







**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING, CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10277 BALTIMORE NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21046  
 (410) 461-2255

NO.	REVISION	DATE
10	REV. LOT 51 TO SHOW PEMBROKE III (see page Left)	10/14/16
9	REV. LOT 47 TO SHOW LEXINGTON II, W/SUBM. PER GEN. NOTE 31	6/11/16
8	REV. LOT 44 TO SHOW ASBUILT GRADING	4/11/16
7	REV. LOT 81 TO FEDERALSBURG	4/11/16
6	REV. LOT 85 TO FEDERALSBURG	2/16/16
5	REV. LOT 44 TO PEMBROKE III	12/17/15
4	REV. LOT 95 TO FEDERALSBURG	11/24/15
3	REV. LOT 98 TO BROOKVIEW	10/20/15
2	REV. LOT 96 TO FEDERALSBURG	10/29/15
1	REV. LOT 42 TO FEDERALSBURG	10/19/15



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.  
 Frank John Manalansan II, L.S.      8/20/15      DATE

**OWNER/DEVELOPER**  
 BRAZER HOMES, CORP.  
 8965 GUILFORD ROAD  
 SUITE 209  
 COLUMBIA, MARYLAND 21046  
 410-720-5071  
 ATTN: MR. DEAN A. KNAUFF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Walter D. ...*      9-11-15      Date  
 Chief, Division of Land Development

*William ...*      9-8-15      Date  
 Chief, Development Engineering Division

*William ...*      9-11-15      Date  
 Director - Department of Planning and Zoning

PROJECT	SECTION / PART	LOTS NO.
CENTENNIAL LAKE OVERLOOK	TWO / TWO	42 THRU 69 & 80 THRU 98

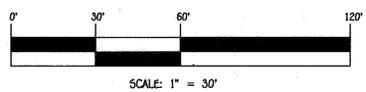
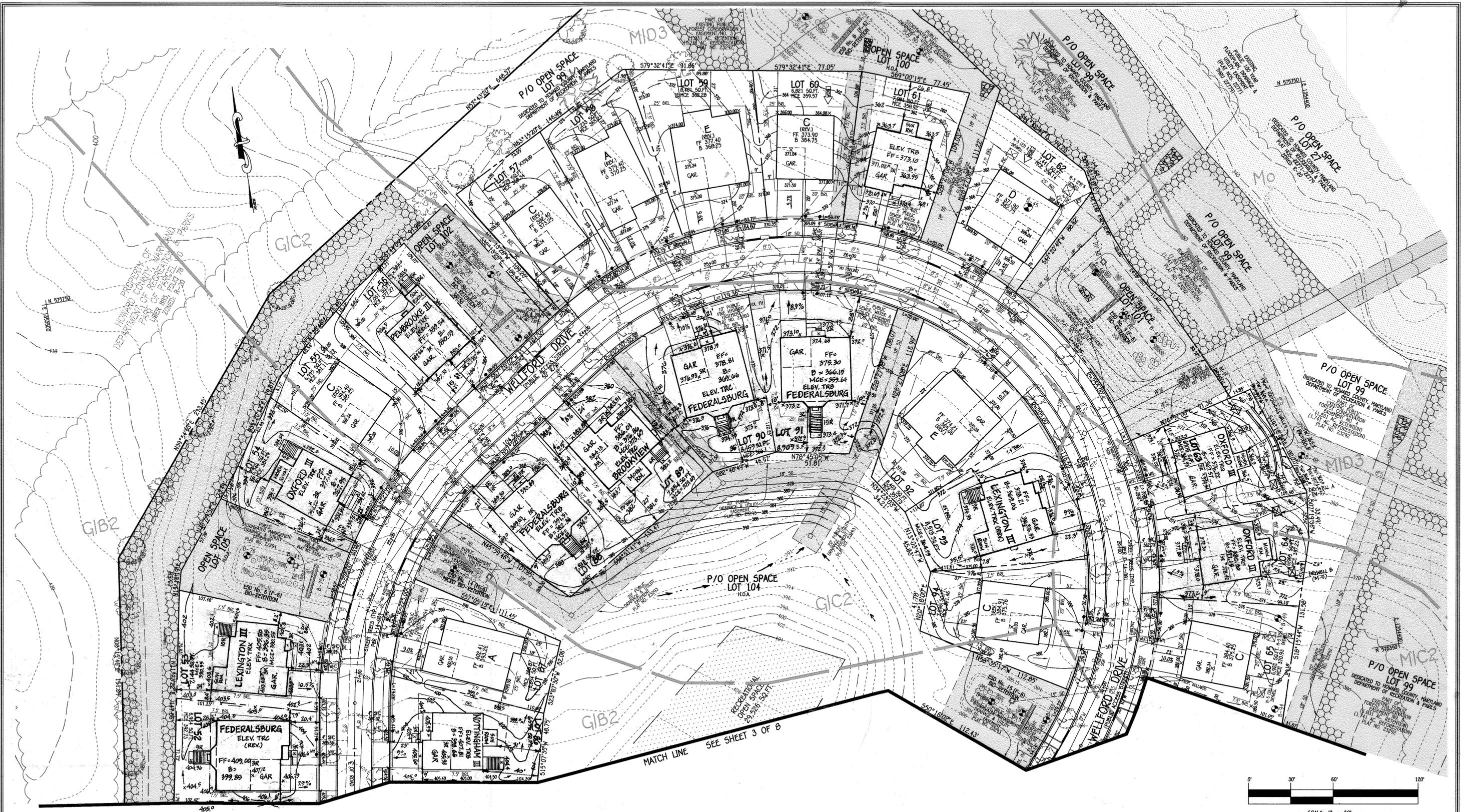
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELEC. DIST.	CENSUS TR.
23291-23298	2	R-20	30	SECOND	6023.04

