

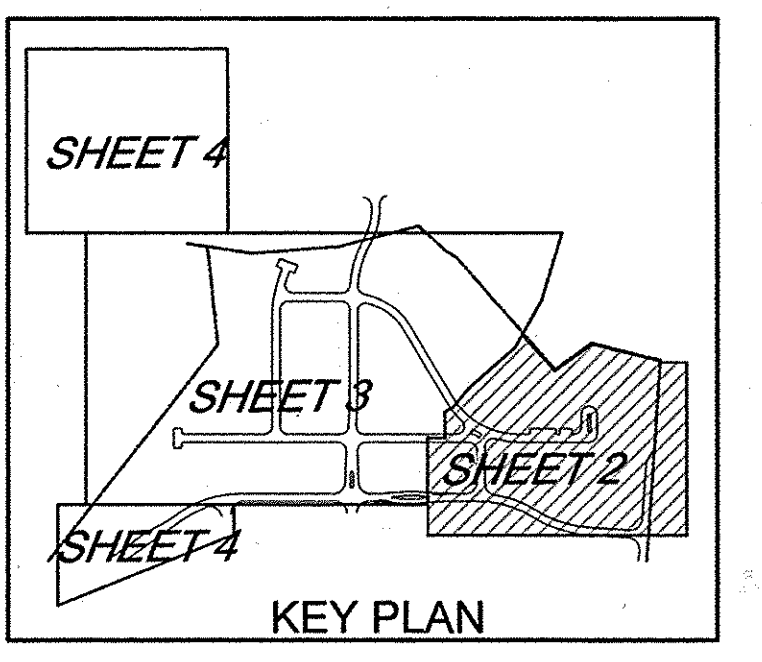
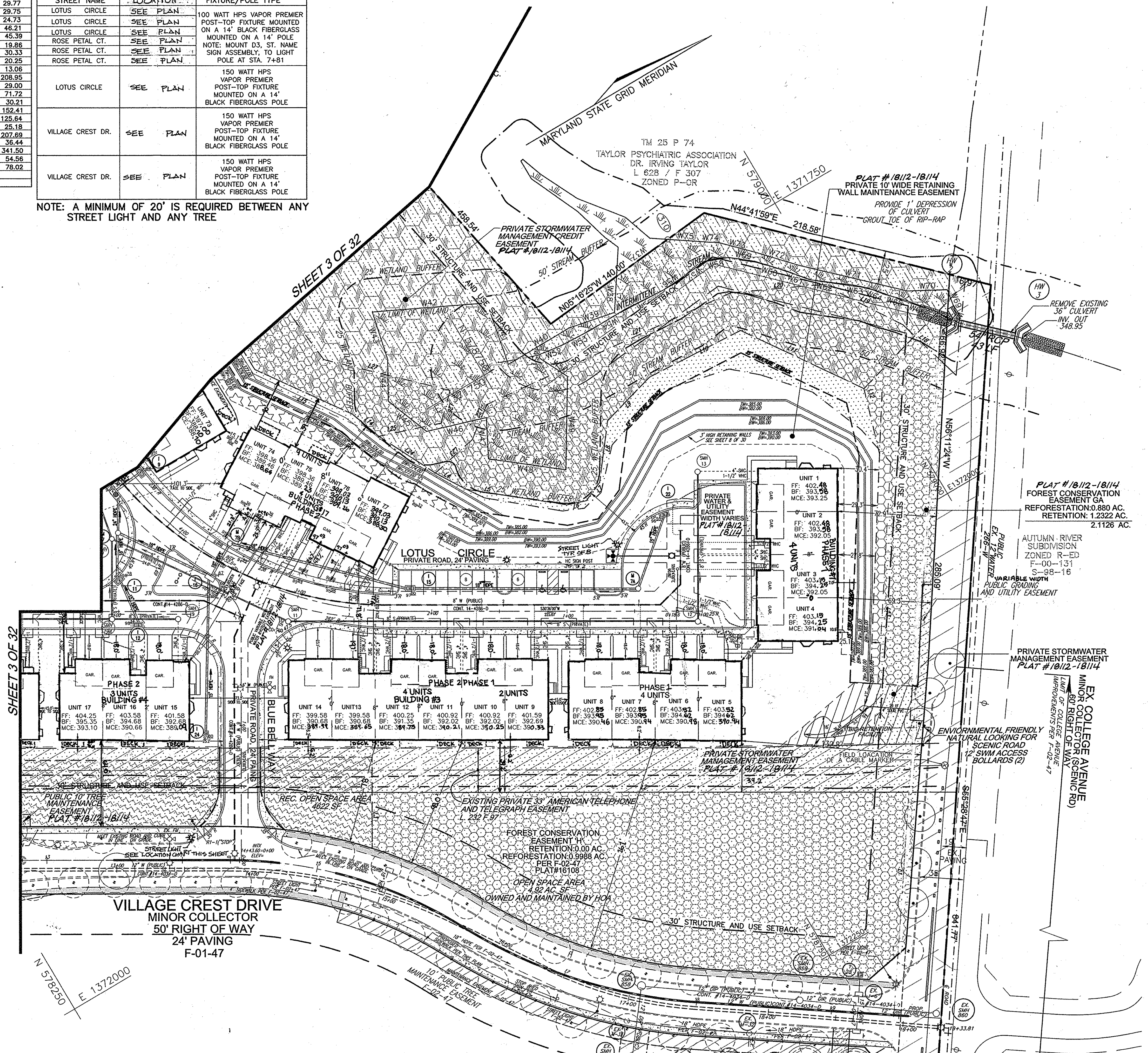
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L1	N55°28'47"W	115.97	L24	S63°46'42"W	48.88	L47	N02°28'41"W	28.77
L2	S30°35'57"W	401.53	L25	N18°39'47"E	47.14	L48	N69°31'48"W	29.75
L3	S59°24'03"E	41.35	L26	N44°15'37"W	24.96	L49	S56°55'17"E	24.73
L4	N59°37'38"E	25.67	L27	S44°24'49"W	96.17	L50	S01°03'54"E	46.21
L5	N39°23'55"E	75.50	L28	S04°25'48"W	142.66	L51	S19°05'06"W	45.39
L6	N18°31'56"E	14.65	L29	N1°00'37"W	36.33	L52	N50°13'15"W	19.86
L7	N2°23'20"W	16.73	L30	N51°12'13"W	43.23	L53	N09°22'03"W	30.33
L8	N52°00'14"W	46.10	L31	N84°38'26"W	86.23	L54	N59°45'22"W	20.25
L9	N15°31'30"W	44.60	L32	N05°06'36"E	38.63	L55	S50°13'15"E	13.06
L10	N03°23'15"E	75.07	L33	S59°24'03"E	31.19	L56	S33°49'40"E	208.95
L11	N59°07'07"E	100.93	L34	N31°02'19"E	107.30	L57	S24°25'46"W	29.00
L12	S72°41'33"E	49.67	L35	N39°37'07"E	27.25	L58	S28°05'27"W	71.72
L13	N57°02'24"W	215.93	L36	N33°30'52"E	62.93	L59	N84°38'02"E	30.21
L14	S70°35'49"W	25.42	L37	N20°01'23"W	40.12	L60	S59°40'47"E	152.41
L15	S89°13'46"W	79.46	L38	N16°50'15"E	92.16	L61	S29°38'02"W	126.64
L16	S89°17'48"W	121.75	L39	N66°49'57"E	35.72	L62	S68°38'53"W	25.18
L17	N01°02'25"W	35.25	L40	N76°19'22"E	50.81	L63	N29°50'16"E	207.69
L18	S74°21'25"W	42.80	L41	N19°19'33"E	29.71	L64	N89°49'28"E	36.44
L19	S57°28'32"W	68.42	L42	N47°29'55"E	10.26	L65	S05°14'40"E	341.50
L20	S25°19'51"W	68.64	L43	N40°46'28"W	26.83	L66	S09°18'22"W	54.56
L21	S05°56'51"W	198.17	L44	N48°02'05"W	53.97	L67	S82°06'24"W	78.02
L22	S36°51'28"E	28.06	L45	N61°04'22"E	34.04			
L23	S11°41'29"E	36.93	L46	N49°40'08"E	28.07			

STREET NAME	LOCATION	FIXTURE/POLE TYPE
LOTUS CIRCLE	SEE PLAN	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
LOTUS CIRCLE	SEE PLAN	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
VILLAGE CREST DR.	SEE PLAN	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
VILLAGE CREST DR.	SEE PLAN	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE

NOTE: A MINIMUM OF 20' IS REQUIRED BETWEEN ANY STREET LIGHT AND ANY TREE

- LEGEND**
- OPENSOURCE PER SDP-05-44
 - FOREST CONSERVATION REFORESTATION EASEMENT PLAT #16104 TO 16109
 - FOREST CONSERVATION RETENTION EASEMENT PLAT #16104 TO 16109
 - RECREATIONAL OPEN PER SDP-05-44
 - PRIVATE SWM MANAGEMENT EASEMENT CREDIT EASEMENT PER SDP-05-44
 - WETLAND BUFFER
 - STREAM BUFFER
 - EXISTING CONTOUR
 - EXISTING TREES TO REMAIN
 - PUBLIC VARIABLE WIDTH WATER AND UTILITY EASEMENT
 - STREET LIGHT

LINE	BEARING	LENGTH
W37	S05°16'25"E	46.72
W38	S56°11'41"E	26.80
W39	S11°42'42"W	35.50
W40	S00°31'13"E	52.50
W41	N78°18'23"W	48.43
W42	S26°01'14"W	85.09
W43	S77°12'40"E	37.06
W44	S60°15'55"E	30.97
W45	N88°47'49"E	35.94
W46	N17°37'44"E	45.29
W47	S62°25'22"E	30.65
W48	N38°42'51"E	57.80
W49	N58°20'54"W	69.21
W50	S63°50'02"W	24.96
W51	N43°36'44"W	7.78
W52	N07°52'57"E	17.46
W53	N02°31'46"E	24.23
W54	N00°30'51"W	29.80
W55	N03°49'58"E	32.00
W56	N03°12'58"W	14.51
W57	N04°58'08"W	21.75
W58	N02°44'07"E	18.49
W59	N30°07'55"E	19.43
W60	N47°31'11"E	25.58
W61	N51°54'02"E	16.79
W62	N38°54'17"E	25.02
W63	N38°24'06"E	19.23
W64	N52°02'05"E	12.76
W65	N45°56'48"E	14.00
W66	N50°30'06"E	25.67
W67	N62°27'37"E	13.82
W68	N25°06'24"W	6.73
W69	N80°15'40"W	18.89
W70	S08°34'00"W	29.42
W71	S42°57'51"W	82.95
W72	S47°20'16"W	31.79
W73	S45°38'45"W	29.93
W74	S32°10'46"W	7.52
W75	S34°23'08"W	29.76
W76	N19°08'10"W	8.44
W77	N76°15'50"E	37.76
W78	S45°12'38"E	8.01
W79	S59°05'06"W	16.98
W80	S82°28'33"W	25.69



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Michael Hamilton
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1/30/06

Craig Hamilton
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: 3/5/06

Mark N. Unger
DIRECTOR
DATE: 3/5/06

PLAN
SCALE: 1"=40'

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

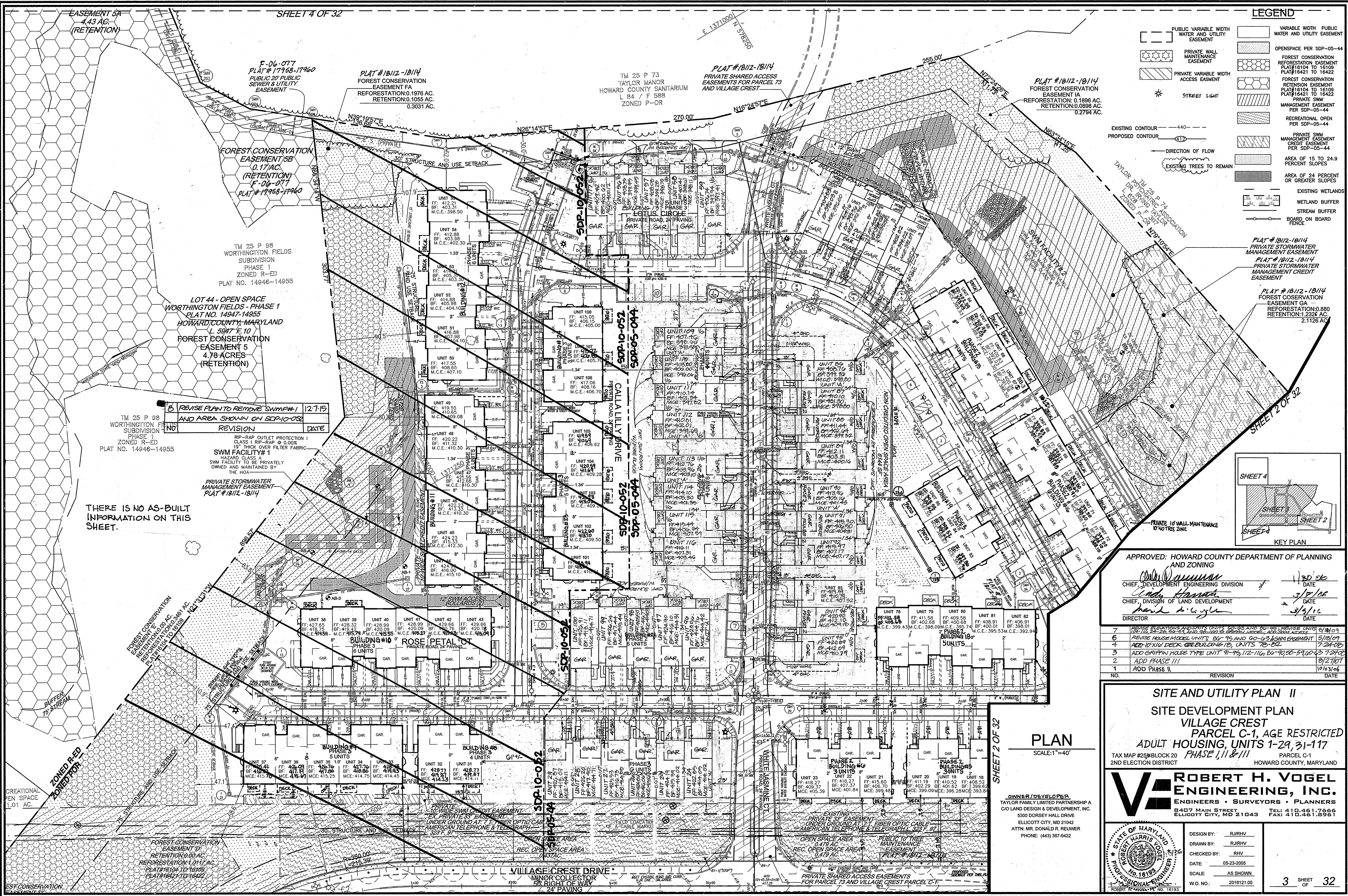
NO.	REVISION	DATE
2	ADD PHASE III	8/27/07
1	ADD PHASE II	10/31/06

SITE AND UTILITY PLAN I
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
TAX MAP #2531BLOCK 20 PHASE I, II, & III PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELICOTT CITY, MD 21043 FAX: 410.461.8961

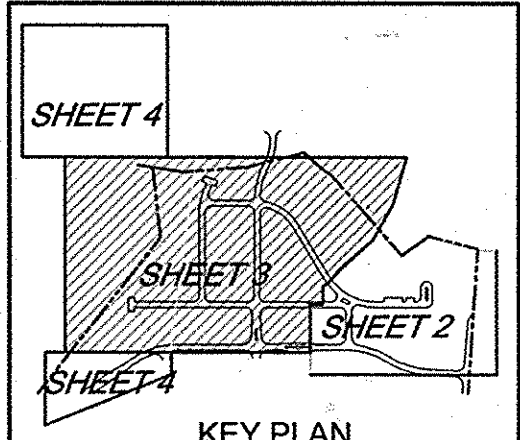
DESIGN BY: RJRHV
DRAWN BY: RJRHV
CHECKED BY: RHV
DATE: 05-23-2006
SCALE: AS SHOWN
W.D. NO.: 2018121.00

2 SHEET OF 32



LEGEND

- PUBLIC VARIABLE WIDTH WATER AND UTILITY EASEMENT
- PRIVATE WALL MAINTENANCE EASEMENT
- PRIVATE VARIABLE WIDTH ACCESS EASEMENT
- STREET LIGHT
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DIRECTION OF FLOW
- EXISTING TREES TO REMAIN
- VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT
- OPENSACE PER SDP-05-44
- FOREST CONSERVATION RETENTION EASEMENT
- FOREST CONSERVATION RETENTION EASEMENT
- PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
- RECREATIONAL OPEN PER SDP-05-44
- PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
- AREA OF 15 TO 24.9 PERCENT SLOPES
- AREA OF 24 PERCENT OR GREATER SLOPES
- EXISTING WETLANDS
- WETLAND BUFFER
- STREAM BUFFER
- BOARD ON BOARD FENCE



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/30/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 3/10/06
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 3/3/06
 DIRECTOR DATE

NO.	REVISION	DATE
7	REVISE SELECTIONS AND SPOTS UNITS 80-83 AND 84-85 REVISE UNITS 81/81/07	8/18/07
6	REVISE HOUSE MODEL UNITS 86-95 AND 90-93 SWM EASEMENT 5/18/07	5/18/07
4	ADD 10' X 10' DECK ON BUILDING 10, UNITS 76-82 7/24/08	7/24/08
3	ADD GRIPPIN HOUSE TYPE UNIT 91-93, 112, 114, 66-90, 50-59, 60-65 7/24/08	7/24/08
2	ADD PHASE III 8/27/07	8/27/07
1	ADD PHASE II 10/31/06	10/31/06

SITE AND UTILITY PLAN II

SITE DEVELOPMENT PLAN

VILLAGE CREST

PARCEL C-1, AGE RESTRICTED

ADULT HOUSING, UNITS 1-29, 31-117

TAX MAP #25B BLOCK 20 PHASE I, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

ENGINEERS • SURVEYORS • PLANNERS

2407 MAIN STREET
 ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.7661

OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (443) 367-0422

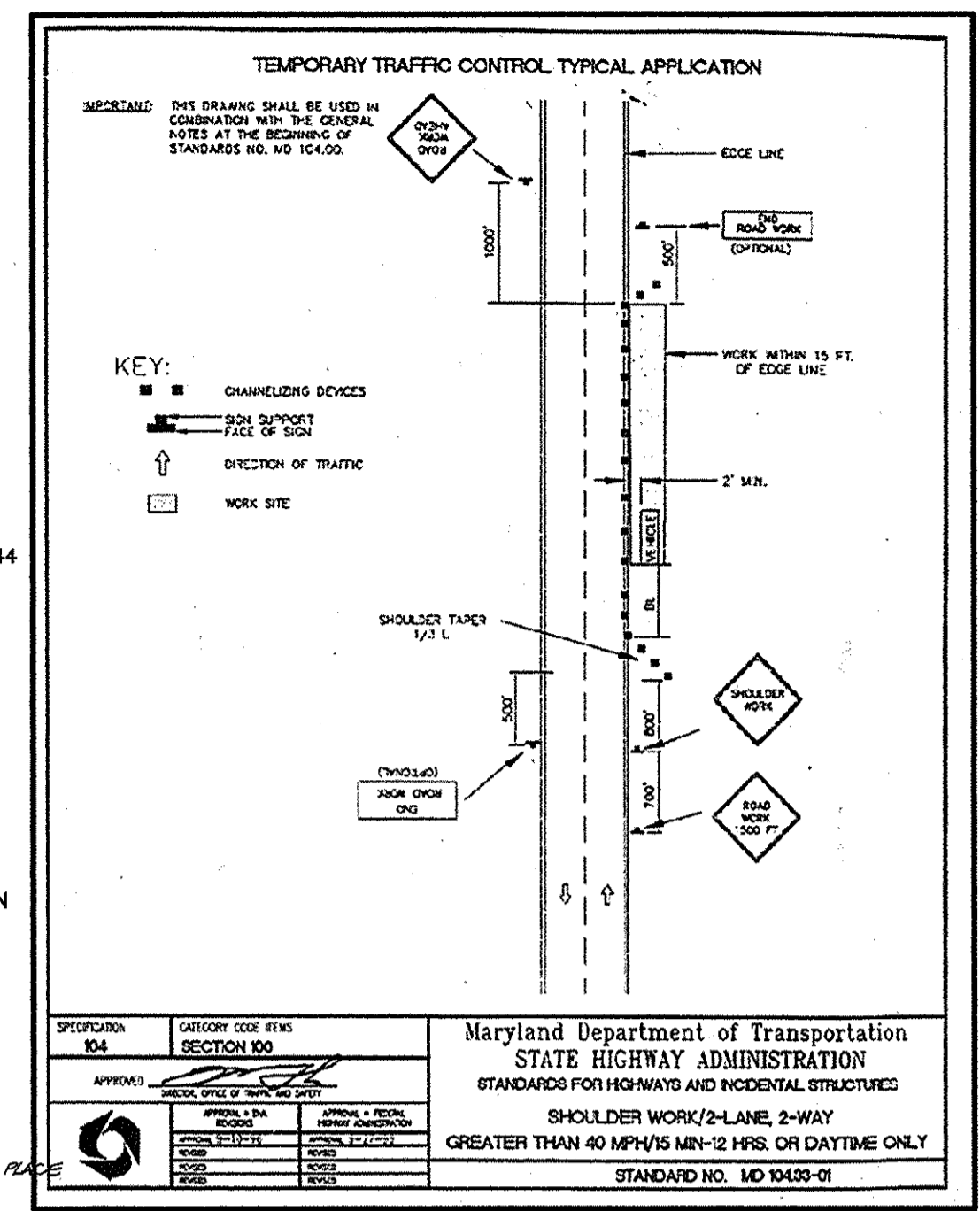
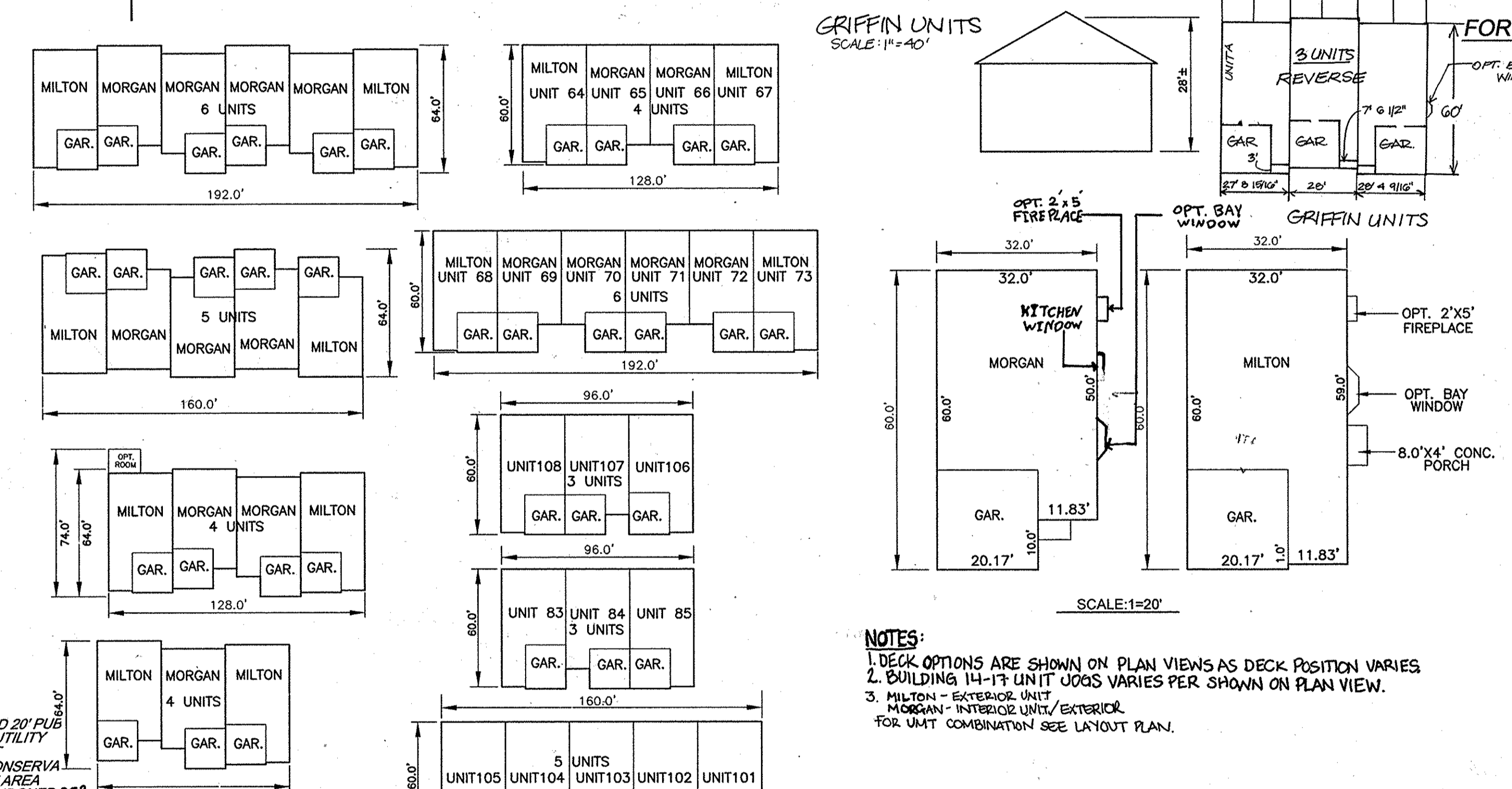
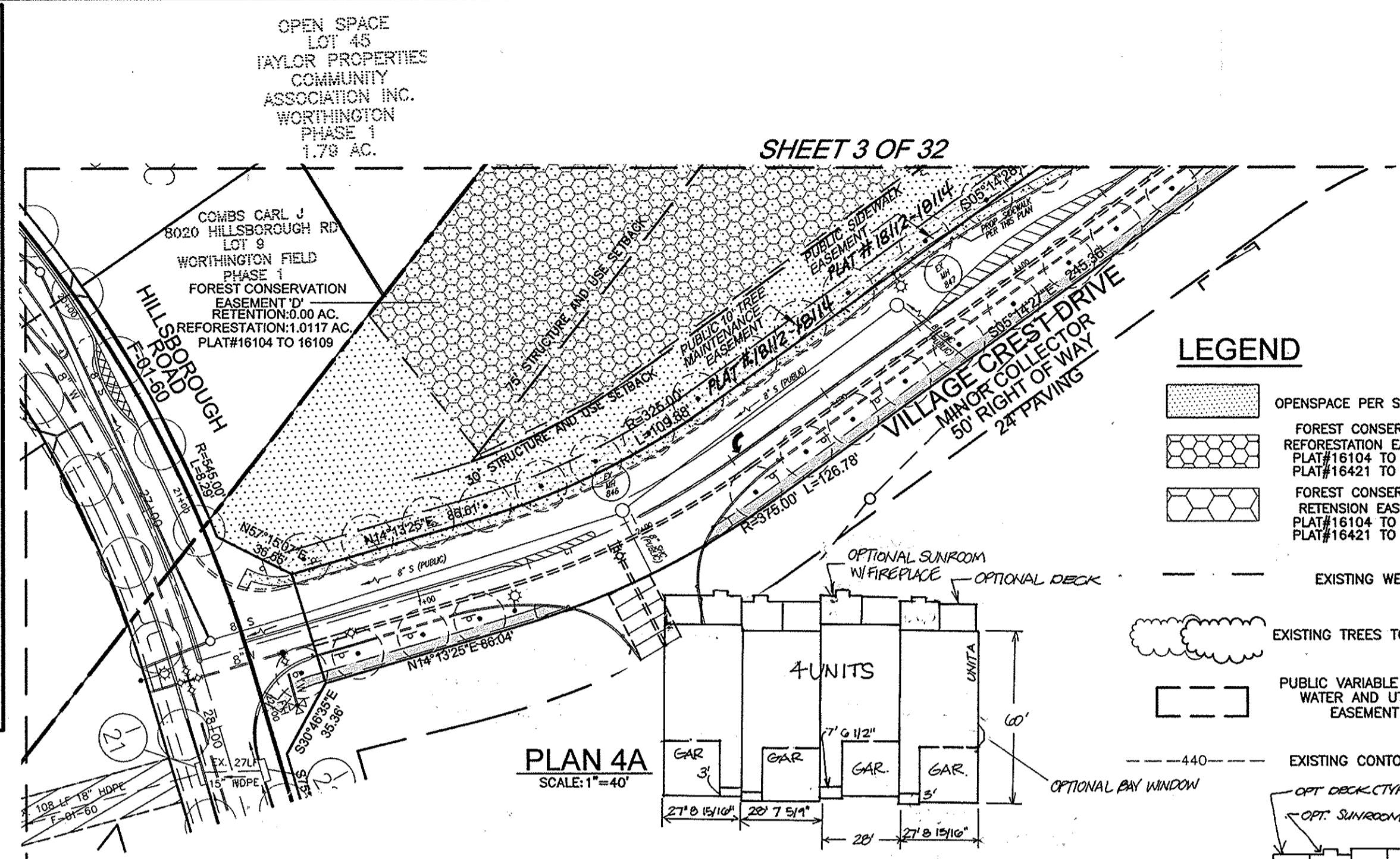
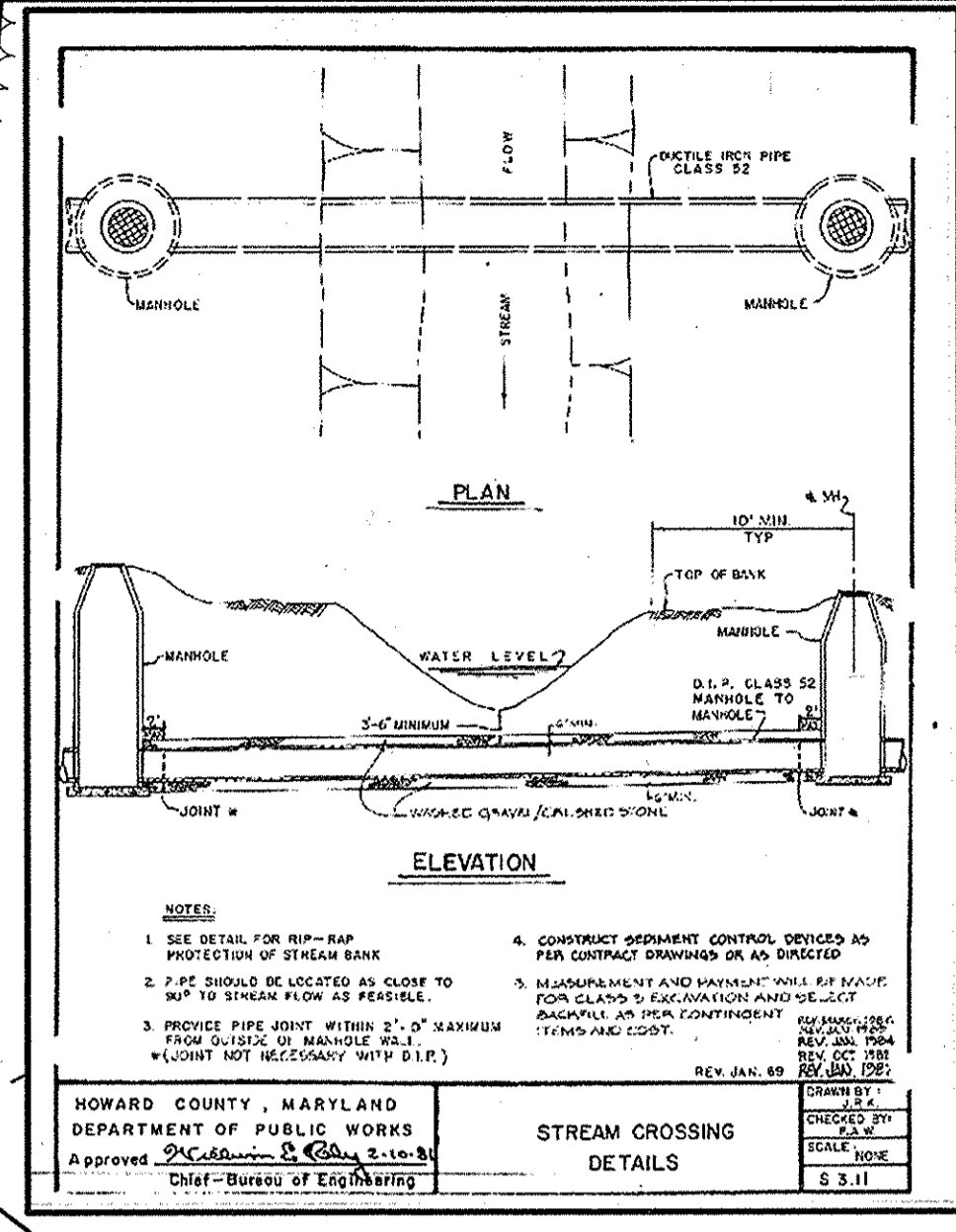
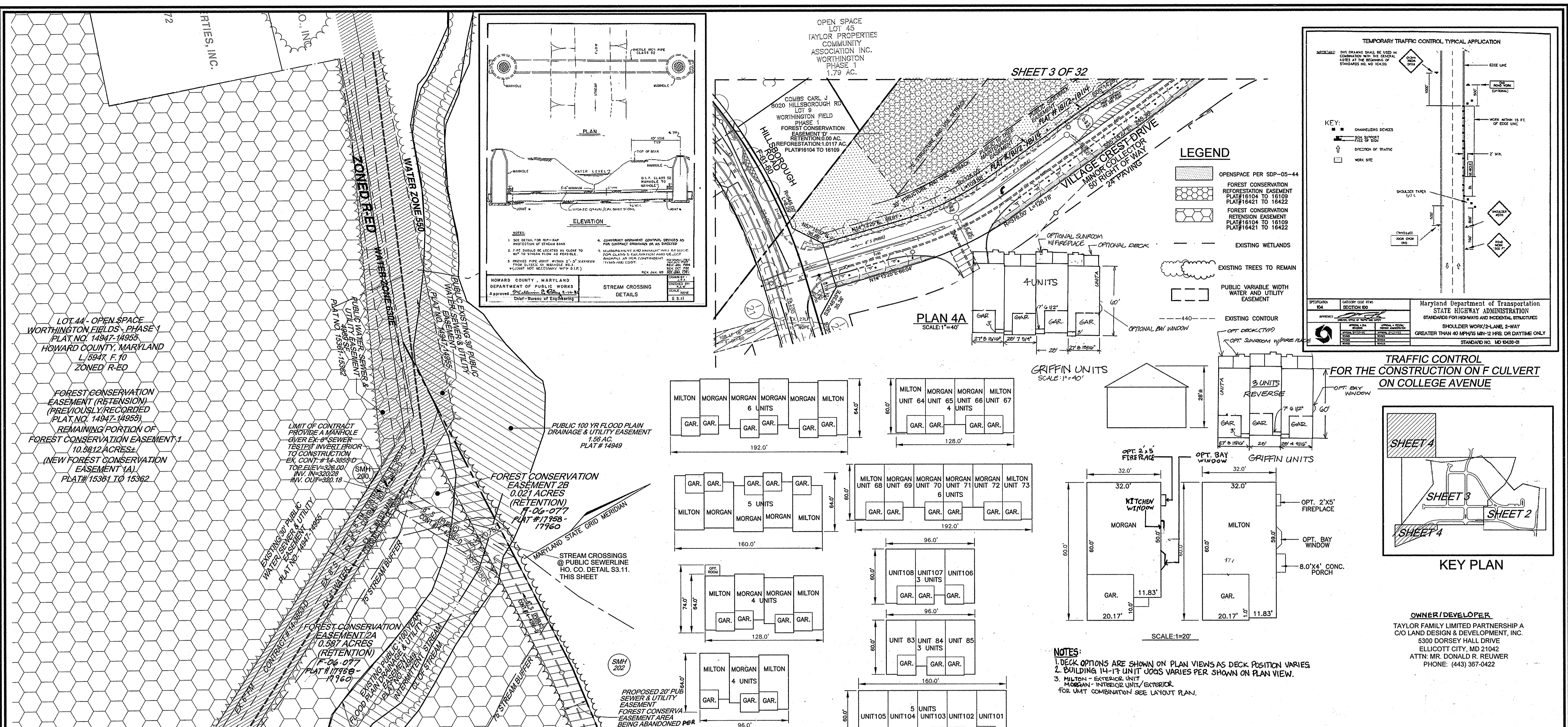
DESIGN BY: RJR/RHV
 DRAWN BY: RJR/RHV
 CHECKED BY: RHV
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 W.O. NO.: 2018121.00

3 SHEET OF 32

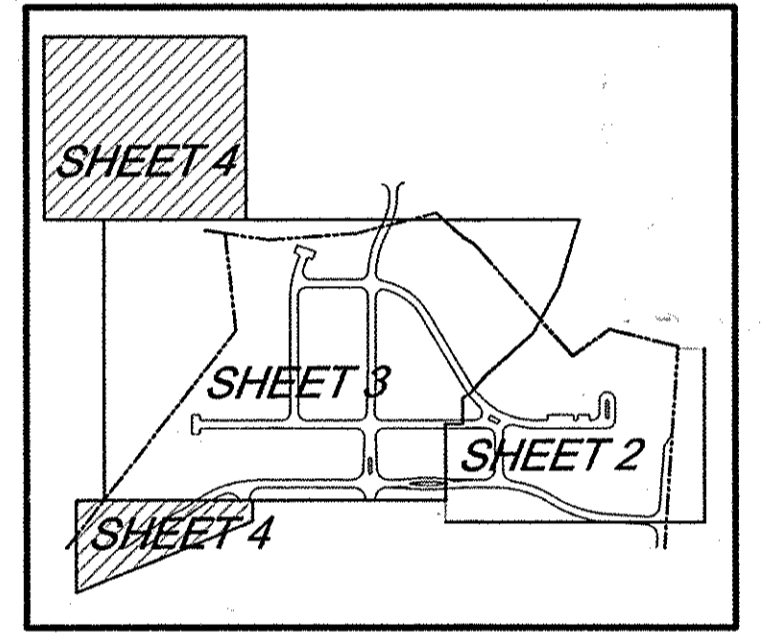
PLAN

SCALE: 1"=40'

AS-BUILT 12/10/14 SDP-05-44



TRAFFIC CONTROL FOR THE CONSTRUCTION ON F CULVERT ON COLLEGE AVENUE



OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (410) 367-0422

- NOTES:**
- DECK OPTIONS ARE SHOWN ON PLAN VIEWS AS DECK POSITION VARIES
 - BUILDING 14-17 UNIT JOGS VARIES PER SHOWN ON PLAN VIEW.
 - MILTON - EXTERIOR UNIT
 MORGAN - INTERIOR UNIT/ EXTERIOR
 FOR UNIT COMBINATION SEE LAYOUT PLAN.

NO.	REVISION	DATE
6	REVISE GRIFFIN HOUSE TYPE	5/18/09
5	ADD GRIFFIN HOUSE TYPE	7/24/08
2	ADD PHASE III	8/27/07
1	ADD PHASE II	10/13/06

SITE AND UTILITY PLAN III
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING UNITS 1-29, 31-117
PHASE I, II & III
 TAX MAP #2531BLOCK 20 PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043
 TEL: 410.461.7666 FAX: 410.461.8961



DESIGN BY: RJR/HV
 DRAWN BY: RJR/HV
 CHECKED BY: RHV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

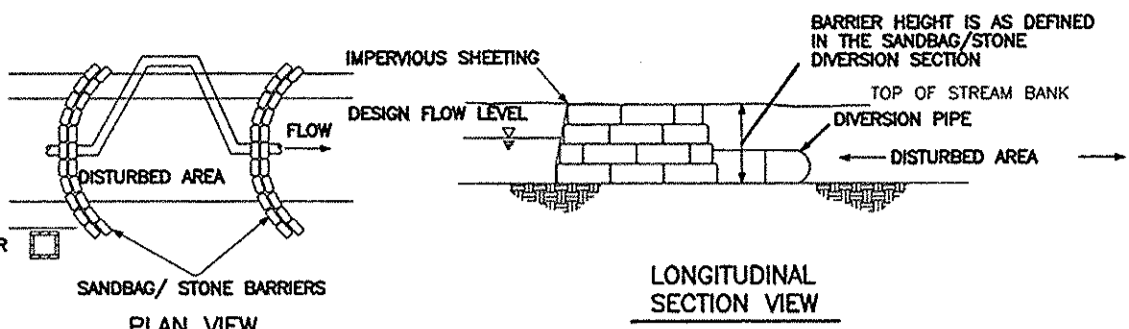
4 SHEET OF 32

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 1/3/06
 [Signature] DATE: 3/5/06
 [Signature] DATE: 3/3/06

- IF STEEL PLATES ARE USED, COLD PATCH SHALL BE PLACED ALONG EACH EDGE EACH TIME THE PLATES ARE SET.
- ANY PAVEMENT MARKING DESTROYED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED AT THE END OF CONSTRUCTION UNDER THE DIRECTION OF THE TRAFFIC ENGINEER.

TRAFFIC CONTROL PLAN
 SCALE: 1"=50'

DETAIL 1.4: DIVERSION PIPE



NOTES:

I DESCRIPTION
THE WORK SHOULD CONSIST OF INSTALLING FLOW DIVERSION PIPES IN COMBINATION WITH SANDBAG OR STONE DIVERSIONS WHEN CONSTRUCTION ACTIVITIES OCCUR WITHIN THE STREAM CHANNEL.

II EFFECTIVE USES & LIMITATIONS
DIVERSION PIPES WITH AN INSUFFICIENT FLOW CAPACITY CAN CAUSE THE CHANNEL DIVERSION TO FAIL RESULTING IN SEVERE EROSION OF THE DISTURBED CHANNEL SECTION UNDER CONSTRUCTION. THEREFORE, IN-CHANNEL CONSTRUCTION ACTIVITIES SHOULD OCCUR ONLY DURING PERIODS OF LOW FLOW.

III MATERIAL SPECIFICATIONS
MATERIALS FOR STREAM DIVERSIONS SHOULD MEET THE FOLLOWING REQUIREMENTS:
-RIP-RAP: STONE SHOULD BE WASHED AND HAVE A MINIMUM DIAMETER OF 6 INCHES (15 CENTIMETERS).
-SANDBAGS: SANDBAGS SHOULD BE RESISTANT TO ULTRA-HIGH PRESSURE, Tearing, AND PUNCTURE AND SHOULD BE MOVED THOROUGHLY ENOUGH TO PREVENT LEAKAGE OF FILL MATERIAL (i.e., SAND, FINE GRAVEL, ETC.).
-SHEETING: SHEETING SHOULD CONSIST OF POLYETHYLENE OR OTHER MATERIAL WHICH IS IMPERVIOUS AND RESISTANT TO PUNCTURE AND TEARING.

IV INSTALLATION GUIDELINES
ALL EROSION AND SEDIMENT CONTROL DEVICES INCLUDING MANDATORY DIVERTING BASINS SHOULD BE INSTALLED AS THE FIRST ORDER OF BUSINESS ACCORDING TO A PLAN APPROVED BY THE MD OR LOCAL AUTHORITY. INSTALLATION SHOULD PROCEED FROM UPSTREAM TO DOWNSTREAM DURING LOW FLOW CONDITIONS. IF NECESSARY, SILT FENCE OR STRAW BALES SHOULD BE INSTALLED AROUND THE PERIMETER OF THE WORK AREA.

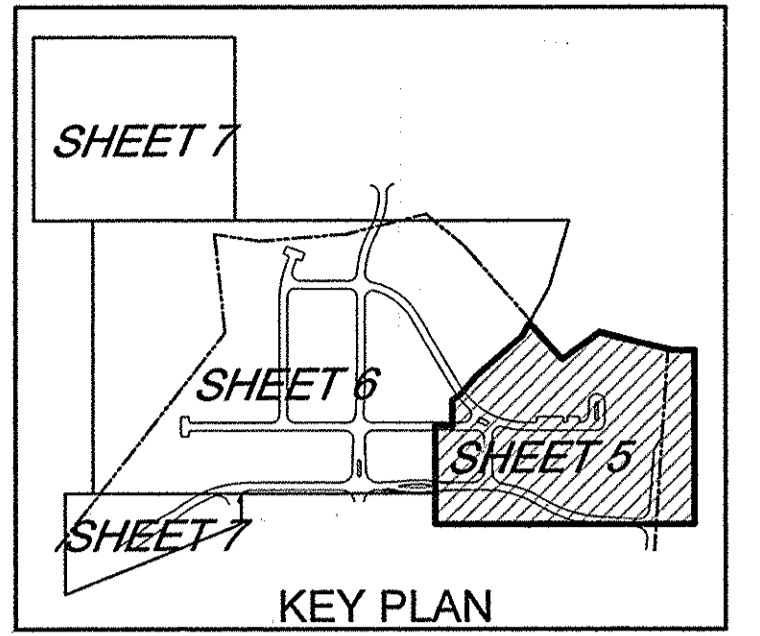
DIVERSION PIPES WITH SANDBAG OR STONE BARRIERS SHOULD BE COMPLETED AS FOLLOWS (REFER TO DETAIL 1.4):
1. SANDBAG/STONE BARRIERS SHOULD BE SIZED AND INSTALLED AS DETAILED IN MOWC 1.5 SANDBAG/STONE DIVERSION. THE MATERIALS SHOULD BE SIZED TO WITHSTAND BACKFLOW VELOCITIES.
2. ALL EXCAVATED MATERIAL SHOULD BE DEPOSITED AND STABILIZED IN AN APPROVED AREA OUTSIDE THE 100-YEAR FLOODPLAIN UNLESS OTHERWISE APPROVED BY THE MD.
3. SEDIMENT-LADEN WATER FROM THE CONSTRUCTION AREA SHOULD BE PAVED TO A DIVERTING BASIN.
4. THE DIVERSION PIPE SHOULD HAVE A MINIMUM CAPACITY SUFFICIENT TO CARRY THE 2-YEAR FLOW FOR PROJECTS WITH A DURATION OF TWO WEEKS OR GREATER. FOR PROJECTS OF SHORTER DURATION, THE CAPACITY OF THE PIPE CAN BE REDUCED ACCORDINGLY.
5. IF NECESSARY, SILT FENCE OR STRAW BALES SHOULD BE INSTALLED AROUND THE PERIMETER OF THE WORK AREA.
6. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED AND THE RESPECTIVE AGENCY APPROVES THEIR REMOVAL.

BASIN NO. 3

Trap type: BASIN
Drainage area: 6.85 Ac.
Total storage provided: 24,660 Cf
Total storage required: 24,660 Cf
Bottom elevation: 374.00
Crest elevation: 377.70
Wet storage elevation: 374.00-375.12
Dry storage elevation: 375.12-376.24
Total storage depth: 3.7'
Top of embankment: 380.00
Cleanout Elevation: 374.56
Side slopes: 2:1
Emergency Spillway: 378.70

SEDIMENT BASIN#3
SEE INSET ON SHEET 8 OF 32

Q1(Ex.): 2.03 CFS
Q1(TSWM): 0.92 CFS



TEMPORARY INSTREAM CONSTRUCTION MEASURES
REVISED NOVEMBER 2000
PAGE 1.4-2
MARYLAND DEPARTMENT OF THE ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

LEGEND

- VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT
- OPENSACE PER SDP-05-44
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT#16104 TO 16109 PLAT#16421 TO 16422
- FOREST CONSERVATION RETENTION EASEMENT PLAT#16104 TO 16109 PLAT#16421 TO 16422
- PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
- RECREATIONAL OPEN PER SDP-05-44
- PRIVATE SWM MANAGEMENT CREDIT EASEMENT PER SDP-05-44
- PRIVATE WALL MAINTENANCE EASEMENT
- PRIVATE VARIABLE WIDTH ACCESS EASEMENT
- AREA OF 15 TO 24.9 PERCENT SLOPES
- AREA OF 24 PERCENT OR GREATER SLOPES
- EXISTING WETLANDS
- WETLAND BUFFER
- STREAM BUFFER
- SSSF DOUBLE ROW OF SUPER SILT FENCE
- SSSF SUPER SILT FENCE
- LOD LIMIT OF DISTURBANCE
- EROSION CONTROL MATTING
- EARTHDIKE
- STABILIZED CONSTRUCTION ENTRANCE
- GABION INFLOW PROTECTION
- TPF TREE PROTECTION FENCE
- WETLAND BUFFER
- STREAM BUFFER
- RECREATIONAL OPENSACE

TYPICAL SILT FENCE PLACEMENT SECTION

NOT TO SCALE

STREET LIGHT LOCATION CHART

STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
LOTUS CIRCLE	0+06	18' LEFT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS MOUNTED ON A 14" POLE
LOTUS CIRCLE	8+91	25' RIGHT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" POLE
LOTUS CIRCLE	11+34	25' RIGHT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" POLE
ROSE PETAL CT.	8+17	28' RIGHT	NOTE: MOUNT D3, ST. NAME SIGN ASSEMBLY, TO LIGHT POLE AT STA. 7+91
ROSE PETAL CT.	9+65	SEE PLAN	
ROSE PETAL CT.	4+31	32' LEFT	
LOTUS CIRCLE	0+06	46' RIGHT	150 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE

NOTE: A MINIMUM OF 20' IS REQUIRED BETWEEN ANY STREET LIGHT AND ANY TREE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: *[Signature]* 1/20/06
 Chief, Division of Land Development: *[Signature]* 3/8/06
 Director: *[Signature]* 3/9/06

DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR FLOOD PROTECTION AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Signature of Developer: *[Signature]* 1/10/06

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION AND SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Signature of Engineer: *[Signature]* 1/10/06

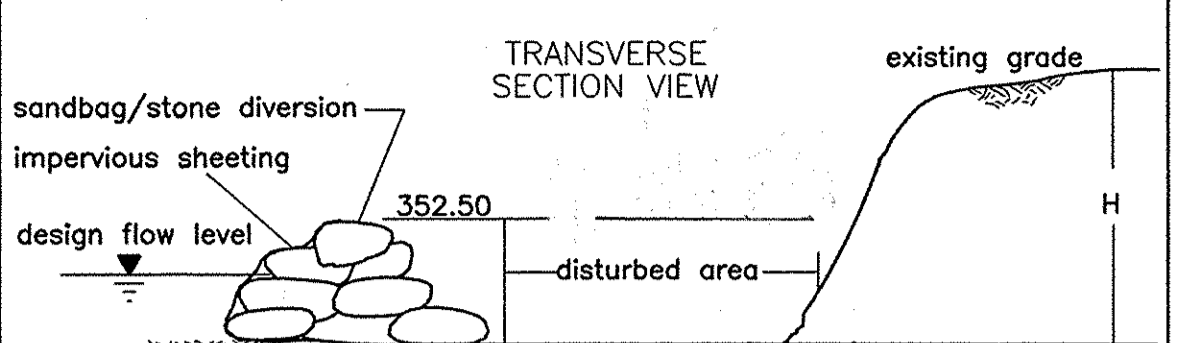
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Signature: *[Signature]* 1/20/06
 Signature: *[Signature]* 1/24/06

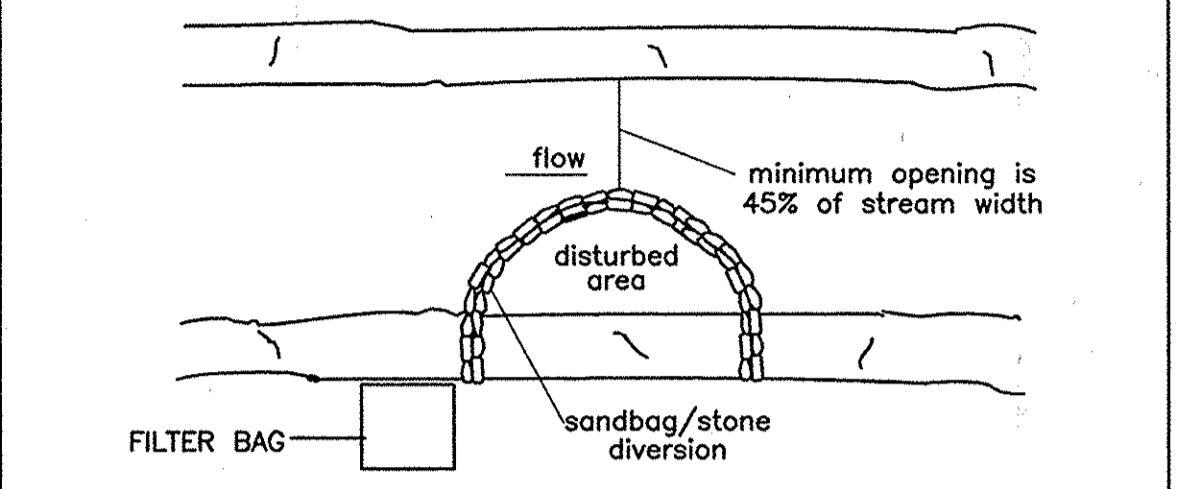
OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP
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 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUEWER
 PHONE: (443) 397-0422

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

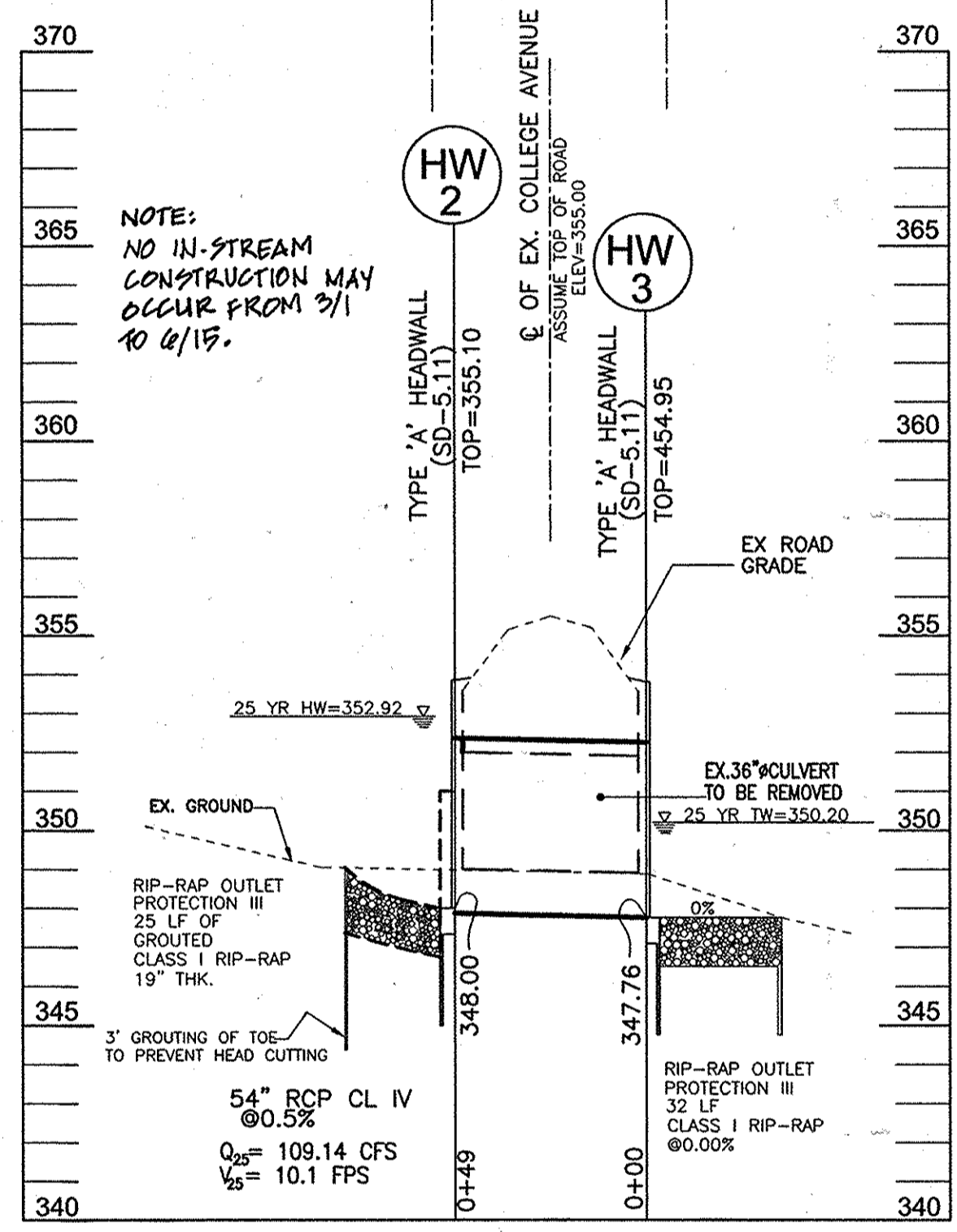
DETAIL 1.5: SANDBAG/STONE DIVERSION



H/2+1 ft (0.3 m) for projects of duration 2 weeks;
 2-year flood elevation for projects of longer duration



REVISED NOVEMBER 2000
 PAGE 1.5 - 3



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

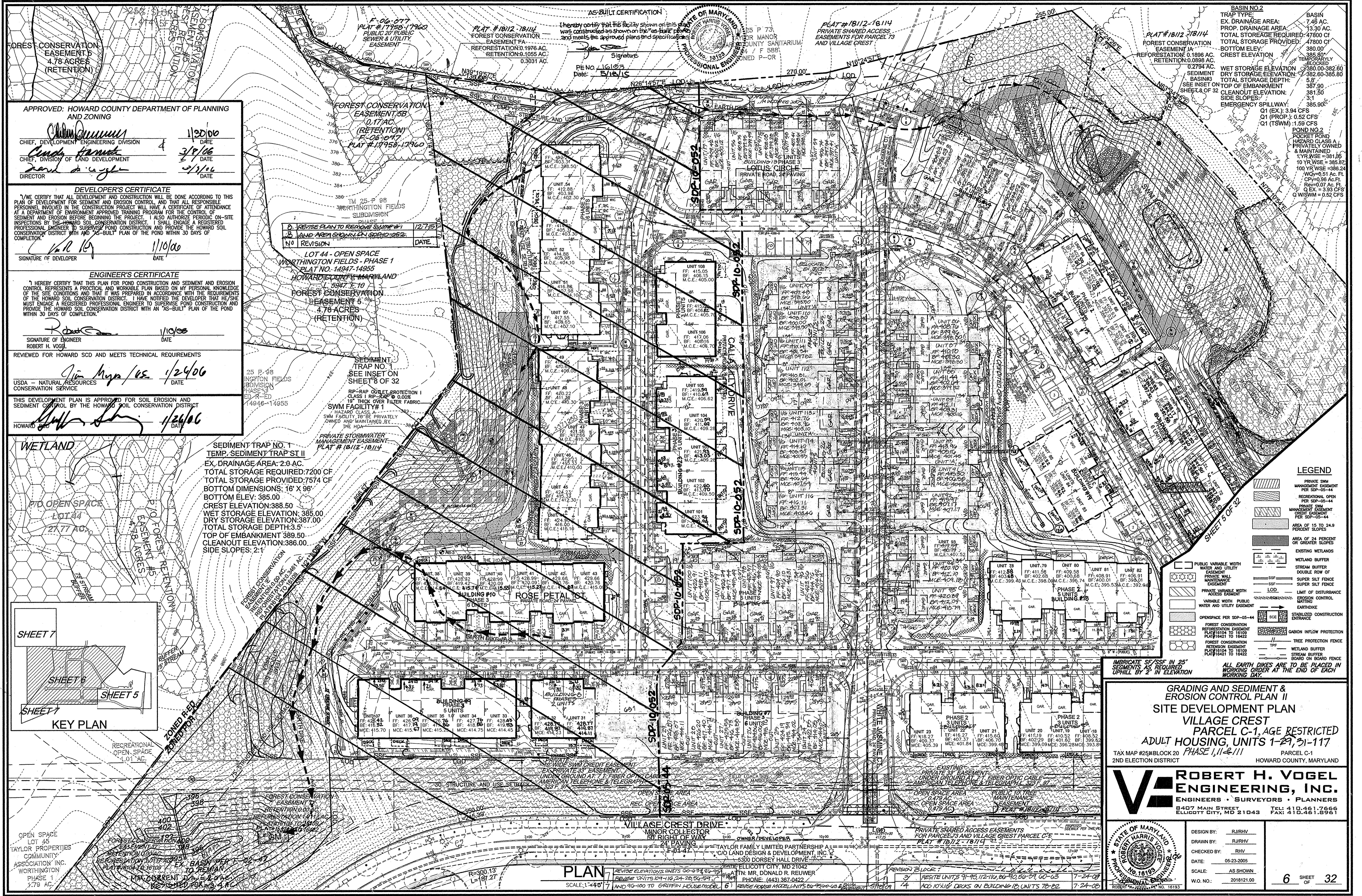
2	ADD PHASE III	8/27/07
1	ADD PHASE II	10/31/06
NO.	REVISION	DATE

GRADING AND SEDIMENT & EROSION CONTROL PLAN I
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117.
 TAX MAP #25B BLOCK 20 PHASE 6, 11, & 111 PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: RJR/RHV
 DRAWN BY: RJR/RHV
 CHECKED BY: RHV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

5 SHEET OF 32



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Cheryl Harvath 1/20/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE

David A. Taylor 3/9/06
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE

David A. Taylor 2/1/06
 DIRECTOR
 DATE

DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

W.R. Taylor 1/10/00
 SIGNATURE OF DEVELOPER
 DATE

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION AND SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Robert H. Vogel 1/10/00
 SIGNATURE OF ENGINEER
 ROBERT H. VOGEL
 DATE

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

Jim Meyer 1/24/06
 USDA - NATURAL RESOURCES CONSERVATION SERVICE
 DATE

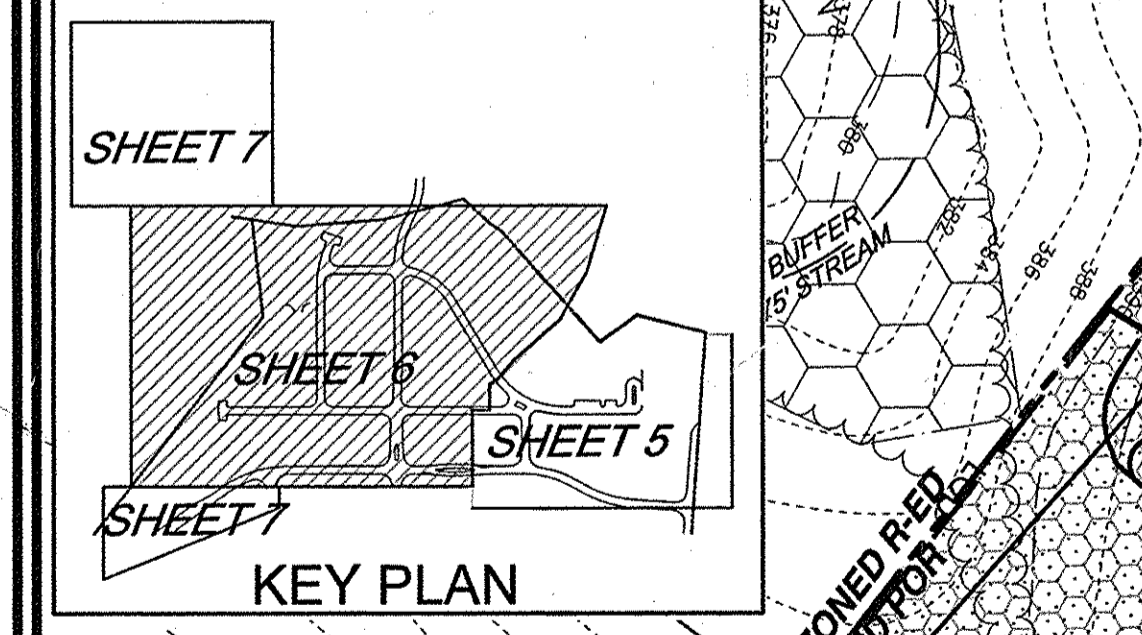
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

Howard 1/24/06
 HOWARD
 DATE

WETLAND

LOT 44
 27.77 AC.

