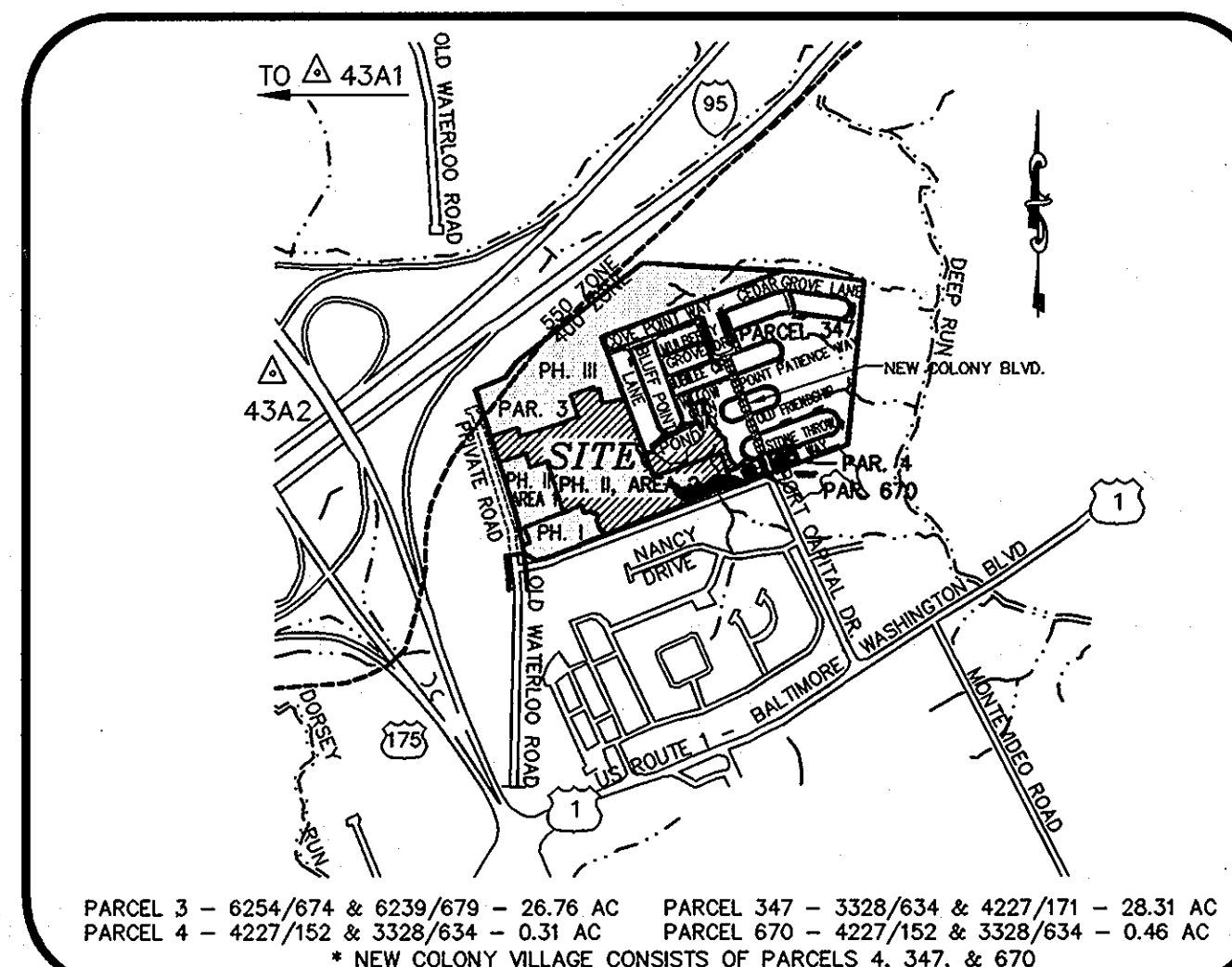


SHEET INDEX table with columns SHEET and TITLE, listing 19 items from COVER SHEET to LANDSCAPE PLAN.

WETLANDS table with columns LINE, BEARING & DISTANCE, LINE, BEARING & DISTANCE, listing 46 wetland lines.

SITE DEVELOPMENT PLAN VILLAGE TOWNS PHASE II, AREA 2, UNITS 21 THRU 82 & 113 THRU 177 & NEW COLONY VILLAGE, OPEN SPACE PARCEL E FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP SCALE: 1"=1000'

SITE TABULATION

Table with 5 columns: PHASE I (SDP-01-121), PHASE II AREA 1 (SDP-04-54), PHASE II AREA 2 (SDP-05-102), PHASES I & II, and various metrics like AREA, ZONING, and NO. OF UNITS.

PERMIT INFORMATION CHART

Table with 3 columns: SUBDIVISION NAME, SECTION/AREA, and LOT/PARCEL NO., providing specific permit data.

ADDRESS CHART table with columns UNIT NO., STREET ADDRESS, UNIT NO., STREET ADDRESS, UNIT NO., STREET ADDRESS, listing units 21 through 177 and their corresponding addresses.

- GENERAL NOTES: THE SUBJECT PROPERTY IS ZONED R-MH PER THE 10/16/93 COMPREHENSIVE ZONING PLAN...
- 1. THE SUBJECT PROPERTY IS ZONED R-MH PER THE 10/16/93 COMPREHENSIVE ZONING PLAN...
- 2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS...
- 3. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ CONSTRUCTION INSPECTION DIVISION AT (410)-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK...
- 4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:
- 5. PROJECT BACKGROUND: LOCATION: TAX MAP 43 - PARCEL 3 - FIRST ELECTION DISTRICT...
- 6. BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN & MONUMENTED SURVEY...
- 7. COORDINATES BASED ON THE MARIAN COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 43A1 & 43A2...
- 8. ALL DRIVEWAY ENTRANCES FOR THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL R-6.3...
- 9. HOWARD COUNTY STANDARD R-3.01-MODIFIED COMBINATION CURB AND GUTTER WILL BE USED, UNLESS OTHERWISE NOTED.
- 10. ALL ROADS AND STORM DRAIN SYSTEMS IN THIS DEVELOPMENT ARE PRIVATE.
- 11. STORMWATER MANAGEMENT FOR THIS PHASE, AREAS 1 & 2, AND FUTURE PHASE III ARE PROVIDED BY A P-3 WET POND (POND #2). WATER QUALITY IS BEING PROVIDED BY EXTENDED DETENTION IN THE WET POND...
- 12. COMPACTION IN FILL AREAS TO BE 95% STANDARD PROCTOR AS DETERMINED PER AASHTO T-180.
- 13. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING CONSTRUCTION.
- 14. THERE ARE NO EXISTING STRUCTURES ON-SITE.
- 15. NO HISTORIC STRUCTURES OR BURIAL GROUNDS EXIST ON-SITE PER THE HOWARD COUNTY HISTORIC SITES LIST DATED DECEMBER 1994 AND THE HOWARD COUNTY CEMETERY AND GRAVESTONES INVENTORY, RESOLUTION # 47-1998 TO THE BEST OF THE KNOWLEDGE OF THE CURRENT OWNER, NO GRAVES EXIST ON-SITE.
- 16. FLOODPLAIN STUDY PREPARED BY MILDENBERG, BOENDER & ASSOCIATES, INC. ON JUNE 1995, APPROVED UNDER SDP 96-20.
- 17. WETLAND DELINEATION PERFORMED BY HILLIS-GARNES ASSOCIATES, INC. ON AUGUST 1996. APPROVED BY US ARMY CORPS OF ENGINEERS, REF. NO. 1996-01042-3.
- 18. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
- 19. TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. ON JUNE 15, 1995, APPROVED UNDER S-94-39. AN UPDATED TRAFFIC STUDY WAS PREPARED ON JUNE 9, 1998 BY THE TRAFFIC GROUP, INC. AND APPROVED UNDER NEW COLONY VILLAGE, PHASE 4, SDP-97-115.
- 20. NOISE STUDY AND MITIGATION WAS APPROVED AS PART OF THE NEW COLONY VILLAGE, PHASE 3 THRU 6, SDP-97-114, SDP-97-115, SDP-00-07, AND SDP-01-121.
- 21. ON SITE FOREST CONSERVATION EASEMENT 6.52 AC.(RETENTION) HAS BEEN PROVIDED UNDER NEW COLONY VILLAGE, PHASE 4 (SDP-97-115). A TOTAL OF 20.67 ACRES OF REFORESTATION REQUIRED (6.89 ACRES) HAS BEEN SATISFIED VIA OFF-SITE REFORESTATION ON ROSEBAR PROPERTY, PRESERVATION PARCEL A UNDER NEW COLONY VILLAGE, PHASE 4. THE REMAINING 13.78 ACRES OF REFORESTATION REQUIRED HAS BEEN DIVIDED BETWEEN THE REMAINING PHASES OF THE PROJECT, ONE-THIRD OR 4.59 ACRES OF REFORESTATION WAS REQUIRED AS PART OF EACH PHASE. THIS REQUIREMENT HAS BEEN SATISFIED VIA PAYMENT OF A FEE-IN-LIEU OF REFORESTATION OF \$60,021.33 FOR PHASE 5 (SDP-00-70), PAYMENT OF FEE-IN-LIEU OF REFORESTATION OF \$100,035.54 FOR PHASE 6 (SDP-01-121), AND OFF-SITE REFORESTATION OF 4.54 ACRES ON ROMIT FARM, TAX MAP 2, PARCEL 61 SEE P.O.F.C.E. PLAT 3 15440 FOR PHASE 7 (SDP-02-04).
- 22. PLAT OF FOREST CONSERVATION (FOR ON-SITE RETENTION) AND PUBLIC 100 YEAR FLOODPLAIN & UTILITY EASEMENT FOR NEW COLONY VILLAGE WAS RECORDED AS PLAT #14327-14328 (F-00-168). THE OFF-SITE REFORESTATION HAS BEEN RECORDED AS PLAT #14344-14345 (F-01-11).
- 23. DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:

DEVELOPERS CERTIFICATE: I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT MY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE...

ENGINEER'S CERTIFICATE: I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND FEASIBLE MEANS OF PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE...

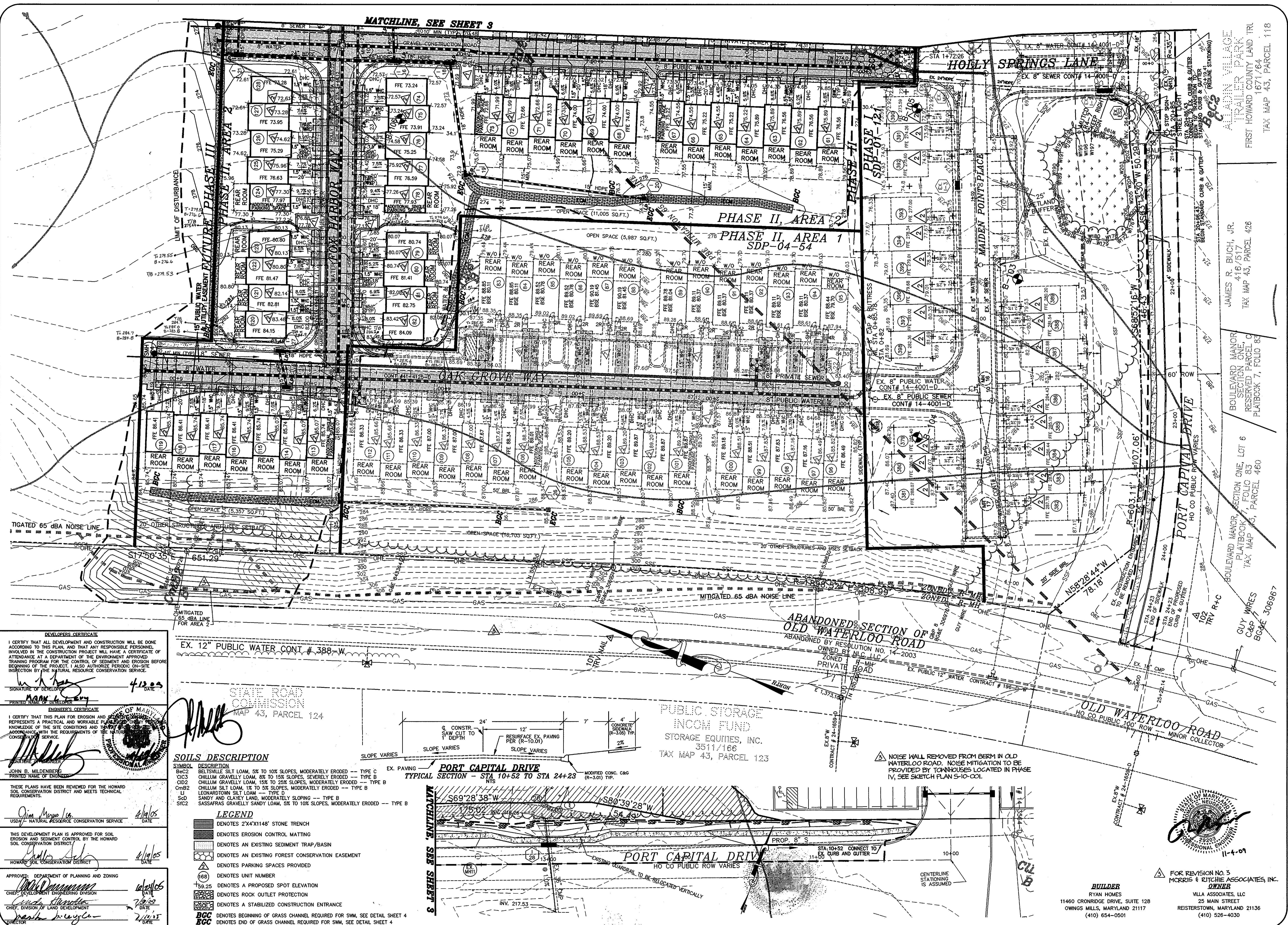
FOR REVISION NO. 1 MORRIS & RITCHE ASSOCIATES, INC.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

VILLAGE TOWNS, PHASE II, AREA 2 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E TAX MAP 43 - PARCEL 3 - GRID 3 - FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND COVER SHEET

1 OF 19

SDP-03-102



MATCHLINE, SEE SHEET 3

HOLY SPRINGS LANE

PHASE II, AREA 1
SDP-04-54

PHASE I
SDP-01-121

DEVELOPER'S CERTIFICATE
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 OF THE PROJECT. I ALSO AUTHORIZE PERSON ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature: [Signature]
DATE: 4/13/05

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN. I HAVE A CERTIFICATE OF KNOWLEDGE OF THE SITE CONDITIONS AND THAT I HAVE OBTAINED THE NECESSARY PERMITS AND APPROVALS FROM THE NATURAL RESOURCE CONSERVATION SERVICE.

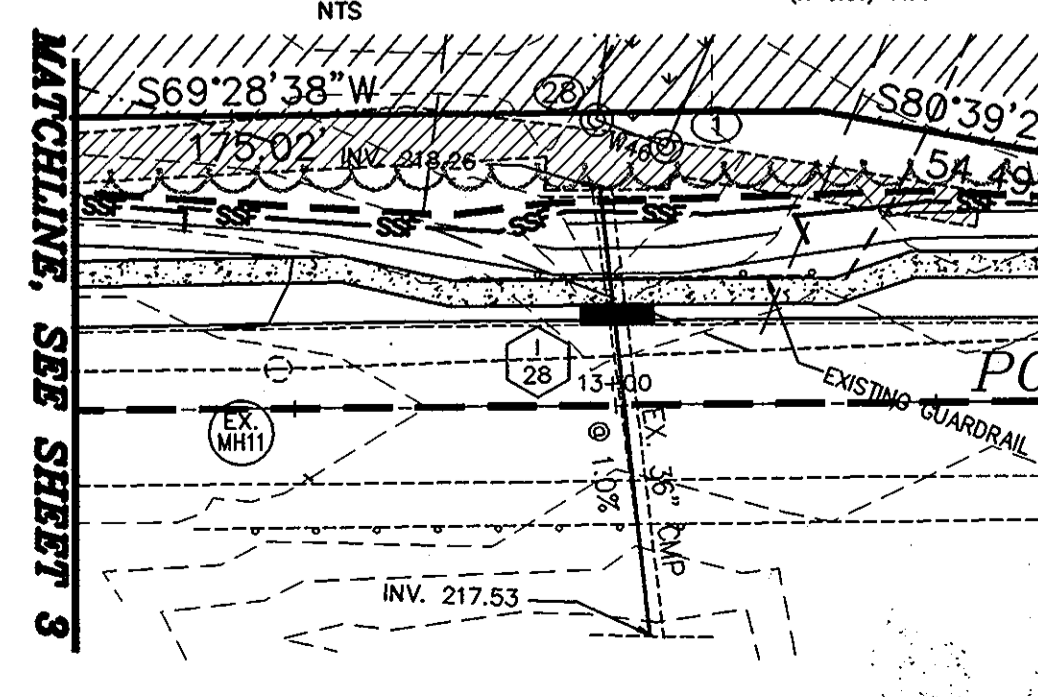
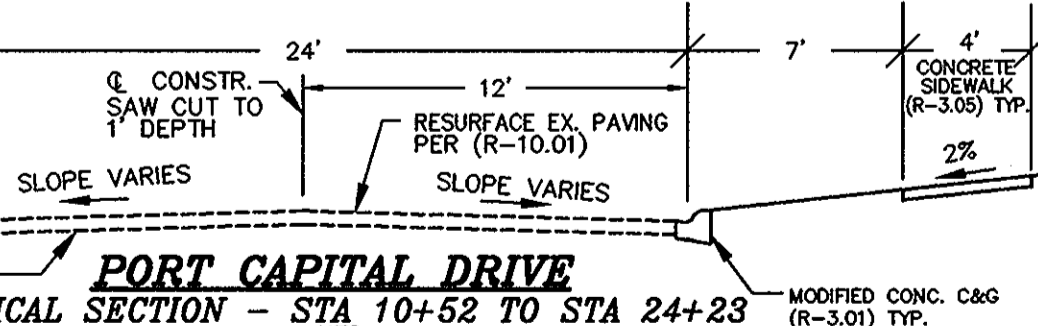
Signature: [Signature]
DATE: 4/14/05

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Signature: [Signature]
DATE: 4/14/05

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT
Signature: [Signature]
DATE: 4/14/05

SOILS DESCRIPTION
SYMBOL DESCRIPTION
Bc2 BELTSVILLE SILT LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE C
C1C3 CHILLUM GRAVELLY LOAM, 8% TO 15% SLOPES, SEVERELY ERODED -- TYPE B
C1C2 CHILLUM GRAVELLY LOAM, 15% TO 25% SLOPES, MODERATELY ERODED -- TYPE B
ChB2 CHILLUM SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED -- TYPE B
L1 LEONARDTOWN SILT LOAM -- TYPE D
Sd SANDY AND CLAYEY SAND, MODERATELY SLOPING -- TYPE B
Sd2 SASSAFRAS GRAVELLY SANDY LOAM, 5% TO 10% SLOPES, MODERATELY ERODED -- TYPE B

LEGEND
DENOTES 2'X4'X1148" STONE TRENCH
DENOTES EROSION CONTROL MATTING
DENOTES AN EXISTING SEDIMENT TRAP/BASIN
DENOTES AN EXISTING FOREST CONSERVATION EASEMENT
DENOTES PARKING SPACES PROVIDED
DENOTES UNIT NUMBER
DENOTES A PROPOSED SPOT ELEVATION
DENOTES ROCK OUTLET PROTECTION
DENOTES A STABILIZED CONSTRUCTION ENTRANCE
DENOTES BEGINNING OF GRASS CHANNEL REQUIRED FOR SWM, SEE DETAIL SHEET 4
DENOTES END OF GRASS CHANNEL REQUIRED FOR SWM, SEE DETAIL SHEET 4



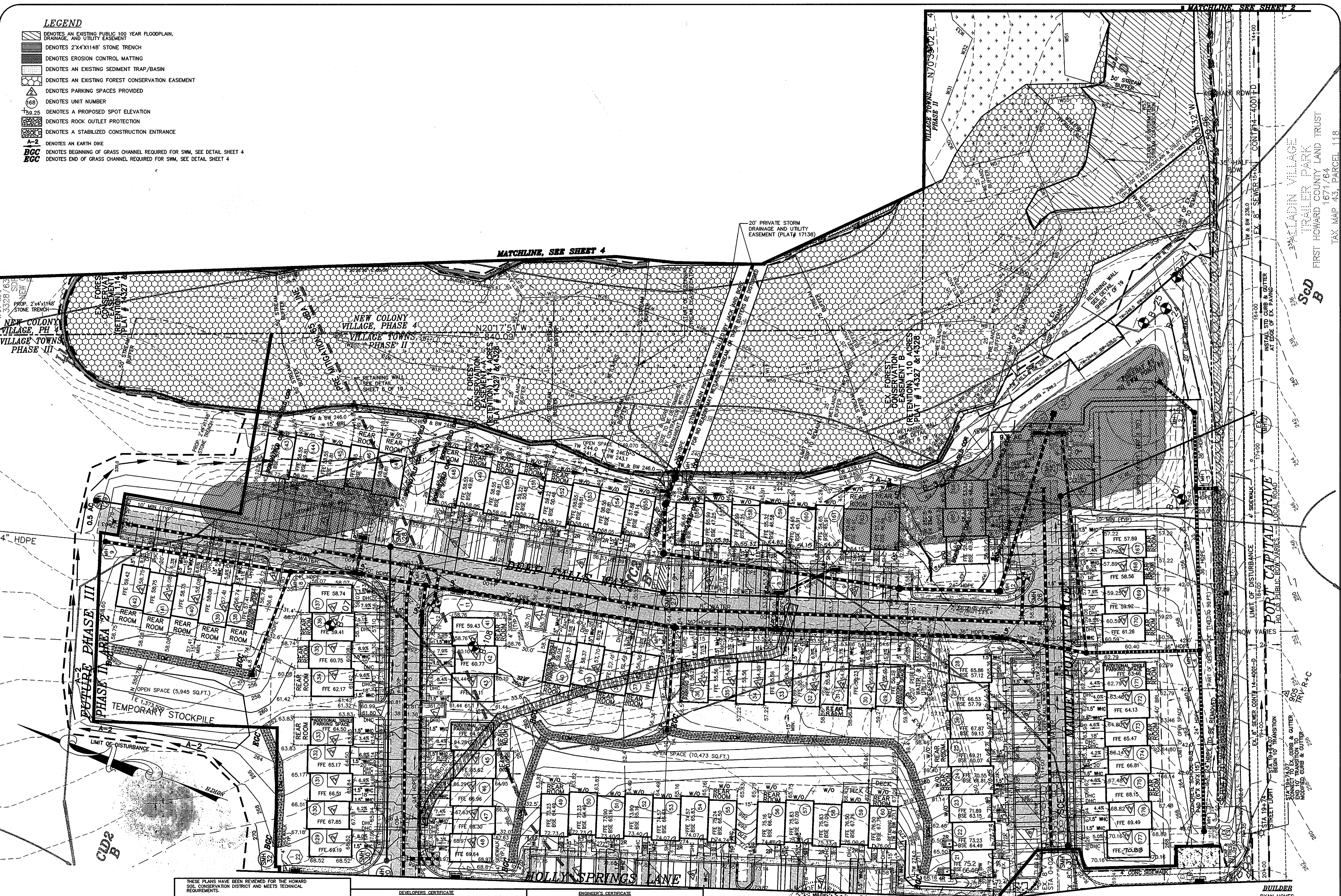
date	2005-056	APRIL 05
project	illustration	engineering
scale	1"=30'	approval
revision	1	11/04/04
description	REMOVED NOISE WALL, ADD 4' POLE (4) RETAINING WALLS TO SW (4) TRAIL (3) REMOVE AREA WAY FROM LOTS 4-75	4/14/05
no.		date

JAMES R. BUCH, JR.
416/517
TAX MAP 43, PARCEL 426

VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
GRADING & SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0566 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax.

- LEGEND**
- DENOTES AN EXISTING PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE, AND UTILITY EASEMENT
 - DENOTES 2'X4'X1148" STONE TRENCH
 - DENOTES EROSION CONTROL MATTING
 - DENOTES AN EXISTING SEDIMENT TRAP/BASIN
 - DENOTES AN EXISTING FOREST CONSERVATION EASEMENT
 - DENOTES PARKING SPACES PROVIDED
 - DENOTES UNIT NUMBER
 - DENOTES A PROPOSED SPOT ELEVATION
 - DENOTES ROCK OUTLET PROTECTION
 - DENOTES A STABILIZED CONSTRUCTION ENTRANCE
 - DENOTES AN EARTH DIKE
 - DENOTES BEGINNING OF GRASS CHANNEL REQUIRED FOR SWM, SEE DETAIL SHEET 4
 - DENOTES END OF GRASS CHANNEL REQUIRED FOR SWM, SEE DETAIL SHEET 4



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: *Jim Murrell* 4/10/05
 USDA - NATURAL RESOURCE CONSERVATION SERVICE
 DATE

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

APPROVED: *John B. Miltenberg* 4/10/05
 HOWARD SOIL CONSERVATION DISTRICT
 DATE

DEVELOPER'S CERTIFICATE

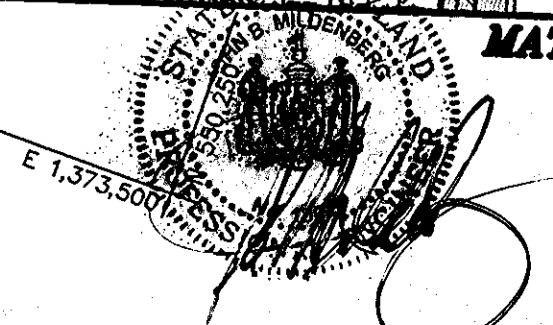
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING OF THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

SIGNATURE OF DEVELOPER: *John B. Miltenberg*
 PRINTED NAME OF DEVELOPER: JOHN B. MILTENBERG
 DATE: 4/10/05

ENGINEER'S CERTIFICATE

I 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 NATURAL RESOURCE CONSERVATION SERVICE.

SIGNATURE OF ENGINEER: *John B. Miltenberg*
 PRINTED NAME OF ENGINEER: JOHN B. MILTENBERG
 DATE: 4/10/05



BUILDER
 RYAN HOMES
 11460 CRONGRIDE DRIVE, SUITE 128
 OWINGS MILLS, MARYLAND 21117
 (410) 654-0501

OWNER
 VILA ASSOCIATES, LLC
 7111 DORSEY RUN ROAD, SUITE 101
 ELK RIDGE, MARYLAND 21075
 (410) 579-2442

project	2002-056	date	APRIL 05
illustration	SID	approval	JBM
scale	1"=90'		

no.	description	date
1	REVISED GRADING, UNITS 144-166	4/11/07
2	REVISED FIRST FLOOR ELEVATIONS FOR UNITS 144-166	4/19/07
3	REVISED FIRST FLOOR ELEVATIONS FOR UNIT 28	5/1/07
4	REVISED FFE TO UNIT 28	5/26/06
5	REVISED FFE TO UNIT 28, 36, 38-40, 42, 44, 45, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000	4/6/06

VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 92 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

GRADING & SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax: (301) 621-5521 Wash. (410) 997-0298 Fax

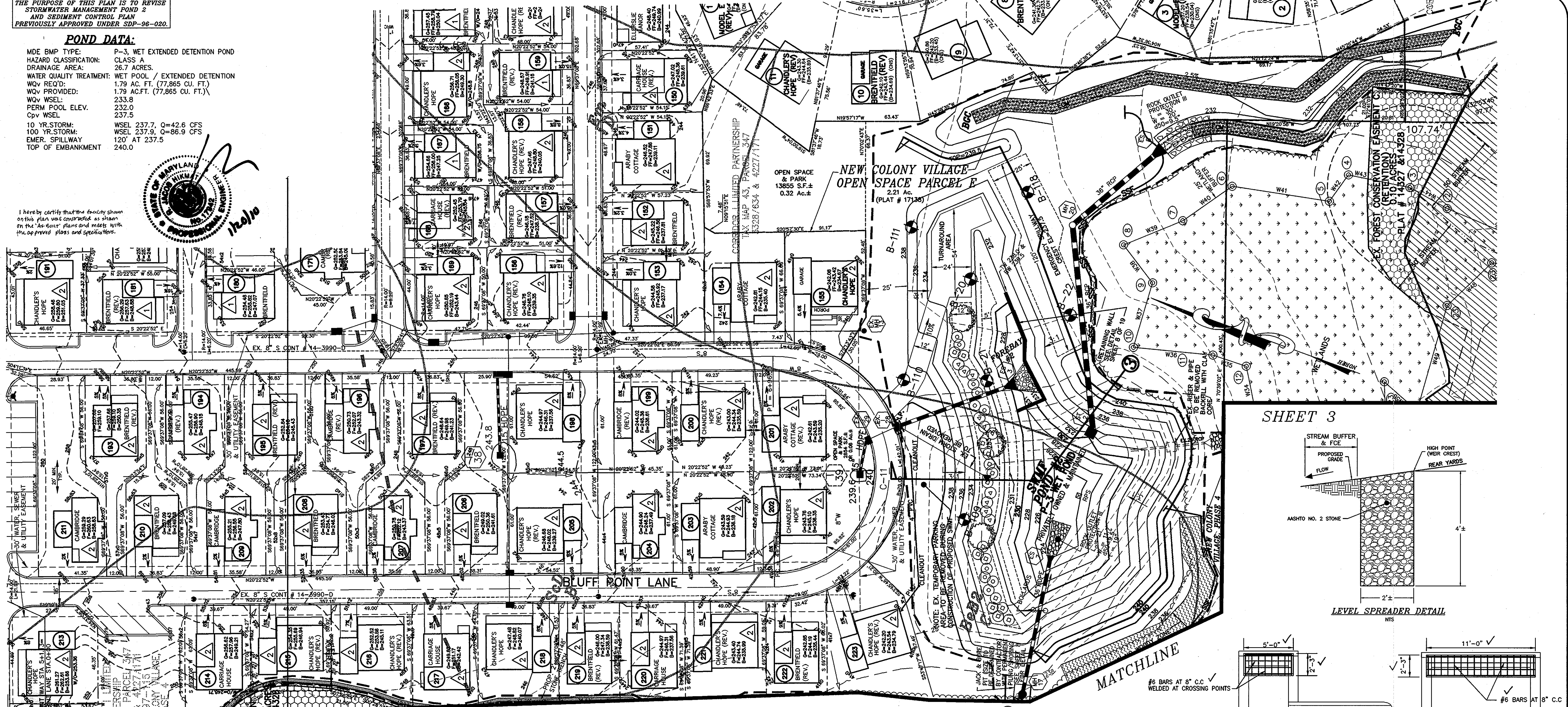
THE PURPOSE OF THIS PLAN IS TO REVISE STORMWATER MANAGEMENT POND 2 AND SEDIMENT CONTROL PLAN PREVIOUSLY APPROVED UNDER SDP-96-020.

POND DATA:

MDE BMP TYPE: P-3, WET EXTENDED DETENTION POND
 HAZARD CLASSIFICATION: CLASS A
 DRAINAGE AREA: 26.7 ACRES.
 WATER QUALITY TREATMENT: WET POOL / EXTENDED DETENTION
 WQV REQ'D: 1.79 AC. FT. (77,865 CU. FT.)
 WQV PROVIDED: 1.79 AC. FT. (77,865 CU. FT.)
 WQV WSEL: 233.8
 PERM POOL ELEV: 232.0
 Cpv WSEL: 237.5
 10 YR. STORM: WSEL 237.7, Q=42.6 CFS
 100 YR. STORM: WSEL 237.9, Q=86.9 CFS
 EMER. SPILLWAY: 120' AT 237.5
 TOP OF EMBANKMENT: 240.0



I hereby certify that the facility shown on this plan was constructed as shown on the 'As-Built' plans and meets with the approved plans and specifications.

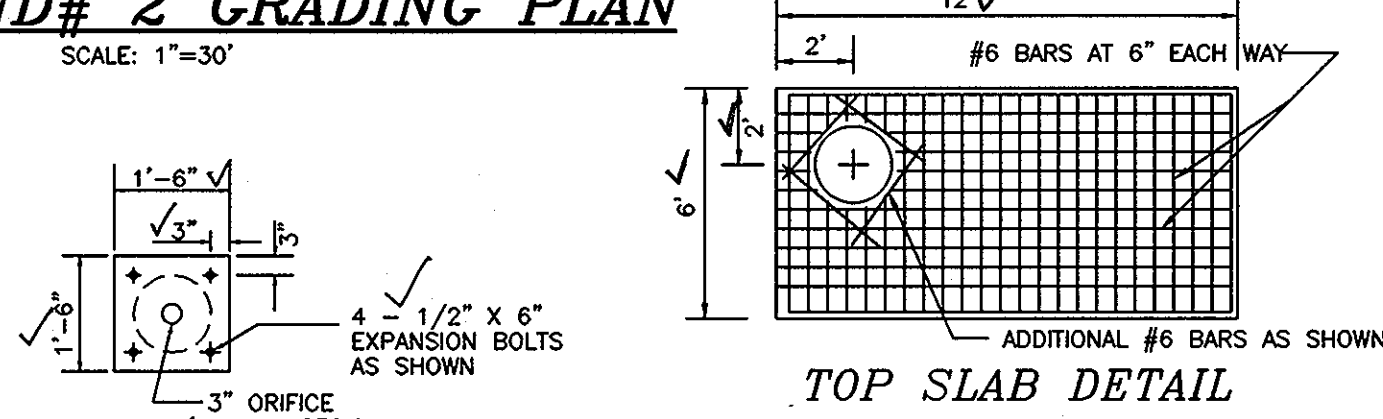


SWM POND# 2 GRADING PLAN
 SCALE: 1"=30'

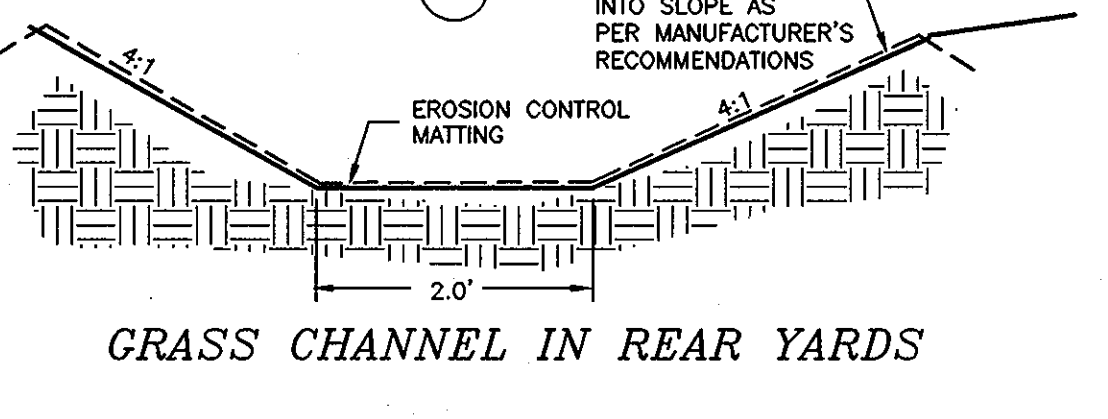
PLANT LIST

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
3	○	AMELANCHIER ARBOREA	SERVICEBERRY	5'-6" HT.
15	⊙	LOBELIA CARDINALIS	CARDINAL FLOWER	1 GAL. CONTAINER
10	⊙	PANICUM VIRGATUM	SWITCHGRASS	1 GAL. CONTAINER
10	⊙	RUBICECKIA	PURPLE CONEFLOWER	1 GAL. CONTAINER

