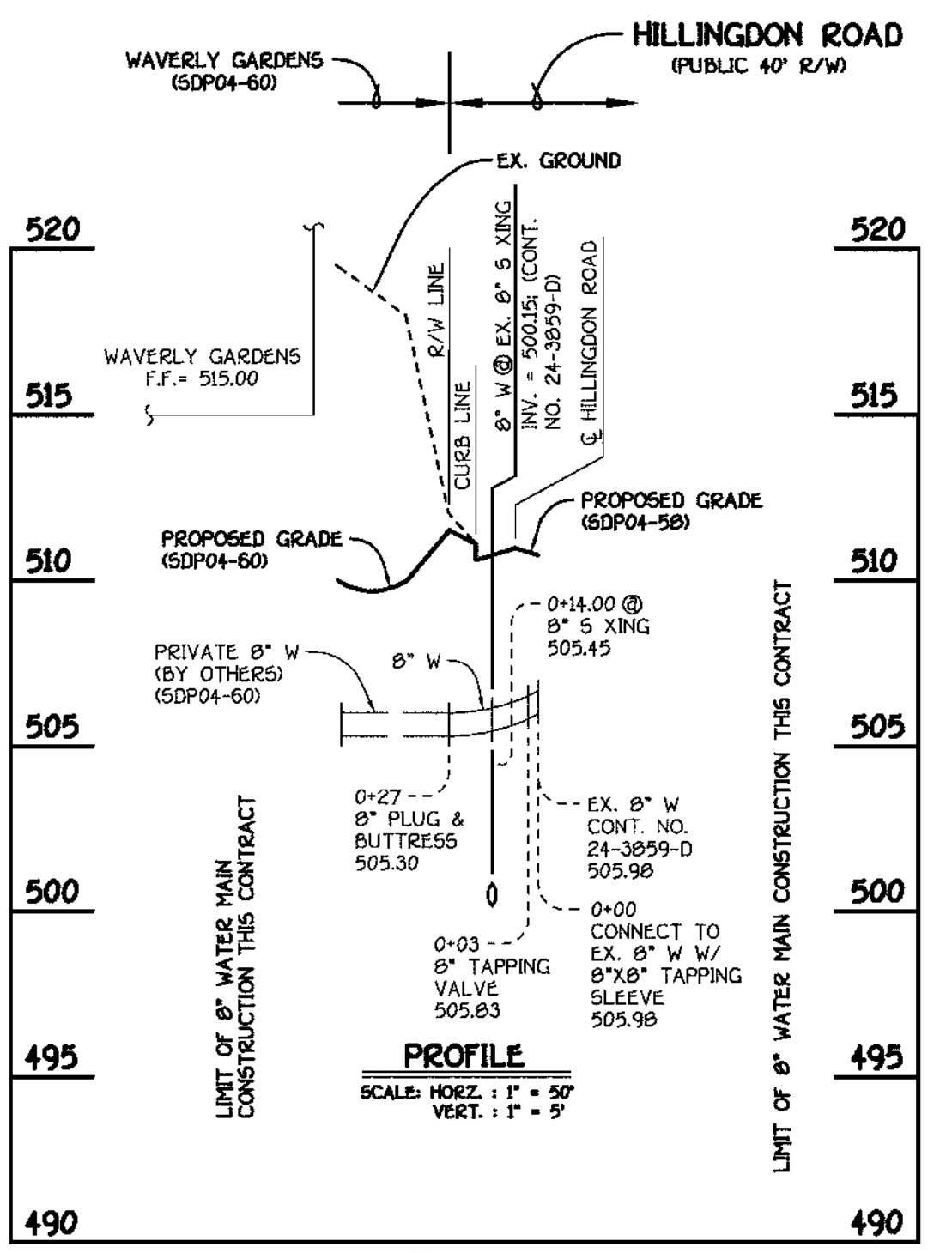
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 4-19-04 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND DATE: 4/19/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS 10272 BALTIMORE NATIONAL PIKE ELLETTT CITY, MARYLAND 21042 4101-401 - 2025	STATE OF MARYLAND PROFESSIONAL ENGINEER TERRELL A. FISHER	DESIGNED BY: M.D.T. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: APRIL, 2004	WATER AND SEWER MAINS PROFILES 600' SCALE MAP NO. 16 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30803 FILE NAME: 30803 FINAL WATER AND SEWER MAINS PROFILES	GTW'S WAVERLY WOODS SECTION 13: OPEN SPACE LOTS 1 THRU 18 AND BULK PARCELS 'A' THRU 'D' CONTRACT NO. 24-4174-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 3 OF 3
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8" WATER MAIN: ENFIELD DRIVE



