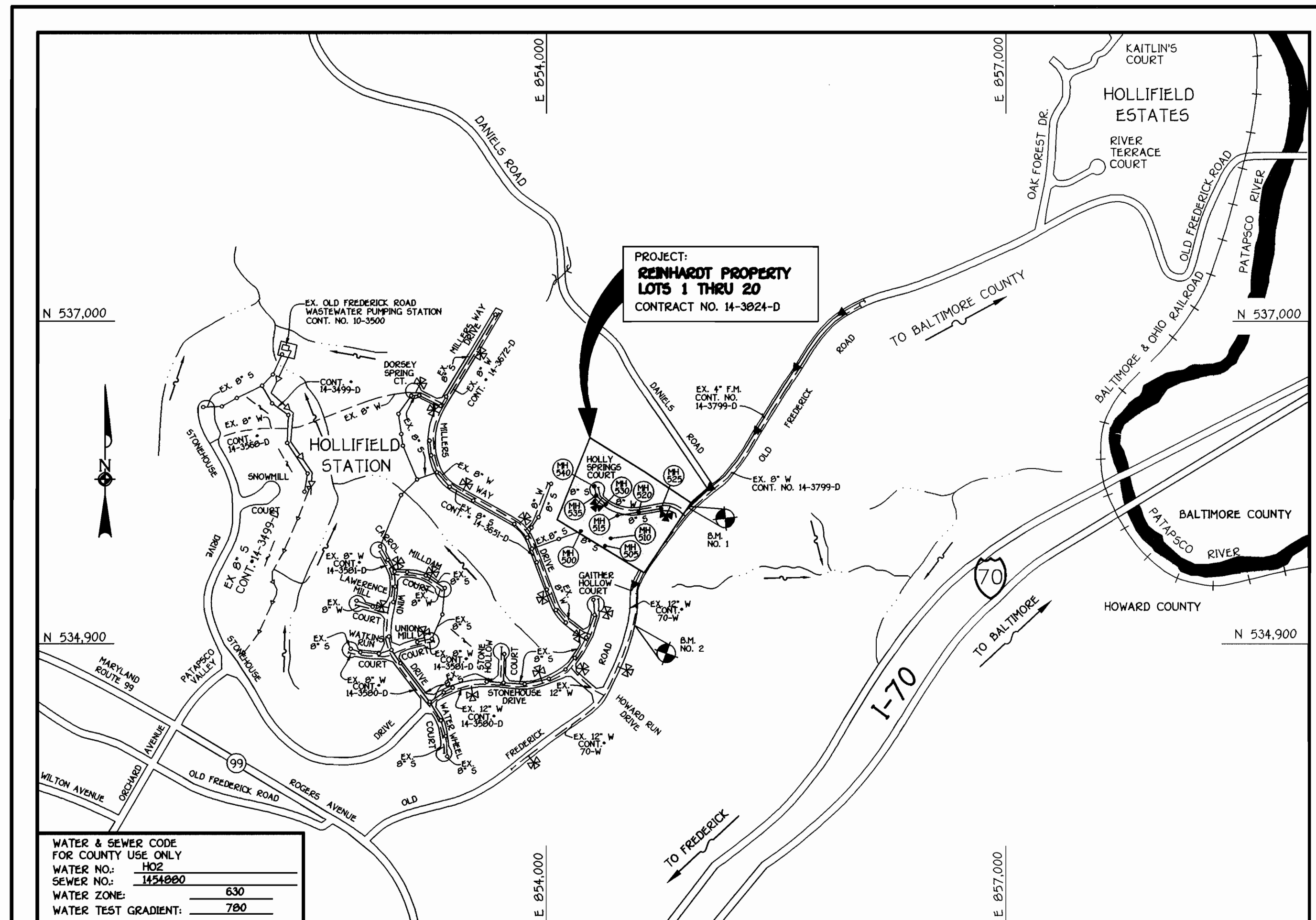


QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	611.91 L.F.			
6" WATER	107.60 L.F.			
FIRE HYDRANTS	2 EACH			
1" WATER	575.00 L.F.			
OUTSIDE METER SETTING	4 EACH			
8" X 6" TEE	2 EACH			
6" VALVE	2 EACH			
8" X 6" REDUCER	1 EACH			
6"-1/8" H.B.	1 EACH			
8"-1/16" H.B.	3 EACH			
8"-1/32" H.B.	2 EACH			
6" PLUG & BUTTRESS	1 EACH			
8" SEWER	603.65 L.F.			
8" SEWER D.I.P.	488.46 L.F.			
4" SEWER	494 L.F.			
SEWER MANHOLES	9 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY & DRAFTING DIVISION AS-BUILT DATE:				



WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO.: H02
 SEWER NO.: 1434880
 WATER ZONE: 630
 WATER TEST GRADIENT: 780

TYPE OF BUILDING: RESIDENTIAL: SINGLE FAMILY DETACHED
 NUMBER OF LOTS & PARCELS: 20 (18 BUILDABLE)
 NO. OF WATER HOUSE CONNECTIONS: 18
 NO. OF SEWER HOUSE CONNECTIONS: 18
 DRAINAGE AREA: PATAPSCO
 TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT
 CITY OF BALTIMORE VIA OLD FREDERICK ROAD PUMPING STATION

VICINITY MAP
 SCALE: 1"=600'

PLAN REFERENCE NUMBERS:
 598-08, P99-II, 100-48

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
 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 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 BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WLIJ AND W213). 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 OPW REQUIREMENTS PER SECTION 18.114(d) OF THE HOWARD COUNTY CODE.

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. Reinhardt 11/29/00
 SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATION

" I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Paul W. Reinhardt 11/28/00
 SIGNATURE OF ENGINEER DATE

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

J. A. Waford 12/11/00
 USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John A. Roberts 12/11/00
 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 IN DEVELOPING AREAS AND AS SHOWN ON F00-48.

Paul W. Reinhardt 11/29/00
 SIGNATURE OF DEVELOPER DATE

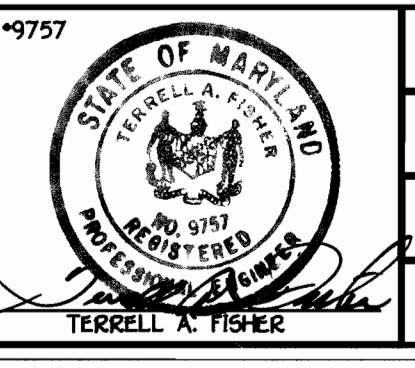
CONTRACT No. 14-3824-D
REINHARDT PROPERTY
 LOTS 1 THRU 20
WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

BENCHMARK INFORMATION
 B.M.#1 - HOWARD COUNTY GEODETIC CONTROL STATION 17EA
 N 18180.5724 (METERS)
 E 413772.7247 (METERS)
 B.M.#2 - HOWARD COUNTY GEODETIC CONTROL STATION 17EB
 N 120994.9448 (METERS)
 E 413227.8979 (METERS)

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Robert M. Bainger 11-30-00
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
John A. Roberts 12/11/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2555



