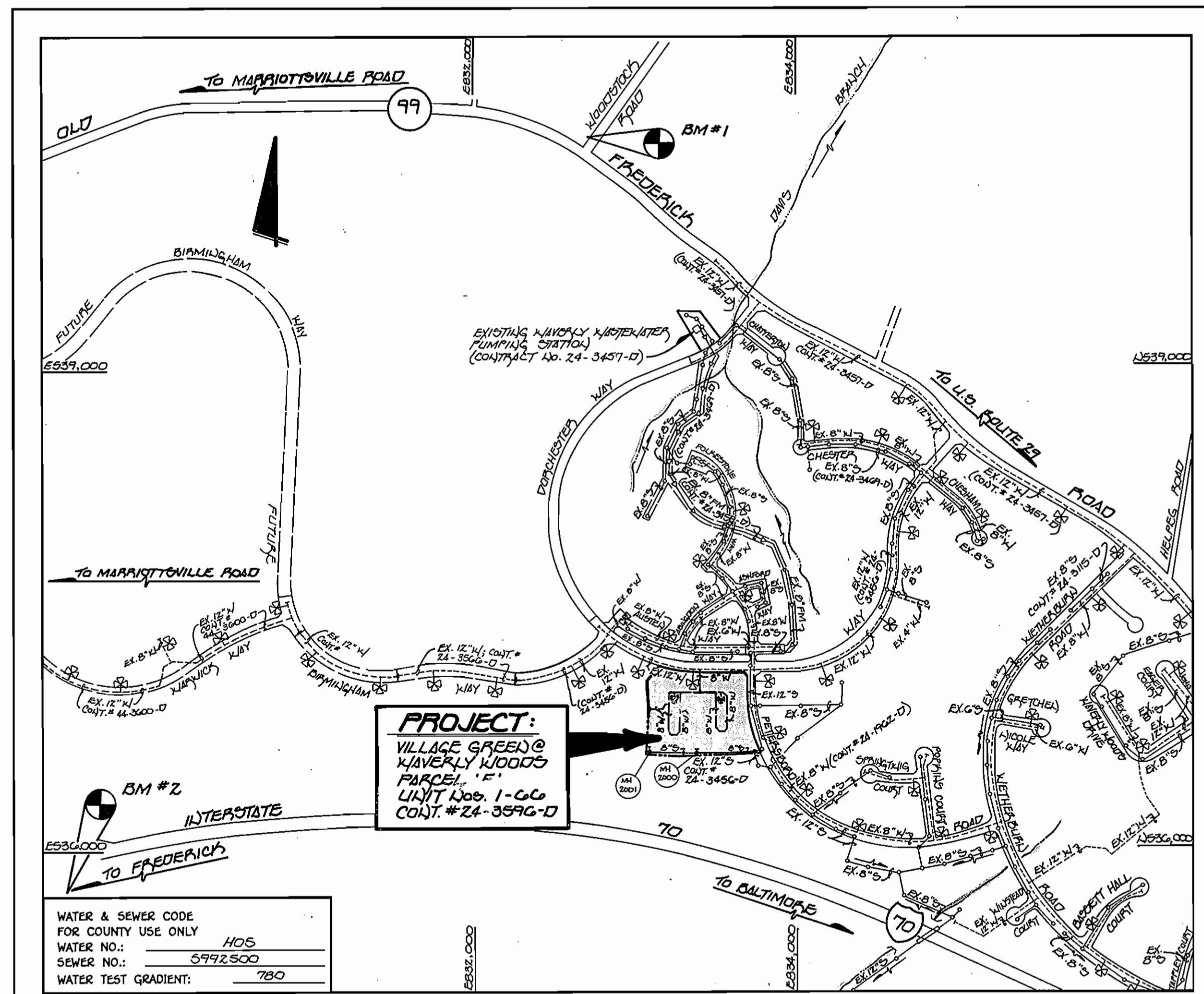


As-Built (Public)
Sewer & Water

QUANTITIES

ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" DRENCH	20 L.F.	20 L.F.	D.I.P.	Griffin Pipe Products
8" DRENCH (C.I.P.)	634 L.F.	642 L.F.	D.I.P.	"
4" DRENCH	120 L.F.	123 L.F.	D.I.P.	"
MANHOLES	2 EACH	2 EA.	Pre-Cast Conc. Plug & Outlets	Atlantic Conc. Products
8" PLUG	2 EACH	2 EA.		
8" WATER	1,715 L.F.	1,940 L.F.	D.I.P.	Griffin Pipe Products
6" WATER	32 L.F.	20 L.F.	D.I.P.	"
1 1/2" W.H.C.	501 L.F.	644 L.F.	K Copper Tubing	Reading Tube Co.
1" W.H.C.	1,089 L.F.	927 L.F.	"	"
PIPE HYDRANTS	2 EACH	2 EA.	6"-6" SUPER FH Cast Iron	Muller Co.
12" x 6" TAPPING SLEEVE & VALVE	1 EACH	1 EA.	D.I.P.	U.S. Pipe & Foundry
8" x 6" TEE	4 EACH	4 EA.	D.I.P.	"
6" x 6" TEE	2 EACH	2 EA.	D.I.P.	"
8" VALVES	9 EACH	9 EA.	R.S. OR Gate Valve	U.S. Pipe & Foundry
6" VALVES	2 EACH	2 EA.	R.S. OR Gate Valve	"
8" 1/2 HR.S.	14 EACH	14 EA.	D.I.P.	Griffin Pipe Products
8" PLUG & BUTTRESS	1 EACH	1 EA.	Iron Cast	"
3/4" W.H.C.	20 L.F.	100 L.F.	K Copper Tubing	Reading Tube Co.
OUTSIDE METER	1 EACH	1 EA.	3/8" Std.	Belair Supply



WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO.: H05
 SEWER NO.: 5992500
 WATER TEST GRADIENT: 780

TYPE OF BUILDING: RESIDENTIAL
 NUMBER OF UNITS: 66
 NO. OF WATER HOUSE CONNECTIONS: 67
 NO. OF SEWER HOUSE CONNECTIONS: 12
 DRAINAGE AREA: LITTLE PATUKENT
 TREATMENT PLANT: PATAPOCO WASTEWATER TREATMENT PLANT VIA THE ROUTE 108 PUMPING STATION

* THE REMAINING SEWER HOUSE CONNECTIONS WILL CONDUCT TO THE PRIVATE 8" SEWER TO BE CONSTRUCTED UNDER SDP 97-01.

VICINITY MAP

SCALE: 1"=600'

PLAN REFERENCE NUMBERS:
 F- TO BE ADDED
 SDP- 97-01

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 \square 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 (W1.11 AND W2.13). 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 18.11(a) OF THE HOWARD COUNTY CODE.