SEDIMENT TRAP NO. 1
 TEMP. SEDIMENT TRAP ST II
 EX. DRAINAGE AREA: 2.0 AC.
 TOTAL STORAGE REQUIRED: 7200 CF
 TOTAL STORAGE PROVIDED: 7574 CF
 BOTTOM DIMENSIONS: 16' X 96'
 BOTTOM ELEV.: 365.00
 CREST ELEVATION: 388.50
 WET STORAGE ELEVATION: 385.00
 DRY STORAGE ELEVATION: 387.00
 TOTAL STORAGE DEPTH: 3.5'
 TOP OF EMBANKMENT: 389.50
 CLEANOUT ELEVATION: 386.00
 SIDE SLOPES: 2:1



LOT 45
 TAYLOR PROPERTIES COMMUNITY ASSOCIATION INC.
 WORTHINGTON PHASE 1
 4.78 ACRES (RETENTION)

LOT 44
 27.77 AC.

LOT 43
 4.01 AC.

LOT 42
 4.02 AC.

LOT 41
 3.96 AC.

LOT 40
 3.92 AC.

LOT 39
 3.88 AC.

LOT 38
 3.84 AC.

LOT 37
 3.80 AC.

LOT 36
 3.76 AC.

LOT 35
 3.72 AC.

LOT 34
 3.68 AC.

LOT 33
 3.64 AC.

LOT 32
 3.60 AC.

LOT 31
 3.56 AC.

LOT 30
 3.52 AC.

LOT 29
 3.48 AC.

LOT 28
 3.44 AC.

LOT 27
 3.40 AC.

LOT 26
 3.36 AC.

LOT 25
 3.32 AC.

LOT 24
 3.28 AC.

LOT 23
 3.24 AC.

LOT 22
 3.20 AC.

LOT 21
 3.16 AC.

LOT 20
 3.12 AC.

LOT 19
 3.08 AC.

LOT 18
 3.04 AC.

LOT 17
 3.00 AC.

LOT 16
 2.96 AC.

LOT 15
 2.92 AC.

LOT 14
 2.88 AC.

LOT 13
 2.84 AC.

LOT 12
 2.80 AC.

LOT 11
 2.76 AC.

LOT 10
 2.72 AC.

LOT 9
 2.68 AC.

LOT 8
 2.64 AC.

LOT 7
 2.60 AC.

LOT 6
 2.56 AC.

LOT 5
 2.52 AC.

LOT 4
 2.48 AC.

LOT 3
 2.44 AC.

LOT 2
 2.40 AC.

LOT 1
 2.36 AC.

BASIN NO. 2

TRAP TYPE: EX. DRAINAGE AREA: 7.46 AC.
 PROP. DRAINAGE AREA: 13.30 AC.
 TOTAL STORAGE REQUIRED: 47800 CF
 TOTAL STORAGE PROVIDED: 47800 CF
 BOTTOM ELEV.: 380.00
 CREST ELEVATION: 385.00
 WET STORAGE ELEVATION: 382.60-385.80
 DRY STORAGE ELEVATION: 387.90
 TOTAL STORAGE DEPTH: 3.1'
 TOP OF EMBANKMENT: 381.50
 CLEANOUT ELEVATION: 385.90
 SIDE SLOPES: 3:1
 EMERGENCY SPILLWAY: 385.90
 Q1 (EX.): 3.94 CFS
 Q1 (PROP.): 0.52 CFS
 Q1 (TSWM): 1.59 CFS

POCKET POND HAZARD CLASS A PRIVATELY OWNED & MAINTAINED
 1/2 YR WSE = 381.05
 10 YR WSE = 385.87
 100 YR WSE = 388.22
 MWQ = 0.51 AC. FL.
 CPY = 0.96 AC. FL.
 RE = 0.07 AC. FL.
 Q1 EX. = 3.93 CFS
 Q1 WSWM = 0.52 CFS

LOT 44 - OPEN SPACE - PHASE 1
 WORTHINGTON FIELDS - PHASE 1
 PLAT NO. 14947-14955
 HOWARD COUNTY, MARYLAND
 5947 E 10

FOREST CONSERVATION EASEMENT 5
 4.78 ACRES (RETENTION)

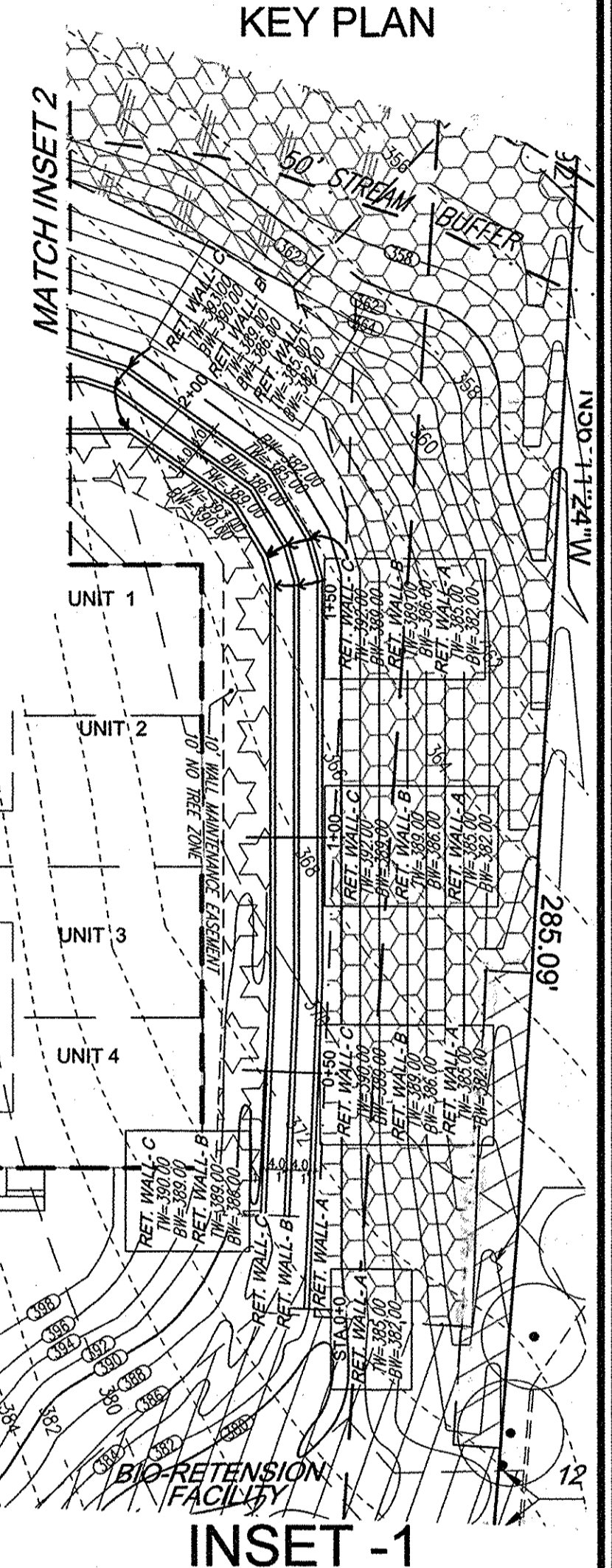
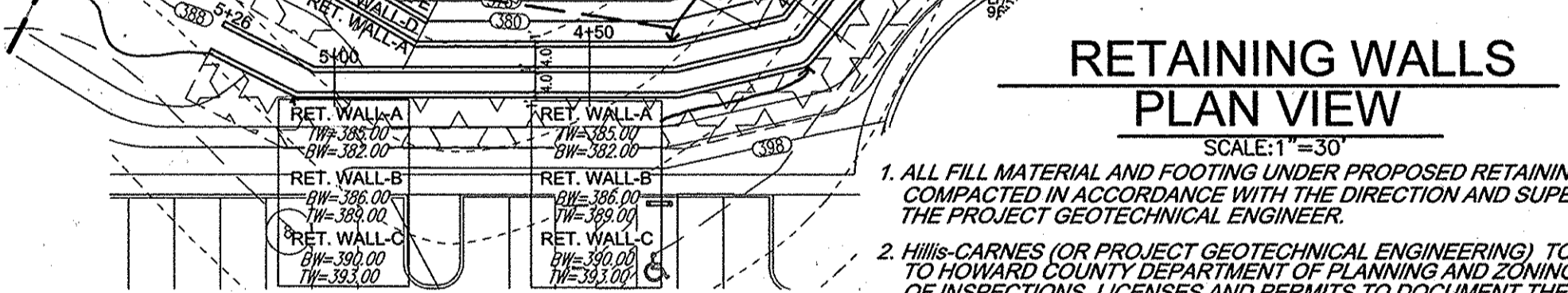
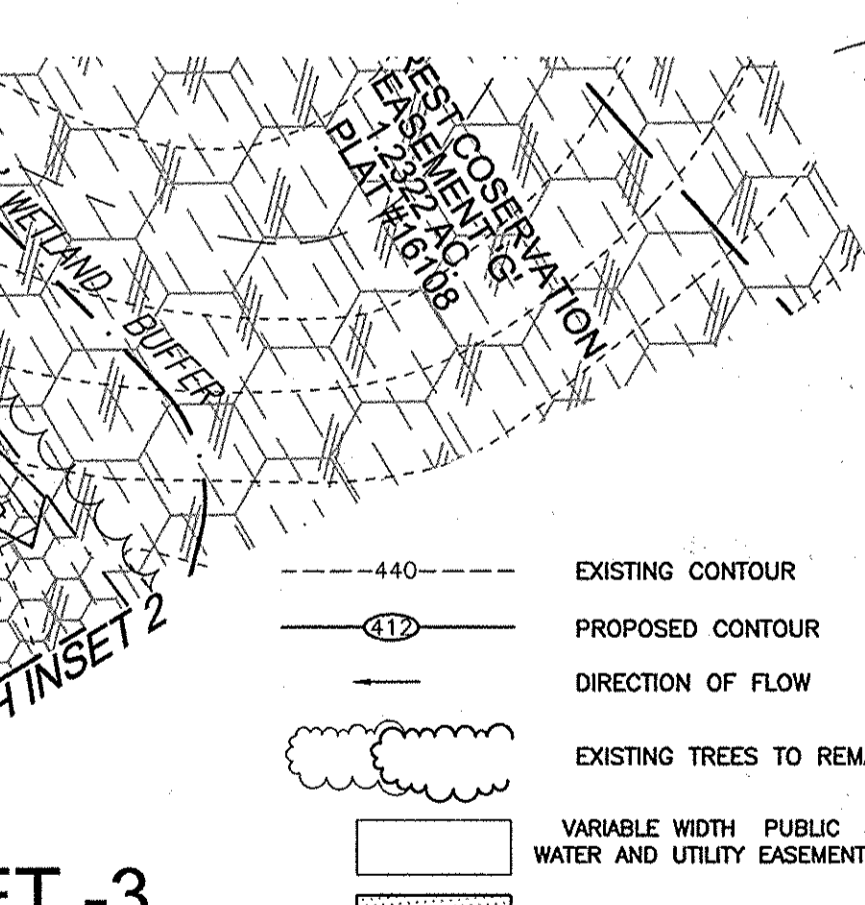
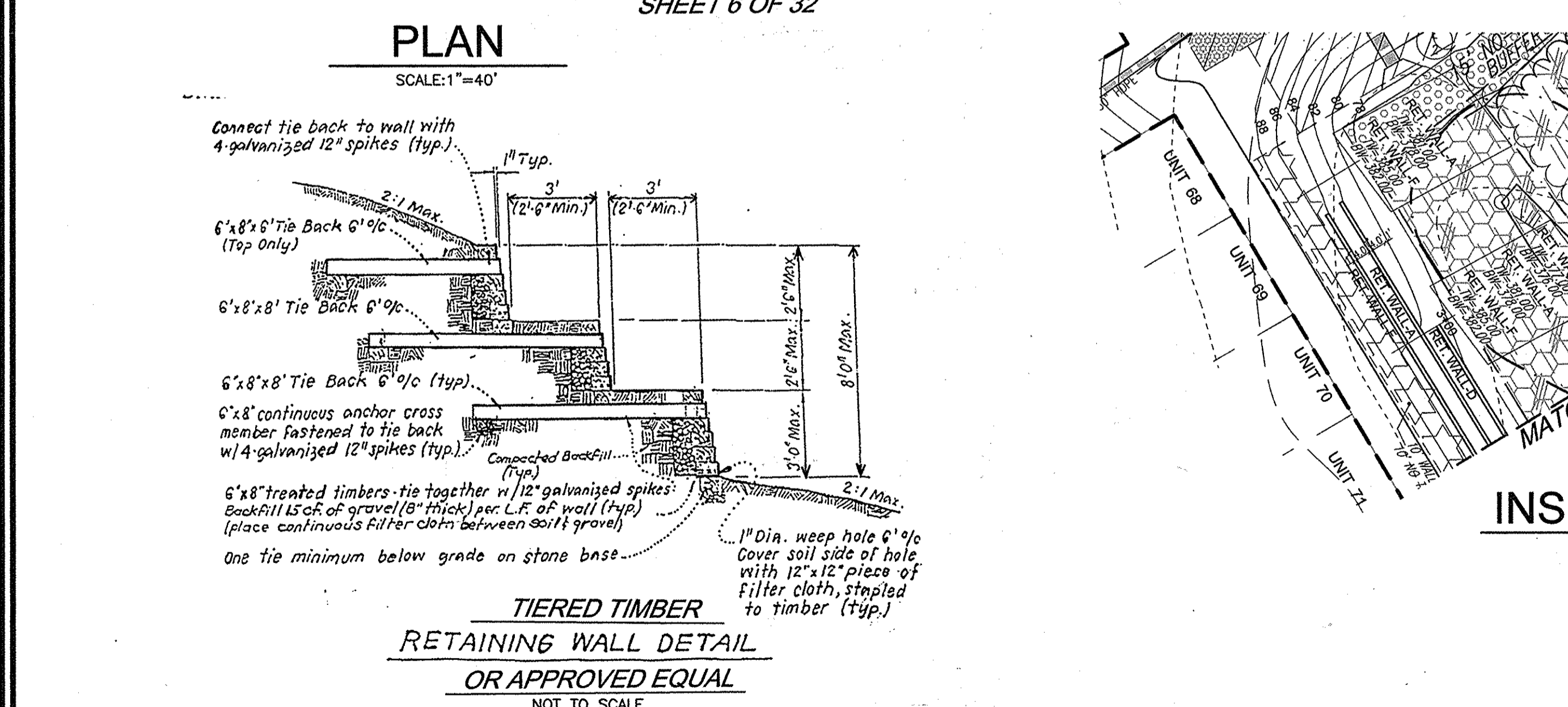
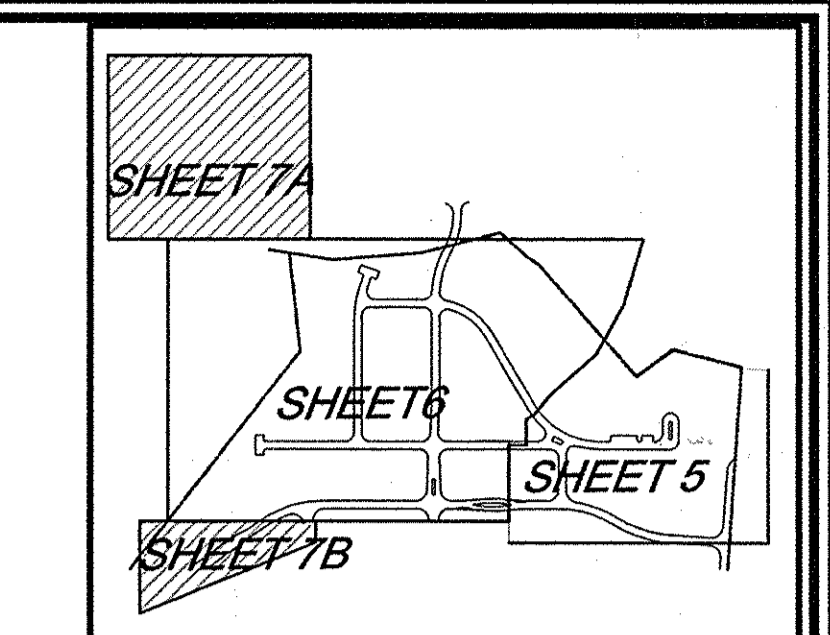
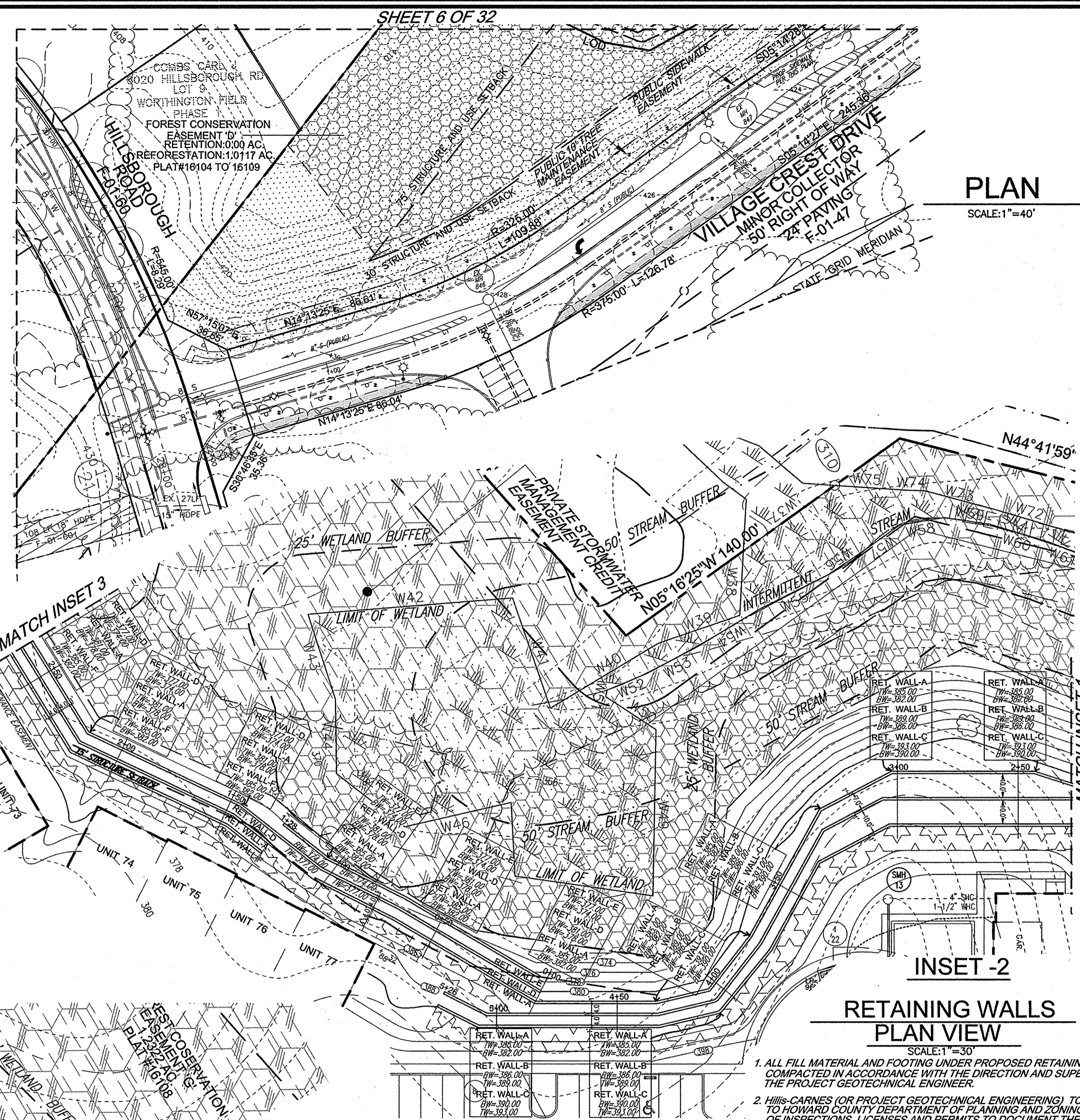
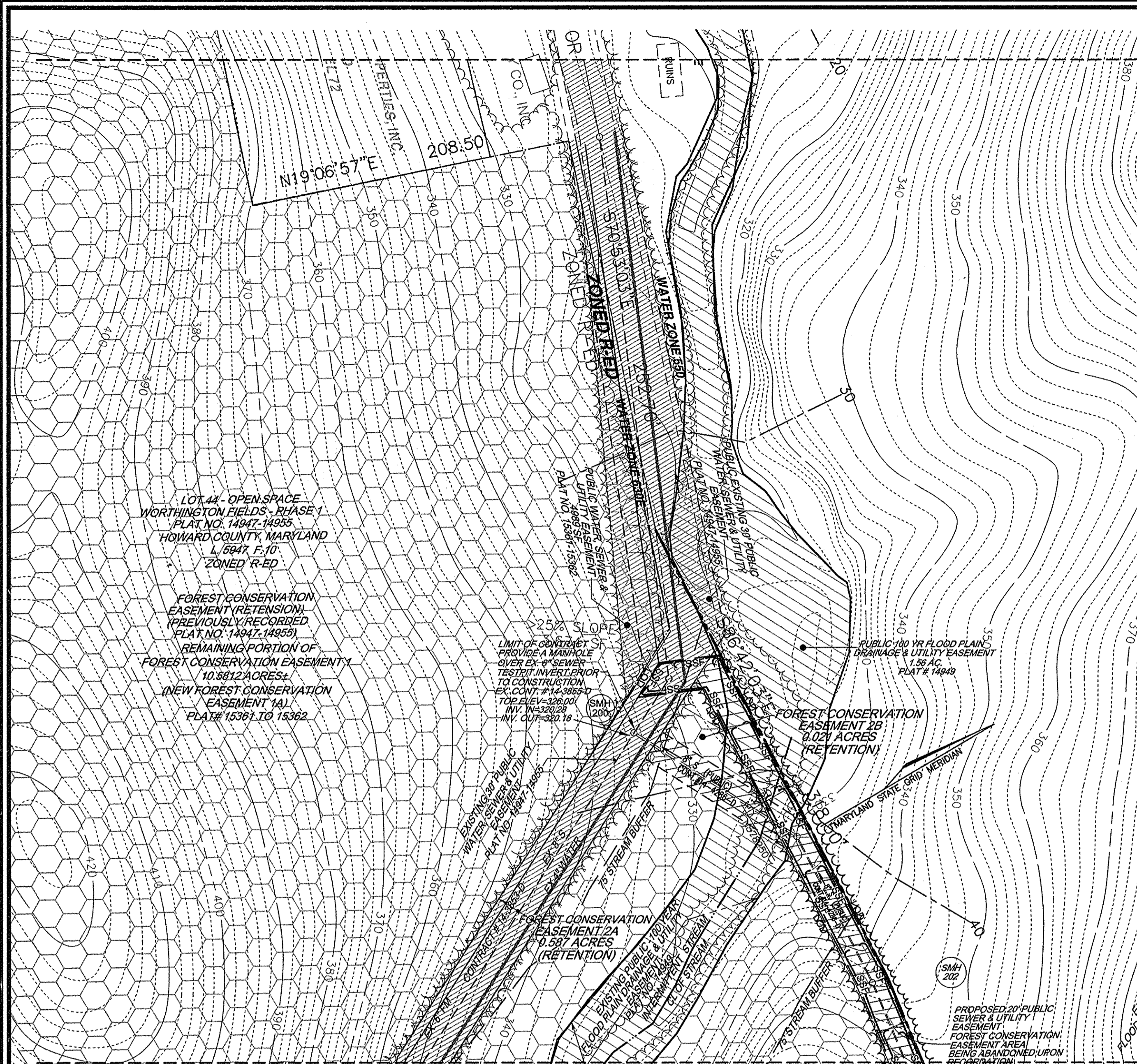
SEDIMENT TRAP NO. 1
 SEE INSET ON SHEET 8 OF 32

RIP-RAP OUTLET PROTECTION I
 CLASS I RIP-RAP 0.0027
 18" THICK OVER FILTER FABRIC
 SWM FACILITY # 1
 HAZARD CLASS I
 SWM FACILITY TO BE PRIVATELY OWNED AND MAINTAINED BY THE HOMEOWNER

PRIVATE STORMWATER MANAGEMENT EASEMENT
 PLAT # 18112-18114

LEGEND

- PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
- REGISTRAR'S OWN PER SDP-05-44
- PRIVATE SWM MANAGEMENT EASEMENT CREDIT EASEMENT PER SDP-05-44
- AREA OF 15 TO 24.9 PERCENT SLOPES
- AREA OF 25 PERCENT SLOPES OR GREATER SLOPES
- EXISTING WETLANDS
- WETLAND BUFFER
- STREAM BUFFER
- DOUBLE ROW OF SUPER SILT FENCE
- SUPER SILT FENCE
- LOD
- LIMIT OF DISTURBANCE
- EROSION CONTROL MATING
- EARTHROCK
- STABILIZED CONSTRUCTION ENTRANCE
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1421 TO 1422
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1424 TO 1425
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1426 TO 1427
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- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1858 TO 1859
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1860 TO 1861
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1862 TO 1863
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1864 TO 1865
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1866 TO 1867
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1868 TO 1869
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1870 TO 1871
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1872 TO 1873
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1874 TO 1875
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1876 TO 1877
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1878 TO 1879
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1880 TO 1881
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1882 TO 1883
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1884 TO 1885
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1886 TO 1887
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1888 TO 1889
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1890 TO 1891
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1892 TO 1893
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1894 TO 1895
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1896 TO 1897
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1898 TO 1899
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1900 TO 1901
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1902 TO 1903
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1904 TO 1905
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1906 TO 1907
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1908 TO 1909
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1910 TO 1911
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1912 TO 1913
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1914 TO 1915
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1916 TO 1917
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1918 TO 1919
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1920 TO 1921
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1922 TO 1923
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1924 TO 1925
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1926 TO 1927
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1928 TO 1929
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1930 TO 1931
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1932 TO 1933
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1934 TO 1935
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1936 TO 1937
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1938 TO 1939
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1940 TO 1941
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1942 TO 1943
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1944 TO 1945
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1946 TO 1947
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1948 TO 1949
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1950 TO 1951
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1952 TO 1953
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1954 TO 1955
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1956 TO 1957
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1958 TO 1959
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1960 TO 1961
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1962 TO 1963
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1964 TO 1965
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1966 TO 1967
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1968 TO 1969
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1970 TO 1971
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1972 TO 1973
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1974 TO 1975
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1976 TO 1977
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1978 TO 1979
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1980 TO 1981
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1982 TO 1983
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1984 TO 1985
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1986 TO 1987
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1988 TO 1989
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1990 TO 1991
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1992 TO 1993
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1994 TO 1995
- FOREST CONSERVATION RETENTION EASEMENT PLAT #1996 TO 1997
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #1998 TO 1999
- FOREST CONSERVATION RETENTION EASEMENT PLAT #2000 TO 2001
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #2002 TO 2003
- FOREST CONSERVATION RETENTION EASEMENT PLAT #2004 TO 2005
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT #2006 TO 2007



LEGEND

--- 440 ---	EXISTING CONTOUR	[Pattern]	RECREATIONAL OPEN PER SDP-05-44	[Pattern]	EROSION CONTROL MATTING
--- 317 ---	PROPOSED CONTOUR	[Pattern]	PRIVATE SWIM MANAGEMENT EASEMENT PER SDP-05-44	[Pattern]	EARTHDIKE
---	DIRECTION OF FLOW	[Pattern]	AREA OF 15 TO 24.9 PERCENT SLOPES	[Pattern]	STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	EXISTING TREES TO REMAIN	[Pattern]	AREA OF 24 PERCENT OR GREATER SLOPES	[Pattern]	GABION INFLOW PROTECTION
[Symbol]	VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT	[Pattern]	EXISTING WETLANDS	[Pattern]	TREE PROTECTION FENCE
[Symbol]	OPENSACE PER SDP-05-44	[Pattern]	FOREST CONSERVATION REFORESTATION EASEMENT PLAT#16104 TO 16109	[Pattern]	WETLAND BUFFER
[Symbol]	FOREST CONSERVATION REFORESTATION EASEMENT PLAT#16421 TO 16422	[Pattern]	FOREST CONSERVATION EASEMENT PLAT#16104 TO 16109	[Pattern]	STREAM BUFFER
[Symbol]	FOREST CONSERVATION EASEMENT PLAT#16421 TO 16422	[Pattern]	PRIVATE SWIM MANAGEMENT EASEMENT PER SDP-05-44	[Pattern]	BOARD ON BOARD FENCE
[Symbol]	STORM DRAIN DRAINAGE	[Pattern]		[Pattern]	
[Symbol]	SSF SUPER SILT FENCE	[Pattern]		[Pattern]	
[Symbol]	SSF DOUBLE ROW OF SUPER SILT FENCE	[Pattern]		[Pattern]	
[Symbol]	LOD LIMIT OF DISTURBANCE	[Pattern]		[Pattern]	

1. ALL FILL MATERIAL AND FOOTING UNDER PROPOSED RETAINING WALLS TO BE PLACES AND COMPACTED IN ACCORDANCE WITH THE DIRECTION AND SUPERVISION OF THE PROJECT GEOTECHNICAL ENGINEER.
2. HILLS-CARNES (OR PROJECT GEOTECHNICAL ENGINEERING) TO PROVIDE DAILY LOGS AND COMPACTING REPORTS TO HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING, DEVELOPMENT ENGINEERING DIVISION AND DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS TO DOCUMENT THE FILL UNDER THE WALLS, FOOTINGS AND BACKFILL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature]
DIRECTOR

DATE: 1/30/00
DATE: 3/7/06
DATE: 3/3/06

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

[Signature]
SIGNATURE OF DEVELOPER

DATE: 1/10/06

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION AND SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

[Signature]
SIGNATURE OF ENGINEER

DATE: 1/10/06

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

[Signature]
DATE: 1/26/06

USDA - NATURAL RESOURCES CONSERVATION SERVICE

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

[Signature]
DATE: 1/26/06

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

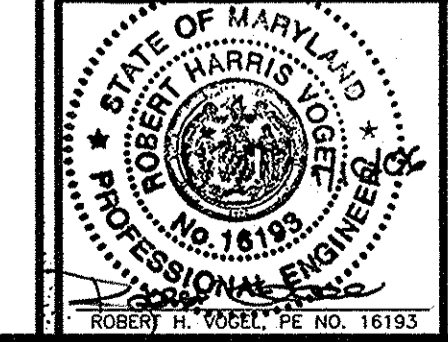
2	ADD PHASE III	6/27/07
1	RDD PHASE II	10/3/06
NO.	REVISION	DATE

GRADING AND SEDIMENT & EROSION CONTROL PLAN III
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
PHASE I, II, & III

TAX MAP #2531/BLOCK 20
2ND ELECTION DISTRICT

PARCEL C-1
HOWARD COUNTY, MARYLAND

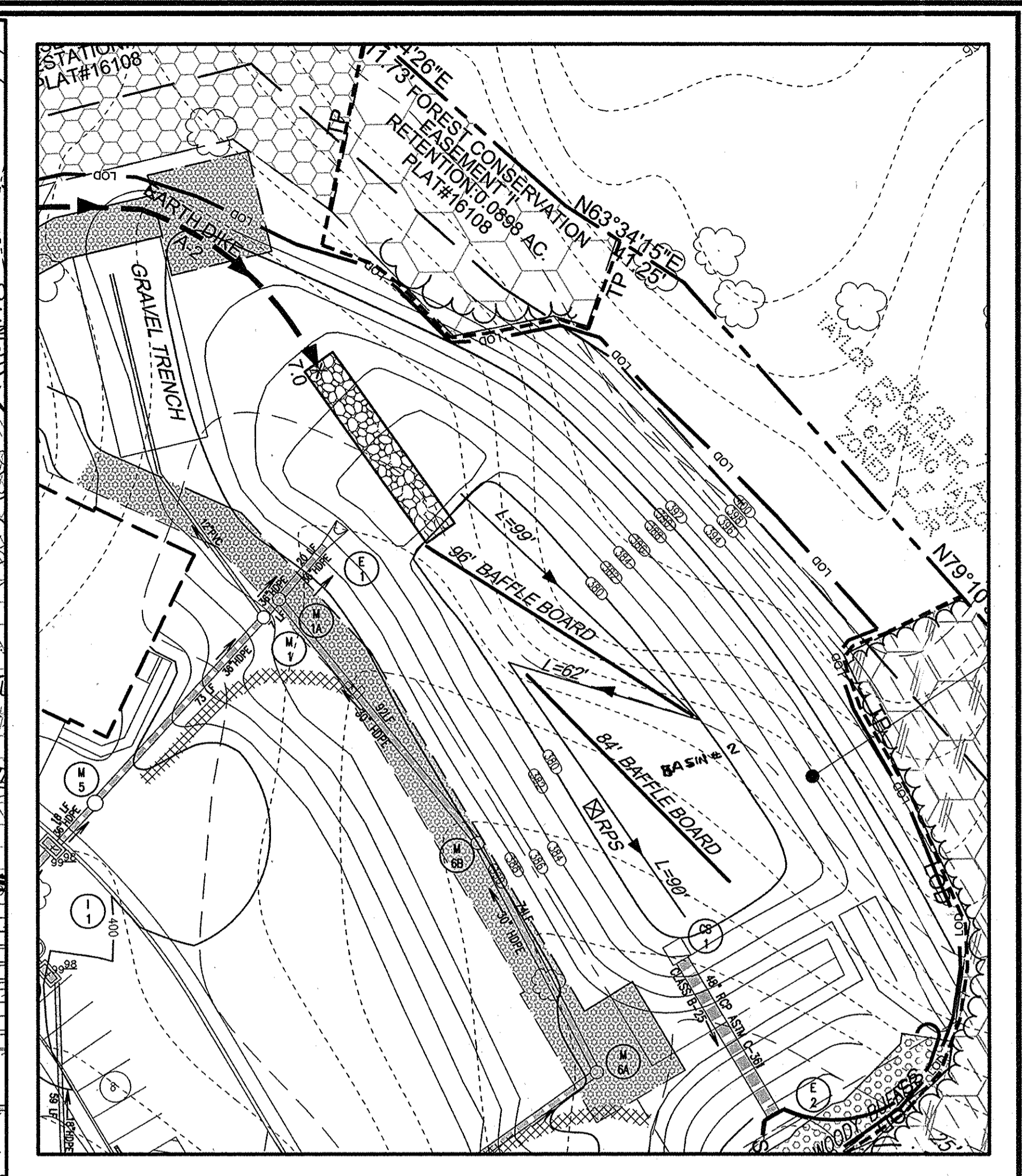
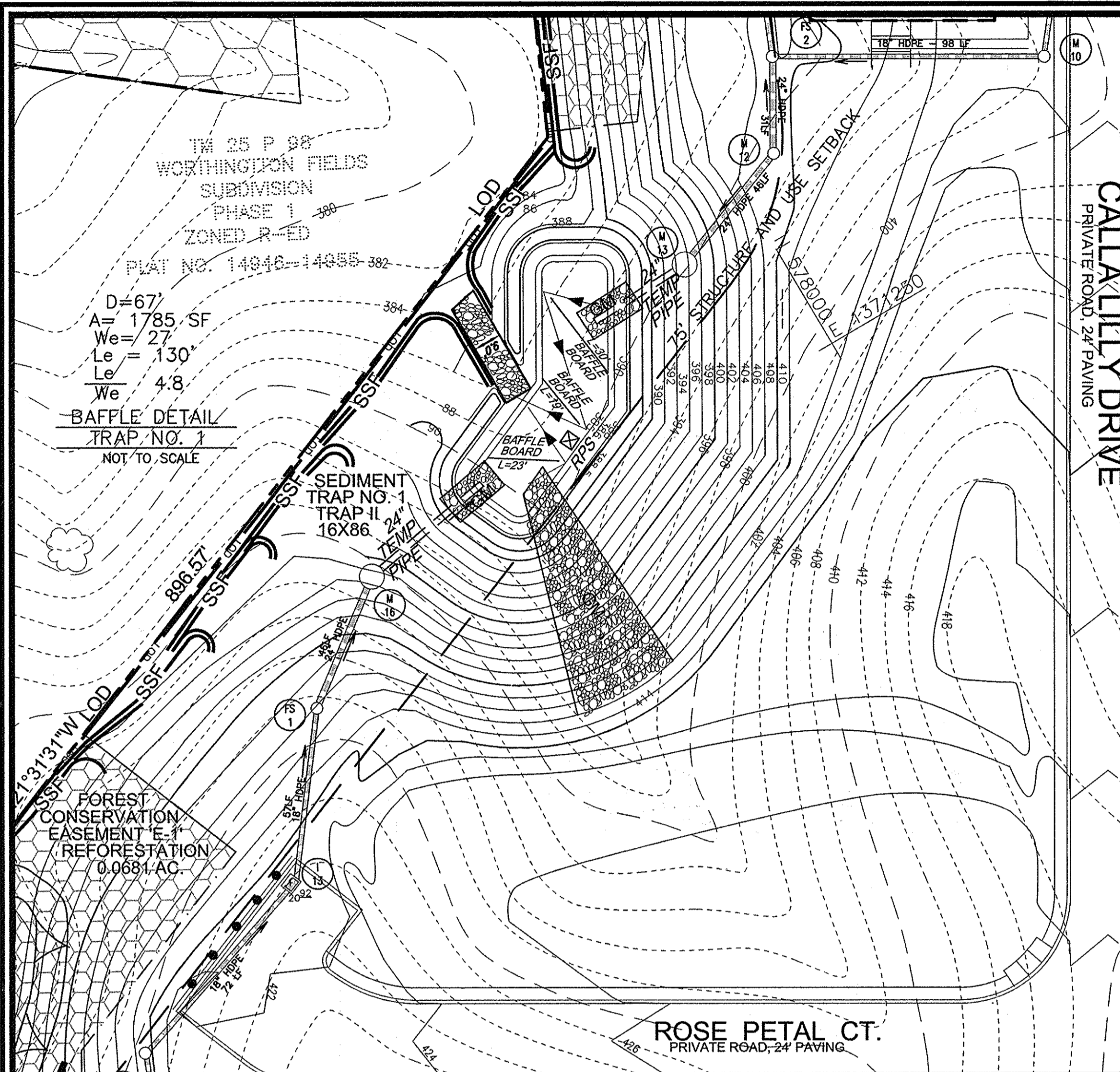
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8961



OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A C/O LAND DESIGN & DEVELOPMENT, INC.
8000 MAIN STREET
ELLICOTT CITY, MD 21043
ATTN: MR. DONALD R. REUWER
PHONE: (410) 480-9105

DESIGN BY: RJRHV
DRAWN BY: RJRHV
CHECKED BY: RHW
DATE: 05-23-2005
SCALE: AS SHOWN
W.O. NO.: 2018121.00

7 SHEET OF 32



GRADING FOR TRAP #1

SCALE: 1"=30'

FOR PHASE 1 AND PHASE 2

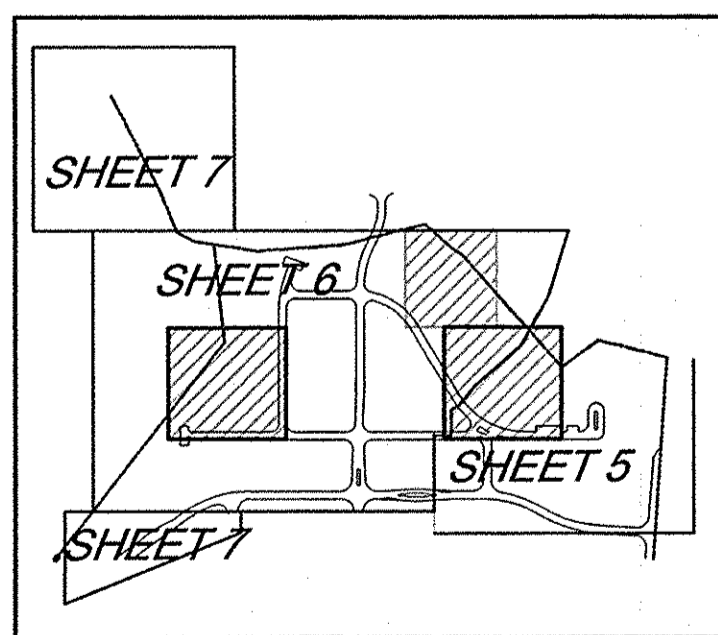
TEMP. SEDIMENT TRAP ST II
 EX. DRAINAGE AREA: 2.0 AC.
 PROP. DRAINAGE AREA: 2.0 AC.
 TOTAL STORAGE REQUIRED: 7200 CF
 TOTAL STORAGE PROVIDED: 7574 CF
 BOTTOM DIMENSIONS: 16' X 96'
 BOTTOM ELEV: 385.00
 CREST ELEVATION: 388.50
 WET STORAGE ELEVATION: 385.00
 DRY STORAGE ELEVATION: 387.00
 TOTAL STORAGE DEPTH: 3.5'
 TOP OF EMBANKMENT 389.50
 CLEANOUT ELEVATION: 386.00
 SIDE SLOPES: 2:1

D=67'
 A= 1785 SF
 We= 27
 Le= 130'
 We= 4.8

BAFFLE DETAIL
 TRAP NO. 1
 NOT TO SCALE

LEGEND

- VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT
- OPENSACE PER SDP-05-44
- FOREST CONSERVATION REFORESTATION EASEMENT PLAT#16104 TO 16109 PLAT#16421 TO 16422
- FOREST CONSERVATION RETENTION EASEMENT PLAT#16104 TO 16109 PLAT#16421 TO 16422
- PRIVATE SWIM MANAGEMENT EASEMENT PER SDP-05-44
- RECREATIONAL OPEN PER SDP-05-44
- PRIVATE SWIM MANAGEMENT CREDIT EASEMENT PER SDP-05-44
- AREA OF 15 TO 24.9 PERCENT SLOPES
- AREA OF 24 PERCENT OR GREATER SLOPES
- EXISTING WETLANDS
- WETLAND BUFFER
- STREAM BUFFER
- DOUBLE ROW OF SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EROSION CONTROL MATTING
- EARTHDIKE
- STABILIZED CONSTRUCTION ENTRANCE
- GABION INFLOW PROTECTION
- TREE PROTECTION FENCE
- WETLAND BUFFER
- STREAM BUFFER
- PUBLIC VARIABLE WIDTH WATER AND UTILITY EASEMENT
- PRIVATE WALL MAINTENANCE EASEMENT
- PRIVATE VARIABLE WIDTH ACCESS EASEMENT



KEY PLAN

GRADING FOR BASIN#3

SCALE: 1"=30'

BASIN NO. 3

TRAP TYPE: BASIN
 HAZARD CLASS A
 DRAINAGE AREA: 6.85 AC.
 TOTAL STORAGE REQUIRED: 24,660 CF
 TOTAL STORAGE PROVIDED: 24,660 CF
 BOTTOM ELEVATION: 374.00
 CREST ELEVATION: 377.00
 WET STORAGE ELEVATION: 374.00-375.12
 DRY STORAGE ELEVATION: 375.12-376.24
 TOTAL STORAGE DEPTH: 3.7'
 TOP OF EMBANKMENT: 380.00
 CLEANOUT ELEVATION: 374.56
 SIDE SLOPES: 2:1
 EMERGENCY SPILLWAY: 378.70

Q1(EX.): 2.03 CFS
 Q1(TSWM): 0.92 CFS

FOR PHASE 1 AND PHASE 2

BASIN NO. 2

TRAP TYPE: BASIN
 HAZARD CLASS A
 EX. DRAINAGE AREA: 7.46 AC.
 PROP. DRAINAGE AREA: 13.30 AC.
 TOTAL STORAGE REQUIRED: 47800 CF
 TOTAL STORAGE PROVIDED: 47800 CF
 BOTTOM ELEV: 380.00
 CREST ELEVATION: 385.80*
 WET STORAGE ELEVATION: 380.00-382.60
 DRY STORAGE ELEVATION: 382.60-385.80
 TOTAL STORAGE DEPTH: 5.8'
 TOP OF EMBANKMENT: 387.90
 CLEANOUT ELEVATION: 381.50
 SIDE SLOPES: 3:1
 EMERGENCY SPILLWAY: 385.90
 Q1 (EX.): 3.94 CFS
 Q1 (PROP.): 0.52 CFS
 Q1 (TSWM): 1.59 CFS

POND NO. 2

POCKET POND
 HAZARD CLASS A
 PRIVATELY OWNED & MAINTAINED
 1 YR WSE = 381.35
 10 YR WSE = 385.87
 100 YR WSE = 386.24
 WQV=0.51 Ac. Ft.
 CPV=0.96 Ac.Ft.
 Rev=0.07 Ac. Ft.
 Q EX. = 3.93 CFS
 Q W/SWM = 0.52 CFS

GRADING FOR

SCALE: 1"=30'

ALL EARTH DIKES ARE TO BE PLACED IN WORKING ORDER AT THE END OF EACH WORKING DAY.
 IMBRICATE SF/SSF IN 25' SEGMENTS AS REQUIRED UPHILL BY 2' IN ELEVATION

2	ADD PHASE III	8/27/07
1	REDD PHASE II	7/23/06
NO.	REVISION	DATE

GRADING AND SEDIMENT & EROSION CONTROL PLAN III
 SITE DEVELOPMENT PLAN
 VILLAGE CREST
 PARCEL C-1, AGE RESTRICTED
 ADULT HOUSING, UNITS 1-29, 31-117
 PHASE I, II & III
 TAX MAP #253 BLOCK 20 PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043
 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RJRHV
 DRAWN BY: RJRHV
 CHECKED BY: RHV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00
 8 SHEET OF 32

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
 Chief, Division of Land Development
 Director
 DATE: 1/20/06
 DATE: 3/5/06
 DATE: 3/5/06

DEVELOPER'S CERTIFICATE

I, WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF DEVELOPER: [Signature]
 DATE: 1/10/06

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION AND SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

SIGNATURE OF ENGINEER: [Signature]
 DATE: 1/10/06

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

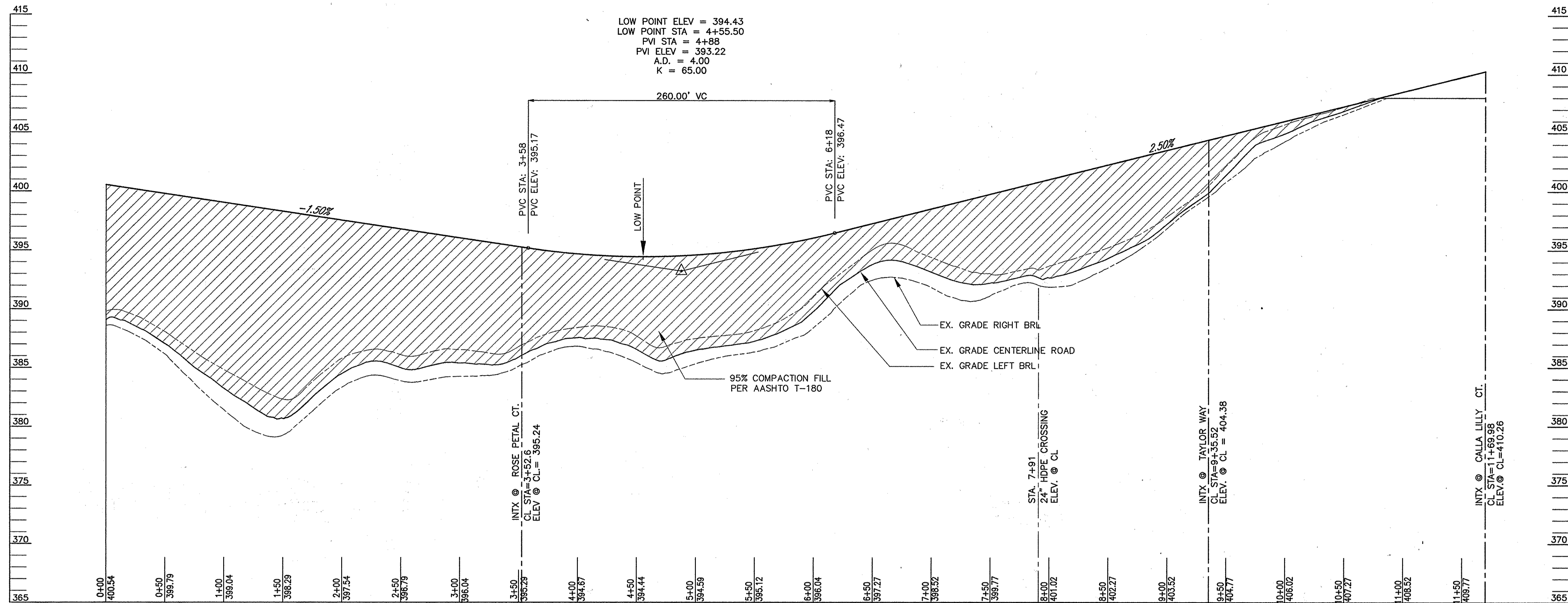
USDA - NATURAL RESOURCES CONSERVATION SERVICE
 DATE: 1/26/06

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 HOWARD SCD DATE: 1/26/06

OWNER/DEVELOPER

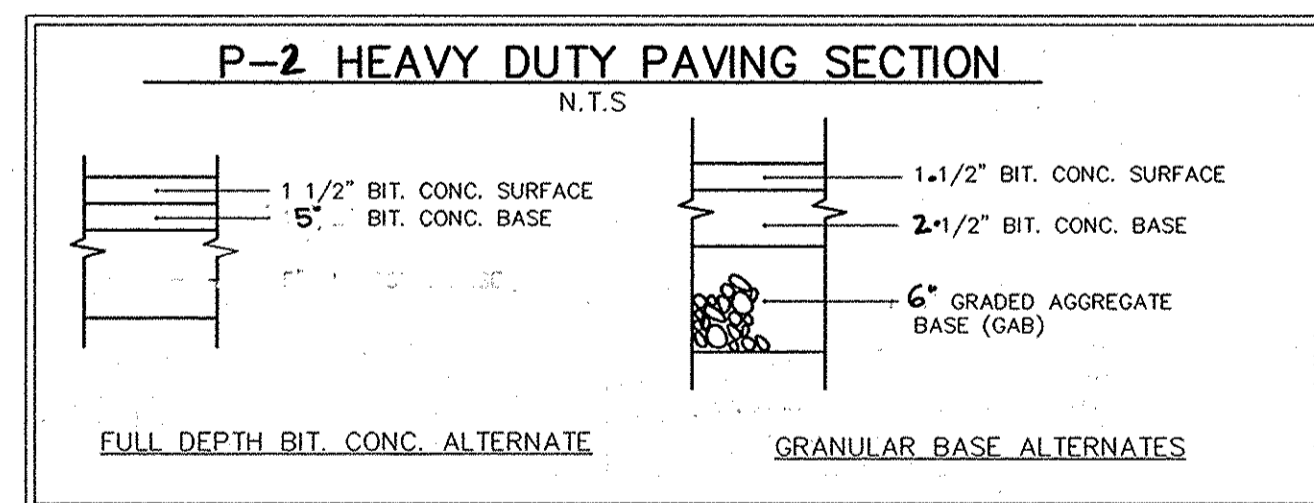
TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REIJWER
 PHONE: (443) 367-0422

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

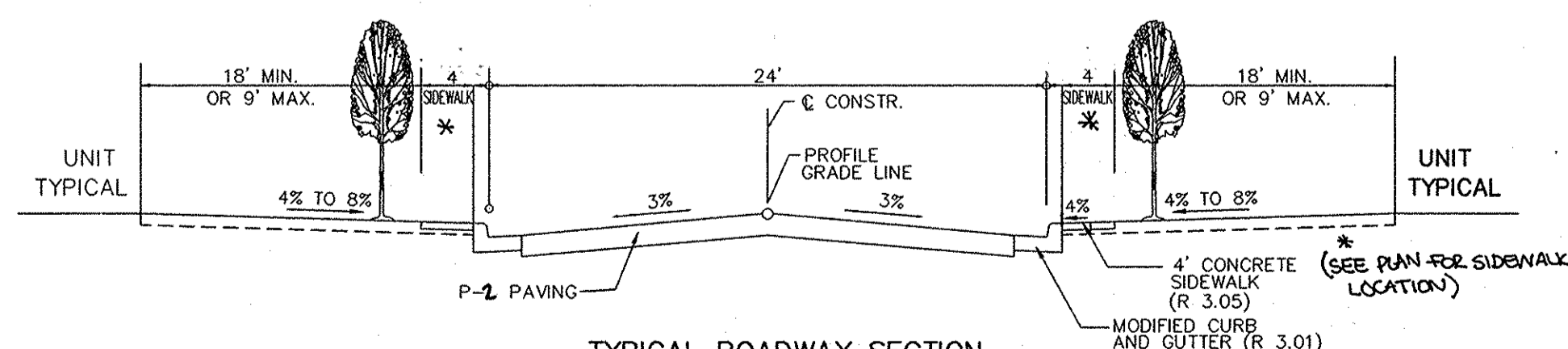


**LOTUS CIRCLE
PRIVATE ROAD**

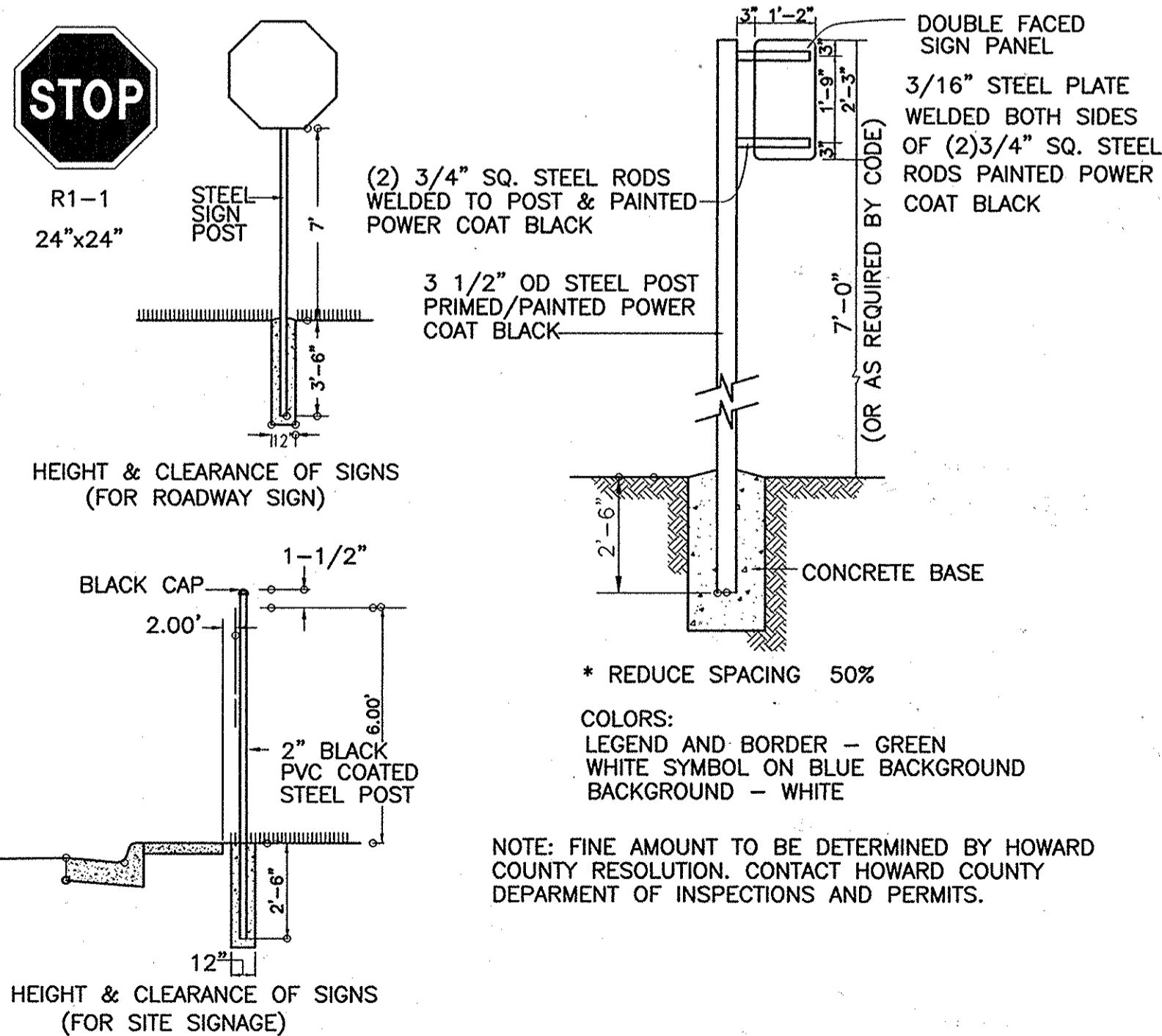
SCALE: 1" = 50' HORZ.
1" = 5' VERT.