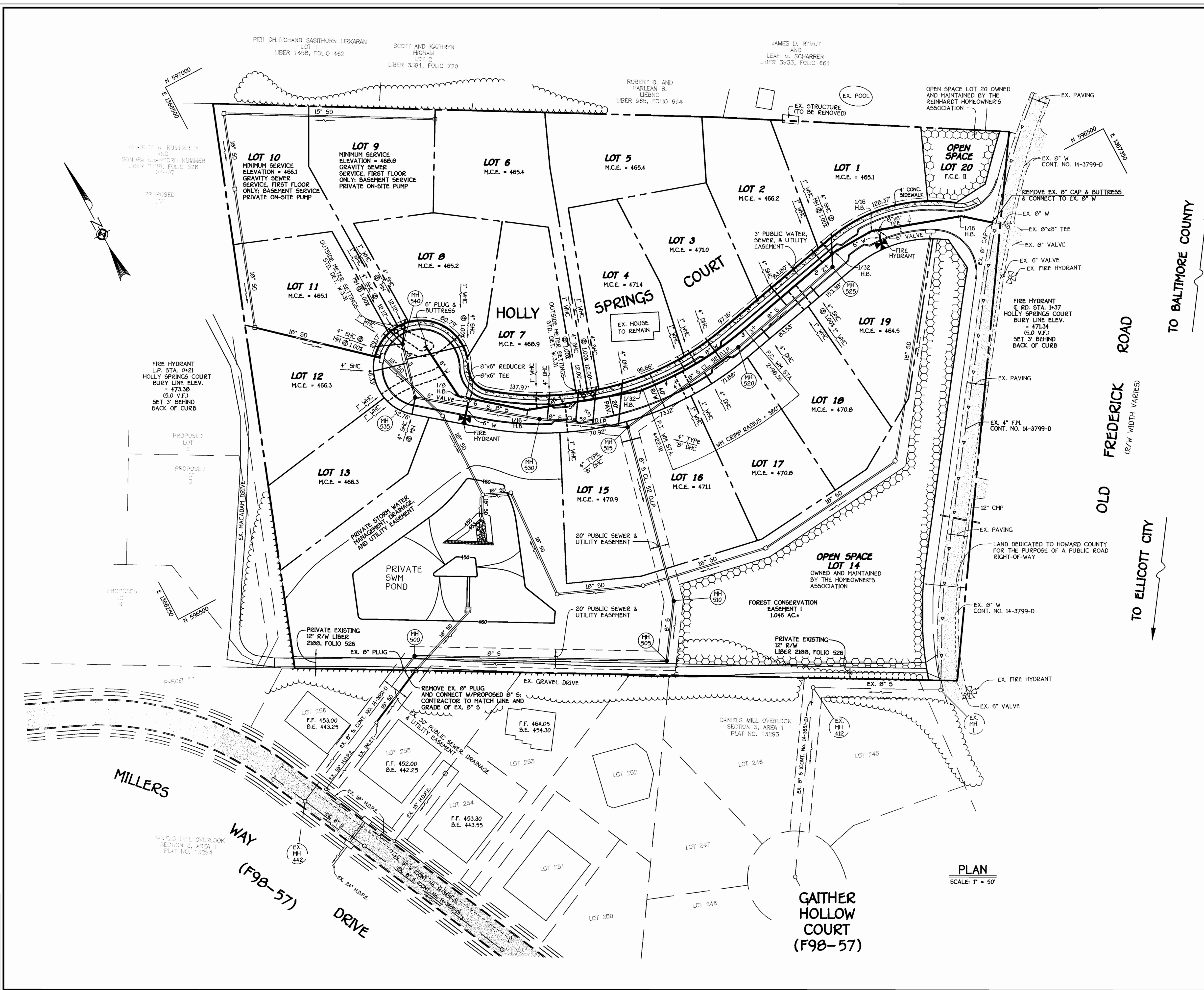
DESIGNED BY: M.D.T.
 DRAWN BY: M.D.T.
 CHECKED BY: P.M.C.
 DATE: NOVEMBER, 2000
 BY NO. REVISION DATE

TITLE SHEET
 600' SCALE MAP NO. 18 BLOCK NO. 7
 F.C.C. WORK ORDER NO. 30607
 FILE NAME: G:\30607\WATSEW\FINALS\30607WATITLESHT

REINHARDT PROPERTY
 LOTS 1 THRU 20
 CONTRACT NO. 14-3824-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 3

CONTRACT NO. 14-3824-D
REINHARDT PROPERTY
 LOTS 1 THRU 20
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND



WATER MAIN TABULATION CHART

WM STATION	APPURTENANCE	± ROAD STATION	DISTANCE
HOLLY SPRINGS COURT			
0+00	EX. 8" CAP	0+12.26	6.96' RT.
0+33.36	8"-1/16 H.B.	0+45.66	6.96' RT.
1+21.36	8" X 6" TEE	1+32.62	0.30' RT.
1+29.36	8"-1/16 H.B.	1+40.30	2.31' RT.
1+73.36	8"-1/32 H.B.	1+83.37	5.68' RT.
2+98.36	P.C.	3+08.37	5.00' RT.
4+22.91	P.T.	4+35.14	6.57' RT.
4+26.91	8"-1/32 H.B.	4+39.22	6.46' RT.
5+46.91	8"-1/16 H.B.	5+63.05	4.08' RT.
6+08.91	8" X 6" TEE	6+25.97	5.55' RT.
6+11.91	8" X 6" REDUCER	6+30.64	5.55' RT.
6+16.91	6"-1/8 H.B.	6+37.26	3.60' RT.
6+82.91	6" PLUG & BUTTRESS	L.P. STA. 2+00	17.07' RT.

