

# WATER AND SEWER EXTENSIONS

## VILLAGE OF RIVER HILL

### SECTION 2 AREA 6 PHASE 1

#### 5th ELECTION DISTRICT

#### HOWARD COUNTY, MARYLAND

#### CONTRACT NO. 34-3434-D

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN OF WATER AND SEWER MAINS
3	PLAN OF A SEWER MAIN
4	PLAN OF A SEWER MAIN AND DETAIL SHEET
5	PROFILES OF A SEWER MAIN
6	PROFILES OF A SEWER MAIN
7	PROFILES OF WATER AND SEWER MAINS
8	PROFILES OF WATER AND SEWER MAINS

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
8" WATER	1591 LF	1591 LF	GRIFIN	6000
8"x8" CROSS	1 EA	1 EA	"	"
8"x6" TEE	5 EA	5 "	"	"
8"x6" REDUCER	1 EA	1 "	"	"
8" VALVE	8 EA	8 "	MUELLER CO.	"
8"-1/8 HB	2 EA	2 "	GRIFIN	"
8" CAP & BUTTRESS	2 EA	" "	"	"
AIR RELEASE MANHOLE	1 EA	1 "	"	F.S.U.
6" WATER	877 LF	877 LF	GRIFIN	"
FIRE HYDRANT	4 EA	4 EA	BLAKE EV SUPPLY	"
6" VALVE	7 EA	7 "	MUELLER CO.	"
6"-1/8 HB	1 EA	1 "	GRIFIN	"
6" PLUG & BUTTRESS	3 EA	3 "	"	"
3/4" WHC	2047 LF	2047 LF	CAMPBELL DEE	"
8" SEWER	4255 LF	4255 LF	GRIFIN	"
8" D.I.P. CL. 52	1532 LF	1532 LF	"	"
4" SHC	2190 LF	2190 LF	"	"
4'-0" DIA. MANHOLES	30 EA	30 EA	ATLANTIC CONZ.	"
4'-0" DIA. MANHOLES	107 VF	107 VF	"	"
TYPE 'A' DROP MANHOLES	1 EA	2 EA	"	"
TYPE 'B' DROP MANHOLES	5 EA	5 "	"	"
4" CHC	25 VF	25 VF	GRIFIN	"

NAME OF UTILITY CONTRACTOR: <b>DAK PAPER</b>
CHECKBOX
AS-BUILT DATE: <b>4/29/97</b>
SURVEY AND DRAFTING DIVISION

**BENCHMARKS**

BM#1 RAILROAD SPIKE IN POLE # 525680  
 (TROTTER ROAD) ELEV. 393.27  
 N 496697.02  
 E 822026.81

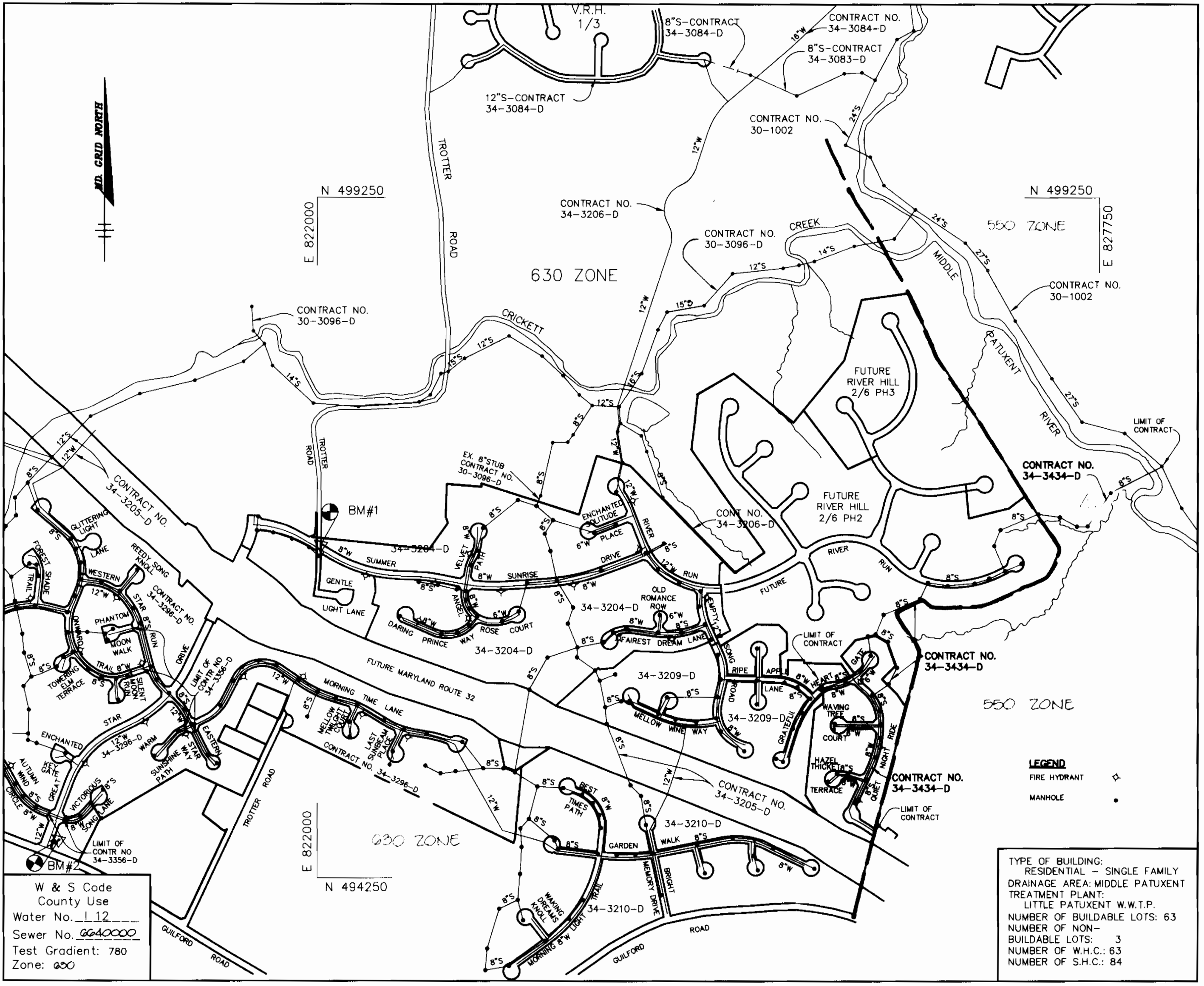
BM#2 HOWARD COUNTY MONUMENT  
 NO. 2437003 ELEV. 472.12  
 CONCRETE MONUMENT

Review for Howard Soil Conservation District and meets technical requirements.

*J.A. Wayfield* 7/1/96  
 NATURAL RESOURCES CONSERVATION SERVICE DATE

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

*John P. Roberts* 7/1/96  
 HOWARD SOIL CONSERVATION DISTRICT DATE



**VICINITY MAP**  
SCALE: 1"=600'

#### GENERAL NOTES

1. 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.
2. All horizontal controls are based on Maryland State Coordinates.
3. All vertical controls are based on U.S.G.S. data.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. 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 the bracing of additional poles, any cost incurred by the owner for bracing of additional poles or damages shall be deducted from money owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
6. For details not shown on the drawings, and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail for Construction. (Latest Edition). The contractor shall have a copy of Volume IV on the job.
7. 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 located by the contractor two weeks in advance of construction operations at his own expense.
8. Contractor shall notify the following utility companies 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. Underground 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
9. 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.
10. Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for construction of the main.
11. All water mains to be D.I.P. Class 52 unless otherwise noted.
12. Tops of all water mains to have a minimum of 3'-1/2" cover unless otherwise noted.
13. Valves adjacent to tees shall be strapped to tees.
14. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
15. Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
16. The contractor shall not operate any water main valves on the existing water system.
17. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
18. All sewer mains shall be D.I.P. and P.V.C. unless otherwise noted.
19. All manholes shall be 4'-0" inside diameter unless otherwise noted.
20. Force mains shall be D.I.P. only.
21. Manholes shown with 12" and 16" walls are for brick manholes only.
22. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.
23. House(s) with the symbol "C.N.S." indicates that cellar cannot be served.
24. Manholes can be either brick or precast concrete structures.
25. Contractor is solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs.
26. The fire hydrant shall be installed as per standard detail W.1.11.
27. Fire hydrants will be located 3' FROM BACK OF CURB unless otherwise noted.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Michael A. ...* 6-24-96  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

*...* 7/1/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**RIEMER MUEGGE & ASSOCIATES, INC.**  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 9818 Centre Park Drive • Suite 200 • Columbia, MD 21046  
 410-997-8900 FAX: 410-997-9282  
 HOCO102800(PH)W51.DWG

