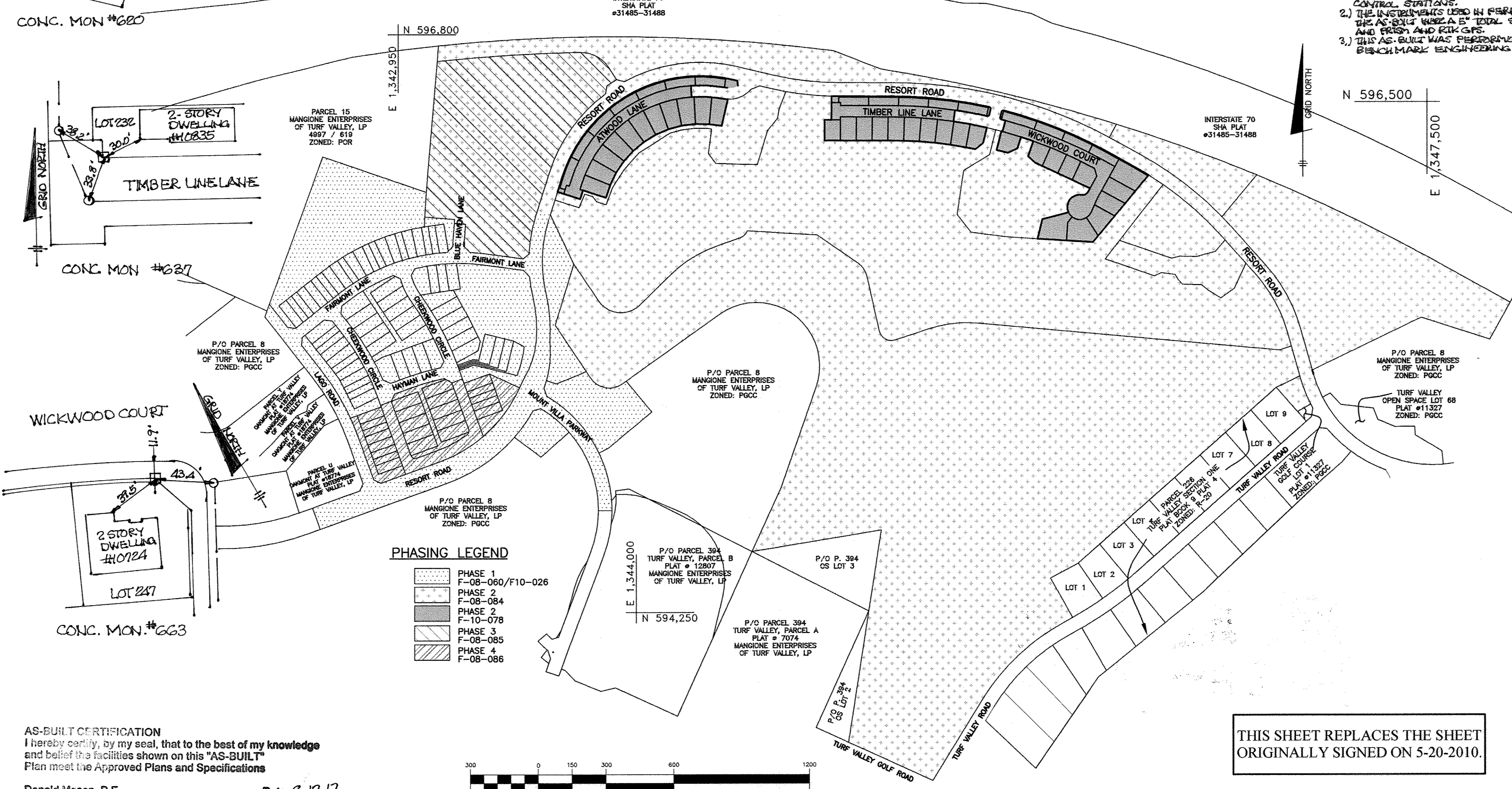
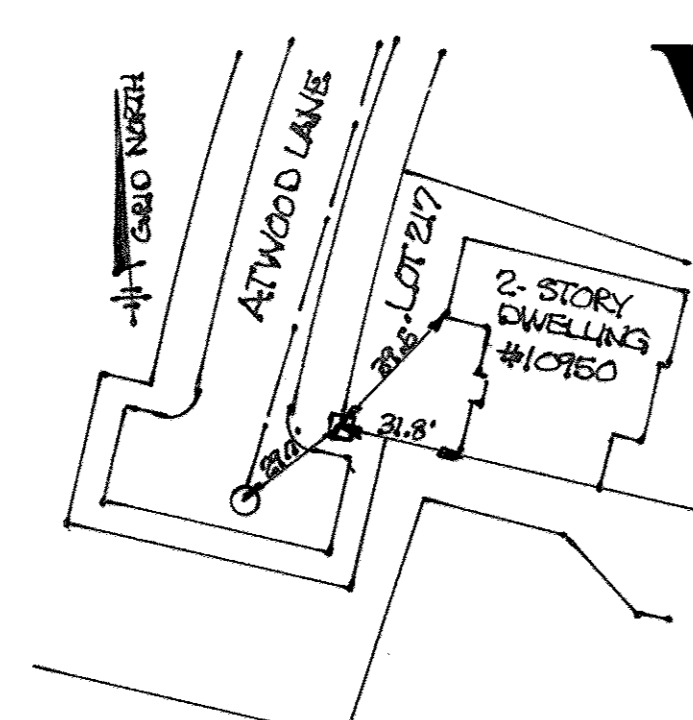


VILLAGES AT TURF VALLEY PHASE 2, SECTION 2 ROADS, STORMWATER MANAGEMENT AND STORM DRAIN CONSTRUCTION PLANS

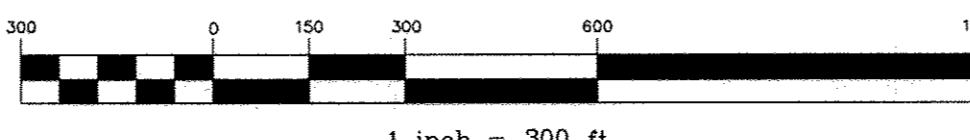
GENERAL NOTES

- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- BOUNDARY IS BASED ON A FIELD RUN MONUMENTED SUBURBAN BOUNDARY SURVEY PERFORMED BY JOHN A. WILDEBERG IN MARCH, 2004.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 16E1 AND 0012 WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED PGCC AND IS CONSIDERED "GRANDFATHERED" TO THE 2-2-2004 COMPREHENSIVE ZONING PLAN AND THE "COMB LITE" ZONING AMENDMENTS EFFECTIVE 7-28-2006. THE GRANDFATHERING OF THIS PLAN IS IN ACCORDANCE WITH SECTION 100.2.3 OF THE 2013 ZONING REGULATIONS SINCE THE PROPERTY RECEIVED INITIAL SUBDIVISION APPROVAL PRIOR TO 10-6-2013.
- WATER IS PUBLIC. THE CONTRACT NUMBER IS 24-4549-D AND 24-4663-D.
- SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-4549-D AND 24-4663-D.
- THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE DRAINAGE AREA IS THE LITTLE PATUXENT.
- STORMWATER MANAGEMENT QUALITY AND QUANTITY CONTROL IS PROVIDED WITH SWMF #3 & #4 (P-1 MICROPOOL END POND), THE OFFLINE RECHARGE CHAMBER AT SWMF#4, SWMF#5 (P-5 POCKET POND), SWMF#6 (P-1 SURFACE SAND FILTER WITH DRY DETENTION POND) AND SHEETFLOW TO BUFFER CREEKS. SWMF #3, #4 & #5 SHALL BE PRIVATELY OWNED AND JOINTLY MAINTAINED. THE RECHARGE CHAMBER AT SWMF #4 SHALL BE PRIVATELY OWNED AND PRIVATELY MAINTAINED. FOR SWMF #6, THE SURFACE SAND FILTER SHALL BE PRIVATELY OWNED AND PRIVATELY MAINTAINED WHILE THE DRY DETENTION POND SHALL BE PRIVATELY OWNED AND JOINTLY MAINTAINED.
- THERE ARE NO WETLANDS, STREAMS, THEIR BUFFERS OR 100-YEAR FLOODPLAIN LOCATED ON THESE LOTS.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.
- A NOISE STUDY WAS PREPARED BY POLYSONICS DATED NOVEMBER, 2007 AND REVISED IN MAY, 2008. A NEW NOISE STUDY BASED ON THE CURRENT LOCATION OF THE NOISE WALLS (BETWEEN EACH HOUSE ALONG RESORT ROAD) WAS PREPARED BY HUGH ACOUSTICS LLC ON JULY 24, 2014. THE 65 dBA NOISE CONTOUR LINE DRAWN ON THIS SUBDIVISION PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY, 1992 AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65 dBA NOISE EXPOSURE. THE 65 dBA NOISE LINE WAS ESTABLISHED BY HOWARD COUNTY TO ALERT DEVELOPERS, BUILDERS AND FUTURE RESIDENTS THAT AREAS BEYOND THIS THRESHOLD MAY EXCEED GENERALLY ACCEPTED NOISE LEVELS ESTABLISHED BY THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT.
- THIS PROJECT IS SUBJECT TO THE TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. UNDER S-86-13, AND UPDATED IN MARCH 2004.
- LANDSCAPING FOR THIS SUBDIVISION IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN INCLUDED WITH THIS ROAD CONSTRUCTION PLAN SET IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$450.00 FOR THE REQUIRED PERIMETER LANDSCAPING SHALL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT.
- FOREST CONSERVATION FOR VILLAGES AT TURF VALLEY, PHASE 2, SECTION 2 WAS PROVIDED UNDER VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 (F-08-084). THERE ARE NO FOREST CONSERVATION EASEMENTS WITHIN VILLAGES AT TURF VALLEY, PHASE 2, SECTION 2.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
 - WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE).
 - SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MIN.).
 - GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.
 - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (125 LOAD).
 - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
 - STRUCTURE CLEARANCES - MINIMUM 12 FEET.
 - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE EXISTING TOPOGRAPHY SHOWN ONSITE IS BASED ON THE F-08-084 MASS GRADING PLAN.
- EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS, AERIAL AND FIELD SURVEYED LOCATIONS.
- THIS SUBDIVISION IS SUBJECT TO SECTION 18.1229 OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF, EFFECTIVE 08-08, ON WHICH DATE DEVELOPER AGREEMENT #24-4663-D WAS FILED AND ACCEPTED.
- STREET LIGHT PLACEMENT AND TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS" (JUNE 1993). A MINIMUM SPACING OF 20 FEET SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY TREE.
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO PLACEMENT OF ANY ASPHALT.
- 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.
- THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE APRIL 13, 2004. PER SECTION 126(H)(1), PLANNING BOARD APPROVAL IS REQUIRED FOR THE SITE DEVELOPMENT PLAN FOR THIS PROJECT.
- THIS PROJECT IS SUBJECT TO THE TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. UNDER S-86-13, AND UPDATED IN MARCH 2004.
- THE VILLAGES AT TURF VALLEY SUBDIVISION (PHASES 1-4) CONSTITUTED 241 TOTAL UNITS, WHICH MET THE SKETCH PLAN MILESTONE DATE OF JANUARY 1, 2001 THROUGH JUNE 30, 2002 FOR BOTH PHASE VIA (131 UNITS) & IVB (110 UNITS) AS ESTABLISHED BY THE REVISED PHASING PLAN DATED JUNE 21, 2000. UNDER P-08-013, 42 CONDOMINIUM UNITS THAT WERE APPROVED WERE USED FOR OAKMONT AT TURF VALLEY (F-08-082). THESE 42 CONDOMINIUM UNITS WERE NOT PREVIOUSLY INCLUDED WITH THE OAKMONT AT TURF VALLEY (F-08-82) PLANS. IN ORDER TO RECEIVE BUILDING ALLOCATIONS, THESE 42 CONDOMINIUM UNITS WERE SHOWN AND APPROVED ON THE PRELIMINARY PLAN FOR THE VILLAGES AT TURF VALLEY (P-08-013). THE SECOND AMENDMENT TO THE TURF VALLEY MULTI-USE FINAL DEVELOPMENT PLAN WAS RECORDED ON NOVEMBER 30, 2007. PLATS 19578-19580, INCREASING THE PROJECTED UNITS IN THE OAKMONT AT TURF VALLEY AREA FROM 150 TO 200. AS A RESULT, THOSE 42 UNITS ARE NO LONGER A PART OF THE VILLAGES AT TURF VALLEY WHICH LEAVES THE TOTAL UNIT TOTAL AT 199. HOWEVER, WITH THE APPROVAL OF WP-08-009 AN ADDITIONAL 21 UNITS WERE ADDED TO THE VILLAGES AT TURF VALLEY. THE FINAL UNIT TOTAL FOR THIS SUBDIVISION COMES TO 220.



PHASING LEGEND

[Color]	PHASE 1 F-08-060/F10-026
[Color]	PHASE 2 F-08-084
[Color]	PHASE 2 F-10-078
[Color]	PHASE 3 F-08-085
[Color]	PHASE 4 F-08-086



AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications

Donald Mason, P.E. Date: 8-17-17

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. 21443 Expiration Date: 12-21-18



THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.

THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

VILLAGES AT TURF VALLEY PHASING CHART

PHASE/SECTION	S.F.A.	S.F.D.	CONDOMINIUM	TOTAL
P1S1 (F10-026)	0	0	0	0
P1S2 (F08-080)	41	21	0	62
P2S1 (F08-084)	0	0	43 *	43
P2S2 (F10-078)	0	48	0	48
P3 (F08-085)	7	0	0	7
P4 (F08-086)	15	8	0	23
P5 (ECP-14-053)	36	0	0	36
MAINT SHOP (SDP-08-096)	0	0	1 (Access. Apt.)	1
TOTAL	99	77	44	220

* FUTURE CONDO BUILDING ON LOT 203

BULK REGULATIONS:

PERMITTED USES: ALL USES AS PER TURF VALLEY PGCC DISTRICT, MULTI-USE SUBDISTRICT FINAL DEVELOPMENT PLAN, THIRD AMENDMENT, PLATS 21029-21031 (46 USES OBTAINED FROM RESIDENTIAL USES TO SPECIALTY STORES)

PERMITTED HEIGHT: SINGLE-FAMILY DETACHED - 34 FEET
OTHER - 15 FEET
ACCESSORY STRUCTURES - 15 FEET

MAXIMUM DENSITY FOR TOTAL PGCC DISTRICT IS 2.0 DWELLING UNITS PER ACRE.

