

GENERAL NOTES

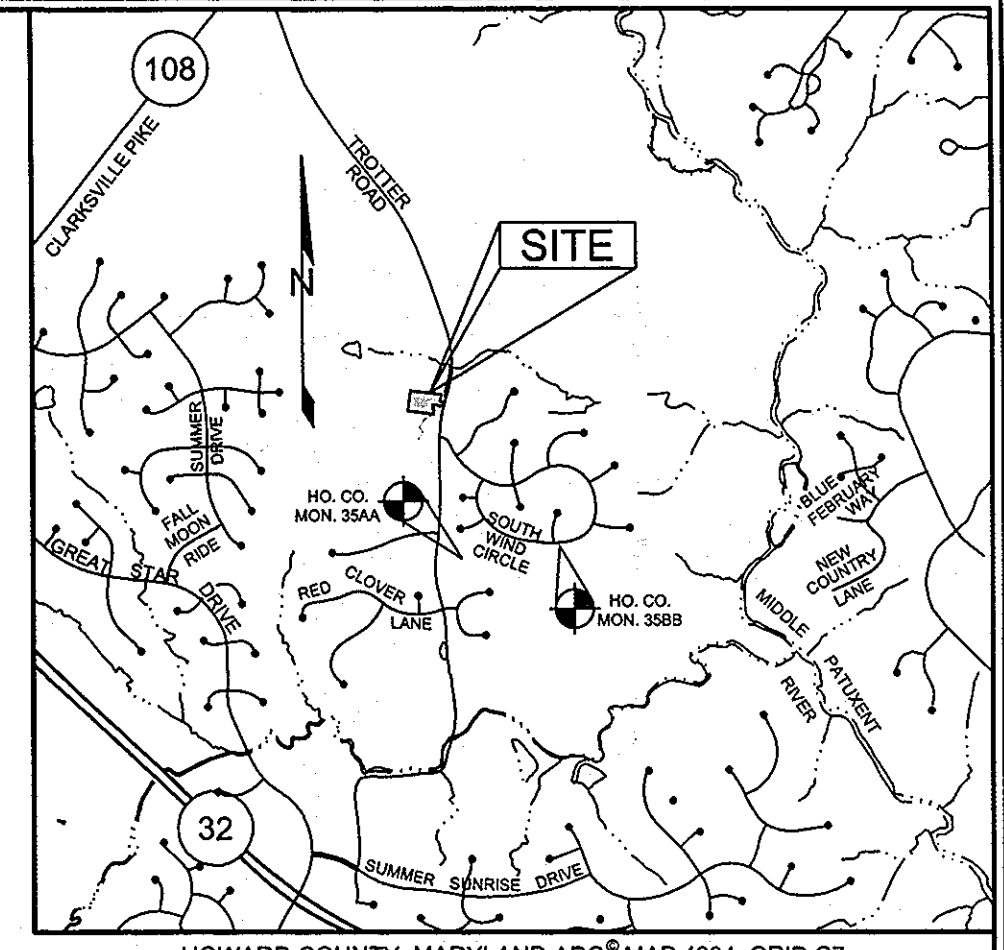
- SUBJECT PROPERTY IS ZONED "R-20" PER THE 2020/04 COMPREHENSIVE ZONING PLAN AND THE "COMPLITE" ZONING AMENDMENTS EFFECTIVE 7/28/06.
- TOTAL PROJECT AREA = 3.673 AC.±
AREA OF PLAN SUBMISSION = 3.673 AC.±
LIMIT OF DISTURBED AREA = 3.1 AC.±
EXISTING USE = RESIDENTIAL
PROPOSED USE = RESIDENTIAL
TOTAL NUMBER OF UNITS ALLOWED = 8
TOTAL NUMBER OF UNITS PROPOSED = 8
NUMBER OF PARKING SPACES REQUIRED = 16 SPACES
NUMBER OF PARKING SPACES PROVIDED = 16 SPACES
OPEN SPACE PROVIDED UNDER PLAN, F-10-039
PREVIOUS DPZ FILE NUMBERS: SP-08-15; WP-09-166; F-10-039; CONTR.#34-4575-D; F-10-039, RECORD PLAT NO. Z1710, F-12-028.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.
- THIS PROPERTY IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/20/03 PER COUNCIL BILL 75-2003.
- PUBLIC WATER AND PUBLIC SEWER WILL BE USED WITHIN THIS SITE. WATER AND SEWER SERVICE WILL BE PROVIDED BY AN EXTENSION OF CONTRACT #34-4345 UNDER CONTRACT # 34-4575-D.
- BOUNDARY SURVEY AND TOPOGRAPHY WERE PREPARED BY SILL, ADCOCK & ASSOCIATES, LLC. ON OR ABOUT FEBRUARY, 2008.
- THERE ARE NO STEEP SLOPES, WETLANDS, FLOODPLAIN, HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION 410.531.5533
BGE(CONTRACTOR SERVICES) 410.850.4620
BGE(UNDERGROUND DAMAGE CONTROL) 410.787.9088
MISS UTILITY 1.800.257.7777
COLONIAL PIPELINE COMPANY 410.795.1390
HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES 410.313.4900
HOWARD COUNTY HEALTH DEPARTMENT 410.313.2540
AT&T 1.800.252.1133
VERIZON 1.800.743.0033/410.224.9210
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- ANY DAMAGE TO PUBLIC RIGHTS-OF-WAY, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ADDITION TO MARYLAND STATE HIGHWAY AUTHORITY STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL HDPE PIPE SPECIFICATION AND INSTALLATION SHALL MEET AASHTO M-252 TYPE S, M-294 TYPE S AND ASTM D2321, RESPECTIVELY.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. DRIVEWAY PAVING TO BE HOWARD COUNTY STANDARD P-1 PAVING SECTION. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST, PRIOR TO CONSTRUCTION.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- ALL TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NUMBERS 35AA AND 35BB WERE USED FOR THIS PROJECT.
- DRIVEWAY ENTRANCES PER HOWARD COUNTY DESIGN MANUAL IV, DETAIL R-6.03. DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
1) WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE);
2) SURFACE - SIX (6) INCHES OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM);
3) GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS;
4) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING);
5) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.
6) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
- ALL DITCHES AND SWALES WILL HAVE EROSION CONTROL MATTING.
- STORMWATER MANAGEMENT IS PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES I AND II. IT WAS DETERMINED THAT THIS PROJECT MET THE CRITERIA OUTLINED IN THE MDC STORMWATER MANAGEMENT REGULATIONS GUIDANCE FOR IMPLEMENTATION FOR ACCEPTANCE OF THE 2000 DESIGN CRITERIA AND GRANTED A WAIVER. THIS PLAN RECEIVED PRELIMINARY APPROVAL (SP-08-015) ON 11/06/08 AND FINAL APPROVAL (F-10-039) ON 04/14/10. THIS PLAN IS ALSO SUBJECT TO THE EXPIRATION OF THIS WAIVER UNLESS ALL STORMWATER MANAGEMENT IS CONSTRUCTED BY MAY 4, 2017. STORMWATER MANAGEMENT IS PROVIDED FOR THIS PROJECT BY WATER QUALITY AND RECHARGE OBLIGATION, AND WILL BE MET BY UTILIZING BIORETENTION FACILITIES AND SHEET FLOW TO BUFFER CREDITS. CHANNEL PROTECTION IS NOT REQUIRED BECAUSE THE POST DEVELOPED 1 YEAR STORM RUNOFF IS LESS THAN 2 CFS. BIORETENTION FACILITIES "B" THRU "M" LOCATED ON A LOT SHALL BE OWNED AND MAINTAINED BY EACH LOT OWNER. BIORETENTION FACILITY "A" SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- FINANCIAL SURETY FOR LANDSCAPING OBLIGATIONS HAVE BEEN PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.124 OF THE SUBDIVISION REGULATIONS AND THE LANDSCAPE MANUAL UNDER F-10-039.
- IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY MARS GROUP, DATED MARCH 2008.
- FOREST CONSERVATION OBLIGATIONS HAVE BEEN PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION UNDER F-10-039.
- EXISTING SEDIMENT CONTROL DEVICES INSTALLED UNDER F-10-039 WILL BE UTILIZED FOR THE CONSTRUCTION OF THE PROPOSED HOUSES AND ASSOCIATED SITE GRADING, SEE SHEET 4.
- DRIVEWAY ENTRANCES TO BE PER HOWARD COUNTY STANDARD DETAIL R-6.03.
- SEWER HOUSE CONNECTIONS (SHC) TO BE AT 2.0% UNLESS OTHERWISE NOTED. CLEANOUTS ARE TO BE PROVIDED AT ALL BENDS.
- ALL WATER HOUSE CONNECTIONS (WHC) ARE TO BE 1.5 INCHES IN DIAMETER, TO ACCOMMODATE AUTOMATIC SPRINKLER SYSTEMS THAT ARE REQUIRED EFFECTIVE JANUARY 1, 2011.
- BASED ON AN UPDATED ENVIRONMENTAL ASSESSMENT OF THE INTERMITTENT STREAM SYSTEM LOCATED WITHIN OPEN SPACE LOT 9, IT WAS DETERMINED THAT THE INTERMITTENT STREAM EXTENDS BEYOND OPEN SPACE LOT 9 AND ONTO LOT 8 RESULTING IN A CHANGE IN THE STREAM CHANNEL DELINEATION, THE 50' STREAM BUFFER AND THE 35' ENVIRONMENTAL BEL. BASED ON A MEETING WITH DPZ OFFICIALS ON JUNE 17, 2011, IT WAS DETERMINED THAT THE 50' STREAM BUFFER AND THE 35' ENVIRONMENTAL BEL REQUIREMENTS WERE DETERMINED TO BE NECESSARY DISTURBANCES BASED ON SECTION 16.1106(C) OF THE SUBDIVISION LAND REGULATIONS IN THIS PARTICULAR SITUATION TO ACCOMMODATE THE NECESSARY SITE IMPROVEMENTS.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS OR THEIR BUFFERS FLOODPLAIN AND FOREST CONSERVATION GASBMENT AREAS, EXCEPT FOR THE DISTURBANCES LOCATED WITHIN THE 50' STREAM BUFFER AS APPROVED ON THE PLANS BY DPZ ON LOT 8.

SITE DEVELOPMENT PLAN

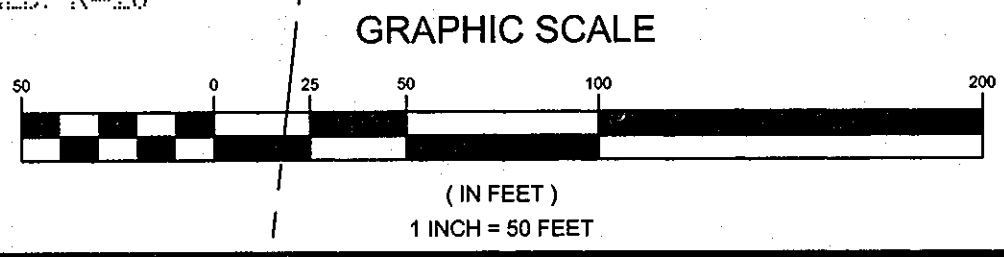
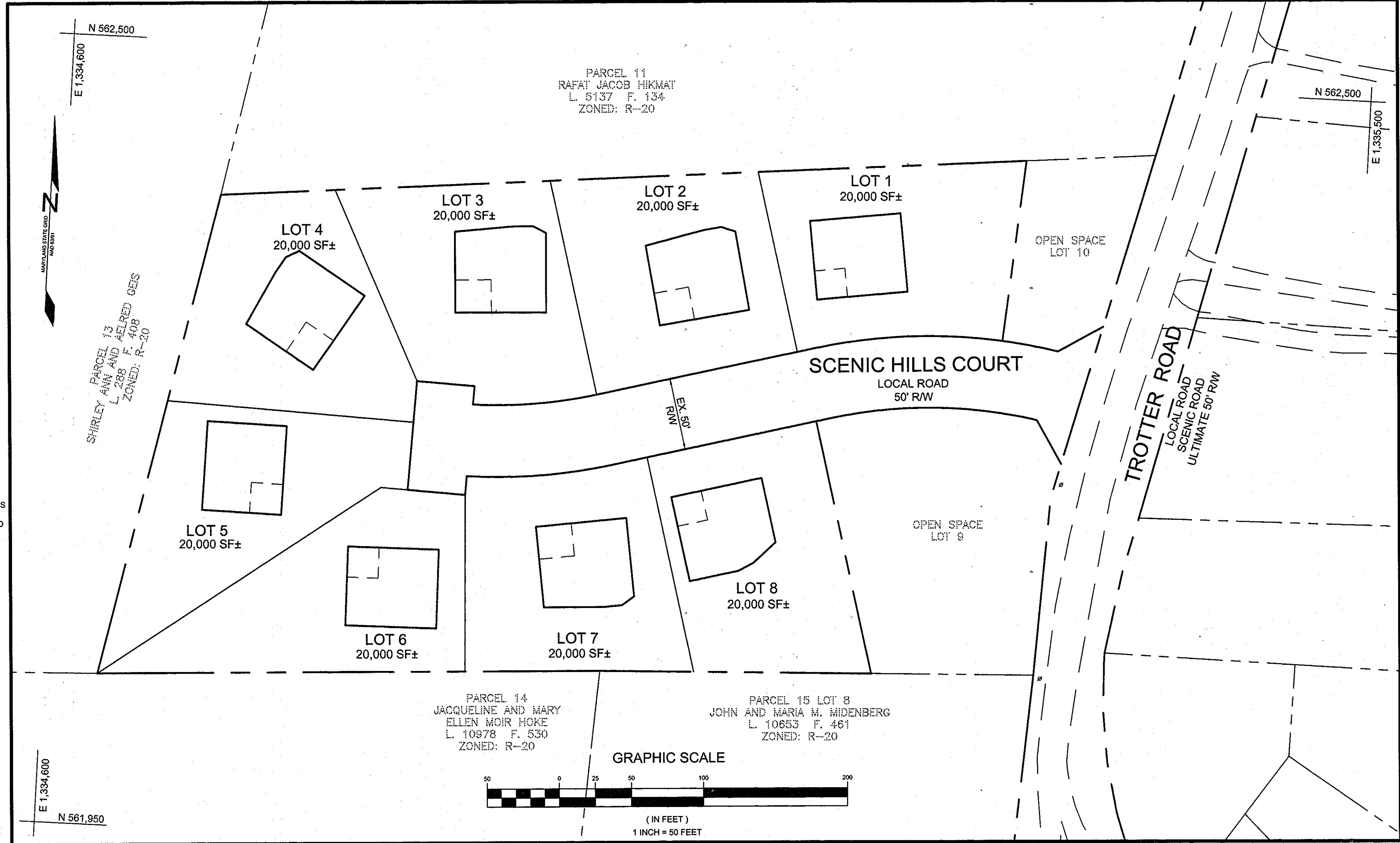
TROTTER LANDING

LOTS 1-8

HOWARD COUNTY, MARYLAND



HOWARD COUNTY, MARYLAND ADD MAP 4934, GRID C7
VICINITY MAP
SCALE: 1"=2000'



LOCATION MAP
SCALE: 1"=50'

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SITE DEVELOPMENT PLAN
3	HOUSE MODEL TEMPLATES
4	SEDIMENT & EROSION CONTROL PLAN
5	SEDIMENT & EROSION CONTROL NOTES AND DETAILS
6	STORMWATER MANAGEMENT - BIORETENTION PLAN, PROFILES, & CHARTS
7	STORMWATER MANAGEMENT - BIORETENTION PLAN, PROFILES, & CHARTS
8	STORMWATER MANAGEMENT - BIORETENTION PLAN, PROFILES, & CHARTS

BENCHMARKS

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
35AA	560,767.7141	1,335,483.8630	430.969	CONCRETE MONUMENT ON THE EAST SIDE OF TROTTER ROAD 1.2 MILES SOUTH OF RT-108
35BB	560,790.4056	1,336,537.2789	394.339	CONCRETE MONUMENT ON THE SOUTH SIDE OF SOUTH WIND CIRCLE 100' WEST OF MISTY TOP PATH

SITE ANALYSIS DATA CHART

TOTAL PROJECT AREA	AREA OF SUBMISSION	DISTURBED AREA	PRESENT ZONING
3.673 AC±	3.673 AC±	3.10 AC	R-20
PROPOSED USE	FLOOR SPACE PER USE	TOTAL UNITS ALLOWED	TOTAL UNITS PROPOSED
SFD	N/A	8	8
MAX. # EMPLOYEES	PARKING SPACES REQ.	PARKING SPACES PROV.	HC SPACES PROVIDED
N/A	2 PER DWELLING	2 PER DWELLING	N/A
OPEN SPACE REQUIRED	OPEN SPACE PROVIDED	REC. O.S. REQUIRED	REC. O.S. PROVIDED
SEE GENERAL NOTE 2	SEE GENERAL NOTE 2	N/A	N/A
BUILDING COVERAGE	FLOOR AREA RATIO	DPZ FILE REFERENCES	
N/A	N/A	SEE GENERAL NOTE #2	

PERMIT INFORMATION CHART

SUBDIVISION NAME		SECTION / AREA	PARCEL #		
TROTTER LANDING		N/A	164 AND 12		
PLAT	GRID #	ZONING	TAX MAP #	ELECT. DIS.	CENSUS TRACT
21571 & 21572	2	R-20	35	5TH	6055.01

ADDRESS CHART

LOT	STREET ADDRESS
1	11804 SCENIC HILLS COURT
2	11808 SCENIC HILLS COURT
3	11812 SCENIC HILLS COURT
4	11816 SCENIC HILLS COURT
5	11819 SCENIC HILLS COURT
6	11815 SCENIC HILLS COURT
7	11811 SCENIC HILLS COURT
8	11807 SCENIC HILLS COURT

SEWER HOUSE CONNECTION SCHEDULE

LOT NO.	INVERT @ MAIN	INVERT @ RW	MIN. CELLAR ELEV.
1	390.19	380.54	385.04
2 (1,4)	391.33	391.73	396.11
3 (1,4)	401.92	402.26	407.55
4 (1,4)	410.42	411.90	415.08
5 (2,4)	410.42	411.08	416.29
6 (3,4)	410.22	411.49	415.88
7	402.46	403.13	407.85
8	392.80	393.40	397.62

- NOTES:
- SEWER HOUSE CONNECTION AT 5.0%
 - SEWER HOUSE CONNECTION AT 4.0%
 - SEWER HOUSE CONNECTION AT 3.0%
 - MINIMUM CELLAR ELEVATION BASED ON 2% SLOPE FROM SEWER MAIN TO REAR OF PROPOSED STRUCTURE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edmund 5-25-11
CHIEF, DEVELOPMENT ENGINEERING DIVISION JR. DATE

Vat Slavovick 5-26-11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

William F. Butler 5-27-11
DIRECTOR DATE

OWNER
JANE J. ATHEY
17520 COUNTRY VIEW WAY
MT. AIRY, MARYLAND 21771

OWNER
HOWARD W. AND
BARBARA W. JANOSKE
5858 TROTTER ROAD
CLARKSVILLE, MD 21029

DEVELOPER
WILLIAMSBURG GROUP, LLC
C/O ROBERT CORBETT
5485 HARPERS FARM ROAD,
SUITE 200
COLUMBIA, MD 21044
410.997.8800

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISE GENERAL NOTES TO EXPLAIN ENVIRONMENTAL CHANGES ON LOTS 7-8, 9	08-04-11