*T. Sorell*  
 JAYKANT D. PAREKH # 19148

DES: DAM	
DRN: DAM/BRD	
CHK: C.J.R.	
DATE: 6/29/96	
WAD BY NO.	
REV. VICINITY MAP & QUANTITIES ONLY	
REVISION	

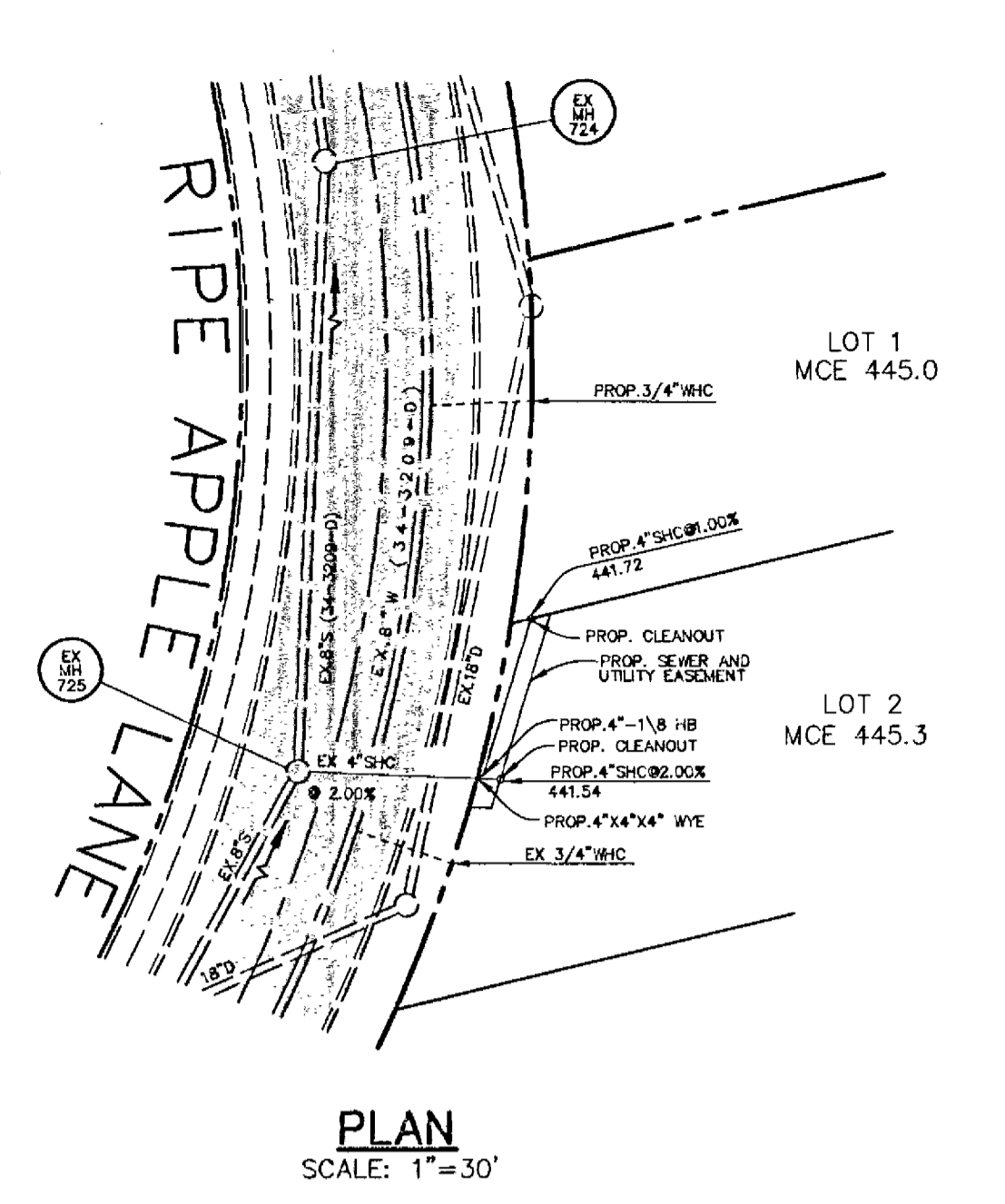
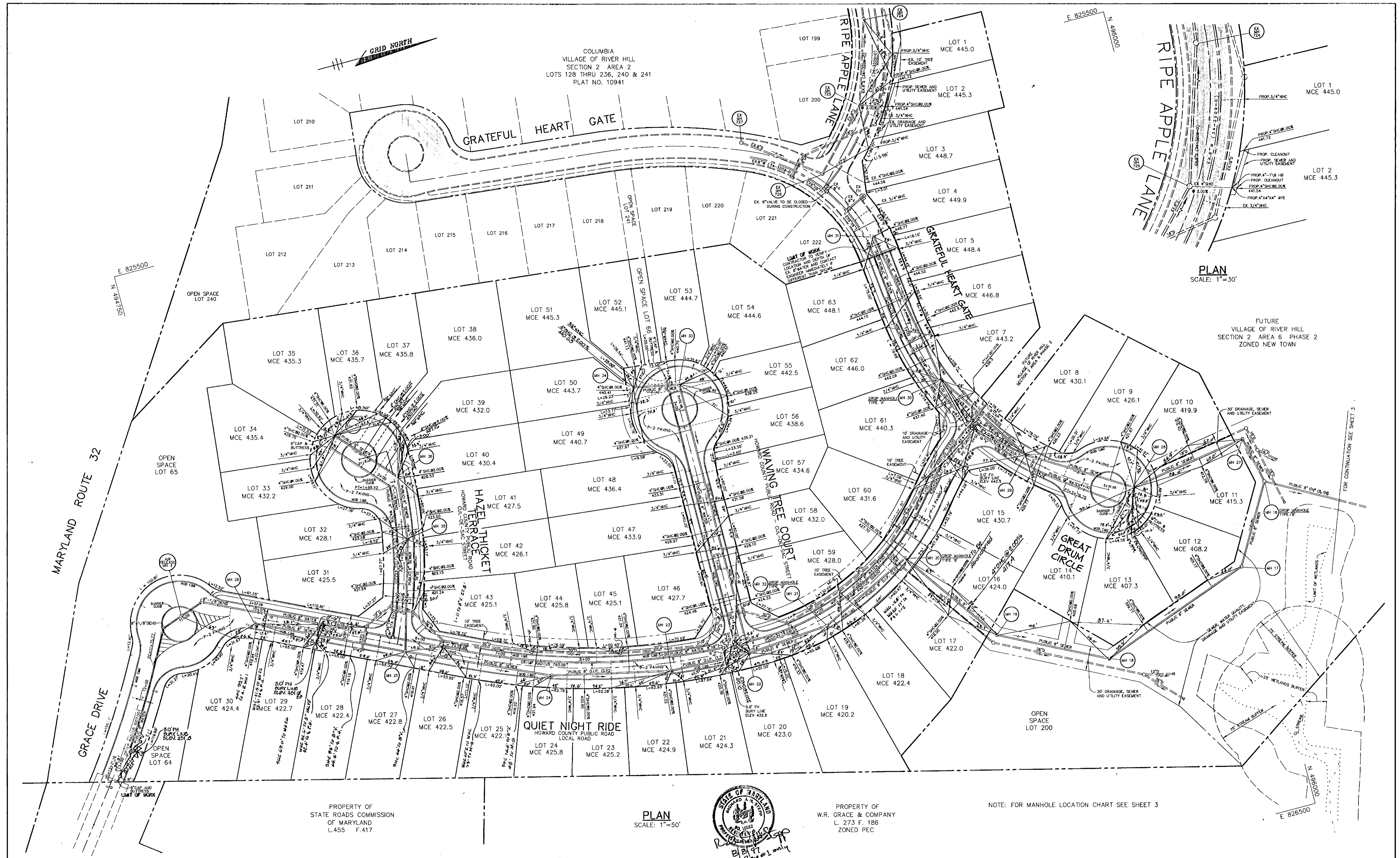
TITLE SHEET

600' SCALE MAP NO. 35 BLOCK NO. 15 & 21

VILLAGE OF RIVER HILL  
 SECTION 2 AREA 6 PHASE 1  
 LOTS 1 THRU 66  
 5th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 34-3434-D

SCALE AS SHOWN  
 SHEET 1 OF 8

*W/S AS-BUILT 4/29/97*



PROPERTY OF STATE ROADS COMMISSION OF MARYLAND L.455 F.417

PLAN SCALE: 1"=50'



PROPERTY OF W.R. GRACE & COMPANY L. 273 F. 186 ZONED PEC

NOTE: FOR MANHOLE LOCATION CHART SEE SHEET 3

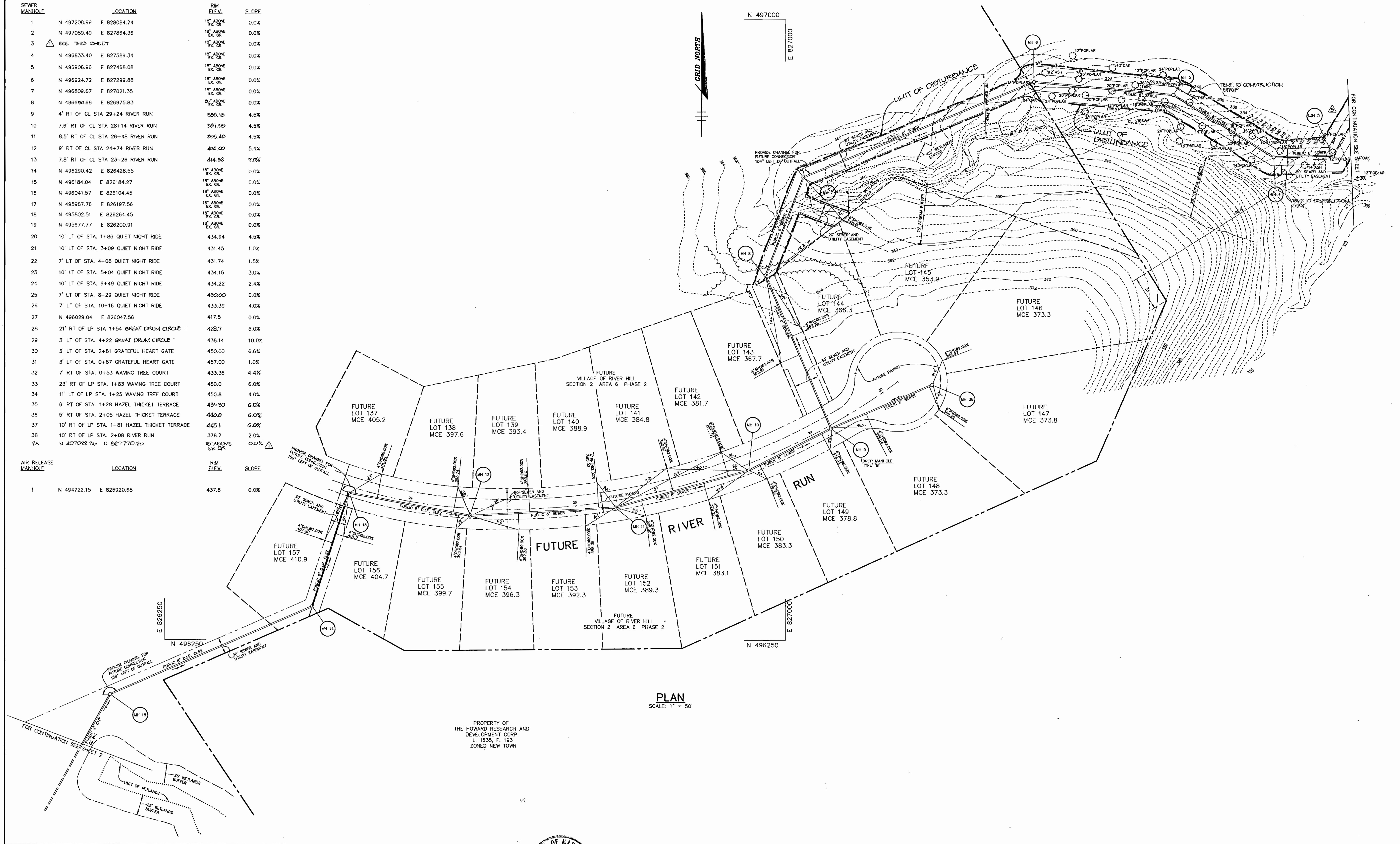
<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Wanda A. Rainville</i> 6/26/96 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>DEPARTMENT OF PLANNING &amp; ZONING HOWARD COUNTY, MARYLAND</p> <p><i>W. J. ...</i> 7/2/96 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE</p>	<p><b>RIEMER MUEGGE &amp; ASSOCIATES, INC.</b> ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive • Suite 200 • Columbia, MD 21046 410-997-8900 FAX: 410-997-9282 HCOO102800 PHW52.DWG</p>	<p><b>STATE OF MARYLAND</b> JAYKANT O. PAREKH # 19148</p>	<p>DES: DAM DRN: DAM/BRD CHK: C.J.R. DATE: 6/26/96</p> <p>BY: G.F.S. / NO. 1 Rev. DHC elev. &amp; location Lot 18 DATE: 8/8/97</p>	<p>PLAN OF WATER AND SEWER MAINS</p> <p>60' SCALE MAP NO. 35 BLOCK NO. 15 &amp; 21</p>	<p>VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1 LOTS 1 THRU 66 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 34-3434-D</p> <p>SCALE AS SHOWN SHEET 2 OF 8</p>
--	--	--	---	--	--	--