6" WATER MAIN TO FIRE HYDRANT



8" WATER MAIN TO WAVERLY GARDENS

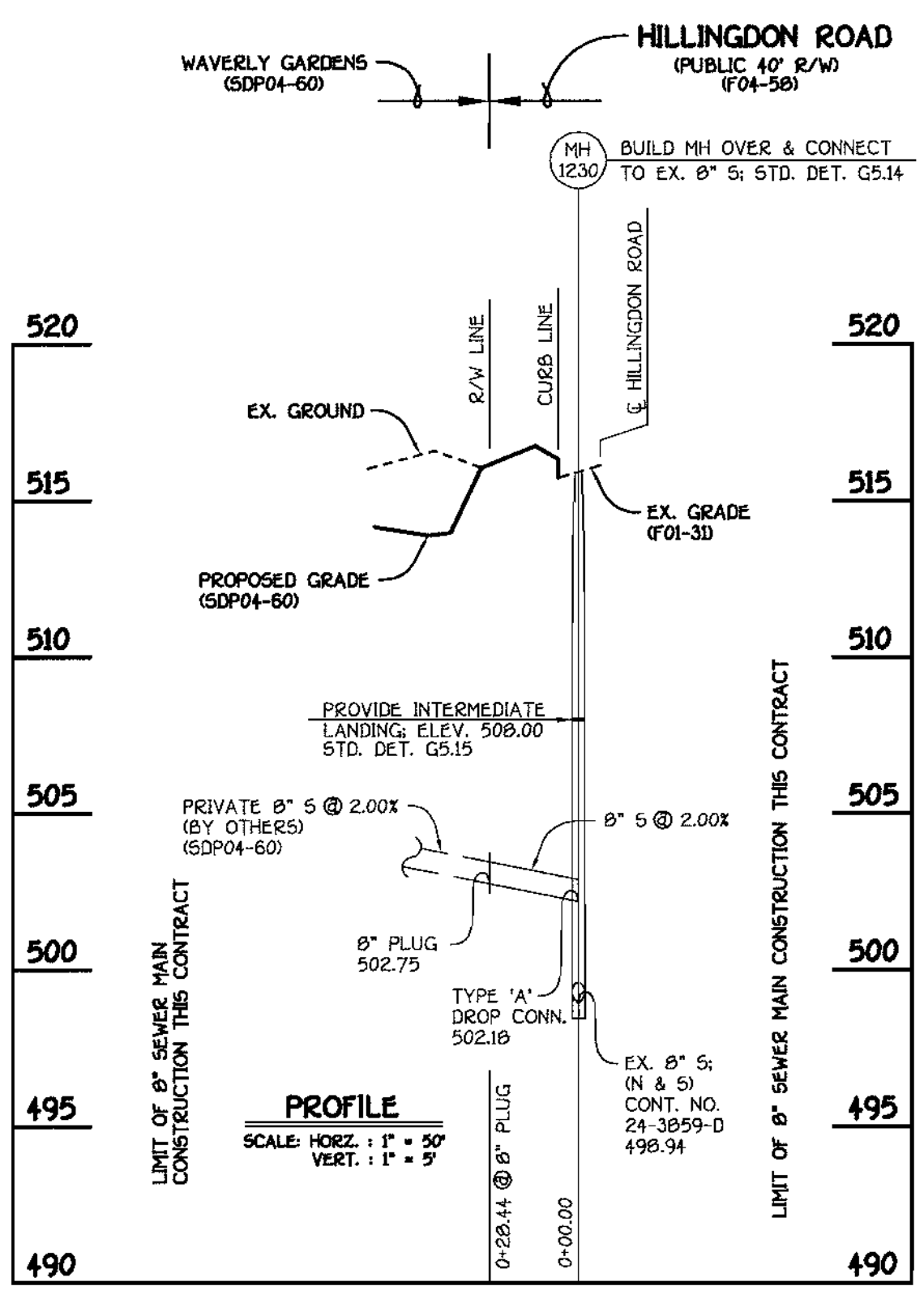
WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	ROAD STATION	DISTANCE
8" W/ ENFIELD DRIVE			
0+00.00	CONNECT TO EX. 8" W	10+01.29	7.00' LT.
0+02.09	P.C. (CRMP RADIUS = 657')	10+03.36	7.00' LT.
1+12.35	P.T. (CRMP RADIUS = 657')	11+92.49	7.00' LT.
2+60.69	8" X 6" FH TEE	13+41.50	5.86' LT.
2+79.20	1/16 H.B.	13+60.21	3.00' LT.
3+46.31	1/32 H.B.	14+29.14	6.04' LT.
4+73.87	1/8 H.B.	15+57.34	7.00' LT.
4+93.17	1/8 H.B.	15+70.56	21.06' LT.
4+98.37	8" TAPPING VALVE	15+75.76	21.22' LT.
5+01.37	12" X 8" TAPPING SLEEVE	15+78.76	21.31' LT.
8" W TO FIRE HYDRANT			
0+00.00	8" X 6" FH TEE	13+41.50	5.86' LT.
0+03.00	6" VALVE	13+41.84	0.84' LT.
NORTHING EASTING			
FIRE HYDRANT 598312.94 1343565.01			
8" W TO WAVERLY GARDENS HILLINGTON ROAD			
0+00.00	8" X 8" TAPPING SLEEVE	18+52.10	7.00' LT.
0+03.00	8" TAPPING VALVE	18+52.10	4.00' LT.
0+27.00	8" PLUG & BUTTRESS	18+52.10	20.00' RT.

NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 3 OF 3, SUPERSEDES THE WATER AND SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION, DEPARTMENT OF PLANNING AND ZONING ON APRIL 30, 2004.