COVER SHEET

TROTTER LANDING

LOTS 1 THRU 8

TAX MAP 35 GRID 2
5TH ELECTION DISTRICT

PARCEL 164 AND 12
HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners

3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saailland.com

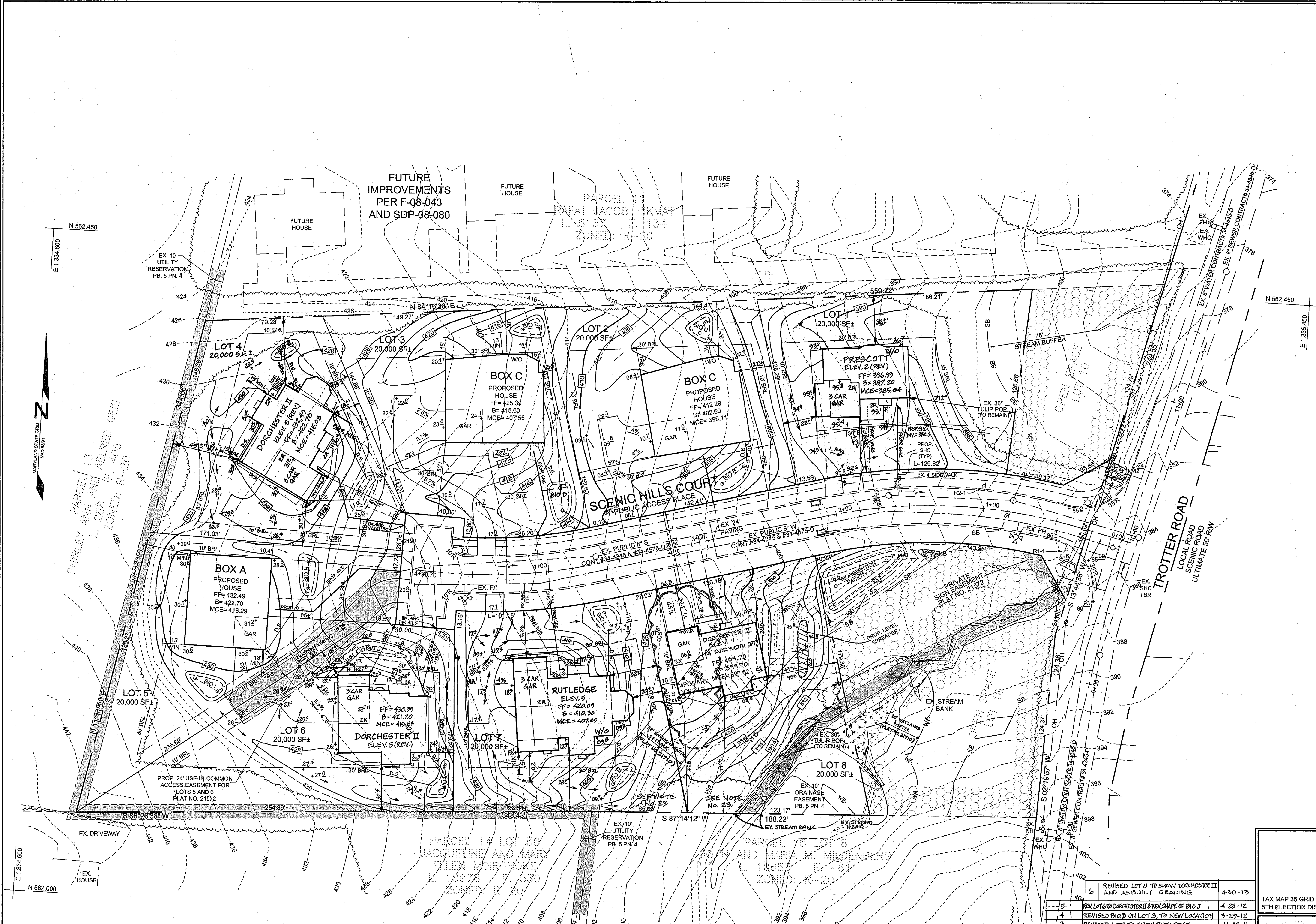
DESIGN BY: DH
DRAWN BY: DH
CHECKED BY: PS
SCALE: AS SHOWN
DATE: MAY 13, 2011
PROJECT #: 07-105
SHEET #: 1 of 8

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30225, EXPIRATION DATE: JUNE 20, 2011

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING SPECIMEN TREE TO REMAIN
- FOREST CONSERVATION EASEMENT PER F-10-059
- PROPOSED PRIVATE BIORETENTION FACILITY SEE SHEETS 6 THRU 8 FOR DETAILS
- PROPOSED ROOF LEADER (4" PVC TYP. WITH DOWNSPOUT)
- PROPOSED LANDSCAPING PER F-10-059
- EXISTING EASEMENTS

FUTURE IMPROVEMENTS PER F-08-043 AND SDP-08-080



OWNER
JANE J. ATHEY
5848 TROTTER ROAD
CLARKSVILLE, MD 21029

OWNER
HOWARD W. AND
BARBARA W. JANOSKE
5858 TROTTER ROAD
CLARKSVILLE, MD 21029

CONTRACT/PURCHASER
WILLIAMSBURG GROUP, LLC
5485 HARPERS FARM ROAD,
SUITE 200
COLUMBIA, MD 21044
410.997.8800

**SITE DEVELOPMENT PLAN
TROTTER LANDING
LOTS 1 THRU 8**

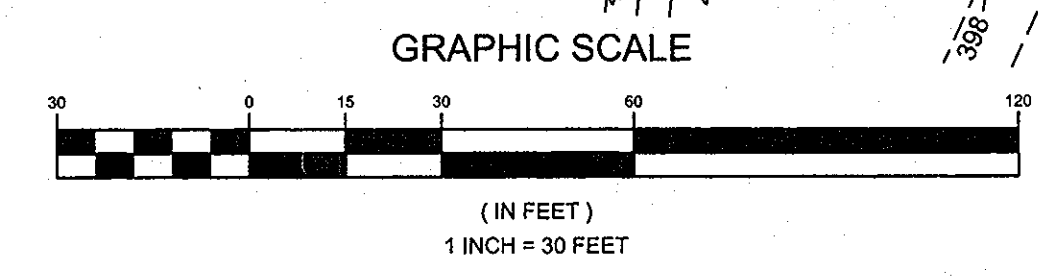
TAX MAP 35 GRID 2
5TH ELECTION DISTRICT
PARCEL 164 AND 12
HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners

3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@silladcock.com

DESIGN BY: DH
DRAWN BY: DH
CHECKED BY: PS
SCALE: 1"=30'
DATE: MAY 13, 2011
PROJECT #: 07-105
SHEET #: 2 of 8

NO.	DESCRIPTION	DATE
6	REVISED LOT 8 TO SHOW DORCHESTER II AND AS BUILT GRADING	4-30-13
5	REV LOT 6 TO DORCHESTER II & REV SHAPE OF B10 J	4-23-12
4	REVISED BLDG ON LOT 3 TO NEW LOCATION	3-29-12
3	REVISED LOT TO SHOW RUTLEDGE	11-03-11
2	REVISED HOUSE TYPES ON LOTS 1 AND 4	10-18-11
1	TO SHOW WETLANDS, WETLANDS BUFFER, STREAM BANK, STREAM BUFFER, ENVIRONMENTAL SETBACK, CHANGES TO GRADING ON LOTS 7-9, AND BUILDING CHANGE ON LOT 8. AND TO SHOW REVISION BOX C ON LOTS 2 & 7.	08-04-11



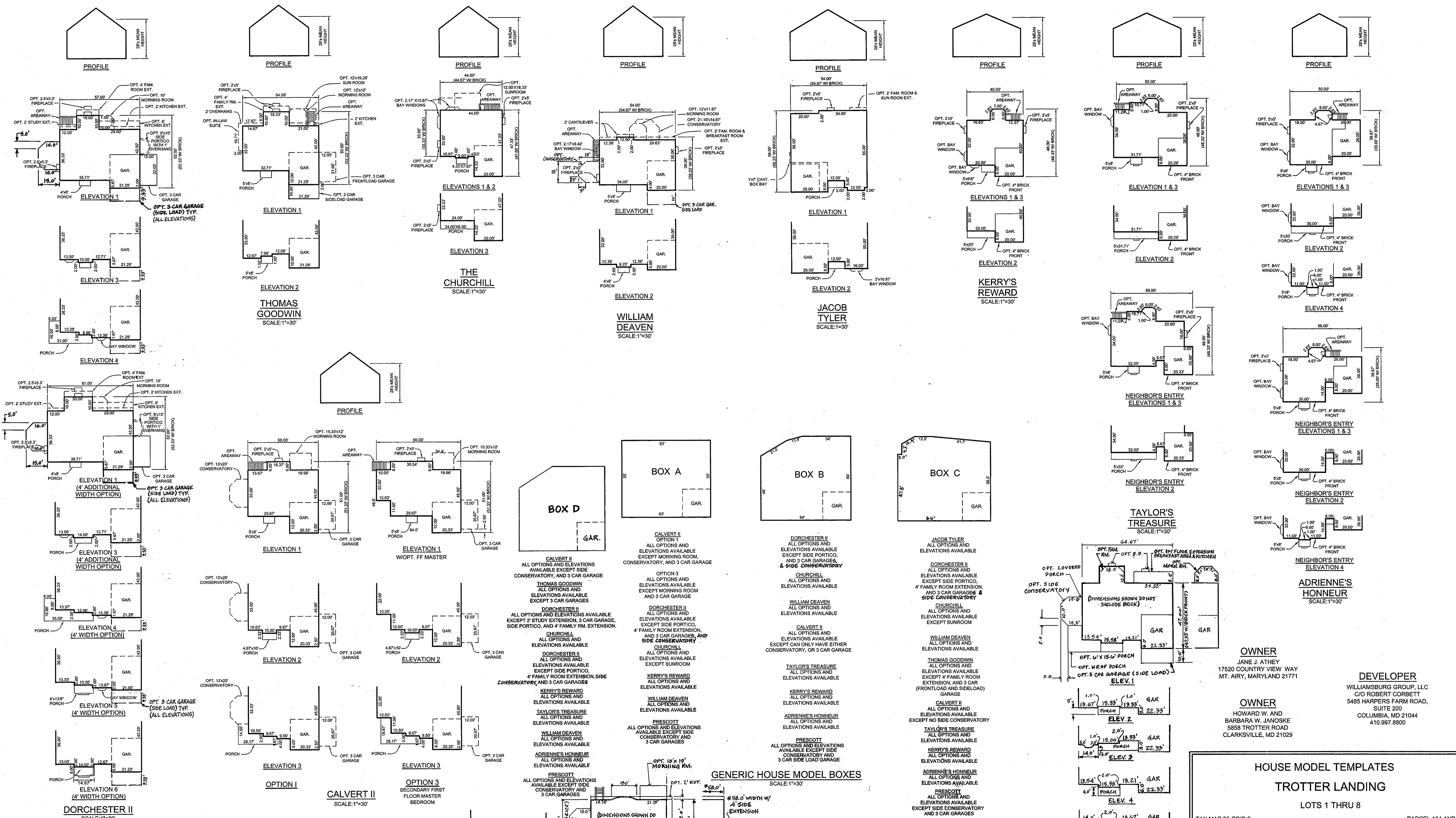
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chad Edwards 5-25-11
CHIEF, DEVELOPMENT ENGINEERING DIVISION, JR. DATE

Neil Edwards 5-26-11
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Morgan S. Pustler 5/27/11
DIRECTOR DATE

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30205, EXPIRATION DATE: JUNE 29, 2011



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Paul Church 5-25-11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Keith Salsbery 5-26-11
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Thomas R. Kuttler 5/27/11
 DIRECTOR DATE

DORCHESTER II
 SCALE: 1"=30'

THOMAS GOODWIN
 SCALE: 1"=30'

WILLIAM DEAVEN
 SCALE: 1"=30'

JACOB TYLER
 SCALE: 1"=30'

KERRY'S REWARD
 SCALE: 1"=30'

NEIGHBOR'S ENTRY
 SCALE: 1"=30'

TAYLOR'S TREASURE
 SCALE: 1"=30'

ADRIENNE'S HONNEUR
 SCALE: 1"=30'

GENERIC HOUSE MODEL BOXES
 SCALE: 1"=30'

BOX A

BOX B

BOX C

BOX D

PRESCOTT
 SCALE: 1"=30'

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 MT. AIRY, MARYLAND 21771

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 COLUMBIA, MD 21044
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REVISIONS

NO.	DESCRIPTION	DATE
3	REV. DORCHESTER II TO SHOW 3 CAR GAR (ON ALL ELEV.)	4-23-12
2	REVISED DORCHESTER II TO SHOW 3 CAR SIDE LOAD GARAGE AND SIDE CONSERVATORY	10-18-11
1	REVISE GENERIC BOX C, ADD GENERIC BOX D, ADD THE RUTLEDGE ? PRESCOTT	09-09-11

HOUSE MODEL TEMPLATES
TROTTER LANDING
 LOTS 1 THRU 8

TAX MAP 35 GRID 2
 5TH ELECTION DISTRICT

PARCEL 164 AND 12
 HOWARD COUNTY, MARYLAND

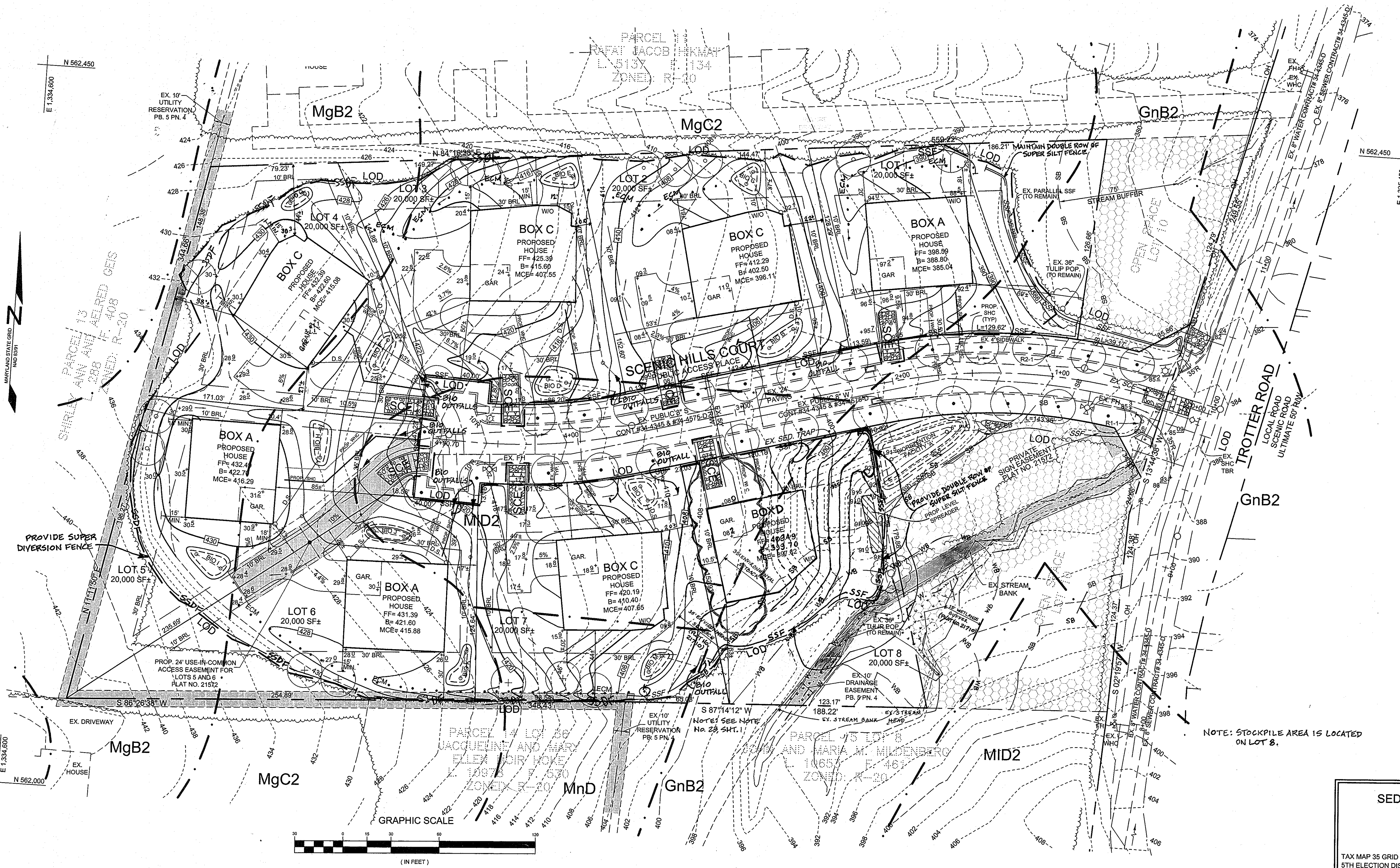
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 Email: info@silladcock.com

DESIGN BY: DH
 DRAWN BY: DH
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: MAY 13, 2011
 PROJECT #: 07-105
 SHEET #: 3 of 8

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32023, EXPIRATION DATE: JUNE 20, 2011

SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	GROUP
CgC2	CHESTER GRAVELLY SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
MnD	MANOR VERY STONY LOAM, 3 TO 25 PERCENT SLOPES	B
MID2	MANOR LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	B
MgB2	MANOR GRAVELLY LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MgC2	MANOR GRAVELLY LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B

LEGEND	
EXISTING CONTOUR	
PROPOSED CONTOUR	
EXISTING SPOT ELEVATION	
PROPOSED SPOT ELEVATION	
DIRECTION OF FLOW	
EXISTING TREELINE	
PROPOSED TREELINE	
EXISTING SPECIMEN TREE TO REMAIN	
EXISTING WELL	
STABILIZED CONSTRUCTION ENTRANCE	
EX. SILT FENCE FROM F-10-039	
EX. SUPER SILT FENCE FROM F-10-039	
LIMIT OF DISTURBANCE	
PROPOSED SUPER SILT FENCE	
SOIL BOUNDARY	
PROPOSED PRIVATE BIOPRETENTION FACILITY SEE SHEETS 5 THRU 9 FOR DETAILS	
FOREST CONSERVATION EASEMENT	
EROSION CONTROL MATTING PER F-10-039	
PROPOSED LANDSCAPING PER F-10-039	
EXISTING EASEMENTS	



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SEDIMENT & EROSION CONTROL PLAN
TROTTER LANDING
 LOTS 1 THRU 8
 TAX MAP 35 GRID 2
 5TH ELECTION DISTRICT
 PARCEL 164 AND 12
 HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 5-25-11
 Chief, Division of Land Development
 5-26-11
 Director
 5/27/11

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND
 SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 5/24/11
 HOWARD SCD

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL
 REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY
 PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS
 PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD
 SOIL CONSERVATION DISTRICT.
 5-16-11
 SIGNATURE OF ENGINEER
 PAUL M. SILL, PE, LEED AP

DEVELOPER'S CERTIFICATE
 I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE
 ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT
 ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT
 WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE
 ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF
 SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE
 PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 5-16-11
 SIGNATURE OF DEVELOPER

NO.	DESCRIPTION	DATE
1	TO SHOW WETLANDS, WETLANDS BUFFER, STREAM BANK, STREAM BUFFER, ENVIRONMENTAL SETBACKS, CHANGES TO HEADIN ON LOTS 7-9, BUILDING CHANGE ON LOT 8, REVISED BOX C.	

Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@saaand.com

DESIGN BY: DH
 DRAWN BY: DH
 CHECKED BY: PS
 SCALE: 1"=30'
 DATE: MAY 13, 2011
 PROJECT #: 07-105
 SHEET #: 4 of 8

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2011

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOILS

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

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

CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 A. THE TEXTURE OF THE EXPOSED SUBSOIL MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CHINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIAL LARGER THAN 1 AND 1/2" IN DIAMETER.

II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTBUSH, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:

I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

II. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:

A. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 B. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 C. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 D. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

III. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

I. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.

II. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:

A. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 B. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 C. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 D. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

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

III. TOPSOIL APPLICATION

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

II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSE AND PERMITS SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1855).
- ALL VEGETATION AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1, (B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE CHARTERED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOIL, TEMPORARY SEEDING, AND MULCHING (SEC. 3). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:

TOTAL AREA:	3.673 ACRES
AREA TO BE GRADED OR PAVED:	3.10 ACRES
AREA TO BE VEGETATIVELY STABILIZED:	0.63 ACRES
TOTAL CUT:	4941 CY
TOTAL FILL:	4490 CY
OFFSITE WASTE/BORROW AREA LOCATION:	

- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION.
- ** TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

PERMANENT SEEDING NOTES

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

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

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (2 LBS/1000 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (4 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT THE TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (8 LBS/1000 SQ.FT.)
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (2 LBS/1000 SQ.FT.) AND APPLY 1000 LBS PER ACRE 10-10-10 FERTILIZER (3 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

SEEDING: FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 80 LBS PER ACRE (14 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE WELLS AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOO. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAM STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDBED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

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

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

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30, AND FROM AUGUST 1 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 1 THRU FEBRUARY 28, PROTECT SITE BY APPLYING MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OR USE SOO.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAM STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

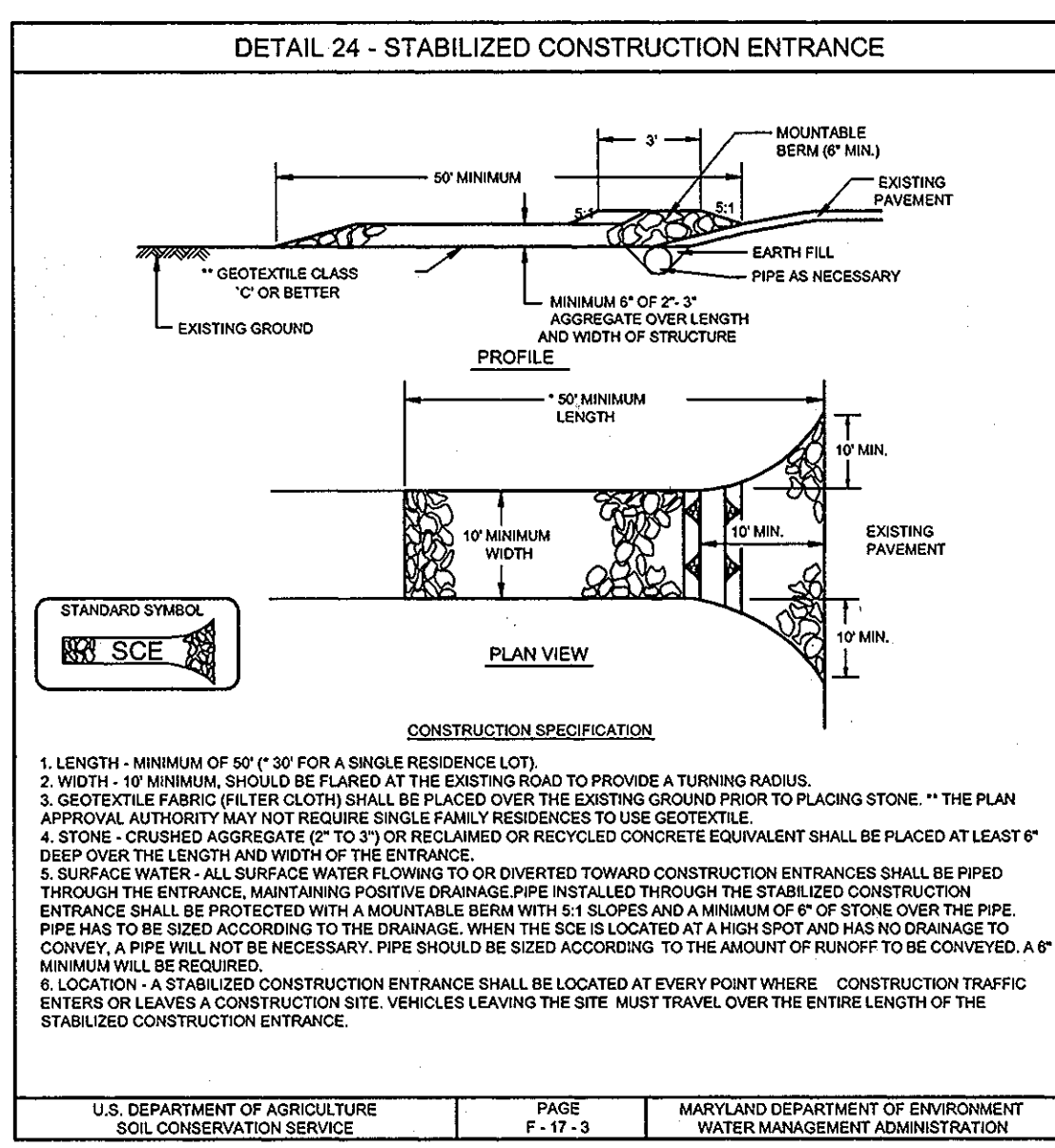
OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION AREAS (F-6)

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

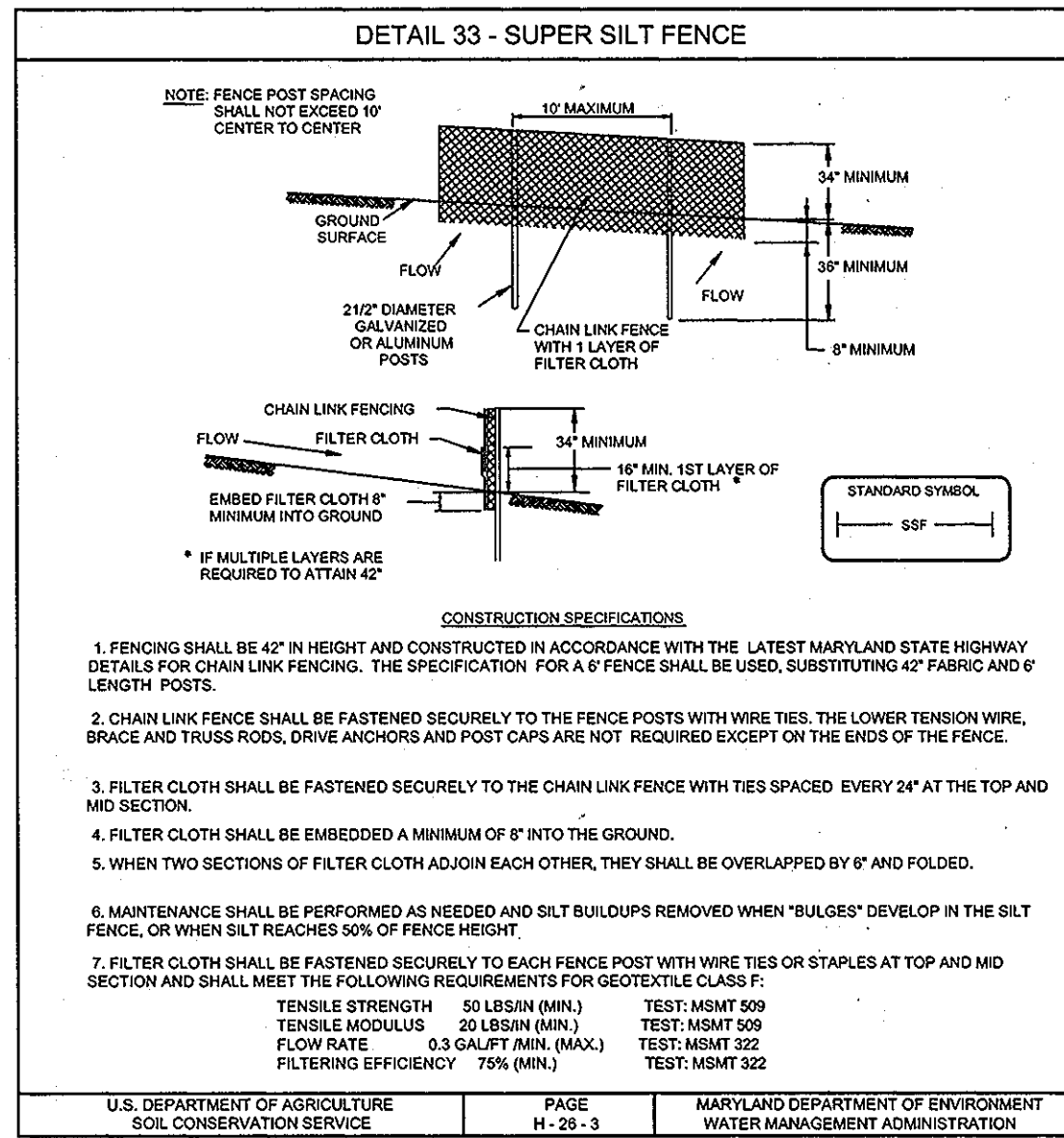
SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSE AND PERMITS AT (410) 313-1860 AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES AND ANY ADDITIONAL SILT FENCE OR SUPER SILT FENCE AS NECESSARY. ALSO, INSTALL SUPER SILT DIVERSION FENCE ALONG THE EAST SIDE OF LOT 5 TO LOT 6 DISTURBANCE ALONG LOT 5 TO LOT 6 AS SHOWN ON PLAN TO DIVERT CLEAN OFF-SITE STORMWATER. UTILIZE EXISTING SEDIMENT CONTROLS PROVIDED UNDER F-10-039. (SEE NOTE 3 BELOW) REPAIR EXISTING CONTROLS AS NECESSARY. (1 WEEK)
- COMPLETE CONSTRUCTION OF HOUSES. LOT 8 MUST MAINTAIN SEDIMENT TRAP UNTIL SEDIMENT INSPECTOR GRANTS PERMISSION FOR ITS REMOVAL. (1 YEAR)
- COMPLETE FINE GRADING OF SITE TO GRADES INDICATED. (1 DAY)
- INSTALL BIORETENTION FACILITIES, (NO SEDIMENT TO ENTER BIORETENTION FACILITIES). (3 DAYS)
- INSTALL EROSION CONTROL MATTINGS IN SWALE AREAS AS NECESSARY. (1 DAY)
- STABILIZE ALL REMAINING DISTURBED AREAS. (1 DAY)
- WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAP ON LOT 8 (EXISTING SUPER SILT FENCE TO REMAIN ON DOWNSLOPE SIDE OF SEDIMENT TRAP), AND PROCEED WITH HOUSE CONSTRUCTION AND GRADING AS NECESSARY. (2 MONTHS)
- WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE THE REMAINING DISTURBED AREA. (1 WEEK)

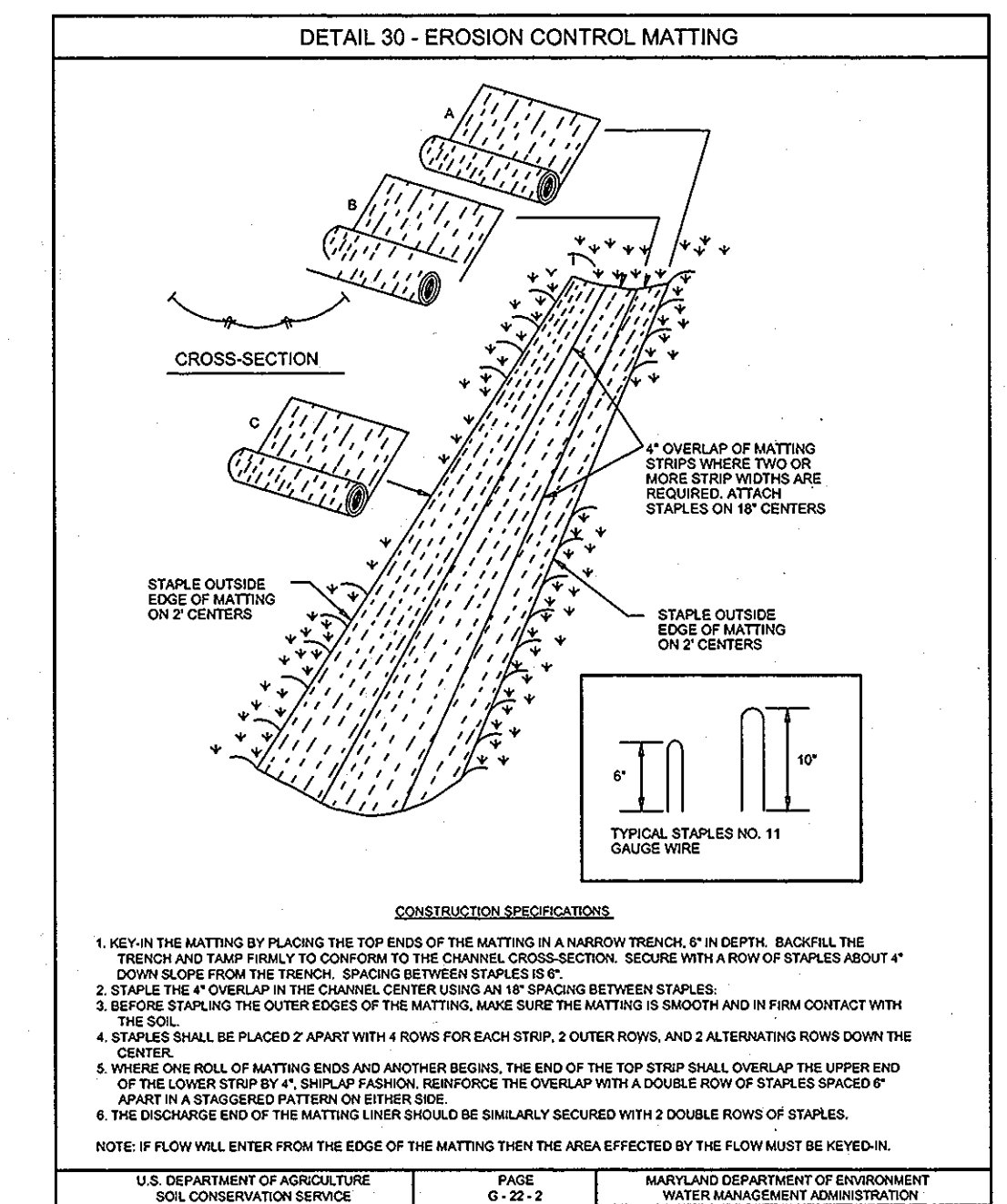
- NOTE: 1) FOLLOWING INITIAL SOIL DISTURBANCE OR ANY REDISTURBANCES, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 A. 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWALES AND ALL SLOPES GREATER THAN 3:1.
 B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS.
 2) DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.
 3) EXISTING SEDIMENT CONTROLS INSTALLED UNDER F-10-039 ARE TO REMAIN IN PLACE FOR CONSTRUCTION OF THESE LOTS, INCLUDING SILT FENCE, SUPER SILT FENCE, AND EARTH DIKE. DEVELOPER IS THE SAME AS WITH THE FINAL PLANS. NO PERMISSION LETTER IS REQUIRED.



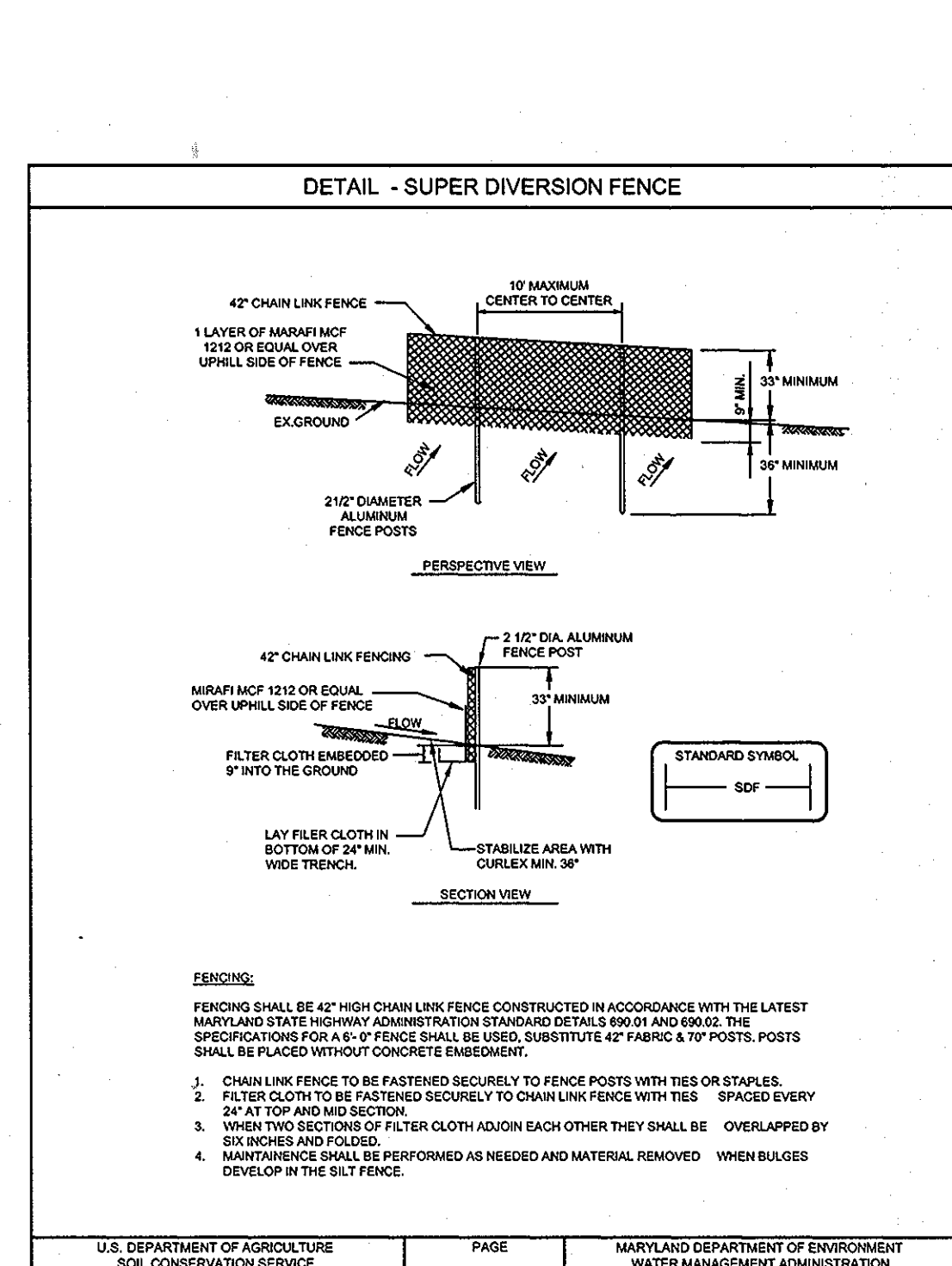
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE F-17-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



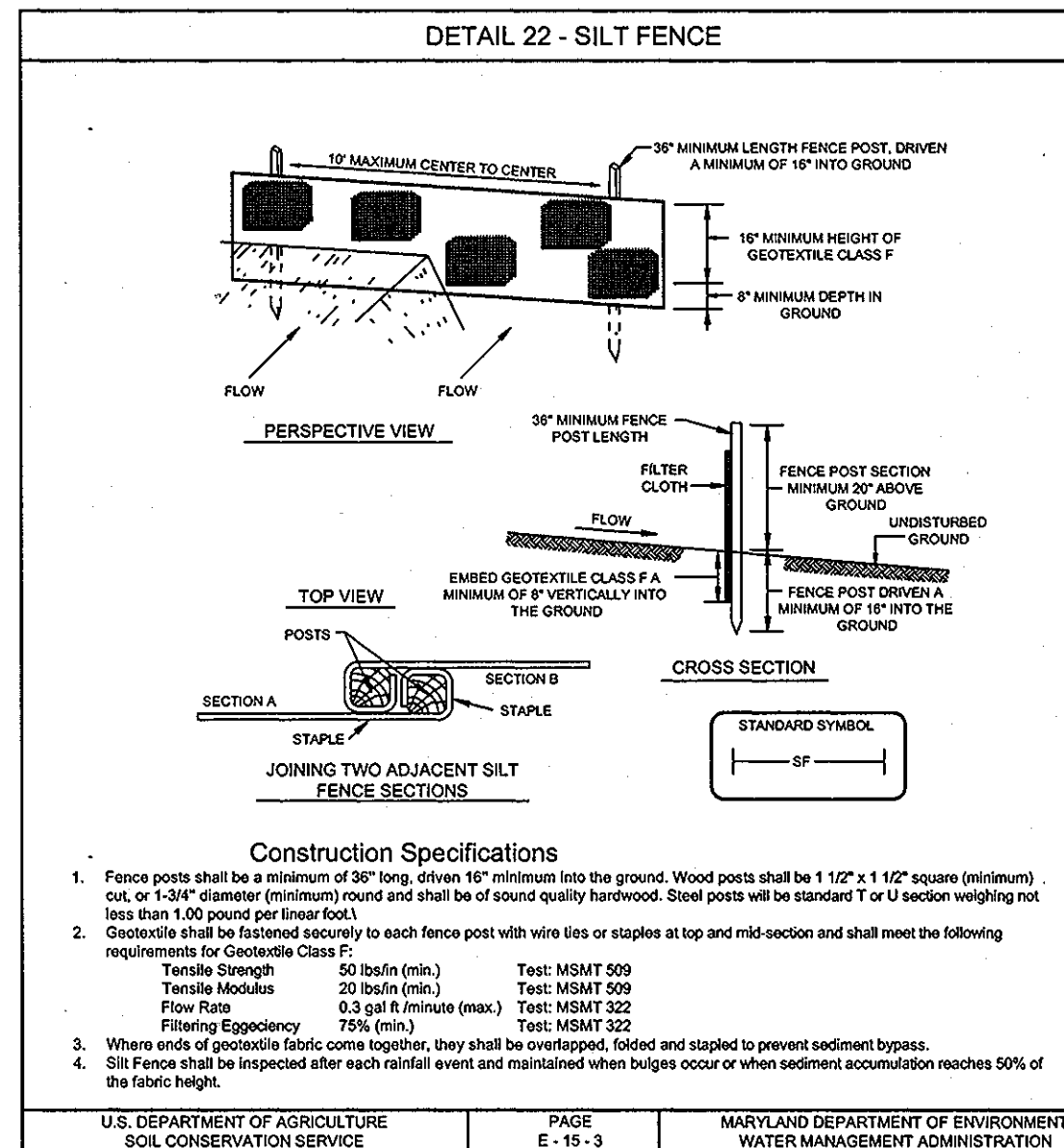
U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE H-26-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE G-22-2 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-11-3 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOILS

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

CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

I. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR A SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CHINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIAL LARGER THAN 1 AND 1/2" IN DIAMETER.

