

SITE DEVELOPMENT PLAN

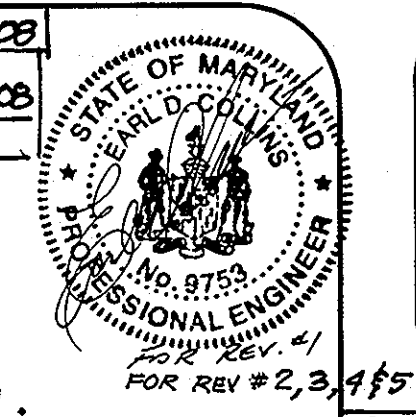
HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B

PHASE I (UNITS 1 - 15) PHASE II (UNITS 16-28, 39-60)

2nd ELECTION DISTRICT 16-28, 39-60

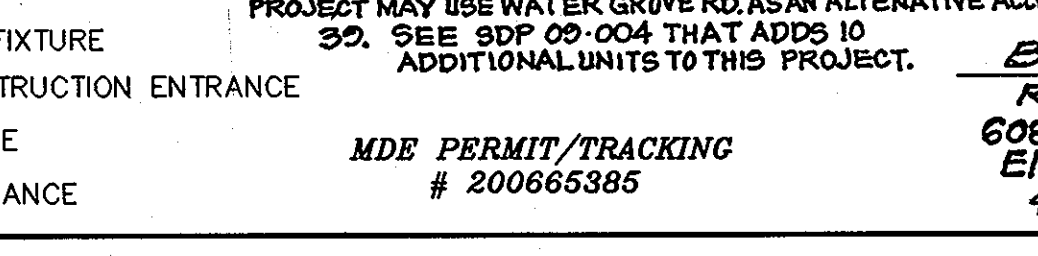
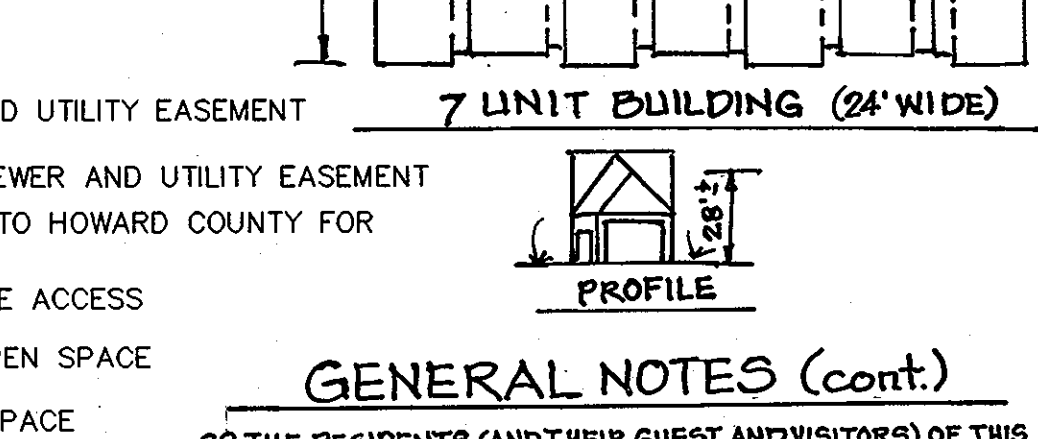
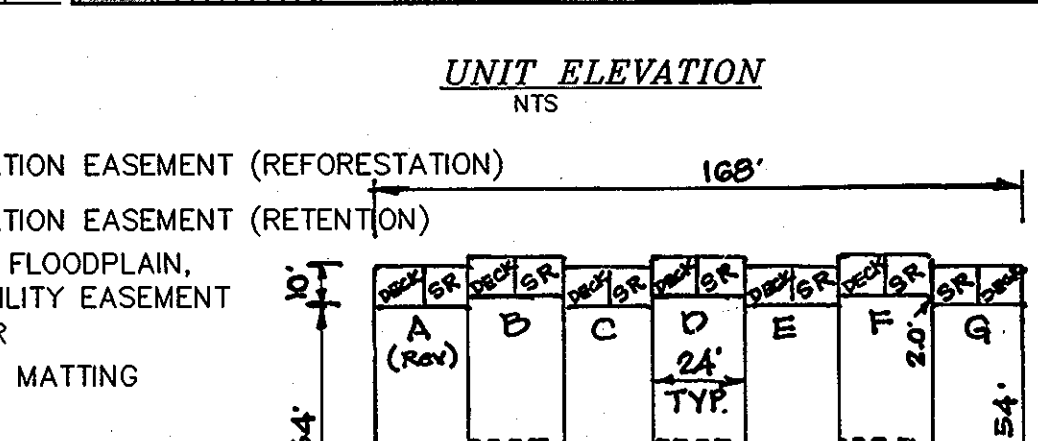
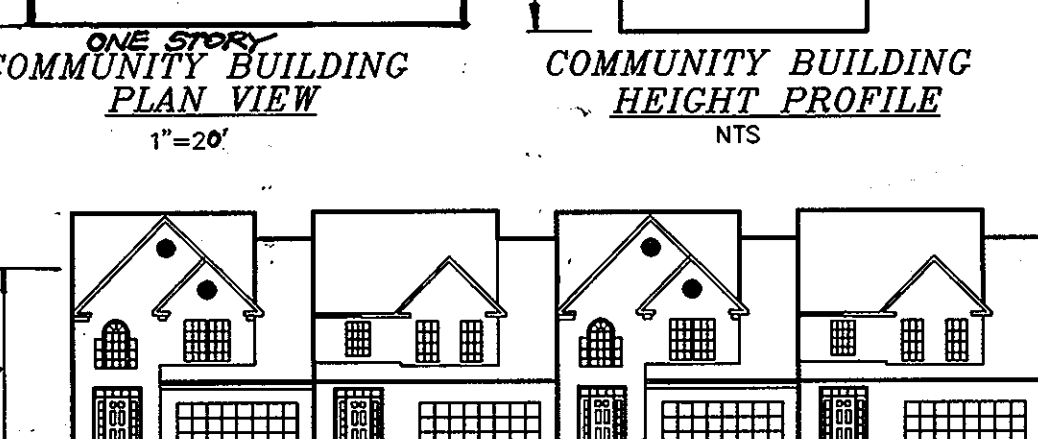
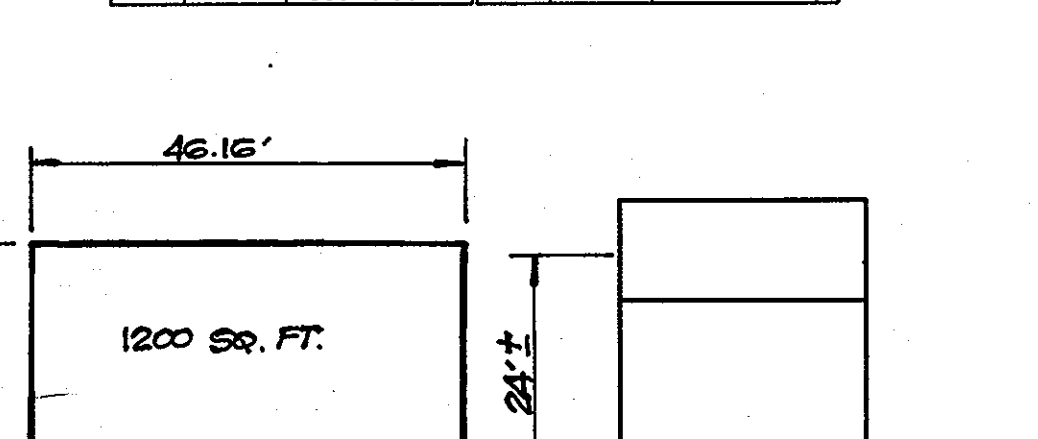
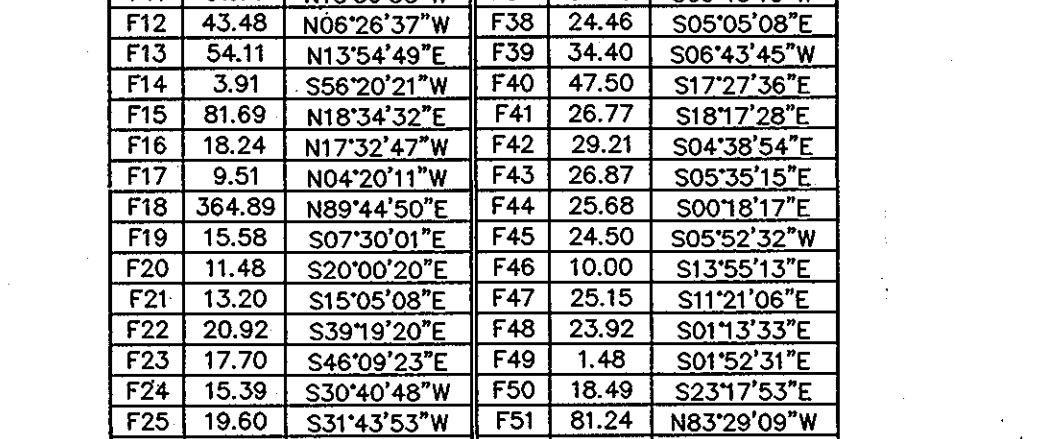
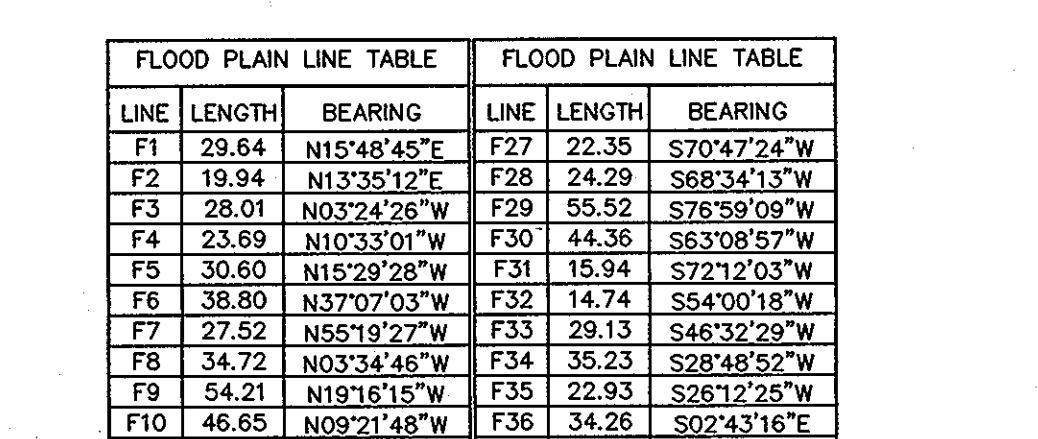
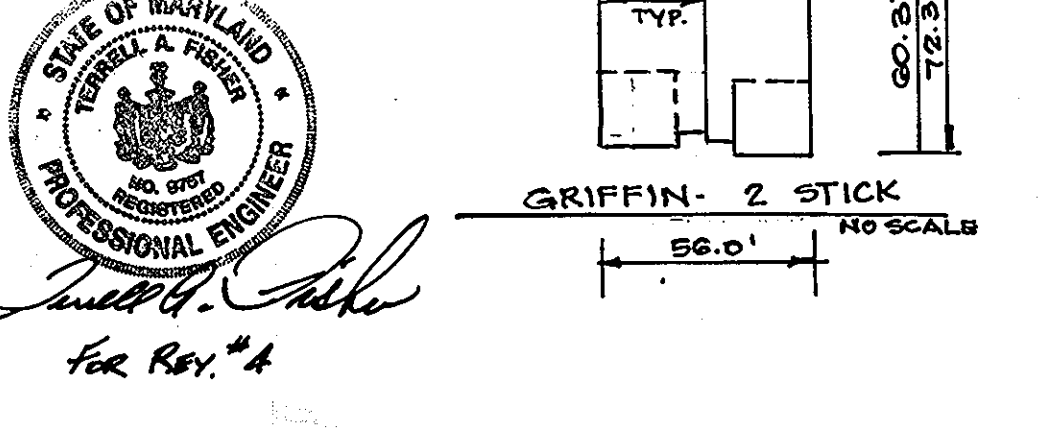
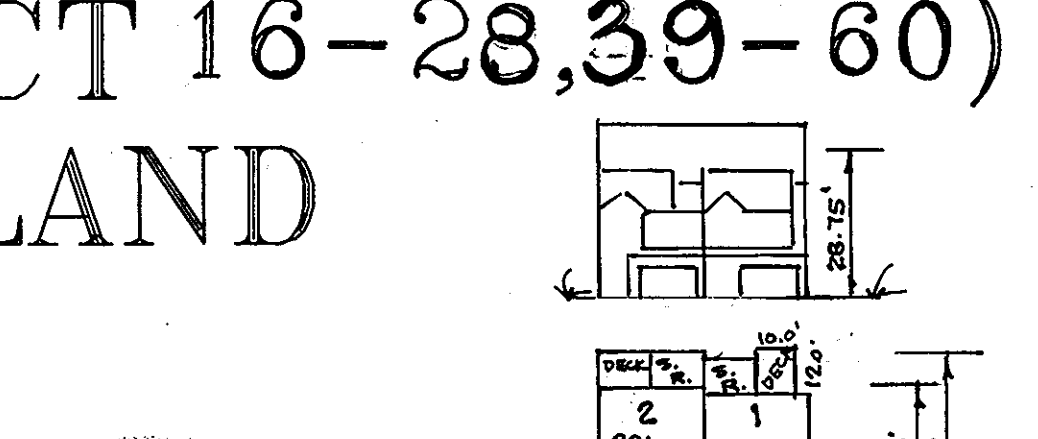
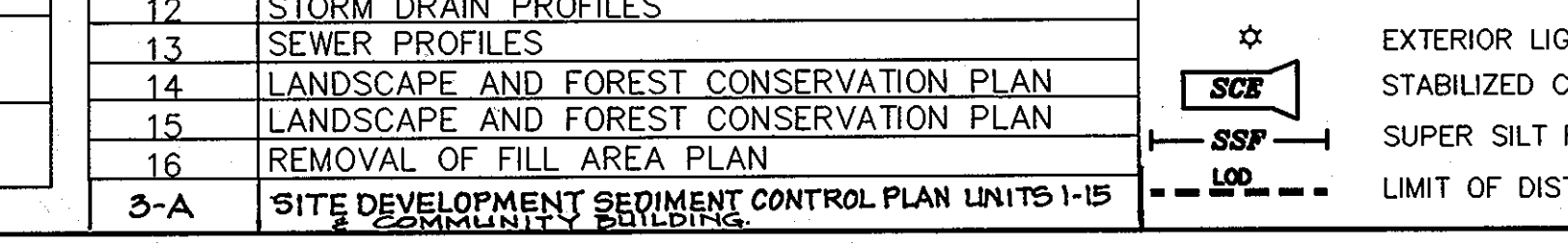
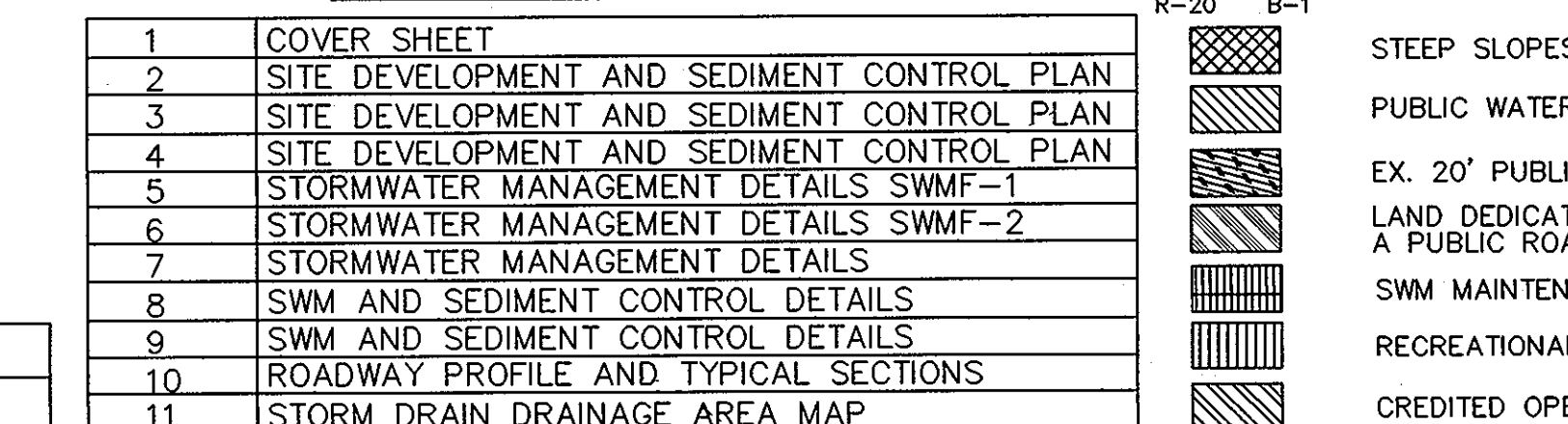
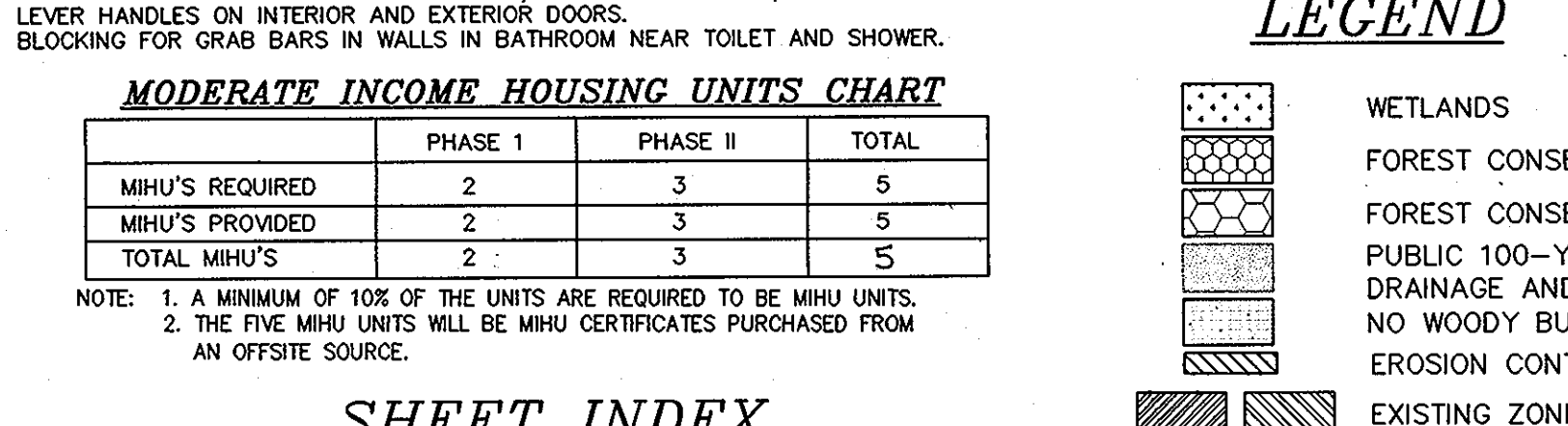
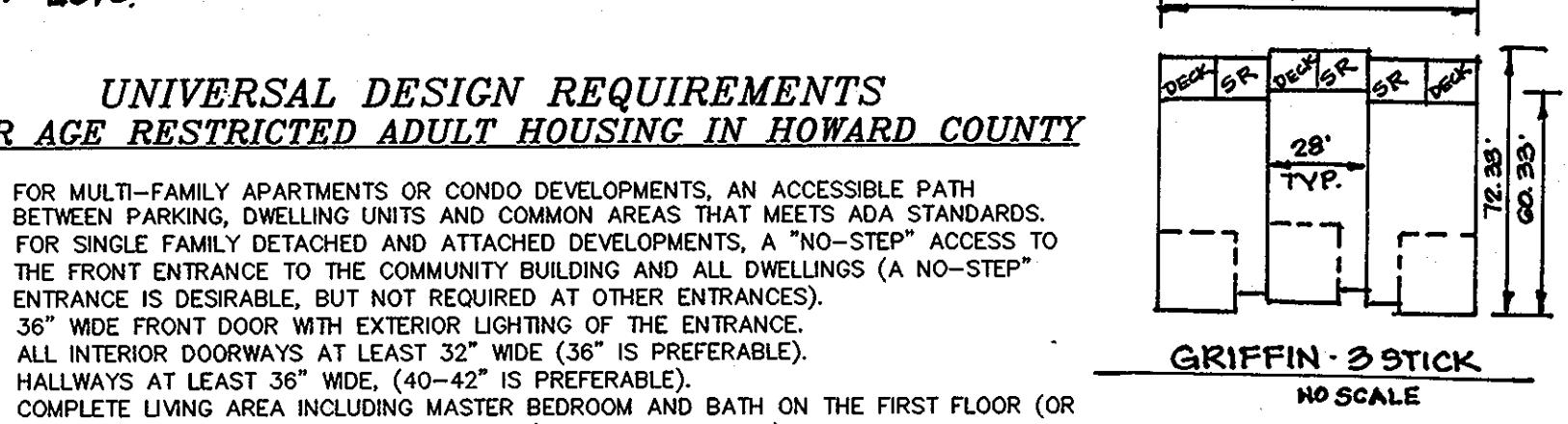
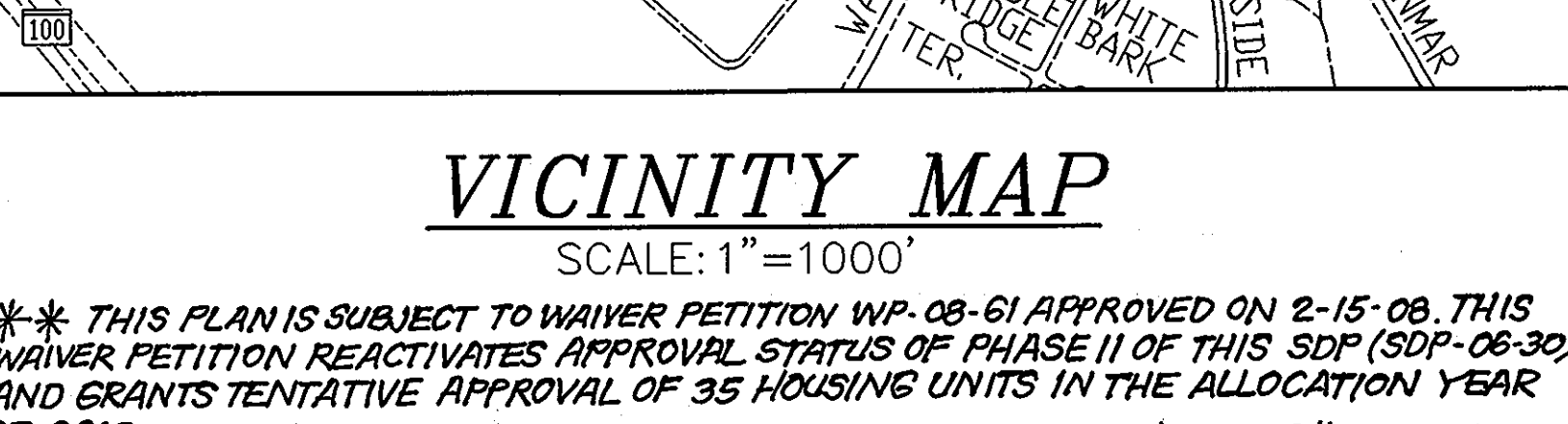
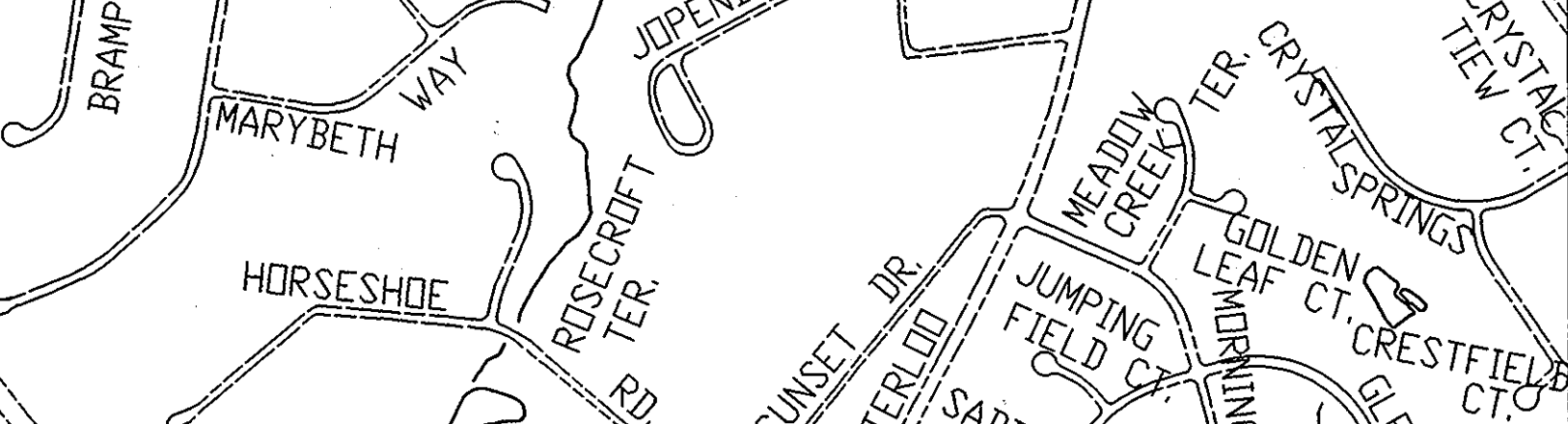
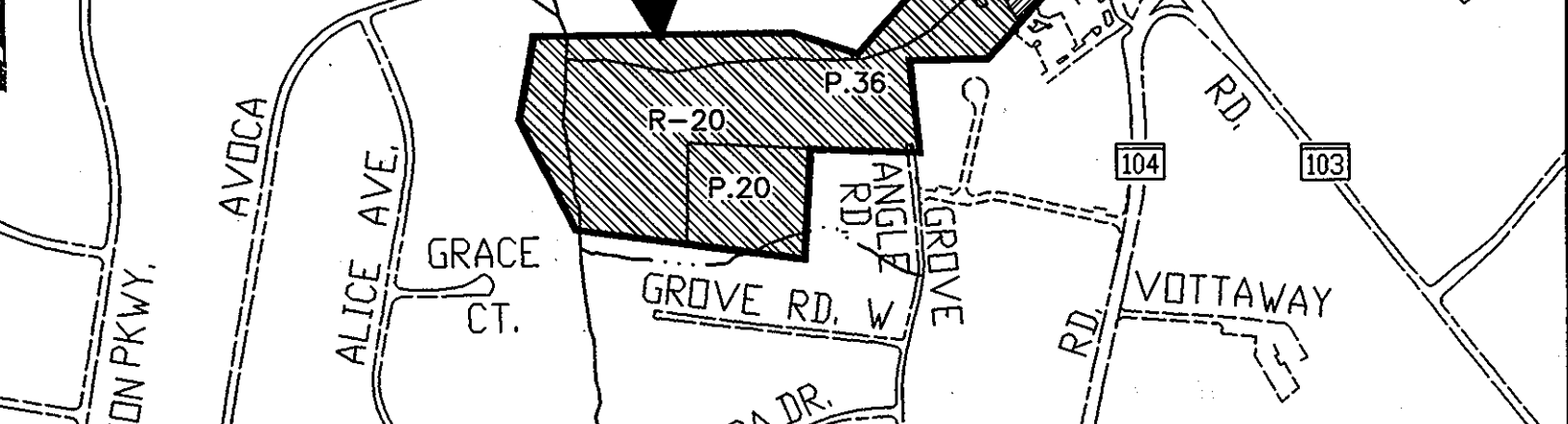
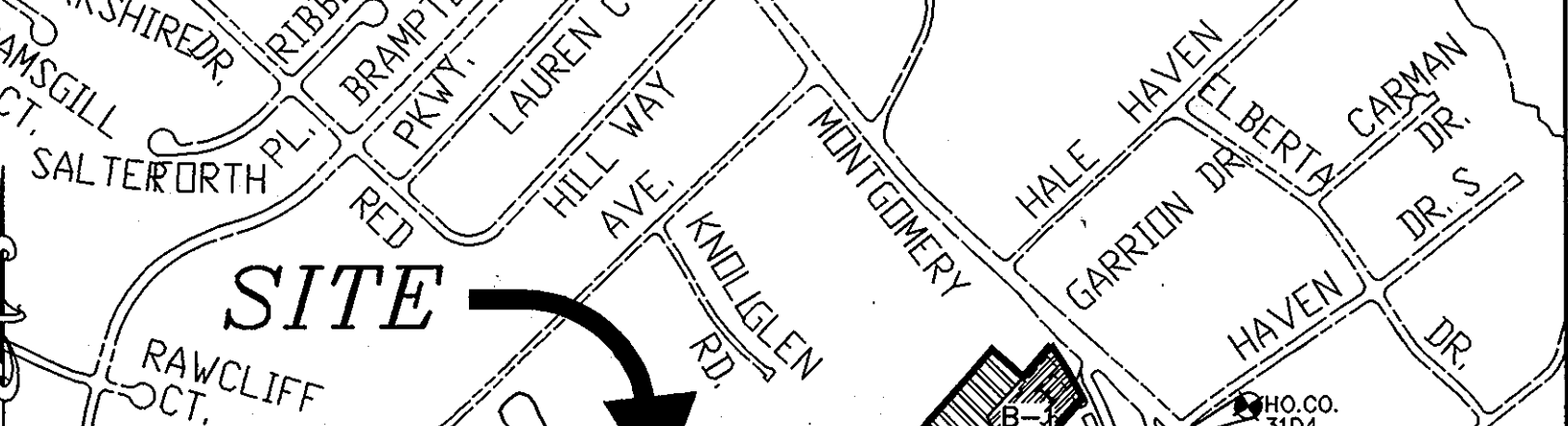
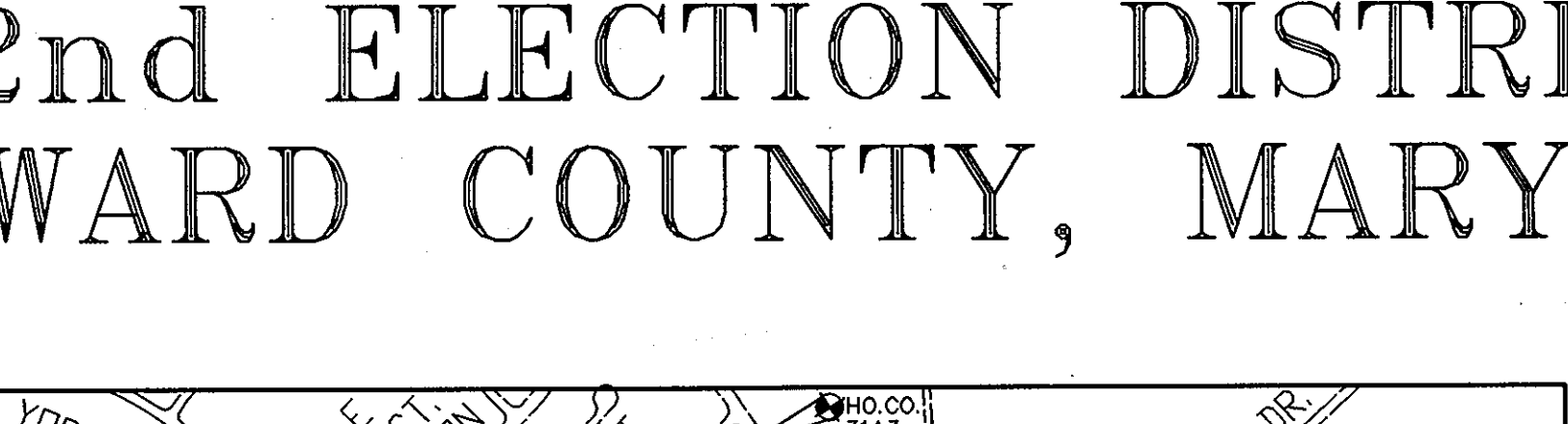
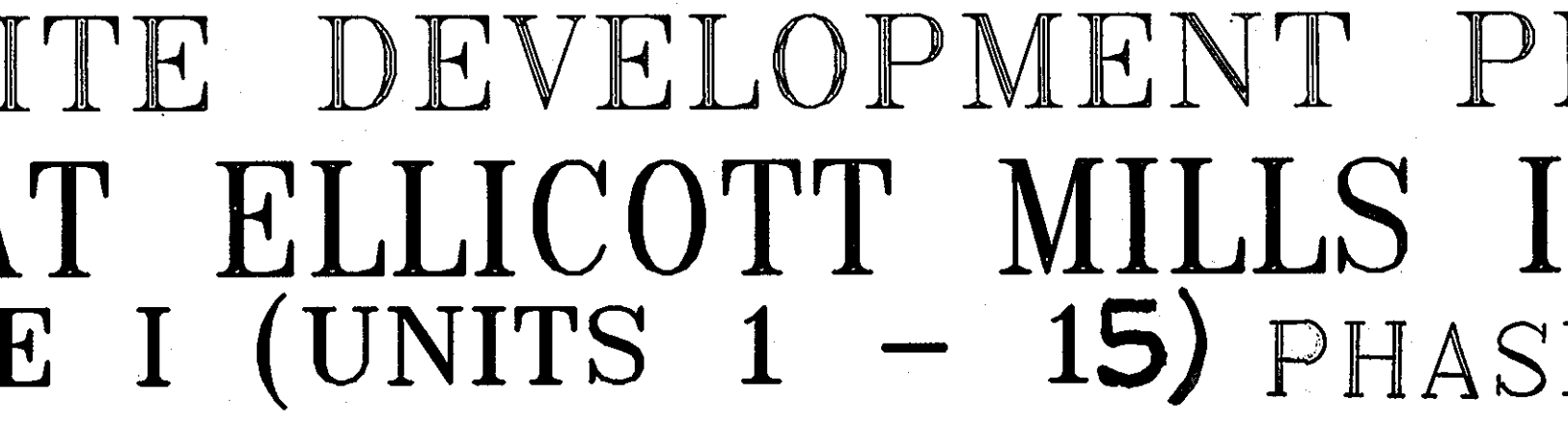
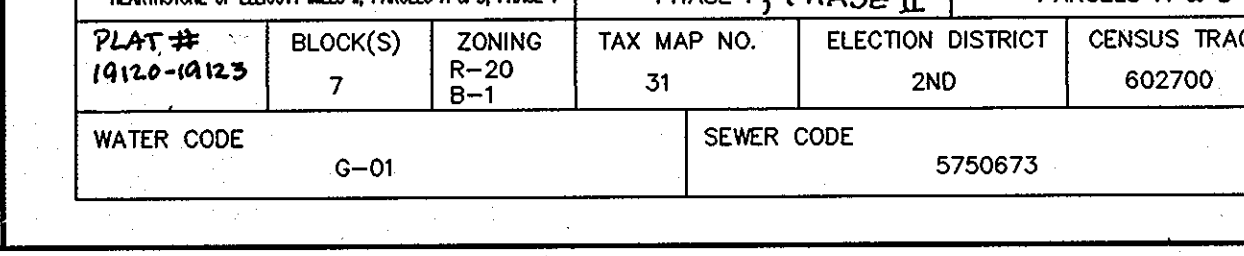
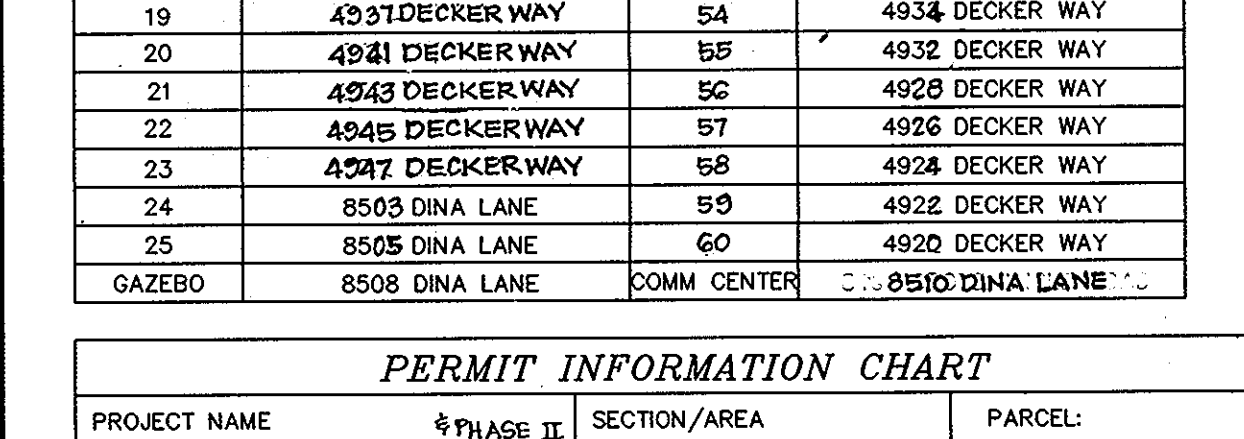
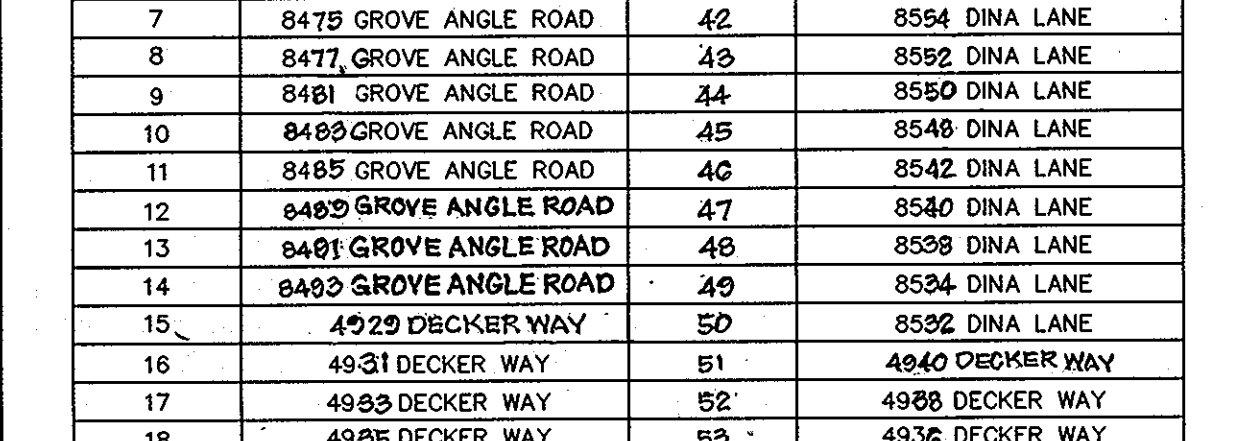
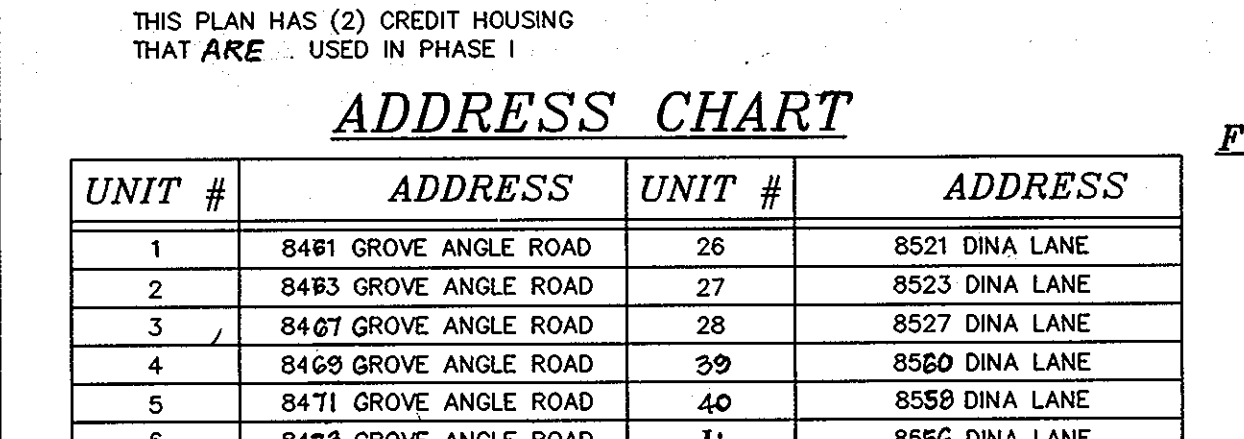
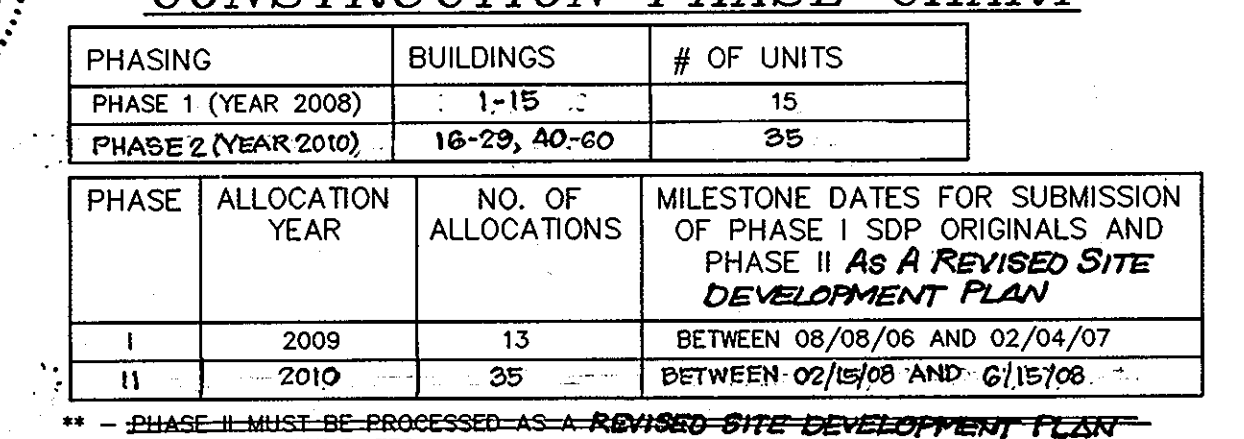
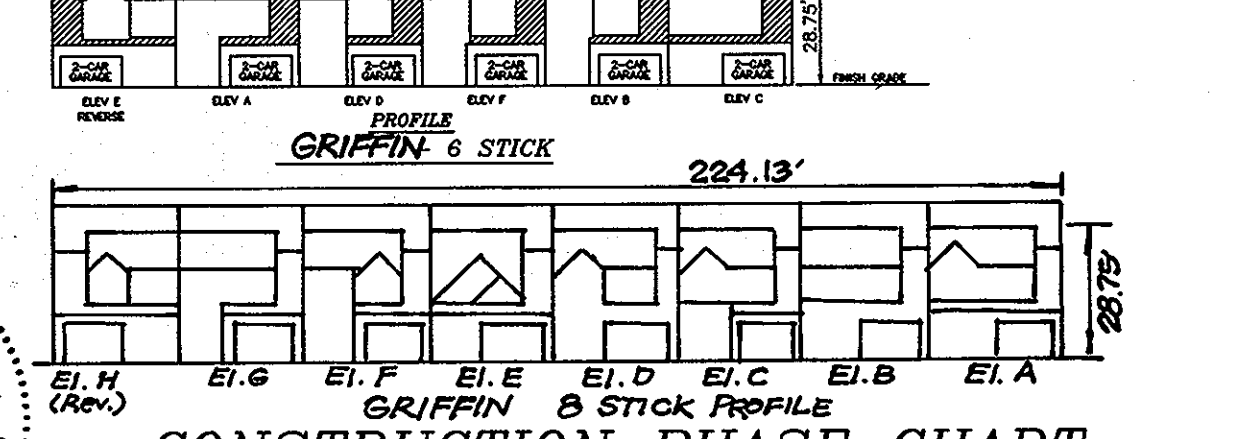
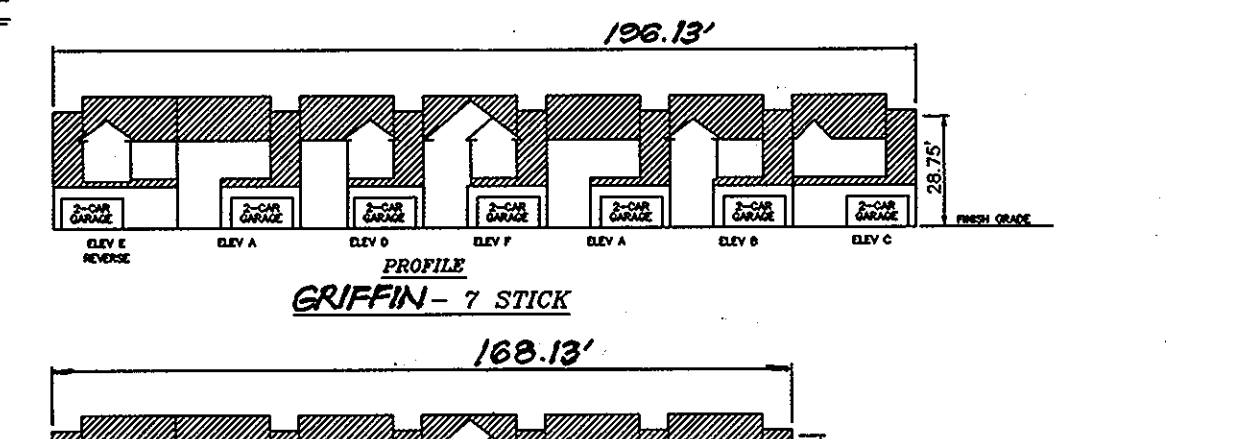
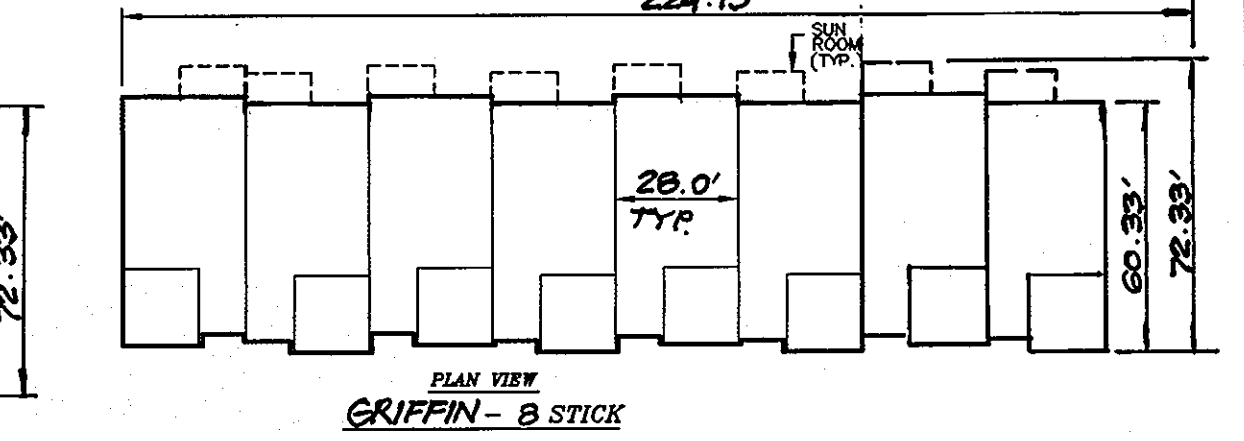
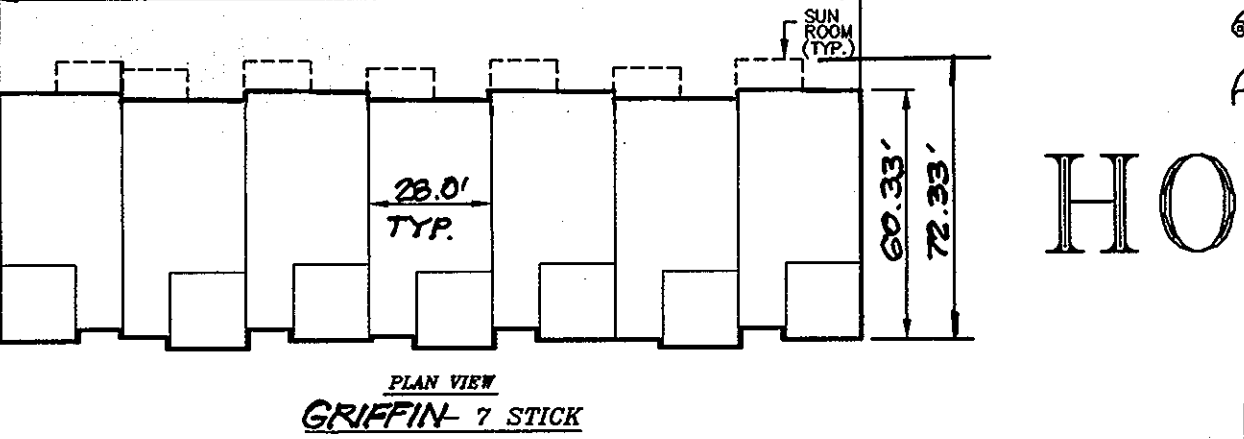
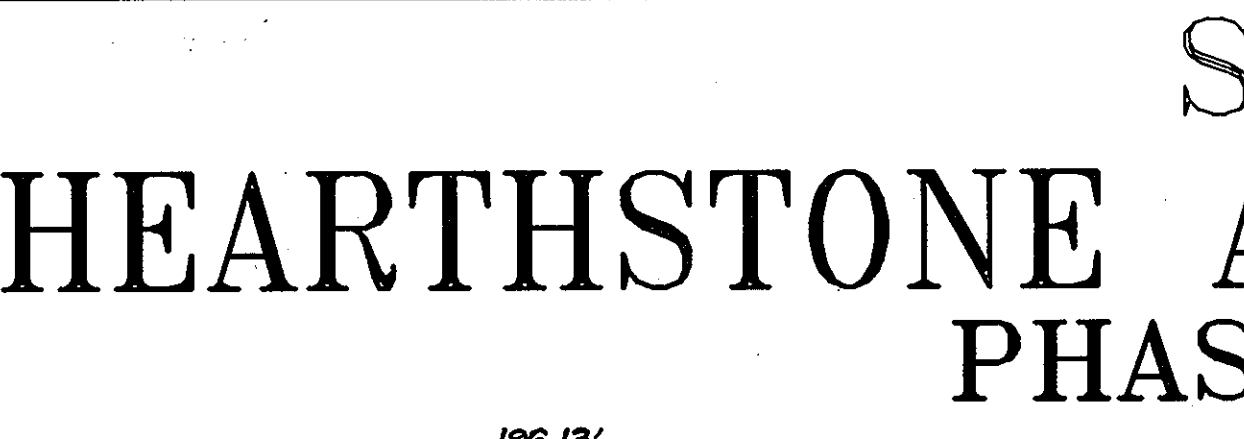
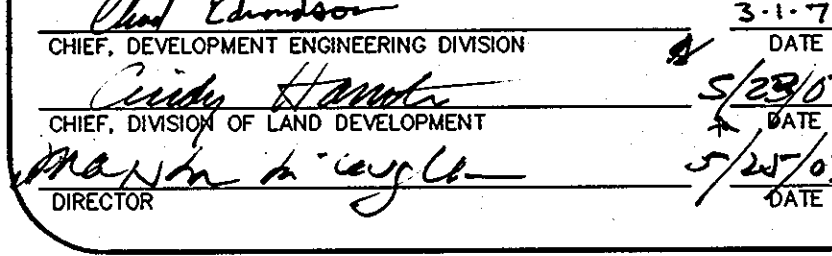
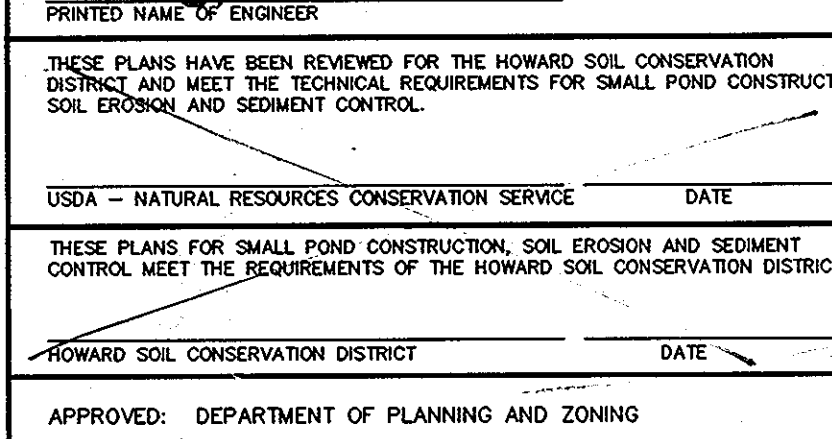
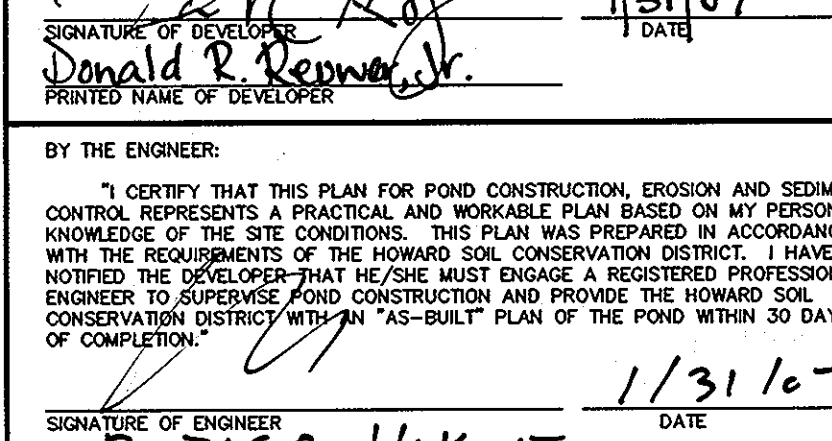
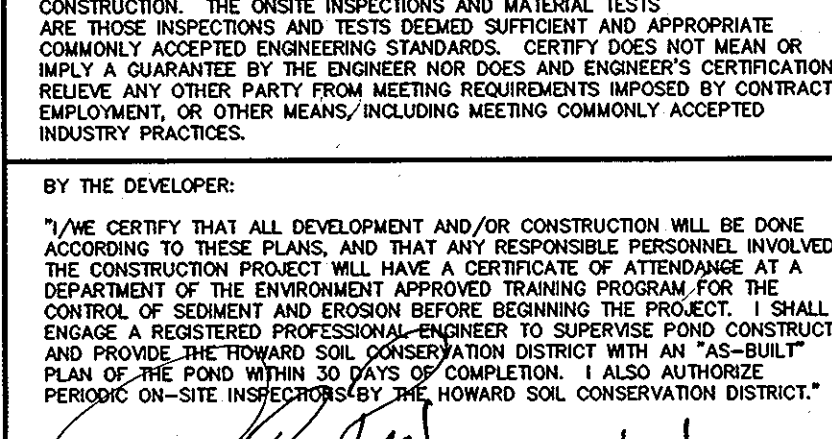
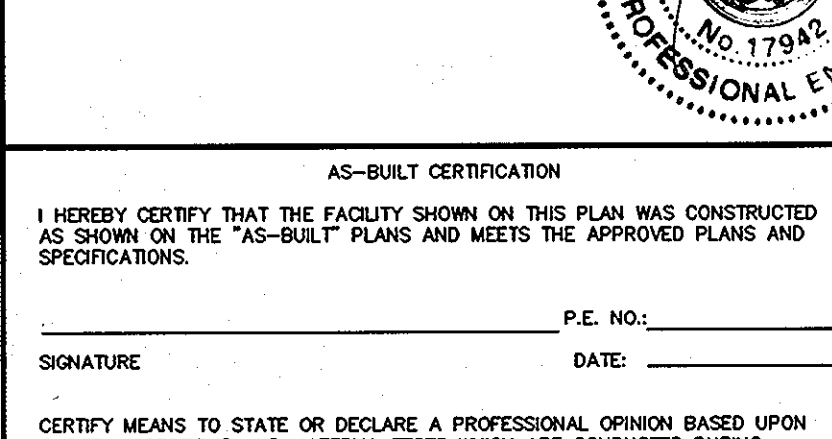
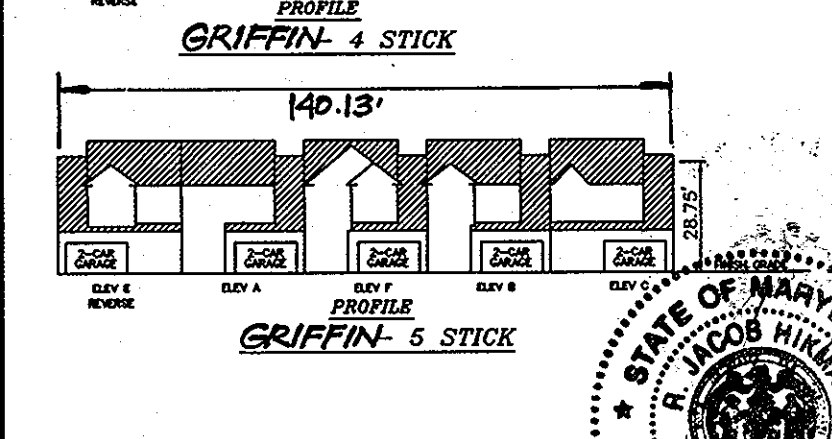
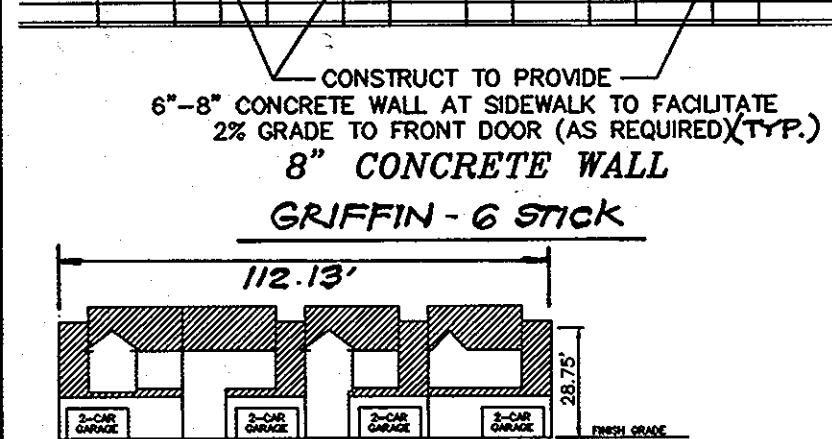
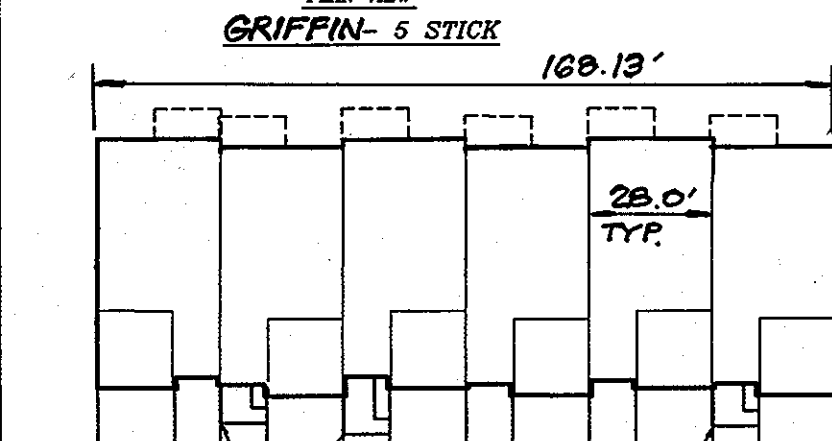
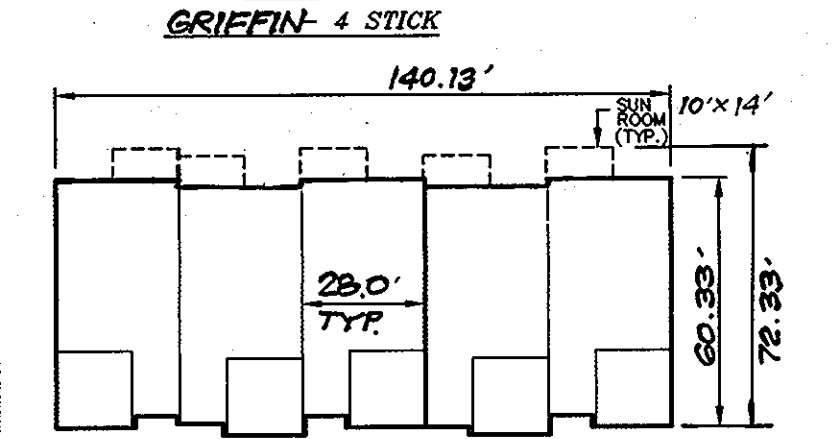
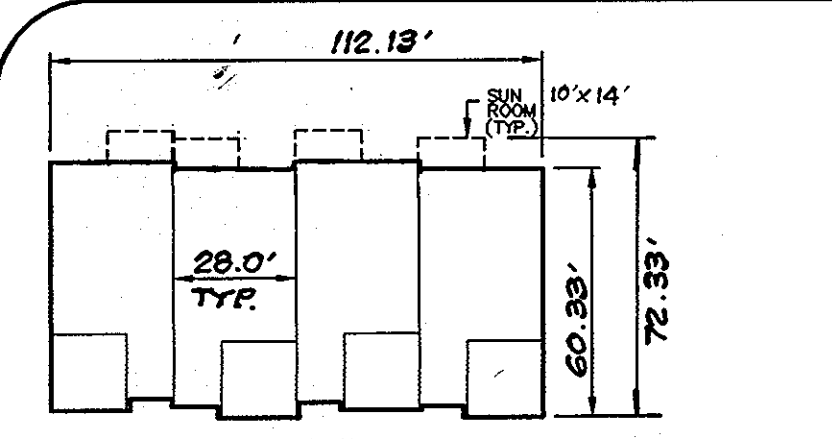
HOWARD COUNTY, MARYLAND