CONTRACT No. 24-3596-D

VILLAGE GREEN AT WAVERLY WOODS

PARCEL 'F'

UNIT NOS. 1-66

WATER AND SEWER MAIN EXTENSIONS

HOWARD COUNTY, MARYLAND

BENCH MARKS

- BM#1 - HOWARD COUNTY CONTROL STATION #1012 (JAN 03)
 (NEAR THE INTERSECTION OF MARYLAND ROUTE 99 & BROADSTOWN ROAD)
 1) 601.000, 177 ELEV. = 445.577
 2) 1,345, 330, 758
- BM#2 - HOWARD COUNTY CONTROL STATION #1011 (JAN 03)
 (NEAR THE INTERSECTION OF U.S. ROUTE 40 & MARIOTTVILLE ROAD)
 1) 590, 230, 932 ELEV. = 509.924
 2) 1,340, 192, 711

CONTRACT NO. 24-3596-D
 VILLAGE GREEN AT WAVERLY WOODS
 PARCEL 'F'
 UNIT Nos. 1-66
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

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 AS SHOWN ON THESE PLANS AND ON THE SITE DEVELOPMENT PLANS; SDP 97-01.

Carl DeLo
 SIGNATURE OF DEVELOPER
 MARCH 29 '97
 DATE

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

Chief Simmons
 US.D.A. NATURAL RESOURCES CONSERVATION SERVICE
 4/21/97
 DATE

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

APPROVED:
John R. Robertson
 HOWARD SOIL CONSERVATION DISTRICT
 4/21/97
 DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Robert B. Berman
 CHIEF, BUREAU OF UTILITIES
 4-14-97
 DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
Chief Simmons
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 4/21/97
 DATE

Fisher, Collins & Carter, Inc.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK
 10272 Baltimore National Pike
 Ellicott City, Maryland 21042
 (410) 461-2866

#9757
 TERRILL A. FISHER

DES: M.J.M.
 DRAWN: J.M.M.
 CHK: P.W.K.
 DATE: 3/12/97

REVISIONS:
 F.C.C. Δ REVISE QUANTITIES TO ADD 3/4" W.H.C. & OUTSIDE METER 3/97
 F.C.C. Δ REVISE NUMBER OF WATER HOUSE CONNECTIONS 3/97

