

GENERAL NOTES:

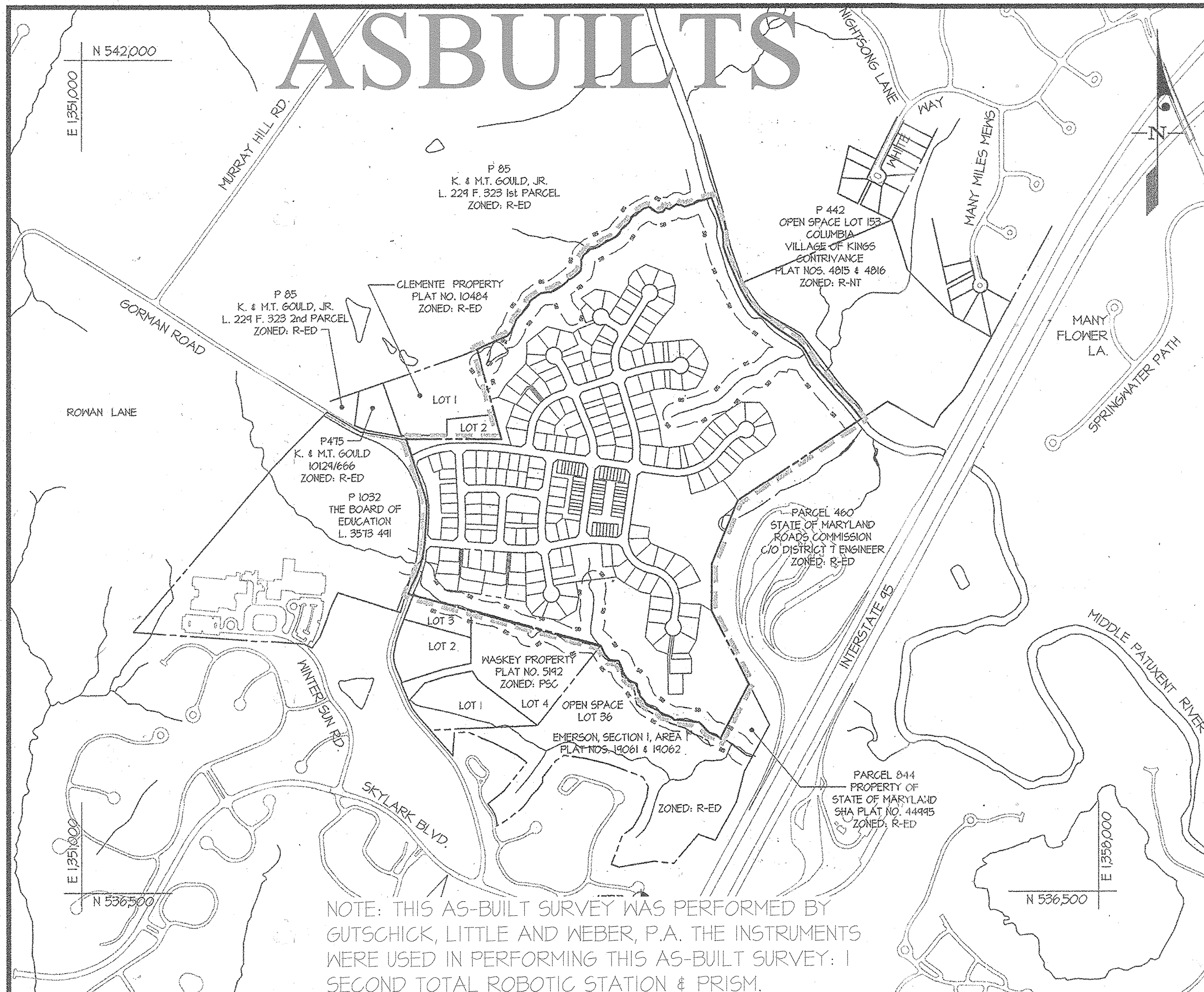
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING'S CONSTRUCTION INSPECTION DIVISION AT 410-318-1000 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-1111 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES:
- A) THE R-1 (STOP) SIGNS AND THE STREET NAME SIGN (SIS) ASSEMBLIES FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED.
- B) THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-318-2490) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
- C) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
- D) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PINCH), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2" GALVANIZED STEEL, PERFORATED SQUARE TUBE SLEEVE (2 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO (2) QUICK PINCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE GAP SHALL BE MOUNTED ON TOP OF EACH POST.
- E) A PRIVATE RANGE OF ADDRESS SIGN ASSEMBLY SHALL BE FABRICATED AND INSTALLED BY HOWARD COUNTY BUREAU OF HIGHWAYS AT THE DEVELOPERS/OWNERS EXPENSE FOR LOCATIONS ALONG HENRY HEARN WAY, CYPRESS WAY, AND FENNEL WAY. CONTACT HOWARD COUNTY TRAFFIC DIVISION AT 410-318-2582 FOR DETAILS AND COST ESTIMATES.
- F) STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURES AND POLES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III, SECTION 5.5.1. A MINIMUM OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- G) PROPERTY IS ZONED R-ED PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING AMENDMENTS EFFECTIVE 7-28-06.
- H) PREVIOUS DRAFTS OF PLANNING AND ZONING FILE NUMBERS: SP-10-005, PD-010, MF-11-010.
- I) SITE ANALYSIS:
 - TOTAL AREA OF SITE: 127.60 ACRES
 - AREA OF 100 YR FLOODPLAIN: 6.11 ACRES
 - AREA OF STEEP SLOPES (INDICATES THAT GORMAN ROAD IS A SCENIC ROAD): 11.83 ACRES
 - AREA OF PROPOSED ROADWAY (PUBLIC): 14.38 ACRES
 - NO. OF SINGLE FAMILY DETACHED LOTS: 171
 - AREA OF SINGLE FAMILY DETACHED LOTS: 41.8 ACRES
 - NO. OF SINGLE FAMILY ATTACHED LOTS: 44
 - AREA OF SINGLE FAMILY ATTACHED LOTS: 2.36 ACRES
 - TOTAL NUMBER OF LOTS: 215
 - NO. OF OPEN SPACE LOTS: 37
 - AREA OF OPEN SPACE: 64.74 ACRES
 - AREA OF NON-CREDITED OPEN SPACE: 2.10 ACRES
 - TOTAL APPROXIMATE LIMIT OF PROP. SITE DISTURBANCE: 85.2 ACRES
- J) OPEN SPACE REQUIREMENTS:
 - (MINIMUM OPEN SPACE REQUIREMENT FOR PROJECT IN R-ED ZONING IS 50%)
 - TOTAL OPEN SPACE REQUIRED: 63.20 ACRES
 - TOTAL OPEN SPACE PROVIDED: 64.74 ACRES (54.7% OF GROSS)
 - RECREATIONAL OPEN SPACE REQUIRED: 1.63 ACRES
 - RECREATIONAL OPEN SPACE PROVIDED: 6.75 ACRES
- K) THIS PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN PROCESSED.
- L) THE SCENIC ROAD MAP INDICATES THAT GORMAN ROAD IS A SCENIC ROAD.
- M) THE HISTORIC SITE NO-281 (THE STANSFIELD HOUSE), EXISTED ON THIS SITE IN THE VICINITY OF LOT 111. A DEMOLITION PERMIT FOR THIS HOUSE WAS ISSUED BY HOWARD COUNTY.
- N) THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY BENCHMARKS 47DC AND 47EB WERE USED FOR THIS PROJECT.
- O) BOUNDARY INFORMATION IS FROM BOUNDARY SURVEYS BY GUTSCHICK, LITTLE AND WEBER, P.A. DATED MARCH 2004.
- P) SOILS DATA WAS TAKEN FROM THE SOIL SURVEY OF HOWARD COUNTY, MARYLAND ISSUED MARCH 2008.
- Q) CONTOURS SHOWN WERE TAKEN FROM AERIAL TOPOGRAPHY PREPARED BY MCKENZIE-SNYDER DURING DECEMBER, 2008.
- R) WETLAND DELINEATION BY EXPLORATION RESEARCH, INC. IN A REPORT DATED APRIL, 2009. THE WETLAND AND STREAM DELINEATION WAS APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING ON JUNE 23, 2010.
- S) THE 100-YEAR FLOODPLAIN LIMITS FOR THE STREAM ALONG THE NORTHERN BOUNDARY OF THE SITE WERE DETERMINED IN A FLOODPLAIN STUDY PREPARED BY GUTSCHICK, LITTLE AND WEBER, P.A. AS PART OF THIS SUBMISSION. THE FLOODPLAIN LIMITS FOR THE STREAM ALONG THE SOUTHERN PROPERTY BOUNDARY WERE TAKEN FROM F-0140 (EHRSON - SECTION ONE) AND SET ON OR (WETTER) SURVEY. THE FLOODPLAIN LIMITS WERE TAKEN FROM HOWARD COUNTY RECORDS.
- T) A NOISE STUDY WAS PREPARED BY NELSON BALLARD DATED SEPTEMBER, 2004 AND WAS APPROVED BY DEVELOPMENT ENGINEERING DIVISION ON DECEMBER 1, 2010.
- U) A TRAFFIC STUDY WAS PREPARED BY STREET TRAFFIC STUDIES IN A REPORT DATED APRIL, 2004 AND WAS APPROVED BY DEVELOPMENT ENGINEERING DIVISION IN JUNE, 2010.
- V) THE GEO-TECHNICAL REPORT BY GEO-TECHNOLOGY ASSOCIATES, INC DATED APRIL 19, 2010.
- W) EXISTING UTILITIES WERE TAKEN FROM AVAILABLE HOWARD COUNTY RECORDS.
- X) THE PROJECT IS WITHIN THE METROPOLITAN DISTRICT.
- Y) WATER AND SEWER ARE PUBLIC PER CONTRACT NOS. 24-4691-D, 24-4811-D, 24-4812-D, 24-4813-D, 24-4814, & 24-4815-D EXISTING CONTRACT NUMBERS: WATER: 121-5 AND 24-3852-D SEWER: 121-5 AND 24-3852-D
- Z) THE FOLLOWING STREAM BUFFERS HAVE BEEN PROVIDED:
 - PERMANENT STREAM - 75' BUFFER
 - INTERMITTENT STREAM - 50' BUFFER
 - THE STREAM BUFFERS ARE MEASURED FROM THE STREAM BANKS AND NOT THE CENTERLINE.
- AA) STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE NINE STORMWATER DESIGN MANUAL. BASED ON TABLE 5.3, THIS SITE HAS A TARGET PE OF 12". IN ORDER TO FULFILL THE STORMWATER MANAGEMENT REQUIREMENTS A COMBINATION OF ROOFTOP DISCONNECT (N-I), SHEET PILING TO EXPOSE (S-I) DRY YELLS (M-5), RAIN BARRELS (M-1), POROUS PAVEMENT (A-2), GRASS SWALES (M-8), MICRO-BIOTRETENTION (M-6), AND A SAND FILTER (R-1) WILL BE USED. ALL OF THE ESD STORMWATER DEVICES ON BUILDABLE LOTS WILL BE PRIVATELY OWNED AND MAINTAINED. ALL MICRO-BIOTRETENTION FACILITIES IN A PUBLIC EASEMENT AND THE SAND FILTER WILL BE JOINTLY MAINTAINED BY HOWARD COUNTY AND THE HOA. THE HOA WILL BE RESPONSIBLE FOR THE ROUTINE MAINTENANCE FOR THE POROUS SIDEWALKS. ALL "LOT" STORMWATER MANAGEMENT DEVICES SHALL BE SUBJECT TO THE REGULATION OF A DDC.
- AB) ALL OF THE HOUSES, DRIVEWAYS, AND STORMWATER DEVICES SHOWN ON BUILDABLE LOTS ON THIS PLAN ARE CONCEPTUAL. THIS PLAN WILL SET THE STORMWATER REQUIREMENTS FOR EACH LOT HOWEVER THE LOCATION OF THE DEVICES ON THE LOT WILL BE DETERMINED AT THE SITE PLAN STAGE.
- AC) NO CLEARING, GRADING OR FERTILIZATION WITHIN THE FOREST CONSERVATION EASEMENT; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ALLOWED.
- AD) REMOVAL OF VEGETATIVE COVER OR TREES, OR PLACEMENT OF NEW STRUCTURES IS NOT PERMITTED WITHIN LIMITS OF WETLANDS, STREAMS OR THEIR REQUIRED BUFFERS, AND 100 YEAR FLOODPLAIN AREAS, UNLESS PERMITTED UNDER AN APPROVED WAIVER PETITION OR DETERMINED TO BE ESSENTIAL OR NECESSARY BY DPZ. THE DPZ DETERMINED THAT PERMITS TO ENVIRONMENTAL IMPACTS ARE NECESSARY IN ACCORDANCE WITH SECTION 16.18(A) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.
- AE) OPEN SPACE LOTS 250 AND 221 WILL CONTAIN ACTIVE RECREATIONAL AREAS IN ACCORDANCE WITH SECTION 16.12(A)(4) OF THE SUBDIVISION REGULATIONS (5TH EDITION). THE RECREATIONAL SPACE REQUIREMENTS WILL BE MET BY PROVIDING MORE THAN THE REQUIRED AMOUNT OF OPEN SPACE LAND. NO FACILITIES ARE BEING PROPOSED AT THIS TIME.
- AF) THE FOREST CONSERVATION REQUIREMENTS OF SECTION 16.12(D) OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION (WINCOPIA FARMS) ARE MET BY THE CREATION OF ELEVEN (11) FOREST CONSERVATION EASEMENTS THAT CONTAIN MORE THAN THE BREAK-EVEN POINT MINIMUM CLEARANCE FOR CREDITED FOREST RETENTION.
- AG) THE MAXIMUM CLEARING AREA AT THE BREAK-EVEN POINT IS 32.21 ACRES AND THE PROPOSED CLEARING AREA FOR THIS SUBDIVISION IS LESS THAN THAT AMOUNT. THE MINIMUM CREDITED FOREST RETENTION AREA AT THE BREAK-EVEN POINT IS 32.21 ACRES AND THE PROPOSED CREDITED FOREST RETENTION AREA WITHIN THE ELEVEN FCES IS 371 ACRES. THEREFORE, AN EXCESS OF CREDITED FOREST RETENTION AREA IS AVAILABLE THAT COULD BE APPLIED TO FOREST CONSERVATION OBLIGATIONS FROM OFF-SITE DEVELOPMENTS OR POSSIBLE ADDITIONAL CLEARINGS ON-SITE.
- AH) AS INDICATED IN THE FOREST CONSERVATION WORKSHEET SHOWN ON SHEET-60 OF THE F-13-103 DEVELOPMENT PLAN SET, THE AVAILABLE RETENTION CREDIT FOR THIS SUBDIVISION IS DEBITED BY 0.38 OF AN ACRE TO SATISFY THE FOREST CONSERVATION OBLIGATION FOR THE EXTENSION OF A PUBLIC WATER/SEWER MAIN AND APPURTENANCES INTO THE ADJACENT EHRSON PROPERTY.
- AI) THE ENTIRE FOREST CONSERVATION REQUIREMENT IS BEING MET BY RETENTION, NO FOREST CONSERVATION SURETY IS REQUIRED.
- AJ) MINIMUM BUILDING SETBACK RESTRICTIONS FROM PUBLIC ROADS AND PROPERTY LINES WILL BE PROVIDED IN ACCORDANCE WITH THE ZONING REGULATIONS ADOPTED JULY, 2006.
- AK) REQUIRED PLANNING AND ZONING MEETINGS SHALL BE HELD FOR ALL CORNER LOTS AND SPAL LOTS SHALL BE PROVIDED AT THE SITE DEVELOPMENT PLAN (SDP) STAGE. REQUIRED BUFFERING AND OTHER LANDSCAPING REQUIREMENTS/FEATURES IN THE OPEN SPACE LOTS HAVE BEEN PROVIDED IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS (AMENDED 5TH EDITION) AND THE HOWARD COUNTY LANDSCAPE MANUAL. A LANDSCAPE SURETY IN THE AMOUNT OF \$216,000.00 FOR THE BUFFER PLANTINGS ON THE OPEN SPACE LOTS IS POSTED WITH THE F-13-103 DEVELOPER AGREEMENT (SEE SHEETS 60-65).
- AL) A PRE-SUBMISSION COMMITTEE MEETING WAS HELD FOR THIS PROJECT ON 04/09/2010 IN COMPLIANCE WITH SECTION 16.12(B) OF THE REGULATIONS.
- AM) THE PLANNING BOARD APPROVED SP-10-005 ON JUNE 27, 2012 (PB 310)
- AN) SIGNATURE APPROVAL OF THE FINAL SUBDIVISION PLAN IS SUBJECT TO THE SUBMISSION OF DOCUMENTATION TO DPZ PRIOR TO OR CONCURRENT WITH THE SUBMISSION OF THE FINAL PLAN ORIGINALS CONCERNING THE REMOVAL OF THE EXISTING DWELLING AND ALL OTHER ACCESSORY STRUCTURES LOCATED WITHIN THE PROPOSED SUBDIVISION LOTS AND ROAD RIGHT-OF-WAYS. THE DEVELOPER SHALL SUBMIT A COPY OF APPROVED DEMOLITION PERMITS, BEFORE ANY DEMOLITION PERMITS, BEFORE ANY PHOTOGRAPHIC SURVEY LOCATION PLAN ILLUSTRATIONS THAT ALL EXISTING STRUCTURES HAVE BEEN REMOVED FROM THE SITE PRIOR TO THE SIGNATURE APPROVAL OF THE FINAL PLAN ORIGINALS.
- AO) LOTS 44 THRU 50 ARE NON-BUILDABLE UNTIL EXISTING CELL PHONE TOWERS AND ASSOCIATED APPURTENANCES HAVE BEEN PROPERLY REMOVED. DOCUMENTATION MUST BE PROVIDED IN A REASONABLE TIME PERIOD DEMONSTRATING REMOVAL OF THE EXISTING TOWERS AND APPURTENANCES FROM THE SITE BEFORE THE LOTS ARE CONSIDERED BUILDABLE AND DPZ WILL APPROVE A SITE DEVELOPMENT PLAN FOR THE AFFECTED LOTS.
- AP) AT THE PLANNING BOARD HEARINGS FOR THE PRELIMINARY EQUIVALENT SKETCH PLAN A CITIZEN BROUGHT UP THE TOPIC OF A POSSIBLE GRAVE SITE ON THE WINCOPIA FARM PROPERTY. THE PETITIONER TESTIFIED THAT DESPITE THE INDICATION OF A GRAVE ON THE COUNTY INVENTORY, EXTENSIVE FIELD RECONNAISSANCE DID NOT REVEAL ANYTHING. IN KEEPING WITH DPZ'S REQUIREMENT TO INVESTIGATE FURTHER PRIOR TO SUBMISSION OF THE FINALS, A GRAVE/SITE REPORT HAS BEEN SUBMITTED TO DPZ.
- AQ) DRIVEWAYS SHALL BE PROVIDED TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - A) WIDTH - 12' (6' SERVING MORE THAN ONE RESIDENCE)
 - B) SURFACE - 6" OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATINGS (1-1/2" MIN)
 - C) GEOMETRY - MAX 15% GRADE, MAX 10% GRADE CHANGE AND MIN 45' TURNING RADIUS
 - D) STRUCTURE (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOADINGS)
 - E) DRAINAGE ELEMENTS - SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
 - F) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE
 - G) FLAG AND PIPSTEM LOTS, REVERSE COLLECTION SHOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPSTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPSTEM LOT DRIVEWAY.

FINAL PLAN

WINCOPIA FARMS

LOTS 1 - 201, 208 - 220, 258 - 263 & Open Space Lots 221 thru 257

AND FOREST CONSERVATION BANK



BENCHMARKS

47DC	ELEV. 343.10	N = 536.615.00	E = 1355.6714.00
47EB	ELEV. = 354.23	N = 536.212.77	E = 1354.8333.57

LOCATION PLAN

SCALE: 1"=600'

AS-BUILT 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. 12475, Expiration Date: May 26, 2022.

Date: 4/27/20
 Carl K. Gutschick
 Professional Engineer
 Maryland Reg. No. 12475

SINGLE FAMILY ATTACHED PARKING ANALYSIS

NUMBER OF SINGLE-FAMILY ATTACHED LOTS = 44
 REQUIRED PARKING (@ 2 SPACES PER UNIT) = 88 SPACES
 REQUIRED OVERFLOW PARKING (@ 0.3 SPACES PER UNIT) = 15 SPACES
 TOTAL REQUIRED SPACES = 103 SPACES
 PARKING PROVIDED:
 2 SPACES/UNIT (GARAGE + DRIVEWAY) = 88 SPACES
 OVERFLOW PARKING (ON STREET) = 20 SPACES
 TOTAL PROVIDED = 108 SPACES
 *SEE SINGLE FAMILY ATTACHED OVERFLOW PARKING EXHIBIT ON FILE WITH SP-10-005

MINIMUM LOT SIZE CHART

LOT NUMBER	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
2	12,645 s.f.	540 s.f.	12,155 s.f.
3	14,410 s.f.	1,050 s.f.	13,360 s.f.
4	14,552 s.f.	1,224 s.f.	13,428 s.f.
5	13,604 s.f.	1,122 s.f.	12,882 s.f.
4	12,404 s.f.	885 s.f.	11,519 s.f.
10	14,214 s.f.	1,290 s.f.	12,804 s.f.
11	14,247 s.f.	1,290 s.f.	13,557 s.f.
12	10,241 s.f.	777 s.f.	10,064 s.f.
32	16,536 s.f.	3,026 s.f.	13,500 s.f.
33	15,834 s.f.	1,874 s.f.	13,965 s.f.
102	12,484 s.f.	1,005 s.f.	11,474 s.f.
103	11,788 s.f.	1,245 s.f.	10,545 s.f.
104	12,642 s.f.	1,940 s.f.	10,752 s.f.

SETBACK REQUIREMENTS

SETBACK TYPE	SETBACK	
	SINGLE FAMILY DETACHED	SINGLE FAMILY ATTACHED
PROJECT BOUNDARY	30'	50'
EXTERNAL PUBLIC R/W	75'	75'
FRONT/SIDE ON INTERNAL PUBLIC R/W	20'	20'
FRONT (PRINCIPAL STRUCTURE)	20'	N/A
SIDE (PRINCIPAL STRUCTURE)	7.5'	N/A
REAR (PRINCIPAL STRUCTURE)	25'	N/A
FACE TO FACE	N/A	50'
FACE TO SIDE / REAR TO SIDE	N/A	30'
SIDE TO SIDE	N/A	15'
REAR TO REAR	N/A	60'
REAR TO FACE	N/A	100'

SITE ANALYSIS CHART

HO. CO. FILE NO.	GROSS ACREAGE	100 YR FLOODPLAIN	STEEP SLOPE AREAS	NET ACREAGE	SFD ACREAGE (% OF GROSS AC.)	SFA ACREAGE (% OF GROSS AC.)	OPEN SPACE PROVIDED (% OF GROSS AC.)	PUBLIC R/W (% OF GROSS AC.)	NON-CREDITED OPEN SPACE AREAS (% OF GROSS AC.)	LIMIT OF DISTURBANCE AREAS (% OF GROSS AC.)
SP-10-005/F-13-103	127.60	6.11	11.40	110.09	41.11 (32.28%)	2.36 (1.85%)	63.20 (49.56%)	14.38 (11.28%)	2.10 (1.65%)	85.2 (66.82%)

UNIT DENSITY TABULATION

HO. CO. FILE NO.	ZONING	SITE ACREAGE			REQUIRED MAXIMUM No. OF UNITS			PROVIDED No. OF UNITS		
		GROSS	100 YR FP	STEEP SLOPES	MAX. UNIT DENSITY ALLOWED	MAX. UNITS ALLOWED	SFD PROVIDED	SFA PROVIDED	TOTAL	
SP-10-005/F-13-103	RE-D	127.60	6.11	11.40	110.04	2.0 UNITS / NET ACRE	220	44	220	

RECREATIONAL OPEN SPACE CHART

Type	CRITERIA	REQUIRED	PROVIDED	WHERE PROVIDED
RECREATIONAL OPEN SPACE	400 SF PER SFA LOT X 44 LOTS	15,600 SF (0.45 Ac.)	---	---
"	300 SF PER SFD LOT X 171 LOTS	51,300 SF (1.18 Ac.)	---	---
TOTAL	---	10,900 SF (0.63 Ac.)	6.75 Ac.	OS LOTS 221 AND 250

LOT INFORMATION

Lot Type	Lots	Minimum Lot Size	Min. Lot Width at Front ERL
Single Family Detached	1130 and 180-220	6,000 Square Feet	50'
Single Family Attached	131-174		

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12-20-13
 Chief, Division of Land Development

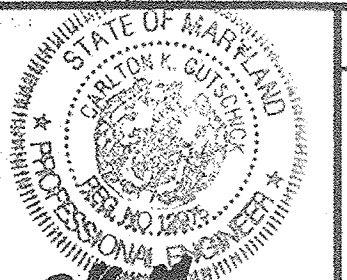
[Signature] 12-17-13
 Chief, Development Engineering Division

GLWGutschick Little & Weber, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 FAX: 301-421-4188

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12475, EXPIRATION DATE: MAY 26, 2022.

4/27/20
 [Signature]
 PROFESSIONAL ENGINEER
 MARYLAND REG. NO. 12475



WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263, & OPEN SPACE LOTS 221 THROUGH 257
 L 11388 F. 725
 PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE: APR 2020 NOV, 2013	TAX MAP - GRID: 47-3	SHEET: 1 OF 71

PT. #	ROAD	STATION	OFFSET	ELEV.	ASBUILT ELEV.
43	GORMAN ROAD	11+13.45	21.50' R	370.22	370.24
44	WINCOPIA FARMS WAY	0+32.13	18.38' L	376.84	376.93
45	WINCOPIA FARMS WAY	0+48.19	14' L	371.01	371.04
46	WINCOPIA FARMS WAY	7+74.40	14' L	366.30	366.32
47	WINCOPIA FARMS WAY	7+97.56	21.32' L	366.65	366.60
48	FENNEL WAY	0+34.00	13' L	366.01	366.11
49	FENNEL WAY	0+34.00	13' R	366.01	366.07
50	WINCOPIA FARMS WAY	8+38.22	21.32' L	366.80	366.84
51	WINCOPIA FARMS WAY	8+55.90	14' L	367.14	367.18
52	WINCOPIA FARMS WAY	12+11.30	14' L	364.27	364.45
53	WINCOPIA FARMS WAY	12+30.19	22.48' L	362.85	362.95
54	BLUEBELL WAY	0+41.87	13' L	361.42	361.55
55	BLUEBELL WAY	0+36.72	13' R	361.51	361.58
56	WINCOPIA FARMS WAY	12+66.86	25.04' L	361.43	361.47
57	WINCOPIA FARMS WAY	12+87.60	14' L	360.43	360.55
58	WINCOPIA FARMS WAY	12+84.30	14' R	360.34	360.41
59	WINCOPIA FARMS WAY	12+73.30	19.74' R	361.50	361.56
60	CYPRESS WAY	4+41.48	14' R	361.38	361.70

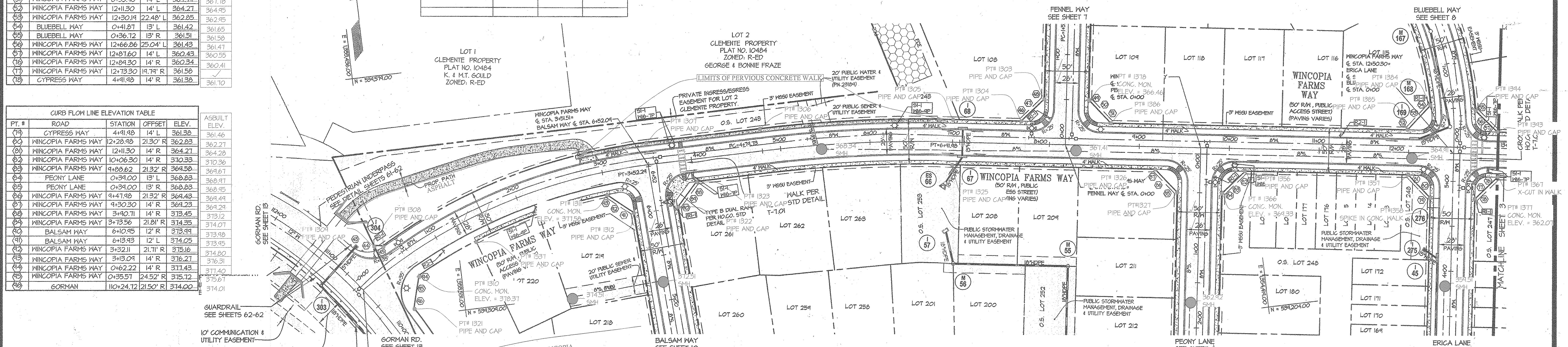
PT. #	ROAD	STATION	OFFSET	ELEV.	ASBUILT ELEV.
74	CYPRESS WAY	4+41.48	14' L	361.38	361.46
80	WINCOPIA FARMS WAY	2+29.48	21.30' R	362.83	362.27
81	WINCOPIA FARMS WAY	12+11.30	14' R	364.27	364.20
82	WINCOPIA FARMS WAY	10+06.30	14' R	370.33	370.36
83	WINCOPIA FARMS WAY	9+89.62	21.32' R	364.58	364.61
84	PEONY LANE	0+34.00	13' L	368.83	368.91
85	PEONY LANE	0+34.00	13' R	368.83	368.95
86	WINCOPIA FARMS WAY	9+47.98	21.32' R	364.43	364.49
87	WINCOPIA FARMS WAY	9+30.30	14' R	364.23	364.29
88	WINCOPIA FARMS WAY	3+40.71	14' R	378.45	378.12
89	WINCOPIA FARMS WAY	3+78.56	21.81' R	374.35	374.07
90	BALSAM WAY	6+10.85	12' R	373.99	373.96
91	BALSAM WAY	6+18.43	12' L	374.05	373.95
92	WINCOPIA FARMS WAY	3+32.11	21.71' R	375.16	374.80
93	WINCOPIA FARMS WAY	3+13.01	14' R	376.27	376.31
94	WINCOPIA FARMS WAY	0+62.22	14' R	371.43	371.40
95	WINCOPIA FARMS WAY	0+35.57	24.52' R	375.12	375.67
96	GORMAN	11+24.72	21.50' R	374.00	374.01

STREET	STATION	OFFSET	TYPE
WINCOPIA FARMS WAY	0+34.94	28.44' RIGHT	150 WATT
WINCOPIA FARMS WAY	3+22.16	20.05' RIGHT	100 WATT
WINCOPIA FARMS WAY	3+80.22	18.31' LEFT	100 WATT
WINCOPIA FARMS WAY	6+21.72	18' LEFT	100 WATT
WINCOPIA FARMS WAY	8+56.68	18' LEFT	100 WATT
WINCOPIA FARMS WAY	10+06.72	18.12' RIGHT	100 WATT
WINCOPIA FARMS WAY	12+11.78	18.14' RIGHT	100 WATT
WINCOPIA FARMS WAY	12+84.67	18.14' LEFT	100 WATT

NOTE: ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE.

NOTE: PROVIDE POROUS SIDEWALK ON LEFT SIDE OF WINCOPIA FARMS WAY FROM STA. 3+00 TO STA. 6+50. ALL OTHER SIDEWALK ON SITE TO BE IMPERVIOUS CONCRETE SIDEWALK PER R-305

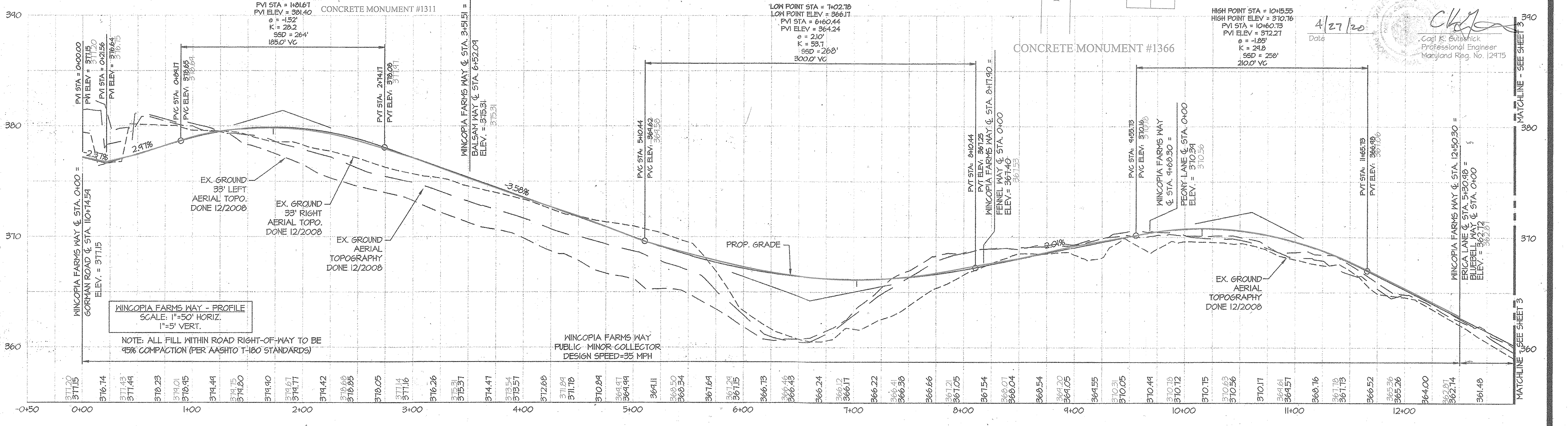
STREET NAME	PC STA	PTC STA	PT STA	RADIUS	LENGTH	TANGENT CHORD	BEARING	DELTA
WINCOPIA FARMS WAY	0+00.00	---	3+52.24	400.00'	352.24'	181.98'	S 75°19'21" W	93°22'58"
WINCOPIA FARMS WAY	4+74.73	---	6+41.48	1500.00'	212.24'	106.80'	N 89°48'13" W	87°06'26"



WINCOPIA FARMS WAY - PLAN
SCALE: 1" = 50'

NOTES:
 1. ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET IT FOR PAVEMENT SECTION DETAIL.
 2. SEE SHEET 62-65 FOR STREET TREE LOCATIONS.
 3. TRANSITION TO 'T' CURB AND GUTTER AT ALL INLETS PER HO.CO STD DETAIL R-3-06
 4. SEE TYPICAL SECTIONS, SHEET IT, FOR ALL CURB TYPES.
 5. ALL DRIVEWAY ENTRANCES ARE PER HO.CO. STD DETAILS R-6-01 & R-6-03
 6. 'MSU' DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:
 TYPE A SIDEWALK RAMP PER HO.CO. STD DETAIL R-4-01
 TYPE B SIDEWALK RAMP PER HO.CO. STD DETAIL R-4-02
 DRIVEWAY ENTRANCE PER HO.CO. STD DETAILS R-6-01 & R-6-03
 STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
 GROUND MOUNTED SIGN
 STREET LIGHT POLE MOUNTED SIGN



WINCOPIA FARMS WAY - PROFILE
SCALE: (H) 1" = 50' (V) 1" = 50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 3-16-2015

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 4-23-15

Chief, Development Engineering Division
 Date: 4-22-15

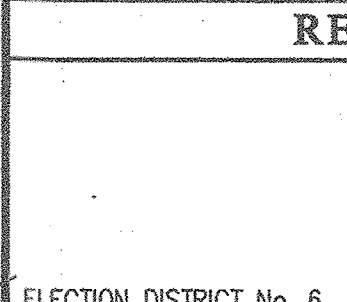
GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
 BURTONVILLE, MARYLAND 20886
 TEL: 301-421-4024 FAX: 301-421-4186

DATE	SIDEWALK REVISED	REVISION	BY	APPR.
02/2015				

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFROAD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975, EXPIRATION DATE: MAY 26, 2016.

2/25/15



REVISED WINCOPIA FARMS WAY - PLAN AND PROFILE

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
 L 11388 F. 725
 PARCEL 472

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 FEB., 2015	47-3	2 OF 71

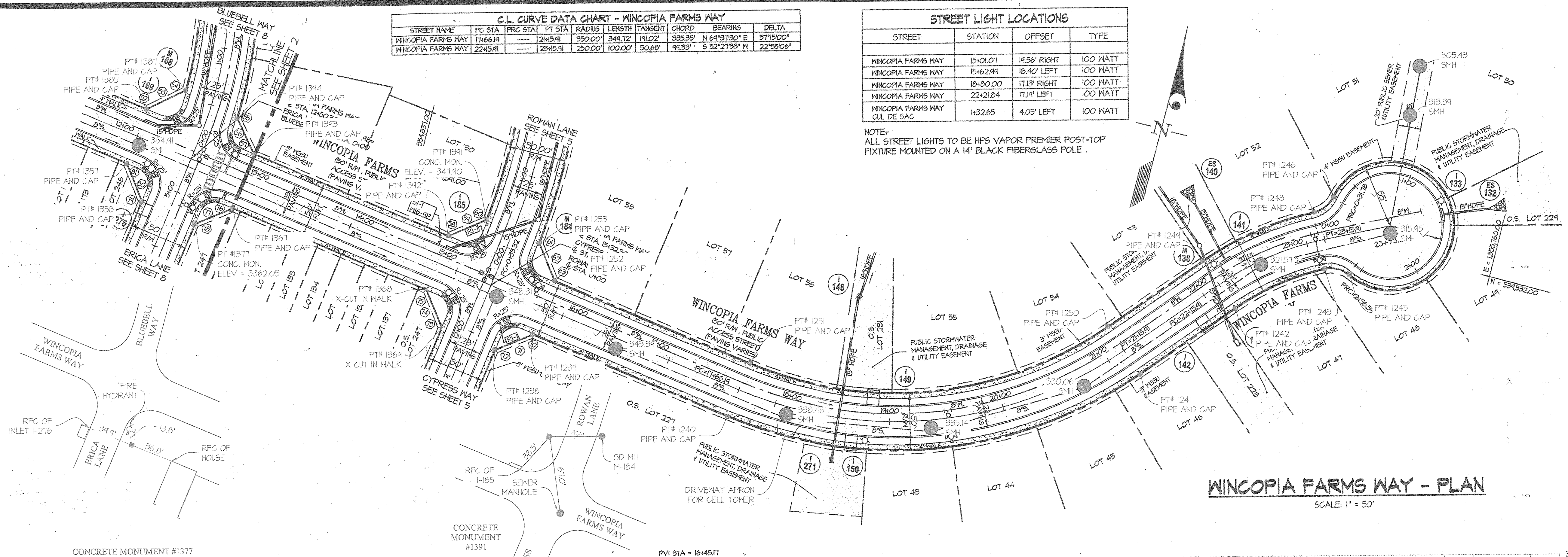
ASBUILT SHEET 2 OF 34

CURB FLOW LINE ELEVATION TABLE				
PT. #	ROAD NAME	STATION	OFFSET	ELEV.
58	WINCOPIA FARMS WAY	14+44.24	14' L	350.02
59	WINCOPIA FARMS WAY	15+12.03	21.38' L	348.84
60	ROMAN LANE	0+34.25	13' L	346.75
61	ROMAN LANE	0+31.84	13' R	346.81
62	WINCOPIA FARMS WAY	15+53.12	14.83' L	347.32
63	WINCOPIA FARMS WAY	15+10.30	13' L	346.45
64	WINCOPIA FARMS WAY	15+71.30	13' R	346.40
65	WINCOPIA FARMS WAY	15+53.62	14.85' R	347.50
66	CYPRESS WAY	12+04.43	14' R	347.35
67	CYPRESS WAY	12+04.43	14' L	347.24
68	WINCOPIA FARMS WAY	15+10.40	21.32' R	348.65
69	WINCOPIA FARMS WAY	14+93.30	14' R	350.07

C.L. CURVE DATA CHART - WINCOPIA FARMS WAY									
STREET NAME	PC STA	PTC STA	PT STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
WINCOPIA FARMS WAY	17+66.14	21+45.41	25.00	344.32	181.02	335.38'	N 64°19'30" E	51°15'00"	
WINCOPIA FARMS WAY	22+15.41	25.00	28.00	100.00	50.68'	44.33'	S 52°13'30" N	22°58'06"	

STREET LIGHT LOCATIONS			
STREET	STATION	OFFSET	TYPE
WINCOPIA FARMS WAY	15+01.07	19.56' RIGHT	100 WATT
WINCOPIA FARMS WAY	15+62.84	18.40' LEFT	100 WATT
WINCOPIA FARMS WAY	18+80.00	17.13' RIGHT	100 WATT
WINCOPIA FARMS WAY	22+21.84	17.14' LEFT	100 WATT
WINCOPIA FARMS WAY	14+32.65	4.05' LEFT	100 WATT

NOTE: ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE.



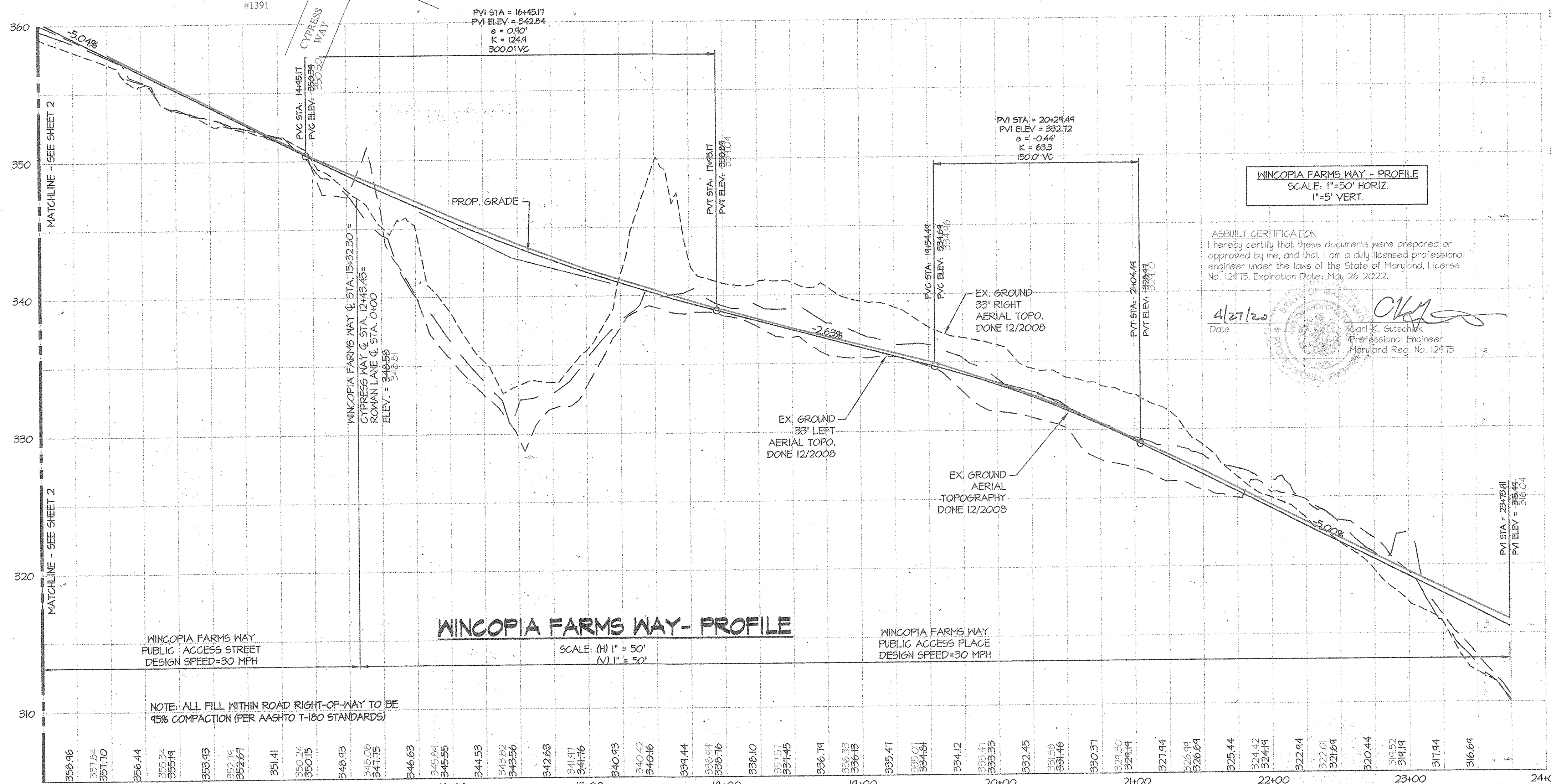
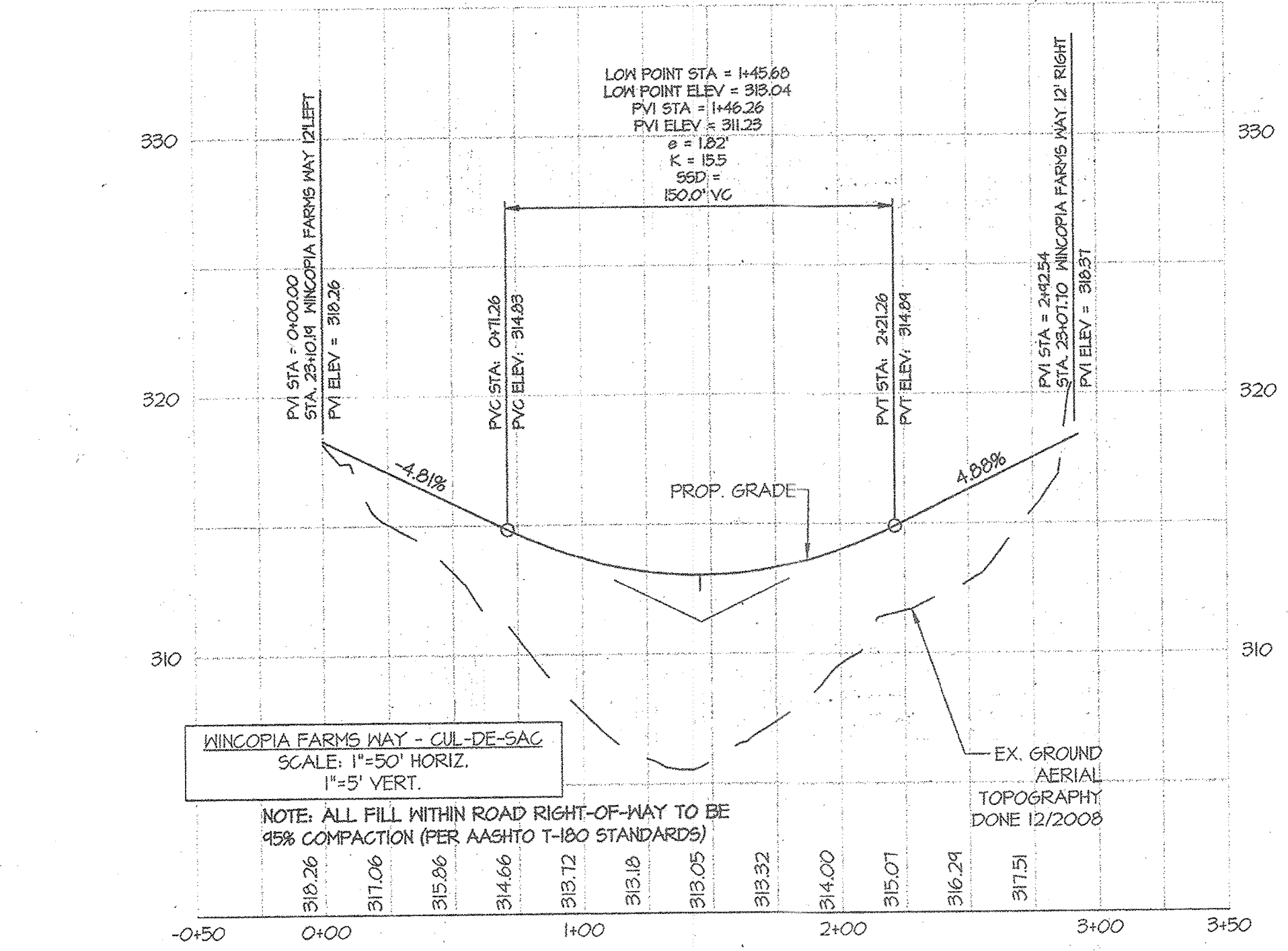
WINCOPIA FARMS WAY - PLAN
SCALE: 1" = 50'

NOTES:

- ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET 17 FOR PAVEMENT SECTION DETAIL.
- SEE SHEET 68-69 FOR STREET TREE LOCATIONS.
- TRANSITION TO T CURBS AND GUTTER AT ALL INLETS PER HO-20 STD DETAIL R-3-06.
- SEE TYPICAL SECTIONS, SHEET 17, FOR ALL CURB TYPES.
- ALL DRIVEWAY ENTRANCES ARE PER HO-20 STD DETAILS R-6-01 & R-6-03.
- PSU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:

- TYPE A SIDEWALK RAMP PER HO-20, STD DETAIL R-4-01
- TYPE B SIDEWALK RAMP PER HO-20, STD DETAIL R-4-02
- DRIVEWAY ENTRANCE PER HO-20, STD DETAILS R-6-01 & R-6-03
- STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
- GROUND MOUNTED SIGN
- STREET LIGHT POLE MOUNTED SIGN



ASBUILTS 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. 12975, Expiration Date: May 26 2022.

Date: 4/27/20
Asari K. Gutschick
Professional Engineer
Maryland Reg. No. 12975

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Will S. Smith
Chief, Bureau of Highways
Date: 12-9-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Robert Smith
Chief, Division of Land Development
Date: 12-20-13

Chris Edwards
Chief, Development Engineering Division
Date: 12-17-13

GLWGutschick Little & Weber, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 FAX: 301-421-4186

PREPARED FOR:
BEAZER HOMES CORP.
8965 GULFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

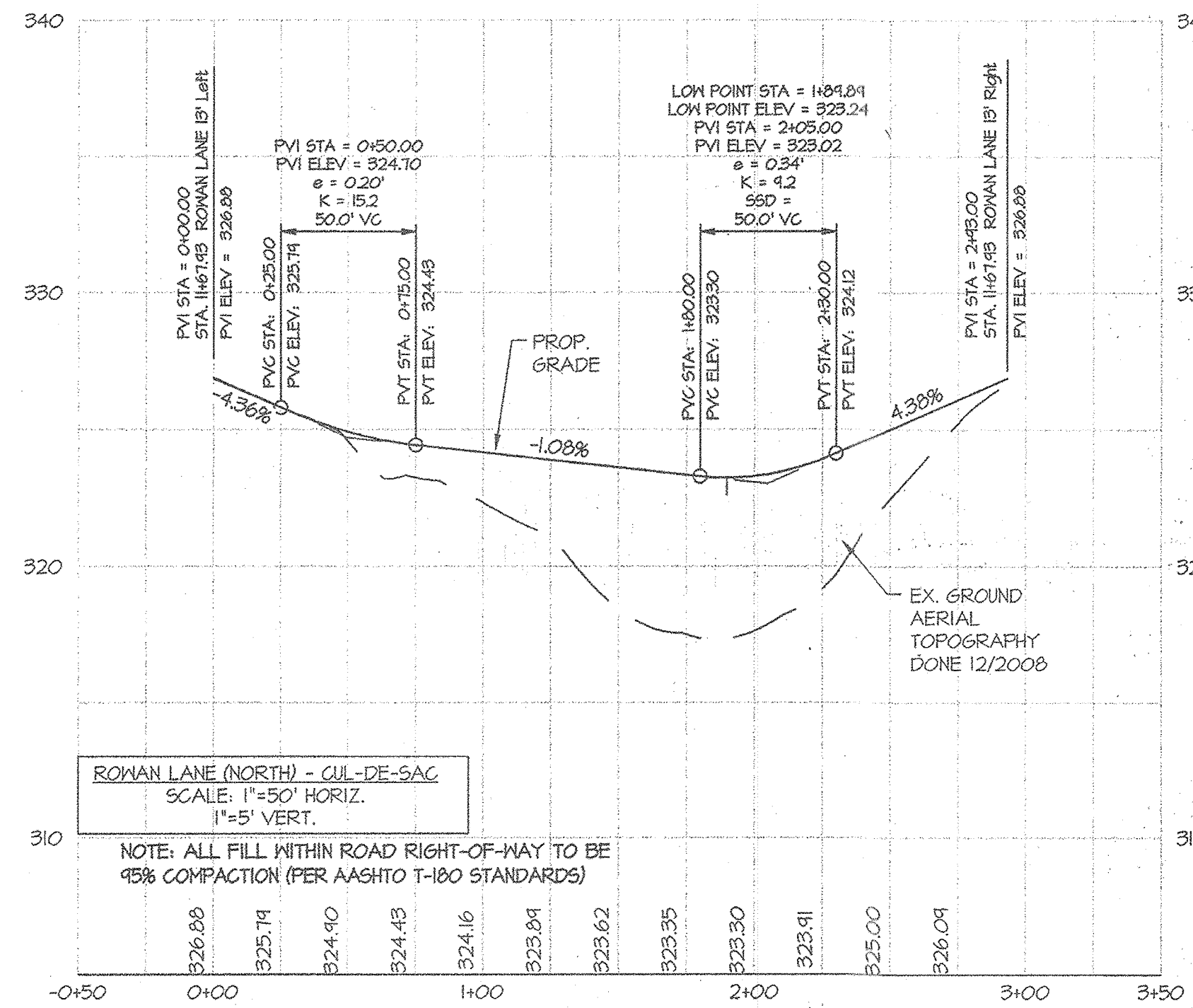
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975
EXPIRATION DATE: MAY 26, 2014

ASBUILTS
WINCOPIA FARMS WAY - PLAN & PROFILE
WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 THROUGH 257
L. 11388 F. 725
PARCEL 472
HOWARD COUNTY, MARYLAND

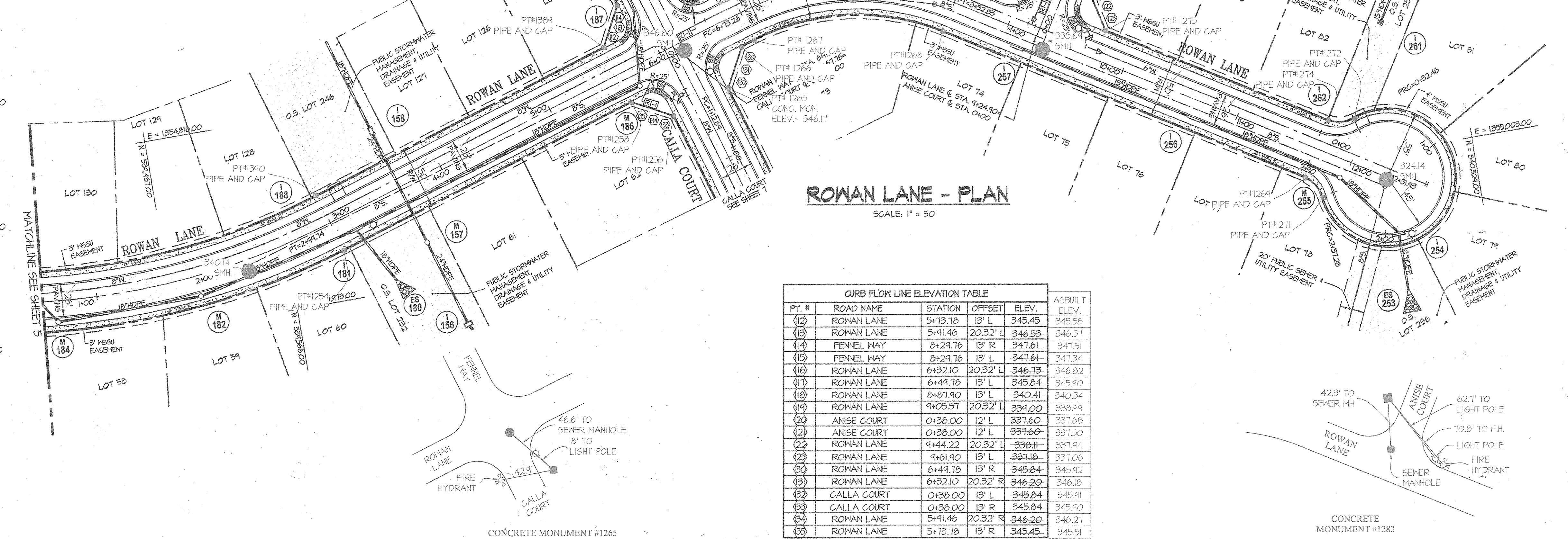
SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	3 OF 71

STREET NAME	PC STA	PT STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
CYPRESS WAY	184.20	417.62	210.00'	318.43'	149.86'	288.71'	N 84°06'22" E	86°52'43"
CYPRESS WAY	417.62	1144.41	210.00'	321.71'	202.01'	241.22'	S 59°58'52" E	81°47'43"
ROWAN LANE	0438.32	2444.14	600.00'	284.42'	184.91'	262.28'	N 04°22'30" E	25°15'00"
ROWAN LANE	6179.26	8452.85	210.00'	179.91'	95.10'	174.11'	S 07°50'00" E	41°00'00"

STREET	STATION	OFFSET	TYPE
ROWAN LANE	3+30.20	11.40' RIGHT	100 MATT
ROWAN LANE	6+24.84	31.72' RIGHT	100 MATT
ROWAN LANE	4+51.02	18.61' LEFT	100 MATT
ROWAN LANE CUL-DE-SAC (N)	1+74.50	4.11' LEFT	100 MATT



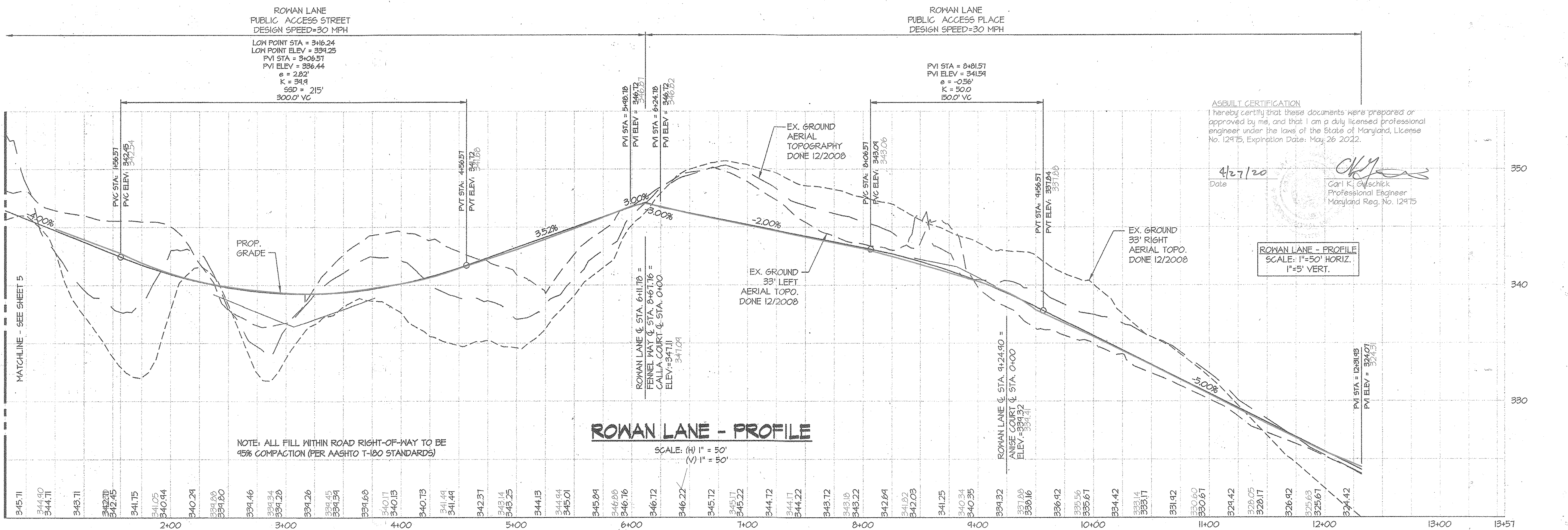
NOTE: ALL STREET LIGHTS TO HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 4' BLACK FIBERGLASS POLE.



PT. #	ROAD NAME	STATION	OFFSET	ELEV.	ASBUILT ELEV.
12	ROWAN LANE	5+73.78	13' L	345.45	345.58
13	ROWAN LANE	5+91.46	20.32' L	346.53	346.57
14	FENNEL WAY	8+24.76	13' R	347.61	347.51
15	FENNEL WAY	8+24.76	13' L	347.61	347.34
16	ROWAN LANE	6+32.10	20.32' L	346.73	346.82
17	ROWAN LANE	6+44.78	13' L	345.84	345.90
18	ROWAN LANE	8+87.90	13' L	340.41	340.34
19	ROWAN LANE	9+05.57	20.32' L	334.00	338.49
20	ANISE COURT	0+38.00	12' L	337.60	337.68
21	ANISE COURT	0+38.00	12' R	337.60	337.50
22	ROWAN LANE	9+44.22	20.32' L	338.11	337.44
23	ROWAN LANE	9+61.90	13' L	337.18	337.06
24	ROWAN LANE	6+44.78	13' R	345.84	345.92
25	ROWAN LANE	6+32.10	20.32' R	346.20	346.18
26	CALLA COURT	0+38.00	13' L	345.84	345.91
27	CALLA COURT	0+38.00	13' R	345.84	345.90
28	ROWAN LANE	5+91.46	20.32' R	346.20	346.27
29	ROWAN LANE	5+73.78	13' R	345.45	345.51

NOTES:
 1. ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET 11 FOR PAVEMENT SECTION DETAIL.
 2. SEE SHEET 63-65 FOR STREET TREE LOCATIONS.
 3. TRANSITION TO 1" CURB AND GUTTER AT ALL INLETS PER H.O.C.O. STD DETAIL R-3.06
 4. SEE TYPICAL SECTIONS, SHEET 11, FOR ALL CURB TYPES.
 5. ALL DRIVEWAY ENTRANCES ARE PER H.O.C.O. STD DETAILS R-6.01 & R-6.03
 6. HSW DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:
 TYPE A SIDEWALK RAMP PER H.O.C.O. STD DETAIL R-4.01
 TYPE B SIDEWALK RAMP PER H.O.C.O. STD DETAIL R-4.02
 DRIVEWAY ENTRANCE PER H.O.C.O. STD DETAILS R-6.01 & R-6.03
 STREET LIGHT - SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
 GROUND MOUNTED SIGN
 STREET LIGHT POLE MOUNTED SIGN



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12-20-13
 Chief, Division of Land Development

[Signature] 12-17-13
 Chief, Development Engineering Division

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA 301-899-2524 FAX 301-421-4186

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12875
 EXPIRATION DATE: MAY 28, 2014



ASBUILTS
 ROWAN LANE PLAN AND PROFILE
 WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 11388 F. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV., 2013	47-3	6 OF 71

CL. CURVE DATA CHART : CALLA COURT & FENNEL WAY

STREET NAME	PC STA	PT STA	PT STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
FENNEL WAY	142.22	—	446.21	250.00'	130.78'	114.92'	244.82'	S. 40° 18' 30" W	64° 58' 00"
CALLA COURT	142.64	—	571.68	400.00'	254.18'	180.94'	288.24'	S. 81° 18' 00" W	16° 32' 00"

STREET LIGHT LOCATIONS

STREET	STATION	OFFSET	TYPE
FENNEL WAY	3+21.22	17.13' LEFT	100 MATT
FENNEL WAY	5+01.38	17.33' LEFT	100 MATT
ROMAN LANE	6+24.84	31.12' RIGHT	100 MATT
CALLA COURT CUL-DE-SAC	1+68.54	3.45' LEFT	100 MATT
WINCOPIA FARMS WAY	8+56.68	18' LEFT	100 MATT

NOTE: ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 1 1/2" BLACK FIBERGLASS POLE.

CURB FLOW LINE ELEVATION TABLE

PT. #	ROAD NAME	STATION	OFFSET	ELEV.	ASBUILT ELEV.
(46)	WINCOPIA FARMS WAY	7+74.90	14' L	366.30	366.32
(47)	WINCOPIA FARMS WAY	7+91.50	21.32' L	366.65	366.60
(48)	FENNEL WAY	0+34.00	13' L	366.01	366.11
(49)	FENNEL WAY	0+34.00	13' R	366.01	366.07
(50)	WINCOPIA FARMS WAY	8+38.22	21.32' L	366.88	366.84
(51)	WINCOPIA FARMS WAY	8+55.40	14' L	367.14	367.18
(12)	ROMAN LANE	5+13.78	13' L	345.45	345.56
(13)	ROMAN LANE	5+41.46	20.32' L	346.53	346.57
(14)	FENNEL WAY	8+24.76	13' R	347.61	347.51
(15)	FENNEL WAY	8+24.76	13' L	347.61	347.34
(16)	ROMAN LANE	6+32.10	20.32' L	346.73	346.82
(17)	ROMAN LANE	6+44.78	13' L	345.84	345.90
(20)	ROMAN LANE	6+44.78	13' R	345.84	345.82
(31)	ROMAN LANE	6+32.10	20.32' R	346.20	346.18
(32)	CALLA COURT	0+38.00	13' L	345.84	345.91
(33)	CALLA COURT	0+38.00	13' R	345.84	345.90

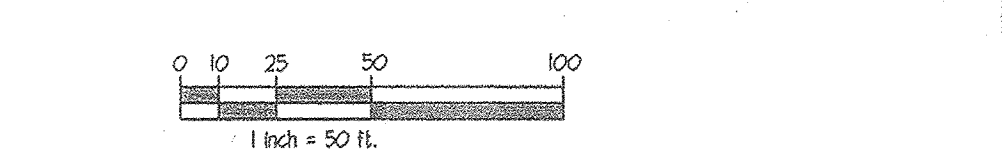
CURB FLOW LINE ELEVATION TABLE

PT. #	ROAD NAME	STATION	OFFSET	ELEV.	ASBUILT ELEV.
(34)	ROMAN LANE	5+41.46	20.32' R	346.20	346.21
(35)	ROMAN LANE	5+73.78	13' R	345.45	345.51
(46)	FENNEL WAY	5+04.81	13' L	355.05	355.07
(49)	FENNEL WAY	5+26.34	21.22' L	353.48	354.08
(50)	BLUEBELL WAY	5+24.31	12' L	352.90	352.45
(51)	BLUEBELL WAY	5+22.03	12' R	353.11	353.30
(52)	FENNEL WAY	5+61.94	14.47' L	353.74	353.70
(53)	FENNEL WAY	5+84.17	13' L	353.32	353.38
(12)	FENNEL WAY	5+42.72	13' R	353.12	353.14
(13)	FENNEL WAY	5+14.20	21.17' R	353.67	353.75
(14)	BLUEBELL WAY	4+45.65	13' R	354.22	354.24
(15)	BLUEBELL WAY	4+53.00	13' L	354.04	354.23
(16)	FENNEL WAY	5+38.45	26.25' R	354.30	354.42
(17)	FENNEL WAY	5+16.35	13' R	354.84	354.91

- NOTES:**
- ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET 17 FOR PAVEMENT SECTION DETAIL.
 - SEE SHEET 63-65 FOR STREET TREE LOCATIONS
 - TRANSITION TO T CURB AND GUTTER AT ALL INLETS PER HO.CC STD DETAIL R-3-06
 - SEE TYPICAL SECTIONS SHEET 17 FOR ALL CURB TYPES
 - ALL DRIVEWAY ENTRANCES ARE PER HO.CC STD DETAILS R-6-01 & R-6-03
 - MSU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:

- TYPE A SIDEWALK RAMP PER HO.CC STD DETAIL R-4-01
- TYPE B SIDEWALK RAMP PER HO.CC STD DETAIL R-4-02
- DRIVEWAY ENTRANCE PER HO.CC STD DETAILS R-6-01 & R-6-03
- STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
- GROUND MOUNTED SIGN
 - STOP 30 X 30
 - SPEED LIMIT 25
 - AHEAD 30 X 30
- STREET LIGHT POLE MOUNTED SIGN
 - STOP 30 X 30 (P)
 - AHEAD 30 X 30 (P)
 - AHEAD 30 X 30 (P)



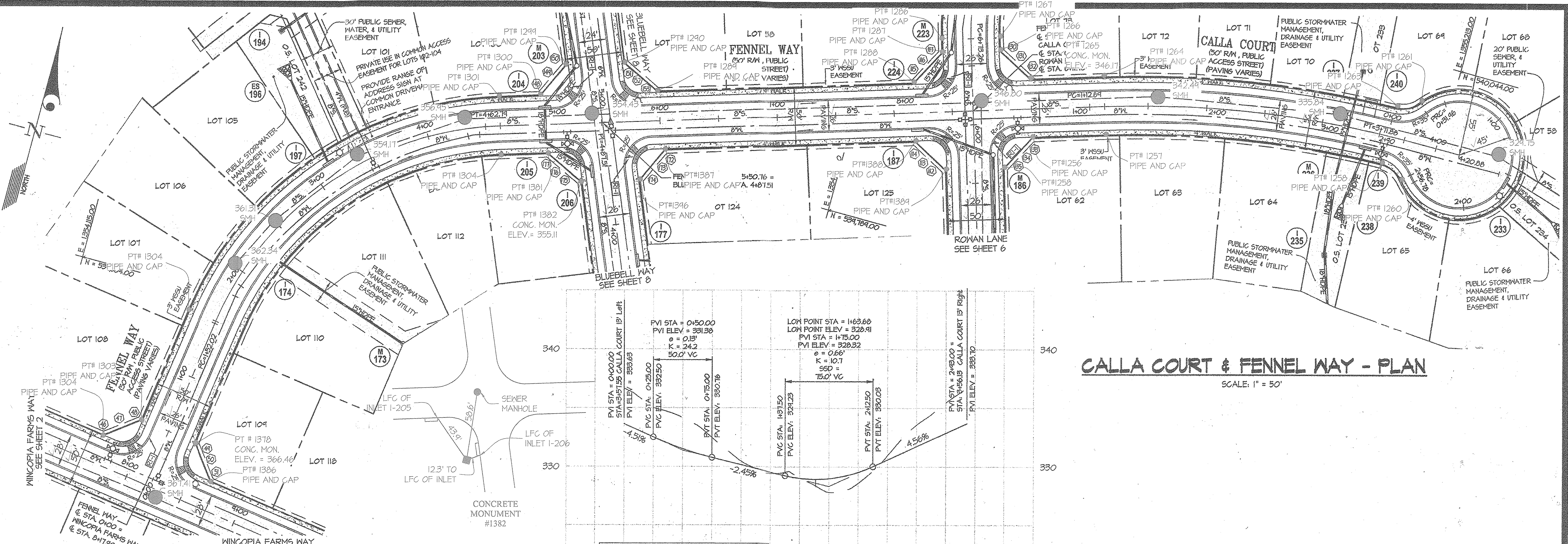
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

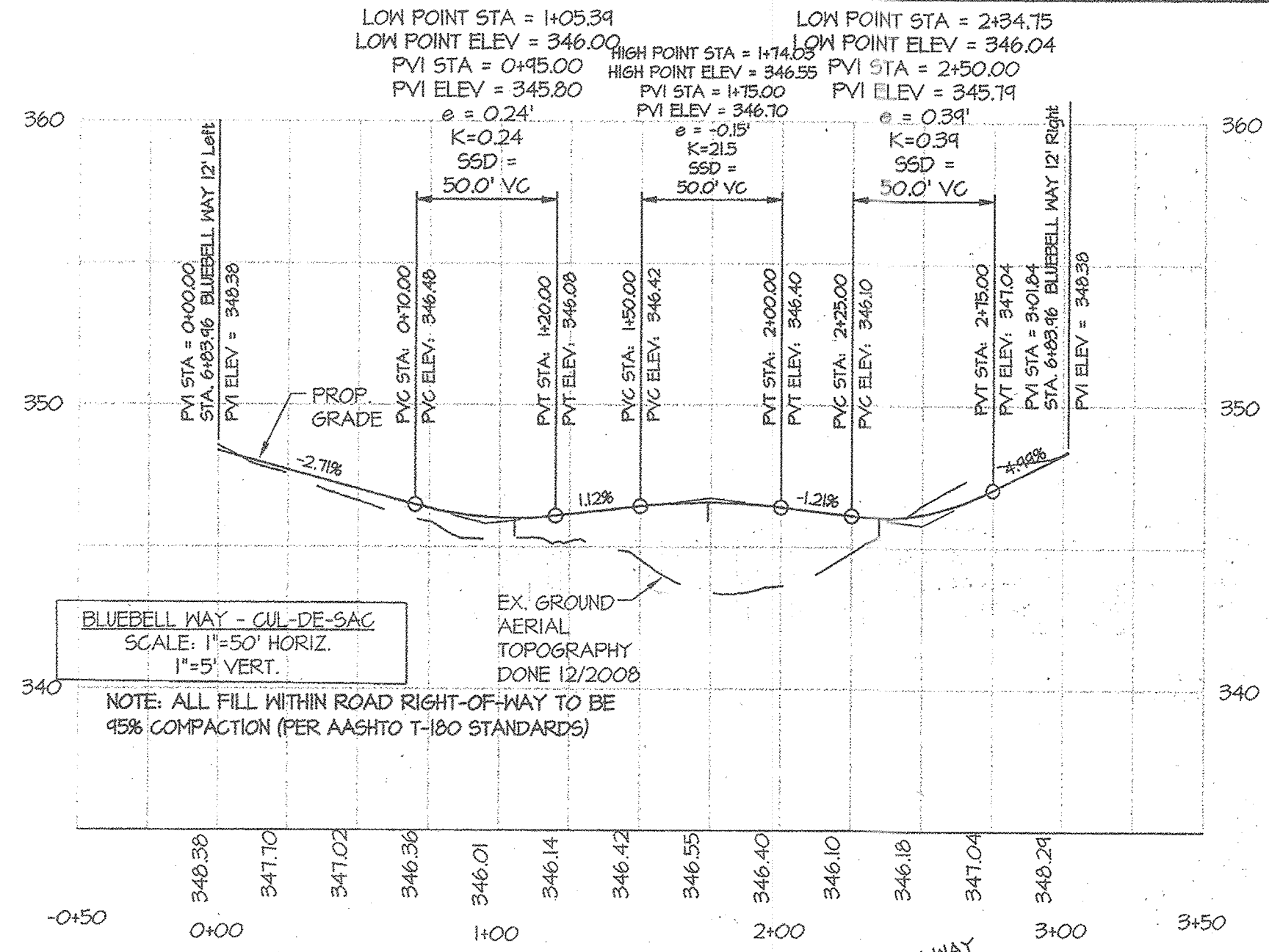
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 12-20-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Date: 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALTE: 410-380-1820 DC/VA: 301-888-2524 FAX: 301-421-4188

DES. XXX	DRN. XXX	CHK. XXX	DATE	REVISION	BY	APP'R.





CURB FLOW LINE ELEVATION TABLE					CURB FLOW LINE ELEVATION TABLE				
PT. #	ROAD NAME	STATION	OFFSET	ELEV.	PT. #	ROAD NAME	STATION	OFFSET	ELEV.
22	HENRY HEARN WAY	10+36.86	13' L	342.75	44	FENNEL WAY	5+04.81	13' L	355.05
23	HENRY HEARN WAY	10+53.28	13.68' L	343.28	45	FENNEL WAY	5+28.34	21.22' L	353.48
24	ERICA LANE	0+35.25	14' L	343.78	46	BLUEBELL WAY	5+24.31	12' L	352.40
25	ERICA LANE	0+40.56	14'R	343.94	47	BLUEBELL WAY	5+22.03	12' R	353.11
26	HENRY HEARN WAY	10+44.12	-21.66' L	343.10	48	FENNEL WAY	5+67.34	14.41' L	353.74
27	MINCOPIA FARMS WAY	12+11.30	14' L	343.27	49	FENNEL WAY	5+84.17	13' L	353.32
28	MINCOPIA FARMS WAY	12+30.14	22.49' L	342.85	50	FENNEL WAY	5+42.72	13' R	353.12
29	BLUEBELL WAY	0+41.87	13' L	343.42	51	FENNEL WAY	5+74.20	21.17' R	353.67
30	BLUEBELL WAY	0+36.72	13' R	343.51	52	BLUEBELL WAY	4+45.65	13' R	354.22
31	MINCOPIA FARMS WAY	12+66.86	25.04' L	343.43	53	BLUEBELL WAY	4+55.00	13' L	354.04
32	MINCOPIA FARMS WAY	12+81.60	14' L	343.43	54	FENNEL WAY	5+38.45	26.25' R	354.30
33	MINCOPIA FARMS WAY	12+84.30	14' R	343.84	55	FENNEL WAY	5+16.35	13' R	354.84
34	MINCOPIA FARMS WAY	12+73.30	14.74' R	341.58					
35	CYPRESS WAY	4+41.98	14' R	341.38					

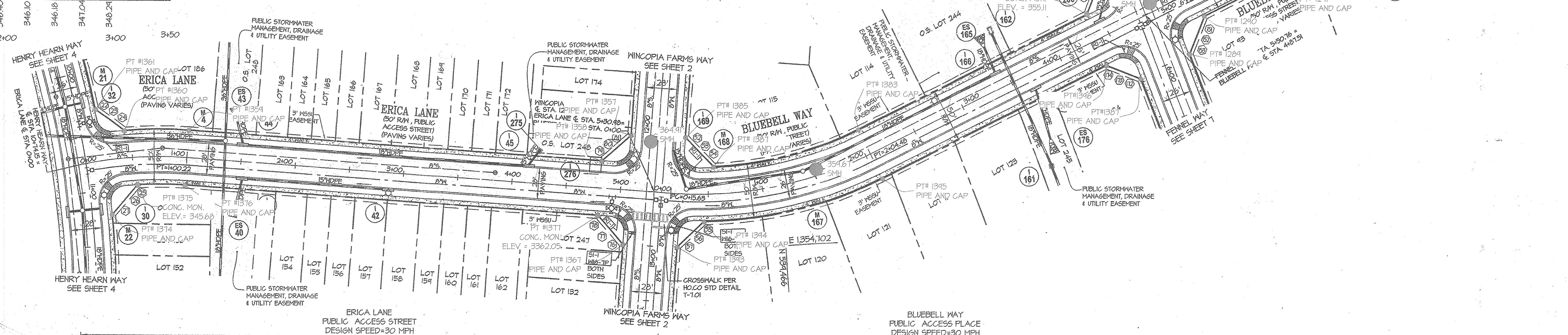
C.L. CURVE DATA CHART - ERICA LANE & BLUEBELL WAY											
STREET NAME	PC STA	PTC STA	PT STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA		
ERICA LANE	0+00.00	1+00.22	350.00'	100.22'	50.45'	41.87'	5.00122520' N	16°24'20"			
BLUEBELL WAY	0+45.63	2+04.48	350.00'	189.85'	46.74'	186.35'	N 07°12'30" W	30°55'00"			
BLUEBELL WAY	6+18.51	7+58.66	350.00'	140.04'	10.33'	139.16'	N 84°12'54" W	22°59'58"			

STREET LIGHT LOCATIONS				
STREET	STATION	OFFSET	TYPE	
ERICA LANE	2+81.43	10.21' RIGHT	100 WATT	
BLUEBELL WAY	2+74.01	11.21' LEFT	100 WATT	
BLUEBELL WAY CUL-DE-SAC	1+45.36	4.25' LEFT	100 WATT	
MINCOPIA FARMS WAY	12+11.78	18.14' RIGHT	100 WATT	
MINCOPIA FARMS WAY	12+84.67	18.14' LEFT	100 WATT	
HENRY HEARN WAY	11+04.14	14.6' LEFT	100 WATT	
FENNEL WAY	5+81.38	11.33' LEFT	100 WATT	

NOTE: ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE.

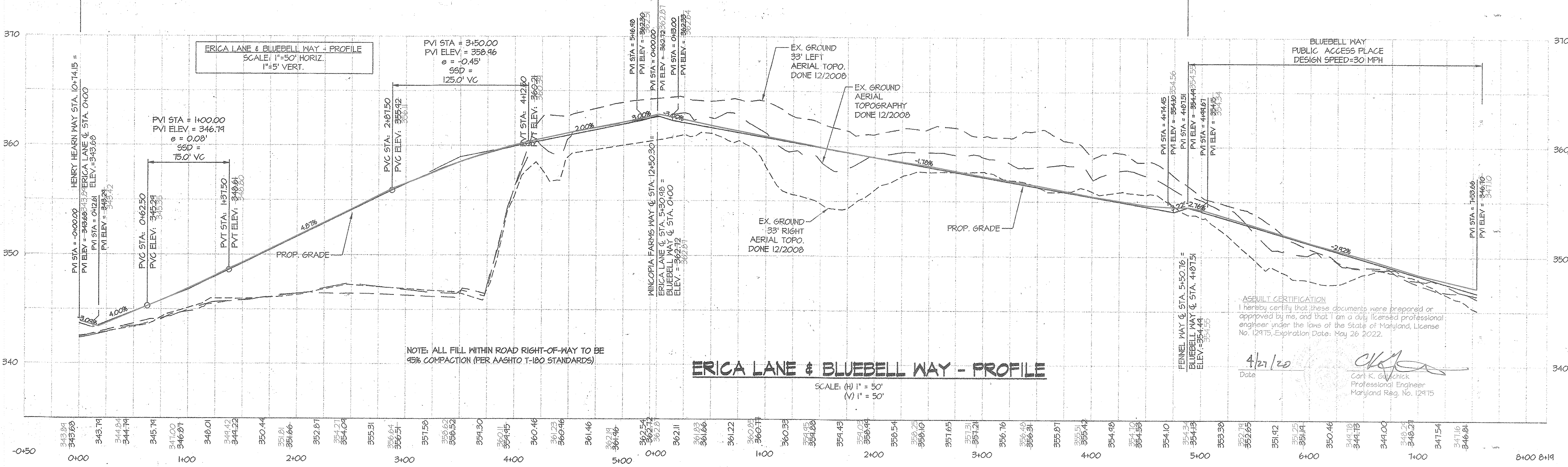
ERICA LANE & BLUEBELL WAY - PLAN

SCALE: 1" = 50'



NOTES:
 1. ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET IT FOR PAVEMENT SECTION DETAIL.
 2. SEE SHEET 63-65 FOR STREET TREE LOCATIONS.
 3. TRANSITION TO 7" CURB AND GUTTER AT ALL INLETS PER H.O.C.O. STD DETAIL R-3.06
 4. SEE TYPICAL SECTIONS, SHEET IT, FOR ALL CURB TYPES.
 5. ALL DRIVEWAY ENTRANCES ARE PER H.O.C.O. STD DETAILS R-6.01 & R-6.03
 6. MESHU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:
 TYPE A SIDEWALK RAMP PER H.O.C.O. STD DETAIL R-4.01
 TYPE B SIDEWALK RAMP PER H.O.C.O. STD DETAIL R-4.02
 DRIVEWAY ENTRANCE PER H.O.C.O. STD DETAILS R-6.01 & R-6.03
 STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
 GROUND MOUNTED SIGN
 STREET LIGHT POLE MOUNTED SIGN



ERICA LANE & BLUEBELL WAY - PROFILE

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 12-20-13

APPROVED: Chief, Development Engineering Division
 Date: 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 2874
 EXPIRATION DATE: MAY 28, 2014

ASBUITS
 BLUEBELL WAY & ERICA LANE PLAN AND PROFILE

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472

ELECTION DISTRICT No. 6

ASBUITS SHEET 8 OF 34		
SCALE	ZONING	G. L. W. FILE NO.
AS. SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	8 OF 71

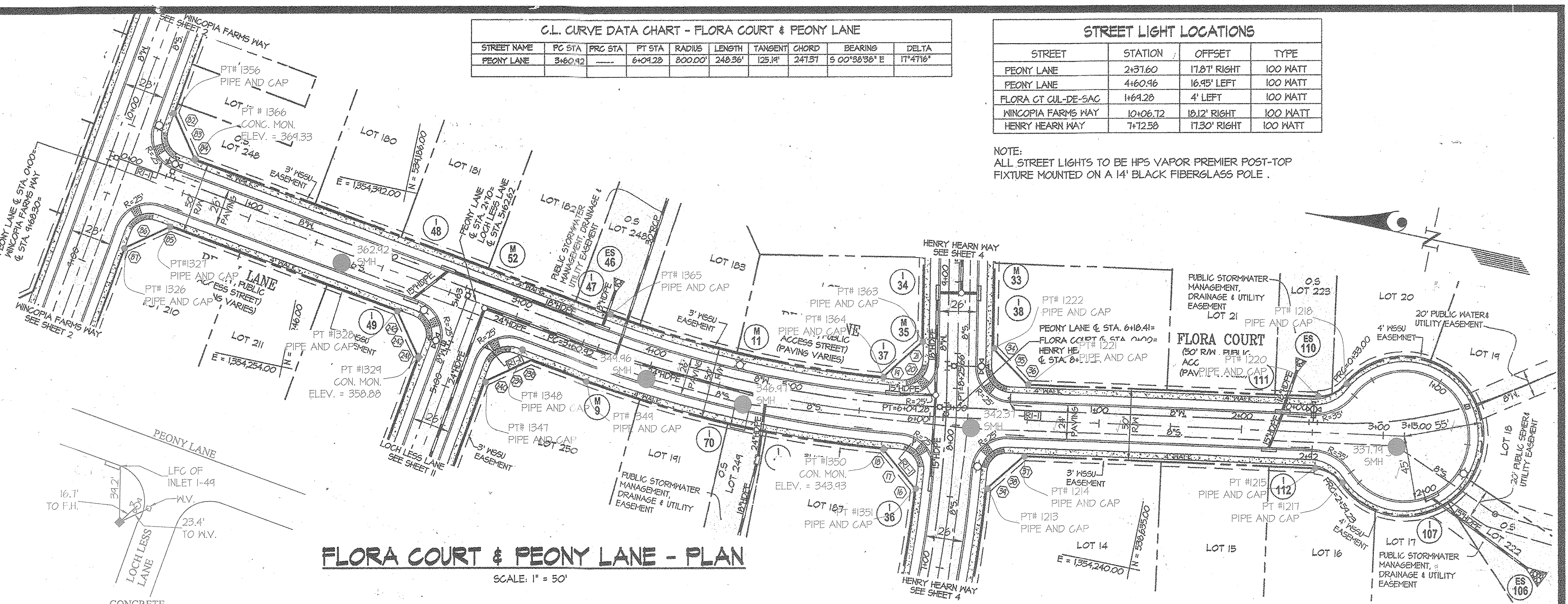
ASBUILT ELEV.	PT. #	ROAD NAME	STATION	OFFSET	ELEV.
310.36	(3)	WINCOPIA FARMS WAY	10+06.30	14' R	310.33
369.61	(3)	WINCOPIA FARMS WAY	4+08.62	21.32' L	369.58
369.91	(4)	PEONY LANE	0+34.00	13' L	369.83
369.95	(5)	PEONY LANE	0+34.00	13' R	369.83
369.44	(6)	WINCOPIA FARMS WAY	4+41.98	21.32' R	369.43
369.24	(7)	WINCOPIA FARMS WAY	4+30.30	14' R	369.23
342.89	(16)	HENRY HEARN WAY	7+65.00	13' L	342.94
342.44	(17)	HENRY HEARN WAY	7+84.15	20.24' L	342.42
342.12	(18)	PEONY LANE	5+80.83	13' R	342.52
342.44	(14)	PEONY LANE	5+78.16	13' L	342.62
341.95	(2)	HENRY HEARN WAY	8+26.56	20.90' L	341.94
341.41	(2)	HENRY HEARN WAY	8+44.74	13' L	341.35

ASBUILT ELEV.	PT. #	ROAD NAME	STATION	OFFSET	ELEV.
341.65	(6)	HENRY HEARN WAY	8+41.28	13' R	341.54
341.70	(9)	HENRY HEARN WAY	8+23.87	20.10' L	341.64
341.40	(6)	FLORA COURT	0+37.33	12' L	341.26
341.32	(7)	FLORA COURT	0+37.10	12' R	341.26
342.15	(8)	HENRY HEARN WAY	7+86.77	20.12' R	342.07
342.87	(6)	HENRY HEARN WAY	7+64.91	13' R	342.87
354.61	(23)	PEONY LANE	3+08.00	13' R	354.56
356.07	(23)	PEONY LANE	2+40.32	20.32' R	355.96
357.41	(24)	LOCH LESS LANE	5+24.62	13' R	357.35
357.56	(24)	LOCH LESS LANE	5+24.62	13' L	357.35
357.15	(24)	PEONY LANE	2+53.84	25.15' R	357.15
354.54	(24)	PEONY LANE	2+32.00	13' R	354.04

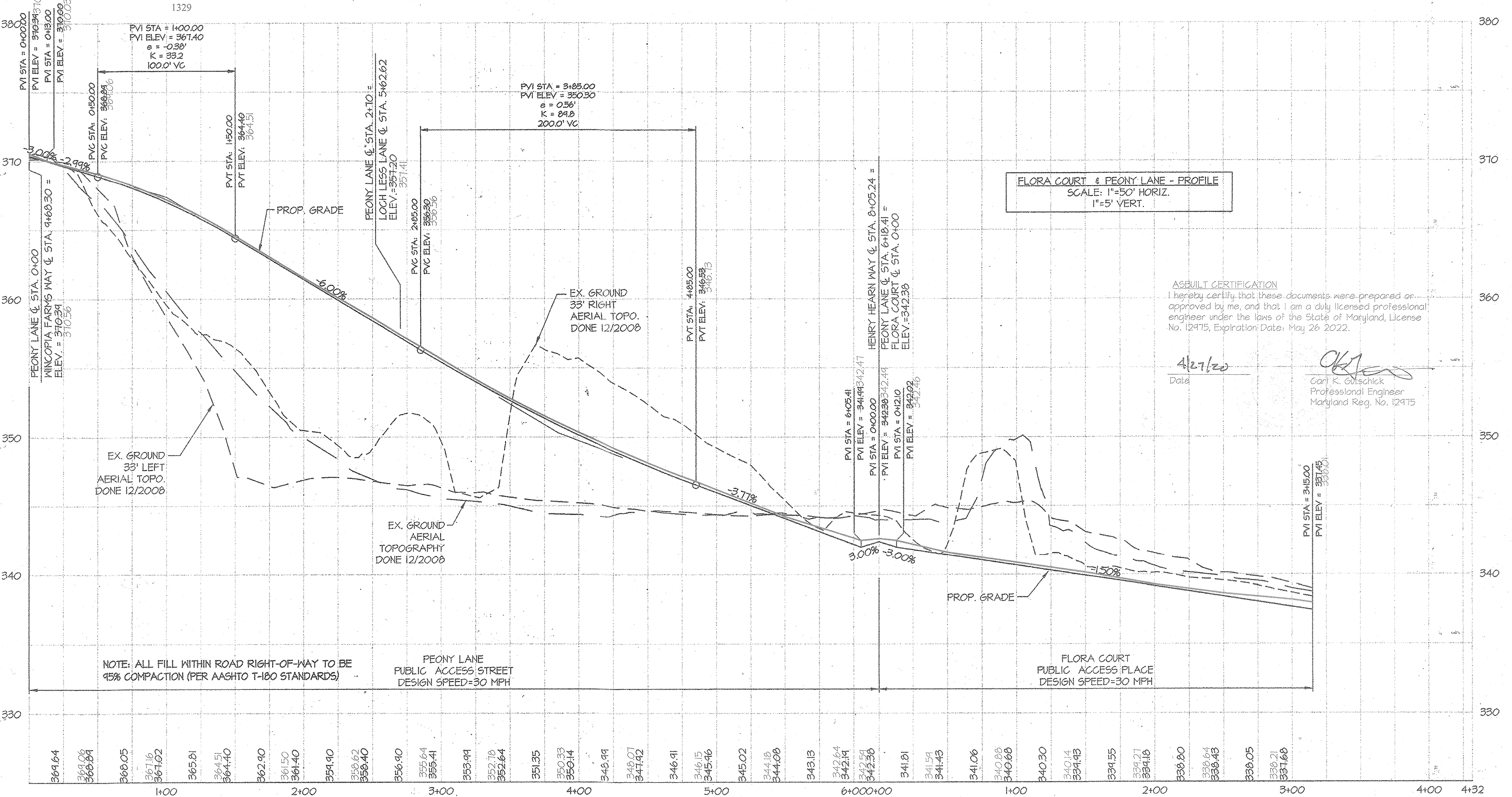
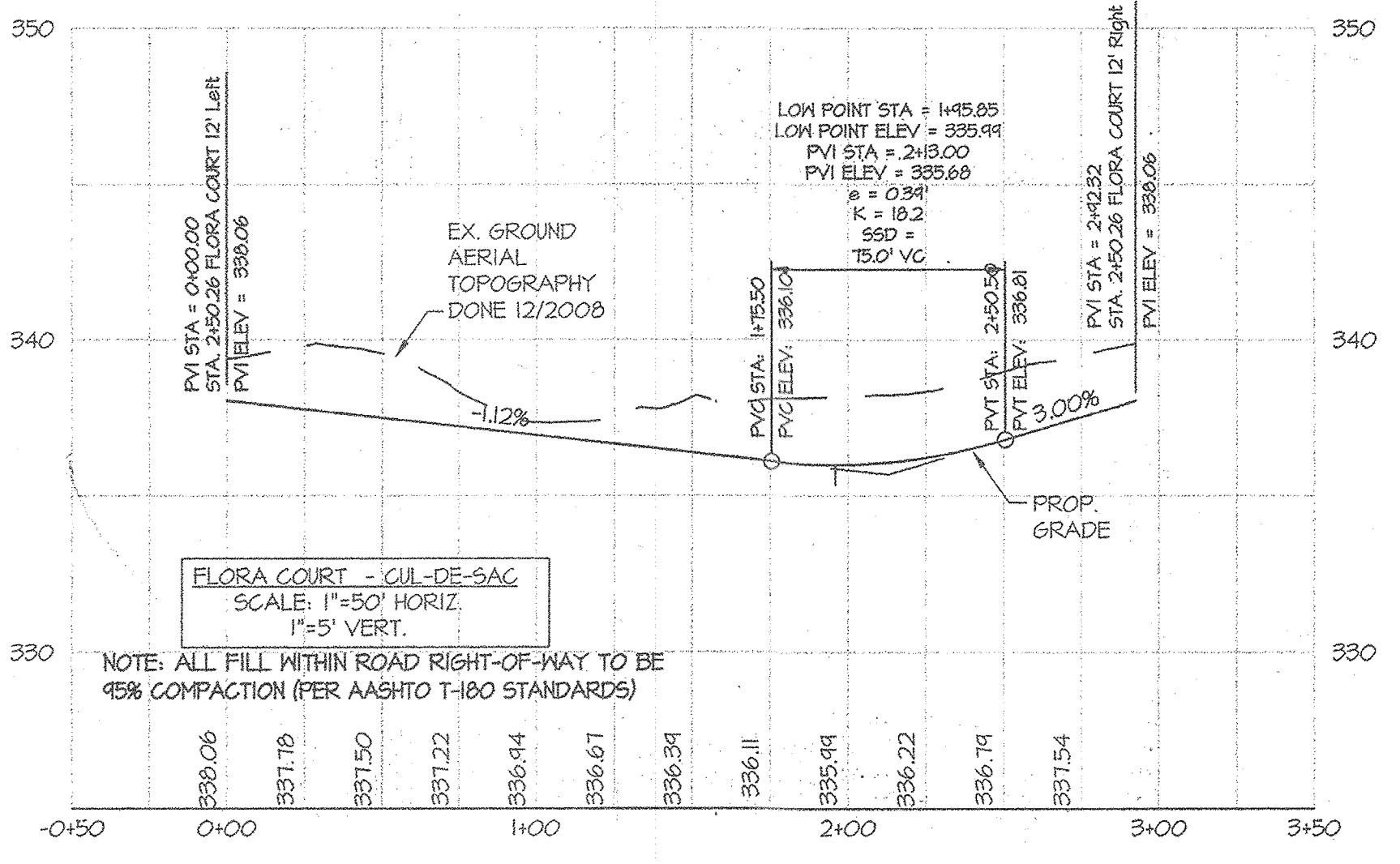
STREET NAME	PG STA	PRG STA	PT STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
PEONY LANE	6+80.42	---	6+04.28	800.00'	248.36'	128.18'	247.51'	S 00°36'59" E	171°47'16"

STREET	STATION	OFFSET	TYPE
PEONY LANE	2+37.60	17.87' RIGHT	100 MATT
PEONY LANE	4+60.46	16.95' LEFT	100 MATT
FLORA CT CUL-DE-SAC	10+06.72	4' LEFT	100 MATT
WINCOPIA FARMS WAY	10+06.72	18.12' RIGHT	100 MATT
HENRY HEARN WAY	7+72.58	17.30' RIGHT	100 MATT

NOTE: ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 4" BLACK FIBERGLASS POLE.



FLORA COURT & PEONY LANE - PLAN
SCALE: 1" = 50'



FLORA COURT & PEONY LANE - PROFILE
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

ASBUILT 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. 12475, Expiration Date: May 28, 2022.
4/27/20
Carl K. Gutschick
Professional Engineer
Maryland Reg. No. 12475

NOTES:
1. ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET 11 FOR PAVEMENT SECTION DETAIL.
2. SEE SHEET 68-69 FOR STREET TREE LOCATIONS
3. TRANSITION TO 1" CURB AND GUTTER AT ALL INLETS PER HOCO STD DETAIL R-3-06
4. SEE TYPICAL SECTIONS, SHEET 17, FOR ALL CURB TYPES
5. ALL DRIVEWAY ENTRANCES ARE PER HOCO STD DETAILS R-6-01 & R-6-03
6. MESH DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:
 TYPE A SIDEWALK RAMP PER HOCO STD DETAIL R-4-01
 TYPE B SIDEWALK RAMP PER HOCO STD DETAIL R-4-02
 DRIVEWAY ENTRANCE PER HOCO STD DETAILS R-6-01 & R-6-03
 STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
 GROUND MOUNTED SIGN
 STREET LIGHT POLE MOUNTED SIGN

SCALE: 1 inch = 50 ft.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

 Chief, Bureau of Highways 12-9-13
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

 Chief, Division of Land Development 12-20-13
 Date

Chief, Development Engineering Division 12-17-13
 Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 301-889-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAPP
 410-381-3222

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. 12475, EXPIRATION DATE: MAY 28, 2022.
 11-18-13

FLORA COURT & PEONY LANE PLAN AND PROFILE
WINGOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

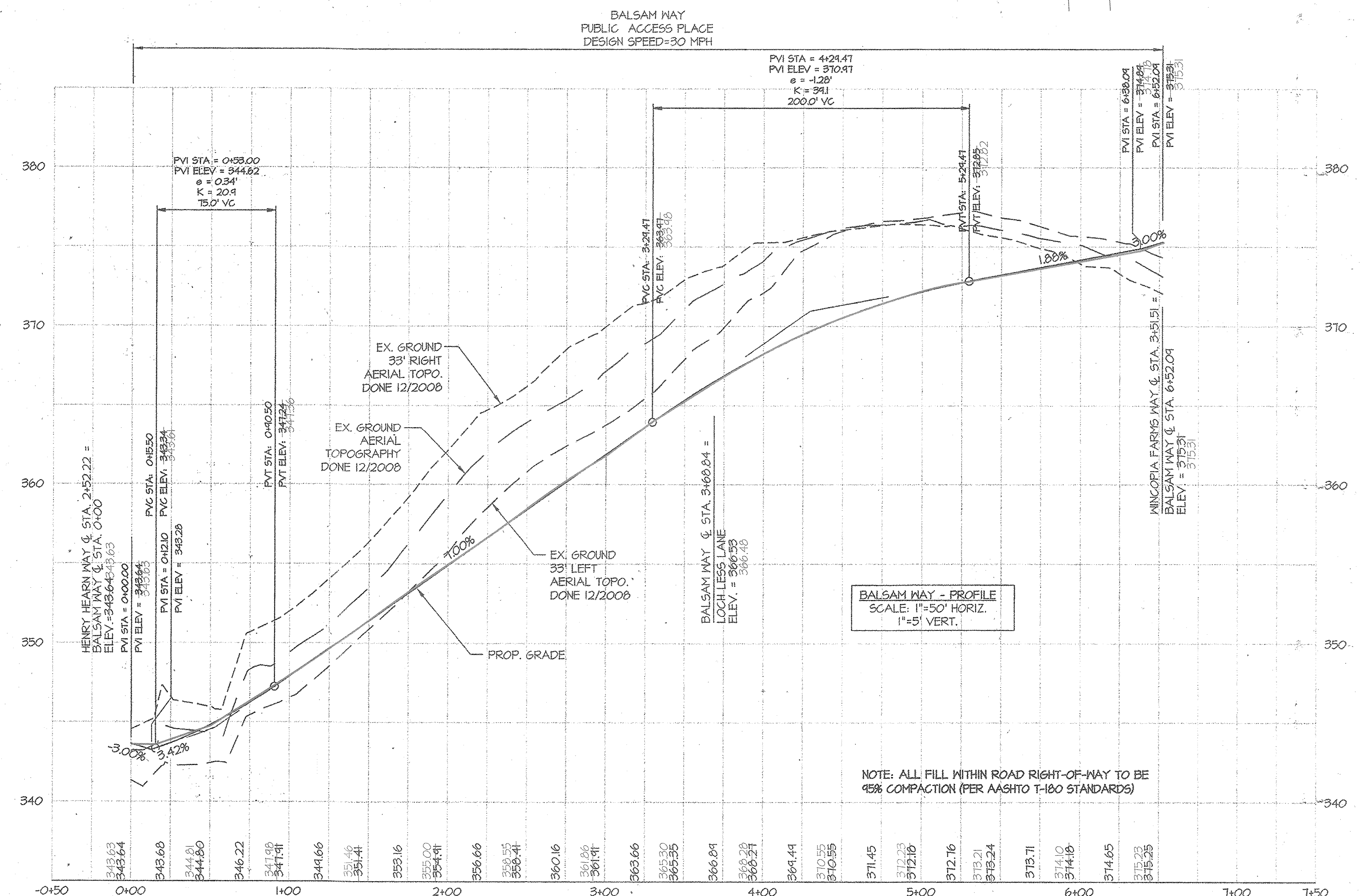
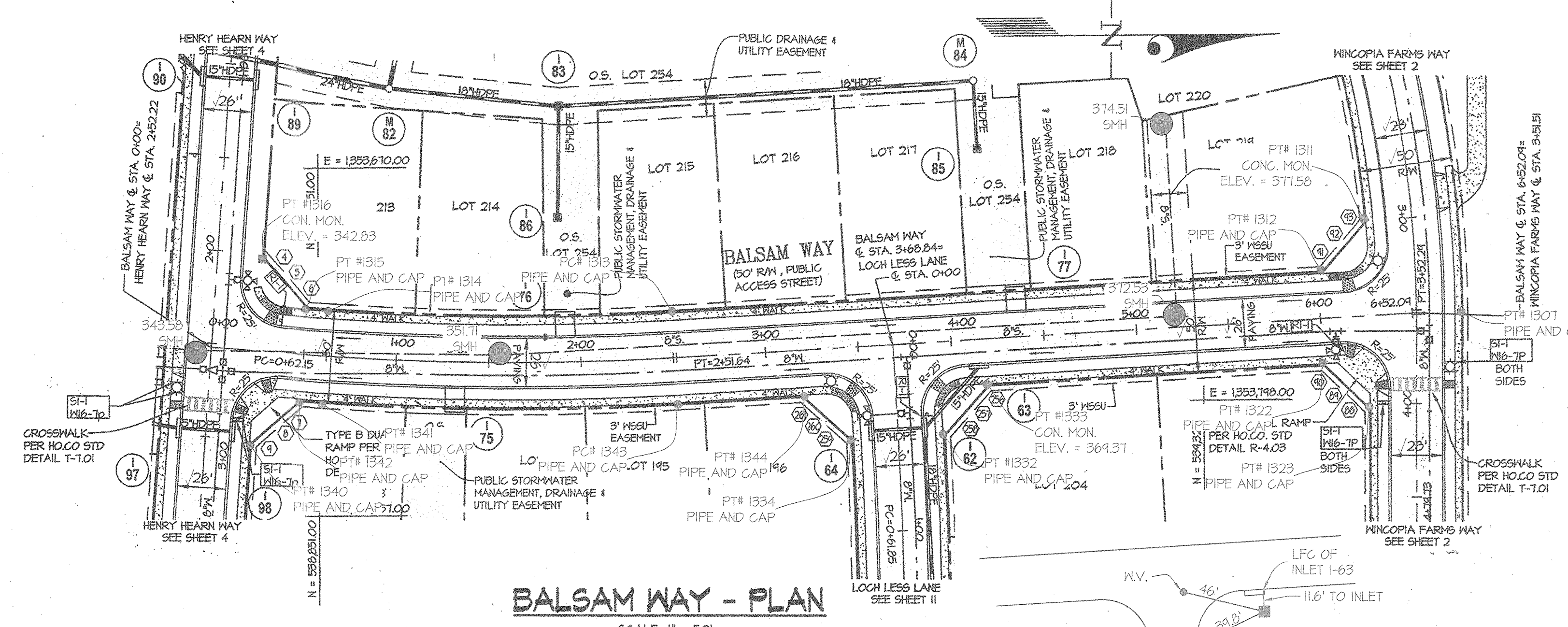
SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV., 2013	47-3	9 OF 71

CL. CURVE DATA CHART - BALSAM WAY									
STREET NAME	PC STA	PT STA	RADIUS	LENGTH	TANGENT CHORD	BEARING	DELTA		
BALSAM WAY	0+62.5	2+51.64	1500.00'	184.44'	184.87'	N 00° 57' 01" E	71° 41' 11"		

CURB FLOW LINE ELEVATION TABLE					
PT. #	ROAD NAME	STATION	OFFSET	ELEV.	ASBUILT ELEV.
(4)	HENRY HEARN WAY	2+14.22	13' L	341.83	341.80
(5)	HENRY HEARN WAY	2+31.90	20.32' L	342.84	343.54
(6)	BALSAM WAY	0+58	13' L	343.84	344.40
(7)	BALSAM WAY	0+58	13' R	343.84	344.48
(8)	HENRY HEARN WAY	2+25.4	20.32' L	343.16	343.95
(9)	HENRY HEARN WAY	2+40.22	13' L	344.61	344.94
(10)	MINCOPIA FARMS WAY	3+40.71	14' R	373.45	373.12
(11)	MINCOPIA FARMS WAY	3+73.56	21.81' R	374.35	374.07
(12)	BALSAM WAY	6+10.95	12' R	373.94	373.98
(13)	BALSAM WAY	6+13.93	12' L	374.05	373.95
(14)	MINCOPIA FARMS WAY	3+32.11	21.71' R	375.16	374.80
(15)	MINCOPIA FARMS WAY	3+13.09	14' R	376.27	376.31
(16)	BALSAM WAY	4+06.84	13' R	368.22	368.24
(17)	BALSAM WAY	3+84.81	26.18' R	366.65	367.37
(18)	LOCH LESS LANE	0+38.00	13' L	366.87	367.03
(19)	LOCH LESS LANE	0+38.00	13' R	366.87	366.62
(20)	BALSAM WAY	3+48.51	20.32' R	365.28	365.25
(21)	BALSAM WAY	3+30.84	13' R	363.68	363.55

STREET LIGHT LOCATIONS			
STREET	STATION	OFFSET	TYPE
BALSAM WAY	3+34.44	17.45' RIGHT	100 MATT
MINCOPIA FARMS WAY	3+22.16	20.03' RIGHT	100 MATT
HENRY HEARN WAY	2+14.87	17.03' RIGHT	100 MATT

NOTE:
ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP
FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE.

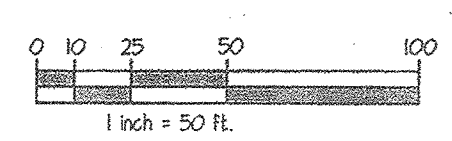


NOTES:

- ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET 11 FOR PAVEMENT SECTION DETAIL.
- SEE SHEET 68-69 FOR STREET TREE LOCATIONS.
- TRANSITION TO 11' CURB AND GUTTER AT ALL INLETS PER HO.CC. STD DETAIL R-3-06.
- SEE TYPICAL SECTIONS, SHEET 11, FOR ALL CURB TYPES.
- ALL DRIVEWAY ENTRANCES ARE PER HO.CC. STD DETAILS R-6-01 & R-6-03.
- MESU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.

LEGEND:

- TYPE A SIDEWALK RAMP PER HO.CC. STD DETAIL R-4-01
- TYPE B SIDEWALK RAMP PER HO.CC. STD DETAIL R-4-02
- DRIVEWAY ENTRANCE PER HO.CC. STD DETAILS R-6-01 & R-6-03
- STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.
- GROUND MOUNTED SIGN: STOP, SPEED LIMIT 25, 30 X 30 (FYG)
- STREET LIGHT POLE MOUNTED SIGN: 30 X 30 (FYG), AHEAD, 24X12 (FYG), 24X12 (FYG)



ASBUILT 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. 12415, Expiration Date: May 26, 2022.

Date: 4/27/20
Signature: [Signature]
Professional Engineer
Maryland Reg. No. 12415

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 12-9-13
Chief, Bureau of Highways

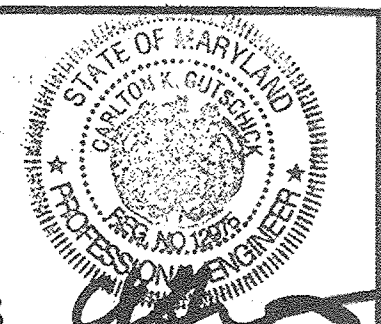
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 12-20-13
Chief, Division of Land Development

[Signature] 12-17-13
Chief, Development Engineering Division

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3509 NATIONAL DRIVE - SUITE 230 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20868
TEL: 301-421-4024 FAX: 301-421-4188

PREPARED FOR:
BEAZER HOMES CORP.
8965 GULFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12415, EXPIRATION DATE: MAY 26, 2022.



ASBUILTS
BALSAM WAY PLAN AND PROFILE

WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
OPEN SPACE LOTS 221 THROUGH 257
L. 11388 F. 725
PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV. 2013	47-3	10 OF 71

C:\CADD\DRAWINGS\08052\FINALS\08052-Road.dwg DES. dds DRN. dds CHK. DATE REVISION BY APPR.

STREET LIGHT LOCATIONS			
STREET	STATION	OFFSET	TYPE
LOCH LESS LANE	2154.07	17.55' RIGHT	100 WATT
BALSAM WAY	3134.41	17.45' RIGHT	100 WATT
PEONY LANE	2137.60	17.87' RIGHT	100 WATT
HENRY HEARN WAY	5140.48	14.44' LEFT	100 WATT

G.L. CURVE DATA CHART - LOCH LESS LANE									
STREET NAME	PC STA	PT STA	PI STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
LOCH LESS LANE	0+61.28	---	8+56.38	1800.00'	244.82'	147.14'	234.05'	N 81°22'30" W	11°18'00"

CURB FLOW LINE ELEVATION TABLE				
PT. #	ROAD NAME	STATION	OFFSET	ELEV.
233	PEONY LANE	3+08.00	13' R	354.56
234	PEONY LANE	2+40.32	20.32' R	355.46
240	LOCH LESS LANE	5+24.62	13' L	351.35
241	LOCH LESS LANE	5+24.62	13' L	351.35
242	PEONY LANE	2+53.84	25.15' R	351.15
243	PEONY LANE	2+32.00	13' R	354.04
248	BALSAM WAY	4+06.84	13' R	366.22
249	BALSAM WAY	3+84.81	20.32' R	365.28
250	BALSAM WAY	3+30.84	13' R	363.68
251	SIENNA WAY	3+44.14	13' L	364.74
252	LOCH LESS LANE	2+44.67	13' R	367.54
253	LOCH LESS LANE	3+21.68	13' R	364.68
254	LOCH LESS LANE	3+04.31	20.67' R	365.37
255	SIENNA WAY	3+41.25	13' R	364.71

NOTES:
 ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET IT-1 FOR PAVEMENT SECTION DETAIL.
 ALL CURB AND GUTTER AT ALL INTERSECTIONS PER H.O.C.O. STD DETAIL R-3-06.
 ALL DRIVEWAY ENTRANCES ARE PER H.O.C.O. STD DETAILS R-6-01 & R-6-03.
 HENRY HEARN WAY DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER METER CONNECTION & UTILITY EASEMENT.

TYPE A SIDEWALK RAMP PER H.O.C.O. STD DETAIL R-4-01

TYPE B SIDEWALK RAMP PER H.O.C.O. STD DETAIL R-4-02

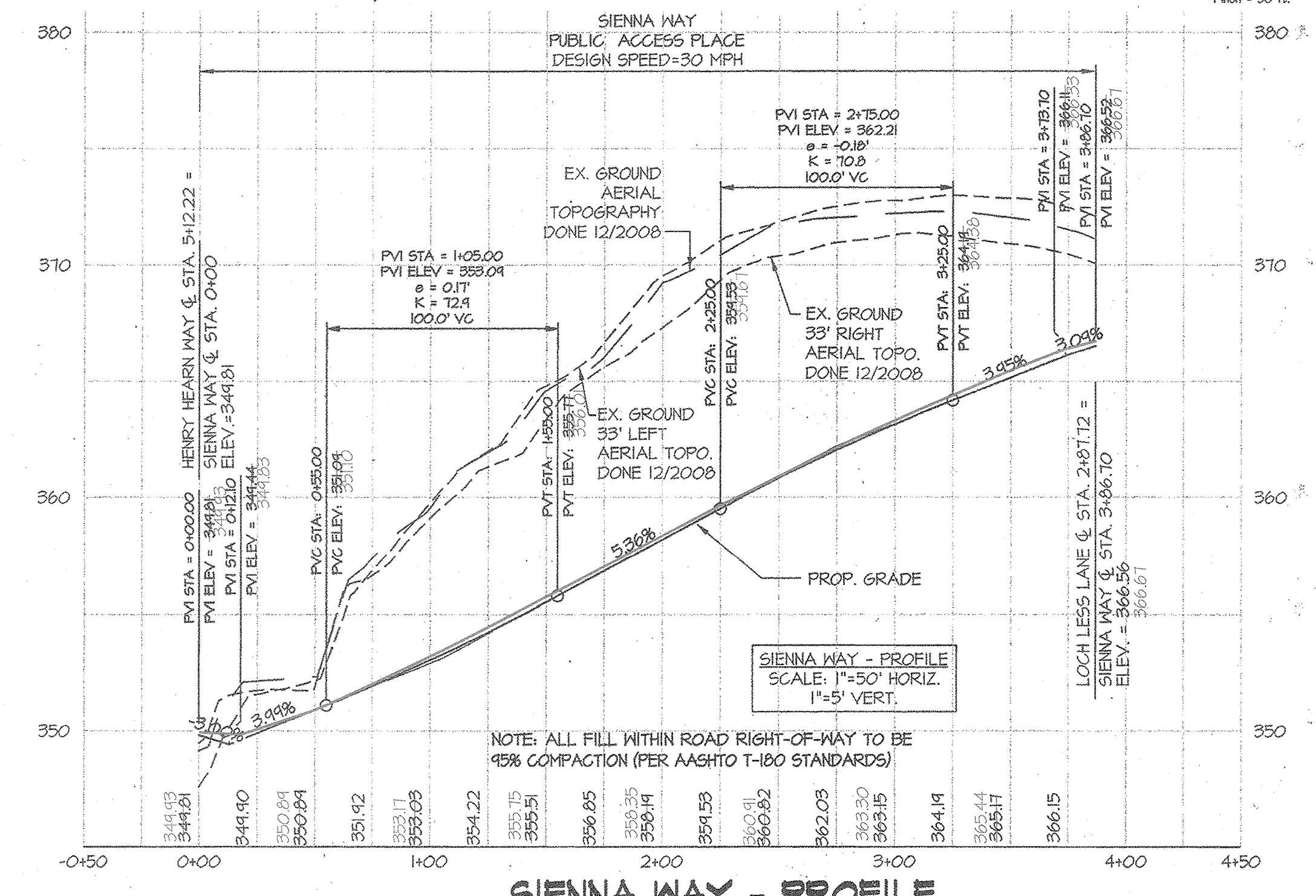
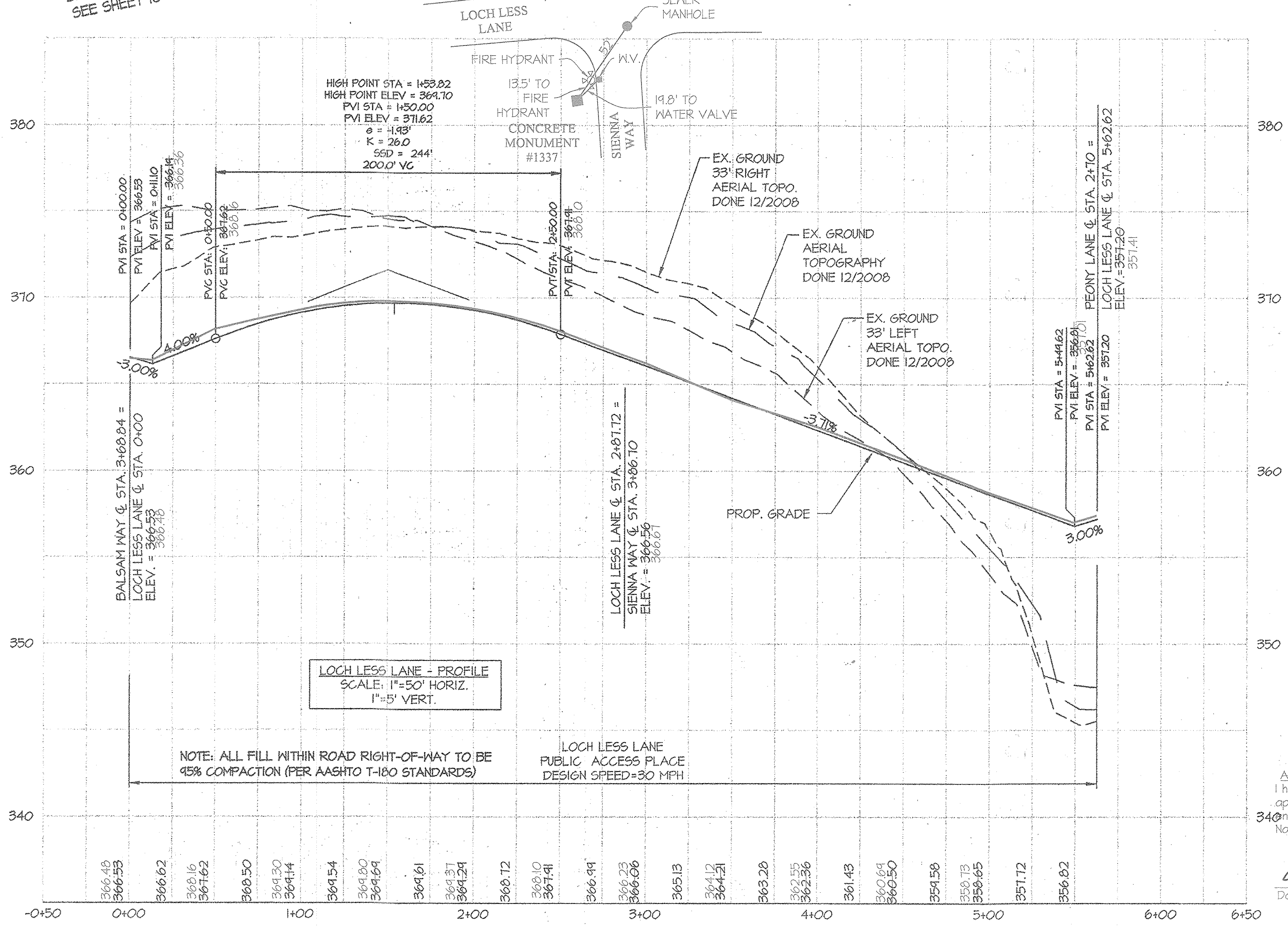
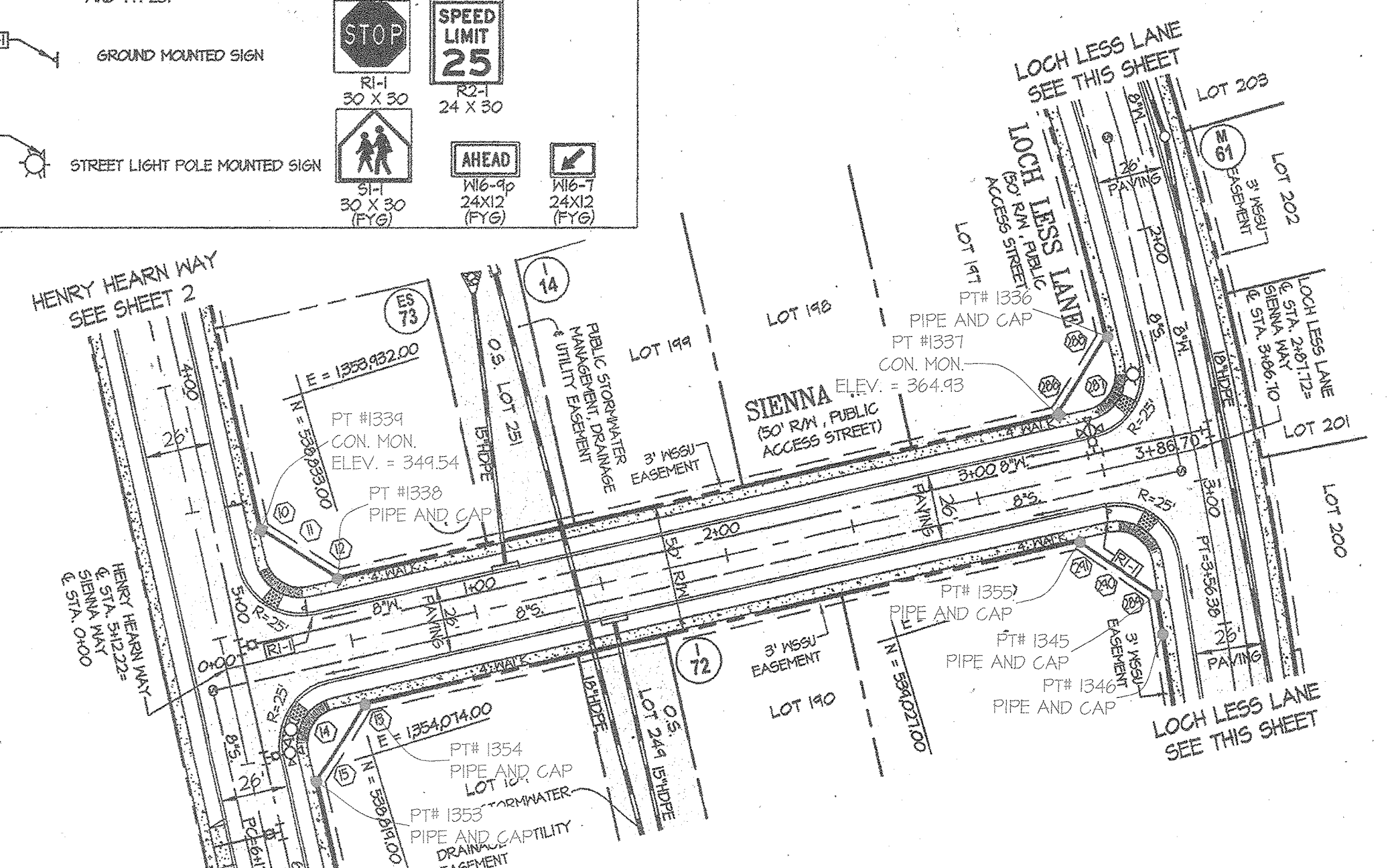
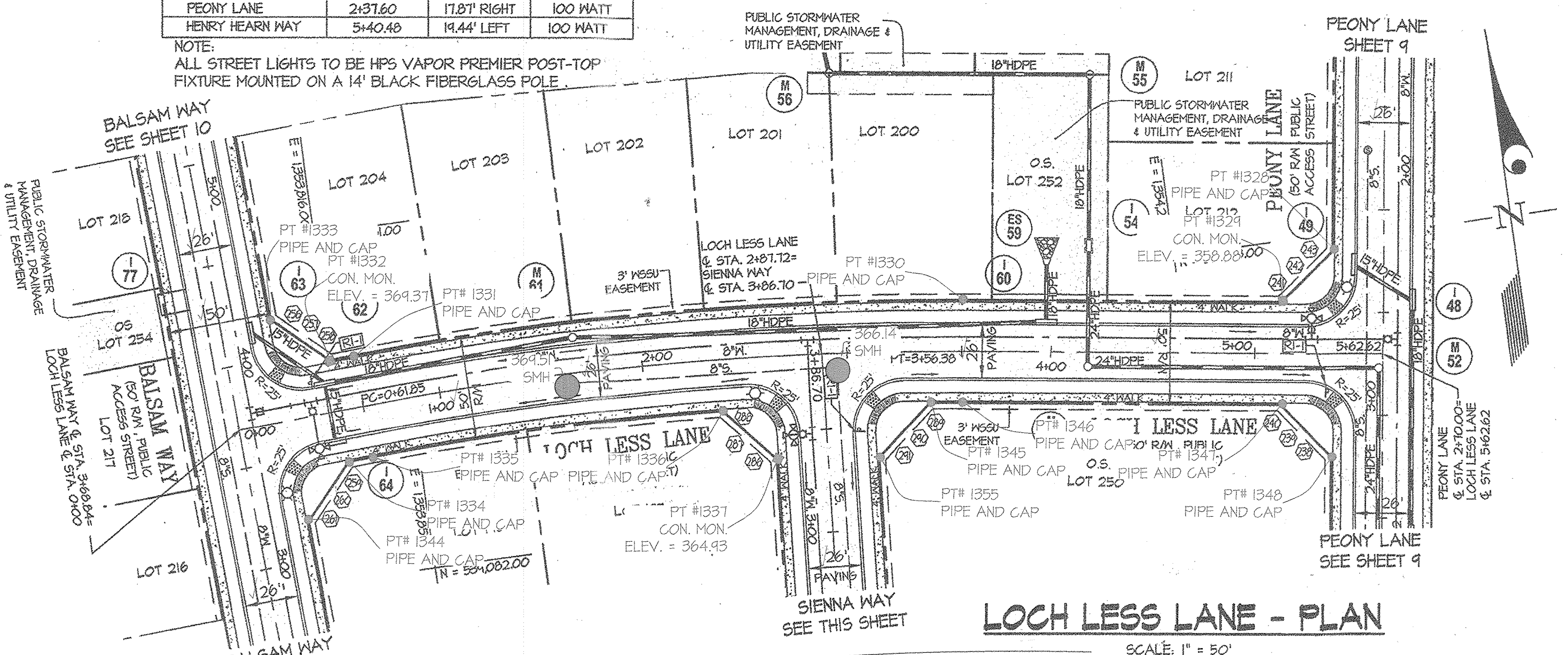
DRIVEWAY ENTRANCE PER H.O.C.O. STD DETAILS R-6-01 & R-6-03

STREET LIGHT. SEE TABLE THIS SHEET FOR LOCATIONS AND TYPES.

GROUND MOUNTED SIGN

STREET LIGHT POLE MOUNTED SIGN

CURB FLOW LINE ELEVATION TABLE				
PT. #	ROAD NAME	STATION	OFFSET	ELEV.
10	HENRY HEARN WAY	4+74.22	13' L	344.02
11	HENRY HEARN WAY	4+41.40	20.32' L	344.42
12	SIENNA WAY	0+38	13' L	350.02
13	SIENNA WAY	0+38	13' R	350.02
14	HENRY HEARN WAY	5+32.54	20.32' L	344.61
15	HENRY HEARN WAY	5+50.22	13' L	344.32
16	SIENNA WAY	3+44.14	13' L	364.74
17	LOCH LESS LANE	2+61.60	20.23' R	366.21
18	LOCH LESS LANE	2+44.67	13' R	367.54
19	LOCH LESS LANE	3+21.68	13' R	364.68
20	LOCH LESS LANE	3+04.31	20.67' R	365.23
21	SIENNA WAY	3+41.25	13' R	364.71



ASBUILT 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. 12915, Expiration Date: May 26, 2022.

4/27/20
 Date
 Carl K. Witschick
 Professional Engineer
 Maryland Reg. No. 12915

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12-20-12
 Chief, Division of Land Development

[Signature] 12-17-13
 Chief, Development Engineering Division

LOCH LESS LANE - PROFILE
 SCALE: (H) 1" = 50'
 (V) 1" = 50'

SIENNA WAY - PROFILE
 SCALE: (H) 1" = 50'
 (V) 1" = 50'

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3609 NATIONAL DRIVE - SUITE 230 - BURTONVILLE OFFICE PARK
 BURTONVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-589-2524 FAX: 301-421-4186

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFROAD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

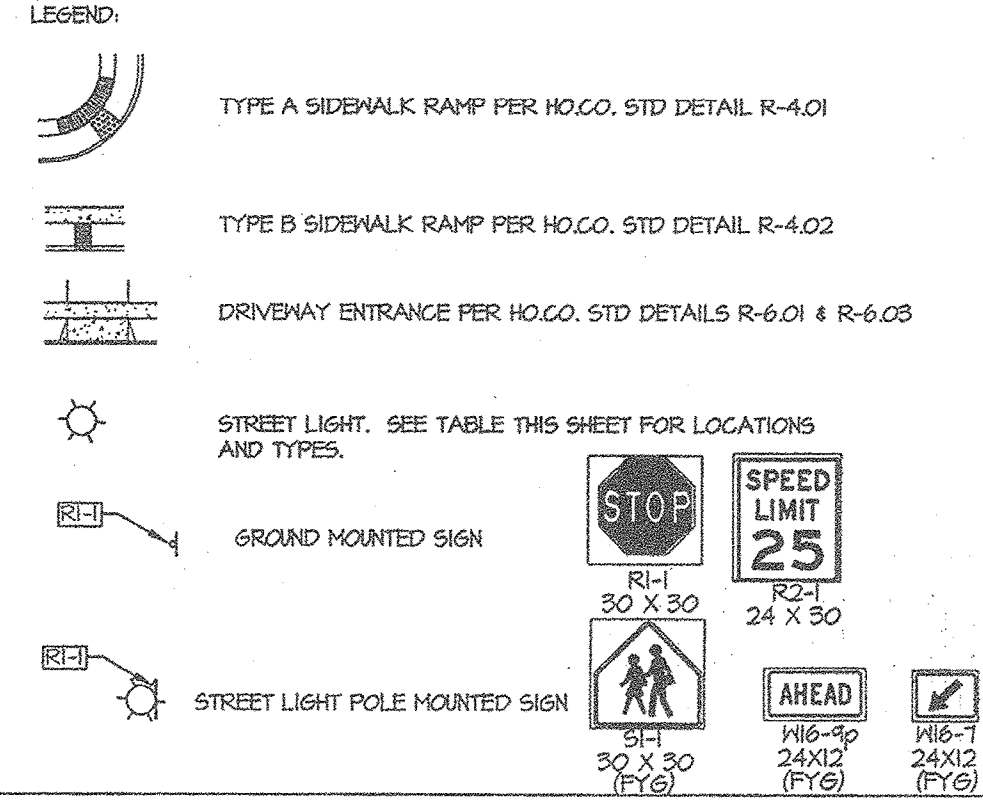
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12915, EXPIRATION DATE: MAY 26, 2021.



ASBUILTS
 LOCH LESS LANE AND SIENNA WAY. PLAN AND PROFILE
 WINGCOPIA FARMS
 LOTS 1-201, 208, 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 11388 R. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	11 OF 71

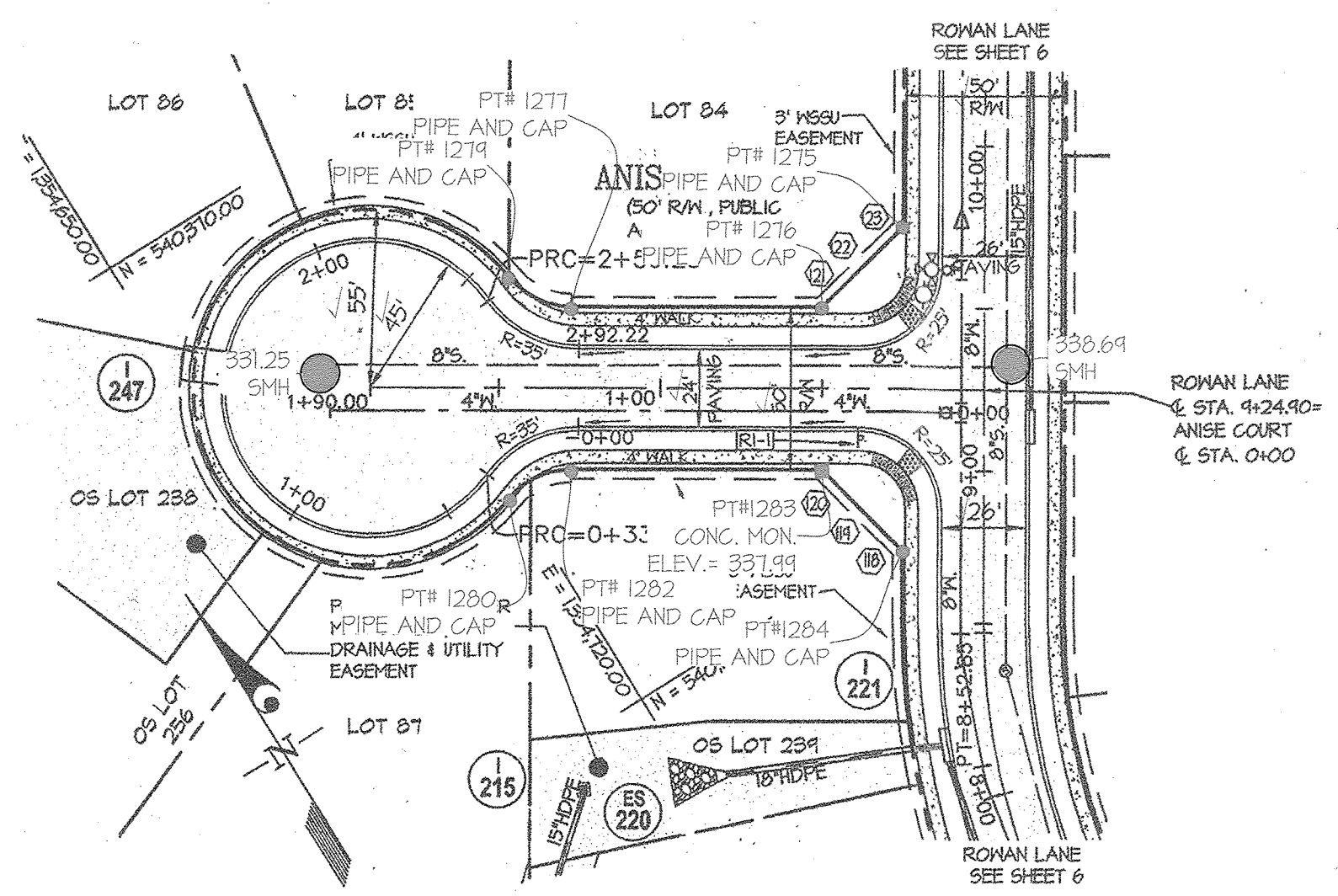
NOTES:
 1. ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET 17 FOR PAVEMENT SECTION DETAIL.
 2. SEE SHEET 68-65 FOR STREET TREE LOCATIONS.
 3. TRANSITION TO 7" CURB AND GUTTER AT ALL INLETS PER HO.CCO STD DETAIL R-3.06
 4. SEE TYPICAL SECTIONS, SHEET 11, FOR ALL CURB TYPES.
 5. ALL DRIVEWAY ENTRANCES ARE PER HO.CCO STD DETAILS R-6.01 & R-6.03
 6. PWSU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.



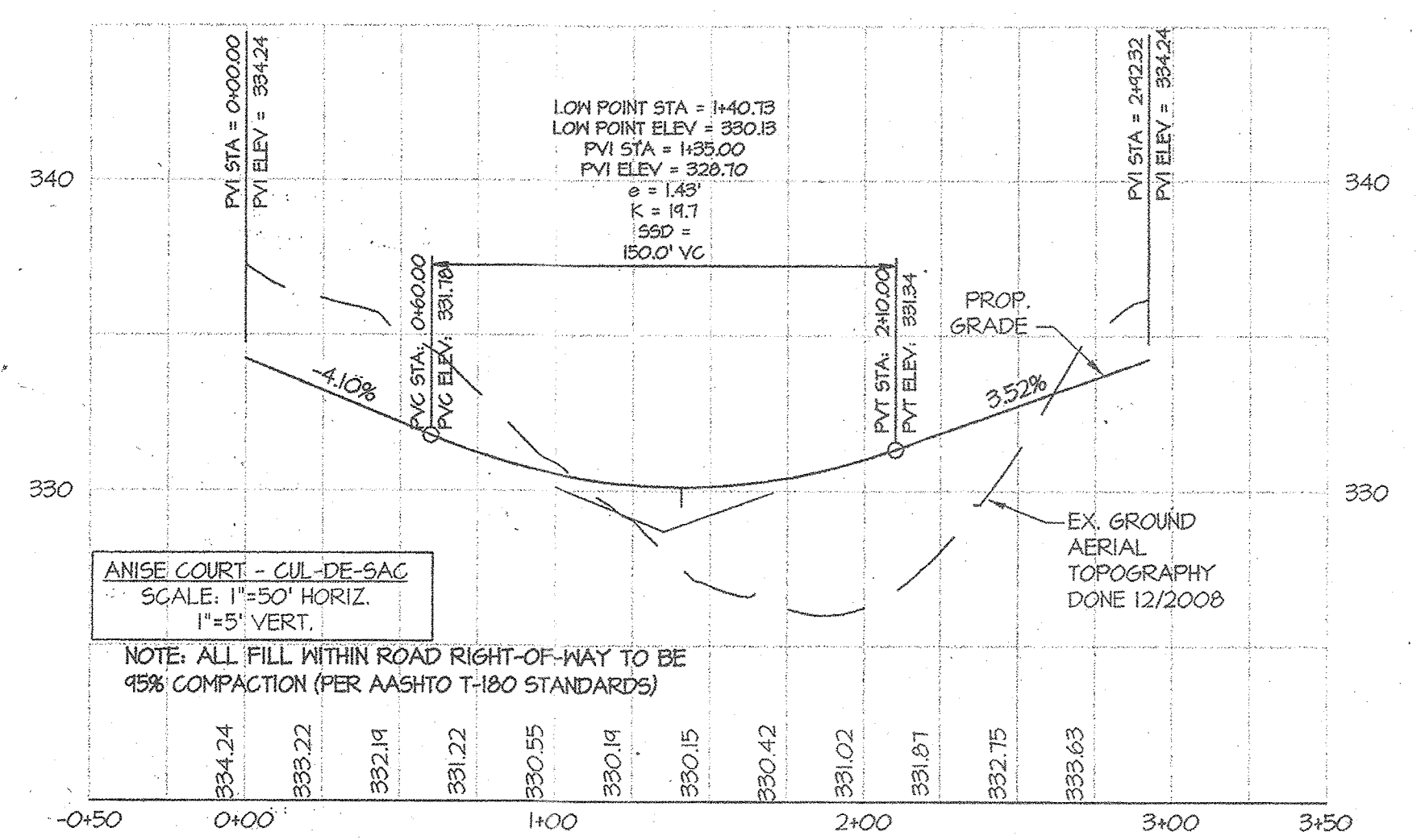
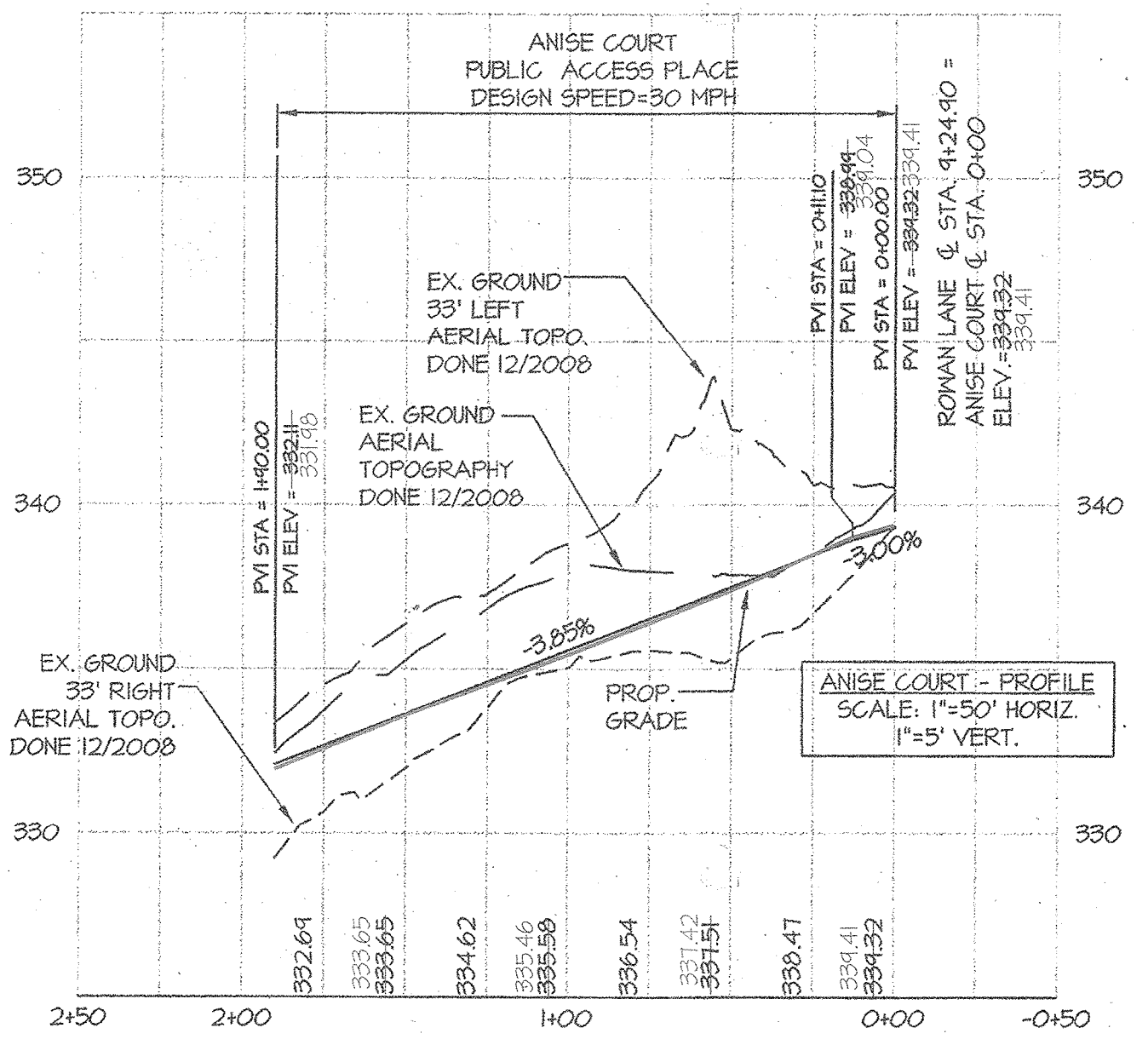
STREET LIGHT LOCATIONS			
STREET	STATION	OFFSET	TYPE
ROMAN LANE	9+54.02	10.61' LEFT	100 WATT

NOTE:
 ALL STREET LIGHTS TO BE HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE.