**WIS AS-BUILT 4/29/97**

**MANHOLE SCHEDULE**

SEWER MANHOLE	LOCATION	RIM ELEV.	SLOPE
1	N 497208.99 E 828084.74	18" ABOVE EX. GR.	0.0%
2	N 497089.49 E 827864.36	18" ABOVE EX. GR.	0.0%
3	SEE THIRD SHEET	18" ABOVE EX. GR.	0.0%
4	N 496833.40 E 827589.34	18" ABOVE EX. GR.	0.0%
5	N 496908.96 E 827468.08	18" ABOVE EX. GR.	0.0%
6	N 496924.72 E 827299.88	18" ABOVE EX. GR.	0.0%
7	N 496809.67 E 827021.35	18" ABOVE EX. GR.	0.0%
8	N 496690.68 E 826975.83	18" ABOVE EX. GR.	0.0%
9	4' RT OF CL STA 29+24 RIVER RUN	203.10	4.5%
10	7.6' RT OF CL STA 28+14 RIVER RUN	207.20	4.5%
11	8.5' RT OF CL STA 26+48 RIVER RUN	205.40	4.5%
12	9' RT OF CL STA 24+74 RIVER RUN	204.00	5.4%
13	7.8' RT OF CL STA 23+26 RIVER RUN	214.80	7.0%
14	N 496290.42 E 826428.55	18" ABOVE EX. GR.	0.0%
15	N 496184.04 E 826184.27	18" ABOVE EX. GR.	0.0%
16	N 496041.57 E 826104.45	18" ABOVE EX. GR.	0.0%
17	N 495987.76 E 826197.56	18" ABOVE EX. GR.	0.0%
18	N 495802.51 E 826264.45	18" ABOVE EX. GR.	0.0%
19	N 495677.77 E 826200.91	18" ABOVE EX. GR.	0.0%
20	10' LT OF STA. 1+86 QUIET NIGHT RIDE	434.94	4.5%
21	10' LT OF STA. 3+09 QUIET NIGHT RIDE	431.45	1.0%
22	7' LT OF STA. 4+08 QUIET NIGHT RIDE	431.74	1.5%
23	10' LT OF STA. 5+04 QUIET NIGHT RIDE	434.15	3.0%
24	10' LT OF STA. 6+49 QUIET NIGHT RIDE	434.22	2.4%
25	7' LT OF STA. 8+29 QUIET NIGHT RIDE	430.00	0.0%
26	7' LT OF STA. 10+16 QUIET NIGHT RIDE	433.39	4.0%
27	N 496029.04 E 826047.56	417.5	0.0%
28	21' RT OF LP STA 1+54 GREAT DRUM CIRCLE	428.7	5.0%
29	3' LT OF STA. 4+22 GREAT DRUM CIRCLE	438.14	10.0%
30	3' LT OF STA. 2+81 GRATEFUL HEART GATE	450.00	6.6%
31	3' LT OF STA. 0+87 GRATEFUL HEART GATE	457.00	1.0%
32	7' RT OF STA. 0+53 WAVING TREE COURT	433.36	4.4%
33	23' RT OF LP STA. 1+83 WAVING TREE COURT	450.0	6.0%
34	11' LT OF LP STA. 1+25 WAVING TREE COURT	450.8	4.0%
35	6' RT OF STA. 1+28 HAZEL THICKET TERRACE	435.90	6.0%
36	5' RT OF STA. 2+05 HAZEL THICKET TERRACE	440.0	6.0%
37	10' RT OF LP STA. 1+81 HAZEL THICKET TERRACE	445.1	6.0%
38	10' RT OF LP STA. 2+08 RIVER RUN	378.7	2.0%
39	N 497102.56 E 827170.25	18" ABOVE EX. GR.	0.0%

AIR RELEASE MANHOLE	LOCATION	RIM ELEV.	SLOPE
1	N 494722.15 E 825920.68	437.8	0.0%



**PLAN**  
SCALE: 1" = 50'

PROPERTY OF THE HOWARD RESEARCH AND DEVELOPMENT CORP. L. 1535, F. 193 ZONED NEW TOWN

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Michael J. Rossinville for REP* 6/26/96  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Howard J. Danner* 7/1/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**RIEMER MUEGGE & ASSOCIATES, INC.**  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8000 FAX: 410-997-8282  
HOC0102800 PHMS.DWG

*J. Farrell*  
JAYKANT D. PAREKH # 19148

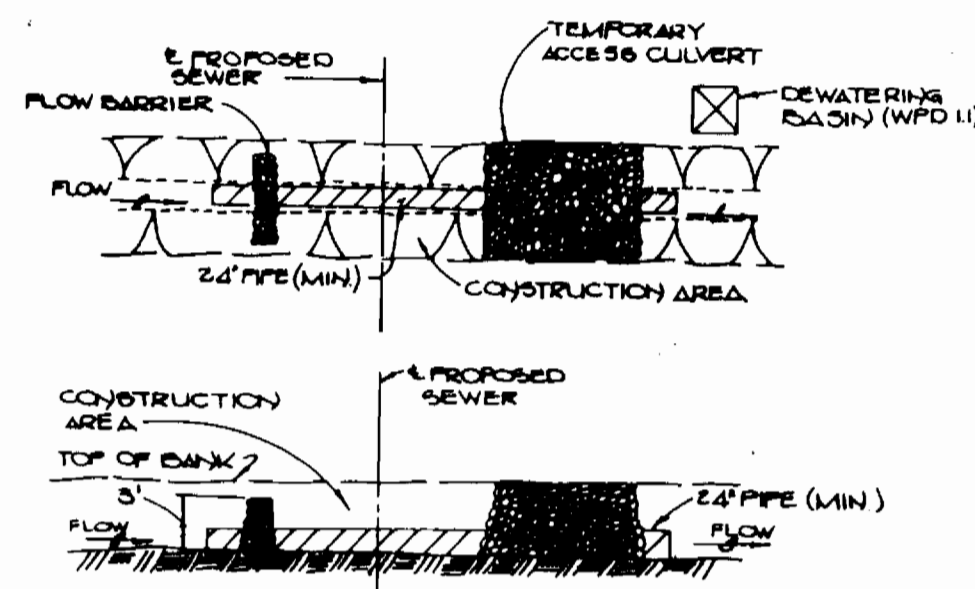
DES: DAM					
DRN: DAM/BRD					
CHK: C.J.R.					
DATE: 6/20/96					
WAD	Δ	REV. SEWER ALIGNMENT & MH SCHEDULE FOR MH 1 & 2A			6/26/96
BY NO.		REVISION		DATE	

**PLAN OF A SEWER MAIN**  
600' SCALE MAP NO. 35 BLOCK NO. 15 & 21

VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 1  
LOTS 1 THRU 66  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 34-3434-D