Update Phase II Units & Associated Data by FCC, Inc. 6-5-09
 BY FCC, INC. Rev. Unit Numbers & Address Chart, Unit and 2 Unit Footprints. 11-21-08



GENERAL NOTES:

- SUBJECT PROPERTY ZONED R-20 AS PER THE 02/02/04 COMPREHENSIVE ZONING PLAN AND PER THE "COMP LITE" ZONING REGULATIONS AMENDMENTS EFFECTIVE 07/28/04. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY, AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTION DIVISION AT (410)-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- PROJECT BACKGROUND:
 TAX MAP: 31, PARCEL: 36 & 20
 ELECTION DISTRICT: SECOND
 ZONING: R-20 & B-1
 DEED REFERENCE: 8731/302 & 10080/287
 DPZ FILE NUMBERS: BA-05-006G, F-07-009, BA-07-1010
- SITE ANALYSIS DATA:
 A. GROSS TOTAL PROJECT AREA: 20.26 AC ±
 B. AREA OF POND SUBMISSION: 2.70 AC ± (15.73 AC & PARCEL B - 4.44 AC)
 C. LIMIT OF DISTURBANCE: 8.9 AC ±
 D. GROSS ACERAGE BY PARCEL: PARCEL 36: 17.17 AC., PARCEL 20: 3.08 AC.
 E. GROSS ACERAGE BY ZONING: B-1: 1.36 AC., R-20: 18.90 AC.
 F. TOTAL ACERAGE OF FLOODPLAIN: 20.26 AC. ± 2.70 AC. ± 1.36 AC. ± 16.20 AC.
 G. NET ACERAGE OF SITE: 20.26 AC. ± 2.70 AC. ± 1.36 AC. ± 16.20 AC.
 H. PROPOSED USE: AGE RESTRICTED ADULT HOUSING
 I. TOTAL NO. OF UNITS ALLOWED: 5 UNITS PER NET ACRE = 81 UNITS
 J. TOTAL NO. OF UNITS PROVIDED: 50
 K. TOTAL NO. OF UNITS PROVIDED PER NET ACRE: 3.08 SPACES
 L. REQUIRED PARKING SPACES: 2 REQUIRED PARKING SPACES PER UNIT = 100 SPACES
 M. PROVIDED PARKING SPACES: 2 GARAGE SPACES PER UNIT = 100 SPACES
 2 DRIVEWAY SPACES PER UNIT = 100 SPACES
 TOTAL PARKING SPACES PROVIDED = 207 SPACES
 ON-STREET = 207 SPACES
- N. PROPOSED STRUCTURES: TWO STORY TOWNHOUSES AGE RESTRICTED ADULT HOUSING
 O. OPEN SPACE REQUIRED: 2.70 AC. ± 2.70 AC. ± 1.36 AC. ± 16.20 AC.
 P. CREDITED OPEN SPACE PROVIDED: 2.70 AC. ± 2.70 AC. ± 1.36 AC. ± 16.20 AC.
 R. NON-CREDITED OPEN SPACE PROVIDED: 0.00 AC. ± 0.00 AC. ± 0.00 AC. ± 0.00 AC.
 S. REQUIRED AREA FOR ON-SITE COMMUNITY BLDG: 20 SF/DWELLING UNIT
 * 50 UNITS = 1000 SF
- T. TOTAL AREA REQUIRED FOR THIS DEVELOPMENT = 1,000 SF
 U. COMMUNITY BLDG. AREA PROVIDED: 1,000 SF
 V. RECREATIONAL OPEN SPACE PROVIDED: 20,000 SF
 W. RECREATIONAL OPEN SPACE PROVIDED: 20,000 SF
 TOPOGRAPHY SHOWN HEREON IS BASED ON AERIAL SURVEY PERFORMED BY WINGS TOPO ON OR ABOUT SEPT. 2004.
- BOUNDARY SHOWN HEREON IS BASED ON A FIELD SURVEY BY MILDENBERG, BOENDER & ASSOC. INC. ON OR ABOUT SEPT. 2004.
 COORDINATES BASED ON NAD '83 (HORIZ.) AND NVD '29 (VERT.) MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 31A3 & 31D4
 STATION 31A3 STATION 31D4
 NORTING 573217.878 STATION 31D4
 EASTING 1368237.74 EASTING 1369606.36
 ELEVATION 496.969 ELEVATION 494.507
 TO CONTRACT NO. 24-4919-D
- WATER MAIN CONNECTION TO PARCELS 36 AND 20
 FLOODPLAIN STUDY PREPARED BY MILDENBERG, BOENDER & ASSOCIATES, INC. ON OR ABOUT AUGUST 2005.
- STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE 2000 MARYLAND SWM DESIGN MANUAL. SWM WILL BE PRIVATE. SWM WILL INCLUDE GRASS SWALE CREDIT, SAND FILTERS, AND ROOFTOP DISCONNECTION AND BUFFER CREDITS. SWM FACILITIES ARE PRIVATELY OWNED AND MAINTAINED.
- NO STEEP SLOPES TO EXIST ON-SITE OF CONTIGUOUS AREA MORE THAN 20,000 SQ.FT. EXISTING STRUCTURES TO BE REMOVED UNLESS OTHERWISE NOTED.
- WETLAND STUDY AND FOREST STAND DELINEATION PREPARED BY ECO-SYSTEMS, DATED AUGUST 2005.
- NO HISTORIC STRUCTURES, CEMETERIES, OR GRAVE SITES EXIST ON-SITE. SITE IS NOT ADJACENT TO A DESIGNATED SCENIC ROAD.
- RESIDENTIAL DRIVEWAY ENTRANCE HO.CO.STD. R-6-06 TO BE USED UNLESS OTHERWISE NOTED.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN WETLANDS, STREAMS, OR THEIR BUFFERS. FOREST CONSERVATION EASEMENT OR FLOODPLAIN EXCEPT AS SHOWN ON APPROVED PLANS.
- WATER AND SEWER SERVICE TO THESE UNITS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 16.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND PUBLIC SEWER ALLOCATION WILL BE GRANTED AT THE TIME OF THE ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE AT THAT TIME.
- HOWARD COUNTY STANDARD R-3-01-MODIFIED COMBINATION CURB AND GUTTER WILL BE USED, UNLESS OTHERWISE NOTED.
- THIS PROJECT IS SUBJECT TO BOARD OF APPEALS CASE 05-006C GRANTED AUGUST 22, 2005 TO ALLOW AGE RESTRICTED ADULT HOUSING IN R-20 ZONING.
- TRASH PICK-UP TO BE PROVIDED BY A PRIVATE CONTRACTOR. THERE WILL BE NO COMMUNITY TRASH DUMPSTERS FOR THIS PROJECT. CURBSIDE RECYCLING WILL NOT BE PROVIDED.
- ALL EXTERIOR LIGHT FIXTURE SHALL BE ORIENTED TO DIRECT LIGHT INWARDS AND DOWNWARD ON-SITE, AVOIDING RESIDENTIAL ADJACENT PROPERTIES AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134 OF HOWARD COUNTY ZONING REGULATIONS. LOCATION: STA.0+48 OFFSET 26' RIGHT RD A FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE STA.0+38 OFFSET 22' LEFT RD B 150-WATT HPS VAPOR "TRADITIONAIRE" POST TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE STA.0+30 OFFSET 22' LEFT RD C 150-WATT HPS VAPOR "TRADITIONAIRE" POST TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE STA.3+00 OFFSET 22' RIGHT, RD D 150-WATT HPS VAPOR "TRADITIONAIRE" POST TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE STA.3+00 OFFSET 22' LEFT, RD C 150-WATT HPS VAPOR "TRADITIONAIRE" POST TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE
- GARAGES SHALL BE USED FOR REQUIRED PARKING PURPOSES ONLY AND ARE NOT PERMITTED TO BE CONVERTED TO OTHER USES IN ACCORDANCE WITH SECTION 133.D.2.a OF THE HOWARD COUNTY ZONING REGULATIONS. THIS PROJECT IS SUBJECT TO FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- THE CONDOMINIUM ASSOCIATION WILL DETERMINE AND APPROVE THE DESIGN OF RECREATIONAL OPEN SPACE WITHIN THE COMMUNITY.
- THIS PROJECT WILL BE PHASED. THE FIRST 15 UNITS (UNITS 1-15) SHALL BE CONSTRUCTED IN DESIGN YEAR 2009 (PHASE I). THE REMAINING 35 UNITS (UNITS 16-28, 39-60) SHALL BE CONSTRUCTED IN DESIGN YEAR 2010 (PHASE II). ALL INFRASTRUCTURE, INCLUDING THE COMMUNITY CENTER, SHALL BE BUILT IN DESIGN YEAR 2008 (PHASE I). LANDSCAPE SURETY IN THE AMOUNT OF \$71,850.00, HAS BEEN POSTED AS PART OF THE DEVELOPER'S AGREEMENT.
- FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.122B OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. FOREST CONSERVATION MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAS BEEN FULLY MET BY THE DEVELOPER BY RETENTION OF 2.13 ACRES (92,782.8 SQ. FT.) AND RESTORATION OF 2.13 AC. (105,850.8 SF), FINANCIAL SURETY FOR THE RETENTION OF 2.13 AC. (92,782.8 SQ.FT.) OF FOREST AND RESTORATION OF 2.43 AC. (105,850.8 SQ.FT.) HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$71,481.96.
- THIS PROJECT IS REQUIRED TO COMPLY WITH THE "UNIVERSAL DESIGN STANDARDS FOR AGE RESTRICTED ADULT HOUSING IN HOWARD COUNTY." THE DOCUMENTS AND COVENANTS THAT CONTAIN THE AGE RESTRICTION INFORMATION FOR THIS PROJECT ARE RECORDED AT L10496, F. 641, AND RECORDED AMONG THE LAND RECORD OF HOWARD COUNTY, MARYLAND.
- IN ACCORDANCE WITH THE HOWARD COUNTY ZONING REGULATION 131.11.A, AT LEAST 10% OF THE UNITS SHALL BE MODERATE INCOME HOUSING UNITS IN ACCORDANCE WITH THE STANDARDS AND PROCEDURES ADOPTED BY THE COUNTY COUNCIL. THIS PROJECT WILL BE USING MIHU CERTIFICATES PURCHASED FROM AN OFFSITE SOURCE.
- ALL EXISTING TREES, REFUSE, RUBBISH, HEADLINES, FENCES, CORNALS, WALLS, FOOTBRIDGES, IMPROVEMENTS, ETC. SHALL BE REMOVED (AND STABILIZED WITH VEGETATIVE COVER) FROM THE ENTIRE SITE, INCLUDING THE FLOODPLAIN, WETLANDS, STREAMS, WETLAND AND STREAM BUFFERS AND INTERFERE WITH THE 50'-15' COMMERCIAL IMPROVEMENTS.
- THE MIHU REQUIREMENTS FOR THIS PROJECT, SDP 06-030, WITH AMENDMENT, PROJECT 509-02-113, THE COUNTY OF HOWARD COUNTY, PHASE A, ARE FULFILLED BY THE COUNT OF UNITS AND COMMUNITY DEVELOPMENT APPROVAL OF THE OFF-SITE TRANSFERS OF THESE MIHU CERTIFICATES TO 50 UNITS IN THIS PROJECT. THE PROJECT IS SUBJECT TO A HOUSING COMMISSION PROJECT.
- THE RESIDENTS (AND THEIR GUEST AND VISITORS) OF THIS PROJECT MAY USE WATER GROVE RD. AS AN ALTERNATE ACCESS, BUT SEE SDP 06-004 THAT ADDS 10 ADDITIONAL UNITS TO THIS PROJECT.

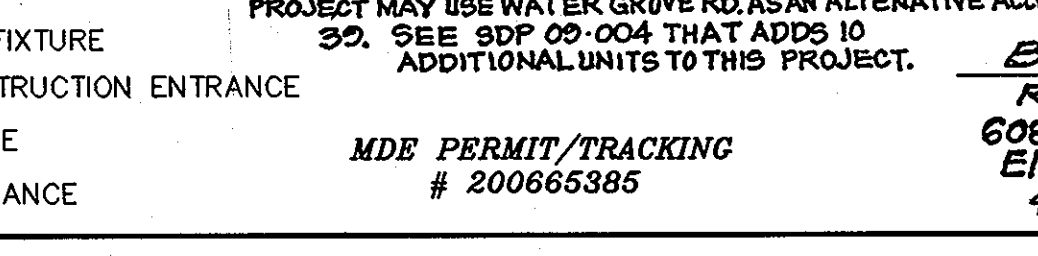
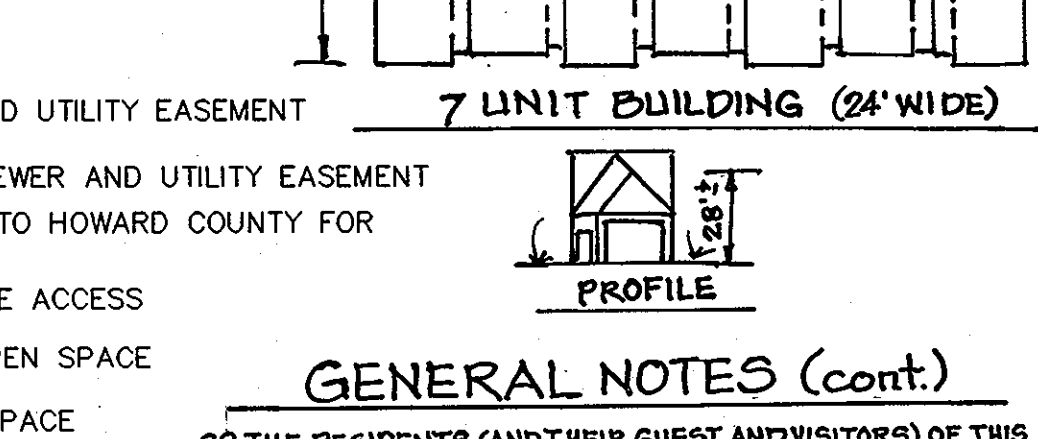
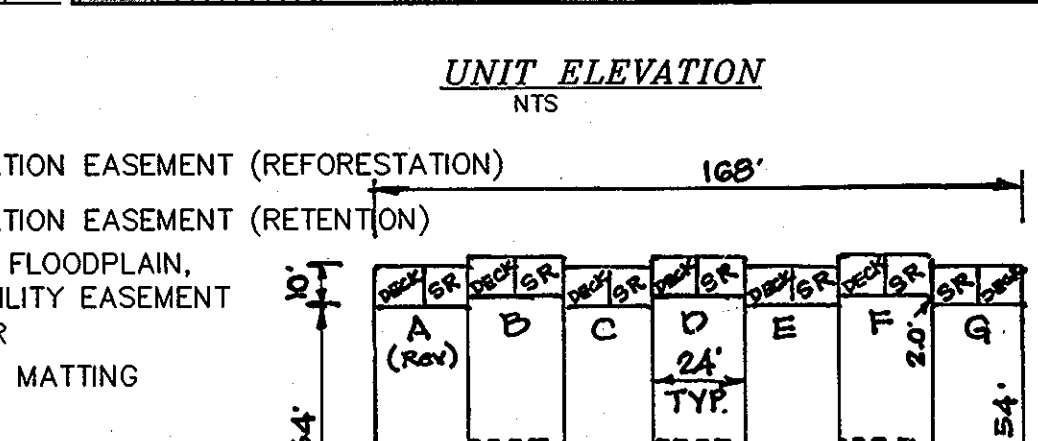
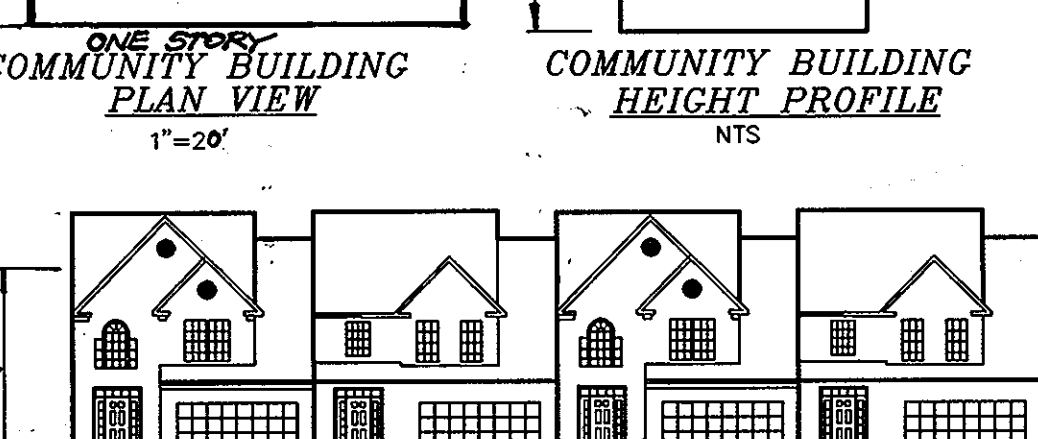
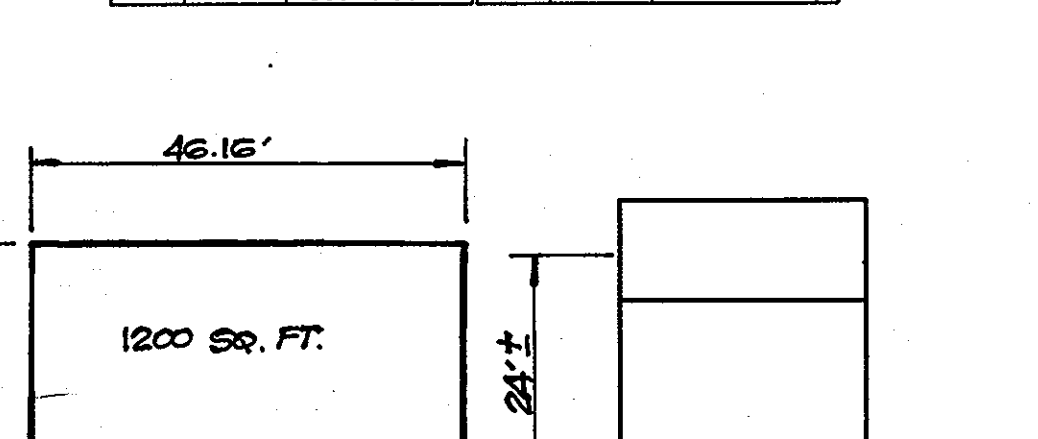
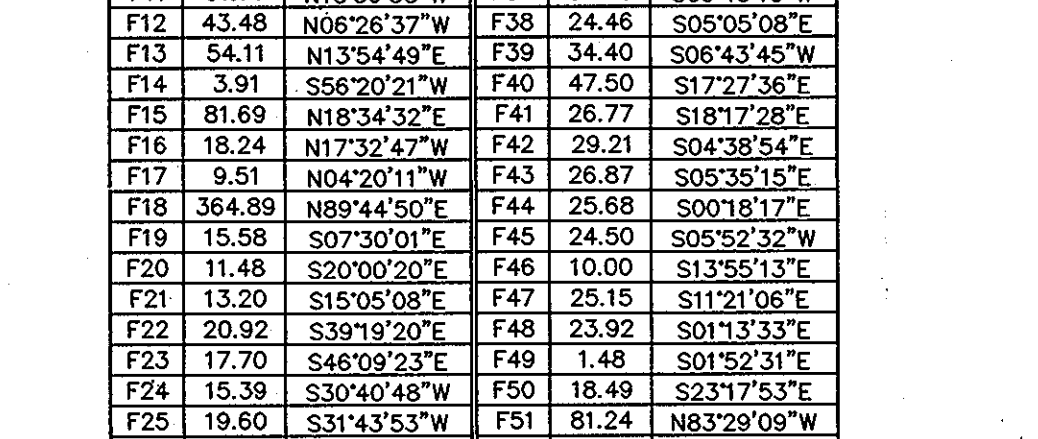
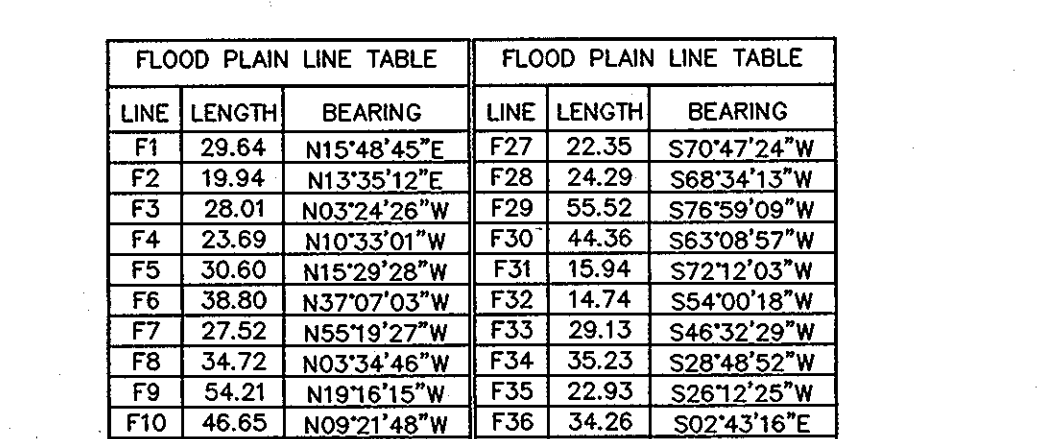
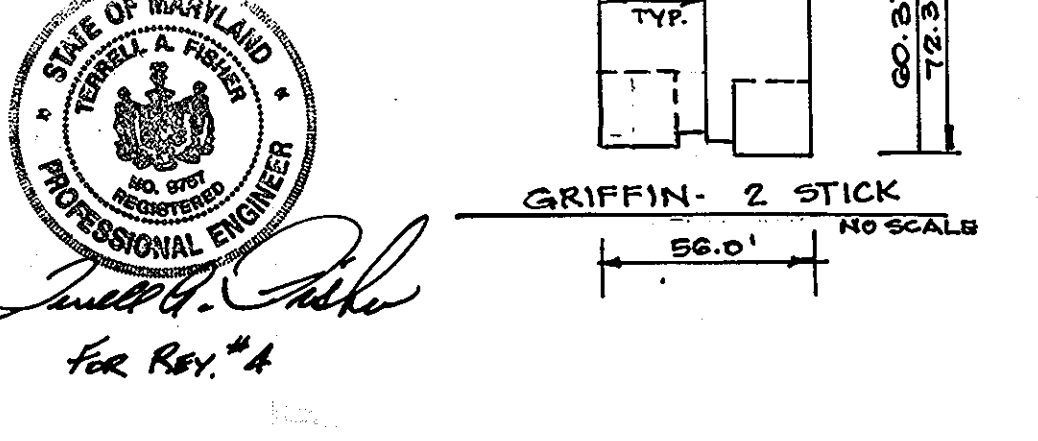
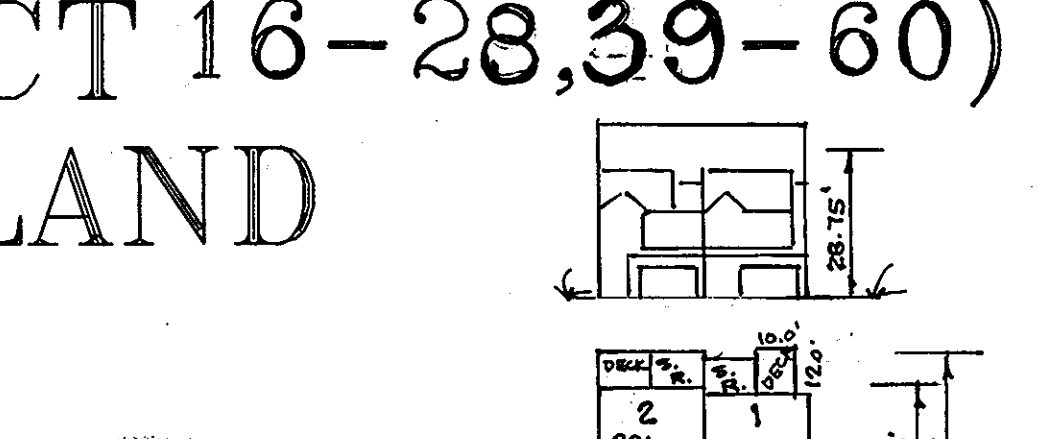