PAVING SECTION TO BE REVIEWED BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION



TYPICAL ROADWAY SECTION
LOTUS CIRCLE
ROSE PETAL CT.
CALLA LILLY DRIVE
WHITE VANNIE COURT, BLUEBELL WAY
DESIGN SPEED : 15 MPH
SECTION NOT TO SCALE



**SIGNAGE DETAIL
NOT TO SCALE**

NOTE: FINE AMOUNT TO BE DETERMINED BY HOWARD COUNTY RESOLUTION. CONTACT HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS.

OWNER / DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A
C/O LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (443) 367-0422

THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING		
<i>W. Damman</i>	1/30/06	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
<i>C. Kinnula</i>	3/8/06	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
<i>David J. Lyell</i>	3/5/06	DATE
DIRECTOR		

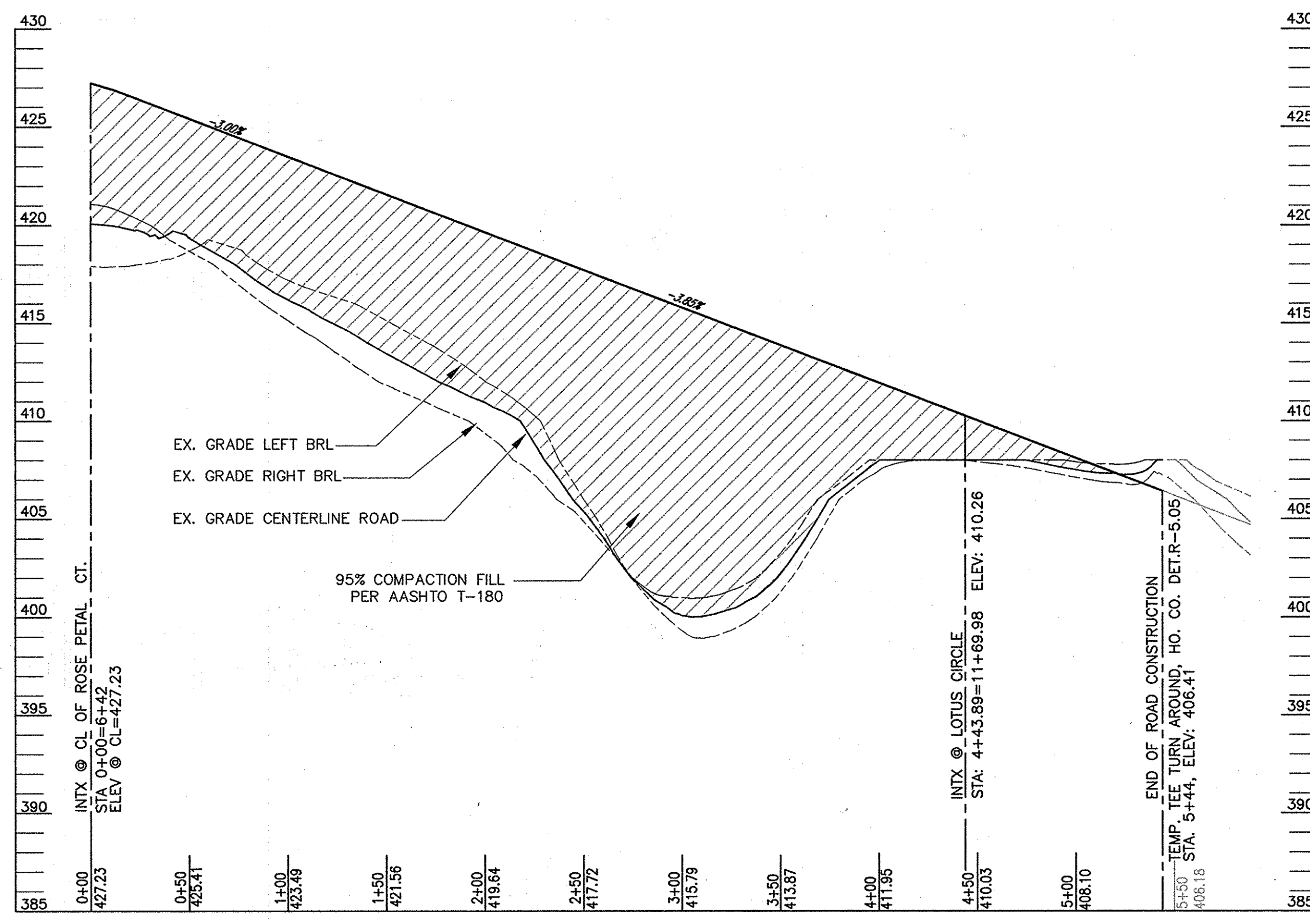
2	ADD PHASE III	8/21/07
1	RED PHASE II	10/3/06
NO.	REVISION	DATE

ROAD PROFILES AND DETAILS
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
TAX MAP #2581BLOCK 20 PHASE I, II, & III PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

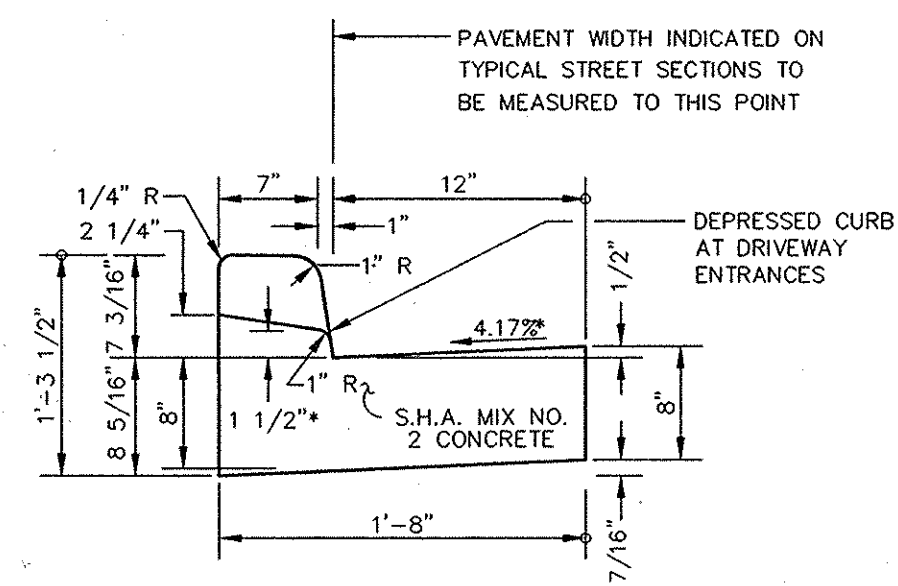
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410-461-7666
FAX: 410-461-8961

DESIGN BY: RJRHV	9	SHEET	32
DRAWN BY: RJRHV	OF		
CHECKED BY: RHW			
DATE: 05-23-2005			
SCALE: AS SHOWN			
W.O. NO.: 2018121.00			

K:\Projects\2018121\ENERG.dwg (Sep-04) -W:\gulle-ep\081012\PR01.dwg, 12/22/2005 3:37:42 AM

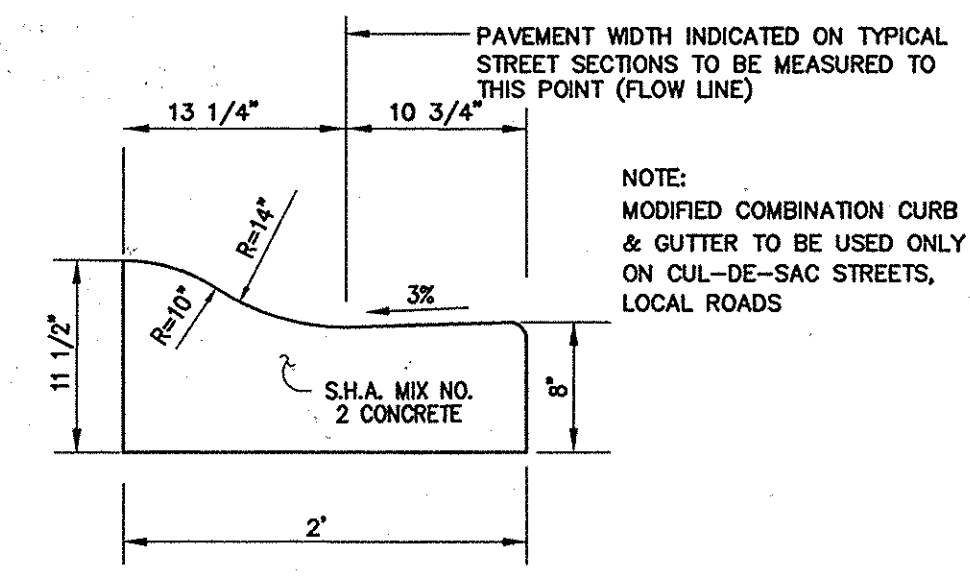


CALLA LILLY DRIVE
PRIVATE ROAD
SCALE: 1" = 50' HORZ.
1" = 5' VERT.



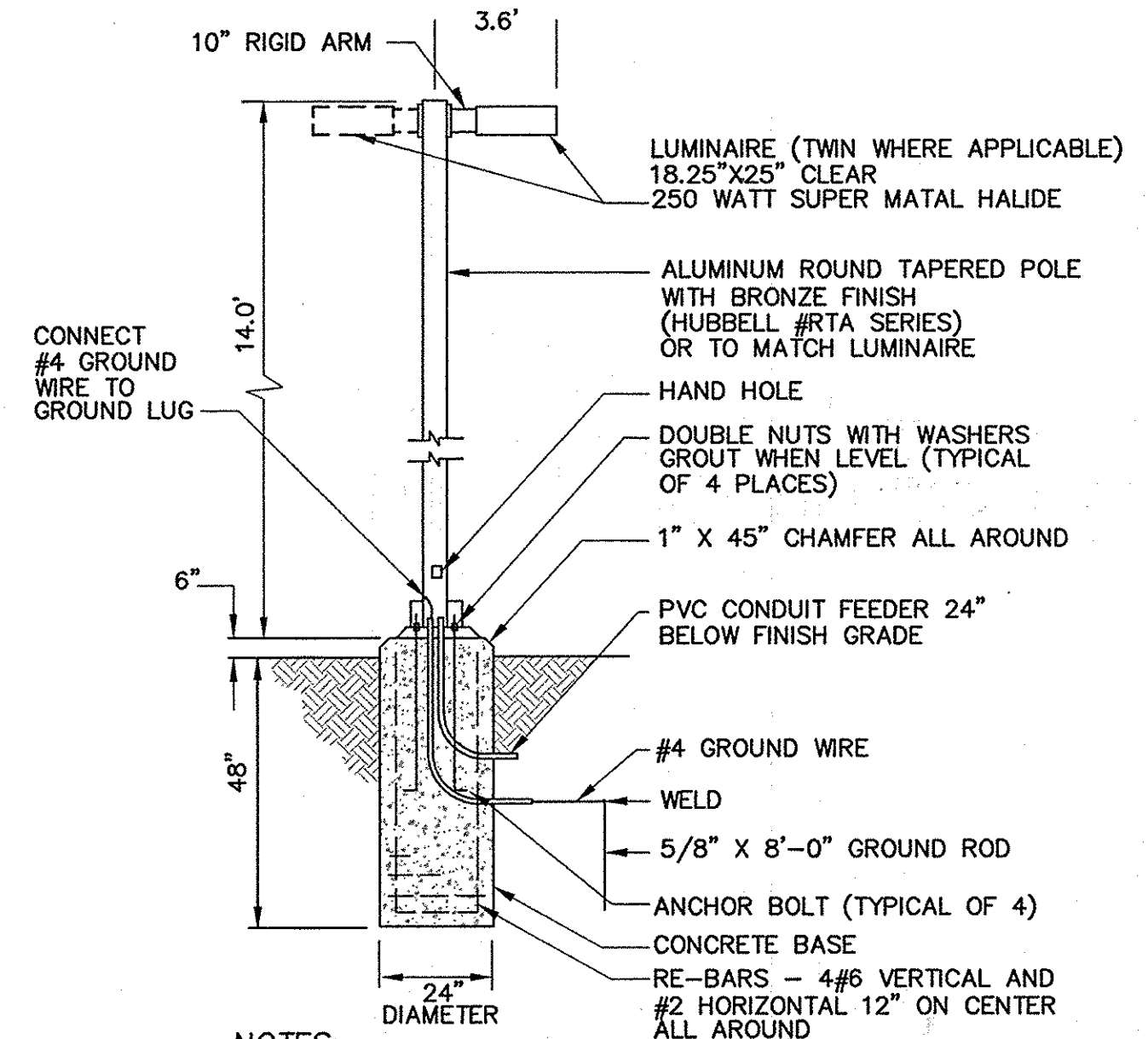
*NOTE: DEPRESSED CURB IN HANDICAP ACCESSIBLE AREAS SHALL HAVE A 0.0417(1/2") RISE FROM PAVING TO TOP OF CURB.

STANDARD COMBINATION CURB AND GUTTER
HOWARD COUNTY STANDARD R-3.01
NOT TO SCALE



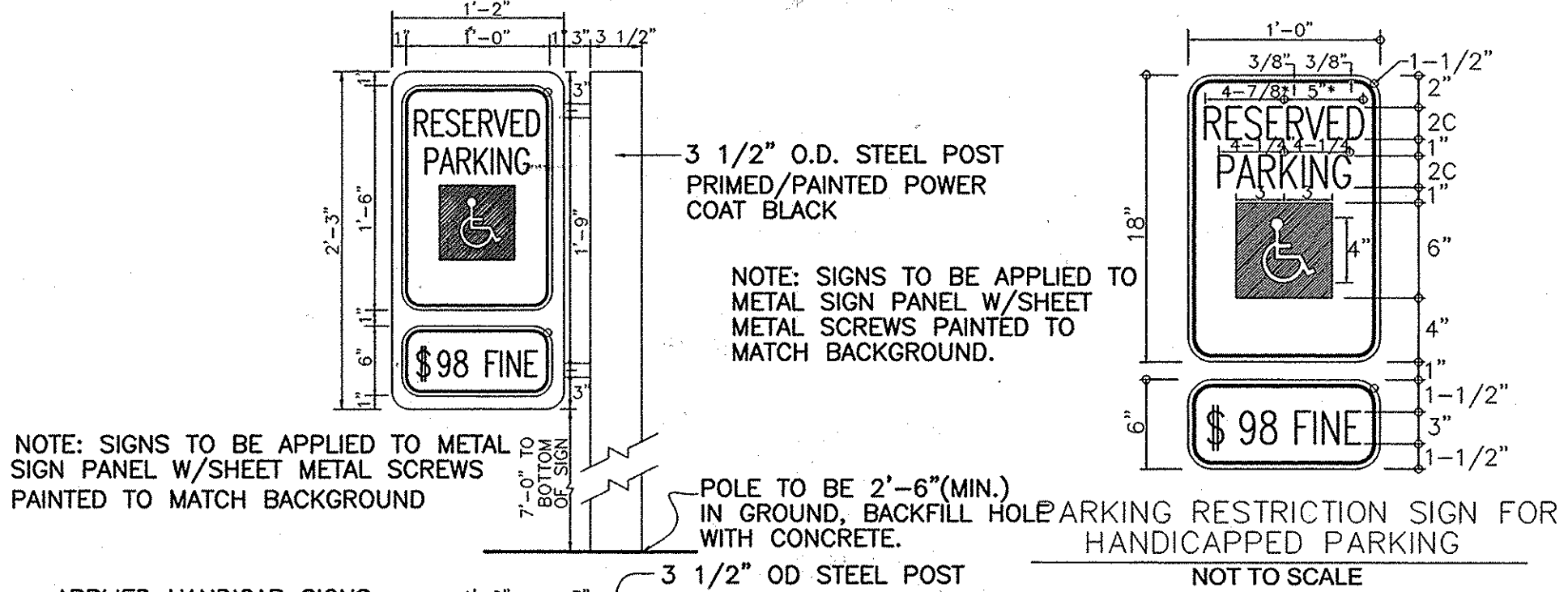
MODIFIED CURB & GUTTER
HOWARD COUNTY STANDARD R3.01
NOT TO SCALE

OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A
C/O LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (443) 367-0422



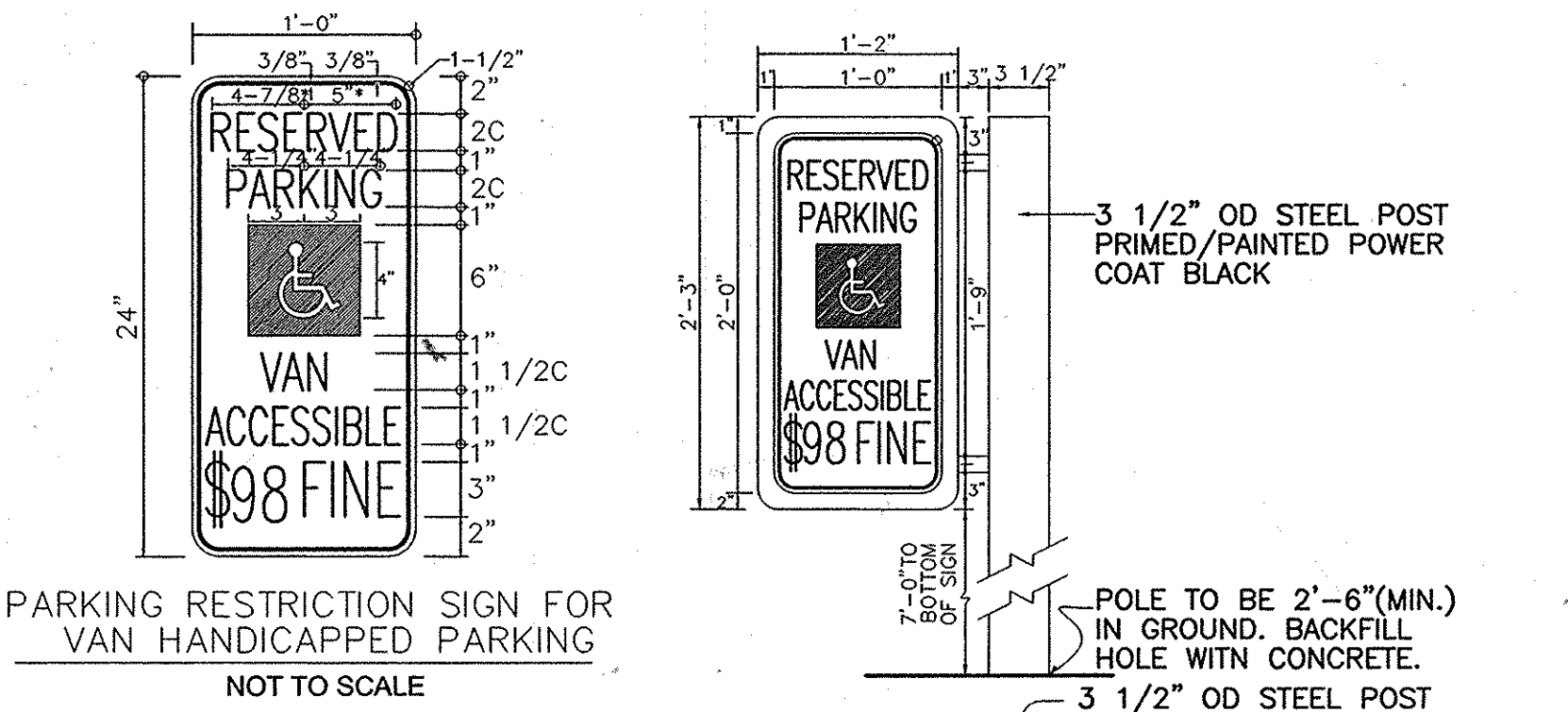
- NOTES:**
1. LIGHT TO BE KIM ENTABLATURE RECTILINEAR WITH 250 WATT FIXTURE.
 2. LIGHTING DETAIL FOR INFORMATIONAL PURPOSES ONLY. SEE ELECTRICAL AND ARCHITECTURAL PLANS FOR ACTUAL LIGHTING DETAILS AND SPECIFICATIONS.
 3. LIGHTING SHALL BE DIRECTED DOWN AND AWAY FROM ADJOINING PROPERTIES AND STREETS.

POLE BASE DETAIL
NO SCALE



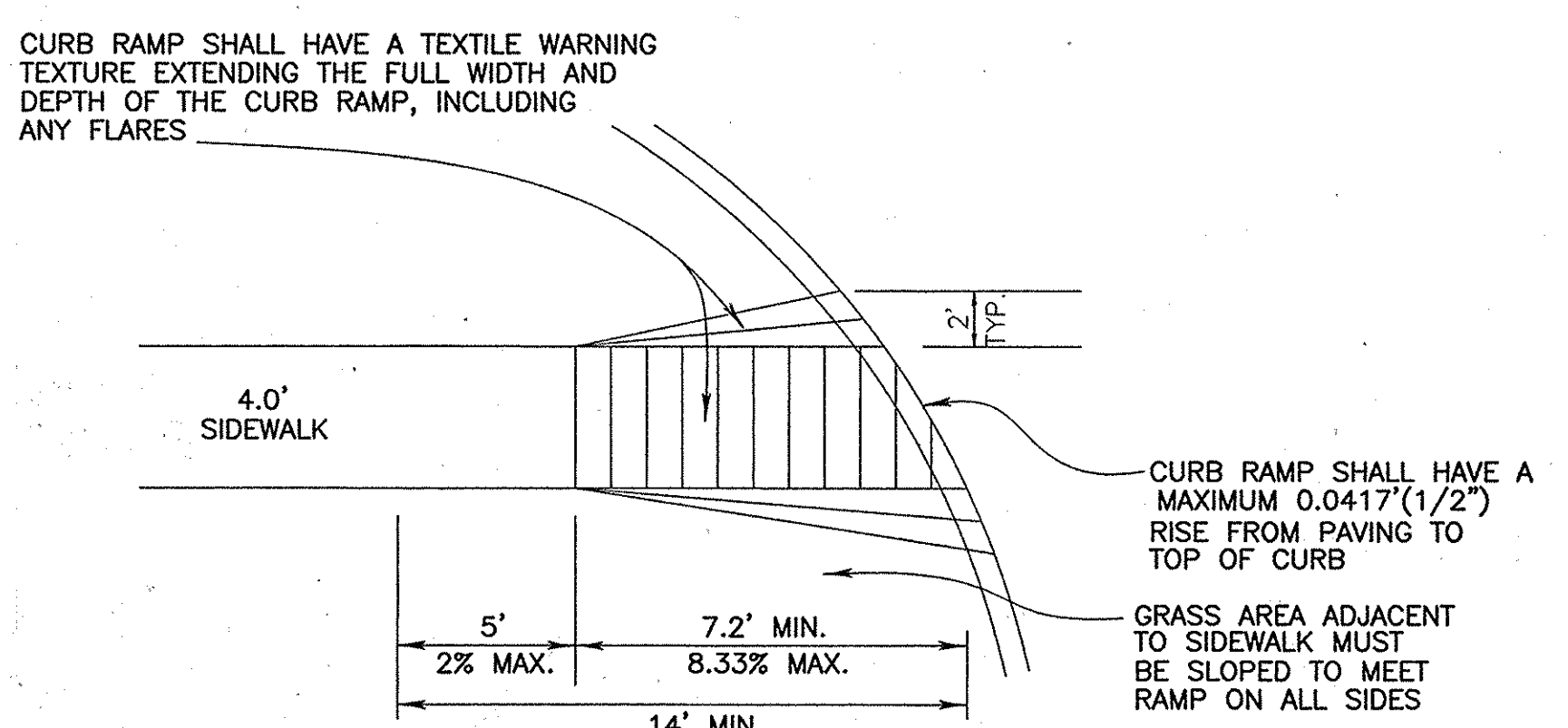
NOTE: SIGNS TO BE APPLIED TO METAL SIGN PANEL W/SHEET METAL SCREWS PAINTED TO MATCH BACKGROUND.

APPLIED HANDICAP SIGNS SIGN PANEL 3/16\"/>



NOTE: SIGNS TO BE APPLIED TO METAL SIGN PANEL W/SHEET METAL SCREWS PAINTED TO MATCH BACKGROUND.

APPLIED HANDICAP SIGNS SIGN PANEL 3/16\"/>



SIDEWALK RAMP
NOT TO SCALE

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

2	ADD PHASE III	8/27/07
1	ADD PHASE II	10/3/06
NO.	REVISION	DATE

ROAD PROFILES AND DETAILS

SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31=117

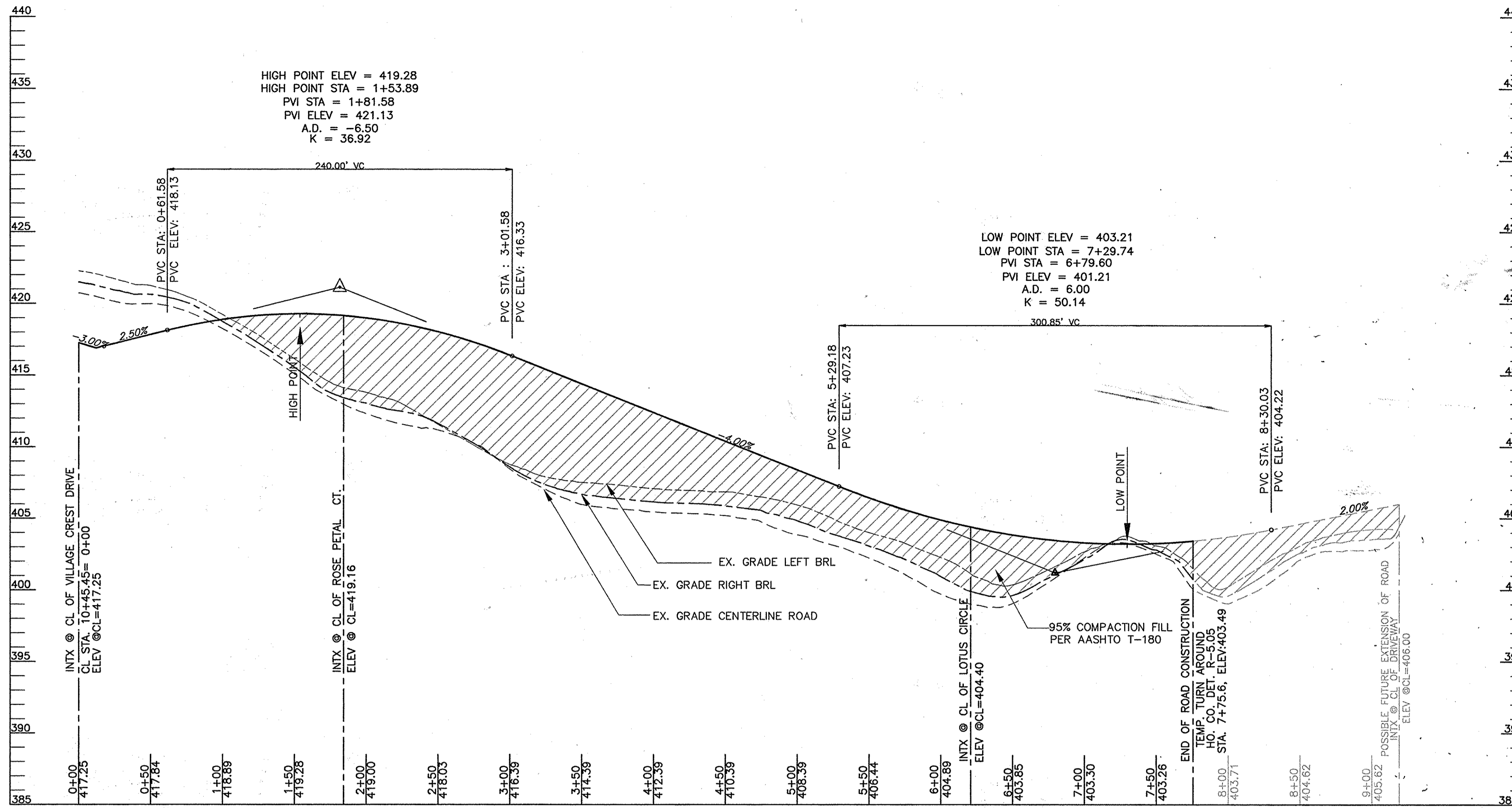
TAX MAP #259/BLOCK 20 PHASE I, II, III PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.481.7999
ELLCOTT CITY, MD 21043 FAX: 410.481.7999

DESIGN BY: RJRHV
DRAWN BY: RJRHV
CHECKED BY: RHV
DATE: 05-23-2005
SCALE: AS SHOWN
W.O. NO.: 2018121.00

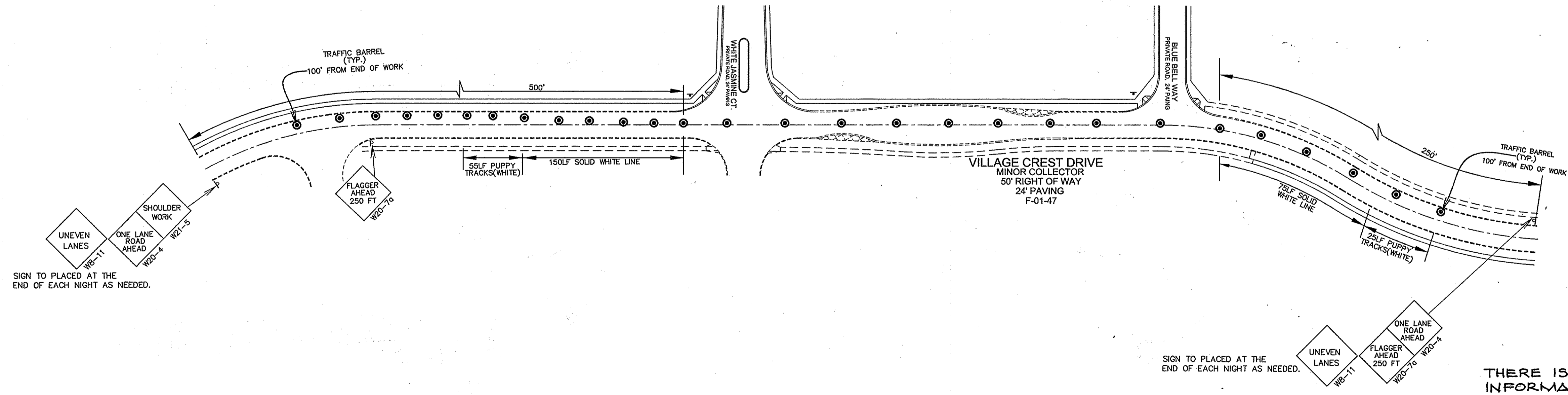
10 SHEET OF 32

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WHITE JASMINE CT.
PRIVATE ROAD
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A
C/O LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (443) 367-0422



SIGN TO BE PLACED AT THE END OF EACH NIGHT AS NEEDED.

SIGN TO BE PLACED AT THE END OF EACH NIGHT AS NEEDED.

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

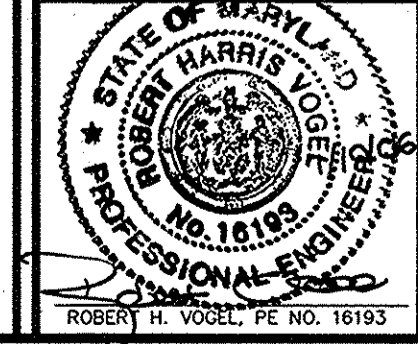
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE 1/20/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature] DATE 3/2/06
 CHIEF, DIVISION OF LAND DEVELOPMENT
 [Signature] DATE 2/5/06
 DIRECTOR

2	ADD PHASE III	02/27/07
1	ADD PHASE II	10/29/06
NO.	REVISION	DATE

ROAD PROFILES AND DETAILS
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
PHASE I, II & III
TAX MAP #25B BLOCK 20 PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

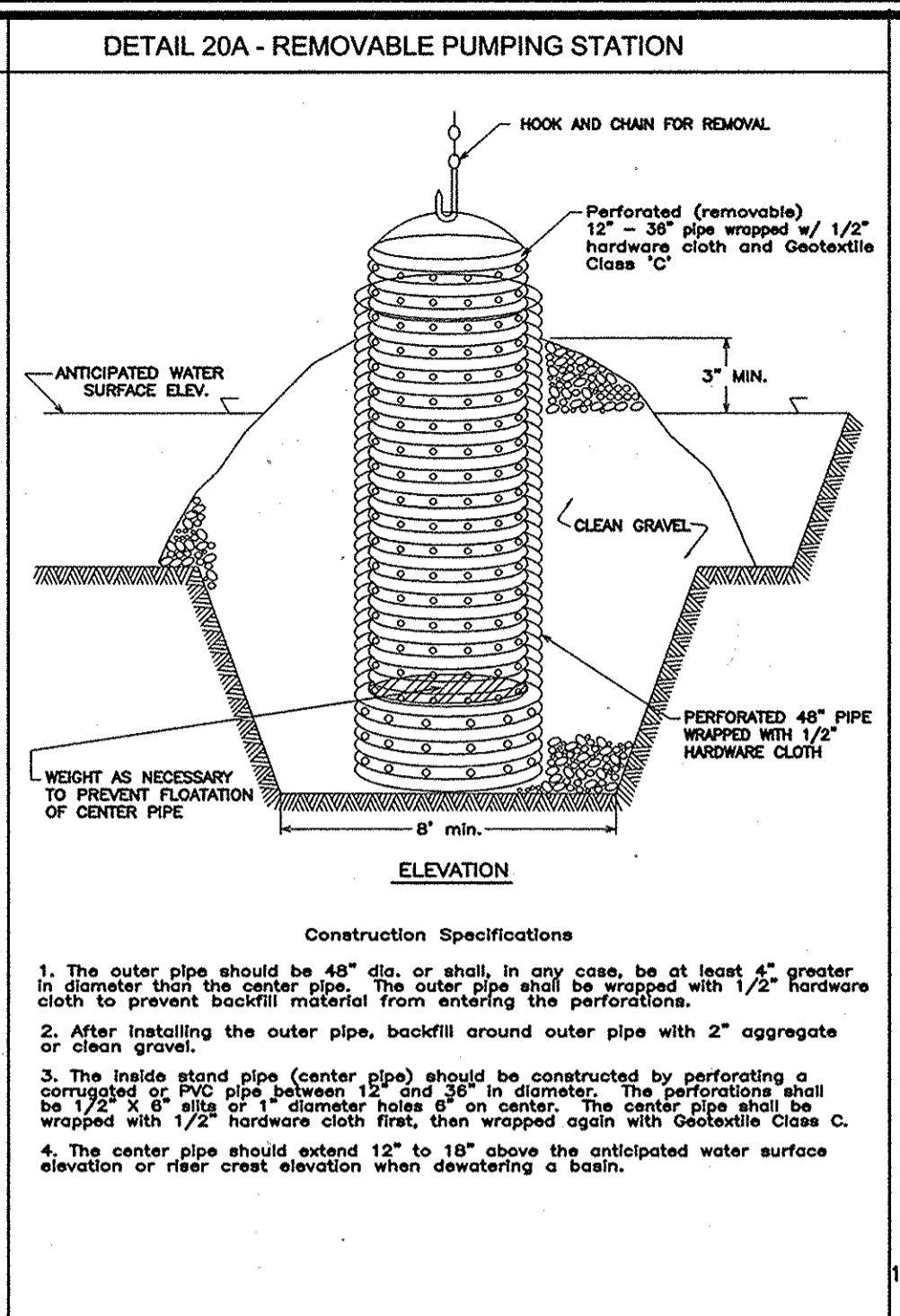
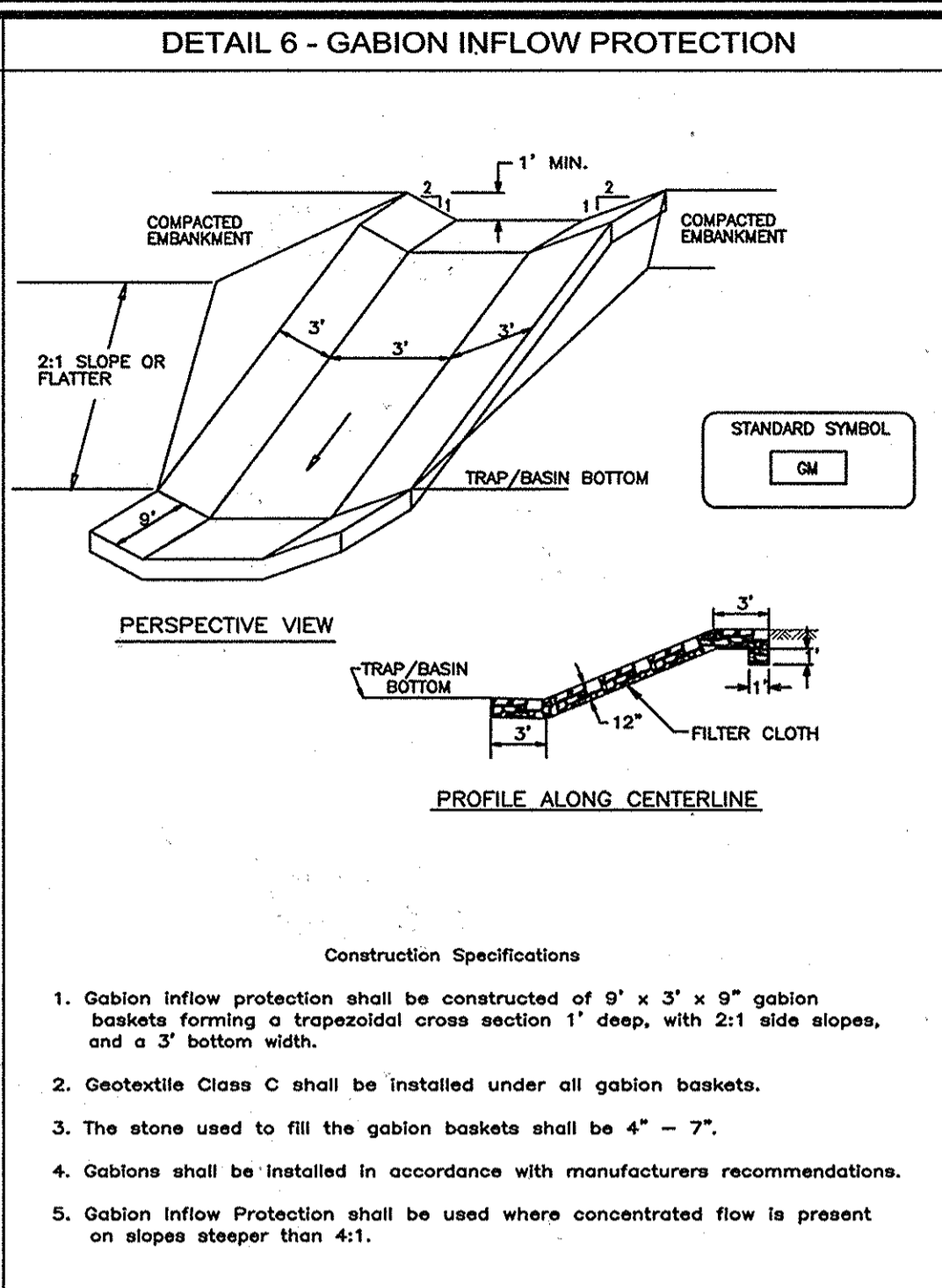
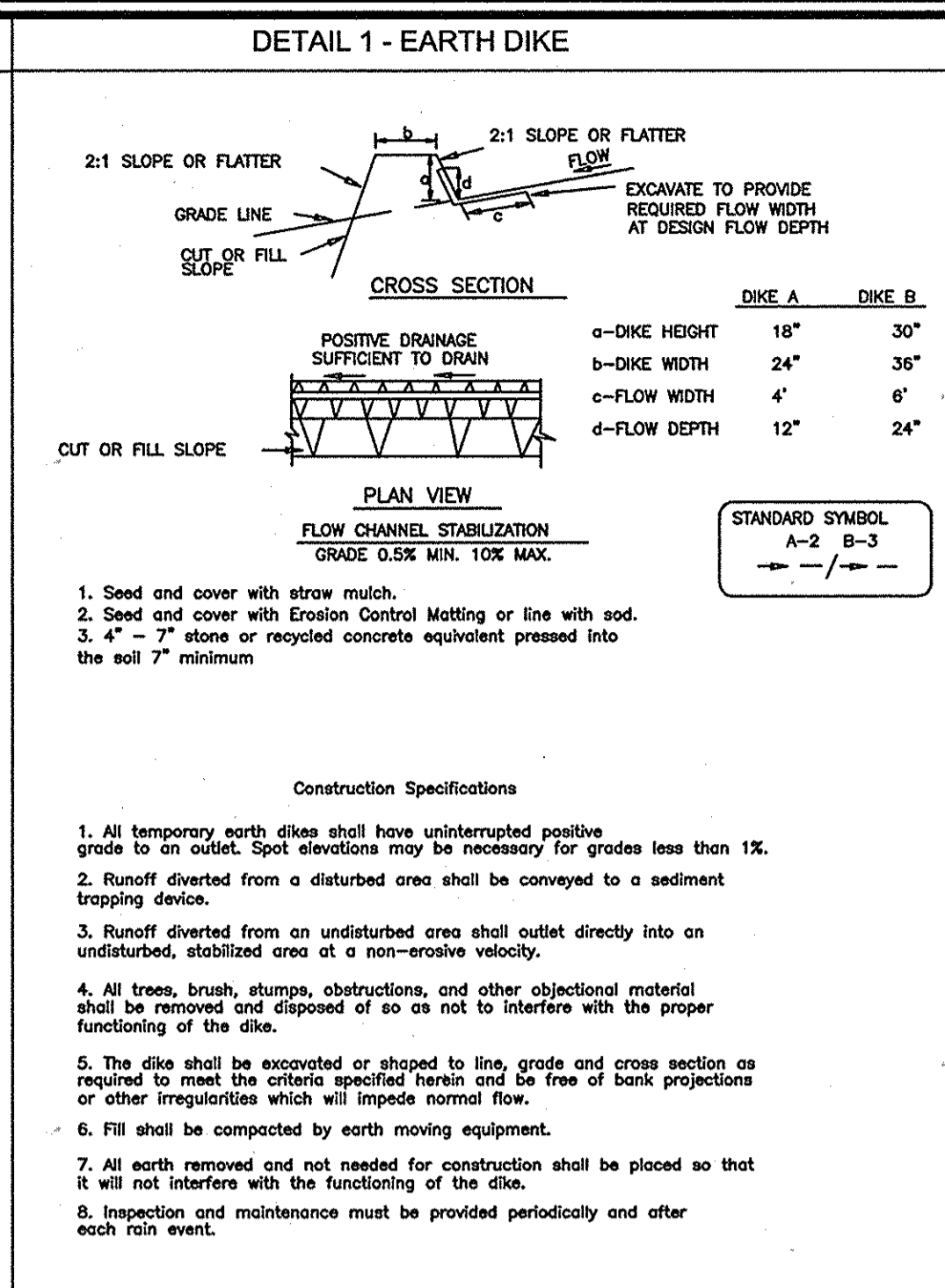
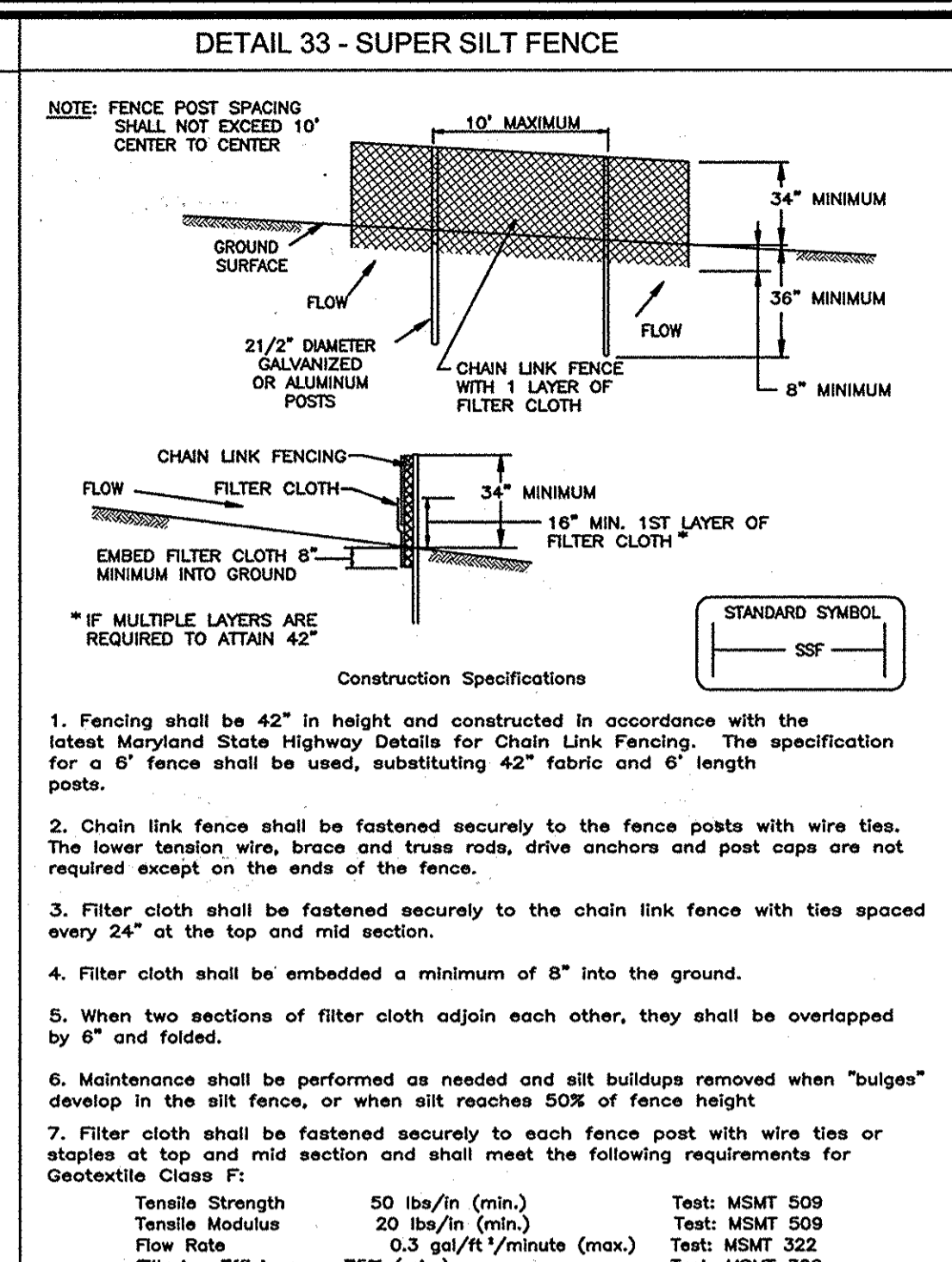
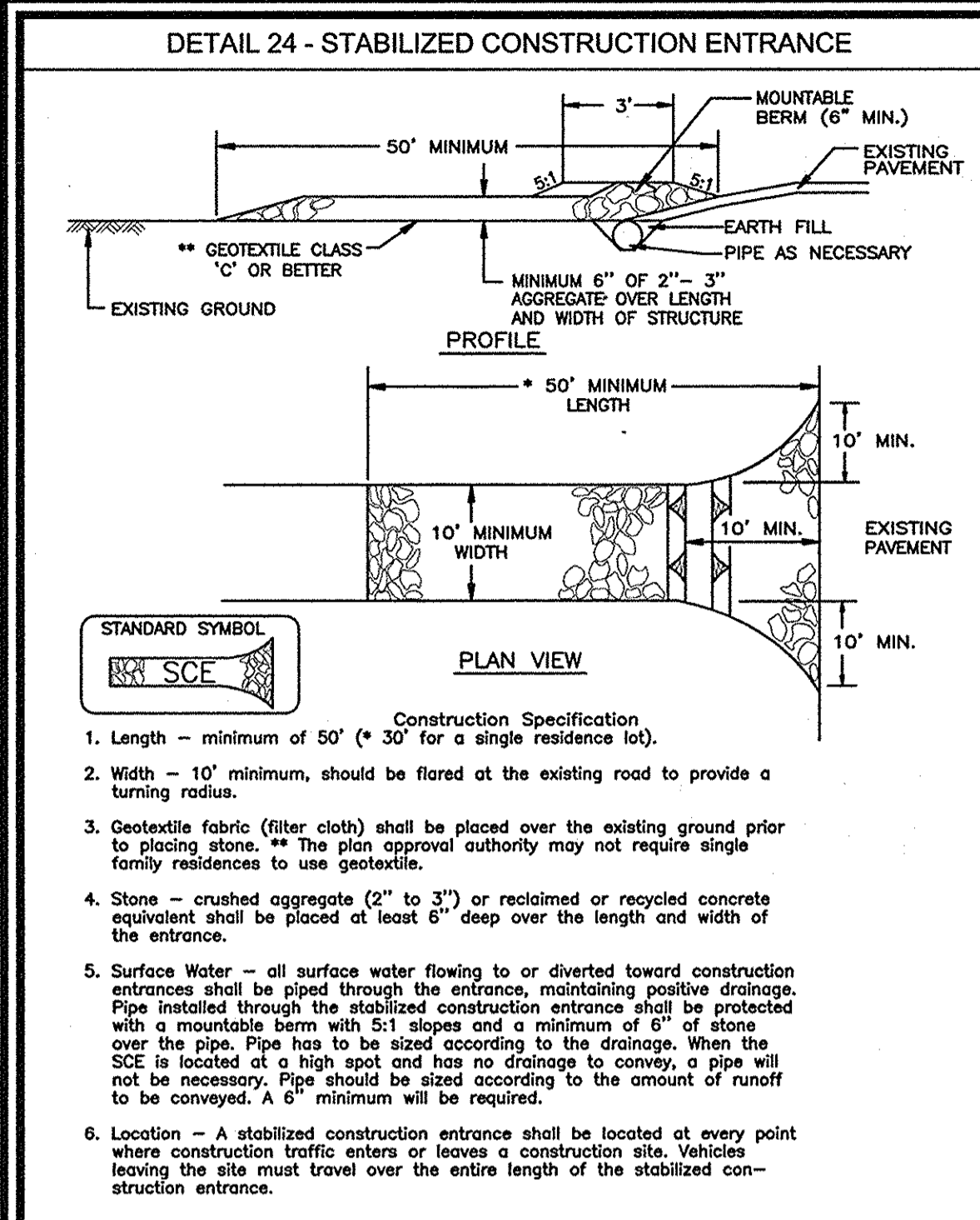
ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLCOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RJR/HV
 DRAWN BY: RJR/HV
 CHECKED BY: RHV
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12 SHEET OF 32