MINIMUM LOT SIZE REQUIREMENTS:
SINGLE FAMILY DETACHED 6,000 SQ.FT.
EXCEPT ZERO LOT LINE DWELLINGS 4,000 SQ.FT.

MINIMUM LOT WIDTH AT BUILDING RESTRICTION LINE:
SINGLE FAMILY DETACHED 50 FEET
EXCEPT ZERO LOT LINE DWELLINGS 40 FEET

MAXIMUM BUILDING LENGTH FOR RESIDENTIAL STRUCTURE = 120 FEET, UNLESS APPROVED BY PLANNING BOARD TO A MAXIMUM OF 300 FEET.

PERMITTED SETBACKS:

FROM ARTERIAL ROADS:
RESIDENTIAL STRUCTURES - 50 FEET
ACCESSORY USES - 30 FEET
PARKING - 25 FEET

FROM COLLECTORS AND LOCAL STREETS:
FROM NON-PGCC ADJACENT PROPERTIES - 30 FEET FROM A 60 FT. ROW
20 FEET FROM A 50 FT. ROW
10 FEET

ACCESSORY USES:
FROM RESIDENTIAL DISTRICTS - 75 FEET
FROM ALL OTHER DISTRICTS - 30 FEET

FROM LOT LINES WITHIN PGCC MULTI-USE SUBDISTRICT:
SINGLE FAMILY DETACHED - SIDE - 7.5 FEET
ZERO LOT LINE AND ALL OTHER USES - SIDE - 0 FEET
A MINIMUM OF 10 FEET MUST BE PROVIDED BETWEEN STRUCTURES
RESIDENTIAL - REAR - 20 FEET

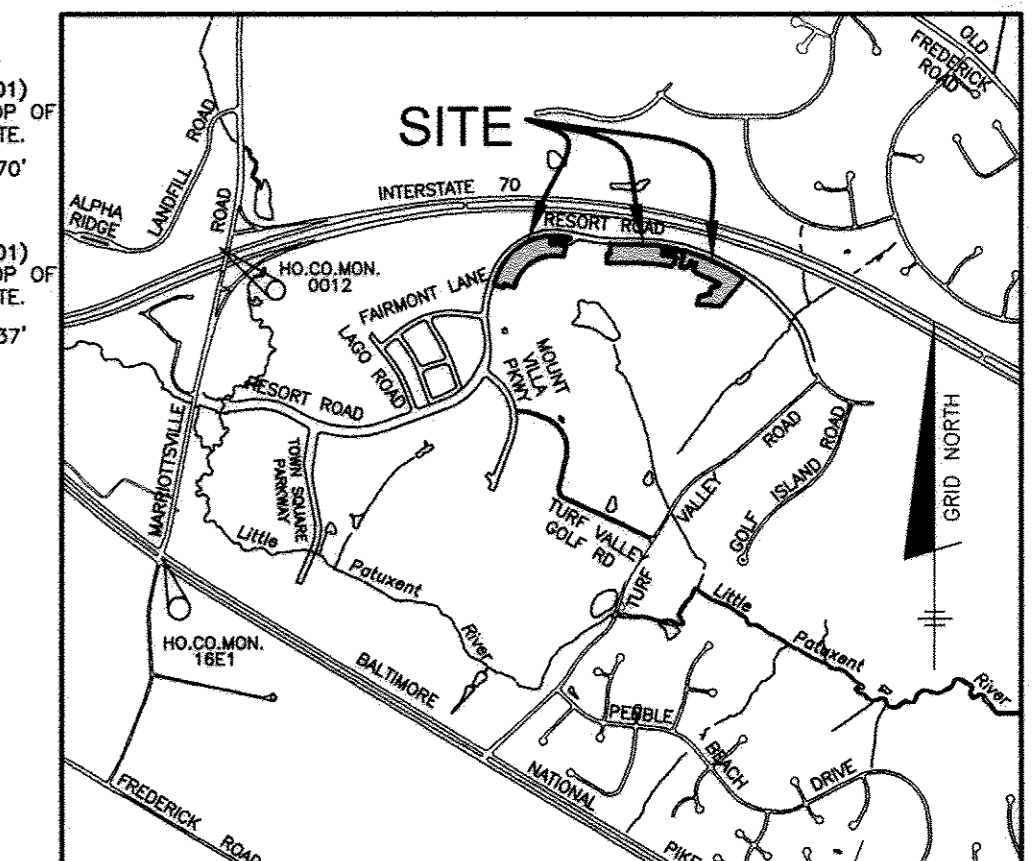
SHEET INDEX

NO.	TITLE
1	TITLE SHEET
2	ROAD PLAN AND PROFILE ATWOOD LANE
3	ROAD PLAN AND PROFILE TIMBER LINE LANE
4	ROAD PLAN AND PROFILE WICKWOOD COURT
5	GRADING, SEDIMENT AND EROSION CONTROL PLAN
6	GRADING, SEDIMENT AND EROSION CONTROL PLAN
7	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
8	STORM DRAIN DRAINAGE AREA MAP AND PROFILE
9	PERIMETER LANDSCAPE AND STREET TREE PLAN
10	NOISE WALL PLAN
11	NOISE WALL PROFILES

OPEN SPACE CALCULATIONS

	Phase 1 Section 1	Phase 1 Section 2	Phase 2 Section 1**	Phase 2 Section 2	Total
Gross Area	6.25	27.75	157.69	NA	191.69
Open Space Required 15% of gross	0.94	4.16	23.64	NA	28.74
Open Space Provided	2.58	5.32	124.96	0.32	133.18
Non-Credited (less than 35' in width)	0.00	0.65	0.35	0.32	1.32
Total Credited	2.58	4.67	124.61	0.00	131.86
Open Spaces Provided Above Requirement	1.64	0.51	100.97	0.00	103.12

* This includes area for Phase 4 (Non-Buildable Bulk Parcel BB)
** This includes area for Phase 2, Section 2 (Non-Buildable Bulk Parcels DD-1, EE-1 & FF-1) and area for Phase 3 (Non-Buildable Bulk Parcel CC-1)



SITE ANALYSIS DATA CHART

GENERAL SITE DATA

- PRESENT ZONING: PGCC
- APPLICABLE DPZ FILE REFERENCES: S-86-13, P-06-13, S-03-01, WP-05-074, WP-08-009, F-08-080, F-08-022, F-10-026, F-08-084
- PROPOSED USE OF SITE: RESIDENTIAL
- PROPOSED WATER AND SEWER SYSTEMS: PUBLIC

AREA TABULATION

- GROSS TRACT AREA: 10.63 AC.±
- AREA WITHIN 100-YEAR FLOODPLAIN: N/A
- TOTAL AREA OF 25% OR GREATER STEEP SLOPES: N/A
AREA NOT IN FLOODPLAIN (FOR NTA CALC): N/A
- NET TRACT AREA: 10.63 AC.±
- TOTAL NUMBER OF LOTS ALLOWED PER ZONING: N/A
- TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION: 48 UNITS/48 LOTS
- AREA OF BUILDABLE LOTS: 7.79± AC.
AREA OF OPEN SPACE LOTS: 0.32± AC.
AREA OF GOLF SPACE LOTS: N/A
AREA OF NON-BUILDABLE BULK PARCELS: N/A
AREA OF PARCELS: N/A
AREA OF PUBLIC RIGHT-OF-WAY: 2.52± AC.

THIS SHEET REPLACES THE SHEET
ORIGINALLY SIGNED ON 5-20-2010.

APPROVED: DEPARTMENT OF PUBLIC WORKS
9-5-14
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
9-09-14
DATE

9-4-14
DATE

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. 21443, expires 12-21-18.

BENCHMARK ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-468-4105 (F) 410-465-6644
WWW.BE-CIVLENGINEERING.COM

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
410-825-8400

DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
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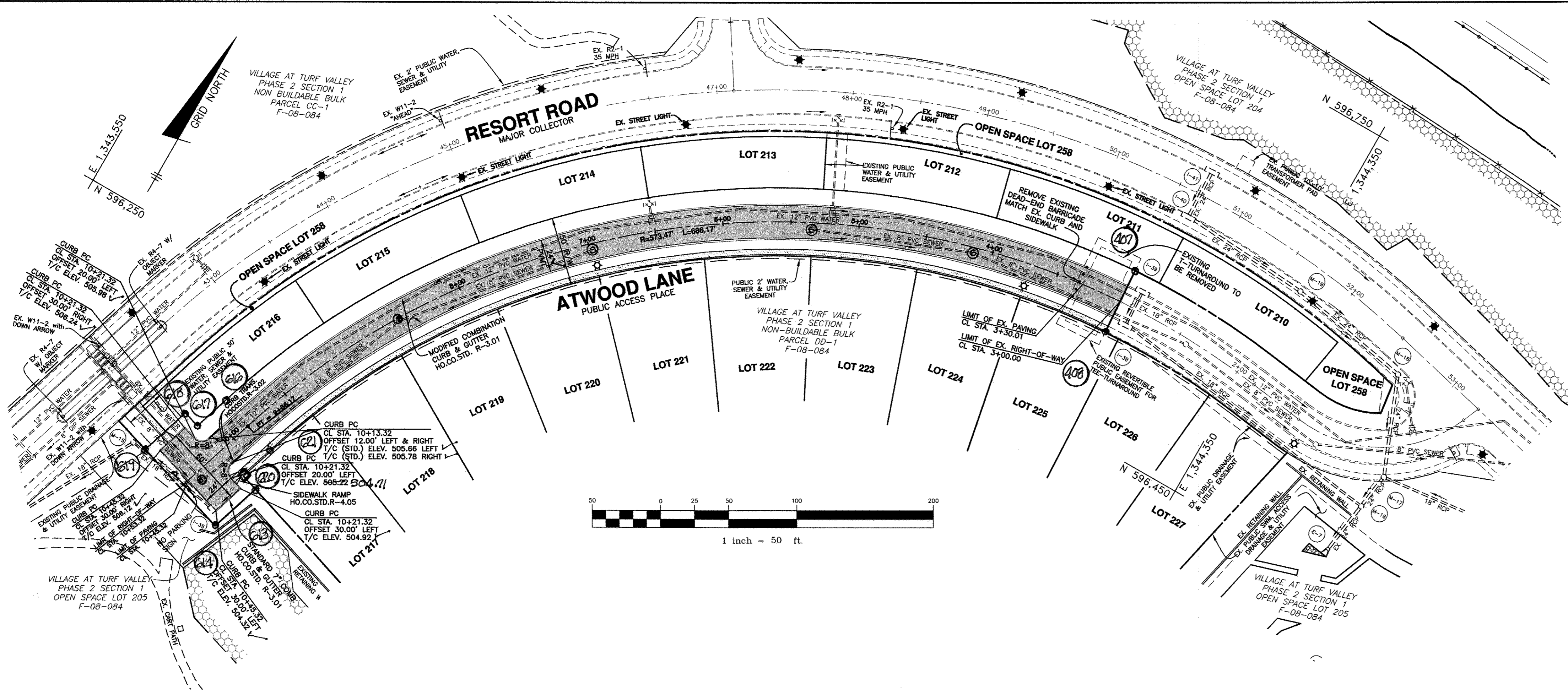
VILLAGES AT TURF VALLEY PHASE 2, SECTION 2

LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260;
A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1
NON-BUILDABLE BULK PARCELS DD-1, EE-1 AND FF-1

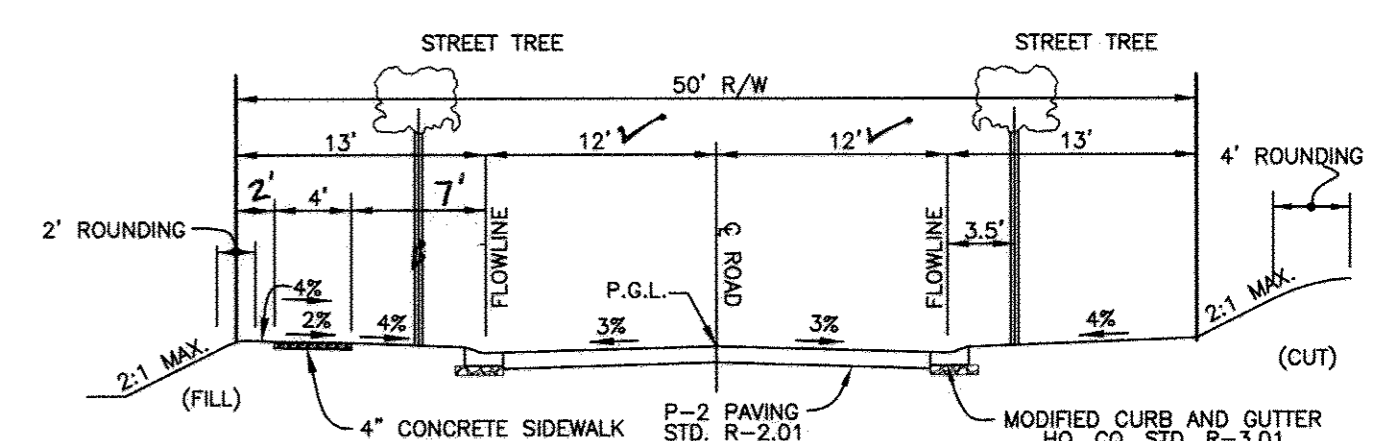
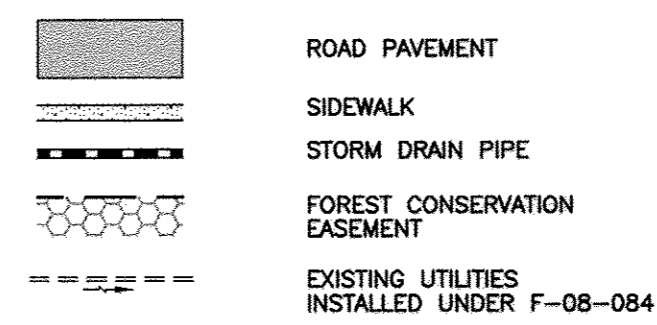
TAX MAP: 16, PARCEL: 401, GRID: 10
TAX MAP: 16, PARCEL: 190 & GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED TITLE SHEET