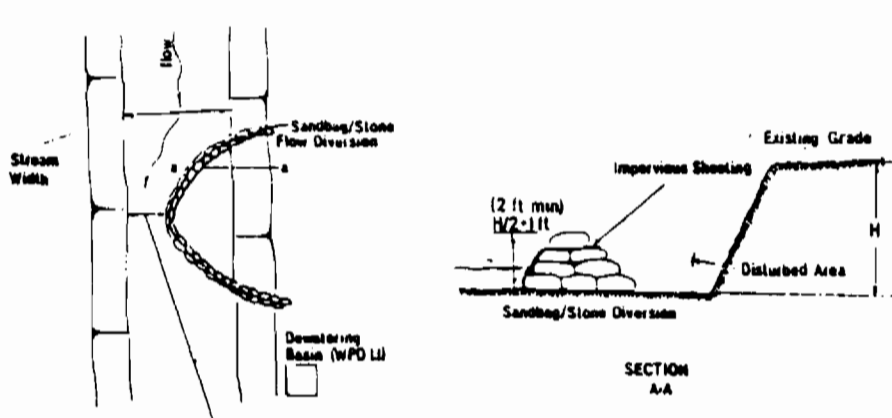
SCALE AS SHOWN  
SHEET 3 OF 8

*WLS AG-BULLY 6/29/97*



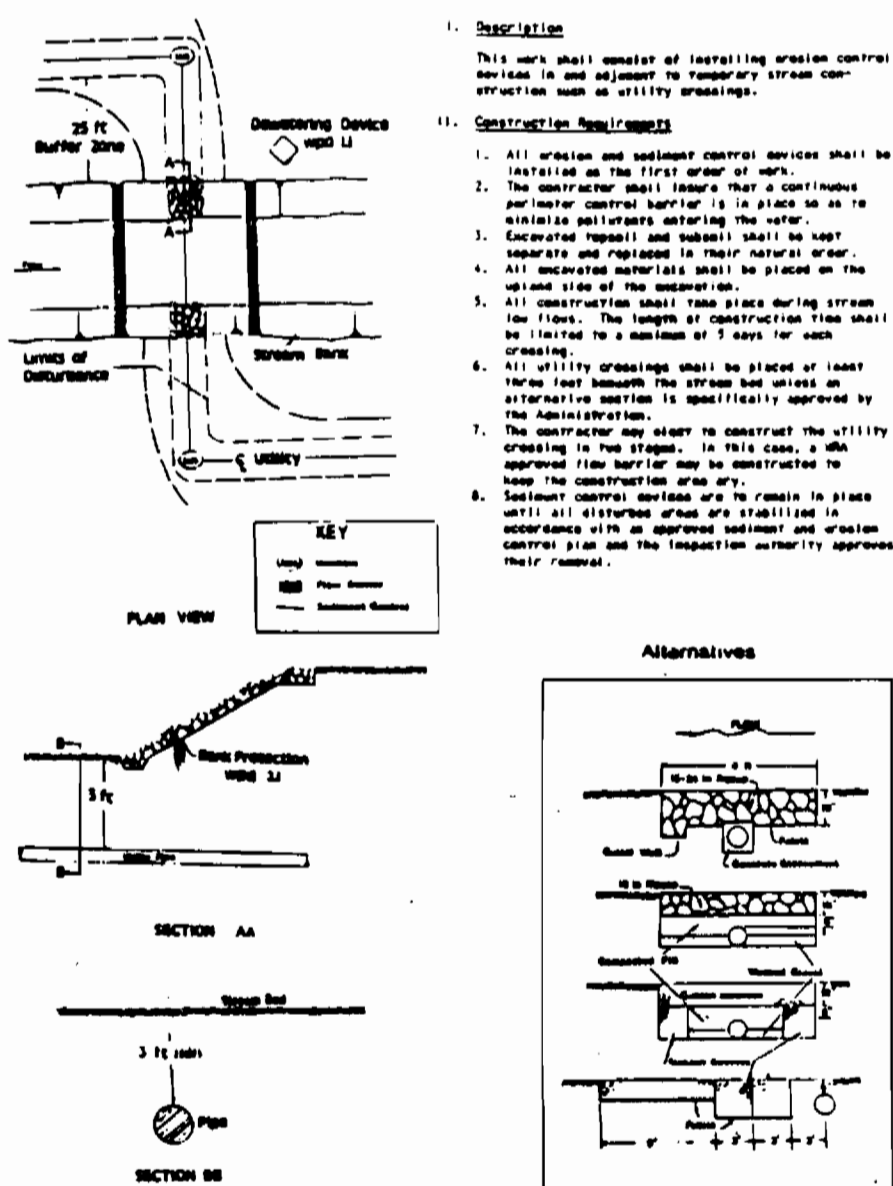
- 1. Description**  
The work shall consist of installing a flow barrier structure in conjunction with a temporary access crossing during construction such as utility crossing.
- 1.1. Construction Requirements**
- All upstream sediment control devices shall be installed as the first order of business.
  - Pieces must be sized to accommodate normal stream flow.
  - The flow barrier shall be constructed of sandbags, wooden planks, or other approved material as per (M.D.C.). The materials shall be sized to withstand normal stream flow velocities.
  - All dewatering of the construction area shall be pumped to a dewatering basin (WPD II) prior to re-entering the stream.
  - The temporary access crossing shall be constructed in accordance with Standard Detail (S.D.C.) 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

**TEMPORARY STREAM CROSSING**  
NO SCALE

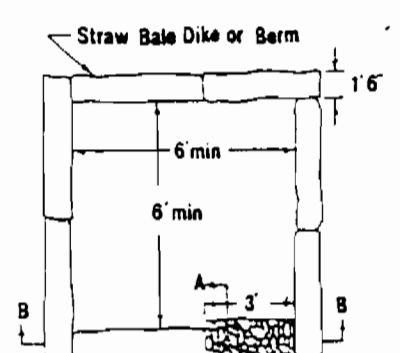


- 1. Description**  
The work shall consist of installing flow diversions for the purpose of erosion control when construction activities take place within the stream channel, such as bank stabilization or bridge abutment construction.
- 1.1. Material Specifications**
- Sandbags:** Sandbags shall consist of material which is resistant to ultraviolet radiation, tearing and puncture and cover tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
  - Stones:** Stones shall be washed and have a minimum diameter of 6 inches.
  - Sheeting:** Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.
- 1.2. Construction Requirements**
- All upstream sediment control devices shall be installed as the first order of work.
  - The diversion structure shall be installed from upstream to downstream.
  - The height of the diversion structure shall be one half the distance from stream bed to stream bank plus one foot, as indicated on the cross-section view.
  - All excavated materials shall be disposed of in a SCD approved disposal area within the 100-year floodplain unless otherwise approved on the plans by the M&D.
  - All dewatering of the construction area shall be pumped to a dewatering basin prior to re-entering the stream.
  - Sheeting shall be overlapped such that the upstream portion covers the downstream portion with at least an 18-inch overlap.
  - Sediment control devices are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspecting authority approves their removal.

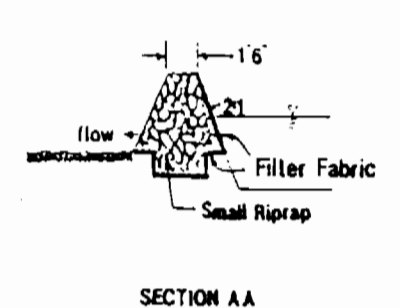
**SANDBAG/STONE DIVERSION**  
NO SCALE



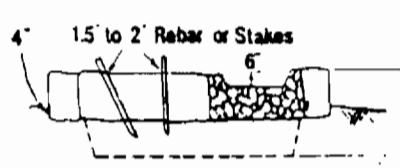
**UTILITY CROSSING**  
NO SCALE



PLAN VIEW



SECTION AA

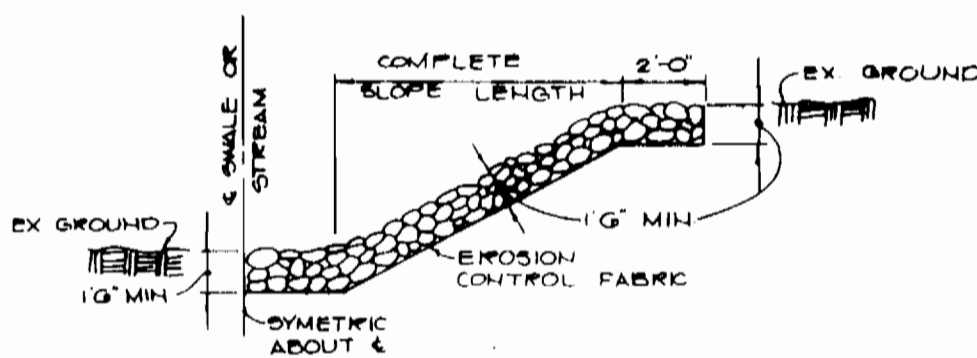


SECTION BB

**DEWATERING BASIN**  
NO SCALE

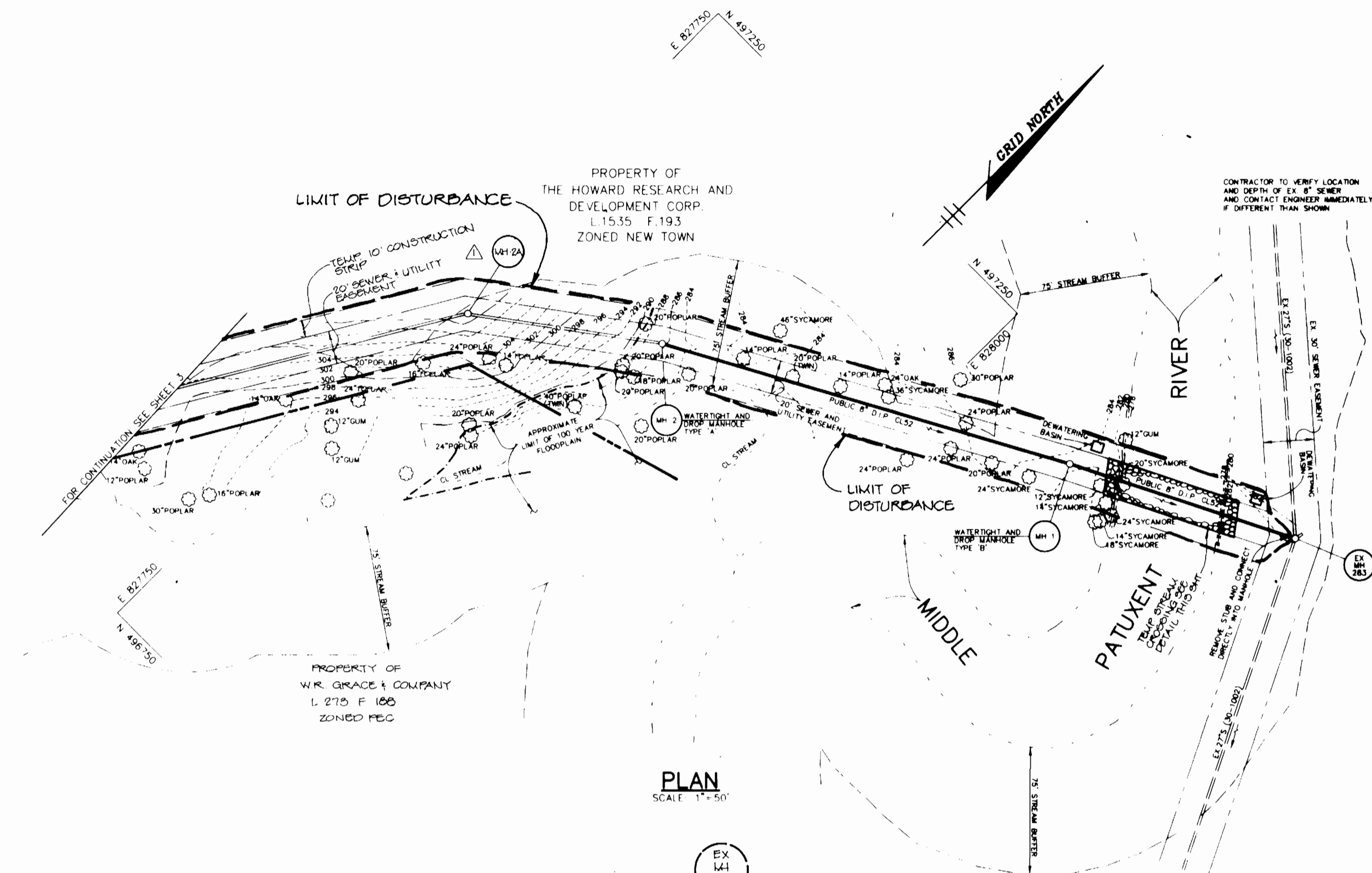
- 1. Description**  
The work shall consist of the construction of a dewatering basin for the purpose of receiving sedimentation water pumped from a construction site to allow filtration before the water re-enters the waterway.
- 1.1. Material Specifications**
- Riprap:** Riprap shall consist of 4-8 inch washed stone or gravel.
  - Filter Fabric:** The filter cloth shall be a woven or nonwoven fabric consisting only of continuous chain polymeric (i.e., polypropylene or polyethylene) fibers. The fabric shall be inert to commonly encountered chemicals, hydrocarbons, oils, and not resistant, No. 6 Stone (ASTM D75) may be used on the lower face for filtering instead of fabric.
  - Strawbales:** Strawbales shall meet the criteria as specified in the Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- 1.2. Construction Requirements**
- The contractor shall install all sediment and erosion control devices as the first order of business.
  - Excavated materials shall be stored such that sediment is prevented from entering the waterway. All sediment per meter contents may be necessary and riprap shall be kept separate and replaced in their natural state.
  - Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.
  - The dewatering basin shall be excavated to a minimum depth of 3 feet.
  - Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the M&D.
  - Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal. All ground contents shall be returned to their original condition unless specifically approved otherwise by the Administration.