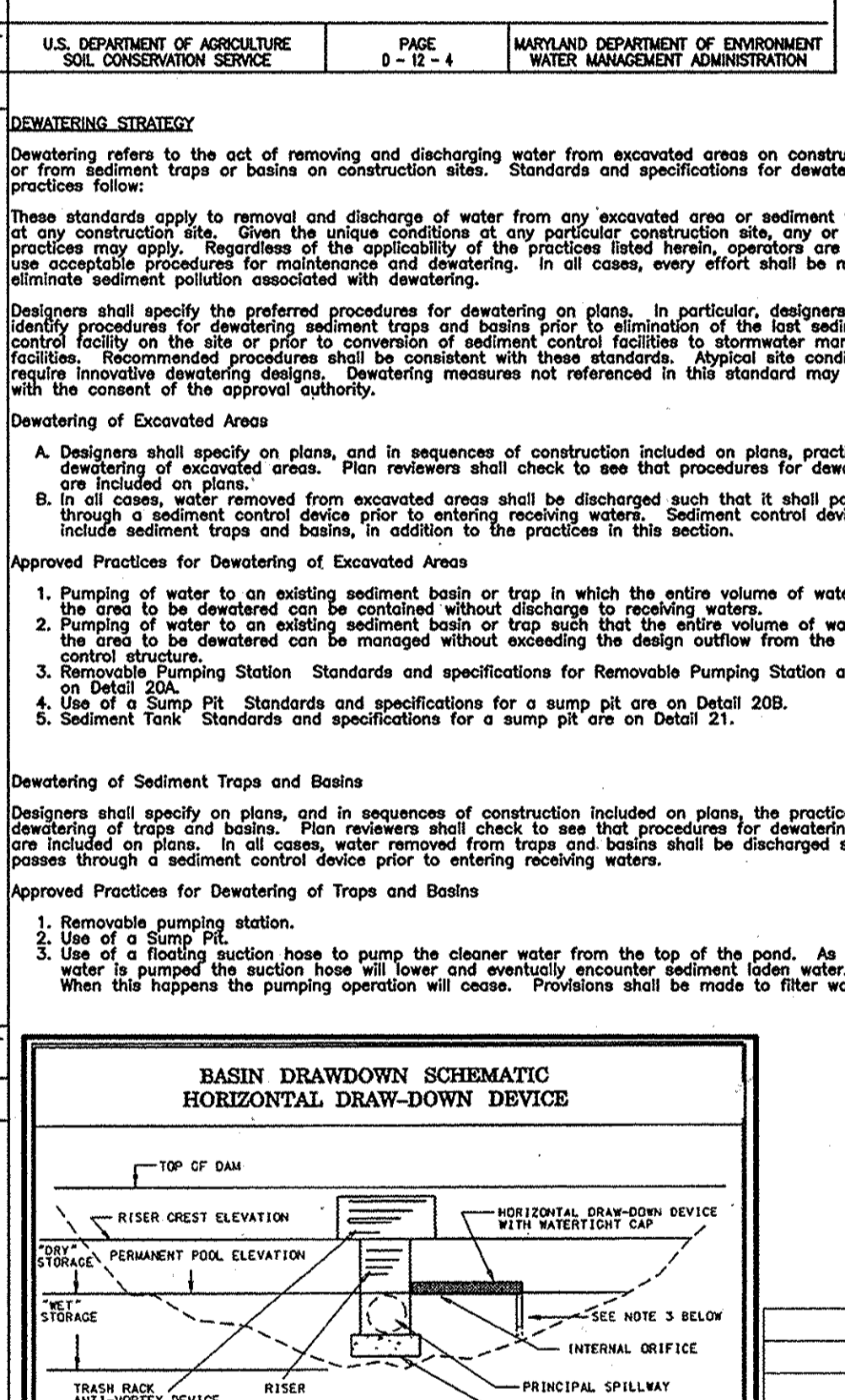
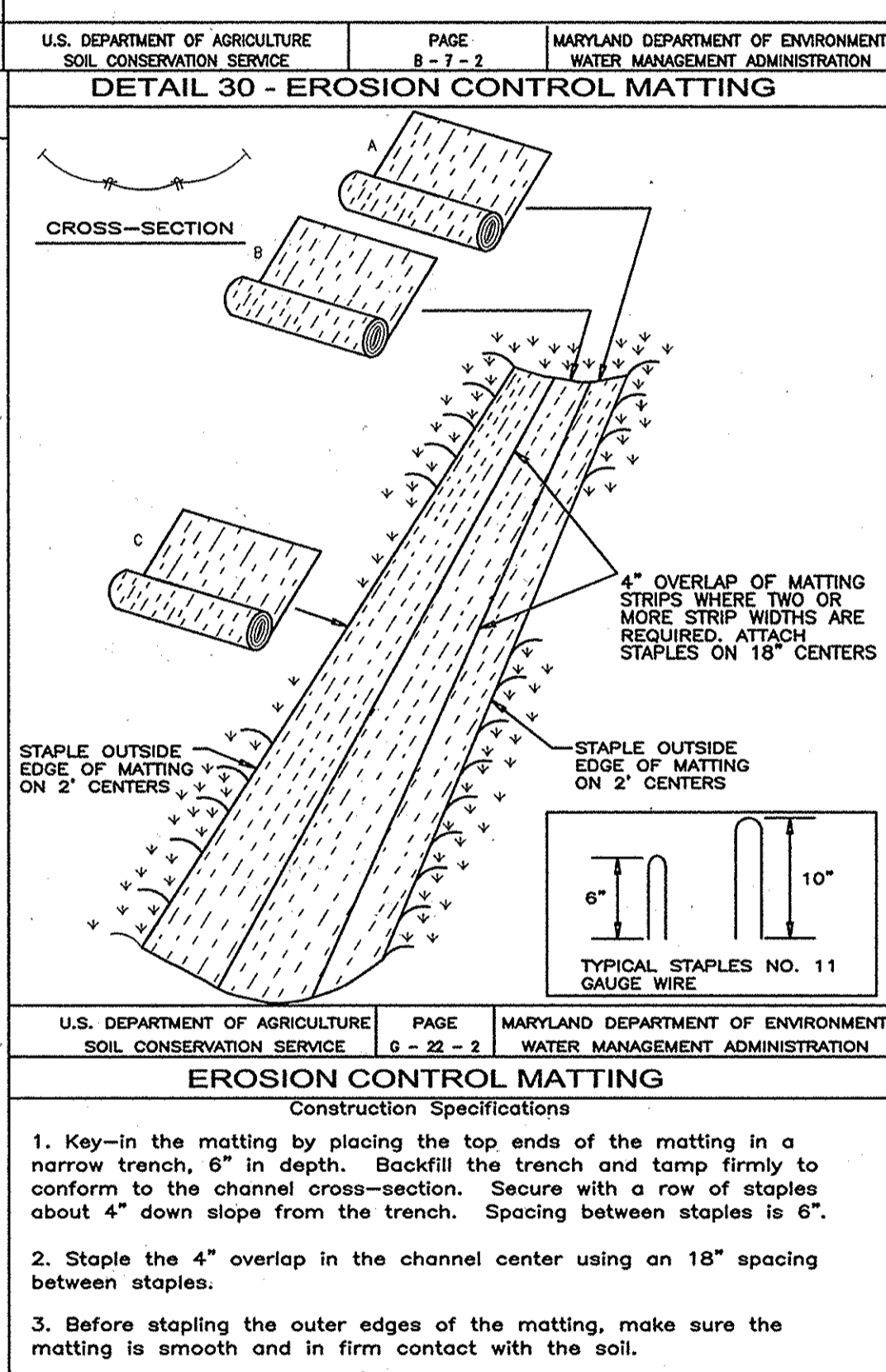
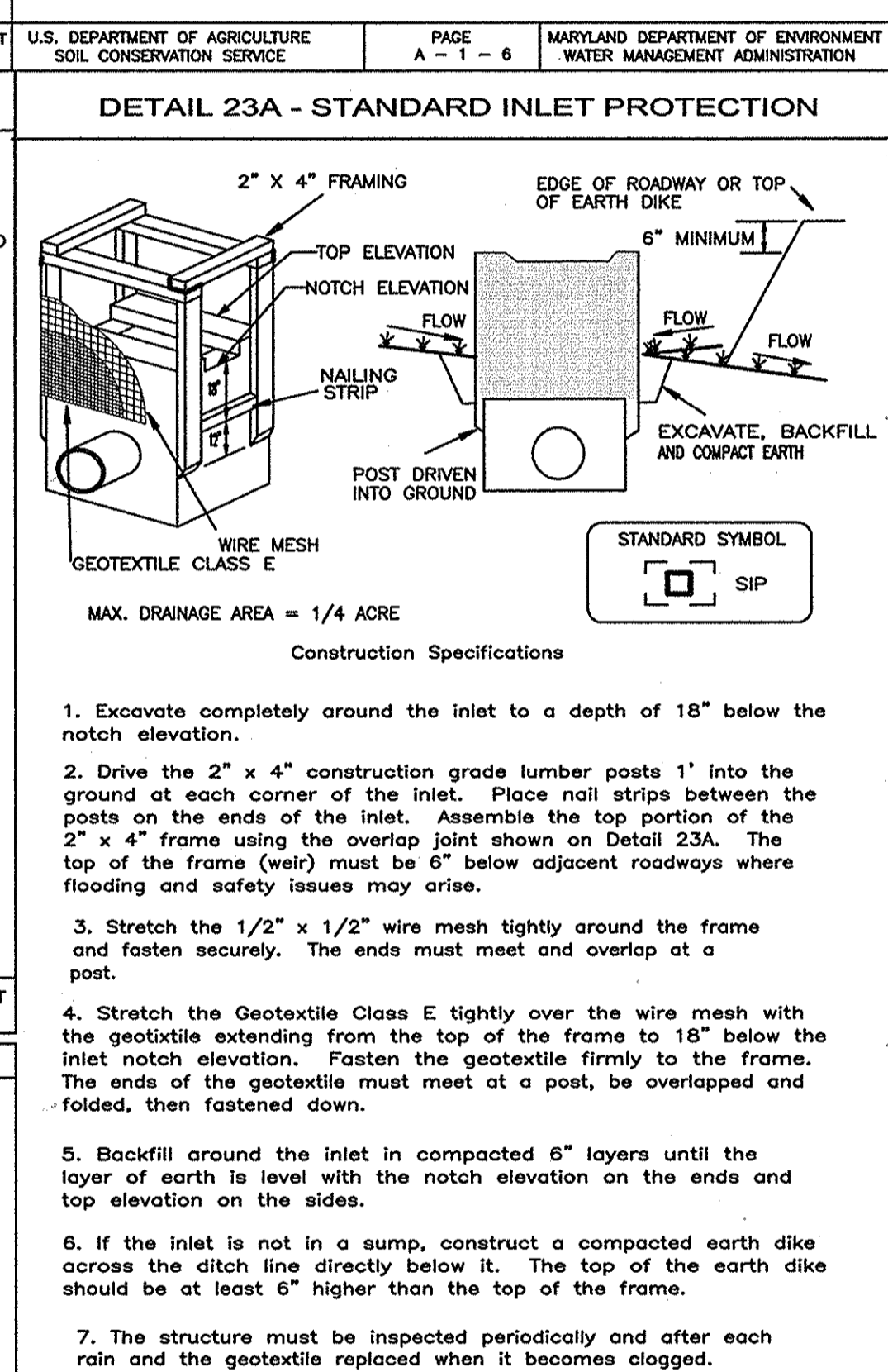
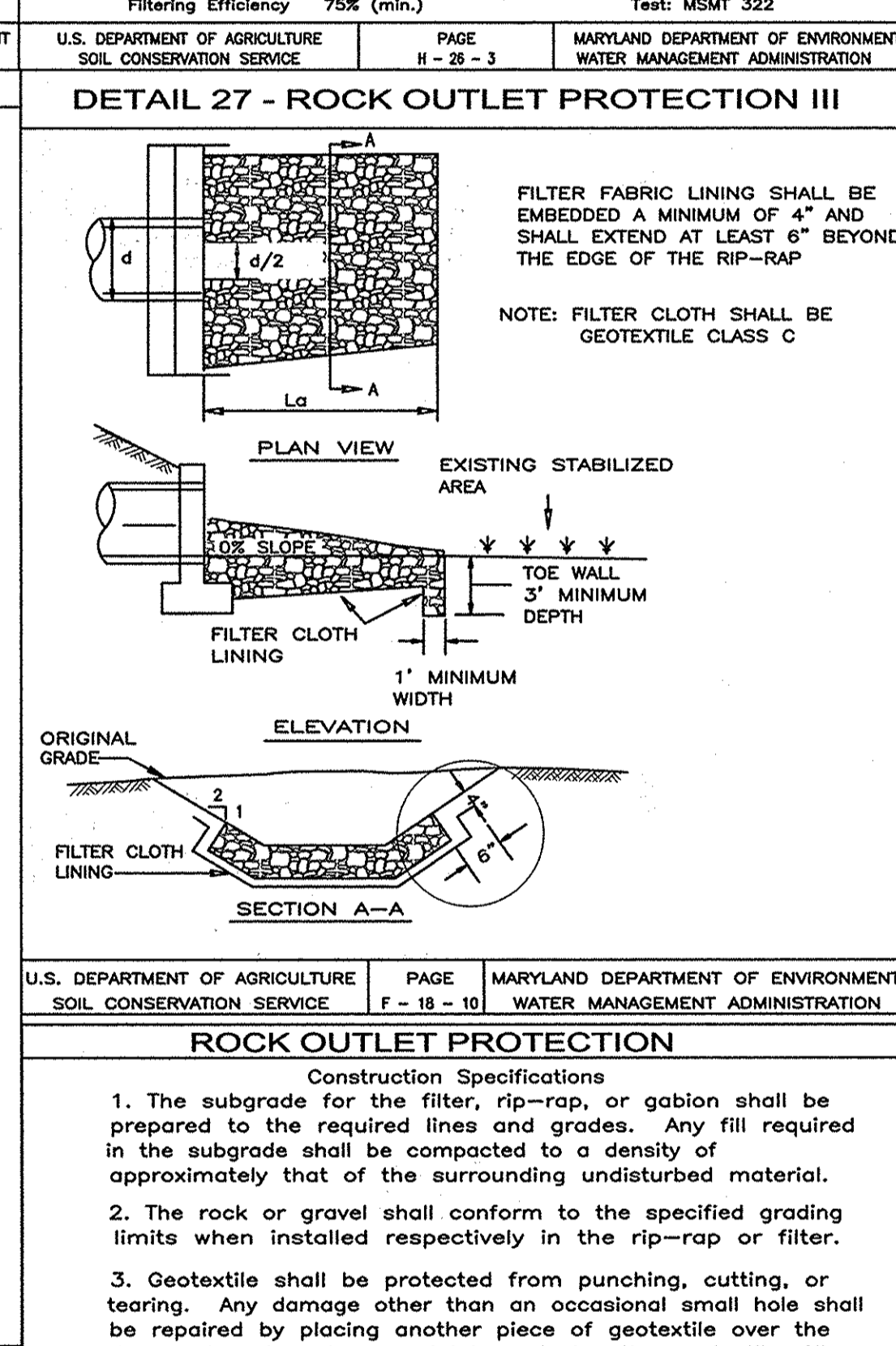
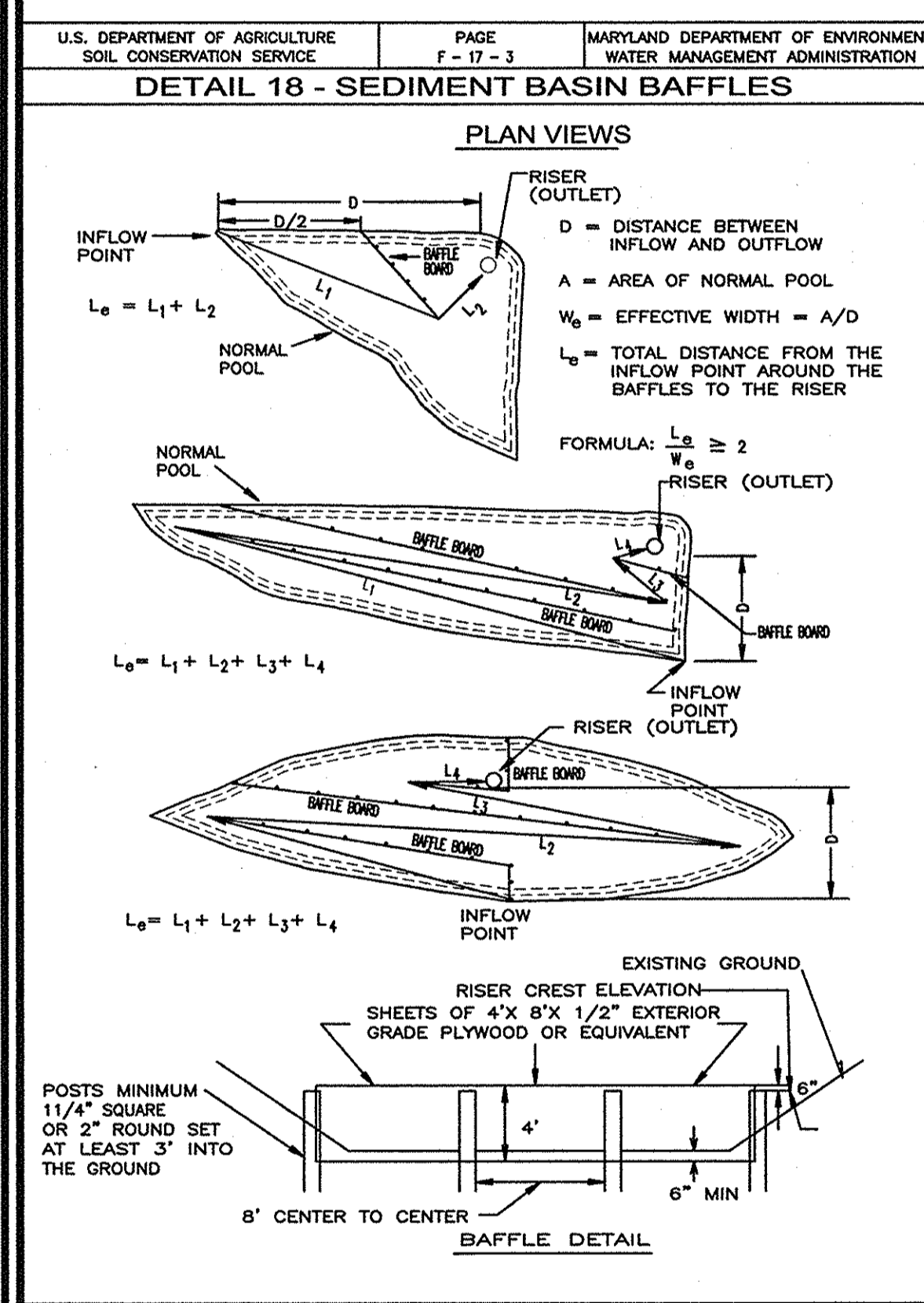
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SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1655).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1; (b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, soil, temporary seeding, and mulching (Sec. C). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area	SUBDIVISION	PARCEL	23.46 Acres
Area Disturbed			18.30 Acres
Area to be roofed or paved			9.07 Acres
Area to be vegetatively stabilized			9.23 Acres
Total Cut			40,000 ± CY
Total Fill			86,000 ± CY
- Off-site waste/borrow area location - AUTUMN VIEW SUBDIVISION
- To be determined by contractor with approval of the Sediment Control Inspector with an approved and active grading permit.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 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, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back and stabilized within one working day, whichever is shorter.



SEQUENCE OF CONSTRUCTION

NO.	DESCRIPTION	DURATION
1.	OBTAIN GRADING PERMIT. PERMIT APPLICATION TRACKING NUMBER 05-117-0172/20053301	2 WEEK
2.	NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (313-1850) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.	
3.	CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE AND INSTALL TREE PROTECTION DEVICES.	4 DAYS
4.	INSTALL PERIMETER SUPER SILT FENCE AND ALL REMAINING PERIMETER CONTROLS.	6 DAYS
5.	CONSTRUCT STORMWATER MANAGEMENT FACILITIES (SEDIMENT TRAPS, BASINS AND TRAP #1) CONSTRUCT SEDIMENT CONTROL DRAINAGE DEVICES. EXISTING BASIN#2 (P-02-47) TO REMAIN UNTIL COMPLETION OF CONSTRUCTION.	2 WEEK
6.	ONCE SEDIMENT BASINS ARE CONSTRUCTED, INSTALL EARTHDIKES.	2 DAYS
7.	WITH INSPECTOR'S APPROVALS CLEAR AND GRUB SITE AND BEGIN MASS GRADING.	1 WEEK
8.	WITH GRADING IN PROCESS MAINTAIN FLOW TO BASINS AND BEGIN GRADING OF ROADS.	3 WEEK
9.	GRADE REMAINING ROADS TO SUB-BASE AS SITE IS GRADED. MAINTAIN STORM DRAIN SYSTEMS, WATER AND SEWER AS ROADS ARE GRADED TO SUB-BASE.	3 WEEK
10.	WITH PERMISSON OF THE INSPECTOR, STABILIZE, CONVERT SEDIMENT BASINS TO SUB-BASE AND INLETS ARE IN PLACE BEGIN INSTALLATION OF CURB AND GUTTER.	3 WEEK
11.	BEGIN PAVING ROADS AND INSTALL SIDEWALKS AND STREET TREES.	2 WEEK
12.	WITH INSPECTOR'S APPROVAL AND ROAD PAVING COMPLETE, BEGIN CONSTRUCTION OF STABILIZED CONSTRUCTION ENTRANCE AND INSTALL 6" POND DRAIN. CONVERT DRAINAGE DEVICE IN POND 2 TO PERMANENT WATER QUALITY EXTENDED DETENTION PIPE PER DETAIL 20A.	2 WEEK
13.	WITH PERMISSON OF THE INSPECTOR, FLUSH STORM DRAIN SYSTEM UNTIL CONSTRUCTING AREAS ARE FULLY STABILIZED AND WITH PERMISSION OF THE INSPECTOR, CONVERT TRAP #1 TO UNDERGROUND FACILITY. PROVIDE DOUBLE ROW OF SILT FENCE AT THE TRAP OUTLET. SUPER SILT FENCE ARE TO REMAIN UNTIL CONSTRUCTION OF UNDERGROUND FACILITY.	1 WEEK
14.	AS STORMWATER MANAGEMENT POND IS STABILIZED, INSTALL POND LANDSCAPING AS SHOWN IN SCHEDULE IV AND PERIMETER LANDSCAPING AS SHOWN IN SCHEDULE V, SEE SHEET 28 FOR SCHEDULE TABLES.	1 WEEK
15.	WITH PERMISSION OF THE INSPECTOR, FLUSH STORM DRAIN SYSTEM AND REMOVE ALL SEDIMENT CONTROLS FROM THE SITE. STABILIZED ALL DISTURBED AREAS IMMEDIATELY AND REMOVE ALL JUNK, TRASH AND DEBRIS (OLD AND NEW) FROM BUFFERS, FLOODPLAIN AND FOREST CONSERVATION AREAS.	1 WEEK
16.	A 5-DAY CLEAR WEATHER (NO PRECIPITATION) FORECAST FROM THE NWS IS OBTAINED AND WITH INSPECTOR'S APPROVAL, UPON INSTALLATION OF CONTROLS AS SHOWN ON THE PLAN, REMOVE EX. CURBVERT AND CONSTRUCT 54" CULVERT. NO CONSTRUCTION ALLOWED 3/1 TO 6/15	1 WEEK
17.	WITH PERMISSION OF THE INSPECTOR, STABILIZE DISTURBED AREA.	2 DAYS

NOTES:

- During grading and after each rainfall, the contractor shall inspect and provide the necessary maintenance on the sediment and erosion control measures shown herein.
- Following initial soil disturbance or redistribution permanent or temporary stabilization shall be completed within:
 - 7 calendar days for all perimeter sediment control structures, dikes, slopes, ditches, perimeter slopes and all slopes greater than 3:1.
 - 14 calendar days for all other disturbed areas.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F-17-3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F-18-10	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E-16-5	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G-22-2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G-22-2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/30/06
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 3/5/16
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 3/9/16
 DIRECTOR

DEVELOPER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

[Signature] 4/10/06
 SIGNATURE OF DEVELOPER

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION AND SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

[Signature] 1/10/06
 SIGNATURE OF ENGINEER
 ROBERT H. VOGEL

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

[Signature] 1/26/06
 USDA - NATURAL RESOURCES CONSERVATION SERVICE

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

[Signature] 1/26/06
 HOWARD SCD

OWNER/DEVELOPER

TAYLOR FAMILY LIMITED PARTNERSHIP A CIVIL DESIGN & DEVELOPMENT, INC.
 8000 MAIN STREET
 ELLICOTT CITY, MD 21043
 ATTN: MR. DONALD R. REUWER
 PHONE: (410) 480-9105

SEDIMENT AND EROSION CONTROL DETAILS I

SITE DEVELOPMENT PLAN

VILLAGE CREST

PARCEL C-1, AGE RESTRICTED

ADULT HOUSING, UNITS 1-29, 31-117

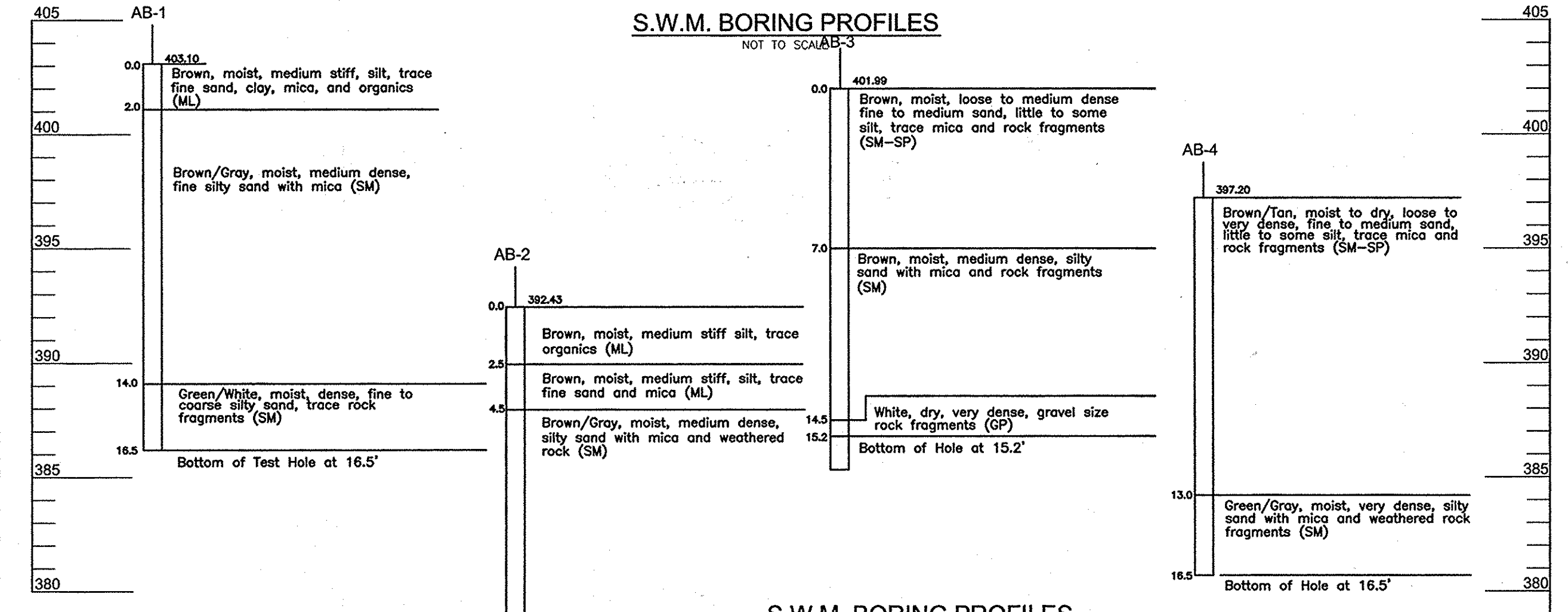
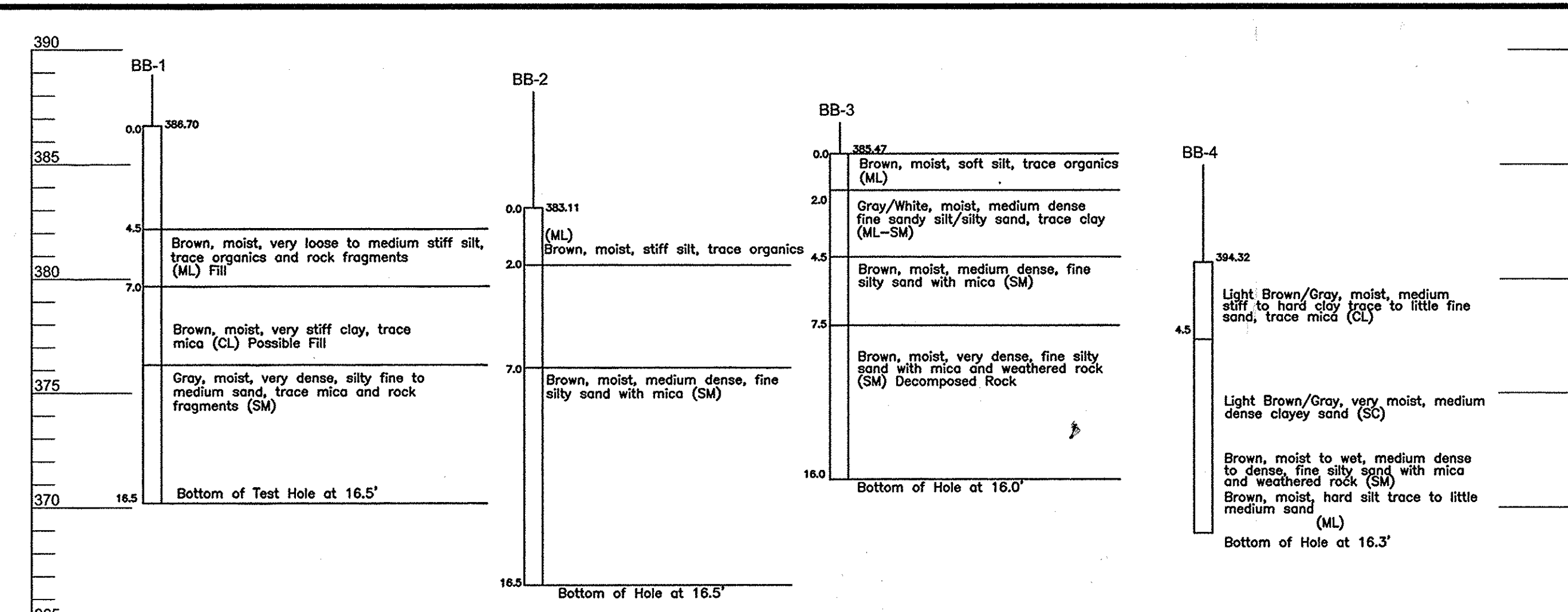
TAX MAP #25B BLOCK 20 PHASE I, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET, ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RJR/RV
 DRAWN BY: RJR/RV
 CHECKED BY: RVH
 DATE: 05-23-2005
 SCALE: AS SHOWN
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13 SHEET OF 32



Basin#3 Construction Specifications

- SITE PREPARATION:** PERIMETER SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO CLEARING, GRUBBING AND STRIPPING OF SOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBSTRUCTIBLE MATERIAL. THE POOL AREA SHALL NOT BE CLEARED UNTIL COMPLETION OF THE DAM EMBANKMENT UNLESS THE POOL AREA IS TO BE USED FOR BORROW. IN ORDER TO FACILITATE CLEAN-OUT AND RESTORATION, THE POOL AREA (MEASURED AT THE TOP OF THE PIPE SPILLWAY) SHALL BE CLEARED OF ALL BRUSH, TREES AND OTHER OBSTRUCTIBLE MATERIALS.
- CUT-OFF TRENCH:** A CUT-OFF TRENCH SHALL BE EXCAVATED ALONG THE CENTERLINE OF EARTH FILL EMBANKMENTS. THE MINIMUM DEPTH SHALL BE FOUR FEET. THE CUT-OFF TRENCH SHALL EXTEND UP BOTH ABUTMENTS TO THE RISER CREST. THE MINIMUM BOTTOM WIDTH SHALL BE TWO FEET, BUT WIDE ENOUGH TO PERMIT OPERATION OF EXCAVATION AND COMPACTION EQUIPMENT. THE SLOPES SHALL BE NO GREATER THAN THE 1:1 COMPACTION REQUIREMENTS SHALL BE THE SAME AS THOSE FOR THE EMBANKMENT. THE TRENCH SHALL BE EXCAVATED DURING THE BACKFILLING-COMPACTION OPERATIONS. FOR DETAILED SEE SECTION D.
- EMBANKMENT:** THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED AREAS SHOWN ON THE PLANS. IT SHALL BE CLEAN MATERIAL SOIL FREE OF ROOTS, WOOL VEGETATION, OVERSIZED STONES, ROCKS, OR OTHER OBSTRUCTIBLE MATERIAL. RELATIVELY PERVIOUS MATERIALS SUCH AS SAND OR GRAVEL (UNFINED SOIL CLASSES GW, SW & SP) OR GRADING MATERIALS (UNFINED SOIL CLASSES CL AND CH) SHALL NOT BE PLACED IN THE EMBANKMENT. AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. THE FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED FROM THE BALL, IT IS TOO WET FOR PROPER COMPACTION. FILL MATERIAL SHALL BE PLACED IN SIX-INCH BY EIGHT-INCH TIGHT CONTINUOUS LIFTS OF THE ENTIRE LENGTH OF THE FILL. COMPACTION SHALL BE OBTAINED BY ROUTING AND HAULING THE CONSTRUCTION EQUIPMENT OVER THE FILL SO THAT THE ENTIRE SURFACE OF EACH LAYER OF THE FILL IS TRAVERSED BY AT LEAST ONE WHEEL OR TREAD TRACK OF THE EQUIPMENT OR BY THE USE OF A COMPACTOR. THE EMBANKMENT SHALL BE CONSTRUCTED TO AN ELEVATION 10 PERCENT HIGHER THAN THE DESIGN TO ALLOW FOR SETTLEMENT.
- PRINCIPAL SPILLWAY:** STEEL RISERS SHALL BE SECURELY ATTACHED TO THE BARREL OR BARREL STUB BY WELDING THE FULL CIRCUMFERENCE MAKING A WATERPROOF STRUCTURAL CONNECTION. THE RISERS SHALL BE REINFORCED WITH CONCRETE OR SHANKS PROOF TESTED TO BE SECURE. THE RISERS MUST BE ATTACHED TO THE RISER AND THE RISER BARS SHALL BE WATERPROOF. ALL CONNECTIONS BETWEEN BARREL SECTIONS MUST BE MADE BY WELDING THE FULL CIRCUMFERENCE. THE BARREL AND RISER SHALL BE PLACED ON A FIRM, SMOOTH FOUNDATION OF IMPERVIOUS SOIL AS THE EMBANKMENT IS CONSTRUCTED. BRACING OF THE BARREL IS UNACCEPTABLE. PERVIOUS MATERIALS SUCH AS SAND, GRAVEL, OR CRUSHED STONE SHALL NOT BE PLACED UNDER THE BARREL. AN ANTI-SUCKLING COLLAR SHALL BE INSTALLED AROUND THE PIPE SPILLWAY. THE COLLAR SHALL BE PLACED IN FOUR INCH LIFTS AND HAND COMPACTED UNDER AND AROUND THE PIPE TO AT LEAST THE SAME CONSIST AS THE ADJACENT EMBANKMENT. A DEPTH OF 12 INCHES (2 TIMES THE PIPE DIAMETER (MIN.)) SHALL BE MAINTAINED DOWNSTREAM AND HAND COMPACTED BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
- EMERGENCY SPILLWAY:** THE EMERGENCY SPILLWAY SHALL BE INSTALLED IN UNDISTURBED AREAS. THE ACHIEVEMENT OF PLANNED ELEVATIONS, GRADES, DESIGN WIDTH, ENTRANCE AND EXIT CHANNEL SLOPES ARE CRITICAL TO THE SUCCESSFUL OPERATION OF THE EMERGENCY SPILLWAY AND MUST BE CONSTRUCTED WITH A TOLERANCE OF ± 0.2 FEET.
- VEGETATIVE TREATMENT:** STABILIZE THE EMBANKMENT IN ACCORDANCE WITH THE APPROPRIATE VEGETATIVE STANDARD AND SPECIFICATION IMMEDIATELY FOLLOWING CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT REMAIN UNSTABILIZED FOR MORE THAN SEVEN (7) DAYS. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON BASIN COMPLETION AND MONITORING AND MAINTAINED EROSION FREE DURING THE LIFE OF THE BASIN.
- SAFETY:** LOCAL REQUIREMENTS CONCERNING FENCES AND SIGNS SHALL BE MET, WARNING THE PUBLIC OF HAZARDS OF SOFT SEDIMENT AND FLOODWATER.
- MAINTENANCE:** REPAIR ALL DAMAGE CAUSED BY SOIL EROSION AND CONSTRUCTION EQUIPMENT AT OR BEFORE THE END OF EACH WORKING DAY. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE SPECIFIED DISTANCE BELOW THE TOP OF THE RISER AS SHOWN ON THE RISER. THIS SEDIMENT SHALL BE PLACED IN SUCH A MANNER THAT IT DOES NOT ERODE FROM THE SITE. THE SEDIMENT SHALL NOT BE DEPOSITED DOWNSTREAM FROM THE EMBANKMENT, ADJACENT TO A STREAM OR FLOODPLAIN. DISPOSAL AREAS MUST BE STABILIZED.
- FINAL DISPOSAL:** WHEN TEMPORARY STRUCTURES HAVE SERVED THEIR INTENDED PURPOSE AND THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, THE EMBANKMENT AND ANY REMAINING SEDIMENT DEPOSITS ARE TO BE LEVELLED OR OTHERWISE DISPOSED OF IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN. THE PROPOSED USE OF A SEDIMENT BASIN SITE WILL NOT DICTATE FINAL DISPOSAL OF THE SEDIMENT CONTAINED THEREIN. IF THE SITE IS SCHEDULED FOR FUTURE CONSTRUCTION, THEN THE BASIN MATERIAL SHOULD BE REMOVED AND SAFELY DISPOSED OF IN THE BASIN AND SHALL BE BACKFILLED WITH STRUCTURAL FILL. WHEN THE BASIN AREA IS TO REMAIN OPEN SPACE, THE FILL MAY BE FURNISHED DIRT (USING METHODS IN SECTION D - DETAILED) GRADING, AND BACK FILLED.
- CONNECTION TO STORMWATER MANAGEMENT STRUCTURE:** AFTER PERMANENT STABILIZATION OF ALL DISTURBED CONTRIBUTORY DRAINAGE AREAS, TEMPORARY SEDIMENT BASINS, TEMPORARILY STABILIZED AREAS, AND TEMPORARILY STABILIZED AREAS MAY BE CONNECTED TO PERMANENT STORMWATER MANAGEMENT STRUCTURES. TO CONVERT THE BASIN FROM TEMPORARY TO PERMANENT USE, THE OUTLET STRUCTURE MUST BE INSTALLED WITH APPROVED STORMWATER MANAGEMENT DESIGN PLANS. ADDITIONAL GRADING MAY ALSO BE NECESSARY TO PROVIDE THE REQUIRED STORAGE VOLUME IN THE BASIN. THE OVERFLOW SHALL TAKE PLACE AFTER ALL DISTURBED AREA HAS BEEN PERMANENTLY STABILIZED TO SATISFACTION OF THE INSPECTION AUTHORITY AND STORM GRADING HAS BEEN FINISHED.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

DEFINITION

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

PURPOSE

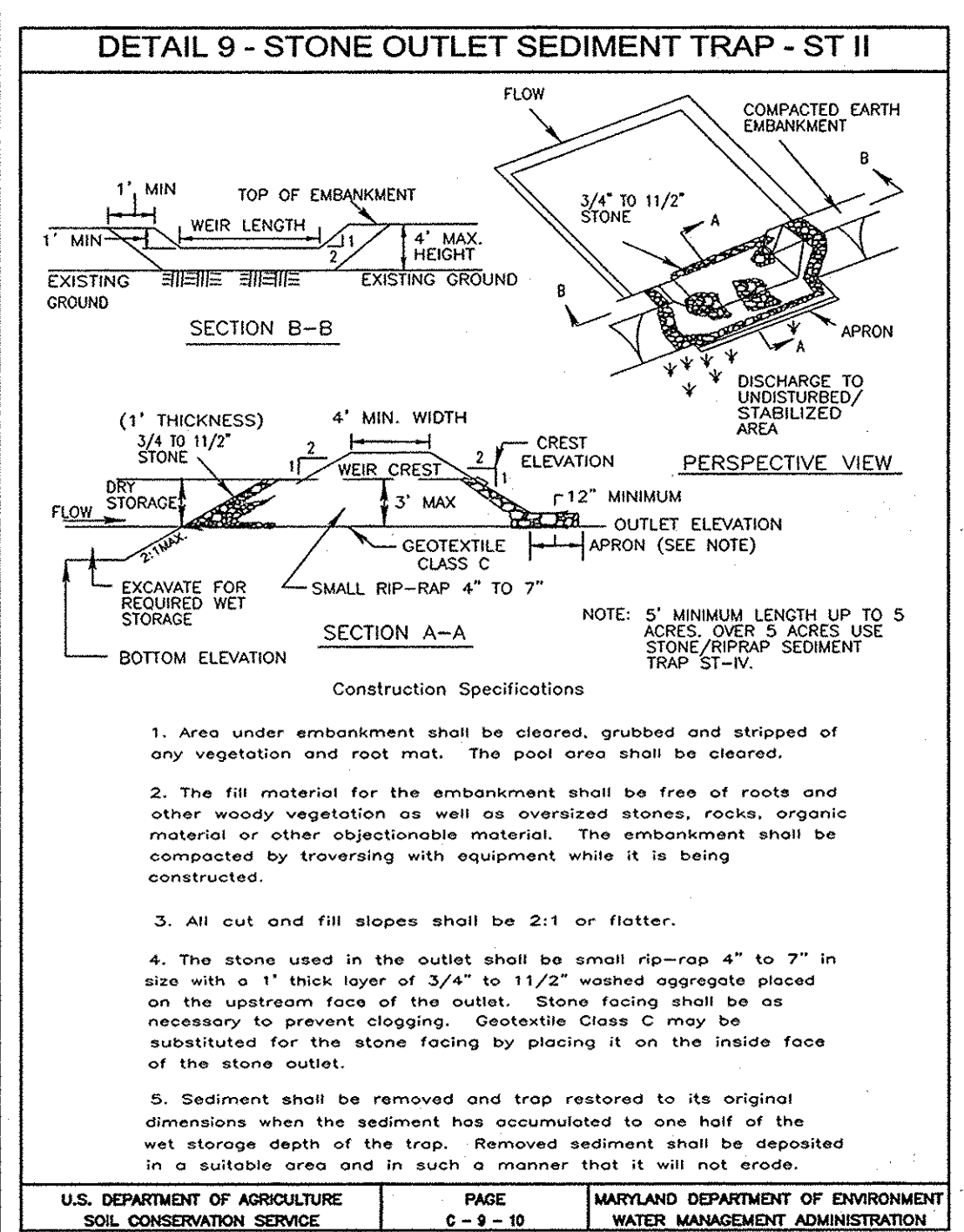
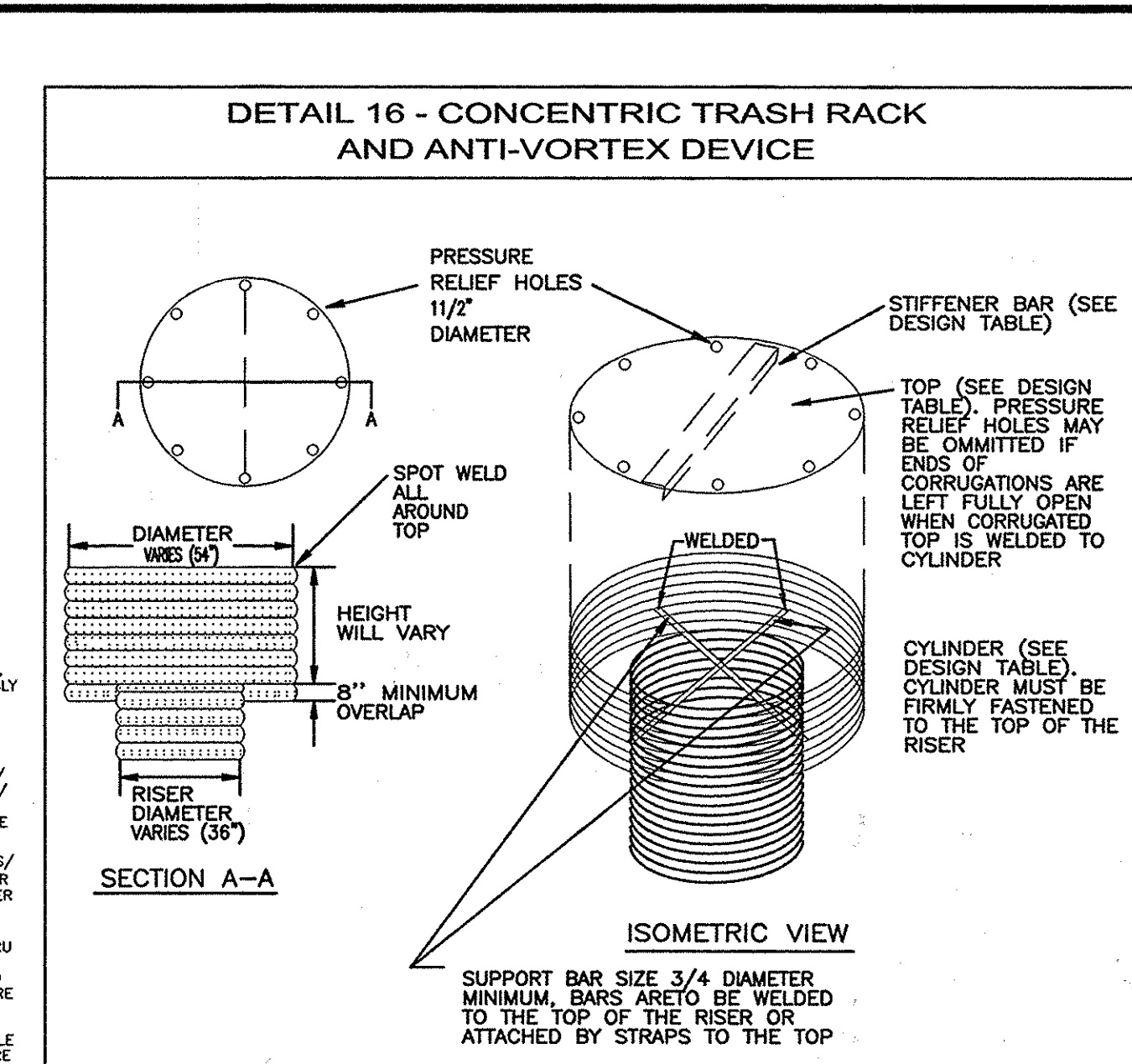
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETABLE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT SUITABLE TO VEGETATE VEGETATION.
 - 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.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

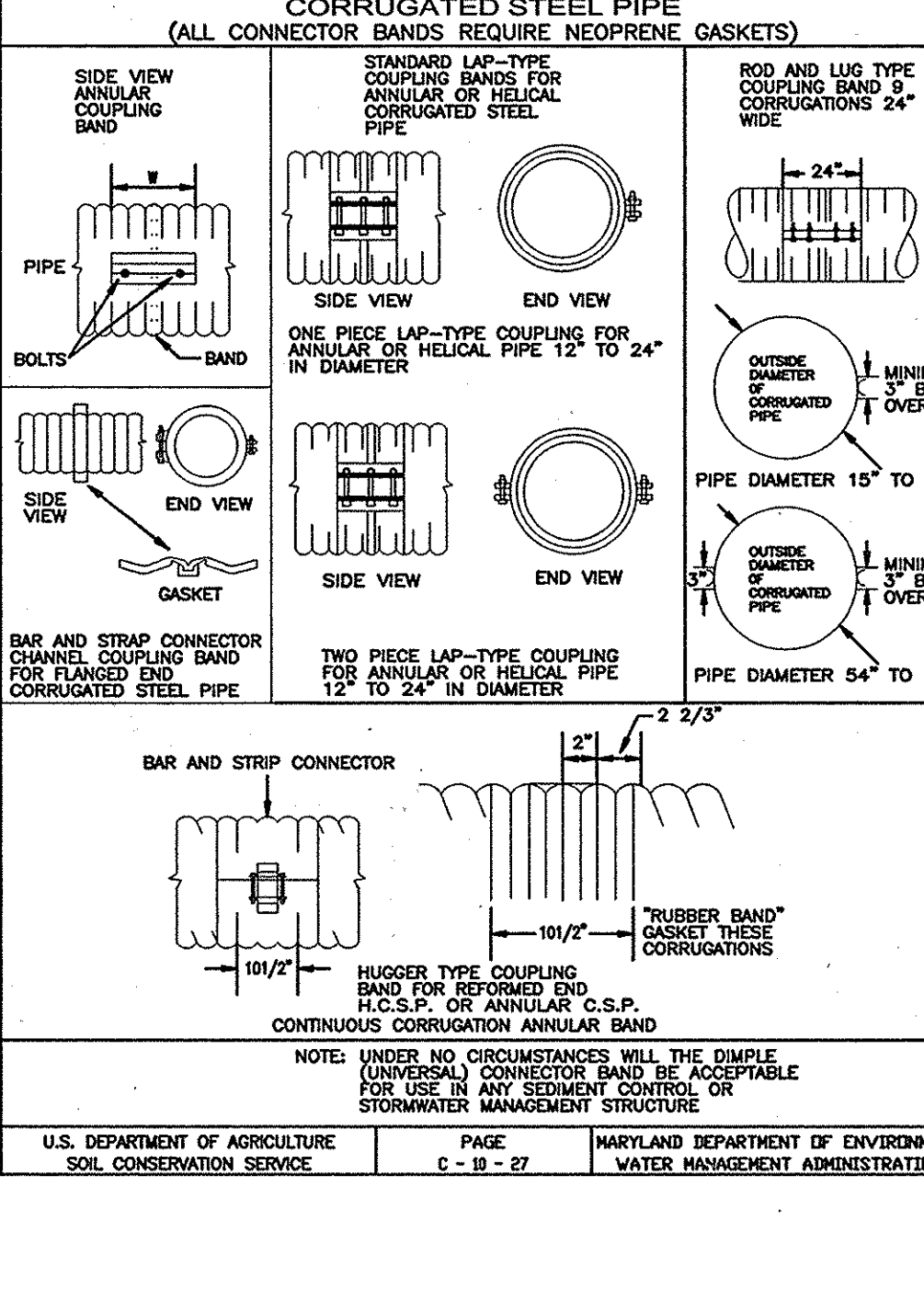
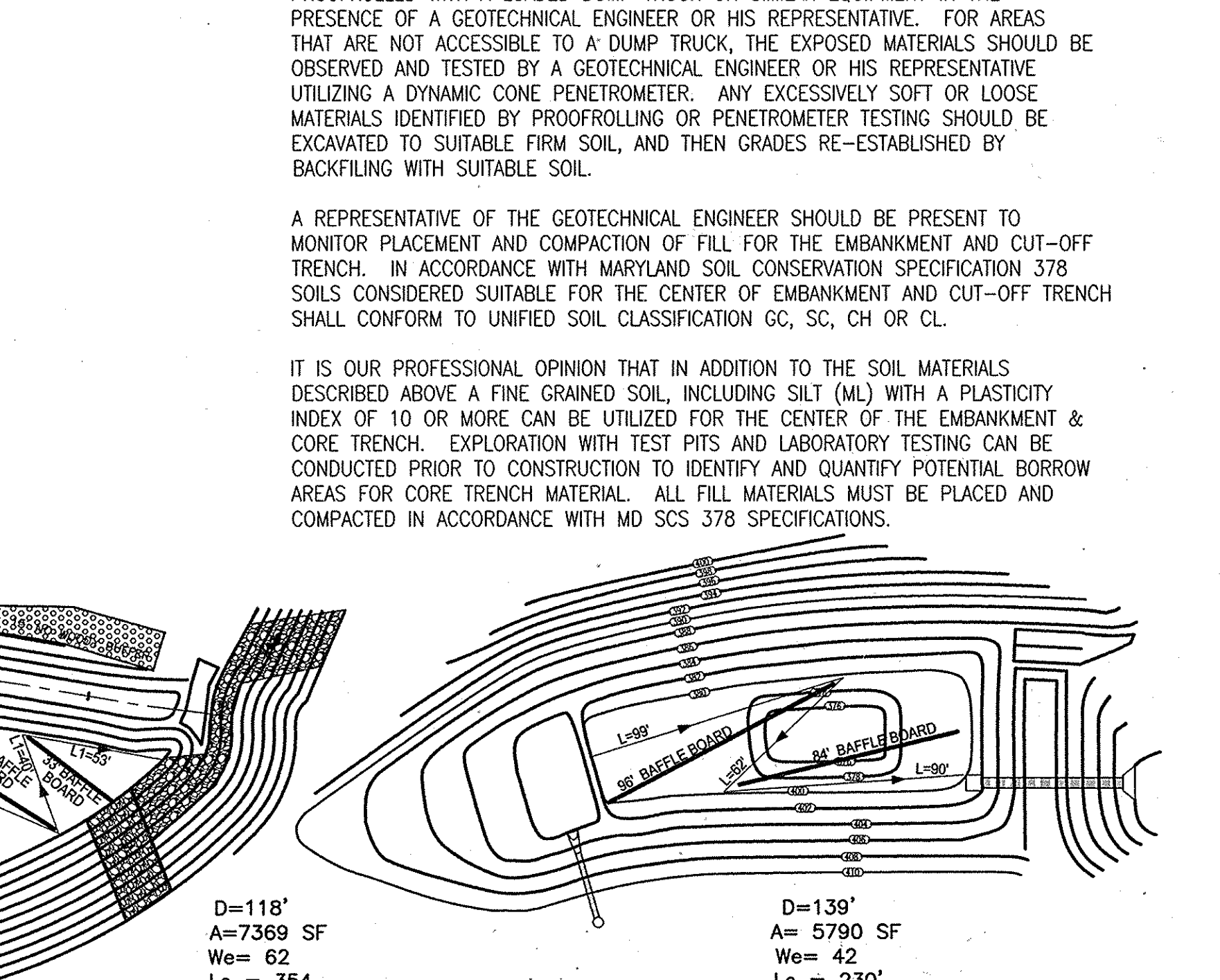
- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENT STATION.
- TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
 - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAM SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURES. SUBSOILS AND SMALL CONTACT LESS THAN OR BY VOLUME OF CHOKES, STONES, SLAG, CONCRETE FRAGMENTS, CRANAL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 AND 1/2" IN DIAMETER.
 - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERBERIS GRASS, QUACGRASS, JOHNSONGRASS, NETTLEGRASS, POISON Ivy, THELLO, OR OTHERS AS SPECIFIED.
 - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY GLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORM OR MESHED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
 - FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - ON SOIL MEETING TOPSOIL SPECIFICATIONS, THE SOIL MEET RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF TESTED SOIL CONTAINS A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.0.
 - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PPM BY WEIGHT SHALL BE PLACED ON A SUBSOIL OF MD 500 OR SEE LIME SHALL BE PLACED ON A SUBSOIL WHICH HAS BEEN TREATED WITH SOIL STABILIZERS OR CHEMICALS WHICH PROVIDE WEED CONTROL. SUFFICIENT LIME HAS BEEN APPLIED (14 DAYS MIN) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 - 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.
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION-SECTION 1-VEGETATIVE STABILIZATION METHODS AND MATERIALS.



STONE OUTLET SEDIMENT TRAP - ST II

- The structure shall be inspected periodically after each rain and repairs made as needed.
- Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
- The structure shall be dewatered by approved methods, removed and the area stabilized when the drainage area has been properly stabilized.
- Refer to section D for specifications concerning trap dewatering.
- Minimum trap depth shall be measured from weir elevation.
- The elevation of the top of any dike directing water into the trap must equal or exceed the elevation of the trap embankment.
- Geotextile Class C shall be placed over the bottom and sides of the outlet channel prior to the placement of stone. Sections of filter cloth must overlap at least 1' with the section nearest the entrance placed on top. The filter cloth shall be embedded at least 6" into existing ground at the entrance of the outlet channel.
- An outlet shall be provided, including a means of conveying the discharge in an erosion free manner to an existing stable channel.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE C-9-10A MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

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

DATE: 11/30/06
 DATE: 11/30/06
 DATE: 11/30/06

DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POOL CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING WITH AN AS-BUILT PLAN OF THE POOL WITHIN 30 DAYS OF COMPLETION.

DATE: 11/10/06
 SIGNATURE OF DEVELOPER: [Signature]
 DATE: 11/10/06

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR POOL CONSTRUCTION AND SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POOL CONSTRUCTION AND PROVIDE THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING WITH AN AS-BUILT PLAN OF THE POOL WITHIN 30 DAYS OF COMPLETION.

DATE: 11/26/06
 SIGNATURE OF ENGINEER: [Signature]
 DATE: 11/26/06

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS

USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: 1/26/06

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DATE: 1/26/06

ROBERT H. VOGEL ENGINEERING, INC.

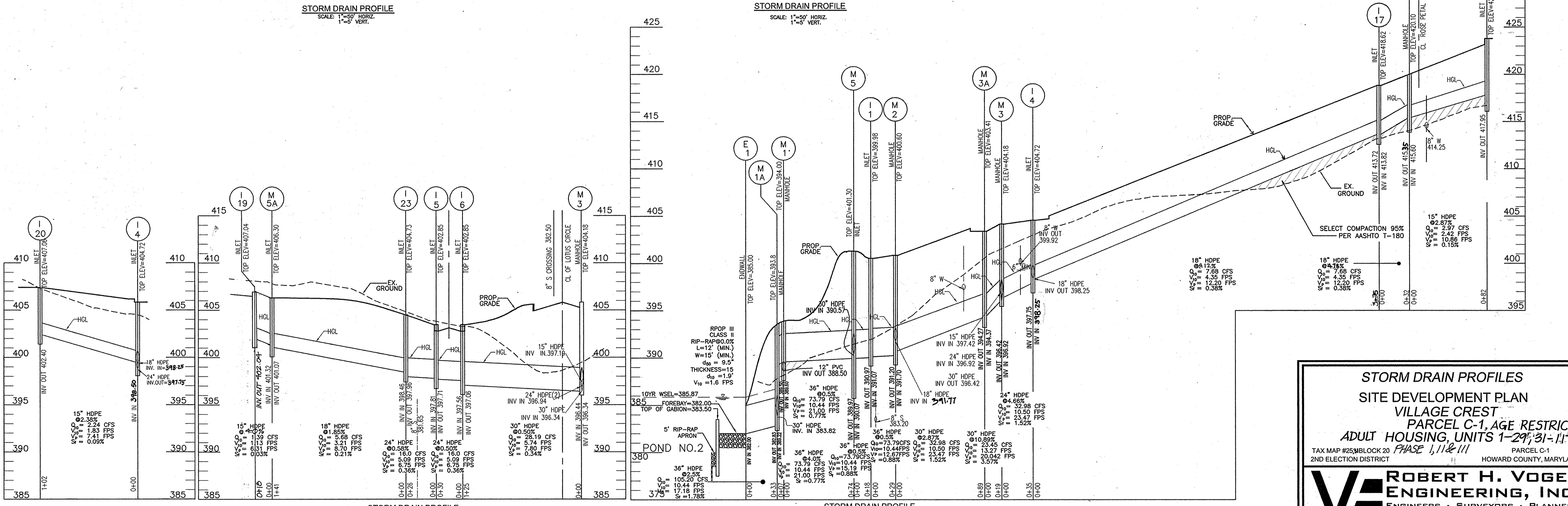
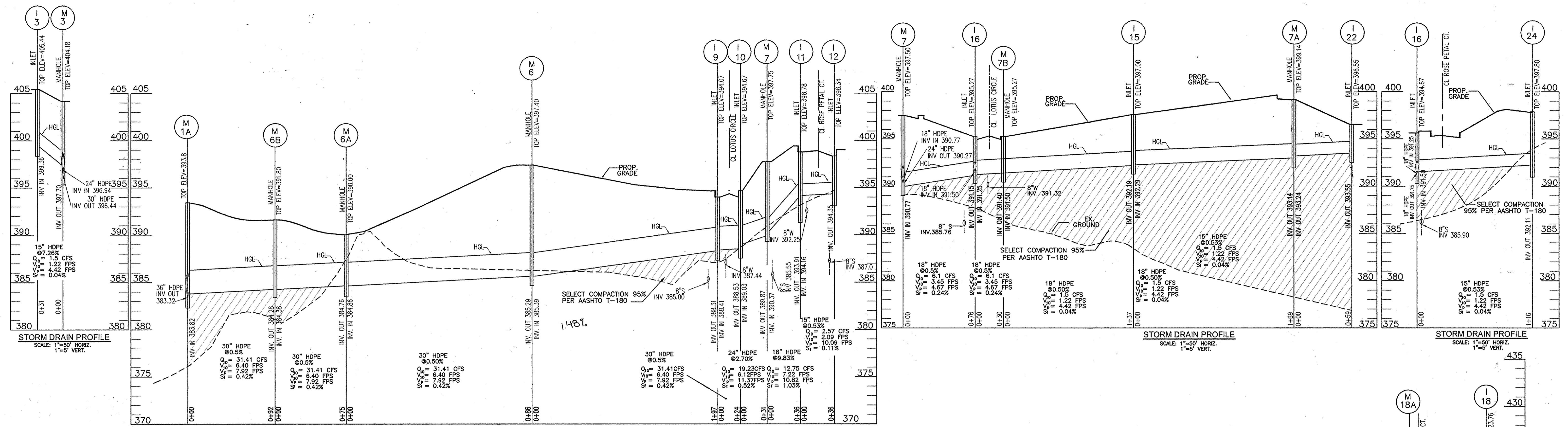
ENGINEERS • SURVEYORS • PLANNERS

8407 MAIN STREET ELLICOTT CITY, MD 21043
 TAYLOR FAMILY LIMITED PARTNERSHIP C/O LAND DESIGN & DEVELOPMENT, INC. 800 MAIN STREET ELLICOTT CITY, MD 21043
 ATTN: MR. DONALD R. REUVER PHONE: (410) 480-9105

DESIGN BY: R/J/RH
 DRAWN BY: R/J/RH
 CHECKED BY: R/HV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 201812.00

14 SHEET OF 32

K:\Projects\20181211\ENR\DWG\SDP.dwg (Sdp) - 12/27/2005 12:29:49 PM



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 CIVIL LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REIJNER
 PHONE: (443) 367-0422