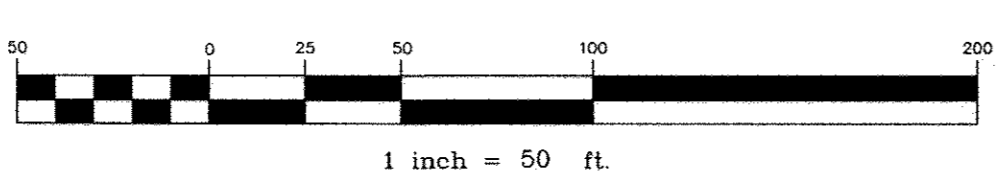
DATE: APRIL, 2010 BEI PROJECT NO. 1915
SCALE: AS SHOWN SHEET 1 OF 11



LEGEND



ATWOOD LANE
TYPICAL ROADWAY SECTION
(PUBLIC ACCESS PLACE - LESS THAN 200 ADT)
DESIGN SPEED: 25 MPH
SCALE: 1"=10'



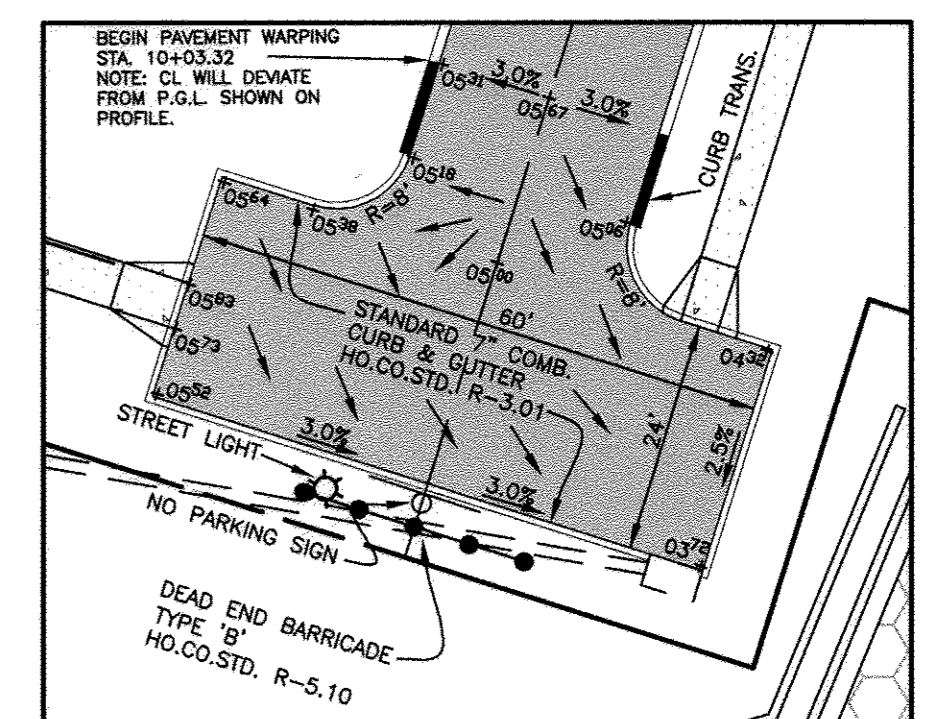
STREET LIGHT SCHEDULE			
SYMBOL	LOCATION	DESCRIPTION	
☆	ATWOOD LANE CL STA. 3+70	LEFT	100 WATT HPS VAPOR PREMIER POST-TOP FUTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
☆	ATWOOD LANE CL STA. 6+98	LEFT	
☆	ATWOOD LANE CL STA. 10+49	RIGHT	

CENTERLINE CONTROL DATA			
STREET NAME	STATION	NORTH	EAST
ATWOOD LANE	3+00.00	596550.2142	1344245.8669
	9+86.17	596150.8759	1343738.1235
	10+53.32	596086.8532	1343717.8917

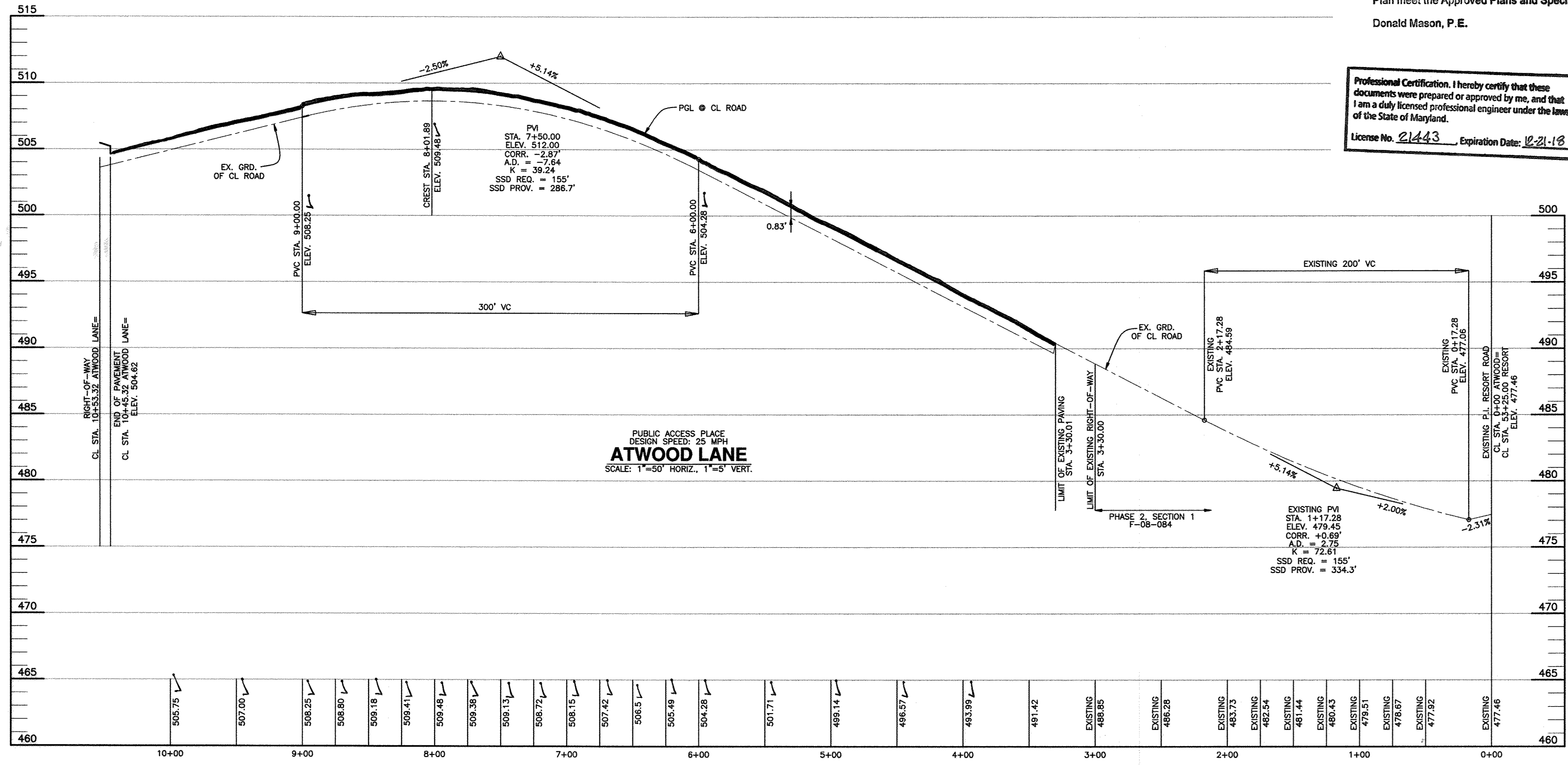
CENTER LINE CURVE DATA						
STREET NAME	STATION	RADIUS	ARC	DELTA	TANGENT	CHORD
ATWOOD	3+00.00 TO 9+86.17	573.47'	686.17'	68°33'22"	390.87'	S51°48'54"W 645.97'

AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Donald Mason, P.E. Date: 8-17-17

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. 21443, Expiration Date: 12-21-18



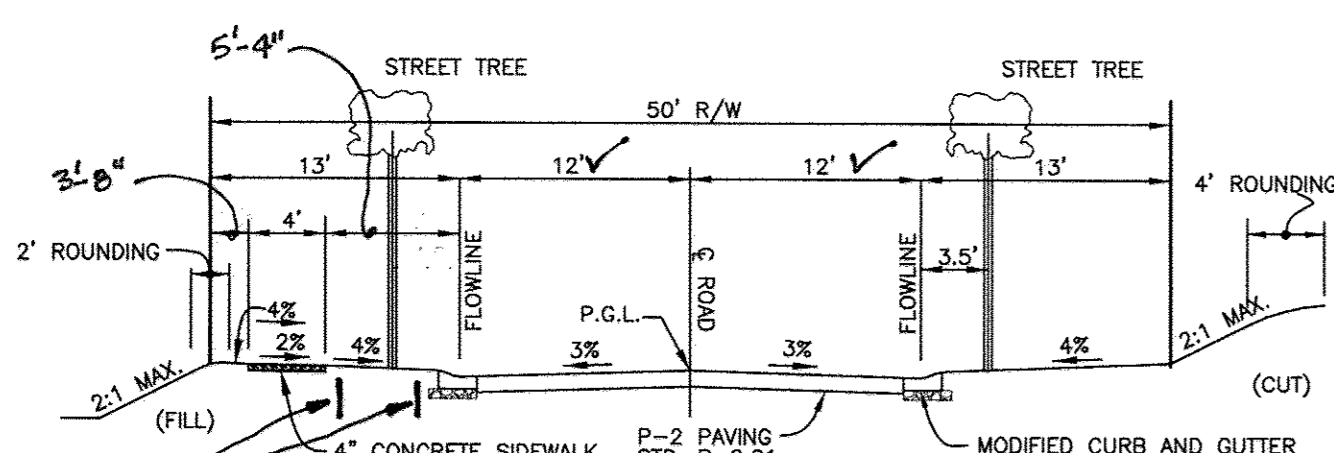
TEE-TURNAROUND DETAIL
SCALE: 1" = 20'



THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

APPROVED: DEPARTMENT OF PUBLIC WORKS
APPROVED: DEPARTMENT OF PLANNING AND ZONING

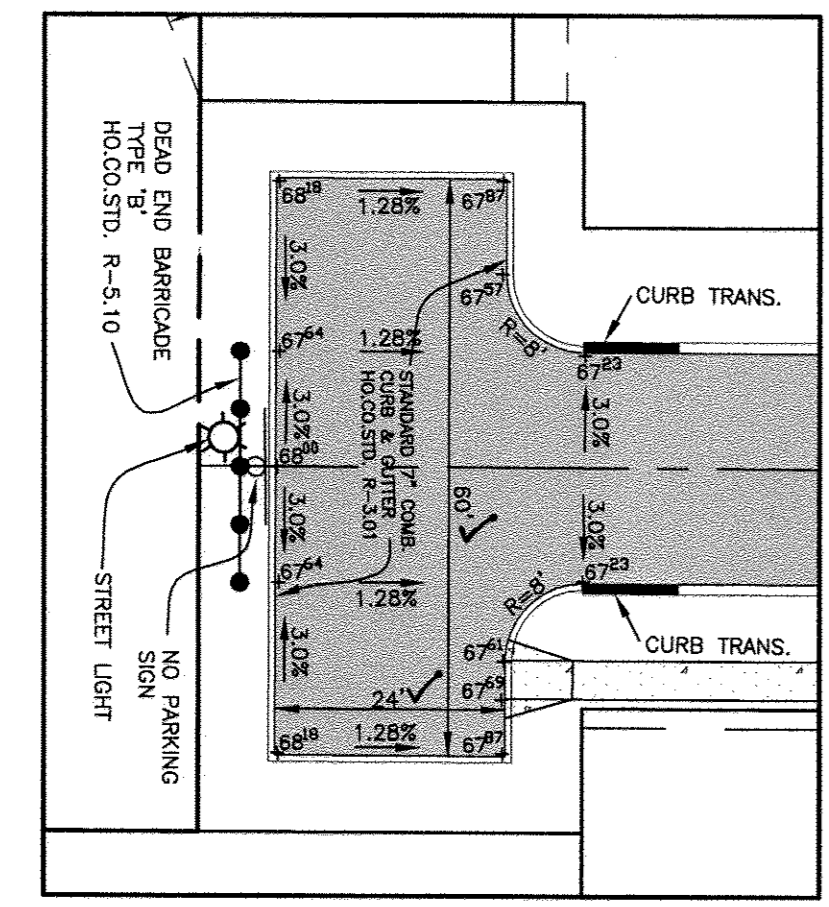
<p>BENCHMARK ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 315 A ELLICOTT CITY, MARYLAND 21043 (P) 410-460-6105 (F) 410-460-6644 WWW.BEI-CVLENGINEERING.COM</p>		<p>Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 22390, Expiration Date: 6-30-2015</p>
<p>OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>	<p>VILLAGES AT TURF VALLEY PHASE 2, SECTION 2 LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260; A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1'</p> <p>TAX MAP: 16, PARCEL: 401, GRID: 10 TAX MAP: 16, PARCEL: P08, GRID: 17 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC</p>	
<p>DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>	<p>REVISED ROAD PLAN AND PROFILE ATWOOD LANE</p> <p>DATE: APRIL, 2010 BEI PROJECT NO. 1915 SCALE: AS SHOWN SHEET 2 OF 11</p>	