WATER CODE	SEWER CODE
E-15	7640000

**SITE DEVELOPMENT PLAN**

SINGLE FAMILY DETACHED  
**CENTENNIAL LAKE OVERLOOK**  
 SECTION TWO / PART TWO  
 LOTS 42 THRU 69, 80 THRU 98,  
 P/O OPEN SPACE LOTS 99, 103,  
 OPEN SPACE LOTS 100, 101, 102, 104, 105 & 106  
 PREVIOUS HOWARD COUNTY FILES: ECP-12-053, WP-13-096, SP-13-004,  
 PB-399, F-14-002, F-14-081, F-14-081S1, F-14-081S2, F-14-081S3  
 50P-15-040, CONTRACT NO. 24-4764-D & 24-4917-D  
 PLAT NUMBERS: 23291 THRU 23298  
 TAX MAP NO. 30 PARCEL NO. 86 GRID NO. 2  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN      DATE: AUGUST, 2015

SHEET 3 OF 8      50P-15-066

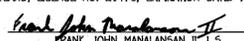


14	REV. LOT 61 TO A NOTTINGHAM III & PER ASBUILT CONDITIONS	01/20/17
13	REV. LOT 54 TO AN OXFORD III	11/19/16
12	REV. LOT 63 TO OXFORD III	10/11/16
11	REV. LOT 64 TO OXFORD III & SHOW ASBUILT ELEV. & GRADING	9/16/16
10	REV. LOT 56 TO PEMBROKE III & PER ASBUILT CONDITIONS	8/12/16
9	REV. LOT 54 TO PEMBROKE III	6/10/16
8	REV. LOT 53 TO LEXINGTON III	4/25/16
7	REV. LOT 93 TO SHOW LEXINGTON III & ASBUILT GRADING	4/18/16
6	REV. LOT 86 TO NOTTINGHAM III	4/18/16
5	REV. LOT 82 TO FEDERALSBURG	2/19/16
4	REV. LOT 90 TO FEDERALSBURG	11/4/15
3	REV. LOT 91 TO FEDERALSBURG	10/21/15
2	REV. LOT 89 TO BROOKVIEW	10/20/15
1	REV. LOT 88 TO FEDERALSBURG	10/19/15
NO.	REVISION	DATE



**PROFESSIONAL CERTIFICATION**

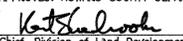
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.

  
 FRANK JOHN MANALANSAN II, L.S.      8/20/15      DATE

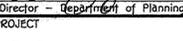
**OWNER/DEVELOPER**

86422 HOMES CORP.  
 8965 GUILFORD ROAD  
 SUITE 209  
 COLUMBIA, MARYLAND 21046  
 410-720-9071  
 ATTN: MR. BRIAN A. KNAUFF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

 Chief, Division of Land Development      9-11-15      Date

 Chief, Development Engineering Division      9-11-15      Date

 Director - Department of Planning and Zoning      9-11-15      Date

PROJECT	CENTENNIAL LAKE OVERLOOK	SECTION / PART	TWO / TWO	LOTS NO.	42 THRU 69 & 80 THRU 98
PLAT	23291-23298	BLOCK NO.	2	ZONE	R-20
TAX/ZONE	30	ELEC. DIST.	SECOND	CENSUS TR.	6023.04
WATER CODE	E-15	SEWER CODE	7640000		

**SITE DEVELOPMENT PLAN**

SINGLE FAMILY DETACHED  
**CENTENNIAL LAKE OVERLOOK**  
 SECTION TWO / PART TWO  
 LOTS 42 THRU 69, 80 THRU 98,  
 P/O OPEN SPACE LOTS 99, 103,  
 OPEN SPACE LOTS 100, 101, 102, 104, 105 & 106  
 PREVIOUS HOWARD COUNTY FILES: ECP-12-053, WP-13-096, SP-13-004,  
 PB-399, F-14-002, F-14-081, F-14-08151, F-14-08152, F-14-08153,  
 SDP-15-040, CONTRACT NO. 24-4764-D & 24-4917-D  
 PLAT NUMBERS: 23291 THRU 23298  
 TAX MAP NO.: 30      PARCEL NO.: 86      GRID NO.: 2  
 SECOND ELECTION DISTRICT      HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN      DATE: AUGUST, 2015  
 SHEET 4 OF 8      SDP-15-066

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10277 BALTIMORE NATIONAL FIVE  
 ELICOTT CITY, MARYLAND 21046  
 (410) 461-2295



SOILS LEGEND		
SOIL	NAME	CLASS
ChA	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES	B
ChB2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
ChC2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
EhB2	ELIOT SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
EhC3	ELIOT SILTY CLAY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	C
GIB2	GLENNELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
GIC2	GLENNELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GIC3	GLENNELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
GID3	GLENNELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
MIB2	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MIC2	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
MIC3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
MID3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
Mo	MIXED ALLUVIAL LAND	D
MID2	MT. ARY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	A

NOTES:  
 \* HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS  
 \*\* MAY CONTAIN HYDRIC INCLUSIONS  
 † GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS

SCALE: 1" = 30'

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL PIKE  
 ELICOTT CITY, MARYLAND 21042  
 (410) 461-2999

NO.	REVISION	DATE



**PROFESSIONAL CERTIFICATE**  
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."  
 Signature of Surveyor: *Frank John Mahalansan II* Date: 8/20/15  
 License No. 21476  
 Expiration Date: 7/14/17

**BUILDER/DEVELOPER'S CERTIFICATE**  
 "I/we certify that all development and construction will be done according to this plan, for sediment and erosion control and that 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 also authorize periodic on-site inspection by the Howard Soil Conservation District."  
 Signature of Developer: *Brian Knauff* Date: 8/20/15

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.  
 Signature of District Director: *John K. Kuntz* Date: 8/20/15  
 Howard SCD

**OWNER/DEVELOPER**  
 BEAZER HOMES, CORP.  
 8965 GUILFORD ROAD  
 SUITE 209  
 COLUMBIA, MARYLAND 21046  
 410-720-5071  
 ATTN: MR. BRIAN A. KNAUFF

