


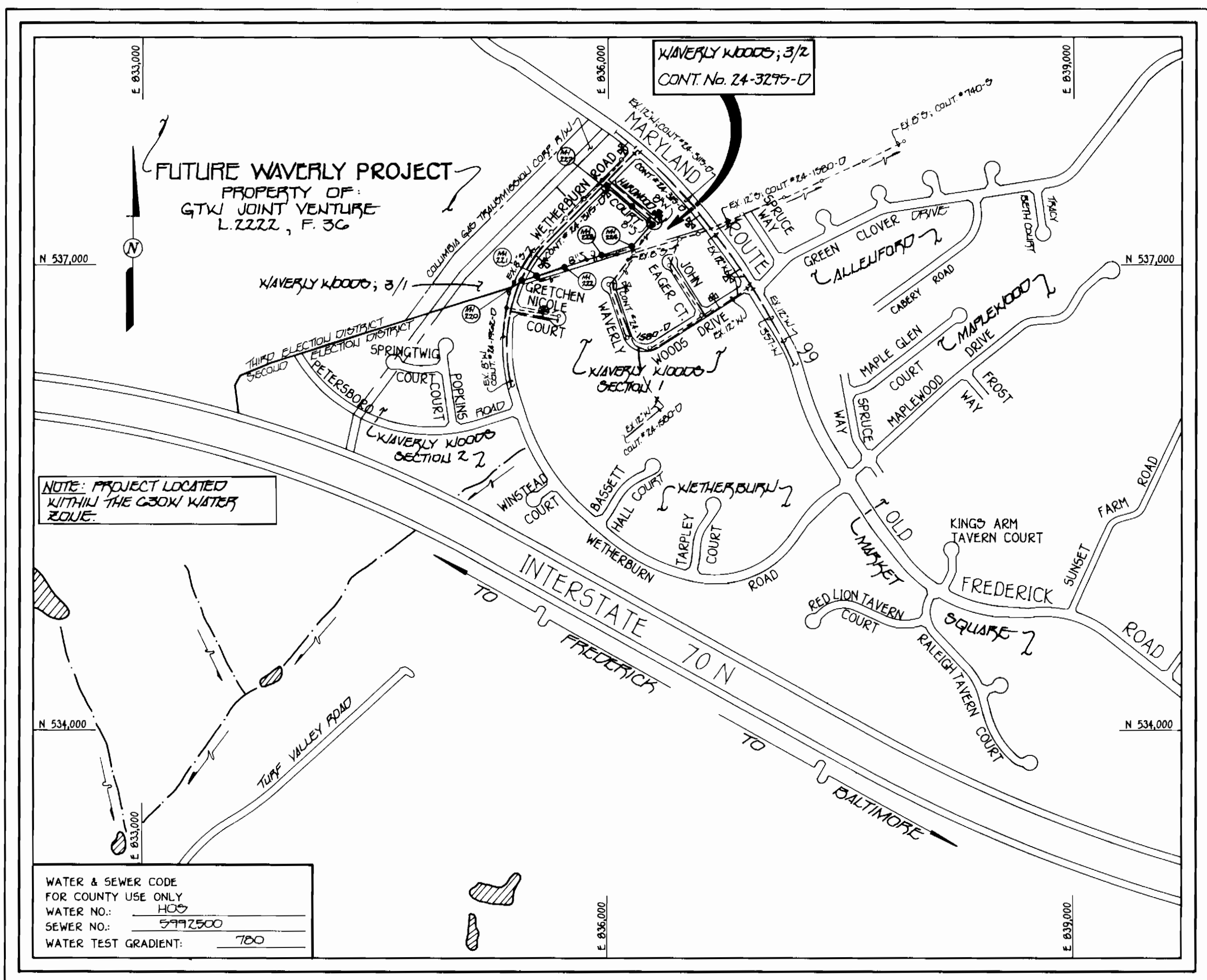
3295 WS/1 WAVERLY WOODS 3/2

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 OR TUNNEL AS REQUIRED.
- 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 - 850-4820
 - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
 - 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., R.C.P., C.S.P.X., R.C.G.P., V.C.P.X., 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 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. 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(g) OF THE HOWARD COUNTY CODE.
- SINCE THE PROJECT IS WITHIN THE CROW WATER ZONE & THE PROPOSED WATER MAIN INVERT ELEVATIONS ARE GENERALLY EQUAL TO OR GREATER THAN ELEV. 492', THE CONTRACTOR SHALL UTILIZE 1'-1/2" I.D. WATER HOUSE COLLECTORS FOR SINGLE SERVICES AND 1'-1/2" I.D. WATER HOUSE COLLECTORS FOR TRIPLE SERVICES; REFER TO SPEC. STD. DET. K.13.23.

ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	325 L.F.	325 L.F.	CL 52 DIP	ATLANTIC STATES
6" WATER	40 L.F.	42 L.F.	CL 52 DIP	ATLANTIC STATES
1" WHC	337 L.F.	386 L.F.	TYPE "K" SOFT	CAMBRIDGE - LEE
1 1/2" WHC	72 L.F.	94 L.F.	TYPE "K" SOFT	CAMBRIDGE - LEE
RELOCATED 1" WHC	33 L.F.	24.5 L.F.	TYPE "K" SOFT	CAMBRIDGE - LEE
FIRE HYDRANTS	1 EACH	1 EA	B.64.B	AMER. FLOW CONTROL
4" SEWER	667 L.F.	732 L.F.	SDR-35 / PVC	J-M MANUF.
8" SEWER	1,237 L.F.	1,237 L.F.	SDR-35 / PVC	J-M MANUF.