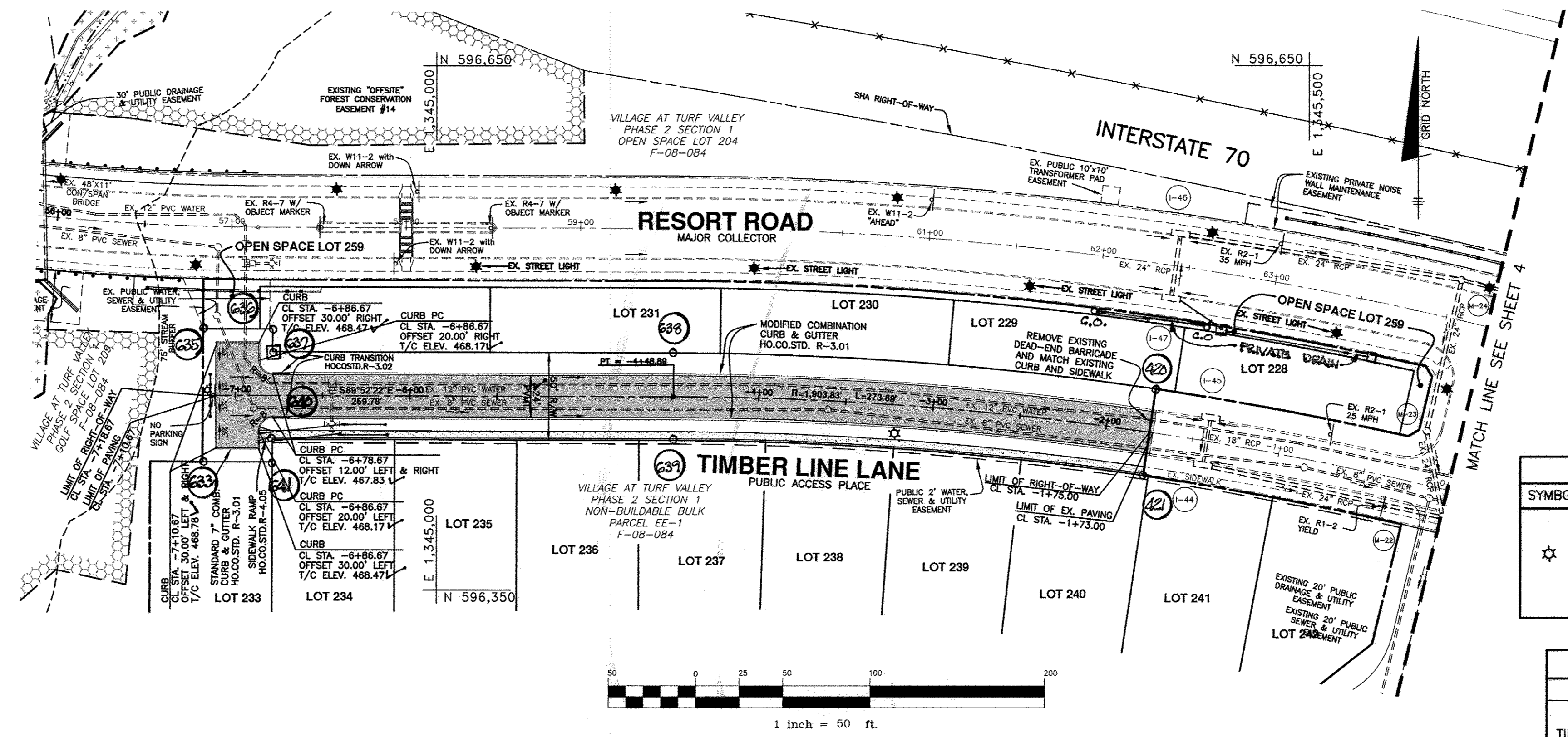
ROOT BARRIER AT EACH TREE LOCATION
 MINIMUM 12" HIGH
 48" LONG
 TOP TO BE 2-4" BELOW SURFACE

TIMBER LINE LANE
 TYPICAL ROADWAY SECTION
 (PUBLIC ACCESS PLACE - LESS THAN 200 FT)
 DESIGN SPEED: 25 MPH
 SCALE: 1" = 10'

NOTE: DESIGN MANUAL WANTS REDUCING THE DISTANCE FROM CURB TO SIDEWALK FROM 0' DOWN TO 5'-4" WAS APPROVED ON 4-4-2017.



TEE-TURNAROUND DETAIL
 SCALE: 1" = 20'



LEGEND

- ROAD PAVEMENT
- SIDEWALK
- STORM DRAIN PIPE
- FOREST PRESERVATION EASEMENT
- EXISTING UTILITIES INSTALLED UNDER F-08-084

STREET LIGHT SCHEDULE

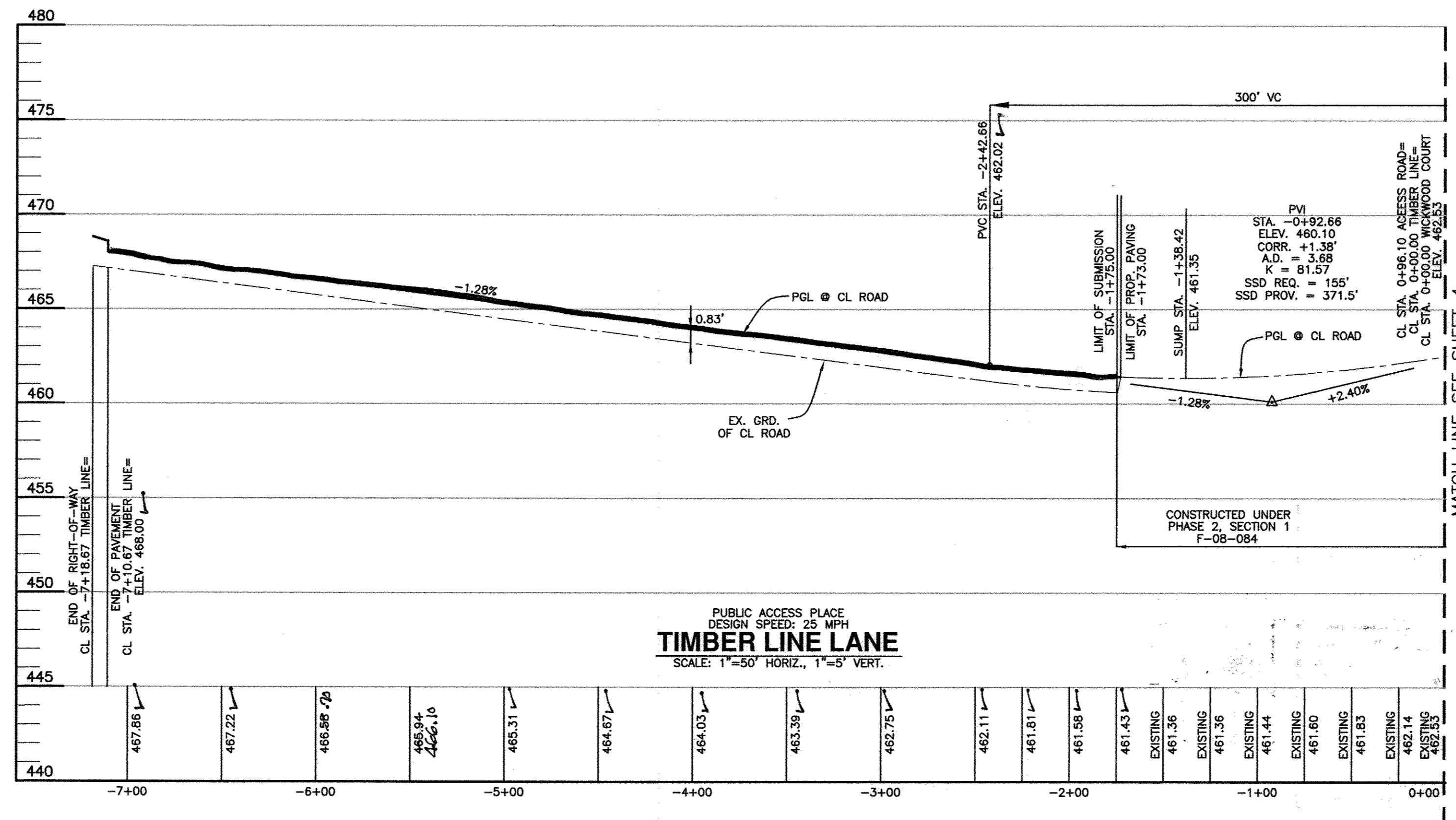
SYMBOL	LOCATION	DESCRIPTION
☆	TIMBER LINE LANE CL STA. -7+16 RIGHT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
☆	TIMBER LINE LANE CL STA. -3+21 LEFT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE

CENTERLINE CONTROL DATA

STREET NAME	STATION	NORTH	EAST
TIMBER LINE LANE	-1+75.00	596440.5767	1345408.6103
	-4+48.89	596460.8507	1345135.7071
	-7+18.67	596461.4502	1344865.9279

CENTERLINE CURVE DATA

STREET NAME	STATION	RADIUS	ARC	DELTA	TANGENT	CHORD
TIMBER LINE	-1+75.00 TO -4+48.89	1903.83'	273.89'	08°14'34"	137.18'	N85°45'05"W 273.66'



AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
 Donald Mason, P.E. Date: 8-17-17

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. 21443, Expiration Date: 12-21-18



NO.	DATE	REVISION
3	4-27-2017	REVISE TYP SET TO BULKY 5'-4" FROM FLOWLINE TO SIDEWALK, ADD FOOT BASELAPS
2	1-15-2016	REVISE TYPICAL SECTION TO REFLECT 7' FROM FLOWLINE TO SIDEWALK
1	8-21-2014	REVISE TIMBER LINE LANE ALIGNMENT AND PROFILE, REVISE WATER, SEWER AND STORM DRAIN LAYOUT

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 1205 YORK ROAD, PENTHOUSE, LUTHERVILLE, MARYLAND 21093
 410-825-8400

VILLAGES AT TURF VALLEY PHASE 2, SECTION 2
 LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260;
 A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1
 NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1'

TAX MAP: 16, PARCEL: 401, GRID: 10
 TAX MAP: 16, PARCEL: PO & GRID: 17
 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: FOC

REVISED ROAD PLAN AND PROFILE
 TIMBER LINE LANE

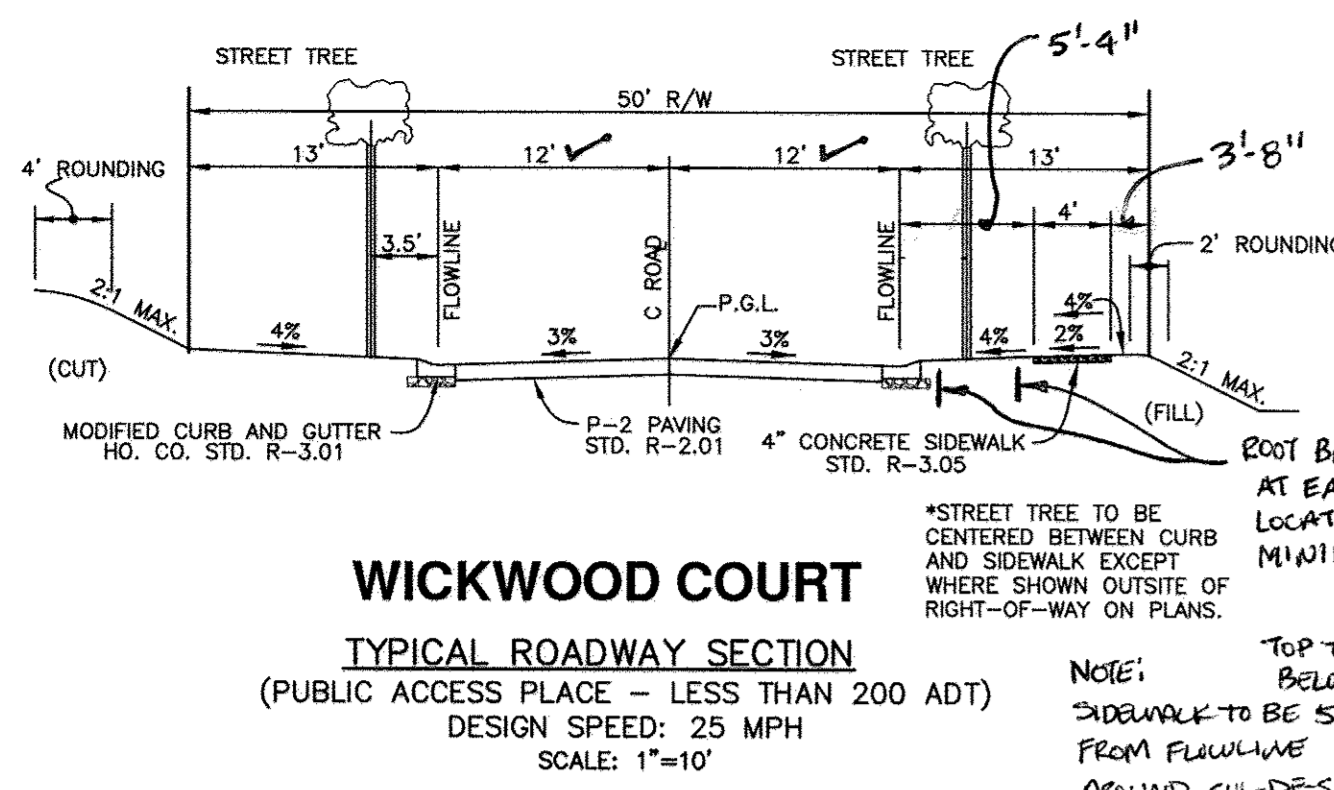
DATE: APRIL, 2010 BEI PROJECT NO. 1915
 SCALE: AS SHOWN SHEET 3 OF 11

THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

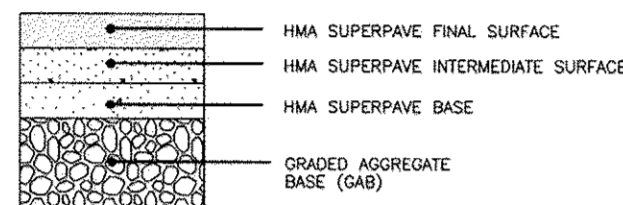
APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 9.5.14 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 9-09-14 DATE