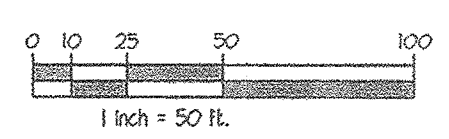
CURB FLOW LINE ELEVATION TABLE					
PT. #	ROAD NAME	STATION	OFFSET	ELEV.	ASBUILTS
(18)	ROMAN LANE	0+87.90	13' L	340.41	340.34
(19)	ROMAN LANE	4+05.57	20.32' L	339.00	338.91
(20)	ANISE COURT	0+30.00	12' L	331.60	331.60
(21)	ANISE COURT	0+30.00	12' L	331.60	331.50
(22)	ROMAN LANE	9+44.22	20.32' L	338.11	337.94
(23)	ROMAN LANE	9+61.90	13' L	337.10	337.00



ANISE COURT - PLAN
 SCALE: 1" = 50'



ANISE COURT - PROFILE
 SCALE: (H) 1" = 50'
 (V) 1" = 5'



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. J. M. Smith 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Keith Shulbrook 12-10-13
 Chief, Division of Land Development Date

Paul Anderson 12-17-13
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3609 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-6188

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975
 EXPIRATION DATE: MAY 26, 2014
 11-16-13

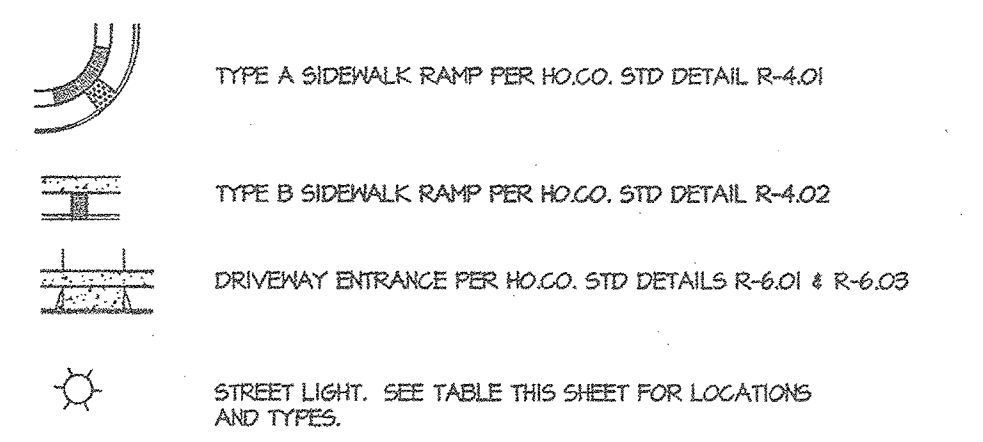


ASBUILTS
 ANISE COURT PLAN AND PROFILE
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 P. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	12 OF 71

ASBUILT 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. 12975, Expiration Date: May 26, 2022.
 4/27/20
 Date
Carl K. Gutschick
 Professional Engineer
 Maryland Reg. No. 12975

NOTES:
 1. ALL PROPOSED PAVEMENT IS TO BE HOWARD COUNTY P-3 PAVEMENT. SEE SHEET IT FOR PAVEMENT SECTION DETAIL.
 2. SEE SHEET 68-45 FOR STREET TREE LOCATIONS
 3. TRANSITION TO 7" CURB AND GUTTER AT ALL INLETS PER H.O.G.O. STD DETAIL R-3.06
 4. SEE TYPICAL SECTIONS, SHEET IT, FOR ALL CURB TYPES.
 5. ALL DRIVEWAY ENTRANCES ARE PER H.O.G.O. STD DETAILS R-6.01 & R-6.03
 6. H.S.G.U. DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION & UTILITY EASEMENT.
 7. SEE SHEET IS FOR GORMAN ROAD SIGNING AND STRIPING

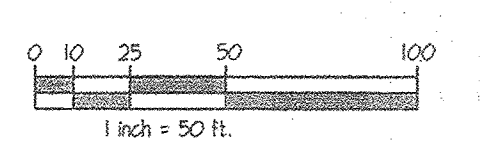
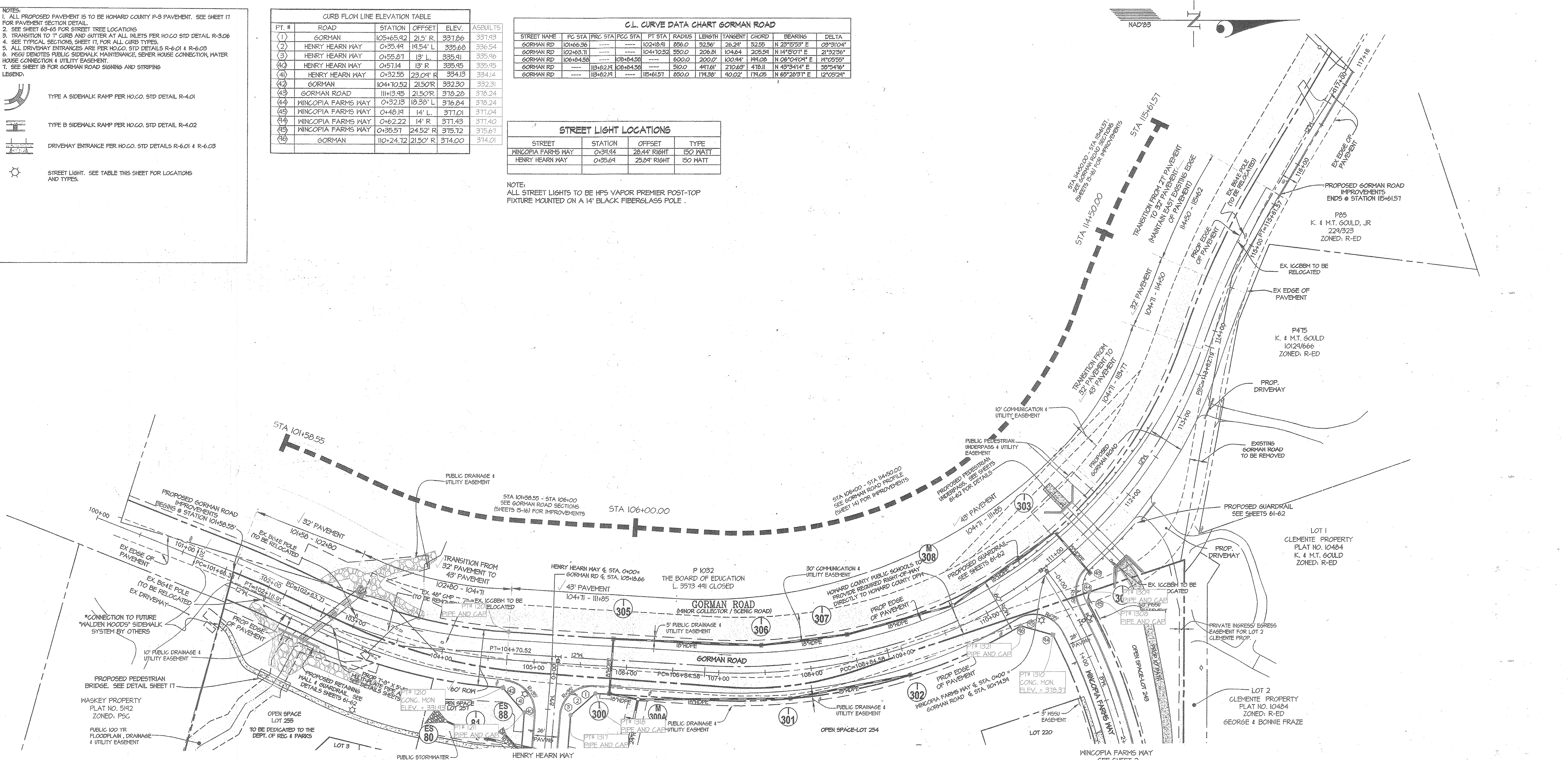


PT. #	ROAD	STATION	OFFSET	ELEV.	ASBUILTS
(1)	GORMAN	105+65.92	21.5' R	331.86	331.43
(2)	HENRY HEARN WAY	0+35.44	19.54' L	335.68	336.54
(3)	HENRY HEARN WAY	0+35.81	13' L	335.91	335.96
(4)	HENRY HEARN WAY	0+37.14	13' R	335.95	335.95
(4)	HENRY HEARN WAY	0+32.55	23.01' R	334.13	334.14
(4)	GORMAN	104+10.52	21.50' R	332.30	332.31
(4)	GORMAN ROAD	111+13.45	21.50' R	318.28	318.24
(4)	WINCOPIA FARMS WAY	0+32.13	18.38' L	316.84	316.24
(4)	WINCOPIA FARMS WAY	0+48.14	14' L	311.01	311.04
(4)	WINCOPIA FARMS WAY	0+62.22	14' R	311.43	311.40
(4)	WINCOPIA FARMS WAY	0+35.57	24.52' R	315.12	315.61
(4)	GORMAN	110+24.72	21.50' R	314.00	314.01

C.L. CURVE DATA CHART GORMAN ROAD											
STREET NAME	PC STA	PRC STA	PCC STA	PT STA	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA	
GORMAN RD	101+66.36			102+18.91	850.0	52.56'	26.24'	52.56	N 23°15'53" E	09°31'04"	
GORMAN RD	102+68.71			104+10.52	550.0	206.81	104.64'	206.54	N 14°15'01" E	21°32'36"	
GORMAN RD	106+84.58			108+84.58	600.0	200.0'	100.44'	144.08	N 08°10'40" E	14°10'55"	
GORMAN RD		118+82.14	128+84.58		510.0	411.67'	210.63'	418.11	N 43°34'14" E	56°54'16"	
GORMAN RD		118+82.14		118+61.57	850.0	174.38'	40.02'	174.05	N 69°28'51" E	12°05'24"	

STREET LIGHT LOCATIONS				
STREET	STATION	OFFSET	TYPE	
WINCOPIA FARMS WAY	0+34.84	28.44' RIGHT	150 WATT	
HENRY HEARN WAY	0+35.64	25.84' RIGHT	150 WATT	

NOTE:
 ALL STREET LIGHTS TO BE HP5 VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14" BLACK FIBERGLASS POLE.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Wesley A. ... 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
West ... 12-20-13
 Chief, Division of Land Development Date

Chris ... 12-17-13
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3509 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975, EXPIRATION DATE: MAY 26, 2014.

11-16-13 *Chris ...*

ASBUILTS
 GORMAN ROAD PLAN

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472

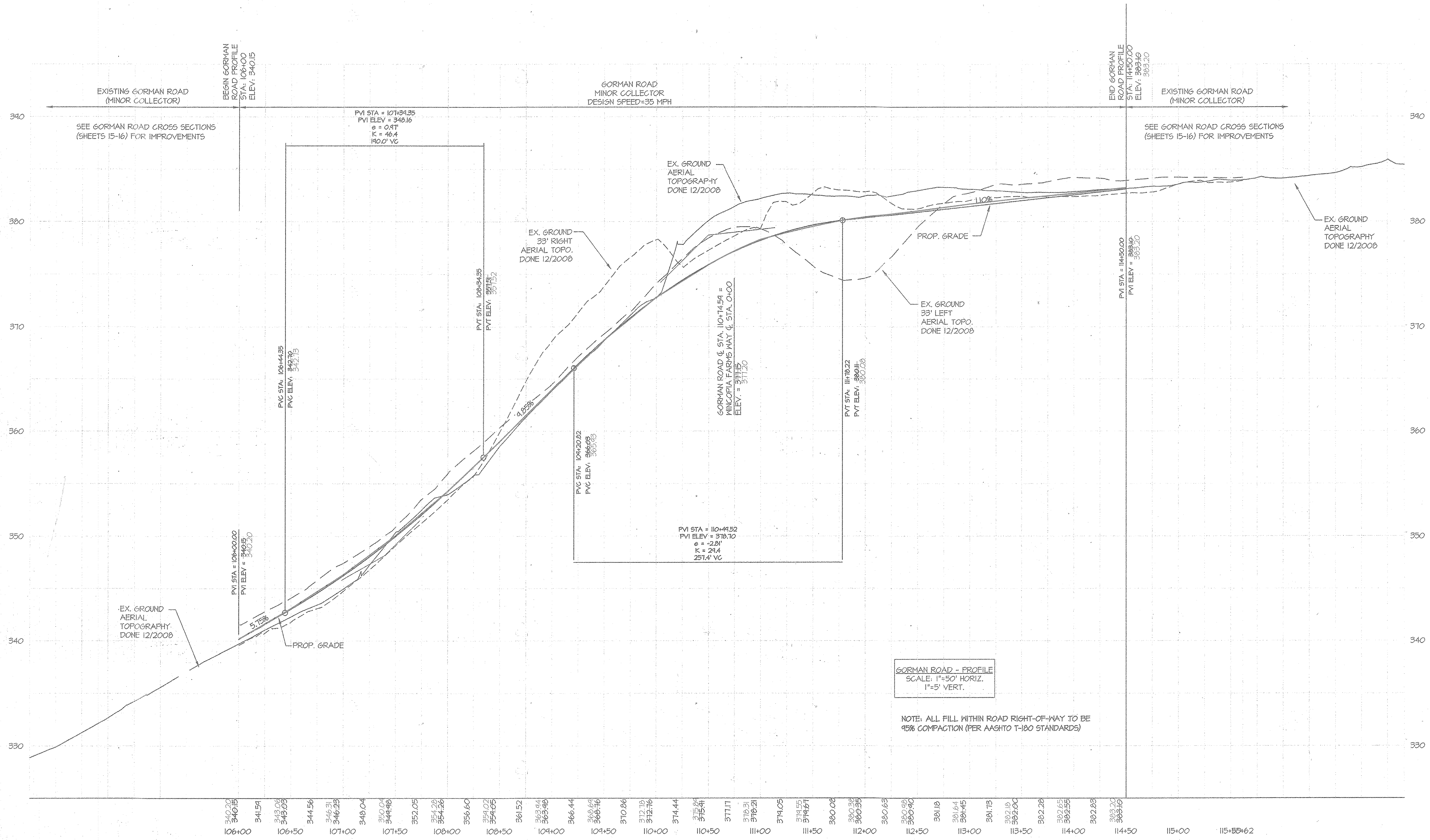
ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
1" = 50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	13 OF 71

ASBUILT CERTIFICATION
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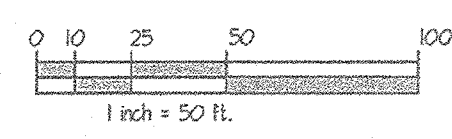
4/27/20
 Date *Chris ...*
 Professional Engineer
 Maryland Reg. No. 12975

L:\CADD\DRAWINGS\08052\FINALS\08052-GORMAN ROAD.dwg DES. dds DRN. dds CHK. DATE REVISION BY APPR. © GLW 2013



GORMAN ROAD - PROFILE
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

NOTE: ALL FILL WITHIN ROAD RIGHT-OF-WAY TO BE 95% COMPACTION (PER AASHTO T-100 STANDARDS)



ASBUILT 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. 12475, Expiration Date: May 26, 2022.

4/27/20
Date
Carl K. Gutschick
Carl K. Gutschick
Professional Engineer
Maryland Reg. No. 12475

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William R. Smith 12-5-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Victor B. ... 12-20-13
Chief, Division of Land Development Date

Chad ... 12-17-13
Chief, Development Engineering Division Date

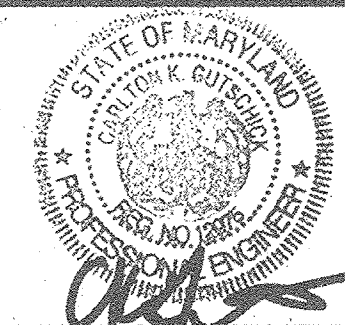
GORMAN ROAD - PROFILE
SCALE: 1" = 50' (H)
1" = 5' (V)

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTENVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12475, EXPIRATION DATE: MAY 26, 2024
11-18-13



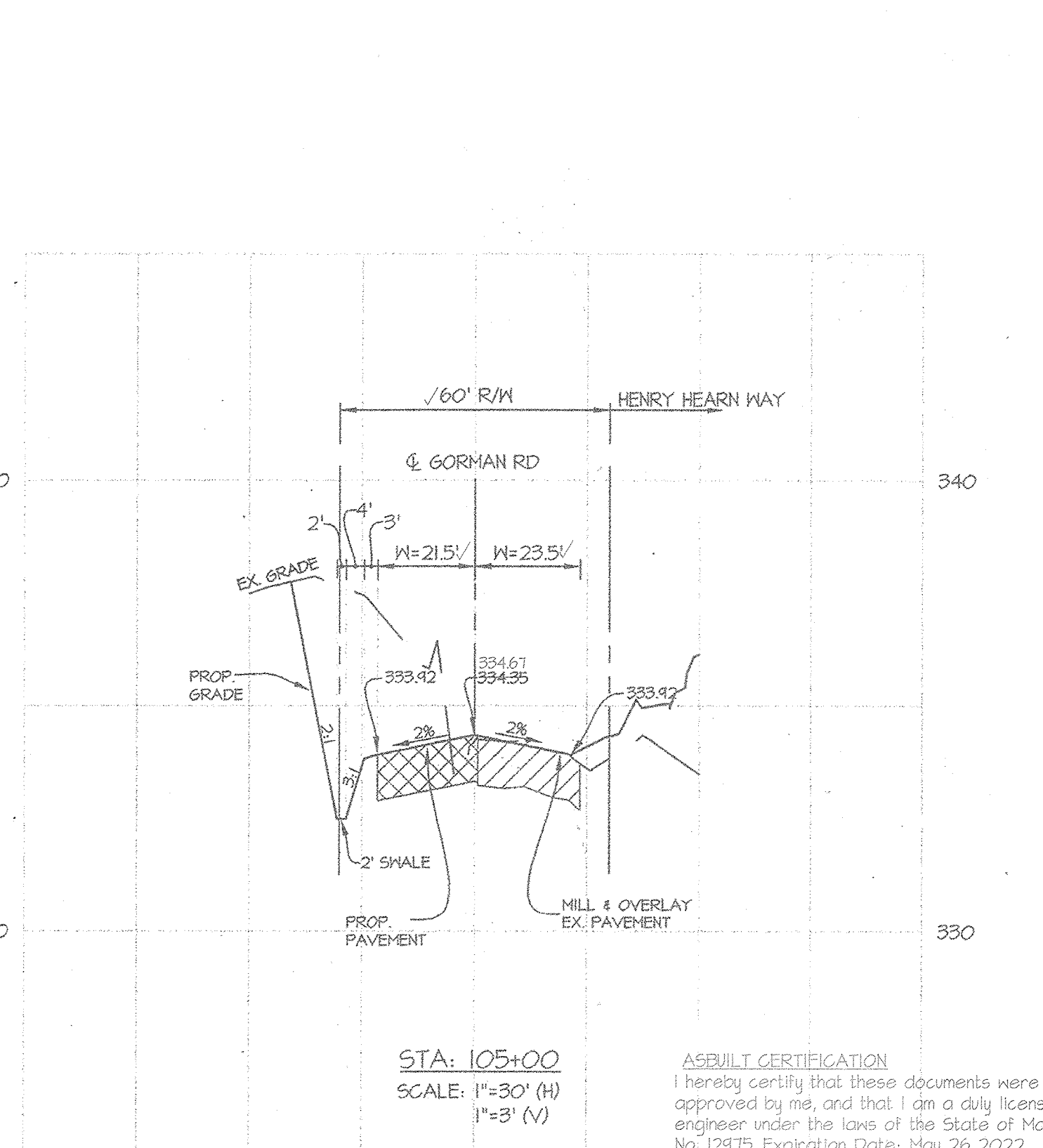
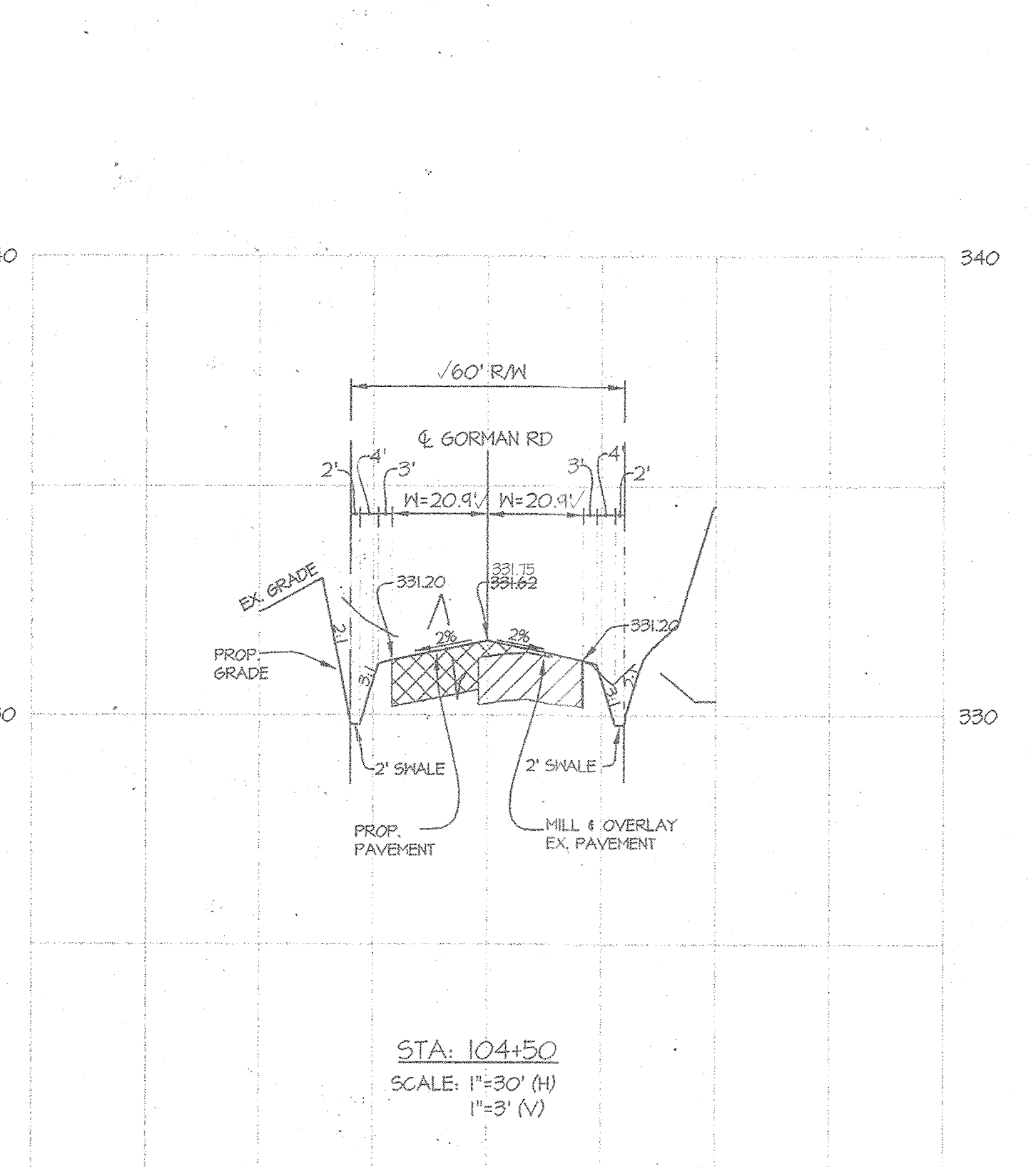
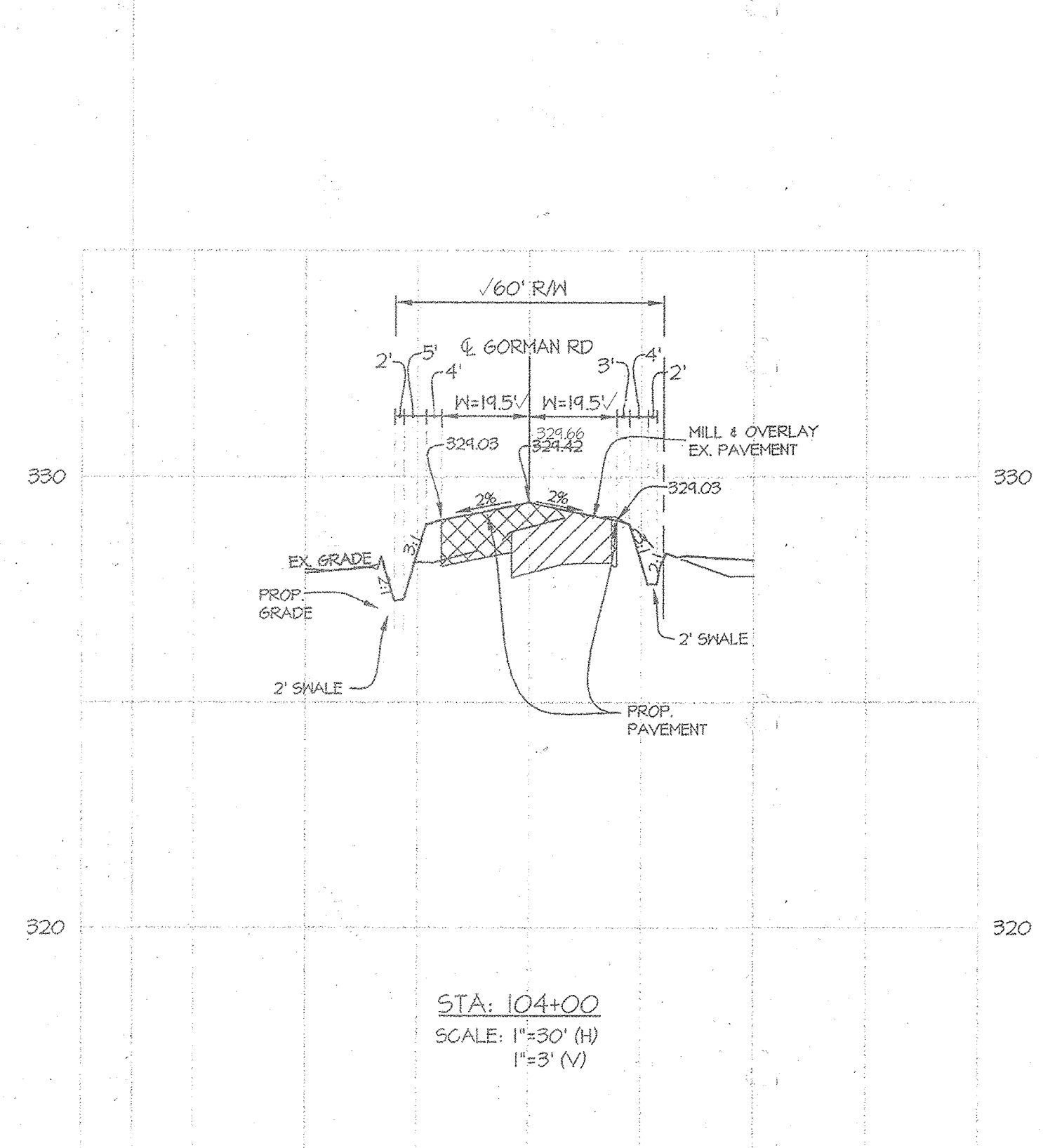
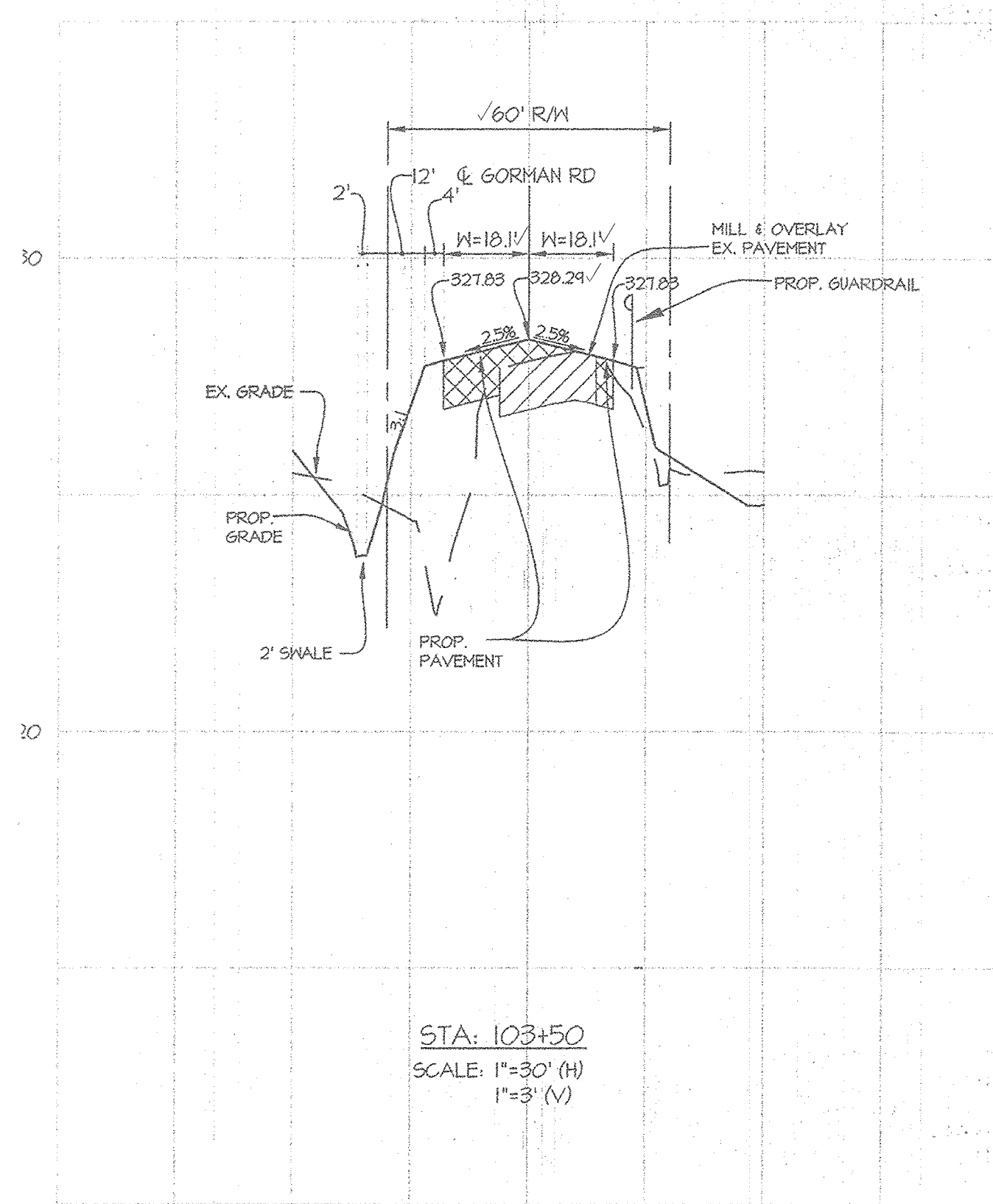
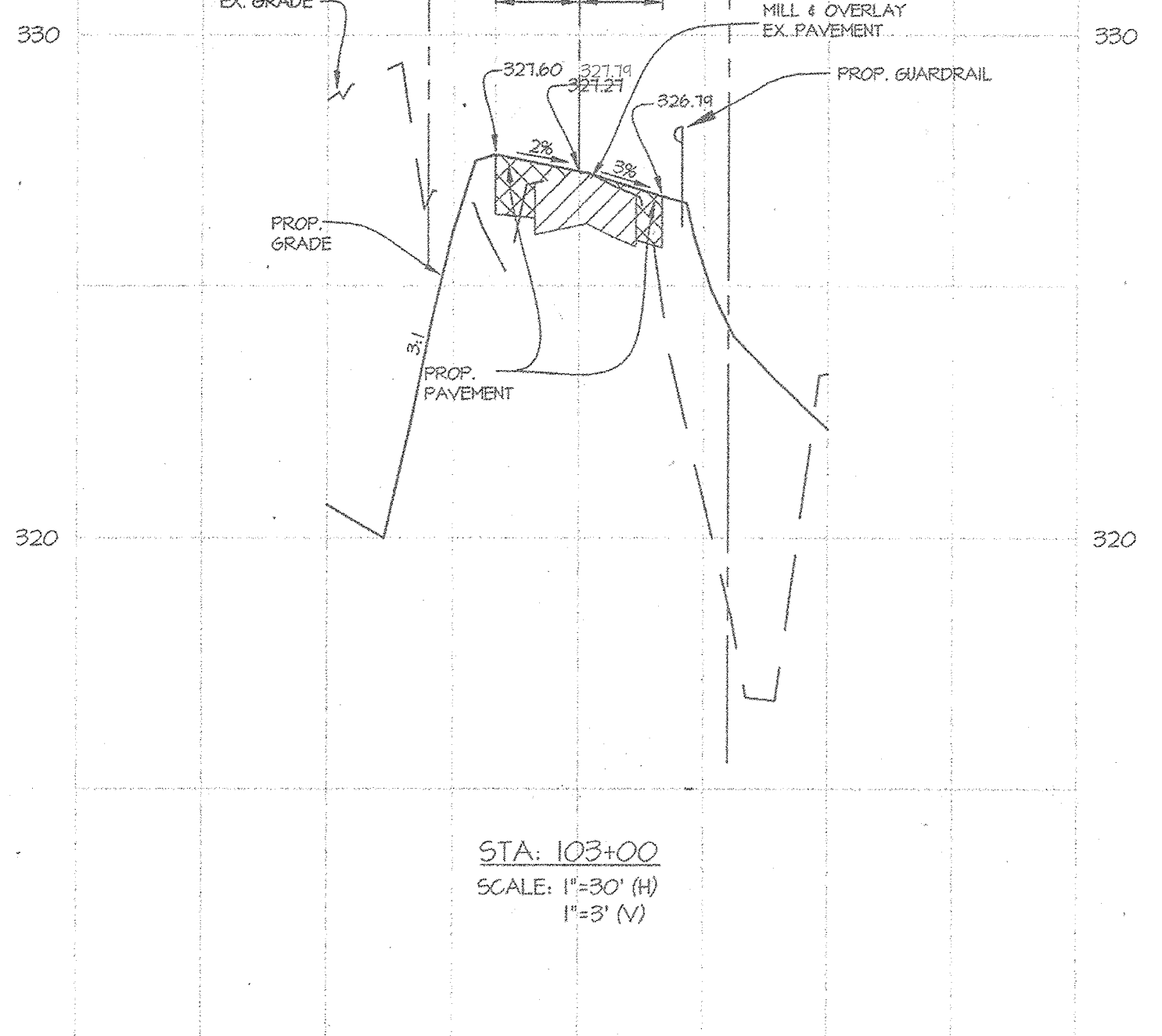
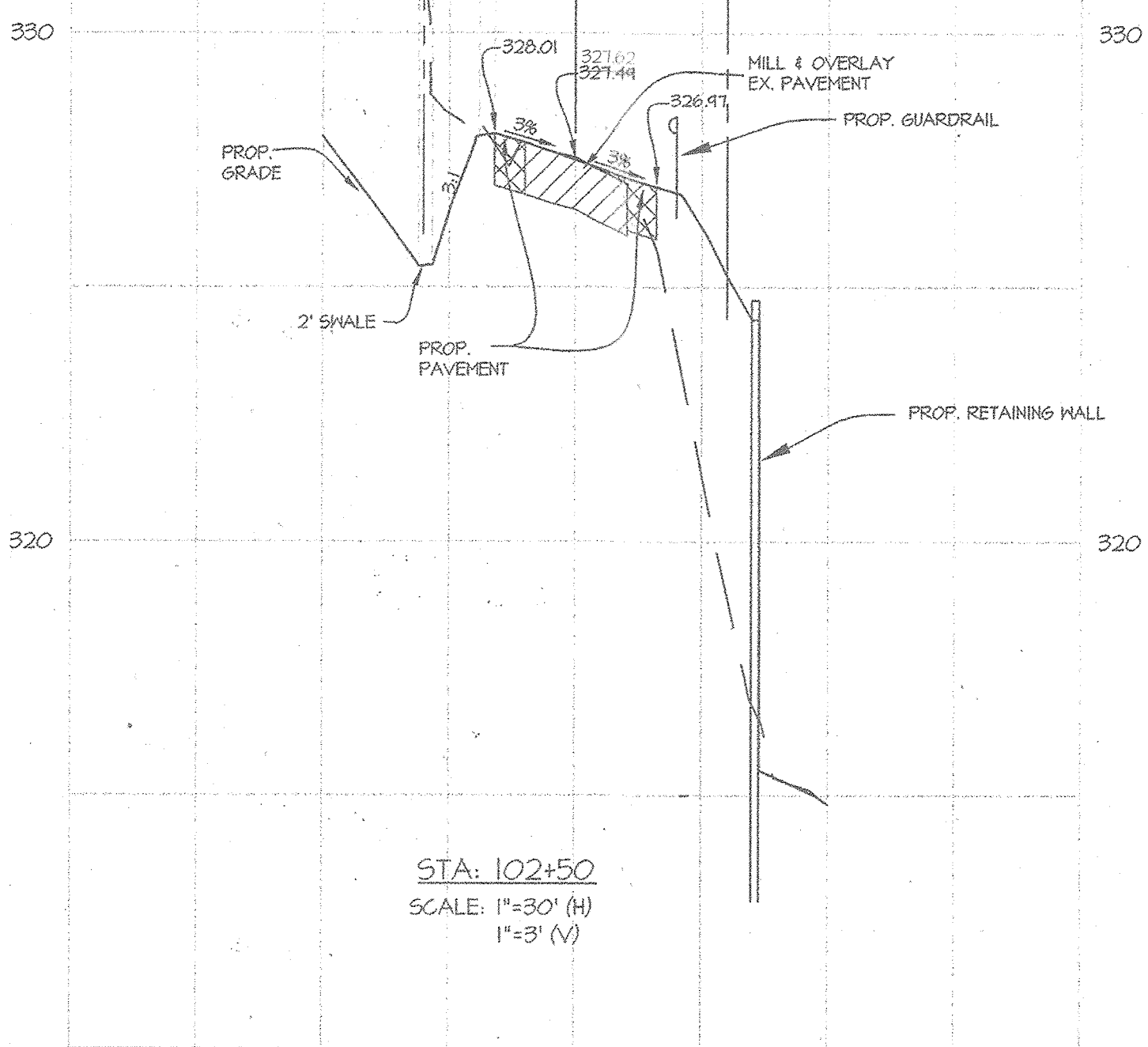
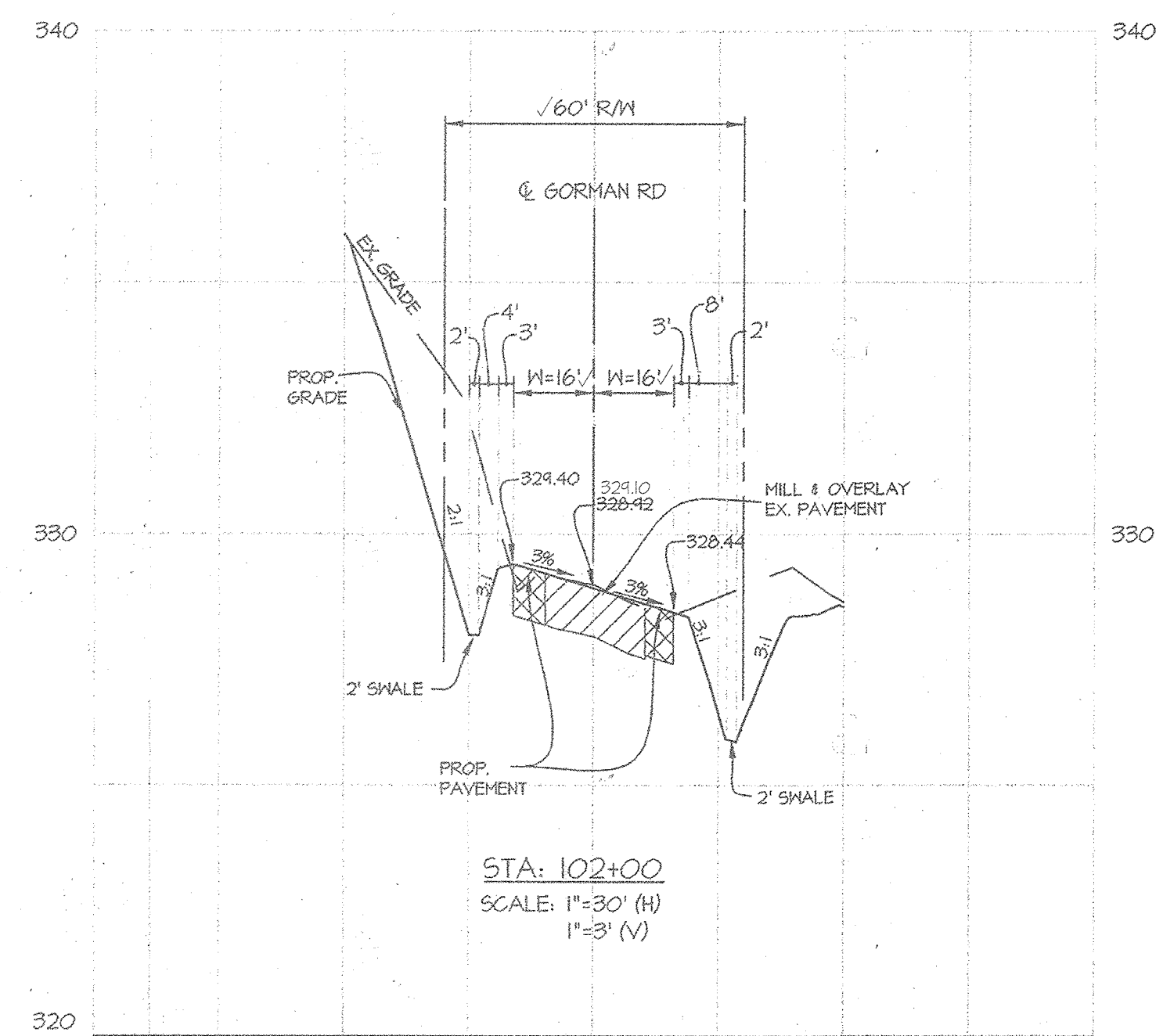
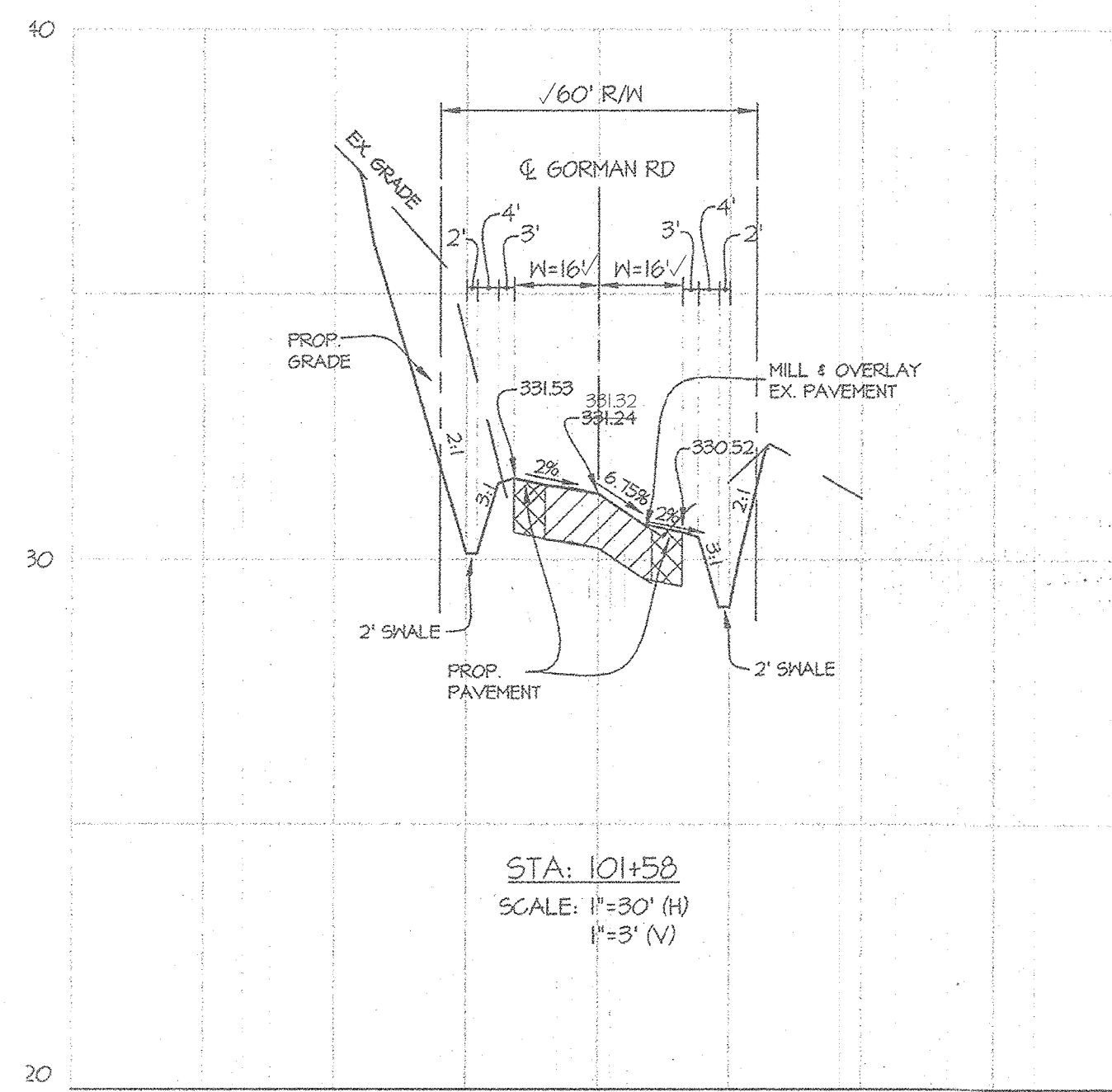
ASBUILTS
GORMAN ROAD PROFILE

WINCOPIA FARMS
LOTS 1-201, 208-220, 258-263 &
OPEN SPACE LOTS 221 THROUGH 257
L 11388 P. 725
PARCEL 472

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	14 OF 71

ASBUILT SHEET 14 OF 34



ASBUILT 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. 12415, Expiration Date: May 26, 2022.

4/27/20
Date

Carl K. Gutschick
Carl K. Gutschick
Professional Engineer
Maryland Reg. No. 12415

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Will J. Smith 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Vest Blundell 12-20-13
Chief, Division of Land Development Date

Chad Blundell 12-17-13
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-860-1820 DC/VA: 301-389-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12415, EXPIRATION DATE: MAY 26, 2022.

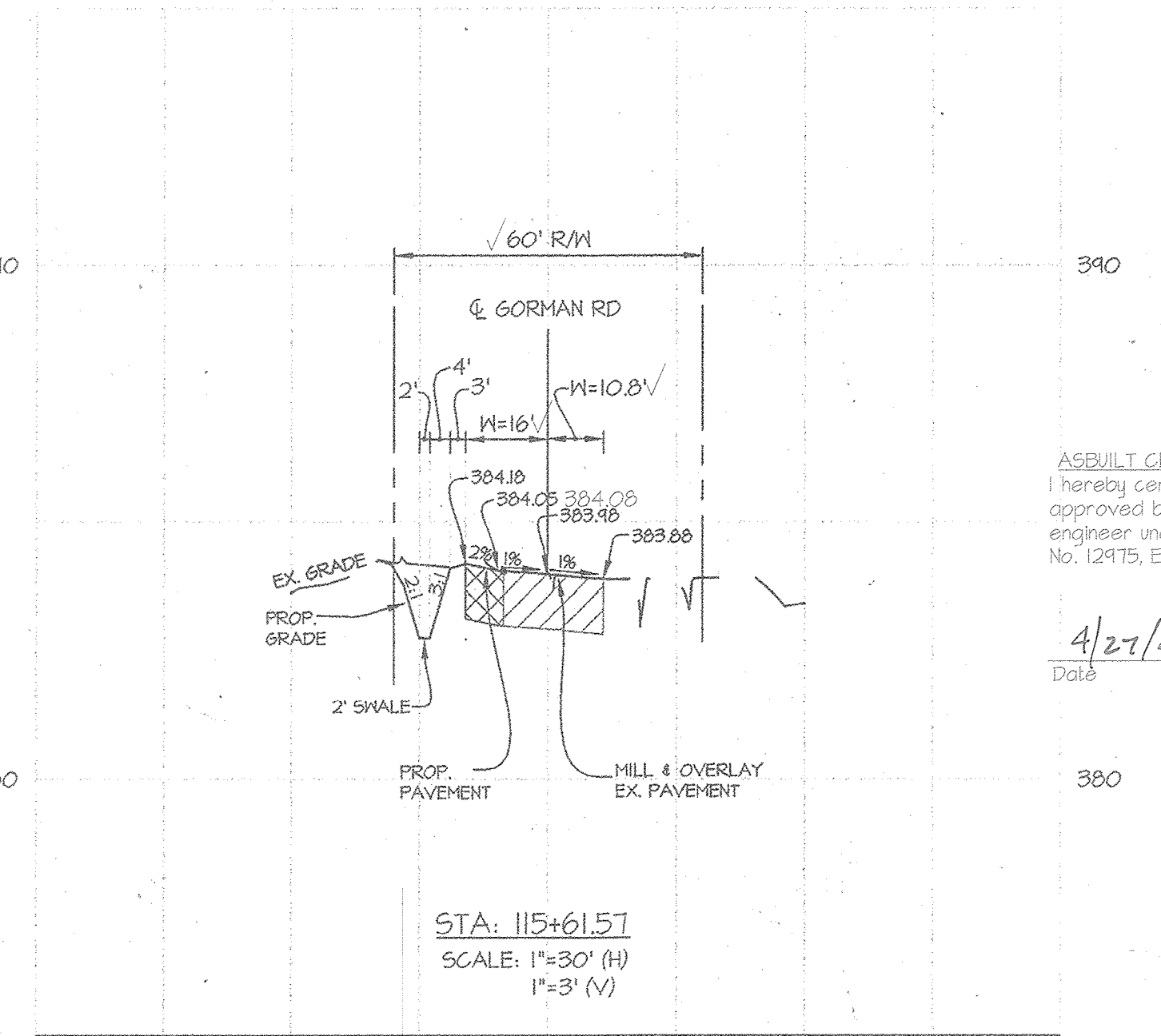
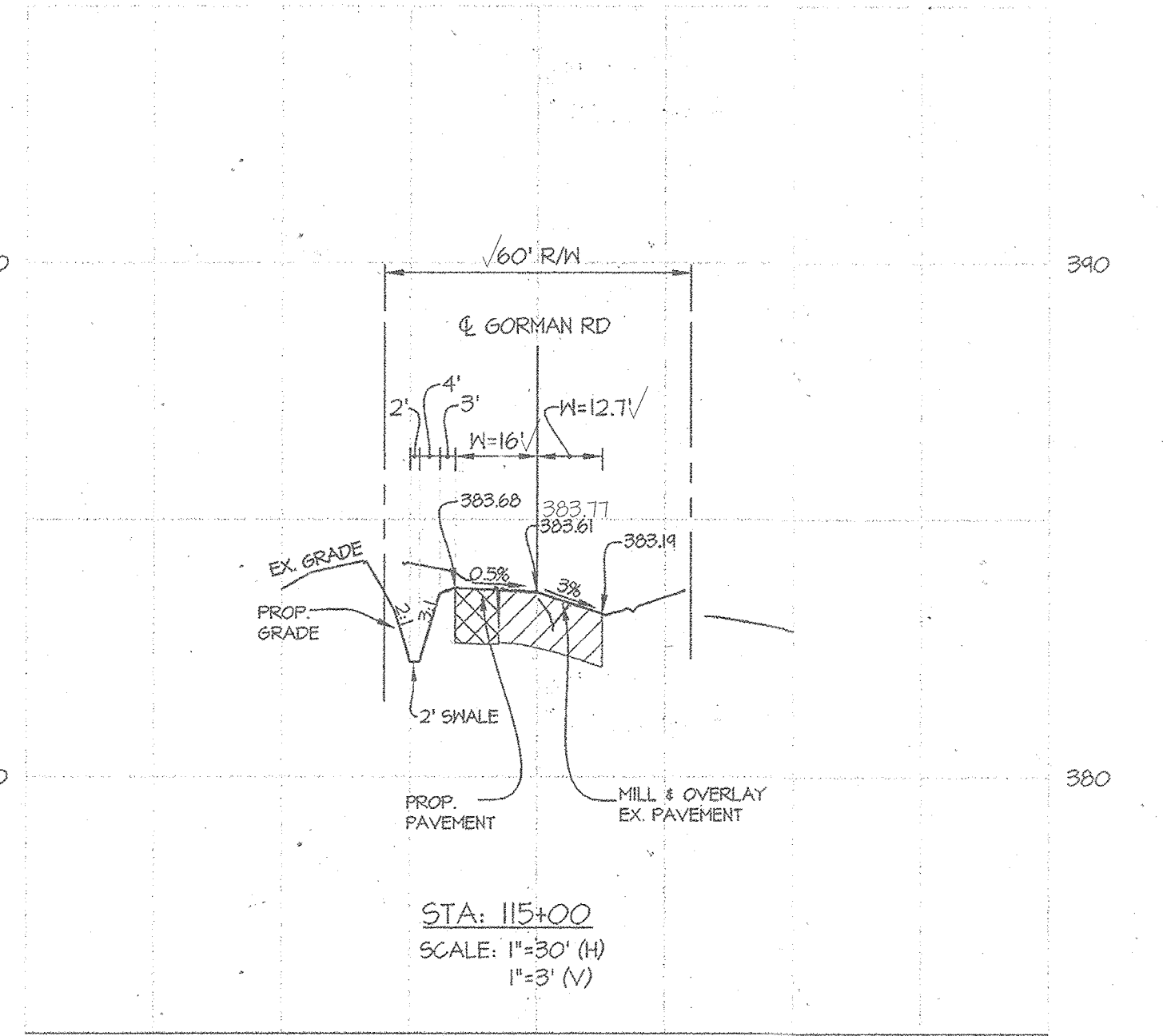
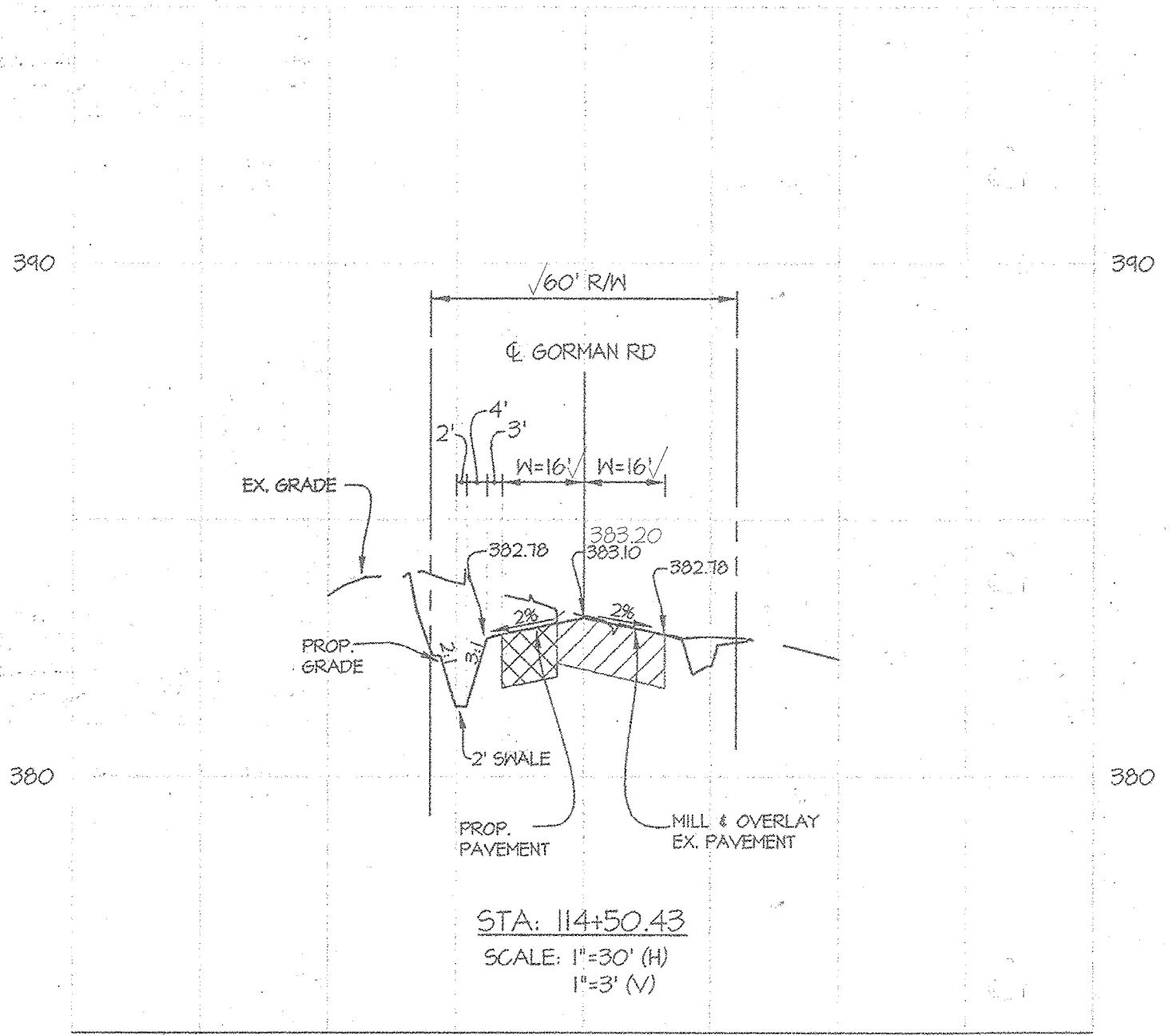
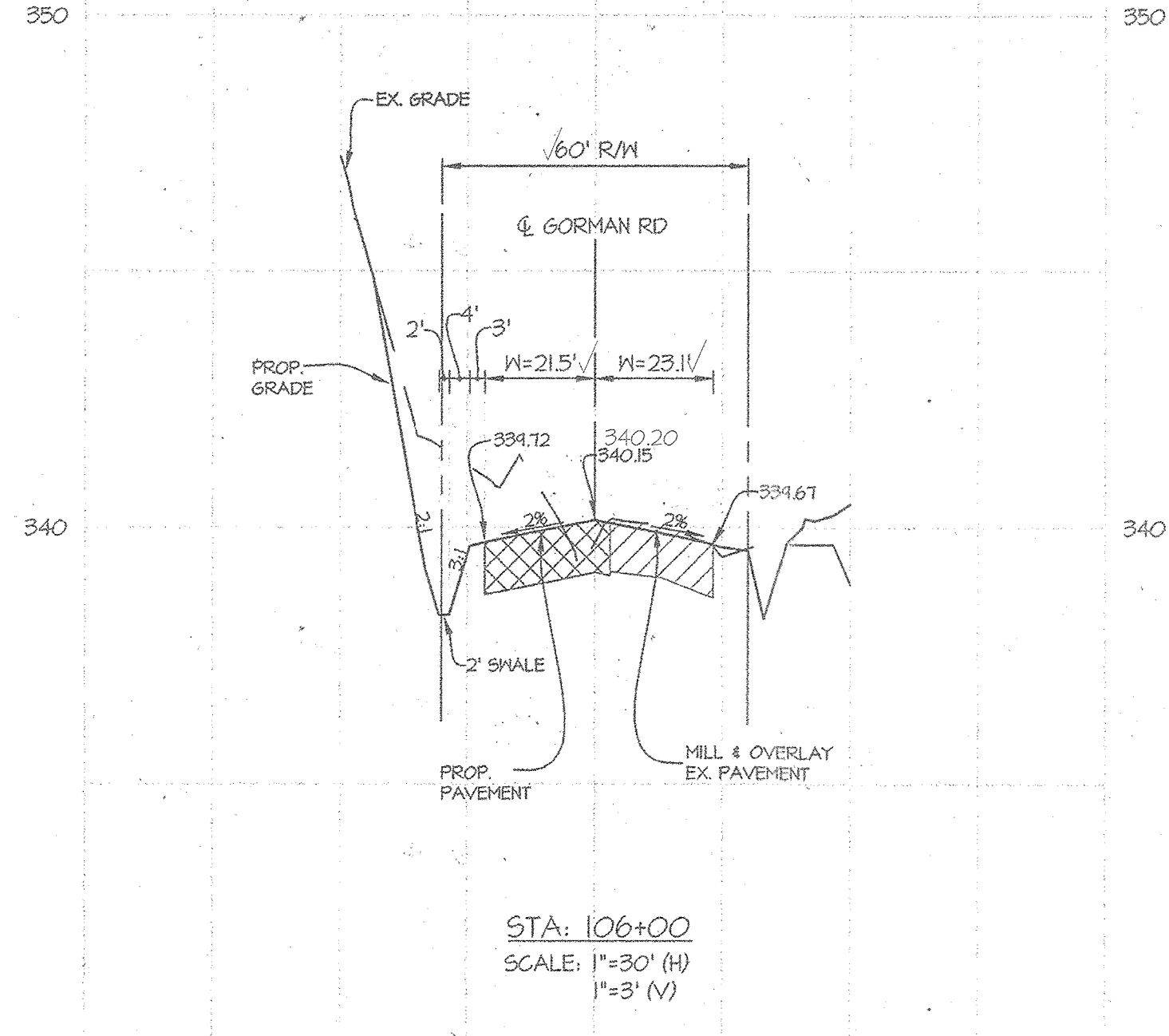
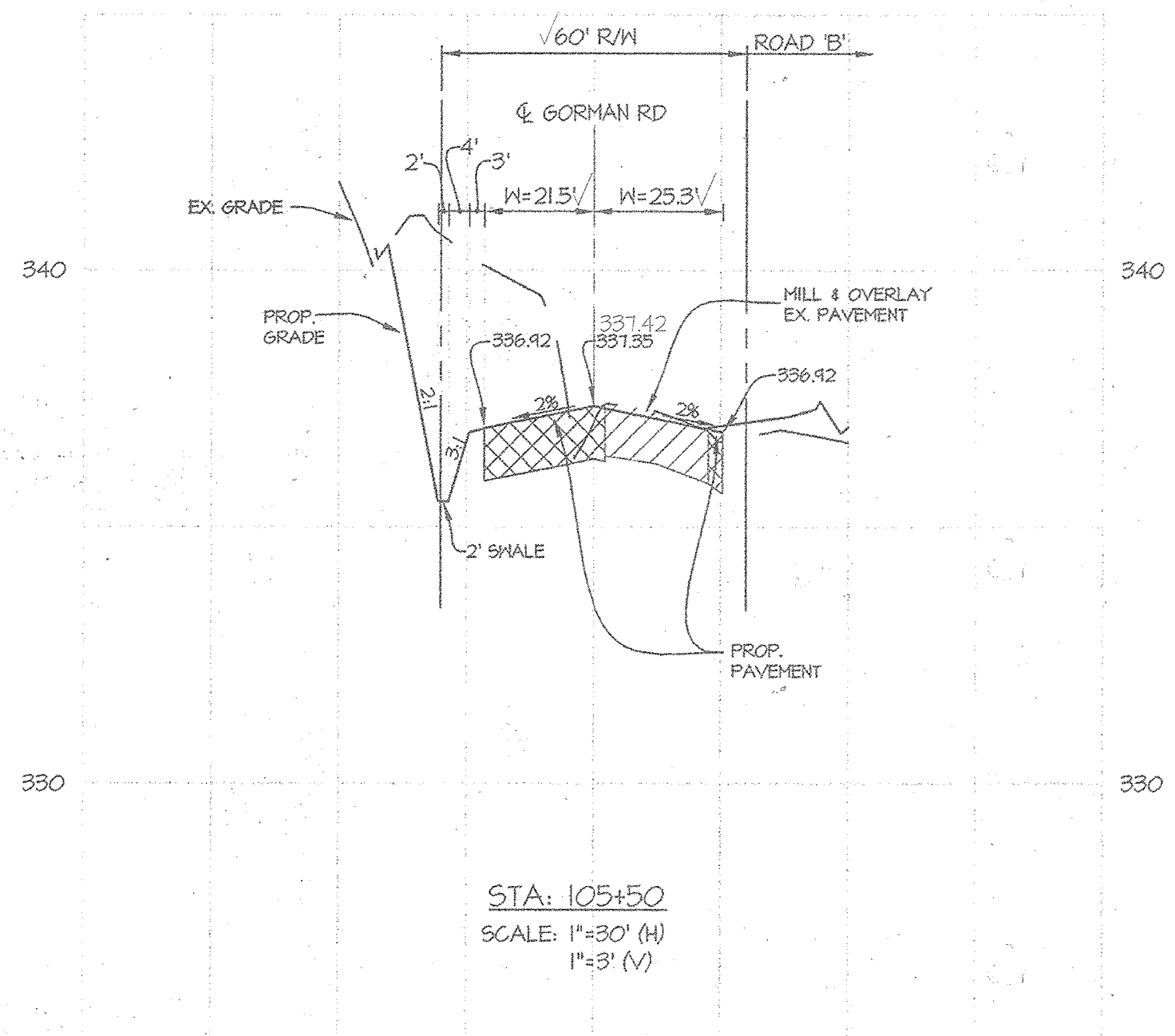
11-18-13
Carl K. Gutschick

ASBULTS
GORMAN ROAD CROSS SECTIONS

WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
OPEN SPACE LOTS 221 THROUGH 257
L. 11388 F. 725
PARCEL 472
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
MAR., 2022 NOV., 2013	47-3	15 OF 71

ASBUILT SHEET 15 OF 34



ASBUILT 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. 12915, Expiration Date: May 26 2022.

4/21/20
Date
Carl K. Gutschick
Professional Engineer
Maryland Reg. No. 12915

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Will R. Miller 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
W. J. G. [Signature] 12-20-13
Chief, Division of Land Development Date

Paul Edwards 12-17-13
Chief, Development Engineering Division Date

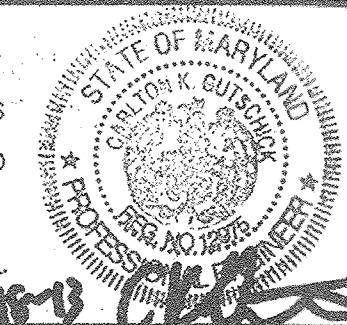
GLW GUTSCHICK LITTLE & WEBER, P.A.
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TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12975, EXPIRATION DATE: MAY 26, 2014

11-10-13
[Signature]



ASBUILTS
GORMAN ROAD CROSS SECTIONS

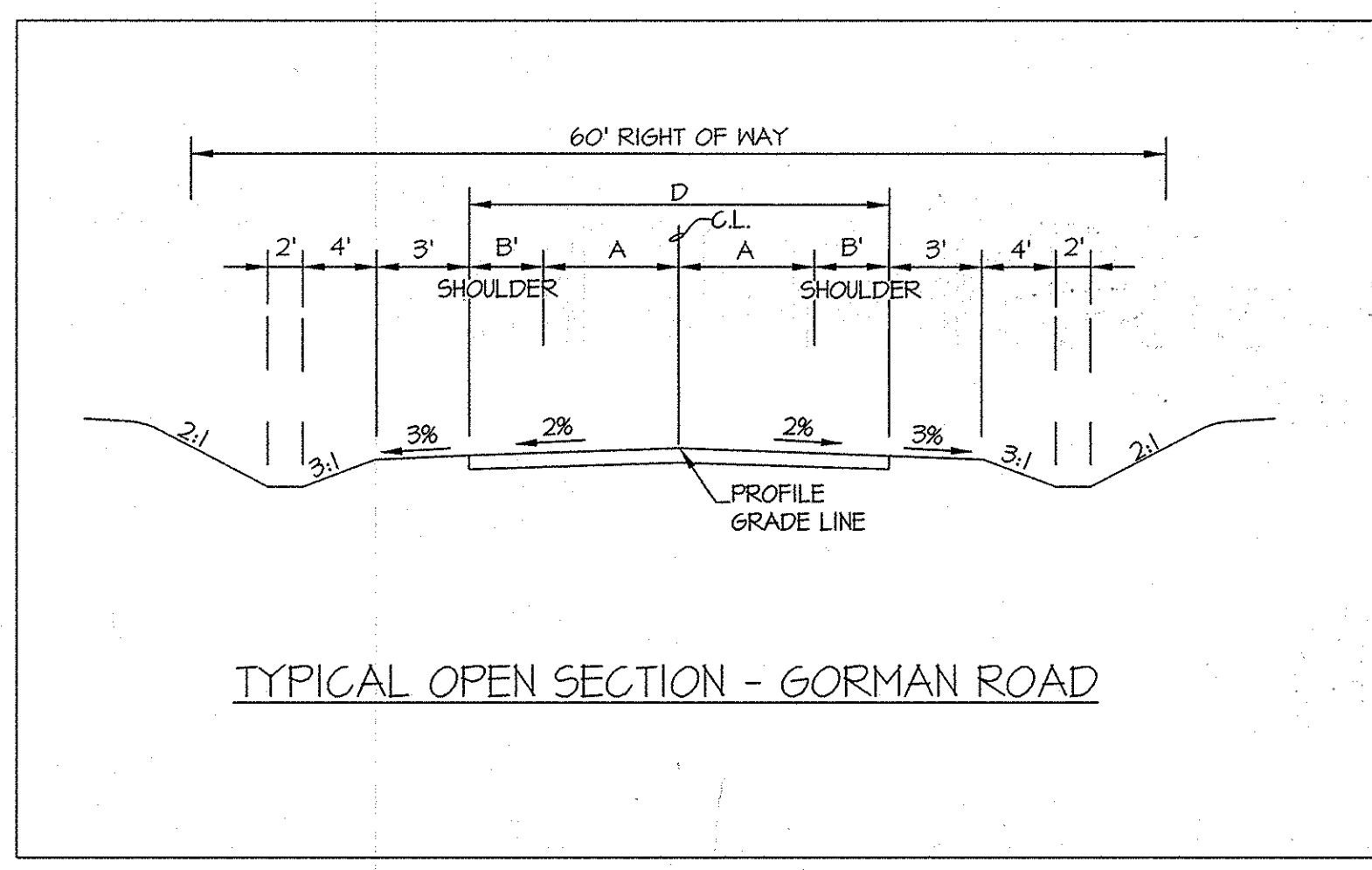
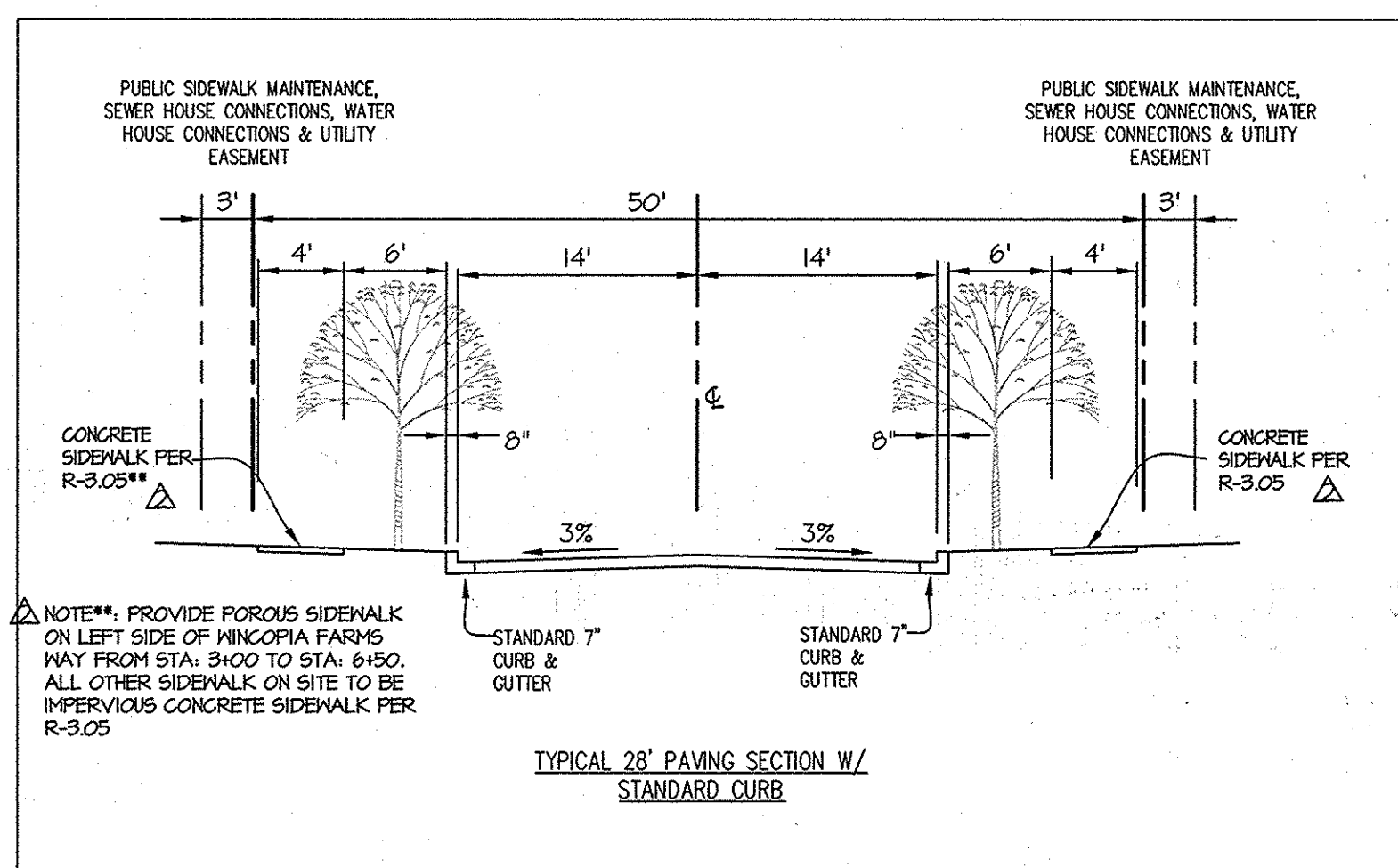
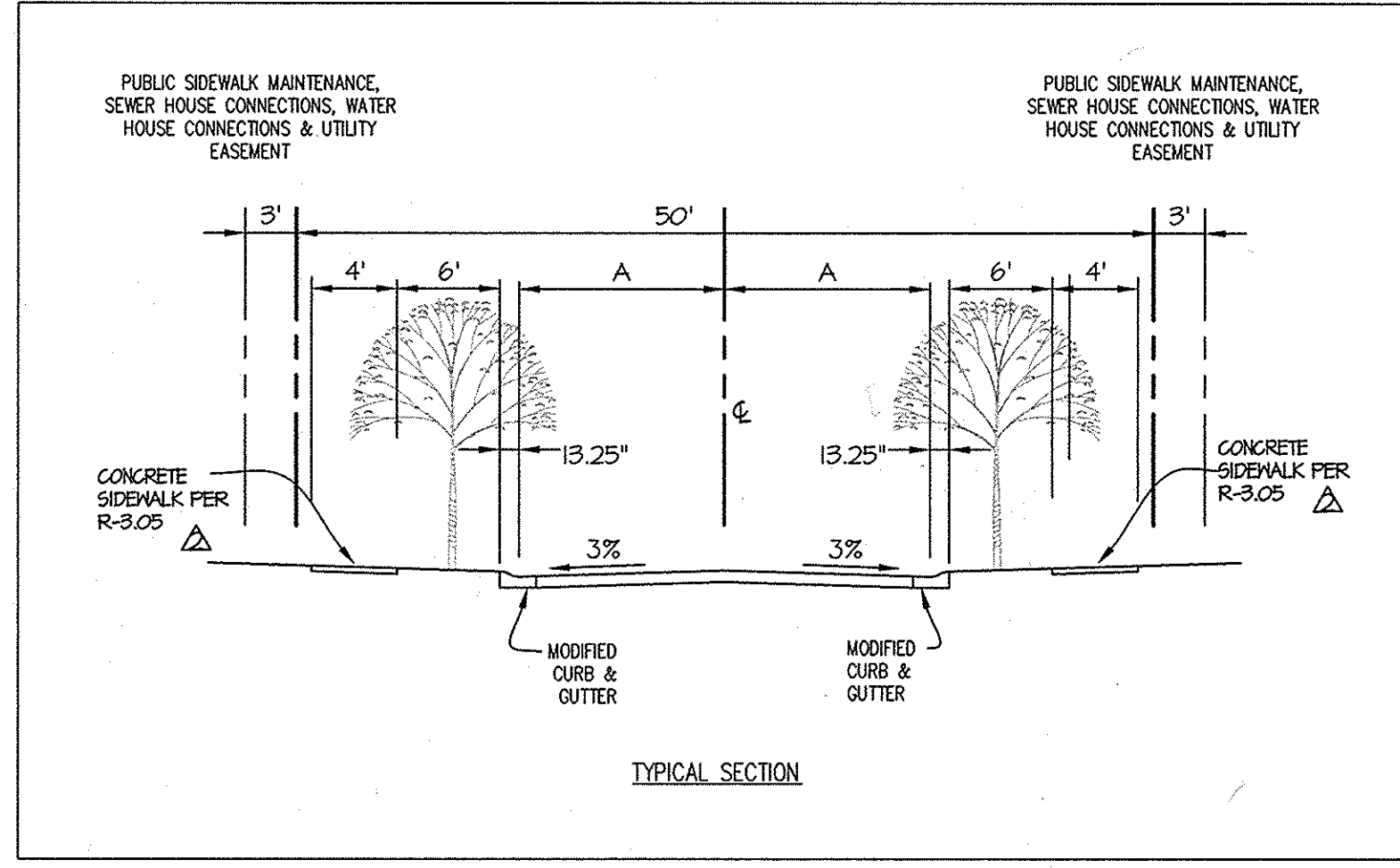
WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 THROUGH 257
L. 11388 P. 725 PARCEL 472

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV., 2013	47-3	16 OF 71

ASBUILT SHEET 16 OF 34

ASBUILTS F-13-103



WINCOPIA FARMS WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 12+50	TYP. 28' W/ STANDARD CURB	MINOR COLLECTOR	35 MPH	-	-	P-5
12+50 TO 15+32	TYPICAL	ACCESS STREET	30 MPH	14'	-	P-3
15+32 TO 25+74	TYPICAL	ACCESS PLACE	30 MPH	15'	-	P-3

HENRY HEARN WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 10+74	TYPICAL	ACCESS STREET	30 MPH	15'	-	P-3
10+74 TO 15+50	TYPICAL	ACCESS STREET	30 MPH	14'	-	P-3

CYPRESS WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 7+41	TYPICAL	ACCESS PLACE	30 MPH	15'	-	P-3
7+41 TO 12+43.43	TYPICAL	ACCESS STREET	30 MPH	14'	-	P-3

ROWAN LANE - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 12+91.43	TYPICAL	ACCESS STREET	30 MPH	15'	-	P-3

FENNEL WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 2+67.76	TYPICAL	ACCESS STREET	30 MPH	15'	-	P-3

CALLA CT. - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 4+20.28	TYPICAL	ACCESS STREET	30 MPH	15'	-	P-3

ERICA LANE - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 5+30.48	TYPICAL	ACCESS STREET	30 MPH	14'	-	P-3

BLUEBELL WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 4+87.51	TYPICAL	ACCESS PLACE	30 MPH	15'	-	P-3
4+87.51 TO 7+53.66	TYPICAL	ACCESS PLACE	30 MPH	12'	-	P-3

PEONY LANE - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 6+18.41	TYPICAL	ACCESS STREET	30 MPH	15'	-	P-3

FLORA COURT - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 5+15	TYPICAL	ACCESS PLACE	30 MPH	12'	-	P-3

BALSAM WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 6+52	TYPICAL	ACCESS PLACE	30 MPH	15'	-	P-3

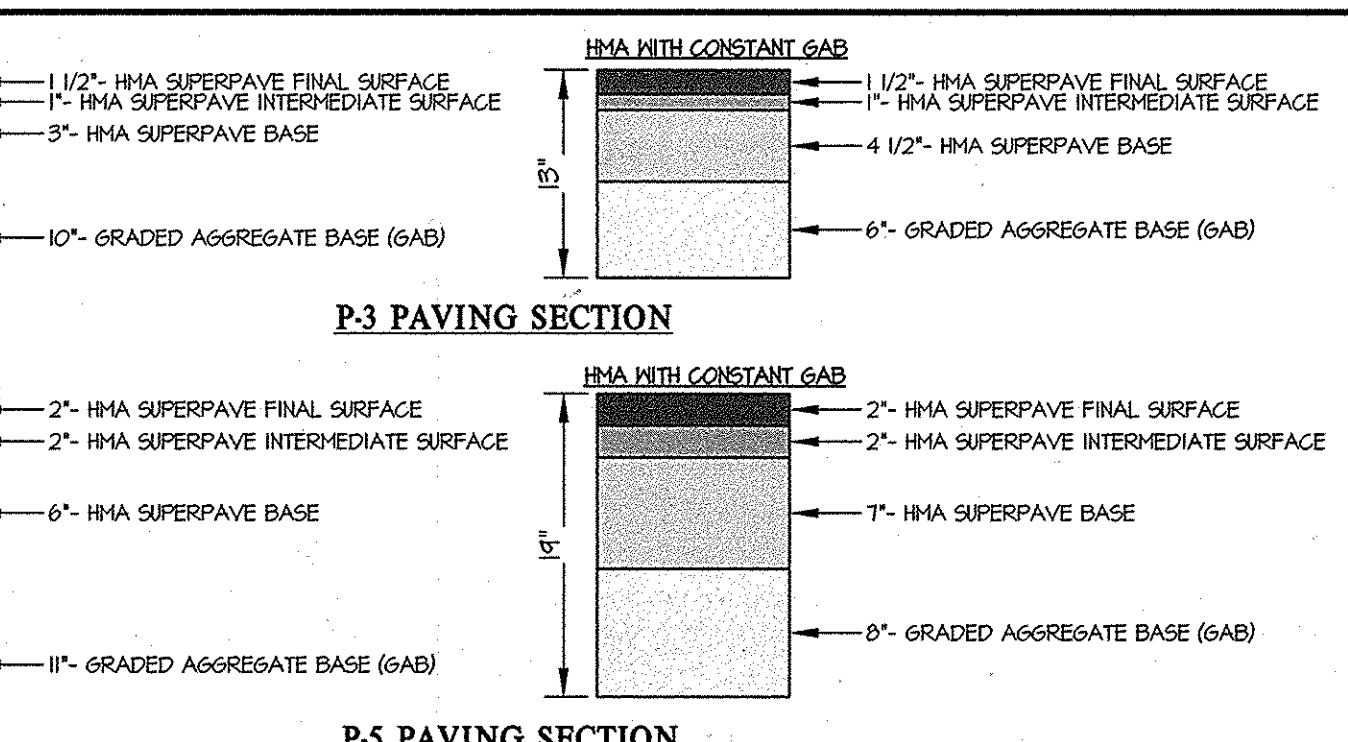
LOCH LESS LANE - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 5+63	TYPICAL	ACCESS PLACE	30 MPH	15'	-	P-3

SIENNA WAY - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 5+87	TYPICAL	ACCESS PLACE	30 MPH	15'	-	P-3

ANISE COURT - INFORMATION						
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	PAVING SECTION
0+00 TO 1+40	TYPICAL	ACCESS PLACE	30 MPH	12'	-	P-3

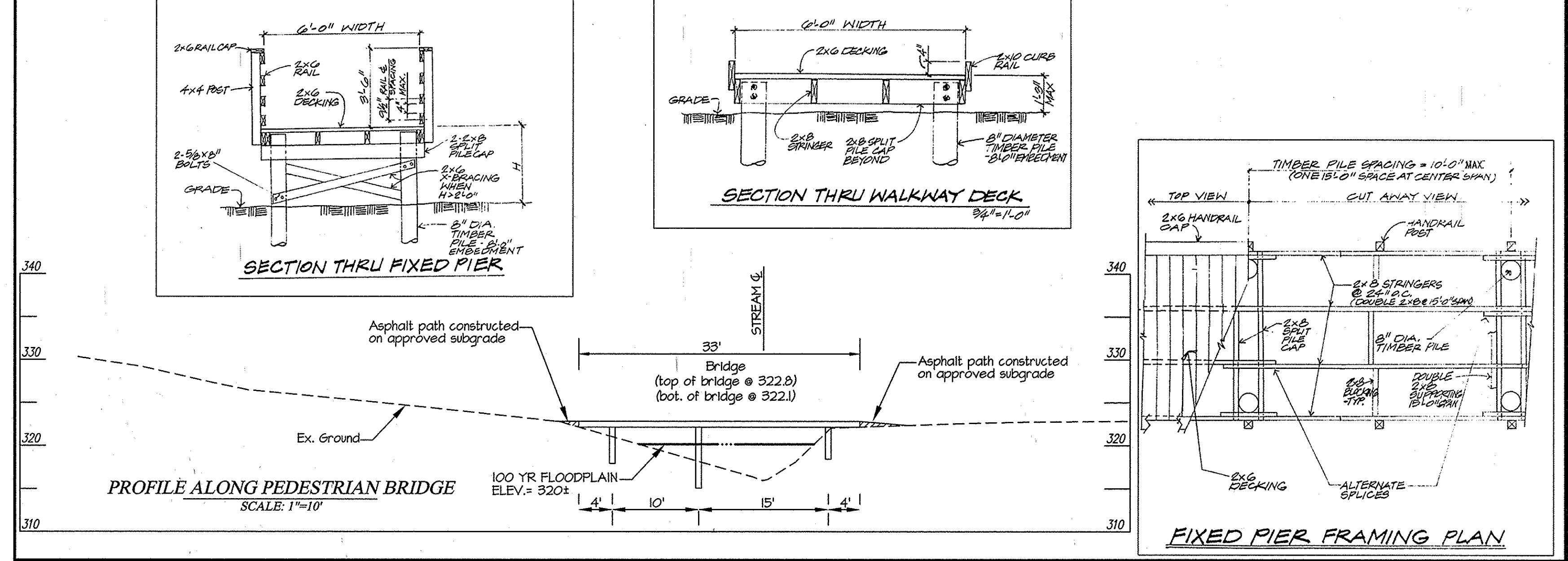
GORMAN ROAD - INFORMATION							
STATION	SECTION	CLASSIFICATION	DESIGN SPEED	A	B	D	PAVING SEC.
106+00 TO 118+4.54	TYPICAL OPEN SECTION	MINOR COLLECTOR	35 MPH	16.5'	5'	45'	P-5
118+4.54 TO 135+71.04	TYPICAL OPEN SECTION	MINOR COLLECTOR	35 MPH	Varies	5'	Varies	P-5
135+71.04 TO 144+50.00	TYPICAL OPEN SECTION	MINOR COLLECTOR	35 MPH	11'	5'	52'	P-5

ROAD TYPICAL SECTIONS NO SCALE

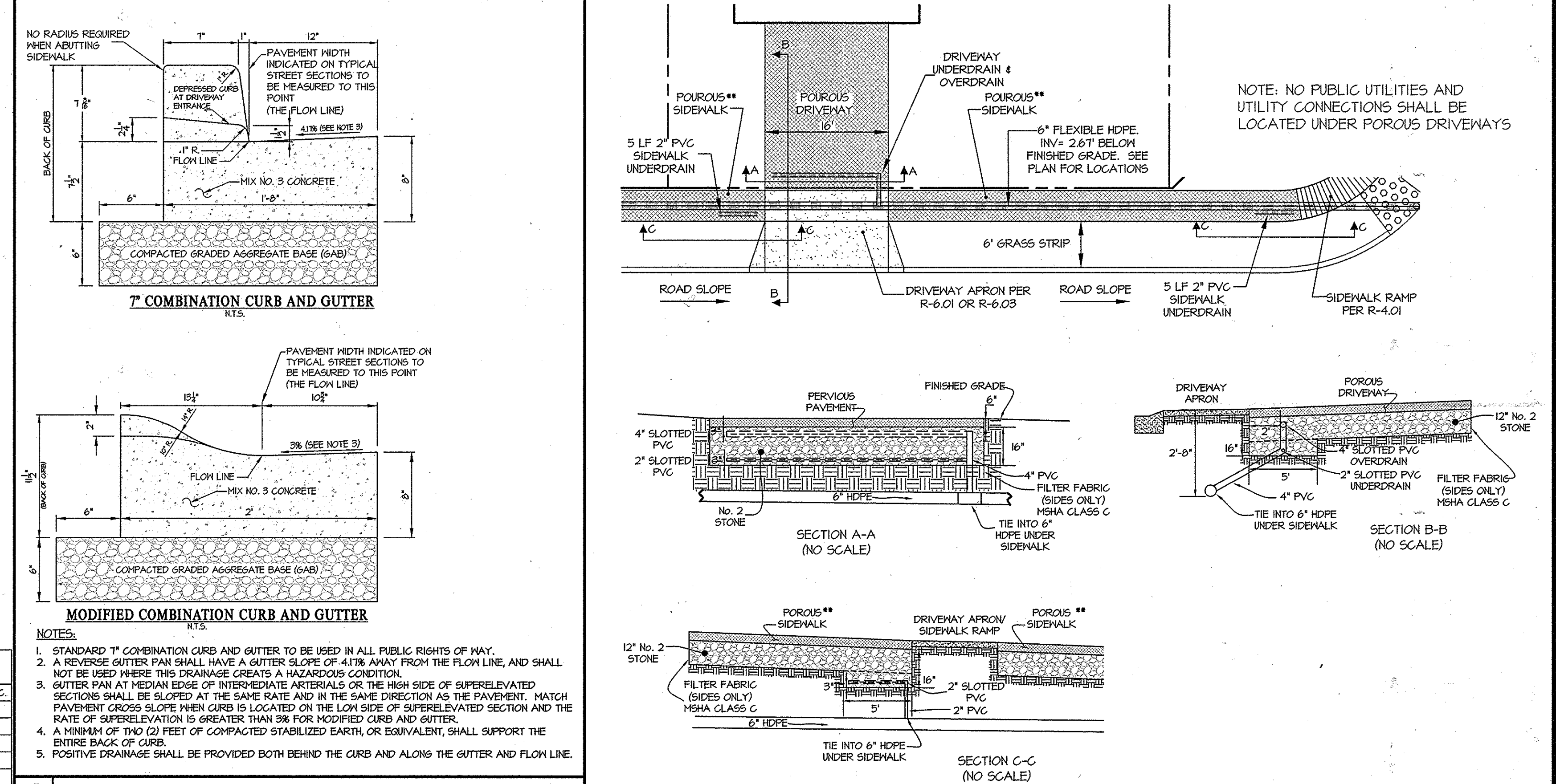


PAVING SECTIONS NO SCALE

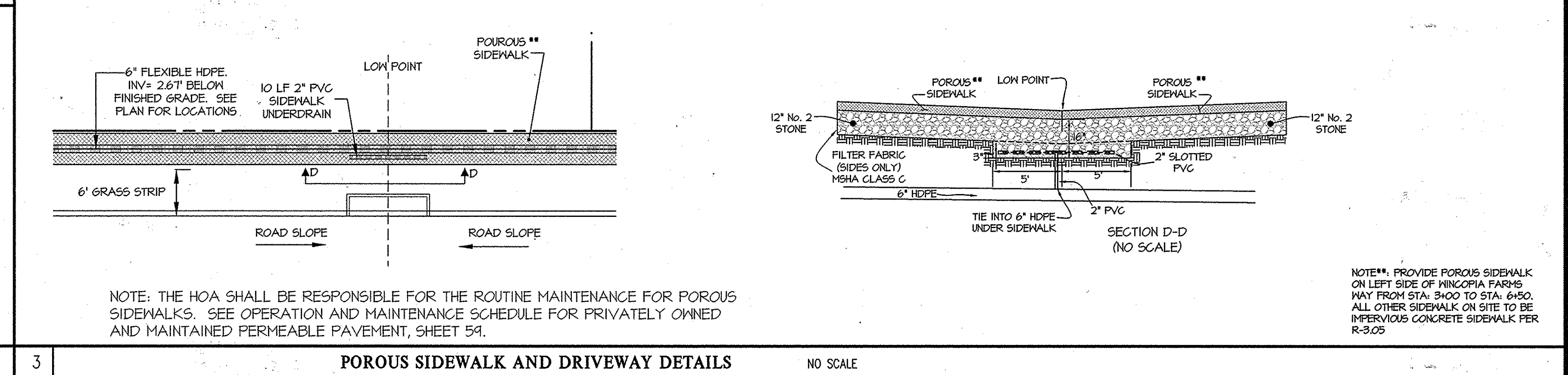
DATE	REVISION	BY	APPR.
02/2015 <td>SIDEWALK REVISED <td></td> <td></td> </td>	SIDEWALK REVISED <td></td> <td></td>		



PEDESTRIAN BRIDGE DETAILS NO SCALE



CURB DETAILS NO SCALE



POROUS SIDEWALK AND DRIVEWAY DETAILS NO SCALE

REVISIONS

PREPARED FOR: BEAZER HOMES CORP. 8965 GUILFORD ROAD SUITE 290 COLUMBIA, MD 21046 BRIAN KNAUFF 410-381-3222

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. 12975 EXPIRATION DATE: MAY 28, 2016

2/25/15

ELECTION DISTRICT NO. 6

REVISED ROAD DETAILS

SCALE: AS SHOWN

ZONING: R-ED

G. L. W. FILE NO.: 08052

DATE: FEB, 2015

TAX MAP - GRID: 47-3

SHEET: 17 OF 71

WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
L. 11388 F. 725
PARCEL 472

HOWARD COUNTY, MARYLAND

NOTE: DEPENDING ON THE CBR VALUES OBTAINED IN THE FIELD, THE PAVING SECTIONS MAY BE REVISED, IF APPROVED BY A PROFESSIONAL SOILS ENGINEER. THESE SUBSTITUTIONS MUST ALSO BE APPROVED BY THE HOWARD COUNTY DEPT. OF PUBLIC WORKS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
3-16-2015
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
4-23-15
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
4-22-15
Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT. 410-880-1820 DC/VA. 301-989-2524 FAX: 301-421-4186

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CONSTRUCTION DETAILS

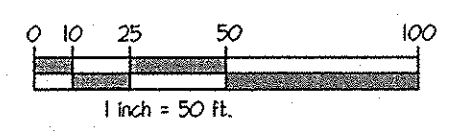
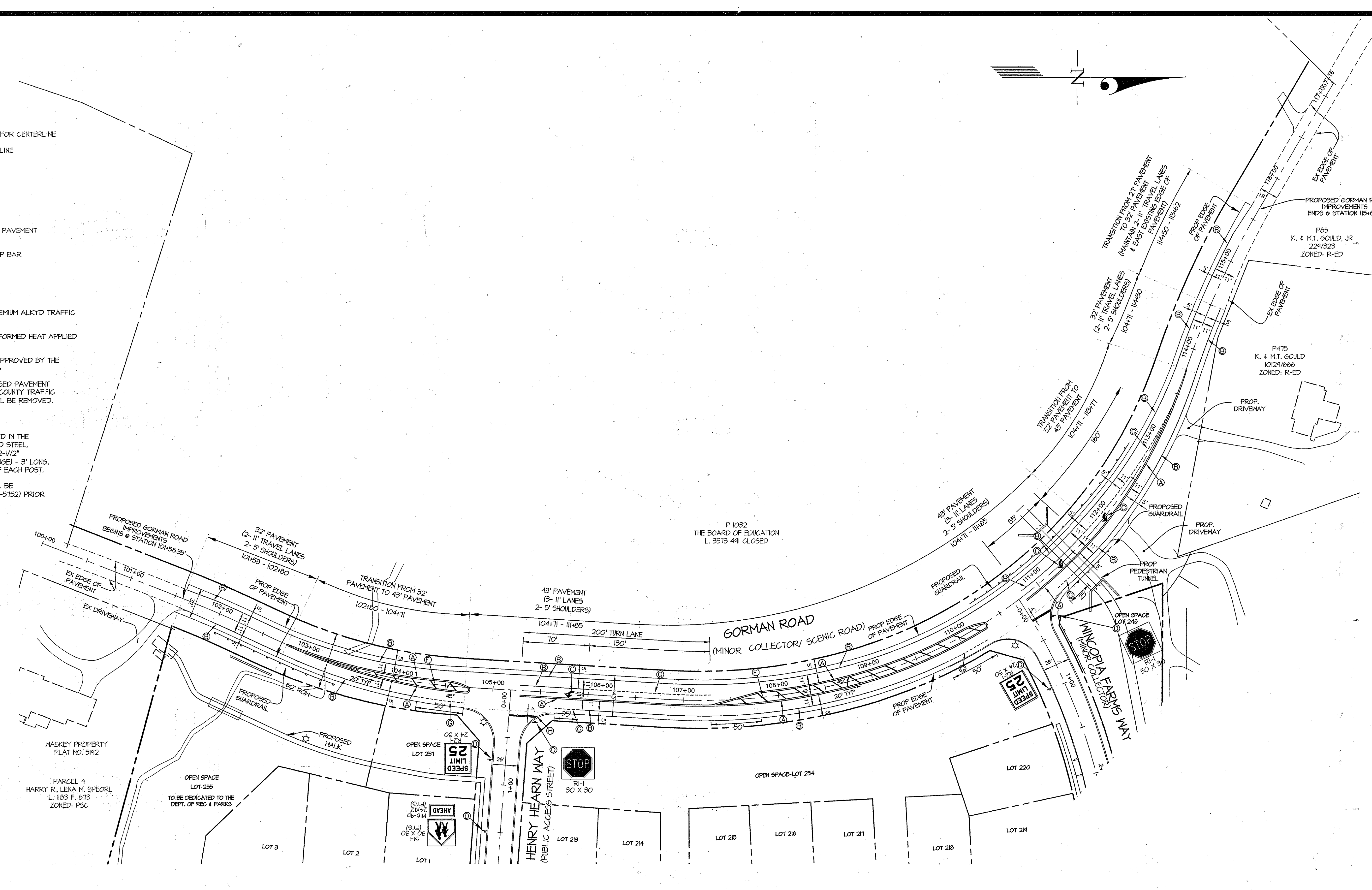
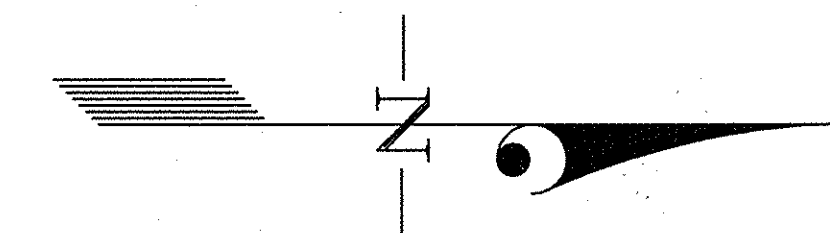
- A. INSTALL 5" WIDE SOLID DOUBLE YELLOW PAVEMENT MARKING FOR CENTERLINE
- B. INSTALL 5" WIDE SOLID WHITE PAVEMENT MARKING FOR LANE LINE
- C. INSTALL PAVEMENT MARKING SYMBOL AS SHOWN
- D. INSTALL GROUND MOUNTED SIGN
- E. INSTALL LIGHT POLE MOUNTED SIGN
- F. INSTALL 12" WIDE YELLOW PAVEMENT MARKING FOR MEDIAN
- G. INSTALL 5" WIDE SOLID/BROKEN (2' SEGMENT - 6' GAP) WHITE PAVEMENT MARKING FOR LEFT TURN LANE
- H. INSTALL 24" WIDE SOLID WHITE PAVEMENT MARKING FOR STOP BAR

PAVEMENT MARKING NOTES

- 1. ALL LONG LINE MARKINGS TO BE APPLIED USING "SETFAST PREMIUM ALKYD TRAFFIC PAINT" BY SHERWIN WILLIAMS OR APPROVED EQUAL.
- 2. THE CROSSWALK AND ARROWS TO BE INSTALLED USING PREFORMED HEAT APPLIED TAPE OR THERMOPLASTIC.
- 3. ALL PAVEMENT MARKINGS ARE TO BE EITHER LOCATED OR APPROVED BY THE TRAFFIC DIVISION PRIOR TO THE PLACEMENT OF ANY MARKINGS
- 4. ALL EXISTING PAVEMENT MARKING IN CONFLICT WITH PROPOSED PAVEMENT MARKINGS ARE TO BE REMOVED BY GRINDING ONLY. HOWARD COUNTY TRAFFIC (410-313-5152) WILL DETERMINE WHICH EXISTING MARKINGS SHALL BE REMOVED.

SIGNING NOTES:

- 1. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- 2. ALL SIGN LOCATIONS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE APPROVED BY THE HOWARD COUNTY TRAFFIC DIVISION (410-313-5152) PRIOR TO ANY INSTALLATIONS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. J. Smith 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. E. Schuler 12-30-13
 Chief, Division of Land Development Date

Chad E. Chubb 12-17-13
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12275
 EXPIRATION DATE: MAY 26, 2014
 11-1813 *Chad E. Chubb*

GORMAN ROAD SIGNING AND STRIPING PLAN

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	18 OF 71

L:\CAD\DRAWINGS\08052\FINALS\08052-Gorman Striping.dwg DES. dds DRN. dds CHK.

SEDIMENT CONTROL LEGEND

- 400 --- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING TREELINE
- SB --- STREAM BUFFER
- LOD --- PHASE LIMIT OF DISTURBANCE
- OVERALL LIMIT OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SHALE
- SF --- PROPOSED SILT FENCE
- SSF --- PROPOSED SUPERSILT FENCE
- SCE --- STABILIZED CONSTRUCTION ENTRANCE
- TIE IN CONTOUR (SHOWS HOW PROPOSED CONTOURS TIE INTO EXISTING GRADE AT PHASE LIMITS)

SEQUENCE OF CONSTRUCTION

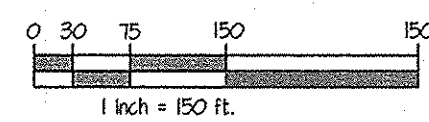
1. OBTAIN A GRADING PERMIT AND ARRANGE A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR (SCI) (1 DAY)
 2. INSTALL ALL STABILIZED CONSTRUCTION ENTRANCES (SCE), SILT FENCE (SF), AND SUPER SILT FENCE (SSF) IN PHASE 1. (3 DAYS)
- NOTE: WATER AND SEWER OUTFALLS MAY BE CONSTRUCTED AT ANY TIME PROVIDED THAT ALL DISTURBANCE IS STABILIZED AT THE END OF EACH DAY AND ALL SEDIMENT CONTROLS IN THE VICINITY OF THE DISTURBANCE ARE INSTALLED.
- NOTE: DELAY CONSTRUCTION OF ANY ESD STORMWATER DEVICE (MICRO-BIORETENTION, SAND FILTER, POROUS PAVEMENT, DRY WELLS) UNTIL ALL CONSTRUCTION INCLUDING HOUSE CONSTRUCTION WITHIN THE DRAINAGE AREA OF THAT DEVICE IS COMPLETE.
- NOTE: CONTRACTOR TO HAVE PHASING LOD STAKED PRIOR TO BEGINNING CONSTRUCTION ON THAT PHASE.
- NOTE: SEE SHEET 20 FOR SEQUENCE OF CONSTRUCTION FOR CULVERT INSTALLATION
3. INSTALL TRAPS 1, 2, 3, AND EARTH DIKES A, B, C & D (15 DAYS)
 4. WITH THE PERMISSION OF THE SCI, MASS GRADE PHASE 1 AND INSTALL ALL UTILITIES SHOWN WITHIN PHASE 1 ON THE SEDIMENT CONTROL PLAN. COORDINATE ALL GORMAN ROAD CONSTRUCTION WITH THE GORMAN ROAD MAINTENANCE OF TRAFFIC PLAN. INSTALL PUMP AROUND AND SSF IN THE VICINITY OF THE NORTHERN MOST EXISTING POND AND WITH THE PERMISSION OF THE SCI, REMOVE EXISTING EMBANKMENT PER THE GRADING SHOWN. ONCE GORMAN ROAD CONSTRUCTION IS COMPLETE AND ALL THE AREA DRAINING TO THE WESTERN SHALE ALONG GORMAN ROAD HAS BEEN STABILIZED, INSTALL SOD FOR SHALE. (60 DAYS)
 5. STABILIZE ALL LOT AREA AND BEGIN CONSTRUCTION OF CURB & GUTTER AND PAVEMENT WITHIN PHASE 1. (60 DAYS)
 6. ONCE AT LEAST 50% OF PHASE 1 HAS BEEN STABILIZED AND WITH THE PERMISSION OF THE SCI, MOVE ON TO PHASE 2. ONCE ALL AREAS DRAINING TO TRAP 1 HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, TRAP 1 MAY BE REMOVED. ONCE TRAP 1 HAS BEEN REMOVED, INSTALL ALL REMAINING UTILITIES IN THE VICINITY OF TRAP 1.
 7. WITH THE PERMISSION OF THE SCI, MASS GRADE PHASE 2 AND INSTALL ALL UTILITIES SHOWN WITHIN PHASE 2 ON THE SEDIMENT CONTROL PLAN. (60 DAYS)
 8. INSTALL TRAPS 6, BASIN II, AND EARTH DIKES J, K. (30 DAYS)
 9. WITH THE PERMISSION OF THE SCI, MASS GRADE PHASE 2 AND INSTALL ALL UTILITIES SHOWN WITHIN PHASE 2 ON THE SEDIMENT CONTROL PLAN. (60 DAYS)
 10. STABILIZE ALL LOT AREA AND BEGIN CONSTRUCTION OF CURB & GUTTER AND PAVEMENT WITHIN PHASE 2. (60 DAYS)
 11. ONCE AT LEAST 50% OF PHASE 2 HAS BEEN STABILIZED AND WITH THE PERMISSION OF THE SCI, MOVE ON TO PHASE 3. NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT ANY GIVEN TIME. ONCE ALL AREAS DRAINING TO TRAP 2 HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, TRAP 2 MAY BE REMOVED. ONCE TRAP 2 HAS BEEN REMOVED, INSTALL ALL REMAINING UTILITIES IN THE VICINITY OF TRAP 2.
 12. INSTALL ALL SILT FENCE (SF) AND SUPER SILT FENCE (SSF) IN PHASE 3 AND MOVE STABILIZED CONSTRUCTION ENTRANCES AS NECESSARY. (3 DAYS)
 13. INSTALL TRAPS 8, 9, 10, 12 AND EARTH DIKES E, H, I, L, M, N & O. (30 DAYS)
 14. WITH THE PERMISSION OF THE SCI, MASS GRADE PHASE 3 AND INSTALL ALL UTILITIES SHOWN WITHIN PHASE 3 ON THE SEDIMENT CONTROL PLAN. (60 DAYS)
 15. STABILIZE ALL LOT AREA AND BEGIN CONSTRUCTION OF CURB & GUTTER AND PAVEMENT WITHIN PHASE 3. (60 DAYS)
 16. ONCE AT LEAST 50% OF PHASE 3 HAS BEEN STABILIZED AND WITH THE PERMISSION OF THE SCI, MOVE ON TO PHASE 4. NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT ANY GIVEN TIME. ONCE ALL AREAS DRAINING TO EITHER TRAPS 8, 9, 10 OR 12 HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THAT TRAP MAY BE REMOVED. ONCE A TRAP HAS BEEN REMOVED, INSTALL ALL REMAINING UTILITIES IN THE VICINITY OF THAT TRAP. ONCE ALL AREA DRAINING TO BASIN II HAS BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, BASIN II MAY BE CONVERTED TO SAND FILTER 43. INSTALL ANY REMAINING UTILITIES IN THE VICINITY OF SAND FILTER 43.
 17. INSTALL ALL SILT FENCE (SF) AND SUPER SILT FENCE (SSF) IN PHASE 4 & 5 AND MOVE STABILIZED CONSTRUCTION ENTRANCES AS NECESSARY. (3 DAYS)
 18. INSTALL TRAPS 4, 5 AND EARTH DIKES E, F, P & Q. (30 DAYS)
 19. WITH THE PERMISSION OF THE SCI, MASS GRADE PHASE 4 AND INSTALL ALL UTILITIES SHOWN WITHIN PHASE 4 ON THE SEDIMENT CONTROL PLAN. (60 DAYS)
 20. STABILIZE ALL LOT AREA AND BEGIN CONSTRUCTION OF CURB & GUTTER AND PAVEMENT WITHIN PHASE 4. (60 DAYS)
 21. ONCE AT LEAST 50% OF PHASE 4 HAS BEEN STABILIZED AND WITH THE PERMISSION OF THE SCI, MOVE ON TO PHASE 5. NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT ANY GIVEN TIME. ONCE ALL AREAS DRAINING TO EITHER TRAPS 3, 4 OR 5 HAVE BEEN STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, THAT TRAP MAY BE REMOVED. ONCE A TRAP HAS BEEN REMOVED, INSTALL ALL REMAINING UTILITIES IN THE VICINITY OF THAT TRAP.
 22. INSTALL ANY REMAINING SILT FENCE (SF) AND SUPER SILT FENCE (SSF) IN PHASE 5 AND MOVE STABILIZED CONSTRUCTION ENTRANCES AS NECESSARY. (3 DAYS)
 23. WITH THE PERMISSION OF THE SCI, MASS GRADE PHASE 5 AND INSTALL ALL UTILITIES SHOWN WITHIN PHASE 5 ON THE SEDIMENT CONTROL PLAN. (60 DAYS)
 24. STABILIZE ALL LOT AREA AND BEGIN CONSTRUCTION OF CURB & GUTTER AND PAVEMENT WITHIN PHASE 5. (60 DAYS)
 25. ONCE ALL AREAS HAVE BEEN STABILIZED, REMOVE ANY REMAINING SEDIMENT CONTROL DEVICES.

NOTES

1. STANDARD SILT FENCE MAY BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
2. WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURVE UP 2" FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.
3. SEDIMENT CONTROL INSPECTOR MAY RELOCATE STABILIZED CONSTRUCTION ENTRANCES.
4. IF A STOCKPILE EXCEEDS 15 FEET IN HEIGHT, IT MUST BE BENCHED.
5. IF A UTILITY CROSSES A PHASING LINE, THAT SECTION OF PIPE OR STRUCTURE CAN NOT BE INSTALLED UNTIL THE LATER PHASE.
6. ANY EARTH DIKE INTERRUPTED BY THE INSTALLATION OF A STORM DRAIN IS TO BE REPAIRED IMMEDIATELY.

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 PERIMETER DIKES, SHALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
 - B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.



THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

John R. Johnson 11/26/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S 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.

Chris 11-2-13
ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

John R. Johnson 11/26/13
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Wendy R. Small 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Wendy R. Small 12-20-13
Chief, Division of Land Development Date

Carol Chubb 12-17-13
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

L:\CAD\DRAWINGS\08052\FINALS\08052-SNE-0V.dwg DES: dds DRN: dds CHK: DATE REVISION BY APPR.

PREPARED FOR:
BEAZER HOMES CORP.
8965 GULFPORT ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

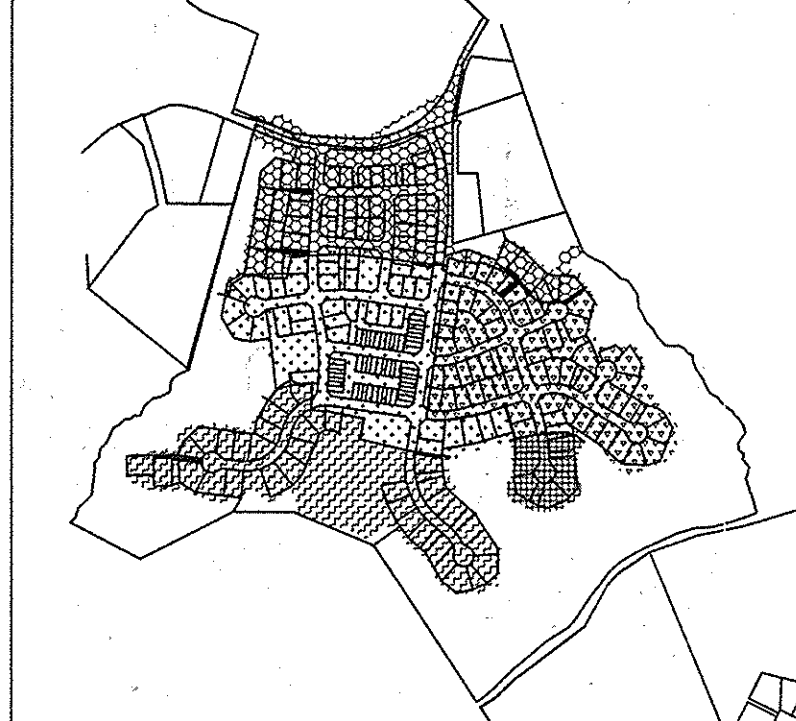
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 22975
EXPIRATION DATE: MAY 26, 2014
Chris 11-18-13
ELECTION DISTRICT No. 6



SEDIMENT CONTROL OVERVIEW AND DRAINAGE AREA MAP

WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
OPEN SPACE LOTS 221 THROUGH 257
1.11389, F. 725
PARCEL 472

AREA NO.	AREA (AC.)	CN	TC (HOURS)
1	8.5	91	0.1
2	5.9	91	0.1
3	9.2	91	0.1
4	3.7	91	0.1
5	2.6	91	0.1
6	6.3	91	0.1
7	8.0	91	0.1
8	2.3	91	0.1
9	3.1	91	0.1
10	6.9	92	0.1
11	16.6	91	0.1
12	2.6	91	0.1
13	0.6	91	0.1
14	1.8	91	0.1
15	1.6	91	0.1
16	1.8	91	0.1
17	1.4	91	0.1
18	1.4	91	0.1
19	0.5	91	0.1
20	0.5	91	0.1
21	1.3	91	0.1
22	0.7	91	0.1
23	0.4	91	0.1



- PHASE 1 - LOD = 20.0 AC
- PHASE 2 - LOD = 20.0 AC
- PHASE 3 - LOD = 20.0 AC
- PHASE 4 - LOD = 19.4 AC
- PHASE 5 - LOD = 31 AC

SEDIMENT CONTROL LEGEND

- 400 --- EXISTING CONTOUR
- PROPOSED CONTOUR
- TIE IN CONTOUR (SHOWS HOW PROPOSED CONTOURS TIE INTO EXISTING GRADE AT PHASE LIMITS)
- EXISTING TREELINE
- SB --- STREAM BUFFER
- LOD --- PHASE LIMIT OF DISTURBANCE
- OVERALL LIMIT OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SHALE
- SF --- PROPOSED SILT FENCE
- SSF --- PROPOSED SUPERSILT FENCE
- SCE --- STABILIZED CONSTRUCTION ENTRANCE

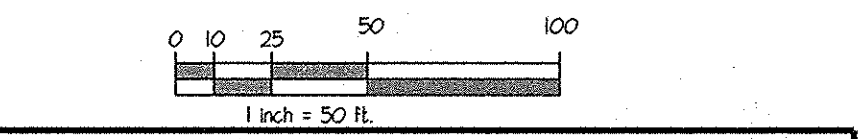
- GM GABION MATRESS
- CIP/SIP CURB INLET PROTECTION/STANDARD INLET PROTECTION

- Proposed Temporary Stoopkpile Area
- SEDIMENT BASIN BAFFLES

- MGWC 12 PUMP AROUND PRACTICE PER MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 12. SEE DETAIL SHEET 32

- EROSION CONTROL MATS PER DETAIL B-4+6-G (SHEAR STRESS ≤ 15 LB/SP)
- SOD, SEE PERMANENT SEEDINGS NOTES SHEET 31

- LIMIT OF WETLAND
- WETLAND AREA
- SB --- STREAM / BANK BUFFER
- WB --- WETLAND BUFFER
- FOREST CONSERVATION BASEMENT
- STREAM BANK CENTERLINE OF STREAM
- STEEP SLOPES - 25% AND GREATER



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

John L. Bobrow 11/20/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD."

Chafetz 11-18-13
ENGINEER'S SIGNATURE DATE

DEVELOPER/BUILDER'S 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."

Bobrow 11/18/13
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. Z. Malt 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. J. ... 12-20-13
Chief, Division of Land Development Date

... 12-17-13
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
BURTONVILLE, MARYLAND 20866
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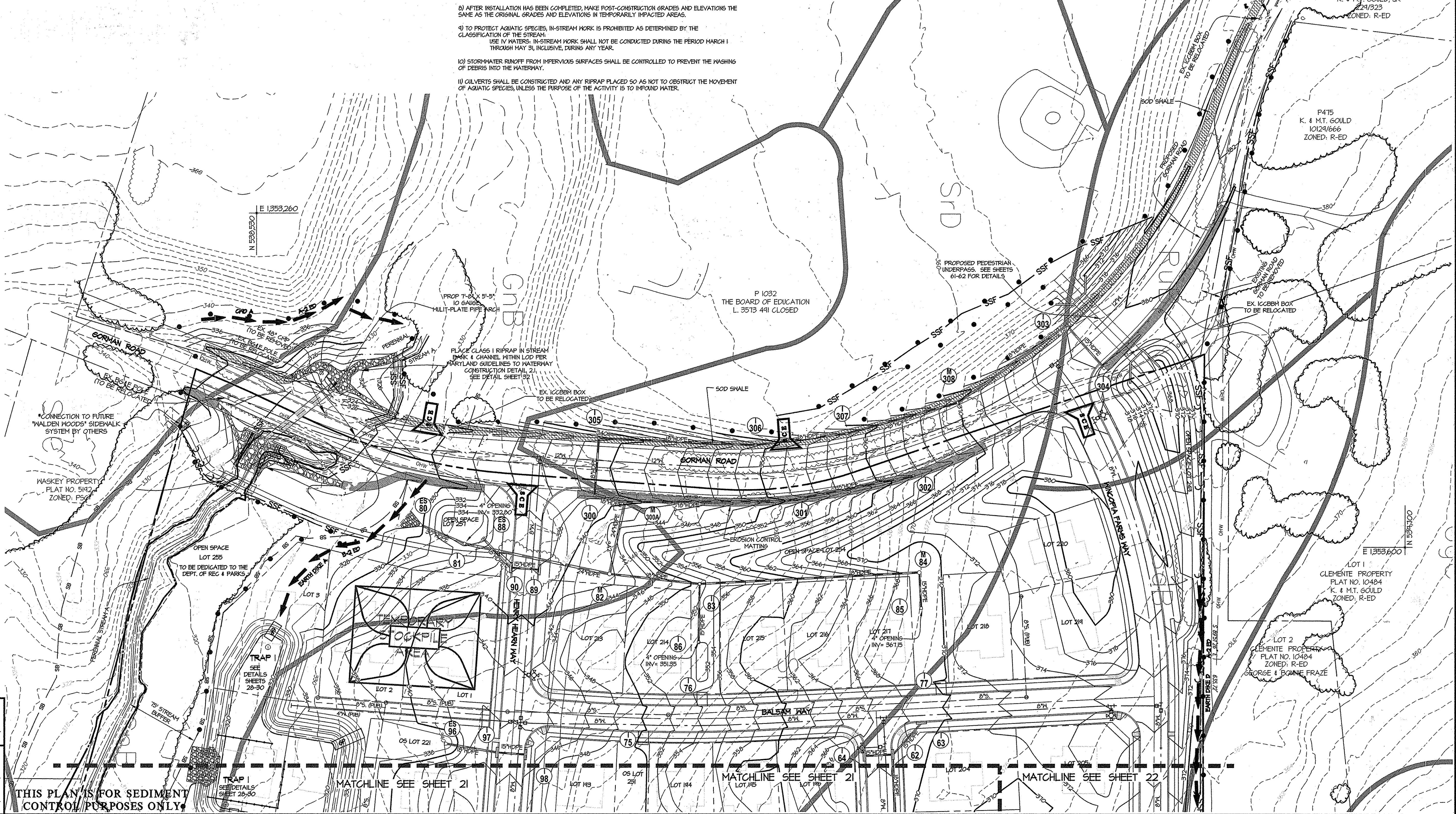
DATE REVISION BY APPR.

DES. dds DRN. dds CHK.

- NOTES:**
- STANDARD SILT FENCE MAY BE REPLACED WITH SUPER SILT FENCE IN THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 - WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURB FENCE UP 2' FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.
 - SEDIMENT CONTROL INSPECTOR MAY RELOCATE STABILIZED CONSTRUCTION ENTRANCES.
 - IF A STOCKPILE EXCEEDS 15 FEET IN HEIGHT, IT MUST BE BENCHED.
 - IF A UTILITY CROSSES A PHASING LINE, THAT SECTION OF PIPE OR STRUCTURE CAN NOT BE INSTALLED UNTIL THE LATER PHASE.
 - ANY EARTH DIKE INTERRUPTED BY THE INSTALLATION OF A STORM DRAIN IS TO BE REPAIRED IMMEDIATELY.
- 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 PERIMETER DIKES, SHALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

- SEQUENCE OF CONSTRUCTION FOR CULVERT INSTALLATION:**
- NOTE: NO CONSTRUCTION IS ALLOWED IN THE STREAM BETWEEN MARCH 1 AND MAY 31.
NOTE: SEE MAINTENANCE OF TRAFFIC PLAN FOR DATES THAT GORMAN ROAD IS ALLOWED TO BE CLOSED.
- INSTALL SSF, SCE, AND CLEAN WATER DIVERSION AS SHOWN IN THE VICINITY OF THE CULVERT. (5 DAYS)
 - INSTALL NEW CULVERT AND DO ALL GRADING POSSIBLE WITHOUT EFFECTING THE EXISTING STREAM ALIGNMENT. (2 DAYS)
 - STABILIZE ALL DISTURBED AREA ON THE UPSTREAM END OF THE CULVERT AND INSTALL RIP RAP. (5 DAYS)
 - INSTALL PUMP AROUND PRACTICE PER MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 12. DO ANY REMAINING GRADING AT THE CULVERT OUTFALL, STABILIZE, AND INSTALL RIP RAP. (10 DAYS)
 - ONCE ALL DISTURBED AREA IS STABILIZED AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, PERMANENTLY REALIGN THE STREAM TO THE NEW CULVERT. (5 DAYS)
 - REMOVE SSF FOLLOWING THE OLD STREAM ALIGNMENT AND INSTALL SSF ON THE NORTH SIDE OF THE NEW STREAM BANKS. (2 DAYS)
 - REMOVE EXISTING CULVERT AND DO ANY REMAINING GRADING. (10 DAYS)
 - INSTALL ANY REMAINING RIP RAP AND STABILIZE ENTIRE LOD IN THE VICINITY OF THE CULVERT. (3 DAYS)
 - REMOVE ANY REMAINING SSF AND CLEAN WATER DIVERSION. (5 DAYS)

- BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS:**
- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
 - PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
 - DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL, FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
 - PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
 - REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100-YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
 - RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
 - ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LULIM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (Avena sp.), AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS AND WATERWAYS DIVISION. KENNY'S RICE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEEDING AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
 - AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
 - TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM.
USE IV WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR.
 - STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
 - CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPROVE WATER.



THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

MATCHLINE SEE SHEET 21

MATCHLINE SEE SHEET 21

MATCHLINE SEE SHEET 22

TRAP I SEE DETAILS SHEET 20-30

TRAP II SEE DETAILS SHEET 20-30

TRAP III SEE DETAILS SHEET 20-30

TRAP IV SEE DETAILS SHEET 20-30

TRAP V SEE DETAILS SHEET 20-30

TRAP VI SEE DETAILS SHEET 20-30

TRAP VII SEE DETAILS SHEET 20-30

TRAP VIII SEE DETAILS SHEET 20-30

TRAP IX SEE DETAILS SHEET 20-30

TRAP X SEE DETAILS SHEET 20-30

TRAP XI SEE DETAILS SHEET 20-30

TRAP XII SEE DETAILS SHEET 20-30

TRAP XIII SEE DETAILS SHEET 20-30

TRAP XIV SEE DETAILS SHEET 20-30

TRAP XV SEE DETAILS SHEET 20-30

TRAP XVI SEE DETAILS SHEET 20-30

TRAP XVII SEE DETAILS SHEET 20-30

TRAP XVIII SEE DETAILS SHEET 20-30

TRAP XIX SEE DETAILS SHEET 20-30

TRAP XX SEE DETAILS SHEET 20-30

TRAP XXI SEE DETAILS SHEET 20-30

TRAP XXII SEE DETAILS SHEET 20-30

TRAP XXIII SEE DETAILS SHEET 20-30

TRAP XXIV SEE DETAILS SHEET 20-30

TRAP XXV SEE DETAILS SHEET 20-30

TRAP XXVI SEE DETAILS SHEET 20-30

TRAP XXVII SEE DETAILS SHEET 20-30

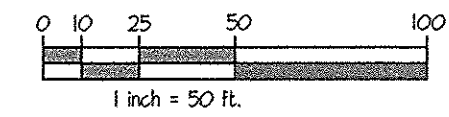
TRAP XXVIII SEE DETAILS SHEET 20-30

TRAP XXIX SEE DETAILS SHEET 20-30

TRAP XXX SEE DETAILS SHEET 20-30



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THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

[Signature] 12/20/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

[Signature] 11-18-13
ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S 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] 11/18/13
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 12-20-13
Chief, Division of Land Development Date

[Signature] 12-17-13
Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK
BURTONTVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-959-2524 FAX: 301-421-4186

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNALIFT
410-381-3222

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. 12874
EXPIRATION DATE: MAY 26, 2014
11-18-13 *[Signature]*



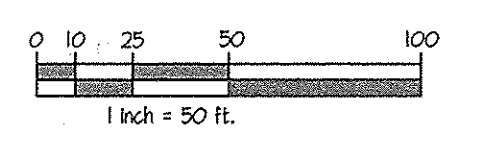
SEDIMENT CONTROL PLAN
WINCOPIA FARMS
LOTS 1-201, 208-220, 258-263 &
OPEN SPACE LOTS 221 THROUGH 257
L 11388 R 725
PARCEL 472
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	21 OF 71

L:\CADD\DRAWINGS\08052\FINALS\08052-SNE.dwg	DES. dds	DRN. dds	CHK.	DATE	REVISION	BY	APPR.
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THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John Roberts 11/29/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
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Ch... 11-18-13
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
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... 11/18/13
 SIGNATURE OF DEVELOPER/BUILDER DATE

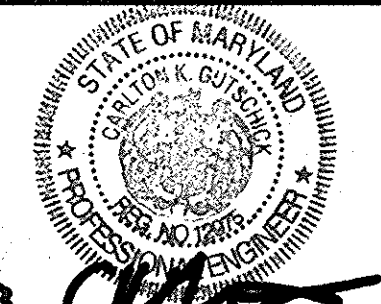
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Mike R. Smith 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Val Sheline 12-20-13
 Chief, Division of Land Development Date
Paul Blum 12-17-13
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONVILLE OFFICE PARK
 BURTONVILLE, MARYLAND 20869
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

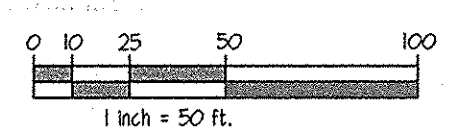
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12075
 EXPIRATION DATE: MAY 26, 2014
 11-18-13 *Ch...*



SEDIMENT CONTROL PLAN
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 11888 P 125
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	22 OF 71

- NOTES:**
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THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

John R. DeLuca 11/20/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

CKG 11-18-13
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S 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.

ND 11/18/13
 SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. Smith 12-9-13
 Chief, Bureau of Highways Date

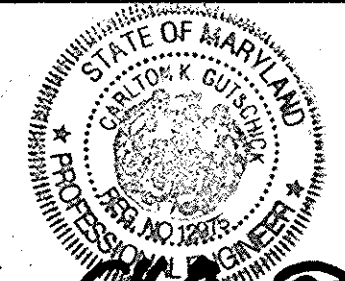
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
W. J. Sullivan 12-20-13
 Chief, Division of Land Development Date

Chad P. ... 12-17-13
 Chief, Development Engineering Division 4w Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTINSVILLE OFFICE PARK
 BURTINSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-959-2524 FAX: 301-421-4186

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12875
 EXPIRATION DATE: MAY 26, 2014
 11-18-13 *CKG*

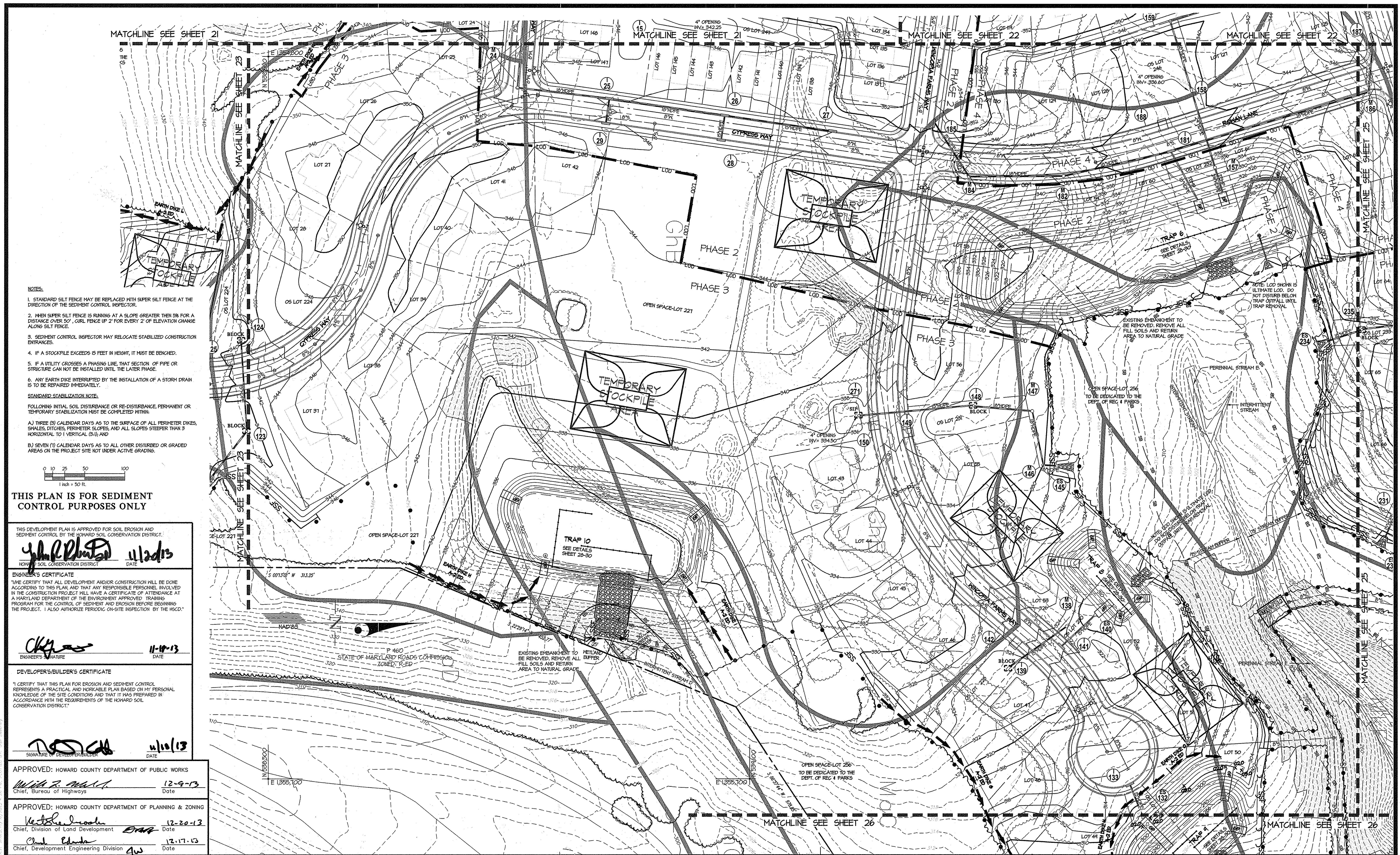


SEDIMENT CONTROL PLAN
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 & OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 R. 725
 PARCEL 472
 ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	23 OF 71

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DATE	REVISION	BY	APP'R.



NOTES:

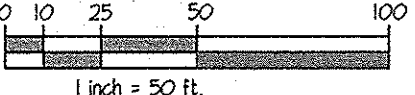
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[Signature] 11/20/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
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[Signature] 11-19-13
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[Signature] 11/10/13
 SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 12-20-13
 Chief, Division of Land Development Date

[Signature] 12-17-13
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTVILLE OFFICE PARK
 BIRTVILLE, MARYLAND 20868
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-589-2524 FAX: 301-421-4186

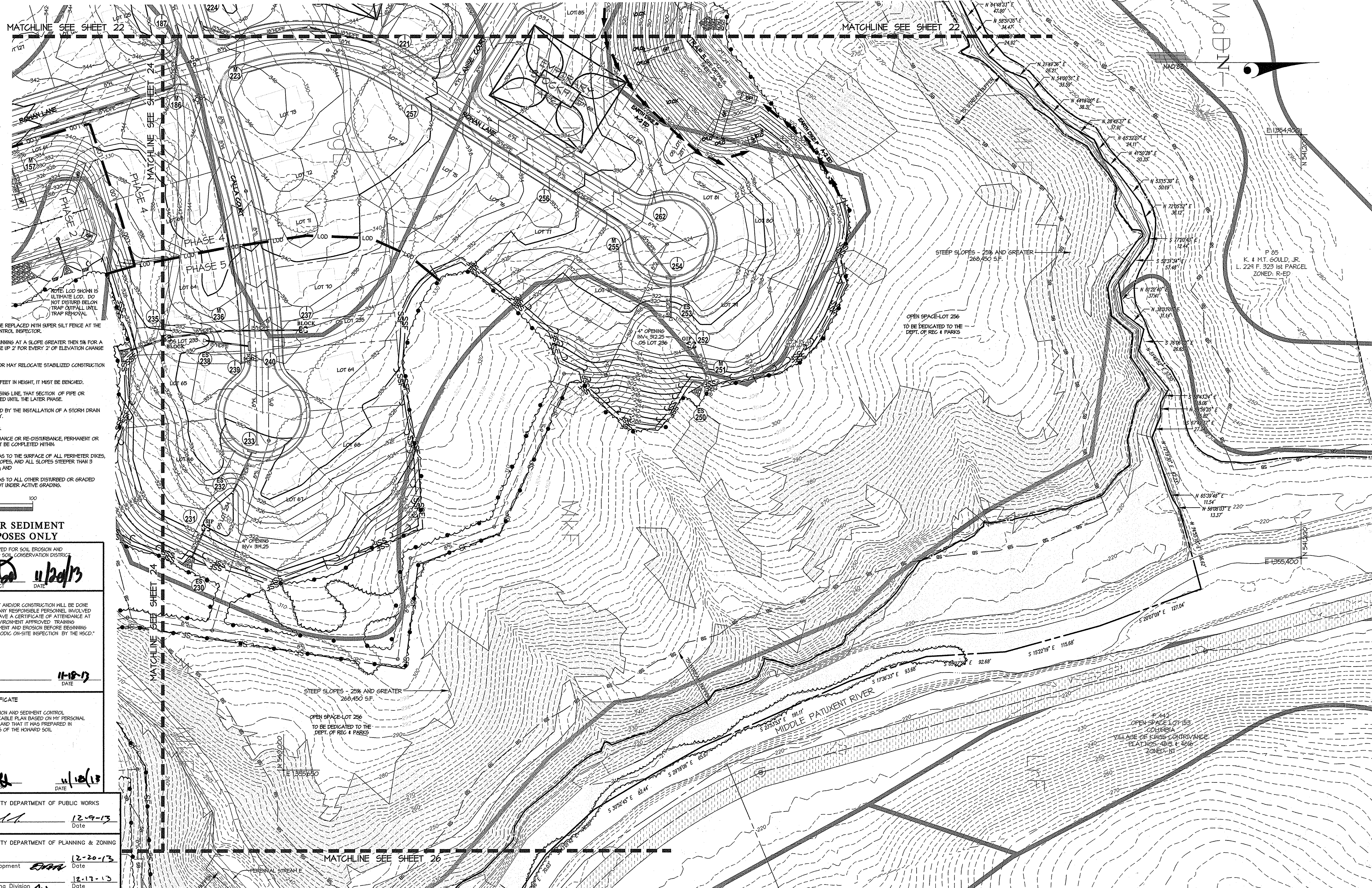
PREPARED FOR:
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 BRIAN KNAUFF
 410-381-3222

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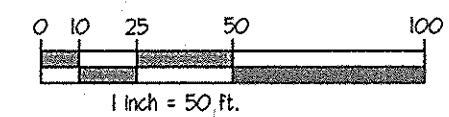


SEDIMENT CONTROL PLAN
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 1838 E 725
 PARCEL 472

SCALE	ZONING	C. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	24 OF 71



- NOTES:**
1. STANDARD SILT FENCE MAY BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 2. WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURB FENCE UP 2' FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.
 3. SEDIMENT CONTROL INSPECTOR MAY RELOCATE STABILIZED CONSTRUCTION ENTRANCES.
 4. IF A STOCKPILE EXCEEDS 15 FEET IN HEIGHT, IT MUST BE BENCHED.
 5. IF A UTILITY CROSSES A PHASING LINE, THAT SECTION OF PIPE OR STRUCTURE CAN NOT BE INSTALLED UNTIL THE LATER PHASE.
 6. ANY EARTH DIKE INTERRUPTED BY THE INSTALLATION OF A STORM DRAIN IS TO BE REPAIRED IMMEDIATELY.
- 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 PERIMETER DIKES, SHALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
- B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.



THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

John R. Blanton 11/20/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

Chris 11-18-13
 ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S 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.

Tom 11/20/13
 SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. ... 12-9-13
 Chief, Bureau of Highways Date

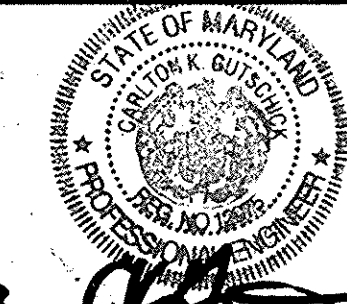
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
... 12-20-13
 Chief, Division of Land Development Date

... 12-17-13
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTINSVILLE OFFICE PARK
 BURTINSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12875
 EXPIRATION DATE: MAY 26, 2014
 11-18-13 *Chris*

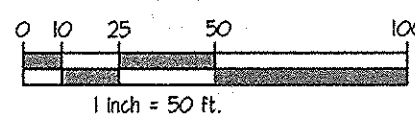


SEDIMENT CONTROL PLAN
WINCOPIA FARMS
 LOTS 1- 201, 208- 220, 258- 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 R. 725
 PARCEL 472

SCALE	ZONING	C. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	25 OF 71



- NOTES:**
- STANDARD SILT FENCE MAY BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 - WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURB FENCE UP 2' FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.
 - SEDIMENT CONTROL INSPECTOR MAY RELOCATE STABILIZED CONSTRUCTION ENTRANCES.
 - IF A STOCKPILE EXCEEDS 15 FEET IN HEIGHT, IT MUST BE BENCHED.
 - IF A UTILITY CROSSES A PHASING LINE, THAT SECTION OF PIPE OR STRUCTURE CAN NOT BE INSTALLED UNTIL THE LATER PHASE.
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 - B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.



THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

John R. Roberts 11/20/13
 HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

John R. Roberts 11/18/13
 ENGINEER'S SIGNATURE DATE

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John R. Roberts 11/18/13
 SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William R. M... 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Keith Schuler 12-20-13
 Chief, Division of Land Development Date

Chad ... 12-17-13
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONVILLE OFFICE PARK
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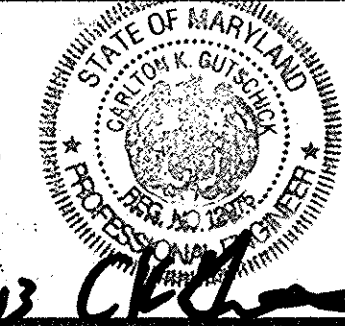
DATE	REVISION	BY	APP'R.

PREPARED FOR:
 BEAZER HOMES CORP.
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 SUITE 290
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 410-381-3222

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. 12974, EXPIRATION DATE: MAY 26, 2014.

11-18-13 *John R. Roberts*

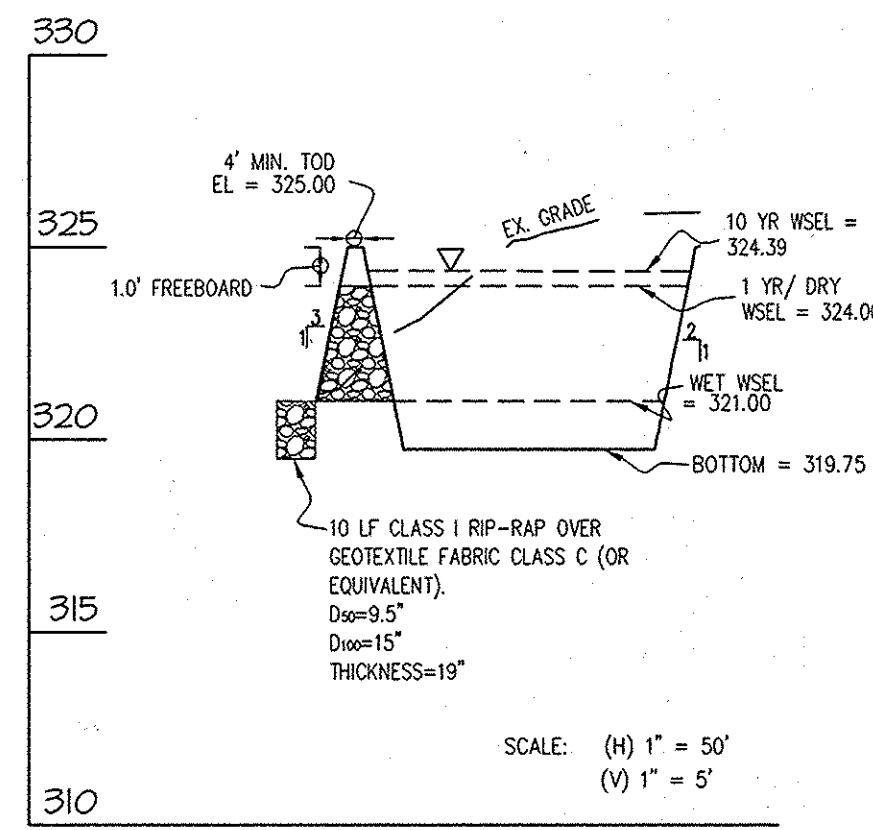


SEDIMENT CONTROL PLAN

WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 R. 725
 PARCEL 472

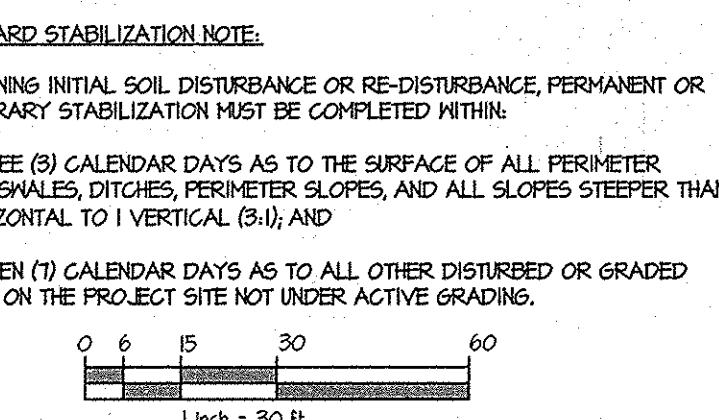
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	26 OF 71



**SEDIMENT TRAP 1
PROFILE THROUGH PRINCIPAL SPILLWAY**

- NOTES:**
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 - WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURB FENCE UP 2' FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.
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- B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.



THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

[Signature] 11/20/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

[Signature] 11-18-13
ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

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[Signature] 11/18/13
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

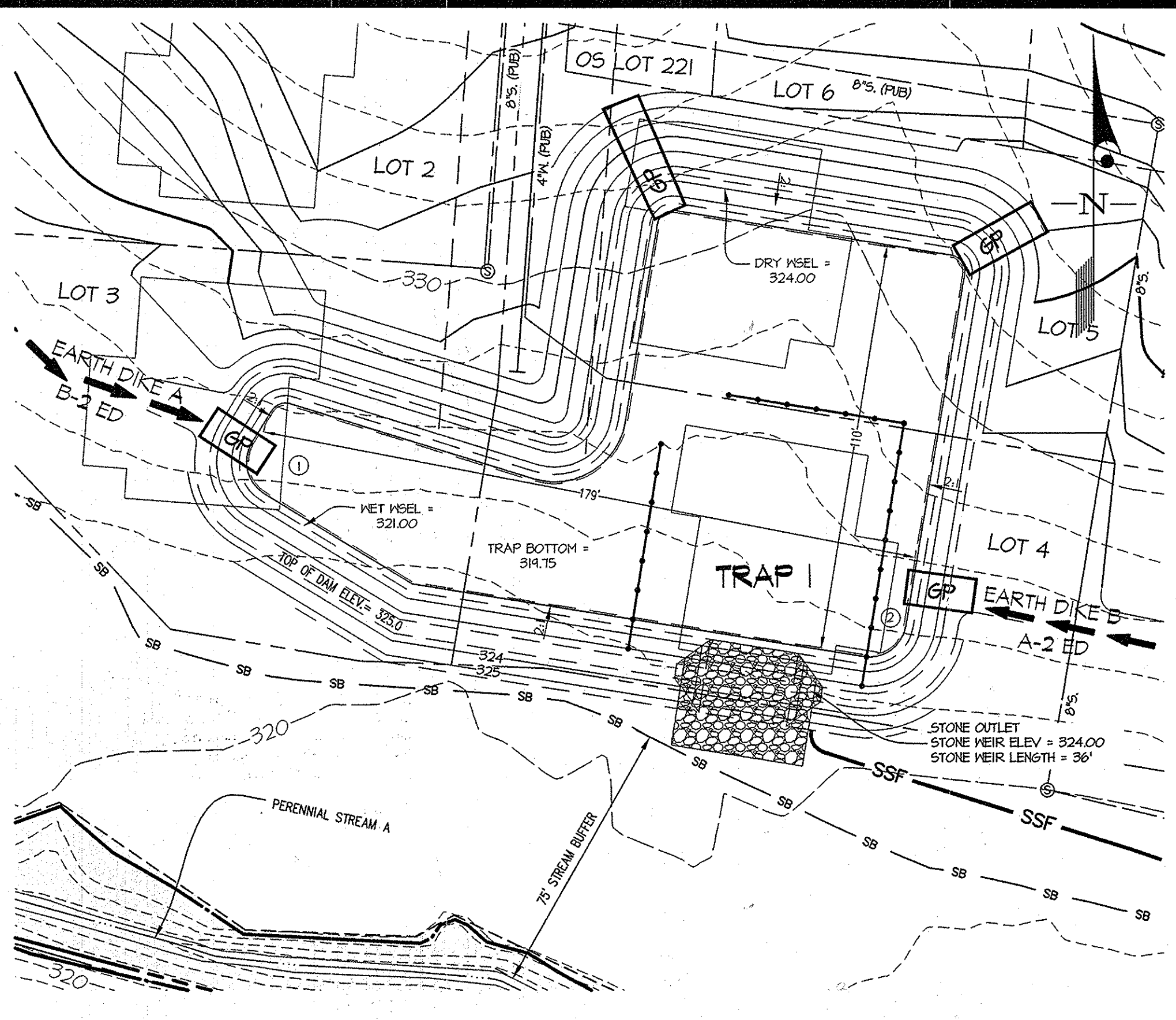
[Signature] 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12-20-13
Chief, Division of Land Development Date

[Signature] 12-17-13
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BIRTONVILLE OFFICE PARK
BURTONVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



TRAP 1 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 1 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-II)

EXISTING DRAINAGE AREA: 0.6 AC
WORST CASE INTERIM DRAINAGE AREA: 0.6 AC

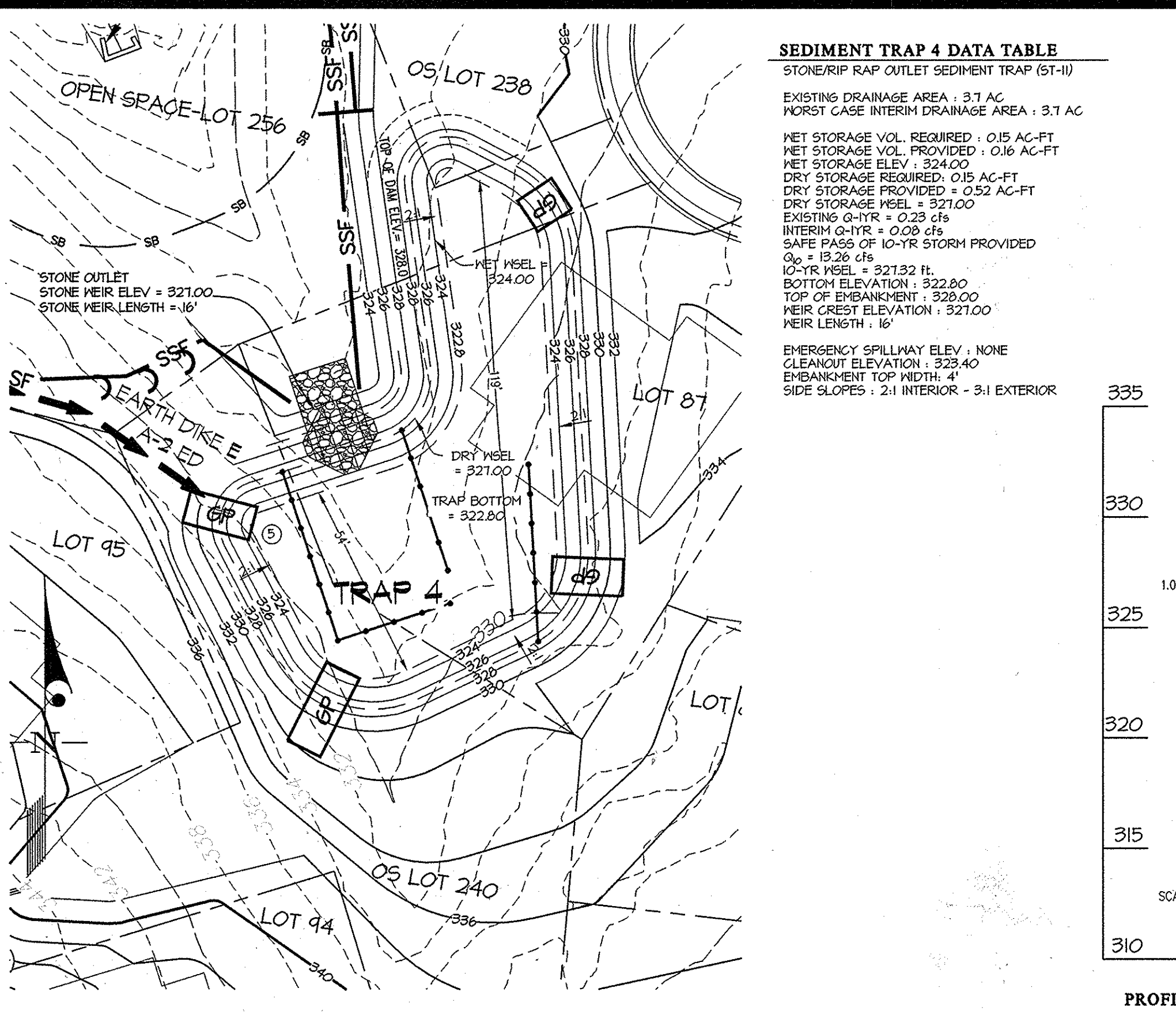
NET STORAGE VOL. REQUIRED: 0.36 AC-FT
NET STORAGE VOL. PROVIDED: 0.31 AC-FT
NET STORAGE ELEV.: 321.00
DRY STORAGE REQUIRED: 0.36 AC-FT
DRY STORAGE PROVIDED: 1.04 AC-FT
DRY STORAGE WEEL: 324.00
EXISTING Q-TYR: 0.4 cfs
INTERIM Q-TYR: 0.41 cfs
SAFE PASS OF 10-YR STORM PROVIDED: Q₁₀ = 56.74 cfs
10-YR WEEL: 324.94 ft
BOTTOM ELEVATION: 314.15
TOP OF EMBANKMENT: 325.00
WEIR CREST ELEVATION: 324.00
WEIR LENGTH: 36'

EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 320.50
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR

BAFFLE COMPUTATION

① D = 135 FT.
A NET POOL = 13,673 FT²
W₀ = √(A/2) = 83
L₀ = 2W₀ = 166 FT REQUIRED
L₀ = 168 FT PROVIDED

② D = 50 FT.
A NET POOL = 13,673 FT²
W₀ = √(A/2) = 83
L₀ = 2W₀ = 166 FT REQUIRED
L₀ = 170 FT PROVIDED



TRAP 4 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 4 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-II)

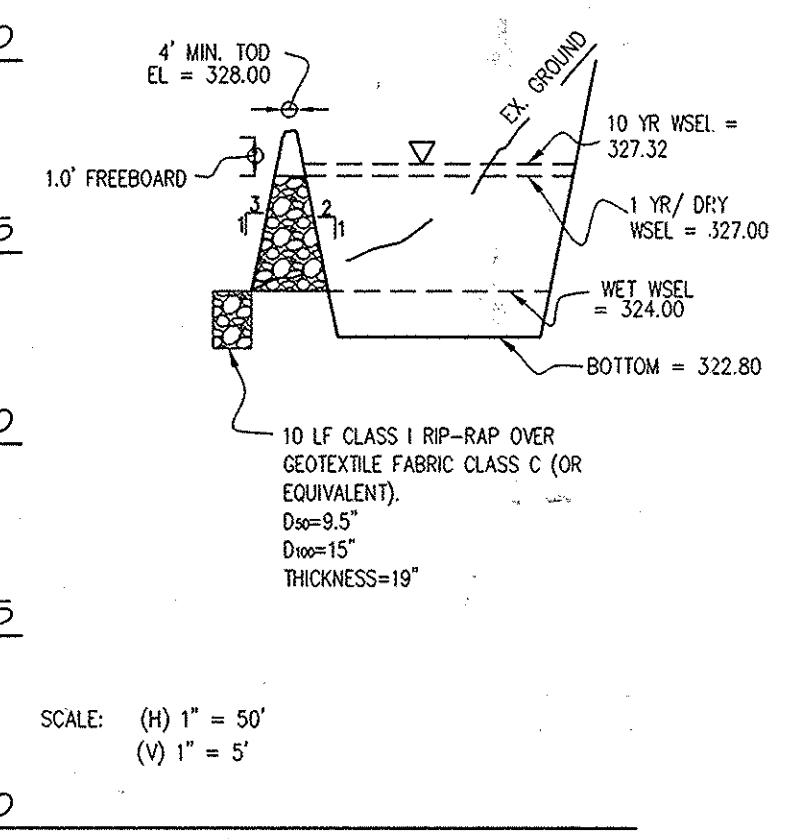
EXISTING DRAINAGE AREA: 3.1 AC
WORST CASE INTERIM DRAINAGE AREA: 3.1 AC

NET STORAGE VOL. REQUIRED: 0.15 AC-FT
NET STORAGE VOL. PROVIDED: 0.16 AC-FT
NET STORAGE ELEV.: 324.00
DRY STORAGE REQUIRED: 0.15 AC-FT
DRY STORAGE PROVIDED: 0.52 AC-FT
DRY STORAGE WEEL: 321.00
EXISTING Q-TYR: 0.23 cfs
INTERIM Q-TYR: 0.23 cfs
SAFE PASS OF 10-YR STORM PROVIDED: Q₁₀ = 15.26 cfs
10-YR WEEL: 321.32 ft
BOTTOM ELEVATION: 322.00
TOP OF EMBANKMENT: 328.00
WEIR CREST ELEVATION: 321.00
WEIR LENGTH: 16'

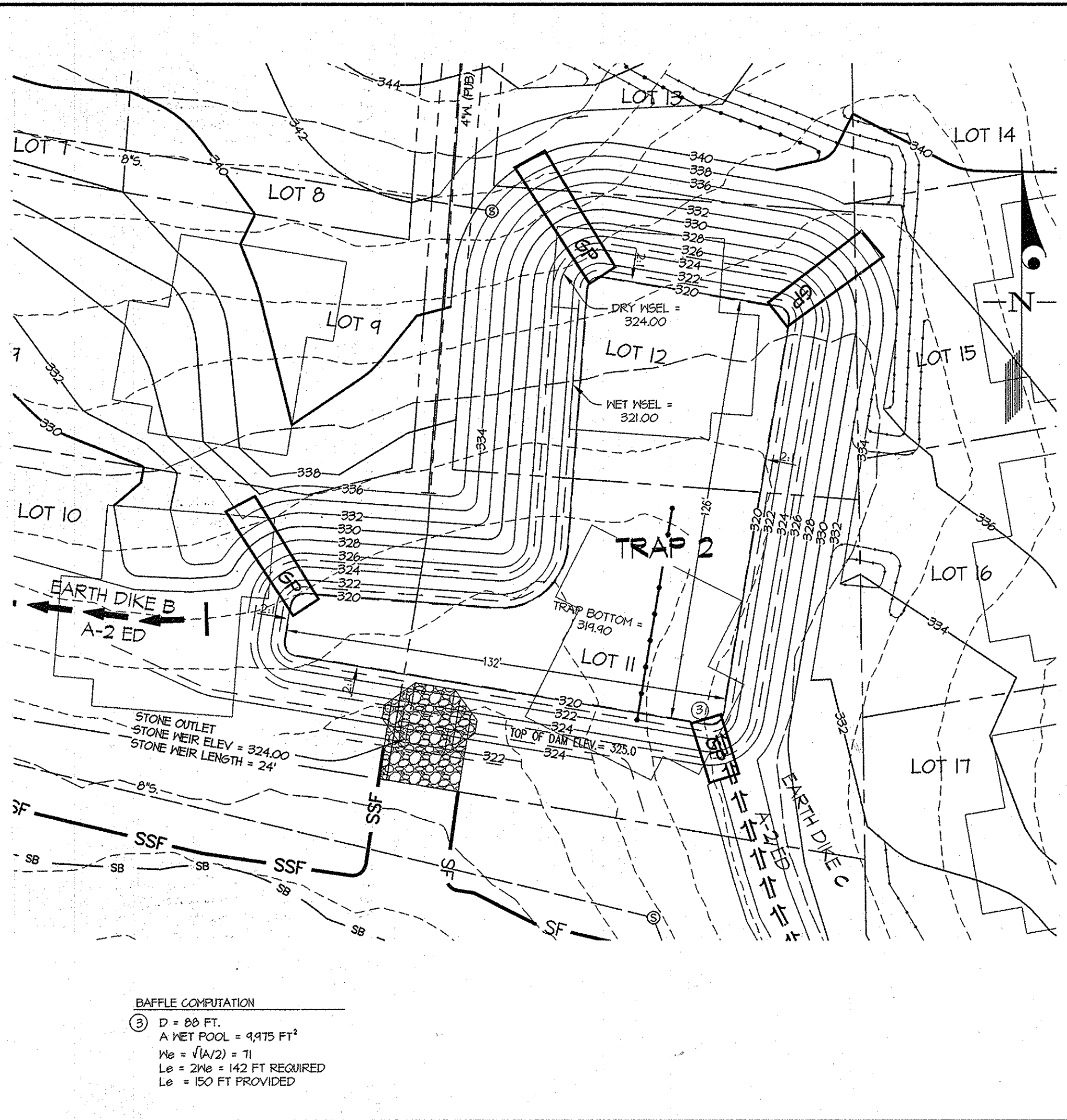
EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 323.40
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR

BAFFLE COMPUTATION

⑤ D = 40 FT.
A NET POOL = 6,345 FT²
W₀ = √(A/2) = 57
L₀ = 2W₀ = 114 FT REQUIRED
L₀ = 120 FT PROVIDED



**SEDIMENT TRAP 4
PROFILE THROUGH PRINCIPAL SPILLWAY**



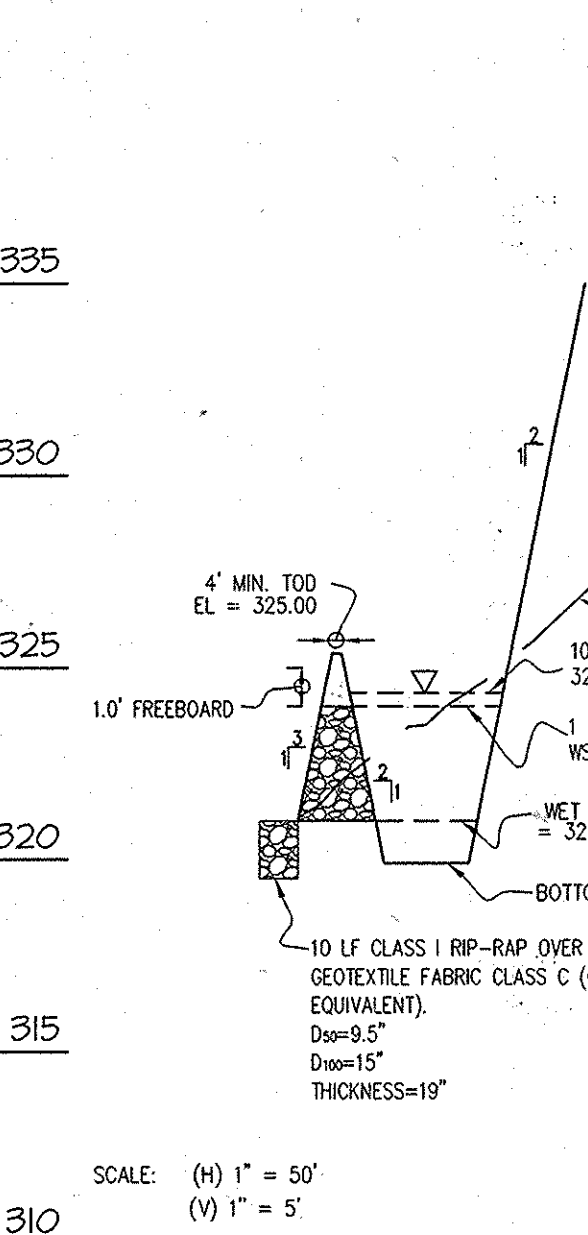
TRAP 2 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 2 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-II)

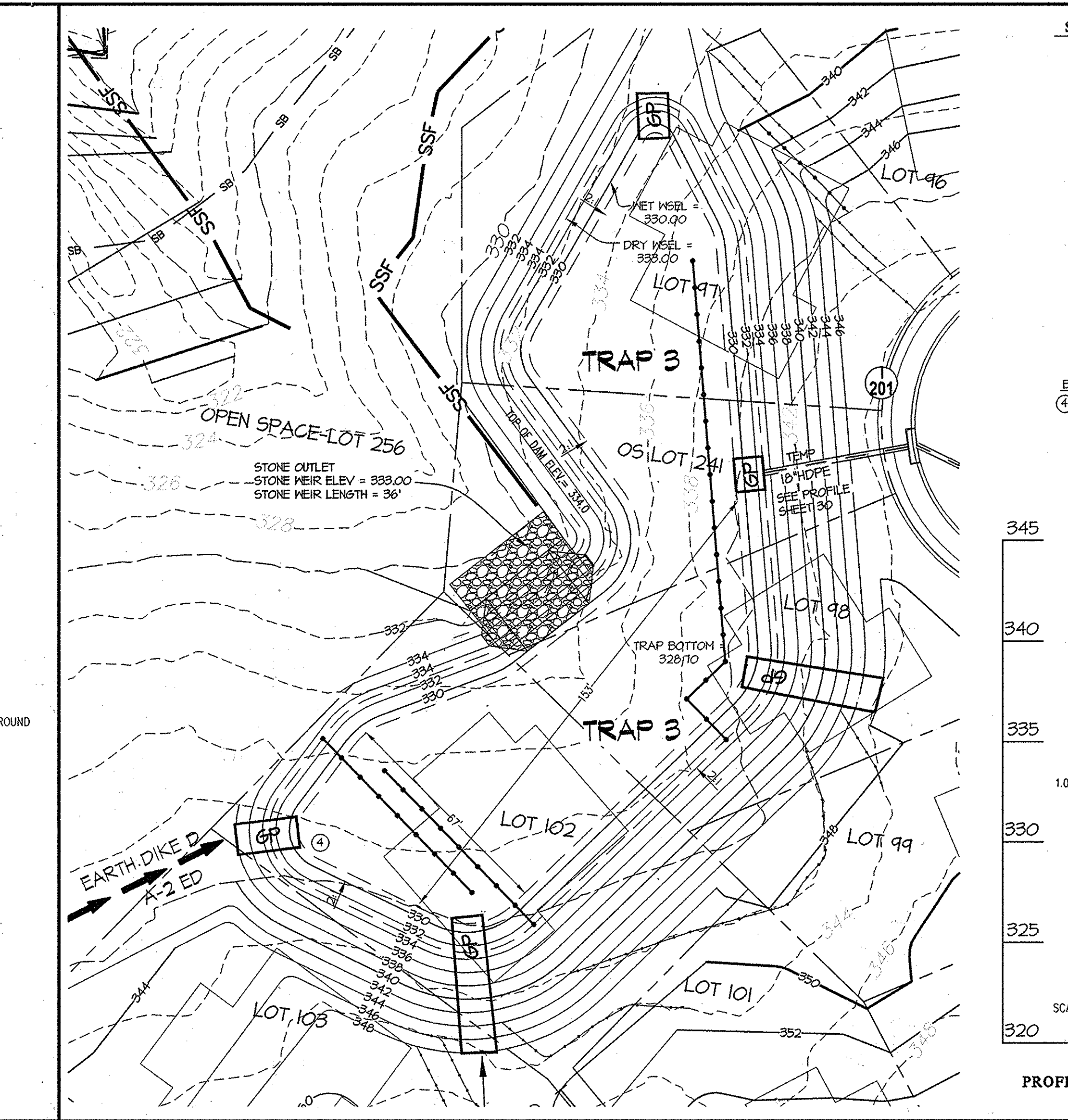
EXISTING DRAINAGE AREA: 5.4 AC
WORST CASE INTERIM DRAINAGE AREA: 5.4 AC

NET STORAGE VOL. REQUIRED: 0.24 AC-FT
NET STORAGE VOL. PROVIDED: 0.24 AC-FT
NET STORAGE ELEV.: 321.00
DRY STORAGE REQUIRED: 0.24 AC-FT
DRY STORAGE PROVIDED: 0.80 AC-FT
DRY STORAGE WEEL: 324.00
EXISTING Q-TYR: 0.56 cfs
INTERIM Q-TYR: 0.41 cfs
SAFE PASS OF 10-YR STORM PROVIDED: Q₁₀ = 22.47 cfs
10-YR WEEL: 324.36 ft
BOTTOM ELEVATION: 314.90
TOP OF EMBANKMENT: 325.00
WEIR CREST ELEVATION: 324.00
WEIR LENGTH: 24'

EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 320.45
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR



**SEDIMENT TRAP 2
PROFILE THROUGH PRINCIPAL SPILLWAY**



TRAP 3 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 3 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-II)

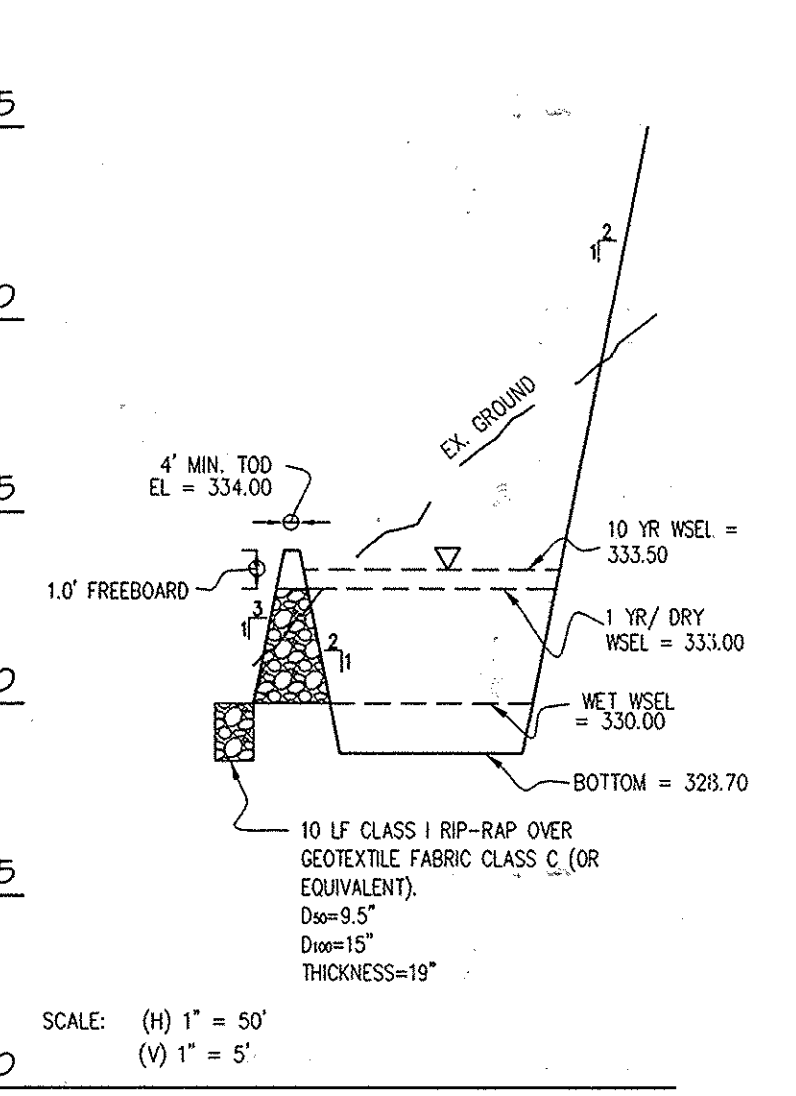
EXISTING DRAINAGE AREA: 4.2 AC
WORST CASE INTERIM DRAINAGE AREA: 4.2 AC

NET STORAGE VOL. REQUIRED: 0.30 AC-FT
NET STORAGE VOL. PROVIDED: 0.34 AC-FT
NET STORAGE ELEV.: 330.00
DRY STORAGE REQUIRED: 0.30 AC-FT
DRY STORAGE PROVIDED: 1.10 AC-FT
DRY STORAGE WEEL: 324.00
EXISTING Q-TYR: 0.48 cfs
INTERIM Q-TYR: 0.48 cfs
SAFE PASS OF 10-YR STORM PROVIDED: Q₁₀ = 46.26 cfs
10-YR WEEL: 333.50 ft
BOTTOM ELEVATION: 328.70
TOP OF EMBANKMENT: 334.00
WEIR CREST ELEVATION: 330.00
WEIR LENGTH: 36'

EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 324.35
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR

BAFFLE COMPUTATION

④ D = 100 FT.
A NET POOL = 13,673 FT²
W₀ = √(A/2) = 83
L₀ = 2W₀ = 166 FT REQUIRED
L₀ = 170 FT PROVIDED



**SEDIMENT TRAP 3
PROFILE THROUGH PRINCIPAL SPILLWAY**

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. 12878, EXPIRATION DATE: MAY 26, 2014

11-18-13
[Signature]

SEDIMENT CONTROL DETAILS

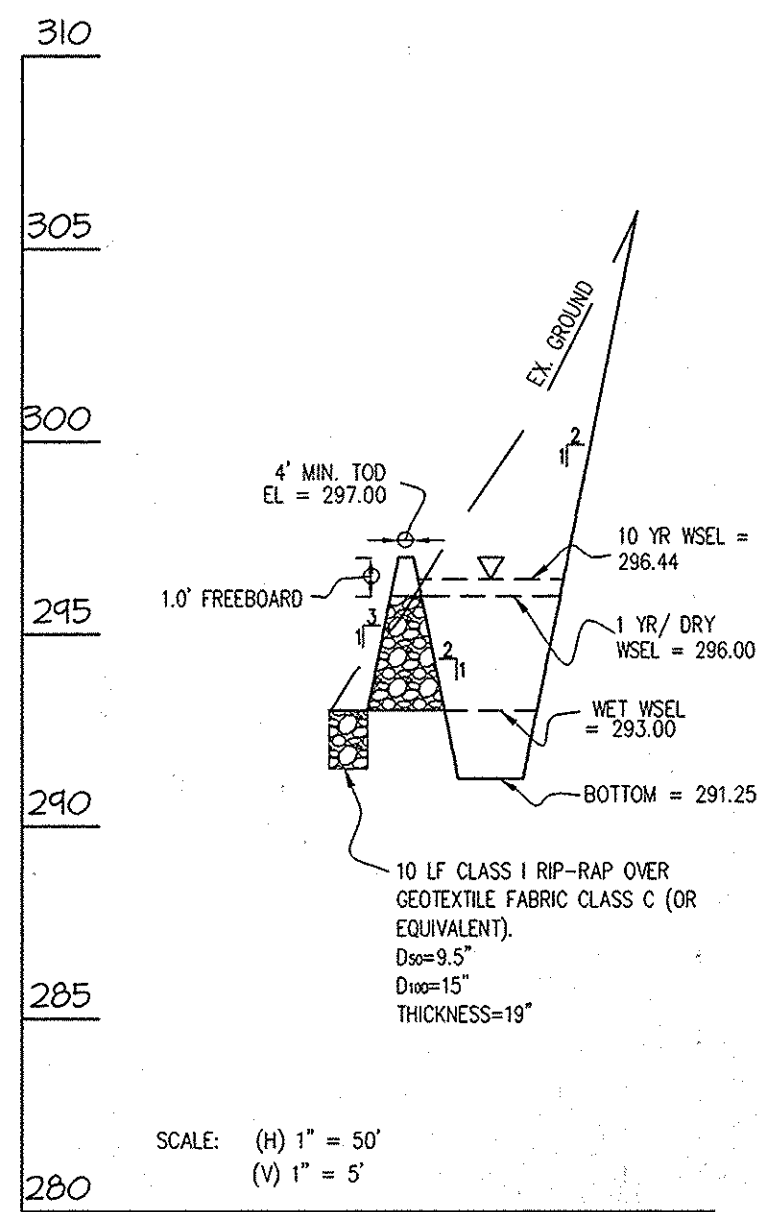
WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 THROUGH 257
L 11388 E 725
PARCEL 472

SCALE: AS SHOWN
ZONING: R-ED
G. L. W. FILE NO.: 08052
DATE: NOV, 2013
TAX MAP - GRID: 47-3
SHEET: 28 OF 71

ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

DATE	REVISION	BY	APP'R.

L:\CAD\DRAWINGS\08052\FINALS\08052-SNE-traps.dwg DES: dds DRN: lwm CHK:



SEDIMENT TRAP 5
PROFILE THROUGH PRINCIPAL SPILLWAY

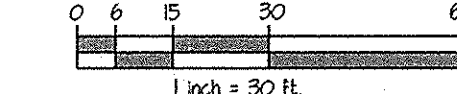
NOTES:

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- IF A STOCKPILE EXCEEDS 15 FEET IN HEIGHT, IT MUST BE BENCHED.
- IF A UTILITY CROSSES A FINISH LINE, THAT SECTION OF PIPE OR STRUCTURE CAN NOT BE INSTALLED UNTIL THE LATER PHASE.
- ANY EARTH DIKE INTERRUPTED BY THE INSTALLATION OF A STORM DRAIN IS TO BE REPAIRED IMMEDIATELY.

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 PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3H:1V); AND
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[Signature] 11/20/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

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[Signature] 11-18-13
ENGINEER'S SIGNATURE DATE

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[Signature] 11/10/13
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 12-9-13
Chief, Bureau of Highways Date

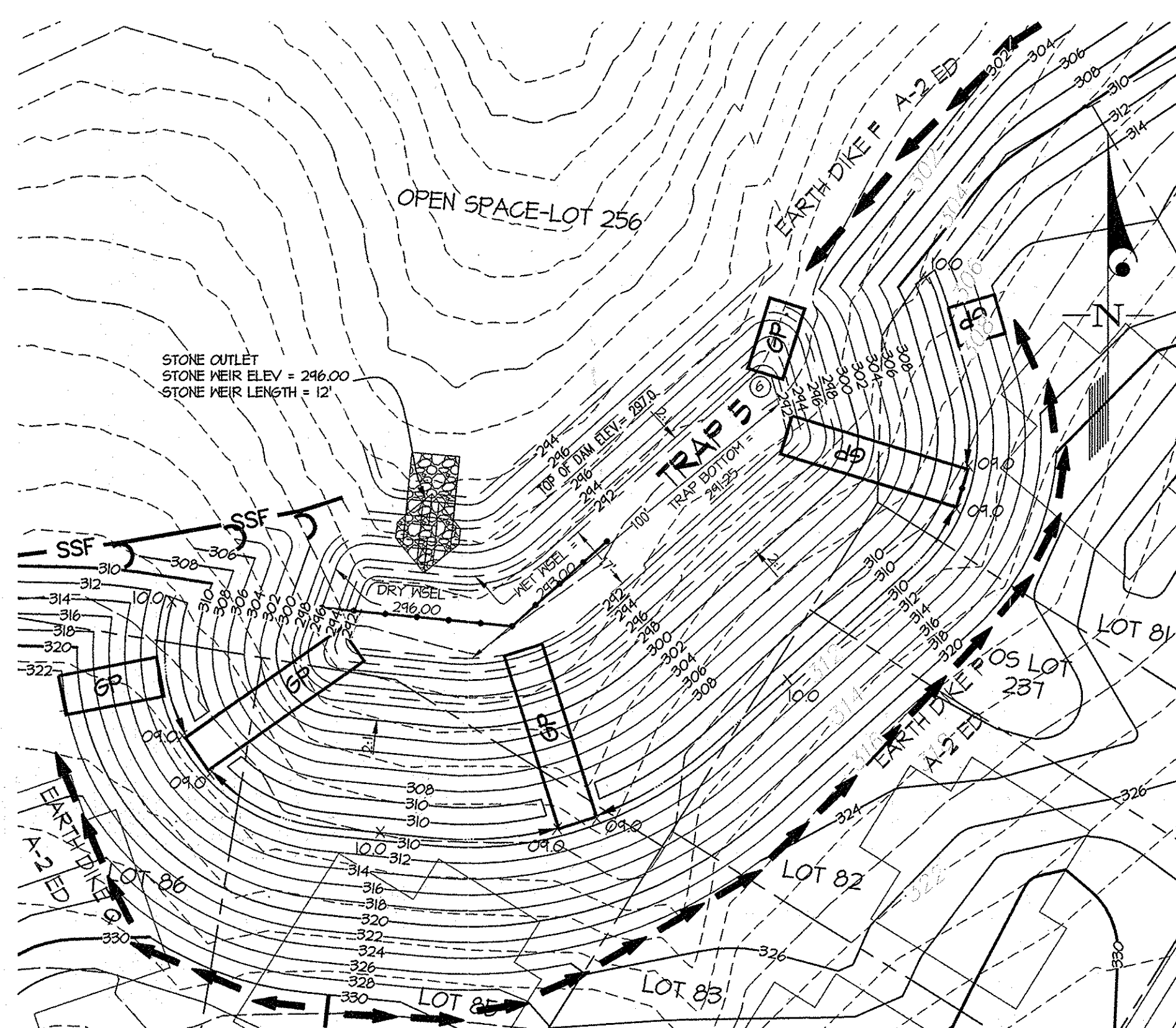
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 12-20-13
Chief, Division of Land Development Date
[Signature] 12-17-13
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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L:\CAD\DRAWINGS\08052\FINALS\08052-SNE-TRAPS.dwg DES. dds DRN. lmw CHK.



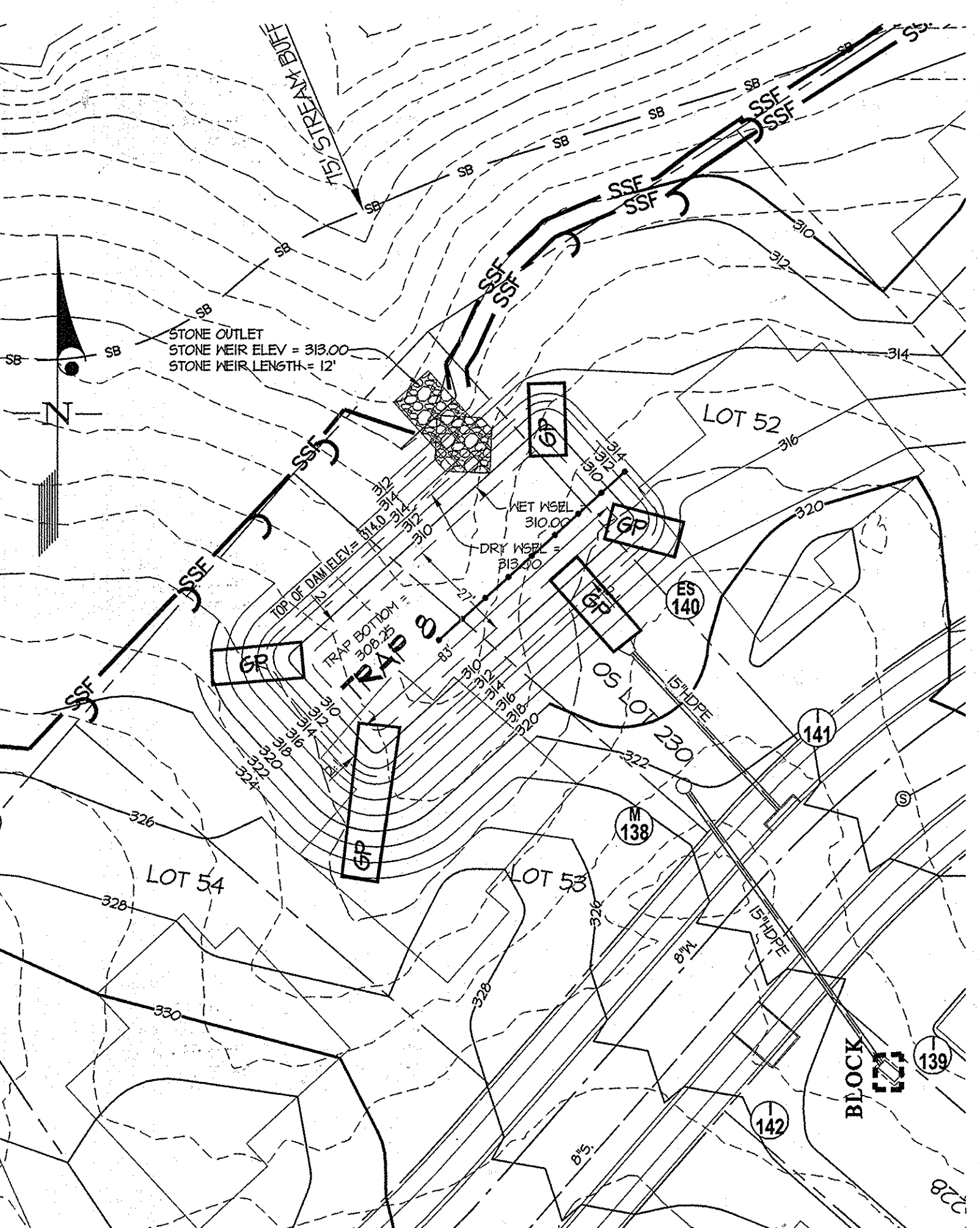
TRAP 5 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 5 DATA TABLE

STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-II)
EXISTING DRAINAGE AREA : 2.6 AC
WORST CASE INTERIM DRAINAGE AREA : 2.6 AC
NET STORAGE VOL. REQUIRED : 0.11 AC-FT
NET STORAGE VOL. PROVIDED : 0.11 AC-FT
NET STORAGE ELEV. : 243.00
DRY STORAGE REQUIRED : 0.11 AC-FT
DRY STORAGE PROVIDED : 0.24 AC-FT
DRY STORAGE WSEL = 246.00
EXISTING Q-HYR = 0.11 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 15.41 cfs
10-YR WSEL = 246.44 ft
BOTTOM ELEVATION : 241.25
TOP OF EMBANKMENT : 247.00
WEIR CREST ELEVATION : 246.00
WEIR LENGTH : 12'
EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 242.19
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 3:1 EXTERIOR

BAFFLE COMPUTATION

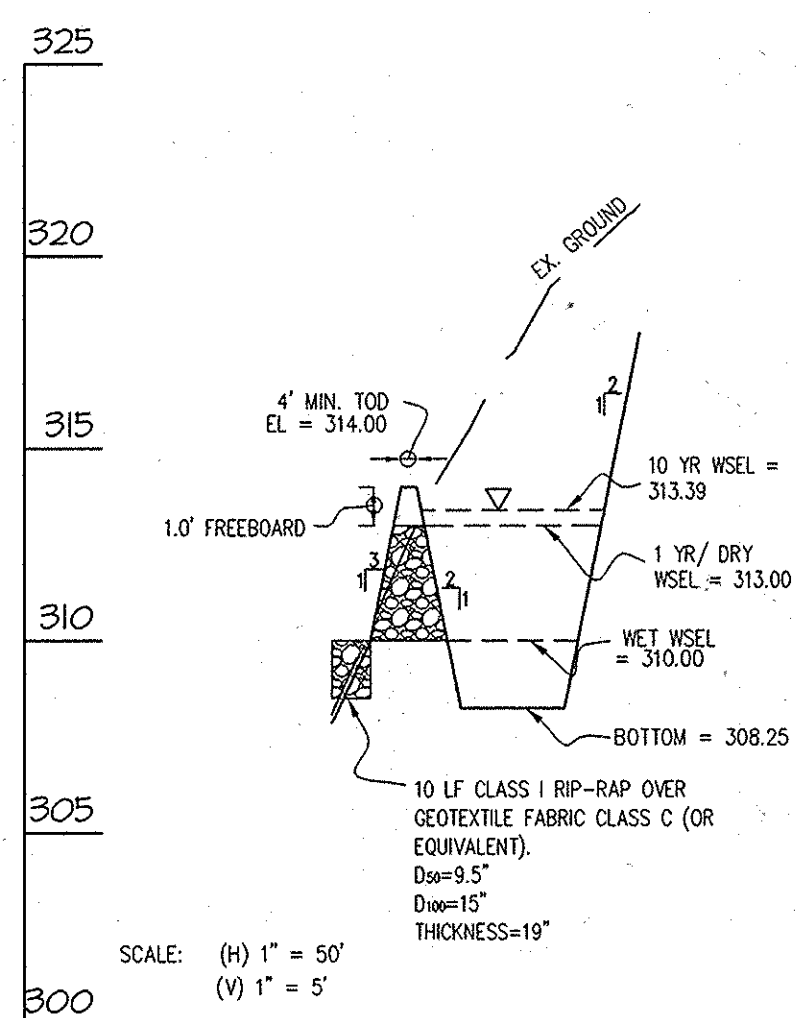
(6) A NET POOL = 3175FT²
M₀ = 1(A/2) = 40
L₀ = 246 = 80 FT REQUIRED
L_e = 85 FT PROVIDED



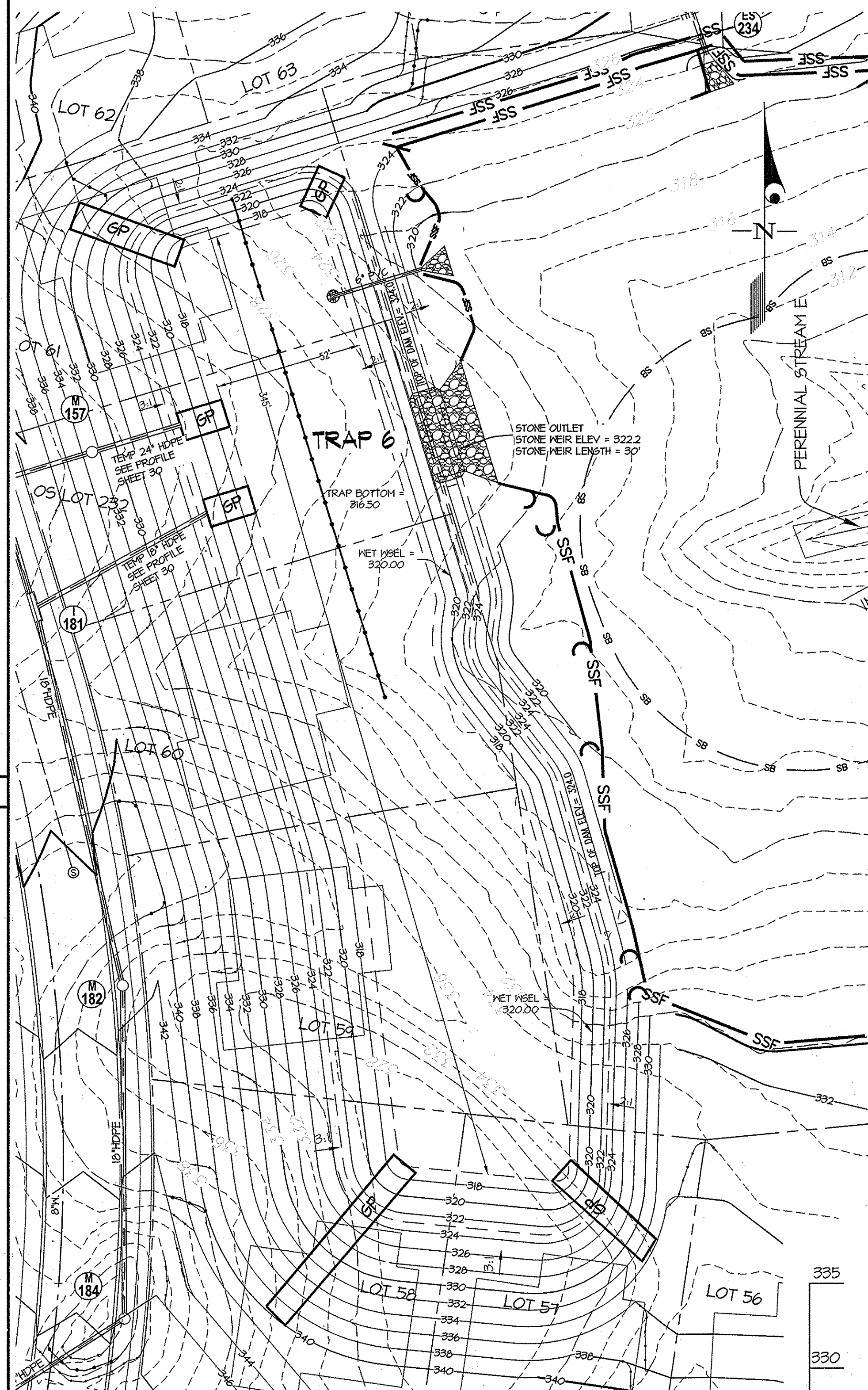
TRAP 8 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 8 DATA TABLE

STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-II)
EXISTING DRAINAGE AREA : 2.3 AC
WORST CASE INTERIM DRAINAGE AREA : 2.3 AC
NET STORAGE VOL. REQUIRED : 0.10 AC-FT
NET STORAGE VOL. PROVIDED : 0.11 AC-FT
NET STORAGE ELEV. : 310.00
DRY STORAGE REQUIRED : 0.10 AC-FT
DRY STORAGE PROVIDED : 0.26 AC-FT
DRY STORAGE WSEL = 313.00
EXISTING Q-HYR = 0.16 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 12.16 cfs
10-YR WSEL = 313.34 ft
BOTTOM ELEVATION : 308.25
TOP OF EMBANKMENT : 314.00
WEIR CREST ELEVATION : 313.00
WEIR LENGTH : 12'
EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 304.19
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 3:1 EXTERIOR



SEDIMENT TRAP 8 -
PROFILE THROUGH PRINCIPAL SPILLWAY



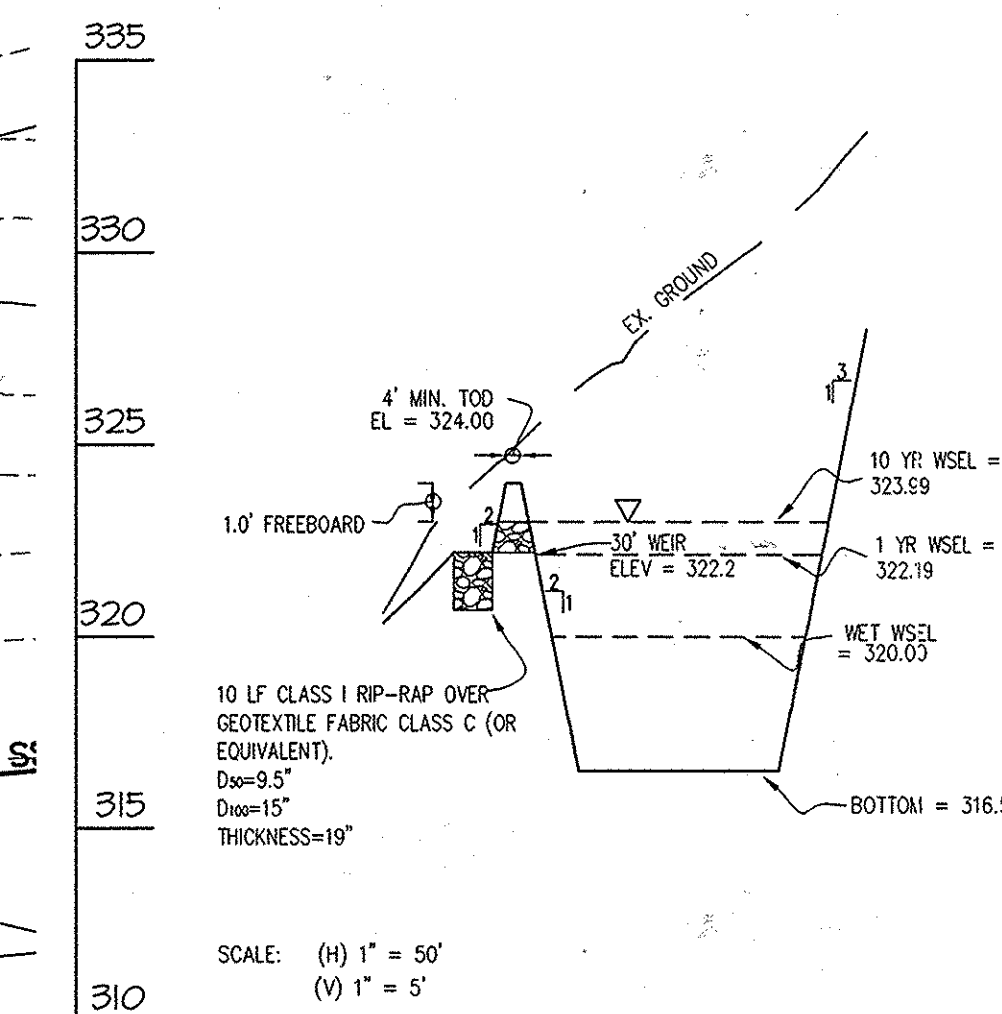
TRAP 6 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 6 DATA TABLE

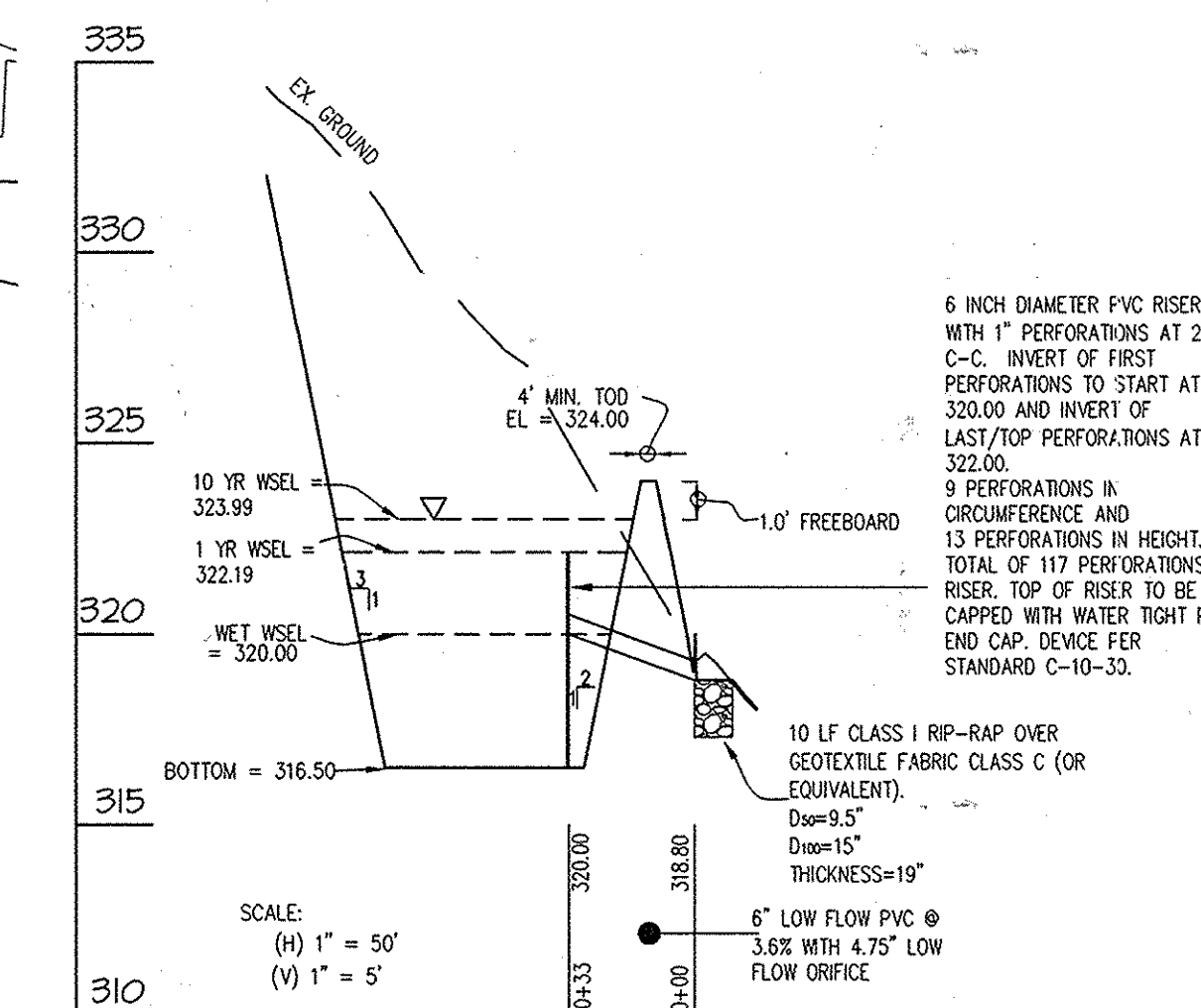
RIP RAP OUTLET SEDIMENT TRAP (ST-III)
EXISTING DRAINAGE AREA : 14.3 AC
WORST CASE INTERIM DRAINAGE AREA : 14.3 AC
NET STORAGE VOL. REQUIRED : 1.71 AC-FT
NET STORAGE VOL. PROVIDED : 1.80 AC-FT
NET STORAGE ELEV. : 320.00
EXISTING Q-HYR = 0.41 cfs
INTERIM Q-HYR = 0.88 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₀ = 56.4 cfs
10-YR WSEL = 322.48 ft
BOTTOM ELEVATION : 316.50
TOP OF EMBANKMENT : 324.00
WEIR CREST ELEVATION : 322.20
WEIR LENGTH : 30'
EMERGENCY SPILLWAY ELEV. : NONE
CLEANOUT ELEVATION : 316.25
EMBANKMENT TOP WIDTH : 4'
SIDE SLOPES : 2:1 INTERIOR - 2:1 EXTERIOR

BAFFLE COMPUTATION

A NET POOL = 25300FT²
M₀ = 1(A/2) = 112
L₀ = 246 = 224 FT REQUIRED
L_e = 230 FT PROVIDED



SEDIMENT TRAP 6
PROFILE THROUGH PRINCIPAL SPILLWAY



SEDIMENT TRAP 6
PROFILE THROUGH LOW FLOW OUTLET

SEDIMENT CONTROL DETAILS

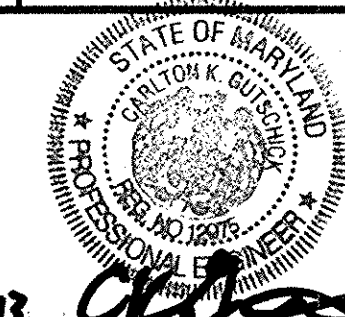
WINCOPIA FARMS
LOTS 1-201, 208-220, 258-263 &
OPEN SPACE LOTS 221 THROUGH 257
L 11388 P. 725
PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	29 OF 71

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

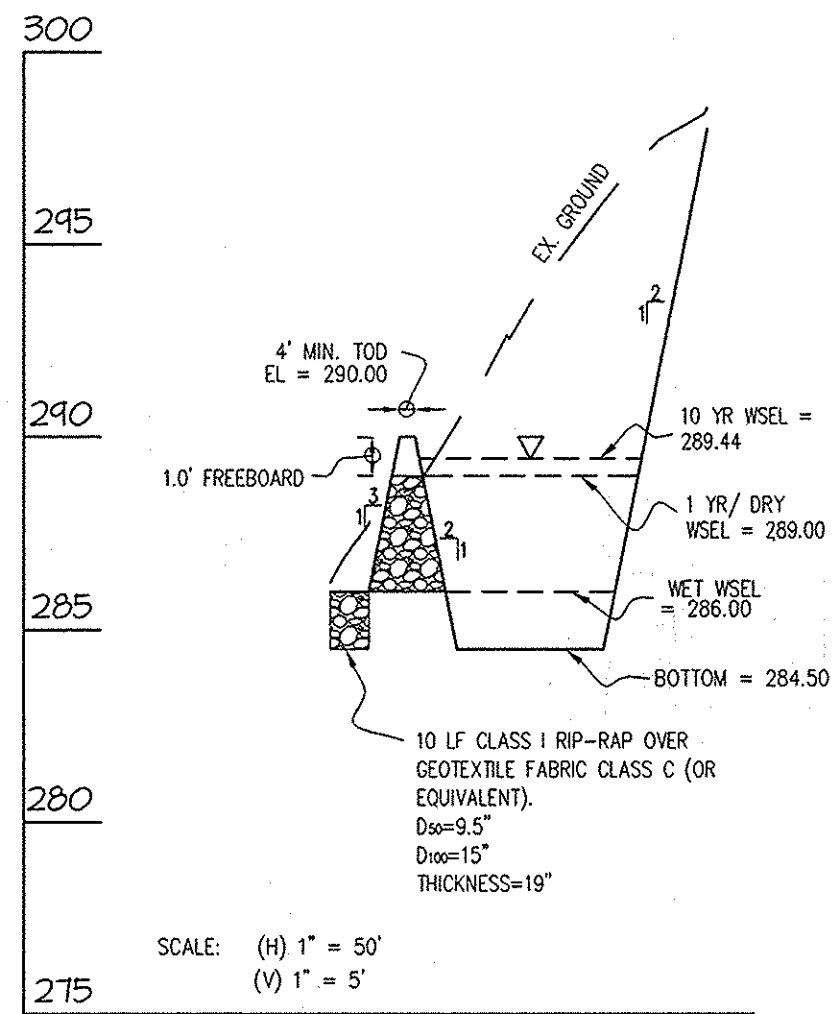
PROFESSIONAL CERTIFICATION

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. 12875, EXPIRATION DATE, MAY 25, 2014.

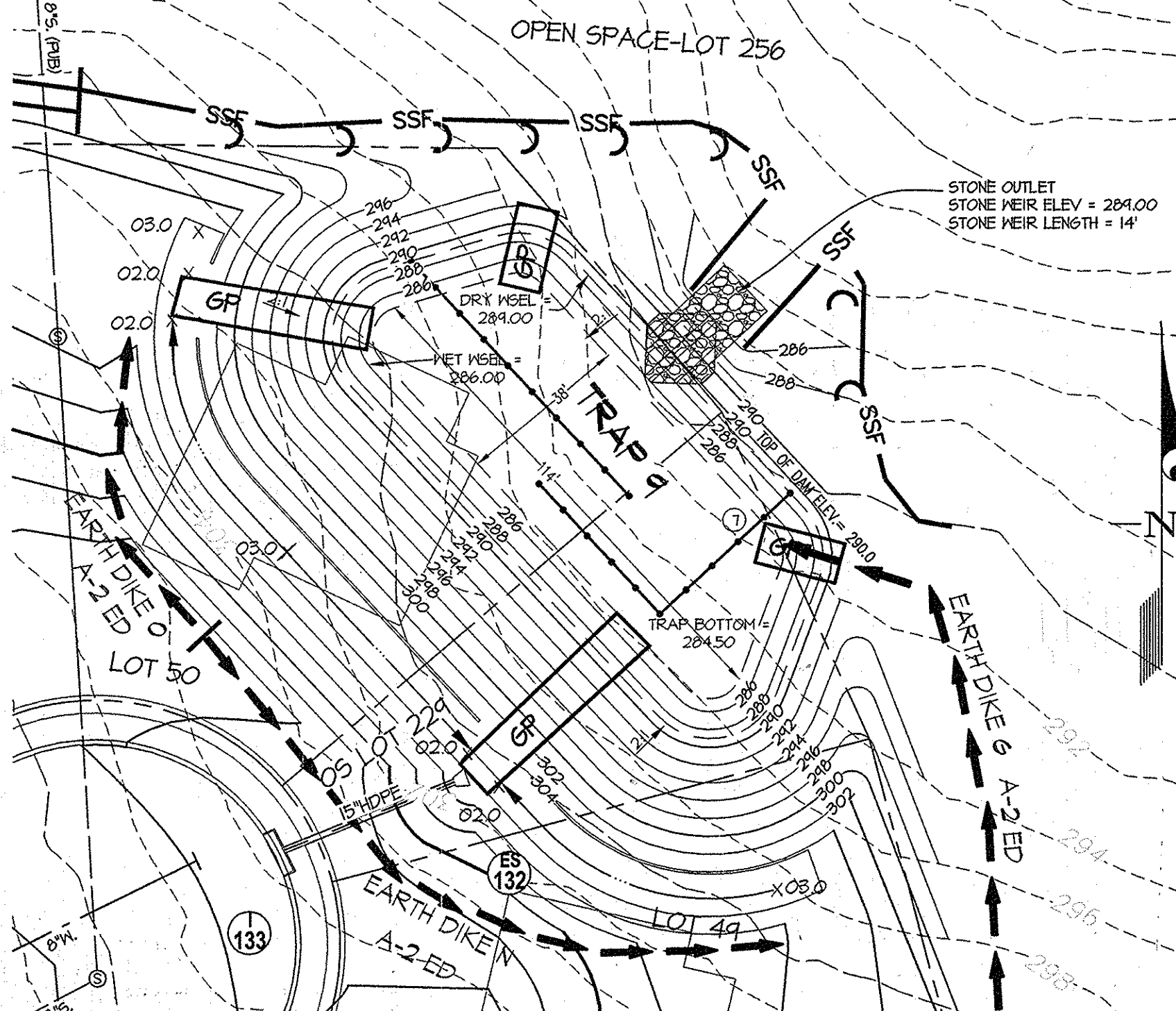


ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND



**SEDIMENT TRAP 9
PROFILE THROUGH PRINCIPAL SPILLWAY**



TRAP 9 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 9 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-11)

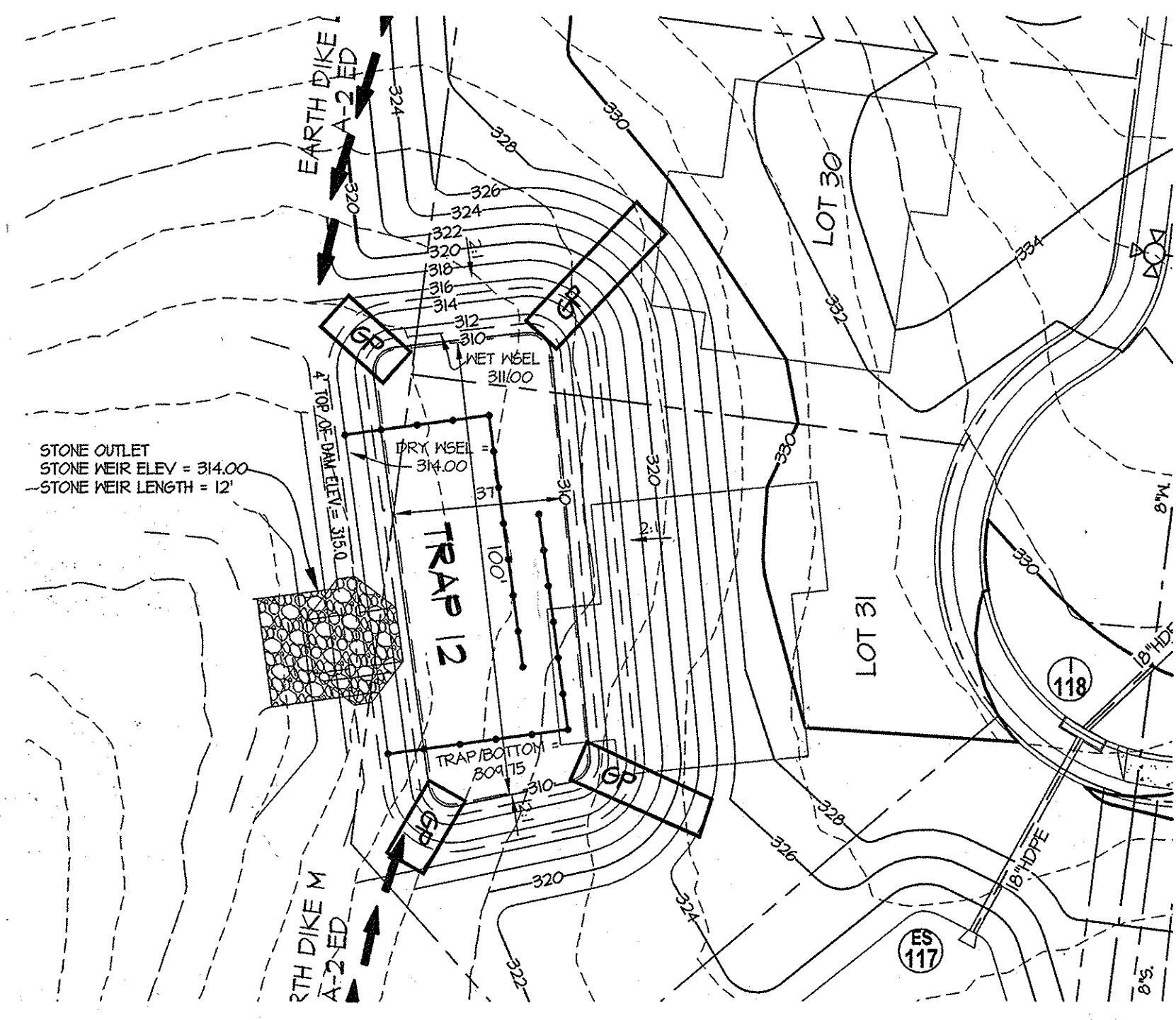
EXISTING DRAINAGE AREA: 3.1 AC
WORST CASE INTERIM DRAINAGE AREA: 3.1 AC

NET STORAGE VOL. REQUIRED: 0.13 AC-FT
NET STORAGE VOL. PROVIDED: 0.15 AC-FT
NET STORAGE ELEV.: 286.00
DRY STORAGE REQUIRED: 0.18 AC-FT
DRY STORAGE PROVIDED: 0.34 AC-FT
DRY STORAGE WSEL: 284.00
EXISTING Q-HYR: 0.22 cfs
INTERIM Q-HYR: 0.02 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₁₀ = 15.40 cfs
Q₁-YR WSEL = 284.44 ft
BOTTOM ELEVATION: 284.50
TOP OF EMBANKMENT: 292.00
WEIR CREST ELEVATION: 284.00
WEIR LENGTH: 14'

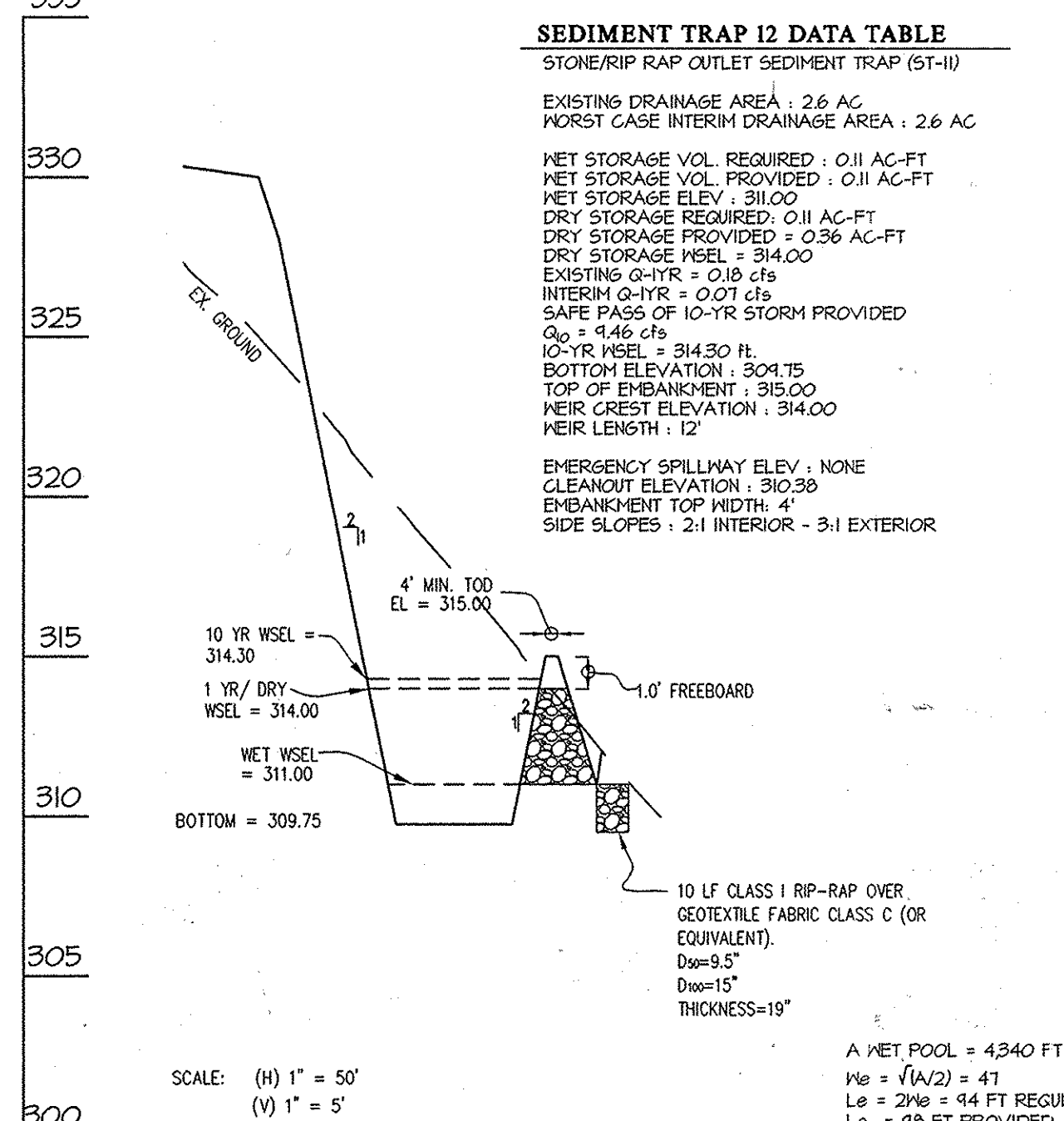
EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 285.25
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR

BAFFLE COMPUTATION

① D = 30 FT
A NET POOL = 4,785 FT²
M₀ = √(A/2) = 44
L₀ = 2M₀ = 88 FT REQUIRED
L₀ = 115 FT PROVIDED



TRAP 12 DETAILS SCALE: 1" = 30'



**SEDIMENT TRAP 12
PROFILE THROUGH PRINCIPAL SPILLWAY**

SEDIMENT TRAP 12 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-11)

EXISTING DRAINAGE AREA: 2.6 AC
WORST CASE INTERIM DRAINAGE AREA: 2.6 AC

NET STORAGE VOL. REQUIRED: 0.11 AC-FT
NET STORAGE VOL. PROVIDED: 0.11 AC-FT
NET STORAGE ELEV.: 311.00
DRY STORAGE REQUIRED: 0.11 AC-FT
DRY STORAGE PROVIDED: 0.36 AC-FT
DRY STORAGE WSEL: 314.00
EXISTING Q-HYR: 0.18 cfs
INTERIM Q-HYR: 0.07 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₁₀ = 9.46 cfs
Q₁-YR WSEL = 314.30 ft
BOTTOM ELEVATION: 309.75
TOP OF EMBANKMENT: 315.00
WEIR CREST ELEVATION: 314.00
WEIR LENGTH: 12'

EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 310.98
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR

BAFFLE COMPUTATION

A NET POOL = 4,340 FT²
M₀ = √(A/2) = 41
L₀ = 2M₀ = 82 FT REQUIRED
L₀ = 98 FT PROVIDED

- NOTES:**
- STANDARD SILT FENCE MAY BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 - WHEN SUPER SILT FENCE IS RUNNING AT A SLOPE GREATER THAN 5% FOR A DISTANCE OVER 50', CURB FENCE UP 2' FOR EVERY 2' OF ELEVATION CHANGE ALONG SILT FENCE.
 - SEDIMENT CONTROL INSPECTOR MAY RELOCATE STABILIZED CONSTRUCTION ENTRANCES.
 - IF A STOCKPILE EXCEEDS 15 FEET IN HEIGHT, IT MUST BE BENCHED.
 - IF A UTILITY CROSSES A PHASING LINE, THAT SECTION OF PIPE OR STRUCTURE CAN NOT BE INSTALLED UNTIL THE LATER PHASE.
 - ANY EARTH DIKE INTERRUPTED BY THE INSTALLATION OF A STORM DRAIN IS TO BE REPAIRED IMMEDIATELY.

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 PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND

B) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

THIS PLAN IS FOR SEDIMENT CONTROL PURPOSES ONLY

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

John R. DeLoach 11/20/13
HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

Ch... 11-8-13
ENGINEER'S SIGNATURE DATE

DEVELOPER'S/BUILDER'S 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.

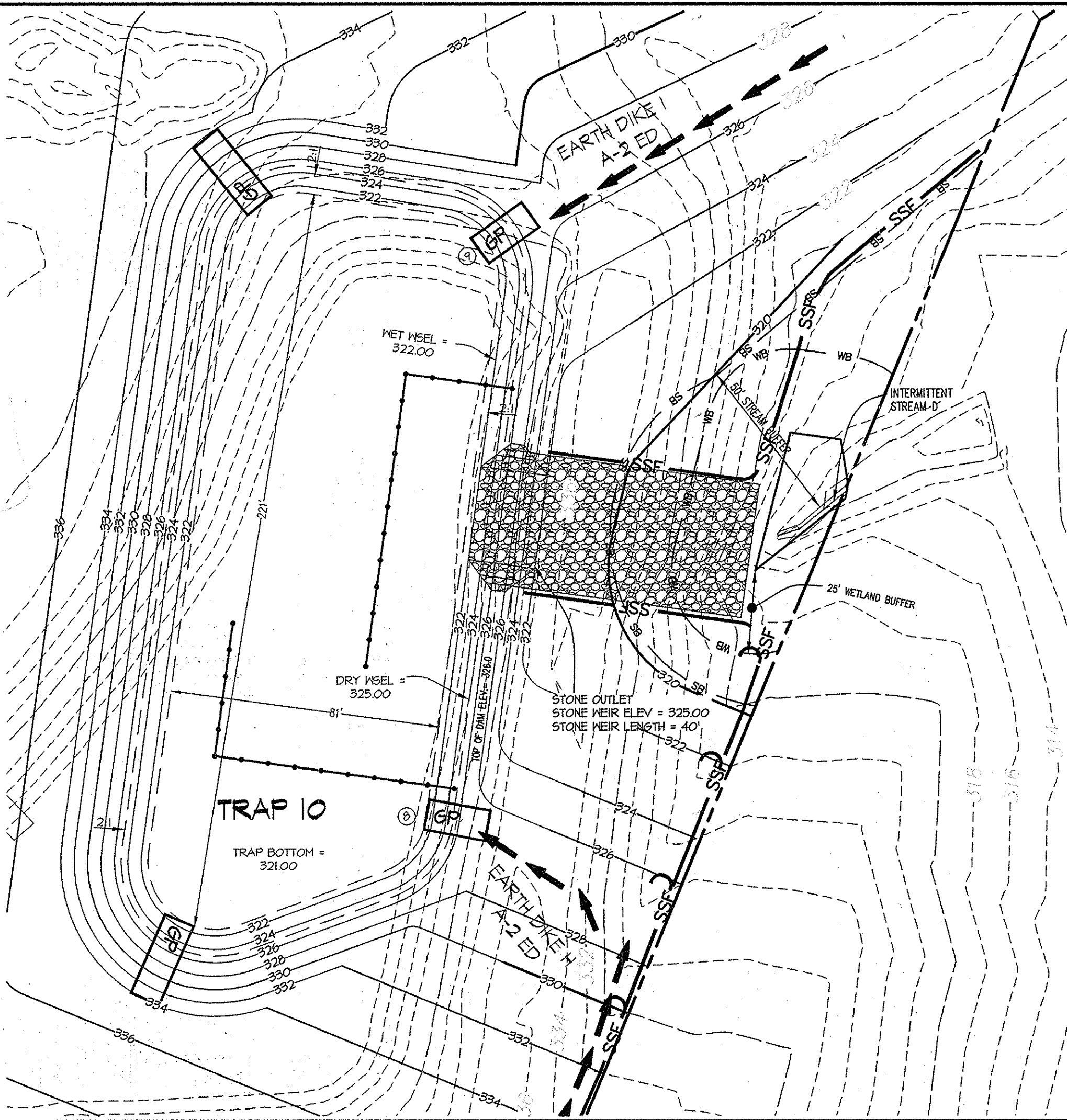
... 11/10/13
SIGNATURE OF DEVELOPER/BUILDER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
... 12-20-13
Chief, Division of Land Development Date

... 12-17-13
Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTENVILLE OFFICE PARK
BURTENVILLE, MARYLAND 20866
TEL: 301-421-0224 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



TRAP 10 DETAILS SCALE: 1" = 30'

SEDIMENT TRAP 10 DATA TABLE
STONE/RIP RAP OUTLET SEDIMENT TRAP (ST-11)

EXISTING DRAINAGE AREA: 6.4 AC
WORST CASE INTERIM DRAINAGE AREA: 6.4 AC

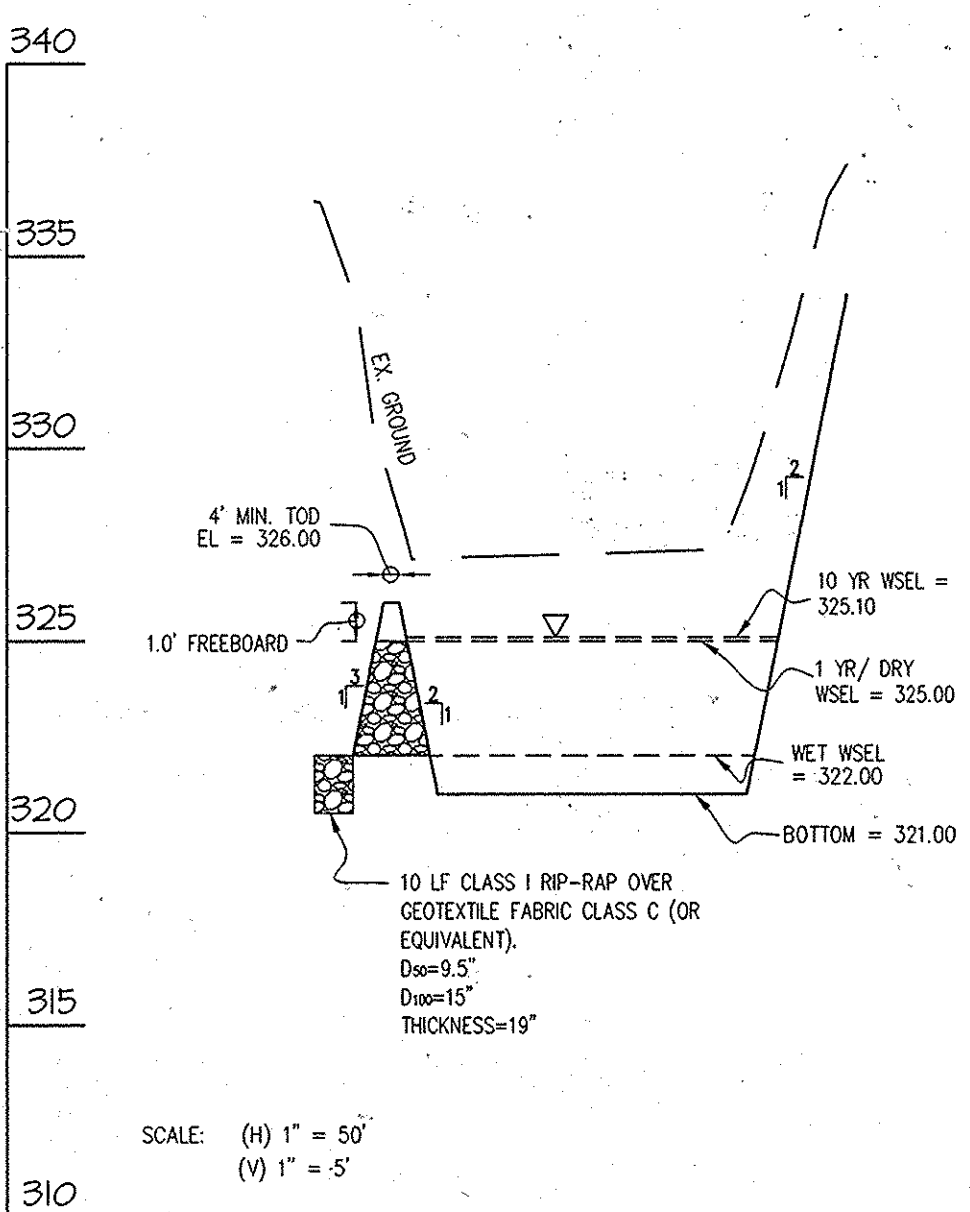
NET STORAGE VOL. REQUIRED: 0.24 AC-FT
NET STORAGE VOL. PROVIDED: 0.40 AC-FT
NET STORAGE ELEV.: 322.00
DRY STORAGE REQUIRED: 0.24 AC-FT
DRY STORAGE PROVIDED: 1.35 AC-FT
DRY STORAGE WSEL: 325.00
EXISTING Q-HYR: 0.63 cfs
INTERIM Q-HYR: 0 cfs
SAFE PASS OF 10-YR STORM PROVIDED
Q₁₀ = 10 cfs
Q₁-YR WSEL = 325.10 ft
BOTTOM ELEVATION: 321.00
TOP OF EMBANKMENT: 326.00
WEIR CREST ELEVATION: 325.00
WEIR LENGTH: 40'

EMERGENCY SPILLWAY ELEV.: NONE
CLEANOUT ELEVATION: 321.50
EMBANKMENT TOP WIDTH: 4'
SIDE SLOPES: 2:1 INTERIOR - 3:1 EXTERIOR

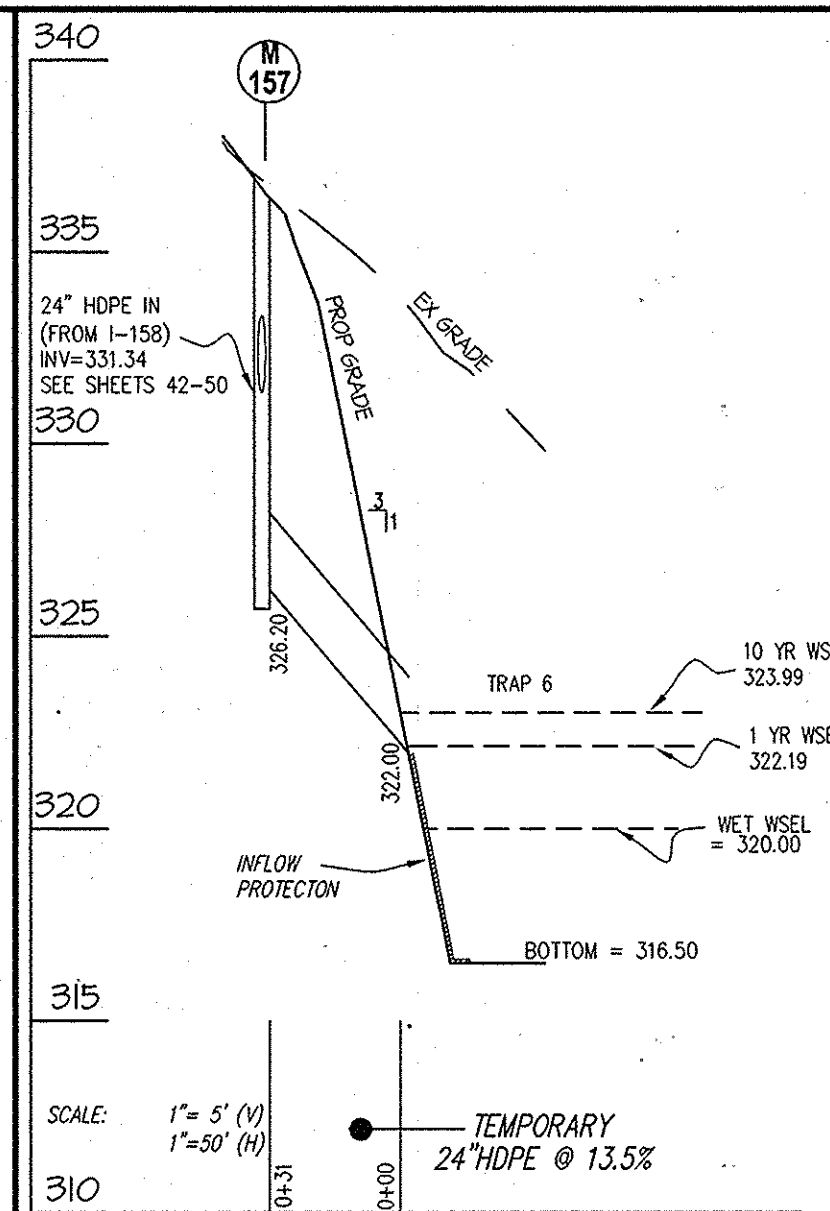
BAFFLE COMPUTATION

② D = 100 FT
A NET POOL = 17,015 FT²
M₀ = √(A/2) = 94
L₀ = 2M₀ = 188 FT REQUIRED
L₀ = 215 FT PROVIDED

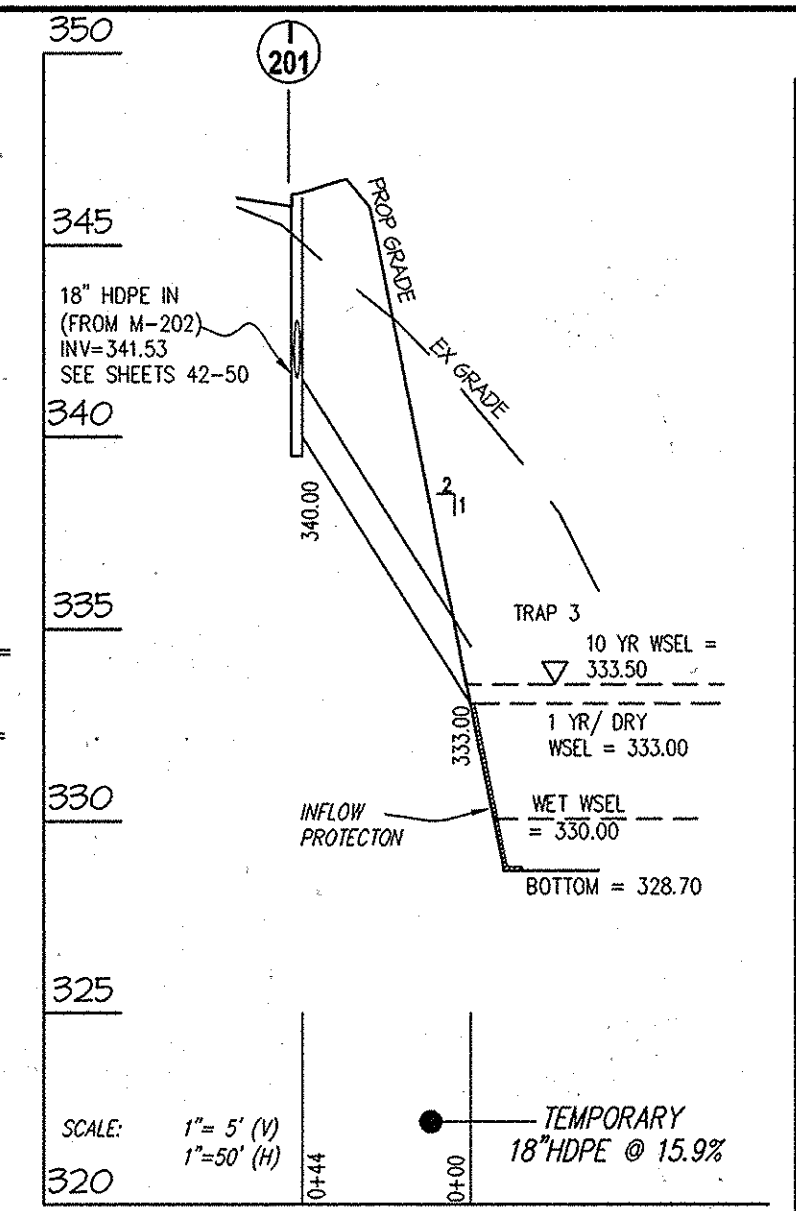
④ D = 45 FT
A NET POOL = 11,015 FT²
M₀ = √(A/2) = 94
L₀ = 2M₀ = 188 FT REQUIRED
L₀ = 190 FT PROVIDED



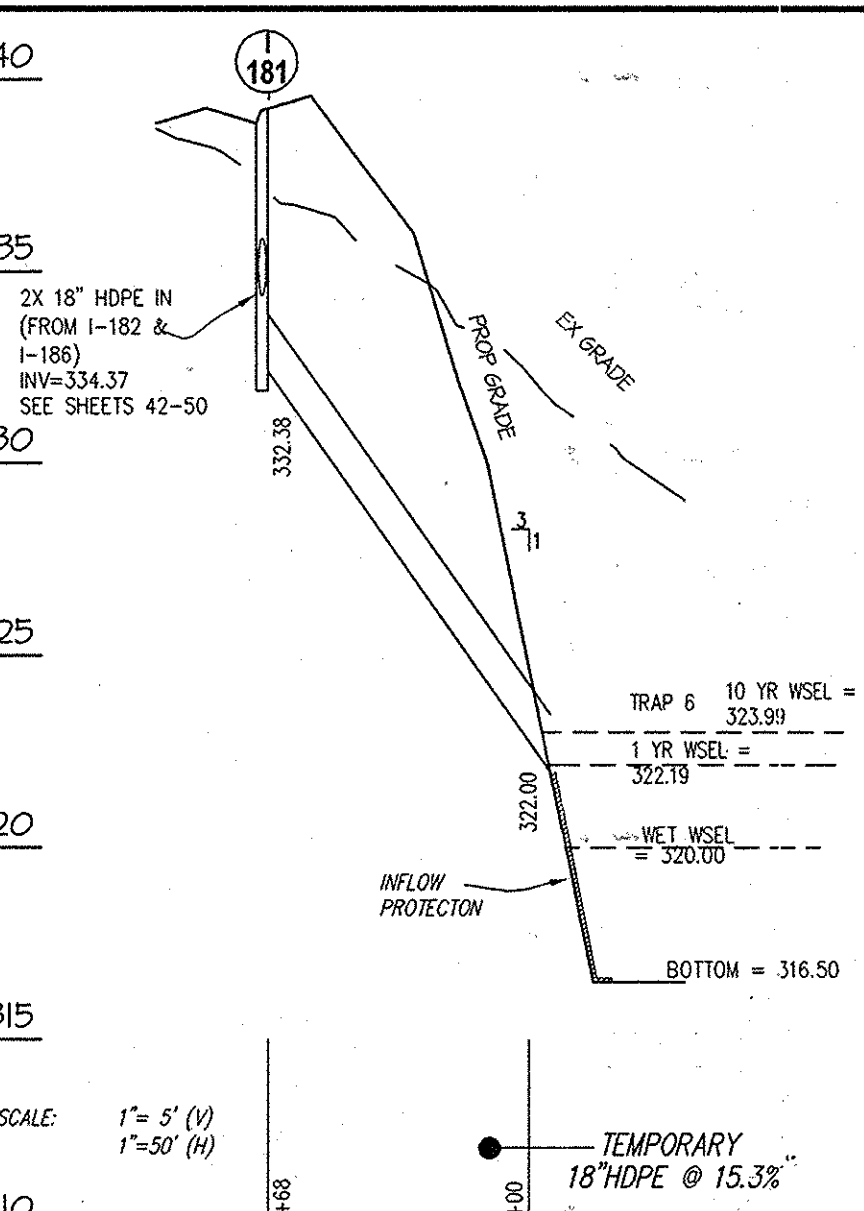
**SEDIMENT TRAP 10
PROFILE THROUGH PRINCIPAL SPILLWAY**



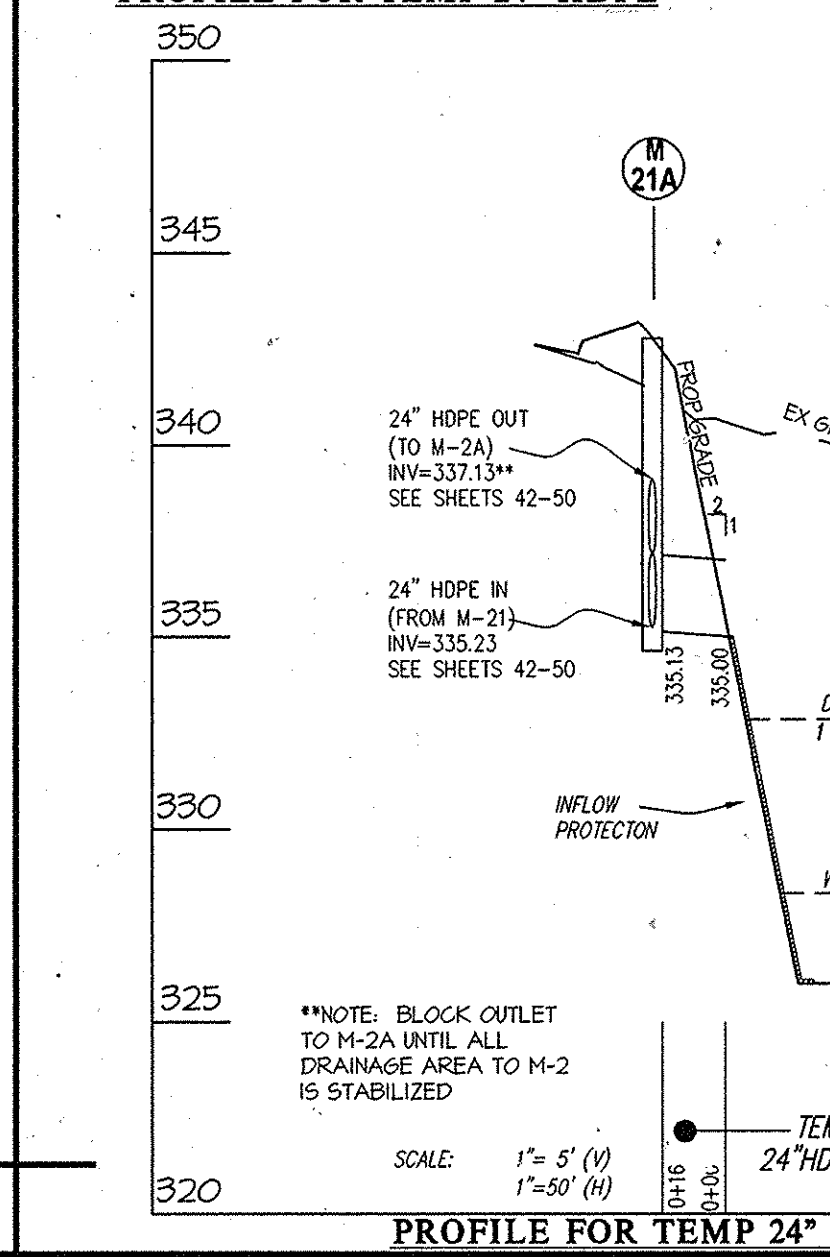
PROFILE FOR TEMP 24\"/>



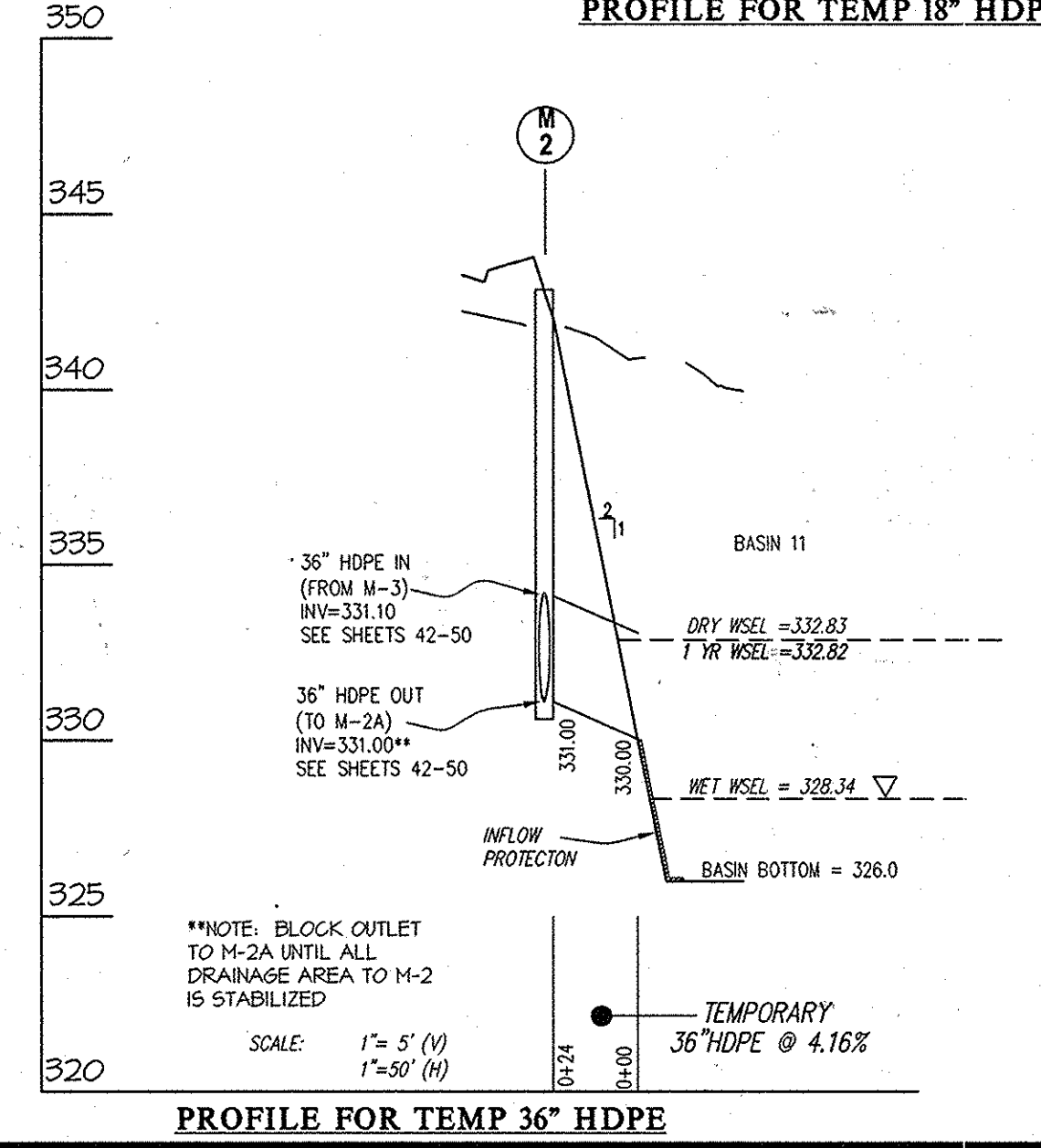
PROFILE FOR TEMP 18\"/>



PROFILE FOR TEMP 18\"/>



PROFILE FOR TEMP 24\"/>



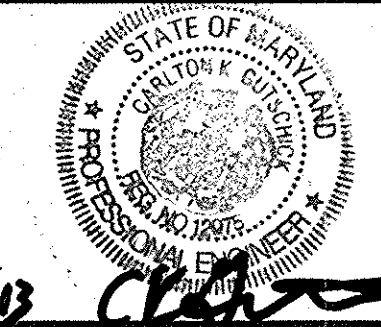
PROFILE FOR TEMP 36\"/>

SEDIMENT CONTROL DETAILS

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	30 OF 71

WINCOPIA FARMS
LOTS 1-201, 208-220, 258-263 & OPEN SPACE LOTS 221 THROUGH 257
L 11388 R 725 PARCEL 472
HOWARD COUNTY, MARYLAND

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. 111813, EXPIRATION DATE, MAY 26, 2014.



PREPARED FOR:
BEAZER HOMES CORP.
8965 GULFROAD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

DATE	REVISION	BY	APPR.

B-4-2 STANDARD AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

DEFINITION
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

CONDITIONS WHERE PRACTICE APPLIES
WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

CRITERIA

A. SOIL PREPARATION

- TEMPORARY STABILIZATION
 - SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL FLOWS OR RIPPERCROLLS MOUNTED ON CONSTRUCTION EQUIPMENT, AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 2:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- PERMANENT STABILIZATION
 - A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE; THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
 - SOIL PH BETWEEN 6.0 AND 7.0.
 - SCALABLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
 - SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH OF THE GRAINED MATERIAL (GREATER THAN 30 PERCENT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE, AN EXCEPTION: IF LOUPOSSASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
 - 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.
 - APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
 - MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANDES. AND READY TO APPLY SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TOP SOILS 3:1 OR FLATTER MUST BE TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRAGILE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEARLY DISTURBED AREAS.

B. TOPSOILING

- TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW LOOSENESS CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS SPECIFIED 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-NRCS.
- TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - THE SOIL MATERIAL IS SO SMALL THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FIBERS CONTAINING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - THE SOIL IS SO AODIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS 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 RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
- FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FINE FLOWING AND SUITABLE FOR ACCURATE APPLICATION AND APPROVED BY THE STATE. FERTILIZERS MUST BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARNING STATEMENT. THIS PRACTICE SHOULD FOLLOW THE CONTAINER.
- WATER MATERIALS MUST BE GROUND LUMESTONE (HYDRATED OR BURNT LIME) MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE) MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 95 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
- 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. WHERE THE SUBSOIL IS EITHER HEAVILY AODIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT 1.5 AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PROFESSIONAL ENGINEER'S DESIGN AND HORSEPOWER BASED ON HIS PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

BUILDER'S CERTIFICATE

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development of Land Development
 Date: 12-20-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Date: 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.C.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE, SUITE 250 - BETHESDA, MARYLAND 20814
 TEL: 301-421-4024 FAX: 301-980-1820 OR 301-980-2524 FAX: 301-421-4186

DATE: _____ REVISION: _____ BY: _____ APPR: _____

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

DEFINITION
THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE
TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

CONDITIONS WHERE PRACTICE APPLIES
TO THE SURFACE OF ALL PERMITTER CONTROL, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

CRITERIA

A. SEEDING

- SPECIFICATIONS
 - ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED ACT. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B-4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
 - MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND IS NOT FROZEN.
 - INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN KILL VEGETATIVE BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 - SOD OR SEED MUST NOT 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 DISPERSION OF PHYTO-TOXIC MATERIALS.
- APPLICATION
 - DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1. PERMANENT SEEDING TABLE B.3 OR SPECIAL SPECIFIC SEEDING MIXTURES.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PREVENT GOOD SEED TO SOIL CONTACT.
 - DRILL OR OULIPLACER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - MULCHING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A MANNER AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
 - APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER).
 - IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; 200 (PHOSPHORUS); 200 POUNDS PER ACRE; 120 (POTASSIUM); 200 POUNDS PER ACRE.
 - LIME: LIME MUST FORM A LIQUID LUMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR UNHYDRATED LIME. NEVER HYDROSEED WITH BURNT LIME.
 - MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERVENTION.
 - WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

B. MULCHING

- MULCH MATERIALS (IN ORDER OF PREFERENCE)
 - STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARLAND SEED LAW AND NOT MUSTY, WOLLY, CAULD, OR EXCESSIVELY MOIST. STRAW IS TO BE APPLIED TO AREAS WITH IN AREAS WHERE OTHER SPECIES OF GRASS IS DESIRED.
 - WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE FIBER MULCH TO FORM A LIQUID-LIKE GROUND COVER. THE WCFM IS TO BE DIED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE A GREEN COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMITY SPREAD AND GROWTH.
 - WCFM INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER WILL REMAIN IN UNIFORM CONTACT WITH WATER UNDER AGITATION AND WILL SEED WITH SEEDER ACRES. FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE WCFM MATERIAL MUST FORM A LIQUID-LIKE GROUND COVER. ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF GRASS SEEDS.
 - WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATIONS EXCEEDING THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ANIONIC CAPACITY OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MAXIMUM.
- APPLICATION
 - APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
 - WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LAYER DEEP TO 1/2 INCH. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN WOOD CELLULOSE FIBER MULCH, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
 - WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
 - MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING SITES, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BRUSH AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - SYNTHETIC BRUSHES SUCH AS AGRO-TACK (AGRO-TACK), DCA-70, PETROSE, TERRA TALK II, TERRA MANUFACTURER. APPLICATION OF LIQUID BINDERS IS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
 - LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PROFESSIONAL ENGINEER'S DESIGN AND HORSEPOWER BASED ON HIS PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

BUILDER'S CERTIFICATE

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development of Land Development
 Date: 12-20-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Development Engineering Division
 Date: 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.C.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE, SUITE 250 - BETHESDA, MARYLAND 20814
 TEL: 301-421-4024 FAX: 301-980-1820 OR 301-980-2524 FAX: 301-421-4186

DATE: _____ REVISION: _____ BY: _____ APPR: _____

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

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

PURPOSE
TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
CONDITIONS WHERE PRACTICE APPLIES EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

CRITERIA

- SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION, SEEDING DATES, AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND LIME RATES MUST BE PUT ON THE PLAN.
- FOR SITES HAVING SOIL TESTS TESTED BY THE TESTING AGENCY, TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.8 AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

TEMPORARY SEEDING SUMMARY

No.	SPECIES	APPLICATION RATE (lb./ac)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-10-10)	LIME RATE
2	PEARL MILLET	20 lb/ac	May 16 to July 31	0.5 INCHES		

SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (410) 313-1855
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERE TO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - PERMANENT STABILIZATION: 90 DAYS FOR ALL PERMITTER DUES, SHALLES, DITCHES, PERMITTER SLOPES, AND ALL SLOPES STEEPER THAN 1:1 VERTICAL (3:1); AND
 - 6 CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS PROVIDED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. FOR PERMANENT SEEDINGS, SOIL, TEMPORARY SEEDINGS AND MULCHING (SEC. B). TEMPORARY STABILIZATION, WITH MULCH ALONE, CAN ONLY 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.

PERMANENT SEEDING SUMMARY

No.	SPECIES	APPLICATION RATE	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
9	Certified Tall Fescue blend (95% by weight) Fescue, Ryegrass & Ryegrass	6-8 lb/1,000 sq ft	Mar. 1 to May 15, Aug. 15 to Oct. 15	1/4 - 1/2 IN.	1.0 lb./1,000 sq ft (45 lb/acre)	1000 sq ft
	Certified Kentucky Bluegrass	10 lb/1,000 sq ft	Mar. 1 to May 15, Aug. 15 to Oct. 15	1/2 IN.	1.0 lb./1,000 sq ft (45 lb/acre)	1000 sq ft

* Other cultivars listed as "proven" in the most current UMD T-77 may also be used.

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

DEFINITION
CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES.

PURPOSE
TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES TO REDUCE ON AND OFF-SITE DAMAGE INCLUDING HEALTH AND TRAFFIC HAZARDS.

CONDITIONS WHERE PRACTICE APPLIES
AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

CRITERIA

- MULCHES: SEE SECTION B-4-2 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS, SECTION B-4-3 SEEDING AND MULCHING, AND SECTION B-4-4 TEMPORARY STABILIZATION. MULCH MUST BE ANCHORED TO PREVENT BLOWING.
- VEGETATIVE COVER: SEE SECTION B-4-4 TEMPORARY STABILIZATION.
- TILLAGE: TILL TO ROUGHEN SURFACE AND BRING CLOSE TO THE SURFACE. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT THAT MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION: SPRINKLE SITE WITH WATER UNTIL THE SURFACE IS MOST, REPEAT AS NEEDED. THE SITE MUST NOT BE IRRIGATED TO THE POINT THAT RUNOFF OCCURS.
- BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURIAL FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
- CHEMICAL TREATMENT: USE OF CHEMICAL TREATMENT REQUIRES APPROVAL BY THE APPROPRIATE PLAN REVIEW AUTHORITY.

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PROFESSIONAL ENGINEER'S DESIGN AND HORSEPOWER BASED ON HIS PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

GLWGUTSCHICK LITTLE & WEBER, P.C.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE, SUITE 250 - BETHESDA, MARYLAND 20814
 TEL: 301-421-4024 FAX: 301-980-1820 OR 301-980-2524 FAX: 301-421-4186

DATE: _____ REVISION: _____ BY: _____ APPR: _____

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

DEFINITION
TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.

PURPOSE
TO USE LONG-LIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

CRITERIA

- GENERAL USE
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOR THE PROJECT. ENTER SELECTED MIXTURES, APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DUNES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE, SECTION 342 - CRITICAL AREA PLANTING.
 - FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE TESTING AGENCY.
 - FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
- TURFGRASS MIXTURES
 - AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
 - SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURES, APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.
 - KENTUCKY BLUEGRASS: FULL SUN MIXTURE; FOR USE IN AREAS THAT RECEIVE INTENSIVE MAINTENANCE IRRIGATION IN THE AREAS OF CERTAIN MARYLAND AND OTHER EASTERN STATES. RECOMMENDED CERTIFIED KENTUCKY BLUEGRASS CULTIVARS AND SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE; FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS REQUIRED AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MAINTENANCE. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.
 - TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE; FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MAINTENANCE IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES: CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS TO 5 PERCENT. SEEDING RATES: 5 TO 6 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE SHAD.
 - KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE; FOR USE IN AREAS WITH SHAD. RECOMMENDED MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 11/2 TO 3 POUNDS PER 1000 SQUARE FEET.

PERMANENT SEEDING SUMMARY

No.	SPECIES	APPLICATION RATE	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
9	Certified Tall Fescue blend (95% by weight) Fescue, Ryegrass & Ryegrass	6-8 lb/1,000 sq ft	Mar. 1 to May 15, Aug. 15 to Oct. 15	1/4 - 1/2 IN.	1.0 lb./1,000 sq ft (45 lb/acre)	1000 sq ft
	Certified Kentucky Bluegrass	10 lb/1,000 sq ft	Mar. 1 to May 15, Aug. 15 to Oct. 15	1/2 IN.	1.0 lb./1,000 sq ft (45 lb/acre)	1000 sq ft

* Other cultivars listed as "proven" in the most current UMD T-77 may also be used.

STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

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CONTROLLING THE SUSPENSION OF DUST PARTICLES FROM CONSTRUCTION ACTIVITIES.

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CONDITIONS WHERE PRACTICE APPLIES
AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

CRITERIA

- MULCHES: SEE SECTION B-4-2 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS, SECTION B-4-3 SEEDING AND MULCHING, AND SECTION B-4-4 TEMPORARY STABILIZATION. MULCH MUST BE ANCHORED TO PREVENT BLOWING.
- VEGETATIVE COVER: SEE SECTION B-4-4 TEMPORARY STABILIZATION.
- TILLAGE: TILL TO ROUGHEN SURFACE AND BRING CLOSE TO THE SURFACE. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT THAT MAY PRODUCE THE DESIRED EFFECT.
- IRRIGATION: SPRINKLE SITE WITH WATER UNTIL THE SURFACE IS MOST, REPEAT AS NEEDED. THE SITE MUST NOT BE IRRIGATED TO THE POINT THAT RUNOFF OCCURS.
- BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURIAL FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
- CHEMICAL TREATMENT: USE OF CHEMICAL TREATMENT REQUIRES APPROVAL BY THE APPROPRIATE PLAN REVIEW AUTHORITY.

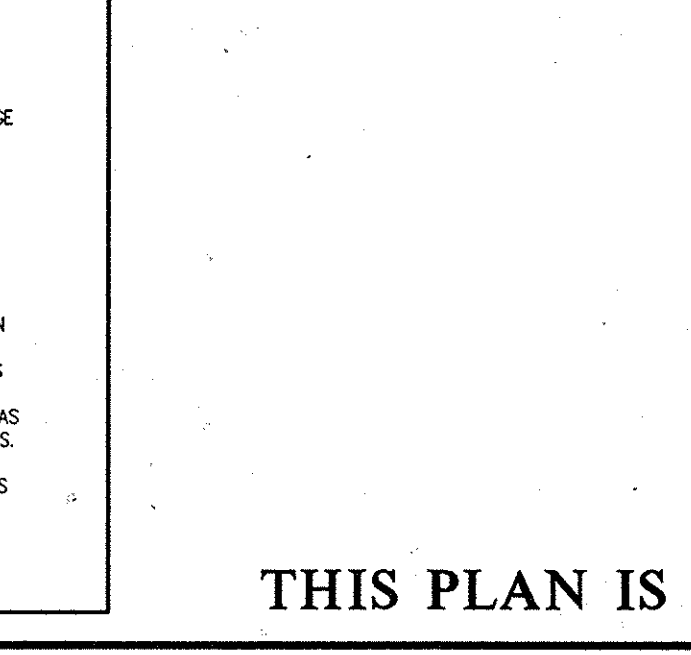
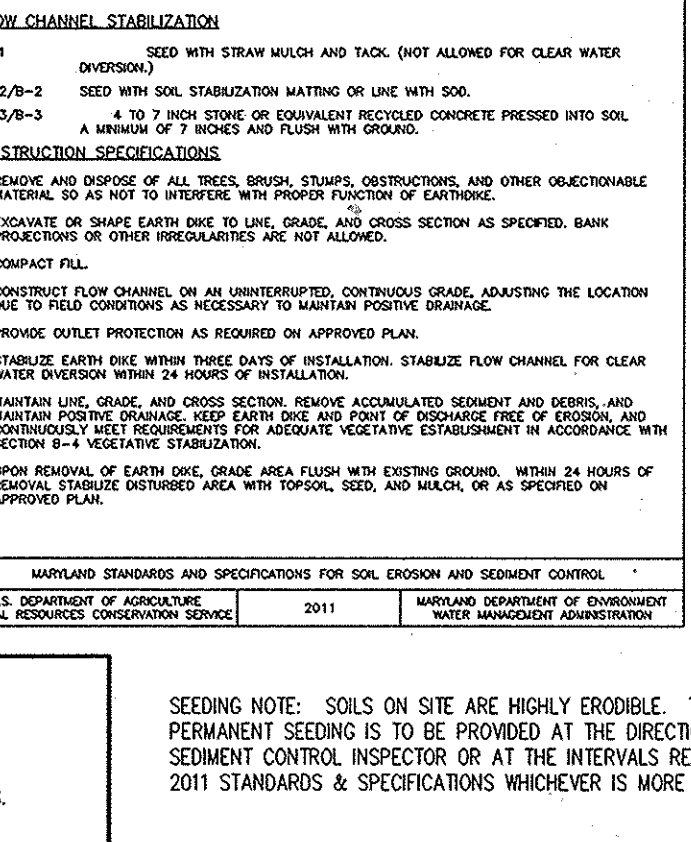
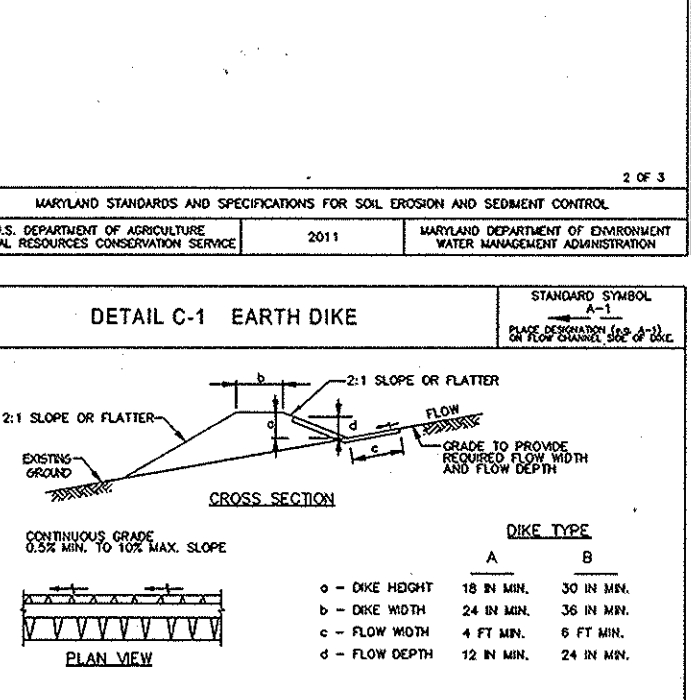
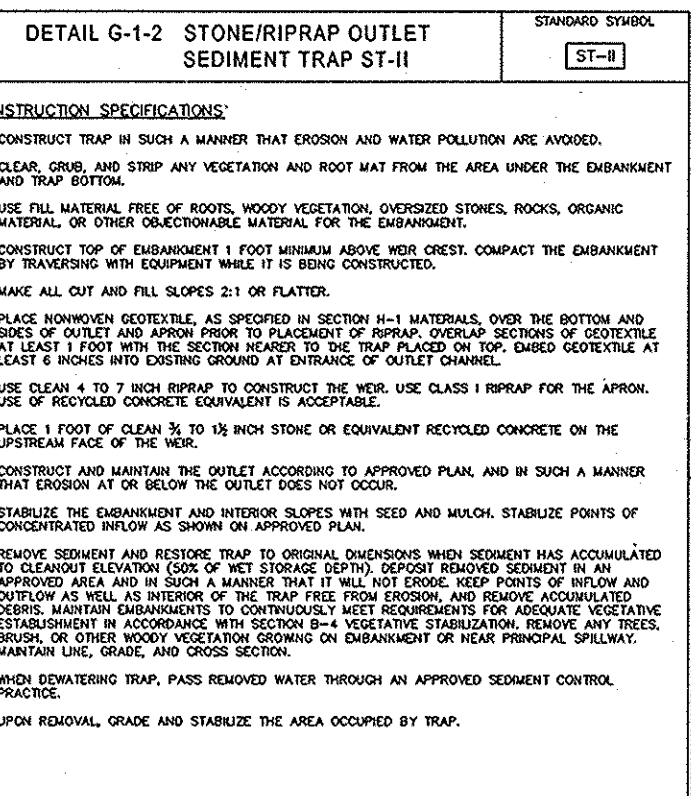
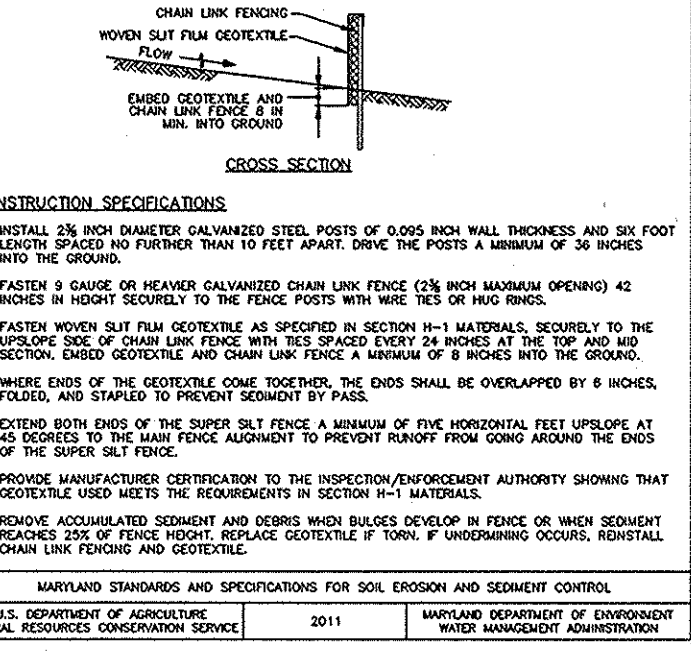
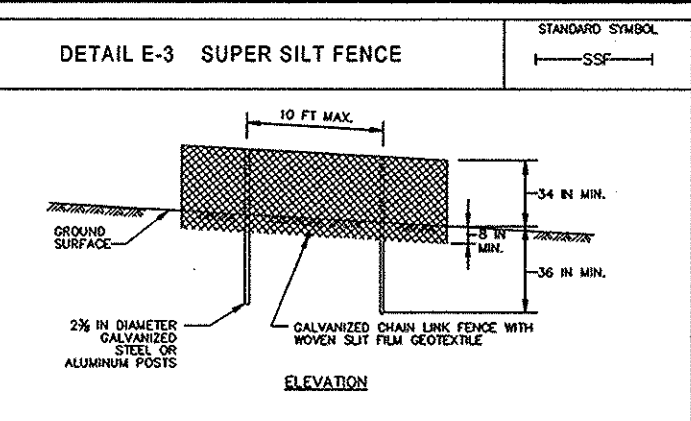
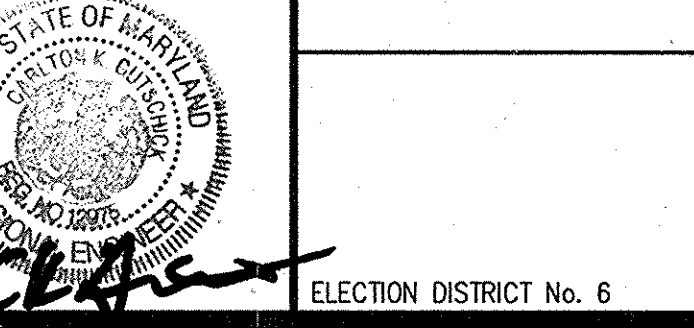
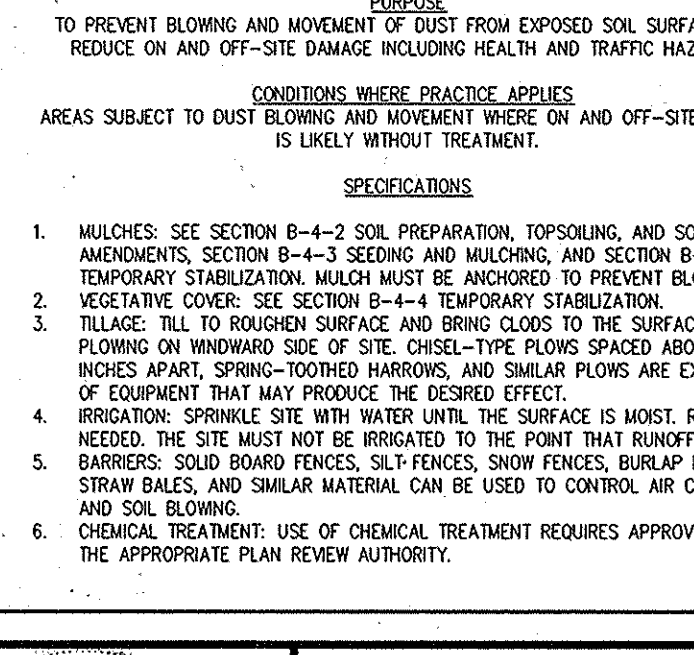
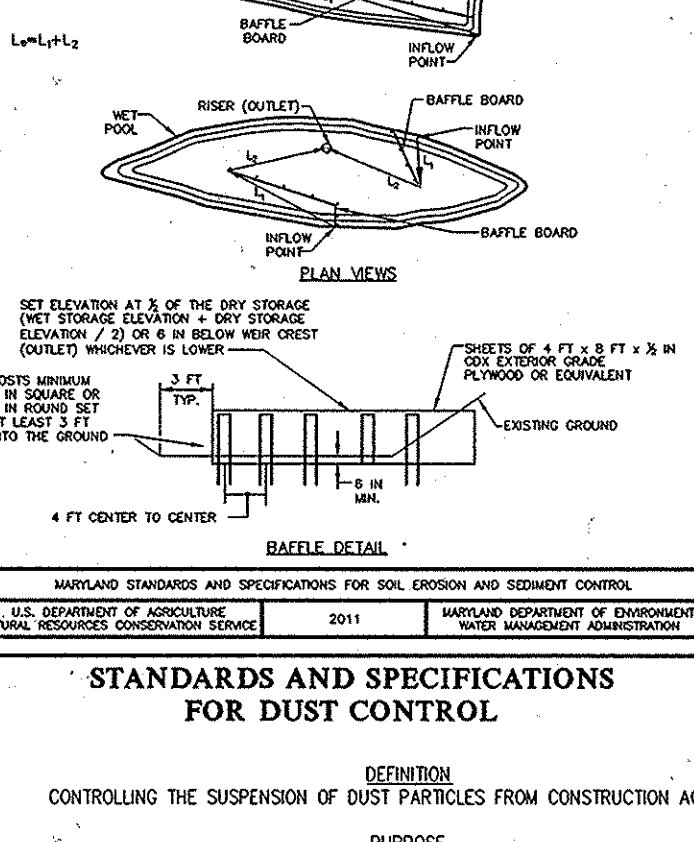
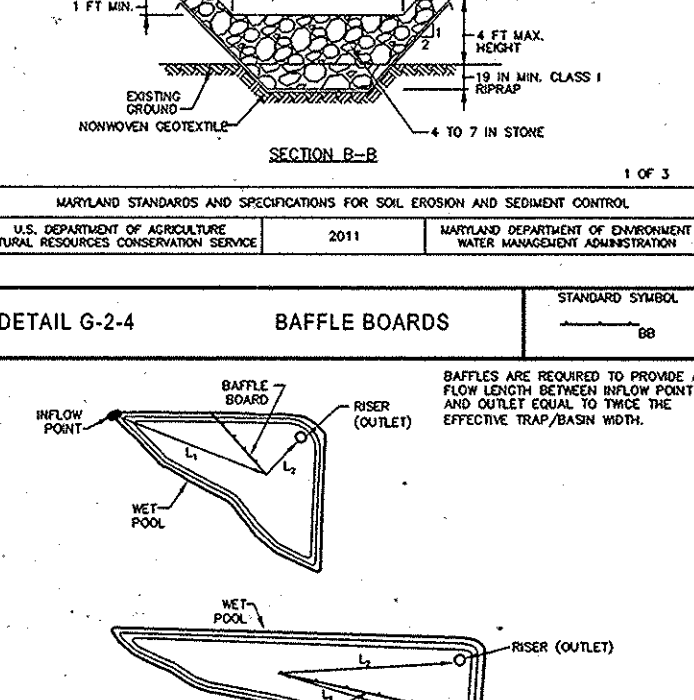
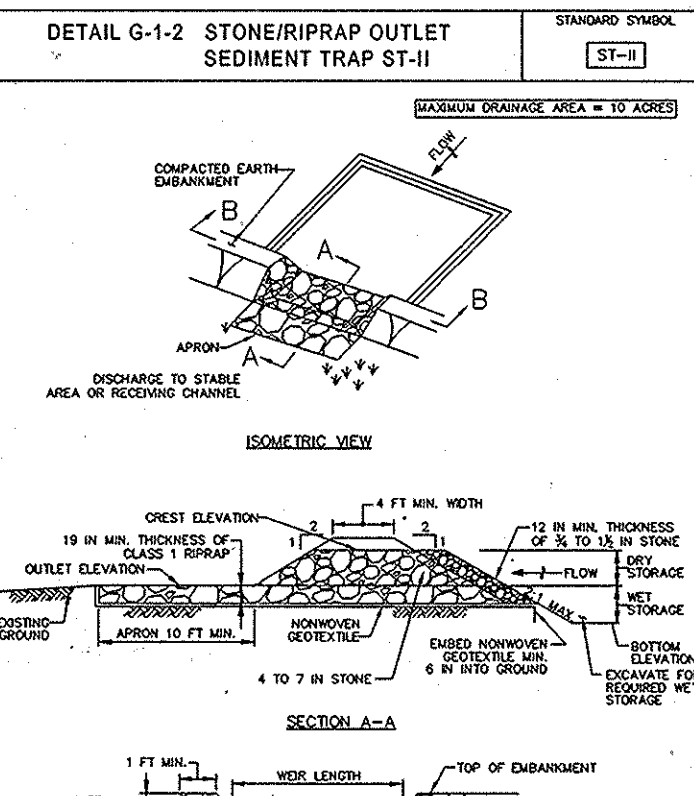
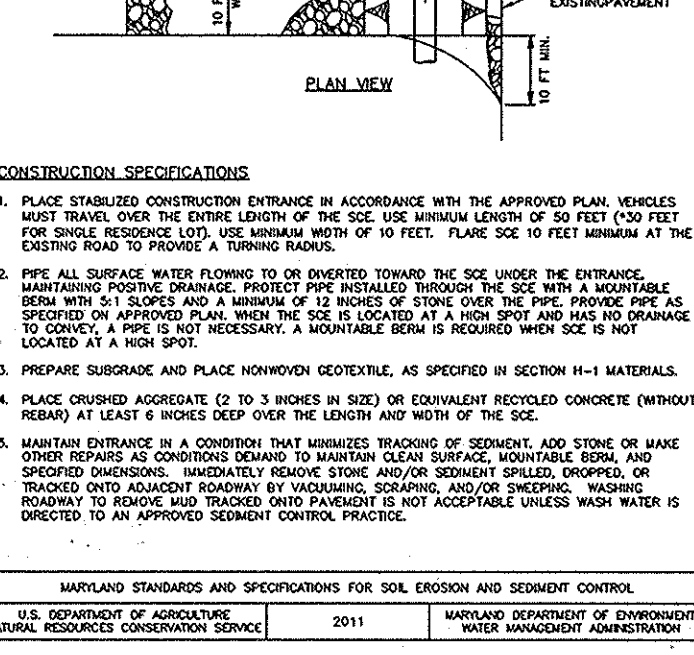
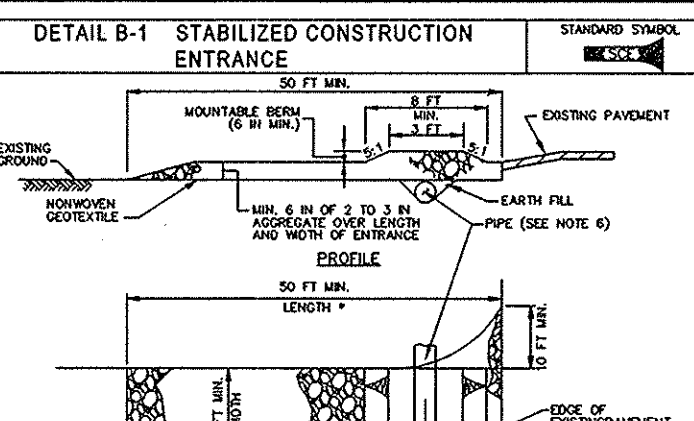
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APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

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 TEL: 301-421-4024 FAX: 301-980-1820 OR 301-980-2524 FAX: 301-421-4186

DATE: _____ REVISION: _____ BY: _____ APPR: _____

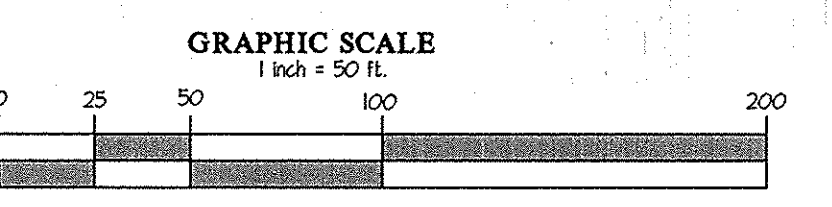
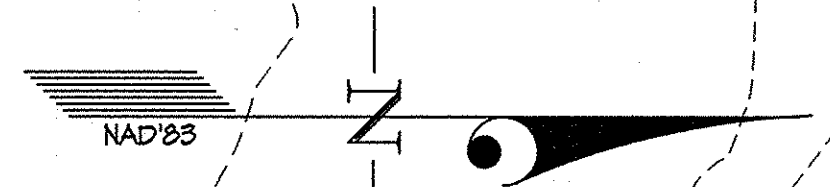


LEGEND

- 7'x7'5" DRY WELL
- 200 GAL RAIN BARREL
- ▨ POROUS DRIVEWAY 1/4" 12" STONE
SEE DETAILS SHEET 17
- IMPERVIOUS DRIVEWAY
- 6" FLEXIBLE HDPE
INVERT IS 2.6' BELOW GRADE UNLESS
OTHERWISE NOTED. PROVIDE 6" END
CAP AT UPPER END OF PIPE RUN.

NOTES:

1. MS9U DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
2. ALL OF THE HOUSES, DRIVEWAYS, AND STORMWATER MANAGEMENT DEVICES SHOWN ON BUILDABLE LOTS ARE CONCEPTUAL. THE TOTAL VOLUME SHOWN ON A BUILDABLE LOT MUST BE PROVIDED WITH THE SITE PLAN HOWEVER THE ESD DEVICES MAY BE ADJUSTED. SEE STORMWATER MANAGEMENT DRAINAGE AREA MAP (SHEETS 51-52) FOR ALL ON LOT ESD STORMWATER DEVICES.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Meunier 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Ke T. Shuler 4-23-15
 Chief, Division of Land Development Date

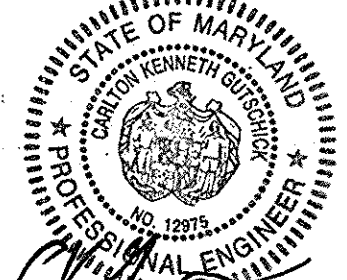
Ed Ed 4-22-15
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA. 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
02/2015	POROUS SIDEWALK REMOVED. SEVERAL MICRO-BIOS ENLARGED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975
 EXPIRATION DATE: MAY 28, 2016
 2/25/15



REVISED GRADING PLAN
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257
 L. 11388 P. 725
 PARCEL 472

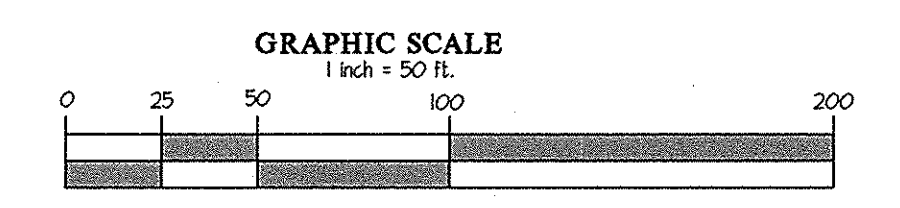
SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB, 2015	47-3	33 OF 71

LEGEND

- 1'x1'x5' DRY WELL
- 200 GAL RAIN BARREL
- POROUS DRIVEWAY 1/4" 12" STONE
SEE DETAILS SHEET 11
- IMPERVIOUS DRIVEWAY
- 6" FLEXIBLE HDPE,
INVERT IS 2.6' BELOW GRADE UNLESS
OTHERWISE NOTED. PROVIDE 6" END
CAP AT UPPER END OF PIPE RUN.