MANHOLES	8 EACH	8 EA	CONC./PRECAST	ATLANTIC

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



TYPE OF BUILDINGS: RES. SINGLE FAMILY DETACHED
NUMBER OF LOTS: 72 (BUILDABLE - 27)
NO. OF WATER HOUSE CONNECTIONS: 10
NO. OF SEWER HOUSE CONNECTIONS: 20
DRAINAGE AREA: LITTLE PATUXENT
TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT VIA THE ROUTE 108 PUMPING STATION

WATER & SEWER CODE FOR COUNTY USE ONLY
WATER NO.: 1100
SEWER NO.: 9712500
WATER TEST GRADIENT: 700

VICINITY MAP
SCALE: 1"=600'

SHC'S LOCATIONS

LOT 170	102' TO MH 227 97' TO MH 226	LOT 184	96' TO S.D. INLET (LOT 183/184) 12' TO MH 225
LOT 171	30' TO MH 226 57' TO SHC LOT 180	LOT 185	88' TO MH 223 80' TO SHC LOT 186
LOT 172	46' TO FIRE HYDRANT 67' TO MH 225	LOT 186	80' TO SHC LOT 185 89' TO S.D. INLET (LOT 187)
LOT 173	14' TO FIRE HYDRANT 39' TO S.D. MH	LOT 187	41' TO S.D. INLET (REAR OF LOT) 28' TO MH 222
LOT 174	53' TO MH 225 52' TO FIRE HYDRANT	LOT 188	91' TO MH 222 64' TO SHC LOT 189
LOT 175	64' TO FIRE HYDRANT 43' TO MH 225	LOT 189	64' TO MH 221 69' TO SHC LOT 188
LOT 176	37' TO MH 225 23' TO S.E. CORNER INLET		
LOT 177	91' TO S.D. MH (REAR OF LOT) 76' TO MH 224		
LOT 178	107' TO S.D. MH (LOT 177) 84' TO MH 224		
LOT 179	103' TO MH 225 54' TO MH 226		
LOT 180	35' TO MH 226 57' TO SHC LOT 171		
LOT 181	66' TO SHC LOT 170 78' TO MH 227		
LOT 183	63' TO MH 224 31' TO S.D. INLET LOT 183/184		