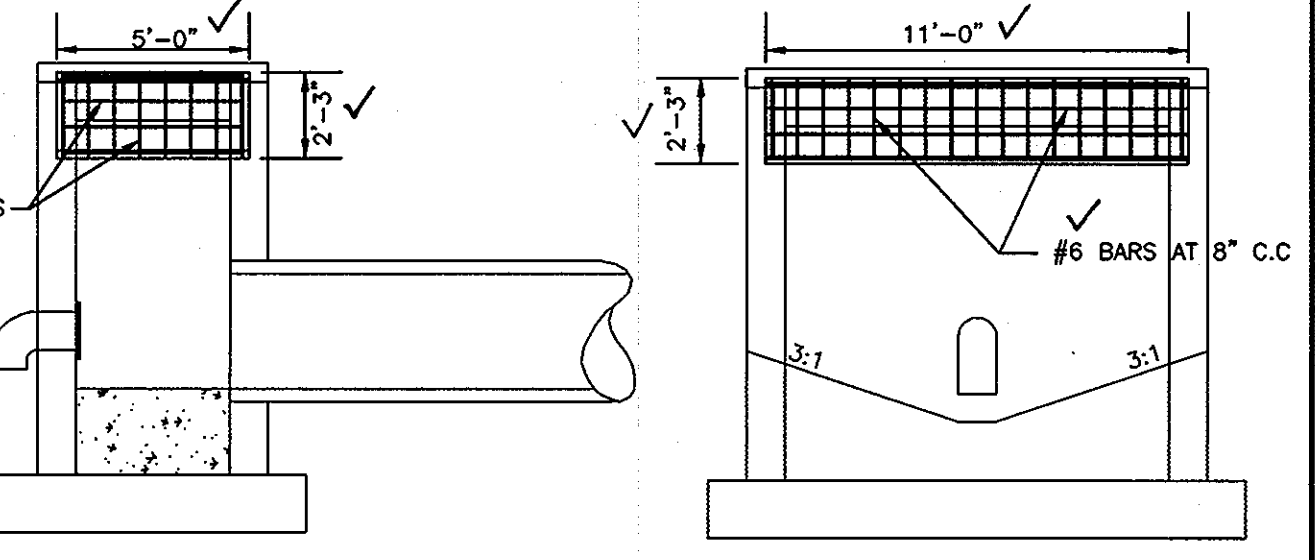
TOTAL: 35 PERENNIALS, 35 SHRUBS



TOP SLAB DETAIL

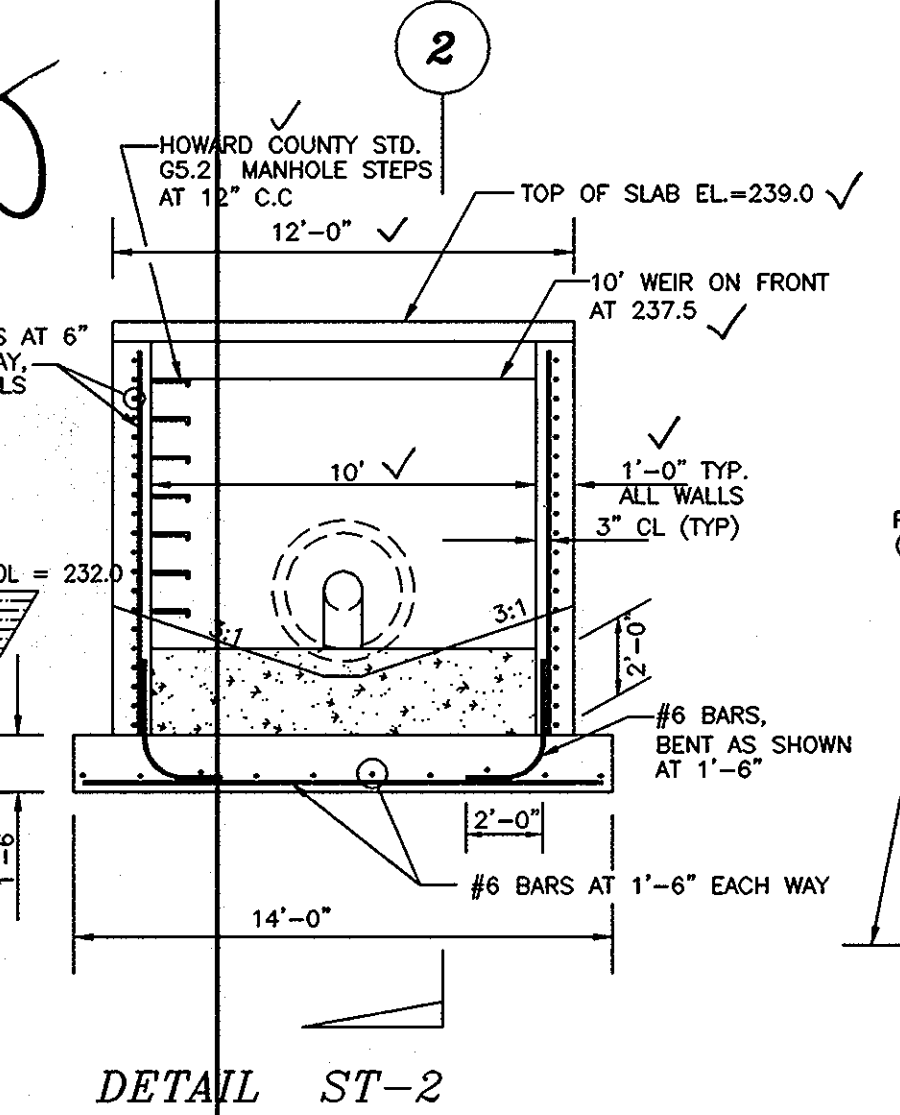


GRASS CHANNEL IN REAR YARDS

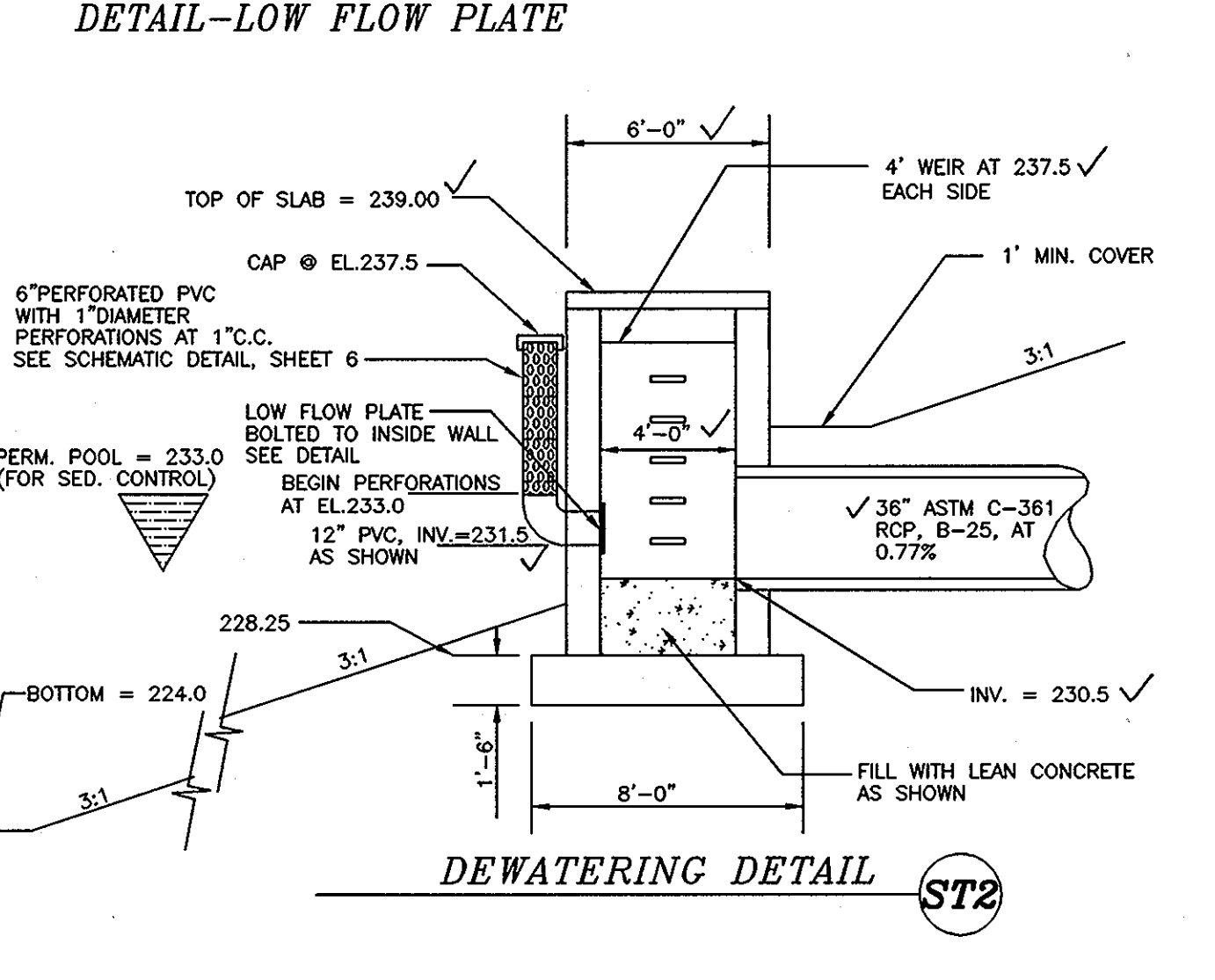


TRASH RACK-SIDE VIEW ST-2

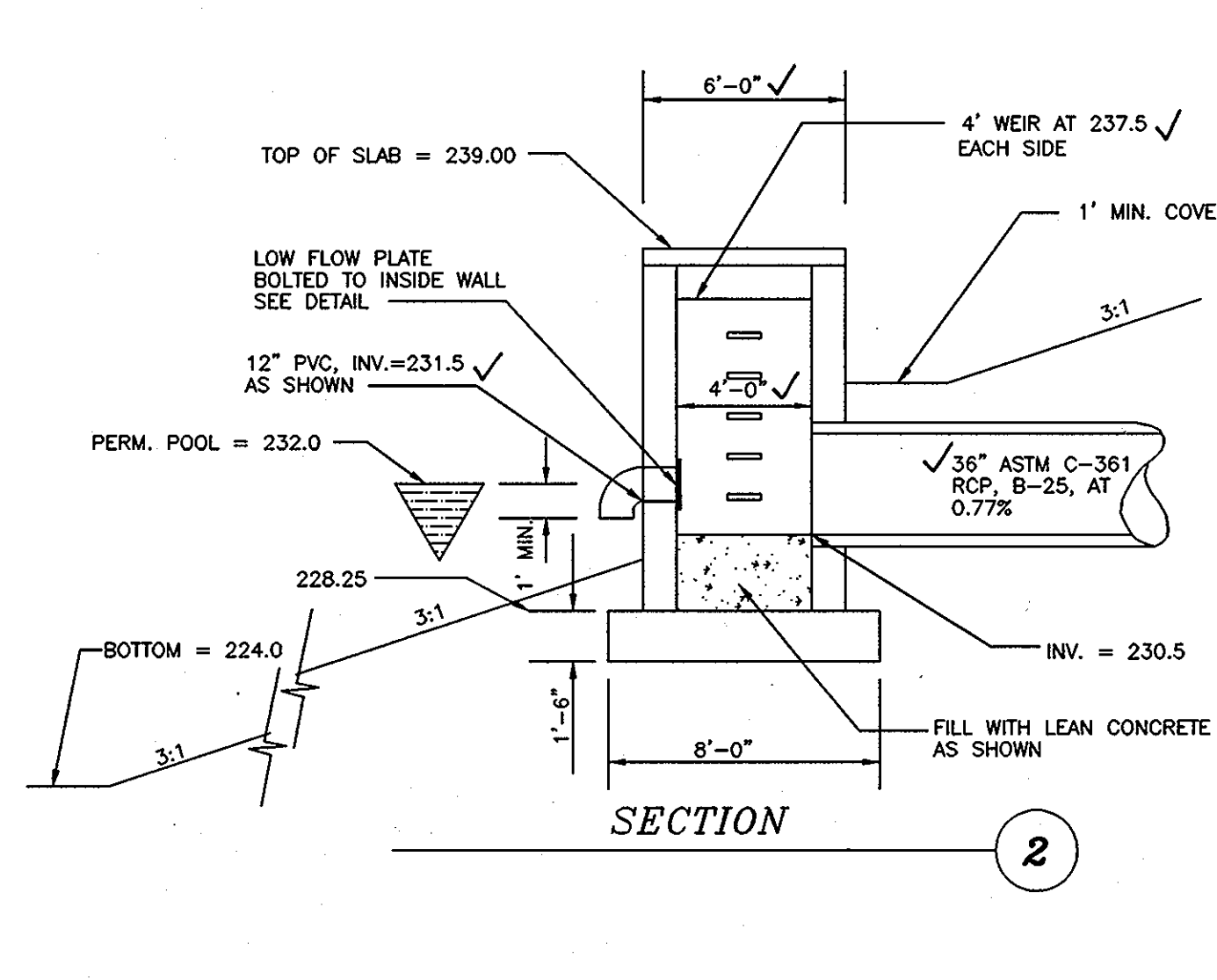
TRASH RACK-FRONT VIEW ST-2



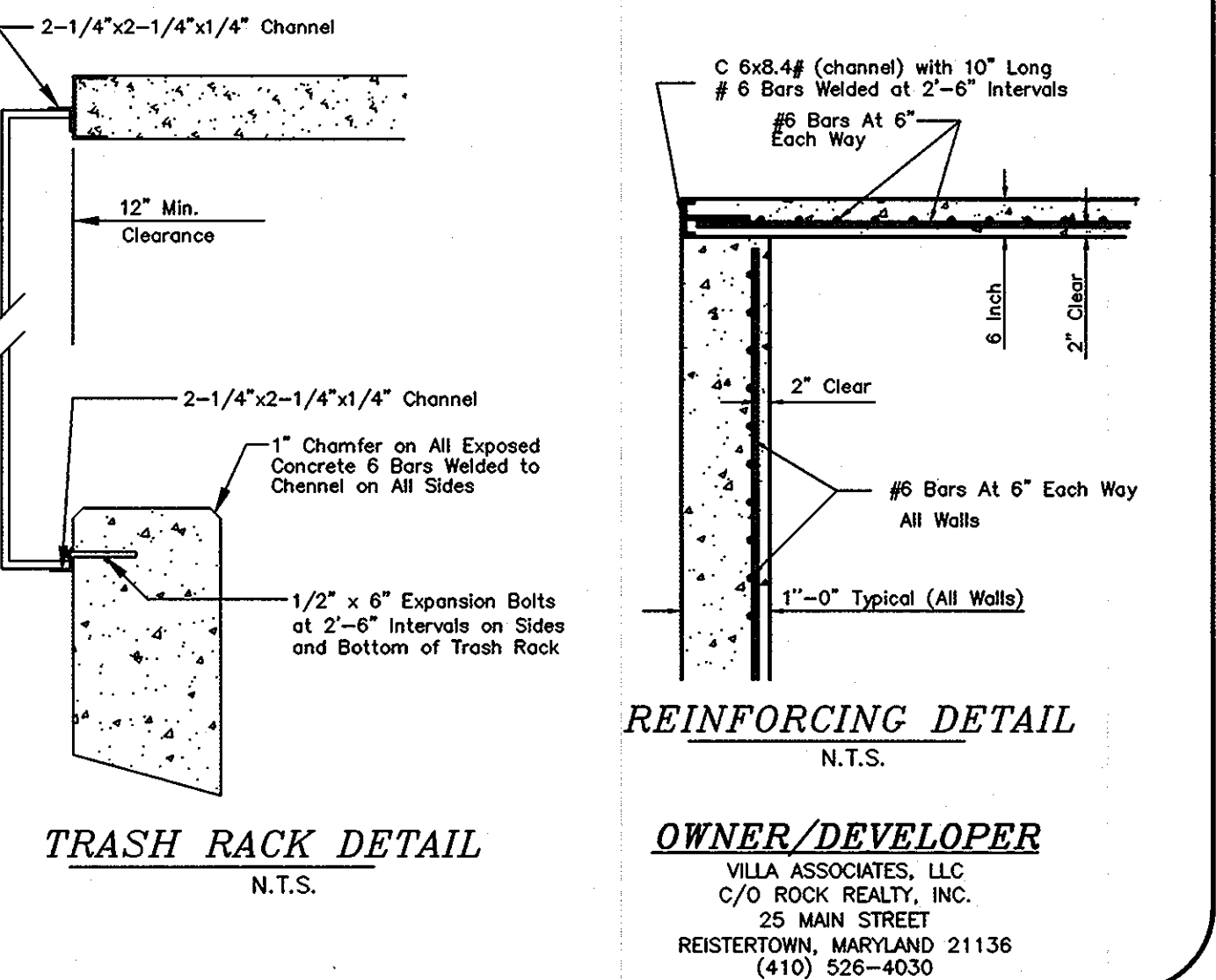
DETAIL ST-2



DEWATERING DETAIL ST2



SECTION



TRASH RACK DETAIL

REINFORCING DETAIL

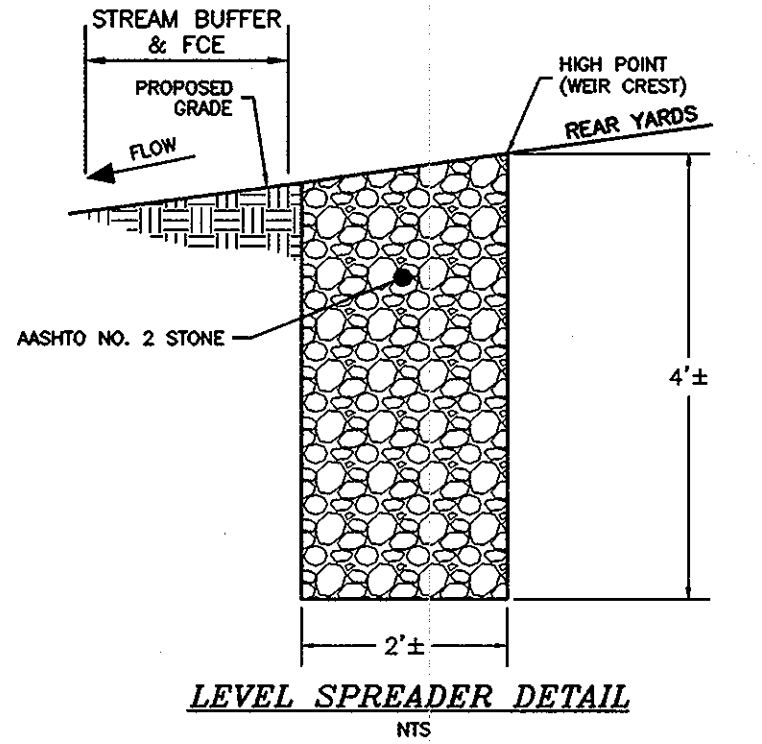
OWNER/DEVELOPER

DEVELOPER'S CERTIFICATE
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 OF THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT MEETS ALL REQUIREMENTS ACCORDING TO THE REQUIREMENTS OF THE NATURAL RESOURCE CONSERVATION SERVICE.

DATE: 4/19/05
 DATE: 4/19/05
 DATE: 4/19/05

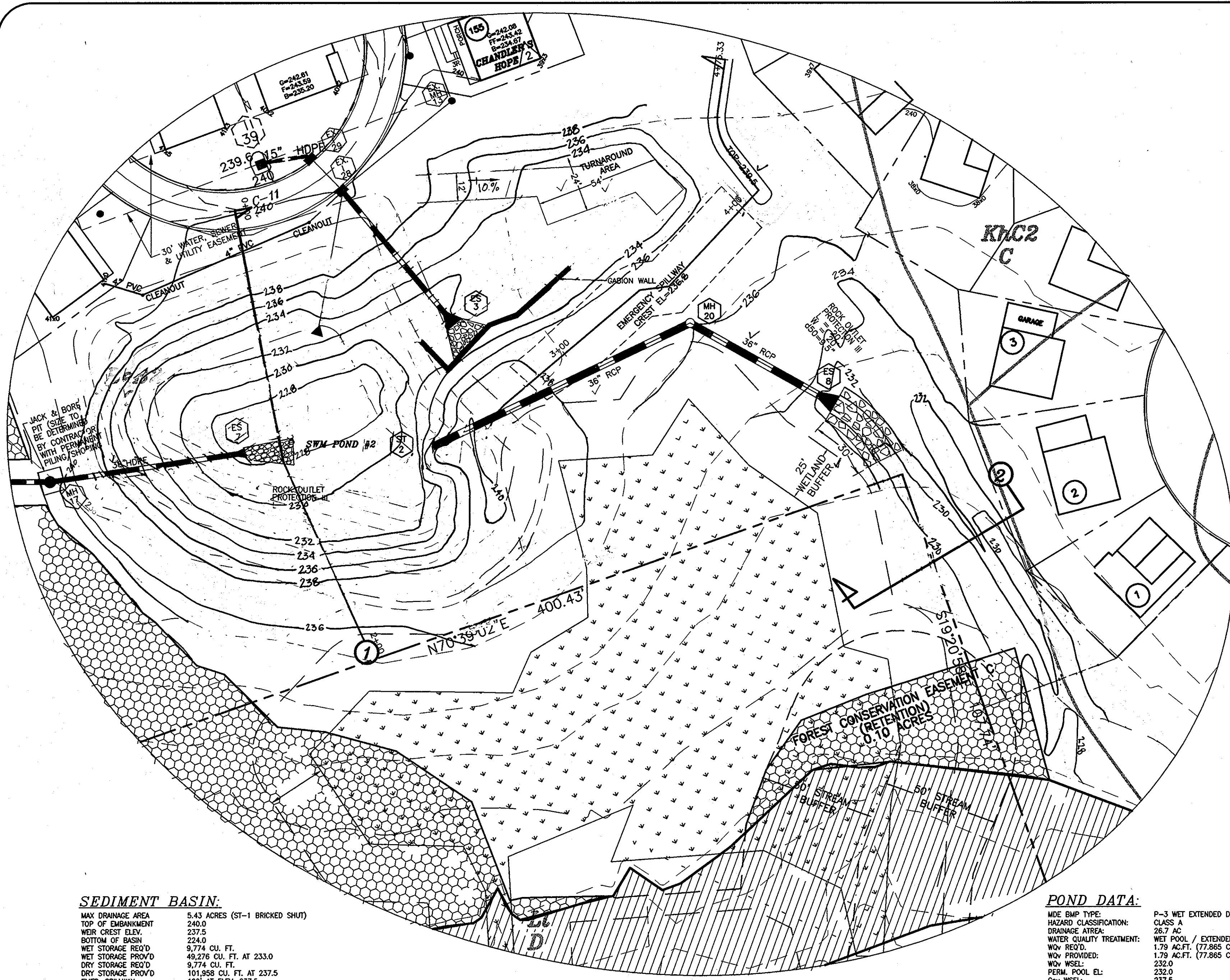
SHEET 3



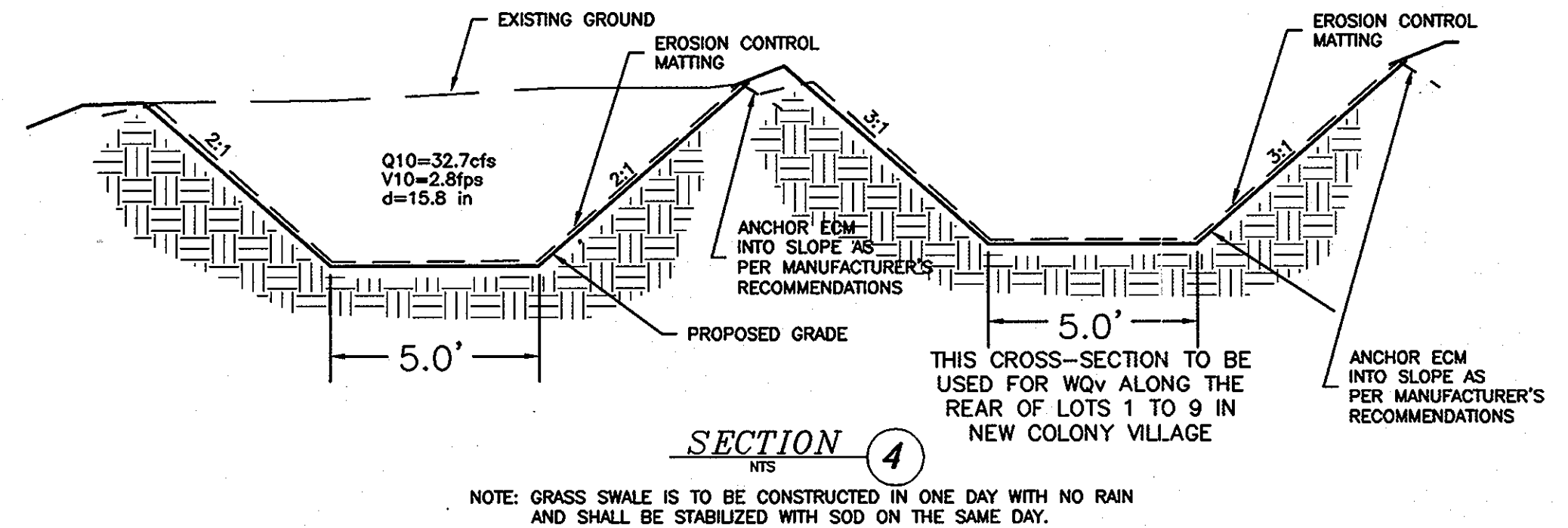
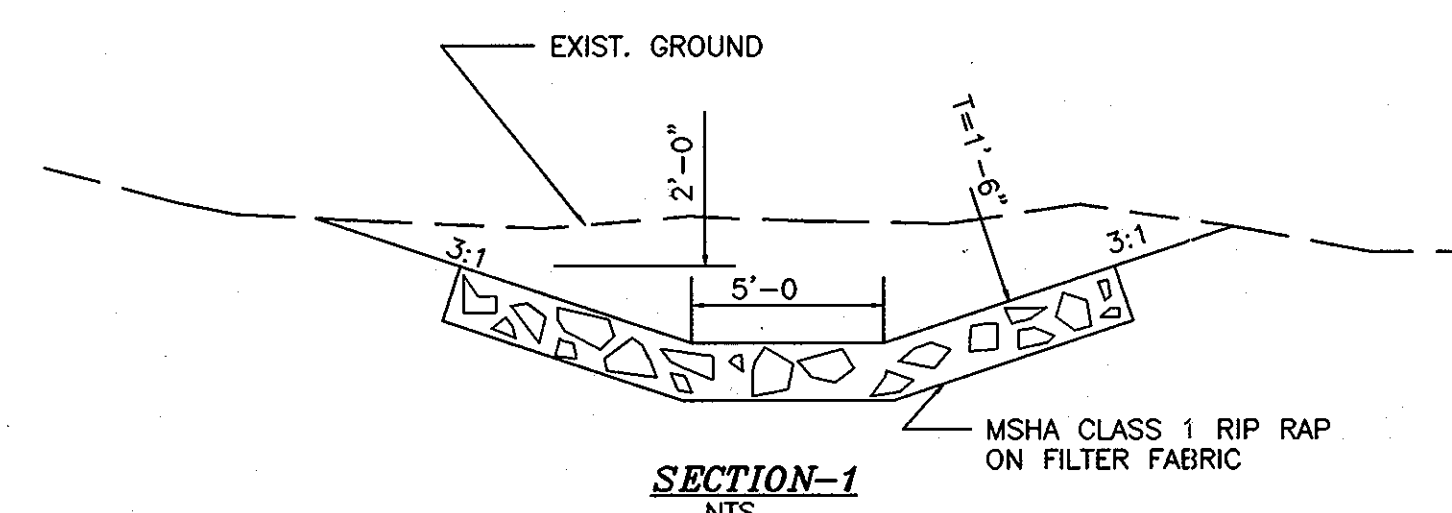
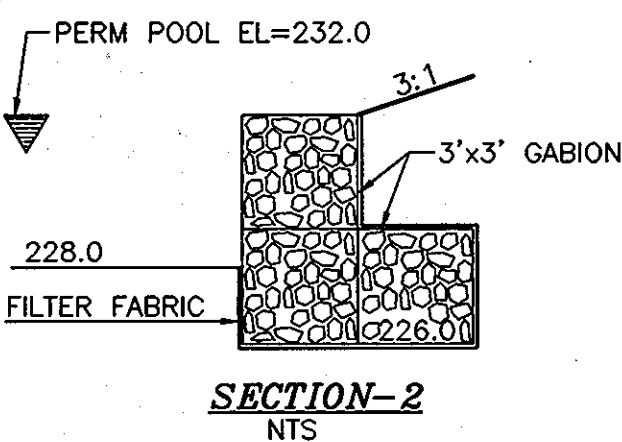
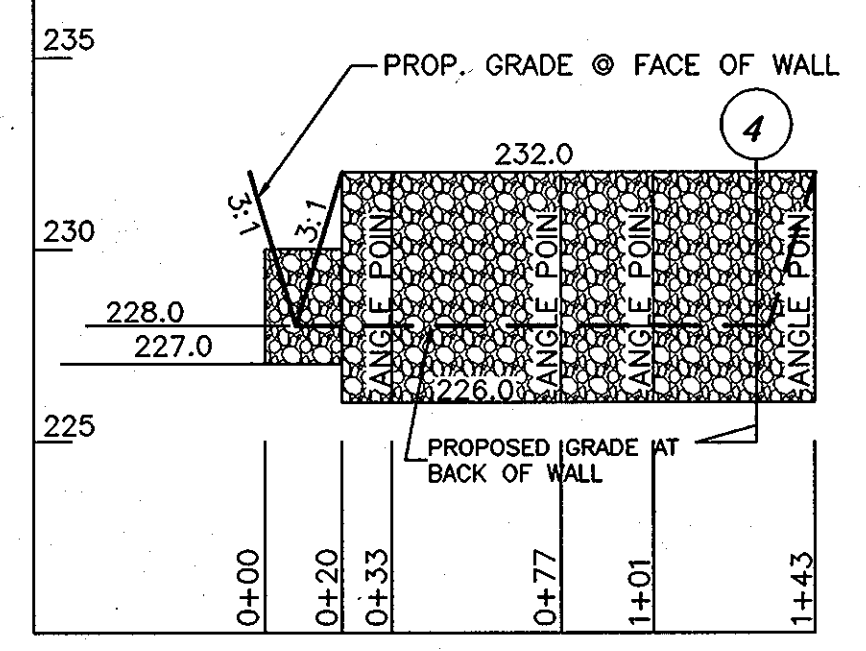
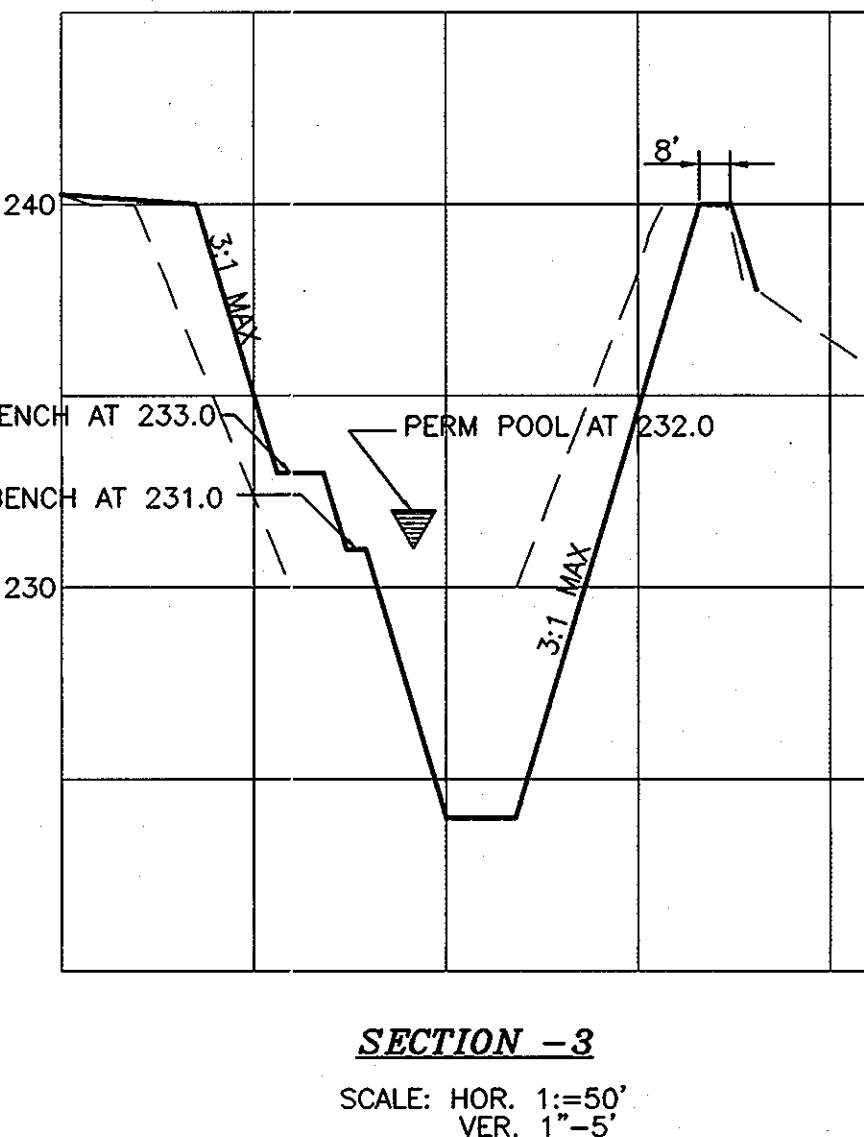
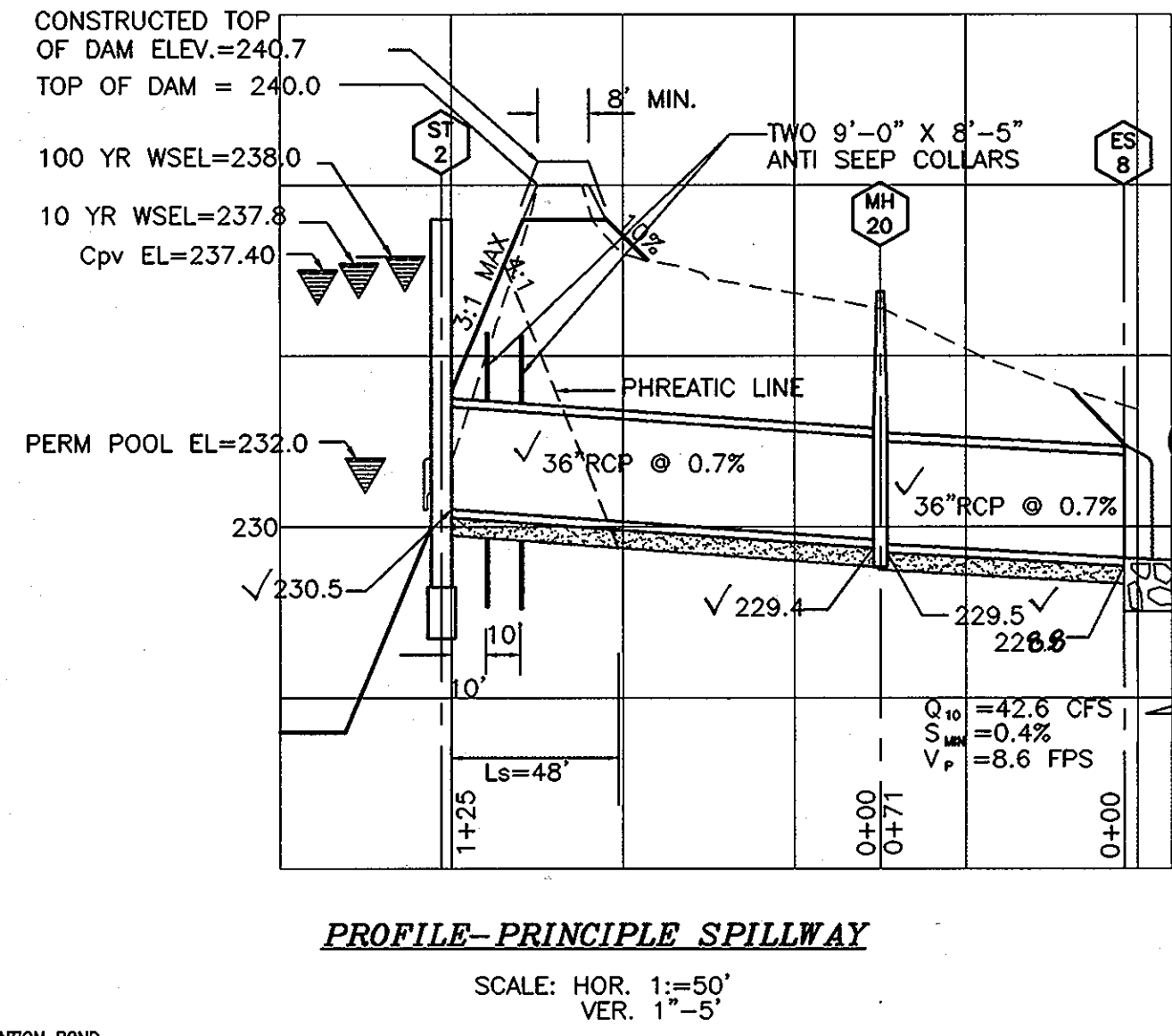
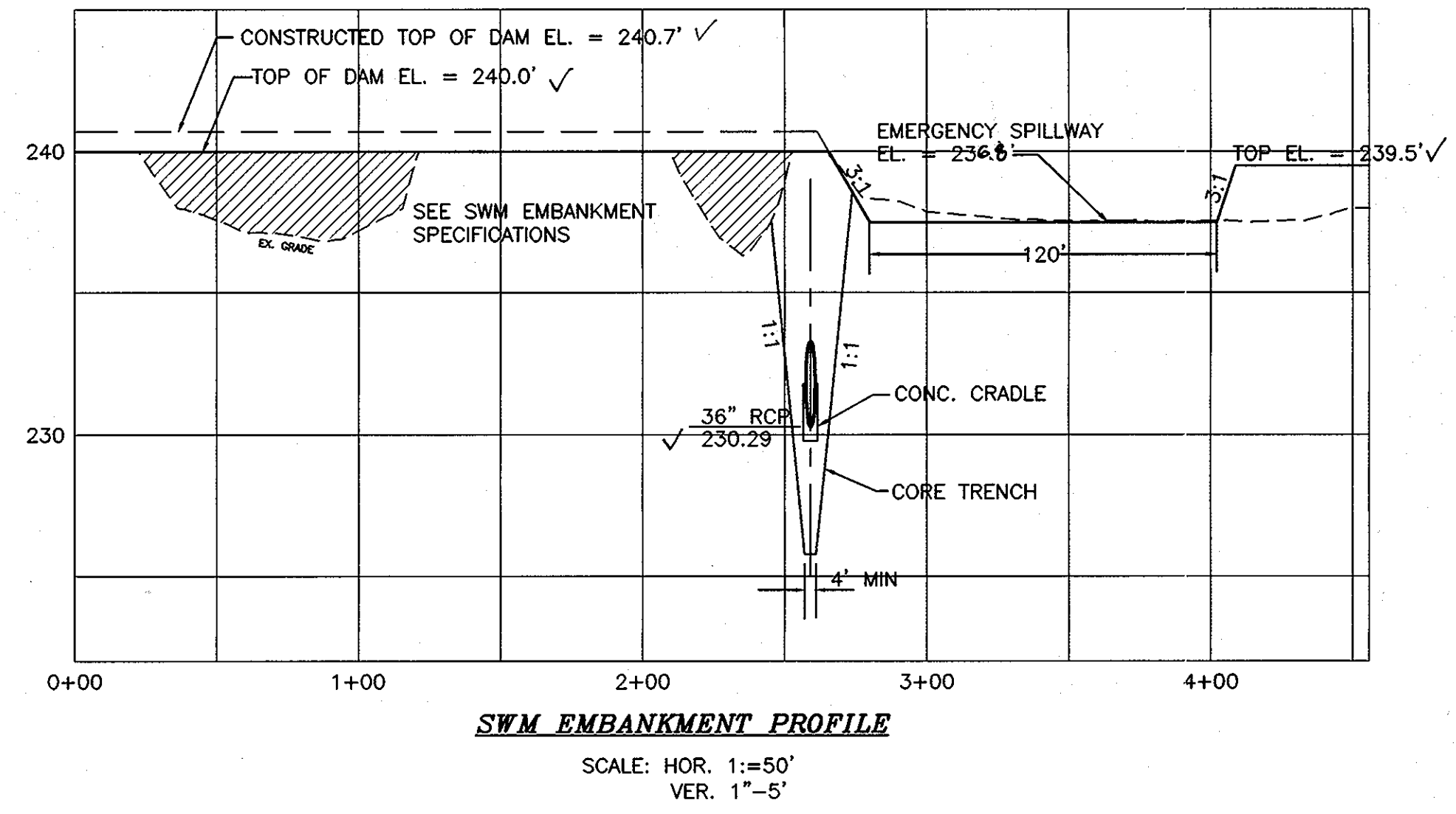
LEVEL SPREADER DETAIL

VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 FIRST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 502 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax: (301) 821-5521 Wash. (410) 997-0288 Fax.



SWM POND PLAN
SCALE: 1" = 30'



I hereby certify that the facility shown on this plan was constructed as shown on the "As-Built" plans and meets with the approved plans and specifications.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature]

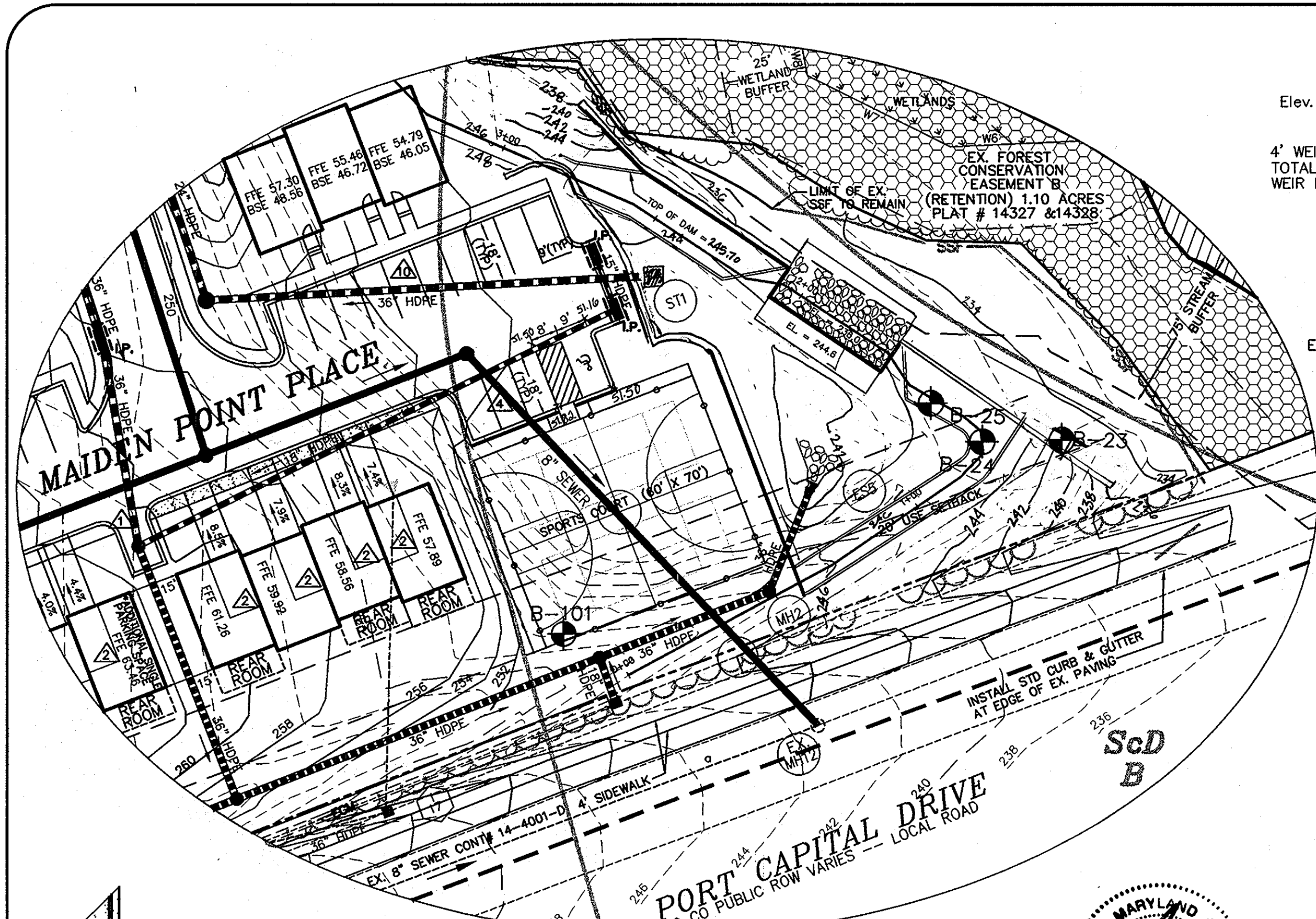
BUILDER
 RYAN HOMES
 11460 CROWNDRIVE DRIVE, SUITE 128
 OWINGS MILLS, MARYLAND 21117
 (410) 654-0501

OWNER
 VILLA ASSOCIATES, LLC
 7111 DORSEY RUN ROAD, SUITE 101
 ELKRIE, MARYLAND 21075
 (410) 579-2442

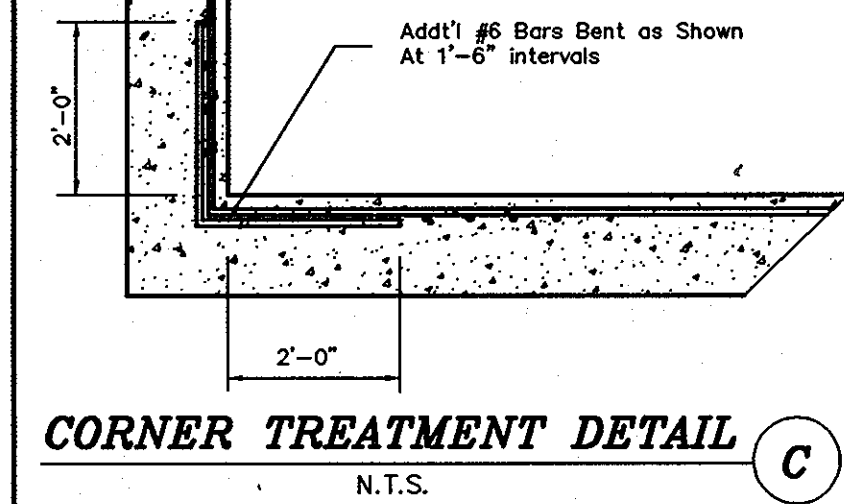
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illustration	MAP	scale	AS SHOWN
revision	1	description	SWM POND AS-BUILTS
no.	7-2429	date	

VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
SWM POND PLAN AND PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Planners Surveyors Engineers
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax. (301) 821-5527 Wash. (410) 997-0288 Fax.



FOREBAY #1 PLAN
 SCALE: 1" = 30'



OWNER/DEVELOPER
 RTE 175 LLC
 C/O ROCK REALTY, INC.
 25 MAIN STREET
 REISTERTOWN, MARYLAND 21136
 (410) 526-4030

DEVELOPER'S CERTIFICATE
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 OF THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

SIGNATURE OF DEVELOPER: *[Signature]* DATE: 4/13/05
 PRINTED NAME OF DEVELOPER: *[Name]*

ENGINEER'S CERTIFICATE
 I 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 NATURAL RESOURCE CONSERVATION SERVICE.

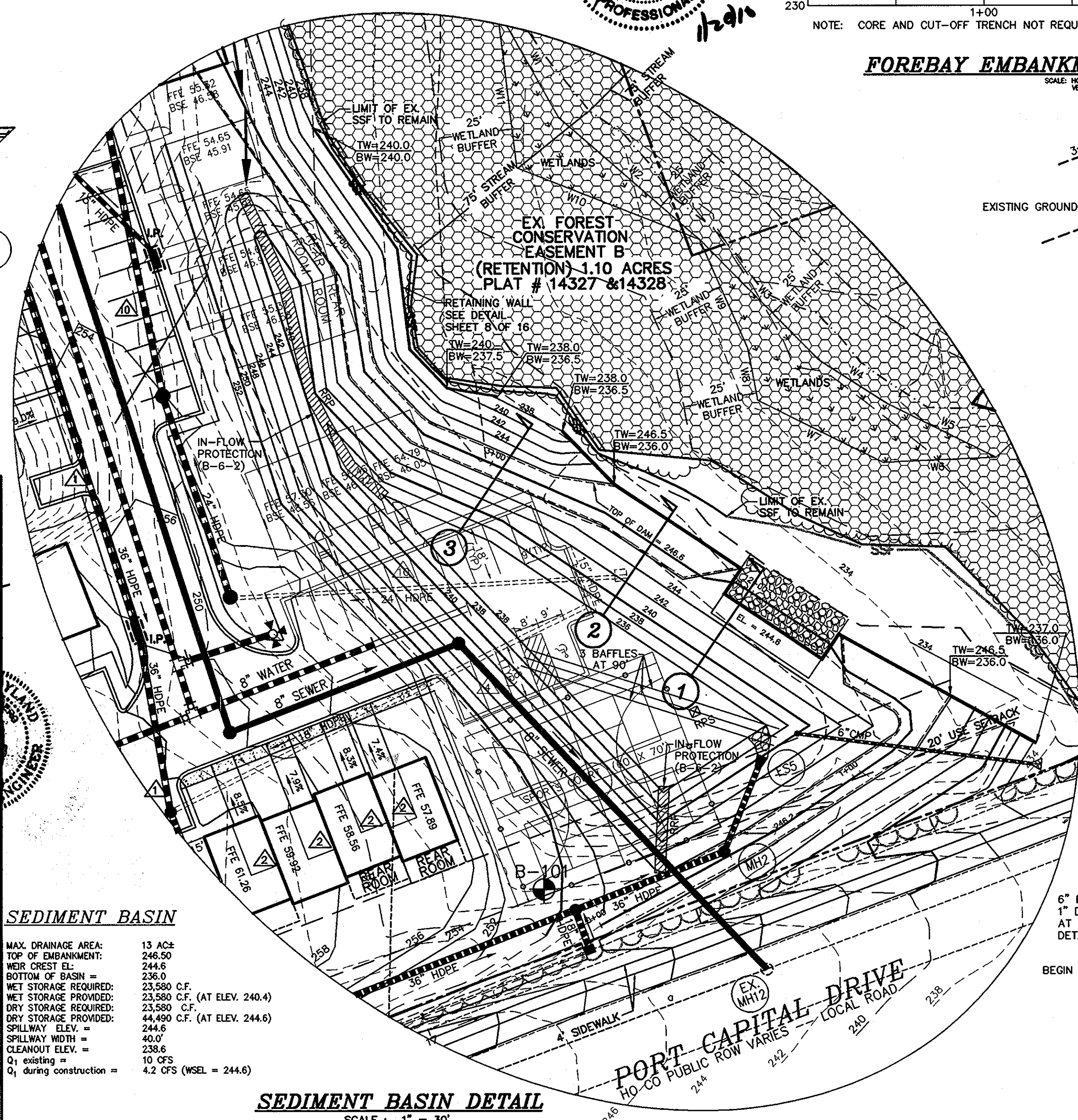
SIGNATURE OF ENGINEER: *[Signature]* DATE: 4/13/05
 PRINTED NAME OF ENGINEER: *[Name]*