FLOOD PLAIN LINE TABLE

LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
F1	29.64	N15°48'45"E	F27	22.35	S70°47'24"W
F2	19.94	N13°35'12"E	F28	24.29	S68°34'13"W
F3	28.01	N03°24'26"W	F29	55.52	S76°59'09"W
F4	23.69	N10°33'01"W	F30	44.36	S63°08'57"W
F5	30.60	N15°29'28"W	F31	15.96	S71°20'33"W
F6	38.89	N37°07'03"W	F32	14.74	S64°00'18"W
F7	27.52	N55°19'27"W	F33	29.13	S46°32'29"W
F8	34.72	N03°34'46"W	F34	35.23	S28°48'52"W
F9	54.21	N19°18'15"W	F35	22.93	S26°12'25"W
F10	46.65	N09°21'48"W	F36	34.26	S02°43'16"E
F11	61.14	N18°36'58"W	F37	54.40	S09°49'18"W
F12	43.48	N06°26'37"W	F38	24.66	S05°32'06"E
F13	54.11	N13°54'49"E	F39	34.40	S06°43'45"W
F14	3.91	S56°20'21"W	F40	47.50	S17°27'36"E
F15	81.69	N18°34'32"E	F41	26.77	S18°17'28"E
F16	18.24	N17°32'47"W	F42	29.21	S04°38'54"E
F17	9.51	N04°20'11"W	F43	26.87	S05°35'15"E
F18	364.89	N89°44'50"E	F44	25.68	S00°18'17"E
F19	15.58	S07°30'01"E	F45	24.60	S05°32'02"W
F20	11.48	S20°00'20"E	F46	10.00	S13°55'13"E
F21	13.20	S15°05'08"E	F47	25.15	S11°21'06"E
F22	20.92	S39°19'20"E	F48	23.92	S01°13'33"E
F23	17.70	S46°09'23"E	F49	1.48	S01°52'31"E
F24	15.39	S30°40'48"W	F50	18.49	S23°17'53"E
F25	18.60	S31°43'53"E	F51	8.24	N83°09'09"W
F26	18.26	S59°19'50"W	F52	74.62	N27°04'48"W

FLOOD PLAIN LINE TABLE

LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
F1	29.64	N15°48'45"E	F27	22.35	S70°47'24"W
F2	19.94	N13°35'12"E	F28	24.29	S68°34'13"W
F3	28.01	N03°24'26"W	F29	55.52	S76°59'09"W
F4	23.69	N10°33'01"W	F30	44.36	S63°08'57"W
F5	30.60	N15°29'28"W	F31	15.96	S71°20'33"W
F6	38.89	N37°07'03"W	F32	14.74	S64°00'18"W
F7	27.52	N55°19'27"W	F33	29.13	S46°32'29"W
F8	34.72	N03°34'46"W	F34	35.23	S28°48'52"W
F9	54.21	N19°18'15"W	F35	22.93	S26°12'25"W
F10	46.65	N09°21'48"W	F36	34.26	S02°43'16"E
F11	61.14	N18°36'58"W	F37	54.40	S09°49'18"W
F12	43.48	N06°26'37"W	F38	24.66	S05°32'06"E
F13	54.11	N13°54'49"E	F39	34.40	S06°43'45"W
F14	3.91	S56°20'21"W	F40	47.50	S17°27'36"E
F15	81.69	N18°34'32"E	F41	26.77	S18°17'28"E
F16	18.24	N17°32'47"W	F42	29.21	S04°38'54"E
F17	9.51	N04°20'11"W	F43	26.87	S05°35'15"E
F18	364.89	N89°44'50"E	F44	25.68	S00°18'17"E
F19	15.58	S07°30'01"E	F45	24.60	S05°32'02"W
F20	11.48	S20°00'20"E	F46	10.00	S13°55'13"E
F21	13.20	S15°05'08"E	F47	25.15	S11°21'06"E
F22	20.92	S39°19'20"E	F48	23.92	S01°13'33"E
F23	17.70	S46°09'23"E	F49	1.48	S01°52'31"E
F24	15.39	S30°40'48"W	F50	18.49	S23°17'53"E
F25	18.60	S31°43'53"E	F51	8.24	N83°09'09"W
F26	18.26	S59°19'50"W	F52	74.62	N27°04'48"W



UNIVERSAL DESIGN REQUIREMENTS FOR AGE RESTRICTED ADULT HOUSING IN HOWARD COUNTY

- FOR MULTI-FAMILY APARTMENTS OR CONDO DEVELOPMENTS, AN ACCESSIBLE PATH BETWEEN PARKING, DWELLING UNITS AND COMMON AREAS THAT MEETS ADA STANDARDS.
- FOR SINGLE FAMILY DETACHED AND ATTACHED DEVELOPMENTS, A "NO-STEP" ACCESS TO THE FRONT ENTRANCE TO THE COMMUNITY BUILDING AND ALL DWELLINGS (A NO-STEP ENTRANCE IS DESIRABLE, BUT NOT REQUIRED AT OTHER ENTRANCES).
- 36" WIDE FRONT DOOR WITH EXTERIOR LIGHTING OF THE ENTRANCE.
- ALL INTERIOR DOORWAYS AT LEAST 32" WIDE (36" IS PREFERABLE).
- HALLWAYS AT LEAST 36" WIDE (40-42" IS PREFERABLE).
- COMPLETE LIVING AREA INCLUDING MASTER BEDROOM AND BATH ON THE FIRST FLOOR (OR ELEVATOR ACCESS IF MULTI-STORY RENTAL/CONDO APARTMENTS).
- LEVER HANDLES ON INTERIOR AND EXTERIOR DOORS.
- BLOCKING FOR GRAB BARS IN WALLS IN BATHROOM NEAR TOILET AND SHOWER.

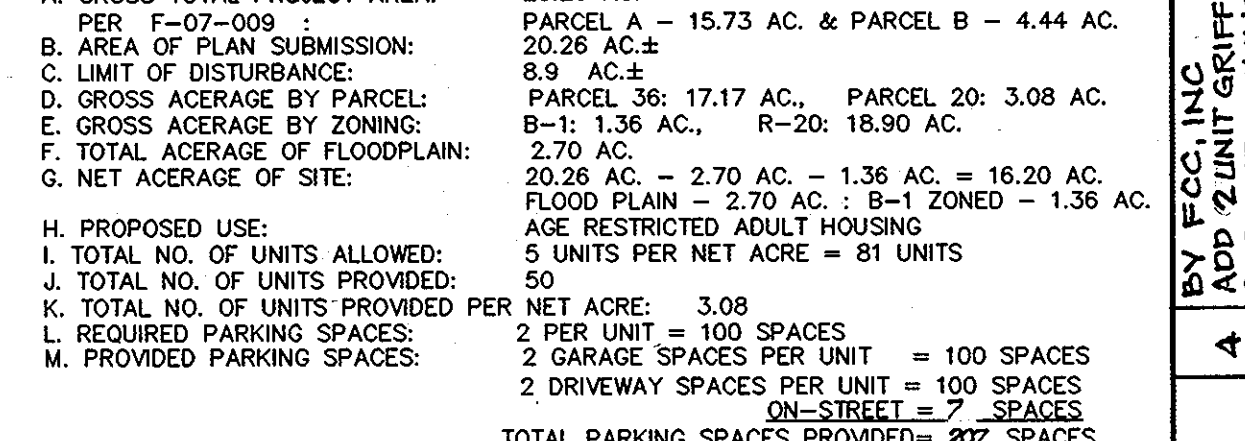
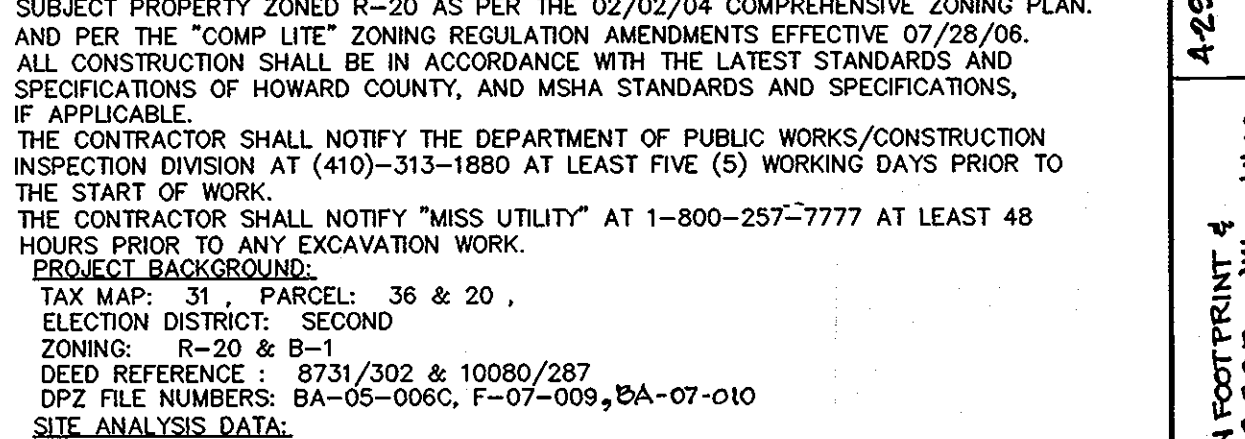
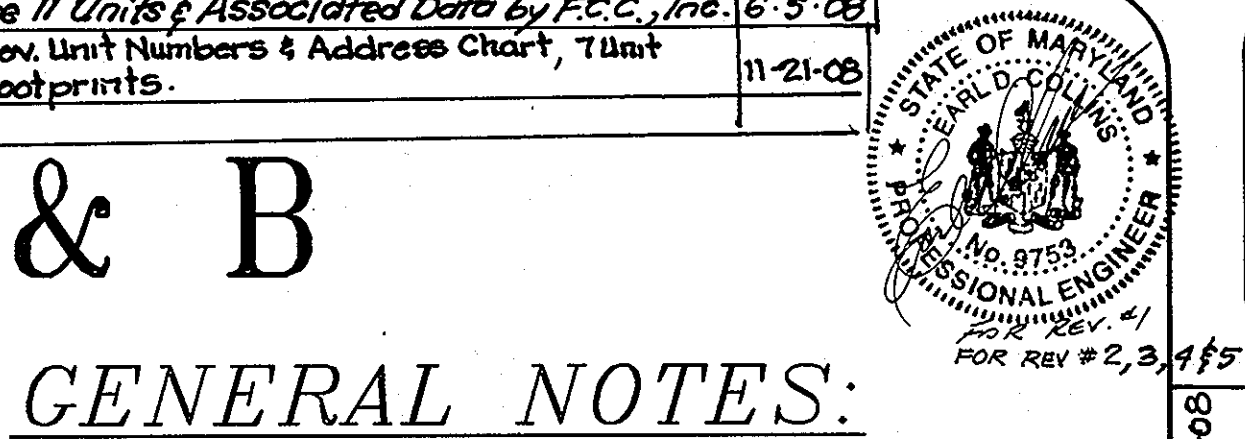
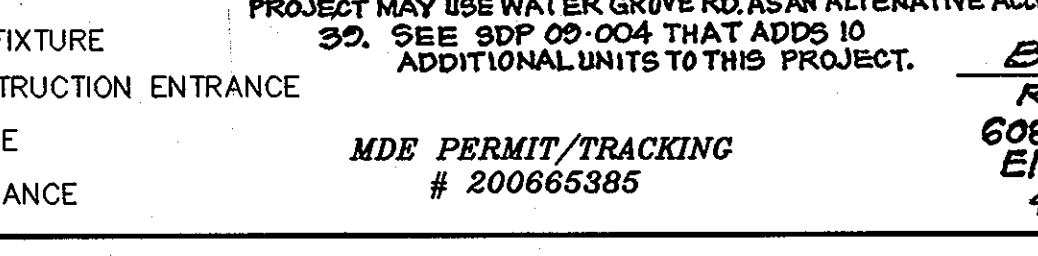
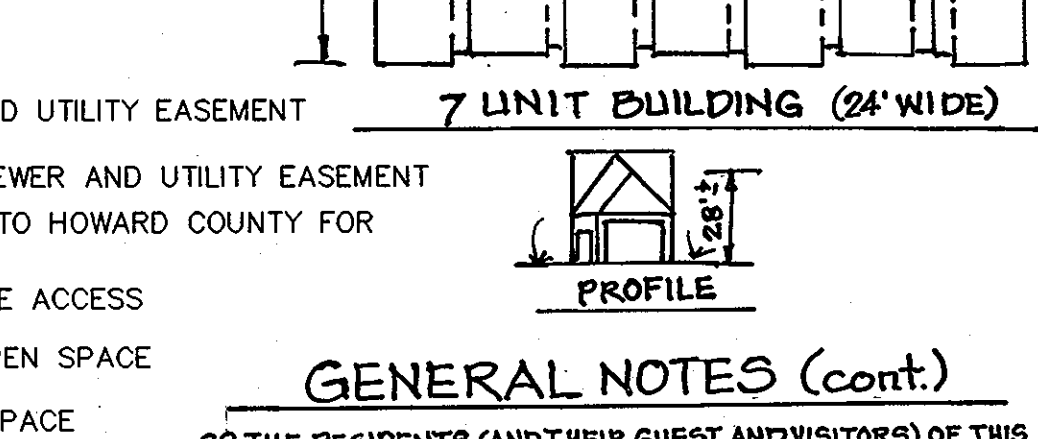
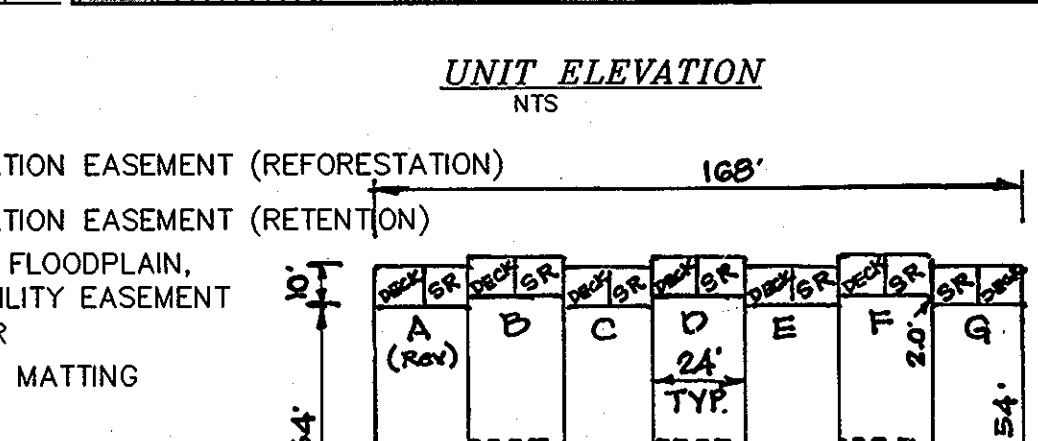
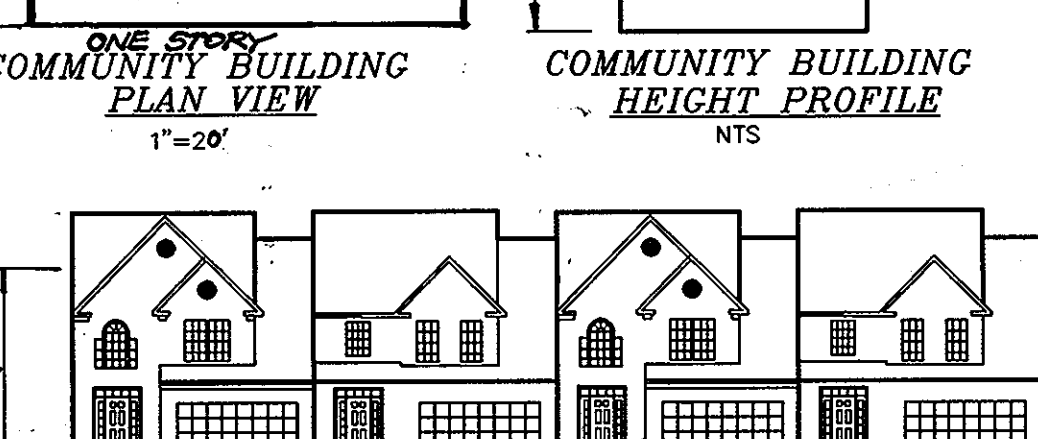
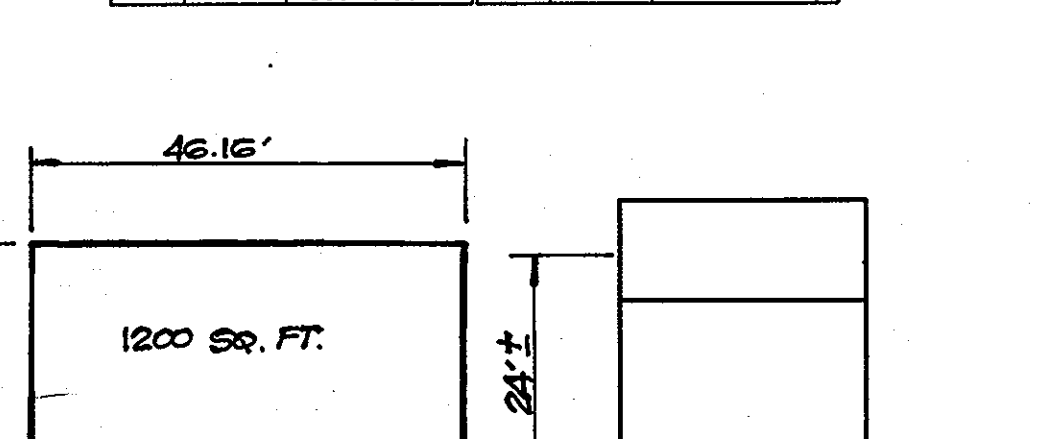
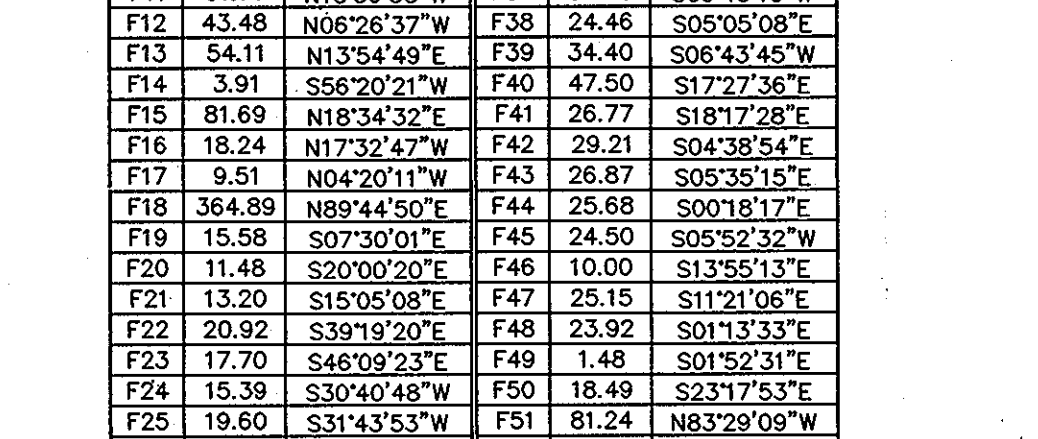
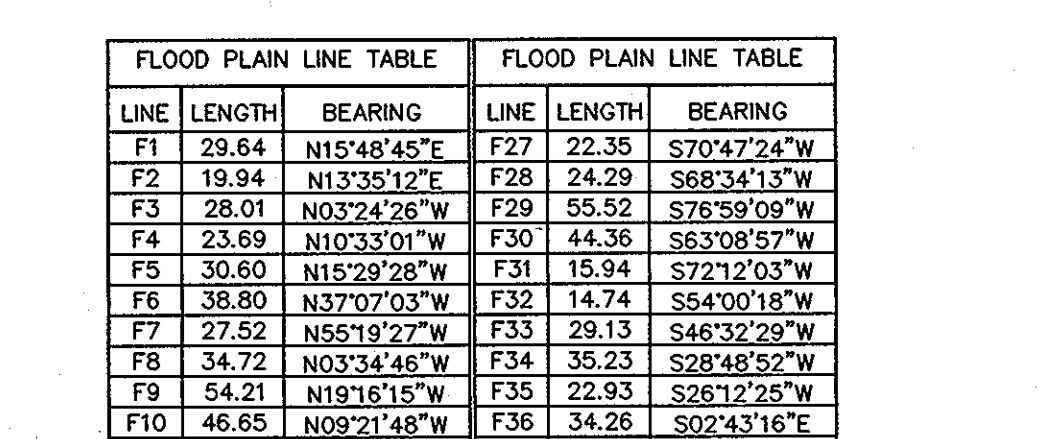
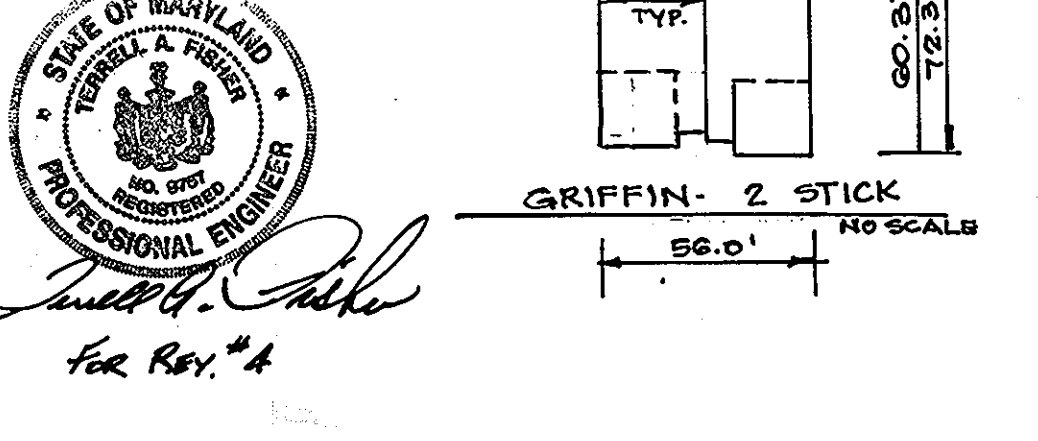
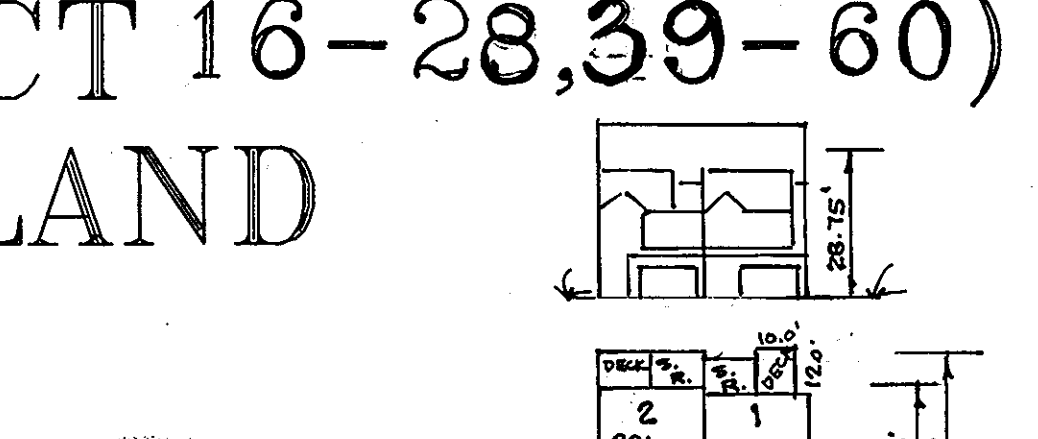
MODERATE INCOME HOUSING UNITS CHART

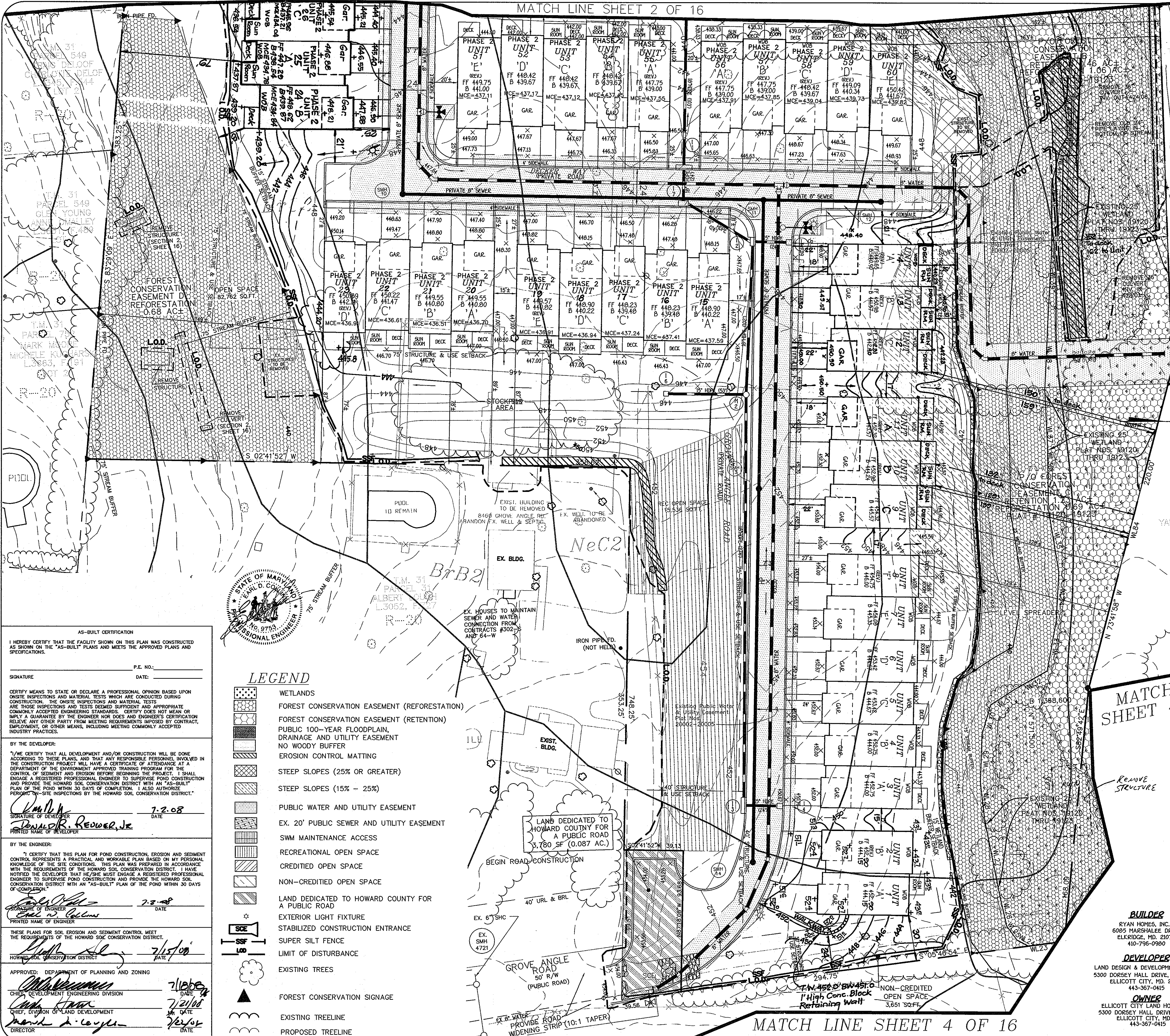
	PHASE I	PHASE II	TOTAL
MIHU'S REQUIRED	2	3	5
MIHU'S PROVIDED	2	3	5
TOTAL MIHU'S	2	3	5

NOTE: 1. A MINIMUM OF 10% OF THE UNITS ARE REQUIRED TO BE MIHU UNITS.
 2. THE FIVE MIHU UNITS WILL BE MIHU CERTIFICATES PURCHASED FROM AN OFFSITE SOURCE.

SHEET INDEX

1	COVER SHEET
2	SITE DEVELOPMENT AND SEDIMENT CONTROL PLAN
3	SITE DEVELOPMENT AND SEDIMENT CONTROL PLAN
4	SITE DEVELOPMENT AND SEDIMENT CONTROL PLAN
5	STORMWATER MANAGEMENT DETAILS SWMF-1
6	STORMWATER MANAGEMENT DETAILS SWMF-2
7	STORMWATER MANAGEMENT DETAILS
8	SWM AND SEDIMENT CONTROL DETAILS
9	SWM AND SEDIMENT CONTROL DETAILS
10	ROADWAY PROFILE AND TYPICAL SECTIONS
11	STORM DRAIN DRAINAGE AREA MAP
12	STORM DRAIN PROFILES
13	SEWER PROFILES
14	LANDSCAPE AND FOREST CONSERVATION PLAN
15	LANDSCAPE AND FOREST CONSERVATION PLAN
16	REMOVAL OF FILL AREA PLAN
3-A	SITE DEVELOPMENT SEDIMENT CONTROL PLAN UNITS 1-15





A MINIMUM DISTANCE OF 18 FEET MUST BE PROVIDED BETWEEN ALL GARAGES AND THE SIDEWALK IN FRONT OF THEM

UTILITY CROSSING SEQUENCE OF CONSTRUCTION

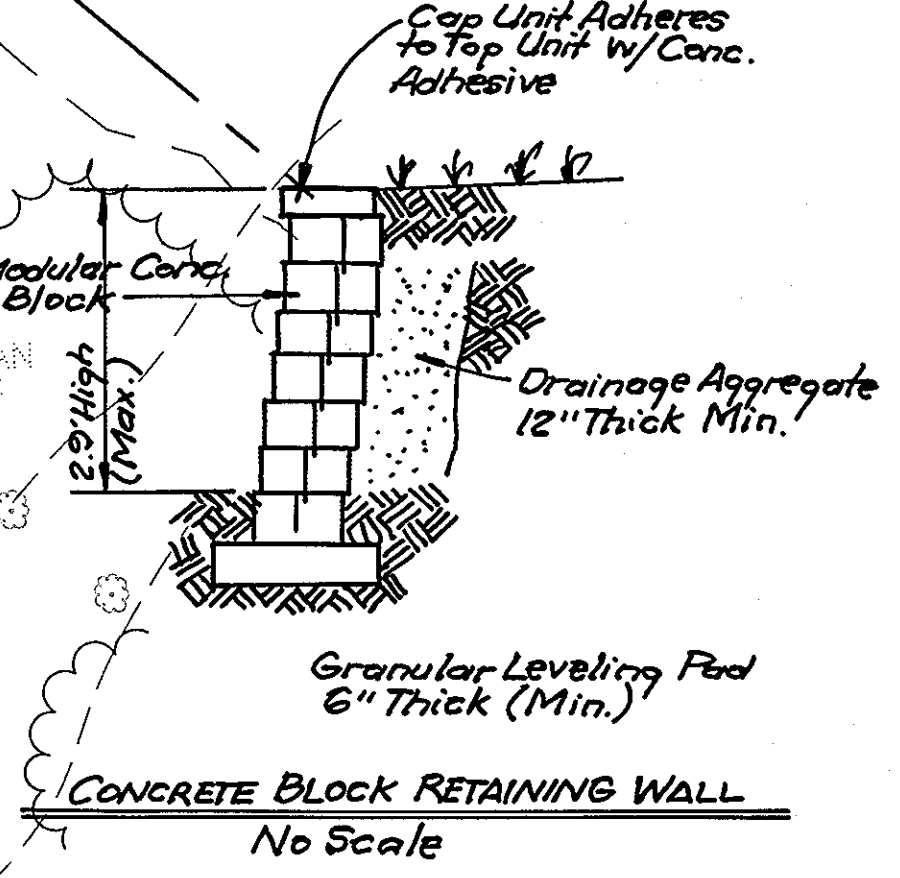
- 1. INSTALL TEMPORARY ACCESS CROSSING, PLAN VIEW DETAIL 34 AND CONSTRUCTION SPECIFICATIONS ON SHEET 16 OF 16.
2. INSTALL WATER LINE UTILITY 8" CAP & BUTTRESS TO 1/8 HB.
3. BACKFILL TRENCH AND STABILIZE DISTURBED AREAS TO STREAM BANK (NORTHERN SIDE OF STREAM).
4. REMOVE TEMPORARY ACCESS CROSSING AND RECONSTRUCT STREAM CHANNEL (SECTION 2 - SHEET 16 OF 16).
5. FINISH BACKFILL AND STABILIZE DISTURBED AREAS TO 1/8 HB. CONTINUE INSTALLATION OF WATER LINE THROUGH THE SITE.

Table with columns: date, project, illustration, scale, approval. Includes dates like 07/10/08 and 05/12/08.

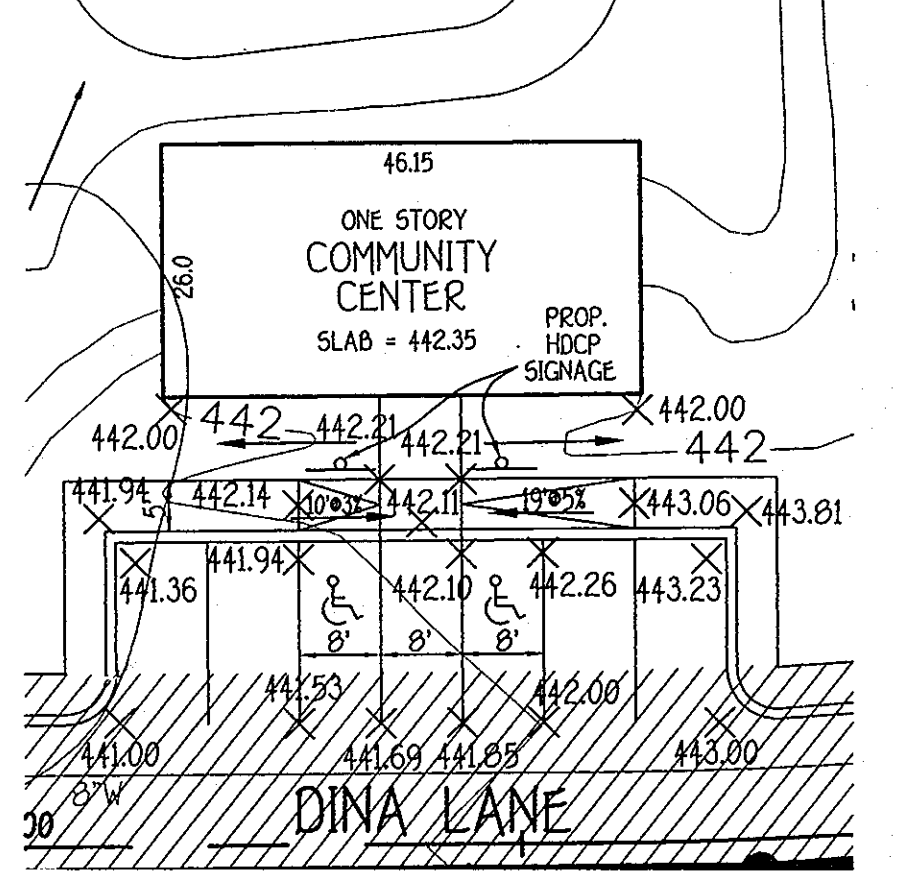
Table with columns: no., description, date. Includes items like 'Combine Units 24-28 into 2 buildings' and 'Separate Units 24-28 into 2 buildings'.

HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I & II. AGE RESTRICTED ADULT HOUSING. TAX MAP 31 PARCELS 36 AND 20. SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND. REVISED SITE DEVELOPMENT AND SEDIMENT CONTROL PLAN.

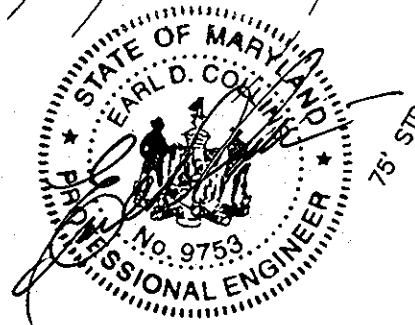
FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS. CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE. ELLICOTT CITY, MARYLAND 21042. (410) 461-2995



SEE COVER FOR FLOOD PLAIN TABLE. SEE SHEET 2 OF 16 FOR WETLAND TABLE.



PLAN SCALE: 1" = 20'. SEE SHEET 2 OF 16 FOR COMMUNITY CENTER LOCATION.



LEGEND

- WETLANDS
FOREST CONSERVATION EASEMENT (REFORESTATION)
FOREST CONSERVATION EASEMENT (RETENTION)
PUBLIC 100-YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT NO WOODY BUFFER
EROSION CONTROL MATTING
STEEP SLOPES (25% OR GREATER)
STEEP SLOPES (15% - 25%)
PUBLIC WATER AND UTILITY EASEMENT
EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
SWM MAINTENANCE ACCESS
RECREATIONAL OPEN SPACE
CREDITED OPEN SPACE
NON-CREDITED OPEN SPACE
LAND DEDICATED TO HOWARD COUNTY FOR A PUBLIC ROAD
EXTERIOR LIGHT FIXTURE
STABILIZED CONSTRUCTION ENTRANCE
SUPER SILT FENCE
LIMIT OF DISTURBANCE
EXISTING TREES
FOREST CONSERVATION SIGNAGE
EXISTING TREELINE
PROPOSED TREELINE

AS-BUILT CERTIFICATION. I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS. SIGNATURE: DENVER R. REDWEL, JR. DATE: 7-2-08. BY THE ENGINEER: Eric W. Collins, No. 9753, PROFESSIONAL ENGINEER. DATE: 7-2-08.

MATCH LINE SHEET 4 OF 16

MATCH LINE SHEET 4 OF 16



BUILDER
RYAN HOMES, INC.
 6086 Marshalee Drive
 Elkridge, Md. 21075
 410-766-0960

OWNER/DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 COLUMBIA MD, 21042
 443-367-0415

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

P.E. NO.:
 SIGNATURE: _____ DATE: _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

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

Signature of Developer: *Donald P. Reaver, Jr.* DATE: 1/31/07
 PRINTED NAME OF DEVELOPER: Donald P. Reaver, Jr.

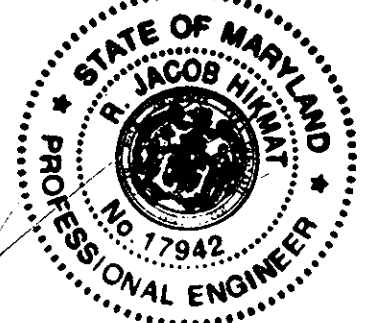
BY THE ENGINEER:
 "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED 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: *R. J. Kama* DATE: 1/31/07
 PRINTED NAME OF ENGINEER: R. J. Kama

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
 USDA - NATURAL RESOURCES CONSERVATION SERVICE DATE: 2/27/07

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD SOIL CONSERVATION DISTRICT DATE: 2/27/07

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division DATE: 3.1.7
 Chief, Division of Land Development DATE: 5/23/10
 Director DATE: 5/25/10



- LEGEND**
- WETLANDS
 - FOREST CONSERVATION EASEMENT (REFORESTATION)
 - FOREST CONSERVATION EASEMENT (RETENTION)
 - PUBLIC 100-YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT NO WOODY BUFFER
 - EROSION CONTROL MATTING
 - STEEP SLOPES (25% OR GREATER)
 - STEEP SLOPES (15% - 25%)
 - PUBLIC WATER AND UTILITY EASEMENT
 - EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
 - SWM MAINTENANCE ACCESS
 - RECREATIONAL OPEN SPACE
 - CREDITED OPEN SPACE
 - EXTERIOR LIGHT FIXTURE
 - STABILIZED CONSTRUCTION ENTRANCE
 - SUPER SILT FENCE
 - LIMIT OF DISTURBANCE
 - EXISTING TREES
 - FOREST CONSERVATION SIGNAGE
 - EXISTING TREELINE
 - PROPOSED TREELINE

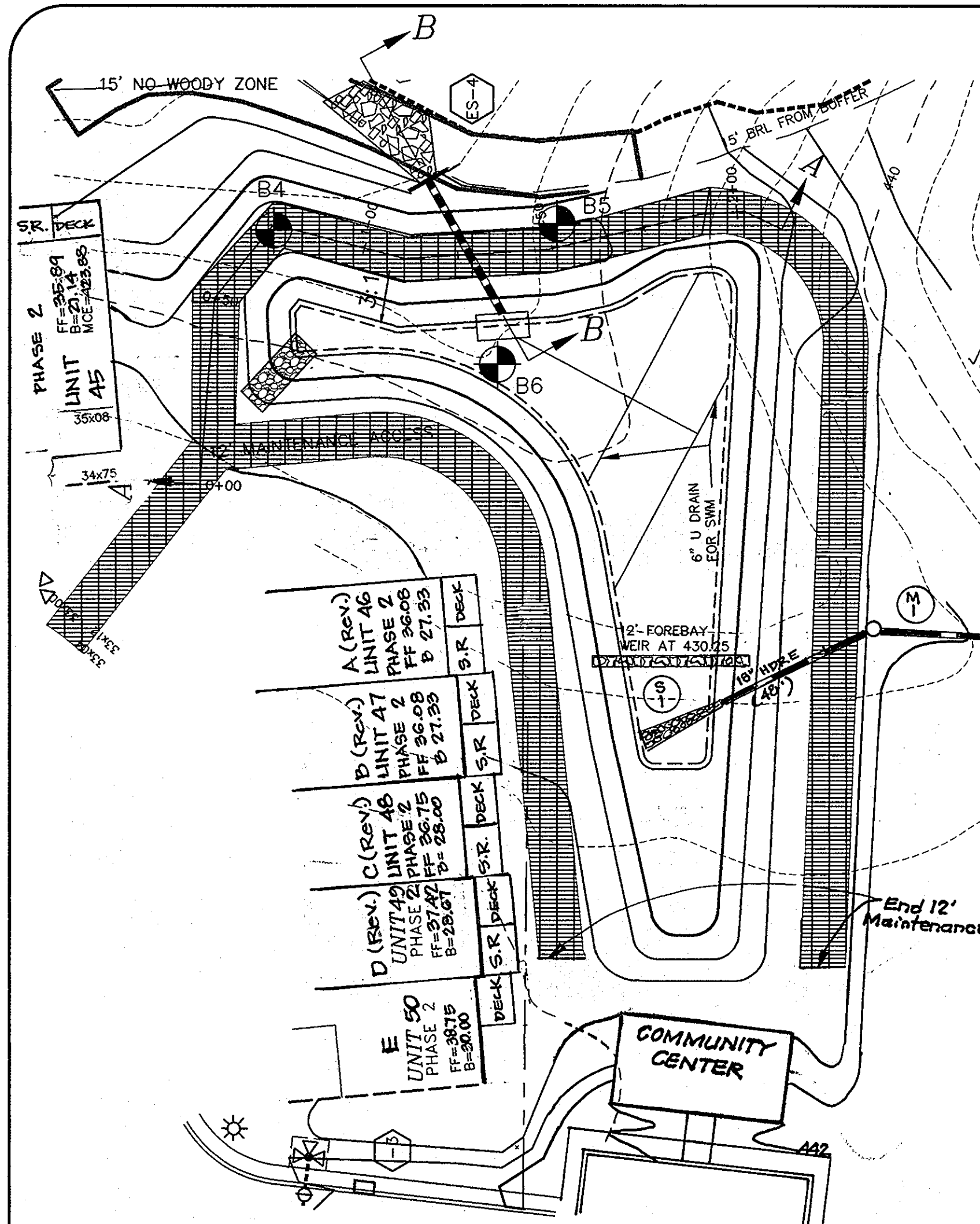
Project	04-021	date	FEB 2007
Illustration	JJO	engineering	CRE
Scale	1" = 30'	approval	JBM

Prepared by	R.C.C., Inc.	date	1-9-08
Checked by		revisions	
Drawn by		description	
Reviewed by			

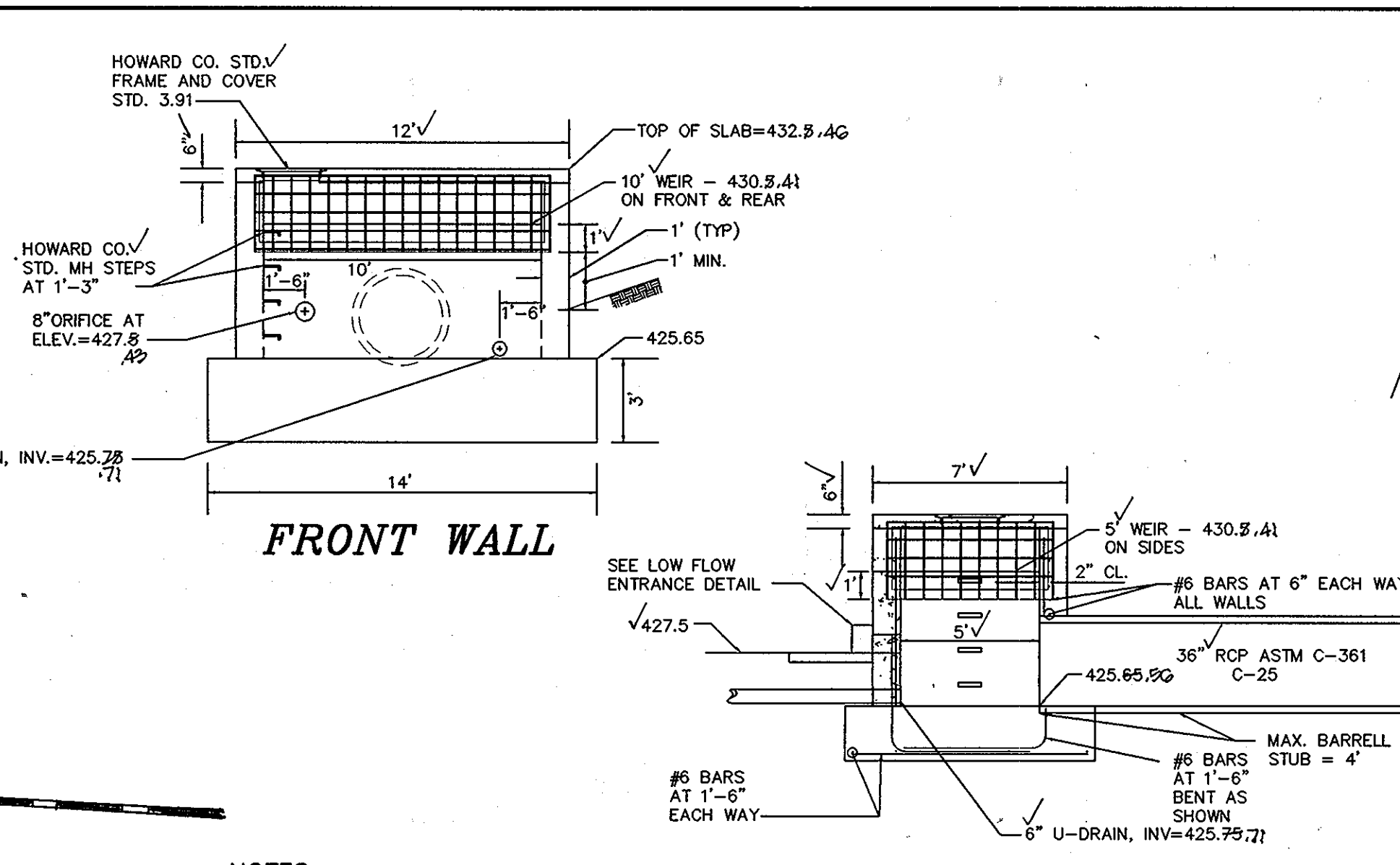
HEARTHSTONE AT ELLCOTT MILLS II, PARCELS A & B, PHASE I
 AGE RESTRICTED ADULT HOUSING
 TAX MAP 31 PARCELS 36 AND 20
 HOWARD COUNTY, MARYLAND
 SECOND ELECTION DISTRICT

SITE DEVELOPMENT AND SEDIMENT CONTROL PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
 (410) 997-0296 Fax: (301) 821-5521 Wash. (410) 997-0296 Fax.



SWM POND - 1 PLAN
SCALE: 1"=30'



FRONT WALL

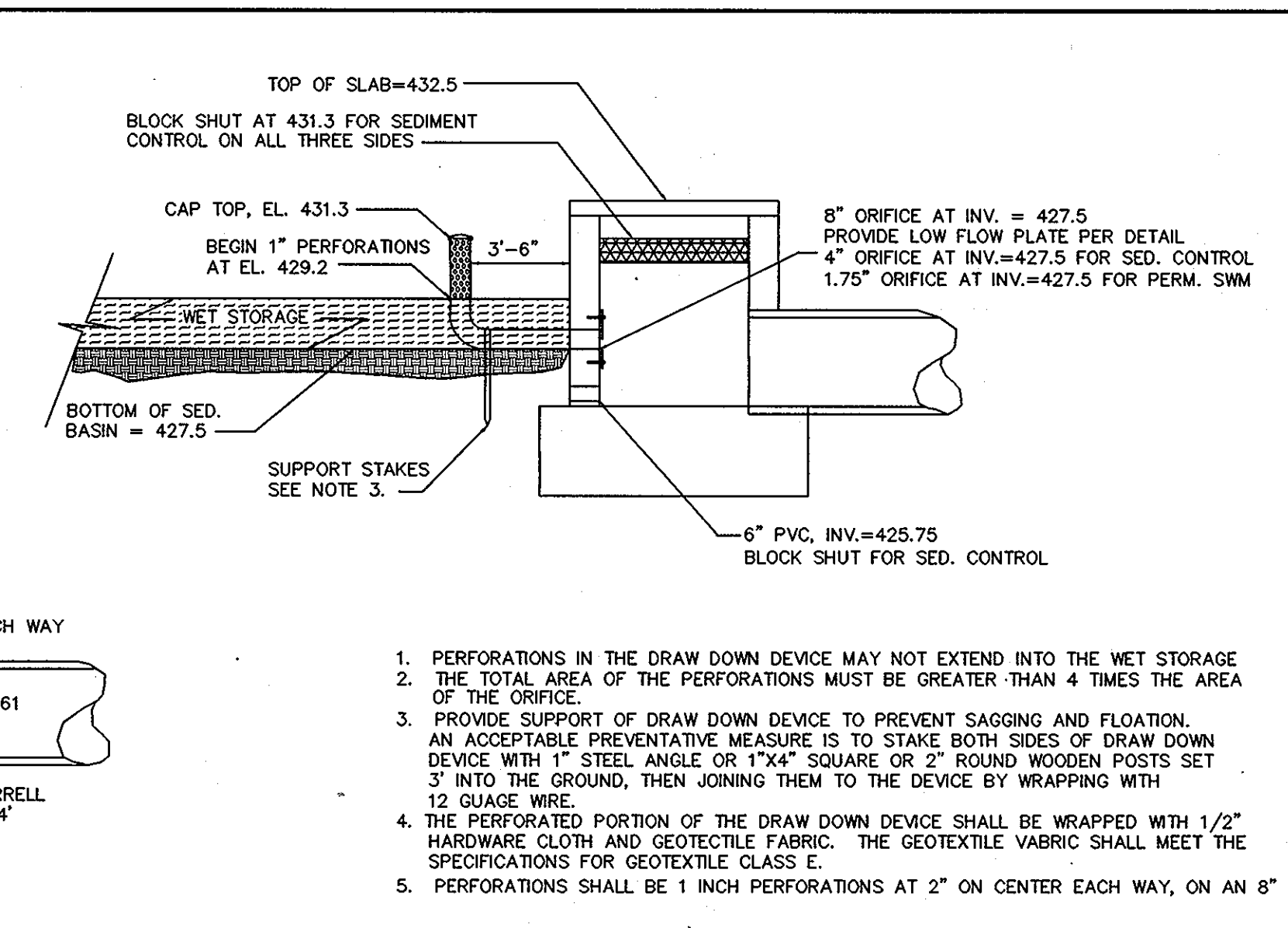
SECTION

- NOTES:**
1. ALL CONNECTIONS MUST BE WATERTIGHT WITH PREFORMED DUMBBELL SHAPED WATERSTOPS.
 2. MAXIMUM BARRELL STUB LENGTH IS 4 FEET.

SWM RISER STRUCTURE
SCALE: 1"=5'

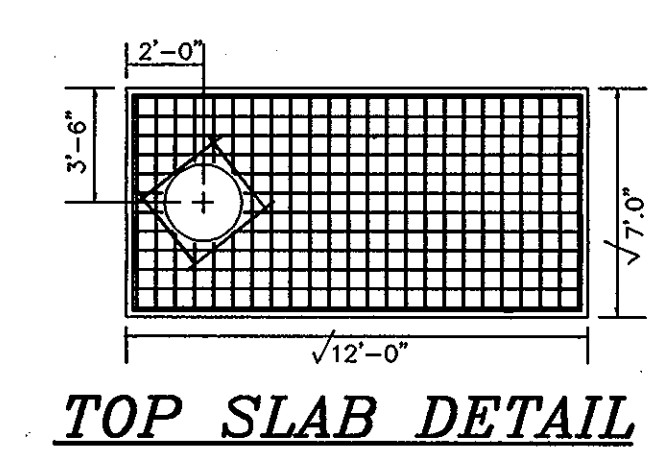
SEDIMENT BASIN: STORMWATER MANAGEMENT
(SHEET 2 OF 16)

WQV REQ'D = 21,206 CU. FT. (TOTAL SITE)
 WQV PROVIDED = 52,759 AC. FT. (THIS SWMF)
 REV REQ'D = 4,453 CU. FT. (TOTAL SITE)
 REV PROVIDED = 2,305 CU. FT. (THIS SWMF)
 CPV PEAK Q = 0.13 CFS
 CPV WSEL = 430.1
 QP 10 = 17.0 CFS
 QP 100 = 27.7 CFS
 10 YR. WSEL = 430.9
 100 YR. WSEL = 431.0
 THIS FACILITY IS A CLASS A SWMF
 PRIVATELY OWNED AND MAINTAINED
 REVISIONS PROVIDED BY STONE TRENCH
 BELOW THE UNDERDRAIN ELEV.

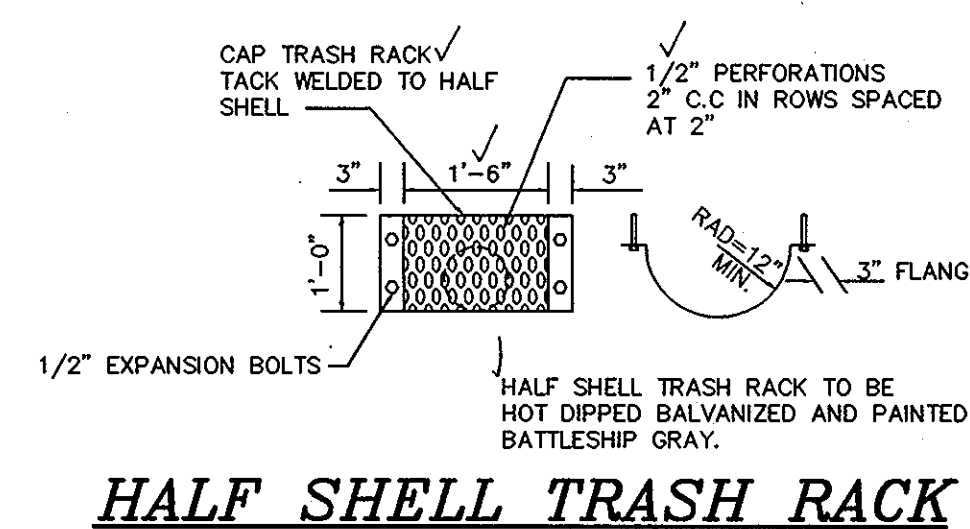


TEMPORARY DEWATERING STANDPIPE
SCALE: 1"=5'

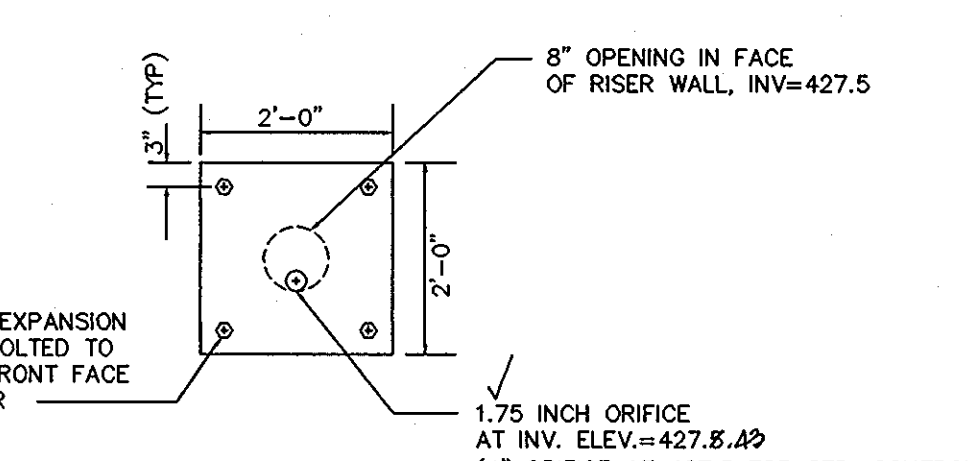
1. PERFORATIONS IN THE DRAW DOWN DEVICE MAY NOT EXTEND INTO THE WET STORAGE.
2. THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 4 TIMES THE AREA OF THE ORIFICE.
3. PROVIDE SUPPORT OF DRAW DOWN DEVICE TO PREVENT SAGGING AND FLOATATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW DOWN DEVICE WITH 1" STEEL ANGLE OR 1"x4" SQUARE OR 2" ROUND WOODEN POSTS SET 3' INTO THE GROUND, THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE WIRE.
4. THE PERFORATED PORTION OF THE DRAW DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
5. PERFORATIONS SHALL BE 1 INCH PERFORATIONS AT 2" ON CENTER EACH WAY, ON AN 8" PVC.



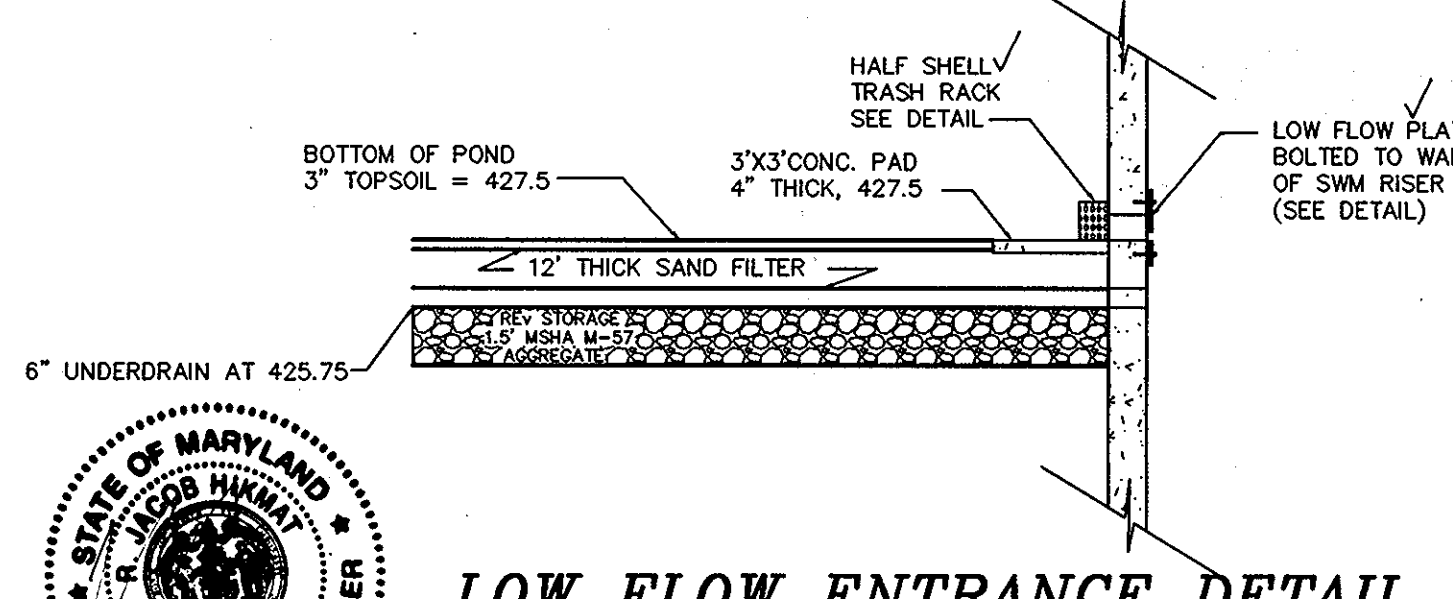
TOP SLAB DETAIL



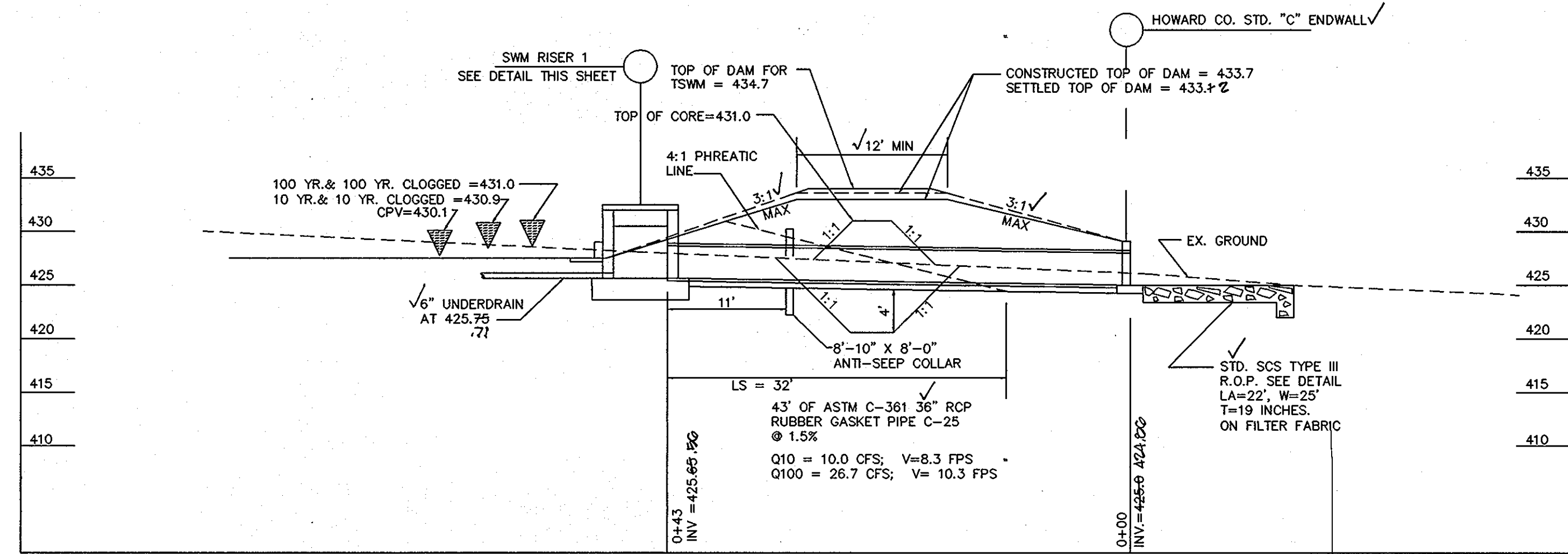
HALF SHELL TRASH RACK



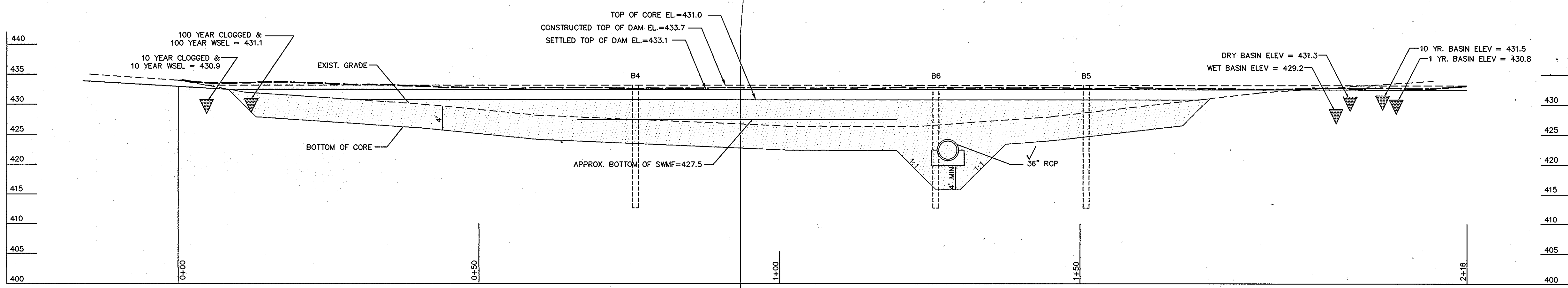
LOW FLOW PLATE



LOW FLOW ENTRANCE DETAIL



PRINCIPLE SPILLWAY PROFILE SECTION B-B
SCALE: 1"=10'



CENTERLINE DAM PROFILE SECTION A-A
SCALE: 1"=10'



BUILDER
 RYAN HOMES, INC.
 6085 Marshalee Drive
 Elkridge, Md. 21075
 410-796-0980

OWNER
 ELLICOTT CITY LAND HOLDING, INC.
 5900 DORSEY HALL DRIVE, SUITE 102
 ELLICOTT CITY, MD. 21042
 443-267-0415

DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 COLUMBIA, MD. 21042
 443-367-0415

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.
 SIGNATURE: *Donald R. DeWitt* P.E. NO.: 13264 DATE: 5/11/12

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES THE ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENTATION BEFORE BEGINNING CONSTRUCTION. 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. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

BY THE ENGINEER:
 I 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 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: *Donald R. DeWitt* DATE: 1/31/07
 PRINTED NAME OF ENGINEER: Donald R. DeWitt, Jr.

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
 SIGNATURE: *Jim Munn* DATE: 2/22/07
 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: *John J. Hixmat* DATE: 2/27/07
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 SIGNATURE: *Paul Edmondson* DATE: 3-1-07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

SIGNATURE: *John J. Hixmat* DATE: 5/23/07
 CHIEF, DIVISION OF LAND DEVELOPMENT
 SIGNATURE: *Frankie R. Gayle* DATE: 5/25/07
 DIRECTOR

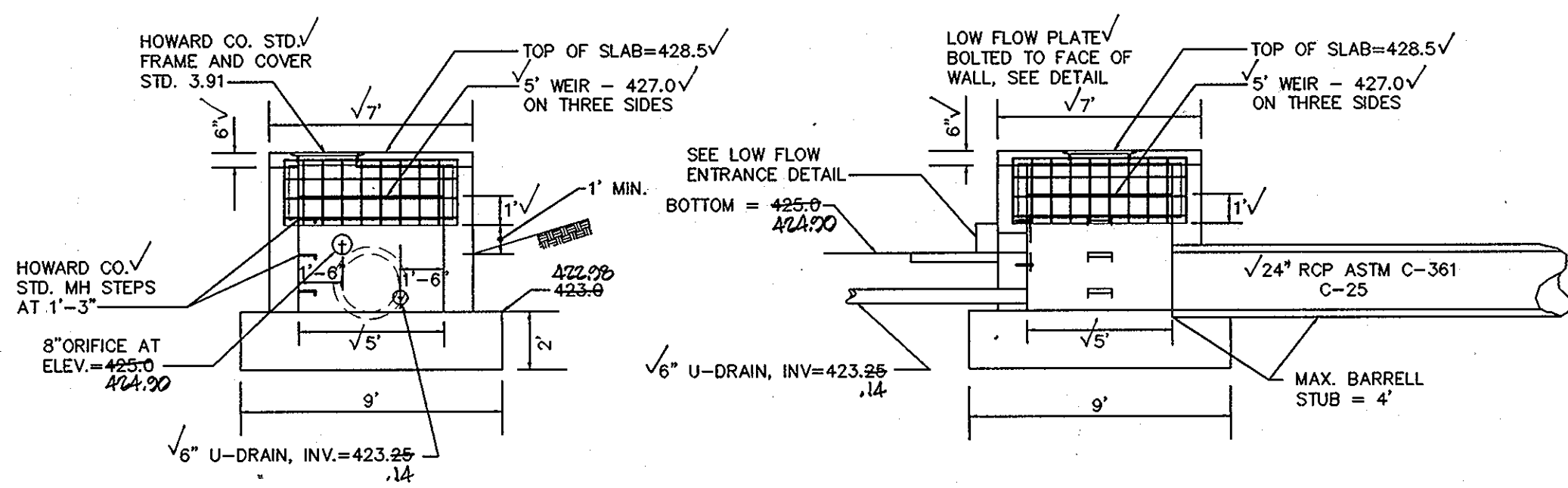
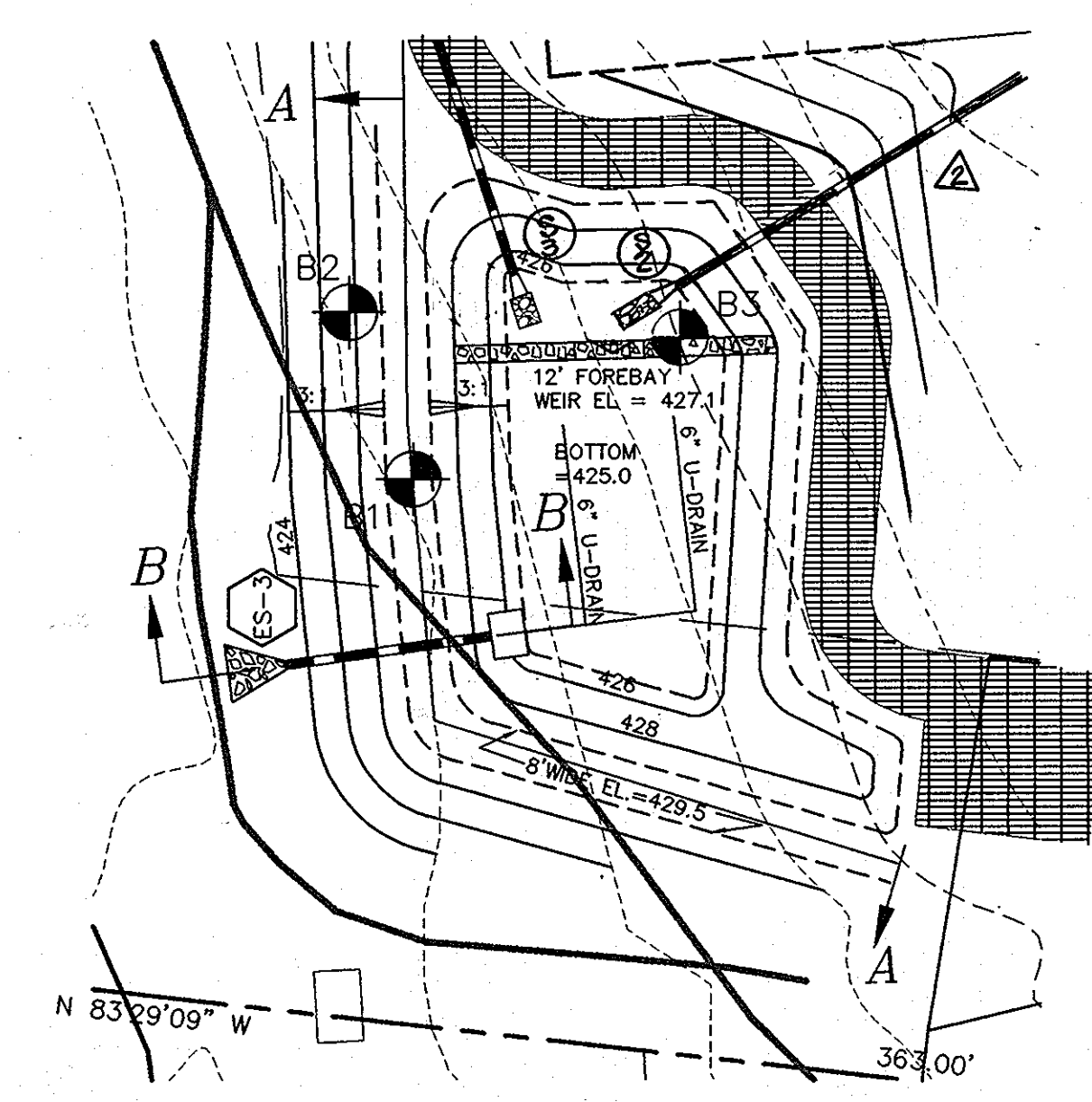
"AS BUILT"

Project	Date	By	Approval
04-021	FEB 2007	JBM	JBM
JBM	JBM	JBM	JBM
JBM	JBM	JBM	JBM
JBM	JBM	JBM	JBM

UPPER PHASE UNITS ASSOCIATED DATA BY FCC, INC.
 5-8-08
 Rev. Owner: Developer, Builder & Comm. Center/Decision by F.C.C., Inc.
 1-9-08
 JBM

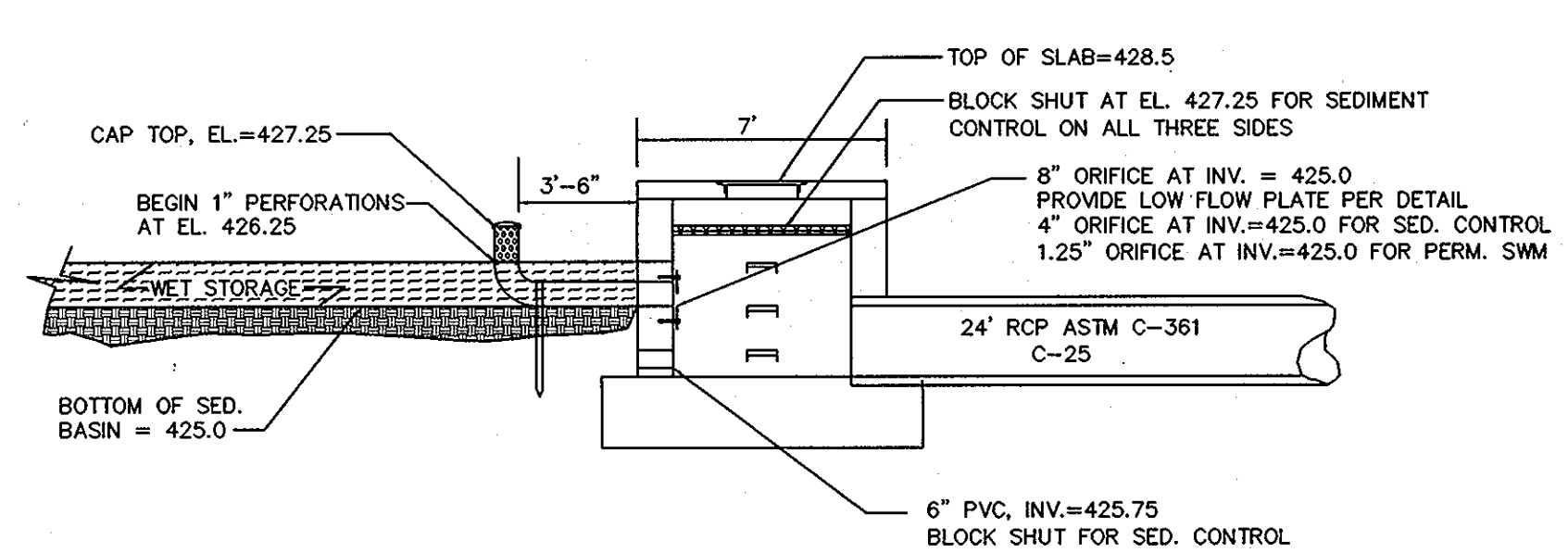
HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I, AGE RESTRICTED ADULT HOUSING
 TAX MAP 31 PARCELS 36 & 20
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 STORMWATER MANAGEMENT DETAILS SWMF-1

MILDENBERG, BOENDER & ASSOC., INC.
 Surveyors
 Engineers Planners
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0236 Balt. (301) 621-5521 Wash. (410) 997-0238 Fax.



