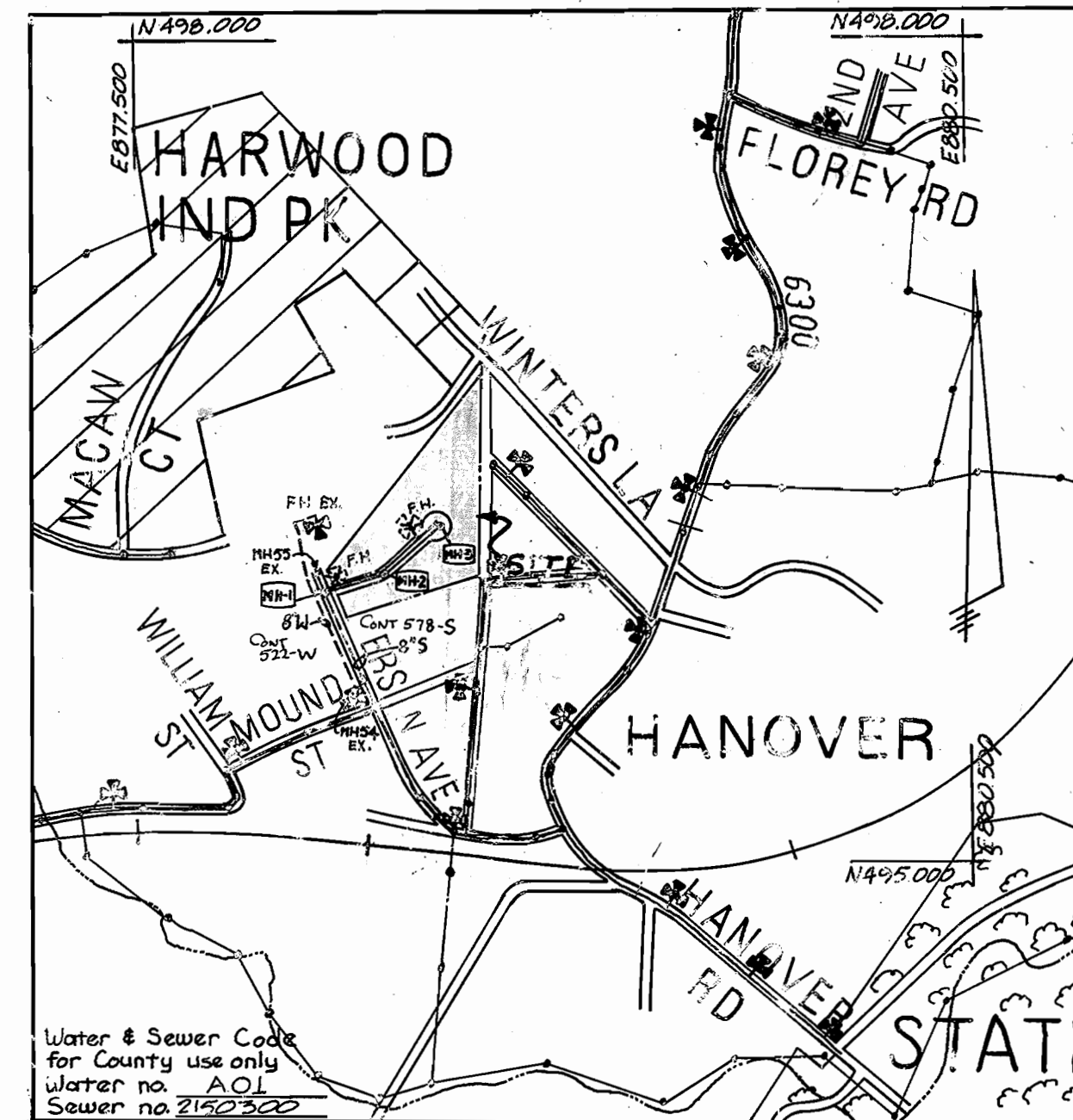


LINDSAY'S CHOICE

SEWER AND WATER

QUANTITIES

ITEM	EST'D	AS-BUILT	SUPPLIER
8" Sewer	500'	498'	ETI
6" Sewer	450'	62.4'	ETI
Manholes	3	3	ATLANTIC
8" Water	450'	438'	GRIFFIN
6" Water	80'	34'	GRIFFIN
Fire Hyd.	2	2	KENNEDY
3/4" W.H.C.	50	58	CAMBRIDGE
1" W.H.C.	295	248	CAMBRIDGE
8" Valves	1	1	KENNEDY
6" Valve	1	1	KENNEDY



GENERAL NOTES

- All construction shall be in accordance with the Howard County Department of Public Works "Standards, Specifications and Details for Construction" unless otherwise noted.
- The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains and any damage to them shall be repaired immediately at his own expense.
- It shall be distinctly understood that failure to mention specifically any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
- Five (5) days before starting work shown on these drawings the contractor shall notify: a) B.G.E. - contractor services 850-4620; - underground damage control 859-9004, - trouble shooting 289-9001. b) State Highway Admin. 551-5533. c) Miss Utility 1-559-0100. d) Bureau of Utilities, Howard County Dept. of Public Works 992-2366.
- The property and topographic information shown hereon is based on surveys performed by Paul K. Miller and Associates, June, 1986.
- Sewer pipe elevations refer to inverts and water elevations refer to tops of mains.
- All water mains shall be D.I.P. class 52, And all D.I.P. fittings shall be in accordance with A.W.W.A.
- The actual location of house connections shall be determined in the field.
- All fire hydrants shall conform to Howard County standards.
- Concrete buttresses or anchors shall be provided at all bends, tees and dead ends in the water mains.
- All valves on fire hydrant leads, tees and stub lines, shall be tied or strapped back to the main line and straps or rods painted with two coats of asphaltic paint.