TITLE SHEET
 600' SCALE MAP NO. 16 BLOCK NO. G 12

VILLAGE GREEN AT WAVERLY WOODS
 PARCEL 'F'
 UNIT Nos. 1-66
 CONTRACT NO. 24-3596-D
 THIRD ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 4

SHC INVERTS @ PROPERTY LINE CHART *

STATION	UNIT	ELEVATION
EX. MH 3002 TO MH 2000		
0+90 FT.	18 (DHC)	493.20
1+20 FT.	19 (DHC)	493.70
1+50 FT.	20 (DHC)	494.20
1+75 FT.	21 (DHC)	494.70
2+00 FT.	22 (DHC)	495.20
2+50 FT.	23 (DHC)	497.20
MH 2000 TO MH 2001		
0+55 FT.	42 (DHC)	503.20
1+00 FT.	43 (DHC)	501.70
1+20 FT.	44 (DHC)	501.20
1+45 FT.	45 (DHC)	501.20
1+75 FT.	46 (DHC)	502.20
2+15 FT.	47 (DHC)	499.20

* INVERTS SHOWN ARE AT EDGE OF PUBLIC SEWER & UTILITY EASEMENT

MH TABULATION CHART

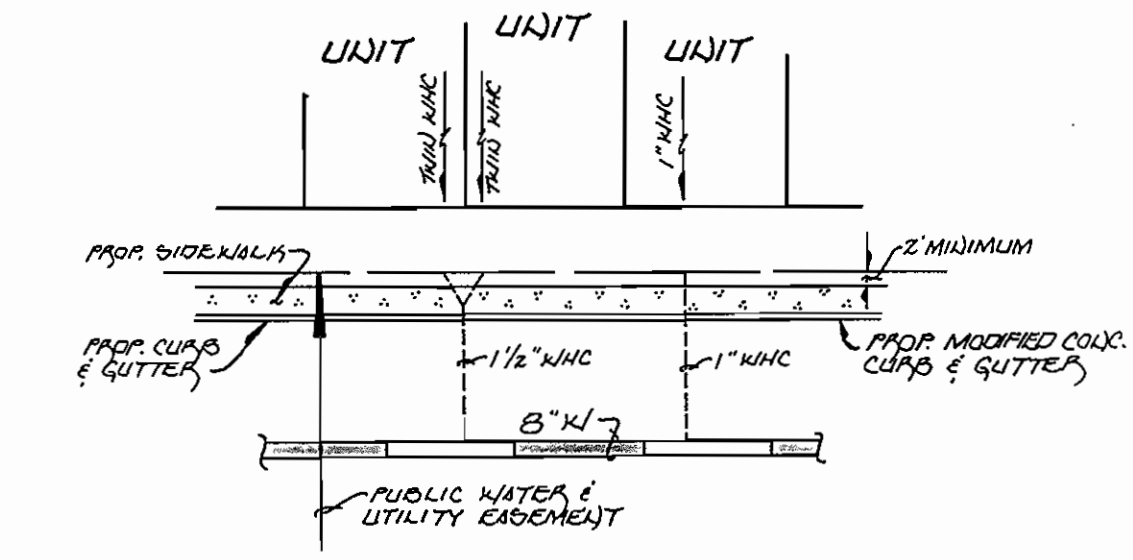
MH No.	NORTHING	EASTING	RIM ELEVATION
2000	536,558.481	833,527.376	508.10
2001	536,567.340	833,232.081	600.90

SET RIM ELEVATION W/ PROPOSED GRASSY AREA

NOTE: 10' DISTRICT SILT FENCE; SEE DETAIL THIS SHEET

NOTE: CURB FROM CURB SERVICE BOXES SHALL BE USED FOR THE WATER HOUSE CONNECTIONS FOR UNITS 100, 3, 4, 7, 15, 23, 42, 47, 59, 6, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 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