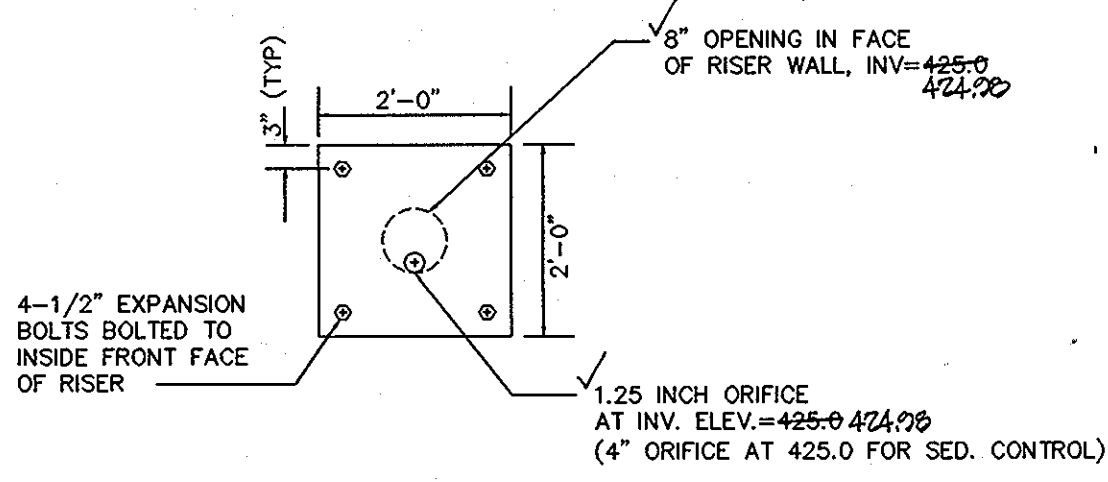
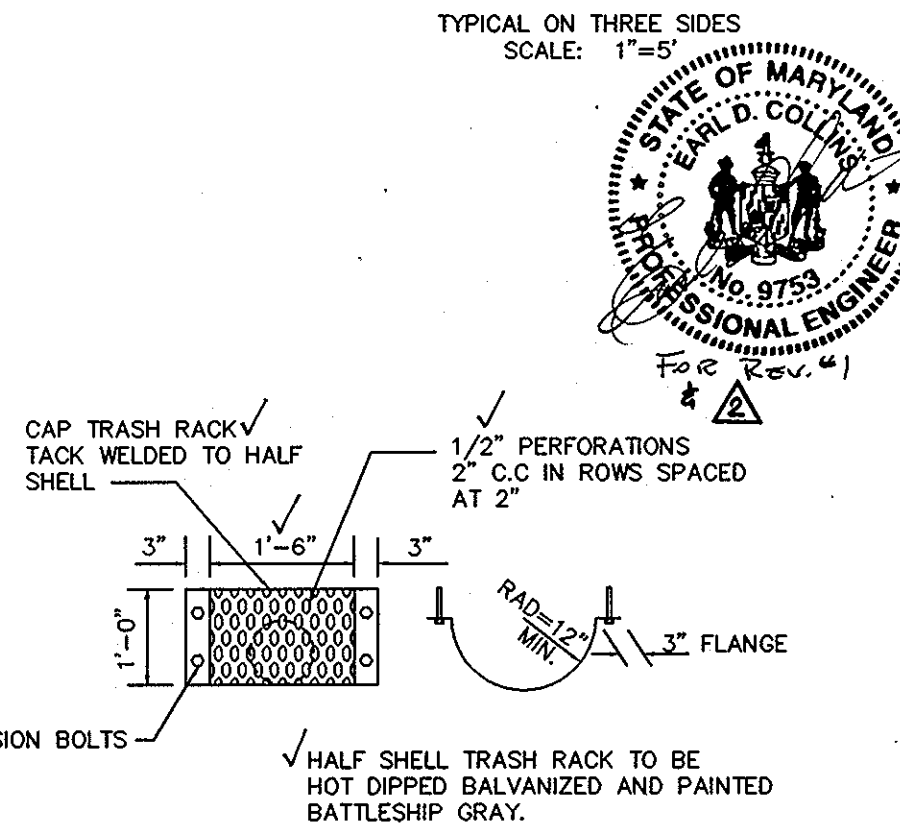
SWM RISER STRUCTURE
SCALE: 1"=5'

- NOTES:**
- ALL CONNECTIONS MUST BE WATERTIGHT WITH PREFORMED DUMBELL SHAPED WATERSTOPS.
 - MAXIMUM BARRELL STUB LENGTH IS 4 FEET.

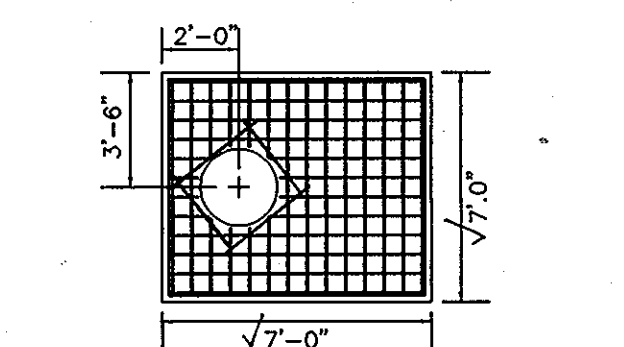


- PERFORATIONS IN THE DRAW DOWN DEVICE MAY NOT EXTEND INTO THE WET STORAGE OF THE ORIFICE.
- THE TOTAL AREA OF THE PERFORATIONS MUST BE GREATER THAN 4 TIMES THE AREA OF THE ORIFICE.
- PROVIDE SUPPORT OF DRAW DOWN DEVICE TO PREVENT SAGGING AND FLOATATION. AN ACCEPTABLE PREVENTATIVE MEASURE IS TO STAKE BOTH SIDES OF DRAW DOWN DEVICE WITH 1" STEEL ANGLE OR 1"x4" SQUARE OR 2" ROUND WOODEN POSTS SET 3' INTO THE GROUND, THEN JOINING THEM TO THE DEVICE BY WRAPPING WITH 12 GAUGE WIRE.
- THE PERFORATED PORTION OF THE DRAW DOWN DEVICE SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH AND GEOTEXTILE FABRIC. THE GEOTEXTILE FABRIC SHALL MEET THE SPECIFICATIONS FOR GEOTEXTILE CLASS E.
- PERFORATIONS SHALL BE 1 INCH PERFORATIONS AT 2" ON CENTER EACH WAY, ON AN 8" PVC.

ELEVATION OF TRASH RACK
TYPICAL ON THREE SIDES
SCALE: 1"=5'



LOW FLOW PLATE

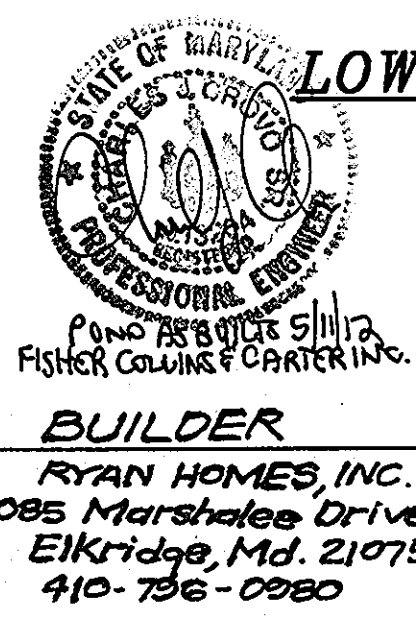
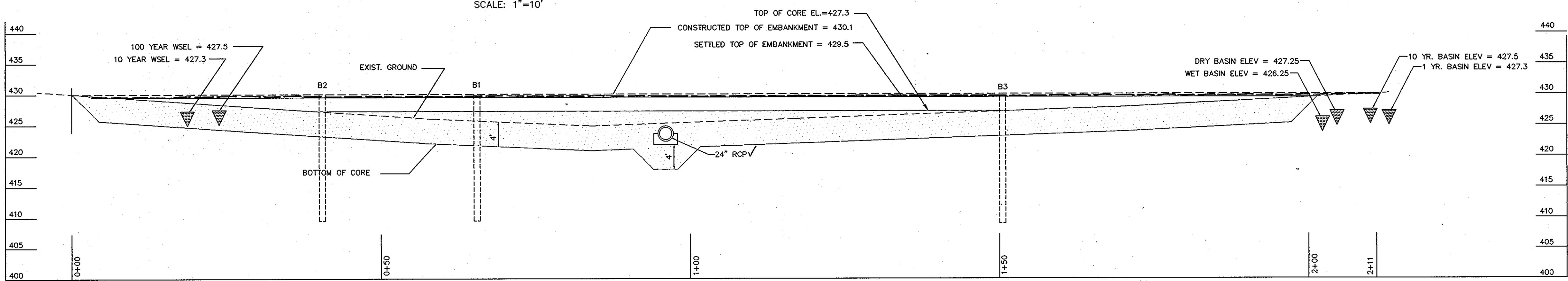
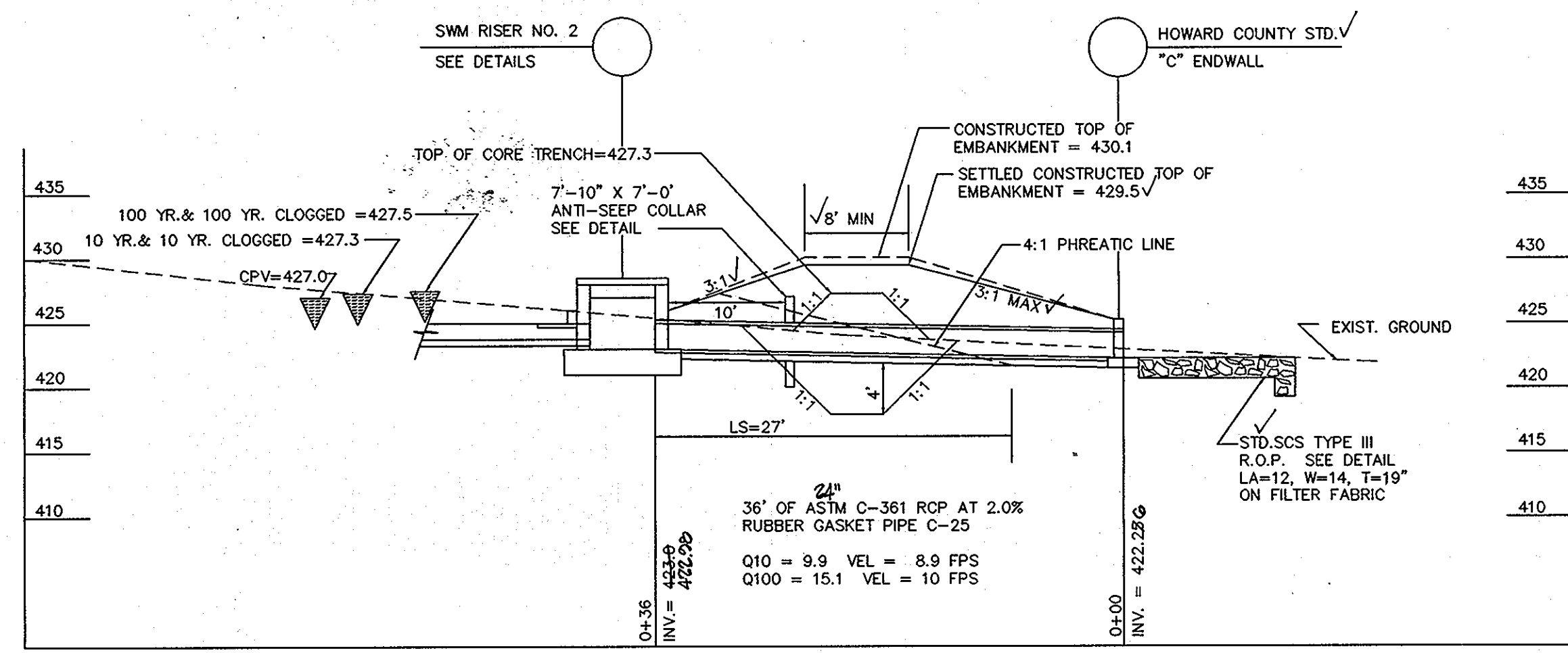


TOP SLAB DETAIL

SEDIMENT BASIN: STORMWATER MANAGEMENT
(SHEET 2 OF 16)

DRAINAGE AREA = 1.95 AC.
 STORAGE REQUIRED = 7,020 FT.
 STORAGE PROVIDED = 7,515 @ EL. 427.25
 WET STORAGE = 3,655 CU. FT. AT 426.25
 DRY STORAGE = 3,860 CU. FT. AT 427.25
 CLEANOUT ELEV. = 425.6
 PERM. POOL ELEV. = 426.25
 CONSTRUCTED TOP OF DAM ELEV. = 432.5
 PRINCIPLE SPILLWAY ELEV. = 432.25
 OUTLET ELEV. = 426.25
 PRE-DISTURBANCE DRAINAGE AREA = 0.42 AC.
 POST-DISTURBANCE DRAINAGE AREA = 1.95 AC.
 $Q_{10} = 5.0$ CFS (FOR TSWM)
 $Q_{100} = 3.7$ CFS (FOR TSWM)

WOV REQ'D = 21,206 CU. FT. (TOTAL SITE)
 WOV PROV'D = 19,050 AC. FT. (THIS SWMF)
 REV REQ'D = 4,453 CU. FT. (TOTAL SITE)
 CPV PEAK Q = 0.28 CFS
 CPV WSEL = 427.0
 QP 10 = 9.9 CFS
 QP 100 = 15.1 CFS
 10 YR. WSEL = 427.3
 100 YR. WSEL = 427.5
 THIS FACILITY IS A CLASS A SWMF
 F-1 SAND FILTER
 PRIVATELY OWNED AND MAINTAINED
 REV IS PROVIDED BY STONE TRENCH
 BELOW THE UNDERDRAIN ELEV.



OWNER
ELLICOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLICOTT CITY, MD. 21042
443-367-0415

DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
COLUMBIA MD, 21042
443-367-0415

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

OWNER: Donald R. Reamer, Jr. DATE: 1/31/07

DEVELOPER: [Signature] DATE: 1/31/07

ENGINEER: [Signature] DATE: 1/31/07

HOWARD SOIL CONSERVATION DISTRICT: [Signature] DATE: 2/27/07

APPROVED: [Signature] DATE: 3-1-7

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

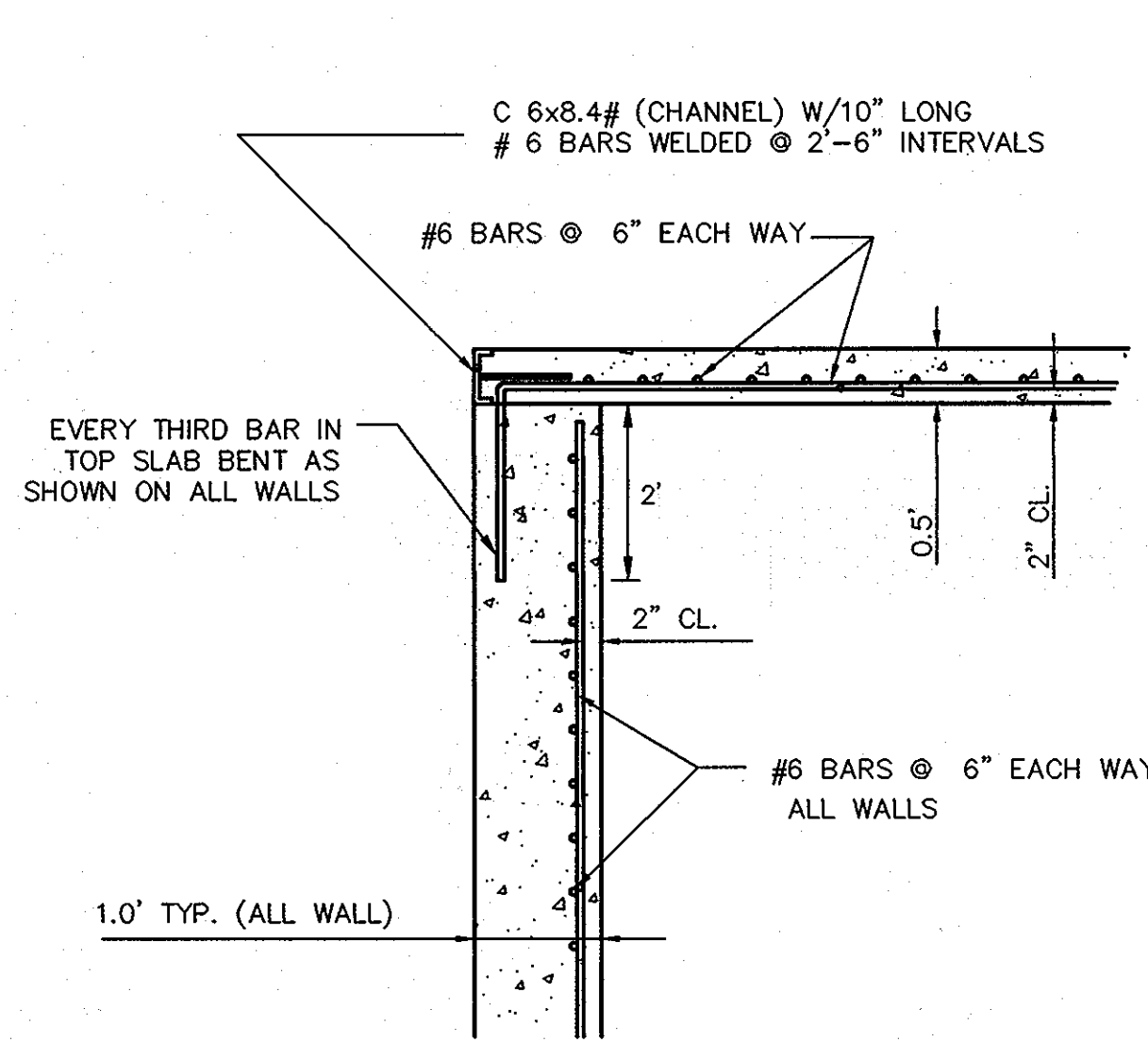
DIRECTOR

Project	04-021	Date	FEB 2007
Illustration	JBM	Engineering	JBM
Scale	JBM	Approval	JBM
Date	1/9-08	AS SHOW	JBM

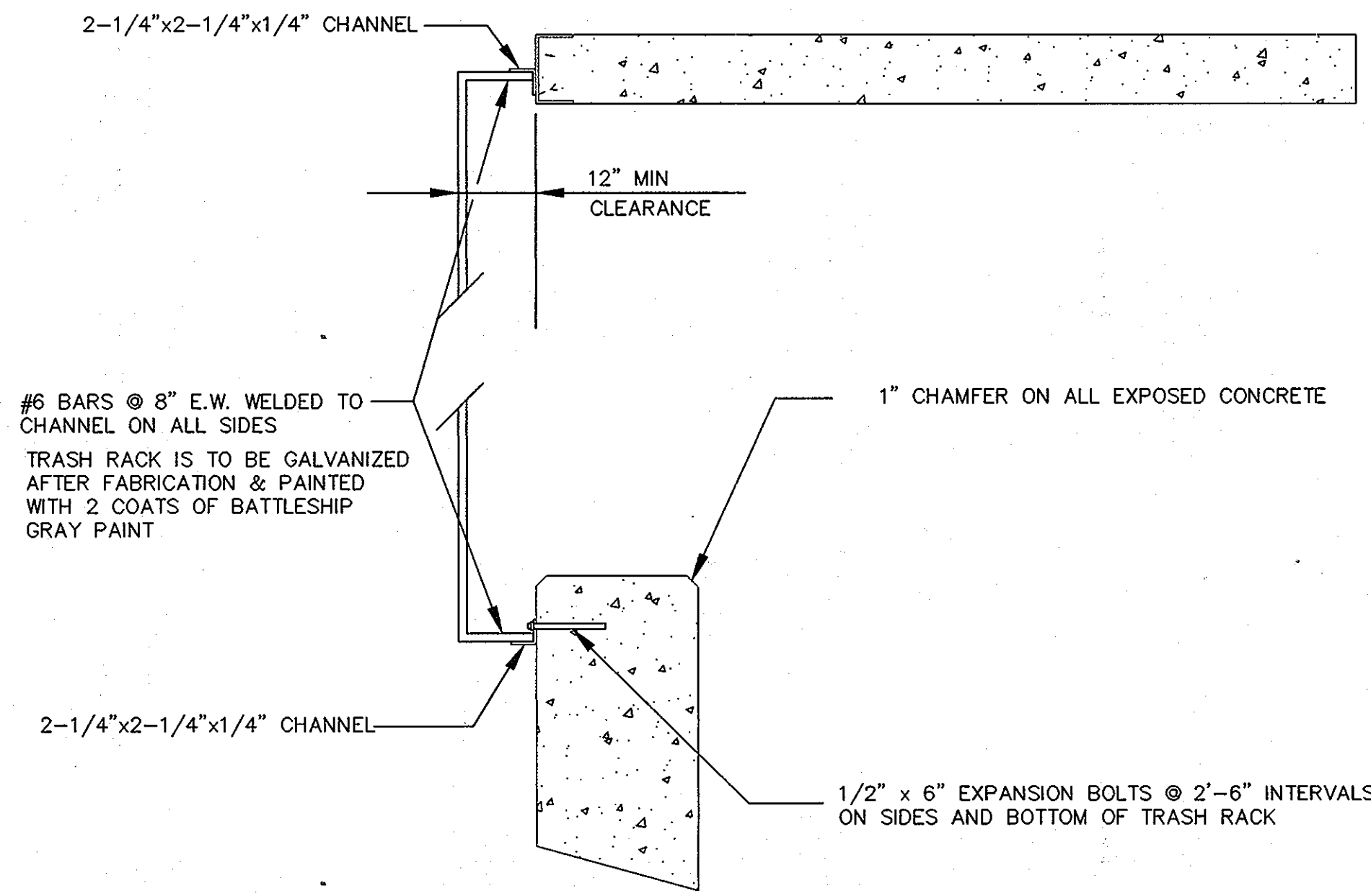
Update	PHILIP UNITS & ASSOCIATED DATA BY FCC, INC.	Date	1-9-08
By	Rev. Owner/Developer and Builder	Scale	AS SHOWN
Revisions		Date	

HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I, PHASE II
AGE RESTRICTED ADULT HOUSING
TAX MAP 31 PARCELS 96 & 20
HOWARD COUNTY, MARYLAND
SECOND ELECTION DISTRICT
STORMWATER MANAGEMENT DETAILS SWMF-2

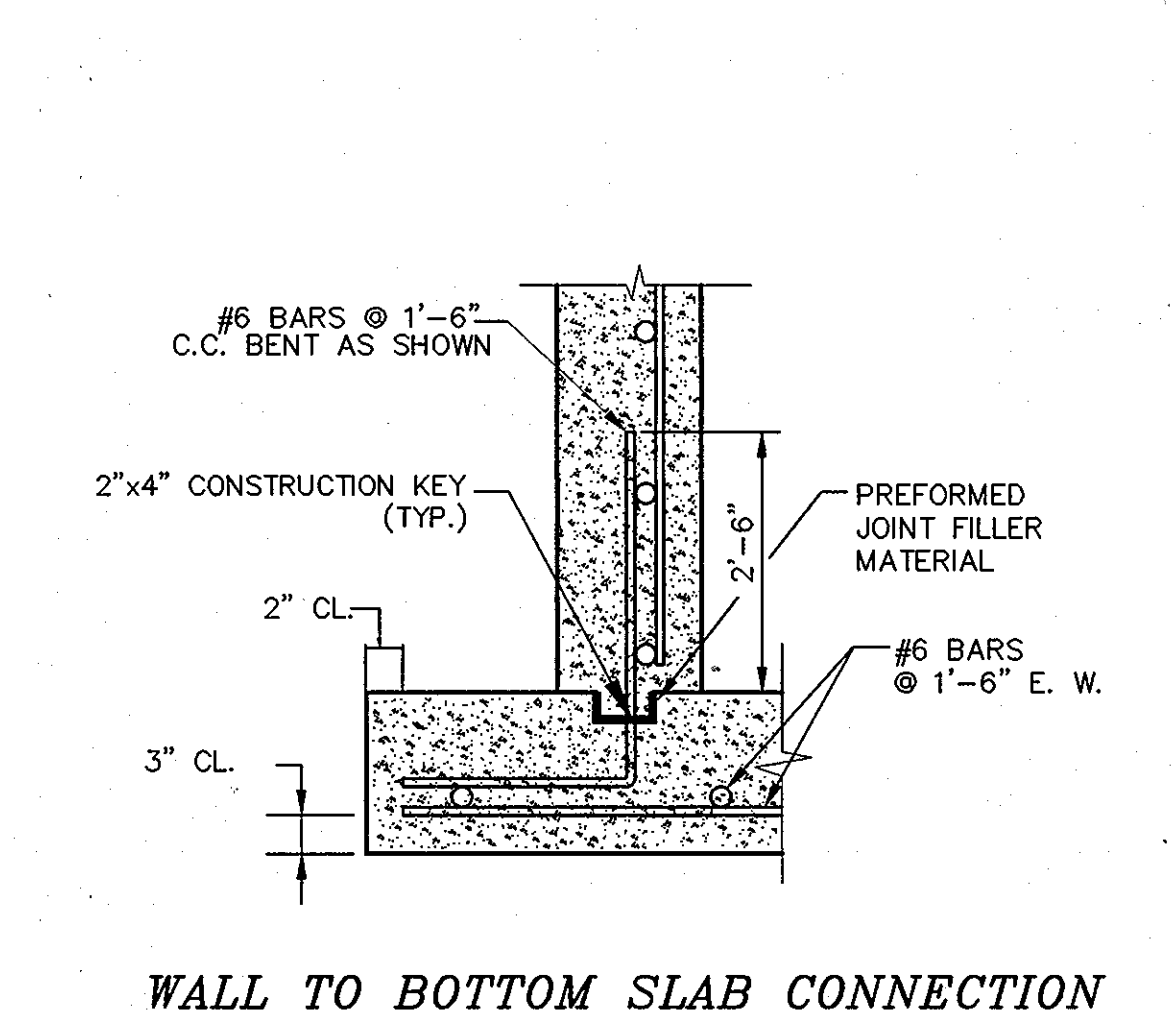
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5092 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 987-0286 Fax: (410) 621-5521 Wash. (410) 987-0288 Fax



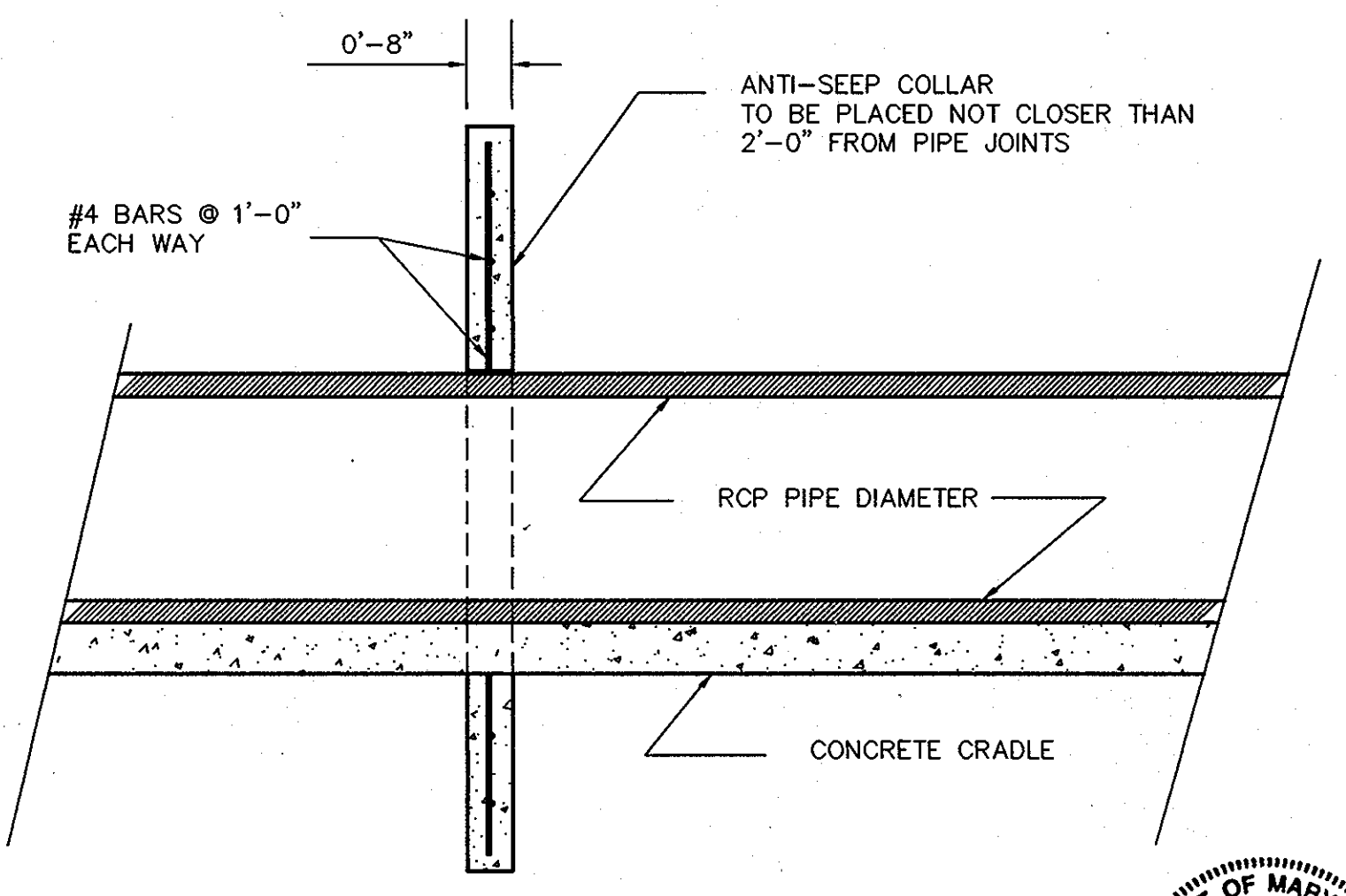
DETAIL B
N.T.S.



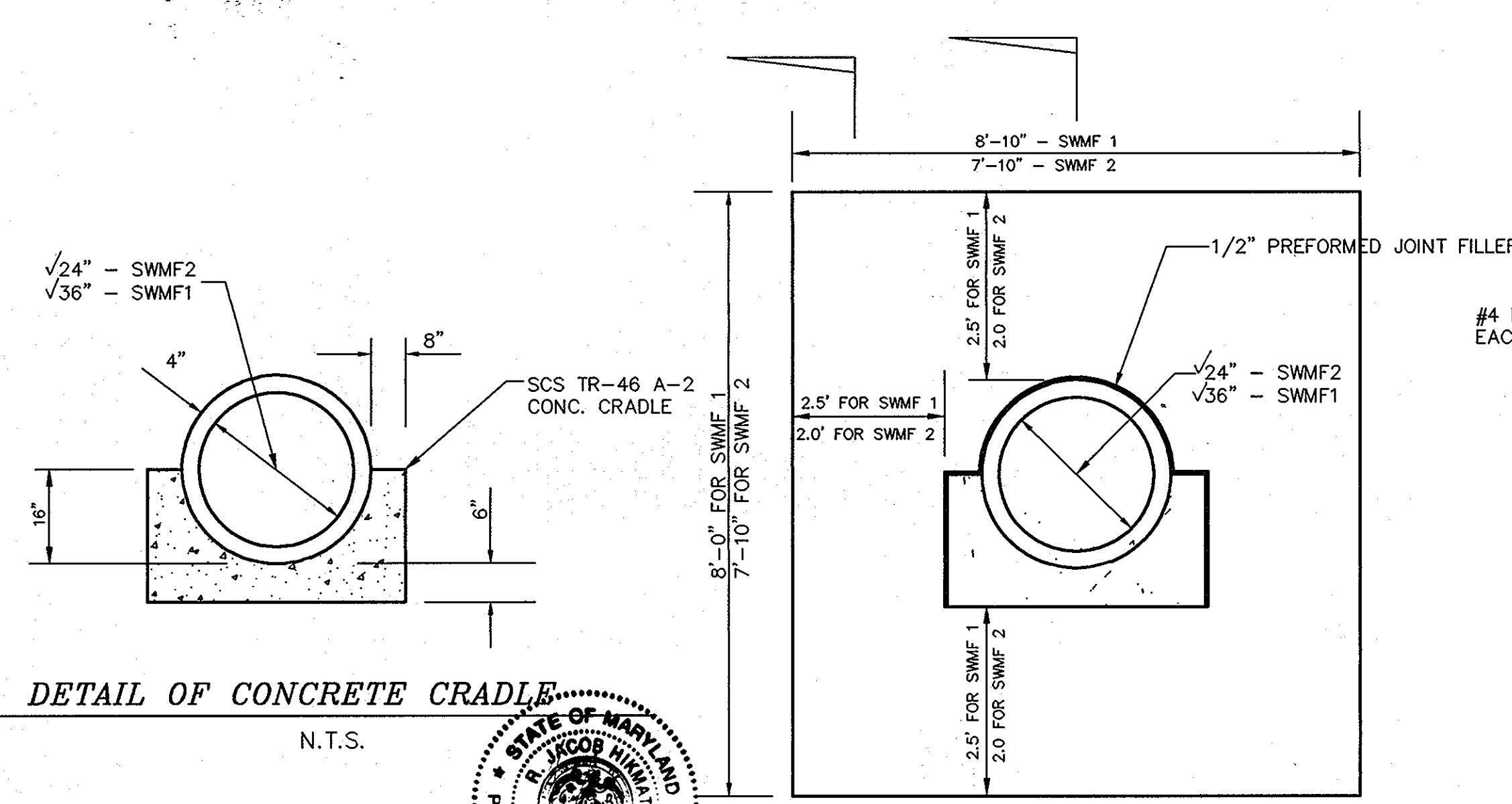
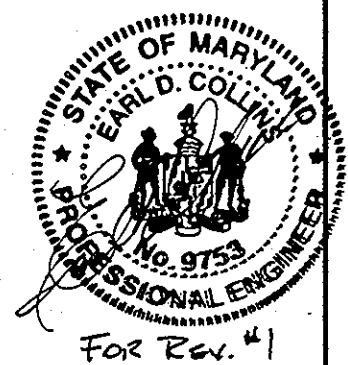
SECTION 3
N.T.S.



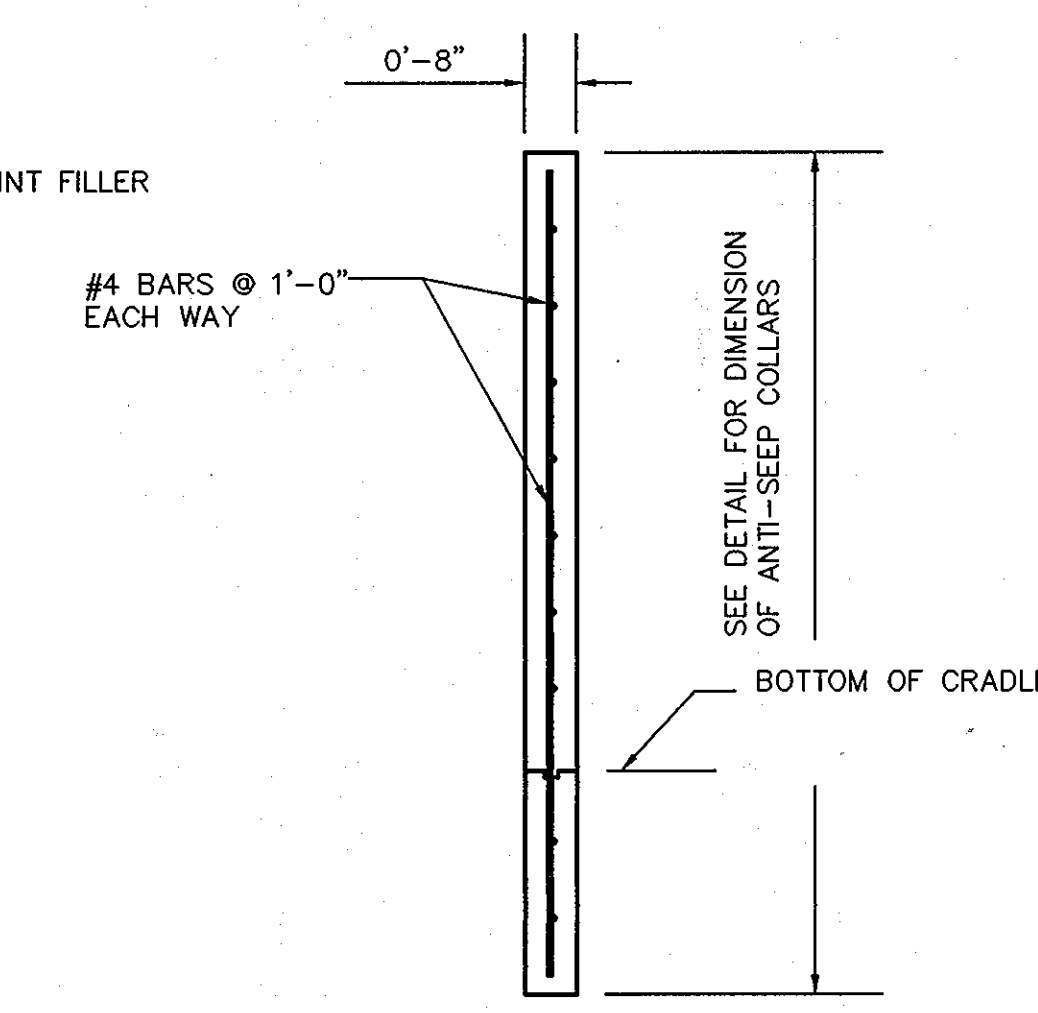
WALL TO BOTTOM SLAB CONNECTION
DETAIL
N.T.S.



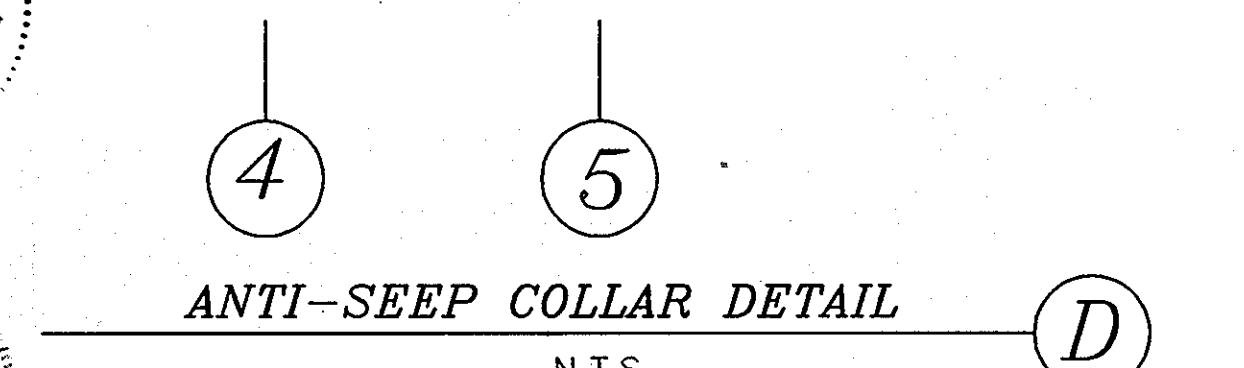
SECTION 5
N.T.S.