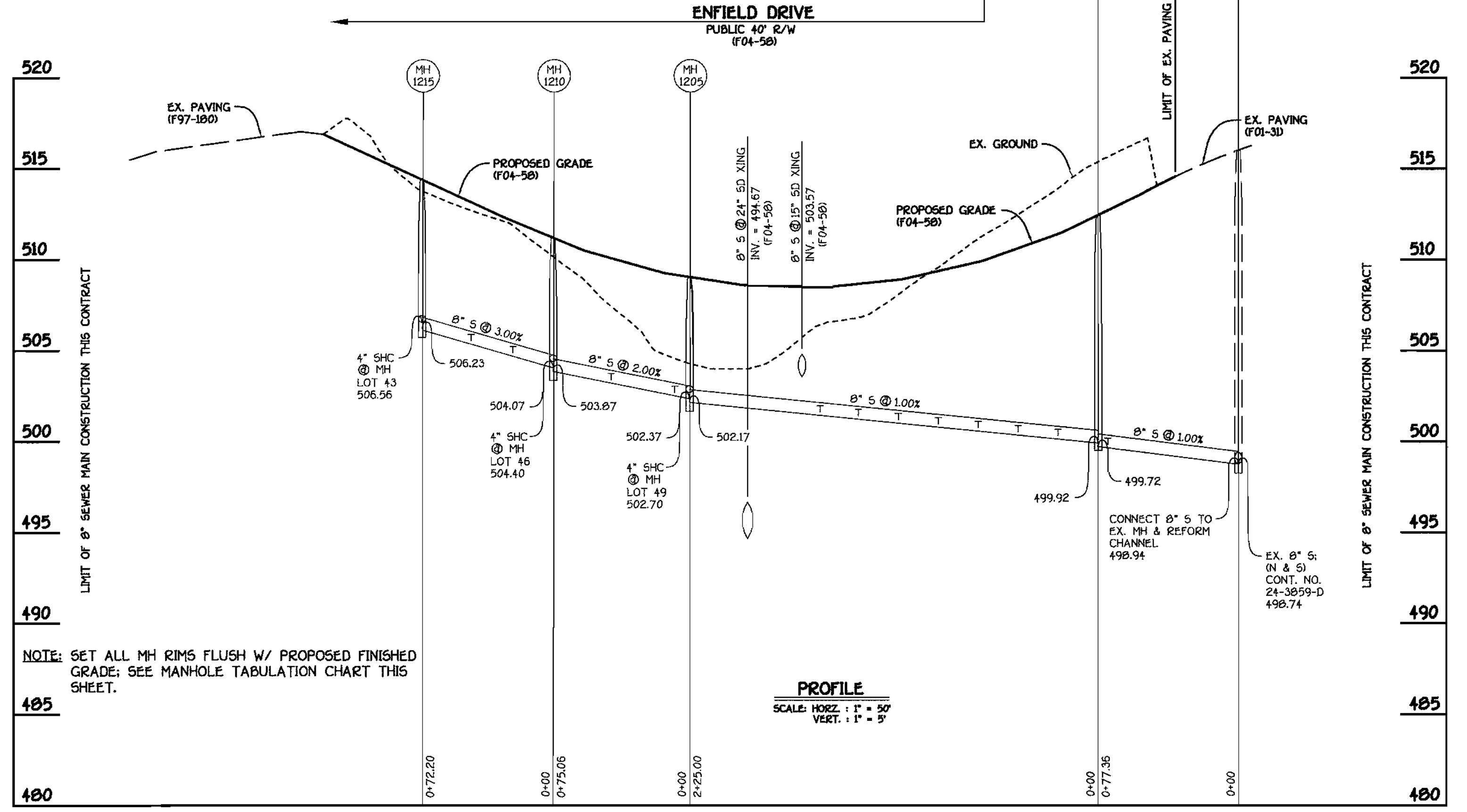
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
EX. MH 4055 TO MH 1200		
0+72 RT.	57	500.25
MH 1200 TO MH 1205		
0+22 RT.	56	500.71
0+44 RT.	55	500.91
0+66 RT.	54	501.11
0+88 RT.	53	501.33
1+10 RT.	52	501.57
1+32 RT.	51	501.79
1+53 RT.	50	502.00
⊙ MH 1205 RT.	49	502.84
MH 1205 TO MH 1210		
0+08 RT.	48	503.08
0+43 RT.	47	503.82
⊙ MH 1210 RT.	46	504.56
MH 1210 TO MH 1215		
0+22 RT.	45	505.28
0+45 RT.	44	505.97
⊙ MH 1215 RT.	43	506.94

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
1200	598297.33	1343784.57	512.44*
1205	598351.82	1343566.26	509.05*
1210	598346.44	1343491.40	511.21*
1215	598319.31	1343424.71	514.40*

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE



8" SEWER MAIN TO WAVERLY GARDENS



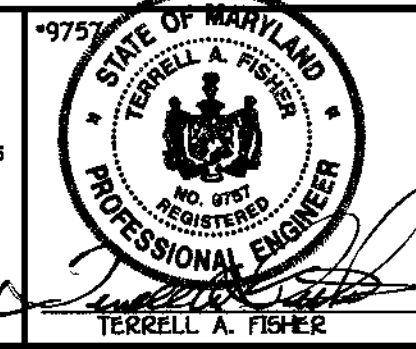
8" SEWER MAIN: ENFIELD DRIVE

CONTRACT NO. 24-4174-D
GTW'S WAVERLY WOODS
SECTION 13: LOTS 19 THRU 63
AND BULK PARCEL 'E'
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
DATE: 11-2-04

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
DATE: 11/17/04

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERS CONSULTANTS & LAND SURVEYORS
TERRELL A. FISHER



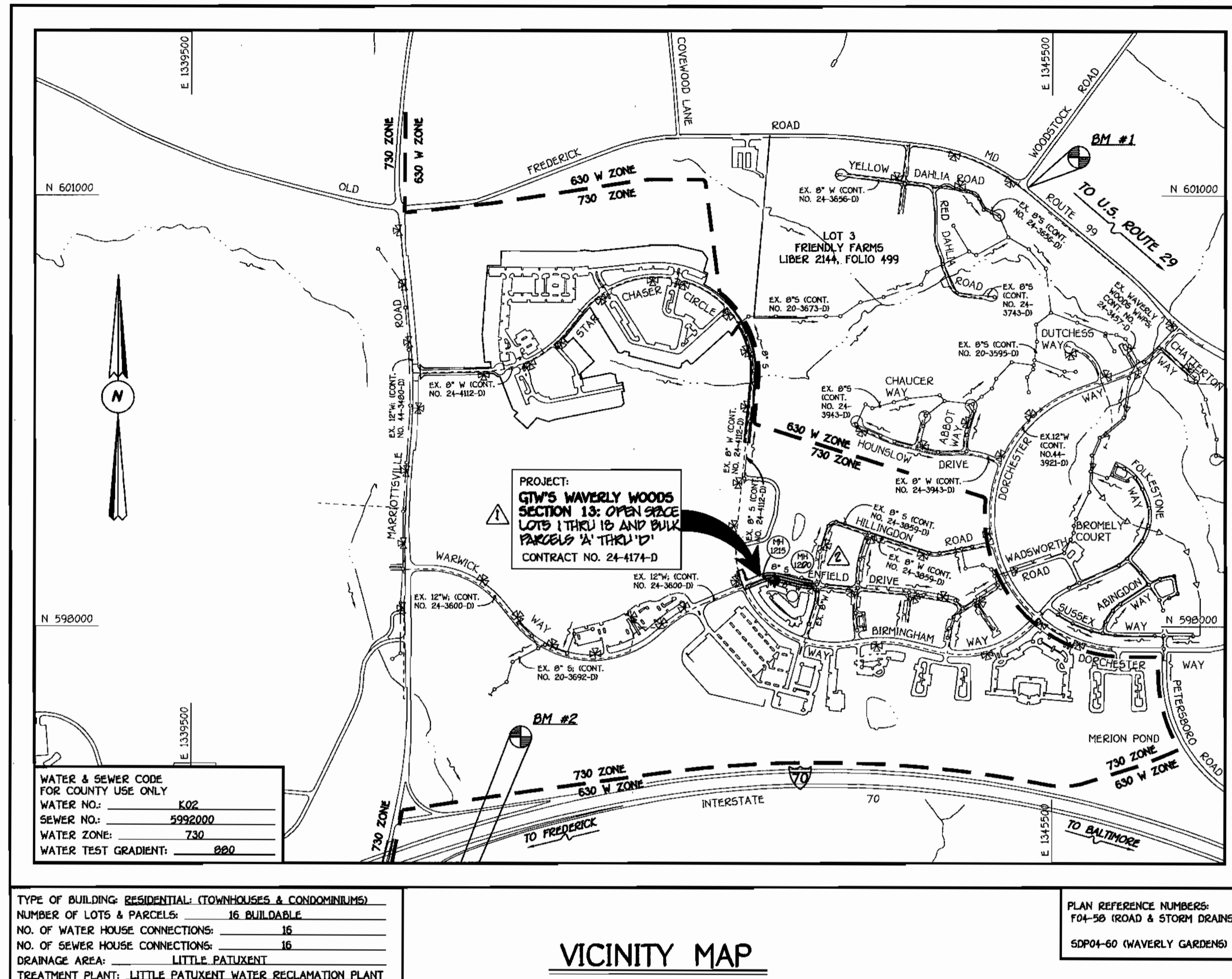
DESIGNED BY: M.D.T.
DRAWN BY: M.D.T.
CHECKED BY: P.W.K.
DATE: OCTOBER, 2004
BY NO. REVISION