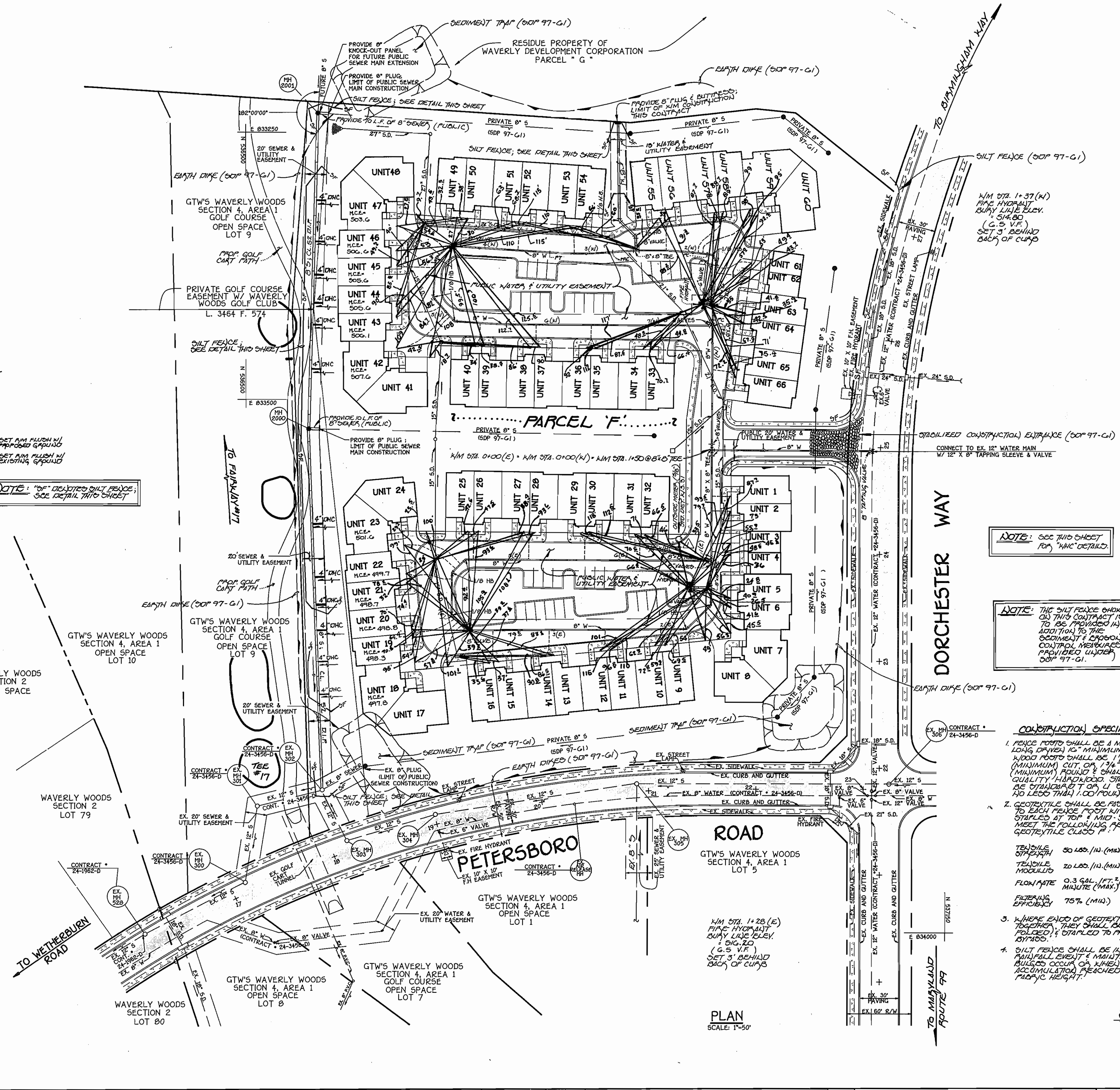
NOTE: SEE SHEET 4 FOR EROSION & SEDIMENT CONTROL NOTES, SPECIFICATIONS & CONSTRUCTION REQUIREMENTS FOR VEGETATIVE STABILIZATION & TORSION.



NOTE: TRUNK WATER HOUSE CONNECTIONS SHALL UTILIZE 1/2" COPPER TUBING FROM THE WATER MAIN TO THE "Y" BRANCH TO THE BALL VALVE CURB SERVICE BOX. SINGLE WATER HOUSE CONNECTIONS SHALL UTILIZE 1" COPPER TUBING FROM THE WATER MAIN TO THE BALL VALVE CURB SERVICE BOX.