WHC'S LOCATIONS

LOT 171	41' TO MH 224 105' TO FH VALVE	LOT 178	58' TO MH 225 99' TO MH 226
LOT 172	44' TO MH 226 99' TO FH VALVE	LOT 179	17' TO MH 226 71' TO SHC LOT 180
LOT 173	79' TO S.D. MH 22' TO FIRE HYD.	LOT 180	20' TO MH 226 71' TO SHC LOT 179
LOT 174	50' TO FIRE HYD. 66' TO MH 225		
LOT 175	75' TO FIRE HYD. 38' TO MH 225		
LOT 176	79' TO FIRE HYD. 36' TO MH 225		
LOT 177	16' TO S.W. CORNER S.D. INLET 22' TO MH 225		

CONTRACT No. 24-3295-D
WAVERLY WOODS
 SECTION 3
 AREA 2
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

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

APPROVED: *John P. ...* 2/2/95
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 ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F-95-27 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Fabrica Engle 2/2/95
U.S. SOIL CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERS:
P94-04
F95-27

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James ... 2/2/95
DIRECTOR OF PUBLIC WORKS DATE

Robert ... 2/2/95
CHIEF, BUREAU OF UTILITIES DATE

... 2/3/95
CHIEF, BUREAU OF ENGINEERING DATE

... 2/2/95
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
SUITE 100, 9171 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461-2855



DES: M.J.M.	
DRWN: M.S.V.	
CHK: P.W.K.	
DATE:	
BY NO.	
REVISION	
DATE	

TITLE SHEET

600' SCALE MAP NO. 16 & 17 BLOCK NO. TMIG-G.112, TM17.1

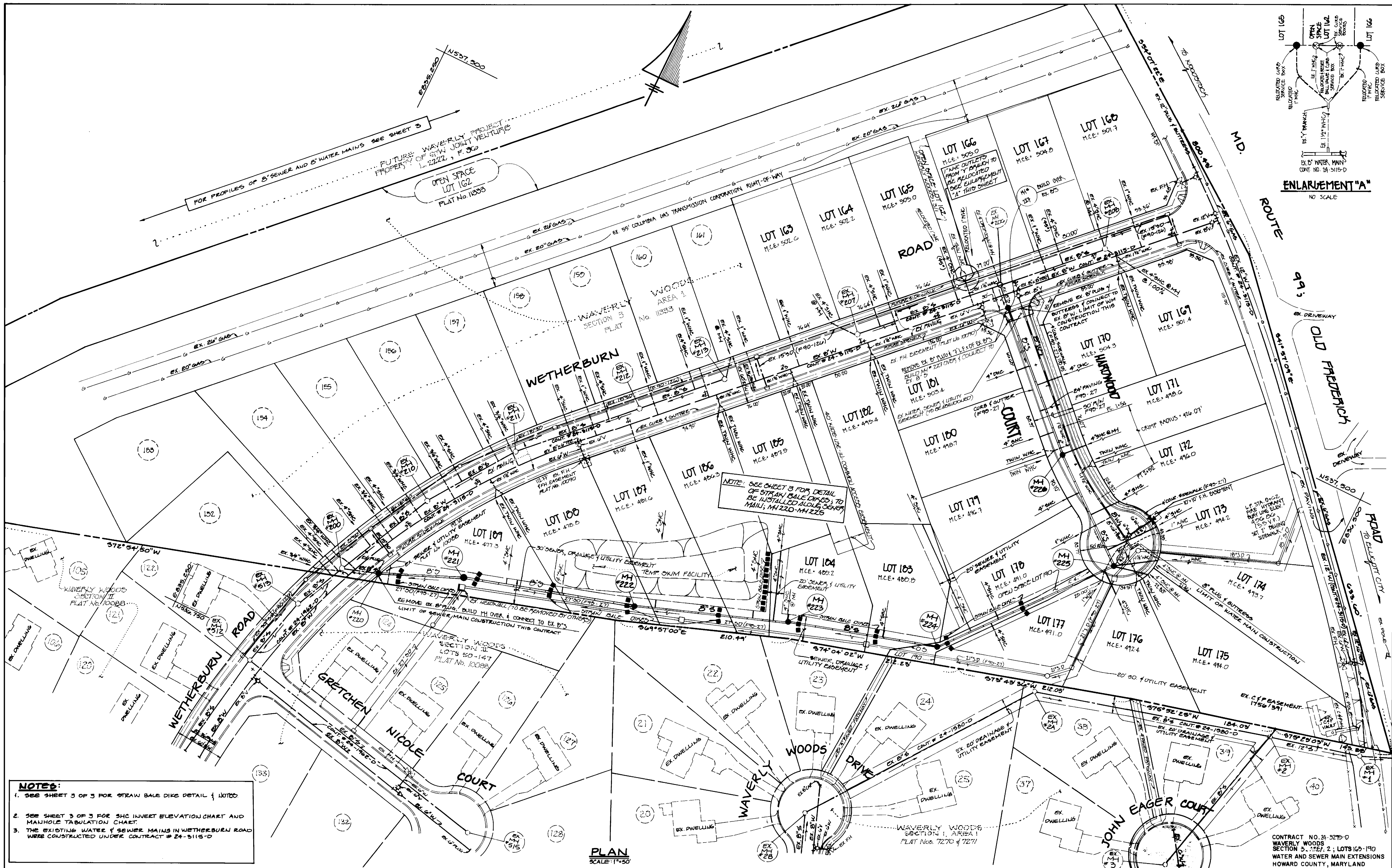
WAVERLY WOODS
SECTION 3, AREA 2
CONT. NO. 24-3295-D
3RD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-3295-D
WAVERLY WOODS
SECTION 3, AREA 2
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 2