WATER AND SEWER MAINS PROFILES
600' SCALE MAP NO. 16 BLOCK NO. 5
F.C.C. WORK ORDER NO. 30803
FILE NAME: 30803 FINAL WATER AND SEWER MAINS PROFILES

GTW'S WAVERLY WOODS
SECTION 13: LOTS 19 THRU 63
AND BULK PARCEL 'E'
CONTRACT NO. 24-4174-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN
SHEET 3 OF 3

ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	528.37 L.F.	506	DIP	GRIFFIN / BRS
6" WATER	25.06 L.F.	25	"	"
1" WATER	481 L.F.	481	COPPER	READINGS /
FIRE HYDRANTS	1 EACH	1EA	U.S.	U.S. /
12" X 8" TAPPING SLEEVE & VALVE	1 EACH	1EA	STAINLESS STEEL	"
8" X 8" TAPPING SLEEVE & VALVE	1 EACH	1EA	"	"
8" X 6" TEE	1 EACH	1EA	DIP	"
6" VALVE	1 EACH	1EA	U.S.	"
1/8" H.B.	2 EACH	0	J-M	"
1/16" H.B.	1 EACH	1EA	DIP	"
1/32" H.B.	1 EACH	0	"	"
8" PLUG & BUTTRESS	1 EACH	1EA	DIP	"
8" SEWER	440.82 L.F.	459	PVC	J.M.M.F.G.
4" SEWER	278 L.F.	273	PVC	"
MANHOLES	6 EACH	5	PRECAST CONCRETE	ATLANTIC
8" PLUG	1 EACH	1	PVC	J.M.M.F.G. / BRS

NAME OF UTILITY CONTRACTOR: C.C.S.
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



GENERAL NOTES

- PART I
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. 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, NAD 83/91.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). 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 LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - AT&T 1-800-252-1133
 - BGE (CONTRACTOR SERVICES) 410-850-4620
 - BGE (UNDERGROUND DAMAGE CONTROL) 410-787-9068
 - BUREAU OF UTILITIES 410-313-4900
 - COLONIAL PIPELINE CO. 410-795-1390
 - MISS UTILITY 1-800-297-7777
 - STATE HIGHWAY ADMINISTRATION 410-531-5533
 - VERIZON 1-800-743-0033/410-224-9210
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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 THE CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)-313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.14(a) OF THE HOWARD COUNTY CODE.
- PART II: WATER
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER
- 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.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL G5.52 WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

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 THE 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. Keibel FOR: 04-02-04
 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. Keibel 04-02-04
 SIGNATURE OF ENGINEER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 Jim Meyer 4/26/04
 H.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: J.P.L. Robinson 4/26/04
 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 SD004-60 AND ON THESE PLANS.
 Paul W. Keibel FOR: 04-02-04
 Waverly Woods Development Corp. DATE
 SIGNATURE OF DEVELOPER

CONTRACT No. 24-4174-D

GTW'S WAVERLY WOODS

SECTION 13: OPEN SPACE LOTS 1 THRU 18 AND BULK PARCELS 'A' THRU 'D'

WATER & SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 R. L. M. Dennis 4-19-04
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 4/26/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 10772 BALTIMORE NATIONAL Pkwy.
 ELICOTT CITY, MARYLAND 21042
 (410) 481-2895

