

# CONTRACT NO. 24-3087-D

## VILLAGE OF HICKORY RIDGE

### SECTION 2 AREA 2

### 5<sup>th</sup> ELECTION DISTRICT

## HOWARD COUNTY, MARYLAND

## DEPARTMENT OF PUBLIC WORKS

#### BENCH MARKS

HOWARD COUNTY BENCH MARK NO. 2440008 ELEV. 406.47  
 CONCRETE MONUMENT LOCATED ON THE NORTH SIDE OF ROUTE 29 APPROXIMATELY  
 1000 FEET SOUTH OF BRADLEY DRIVE.  
 N 495711.531 E 837912.713

HOWARD COUNTY BENCH MARK NO. 2540001 ELEV. 336.70  
 CONCRETE MONUMENT LOCATED ON THE NORTH SIDE OF THE NORTHBOUND LANE OF ROUTE  
 29 APPROXIMATELY 600 FEET NORTH OF OWEN BROWN ROAD.  
 N 497863.571 E 839375.588

QUANTITIES - SEWER			
ITEM	ESTIMATED	AS-BUILT	MATERIAL SUPPLIER
STD. 4' MH	12	12	ATLANTIC
DROP MH	1	1	ATLANTIC
8" D.I.P.	168 L.F.	402	U.S. PIPE & FOUNDRY
8" P.V.C.	2318 L.F.	2129	AMERICAN/ETI
4" S.H.C.	300 L.F.	847	AMERICAN/ETI

QUANTITIES - WATER			
ITEM	ESTIMATED	AS-BUILT	MATERIAL SUPPLIER
8" WATER	2604 L.F.	2537	U.S. PIPE & FOUNDRY
8" VALVE	3	3	U.S. PIPE & FOUNDRY
6" WATER	124 L.F.	138	U.S. PIPE & FOUNDRY
6" VALVE	6	6	U.S. PIPE & FOUNDRY
2" WATER	246 L.F.	243	CAMBRIDGE LEE
HYDRANTS	6	6	U.S. PIPE & FOUNDRY
16" X 8" TAPPING SLEEVE & VALVE	1	1	U.S. PIPE & FOUNDRY
3/8" W.H.C.	300 L.F.	300	CAMBRIDGE LEE
2" VALVE	1	1	FORD
1" W.H.C.	120 L.F.	45.3	CAMBRIDGE LEE
1/2" W.H.C.	35	35	CAMBRIDGE LEE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS, AND ROAD CONSTRUCTION PLAN P-91-134

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

*James M. Helms* SIGNATURE DATE 9/27/91

U.S. SOIL CONSERVATION SERVICE

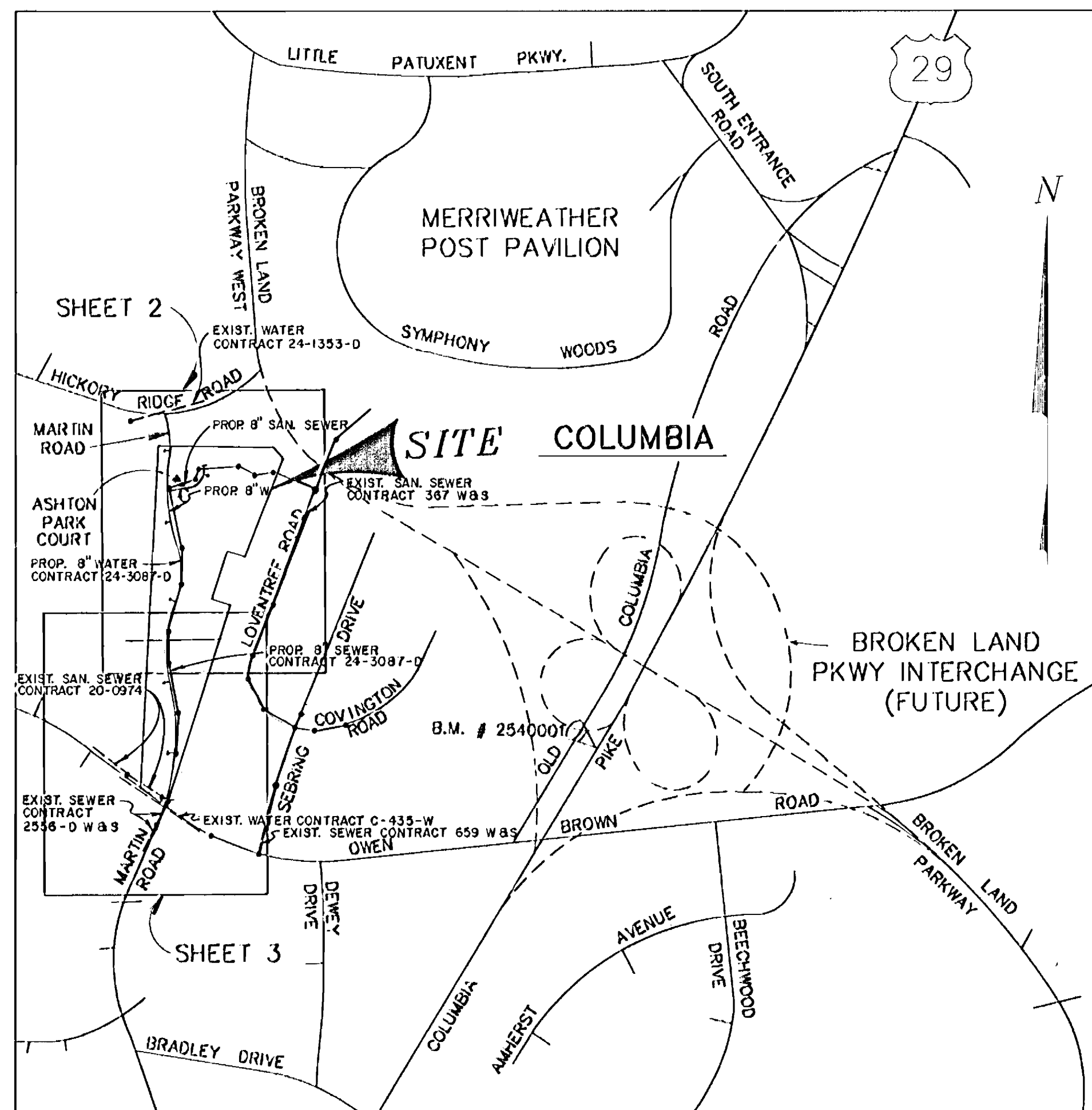
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: *John B. Roberts* SIGNATURE DATE 9/27/91