- Vertical and Horizontal control based on Howard County traverse stations:
 a. 2247002 - N494, 004, 546, E 878, 200, G58, Elev. = 89.819
 b. 2247005 - N494, 872, G90, E 879, 600, 222, Elev. = 49.478
- The contractor shall note that in case of a discrepancy between the scaled and the figured dimensions shown on these plans, the figured dimensions shall govern.
- Clear all utilities by a minimum of 6". Clear all poles 2'-0" minimum or tunnel as required.
- Contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
- Top of all water mains to have a minimum of 3'-1/2' cover unless otherwise noted.
- All water house connection shall be meter setting for inside.
- 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 for brick only.
- Contractor shall remove trees, stumps and roots along line of excavation, and protect all others from damage to maximum.
- Contractor shall not operate any water main valves on the existing water system.
- All sewer mains shall be C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. Class 2400 or P.V.C., unless otherwise noted and force mains shall be D.I.P. only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers.
- Houses with the symbol "C.N.S." indicates that cellar cannot be served.
- All D.I.P. fittings shall be in accordance with AWWA specification C-153 Ductile Iron Compact Fittings, 3"-12" for water and other liquids.

Sediment control measures for this contract will be implemented in accordance with section 219 of the Howard County design manual and standards and specifications for soil erosion and sediment control in developing areas and also as shown on the grading and sediment control plan F-88-16

Reviewed for Howard Co. Soil Conservation District and meets technical requirements.