II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTBUSH, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

III. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

V. TOPSOIL APPLICATION

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

II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

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II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

V. TOPSOIL APPLICATION

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

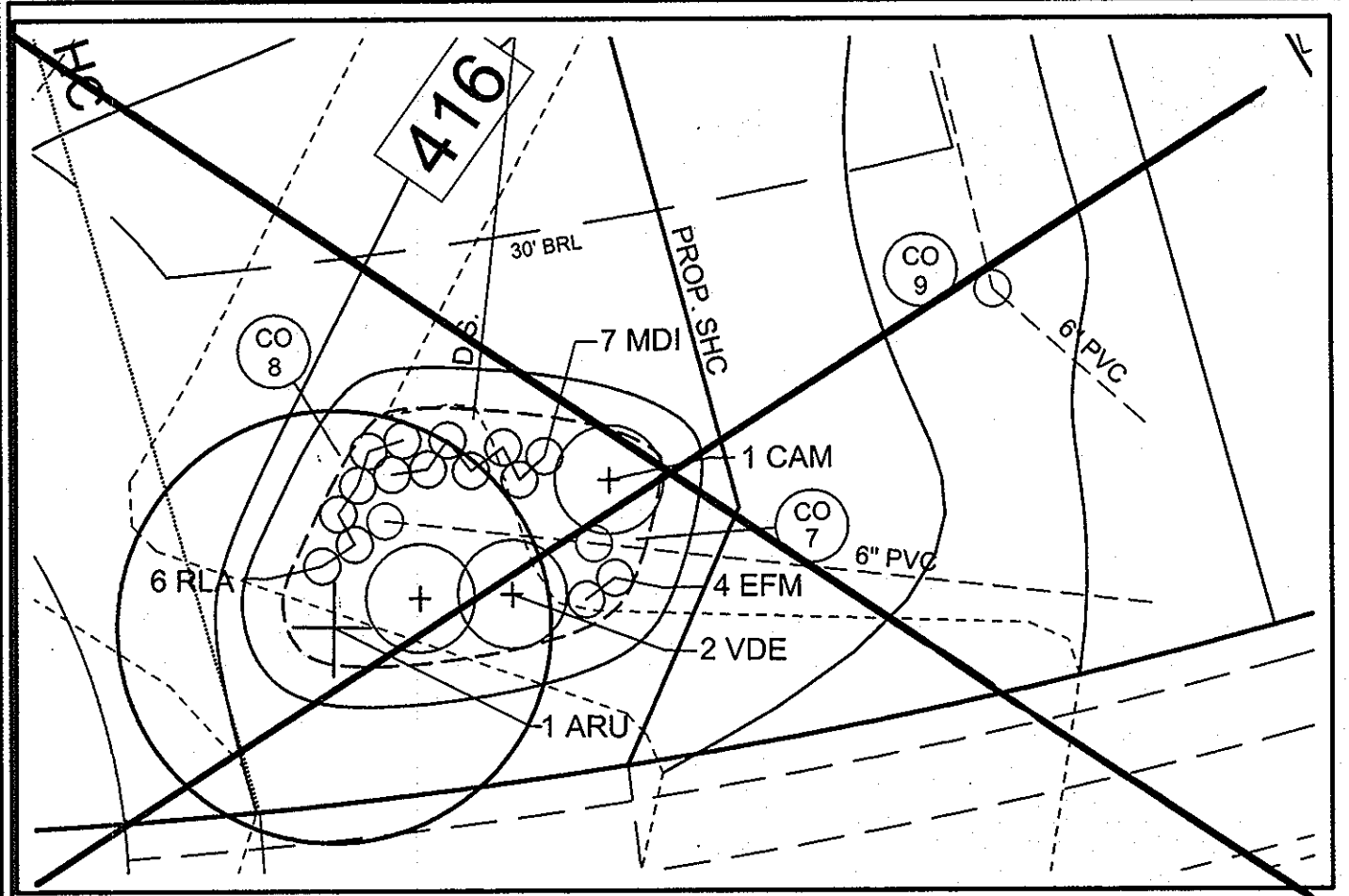
II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4"-8" HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

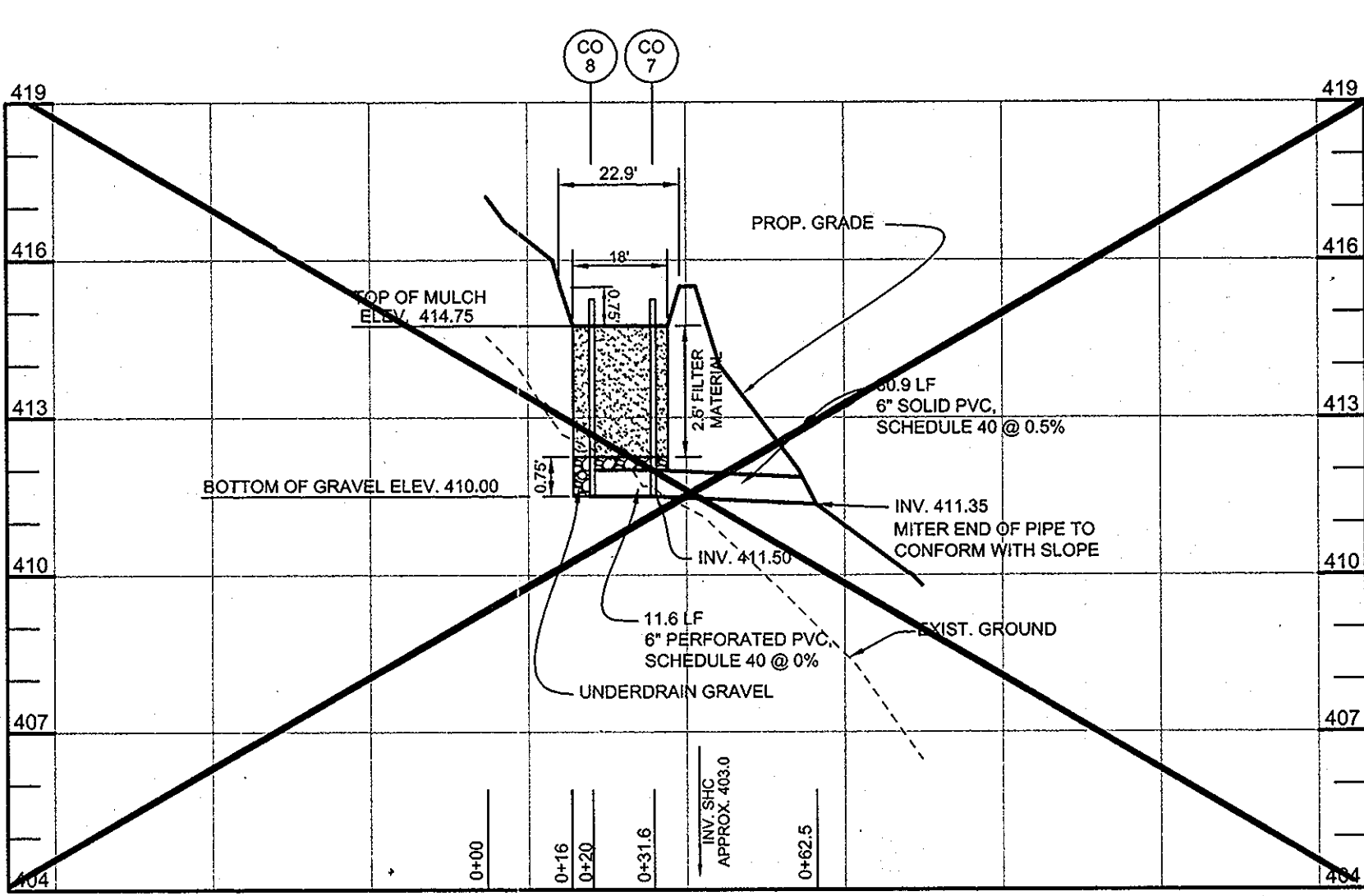
IV. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION. WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

V. TOPSOIL APPLICATION

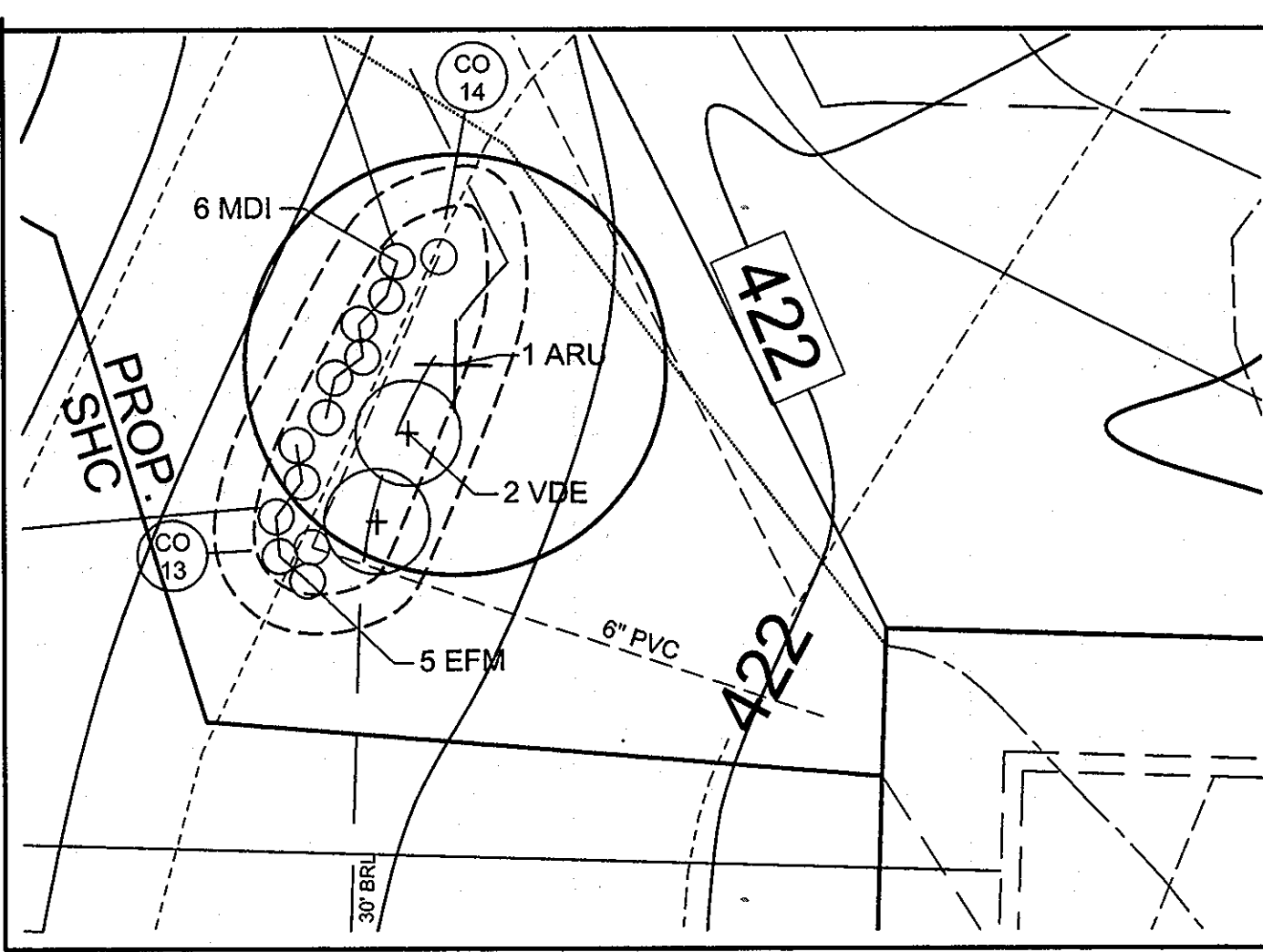
I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT F



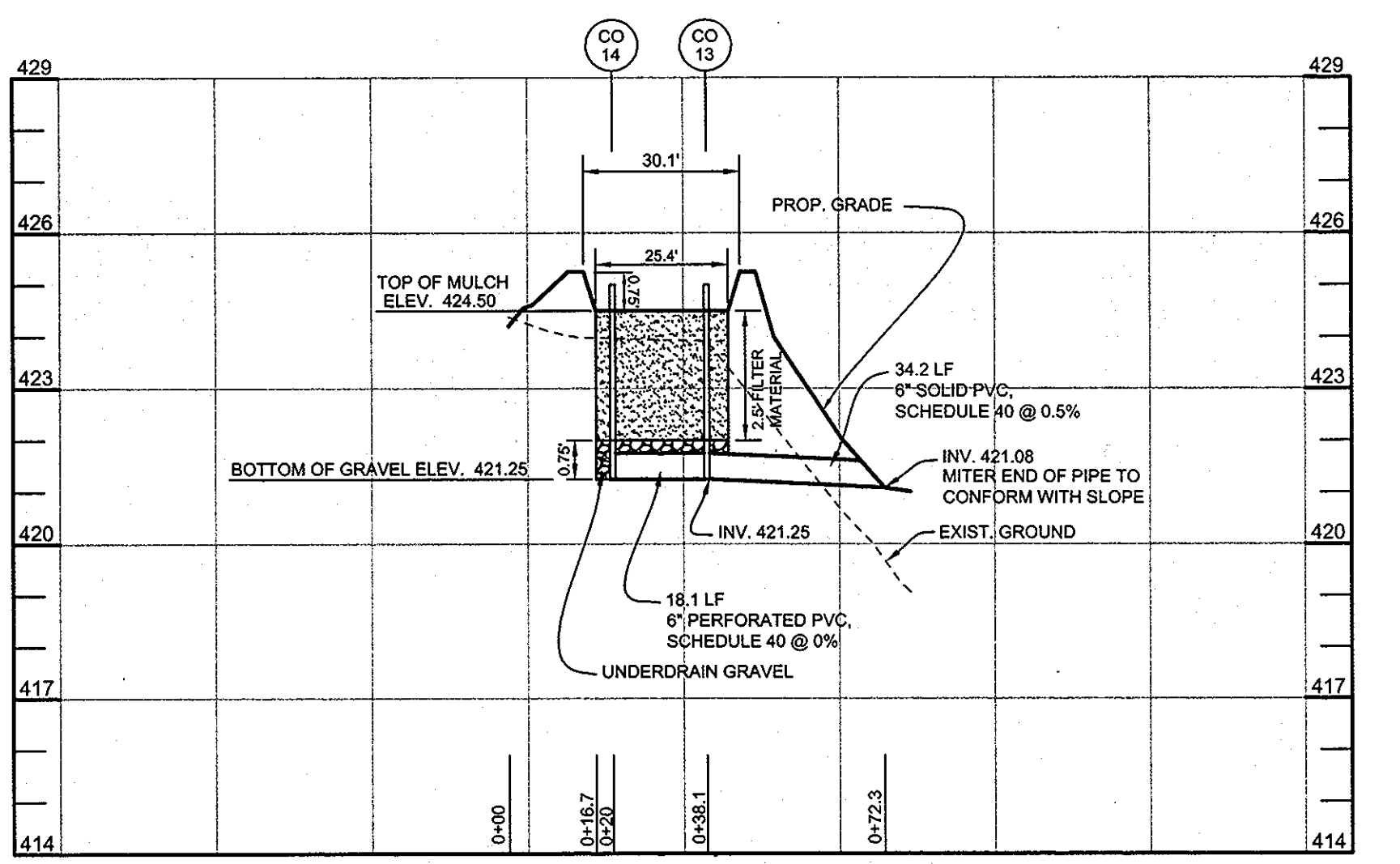
PLAN VIEW - BIORETENTION D - LOT 3
SCALE: 1"=10'
NOTE: SEE PLAN BELOW BIO D & E COMBINED.



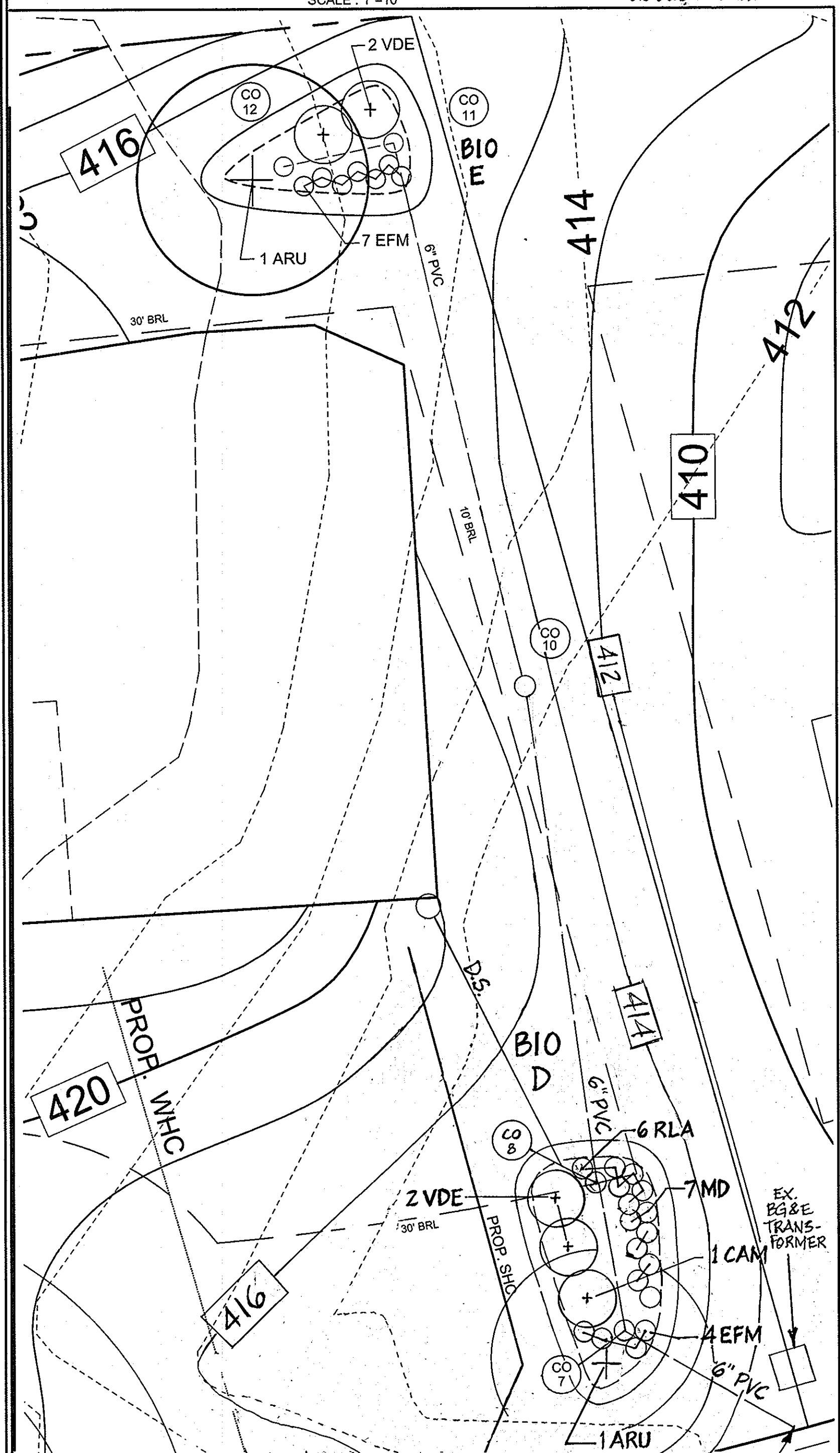
BIORETENTION D PROFILE - LOT 3
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'



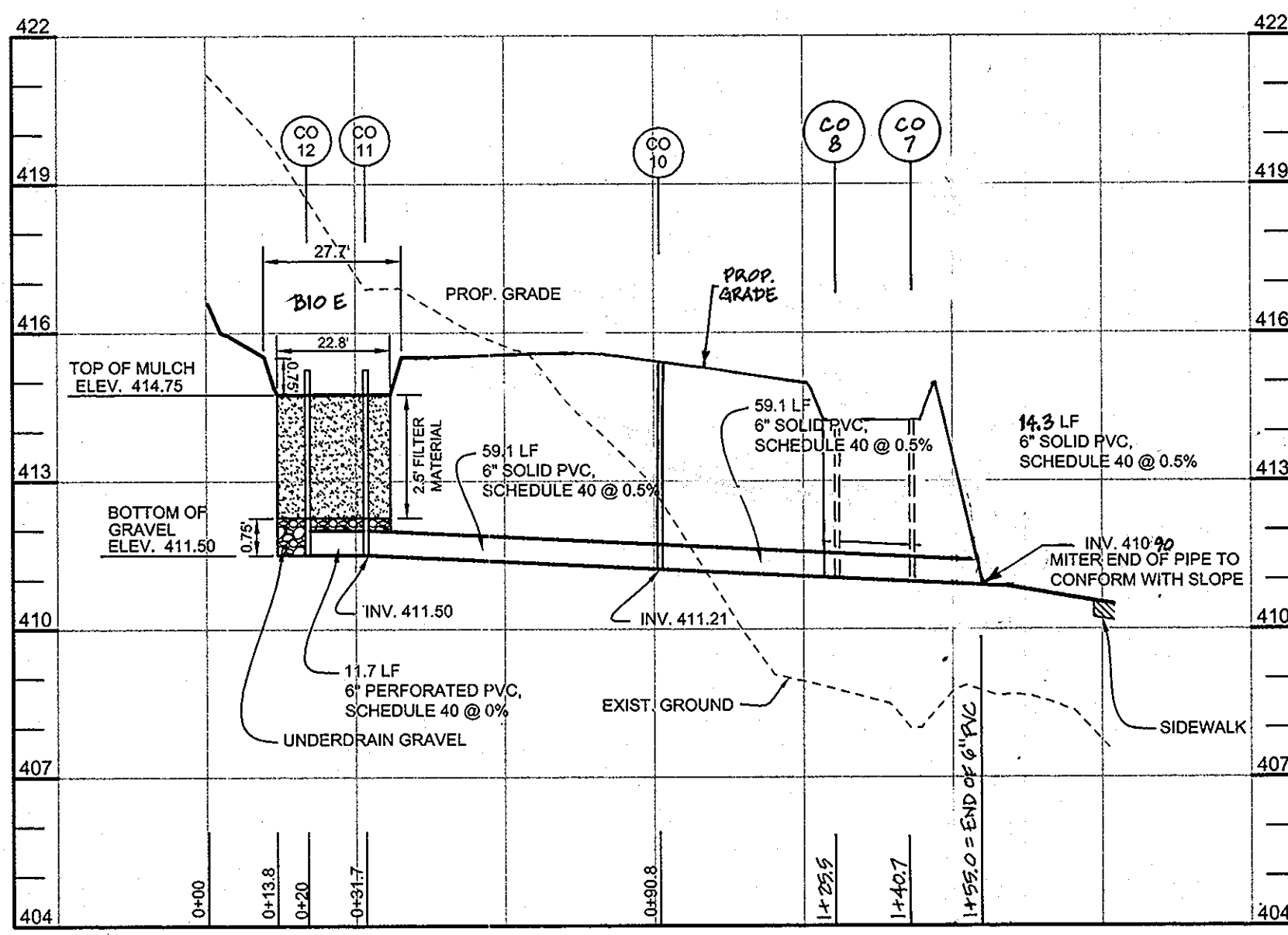
PLAN VIEW - BIORETENTION F - LOT 4
SCALE: 1"=10'