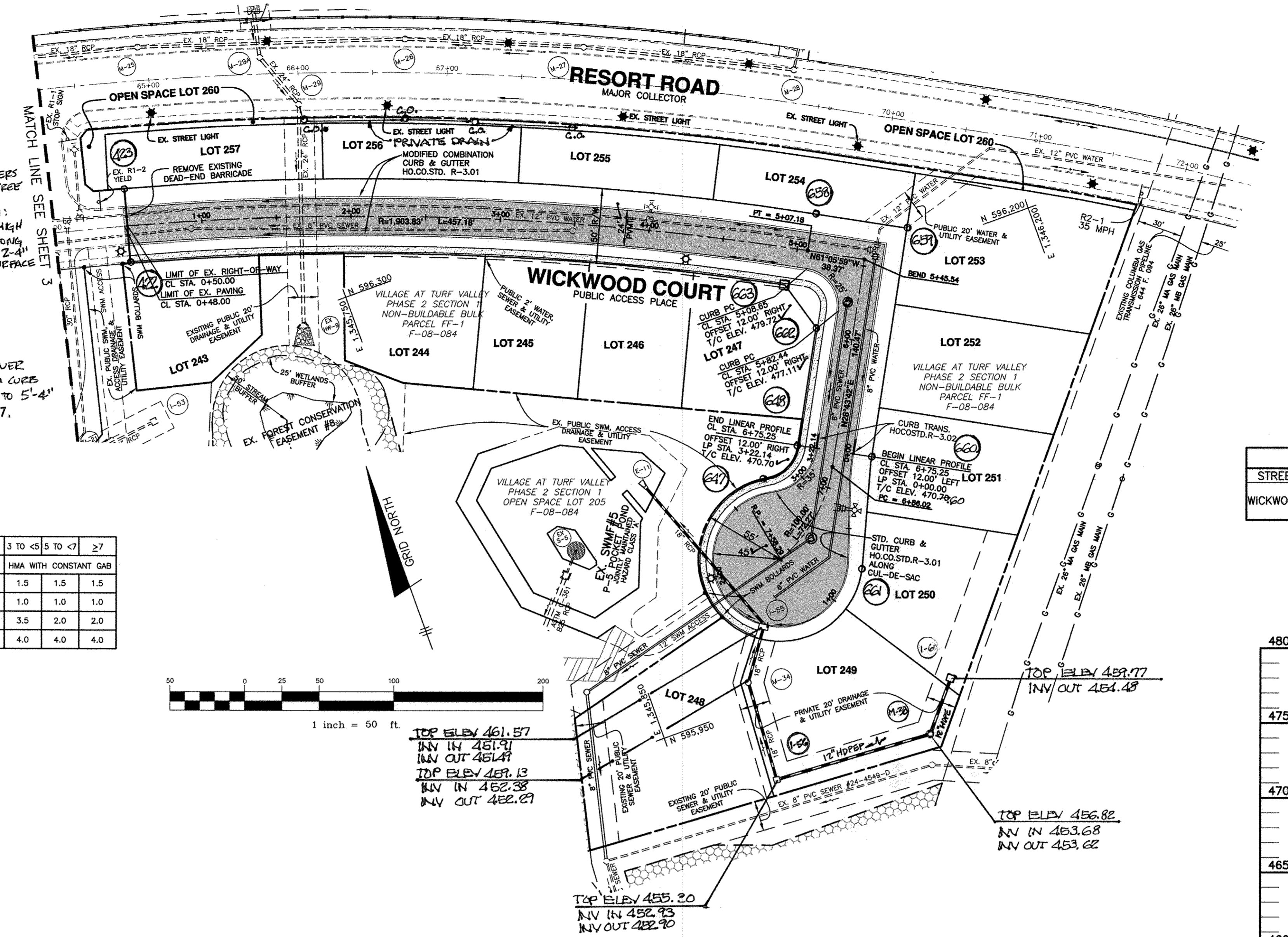
[Signature] 9.4.14 DATE



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)			
		3 TO <5	5 TO <7	>7	3 TO <5
P-2	PARKING DRIVE ASILES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SAC: RESIDENTIAL	PAVEMENT MATERIAL (INCHES)			
		HMA SUPERPAVE FINAL SURFACE			
		HMA SUPERPAVE INTERMEDIATE SURFACE			
		HMA SUPERPAVE BASE			
		GRADED AGGREGATE BASE (GAB)			



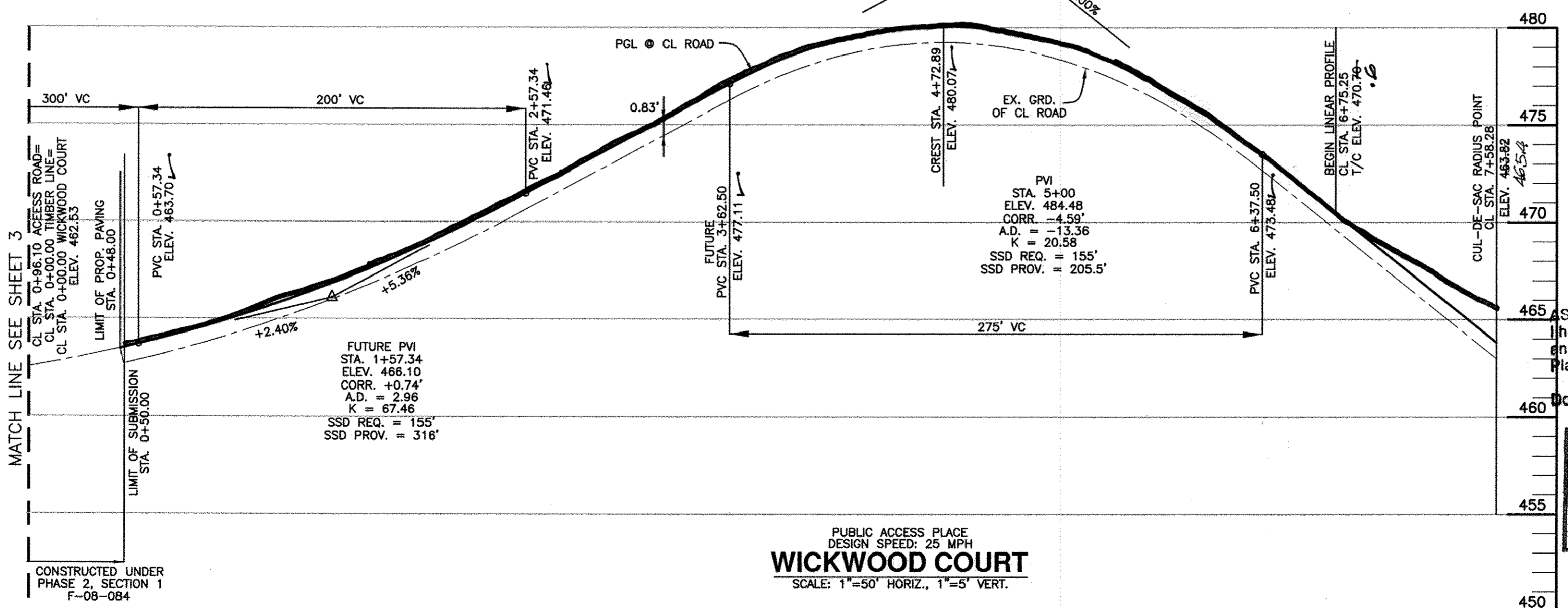
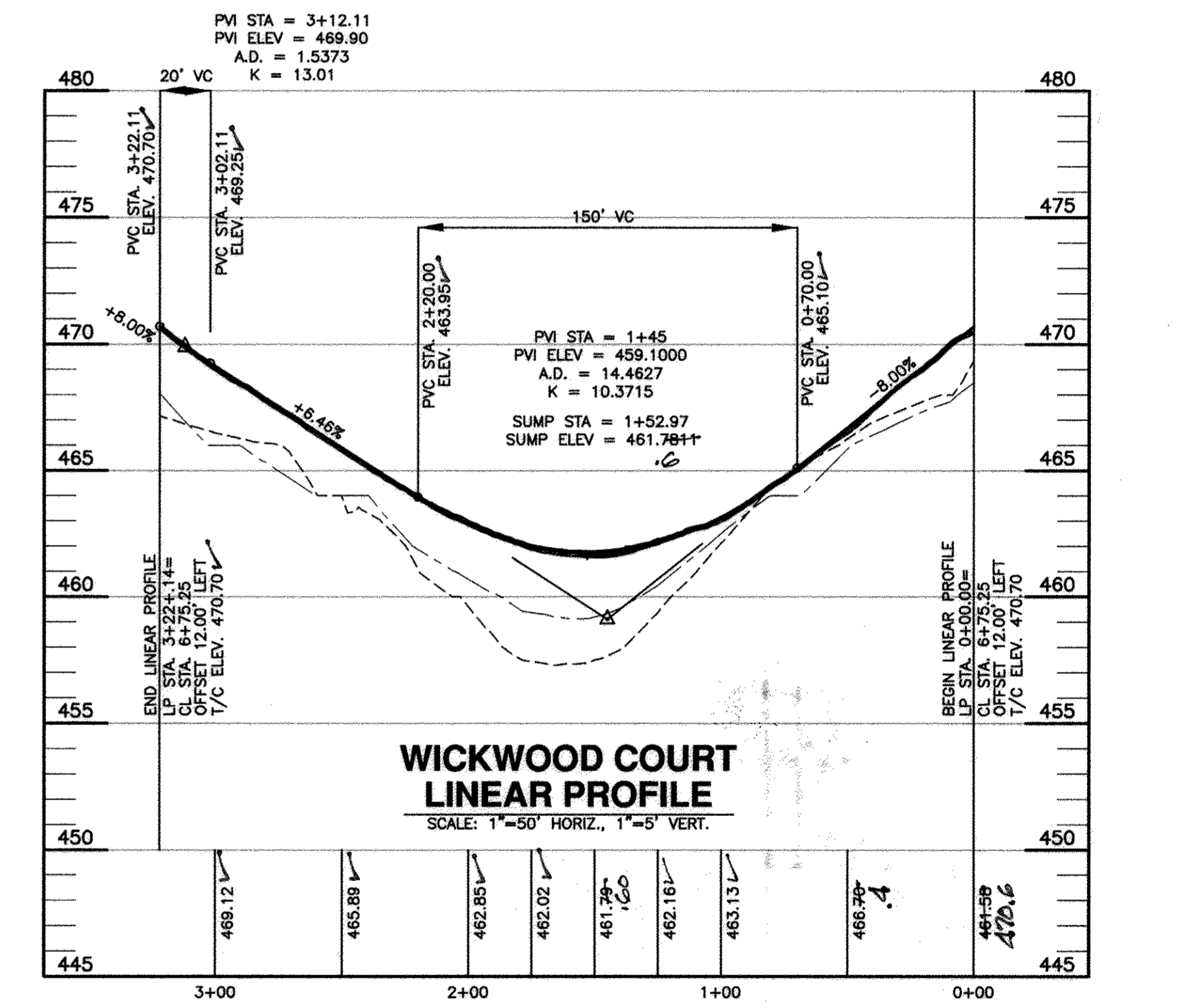
P-2 PAVING DETAIL



SYMBOL	LOCATION	DESCRIPTION
☆	WICKWOOD COURT STA. 0+44	RIGHT 100 WATT HPS VAPOR PREMIER
	4+27	RIGHT POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
	WICKWOOD COURT LP STA. 2+00	LEFT

STREET NAME	STATION	NORTH	EAST
WICKWOOD COURT	0+50.00	596394.7618	1345628.7627
	5+07.18	596223.7581	1346051.5694
	5+45.54	596205.2226	1346085.1637
	6+86.02	596082.0416	1346017.6446
	7+58.29	596036.0560	1345963.9293

STREET NAME	STATION	RADIUS	ARC	DELTA	TANGENT	CHORD
WICKWOOD COURT	0+50.00 TO 5+07.18	1903.83'	457.18'	13-45-31	229.69'	S67-58-45E 456.08'
	6+86.02 TO 7+58.29	100.00'	72.27'	41-24-35	37.80'	S49-26-00W 70.71'



APPROVED: DEPARTMENT OF PUBLIC WORKS
Holger Serrano 9.5.14
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kate Johnson 9.09.14
 CHIEF, DIVISION OF LAND DEVELOPMENT

Bob Edie 9.4.14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
 Donald Mason, P.E. Date: 8-22-14

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. 21443, Expiration Date: 12-21-18



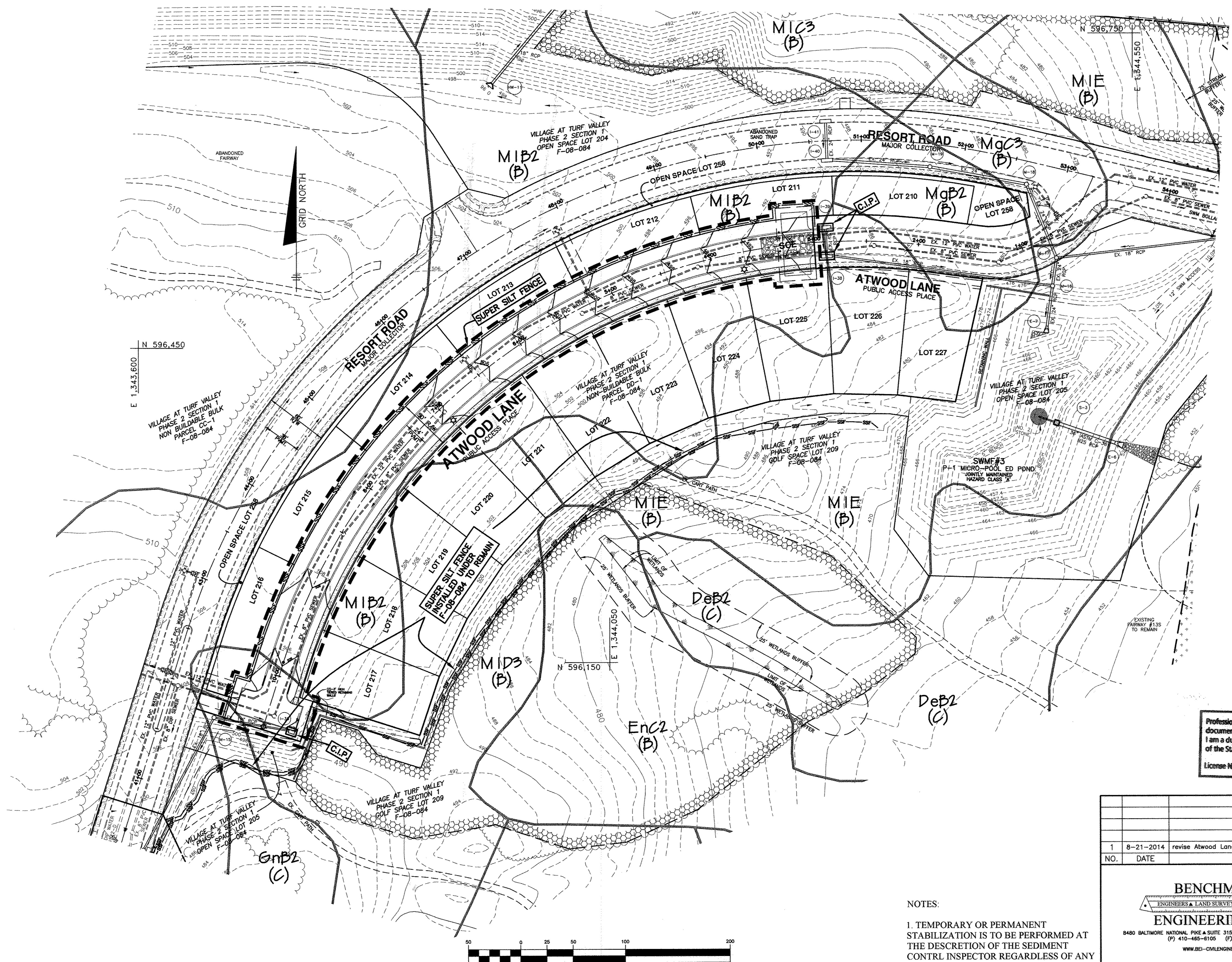
THIS SHEET REPLACES THE SHEET
 ORIGINALLY SIGNED ON 5-20-2010.