NOTES:

- MSU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
- ALL HOUSES, DRIVEWAYS, & STORMWATER MANAGEMENT DEVICES SHOWN ON BUILDABLE LOTS ARE CONCEPTUAL. THE TOTAL VOLUME SHOWN ON A BUILDABLE LOT MUST BE PROVIDED WITH THE SITE PLAN HOWEVER THE ESD DEVICES MAY BE ADJUSTED. SEE STORMWATER MANAGEMENT DRAINAGE AREA MAP (SHEETS 51-52) FOR ALL ON LOT ESD STORMWATER DEVICES.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard Manning 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Kevin DeLoach 4-23-15
 Chief, Division of Land Development Date

John Schuch 4-22-15
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3609 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
02/2015	POROUS SIDEWALKS REMOVED. SEVERAL MICRO-BIOS ENLARGED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

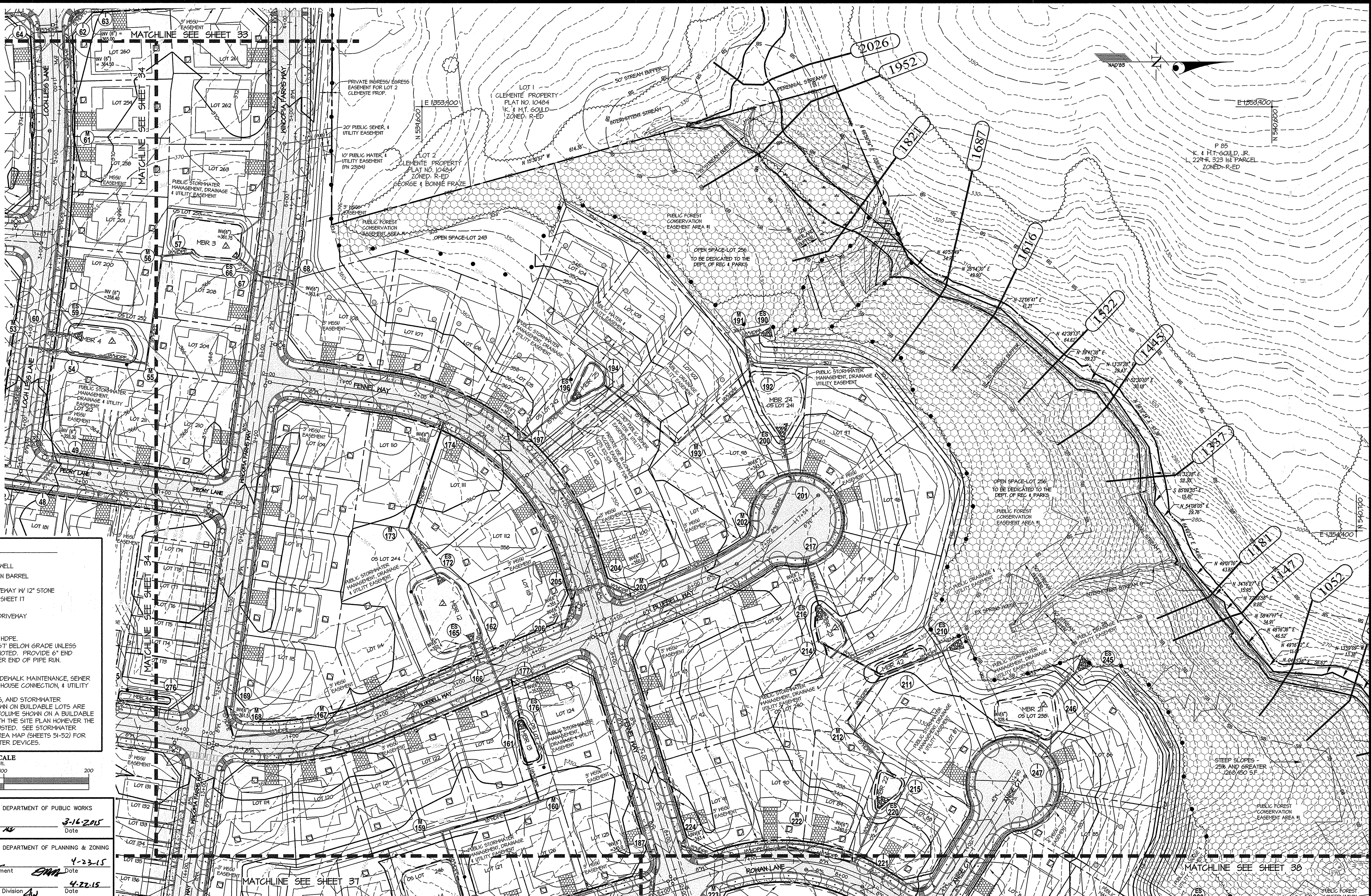
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975
 EXPIRATION DATE: MAY 28, 2016
 2/25/15

REVISED GRADING PLAN

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257
 L. 11388 F. 725
 PARCEL 472

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB., 2015	47-3	34 OF 71



LEGEND

- 1' x 1' x 5' DRY WELL
- 200 GAL RAIN BARREL
- POROUS DRIVEWAY W/ 12" STONE
SEE DETAILS SHEET IV
- IMPERVIOUS DRIVEWAY
-

NOTES:

1. KESU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
2. ALL HOUSES, DRIVEWAYS, AND STORMWATER MANAGEMENT DEVICES SHOWN ON BUILDABLE LOTS ARE CONCEPTUAL. THE TOTAL VOLUME SHOWN ON A BUILDABLE LOT MUST BE PROVIDED WITH THE SITE PLAN HOWEVER THE ESD DEVICES MAY BE ADJUSTED. SEE STORMWATER MANAGEMENT DRAINAGE AREA MAP (SHEETS 51-52) FOR ALL ON LOT ESD STORMWATER DEVICES.

GRAPHIC SCALE
1 inch = 50 feet

0 25 50 100 200

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Meunier 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Neil S. ... 4-23-15
 Chief, Division of Land Development Date

Ch. ... 4-22-15
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20814
 TEL: 301-421-4024 BALT: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
02/2015	POROUS SIDEWALKS REMOVED. SEVERAL MICRO-BIOS ENLARGED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975
 EXPIRATION DATE: MAY 28, 2016
 2/25/15

REVISED GRADING PLAN

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257

L 11388 F. 725
 PARCEL 472

ELECTION DISTRICT No. 6

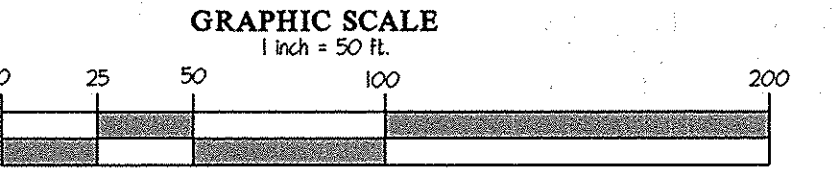
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB, 2015	47-3	35 OF 71

- LEGEND**
- T'X'X'S DRY WELL
 - 200 GAL RAIN BARREL
 - ▨ POROUS DRIVEWAY W/ 12" STONE
SEE DETAILS SHEET 17
 - IMPERVIOUS DRIVEWAY
 - 6" FLEXIBLE HDPE
INVERT IS 2.6' BELOW GRADE UNLESS
OTHERWISE NOTED. PROVIDE 6" END
CAP AT UPPER END OF PIPE RUN.

NOTES:

1. MSU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
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APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Michael 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Karl Shalvick 4-23-15
 Chief, Division of Land Development Date

Al Schick 4-22-15
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

02/2015	POROUS SIDEWALK REMOVED. SEVERAL MICRO-BIOS ENLARGED	BY	APPR.
DATE	REVISION		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 17828
 EXPIRATION DATE: MAY 28, 2016
 2/25/15 C.K.



REVISED GRADING PLAN

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257
 L. 11388 F. 725
 PARCEL 472

ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB, 2015	47-3	36 OF 71

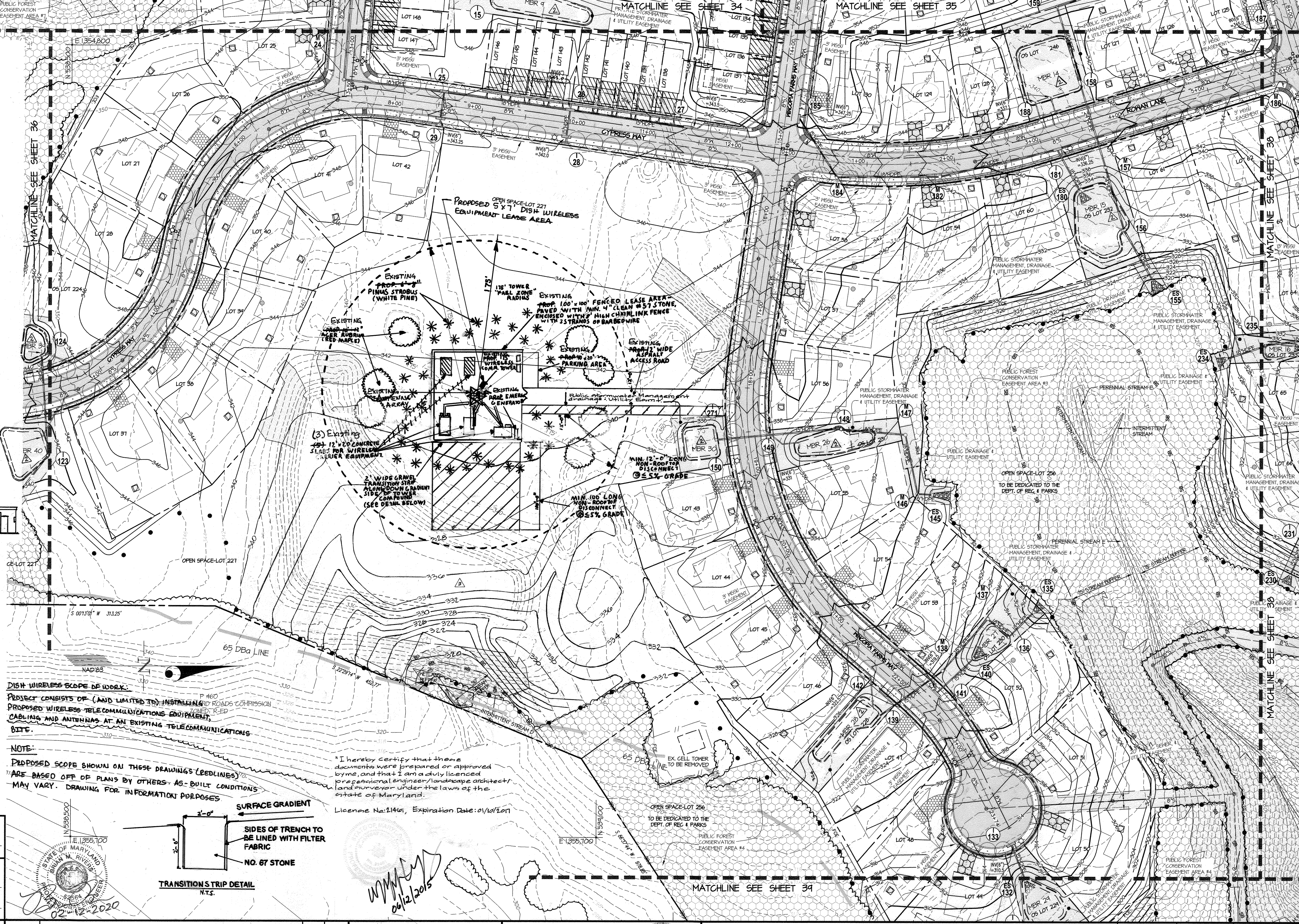
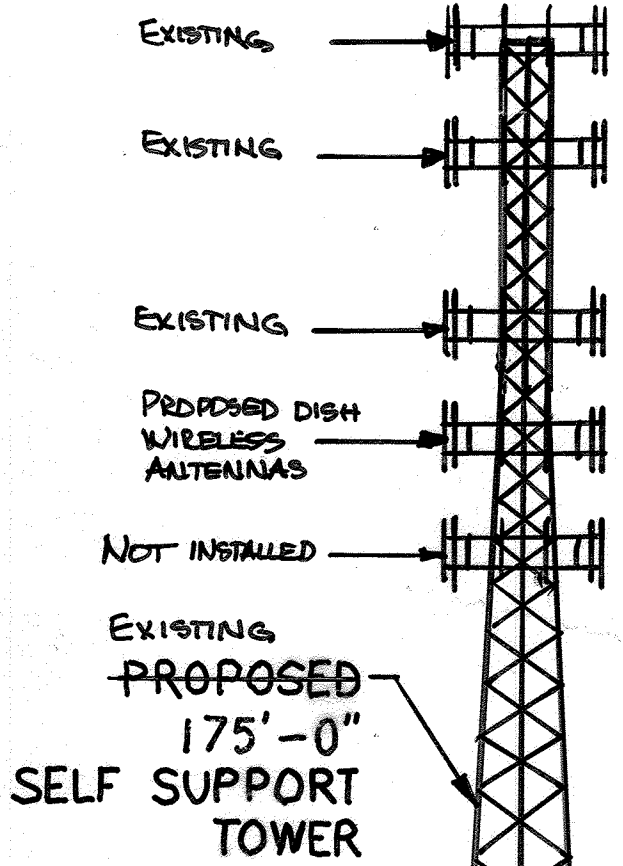
MATCHLINE SEE SHEET 34

MATCHLINE SEE SHEET 34

MATCHLINE SEE SHEET 35

MATCHLINE SEE SHEET 36

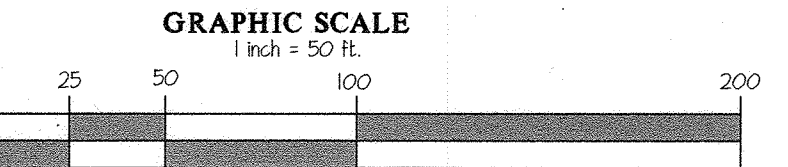
MATCHLINE SEE SHEET 38



- LEGEND**
- 7x7x5' DRY WELL
 - 200 GAL RAIN BARREL
 - POROUS DRIVEWAY W/ 12" STONE
SEE DETAILS SHEET 11
 - IMPERVIOUS DRIVEWAY
 - 6" FLEXIBLE HDPE
INVERT IS 2.61' BELOW GRADE UNLESS OTHERWISE NOTED. PROVIDE 6" END GAP AT UPPER END OF PIPE RUN.

NOTES:

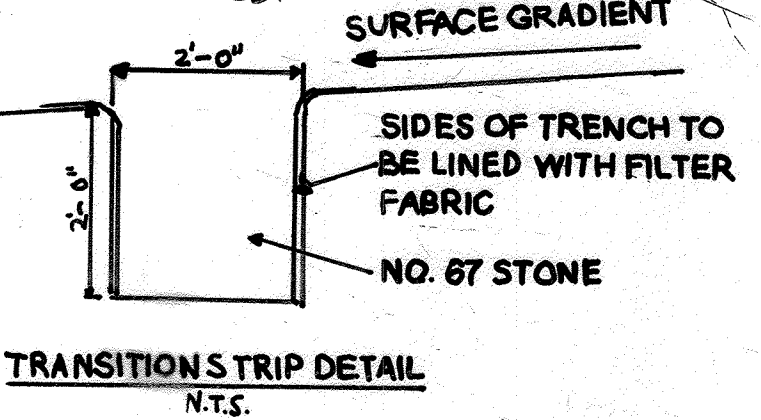
1. PWSU DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
2. ALL HOUSES, DRIVEWAYS & STORMWATER MANAGEMENT DEVICES SHOWN ON BUILDABLE LOTS ARE CONCEPTUAL. THE TOTAL VOLUME SHOWN ON A BUILDABLE LOT MUST BE PROVIDED WITH THE SITE PLAN HOWEVER THE ESD DEVICES MAY BE ADJUSTED. SEE STORMWATER MANAGEMENT DRAINAGE AREA MAP (SHEETS 51-52) FOR ALL ON LOT ESD STORMWATER DEVICES.



DISH WIRELESS SCOPE OF WORK:
 PROJECT CONSISTS OF (AND LIMITED TO) INSTALLING AND TESTING PROPOSED WIRELESS TELECOMMUNICATIONS EQUIPMENT, CABLES AND ANTENNAS AT AN EXISTING TELECOMMUNICATIONS SITE.

NOTE:
 PROPOSED SCOPE SHOWN ON THESE DRAWINGS (RED LINES) ARE BASED OFF OF PLANS BY OTHERS AS-BUILT CONDITIONS MAY VARY. DRAWING FOR INFORMATION PURPOSES

"I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer/landscape architect and surveyor under the laws of the state of Maryland.
 License No. 21461, Expiration Date: 01/10/2011



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Will R. Miller 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Ken Shulman 12-20-13
 Chief, Division of Land Development

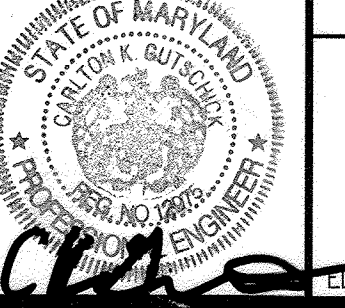
Chad Eberhard 12-12-13
 Chief, Development Engineering Division

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
 BURTONVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
11-09-2010	OS LOT 221 GRADING UPDATED TO REFLECT AS-BUILT CONDITIONS	WES	DDG
02/12/2015	REVISED TELECOMMUNICATIONS SITE TO ADD DISH WIRELESS	MCH	BP
01-11-2015	12-2000 side walk removed several misc. lines, enter area	WES	DDG
01/15/2015	REV. TO ADD PROP CELL TOWER W/PROP W/RS WITH 5% RAWATER	MCM	WVN

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 22975, EXPIRATION DATE: MAY 26, 2014



GRADING PLAN
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 237
 L. 11388 F. 725
 PARCEL 472

NO AS-BUILT INFORMATION
 04/27/2020

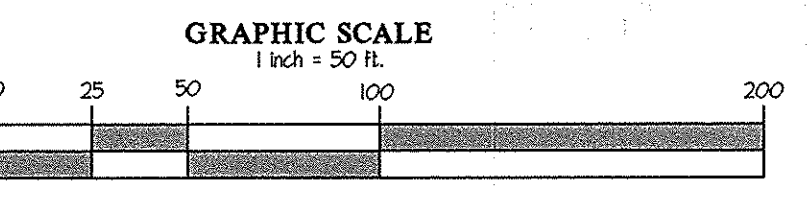
SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV 2013	47-3	37 OF 71



- LEGEND**
- 7'x7'5" DRY WELL
 - 200 GAL RAIN BARREL
 - POROUS DRIVEWAY W/ 12" STONE
SEE DETAILS SHEET IT
 - IMPERVIOUS DRIVEWAY
 - 6" FLEXIBLE HDPE
INVERT IS 2.6' BELOW GRADE UNLESS
OTHERWISE NOTED. PROVIDE 6" END
CAP AT UPPER END OF PIPE RUN.

NOTES:

1. HESU DENOTES PUBLIC SIDEWALK MAINTENANCE, SENIOR HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
2. ALL HOUSES, DRIVEWAYS, & STORMWATER MANAGEMENT DEVICES SHOWN ON BUILDABLE LOTS ARE CONCEPTUAL. THE TOTAL VOLUME SHOWN ON A BUILDABLE LOT MUST BE PROVIDED WITH THE SITE PLAN HOWEVER THE ESD DEVICES MAY BE ADJUSTED. SEE STORMWATER MANAGEMENT DRAINAGE AREA MAP (SHEETS 51-52) FOR ALL ON LOT ESD STORMWATER DEVICES.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John M. ... 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Kent ... 4-23-15
 Chief, Division of Land Development Date

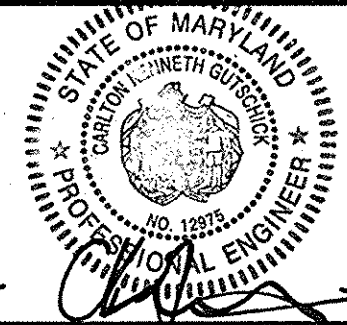
... 4-22-15
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 250 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT. 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	DESCRIPTION	BY	APPR.
02/2015	POROUS SIDEWALKS REMOVED. SEVERAL MICRO-BIOS ENLARGED		
	REVISION		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFROAD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12875
 EXPIRATION DATE: MAY 25, 2016
 4/21/15

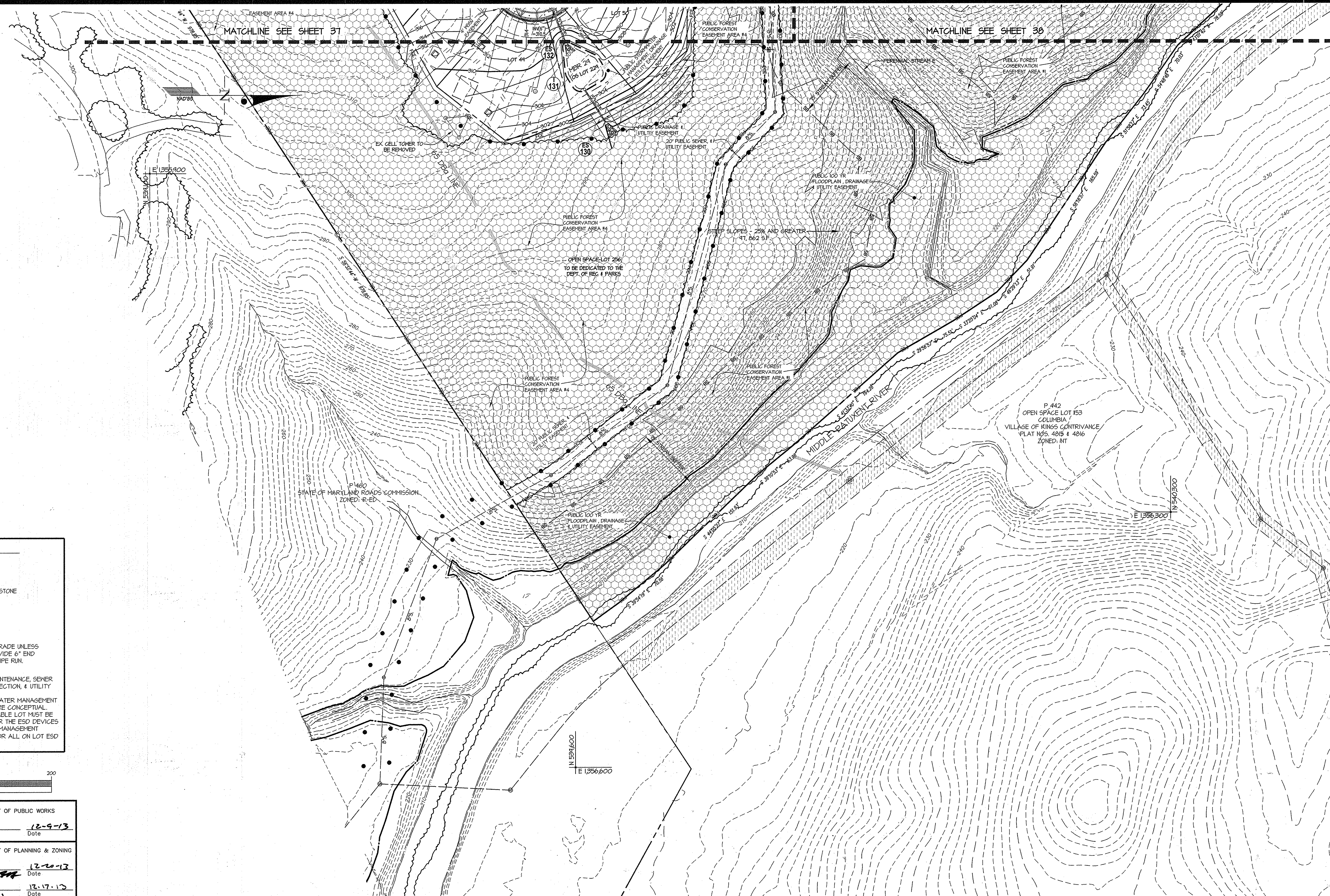


REVISED GRADING PLAN
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257
 L 11388 F. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB., 2015	47-3	38 OF 71

FLOODPLAIN CROSS SECTION CHART

STATION	EX. GLOO	PROP. GLOO	EX. MSEL	PROP. MSEL	EX. CRIT.	PROP. CRIT	EX. EG	PROP. EG
30	252.3	251.1	226.10	226.10	215.62	217.84	226.10	226.10
120	252.3	251.1	226.10	226.08	---	---	226.10	226.12
116	252.3	251.1	226.09	226.05	---	---	226.11	226.15
271	252.3	251.1	226.41	226.51	226.41	226.51	221.91	230.02
312	252.3	251.1	224.81	231.04	224.81	231.04	230.64	232.38
360	252.3	251.1	231.55	238.16	231.55	238.16	232.85	235.98
408	252.3	251.1	234.02	235.35	234.02	235.35	234.94	236.16
450	252.3	251.1	236.11	231.00	236.11	231.00	236.91	238.12
538	252.3	251.1	240.21	241.11	240.21	241.11	241.26	243.16
638	252.3	251.1	244.41	245.61	244.41	245.61	245.90	246.88
765	252.3	251.1	250.45	251.82	250.45	251.82	251.86	253.05
811	252.3	251.1	258.44	256.38	255.44	256.38	256.13	257.36
975	182.8	384.4	254.44	260.21	254.44	260.21	260.08	261.11
1052	182.8	384.4	261.64	263.14	261.64	263.14	262.83	264.65
1141	182.8	384.4	261.64	268.90	261.64	268.90	268.55	270.11
1181	182.8	384.4	270.24	271.51	270.24	271.51	271.15	272.75
1331	182.8	384.4	282.18	283.14	282.18	283.14	282.91	284.20
1445	182.8	384.4	241.22	242.17	241.22	242.17	241.93	243.15
1522	182.8	384.4	245.50	246.55	245.50	246.55	246.30	247.12
1616	182.8	384.4	244.54	300.60	244.54	300.60	300.31	301.61
1691	154.1	322.3	303.23	304.21	303.23	304.21	304.01	305.36
1821	154.1	322.3	310.18	310.41	310.09	310.85	310.66	311.66
1952	154.1	322.3	318.81	314.64	318.35	314.24	314.13	320.04
2026	154.1	322.3	324.42	325.00	324.42	325.00	324.81	325.65
2155	101.1	147.3	330.63	331.46	324.63	330.20	330.12	331.94
2220	101.1	147.3	333.63	334.32	333.14	333.71	333.52	334.50

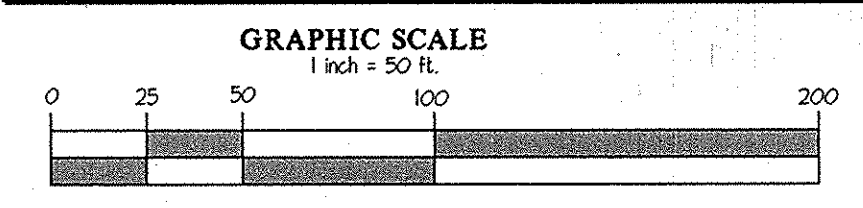


LEGEND

- T.X.T.'S DRY WELL
- 200 GAL RAIN BARREL
- POROUS DRIVEWAY W/ 12" STONE
SEE DETAILS SHEET IT
- IMPERVIOUS DRIVEWAY
- 6" FLEXIBLE HDPE
INVERT IS 2.61' BELOW GRADE UNLESS
OTHERWISE NOTED. PROVIDE 6" END
CAP AT UPPER END OF PIPE RUN.

NOTES:

1. P.S.S.U DENOTES PUBLIC SIDEWALK MAINTENANCE, SEWER HOUSE CONNECTION, WATER HOUSE CONNECTION, & UTILITY EASEMENT.
2. ALL HOUSES, DRIVEWAYS, & STORMWATER MANAGEMENT DEVICES SHOWN ON BUILDABLE LOTS ARE CONCEPTUAL. THE TOTAL VOLUME SHOWN ON A BUILDABLE LOT MUST BE PROVIDED WITH THE SITE PLAN HOWEVER THE ESD DEVICES MAY BE ADJUSTED. SEE STORMWATER MANAGEMENT DRAINAGE AREA MAP (SHEETS 51-52) FOR ALL ON LOT ESD STORMWATER DEVICES.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. ... 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
... 12-20-13
 Chief, Division of Land Development Date

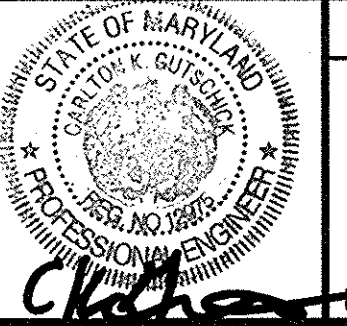
... 12-17-13
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 13275
 EXPIRATION DATE: MAY 26, 2014
 11-18-13



GRADING PLAN
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=50'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	39 OF 71



'C' FACTOR COMPUTATIONS			
STRUCTURE	AREA (AC.)	'C'	IMPERVIOUS
I-6	0.27 Ac.	0.52	30%
I-7	0.11 Ac.	0.52	30%
I-8	1.09 Ac.	0.52	30%
I-12	0.97 Ac.	0.52	30%
I-14	0.87 Ac.	0.52	30%
I-15	1.18 Ac.	0.52	30%
I-25	0.11 Ac.	0.52	30%
I-26	0.43 Ac.	0.52	30%
I-27	0.43 Ac.	0.52	30%
I-28	0.50 Ac.	0.52	30%
I-29	0.37 Ac.	0.52	30%
I-30	0.32 Ac.	0.52	30%
I-31	0.49 Ac.	0.52	30%
I-32	0.34 Ac.	0.52	30%
I-34	0.81 Ac.	0.52	30%
I-36	0.48 Ac.	0.52	30%
I-37	0.26 Ac.	0.52	30%
I-38	0.30 Ac.	0.52	30%
I-41	0.18 Ac.	0.52	30%
I-42	0.26 Ac.	0.52	30%
I-44	0.42 Ac.	0.52	30%
I-45	0.02 Ac.	0.52	30%
I-47	0.15 Ac.	0.52	30%
I-48	0.35 Ac.	0.52	30%
I-49	0.28 Ac.	0.52	30%
I-54	0.80 Ac.	0.52	30%
I-57	1.14 Ac.	0.52	30%
I-60	0.37 Ac.	0.52	30%
I-62	0.14 Ac.	0.52	30%
I-63	0.21 Ac.	0.52	30%
I-64	0.09 Ac.	0.52	30%
I-67	0.73 Ac.	0.52	30%
I-68	0.43 Ac.	0.52	30%
I-70	0.87 Ac.	0.52	30%
I-72	0.25 Ac.	0.52	30%
I-74	0.47 Ac.	0.52	30%
I-75	0.36 Ac.	0.52	30%
I-76	0.33 Ac.	0.52	30%
I-77	0.53 Ac.	0.52	30%
I-81	0.07 Ac.	0.52	30%
I-83	0.43 Ac.	0.52	30%
I-85	0.52 Ac.	0.52	30%
I-86	0.11 Ac.	0.52	30%
I-89	0.74 Ac.	0.52	30%
I-90	0.18 Ac.	0.52	30%
I-93	0.48 Ac.	0.52	30%
I-95	0.30 Ac.	0.52	30%
I-97	0.30 Ac.	0.52	30%
I-98	0.49 Ac.	0.52	30%
I-101	0.64 Ac.	0.52	30%
I-104	0.19 Ac.	0.52	30%
I-107	0.52 Ac.	0.52	30%
I-109	0.56 Ac.	0.52	30%
I-111	0.31 Ac.	0.52	30%
I-112	0.70 Ac.	0.52	30%
I-116	0.24 Ac.	0.52	30%
I-118	0.75 Ac.	0.52	30%
I-120	0.18 Ac.	0.52	30%
I-123	0.48 Ac.	0.52	30%
I-124	0.12 Ac.	0.52	30%
I-125	0.41 Ac.	0.52	30%
I-126	0.58 Ac.	0.52	30%
I-131	0.28 Ac.	0.52	30%
I-133	0.82 Ac.	0.52	30%
I-136	0.18 Ac.	0.52	30%
I-139	0.92 Ac.	0.52	30%
I-141	0.48 Ac.	0.52	30%
I-142	0.57 Ac.	0.52	30%
I-148	0.19 Ac.	0.52	30%
I-149	0.47 Ac.	0.52	30%
I-150	0.55 Ac.	0.52	30%
I-158	0.28 Ac.	0.52	30%
I-158	1.86 Ac.	0.52	30%
I-161	0.12 Ac.	0.52	30%
I-162	1.32 Ac.	0.52	30%
I-166	0.53 Ac.	0.52	30%
I-169	0.29 Ac.	0.52	30%
I-174	0.51 Ac.	0.52	30%
I-177	0.55 Ac.	0.52	30%
I-181	0.82 Ac.	0.52	30%
I-185	0.22 Ac.	0.52	30%
I-187	0.43 Ac.	0.52	30%
I-188	0.79 Ac.	0.52	30%
I-192	0.77 Ac.	0.52	30%
I-194	0.45 Ac.	0.52	30%
I-197	0.47 Ac.	0.52	30%
I-201	0.61 Ac.	0.52	30%
I-204	0.27 Ac.	0.52	30%
I-205	0.35 Ac.	0.52	30%
I-206	0.11 Ac.	0.52	30%
I-211	1.17 Ac.	0.52	30%
I-214	0.17 Ac.	0.52	30%
I-215	0.15 Ac.	0.52	30%
I-217	0.50 Ac.	0.52	30%
I-221	0.32 Ac.	0.52	30%
I-224	0.39 Ac.	0.52	30%
I-231	0.26 Ac.	0.52	30%
I-233	0.59 Ac.	0.52	30%
I-235	0.14 Ac.	0.52	30%
I-237	0.18 Ac.	0.52	30%
I-239	0.45 Ac.	0.52	30%
I-240	0.46 Ac.	0.52	30%
I-246	0.11 Ac.	0.52	30%
I-247	0.93 Ac.	0.52	30%
I-252	0.28 Ac.	0.52	30%
I-254	0.64 Ac.	0.52	30%
I-256	0.26 Ac.	0.52	30%
I-257	0.35 Ac.	0.52	30%
I-261	0.11 Ac.	0.52	30%
I-262	0.36 Ac.	0.52	30%
I-271	0.26 Ac.	0.52	30%
I-275	0.08 Ac.	0.52	30%
I-276	0.33 Ac.	0.52	30%
I-300	0.35 Ac.	0.52	30%
I-301	0.28 Ac.	0.52	30%
I-302	0.54 Ac.	0.52	30%
I-303	0.38 Ac.	0.52	30%
I-304	0.30 Ac.	0.52	30%
I-305	0.38 Ac.	0.52	30%
I-306	1.12 Ac.	0.52	30%
I-307	0.24 Ac.	0.52	30%

GRAPHIC SCALE
1 inch = 100 ft.
0 50 100 200 400

LEGEND
 STORM DRAIN DRAINAGE DIVIDE
 B' TYPE SOILS
 C' TYPE SOILS

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. Smith 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. Schulz 12-20-13
 Chief, Division of Land Development Date

A. Edwards 12-17-13
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONSVILLE OFFICE PARK
 BIRTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12765
 EXPIRATION DATE: MAY 26, 2014
 11-16-13 *[Signature]*

STORMDRAIN DRAINAGE AREA MAP
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 E. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	40 OF 71



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. M. M. H. 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. S. L. L. 12-20-13
 Chief, Division of Land Development Date

C. G. L. 12-17-13
 Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 200 - BURTONTVILLE OFFICE PARK
 BURTONTVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

L:\CADD\DRAWINGS\08052\FINALS\08052-SD DAM.dwg DES. dds DRN. dds CHK.

DATE	REVISION	BY	APP'R

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

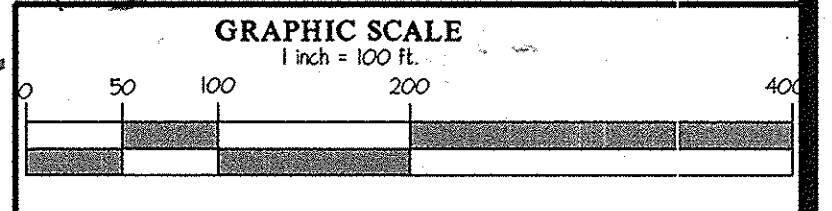
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS
 WERE PREPARED OR APPROVED BY
 ME AND THAT I AM A DULY LICENSED
 PROFESSIONAL ENGINEER UNDER THE
 LAWS OF THE STATE OF MARYLAND,
 LICENSE NO. 12975
 EXPIRATION DATE: MAY 26, 2014
 11-15-13 *CLG*



ELECTION DISTRICT No. 6

STORMDRAIN DRAINAGE AREA MAP

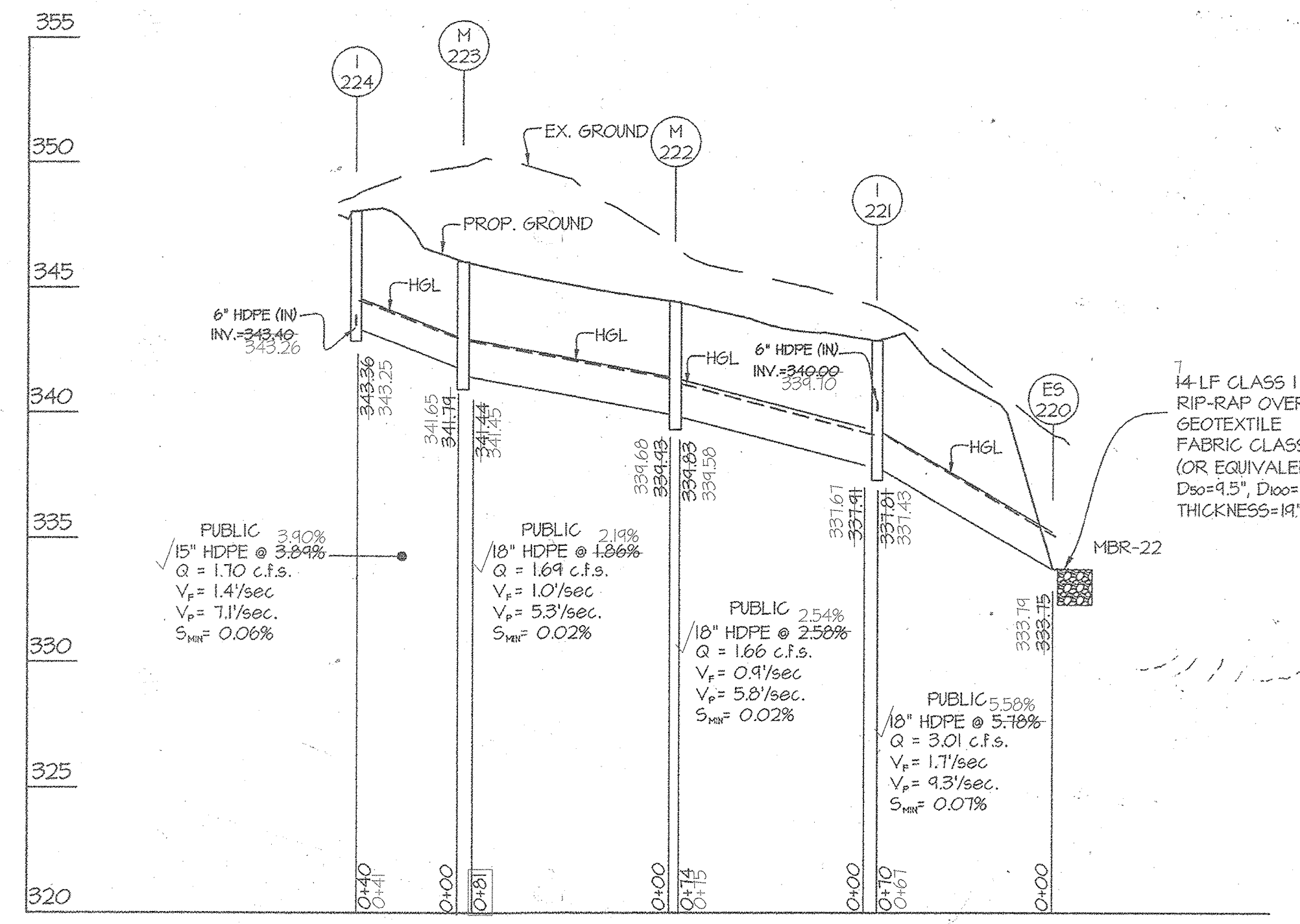
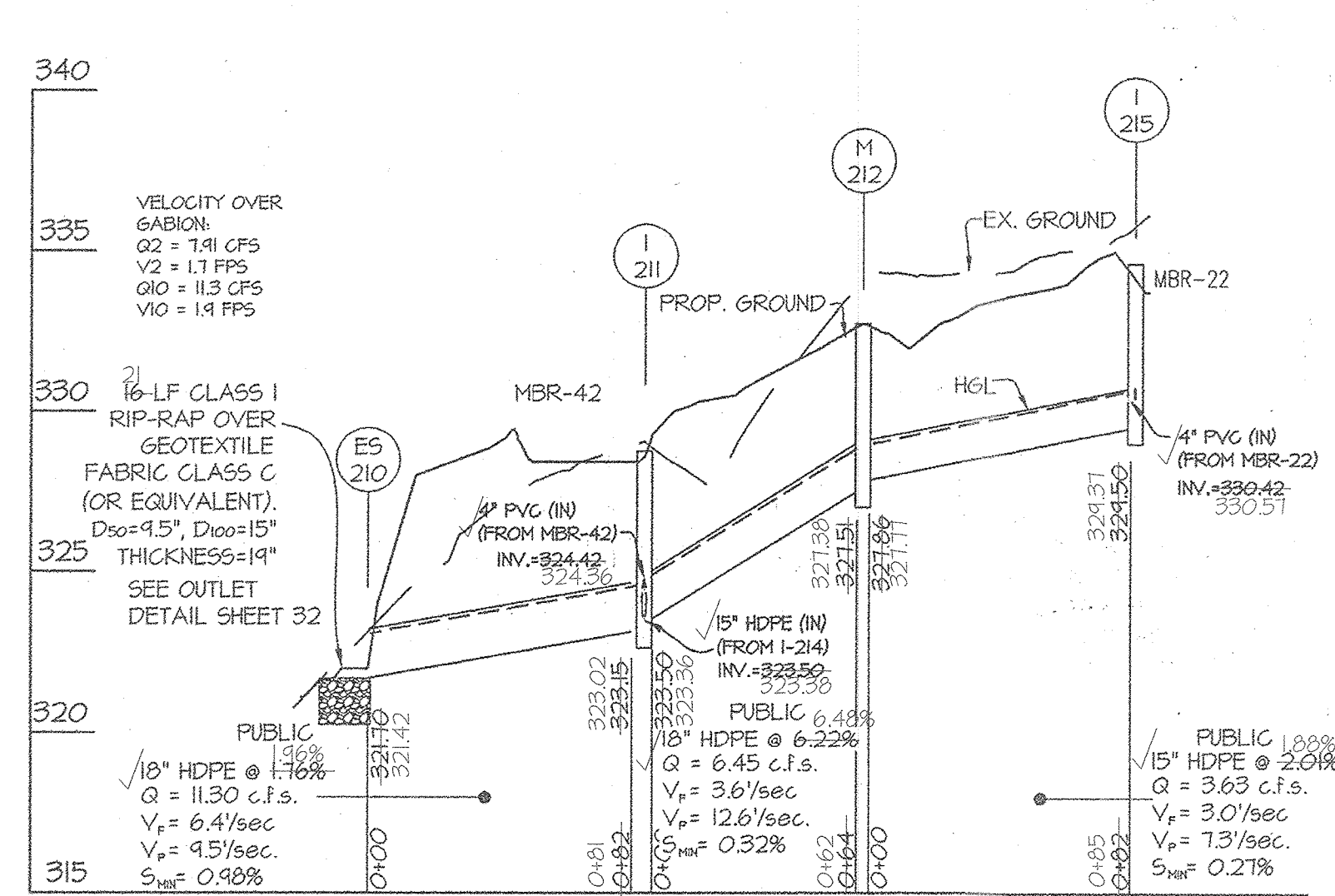
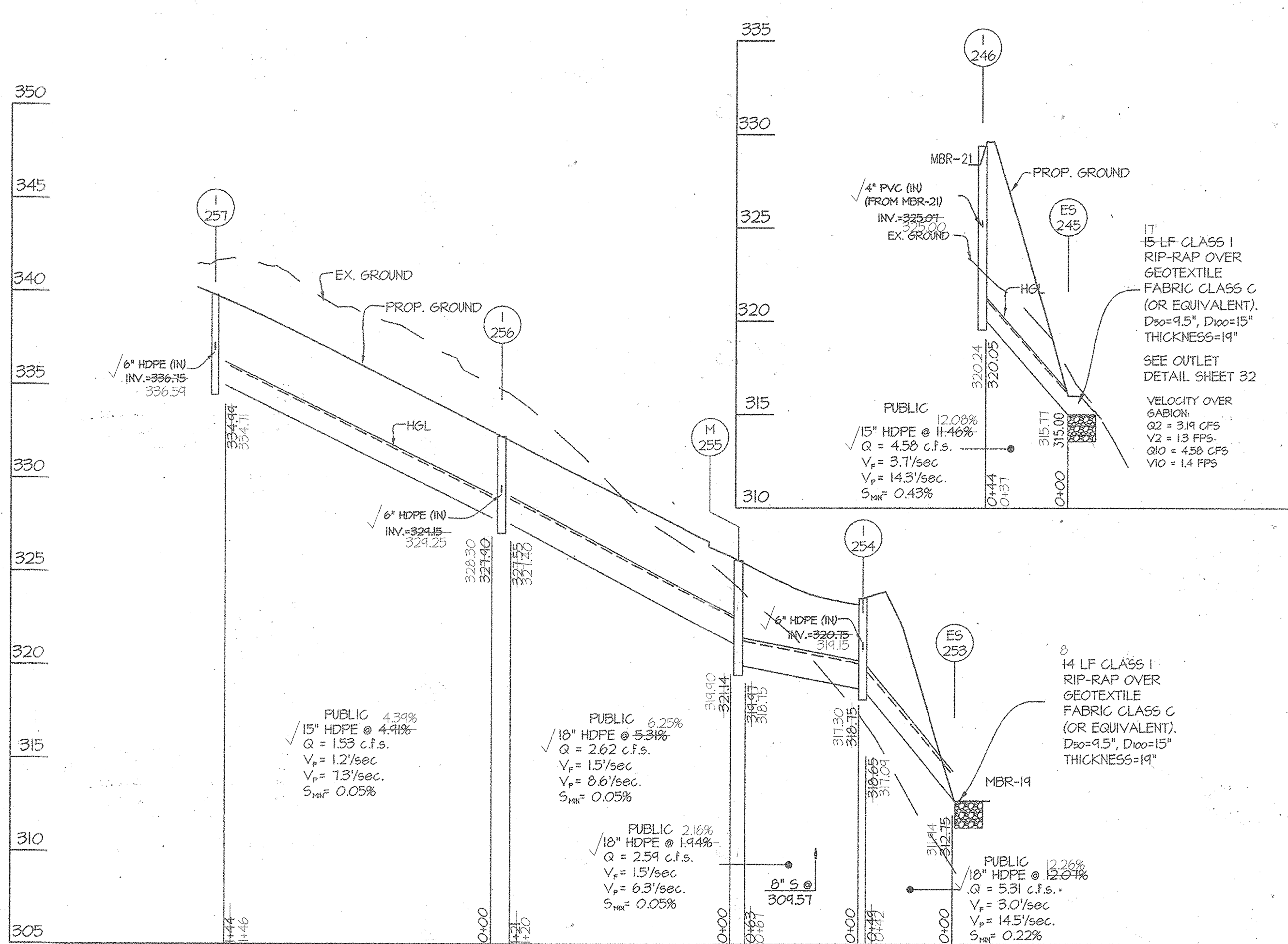
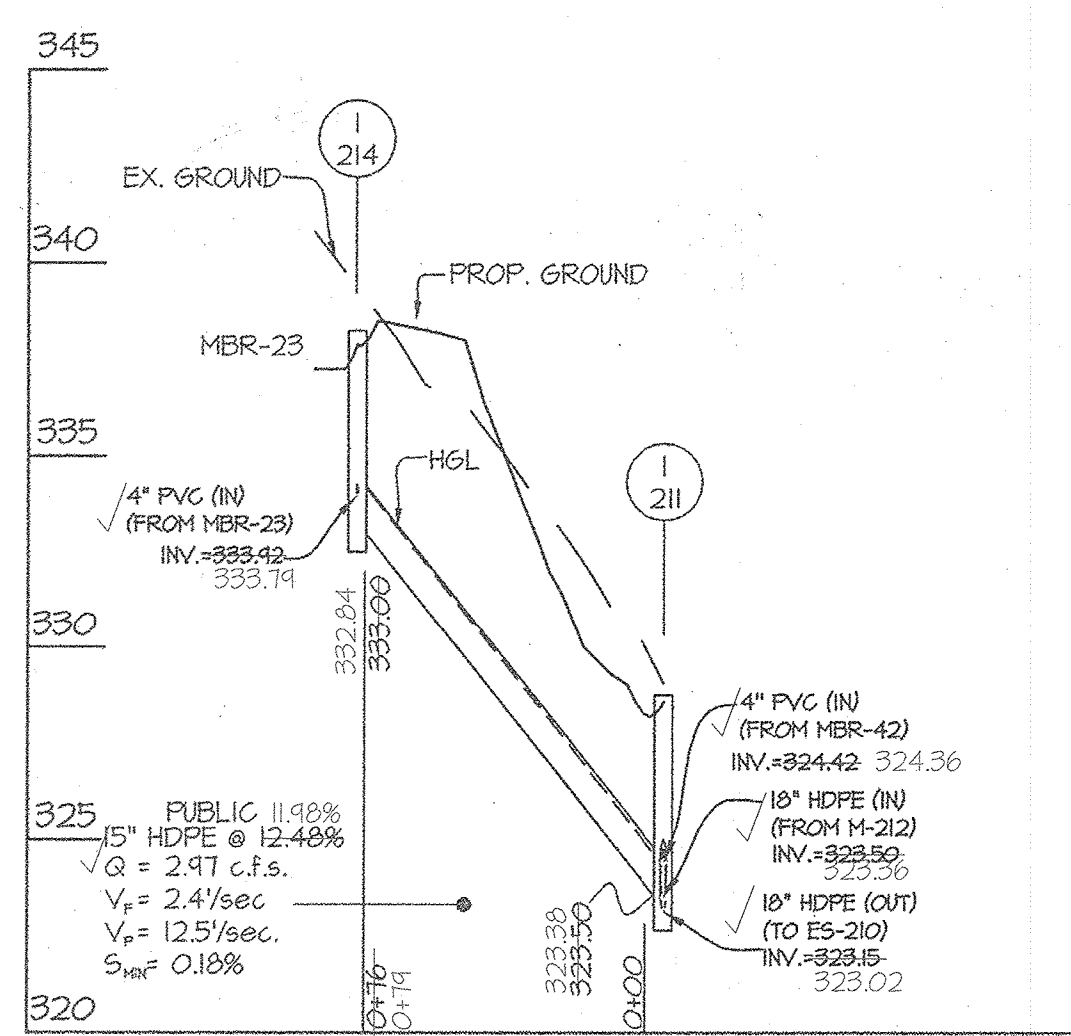
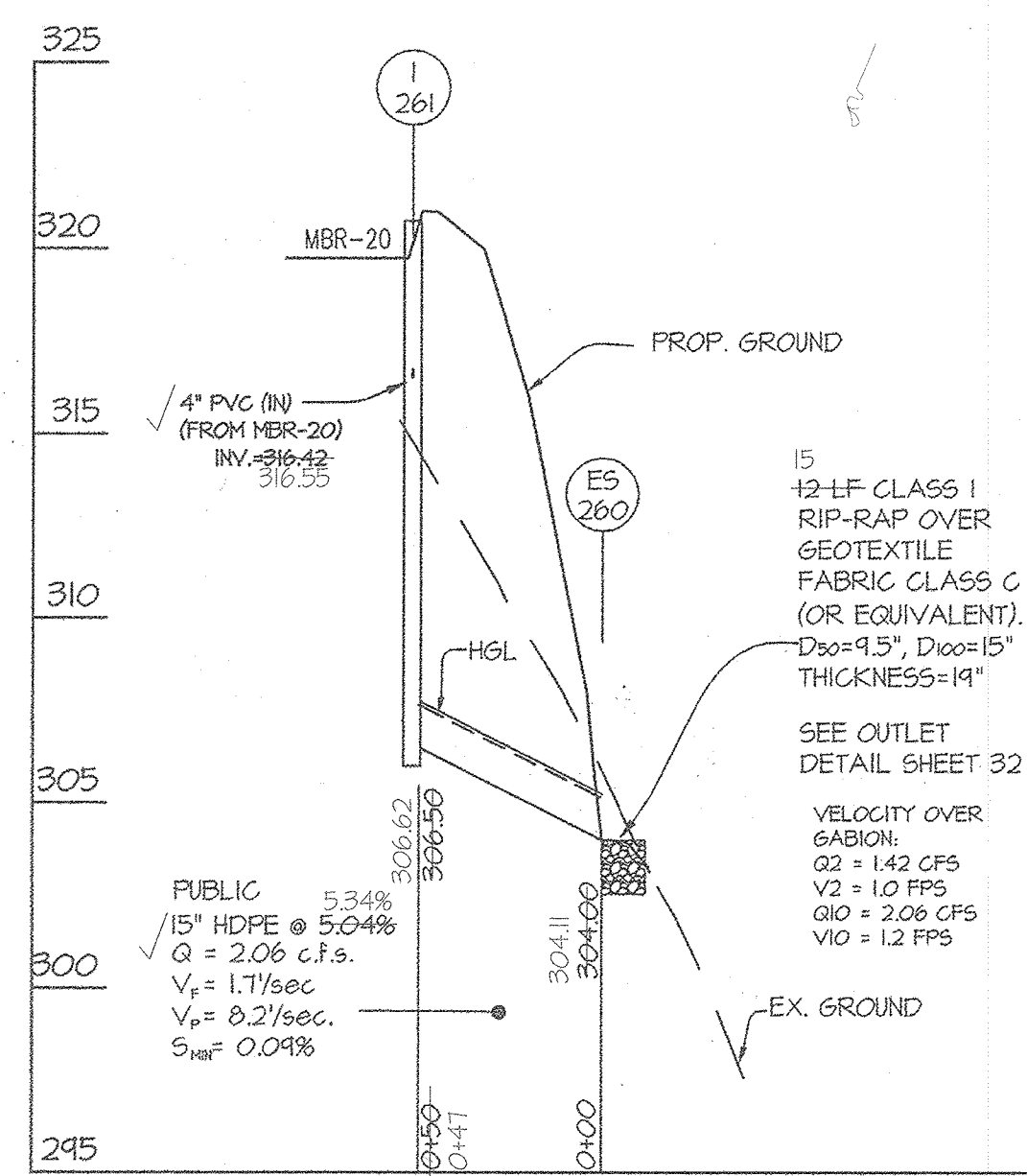
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 E. 725
 PARCEL 472



LEGEND

	STORM DRAIN DRAINAGE DIVIDE
	'B' TYPE SOILS
	'C' TYPE SOILS

SCALE	ZONING	G. L. W. FILE No.
1"=100'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV., 2013	47-3	41 OF 71



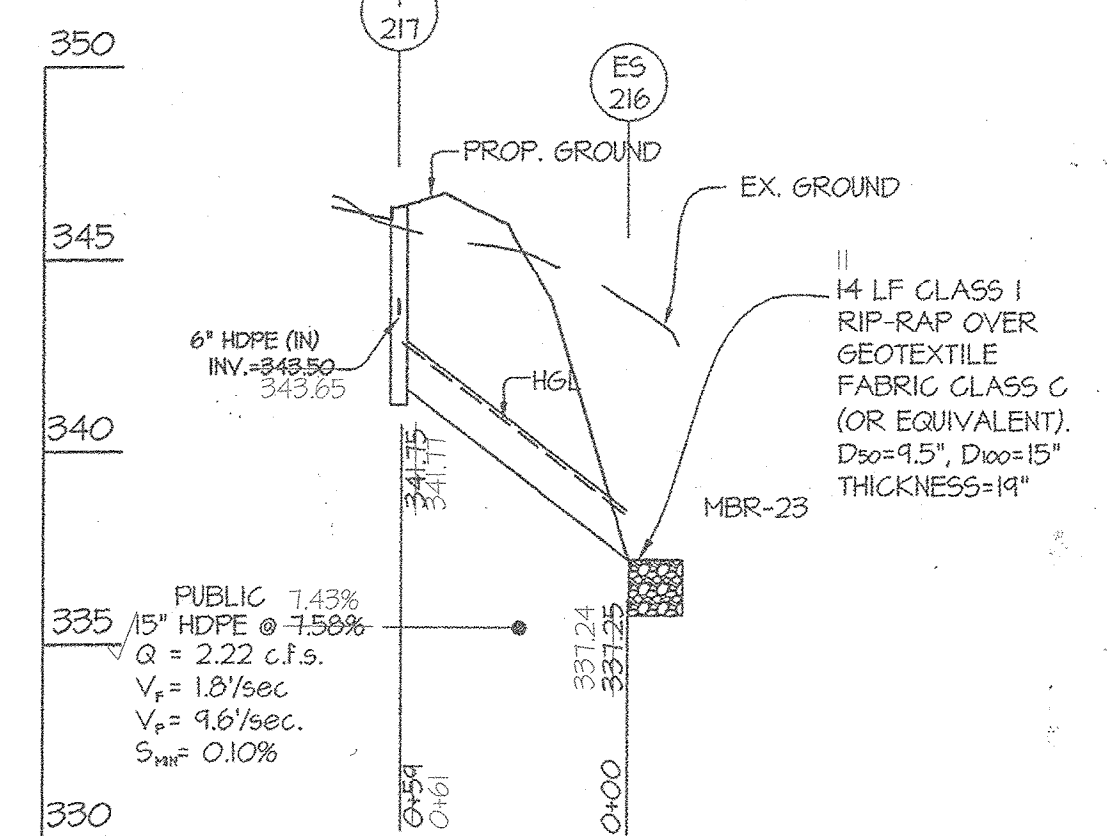
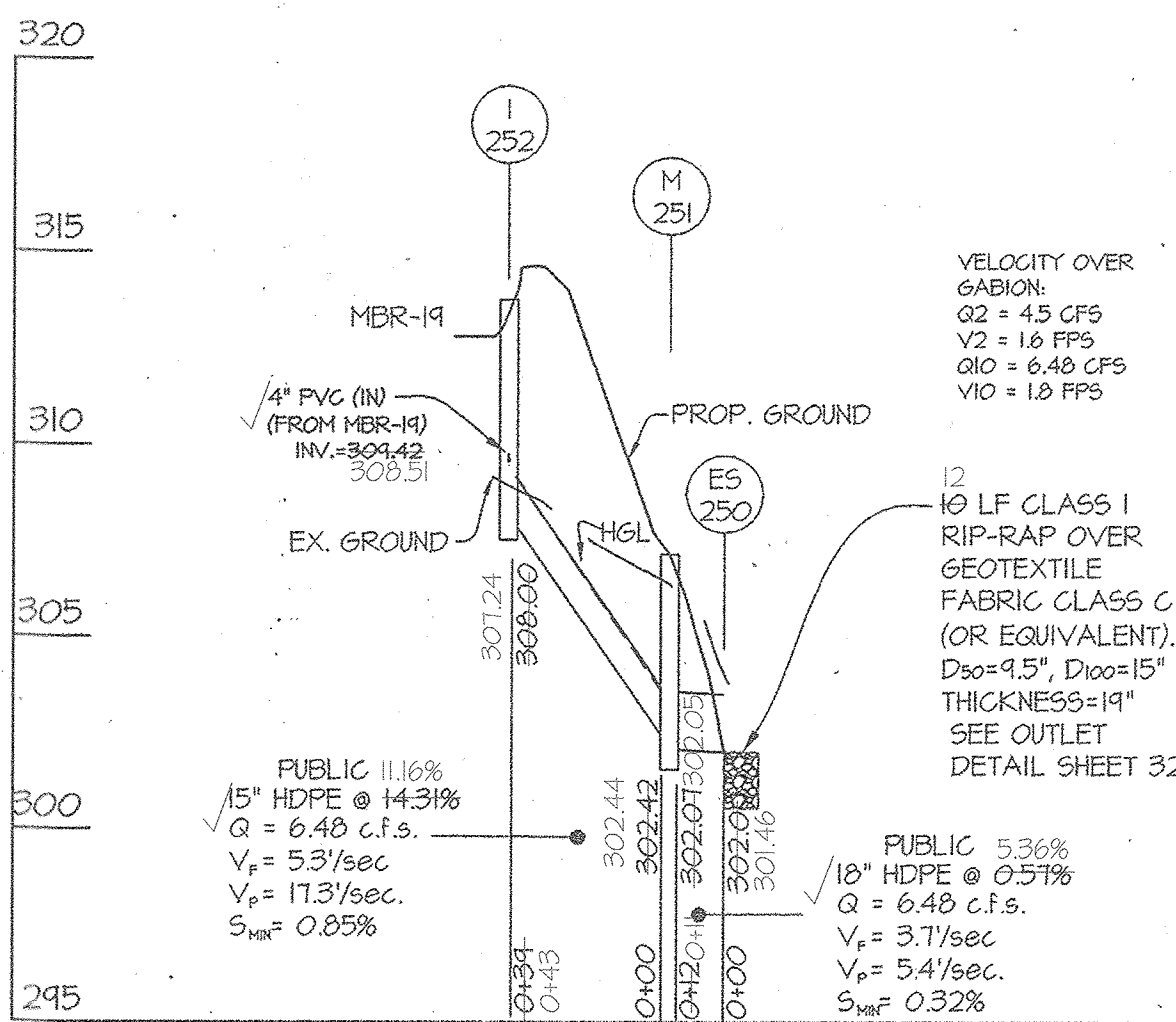
NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	REMARKS	LOCATIONS
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-211	DOUBLE 'S' INLET	2'-15"	328.75	-----	328.50	-----	324.42	323.15	324.36	323.02	HO. CO. SD 4.23		
I-214	'S' INLET	2'-15"	338.25	-----	338.28	-----	333.42	333.00	333.74	332.84	HO. CO. SD 4.22		
I-215	'S' INLET	2'-15"	334.75	-----	334.27	-----	330.42	329.50	330.57	324.37	HO. CO. SD 4.22		
I-217	A-I/O INLET	2'-6"	346.73	346.64	346.54	346.57	343.50	341.75	343.65	341.77	HO. CO. SD 4.03		
I-221	A-I/O INLET	2'-6"	343.17	342.43	342.84	342.64	340.00	337.81	334.70	337.43	HO. CO. SD 4.03		
I-224	A-I/O INLET	2'-6"	348.42	348.16	348.31	348.15	343.40	343.36	343.26	343.25	HO. CO. SD 4.03		
I-246	'S' INLET	2'-15"	324.40	-----	324.61	-----	325.07	320.05	325.00	320.24	HO. CO. SD 4.22		
I-252	DOUBLE 'S' INLET	2'-15"	313.75	-----	312.68	-----	304.42	308.00	308.51	307.24	HO. CO. SD 4.23	4" KNOCKOUT - INV. 312.25 ** SEE SHEETS 20-26 **	
I-254	A-I/O INLET	2'-6"	323.85	323.85	323.64	323.62	320.75	318.65	314.15	317.04	HO. CO. SD 4.03		
I-256	A-I/O INLET	2'-6"	332.70	332.16	332.67	332.03	324.15	321.55	324.25	327.40	HO. CO. SD 4.03		
I-257	A-I/O INLET	2'-6"	340.21	334.80	340.11	334.62	336.75	334.44	336.54	334.71	HO. CO. SD 4.03		
I-261	'S' INLET	2'-15"	320.75	-----	321.06	-----	316.42	306.50	316.55	306.62	HO. CO. SD 4.22		
M-212	STANDARD MANHOLE	4'-0"	332.73	-----	333.01	-----	327.86	327.51	327.71	327.38	HO. CO. 6-512		
M-222	STANDARD MANHOLE	4'-0"	344.43	-----	344.18	-----	334.43	334.83	334.68	334.58	HO. CO. 6-512		
M-223	STANDARD MANHOLE	4'-0"	346.03	-----	346.15	-----	341.74	341.44	341.65	341.45	HO. CO. 6-512		
M-251	STANDARD MANHOLE	4'-0"	307.11	-----	306.71	-----	302.42	302.07	302.44	302.05	HO. CO. 6-512		
M-255	STANDARD MANHOLE	4'-0"	325.62	-----	325.55	-----	321.14	314.47	314.40	316.75	HO. CO. 6-512		
ES-210	END SECTION	18"	323.20	-----	-----	-----	321.70	-----	321.42	-----	HO. CO. D-552		
ES-216	END SECTION	15"	338.50	-----	-----	-----	337.25	-----	337.24	-----	HO. CO. D-552		
ES-220	END SECTION	18"	335.25	-----	-----	-----	333.75	-----	333.74	-----	HO. CO. D-552		
ES-245	END SECTION	15"	316.25	-----	-----	-----	315.00	-----	315.77	-----	HO. CO. D-552		
ES-250	END SECTION	18"	303.50	-----	-----	-----	302.00	-----	301.46	-----	HO. CO. D-552		
ES-253	END SECTION	18"	314.25	-----	-----	-----	312.75	-----	311.94	-----	HO. CO. D-552		
ES-260	END SECTION	15"	305.25	-----	-----	-----	304.00	-----	304.11	-----	HO. CO. D-552		

NOTE: ** KNOCKOUT TO BE CLOSED WITH CONSTRUCTION OF MICRO-BIORETENTION FACILITY

PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (LF)	REMARKS
15"	HDPE	534	
18"	HDPE	616	

ASBUILT 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. 12475, Expiration Date: May 26 2022.
4/27/20
Date
Carl K. Witschick
Professional Engineer
Maryland Reg. No. 12475

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or H-G by Hancor or an approved equal.
Trench bedding to be provided per Howard County Detail 6 2.01.
Trench for P.V.C. pipe and HDPE.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William R. McCall
Chief, Bureau of Highways
12-9-13
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
W. Stenhouse
Chief, Division of Land Development
12-20-13
Date

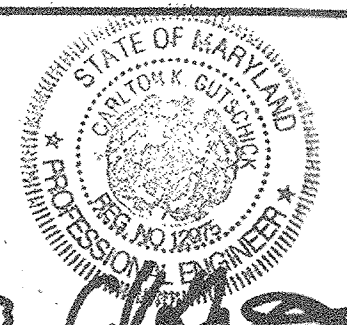
Chad P. Smith
Chief, Development Engineering Division
12-17-13
Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-589-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

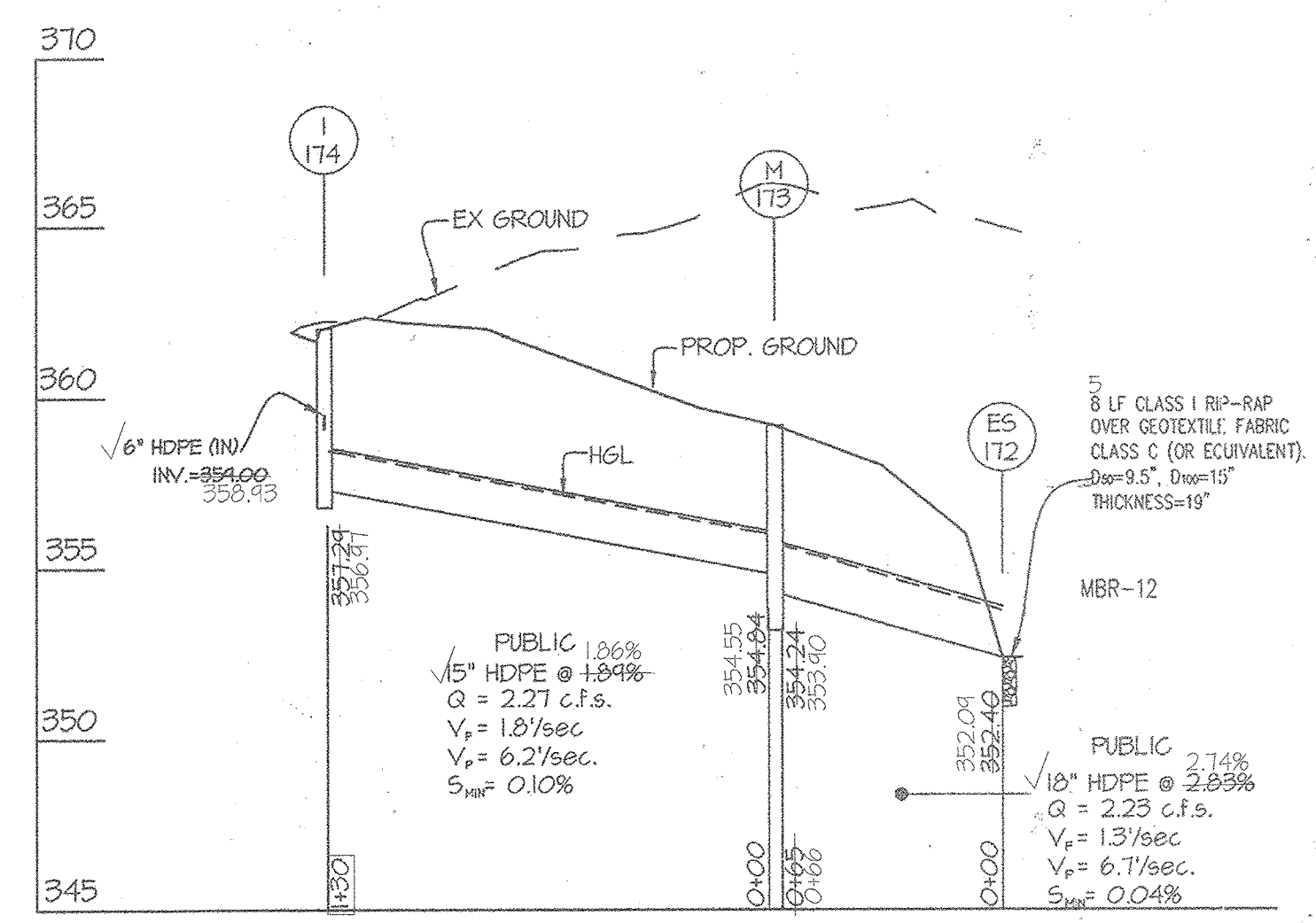
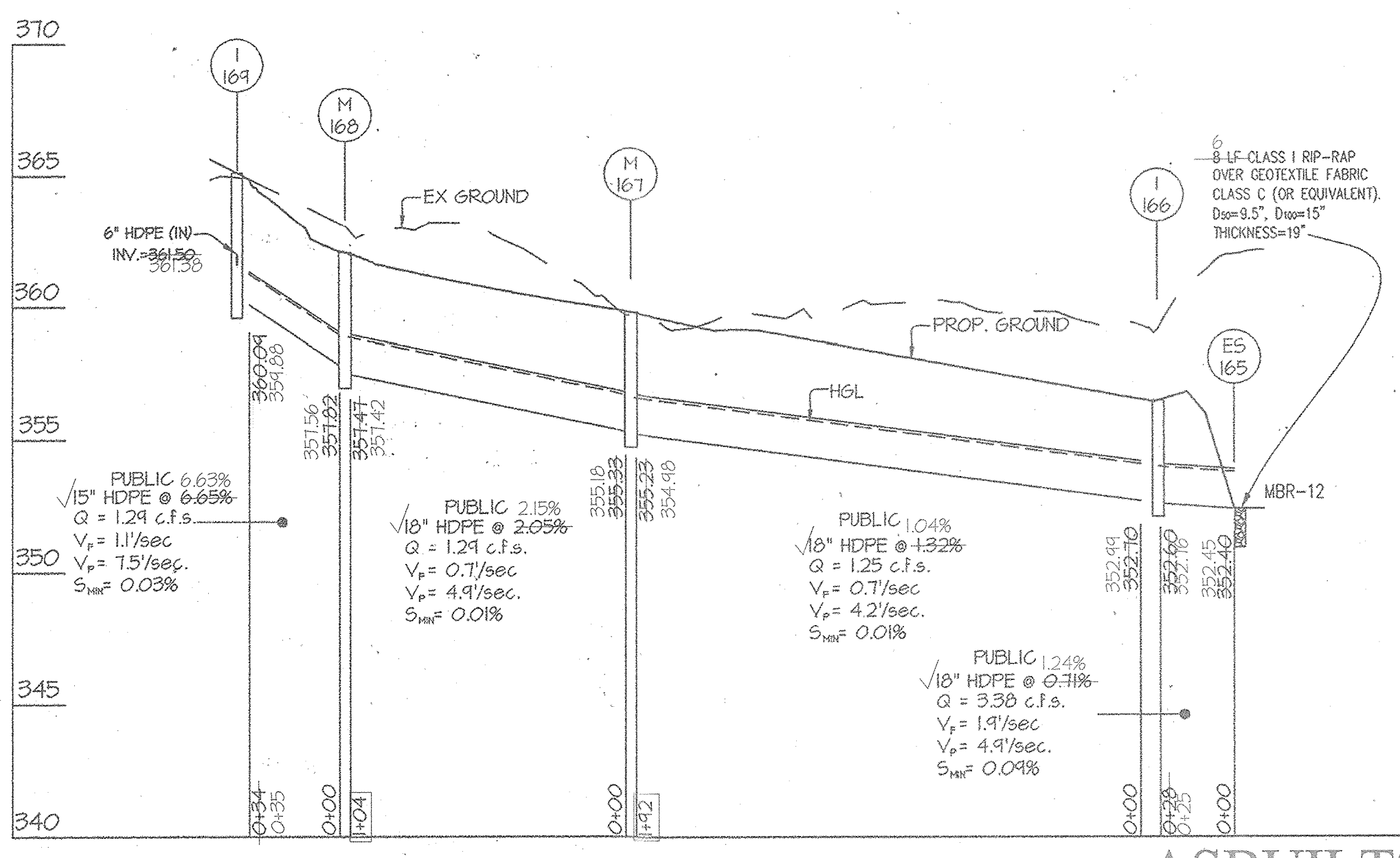
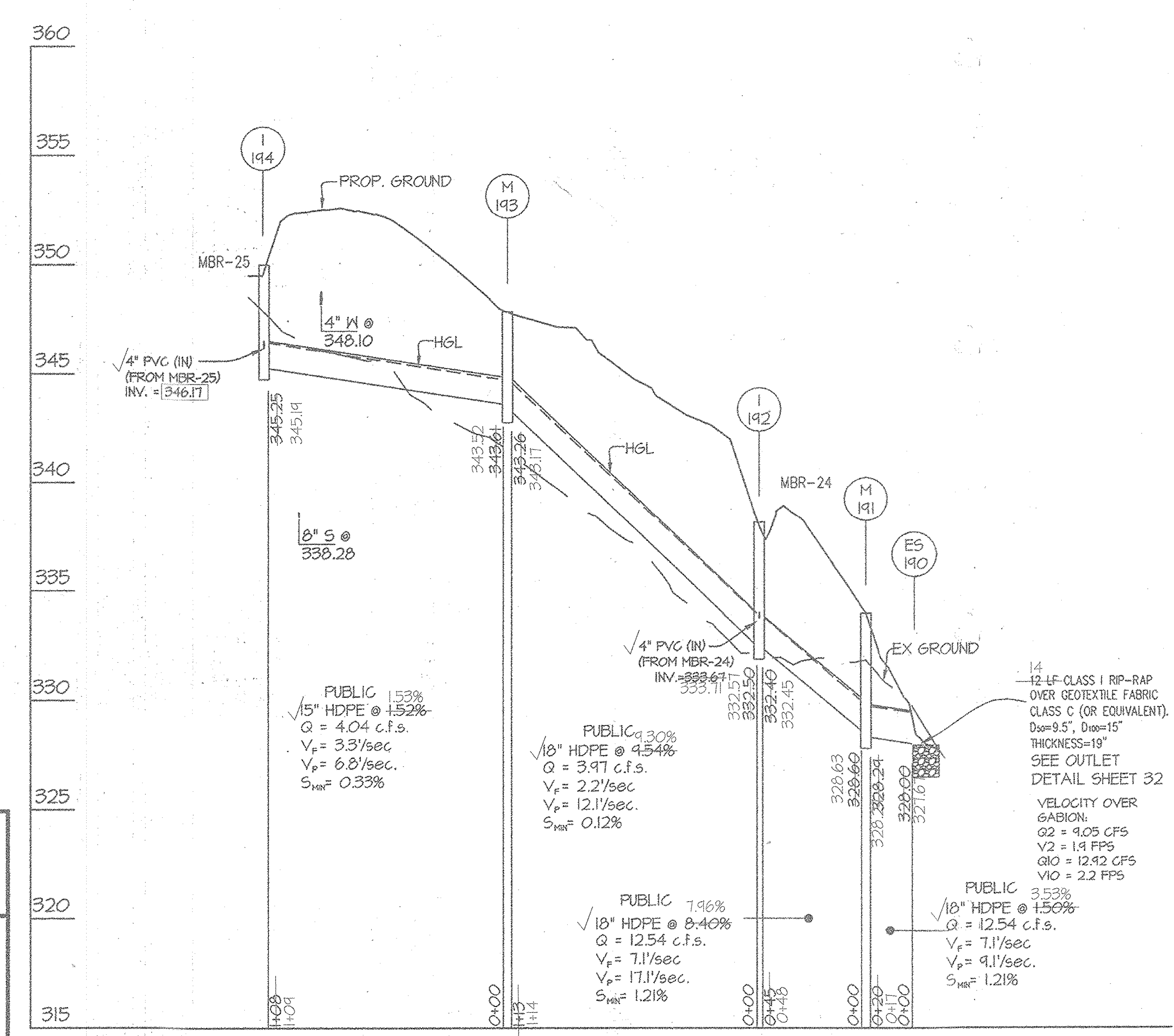
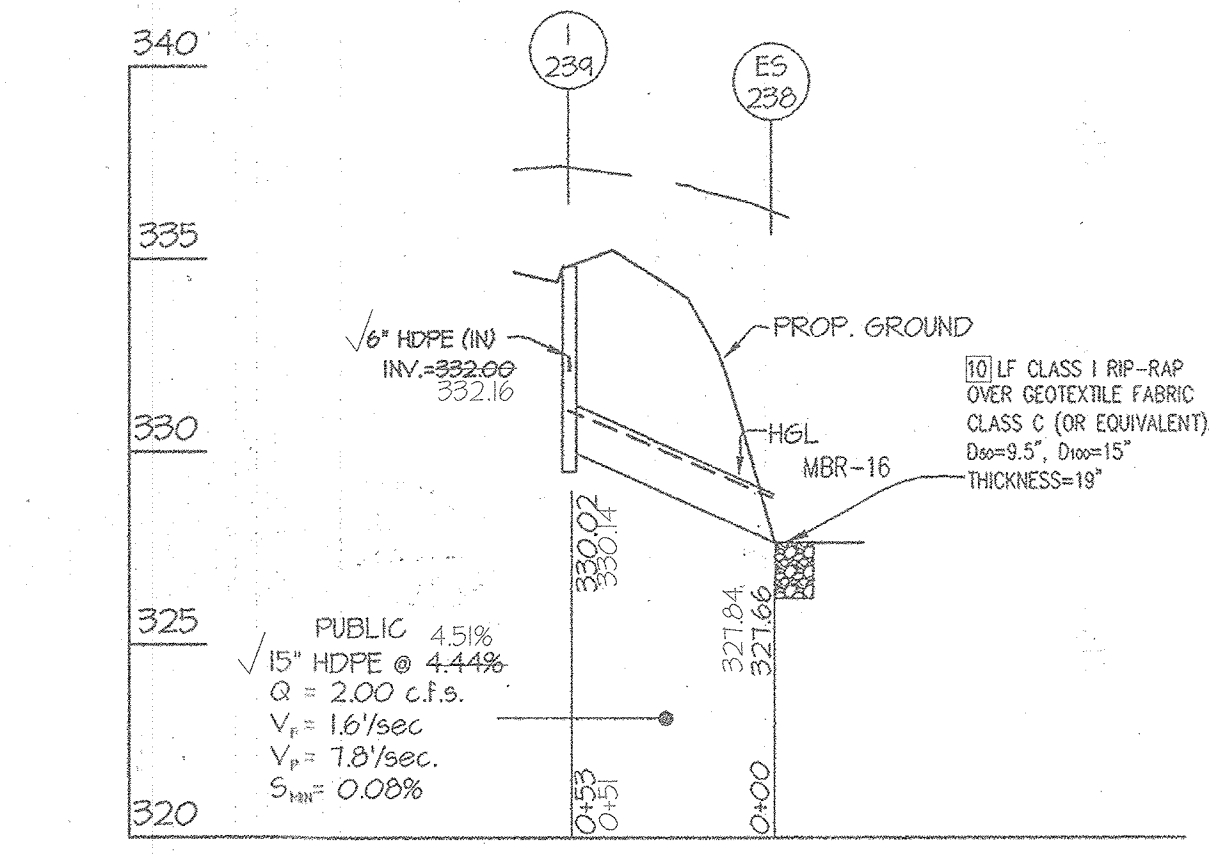
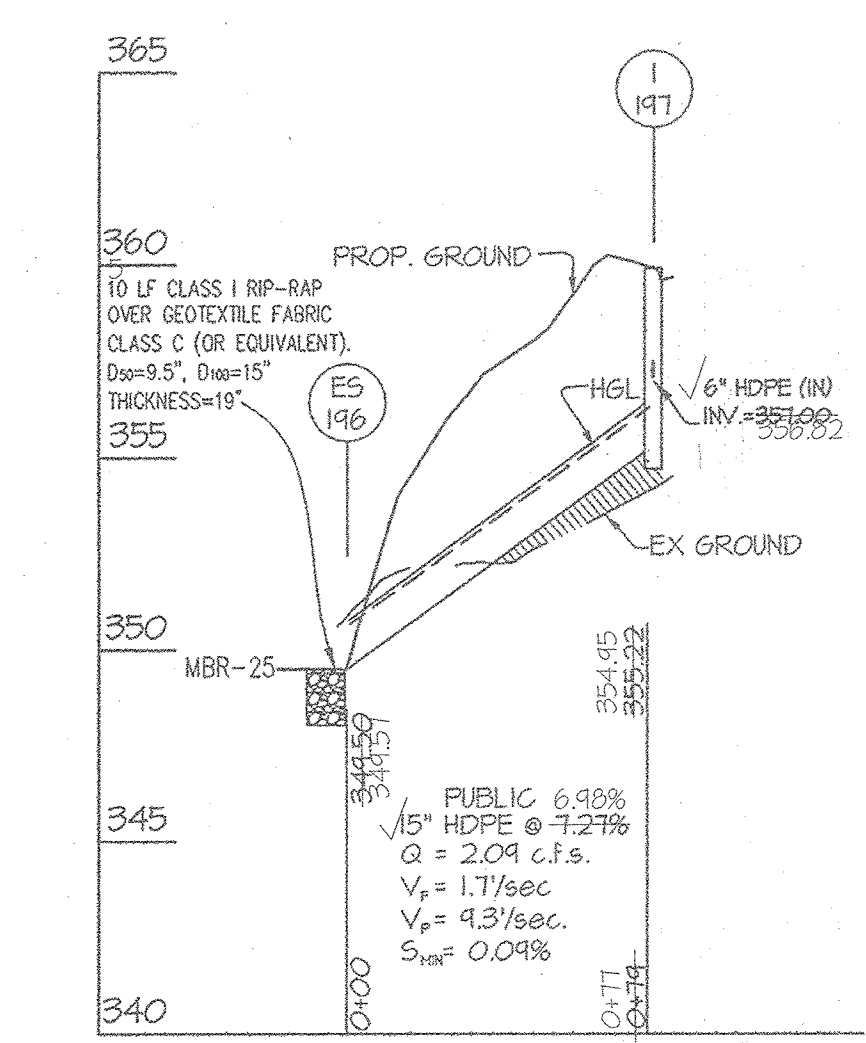
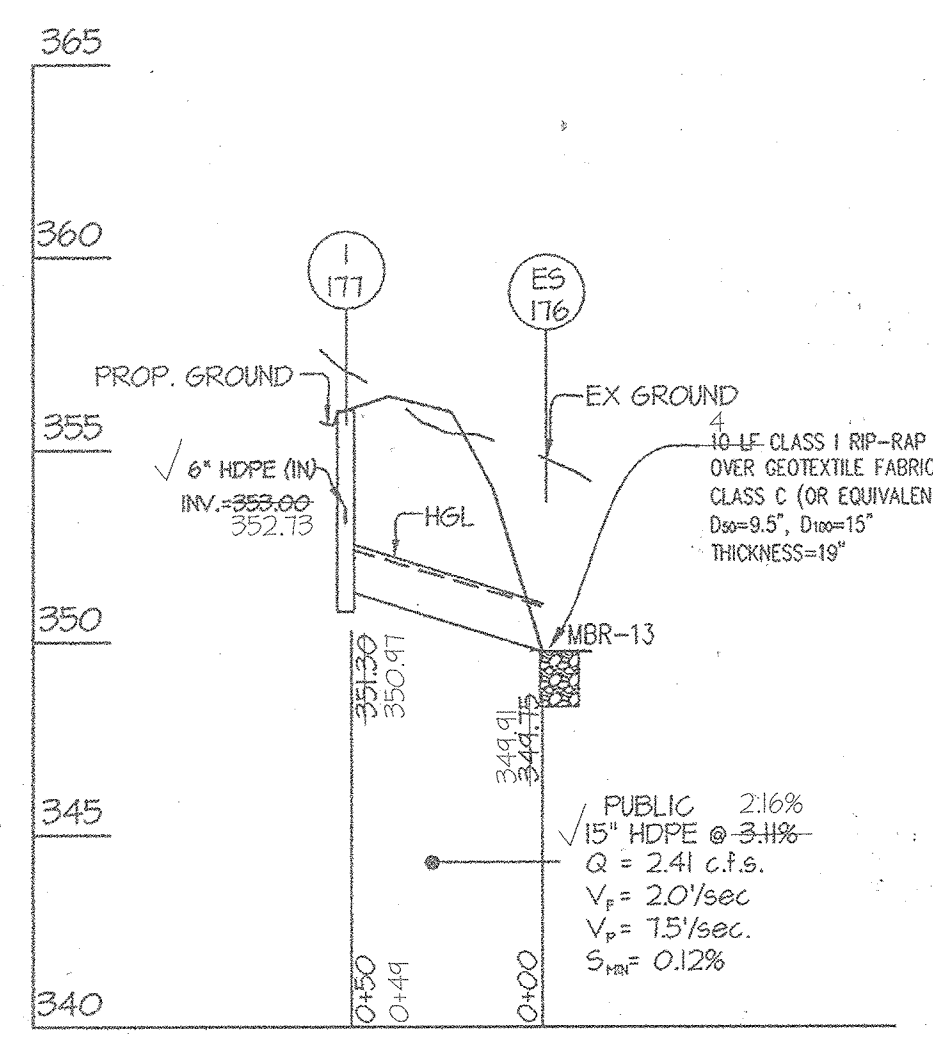
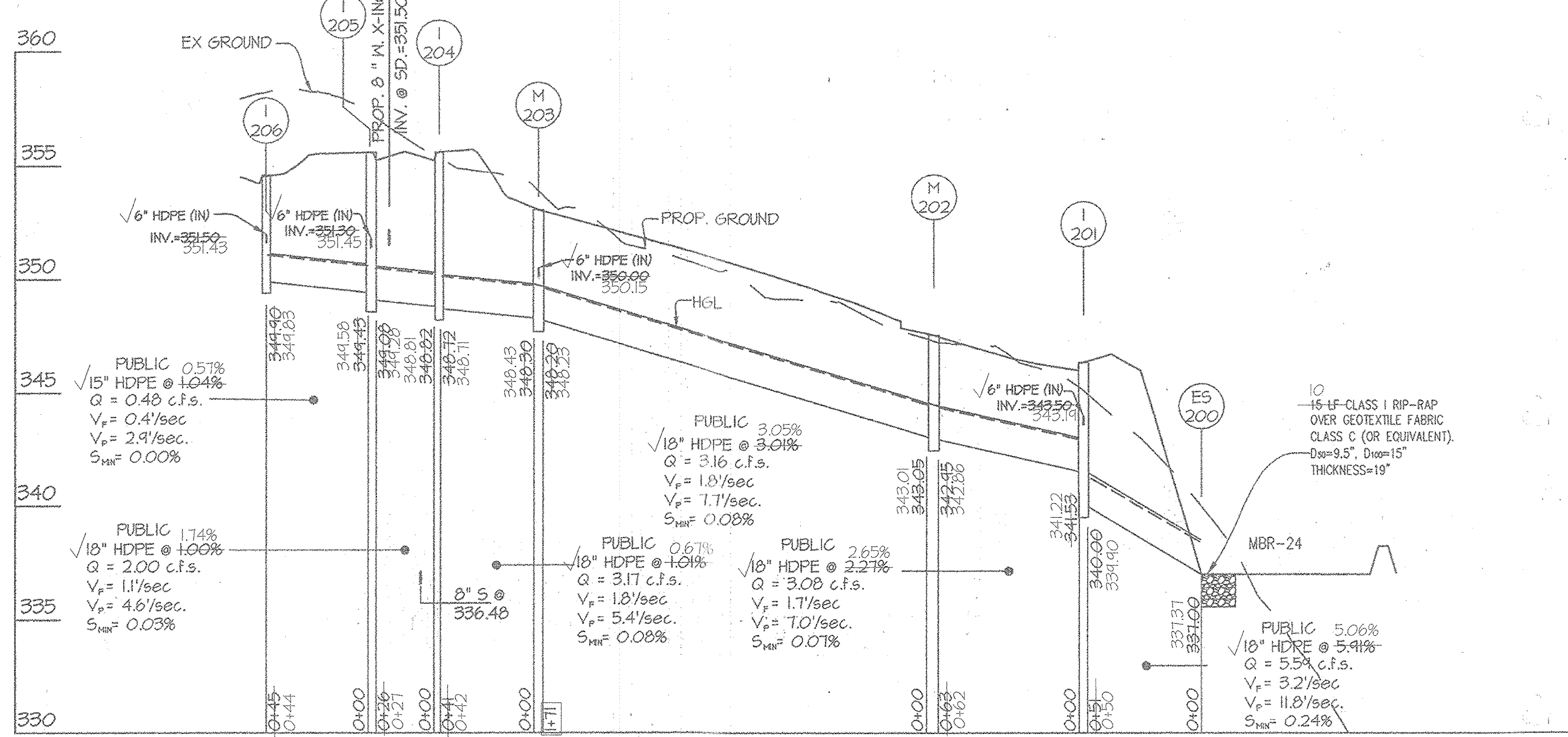
PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12975, EXPIRATION DATE: MAY 26, 2014



ASBUILTS
STORM DRAIN PROFILES
WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
OPEN SPACE LOTS 221 THROUGH 257
L 11388 F. 725
PARCEL 472
ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
1" = 50' (H) 1" = 5' (V)	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	42 OF 71



NO	TYPE	WIDTH (INSIDE)	STRUCTURE SCHEDULE						STD. DETAIL	LOCATIONS	REMARKS	
			TOP ELEVATION		INVERT		AS-BUILT					
			PROPOSED	AS-BUILT	PROPOSED	AS-BUILT	PROPOSED	AS-BUILT				
I-166	A-10 INLET	2'-6"	356.71	356.60	356.64	356.48	352.70	352.60	352.94	352.78	HO. CO. SD 4.08	
I-164	A-10 INLET	2'-6"	365.32	364.74	365.44	365.15	361.50	360.04	361.50	359.88	HO. CO. SD 4.08	
I-174	A-10 INLET	2'-6"	362.37	362.12	362.27	361.99	359.00	357.24	358.93	356.97	HO. CO. SD 4.08	
I-171	A-10 INLET	2'-6"	356.24	356.11	356.18	356.04	353.00	351.30	352.73	350.97	HO. CO. SD 4.08	
I-142	DOUBLE 'S' INLET	2'-15"	338.00	---	337.65	---	333.67	332.40	333.71	332.45	HO. CO. SD 4.28	
I-144	'S' INLET	2'-15"	350.50	---	350.21	---	346.17	345.25	346.17	345.14	HO. CO. SD 4.22	
I-147	A-10 INLET	2'-6"	360.28	360.05	359.93	359.76	357.00	355.22	356.82	354.95	HO. CO. SD 4.03	
I-201	A-10 INLET	2'-6"	346.61	346.61	346.31	346.28	343.50	340.00	343.14	339.90	HO. CO. SD 4.03	
I-204	A-10 INLET	2'-6"	355.45	355.71	355.76	355.55	348.82	348.72	348.81	348.71	HO. CO. SD 4.03	
I-205	A-10 INLET	2'-6"	355.45	355.71	355.83	355.64	351.30	349.08	351.45	349.28	HO. CO. SD 4.03	
I-206	A-10 INLET	2'-6"	354.87	354.68	354.63	354.23	351.50	349.40	351.43	349.83	HO. CO. SD 4.03	
I-234	A-10 INLET	2'-6"	335.26	334.71	335.23	334.70	332.00	330.02	332.16	330.14	HO. CO. SD 4.03	
M-143	STANDARD MANHOLE	4'-0"	347.85	---	347.93	---	343.61	343.26	343.52	343.17	HO. CO. 6-512	
M-167	STANDARD MANHOLE	4'-0"	354.83	---	354.94	---	355.33	355.23	355.18	354.98	HO. CO. 6-512	
M-168	STANDARD MANHOLE	4'-0"	362.07	---	361.75	---	357.82	357.47	357.56	357.42	HO. CO. 6-512	
M-173	STANDARD MANHOLE	4'-0"	354.14	---	354.20	---	354.84	354.24	354.55	353.90	HO. CO. 6-512	
M-141	STANDARD MANHOLE	4'-0"	334.00	---	333.63	---	328.60	328.24	328.63	328.27	HO. CO. 6-512	
M-202	STANDARD MANHOLE	4'-0"	347.55	---	347.56	---	343.05	342.95	343.01	342.86	HO. CO. 6-512	
M-203	STANDARD MANHOLE	4'-0"	353.05	---	353.18	---	350.00	348.20	350.15	348.23	HO. CO. 6-512	
ES-165	END SECTION	10'	353.90	---	---	---	352.40	---	352.45	---	HO. CO. D-552	
ES-172	END SECTION	10'	353.90	---	---	---	352.40	---	352.04	---	HO. CO. D-552	
ES-176	END SECTION	15'	351.00	---	---	---	344.75	---	344.91	---	HO. CO. D-552	
ES-140	END SECTION	10'	324.50	---	---	---	328.00	---	327.67	---	HO. CO. D-552	
ES-146	END SECTION	15'	350.75	---	---	---	344.50	---	344.57	---	HO. CO. D-552	
ES-200	END SECTION	10'	338.50	---	---	---	331.00	---	331.37	---	HO. CO. D-552	
ES-238	END SECTION	15'	328.91	---	---	---	327.66	---	327.84	---	HO. CO. D-552	

ASBUILT 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. 12475, Expiration Date: May 26, 2022.
 Date: 4/27/20
 Carl K. Gutschick
 Professional Engineer
 Maryland Reg. No. 12475

SIZE	TYPE	QUANTITY (LF)	REMARKS
15"	HDPE	444	
18"	HDPE	414	

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or HI-C by Hancor or an approved equal.
 Trench bedding to be provided per Howard County Detail 6.2.01.
 Trench for P.V.C. pipe and HDPE.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 12-20-13

Chief, Development Engineering Division
 Date: 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONTVILLE OFFICE PARK
 BURTONTVILLE, MARYLAND 20868
 TEL: 301-421-4024 BALT. 410-850-1820 DC/VA 301-389-2524 FAX: 301-421-4188

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

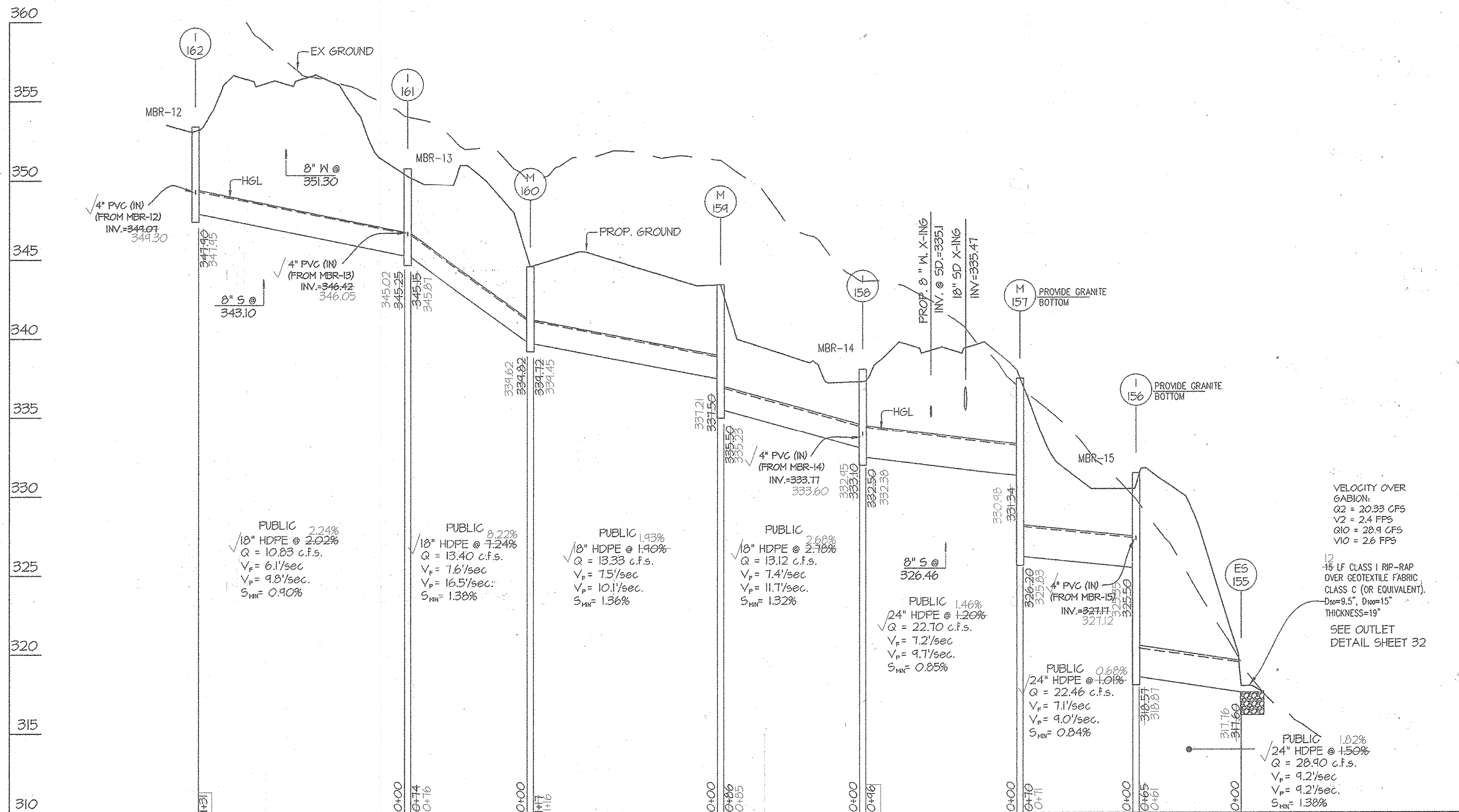
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975, EXPIRATION DATE: MAY 26, 2014.



ASBUILTS
 STORM DRAIN PROFILES
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 & OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
1" = 50' (H) 1" = 5' (V)	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV. 2013	47-3	43 OF 71

ASBUILT SHEET 18 OF 34



NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	REMARKS	LOCATIONS
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-156	DOUBLE 5' INLET	2'-15"	331.50	----	331.35	----	327.17	318.57	327.12	318.87	HO. CO. SD 4.23		
I-158	DOUBLE 5' INLET	2'-15"	338.10	----	337.51	----	333.77	332.50	333.60	332.38	HO. CO. SD 4.23		
I-161	5' INLET	2'-15"	350.75	----	350.79	----	346.42	345.15	346.05	345.87	HO. CO. SD 4.22		
I-162	DOUBLE 5' INLET	2'-15"	353.40	----	353.45	----	344.07	341.90	341.30	341.95	HO. CO. SD 4.23		
I-181	A-10 INLET	2'-6"	339.45	339.45	339.51	339.25	336.25	332.38	336.46	332.56	HO. CO. SD 4.03		
I-185	A-10 INLET	2'-6"	351.14	350.60	351.17	350.62	347.25	344.50	347.16	344.38	HO. CO. SD 4.03		
I-187	A-10 INLET	2'-6"	348.54	348.31	348.34	348.05	345.00	343.73	344.65	343.23	HO. CO. SD 4.03		
I-235	5' INLET	2'-15"	328.66	----	328.36	----	323.00	322.65	323.95	322.71	HO. CO. SD 4.22		
I-237	5' INLET	2'-15"	333.65	----	333.66	----	324.32	328.40	324.34	328.35	HO. CO. SD 4.22		
M-157	STANDARD MANHOLE	4'-0"	337.51	----	336.73	----	331.34	326.60	330.98	325.83	HO. CO. 6-512		
M-159	STANDARD MANHOLE	4'-0"	343.44	----	343.49	----	337.50	335.50	337.21	335.23	HO. CO. 6-512		
M-160	STANDARD MANHOLE	4'-0"	344.50	----	343.84	----	334.82	334.72	334.62	334.45	HO. CO. 6-512		
M-182	STANDARD MANHOLE	4'-0"	341.53	----	341.26	----	336.50	336.40	336.62	336.50	HO. CO. 6-512		
M-184	STANDARD MANHOLE	4'-0"	346.04	----	346.38	----	341.75	341.40	341.58	341.38	HO. CO. 6-512		
M-186	STANDARD MANHOLE	4'-0"	345.83	----	345.84	----	341.83	341.18	341.24	340.54	HO. CO. 6-512		
M-236	STANDARD MANHOLE	4'-0"	334.82	----	334.95	----	321.44	325.41	321.35	325.50	HO. CO. 6-512		
ES-155	END SECTION	24"	319.60	----	x	----	317.60	----	317.76	----	HO. CO. D-552		
ES-180	END SECTION	18"	332.00	----	x	----	330.50	----	330.54	----	HO. CO. D-552		
ES-234	END SECTION	18"	323.50	----	x	----	322.00	----	322.00	----	HO. CO. D-552		

NOTE: ** KNOCKOUT TO BE CLOSED WITH CONSTRUCTION OF MICRO-BIORETENTION FACILITY

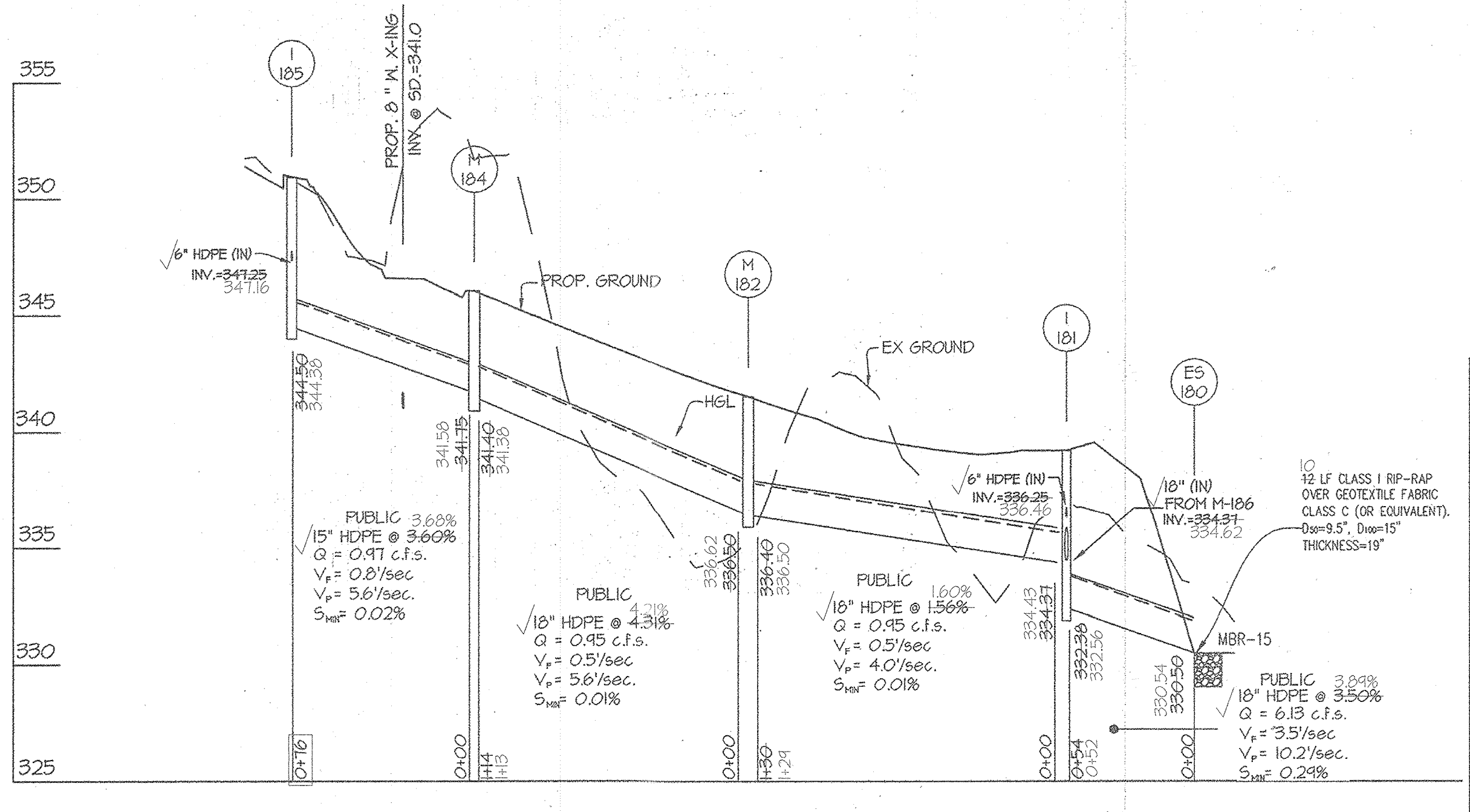
SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	HDPE	228	
18"	HDPE	1067	
24"	HDPE	231	

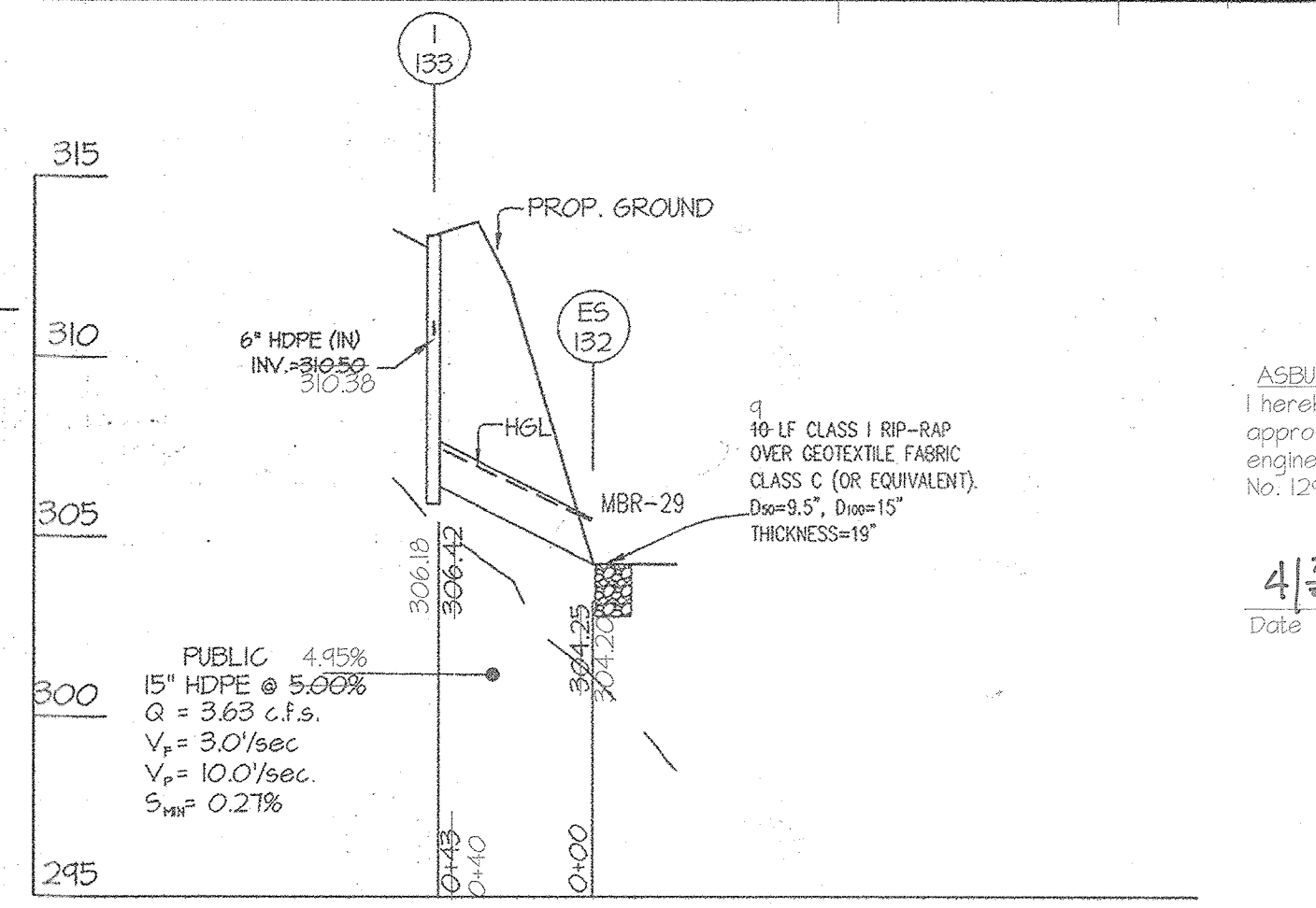
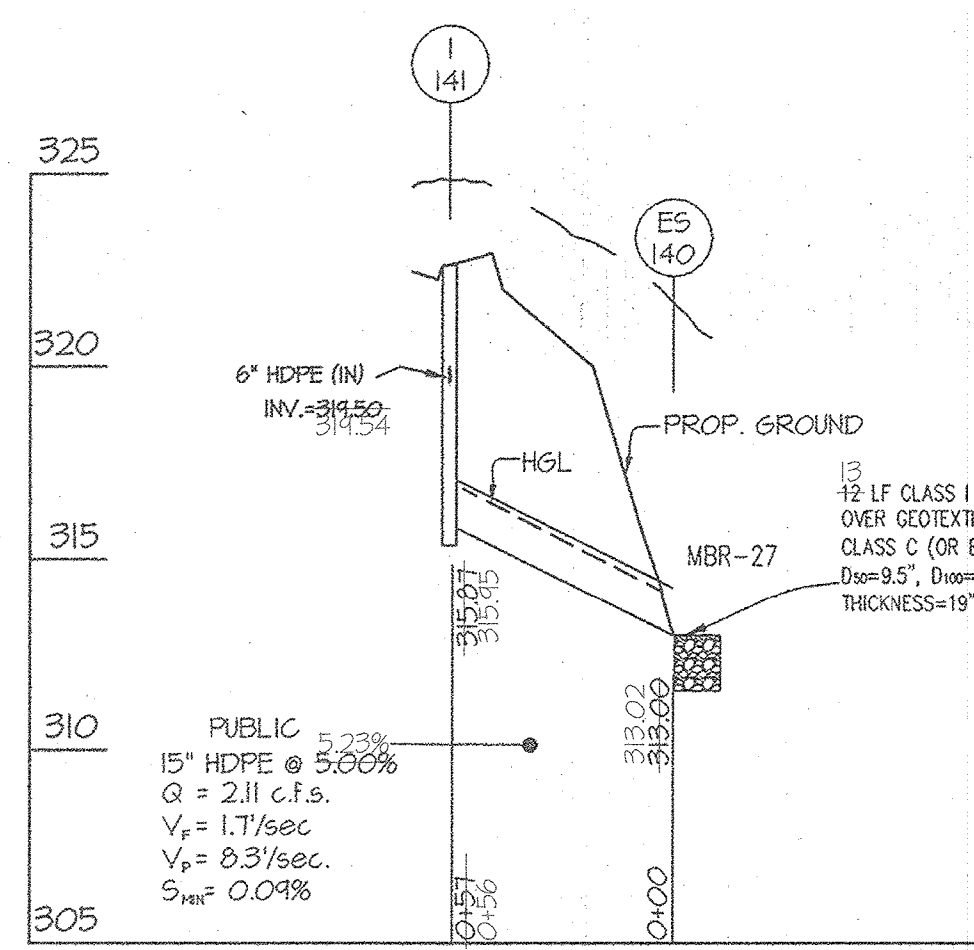
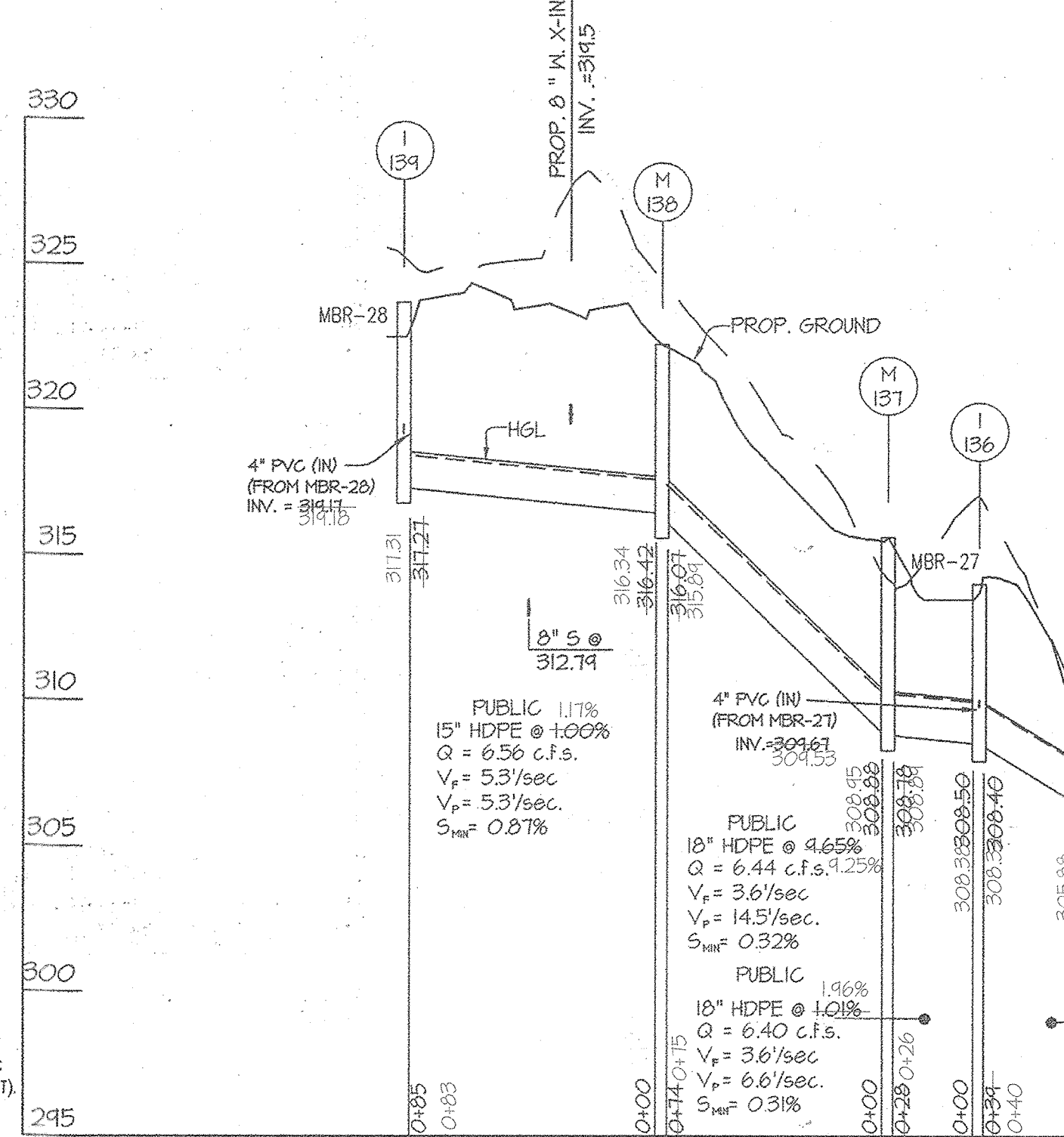
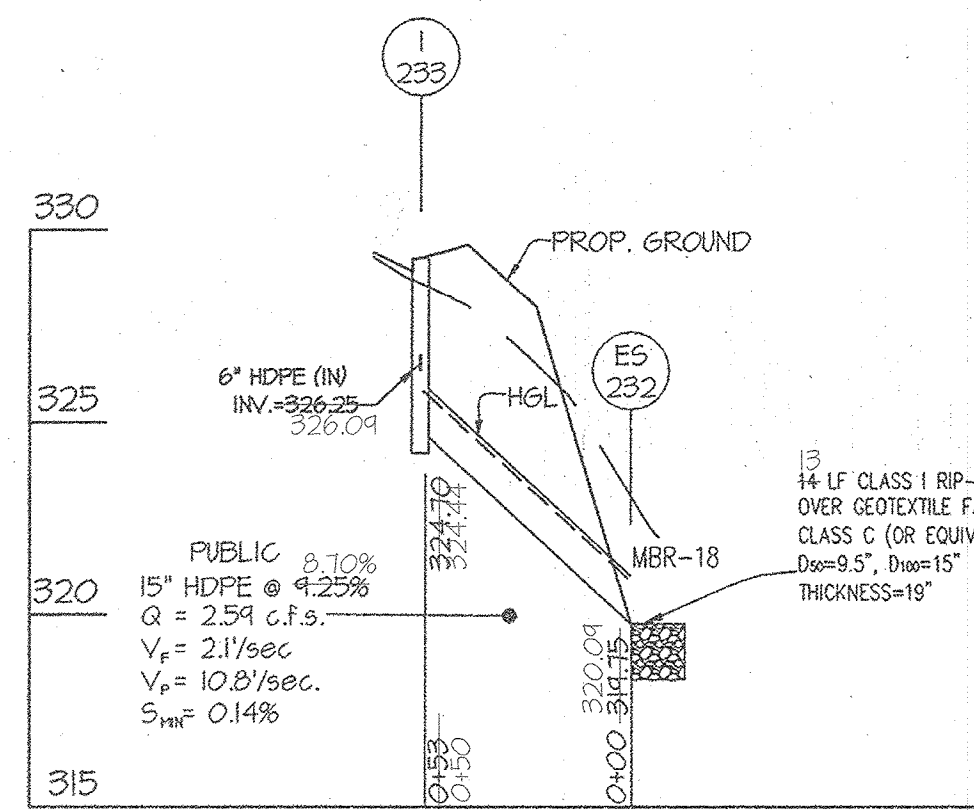
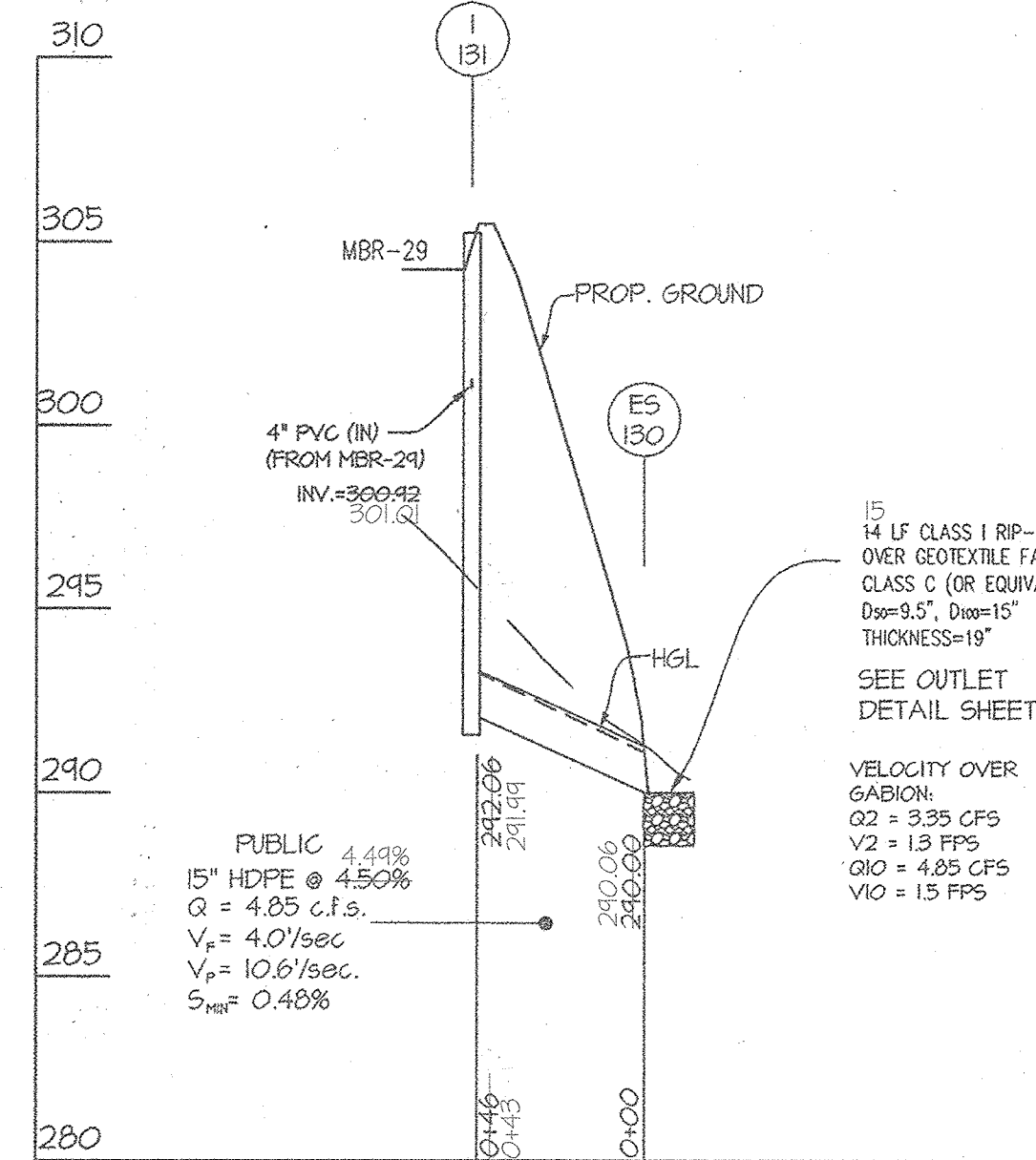
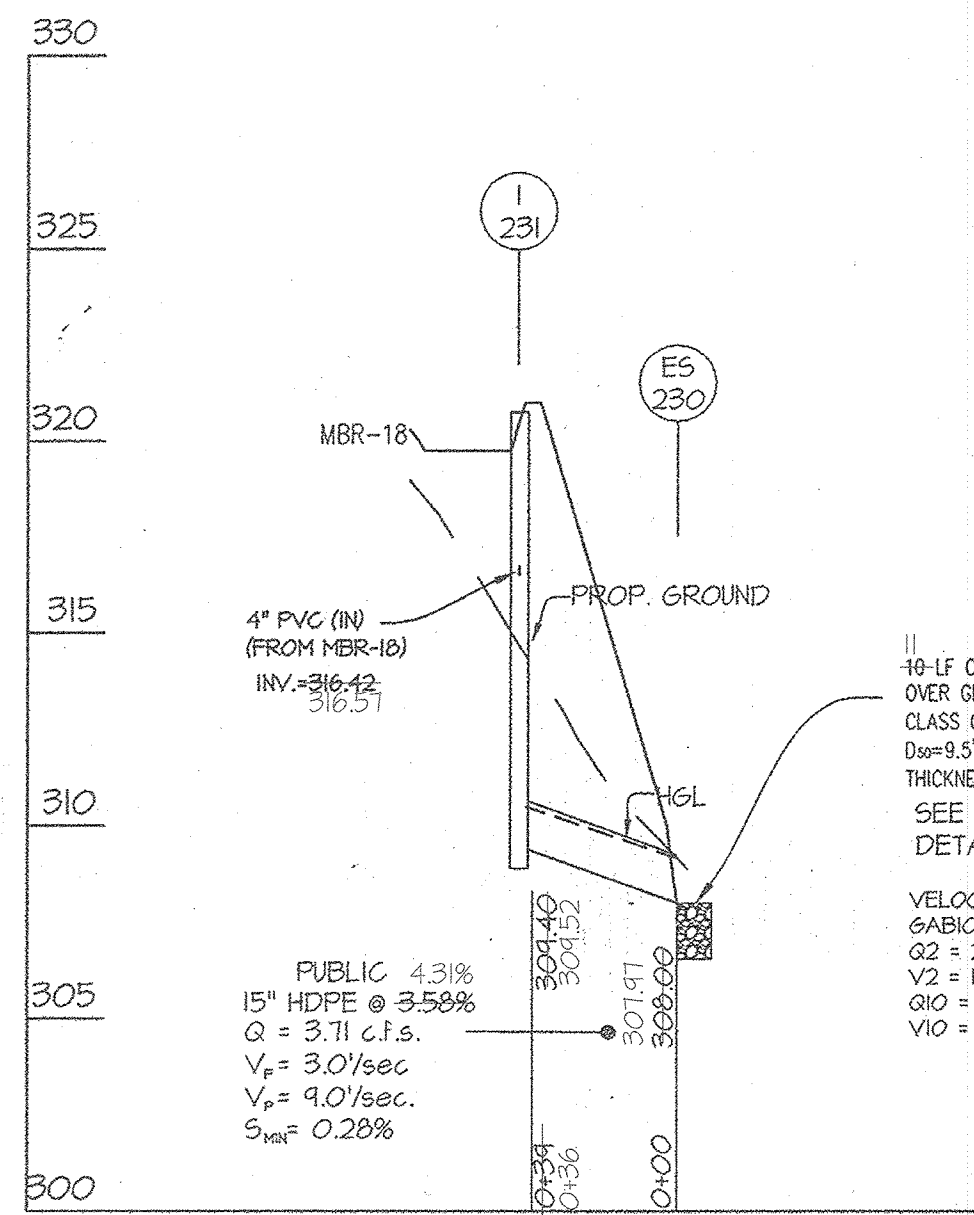
ASBUILTS CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12475, Expiration Date: May 26, 2022.

4/27/20
Date
Professional Engineer
Howard County, Maryland
Reg. No. 12475

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or H-Q by Hancor or an approved equal.

Trench bedding to be provided per Howard County Detail 6.201, "Trench for P.V.C. pipe and HDPE."





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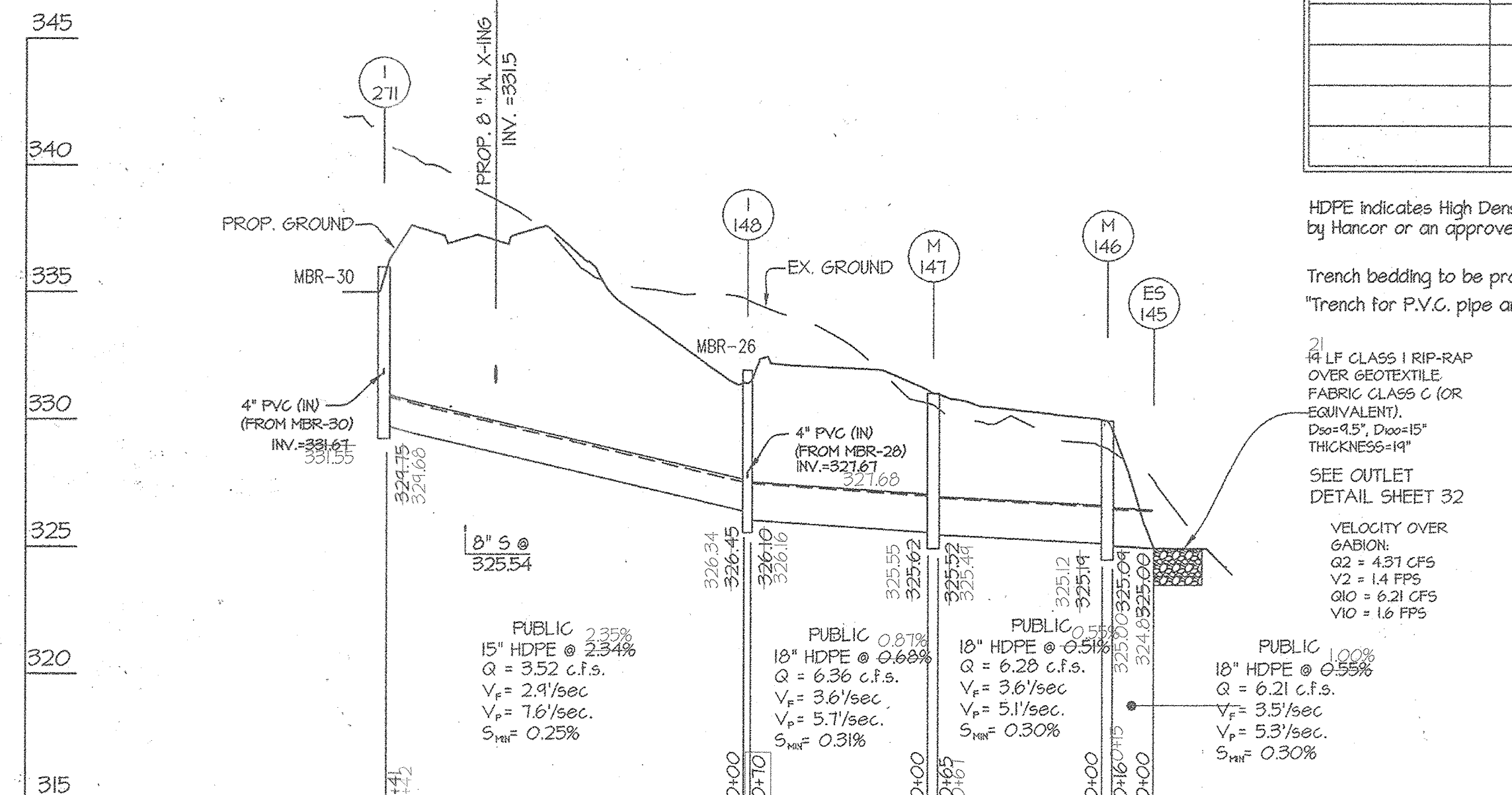
4/23/20
 Date
 Carl K. Watschick
 Professional Engineer
 Maryland Reg. No. 12415

NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	REMARKS	LOCATIONS
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-131	'S' INLET	2'-15"	305.25	----	305.02	----	300.92	242.06	301.01	241.99	HO. CO. SD 4.22		
I-133	A-10 INLET	2'-6"	313.67	313.64	313.49	313.48	310.50	306.42	310.38	306.18	HO. CO. SD 4.03		
I-136	'S' INLET	2'-15"	314.00	----	313.91	----	309.67	308.40	309.53	308.89	HO. CO. SD 4.22		
I-139	DOUBLE 'S' INLET	2'-15"	323.50	----	323.21	----	314.17	311.25	314.18	311.31	HO. CO. D 4.23		
I-141	A-10 INLET	2'-6"	323.06	322.57	323.11	322.55	314.50	315.87	314.54	315.95	HO. CO. SD 4.03		
I-148	'S' INLET	2'-15"	332.00	----	331.82	----	321.67	326.10	321.68	326.16	HO. CO. SD 4.22		
I-231	'S' INLET	2'-15"	320.75	----	320.40	----	316.42	309.40	316.57	309.52	HO. CO. SD 4.22	4" KNOCKOUT - INV=314.25 ** SEE SHEETS 20-26	
I-233	A-10 INLET	2'-6"	329.56	329.50	329.35	329.27	326.25	324.70	326.09	324.44	HO. CO. SD 4.03		
I-76	10' CO6	14'-00"	354.90	354.15	354.73	354.05	----	----	----	----	MD-314.68		
I-77	10' CO6	14'-00"	370.34	364.95	370.42	369.47	----	----	----	----	MD-314.68		
I-142	10' CO6	14'-00"	325.30	324.80	325.23	324.63	----	----	----	----	MD-314.68		
I-144	10' CO6	14'-00"	336.87	336.60	336.81	336.59	----	----	----	----	MD-314.68		
I-150	10' CO6	14'-00"	337.29	337.02	337.23	337.10	----	----	----	----	MD-314.68		
I-188	10' CO6	14'-00"	339.46	339.46	339.54	339.44	----	----	----	----	MD-314.68		
I-240	10' CO6	14'-00"	335.40	334.44	335.30	334.89	----	----	----	----	MD-314.68		
I-247	10' CO6	14'-00"	330.78	330.73	330.70	330.58	----	----	----	----	MD-314.68		
I-262	10' CO6	14'-00"	326.04	325.66	325.46	325.49	----	----	----	----	MD-314.68		
I-271	'S' INLET	2'-15"	336.00	----	335.64	----	331.67	329.75	331.55	329.68	HO. CO. SD 4.22	4" KNOCKOUT - INV=314.25 ** SEE SHEETS 20-26	
M-137	STANDARD MANHOLE	4'-0"	315.60	----	316.06	----	308.88	308.78	308.95	308.89	HO. CO. 6-512		
M-138	STANDARD MANHOLE	4'-0"	322.24	----	322.47	----	316.42	316.07	316.34	315.84	HO. CO. 6-512		
M-146	STANDARD MANHOLE	4'-0"	330.01	----	330.04	----	325.19	325.09	325.12	325.00	HO. CO. 6-512		
M-147	STANDARD MANHOLE	4'-0"	331.10	----	332.15	----	325.62	325.52	325.55	325.49	HO. CO. 6-512		
ES-130	END SECTION	15"	291.25	----	291.00	----	290.06	----	290.06	----	HO. CO. D-552		
ES-132	END SECTION	15"	305.50	----	304.25	----	304.20	----	304.20	----	HO. CO. D-552		
ES-135	END SECTION	15"	307.25	----	306.00	----	305.88	----	305.88	----	HO. CO. D-552		
ES-140	END SECTION	15"	314.25	----	313.00	----	313.02	----	313.02	----	HO. CO. D-552		
ES-145	END SECTION	18"	326.50	----	325.00	----	324.85	----	324.85	----	HO. CO. D-552		
ES-230	END SECTION	15"	309.25	----	308.00	----	307.97	----	307.97	----	HO. CO. D-552		
ES-232	END SECTION	15"	321.00	----	319.75	----	319.75	----	319.75	----	HO. CO. D-552		

NOTE: ** KNOCKOUT TO BE CLOSED WITH CONSTRUCTION OF MICRO-BIOTRETENTION FACILITY

PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (LJ)	REMARKS
15"	HDPE	464	
18"	HDPE	242	

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or HI-G by Hanson or an approved equal.
 Trench bedding to be provided per Howard County Detail 6 2.01, "Trench for P.V.C. pipe and HDPE."