Rip-rap to consist of dense rocks of random shape and sizes, resistance to the action of the air and water and suitable for bank protection. All rocks to weigh a minimum of 75 lbs.

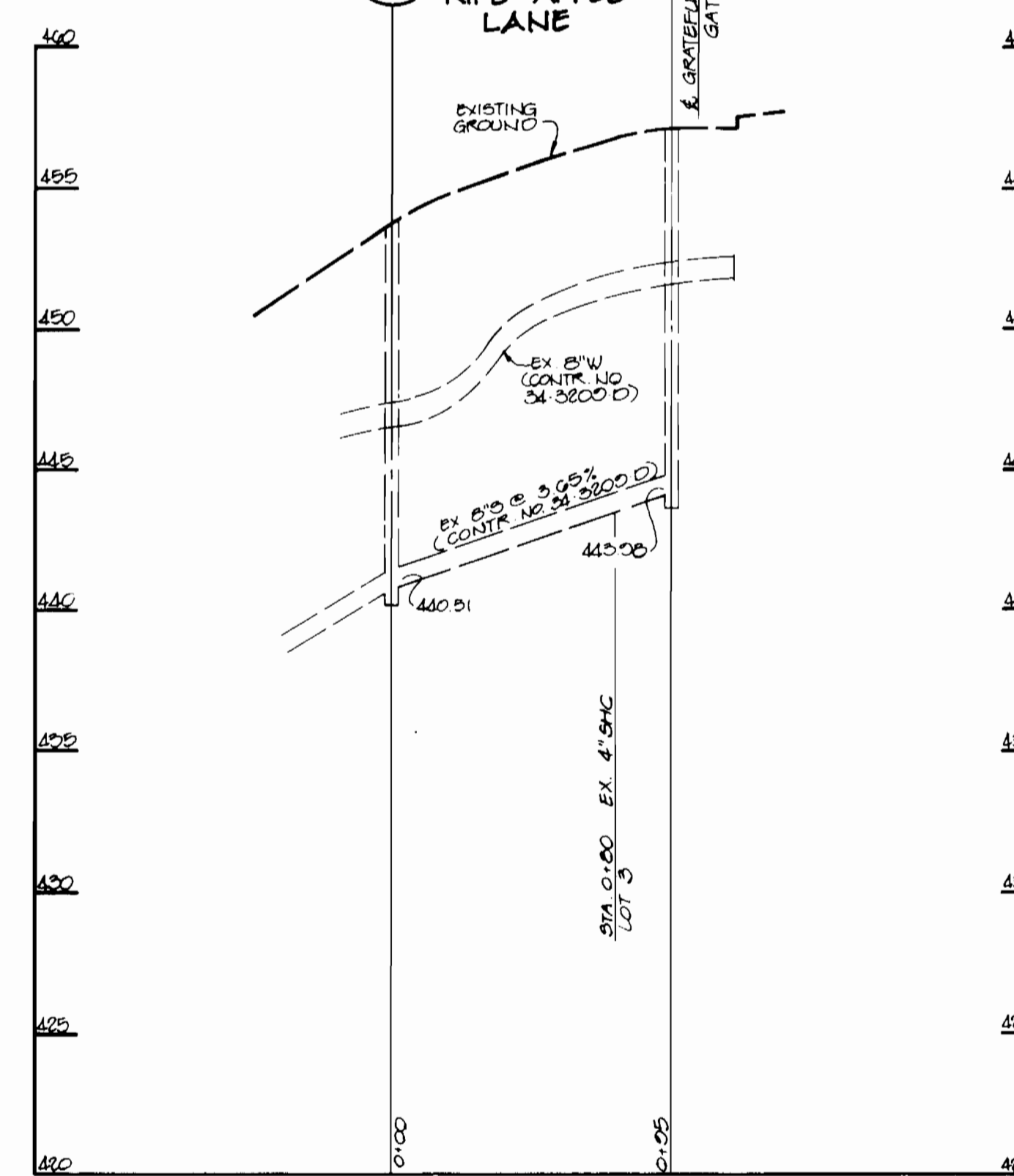


**RIPRAP DETAIL**  
NO SCALE

Erosion control fabric shall be poly filter- Y as manufactured by Cartridge Mills, Inc. or permealiner M-1195 as manufactured by staff industries, Inc. or equal.



**PLAN**  
SCALE 1" = 50'



**SEWER PROFILE**  
SCALE HOR. 1" = 50'  
VERT. 1" = 6'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX 410-997-9282  
HCCD102800 PHN54.DWG

J. Farrell  
JAYKANT D. PANKHRIJ # 101440

DES. DAM					
DRN DAM/BRD					
CHK CUR					
DATE 9/20/00	BY NO	REV. SEWER ALIGNMENT MH 2 TO MH 5	DATE 9/20/00		
REVISION		DATE			

PLAN OF  
A SEWER MAIN  
AND DETAIL SHEET

600' SCALE MAP NO. 35 BLOCK NO. 15 & 21

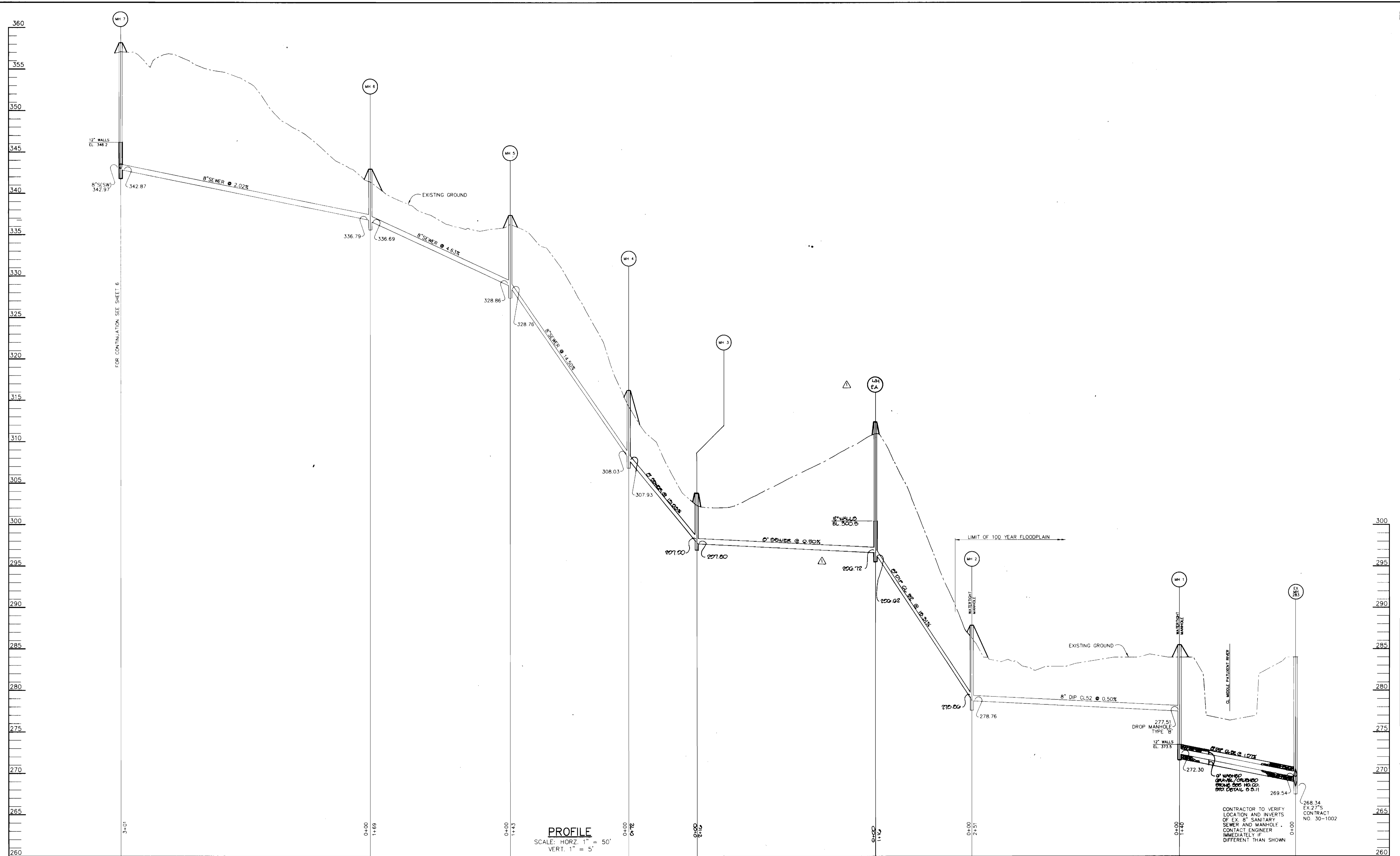
VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 1  
LOTS 1 THRU 66  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 34-3434-D