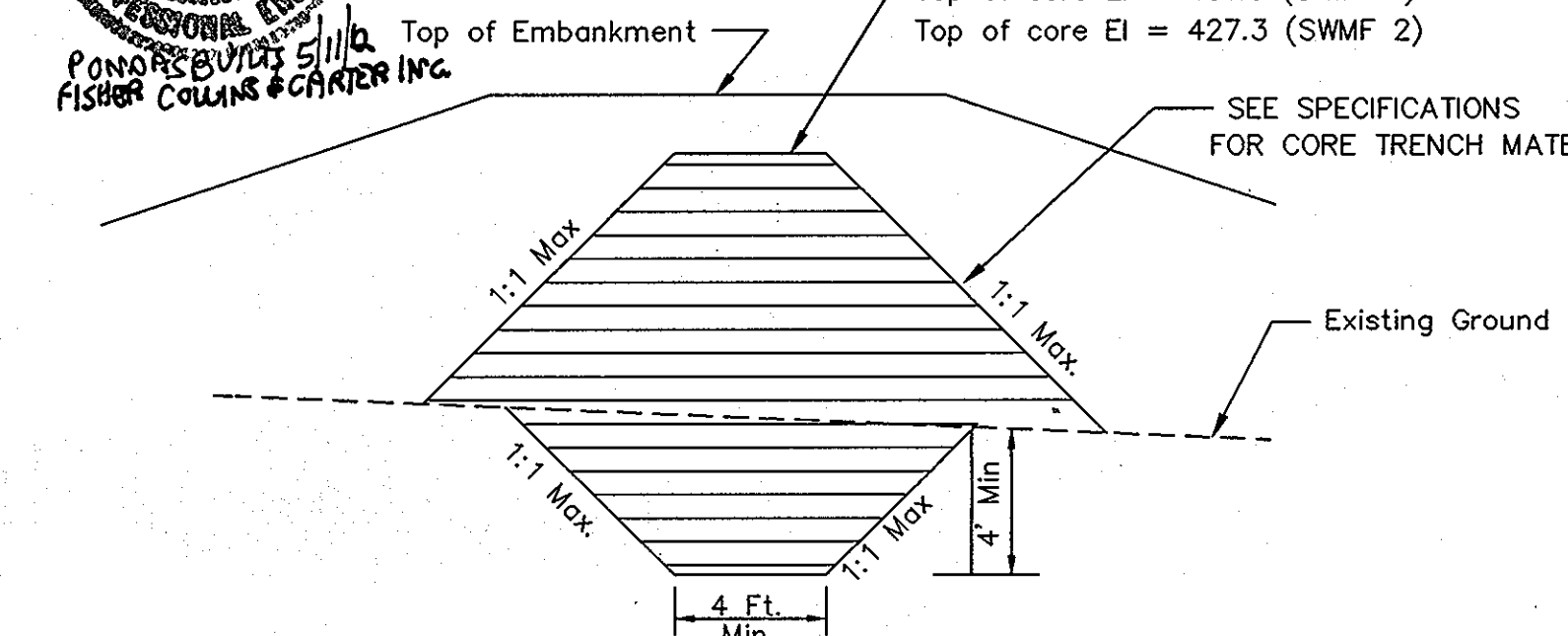
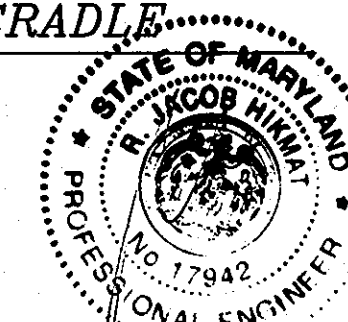
DETAIL OF CONCRETE CRADLE
N.T.S.



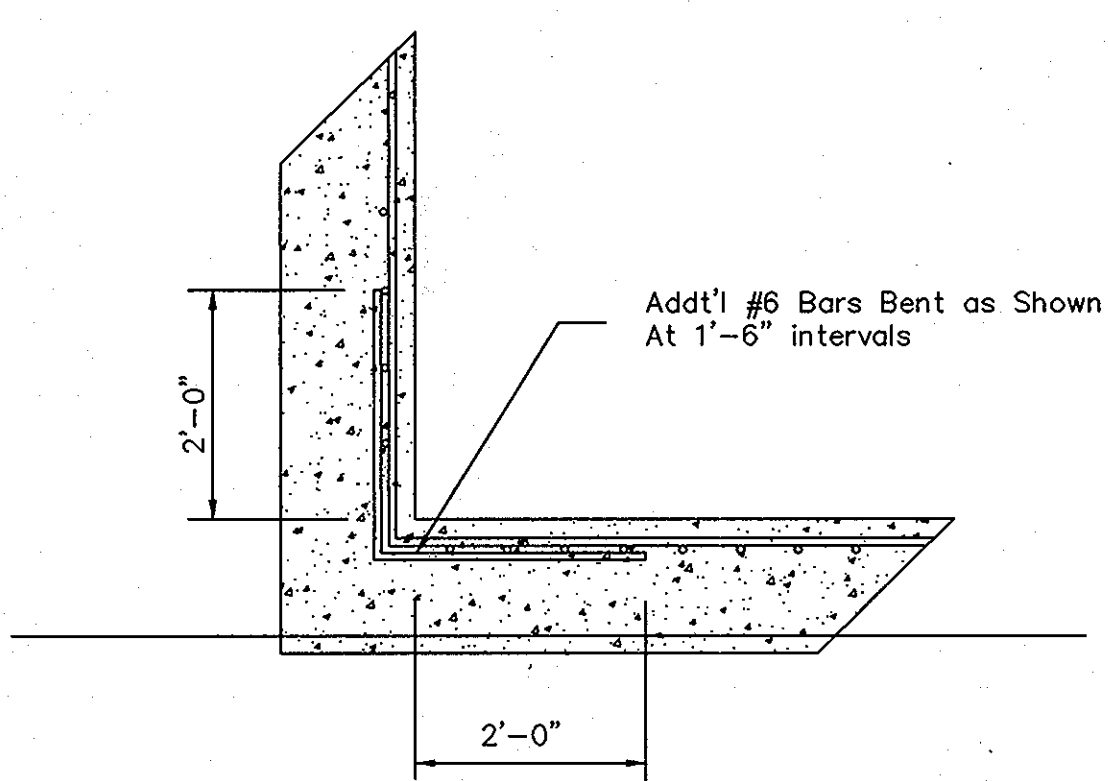
SECTION 4
N.T.S.



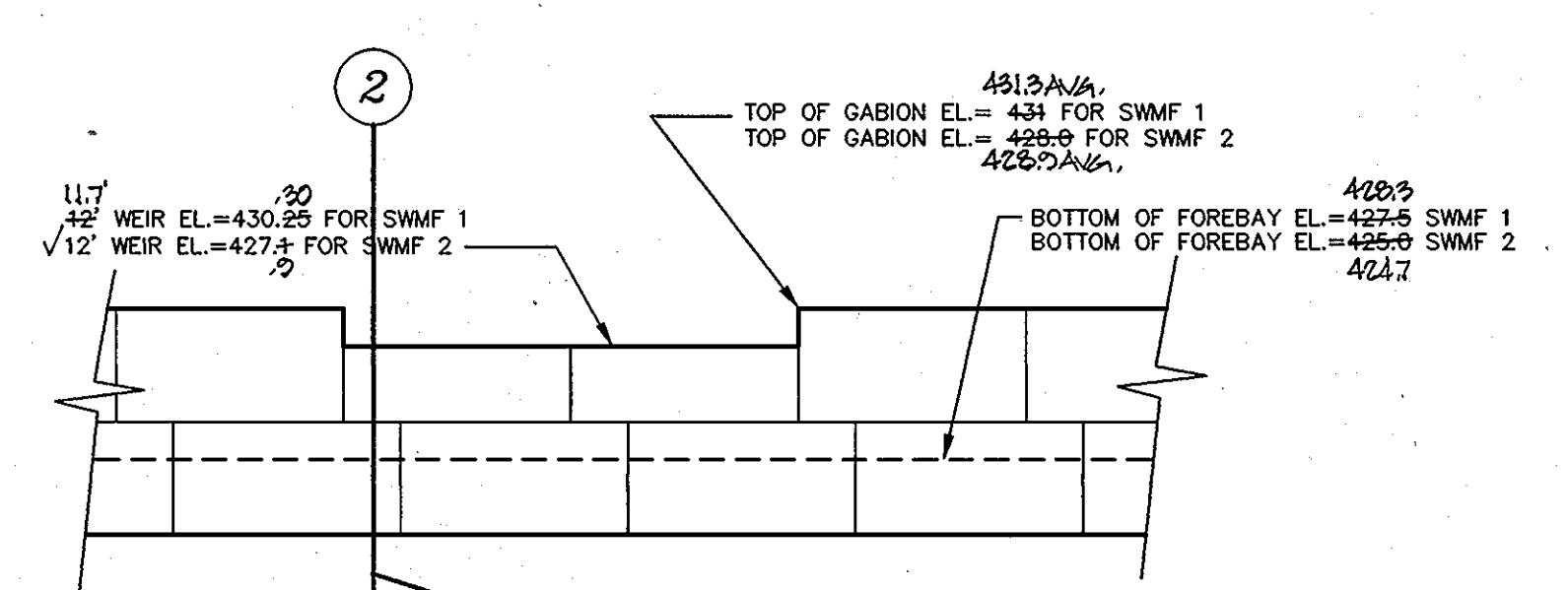
ANTI-SEEP COLLAR DETAIL
N.T.S.



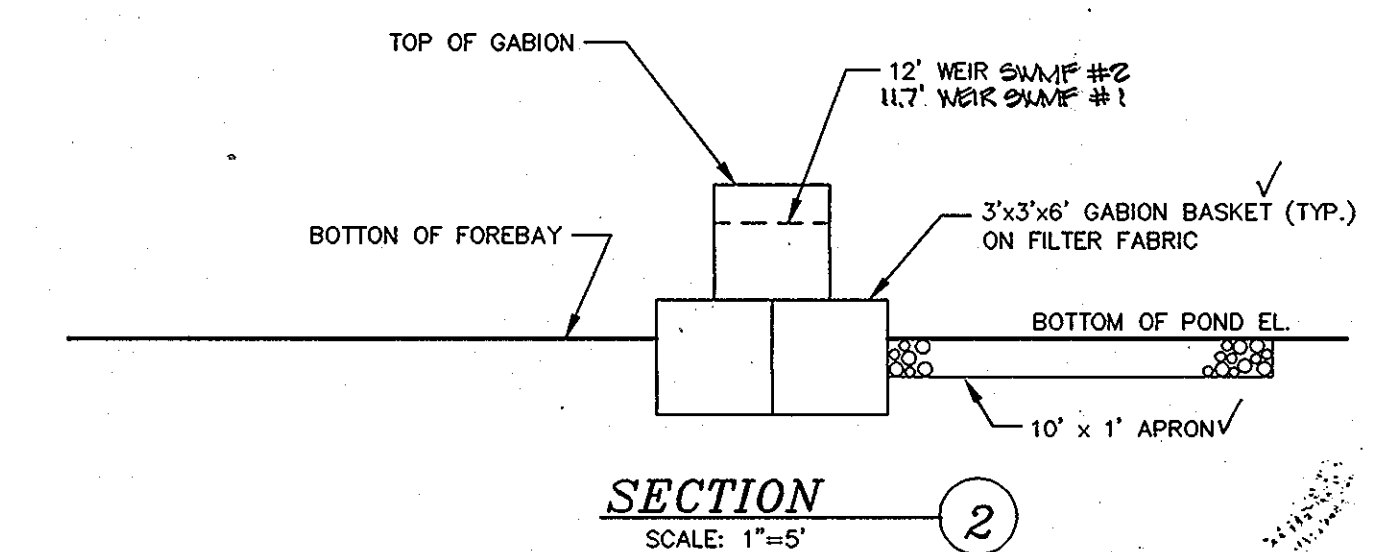
CORE TRENCH DETAIL
N.T.S.



CORNER TREATMENT DETAIL
N.T.S.



WEIR PROFILE
SCALE: 1"=5'



SECTION 2
SCALE: 1"=5'

BUILDER
RYAN HOMES, INC.
6085 Marshalee Drive
Elkridge, Md. 21075
410-796-0980

OWNER/DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
COLUMBIA, MD. 21042
443-367-0415

AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
DATE: 5/11/02
SIGNATURE: [Signature]

CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE CONDUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND APPROPRIATE COMMUNITY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT IMPLY OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION HELD BY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMUNITY ACCEPTED INDUSTRY PRACTICES.

BY THE DEVELOPER:
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THESE PLANS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I SHALL OBTAIN A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND AREA TO DATE OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 1/31/01
SIGNATURE: Donald P. Reiner, Jr.
PRINTED NAME OF DEVELOPER: Donald P. Reiner, Jr.

BY THE ENGINEER:
I 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 ADVISED THE DEVELOPER THAT BEFORE MEET BEING A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND AREA TO DATE OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 1/31/01
SIGNATURE: R. Jacob Wilkoff
PRINTED NAME OF ENGINEER: R. Jacob Wilkoff

DATE: 2/27/02
SIGNATURE: [Signature]
NATURAL RESOURCES CONSERVATION SERVICE

DATE: 2/27/02
SIGNATURE: [Signature]
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS
DATE: [Signature]

APPROVED: DEPARTMENT OF PLANNING AND ZONING
DATE: 3-1-7
SIGNATURE: [Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 5/23/02
SIGNATURE: [Signature]
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 7/15/02
SIGNATURE: [Signature]
DIRECTOR

date	FEB 2007	approval	JBM
project	04-021	illustration	JBM
scale	JBM	AS SHOWN	

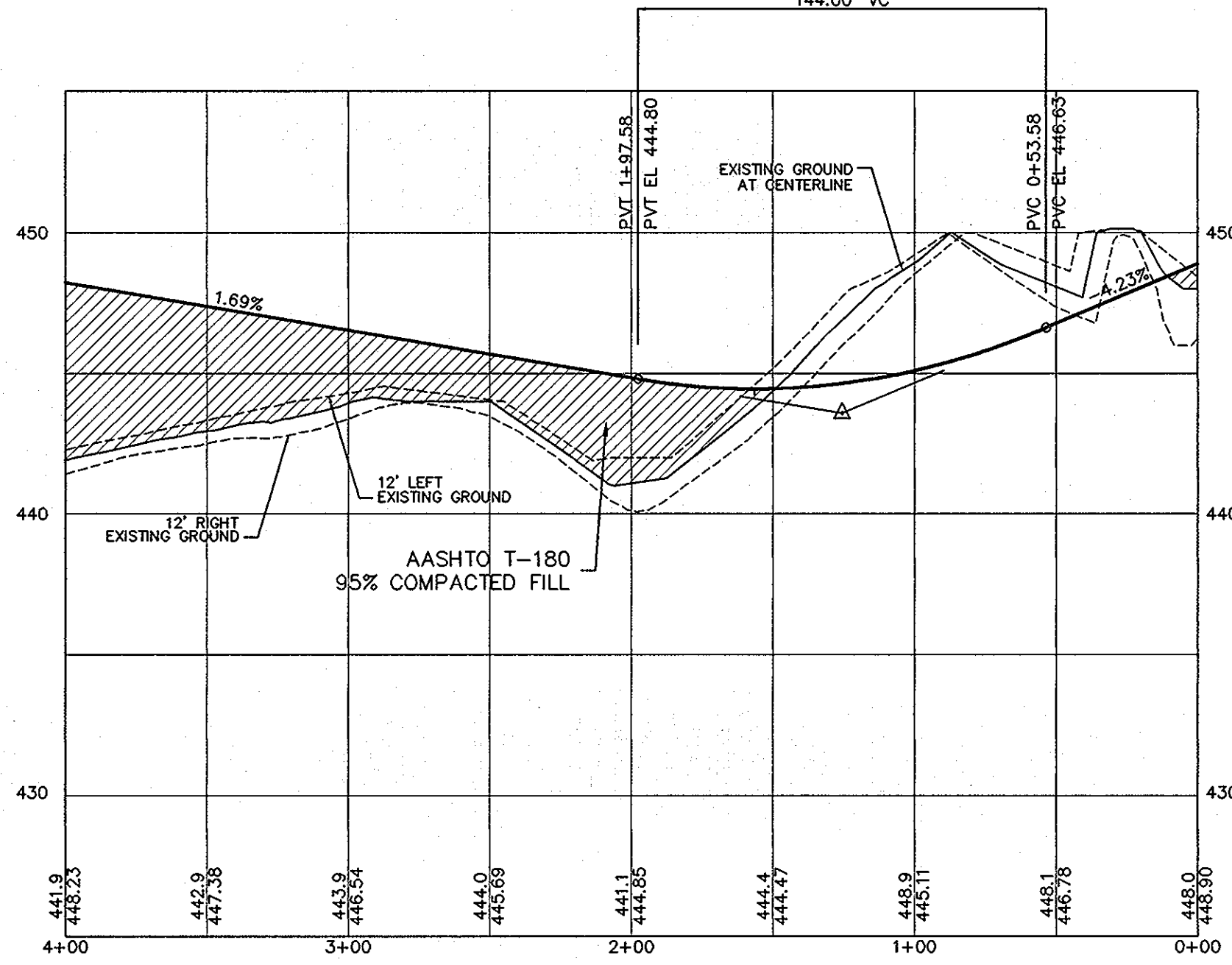
date	1-9-08	description	Revised by J.C. Inc.
revision			

HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I
AGE RESTRICTED ADULT HOUSING
TAX MAP 31 PARCELS 36 & 20
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
STORMWATER MANAGEMENT DETAILS

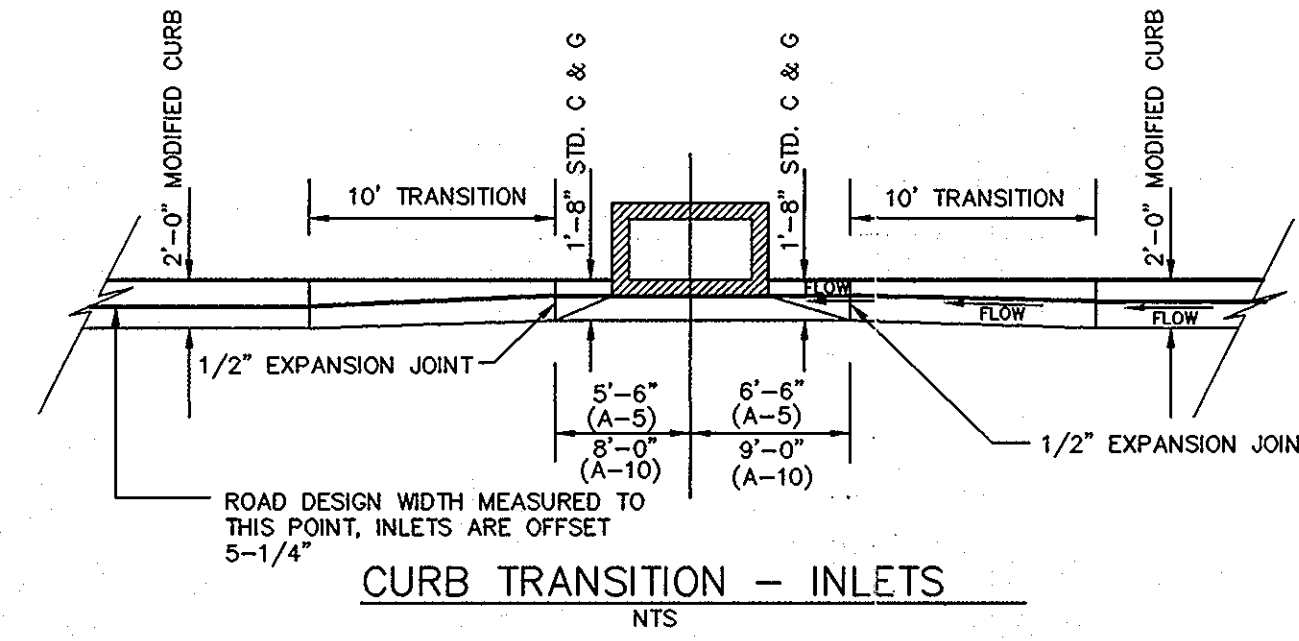
MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Elkridge City, Maryland, 21042
(410) 987-0298 Fax: (410) 987-0298

"AS BUILT"

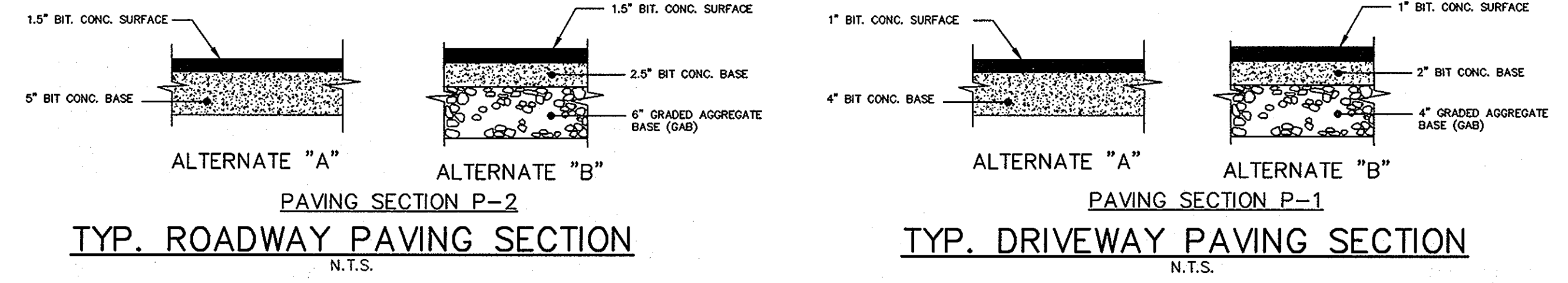
LOW POINT ELEV = 444.46
 LOW POINT STA = 1+56.47
 PVI STA = 1+25.58
 PVI ELEV = 443.59
 A.D. = 5.92
 K = 24.32
 144.00' VC



DECKER WAY
 PRIVATE ROADWAY
 SCALE: HOR. 1"=50'
 VER. 1"=5'

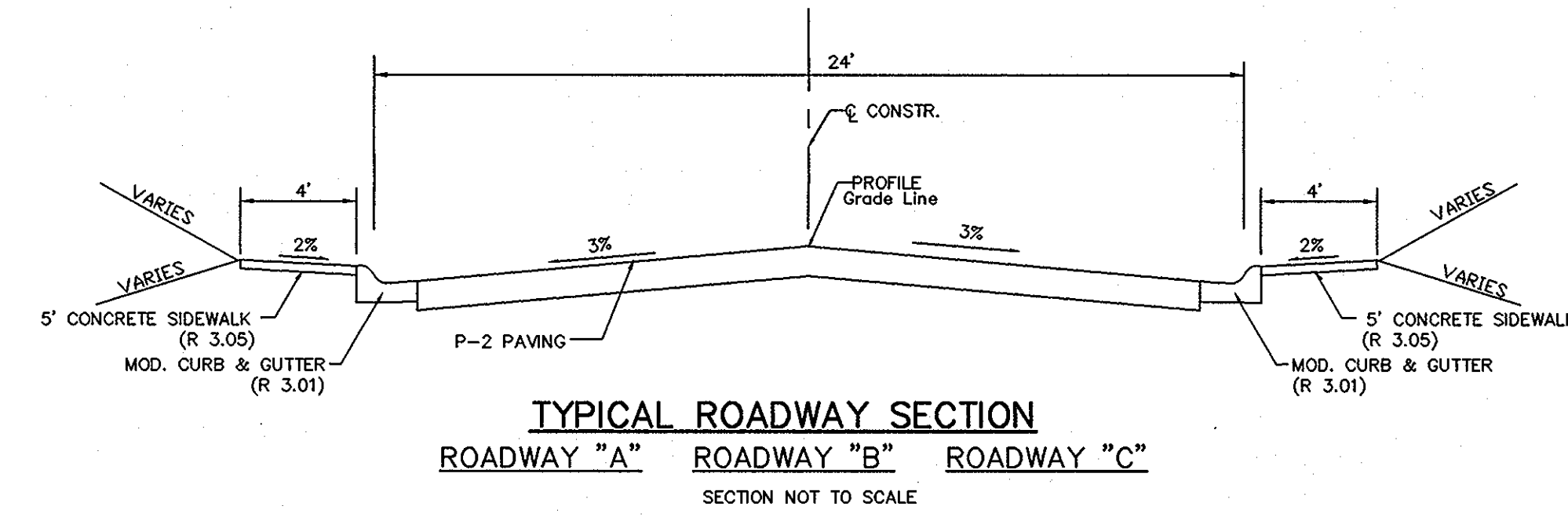


CURB TRANSITION - INLETS
 N.T.S.

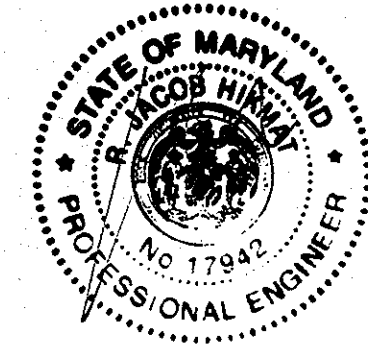


TYP. ROADWAY PAVING SECTION
 N.T.S.

TYP. DRIVEWAY PAVING SECTION
 N.T.S.



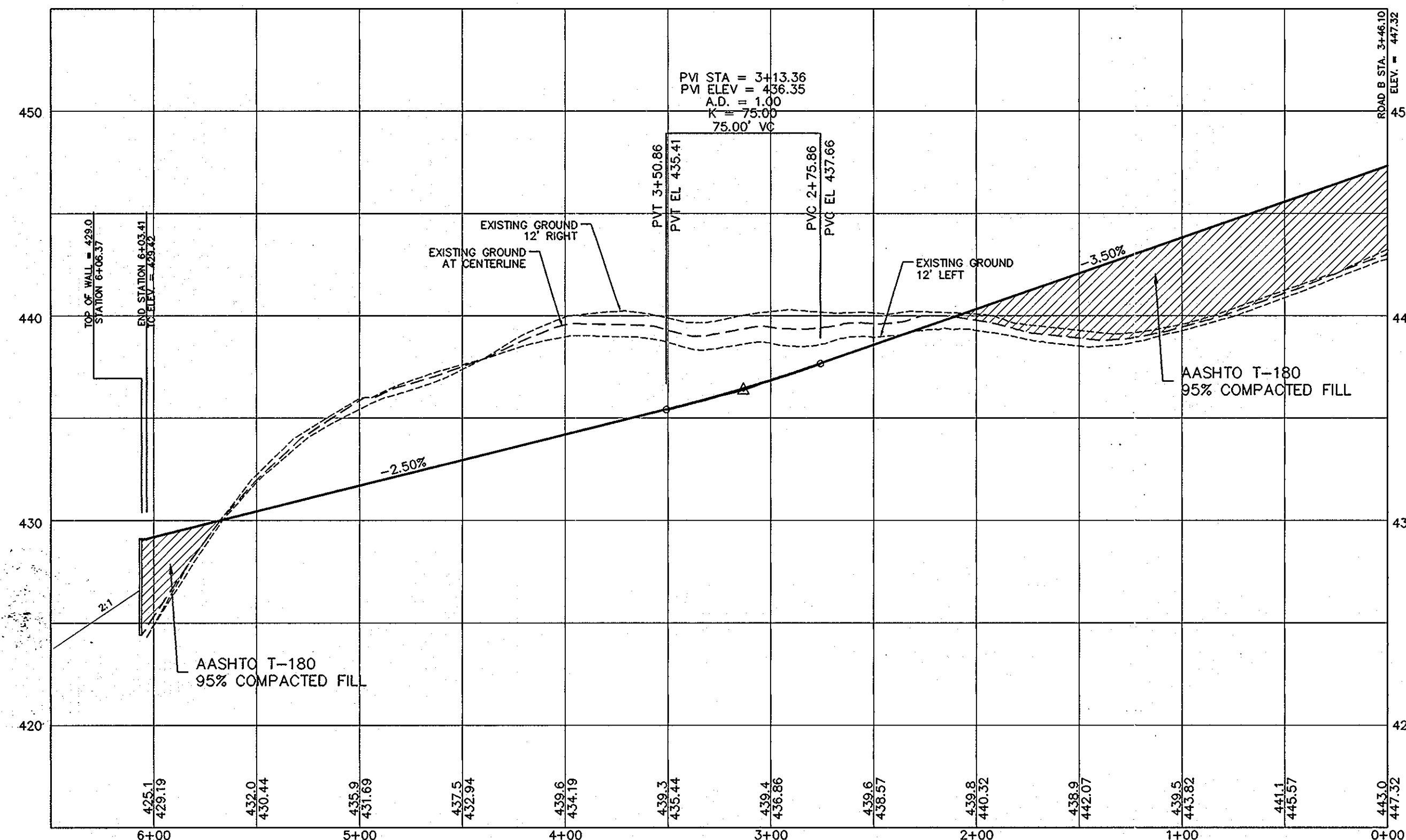
TYPICAL ROADWAY SECTION
 ROADWAY "A" ROADWAY "B" ROADWAY "C"
 SECTION NOT TO SCALE



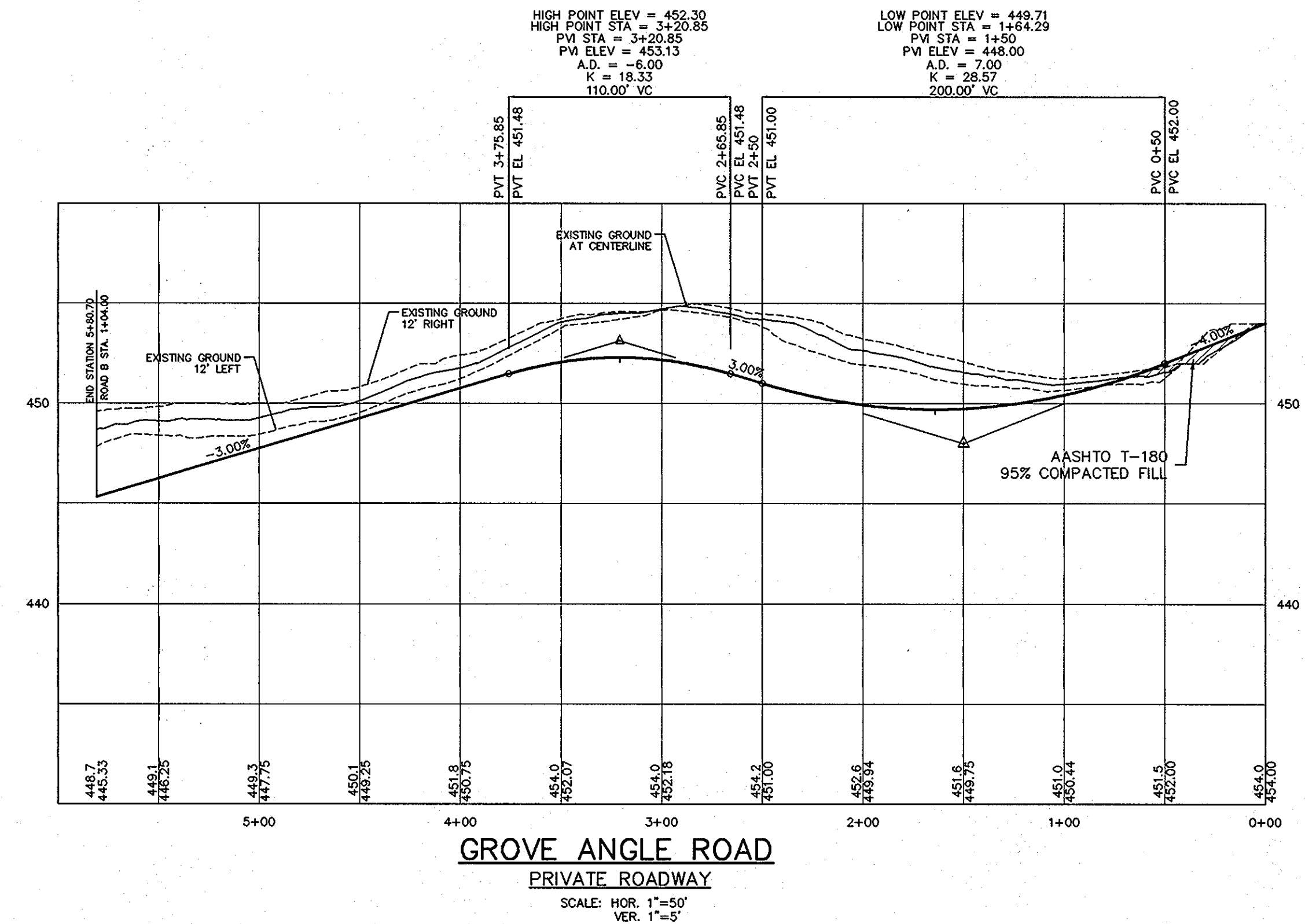
OWNER (P. 36)
 ALEXANDER ADAMS, TRUSTEE
 BETTY SMITH, TRUSTEE
 5300 DORSEY HALL DRIVE, SUITE 200A
 ELLICOTT CITY, MD. 21042

OWNER (P. 20)
 ELLICOTT CITY LAND HOLDING, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 ELLICOTT CITY, MD. 21042
 443-367-0415

DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 COLUMBIA MD. 21042
 443-367-0415



DINA LANE
 PRIVATE ROADWAY
 SCALE: HOR. 1"=50'
 VER. 1"=5'



GROVE ANGLE ROAD
 PRIVATE ROADWAY
 SCALE: HOR. 1"=50'
 VER. 1"=5'

04-021.DWG 021-roadway-profiles.dwg

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Paul Edwards 3.1.7 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
Andy Klamm 5/23/02 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT
Barth P. Leight 5/23/02 DATE
 DIRECTOR

Project	Date	Illustration	Approval
04-021	FEB 2007	JJO	JJO
		JJO	AS SHOWN

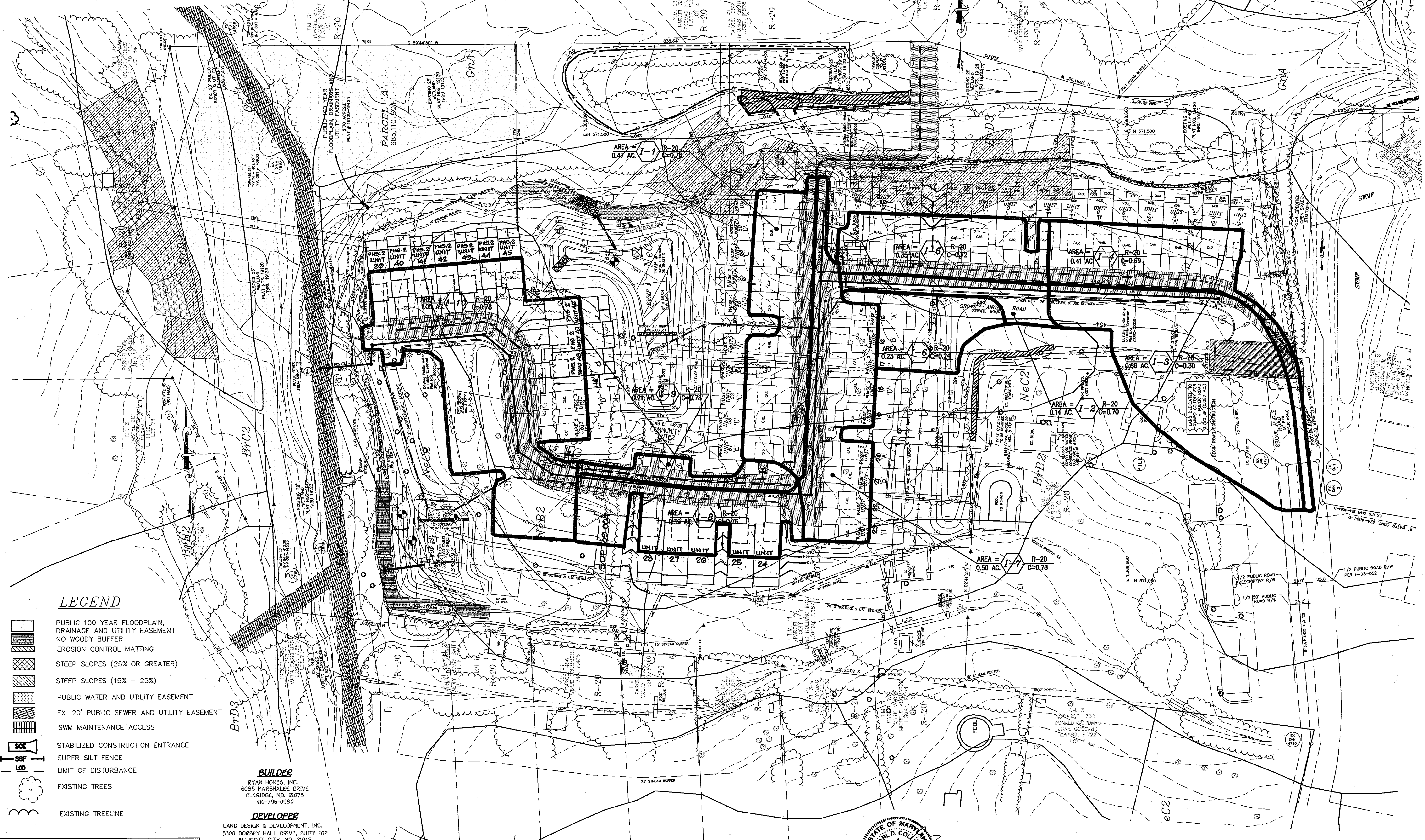
No.	Description	Revisions	Date

HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I
 AGE RESTRICTED ADULT HOUSING
 TAX MAP 31 PARCELS 36 AND 20
 HOWARD COUNTY, MARYLAND
 SECOND ELECTION DISTRICT
 ROADWAY PROFILES AND TYPICAL SECTIONS

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286 Ext. (301) 621-5521 Wash. (410) 997-0288 Fax

SOILS DESCRIPTION

DESCRIPTION
 BRANDYWINE LOAM, 3 TO 8% SLOPES, MODERATELY ERODED
 BRANDYWINE LOAM, 8 TO 15% SLOPES, MODERATELY ERODED
 BRANDYWINE LOAM, 15 TO 25% SLOPES, MODERATELY ERODED
 BRANDYWINE LOAM, 15 TO 25% SLOPES, SEVERELY ERODED
 NESHAMINY SILT LOAM, 3 TO 8% SLOPES, MODERATELY ERODED
 NESHAMINY SILT LOAM, 8 TO 15% SLOPES, MODERATELY ERODED
 NESHAMINY SILT CLAY LOAM, 15 TO 25% SLOPES, SEVERELY ERODED
 GLENVILLE SILT LOAM, 0 TO 3% SLOPES
 COCHRAN SILT LOAM
 CHESTER SILT LOAM, 1 TO 5% SLOPES, MODERATELY ERODED



LEGEND

- PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT NO WOODY BUFFER
- EROSION CONTROL MATTING
- STEEP SLOPES (25% OR GREATER)
- STEEP SLOPES (15% - 25%)
- PUBLIC WATER AND UTILITY EASEMENT
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
- SWM MAINTENANCE ACCESS
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING TREES
- EXISTING TREELINE

BUILDER
 RYAN HOMES, INC.
 6085 MARSHALLEE DRIVE
 ELKSIDGE, MD 21075
 410-796-0980

DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 ELLICOTT CITY, MD 21042
 443-367-0415

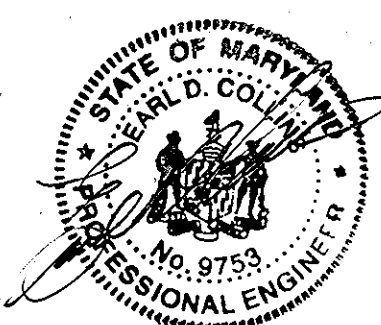
OWNER
 ELLICOTT CITY LAND HOLDING, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 ELLICOTT CITY, MD 21042
 443-367-0415