<p>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. 21443, Expiration Date: 12-21-18</p>	
<p>BENCHMARK ENGINEERING, INC. 6480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-485-6105 (F) 410-485-6844 WWW.BEI-CIVILENGINEERING.COM</p>	
<p>OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>	<p>DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>
<p>VILLAGES AT TURF VALLEY PHASE 2, SECTION 2 LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260; A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS DD-1, EE-1 AND FF-1</p>	
<p>TAX MAP: 16, PARCEL: 401, GRID: 10 TAX MAP: 16, PARCEL: P08, GRID: 17 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC</p>	
<p>REVISED ROAD PLAN AND PROFILE WICKWOOD COURT</p>	
<p>DATE: APRIL, 2010 SCALE: AS SHOWN</p>	<p>BEI PROJECT NO. 1915 SHEET 4 OF 11</p>

AS-BUILT F-10-078

LEGEND

- EXISTING CONTOURS
AERIAL JAN. 2006
- PROPOSED TREELINE
- EXISTING STREAM
- EXISTING WETLANDS
- FOREST CONSERVATION EASEMENT
- EARTH DIKE
- SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- SOILS DELINEATION LINE
- SOILS TYPE AND CLASS



NO AS-BUILT INFORMATION IS PROVIDED ON THIS SHEET



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. 21443, Expiration Date: 12-31-18

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

J. Langston 8/21/14
DEVELOPER DATE

BY THE ENGINEER:
I/WE CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

A. Malapani 8/21/14
ENGINEER DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John P. Blunt 8/21/14
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Holger Seligson 7-5-14
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Ketia DeLoach 9-09-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad E. Smith 8-4-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

1	8-21-2014	revise Atwood Lane alignment and profile, revise water, sewer, storm drain and lot layout.
NO.	DATE	REVISION

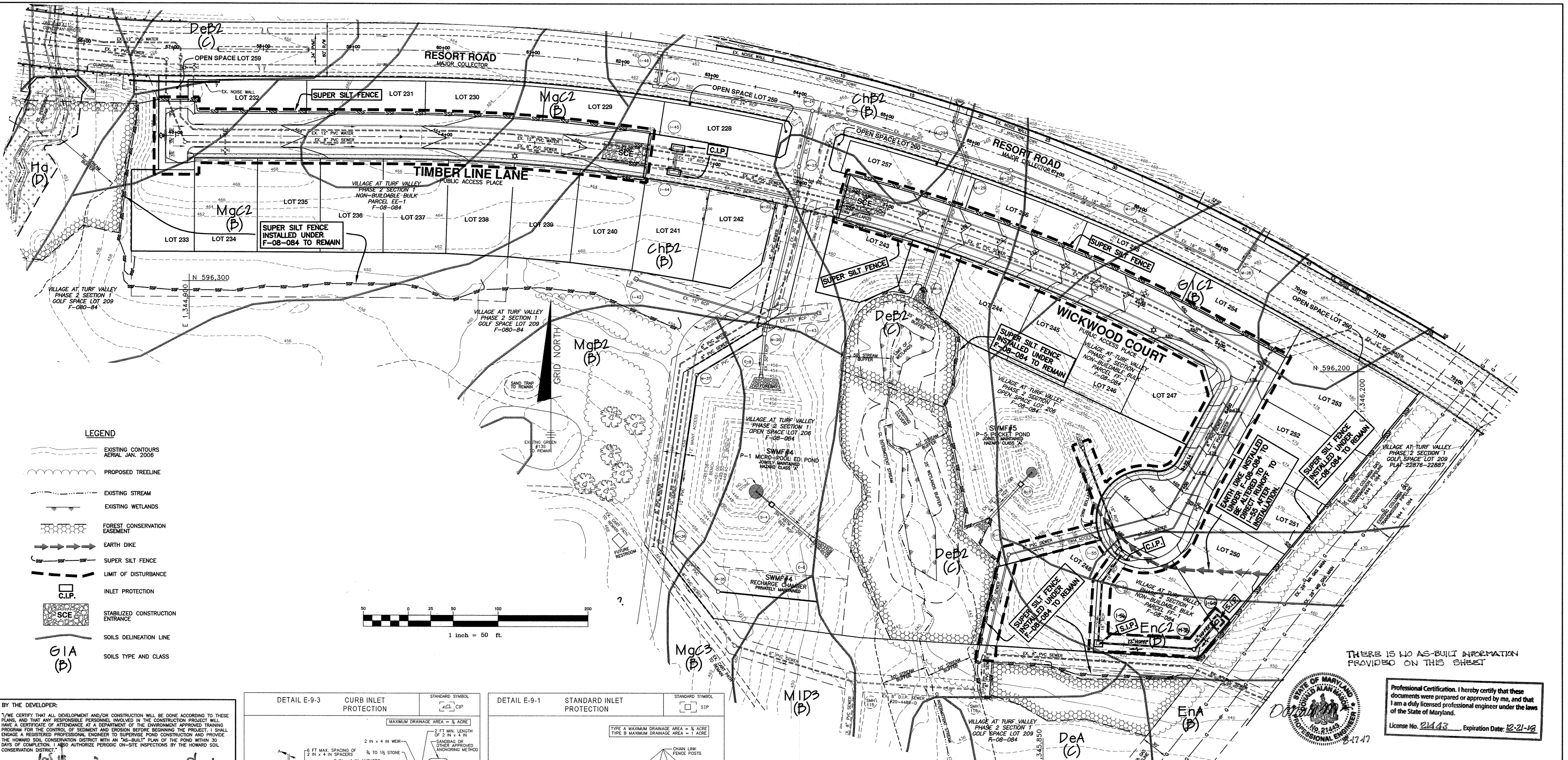
BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS
8480 BALTIMORE NATIONAL PIKE & SUITE 315 ELLICOTT CITY, MARYLAND 21043
(P) 410-465-8105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM

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. 21443, Expiration Date: 12-31-18

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400	VILLAGES AT TURF VALLEY PHASE 2, SECTION 2 LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260; A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS DD-1, EE-1 AND FF-1 TAX MAP: 16, PARCEL: 401, GRID: 10 TAX MAP: 16, PARCEL: PPO & GRID 17 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGGC
DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400	REVISED GRADING, SEDIMENT AND EROSION CONTROL PLAN
DATE: APRIL, 2010 SCALE: 1" = 50'	BEI PROJECT NO. 1915 SHEET 5 OF 11

- NOTES:**
- TEMPORARY OR PERMANENT STABILIZATION IS TO BE PERFORMED AT THE DESCRIPTION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF ANY OTHER STANDARD STABILIZATION NOTES WITH THE STANDARD NOTES BEING THE MINIMUM.
 - SILT AND SUPER SILT FENCING TO BE CURLED UP HILL AT 2 VERTICAL FOOT INTERVALS WHERE FENCING RUNS DOWNHILL.

THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010



- LEGEND**
- EXISTING CONTOURS AERIAL JAN. 2006
 - PROPOSED TREELINE
 - EXISTING STREAM
 - EXISTING WETLANDS
 - FOREST CONSERVATION EASEMENT
 - EARTH DIKE
 - SUPER SILT FENCE
 - LIMIT OF DISTURBANCE
 - C.I.P.
 - STABILIZED CONSTRUCTION ENTRANCE
 - SOILS DELINEATION LINE
 - SOILS TYPE AND CLASS

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *John K. Blanton* DATE: 8/21/14

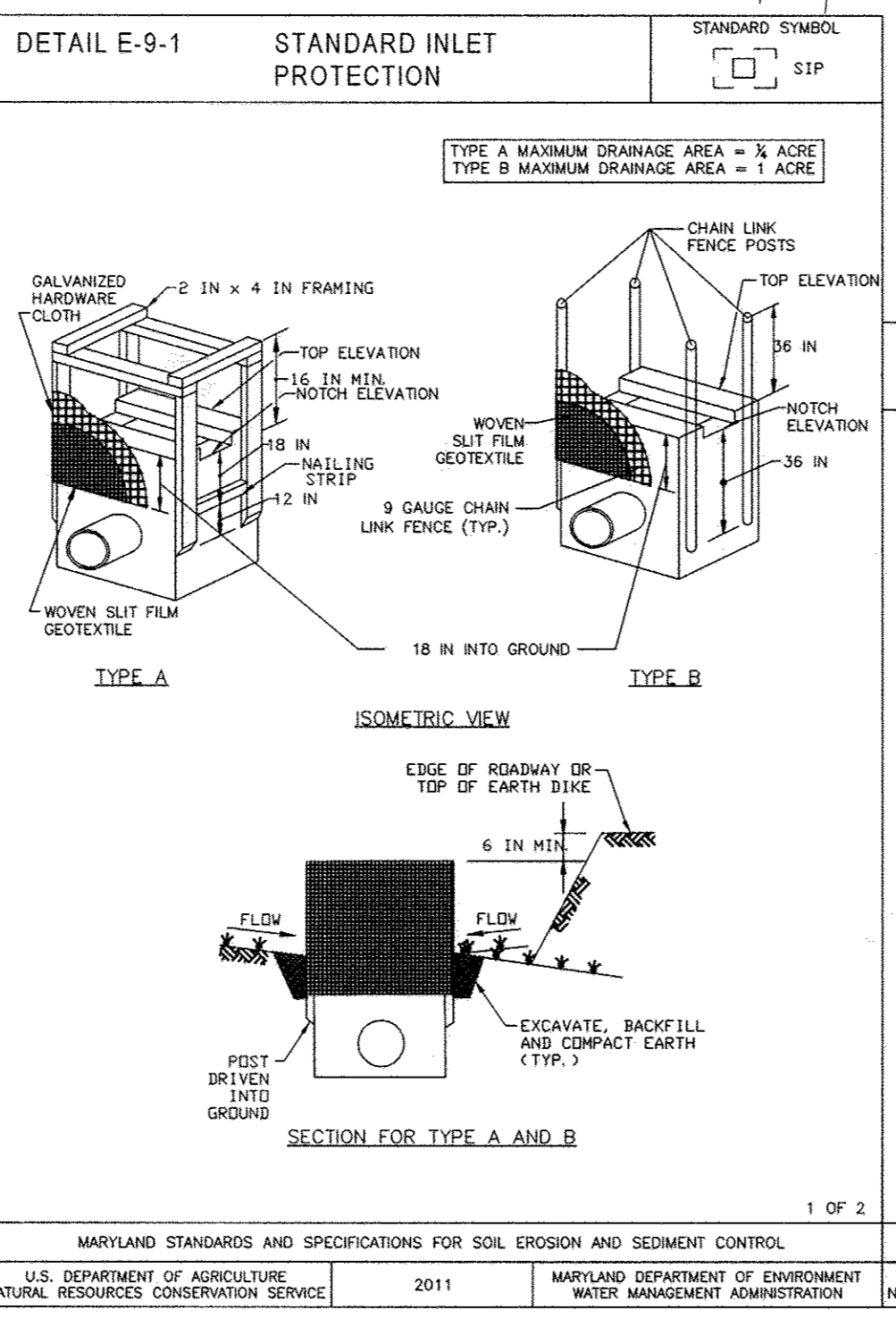
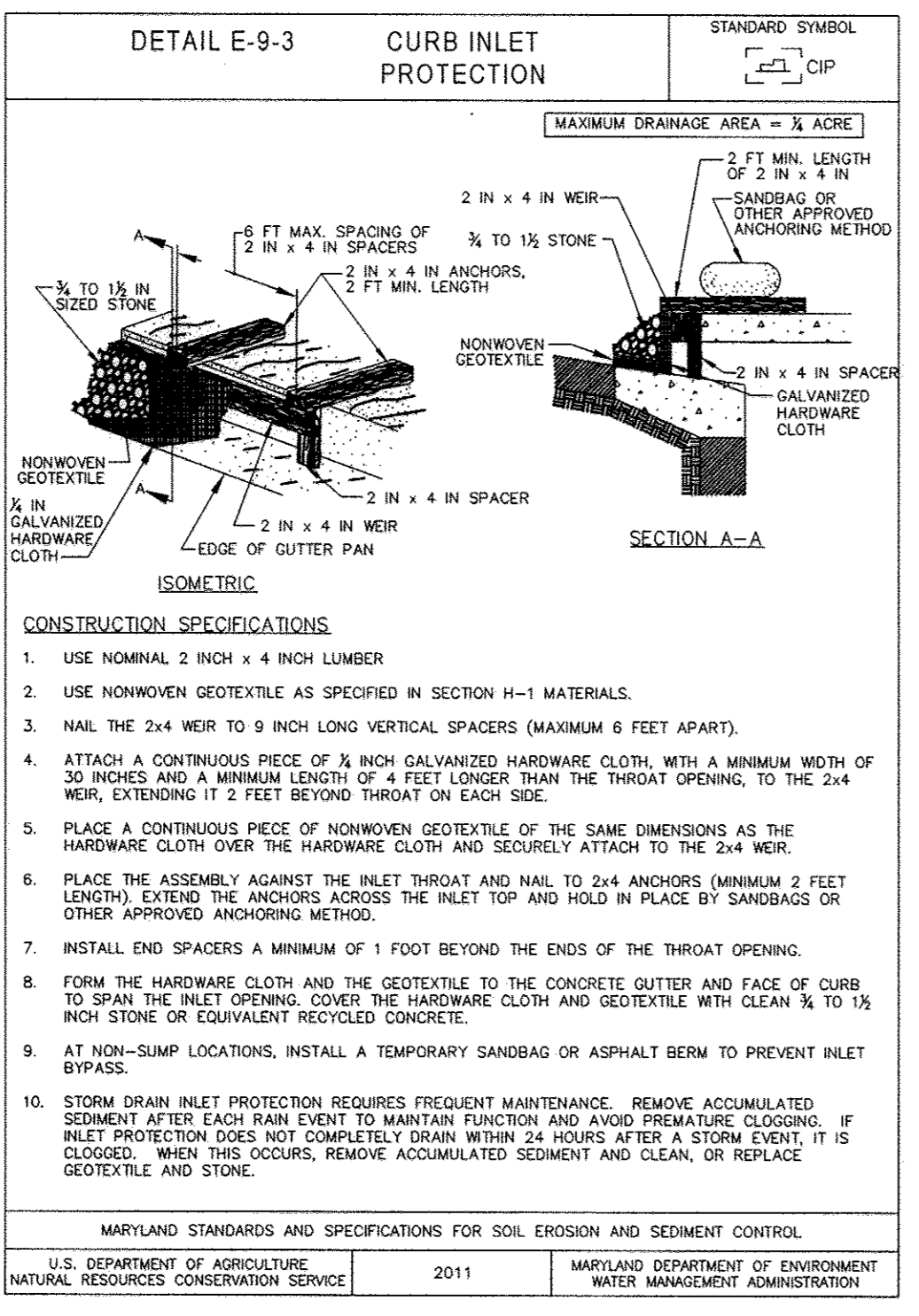
BY THE ENGINEER:
 I/WE CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