SCALE  
AS  
SHOWN

SHEET  
4 OF 8

Richard Krasinski  
CHIEF, BUREAU OF UTILITIES  
DATE 6-26-94

H. M. M...  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE 7/2/94



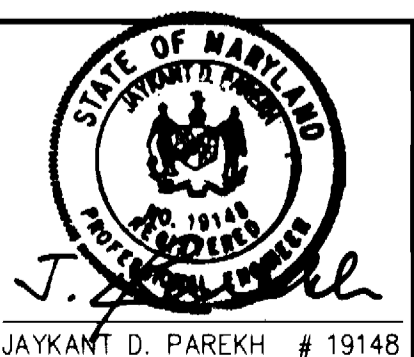
**PROFILE**  
 SCALE: HORZ. 1" = 50'  
 VERT. 1" = 5'

CONTRACTOR TO VERIFY LOCATION AND INVERTS OF EX. 8" SANITARY SEWER AND MANHOLE. CONTACT ENGINEER IMMEDIATELY IF DIFFERENT THAN SHOWN.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 Date: 6-26-00

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 Date: 7/2/00

**RIEMER MUEGGE & ASSOCIATES, INC.**  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
 410-997-8900 FAX: 410-997-9282  
 HCCC102800 PH1WS.DWG

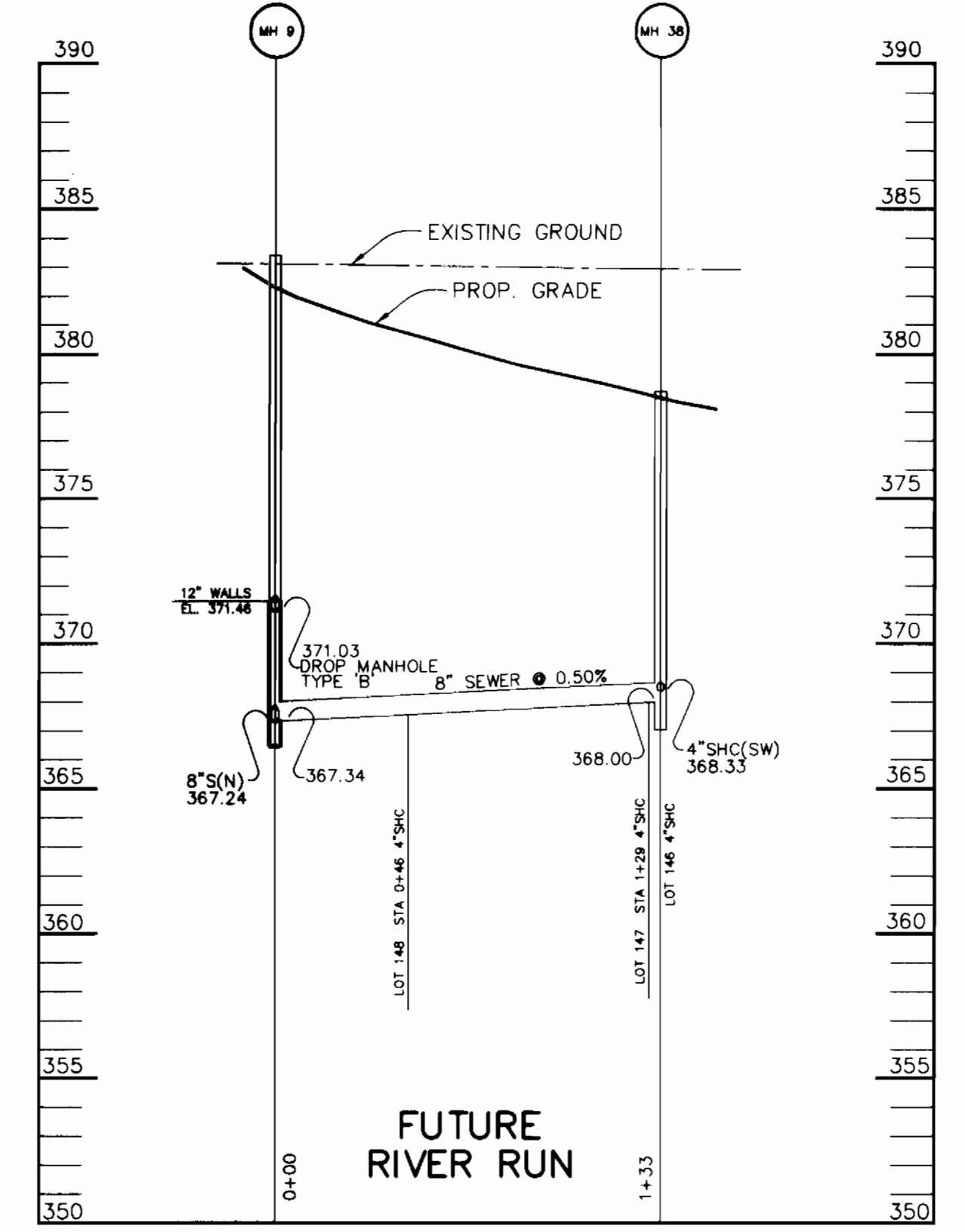
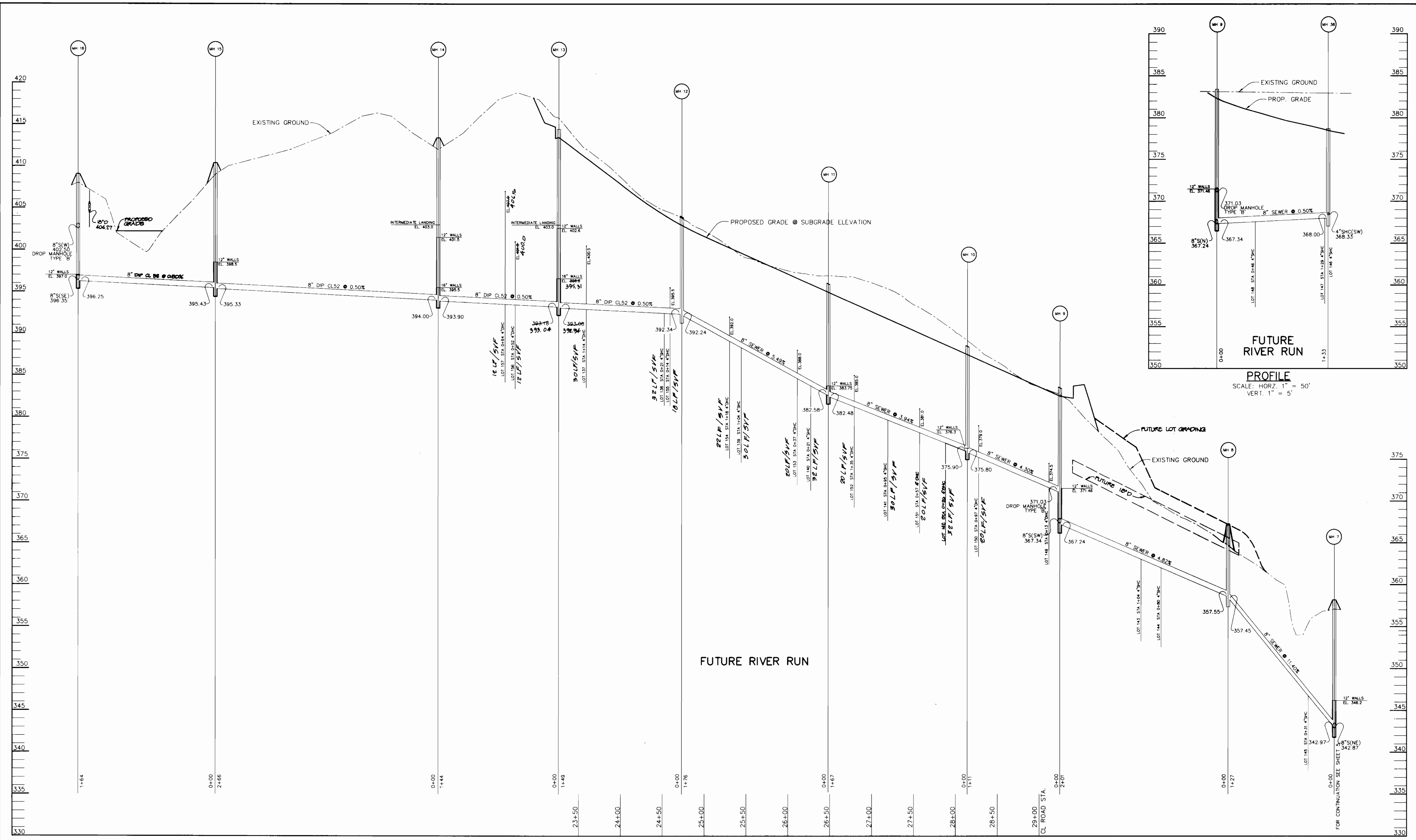