APPROVED: DEPARTMENT OF PLANNING AND ZONING

 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 7/2/08

 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 7/2/08

 DIRECTOR
 DATE: 7/2/08

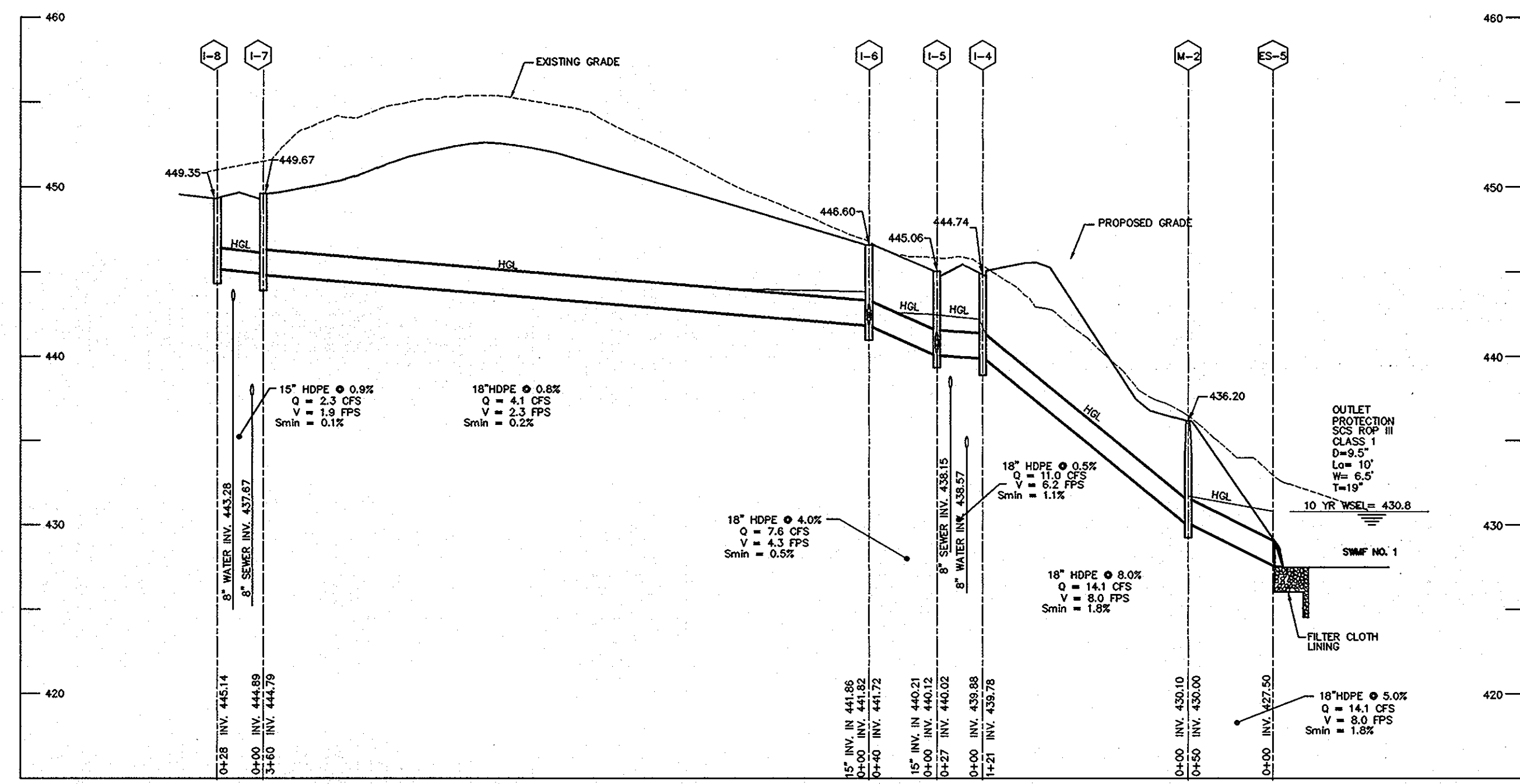


Project	07/03/08	date
07047	MAY 2008	
Illustration	Engineering	
BLP	AMV	
Scale	1" = 30'	approval

2	Separate Units 24-28 into 2 buildings	date
1	Separate Units 9, 15, and move one unit for the 7 Unit Phase 2A, per unit numbers, separate units 4c, 5c into 2 bldgs.	
no.	description	revisions

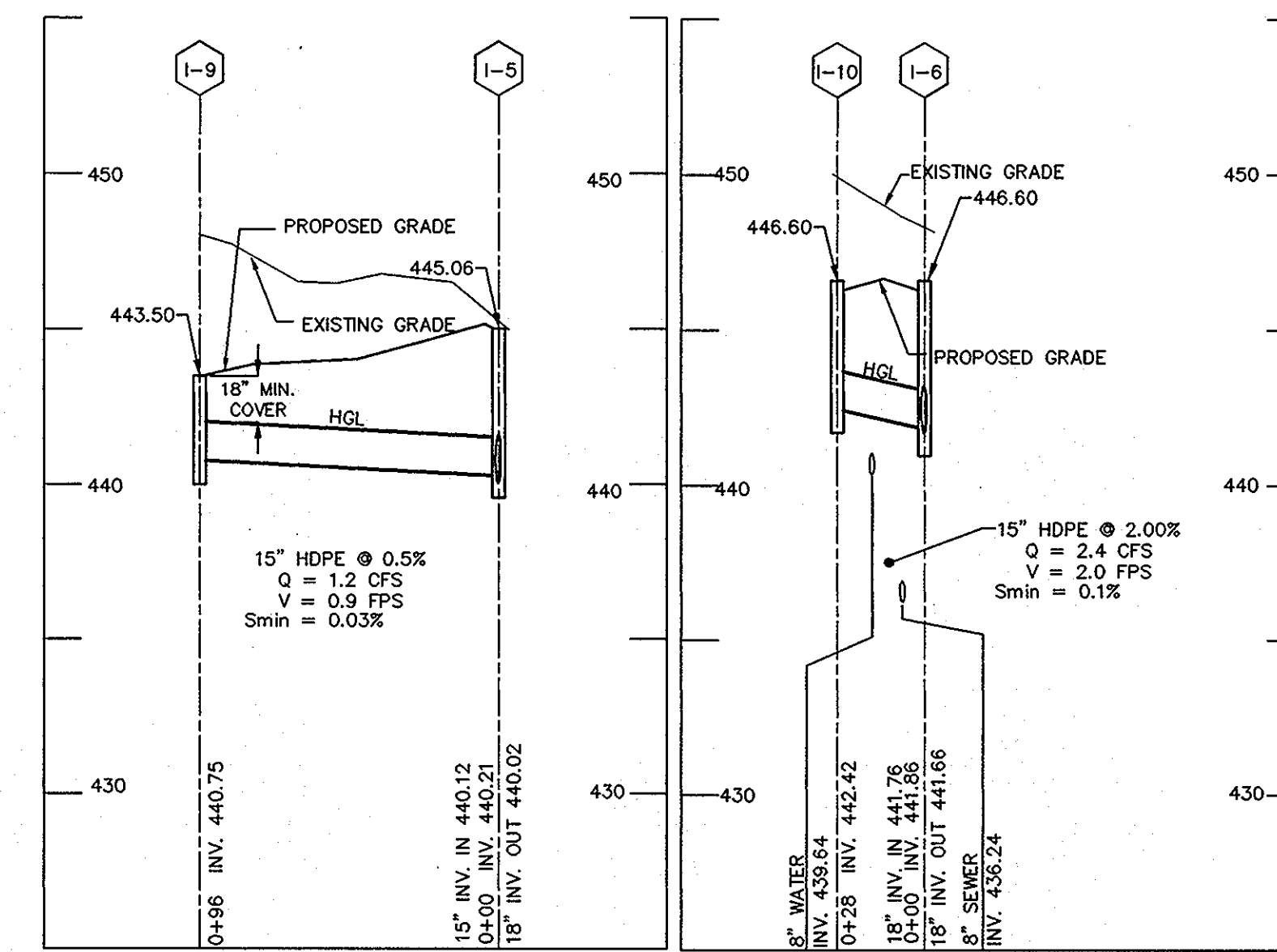
HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I & II
 AGE RESTRICTED ADULT HOUSING
 TAX MAP 31 PARCELS 36 AND 20
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 REVISED STORM DRAIN DRAINAGE ARE MAP

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 803 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 481-2895



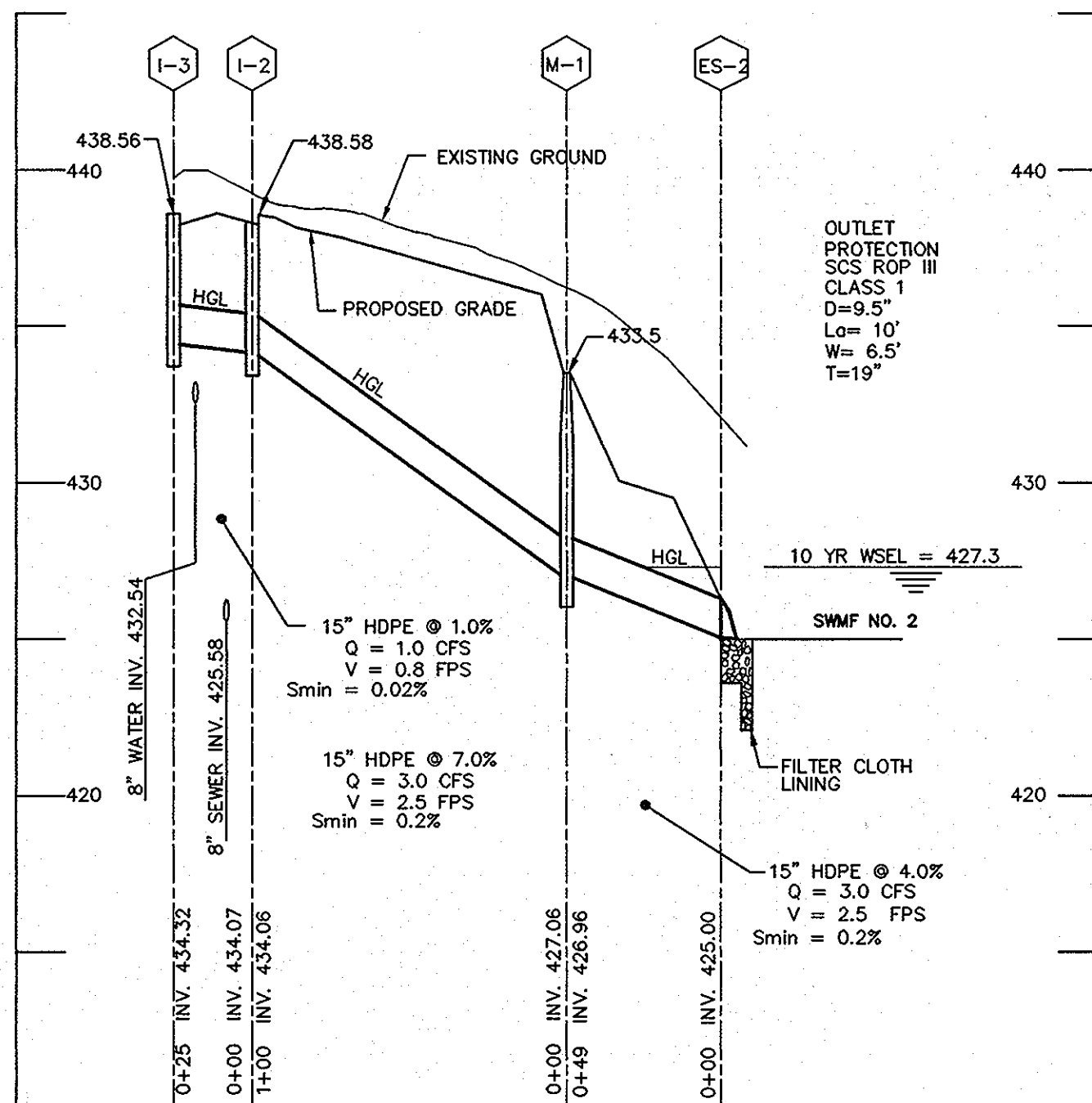
STORM DRAIN PROFILE I-8 TO ES-5

SCALE: H: 1"=50'
V: 1"=5'



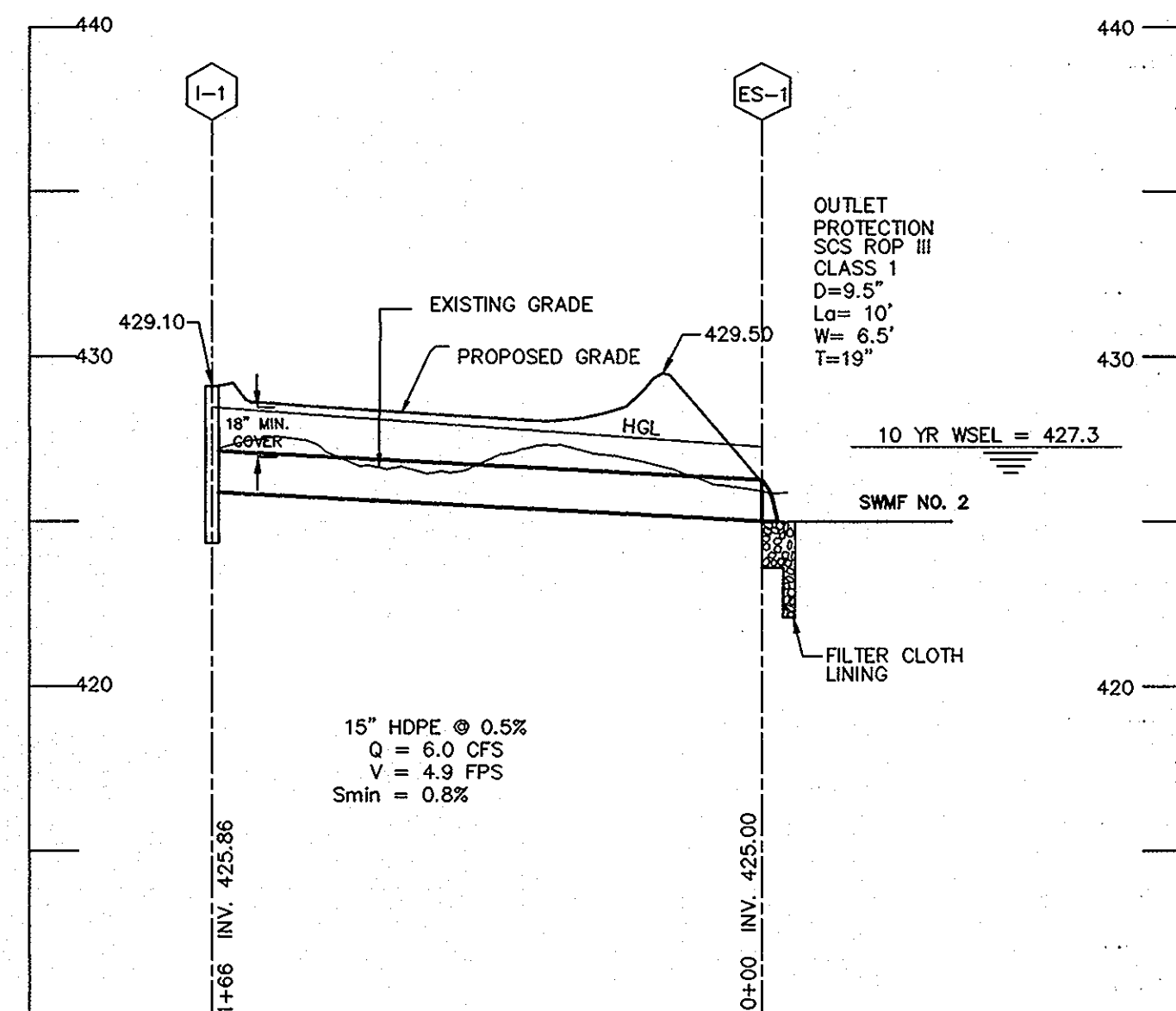
STORM DRAIN PROFILE I-9 TO I-5 STORM DRAIN PROFILE I-10 TO I-6

SCALE: H: 1"=50'
V: 1"=5'



STORM DRAIN PROFILE I-3 TO ES-2

SCALE: H: 1"=50'
V: 1"=5'

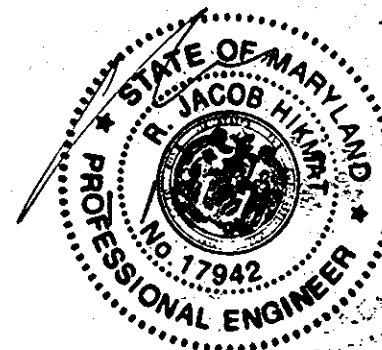


STORM DRAIN PROFILE I-1 TO ES-1

SCALE: H: 1"=50'
V: 1"=5'

PIPE SCHEDULE

QUANTITY	PIPE SIZE
493'	15" HDPE
599'	18" HDPE



OWNER (P. 36)
ALEXANDER ADAMS, TRUSTEE
BETTY SMITH, TRUSTEE
5300 DORSEY HALL DRIVE, SUITE 200A
ELLCOTT CITY, MD. 21042
OWNER (P. 20)
ELLCOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLCOTT CITY, MD. 21042
443-367-0415
DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLCOTT CITY, MD. 21042
443-367-0415

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Paul Edmister 3-1-7
DATE
3/23/02
Paul Edmister 5/23/02
DATE
5/23/02
DATE

STRUCTURE SCHEDULE

NO.	LOCATION	COMMENTS
I-1	5+86.26 : 26.53' LEFT	TYPE A-10, H.C.STD. SD-4.02
I-2	2+48.13 : 11.18' LEFT	DOUBLE TYPE S, H.C.STD. SD-4.34
I-3	2+48.13 : 13.89' RIGHT	TYPE A-5, H.C.STD. SD-4.01
I-4	1+45.74 : 11.21' RIGHT	DOUBLE TYPE S, H.C.STD. SD-4.34
I-5	1+56.39 : 13.87' LEFT	TYPE A-10, H.C.STD. SD-4.02
I-6	5+43.28 : 13.86 LEFT	TYPE A-10, H.C.STD. SD-4.02
I-7	1+86.22 : 13.88 LEFT	TYPE A-10, H.C.STD. SD-4.02
I-8	1+72.29 : 11.25 RIGHT	TYPE S COMBINATION, H.C.STD. SD-4.32
I-9	N 571,292.59 E 1,368,360.80	TYPE YARD, H.C.STD. SD-4.14
I-10	5+42.95 : 13.97' RIGHT	TYPE A-5, H.C.STD. SD-4.01
M-1	N 571,111.49 E 1,367,890.80	H.C.STD. G-5.12
M-2	N 571,309.94 E 1,368,117.22	H.C.STD. G-5.12
ES-1	N 571,086.19 E 1,367,823.42	PLASTIC PIPE END SECTION (ADS OR EQUIVALENT)
ES-2	N 571,083.55 E 1,367,851.09	PLASTIC PIPE END SECTION (ADS OR EQUIVALENT)
ES-3	N 571,018.62 E 1,367,783.77	TYPE C ENDWALL; H.C. STD. SD-5.21
ES-4	N 571,410.14 E 1,368,011.33	TYPE C ENDWALL; H.C. STD. SD-5.21
ES-5	N 571,270.39 E 1,368,087.34	PLASTIC PIPE END SECTION (ADS OR EQUIVALENT)

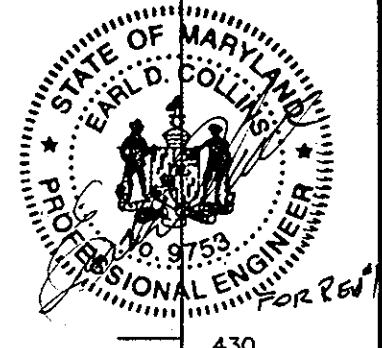
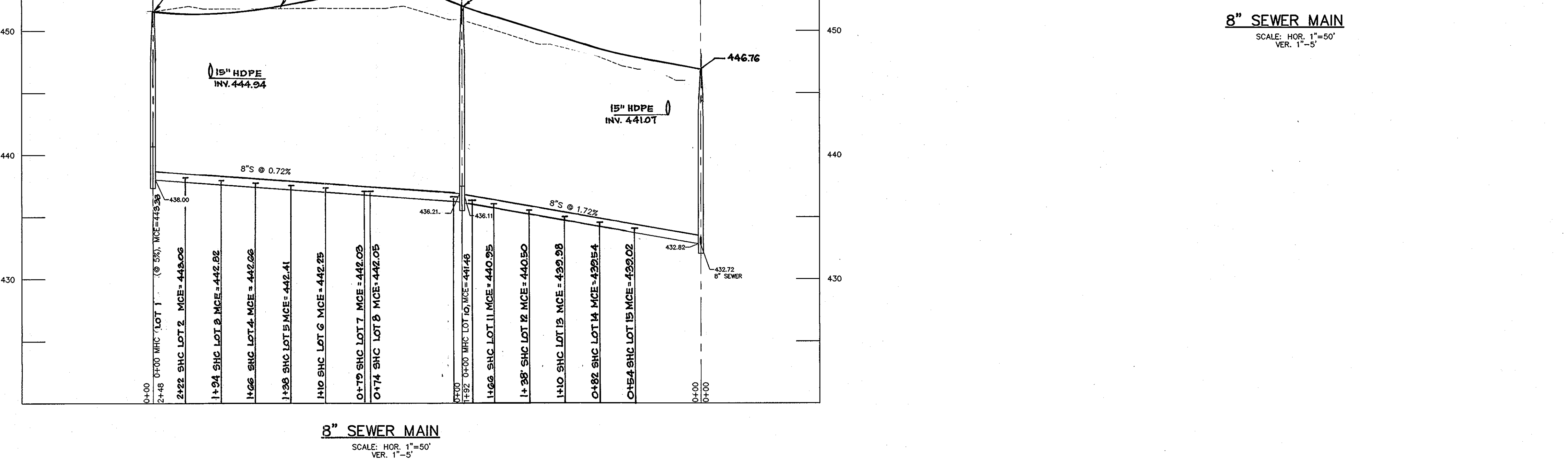
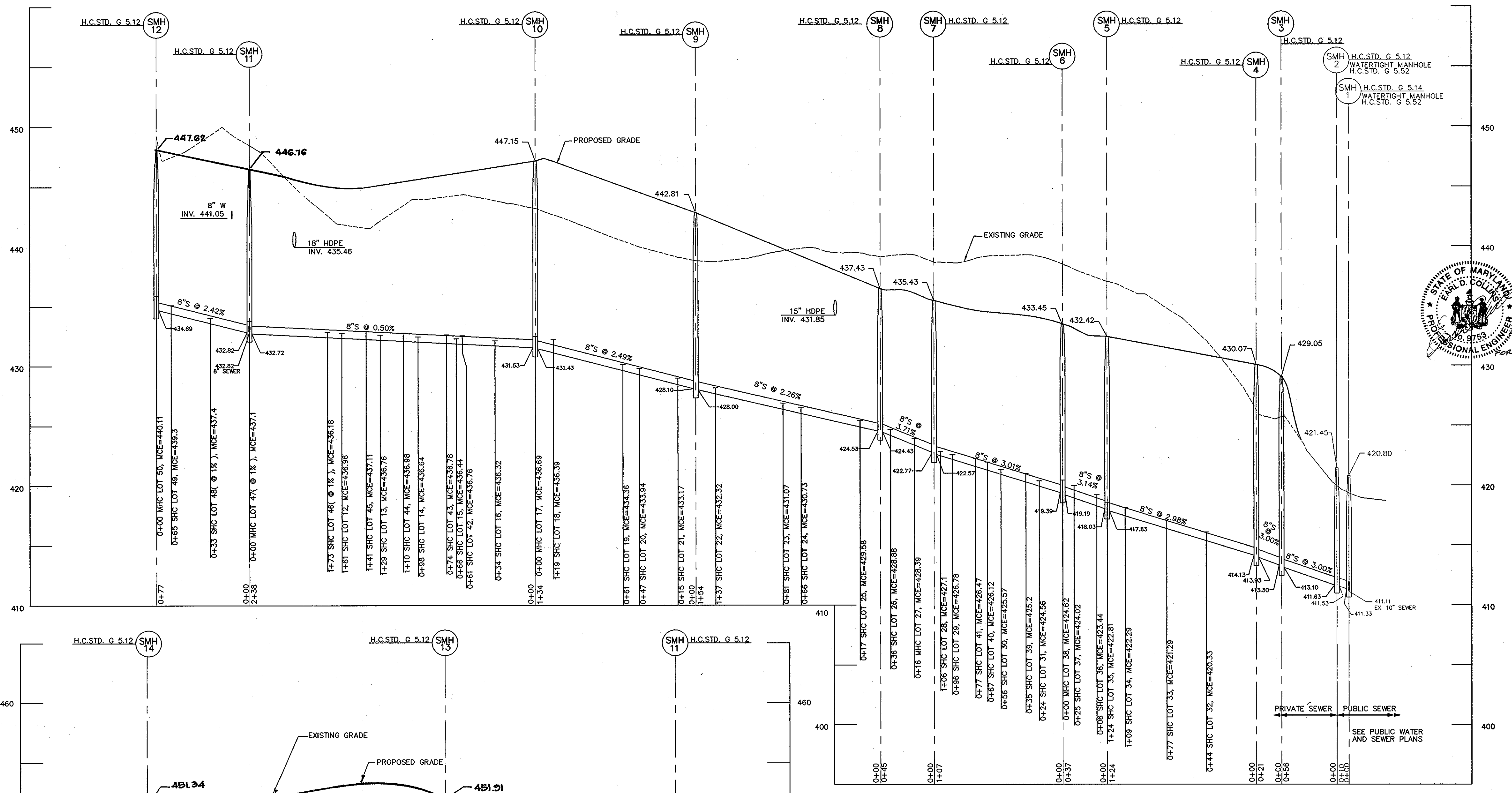
OFFSET IS SHOWN TO FACE OF CURB AT CENTER OF INLET
SEE PROFILES FOR PIPE INVERTS, TOPS AND SLOPES

Project	date	description	approval
04-021	FEB 2007	engineering	JJO
	JJO	scale	AS SHOWN
	JJO	revisions	JBM

no.	description	revisions

HEARTHSTONE AT ELLCOTT MILLS II, PARCELS A & B, PHASE I
AGE RESTRICTED ADULT HOUSING
TAX MAP 31 PARCELS 36 AND 20
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
STORM DRAIN PROFILES

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 997-0286 Balt. (301) 621-5521 Wash. (410) 997-0288 Piz.



Project	04-021	date	FEB 2007
Illustration	JJO	engineering	JJO
scale	AS SHOWN	approval	JBM

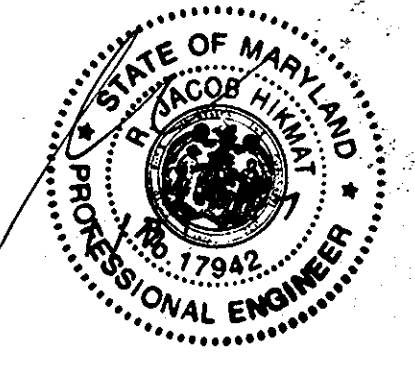
Revised sewer house connections to accommodate new T.H. layout. Revise Owner/Developer and Builder.	1/2/08	date	
revisions			

HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I
 AGE RESTRICTED ADULT HOUSING
 TAX MAP 31 PARCELS 96 AND 20
 HOWARD COUNTY, MARYLAND
 SECOND ELECTION DISTRICT
SEWER PROFILES

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

BUILDER
 RYAN HOMES
 6085 MARSHALEE DR.
 ELK RIDGE, MD. 21075
 410-796-0980

OWNER/DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 COLUMBIA, MD. 21042
 443-367-0415



APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 3-1-7
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Carole Harris 5/2/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Monica A. Lytle 5/2/08
 DIRECTOR DATE

NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- LANDSCAPE SURETY IN THE AMOUNT OF \$100,000, HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT.
- FOREST CONSERVATION EASEMENTS HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16120 OF HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16120 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION MANUAL FOR THIS SUBMISSION WAS FULFILLED BY CREATION OF 2.13 ACRES (92,762.50 SQ FT) AND REFORESTATION OF 2.43 AC. (104,979.50 SQ FT) FINANCIAL SURETY FOR THE RETENTION OF 2.13 AC. OF FOREST AND REFORESTATION OF 2.43 AC. IN THE AMOUNT OF \$71,481.95 (RETENTION - \$40,556.56 & REFORESTATION - \$30,925.40) HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT.

SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING			
LINEAR FEET OF PERIMETER	PERIMETER A - 635 LF (TYPE B) SWMFI	PERIMETER B - 400 LF (TYPE B) SWMFI	TOTAL
CREDIT FOR EXISTING VEGETATION (NO. YES AND LINEAR FEET)	N/A	YES - 90 LF OF PERIMETER LANDSCAPING	
NUMBER OF TREES REQUIRED:	9 SHADE TREES 11 EVERGREEN TREES	6 SHADE TREES 9 EVERGREEN TREES	15 SHADE TREES 19 EVERGREEN TREES
NUMBER OF TREES PROVIDED:	9 SHADE TREES 11 EVERGREEN TREES	6 SHADE TREES 9 EVERGREEN TREES	15 SHADE TREES 19 EVERGREEN TREES
OTHER TREES (21 SUBSTITUTION)	0 TREES (0 SUBSTITUTION TREES)	0 TREES (0 SUBSTITUTION TREES)	0 TREES (0 SUBSTITUTION TREES)

LANDSCAPE REQUIREMENT PLANTING SCHEDULE				
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
83		ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" GAL.
19		PICEA ABIES	NORWAY SPRUCE	6" - 8" HGT.
112		PINUS STROBILUS	EASTERN WHITE PINE	6" - 8" HGT.
92		PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	2 1/2" - 3" GAL.

STREET TREE REQUIREMENT PLANTING SCHEDULE				
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
30		QUERCUS RUBRA	NORTHERN RED OAK	2 1/2" - 3" GAL.

SCHEDULE C: RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
NUMBER OF DWELLING UNITS	50
NUMBER OF TREES REQUIRED (100 OF SFA)	50 SHADE TREES
NUMBER OF TREES PROVIDED (SHADE TREES)	50 SHADE TREES

STREET TREE CALCULATIONS	
PRIVATE ROAD - 1562' / 40' = 39	
TOTAL TREES REQUIRED = 39 TREES	
TOTAL TREES PROVIDED = 39 TREES	

SCHEDULE E: ENDS OF ROADS & UTILITIES	
NUMBER OF TREES REQUIRED:	DOCKERY WAY - 1 SHADE & 2 EVERGREEN (EACH END)
NUMBER OF TREES PROVIDED:	7 SHADE & 4 EVERGREEN
NUMBER OF TREES REQUIRED:	END UNIT 1 - 2 SHADE & 2 EVERGREEN END UNIT 11 - 2 SHADE & 2 EVERGREEN END UNIT 12 - 2 SHADE & 2 EVERGREEN END UNIT 18 - 2 SHADE & 2 EVERGREEN END UNIT 19 - 2 SHADE & 2 EVERGREEN END UNIT 31 - 2 SHADE & 2 EVERGREEN END UNIT 41 - 2 SHADE & 2 EVERGREEN END UNIT 42 - 2 SHADE & 2 EVERGREEN
NUMBER OF TREES PROVIDED:	8 END UNITS - 16 SHADE & 16 EVERGREEN

SCHEDULE B: PARKING LOT INTERNAL LANDSCAPING	
NUMBER OF PARKING SPACES	22
NUMBER OF PLANTING ISLANDS REQUIRED	2
NUMBER OF PLANTING ISLANDS PROVIDED	2
NUMBER OF TREES REQUIRED:	2 SHADE TREES
NUMBER OF TREES PROVIDED:	2 SHADE TREES

REQUIRED SCREENING BETWEEN PARKING SPACES AND BUILDINGS	
NUMBER OF TREES REQUIRED:	7 SPACES (60LF) - 2 SHADE & 3 EVERGREEN 7 SPACES (65LF) - 2 SHADE & 3 EVERGREEN 4 SPACES (47LF) - 2 SHADE & 2 EVERGREEN 7 SPACES (30LF) - 1 SHADE & 2 EVERGREEN
NUMBER OF TREES PROVIDED:	22 SPACES (121LF) - 7 SHADE & 10 EVERGREEN

GENERAL NOTES

- FOREST PROTECTION**
- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE FENCING SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
 - THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES.
 - ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
 - ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS.
 - INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SHOOTING, FLOODING, EXCESSIVE WETTING FROM DE-WATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
 - THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT AND THE STORING OF BUILDING SUPPLIES OR STOCKPILE OF EARTH WITHIN FOREST CONSERVATION EASEMENTS.
 - REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED.
 - THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS.
 - ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
 - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIFIC TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES;
 - MAKE ALL NECESSARY ADJUSTMENTS;
 - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

CONSTRUCTION MONITORING

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, OR STRESSES CAUSED BY FLOODING OR DROUGHT CONDITIONS.
- ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIATED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH PROFESSIONAL ADOPTERS.
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

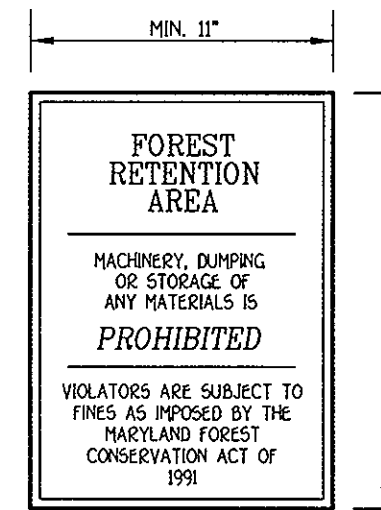
FOREST CONSERVATION WORKSHEET

NET TRACT AREA:			
A. TOTAL TRACT AREA	20.26		
B. AREA WITHIN 100 YEAR FLOODPLAIN	2.70		
C. AREA IN COMMERCIAL, S-1 ZONING	1.36		
D. NET TRACT AREA	16.20		
AND USE CATEGORY: (FROM TABLE 3.2.1, PAGE 40, MANUAL)			
INPUT THE NUMBER "1" UNDER THE APPROPRIATE LAND USE ZONING, AND LIMIT TO ONLY ONE ENTRY.			
AREA	HDR	HPD	CIA
0	0	1	0
E. AFFORESTATION THRESHOLD	15x D = 2.43		
D. CONSERVATION THRESHOLD	20x D = 3.24		
EXISTING FOREST COVER:			
G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	4.00		
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD	1.57		
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD	0.76		
BREAK EVEN POINT:			
J. FOREST RETENTION ABOVE THRESHOLD WITH NO MITIGATION	3.39		
C. CLEARING PERMITTED WITHOUT MITIGATION	0.61		
PROPOSED FOREST CLEARING:			
L. TOTAL AREA OF FOREST TO BE CLEARED	1.87		
M. TOTAL AREA OF FOREST TO BE RETAINED	2.13		
PLANTING REQUIREMENTS:			
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0.29		
O. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	0.22		
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0.00		
R. TOTAL REFORESTATION REQUIRED	2.41		
S. TOTAL AFFORESTATION REQUIRED	0.00		
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED	2.41		

FOREST CONSERVATION EASEMENTS

AREA	EASEMENT TYPE
FCE A 0.44 AC.	RETENTION
FCE B 0.46 AC.	RETENTION
FCE C 1.06 AC.	REFORESTATION
FCE D 1.23 AC.	RETENTION
FCE E 0.69 AC.	REFORESTATION
FCE F 0.68 AC.	REFORESTATION

FOREST CONSERVATION EASEMENT AREA TABULATION	
TOTAL AREA IN EACH FCE	
FCE A - 0.44 AC.	
FCE B - 1.52 AC.	
FCE C - 1.92 AC.	
FCE D - 0.68 AC.	
TOTAL RETENTION - 2.13 AC.	
TOTAL REFORESTATION - 2.43 AC.	
TOTAL FOREST CONSERVATION AREA	4.56 AC.



SIGNAGE DETAIL

NOT TO SCALE

BUILDER
RYAN HOMES, INC.
6025 MARSHALL DRIVE
ELK RIDGE, MD. 21075
410-796-0980

DEVELOPER
LAND DESIGN & DEVELOPMENT, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLCOTT CITY, MD. 21042
443-367-0415

OWNER
ELLCOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL DRIVE, SUITE 102
ELLCOTT CITY, MD. 21042
443-367-0415

LEGEND

- WETLANDS
- FOREST CONSERVATION EASEMENT (REFORESTATION)
- FOREST CONSERVATION EASEMENT (RETENTION)
- PUBLIC 100-YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
- NO WOODY BUFFER
- EROSION CONTROL MATING
- STEEP SLOPES (25% OR GREATER)
- STEEP SLOPES (15% - 25%)
- PUBLIC WATER AND UTILITY EASEMENT
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
- SYM MAINTENANCE ACCESS
- RECREATIONAL OPEN SPACE
- CREDITED OPEN SPACE
- EXTERIOR LIGHT FIXTURE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING TREES
- FOREST CONSERVATION SIGNAGE
- EXISTING TREELINE
- PROPOSED TREELINE

NOTE: THIS PLAN IS TO BE USED FOR LANDSCAPE & FOREST CONSERVATION PURPOSES ONLY.