ENGINEER: *John K. Blanton* DATE: 8/22/14

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PUBLIC WORKS
John K. Blanton DATE: 9/2/14

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kat Steinhilber DATE: 9-09-14
Carl Egan DATE: 9-4-14



DETAIL E-9-1 STANDARD INLET PROTECTION

CONSTRUCTION SPECIFICATIONS

- USE NOMINAL 2 INCH X 4 INCH LUMBER.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- SCAVENGE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
- FOR TYPE A, USE NOMINAL 2 INCH X 4 INCH CONSTRUCTION GRADE LUMBER POSTS, DRIVEN 1 FOOT INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2x4 FRAME AS SHOWN, STRETCH 3/4 INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY TO THE FRAME WITH WIRE TIES. FASTEN GEOTEXTILE TO THE FRAME WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND HARDWARE CLOTH A MINIMUM OF 18 INCHES BELOW THE WEIR CREST. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED AND FELDED, THEN FASTENED TO THE POST.
- FOR TYPE B, USE 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OR 0.095 INCH WALL THICKNESS AND 4 FOOT LENGTH, DRIVEN A MINIMUM OF 36 INCHES BELOW THE WEIR CREST AT EACH CORNER OF THE STRUCTURE. FASTEN 9 GAUGE OR HEAVIER CHAIN LINK FENCE, 42 INCHES IN HEIGHT, SECURELY TO THE FENCE POSTS WITH WIRE TIES. FASTEN GEOTEXTILE SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 18 INCHES BELOW THE WEIR CREST.
- BACKFILL AROUND THE INLET IN LODGE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOSING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

NOTES:

- TEMPORARY OR PERMANENT STABILIZATION IS TO BE PERFORMED AT THE DISCRETION OF THE SEDIMENT CONTROL INSPECTOR REGARDLESS OF ANY OTHER STANDARD STABILIZATION NOTES WITH THE STANDARD NOTES BEING THE MINIMUM.
- SILT AND SUPER SILT FENCING TO BE CURLED UPHILL AT 2 VERTICAL FOOT INTERVALS WHERE FENCING RUNS DOWNHILL.

THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

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. 21443, Expiration Date: 12-21-19

NO.	DATE	REVISION
2	5-14-2015	ADD STORM DRAIN FROM 156 TO 160 ON LOTS 249-250.
1	8-21-2014	revise Timber Line Lane and Wick Wood Court alignment, revise grading, water, sewer, storm drain and lot layout.

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21143
 (P) 410-465-6105 (F) 410-465-6844
 WWW.BE-ENGINEERING.COM

OWNER:
 MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
 1205 YORK ROAD, FENTHOUSE LUTHERVILLE, MARYLAND 21093
 410-825-8400

DEVELOPER:
 MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
 1205 YORK ROAD, FENTHOUSE LUTHERVILLE, MARYLAND 21093
 410-825-8400

VILLAGES AT TURF VALLEY PHASE 2, SECTION 2
 LOTS 210 THRU 257 AND OPEN SPACE LOTS 258 THRU 260, A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1'

TAX MAP: 16, PARCEL: 401, GRID: 10
 TAX MAP: 16, PARCEL: P08 & GRID: 17
 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PCCC

REVISED GRADING, SEDIMENT AND EROSION CONTROL PLAN

DATE: APRIL, 2010 BEI PROJECT NO. 1915
 SCALE: 1" = 50' SHEET 6 OF 11

HOWARD SOIL CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, 6:7 YARDS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. 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 SEEDING (SEC. 8-4-4), TEMPORARY SEEDING (SEC. 8-4-4) AND MULCHING (SEC. 8-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECORDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

- 6. SITE ANALYSIS:
TOTAL AREA OF SITE: 10.63 ACRES
AREA DISTURBED: 3.24 ACRES
AREA TO BE ROOFED OR PAVED: 1.45 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 1.79 ACRES
TOTAL CUT: 1703' CY
TOTAL FILL: 1703' CY
OFFSITE WASTE/BORROW LOCATION: N/A
7. ANY ADDITIONAL CONTROL PRACTICE THAT IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
9. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION PERMITS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
10. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

Table with 2 columns: Description and Value. Includes items like 'TOTAL AREA OF SITE: 10.63 ACRES', 'AREA DISTURBED: 3.24 ACRES', etc.

- 11. ANY CHANGES OR REVISIONS TO THE SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE PLAN APPROVAL AUTHORITY PRIOR TO PROCEEDING WITH CONSTRUCTION.
12. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 ACRES PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

*CUT/FILL NUMBERS ARE FOR SEDIMENT CONTROL PURPOSES ONLY. CONTRACTOR TO VERIFY.