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 4/13/05

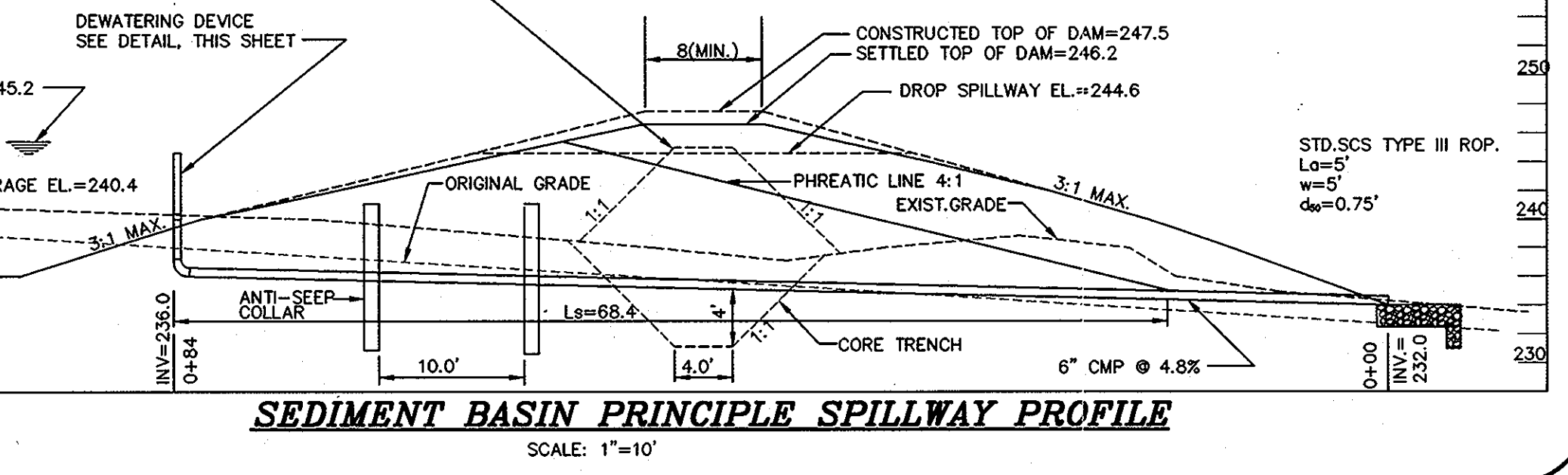
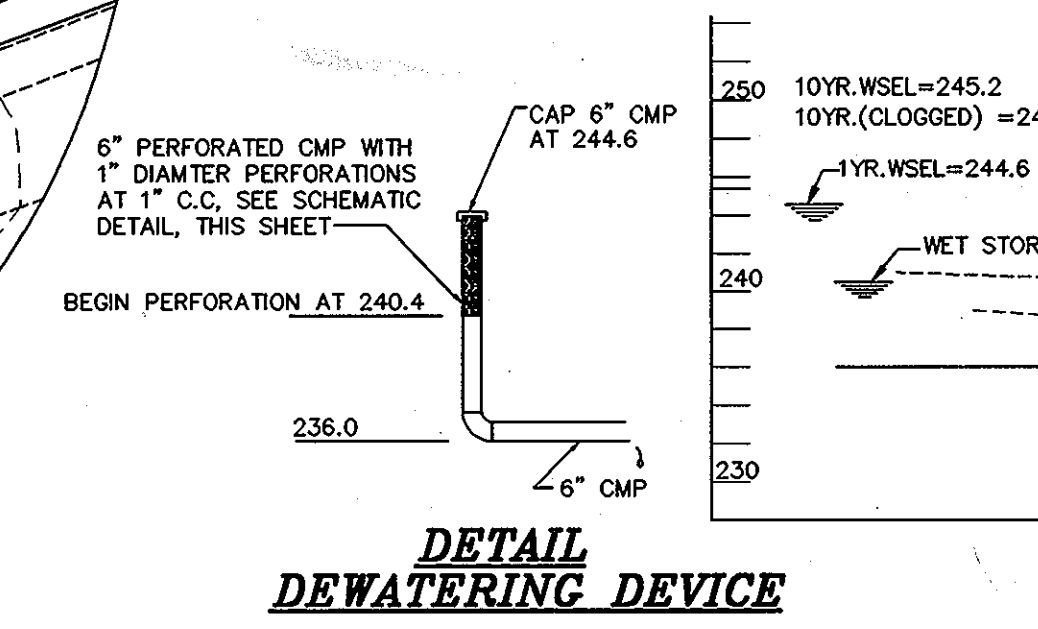
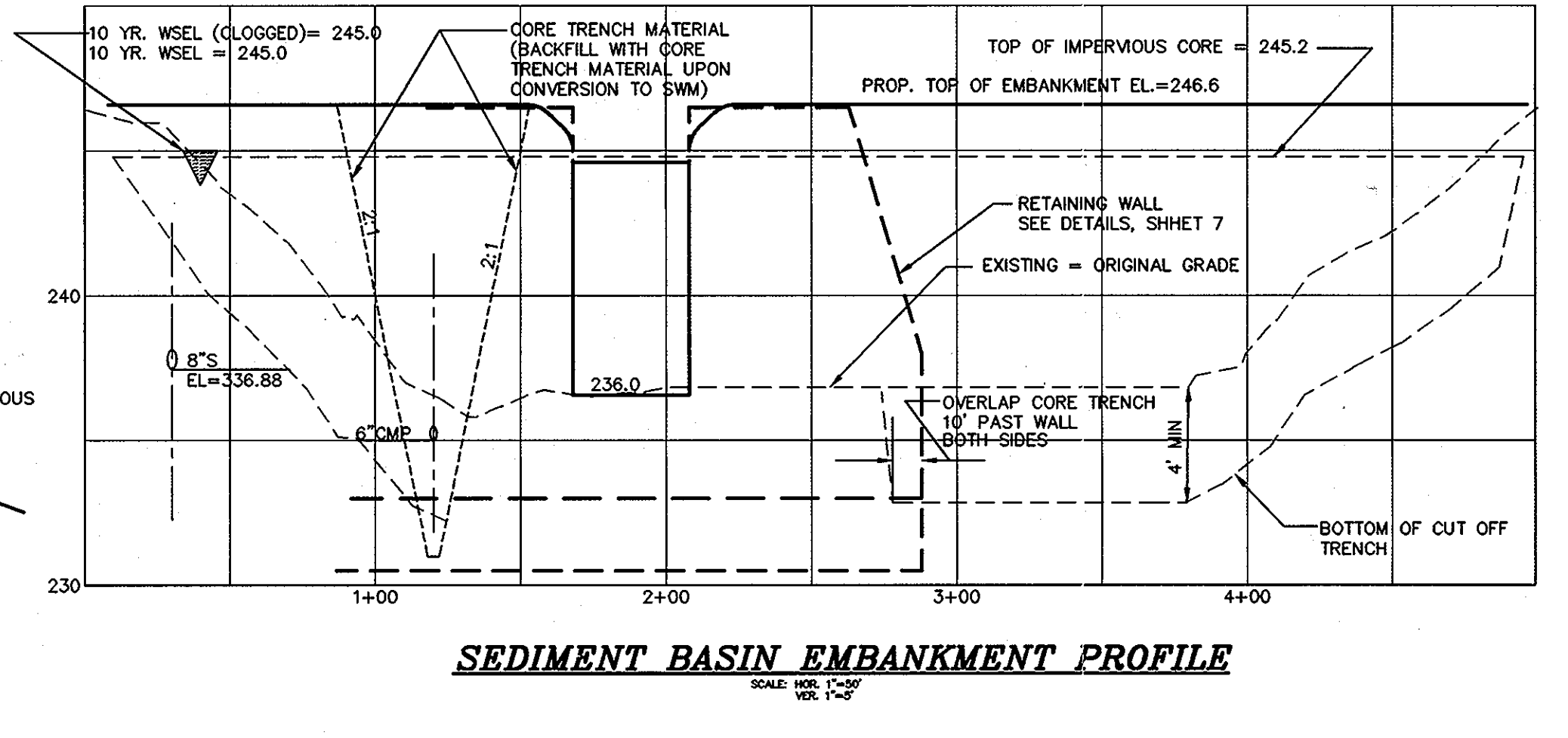
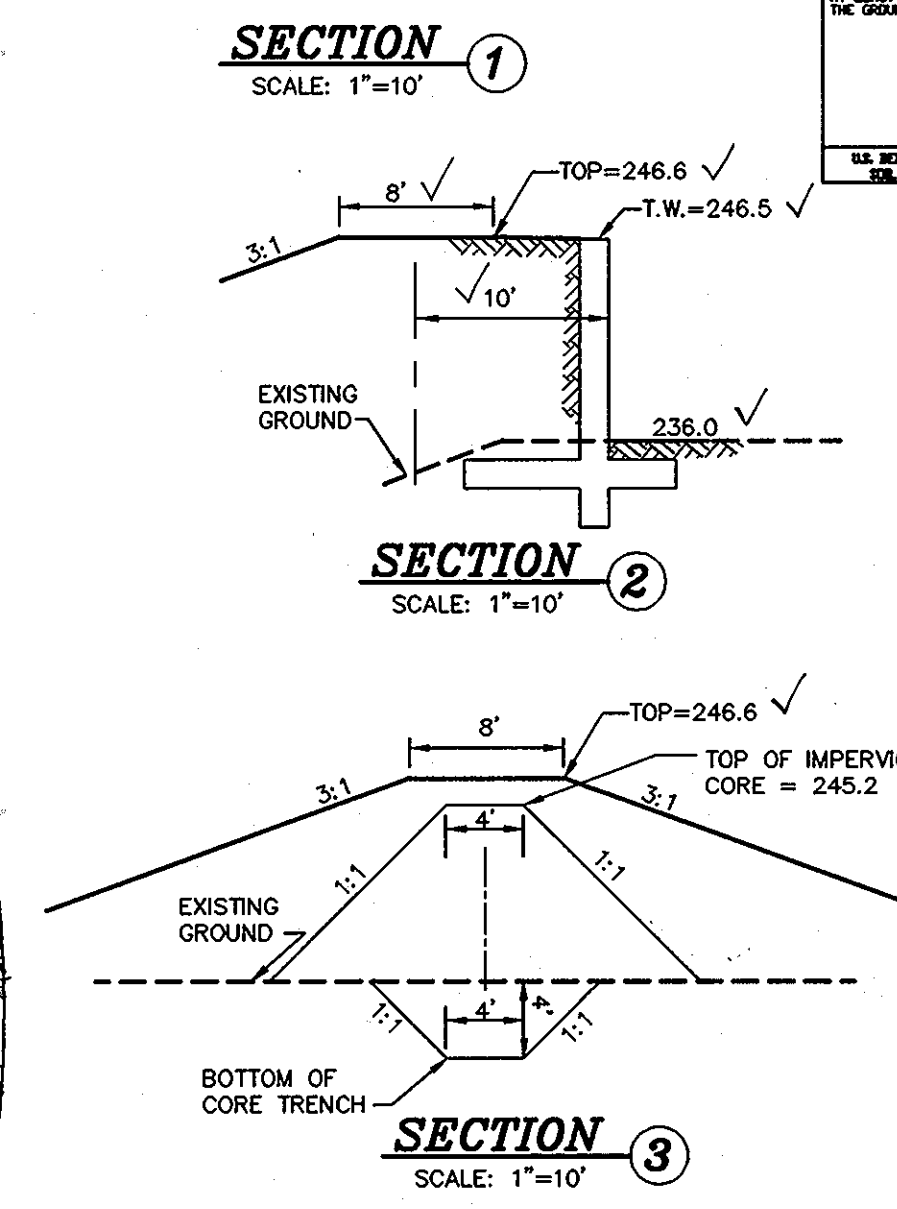
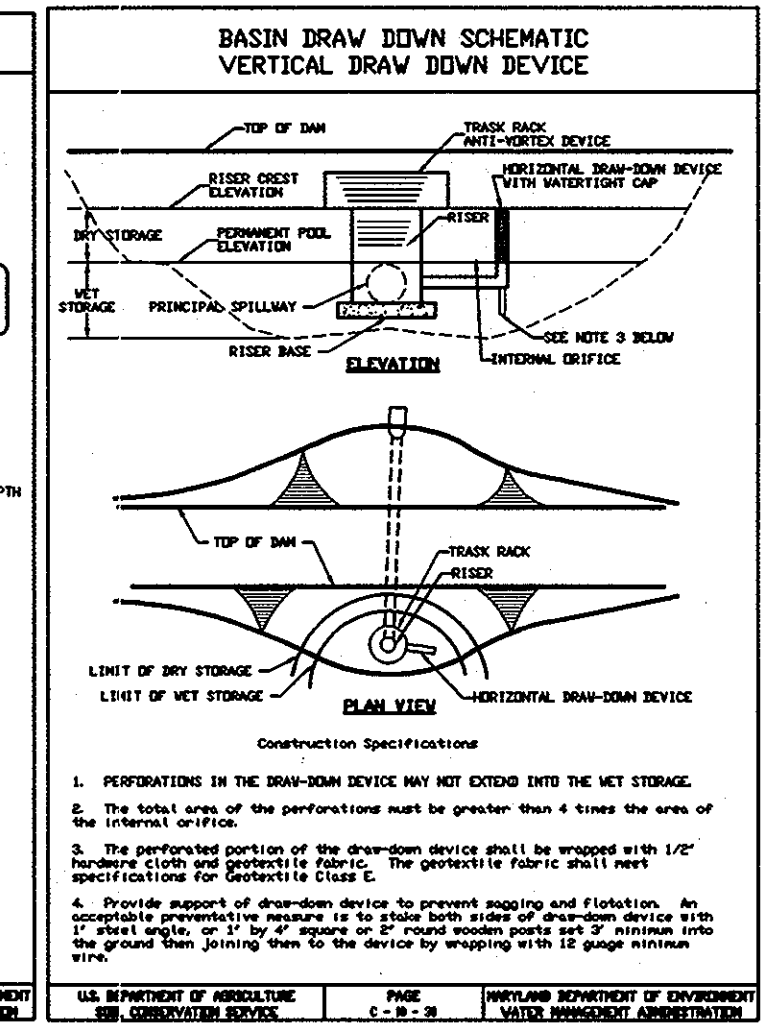
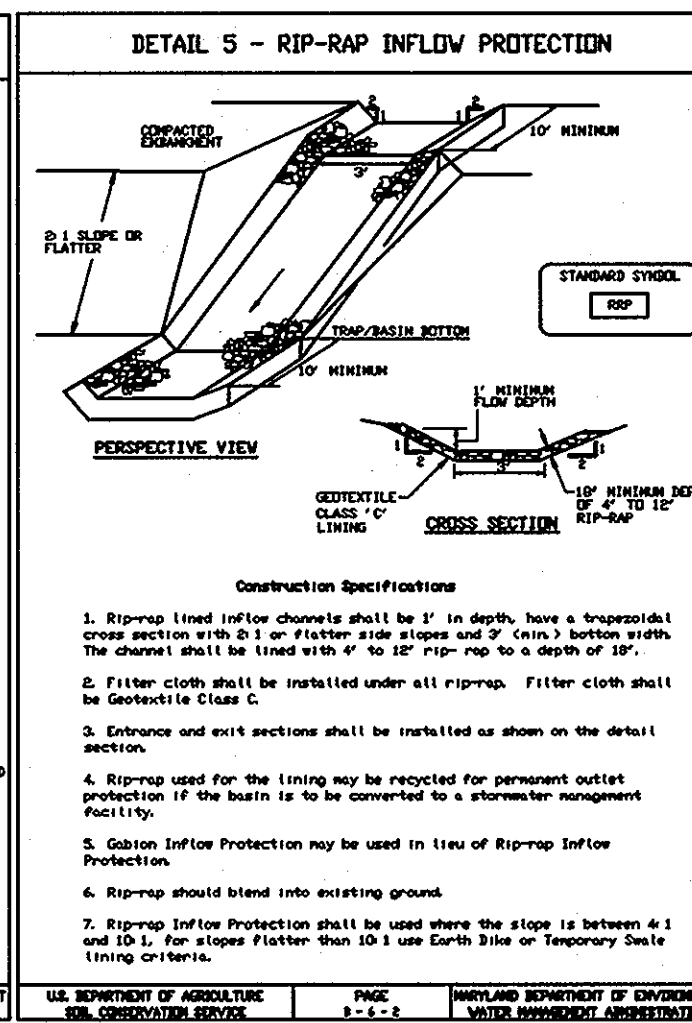
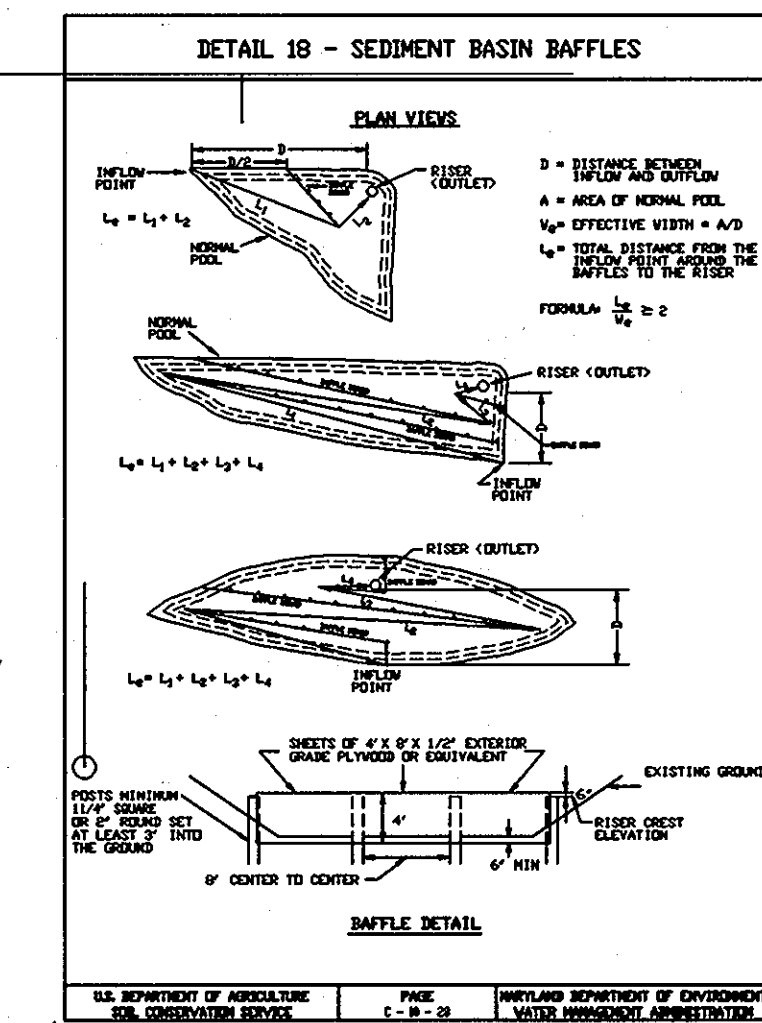
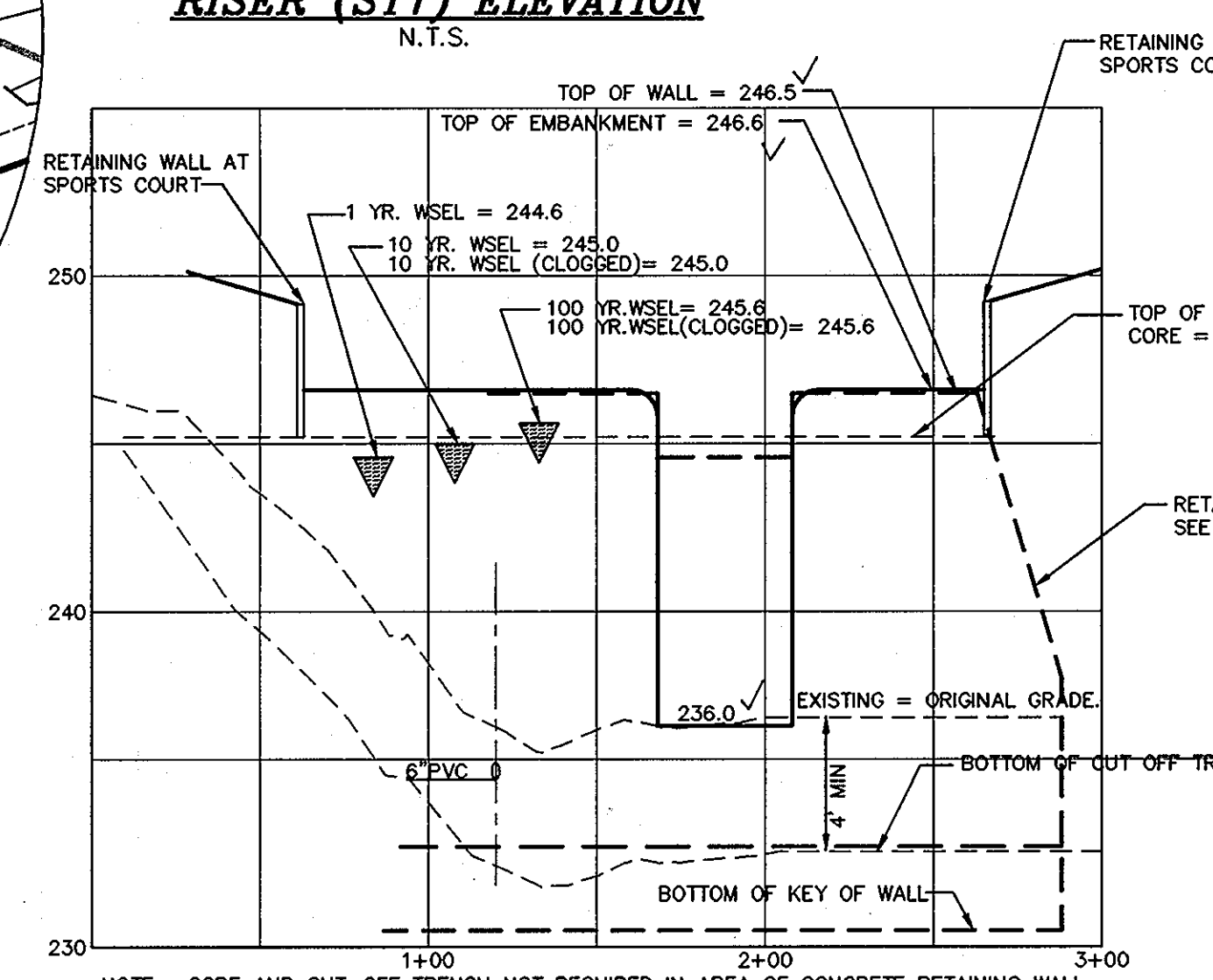
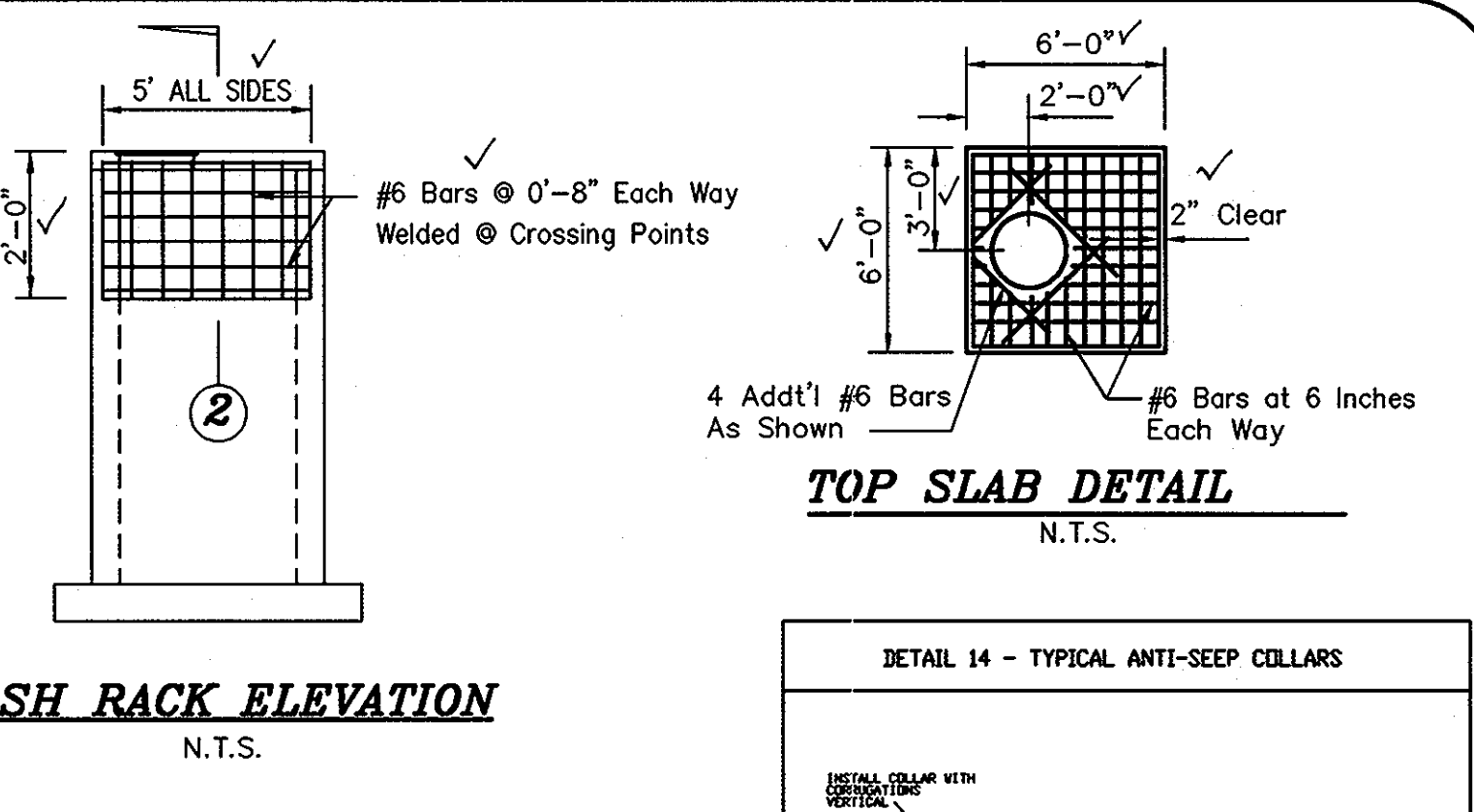
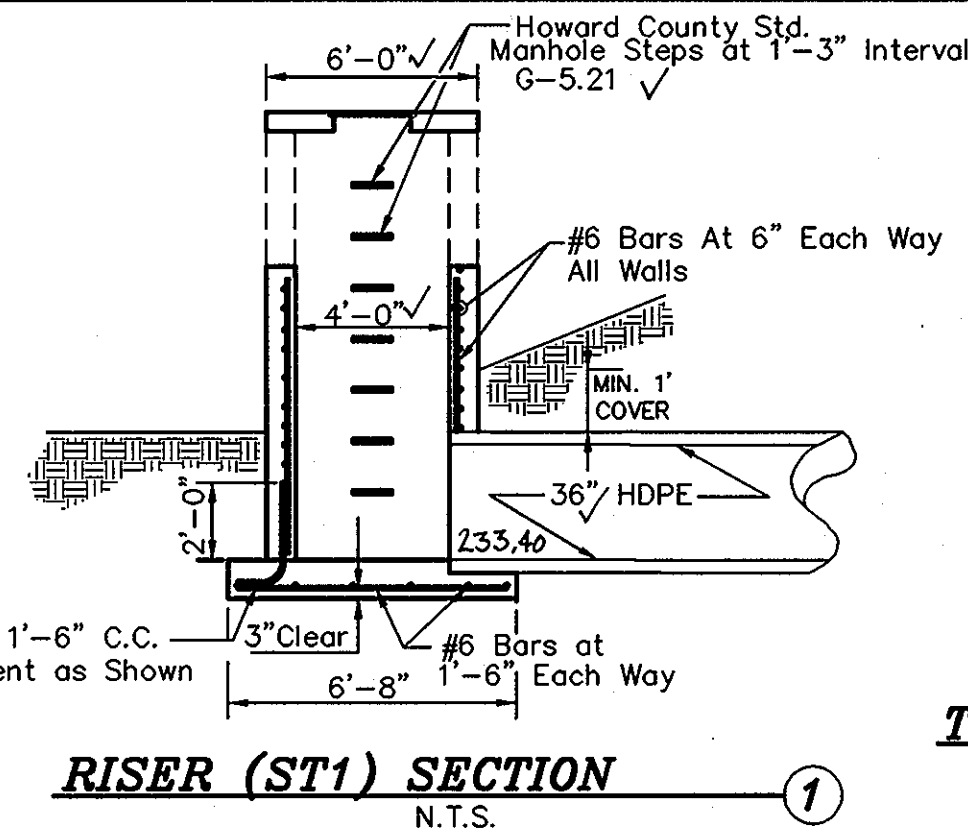
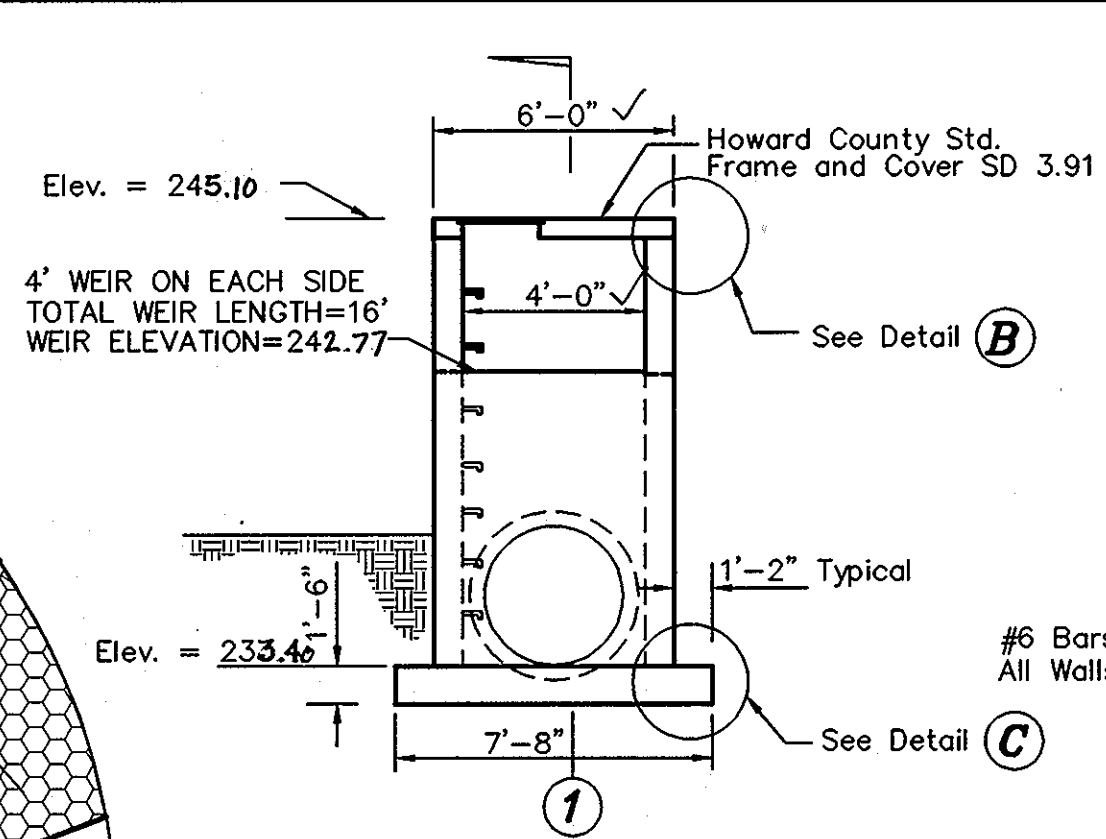
CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 2/14/05

I hereby certify that the facility shown on this plan was constructed as shown on the "As-Built" Plans and meets the approved plans and specifications.



SEDIMENT BASIN

MAX. DRAINAGE AREA:	13 ACRES
TOP OF EMBANKMENT:	246.50
WEIR CREST EL:	244.6
BOTTOM OF BASIN:	236.0
WET STORAGE REQUIRED:	23,580 C.F.
DRY STORAGE REQUIRED:	44,490 C.F. (AT ELEV. 240.4)
WET STORAGE PROVIDED:	23,580 C.F.
DRY STORAGE PROVIDED:	44,490 C.F. (AT ELEV. 244.6)
SPILLWAY ELEV.:	244.6
SPILLWAY WIDTH:	40.0
CLEANOUT ELEV.:	238.6
Q ₁ existing:	10 CFS (WSEL = 244.6)
Q ₁ during construction:	4.2 CFS (WSEL = 244.6)

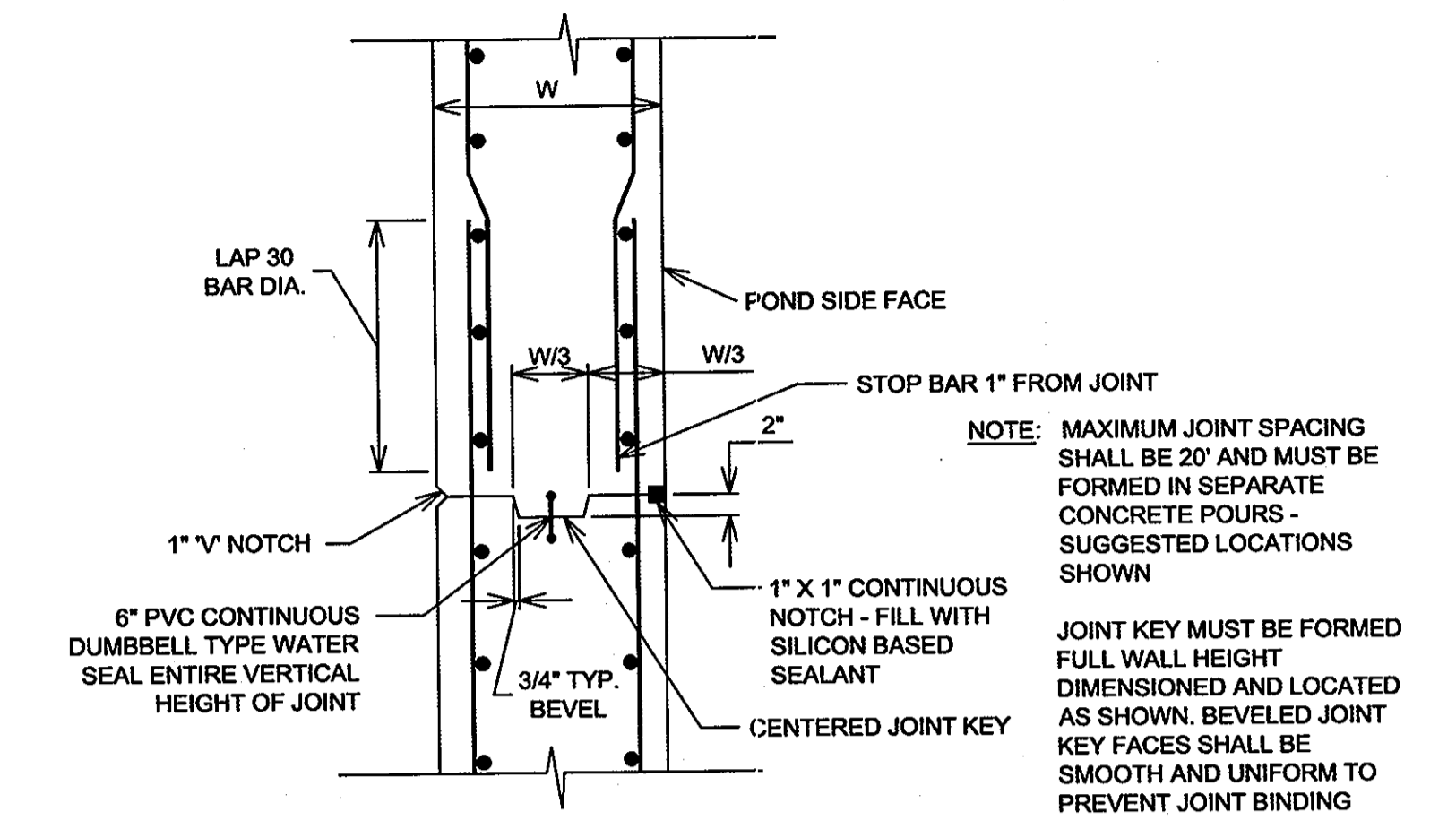
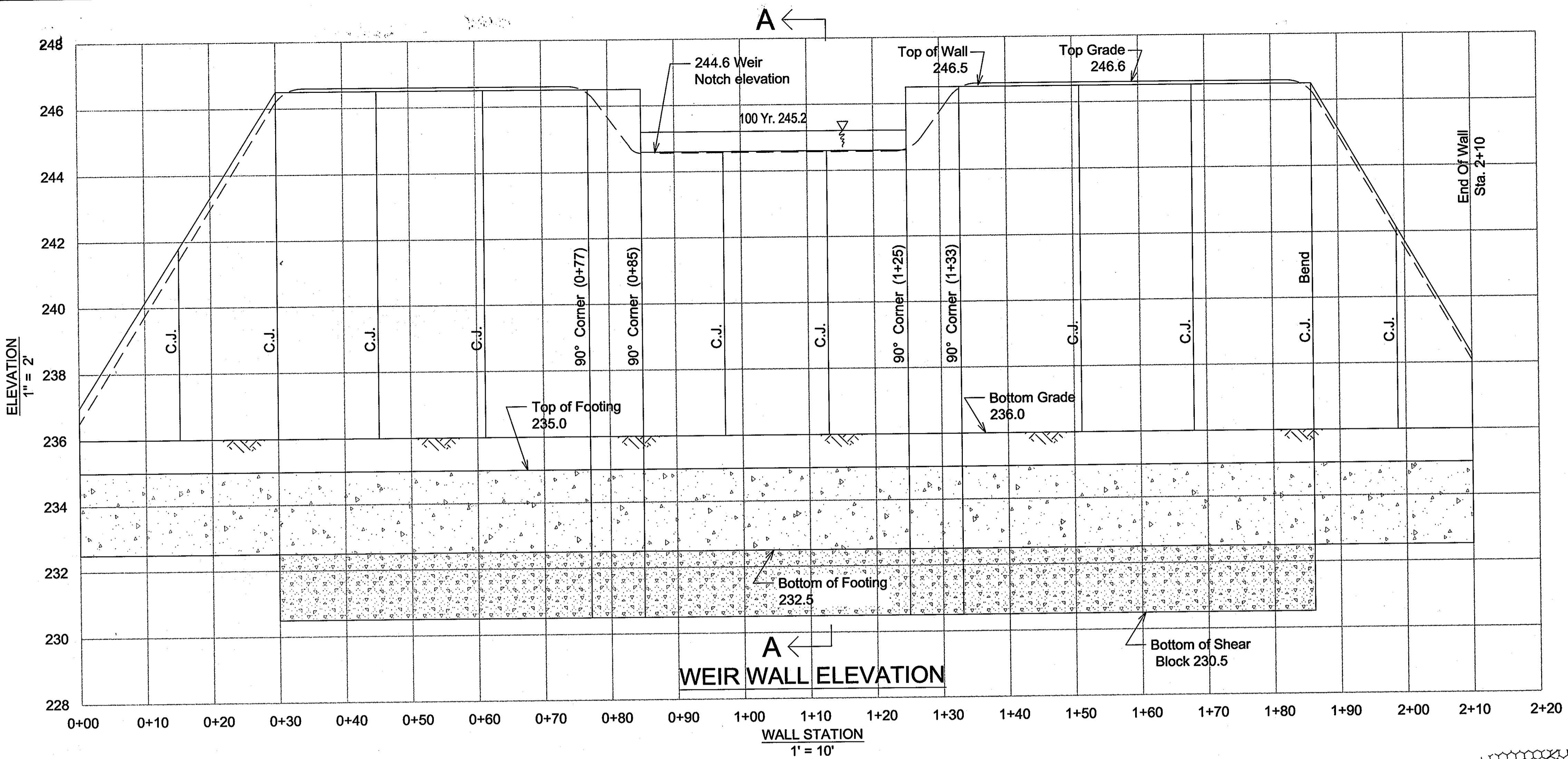


date	APRIL 05
project	2002-056
illustration	engineering
MAP	scale
AS SHOWN	approval

no.	7-220f
date	
revisors	
description	
no.	1
revisors	SWM DOWD AS-BUILT'S

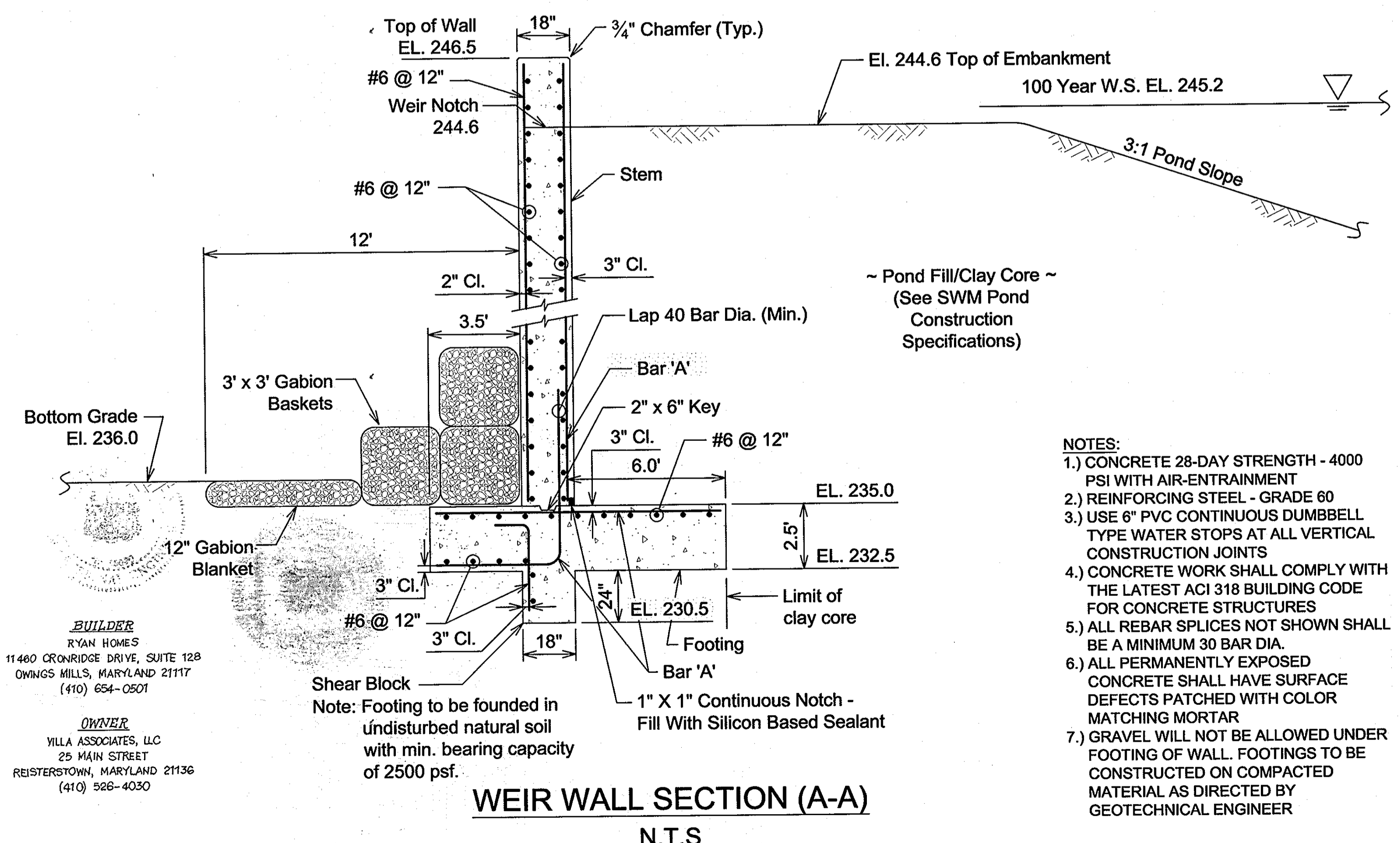
VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286 Fax: (301) 621-5621



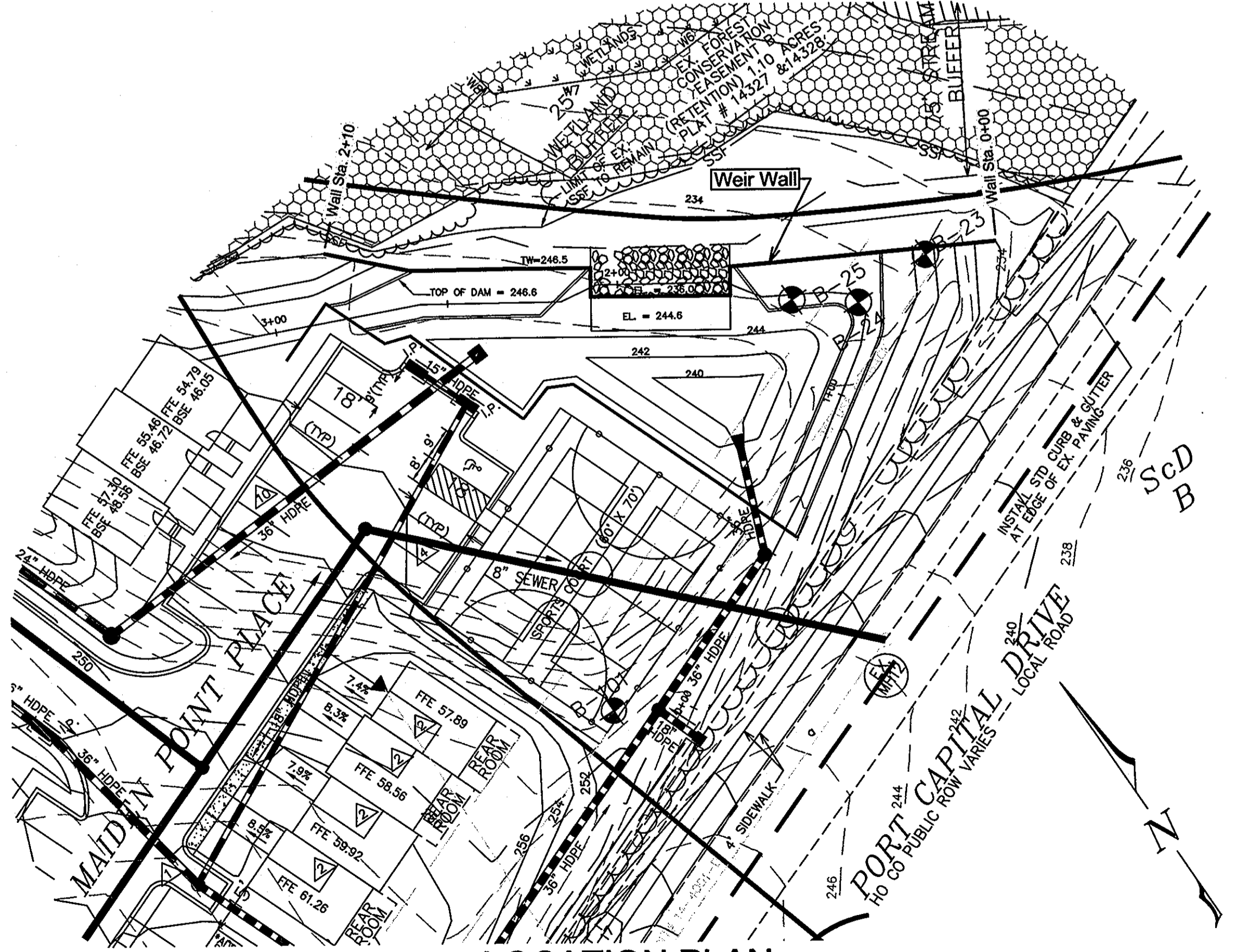
WEIR WALL CONSTRUCTION JOINT (C.J.) DETAIL
N.T.S.

VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
TAX MAP 43 - PARCEL 3 - GRID 3
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND



WEIR WALL SECTION (A-A)
N.T.S.

- NOTES:**
- 1.) CONCRETE 28-DAY STRENGTH - 4000 PSI WITH AIR-ENTRAIMENT
 - 2.) REINFORCING STEEL - GRADE 60
 - 3.) USE 6" PVC CONTINUOUS DUMBELL TYPE WATER STOPS AT ALL VERTICAL CONSTRUCTION JOINTS
 - 4.) CONCRETE WORK SHALL COMPLY WITH THE LATEST ACI 318 BUILDING CODE FOR CONCRETE STRUCTURES
 - 5.) ALL REBAR SPLICES NOT SHOWN SHALL BE A MINIMUM 30 BAR DIA.
 - 6.) ALL PERMANENTLY EXPOSED CONCRETE SHALL HAVE SURFACE DEFECTS PATCHED WITH COLOR MATCHING MORTAR
 - 7.) GRAVEL WILL NOT BE ALLOWED UNDER FOOTING OF WALL. FOOTINGS TO BE CONSTRUCTED ON COMPACTED MATERIAL AS DIRECTED BY GEOTECHNICAL ENGINEER



LOCATION PLAN
SCALE: 1" = 30'

DEVELOPER'S CERTIFICATE

I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 OF THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE NATURAL RESOURCE CONSERVATION SERVICE.

Signature of Developer: Mark Levy DATE: 3/23/05

PRINTED NAME OF DEVELOPER: MARK LEVY

ENGINEER'S CERTIFICATE

I 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 NATURAL RESOURCE CONSERVATION SERVICE.

Signature of Engineer: Richard W. Sturtevant DATE: 3/23/05

PRINTED NAME OF ENGINEER: RICHARD W. STURTEVANT

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Signature: Jim Moya DATE: 4/9/05

USDA - NATURAL RESOURCE CONSERVATION SERVICE

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

Signature: John S. ... DATE: 4/9/05

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Signature: ... DATE: 4/9/05

Signature: ... DATE: 7/8/05

Signature: ... DATE: 2/1/05

CHIEF, DEVELOPMENT ENGINEERING DIVISION
CHIEF, DIVISION OF LAND DEVELOPMENT
DIRECTOR

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LEGGED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES: 1) PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.)...

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW STRAW IMMEDIATELY AFTER SEEDING...

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.)...

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING...

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD 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 MAY 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 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL...

- 10) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS... 11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES: THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

- a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PROVIDE VEGETATIVE GROWTH. b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH. d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

CONSTRUCTION AND MATERIAL SPECIFICATIONS: TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS...

- i. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILTY LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE AUTHORITY... ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONSON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES: PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

- IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES: a. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING: b. PH FOR TOPSOILS SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.

NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

II. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 2.0.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

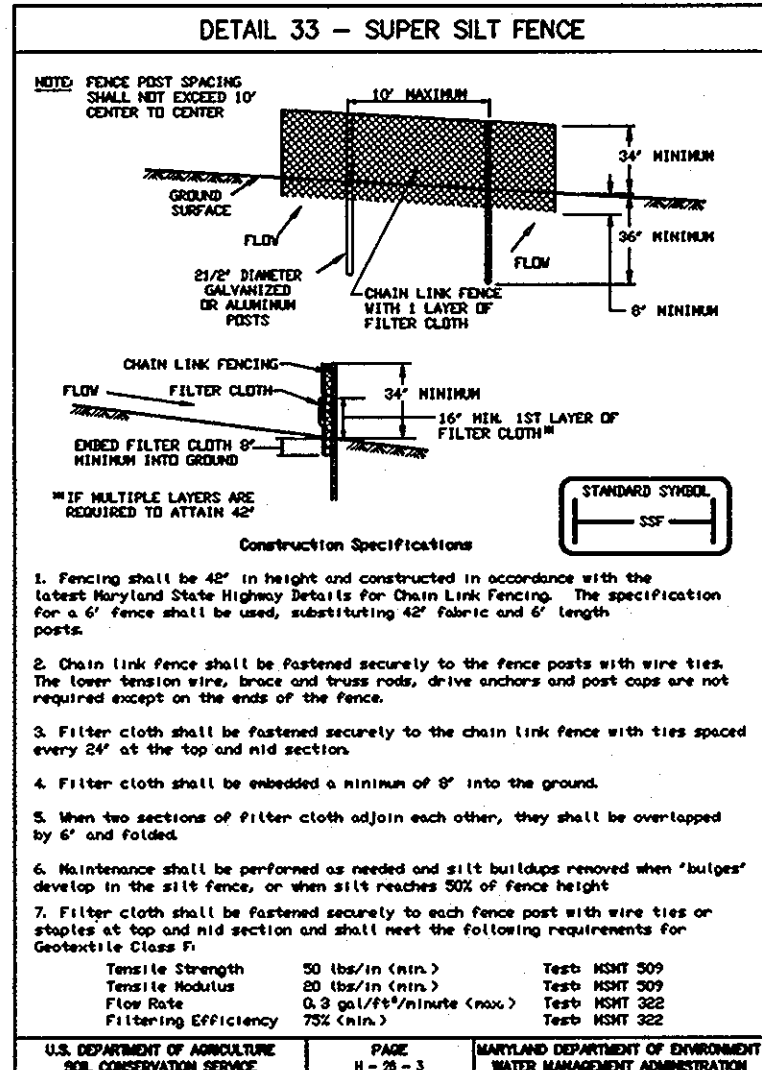
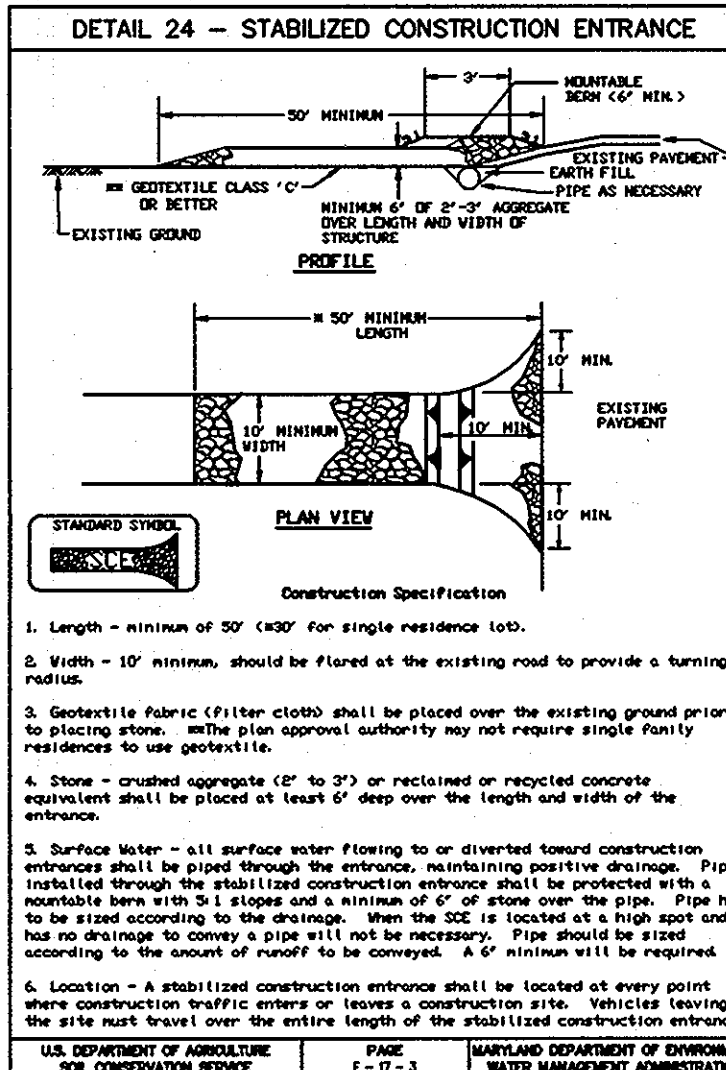
TOPSOIL APPLICATION: WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" TO 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE...