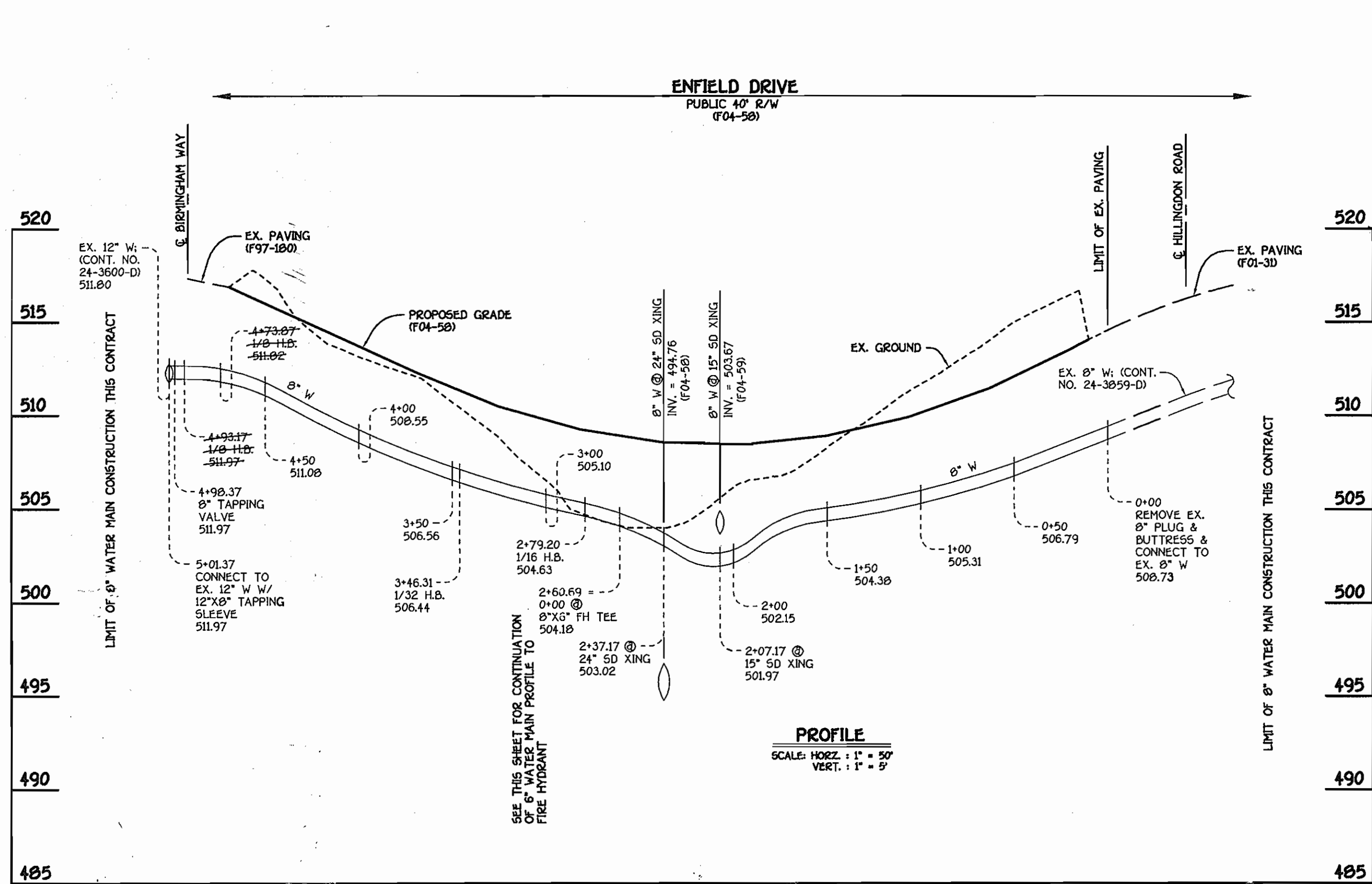
STATE OF MARYLAND
 TERRILL A. FISHER
 PROFESSIONAL ENGINEER
 NO. 9757

DESIGNED BY:	M.D.T.	KCI	AS-BUILT DATA ADDED	03/27/04
DRAWN BY:	M.D.T.	KCI	AS-BUILT DATA ADDED	11/26/04
CHECKED BY:	P.W.K.	FCU	REVISE QUANTITY FOR 8" SEWER	10/26/04
		FCU	REVISE SEWER MAIN ALIGNMENT	10/26/04
		FCU	REVISE TITLE FOR CONFORMITY WITH RECORDED PLANS	03/21/04
DATE:	APRIL, 2004	BY:	NO.	REVISION

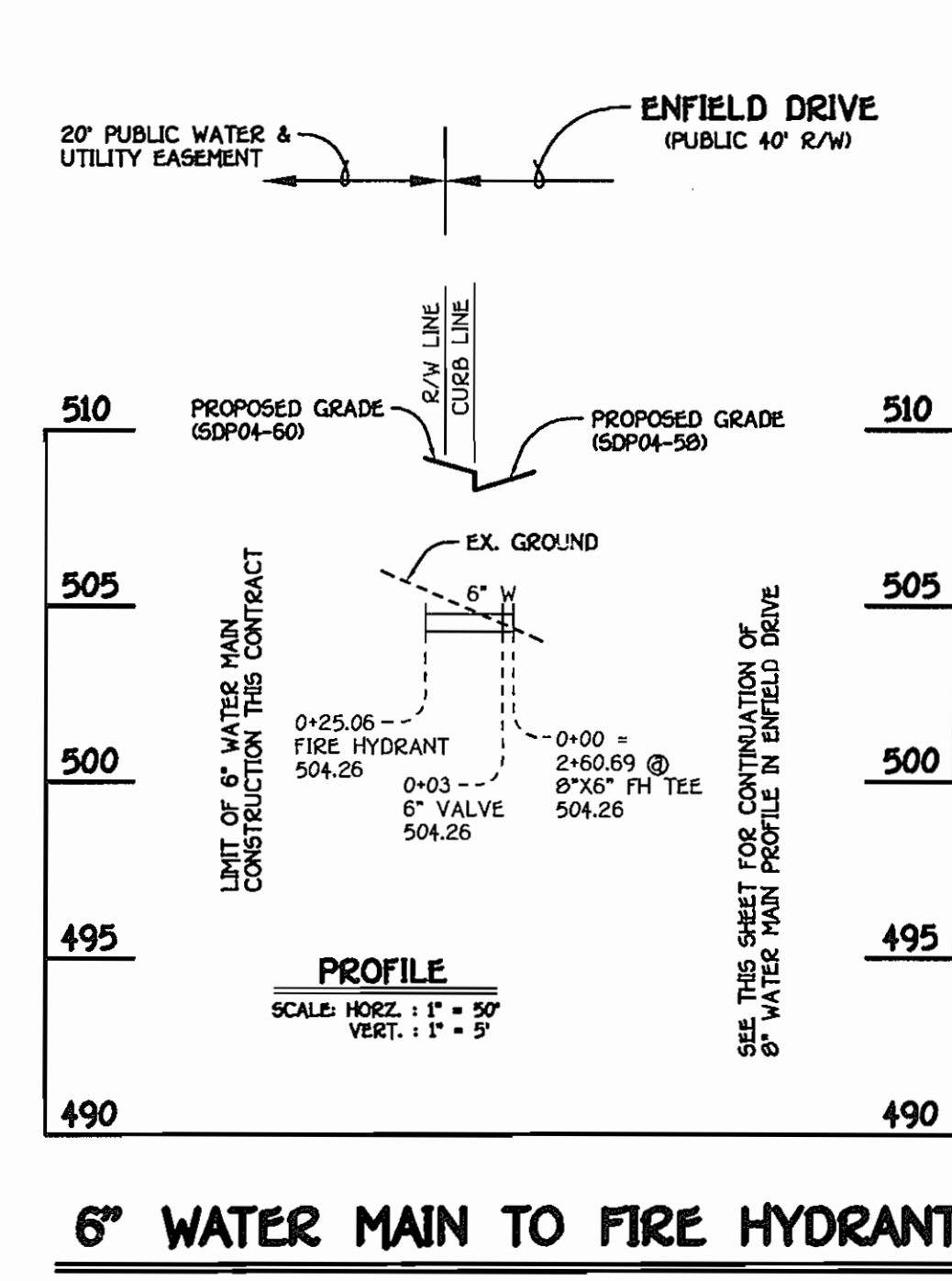
WATER AND SEWER MAINS
 TITLE SHEET
 600' SCALE MAP NO. 16 BLOCK NO. 5
 F.C.C. WORK ORDER NO. 30803
 FILE NAME: FINAL WATER AND SEWER MAINS TITLE SHT