SHC INVERT @ PROPERTY LINE CHART

STATION	LOT	ELEVATION
MH 510 TO MH 515		
1+75 RT.	16 (TYPE 'B' DHC)	466.20
1+75 LT.	15 (TYPE 'B' DHC)	466.20
MH 515 TO MH 520		
0+99 RT.	17 (DHC)	465.80
1+21 LT.	3 (DHC)	466.06
MH 520 TO MH 525		
0+31 RT.	18 (DHC)	465.80
0+67 LT.	2	461.01
0+99 RT.	19 (SHC @ 1.00%)	460.83
± MH 525 LT.	1 (SHC @ MH @ 1.00%)	461.42
MH 515 TO MH 530		
0+10 RT.	4 (DHC)	466.46
0+37 RT.	5 (SHC @ 1.00%)	459.75
0+55 RT.	6 (SHC @ 1.00%)	459.79
0+85 RT.	7 (DHC)	464.06
MH 530 TO MH 535		
± MH 535 LT.	13 (SHC @ MH)	460.80
MH 535 TO MH 540		
0+37 LT.	12	461.29
0+41 RT.	8 (SHC @ 1.00%)	461.24
± MH 540 RT.	9 (SHC @ MH)	461.36
± MH 540 CT.	10 (SHC @ MH @ 1.00%)	461.08
± MH 540 LT.	11 (SHC @ MH @ 1.00%)	461.15

MANHOLE TABULATION CHART

NO.	± ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
500	-----	---	---	454.48
505	-----	---	---	472.50
510	-----	---	---	479.00
515	4+61.64 HOLLY SPRINGS COURT	26' LT.	-1.92%	479.33
520	3+25.48 HOLLY SPRINGS COURT	5.77' LT.	2.42%	478.24
525	1+95.52 HOLLY SPRINGS COURT	5' LT.	4.00%	473.47
530	5+48.48 HOLLY SPRINGS COURT	5' LT.	-3.89%	475.88
535	IN CUL-DE-SAC	---	---	471.43
540	IN CUL-DE-SAC	---	---	470.92

PLAN
SCALE: 1" = 50'

TO BALTIMORE COUNTY

OLD FREDERICK ROAD
(R/W WIDTH VARIES)

TO ELLICOTT CITY

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Ruth Bringer</i> CHIEF, BUREAU OF UTILITIES</p> <p>11.30.00 DATE</p>	<p>DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND</p> <p><i>John Dammann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION</p> <p>12/18/00 DATE</p>	<p>9757</p> <p>FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENAL SQUARE OFFICE PARK - 10712 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2955</p> <p>STATE OF MARYLAND TERRELL A. FISHER REGISTERED PROFESSIONAL ENGINEER</p>	<p>DESIGNED BY: M.D.T.</p> <p>DRAWN BY: M.D.T.</p> <p>CHECKED BY: P.W.L.</p> <p>DATE: NOVEMBER, 2000</p>	<p style="text-align: center;">WATER AND SEWER MAINS PLAN VIEW</p> <p>600' SCALE MAP NO. 18 BLOCK NO. 7</p> <p>F.C.C. WORK ORDER NO. 30607</p> <p>FILE NAME: G:\30607\WATSEW\FINALS\30607WASPAN</p>	<p style="text-align: center;">REINHARDT PROPERTY LOTS 1 THRU 20 CONTRACT NO. 14-3824-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND</p> <p style="text-align: right;">SCALE AS SHOWN SHEET 2 OF 3</p>
--	--	---	--	--	---

CONTRACT NO. 14-3824-D
REINHARDT PROPERTY
LOTS 1 THRU 20
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