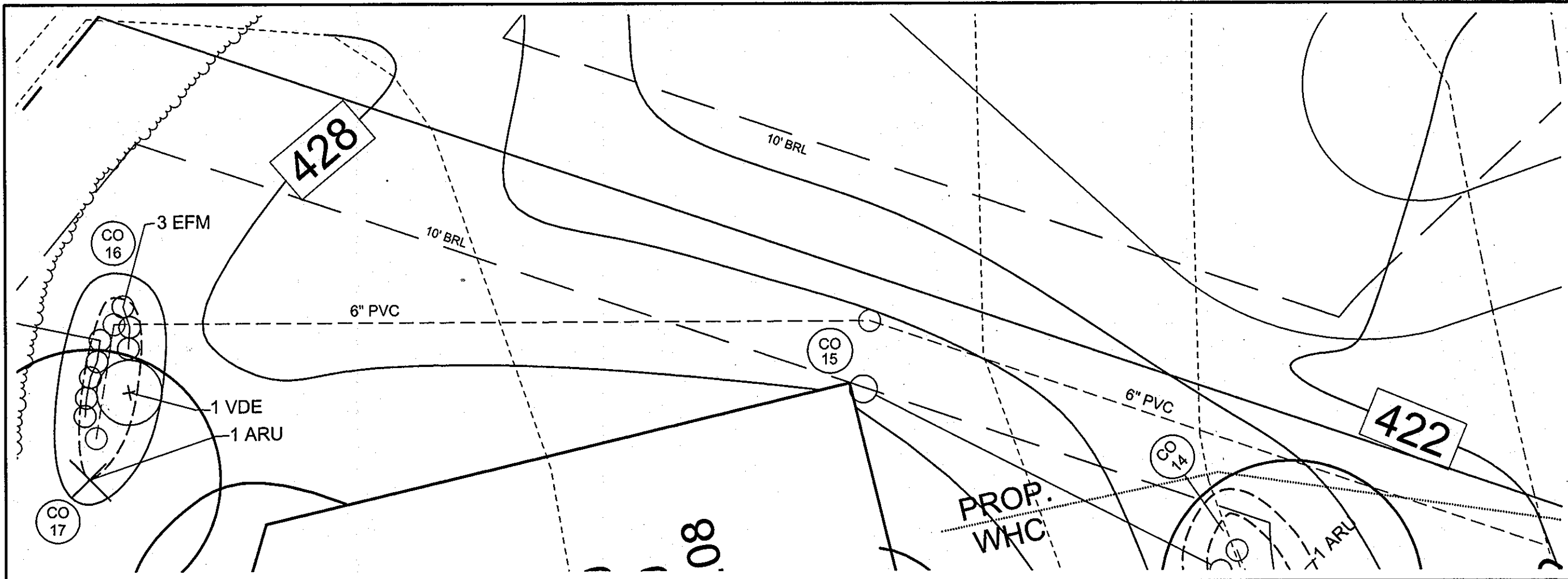
BIORETENTION F PROFILE - LOT 4
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'



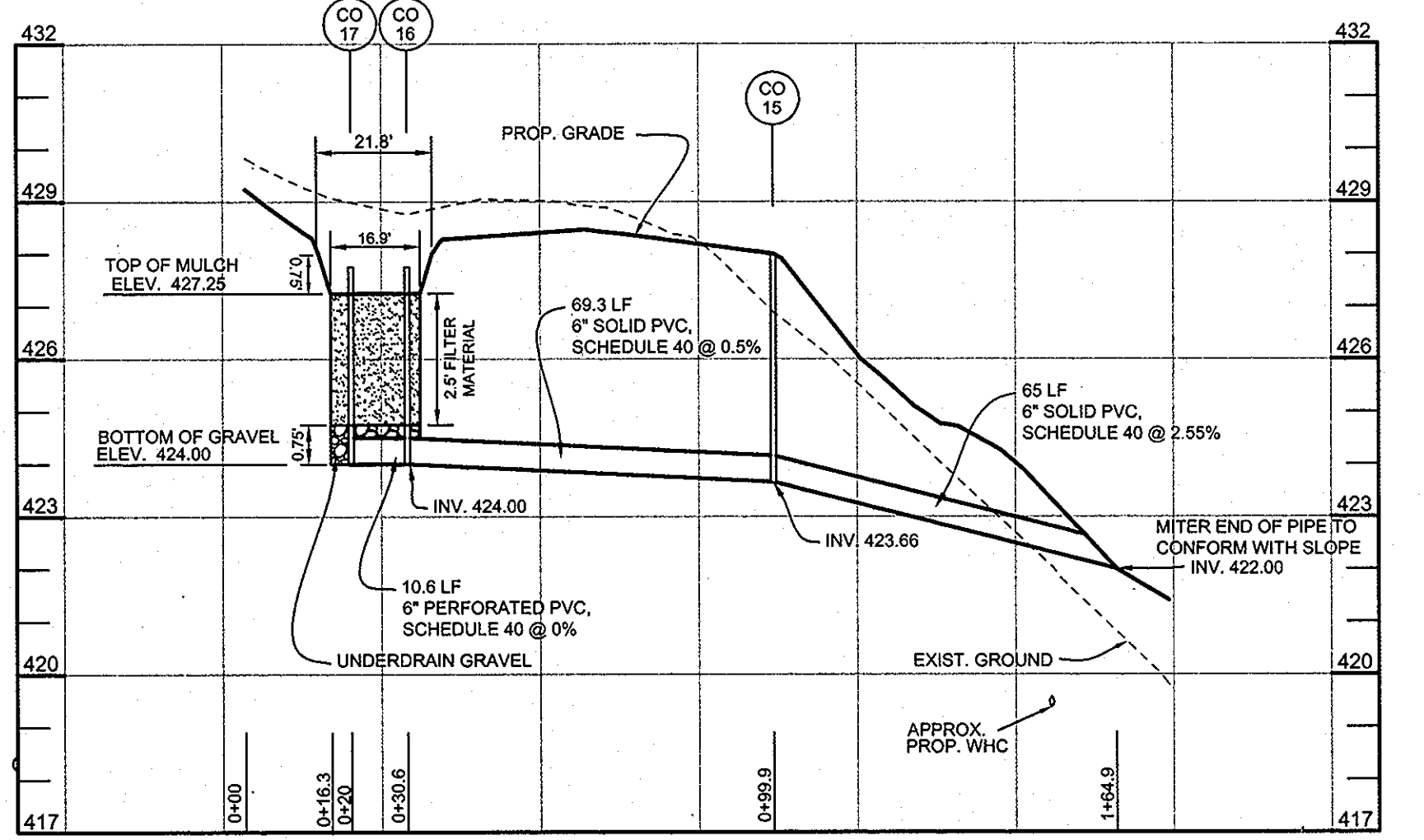
PLAN VIEW - BIORETENTION D & E LOT 3
SCALE: 1"=10'



BIORETENTION E PROFILE - LOT 3, PROFILE BIO D
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'



PLAN VIEW - BIORETENTION G - LOT 4
SCALE: 1"=10'

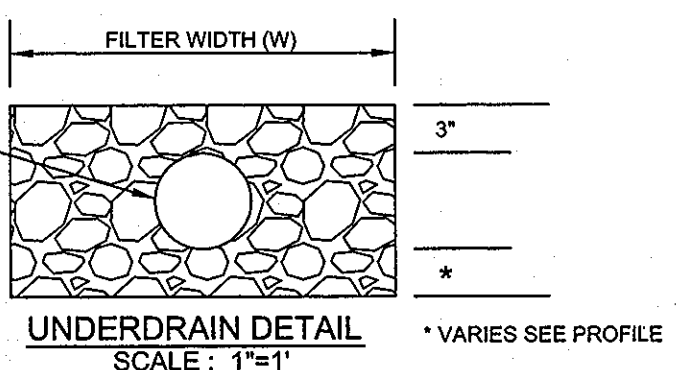


BIORETENTION G PROFILE - LOT 4
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

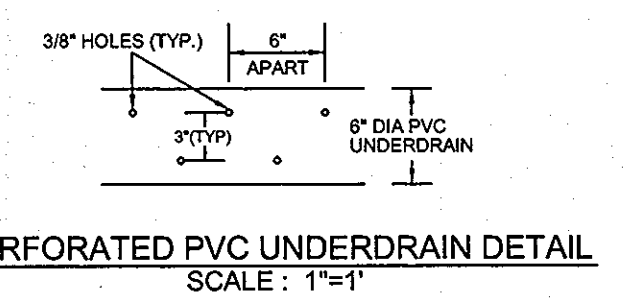
OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION AREA (M6)

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

MATERIALS SPECIFICATIONS FOR BIORETENTION FACILITIES			
MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLANT LIST THIS SHEET	N/A	PLANTINGS ARE SITE SPECIFIC, SEE PLANT LIST THIS SHEET
PLANTING SOIL (2.5' TO 4' DEEP)	SAND 35% - 60% SILT 0% - 25% GROUND COMPOST 40%-50%	N/A	
MULCH	SHREDDED HARDWOOD		AGED 6 MONTHS, MINIMUM
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN, IF REQUIRED	PEA GRAVEL: ASTM-D-448		
	ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: NO. 6 STONE: 2" TO 5"	
GEOTEXTILE	CLASS "SE" - APPARENT OPENING SIZE (ASTM-D-4751), GRAB TENSILE STRENGTH (ASTM-D-4532), PUNCTURE RESISTANCE (ASTM-D-4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRAVEL	AASHTO M-43	0.375" TO 0.75"	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW, MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES



UNDERDRAIN DETAIL
SCALE: 1"=1'



PERFORATED PVC UNDERDRAIN DETAIL
SCALE: 1"=1'

BIORETENTION PLANT LIST										
TREES	KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QUANTITY BIO D - LOT 3	QUANTITY BIO E - LOT 3	QUANTITY BIO F - LOT 4	QUANTITY BIO G - LOT 4
ARU		ACER RUBRUM	RED MAPLE	AS SHOWN	1"-1 1/2" CAL.	BB	1	1	1	1
	SHRUBS									
		CORNUS AMOMUM	SILKY DOGWOOD	AS SHOWN	18"-24" HT.	CONT.	1	0	0	0
	VIBURNUM DENTATUM	ARROWWOOD	AS SHOWN	18"-24" HT.	CONT.	2	2	2	1	
HERBACEOUS SPECIES										
	EUPATORIUM FISTULOSUM	JOE-PYE WEED	AS SHOWN	1 QT./12" HT.	CONT. (3" O.C.)		2	7	6	3
	MONARDA DIDYMA	BEEBALM	AS SHOWN	1 QT.	CONT.		7	0	5	0
	RUDEBECKIA LACINIATA	TALL CONEFLOWER	AS SHOWN	1 QT.	CONT.		6	0	0	5

BIORETENTION "D" - LOT 3 = 235 S.F. OR 0.005 AC. REQUIRED: 800 TREES AND SHRUBS PER ACRE = 4 TREES AND SHRUBS PROVIDED: 1 SHADE TREES, 3 SHRUBS AND 15 HERBACEOUS SPECIES

BIORETENTION "E" - LOT 3 = 137 S.F. OR 0.003 AC. REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3 TREES AND SHRUBS PROVIDED: 1 SHADE TREES, 2 SHRUBS AND 7 HERBACEOUS SPECIES

BIORETENTION "F" - LOT 4 = 170 S.F. OR 0.004 AC. REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3 TREES AND SHRUBS PROVIDED: 1 SHADE TREES, 2 SHRUBS AND 11 HERBACEOUS SPECIES

BIORETENTION "G" - LOT 4 = 68 S.F. OR 0.002 AC. REQUIRED: 800 TREES AND SHRUBS PER ACRE = 2 TREES AND SHRUBS PROVIDED: 1 SHADE TREES, 1 SHRUBS AND 7 HERBACEOUS SPECIES

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

DATE: 5-25-11
 DATE: 5-26-11
 DATE: 5/27/11

STORMWATER MANAGEMENT - BIORETENTION PLANS, PROFILES, & CHARTS
 TROTTER LANDING
 LOTS 1 THRU 8

TAX MAP 35 GRID 2
 5TH ELECTION DISTRICT

PARCEL 164 AND 12
 HOWARD COUNTY, MARYLAND

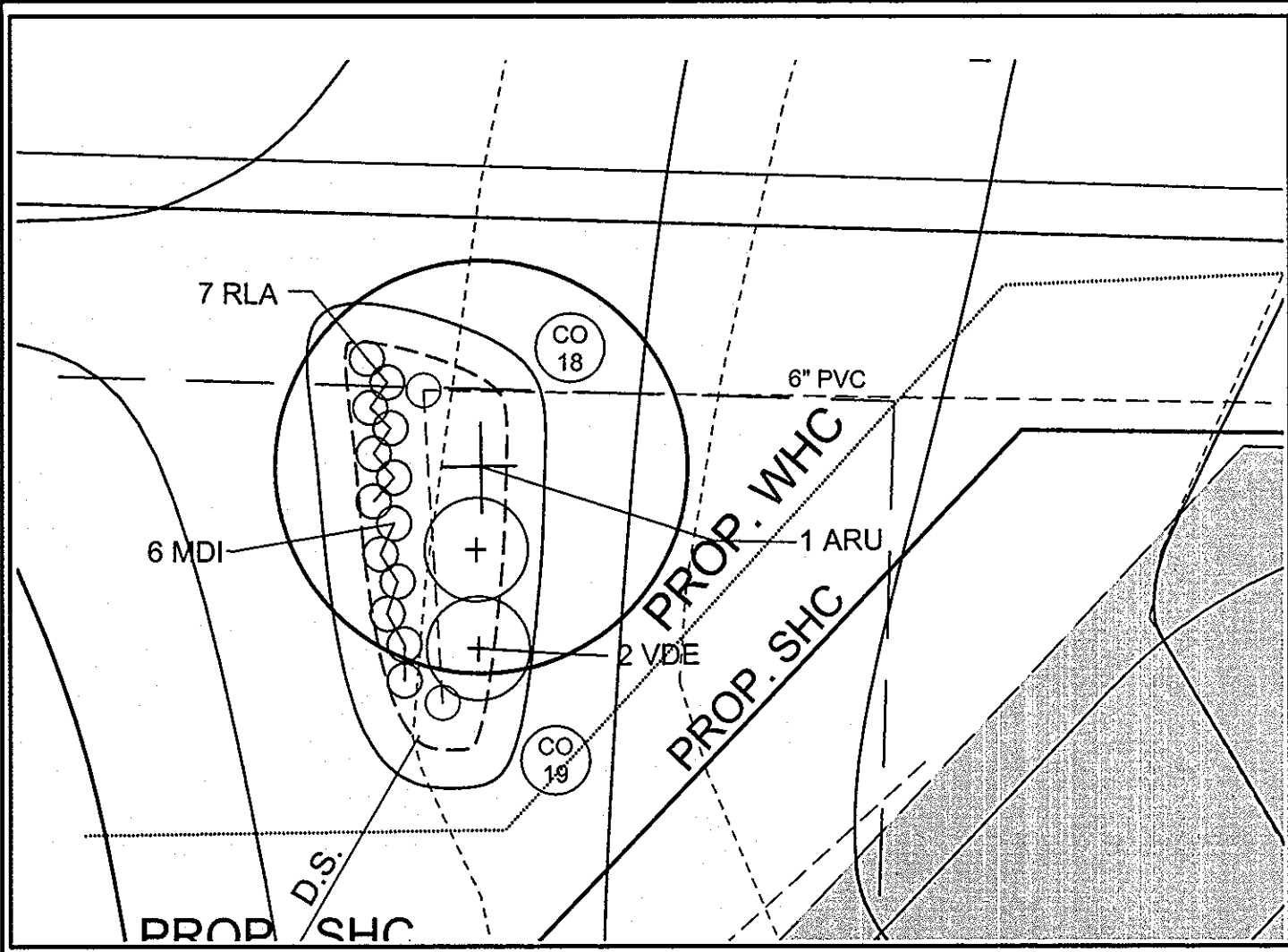
Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@silladcock.com

DESIGN BY: DH
 DRAWN BY: DH
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: MAY 13, 2011
 PROJECT #: 07-105
 SHEET #: 6 of 8

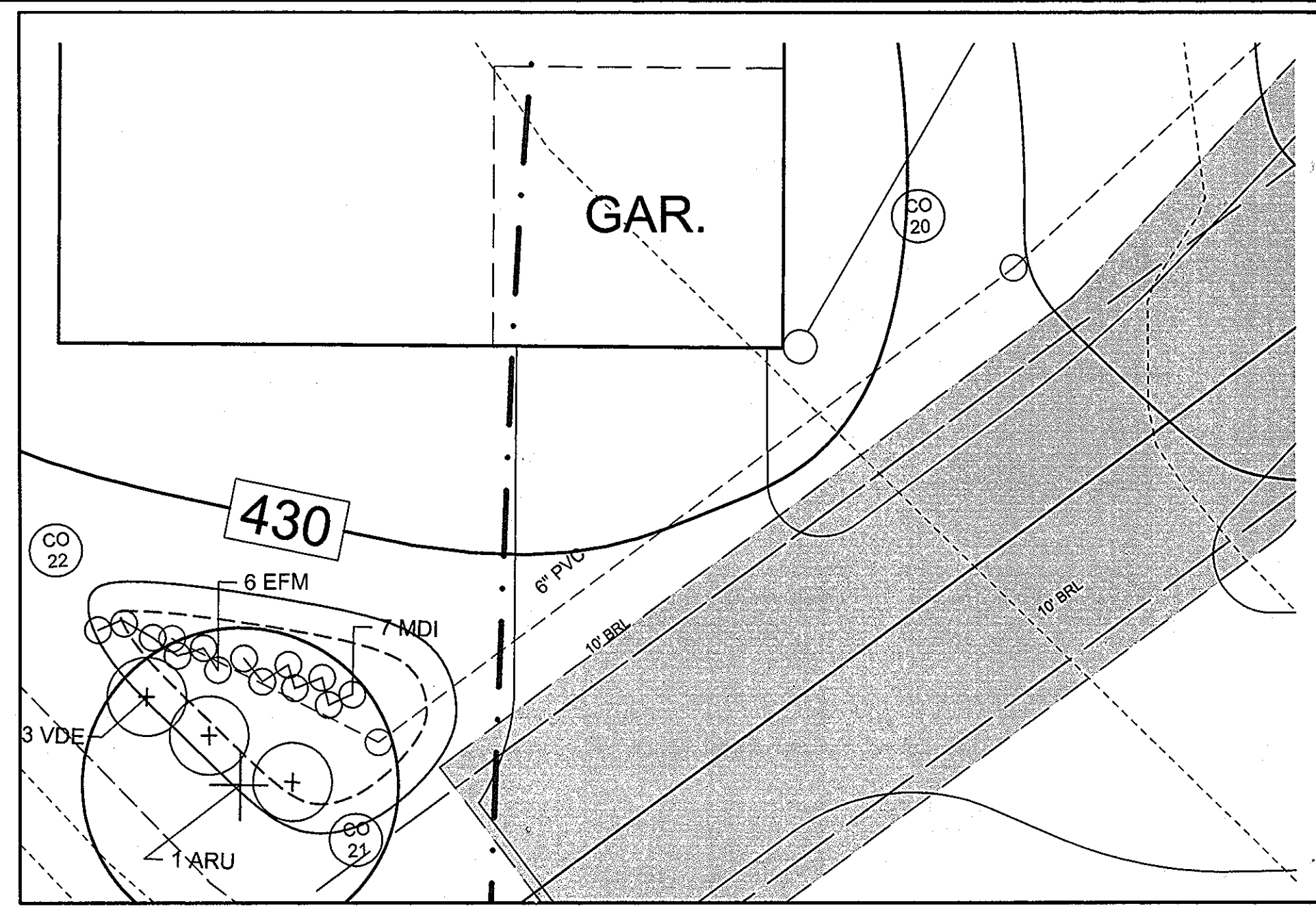
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33026, EXPIRATION DATE: JUNE 20, 2011