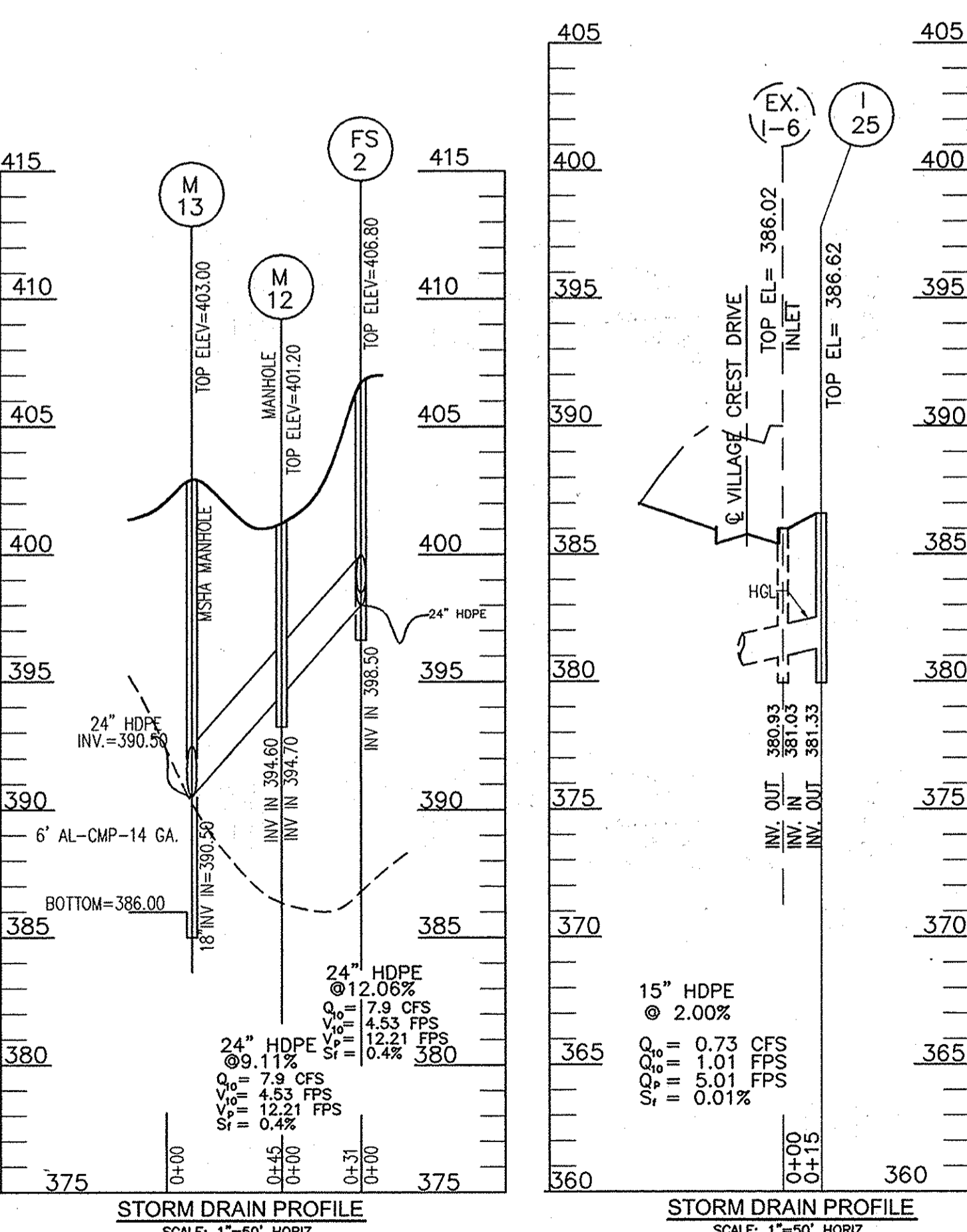
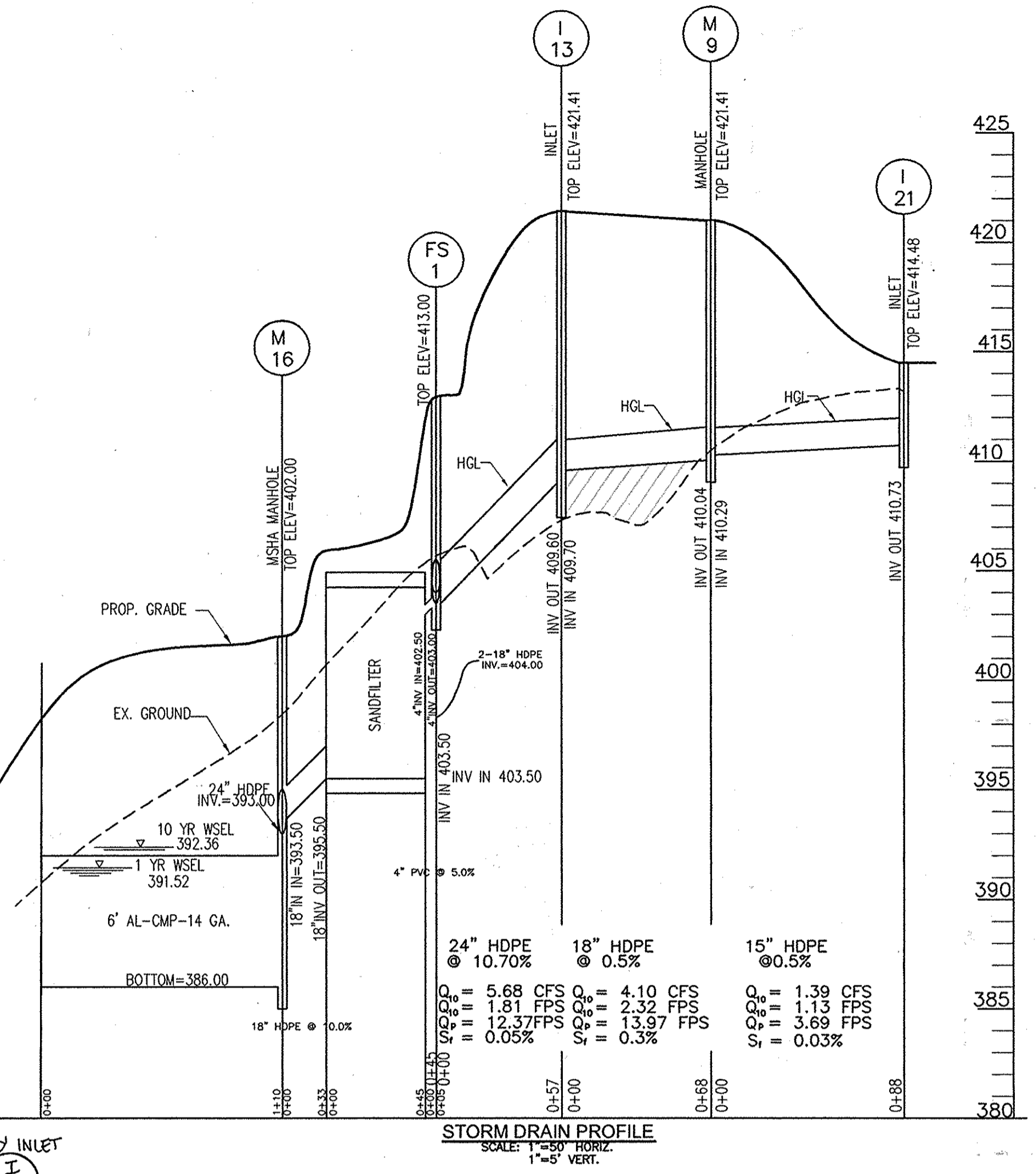
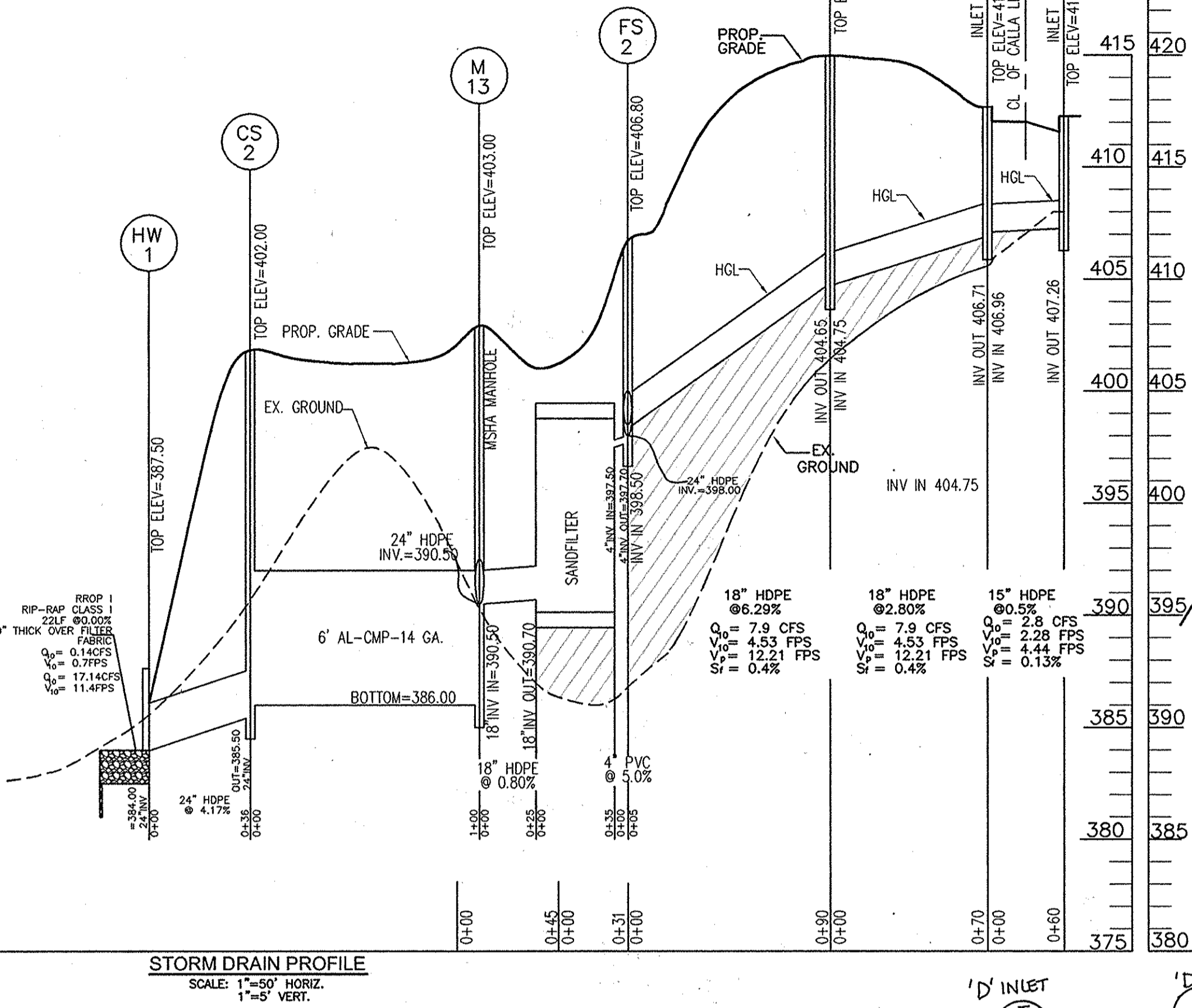
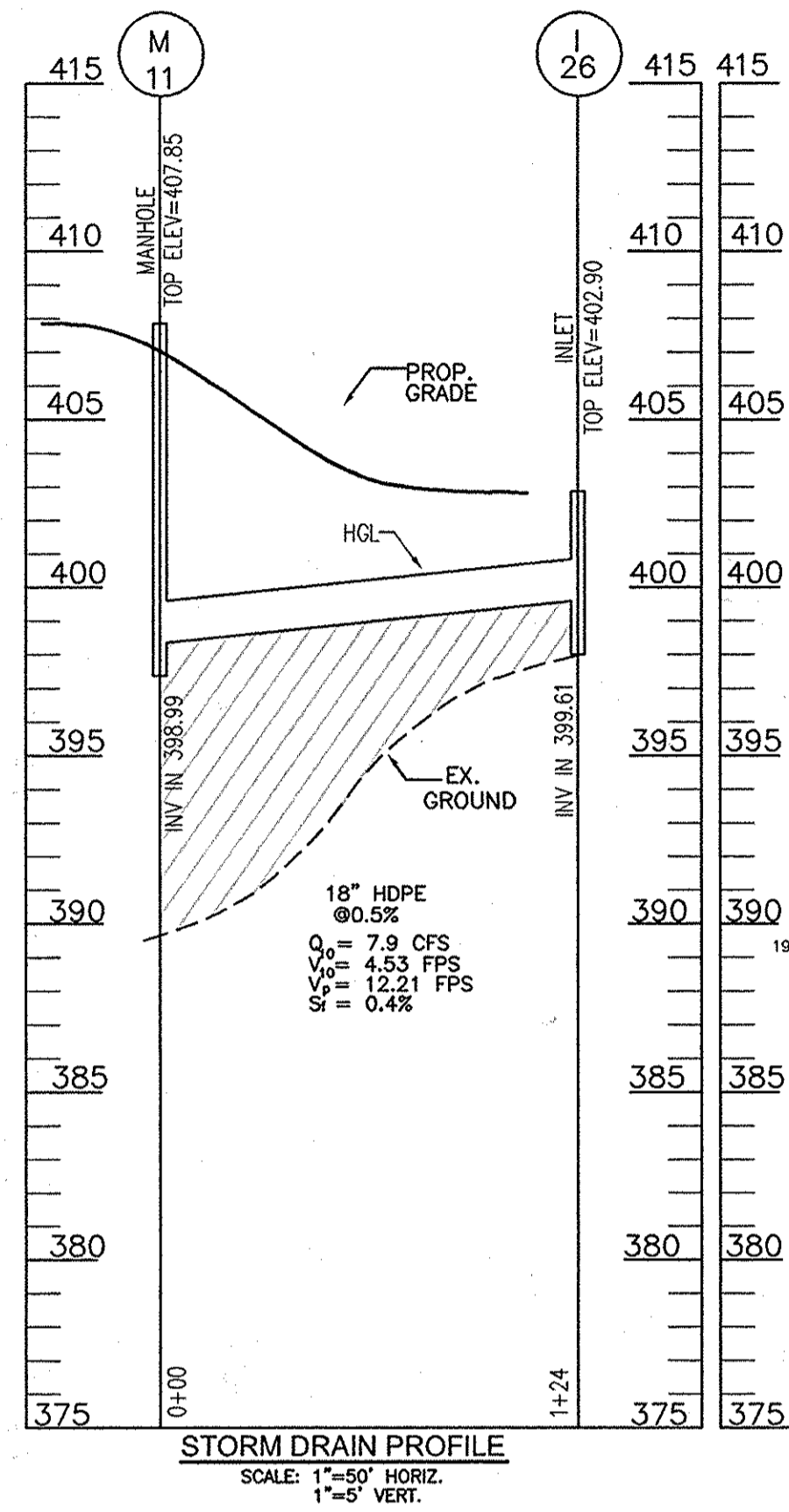
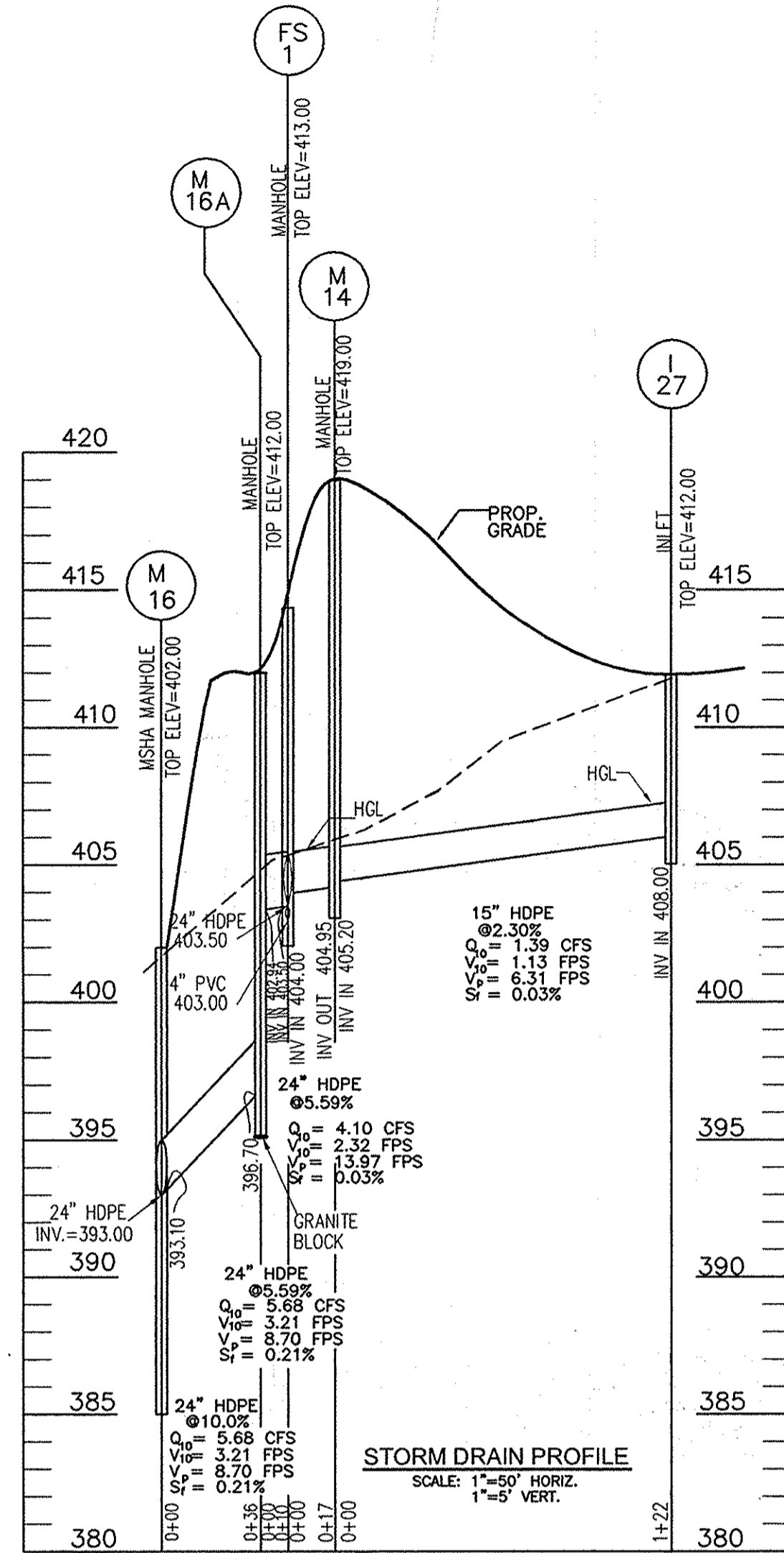
NO.	REVISION	DATE
1	ADD PHASE II	10/3/00
2	ADD PHASE III	02/17/07
7	REVISE SDP FROM MS&D 1-19	01/10/09

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 1/30/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 3/8/06
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 2/19/06
 DIRECTOR

STORM DRAIN PROFILES
 SITE DEVELOPMENT PLAN
 VILLAGE CREST
 PARCEL C-1, AGE RESTRICTED
 ADULT HOUSING UNITS 1-29/31-117
 TAX MAP #253/BLOCK 20 PHASE I, II & III
 2ND ELECTION DISTRICT
 PARCEL C-1
 HOWARD COUNTY, MARYLAND

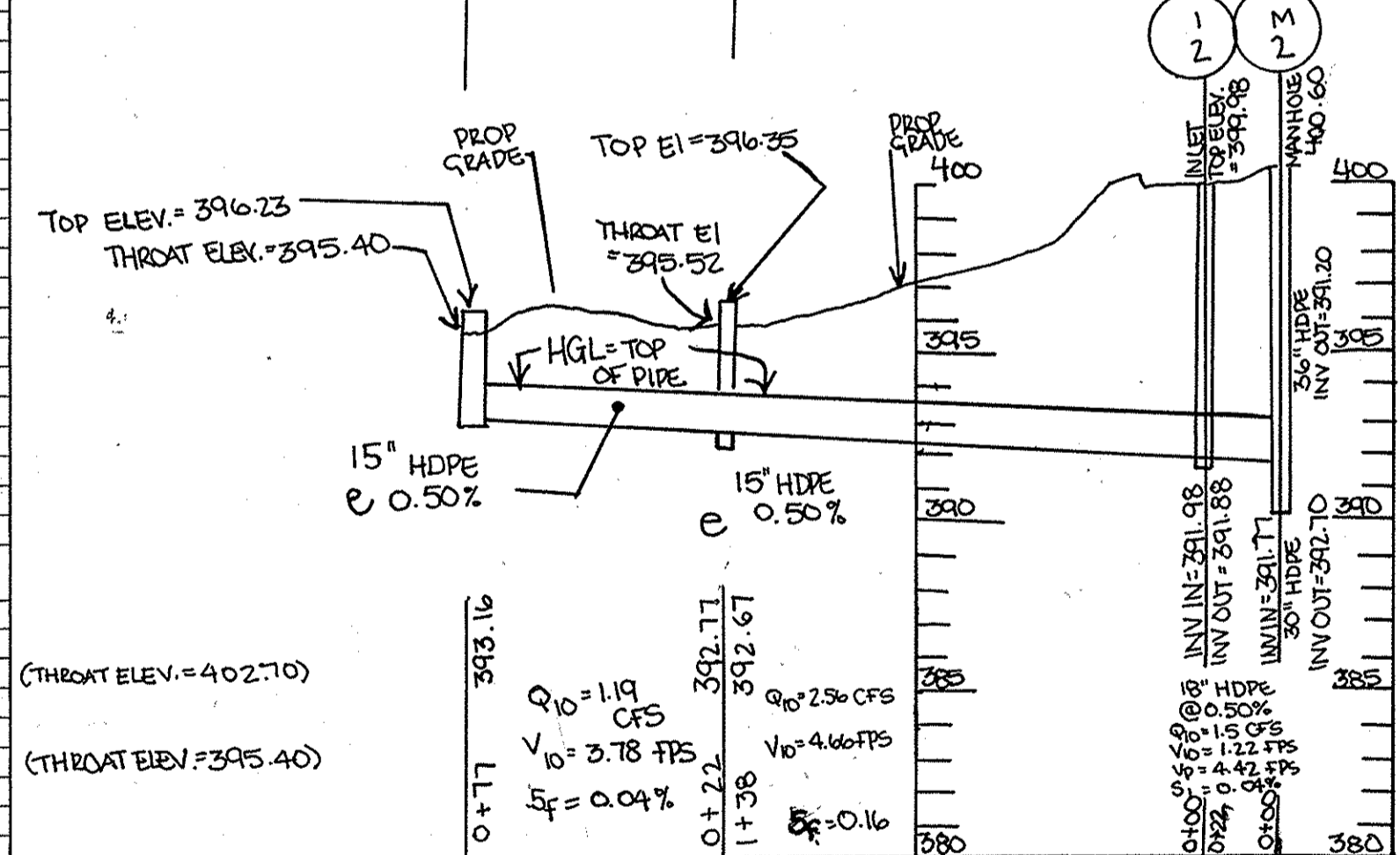
ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

DESIGN BY: RJR/HV	DATE: 1/30/08
DRAWN BY: RJR/HV	DATE: 3/8/06
CHECKED BY: RHV	DATE: 2/19/06
DATE: 05-23-2005	DATE: 2/19/06
SCALE: AS SHOWN	DATE: 2/19/06
W.C. NO.: 2018121.00	DATE: 2/19/06



NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
I-22	DOUBLE TYPE 'S' INLET	N 578811.90 E 1371906.68	396.55	-	393.52	SD-4.23
M-7A	STANDARD 5' MANHOLE	CL STA. 0+47, 13' RT. LOTUS CIR.	399.14	393.21	392.96	G-5.12
I-15	DOUBLE TYPE 'S' INLET	CL STA. 2+11, 14' RT. LOTUS CIR.	397.00	392.10	392.00	SD-4.23
M-7B	STANDARD 5' MANHOLE	CL STA. 3+63, 12' LT. LOTUS CIRCLE	395.27	-	-	-
I-16	A-5 INLET	CL STA. 3+63, 10' LT. LOTUS CIRCLE	394.67	391.26	391.15	SD-4.01
I-24	TYPE 'D' INLET	CL STA. 0+94, 26' LT. WHITE JASMINE CT.	397.80	-	-	-
M-7	STANDARD 5' MANHOLE	N 578457.62 E 1371712.57	397.50	393.77	390.27	G-5.12
I-11	DOUBLE TYPE 'S' INLET	CL STA. 1+00, 23' RT. ROSE PETAL CT.	398.78	393.16	393.91	SD-4.23
I-12	DOUBLE TYPE 'S' INLET	CL STA. 0+86 LOTUS CIR., 10' LT.	398.34	394.35	394.01	SD-4.01
I-10	TYPE 'A-10' INLET	CL STA. 4+54 LOTUS CIR., 10' LT.	394.67	389.03	388.53	SD-4.01
I-9	DOUBLE TYPE 'S' INLET	CL STA. 4+54 LOTUS CIR., 10' RT.	394.07	388.41	388.31	SD-4.23
M-6	STANDARD 5' MANHOLE	CL STA. 6+52 LOTUS CIR., 17' RT.	397.40	385.39	385.29	G-5.12
M-6A	STANDARD 5' MANHOLE	N 578586.12 E 1371477.63	390.00	384.86	384.76	G-5.12
M-6B	STANDARD 5' MANHOLE	N 578583.43 E 1371402.33	391.80	384.38	384.28	G-5.12
M-18A	STANDARD 5' MANHOLE	CL STA. 4+25, 10' LT. ROSE PETAL CT.	420.10	415.60	415.50	G-5.12
I-18	DOUBLE TYPE 'S' INLET	CL STA. 5+07, 10' LT. ROSE PETAL CT.	423.76	-	417.95	SD-4.23
I-17	DOUBLE TYPE 'S' INLET	CL STA. 2+09, 16' LT. WHITE JASMINE CT.	418.62	413.82	413.72	SD-4.23
I-4	DOUBLE TYPE 'S' INLET	CL STA. 5+93, 19.7' LT. WHITE JASMINE CT.	404.72	399.59	398.59	SD-4.23
I-20	TYPE 'D' INLET	CL STA. 10+58 L, 21' LT. LOTUS CIR	407.08	-	-	-
M-3	STANDARD 5' MANHOLE	CL STA. 6+00, 14.2' RT. WHITE JASMINE CT.	404.18	399.34	396.34	G-5.12
I-6	DOUBLE TYPE 'S' INLET	CL STA. 7+30, 10' RT. WHITE JASMINE CT.	402.85	397.81	397.71	SD-4.23
I-5	DOUBLE TYPE 'S' INLET	CL STA. 7+30, 20' LT. WHITE JASMINE CT.	402.85	397.81	397.71	SD-4.23
I-23	TYPE 'D' INLET	CL STA. 7+30, 45' LT. WHITE JASMINE	405.25	398.46	397.96	SD-4.13
M-5A	STANDARD 5' MANHOLE	N 578283.44 E 1371015.75	406.20	401.32	401.07	G-5.12
I-19	DOUBLE TYPE 'S' INLET	CL STA. 7+37, 26' RT. CALLALULLY DR.	407.04	-	402.04	SD-4.23
I-13B	TYPE 'D' INLET	STA. 5+70, 13.20' RT. WHITE JASMINE CT.	396.25	393.15	392.11	SD-4.11
I-3	DOUBLE TYPE 'S' INLET	STA. 8+98, 18' RT., LOTUS CIR.	405.44	-	399.36	SD-4.23
M-3A	STANDARD 5' MANHOLE	STA. 8+98, 18' RT., LOTUS CIR.	403.41	394.37	394.27	G-5.12
M-2	STANDARD 5' MANHOLE	STA. 7+95, 16' LT. LOTUS CIR	400.60	392.72	391.20	G-5.12
I-2	DOUBLE TYPE 'S' INLET	STA. 7+89, 20' LT. LOTUS CIR.	398.98	393.08	392.83	SD-4.23
I-13A	TYPE 'D' INLET	N 578436.67 E 1371425.90	396.35	-	393.36	SD-4.11
I-1	DOUBLE TYPE 'S' INLET	STA. 7+85, 12' RT. LOTUS CIR	399.98	391.07	390.97	SD-4.23
M-5	STANDARD 5' MANHOLE	STA. 7+95 28' RT. LOTUS CIR	401.30	391.07	389.97	G-5.12
M-1	STANDARD 5' MANHOLE	N 578570.50 E 1371313.87	394.00	389.60	389.50	G-5.12
M-1A	STANDARD 5' MANHOLE	N 578577.08 E 1371311.60	393.80	389.33	389.32	G-5.12
E-1	36" CONCRETE TYPE 'C' ENDWALL	N 578596.36 E 1371304.96	385.00	382.00	382.00	-
I-21	TYPE 'D' INLET	N 577863.42 E 1371416.93	414.48	-	410.73	SD-4.13
M-9	STANDARD 5' MANHOLE	N 577695.00 E 1371333.90	421.41	410.29	410.04	G-5.12
I-13	DOUBLE TYPE 'S' INLET	N 577763.06 E 1371311.40	421.41	409.70	409.60	SD-4.23
M-14	STANDARD 6' MANHOLE	N 577813.36 E 1371275.39	419.00	405.20	404.95	G-5.12
FS-1	STANDARD 6' MANHOLE	N 577798.75 E 577798.74	413.00	403.50	403.00	G-5.12
I-27	DOUBLE TYPE 'S' INLET	N 577926.88 E 1371319.36	412.00	-	408.00	SD-4.23
I-8	DOUBLE TYPE 'S' INLET	STA. 1+135, 11LT. LOTUS CIR.	412.26	-	407.26	G-5.12
I-7	DOUBLE TYPE 'S' INLET	STA. 3+90, 10' LT. CALLALULLY DR.	412.69	406.96	406.71	G-5.12
M-10	STANDARD 6' MANHOLE	STA. 3+15, 20' LT. CALLALULLY DR.	415.24	404.75	404.65	G-5.12
FS-2	STANDARD 6' MANHOLE	N 578027.40 E 1371159.54	406.80	397.00	397.70	G-5.12
I-26	TYPE 'D' INLET	N 578078.79 E 1371046.16	402.90	-	399.61	-
M-12	STANDARD 6' MANHOLE	N 578014.92 E 1371188.25	401.20	394.70	394.60	G-5.12
M-16	8" PRECAST MANHOLE	N 577835.38 E 1371239.46	402.00	393.50	388.00	MD-384.09
M-16A	STANDARD 6' MANHOLE	N 577803.99 E 1371257.86	412.00	402.94	396.70	G-5.12
M-13	8" PRECAST MANHOLE	N 577972.35 E 1371204.29	403.00	390.50	386.00	MD-384.09
CS-2	CONTROL STRUCTURE	N 577972.35 E 1371204.29	402.00	390.50(3)	385.50	MD-384.09
HW-1	24" CIRCULAR TYPE 'A' HEADWALL	N 577910.80 E 1371208.36	387.50	384.00	-	SD 5.11
HW-2	54" CIRCULAR TYPE 'A' HEADWALL	N 579071.76 E 1371895.36	355.10	348.00	-	SD 5.11
HW-3	54" CIRCULAR TYPE 'A' HEADWALL	N 579102.58 E 1371824.89	354.95	-	347.76	SD 5.11

1. TOP ELEVATION ARE TO CENTER TOP OF GRATE FOR DOUBLE TYPE 'S' INLET AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES. CENTER TOP OF GRATE FOR DOUBLE TYPE 'S' INLET AND TOP OF MANHOLE COVER FOR PRECAST MANHOLES.



OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (443) 367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

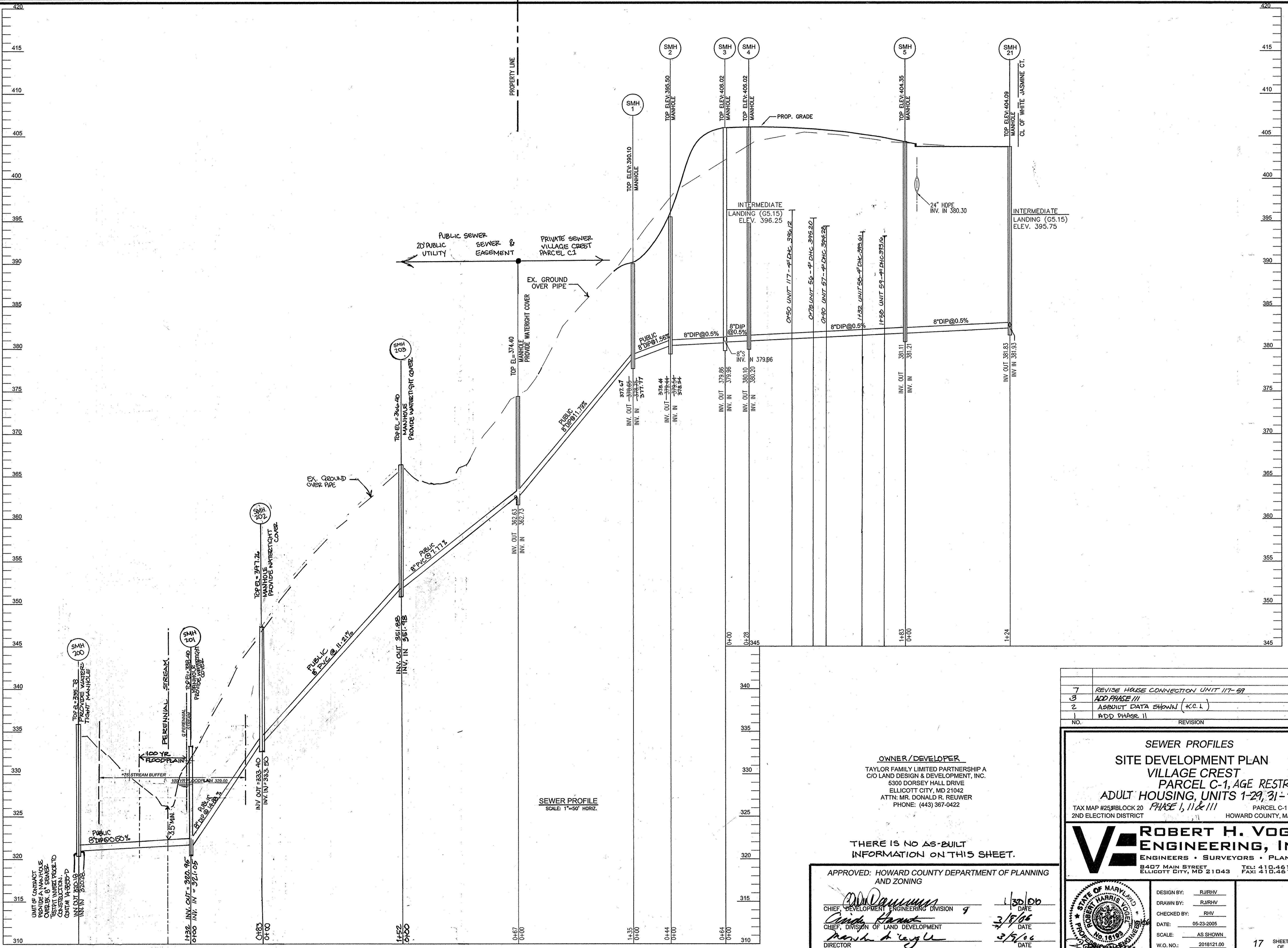
No.	REVISION	DATE
1	ADD PHASE III	01/27/07
2	ADD PHASE IV	10/16/08

STORM DRAIN PROFILES
 SITE DEVELOPMENT PLAN
 VILLAGE CREST
 PARCEL C-1, AGE RESTRICTED
 ADULT HOUSING UNITS 1-29, 31-11.7
 PHASE I, II & III
 TAX MAP #25#BLOCK 20 PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043
 TEL: 410-461-7666 FAX: 410-461-8961

DESIGN BY: RJ/RHV
 DRAWN BY: RJ/RHV
 CHECKED BY: RHV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 2016121.00

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.






SEWER PROFILE
SCALE: 1"=50' HORIZ.

OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A
CIO LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLICOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (443) 367-0422

THERE IS NO AS-BUILT
INFORMATION ON THIS SHEET.


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING
AND ZONING


 CHIEF, DEVELOPMENT ENGINEERING DIVISION 9 1/30/06

 CHIEF, DIVISION OF LAND DEVELOPMENT 3/9/06

 DIRECTOR 3/9/06

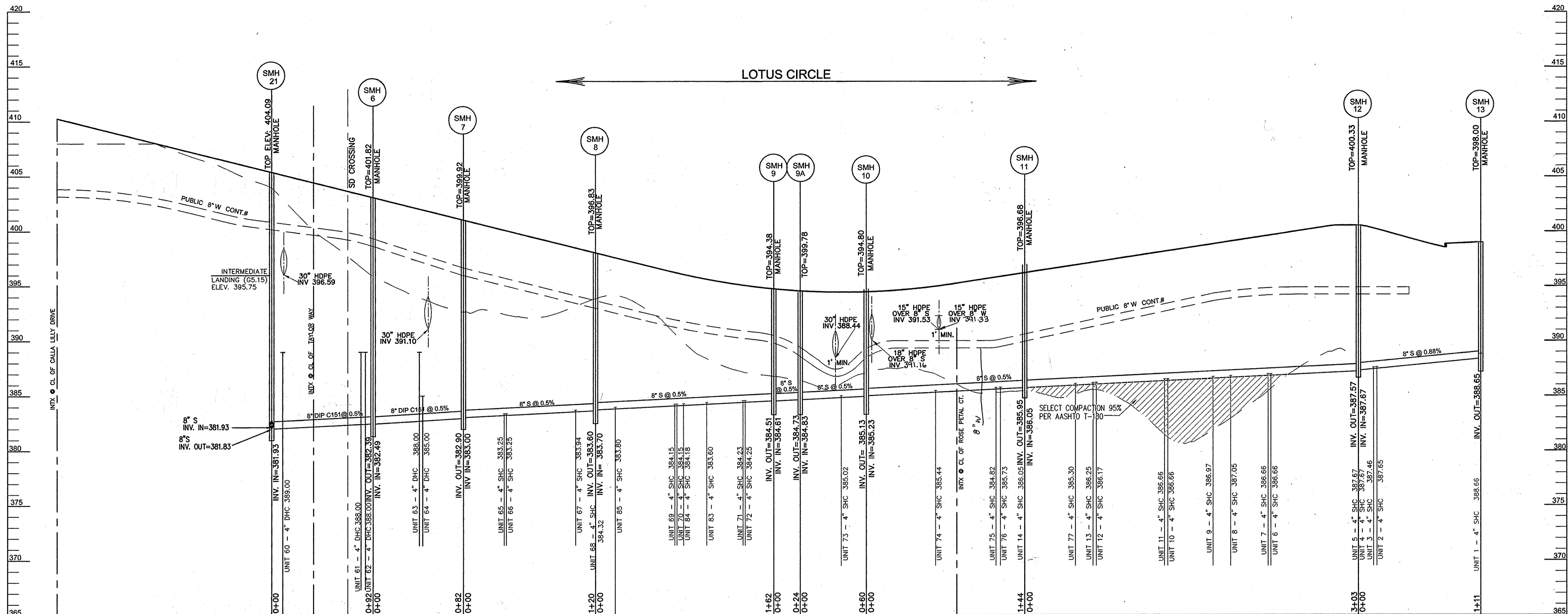
NO.	REVISION	DATE
7	REVISE HOUSE CONNECTION UNIT 117-59	6/12/09
3	ADD PHASE III	6/27/07
2	AS-BUILT DATA SHOWN (K.C.L.)	12/10/06
1	ADD PHASE II	10/3/00

SEWER PROFILES
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
TAX MAP #2531BLOCK 20 PHASE I, II & III PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410.461.7666
ELLICOTT CITY, MD 21043 FAX: 410.461.5961


 DESIGN BY: RJRHV
 DRAWN BY: RJRHV
 CHECKED BY: RHV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

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SEWER PROFILE
SCALE: 1"=5' HORIZ.
1"=2' VERT.

LOT NO.	TYPE	ELEVATION @ MAN	ELEVATION @ UNIT	M.C.E.	BASEMENT
1	SHC @ 2%	388.66	389.72	393.25	393.50
2	SHC @ 2%	387.65	389.15	392.05	393.50
3	SHC @ 2%	387.46	388.96	392.05	394.10
4	SHC @ 2%	387.67	388.99	391.49	394.10
5	SHC @ 2%	387.67	388.99	391.49	394.55
6	SHC @ 2%	387.29	388.16	390.66	394.55
7	SHC @ 2%	386.66	388.16	390.66	393.88
8	SHC @ 2%	386.66	388.55	391.05	393.88
9	SHC @ 2%	386.97	388.65	391.15	392.69
10	SHC @ 2%	386.66	388.36	390.86	392.02
11	SHC @ 2%	386.66	388.16	390.66	392.02
12	SHC @ 2%	386.17	387.67	390.17	391.35
13	SHC @ 2%	386.25	387.75	390.25	390.68
14	SHC @ 2%	386.05	387.54	390.04	390.68
15	SHC @ 2%	387.34	388.99	389.89	392.68
16	SHC @ 2%	386.19	386.59	390.66	394.68
17	SHC @ 2%	389.93	390.53	393.10	395.35
18	DHC @ 2%	392.62	394.62	396.62	399.62
19	DHC @ 2%	392.62	394.62	398.62	401.62
20	DHC @ 2%	391.09	391.09	399.09	402.29
21	DHC @ 2%	400.7	401.7	403.7	406.7
22	SHC @ 2%	401.31	402.31	404.31	407.31
23	SHC @ 2%	402.31	403.31	405.31	409.31
24	SHC @ 2%	410.92	411.72	414.02	418.42
25	SHC @ 2%	410.70	411.30	414.02	417.09
26	SHC @ 2%	410.66	411.46	415.16	419.09
27	SHC @ 2%	414.76	415.51	418.76	419.76
28	SHC @ 2%	414.45	416.22	417.42	420.43
29	SHC @ 2%	414.45	416.21	417.46	420.46
30	SHC @ 2%	413.46	415.46	417.41	420.46
31	SHC @ 2%	414.74	415.50	417.74	420.79
32	SHC @ 2%	414.74	415.52	417.74	420.79
33	SHC @ 2%	413.50	414.3	416.49	419.49
34	SHC @ 2%	410.80	411.70	414.75	418.82
35	SHC @ 2%	410.80	411.70	415.25	417.82
36	SHC @ 2%	411.20	413.20	415.70	417.15
37	SHC @ 2%	411.20	413.20	415.70	416.48
38	SHC @ 2%	411.02	413.02	415.52	418.75
39	SHC @ 2%	410.81	411.81	414.31	419.42
40	SHC @ 2%	410.80	413.30	415.80	420.09

LOT NO.	TYPE	ELEVATION @ MAN	ELEVATION @ UNIT	M.C.E.	BASEMENT
41	SHC @ 5%	410.50	413.00	415.50	420.09
42	SHC @ 5%	410.50	413.00	415.50	420.76
43	SHC @ 5%	410.05	412.55	415.09	420.76
44	DHC @ 5%	410.50	413.50	415.10	416.00
45	DHC @ 2%	410.1	411.1	412.30	415.33
46	DHC @ 2%	410.3	411.1	410.30	413.33
47	DHC @ 2%	410.3	410.3	410.30	412.66
48	DHC @ 2%	410.3	410.3	410.30	411.32
49	DHC @ 2%	410.3	410.3	409.08	410.65
50	DHC @ 2%	410.3	410.3	407.10	408.65
51	DHC @ 2%	410.10	409.0	404.10	407.98
52	DHC @ 2%	395.00	395.80	404.10	405.98
53	DHC @ 2%	395.00	395.80	403.30	405.31
54	DHC @ 2%	395.00	395.80	402.30	403.98
55	DHC @ 2%	395.00	395.80	398.50	403.31
56	DHC @ 2%	390.00	390.80	400.70	401.51
57	DHC @ 2%	390.00	390.60	400.50	401.51
58	DHC @ 2%	390.00	390.40	399.84	400.83
59	DHC @ 2%	389.00	389.40	399.84	400.16
60	DHC @ 2%	389.00	389.40	396.00	397.64
61	DHC @ 2%	388.00	390.00	392.95	397.64
62	DHC @ 2%	388.00	390.00	392.95	395.64
63	DHC @ 2%	388.00	390.00	392.89	395.64
64	DHC @ 2%	385.00	386.50	389.93	393.37
65	SHC @ 5%	383.25	385.45	388.27	393.37
66	SHC @ 5%	383.25	385.45	388.30	392.03
67	SHC @ 5%	383.94	385.40	388.50	391.36
68	SHC @ 5%	384.32	385.82	388.32	390.12
69	SHC @ 2%	384.15	385.45	387.95	390.12
70	SHC @ 2%	384.15	385.45	387.95	388.12
71	SHC @ 2%	384.23	385.53	388.12	388.12
72	SHC @ 2%	384.25	385.55	388.12	388.12
73	SHC @ 2%	385.02	385.62	388.12	388.12
74	SHC @ 2%	385.44	386.74	389.46	389.46
75	SHC @ 2%	384.82	386.96	389.46	389.46
76	SHC @ 2%	385.73	385.52	389.46	389.46
77	SHC @ 2%	385.30	386.00	389.46	389.46
78	SHC @ 2%	395.84	396.84	399.34	403.35

LOT NO.	TYPE	ELEVATION @ MAN	ELEVATION @ UNIT	M.C.E.	BASEMENT
79	DHC @ 2%	394.82	394.00	398.09	402.68
80	SHC @ 2%	393.19	394.19	395.74	400.68
81	DHC @ 2%	395.64	391.61	395.53	400.01
82	DHC @ 2%	391.01	388.77	392.94	398.01
83	SHC @ 2%	385.00	385.60	387.90	388.88
84	SHC @ 2%	384.88	385.48	388.67	389.55
85	SHC @ 2%	384.50	385.10	387.55	389.55
86	DHC @ 2%	395.00	395.60	396.52	402.47
87	DHC @ 2%	393.00	393.60	398.80	402.47
88	DHC @ 2%	393.00	395.00	399.32	404.47
89	SHC @ 5%	394.82	396.82	400.16	405.14
90	SHC @ 2%	391.76	398.86	401.45	405.14
91	SHC @ 2%	399.75	400.35	404.31	408.95
92	SHC @ 2%	402.90	404.90	407.17	409.82
93	SHC @ 5%	403.00	405.00	407.52	411.62
94	SHC @ 5%	405.88	407.88	409.18	411.62
95	SHC @ 2%	407.73	408.53	410.79	412.29
96	SHC @ 2%	410.81	411.61	414.42	416.00
97	SHC @ 2%	412.17	413.17	415.67	418.67
98	SHC @ 2%	412.27	413.27	415.67	418.67
99	SHC @ 2%	414.17	415.17	417.67	420.67
100	DHC @ 2%	414.17	415.17	417.67	420.67
101	DHC @ 2%	404.48	410.48	413.48	414.98
102	DHC @ 2%	408.14	409.14	414.14	413.64
103	DHC @ 2%	408.28	409.28	412.87	412.87
104	DHC @ 2%	408.28	409.28	411.63	411.63
105	DHC @ 2%	408.46	409.46	410.96	410.96
106	DHC @ 2%	402.66	403.66	408.16	408.16
107	DHC @ 2%	402.66	403.66	406.72	406.72
108	DHC @ 2%	400.65	401.65	406.15	406.15
109	DHC @ 2%	396.00	396.00	400.98	400.98
110	DHC @ 5%	390.00	393.00	398.00	400.98
111	SHC @ 5%	394.00	396.50	397.82	402.32
112	SHC @ 5%	395.69	398.19	399.65	405.28
113	SHC @ 5%	398.20	400.70	403.10	405.28
114	SHC @ 5%	398.20	400.70	401.35	406.61
115	SHC @ 5%	401.41	404.41	402.41	407.28
116	SHC @ 2%	402.70	403.90	403.46	409.28

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN.	INV. OUT.
SMH 1	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578181.42 E 1370965.45	390.10	378.75	378.65
SMH 2	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578221.24 E 1370984.88	395.50	380.32	380.22
SMH 3	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578263.89 E 1371033.38	406.02	380.74	380.64
SMH 4	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578283.44 E 1371015.75	404.35	381.79	381.69
SMH 5	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578439.66 E 1371109.37	404.09	382.36	382.26
SMH 6	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 8+43 (LOTUS CIR) 8.9' RT.	401.82	382.92	382.82
SMH 7	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 7+65 (LOTUS CIR) 8.9' RT.	399.92	383.41	383.31
SMH 8	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 6+46 (LOTUS CIR) 9' RT.	396.83	384.12	384.02
SMH 9	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 4+84 (LOTUS CIR) 5' RT.	394.38	382.92	382.82
SMH 9A	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578462.88 E 1371654.86	394.38	382.92	382.82
SMH 10	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578451.47 E 1371714.17	394.80	385.66	385.56
SMH 10	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578451.47 E 1371714.17	396.68	386.43	386.33
SMH 11	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 3+01 (LOTUS CIR) 20' LT.	396.68	386.43	386.33
SMH 12	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 0+03 (LOTUS CIR) 7' LT.	400.33	387.74	387.64
SMH 13	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 578849.31 E 1371891.95	402.56	-	389.85
SMH 14	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 4+41 (CALLA LILLY DR) 9.5' LT.	409.96	391.92	391.82
SMH 15	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 3+76 (CALLA LILLY DR) 2.8' LT.	412.45	394.00	393.90
SMH 16	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 6+50 (ROSE PETAL CT) 5' LT.	427.15	408.80	409.70
SMH 17	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 8+85 (ROSE PETAL CT) 10' LT.	421.66	-	411.15
SMH 18	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 4+44 (ROSE PETAL CT) 5' LT.	421.38	-	410.82
SMH 19A	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 1+05 (ROSE PETAL CT) 6' LT.	417.01	-	399.81
SMH 19	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 0+56 (ROSE PETAL CT) 5.5' LT.	395.90	386.09	385.99
SMH 20	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 3+63 (ROSE PETAL CT) 5' LT.	417.01	-	399.81
SMH 22	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 4+31 (WHITE JASMINEWAY) 6' RT.	409.11	396.76	396.66
SMH 23	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 2+18 (WHITE JASMINEWAY) 9.9' RT.	418.48	-	407.39

FOR INVERT IN OF 4" SHC IN MANHOLES, SEE PROFILES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division
Chief, Division of Land Development
Director

1/30/06
3/8/06
3/1/06
DATE

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A
C/O LAND DESIGN & DEVELOPMENT, INC.
6300 DORSEY HALL DRIVE
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REIJWER
PHONE: (443) 387-0422

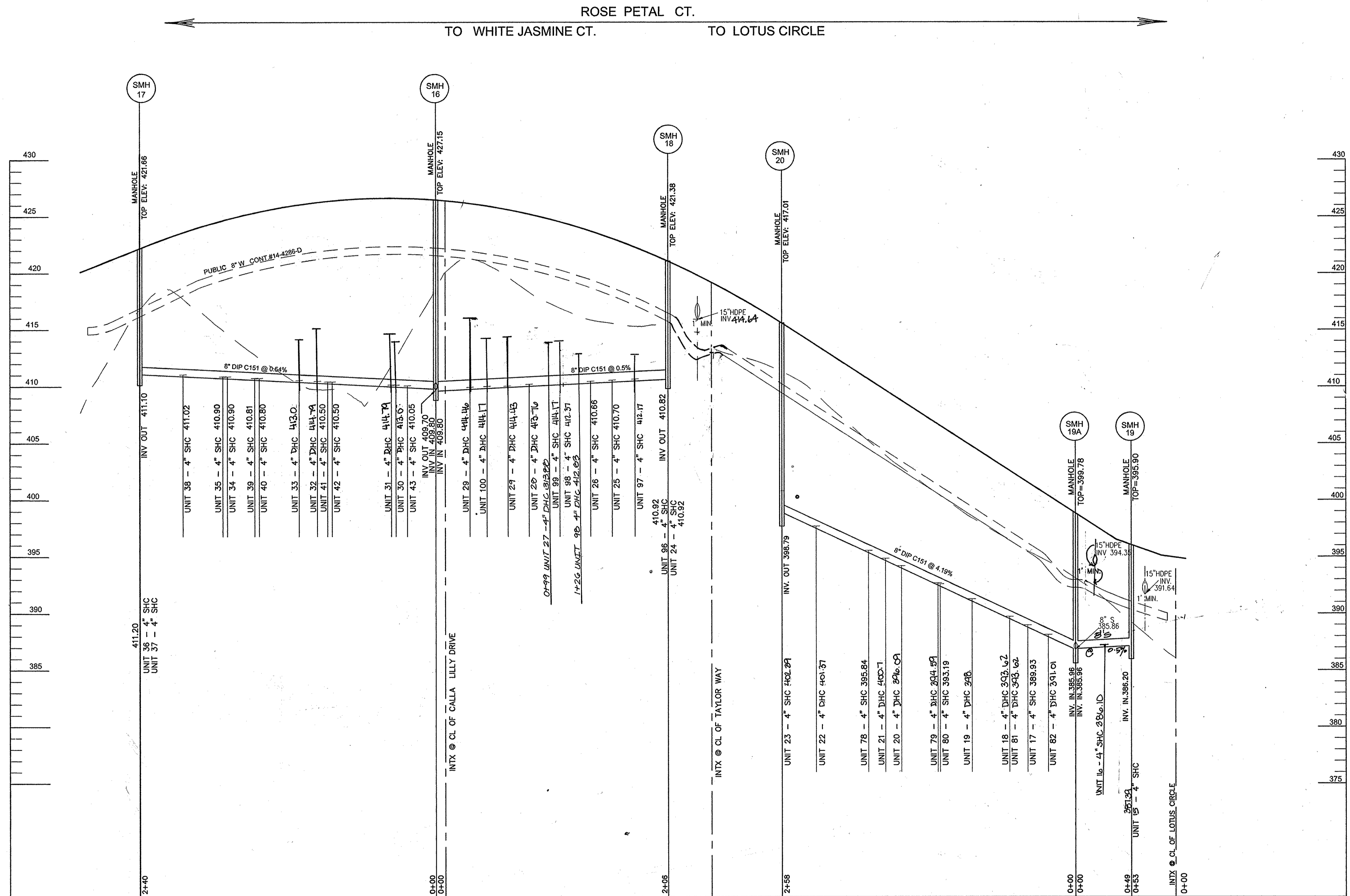
SEWER PROFILES
SITE DEVELOPMENT PLAN
VILLAGE CREST
ADULT PARCEL C-1, AGE RESTRICTED
HOUSING, UNITS 1-29, 31-117
TAX MAP #2531 BLOCK 20 PHASE I, II & III PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET TEL: 410-461-2566
ELLICOTT CITY, MD 21043 FAX: 410-461-2566

DESIGN BY: RJR/RHV
DRAWN BY: RJR/RHV
CHECKED BY: RHV
DATE: 05-23-2005
SCALE: AS SHOWN
W.O. NO.: 2018121.00

18 SHEET OF 32

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OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (443) 367-0422