WATER HOUSE CONNECTION DETAIL

NO SCALE



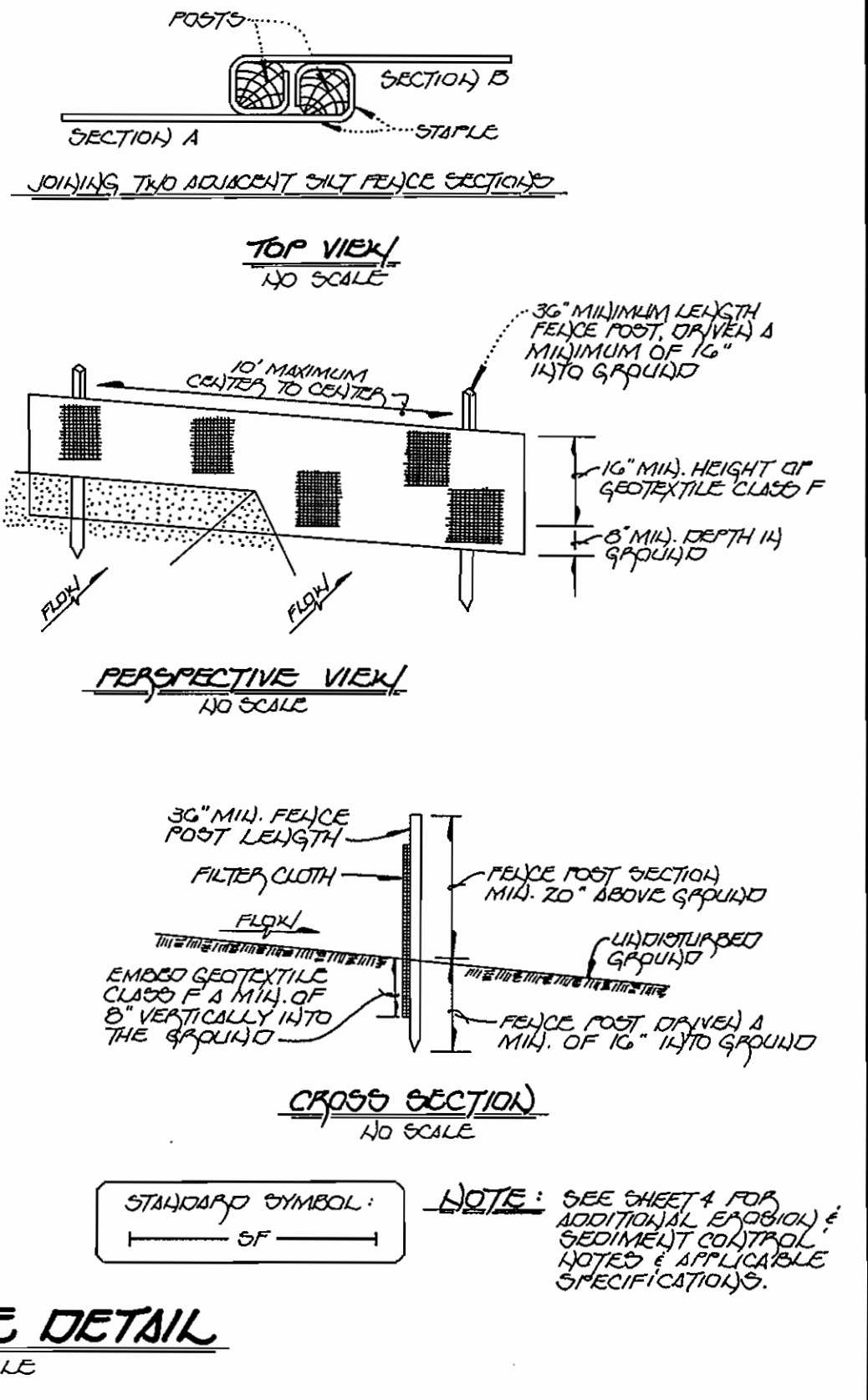
WATER MAIN TABULATION CHART

WM STATION	APPEARANCE	NORTHING	EASTING
DORCHESTER WAY THROUGH BUTTRICK ROAD			
0+00	12" x 8" TAPPING SLEEVE	537,083.873	833,549.156
0+03	8" TAPPING VALVE	537,080.873	833,549.135
1+50+0+00 (R.N.)	8" x 8" TEE	536,934.187	833,548.101
WATER MAIN (EAST)			
0+03 (E) - 8" VALVE	8" VALVE	536,933.406	833,551.792
1+08 (E) - 8" x 8" TEE	8" x 8" TEE	536,933.385	833,554.792
1+08 (E)	8" VALVE	536,933.234	833,576.098
1+28 (E)	8" VALVE	536,930.234	833,576.076
1+28 (E)	8" VALVE	536,914.293	833,575.904
1+45 (E)	8" VALVE	536,933.115	833,593.097
1+76 (E)	8" VALVE	536,910.221	833,575.031
3+78 (E)	8" VALVE	536,708.544	833,576.508
3+81 (E)	8" VALVE	536,705.544	833,576.521
4+00 (E)	8" VALVE	536,691.538	833,576.336
4+40 (E)	8" VALVE	536,691.838	833,576.617
4+87 (E)	8" VALVE	536,704.403	833,576.178
6+82 (E)	8" VALVE	536,780.400	833,551.771
6+85 (E) - 1+03 (E)	8" x 8" TEE	536,780.400	833,551.772
WATER MAIN (WEST)			
0+03 (W) - 8" VALVE	8" VALVE	536,934.958	833,431.609
1+19 (W)	8" VALVE	536,934.972	833,429.609
1+21 (W)	R.C. (CAMP RADIUS = 380')	536,934.973	833,422.610
1+37 (W)	8" x 8" TEE	536,935.443	833,410.617
1+37 (W)	8" VALVE	536,932.446	833,410.470
1+37 (W)	FIRE HYDRANT	536,926.989	833,410.201
1+73 (W)	R.C. (CAMP RADIUS = 380')	536,938.911	833,374.793
1+76 (W)	8" VALVE	536,939.342	833,371.824
1+84 (W)	8" VALVE	536,934.355	833,365.415
1+87 (W)	R.C. (CAMP RADIUS = 380')	536,931.382	833,364.984
2+54 (W) - 0+00	8" x 8" TEE	536,864.776	833,361.256
2+78 (W)	R.C. (CAMP RADIUS = 380')	536,844.039	833,362.497
3+34 (W)	R.C. (CAMP RADIUS = 380')	536,785.179	833,363.051
4+20 (W)	8" VALVE	536,693.025	833,356.791
4+27 (W)	8" VALVE	536,690.032	833,356.387