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 12-9-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 12-20-13

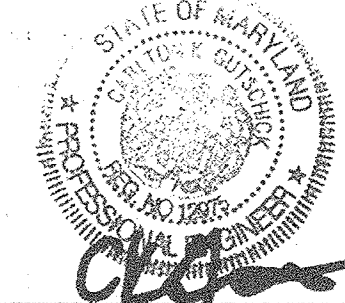
Chief, Development Engineering Division
 Date: 12-17-13

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
 BURTONVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

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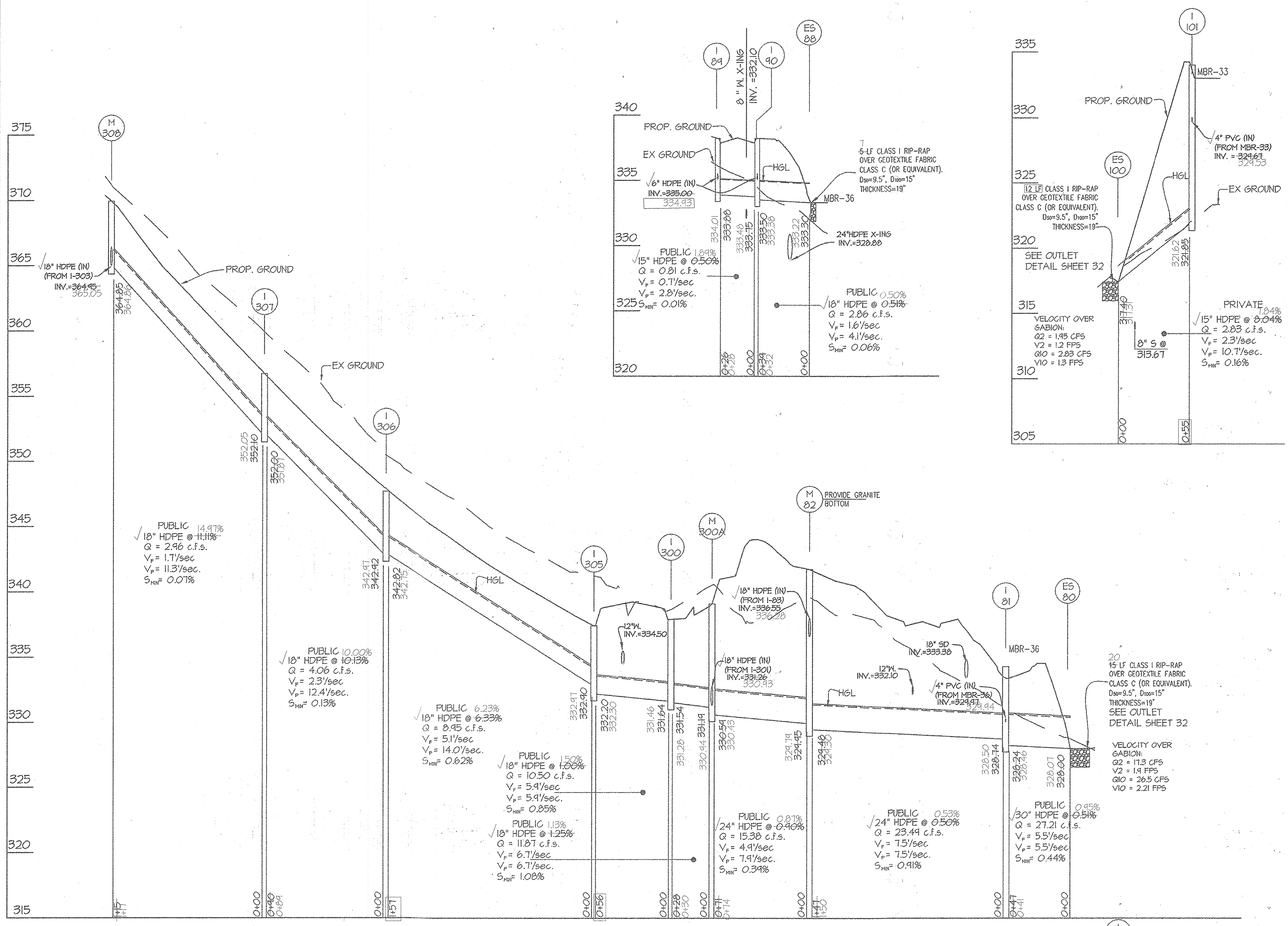
PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

PROFESSIONAL CERTIFICATION
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ASBUILTS
STORM DRAIN PROFILES
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472

ASBUILT SHEET 20 OF 34
 SCALE: 1" = 50' (H), 1" = 5' (V)
 ZONING: R-ED
 DATE: NOV. 2013
 TAX MAP - GRID: 47-3
 SHEET: 45 OF 71
 G. L.-W. FILE NO. 08052

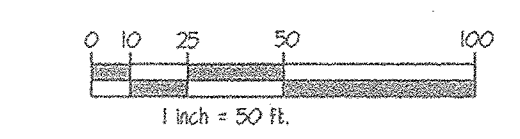


NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	REMARKS	LOCATIONS
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-67	A-10 INLET	2'-6"	366.33	366.33	366.30	366.28	362.28	361.93	362.22	362.00	HO. CO. SD 4.03		
I-68	A-10 INLET	2'-6"	366.33	366.33	366.31	366.28	363.40	362.42	363.35	362.41	HO. CO. SD 4.03		
I-81	'S' INLET	2'-15"	334.30	---	334.18	---	324.47	328.24	324.44	328.46	HO. CO. SD 4.22	4" KNOCKOUT - INV=332.80** SEE SHEETS 20-26	
I-83	'S' INLET	2'-15"	351.18	---	351.43	---	346.83	346.48	347.35	347.14	HO. CO. SD 4.22		
I-86	'S' INLET	2'-15"	352.85	---	352.60	---	348.52	347.60	348.68	348.08	HO. CO. SD 4.22	4" KNOCKOUT - INV=351.35** SEE SHEETS 20-26	
I-M1	A-10 INLET	2'-6"	338.64	338.24	338.51	338.13	335.00	333.88	334.93	334.01	HO. CO. SD 4.03		
I-M2	A-10 INLET	2'-6"	338.64	338.64	338.62	338.20	335.00	333.50	334.64	333.28	HO. CO. SD 4.03		
I-M3	'S' INLET	2'-15"	328.75	---	328.54	---	324.42	320.30	324.17	320.29	HO. CO. SD 4.22		
I-M4	'S' INLET	2'-15"	337.75	---	337.69	---	334.80	332.50	334.92	332.79	HO. CO. SD 4.22		
I-M7	A-10 INLET	2'-6"	345.64	345.31	345.55	345.26	342.50	337.62	342.47	337.58	HO. CO. SD 4.03		
I-M8	A-10 INLET	2'-6"	345.64	345.31	345.63	345.23	341.25	338.23	341.02	338.04	HO. CO. SD 4.03		
I-M101	'S' INLET	2'-15"	334.00	---	333.61	---	324.67	321.85	324.53	321.62	HO. CO. SD 4.22		
I-M104	'S' INLET	2'-15"	324.75	---	324.70	---	325.42	324.50	325.49	324.54	HO. CO. SD 4.22		
I-M107	A-10 INLET	2'-6"	336.58	336.58	336.54	336.51	333.50	331.75	333.15	331.92	HO. CO. SD 4.03		
I-M300	'S' INLET	2'-15"	337.43	---	337.41	---	331.64	331.54	331.46	331.28	HO. CO. SD 4.22		
I-M305	'S' INLET	2'-15"	337.43	---	337.41	---	332.40	332.20	332.41	332.30	HO. CO. SD 4.22		
I-M306	'S' INLET	2'-15"	347.85	---	347.78	---	342.42	342.82	342.47	342.75	HO. CO. SD 4.22		
I-M307	'S' INLET	2'-15"	356.75	---	356.66	---	352.10	352.00	352.05	351.87	HO. CO. SD 4.22		
M-82	STANDARD MANHOLE	4'-0"	341.75	---	341.68	---	336.55	324.48	336.28	324.30	HO. CO. G-512		
M-94	STANDARD MANHOLE	4'-0"	324.70	---	324.61	---	323.82	323.72	323.54	323.31	HO. CO. G-512		
M-103	STANDARD MANHOLE	4'-0"	328.40	---	328.60	---	324.23	324.13	324.30	324.12	HO. CO. G-512		
M-300A	STANDARD MANHOLE	4'-0"	334.04	---	334.00	---	331.26	330.54	330.43	330.43	HO. CO. G-512		
M-308	STANDARD MANHOLE	4'-0"	364.95	---	364.56	---	364.45	364.85	365.05	364.86	HO. CO. G-512		
ES-66	END SECTION	15'	363.25	---	---	---	361.75	---	361.71	---	HO. CO. D-552		
ES-80	END SECTION	30'	330.50	---	---	---	328.00	---	328.07	---	HO. CO. D-552		
ES-88	END SECTION	15'	334.55	---	---	---	333.30	---	333.22	---	HO. CO. D-552		
ES-96	END SECTION	18'	338.25	---	---	---	336.75	---	336.61	---	HO. CO. D-552		
ES-100	END SECTION	15'	318.65	---	---	---	317.40	---	317.31	---	HO. CO. D-552		
ES-102	END SECTION	15'	325.25	---	---	---	324.00	---	323.46	---	HO. CO. D-552		
ES-106	END SECTION	15'	330.00	---	---	---	328.75	---	328.45	---	HO. CO. D-552		
HN-42	TYPE 'C' ENDWALL	---	324.00	---	322.66	---	320.00	---	320.00	---	HO. CO. D-521		

NOTE: ** KNOCKOUT TO BE CLOSED WITH CONSTRUCTION OF MICRO-BIORETENTION FACILITY

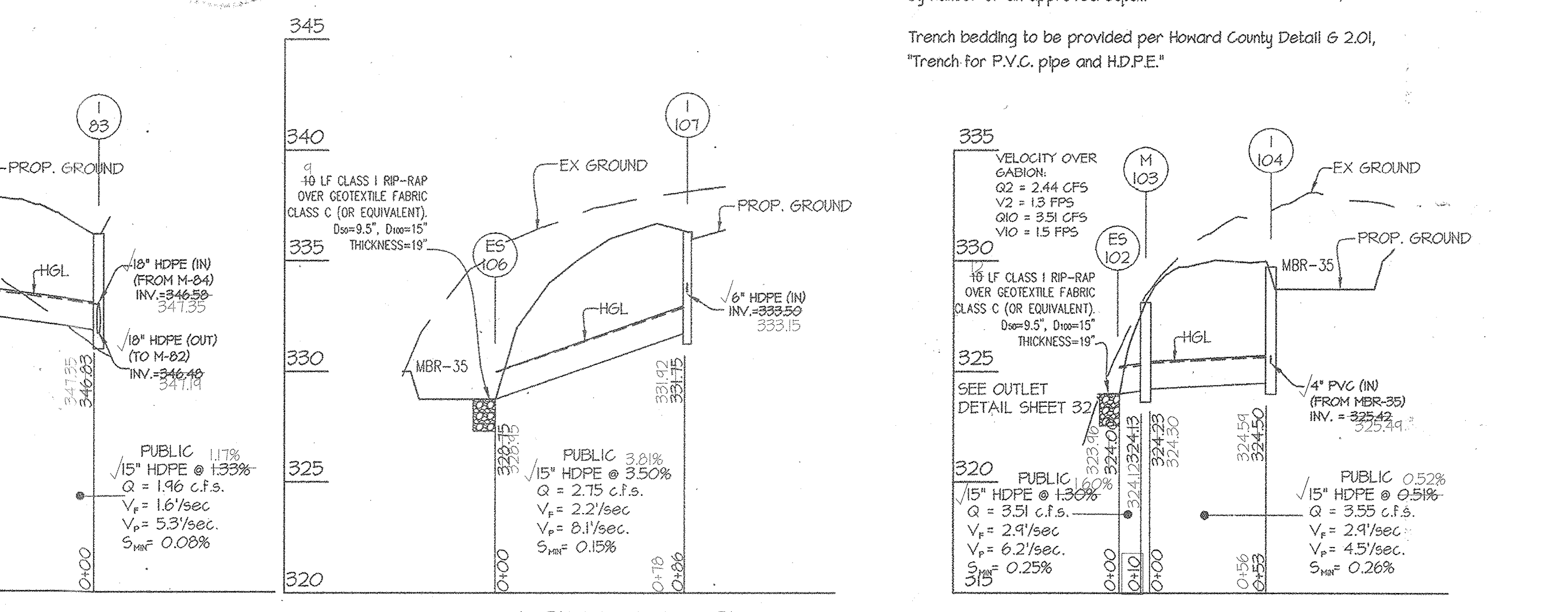
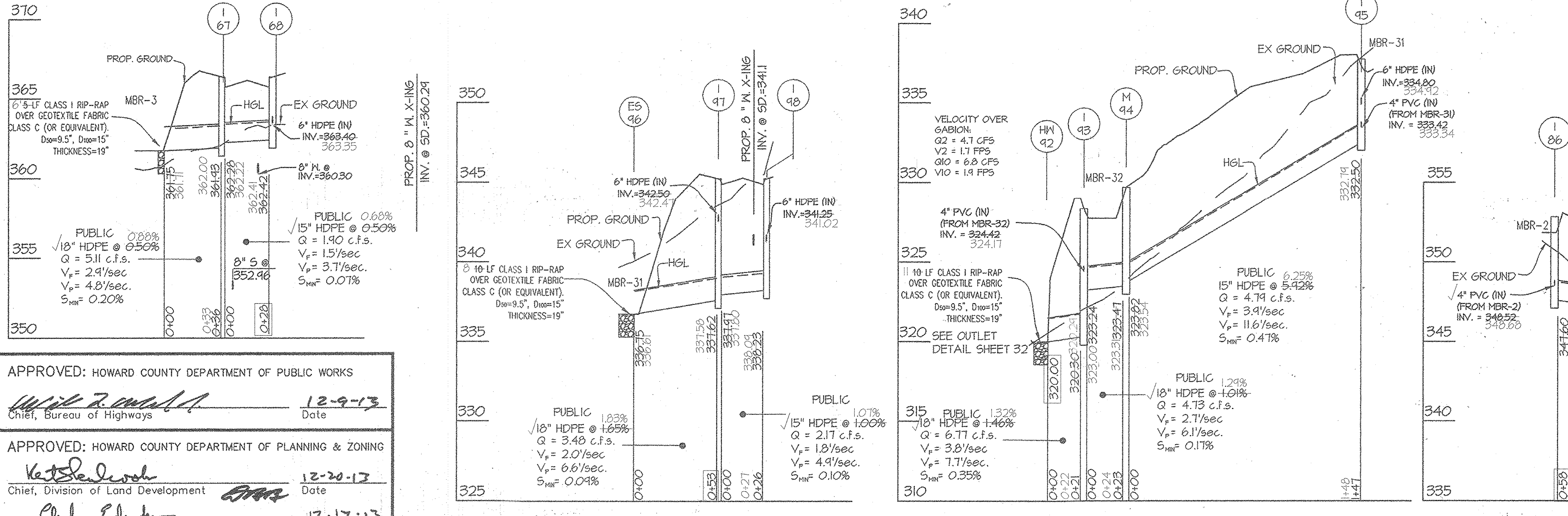
ASBUILT CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12415, Expiration Date: May 26, 2022.

4/27/20
Date
Carl K. Gutschick
Professional Engineer
Maryland Reg. No. 12415



SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	HDPE	484	
18"	HDPE	618	
24"	HDPE	218	
30"	HDPE	41	

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or HI-Q by Hancor or an approved equal.
Trench bedding to be provided per Howard County Detail G 201, "Trench for P.V.C. pipe and HDPE."



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date: 12-9-13

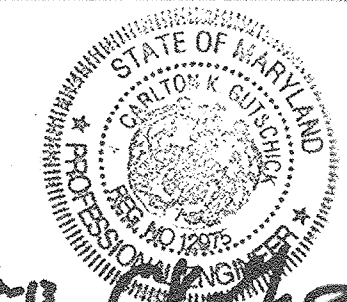
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
Date: 12-20-13

Chief, Development Engineering Division
Date: 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND, 20886
TEL: 301-421-4024 FAX: 301-421-4188

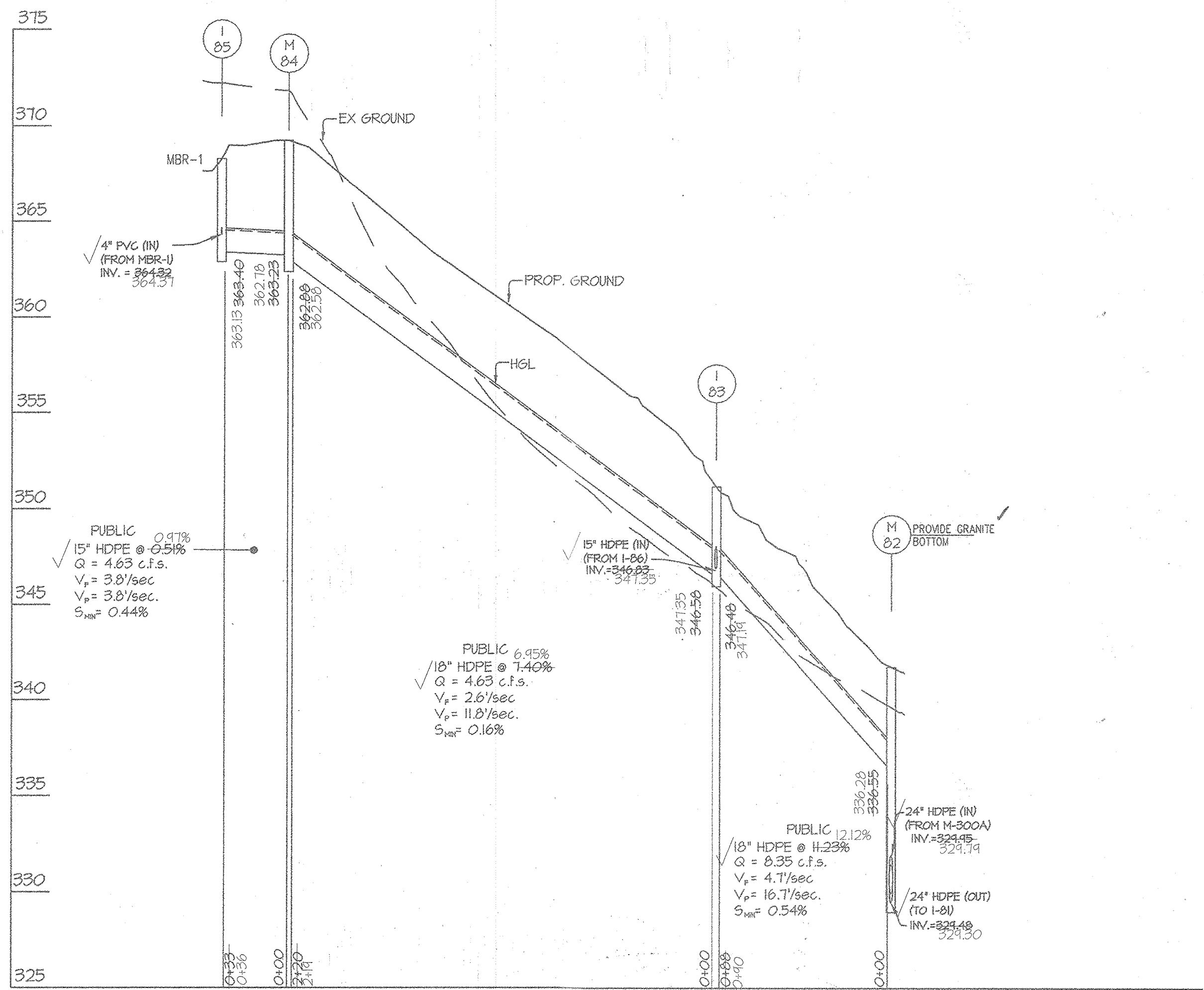
PREPARED FOR:
BEAZER HOMES CORP.
8665 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12415, EXPIRATION DATE: MAY 26, 2014



ASBUILTS
STORM DRAIN PROFILES
WINCOPIA FARMS
LOTS 1-201, 208-210, 258-263 &
OPEN SPACE LOTS 221 THROUGH 257
L 11388 F. 725
PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
1" = 50' (H) 1" = 5' (V)	R-ED	08052
DATE: APR. 2020 NOV., 2013	TAX MAP - GRID: 47-3	SHEET: 46 OF 71



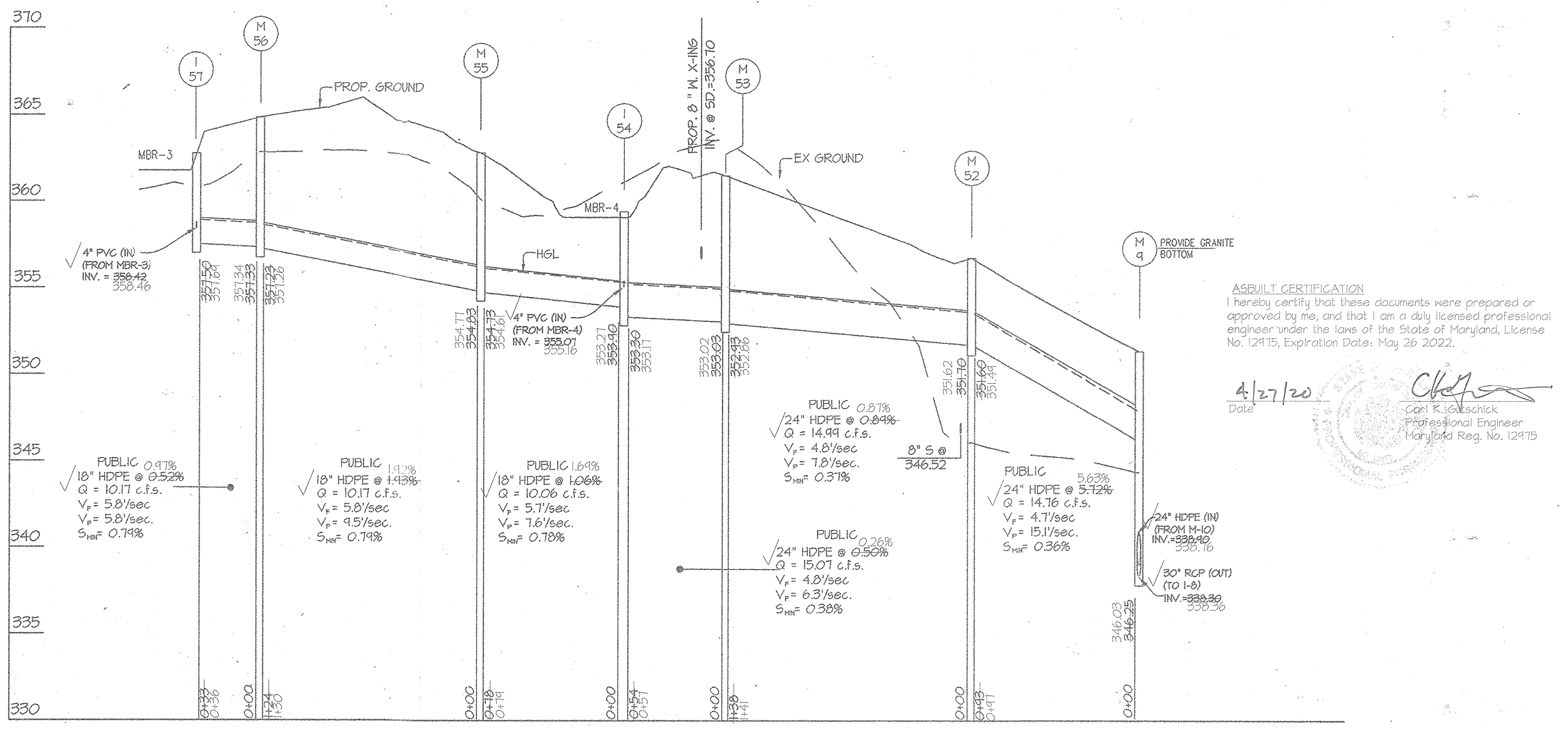
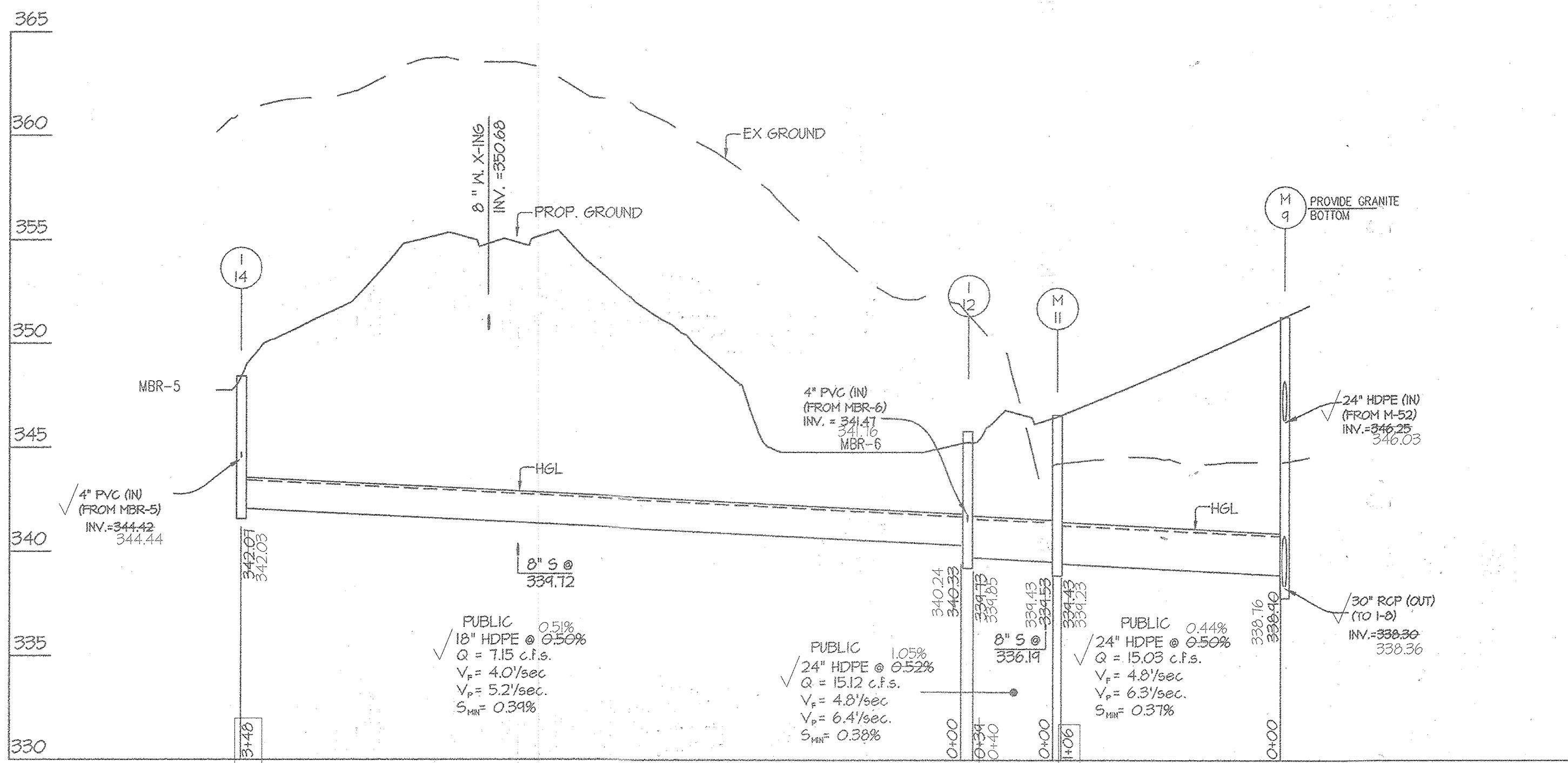
NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	REMARKS	LOCATION
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-2	DOUBLE 'S' INLET	2'-1.5"	345.00	----	345.60	341.47	339.03	341.76	339.85	HO. CO. SD 4.23	*1* KNOCKOUT - INV-341.25 ** SEE SHEETS 20-26		
I-4	DOUBLE 'S' INLET	2'-1.5"	348.75	----	348.58	344.42	342.07	344.44	342.03	HO. CO. SD 4.23	*1* KNOCKOUT - INV-344.30 ** SEE SHEETS 20-26		
I-54	DOUBLE 'S' INLET	2'-1.5"	359.40	----	359.24	355.07	353.30	355.16	353.17	HO. CO. D 4.23	*1* KNOCKOUT - INV-351.00 ** SEE SHEETS 20-26		
I-57	DOUBLE 'S' INLET	2'-1.5"	362.75	----	362.62	358.42	357.50	358.46	357.69	HO. CO. SD 4.23	*1* KNOCKOUT - INV-361.25 ** SEE SHEETS 20-26		
I-83	'S' INLET	2'-1.5"	351.18	----	351.43	346.83	346.48	347.35	347.19	HO. CO. D 4.22			
I-85	'S' INLET	2'-1.5"	368.85	----	368.03	364.32	363.40	364.37	363.13	HO. CO. SD 4.22	*1* KNOCKOUT - INV-367.15 ** SEE SHEETS 20-26		
M-4	STANDARD MANHOLE	5'-0"	351.32	----	351.35	346.25	338.30	346.03	338.36	HO. CO. G-5.13			
M-11	STANDARD MANHOLE	4'-0"	346.50	----	346.65	339.53	339.43	339.43	339.23	HO. CO. G-5.12			
M-52	STANDARD MANHOLE	4'-0"	356.72	----	356.97	351.70	351.60	351.62	351.49	HO. CO. G-5.12			
M-53	STANDARD MANHOLE	4'-0"	361.49	----	361.62	353.03	352.43	353.02	352.86	HO. CO. G-5.12			
M-55	STANDARD MANHOLE	4'-0"	362.80	----	362.85	354.83	354.73	354.77	354.61	HO. CO. G-5.12			
M-56	STANDARD MANHOLE	4'-0"	364.85	----	364.60	357.33	357.33	357.34	357.26	HO. CO. G-5.12			
M-84	STANDARD MANHOLE	4'-0"	369.25	----	369.22	363.23	362.88	362.78	362.58	HO. CO. G-5.12			

NOTE: ** KNOCKOUT TO BE CLOSED WITH CONSTRUCTION OF MICRO-BIOTRETENTION FACILITY

PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	HDPE	33	
18"	HDPE	841	
24"	HDPE	430	

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or HI-Q by Hancon or an approved equal.

Trench bedding to be provided per Howard County Detail G 2.01, *trench for P.V.C. pipe and H.D.P.E.*



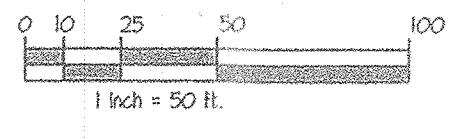
ASBUILT CERTIFICATION
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 12915, Expiration Date: May 26, 2022.

Date: 4/27/20
 Carl E. Salsanski
 Professional Engineer
 Maryland Reg. No. 12915

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12-20-17
 Chief, Division of Land Development

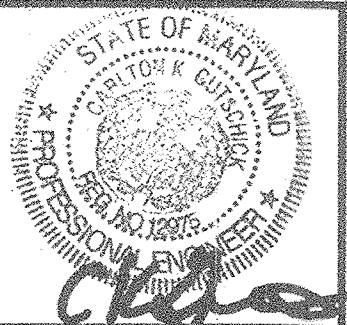
[Signature] 12-19-13
 Chief, Development Engineering Division



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 BURTNSVILLE, MARYLAND 20866
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PREPARED FOR:
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ASBUILTS
 STORM DRAIN PROFILES

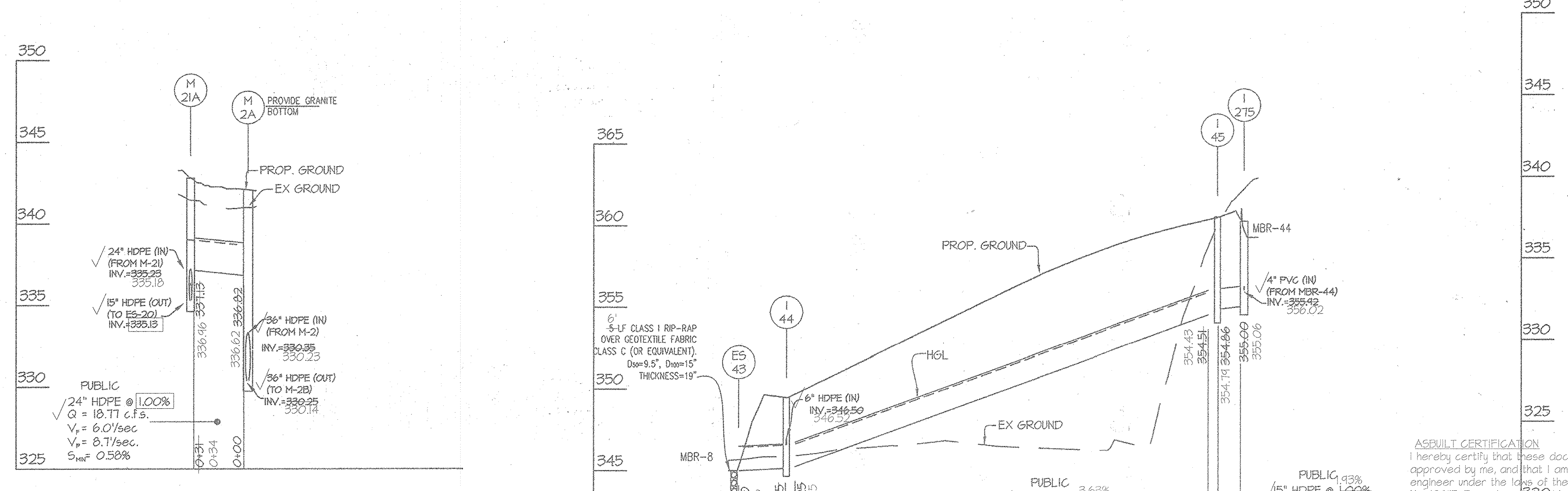
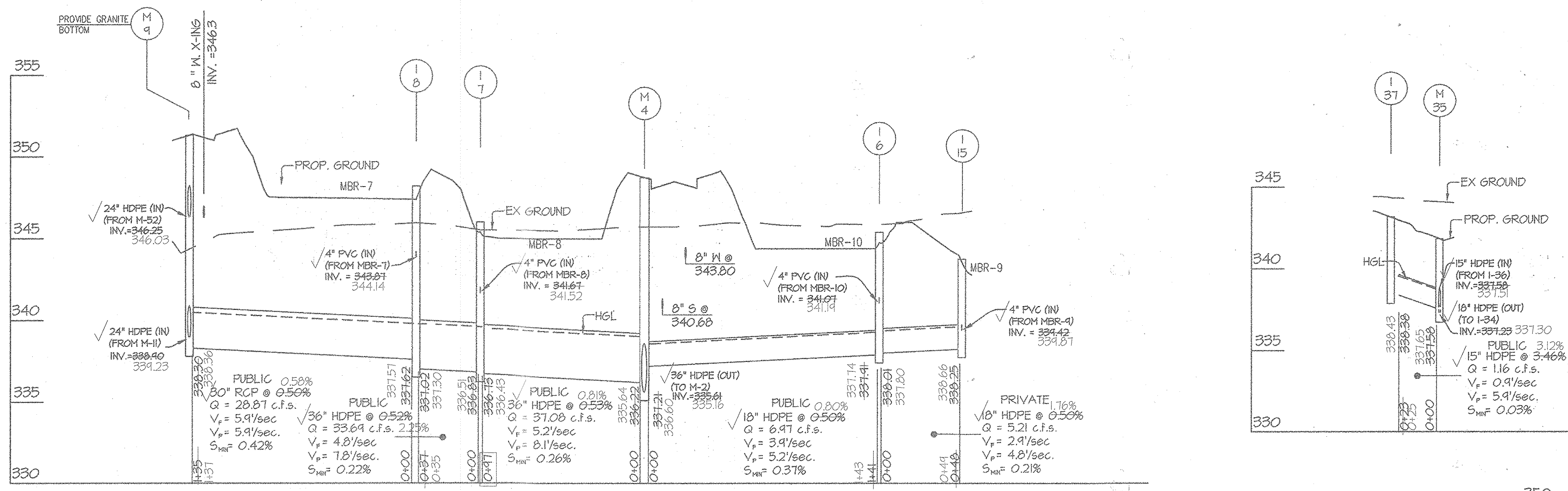
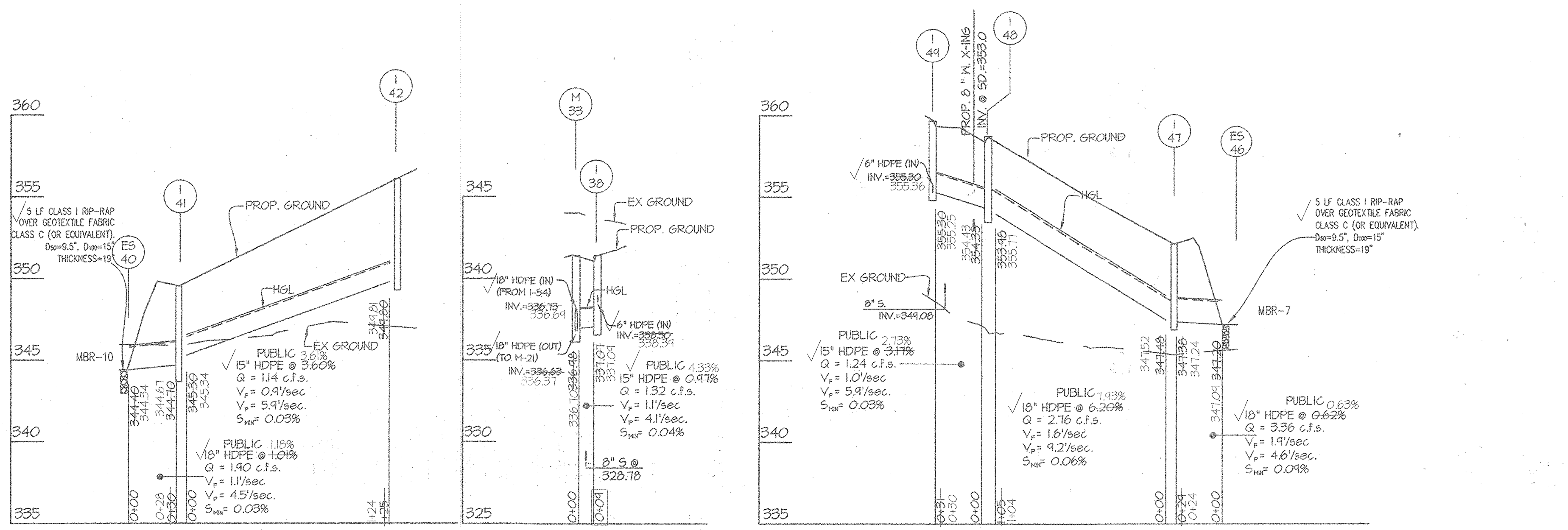
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 1188 F 725
 PARCEL 472

SCALE 1" = 50' (H) 1" = 5' (V)	ZONING R-ED	G. L. W. FILE NO. 08052
DATE APR, 2020 NOV, 2013	TAX MAP - GRID 47-3	SHEET 48 OF 71

ASBUILT SHEET 23 OF 34

HOWARD COUNTY, MARYLAND

ELECTION DISTRICT No. 6

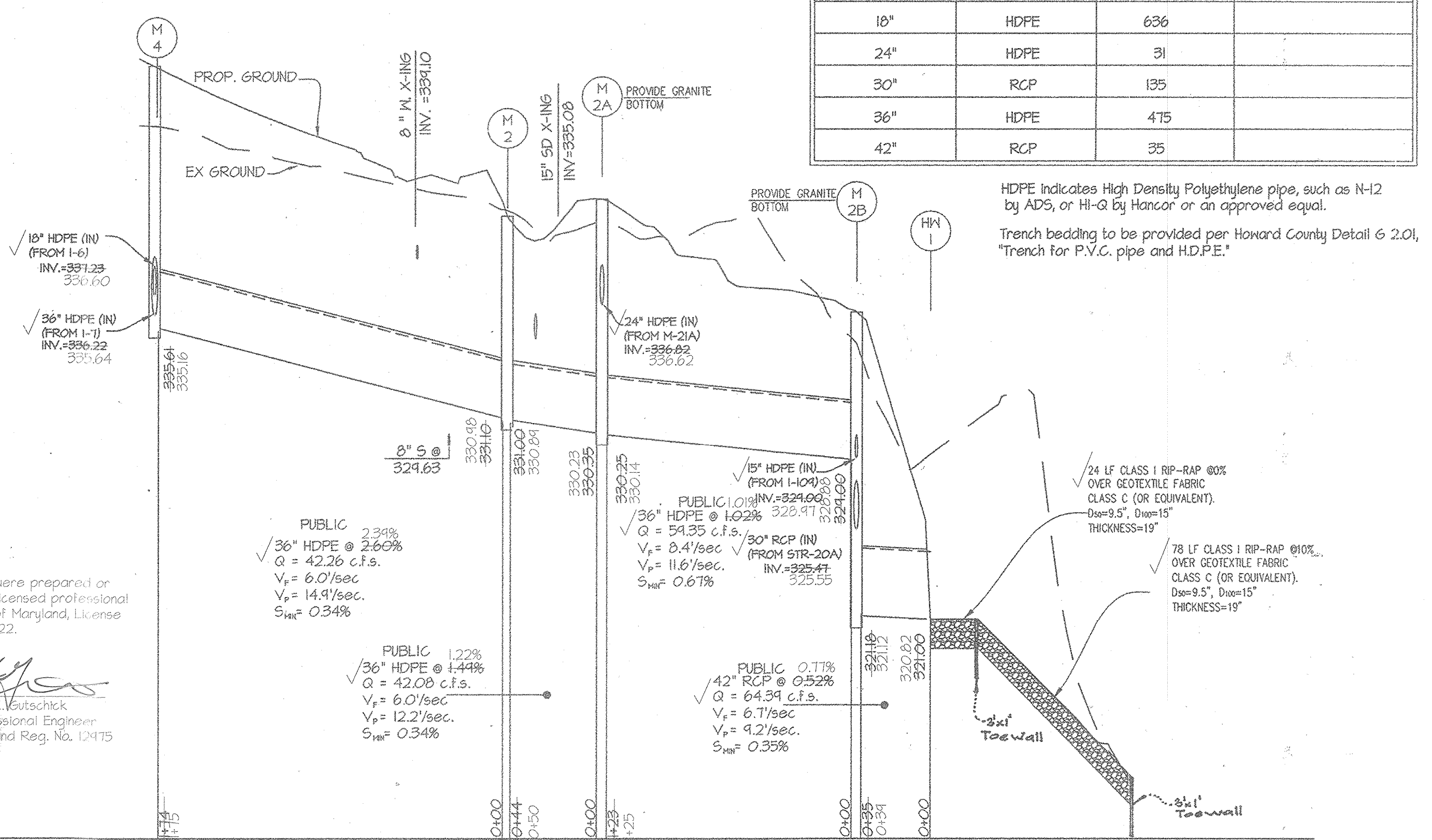


NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	REMARKS	LOCATIONS
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-6	DOUBLE 5' INLET	2'-7.5"	345.40	---	345.18	---	341.07	337.91	341.14	337.14	HO. CO. SD 4.23	4" KNOCKOUT - INV=343.90 ** SEE SHEETS 20-26	
I-7	DOUBLE 5' INLET	2'-7.5"	346.00	---	345.87	---	341.67	336.73	341.52	336.43	HO. CO. SD 4.23	4" KNOCKOUT - INV=344.50 ** SEE SHEETS 20-26	
I-8	DOUBLE 5' INLET	2'-7.5"	348.20	---	348.27	---	343.87	337.02	344.14	337.30	HO. CO. D 4.23	4" KNOCKOUT - INV=346.70 ** SEE SHEETS 20-26	
I-15	DOUBLE 5' INLET	2'-7.5"	343.75	---	343.73	---	339.42	338.25	339.87	338.66	HO. CO. SD 4.23	4" KNOCKOUT - INV=342.25 ** SEE SHEETS 20-26	
I-215	5' INLET	2'-7.5"	360.25	---	360.15	---	355.92	355.00	356.02	355.06	HO. CO. SD 4.22	4" KNOCKOUT - INV=368.75 ** SEE SHEETS 20-26	
I-31	A-10 INLET	2'-6"	343.61	343.22	343.58	343.25	---	338.38	---	338.43	HO. CO. SD 4.03		
I-38	A-10 INLET	2'-6"	341.64	341.64	341.67	341.63	---	338.50	337.07	338.34	HO. CO. SD 4.03		
I-41	A-10 INLET	2'-6"	344.75	344.23	344.76	344.25	---	345.30	344.70	345.34	HO. CO. SD 4.03		
I-42	A-10 INLET	2'-6"	356.30	355.82	356.31	355.74	---	349.80	---	349.81	HO. CO. SD 4.03		
I-44	A-10 INLET	2'-6"	344.65	344.43	344.66	344.13	---	346.50	345.15	345.07	HO. CO. SD 4.03		
I-45	A-10 INLET	2'-6"	360.51	360.32	360.52	360.30	---	354.86	354.51	354.74	HO. CO. SD 4.03		
I-47	A-10 INLET	2'-6"	352.64	352.10	352.54	351.97	---	347.48	347.38	347.24	HO. CO. SD 4.03		
I-48	A-10 INLET	2'-6"	354.27	353.66	354.16	353.54	---	354.33	353.98	354.43	HO. CO. SD 4.03		
I-49	A-10 INLET	2'-6"	360.23	359.63	360.19	359.54	---	355.30	---	355.25	HO. CO. SD 4.03		
I-216	COG-10	14'-0"	361.76	361.55	361.93	361.81	---	---	---	---	MD-314.68		
M-2	STANDARD MANHOLE	5'-0"	341.20	---	341.04	---	331.10	331.00	330.98	330.84	HO. CO. 6-5.13		
M-2A	STANDARD MANHOLE	6'-0"	342.08	---	342.73	---	336.82	330.25	336.62	330.14	HO. CO. 6-5.13		
M-2B	STANDARD MANHOLE	6'-0"	336.00	---	341.95	---	329.00	321.18	328.97	321.12	HO. CO. 6-5.13		
M-4	STANDARD MANHOLE	5'-0"	348.74	---	348.84	---	337.21	335.61	336.60	335.16	HO. CO. 6-5.13		
M-21A	STANDARD MANHOLE	4'-0"	342.80	---	342.73	---	337.13	335.13	336.96	335.13	HO. CO. 6-5.12		
ES-40	END SECTION	18"	345.90	---	---	---	344.40	---	344.34	---	HO. CO. D-5.52		
ES-43	END SECTION	18"	346.50	---	---	---	345.00	---	344.96	---	HO. CO. D-5.52		
ES-46	END SECTION	18"	348.70	---	---	---	347.20	---	347.04	---	HO. CO. D-5.52		
HW-1	TYPE 'C' ENDWALL	---	326.00	---	325.86	---	321.00	---	320.82	---	HO. CO. D-5.11		

NOTE: ** KNOCKOUT TO BE CLOSED WITH CONSTRUCTION OF MICRO-BIORETENTION FACILITY

SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	HDPE	202	
18"	HDPE	636	
24"	HDPE	31	
30"	RCP	135	
36"	HDPE	475	
42"	RCP	35	

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or H-Q by Hancor or an approved equal.
Trench bedding to be provided per Howard County Detail 6 2.01, "Trench for P.V.C. pipe and HDPE."



ASBUILTS 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. 12475, Expiration 5/20 May 26 2022.

4/27/20
Date
Carl K. Kuschnick
Professional Engineer
Maryland Reg. No. 12475

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. Wall
Chief, Bureau of Highways
Date: 12-9-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. J. Schuch
Chief, Division of Land Development
Date: 12-20-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
C. E. Schuch
Chief, Development Engineering Division
Date: 12-17-13

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BURTONSVILLE, MARYLAND 20886
TEL: 301-421-4024 FAX: 301-421-1820 DE/MS 301-389-2524 FAX 301-421-4188

DATE	REVISION	BY	APPR.

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
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PARCEL 472
HOWARD COUNTY, MARYLAND

SCALE
1" = 50' (H)
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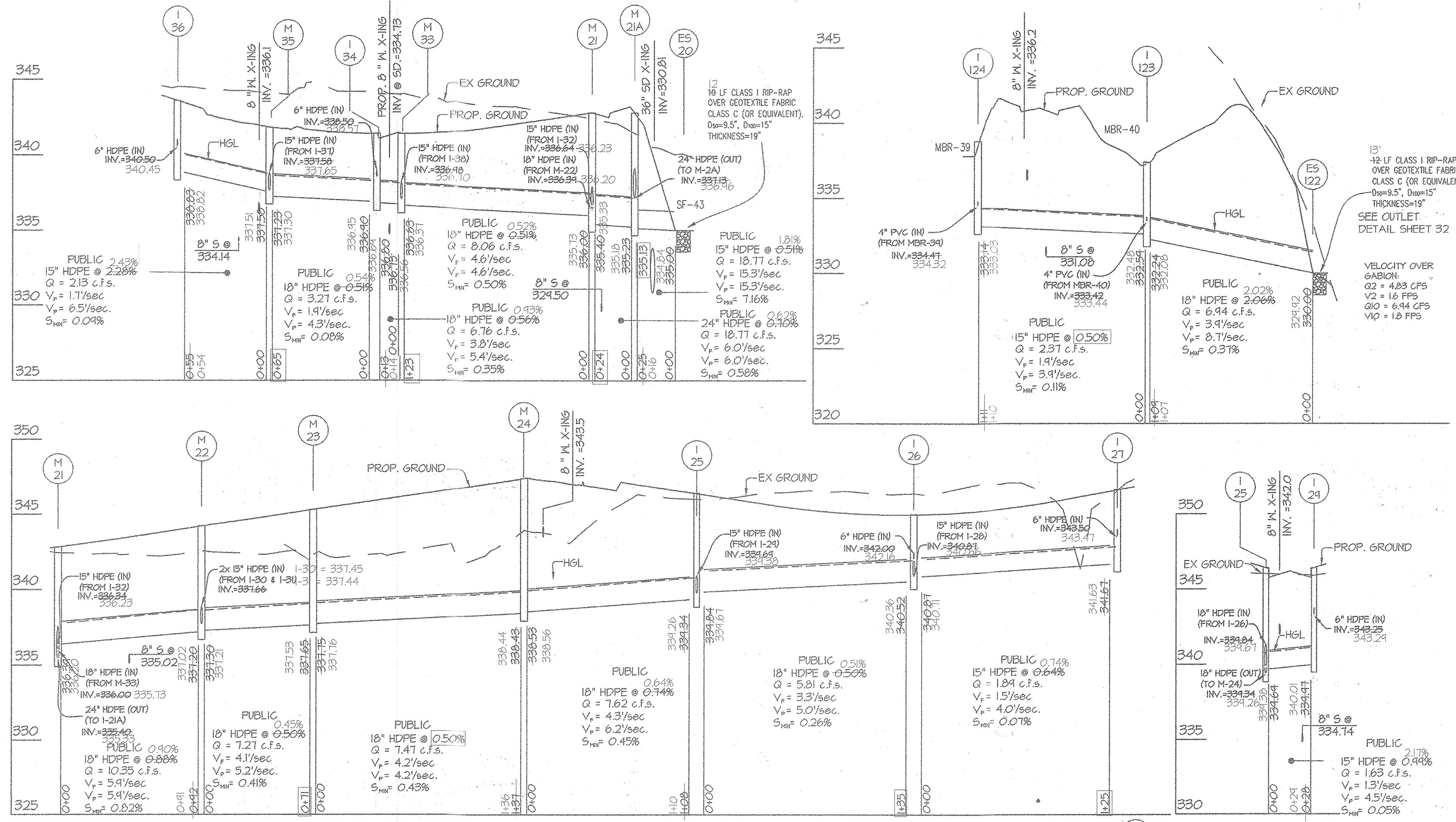
ZONING
R-ED

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08052

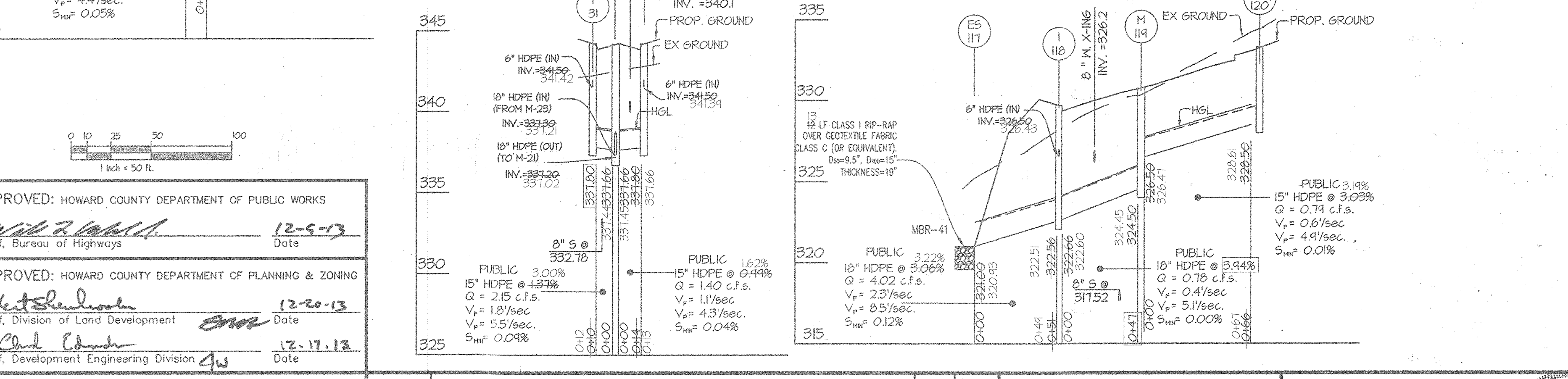
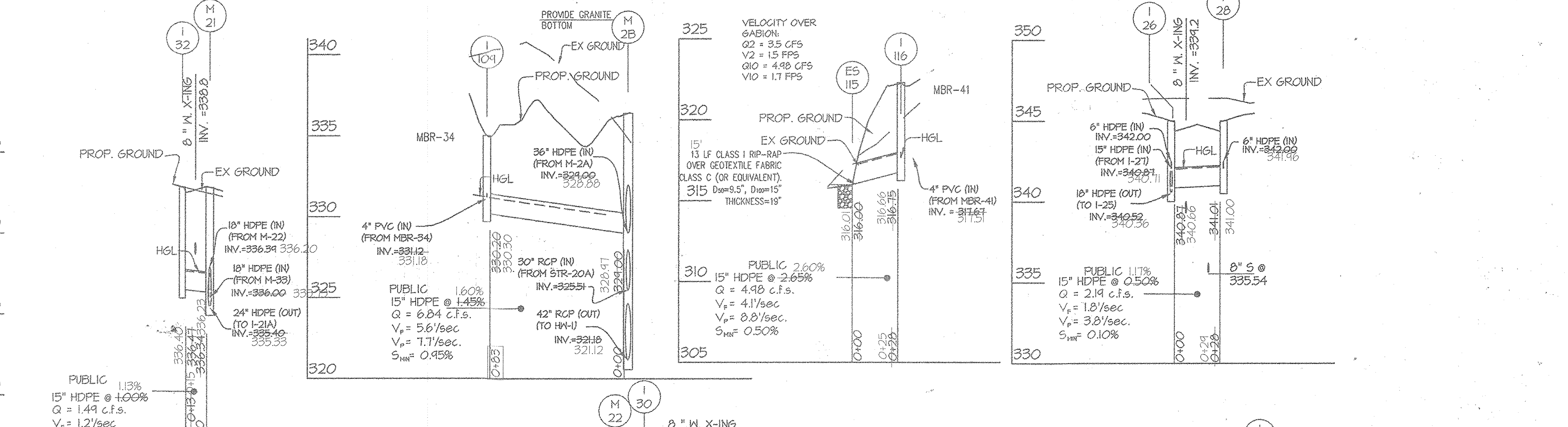
DATE
APR. 2020
NOV. 2013

TAX MAP - GRID
47-3

SHEET
49 OF 71



NO	TYPE	WIDTH (INSIDE)	TOP ELEVATION				INVERT				STD. DETAIL	LOCATIONS	REMARKS
			PROPOSED		AS-BUILT		PROPOSED		AS-BUILT				
			UPPER	LOWER	UPPER	LOWER	UPPER	LOWER	UPPER	LOWER			
I-25	A-10 INLET	2'-6"	346.43	346.21	346.46	346.24	339.84	339.34	339.36	339.26	HO. CO. SD 4.03		
I-26	A-10 INLET	2'-6"	344.44	344.44	344.46	344.45	342.00	340.52	342.16	340.36	HO. CO. SD 4.03		
I-27	A-10 INLET	2'-6"	346.71	346.51	346.73	346.54	343.50	341.61	343.47	341.63	HO. CO. SD 4.03		
I-28	A-10 INLET	2'-6"	344.44	344.44	344.41	344.40	342.00	341.01	341.46	341.00	HO. CO. SD 4.03		
I-29	A-10 INLET	2'-6"	346.43	346.21	346.41	346.26	343.25	339.97	343.24	340.01	HO. CO. SD 4.03		
I-30	A-10 INLET	2'-6"	344.54	344.37	344.62	344.47	341.50	337.80	341.34	337.66	HO. CO. SD 4.03		
I-31	A-10 INLET	2'-6"	344.54	344.37	344.56	344.36	341.50	337.80	341.42	337.80	HO. CO. SD 4.03		
I-32	A-10 INLET	2'-6"	343.17	343.01	343.20	343.07	---	---	336.47	---	HO. CO. SD 4.03		
I-34	A-10 INLET	2'-6"	341.64	341.64	341.75	341.75	338.50	336.80	338.57	336.64	HO. CO. SD 4.03		
I-36	A-10 INLET	2'-6"	344.00	343.66	343.88	343.46	340.50	338.83	340.45	338.82	HO. CO. SD 4.03		
I-104	DOUBLE 'S' INLET	2'-15"	335.45	---	335.40	---	331.12	330.20	331.18	330.30	HO. CO. SD 4.23		
I-116	'S' INLET	2'-15"	322.00	---	321.84	---	317.67	316.75	317.51	316.66	HO. CO. SD 4.22		
I-118	A-10 INLET	2'-6"	324.96	324.96	324.88	324.84	322.66	322.56	326.43	322.51	HO. CO. SD 4.03		
I-120	A-10 INLET	2'-6"	333.68	333.31	333.78	333.32	---	328.50	---	328.61	HO. CO. SD 4.03		
I-123	'S' INLET	2'-15"	331.75	---	331.58	---	333.42	332.24	333.44	332.08	HO. CO. SD 4.22		
I-124	'S' INLET	2'-15"	338.48	---	338.54	---	333.47	333.14	334.32	333.03	HO. CO. SD 4.22		
I-125	10' COG	14'-00"	340.71	340.10	340.61	339.99	---	---	---	---	MD-374.68		
I-126	10' COG	14'-00"	339.58	339.05	339.65	339.12	---	---	---	---	MD-374.68		
M-21	STANDARD MANHOLE	4'-0"	342.22	---	342.96	---	336.34	335.40	336.23	335.23	HO. CO. 6-512		
M-22	STANDARD MANHOLE	4'-0"	344.23	---	344.44	---	337.66	337.20	337.45	337.02	HO. CO. 6-512		
M-23	STANDARD MANHOLE	4'-0"	345.32	---	345.44	---	337.75	337.65	337.76	337.53	HO. CO. 6-512		
M-24	STANDARD MANHOLE	4'-0"	347.40	---	347.47	---	338.53	338.43	338.56	338.44	HO. CO. 6-512		
M-33	STANDARD MANHOLE	4'-0"	341.41	---	341.53	---	336.48	336.63	336.70	336.37	HO. CO. 6-512		
M-35	STANDARD MANHOLE	4'-0"	341.84	---	342.07	---	337.58	337.23	337.65	337.30	HO. CO. 6-512		
M-114	STANDARD MANHOLE	4'-0"	330.77	---	331.14	---	326.50	324.50	326.47	324.45	HO. CO. 6-512		
ES-20	END SECTION	15'	336.25	---	---	---	335.00	---	334.84	---	HO. CO. D-521		
ES-115	END SECTION	15'	311.25	---	---	---	316.00	---	316.01	---	HO. CO. D-552		
ES-117	END SECTION	10'	322.50	---	---	---	321.00	---	320.43	---	HO. CO. D-552		
ES-122	END SECTION	10'	331.50	---	---	---	330.00	---	329.42	---	HO. CO. D-552		



PIPE SCHEDULE			
SIZE	TYPE	QUANTITY (L.F.)	REMARKS
15"	HDPE	586	
18"	HDPE	451	
24"	HDPE	24	

HDPE indicates High Density Polyethylene pipe, such as N-12 by ADS, or H-10 by Hancor or an approved equal.
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 4/27/20
 Date
 Carl K. Witschick
 Professional Engineer
 Maryland Reg. No. 12915

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 12-9-13
 Chief, Bureau of Highways
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 12-20-13
 Chief, Division of Land Development
 [Signature] 12-17-13
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DATE	REVISION	BY	APPR.

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 ELECTION DISTRICT No. 6

SCALE 1" = 50' (H) 1" = 5' (V)	ZONING R-ED	G. L. W. FILE NO. 08052
DATE APR. 2020 NOV., 2013	TAX MAP - GRID 47-3	SHEET -50 OF 71

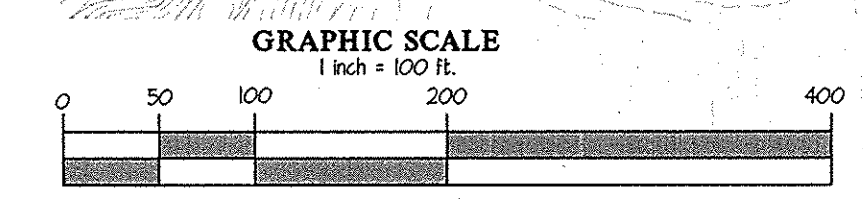
HOWARD COUNTY, MARYLAND



LEGEND

- TYPICAL DRY WELL
- 200 GAL RAIN BARREL
- ▨ POROUS DRIVEWAY W/ 12" STONE
SEE DETAILS SHEET 11
- IMPERVIOUS DRIVEWAY
- GRASS SHALE
- DISCONNECT LENGTH
- ROOFTOP DISCONNECT
- BUFFER WIDTH
- SHEET FLOW TO BUFFER
- STORMWATER DRAINAGE DIVIDE
- B' TYPE SOILS
- C' TYPE SOILS

ESD SUMMARY TABLE			
AREA NO.	AREA (SF)	IMPERVIOUS	ESDv (CF)
MBR 1	45,677	38%	3,017
MBR 2	19,002	52%	1,317
GS 2A	19,064	17%	405
MBR 3	100,195	41%	6,798
MBR 4	61,651	43%	4,557
MBR 5	73,924	40%	4,123
MBR 6	82,735	34%	4,103
MBR 7	81,224	43%	4,508
MBR 8	42,111	67%	2,476
MBR 9	51,137	36%	3,393
MBR 10	31,262	58%	2,633
MBR 12	115,762	39%	7,954
MBR 13	29,656	51%	2,032
MBR 14	105,837	33%	7,252
MBR 15	72,395	51%	5,690
MBR 16	25,617	51%	1,324
MBR 17	27,315	53%	2,439
MBR 18	35,600	58%	2,530
MBR 19	64,279	49%	4,265
MBR 20	20,421	50%	1,265
MBR 21	45,124	55%	4,224
MBR 22	38,235	52%	2,248
MBR 23	29,069	48%	2,240
MBR 24	93,102	49%	5,870
MBR 25	40,066	55%	2,251
MBR 26	28,877	51%	2,791
MBR 27	28,429	52%	1,821
MBR 28	65,208	36%	3,505
MBR 29	49,847	54%	3,266
GS 29A	23,278	16%	469
MBR 30	35,295	26%	1,660
MBR 31	48,798	52%	2,744
MBR 32	20,972	55%	1,603
MBR 33	27,916	57%	1,603
MBR 34	68,249	43%	3,858
MBR 35	35,220	55%	3,034
MBR 36	48,778	45%	2,398
MBR 39	20,547	37%	1,424
MBR 40	45,487	39%	3,706
MBR 41	50,919	55%	4,798
MBR 42	47,406	15%	1,816
GW 43	247,350	49%	23,251
DA 50	4,754	100%	450
DA 51	10,634	100%	1,501
DA 52	10,287	100%	1,115
DA 53	4,773	100%	659
DA 54	6,900	100%	1,071
DA 55	5,589	100%	744
DA 57	5,589	100%	865
DA 58	9,315	100%	976
DA 59	3,726	100%	561
DA 60	3,680	100%	646
DA 61	6,423	100%	819
DA 62	4,647	100%	640
DA 63	2,159	100%	297
DA 64	4,401	100%	584
DA 65	10,804	100%	1,542
DA 66	3,996	100%	571
DA 67	6,323	100%	901
DA 68	4,561	100%	588
DA 69	5,290	100%	832
DA 70	4,796	100%	687
Gorman Road	25,214	100%	3,642
TOTAL	2,385,896	48%	172,380



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
M. Melvin 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. V. Shulwood 4-23-15
 Chief, Division of Land Development Date

H. E. Ehr 4-22-15
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-888-2524 FAX: 301-421-4188

DATE	REVISION	BY	APPR.
02/2015	POROUS SIDEWALK REMOVED. SEVERAL MICRO-BIOS ENLARGED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975
 EXPIRATION DATE: MAY 26, 2015
 2/25/15

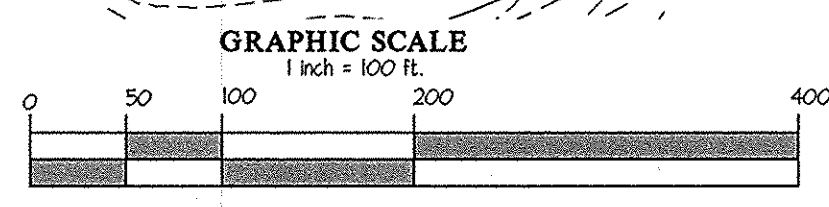


REVISED STORMWATER MANAGEMENT DRAINAGE AREA MAP

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257
 L. 11388 P. 725
 PARCEL 472

ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
1"=100'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB., 2015	47-3	51 OF 71



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 3-16-2015
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 4-23-15
 Chief, Division of Land Development Date

[Signature] 4-22-15
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
02/2015	POROUS SIDEWALK REMOVED. SEVERAL MICRO-BIOS ENLARGED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 17258
 EXPIRATION DATE: MAY 28, 2018
 4/25/15

REVISED STORMWATER MANAGEMENT DRAINAGE AREA MAP

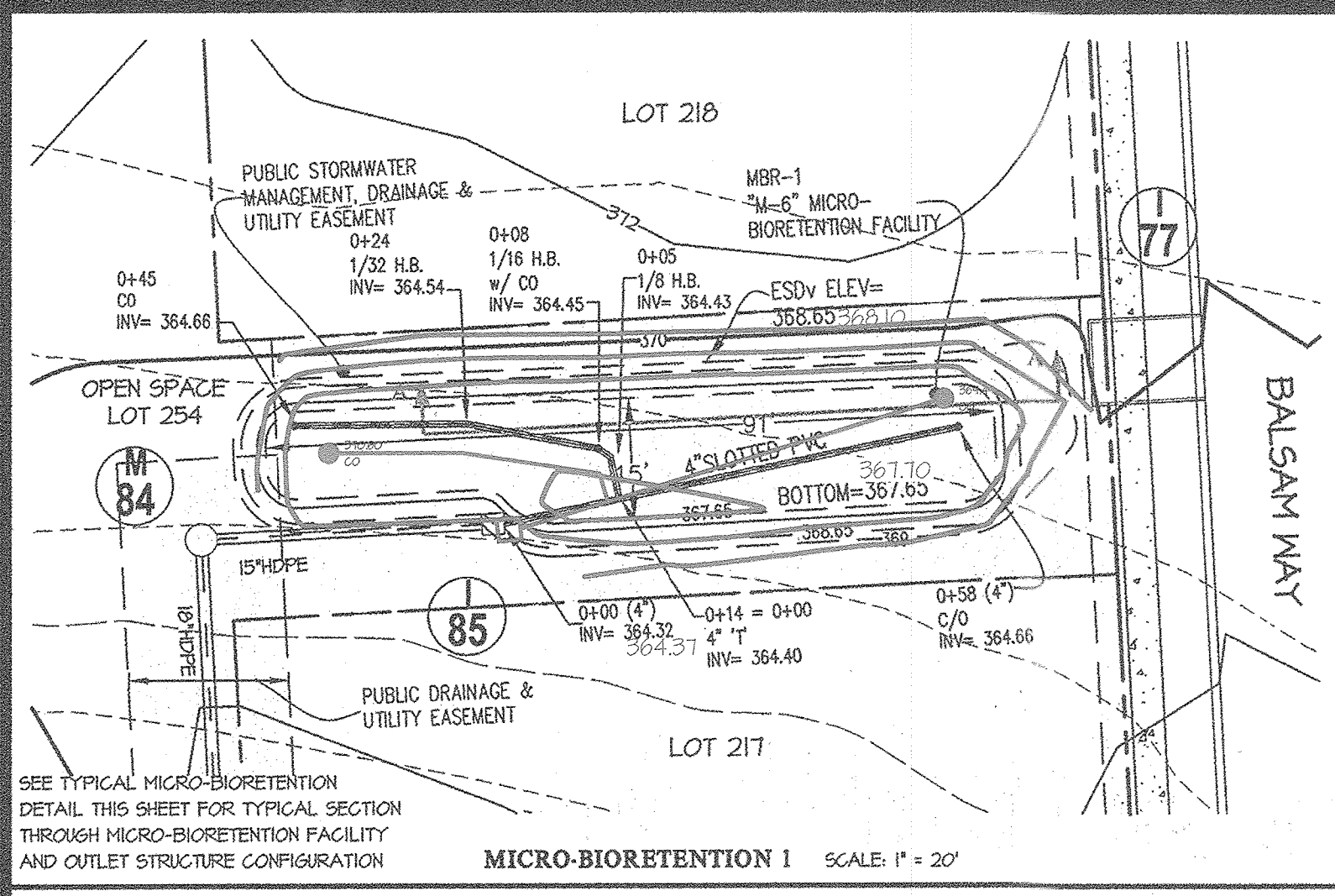
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257

L 11388 F 725
 PARCEL 472

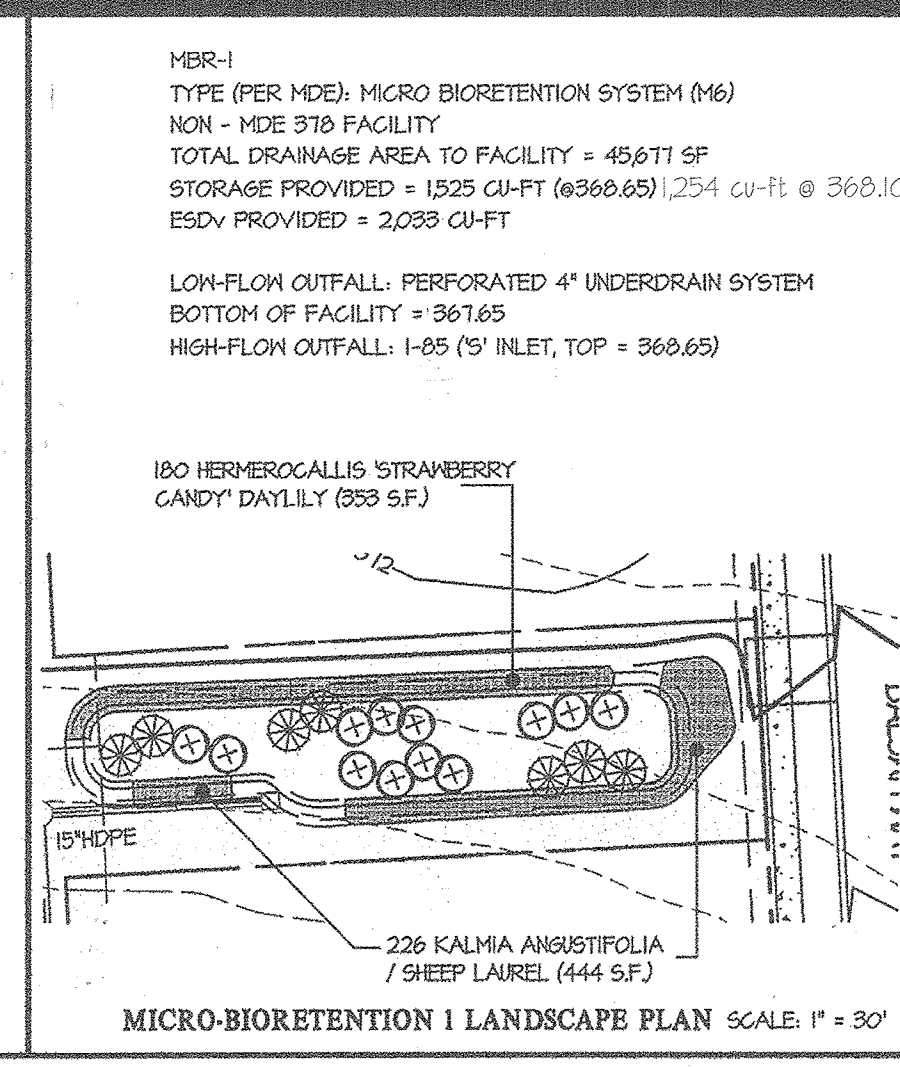
ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

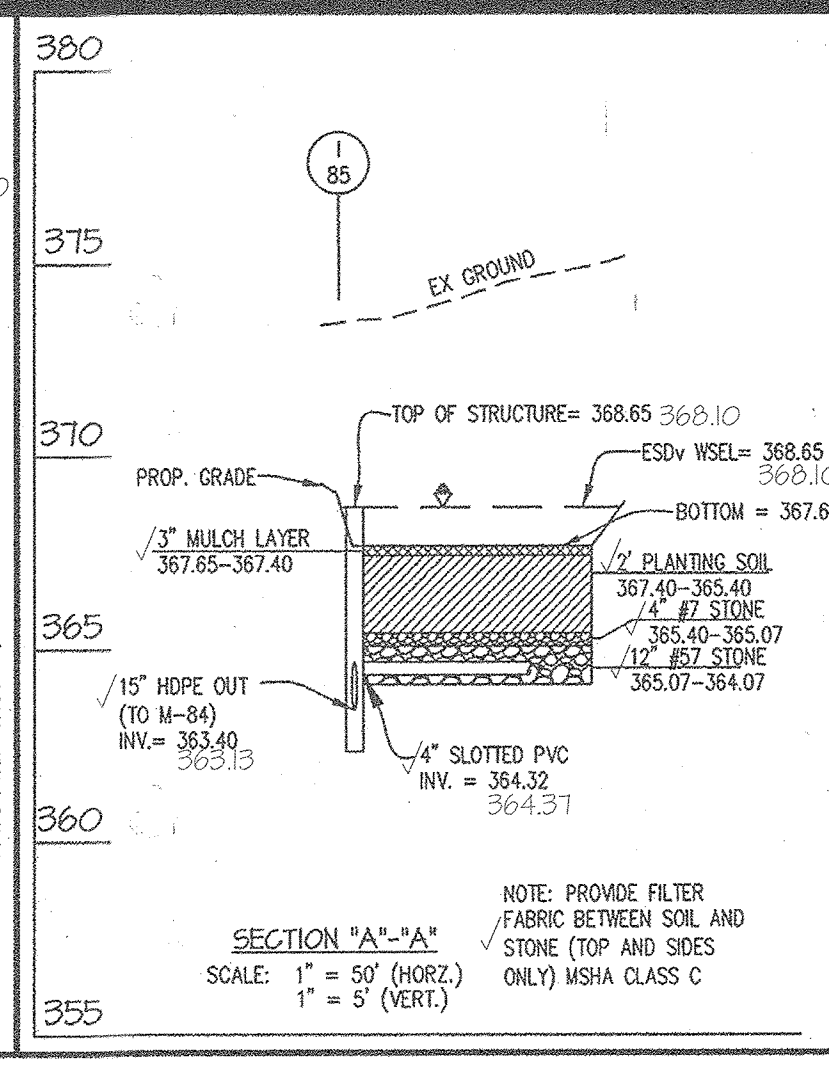
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1"=100'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB, 2015	47-3	52 OF 71



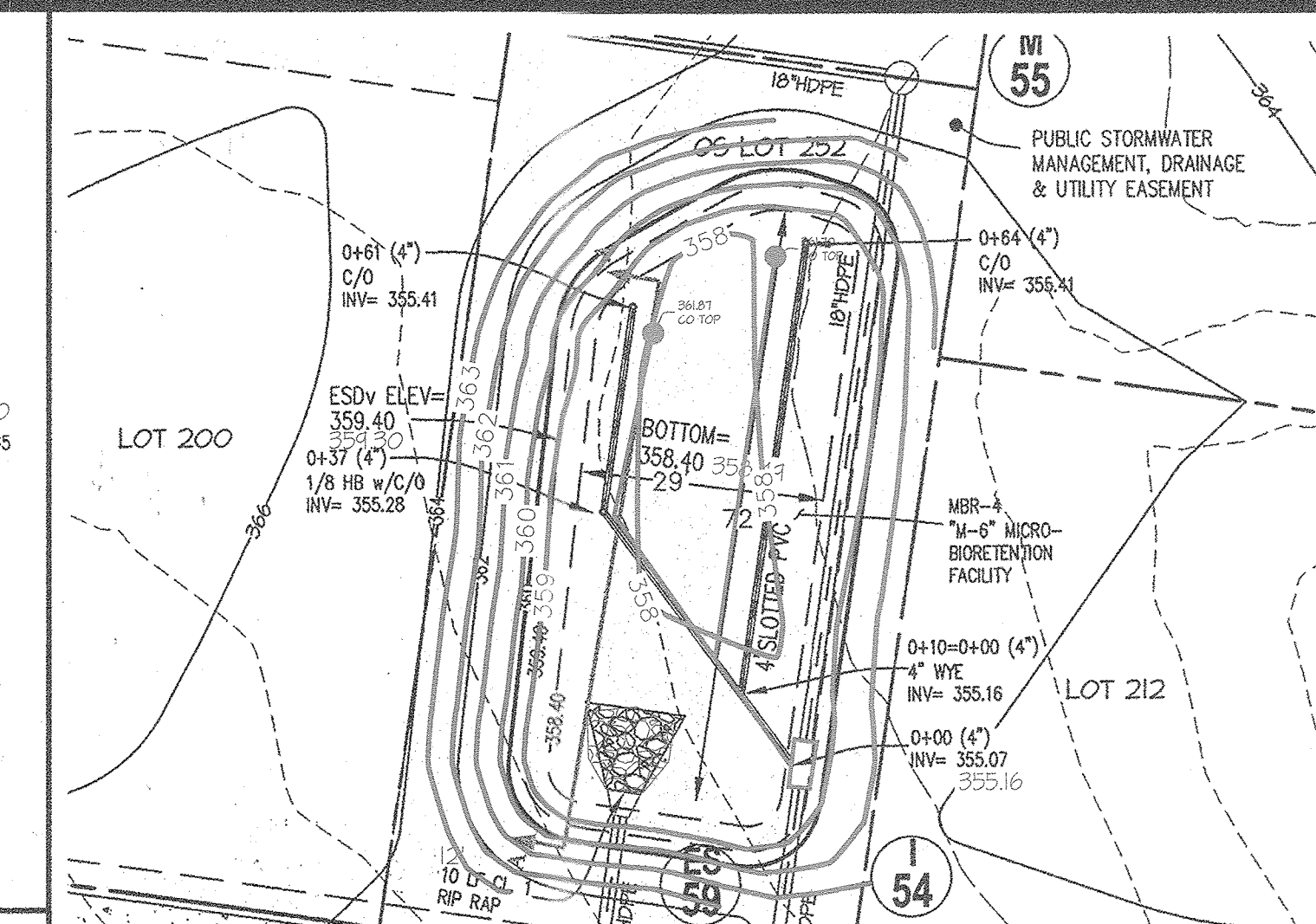
MICRO-BIORETENTION 1 SCALE: 1" = 20'



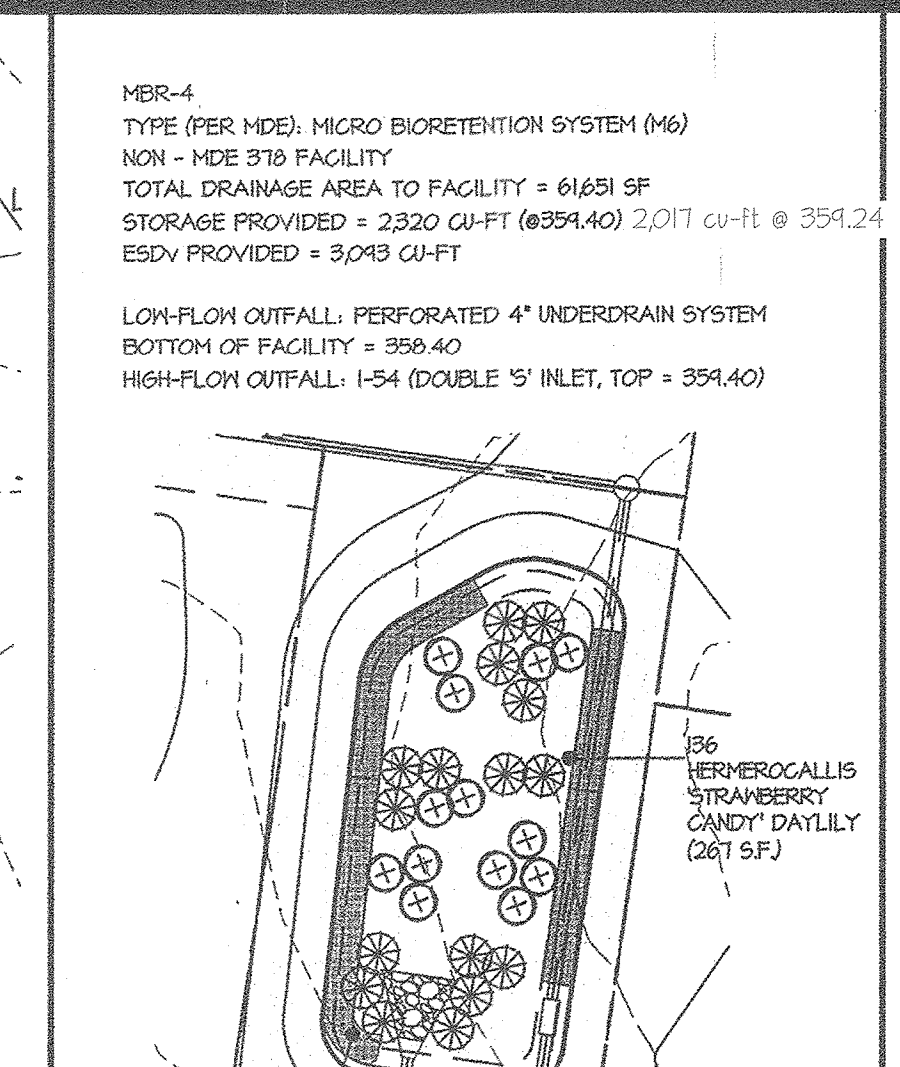
MICRO-BIORETENTION 1 LANDSCAPE PLAN SCALE: 1" = 30'



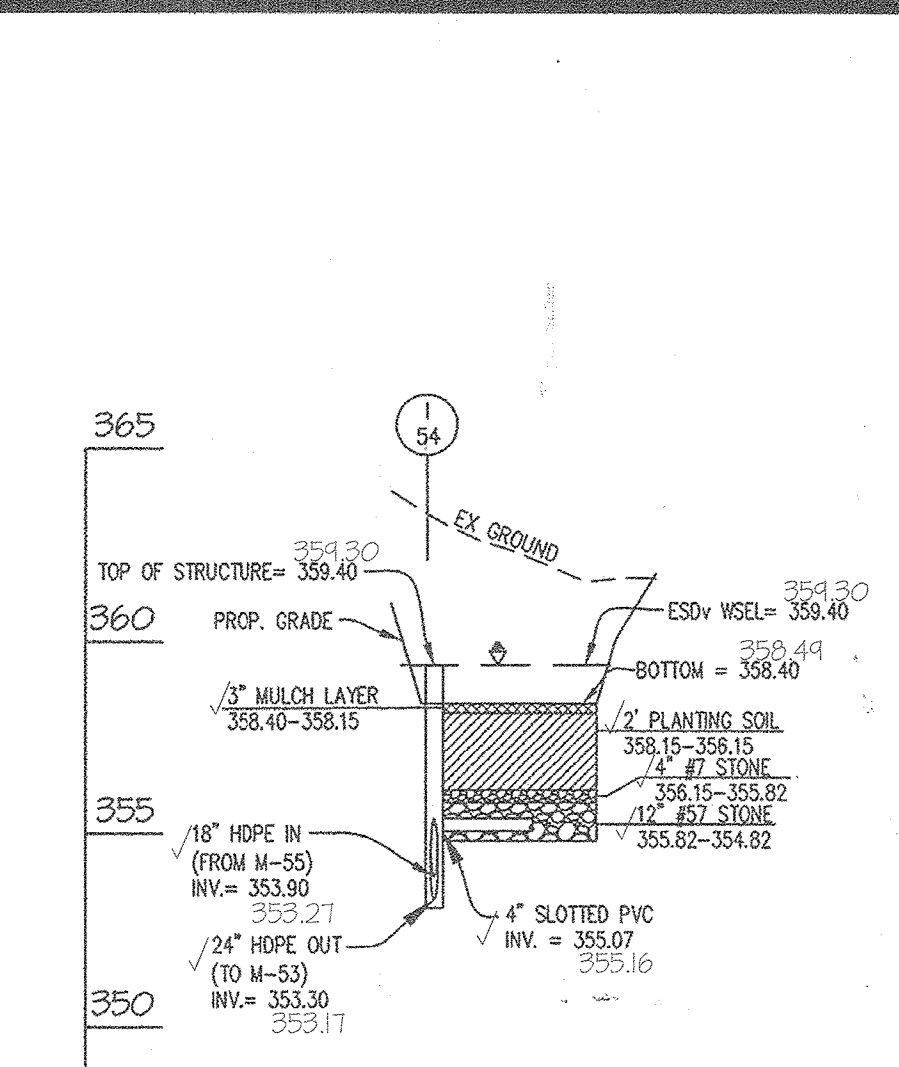
SECTION "A-A" SCALE: 1" = 5' (HORIZ), 1" = 5' (VERT.)



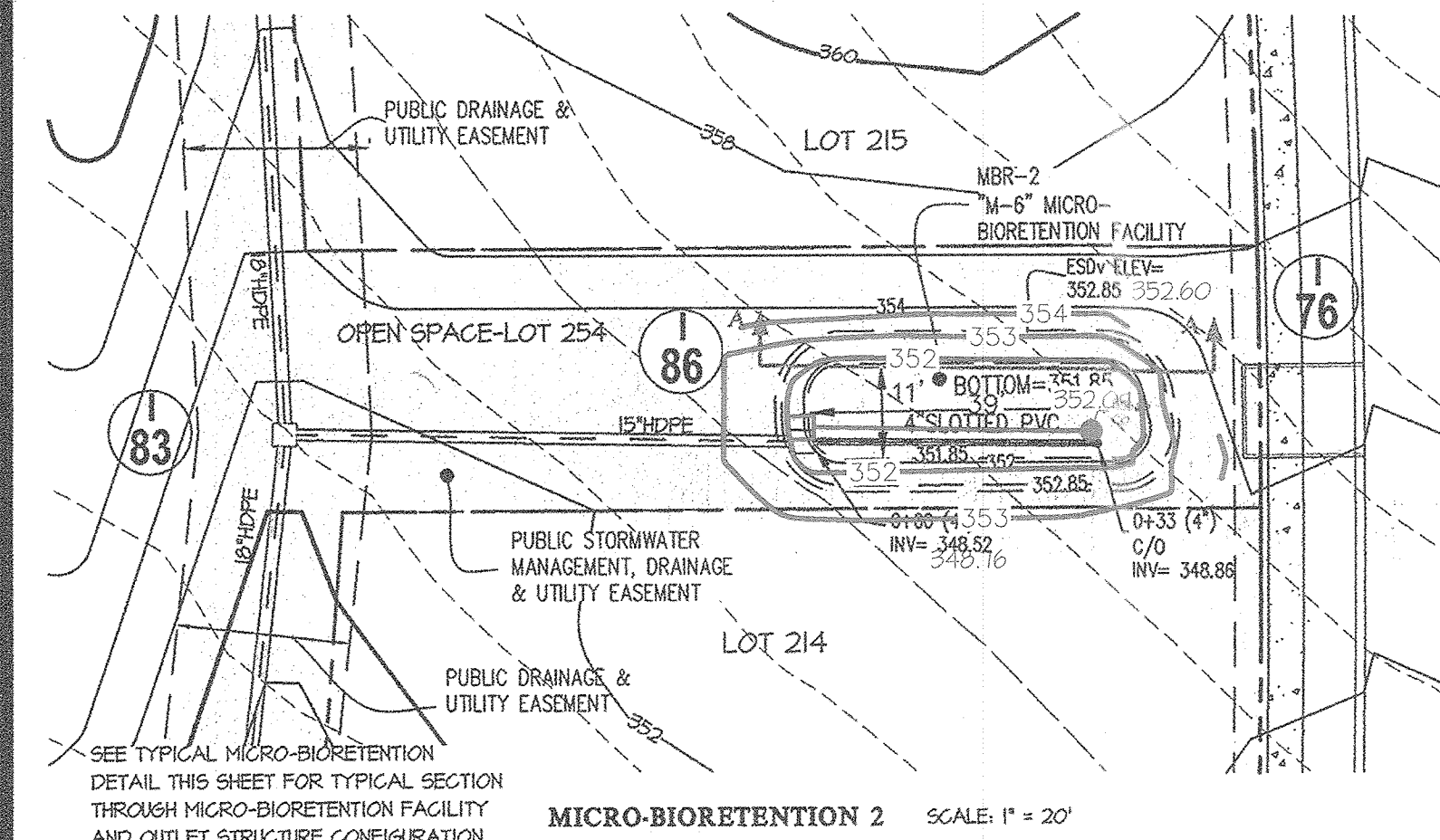
MICRO-BIORETENTION 4 SCALE: 1" = 20'



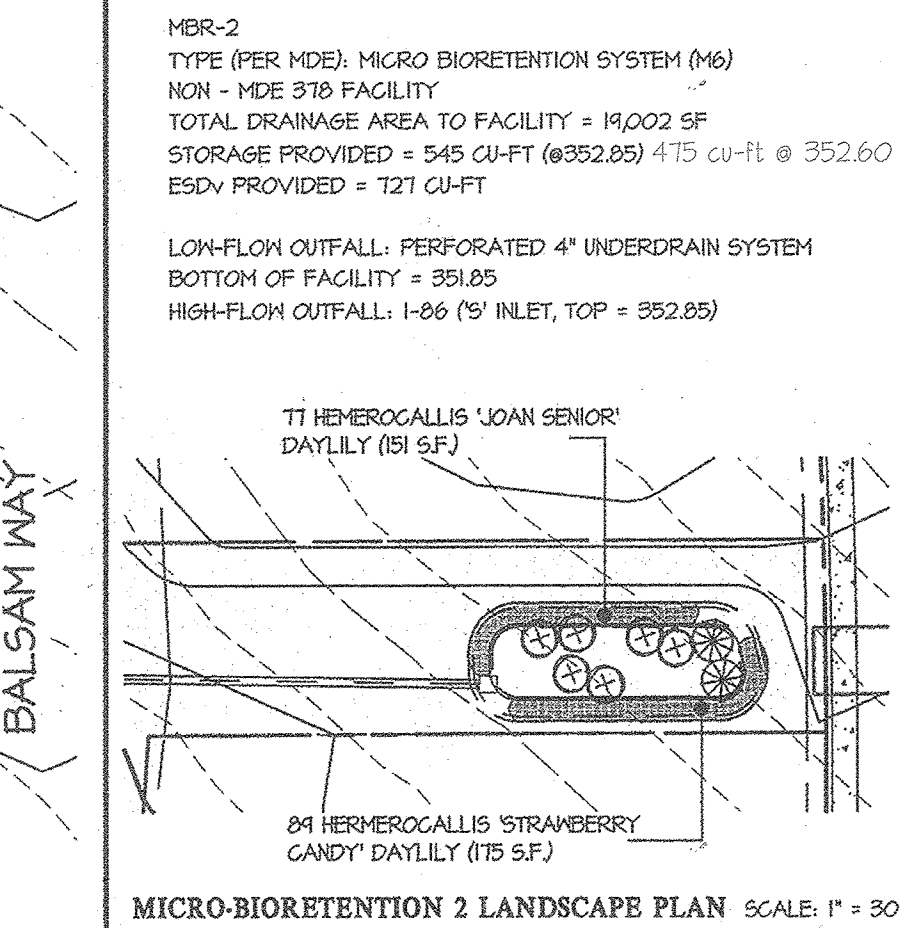
MICRO-BIORETENTION 4 LANDSCAPE PLAN SCALE: 1" = 30'



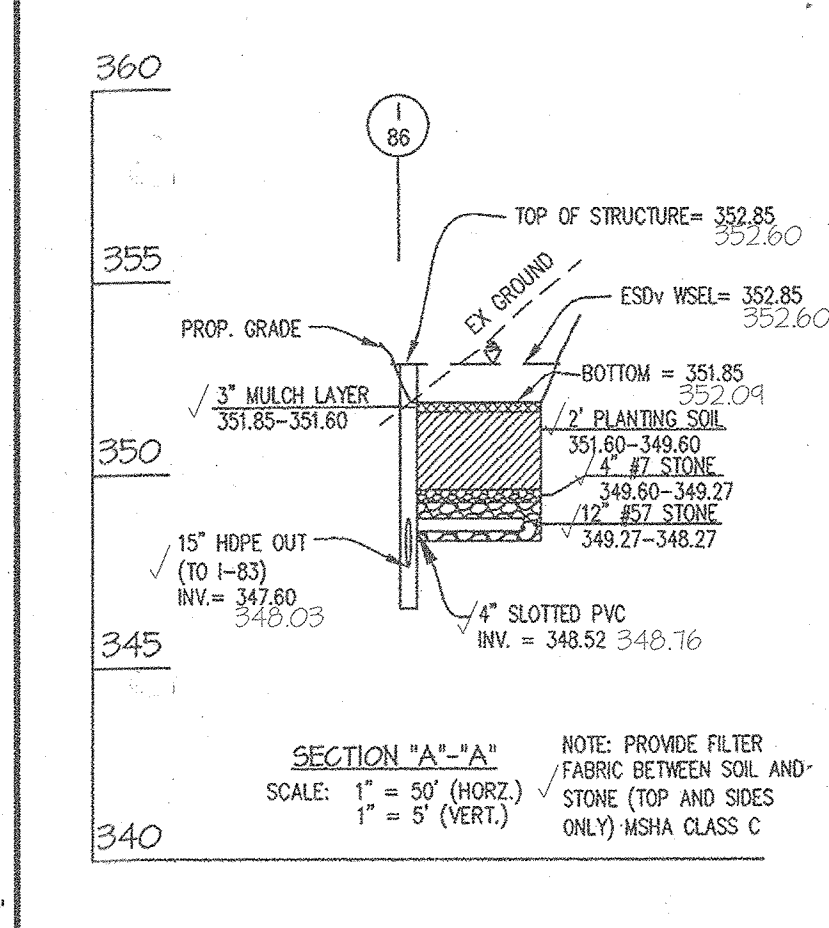
SECTION "A-A" SCALE: 1" = 5' (HORIZ), 1" = 5' (VERT.)



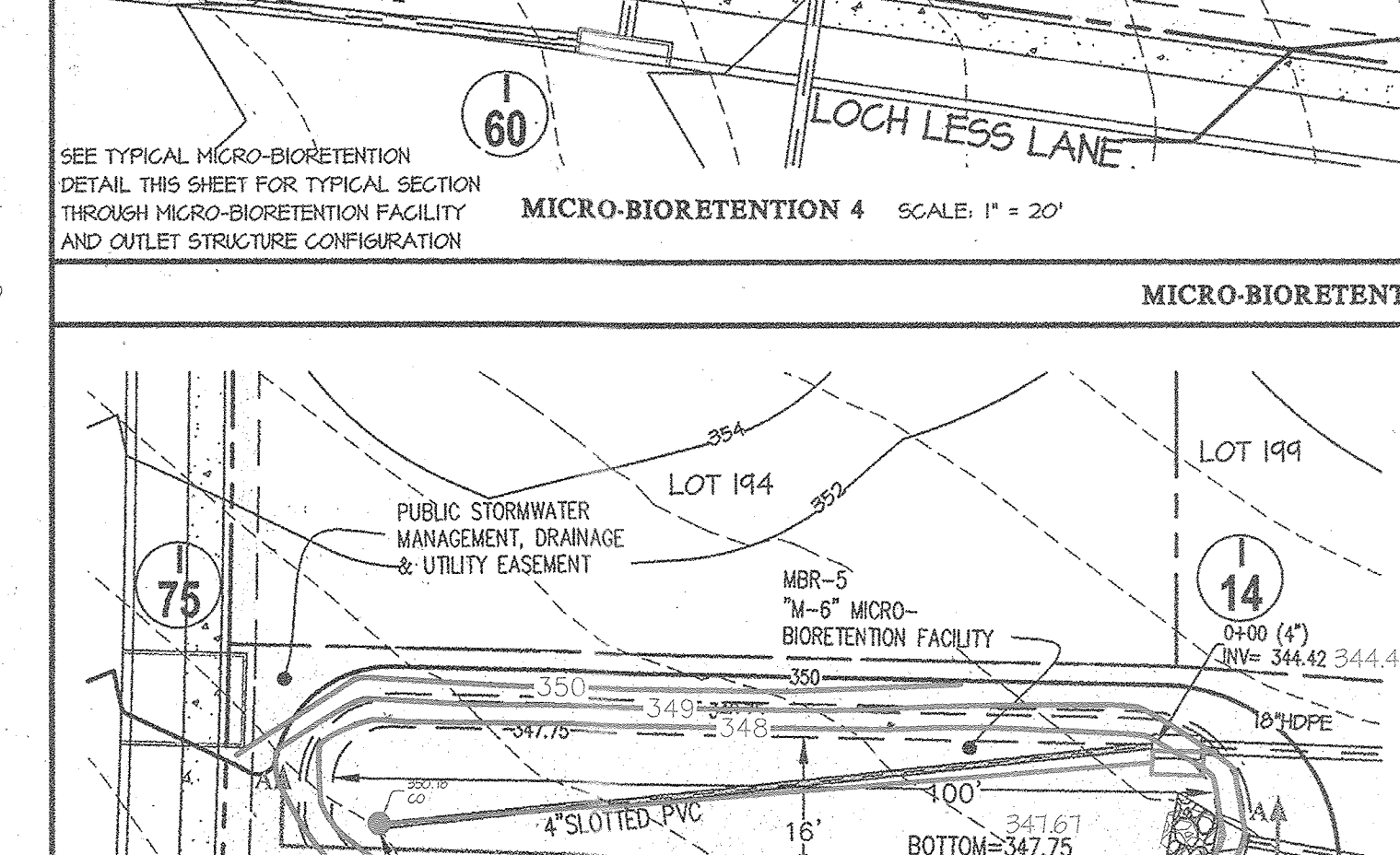
MICRO-BIORETENTION 2 SCALE: 1" = 20'



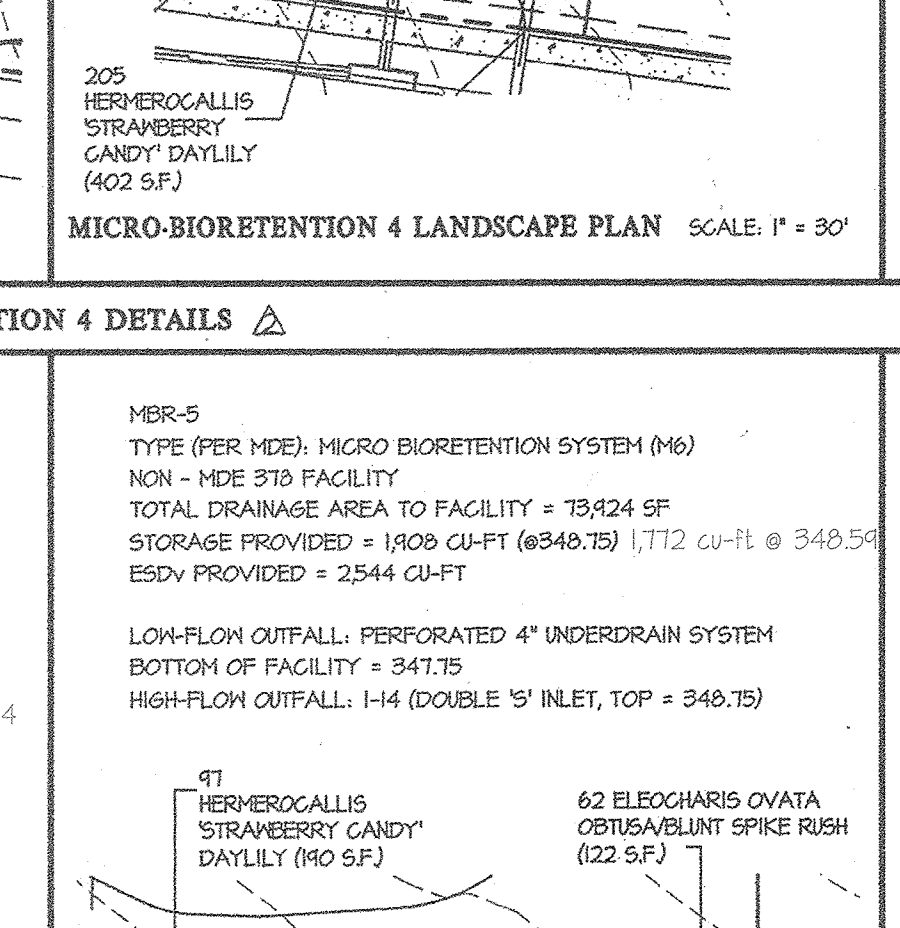
MICRO-BIORETENTION 2 LANDSCAPE PLAN SCALE: 1" = 30'



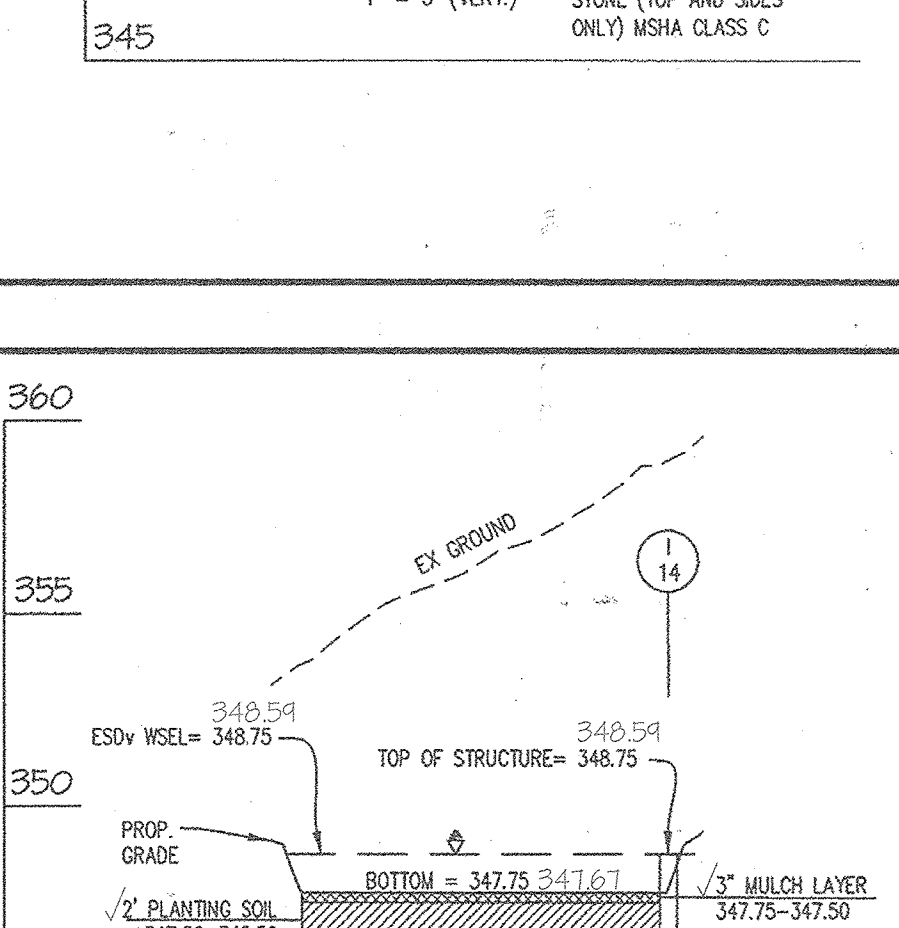
SECTION "A-A" SCALE: 1" = 5' (HORIZ), 1" = 5' (VERT.)



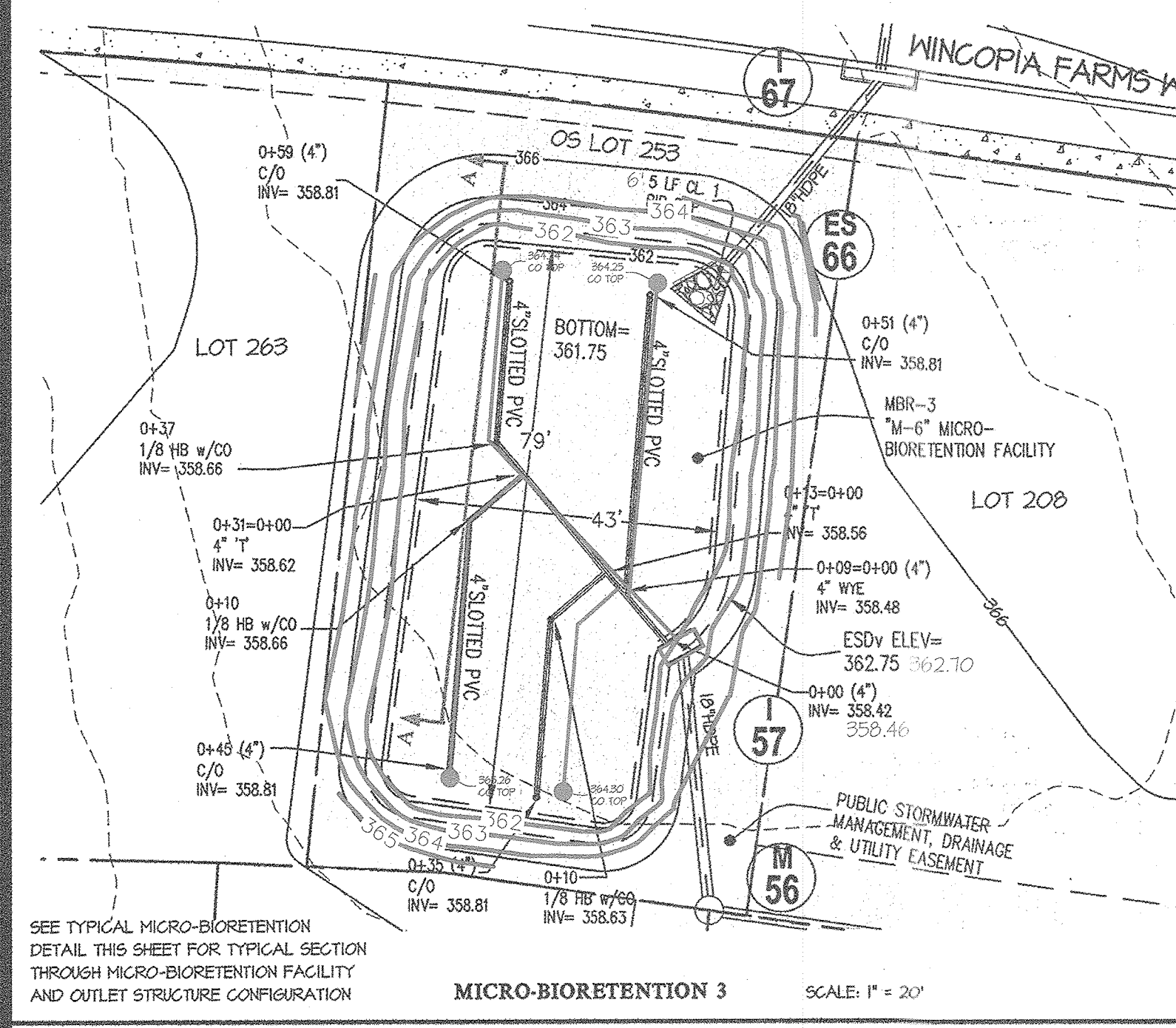
MICRO-BIORETENTION 5 SCALE: 1" = 20'



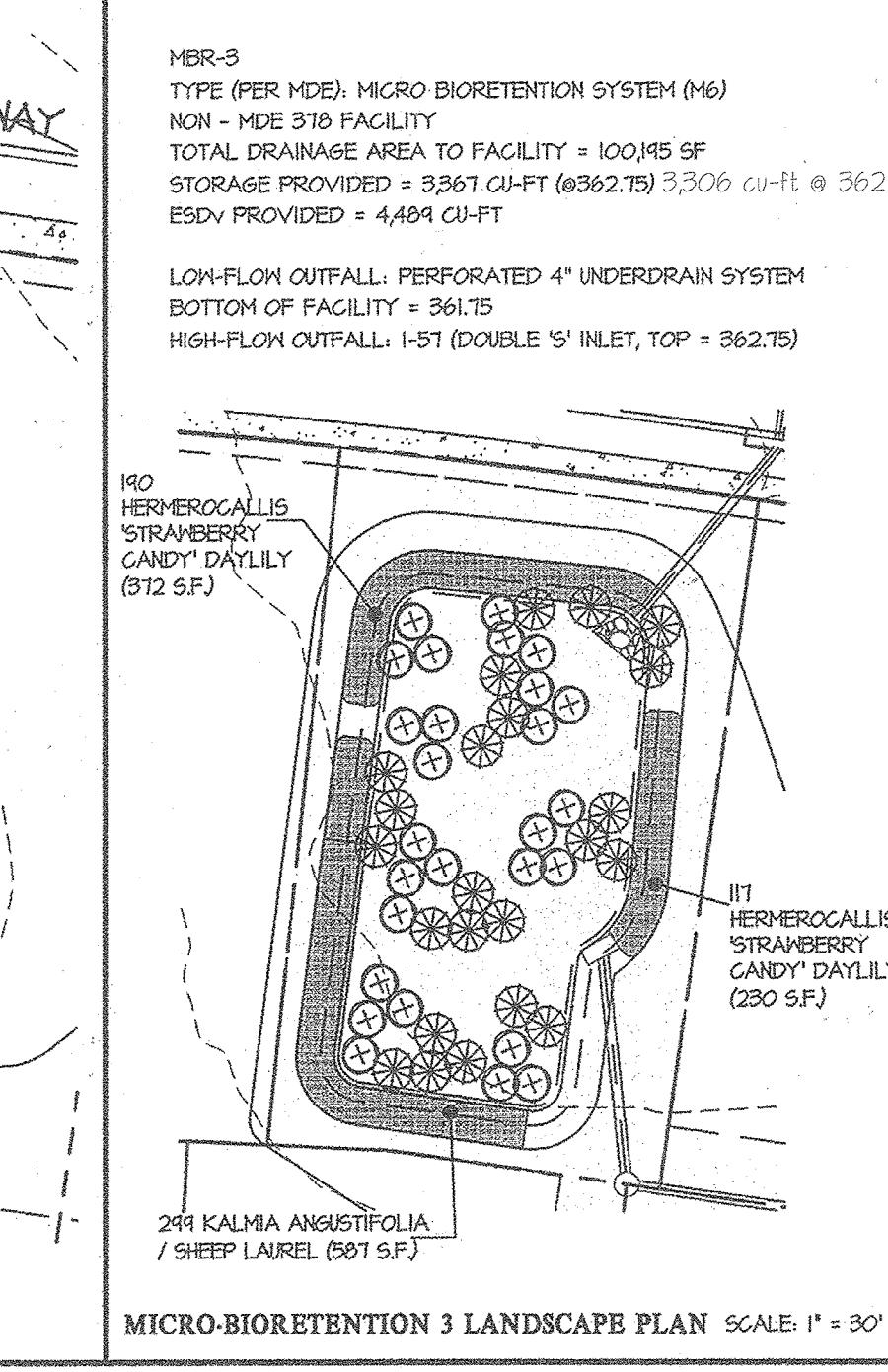
MICRO-BIORETENTION 5 LANDSCAPE PLAN SCALE: 1" = 30'



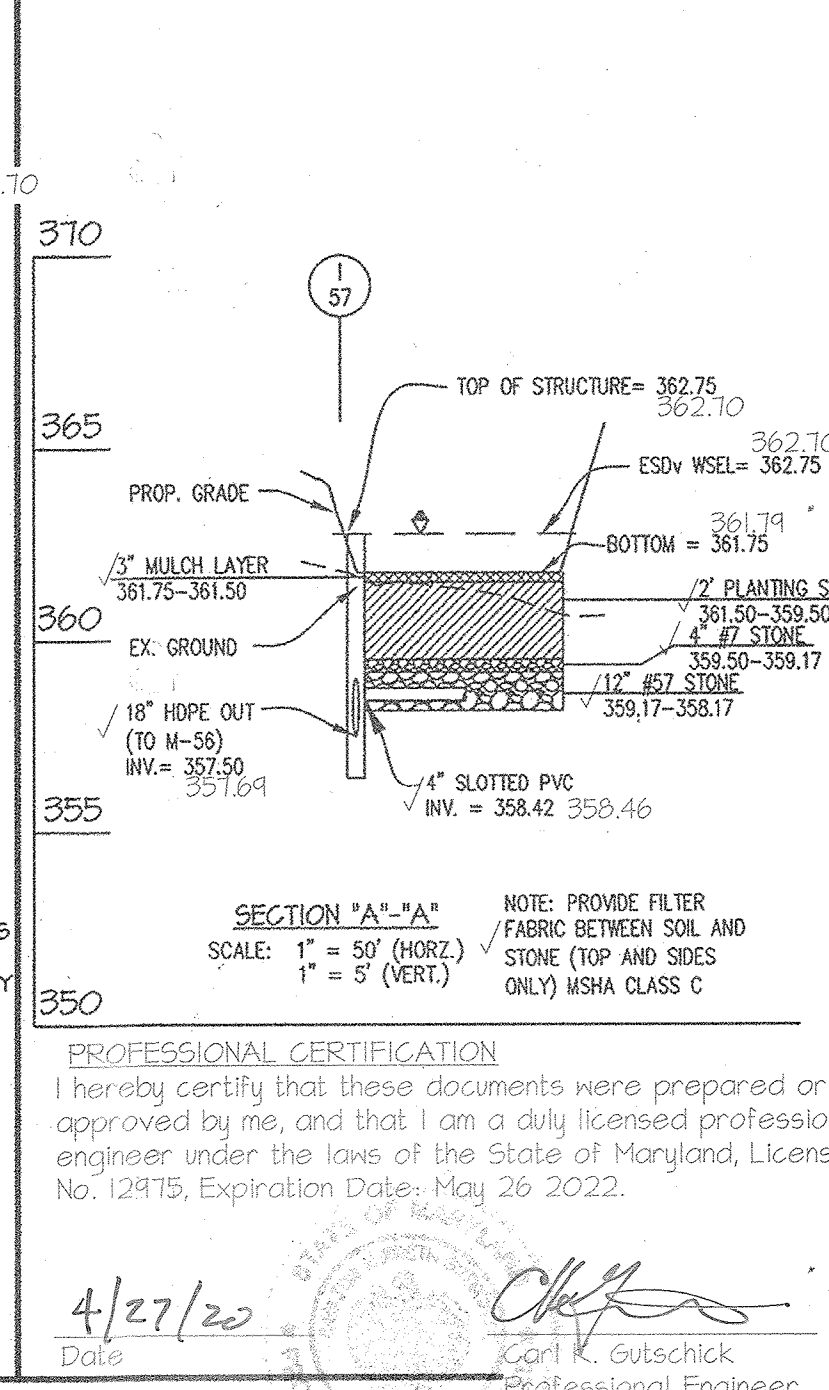
SECTION "A-A" SCALE: 1" = 5' (HORIZ), 1" = 5' (VERT.)



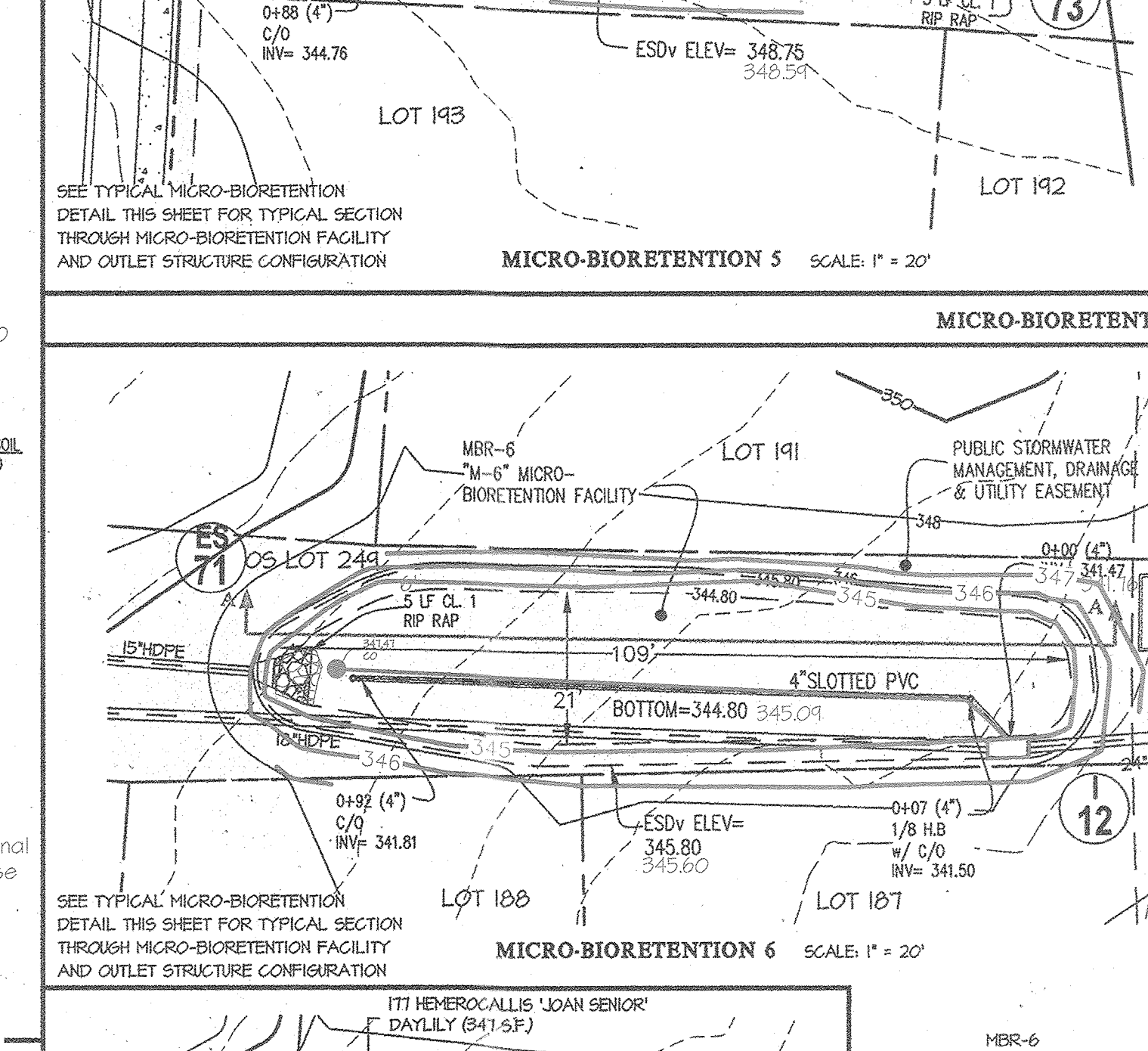
MICRO-BIORETENTION 3 SCALE: 1" = 20'



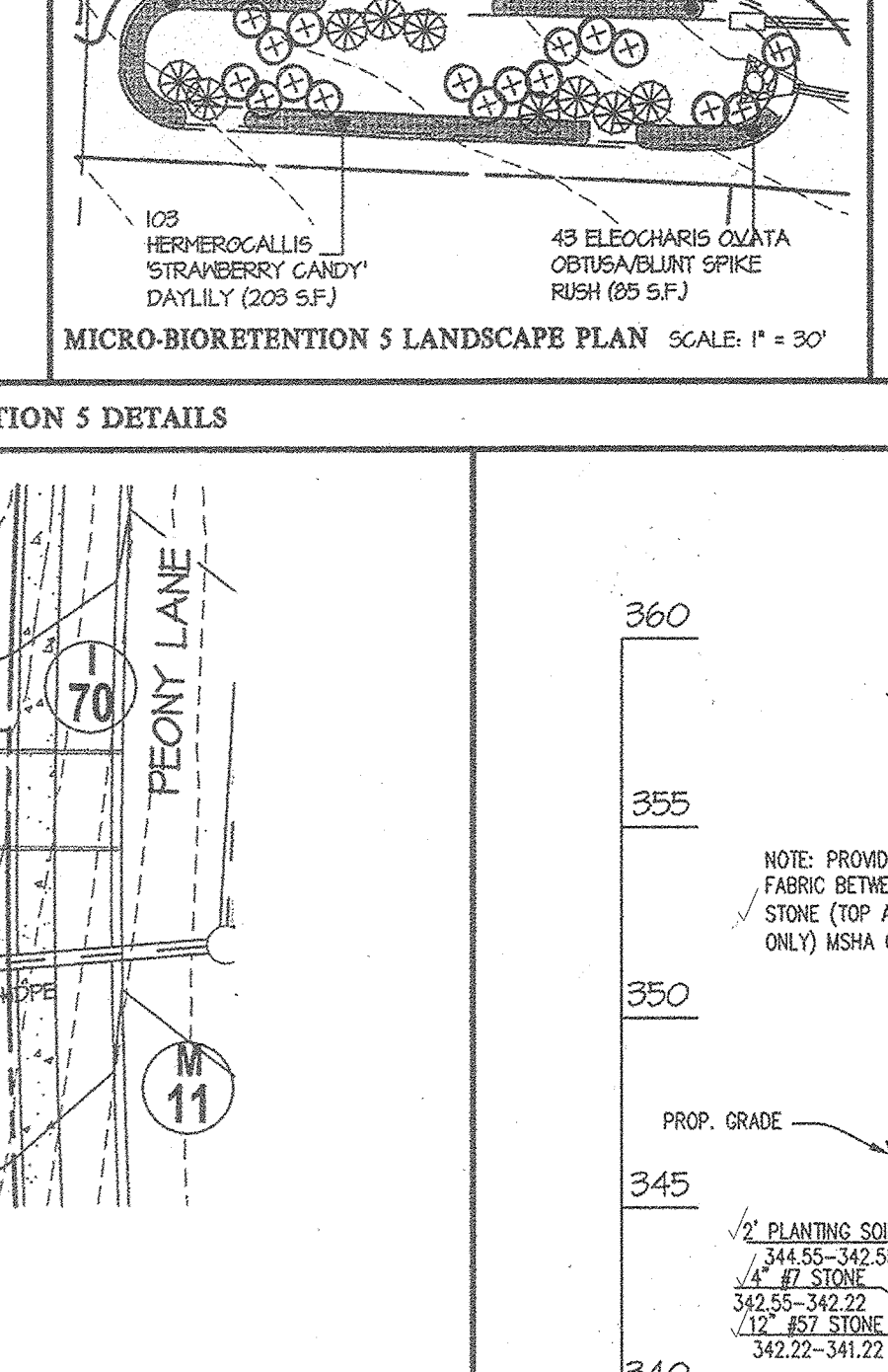
MICRO-BIORETENTION 3 LANDSCAPE PLAN SCALE: 1" = 30'



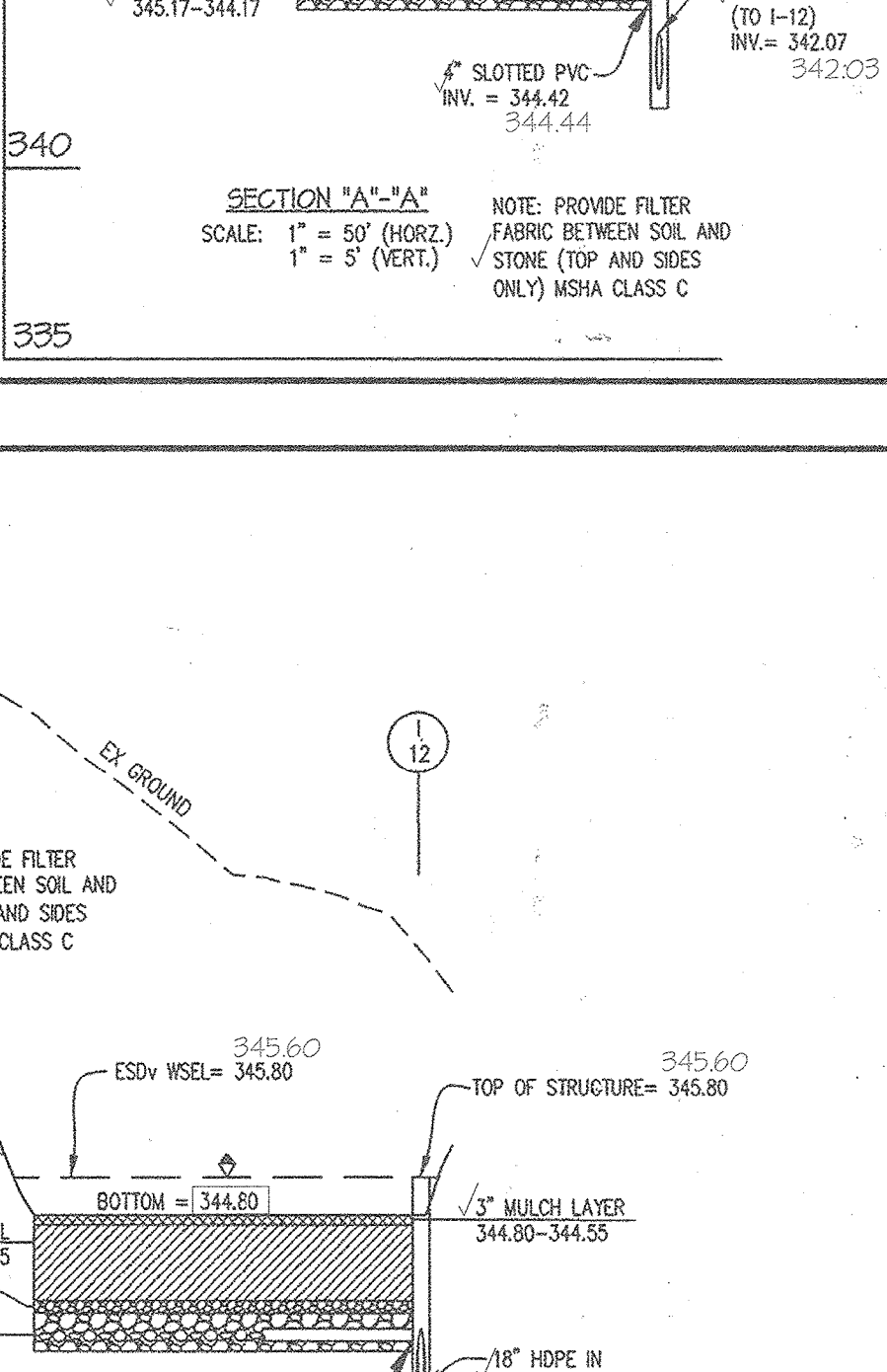
SECTION "A-A" SCALE: 1" = 5' (HORIZ), 1" = 5' (VERT.)



MICRO-BIORETENTION 6 SCALE: 1" = 20'



MICRO-BIORETENTION 6 LANDSCAPE PLAN SCALE: 1" = 30'



SECTION "A-A" SCALE: 1" = 5' (HORIZ), 1" = 5' (VERT.)

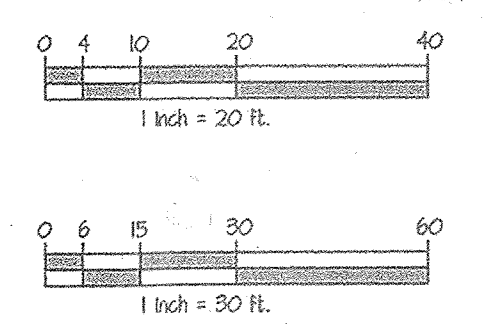
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 3-16-2015

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 4-23-15

Chief, Development Engineering Division
 4-22-15

S.D. PIPE SUMMARY TABLE
 PRIVATELY OWNED AND MAINTAINED

SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
4	SLOTTED PVC	615	SCHEDULE 40



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. 12973, Expiration Date: May 26, 2022.