NO.	REVISION	DATE
7	REVISE HOUSE CONNECTION TO NEW UNITS	8/18/09
2	ADD PHASE III	8/27/07
1	ADD PHASE II	10/30/06

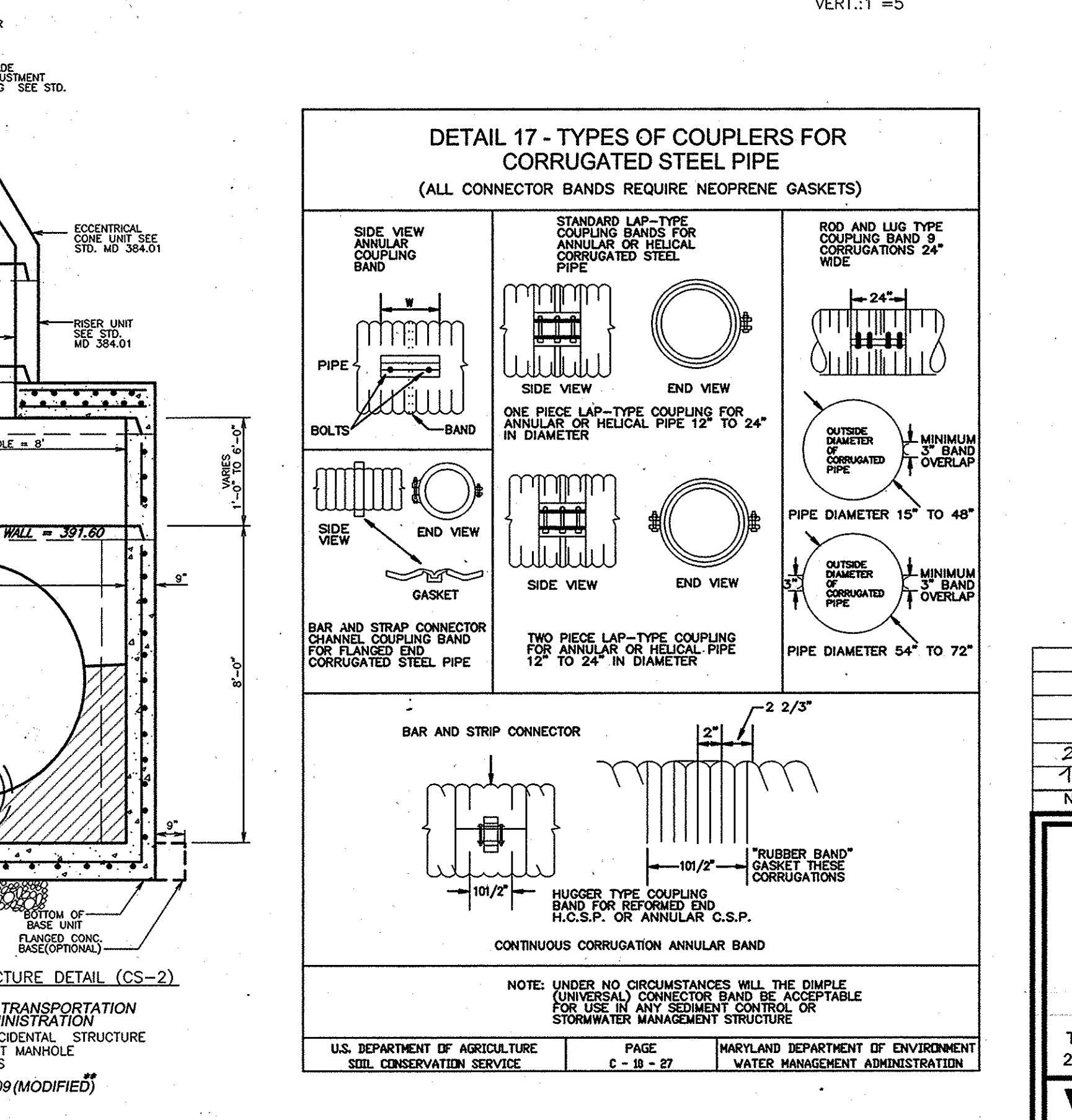
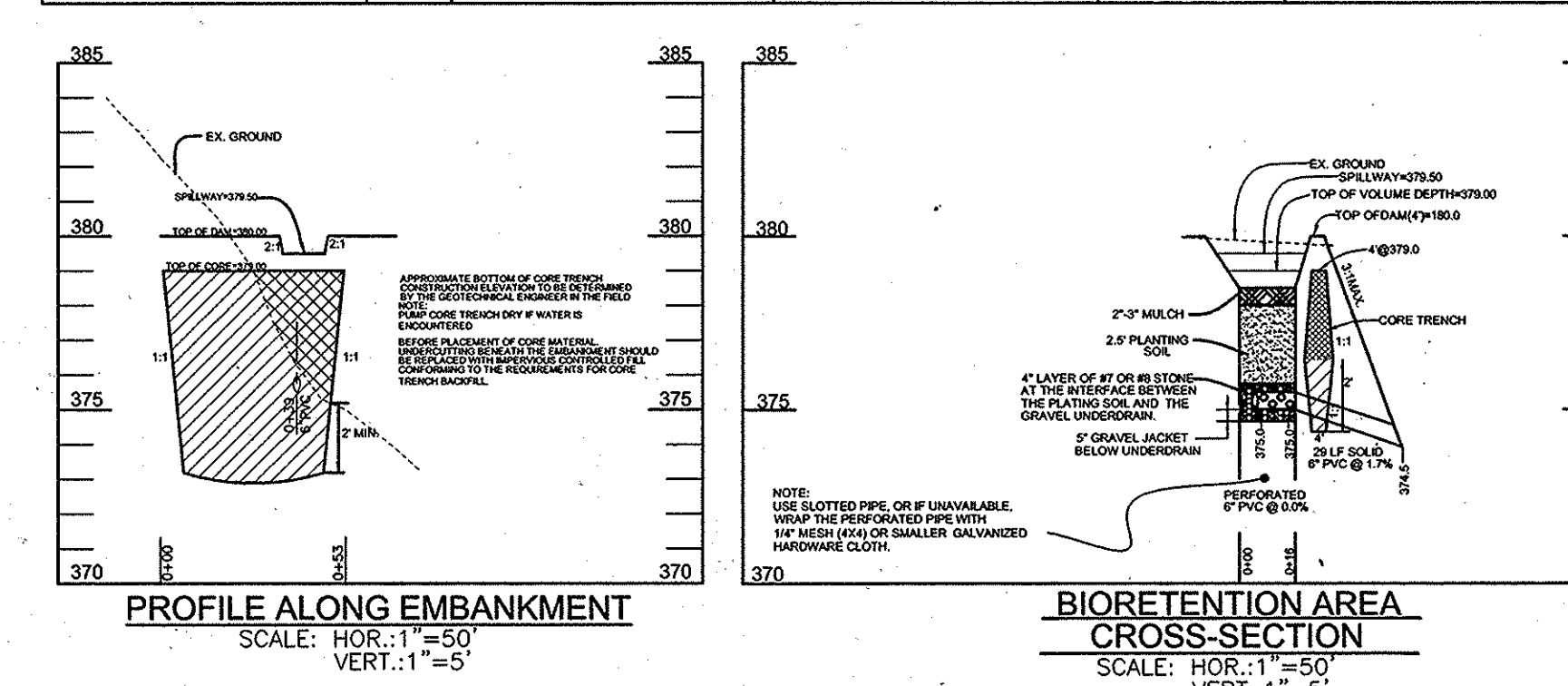
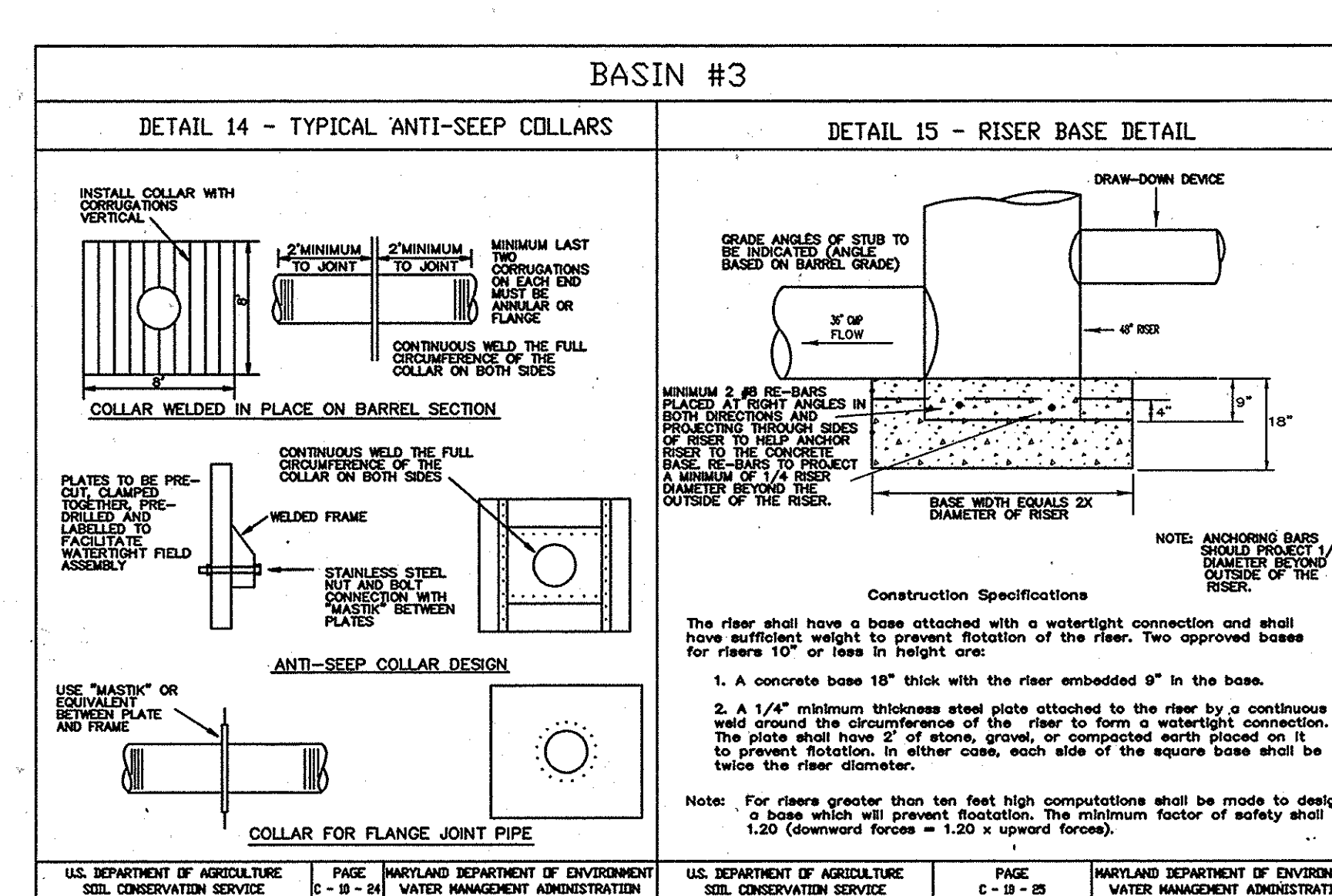
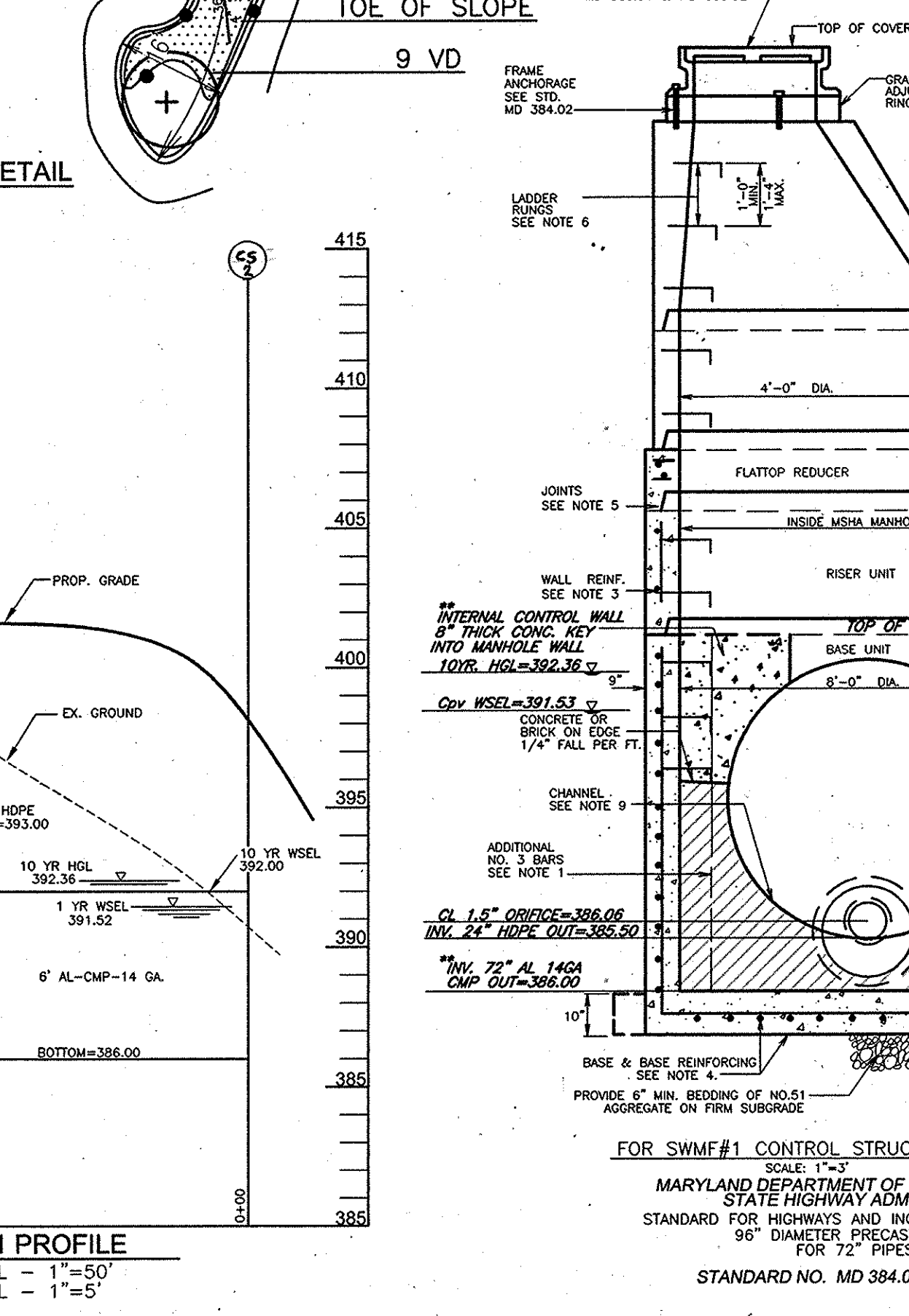
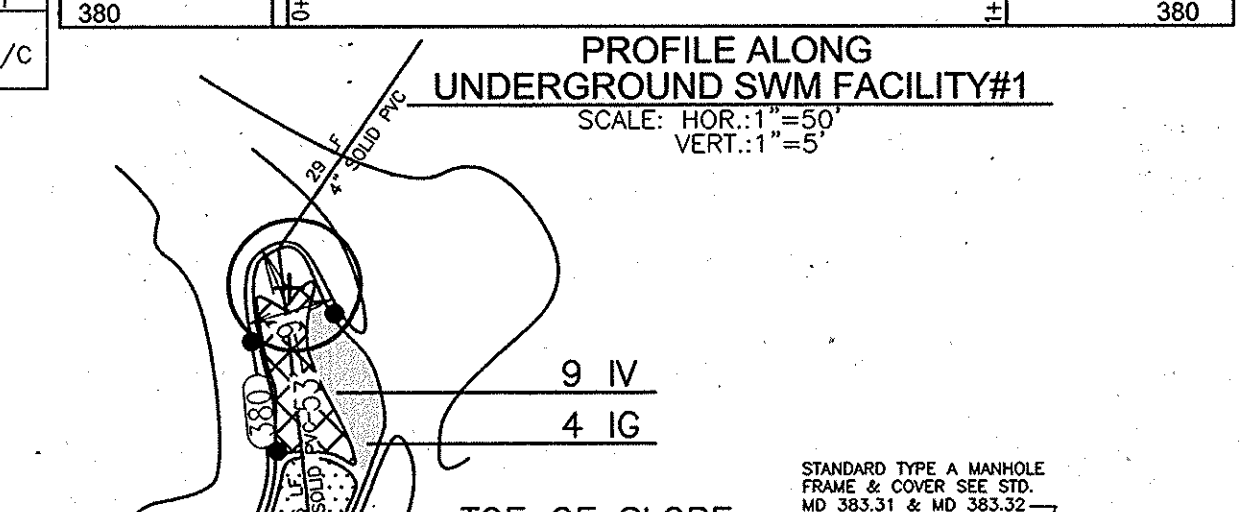
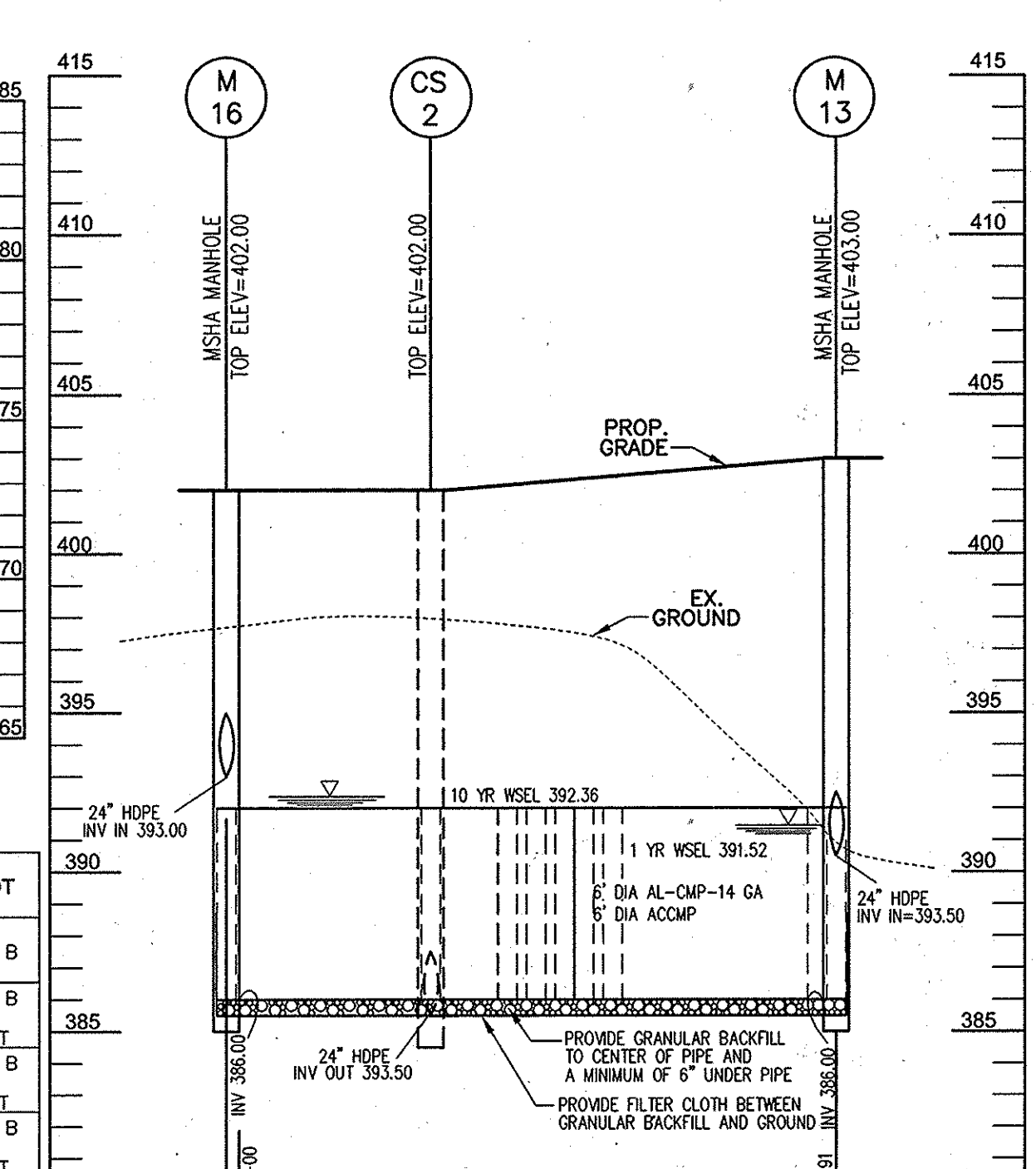
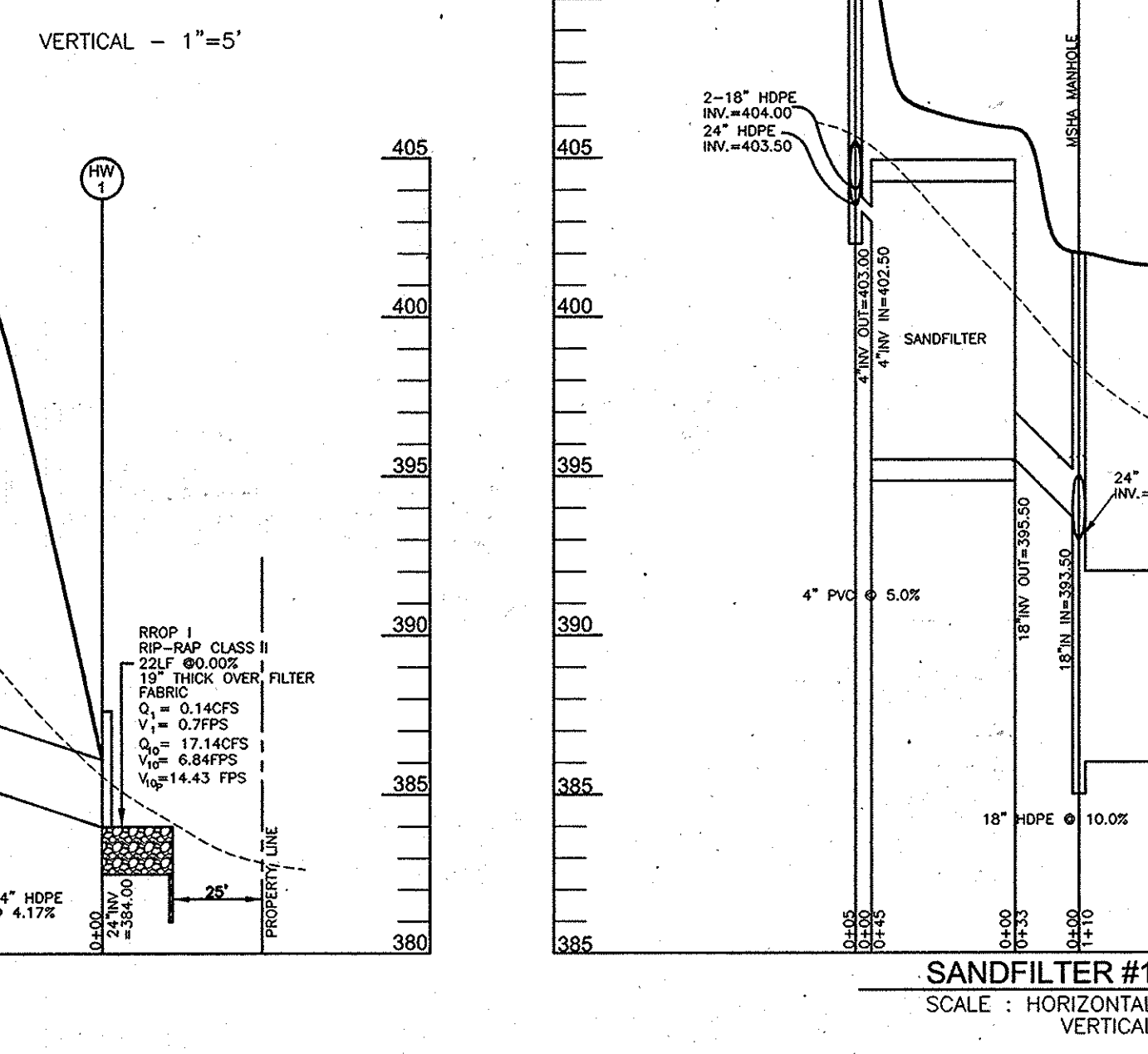
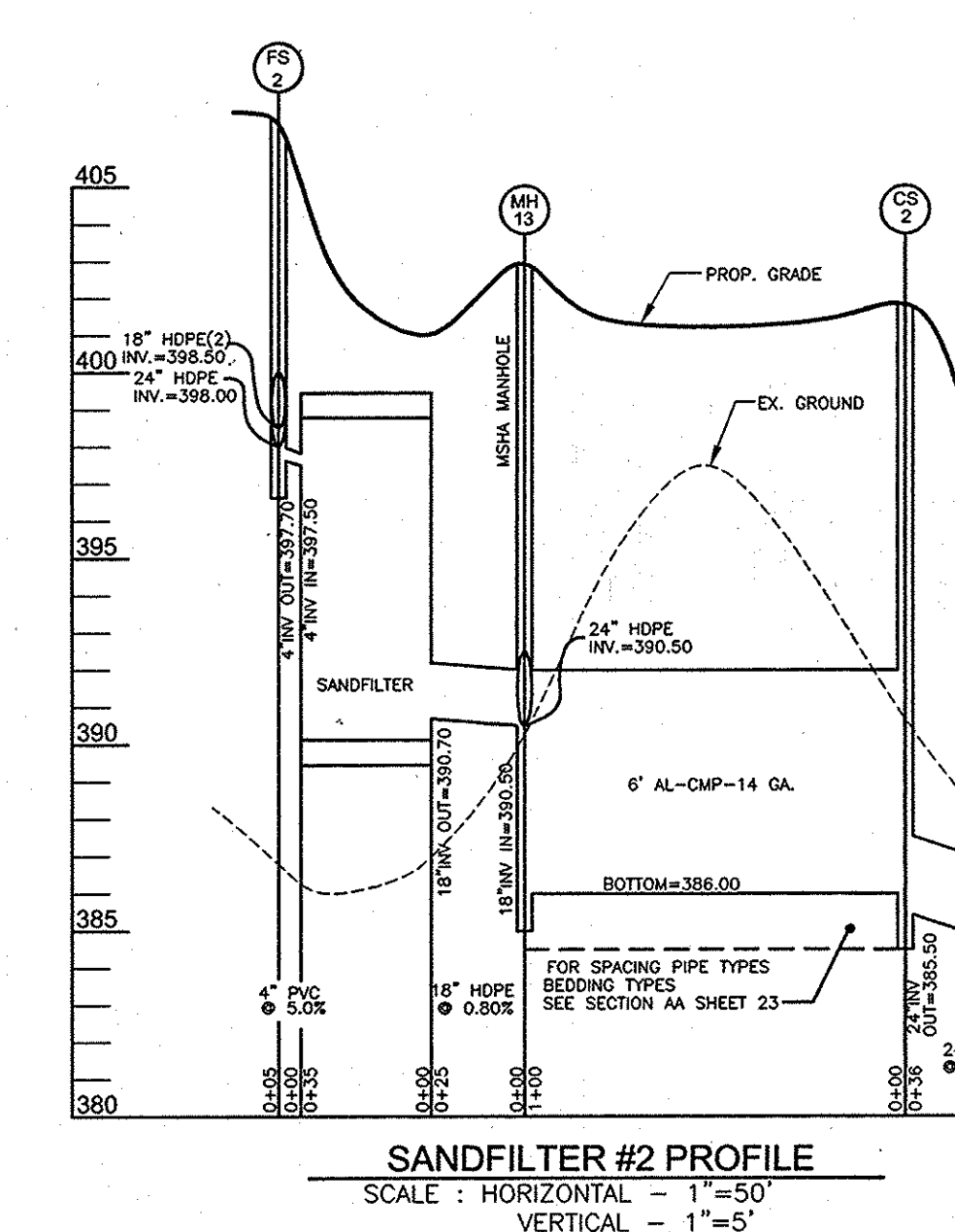
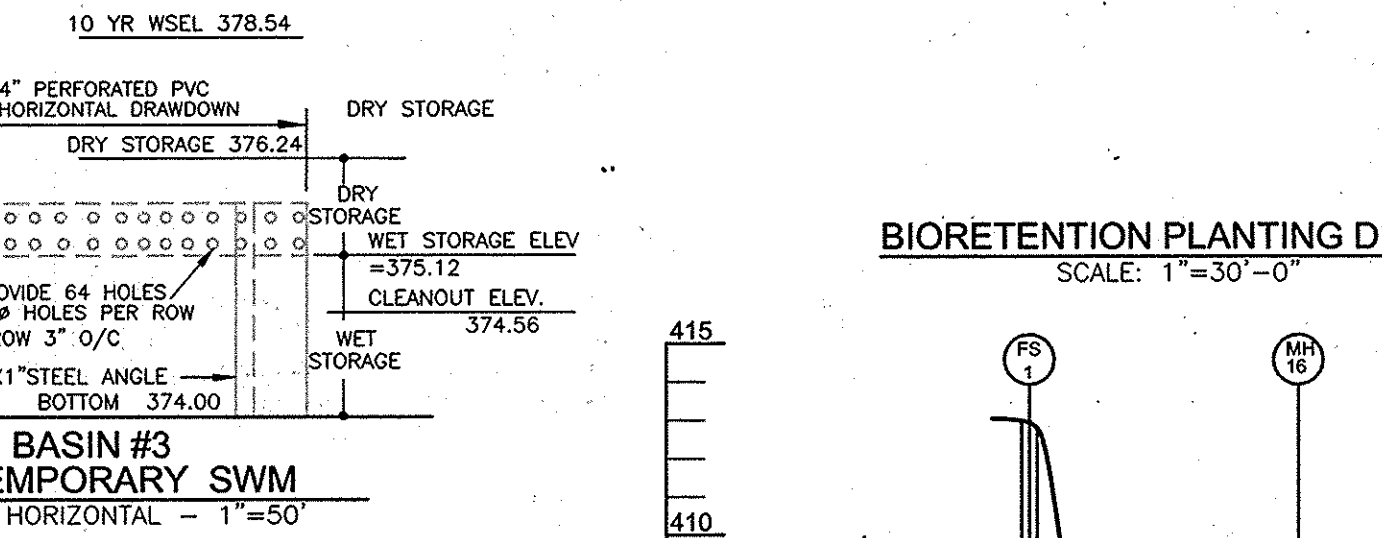
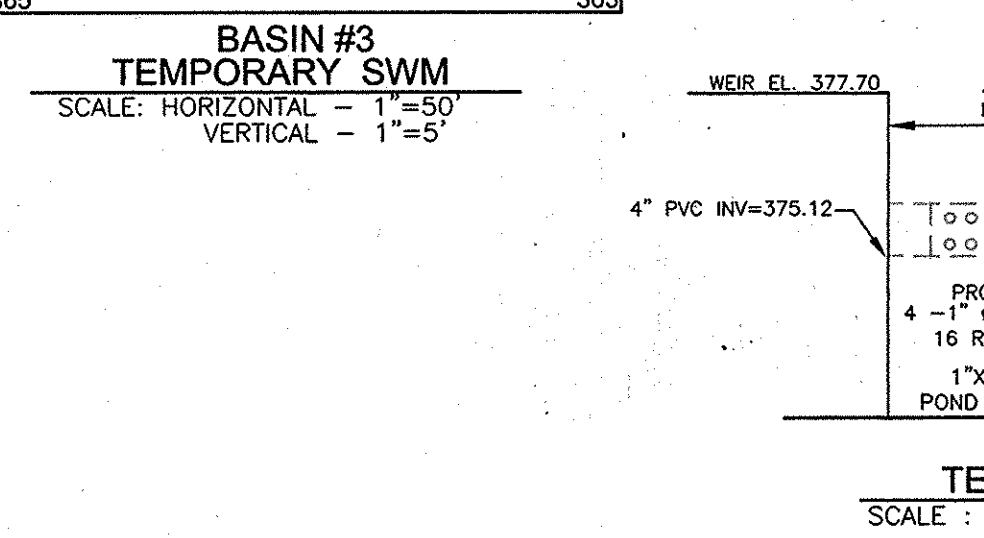
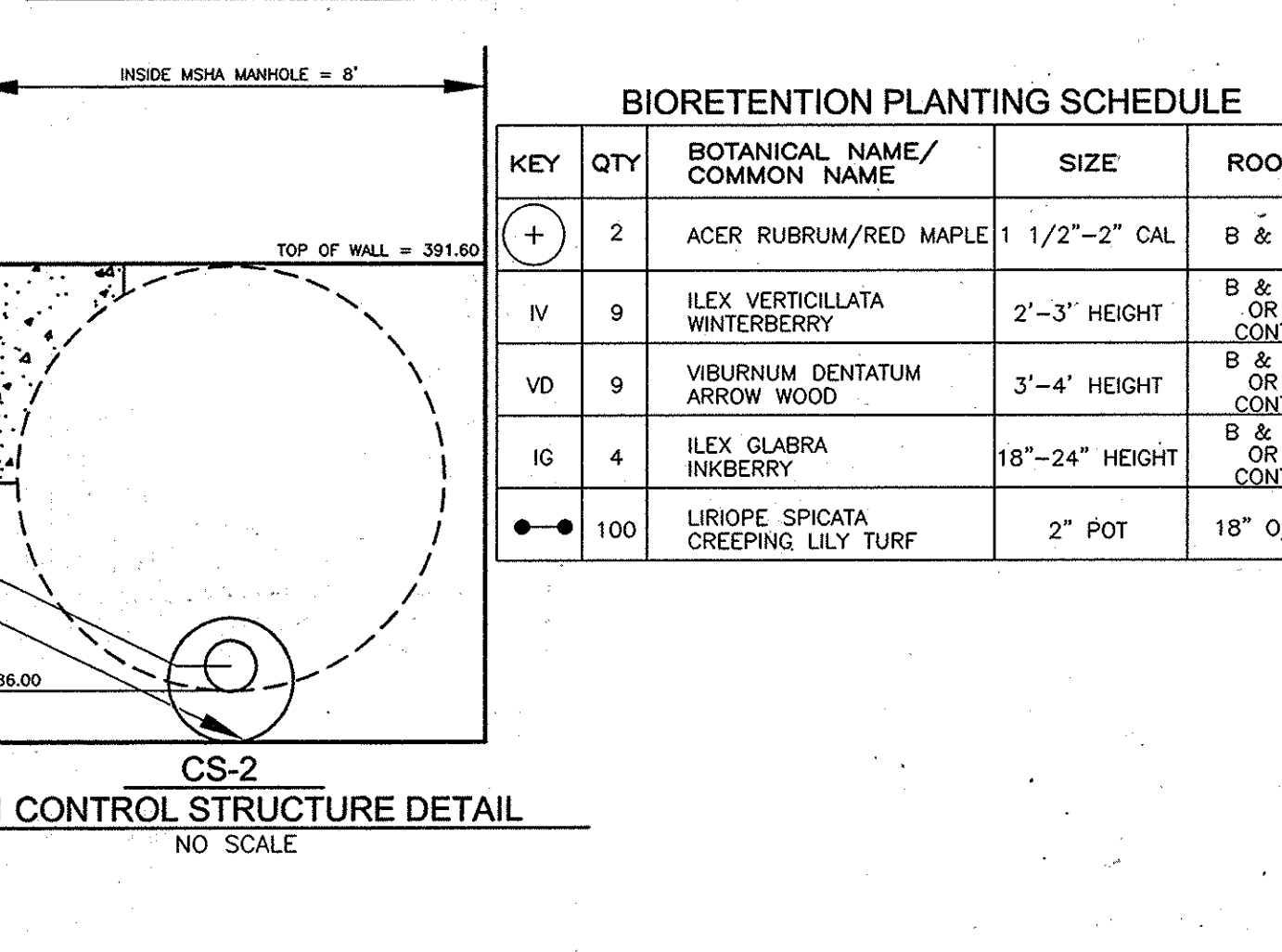
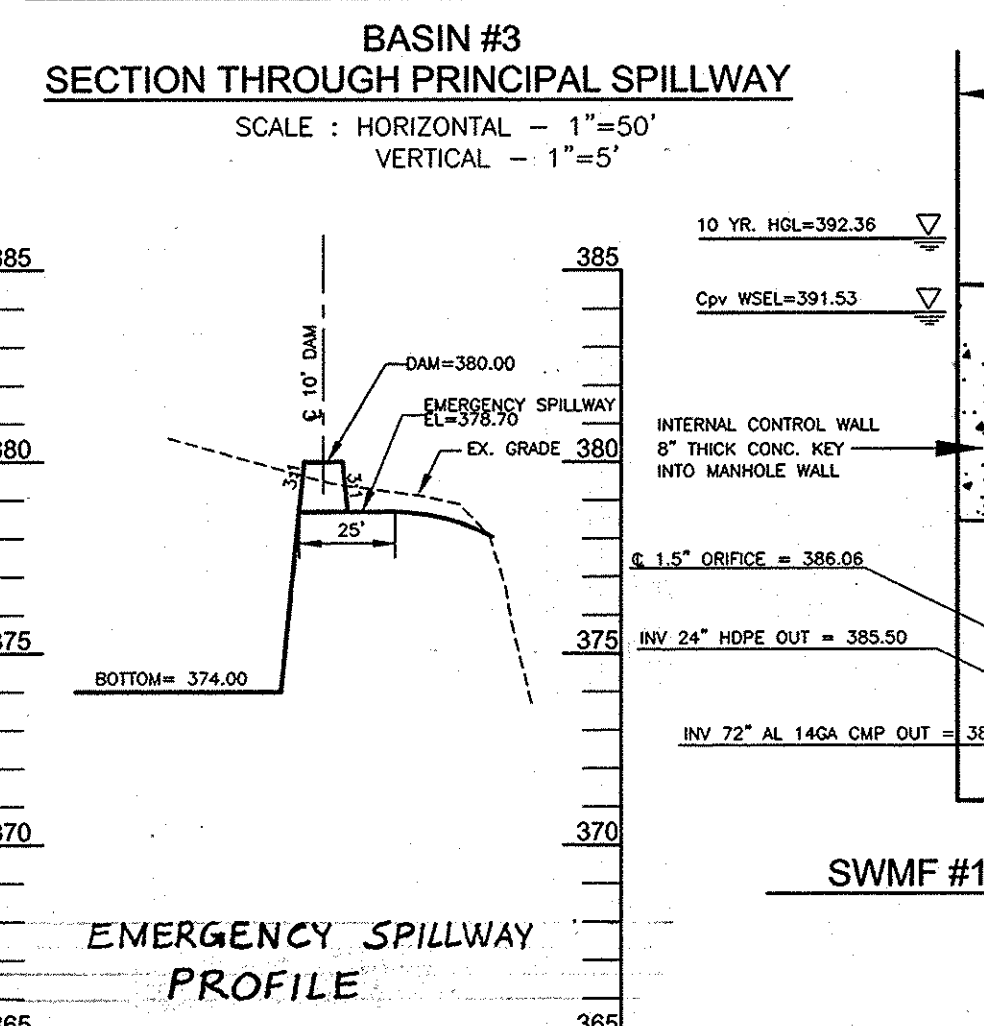
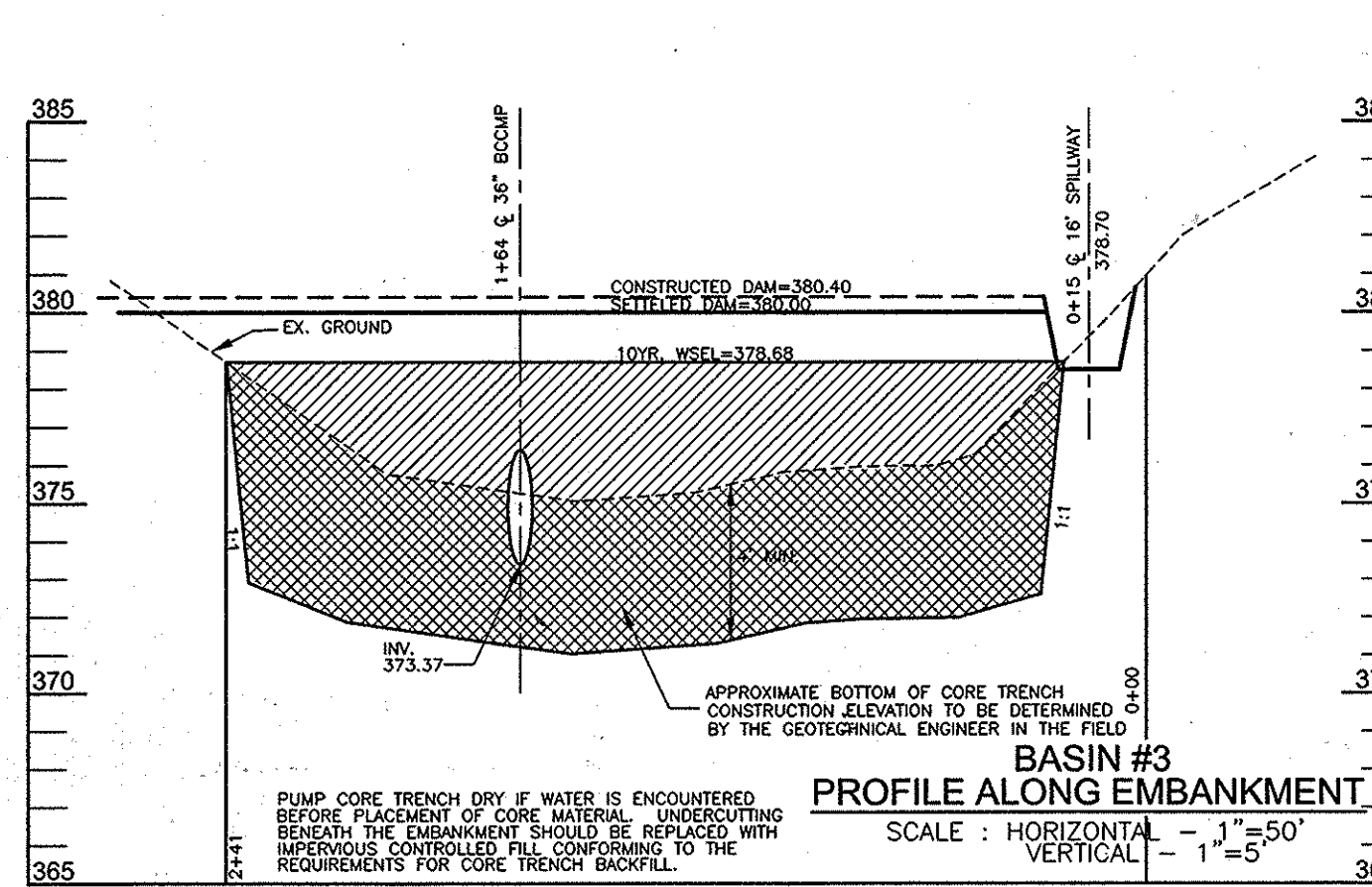
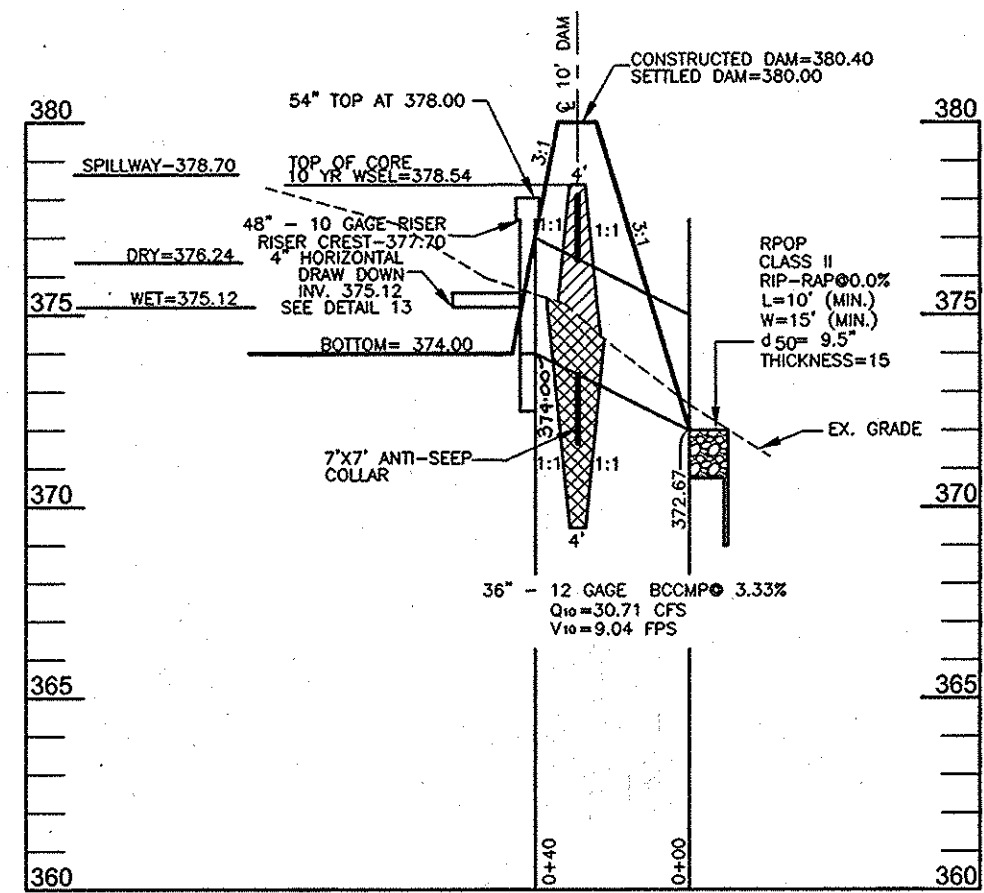
SEWER PROFILES
 SITE DEVELOPMENT PLAN
 VILLAGE CREST
 PARCEL C-1, AGE RESTRICTED
 ADULT HOUSING UNITS 1-29, 31-117
 TAX MAP #2531 BLOCK 20 PHASE I, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL
 ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: R.JRHV	DATE: 12/10/14
DRAWN BY: R.JRHV	DATE: 3/7/06
CHECKED BY: RHV	DATE: 8/9/06
DATE: 05-23-2005	
SCALE: AS SHOWN	
W.O. NO.: 2018121.00	

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

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.



KEY	QTY	BOTANICAL NAME/COMMON NAME	SIZE	ROOT
(+)	2	ACER RUBRUM/RED MAPLE	1 1/2"-2" CAL	B & B
IV	9	ILEX VERTICILLATA WINTERBERRY	2'-3" HEIGHT	B & B OR CONT
VD	9	VIBURNUM DENTATUM ARROW WOOD	3'-4" HEIGHT	B & B OR CONT
IG	4	ILEX GLABRA INKBERY	18"-24" HEIGHT	B & B OR CONT
●	100	LIRIOPE SPICATA CREEPING LILY TURF	2" POT	18" O/C

BIORETENTION AREA SOIL SPECIFICATIONS

A. PLANTING SOIL

THE BIORETENTION AREAS SHALL CONSIST OF A PLANTING SOIL HAVING A COMPOSITION OF AT LEAST 10 TO 25 PERCENT CLAY AND SHALL BE OF A SANDY LOAM OR LOAMY SAND TEXTURE. LOAMY SOILS MAY BE UTILIZED FOR THE PLANTING SOIL BUT MUST CONSIST OF 35% SAND. IN ADDITION, THE FURNISHED PLANTING SOIL SHALL BE OF UNIFORM COMPOSITION, FREE OF STONES, STUMPS, ROOTS OR SIMILAR OBJECTS LARGER THAN ONE INCH, BRUSH, OR ANY OTHER MATERIAL OR SUBSTANCE WHICH MAY BE HARMFUL TO PLANT GROWTH, OR A HINDERANCE TO PLANTING OR MAINTENANCE OPERATIONS.

THE PLANTING SOIL SHALL BE FREE OF PLANTS OR PLANT PARTS OF BERMOUDA GRASS, QUACK GRASS, JOHNSON GRASS, MUDDWORT, NUTSEDGE, POISON IVY, CANADIAN THISTLE OR OTHERS AS SPECIFIED.

IT SHALL NOT CONTAIN TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH.

THE PLANTING SOIL SHALL MEET THE FOLLOWING CRITERIA:

PH RANGE	5.5 - 6.5
ORGANIC MATTER	1.5 - 3.0%
MAGNESIUM	35 lbs / ACRE
PHOSPHORUS - P205	100 lbs / ACRE
POTASSIUM - K2O	85 lbs / ACRE
SOLUBLE SALTS	NOT TO EXCEED 500 ppm

B. MULCH LAYER SPECIFICATIONS (3" THICK)

A MULCH LAYER SHALL BE PROVIDED ON TOP OF THE PLANTING SOIL. AN ACCEPTABLE MULCH LAYER SHALL INCLUDE SHREDDED HARDWOOD OR SHREDDED WOOD CHIPS OR OTHER SIMILAR PRODUCT.

ALL MULCH PRODUCTS MUST BE WELL AGED, UNIFORM IN COLOR, AND FREE OF FOREIGN MATERIAL INCLUDING PLANT MATERIAL, WELL AGED MULCH IS DEFINED AS MULCH THAT HAS BEEN STOCKPILED OR STORED FOR AT LEAST TWELVE (12) MONTHS.

C. SAND SPECIFICATIONS (1" MIN.)

THE SAND SHALL BE FREE OF DELETERIOUS MATERIAL AND ROCKS GREATER THAN 1 INCH IN DIAMETER.

D. COMPACTION

SOIL SHALL BE PLACED IN LIFTS LESS THAN 18 INCHES AND LIGHTLY COMPACTED (MINIMAL COMPACTIVE EFFORT) BY TAMPING WITH A BUCKET FROM A DOZER OR A BACKHOE.

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREAS

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.

OWNER / DEVELOPER

TAYLOR FAMILY LIMITED PARTNERSHIP A
C/O LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (443) 367-0422

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

NO.	REVISION	DATE
2	ADD PHASE III	8/27/07
1	RED PHASE II	10/3/06

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF DEVELOPMENT ENGINEERING DIVISION

DATE: 1/30/06

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 2/5/06

DIRECTOR

DATE: 2/5/06

DEVELOPER'S CERTIFICATE

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

SIGNATURE OF DEVELOPER: [Signature]

DATE: 1/10/06

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

SIGNATURE OF ENGINEER: [Signature]

DATE: 1/10/06

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

USDA-NATURAL RESOURCES CONSERVATION SERVICE

DATE: 1/24/06

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

DATE: 1/24/06

SWM FACILITY #1

SITE DEVELOPMENT PLAN

VILLAGE CREST

PARCEL C-1, AGE RESTRICTED

ADULT HOUSING UNITS 1-29, 31-117

TAX MAP #2531 BLOCK 20 PHASE 1, 11 & 111 PARCEL C-1
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.

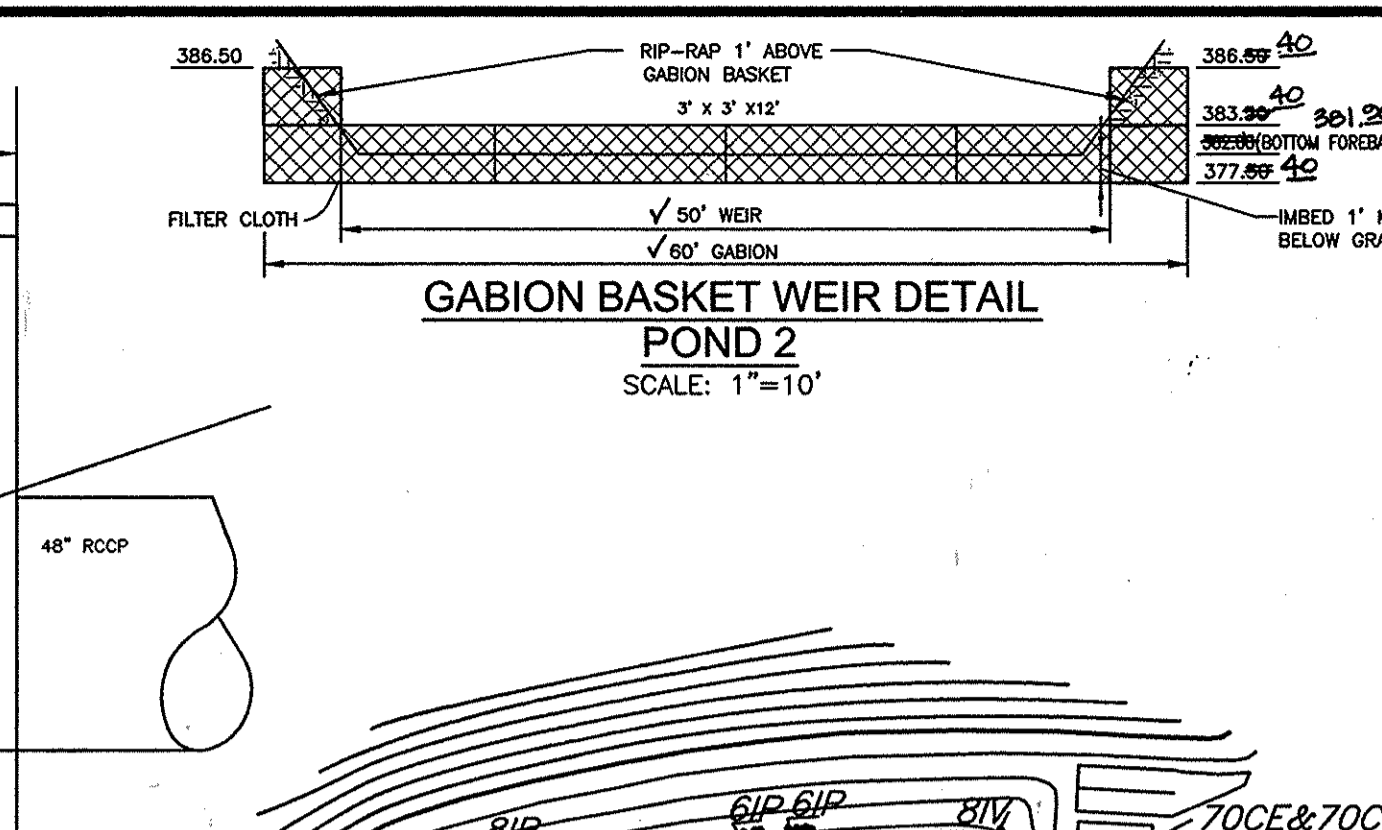
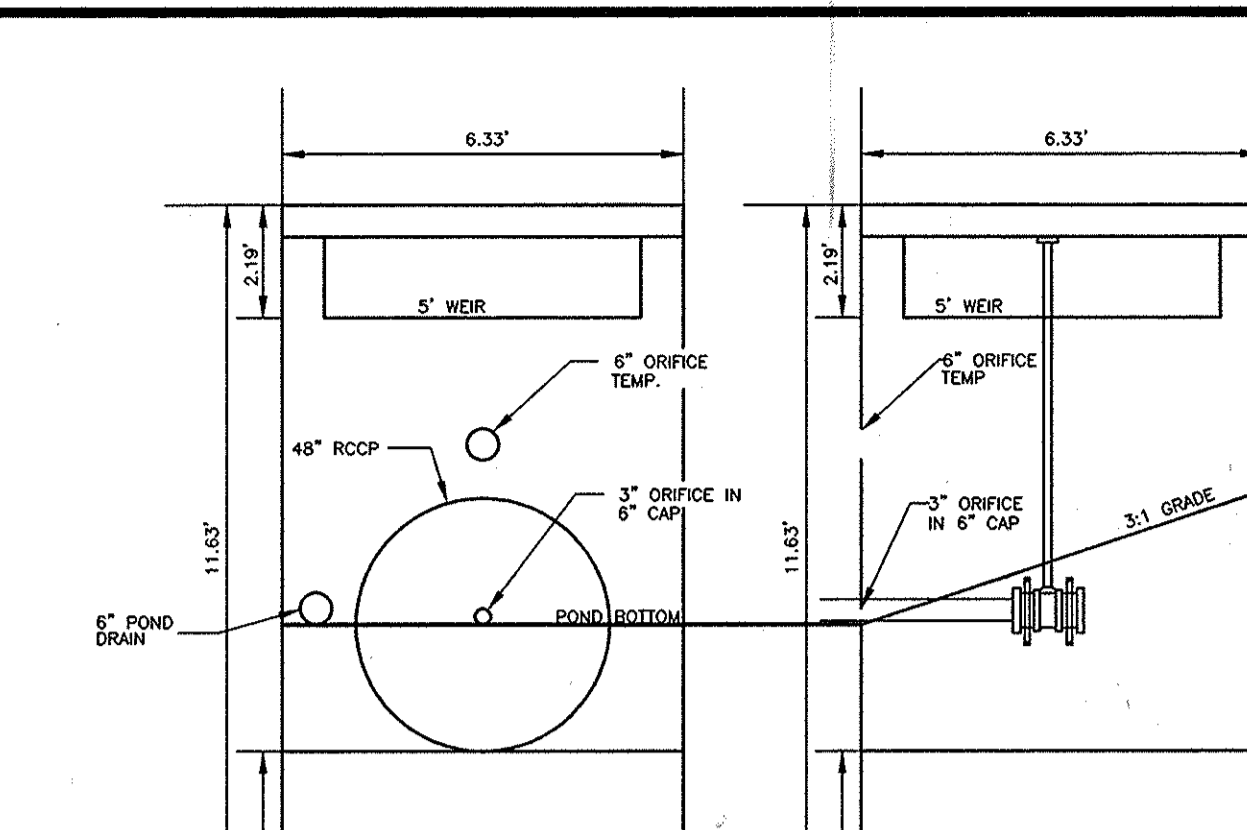
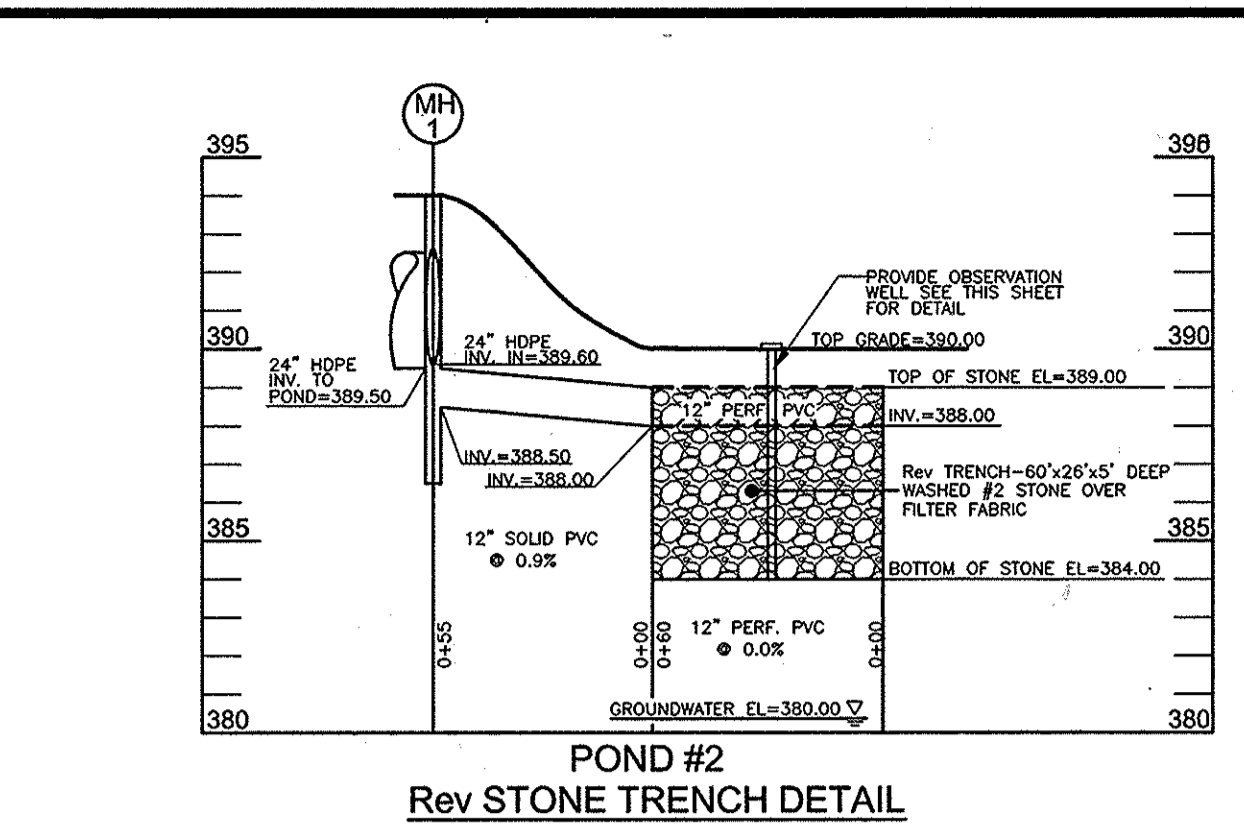
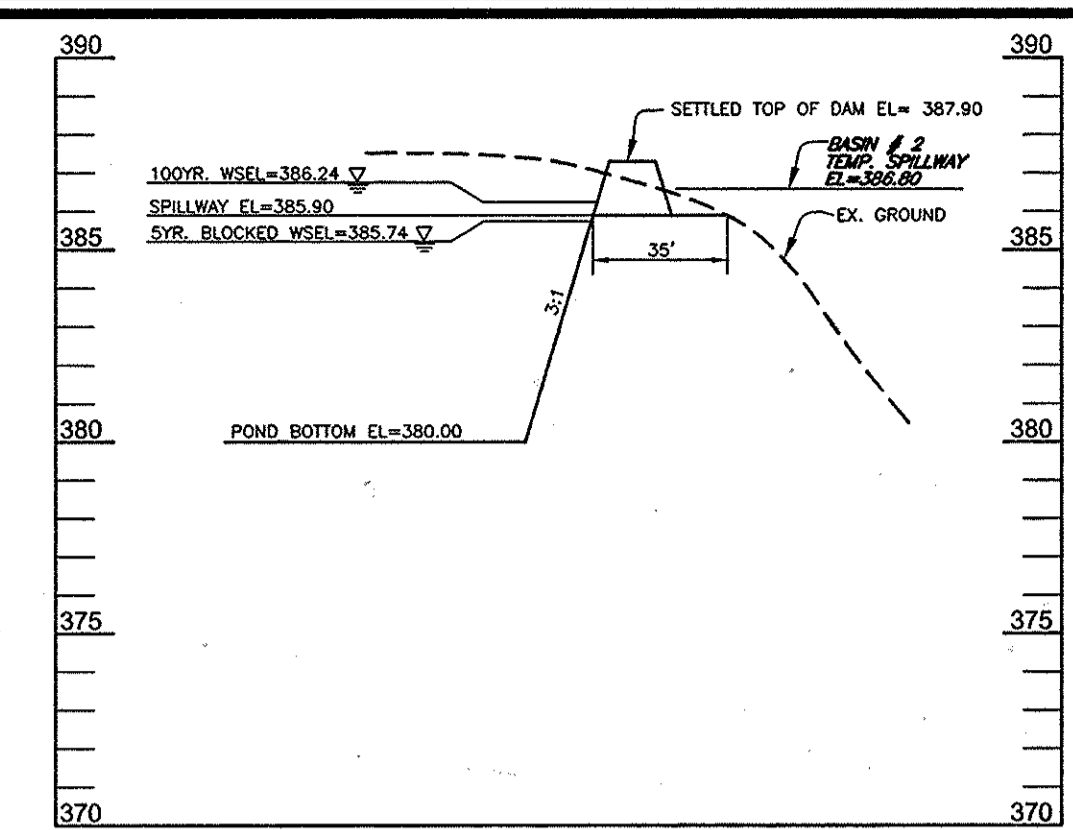
ENGINEERS • SURVEYORS • PLANNERS

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ELLCOTT CITY, MD 21043 FAX: 410-461-8961

DESIGN BY: RJRHV
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SCALE: AS SHOWN
W.O. NO.: 2018121.00