4+46 (W)	8" VALVE	536,677.223	833,367.765
4+83 (W)	8" VALVE	536,674.712	833,404.679
5+13 (W)	8" VALVE	536,694.436	833,427.283
7+30 (W)	8" VALVE	536,731.938	833,431.355
7+33 (W) - 1+16 (W)	8" x 8" TEE	536,934.938	833,431.609
WATER MAIN LOOP			
0+00 - 2+54 (W)	8" x 8" TEE	536,864.776	833,361.256
0+03	8" VALVE	536,864.679	833,358.258
0+13	8" VALVE	536,864.355	833,348.260
0+35	8" VALVE	536,848.694	833,332.802
1+27	8" VALVE	536,845.973	833,340.843

NOTE: SEE THIS SHEET FOR "WMC" DETAILS.

NOTE: THIS SILT FENCE SHOULD BE CONSTRUCTED TO EACH SIDE OF THE ROAD TO BE PROVIDED IN ADDITION TO THE SEDIMENTATION CONTROL MEASURES PROVIDED UNDER 00P 97-G1.

- CONSTRUCTION SPECIFICATIONS**
1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG (MIN) 10" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" SQUARE (MINIMUM) CUT OR 1 3/4" DIAMETER (MINIMUM) ROUND & SHALL BE OF SOUND QUALITY. MINIMUM 40' STAPLED TO TOP & MID. SECTION 1 SHALL BE STAPLED TO TOP & MID. SECTION 2 SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS P-1.
 2. GEOTEXTILE SHALL BE STAPLED TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP & MID. SECTION 1 SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS P-1.
 3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, INTERLOCKED & STAPLED TO PROJECT SEDIMENTATION.
 4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT & MAINTAINED WHERE BUILT OR REPAIRED AS NECESSARY TO MAINTAIN A MINIMUM OF 10" TO 15" TO THE GROUND.



SILT FENCE DETAIL

NO SCALE

**SECTION 20 :
STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION**

Using vegetation as cover for barren soil to protect it from erosion. Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas, and improving wildlife habitat and visual resources.