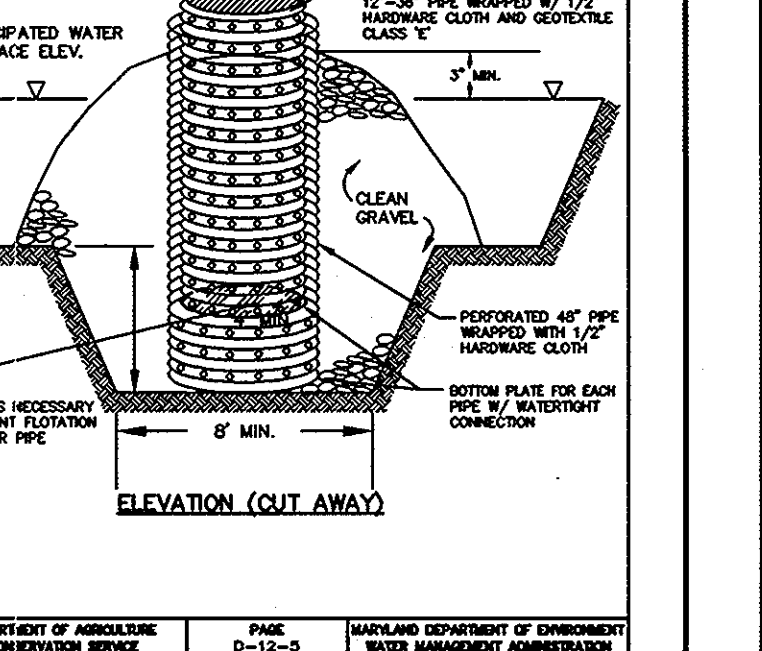
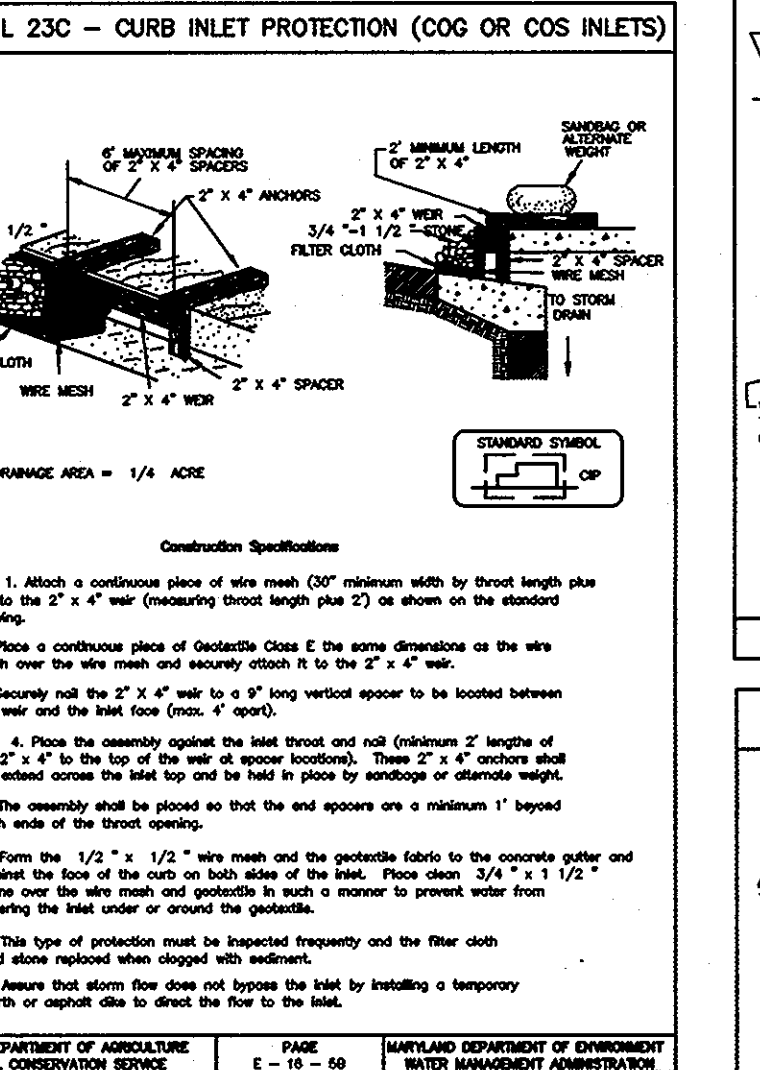
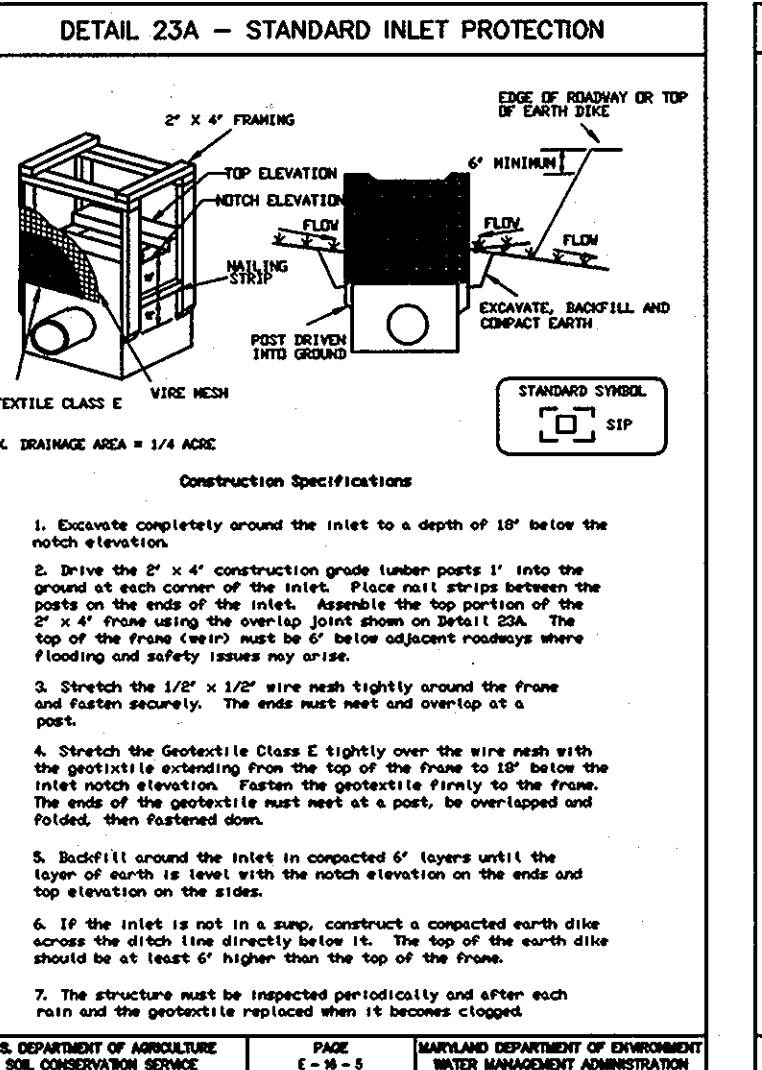
ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

- i. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS: a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-V, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.

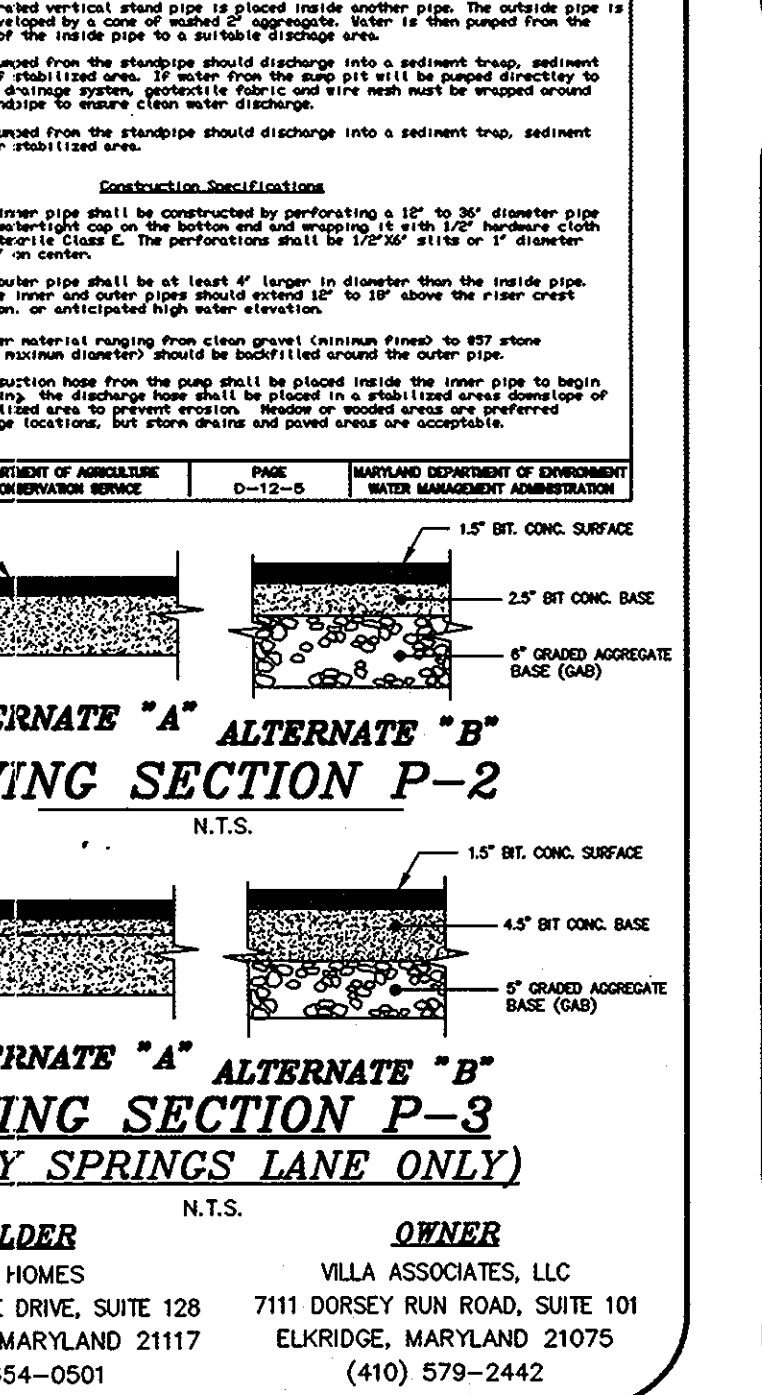
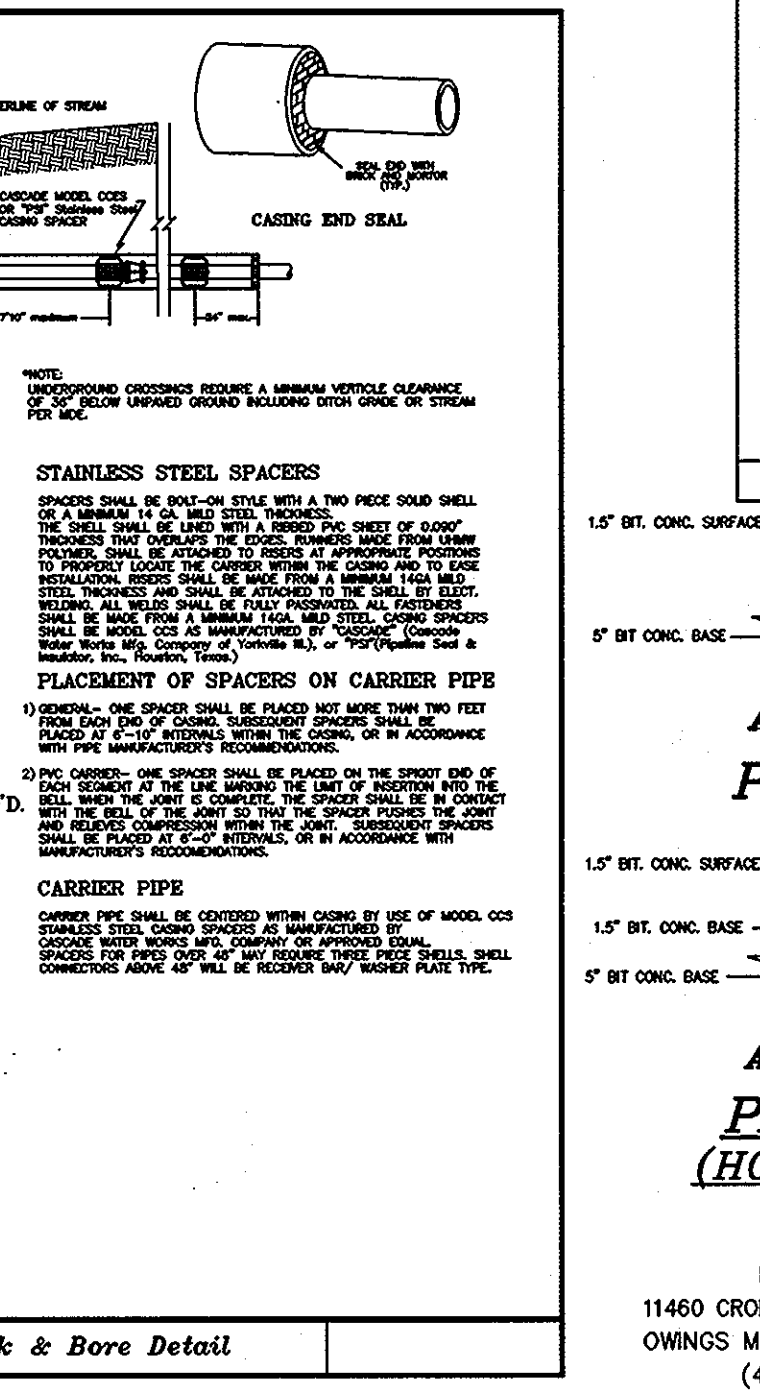
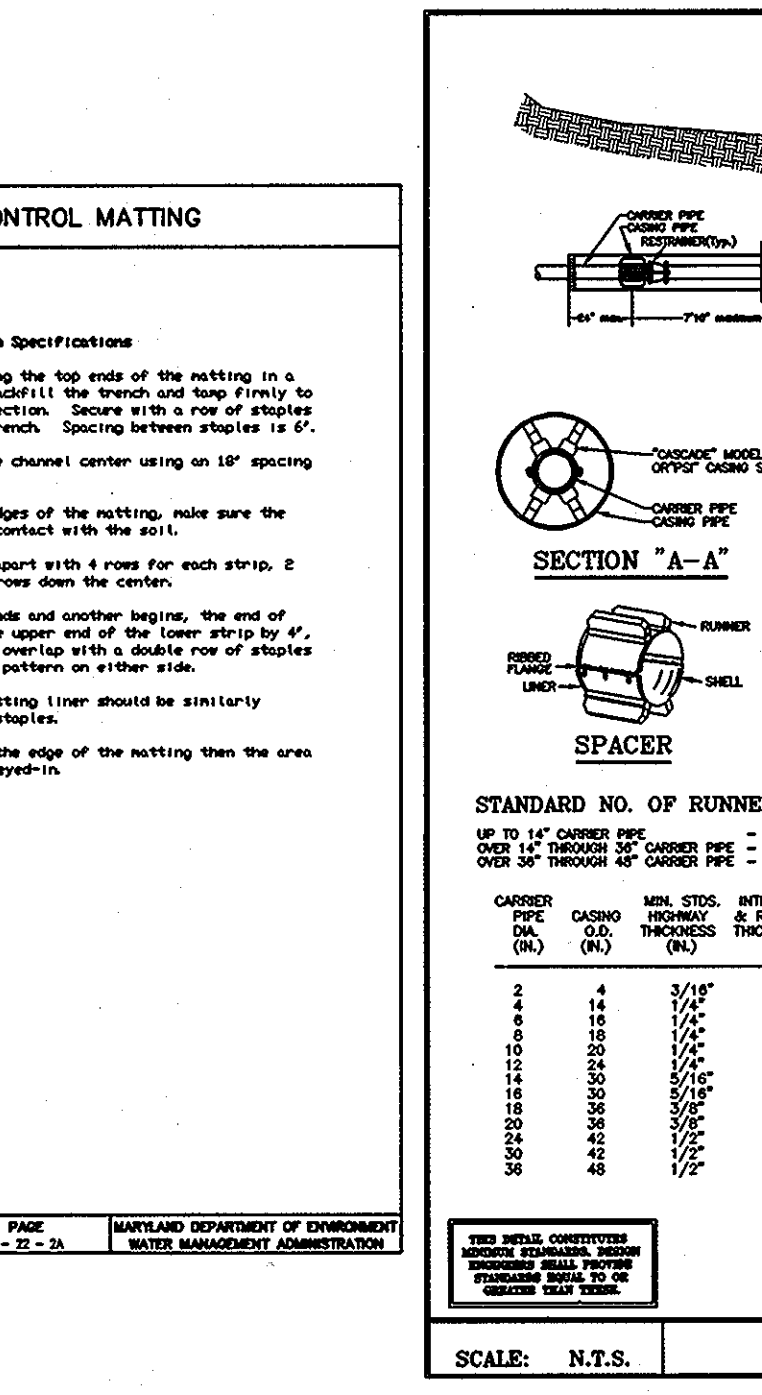
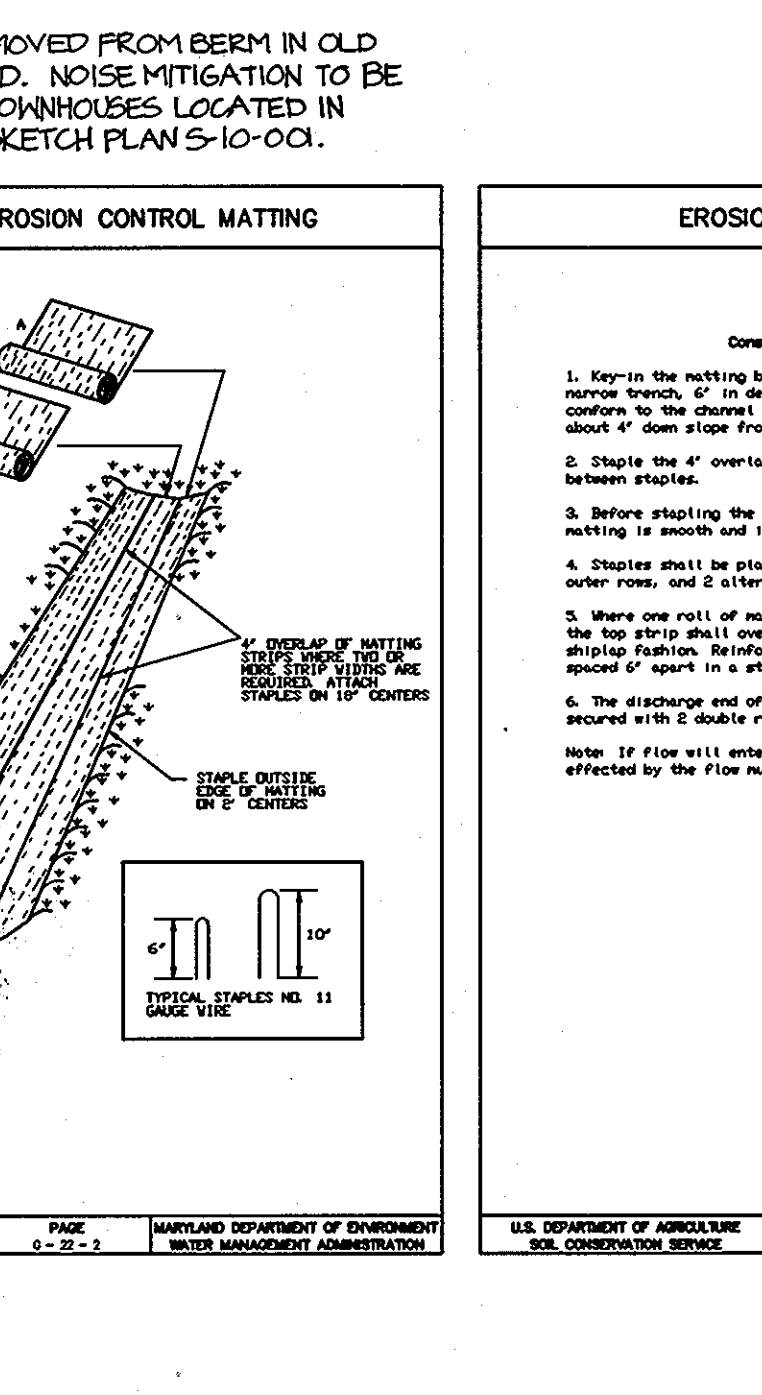
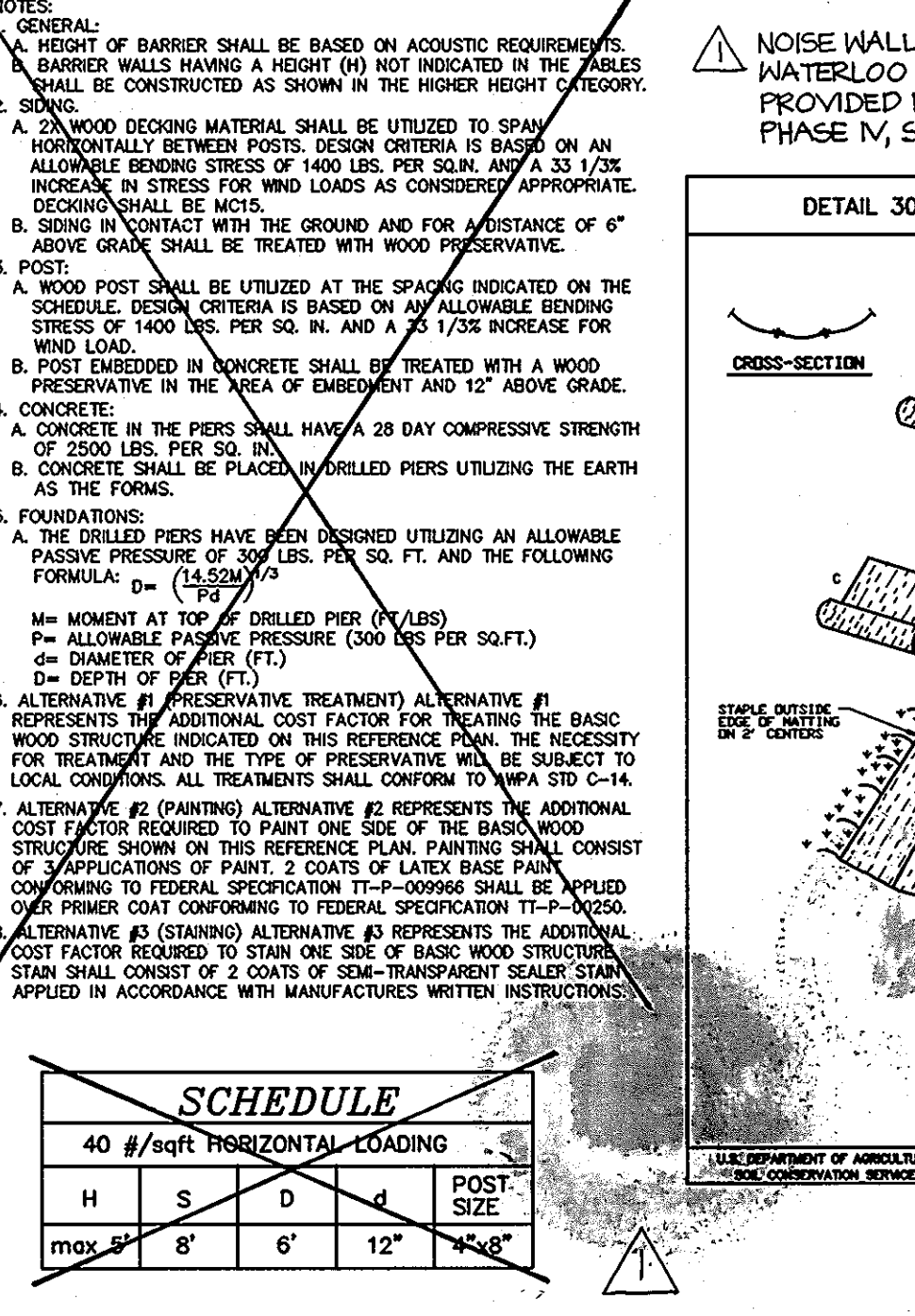
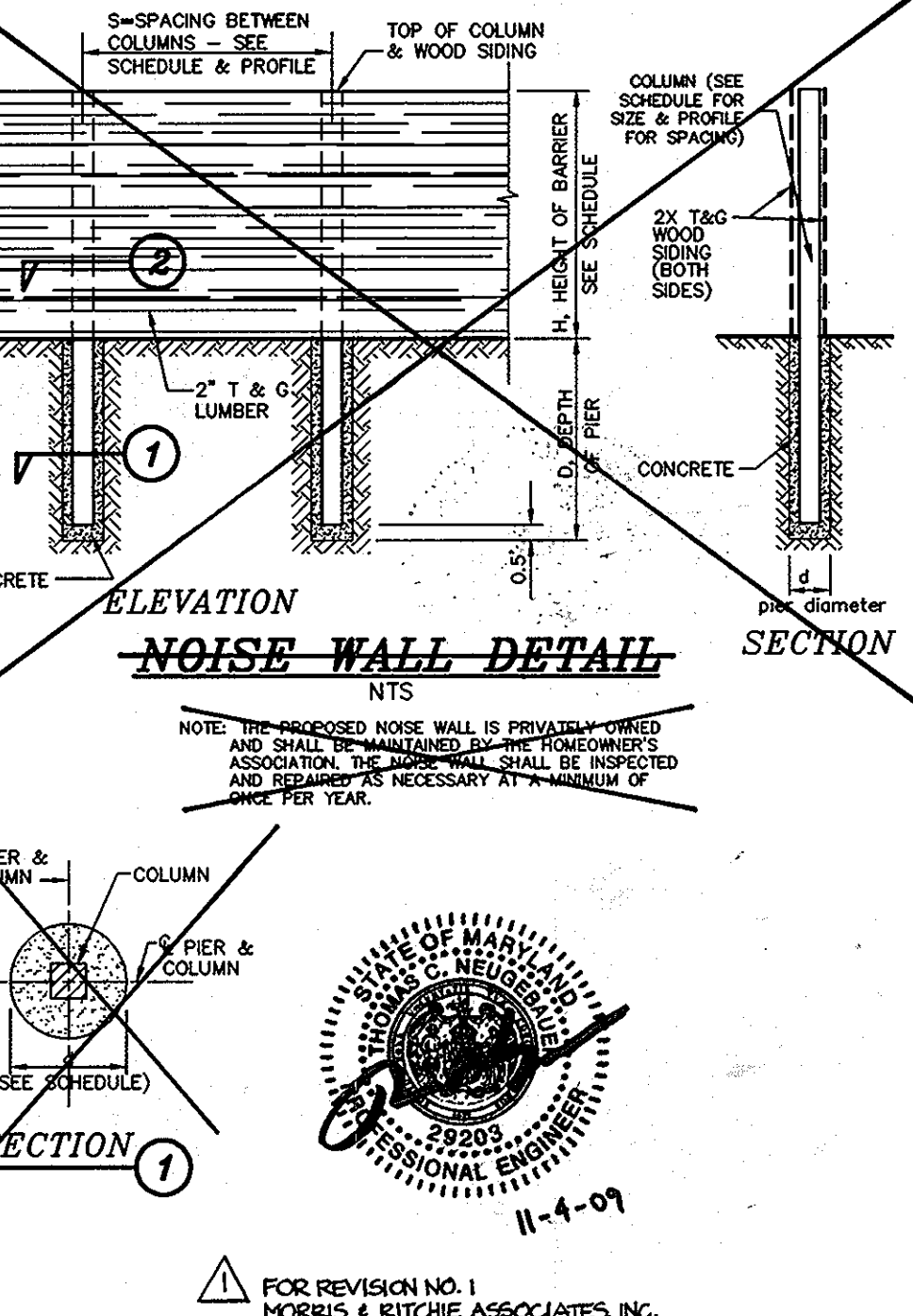


SUPER SILT FENCE Design Criteria table with columns for Slope, Slope Steepness, Slope Length (Maximum), and Silt Fence Length (Maximum).



SPECIFICATIONS FOR REMOVABLE PUMP STATION: A temporary structure which is used to remove water from excavated areas, sediment traps and basins.

DEVELOPERS CERTIFICATE: I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM...



VILLAGE TOWNS, PHASE II, AREA 2: UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E. TAX MAP 43 - PARCEL 3 - GRID 3. SEDIMENT CONTROL NOTES AND DETAILS. MILDENBERG, BOENDER & ASSOC., INC. 5072 Dorsey Hall Drive, Suite 202, Elkton City, Maryland 21042. (410) 997-0298 Fax.

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-20
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN GARY GOATCHER
SURF. ELEV. 236.46 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	BROWN, MOIST, MEDIUM STIFF CLAY, TRACE FINE SAND, TRACE GRAVEL				1	10		
5.0					2	14		
10.0					3	15		
12.5					4	17		
15.0					5	18		NEED PIPE 1.5"
17.0					6	17		CAVED IN AT 15.7' AT COMPLETION
18.5					7	18		CAVED IN AT 15.7' AFTER 24 HOURS
20.0					8	16		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.5' AFTER 24 HOURS 11.5'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-21
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN GARY GOATCHER
SURF. ELEV. 236.51 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	TAN, MOIST, MEDIUM STIFF SANDY CLAY				1	14		CAVED IN AT 3.0' AT COMPLETION
5.0					2	16		CAVED IN AT 13.7' AFTER 24 HOURS
10.0					3	18		
15.0					4	15		
17.0					5	17		
18.5					6	13		
20.0					7	13		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.0' AFTER 24 HOURS 11.0'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-101
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN JERRY HERSEL
SURF. ELEV. 236.02 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	DARK BROWN, MOIST, SOFT, SILTY CLAY (CLAYEY SILT), TRACE GRAVEL, TRACE SAND, TRACE ORGANICS (CL, AL)				1	3		
5.0					2	10		
10.0					3	8		CAVED IN AT 7.8' AT COMPLETION
15.0					4	13		
20.0					5	17		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.0' AFTER 24 HOURS 11.0'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-22
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN GARY GOATCHER
SURF. ELEV. 236.87 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	BROWN, MOIST, MEDIUM STIFF SILTY CLAY, TRACE FINE SAND, TRACE GRAVEL				1	11		
5.0					2	15		
10.0					3	14		
15.0					4	16		
17.0					5	15		CAVED IN AT 15.7' AT COMPLETION
18.5					6	15		CAVED IN AT 15.7' AFTER 24 HOURS
20.0					7	16		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.5' AFTER 24 HOURS 11.5'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-23
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN JERRY HERSEL
SURF. ELEV. 234.34 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	BROWN, MOIST, MEDIUM STIFF SILTY CLAY, TRACE FINE SAND, TRACE GRAVEL				1	10		
5.0					2	17		CAVED IN AT 5.0' AT COMPLETION
10.0					3	18		
15.0					4	17		GROUNDWATER ENCOUNTERED AT 4.0' WHILE DRILLING
20.0					5	15		CAVED IN AT 15.7' AFTER 24 HOURS

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 5.0' AFTER 24 HOURS 5.0'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-24
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN JERRY HERSEL
SURF. ELEV. 235.58 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	BROWN, MOIST, MEDIUM STIFF SILTY CLAY, TRACE FINE SAND, TRACE GRAVEL				1	9		
5.0					2	18		
10.0					3	12		
15.0					4	9		
20.0					5	13		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.0' AFTER 24 HOURS 11.0'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-25
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN JERRY HERSEL
SURF. ELEV. 235.03 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	BROWN, MOIST, MEDIUM STIFF SILTY CLAY, TRACE FINE SAND, TRACE GRAVEL				1	9		
5.0					2	18		
10.0					3	12		
15.0					4	9		
20.0					5	13		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.0' AFTER 24 HOURS 11.0'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE

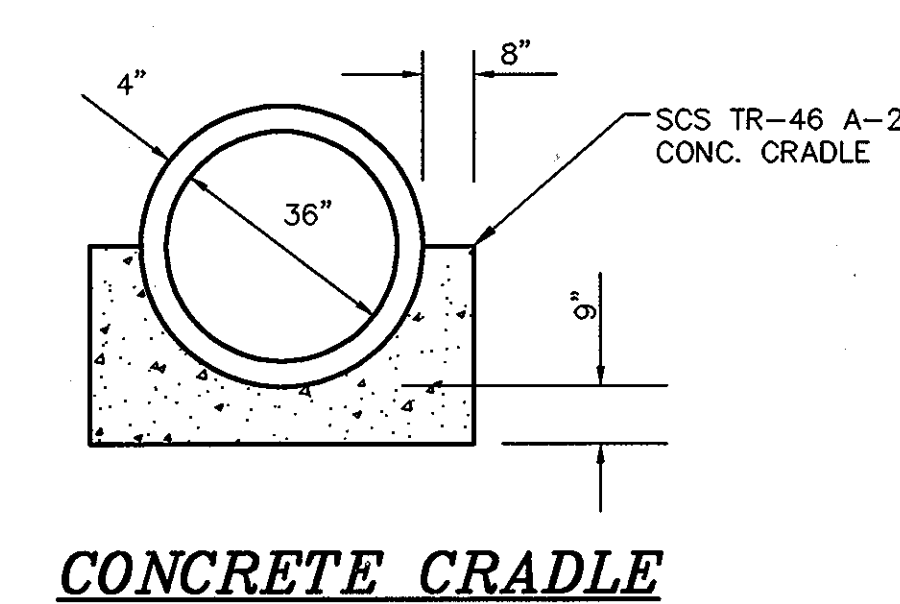
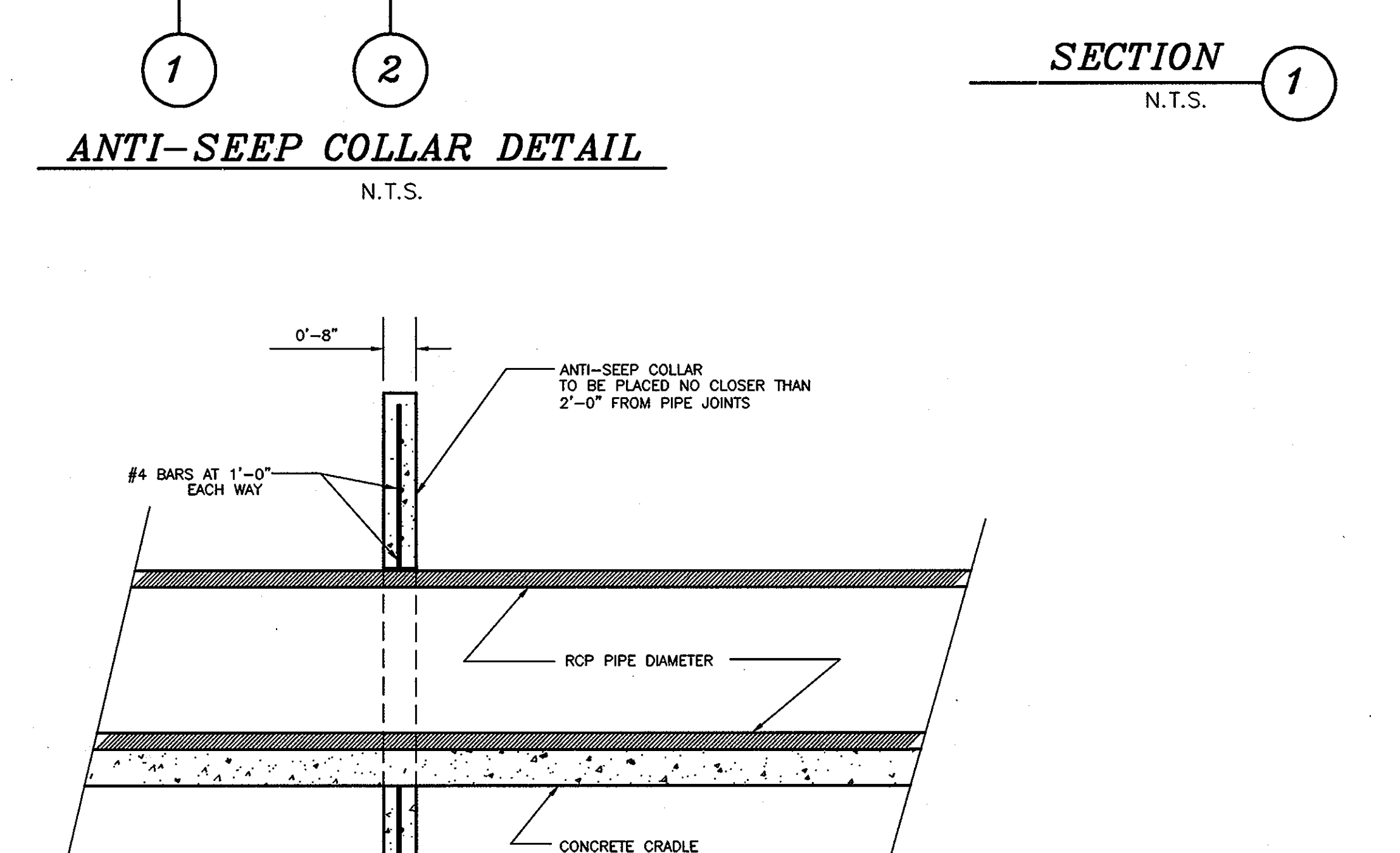
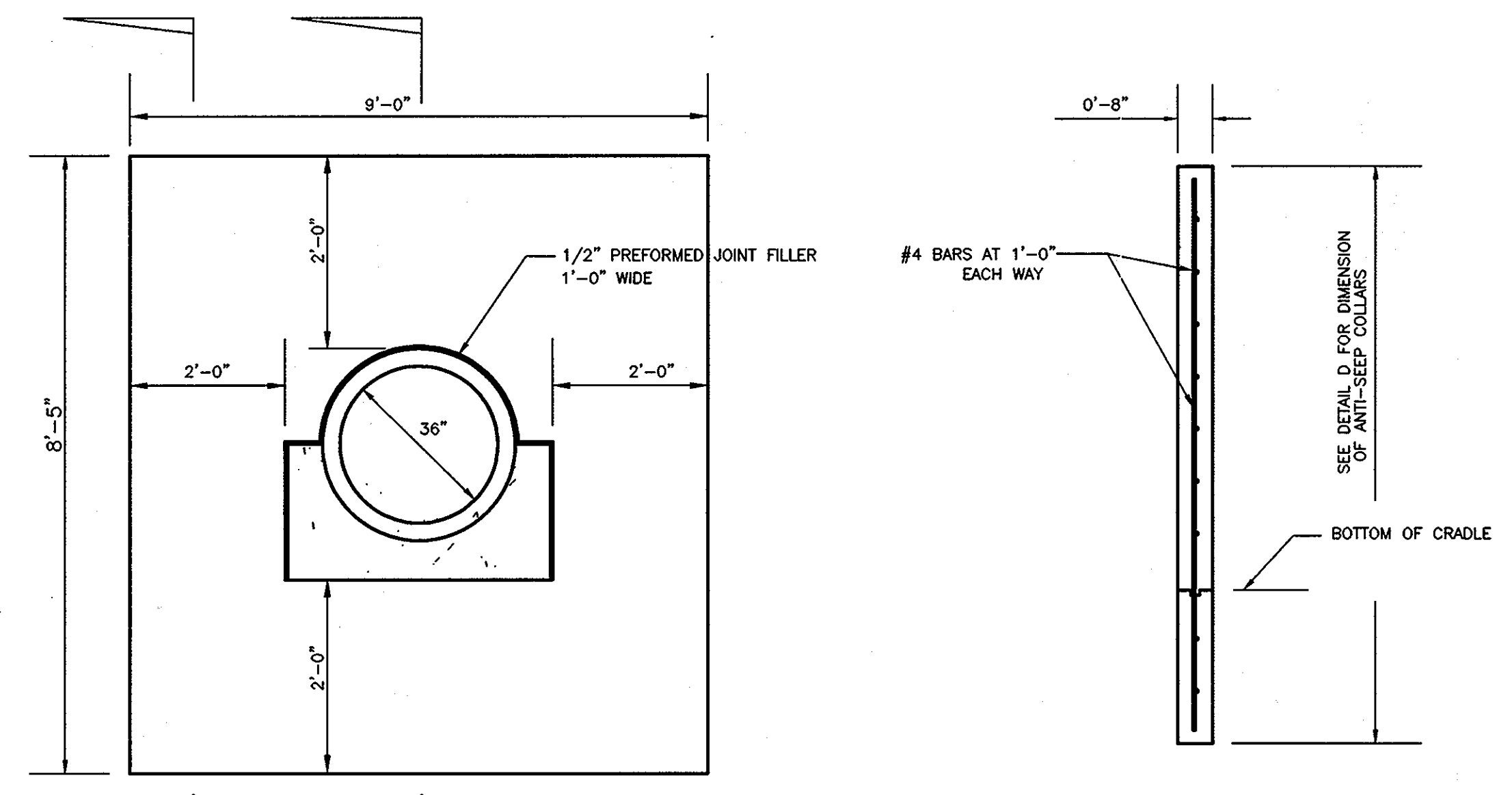
HILLIS - CARNES
ENGINEERING ASSOCIATES, INC.

PROJECT NAME: VILLAGE TOWNS SWM BORING # B-26
LOCATION: HOWARD COUNTY, MARYLAND JOB # 03555A

DATUM: TOPO HAMMER WT. 140 LBS. HOLE DIAMETER 8" FOREMAN JERRY HERSEL
SURF. ELEV. 235.58 HAMMER DROP 30 INCHES ROCK CORE DIA. INSPECTOR
DATE STARTED 10-09-03 PIPE SIZE 2 INCHES BORING METHOD ISA DATE COMPLETE 10-09-03

ELEV.	SOIL DESCRIPTION	STRATA DEPTH	DEPTH SCALE	CON	SAMPLE NO.	BLOW	REC.	BORING & SAMPLING NOTES
0.0	SURFACE							1" TOPSOIL
0.0	BROWN, MOIST, MEDIUM STIFF SILTY CLAY, TRACE FINE SAND, TRACE GRAVEL				1	10		
5.0					2	15		CAVED IN AT 4.0' AT COMPLETION
10.0					3	18		CAVED IN AT 13.0' AFTER 24 HOURS
15.0					4	13		GROUNDWATER ENCOUNTERED AT 4.0' WHILE DRILLING
20.0					5	17		

SAMPLER TYPE: OPEN SHUT SPOON UNLESS OTHERWISE NOTED
SAMPLER CONDITIONS: D-COMPLETED, L-LOST
GROUND WATER DEPTH: AT COMPLETION 10.0' AFTER 24 HOURS 11.0'
BORING METHOD: ISA-HOLLOW STEEL AUGER OR CASE, FLIGHT AUGER OR DRIVING CASING, NO-ROCK CORE



VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
TAX MAP 43 - PARCEL 3 - GRID 3
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 7/16/05

BUILDER: RYAN HOMES
11466 CROWNDRIVE DRIVE, SUITE 128
OWINGS MILLS, MARYLAND 21117
(410) 654-0501

OWNER: VILLA ASSOCIATES, LLC
7111 DORSEY RUN ROAD, SUITE 101
ELKRDIDGE, MARYLAND 21075
(410) 579-2442

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0296 Fax (301) 621-5527 Wash. (410) 997-0298 Fax

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POND SPECIFICATIONS (JANUARY 2000)

CONSTRUCTION SPECIFICATIONS

THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD FOR PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

SITE PREPARATION

AREAS DESIGNATED FOR BORROW AREAS, EMBANKMENT, AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL. ALL TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED. CHANNEL BANKS AND SHARP BARRS SHALL BE SLOPED TO NO STEEPER THAN 1:1. ALL TREES SHALL BE CLEARED AND GRUBBED WITHIN 15 FEET OF THE TOE OF THE EMBANKMENT.

AREAS TO BE COVERED BY THE RESERVOIR WILL BE CLEARED OF ALL TREES, BRUSH, LOGS, FENCES, RUBBISH AND OTHER OBJECTIONABLE MATERIAL UNLESS OTHERWISE DESIGNATED ON THE PLANS. TREES, BRUSH, AND STUMP REMAINS SHALL BE REMOVED TO APPROXIMATELY LEVEL WITH THE GROUND SURFACE. FOR DRY STORM WATER MANAGEMENT POND, A MINIMUM OF A 25-FOOT RADIUS AROUND THE INLET STRUCTURE SHALL BE CLEARED.

ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE AND BELOW THE LIMITS OF THE DRAIN AND RESERVOIR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE. WHEN SPECIFIED, A SUFFICIENT QUANTITY OF TOPSOIL SHALL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER DESIGNATED AREAS.

EARTH FILL

MATERIAL - THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 6" FROZEN OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION CC, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGNS MUST HAVE CONSTRUCTION SUPERVISED BY A GEOTECHNICAL ENGINEER. MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT.

PLACEMENT - AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. MATERIALS SHALL BE PLACED IN MAXIMUM 8 INCH THICK (BEFORE COMPACTOR) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST PERMEABLE BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT. THE PRINCIPAL SPIRES MUST BE INSTALLED CONCURRENTLY WITH FILL PLACEMENT AND NOT EXCAVATED INTO THE EMBANKMENT.

COMPACTION - THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVELLED BY NOT LESS THAN ONE TRACED TRACK OF HEAVY EQUIPMENT OR EQUIPMENT SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TREAD OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT THE REQUIRED DEGREE OF COMPACTION WILL BE OBTAINED WITH THE EQUIPMENT USED. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IF FORMED INTO A BALL IT WILL NOT CRUMBLE. YET NOT BE SO WET THAT WATER CAN BE SQUEEZED OUT. WHEN REQUIRED BY THE REVIEWING AGENCY THE MINIMUM REQUIRED DENSITY SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT WITHIN 2% OF THE OPTIMUM. EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY, AND IT IS TO BE CERTIFIED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. ALL COMPACTORS ARE TO BE DETERMINED BY AASHTO METHOD T-99 (STANDARD PROCTOR).