REVISIONS

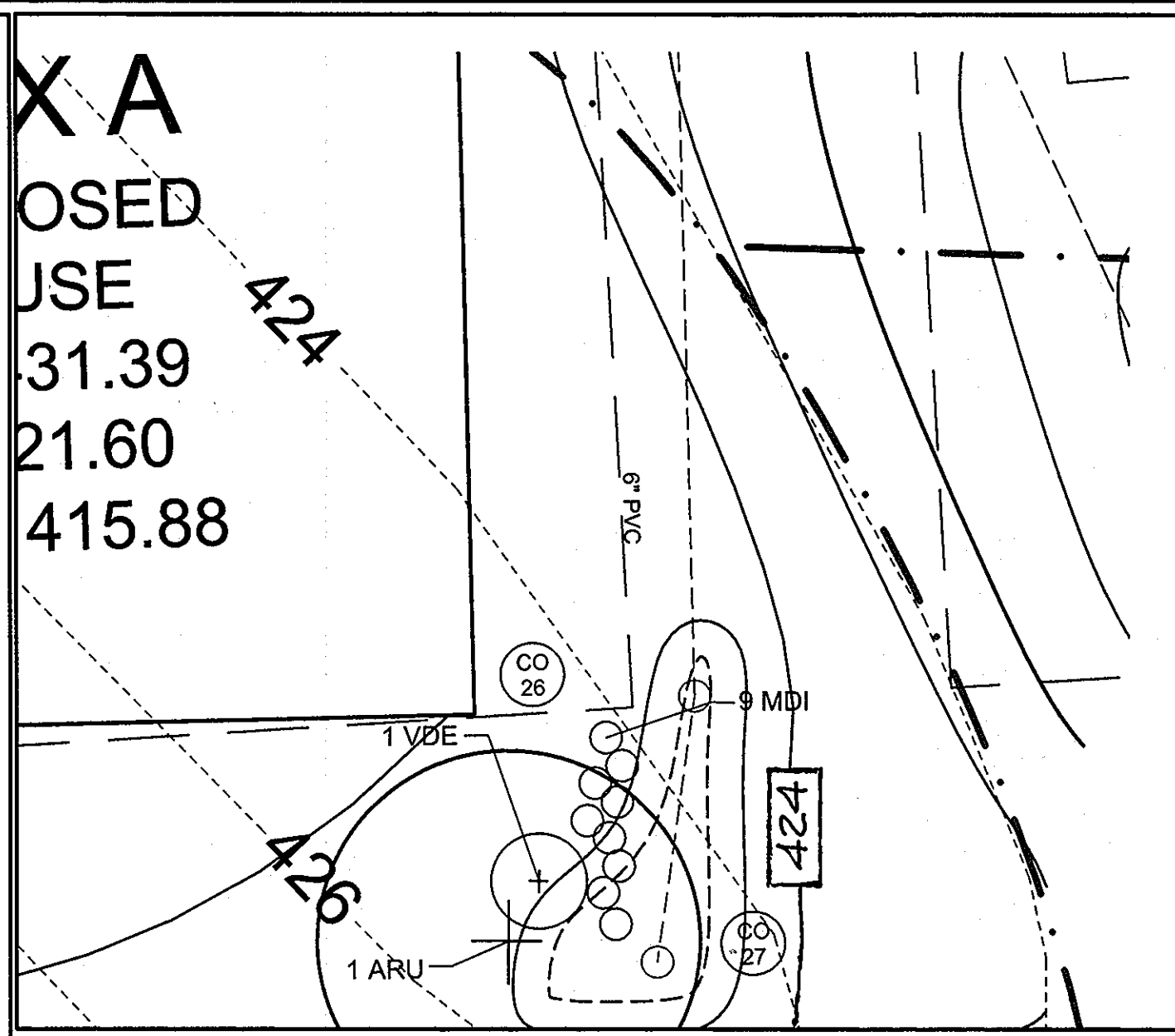
NO.	DESCRIPTION	DATE
4	REVISED BIO D LOCATION	MAR. 29, 2012



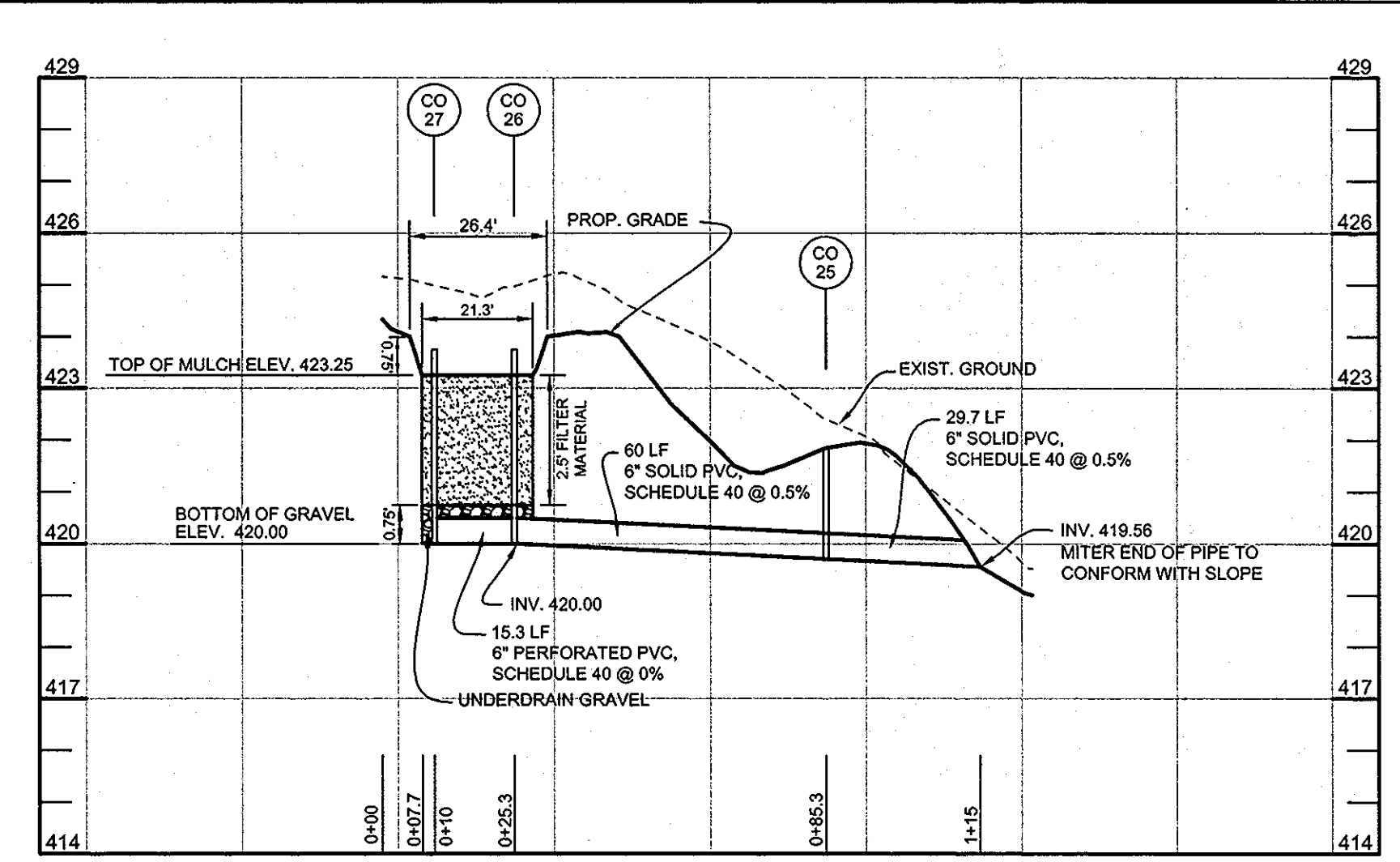
PLAN VIEW - BIORETENTION H - LOT 5
SCALE: 1"=10'



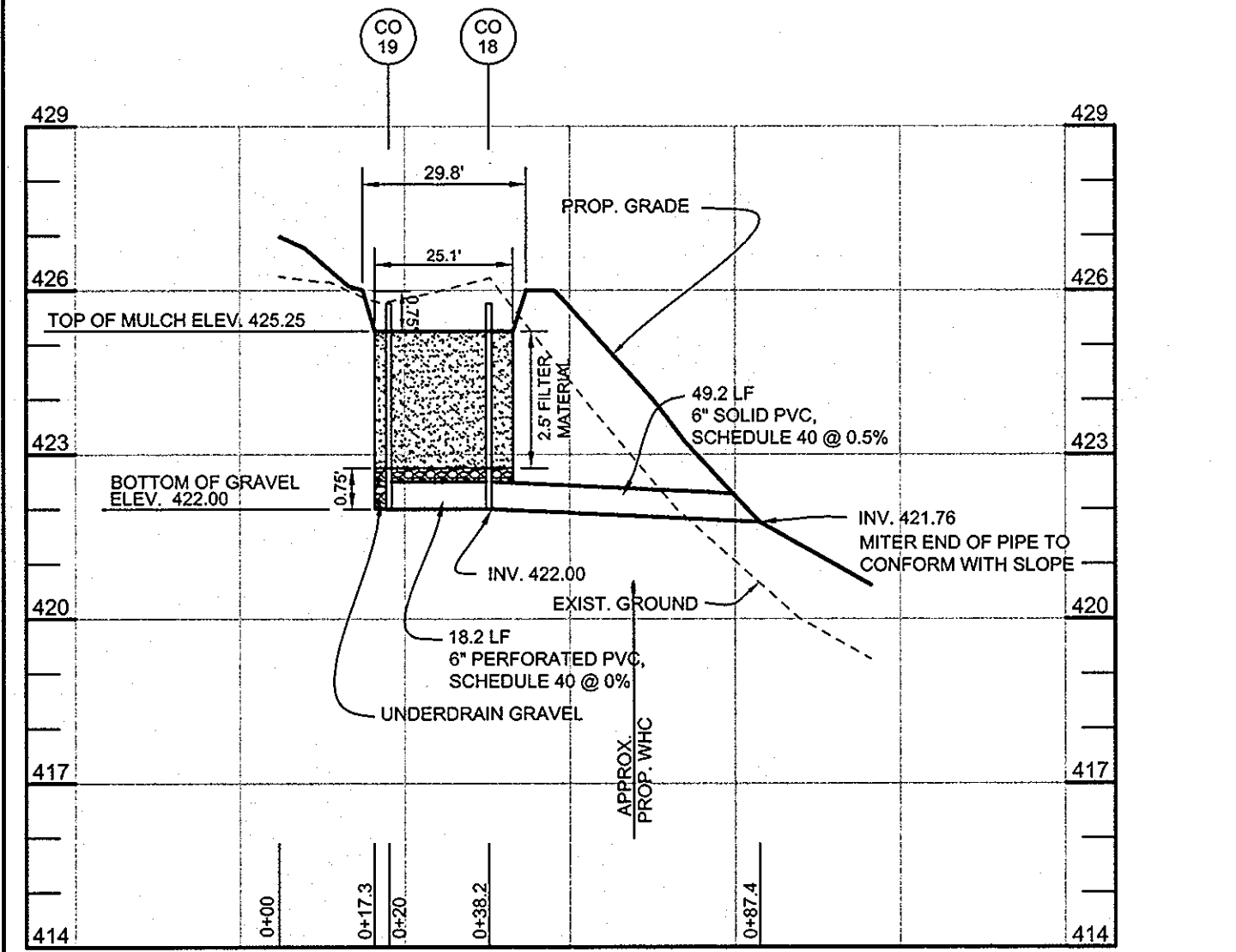
PLAN VIEW - BIORETENTION I - LOT 5
SCALE: 1"=10'



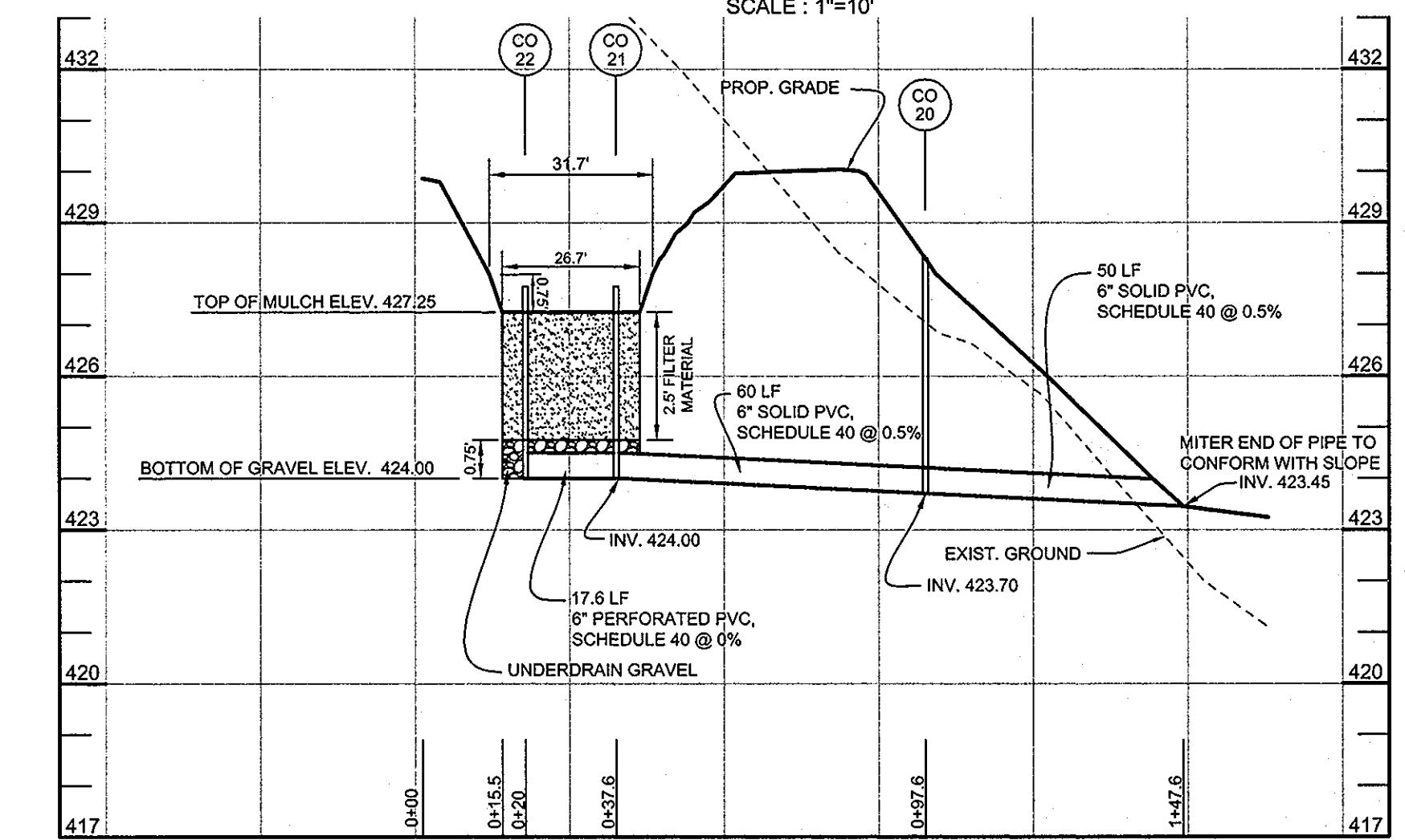
PLAN VIEW - BIORETENTION K - LOT 6
SCALE: 1"=10'



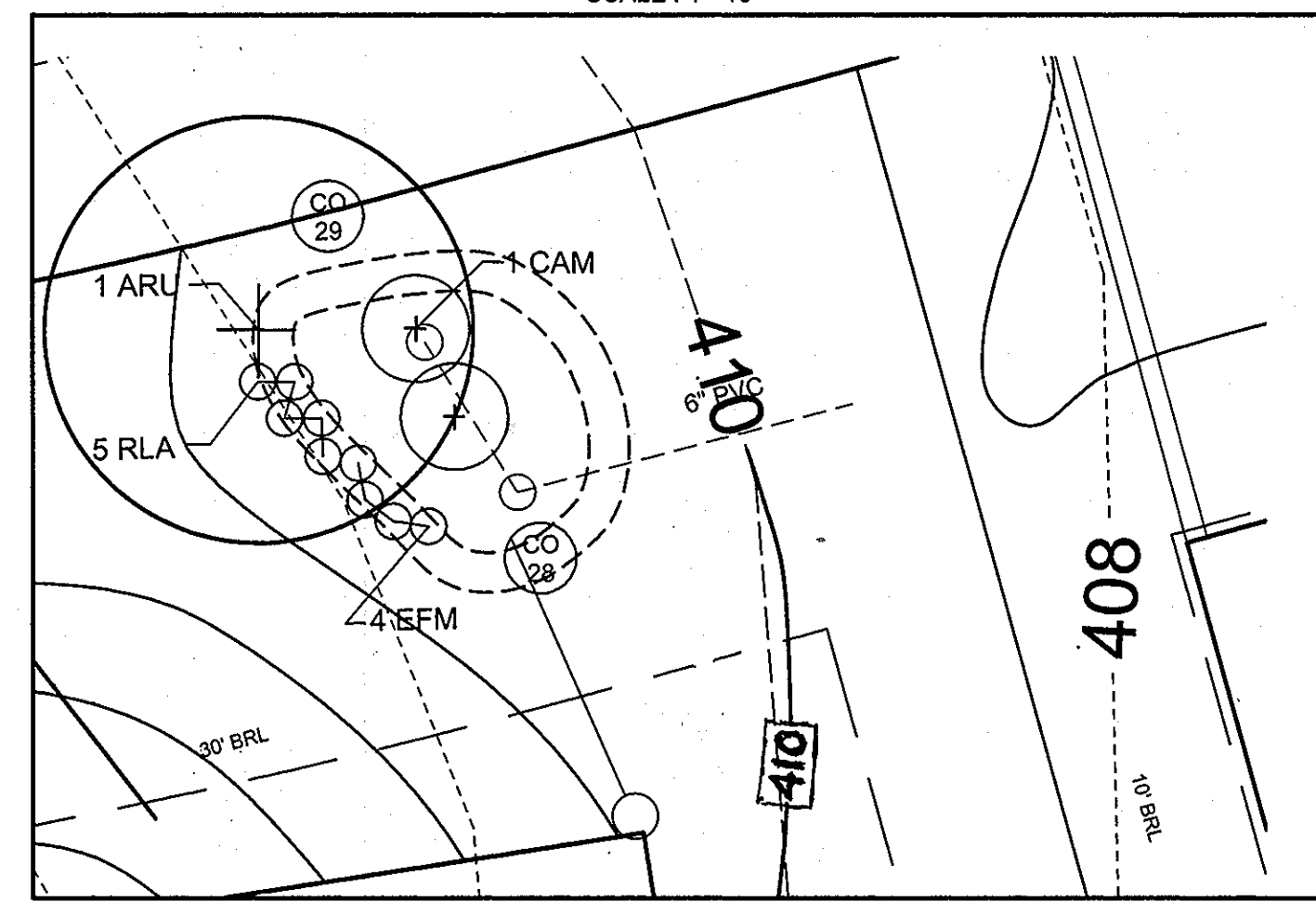
BIORETENTION K PROFILE - LOT 6
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