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding for long term erosion control. Areas for Temporary Seeding are Temporary Seeding areas, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas of final grade, former stockpile and staging areas, etc.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- A. Site Preparation
 - i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- B. Soil Amendments (Fertilizer and Lime Specifications)
 - i. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil analyses taken for engineering purposes may also be used for chemical analyses.
 - ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Nitrate may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrant of the producer.
 - iii. Lime materials shall be ground limestone hydrated or burnt lime may be substituted which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 90-100% will pass through a #20 mesh sieve.
 - iv. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
- C. Seedbed Preparation
 - i. Temporary Seeding
 - a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas greater than 3:1 should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
 - b. Apply fertilizer and lime as prescribed on the plans.
 - c. Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.
 - ii. Permanent Seeding
 - a. Minimum soil conditions required for permanent vegetative establishment:
 1. Soil pH shall be between 6.0 and 7.0.
 2. Soluble salts shall be less than 500 parts per million (ppm).
 3. The soil shall contain less than 40% clay, but enough fine grained material (30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if legumes or serotinous species are to be planted, then a sandy soil (30% silt plus clay) would be acceptable.
 4. Soil shall contain 1.5% minimum organic matter by weight.
 5. Soil must contain sufficient pore space to permit adequate root penetration.
 6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
 - b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil to slide to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - c. Apply soil amendments as per soil test or as included on the plans.
 - d. Mix soil amendments into the top 3-5" of topsoil by disking or other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed and application, where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.
- D. Seed Specifications
 - i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed authority. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on the job.
 - ii. Incubant - The incubant for testing the seed moisture shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Incubants shall not be used later than the date indicated on the container and fresh incubants shall be used for each lot. Use for longer than the recommended date when hydroseeding. Note: It is very important to keep incubant as cool as possible until use. Temperatures above 75°-80° F. can weaken bacteria and make the incubant less effective.
- E. Methods of Seeding
 - i. Hydroseeding - Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer, broadcast or drop seeds of a culturable species)
 - a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: Nitrogen maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous) 200 lbs/acre; K2O (potassium) 200 lbs/acre.
 - b. Lime - use only ground agricultural limestone. Use 1 to 3 tons per acre may be applied by hydroseeding. Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.
 - ii. Dry Seeding - This includes use of conventional drop or broadcast spreaders.
 - a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Schedules or Tables 255 or 256. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
 - b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
 - iii. Drill or Cultipacker Seeding - Mechanized seeders that apply and cover seed with soil. Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
 - a. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- F. Mulch Specifications (in order of preference)
 - i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be rusty, moldy, caked, decayed or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - ii. Wood Cellulose Fiber Mulch (WCFF)
 - a. WCFF shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - b. WCFF shall be dyed green or contain a green dye in the package that will provide an appropriate color for definite visual inspection of the uniformly spread slurry.
 - c. WCFF, including dye, shall contain no germination or growth inhibiting factors.
 - d. WCFF materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - e. WCFF material shall contain no elements or compounds at concentration levels that will be phytotoxic.
 - f. WCFF must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 11 mm., pH range of 4.0 to 8.5, ash content of 1.5% maximum and water holding capacity of 90% minimum.
- G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.
 - i. If grading is completed outside of the seeding season, mulch shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.
 - ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
 - iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.
- H. Seeding Straw Mulch (Mulch Anchoring) - Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods listed by preference, depending upon size of area and erosion hazard:
 - i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter areas where equipment can operate safely. It used on sloping land, this practice should be used on the contour if possible.
 - ii. Wood cellulose fiber binder - The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in ditches and crest of banks. The remainder of area should be applied after binder application. Synthetic binders - such as Acrylic (L.R. Ag-90-4), DCA-70 Petrofret, Terra Tex 11, Terra Tex AS or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
 - iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF CONSTRUCTION.
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT ORDINANCES AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 47 CALENDAR DAYS FOR ALL PERMETER SEDIMENT CONTROL STRUCTURES.
4. PERMETER SEDIMENT CONTROL STRUCTURES SHALL BE CONSTRUCTED AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
5. ALL SEDIMENT TRAPS/DIAMS SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
6. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 501.500 (SEC. 54) TEMPORARY SEEDING (SEC. 501.500 AND MULCHING (SEC. 501.500). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
7. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
8. SITE ANALYSIS:

TOTAL AREA OF SITE ; PARCEL "F"	7.591 ACRES
AREA DISTURBED	1.618 ACRES
AREA TO BE PAVED	1.221 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.357 ACRES
TOTAL CUT	N/A CUBYDS.
TOTAL FILL	N/A CUBYDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A CUBYDS.
9. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
10. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
11. ON ALL SITES WITH DISTURBED AREAS OF 2 ACRES OR MORE, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION PERMITS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
12. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