3295 WS/2 WAVERLY WOODS 3/2



NOTES:
 1. SEE SHEET 3 OF 3 FOR STRAW BALE DIKE DETAIL & NOTES
 2. SEE SHEET 3 OF 3 FOR SHC INVERT ELEVATION CHART AND MANHOLE TABULATION CHART
 3. THE EXISTING WATER & SEWER MAINS IN WETHERBURN ROAD WERE CONSTRUCTED UNDER CONTRACT # 24-3115-D

PLAN
 SCALE: 1"=50'

CONTRACT NO. 24-3275-D
 WAVERLY WOODS
 SECTION 3, AREA 2; LOTS 103-190
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* 2/6/95
 Chief, Bureau of Engineering: *[Signature]* 2/5/95
 Chief, Bureau of Utilities: *[Signature]* 1-31-95
 Chief, Land Development Division: *[Signature]* 2/6/95

FISHER, COLLINS, AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 9171 BALTIMORE NATIONAL PIKE
 SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855
 #9757
 TERRELL A. FISHER

DES: M.S.V.				
DRN: M.S.V.				
CHK: P.W.K.				
DATE:	BY	NO.	REVISION	DATE

WATER AND SEWER MAINS
 PLAN
 600' SCALE MAP NO. 16 817, BLOCK NO. 6 812 / 1

WAVERLY WOODS
 SECTION 3, AREA 2
 LOT NOS. 103-190
 CONTRACT NO. 24-3275-D
 3rd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 2 OF 3