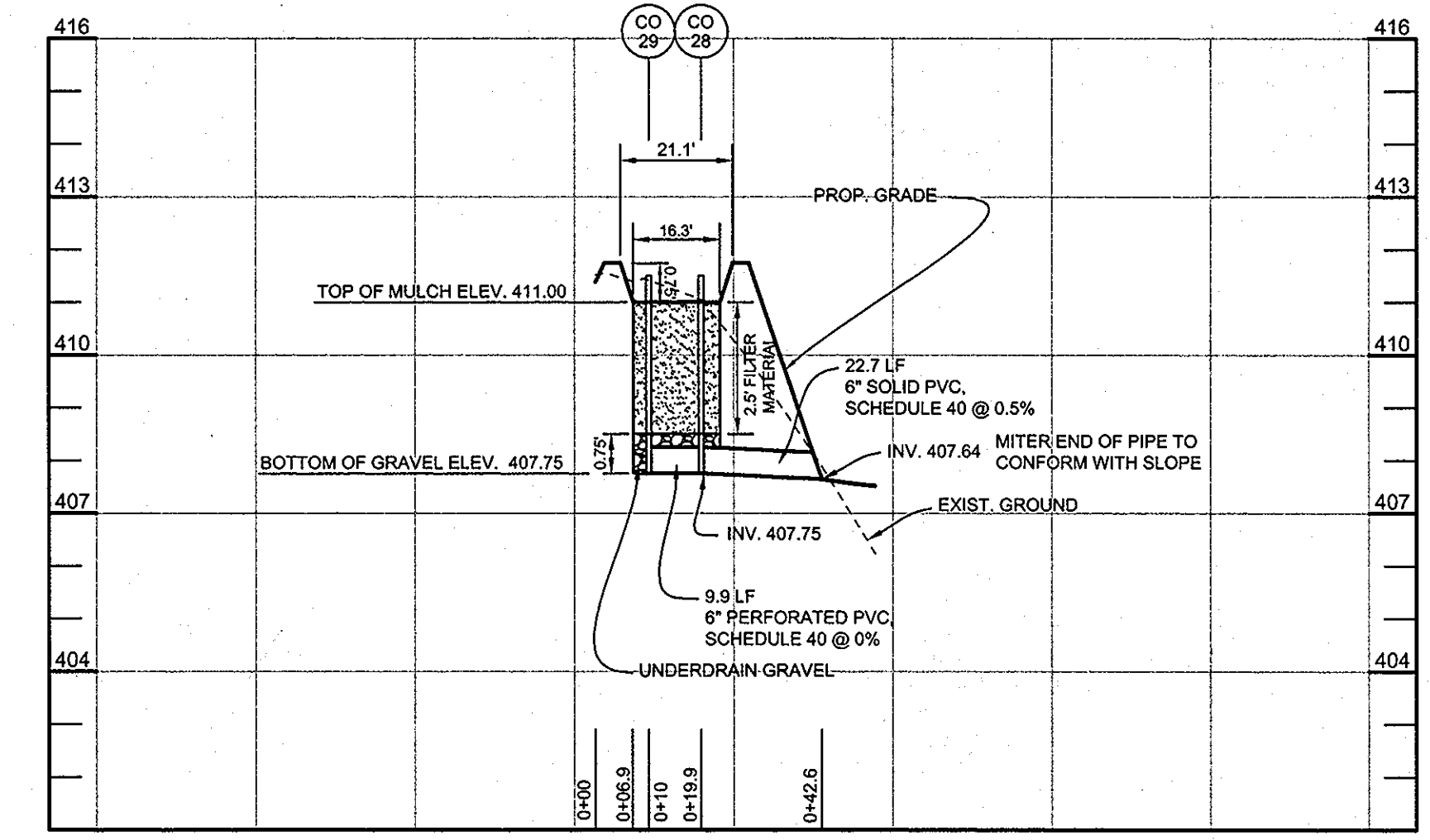
BIORETENTION H PROFILE - LOT 5
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



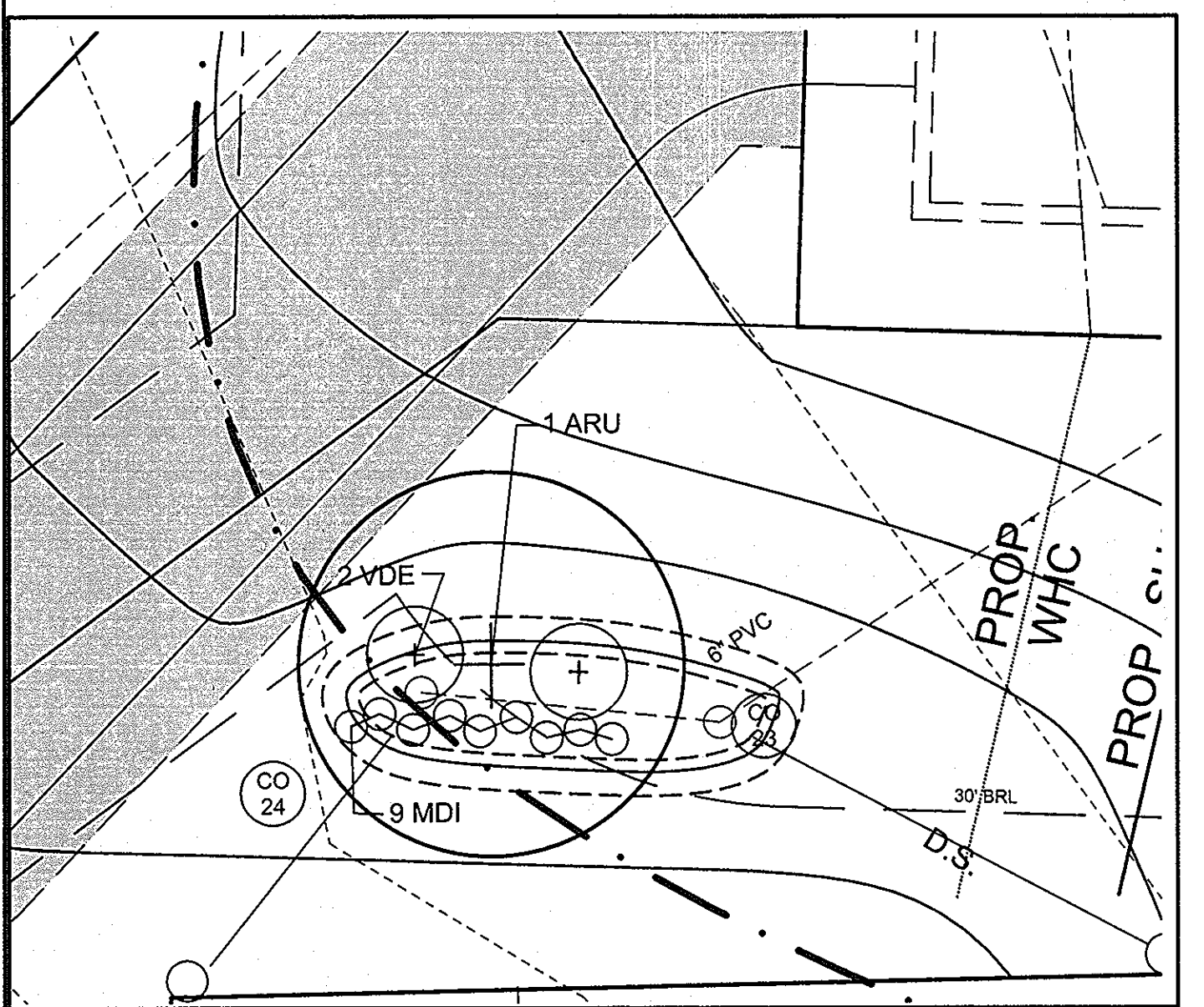
BIORETENTION I PROFILE - LOT 5
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



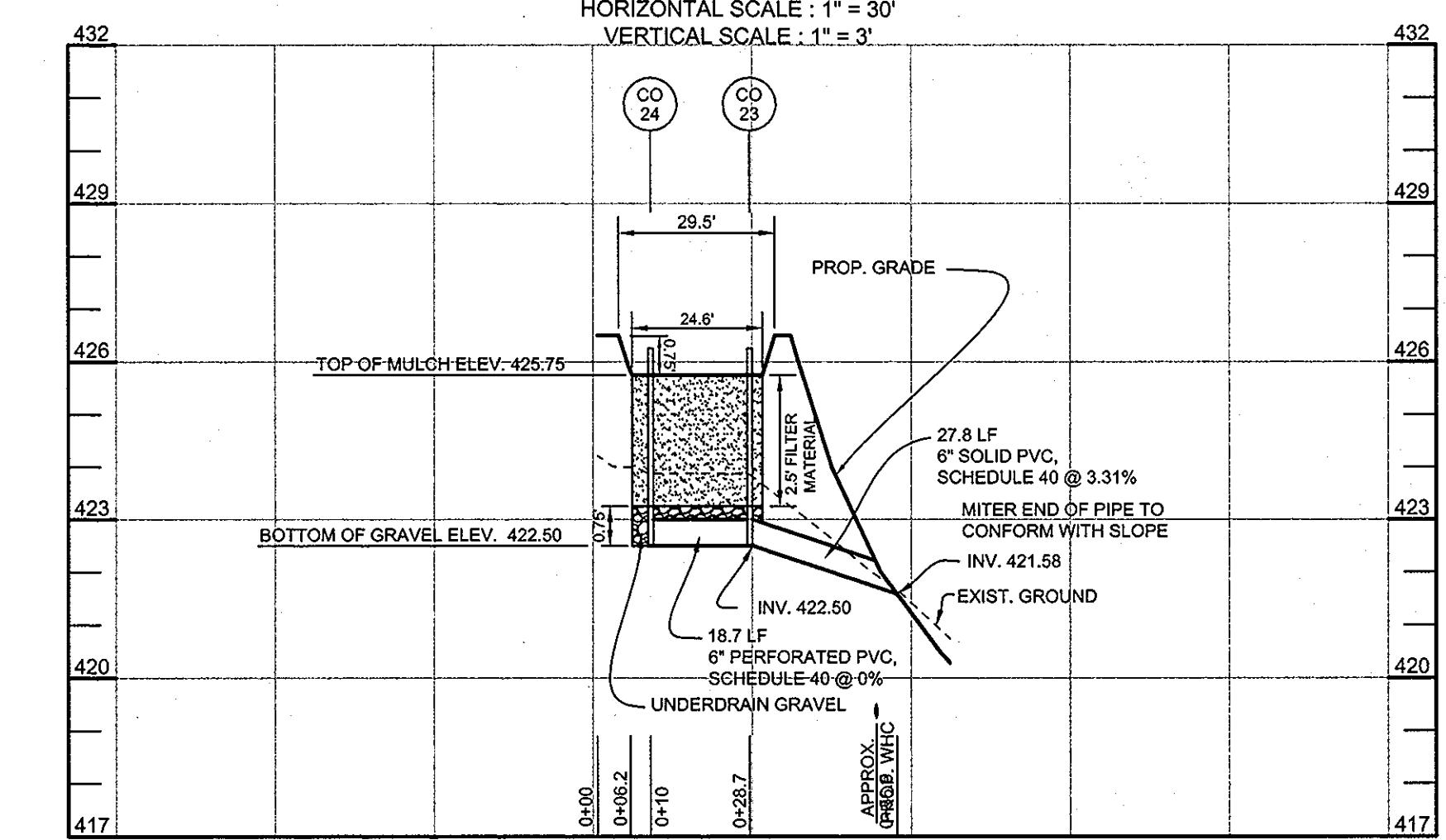
PLAN VIEW - BIORETENTION L - LOT 7
SCALE: 1"=10'



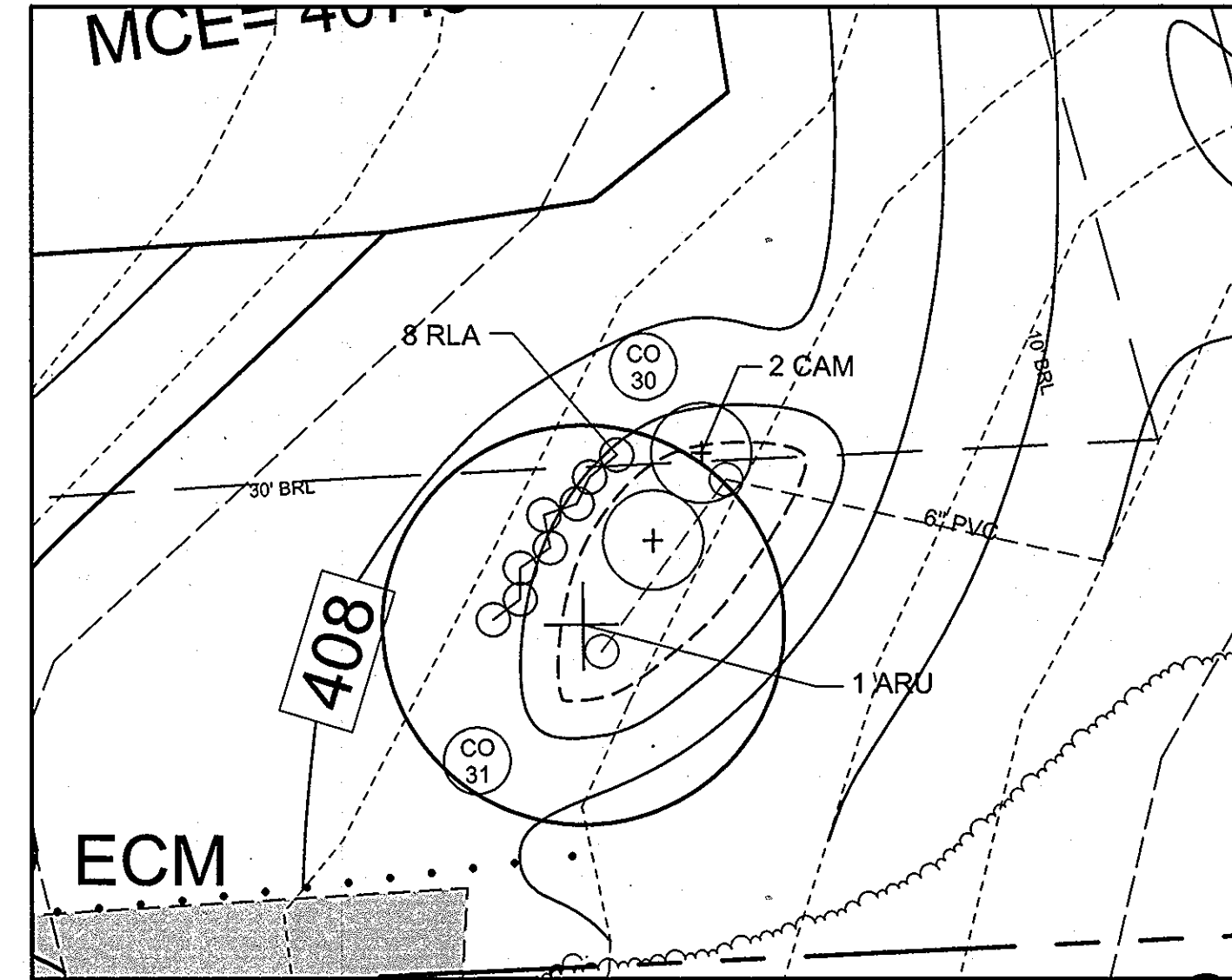
BIORETENTION L PROFILE - LOT 7
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



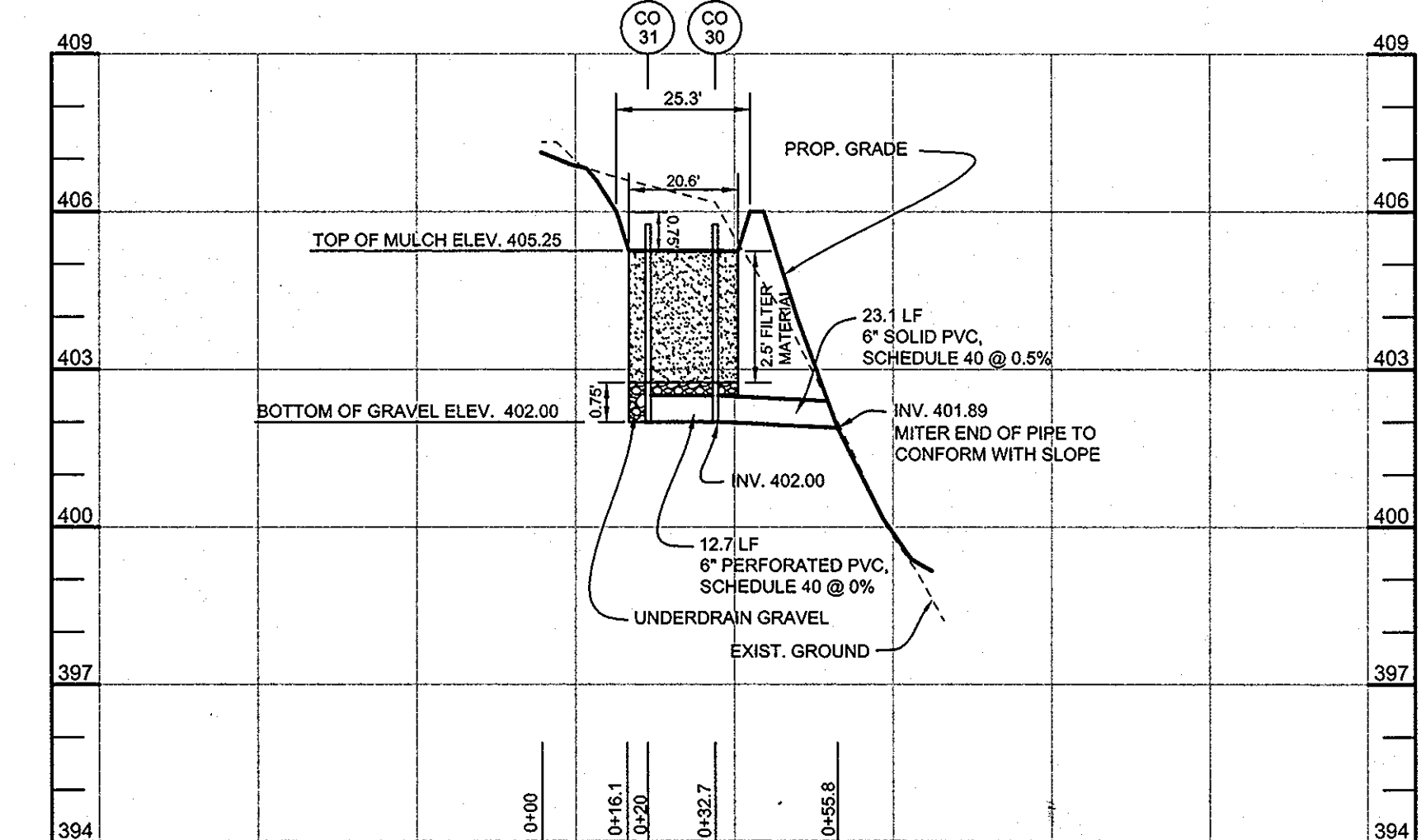
PLAN VIEW - BIORETENTION J - LOT 6
SCALE: 1"=10'



BIORETENTION J PROFILE - LOT 6
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



PLAN VIEW - BIORETENTION M - LOT 7
SCALE: 1"=10'



BIORETENTION M PROFILE - LOT 7
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

BIORETENTION PLANT LIST											
TREES											
KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QUANTITY BIO H - LOT 5	QUANTITY BIO I - LOT 5	QUANTITY BIO J - LOT 6	QUANTITY BIO K - LOT 6	QUANTITY BIO L - LOT 7	QUANTITY BIO M - LOT 7
ARU	ACER RUBRUM	RED MAPLE	AS SHOWN	1'-1 1/2" CAL.	BB	1	1	1	1	1	1
SHRUBS											
CAM	CORNUS AMOMUM	SILKY DOGWOOD	AS SHOWN	18"-24" HT.	CONT.	0	0	0	0	2	2
VDE	VIBURNUM DENTATUM	ARROWWOOD	AS SHOWN	18"-24" HT.	CONT.	2	3	2	1	0	0
HERBACEOUS SPECIES											
EFM	EUPATORIUM FISTULOSUM	JOE-PYE WEED	AS SHOWN	1 QT./12" HT.	CONT. (3" O.C.)	0	6	0	0	4	0
MDI	MONARDA DIDYMA	BEEBALM	AS SHOWN	1 QT.	CONT.	6	7	9	9	0	0
RLA	RUDEBECKIA LACINIATA	TALL CONEFLOWER	AS SHOWN	1 QT.	CONT.	7	0	0	0	5	8

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

5-25-11
 5-26-11
 5/27/11

BIORETENTION "H" - LOT 5 = 171 S.F. OR 0.004 AC.
 REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3 TREES AND SHRUBS
 PROVIDED: 1 SHADE TREE, 2 SHRUBS AND 13 HERBACEOUS SPECIES

BIORETENTION "I" - LOT 5 = 202 S.F. OR 0.005 AC.
 REQUIRED: 800 TREES AND SHRUBS PER ACRE = 4 TREES AND SHRUBS
 PROVIDED: 1 SHADE TREE, 3 SHRUBS AND 13 HERBACEOUS SPECIES

BIORETENTION "J" - LOT 6 = 134 S.F. OR 0.003 AC.
 REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3 TREES AND SHRUBS
 PROVIDED: 1 SHADE TREE, 2 SHRUBS AND 9 HERBACEOUS SPECIES

BIORETENTION "K" - LOT 6 = 103 S.F. OR 0.002 AC.
 REQUIRED: 800 TREES AND SHRUBS PER ACRE = 2 TREES AND SHRUBS
 PROVIDED: 1 SHADE TREE, 1 SHRUB AND 9 HERBACEOUS SPECIES

BIORETENTION "L" - LOT 7 = 168 S.F. OR 0.004 AC.
 REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3 TREES AND SHRUBS
 PROVIDED: 1 SHADE TREE, 2 SHRUBS AND 9 HERBACEOUS SPECIES

BIORETENTION "M" - LOT 7 = 135 S.F. OR 0.003 AC.
 REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3 TREES AND SHRUBS
 PROVIDED: 1 SHADE TREE, 2 SHRUBS AND 6 HERBACEOUS SPECIES