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*James M. Helms* 10/1/91 DIRECTOR OF PUBLIC WORKS  
*Elizabeth Anderson Palco* 10/1/91 CHIEF-BUREAU OF ENGINEERING  
*Richard A. Bussanville* 9/24/91 CHIEF-BUREAU OF UTILITIES  
*John M. Boyer* 9/30/91 CHIEF-LAND DEVELOPMENT DIVISION

CENTURY ENGINEERING, INC.  
 CONSULTING ENGINEERS - PLANNERS  
 TOWSON, MARYLAND 21204



MAP 15 BLOCK F8 LOCATION MAP  
 SCALE: 1"=600'

TYPE OF BUILDING: SINGLE FAMILY MEDIUM DENSITY  
 NO. OF LOTS: 29  
 NO. OF WATER HOUSE CONNS.: 29  
 NO. OF SEWER HOUSE CONNS.: 29  
 DRAINAGE AREA: LITTLE PATUXENT  
 SEWAGE TREATMENT AREA: SAVAGE

WATER & SEWER CODE  
 SEWER CODE: 5521000  
 WATER CODE: E30  
 (FOR LOT # 29 SEWER CODE 5324400)

#### GENERAL NOTES

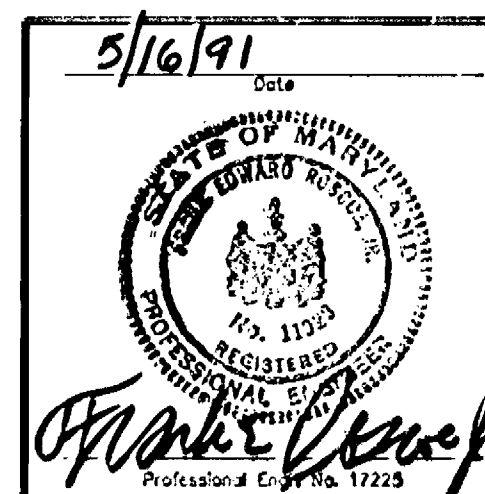
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES 2'-0" MINIMUM OR TUNNEL AS REQUIRED.
- FOR ALL STANDARD DETAILS SEE STANDARDS BOUND IN SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 STATE HIGHWAY ADMINISTRATION - 531-5533  
 BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION ENGINEERING - "DAMAGE CONTROL" - 234-5691  
 BALTIMORE GAS & ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION ENGINEERING - 559-0100  
 CHESAPEAKE AND POTOMAC TELEPHONE COMPANY - 725-9976  
 AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 301-393-3553  
 COLONIAL PIPELINE COMPANY - 781-4641  
 BUREAU OF UTILITIES - 313-4900
- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EXCAVATION AND BACKFILL FOR WATER AND SEWER MAINS.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.

#### WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 52 ONLY UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- ALL VALVES SHALL BE STRAPPED TO TEES IN ACCORDANCE WITH STANDARD DETAILS.
- BLOCK ALL FITTINGS WITH CONCRETE, SEE STANDARDS BOUND IN SPECIFICATIONS.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1000 & 1005 OF THE STANDARD SPECIFICATIONS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, STANDARD DETAIL W.3.21.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT VERTICAL SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.

#### SEWER

- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X. OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G5.51.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.