James M. Helm 7/19/88
 U.S. Soil and Conservation Service Date

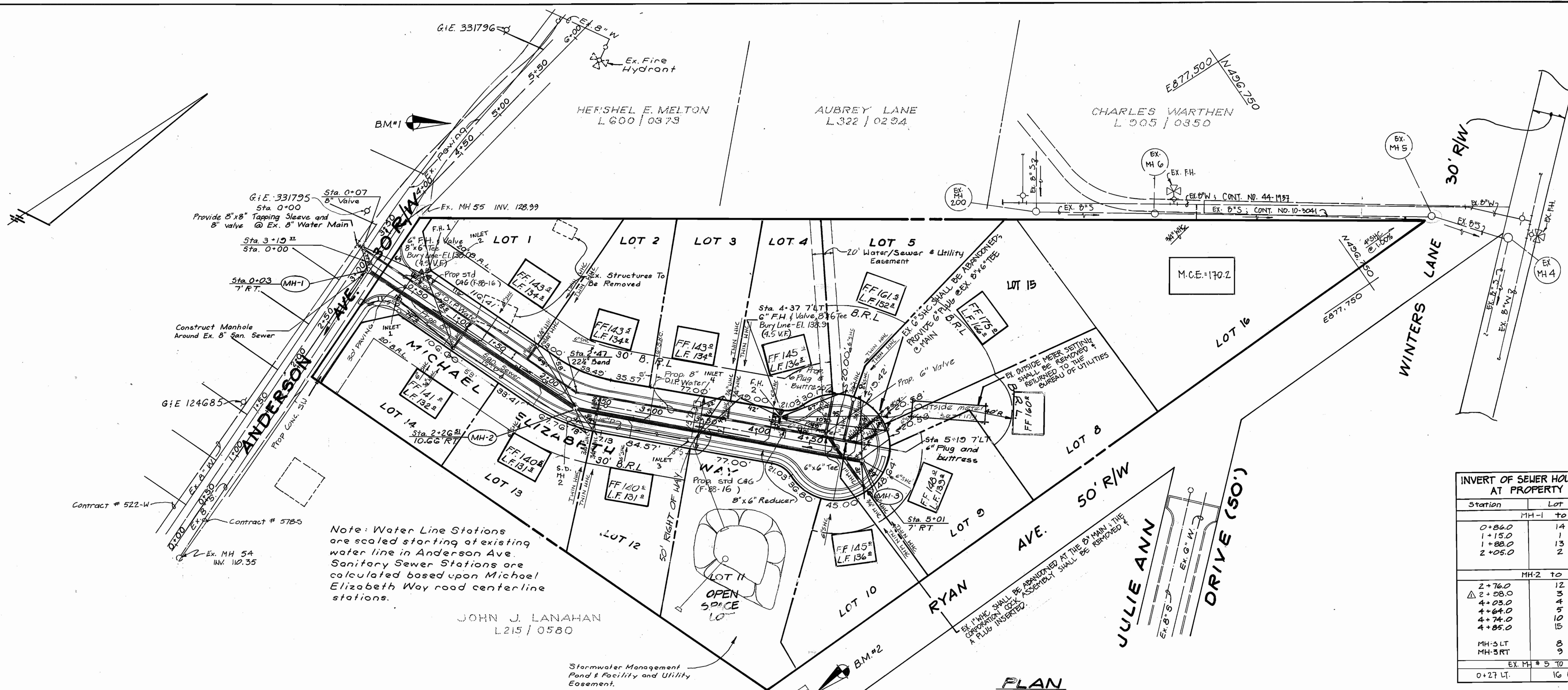
This development plan is approved for Erosion and Sediment Control by Howard Soil Conservation District.