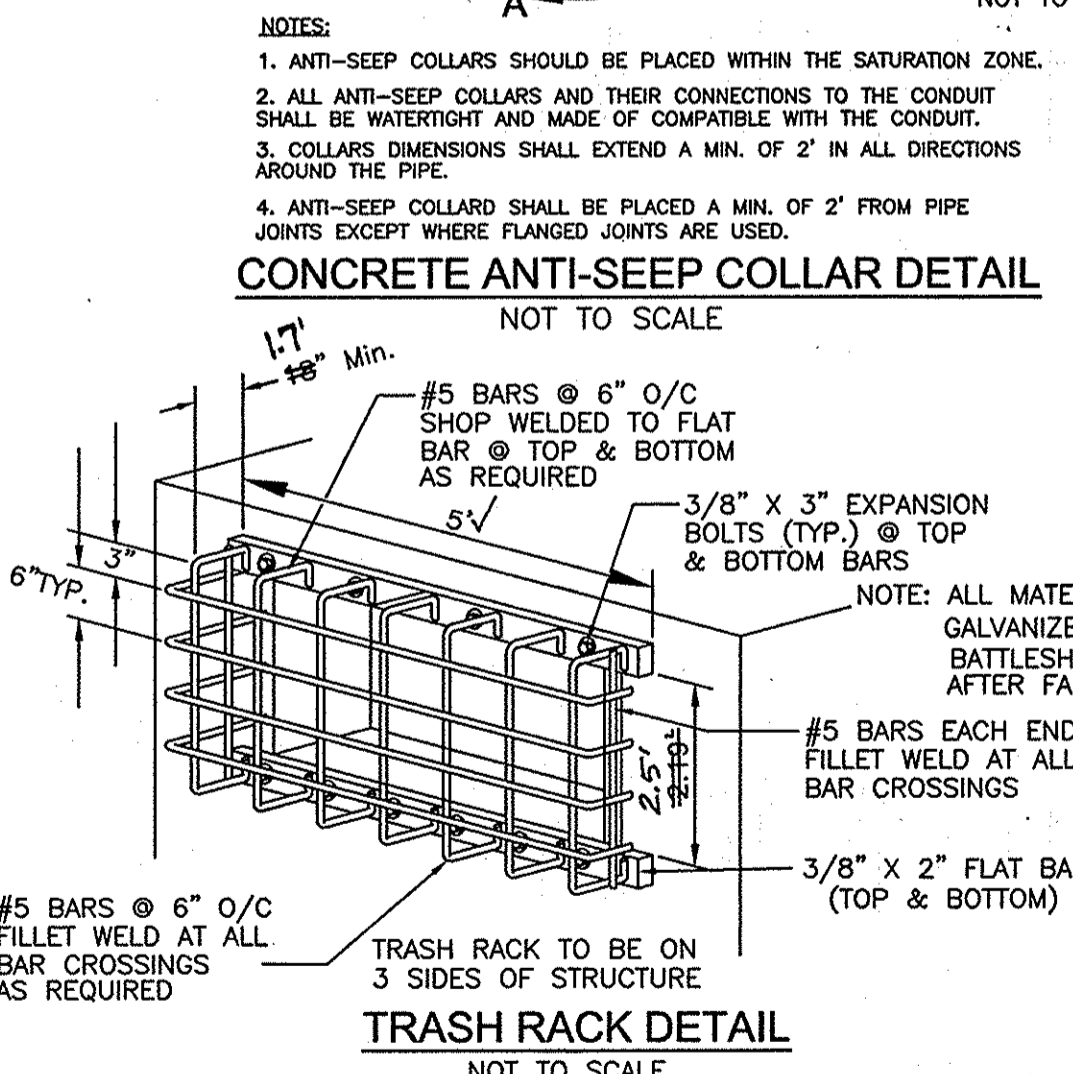
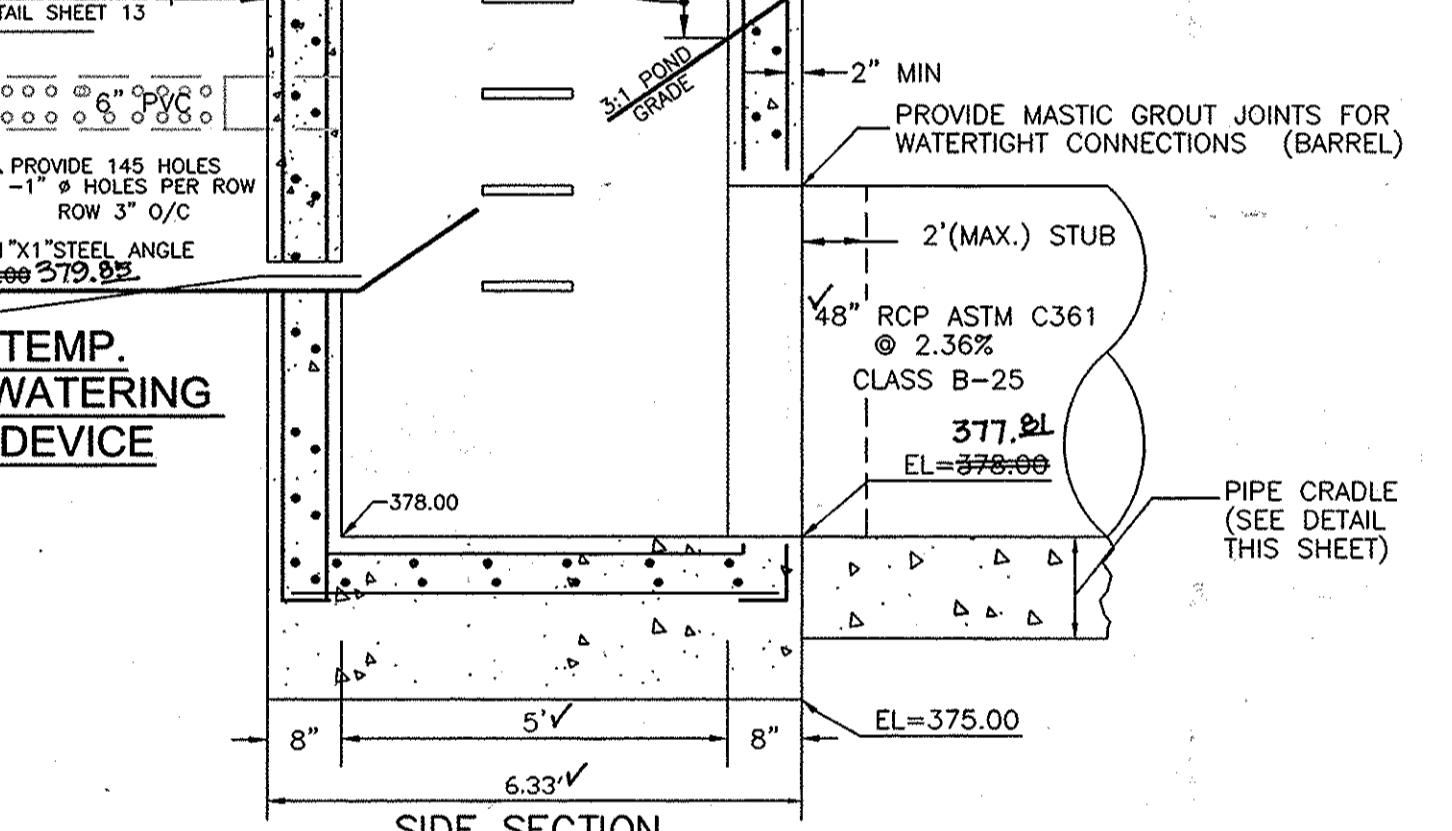
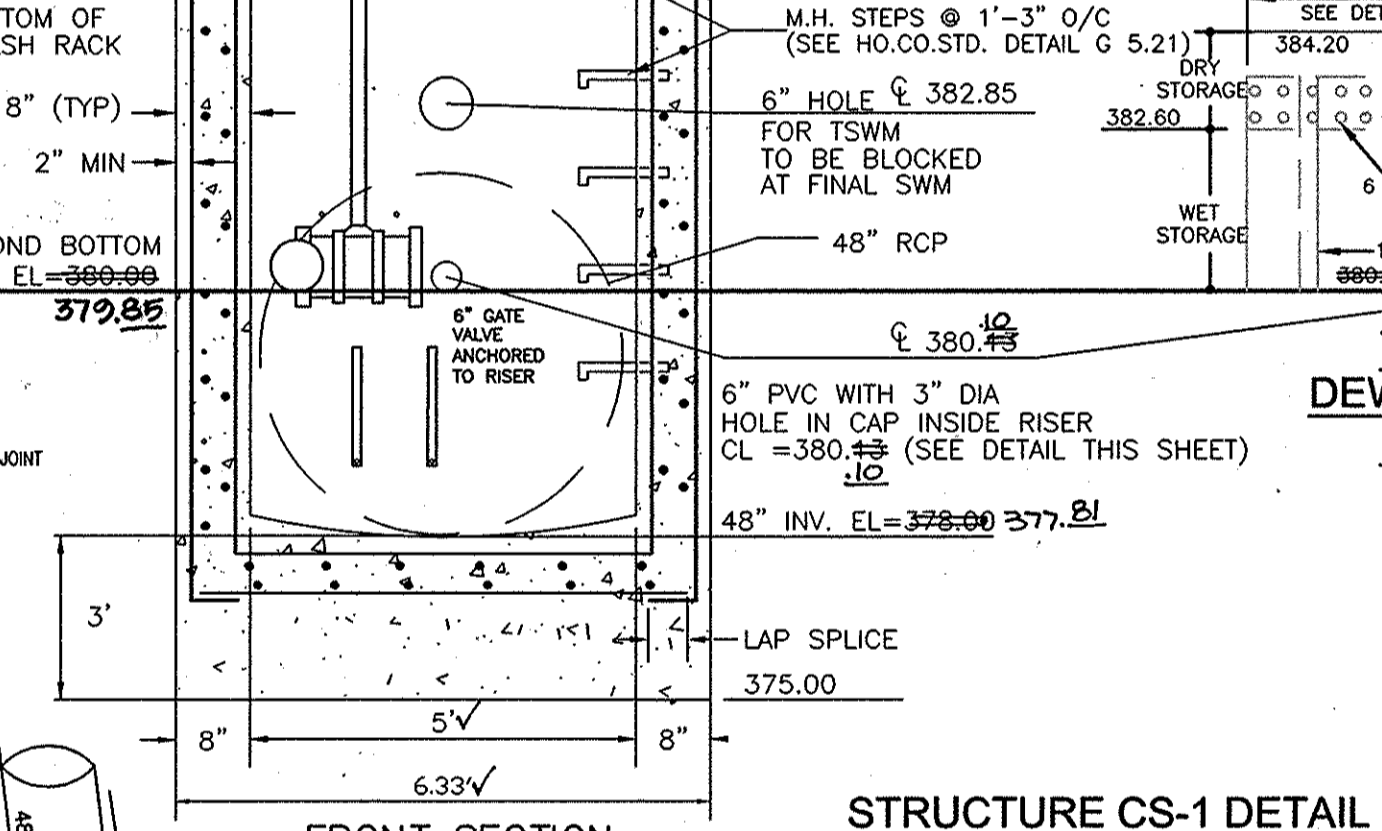
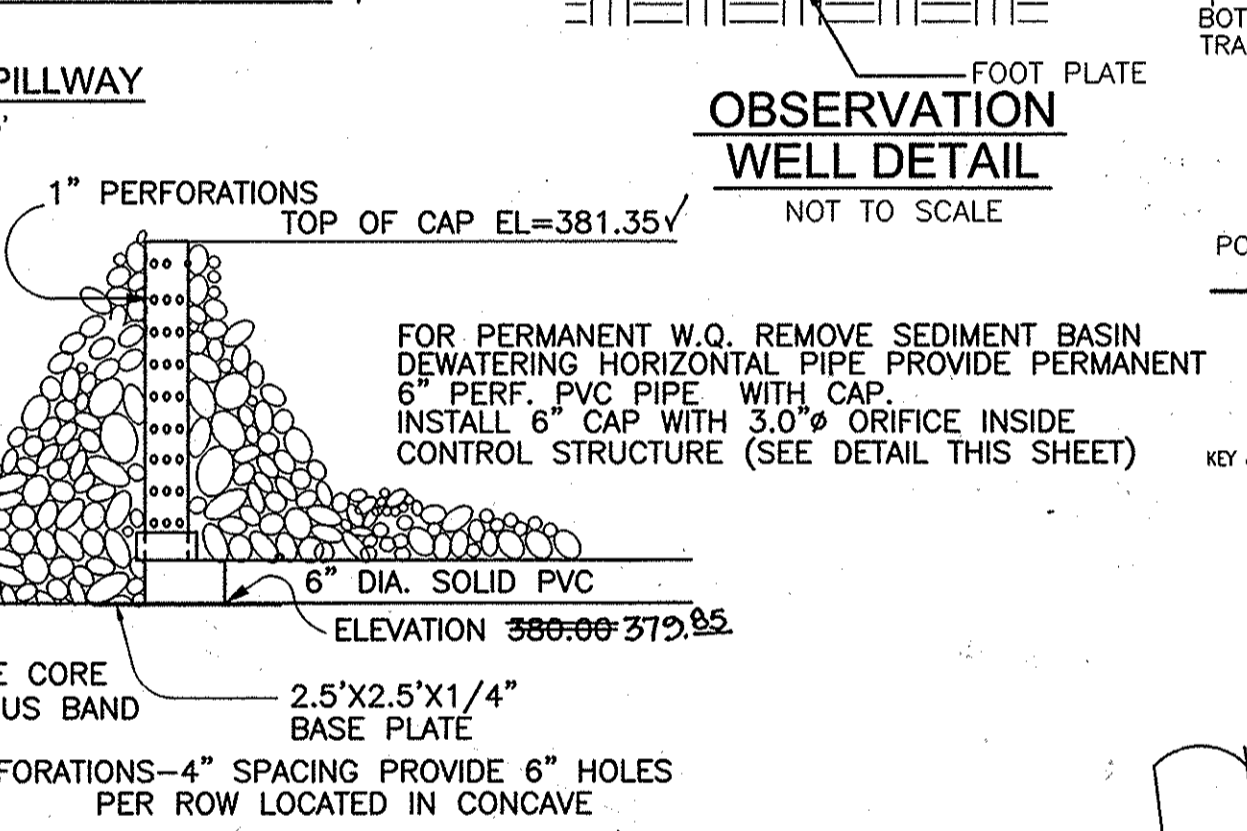
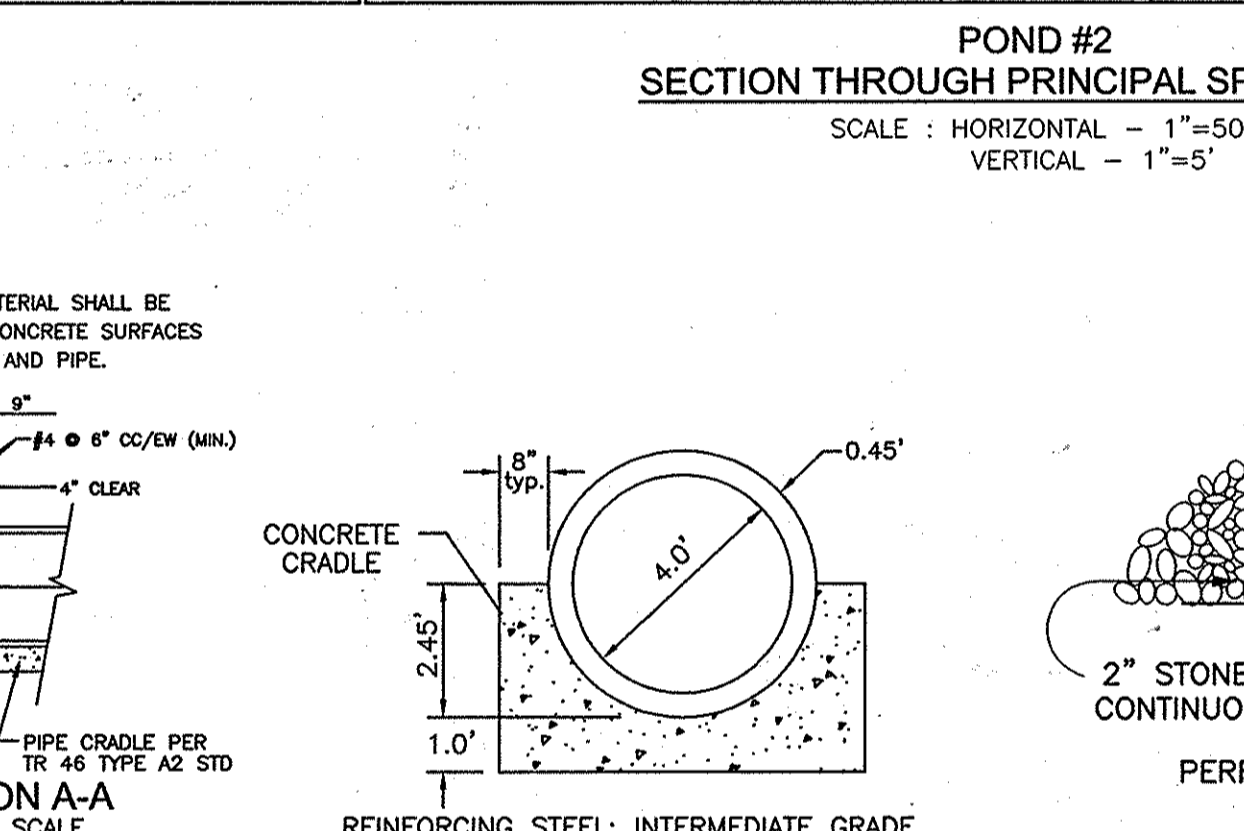
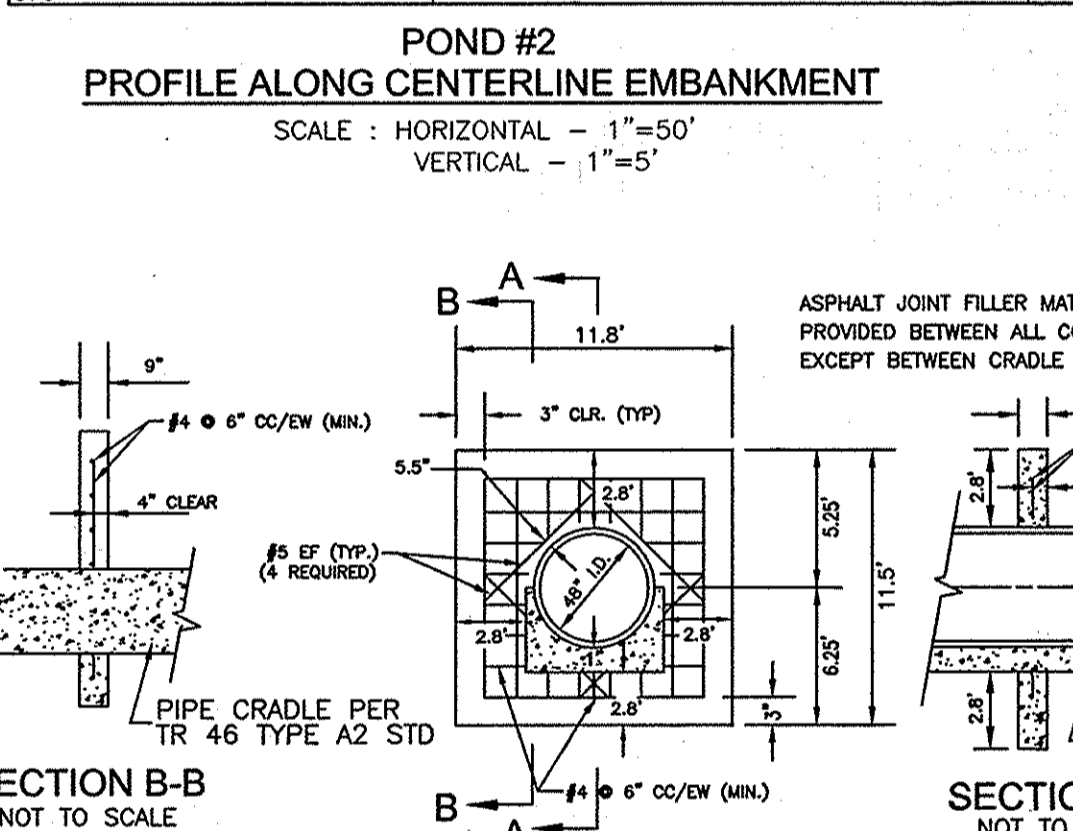
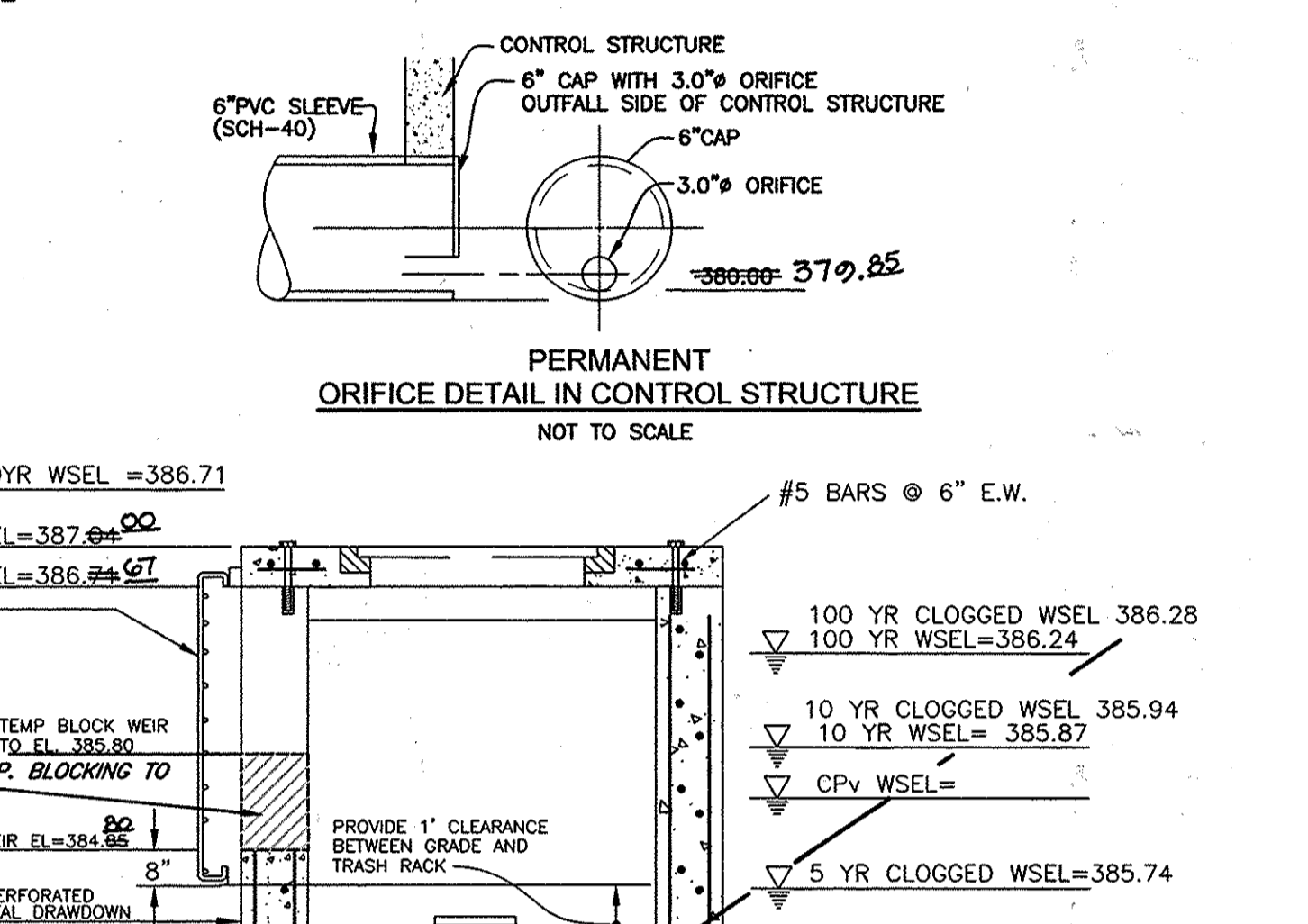
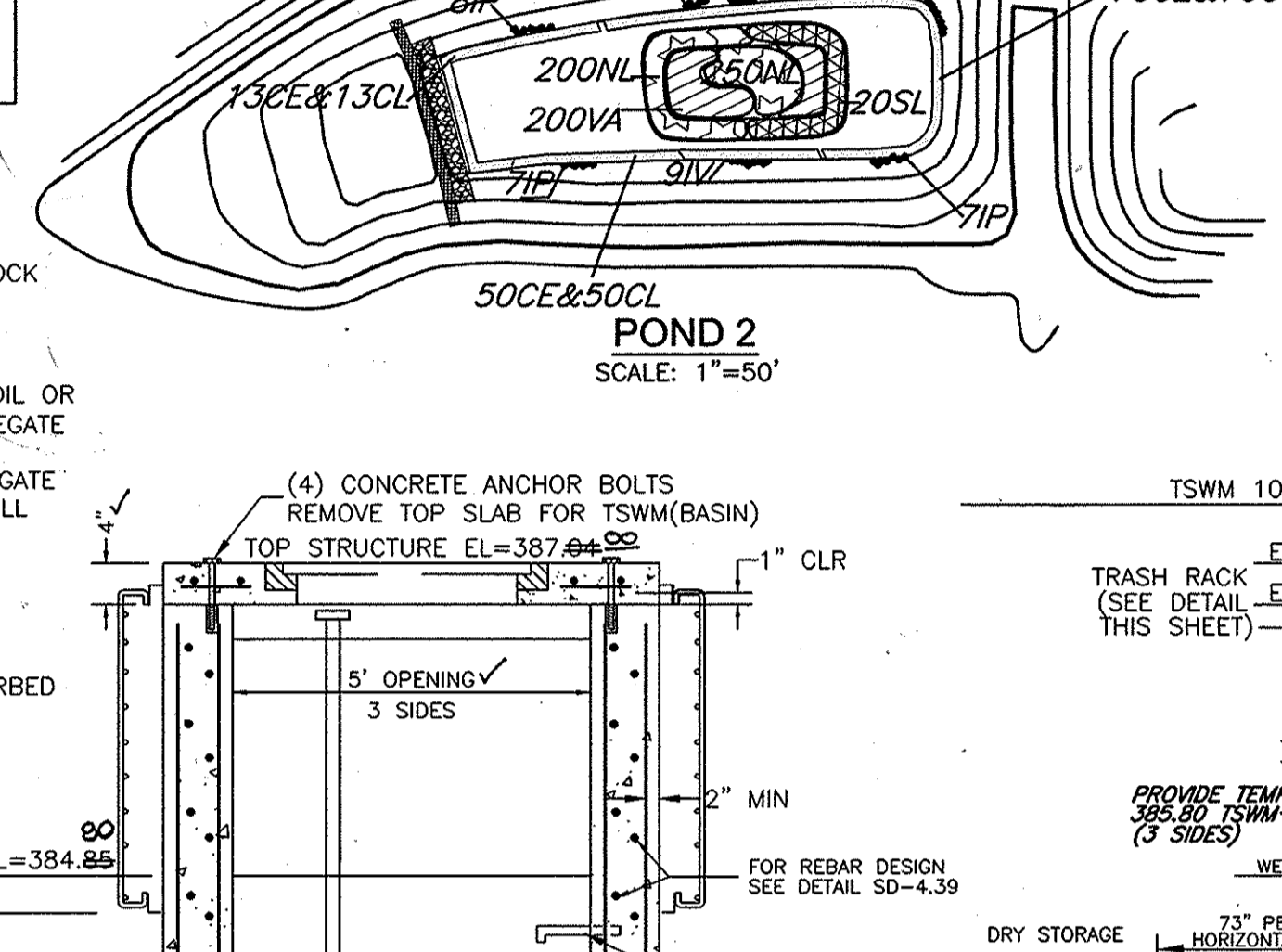
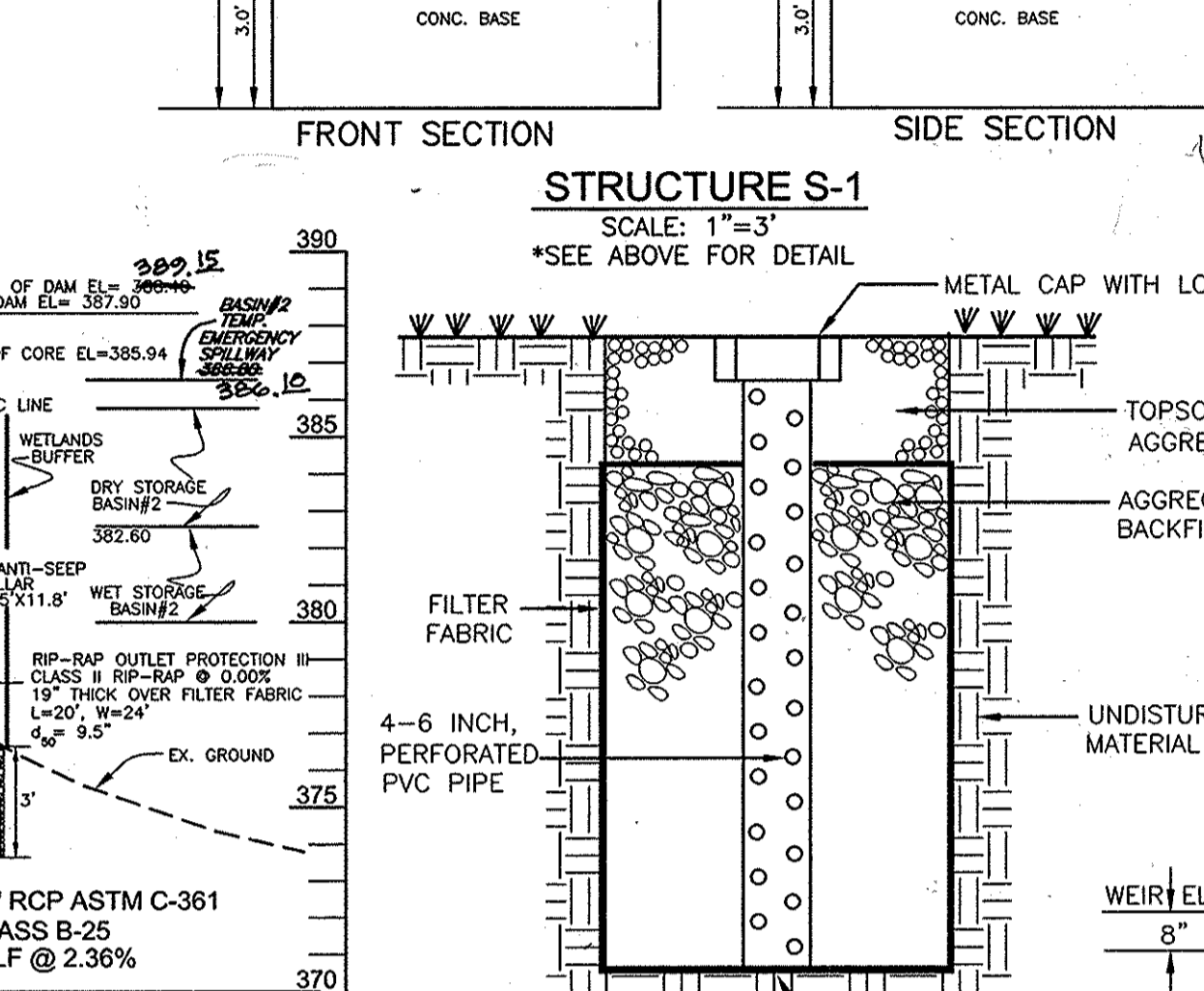
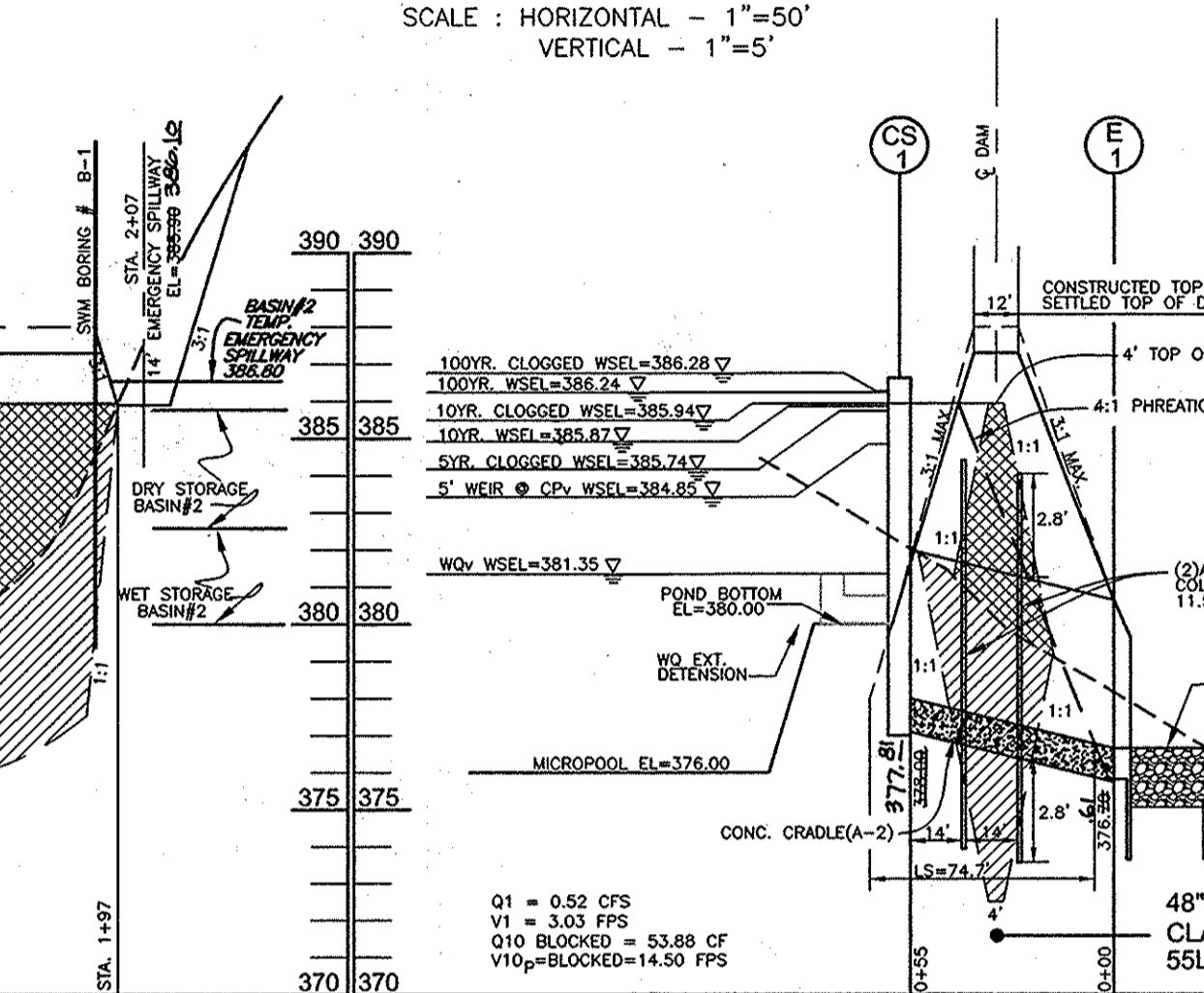
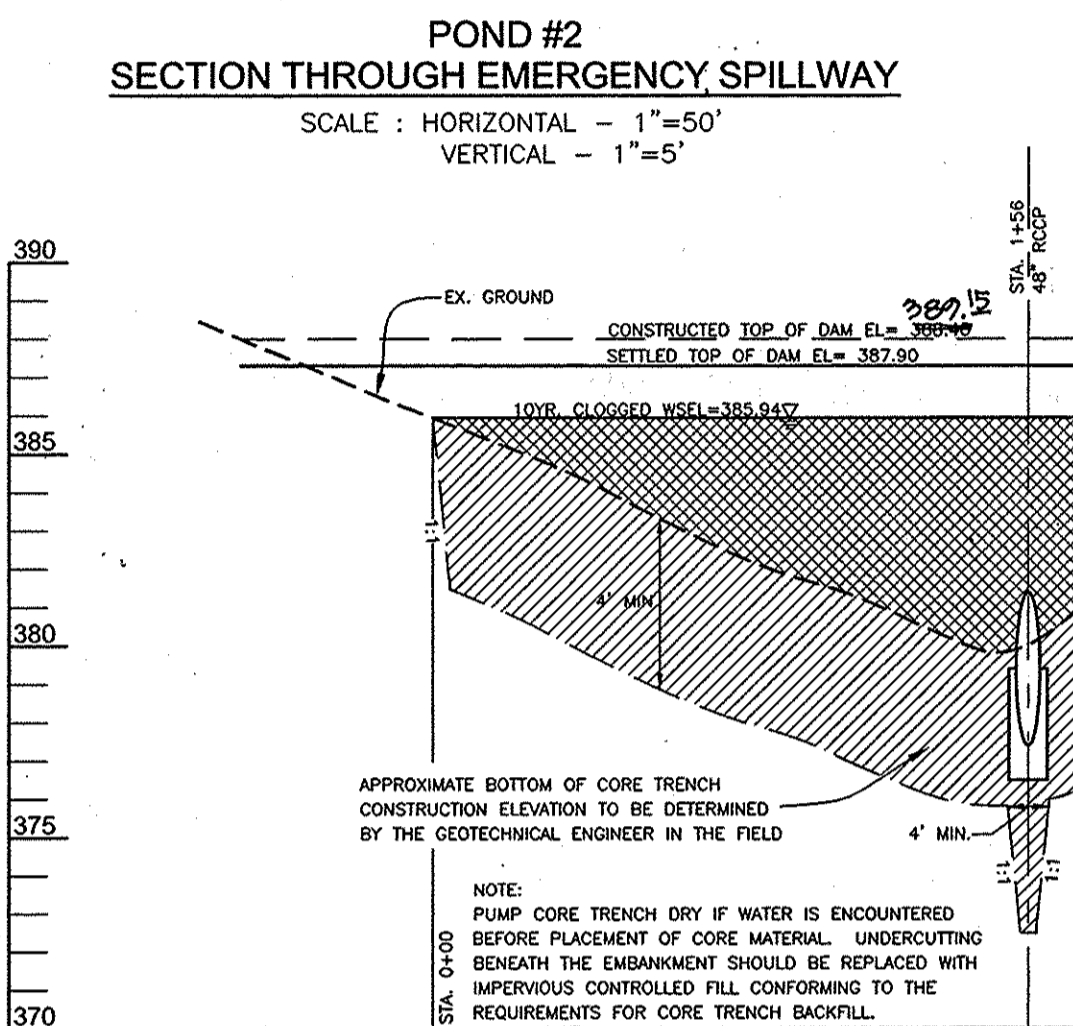
22 SHEET OF 32

AS-BUILT 12/10/14 SDP-05-44



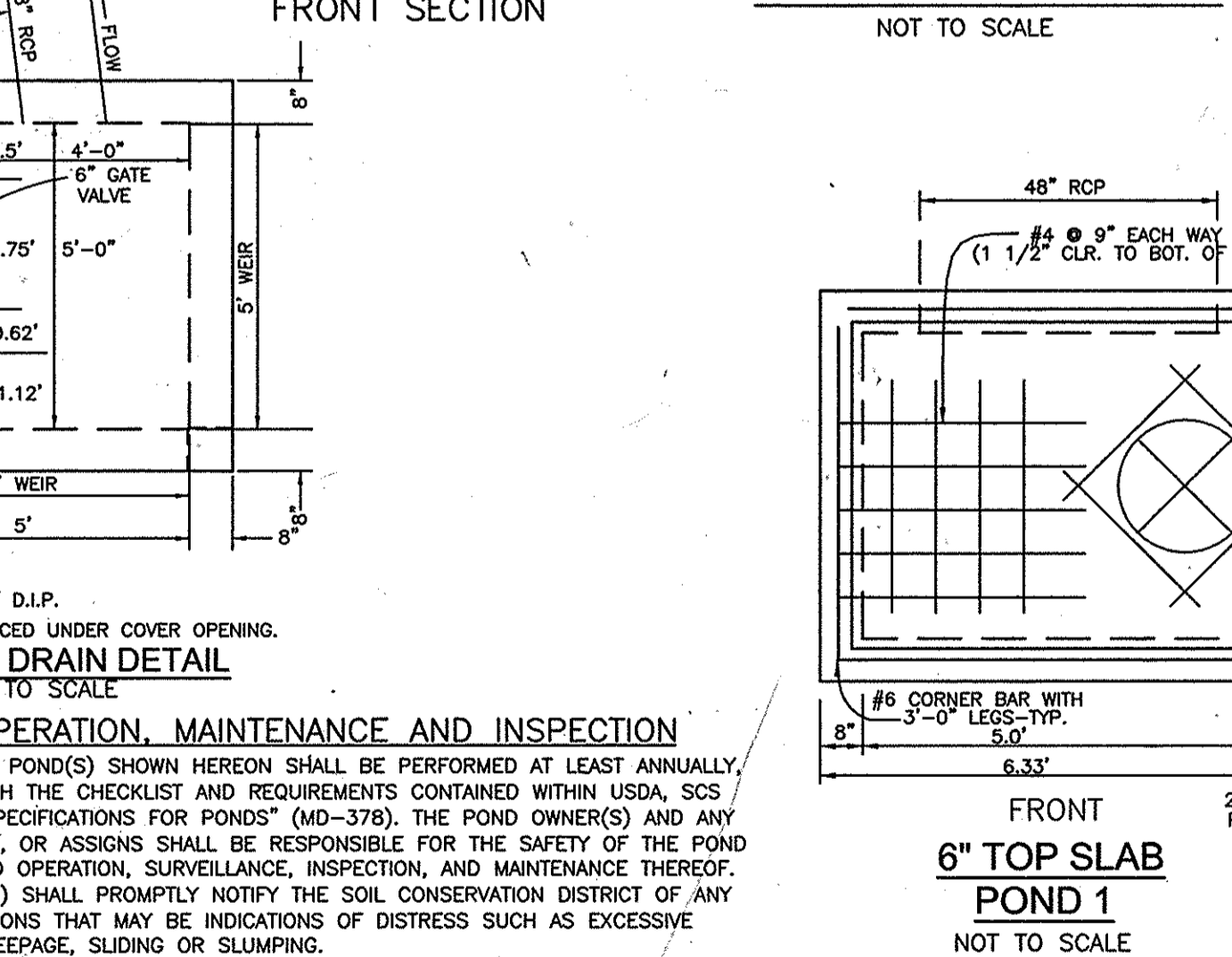
KEY	QUAN.	BOTANICAL NAME	SIZE	REMARKS
VA	200	Vallisneria spiralis	plug	2' oc
IP	34	Iris pseudacorus	plug	1.5' oc
IV	17	Iris versicolor	plug	1.5' oc
SL	20	Sagittaria latifolia	plug	4' oc
CE	133	Cyperus esculentus	plug	2' oc
NL	450	Nuphar luteum	plug	1.5' oc
CL	133	Carex lacustris	plug	2' oc

REMOVE BAFFLE BOARDS PRIOR TO INSTALLATION OF PLANT MATERIALS. ADD THREE INCHES OF TOPSOIL TO PLANTING AREA. STABILIZE WITH 40 POUNDS PER ACRE OF A HYDROSEED MIX (WET MIX AND MEADOW MIX) FROM SYLVIA NATIVE NURSERY OR EQUAL. ALL PLANT MATERIALS TO CONFORM TO THE MOST CURRENT AAN SPECIFICATIONS AND BE INSTALLED IN ACCORDANCE WITH LCAMW SPECIFICATIONS.



AS-BUILT CERTIFICATION
 I hereby certify that the facility shown on this was constructed as shown on the "as-built" and meets the approved plans and specifications.
 Signature: [Signature]
 PE No. 16193
 Date: 8/1/16
 PROFESSIONAL ENGINEER

OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT EXTENDED DETENTION FACILITY
 STORMWATER MANAGEMENT FACILITY
 ROUTINE MAINTENANCE
 1. FACILITY WILL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IS FUNCTIONING PROPERLY.
 2. TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
 3. DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MAINTENANCE OPERATIONS AND AS NEEDED.
 4. VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIPRAP OUTLET AREAS SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
 NON-ROUTINE MAINTENANCE
 1. STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.
 2. SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.



OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (443) 367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 11/30/16

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE, INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: [Signature]
 DATE: 11/01/16

ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 Signature: [Signature]
 DATE: 1/10/16

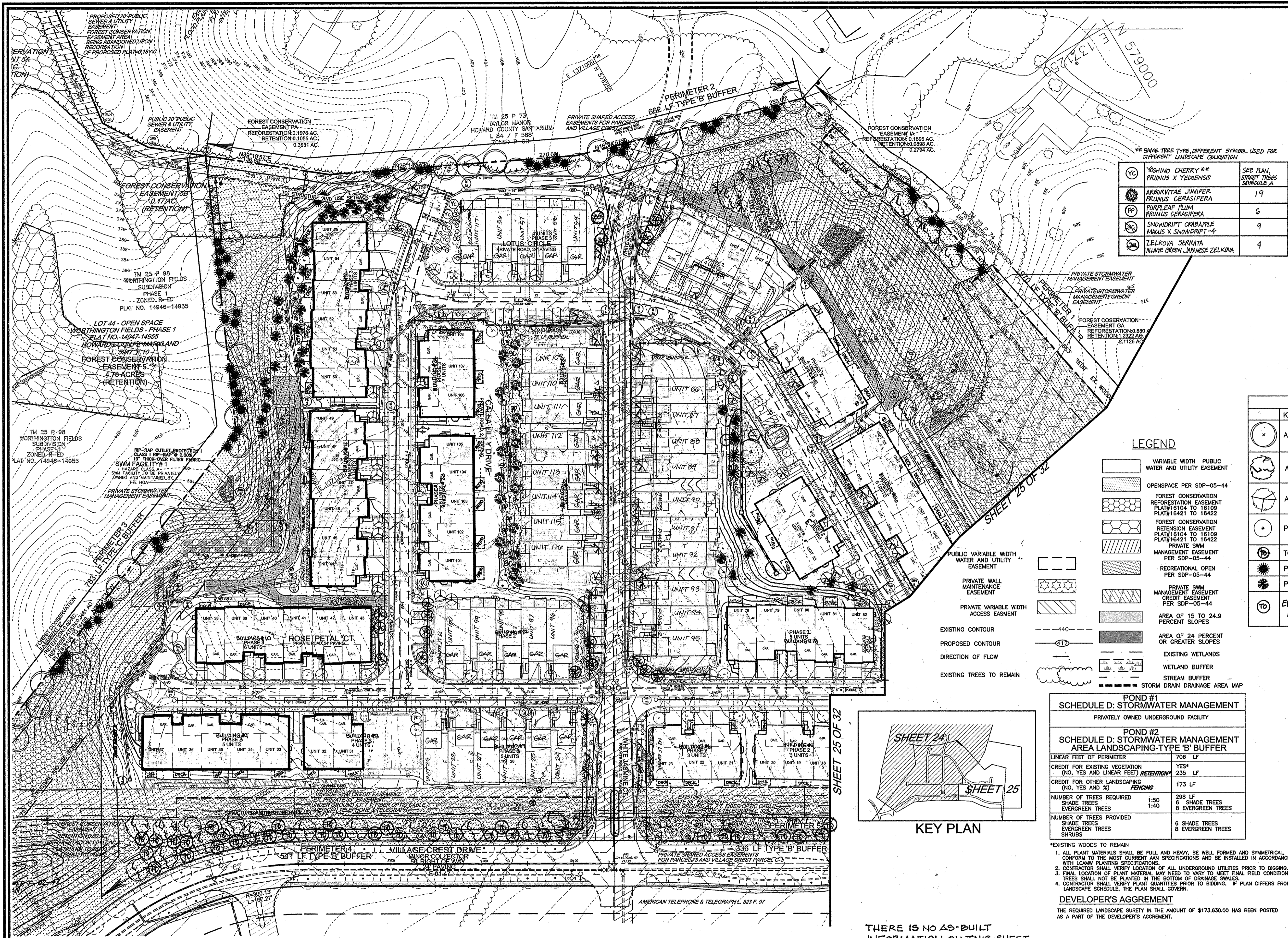
THESE PLANS HAVE BEEN REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
 Signature: [Signature]
 DATE: 1/26/16
 USDA-NATURAL RESOURCES CONSERVATION SERVICE
 THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature: [Signature]
 DATE: 1/24/16
 HOWARD SOIL CONSERVATION DISTRICT

SWM FACILITY #2 SITE DEVELOPMENT PLAN VILLAGE CREST PARCEL C-1, AGE RESTRICTED ADULT HOUSING, UNITS 1-29, 31-117
 TAX MAP #25B BLOCK 20 PHASE 1, 11 & 111 PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8931

DESIGN BY: RJRHV
 DRAWN BY: RJRHV
 CHECKED BY: RHV
 DATE: 05-23-2005
 SCALE: AS SHOWN
 W.O. NO.: 2018121.00

23 SHEET OF 32



SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
NUMBER OF DWELLING UNITS	116
NUMBER OF TREES REQUIRED (1:1 DU SFA)	116
NUMBER OF TREES PROVIDED	
SHADE TREES	70
OTHER TREES (2:1 SUBSTITUTION)	92

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	35
NUMBER OF ISLANDS/TREES PROVIDED	3
NUMBER OF ISLANDS/TREES REQUIRED	
SHADE TREES	3
OTHER TREES (2:1 SUBSTITUTION)	-
LANDSCAPE ISLAND 200SF X 3 = 600SF REQ.	PROVIDED 650 SF

SYMBOL	TREE SPECIES	QUANTITY
YC	YOSHINO CHERRY** PRUNUS X YEDENSIS	SEE PLAN, STREET TREES SCHEDULE A
AR	ARBOVITAE JUNIPER PRUNUS CERASIFERA	19
PP	PURPLE LEAF PLUM PRUNUS CERASIFERA	6
PS	SNOWDRIFT CRABAPPLE MALUS X SNOWDRIFT-4	9
PA	ZELKOVA SERRATA VILLAGE GREEN JAPANESE ZELKOVA	4

SCHEDULE A: PERIMETER LANDSCAPE EDGE						
CATEGORY	ADJACENT TO PERIMETER PROPERTIES			ADJACENT TO ROADWAYS		
	1	2	3	4	5	6
PERIMETER/FRONTAGE DESIGNATION	B	C	C	C	C	C
LANDSCAPE TYPE	B	C	C	C	C	C
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	970'	662'	783'	541'	336'	438'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	YES*	NO	YES*	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED (LF REMAINING)	221	662	716	514	336	438
SHADE TREES	1:50	1:50	1:40	1:40	1:40	1:40
EVERGREEN TREES	1:40	6	1:40	21	1:20	27
SHRUBS	1:40	6	1:40	21	1:20	27
NUMBER OF PLANTS PROVIDED						
SHADE TREES	5	17	18	14	9	11
EVERGREEN TREES	-	-	-	-	-	-
OTHER TREES (2:1 SUBSTITUTION)	-	-	-	-	-	-
SHRUBS (1:1 SUBSTITUTION)	-	-	-	-	-	-
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED	-	-	-	-	-	-

PLANT LIST FOR SCHEDULES A, B & C

KEY	QUAN.	BOTANICAL NAME	SIZE	REM.
(X)	ARR 21	ACER RUBRUM "OCTOBER GLORY"	2 1/2"-3" Cal.	B & B
(X)	AR 17	ACER RUBRUM 'Red Sunset' Red Sunset Maple (Shade trees)	2 1/2"-3" Cal.	B & B
(X)	AS 01	ACER SACCHARUM 'Goldspire' Columnar Sugar Maple (Shade trees)	2 1/2"-3" Cal.	B & B
(X)	PX 55	CERCIS CANADENSIS Eastern Redbud (Ornamental Trees)	1 1/2"-2" Cal.	B & B
(X)	TO 39	THUJA OCCIDENTALIS 'Ingra' Dark American Arborvitae (Evergreen Trees)	6'-8" HT.	B & B
(X)	PS 102	PINUS STROBUS Eastern White Pine (Evergreen trees)	6'-8" HT.	B & B
(X)	PA 91	PICEA ABIES norway spruce (Evergreen trees)	6'-8" HT.	B & B
(X)	TO	EVERGREEN MIX COLORADO SPRUCE PICEA PUNGENS NORWAY SPRUCE PICEA ABIES SERBIA SPRUCE PICEA AMARIKA	6'-8" HT. 6'-8" HT. 6'-8" HT.	B & B B & B B & B

OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. RULWER
 PHONE: (443) 367-0422

NO.	REVISION	DATE
7	REVISE UNIT 109-110, 24-28, 50-59, AND 90-100 TO GRIPPLI HOUSE MODEL	
6	REVISE UNITS 86-95 & 60-63 AND SWM EASEMENT	5/10/09
5	ADD 10' HIGH FENCE TO BUILDING TO UNITS 70-82	7-24-08
4	REVISE UNITS 91-95, 102-110, 80-90, 50-54, 60-63	7-24-08
3	ADD PHASE III	8/27/07
2	REVISE TREE TYPES AND LOCATION	6-11-07
1	ADD PHASE II	

LANDSCAPE PLAN & DETAILS I
 SITE DEVELOPMENT PLAN
 VILLAGE CREST
 PARCEL C-1, AGE RESTRICTED
 ADULT HOUSING, UNITS 1-29, 31-117
 PHASE I, II & III
 TAX MAP #2513 BLOCK 20 PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RJRHV
 DRAWN BY: RJRHV
 CHECKED BY: RHV
 DATE: 05-23-2005
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STREET TREE CALCULATIONS

STREET NAME	LINEAR FEET	NO. REQUIRED	NO. PROVIDED	SPECIES	SIZE/ROOT
LOTUS CIRCLE	2216/30	74	74	ACER RUBRUM ARMSTRONG 'RED MAPLE'	2 1/2" - 3" Cal. B & B
ROSE PETAL COURT	2130/30	71	71	FRAXINUS AMERICANA MUTINUM 'PURPLE'	2 1/2" - 3" Cal. B & B
CALLA LILLY DRIVE	1142 /30	38	38	GLIEDISTIA TRIACANTHUS INERMIS-21 SNOWDRIFT CRABAPPLE	2 1/2" - 3" Cal. B & B
WHITE JASMINE WAY	1194 /30	40	40	ZELKOVA SERRATA-34 VILLAGE GREEN JAPANESE ZELKOVA	2 1/2" - 3" Cal. B & B

LANDSCAPE PLAN
 SCALE: 1"=50'

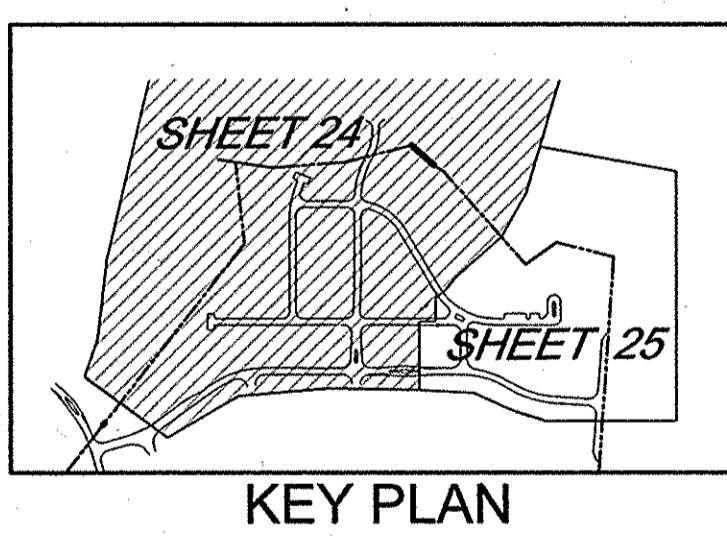
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 1/30/09
 DATE: 3/8/06
 DATE: 3/9/06

DEVELOPER'S/BUILDER'S CERTIFICATE

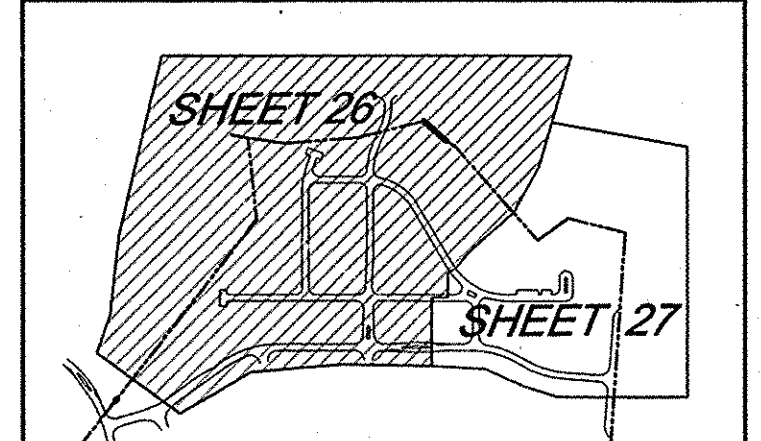
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTIVE ONE (1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DATE: 1/30/09



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

Start with C



KEY PLAN

DRAINAGE AREA TABULATIONS

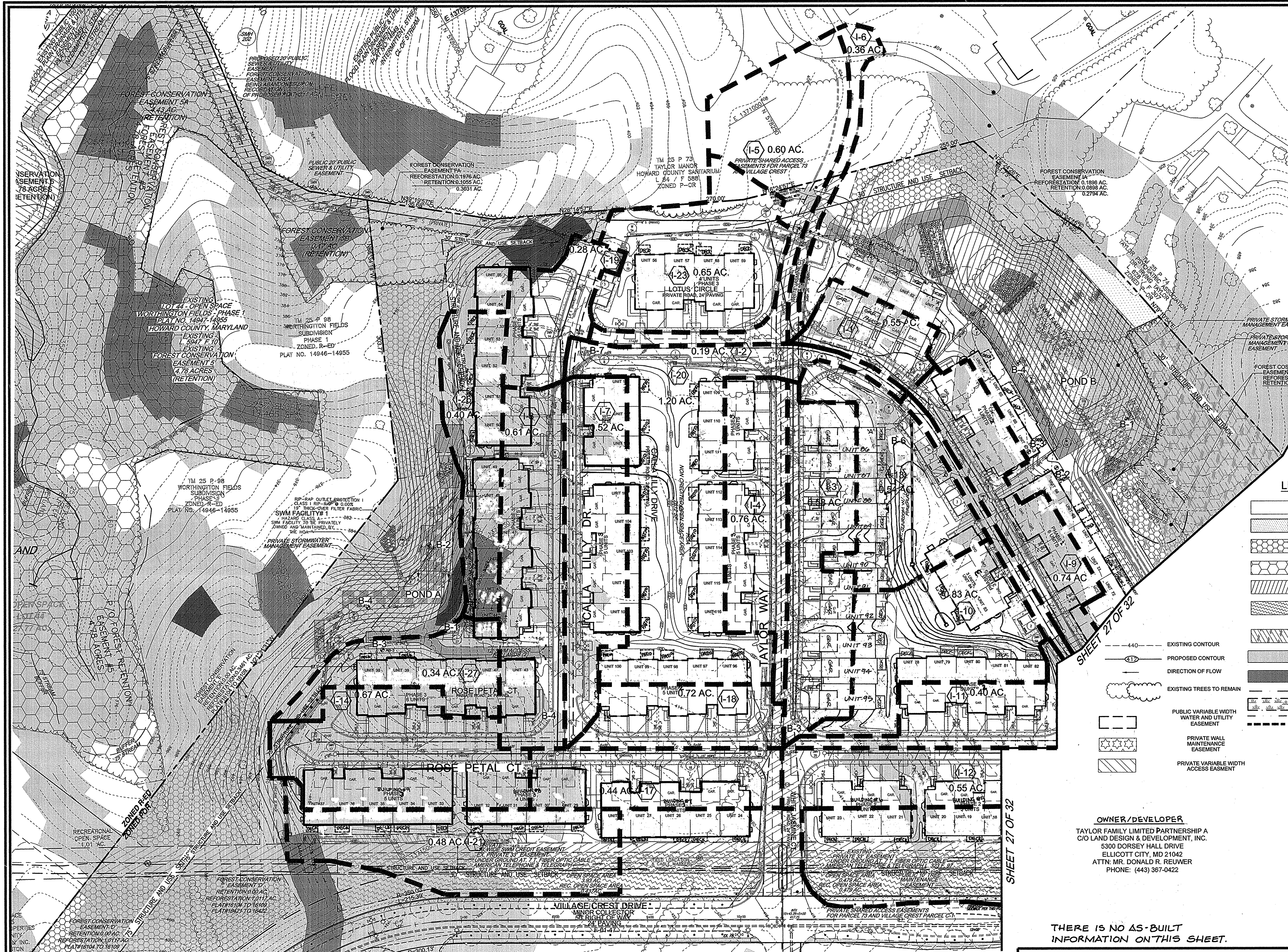
NO.	AREA	'	% IMP.	SOIL TYPES	ZONE
I-1	0.55 AC.		95%	C	POR
I-2	0.19 AC.		100%	C	POR
I-3	0.58 AC.		92%	B & C	POR
I-4	0.76 AC.		82%	B & C	POR
I-5	1.26 AC.		37%	C	POR
I-6	0.36 AC.		100%	C	POR
I-7	0.52 AC.		75%	C	POR
I-8	0.61 AC.		75%	C	POR
I-9	0.74 AC.		85%	C	POR
I-10	0.83 AC.		61%	B & C	POR
I-11	0.40 AC.		67%	B	POR
I-12	0.55 AC.		77%	B & C	POR
I-13	0.54 AC.		30%	C	POR
I-14	0.67 AC.		58%	B & C	POR
I-15	0.30 AC.		84%	C	POR
I-16	0.78 AC.		73%	C	POR
I-17	0.44 AC.		70%	B	POR
I-18	0.72 AC.		66%	B	POR
I-19	0.28 AC.		85%	C	POR
I-20	1.20 AC.		45%	B	POR
I-21	0.48 AC.		40%	B	POR
I-22	0.16 AC.		100%	C	POR
I-23	0.65 AC.		60%	C	POR
I-24	0.86 AC.		10%	B	POR
I-25	1.0 AC.		35%	C	POR
I-26	1.0 AC.		50%	C	POR
I-27	1.0 AC.		70%	B & C	POR

SOILS LEGEND

SYMBOL	SOIL NAME	CLASS
A4c2	ALDINO SILT LOAM	C
B4B2	BRANDYWINE LOAM	C
B4C2	BRANDYWINE LOAM	C
B4D2	BRANDYWINE LOAM	C
A4B2	ALDINO SILT LOAM	C
B4D3	BRANDYWINE LOAM	C
B4F	BRANDYWINE LOAM	C
B4G	BRANDYWINE	C
N4B2	NESHAMINY SILT LOAM	B
G4B2	GLENVILLE SILT LOAM	C
G4B2	GLENELG LOAM	B
G4C2	GLENELG LOAM	B
M4C3	MANOR GRAVELLY LOAM	B
M4B2	MANOR LOAM	B
M4D2	MANOR LOAM	B
M4C2	MONTALTO SILT LOAM	C
M4B2	MONTALTO SILT LOAM	C
M4C3	MONTALTO SILTY CLAY LOAM	C
M4E	MONTALTO AND RELAY SOILS	C
M4D	MONTALTO AND RELAY VERY STONY SILT LOAMS	C
M4F	MONTALTO AND RELAY VERY STONY SILT LOAMS	C
R4C2	RELAY SILT LOAM	B
W4B	WATCHUNG SANDY LOAM	D

NOTE: HOWARD SOILS SURVEY MAP NO. 20.