4/27/20
 Carl R. Gutschick
 Professional Engineer
 Maryland Reg. No. 12973

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3809 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20865
 TEL: 301-421-4024 FAX: 301-421-4186

DATE	DESCRIPTION	BY	APP'R.
02/2015	MICRO-BIOS 1, 3, & 4 REVISED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 CUMFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

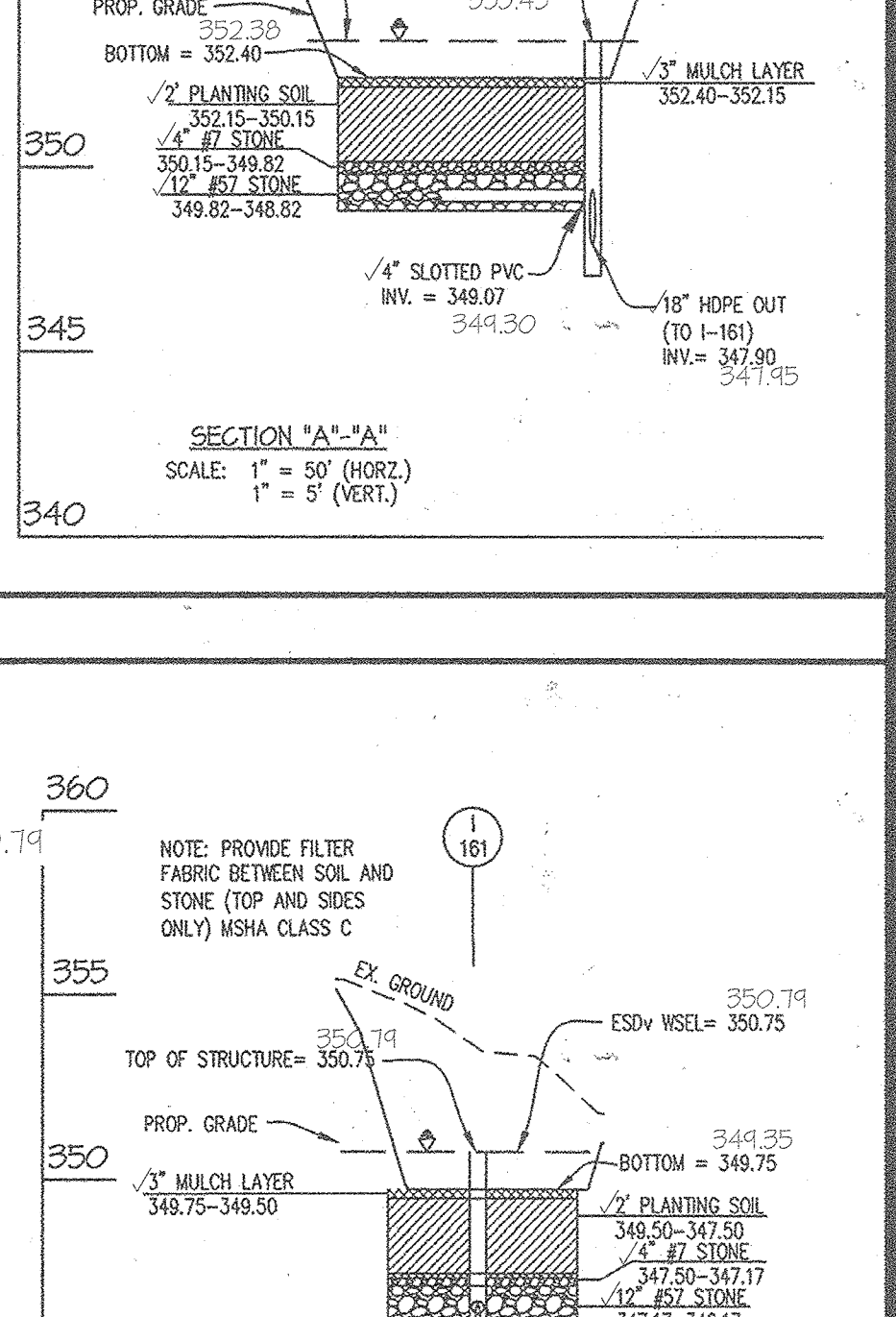
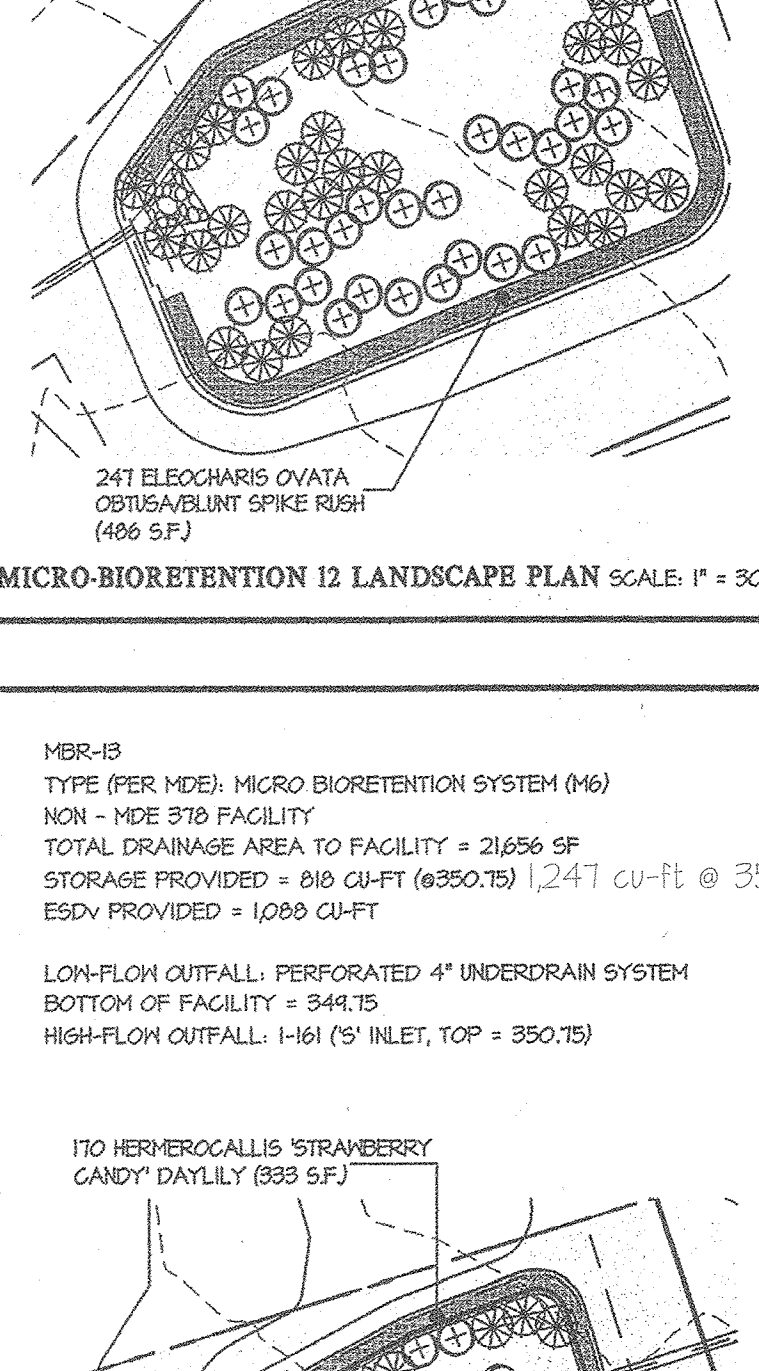
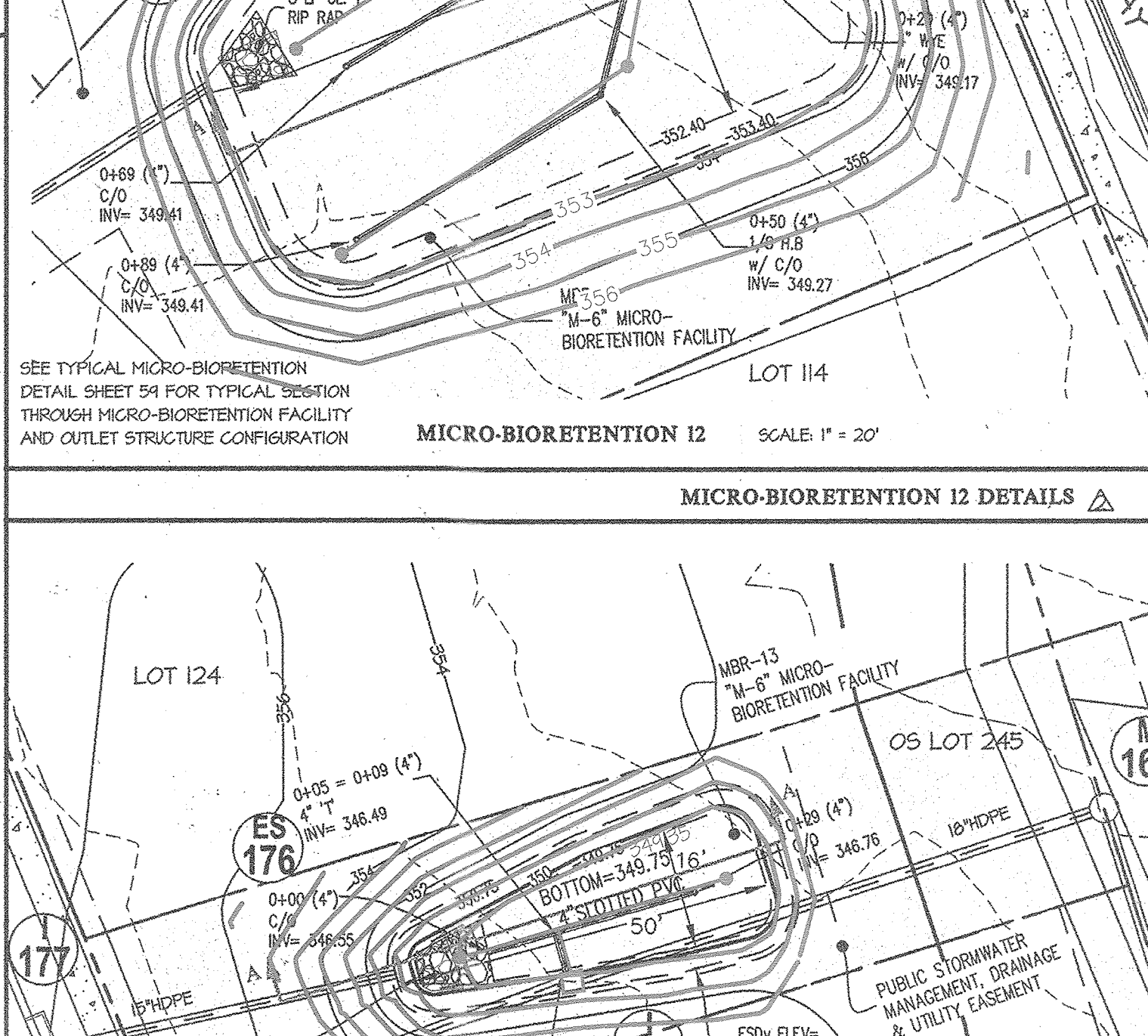
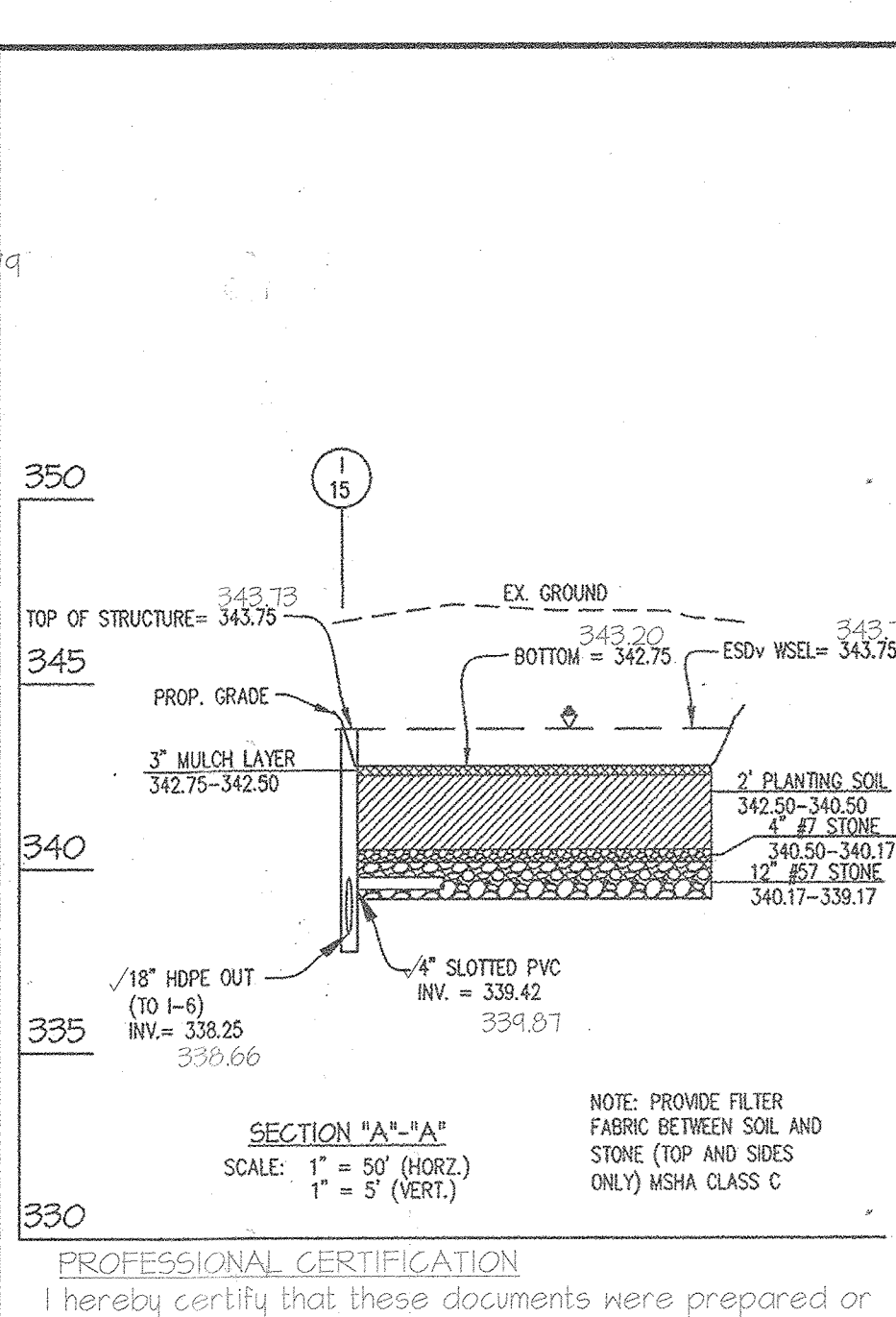
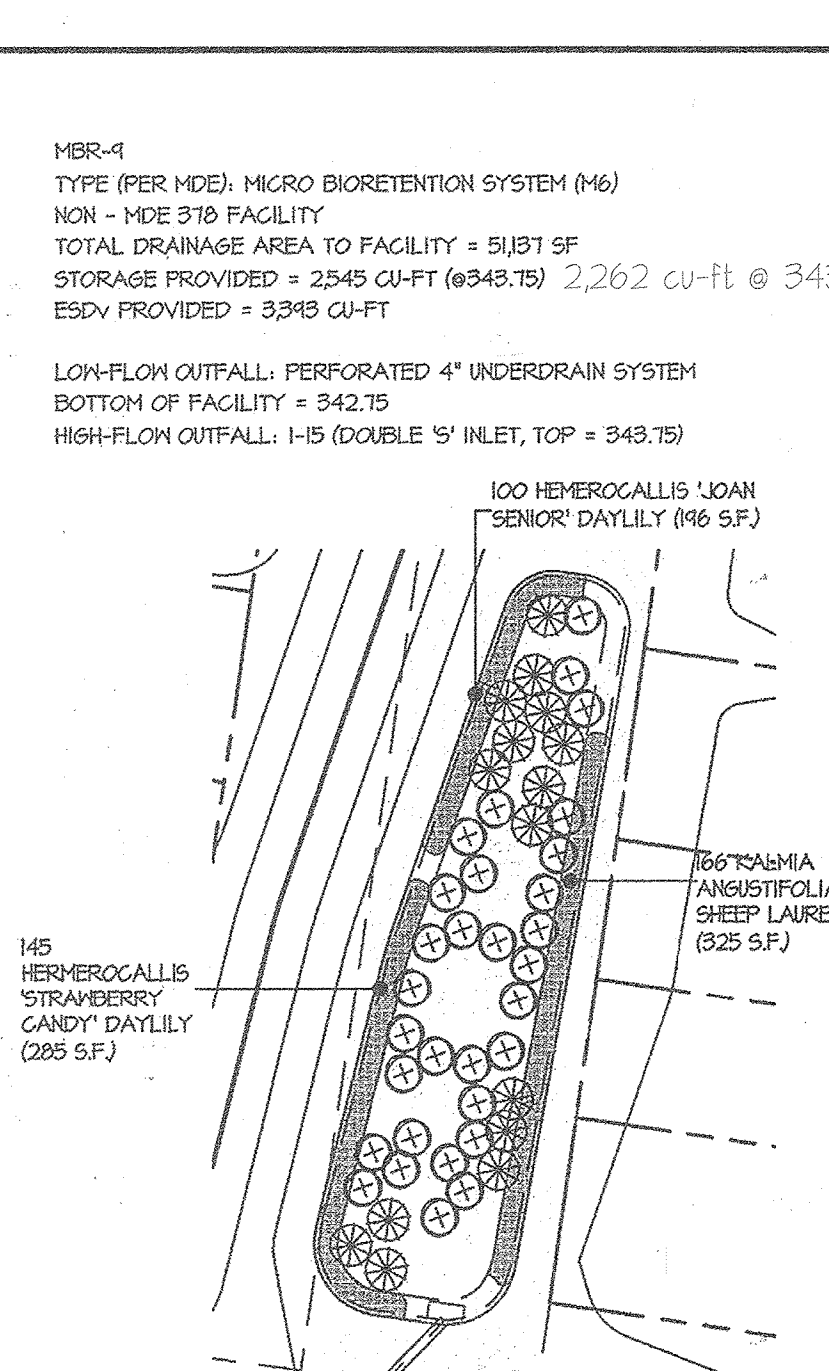
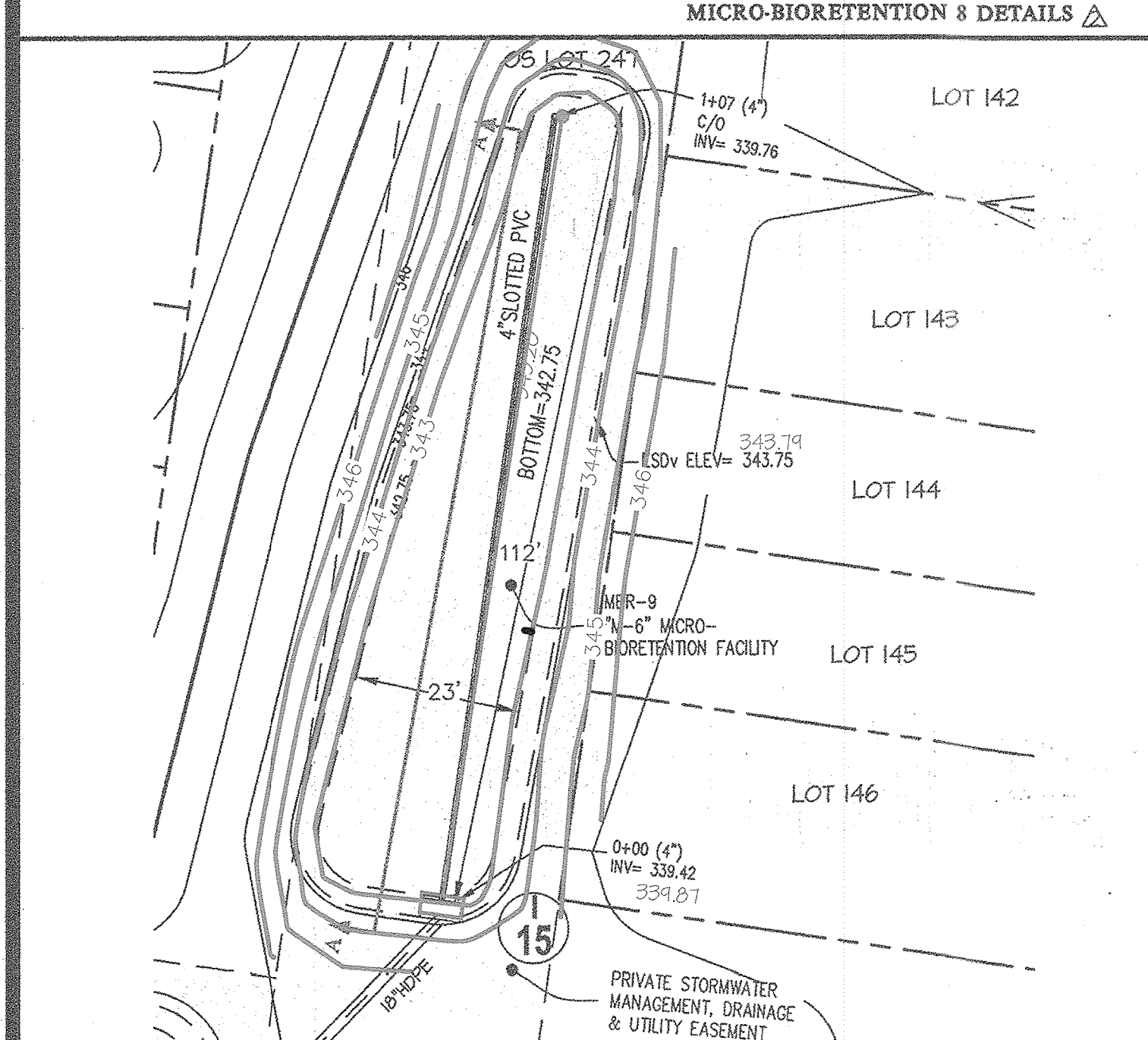
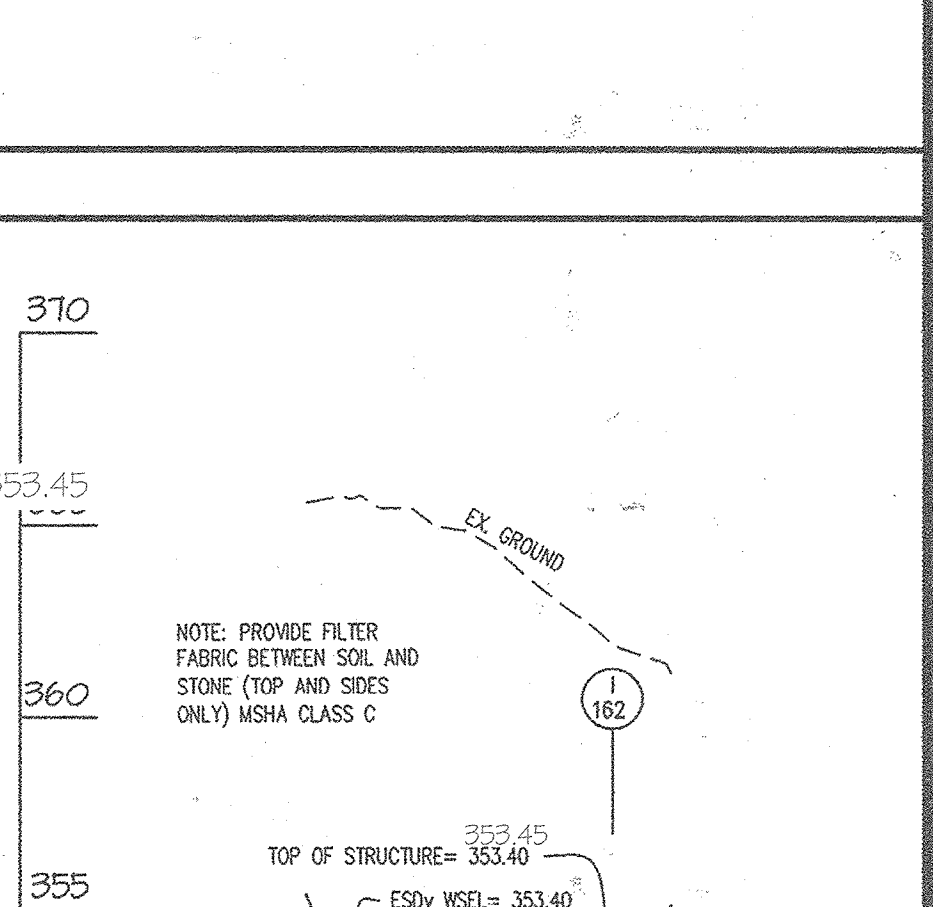
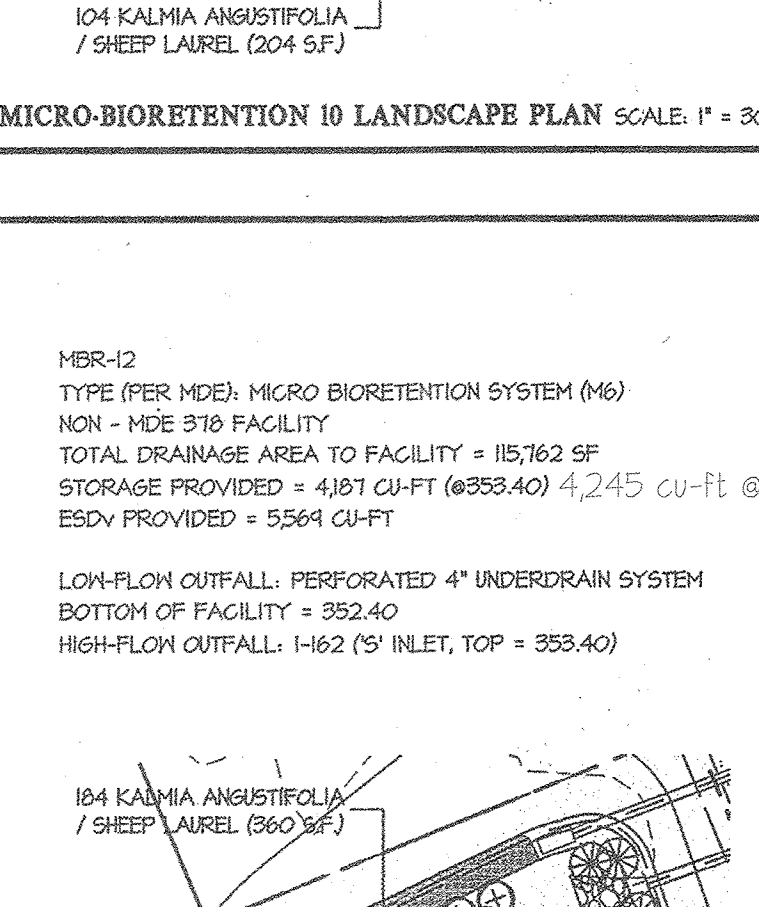
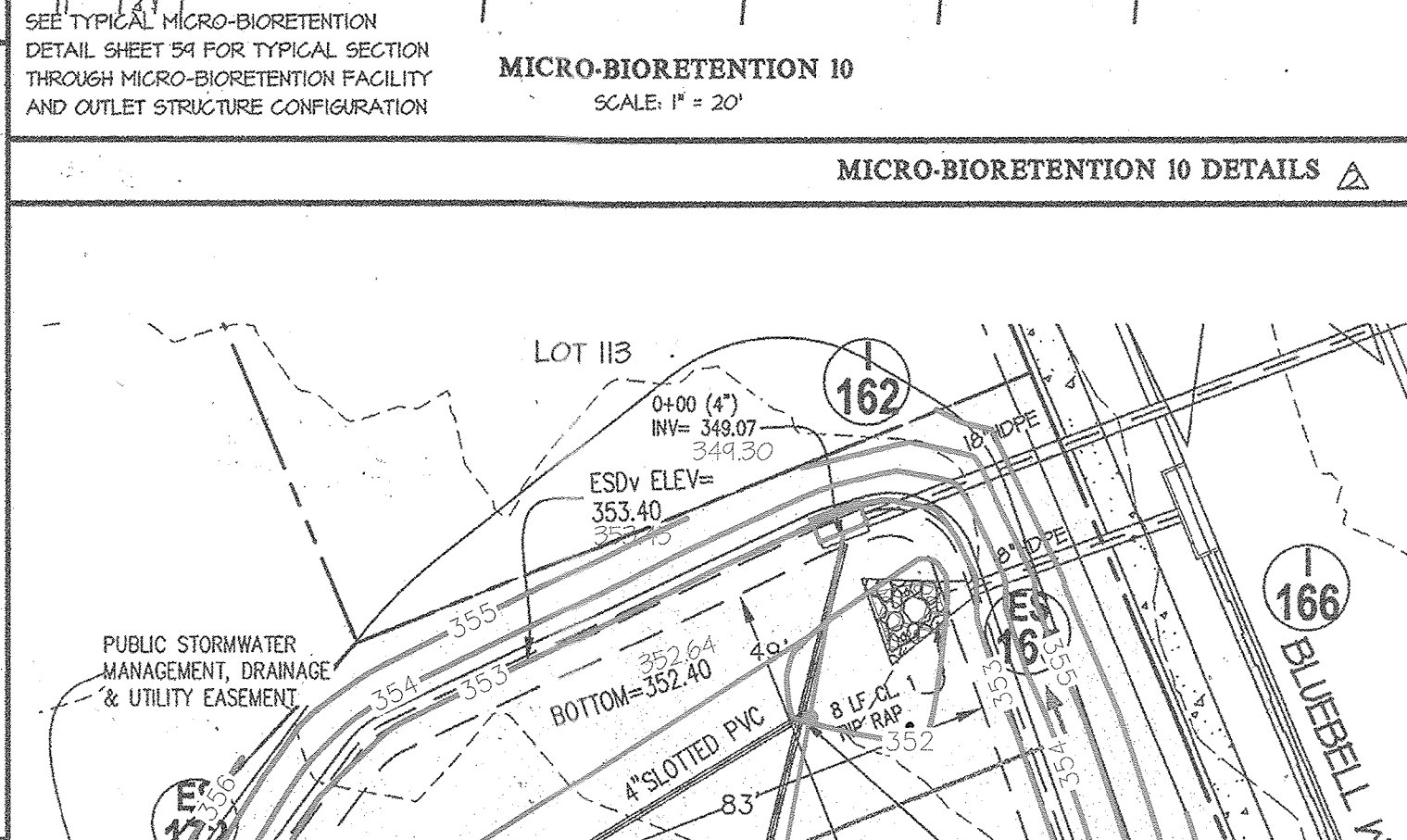
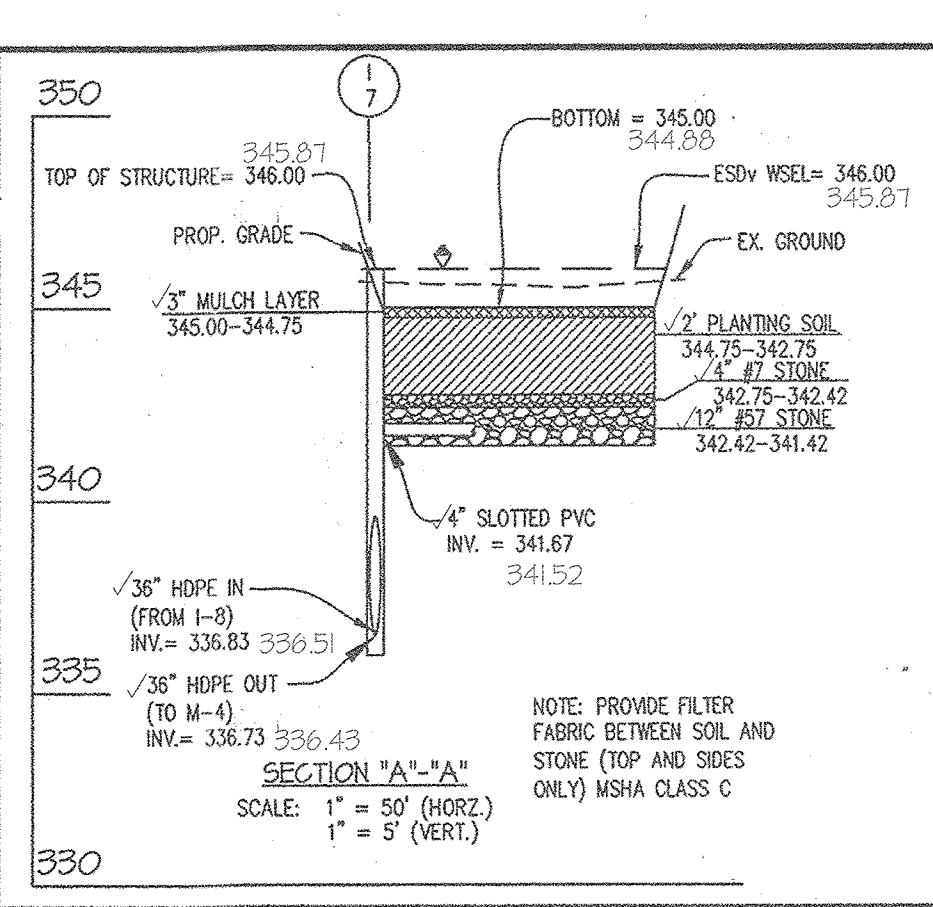
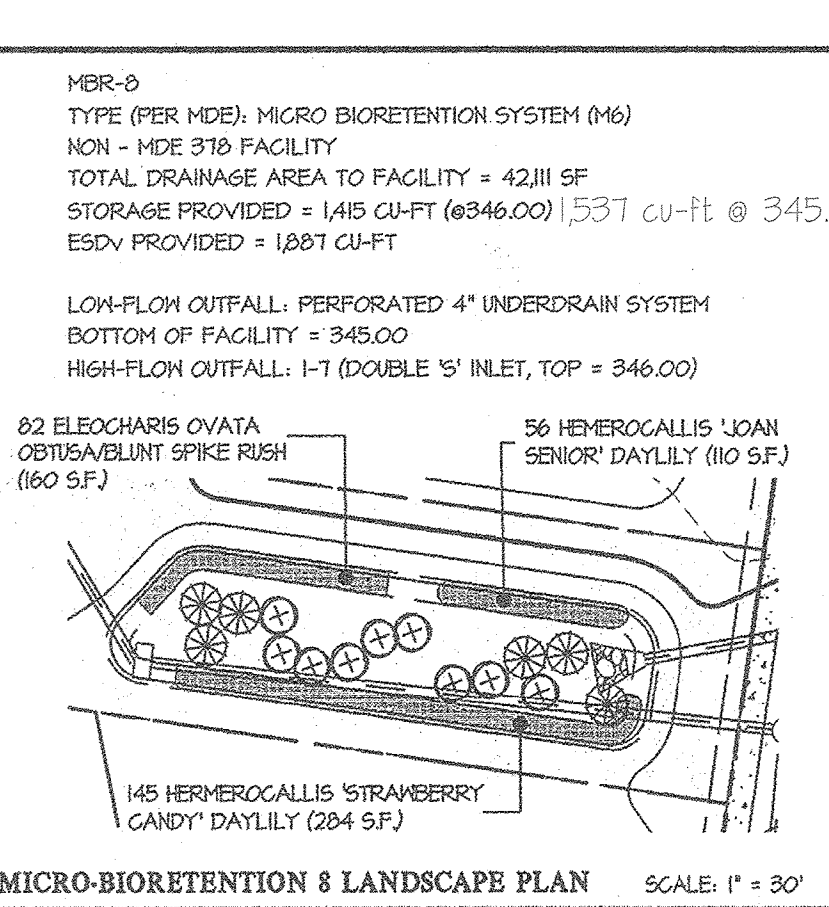
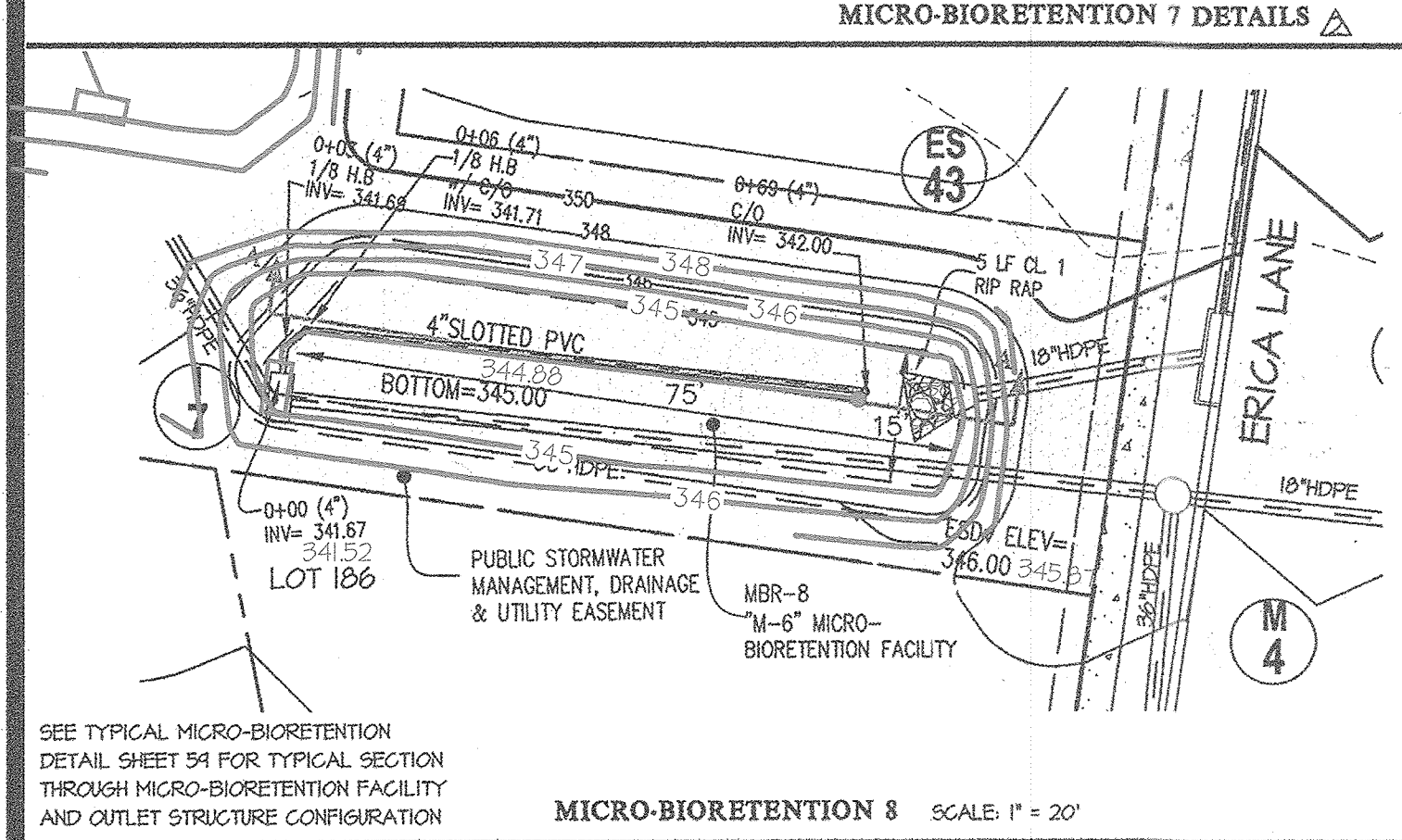
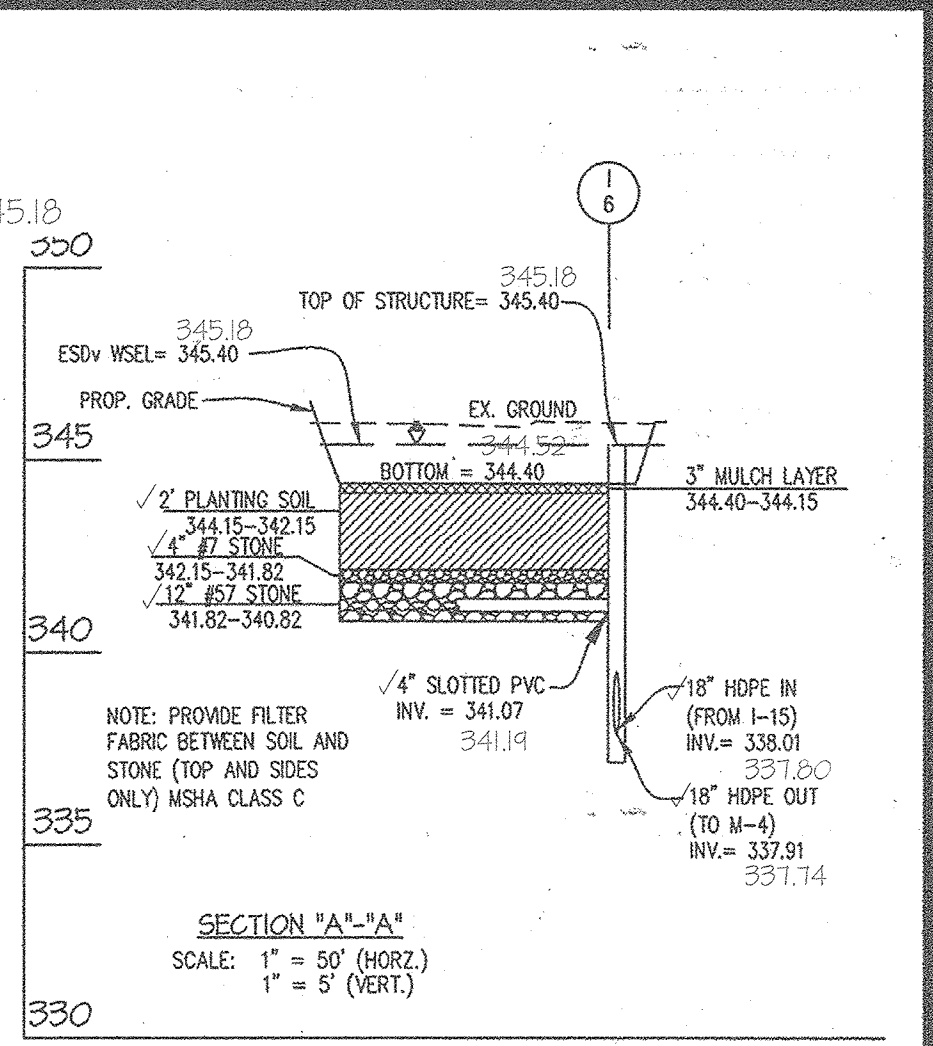
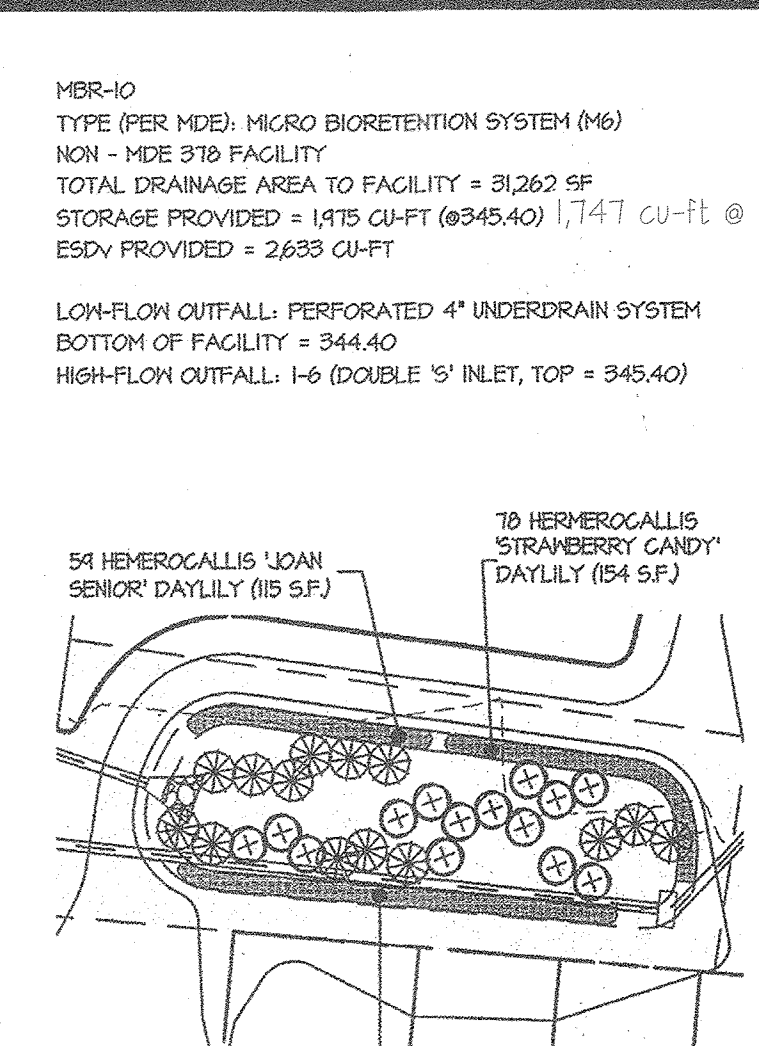
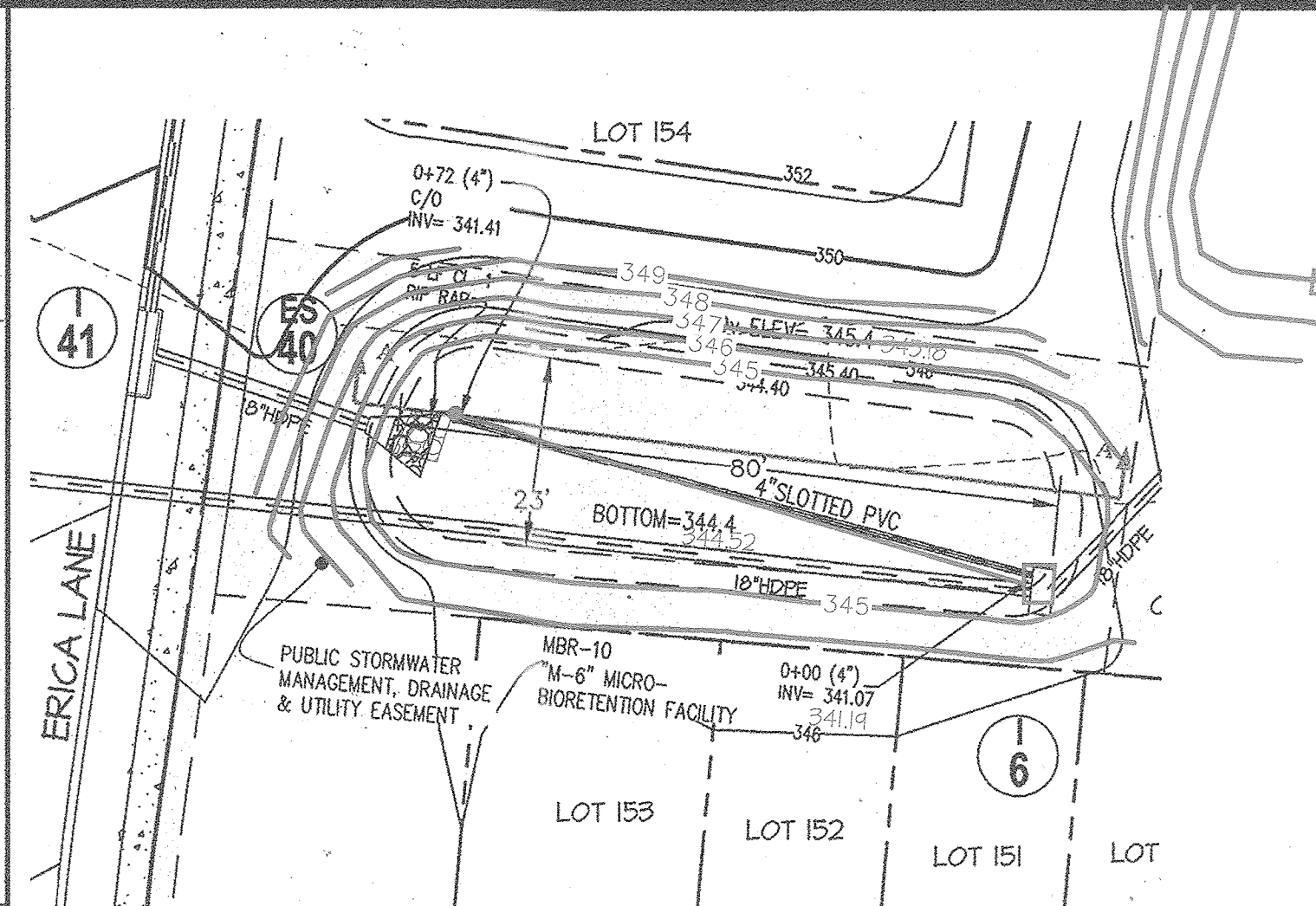
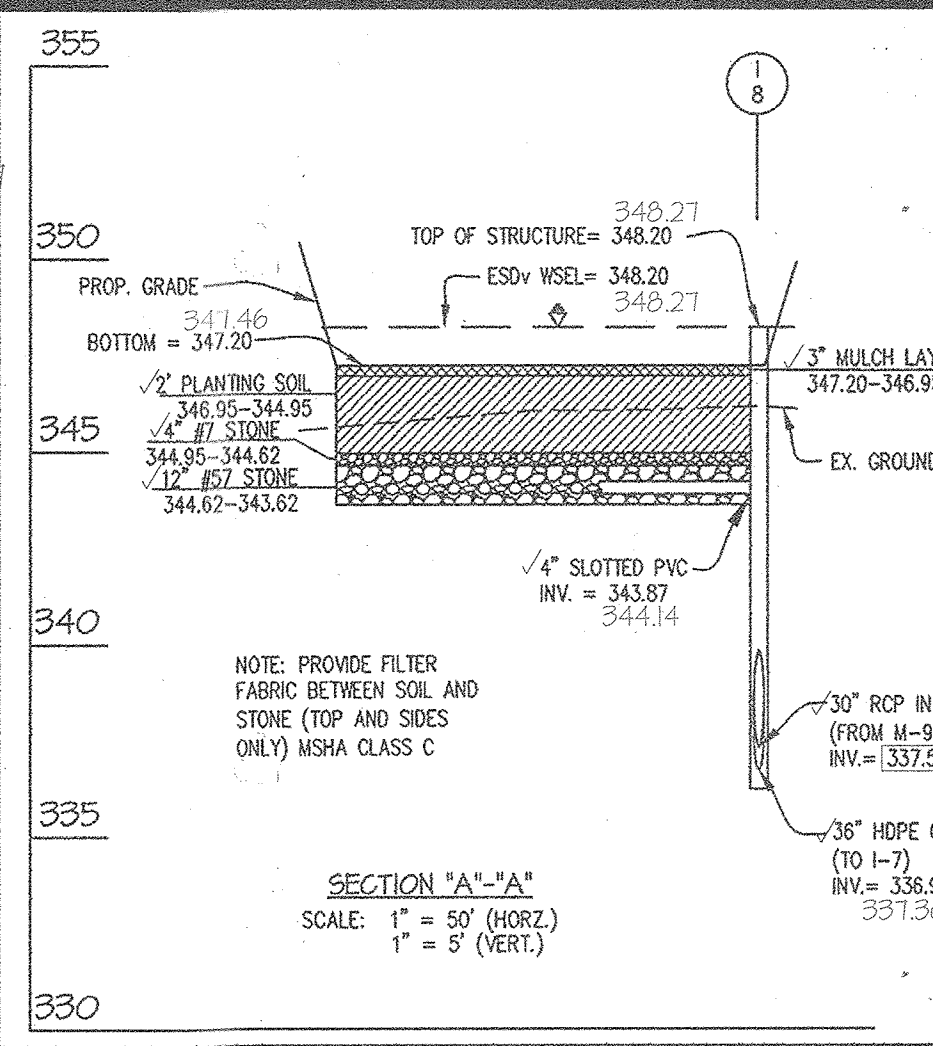
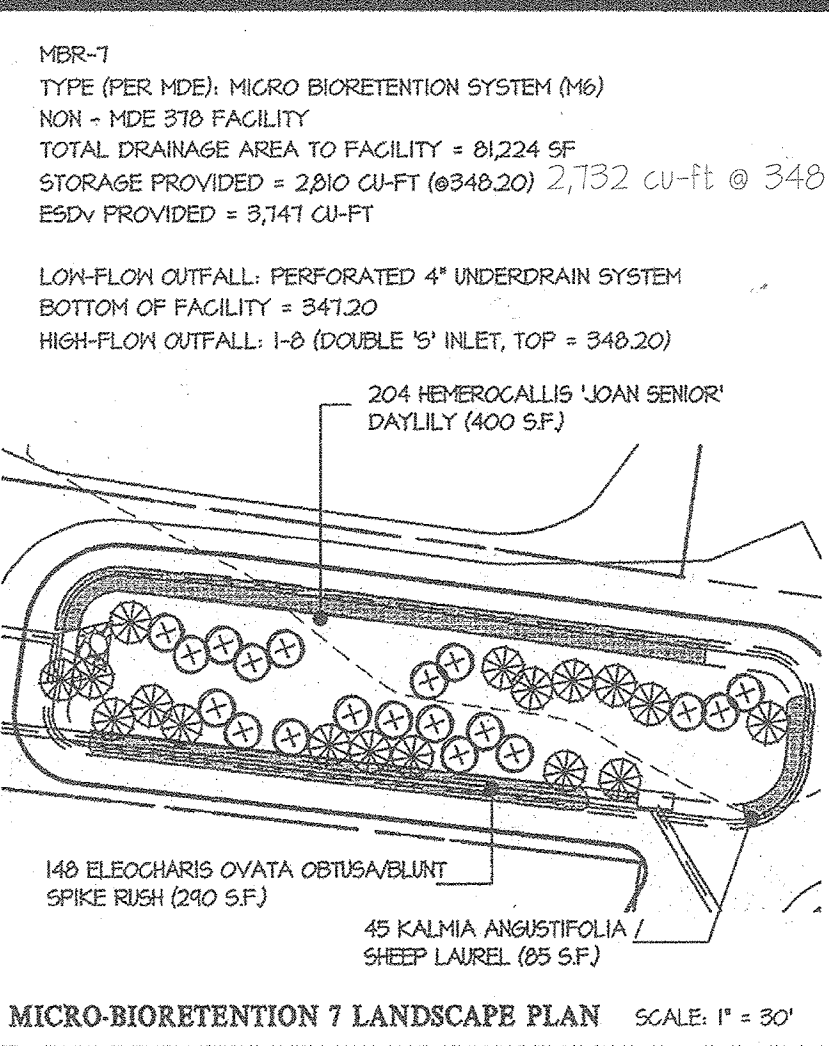
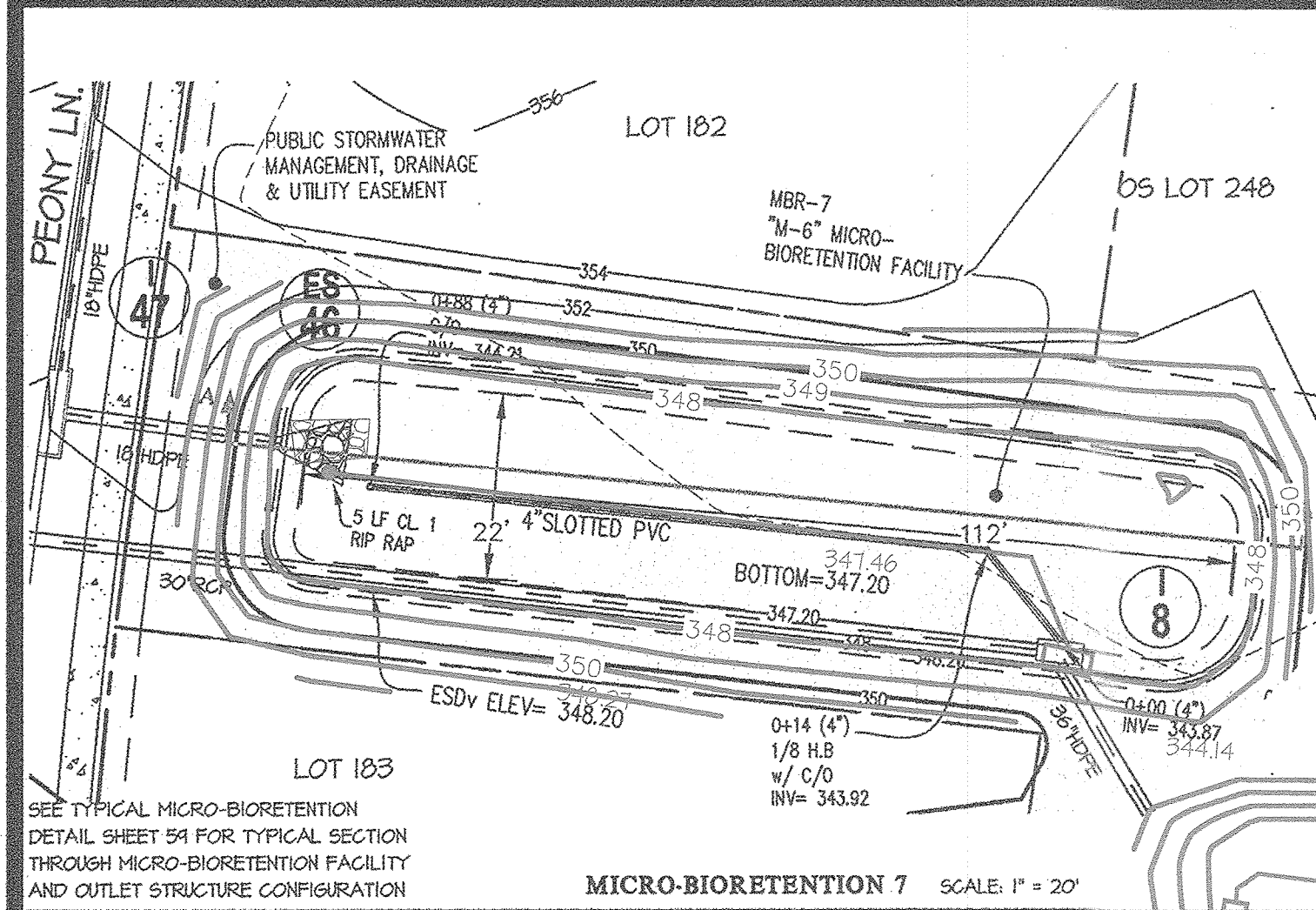
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12973, EXPIRATION DATE: MAY 26, 2016.

2/25/15
 [Signature]

REVISED STORMWATER MANAGEMENT DETAILS

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
 L 11388 P. 725 PARCEL 472
 ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 FEB., 2015	47-3	53 OF 71



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
Date: 3-16-2015

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
Date: 4-23-15

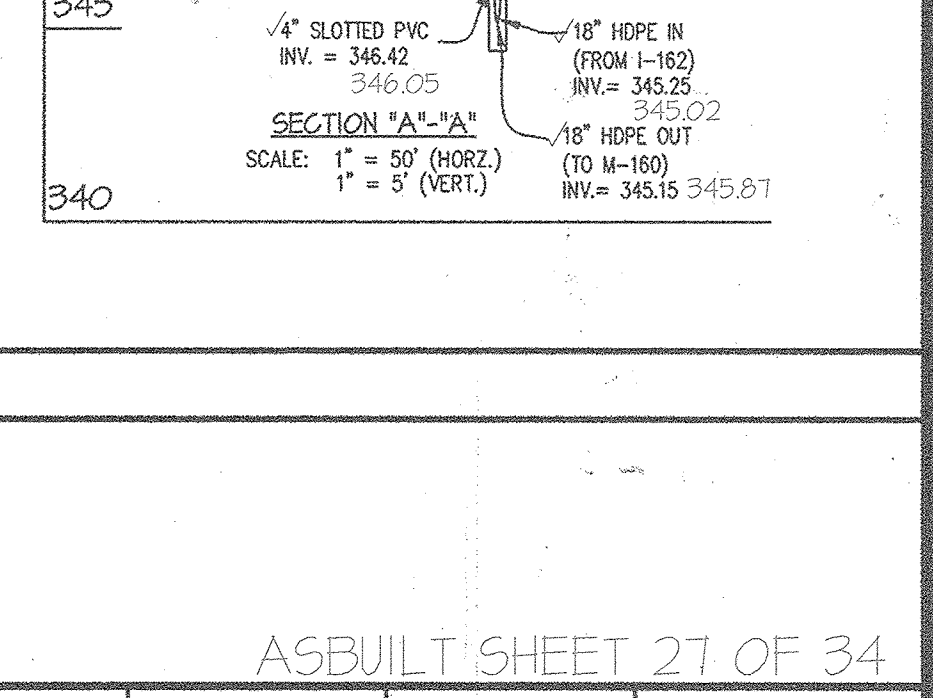
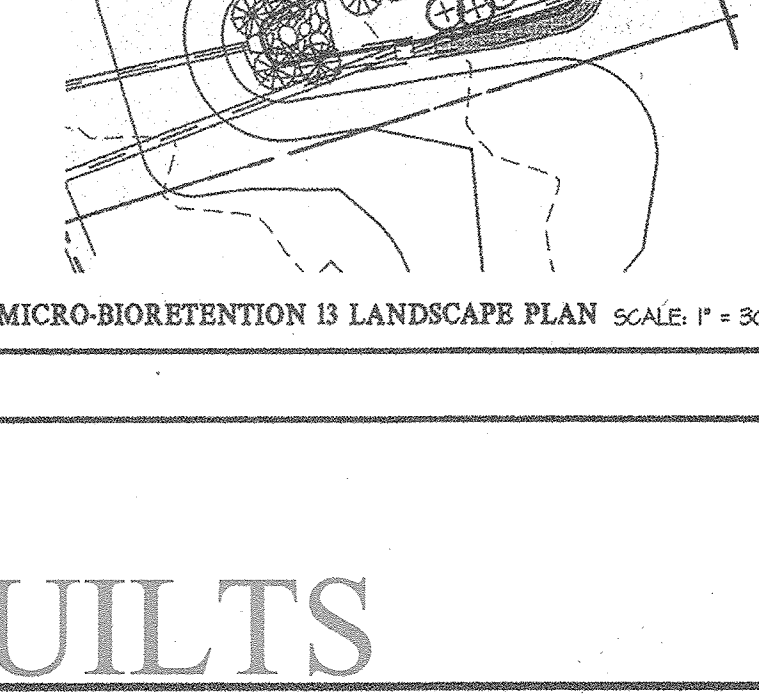
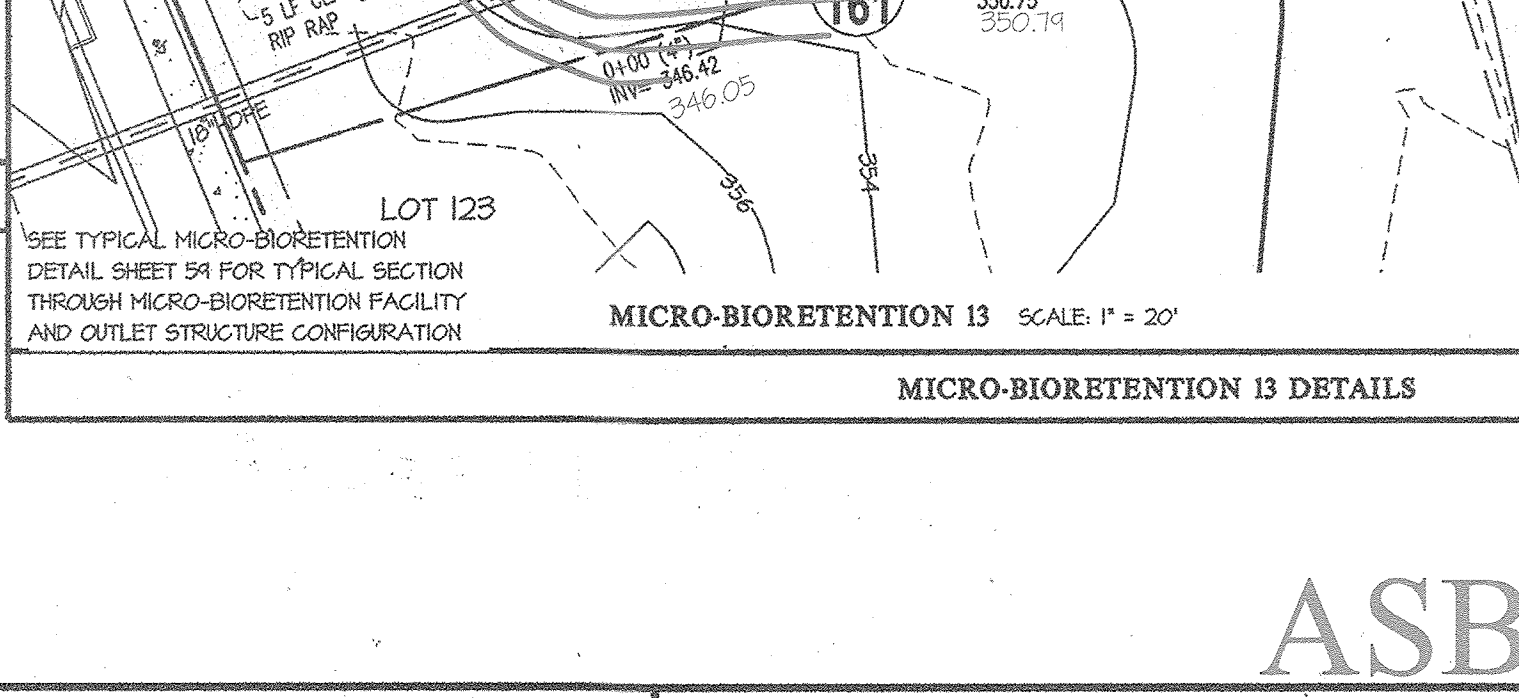
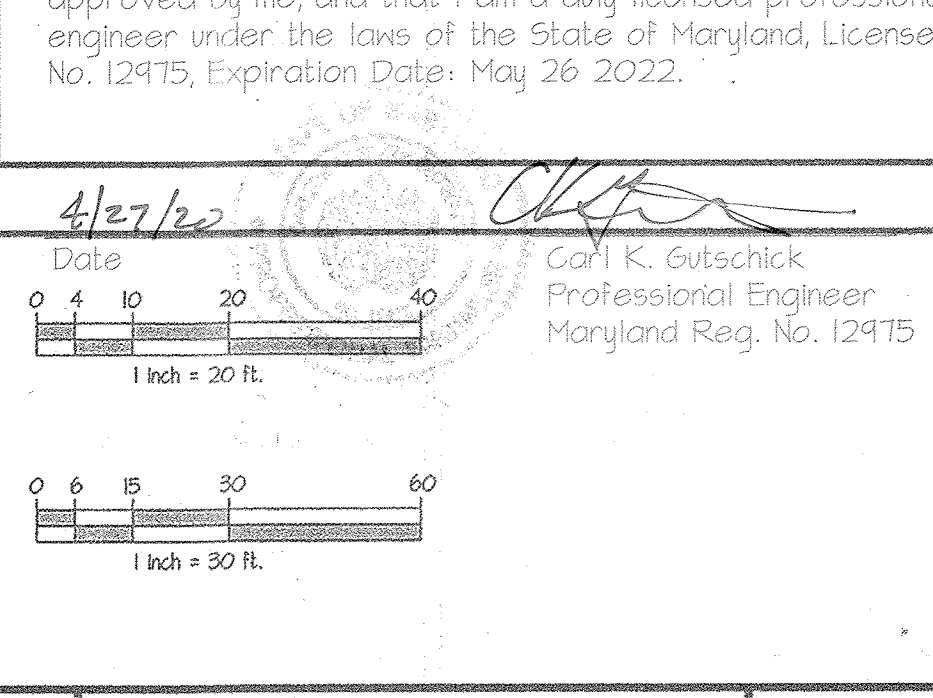
Chief, Development Engineering Division
Date: 4-22-15

S.D. PIPE SUMMARY TABLE
PRIVATELY OWNED AND MAINTAINED

SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
4	SLOTTED PVC	515	SCHEDULE 40

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. 12915, Expiration Date: May 26 2022.

4/27/20
Carl K. Gutschick
Professional Engineer
Maryland Reg. No. 12915



GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
02/2015	MICRO-BIOS 7, 8, 9, 10 & 12 REVISED		

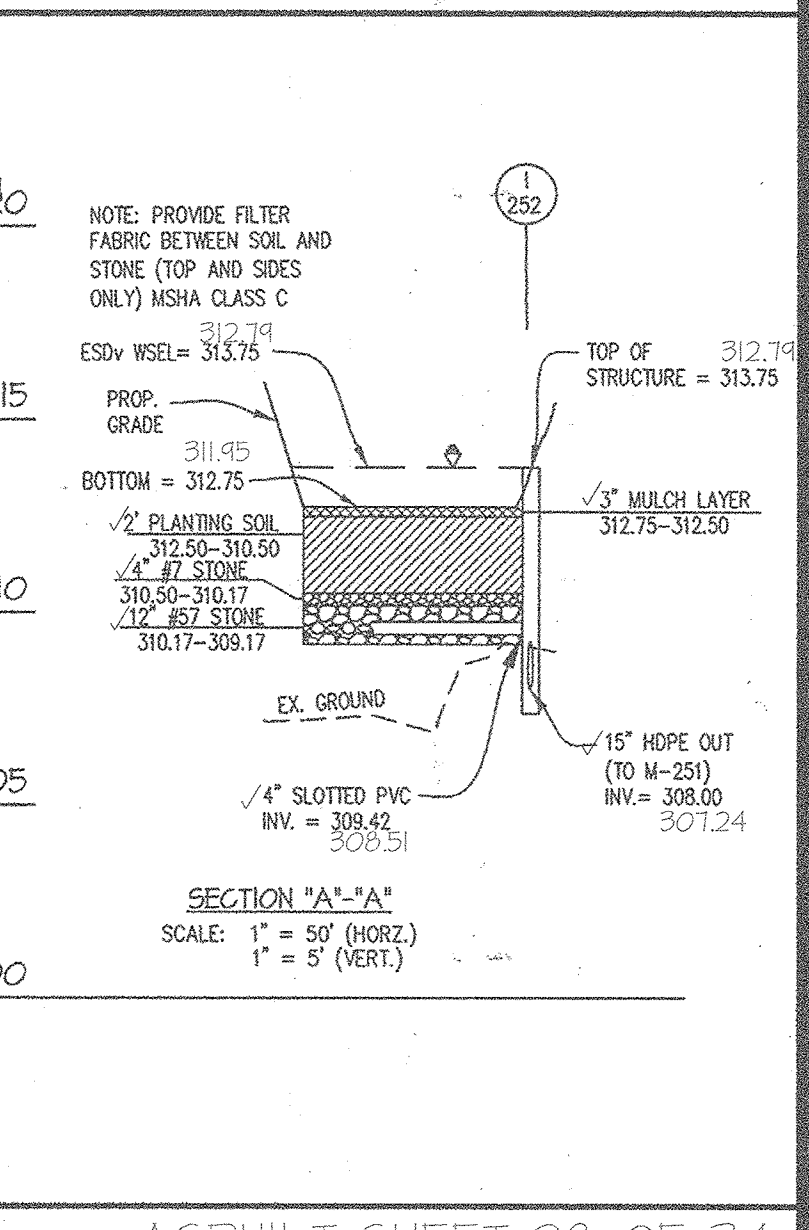
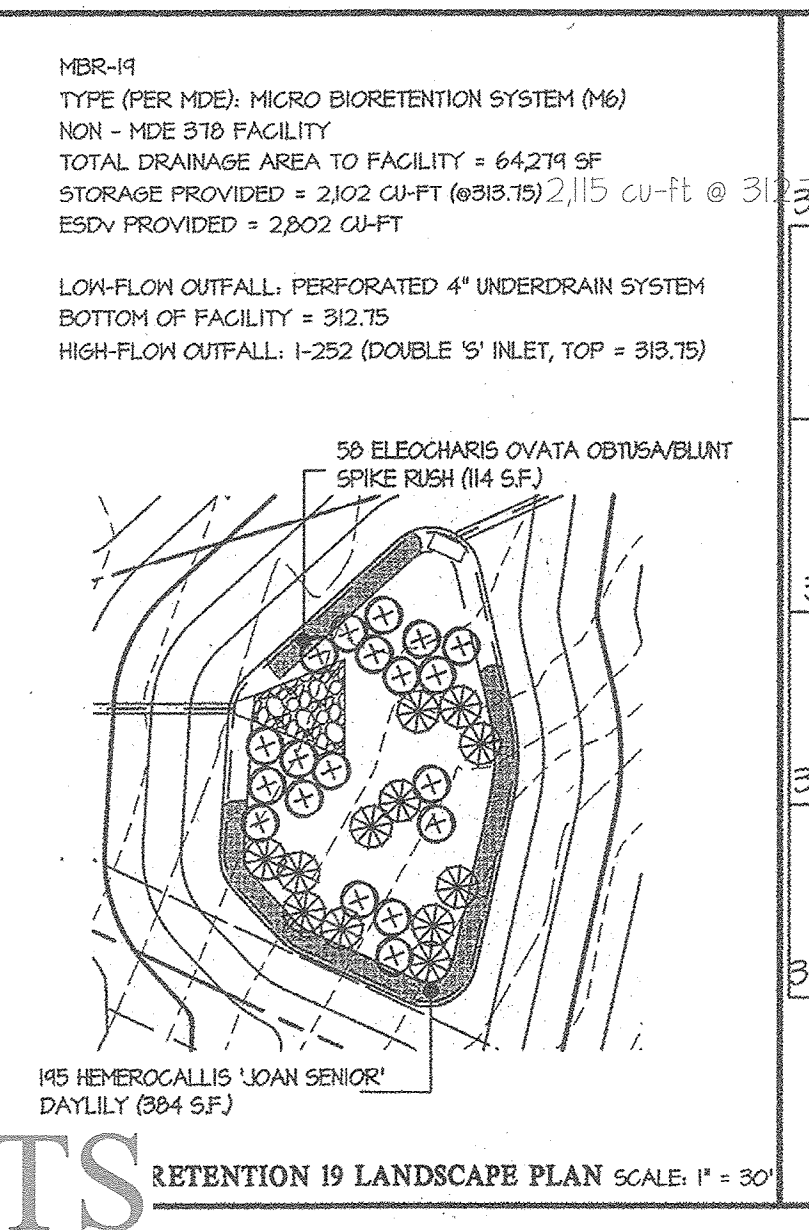
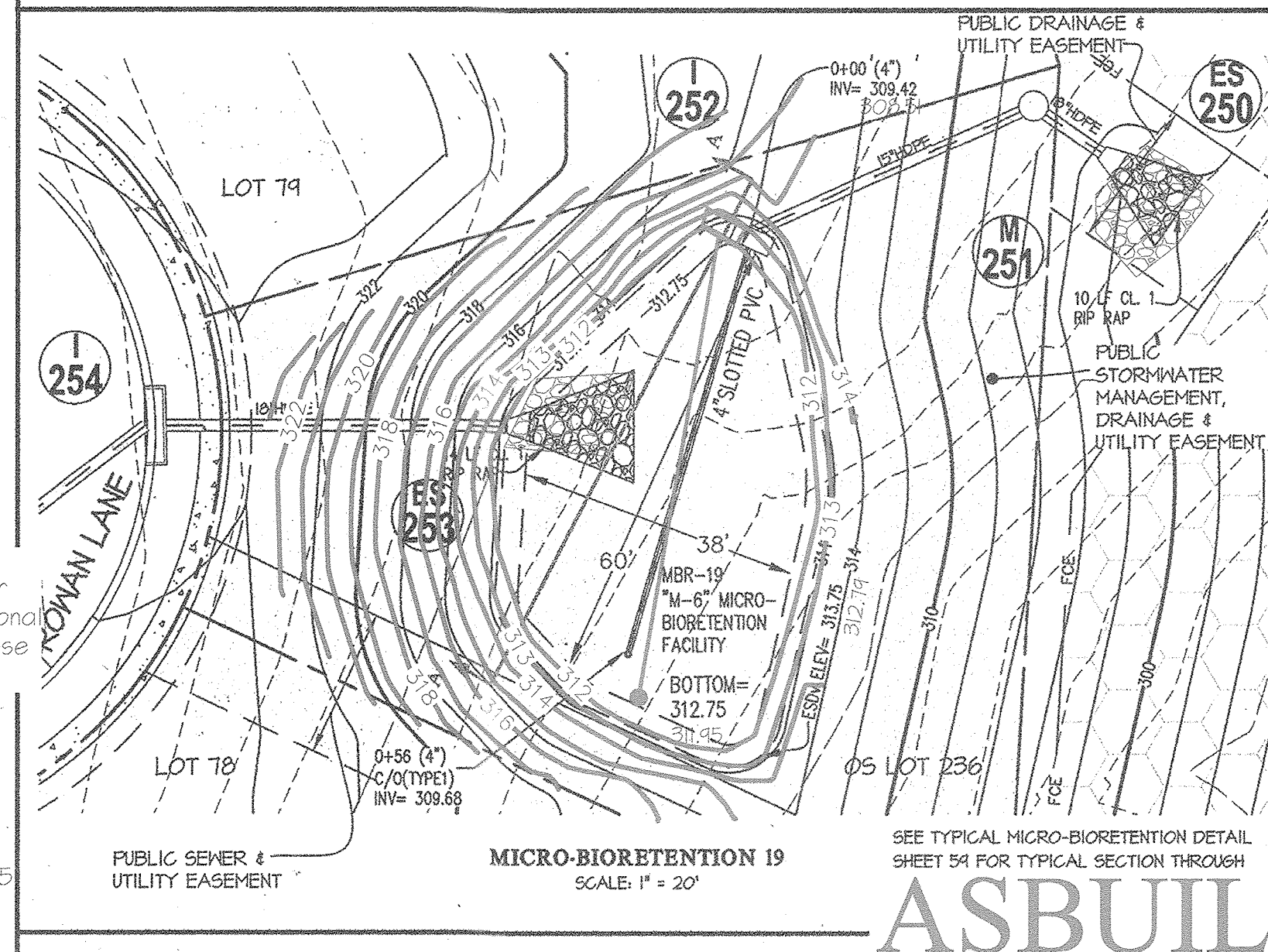
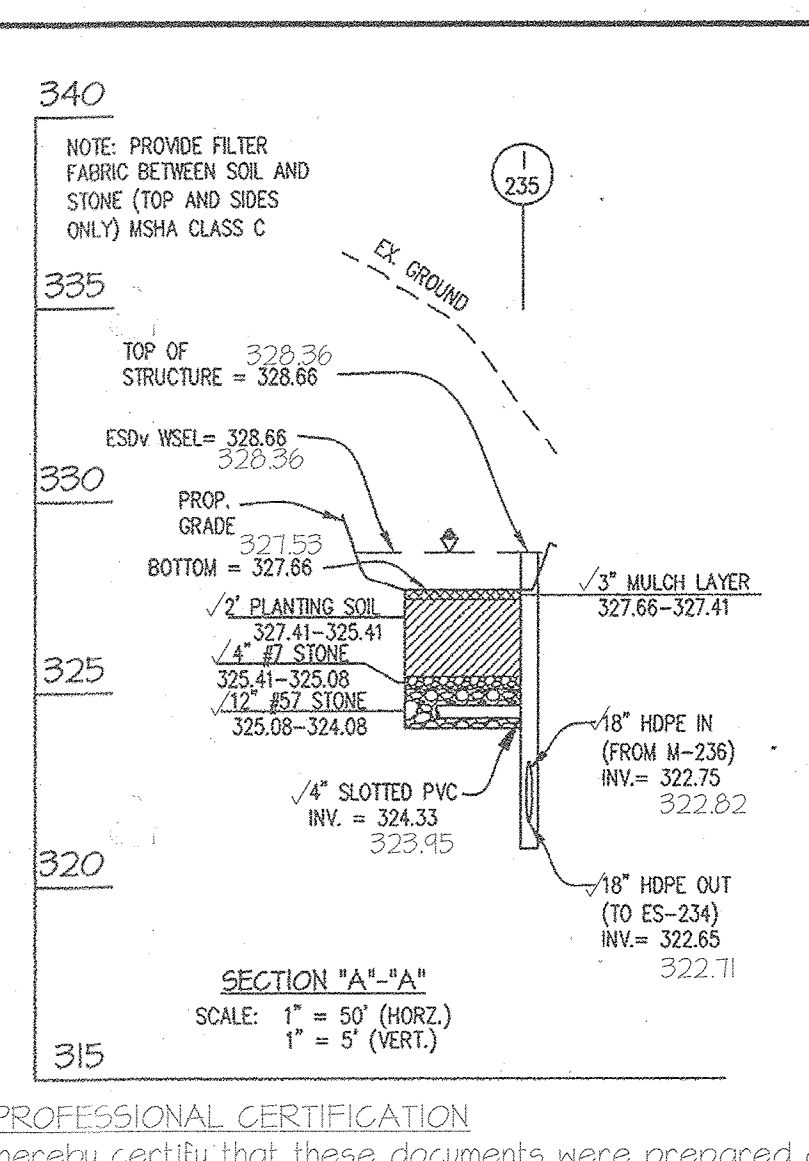
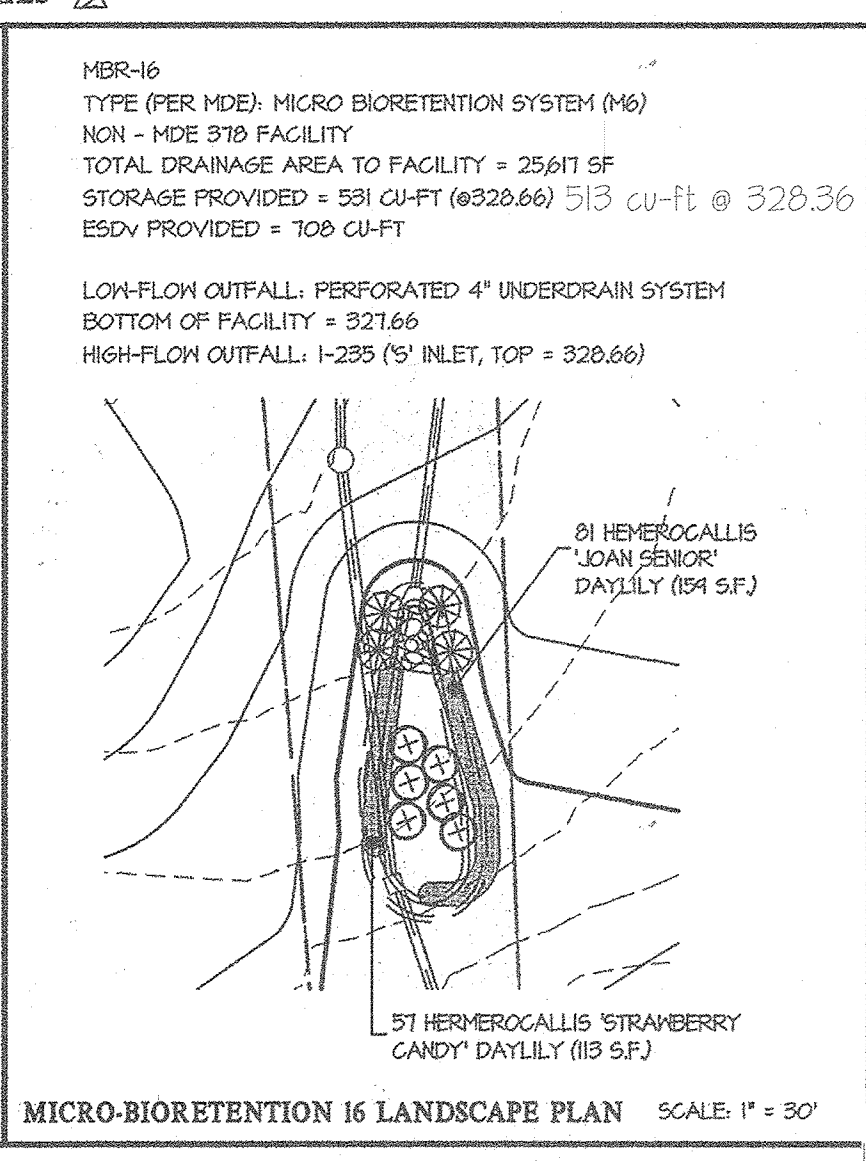
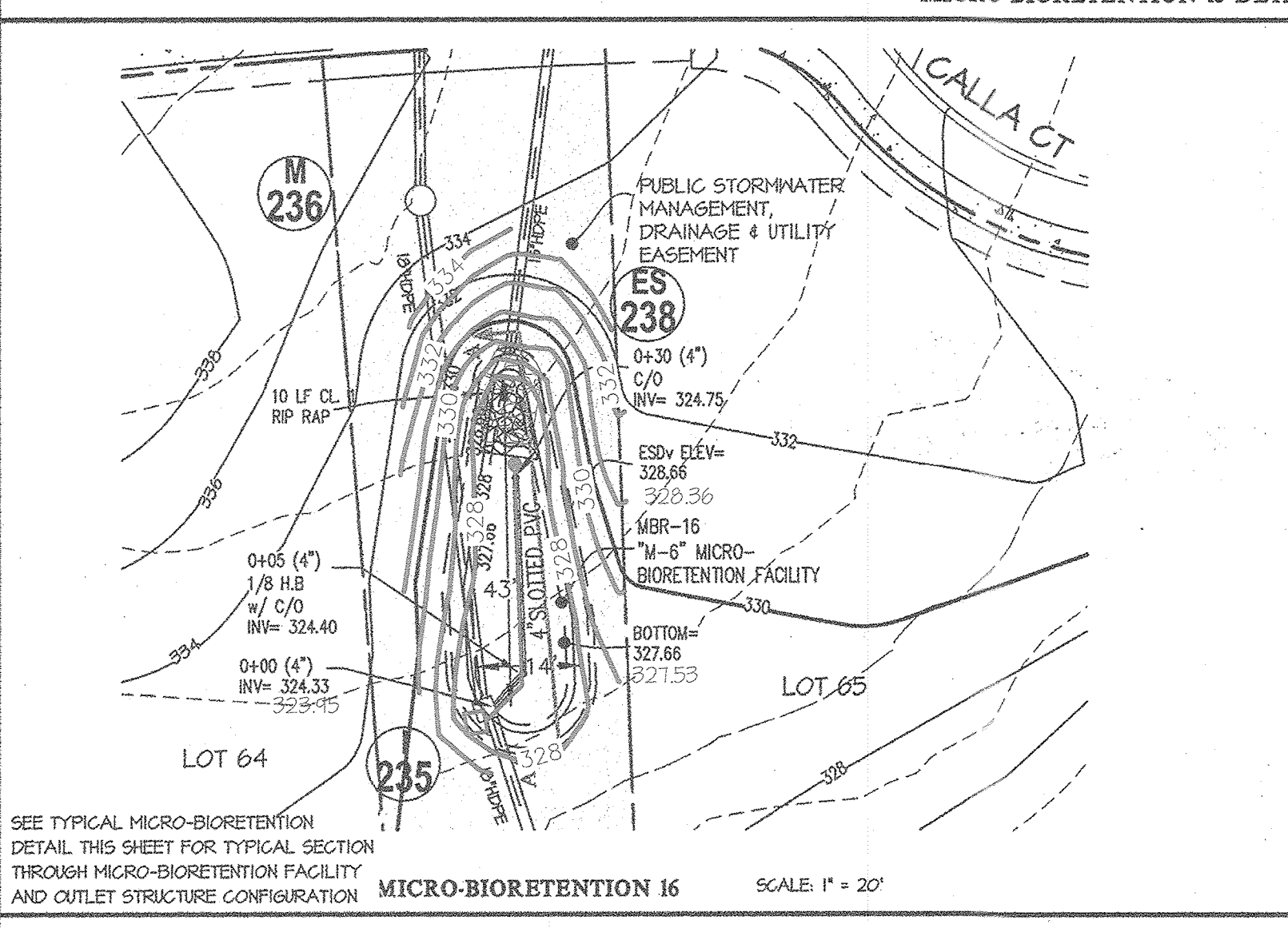
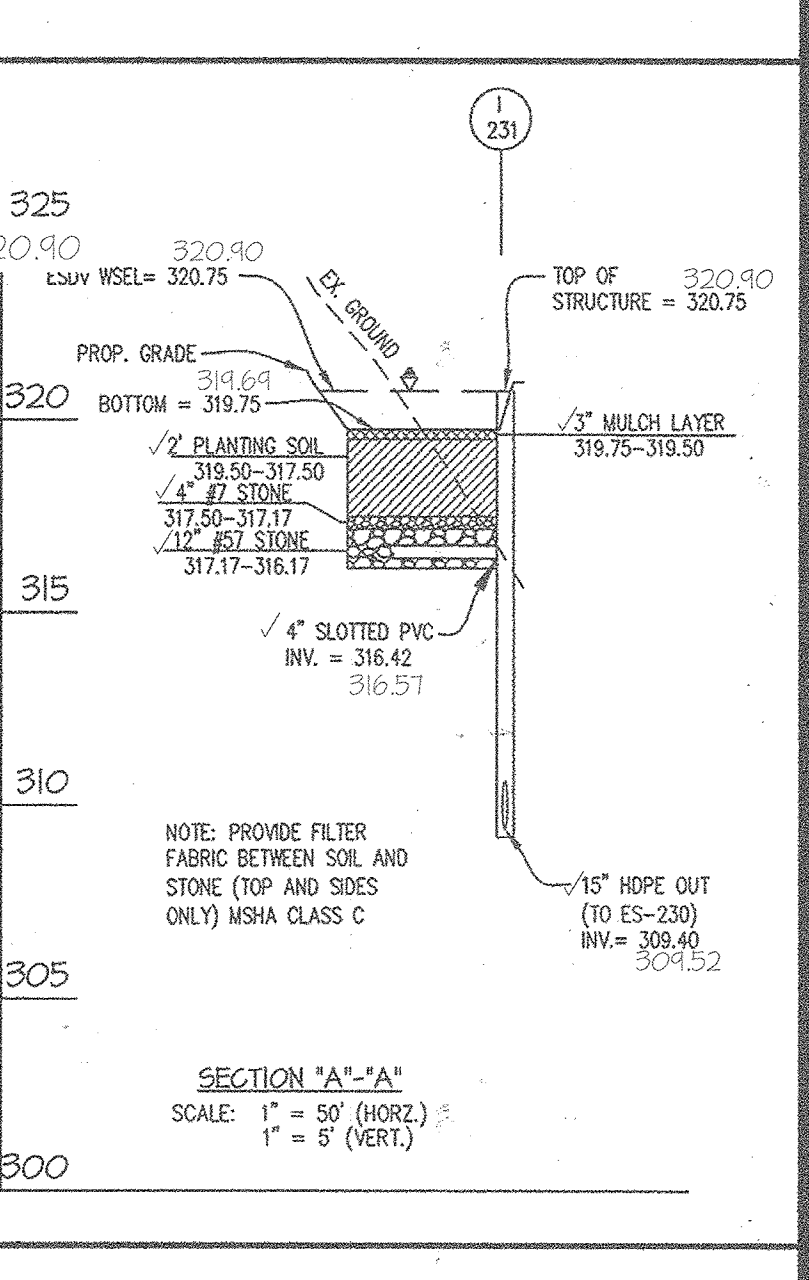
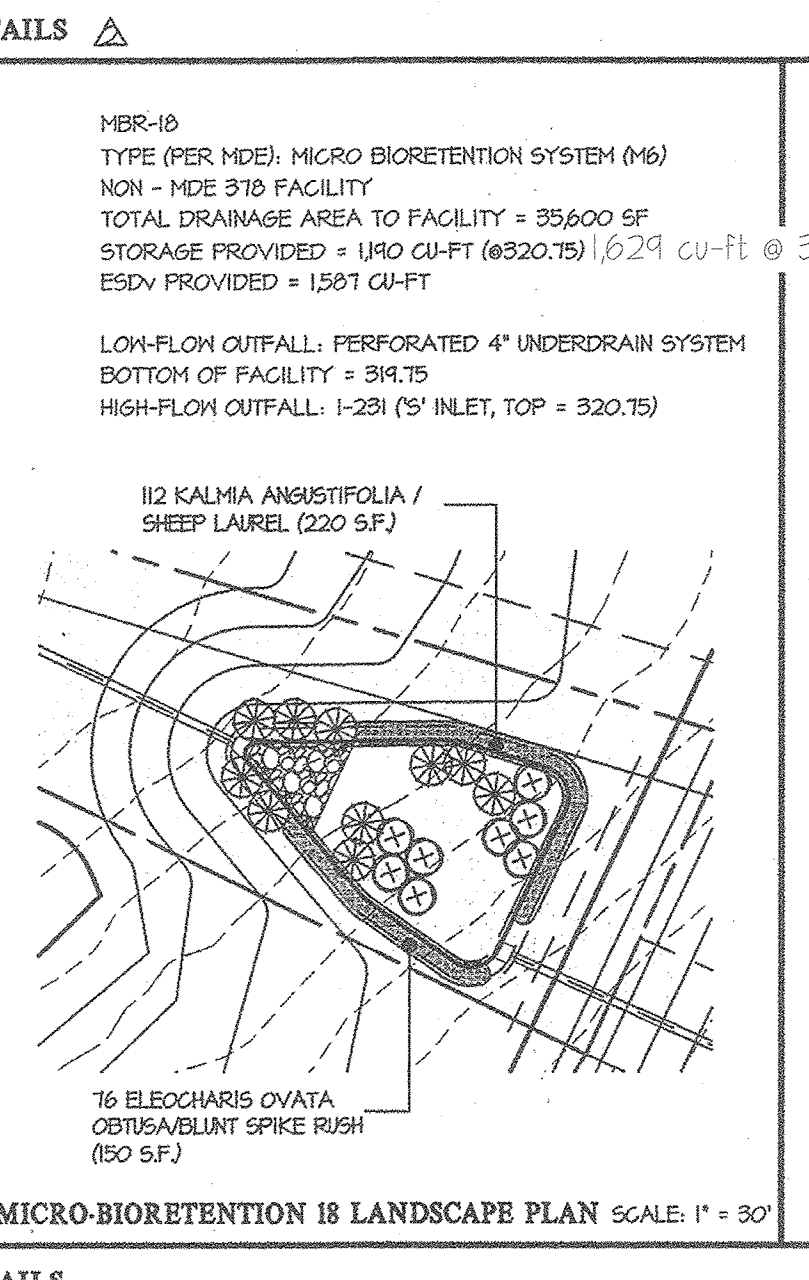
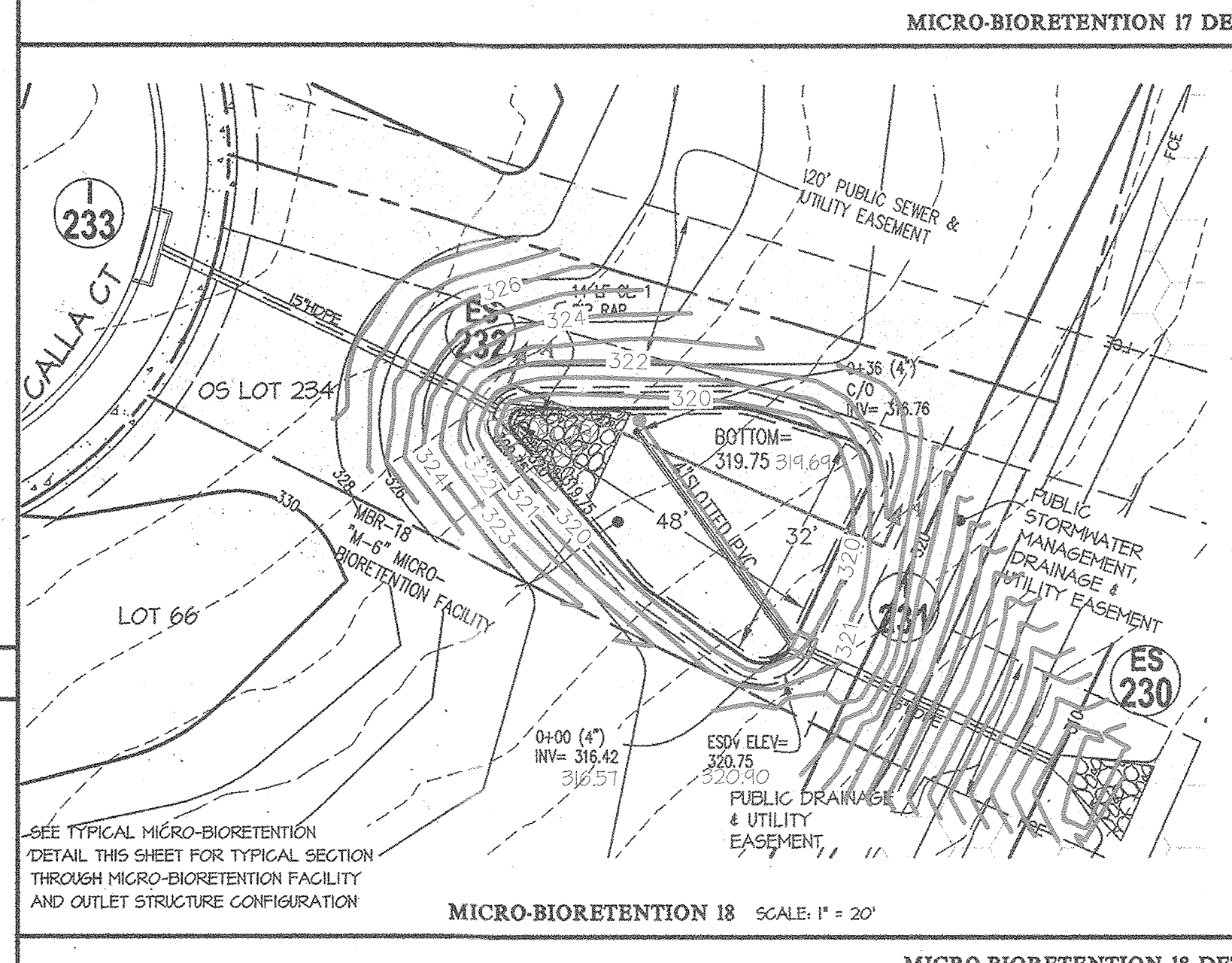
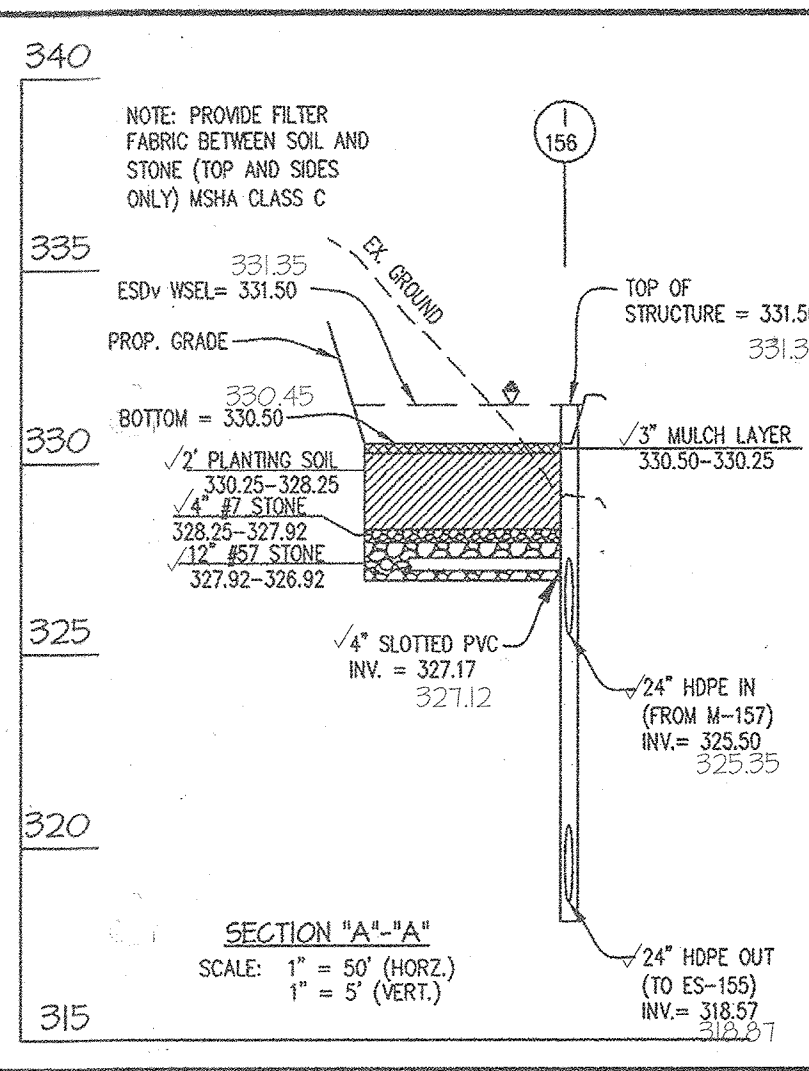
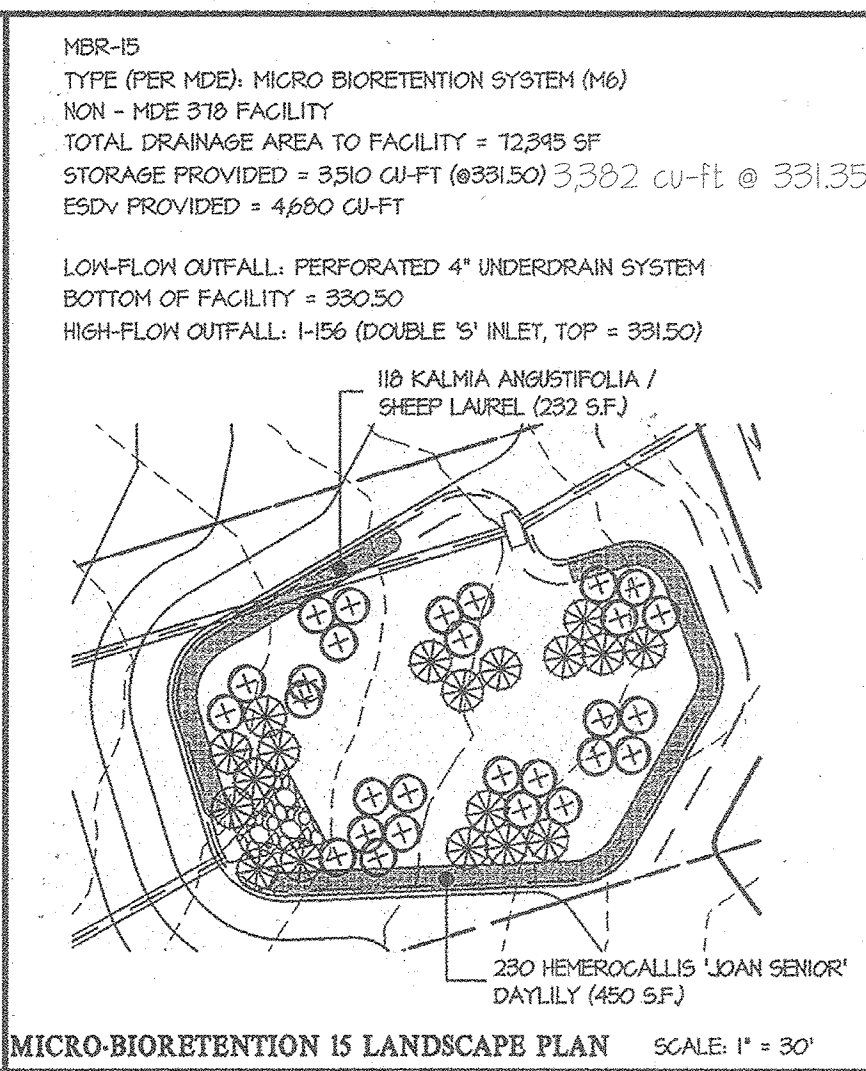
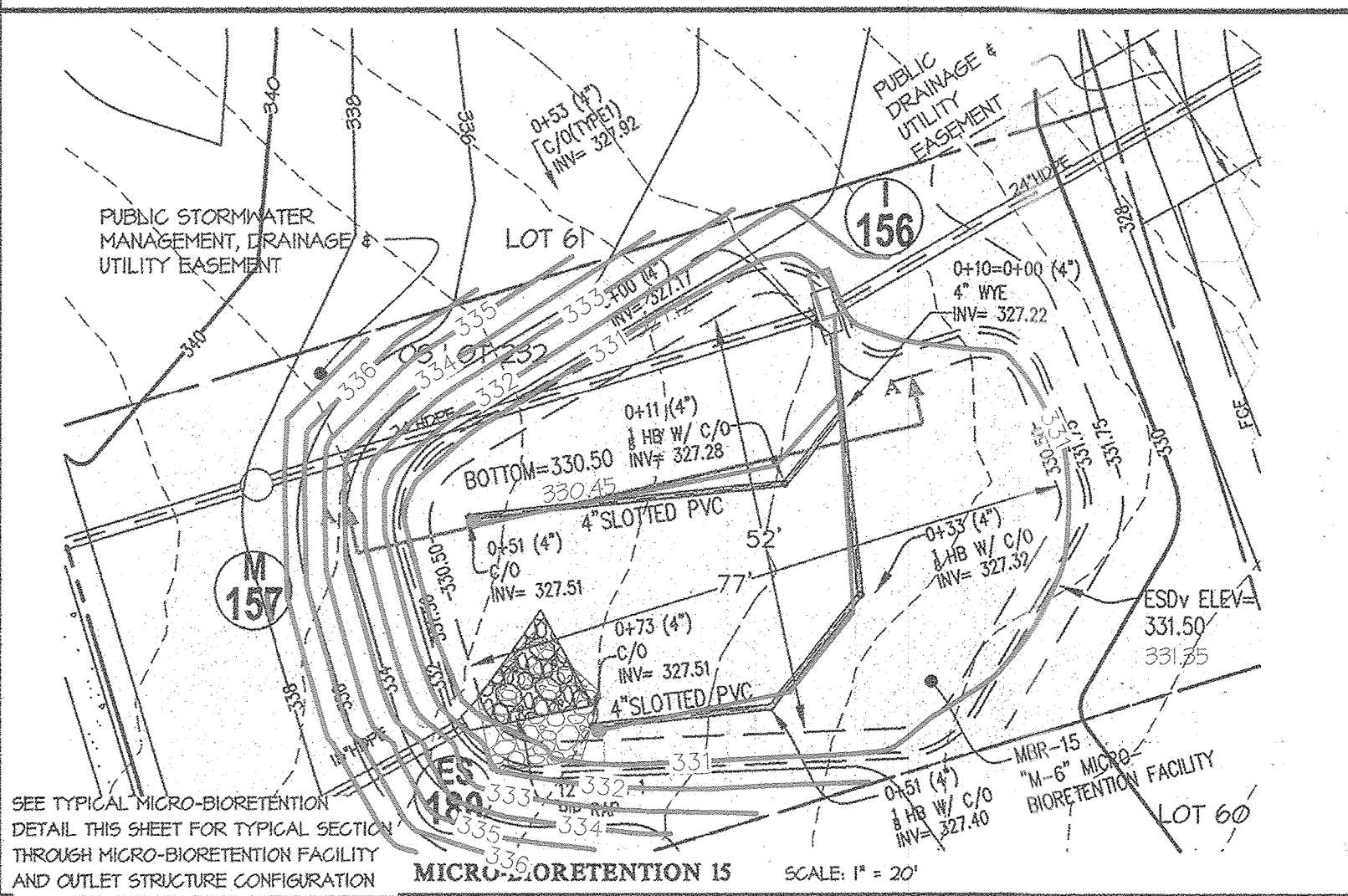
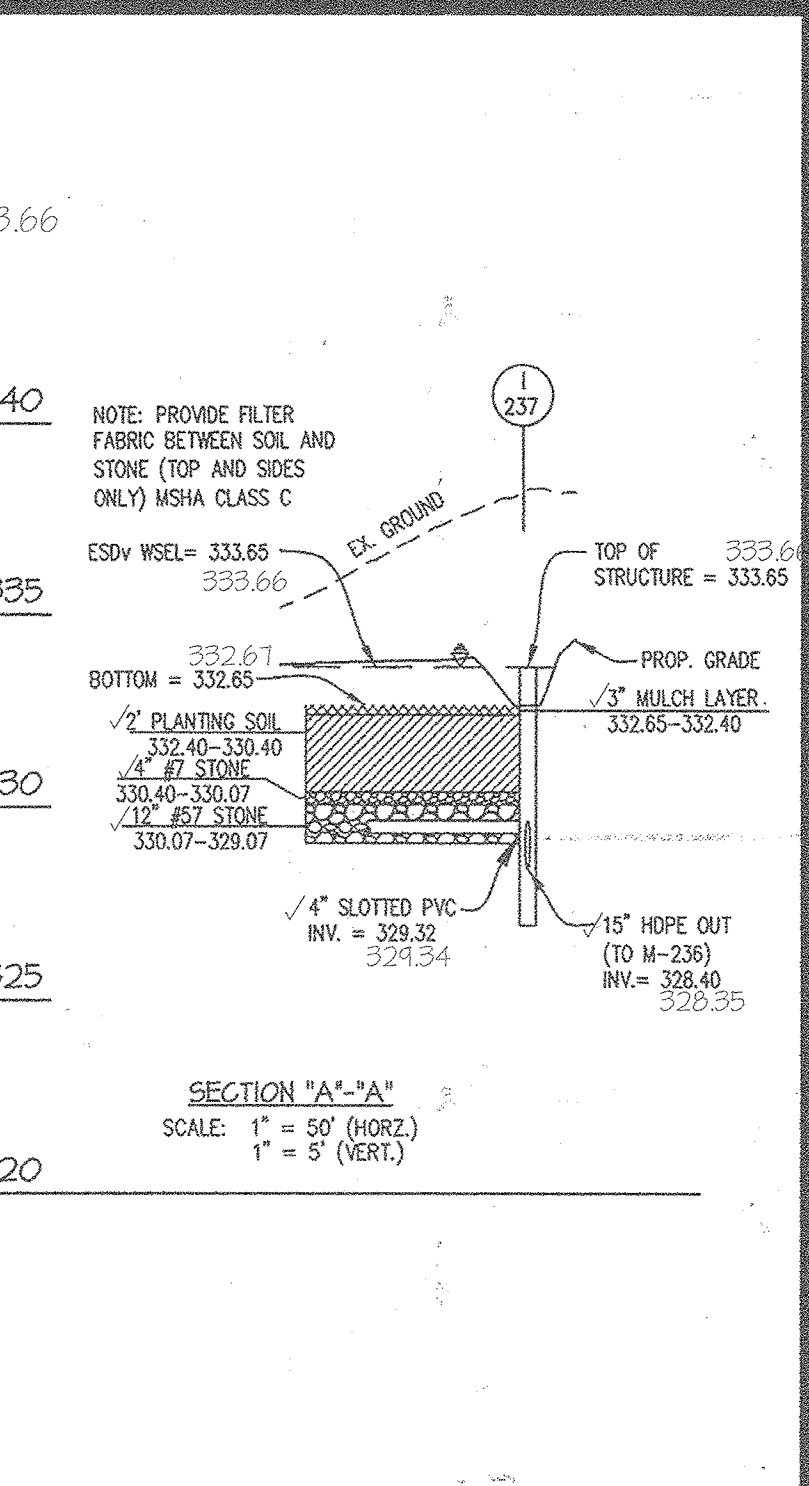
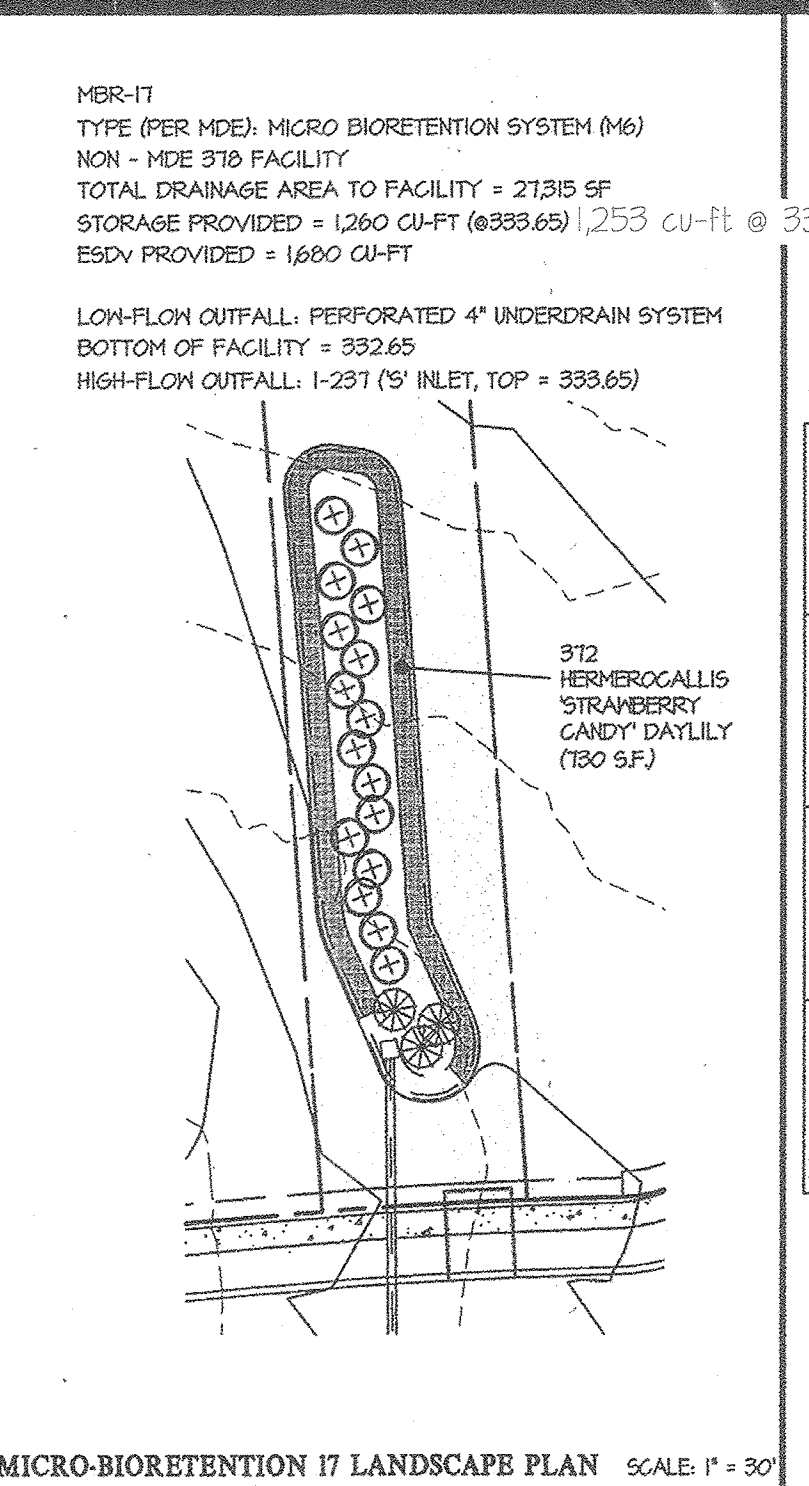
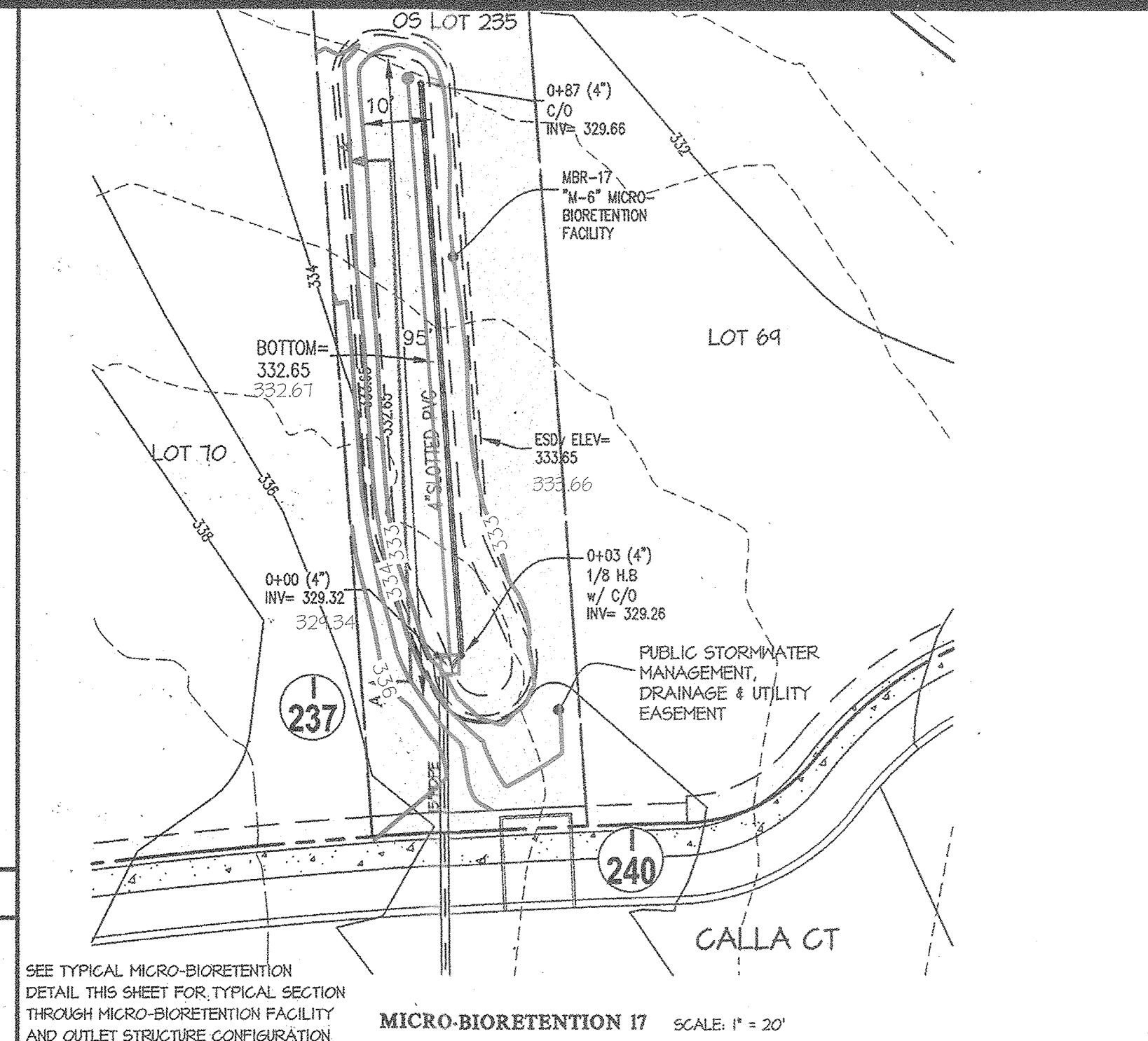
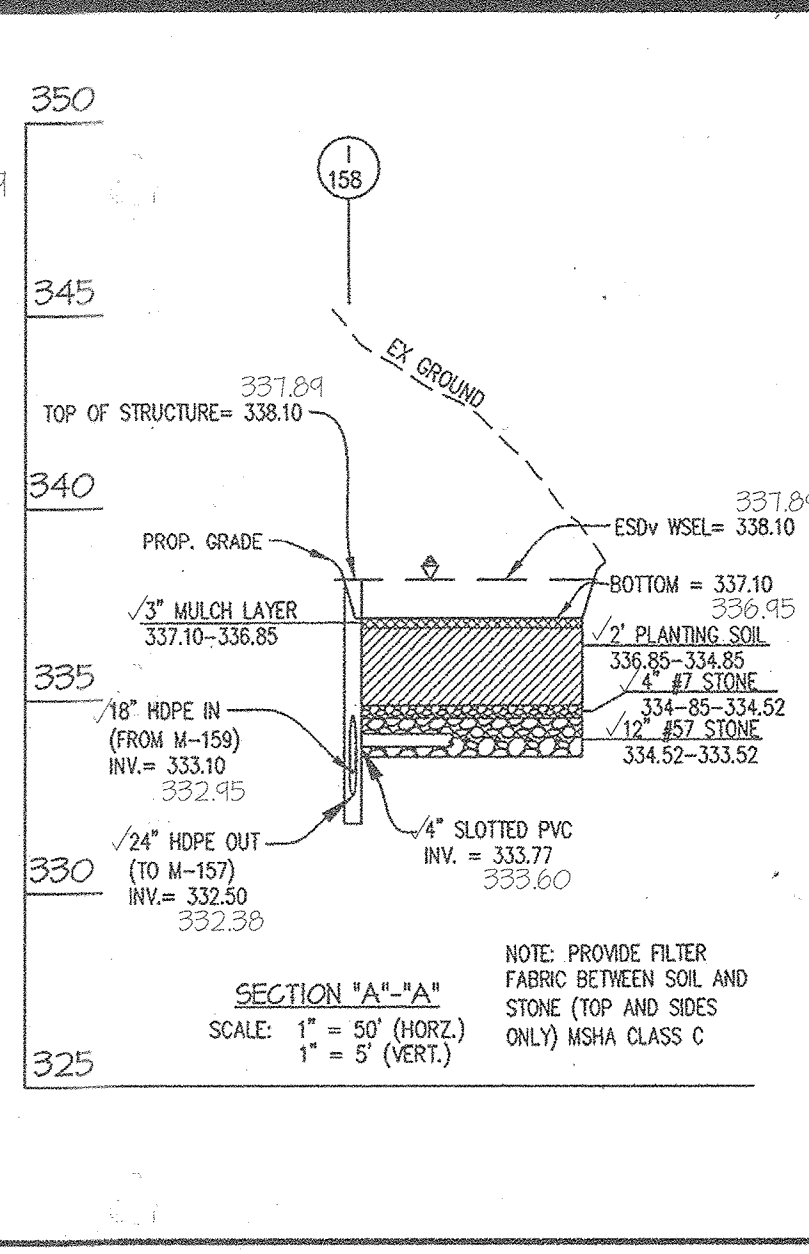
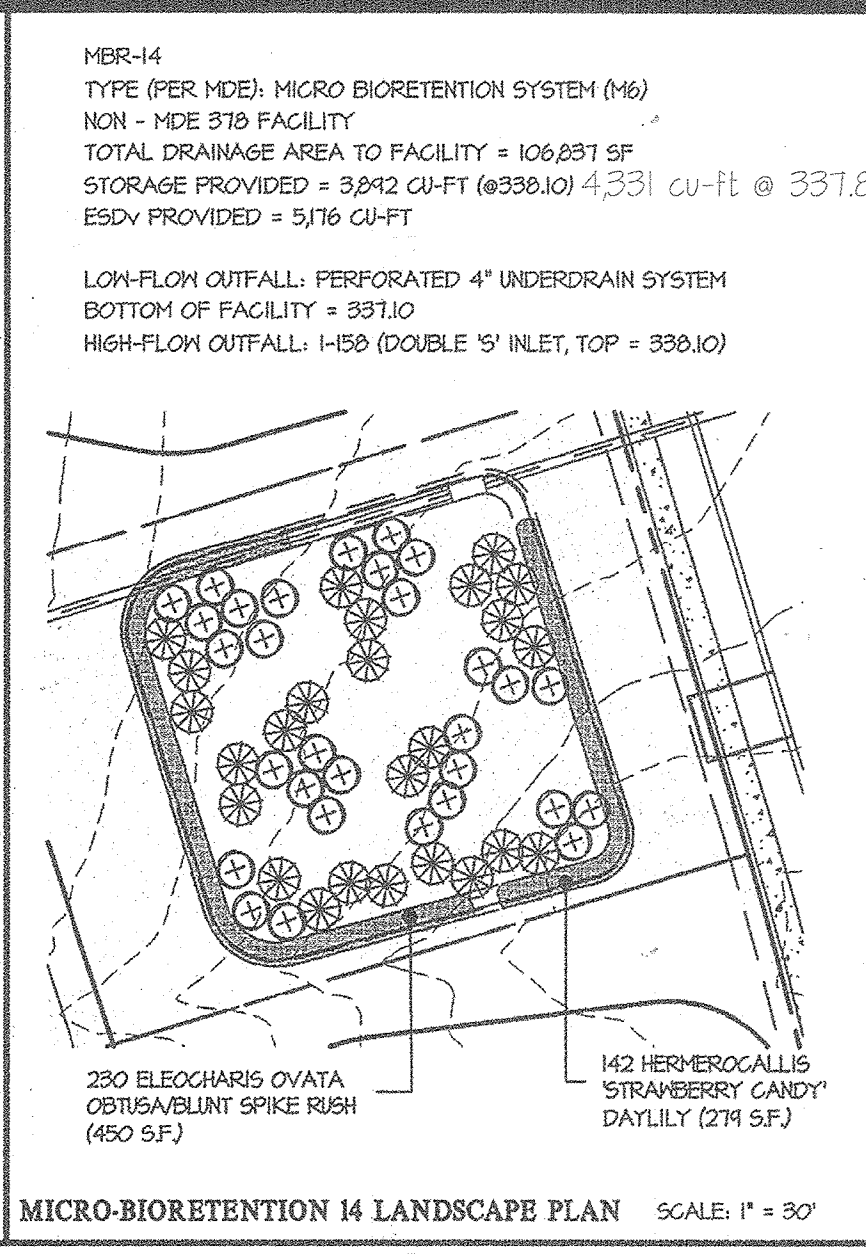
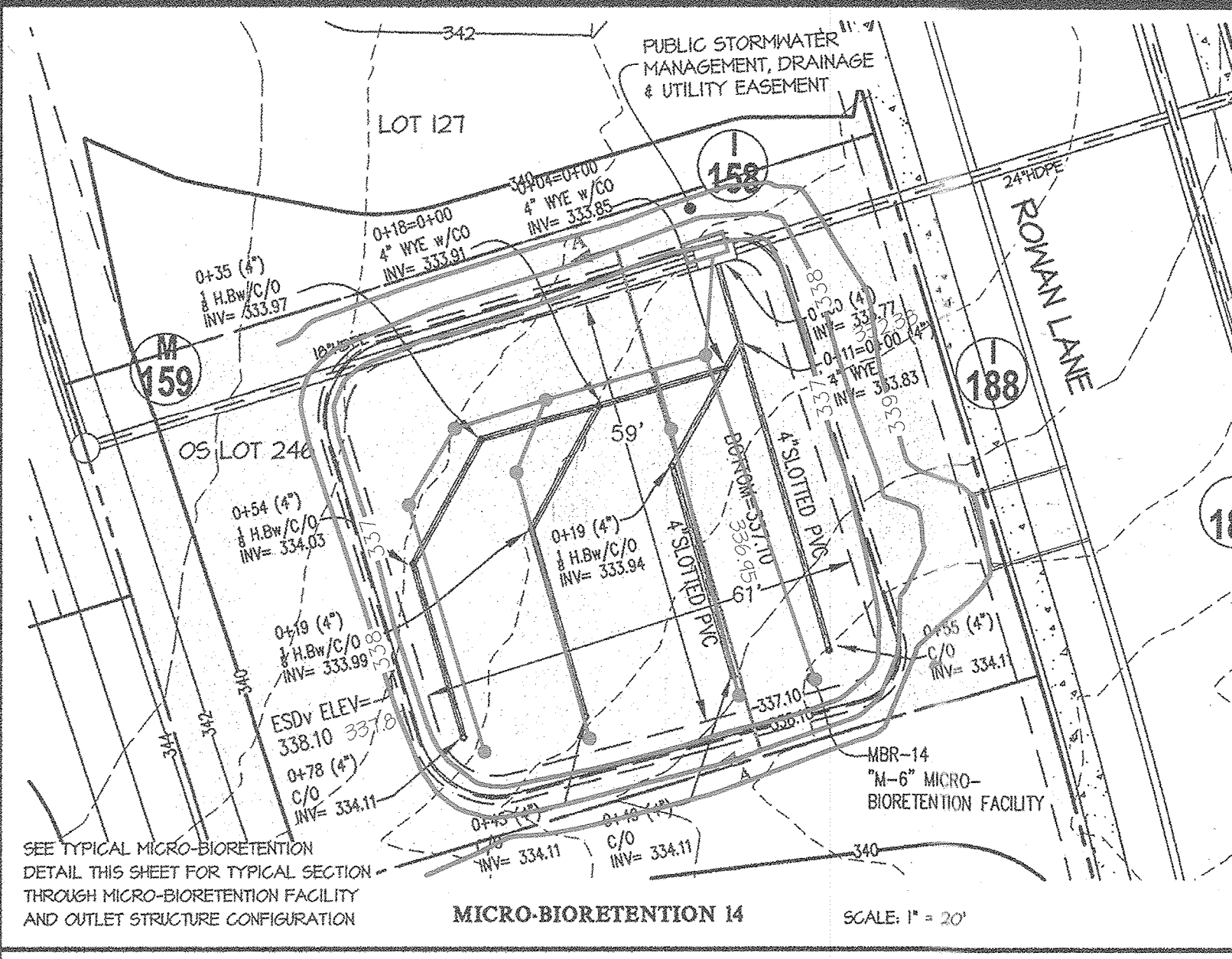
PREPARED FOR:
BEAZER HOMES CORP.
8965 CUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12975, EXPIRATION DATE: MAY 26 2016

ASBUILTS
REVISED STORMWATER MANAGEMENT DETAILS
WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
L 11388 F. 725
PARCEL 472
ELECTION DISTRICT No. 6
HOWARD COUNTY, MARYLAND

ASBUILT SHEET 27 OF 34

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 FEB. 2015	47-3	54 OF 71



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 3/16/2015
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 4/23/15
 Date

Chief, Development Engineering Division
 4/23/15
 Date

SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
4	SLOTTED PVC	560	SCHEDULE 40

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. 124715, EXPIRATION DATE: MAY 26, 2022.

4/27/20
 Date
 1 inch = 20 ft.
 1 inch = 30 ft.

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 200 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20868
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186