CUT OFF TRENCH - THE CUTOFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE COVERED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

EMBANKMENT CORE - THE CORE SHALL BE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE CORE SHALL BE A MINIMUM OF FOUR FEET. THE HEIGHT SHALL EXTEND UP TO AT LEAST THE 10 YEAR WATER ELEVATION OR AS SHOWN ON THE PLANS. THE SIDE SLOPES SHALL BE 1 TO 1 OR FLATTER. THE CORE SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. IN ADDITION, THE CORE SHALL BE PLACED CONCURRENTLY WITH THE OUTER SHELL OF THE EMBANKMENT.

STRUCTURAL BACKFILL

BACKFILL ADJACENT TO PIPES OR STRUCTURES SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO COMPACTED BY HAND TAMPERS OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A STRUCTURE OR PIPE, UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE STRUCTURE BACKFILL MAY BE FLOWABLE FILL MEETING THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 313 AS MODIFIED. THE MIXTURE SHALL HAVE A 100-200 PSI, 28 DAY UNCONFINED COMPRESSIVE STRENGTH. THE FLOWABLE FILL SHALL HAVE A MINIMUM PH OF 4.0 AND A MINIMUM RESISTIVITY OF 2000 OHM-CM. MATERIAL SHALL BE PLACED SUCH THAT A MINIMUM OF 6" (MEASURED PERPENDICULAR TO THE OUTSIDE OF THE PIPE) OF FLOWABLE FILL SHALL BE UNDER (BEDDING), OVER AND, ON THE SIDES OF THE PIPE. IT ONLY NEEDS TO EXTEND UP TO THE SPRING LINE FOR RIBBON CONDUITS. AVERAGE SLUMP OF THE FILL SHALL BE 7". TO ASSURE FLOWABILITY OF THE MATERIAL, ADOPTIVE MEASURES SHALL BE TAKEN (SAND BASS, ETC.), TO PREVENT FLOATING THE PIPE. WHEN USING FLOWABLE FILL, ALL METAL PIPE SHALL BE BITUMINOUS COATED. ANY ADJOINING SOIL FILLING MATERIALS SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS AND COMPACTED BY HAND TAMPER OR OTHER MANUALLY DIRECTED COMPACTION EQUIPMENT. THE MATERIAL SHALL COMPLETELY FILL ALL VOIDS ADJACENT TO THE FLOWABLE FILL ZONE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE DRIVEN OVER ANY PART OF A STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF 24" OR GREATER OVER THE STRUCTURE OR PIPE. BACKFILL MATERIAL OUTSIDE STRUCTURE BACKFILL (FLOWABLE FILL) ZONE SHALL BE OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE CORE OF THE EMBANKMENT OR OTHER EMBANKMENT MATERIALS.

PIPE CONDUIT (CONT)

ALL PIPES SHALL BE CIRCULAR IN CROSS SECTION.

CORRUGATED METAL PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR CORRUGATED METAL PIPE:

- MATERIALS - (POLYMER COATED STEEL PIPE) - STEEL PIPES WITH POLYMER COATINGS SHALL HAVE A MINIMUM COATING THICKNESS OF 0.01 INCH (10 MIL) ON BOTH SIDES OF THE PIPE. THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATIONS M-245 & M-246 WITH WATER TIGHT COUPLING BANDS OR FLANGES.
- MATERIALS - (ALUMINUM COATED STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-274 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM COATED STEEL PIPE WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT THE NEED FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A. ANY ALUMINUM COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER OR TWO COATS OF ASPHALT.

- MATERIALS - (ALUMINUM PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 OR M-21 WITH WATER TIGHT COUPLING BANDS OR FLANGES. ALUMINUM PIPE WHEN USED WITH FLOWABLE FILL OR WHEN SOIL AND/OR WATER CONDITIONS WARRANT FOR INCREASED DURABILITY, SHALL BE FULLY BITUMINOUS COATED PER REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE A. ALUMINUM SURFACES THAT ARE TO BE IN CONTACT WITH CONCRETE SHALL BE PAINTED WITH ONE COAT OF ZINC CHROMATE PRIMER OR TWO COATS OF ASPHALT. HOT DIP GALVANIZED BOLTS MAY BE USED FOR CONNECTIONS. THE PH OF THE SURROUNDING SOILS SHALL BE BETWEEN 4 AND 9.

- COUPLING BANDS, ANTI-SEEP COLLARS, END SECTIONS, ETC., MUST BE COMPOSED OF THE SAME MATERIAL AND COATINGS. FILL MATERIAL FOR THE CENTER OF THE EMBANKMENT AND CUT OFF TRENCH SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION CC, SC, CH, OR CL AND MUST HAVE AT LEAST 30% PASSING THE #200 SIEVE. CONSIDERATION MAY BE GIVEN TO THE USE OF OTHER MATERIALS IN THE EMBANKMENT IF DESIGNED BY A GEOTECHNICAL ENGINEER. SUCH SPECIAL DESIGNS MUST HAVE CONSTRUCTION SUPERVISED BY A GEOTECHNICAL ENGINEER. MATERIALS USED IN THE OUTER SHELL OF THE EMBANKMENT MUST HAVE THE CAPABILITY TO SUPPORT VEGETATION OF THE QUALITY REQUIRED TO PREVENT EROSION OF THE EMBANKMENT.

- CONNECTIONS - ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATER TIGHT. THE DRAIN PIPE OR BARREL CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND WHEN THE PIPE AND RISER ARE METAL. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATER TIGHT. DWMPLE BANDS ARE NOT CONSIDERED TO BE WATER TIGHT.

- ALL CONNECTIONS SHALL USE A RUBBER OR NEOPRENE GASKET WHEN JOINING PIPE SECTIONS. THE END OF EACH PIPE SHALL BE RE-ROLLED AN ADEQUATE NUMBER OF CORRUGATIONS TO ACCOMMODATE THE BANDWIDTH. THE FOLLOWING TYPE CONNECTIONS FOR PIPES LESS THAN 24 INCHES IN DIAMETER: FLANGES ON BOTH ENDS OF THE PIPE WITH A CIRCULAR 3/8 INCH CLOSED CELL NEOPRENE GASKET, PRE-PUNCHED TO THE FLANGE BOLT CIRCLE, SANDWICHED BETWEEN ADJACENT FLANGES. A 1/2-INCH WIDE STANDARD LAP TYPE BAND WITH 1/2-INCH WIDE BY 3/8-INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET, AND A 12-INCH WIDE HUGGER TYPE BAND WITH O-RING GASKETS HAVING A MINIMUM DIAMETER OF 1/2 INCH GREATER THAN THE CORRUGATION DEPTH. PIPES 24 INCHES IN DIAMETER AND LARGER SHALL BE CONNECTED BY A 24 INCH LONG ANNULAR CORRUGATED BAND USING A MINIMUM OF TWO 2" ONS EACH CONNECTING FOR CONNECTIONS TO THE RISER. A 24-INCH WIDE BY 3/8-INCH THICK CLOSED CELL CIRCULAR NEOPRENE GASKET WILL BE INSTALLED WITH 12 INCHES ON THE END OF EACH PIPE. FLANGED JOINTS WITH 3/8 INCH CLOSED CELL GASKETS THE FULL WIDTH OF THE FLANGE IS ALSO ACCEPTABLE.

HELICALLY CORRUGATED PIPE SHALL HAVE EITHER CONTINUOUSLY WELDED SEAMS OR HAVE LOCK SEARNS WITH METAL CAULKING AND NEOPRENE BEAD.

- BEDDING - THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

- BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL".

- OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

REINFORCED CONCRETE PIPE - ALL OF THE FOLLOWING CRITERIA SHALL APPLY FOR REINFORCED CONCRETE PIPE:

- MATERIALS - REINFORCED CONCRETE PIPE SHALL HAVE BELL AND SPIGOT JOINTS WITH RUBBER GASKETS AND SHALL EQUAL OR EXCEED ASTM C-301.

- BEDDING - REINFORCED CONCRETE PIPE CONDUITS SHALL BE LAID IN A CONCRETE BEDDING/CRADLE FOR THEIR ENTIRE LENGTH. THIS BEDDING/CRADLE SHALL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATION. IT SHALL BE SEALED FOR THE ENTIRE LENGTH. THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE. THE FIRST JOINT MUST BE LOCATED WITHIN A FEET FROM THE RISER.

- BACKFILLING SHALL CONFORM TO "STRUCTURE BACKFILL".

- OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

PLASTIC PIPE - THE FOLLOWING CRITERIA SHALL APPLY FOR PLASTIC PIPE:

- MATERIALS - PVC PIPE SHALL BE PVC-1120 OR PVC-1220 CONFORMING TO ASTM D1785 OR ASTM D-2241 CORRUGATED HIGH DENSITY POLYETHYLENE (HDPE) PIPE, COUPLINGS AND FITTINGS SHALL CONFORM TO THE FOLLOWING: 4" TO 10" INCH PIPE SHALL MEET THE REQUIREMENTS OF AASHTO M252 TYPE S, AND 12" THROUGH 24" INCH SHALL MEET THE REQUIREMENTS OF M252 TYPE S.

- JOINTS AND CONNECTIONS TO ANTI-SEEP COLLARS SHALL BE COMPLETELY WATER TIGHT.

- BEDDING - THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND WATER FROM THE REQUIRED EXCAVATIONS AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

- BACKFILL SHALL CONFORM TO "STRUCTURE BACKFILL".

- OTHER DETAILS (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.

DRAINAGE DIAPHRAGMS - WHEN A DRAINAGE DIAPHRAGM IS USED, AS REQUESTED PROFESSIONAL ENGINEER WILL SUPERVISE THE DESIGN AND CONSTRUCTION INSPECTION.

CONCRETE

CONCRETE SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 414, MIX NO. 3.

ROCK RIPRAP

ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 311.

GEOTEXTILE

GEOTEXTILE SHALL BE PLACED UNDER ALL RIPRAP AND SHALL MEET THE REQUIREMENTS OF MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 921.09, CLASS C.

CARE OF WATER DURING CONSTRUCTION

ALL WORK ON PERMANENT STRUCTURES SHALL BE CARRIED OUT IN AREAS FREE FROM WATER. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL TEMPORARY DICES, LEAKY COFFERS, DRAINAGE CHANNELS, AND STREAM DIVERSIONS NECESSARY TO PROTECT THE AREAS TO BE OCCUPIED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL ALSO FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL NECESSARY LIMEWATER AND REMOVAL OF WATER FROM VARIOUS PARTS OF THE WORK AND FOR MAINTAINING THE EXCAVATIONS, FOUNDATION, AND OTHER PARTS OF THE WORK AS REQUIRED BY THE PERMANENT WORKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING EACH PART OF THE WORK. AFTER HAVING SERVED THEIR PURPOSE, ALL TEMPORARY PROTECTIVE WORKS SHALL BE REMOVED OR LEVELED AND GRADED TO THE EXTENT REQUIRED TO PREVENT OBSTRUCTION OF THE FLOW OF WATER TO THE SPILLWAY OR OUTLET WORKS AND SO AS NOT TO INTERFERE IN ANY WAY WITH THE OPERATION OR MAINTENANCE OF THE STRUCTURE. STREAM DIVERSIONS SHALL BE MAINTAINED UNTIL THE FULL FLOW CAN BE PASSED THROUGH THE PERMANENT WORKS. EXCAVATION AND THE FOUNDATION SHALL BE ACCOMPLISHED IN A MANNER AND TO THE EXTENT THAT WILL MAINTAIN STABILITY OF THE EXCAVATED SLOPES AND WATER FROM THE REQUIRED EXCAVATIONS AND WILL ALLOW SATISFACTORY PERFORMANCE OF ALL CONSTRUCTION OPERATIONS. DURING THE PLACING AND COMPACTING OF MATERIAL IN REQUIRED EXCAVATIONS, THE WATER LEVEL AT THE LOCATIONS BEING RETAINED SHALL BE MAINTAINED BELOW THE BOTTOM OF THE EXCAVATION AT SUCH LOCATIONS WHICH MAY REQUIRE DRAINING THE WATER SUMPS FROM WHICH THE WATER SHALL BE PUMPED.

STABILIZATION

ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION ALL EXPOSED SURFACES OF EMBANKMENT, SPILLWAY, SPON, AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH THE NATURAL RESOURCES CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS FOR CRITICAL AREA PLANTING (MD-343) OR AS SHOWN ON THE ACCOMPANYING DRAWINGS.

EROSION AND SEDIMENT CONTROL

CONSTRUCTION OPERATIONS WILL BE CARRIED OUT IN SUCH A MANNER THAT EROSION WILL BE CONTROLLED AND WATER AND SEDIMENT MINIMIZED. STATE AND LOCAL LAWS CONCERNING POLLUTION ABATEMENT WILL BE FOLLOWED. CONSTRUCTION PLANS SHALL DETAIL EROSION AND SEDIMENT CONTROL MEASURES.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS STANDARDS AND SPECIFICATIONS FOR PONDS (MD-378). THE POND OWNER(S) AND THE HERES SUCCESSORS OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVIVAL AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATORS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.

OPERATION, MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED EXTENDED DETENTION POND

ROUTINE MAINTENANCE:

- FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.

- TOP AND SIDE SLOPES OF EMBANKMENT SHALL BE MOWED A MINIMUM TWO (2) TIMES PER YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHALL BE MOWED AS NEEDED.

- DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.

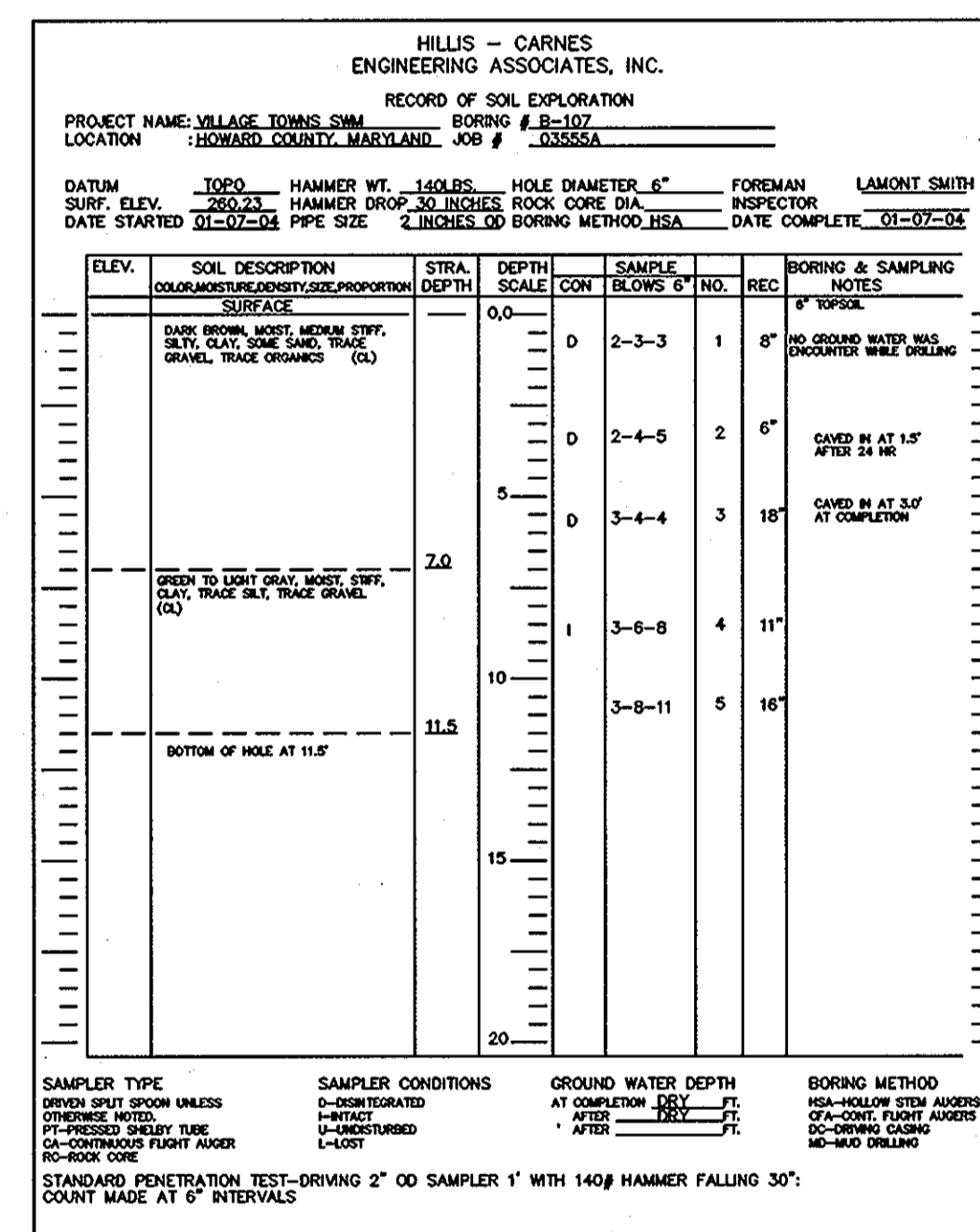
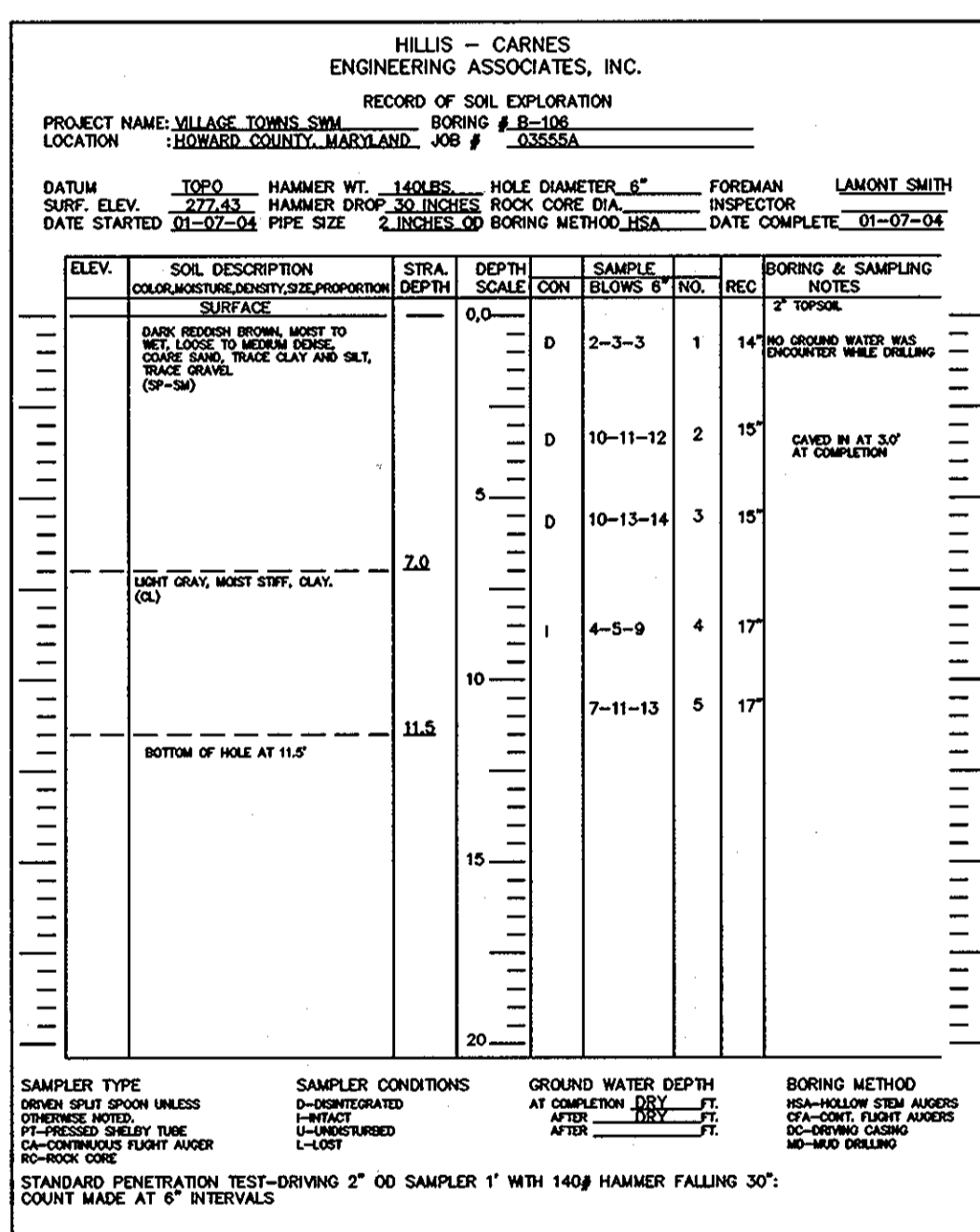
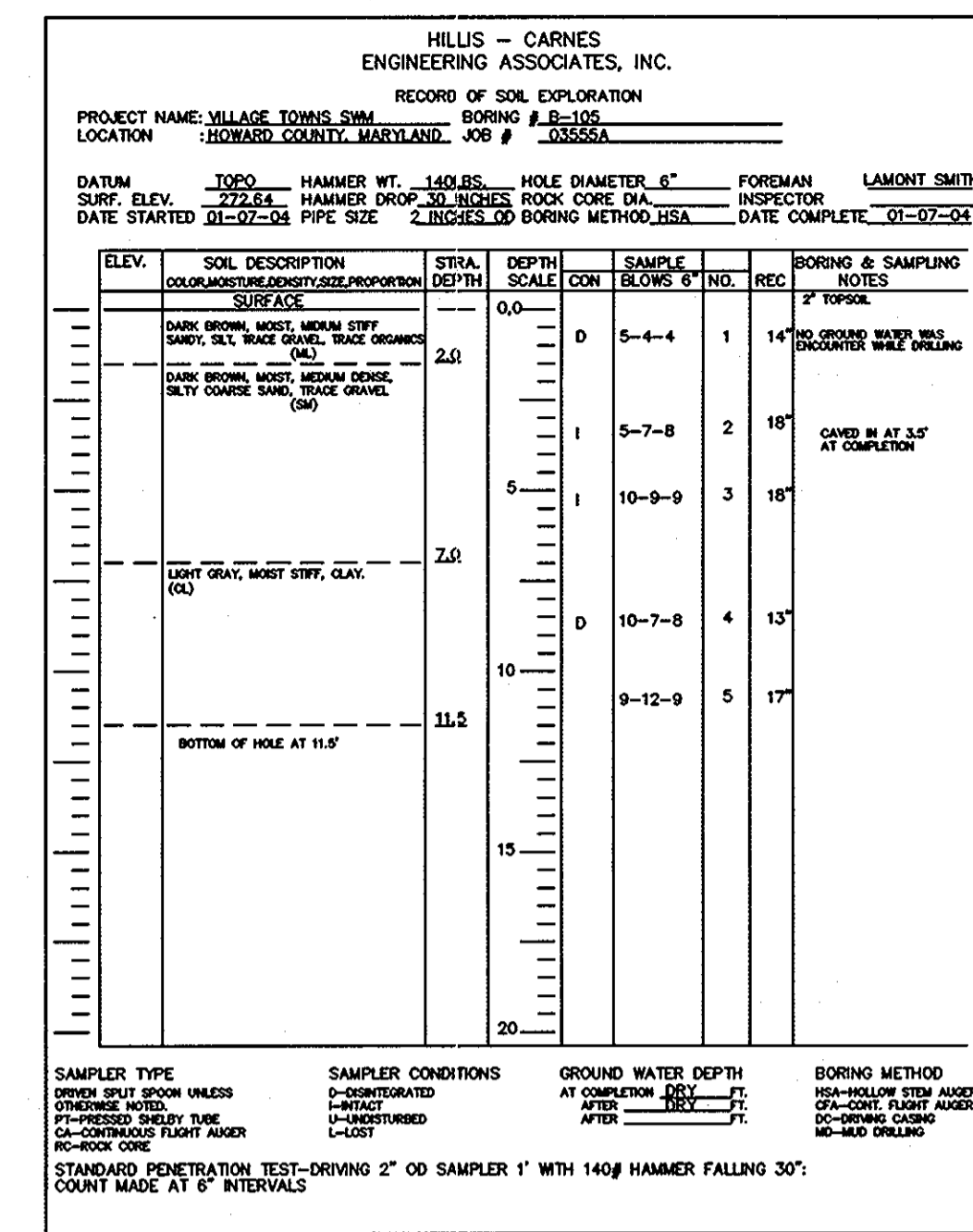
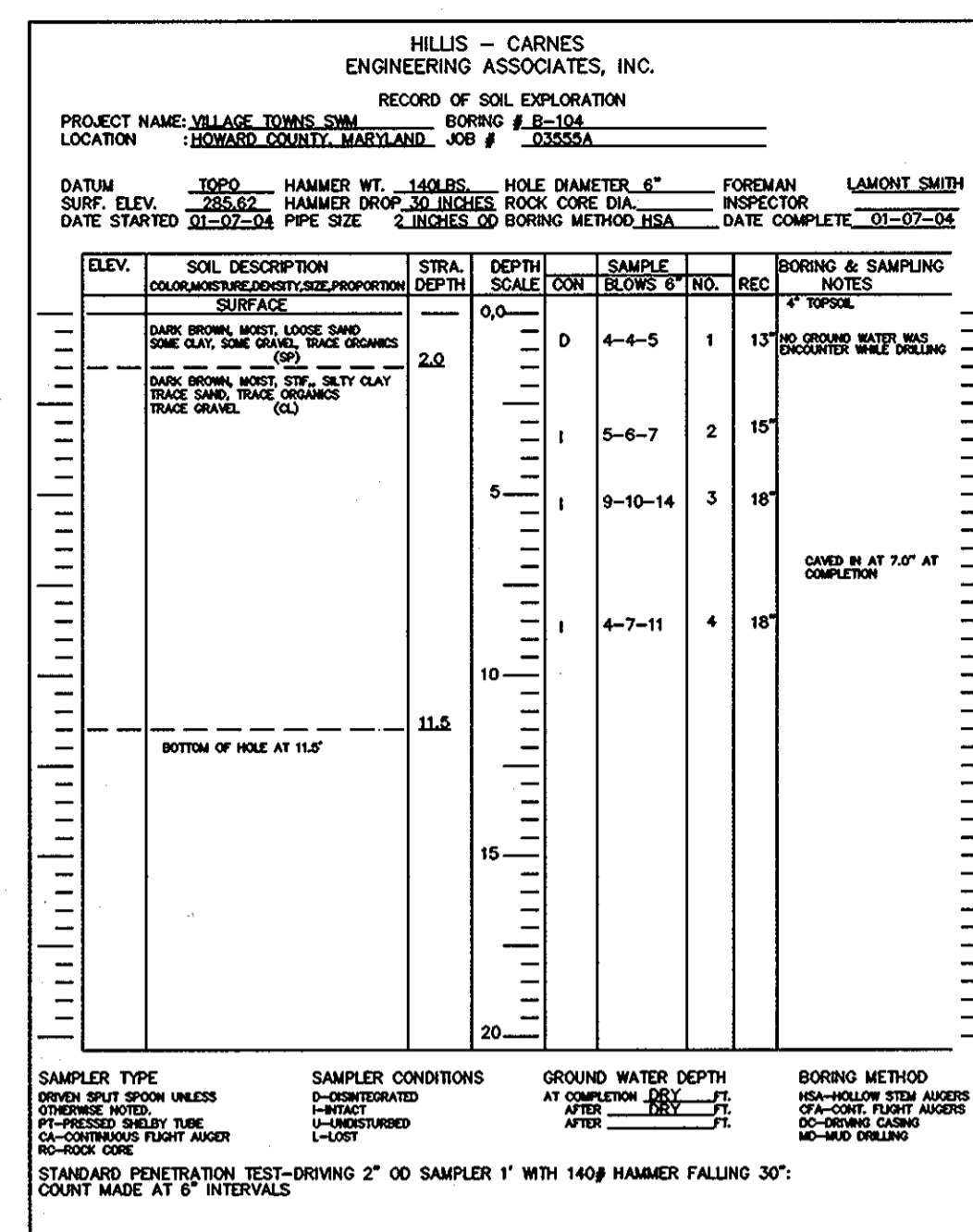
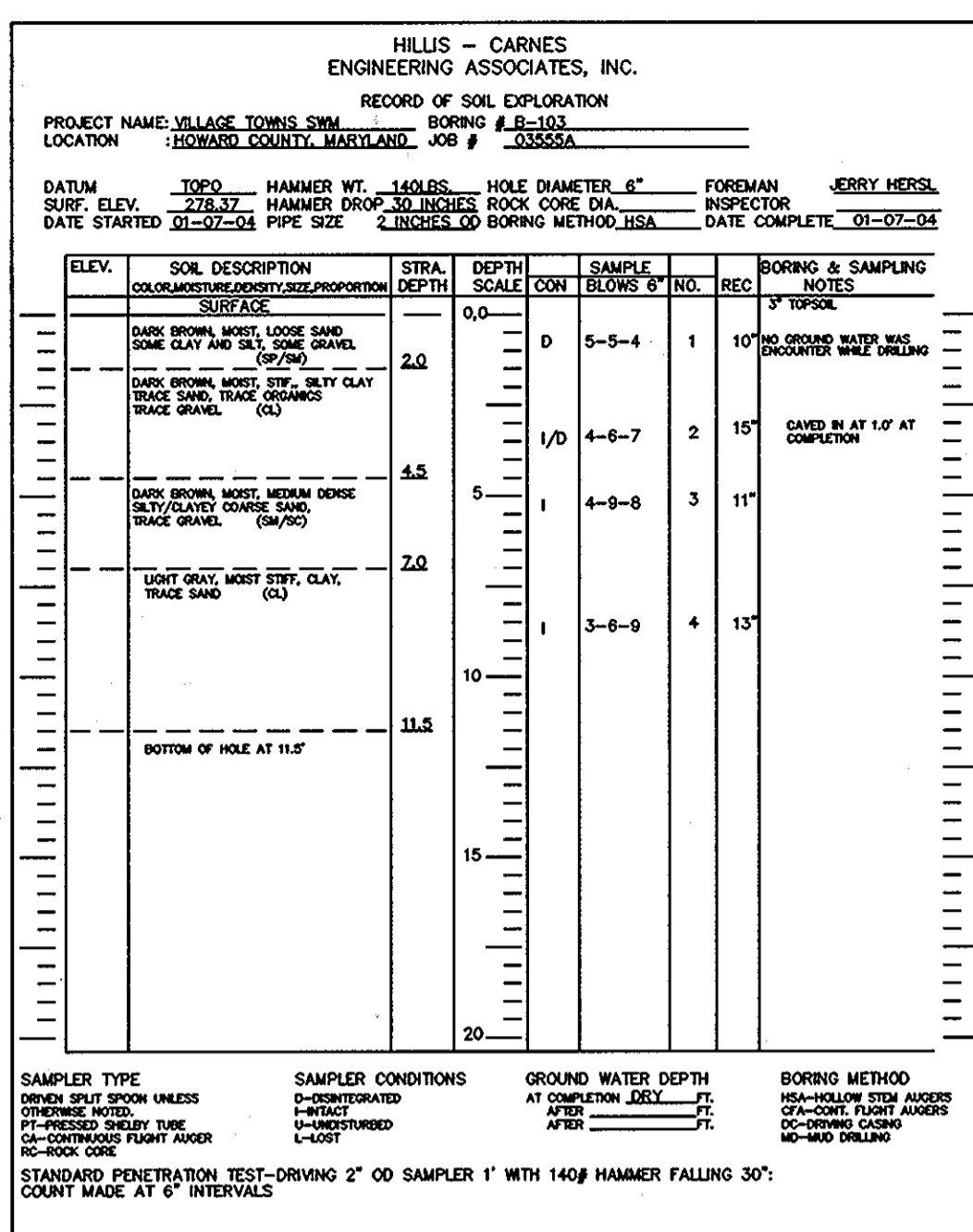
- VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS THE RIP-RAP OR GABION OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

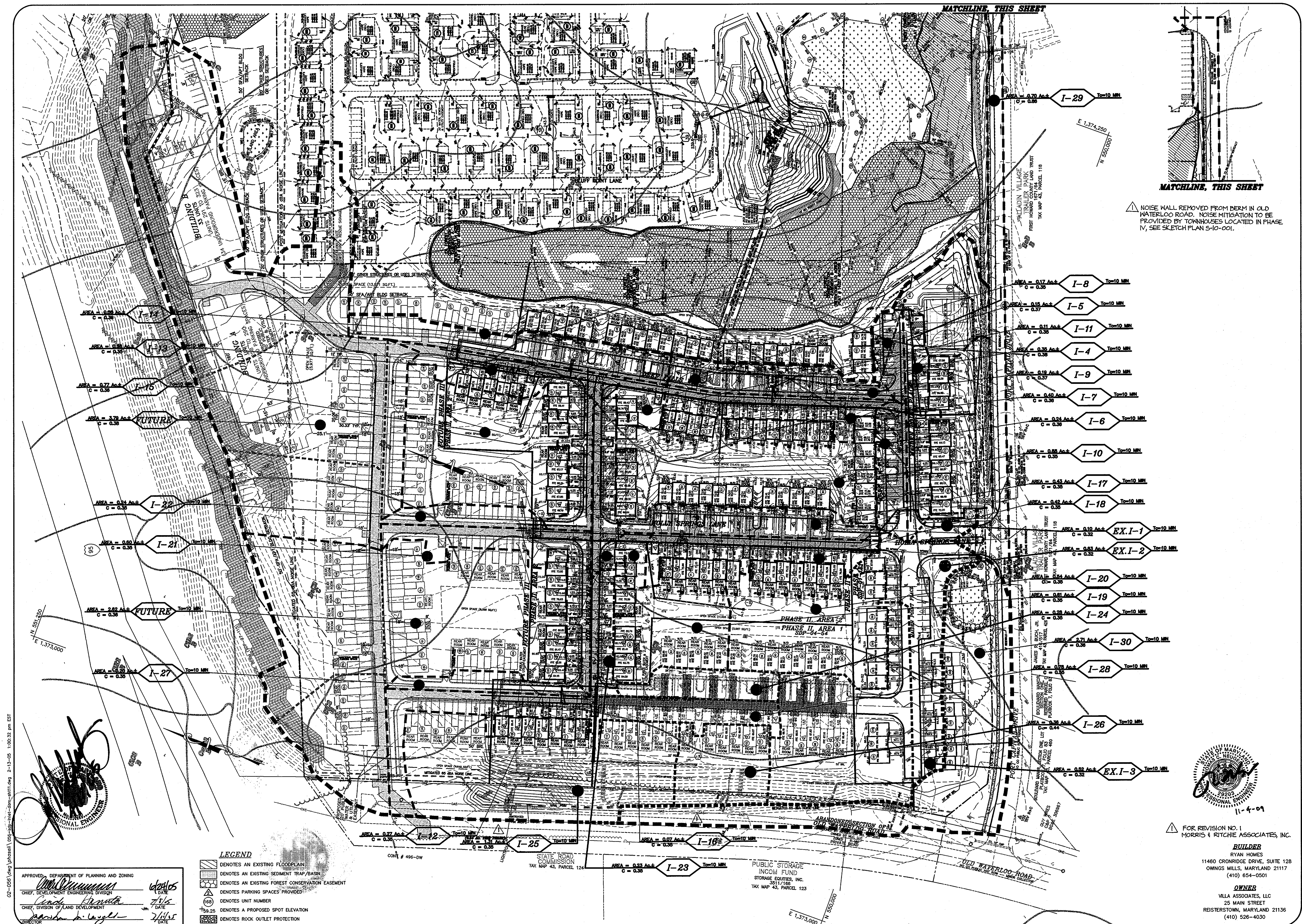
- THE STORM DRAIN LINE, INSTALLED BY JACK AND BORE, SHALL BE INSPECTED TO ENSURE IT IS FUNCTIONING PROPERLY.

NON-ROUTINE MAINTENANCE:

- STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE OR WEAR AND TEAR. REPAIRS SHALL BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.

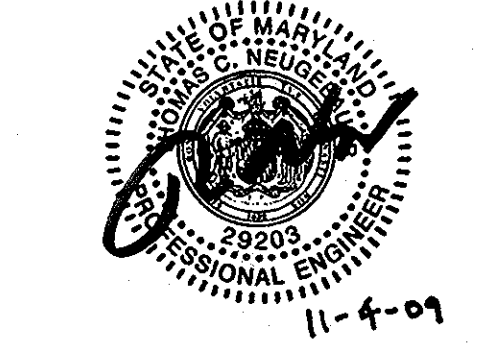
- SEDIMENT SHALL BE REMOVED FROM THE POND, AND FOREBAY, NO LATER THAN WHEN THE CAPACITY OF THE POND, OR FOREBAY, IS HALF FULL OF SEDIMENT, OR WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, UPON APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.





MATCHLINE, THIS SHEET

NOISE WALL REMOVED FROM BERM IN OLD WATERLOO ROAD. NOISE MITIGATION TO BE PROVIDED BY TOWNHOUSES LOCATED IN PHASE IV, SEE SKETCH PLAN S-10-001.



FOR REVISION NO. 1
MORRIS & RITCHIE ASSOCIATES, INC.

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OWNER
VLLA ASSOCIATES, LLC
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APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 7/5/15

[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 7/14/15

[Signature]
DIRECTOR

LEGEND

- DENOTES AN EXISTING FLOODPLAIN
- DENOTES AN EXISTING SEDIMENT TRAP/BASIN
- DENOTES AN EXISTING FOREST CONSERVATION EASEMENT
- DENOTES PARKING SPACES PROVIDED
- DENOTES UNIT NUMBER
- DENOTES A PROPOSED SPOT ELEVATION
- DENOTES ROCK OUTLET PROTECTION

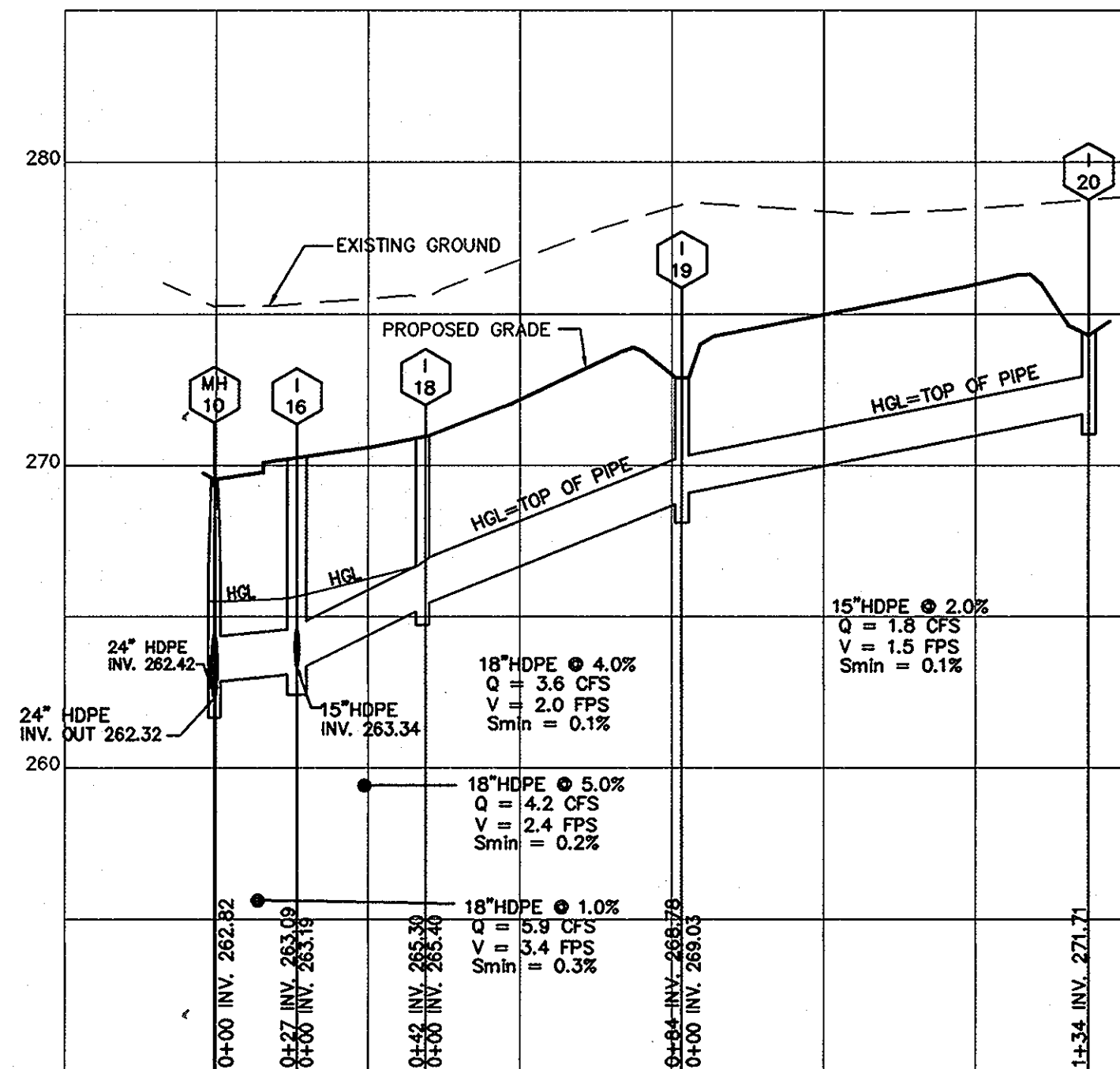
project	2002-056	date	APRIL 05
illustration	SID	engineering	SID
scale	1" = 60'	approval	JBK

no.	description	date
1	REMOVED NOISE WALL	11/04/09

VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
TAX MAP 43 - PARCEL 3 - GRID 3
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
INLET DRAINAGE AREA MAP

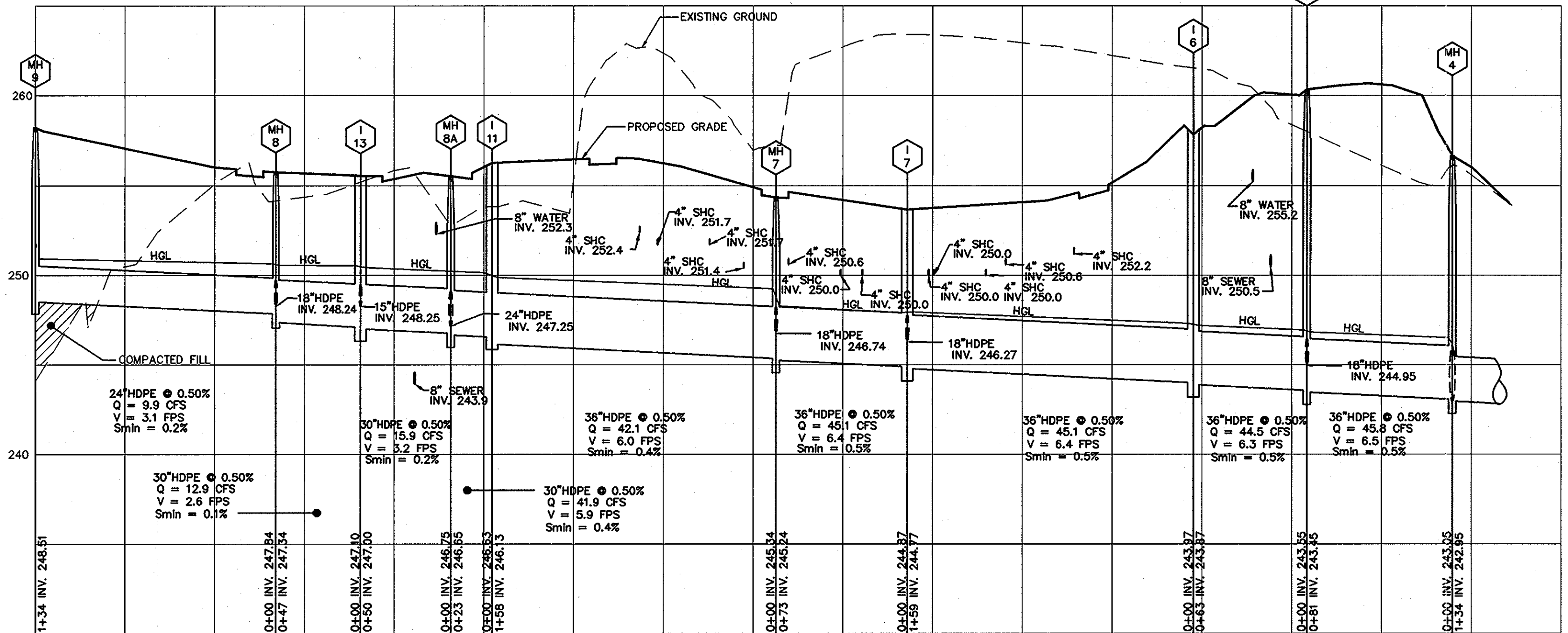
MILDENBERG, BOENDER & ASSOC., INC.
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11 OF 19