DATE	NO.	REVISION DESCRIPTION
2-6-92	3	REVISED QUANTITIES
3-8-92	4	REVISED QUANTITIES
6-25-92		ADD C.C. TO LOT 29
9-23-92	MWM	AS-BUILT

8" WATER MAIN  
 8" SANITARY SEWERS  
 PLAN & PROFILE

VILLAGE OF HICKORY RIDGE  
 SECTION 2 AREA 2  
 CONTRACT NO. 24-3087-D  
 5th ELECTION DISTRICT  
 HOWARD CO. MARYLAND

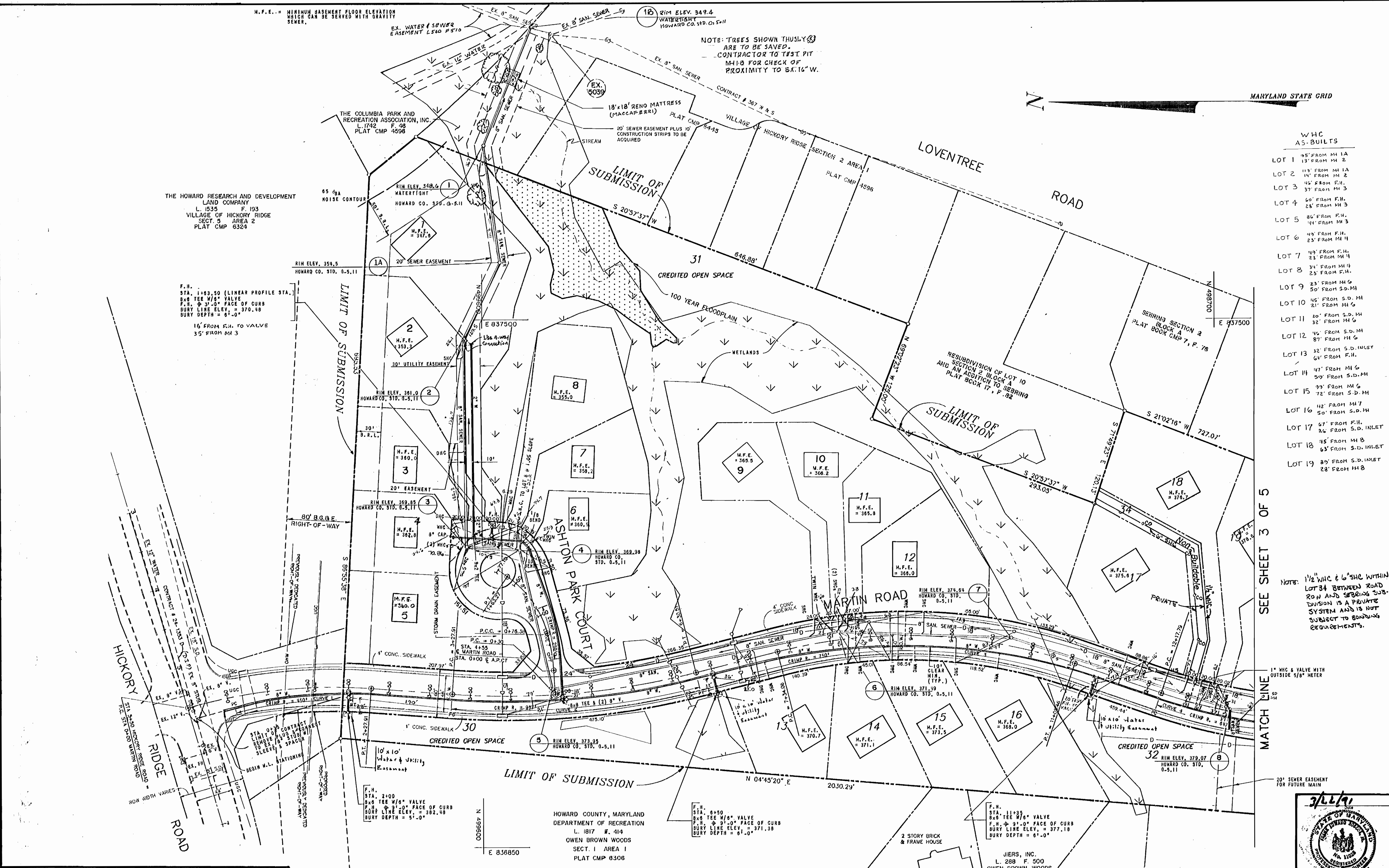
DRAWING NO. OF	SCALE AS SHOWN
1/5	

AS-BUILT 9-23-92

N.F.E. = MINIMUM BASEMENT FLOOR ELEVATION WHICH CAN BE SERVED WITH GRAVITY SEWER.

NOTE: TREES SHOWN THUSLY ARE TO BE SAVED. CONTRACTOR TO TEST PIT MH-8 FOR CHECK OF PROXIMITY TO BX.16" W.

MARYLAND STATE GRID



WHC AS-BUILTS	
LOT 1	45' FROM MH 1A 13' FROM MH 2
LOT 2	113' FROM MH 1A 145' FROM MH 2
LOT 3	37' FROM MH 3
LOT 4	60' FROM F.H. 28' FROM MH 3
LOT 5	86' FROM F.H. 144' FROM MH 3
LOT 6	49' FROM F.H. 23' FROM MH 4
LOT 7	113' FROM F.H. 23' FROM MH 4
LOT 8	31' FROM MH 4 23' FROM F.H.
LOT 9	23' FROM MH 6 50' FROM S.D. MH
LOT 10	45' FROM S.D. MH 21' FROM MH 6
LOT 11	20' FROM S.D. MH 32' FROM MH 6
LOT 12	16' FROM S.D. MH 87' FROM MH 6
LOT 13	32' FROM S.D. INLET 64' FROM F.H.
LOT 14	17' FROM MH 6 59' FROM S.D. MH
LOT 15	99' FROM MH 6 72' FROM S.D. MH
LOT 16	112' FROM MH 7 50' FROM S.D. MH
LOT 17	67' FROM F.H. 26' FROM S.D. INLET
LOT 18	45' FROM MH 8 63' FROM S.D. INLET
LOT 19	89' FROM S.D. INLET 28' FROM MH 8

NOTE: 1 1/2" WHC & 6" SHC WITHIN LOT 34 BETWEEN ROAD ROW AND SEWER SUB-DIVISION IS A PRIVATE SYSTEM AND IS NOT SUBJECT TO BONDING REQUIREMENTS.

SEE SHEET 3 OF 5

1" WHC & VALVE WITH OUTSIDE 5/8" METER

MATCH LINE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Roman J. ...*  
DIRECTOR OF PUBLIC WORKS--DATE

*Elizabeth ...*  
ASST. DIR. BUREAU OF ENGINEERING--DATE

*Michael ...*  
CHIEF-BUREAU OF UTILITIES--DATE

*Oliver ...*  
CHIEF-LAND DEVELOPMENT DIVISION--DATE

NOTE: ALL WATER HOUSE CONNECTIONS (WHC) SHALL BE 3/4" NOTE: SEE WETLANDS MITIGATION PLAN FOR ADDITIONAL DETAIL CONCERNING WETLANDS

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

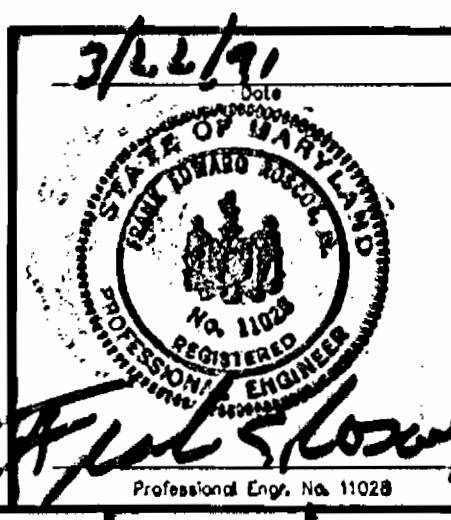
DATE	NO.	REVISION DESCRIPTION
9-23-92	MWM	AS-BUILT
2-25-92		PRIVATE W/S HOUSE ON LOT 31
3-3-92		REVISED LOT 4/6 ADDED W/S
2-6-92		REVISED OFFSITE SEWER
12-12-91		APPROVED REVISION

WATER & SEWER PLAN

51 ELECTION DISTRICT HOWARD CO. MARYLAND

VILLAGE OF HICKORY RIDGE  
SECTION 2 AREA 2  
CONTRACT NO. 24-3087-D

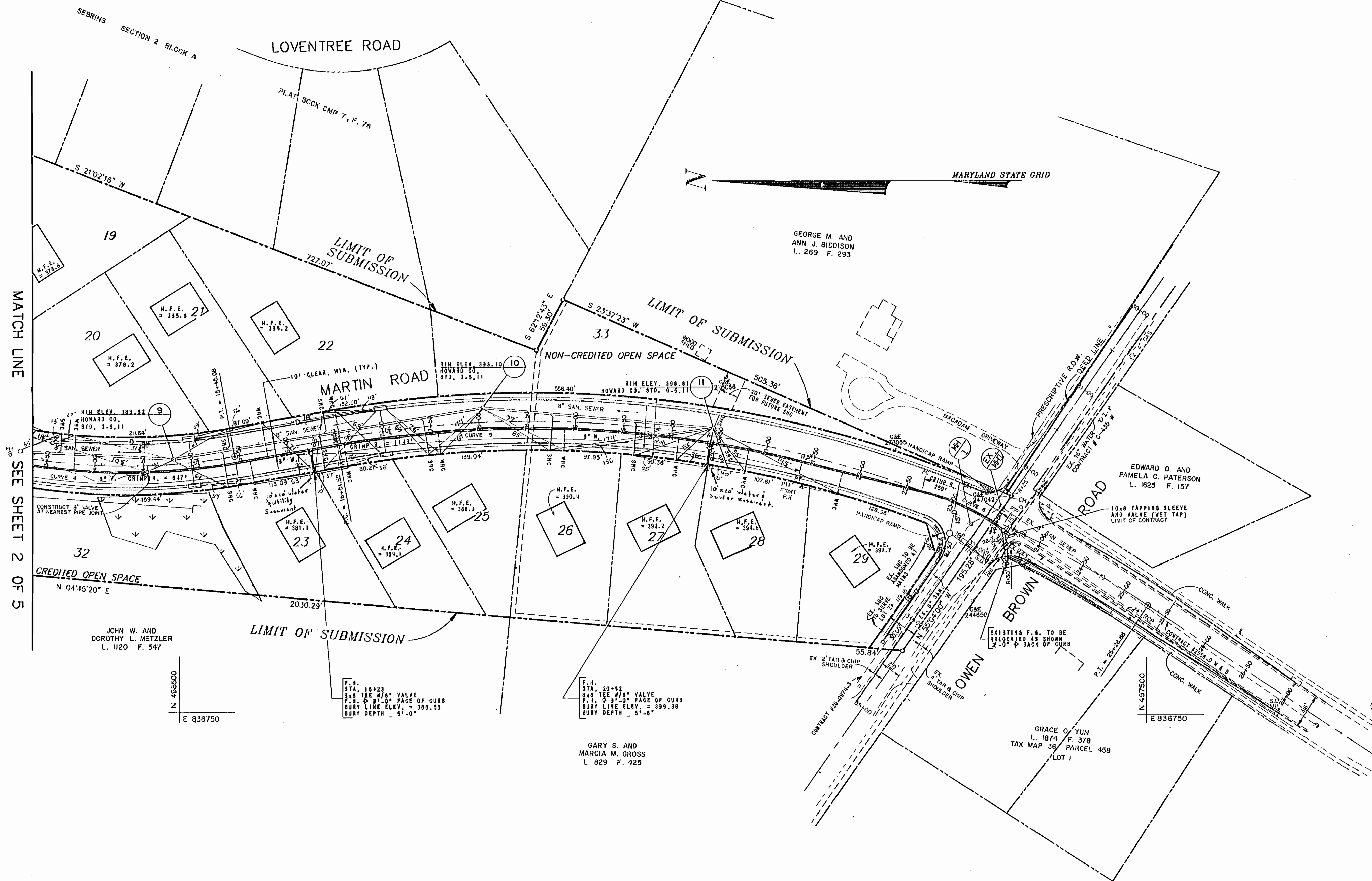
DRAWING NO. 2 OF 5 SCALE 1"=50'