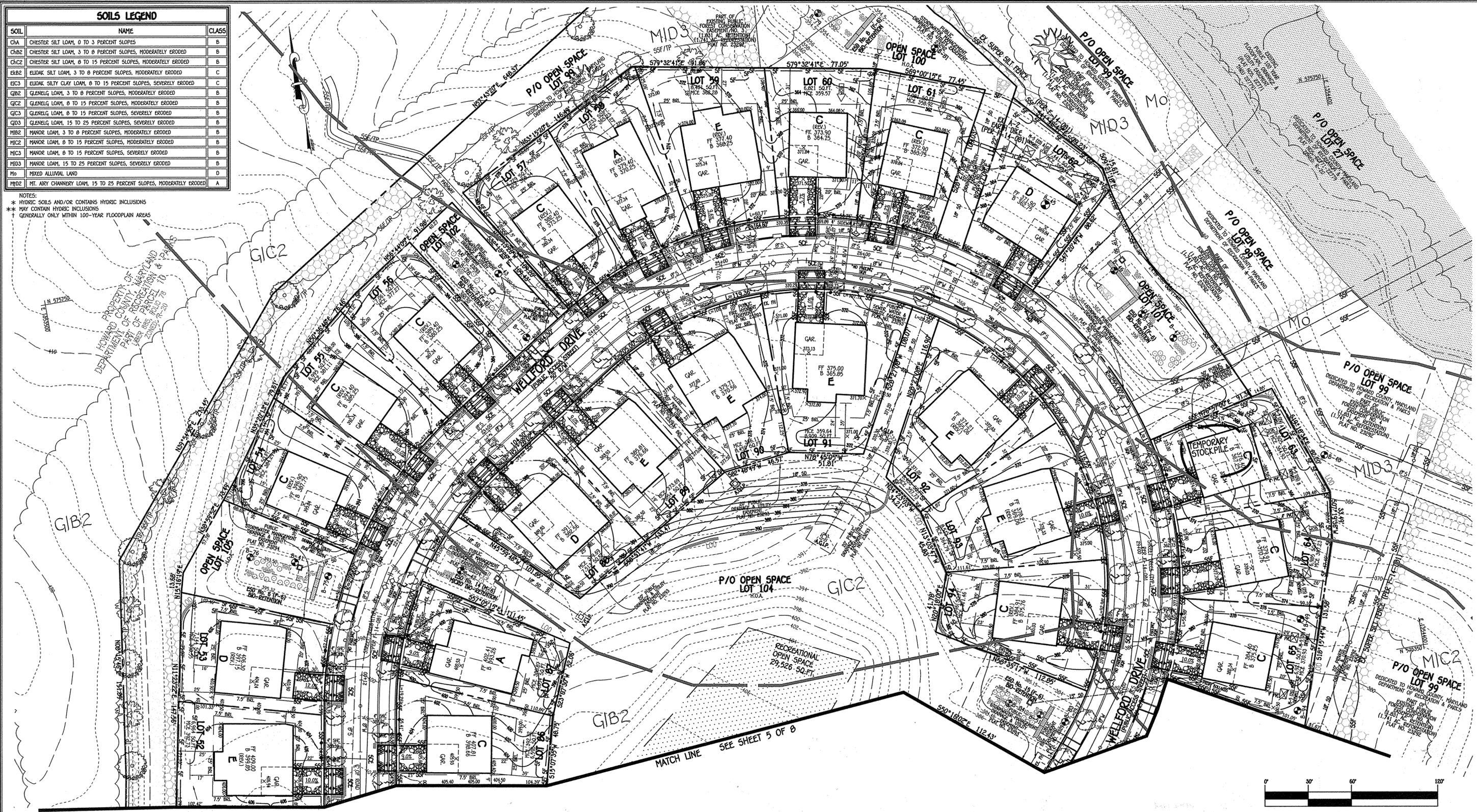
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development: *K. S. ...* Date: 9-11-15  
 Chief, Development Engineering Division: *...* Date: 9-8-15  
 Director - Department of Planning and Zoning: *...* Date: 9-11-15

PROJECT: CENTENNIAL LAKE OVERLOOK SECTION / PART TWO / TWO LOTS NO. 42 THRU 69 & 80 THRU 98  
 PLAT: 23291-23298 BLOCK NO. 2 ZONE R-20 TAX/ZONE 30 ELEC. DIST. .SECOND CENSUS TR. 6023.04  
 WATER CODE E-15 SEWER CODE 7640000

**SEDIMENT/EROSION CONTROL PLAN**  
 SINGLE FAMILY DETACHED  
**CENTENNIAL LAKE OVERLOOK**  
 SECTION TWO / PART TWO  
 LOTS 42 THRU 69, 80 THRU 98,  
 P/O OPEN SPACE LOTS 99, 100, 101, 102, 103, 104, 105 & 106  
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 PLAT NUMBERS: 23291 THRU 23298  
 TAX MAP NO.: 30 PARCEL NO.: 26 GRID NO.: 2  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: AUGUST, 2015  
 SHEET 5 OF 8 SDP-15-066

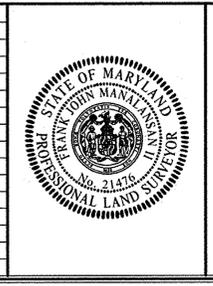
SOIL	NAME	CLASS
CHA	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES	B
CHB2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
CHC2	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
ELB2	ELDON SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
ELC3	ELDON SILTY CLAY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	C
GB2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
GC2	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GC3	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
GD3	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
MB2	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MC2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MC3	MANOR LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
MD3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
M0	MIXED ALLUVIAL LAND	D
MD2	MT. AIRY CHANNERY LOAM, 15 TO 25 PERCENT SLOPES, MODERATELY ERODED	A

NOTES:  
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 \*\* MAY CONTAIN HYDRIC INCLUSIONS  
 † GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS



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 CENTENNIAL SQUARE OFFICE PARK - 10272 BALDPOPE NATIONAL PLACE  
 ELKTON CITY, MARYLAND 21142  
 (410) 461-2999