GTW'S WAVERLY WOODS
 SECTION 13: OPEN SPACE LOTS 1 THRU 18 AND BULK PARCELS 'A' THRU 'D'
 CONTRACT NO. 24-4174-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 1 OF 3

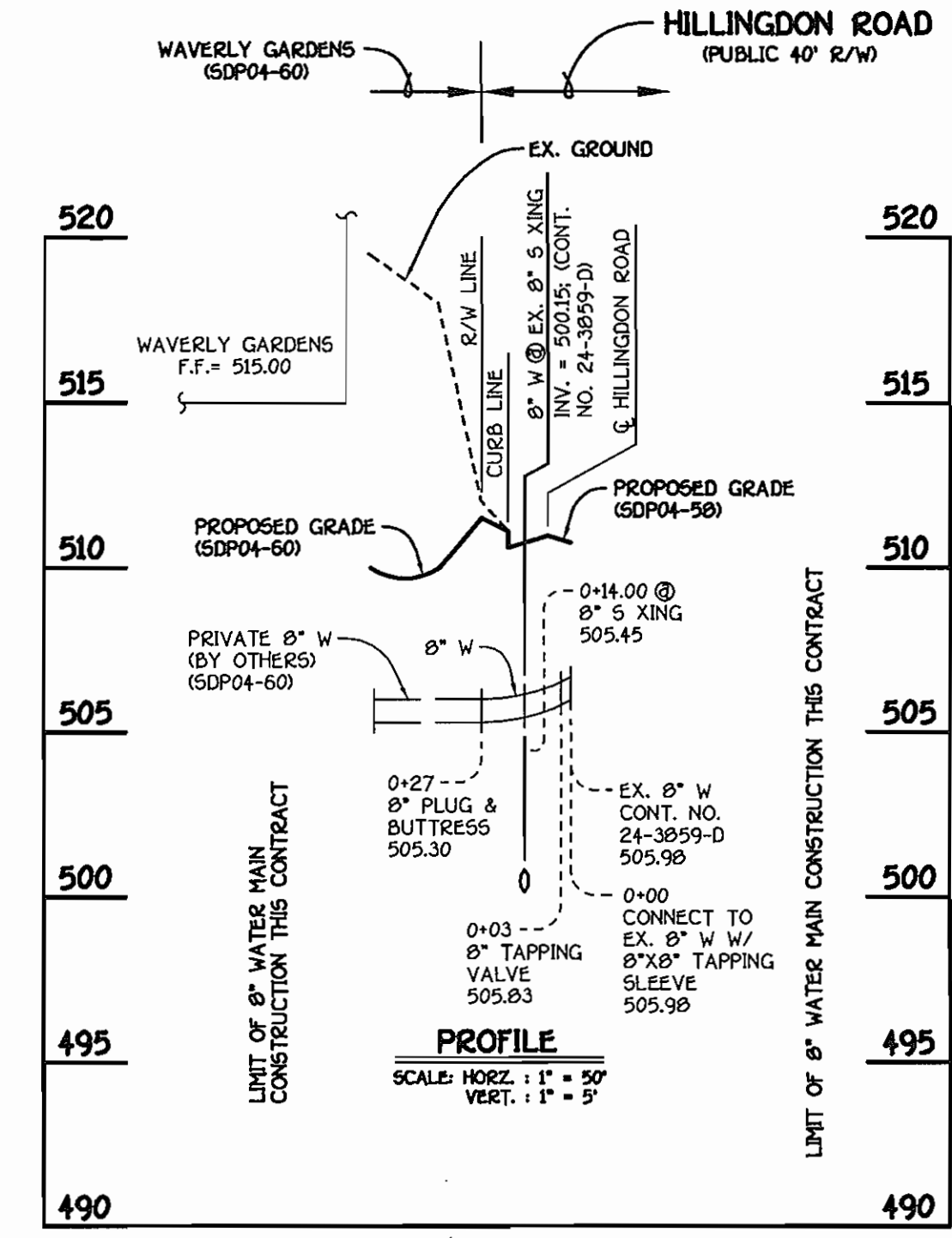
CONTRACT NO. 24-4174-D
 GTW'S WAVERLY WOODS
 SECTION 13: OPEN SPACE LOTS 1-18
 AND BULK PARCELS 'A' THRU 'D'
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND



8" WATER MAIN: ENFIELD DRIVE



6" WATER MAIN TO FIRE HYDRANT



8" WATER MAIN TO WAVERLY GARDENS

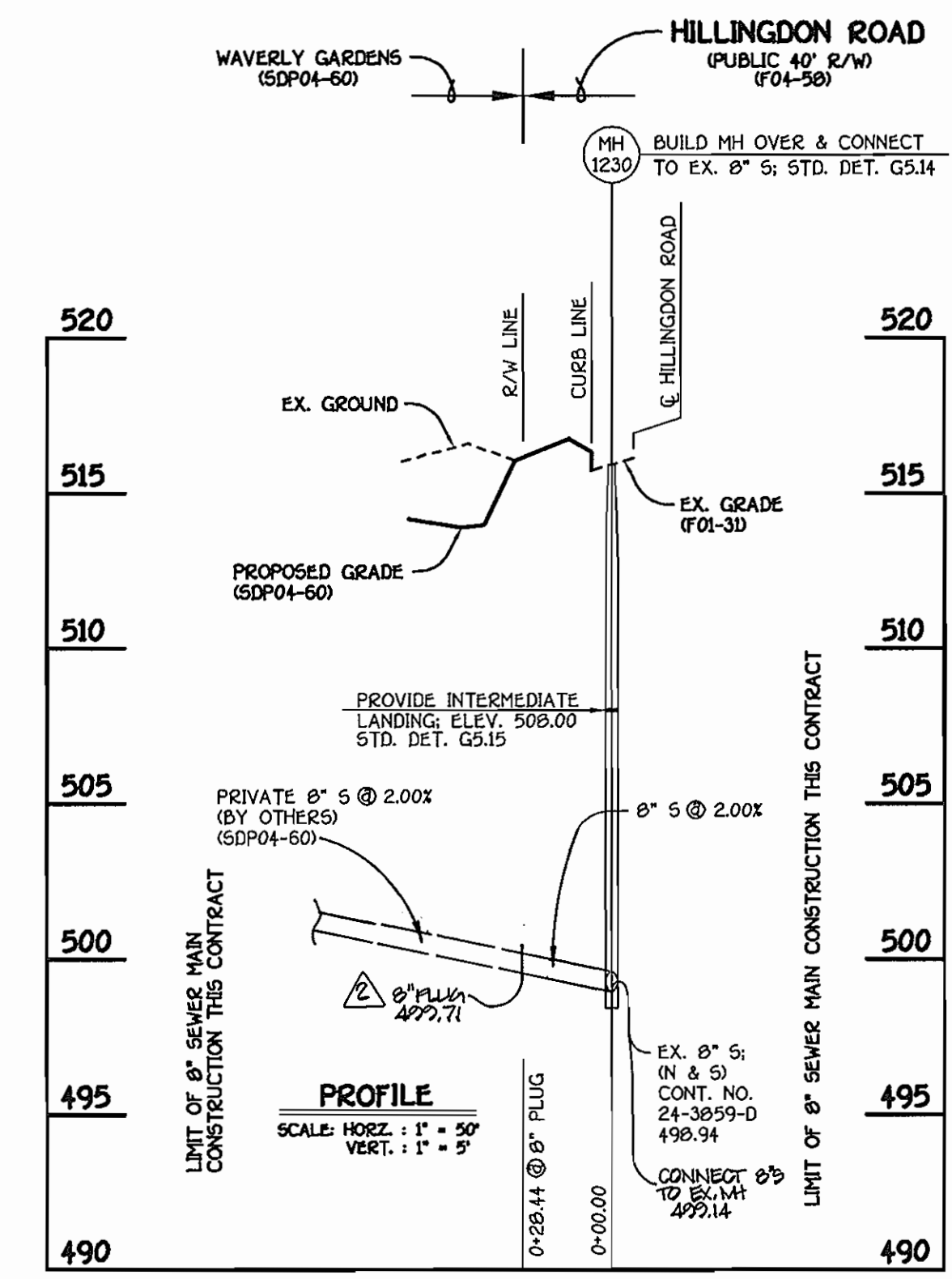
WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	ROAD STATION	DISTANCE
8" W ENFIELD DRIVE			
0+00.00	CONNECT TO EX. 8" W	10+01.29	7.00' LT.
0+02.09	P.C. (CRIMP RADIUS = 6577)	10+03.38	7.00' LT.
1+12.35	P.T. (CRIMP RADIUS = 6577)	11+92.49	7.00' LT.
2+60.69	8" X 6" FH TEE	13+41.50	5.86' LT.
2+79.20	1/16 H.B.	13+60.21	3.00' LT.
3+46.31	1/32 H.B.	14+29.14	6.04' LT.
4+73.87	1/8 H.B.	15+57.34	7.00' LT.
4+93.17	1/8 H.B.	15+70.56	21.06' LT.
4+98.37	8" TAPPING VALVE	15+75.76	21.22' LT.
5+01.37	12" X 8" TAPPING SLEEVE	15+78.76	21.31' LT.
6" W TO FIRE HYDRANT			
0+00.00	8" X 6" FH TEE	13+41.50	5.86' LT.
0+03.00	6" VALVE	13+41.84	0.84' LT.
NORTHING EASTING			
FIRE HYDRANT		598312.94	1343565.01
8" W TO WAVERLY GARDENS HILLINGTON ROAD			
0+00.00	8" X 8" TAPPING SLEEVE	18+52.10	7.00' LT.
0+03.00	8" TAPPING VALVE	18+52.10	4.00' LT.
0+27.00	8" PLUG & BUTTRESS	18+52.10	20.00' RT.

NOTE: THIS ORIGINAL CONSTRUCTION PLAN, SHEET 3 OF 3, SUPERSEDES THE WATER AND SEWER MAIN CONSTRUCTION PLAN PREVIOUSLY APPROVED AND SIGNED BY THE CHIEF OF THE DEVELOPMENT ENGINEERING DIVISION, DEPARTMENT OF PLANNING AND ZONING ON APRIL 30, 2004.