AS-BUILT 9-23-92

M.F.E. = MINIMUM BASEMENT FLOOR ELEVATION WHICH CAN BE SERVED WITH GRAVITY SEWER.

N 497500  
E 837500



N 486500  
E 836750

N 497500  
E 836750

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. ...*  
DIRECTOR OF PUBLIC WORKS -- DATE  
*Michael A. ...*  
CHIEF-BUREAU OF UTILITIES -- DATE

*Stephen H. Anderson*  
CHIEF-BUREAU OF ENGINEERING -- DATE  
*John M. ...*  
CHIEF-LAND DEVELOPMENT DIVISION -- DATE

**CENTURY ENGINEERING, INC.**  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

DATE	NO.	REVISION DESCRIPTION
9-23-92	MWM	AS-BUILT

**WATER & SEWER PLAN**

VILLAGE OF HICKORY RIDGE  
SECTION 2 AREA 2  
CONTRACT NO. 24-3087-D  
5th ELECTION DISTRICT HOWARD CO. MARYLAND

DRAWING NO. 3 OF 5  
SCALE 1"=50'

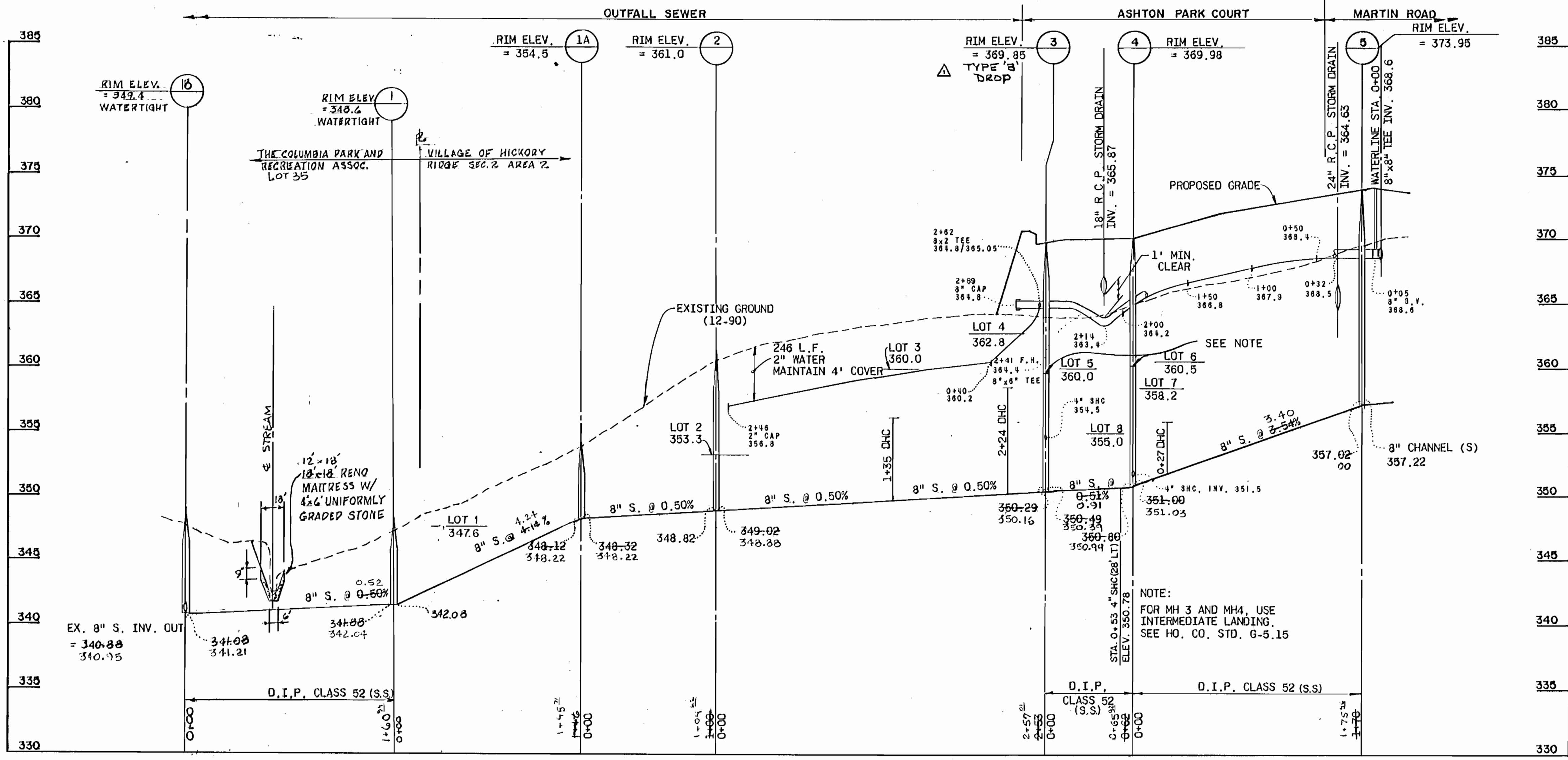
AS-BUILT 9-23-92

NOTE: ALL WATER HOUSE CONNECTIONS (WHC) SHALL BE 3/4".

NOTE: SEE WETLANDS MITIGATION PLAN FOR ADDITION DETAIL CONCERNING WETLANDS



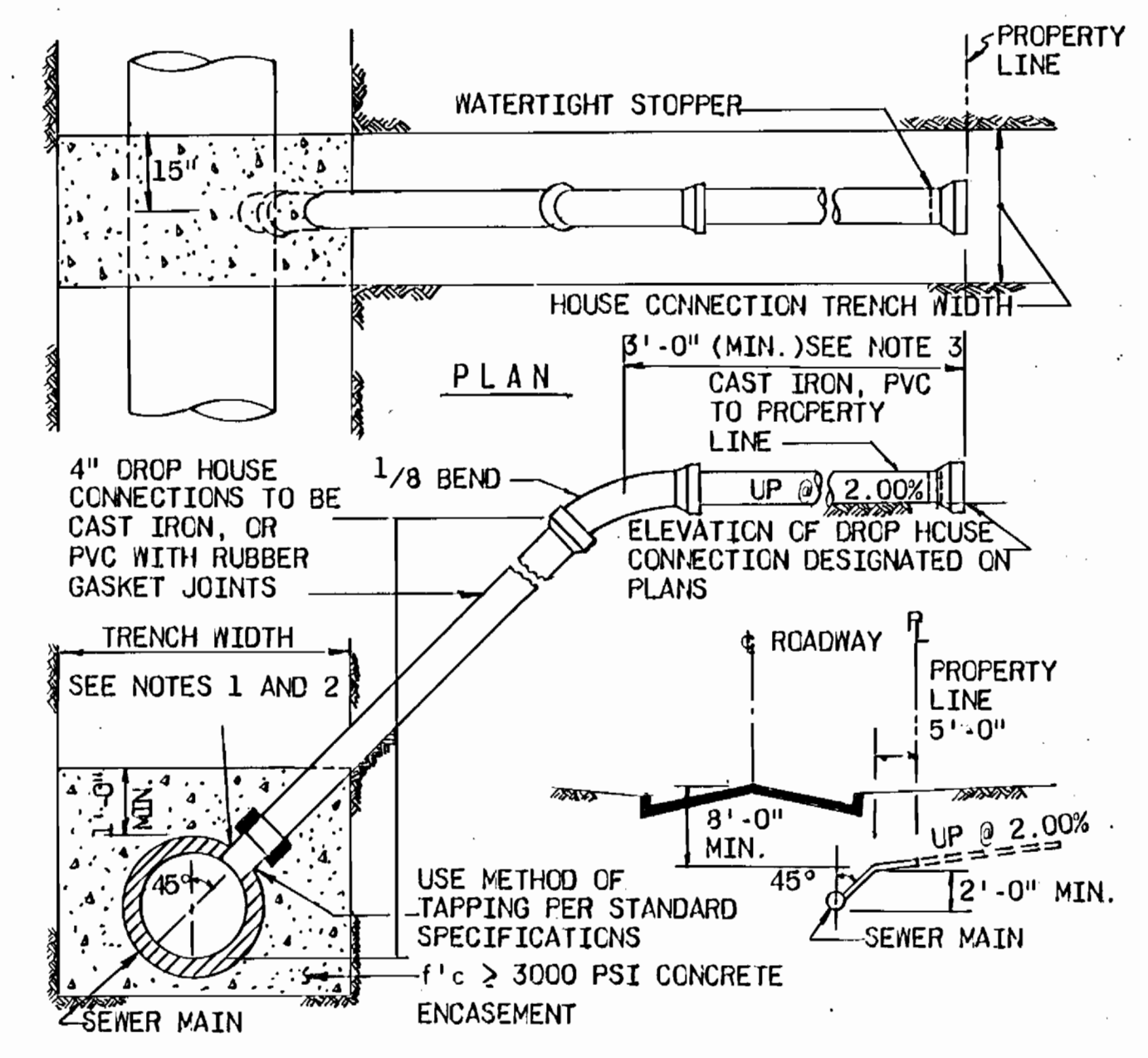
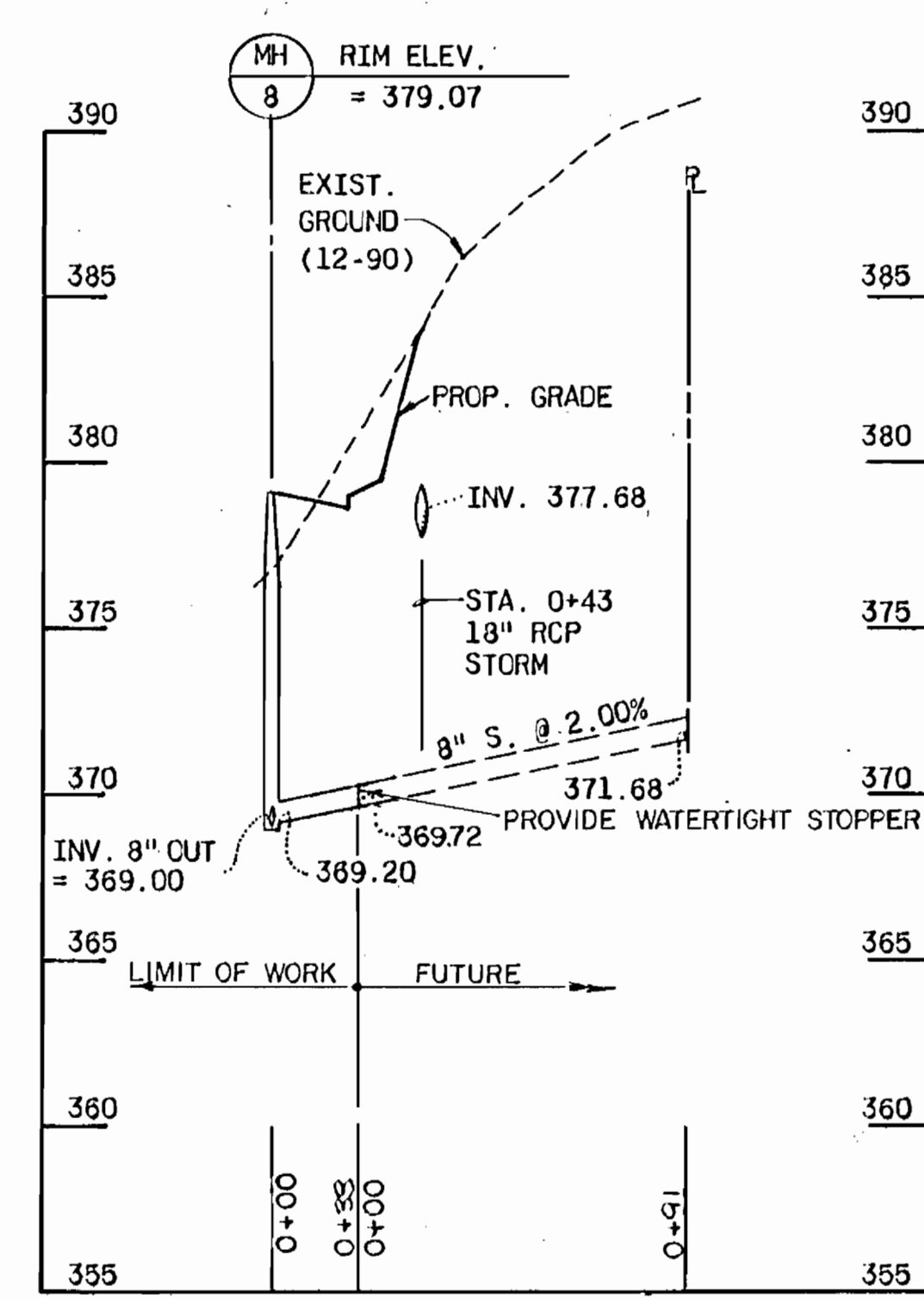




HYDRANT #	ROAD & STA.	NORTHING	EASTING
1	MARTIN RD., 2+00	499768.85	837016.04
2	MARTIN RD., 6+50	499311.77	837040.36
3	MARTIN RD., 11+35	498854.20	837036.96
4	MARTIN RD., 16+23	498360.82	836998.16
5	MARTIN RD., 20+42	497954.65	837007.02
6	ASHTON PARK COURT CUL-DE-SAC	499587.66	837245.69

MANHOLE #	NORTHING	EASTING
1	499697.41	837715.36
2	499622.93	837476.41
3	499621.03	837219.41
4	499555.21	837215.88
5	499514.84	837045.13
6	499162.87	837115.55
7	498950.49	837107.65
8	498681.11	837019.56
9	498505.95	837011.52
10	498186.60	837068.04
11	497948.44	837045.52
1A	499578.82	837570.84
1B	499538.21	837564.10

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



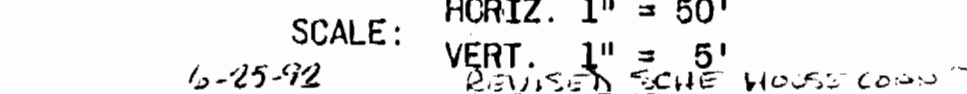
NOTES:  
1. S.H.C. TO 8" THRU 12" SEWER MAIN USE SADDLE.  
2. S.H.C. TO PROPOSED SEWER MAINS, USE TEES, SEE VOLUME IV, STANDARD DETAIL S 2.12  
3. S.H.C. AT PROPERTY LINE SHALL TERMINATE WITH MINIMUM PIPE LENGTH OF 5'-0". THIS DETAIL IS NOT APPLICABLE FOR A SHORTER LENGTH THAN 5'-0" AT THE PROPERTY LINE.