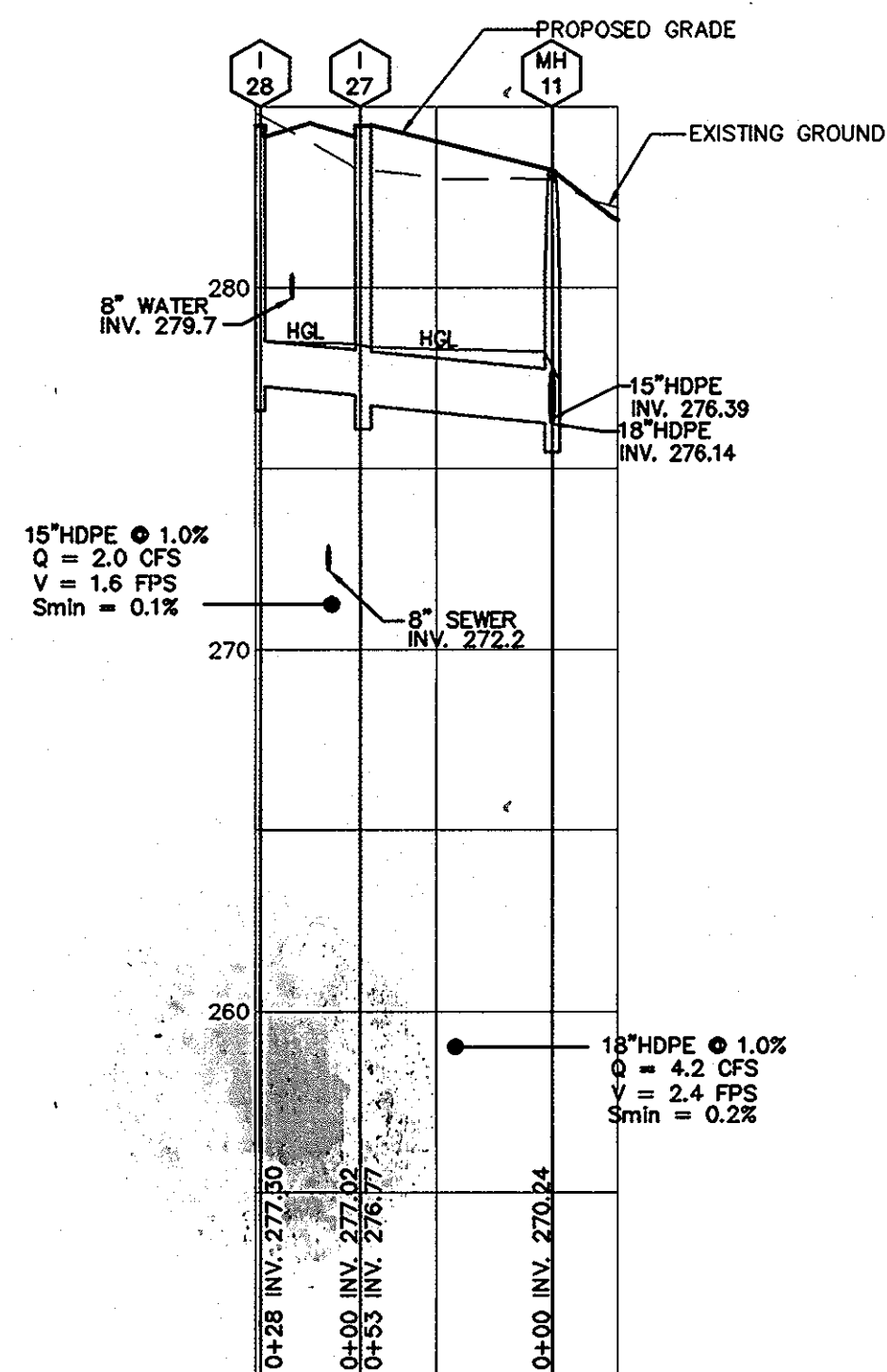
STORM DRAIN PROFILE - I20 TO MH10

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



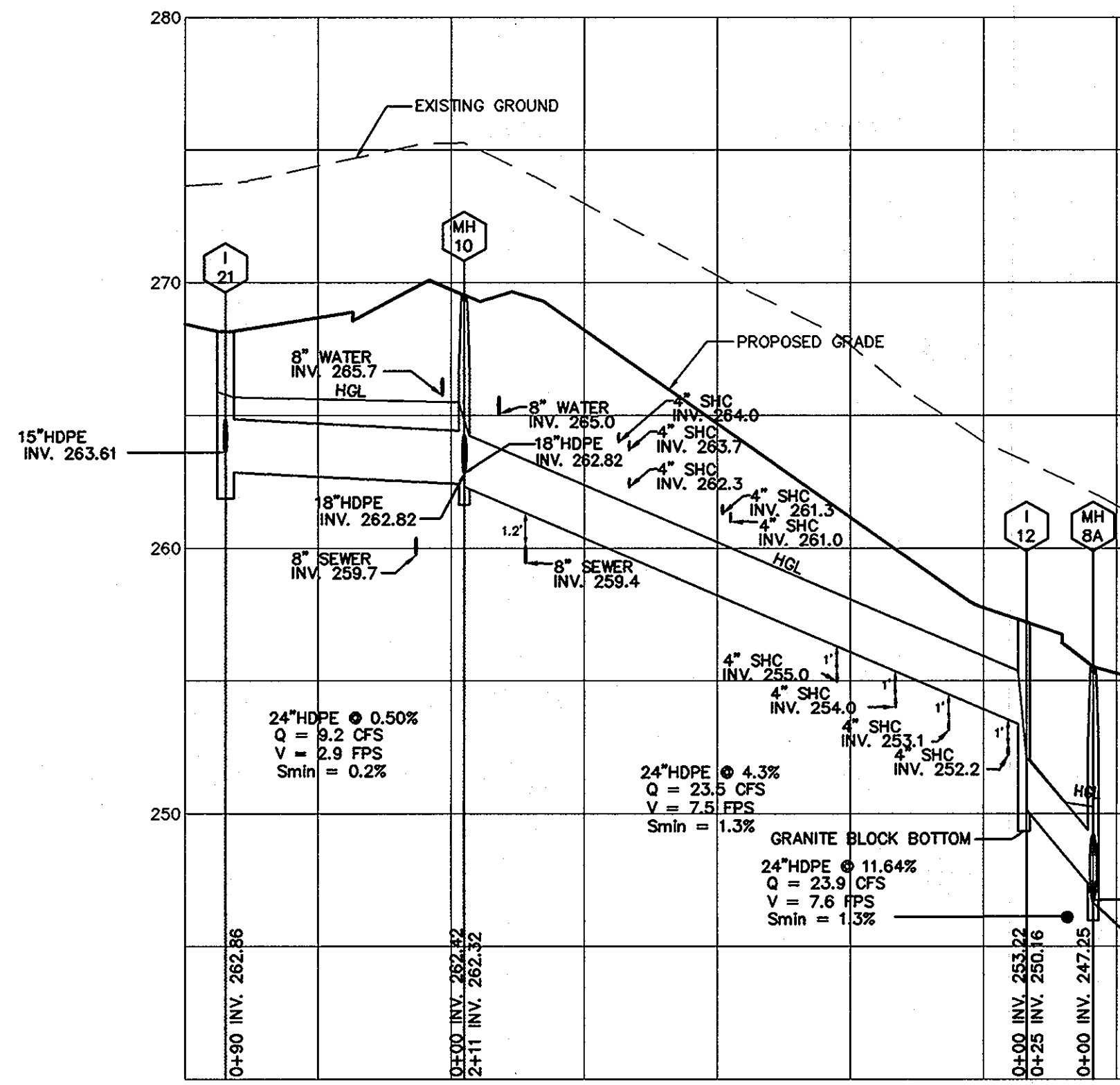
STORM DRAIN PROFILE - MH9 TO MH-4

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



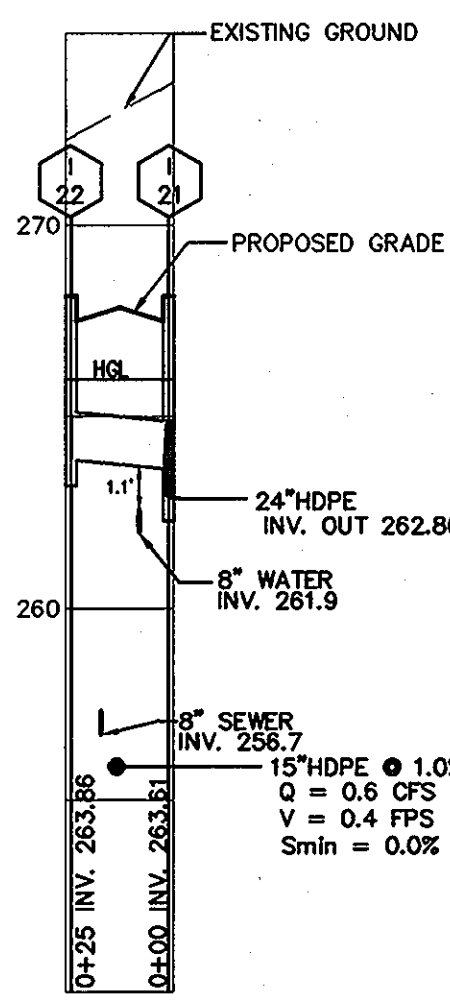
STORM DRAIN PROFILE - I-28 TO MH11

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



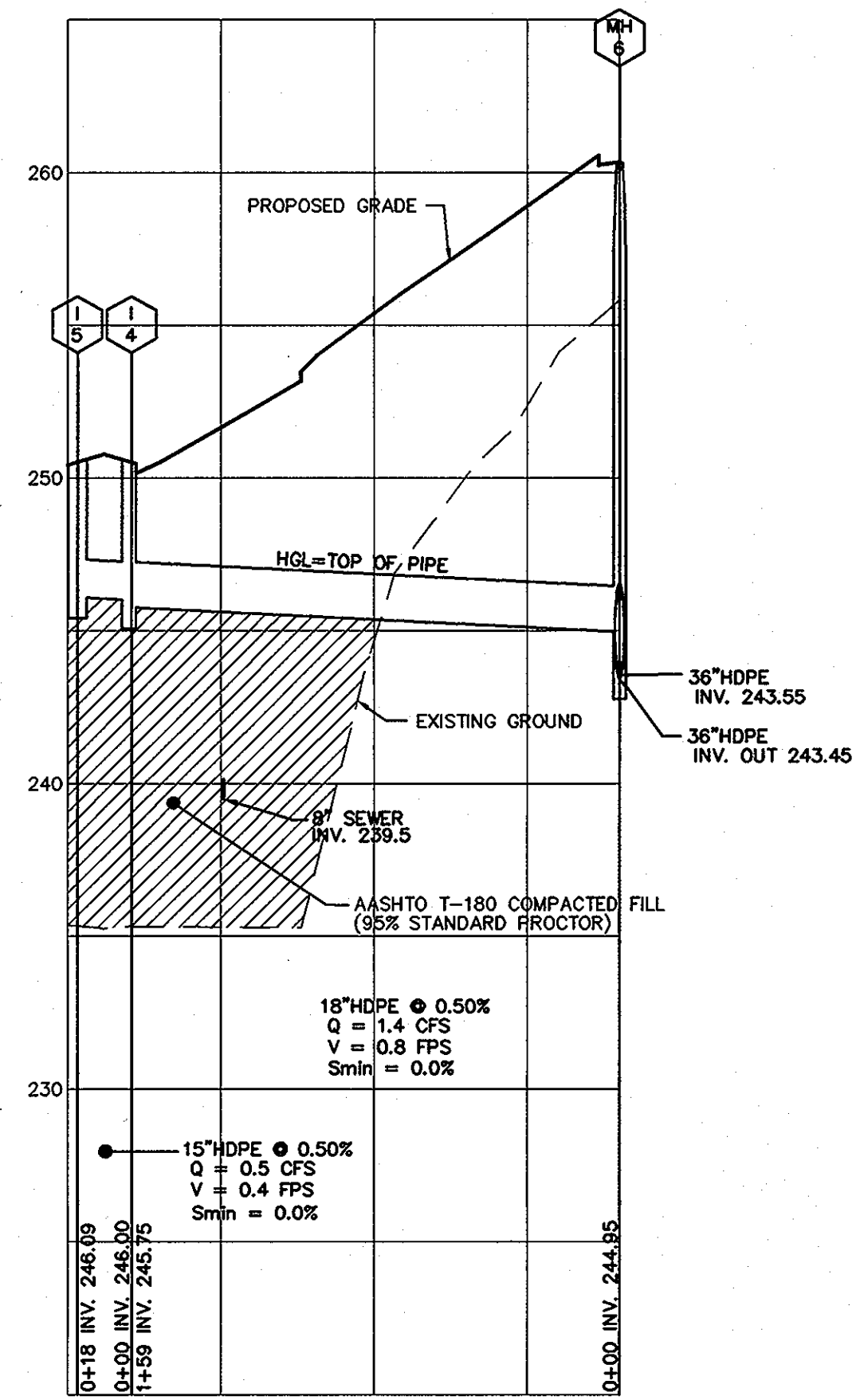
STORM DRAIN PROFILE - I-21 TO I-11

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



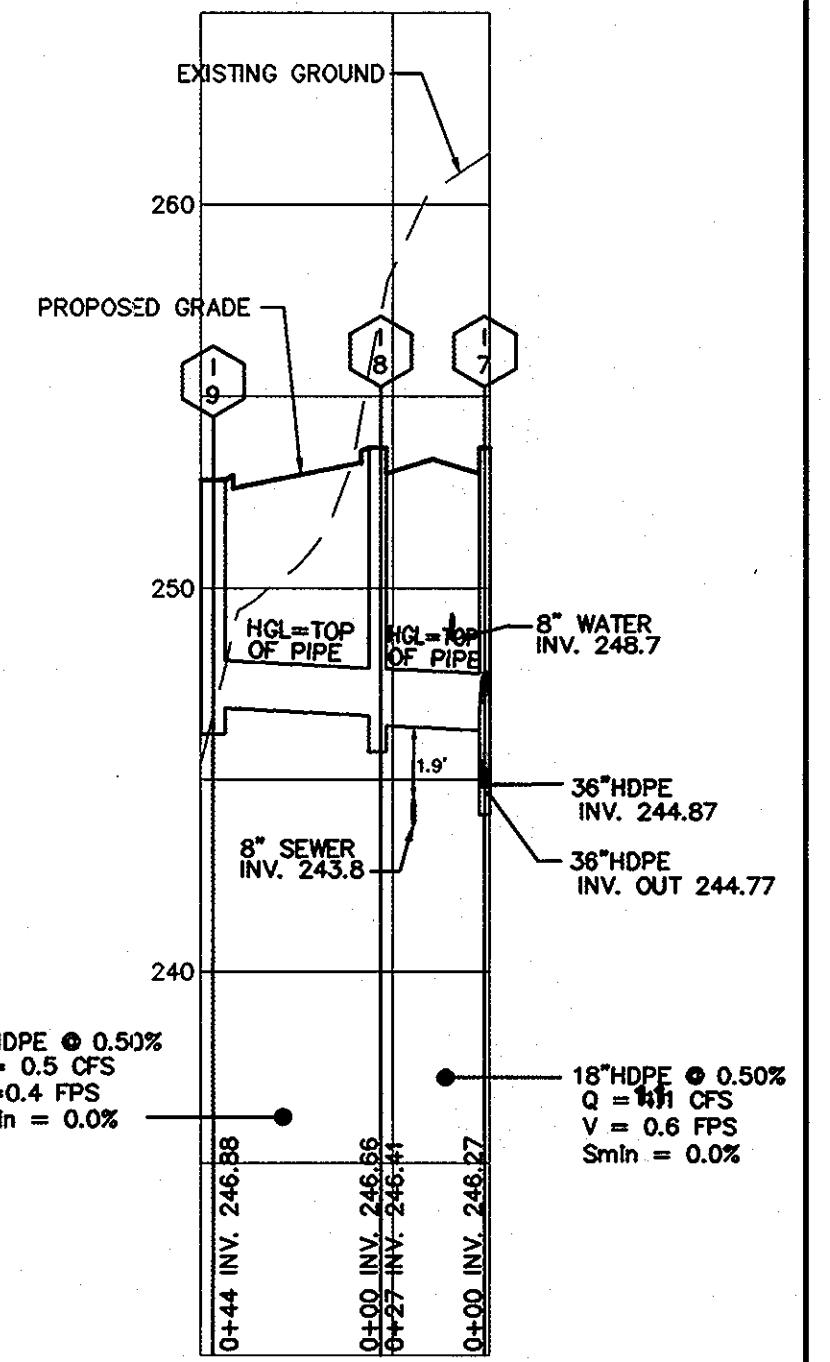
STORM DRAIN PROFILE - I-22 TO I-21

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



STORM DRAIN PROFILE - I-5 TO MH6

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'



STORM DRAIN PROFILE - I-9 TO I-7

HORIZONTAL SCALE : 1" = 50'
VERTICAL SCALE : 1" = 5'

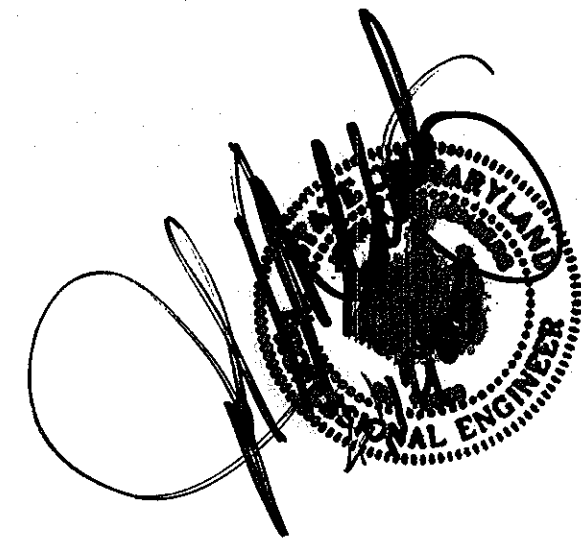
APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR

DATE: 2/16/05



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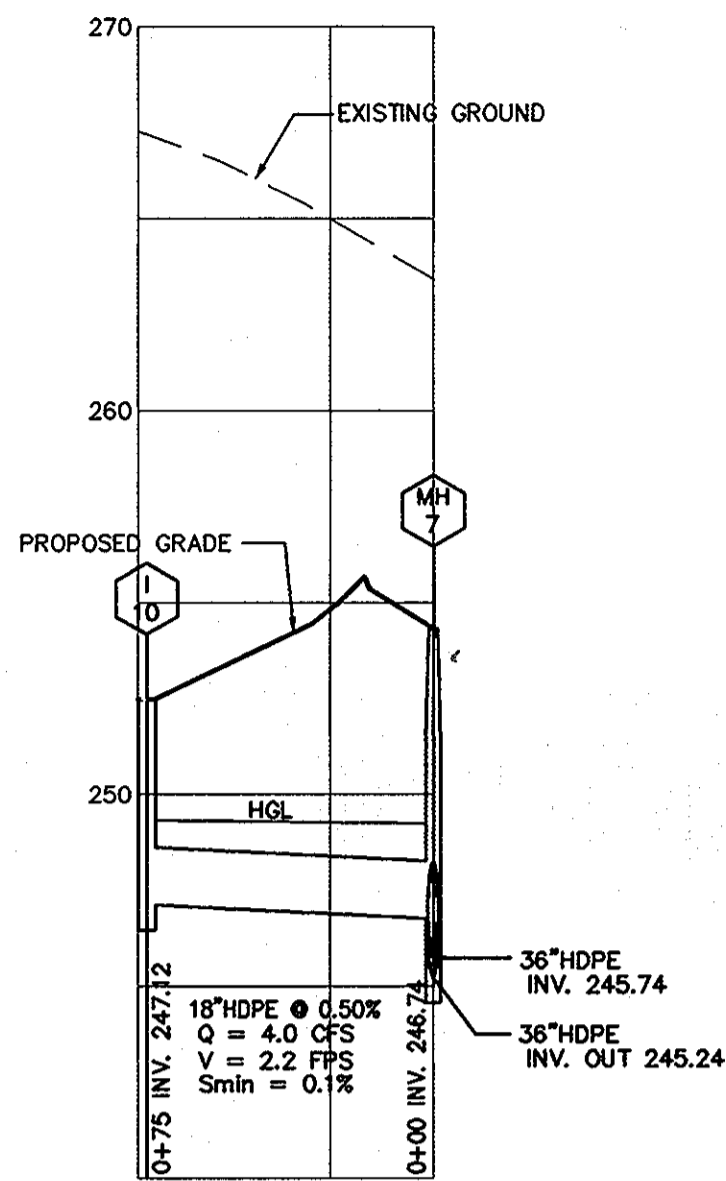
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MILDENBERG, BOENDER & ASSOC., INC.
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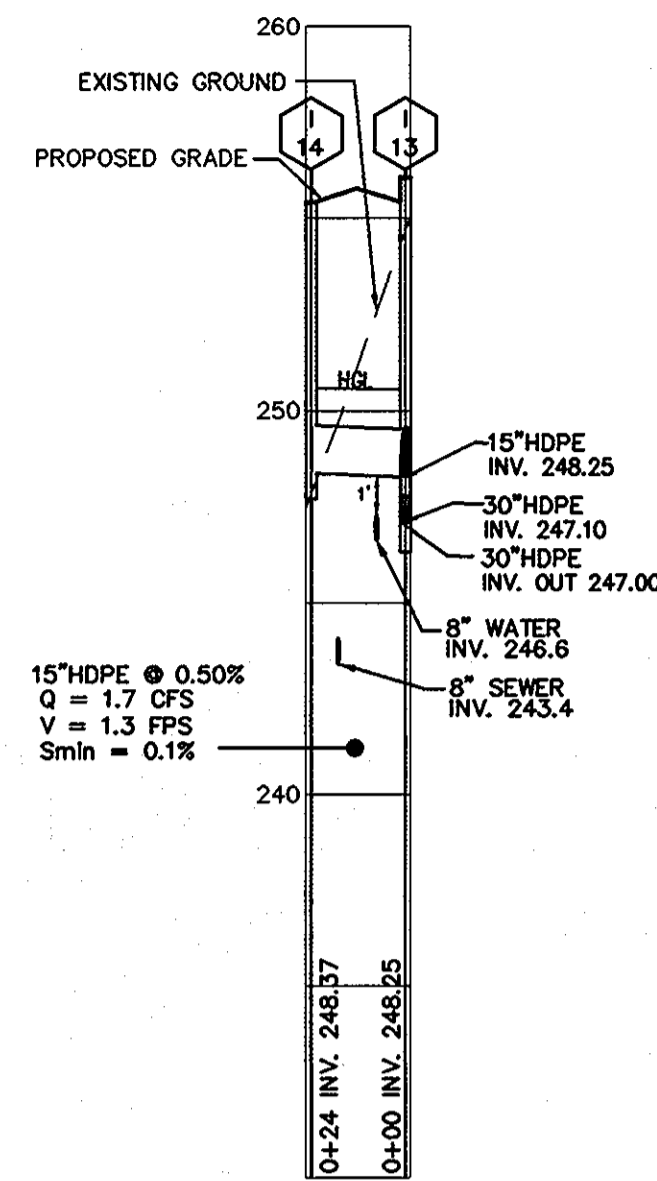
VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
TAX MAP 43 - PARCEL 3 - GRID 3
FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Project: 2002-056
Illustration: SID
Scale: AS SHOWN
Date: APRIL 05
Engineering: JBM
Approval: JBM

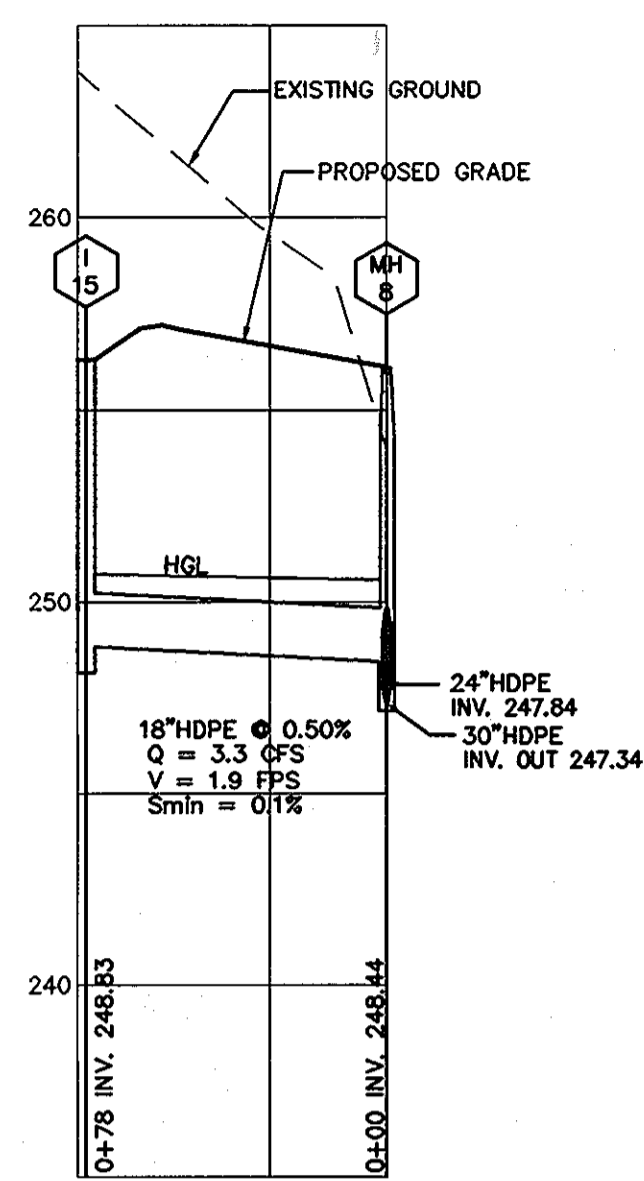
no.	description	revisions	date



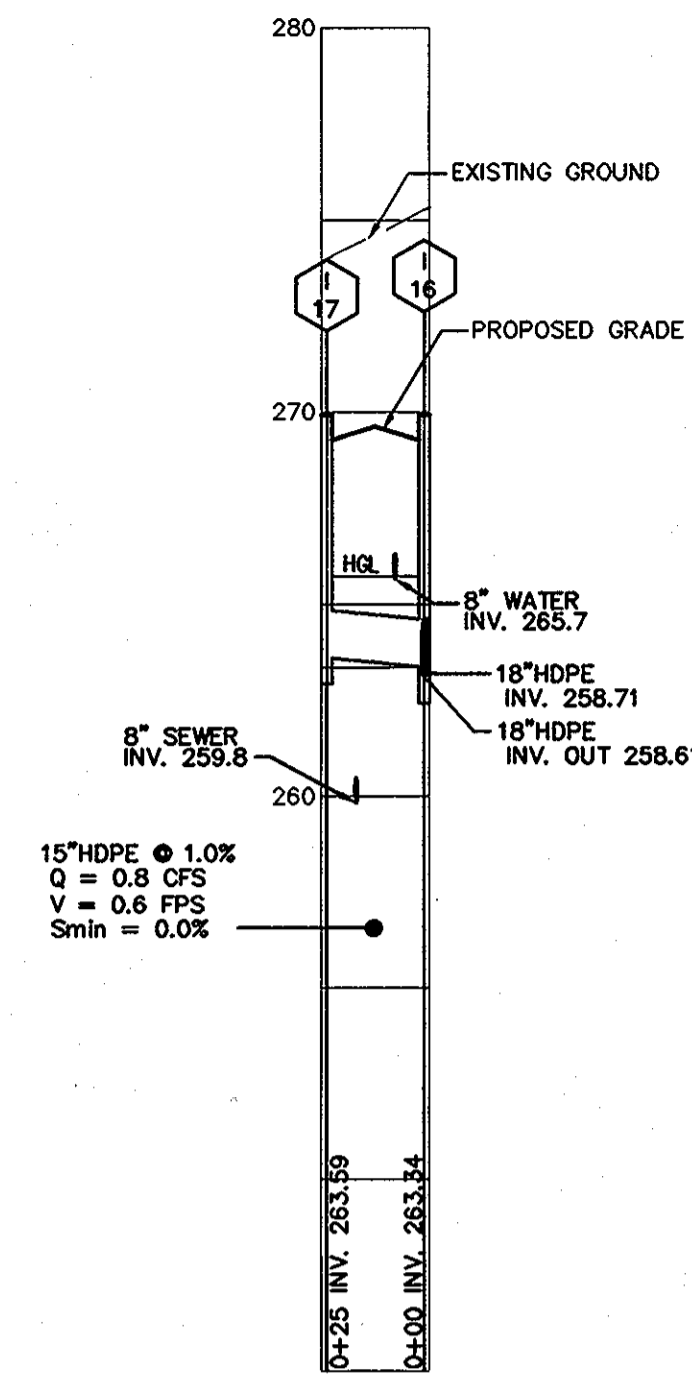
STORM DRAIN PROFILE - I-10 TO MH7
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



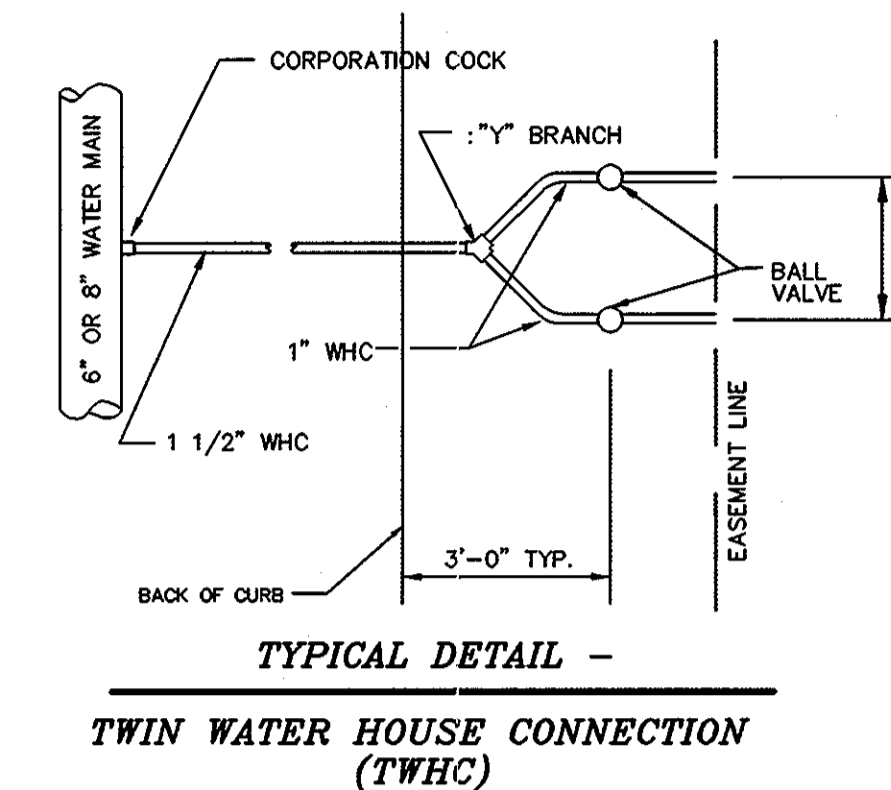
STORM DRAIN PROFILE - I-14 TO I-13
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



STORM DRAIN PROFILE - I-15 TO MH8
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



STORM DRAIN PROFILE - I-17 TO I-16
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



TYPICAL DETAIL - TWIN WATER HOUSE CONNECTION (TWHC)

STRUCTURE SCHEDULE

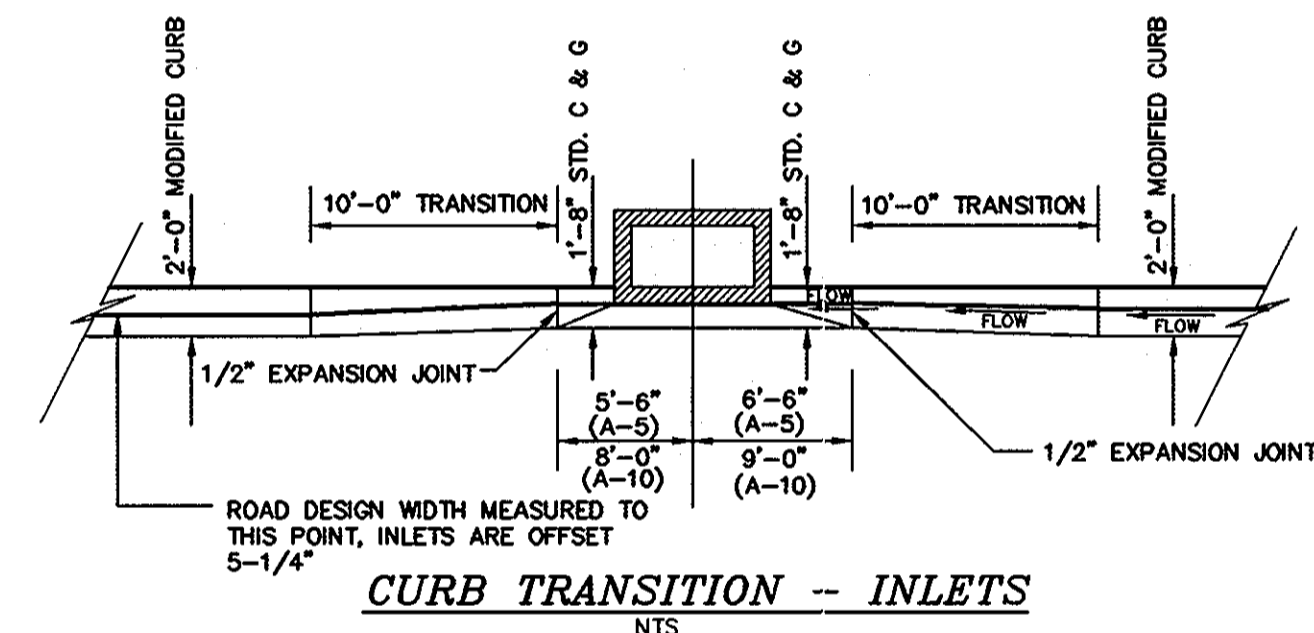
NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
MH-17	N 550439.2371 E 1373946.4898	242.10	226.85	226.75	MH (HO. CO. STD G 5.01)
MH-16	N 550439.3763 E 1373778.8080	244.0	228.28	228.18	MH (HO. CO. STD G 5.01)
I-30	N 550072.8060 E 1373903.6850	246.2	----	243.45	YARD INLET(HO. CO. STD SD-4.14)
I-29	PORT CAPITAL DRIVE - N 550,203.642 E 1,374,310.632	226.4	218.12	218.02	INLET TYPE A-10 (HO. CO. STD SD 4.41) - SUMP
I-28	OAK GROVE WAY, STA 5+16.69, 12.43' LEFT	284.04	----	277.30	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-27	OAK GROVE WAY, STA 5+22.69, 12.43' RIGHT	284.05	277.02	276.77	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-22	HOLLY SPRINGS LANE, STA 6+78.99, 12.43' RIGHT	266.12	----	263.86	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-21	HOLLY SPRINGS LANE, STA 6+78.99, 12.43' LEFT	266.12	263.61	262.86	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-20	HOLLY SPRINGS LANE, STA 3+72.61, 108.38' LEFT	274.30	----	271.71	YARD INLET(HO. CO. STD SD-4.14) - SUMP
I-19	HOLLY SPRINGS LANE, STA 5+06.23, 96.02' LEFT	272.90	269.03	268.78	YARD INLET(HO. CO. STD SD-4.14) - SUMP
I-18	HOLLY SPRINGS LANE, STA 5+20.43, 12.43' LEFT	270.38	265.40	265.30	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-17	HOLLY SPRINGS LANE, STA 5+64.21, 12.43' RIGHT	270.53	----	263.59	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-16	HOLLY SPRINGS LANE, STA 5+62.35, 12.43' LEFT	270.56	263.39 263.10	263.09	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-15	DEEP FALLS WAY, STA 5+60.96, 97.43' LEFT	254.80	----	248.83	YARD INLET(HO. CO. STD SD-4.14) - SUMP
I-14	DEEP FALLS WAY, STA 4+99.75, 12.00' RIGHT	255.42	----	248.37	INLET TYPE DOUBLE 'S' WITH GRATE (HO. CO. STD SD 4.34 & SD 4.93) - SUMP
I-13	DEEP FALLS WAY, STA 5+00.00, 12.43' LEFT	256.02	248.25 248.25 247.10	247.00	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-12	FOX HARBOR WAY, STA 4+42.88, 12.43' RIGHT	257.59	253.22	250.16	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-11	DEEP FALLS WAY, STA 4+26.84, 12.43' LEFT	256.26	246.63	246.13	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-10	DEEP FALLS WAY, STA 2+73.35, 88.38' LEFT	255.00	----	247.12	YARD INLET(HO. CO. STD SD-4.14) - SUMP
I-9	DEEP FALLS WAY, STA 1+56.81, 30.43' RIGHT	252.92	----	246.88	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-8	DEEP FALLS WAY, STA 1+97.82, 12.43' RIGHT	253.66	246.66	246.41	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-7	DEEP FALLS WAY, STA 1+97.82, 12.43' LEFT	253.66	246.27 244.87	244.77	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-6	DEEP FALLS WAY, STA 0+38.05, 12.43' LEFT	257.84	243.97	243.87	INLET TYPE A-5 (HO. CO. STD SD 4.40)
I-5	MAIDEN POINT PLACE, STA 3+46.12, 8.83' LEFT	250.34	----	246.09	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
I-4	MAIDEN POINT PLACE, STA 3+46.12, 8.83' RIGHT	250.34	246.00	245.75	INLET TYPE A-5 (HO. CO. STD SD 4.40) - SUMP
MH15	DEEP FALLS WAY, STA 2+90.40, 73.30' RIGHT	247.50	230.31	230.21	MH (HO. CO. STD G 5.01)
MH14	DEEP FALLS WAY, STA 2+85.20, 38.10' RIGHT	255.70	230.59	230.49	MH (HO. CO. STD G 5.01)
MH13	DEEP FALLS WAY, STA 1+11.45, 19.55' RIGHT	254.00	231.54	231.44	MH (HO. CO. STD G 5.01)
MH12	DEEP FALLS WAY, STA 0+39.26, 20.31' RIGHT	257.40	233.08	232.98	MH (HO. CO. STD G 5.01)
MH11	FOX HARBOR WAY, STA 0+14.31, 12.00' RIGHT	283.25	276.30 276.24	276.14	MH (HO. CO. STD G 5.01)
MH10	HOLLY SPRINGS LANE, STA 5+89.67, 13.87' LEFT	269.42	262.82 262.82 262.42	262.32	MH (HO. CO. STD G 5.01)
MH9	DEEP FALLS WAY, STA 6+80.78, 21.08' LEFT	257.90	----	248.51	MH (HO. CO. STD G 5.01)
MH8A	DEEP FALLS WAY, STA 4+49.77, 13.38' LEFT	255.71	246.75 247.25	246.65	MH (HO. CO. STD G 5.01)
MH8	DEEP FALLS WAY, STA 5+46.53, 20.10' LEFT	256.10	248.24 247.84	247.34	MH (HO. CO. STD G 5.01)
MH7	DEEP FALLS WAY, STA 2+70.71, 13.20' LEFT	254.34	246.74 245.34	245.24	MH (HO. CO. STD G 5.01)
MH6	MAIDEN POINT PLACE, STA 1+88.96, 23.10' RIGHT	260.38	244.95 243.55	243.45	MH (HO. CO. STD G 5.01)
MH5	HOLLY SPRINGS LANE, STA 0+26.00, 58.29' RIGHT	263.30	258.37	258.55	MH (HO. CO. STD G 5.01)
MH4	MAIDEN POINT PLACE, STA 1+88.96, 104.32' RIGHT	256.66	243.95	242.95	MH (HO. CO. STD G 5.01)
MH3	N 550086.3159 E 1373898.8197	249.00	243.45 242.64	242.73	MH (HO. CO. STD G 5.01)
MH2	N 550106.0682 E 1373949.4503	248.70	242.39	242.29	MH (HO. CO. STD G 5.01)
ST1	DEEP FALLS WAY, STA 0+05.52, 149.10' RIGHT	240.00	----	234.00	4' X 5' RISER STRUCTURE (SEE SHEET 11)
ES7	N 550,439.188 E 1,374,005.910	----	----	224.00	24" # HDPE END SECTION
ES5	N 550123.8812 E 1373956.1838	----	----	240.00	36" # HDPE END SECTION
ES4	NOT USED				
ES3	N 550605.7291 E 1374207.8329	----	----	228.00	18" # HDPE END SECTION

* STATIONS GIVEN TO CENTERLINE FACE OF INLET AT TOP OF CURB FOR INLETS LOCATED WITHIN THE ROAD RIGHT-OF-WAY. STATIONS FOR YARD AND S TYPE INLETS TO CL OF INLET. LOCATION OF MANHOLES IS TO CL OF MANHOLE COVER. END SECTION GIVEN TO THE CENTERLINE OF PIPE AT THE CONNECTION OF THE STORM DRAIN PIPE TO THE END SECTION.
 ** ELEVATIONS MEASURED TO CENTER OF ALL INLETS.

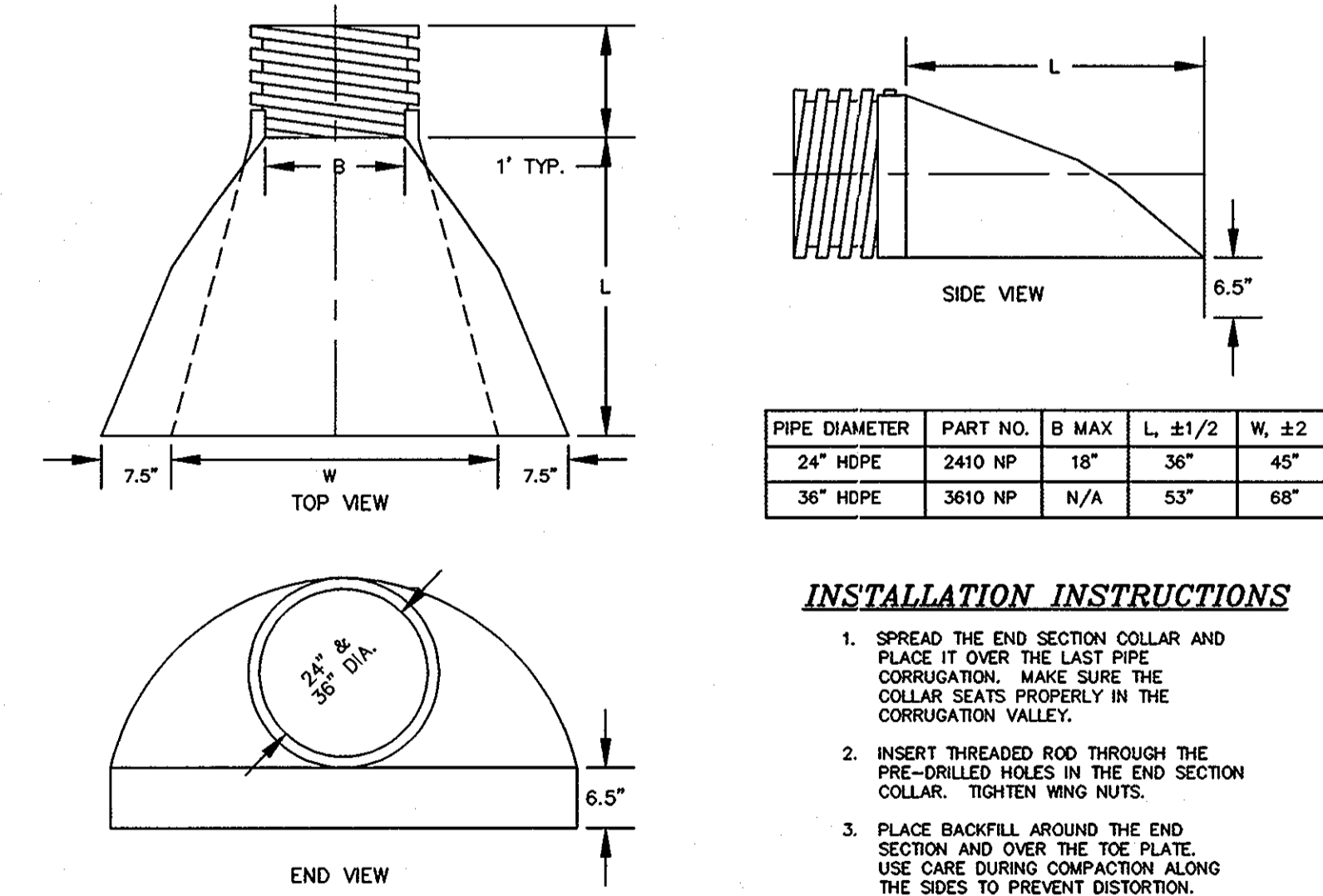
PIPE SCHEDULE

QUANTITY	PIPE SIZE
275'	15" HDPE
633'	18" HDPE
1,189'	24" HDPE
222'	30" HDPE
502'	36" HDPE
96'	39" HDPE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR



CURB TRANSITION -- INLETS
 NTS



HDPE END SECTIONS
 (PART NO. 2410 NP & 3610NP)
 NOT TO SCALE

INSTALLATION INSTRUCTIONS

- SPREAD THE END SECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS PROPERLY IN THE CORRUGATION VALLEY.
- INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN THE END SECTION COLLAR. TIGHTEN WING NUTS.
- PLACE BACKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.

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project	2002-056	date	APRIL 05
illustration	SJD	engineering	SJD
scale	SJD	approval	SJD
no.	AS	approval	SJD

description	revisions
no.	date

VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT

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 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0586 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax.

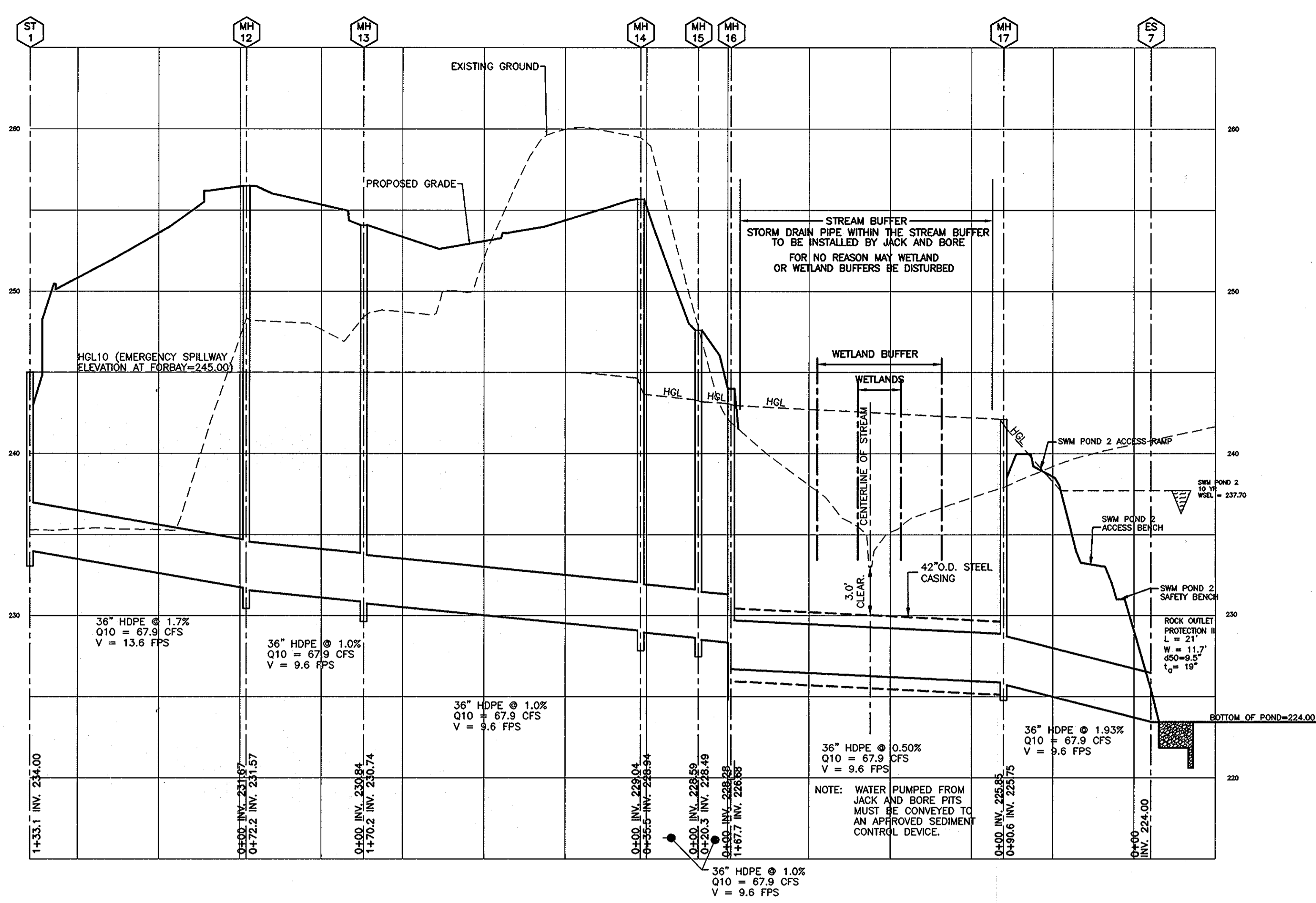
Project	2002-056	date	APRIL 05
Illustration	MAP	engineering	MAP
MAP	AS SHOWN	approval	JEM
scale			

no.	description	revisions	date

VILLAGE TOWNS, PHASE II
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT

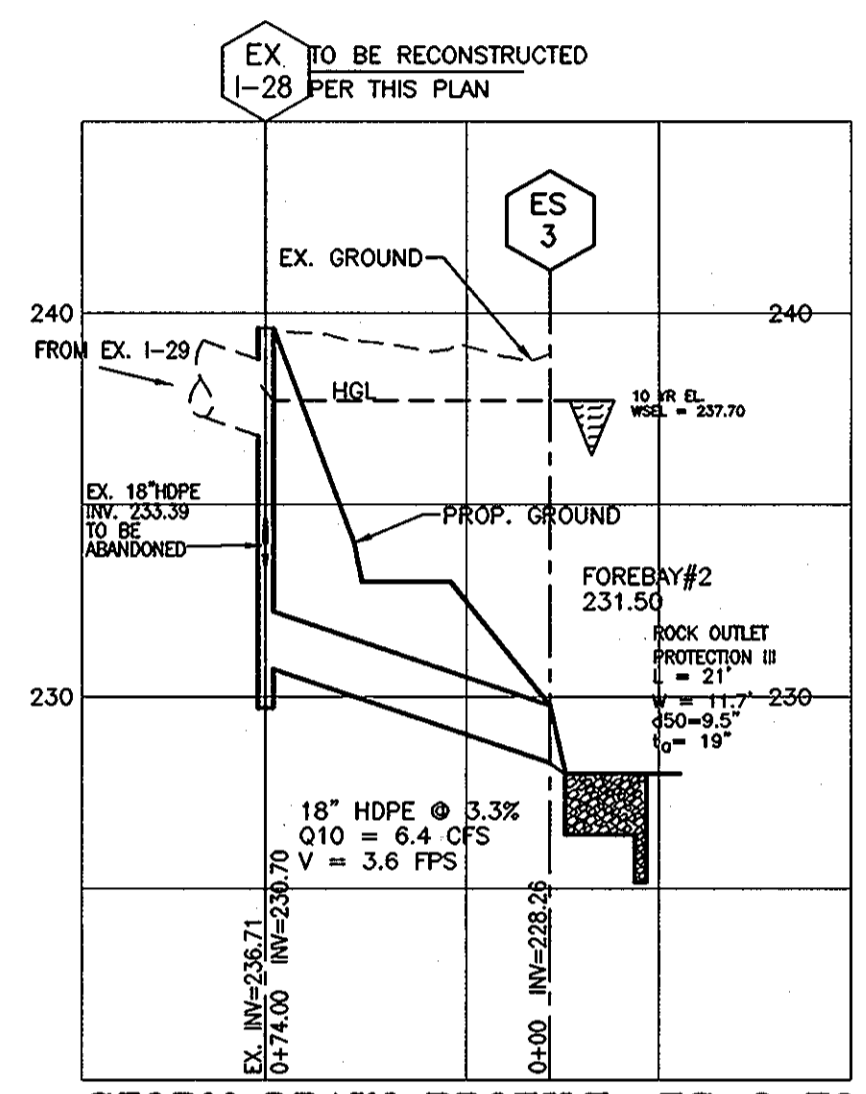
STORMDRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hill Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 987-0296 Fax: (301) 621-5521 Wash. (410) 987-0298 Fax.