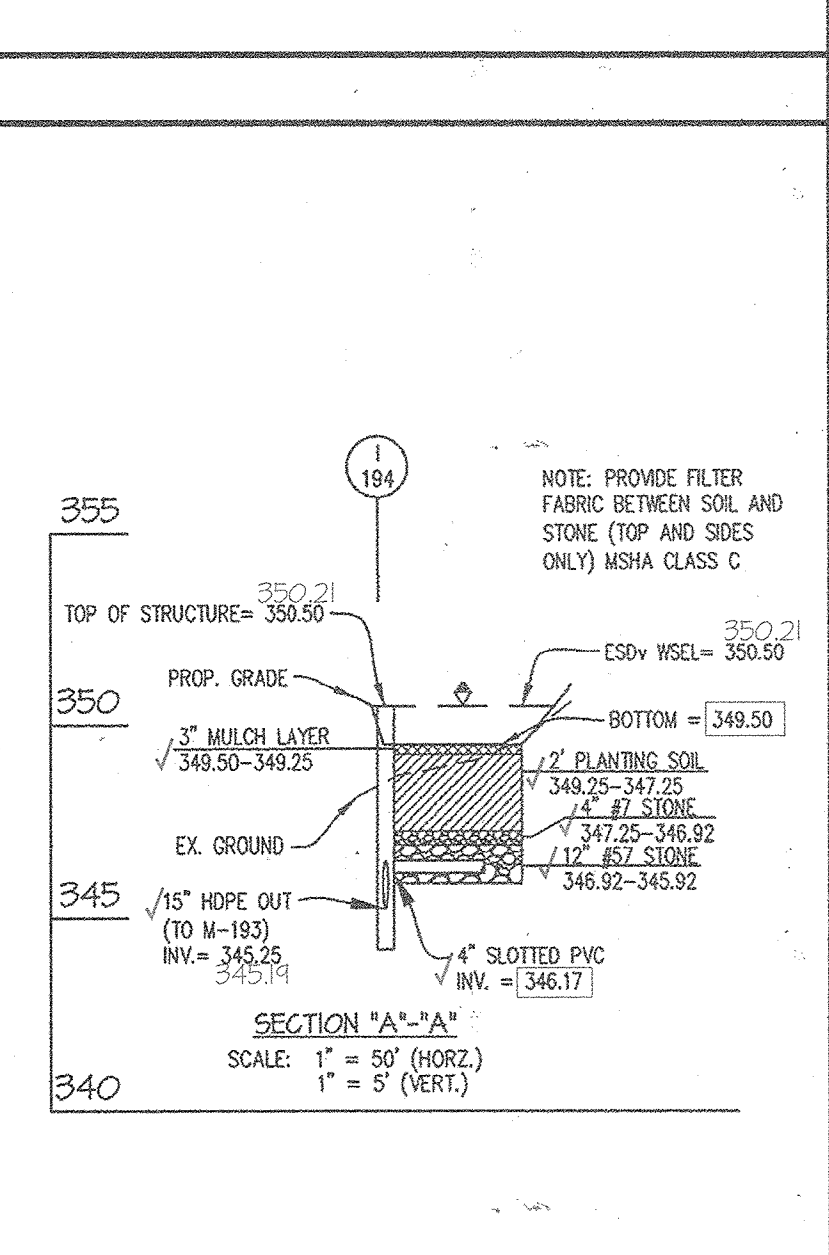
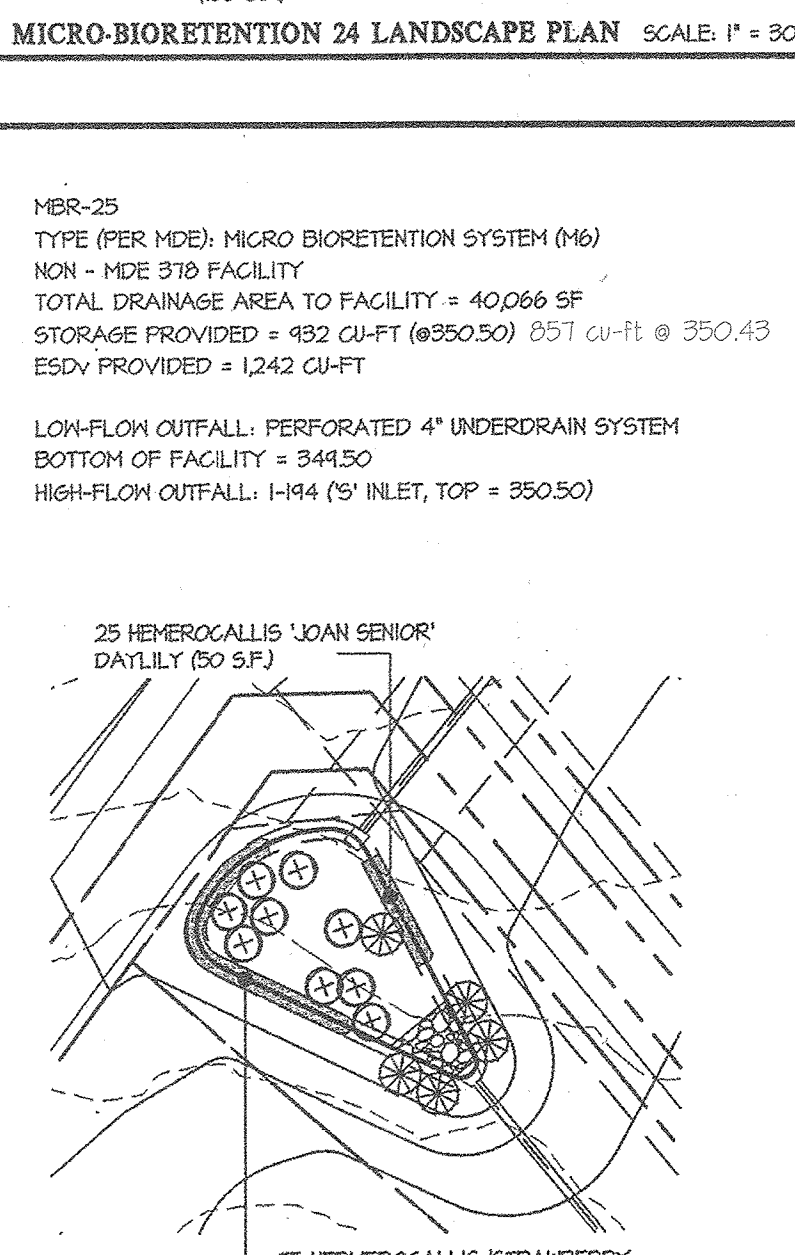
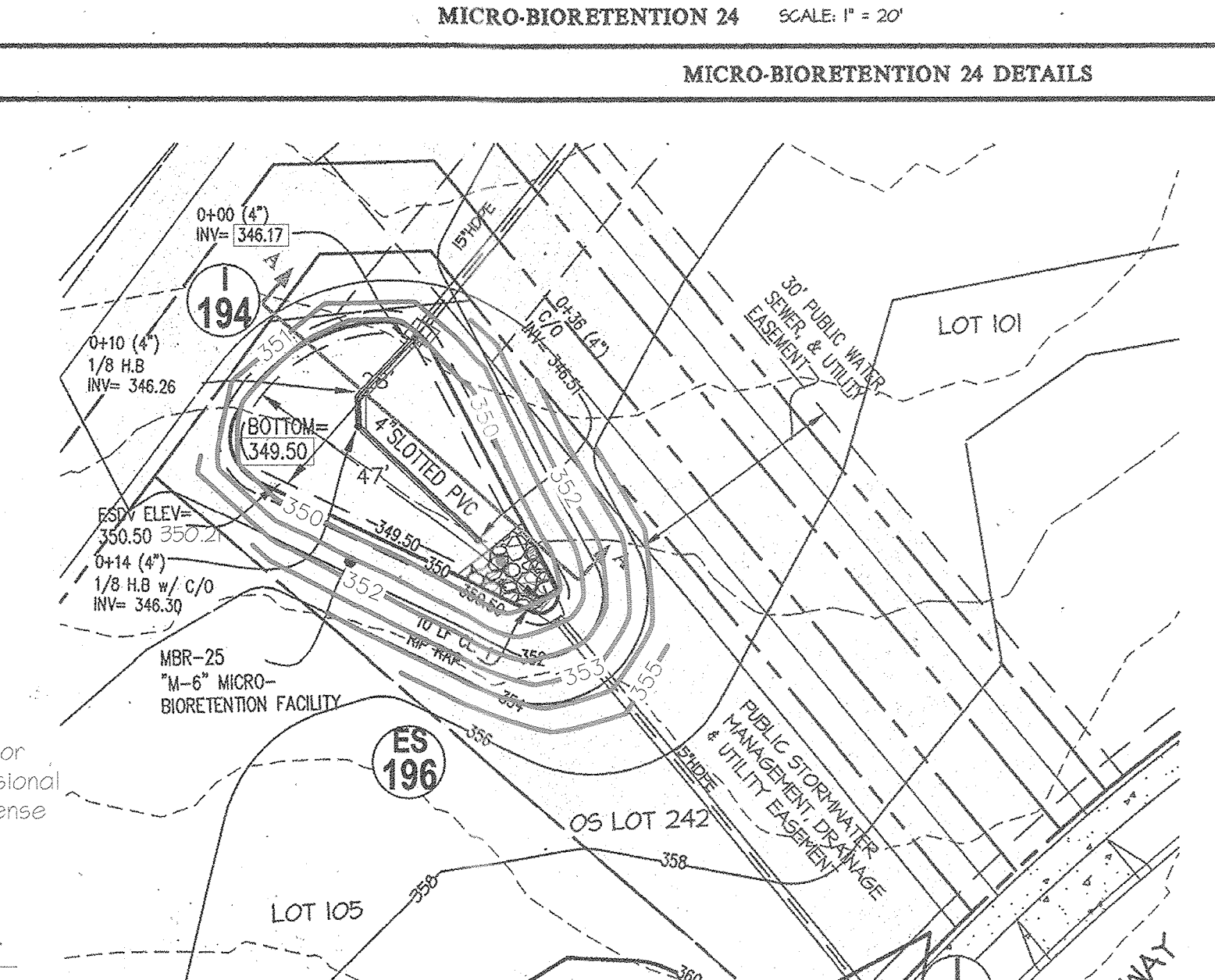
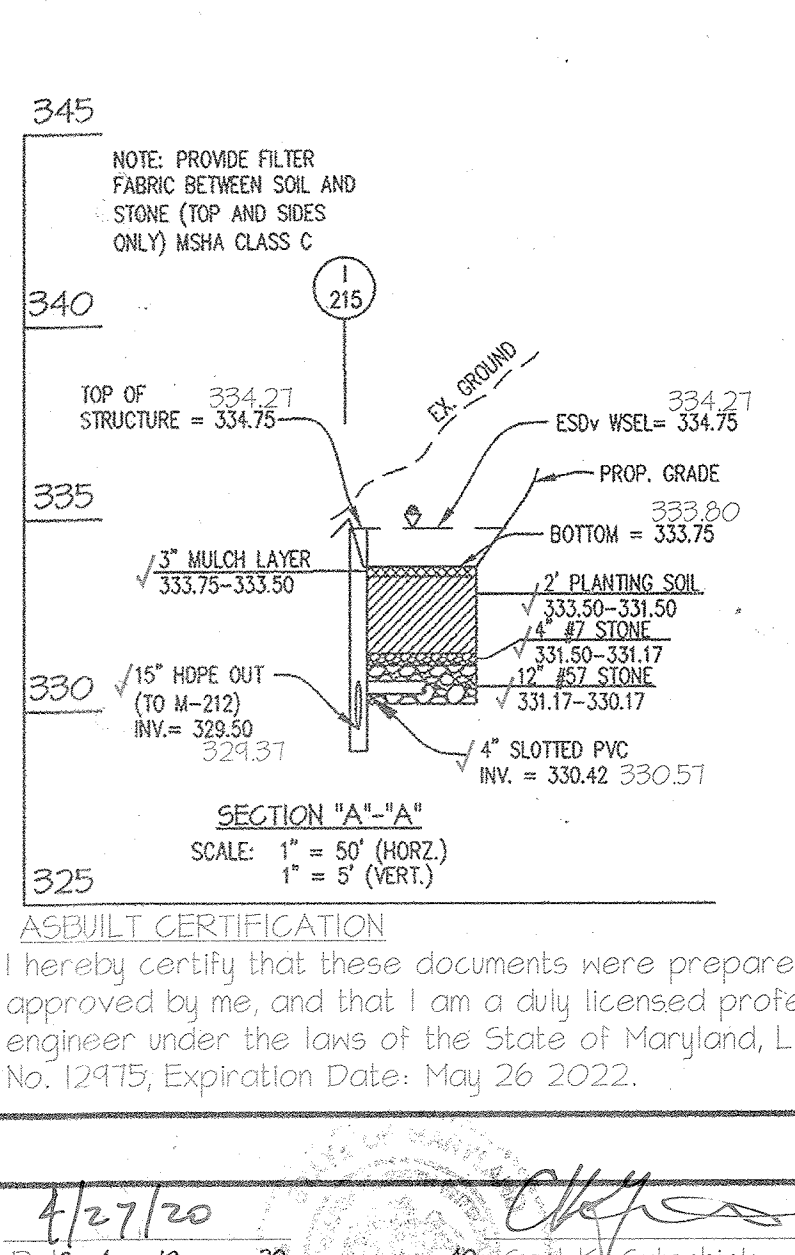
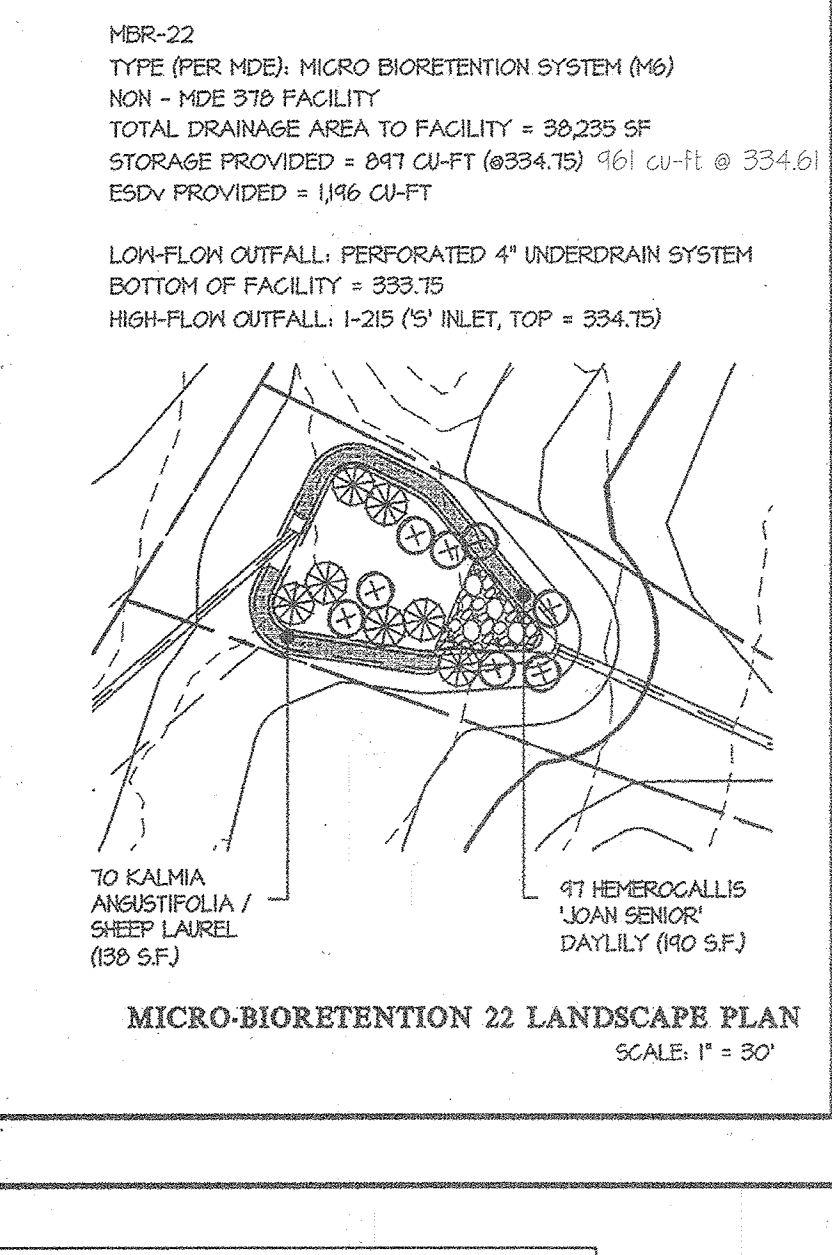
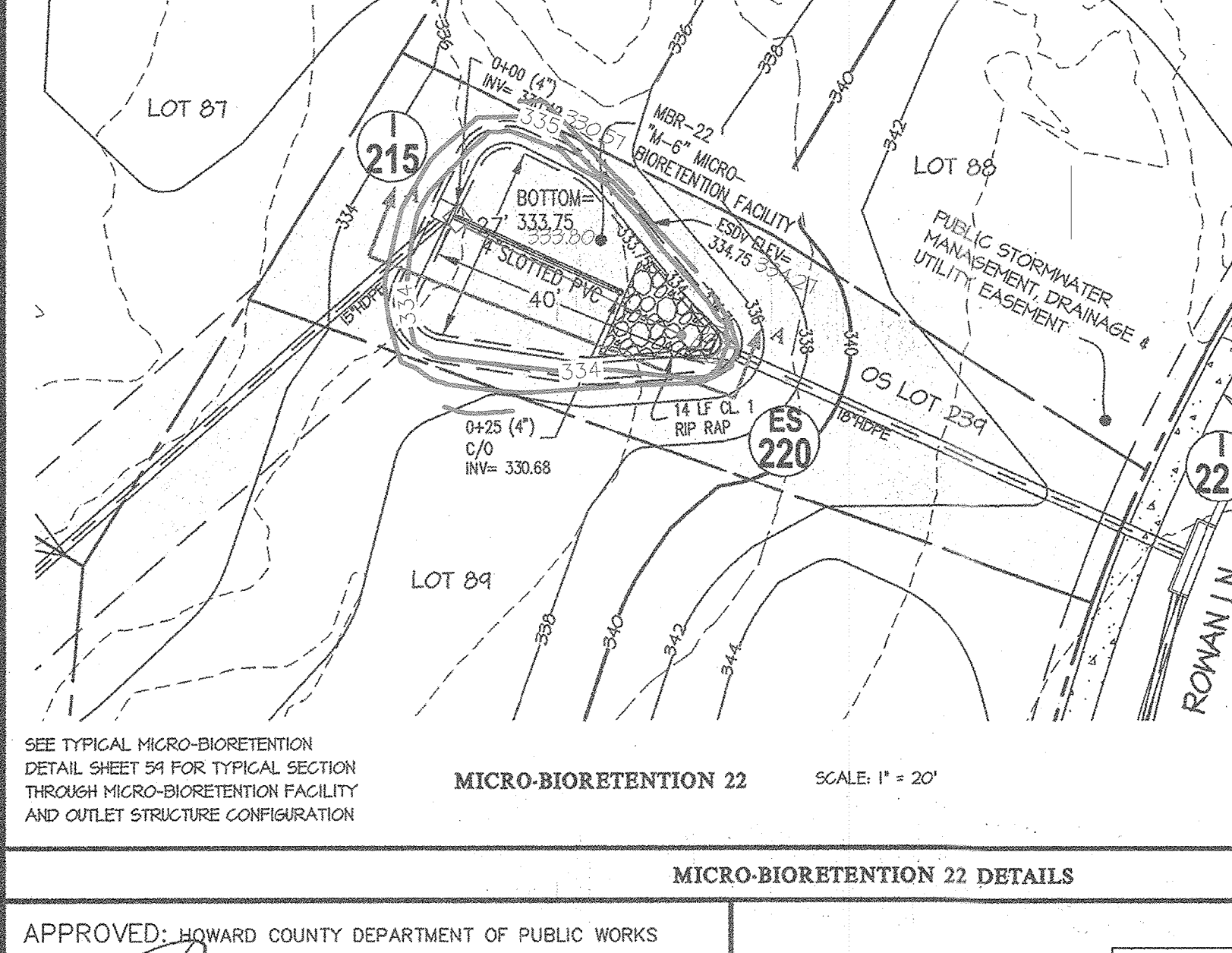
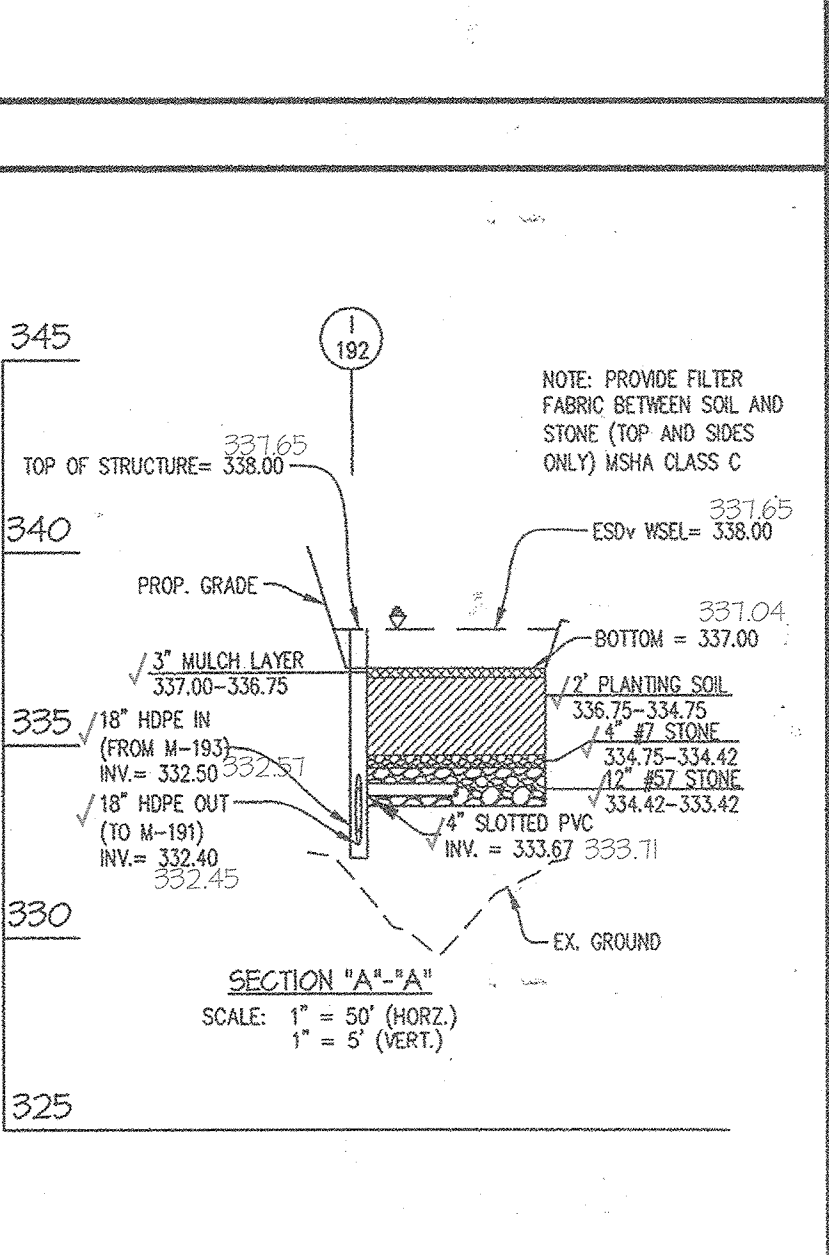
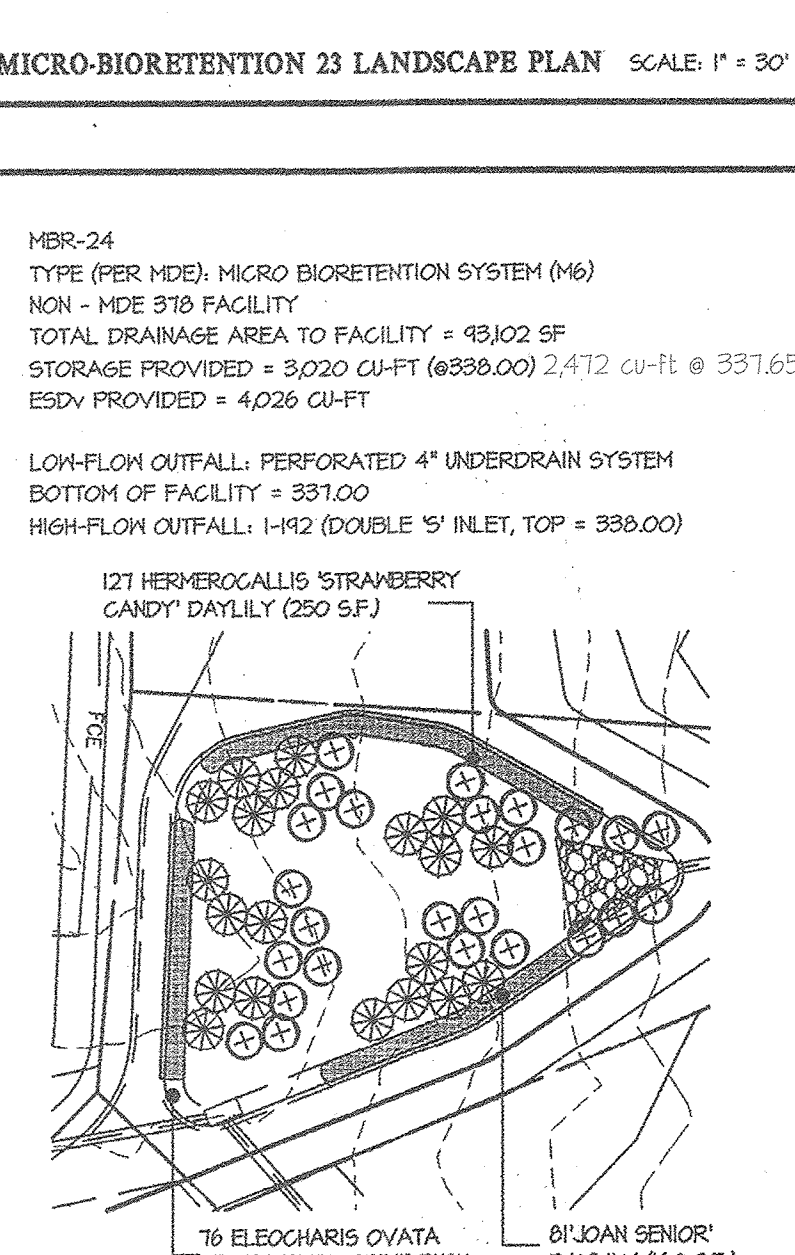
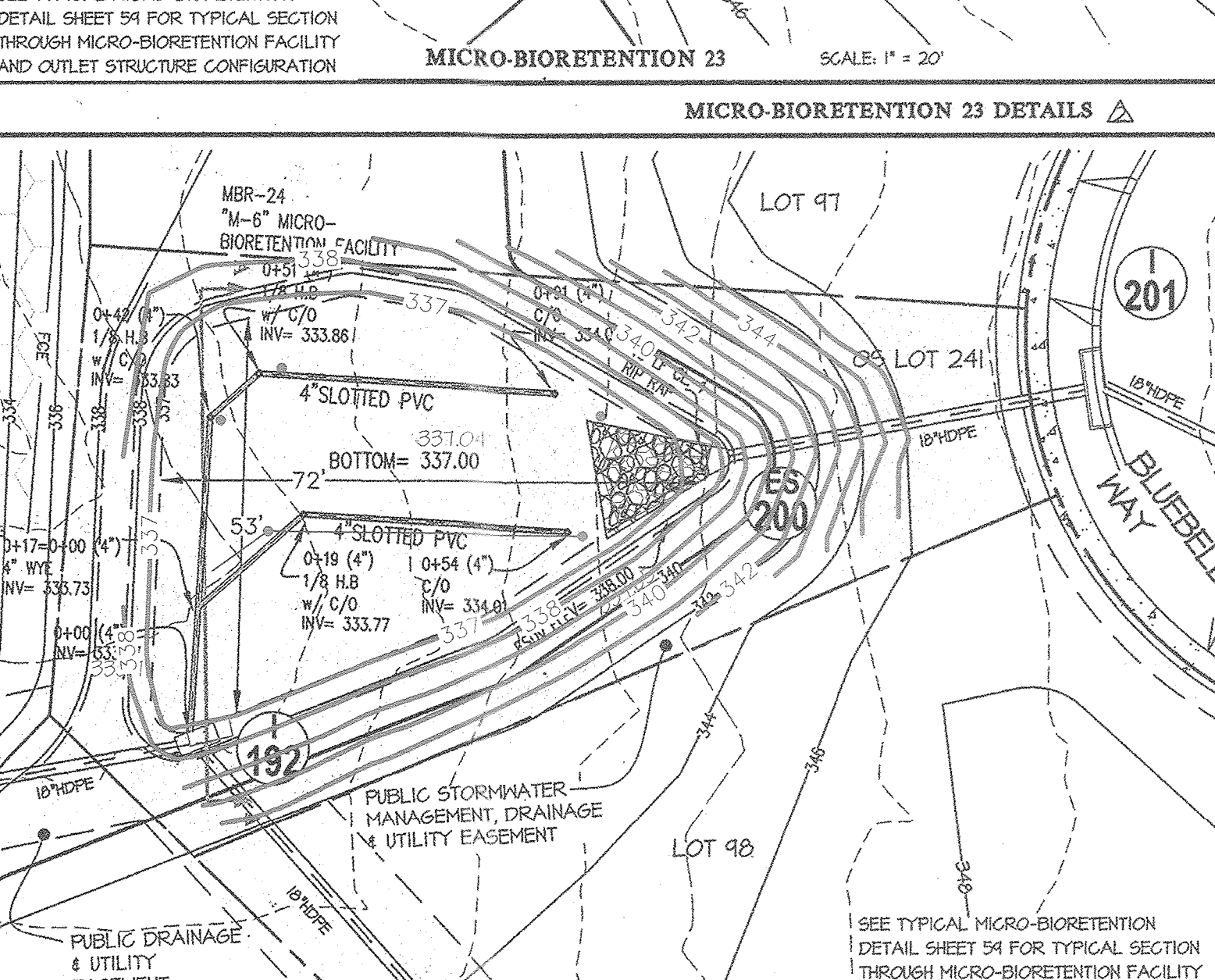
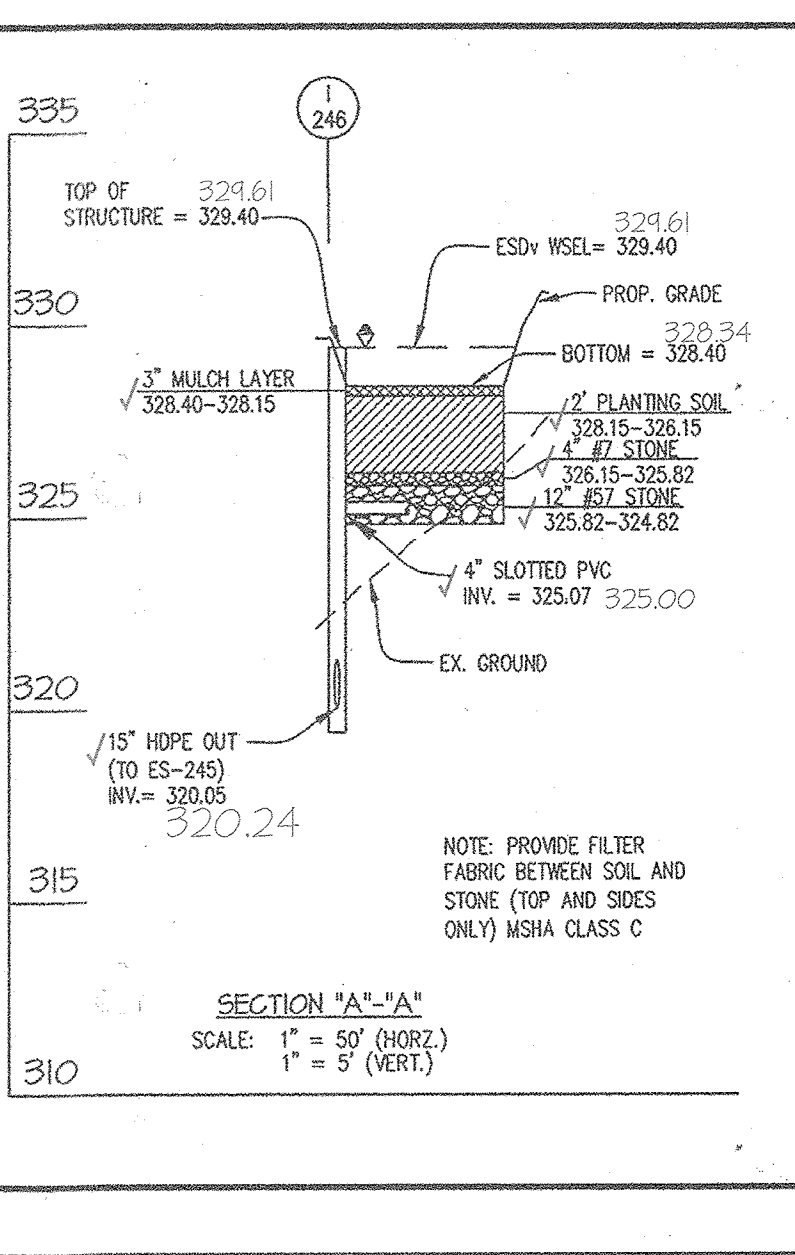
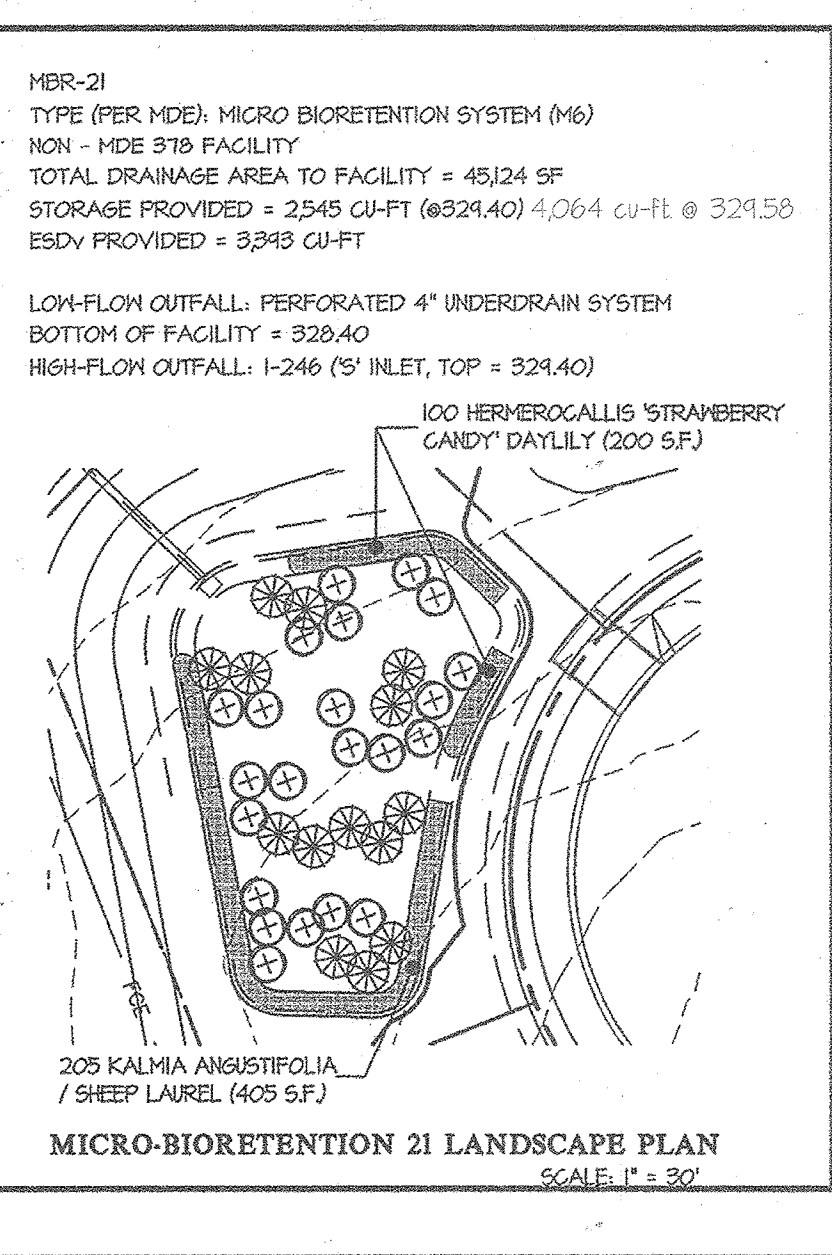
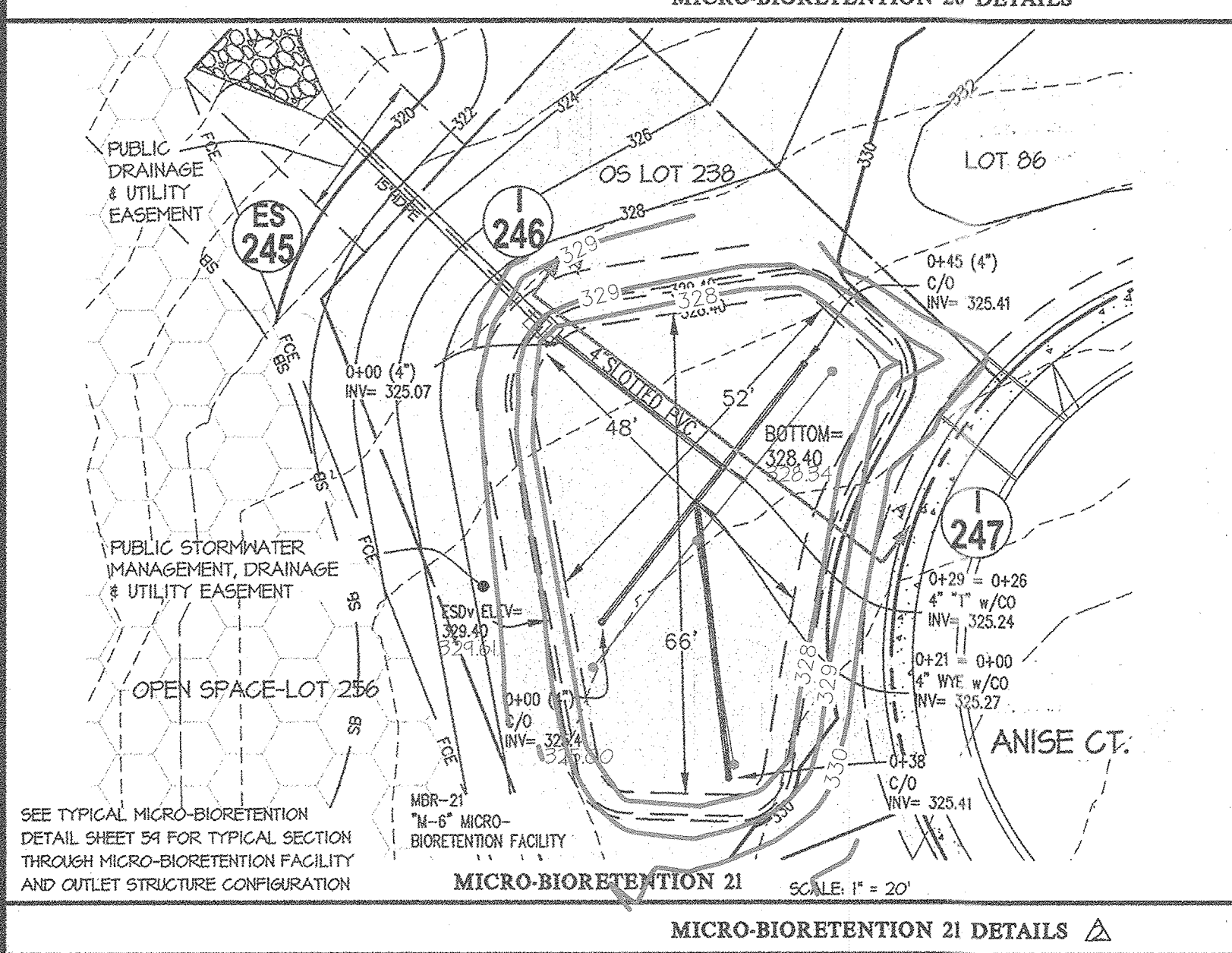
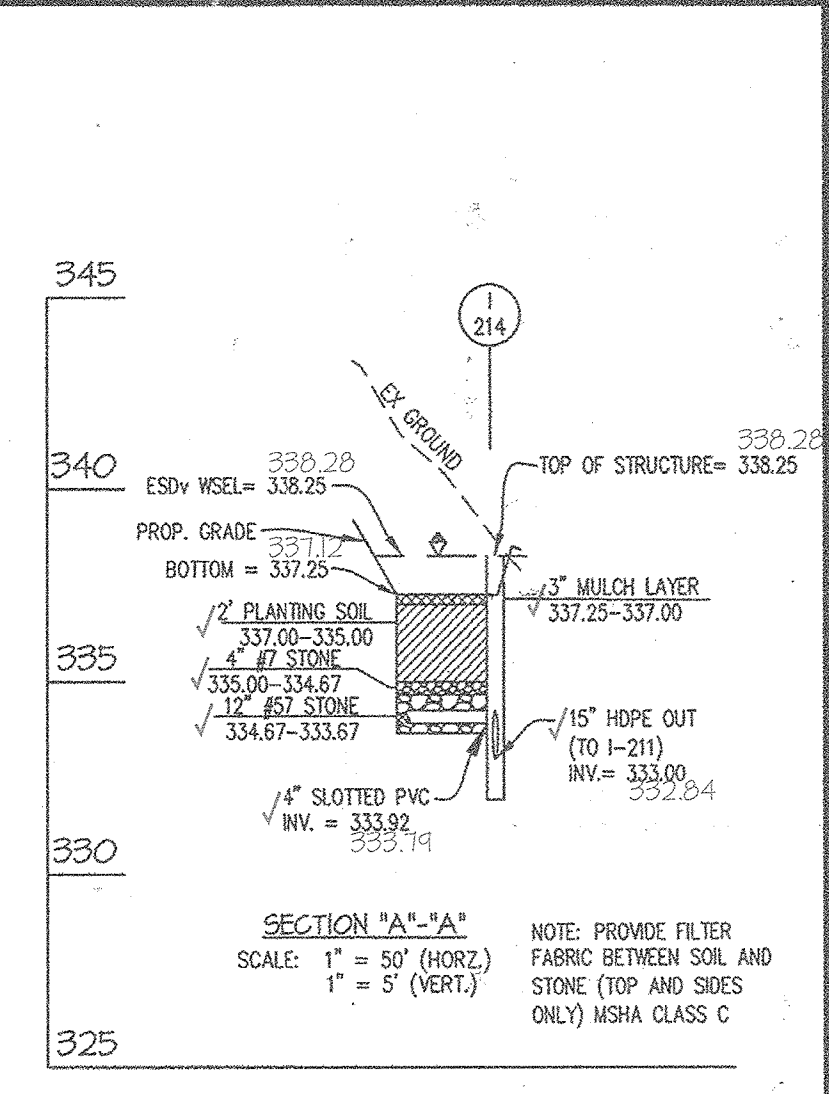
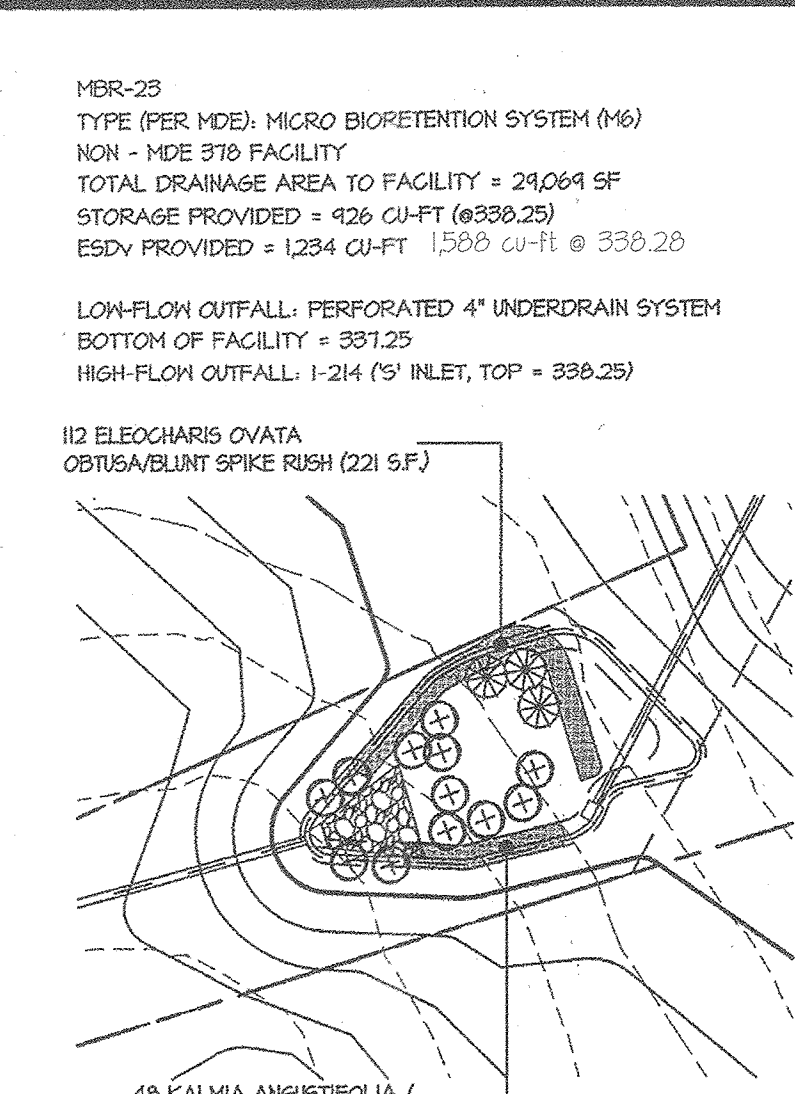
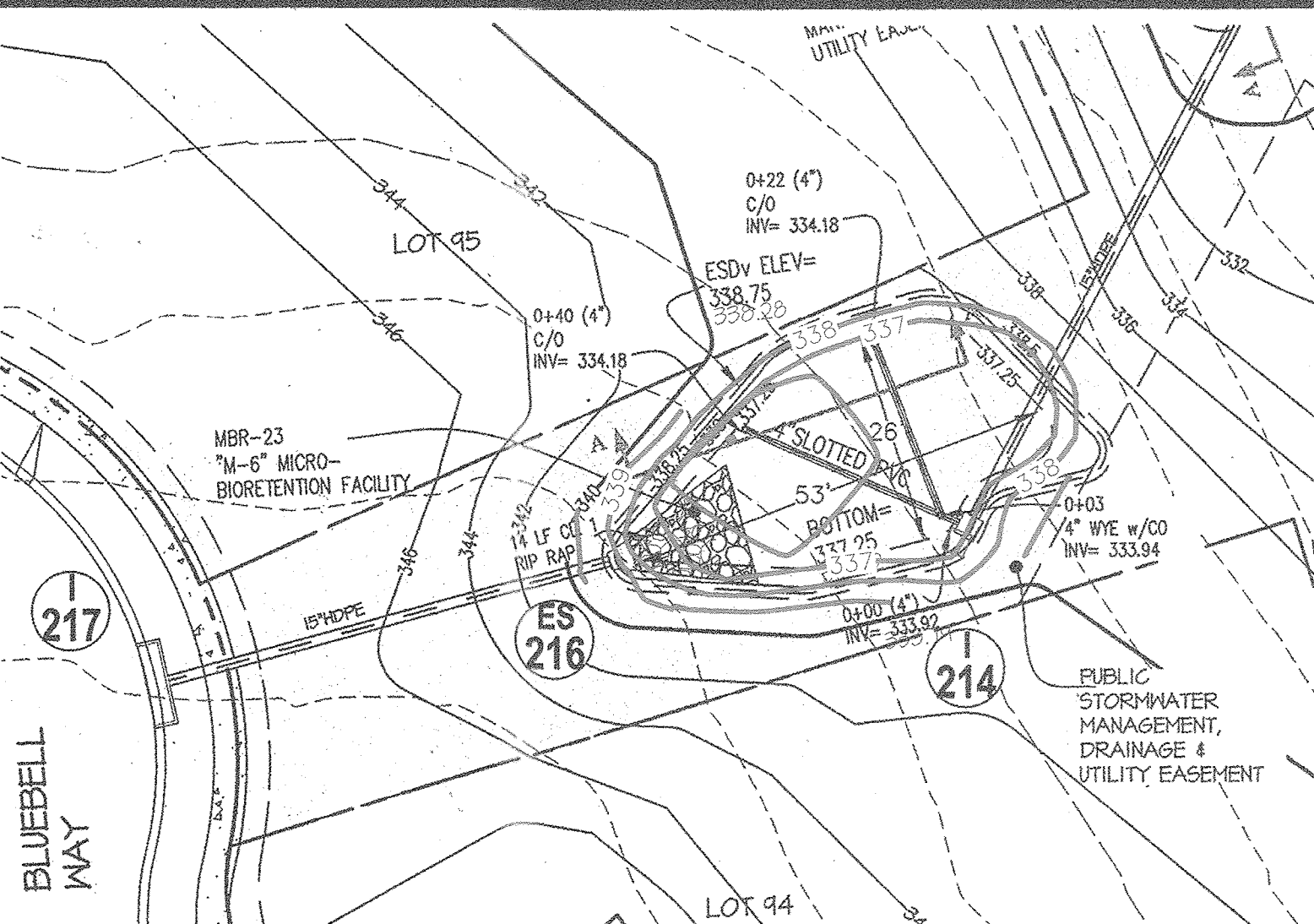
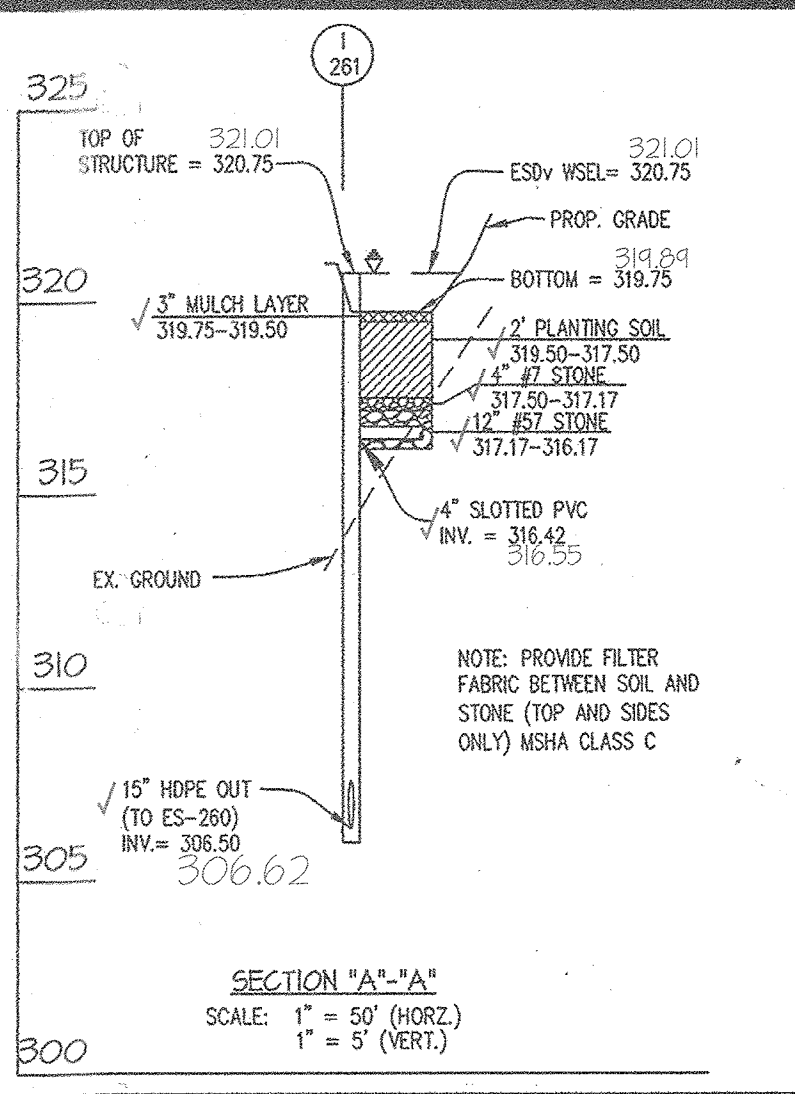
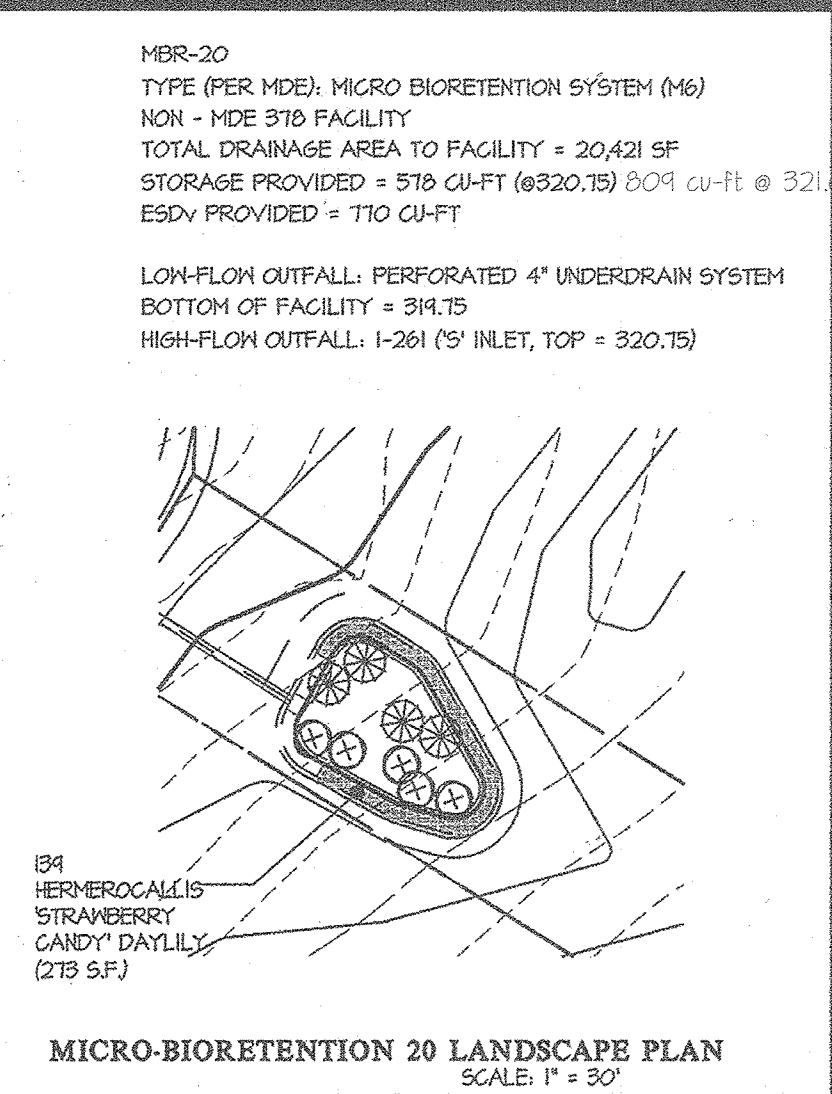
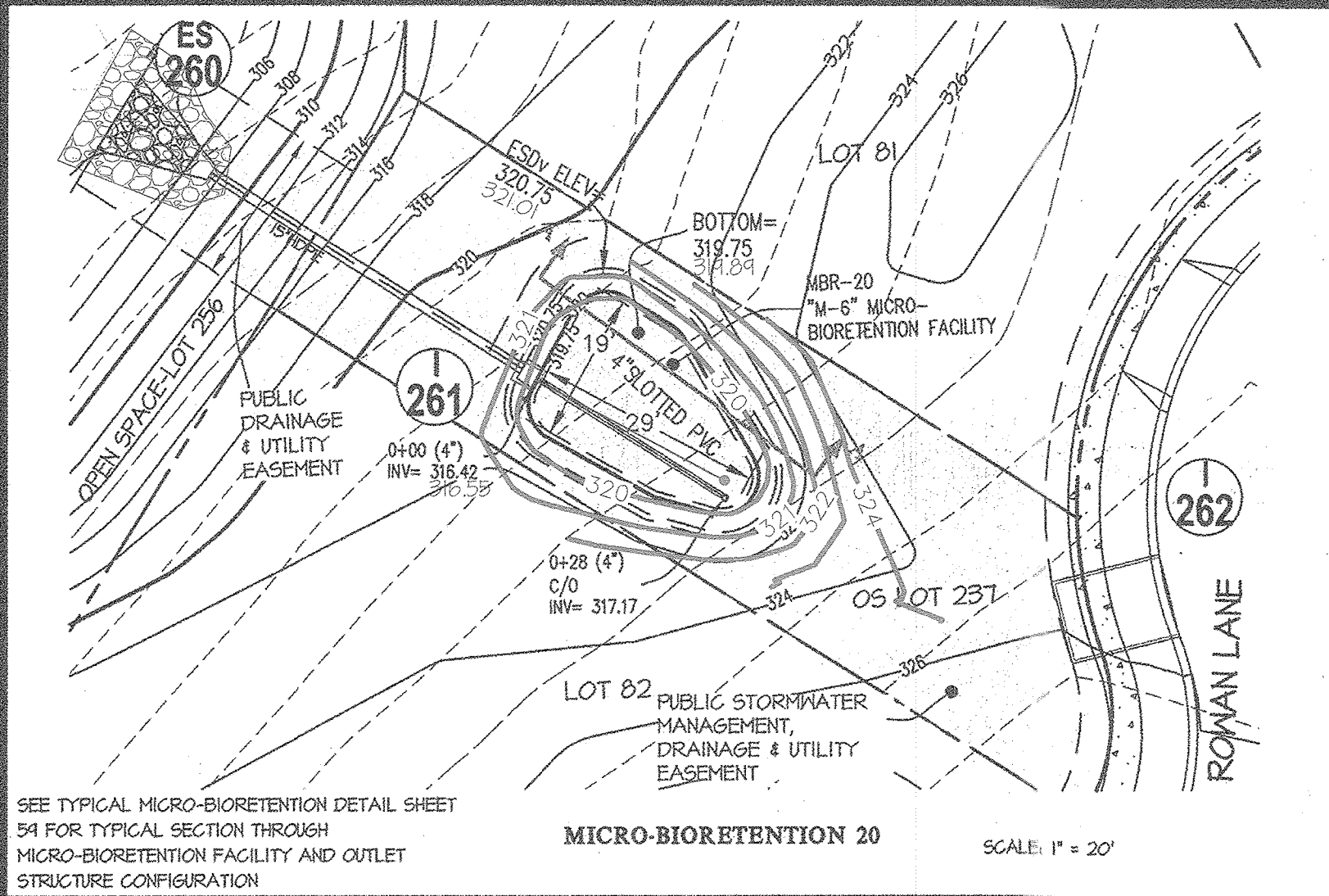
DATE	REVISION	BY	APPR.
02/2015	MICRO-BIOS 14, 15, & 17 REVISED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFROAD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 120276, EXPIRATION DATE: MAY 26, 2016.

REVISOR: STORMWATER MANAGEMENT DETAILS
 WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
 L 11388 R 725 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR, 2020 FEB, 2015	47-3	55 OF 71



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
3-16-2015
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
4-23-15
Date

Chief, Development Engineering Division
4-22-15
Date

S.D. PIPE SUMMARY TABLE
PRIVATELY OWNED AND MAINTAINED

SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
4	SLOTTED PVC	476	SCHEDULE 40

4/27/20
G. L. W. Gutschick
Professional Engineer
Maryland Reg. No. 12475

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20886
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DATE	REVISION	BY	APP'R.
02/2015	MICRO-BIOS 21, & 23 REVISED		

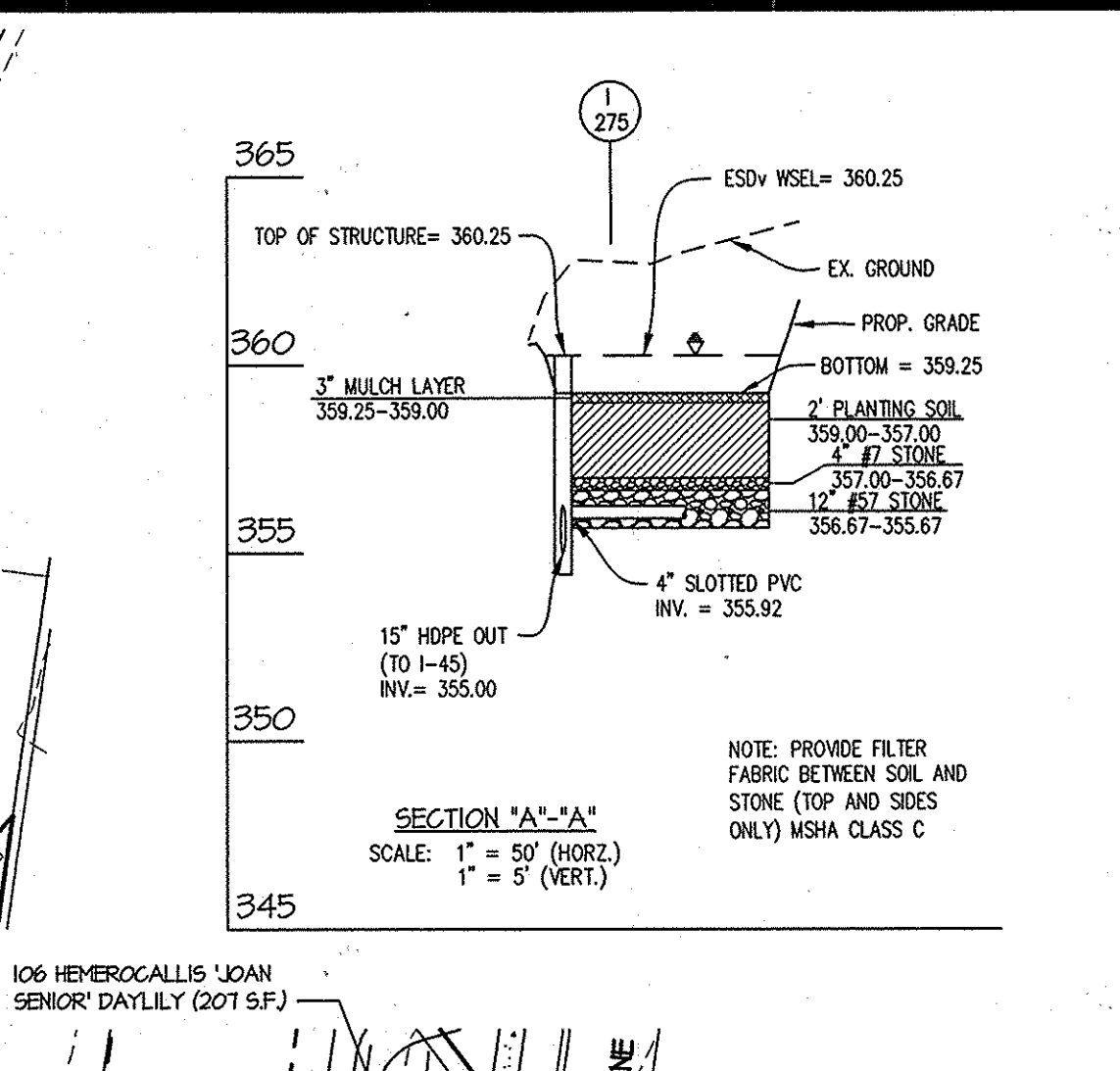
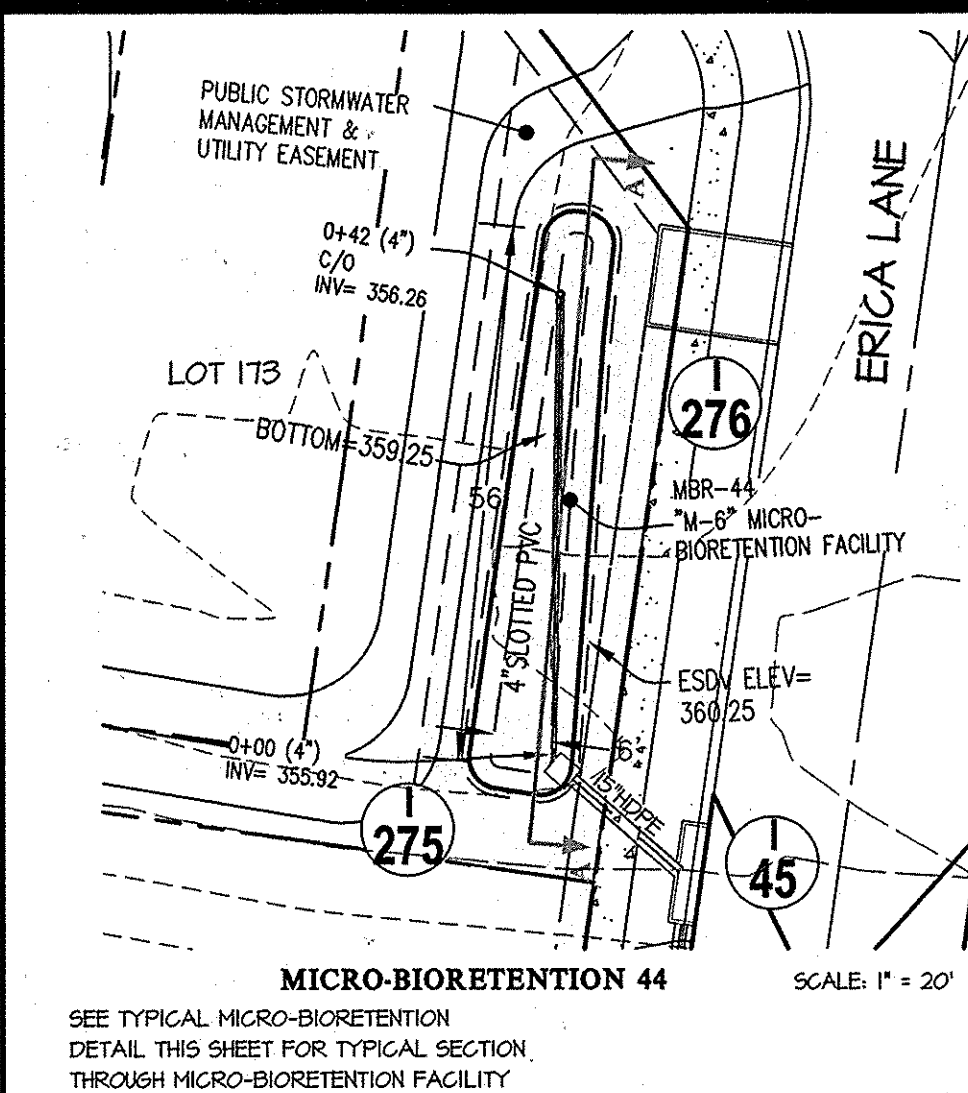
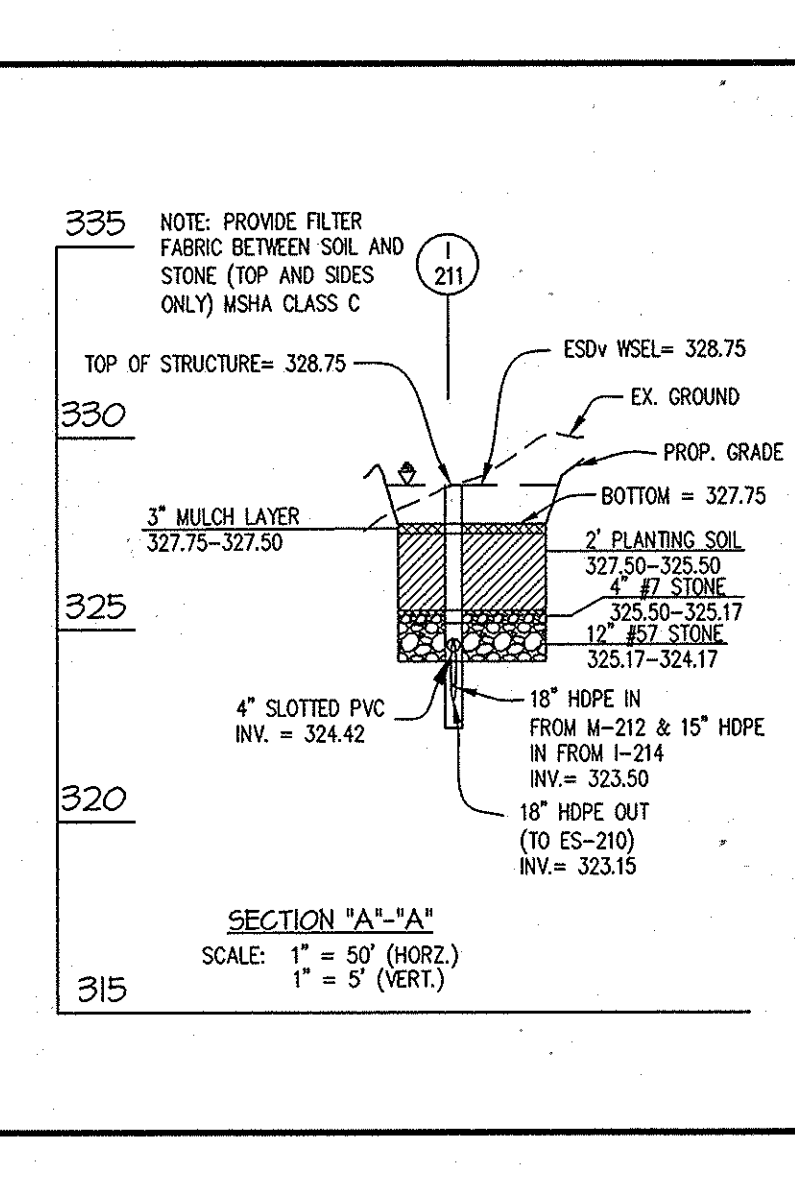
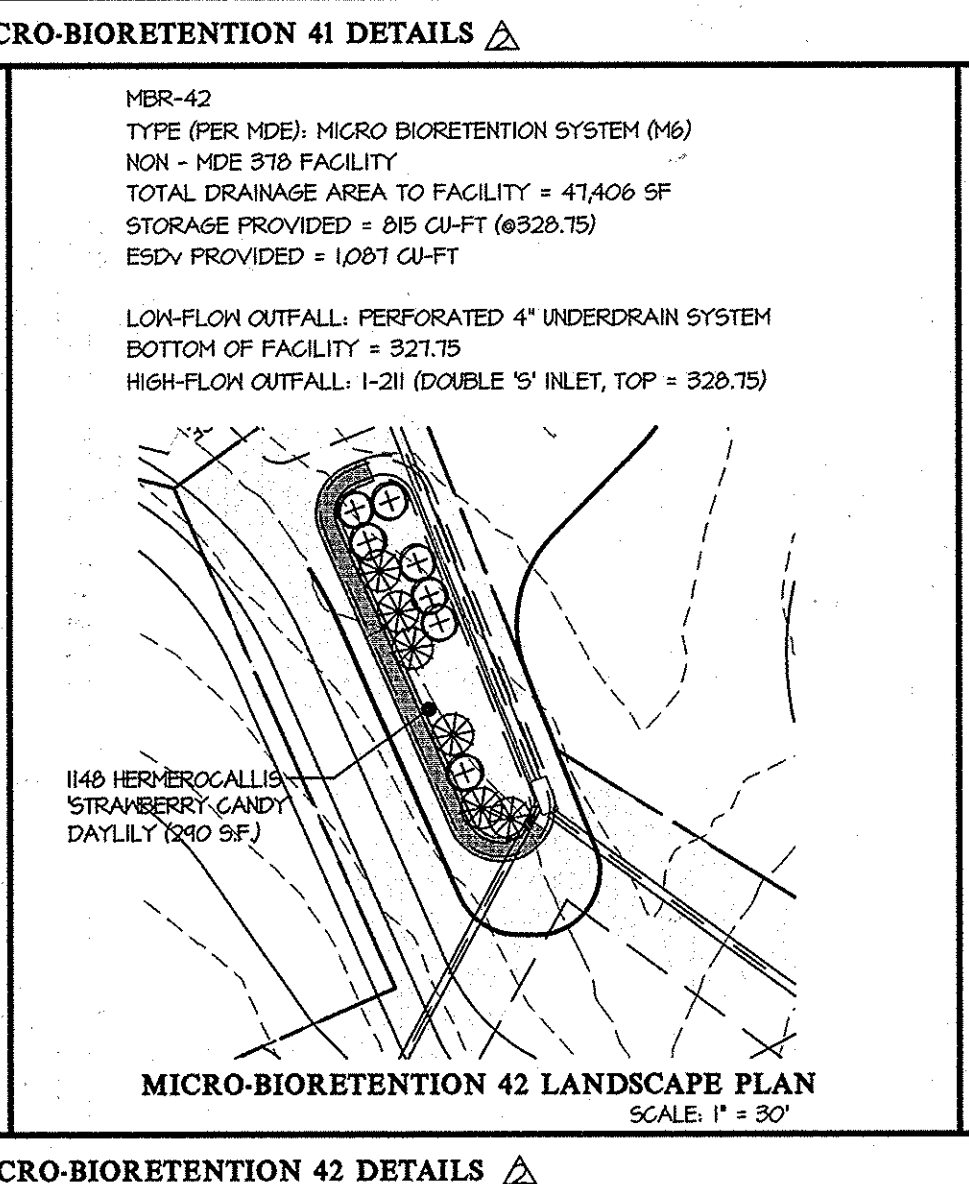
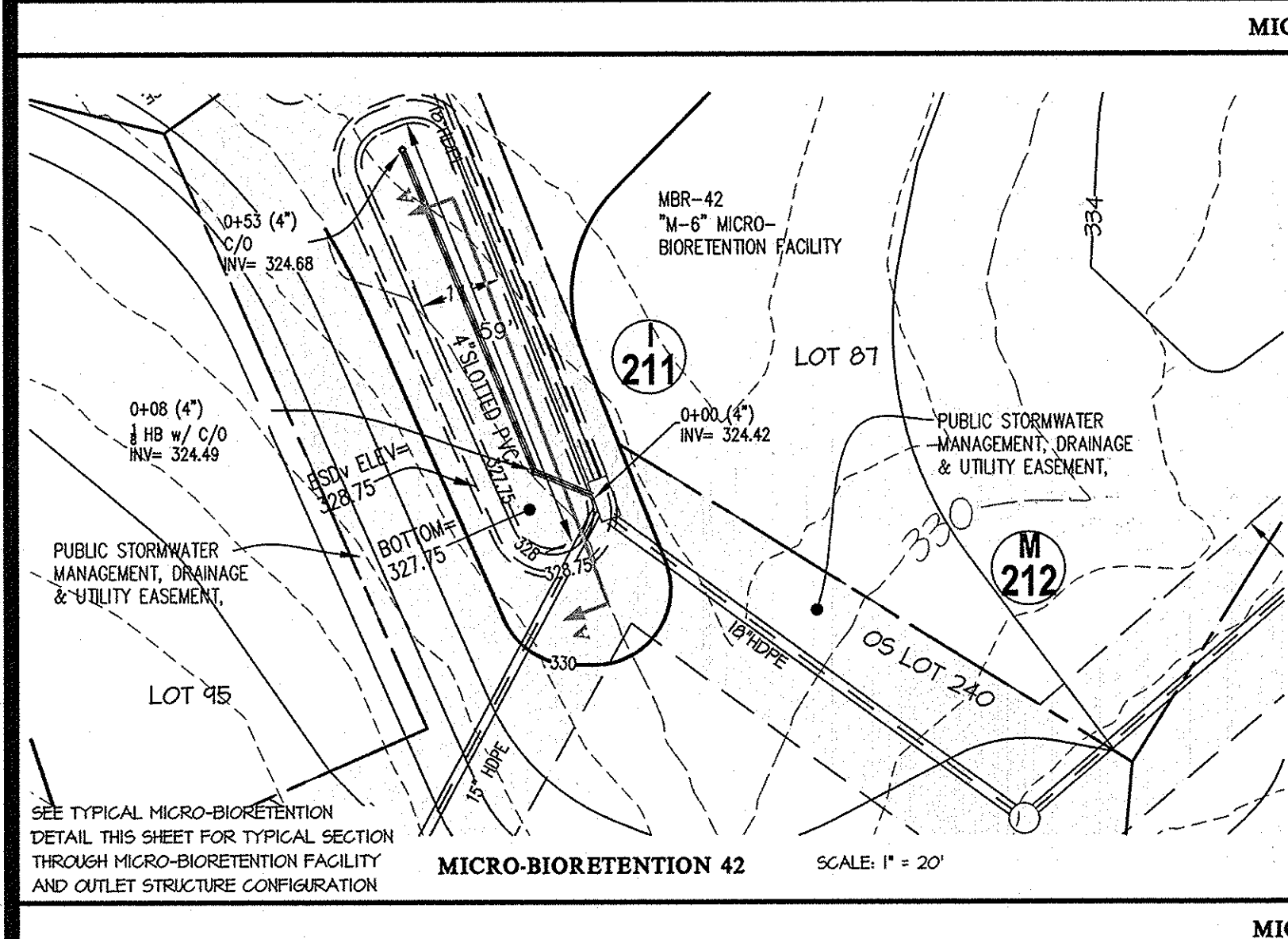
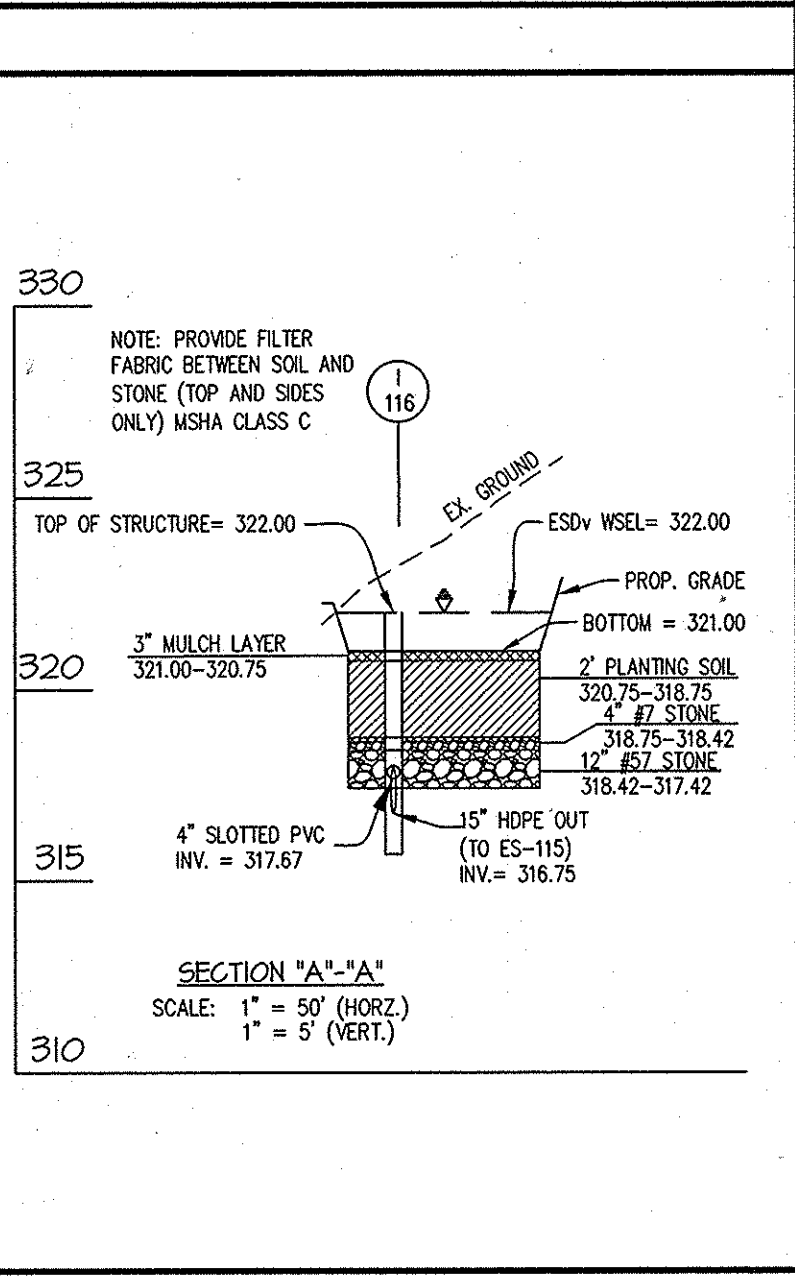
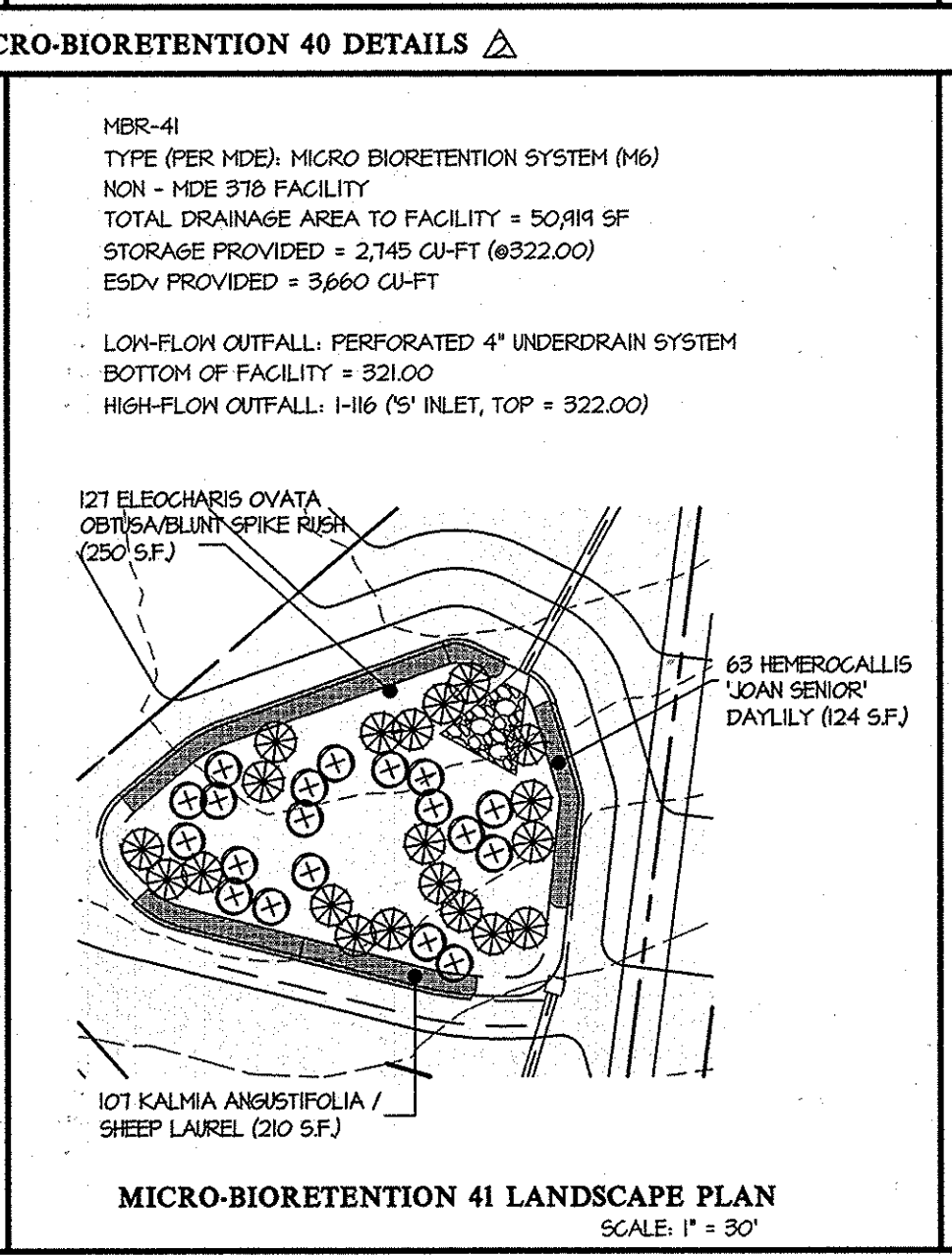
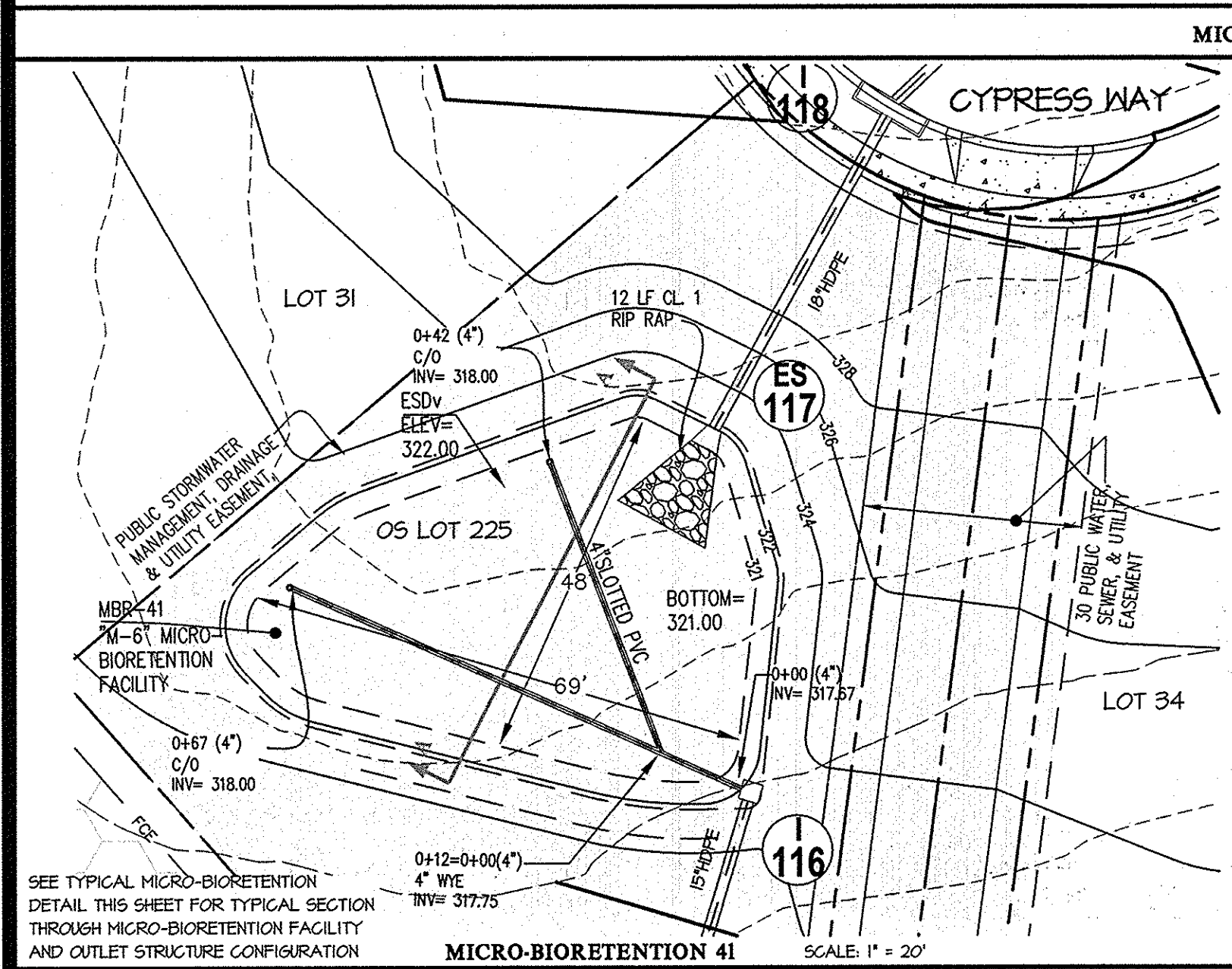
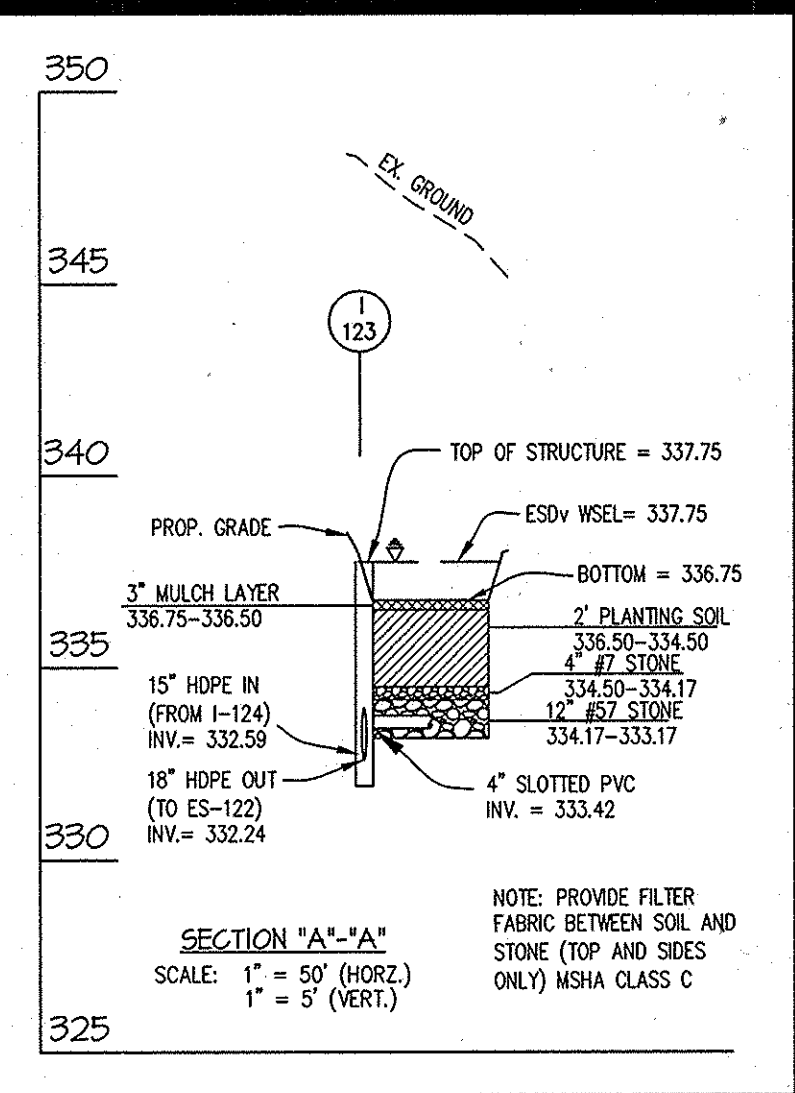
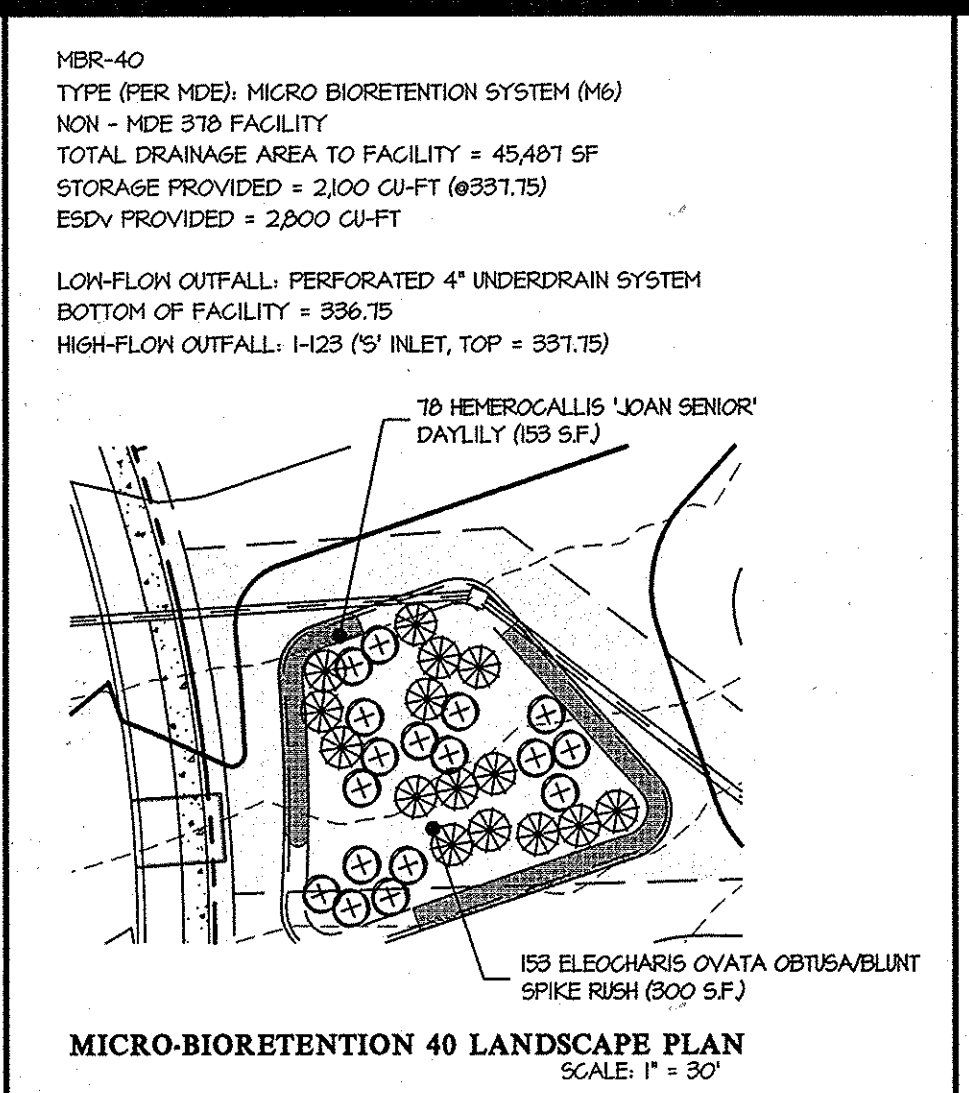
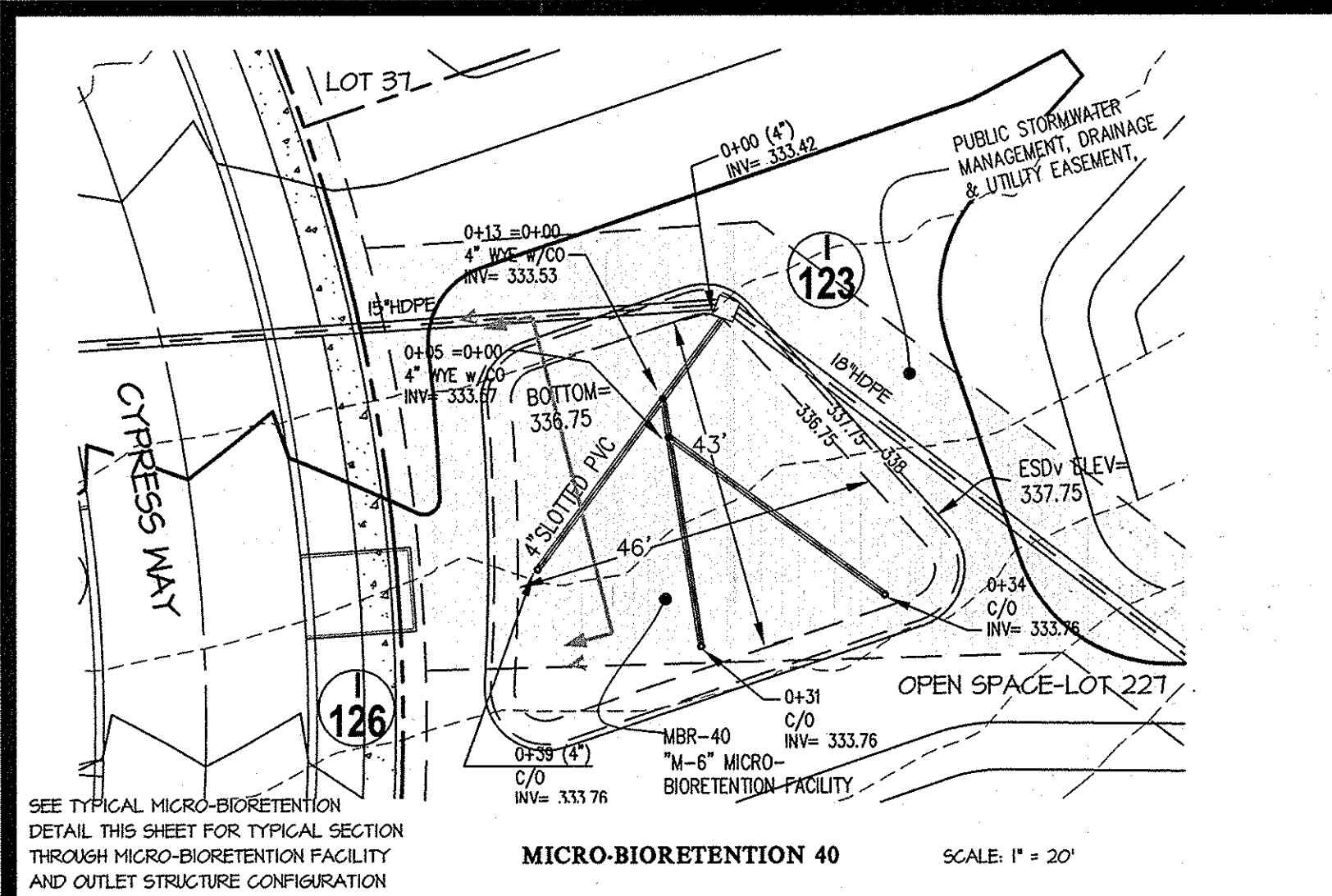
PREPARED FOR:
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8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12875
BRIAN KNAUFF
EXPIRATION DATE: MAY 26, 2018



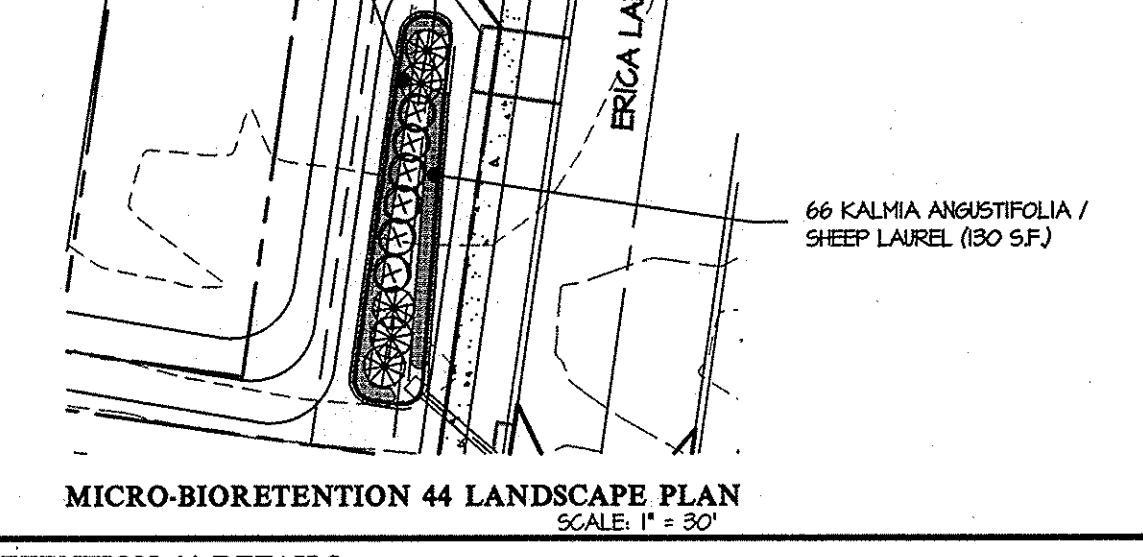
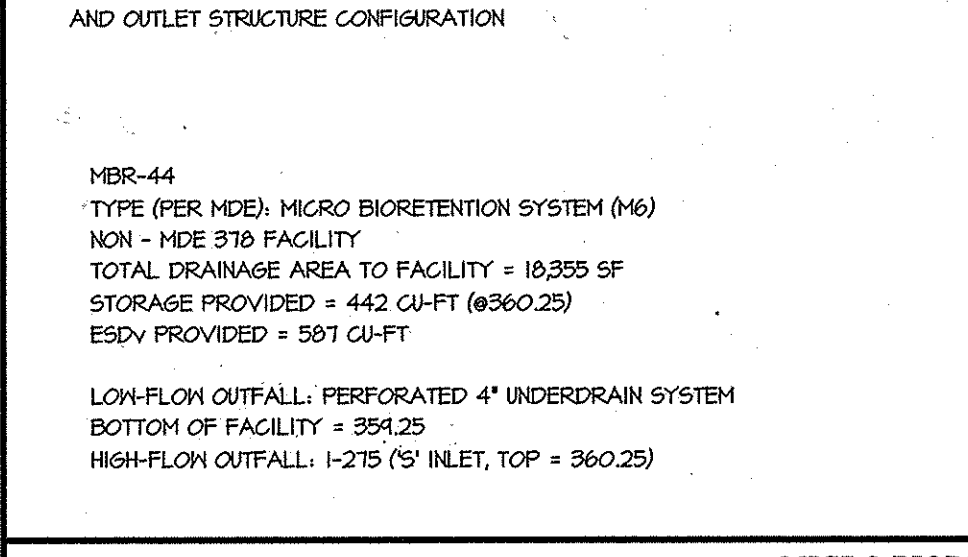
REVISOR: STORMWATER MANAGEMENT DETAILS
WINGOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
L 11388 P. 725
PARCEL 472
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 FEB., 2015	47-3	56 OF 71



GENERAL NOTES

- MATERIAL SPECIFICATIONS**
THE ALLOWABLE MATERIALS TO BE USED IN BIORETENTION AREA ARE DETAILED IN TABLE B.3.2.
- PLANTING SOIL**
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDERANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOxious WEEDS AS SPECIFIED UNDER COMAR 16.03.01.05.
THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE FOLLOWING CRITERIA:
PH RANGE 5.2 - 7.0
ORGANIC MATTER 1.5 - 4% (BY WEIGHT)
MAGNESIUM 35 LB./AC
PHOSPHORUS (PHOSPHATE - P205) 75 LB./AC
POTASSIUM (POTASH - K2O) 85 LB./AC
SOLUBLE SALTS NOT TO EXCEED 500 PPM
ALL BIORETENTION AREAS SHALL HAVE A MINIMUM OF ONE TEST. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURAL ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOP SOIL WAS EXCAVATED.
SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHALL COME FROM THE SAME TESTING FACILITY. SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.
- COMPACTION**
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION APPENDIX B.3 CONSTRUCTION SPECIFICATIONS FOR SAND FILTERS, BIORETENTION AND OPEN CHANNELS B.3.5 AREAS ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TUFF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.
COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACATURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.
WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE.
WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.
- PLANT MATERIAL**
SEE LANDSCAPE PLAN, THIS SDP SET.
- PLANT INSTALLATION**
MULCH SHALL BE PLACED TO A UNIFORM THICKNESS OF 2" TO 3" SHREDED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH FINE MULCH AND HOOCH MULCH WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.
ROOT STOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHALL BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.
TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.
GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.
THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATTER TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS, DEPLETERS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF MOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL AREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.
- UNDERDRAINS**
UNDERDRAINS ARE TO BE PLACED ON A 3/4" WIDE SECTION OF FILTER CLOTH PIPE IS PLACED NEXT, FOLLOWED BY THE GRAVEL BEDDING. THE ENDS OF UNDERDRAIN PIPES NOT TERMINATING IN AN OBSERVATION WELL SHALL BE CAPPED.
THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.2%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE PER 1000 SQUARE FEET OF SURFACE AREA).
THE BIORETENTION FACILITY MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- MISCELLANEOUS**
OPERATION AND MAINTENANCE SCHEDULE FOR MICRO-BIORETENTION (M-6)
A. THE HOA SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. 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. ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUME II, TABLE A.4.1 AND 2.
B. THE HOA SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIPES.
C. THE HOA SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
D. THE HOA SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.
E. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE UNDERDRAINS WITHIN THE BIO-RETENTION LAYERS.
F. HOWARD COUNTY SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORM DRAIN PIPES AND STRUCTURES WITHIN PUBLIC EASEMENTS. THE HOA SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL STORM DRAIN PIPES AND STRUCTURES WITHIN PRIVATE EASEMENTS.

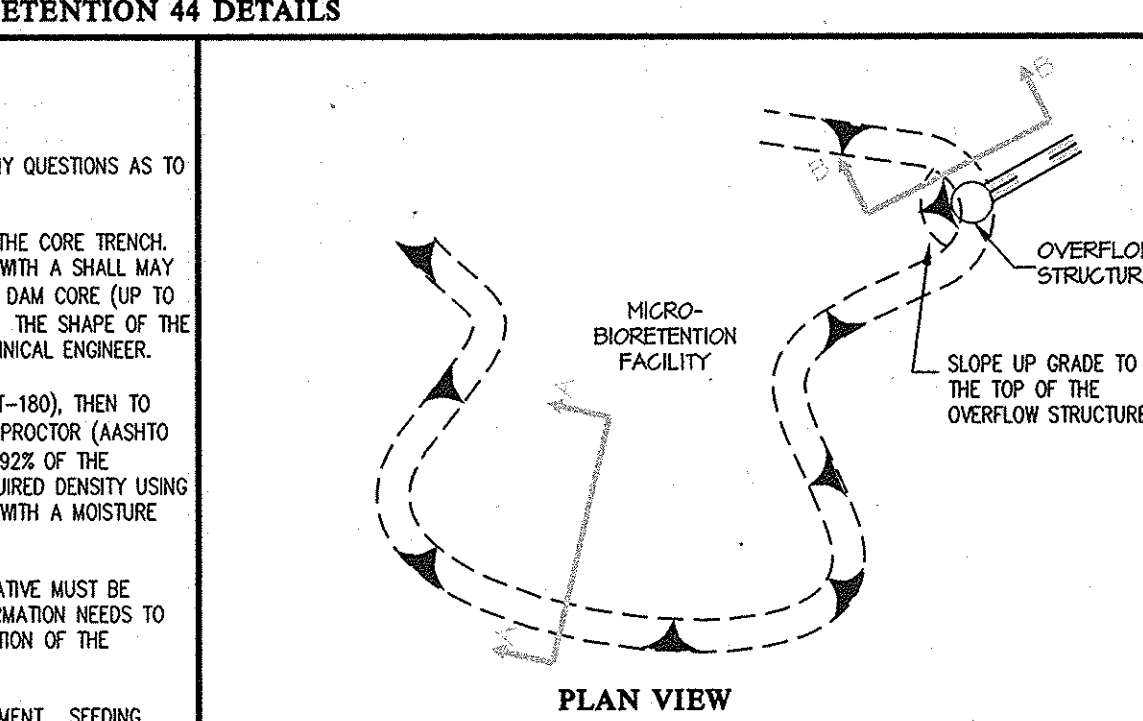
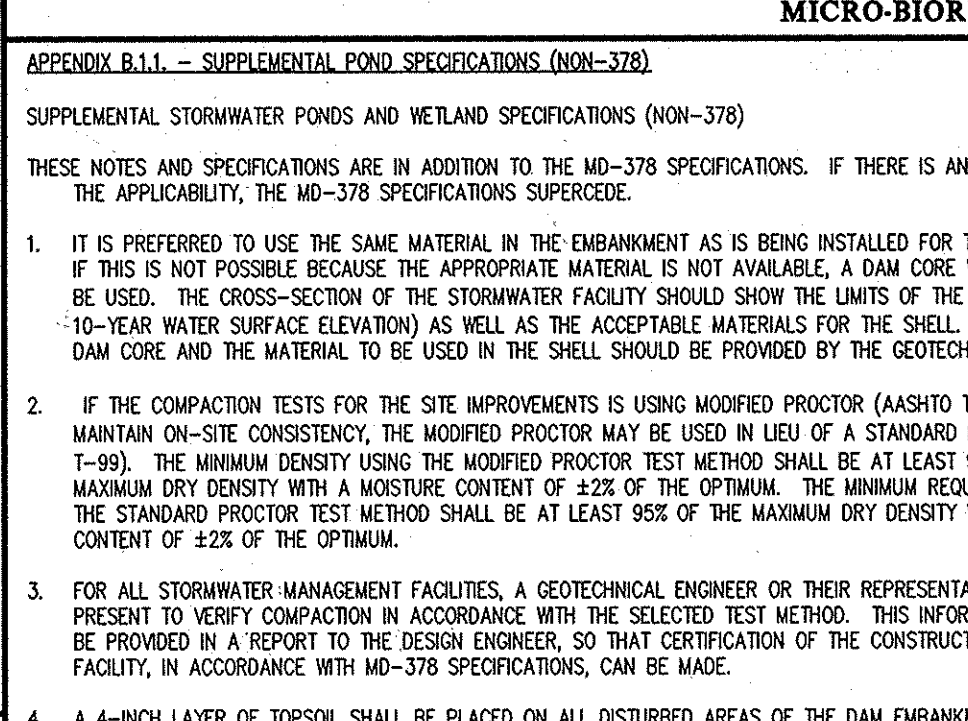


APPENDIX B.1.1 - SUPPLEMENTAL POND SPECIFICATIONS (NON-378)

SUPPLEMENTAL STORMWATER PONDS AND WETLAND SPECIFICATIONS (NON-378)

THESE NOTES AND SPECIFICATIONS ARE IN ADDITION TO THE MD-378 SPECIFICATIONS. IF THERE IS ANY QUESTIONS AS TO THE APPLICABILITY, THE MD-378 SPECIFICATIONS SUPERCEDE.

- IT IS PREFERRED TO USE THE SAME MATERIAL IN THE EMBANKMENT AS IS BEING INSTALLED FOR THE CORE TRENCH. IF THIS IS NOT POSSIBLE BECAUSE THE APPROPRIATE MATERIAL IS NOT AVAILABLE, A DAM CORE WITH A SHALL MAY BE USED. THE CROSS-SECTION OF THE STORMWATER FACILITY SHOULD SHOW THE LIMITS OF THE DAM CORE (UP TO 10-TEAR WATER SURFACE ELEVATION) AS WELL AS THE ACCEPTABLE MATERIALS FOR THE SHELL. THE SHAPE OF THE DAM CORE AND THE MATERIAL TO BE USED IN THE SHELL SHOULD BE PROVIDED BY THE GEOTECHNICAL ENGINEER.
- IF THE COMPACTION TESTS FOR THE SITE IMPROVEMENTS IS USING MODIFIED PROCTOR (ASHTO T-100), THEN TO MAINTAIN ON-SITE CONSISTENCY, THE MODIFIED PROCTOR MAY BE USED IN USE OF A STANDARD PROCTOR (ASHTO T-99). THE MINIMUM DENSITY USING THE MODIFIED PROCTOR TEST METHOD SHALL BE AT LEAST 92% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF ±2% OF THE OPTIMUM. THE MINIMUM REQUIRED DENSITY USING THE STANDARD PROCTOR TEST METHOD SHALL BE AT LEAST 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF ±2% OF THE OPTIMUM.
- FOR ALL STORMWATER MANAGEMENT FACILITIES, A GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE MUST BE PRESENT TO VERIFY COMPACTION IN ACCORDANCE WITH THE SELECTED TEST METHOD. THIS INFORMATION NEEDS TO BE PROVIDED IN A REPORT TO THE DESIGN ENGINEER, SO THAT CERTIFICATION OF THE CONSTRUCTION OF THE FACILITY, IN ACCORDANCE WITH MD-378 SPECIFICATIONS, CAN BE MADE.
- A 4-INCH LAYER OF TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS OF THE DAM EMBANKMENT. SEEDING, LIMING, FERTILIZING, MULCHING, ETC. SHALL BE IN ACCORDANCE WITH MARYLAND SOIL CONSERVATION SERVICE MD-342 OR THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PERMANENT SEEDING SECTION IN CHAPTER 20. THE PURPOSE OF THE TOPSOIL IS TO ESTABLISH A GOOD GROWTH OF GRASS, WHICH IS NOT ALWAYS POSSIBLE WITH SOME OF THE MATERIALS THAT MAY BE PLACED FOR THE EMBANKMENT FILL.
- GEOTEXTILE PLACED BENEATH RIP-RAP SHALL BE CLASS "C" GEOTEXTILE OR BETTER (SEE SECTION 24.0, MATERIAL SPECIFICATIONS, 1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (MDE, 1994). SOME ACCEPTABLE GEOTEXTILES THAT MEET THE CLASS "C" CRITERIA INCLUDE:
AMOCO 4552 CARTHAGE FX-705
GELON N70 MIRAFI 180-N WEBTEC N07
THIS IS ONLY A PARTIAL LISTING OF AVAILABLE GEOTEXTILES BASED ON INFORMATION PROVIDED BY THE MANUFACTURERS OF THE 1997 SPECIFIER'S GUIDE DATED DECEMBER 1996. IT IS THE RESPONSIBILITY OF THE ENGINEER TO VERIFY THE ADEQUACY OF THE MATERIAL, AS THERE ARE CHANGES IN THE MANUFACTURING PROCESS AND THE TYPE OF FABRIC USED, WHICH MAY AFFECT THE CONTINUED ACCEPTANCE.
- A RISE OF THINGS TO DETERMINE WHEN AN EXCAVATED POND MAY NEED TO BE CONSIDERED AN EMBANKMENT POND IS AS FOLLOWS:
POND CALCULATION OF 10' + 20 FEET = L, WHERE H IS HEIGHT FROM POND BOTTOM TO TOP OF DAM. IF THE PROJECTION OF L DOWNSTREAM IS A HORIZONTAL LINE FROM THE UPSTREAM TOE OF SLOPE IS BELOW EXISTING GROUND, THE POND CAN BE CONSIDERED AN EXCAVATED POND. IN ADDITION, THE EXISTING GROUND SLOPE, DOWNSTREAM OF THE TOE, MUST BE LESS THAN 10%.
- THE DESIGN ENGINEER AND GEOTECHNICAL ENGINEER SHOULD MAKE THE DETERMINATION THAT THE SETTLEMENT OF THE POND WILL NOT CAUSE EXCESSIVE JOINT EXTENSION. FOR FURTHER INFORMATION ON JOINT ANALYSIS, SEE NRCSE PUBLICATION TR-18.
- FILL PLACEMENT SHALL NOT EXCEED A MAXIMUM 8-INCH. EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF THE EMBANKMENT.
- THE EMBANKMENT FILL SHALL NOT BE PLACED HIGHER THAN THE CENTERLINE OF THE PRINCIPAL SPILLWAY UNTIL AFTER THE PRINCIPAL SPILLWAY HAS BEEN INSTALLED. IF THE EMBANKMENT NEEDS TO BE EXCAVATED TO INSTALL THE PRINCIPAL SPILLWAY, THE SIDE SLOPE SHALL BE NO LESS THAN 2:1
- THE SIDE SLOPES OF A CUT TO REPAIR A DAM, INSTALL A PRINCIPAL SPILLWAY FOR AN EXCAVATED POND, OR OTHER REPAIR WORK, SHALL BE NO LESS THAN 2:1.



OPERATION AND MAINTENANCE SCHEDULE FOR SURFACE STORMWATER FILTRATION SYSTEMS (F-1)

- THE HOA SHALL INSPECT THE STORMWATER FACILITY ANNUALLY AND AFTER EVERY HEAVY STORM. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- THE HOA SHALL MOW THE TOP AND SIDE SLOPES OF THE EMBANKMENT A MINIMUM OF ONCE PER YEAR, WHEN VEGETATION REACHES 10' IN HEIGHT OR AS NEEDED.
- THE HOA SHALL MOW FILTERS THAT HAVE A GRASS COVER A MINIMUM OF THREE (3) TIMES PER GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 12 INCHES.
- THE HOA SHALL REMOVE ANY DEBRIS AND LITTER FROM THE FACILITY.
- THE HOA SHALL REPAIR ANY EROSION IN THE FACILITY AS SOON AS IT IS NOTICED.
- HOWARD COUNTY SHALL REMOVE SILT WHEN IT EXCEEDS FOUR (4) INCHES DEEP IN THE FOREBAY & BE RESPONSIBLE FOR THE MAINTENANCE OF THE RISER, OUTFALL PIPES, AND EMBANKMENT.
- WHEN WATER POURS ON THE SURFACE OF THE FILTER BED FOR MORE THAN SEVEN (7) HOURS, THE HOA SHALL REPLACE THE TOP FEW INCHES OF DISCOLORED MATERIAL WITH FRESH MATERIAL. FRESH CLEANINGS AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE HOA.
- THE HOA SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
- THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
- ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chief, Bureau of Highways
3-16-2015
Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Chief, Division of Land Development
4-23-15
Date

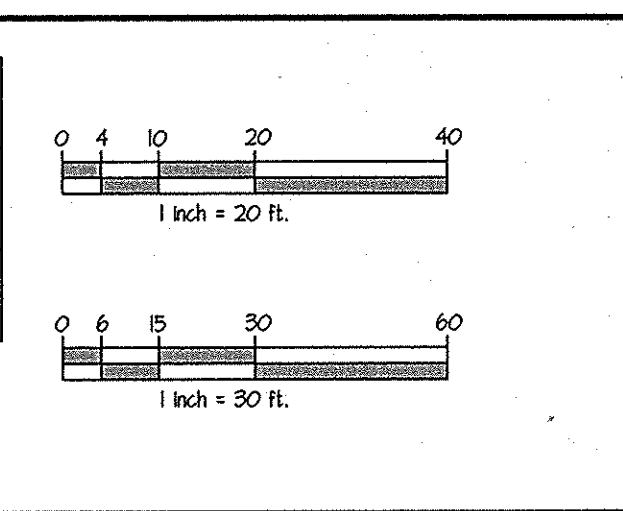
Chief, Development Engineering Division
4-22-15
Date

MICRO-BIORETENTION PLANT LIST (SHEETS 53-59)

SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT/COMMENTS
SHRUBS *	500	CORNUS SERICEA 'RUBY' / RUBY RED OSIER DOGWOOD	18"-24" SPR.	CONTAINER
	430	ITEA VIRGINICA 'HENRY'S GARNET' / VIRGINIA SHEETSPIRE	18"-24" SPR.	CONTAINER
HERBACEOUS *		FOR QUANTITIES AND NAMES SEE THE MICRO-BIORETENTION LANDSCAPE PLANS (SHEETS 53-59)	18" O.C.	CONTAINER

S.D. PIPE SUMMARY TABLE (SHEET 59) PRIVATELY OWNED AND MAINTAINED

SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
4	SLOTTED PVC	384	SCHEDULE 40



GLWGutschick Little & Weber, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	DESCRIPTION	BY	APPR.
02/2015	MICRO-BIOS 40, 41, & 42 REVISED		

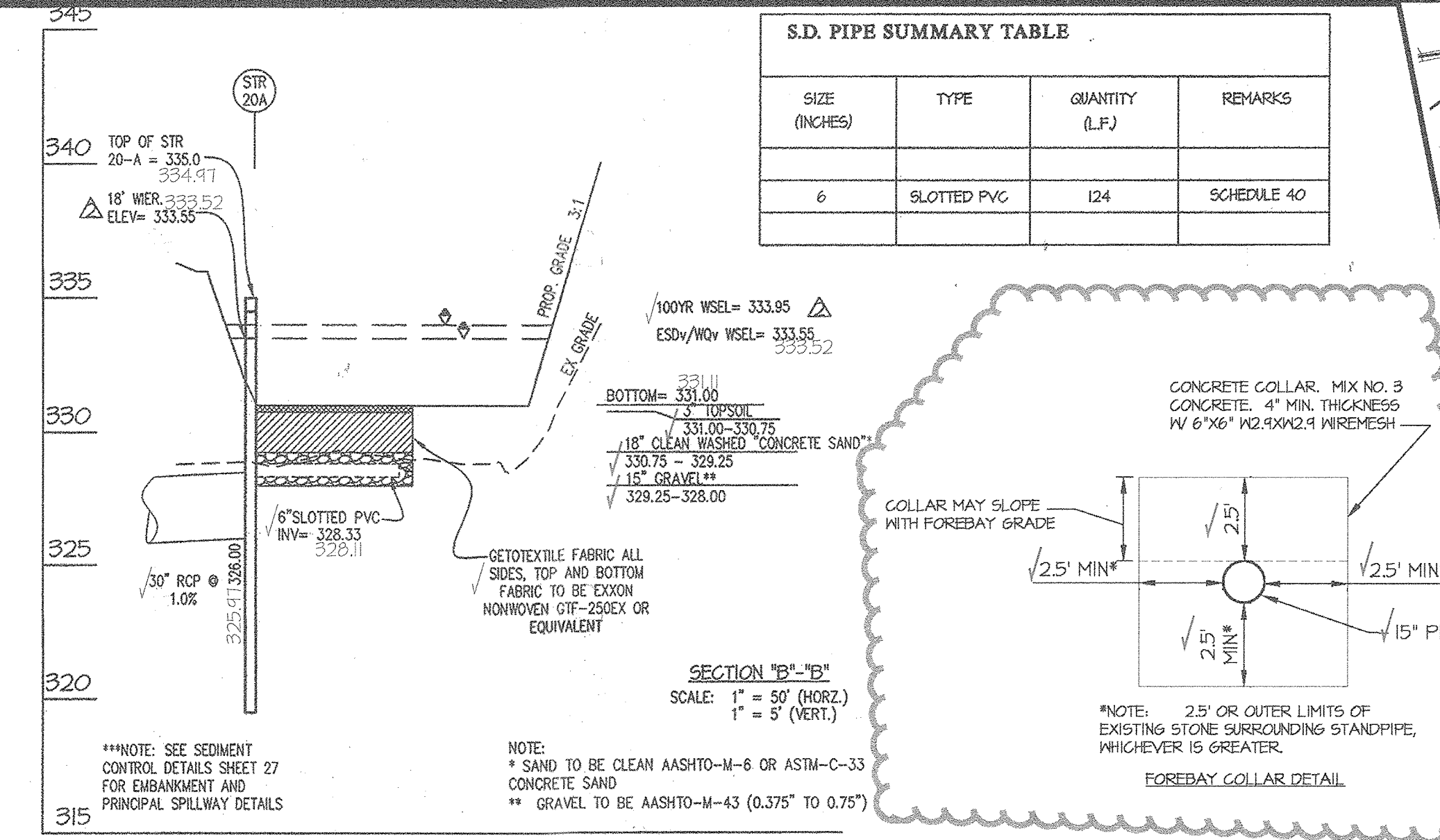
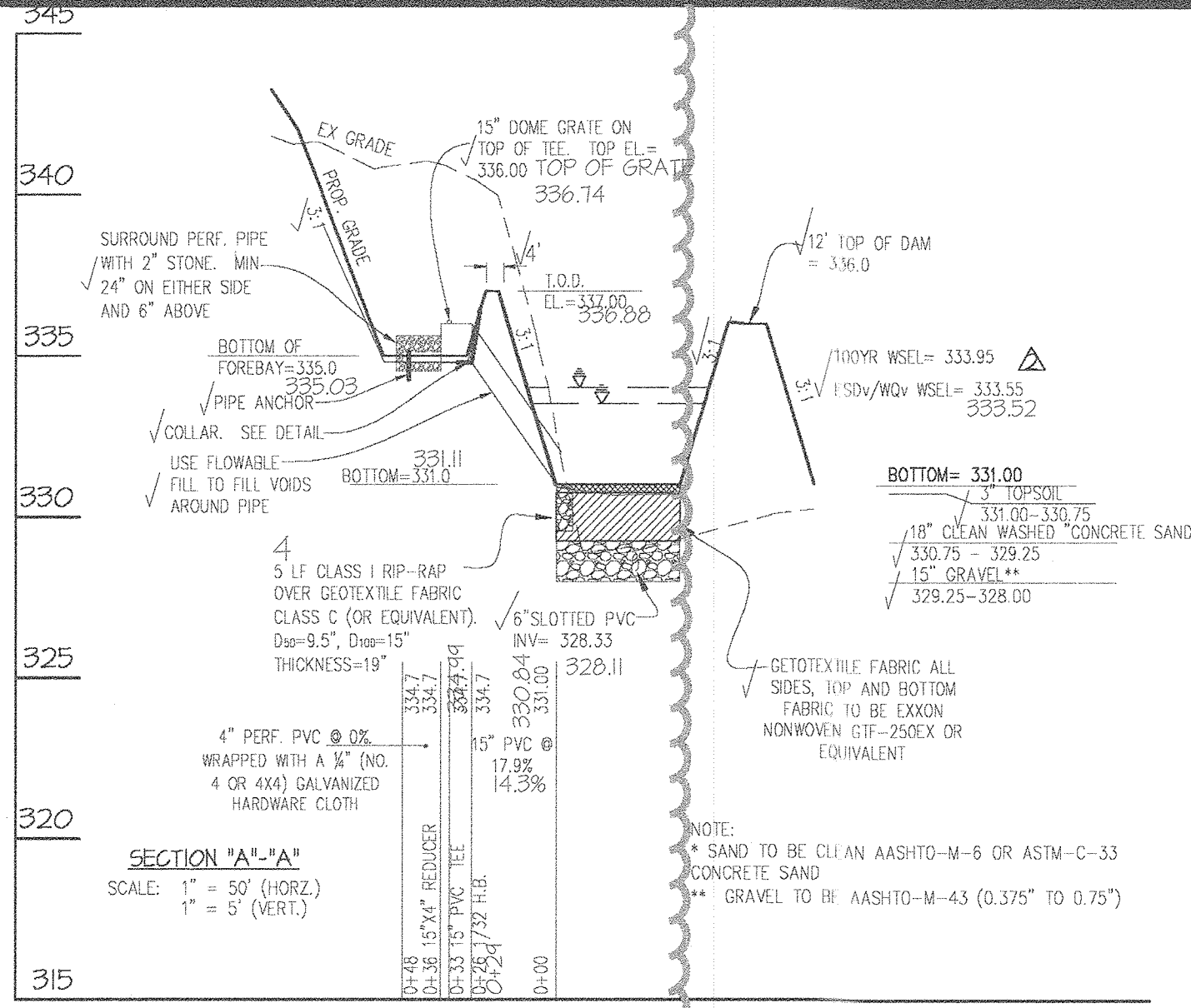
PREPARED FOR:
BEAZER HOMES CORP.
8965 GULFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12935
EXPIRATION DATE: MAY 28, 2016
4/25/15

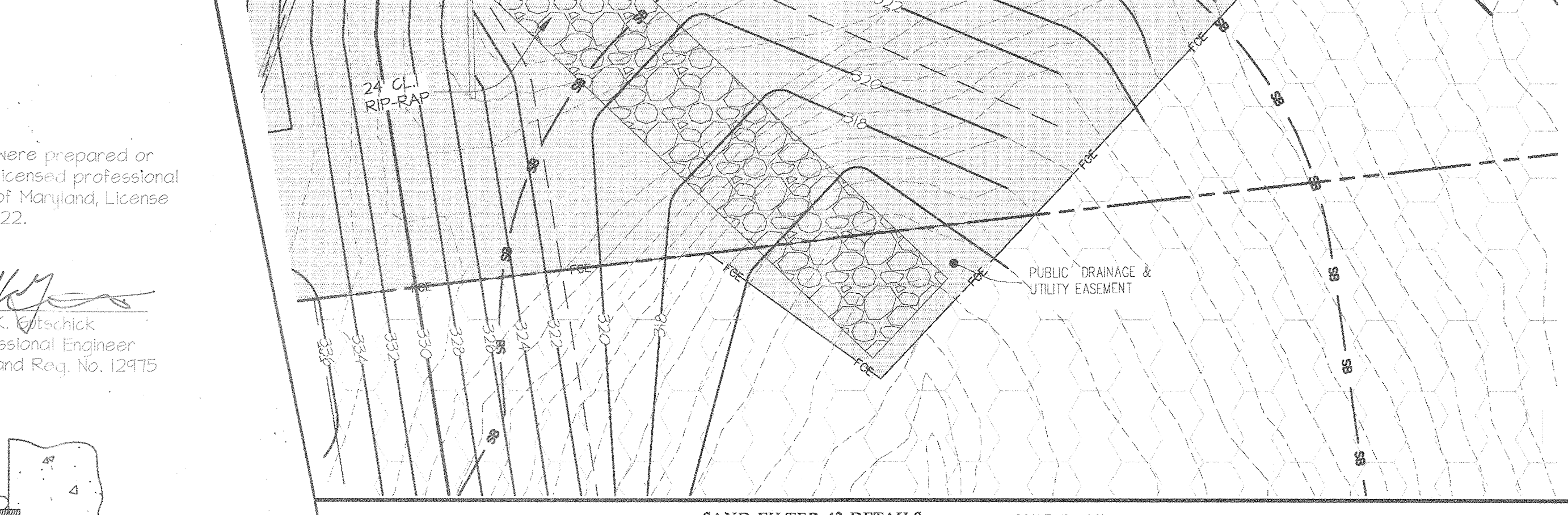
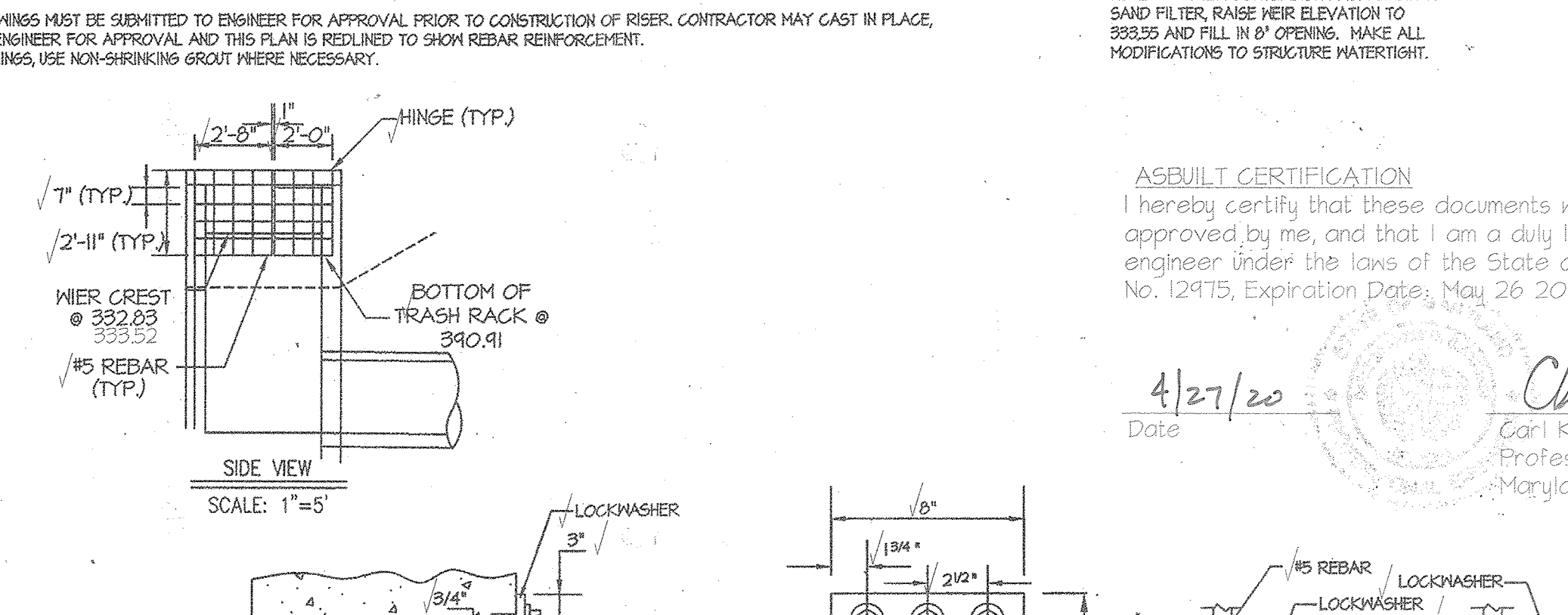
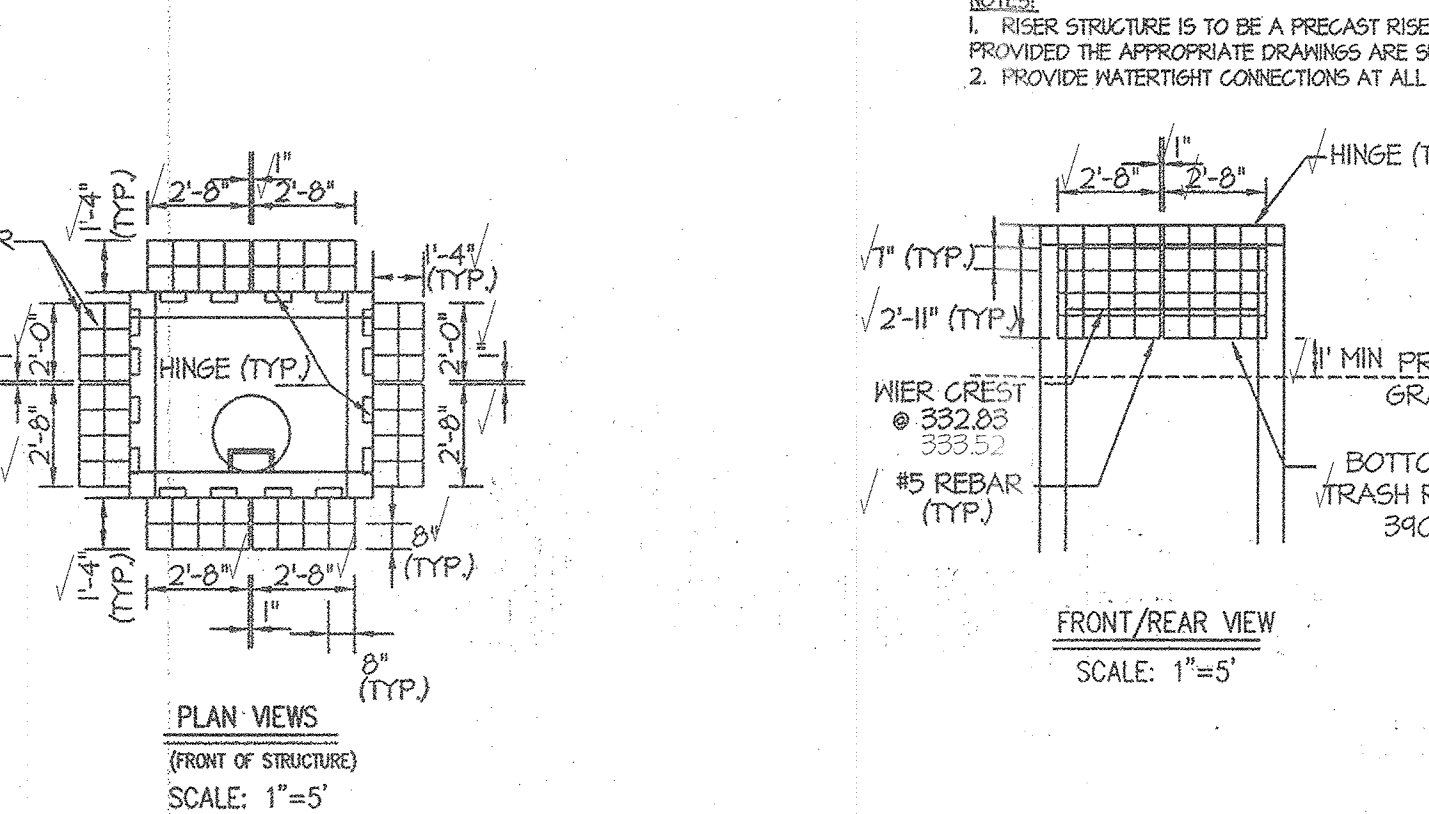
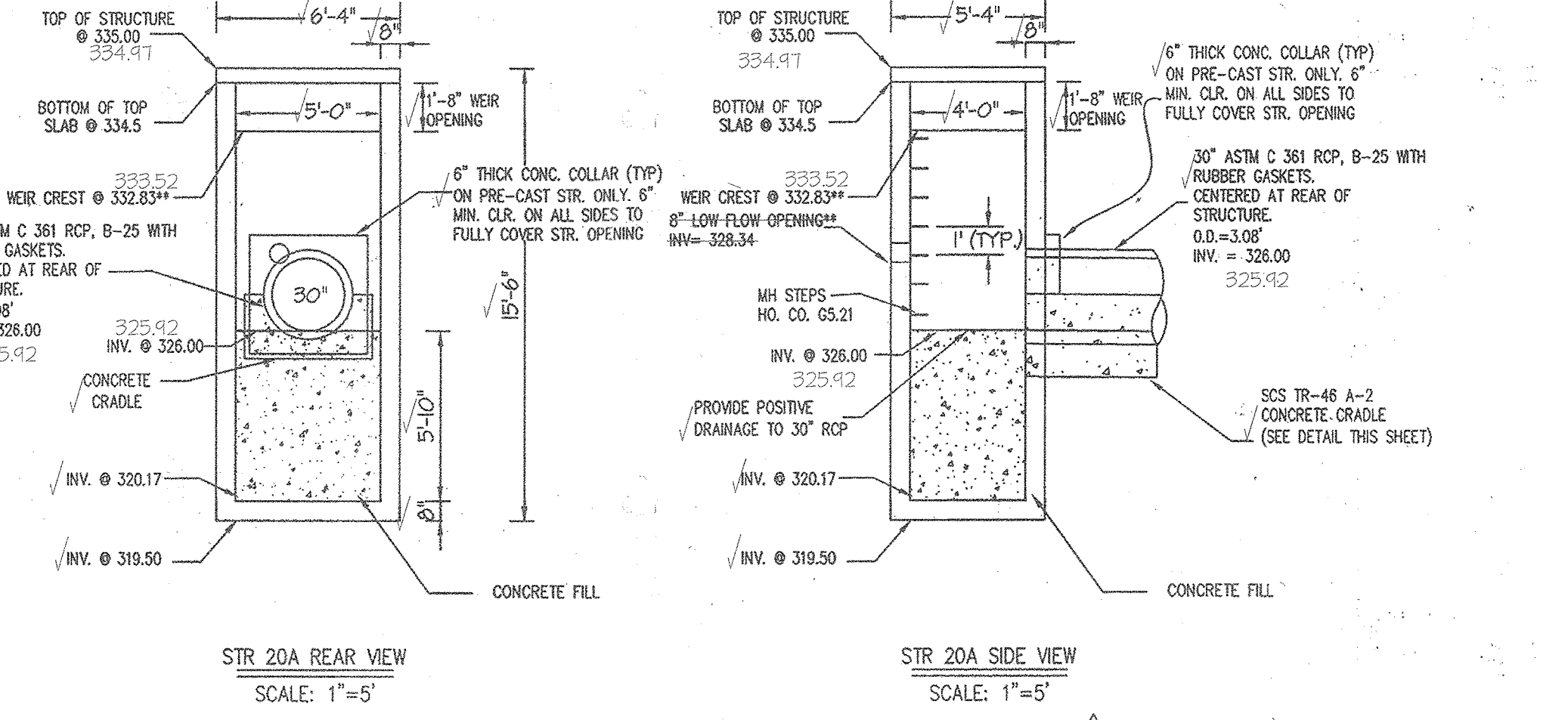
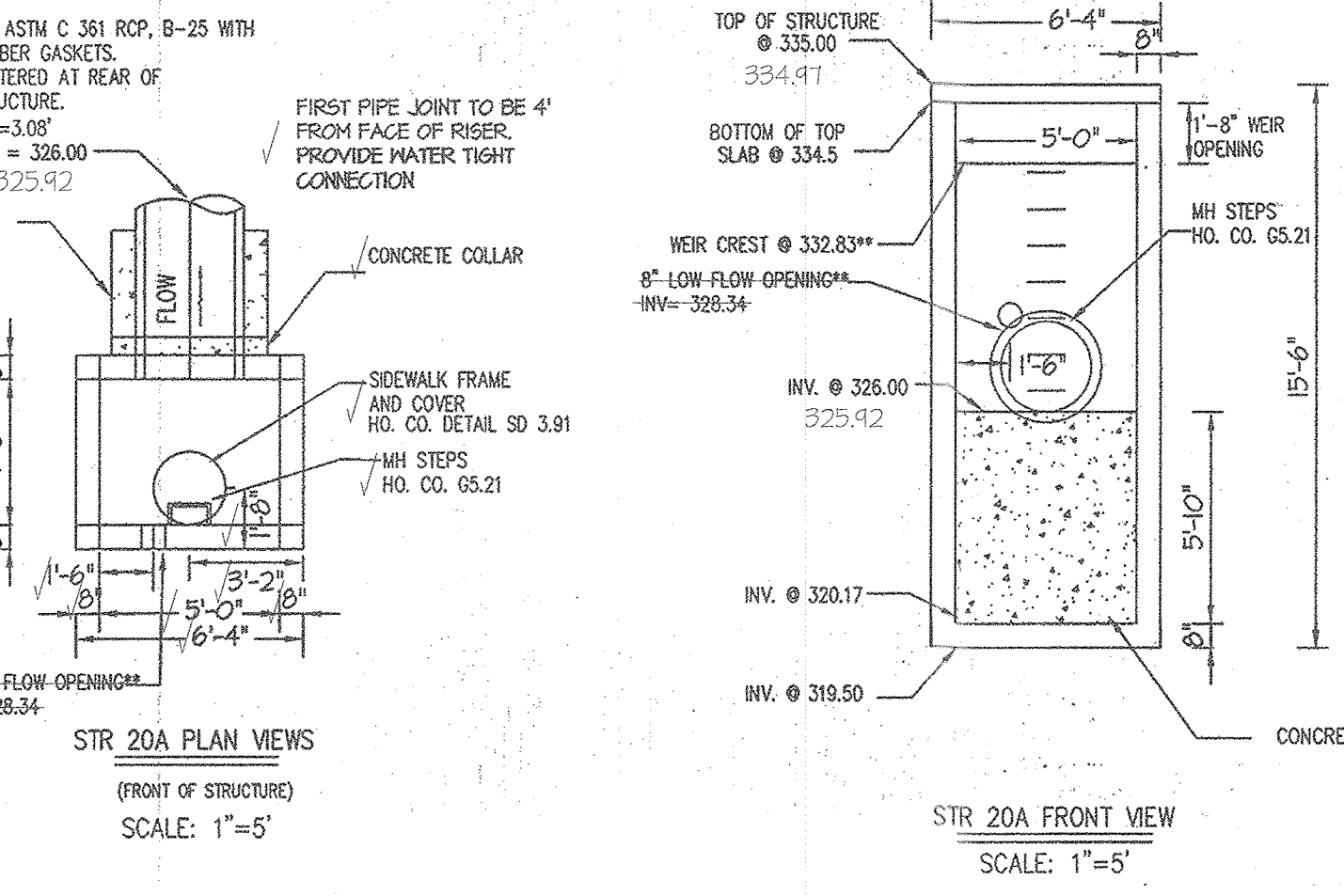
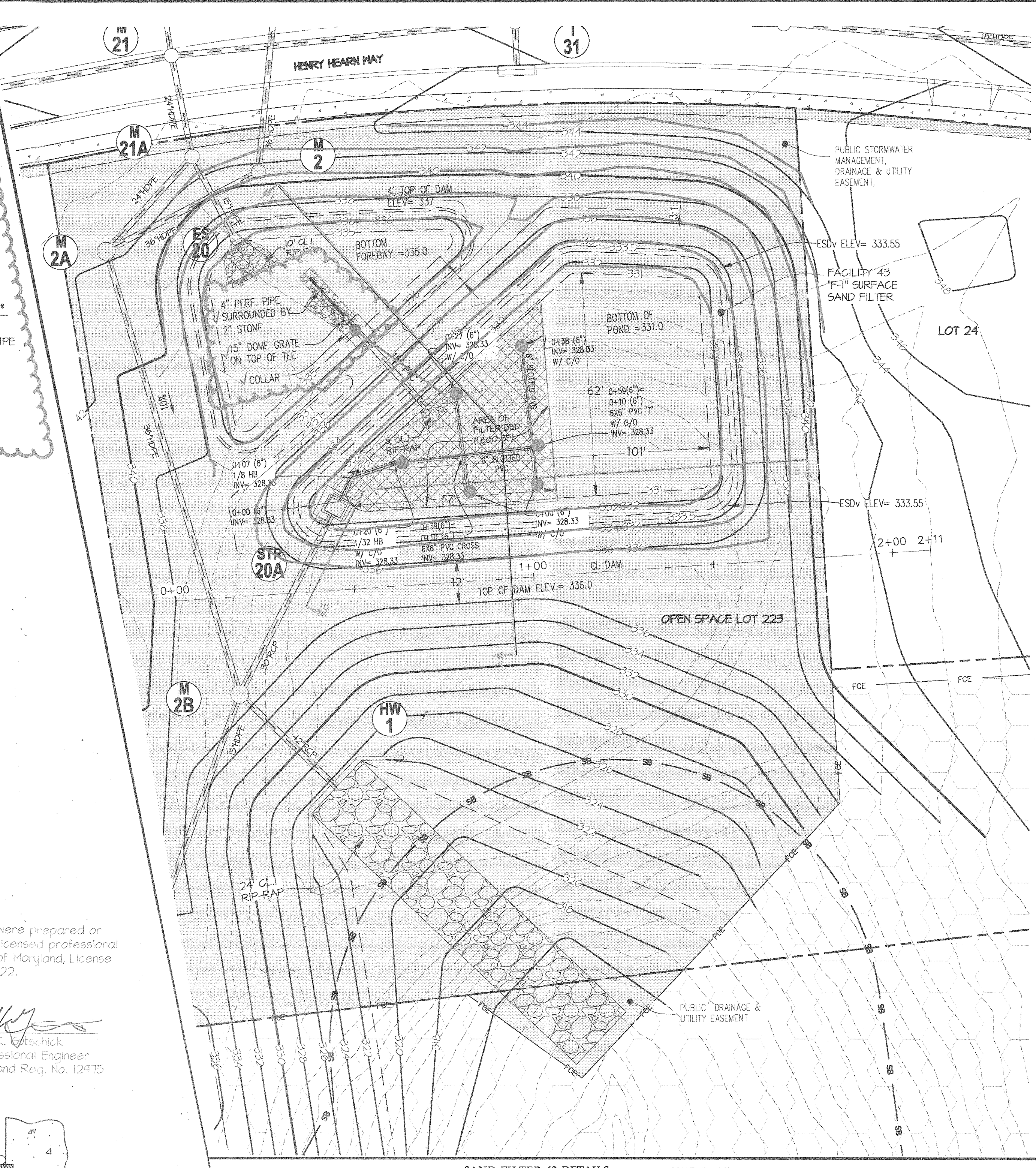
REVISED STORMWATER MANAGEMENT DETAILS

WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 - 257
L 11388 R 725 PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
FEB, 2015	47-3	59 OF 71



SIZE (INCHES)	TYPE	QUANTITY (L.F.)	REMARKS
6	SLOTTED PVC	124	SCHEDULE 40



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 Date: 3-16-2015

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development
 Date: 4-23-15

Chief, Planning Engineering Division
 Date: 4-22-15

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

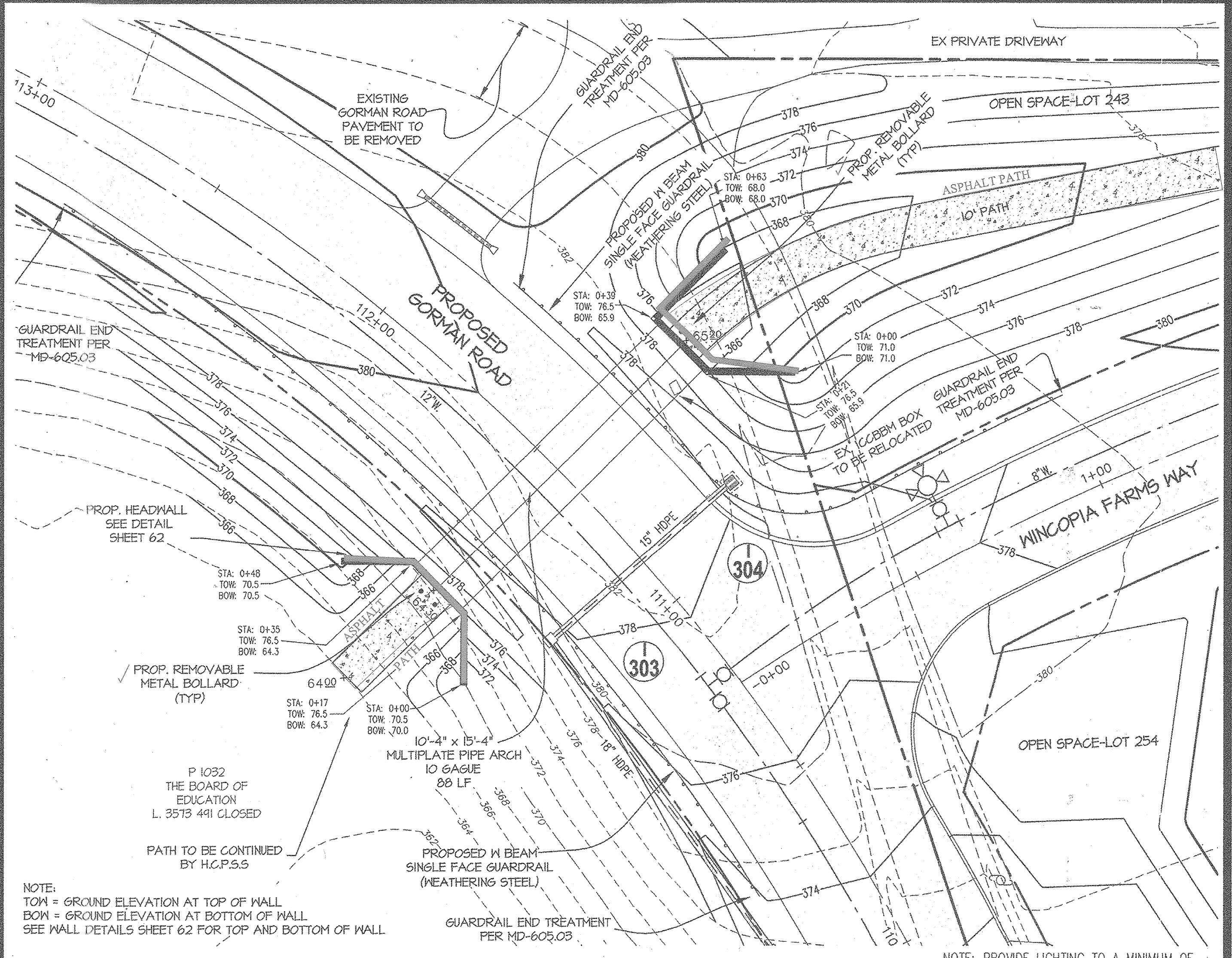
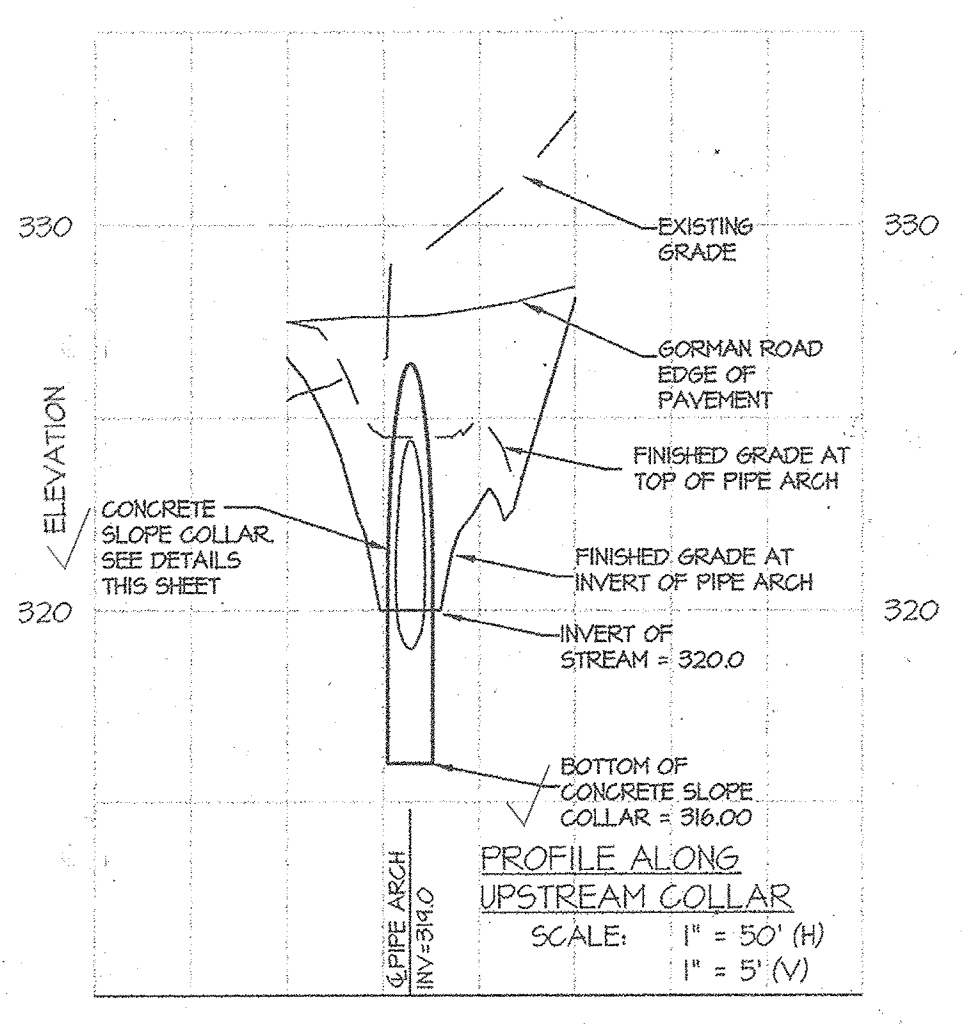
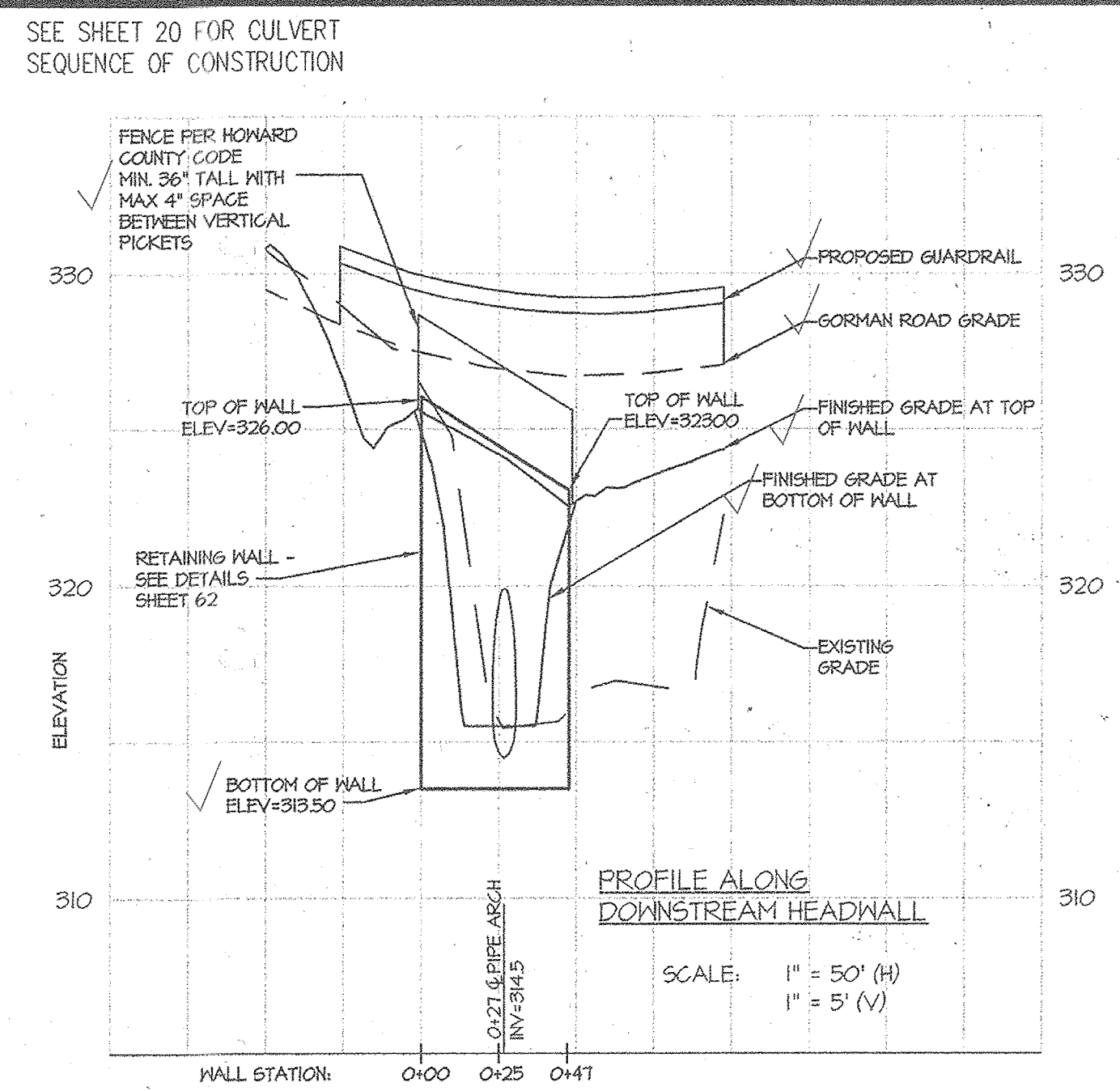
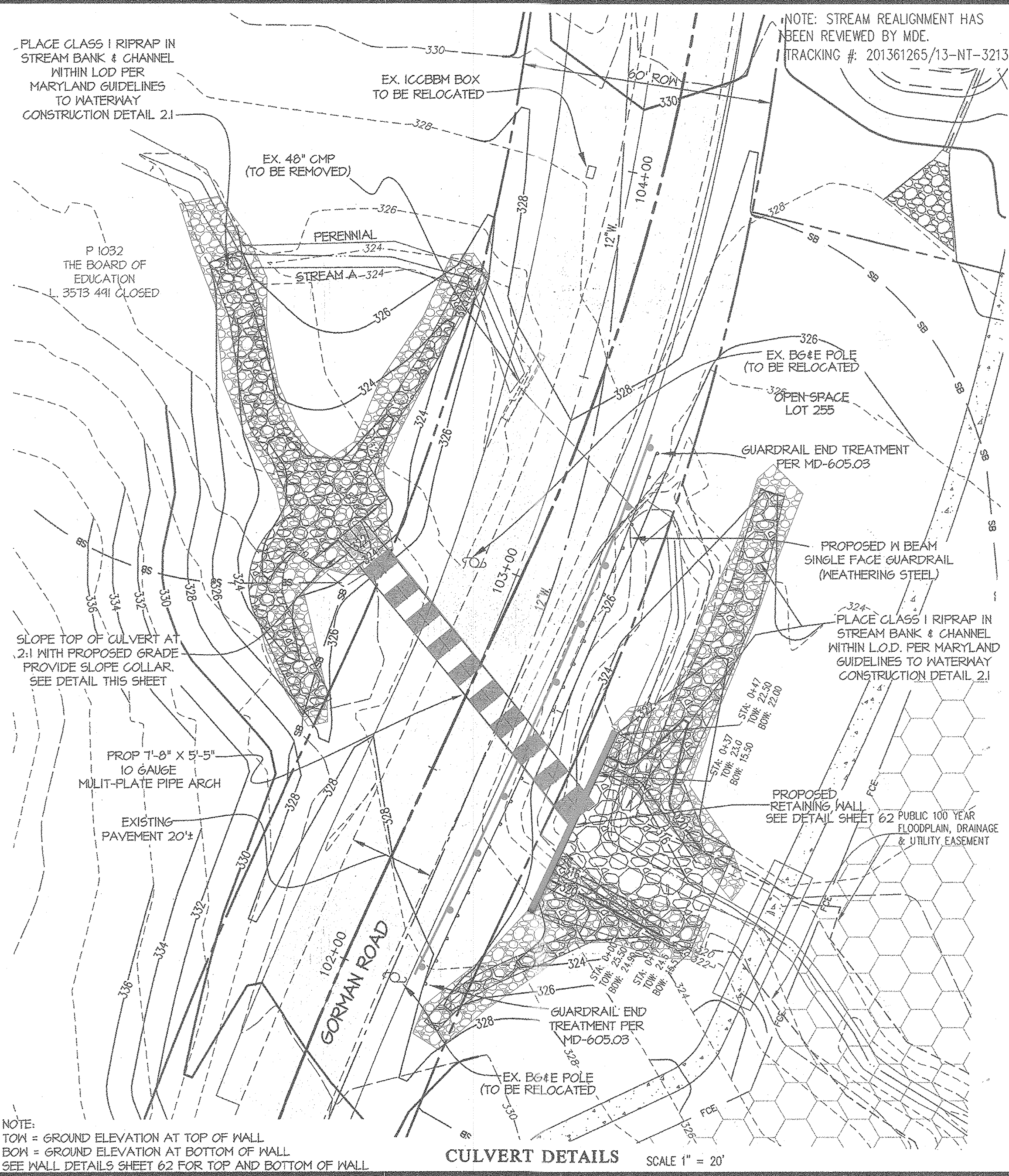
DATE	REVISION	BY	APP'R.
02/2015	WEIR ELEVATION REVISED		

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12475, EXPIRATION DATE: MAY 26, 2022

REVISSED STORMWATER MANAGEMENT DETAILS
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 - 257
 L 11388 R 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 FEB., 2015	47-3	60 OF 71

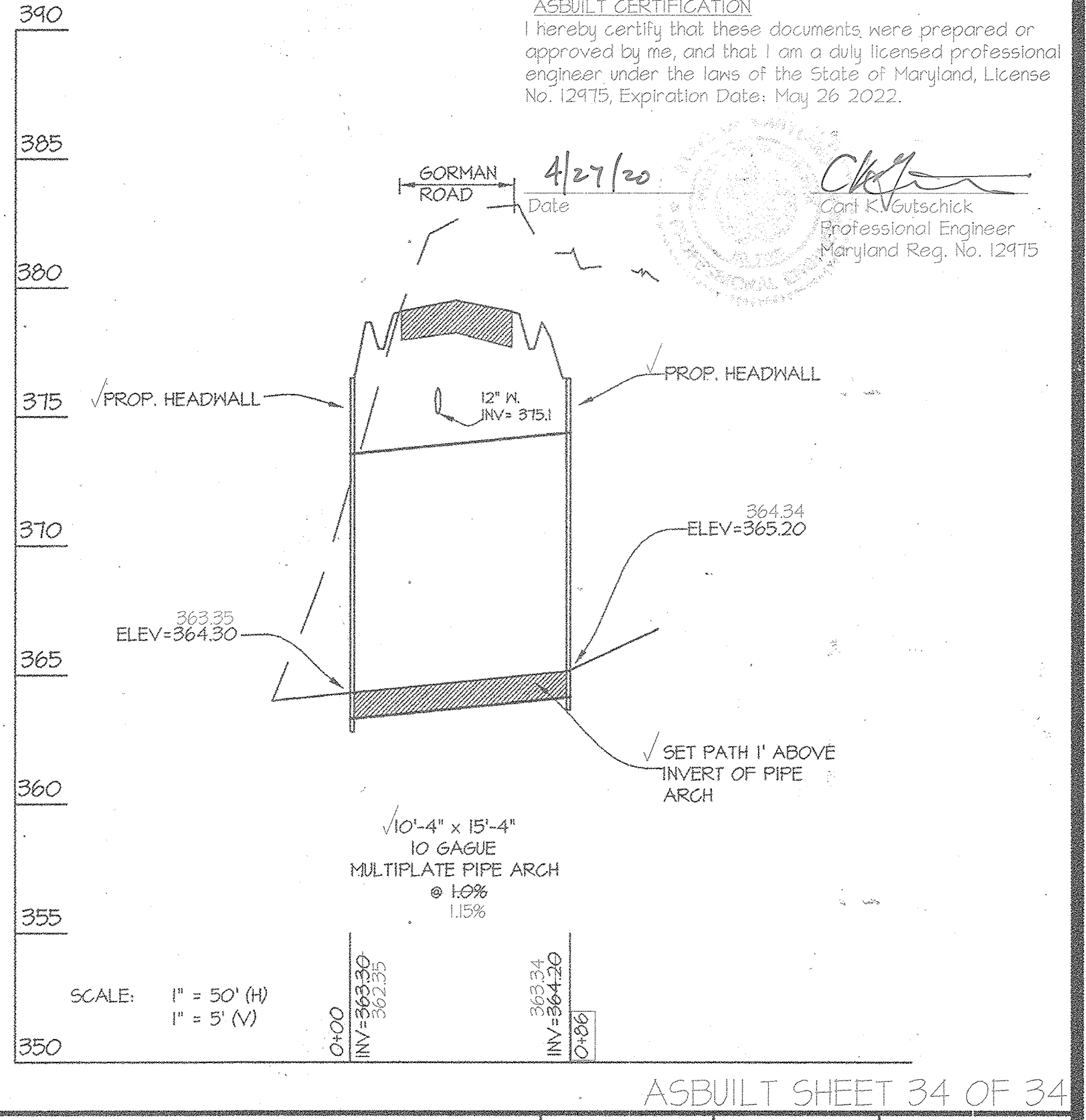
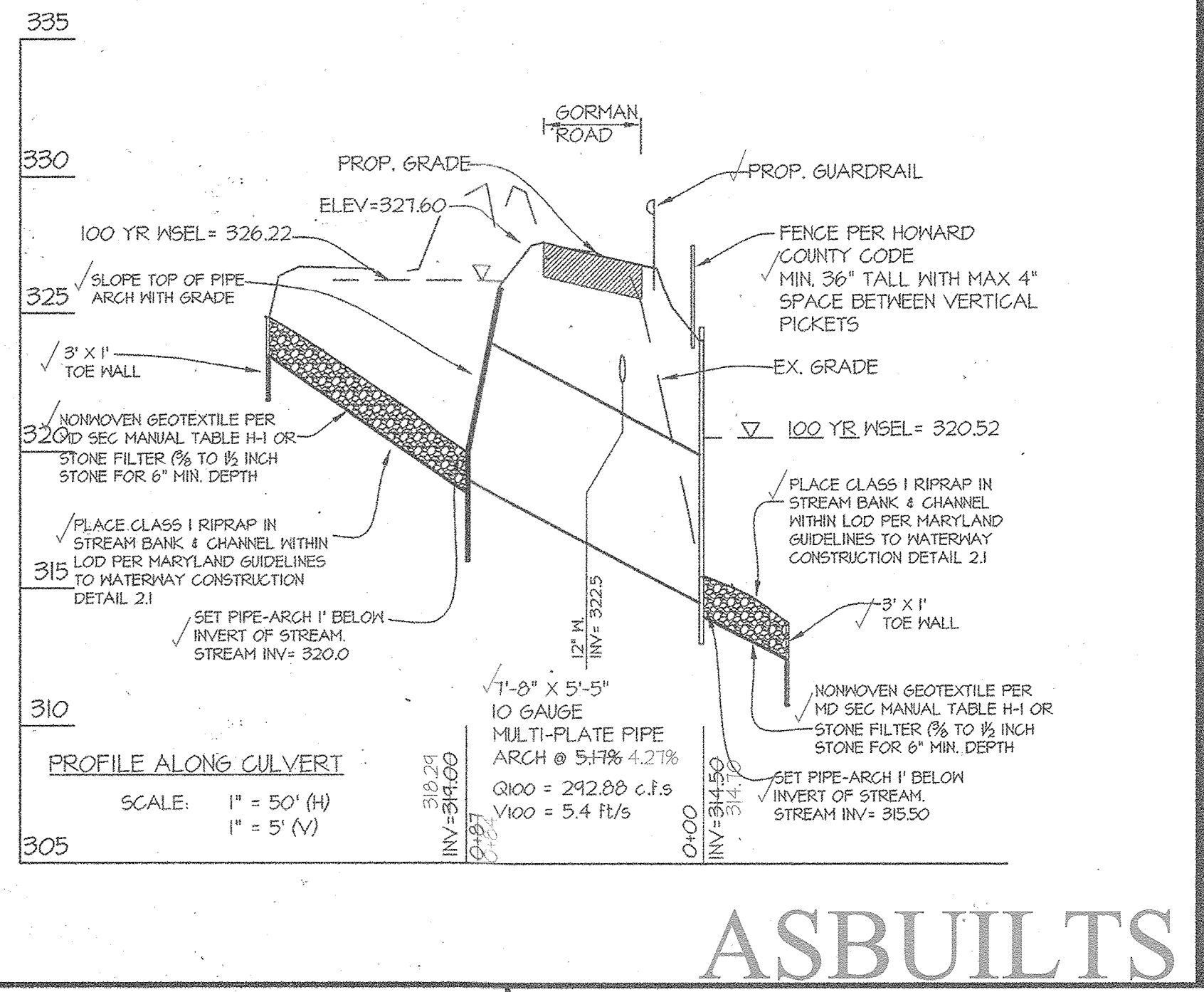
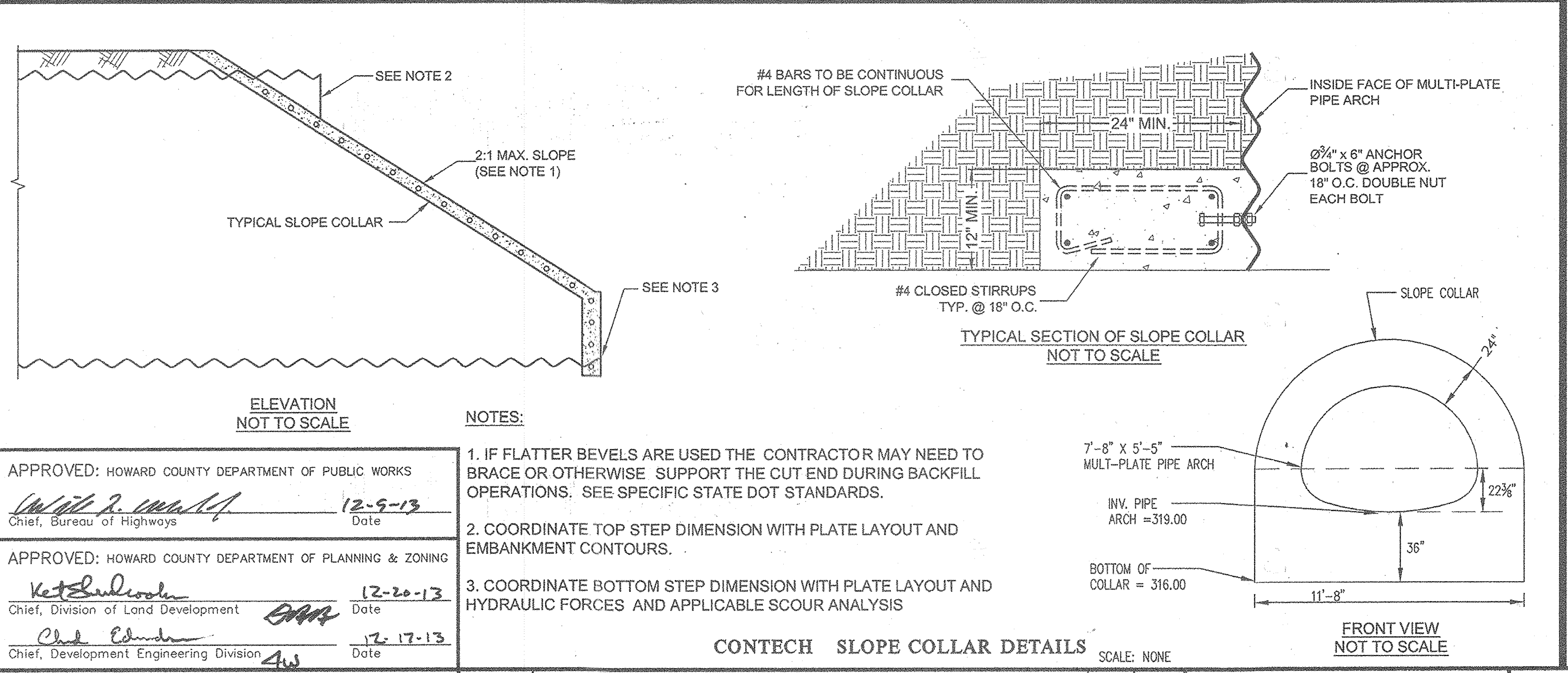


ALL EXPOSED CONCRETE SURFACES ON CULVERT AND PEDESTRIAN UNDERPASS SHALL BE TREATED WITH AN ANTI-GRAFFITI COATING IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATIONS. USE SHERWIN WILLIAMS B47-150 SERIES OR EQUAL APPROVED BY HOWARD COUNTY.