DES: DAM			
DRN: DAM/BRD			
CHK: C.J.R.			
DATE: 6/20/00	WAD	REV. SEWER MH 2 - MH3	02/20
BY: NO.		REVISION	DATE

**PROFILES OF A SEWER MAIN**  
 600' SCALE MAP NO. 35 BLOCK NO. 15 & 21

**VILLAGE OF RIVER HILL**  
 SECTION 2 AREA 6 PHASE 1  
 LOTS 1 THRU 66  
 5th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 34-3434-D

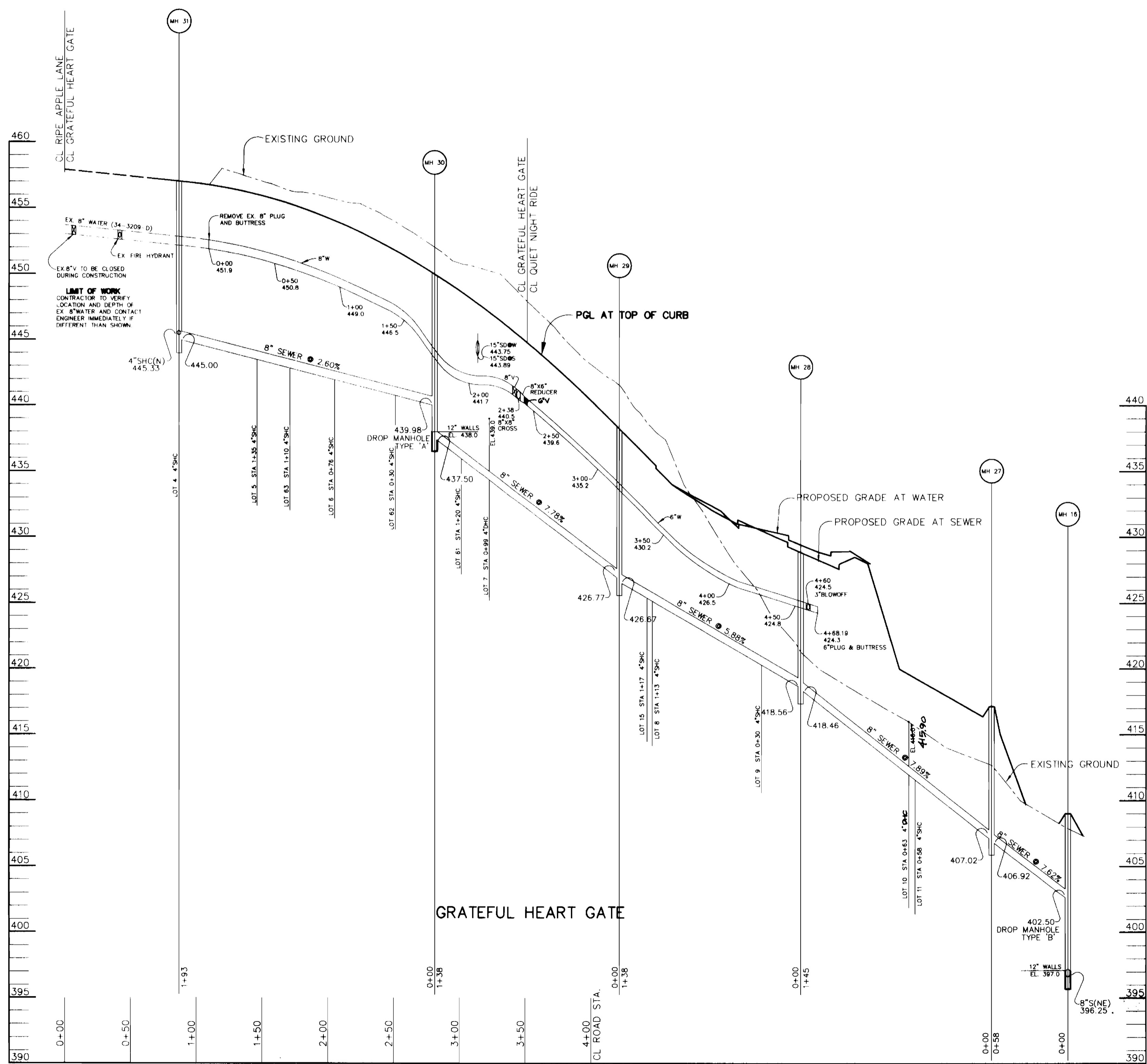
SCALE AS SHOWN  
 SHEET 5 OF 8



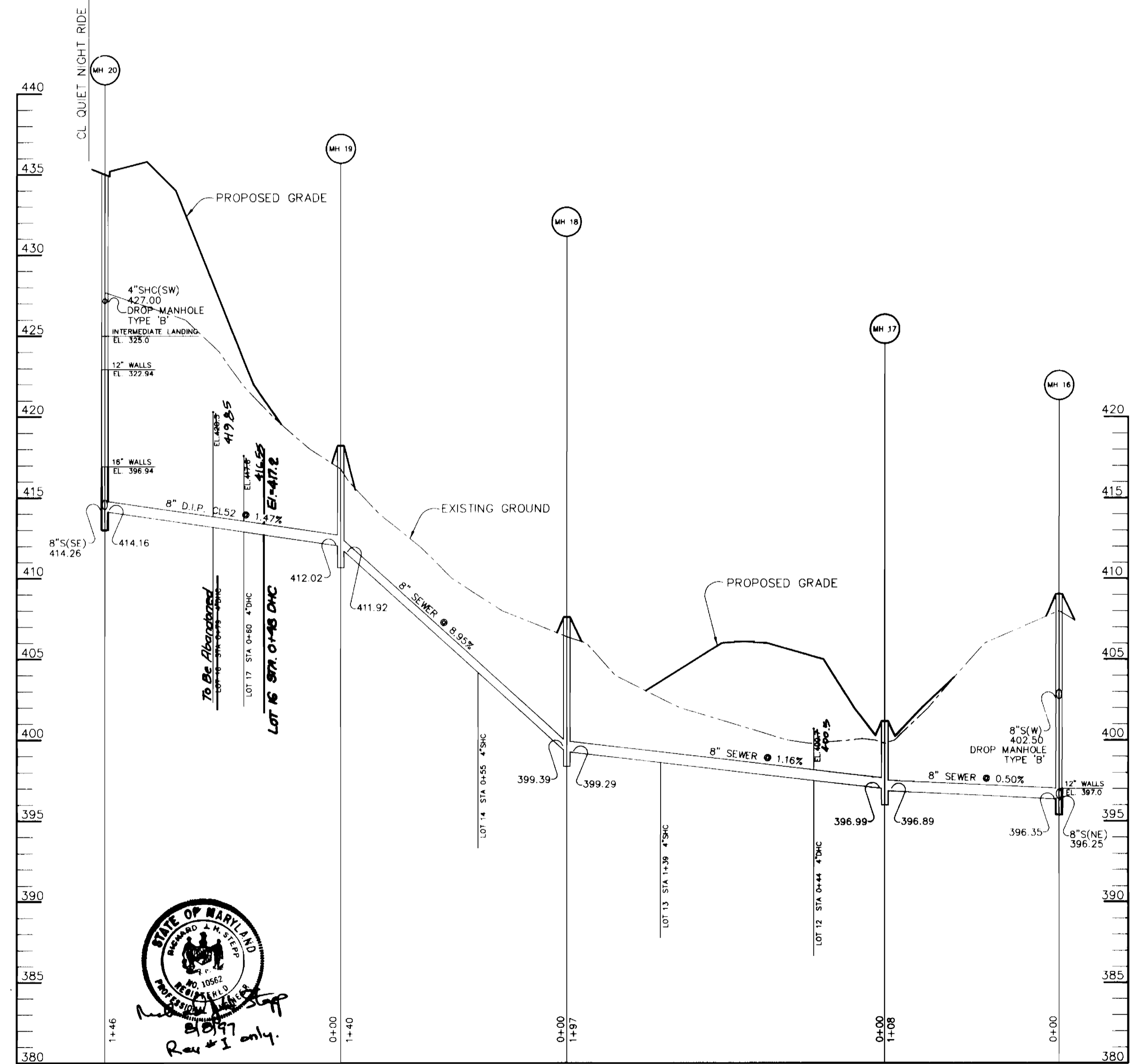
**PROFILE**  
SCALE: HORZ. 1" = 50'  
VERT. 1" = 5'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  <i>Michael A. ...</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND  <i>John ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	<b>RIEMER MUEGGE &amp; ASSOCIATES, INC.</b> ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive • Suite 200 • Columbia, MD 21046 410-997-8900 FAX: 410-997-9282 HCC0102800 PH1WS6.DWG		DES: DAM			<b>PROFILES OF A SEWER MAIN</b>	VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1 LOTS 1 THRU 66 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 34-3434-D	SCALE AS SHOWN
				DRN: DAM/BRD					DATE: 6/20/99

**W&SAS-BUILT 4/29/97**



PROFILE  
SCALE: HORZ. 1" = 50'  
VERT. 1" = 5'



PROFILE  
SCALE: HORZ. 1" = 50'  
VERT. 1" = 5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Nicholas Howard*  
CHIEF, BUREAU OF UTILITIES  
DATE: 6-26-97

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Michael Damm*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 7/2/97

RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX: 410-997-9282  
HOC0102800 P11W51.DWG