SOILS DESCRIPTION

SYMBOL	DESCRIPTION
BrB2	BRANDYWINE LOAM, 3% TO 8% SLOPES, MODERATELY ERODED
BrC2	BRANDYWINE LOAM, 8% TO 15% SLOPES, MODERATELY ERODED
BrD2	BRANDYWINE LOAM, 15% TO 25% SLOPES, MODERATELY ERODED
BrE2	BRANDYWINE LOAM, 15% TO 25% SLOPES, SEVERELY ERODED
NeB2	NESHAMINY SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED
NeC2	NESHAMINY SILT LOAM, 8% TO 15% SLOPES, MODERATELY ERODED
NeD2	NESHAMINY SILTY CLAY LOAM, 15% TO 25% SLOPES, SEVERELY ERODED
GvA	CLEVELAND SILT LOAM, 0% TO 3% SLOPES
Co	CODORUS SILT LOAM
ChB2	CHESTER SILT LOAM, 1% TO 5% SLOPES, MODERATELY ERODED

SCHEDULE A - PERIMETER LANDSCAPED EDGE

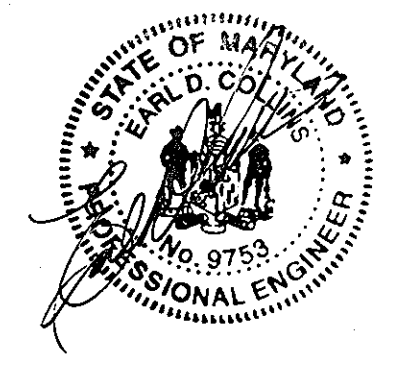
CATEGORY	ADJACENT TO PERIMETER PROPERTIES					TOTAL
	PERIMETER 1 - TYPE B	PERIMETER 2 - TYPE C	PERIMETER 3 - TYPE C	PERIMETER 4 - TYPE C	PERIMETER 5 - TYPE C	
LINEAR FEET OF PERIMETER	294.75 LF	716.67 LF	748.25 LF	677.36 LF	1072.32 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	NO	NO	NO	YES - CREDIT FOR 677.36 LF EXISTING VEGETATION	YES - CREDIT FOR 1072.32 LF EXISTING VEGETATION	
CREDIT FOR WALL, FENCE, OR BERM (YES, NO, LINEAR FEET)	NO	NO	NO	NO	NO	
NUMBER OF PLANTS REQUIRED:	6 SHADE TREES 8 EVERGREEN TREES 0 SHRUBS	18 SHADE TREES 36 EVERGREEN TREES 0 SHRUBS	19 SHADE TREES 38 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	43 SHADE TREES 82 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED:	6 SHADE TREES 8 EVERGREEN TREES 0 SUBSTITUTION TREES	18 SHADE TREES 36 EVERGREEN TREES 0 SUBSTITUTION TREES	19 SHADE TREES 38 EVERGREEN TREES 0 SUBSTITUTION TREES	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES	0 SHADE TREES 0 EVERGREEN TREES 0 SUBSTITUTION TREES	43 SHADE TREES 82 EVERGREEN TREES 0 SHRUBS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] DATE: 7/21/08

[Signature] DATE: 7/21/08

[Signature] DATE: 7/21/08



MD DNR QUALIFIED PROFESSIONAL

MASHID TRINGA

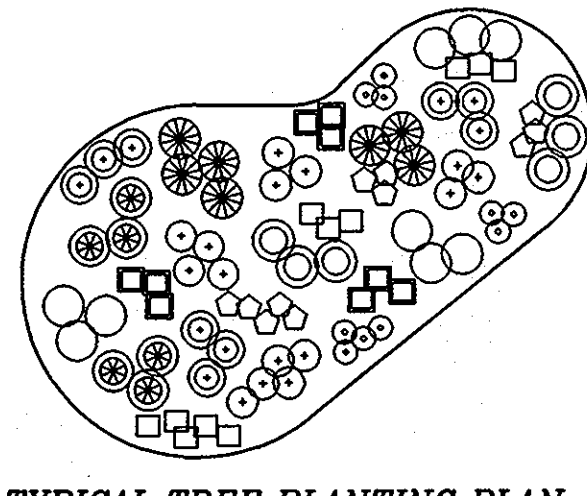
DATE	BY	DESCRIPTION
07/16/08	AMV	engineering
07/17/08	AMV	approval

NO.	DESCRIPTION	DATE
1	Separate Units 24-28 into 2 buildings	1-27-09
2	Separate Units 9-15, move one unit to Unit 11, 24-08	11-24-08
	Separate Units 36-40, remove all 2 units	
	Separate Units 46-50 into 2 buildings	

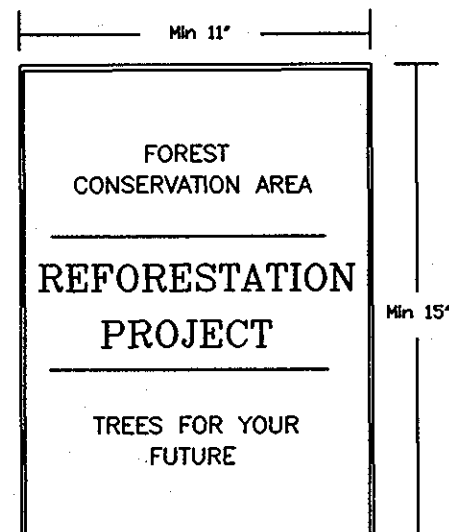
HEARTHSTONE AT ELLCOTT MILLS II, PARCELS A & B, PHASE I & II
AGE RESTRICTED ADULT HOUSING
TAX MAP 31 PARCELS 36 AND 20
SECOND ELECTION DISTRICT

REVISED LANDSCAPE AND FOREST CONSERVATION PLAN

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 461-8955



TYPICAL TREE PLANTING PLAN
NOT TO SCALE
- SEE GENERAL NOTES 6 & 7 UNDER "PLANT INSTALLATION"
- GROUND PLANE TO BE MULCHED AFTER INSTALLATION OF PLANT MATERIAL.



SIGNAGE DETAIL
NOT TO SCALE

OWNER (P. 36)
ALEXANDER ADAMS, TRUSTEE
BETTY SMITH, TRUSTEE
8808 CENTRE PARK DR STE 205
COLUMBIA MD 21045-2221

OWNER (P. 20)
ELLCOTT CITY LAND HOLDINGS, INC.
8000 MAIN STREET
ELLCOTT CITY MD 21043-4656

DEVELOPER
LAND DESIGN AND DEVELOPMENT, INC.
5300 DORSEY HALL ROAD, SUITE 202
ELLCOTT CITY, MARYLAND 21042

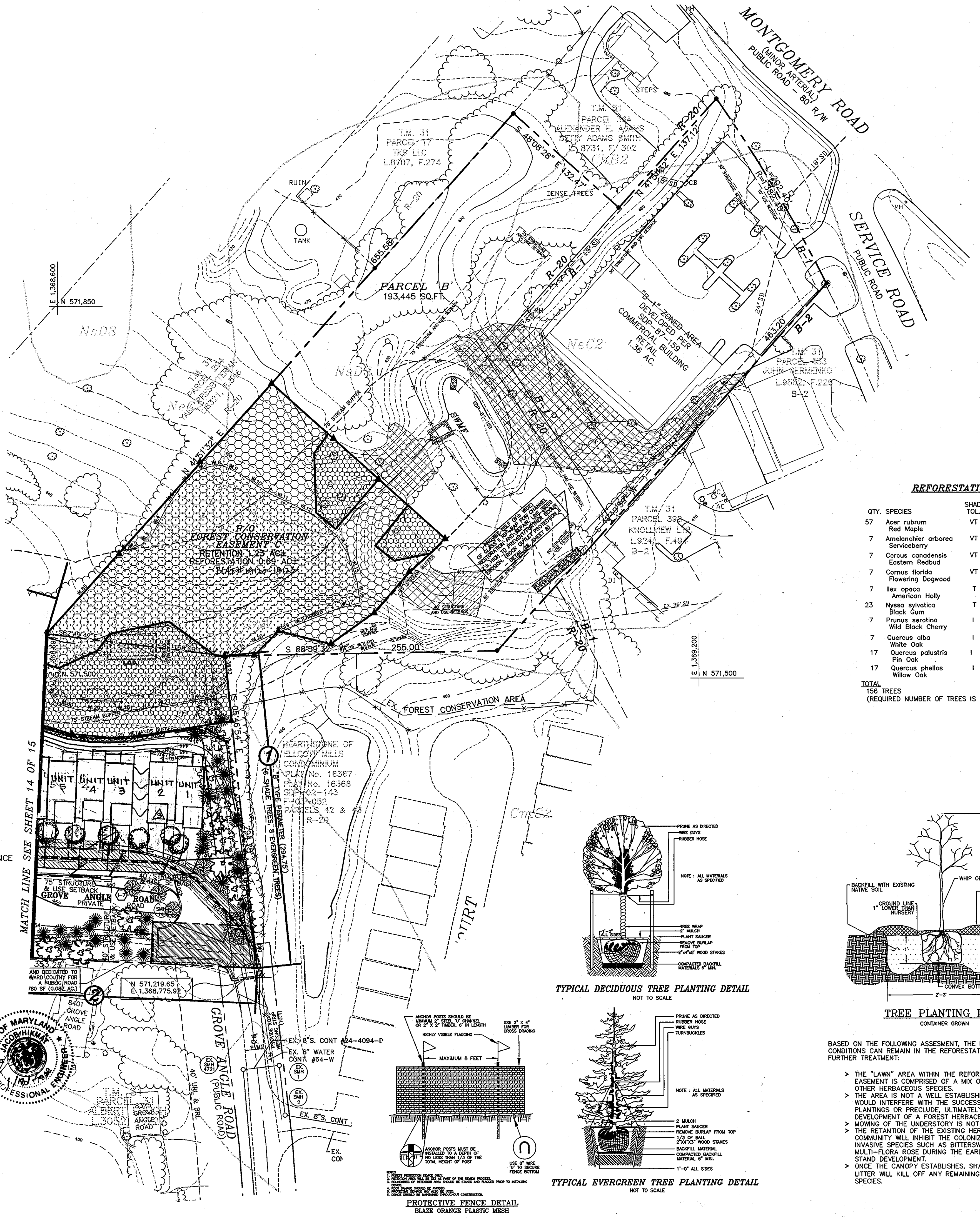
LEGEND

- WETLANDS
- FOREST CONSERVATION EASEMENT (AFFORESTATION)
- FOREST CONSERVATION EASEMENT (RETENTION)
- PUBLIC 100 YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
- NO WOODY BUFFER
- EROSION CONTROL MATTING
- STEEP SLOPES (25% OR GREATER)
- STEEP SLOPES (15% TO 25%)
- PUBLIC WATER AND UTILITY EASEMENT
- EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
- SWM MAINTENANCE ACCESS
- RECREATIONAL OPEN SPACE
- CREDITED OPEN SPACE
- EXTERIOR LIGHT FIXTURE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING TREES
- FOREST CONSERVATION SIGNAGE
- EXISTING TREELINE
- PROPOSED TREELINE

DEVELOPER'S/OWNER'S CERTIFICATE
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.24 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF NOTICE OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXCITED ONE YEAR QUANTITIES OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

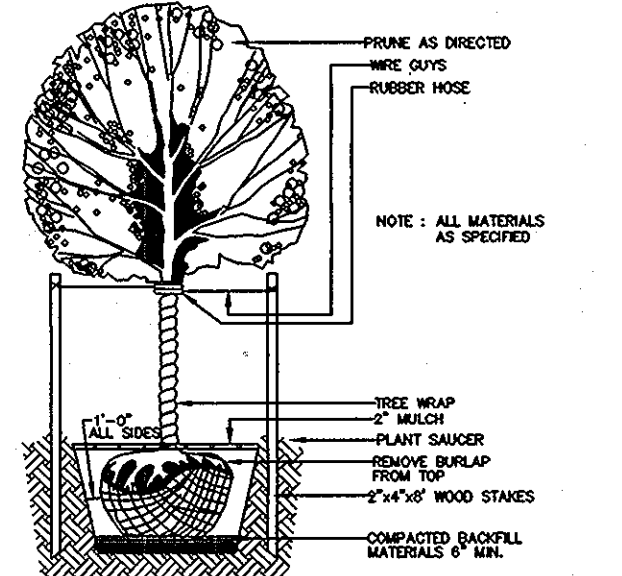
[Signature] 1/31/07
NAME DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
3-1-7
DATE
5/22/07
DATE
5/27/07
DATE

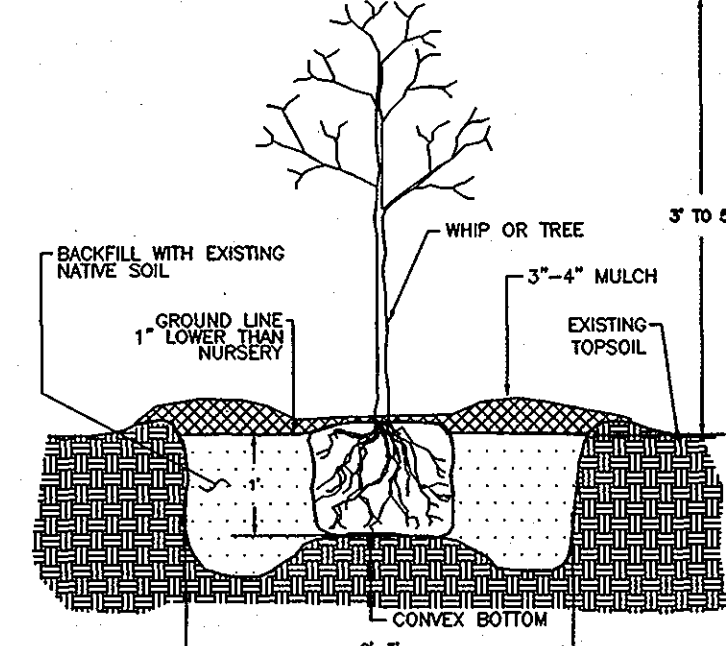


REFORESTATION PLANT LIST

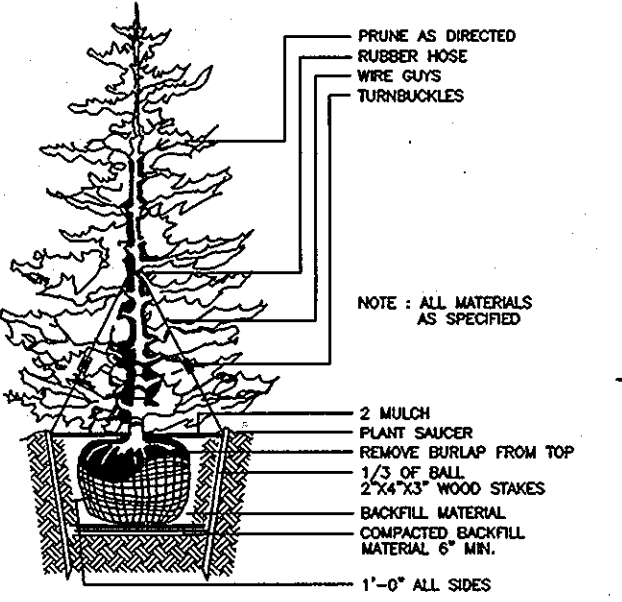
QTY.	SPECIES	SHADE TOL.	MOIST. REGIME	WET. STATUS	MIN.O.C.	SIZE & SPACING	REMARKS
57	Acer rubrum	VT	D-W	FAC	20'	CONT/B & B	2" CALIPER
7	Amelanchier arborea	VT	D-M	FACU-	20'	CONT/B & B	2" CALIPER
7	Cercus canadensis	VT	D-M	FACU-	20'	CONT/B & B	2" CALIPER
7	Cornus florida	VT	D-M	FACU-	20'	CONT/B & B	2" CALIPER
7	Ilex opaca	T	M	FAC-	20'	CONT/B & B	2" CALIPER
23	Nyssa sylvatica	T	M-W	FAC	20'	CONT/B & B	2" CALIPER
7	Prunus serotina	I	M	FACU	20'	CONT/B & B	2" CALIPER
7	Quercus alba	I	M-W	FAC+	20'	CONT/B & B	2" CALIPER
17	Quercus palustris	I	M-W	FACW	20'	CONT/B & B	2" CALIPER
17	Quercus phellos	I	M-W	FACW	20'	CONT/B & B	2" CALIPER
17	Willow Oak	I	M-W	FACW	20'	CONT/B & B	2" CALIPER
TOTAL							
156	TREES						
	(REQUIRED NUMBER OF TREES IS BASED ON 1.66 ACRES OF REFORESTATION)						



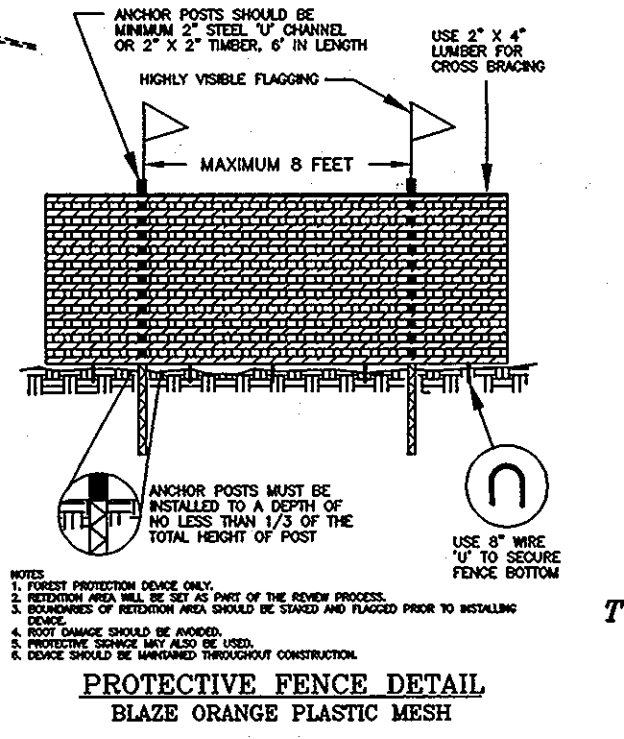
TYPICAL DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



TREE PLANTING DETAIL
CONTAINER GROWN



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



PROTECTIVE FENCE DETAIL
BLAZE ORANGE PLASTIC MESH

BASED ON THE FOLLOWING ASSESSMENT, THE EXISTING GROUND PLANE CONDITIONS CAN REMAIN IN THE REFORESTATION AREA WITHOUT FURTHER TREATMENT.

- > THE "LAWN" AREA WITHIN THE REFORESTATION EASEMENT IS COMPRISED OF A MIX OF GRASSES AND OTHER HERBACEOUS SPECIES.
- > THE AREA IS NOT A WELL ESTABLISHED LAWN THAT WOULD INTERFERE WITH THE SUCCESS OF THE TREE PLANTINGS OR PRECLUDE, ULTIMATELY, THE DEVELOPMENT OF A FOREST HERBACEOUS COMMUNITY.
- > MOVING OF THE UNDERSTORY IS NOT ALLOWED.
- > THE RETENTION OF THE EXISTING HERBACEOUS COMMUNITY WILL INHIBIT THE COLONIZATION OF INVASIVE SPECIES SUCH AS BITTERSWEET AND MULTI-FLORA ROSE DURING THE EARLY STAGES OF STAND DEVELOPMENT.
- > ONCE THE CANOPY ESTABLISHES, SHADE AND LEAF LITTER WILL KILL OFF ANY REMAINING TURF/LAWN SPECIES.

NOTE: THIS PLAN IS TO BE USED FOR LANDSCAPE & FOREST CONSERVATION PURPOSES ONLY.

PLANTING SPECIFICATIONS AND NOTES

- SITE PREPARATION AND SOILS**
- PROTECTION FENCING AND SILT FENCES FOR SEDIMENT AND EROSION CONTROL ARE TO BE INSTALLED AS A FIRST ORDER OF BUSINESS, IF NECESSARY.
 - DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD FOR EACH PLANT. AS SHOWN ON THE DETAIL VIEW, A PLANTING FIELD OF RADIUS = 2 X DIAMETER OF THE ROOT BALL OR CONTAINER IS RECOMMENDED.
 - SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME PEAT MOSS.
 - MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

- PLANT STORAGE AND INSPECTION**
- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
 - FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE.
 - PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
 - UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

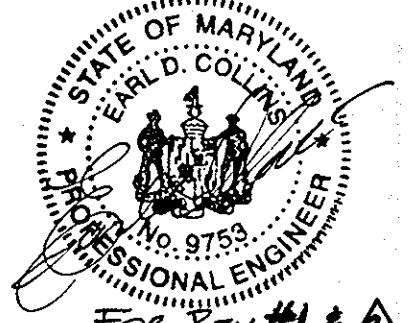
- PLANT INSTALLATION**
- THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
 - PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
 - CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THRU LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED PLEASE TRY TO DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. THEY WERE HERE FIRST.
 - CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE DISEASES.
 - FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL. THEN FEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.
 - FOR TREES PLANTED IN THE MITIGATION AREA, CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO (2) TO FOUR (4), PER SPECIES, OVER THE ENTIRE DESIGNATED AREA TO BE PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED ON PLANT LIST.
 - AVOID PLANTING IN A STRAIGHT GRID PATTERN. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED ON PLANT LISTS TO OBTAIN A MORE NATURAL APPEARANCE.
 - NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE WELL DRAINED NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.

- FERTILIZING**
- DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADD ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
 - NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE ITS NEEDS.
 - IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

- MAINTENANCE SCHEDULE**
- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
 - ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
 - VOLUNTEER SEEDINGS OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE ENCOURAGED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
 - REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
 - REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK. PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

SUPERVISION
ALL FOREST CONSERVATION ACTIVITIES SHALL BE DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

STANDARD NON-DISTURBANCE NOTE:
THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY HOWARD COUNTY.



BUILDER
RYAN HOMES
6085 MARSHALEE DR.
ELKRICHT, MD 21075
410-796-0980

OWNER/DEVELOPER
ELLCOTT CITY LAND HOLDING, INC.
5300 DORSEY HALL ROAD, SUITE 102
ELLCOTT CITY, MARYLAND 21042
443-367-0415

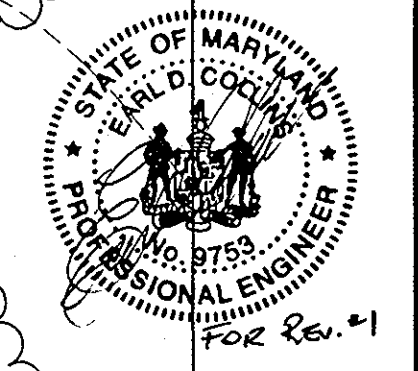
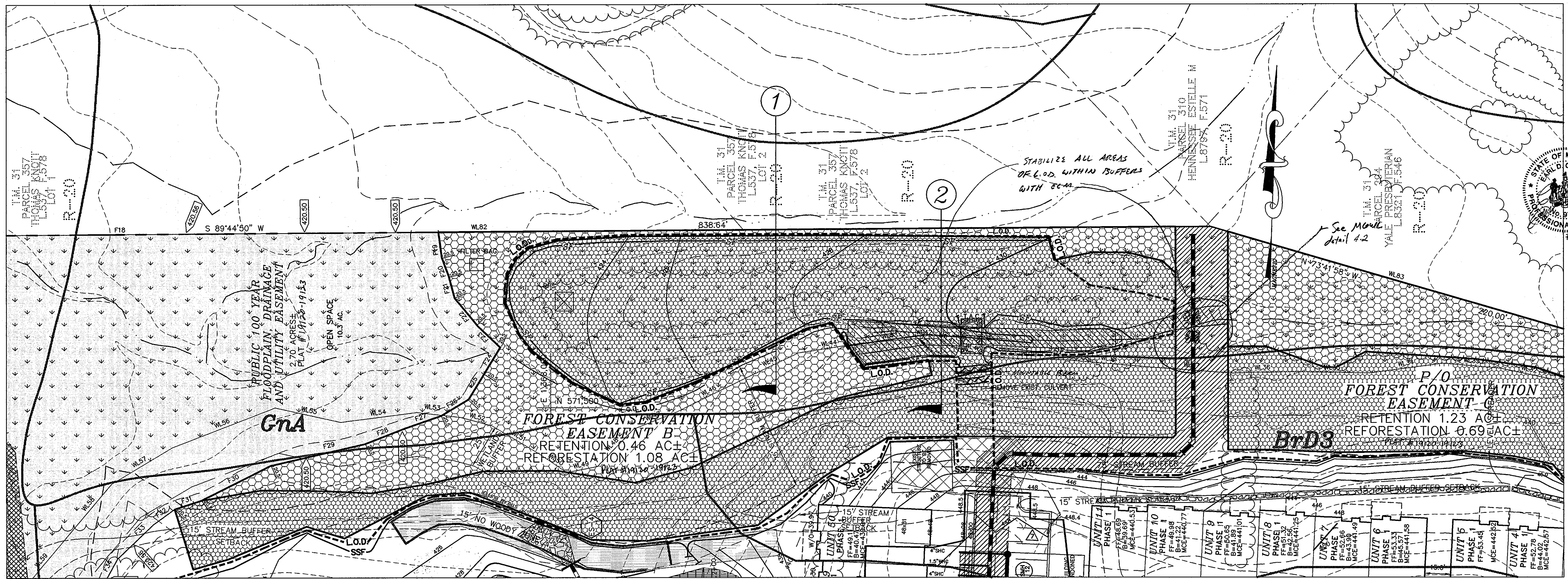
MD DNR QUALIFIED PROFESSIONAL
MASHID TRING

Project	date	description	scale	approval
04-021	FEB 2007	engineering	JJO/AMT	
04-021	FEB 2007	engineering	JJO/AMT	

REV. DATE	DESCRIPTION	DATE
1	REV. OWNER/DEVELOPER BUILDING UNITS 1-5 4	4-29-08
2	REV. LANDSCAPING ACCORDINGLY	1-9-08

HEARTHSTONE OF ELLCOTT MILLS II, PARCELS A & B, PHASE I, PHASE II
AGE RESTRICTED ADULT HOUSING
TAX MAP 31 PARCELS 98 AND 20
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
LANDSCAPE AND FOREST CONSERVATION PLAN

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042
(410) 987-0266 Fax: (301) 621-6521 Wash. (410) 987-0298 Fax.



Project	04-021	Date	FEB 2007
Illustration	JBM	Engineering	JBM
Scale	JBM	Scale	1" = 30'
Approval	JBM	Approval	JBM

REV. OWNER/DEVELOPER AND BUILDER	1/09/05	DATE
description		
revisions		

HEARTHSTONE AT ELLICOTT MILLS II, PARCELS A & B, PHASE I
 AGE RESTRICTED ADULT HOUSING
 TAX MAP 31 PARCELS 96 AND 20
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 REMOVAL OF FILL AREA PLAN

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296, Fax: (301) 821-5521, Wash. (410) 997-0999 Fax.

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.
 SIGNATURE: _____ P.E. NO.: _____
 DATE: _____

CERTIFY MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUITABLE AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

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

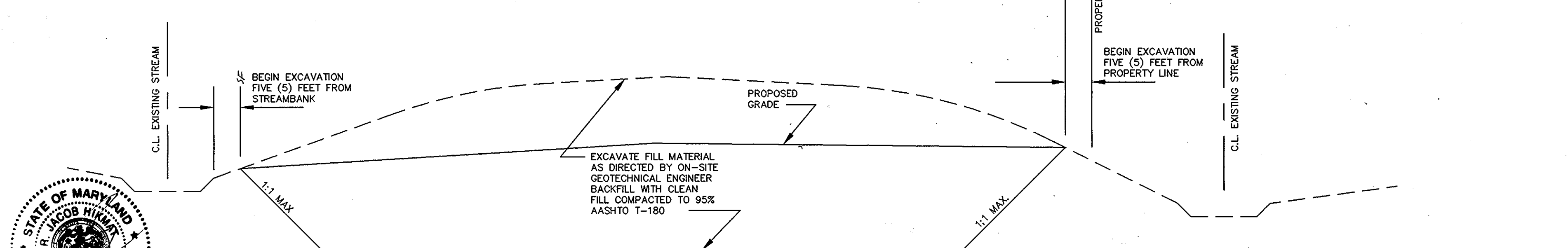
SIGNATURE OF DEVELOPER: *Donald R. Reuber, Jr.* DATE: 1/31/07
 PRINTED NAME OF DEVELOPER: Donald R. Reuber, Jr.

SIGNATURE OF ENGINEER: *Robert J. Hilkner* DATE: 1/31/07
 PRINTED NAME OF ENGINEER: Robert J. Hilkner

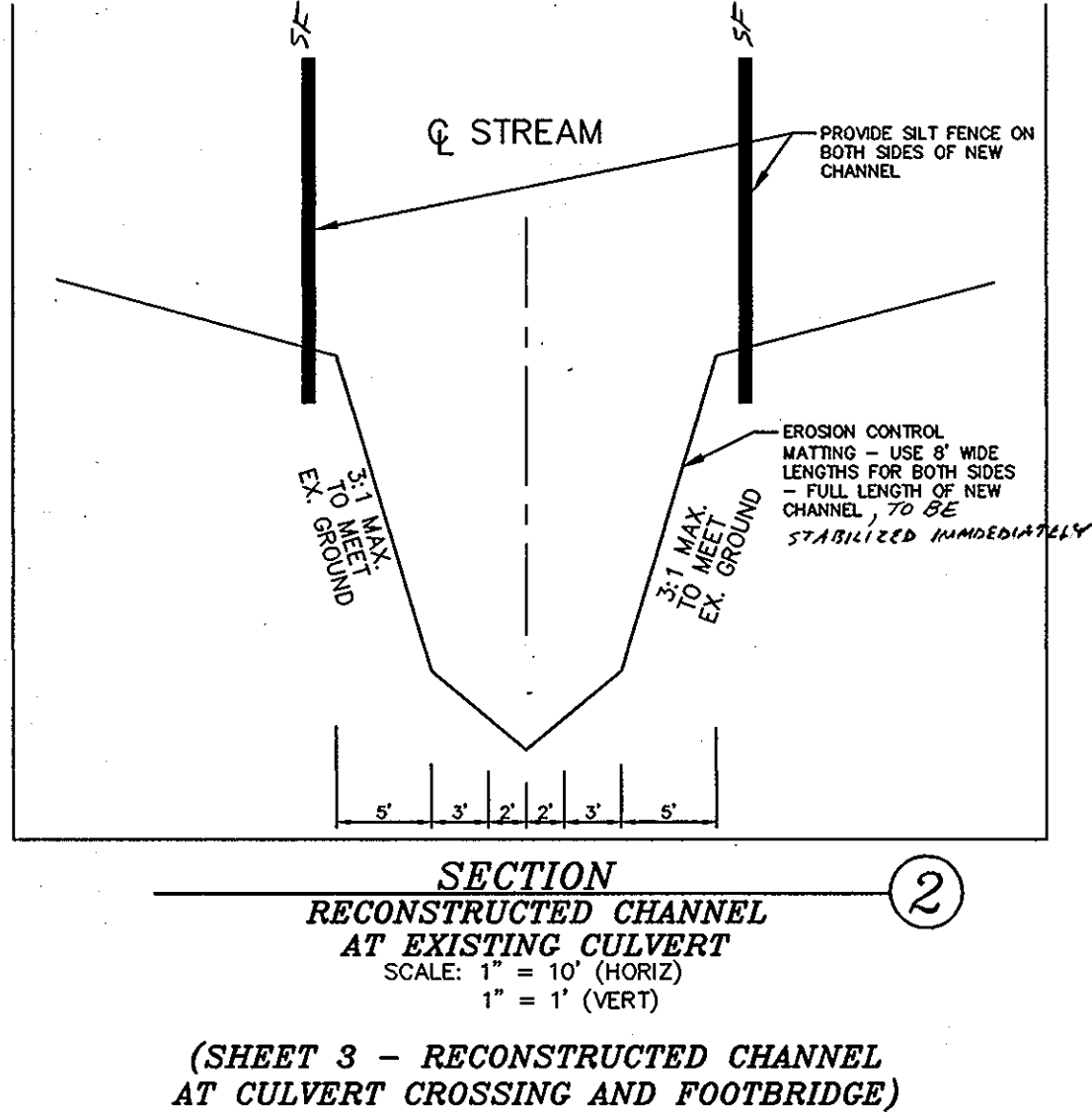
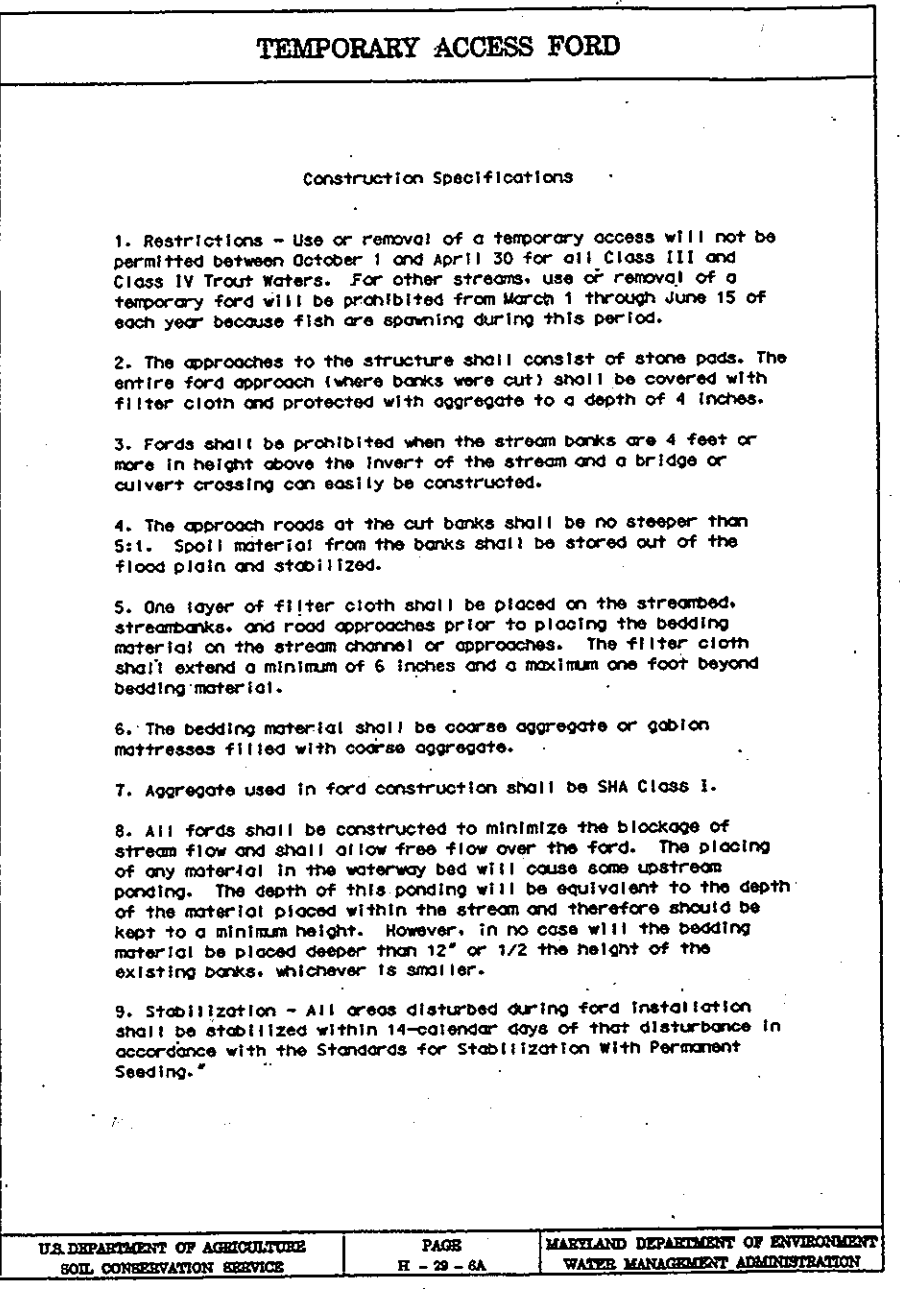
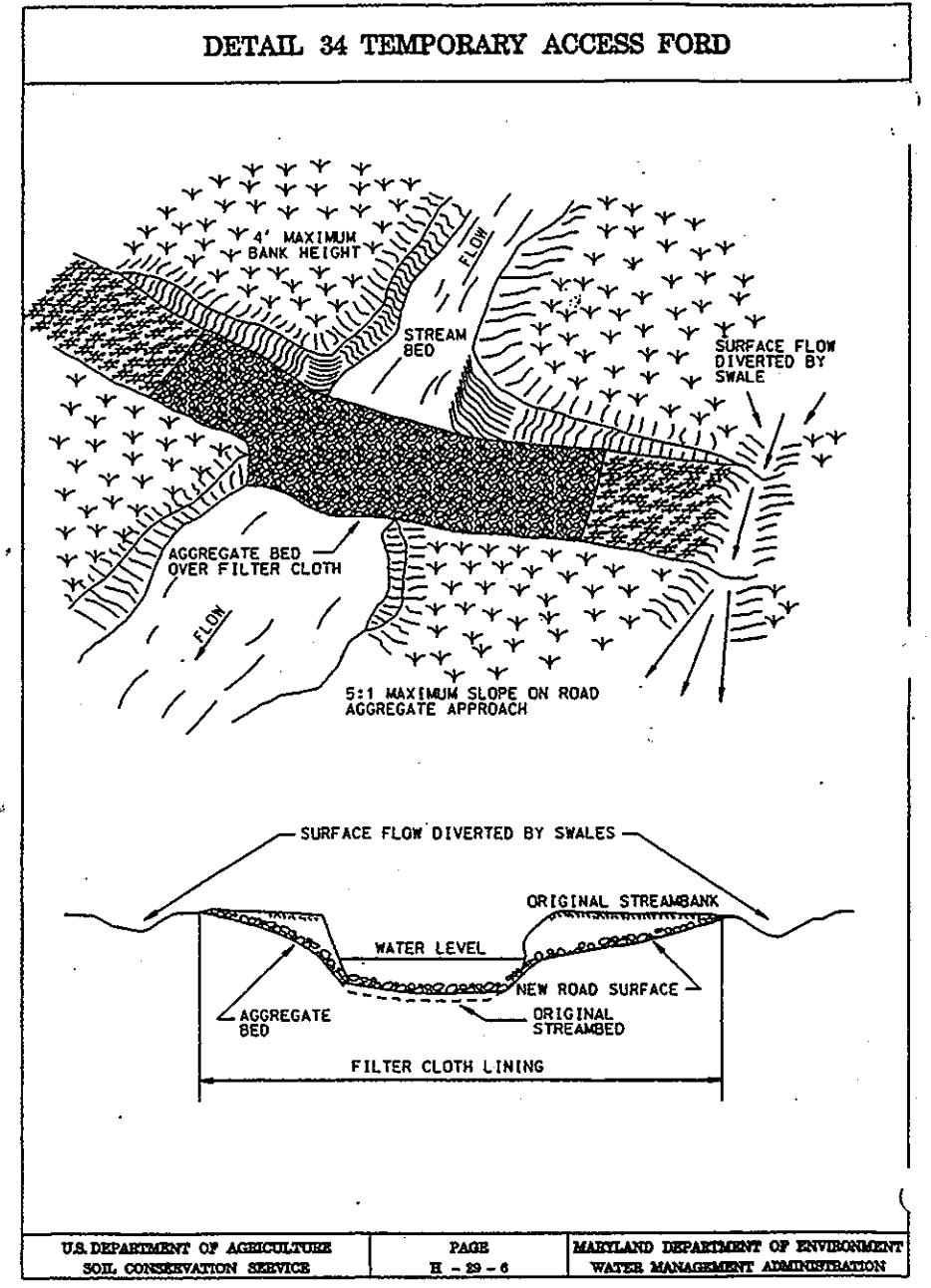
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
 SIGNATURE: *Jim Hynes* DATE: 2/27/07
 USDA - NATURAL RESOURCES CONSERVATION SERVICE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE: *John Hynes* DATE: 2/27/07
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 SIGNATURE: *Chad Edwards* DATE: 3-17
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 SIGNATURE: *Carole Hammett* DATE: 5/23/07
 CHIEF, DIVISION OF LAND DEVELOPMENT
 SIGNATURE: *Janice A. Lytle* DATE: 5/25/05
 DIRECTOR



- GENERAL NOTES:**
- EXCAVATE FILL MATERIAL AS DIRECTED BY GEOTECHNICAL ENGINEER.
 - BACKFILL MATERIAL SHALL BE CLEAN FILL, WITHOUT ORGANIC MATERIAL, COMPACTED TO 95% PER AASHTO T-180.
 - PLACE EROSION CONTROL MATTING OVER BACKFILLED AREA AND SEED AND MULCH DISTURBED AREA.
 - TEMPORARY ACCESS CROSSING AND RECONSTRUCTED CHANNEL TO BE INSTALLED AND INSPECTED BY GEOTECHNICAL ENGINEER BEFORE COMMENCEMENT OF FILL REMOVAL.
 - REMOVE EXISTING CULVERT AND RECONSTRUCT, PERMANENTLY STABILIZE AND LINE WITH SILT FENCE OF BOTH SIDES OF THE NEW CHANNEL FOR ITS ENTIRE LENGTH. OBTAIN PERMISSION FROM THE INSPECTOR BEFORE PROCEEDING TO REMOVE OLD FILL MATERIAL.
 - THE REMOVAL OF ALL TRASH AND FILL MATERIAL FROM THE STREAM, WETLANDS AND THEIR BUFFERS WILL BE SUPERVISED UNDER THE DIRECTION OF THE GEOTECH AND ENVIRONMENTAL CONSULTANT.
 - THE CONTRACTOR MUST NOTIFY AND RECEIVE APPROVAL FROM THE INSPECTOR AFTER ALL TRASH, JUNK RUBBLE OF DEBRIS IS REMOVED



LEGEND

	WETLANDS
	FOREST CONSERVATION EASEMENT (REFORESTATION)
	FOREST CONSERVATION EASEMENT (RETENTION)
	PUBLIC 100-YEAR FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT
	NO WOODY BUFFER
	EROSION CONTROL MATTING
	STEEP SLOPES (25% OR GREATER)
	STEEP SLOPES (15% - 25%)
	PUBLIC WATER AND UTILITY EASEMENT
	EX. 20' PUBLIC SEWER AND UTILITY EASEMENT
	SWM MAINTENANCE ACCESS
	RECREATIONAL OPEN SPACE
	CREDITED OPEN SPACE
	EXTERIOR LIGHT FIXTURE
	STABILIZED CONSTRUCTION ENTRANCE
	SUPER SILT FENCE
	LIMIT OF DISTURBANCE
	EXISTING TREES
	FOREST CONSERVATION SIGNAGE
	EXISTING TREELINE
	PROPOSED TREELINE

BUILDER
 RYAN HOMES
 6085 MARSHALEE DR.
 ELK RIDGE, MD 21075
 410-796-0980

OWNER/DEVELOPER
 LAND DESIGN & DEVELOPMENT, INC.
 5300 DORSEY HALL DRIVE, SUITE 102
 COLUMBIA, MD 21042
 443-567-0415

MDE TRACKING NO.: 200665385