Approved:
Stephen L. Helm 7/19/88
 Howard Soil Conservation District Date

BOYD & DOWGIALLO, P.A.
 405 HEADQUARTERS DR.
 SUITES 7 & 8
 MILLERSVILLE, MARYLAND 21108
 (301) 987-2500

BRUNING 69150

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>James M. Helm</i> 9/7/88 DIRECTOR OF PUBLIC WORKS DATE <i>Michael A. Bannock</i> 7-14-88 CHIEF BUREAU OF UTILITIES DATE		BOYD & DOWGIALLO, P.A. 405 Headquarters Drive, Suites 7 & 8 Millersville, Maryland 21108 (301) 987-2500 		DES: J.J.N. DRN: A.W.S. CHK: D.G.B. DATE: 7-28-87		MWM AS-BUILT 9/22/92		OWNER / DEVELOPER HANOVER DEVELOPMENT CO. 5136 WESTLAND BLVD. BALTIMORE, MARYLAND 21227		SEWER AND WATER LINDSAY'S CHOICE First District Lots 1-14 Howard Co. Md. CONTRACT 14-1812-D AS-BUILT 9/22/92		SCALE AS SHOWN SHEET 1 OF 2
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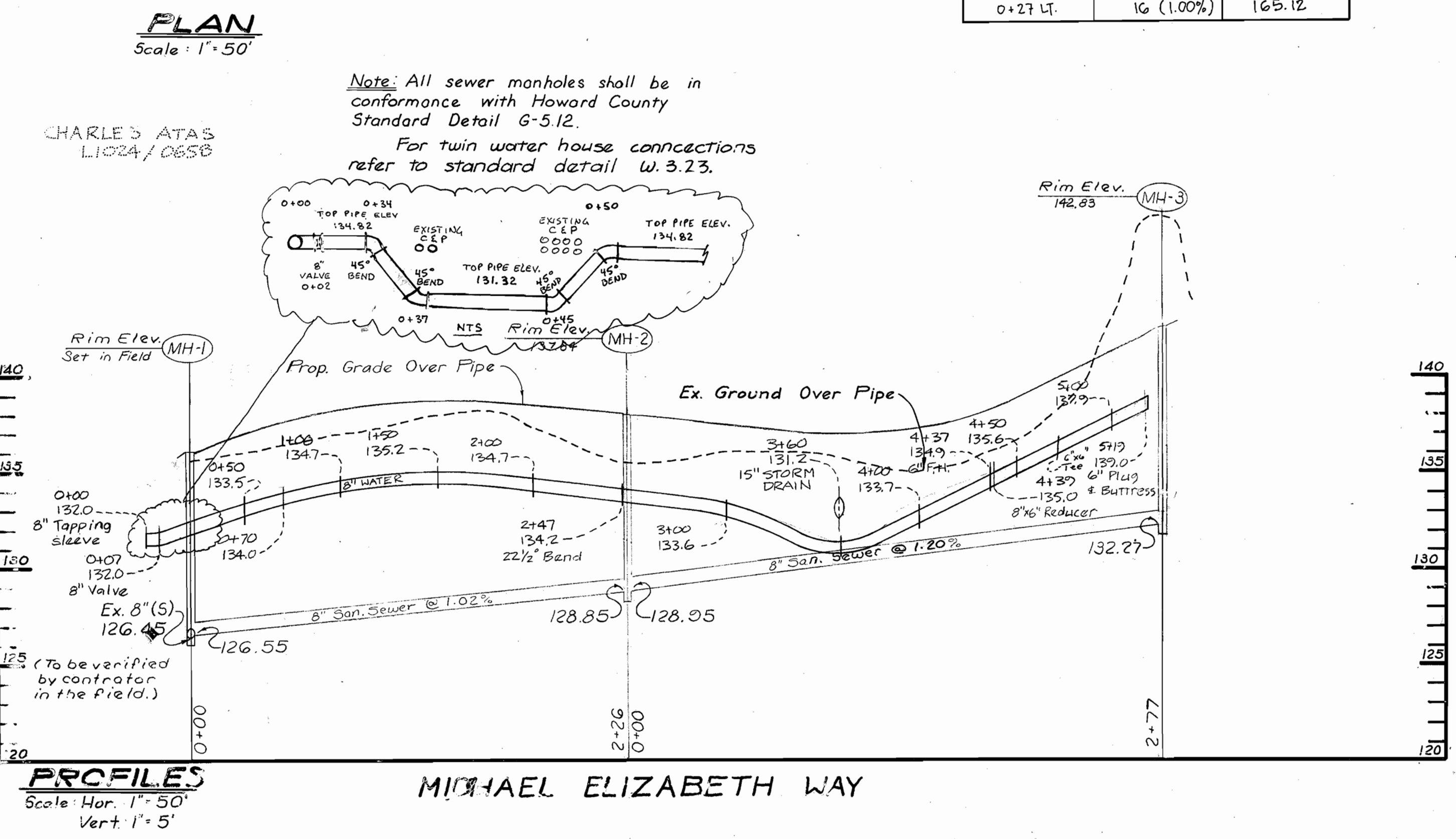
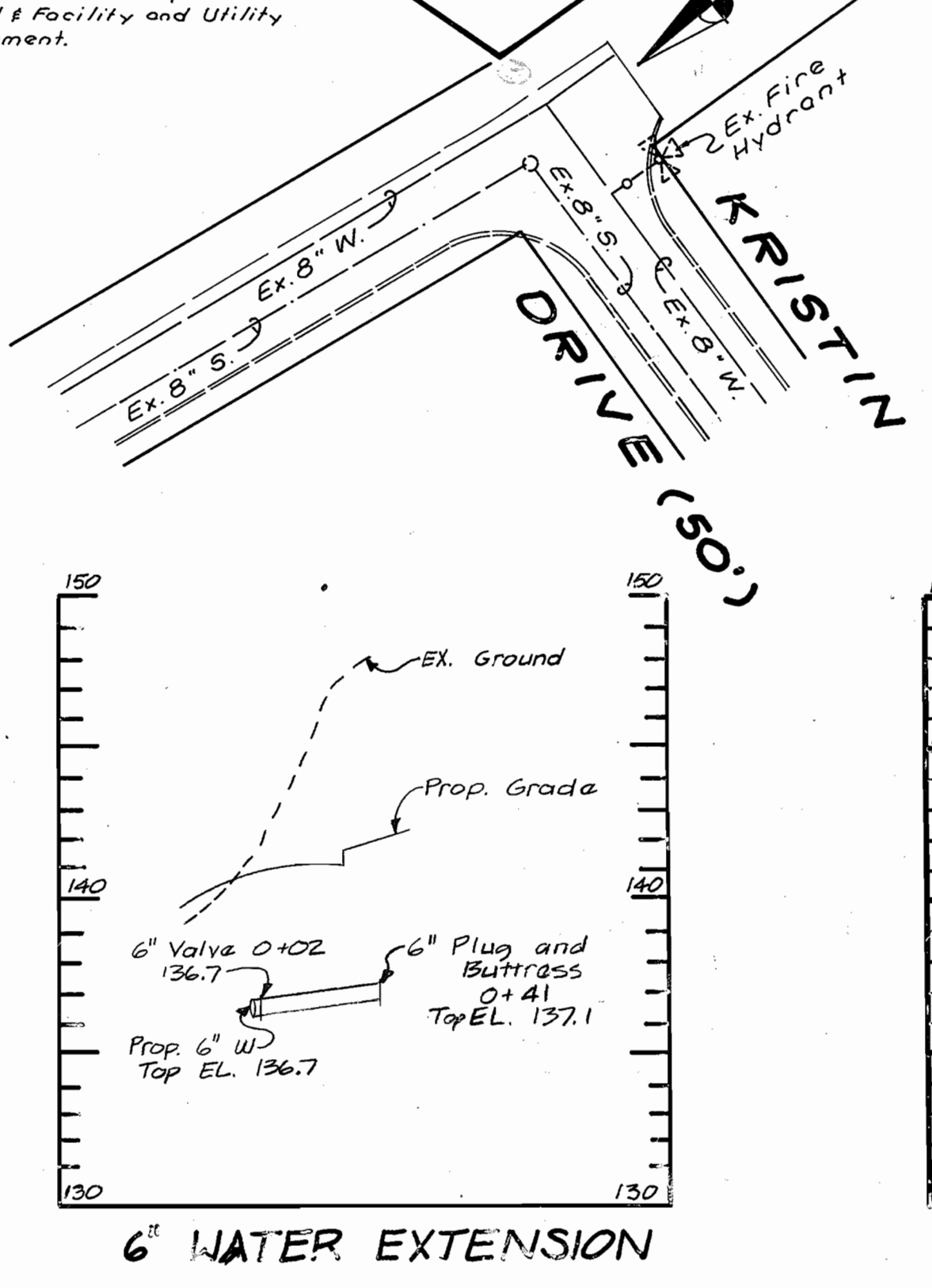
- SHC ASBUILTS
- LOT 1 76' FROM F.H. 1
85' FROM INLET 2
 - LOT 2 46' FROM S.D. MH 2
32' FROM MH 2
 - LOT 3 78' FROM MH 2
42' FROM INLET 4
 - LOT 4 66' FROM INLET 4
9' FROM F.H. 2
 - LOT 5 67' FROM F.H. 2
62' FROM MH 3
 - LOT 6 80' FROM F.H. 2
53' FROM MH 3
 - LOT 7 99' FROM F.H. 2
43' FROM MH 3
 - LOT 8 108' FROM F.H. 2
35' FROM MH 3
 - LOT 9 31' FROM SHC - LOT 8
27' FROM MH 3
 - LOT 10 93' FROM F.H. 2
45' FROM MH 3
 - LOT 11 OPEN SPACE
 - LOT 12 69' FROM INLET 4
56' FROM INLET 3
 - LOT 13 36' FROM MH 2
42' FROM S.D. MH 2
 - LOT 14 68' FROM INLET 1
73' FROM F.H. 1