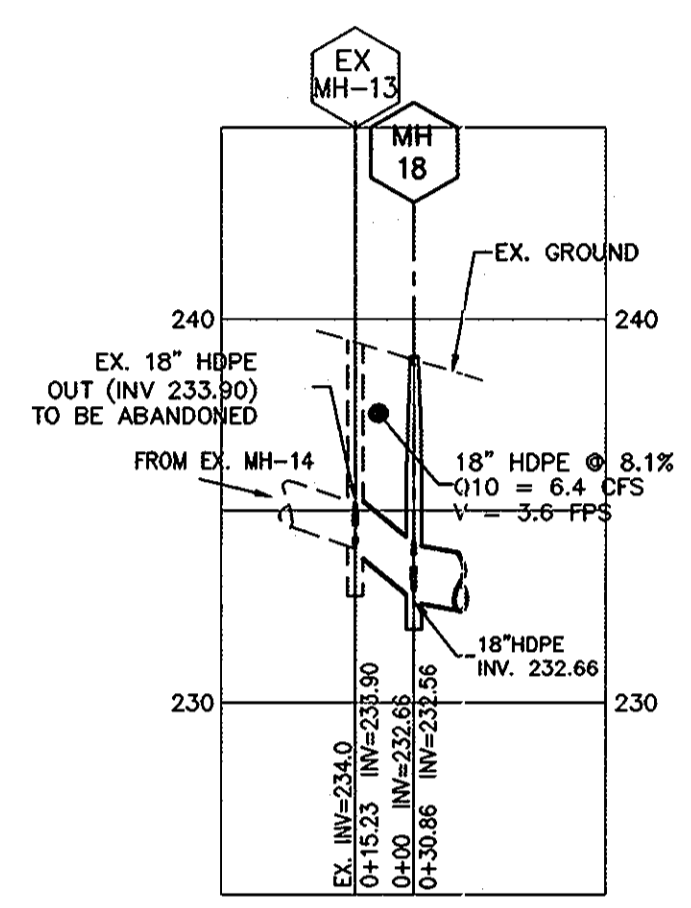
STORM DRAIN PROFILE ST-1 TO ES-7

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



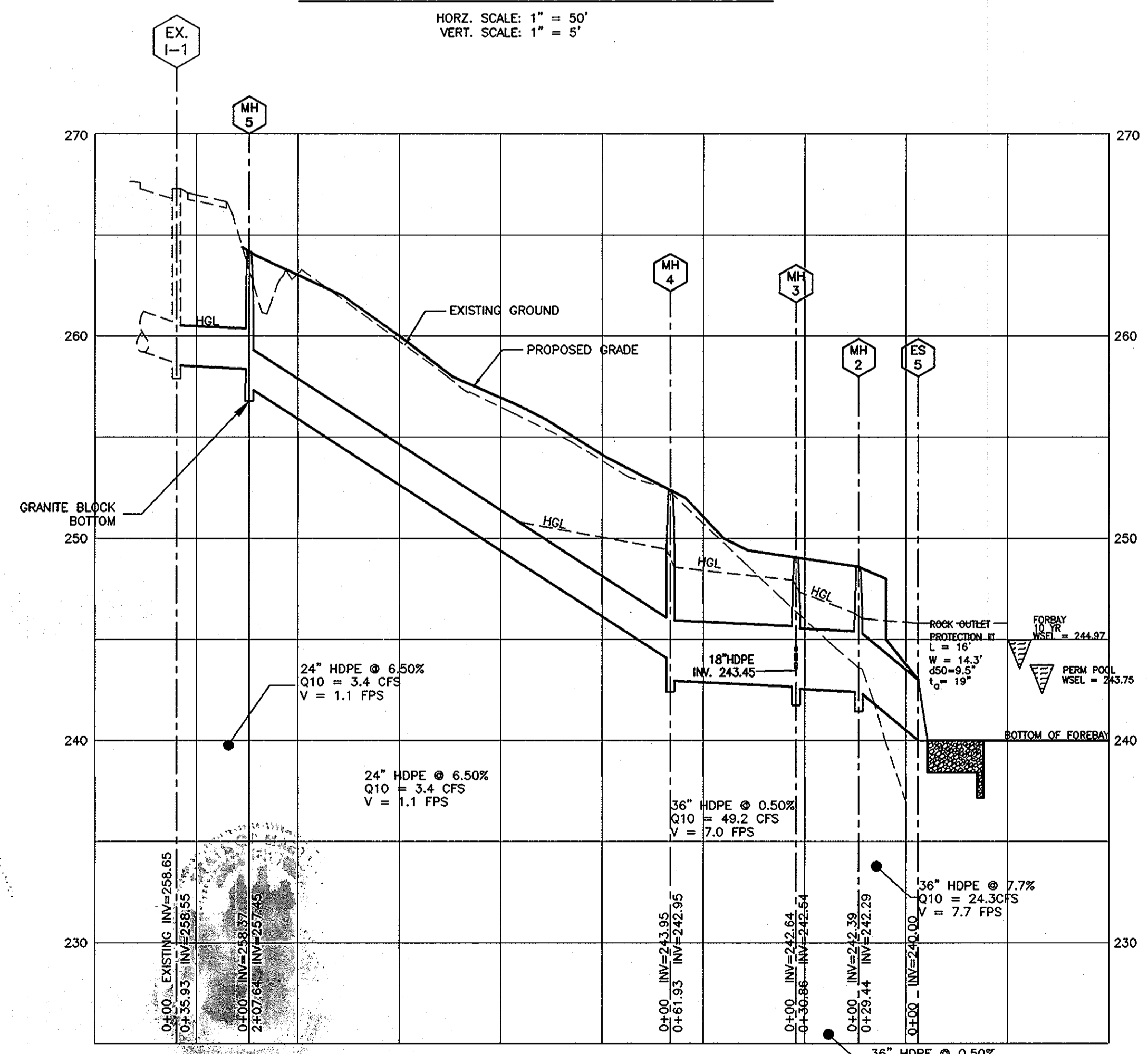
STORM DRAIN PROFILE: ES-3 TO EX. I-28

HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



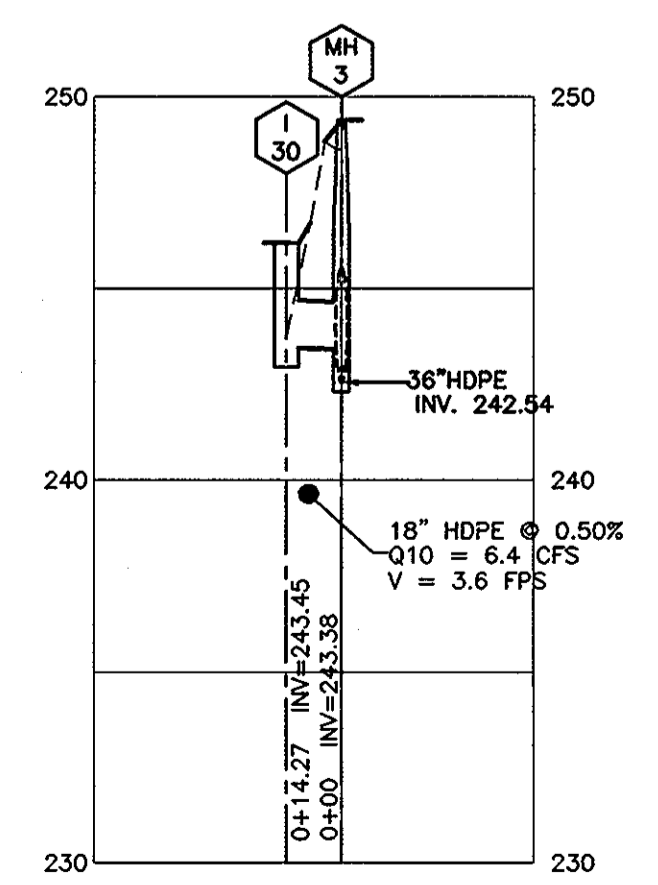
STORM DRAIN PROFILE: MH-18 TO EX. MH-13

HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



STORM DRAIN PROFILE - MH5 TO ES5

HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'



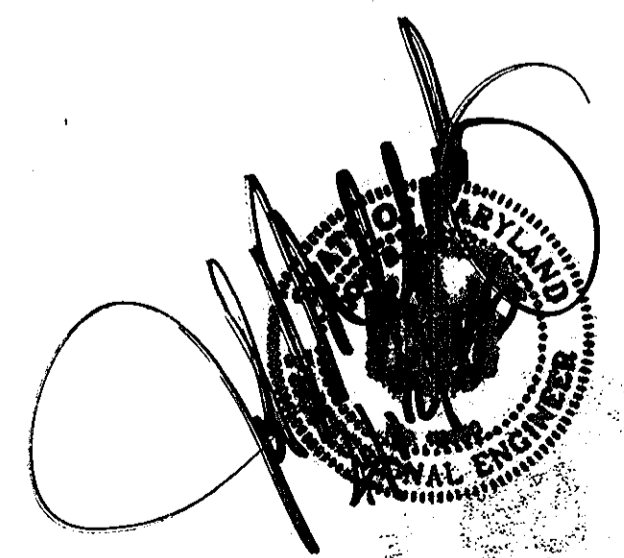
STORM DRAIN PROFILE: I-30 TO MH2

HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

BUILDER
 RYAN HOMES
 11460 CRONRIDGE DRIVE, SUITE 128
 OWINGS MILLS, MARYLAND 21117
 (410) 654-0501

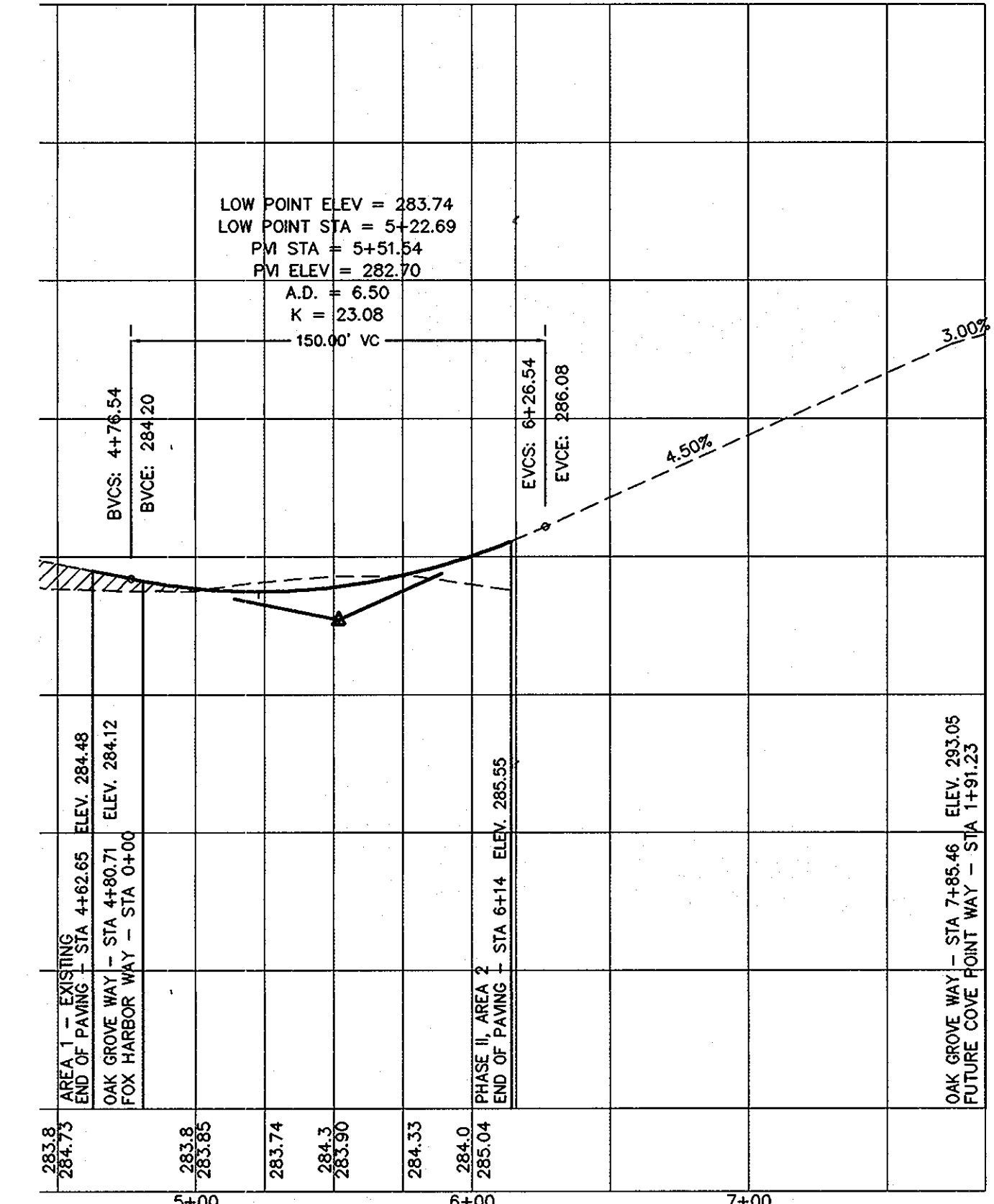
OWNER
 VILLA ASSOCIATES, LLC
 7111 DORSEY RUN ROAD, SUITE 101
 ELK RIDGE, MARYLAND 21075
 (410) 579-2442

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 2/1/05
 [Signature] DATE: 2/1/05
 [Signature] DATE: 2/1/05

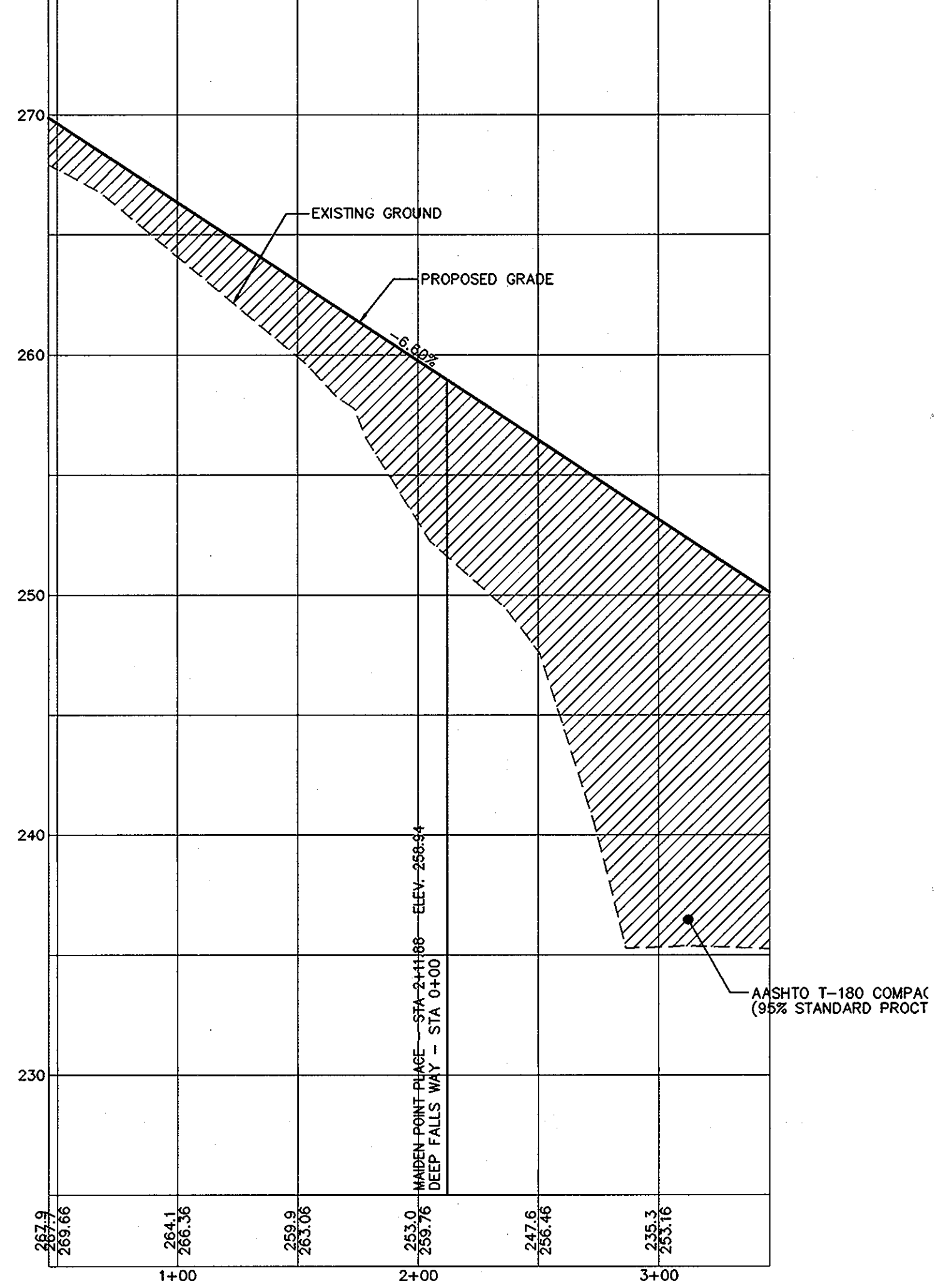


02-056 (vfw) phase2\056-stormdrain-REV-rh14.dwg

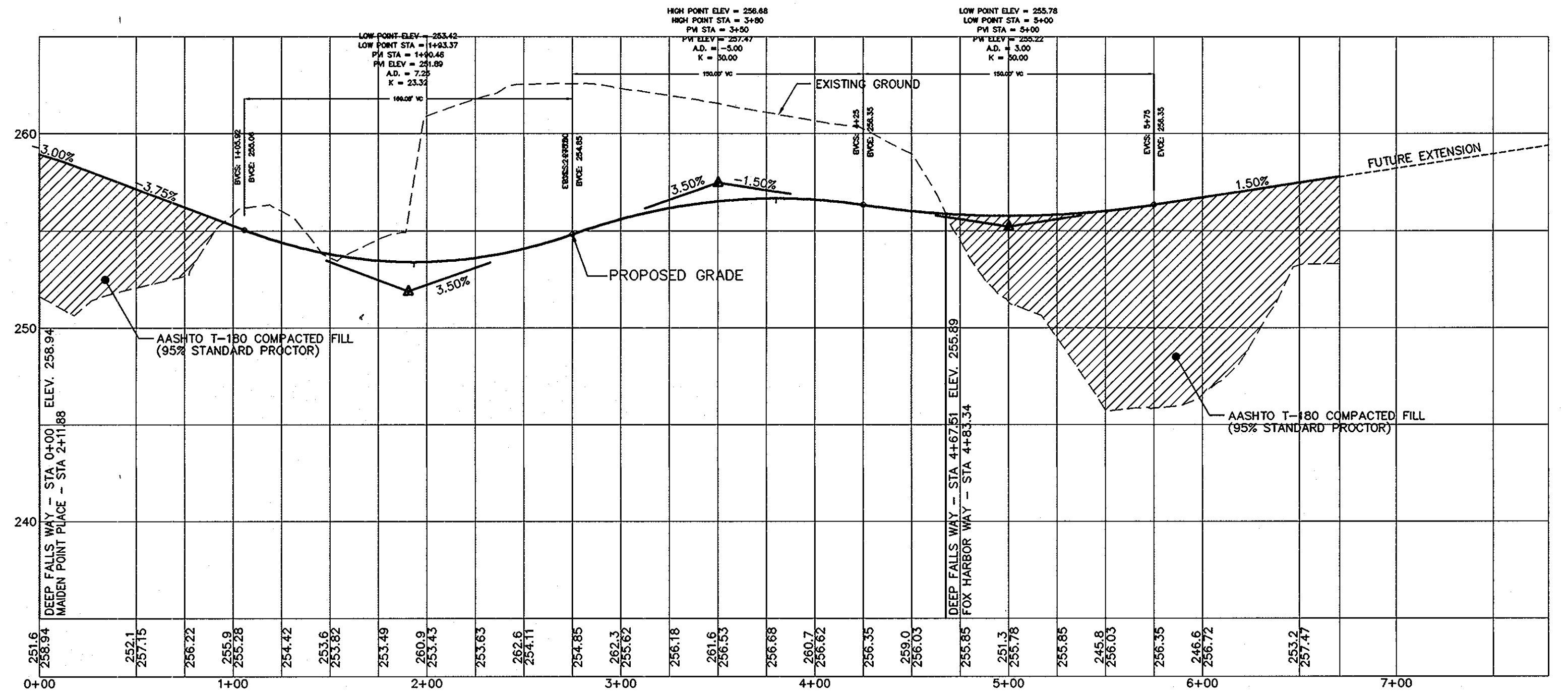
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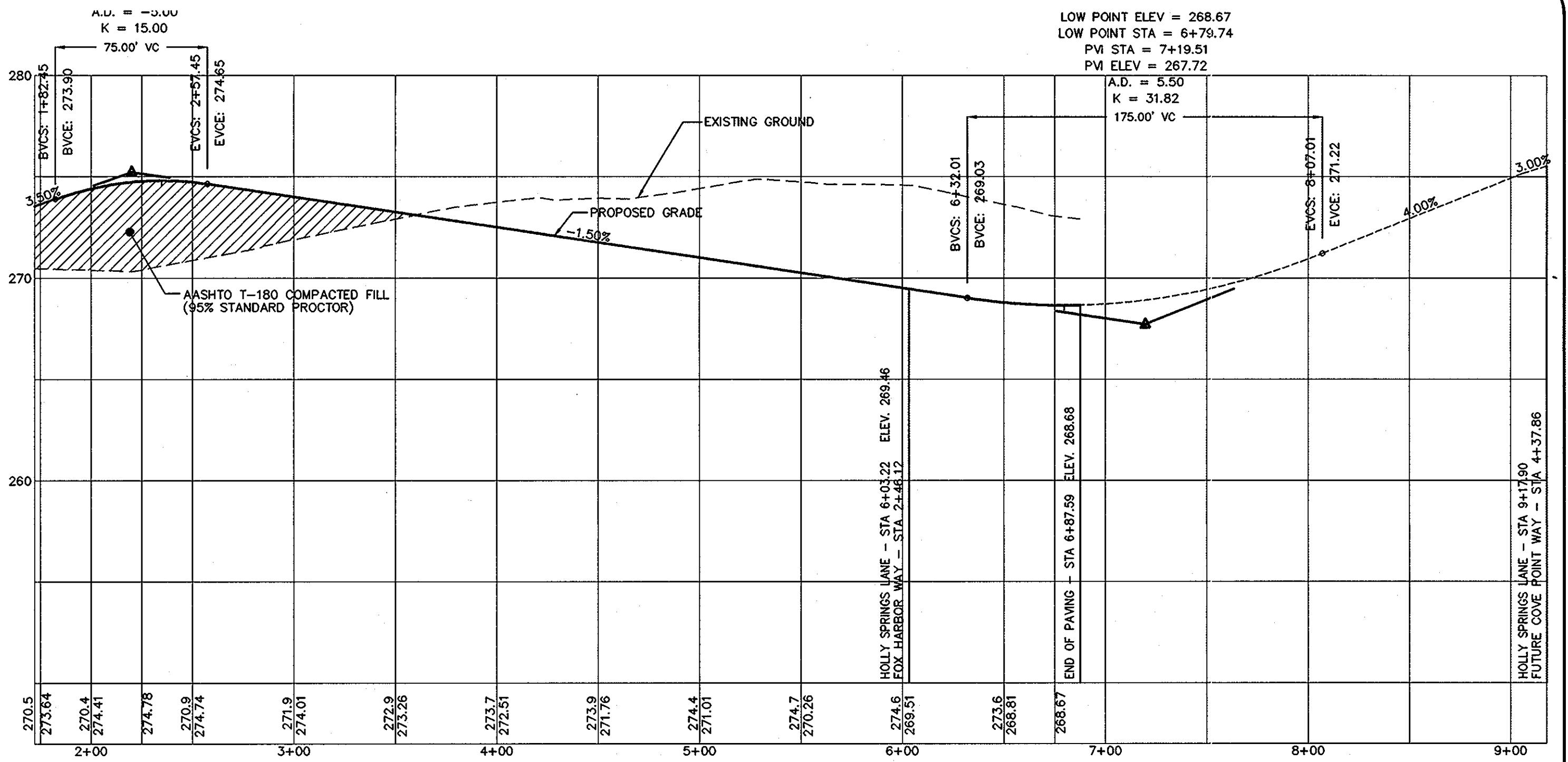
OAK GROVE WAY
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



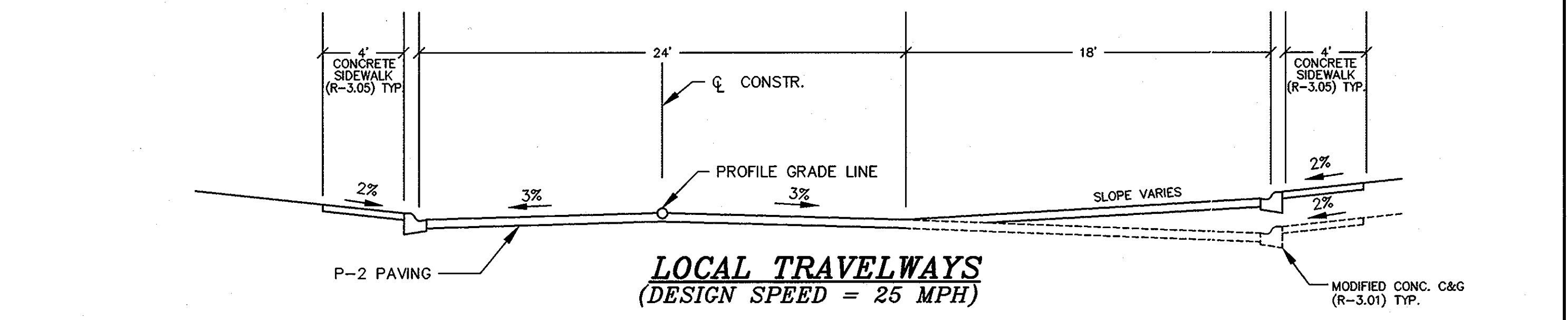
MAIDEN POINT PLACE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



DEEP FALLS WAY
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



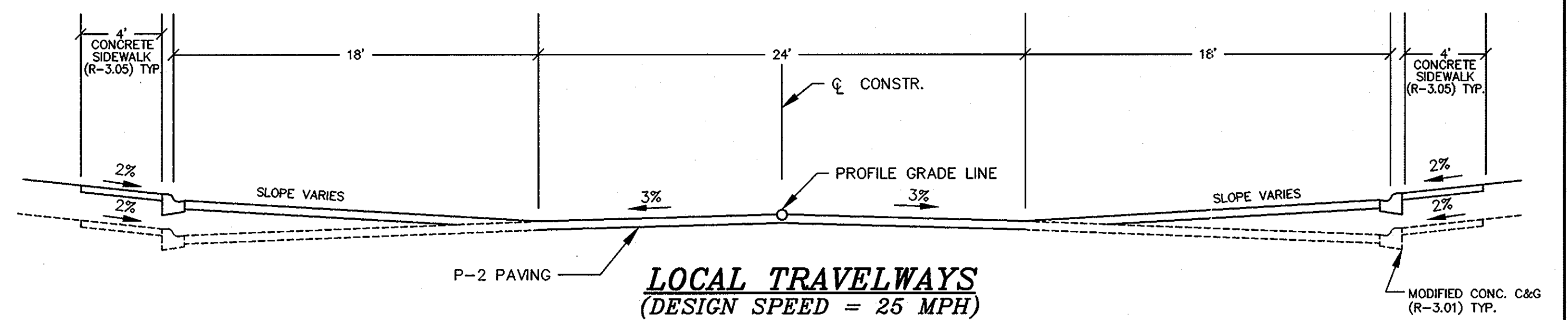
HOLLY SPRINGS LANE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



LOCAL TRAVELWAYS
(DESIGN SPEED = 25 MPH)
DEEP FALLS WAY

TYPICAL SECTION

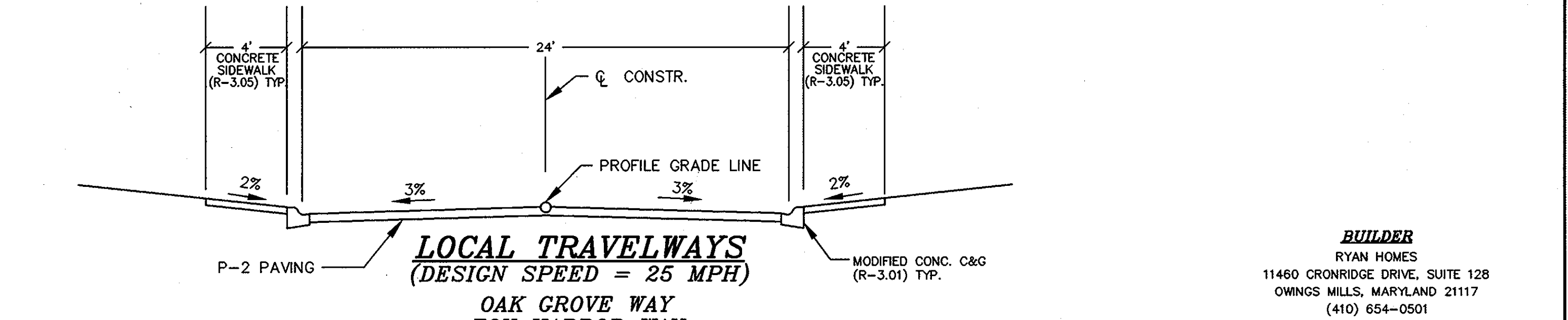
FOR PAVING SECTION SEE STANDARD DETAIL THIS SHEET
N.T.S.



LOCAL TRAVELWAYS
(DESIGN SPEED = 25 MPH)
MAIDEN POINT PLACE STA 2+47.12 TO STA 3+46.12

TYPICAL SECTION

FOR PAVING SECTION SEE STANDARD DETAIL THIS SHEET
N.T.S.



LOCAL TRAVELWAYS
(DESIGN SPEED = 25 MPH)
OAK GROVE WAY
FOX HARBOR WAY
HOLLY SPRINGS LANE
MAIDEN POINT PLACE STA 0+46.31 TO STA 2+47.12

TYPICAL SECTION

FOR PAVING SECTION SEE STANDARD DETAIL THIS SHEET
N.T.S.

BUILDER
RYAN HOMES
11460 CRONRIDGE DRIVE, SUITE 128
OWINGS MILLS, MARYLAND 21117
(410) 654-0501

OWNER
VILLA ASSOCIATES, LLC
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 10/21/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 7/6/05
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 7/16/05
DIRECTOR

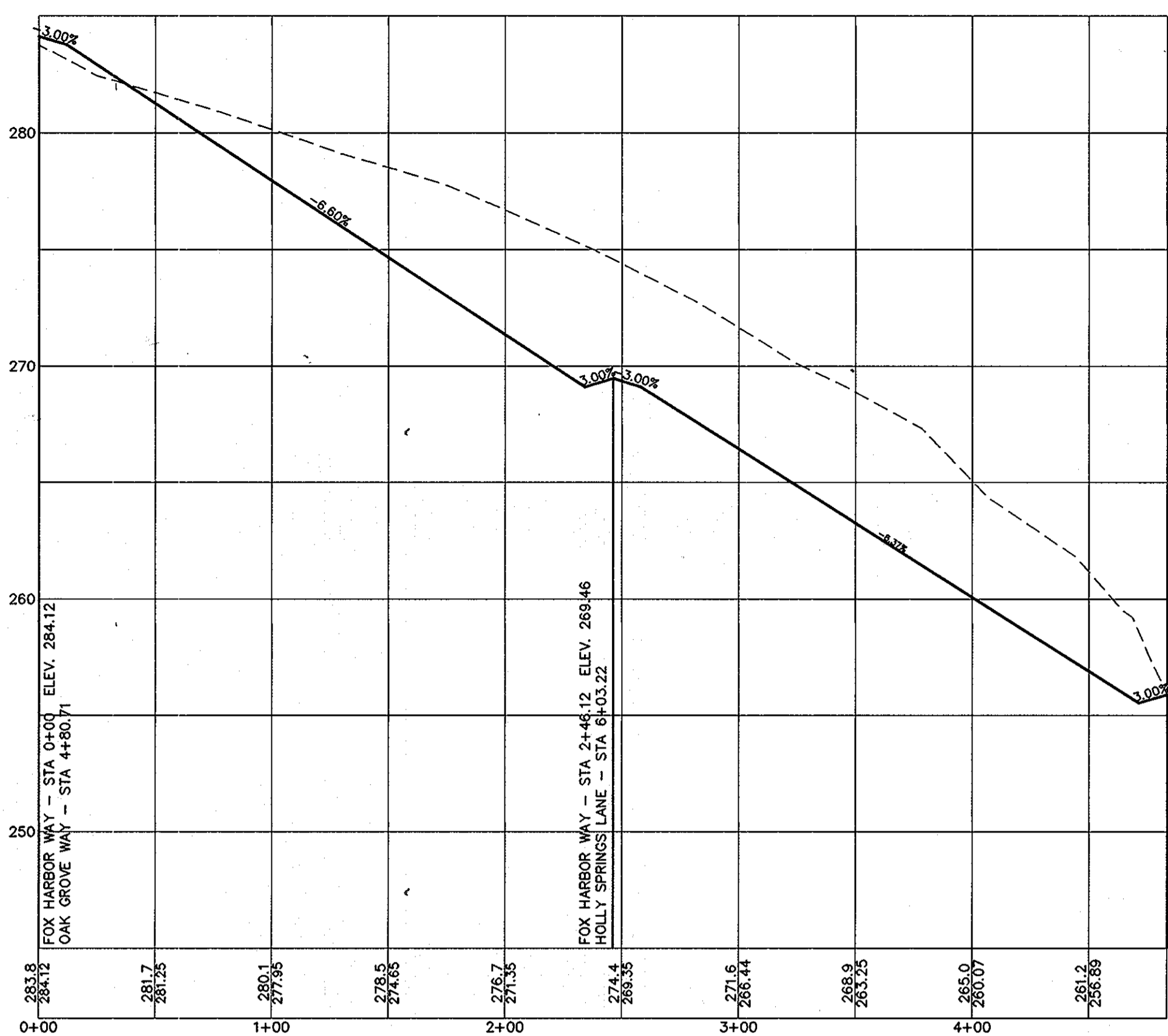


Project	2002-056	Date	APRIL 05
Illustration	Engineering	Scale	AS SHOWN
Scale	AS SHOWN	Approval	

Project	2002-056	Date	APRIL 05
Illustration	Engineering	Scale	AS SHOWN
Scale	AS SHOWN	Approval	

VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
TAX MAP 43 - PARCEL 3 - GRID 3
HOWARD COUNTY, MARYLAND
FIRST ELECTION DISTRICT

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0586 Fax: (301) 621-5521 Wash. (410) 997-0288 Fax.



FOX HARBOR WAY
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

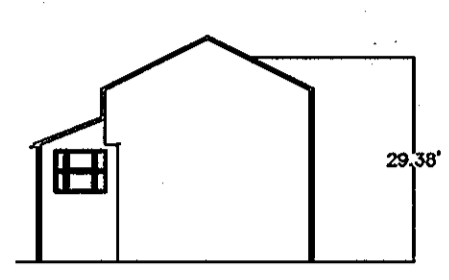


GARAGE UNITS (FRONT)
 * REFER TO GENERAL NOTE #27 ON SHEET 1 FOR MAXIMUM BUILDING HEIGHT.

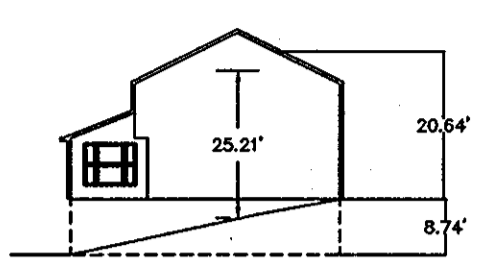


BASEMENT UNITS (FRONT)
 * REFER TO GENERAL NOTE #27 ON SHEET 1 FOR MAXIMUM BUILDING HEIGHT.

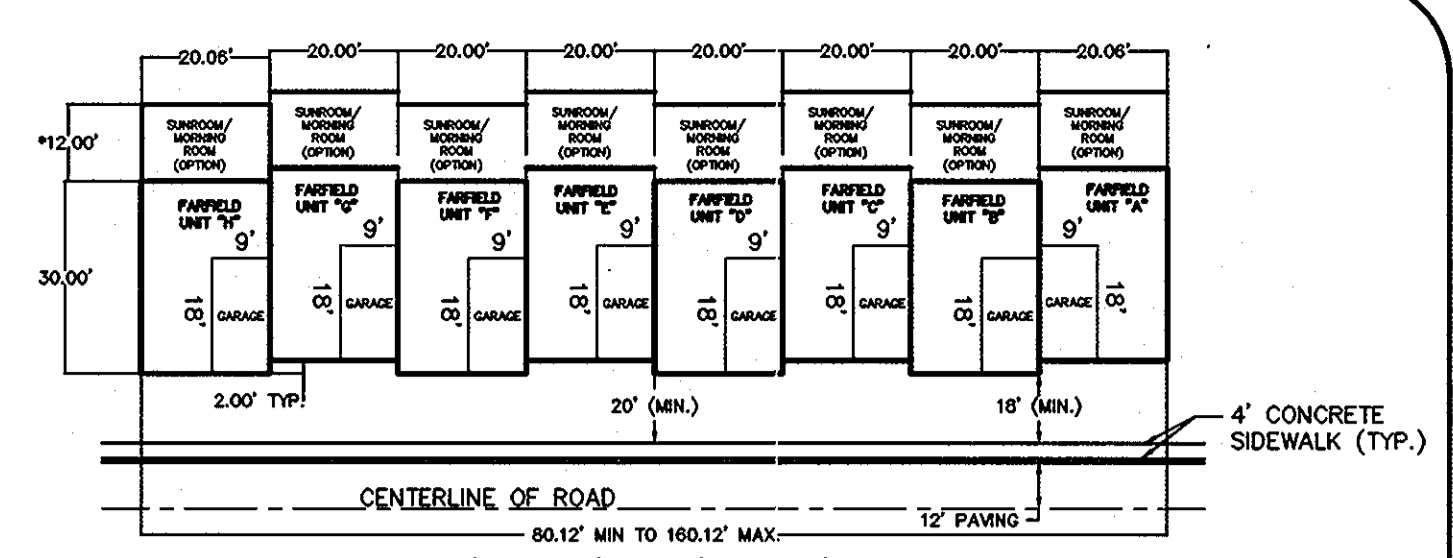
ELEVATIONS
 N.T.S.



GARAGE UNITS LEFT SIDE ELEVATION

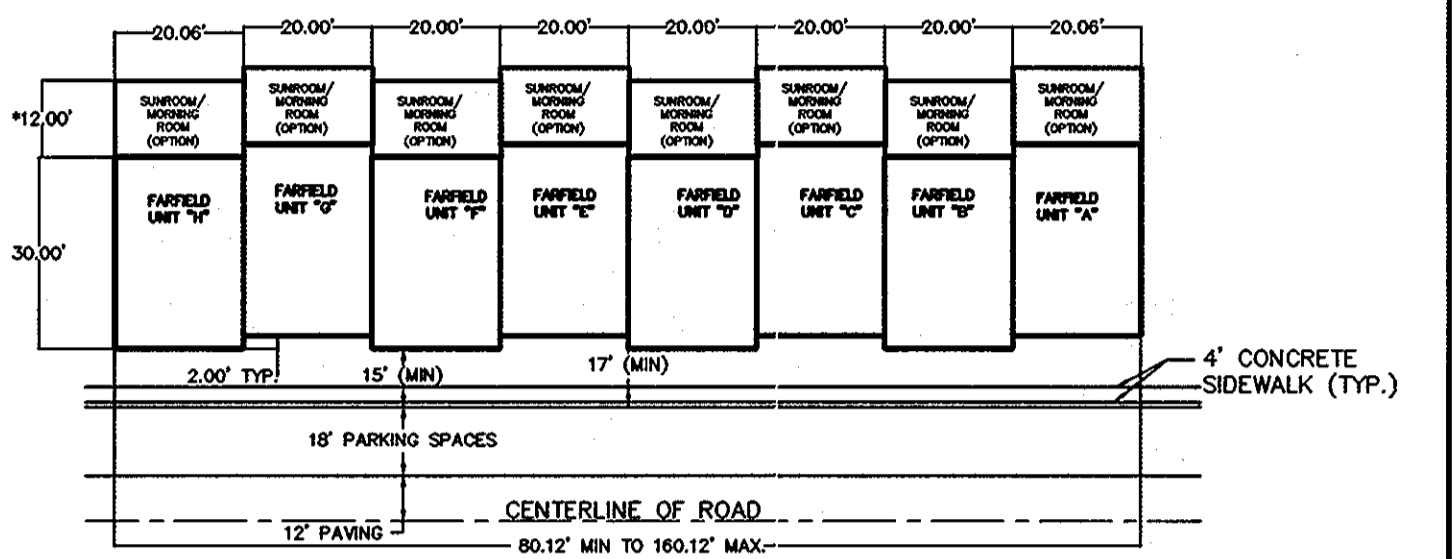


BASEMENT UNITS LEFT SIDE ELEVATION



FAIRFIELD (GARAGE UNITS)
 FOUR TO EIGHT UNIT BUILDINGS
 N.T.S.

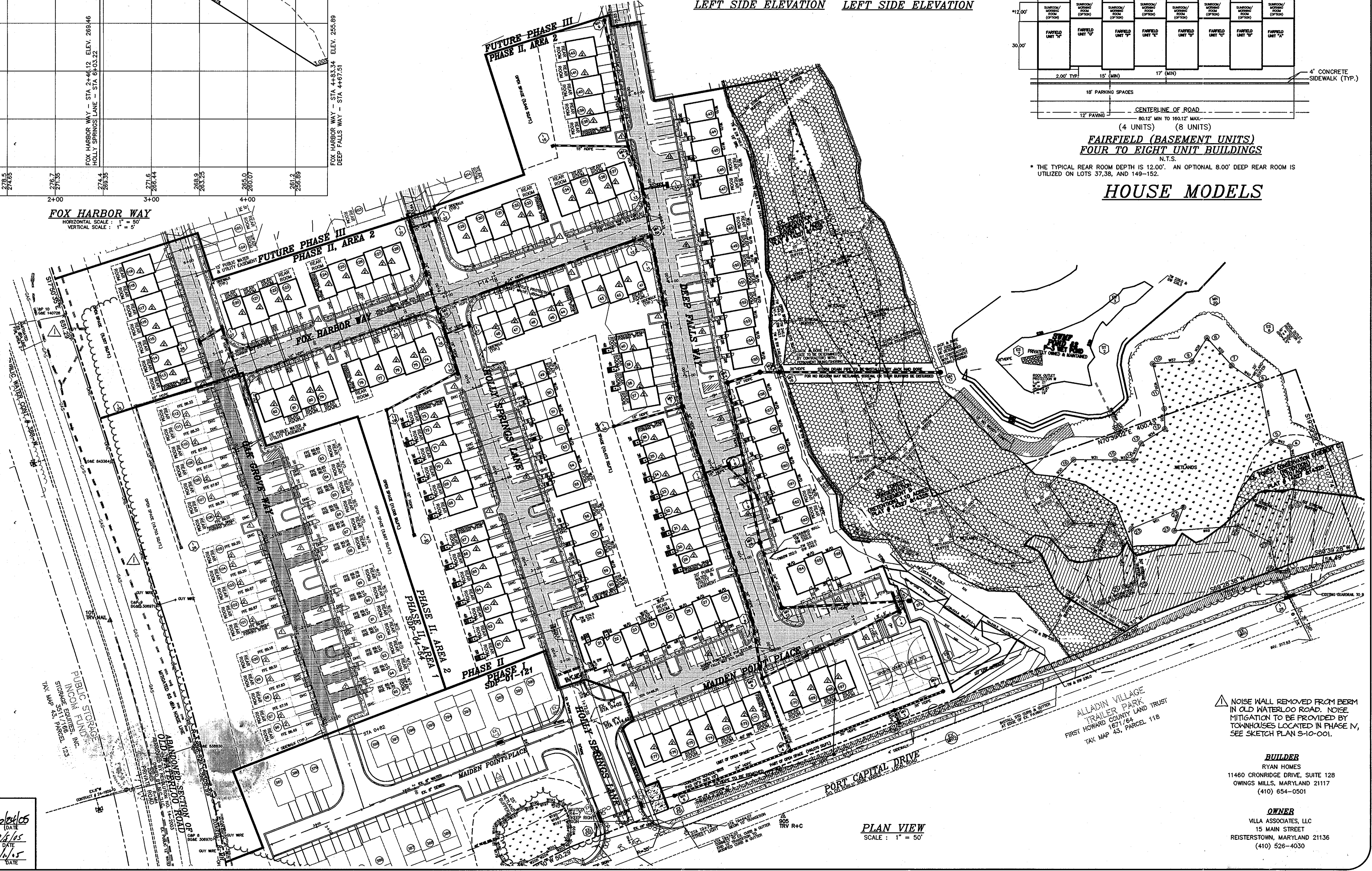
* THE TYPICAL REAR ROOM DEPTH IS 12.00'. AN OPTIONAL 8.00' DEEP REAR ROOM IS UTILIZED ON LOTS 24,41,79-81,120-122,136,167,168,170,171,173, AND 175.