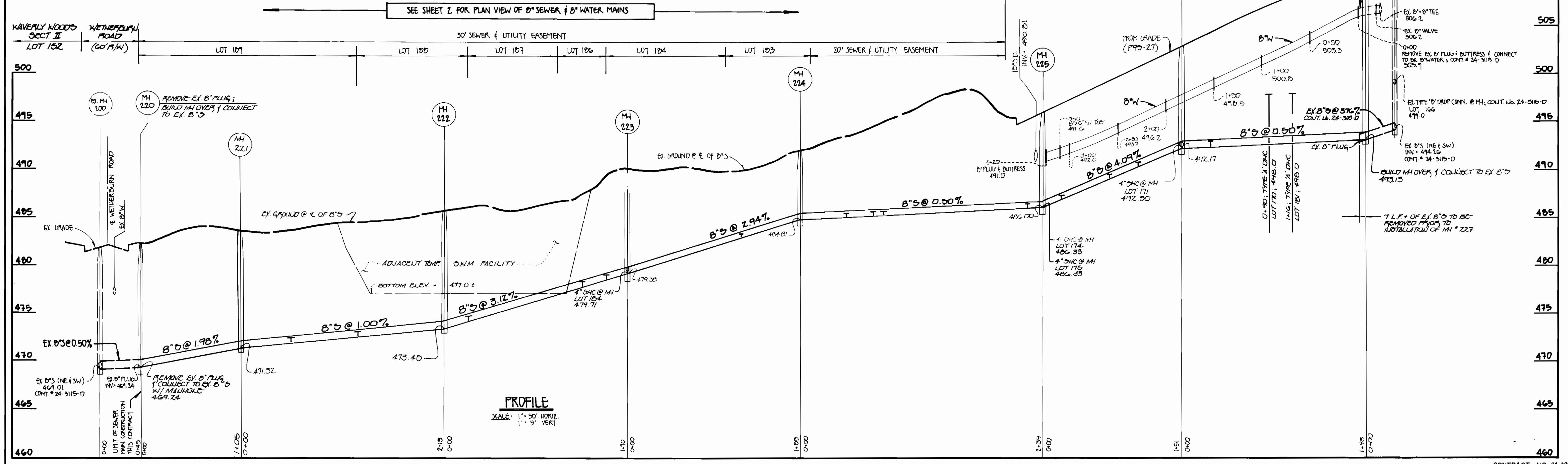
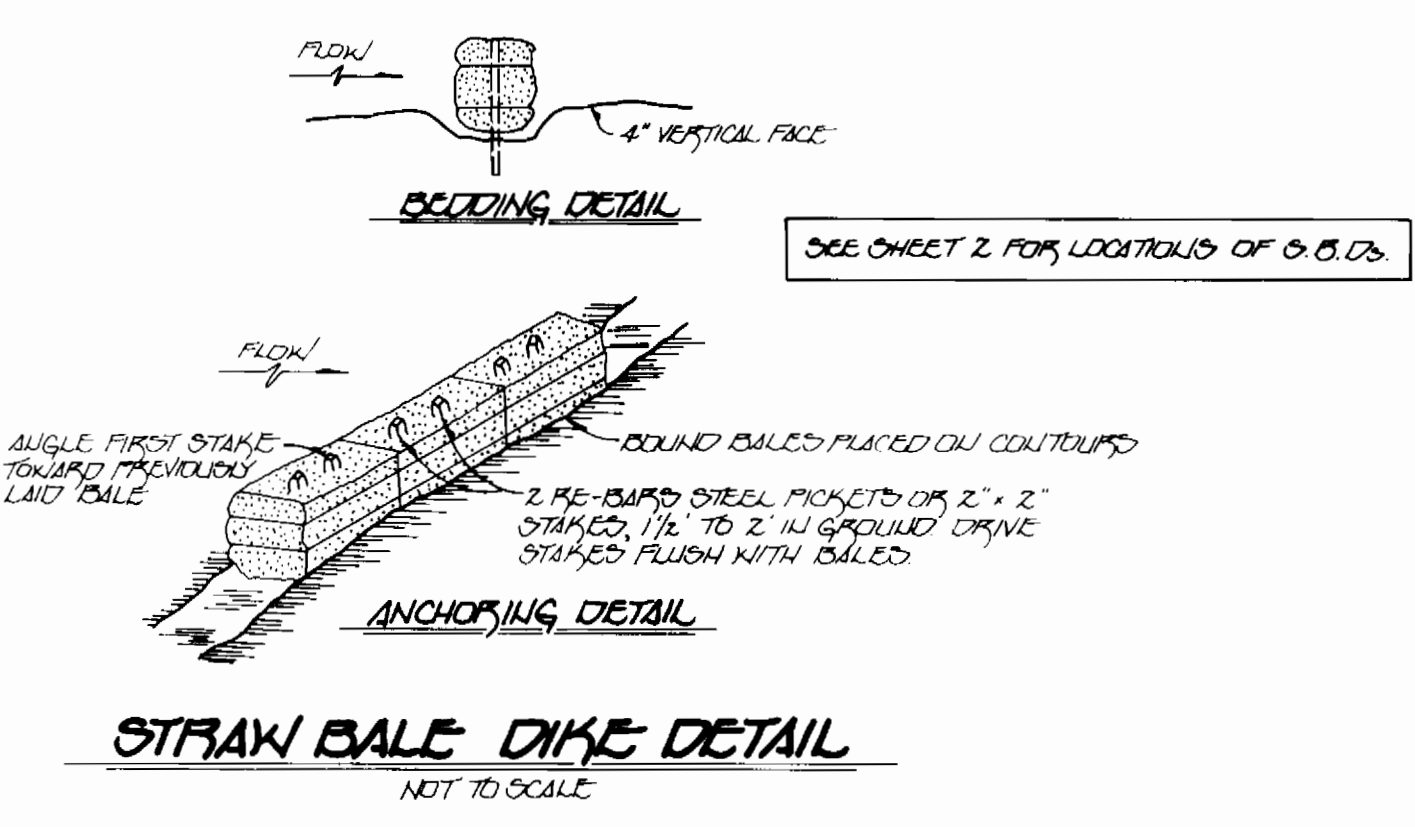
3295 ws/3 WAVERLY WOODS 3/2

STATION	LOT	ELEVATION
MH 221 to MH 222		
0+52.17	107	472.17
1+23.17	108	472.90
MH 222 to MH 223		
0+25.17	107	474.60
1+45.17	106	478.34
1+72.17	105	480.73
@ MH 223 LT	104	479.91
MH 223 to MH 224		
1+10.17	105	483.22
MH 224 to MH 225		
0+45.17	102	485.11
0+72.17	177	485.54
0+82.17	178	485.67
2+25.17	176	486.77
@ MH 225 LT	174	487.43
@ MH 225 RT	175	487.21
MH 225 to MH 226		
0+20.17	173	488.55
0+70.17	172	489.88
1+00.17	171	490.62
@ MH 226 RT	171	493.14
MH 226 to MH 227		
0+30.17	180	492.87
0+90.17	170 (DHC)	498.64
1+16.17	181 (DHC)	498.54

MANHOLE TABULATION CHART		
NO.	LOCATION	RIM ELEVATION
220	EX. SEWER & UTILITY EASEMENT	483.60 #
221	EX. SEWER & UTILITY EASEMENT	483.70
222	30" SEWER DRAINAGE (UTILITY CONT.)	485.60
223	" " " " " "	490.10
224	" " " " " "	472.30
225	IN. CUL-DE-SAC	495.72
226	EX. ROAD STA. 2+15; 7' AT	502.46
227	EX. ROAD STA. 0+22; 9' AT	510.38

WATER MAIN TABULATION CHART		
EX. ROAD STATION	APPURTENANCE	DISTANCE
0+07	EX. 8" 8" TEE	7' LT.
0+10	EX. 8" VALVE	7' LT.
0+30	EX. 8" PLUG & BUTTRESS	7' LT.

- ### STRAW BALE DIKE
- BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE COUNTERSLOPE, AND IN A ROW WITH ENDS TIGHTLY ADJUTING THE ADJACENT BALE.
 - EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE ENDINGS ARE HORIZONTAL.
 - BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR TWO DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY Laid BALE AT AN ANGLE TO FORCE THE BALE TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
 - INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 - BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPED DRAINAGE FLOW OR DRAINAGE.



8" S OUTFALL SEWER MAIN **8" W & 8" S: HARDWOOD COURT**

CONTRACT NO. 24-3275-D
 WAVERLY WOODS
 SECTION 3, AREA 2
 LOTS 163-190
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. ... 2/6/95
 DIRECTOR OF PUBLIC WORKS DATE

Robert ... 1-31-95
 CHIEF, BUREAU OF UTILITIES DATE

FISHER, COLLINS, AND CARTER, INC.
 CONSULTING ENGINEERS AND LAND SURVEYORS
 7171 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21042

Terrell A. Fisher 2/3/95
 CHIEF, BUREAU OF ENGINEERING DATE

William ... 2/6/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE

DES: MJM			
DRN: MJM			
CHK: PWK			
DATE:	BY	NO.	REVISION

WATER & SEWER MAINS
 PROFILES

600' SCALE MAP NO. 16117 BLOCK NO. 612/1

WAVERLY WOODS
 SECTION 3, AREA 2
 LOTS 163-190
 CONTRACT NO. 24-3275-D
 3RD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 3