Note: Water Line Stations are scaled starting of existing water line in Anderson Ave. Sanitary Sewer Stations are calculated based upon Michael Elizabeth Way road centerline stations.

Station	Lot No	Invert Elev.
MH-1 TO MH-2		
0+86.0	14	127.98
1+15.0	1	128.55
1+88.0	13	129.21
2+05.0	2	129.61
MH-2 TO MH-3		
2+76.0	12	129.25
2+08.0	1	129.57
4+03.0	4	131.67
4+64.0	5	132.81
4+74.0	10	132.73
4+85.0	15	133.06
MH-3 LT		
MH-3 LT	8	132.87
MH-3 RT	9	132.87
EX. MH # 5 TO EX. MH # 6		
0+27 LT.	16 (1.00%)	165.12

STA.	ELEV.	DESCRIPTION
0+00	132.0	8" Tapping sleeve
0+07	132.0	8" Valve
0+70	134.0	8"x6" Tee, 6" Valve, 6" F.H.
1+00	134.7	
1+50	135.2	
2+00	134.7	
2+47	134.2	22 1/2" Bend
3+00	133.6	
3+60	131.2	15" Storm Drain
4+00	133.7	
4+37	134.0	8"x6" Tee, 6" Valve, 6" F.H.
4+39	135.0	8"x6" Reducer
4+50	135.6	
5+00	137.9	
5+19	139.0	6" Plug and buttress

	North	East	Elevations
1	496,122.36	877,150.31	149.12
2	496,109.73	877,778.26	130.47



Note: All sewer manholes shall be in conformance with Howard County Standard Detail G-5.12. For twin water house connections refer to standard detail W.3.23.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 9/1/02 Chief, Bureau of Utilities: <i>[Signature]</i> 7-14-08	BOYD & DOWGIALLO, P.A. 405 Headquarters Drive, Suites 7 & 8 Millersville, Maryland 21108 (301) 987-2500		DES: J.J.N.	MWM	A.S.-BUILT	9/22/02	OWNER / DEVELOPER HANOVER DEVELOPMENT CO. 5136 WESTLAND BLVD. BALTIMORE, MARYLAND 21227	SEWER AND WATER LINDSAY'S CHOICE First District Lots 1-14 Howard Co. Md. CONTRACT 14-1812-D AS-BUILT 9/22/02	SCALE AS SHOWN SHEET 2 OF 2
			DRN: D.D.	CHK: D.G.B.	J.T.	BY NO.			