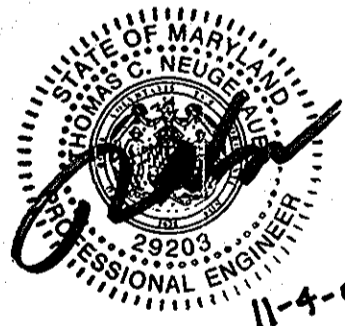
FAIRFIELD (BASEMENT UNITS)
 FOUR TO EIGHT UNIT BUILDINGS
 N.T.S.

* THE TYPICAL REAR ROOM DEPTH IS 12.00'. AN OPTIONAL 8.00' DEEP REAR ROOM IS UTILIZED ON LOTS 37,38, AND 149-152.

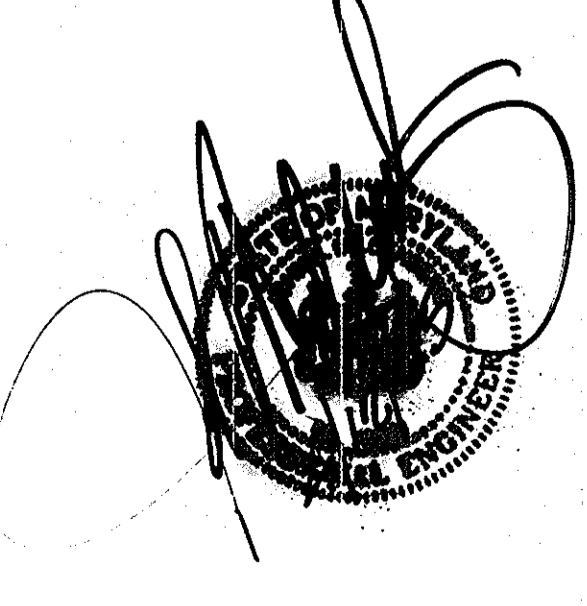
HOUSE MODELS



PLAN VIEW
 SCALE: 1" = 50'



FOR REVISION NO. 1
 MORRIS & RITCHIE ASSOCIATES, INC.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

NOISE WALL REMOVED FROM PERM IN OLD WATERLOO ROAD. NOISE MITIGATION TO BE PROVIDED BY TOWNHOUSES LOCATED IN PHASE IV, SEE SKETCH PLAN S-10-001.

BUILDER
 RYAN HOMES
 11460 CRONRIDGE DRIVE, SUITE 128
 OWINGS MILLS, MARYLAND 21117
 (410) 654-0501

OWNER
 VILLA ASSOCIATES, LLC
 15 MAIN STREET
 REISTERSTOWN, MARYLAND 21136
 (410) 526-4030

Project	2002-056	date	APRIL 05
Illustration	SID	engineering	SID
scale	AS SHOWN	approval	AS SHOWN

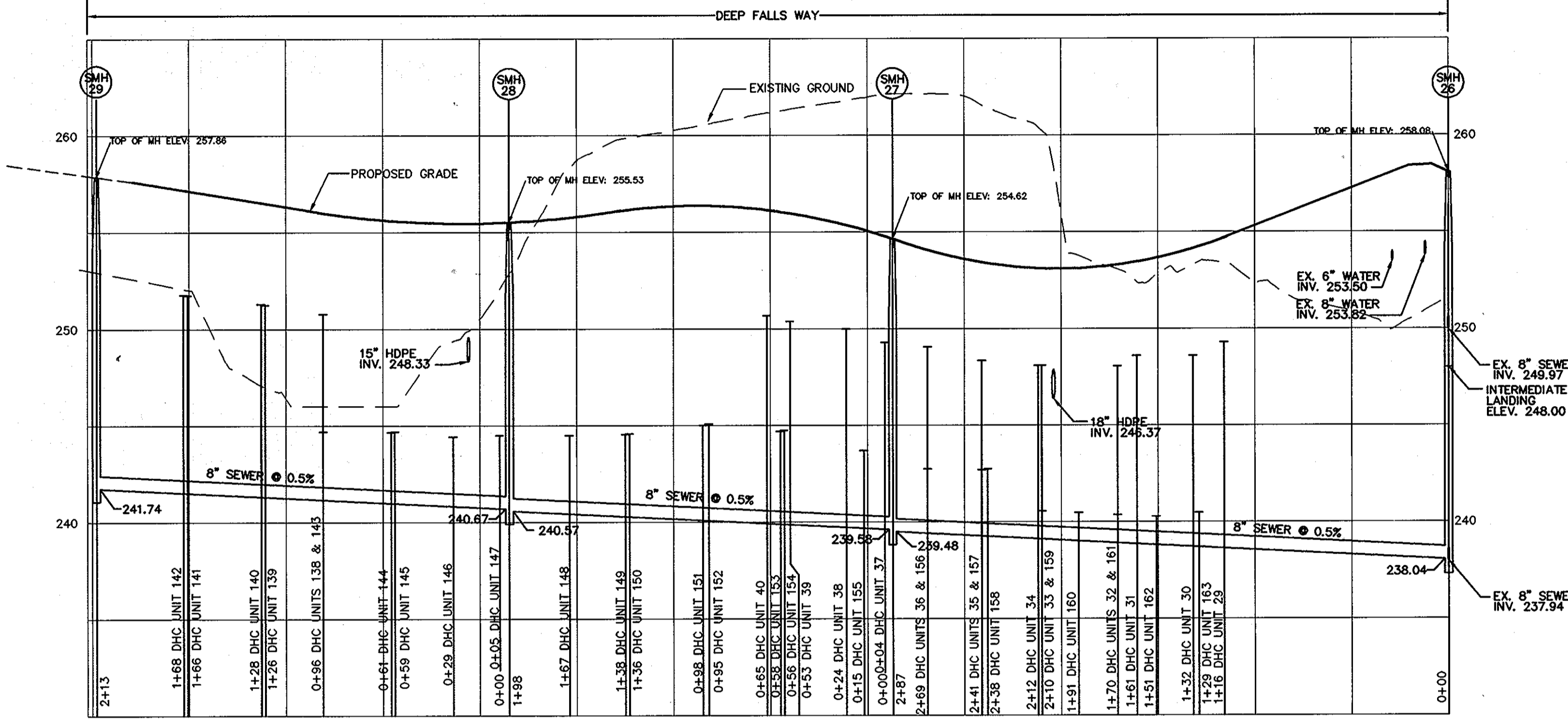
NOISE WALL	REMOVED	11/04/09	date
description	revisions		

VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT

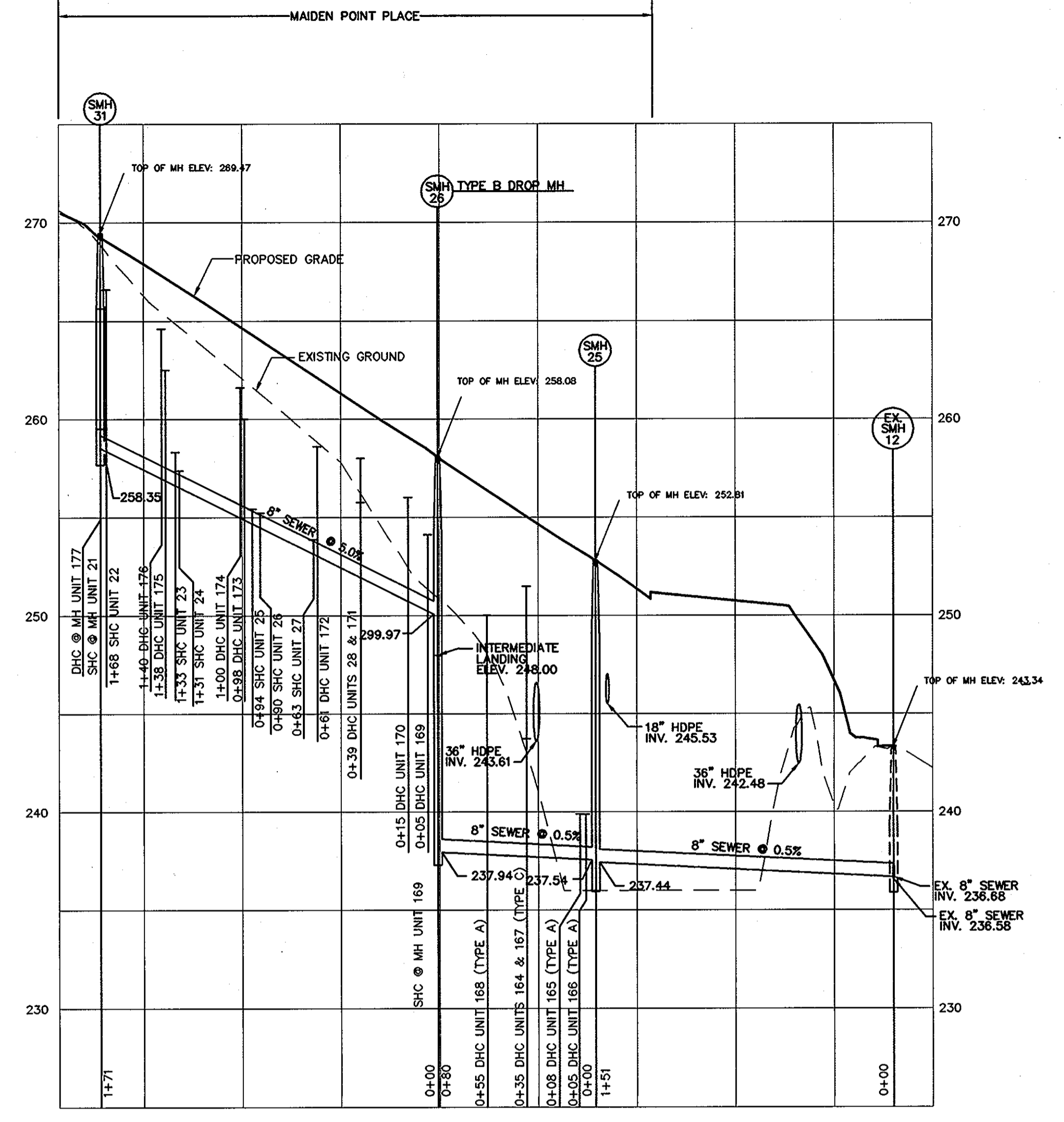
MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Surveyors Planners
 5072 Dorsay Hill Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 987-0286 Fax: (301) 621-5521 Wash. (410) 987-0298 Fax

02-056.dwg (b) (3) - sewer - SMH 17.dwg 2-13-05 1:08:33 pm EST

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/21/05
 DATE: 7/6/05
 DATE: 7/16/05



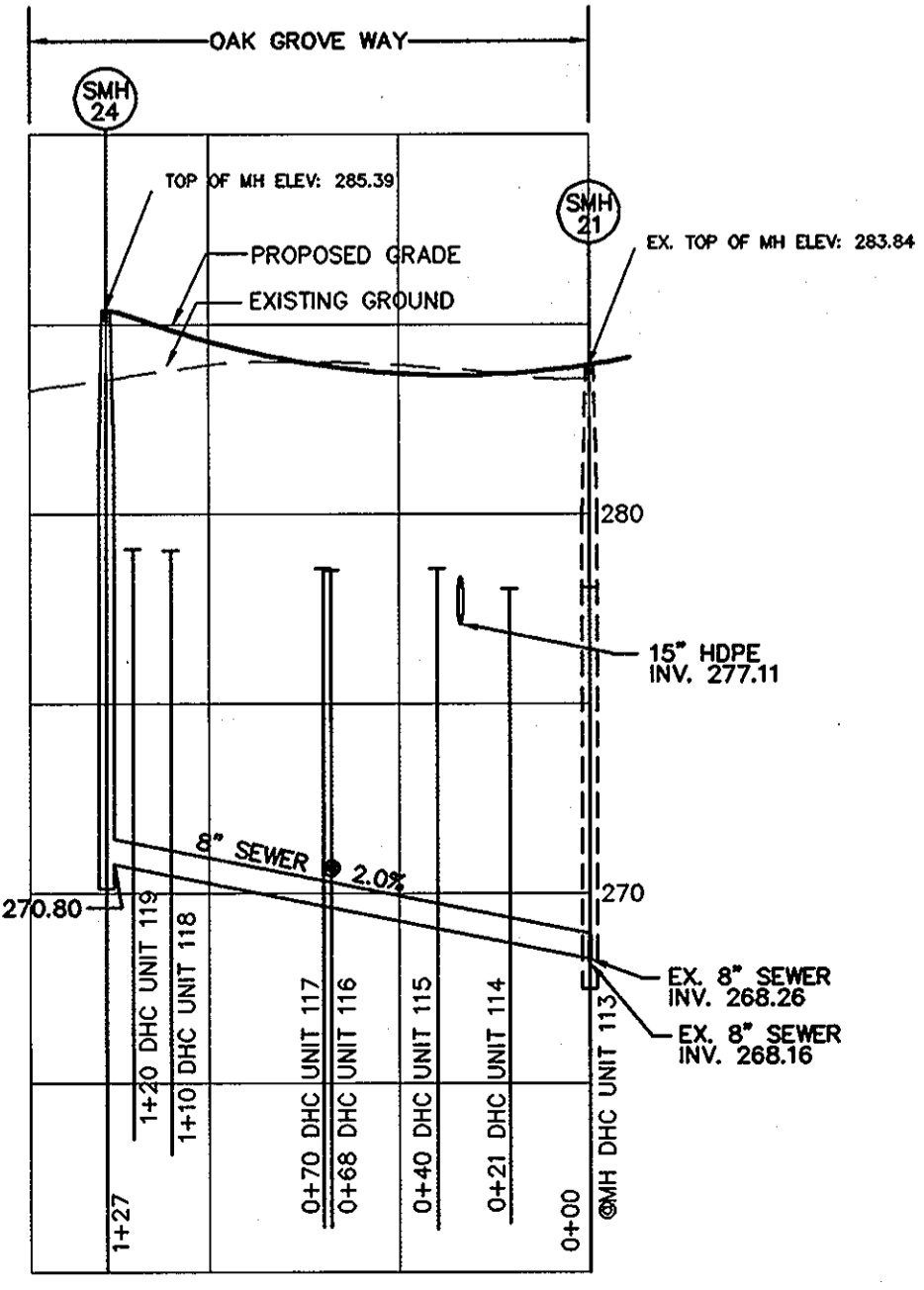
8" SEWER PROFILE - SMH 26 TO SMH 29
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'



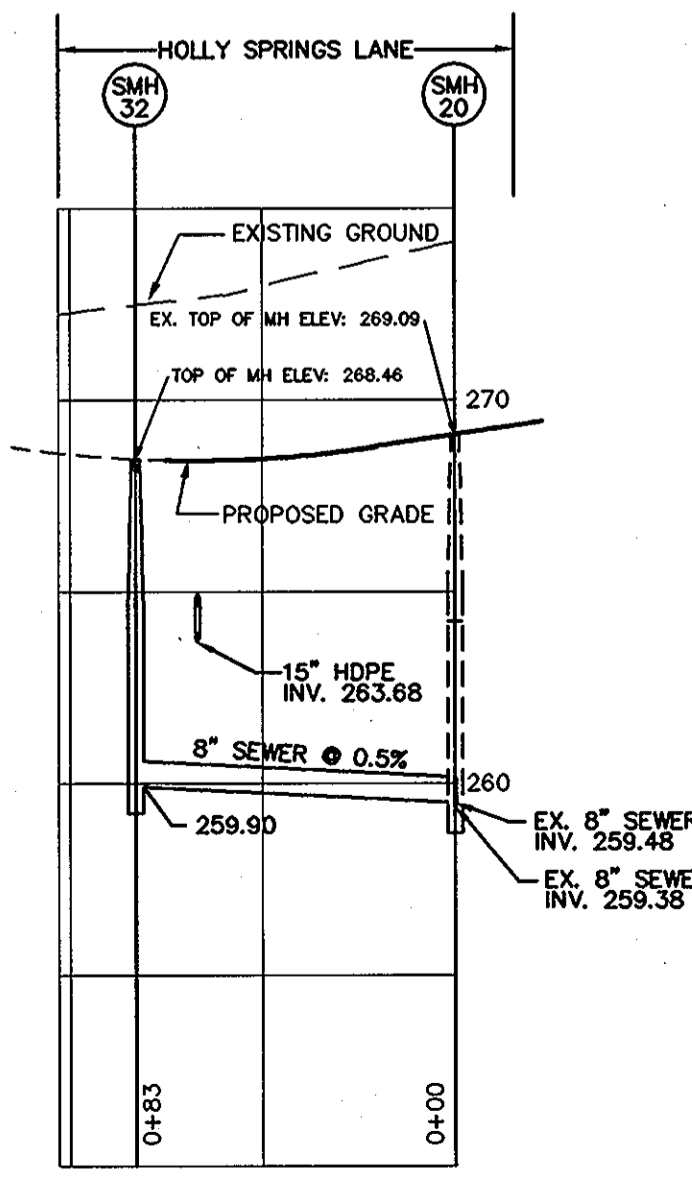
8" SEWER PROFILE - EX. SMH 12 TO SMH 31
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'

SEWER HOUSE CONECTIONS

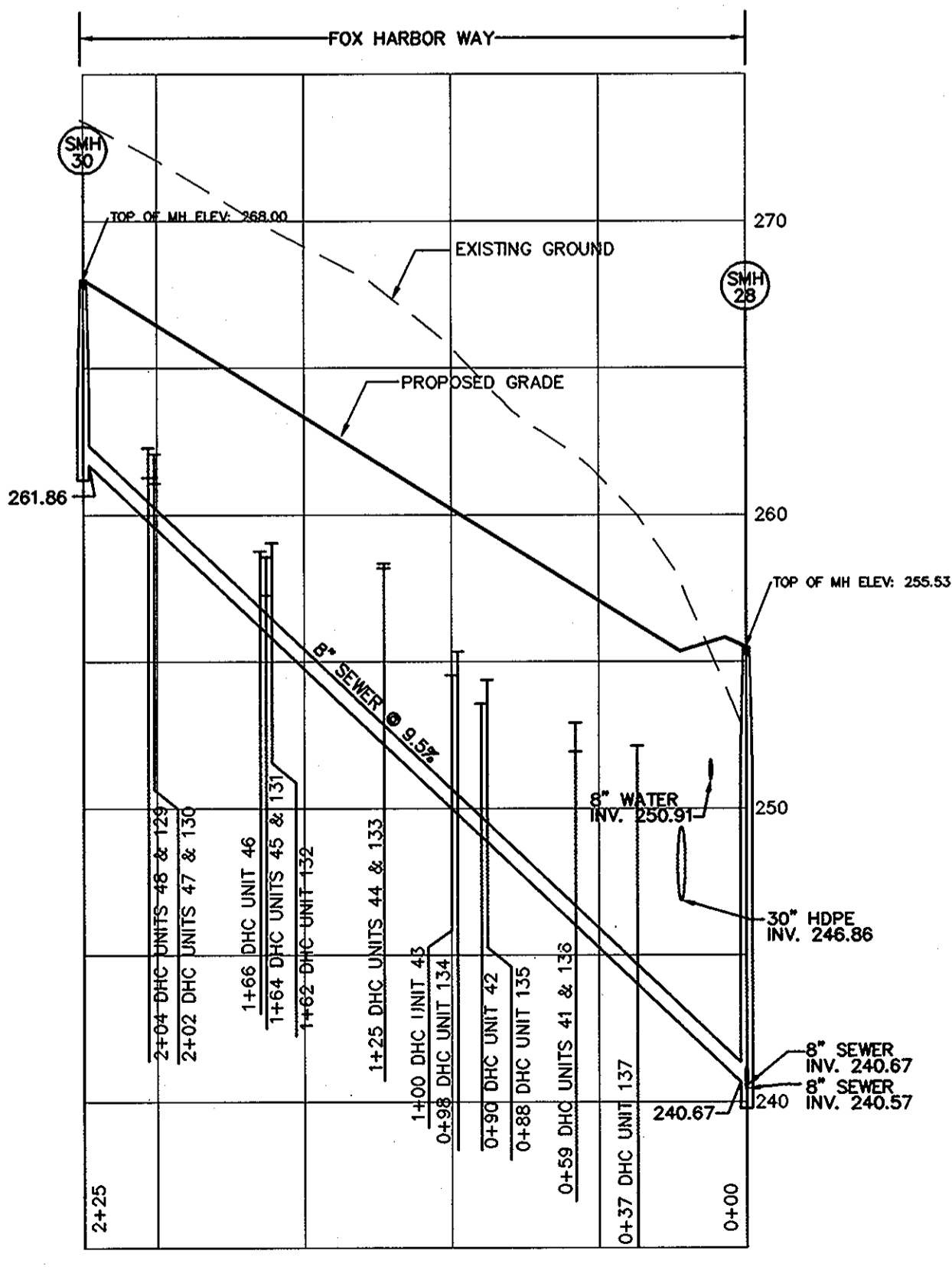
UNIT NO.	INV. @ CLEANOUT	MIN. CELLAR EL.	UNIT NO.	INV. @ CLEANOUT	MIN. CELLAR EL.
21	259.54	262.84	135	254.38	258.00
22	259.18	262.44	136	252.82	256.50
23	258.34	262.44	137	252.14	255.60
24	257.38	260.78	138	250.80	254.50
25	255.43	258.93	139	251.26	253.00
26	255.23	258.49	140	251.30	253.00
27	253.88	257.18	141	251.76	255.50
28	255.78	257.04	142	251.80	255.50
29	249.30	252.70	143	244.70	248.00
30	248.60	252.04	144	244.66	248.00
31	247.60	251.00	145	244.70	248.00
32	248.06	251.50	146	244.42	248.00
33	248.10	251.50	147	244.50	248.00
34	248.06	251.50	148	244.50	248.00
35	248.35	251.75	149	244.54	248.00
36	243.06	252.50	150	244.58	248.00
37	249.30	252.88	151	245.02	248.50
38	250.00	253.62	152	245.08	248.50
39	250.40	254.06	153	244.70	248.00
40	250.70	254.32	154	244.74	248.00
41	251.94	254.50	155	243.70	247.00
42	253.58	257.00	156	242.74	246.00
43	254.54	258.00	157	242.70	246.00
44	258.17	262.51	158	242.74	246.00
45	258.56	263.46	159	240.56	244.66
46	258.76	263.56	160	240.47	244.49
47	262.07	264.37	161	240.37	244.47
48	262.27	264.67	162	240.48	244.58
			163	240.48	244.58
113	278.08	281.50	164	243.74	247.00
114	278.04	281.50	165	239.91	244.41
115	278.53	282.00	166	239.90	244.40
116	278.54	282.00	167	251.48	255.00
117	278.58	282.00	168	252.02	255.50
118	279.04	282.50	169	254.12	257.50
119	279.08	282.50	170	255.02	258.50
			171	258.02	262.00
129	261.27	263.57	172	258.62	262.00
130	261.07	263.47	173	260.02	263.50
131	257.26	262.06	174	261.62	265.00
132	259.04	262.50	175	262.52	266.00
133	258.54	262.00	176	263.69	267.00
134	255.34	259.00	177	265.66	269.00



8" SEWER PROFILE - SMH 21 TO SMH 24
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'



8" SEWER PROFILE - SMH 20 TO SMH 32
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'



8" SEWER PROFILE - SMH 28 TO SMH 30
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'

BUILDER
 RYAN HOMES
 11460 CROWBRIDGE DRIVE, SUITE 128
 OWINGS MILLS, MARYLAND 21117
 (410) 654-0501

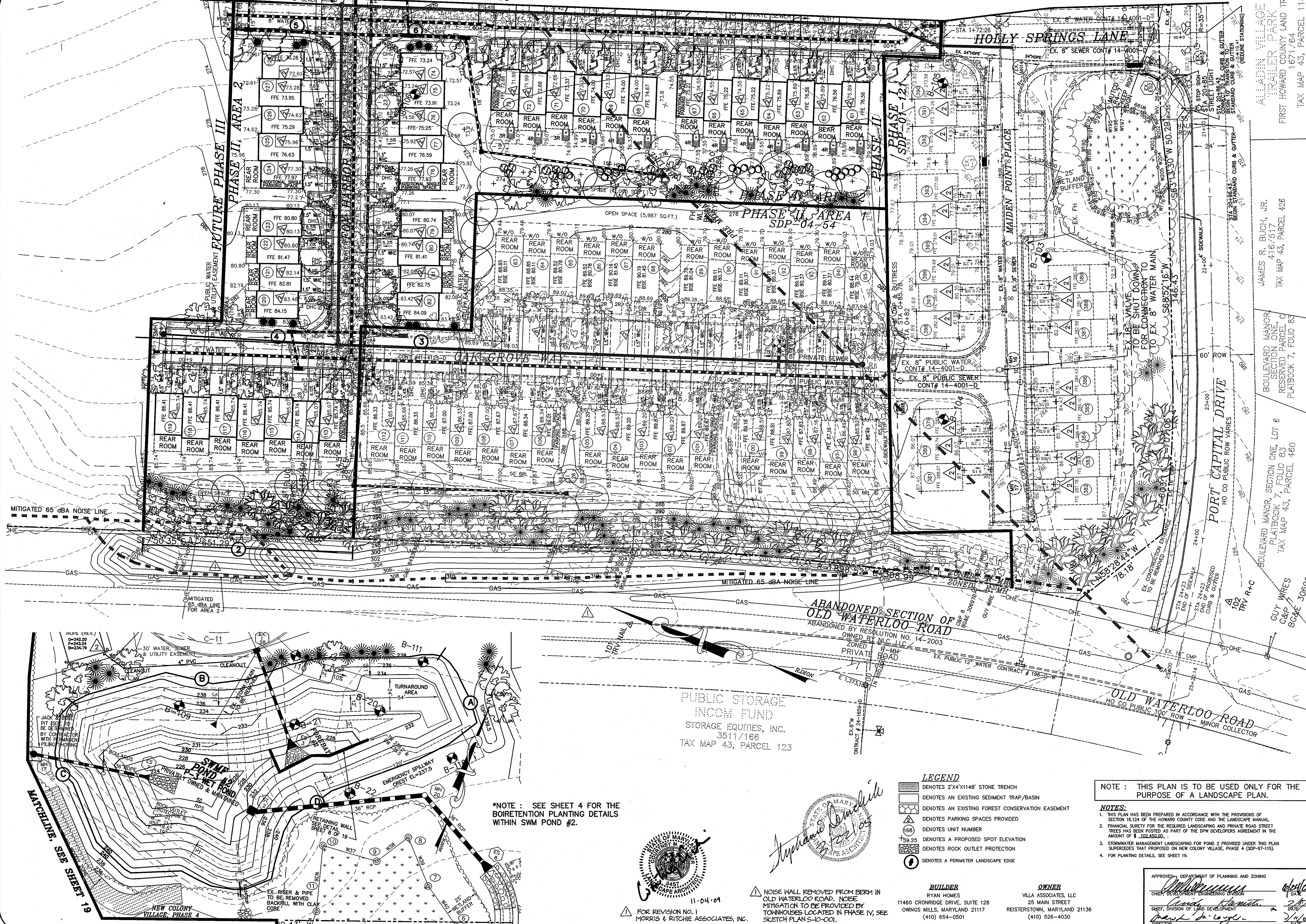
OWNER
 VILLA ASSOCIATES, LLC
 25 MAIN STREET
 REISTERSTOWN, MARYLAND 21136
 (410) 526-4030

PROJECT: 2002-056
 ILLUSTRATION: SID
 DATE: APRIL 05
 ENGINEERING: SID
 SCALE: AS SHOWN
 APPROVAL: JBM

VILLAGE TOWNS, PHASE II, AREA 2
 UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL E
 TAX MAP 43 - PARCEL 3 - GRID 3
 HOWARD COUNTY, MARYLAND
 FIRST ELECTION DISTRICT
 PRIVATE SEWER PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0298 Fax

MATCHLINE, SEE SHEET 19



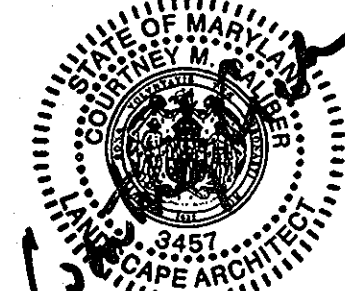
*NOTE : SEE SHEET 4 FOR THE BOIRETENTION PLANTING DETAILS WITHIN SWM POND #2.

PUBLIC STORAGE INCOM FUND
STORAGE EQUITIES, INC.
3511/166
TAX MAP 43, PARCEL 123

- LEGEND**
- ▬ DENOTES 2'X4'X1148" STONE TRENCH
 - ▭ DENOTES AN EXISTING SEDIMENT TRAP/BASIN
 - ▭ DENOTES AN EXISTING FOREST CONSERVATION EASEMENT
 - ▭ DENOTES PARKING SPACES PROVIDED
 - DENOTES UNIT NUMBER
 - DENOTES A PROPOSED SPOT ELEVATION
 - ▭ DENOTES ROCK OUTLET PROTECTION
 - DENOTES A PERIMETER LANDSCAPE EDGE

NOTE : THIS PLAN IS TO BE USED ONLY FOR THE PURPOSE OF A LANDSCAPE PLAN.

- NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING AND PRIVATE ROAD STREET TREES HAS BEEN POSTED AS PART OF THE OPN DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 102,450.00.
 - STORMWATER MANAGEMENT LANDSCAPING FOR POND 2 PROVIDED UNDER THIS PLAN SUPERSEDES THAT PROVIDED ON NEW COLONY VILLAGE, PHASE 4 (SDP-97-115).
 - FOR PLANTING DETAILS, SEE SHEET 19.



Richard J. Condit
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
NO. 11-04-04

FOR REVISION NO. 1
MORRIS & RITCHIE ASSOCIATES, INC.

BUILDER
RYAN HOMES
11460 CROWNDRIVE DRIVE, SUITE 128
OWINGS MILLS, MARYLAND 21117
(410) 654-0501

OWNER
VILLA ASSOCIATES, LLC
25 MAIN STREET
REISTERSTOWN, MARYLAND 21136
(410) 526-4030

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF DEVELOPMENT ENGINEERING DIVISION
[Signature]
SHEAF, DIVISION OF LAND DEVELOPMENT
[Signature]
DIRECTOR

DATE: 2/16/05
DATE: 2/16/05

project	date	2002-056	FBF 2005
illustration	engineering	SID	approval
scale	1"=30'		

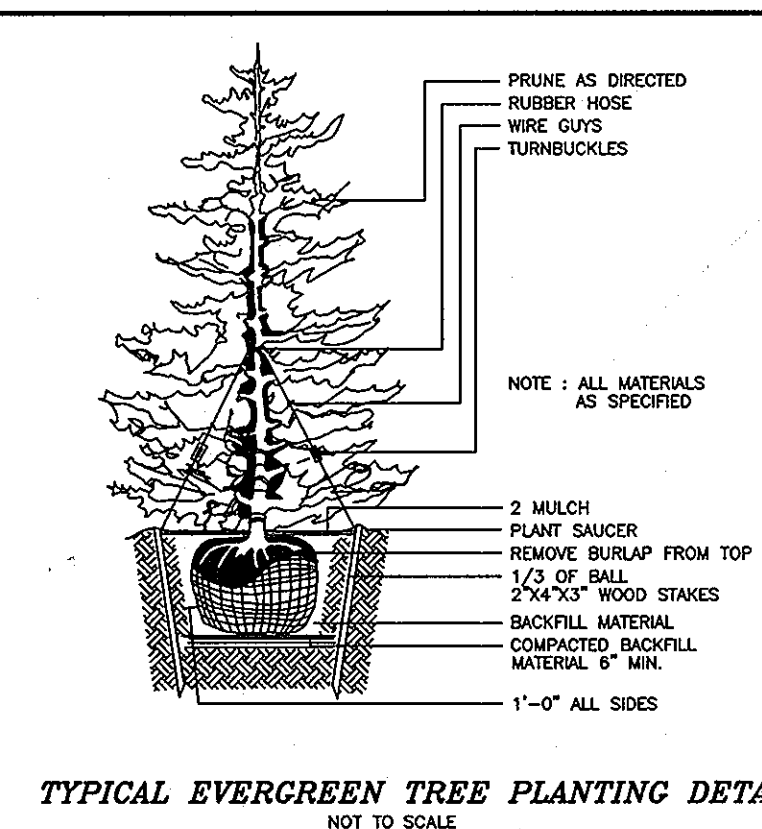
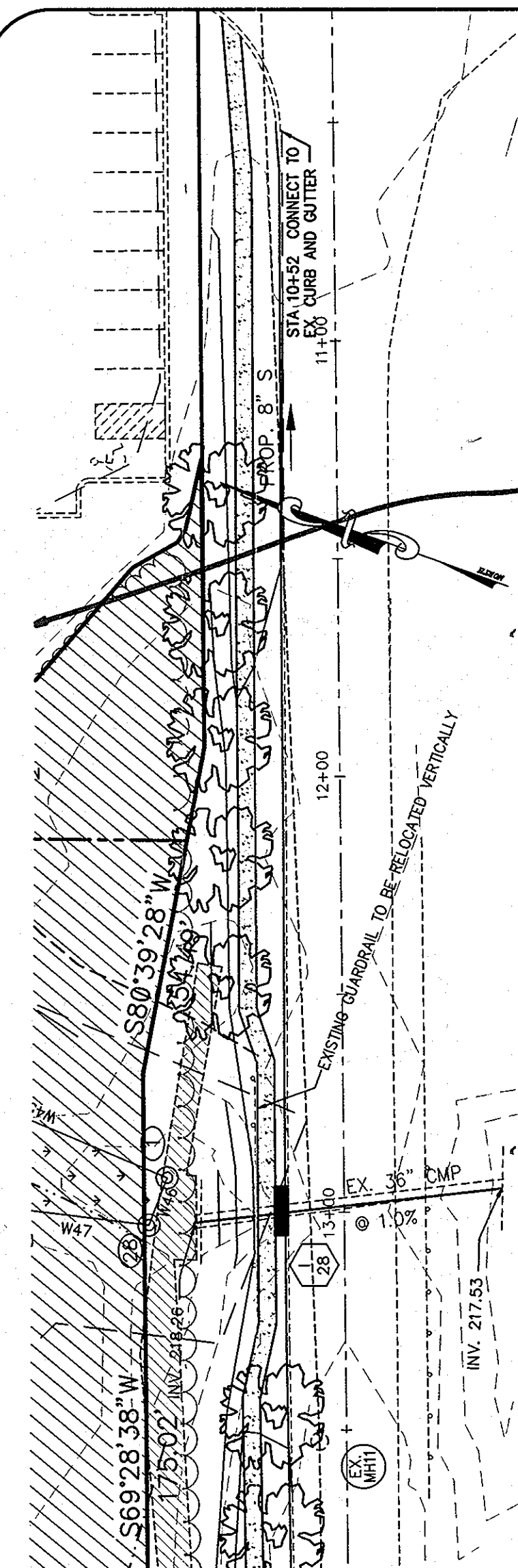
no.	description	revisions	date
1	REVISED NOISE WALL		11/6/04

VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL #
TAX MAP 43 - PARCEL 3 - GRID 3
FIRST ELECTION DISTRICT

LANDSCAPE PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 997-0286, Fax: (301) 621-5621, Wash. (410) 997-0288 Fax.

02-056 (Long Whorson) 056-1p-2--sh118.dwg



PLANTING SCHEDULE

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
105	(Symbol)	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
45	(Symbol)	ACER SACCHARINUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2 1/2" - 3" CAL.
47	(Symbol)	CORNUS STOLONIFERA	REDOSIER DOGWOOD	2 1/2" - 3" HT.
59	(Symbol)	CUPRESSOCYPERUS LEYLANDI	LEYLAND CYPRESS	5' - 6' HT.
43	(Symbol)	FRAXINUS PENNSYLVANICA	MARSHALL'S SEEDLESS GREEN ASH	2 1/2" - 3" CAL.
58	(Symbol)	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	2 1/2" - 3" HT.
28	(Symbol)	PINUS STROBUS	WHITE PINE	6' - 8' HT.
89	(Symbol)	PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	2 1/2" - 3" CAL.
31	(Symbol)	TILIA CORDATA 'CHANCELLOR'	CHANCELLOR LITTLELEAF LINDEN	2 1/2" - 3" CAL.
TOTAL				504 TREES & SHRUBS (124 SHADE TREES, 135 STREET TREES, 147 EVERGREENS, 100 SHRUBS)

SCHEDULE B: PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	115
NUMBER OF PLANTING ISLANDS REQUIRED	12
NUMBER OF PLANTING ISLANDS PROVIDED	12
NUMBER OF TREES REQUIRED	12 SHADE TREES
NUMBER OF TREES PROVIDED	12 SHADE TREES
NUMBER OF TREES PROVIDED	12 SHADE TREES
OTHER TREES (2:1 SUBSTITUTION)	0 TREES

SCHEDULE A: PERIMETER LANDSCAPED EDGE

CATEGORY	ADJACENT TO ROADWAYS			TOTAL
	C (PERIMETER 2)	C (PERIMETER 16)	C (PERIMETER 3-15)	
LANDSCAPE TYPE	153.06 LF	447.17 LF	410.29 LF	
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET)	N/A	N/A	N/A	
NUMBER OF PLANTS PROVIDED	4 SHADE TREES 8 EVERGREEN TREES 0 SHRUBS	12 SHADE TREES 22 EVERGREEN TREES 0 SHRUBS	10 SHADE TREES 21 EVERGREEN TREES 0 SHRUBS	26 SHADE TREES 51 EVERGREEN TREES 0 SHRUBS
NUMBER OF TREES PROVIDED	4 SHADE TREES 8 EVERGREEN TREES 0 SUBSTITUTION TREES	12 SHADE TREES 22 EVERGREEN TREES 0 SUBSTITUTION TREES	10 SHADE TREES 21 EVERGREEN TREES 0 SUBSTITUTION TREES	17 SHADE TREES 51 EVERGREEN TREES 0 SUBSTITUTION TREES

SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING

LINEAR FEET OF PERIMETER FOREBAY #2	90 LF (PERIMETER A) FOREBAY #2	200 LF (PERIMETER B) FOREBAY #2	100 LF (PERIMETER C) FOREBAY #2	100 LF (PERIMETER D) FOREBAY #2	225 LF (PERIMETER E) FOREBAY #1	157 LF (PERIMETER F) FOREBAY #1	704 LF (TOTAL) FOREBAY #1
CREDIT FOR EXISTING VEGETATION (NO, YES AND LINEAR FEET)	N/A	NO	YES, 190 LF OF EX. TREES	NO	YES, 196 LF OF EX. TREES	N/A	YES, 157 LF OF EX. TREES
CREDIT FOR OTHER LANDSCAPING (NO, YES AND #)	N/A	YES, 3 SHADE TREES, 3 EVER. FROM SPP-97-115	N/A	N/A	N/A	N/A	N/A
NUMBER OF TREES REQUIRED	2 SHADE TREES 2 EVERGREEN TREES	3 SHADE TREES 3 EVERGREEN TREES	0 SHADE TREES 0 EVERGREEN TREES	0 SHADE TREES 0 EVERGREEN TREES	5 SHADE TREES 6 EVERGREEN TREES	0 SHADE TREES 0 EVERGREEN TREES	10 SHADE TREES 12 EVERGREENS
NUMBER OF TREES PROVIDED	2 SHADE TREES 2 EVERGREEN TREES	3 SHADE TREES 3 EVERGREEN TREES	0 SHADE TREES 0 EVERGREEN TREES	0 SHADE TREES 0 EVERGREEN TREES	5 SHADE TREES 6 EVERGREEN TREES	0 SHADE TREES 0 EVERGREEN TREES	10 SHADE TREES 12 EVERGREENS

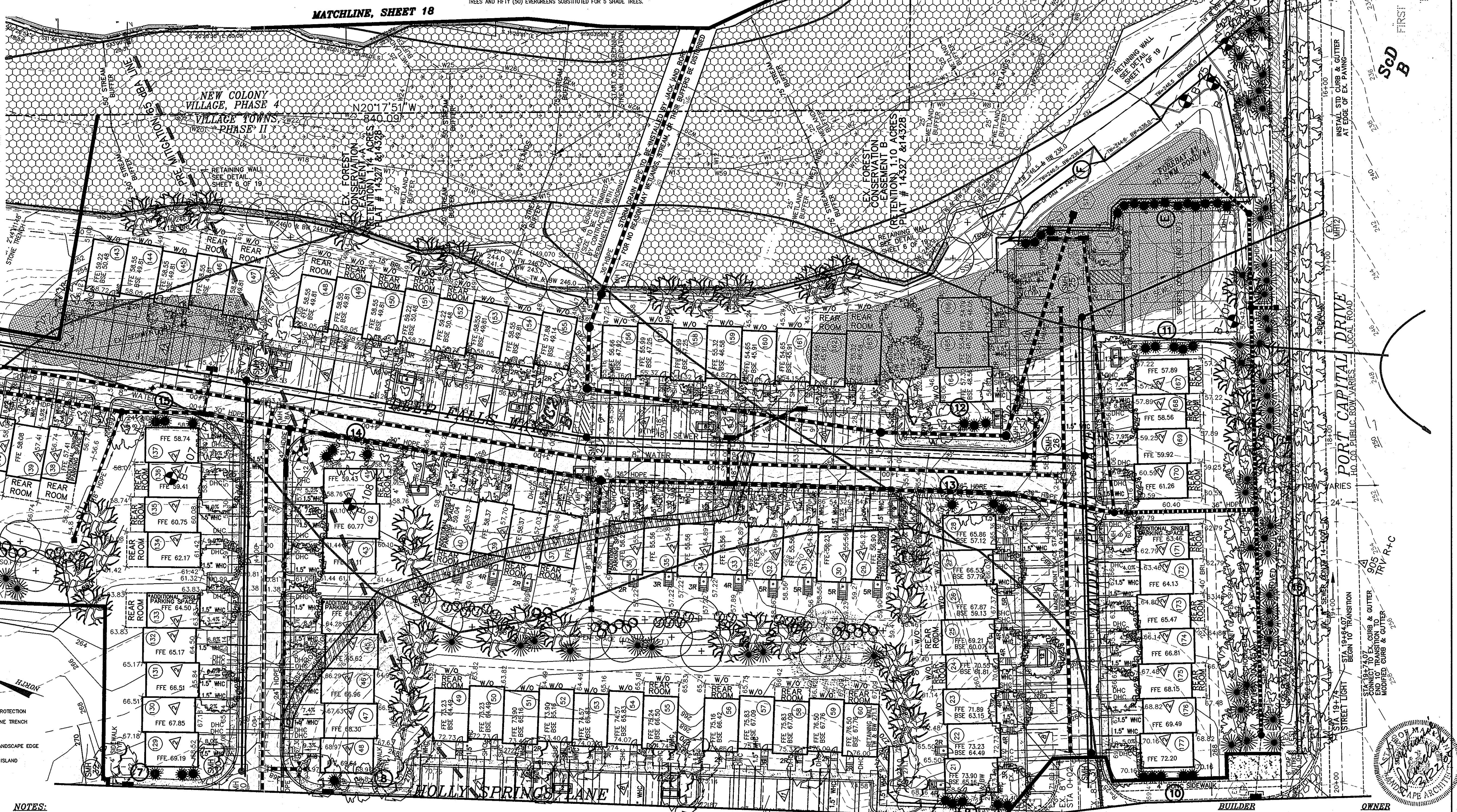
SCHEDULE C: RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	127
NUMBER OF TREES REQUIRED (1:DU SFA: 1:3 DU APTS)	127
NUMBER OF TREES PROVIDED	92
SHADE TREES	50
OTHER (2:1 EVERGREEN SUBSTITUTION)	100

STREET TREE CALCULATIONS

MARDEN POINT PLACE	576 / 40 = 12 STREET TREES
FOX HARBOR WAY	654 / 40 = 16 STREET TREES
DEEP FALLS WAY	1294 / 40 = 32 STREET TREES
HOLLY SPRINGS LANE	984 / 40 = 25 STREET TREES
DAK GROVE WAY	271 / 40 = 7 STREET TREES
PORT CAPITAL DRIVE	980 / 40 = 25 STREET TREES
TOTAL TREES REQUIRED	= 135 STREET TREES
TOTAL TREES PROVIDED	= 135 STREET TREES

MATCHLINE, THIS SHEET



LEGEND

(Symbol)	Denotes an existing floodplain	(Symbol)	Denotes rock outlet protection
(Symbol)	Denotes an existing sediment trap/basin	(Symbol)	Denotes 2"x4"x1/2" stone trench
(Symbol)	Denotes an existing forest conservation easement	(Symbol)	Denotes wetlands
(Symbol)	Denotes parking spaces provided	(Symbol)	Denotes a perimeter landscape edge
(Symbol)	Denotes unit number	(Symbol)	Denotes a landscaped island
(Symbol)	Denotes a proposed spot elevation		

NOTES:

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING AND PRIVATE ROAD STREET TREES WAS POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 100,000.00.

NOTE: THIS PLAN IS TO BE USED ONLY FOR THE PURPOSE OF A LANDSCAPE PLAN.

MATCHLINE, SEE SHEET 18

BUILDER
RYAN HOMES
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OWNER
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25 MAIN STREET
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Project	date	description	revision
2002-068	FEB 2005	engineering	
		illustration	
		SD	
		SD	
		scale	
		1"=30'	
		approval	

Project	date	description	revision

VILLAGE TOWNS, PHASE II, AREA 2
UNITS 21 THRU 82 & 113 THRU 177 AND NEW COLONY VILLAGE OPEN SPACE PARCEL B
TAX MAP 43 - PARCEL 3 - GRID 3
FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
LANDSCAPE PLAN

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