NO.	REVISION	DATE



**PROFESSIONAL CERTIFICATE**  
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."  
 Signature of Surveyor: *Frank John Manalansan II* Date: 8/20/15  
 FRANK JOHN MANALANSAN II, L.S.  
 LICENSE NO. 21476  
 EXPIRATION DATE: 7/14/17

**BUILDER/DEVELOPER'S CERTIFICATE**  
 "I/We certify that all development and construction will be done according to this plan, for sediment and erosion control and that 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 also authorize periodic on-site inspection by the Howard Soil Conservation District."  
 Signature of Developer: *Brian Knauff* Date: 8/20/15  
 BRIAN KNAUFF

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *John K. Howard* Date: 8/31/15  
 JOHN K. HOWARD  
 HOWARD SCD

**OWNER/DEVELOPER**  
 BEAZER HOMES, CORP.  
 8965 QUILFORD ROAD  
 SUITE 209  
 COLUMBIA, MARYLAND 21046  
 410-720-5071  
 ATTN: MR. BRIAN A. KNAUFF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Victor Salomon* Chief, Division of Land Development Date: 9-11-15  
*John A. Adams* Chief, Development Engineering Division Date: 9-8-15  
*Walter J. Jones* Director - Department of Planning and Zoning Date: 9-11-15

PROJECT	SECTION / PART	LOTS NO.			
CENTENNIAL LAKE OVERLOOK	TWO / TWO	42 THRU 69 & 80 THRU 98			
PLAT	BLOCK NO.	ZONE	TAX / ZONE	ELEC. DIST.	CENSUS TR.
23291-23298	2	R-20	30	SECOND	6023.04
WATER CODE	SEWER CODE				
E-15	7640000				

**SEDIMENT/EROSION CONTROL PLAN**

SINGLE FAMILY DETACHED  
**CENTENNIAL LAKE OVERLOOK**  
 SECTION TWO / PART TWO  
 LOTS 42 THRU 69, 80 THRU 98,  
 P/O OPEN SPACE LOTS 99, 103,  
 OPEN SPACE LOTS 100, 101, 102, 104, 105 & 106  
 PREVIOUS HOWARD COUNTY FILES: ECP-12-053, WP-13-096, SP-13-004,  
 PB-399, F-14-002, F-14-081, F-14-08151, F-14-08152, F-14-08153  
 SDP-15-040, CONTRACT NO. 24-4764-D & 24-4917-D  
 TAX MAP NO.: 30 PARCEL NO.: 88 GRID NO.: 2  
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS SHOWN DATE: AUGUST, 2015  
 SHEET 6 OF 8

### SOIL PREPARATION, TOPSOILING AND SOIL AMENDMENTS (B-4-2)

### TEMPORARY SEEDING NOTES (B-4-4)

**DEFINITION**  
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

**CONDITIONS WHERE PRACTICE APPLIES**  
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

**CRITERIA**  
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (SECTION B.3) AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS.  
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED DATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.  
3. WHEN STABILIZATION IS REQUIRED DURING A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3A.1.8 AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

HARDINESS ZONE (FROM FIGURE B.3)	SEED MIXTURE (FROM TABLE B.1)	FERTILIZER RATE (10-20-20)	LIME RATE
6B			
NO. SPECIES	APPLICATION RATE (LB./AC.)	SEEDING DATES	SEEDING DEPTHS
1	96	3/1 - 5/15	1"
2	72	6/15 - 10/15	1"
3	112		1"

### PERMANENT SEEDING NOTES (B-4-5)

**A. SEED MIXTURES**  
1. GENERAL USE  
a. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND ENTER THEM IN THE PERMANENT SEEDING SUMMARY. b.2. THE SUMMARY IS TO BE PLACED ON THE PLAN.  
2. TURFGRASS MIXTURES  
a. AREAS WITH EXISTING TURFGRASS THAT ARE TO BE MAINTAINED OR RESEEDED SHALL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.  
b. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSES. ENTER SELECTION NOTICES, APPLICATION DATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.  
c. EXISTING TURFGRASS SHALL BE MAINTAINED TO THE EXTENT OF INSURETY MANAGEMENT. RESEEDING REQUIRED IN THE AREAS OF CENTRAL MARYLAND AND EASTERN SHORE. RECOMMENDED CERTIFIED CENTURY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOICE A MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE B MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE C MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE D MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE E MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE F MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE G MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE H MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE I MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE J MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE K MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE L MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE M MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE N MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE O MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE P MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE Q MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE R MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE S MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE T MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE U MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE V MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE W MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE X MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE Y MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET. CHOICE Z MEDIUM TO 3 POUNDS PER 1000 SQUARE FEET.

HARDINESS ZONE (FROM FIGURE B.3)	SEED MIXTURE (FROM TABLE B.1)	FERTILIZER RATE (10-20-20)	LIME RATE
6B			
NO. SPECIES	APPLICATION RATE (LB./AC.)	SEEDING DATES	SEEDING DEPTHS
1	100	MAY 1 - MAY 15 AUG 15 - OCT 15	1 1/2" 1 1/2"
2	100	MAY 1 - MAY 15 AUG 15 - OCT 15	1 1/2" 1 1/2"

**B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).**  
1. GENERAL SPECIFICATIONS  
a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD PLUGS MUST BE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.  
b. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS TO 3/4 INCH PLUS OR MINUS 1/4 INCH. AT THE TIME OF CUTTING, MANAGEMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR CRACKED SODS WILL NOT BE ACCEPTABLE.  
c. STAMPAID SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.  
d. SOD MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT EXCEEDS THAT OF WET MUD. ADVERSELY AFFECTS ITS SURVIVAL.  
e. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.  
2. SOD INSTALLATION  
a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY BRIDGE THE SODS IMMEDIATELY PRIOR TO LAYING THE SOD.  
b. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DROPPING OF THE SOOTS.  
c. WEDGING POSSIBLE. LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTIGUOUS AND STAGGERING JOINTS. SOIL AND TIE. FILL JOINTS WITH SOIL TO PREVENT SURFACE SOIL LOSS AND TO PROMOTE SOIL CONTACT.  
d. WATER THE SOD IMMEDIATELY FOLLOWING LAYING AND WATERING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING, AND BRIDGING FOR ANY PRICE OF SOD WITHIN EIGHT HOURS.  
3. SOD MAINTENANCE  
a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER ONLY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOIL DURING THE HEAT OF THE DAY TO PREVENT WILTING.  
b. AFTER THE FIRST WEEK, SOO WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.  
c. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LAWN MUST BE REMOVED BY THE MOW CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

### HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS. SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (410-313-1699).

2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THEREOF.

3) FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 3 CALENDAR DAYS FOR ALL PERMITTEE SEDIMENT CONTROL STRUCTURES, DICES, PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. 3:1 TENS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. FOR PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND VEGETATIVE STABILIZATION WITH MULCH ALONE, MULCH CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

5) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSOR FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

6) SITE ANALYSIS:  
TOTAL AREA OF SITE: 0.02 ACRES  
AREA DISTURBED: 0.02 ACRES  
AREA TO BE ROOFED OR PAVED: 2.59 ACRES  
AREA TO BE VEGETATIVELY STABILIZED: 5.76 ACRES  
TOTAL CUT: 0.84 CUBIC YARDS  
TOTAL FILL: 0.877 CUBIC YARDS

7) ANY SEDIMENT CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

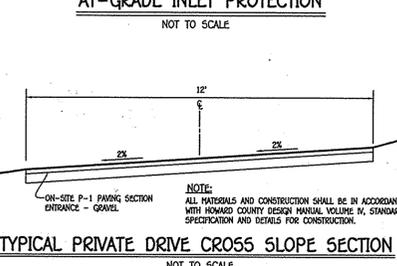
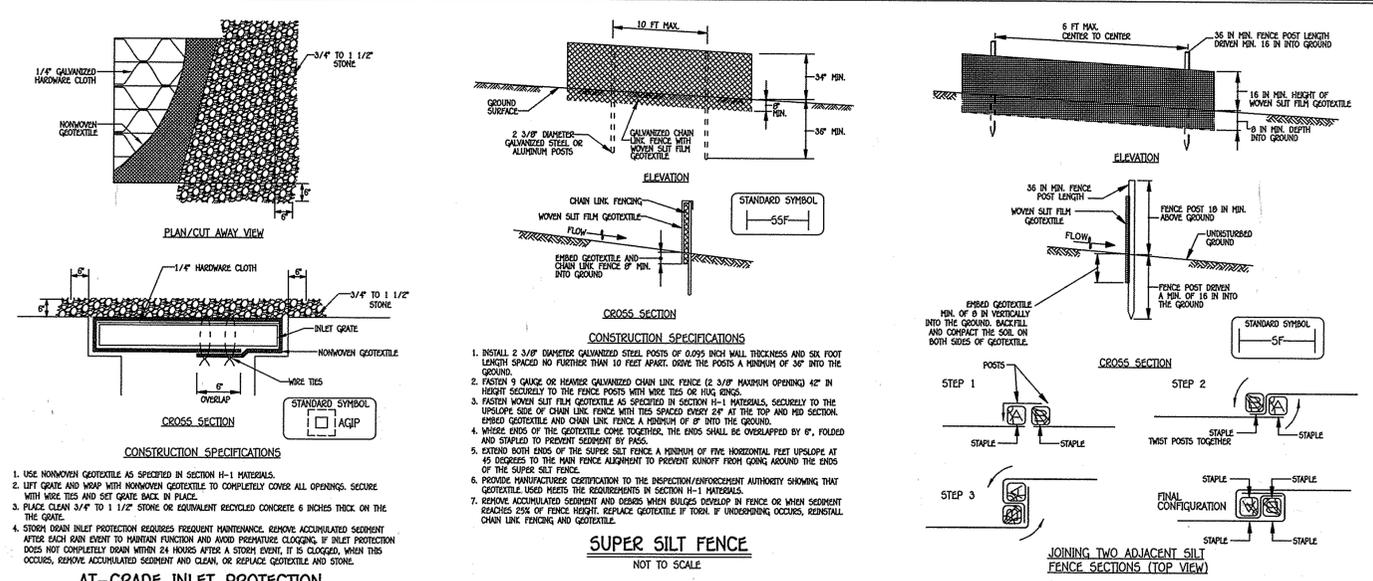
8) ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

9) ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE OBTAINED UPON COMPLETION OF INSTALLATION OF PERMETER DIVERSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE WITHHELD UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

10) TECHNIQUES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKING WEEKEND.

11) ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.

12) A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MINIMUM AVERAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK SHALL PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PREVIOUS GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.



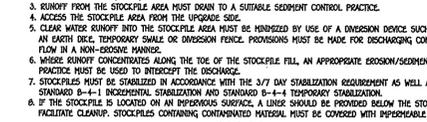
### B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

**DEFINITION**  
A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

**PURPOSE**  
TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION AND SOIL CHANGES TO DRAINAGE PATTERNS.

**CONDITIONS WHERE PRACTICE APPLIES**  
A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES.

**CRITERIA**  
1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.  
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1 BENCHING MUST BE PROVIDED IN ACCORDANCE WITH MARYLAND GRADING.  
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.  
4. ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.  
5. CLEAR WATER RUNOFF FROM THE STOCKPILE AREA MUST BE HANDED BY USE OF A DRAINAGE DEVICE SUCH AS AN EARTH DICE, TEMPORARY SHALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.  
6. WARE FRONT CONCENTRATIONS ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.  
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3:1 D TEMPORARY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCORPORATING STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.  
8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING.



**MAINTENANCE**  
1. HORIZONTAL BENCHING IN A CONDITION THAT PROMOTES TRACKING BY SPREADING AND STONE OR MAKE OTHER REPAIRS AS CONDITIONS OBTAIN TO HORIZONTAL BENCHING.  
2. HORIZONTAL BENCHING AND SPECIFIC DISTURBANCES, IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLS, OR TRUCKED INTO ADJACENT ROADWAY BY INCLUDING SCRAPING AND/OR SHEETING. WASHING ROADWAY TO REMOVE MUD TRACED ONTO ADJACENT ROADWAY IS NOT NECESSARY UNLESS WASH WATER IS DISCHARGED TO AN APPROVED SEDIMENT CONTROL PRACTICE.



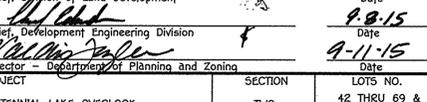
**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE



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NOT TO SCALE



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NOT TO SCALE



**STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

**A. SOIL PREPARATION**  
1. TEMPORARY STABILIZATION  
a. SEDIMENT PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE MECHANICAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHAIN PLOWS OR DISKS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.  
b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLAN.  
c. DISK OR ROLL AND FERTILIZE INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.  
2. PERMANENT STABILIZATION  
a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:  
1. SOIL PH BETWEEN 6.0 AND 7.0  
2. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM)  
3. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 50 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF HUMUS. AN EXCEPTION: F LONGGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.  
b. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.  
c. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.  
3. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.  
4. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.  
5. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.  
6. PER SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. MAKE LAWN AREA TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHED AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DISKING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO EXPOSE THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDING PREPARATION. TRUCK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN UNDESIRABLE CONDITION. FERTILIZER AND LIME SHALL BE APPLIED TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 3 TO 5 INCHES OF SOIL LOOSE AND FERTILIZED. SEEDING MAY BE NECESSARY ON NON-DISTURBED AREAS.

**B. TOPSOILING**  
1. TOPSOIL IS PLACED OVER PREPARED SUBGRADE FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATION GROWTH. SOILS OF CONCERN HAVE LOW NUTRIENT CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNDESIRABLE SOIL GRAIN SIZE.  
2. TOPSOIL SAVED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SAVED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.  
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES AND TO AREAS HAVING A MINIMUM OF 10% TO 15% ORGANIC MATTER. 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 CONTINUED NUTRIENT SUPPLY TO PLANTS. 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.  
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRES TURFGRASS AND COMMERICAL SOILS WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.  
5. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF APPROVED BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR AND APPROVED BY THE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSTRATS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CONCRETE, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.  
6. TOPSOIL MUST BE FREE OF NOxious PLANTS OR PLANT PARTS SUCH AS BIRCHBARK GRASS, QUACK GRASS, JOHNSON GRASS, WILD GEODE, PIGWEED, NY. THEBELL, OR OTHER AS SPECIFIED.  
7. TOPSOIL, SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY SOIL SCIENTIST AND APPROVED BY THE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.  
8. TOPSOIL APPROVAL AUTHORITY  
a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.  
b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 6 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY INADEQUACIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.  
c. TOPSOIL MUST NOT BE PLACED IF THE SOIL OR SUBSOIL IS IN A FROZEN OR MOIST CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

**C. SOIL AMENDMENTS (FERTILIZER & LIME SPECIFICATIONS)**  
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT NUTRIENT AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A REGISTERED PROFESSIONAL OR COMMERICAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.  
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. HAVURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PROPER APPROVAL FROM THE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND MANUFACTURER'S PRODUCT NUMBER.  
3. LIME MATERIALS MUST BE GROUND LIMESTONE (UNBURNED OR BURNED LIME) BE SUBSTITUTED EXCEPT WHEN TOPSOILING WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO PASS THROUGH A 20 MESH SIEVE. LIME MUST PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.  
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.  
5. WHERE THE SUBSOIL IS EITHER HEAVY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-600 POUNDS PER 1000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

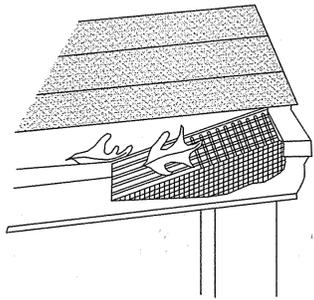
**STANDARD STABILIZATION NOTE**  
FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:  
A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERMETER DIVERSIONS, SWALES, DITCHES, PERMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1).  
B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE CONSTRUCTION.

**DUST CONTROL**  
**DEFINITION**  
CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.  
**PURPOSE**  
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE TRAFFIC, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.  
**CONDITIONS WHERE PRACTICE APPLIES**  
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.  
**SPECIFICATIONS**  
1. MULCHES - SEE STANDARDS FOR TEMPORARY STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE COMPACTED TO PREVENT BLOWING.  
2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.  
3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLOUDS TO THE SURFACE IS AN EMERGENCY MEASURE WHICH SHOULD BE USED INFERIOR TO SOILING, BLOWING STRIPS, BENCH PLOWING, OR MOUNDING ON MINOR SIDE OF THE SITE. CHISEL-TYPE FLOWS SPACED ABOUT 12" APART, SPRING-TIPPED HARROWS AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.  
4. BRIDGING - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPARKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE BRIDGED TO THE POINT THAT RUNOFF BEGINS TO FLOW.  
5. BARROWS - SOLID BONDED FENCES SILT FENCES, SNOW FENCES, BURRAP FENCES, STRAW BALE DICES AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CONTROLLING SOIL BLOWING, CLUSTERS AND SOIL BLOWING. CURBENTS AND SOIL BLOWING. BARROWS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TO THIS HEIGHT ARE EFFECTIVE IN:  
6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED REAPPLICATION.  
**PERMANENT METHODS**  
1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER AND PERMANENT STABILIZATION WITH SOIL. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.  
2. TOPSOILING - CONSIDER WITH LESS EROSION SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.  
3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

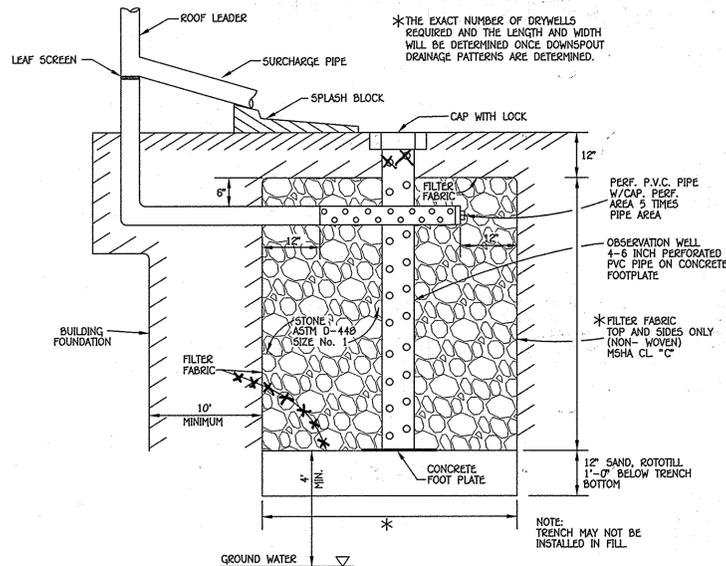
**SEQUENCE OF CONSTRUCTION**  
1. OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (14 DAYS)  
2. NOTIFY "HIGH UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-207-7777. (7 DAYS)  
3. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.  
4. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, AND SUPER-SILT FENCE. (2 DAYS)  
5. ROUGH GRADE AROUND HOUSE SITE AND INSTALL TEMPORARY SEEDING, IF REQUIRED. (4 DAYS)  
6. CONSIDER SEEDING. (2 DAYS)  
7. INSTALL DOWNS. (2 DAYS)  
8. FINE GRADE SITE AND INSTALL PERMANENT SEEDING. (7 DAYS)  
9. ALL PLANT GRASSES AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS. WHEN ALL CONTROLLING AREAS TO THE SEDIMENT CONTROL DIVISION HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROLS SHOULD BE REMOVED.  
NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

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**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALDORNE NATIONAL FEE  
CLAYTON, MD 21036  
(410) 461 - 2925



**GUTTER DRAIN FILTER DETAIL**  
NOT TO SCALE



**DRY WELL DETAIL**  
NOT TO SCALE

**Construction Criteria:**

The following items should be addressed during construction of projects with dry wells:

**Erosion and Sediment Control:**  
Final grading for proposed dry wells should not take place until the surrounding site is completely stabilized. If this cannot be accomplished, runoff from disturbed areas shall be diverted.

**Soil Compaction:**  
Excavation should be conducted in dry conditions with equipment located outside of the practice to minimize bottom and sidewall compaction. Construction of a dry well shall be performed with lightweight, wide-tracked equipment to minimize disturbance and compaction. Excavated materials shall be placed in a contained area.

**Underground Chamber:**  
A subsurface prefabricated chamber may be used.

**Dry Well Bottom:**  
The bottom shall be as level as possible to minimize pooled water in small areas that may reduce overall infiltration and longevity.

**Filter Cloth:**  
Filter cloth shall not be installed on the bottom of the well. Non-woven filter cloth should be used to line the top and sides of the dry well to prevent the pore space between the stones from being blocked by the surrounding native material.

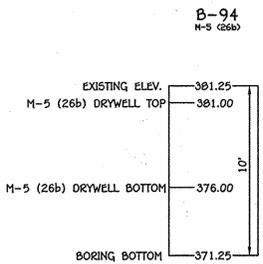
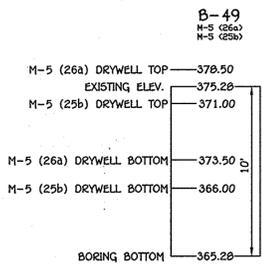
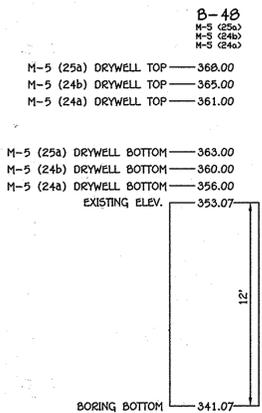
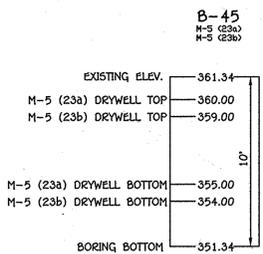
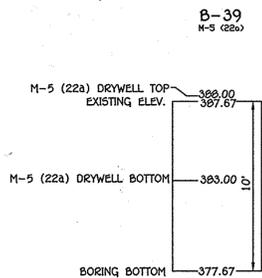
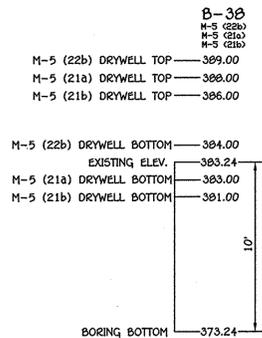
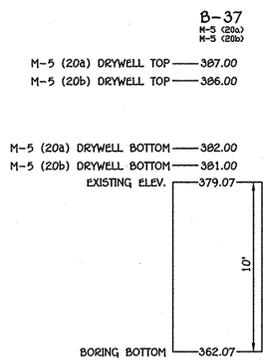
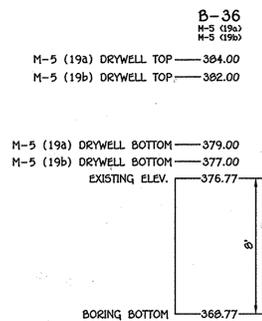
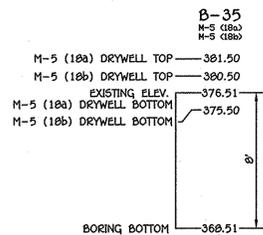
**Gravel Media:**  
The aggregate shall be composed of an 18 to 48-inch layer of clean washed, open graded material with 40% porosity (e.g., ASTM D448 4, 5, or 6 stone or equal).

**STORMWATER MANAGEMENT NOTES**

1. STORMWATER MANAGEMENT IS PROVIDED IN ACCORDANCE WITH CHAPTER 5, "ENVIRONMENTAL SITE DESIGN" OF THE 2007 MARYLAND STORMWATER MANAGEMENT DESIGN MANUAL, EFFECTIVE MAY 4, 2010.
2. MAXIMUM CONTRIBUTING ROOF TOP AREA TO EACH DOWNSPOUT SHALL BE 1,000 SQ. FT. OR LESS.
3. DRYWELLS SHALL BE PROVIDED AT LOCATIONS WHERE THE LENGTH OF DISCONNECTION IS LESS THAN 75' AT 5%. THE SIZE AND CONSTRUCTION OF THE DRYWELL SHALL BE IN ACCORDANCE WITH THE DETAIL SHOWN ON THIS SHEET.
4. FINAL GRADING IS SHOWN ON THIS SITE DEVELOPMENT PLAN.

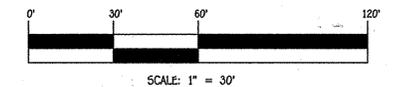
**OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)**

- A. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- B. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO ENSURE TRENCH DRAINAGE.
- C. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- D. WHEN THE FACILITY BECOMES CLOGGED SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
- E. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.



LOT NO.	DRYWELL NUMBER	NO. OF DOWNSPOUTS	AREA OF ROOF	VOLUME REQUIRED	VOLUME PROVIDED	AREA OF STORAGE	AREA OF TREATMENT	NO. OF DRYWELLS	DIMENSIONS OF DRYWELLS
42	M-5 (18)	4	1,221 SqFt	174 CuFt	175 CuFt	100%	100%	2	8' X 5.5' X 5'
43	M-5 (19)	2	970 SqFt	70 CuFt	80 CuFt	100%	100%	2	5' X 4' X 5'
44	M-5 (20)	2	900 SqFt	129 CuFt	130 CuFt	100%	100%	2	6.5' X 5' X 5'
45	M-5 (21)	2	970 SqFt	139 CuFt	140 CuFt	100%	100%	2	7' X 5' X 5'
46	M-5 (22)	4	1,010 SqFt	144 CuFt	154 CuFt	100%	100%	2	7' X 5.5' X 5'
62	M-5 (23)	4	1,150 SqFt	164 CuFt	168 CuFt	100%	100%	2	7' X 6' X 5'
63	M-5 (24)	2	900 SqFt	129 CuFt	130 CuFt	100%	100%	2	6.5' X 5' X 5'
64	M-5 (25)	2	900 SqFt	129 CuFt	130 CuFt	100%	100%	2	6.5' X 5' X 5'
65	M-5 (26)	2	900 SqFt	129 CuFt	130 CuFt	100%	100%	2	6.5' X 5' X 5'

- NOTES:
- 1) DRYWELL DIMENSIONS SHOWN ARE BASED ON TREATMENT OF 50% OF THE AREA OF THE GENERIC BOX AREA PROPOSED FOR THE LOT ASSUMING THAT THE FRONT PORTION (50%) OF THE ROOF AREA OF THE PROPOSED HOUSE SPECIFIED WITHIN THE GENERIC BOX WILL BE CAPTURED UNDER THE SWM PRACTICES PROPOSED UNDER F14-091
  - 2) A MODIFICATION TO THE STORAGE REQUIREMENT (DRYWELL SIZE) MAY BE DETERMINED WHEN THE ACTUAL HOUSE TYPE IS SITED ON THE INDIVIDUAL LOT.



**FISHER, COLLINS & CARTER, INC.**  
CIVIL, ENGINEERING, CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PLACE  
GLISBOTT CITY, MARYLAND 21046  
(410) 461-2995



**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.

*Frank John Manalansan*  
FRANK JOHN MANALANSAN, L.S. DATE: 8/20/15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Kevin Stachura* 9-11-15  
Chief, Department of Land Development Date  
*Michael J. Kelly* 9-8-15  
Chief, Development Engineering Division Date  
*William J. Kelly* 9-11-15  
Director - Department of Planning and Zoning Date

PROJECT	SECTION	LOTS NO.
CENTENNIAL LAKE OVERLOOK	TWO	42 THRU 69 & 80 THRU 98
PLAT	BLOCK NO.	ZONE
23291-23298	2	R-20
TAX/ZONE	ELEC. DIST.	CENSUS TR.
30	SECOND	6023.04
WATER CODE	SEWER CODE	
E-15	7640000	

**OWNER/DEVELOPER**

BEAZER HOMES, CORP.  
8965 GUILFORD ROAD  
SUITE 209  
COLUMBIA, MARYLAND 21046  
410-720-5071  
ATTN: MR. SWAN A. KNAUFF

**STORMWATER MANAGEMENT DETAILS, NOTES & BORING DETAILS**

SINGLE FAMILY DETACHED  
**CENTENNIAL LAKE OVERLOOK**  
SECTION TWO / PART TWO  
LOTS 42 THRU 69, 80 THRU 98,  
P/O OPEN SPACE LOTS 99, 103,  
OPEN SPACE LOTS 100, 101, 102, 104, 105 & 106  
PREVIOUS HOWARD COUNTY FILES: ECP-12-053, WP-13-096, SP-13-004,  
PB-399, F-14-002, F-14-081, F-14-081S1, F-14-081S2, F-14-081S3  
SDP-15-040, CONTRACT NO. 24-4764-D & 24-4917-D  
PLAT NUMBERS: 23291 THRU 23298  
TAX MAP NO.: 30 PARCEL NO.: 86 GRID NO.: 2  
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: AUGUST, 2015  
SCALE: AS SHOWN SHEET 8 OF 8 SDP-15-066