UNDERPASS DETAILS SCALE 1" = 20'

NOTE: PROVIDE LIGHTING TO A MINIMUM OF 10 FOOT-CANDELES IN PEDESTRIAN UNDERPASS PER MARYLAND SHA BICYCLE AND PEDESTRIAN DESIGN GUIDELINES, CHAPTER 12.

ASBUILT 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. 12475, Expiration Date: May 26 2022.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
12-5-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
12-20-13

12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 230
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

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. 12475
EXPIRATION DATE: MAY 26, 2014
11-18-13

ASBUILTS
CULVERT AND UNDERPASS DETAILS

WINGOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
OPEN SPACE LOTS 221 THROUGH 257
L. 11388 F. 725
PARCEL 472

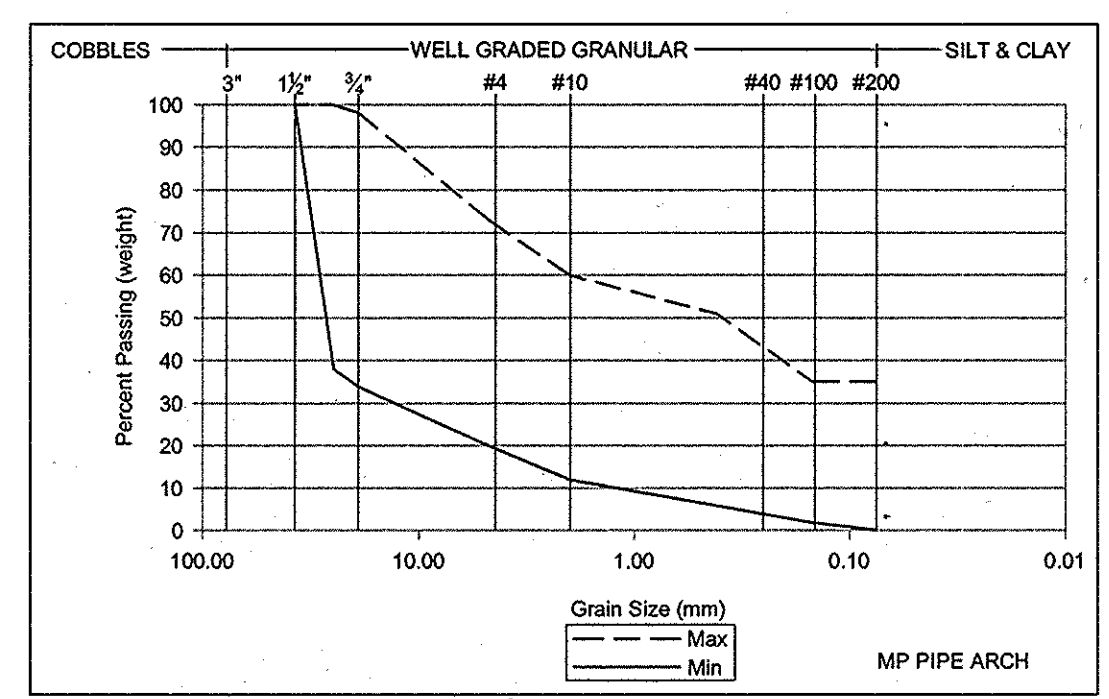
ELECTION DISTRICT No. 6

SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
APR. 2020 NOV., 2013	47-3	61 OF 71

SPECIFICATIONS FOR MANUFACTURE AND INSTALLATION OF CONTECH® MULTI-PLATE PIPE ARCH

- I - GENERAL**
- 1.0 STANDARDS AND DEFINITIONS
- 1.1 STANDARDS - All standards refer to latest edition unless otherwise noted.
- 1.1.1 ASTM A-761 "Corrugated Steel Structural Plate, Zinc Coated or Field-Bolted Pipe, Pipe-Arch and Arches" (AASHTO Designation M-167)
- 1.1.2 AASHTO Standard Specification for Highway Bridges - Section 12.
- 1.1.3 AASHTO Standard Specification for Highway Bridges - Section 26.
- 1.2 DEFINITIONS
- 1.2.1 Owner - In these specifications the word "Owner" shall mean BEAZER HOMES CORP.
- 1.2.2 Engineer - In these specifications the word "Engineer" shall mean the Engineer of Record or Owner's designated engineering representative.
- 1.2.3 Manufacturer - In these specifications the word "Manufacturer" shall mean CONTECH Construction Products Inc. 800-338-1122 Daniel Bar
- 1.2.4 Contractor - In these specifications the word "Contractor" shall mean the firm or copartners undertaking the execution of any installation work under the terms of these specifications.
- 1.2.5 Approved - In these specifications the word "approved" shall refer to the approval of the Engineer or his designated representative.
- 1.2.6 As Directed - In these specifications the words "as directed" shall refer to the directions to the Contractor from the Owner or his designated representative.

- II - MULTI-PLATE PIPE ARCH**
- 1.0 GENERAL
- 1.1 Manufacturer shall fabricate the Multi-Plate Pipe Arch (81 PI & 156 PI) CULVERT as shown on the plans. Fabrication shall conform to the requirements of ASTM A-761 and shall consist of plates, fasteners, and appurtenant items. Plate thickness, end treatment and type of invert and foundation shall be as indicated on the plans. All manufacturing processes including corrugating, punching, curving and required galvanizing shall be performed within the United States of America. The contractor shall verify all field dimensions and conditions prior to ordering materials.
- 1.2 DIMENSIONS
- 2.1 The proposed structure shall be a pipe arch CULVERT with the following dimensions:
Span: 7'-8" / 10'-4" Rise: 5'-5" / 15'-4"
Gage: 10
- 2.2 All plan dimensions on the contract drawings are measured in a true horizontal plan unless otherwise noted.
- 2.3 ASSEMBLY AND INSTALLATION
- 3.1 Bolts and nuts shall conform to the requirements of ASTM A-449. The structure shall be assembled in accordance with the plate layout drawings provided by the manufacturer and per the manufacturer's recommendations. Bolts shall be tightened using an applied torque of between 100 and 300 ft.-lbs.
- 3.2 The structure shall be installed in accordance with the plans and specifications, the manufacturer's recommendations, and AASHTO Standard Specification for Highway Bridges - Section 26.
- 3.3 Trench excavation shall be made in embankment material that is structurally adequate. The trench width shall be shown on the plans. Poor quality in situ embankment material must be removed and replaced with suitable backfill as directed by the Engineer.
- 3.4 Bedding preparation is critical to both structure performance and service life. The bed should be constructed to uniform line and grade to avoid distortions that may create undesirable stresses in the structure and/or rapid deterioration of the roadway. The bed should be free of rock formations, protruding stones, frozen lumps, roots, and other foreign matter that may cause unequal settlement.
- 3.5 Bedding shall provide a minimum of 4,000 psf bearing capacity. Foundation details for bearing capacity less than 4,000 psf shall be approved by the Engineer.
- 3.6 The structure shall be assembled in accordance with the Manufacturer's instructions. All plates shall be unloading and handled with reasonable care. Plates shall not be rolled or dragged over gravel rock and shall be prevented from striking rock or other hard objects during placement in trench or on bedding.

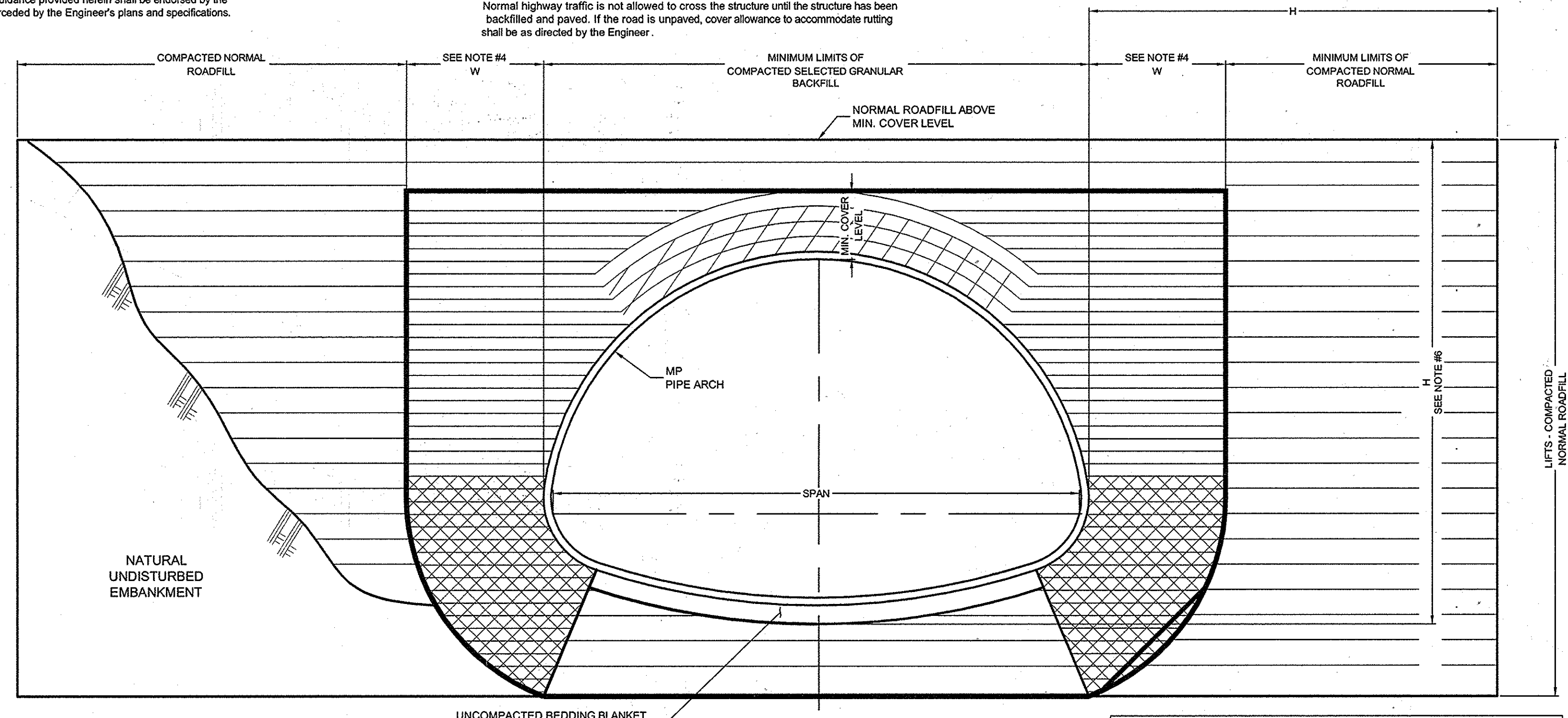


GROUP CLASSIFICATION	A-1	A-2	A-3*
Sieve Analysis Percent Passing			
No. 10 (2.000 mm)	---	---	---
No. 40 (0.425 mm)	50 max.	---	51 max.
No. 200 (0.075 mm)	25 max.	35 max.	10 max.
Characteristics of Fraction			
Passing No. 40 (0.425 mm)			
Liquid Limits	---	40 max.	---
Plasticity Index	6 max.	10 max.	Non Plastic
Usual Materials	Stone Fragment, Gravel and Sand	Gravel or Sand With Silt or clay	Sand

Adapted from AASHTO M-145
* Fine beach sands, windblown sands, stream deposited sands, etc., exhibiting fine, rounded particles and typically classified by AASHTO M-145 as A-3 material should be avoided.

- 2.0 GENERAL CONDITIONS
- 2.1 The Contractor shall furnish all labor, material and equipment and perform all work and services except those set out and furnished by the Owner, necessary to complete in a satisfactory manner the site preparation, excavation, filling, compaction, grading as shown on the plans and as described therein. This work shall consist of all mobilization clearing and grading, grubbing, stripping, removal of existing material unless otherwise stated, preparation of the land to be filled, filling of the land, spreading and compaction of the fill, and all subsidiary work necessary to complete the grading of the cut and fill areas to conform with the lines, grades, slopes, and specifications. This work is to be accomplished under the observation of the Owner or his designated representative.
- 2.2 Prior to bidding the work, the Contractor shall examine, investigate and inspect the construction site as to the nature and location of the work, and the general and local conditions at the construction site, including without limitation, the character of surface or subsurface conditions and obstacles to be encountered on and around the construction site and shall make such additional investigation as he may deem necessary for the planning and proper execution of the work.
- If conditions other than those indicated are discovered by the Contractor, the Owner shall be notified immediately. The material which the Contractor believes to be a changed condition shall not be disturbed so that the owner can investigate the condition.
- 2.3 The construction shall be performed under the direction of the Engineer.
- 2.4 All aspects of the structure design and site layout including foundations, backfill, and treatments and necessary scour consideration shall be performed by the Engineer.
- Any installation guidance provided herein shall be endorsed by the Engineer or superseded by the Engineer's plans and specifications.

- 3.7 Construction loads that exceed highway load limits are not allowed to cross the structure without approval from the Engineer.
- Normal highway traffic is not allowed to cross the structure until the structure has been backfilled and paved. If the road is unpaved, cover allowance to accommodate rutting shall be as directed by the Engineer.



- ADDITIONAL BACKFILL NOTES:**
- SATISFACTORY BACKFILL MATERIAL, PROPER PLACEMENT, AND COMPACTION ARE KEY FACTORS IN OBTAINING MAXIMUM STRENGTH AND STABILITY.
- THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND FOREIGN MATERIAL THAT COULD CAUSE HARD SPOTS OR DECOMPOSE TO CREATE VOIDS. BACKFILL MATERIAL SHOULD BE WELL GRADED GRANULAR MATERIAL THAT MEETS THE REQUIREMENTS OF AASHTO M-145 FOR SOIL CLASSIFICATIONS A-1, A-2, A-3. BACKFILL MUST BE REPLACED SYMMETRICALLY ON EACH SIDE OF THE STRUCTURE IN 6" LOOSE LIFTS. EACH LIFT IS TO BE COMPACTED TO A MINIMUM OF 90% DENSITY PER AASHTO T-99.
- A HIGH PERCENTAGE OF SILT OR FINE SAND IN THE NATIVE SOILS SUGGESTS THE NEED FOR A WELL GRADED GRANULAR BACKFILL MATERIAL TO PREVENT SOIL MIGRATION.
- DURING BACKFILL, ONLY SMALL TRACKED VEHICLES (D-4 OR SMALLER) SHOULD BE NEAR THE STRUCTURE AS FILL PROGRESSES ABOVE THE CROWN AND TO THE FINISHED GRADE.
- CRITICAL BACKFILL ZONE, PRESSURE ON SOIL GREATEST HERE.**
- INITIAL LIFTS OVER CROWN OF STRUCTURE AS INDICATED BY SHADED AREA TO BE COMPACTED TO REQUIRED DENSITY WITH HAND OPERATED EQUIPMENT OR WITH SMALL TRACTOR (D-4 OR SMALLER) DRAWN EQUIPMENT.
- NOTES:**
1. ALL SELECT GRANULAR BACKFILL TO BE PLACED IN A BALANCED FASHION IN THIN LIFTS (6"-8" LOOSE TYPICALLY) AND COMPACTED TO 90 PERCENT DENSITY PER AASHTO T-99.
2. COMPLETE AND REGULAR MONITORING OF THE PIPE ARCH IS NECESSARY DURING ALL BACKFILLING STEPS.
3. PREVENT EXCESSIVE DISTORTION OF SHAPE AS NECESSARY BY VARYING COMPACTION METHODS AND EQUIPMENT.
4. TRENCH WIDTH AND/OR SELECT FILL ENVELOPE WIDTH SHALL BE BY DIRECTION OF THE ENGINEER OF RECORD. A TYPICAL WIDTH OF FEET IS DEPICTED, BUT GREATER OR LESSER DISTANCE MAY BE REQUIRED DEPENDING UPON SITE-SPECIFIC CONDITIONS. THIS WIDTH DEPENDS ON FACTORS SUCH AS THE LATERAL PRESSURES EXERTED BY THE STRUCTURE ONTO THE ADJACENT SOIL FOR THE GIVEN LOADING CONDITIONS, THE STRUCTURE SHAPE, THE QUALITY OF THE SELECT FILL MATERIAL AND THE STRENGTH OF THE IN SITU EMBANKMENT / TRENCH MATERIAL. THESE FACTORS MUST BE EVALUATED BY THE PROJECT ENGINEER FOR EACH SPECIFIC SITUATION.
5. SHAPED BED FOR A MINIMUM WIDTH OF SPAN/2. MINIMUM BEDDING THICKNESS IS 6 INCHES.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. J. M. M. A. 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K. S. L. D. L. 12-20-13
 Chief, Division of Land Development

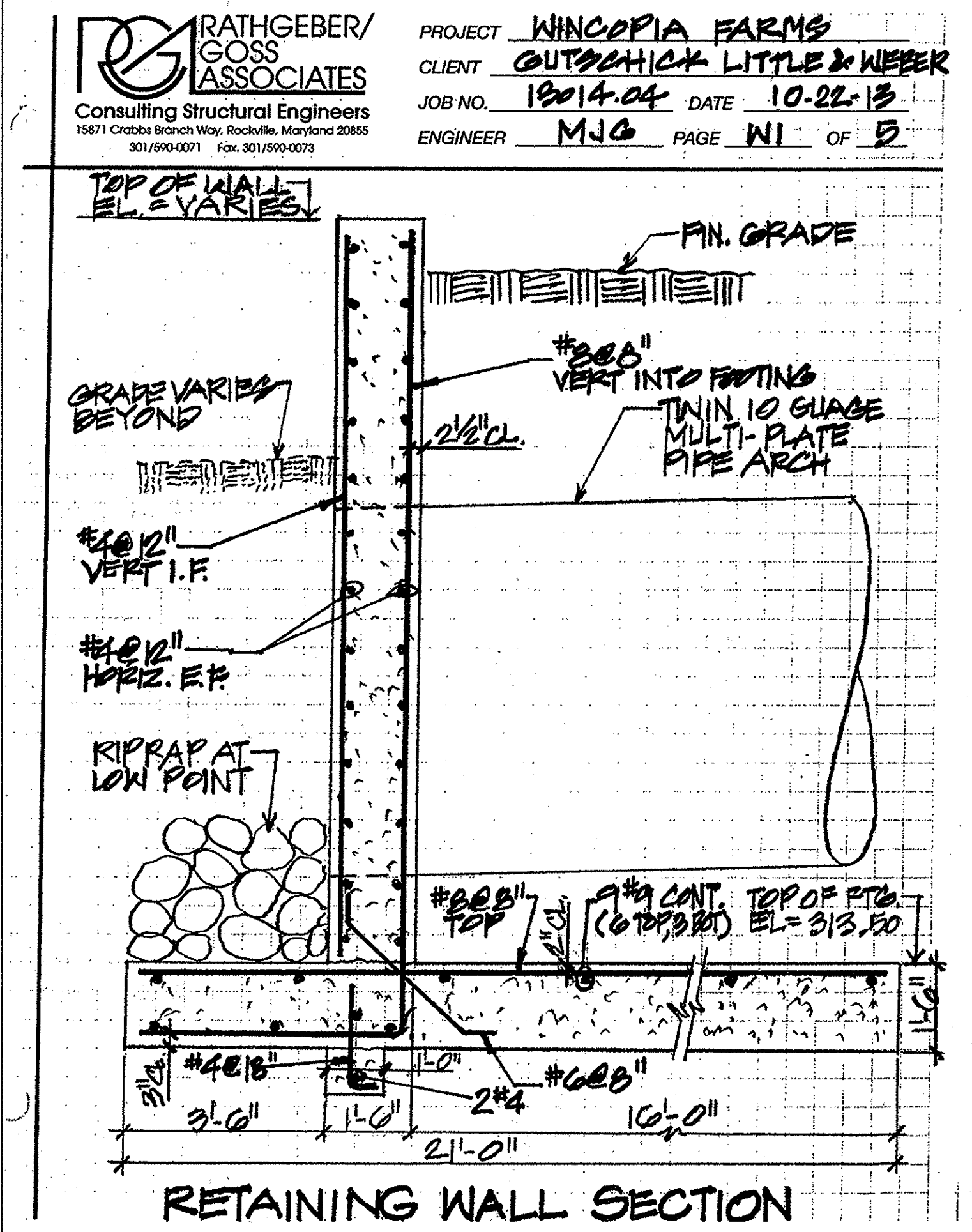
C. E. C. L. 12-17-13
 Chief, Development Engineering Division

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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 BURTONVILLE, MARYLAND 20886
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

DATE	REVISION	BY	APP'R.

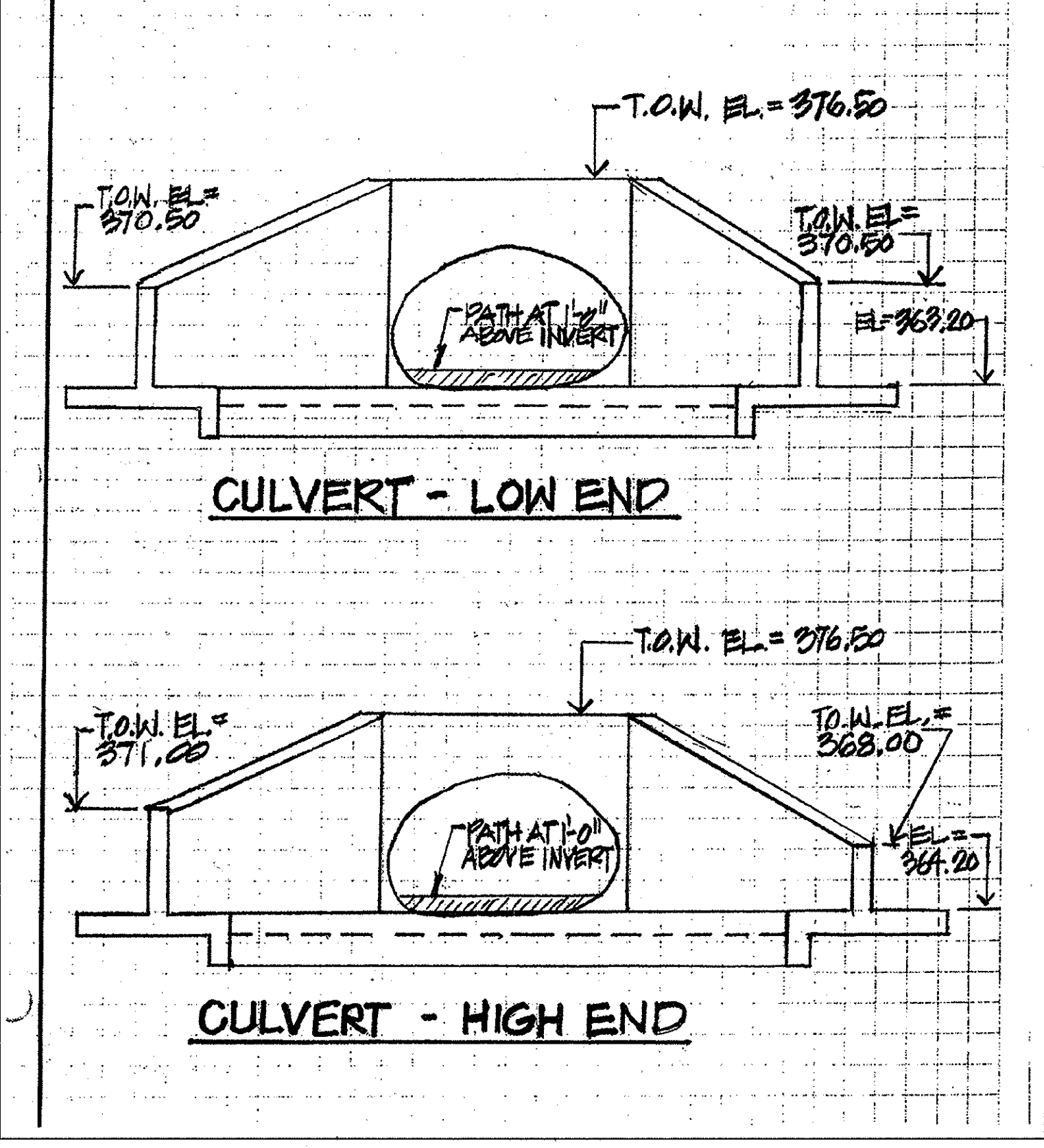
PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GULFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

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. 12975, EXPIRATION DATE: MAY 26, 2014.
 11-15-13

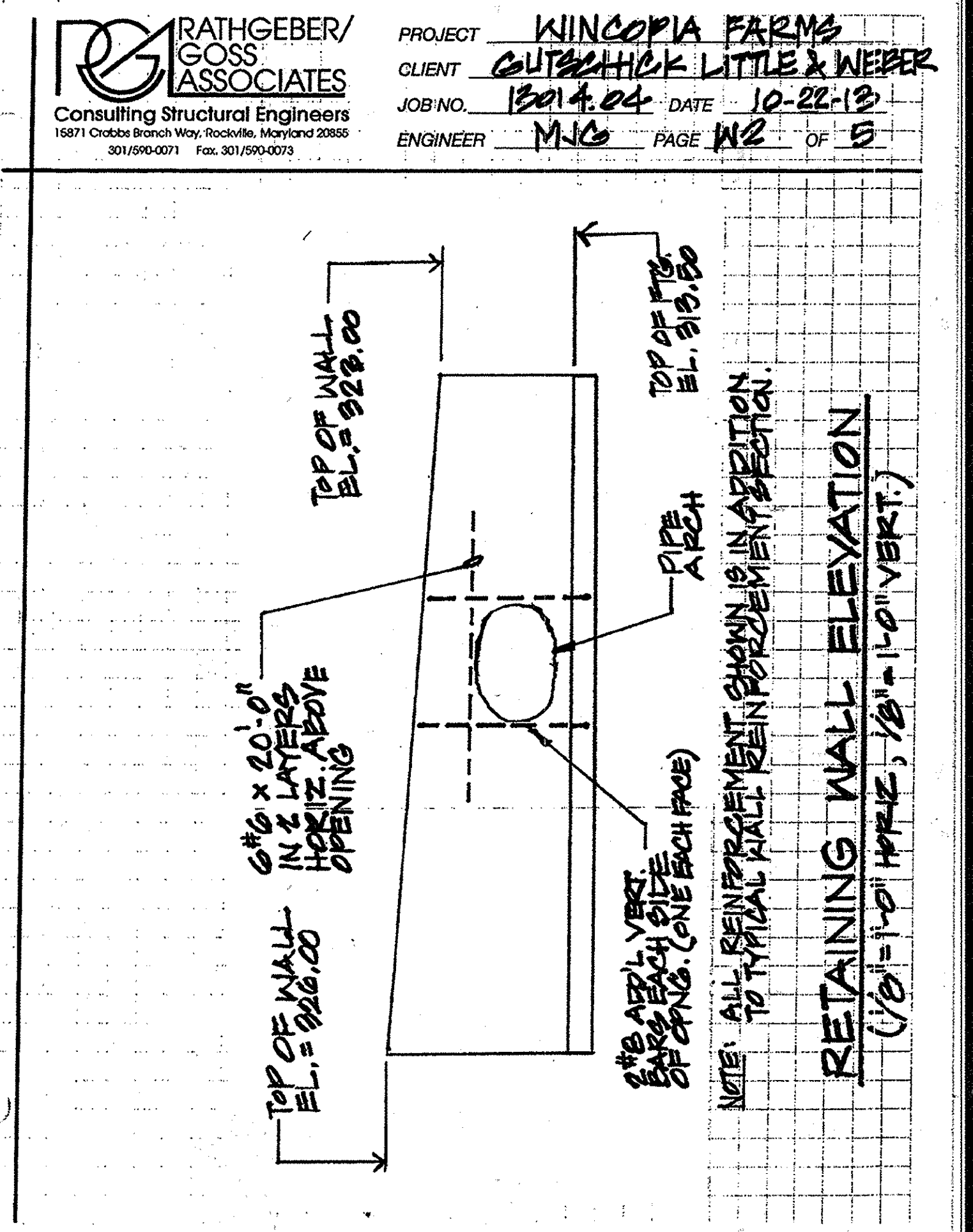


RATHGEBER/GOSS ASSOCIATES
 Consulting Structural Engineers
 15871 Crabbs Branch Way, Rockville, Maryland 20855
 301/990-0071 Fax: 301/990-0073

PROJECT: WINCOPIA FARMS
 CLIENT: GUTSCHICK LITTLE & WEBER
 JOB NO. 13014.04 DATE 10-22-13
 ENGINEER: MJC PAGE W1 OF 5

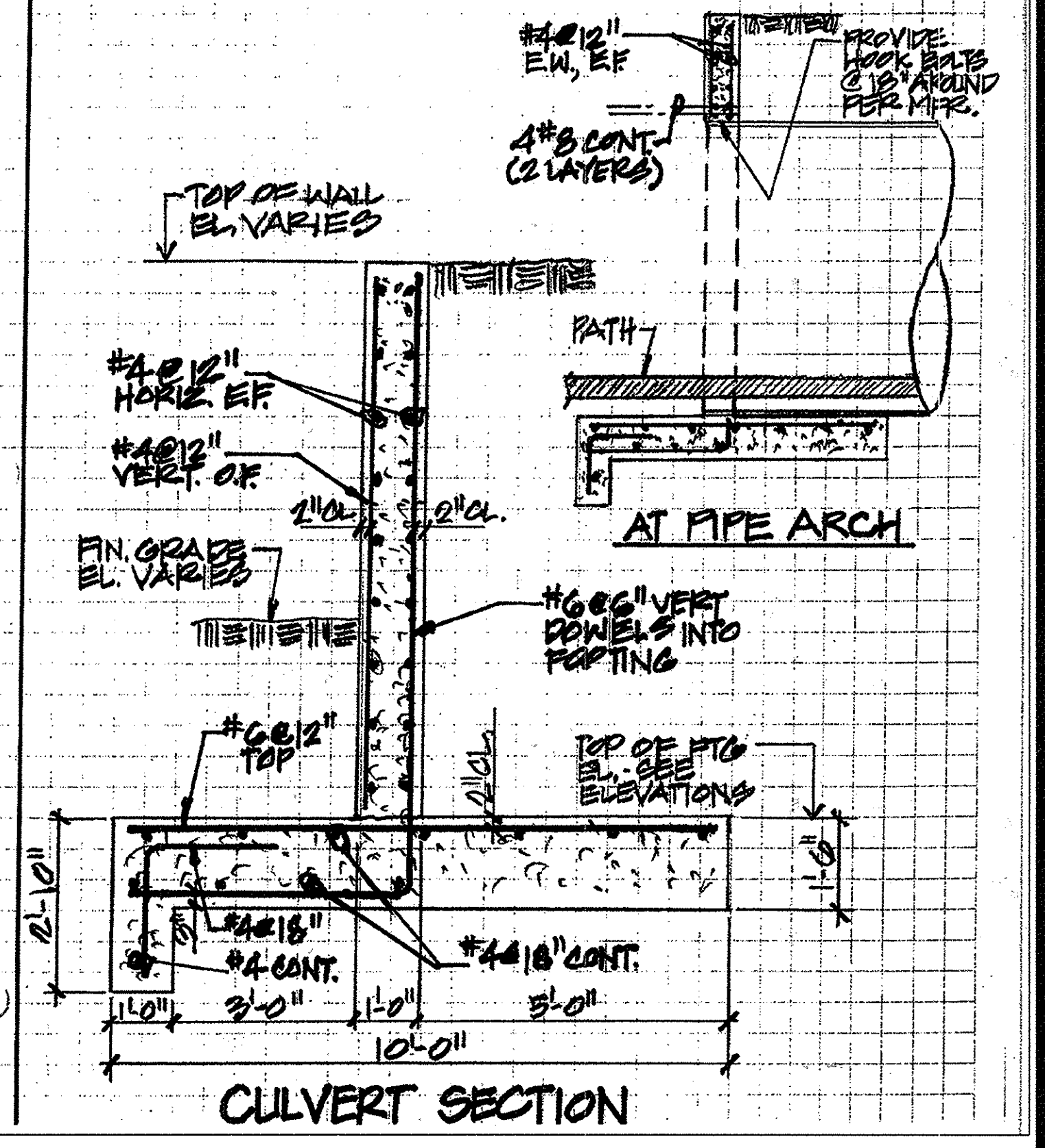


PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 12975, EXPIRATION DATE: MAY 26, 2014.
 11-15-13



RATHGEBER/GOSS ASSOCIATES
 Consulting Structural Engineers
 15871 Crabbs Branch Way, Rockville, Maryland 20855
 301/990-0071 Fax: 301/990-0073

PROJECT: WINCOPIA FARMS
 CLIENT: GUTSCHICK LITTLE & WEBER
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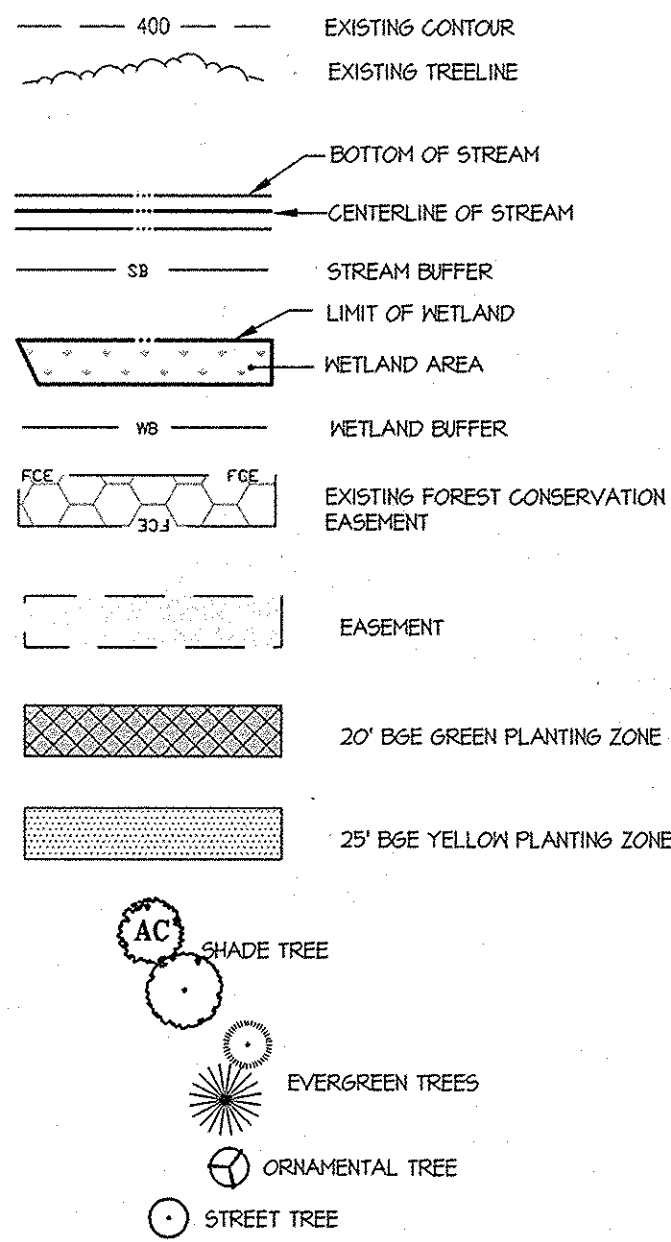


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 11-15-13

CULVERT AND UNDERPASS DETAILS		
SCALE	ZONING	G. L. W. FILE NO.
AS SHOWN	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	62 OF 71

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 11388 F 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 6

LANDSCAPE LEGEND



LANDSCAPE NOTES

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE & CHAPTER VI OF THE HOWARD COUNTY LANDSCAPE MANUAL AND SP-10-005.
- CONTRACTOR SHALL NOTIFY ALL UTILITIES AT LEAST (5) FIVE DAYS BEFORE STARTING WORK. ALL GENERAL NOTES, ESPECIALLY THOSE REGARDING UTILITIES, ON SHEET NO.1 SHALL APPLY.
- FIELD VERIFY UNDERGROUND UTILITY LOCATIONS AND EXISTING CONDITIONS BEFORE STARTING PLANTING WORK. CONTACT CONSTRUCTION MANAGER OR OWNER IF ANY RELOCATIONS ARE REQUIRED.
- PLANT QUANTITIES SHOWN ON THE PLANT LIST ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IF DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN ON THE PLAN AND THOSE SHOWN ON THE PLANT LIST, THE QUANTITIES ON THE PLAN SHALL TAKE PRECEDENCE.
- ALL PLANT MATERIAL SHALL BE FULL, HEAVY, WELL FORMED, SYMMETRICAL, AND CONFORM TO THE A.A.N. SPECIFICATIONS. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE LANDSCAPE MANUAL.
- NO SUBSTITUTION SHALL BE MADE WITHOUT PRIOR APPROVAL FROM HOWARD COUNTY DPZ AND THE OWNER OR HIS REPRESENTATIVE.
- ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES BUT NOT OTHERWISE PLANTED, PAVED OR MULCHED SHALL BE SCOOLED OR SEEDED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATION. A MINIMUM OF 4" OF TOPSOIL SHALL BE PROVIDED TO ALL PLANTING AREAS FOR TOPSOIL SPEC. SEE SHEET 30).
- THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING IF HE/SHE ENCOUNTERS SOIL DRAINAGE CONDITIONS THAT MAY BE DETRIMENTAL TO THE GROWTH OF THE PLANTS.
- ALL EXPOSED EARTH WITHIN THE LIMITS OF PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD MULCH PER THE PLANTING DETAILS.
- DO NOT PLANT WITHIN THE PUBLIC WATER, SEWER AND UTILITY EASEMENT.
- "SCHEDULE A" AND "SCHEDULE-C" (SEE SHEET 65) ARE PROVIDED FOR LANDSCAPE SURETY CALCULATION PURPOSES. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING SHALL BE POSTED TO THE DPZ DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$216,000 AS FOLLOWS:
 - 36 SHADE TREES @ \$300/TREE = \$10,800.00
 - 12 EVERGREEN TREES @ \$150/TREE = \$1,800.00
- FOR LANDSCAPE INSPECTION TO OBTAIN THE RELEASE OF THE SURETY, CONTACT HOWARD COUNTY DEPT. OF PLANNING & ZONING AT 410-318-2350.

NOTES:
 AT THE TIME OF PLANT INSTALLATION ALL SHRUBS AND TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION NO SUBSTITUTIONS OR RELATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL IN THE RELEASE OF LANDSCAPE SURETY UNLESS SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS.

2. THE OWNER AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIAL. TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS, ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

DEVELOPER/OWNER'S LANDSCAPE CERTIFICATE
 I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THESE LANDSCAPE PLANS WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL AND THE HLF LANDSCAPE DESIGN CRITERIA. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE-YEAR-GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

DEVELOPER/OWNER'S NAME: **DOCK** 1/10/12

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways: **W. R. G. M. H.** 12-9-13

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Chief, Division of Land Development: **W. S. H.** 12-20-13
 Chief, Development Engineering Division: **C. E. H.** 12-17-13

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONVILLE OFFICE PARK
 BURTONVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4188



NOTE: FOR MICRO-BIORETENTION PLANTING QUANTITIES INFORMATION SEE SHEETS 53-60.

PLANT LIST				
SYMBOL	QTY.	NAMES (BOTANICAL / SCIENTIFIC)	SIZE	ROOT/COMMENTS
SHADE TREES				
(AC)	10	ACER GINNALA / AMUR MAPLE	2 1/2-3" Cal.	B4B
(C)	26	ACER RIBRIM 'AUTUMN FLAME' / AUTUMN FLAME MAPLE QUERCUS PALUSTRIS / PIN OAK	2 1/2-3" Cal.	B4B; TO BE A MIXTURE OF THE 2 SHADE TREES IDENTIFIED
EVERGREEN TREES				
(E)	52	PINUS STROBUS / WHITE PINE ILEX OPACA / AMERICAN HOLLY PICEA ABIES / NORWAY SPRUCE	6'-8" Ht.	B4B; TO BE A MIXTURE OF THE 3 EVERGREENS IDENTIFIED. MUST HAVE ONE MAIN CENTRAL LEADER.
(S)	20	PICEA PLINENSIS 'FAT ALBERT' / FAT ALBERT BLUE SPRUCE	6'-8" Ht.	B4B
ORNAMENTAL TREES				
(O)	22	CERCIS CANADENSIS / EASTERN REDBUD	2 - 2 1/2" CAL 8-10" HT.	B4B; TREE FORM 1/4" MIN. CLEAR TRUNK

DATE	REVISION	BY	APPR.

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

LANDSCAPE & STREET TREE PLAN
WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 1138 F. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

THIS PLAN IS FOR PLANTING PURPOSES ONLY

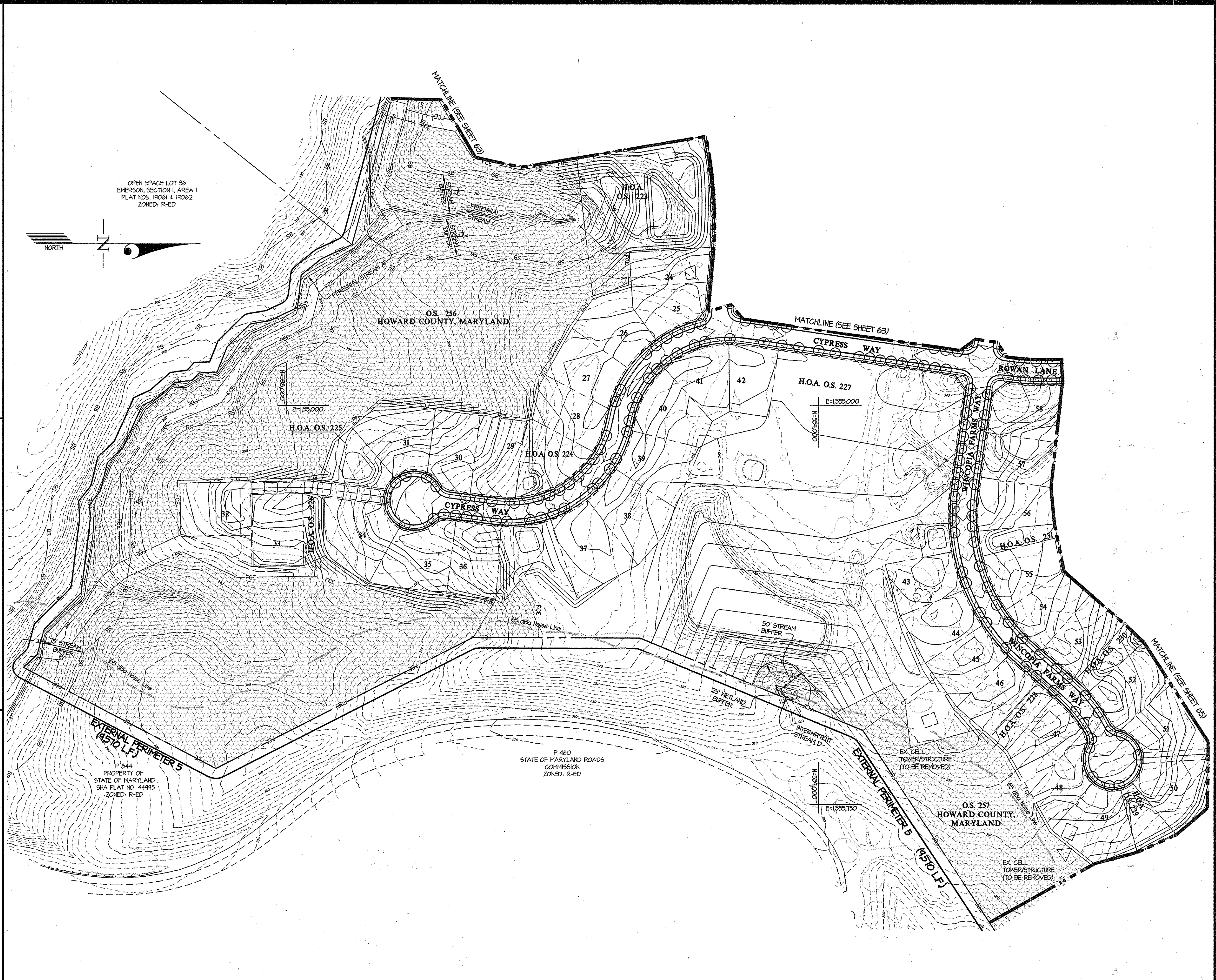
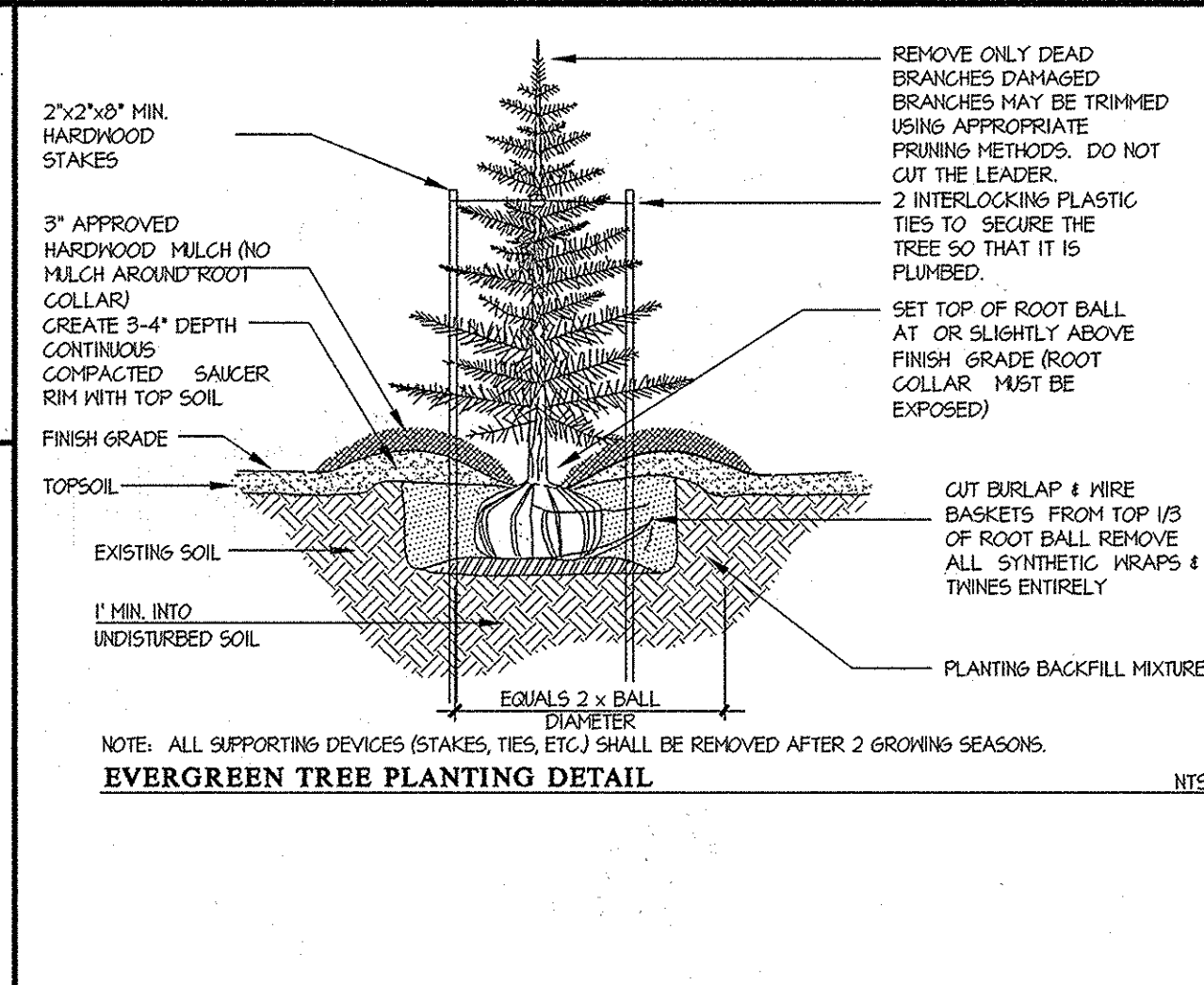
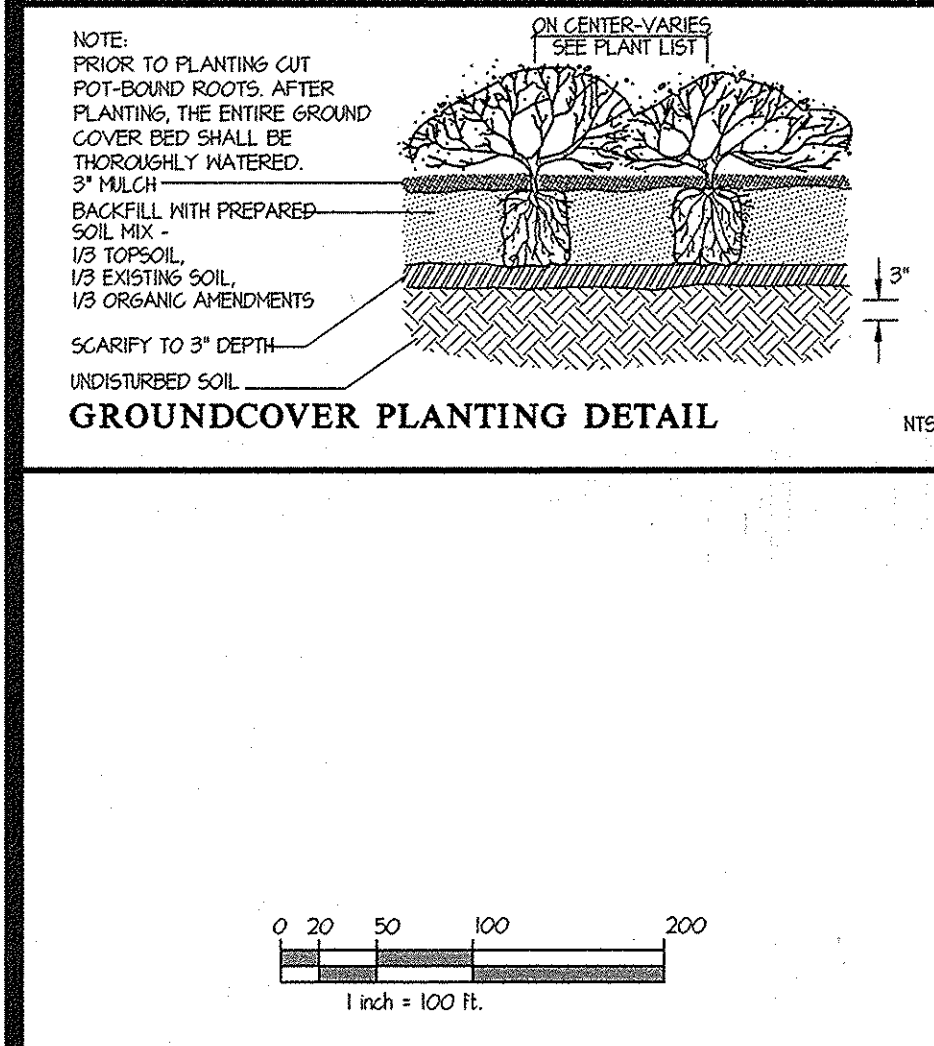
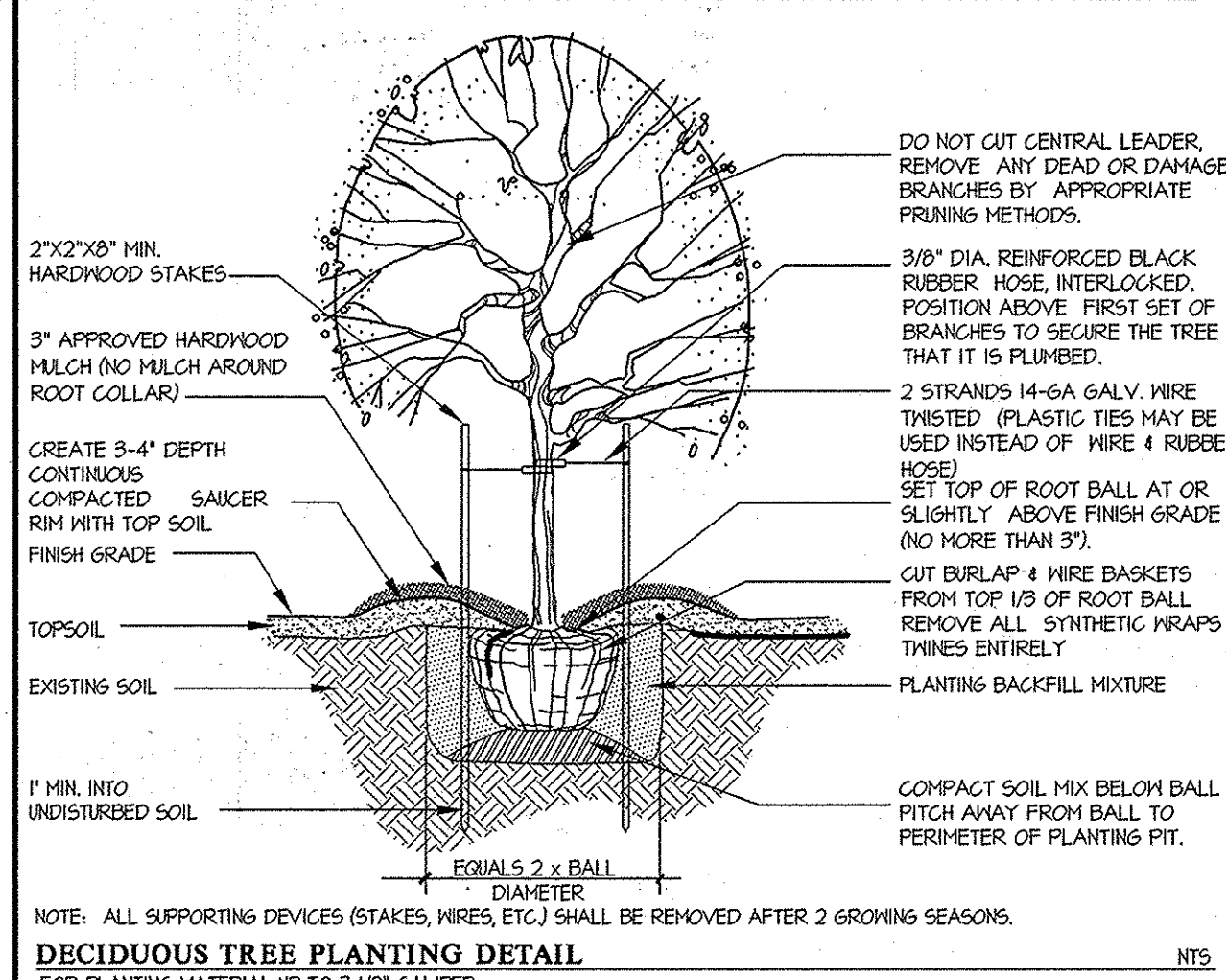
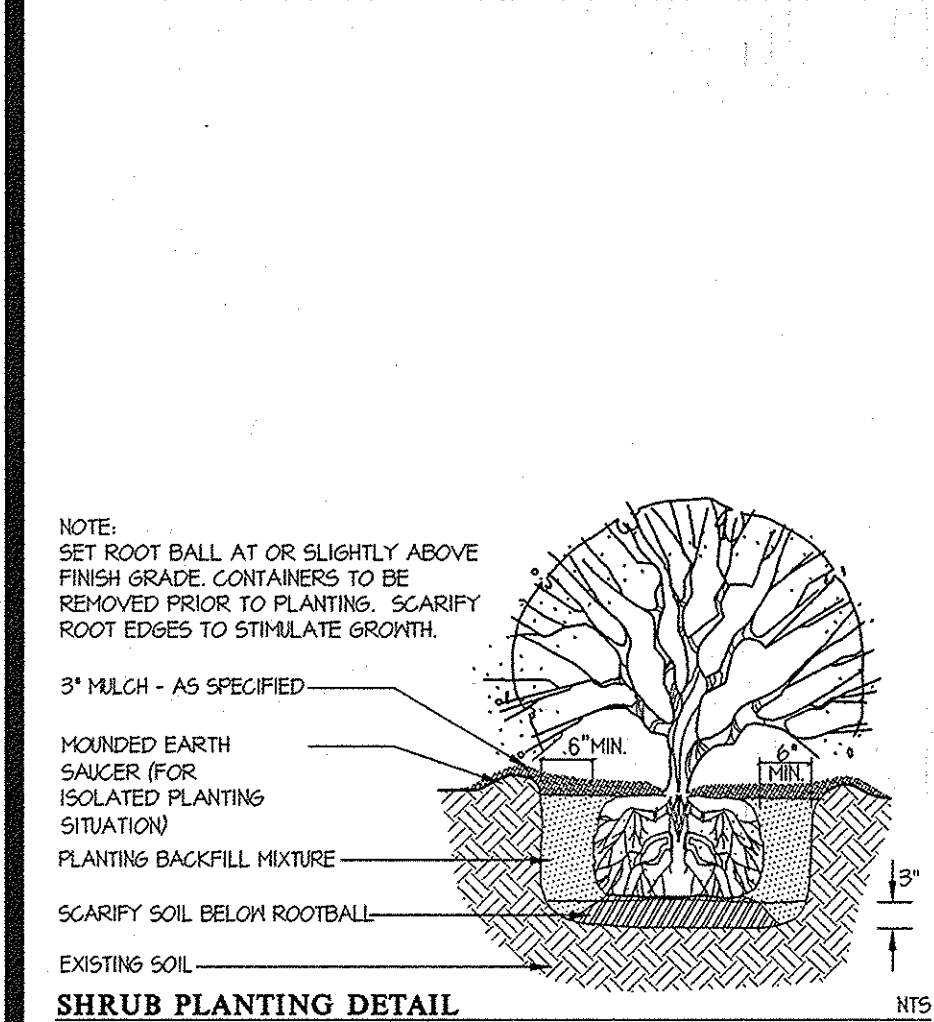
SCALE: 1"=100'
 ZONING: R-ED
 G. L. W. FILE NO.: 08052
 DATE: NOV, 2013
 TAX MAP - GRID: 47-3
 SHEET: 63 OF 71

STATE OF MARYLAND
 Michael E. Tamm
 988 LANDSCAPE ARCHITECT
 11-18-2013

SYMBOL	ROAD NAME	QUANTITY	NAME (BOTANICAL/COMMON)	SIZE	REMARKS
○	WINCOPIA FARMS WAY HENRY HEARN WAY	161	ACER SACHARUM / GREEN MOUNTAIN SUGAR MAPLE	2 1/2" cal.	B 4 B FULL HEADS
	CYPRESS WAY ROWAN LANE ANISE COURT	155	QUERCUS RUBRA / NORTHERN RED OAK		
	FENNEL WAY CALLA COURT ERICA LANE BLUEBELL WAY FLORA COURT PEONY LANE	155	QUERCUS COCCINEA / SCARLET OAK		
	BALSAM WAY LOCH LESS LANE SIENNA WAY	61	QUERCUS PHellos / WILLOW OAK		

STREET TREE SCHEDULE	
LINEAR FEET OF CURBLINE	21,533 LF.
NUMBER OF STREET TREES REQUIRED: STREET TREES (1:40)	536
NUMBER OF STREET TREES PROVIDED STREET TREES OTHER TREES (2:1 SUBSTITUTION)	536 0

NOTE:
1. A 20' MINIMUM DISTANCE SHALL BE MAINTAINED BETWEEN ANY TREES LOCATED ALONG THE CURB LINE AND ANY STREET LIGHT.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Wanda R. M... 12-9-13
 Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
W... 12-20-13
 Chief, Division of Land Development

C... 12-17-13
 Chief, Development Engineering Division

STATE OF MARYLAND
 Michael S. Tran
 938
 LANDSCAPE ARCHITECT
 11-18-2013

THIS PLAN IS FOR PLANTING PURPOSES ONLY

GLWGUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20886
 TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222

LANDSCAPE & STREET TREE PLAN
WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 11388 F. 725
 PARCEL 472
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=100'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	64 OF 71

DATE	REVISION	BY	APP'R.

ELECTION DISTRICT No. 6



RESIDENTIAL LOT INTERNAL LANDSCAPING - SCHEDULE C

BUILDING TYPE	NUMBER OF PLANTS REQUIRED			NOTES
	SHADE TREES	SHRUBS		
SINGLE FAMILY ATTACHED	1 SHADE TREE PER SFA LOT (LOTS 181-191)	NONE REQUIRED		DEFERRED TO SDP
SINGLE FAMILY DETACHED	B-BUFFER SHALL BE PROVIDED FOR SIDE/REAR OF LOTS ORIENTED TO ROADWAY (LOTS 114, 22, 23, 58, 62, 73, 84, 88, 91, 93, 100, 108, 109, 113, 115, 114, 124, 125, 130, 184, 186-187, 189, 192-193, 196-197, 204-205, 212, 213 & 214)			DEFERRED TO SDP

THE BUFFERS SHOWN IN THE SCHEDULES ARE IN ACCORDANCE WITH THE LANDSCAPE MANUAL, CHAPTER IV, TABLE 1.

EDGE TYPE	LANDSCAPE CHARACTER	SHADE TREES/F	EVERGREEN TREES	SHRUBS/E
A	LIGHT BUFFER	1:60	0	0
B	MEDIUM BUFFER	1:50	1:40	0
C	HEAVY BUFFER	1:40	1:20	0

PERIMETER PLANTING - SCHEDULE A

PERIMETER	LAND USE	ADJACENT LAND USE	TYPE OF BUFFER	LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED.	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) DESCRIBE BELOW IF NEEDED.	NUMBER OF PLANTS REQUIRED			NUMBER OF PLANTS PROVIDED	
							SHADE TREES	EVERGREEN TREES	SHRUBS	SHADE TREES	EVERGREEN TREES
EXTERNAL PERIMETER 1	OPEN SPACE	ROADWAY	'C' Buffer	341'	YES, 192' (RETENTION OF EX. FOREST)	NO	4	8	0	4	11
EXTERNAL PERIMETER 2	OPEN SPACE	ROADWAY	'C' Buffer	598'	NO	NO	13	21	0	13	21
EXTERNAL PERIMETER 3	OPEN SPACE	ROADWAY	'C' Buffer	104'	NO	NO	3	5	0	3	0**
EXTERNAL PERIMETER 4	OPEN SPACE	RESIDENTIAL	'C' Buffer	636'	NO	NO	16	32	0	16	28**
EXTERNAL PERIMETER 5	OPEN SPACE	RESIDENTIAL	'A' Buffer	4570'	YES, 9560' (RETENTION OF EX. FOREST)	NO	0	0	0	0	0

* THE (B) REQUIRED EVERGREEN TREES FOR EXTERNAL PERIMETER 3 ARE RELOCATED AWAY FROM THE UNDERPASS FOR PEDESTRIAN SAFETY/SECURITY. ALSO, SOME (4) OF THE REQUIRED EVERGREEN TREES FOR EXTERNAL PERIMETER 4 ARE RELOCATED FOR THE SAME REASON. A 9 (TOTAL) TREES ARE RELOCATED TO EXTERNAL PERIMETER 1.

THIS PLAN IS FOR PLANTING PURPOSES ONLY

LANDSCAPE & STREET TREE PLAN

WINCOPIA FARMS
LOTS 1-201, 208-220, 258-263 &
OPEN SPACE LOTS 221 THROUGH 257
L. 11388 F. 725
PARCEL 472

SCALE 1"=100'	ZONING R-ED	G. L. W. FILE No. 08052
DATE NOV, 2013	TAX MAP - GRID 47-3	SHEET 65 OF 71

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William R. M... 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
K... 12-20-13
Chief, Division of Land Development Date

... 12-17-13
Chief, Development Engineering Division Date

GLWGUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

PREPARED FOR:
BEAZER HOMES CORP.
8965 GULFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222

SIGNIFICANT / SPECIMEN TREE LIST				
TAG NO.	COMMON NAME	SCIENTIFIC NAME	DBH (IN)	REMARKS / CONDITION
1	Tulip Poplar	Liriodendron tulipifera	45	GOOD
2	Tulip Poplar	Liriodendron tulipifera	36	GOOD
3	Tulip Poplar	Liriodendron tulipifera	315	GOOD
4	Tulip Poplar	Liriodendron tulipifera	34	GOOD
5	Tulip Poplar	Liriodendron tulipifera	455	GOOD
6	Tulip Poplar	Liriodendron tulipifera	36	POOR, Insect / Limb Damage
7	Tulip Poplar	Liriodendron tulipifera	36	FAIR, Limb Damage
8	Tulip Poplar	Liriodendron tulipifera	455	FAIR, Limb Damage
9	Tulip Poplar	Liriodendron tulipifera	455	FAIR, Multi-trunk
10	Tulip Poplar	Liriodendron tulipifera	36	GOOD
11	Tulip Poplar	Liriodendron tulipifera	41	FAIR, Limb Damage
12	American Sycamore	Platanus occidentalis	36	GOOD
13	Tulip Poplar	Liriodendron tulipifera	41	FAIR, Limb Damage
14	Tulip Poplar	Liriodendron tulipifera	50	POOR, Trunk / Limb Damage
15	Tulip Poplar	Liriodendron tulipifera	38	GOOD
16	Tulip Poplar	Liriodendron tulipifera	42	FAIR, Limb Damage
17	White Oak	Quercus alba	36	GOOD
18	Tulip Poplar	Liriodendron tulipifera	40	FAIR
19	Tulip Poplar	Liriodendron tulipifera	38	GOOD
20	Tulip Poplar	Liriodendron tulipifera	31	GOOD
21	Tulip Poplar	Liriodendron tulipifera	36	FAIR, Limb Damage
22	Tulip Poplar	Liriodendron tulipifera	31	GOOD
23	Tulip Poplar	Liriodendron tulipifera	36	FAIR, Limb Damage
24	Tulip Poplar	Liriodendron tulipifera	38	FAIR, Limb Damage
25	Tulip Poplar	Liriodendron tulipifera	36	FAIR, Limb Damage
26	Northern Red Oak	Quercus rubra	38.5	FAIR, Trunk Damage
27	Tulip Poplar	Liriodendron tulipifera	39	GOOD
28	Tulip Poplar	Liriodendron tulipifera	36	GOOD
29	Tulip Poplar	Liriodendron tulipifera	40	DEAD
30	Tulip Poplar	Liriodendron tulipifera	40	FAIR, Insect Damage / Trunk Rot
31	Southern Red Oak	Quercus falcata	46	GOOD
32	Black Cherry	Prunus serotina	39	POOR
33	Norway Maple	Acer platanoides	36	GOOD
34	Norway Maple	Acer platanoides	52.5	FAIR, Limb Damage
35	Linden	Tilia sp.	41.5	FAIR, Limb Damage
36	Tulip Poplar	Liriodendron tulipifera	39	FAIR, Small Trunk Dead
37	White Oak	Quercus alba	44	FAIR, Trunk Damage

NOTE: WF-11-076 WAS APPROVED ON 11-11-10 TO WAIVE SUBSECTION 16.1205(b)(10) OF THE HOWARD COUNTY CODE TO ALLOW REMOVAL OF 6 SPECIMEN TREES WITHIN THE PROPOSED DEVELOPMENT LIMITS AND THE SEWER ALIGNMENT IS DESIGNED TO MINIMIZE IMPACTS TO SPECIMEN TREES.

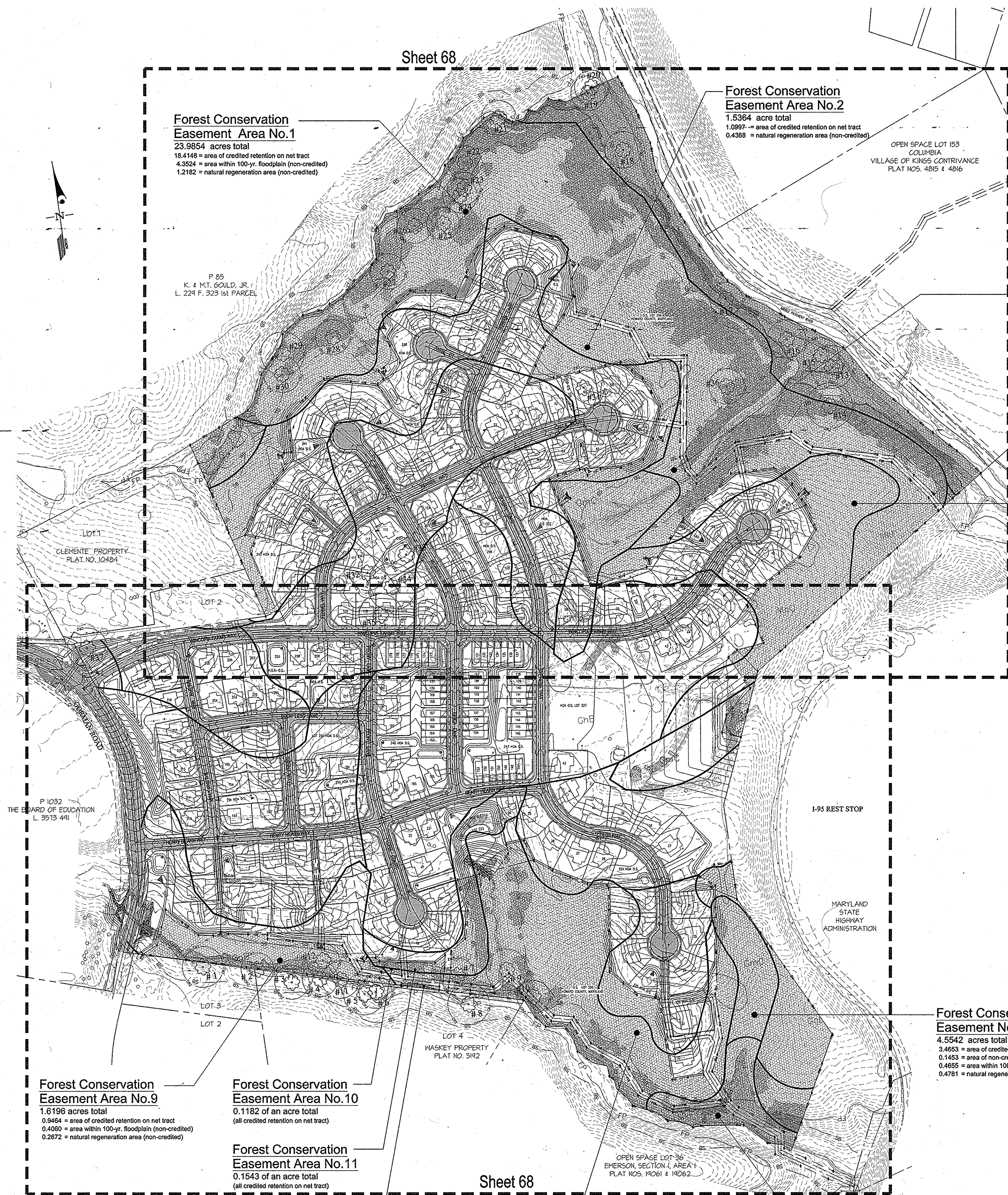
SOIL TYPES

- CaB Chillum loam, 2 to 5 percent slopes
- Ca Codomo and Hattboro silt loams, 0 to 3 percent slopes
- GaA Glenelg loam, 0 to 3 percent slopes
- GaB Glenelg loam, 3 to 8 percent slopes
- GaC Glenelg loam, 8 to 15 percent slopes
- GaD Glenelg-urban land complex, 0 to 8 percent slopes
- GaE Glenelg silt loam, 3 to 8 percent slopes
- GaF Glenelg silt loam, 8 to 15 percent slopes
- GaG Glenelg-Belle silt loams, 0 to 8 percent slopes
- GaH Glenelg-Codomo silt loams, 0 to 8 percent slopes
- LaC Legore silt loam, 8 to 15 percent slopes
- LaB Legore silt loam, 3 to 8 percent slopes, stony
- LaE Legore silt loam, 8 to 15 percent slopes, stony
- LaF Legore-Montalto silt loams, 3 to 8 percent slopes
- LaD Legore-Montalto-urban land complex, 0 to 8 percent slopes
- LaG Legore-Montalto-urban land complex, 8 to 15 percent slopes
- LrD Legore-Relay gravelly loams, 15 to 25 percent slopes, very stony
- LrF Legore-Relay gravelly loams, 25 to 65 percent slopes, very stony
- MaB Manor Loam, 3 to 8 percent slopes
- MaC Manor Loam, 8 to 15 percent slopes
- MaD Manor Loam, 15 to 25 percent slopes
- MaE Manor Loam, 15 to 25 percent slopes, very rocky
- MaF Manor Brinklow complex, 25 to 65 percent slopes, very rocky
- MaB Mount Lucas silt loam, 3 to 8 percent slopes, stony
- MaC Mount Lucas silt loam, 8 to 15 percent slopes, stony
- RaB Russell fine sandy loam, 2 to 5 percent slopes
- RaD Russell and Belleville soils, 2 to 5 percent slopes
- RaC Russell and Belleville soils, 5 to 10 percent slopes
- SoA Sassafras loam, 2 to 5 percent slopes
- SoC Sassafras loam, 5 to 10 percent slopes
- SoB Sassafras gravelly sandy loam, 2 to 5 percent slopes
- SoD Sassafras and Croom soils, 10 to 15 percent slopes
- UaF Udortherns, Highway, 0 to 65 percent slopes
- UaE Udortherns, 0 to 45 percent slopes, gravel pits
- W Water
- WcB Watchung silt loam, 3 to 8 percent slopes, stony

FOREST NARRATIVE

THE SITE IS CURRENTLY IN AGRICULTURAL USE. THE CENTRAL AREA OF THE SITE IS FAIRLY FLAT, AND IS USED AS A MARKET AND GREENHOUSE OPERATION. A WIDE BAND OF FOREST FRAMES THE SITE ON THE NORTH, EAST, AND SOUTHERN BOUNDARY LINES. THE EXISTING FOREST COVERS APPROXIMATELY 55.8% OF THE 121.54 AC SITE.

APPROXIMATELY HALF OF THE FOREST IS LOCATED WITHIN ENVIRONMENTAL BUFFERS OR STEEP SLOPES. THE MAJORITY OF THESE AREAS WILL REMAIN UNDISTURBED, WITH THE EXCEPTION OF CLEARING FOR UTILITY CONNECTIONS. THE REMAINING FOREST OUTSIDE OF THE ENVIRONMENTAL BUFFERS WILL ALSO BE PRESERVED TO CREATE A BUFFER BETWEEN THE SITE AND THE ADJACENT PROPERTIES.



LEGEND

- EXISTING STRUCTURES (ALL TO BE RAZED)
- PROPOSED HOUSE #4 LOT NUMBER
- FOREST CLEARING **
- FOREST RETENTION **
- NON-CREDITED NATURAL REGENERATION **
- 100-YR FLOOD PLAIN
- WETLAND
- FOREST CONSERVATION EASEMENT AREA
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREE LINES
- FOREST CONSERVATION SIGNS (FINAL LOCATION ALONG FCE)
- SLOPES 25% AND STEEPER
- #18 FIELD SURVEYED TREE CRITICAL ROOT ZONE
- ChC3 SOIL DELINEATION
- FCE FOREST CONSERVATION EASEMENT
- TPF TREE PROTECTION FENCE **
- FP FLOODPLAIN
- WB WETLAND BUFFER
- S STREAM
- SB STREAM BUFFER
- LIMIT OF DISTURBANCE**

** FOR CLARITY, THESE PATTERNS & LINE TYPES ARE NOT SHOWN ON THE 200-SCALE OVERVIEW WHICH WOULD MAKE THE PLAN ILLEGIBLE. THESE PATTERNS & LINE TYPES ARE SHOWN ON THE 100-SCALE DRAWINGS, ON SHEETS 67 & 68.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Will Randall 12-9-13
 Chief, Bureau of Highways Date

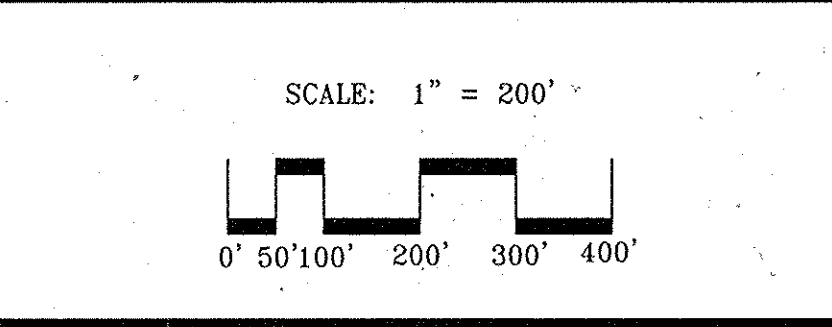
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Kate Schuchman 12-20-13
 Chief, Division of Land Development Date

Chad Canine 12-17-13
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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DATE	REVISION	BY	APPR.

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 BRIAN KNAUFF
 410-381-3222



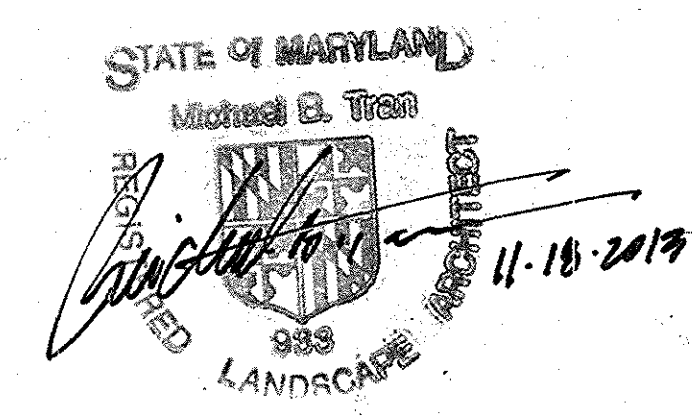
FORREST CONSERVATION PLAN (Overview)

WINCOPIA FARMS
 LOTS 1 - 201, 208 - 220, 258 - 263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L 11388 F 725
 PARCEL 472

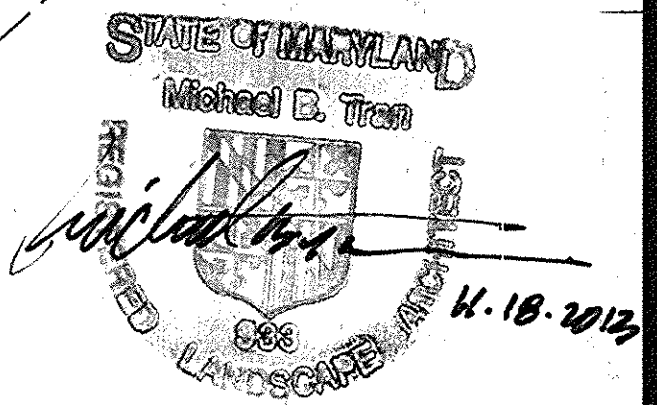
ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. I. W. FILE NO.
1" = 200'	R-ED	08052
DATE	TAX MAP - GRID	SHEET
NOV, 2013	47-3	66 of 71

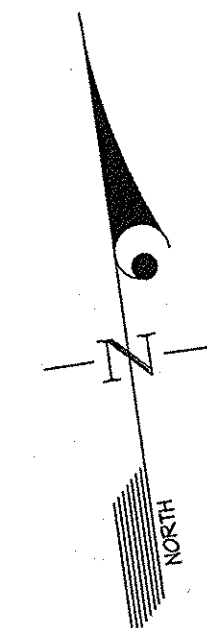


DNR WATERSHED No.: 213106 (MIDDLEPATUXENT RIVER)



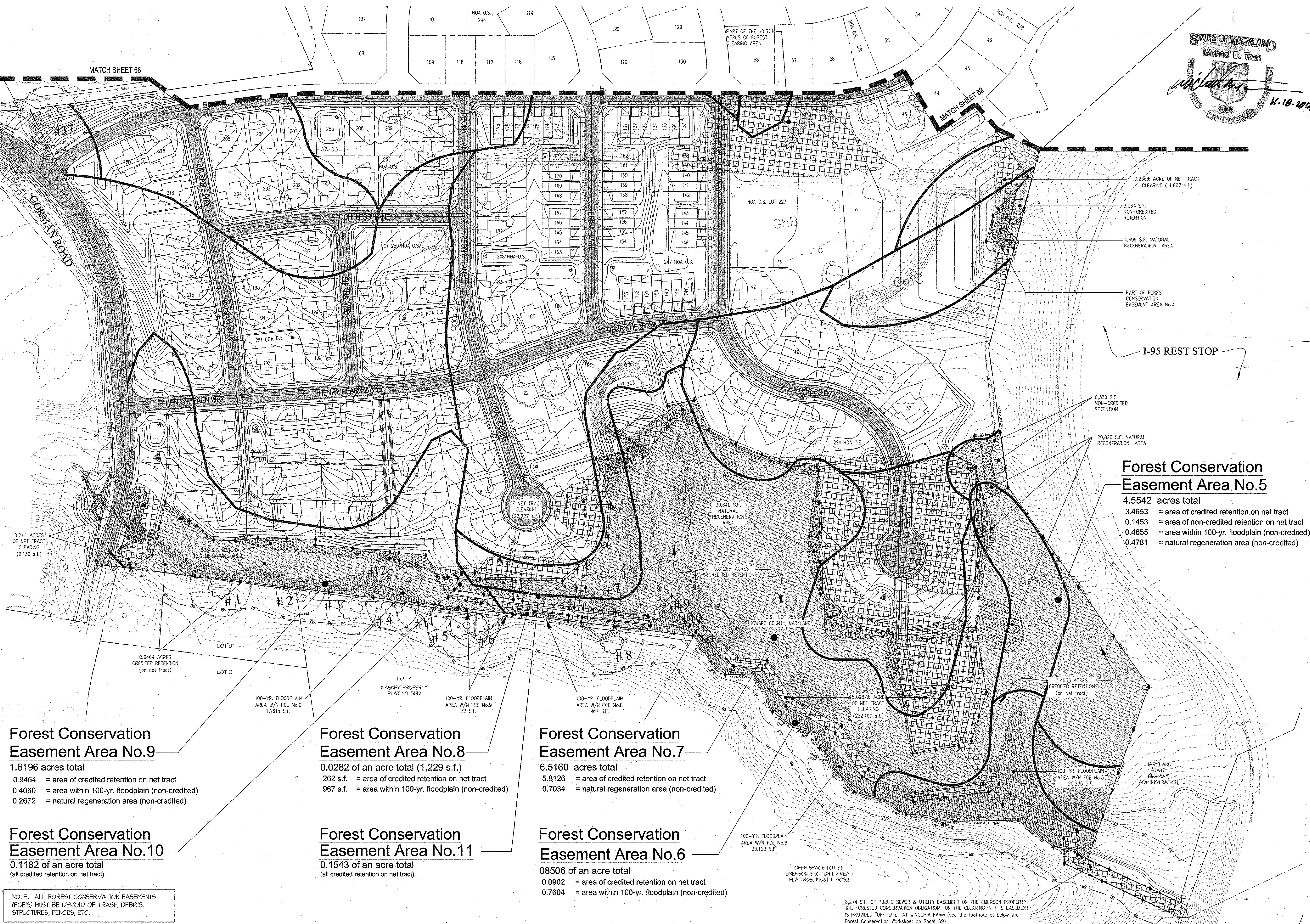
MATCH SHEET 68

MATCH SHEET 68



P 1032
THE BOARD OF EDUCATION
L. 2913 441

- LEGEND**
- EXISTING STRUCTURES (ALL TO BE RAZED)
 - PROPOSED HOUSE & LOT NUMBER
 - FOREST CLEARING
 - FOREST RETENTION
 - NON-CREDITED NATURAL REGENERATION
 - 100-YR FLOOD PLAIN
 - WETLAND
 - FOREST CONSERVATION EASEMENT AREA
 - EXISTING CONTOURS
 - PROPOSED CONTOURS
 - EXISTING TREE LINES
 - FOREST CONSERVATION SIGNS (FINAL LOCATION ALONG FCE)
 - SLOPES 25% AND STEEPER
 - FIELD SURVEYED TREE CRITICAL ROOT ZONE
 - SOIL DELINEATION
 - FOREST CONSERVATION EASEMENT
 - TREE PROTECTION FENCE
 - FLOODPLAIN
 - WETLAND BUFFER
 - STREAM
 - STREAM BUFFER
 - LIMIT OF DISTURBANCE



Forest Conservation Easement Area No.9
1.6196 acres total
0.9464 = area of credited retention on net tract
0.4060 = area within 100-yr. floodplain (non-credited)
0.2672 = natural regeneration area (non-credited)

Forest Conservation Easement Area No.8
0.0282 of an acre total (1,229 s.f.)
262 s.f. = area of credited retention on net tract
967 s.f. = area within 100-yr. floodplain (non-credited)

Forest Conservation Easement Area No.7
6.5160 acres total
5.8126 = area of credited retention on net tract
0.7034 = natural regeneration area (non-credited)

Forest Conservation Easement Area No.10
0.1182 of an acre total
(all credited retention on net tract)

Forest Conservation Easement Area No.11
0.1543 of an acre total
(all credited retention on net tract)

Forest Conservation Easement Area No.6
08506 of an acre total
0.0902 = area of credited retention on net tract
0.7604 = area within 100-yr. floodplain (non-credited)

Forest Conservation Easement Area No.5
4.5542 acres total
3.4653 = area of credited retention on net tract
0.1453 = area of non-credited retention on net tract
0.4655 = area within 100-yr. floodplain (non-credited)
0.4781 = natural regeneration area (non-credited)

NOTE: ALL FOREST CONSERVATION EASEMENTS (FCE'S) MUST BE DEVOID OF TRASH, DEBRIS, STRUCTURES, FENCES, ETC.

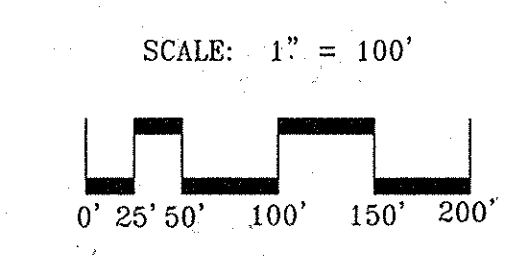
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. W. W. W. 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Neil Shulman 12-20-13
Chief, Division of Land Development Date

Chad Edwards 12-17-13
Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 200 - BURTONVILLE OFFICE PARK
BURTONVILLE, MARYLAND 20886
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-988-2524 FAX: 301-421-4186

PREPARED FOR:
BEAZER HOMES CORP.
8965 GUILFORD ROAD
SUITE 290
COLUMBIA, MD 21046
BRIAN KNAUFF
410-381-3222



FOREST CONSERVATION PLAN
WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 &
OPEN SPACE LOTS 221 THROUGH 257
L. 11388, F. 725
PARCEL 472

SCALE	ZONING	G. L. W. FILE NO.
1" = 100'	R-ED	08052
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NOV, 2013	47-3	67 of 71

LEGEND

- EXISTING STRUCTURES (ALL TO BE RAZED)
- 123 PROPOSED HOUSE & LOT NUMBER
- FOREST CLEARING
- FOREST RETENTION
- NON-CREDITED NATURAL REGENERATION
- 100-YR FLOOD PLAIN
- WETLAND
- FOREST CONSERVATION EASEMENT AREA
- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING TREE LINES
- FOREST CONSERVATION SIGNS (FINAL LOCATION ALONG FCE)
- SLOPES 25% AND STEEPER
- #10 FIELD SURVEYED TREE CRITICAL ROOT ZONE
- CHC3 SOIL DELINEATION
- FCE FOREST CONSERVATION EASEMENT
- TPF TREE PROTECTION FENCE
- FP FLOODPLAIN
- WB WETLAND BUFFER
- S STREAM
- SB STREAM BUFFER
- L.D. LIMIT OF DISTURBANCE

NOTE: ALL FOREST CONSERVATION EASEMENTS (FCE'S) MUST BE DEVOID OF TRASH, DEBRIS, STRUCTURES, FENCES, ETC.

Forest Conservation Easement Area No.1

23.9854 acres total
 18.4148 = area of credited retention on net tract
 4.3524 = area within 100-yr. floodplain (non-credited)
 1.2182 = natural regeneration area (non-credited)

Forest Conservation Easement Area No.2

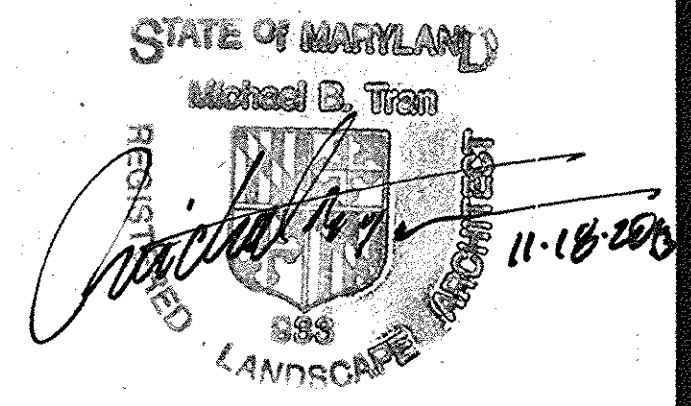
1.5364 acres total
 1.0997 = area of credited retention on net tract
 0.4368 = natural regeneration area (non-credited)

Forest Conservation Easement Area No.3

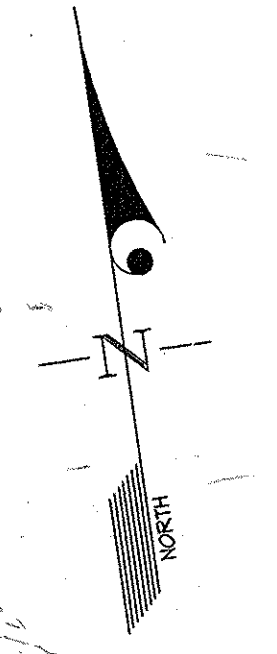
3.3592 acres total
 2.8007 = area of credited retention on net tract
 0.5585 = natural regeneration area (non-credited)

Forest Conservation Easement No.4

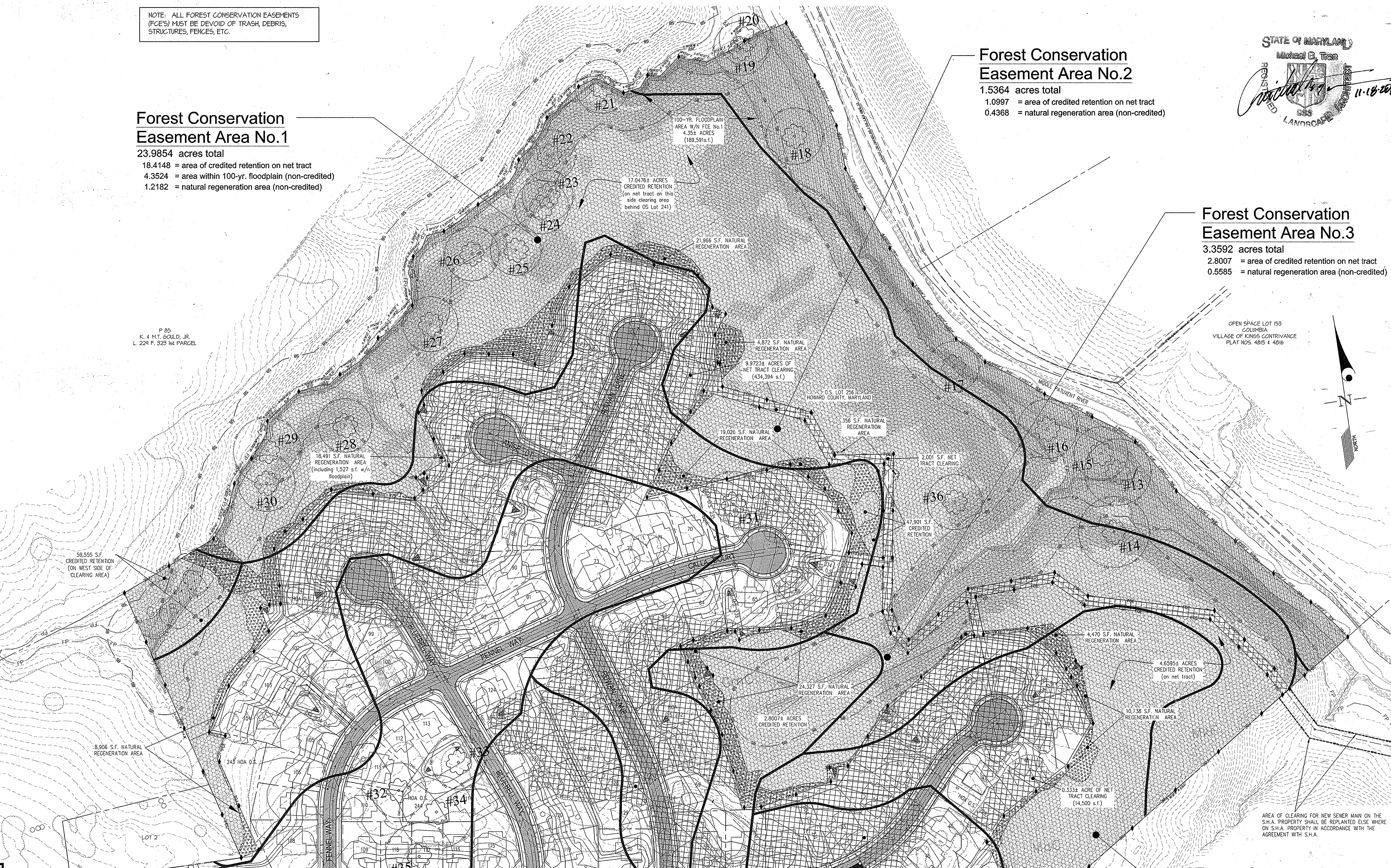
5.1822 acres total
 4.6595 = area of credited retention on net tract
 0.0703 = area of non-credited retention on net tract
 0.4524 = natural regeneration area (non-credited)



OPEN SPACE LOT 153
 COLUMBIA
 VILLAGE OF KINGS CONTRIVANCE
 PLAT NOS. 4B15 & 4B16



P 85
 K. & M.T. GOULD, JR.
 L. 224 F. 323 1st PARCEL



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

W. R. ... 12-9-13
 Chief, Bureau of Highways Date

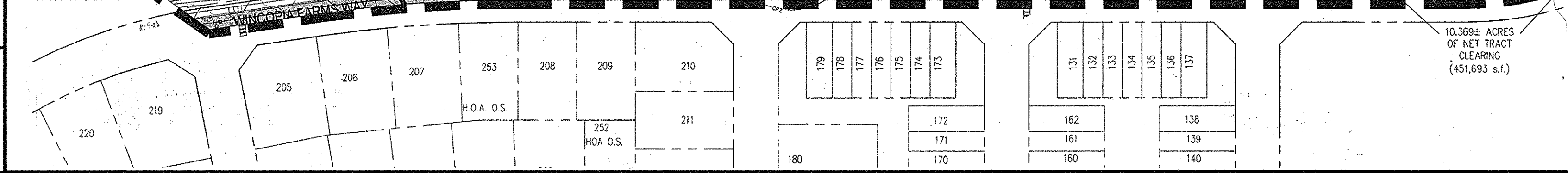
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

K. ... 12-20-13
 Chief, Division of Land Development Date

C. ... 12-17-13
 Chief, Development Engineering Division Date

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MATCH SHEET 67

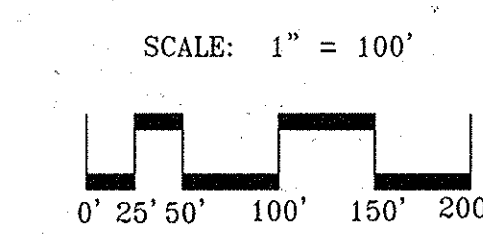


FOREST CONSERVATION PLAN

WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
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SCALE	ZONING	G. L. W. FILE No.
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PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222



ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

DATE	REVISION	BY	APPR.

FOREST CONSERVATION WORKSHEET

Project Name: **WINCOPIA FARMS** DPZ File No.: **F-13-103**

1 Site Data		Acreage
A. Gross Site Area		127.598
B. Area within 100-yr floodplain, if any		6.110
C. Area of existing easement for major utility transmission lines, if any		0.000
D. Area of external public road (frontage) dedication, if any		0.000
E. Net Tract Area		121.488
F. Land Use Category		Residential - Suburban
2 Input Data		
A. Net Tract Area		121.488
B. Reforestation Threshold (percent of net tract = 20%)		24.298
C. Afforestation Threshold (percent of net tract = 15%)		18.223
D. Existing Forest on Net Tract Area		64.589
E. Forest Clearing on Net Tract Area		26.806
F. Forest Retention on Net Tract Area		37.783
3 Reforestation and/or Afforestation Calculations		
A. Net tract forest clearing above reforestation threshold, if applicable		26.806
B. Net tract forest clearing below reforestation threshold, if applicable		0.000
C. Planting up to afforestation threshold, if applicable		0.000
D. Reforestation planting required for clearing above threshold (3A x 0.25)		6.701
E. Reforestation planting required for clearing below threshold (3B x 2.0)		0.000
F. Net tract forest retention above reforestation threshold (2F-2B, available credit)		13.485
G. Debit to retention credit to satisfy off-site forest conservation obligation **		-0.380
H. Remaining available credit (3F-3G)		13.106
I. Total reforestation planting required (3C+3D+3E - 3F)		0.000
4 Break Even Point (BEP) Calculations		
A. Maximum clearing allowed with no reforestation planting (2D-2B)/1.25		32.233
B. Minimum net tract retention at BEP 0.20(2D-2B)+2B or 2D-4A		32.356
5 Forest Conservation Required		
A. Minimum retention required with no reforestation planting (BEP, 4B)		32.356
B. Total net tract retention to be recorded within on-site FCEs EXCESS RETENTION TO BE BANKED		37.783 5,417 AC.

** The subtraction (in line 3G) to the available credited forest retention area is to satisfy the off-site forest conservation obligation associated with the water & sewer main extension into the adjacent Emerson Property. That extension requires approximately 8,274 s.f. of public water, sewer & utility easement area on the Emerson Property; therefore, the subtraction amount is 16,548 s.f. (which is 2 x 8274) or 0.38 of an acre.

FOREST CONSERVATION OBLIGATION SUMMARY

THE FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL FOR THIS SUBDIVISION (WINCOPIA FARMS) ARE MET BY THE CREATION OF ELEVEN (11) FOREST CONSERVATION EASEMENTS THAT CONTAIN MORE THAN THE BREAK-EVEN POINT MINIMUM ACREAGE FOR CREDITED RETENTION.

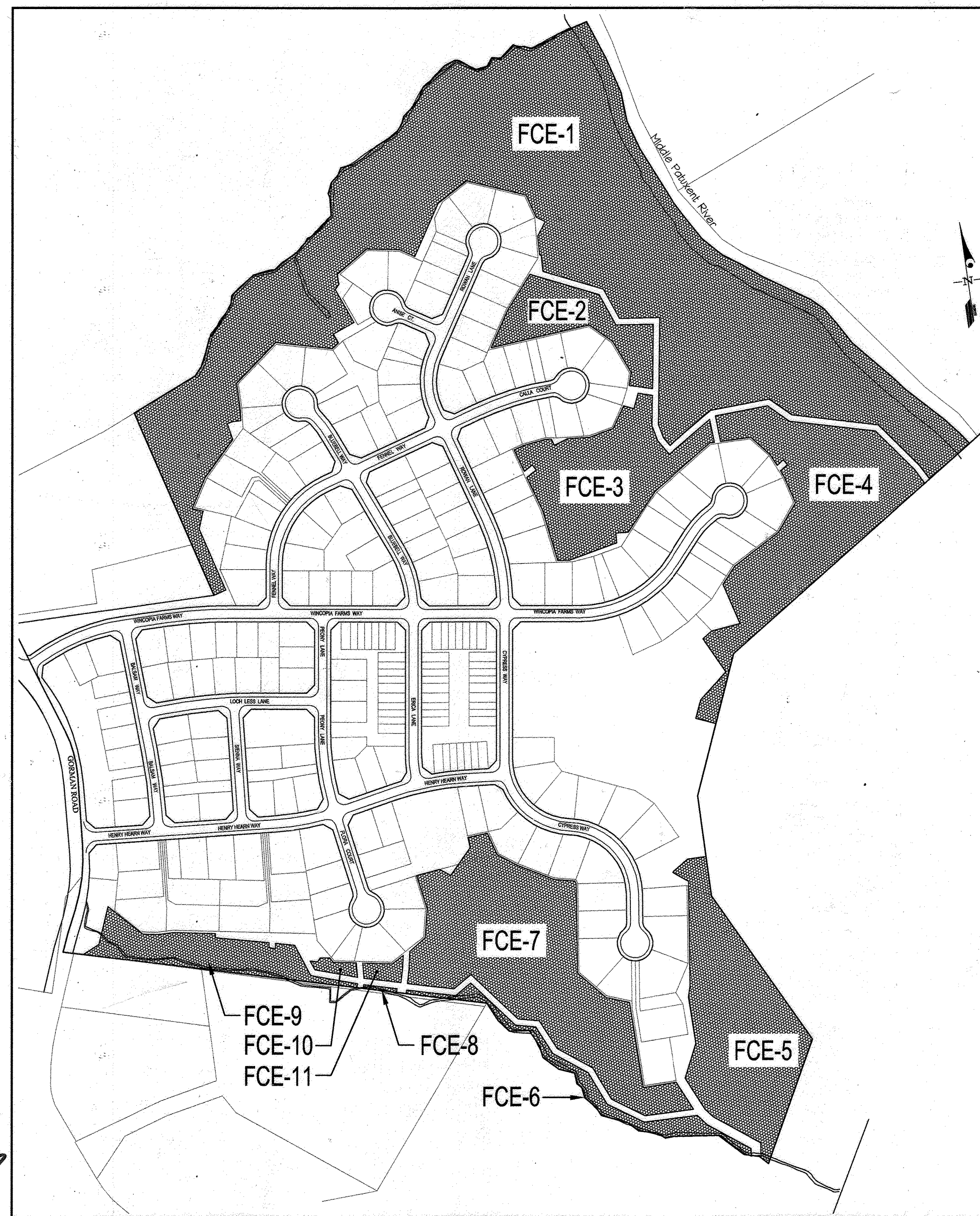
THE MAXIMUM CLEARING AREA AT THE BREAK-EVEN POINT IS 32.24 ACRES AND THE PROPOSED CLEARING AREA FOR THIS DEVELOPMENT IS LESS THAN THAT AMOUNT. THE MINIMUM CREDITED RETENTION AREA AT THE BREAK-EVEN POINT IS 32.34 ACRES AND THE PROPOSED CREDITED RETENTION AREA WITHIN THE ELEVEN FCEs IS MORE THAN 37 ACRES; THEREFORE, AN EXCESS OF CREDITED RETENTION ACREAGE IS AVAILABLE THAT COULD BE APPLIED TO FOREST CONSERVATION OBLIGATION FROM OFF-SITE DEVELOPMENTS OR POSSIBLE ADDITIONAL CLEARING ON-SITE.

AS INDICATED IN THE FOREST CONSERVATION WORKSHEET THE AVAILABLE RETENTION CREDIT FOR THIS SUBDIVISION IS DEBITED BY 0.38 OF AN ACRE TO SATISFY THE FOREST CONSERVATION OBLIGATION FOR THE EXTENSION OF A PUBLIC WATER/SEWER MAIN AND APPURTENANCES INTO THE ADJACENT EMERSON PROPERTY.

FOREST BANK TRACKING CHART

DPZ FILE NUMBER	PROJECT NAME	FOREST CONSERVATION BANK USED	REMAINING BANK AREA
F-13-103	WINCOPIA FARMS	---	5,417 AC.
SOP-23-030	FRIENDLY INN	0.6 AC	4,817 AC
SOP-23-025	PRIMROSE SCHOOL	4.827 AC	0 AC

FCE LOCATION DIAGRAM
SCALE: 1" = 300'



TREE PLANTING AND MAINTENANCE CALENDAR

TASKS	MONTHS											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
TRANSPLANT OF 2" DBH OR GREATER												
PLANTING SEEDLINGS, WHIPS												
MINIMUM MONITORING		*				*				*		
FERTILIZER + (F NEEDED)												
WATER ++												
PRUNING												

KEY

- * ACTIVITIES DURING THESE MONTHS ARE DEPENDENT UPON GROUND CONDITIONS
- █ GREATLY RECOMMENDED
- ▒ RECOMMENDED WITH ADDITIONAL CARE
- ▒ RECOMMENDED
- + DEPENDENT UPON SITE CONDITIONS
- ++ DEPENDENT UPON SITE CONDITIONS; WEEKLY WATERING IS GREATLY RECOMMENDED FROM MAY THROUGH OCTOBER UNLESS WEEKLY RAINFALL EQUALS 1"

NOTE: THE PLANTING AND CARE OF TREES IS MOST SUCCESSFUL WHEN COORDINATED WITH THE LOCAL CLIMATIC CONDITIONS. THIS CALENDAR SUMMARIZES SOME OF THE RECOMMENDED TIME FRAMES FOR BASIC REFORESTATION AND STRESS REDUCTION ACTIVITIES.

SOURCE: ADAPTED FROM THE MARYLAND STATE FOREST CONSERVATION MANUAL

GENERAL NOTES

- THIS RETENTION PLAN IS PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF SUBTITLE 12 "FOREST CONSERVATION" OF THE HOWARD COUNTY CODE.
- IMPLEMENTATION OF THIS PLAN MUST BE PERFORMED BY A CONTRACTOR THAT IS KNOWLEDGEABLE AND EXPERIENCED IN AFFORESTATION/REFORESTATION TECHNIQUES AND PRACTICES.
- THE OWNER IS RESPONSIBLE FOR A 2-YEAR (MIN.) POST-CONSTRUCTION MAINTENANCE PERIOD WHICH INVOLVES ACTIVITIES NECESSARY TO ENSURE SURVIVAL AND GROWTH OF THE CONSERVATION AREA. TWO INSPECTIONS PER YEAR BY A QUALIFIED PROFESSIONAL AT BEGINNING AND END OF THE GROWING SEASON, ARE RECOMMENDED IN ORDER TO TAKE REMEDIAL STEPS AS NECESSARY. IF, AFTER ONE YEAR, THE POSSIBILITY EXISTS THAT THE ORIGINAL PLANTING (IF APPLICABLE) WILL NOT MEET SURVIVAL RATE STANDARDS, THE APPLICANT MAY CHOOSE TO ESTABLISH REINFORCEMENT PLANTINGS.
- AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD, CERTIFICATION BY A QUALIFIED CONSULTANT WILL BE REQUIRED BEFORE TO THE OWNER CAN BE RELEASED FROM HIS/HER FOREST CONSERVATION OBLIGATION TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.
- THE DEVELOPER/BUILDER SHALL (IN WRITING) NOTIFY ALL HOME OWNERS IN THIS DEVELOPMENT OF THE EXISTENCE OF FOREST CONSERVATION AREAS AND THAT DISTURBANCE TO THE FOREST CONSERVATION AREAS OR THE REMOVAL OF FOREST CONSERVATION SIGNS IS PROHIBITED.
- WHERE APPLICABLE, REFORESTATION/AFFORESTATION TREE PLANTINGS SHOULD BE INSTALLED IN A CURVILINEAR PATTERN TO FACILITATE MAINTENANCE BUT AVOID A GRID APPEARANCE. EACH SPECIES OF TREE SHALL BE DISTRIBUTED EVENLY WITHIN EACH FOREST CONSERVATION EASEMENT AREA.

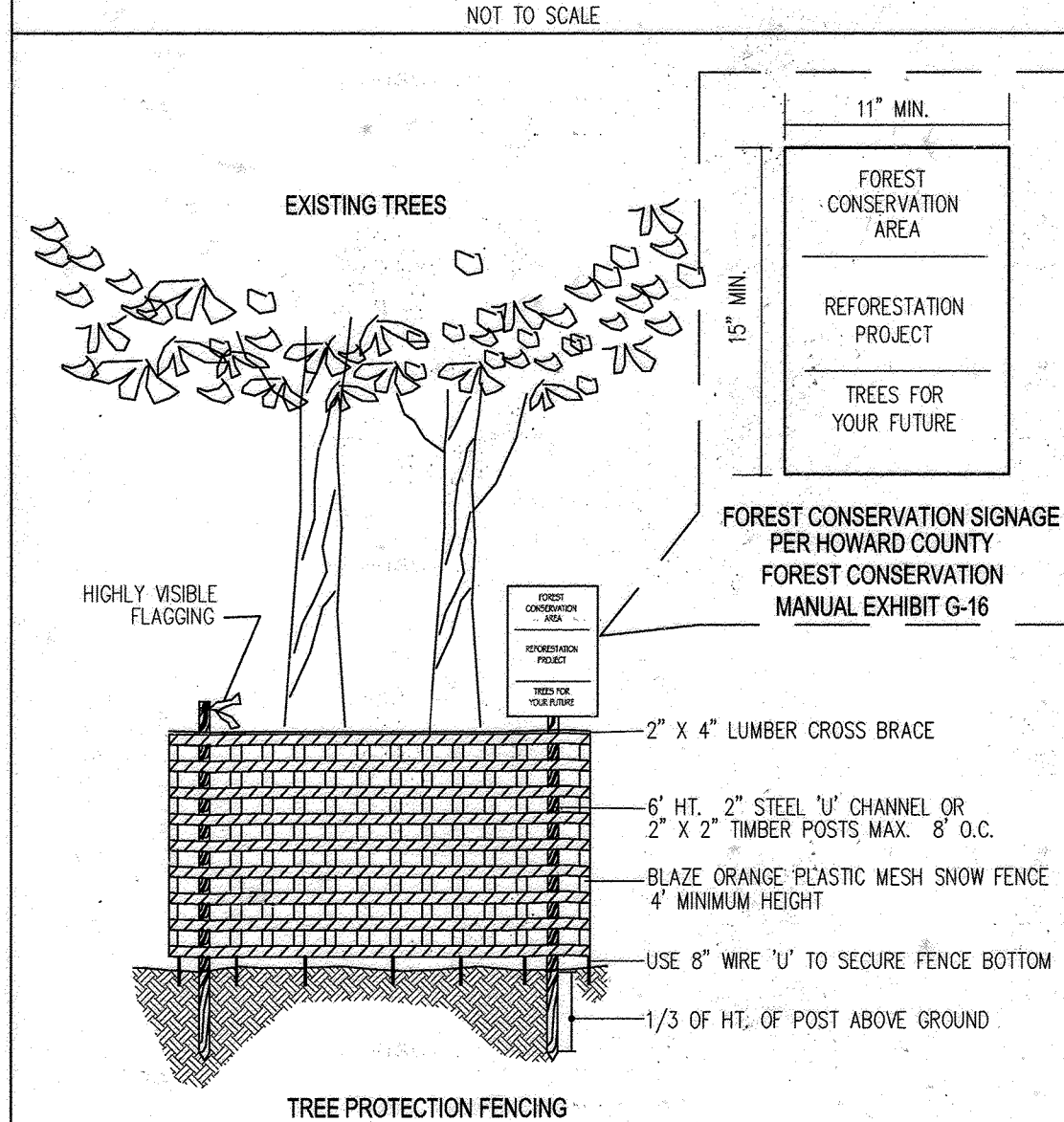
CONSTRUCTION PERIOD PROTECTION PROGRAM

- THE LIMIT OF FOREST RETENTION SHALL BE STAKED AND FLAGGED.
- A PRE-CONSTRUCTION MEETING AT THE SITE SHOULD BE HELD TO CONFIRM THE LIMITS OF CLEARING SPECIFIED. THE MEETING SHOULD INCLUDE THE OWNER OR THE OWNER'S REPRESENTATIVE, THE ON-SITE FOREMAN IN CHARGE OF LAND DISTURBANCE, THE ENVIRONMENTAL CONSULTANT AND THE APPROPRIATE HOWARD COUNTY INSPECTORS.
- FOREST PROTECTION DEVICES AND SIGNS (SEE DETAILS) SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING. THE PROTECTION DEVICES AND SIGNS SHALL BE MAINTAINED DURING THE ENTIRE CONSTRUCTION PERIOD. NONE OF THE DEVICES SHALL BE ANCHORED OR ATTACHED IN ANY WAY TO THE TREES TO BE SAVED.
- EQUIPMENT, VEHICLES AND BUILDING MATERIALS SHALL NOT BE WITHIN THE PROTECTED AREA. ACTIVITIES STRICTLY TO IMPLEMENT ANY REFORESTATION PLANTING AND MAINTENANCE (I.E. WATERING, FERTILIZING, THINNING, PRUNING, REMOVAL OF DEAD AND DISEASED TREES WHERE NECESSARY, ETC.) OF THE CONSERVATION AREA ARE PERMITTED. CLEARING FOR THE PURPOSE OF SODDING OR PLANTING GRASS IS NOT PERMITTED WITHIN THE FOREST CONSERVATION AREAS ONCE THEY'RE ESTABLISHED.
- AT THE END OF THE CONSTRUCTION PERIOD, THE DESIGNATED QUALIFIED PROFESSIONAL SHALL CONVEY TO THE ADMINISTRATOR OF THE HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL FOREST RETENTION AREAS HAVE BEEN PRESERVED, ALL REFORESTATION AND/OR AFFORESTATION PLANTINGS (IF APPLICABLE) HAVE BEEN INSTALLED AS REQUIRED BY THE FOREST CONSERVATION PLAN, AND THAT ALL PROTECTION MEASURES REQUIRED FOR THE POST-CONSTRUCTION PERIOD HAVE BEEN INSTALLED. UPON REVIEW OF THE FINAL CERTIFICATION DOCUMENT FOR COMPLETENESS AND ACCURACY, THE PROGRAM COORDINATOR WILL NOTIFY THE OWNER OF RELEASE FROM THE CONSTRUCTION PERIOD OBLIGATIONS. THE 2-YEAR (MIN.) POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD THEN COMMENCES.

FOREST CONSERVATION ACREAGE TABULATION

Forest Conservation Easement No.	Credited Retention Area on Net Tract	Non-Credited Retention Area on Net Tract	100-yr floodplain area within FCE (non-credited)	Non-credited Area of Natural Regeneration	Total Area of Forest Conservation Easement (non-credited portion is in parenthesis)
FCE-1	18.4148	0.0	4.3524	1.2182	23.9854 (5.5706)
FCE-2	1.0997	0.0	0.0	0.4368	1.5364 (0.4368)
FCE-3	2.8007	0.0	0.0	0.5585	3.3592 (0.5585)
FCE-4	4.6595	0.0703	0.0000	0.4524	5.1822 (0.5228)
FCE-5	3.4653	0.1453	0.4655	0.4781	4.5542 (1.0889)
FCE-6	0.0902	0.0	0.7604	0.0000	0.8506 (0.7604)
FCE-7	5.8126	0.0	0.0000	0.7034	6.5160 (0.7034)
FCE-8	0.0060	0.0	0.0222	0.0000	0.0282 (0.0222)
FCE-9	0.9464	0.0	0.4060	0.2672	1.6196 (0.6732)
FCE-10	0.1182	0.0	0.0	0.0	0.1182 (0.00)
FCE-11	0.1543	0.0	0.0	0.0	0.1543 (0.00)
TOTAL	37.5676	0.2157	6.0065	4.1145	47.9043 (10.3367)

TREE PROTECTION FENCE & FOREST CONSERVATION SIGNAGE



- NOTES:**
- THE TREE PROTECTION FENCING SHOWN ON THESE PLANS IS TEMPORARY AND SHALL REMAIN IN PLACE DURING CONSTRUCTION ACTIVITY, BUT THE FOREST CONSERVATION SIGN IS PERMANENT AND SHALL REMAIN IN PLACE AROUND THE FOREST CONSERVATION EASEMENTS AFTER THE REMOVAL OF THE TREE PROTECTION FENCING. WHERE SUPER SLOPE FENCING IS REQUIRED ALONG AN UNGRADED LIMIT OF DISTURBANCE/CLEARING, THE INSTALLATION OF THIS FENCE CAN BE OMITTED OR DELAYED AT THE DISCRETION OF THE INSPECTOR.
 - FOREST CONSERVATION SIGNS SHALL BE INSTALLED ALONG THE PERIMETER OF THE CONSERVATION EASEMENT AT 50' TO 100' APART.
 - ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.

FOREST CONSERVATION PROGRAM SEQUENCE

- OBTAIN ALL NECESSARY PERMITS.
- STAKEOUT LIMITS OF DISTURBANCE.
- FIELD MEETING TO REVIEW AND VERIFY LIMIT OF DISTURBANCE FOR THE SITE GRADING AND CONSTRUCTION.
- INSTALL FOREST CONSERVATION SIGNS AND FOREST PROTECTION DEVICES (FENCES) ALONG THE PORTION OF THE LIMIT OF DISTURBANCE (THAT INVOLVES CLEARING AND/OR RETENTION OF TREES).
- COMMENCE SITE CONSTRUCTION.
- PREPARE SITE SOIL BY MULCHING AND REMOVAL OF TRASH AND WEEDS INCLUDING AN APPLICATION OF HERBICIDES TO CONTROL NOXIOUS WEEDS AND INVASIVE SPECIES.
- INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE CONSTRUCTION PERIOD OBLIGATIONS. START OF POST-CONSTRUCTION MANAGEMENT PERIOD. ALL FOREST CONSERVATION EASEMENTS (FCE'S) MUST BE DEVOID OF TRASH, DEBRIS, STRUCTURES, FENCES, ETC.
- POST-CONSTRUCTION MANAGEMENT FOR A PERIOD OF 2 YEARS (MIN.).
- FINAL INSPECTION AND CERTIFICATION FOR THE RELEASE OF THE OWNER'S FOREST CONSERVATION OBLIGATIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

W. R. ... 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

K. ... 12-20-13
Chief, Division of Land Development Date

C. ... 12-17-13
Chief, Development Engineering Division Date

STATE OF MARYLAND
Michael B. Tran
11-10-2013
LANDSCAPE ARCHITECT

GLW GUTSCHICK LITTLE & WEBER, P.A.
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PREPARED FOR:
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FOREST CONSERVATION CHARTS, DETAILS, NOTES & FOREST BANK TABULATION

WINCOPIA FARMS
LOTS 1 - 201, 208 - 220, 258 - 263 & OPEN SPACE LOTS 221 THROUGH 257
NO ASBUILT INFORMATION 04/27/2020
L 11888 F. 725
PARCEL 472
ELECTION DISTRICT No. 6
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GENERAL NOTES

ALL STANDARD REGULATORY AND WARNING SIGNS USED FOR MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).

ALL TEMPORARY TRAFFIC SIGNS SHALL BE INSTALLED IN ACCORDANCE TO MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS MDSA BOOK OF STANDARDS, AND NCHRP 350.

ALL BARRICADES AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).

ALL SIGNS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT EXISTING TRAFFIC CONTROL DEVICES (MINIMUM 200' SPACING).

ANY CORRECTIONS, MODIFICATIONS OR ADDITIONS TO THIS PLAN MUST BE APPROVED BY THE HOWARD COUNTY DEPT. OF PUBLIC WORKS TRAFFIC DIVISION.

MISS UTILITY MUST BE NOTIFIED PRIOR TO PLACEMENT OF SIGNING, IF MOUNTING ON POSTS.

SIGN INSTALLATION SHALL NOT LAST ANY LONGER THAN 15 MINUTES PER LOCATION. IF LONGER THAN 15 MINUTES, APPROPRIATE TRAFFIC CONTROL PERMITS MUST BE USED.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES. AT ANYTIME THE CONTRACTOR DOES NOT MAKE NECESSARY REPAIRS WITHIN 24 HOURS OF NOTIFICATION, APPROPRIATE WORK TIME REDUCTION AND/OR FINES MAY BE APPLIED.

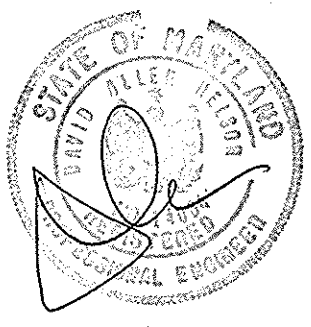
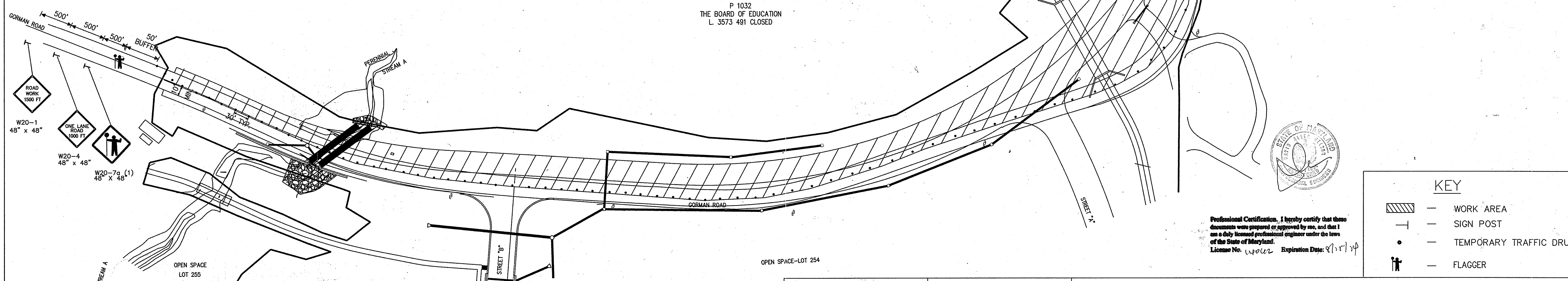
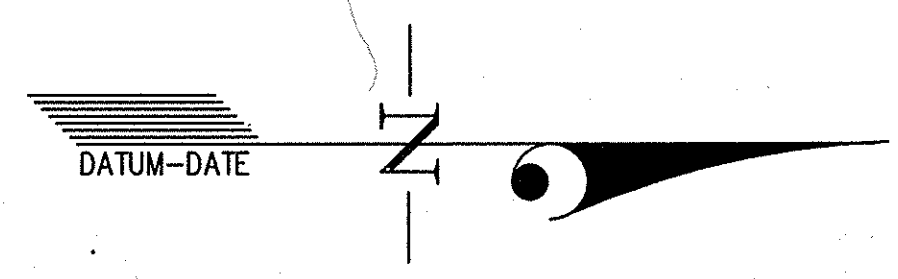
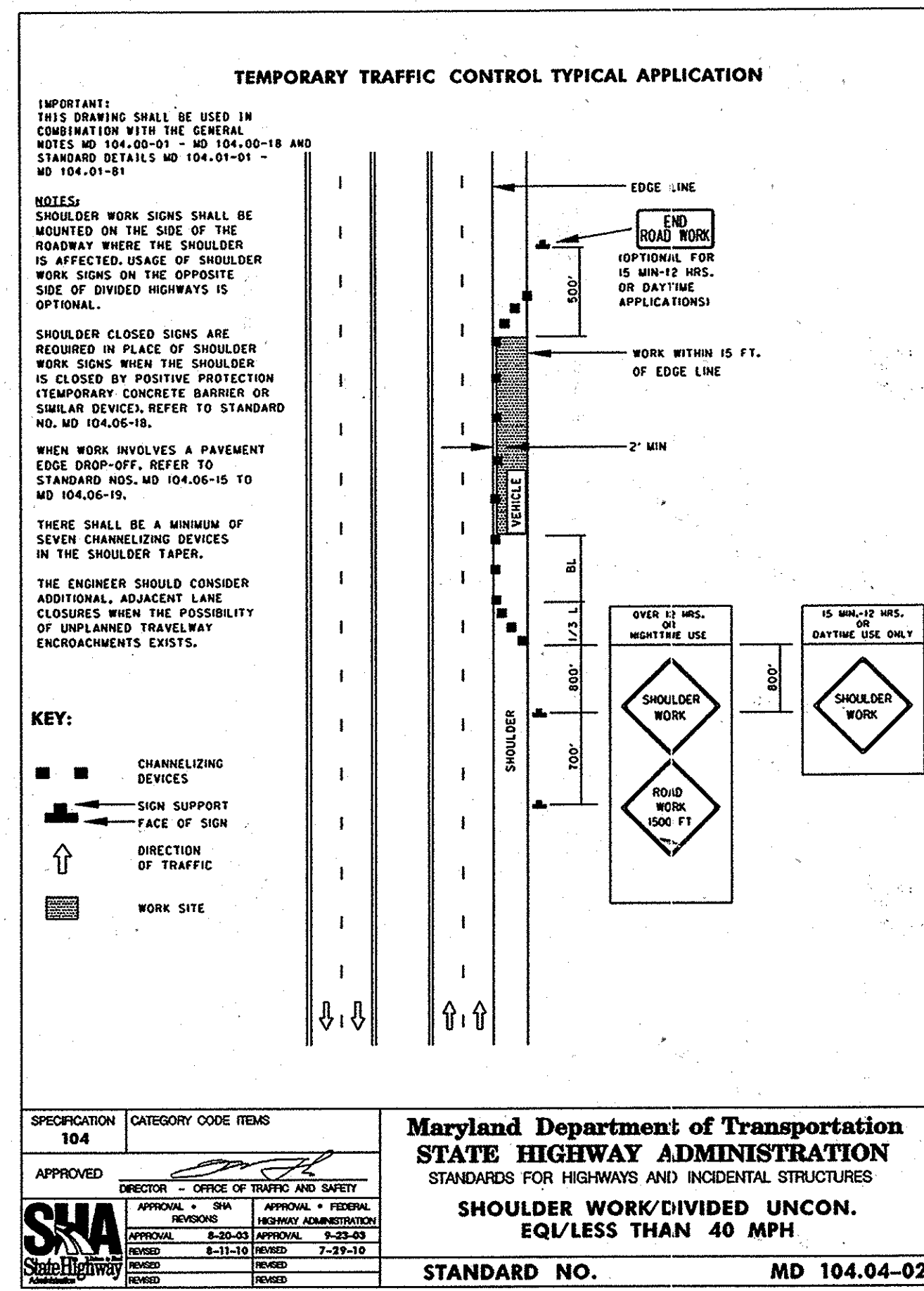
ALL SIGNS SHALL CONFORM TO CURRENT MDSA MATERIAL AND REFLECTIVITY REQUIREMENTS.

ALL DRIVEWAY ENTRANCES MUST BE MAINTAINED AT ALL TIMES.

ALL SIGN LOCATIONS SHALL BE MARKED AND/OR APPROVED BY HOWARD COUNTY TRAFFIC (410-313-2430) PRIOR TO THE INSTALLATION OF ANY SIGNS.

ALL SIGNS SHALL BE COVERED OR REMOVED AT THE END OF THE WORKDAY.

DURING NON-FLAGGER PERIODS INSTALL TRAFFIC CONTROL DEVICES AS SHOWN IN MD STANDARD NO. 104.04-02 (SHOULDER WORK).



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. 90022 Expiration Date: 8/15/14

KEY

- [Hatched Area] WORK AREA
- [Vertical Line] SIGN POST
- [Circle with Dot] TEMPORARY TRAFFIC DRUM
- [Stick Figure] FLAGGER

ZONING R-ED	WINCOPIA FARMS LOTS 1 - 201, 208 - 220, 255 - 263 & OPEN SPACE LOTS 221 THROUGH 257	PREPARED FOR: BEAZER HOMES CORP. 8965 GUILFORD ROAD SUITE 290 COLUMBIA, MD 21046 BRIAN KNAUFF 410-381-3222
TAX MAP - GRID 47-3	L 11388 F. 725 PARCEL 472	

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William Z. Smith 12-9-13
Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Kevin [Signature] 12-20-13
Chief, Division of Land Management Date

Paul [Signature] 12-12-13
Chief, Development Engineering Division Date

REVISIONS	
DATE:	SIGNED:
DATE:	SIGNED:
DATE:	SIGNED:
DATE:	SIGNED:

DRAWN BY: MN

DESIGNED BY: MN

CHECKED BY:

DATE: November 2013

SCALE: NA

STREET TRAFFIC STUDIES, LTD.

400 Crain Hwy., N.W.
Glen Burnie, Maryland 21061
Phone (410) 590-5500
Fax (410) 590-6637

GORMAN ROAD TRAFFIC CONTROL PLAN
PHASE 1

STATE: MARYLAND COUNTY: HOWARD

ALL STANDARD REGULATORY AND WARNING SIGNS USED FOR MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION).

ALL TEMPORARY TRAFFIC SIGNS SHALL BE INSTALLED IN ACCORDANCE TO MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS MDSA BOOK OF STANDARDS, AND NCHRP 350.

ALL BARRICADES AND OTHER TRAFFIC CONTROL DEVICES MUST BE IN ACCORDANCE WITH THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). ALL BARRICADES MUST MEET AND HAVE BEEN TESTED UNDER THE NCHRP 350 CRASH CRITERIA. ALL DETOUR SIGNS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT EXISTING TRAFFIC CONTROL DEVICES (MINIMUM 200' SPACING).

ANY CORRECTIONS, MODIFICATIONS OR ADDITIONS TO THIS PLAN MUST BE APPROVED BY THE HOWARD COUNTY DEPT. OF PUBLIC WORKS TRAFFIC DIVISION.

MISS UTILITY MUST BE NOTIFIED PRIOR TO PLACEMENT OF SIGNING, IF MOUNTING ON POSTS. SIGN INSTALLATION SHALL NOT LAST ANY LONGER THAN 15 MINUTES PER LOCATION. IF LONGER THAN 15 MINUTES, APPROPRIATE TRAFFIC CONTROL AND PERMITS MUST BE USED.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES. AT ANYTIME THE CONTRACTOR DOES NOT MAKE NECESSARY REPAIRS WITHIN 24 HOURS OF NOTIFICATION, APPROPRIATE WORK TIME REDUCTION AND/OR FINES MAY BE APPLIED.

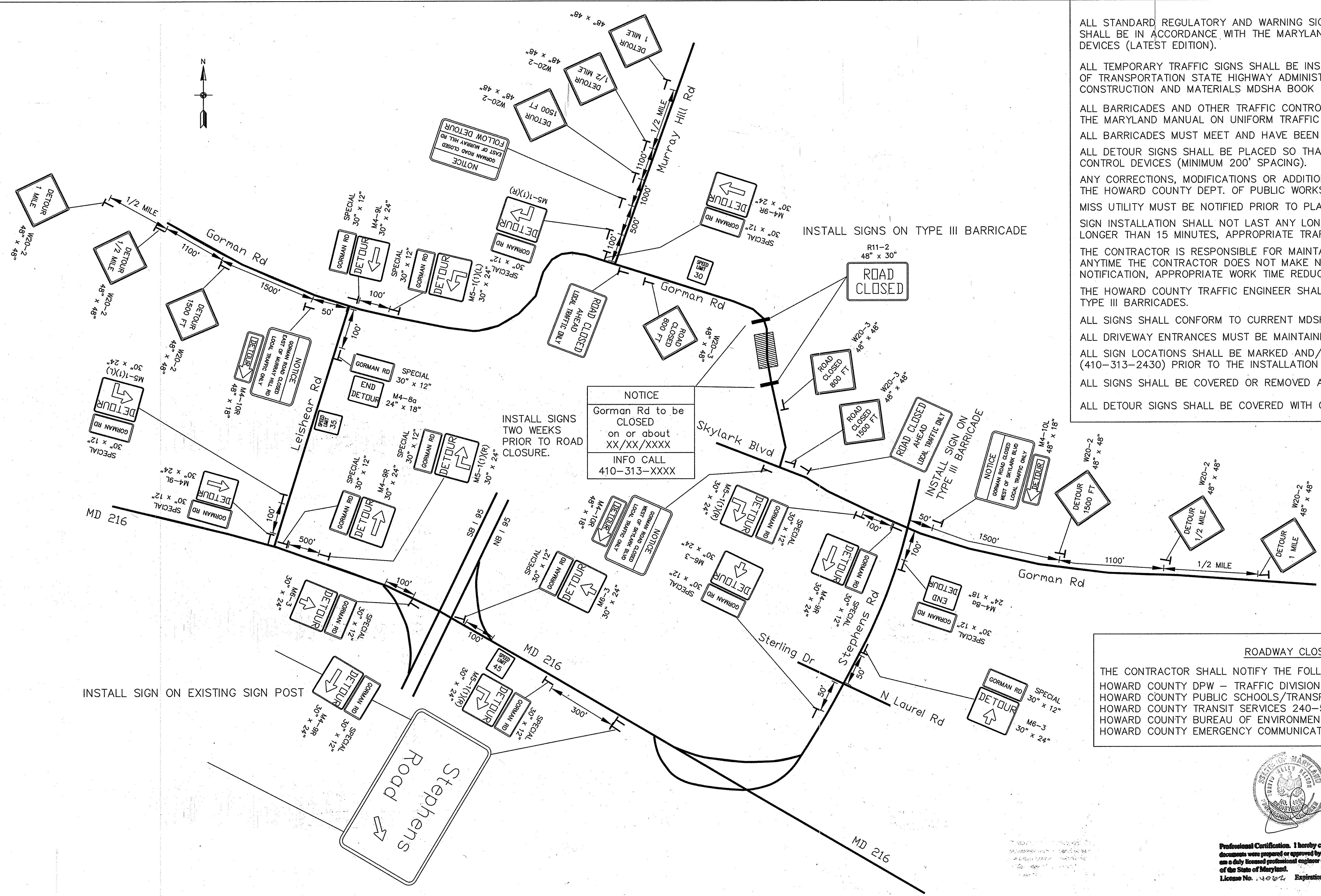
THE HOWARD COUNTY TRAFFIC ENGINEER SHALL DETERMINE EXACT PLACEMENT OF TYPE III BARRICADES.

ALL SIGNS SHALL CONFORM TO CURRENT MDSA MATERIAL AND REFLECTIVITY REQUIREMENTS. ALL DRIVEWAY ENTRANCES MUST BE MAINTAINED AT ALL TIMES.

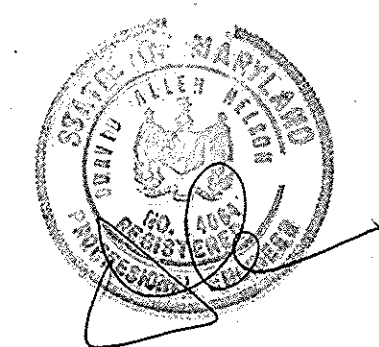
ALL SIGN LOCATIONS SHALL BE MARKED AND/OR APPROVED BY HOWARD COUNTY TRAFFIC (410-313-2430) PRIOR TO THE INSTALLATION OF ANY SIGNS.

ALL SIGNS SHALL BE COVERED OR REMOVED AT THE END OF THE WORKDAY.

ALL DETOUR SIGNS SHALL BE COVERED WITH OPAQUE MATERIAL UNTIL THE ROAD IS CLOSED.



ROADWAY CLOSURE NOTIFICATION:
 THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AT LEAST 4 WEEKS IN ADVANCE.
 HOWARD COUNTY DPW - TRAFFIC DIVISION 410-313-2430
 HOWARD COUNTY PUBLIC SCHOOLS/TRANSPORTATION DIVISION 410-313-6728 (IF DURING SCHOOL TIMES)
 HOWARD COUNTY TRANSIT SERVICES 240-581-5800
 HOWARD COUNTY BUREAU OF ENVIRONMENTAL SERVICES 410-313-6470
 HOWARD COUNTY EMERGENCY COMMUNICATIONS/911 CENTER 410-313-2300



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. 4022 Expiration Date: 8/15/14

WINCOPIA FARMS
 LOTS 1-201, 208-220, 258-263 &
 OPEN SPACE LOTS 221 THROUGH 257
 L. 11388 F. 725
 PARCEL 472

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
W. R. O'Connell 12-9-13
 Chief, Bureau of Highways Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
V. J. ... 12-20-13
 Chief, Division of Land Development Date

C. ... 12-17-13
 Chief, Development Engineering Division Date

REVISIONS	
DATE:	SIGNED:
DATE:	SIGNED:
DATE:	SIGNED:
DATE:	SIGNED:

STREET TRAFFIC STUDIES, LTD.
 400 Crain Hwy., N.W.
 Glen Burnie, Maryland 21061
 Phone (410) 590-5500
 Fax (410) 590-6637

GORMAN ROAD DETOUR PLAN
 PHASE 2

STATE: MARYLAND COUNTY: HOWARD

LEGEND

— SIGN POST/FACE OF SIGN

▨ AREA OF ROAD CLOSURE

ZONING
 R-ED

TAX MAP - GRID
 47-3

PREPARED FOR:
 BEAZER HOMES CORP.
 8965 GUILFORD ROAD
 SUITE 290
 COLUMBIA, MD 21046
 BRIAN KNAUFF
 410-381-3222