NO.	DESCRIPTION	DATE

STORMWATER MANAGEMENT - BIORETENTION PLANS, PROFILES, & CHARTS
 TROTTER LANDING
 LOTS 1 THRU 8

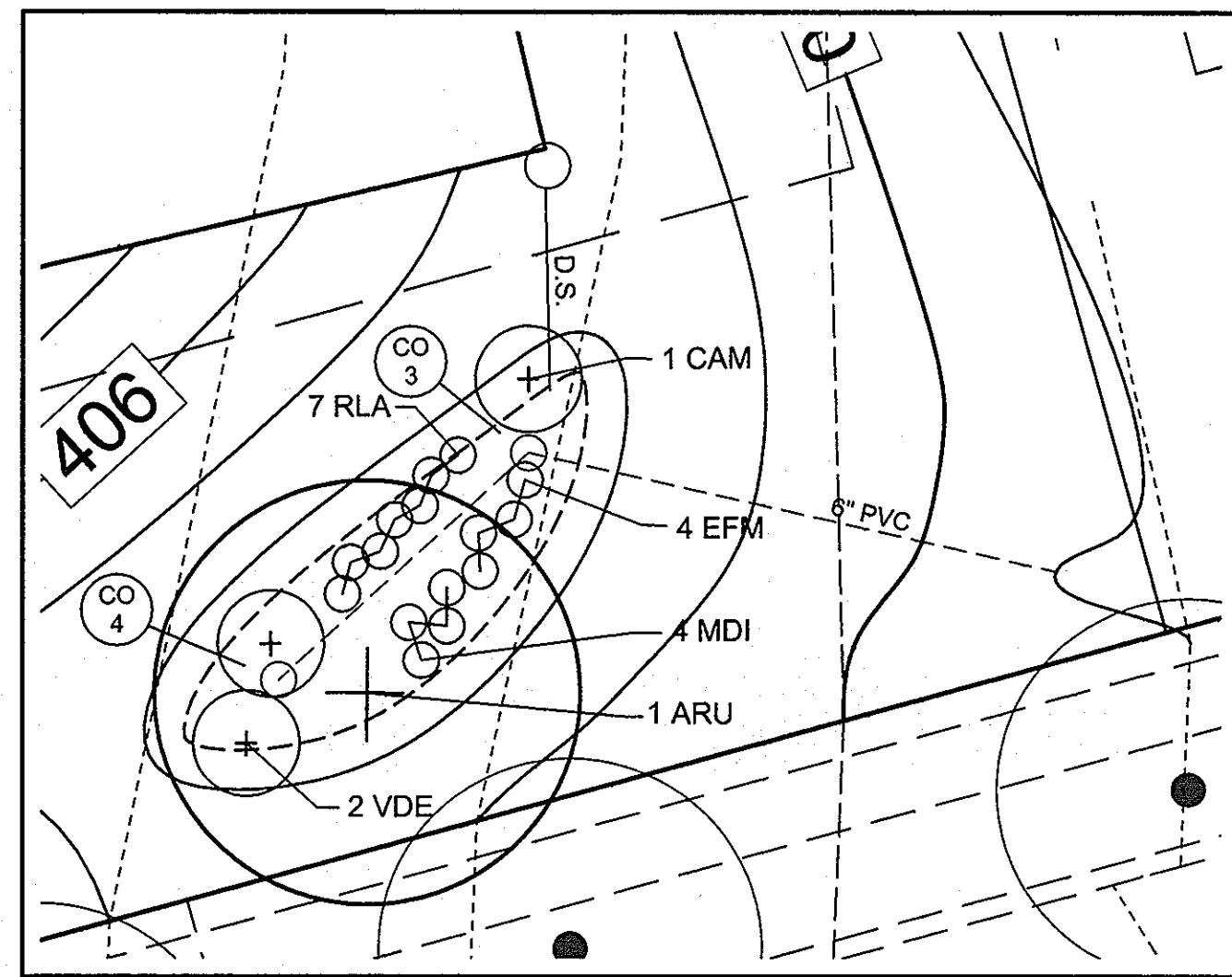
TAX MAP 35 GRID 2
 5TH ELECTION DISTRICT

PARCEL 164 AND 12
 HOWARD COUNTY, MARYLAND

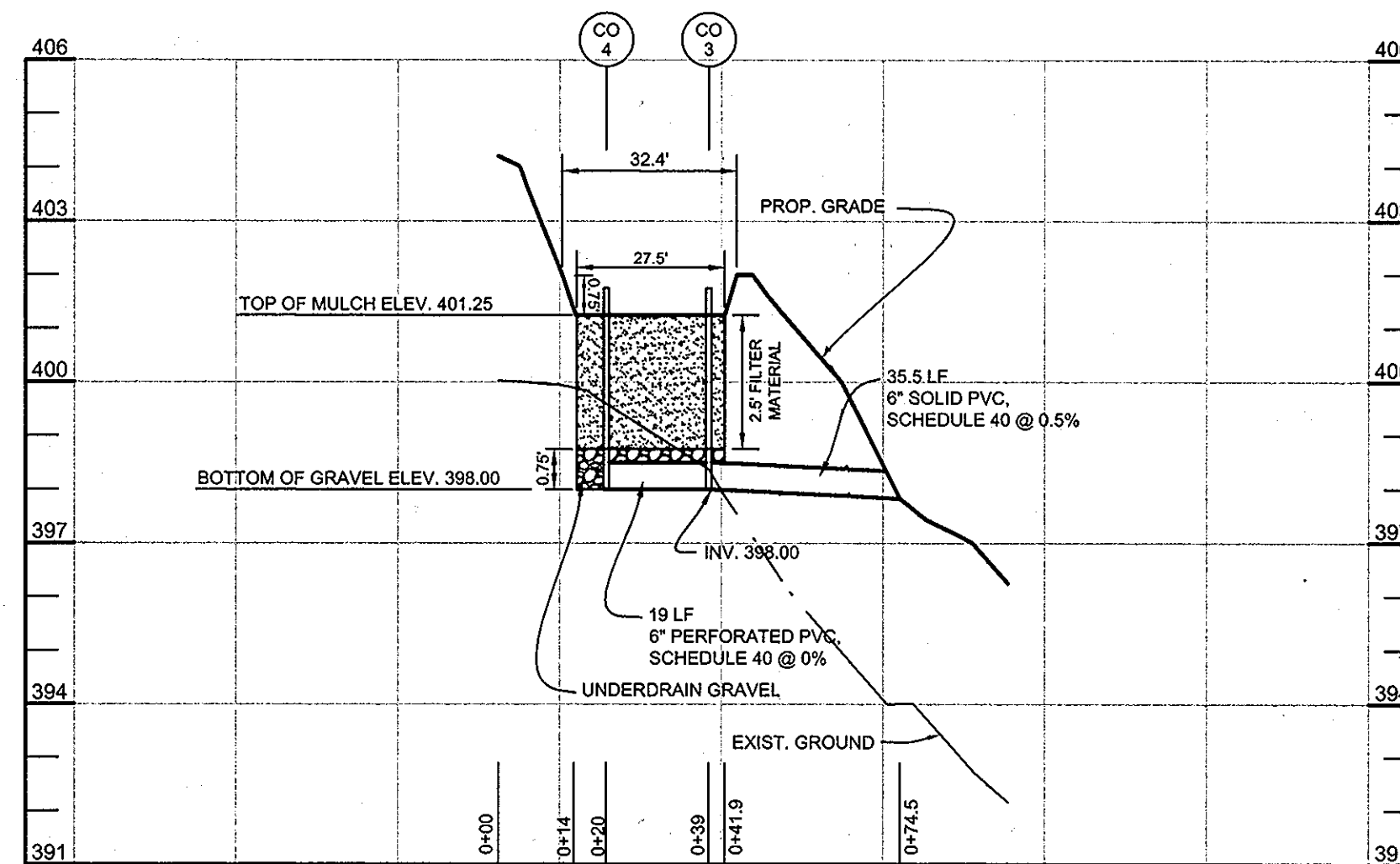
Sill · Adcock & Associates · LLC
 Engineers · Surveyors · Planners
 3300 North Ridge Road, Suite 160
 Ellicott City, Maryland 21043
 Phone: 443.325.7682 Fax: 443.325.7685
 Email: info@sailand.com

DESIGN BY: DH
 DRAWN BY: DH
 CHECKED BY: PS
 SCALE: AS SHOWN
 DATE: MAY 13, 2011
 PROJECT #: 07-105
 SHEET #: 7 of 10

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 30202, EXPIRATION DATE: JUNE 29, 2011

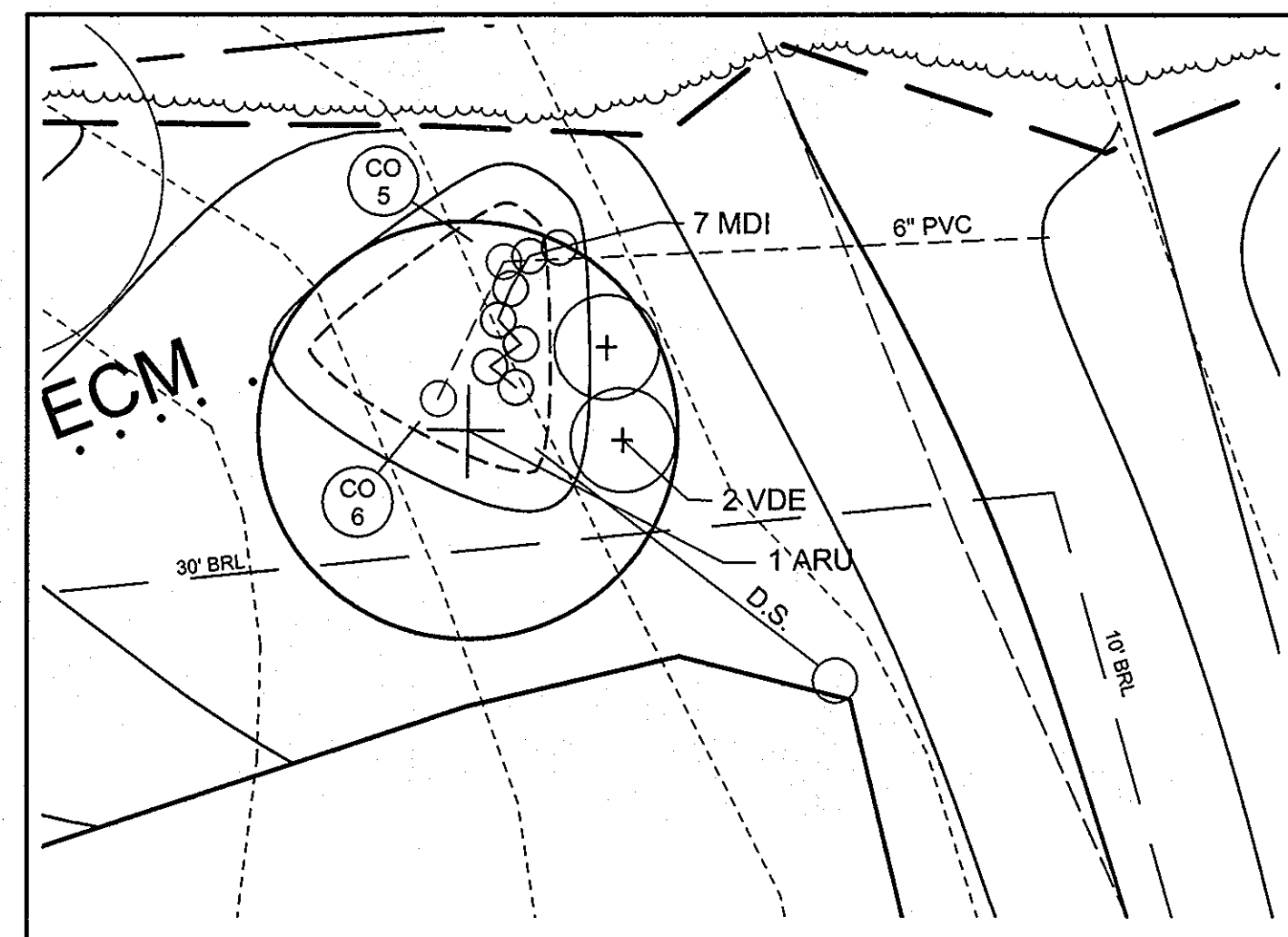


PLAN VIEW - BIORETENTION B - LOT 2
SCALE: 1"=10'

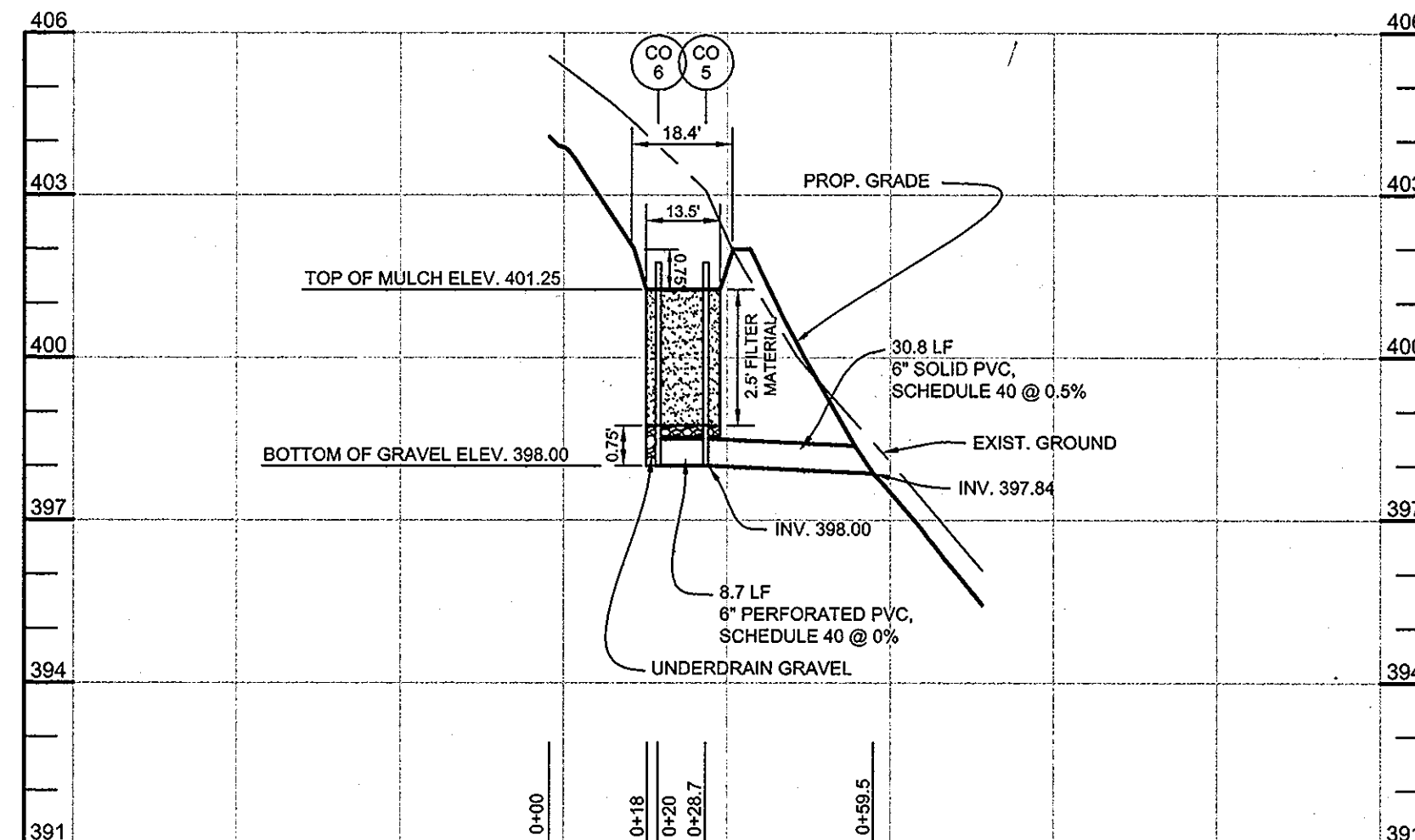


BIORETENTION B PROFILE - LOT 2
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'

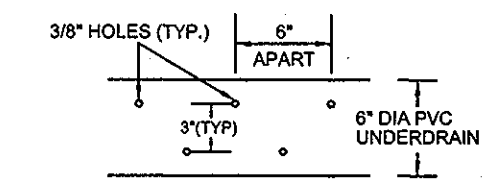
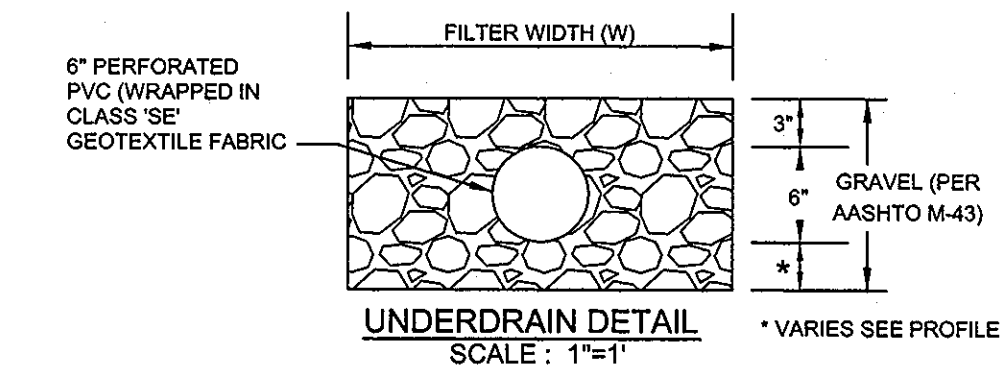
MATERIALS SPECIFICATIONS FOR BIORETENTION FACILITIES			
MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLANT LIST THIS SHEET	N/A	PLANTINGS ARE SITE-SPECIFIC. SEE PLANT LIST THIS SHEET
PLANTING SOIL (2.5' TO 4' DEEP)	SAND 35% - 60% SILT 0% - 25% GROUND COMPOST 40% - 50%	N/A	
MULCH	SHREDDED HARDWOOD		AGED 8 MONTHS, MINIMUM
PEA GRAVEL DIAPHRAGM AND CURTAIN DRAIN, IF REQUIRED	PEA GRAVEL: ASTM-D-448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: NO. 6 STONE: 2" TO 5"	
GEOTEXTILE	CLASS "SE" - APPARENT OPENING SIZE (ASTM-D-4751), GRAB TENSILE STRENGTH (ASTM-D-4632), PUNCTURE RESISTANCE (ASTM-D-4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRAVEL	AASHTO M-43	0.375" TO 0.75"	
UNDERDRAIN PIPING	F 758, TYPE PS 28 OR AASHTO M-278	4" TO 6" RIGID SCHEDULE 40 PVC OR SDR35	3/8" PERF. @ 6" ON CENTER, 4 HOLES PER ROW; MINIMUM OF 3" OF GRAVEL OVER PIPES; NOT NECESSARY UNDERNEATH PIPES



PLAN VIEW - BIORETENTION C - LOT 2
SCALE: 1"=10'



BIORETENTION C PROFILE - LOT 2
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'






PERFORATED PVC UNDERDRAIN DETAIL
SCALE: 1"=1'

BIORETENTION PLANT LIST							
TREES							
KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	REMARKS	QUANTITY BIO B - LOT 2	QUANTITY BIO C - LOT 2
ARU	ACER RUBRUM	RED MAPLE	AS SHOWN	1'-1 1/2" CAL.	BB	1	1
SHRUBS							
CAM	CORNUS AMOMUM	SILKY DOGWOOD	AS SHOWN	18"-24" HT.	CONT.	1	0
VDE	VIBURNUM DENTATUM	ARROWWOOD	AS SHOWN	18"-24" HT.	CONT.	2	2
HERBACEOUS SPECIES							
EFM	EUPATORIUM FISTULOSUM	JOE-PYE WEED	AS SHOWN	1 QT./12" HT.	CONT. (3' O.C.)	4	0
MDI	MONARDA DIDYMA	BEEBALM	AS SHOWN	1 QT.	CONT.	4	7
RLA	RUDEBECKIA LACINIATA	TALL CONEFLOWER	AS SHOWN	1 QT.	CONT.	7	0

BIORETENTION "B" - LOT 2 = 207 S.F. OR 0.005 AC.
REQUIRED: 800 TREES AND SHRUBS PER ACRE = 4
TREES AND SHRUBS
PROVIDED: 1 SHADE TREES, 3 SHRUBS
AND 15 HERBACEOUS SPECIES

BIORETENTION "C" - LOT 2 = 136 S.F. OR 0.003 AC.
REQUIRED: 800 TREES AND SHRUBS PER ACRE = 3
TREES AND SHRUBS
PROVIDED: 1 SHADE TREES, 2 SHRUBS
AND 7 HERBACEOUS SPECIES

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 5-25-11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 5-26-11
 CHIEF, DIVISION OF LAND DEVELOPMENT
 5/27/11
 DIRECTOR

NO.	DESCRIPTION	DATE

STORMWATER MANAGEMENT -
BIORETENTION PLANS, PROFILES, & CHARTS
TROTTER LANDING
LOTS 1 THRU 8

TAX MAP 35 GRID 2
5TH ELECTION DISTRICT

PARCEL 164 AND 12
HOWARD COUNTY, MARYLAND

Sill · Adcock & Associates · LLC
Engineers · Surveyors · Planners
3300 North Ridge Road, Suite 160
Ellicott City, Maryland 21043
Phone: 443.325.7682 Fax: 443.325.7685
Email: info@saaland.com

DESIGN BY: DH
DRAWN BY: DH
CHECKED BY: PS
SCALE: AS SHOWN
DATE: MAY 13, 2011
PROJECT #: 07-105
SHEET #: 8 of 8

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2011