UTILITY INSTALLATION ONLY

PERMANENT SEEDING NOTES

- ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:
- SEEDBED PREPARATION:**
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
- SOIL AMENDMENTS:**
APPLY TWO TONS PER ACRE DELOMITIC LIMESTONE (92 LBS./1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREA/FORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.
- SEEDING:**
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE FOR THE PERIOD MAY 1 THROUGH JULY 31. SEED WITH 60 LBS./ACRE (1.4 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.2 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 15 THROUGH FEBRUARY 28, PROJECT SITE BY OPTION (2) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (3) - USE 500% OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.
- MULCHING:**
APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER USE 340 GALLONS PER ACRE (10 GAL./1,000 SQ.FT.) FOR ANCHORING.
- MAINTENANCE:**
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

- APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION:**
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
- SOIL AMENDMENTS:**
APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SQ.FT.)
- SEEDING:**
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 15 BUSHELS PER ACRE OF ANNUAL RYE (2.5 LBS./ACRE OF WEEPING LOVEGRASS (07 LBS./1,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE 500.
- MULCHING:**
APPLY 1.5 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 8 FEET OR HIGHER, USE 340 GALLONS PER ACRE (10 GAL./1,000 SQ.FT.) FOR ANCHORING.
- REFER TO THE 1984 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEQUENCE OF CONSTRUCTION

1. OBTAIN THE REQUIRED GRADING PERMIT.
2. NOTIFY MISS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK (8-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION DIVISION 24 HOURS BEFORE STARTING ANY WORK (410)313-8970.
3. INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES AS INDICATED ON SHEET 2 OF THIS CONTRACT (1 DAY).
4. CLEAR AND GRUB AS REQUIRED FOR EXCAVATION AND INSTALLATION OF THE WATER AND SEWER MAINS, AND ONLY WITHIN THE DESIGNATED SEWER AND UTILITY EASEMENTS (2 DAYS).
5. NOTE: THE LENGTH OF OPEN SEWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH WILL BE BACKFILLED AND STABILIZED WITHIN 1 (ONE) DAY.
6. CONSTRUCT THE WATER AND SEWER MAINS AND APPURTENANCES (15 DAYS).
7. STABILIZE SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES SHOWN ON THIS SHEET (1 DAY).
8. FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS, AND AFTER PERMISSION FOR RATE AND METHODS NOT COVERED BY HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES (1 DAY).

**SECTION 21 :
STANDARD AND SPECIFICATIONS FOR TOPSOIL**

1. DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
2. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
3. SPECIFICATIONS: A TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY SILT LOAM, OR LOAMY SAND. TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING SUBSOILS. TOPSOIL SHALL CONTAIN LESS THAN 0.2% BY VOLUME OF CHISELS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4" ; AVOID SURFACE IRREGULARITIES. TOPSOIL SHALL NOT BE PLACED DURING FROZEN, MUDDY, OR EXCESSIVELY WET CONDITIONS.
4. APPLICATION:

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. Kitchell
SIGNATURE OF DEVELOPER

MARCH 24, '97
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. Kitchell
SIGNATURE OF ENGINEER

03/25/97
DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Richard B. ...</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION
4-14-97	4/14/97
DATE	DATE

Fisher, Collins & Carter, Inc.

CIVIL ENGINEERING CONSULTANTS & SURVEYORS

CENTENNIAL SQUARE OFFICE PARK
16272 Baltimore National Pike
Ellicott City, Maryland 21042
(410) 461 - 2855

TERRELL A. FISHER

DESIGNED BY:	M.J.M.
DRAWN BY:	J.M.M.
CHECKED BY:	P.W.K.
DATE:	3 - 26 - 97
BY NO.	REVISION
DATE	

SEDIMENT AND EROSION CONTROL NOTES	
600' SCALE MAP NO. ... 16 ...	BLOCK NO. ... 6 AND 12 ...
F.C.C. WORK ORDER NO. ... 40271 ...	
FILE NAME : G:/DRAWINGS/40271	

VILLAGE GREEN AT WAVERLY WOODS
PARCEL 'F'
UNIT NOS. 1 - 66

CONTRACT NO. 24-3596-D
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 4 OF 4

CONTRACT NO. 24-3596-D
VILLAGE GREEN AT WAVERLY WOODS
PARCEL 'F'
UNIT NOS. 1-66
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND