

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10275 BALDORNE NATIONAL FENCE
 ELICOTT CITY, MARYLAND 21042
 (410) 461-2899

NO.	REVISION	DATE
3	ADD OPTIONAL FAMILY ROOM EXTENSION FOR BRADLEY	4/27/15
2	RENAME SHEET NUMBER	4/18/17
1	ADD NOTE PERTAINING TO GENERAL NOTE #31, TO ALLOW REAR SUNROOMS OVER REAR BR'S	5/11/16



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DAILY LICENSED PROFESSIONAL SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/17.
 Frank John Maralansan II, L.S. 4/20/15 DATE

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

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

Debbie 9-8-15
 Chief, Development Engineering Division Date

William J. Lee 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	

HOUSE TYPES & GENERIC BOXES

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
 DATES: JUNE, 2015
 SCALE: AS SHOWN SHEET 2 OF 2



13	REV. LOT 80 TO SHOW FEDERALSBURG, PER APPROVED AA-17-005 & 5/12/17	
12	SHOWING NEW REAR & RIGHT SIDE EOL. PER NEW RECORDED PLAT #23973	
11	REVISE SHEET NUMBER	4/9/17
10	ADD 100' & 100' LOT 84	8/7/17
9	REV. LOT 51 TO SHOW PEMBROKE III (Garage Left)	10/14/16
8	REV. LOT 47 TO SHOW LEXINGTON II, W/SURM. PER GEN. NOTE 31	5/11/16
7	REV. LOT 44 TO SHOW ASBUILT GRADING	4/11/16
6	REV. LOT 81 TO FEDERALSBURG	4/11/16
5	REV. LOT 85 TO FEDERALSBURG	2/16/16
4	REV. LOT 44 TO PEMBROKE III	12/17/15
3	REV. LOT 75 TO FEDERALSBURG	11/24/15
2	REV. LOT 98 TO BROOKVIEW	10/20/15
1	REV. LOT 96 TO FEDERALSBURG	10/20/15
1	REV. LOT 42 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 Manalangan II, L.S. 8/20/15 DATE

OWNER/DEVELOPER
 BEAZER HOMES, CORP.
 8965 QUILLFORD ROAD
 SUITE 205
 COLUMBIA, MARYLAND 21046
 410-720-5071
 ATTN: MR. BRIAN A. KNAUFF

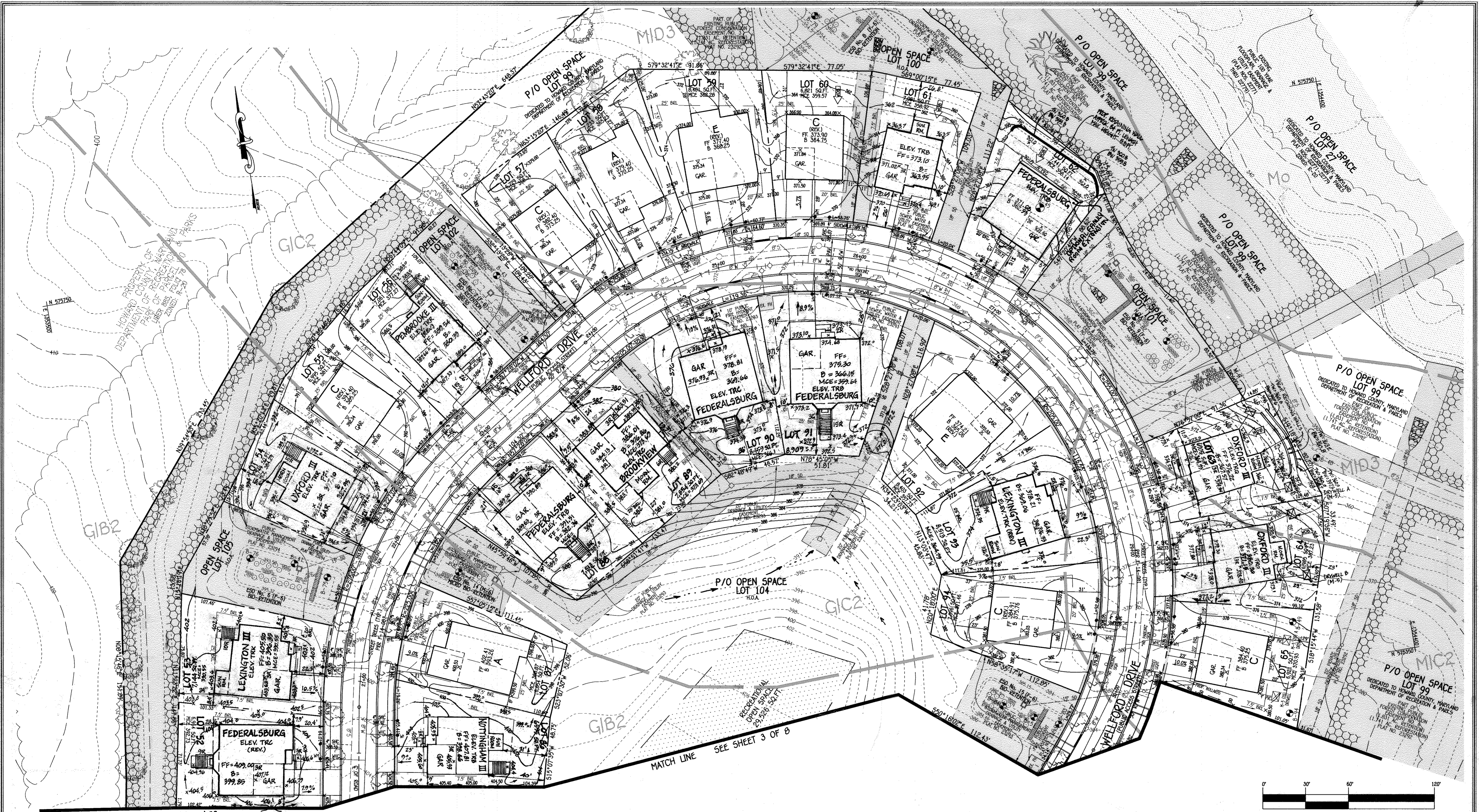
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

<i>K. S. ...</i>	9-11-15	Date
Chief, Division of Land Development		
<i>...</i>	9-8-15	Date
Chief, Development Engineering Division		
<i>...</i>	9-11-15	Date
Director - Department of Planning and Zoning		

PROJECT	CENTENNIAL LAKE OVERLOOK	SECTION / PART	TWO / TWO	LOTS NO.	42 THRU 69 & 80 THRU 98
PLAT	23291-23298	ZONE	R-20	ELEC. DIST.	30 SECOND
TAX / ZONE	30	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-14-081S1, F-14-081S2, F-14-081S3
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 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 2 SDP-15-066

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10270 BALTIMORE NATIONAL PIKE
 ELLSWORTH CITY, MARYLAND 21042
 (410) 481-2895



NO.	REVISION	DATE
16	ADDED OPTIONAL FAMILY ROOM EXTENSION TO LOT 62	4/27/17
15	REV. 1498 & 602 LOT 62 FROM GAR. BOX "D" TO PERMANENTLY ASBUILT	4/19/17
14	REV. LOT 61 TO A NOTTINGHAM III & PER ASBUILT CONDITIONS	01/20/17
13	REV. LOT 54 TO AN OXFORD III	11/18/16
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 PEMRODKE III & PER ASBUILT CONDITIONS	8/12/16
9	REV. LOT 54 TO PEMRODKE III	6/10/16
8	REV. LOT 53 TO LEXINGTON III	4/25/16
7	REV. LOT 93 TO SHOW LEXINGTON III & ASBUILT GRADING	4/13/16
6	REV. LOT 86 TO NOTTINGHAM III	4/8/16
5	REV. LOT 52 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



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
 BEAZER HOMES, CORP.
 9905 GUILFORD ROAD
 SUITE 209
 COLUMBIA, MARYLAND 21046
 410-720-5071
 ATTN: MR. BRIAN A. KNAUFF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

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

William 9-11-15 Date
 Chief, Development Engineering Division

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

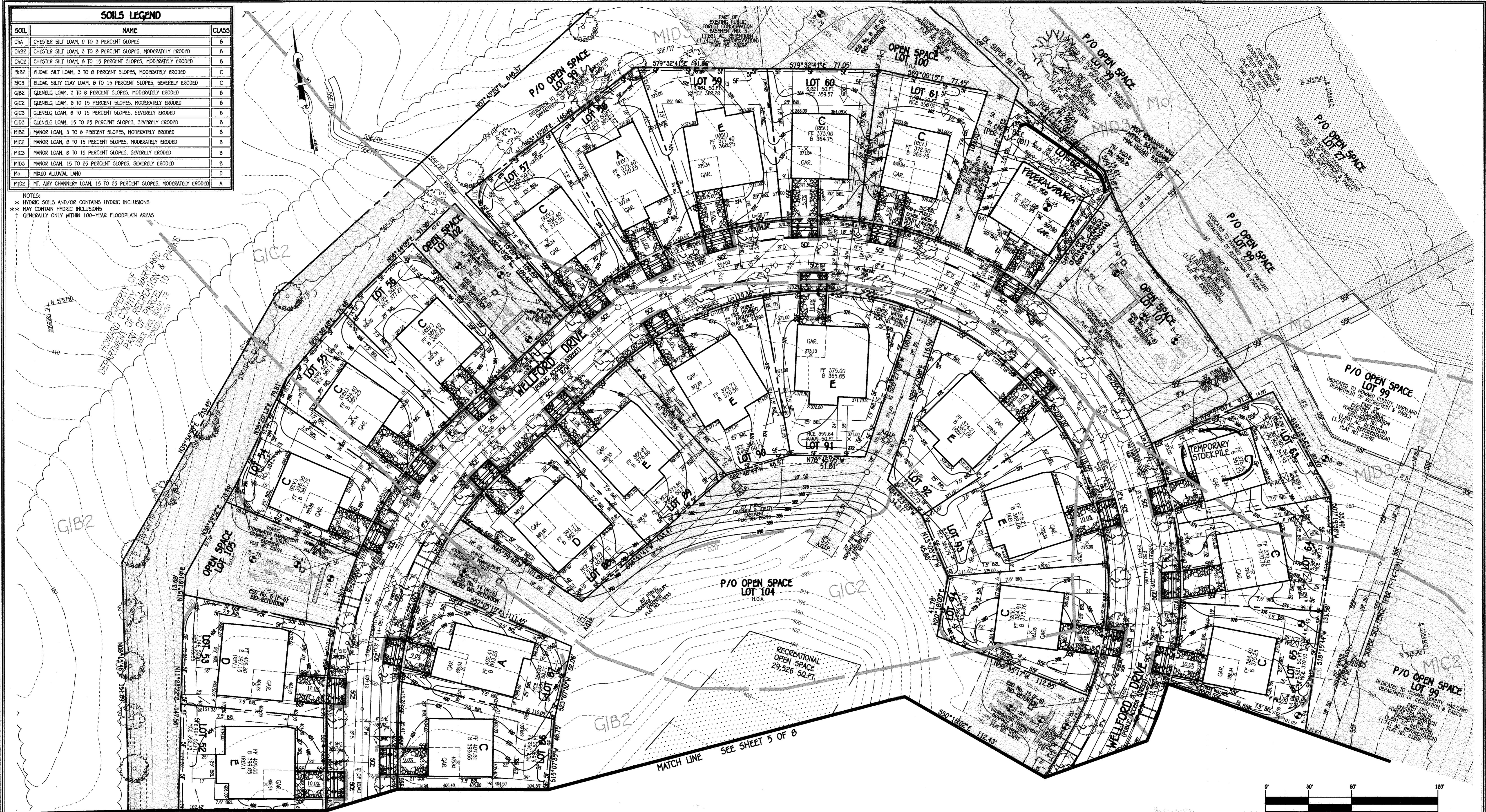
WATER CODE	SEWER CODE
E-15	7640000

SITE DEVELOPMENT PLAN
 SINGLE FAMILY DETACHED
CENTENNIAL LAKE OVERLOOK
 SECTION TWO / PART TWO
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 SDP-15-040, CONTRACT NO. 24-4764-D & 24-4917-D
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 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 9 SDP-15-066

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10722 BALDORRE NATIONAL FLEX
 ELLIOTT CITY, MARYLAND 21114
 (410) 461-2895

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
EK82	ELIOLAK SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
EIC3	ELIOLAK 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
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, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	B
MID3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
Mo	MIXED ALLUVIAL LAND	D
MID2	MT. AIRY 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



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLETTT CITY, MARYLAND 21142
 (410) 461-2995

NO.	REVISION	DATE
2	ADD OPTIONAL FAMILY ROOM EXTENSION	4/27/17
1	REV. W/ 6" OVER LOT OR FROM GEN. BOX. P. TO REPERFORATE & CHECK NO.	4/9/17

NO.	REVISION	DATE
2	ADD OPTIONAL FAMILY ROOM EXTENSION	4/27/17
1	REV. W/ 6" OVER LOT OR FROM GEN. BOX. P. TO REPERFORATE & CHECK NO.	4/9/17



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 Maralansan II* 8/20/15 Date
 FRANK JOHN MARALANSAN 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* 8/20/15 Date
 BRIAN KNAUFF

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

Signature: *Vet. Sladovnik* 9-11-15 Date
 Chief, Division of Land Development

Signature: *John G. ...* 9-8-15 Date
 Chief, Development Engineering Division

Signature: *Valerie ...* 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

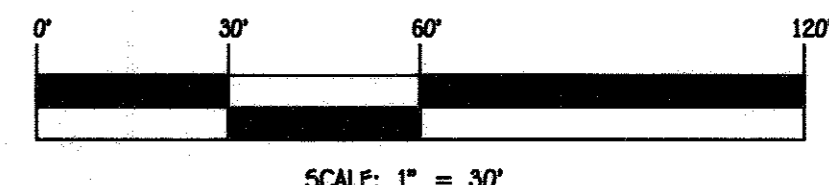
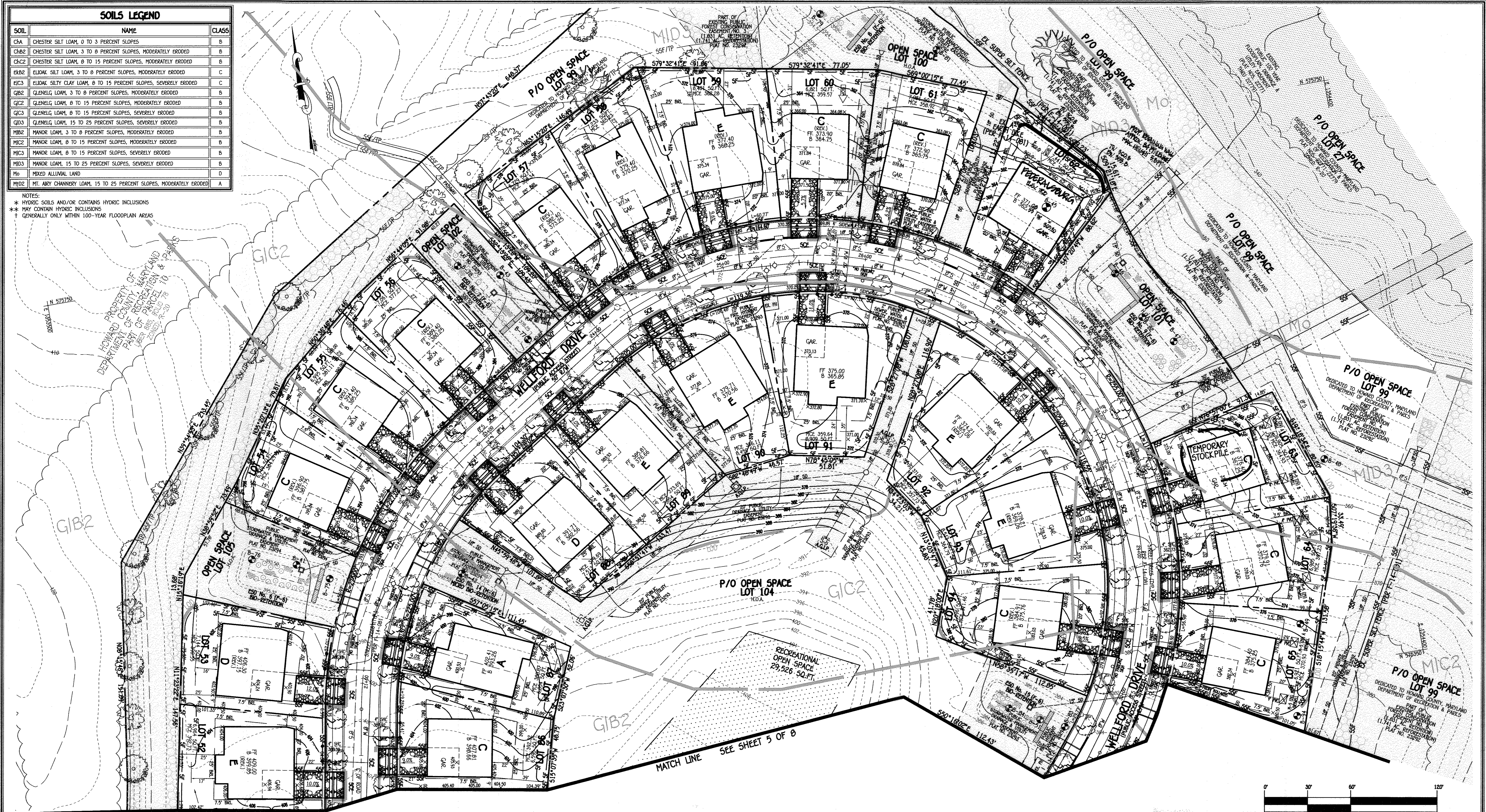
WATER CODE	SEWER CODE
E-15	7640000

SEDIMENT/EROSION CONTROL PLAN

SINGLE FAMILY DETACHED CENTENNIAL LAKE OVERLOOK
 SECTION TWO / PART TWO
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 PLAT NUMBERS: 23291 THRU 23298
 TAX MAP NO.: 30 PARCEL NO.: 86 GRID NO.: 2
 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 DATES: AUGUST, 2015
 SCALE: AS SHOWN SHEET 6 OF 9 S0P-15-066

SOIL	NAME	CLASS
CHA	CHESTER SILT LOAM, 0 TO 3 PERCENT SLOPES	B
CH2	CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
CH3	CHESTER SILT LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
EK2	ELKON SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	C
EK3	ELKON SILTY CLAY LOAM, 8 TO 15 PERCENT SLOPES, SEVERELY ERODED	C
GR2	GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
GR3	GLENELG LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
GR4	GLENELG LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
MB2	MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	B
MB3	MANOR LOAM, 8 TO 15 PERCENT SLOPES, MODERATELY ERODED	B
MC3	MANOR LOAM, 15 TO 25 PERCENT SLOPES, SEVERELY ERODED	B
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 CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
 ELLETTT CITY, MARYLAND 21142
 (410) 461-2895

NO.	REVISION	DATE
1	REV. W/REVISIONS TO PERMITS	8/15/17



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 Maralansan II* Date: 8/20/15
 FRANK JOHN MARALANSAN 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 A. Knauff* Date: 8/20/15
 BRIAN A. KNAUFF

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

OWNER/DEVELOPER
 BEAZER HOMES, CORP.
 8965 GULFORD ROAD
 SUITE 209
 COLUMBIA, MARYLAND 21046
 410-722-5071
 ATTN: MR. BRIAN A. KNAUFF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Signature: *Vet. S. L. L...* Date: 9-11-15
 Chief, Division of Land Development

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

Signature: *...* Date: 9-11-15
 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

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
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 TAX MAP NO.: 30 PARCEL NO.: 06 GRID NO.: 2
 SECOND ELECTION DISTRICT: HOWARD COUNTY, MARYLAND
 DATE: AUGUST, 2015
 SCALE: AS SHOWN SHEET 6 OF 9 SDP-15-066

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

TEMPORARY SEEDING NOTES (B-4-4)

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
A. SEEDING PREPARATION
1. SOIL PREPARATION
2. PERMANENT STABILIZATION
B. TOPSOILING
1. TOPSOILING
2. PERMANENT STABILIZATION
C. SOIL AMENDMENTS (FERTILIZER & LIME SPECIFICATIONS)

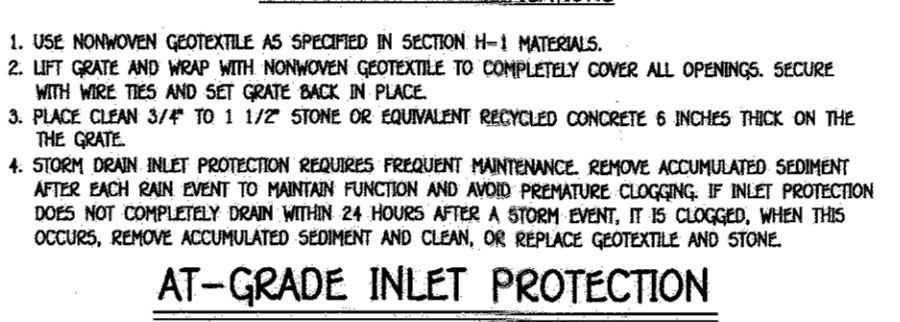
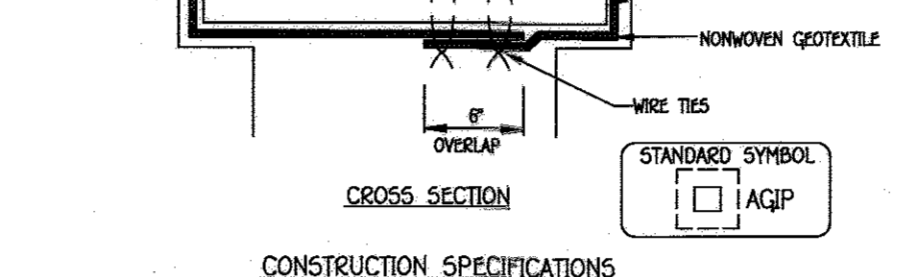
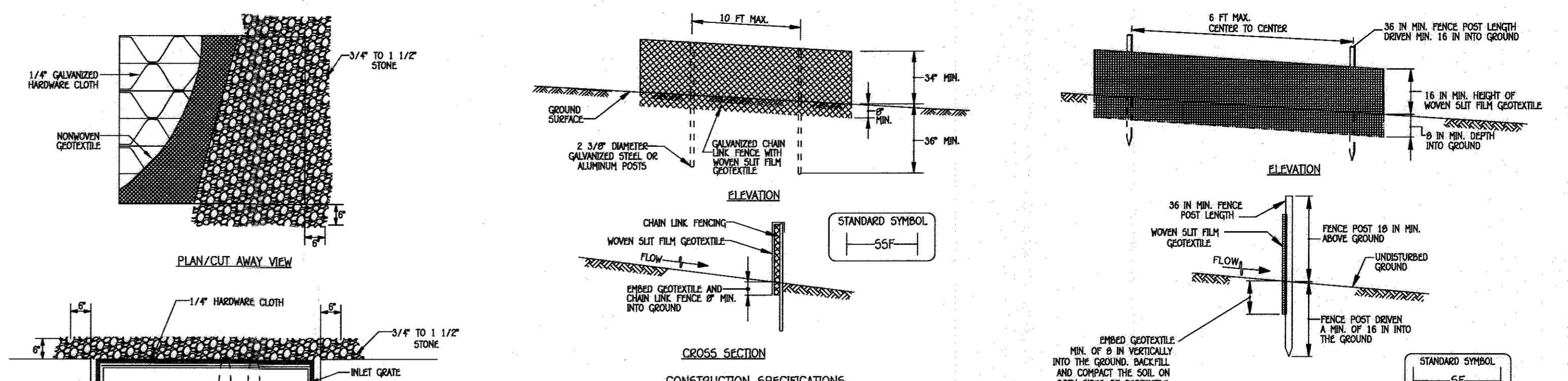
DEFINITION
TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.
PURPOSE
TO USE FAST GROWING VEGETATION THAT PROMOTES COVER ON DISTURBED SOILS.

- 1) A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits.
2) ALL VEGETATION 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.
3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 3) 3 CALENDAR DAYS FOR ALL PERMITS...

TEMPORARY SEEDING SUMMARY
TABLE 8.3: SEEDING RATE (LB./AC.) vs FERTILIZER RATE (10-20-20) and LIME RATE (TONS/AC)

PERMANENT SEEDING NOTES (B-4-5)

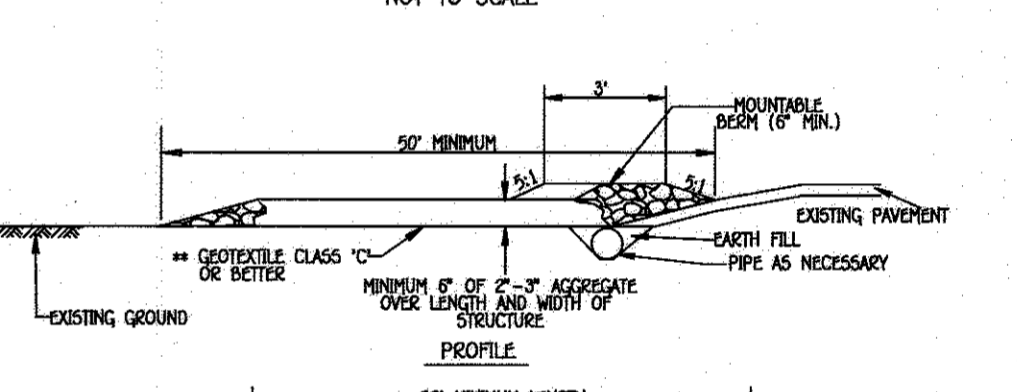
- A. SEED MIXTURES
1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE...
B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHOULDER, STREAM BANKS, OR DUNES...
C. TURFGRASS MIXTURES
1. TURFGRASS MIXTURES MAY BE DESIRED IN AREAS WHERE HIGH LEVELS OF MAINTENANCE ARE REQUIRED...
2. TURFGRASS MIXTURES MAY BE DESIRED IN AREAS WHERE HIGH LEVELS OF MAINTENANCE ARE REQUIRED...



B-4-B 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 CHANGES TO DRAINAGE PATTERNS.
CONDITIONS WHERE PRACTICE APPLIES
1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN...

STABILIZED CONSTRUCTION ENTRANCE



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 PERMITS...
B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE...

PERMANENT SEEDING SUMMARY
TABLE 8.3: SEEDING RATE (LB./AC.) vs FERTILIZER RATE (10-20-20) and LIME RATE (TONS/AC)

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 UNITS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
B. SOD MUST BE MOVED OUT AT A MINIMUM SOIL THICKNESS TO 3/4 INCH PLUS OR MINUS 1/4 INCH AT THE TIME OF CUTTING...
C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUBMITTED VERTICALLY WITH A TON GRASP ON THE UPPER 10 PERCENT OF THE SECTION...
D. SOD MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.

TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION

Table with columns: PLANT SPECS, SEEDING RATE (LB./AC., LB./1000 FT.2), SEEDING DEPTH (INCHES), and RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE (5b AND 6a, 6b, 7a AND 7b).

NOTES:
1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED.
ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.
SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDING. WHEN PLANTED ALONE, WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXTURES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARELY, DATS AND WHEAT...

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 DAMAGE, 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.

- TEMPORARY METHODS
1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE COMPACTED OR TACKED TO PREVENT BLOWING.
2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE - TO REDUCED SURFACE AND WIND CATCH TO THE SURFACE THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN TILLAGE ON WINDWARD SIDE OF THE SITE...

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN A GRADING PERMIT AND HOLD PRE-CONSTRUCTION MEETING WITH COUNTY INSPECTOR. (14 DAYS)
2. NOTIFY THIS UTILITY AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-251-7777. (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. BEGIN GRADING AND INSTALL PERMANENT SEEDING. (2 DAYS)
6. BEGIN GRADING AND INSTALL PERMANENT SEEDING. (2 DAYS)
7. BEGIN GRADING AND INSTALL PERMANENT SEEDING. (2 DAYS)
8. ALL FINAL GRADING AND STABILIZATION SHOULD BE COMPLETED BEFORE ANY REMOVAL OF CONTROLS.
9. WHEN ALL CONTRIBUTING AREAS TO THE SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. (3 DAYS)
NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE EACH RAINFALL AND ON A DAILY BASIS.

FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS. CENTENNIAL LAKE OVERLOOK PROJECT. SHEET 7 OF 9.

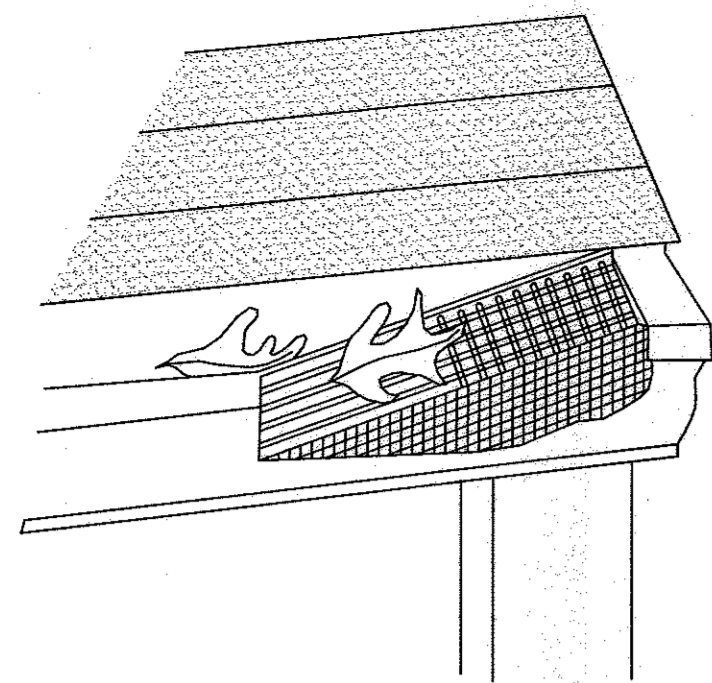
PROFESSIONAL CERTIFICATE and BUILDER/DEVELOPER'S CERTIFICATE. Includes signatures of Surveyor Frank John Manianian II, L.S. and Developer Brian A. Knauff.

SEDIMENT/EROSION CONTROL DETAILS & NOTES. SINGLE FAMILY DETACHED CENTENNIAL LAKE OVERLOOK SECTION TWO / PART TWO. LOTS 42 THRU 69, LOT 98, P/O OPEN SPACE LOTS 99, 103, OPEN SPACE LOTS 100, 101, 102, 104, 105 & 106.

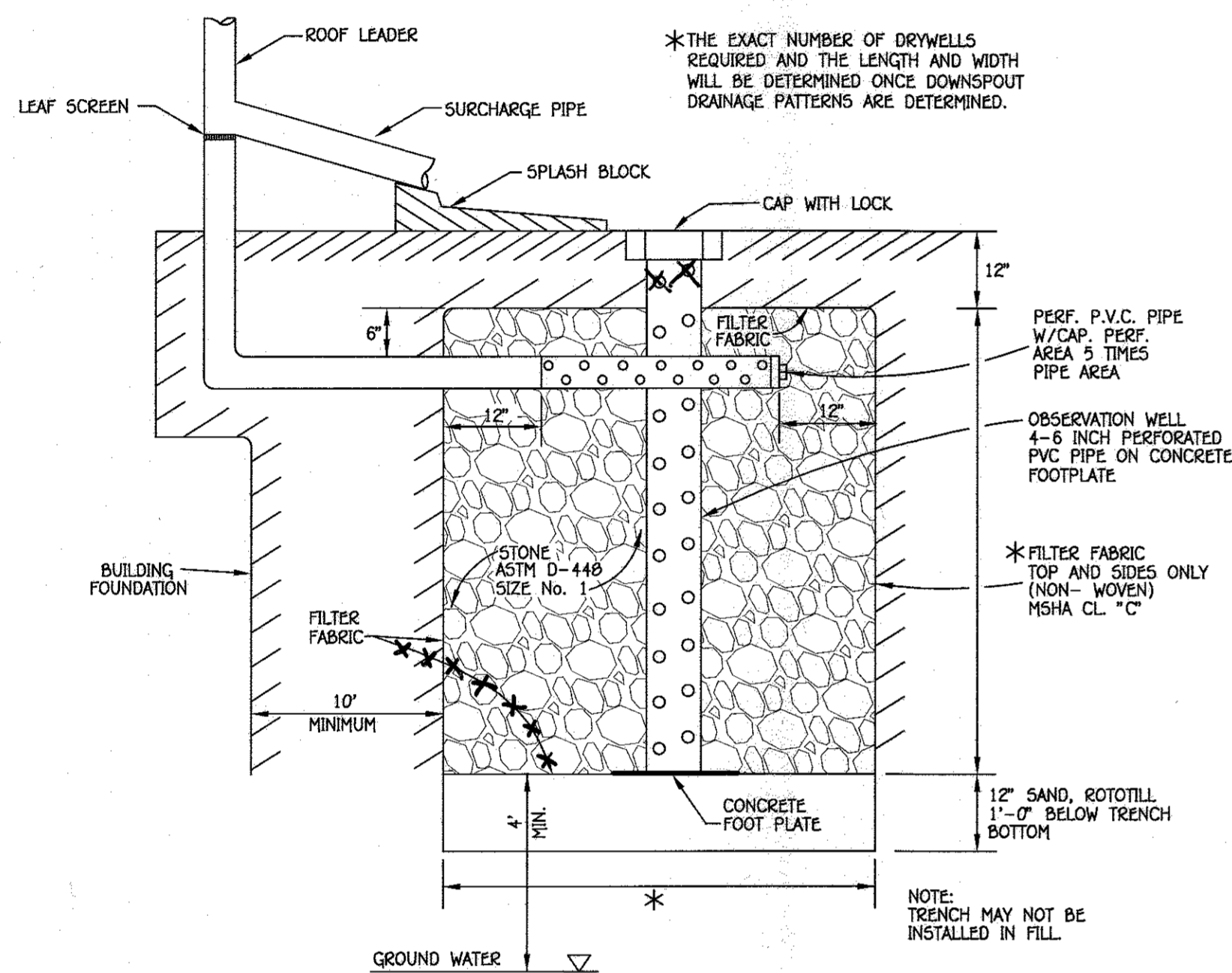
OWNER/DEVELOPER information: BEAZER HOMES, CORP., 8965 JUILFORD ROAD, COLUMBIA, MARYLAND 21046. ATTN: MR. BRIAN A. KNAUFF.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. Includes signatures and dates of approval.

PROJECT INFORMATION: CENTENNIAL LAKE OVERLOOK, SECTION TWO. PLAT 23291-23299, BLOCK NO. 2, ZONE R-20, 30, ELEC. DIST. 30, CENSUS TR. 6023.04.



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:

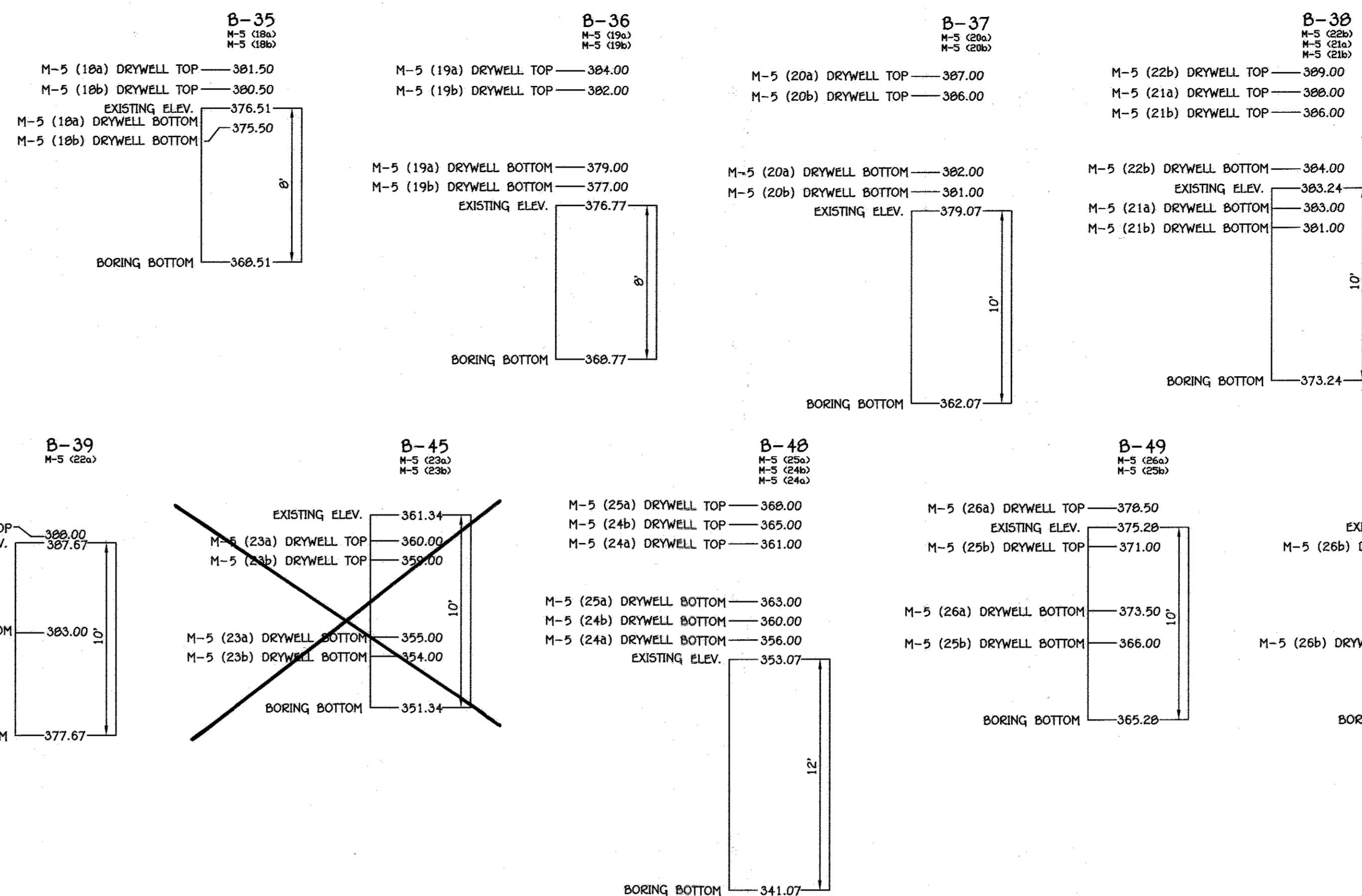
The aggregate shall be composed of an 18 to 48-inch layer of clean washed, open graded material with 40% porosity (e.g., ASTM D448 4, 5, or 6 stone or equal).

STORMWATER MANAGEMENT NOTES

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

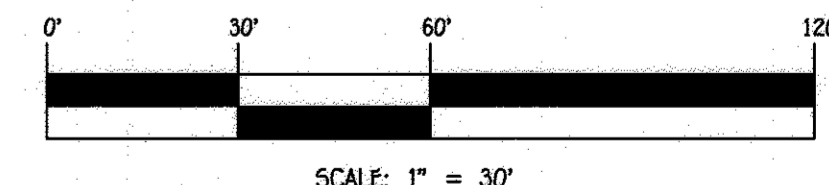
OPERATION & MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DRY WELLS (M-5)

- THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS AND AFTER EVERY HEAVY STORM EVENT.
- 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.
- THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- 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.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.



DRY WELL CHART									
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	176 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 5.5' X 5'
46	M-5 (22)	4	1,010 SqFt	144 CuFt	154 CuFt	100%	100%	2	7' X 5.5' X 5'
47	M-5 (23)	4	1,150 SqFt	164 CuFt	168 CuFt	100%	100%	2	7' X 5.5' 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:
- 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 OWN PRACTICES PROPOSED UNDER F14-081
 - A MODIFICATION TO THE STORAGE REQUIREMENT (DRYWELL SIZE) MAY BE DETERMINE WHEN THE ACTUAL HOUSE TYPE IS SITED ON THE INDIVIDUAL LOT.



SCALE: 1" = 30'



NO.	REVISION	DATE
1	REMOVE SHEET NUMBER & REMOVE DRYWELL FROM COVER LOT 00	4/19/17



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

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

K. J. Seidman 9-11-15
Chief, Department of Land Development Date

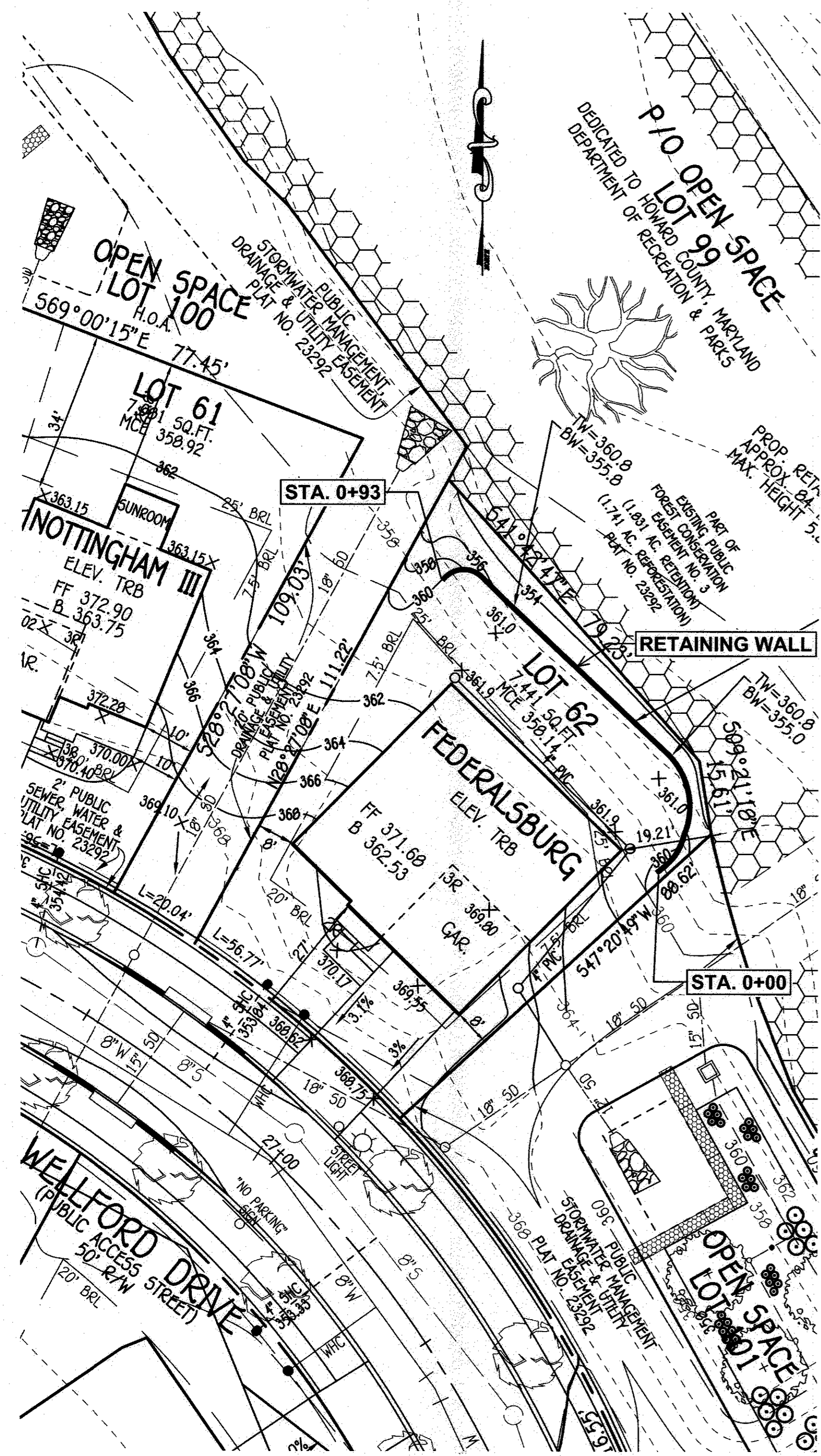
W. J. Taylor 9-11-15
Chief, Development Engineering Division Date

W. J. Taylor 9-11-15
Director - Department of Planning and Zoning Date

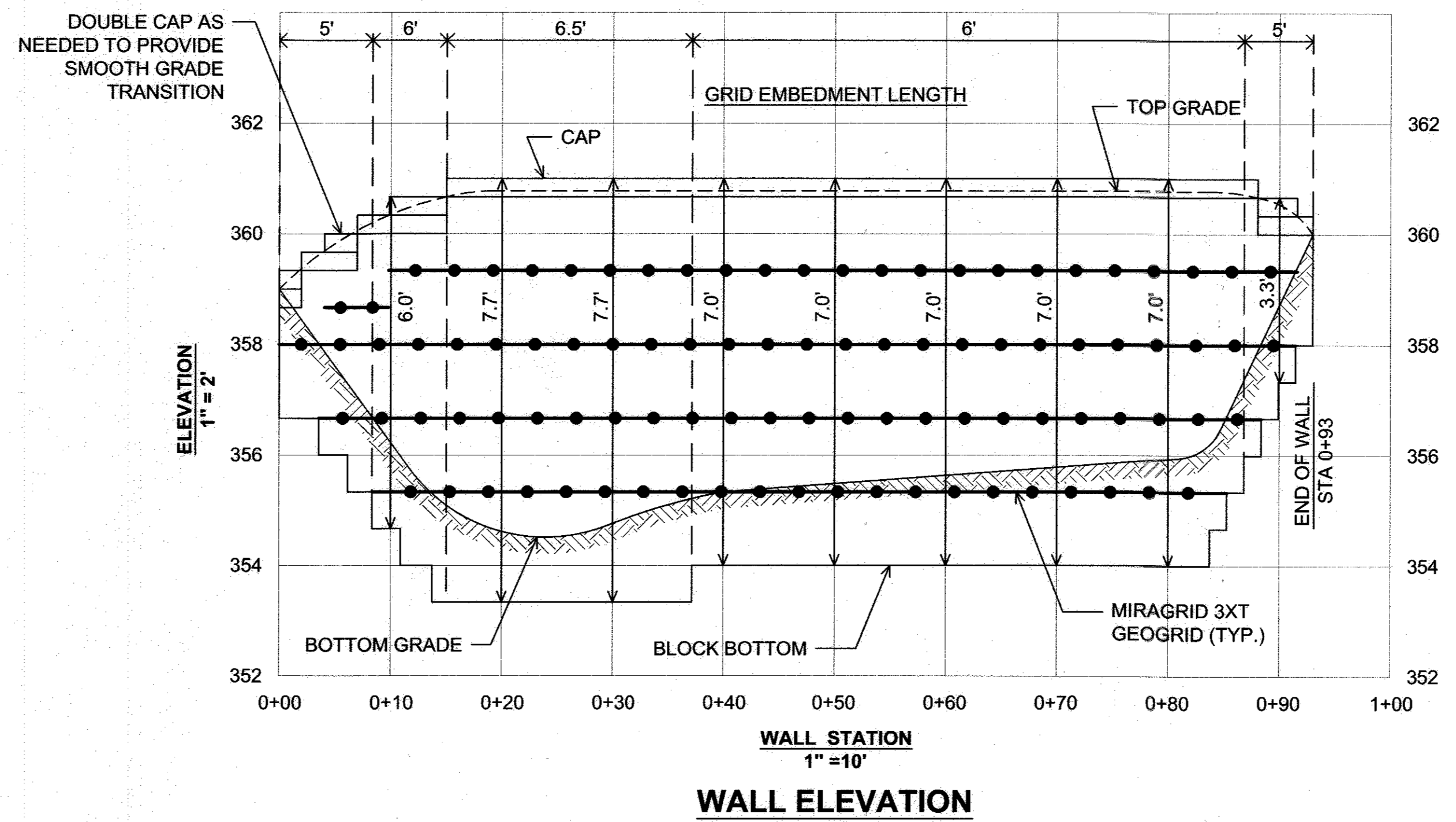
PROJECT	CENTENNIAL LAKE OVERLOOK	SECTION	TWO	LOTS NO.	42 THRU 69 & 80 THRU 98
PLAT	23291-23298	BLOCK NO.	2	ZONE	R-20
TAX/ZONE	30	ELEC. DIST.	SECOND	CENSUS TR.	6023.04
WATER CODE	E-15	SEWER CODE	7640000		

STORMWATER MANAGEMENT DETAILS, NOTES & BORING DETAILS

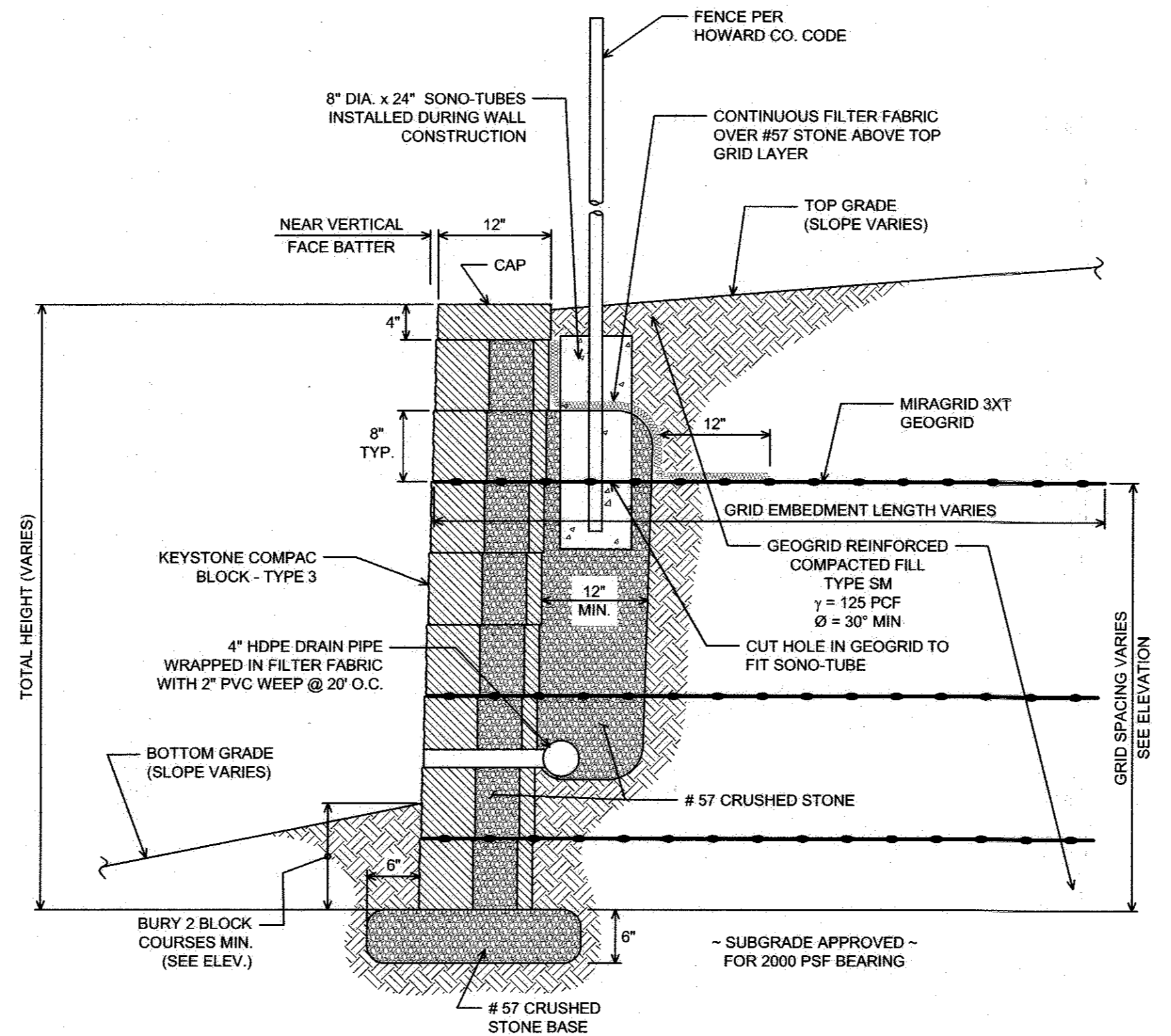
SINGLE FAMILY DETACHED
CENTENNIAL LAKE OVERLOOK
SECTION TWO / PART TWO
LOTS 42 THRU 69, 80 THRU 98,
P/O OPEN SPACE LOTS 99, 103,
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PREVIOUS HOWARD COUNTY FILES: ECP-12-053, WP-13-096, SP-13-004,
PB-399, F-14-002, F-14-081, F-14-08151, F-14-08152, F-14-08153
SDP-15-040, CONTRACT NO. 24-4764-D & 24-4917-D
PLAT NUMBERS: 23291 THRU 23298
TAX MAP NO.: 30 PARCEL NO.: 96 GRID NO.: 2
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST, 2015
SHEET 8 OF 9 SDP-15-066



WALL LOCATION PLAN
1" = 20'



WALL ELEVATION
1" = 10'



TYPICAL WALL SECTION
N.T.S.

SPECIFICATIONS
MODULAR CONCRETE BLOCK RETAINING WALL

- PART 1: GENERAL**
- 1.01 DESCRIPTION**
- A. WORK SHALL CONSIST OF FURNISHING AND CONSTRUCTION OF A MODULAR RETAINING WALL SYSTEM IN ACCORDANCE WITH THESE SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN, AND DIMENSIONS SHOWN ON THE PLANS.
- B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING LEVELING PAD, UNIT DRAINAGE FILL AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.
- C. WORK INCLUDES FURNISHING AND INSTALLING GEOGRID SOIL REINFORCEMENT OF THE TYPE, SIZE, LOCATION, AND LENGTHS DESIGNATED ON THE CONSTRUCTION DRAWINGS.
- 1.02 DELIVERY, STORAGE AND HANDLING**
- A. CONTRACTOR SHALL CHECK ALL MATERIALS UPON DELIVERY TO ASSURE THAT THE PROPER TYPE, GRADE, COLOR, AND CERTIFICATION HAS BEEN RECEIVED.
- B. CONTRACTOR SHALL PROTECT ALL MATERIALS FROM DAMAGE DUE TO JOB SITE CONDITIONS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. DAMAGED MATERIALS SHALL NOT BE INCORPORATED INTO THE WORK.
- PART 2: PRODUCTS**
- 2.01 MODULAR CONCRETE RETAINING WALL UNITS**
- A. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING ARCHITECTURAL REQUIREMENTS:
- FACE COLOR - COLOR MAY BE SPECIFIED BY THE OWNER.
 - FACE FINISH - SCULPTURED ROCK FACE IN ANGULAR TRI-PLANNER OR FLAT CONFIGURATION. OTHER FACE FINISHES WILL NOT BE ALLOWED WITHOUT WRITTEN APPROVAL OF OWNER.
 - BOND CONFIGURATION - RUNNING WITH BONDS NOMINALLY LOCATED AT MIDPOINT VERTICALLY ADJACENT UNITS, IN BOTH STRAIGHT AND CURVED ALIGNMENTS.
- EXPOSED SURFACES OF UNITS SHALL BE FREE OF CHIPS, CRACKS OR OTHER IMPERFECTIONS WHEN VIEWED FROM A DISTANCE OF 10 FEET UNDER DIFFUSE LIGHTING.
- B. MODULAR CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1372 - STANDARD SPECIFICATIONS FOR SEGMENTAL RETAINING WALL UNITS.
- C. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING STRUCTURAL AND GEOMETRIC REQUIREMENTS MEASURED IN ACCORDANCE WITH APPROPRIATE REFERENCES:
- COMPRESSIVE STRENGTH = 3000 PSI MINIMUM; ABSORPTION = 8% MAXIMUM (6% IN NORTHERN STATES) FOR STANDARD WEIGHT AGGREGATES;
 - DIMENSIONAL TOLERANCES = ±1/8" FROM NOMINAL UNIT DIMENSIONS NOT INCLUDING ROUGH SPLIT FACE, ±1/16"
 - UNIT HEIGHT - TOP AND BOTTOM PLANES; UNIT SIZE - 8" (H) x 18" (W) x 12" (D) MINIMUM.
 - UNIT WEIGHT - 75 LBS/UNIT MINIMUM FOR STANDARD WEIGHT AGGREGATES;
 - INTER-UNIT SHEAR STRENGTH - 1000 PLF MINIMUM AT 2 PSI NORMAL PRESSURE; AT 2 PSI NORMAL FORCE
 - GEOGRID/UNIT PEAK CONNECTION STRENGTH - 1000 PLF MINIMUM
- D. MODULAR CONCRETE UNITS SHALL CONFORM TO THE FOLLOWING CONSTRUCTION REQUIREMENTS: (IF APPLICABLE)
- VERTICAL SETBACK = 1/8" PER COURSE (NEAR VERTICAL) OR 1" PER COURSE PER THE DESIGN; ALIGNMENT AND GRID POSITIONING MECHANISM - FIBERGLASS PINS, TWO PER UNIT MINIMUM.
 - MAXIMUM HORIZONTAL GAP BETWEEN ERECTED UNITS SHALL BE 1/2 INCH.
- 2.02 SHEAR CONNECTORS**
- A. SHEAR CONNECTORS SHALL BE 1/2 INCH DIAMETER THERMOSET ISOPHTHALIC POLYESTER RESIN-PROTRUDED FIBERGLASS REINFORCEMENT RODS OR EQUIVALENT TO PROVIDE CONNECTION BETWEEN VERTICALLY AND HORIZONTALLY ADJACENT UNITS. STRENGTH OF SHEAR CONNECTORS BETWEEN VERTICAL ADJACENT UNITS SHALL BE APPLICABLE OVER A DESIGN TEMPERATURE OF 10 DEGREES F TO +100 DEGREES F. B. SHEAR CONNECTORS SHALL BE CAPABLE OF HOLDING THE GEOGRID IN THE PROPER DESIGN POSITION DURING GRID PRE-TENSIONING AND BACKFILLING.
- 2.03 BASE LEVELING PAD MATERIAL**
- A. MATERIAL SHALL CONSIST OF A COMPACTED #57 CRUSHED STONE BASE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- 2.04 UNIT DRAINAGE FILL**
- A. UNIT DRAINAGE FILL SHALL CONSIST OF #57 CRUSHED STONE.
- 2.05 REINFORCED BACKFILL**
- A. REINFORCED BACKFILL SHALL BE TYPE SM, BE FREE OF DEBRIS AND MEET THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM D-422 AND MEET OTHER PROPERTIES SHOWN ON THE PLAN:
- | SIEVE SIZE | PERCENT PASSING |
|------------|-----------------|
| 2 INCH | 100-75 |
| 3/4 INCH | 100-75 |
| NO. 40 | 0-60 |
| NO. 200 | 0-35 |
- PLASTICITY INDEX (PI) <10 AND LIQUID LIMIT <35 PER ASTM D-4318.
- B. MATERIAL CAN BE SITE EXCAVATED SOILS WHERE THE ABOVE REQUIREMENTS CAN BE MET. UNSUITABLE SOILS FOR BACKFILL (HIGH PLASTIC CLAYS OR ORGANIC SOILS) SHALL NOT BE USED IN THE REINFORCED SOIL MASS.
- 2.06 GEOGRID SOIL REINFORCEMENT**
- A. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF GEOGRIDS
- 2.07 DRAINAGE PIPE**
- A. THE DRAINAGE PIPE SHALL BE PERFORATED CORRUGATED HOPE PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-1248.
- PART 3: EXECUTION**
- 3.01 EXCAVATION**
- A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR INSPECTING AND APPROVING THE EXCAVATION PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS.
- 3.02 BASE LEVELING PAD**
- A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE MODULAR WALL UNIT.
- B. LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.
- 3.03 MODULAR UNIT INSTALLATION**
- A. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.
- B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- C. INSTALL SHEARCONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.
- D. PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL.
- E. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND INSURE THAT UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.
- 3.04 STRUCTURAL GEOGRID INSTALLATION**
- A. GEOGRID SHALL BE ORIENTED WITH THE HIGHEST STRENGTH AXIS PERPENDICULAR TO THE WALL ALIGNMENT.
- B. GEOGRID REINFORCEMENT SHALL BE PLACED AT THE STRENGTHS, LENGTHS, AND ELEVATIONS SHOWN ON THE CONSTRUCTION DESIGN DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- C. THE GEOGRID SHALL BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND ATTACHED TO THE MODULAR WALL UNITS. PLACE THE NEXT COURSE OF MODULAR CONCRETE UNITS OVER THE GEOGRID. THE GEOGRID SHALL BE PULLED TIGHT, AND ANCHORED PRIOR TO BACKFILL PLACEMENT ON THE GEOGRID.
- D. GEOGRID REINFORCEMENTS SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTHS AND PLACED SIDE-BY-SIDE TO PROVIDE 100% COVERAGE AT EACH LEVEL. SPLICED CONNECTIONS BETWEEN SHORTER PIECES OF GEOGRID OR GAPS BETWEEN ADJACENT PIECES OF GEOGRID ARE NOT PERMITTED.
- 3.05 REINFORCED BACKFILL PLACEMENT**
- A. REINFORCED BACKFILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF SLACK IN THE GEOGRID AND INSTALLATION DAMAGE.
- B. REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE HAND COMPACTION IS USED, OR 8 - 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.
- C. REINFORCED BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698. THE MOISTURE CONTENT OF THE BACKFILL MATERIAL PRIOR TO AND DURING COMPACTION SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT EACH LAYER AND SHALL BE ± 3% TO - 3% OF OPTIMUM.
- D. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 5 FEET FROM THE TAIL OF THE MODULAR CONCRETE UNIT.
- E. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY UPON THE GEOGRID REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TRACKED VEHICLE TURNING SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOGRID.
- F. RUBBER Tired EQUIPMENT MAY PASS OVER GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.
- G. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCED BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNOFF AWAY FROM WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.
- 3.06 CAP INSTALLATION**
- A. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE RECOMMENDED BY THE MANUFACTURER.
- 3.07 FIELD QUALITY CONTROL**
- A. THE OWNER SHALL ENGAGE INSPECTION AND TESTING SERVICES, INCLUDING INDEPENDENT LABORATORIES, TO PROVIDE QUALITY ASSURANCE AND TESTING SERVICES DURING CONSTRUCTION.
- B. AS A MINIMUM, QUALITY ASSURANCE TESTING SHOULD INCLUDE FOUNDATION SOIL INSPECTION, SOIL AND BACKFILL TESTING, VERIFICATION OF DESIGN PARAMETERS, AND OBSERVATION OF CONSTRUCTION FOR GENERAL COMPLIANCE WITH DESIGN DRAWINGS AND SPECIFICATIONS.

HILLIS-CARNES
ENGINEERING ASSOCIATES
10975 Guilford Road, Suite A
(410) 890-4788 WWW.HCEA.COM Fax: (410) 890-4098

HCEA JOB NUMBER:	17081-L	DESIGNED BY:	RWS
SCALE:	AS SHOWN	DRAWN BY:	AM
DATE:	MAY 2017	APPROVED BY:	RWS
NO.		REVISION	DATE

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS 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. 14434, EXPIRATION DATE: 05/31/19.



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: *[Signature]* Date: 5-22-17

Chief, Development Engineering Division: *[Signature]* Date: 5-17-17

Director - Department of Planning and Zoning: *[Signature]* Date: 5-22-17

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

RETAINING WALL CONSTRUCTION DETAILS

SINGLE FAMILY DETACHED
CENTENNIAL LAKE OVERLOOK
SECTION TWO / PART TWO
LOTS 42 THRU 98, 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. 8
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: APRIL, 2017
SHEET 9 OF 9 SDP-15-066