LOT	ROAD & STA.	TYPE *	INV. @ R	REMARKS
1	STA. 0+36 FROM MH-1 TO MH-1A	SHC	343.52	STATIONS ARE ALONG SEWER PIPE BETWEEN MANHOLES. INV. @ R REFERS TO EDGE OF EASEMENT (10' FROM PIPE)
2	STA. 0+22 FROM MH-1A TO MH-2	SHC	349.50	
3	STA. 1+35 FROM MH-2 TO MH-3	DHC	356.10	
4	STA. 2+24 FROM MH-2 TO MH-3	DHC	358.50	
5	LINEAR PROFILE	SHC	355.10	ENTERS MH-3 TYPE B DROP
6	STATIONS	DHC	355.60	
7	AT R. ASHTON	SHC	352.00	ENTERS MH-4
8	PARK COURT	SHC	351.68	SERVICE @ 1% BEYOND R.O.-W
9	7+84 MARTIN ROAD	SHC	359.43	
10	8+12 MARTIN ROAD	SHC	360.06	
11	8+26 MARTIN ROAD	SHC	359.90	ENTERS MH-6
12	9+16 MARTIN ROAD	SHC	362.01	
13	7+07 MARTIN ROAD	DHC	363.40 Δ	
14	8+12 MARTIN ROAD	DHC	366.00 Δ	
15	8+78 MARTIN ROAD	DHC	367.35 Δ	
16	9+55 MARTIN ROAD	SHC	362.87	
17	11+88 MARTIN ROAD	SHC	361.00	
18	12+74 MARTIN ROAD	SHC	368.70	
19	12+84 MARTIN ROAD	SHC	369.01	
20	13+62 MARTIN ROAD	SHC	371.24	
21	15+43 MARTIN ROAD	SHC	376.20	
22	16+46 MARTIN ROAD	SHC	379.36	
23	15+32 MARTIN ROAD	SHC	378.60 Δ	
24	16+33 MARTIN ROAD	SHC	379.32	
25	17+45 MARTIN ROAD	SHC	382.30	
26	18+77 MARTIN ROAD	SHC	385.63	
27	19+64 MARTIN ROAD	SHC	387.38	
28	20+44 MARTIN ROAD	SHC	389.58	
29	STA. 34+23 OWEN BROWN RD.	SHC		ENTERS MH-11
	20+33 (BIDDISON PROPERTY)	SHC	388.45	EXISTING 4" SHC
34	STA. 12+40 MARTIN ROAD	SHC	374.24	INV. AT BACK OF CURB

\* ALL SERVICES 4" Ø (EXCEPT LOT 8, 6" Ø)

DESCRIPTION	NORTHING	EASTING
8"x2" TEE	499611.10	837229.60
2" CAP	499612.93	837475.66
P.C. CURVE 1	499898.43	837024.09
8"x6 TEE FOR HYDRANT	499768.29	837040.16
P.T. CURVE 1	499745.38	837039.18
P.C. CURVE 2	499838.90	837031.73
8"x6 TEE	499502.93	837031.90
P.T. CURVE 2	499336.57	837058.82
8"x6 TEE FOR HYDRANT	499317.68	837063.62
P.C. CURVE 3	499270.07	837075.71
8"x6 TEE FOR HYDRANT	498846.56	837059.69
P.T. CURVE 3	498841.28	837057.90
P.C. CURVE 4	498768.10	837032.69
P.T. CURVE 4	498441.78	837007.85
8"x6 TEE FOR HYDRANT	498365.11	837021.78
P.C. CURVE 5	498337.04	837028.88
8"x6 TEE FOR HYDRANT	497950.83	837030.71
P.T. CURVE 5	497854.32	837010.85
P.C. CURVE 6	497731.59	836980.03
P.T. CURVE 6	497649.33	836942.51
18"x8 WET TAP, APPROX.	497641.13	836936.79
P.C. CURVE 7	499508.59	837082.43
P.T. CURVE 7	499520.17	837147.52
1/16 BEND	499545.38	837218.99
1/8 BEND	499552.08	837228.43
8"x6 TEE FOR HYDRANT	499589.52	837228.44
8" CAP	499637.94	837231.04

METZLER P TO MANHOLE NO. 8  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'



RA LADRWIN\SI-COS\WBASE.DWG

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

Director of Public Works: [Signature]  
Chief-Bureau of Utilities: [Signature]  
Chief-Land Development Division: [Signature]

**CENTURY ENGINEERING, INC.**  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

DATE	NO.	REVISION DESCRIPTION
3-3-92	1	REVISED SHC SCHEDULE
2-2-92	2	REVISED SEWER CROSSING
1-22-92	3	INVERT CHANGE LOT 13
12-12-91	4	APPROVAL REVISION
		REVISION DESCRIPTION

**WATER & SEWER PROFILES**

VILLAGE OF HICKORY RIDGE  
SECTION 2 AREA 2  
CONTRACT NO. 24-3087-D  
5th ELECTION DISTRICT  
HOWARD CO. MARYLAND

DRAWING NO. 5 OF 5  
SCALE AS SHOWN

AS-BUILT 9-23-92