- LEGEND**
- VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT
 - OPENSACE PER SDP-05-44
 - FOREST CONSERVATION REFORESTATION EASEMENT PLAT#16421 TO 16422
 - FOREST CONSERVATION RETENTION EASEMENT PLAT#16421 TO 16422
 - PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
 - RECREATIONAL OPEN PER SDP-05-44
 - PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
 - AREA OF 15 TO 24.9 PERCENT SLOPES
 - AREA OF 24 PERCENT OR GREATER SLOPES
 - EXISTING WETLANDS
 - WETLAND BUFFER
 - STREAM BUFFER
 - STORM DRAIN DRAINAGE AREA MAP
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - DIRECTION OF FLOW
 - EXISTING TREES TO REMAIN
 - PUBLIC VARIABLE WIDTH WATER AND UTILITY EASEMENT
 - PRIVATE WALL MAINTENANCE EASEMENT
 - PRIVATE VARIABLE WIDTH ACCESS EASEMENT



OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (443) 367-0422

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division: [Signature] DATE: 12/20/06
 Chief, Division of Land Development: [Signature] DATE: 3/4/06
 Director: [Signature] DATE: 5/9/06

NO.	REVISION	DATE
0	REVISE HOUSE MODEL UNITS 04-05 AND 06-08 SWM EASEMENT	5/18/09
4	ADD 10'x10' DECK TO BUILDING 10, UNITS 78-82	7/24/09
2	ADD PHASE III	8/21/07
1	ADD PHASE II	

STORM DRAIN DRAINAGE AREA MAP I

SITE DEVELOPMENT PLAN

VILLAGE CREST

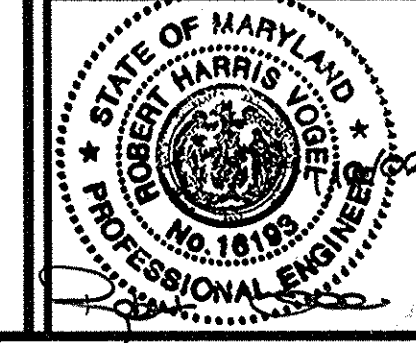
PARCEL C-1, AGE RESTRICTED

ADULT HOUSING UNITS 1-29, 31-117

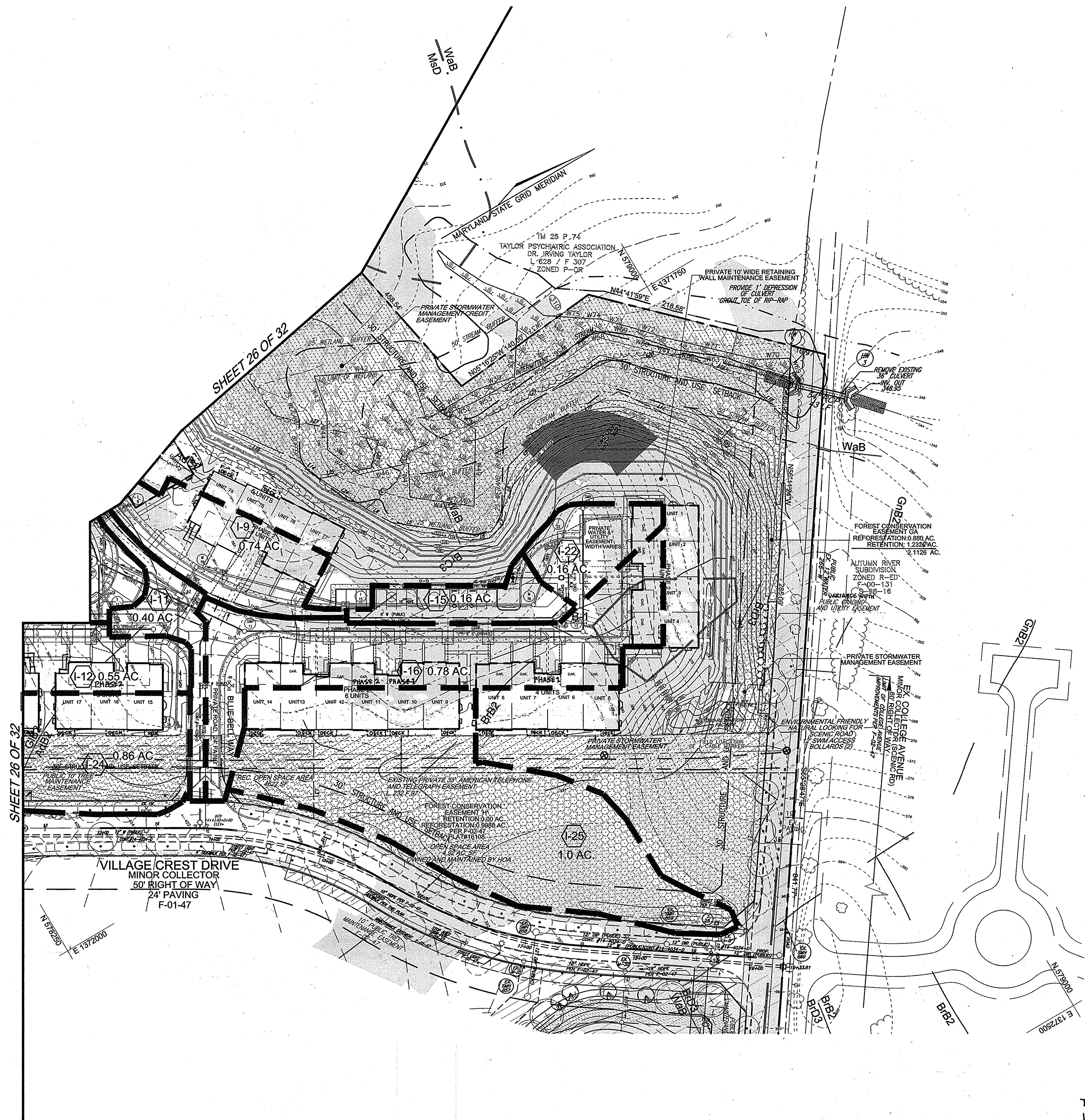
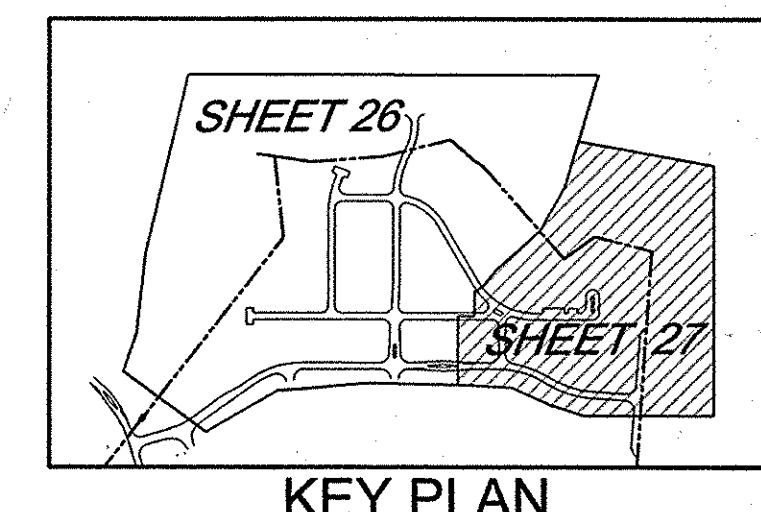
TAX MAP #25, BLOCK 20 PHASE I, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET ELLICOTT CITY, MD 21043 TEL: 410.461.7666 FAX: 410.461.8961

DESIGN BY: RJRHV	DATE: 12/20/06
DRAWN BY: RJRHV	DATE: 3/4/06
CHECKED BY: RHV	DATE: 5/9/06
DATE: 05-23-2005	
SCALE: AS SHOWN	
W.O. NO.: 2018121.00	



STORM DRAIN DRAINAGE AREA MAP
 SCALE: 1"=50'



LEGEND

- VARIABLE WIDTH PUBLIC WATER AND UTILITY EASEMENT
 - OPENSACE PER SDP-05-44
 - FOREST CONSERVATION REFORESTATION EASEMENT PLAT#16421 TO 16422
 - FOREST CONSERVATION RETENTION EASEMENT PLAT#16421 TO 16422
 - PRIVATE SWM MANAGEMENT EASEMENT PER SDP-05-44
 - RECREATIONAL OPEN PER SDP-05-44
 - PRIVATE SWM MANAGEMENT EASEMENT CREDIT EASEMENT PER SDP-05-44
 - AREA OF 15 TO 24.9 PERCENT SLOPES
 - AREA OF 24 PERCENT OR GREATER SLOPES
 - EXISTING WETLANDS
 - WETLAND BUFFER
 - STREAM BUFFER
 - STORM DRAIN DRAINAGE AREA MAP
- EXISTING CONTOUR ——— 440 ———
 PROPOSED CONTOUR ——— (17) ———
 DIRECTION OF FLOW ———> ———
 EXISTING TREES TO REMAIN

OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. REUWER
 PHONE: (443) 367-0422

NO.	REVISION	DATE
2	ADD PHASE III	8/21/07
1	ADD PHASE II	10/3/00

STORM DRAIN DRAINAGE AREA MAP II
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
 TAX MAP #25/BLOCK 20 PHASE I, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RJRHV	DATE: 1/30/00
DRAWN BY: RJRHV	DATE: 3/7/00
CHECKED BY: RHV	DATE: 2/9/00
SCALE: AS SHOWN	
W.O. NO.: 2018121.00	

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Donald R. Reuwer 1/30/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Michael A. Leylek 2/9/00
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Mark A. Leylek 2/9/00
 DIRECTOR DATE

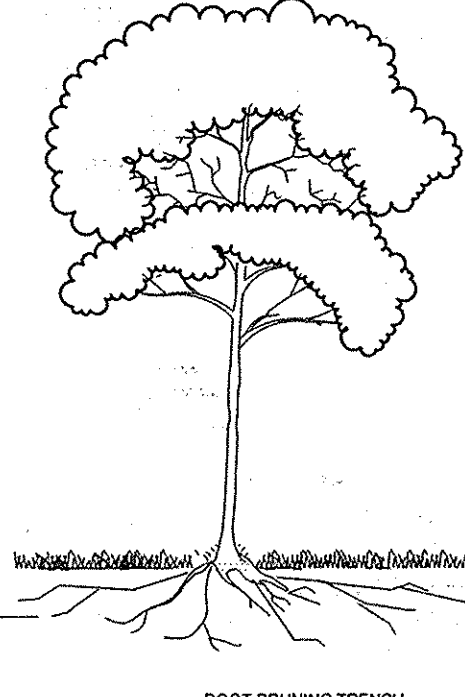
STORM DRAIN DRAINAGE AREA MAP II
 SCALE: 1"=50'

HOWARD COUNTY FOREST CONSERVATION WORKSHEET

PER F-01-47

NOTES

- 1. RETENTION AREAS TO BE ESTABLISHED AS PART OF THE FOREST CONSERVATION PLAN REVIEW PROCESS.
2. BOUNDARIES OF RETENTION AREAS TO BE STAKED, FLAGGED AND/OR FENCED PRIOR TO TRENCHING.
3. EXACT LOCATION OF TRENCH SHOULD BE IDENTIFIED.
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH SOIL REMOVED OR ORGANIC SOIL.
5. ROOTS SHOULD BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.



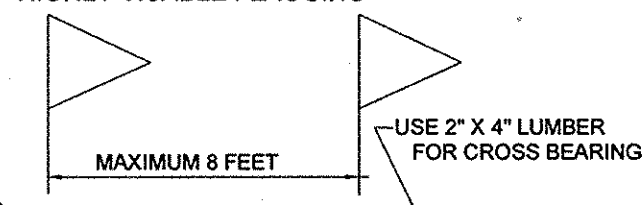
NOTES

- 1. FOREST PROTECTION DEVICE ONLY.
2. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
3. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
4. ROOT DAMAGE SHOULD BE AVOIDED.
5. PROTECTION SIGNAGE SHOULD BE USED.
6. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

BLAZE ORANGE PLASTIC MESH TYPICAL TREE PROTECTION FENCE DETAIL

ANCHOR POSTS SHOULD BE MINIMUM 2" STEEL "U" CHANNEL OR 2" X 2" TIMBER, 6' IN LENGTH.

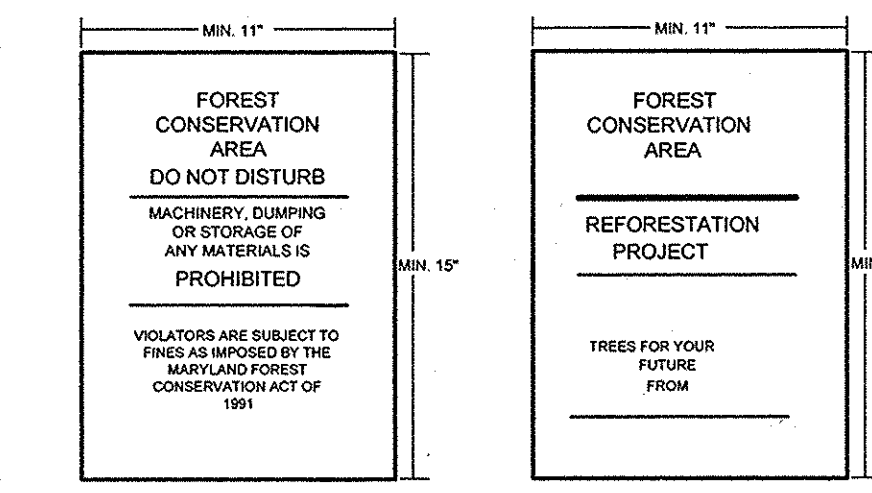
HIGHLY VISIBLE FLAGGING



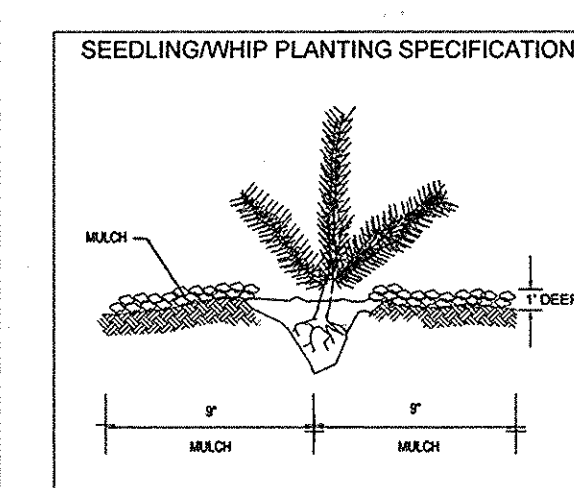
FOREST CONSERVATION EASEMENT GA REFORESTATION: 0.880 AC. RETENTION: 1.232 AC. 2.1126 AC.

FOREST CONSERVATION EASEMENT GA REFORESTATION: 0.880 AC. RETENTION: 1.232 AC. 3482.1126 AC.

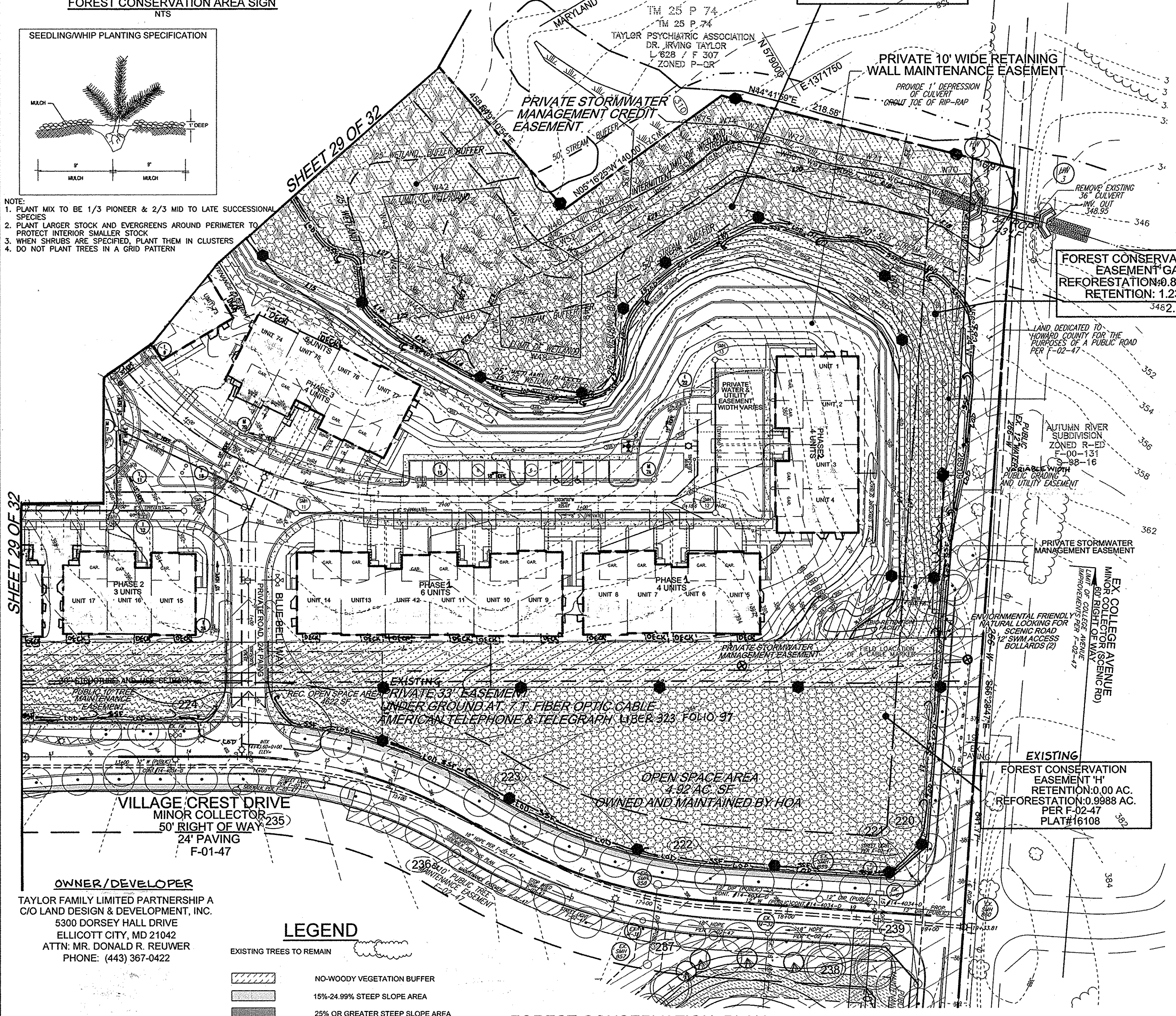
EXISTING FOREST CONSERVATION EASEMENT H1 REFORESTATION: 0.00 AC. RETENTION: 0.9988 AC. PER F-02-47 PLAT#16108



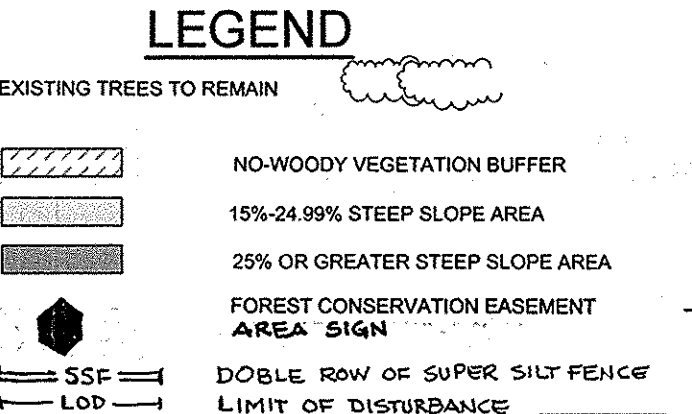
- NOTE: 1. BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
2. SIGNS TO BE PLACED AT A MAXIMUM SPACING OF 50-100 FEET.
3. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.



- NOTE: 1. PLANT MIX TO BE 1/3 PIONEER & 2/3 MID TO LATE SUCCESSIONAL SPECIES.
2. PLANT LARGER STOCK AND EVERGREENS AROUND PERIMETER TO PROTECT INTERIOR SMALLER STOCK.
3. WHEN SHRUBS ARE SPECIFIED, PLANT THEM IN CLUSTERS.
4. DO NOT PLANT TREES IN A GRID PATTERN.



OWNER/DEVELOPER TAYLOR FAMILY LIMITED PARTNERSHIP A/C/O LAND DESIGN & DEVELOPMENT, INC. 5300 DORSEY HALL DRIVE ELLICOTT CITY, MD 21042



FOREST CONSERVATION PLAN

SCALE: 1"=50'

- 14. THE SCOPE OF THE PERMISSION GRANTED BY THE COUNTY TO ACT ON PARKLAND PROPERTY IS EXPRESSLY LIMITED TO THE TERMS OF THIS AGREEMENT AND ANY PLANS APPROVED BY THE DEPARTMENT.
15. IT IS UNDERSTOOD AND AGREED THAT THE DEVELOPER SHALL COMPLETE ITS CONSTRUCTION WITHIN COUNTY'S PROPERTY WITHIN ONE HUNDRED (100) DAYS AFTER WRITTEN NOTICE TO COUNTY OF ITS INTENT TO COMMENCE ACTIVITY.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Chief, Development Engineering Division: 1/30/08. Chief, Division of Land Development: 3/8/08. Director: 3/7/08.

HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS GENERAL CONDITIONS OF RIGHT-OF-ENTRY AGREEMENT FOR SEWER, WATER, OR OTHER UTILITY RIGHTS-OF-WAY GRADING AND LANDSCAPE PLANTING.

- 1. NO RIGHT-OF-ENTRY OR EASEMENT WILL BE GRANTED UNTIL THE DEPARTMENT APPROVES THE PLANS FOR THE PROPOSED UTILITY ALIGNMENT.
2. THE LOCATION AND DIMENSIONS OF THE PROPOSED RIGHT-OF-WAY.
3. LIMIT OF DISTURBANCE. A CONSTRUCTION STRIP EXTENDING TEN (10) FEET ON EITHER SIDE OF THE RIGHT-OF-WAY BOUNDED BY A TEMPORARY CONSTRUCTION FENCE (SEE ITEM 7).

- 10A. THE DEVELOPER SHALL EXERCISE ITS BEST EFFORTS TO SAVE TREES IMMEDIATELY ADJACENT TO THE CONSTRUCTION AREAS.
11. ANY MANHOLES ON PARK PROPERTY ARE TO BE 0.5 FEET ABOVE FINISHED GRADE, EXCEPT IN THE 100-YEAR FLOODPLAIN, WHERE THEY ARE TO BE 1.5 FEET ABOVE GRADE.

- 12. IT IS UNDERSTOOD AND AGREED THAT THE DEVELOPER SHALL COMPLETE ITS CONSTRUCTION WITHIN COUNTY'S PROPERTY WITHIN ONE HUNDRED (100) DAYS AFTER WRITTEN NOTICE TO COUNTY OF ITS INTENT TO COMMENCE ACTIVITY.
13. THESE CONDITIONS AND THE CORRESPONDING LETTER DATED (DATE OF LETTER) AFTER THAT DATE, THE OWNER OF LOT # MUST INITIATE A NEW REQUEST AND ANY NEW OR REVISED CONDITIONS WILL BE APPLICABLE.

REFORESTATION PLANTING NOTES

- 1. REFORESTATION AREAS MAY BE PLANTED AS SOON AS REASONABLE TO DO SO. LATE WINTER-EARLY SPRING PLANTINGS ARE PREFERRED.
2. SOIL AMENDMENTS AND FERTILIZATION RECOMMENDATIONS WILL BE MADE BASED UPON THE RESULTS OF SOIL ANALYSIS FOR NITROGEN, PHOSPHORUS, POTASSIUM, ORGANIC MATTER CONTENT AND pH.

REFORESTATION AREA MONITORING NOTES

- 1. MONTHLY VISITS DURING THE FIRST GROWING SEASON ARE TO ASSESS THE SUCCESS OF THE PLANTINGS AND TO DETERMINE IF SUPPLEMENTAL WATERING, PEST CONTROL OR OTHER ACTIONS ARE NECESSARY.
2. THE MINIMUM SURVIVAL RATE SHALL BE 75% OF THE TOTAL NUMBER OF TREES PLANTED PER ACRE AT THE END OF THE TWO YEAR MAINTENANCE PERIOD.

FOREST RETENTION AREAS AND NOTES

- 1. FORESTED STREAM AND WETLAND BUFFERS ARE RETAINED IN OPEN SPACE.
2. NO RARE, THREATENED OR ENDANGERED SPECIES WERE OBSERVED ON THIS SITE.
3. THERE ARE NO ISOLATED FOREST STANDS ON THIS SITE.

FOREST PROTECTION NOTES

- PRE-CONSTRUCTION ACTIVITIES
1. FOR RETENTION AREAS, INSTALL BLAZE ORANGE FENCE AND RETENTION SIGNS BEFORE CONSTRUCTION BEGINS.
2. FENCING SHALL BE MAINTAINED IN GOOD CONDITION AND PROMPTLY REPAIRED OR RESTORED AS THE SITUATION WARRANTS.

POST-CONSTRUCTION ACTIVITIES

- 1. AT THE DIRECTION OF A QUALIFIED TREE CARE EXPERT, DAMAGES TO RETAINED TREES SHALL BE REPAIRED BY THE CONTRACTOR.
2. FENCE REMOVAL AND STABILIZATION SHALL BE AS PER THE SEDIMENT AND EROSION CONTROL PLAN.
3. DO NOT REMOVE SIGNS.

SEQUENCE OF CONSTRUCTION-FOREST CONSERVATION

- 1. PRECONSTRUCTION MEETING: SITE WALK WITH CONTRACTORS AND OTHER RESPONSIBLE PARTIES TO DEFINE PROTECTION MEASURES TO BE UTILIZED AND TO POINT OUT PARTICULAR TREES TO BE SAVED.
2. STAKE OUT LIMITS OF DISTURBANCE AND TREE PROTECTION FENCING LOCATIONS.

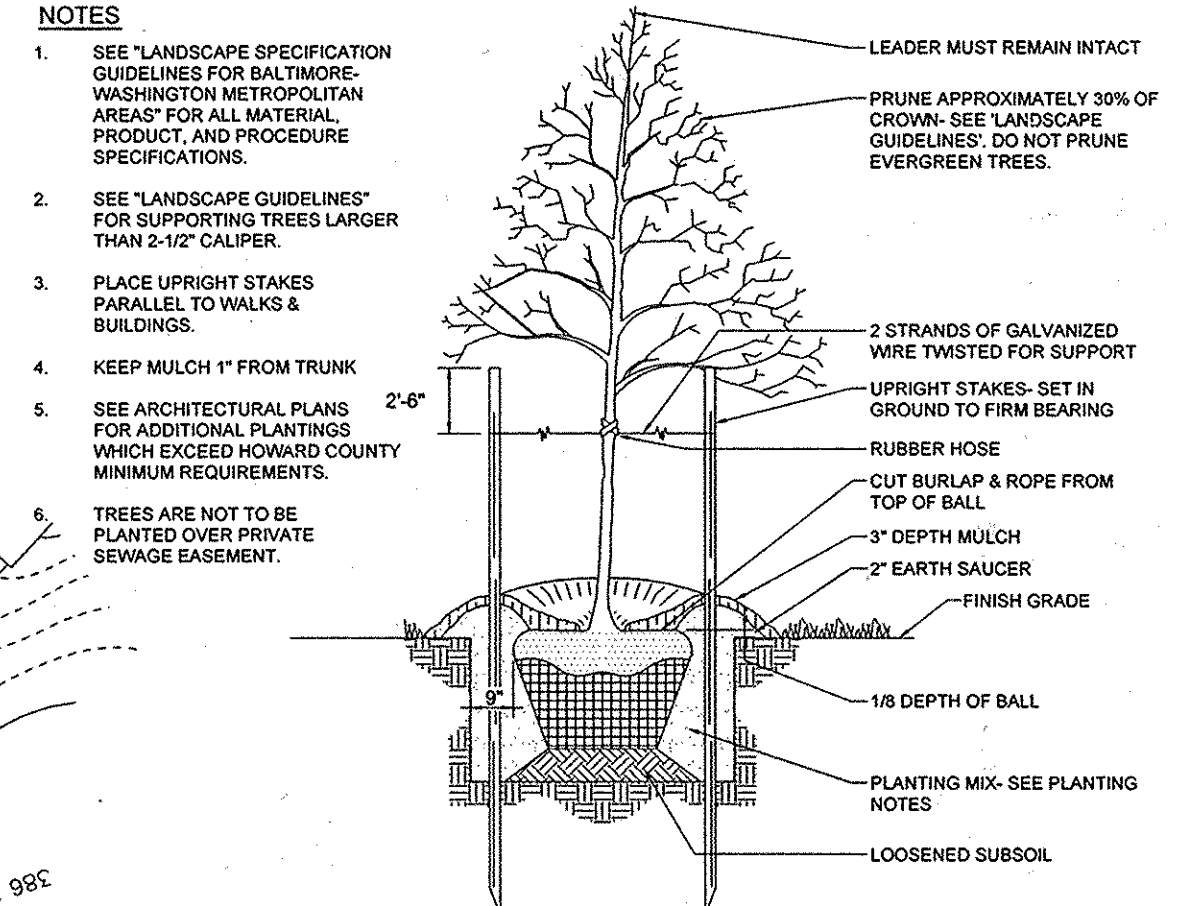
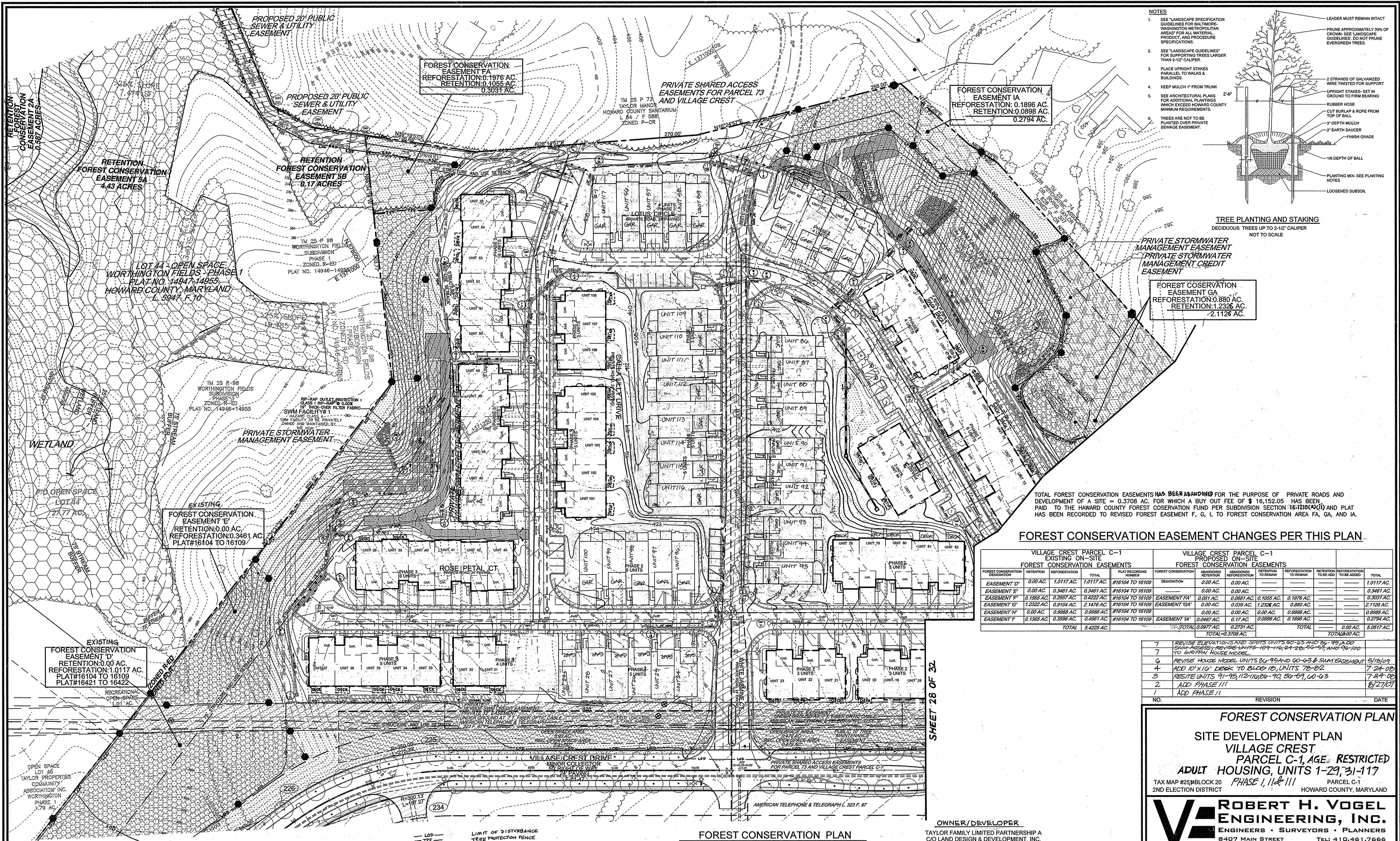
THE PLATING QUANTITIES FOR FA, GA AND IA FCP AREAS PER F-02-47.

Table with 3 columns: NO., REVISION, DATE. Row 1: 2, ADD PHASE III, 02/10/08. Row 2: 1, ADD PHASE II, 10/31/06.

FOREST CONSERVATION PLAN SITE DEVELOPMENT PLAN VILLAGE CREST PARCEL C-1, AGE RESTRICTED ADULT HOUSING UNITS 1-29, 31-117 TAX MAP #253B BLOCK 20 PHASE 1, 11 & 11 PARCEL C-1 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Professional seal and contact information for Robert H. Vogel Engineering, Inc. Engineers, Surveyors, Planners. 8407 MAIN STREET, ELLICOTT CITY, MD 21043. TEL: 410.461.7666 FAX: 410.461.8966

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.



TREE PLANTING AND STAKING
DECIDUOUS TREES UP TO 2-1/2" CALIPER
NOT TO SCALE

PRIVATE STORMWATER MANAGEMENT EASEMENT
PRIVATE STORMWATER MANAGEMENT CREDIT EASEMENT

FOREST CONSERVATION EASEMENT GA
REFORESTATION: 0.880 AC.
RETENTION: 1.2326 AC.
2.1126 AC.

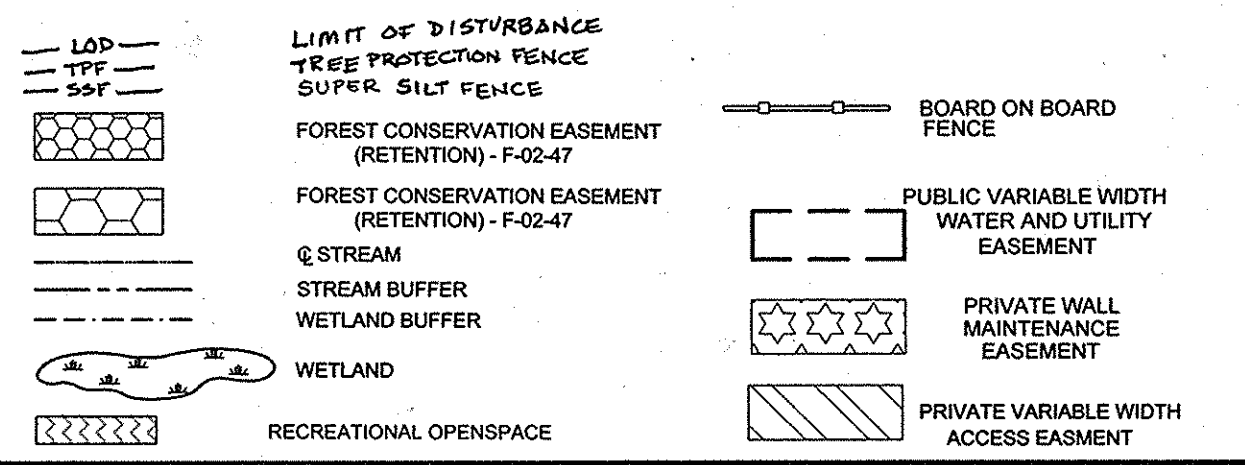
TOTAL FOREST CONSERVATION EASEMENTS HAS BEEN ABANDONED FOR THE PURPOSE OF PRIVATE ROADS AND DEVELOPMENT OF A SITE = 0.3703 AC. FOR WHICH A BUY OUT FEE OF \$ 16,152.05 HAS BEEN PAID TO THE HOWARD COUNTY FOREST CONSERVATION FUND PER SUBDIVISION SECTION 16-1210(4)(i) AND PLAT HAS BEEN RECORDED TO REVISED FOREST EASEMENT F, G, I, TO FOREST CONSERVATION AREA FA, GA, AND IA.

FOREST CONSERVATION EASEMENT CHANGES PER THIS PLAN

VILLAGE CREST PARCEL C-1 EXISTING ON-SITE FOREST CONSERVATION EASEMENTS				VILLAGE CREST PARCEL C-1 PROPOSED ON-SITE FOREST CONSERVATION EASEMENTS			
DESIGNATION	RETENTION	REFORESTATION	TOTAL	DESIGNATION	RETENTION	REFORESTATION	TOTAL
EASEMENT D	0.00 AC.	1.0117 AC.	1.0117 AC.	EASEMENT FA	0.00 AC.	0.00 AC.	0.00 AC.
EASEMENT E	0.00 AC.	0.3461 AC.	0.3461 AC.	EASEMENT GB	0.00 AC.	0.00 AC.	0.00 AC.
EASEMENT F	0.1365 AC.	0.2687 AC.	0.4052 AC.	EASEMENT GC	0.00 AC.	0.00 AC.	0.00 AC.
EASEMENT G	0.00 AC.	0.2688 AC.	0.2688 AC.	EASEMENT HD	0.00 AC.	0.00 AC.	0.00 AC.
EASEMENT H	0.1365 AC.	0.3596 AC.	0.4961 AC.	EASEMENT IA	0.0867 AC.	0.17 AC.	0.2567 AC.
EASEMENT I	0.1365 AC.	0.3596 AC.	0.4961 AC.	TOTAL	0.0867 AC.	0.2731 AC.	0.3600 AC.
TOTAL	0.2730 AC.	3.4226 AC.	3.6956 AC.	TOTAL	0.0867 AC.	0.2731 AC.	0.3600 AC.

NO.	REVISION	DATE
7	REVISE ELEVATIONS AND SLOPES UNITS 60-65 AND 66-95, ADD SWM AGERS, REVISE UNITS 109-116, 24-26, 50-52, AND 96-100 TO SHIPIN HOUSE MODEL	
6	REVISE HOUSE MODEL UNITS 86-99 AND 60-63, SWM EASEMENT	5/18/09
4	ADD 10' X 10' DECK TO BLDG 10, UNITS 70-82	7-24-08
3	REVISE UNITS 91-95, 112-116, 86-90, 80-84, 60-63	7-24-08
2	ADD PHASE III	6/27/07
1	ADD PHASE III	

FOREST CONSERVATION PLAN
SCALE: 1"=50'



THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP A
CIO LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (443) 367-0422

FOREST CONSERVATION PLAN
SITE DEVELOPMENT PLAN
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
TAX MAP #2531 BLOCK 20 PHASE I, II & III
2ND ELECTION DISTRICT PARCEL C-1
HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLCOTT CITY, MD 21043
TEL: 410.461.7666
FAX: 410.461.8966

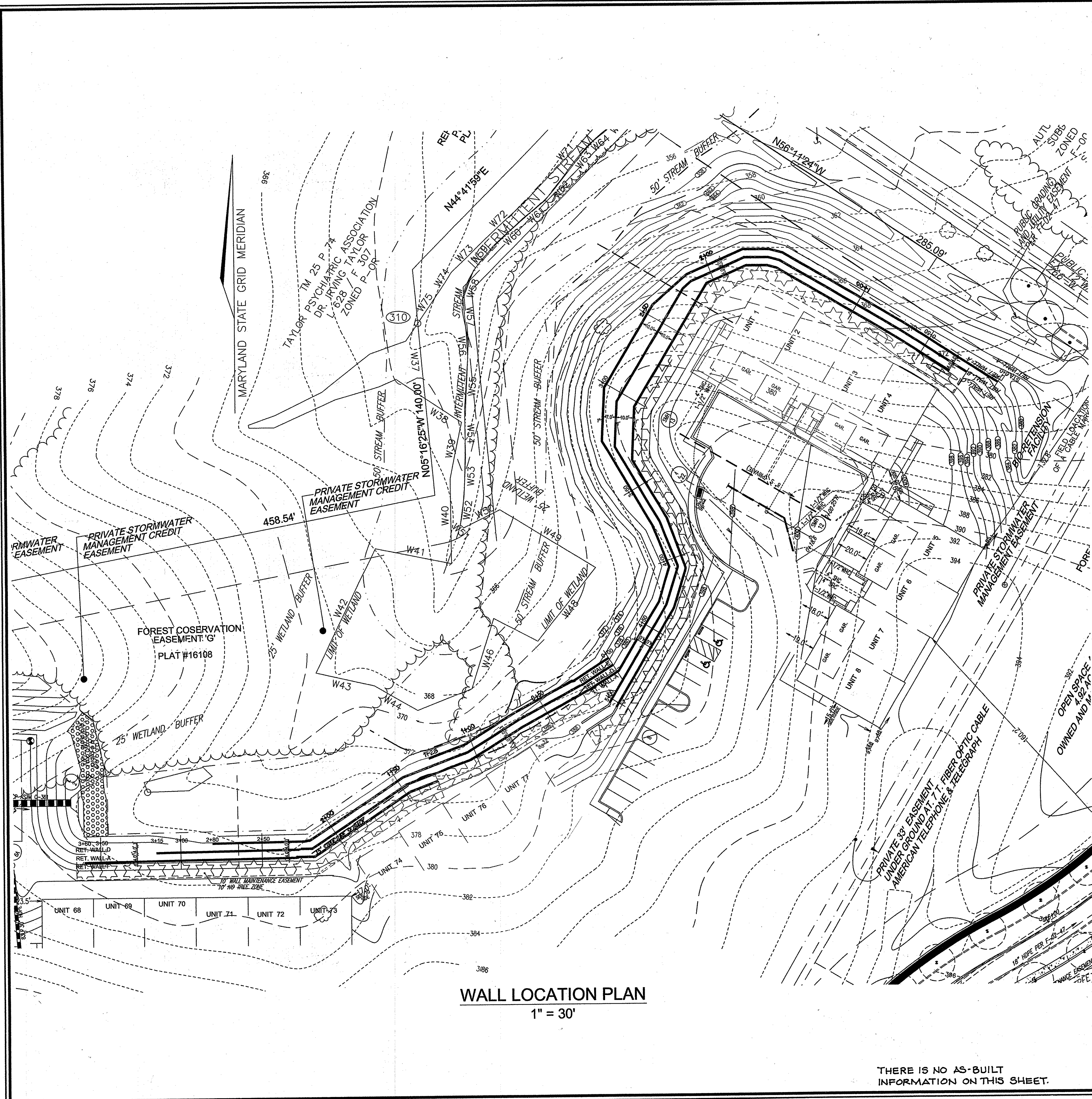
DESIGN BY: RJRHV	DATE: 05-23-2005	SCALE: AS SHOWN	W.O. NO.: 2018121.00
DRAWN BY: RJRHV	CHECKED BY: RHW		
DATE: 05-23-2005			
SCALE: AS SHOWN			
W.O. NO.: 2018121.00			

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 1/3/06

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 3/5/06
 DATE: 4/9/06

ROBERT H. VOGEL
 PROFESSIONAL ENGINEER
 STATE OF MARYLAND
 NO. 16194
 EXPIRES 12/31/09



WALL LOCATION PLAN
1" = 30'

THERE IS NO AS-BUILT INFORMATION ON THIS SHEET.

SPECIFICATIONS
MODULAR CONCRETE BLOCK RETAINING WALL

PART 1: GENERAL

- 1.01 Description**
- A. Work shall consist of furnishing and construction of a MODULAR BLOCK Retaining Wall System in accordance with these specifications and in reasonably close conformity with the lines, grades, design, and dimensions shown on the plans.
 - B. Work includes preparing foundation soil, furnishing and installing leveling pad, unit drainage fill and backfill to the lines and grades shown on the construction drawings.
 - C. Work includes furnishing and installing geogrid soil reinforcement of the type, size, location, and lengths designated on the construction drawings.

- 1.02 Delivery, Storage and Handling**
- A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification has been received.
 - B. Contractor shall protect all materials from damage due to job site conditions and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

PART 2: PRODUCTS

- 2.01 Modular Concrete Retaining Wall Units**
- A. Modular concrete units shall conform to the following architectural requirements:
Face color - concrete gray - standard manufacturer's color may be specified by the Owner.
Face finish - sculptured rock face in angular tri-planer configuration. Other face finishes will be allowed with written approval of Owner.
Bond configuration - running with bonds normally located at midpoint of vertically adjacent units, in both straight and curved alignments.
Exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.
 - B. Modular concrete materials shall conform to the requirements of ASTM C1372 - Standard Specifications for Segmental Retaining Wall Units.
 - C. Modular concrete units shall conform to the following structural and geometric requirements measured in accordance with appropriate references:
Compressive strength = 3000 psi minimum;
Absorption = 8% maximum (8% in northern states) for standard weight aggregates
Dimensional tolerances = ± 1/8" from nominal unit dimensions not including rough split unit dimensions, ± 1/16" unit height - top and bottom planes;
Unit weight - 75 lbs/unit minimum for standard weight aggregates;
Inter-unit shear strength - 1000 pcf minimum at 2 psi normal pressure
Geogrid/unit peak connection strength - 1000 pcf minimum at 2 psi normal pressure
Modular concrete units shall conform to the following constructability requirements:
Vertical setback = 1/8" per course (near vertical) or 1" per course per the design;
Alignment and grid positioning mechanism - fiberglass pins, two per unit minimum;
Maximum gap between erected units shall be - 1/2 inch.

2.02 Shear Connectors (If Applicable)

- A. Shear connectors shall be 1/2 inch diameter thermoset isophthalic polyester resin-protuded fiberglass reinforcement rods or equivalent to provide connection between vertically and horizontally adjacent units. Strength of shear connectors between vertical adjacent units shall be applicable over a design temperature of 10 degrees F to 100 degrees F.
- B. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

2.03 Base Leveling Pad Material

- A. Material shall consist of a compacted #57 crushed stone base as shown on the construction drawings.

2.04 Unit Drainage Fill

- A. Unit drainage fill shall consist of #57 crushed stone

2.05 Reinforced Backfill

- A. Reinforced backfill shall be type SM, be free of debris and meet the following gradation tested in accordance with ASTM D-422 and meet other properties shown on the plan:

sieve size	Percent Passing
2 inch	100-75
3/4 inch	100-75
No. 40	0-60
No. 200	0-45
- B. Plasticity Index (PI) < 15 and Liquid Limit < 45 per ASTM D-4318.
C. Material can be site excavated soils where the above requirements can be met. Unstable soils for backfill (high plastic clays or organic soils) shall not be used in the reinforced soil mass.

2.06 Geogrid Soil Reinforcement

- A. Geosynthetic reinforcement shall consist of geogrids manufactured specifically for soil reinforcement applications and shall be manufactured from high tenacity polyester yarn, or HDPE material.

- 2.07 Drainage Pipe**
- A. The drainage pipe shall be perforated corrugated HDPE pipe manufactured in accordance with ASTM D-1245.

PART 3: EXECUTION

3.01 Excavation

- A. Contractor shall excavate to the lines and grades shown on the construction drawings. Owner's representative shall be responsible for inspecting and approving the excavation prior to placement of leveling material or fill soils.

3.02 Base Leveling Pad

- A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings, to a minimum thickness of 6 inches and extend laterally a minimum of 6" in front and behind the modular wall unit.
- B. Leveling pad shall be prepared to insure full contact to the base surface of the concrete units.

3.03 Modular Unit Excavation

- A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and insure that all units are in full contact with the base and properly seated.
- B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
- C. Install shear/connecting devices per manufacturer's recommendations.
- D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill.
- E. Maximum stacked vertical height of wall units, prior to unit drainage fill and backfill placement and compaction, shall not exceed manufacturer's recommendations.

3.04 Structural Geogrid Installation

- A. Geogrid shall be oriented with the highest strength axis perpendicular to the wall alignment.
- B. Geogrid reinforcement shall be placed at the strengths, lengths, and elevations shown on the construction design drawings or as directed by the Engineer.
- C. The geogrid shall be laid horizontally on compacted backfill and attached to the modular wall units. Place the next course of modular concrete units over the geogrid. The geogrid shall be pulled taut, and anchored prior to backfill placement on the geogrid.
- D. Geogrid reinforcements shall be continuous throughout their embedment lengths and placed side-by-side to provide 100% coverage at each level. Spliced connections between shorter pieces of geogrid or gaps between adjacent pieces of geogrid are not permitted.

3.05 Reinforced Backfill Placement

- A. Reinforced backfill shall be placed, spread, and compacted in such a manner that minimizes the development of slack in the geogrid and installation damage.
- B. Reinforced backfill shall be placed and compacted in lifts not to exceed 6 inches where hand compaction is used, or 8 - 10 inches where heavy compaction equipment is used. Lift thickness shall be decreased to achieve the required density as required.
- C. Reinforced backfill shall be compacted to 95% of the maximum density as determined by ASTM D698. The moisture content of the backfill material prior to and during compaction shall be uniformly distributed throughout each layer and shall be + 3% to - 3% of optimum.
- D. Only lightweight hand-operated equipment shall be allowed within 3 feet from the tail of the modular concrete unit.
- E. Tracked construction equipment shall not be operated directly upon the geogrid reinforcement. A minimum fill thickness of 8 inches is required prior to operation of tracked vehicles over the geogrid. Tracked vehicle turning should be kept to a minimum to prevent tracks from displacing the fill and damaging the geogrid.
- F. Rubber tired equipment may pass over geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning shall be avoided.
- G. At the end of each day's operation, the Contractor shall slope the last lift of reinforced backfill away from the wall units to direct runoff away from wall face. The Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

3.06 Cap Installation

- A. Cap units shall be glued to underlying units with an all-weather adhesive recommended by the manufacturer.

3.07 Field Quality Control

- A. The Owner shall engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction.
- B. As a minimum, quality assurance testing should include foundation soil inspection, soil bearing and backfill testing, verification of design parameters, and observation of construction for general compliance with design drawings and specifications.

NOTES:

- 1.) No trees shall be planted within 10 feet of the top of the retaining wall.
- 2.) Retaining walls shall only be constructed under the observation of a registered professional engineer and a (NICET, WACEL, or equiv.) certified soils technician.
- 3.) The required bearing pressure beneath the wall system shall be verified in the field by a certified soils technician. Testing documentation must be provided to the Howard County Inspector prior to start of construction. The required bearing test shall be the Dynamic Cone Penetrometer test ASTM STP-399.
- 4.) The suitability of fill material shall be confirmed by the on-site soils technician. Each 8" lift must be compacted to a minimum 95% standard proctor density and the testing report shall be made available to the Howard County Inspector upon completion of construction.

OWNER/DEVELOPER
TAYLOR FAMILY LIMITED PARTNERSHIP & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE
ELLICOTT CITY, MD 21042
ATTN: MR. DONALD R. REUWER
PHONE: (410) 367-0422

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Donald R. Reuwer 3/3/06 DATE
 DIRECTOR
William J. ... 1/20/06 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
William J. ... 3/8/06 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

NO.	REVISION	DATE
2	ADD PHASE III	6/27/07
1	ADD PHASE II	10/3/06

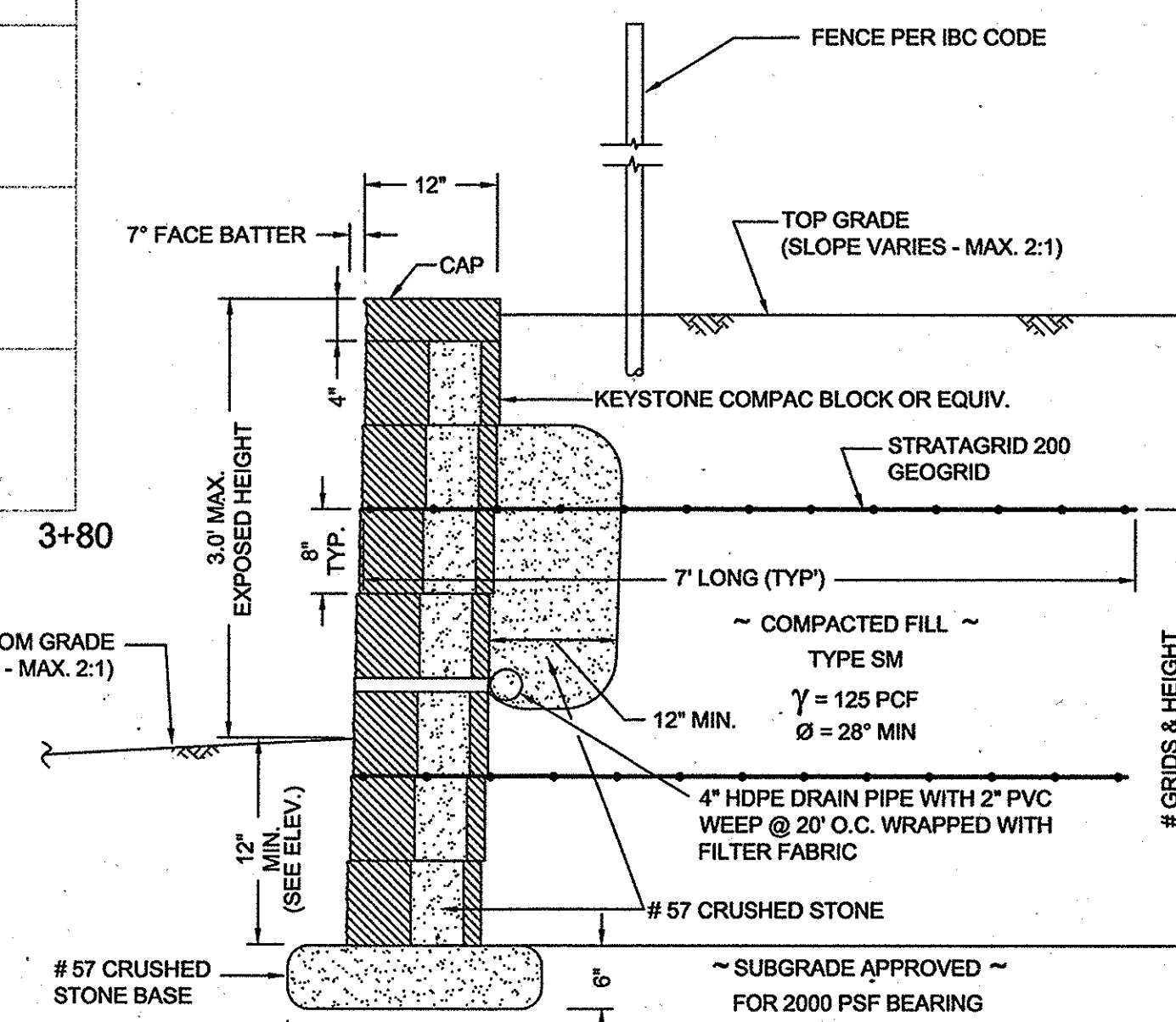
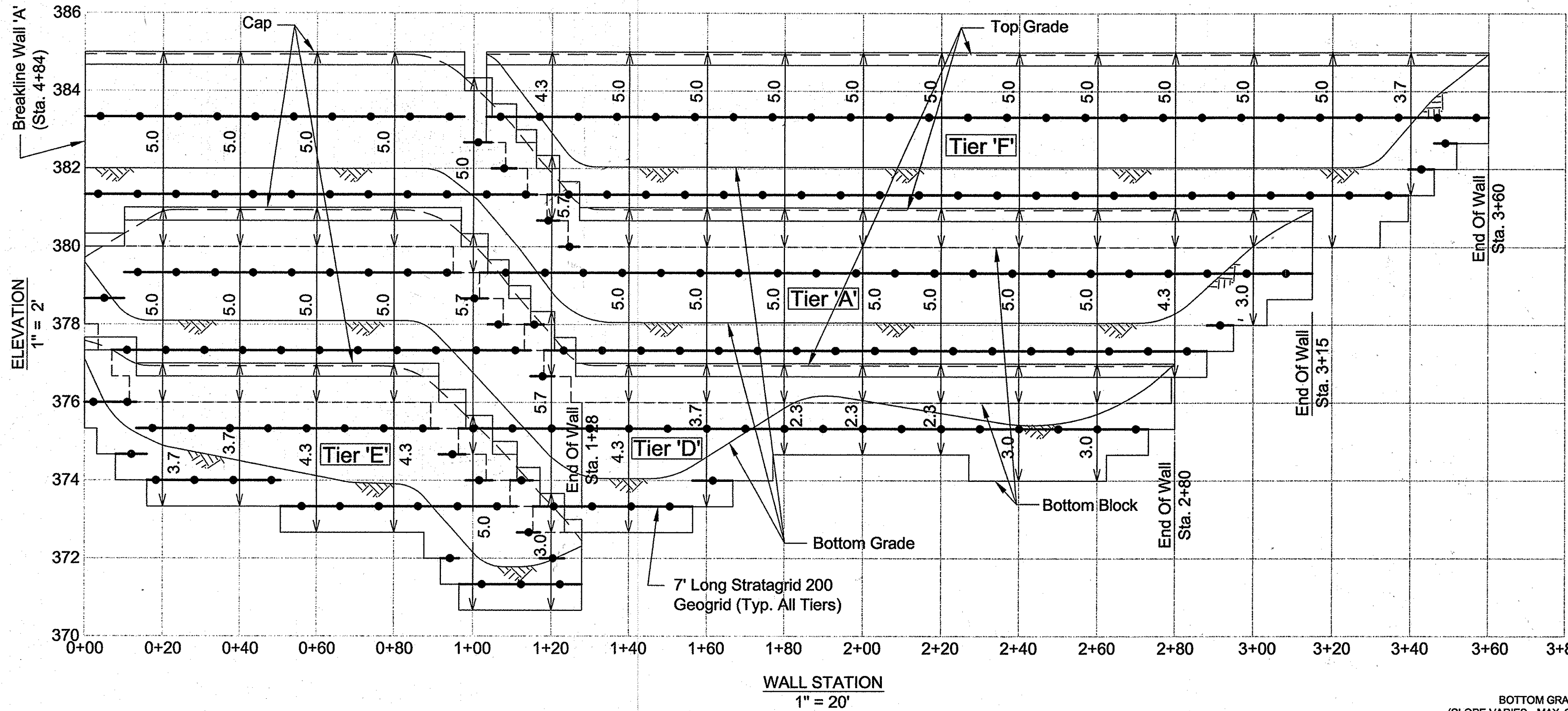
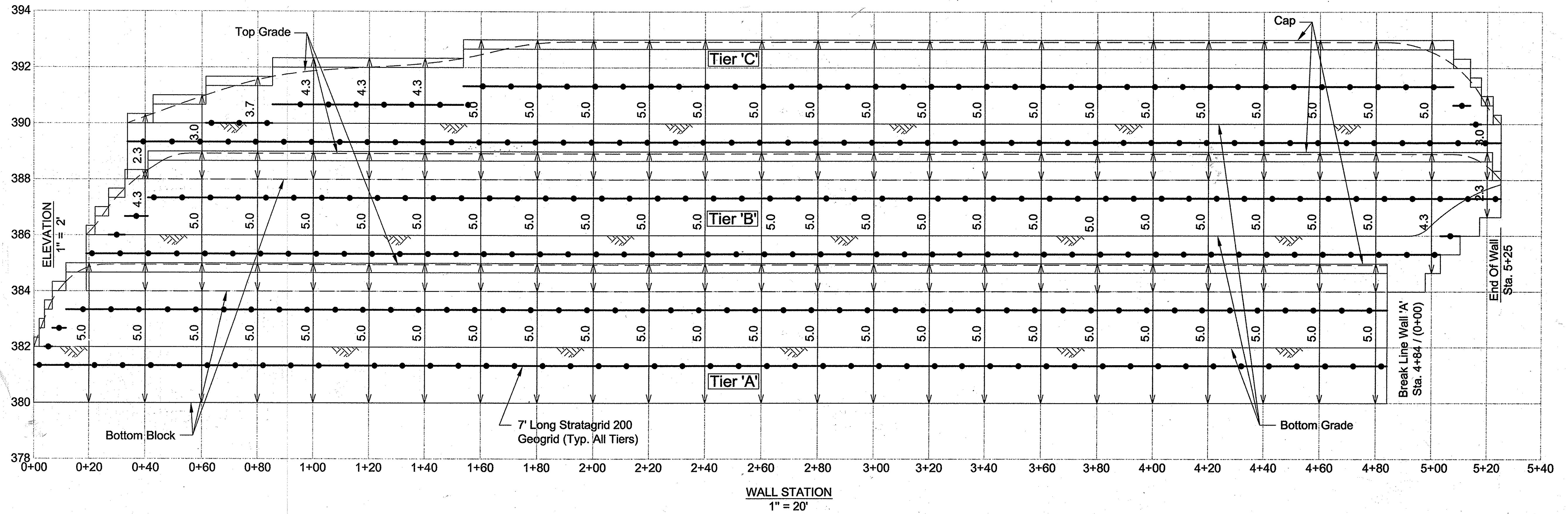
WALL LOCATION PLAN AND NOTES
VILLAGE CREST
PARCEL C-1, AGE RESTRICTED
ADULT HOUSING, UNITS 1-29, 31-117
 TAX MAP #2531 BLOCK 20 PHASE 1, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

HILLIS-CARNES
ENGINEERING ASSOCIATES, INC.
 12011 Guilford Road, Suite 106 Annapolis Junction, Maryland 20701
 Balto. (410) 880-4788 D.C. (301) 470-4239 Fax (410) 885-4098

ROBERT H. VOGEL
ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



DESIGN BY: RWS
 DRAWN BY: AM
 CHECKED BY: RMH
 DATE: 06-19-2005
 SCALE: AS SHOWN
 HCEA NO.: 00171-C



OWNER/DEVELOPER
 TAYLOR FAMILY LIMITED PARTNERSHIP A
 C/O LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE
 ELLICOTT CITY, MD 21042
 ATTN: MR. DONALD R. KEUWER
 PHONE: (410) 367-0422

THERE IS NO AS-BUILT
 INFORMATION SHOWN ON THIS SHEET.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 DIRECTOR: *Mark L. Woyles* 2/9/11 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION: *Bill Drummond* 1/20/06 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT: *Clayton Hamstra* 3/5/06 DATE

NO.	REVISION	DATE
2	ADD PHASE III	8/27/07
1	ADD PHASE II	10/30/06

WALL ELEVATIONS AND TYPICAL SECTION
 VILLAGE CREST
 PARCEL C-1, AGE RESTRICTED
 ADULT HOUSING, UNITS 1-29, 31-117
 TAX MAP #2531 BLOCK 20 PHASE I, II & III PARCEL C-1
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

HILLIS-CARNES
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 12011 Guilford Road Suite 106 Annapolis Junction, Maryland 20701
 Balto. (410) 880-4768 D.C. (301) 470-4239 Fax (410) 880-4098

ROBERT H. VOGEL
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 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RWS
 DRAWN BY: AM
 CHECKED BY: RMH
 DATE: 08-13-2005
 SCALE: AS SHOWN
 HCEA NO.: 00171-C