STATE OF MARYLAND  
JAYKANT D. PAREKH # 19148

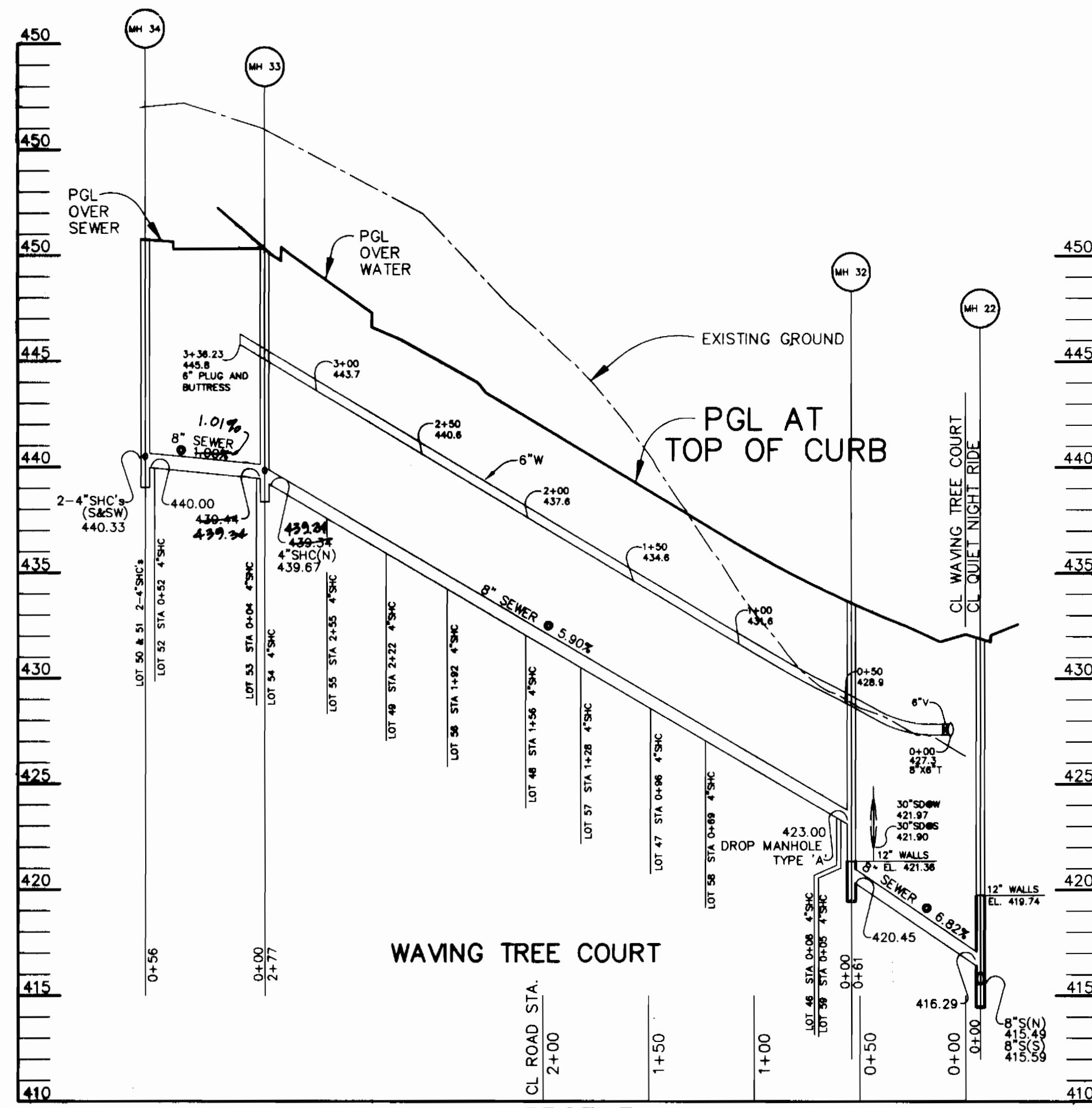
DES: DAM					
DRN: DAM/BRD					
CHK: C.J.R.					
DATE: 6/20/97	BY: G.S.	NO. 1	REV: DHC elev. f. location Lot 16	DATE: 8-9-97	

PROFILES OF  
WATER AND SEWER MAINS  
600' SCALE MAP NO. 35 BLOCK NO. 15 & 21

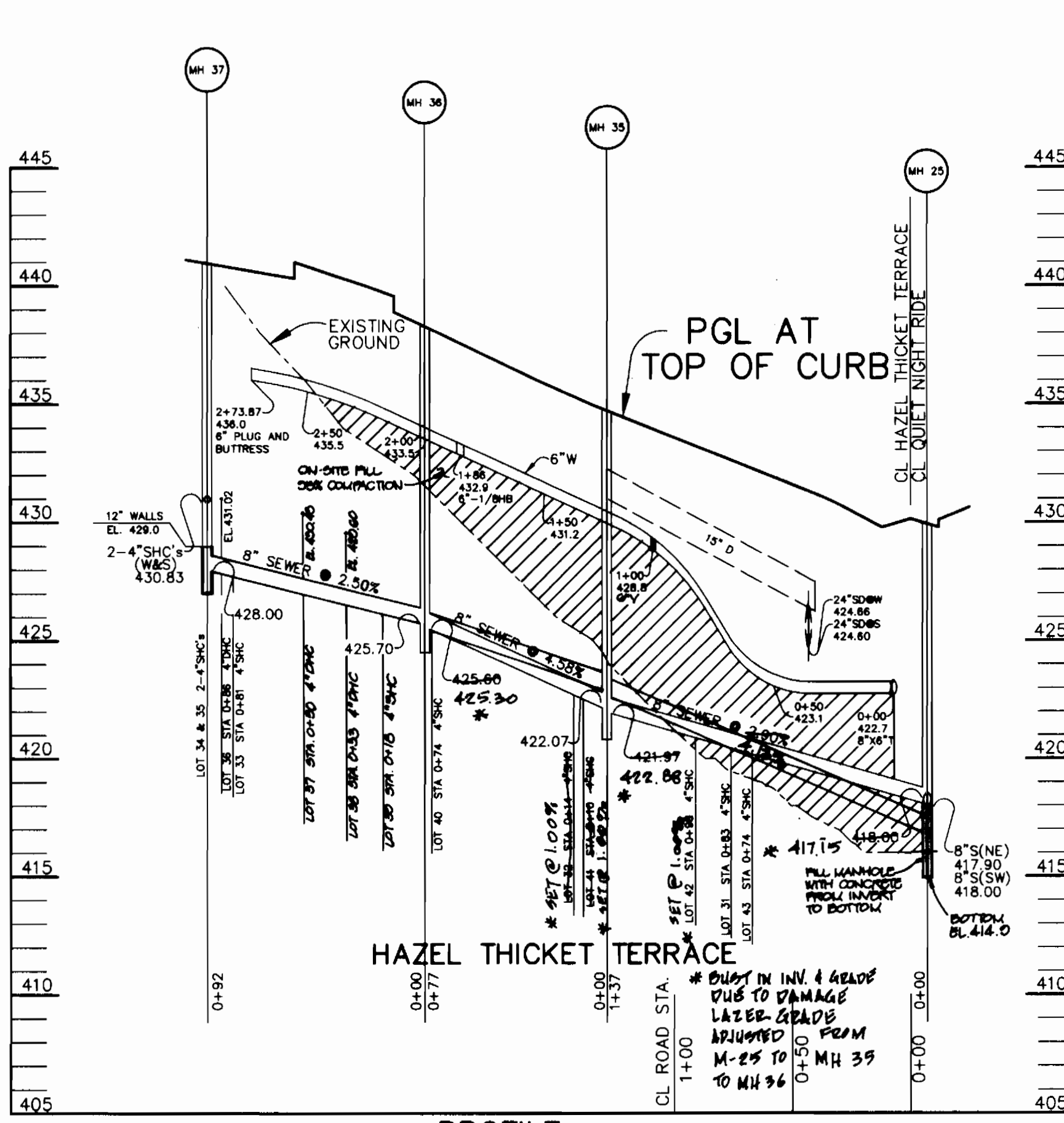
VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 1  
LOTS 1 THRU 66  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 34-3434-D

SCALE AS SHOWN  
SHEET 7 OF 8

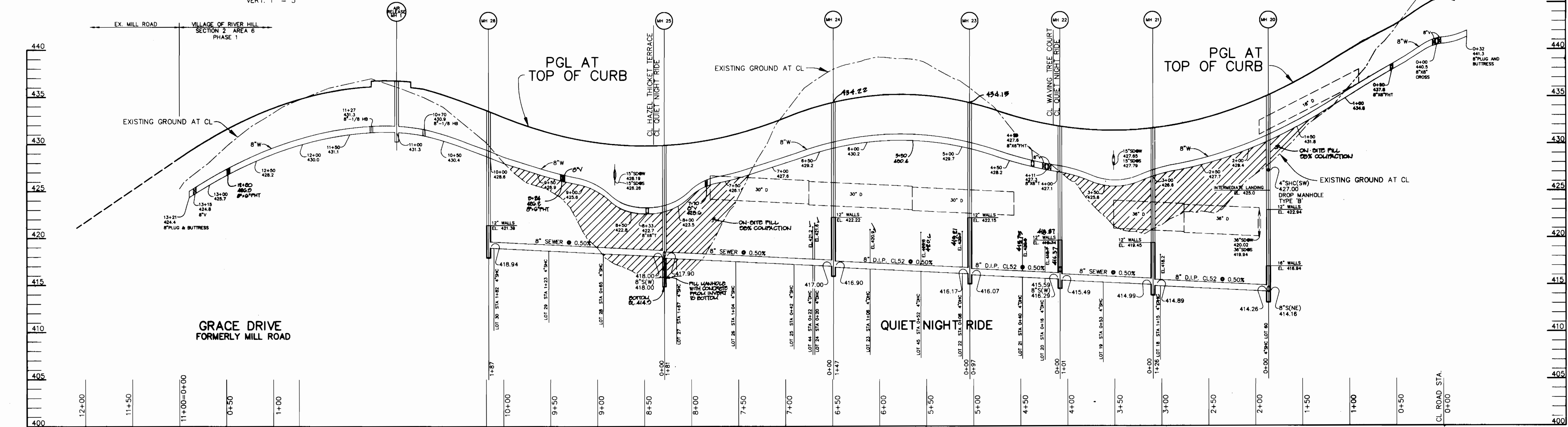
W&S AS-BUILT 4/29/97



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



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



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

34334

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Michael J. ...*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21046  
410-997-8900 FAX: 410-997-9282  
HOC0102802 HWB.DWG

JAYKANT D. PAREKH # 19148

DES: DAM					
DRN: DAM/BRD					
CHK: C.J.R.					
DATE: 6/20/20	BY	NO.	REVISION	DATE	

PROFILES OF  
WATER AND SEWER MAINS  
600' SCALE MAP NO. 35 BLOCK NO. 15 & 21

VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 1  
LOTS 1 THRU 66  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 34-3434-D

SCALE AS SHOWN  
SHEET 8 OF 8

W&S AS BUILT 4/29/97