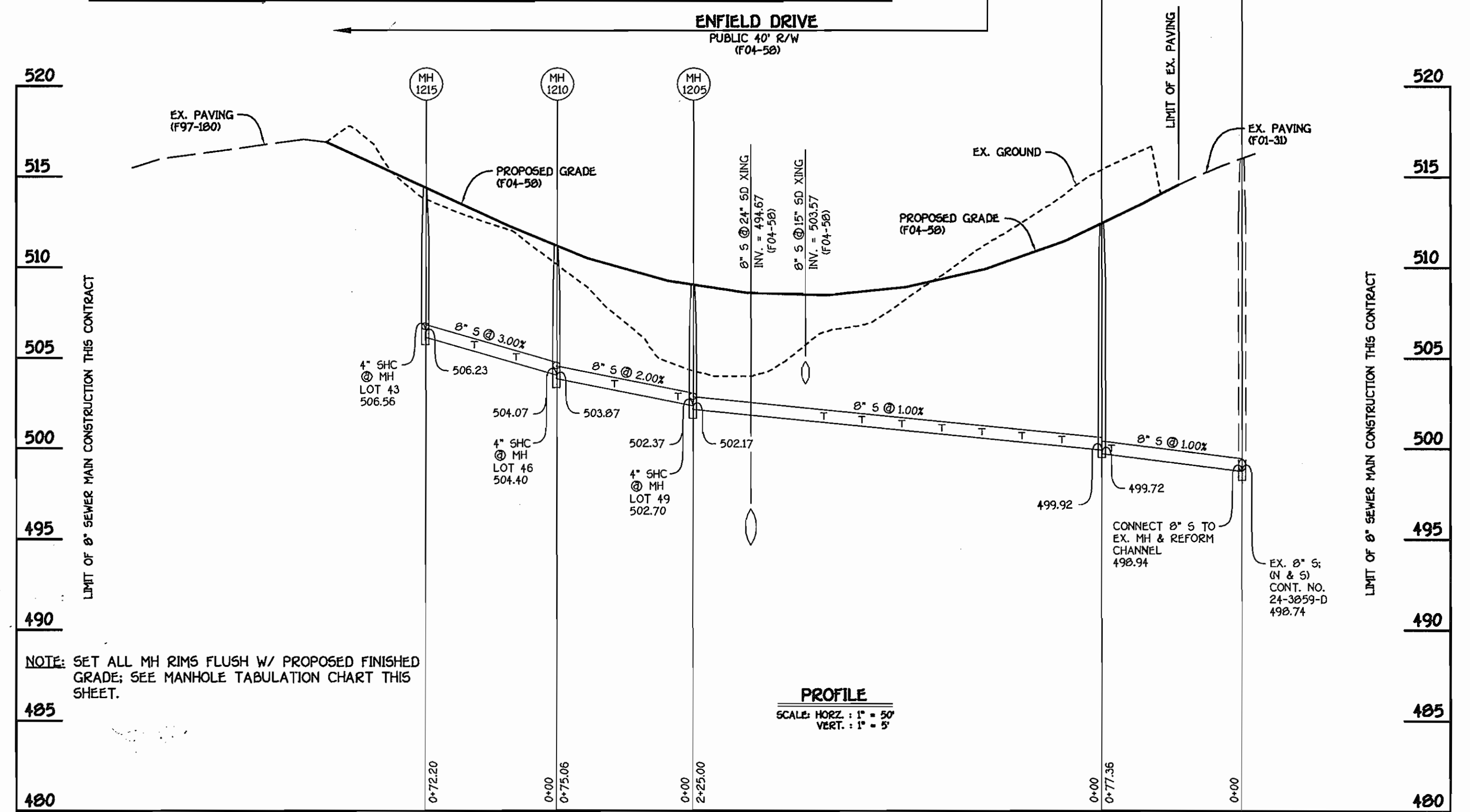
SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
EX. MH 4095 TO MH 1200		
0+72 RT.	57	500.25
MH 1200 TO MH 1205		
0+22 RT.	56	500.71
0+44 RT.	55	500.91
0+66 RT.	54	501.11
0+88 RT.	53	501.33
1+10 RT.	52	501.57
1+32 RT.	51	501.79
1+53 RT.	50	502.00
@ MH 1205 RT.	49	502.84
MH 1205 TO MH 1210		
0+08 RT.	48	503.06
0+43 RT.	47	503.82
@ MH 1210 RT.	46	504.56
MH 1210 TO MH 1215		
0+22 RT.	45	505.28
0+45 RT.	44	505.97
@ MH 1215 RT.	43	506.94

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION
1200	598297.33	1343784.57	512.44*
1205	598351.82	1343566.26	509.05*
1210	598346.44	1343491.40	511.21*
1215	598319.31	1343424.71	514.40*

* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE



8" SEWER MAIN TO WAVERLY GARDENS



8" SEWER MAIN: ENFIELD DRIVE

CONTRACT NO. 24-4174-D
 CTRP WAVERLY WOODS
 SECTION 13: OPEN SPACE LOTS 1 THRU 10
 AND BULK PARCELS 'A' THRU 'D'
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 11/2/04 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND DATE: 11/17/04 CHIEF, DEVELOPMENT ENGINEERING DIVISION	FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTRAL SQUARE OFFICE PARK - 10725 BALDWIN NATIONAL PIKE ELICOTT CITY, MARYLAND 21042 (410) 461-2855	DESIGNED BY: M.D.T. DRAWN BY: M.D.T. CHECKED BY: P.W.K. DATE: OCTOBER, 2004	WATER AND SEWER MAINS PROFILES 600' SCALE MAP NO. 16 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30903 FILE NAME: 30903 FINAL WATER AND SEWER MAINS PROFILES	GTW'S WAVERLY WOODS SECTION 13: OPEN SPACE LOTS 1 THRU 10 AND BULK PARCELS 'A' THRU 'D' CONTRACT NO. 24-4174-D THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 3 OF 3
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