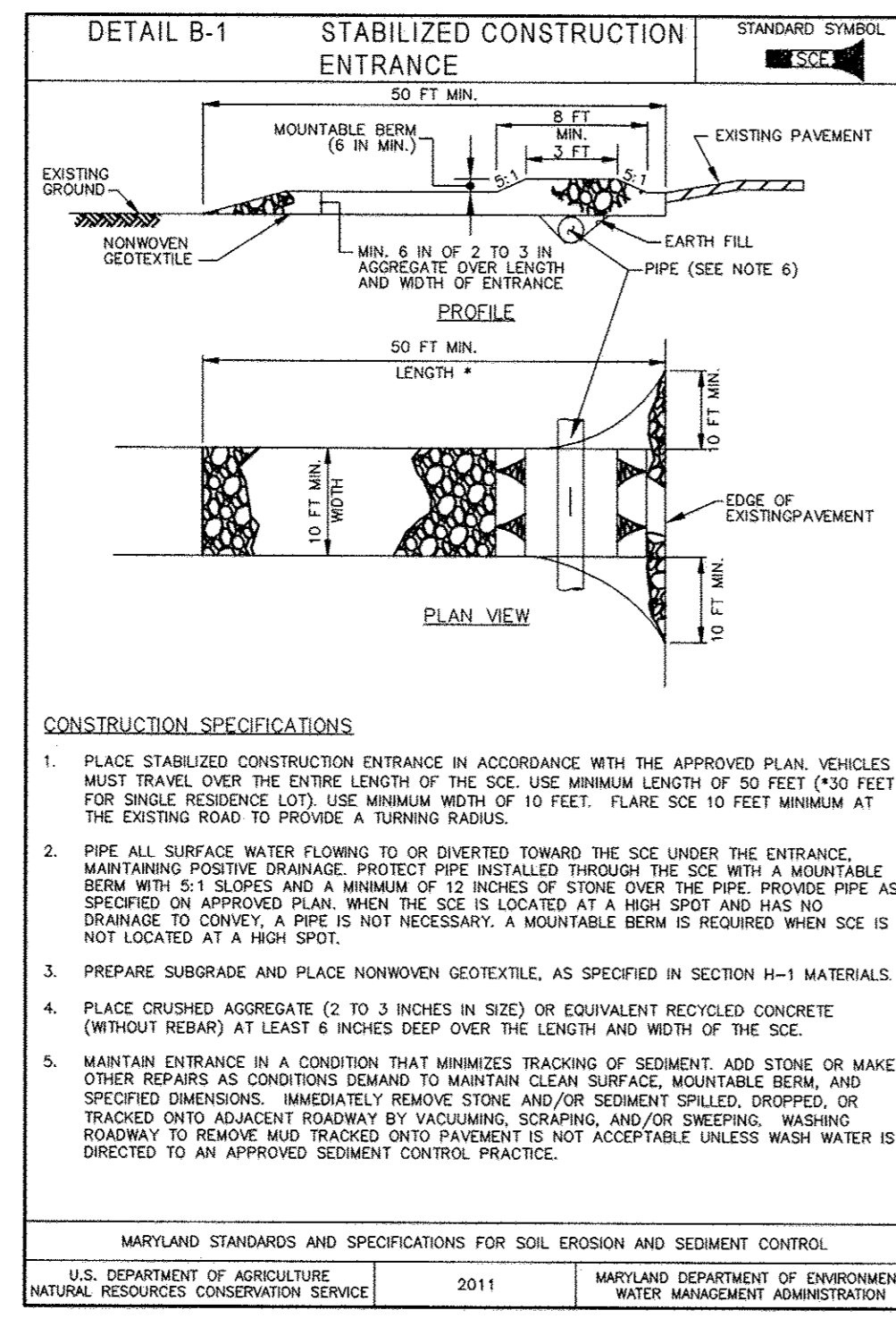
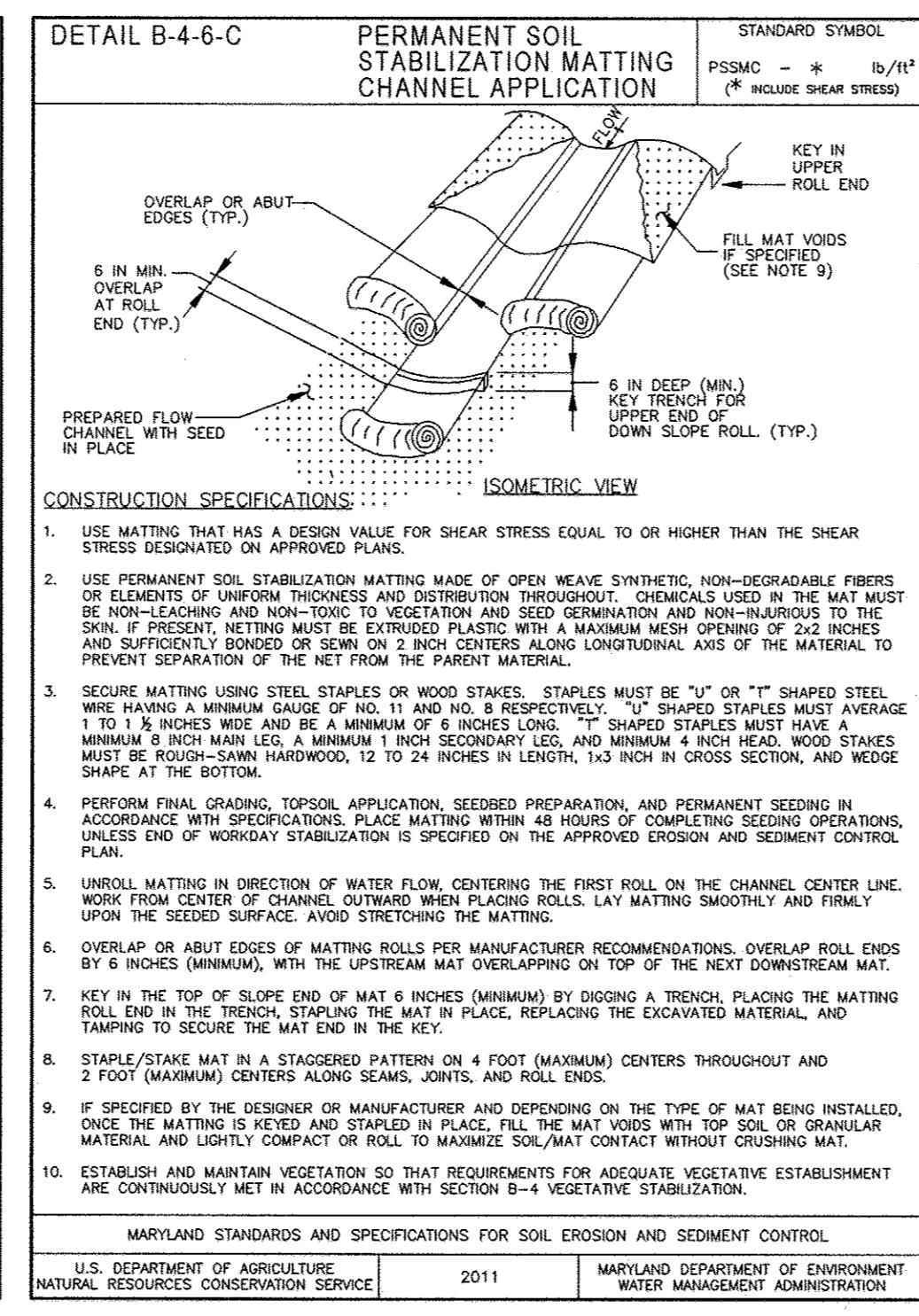
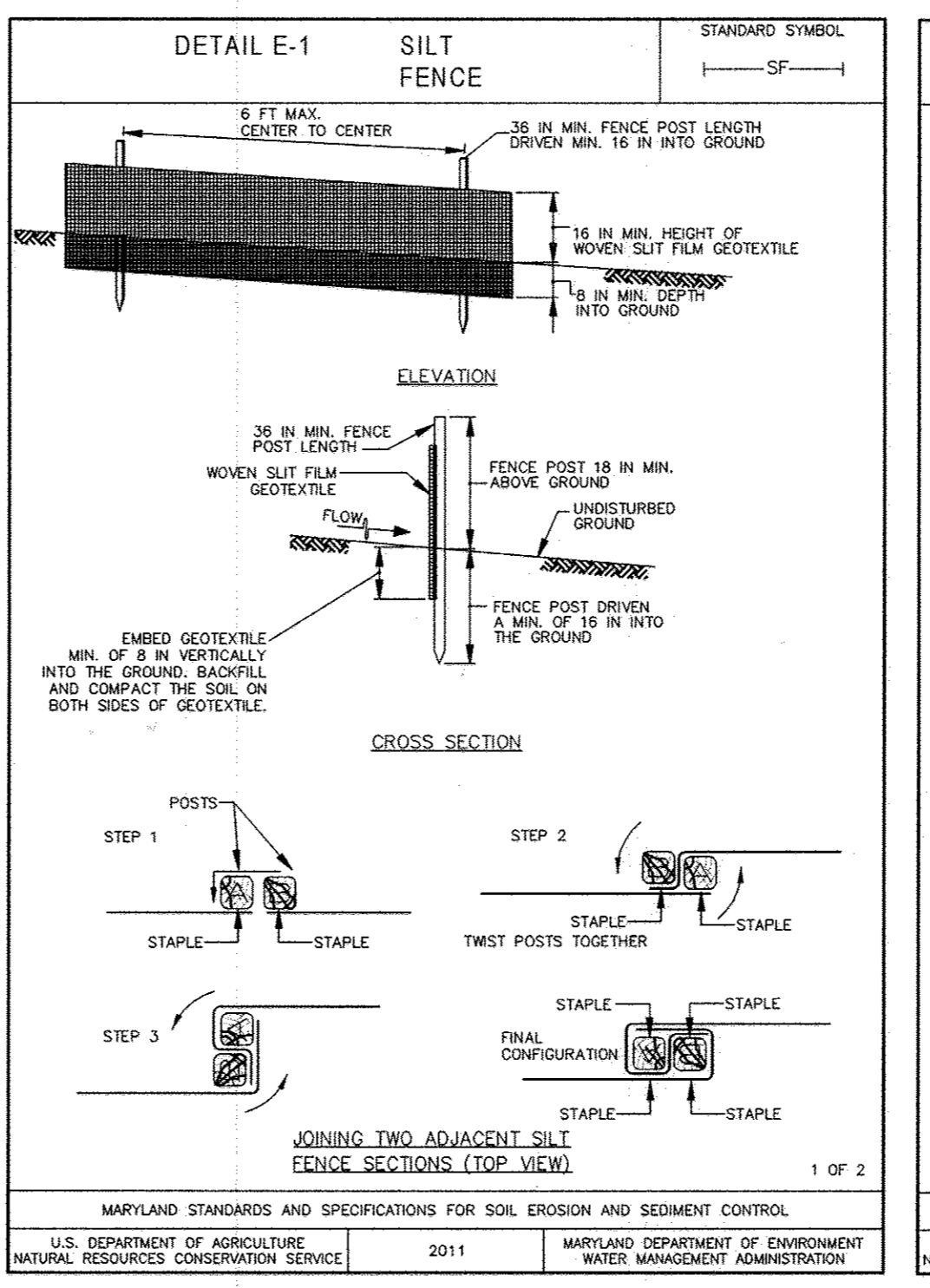
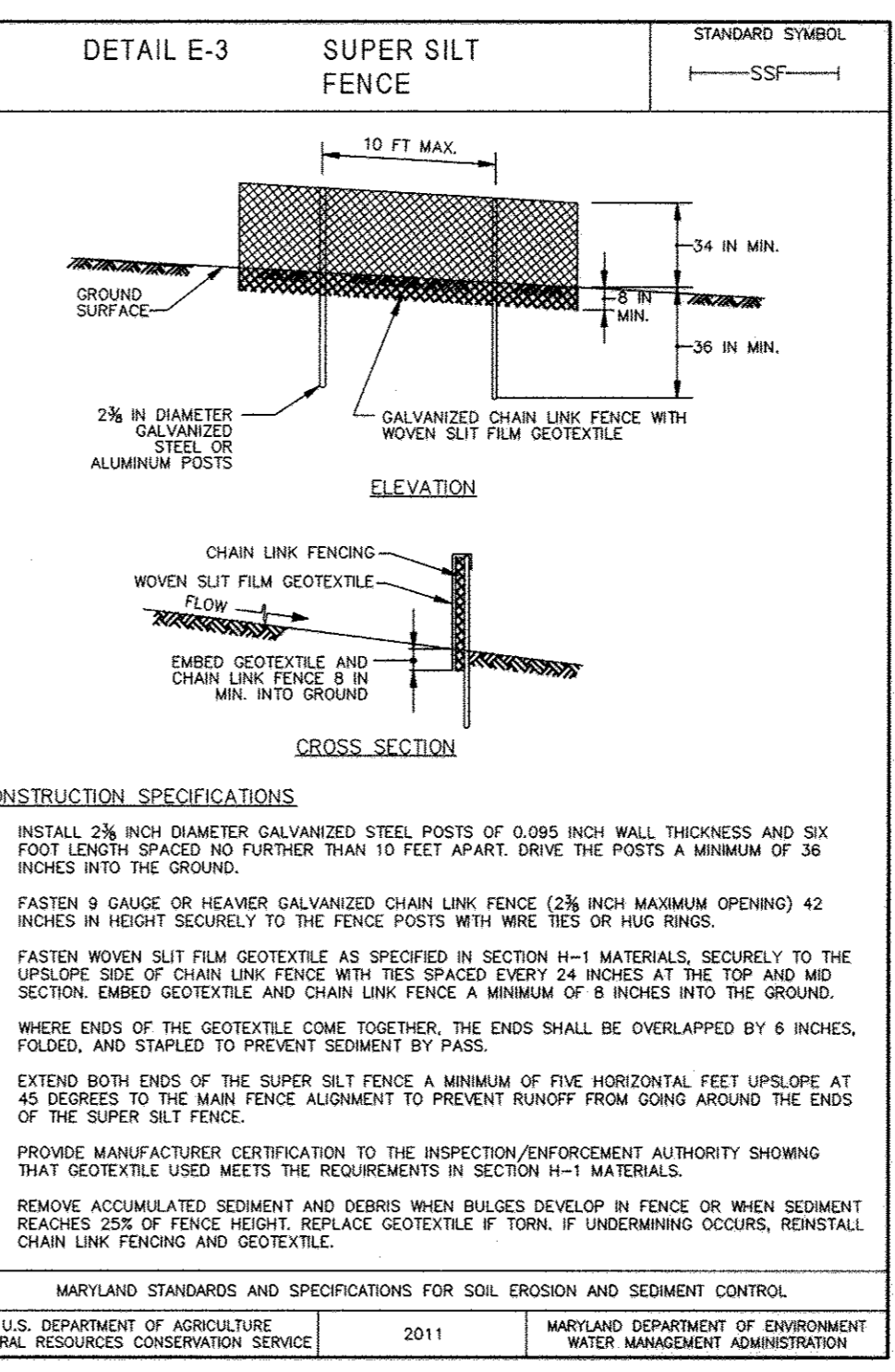
SEQUENCE OF CONSTRUCTION

- NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION
1. OBTAIN GRADING PERMIT. (DAY 1)
2. HOLD ON-SITE PRE-CONSTRUCTION MEETING. (DAY 2)
3. INSTALL STABILIZED CONSTRUCTION ENTRANCES AND PERIMETER CONTROLS (SILT FENCES). INSTALL INLET PROTECTION TO EXISTING INLETS 1-35, 1-38, 1-39, 1-44 AND 1-45. (DAY 3)
4. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, INSTALL STORM DRAINS, WATER AND SEWER MAINS ON WOODCOCK COURT. AFTER STORM DRAIN IS INSTALLED, UTILIZE INLET PROTECTION. (DAY 4-30)
5. INSTALL CURB AND GUTTER AND PAVE ROADWAYS. (DAY 31-45)
6. UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES, AND STABILIZED DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDBED NOTES. (DAY 46)

Professional Certification stamp for a Licensed Professional Engineer in the State of Maryland. Includes text: '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. 21443, Expiration Date: 12-31-19'.

THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

Engineering drawing header and title block. Includes 'BENCHMARK ENGINEERING, INC.' logo, project name 'VILLAGES AT TURF VALLEY PHASE 2, SECTION 2', owner 'MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP', and date 'APRIL, 2010'.



B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Using vegetation as cover to protect exposed soil from erosion. Purpose: To promote the establishment of vegetation on exposed soil. Conditions Where Practice Applies: On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Establishment of vegetative cover on cut and fill slopes. Purpose: To provide timely vegetative cover on cut and fill slopes as work progresses. Conditions Where Practice Applies: Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

- 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
2. Construction sequence example (Refer to Figure B-1):
a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.
b. Perform Phase 1 excavation, prepare seedbed, and stabilize.
c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.
d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

Approval and signature block. Includes 'BY THE DEVELOPER', 'BY THE ENGINEER', and 'APPROVED: DEPARTMENT OF PUBLIC WORKS' and 'APPROVED: DEPARTMENT OF PLANNING AND ZONING'.

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

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 perimeter controls, slopes, and any disturbed area not under active grading.

- 1. Specifications
a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subjected to 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.
b. 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 thaws.
c. Inoculants: The inoculant for treating legume seed in the seed mixture 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 the times the recommended rate when hydrosesing. Note: It is very important to keep inoculants as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
d. 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 dissipation of phytotoxic materials.

- 2. Application
a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
ii. 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 provide good seed to soil contact.
b. Drill or Cut/packer Seeding: Mechanized seeders that apply and cover seed with soil.
i. Cut/packer seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
c. Hydrosesing: Apply seed uniformly with hydroseser (slurry includes seed and fertilizer).
i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P205 (phosphorus), 200 pounds per acre; K2O (potassium), 200 pounds per acre.
ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre) may be applied by hydrosesing. Normally, not more than 2 tons are applied by hydrosesing at any one time. Do not use burnt or hydrated lime when hydrosesing.
iii. Mix seed and fertilizer on site and seed immediately and without interruption.
iv. When hydrosesing do not incorporate seed into the soil.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE.

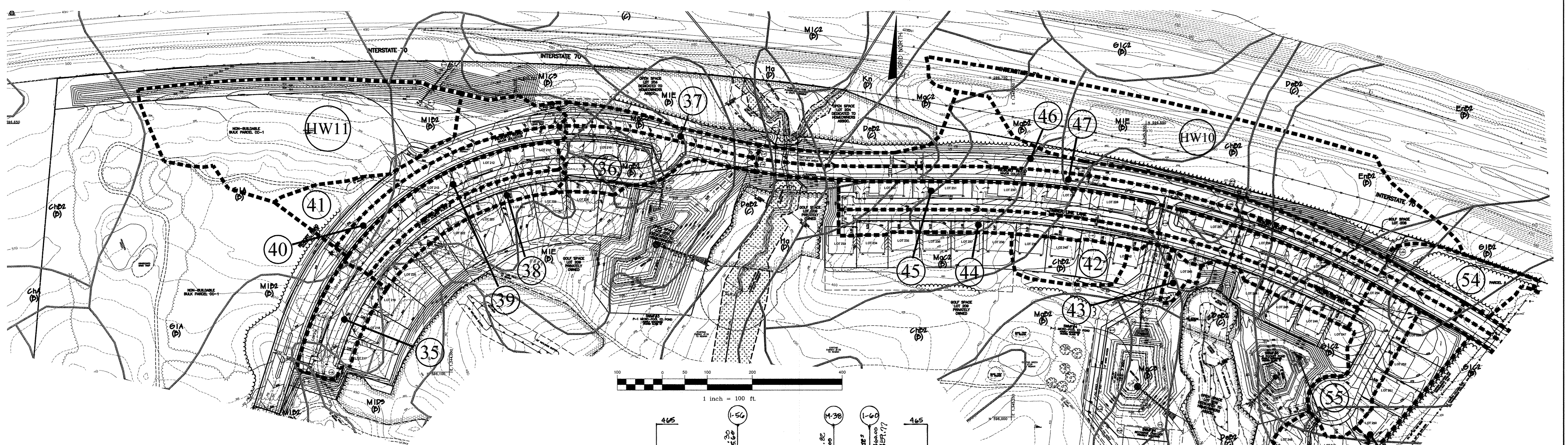
B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

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.

- 1. General Use
a. Seed Mixtures
i. 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 found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
ii. 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 Guide, Section 342 - Critical Area Planting.
c. For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil testing agency.
d. For seeding 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.
2. Turfgrass Mixtures
a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
i. Kentucky Bluegrass: Full sun mixture. For use in areas that receive intensive management. Irrigation required in the areas of Central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivar 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.
ii. Tall Fescue/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and where turf will receive medium to intensive management. Certified Perennial Ryegrass/Cultivar 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.
iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 55 to 100 percent, Certified Kentucky Bluegrass Cultivars 5 to 5 percent, Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf areas. Mixtures include Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.
Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, 'Turfgrass Cultivar Recommendations for Maryland'. Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.
Ideal Times of Seeding for Turf Grass Mixtures:
Western MD: March 15 to October 1 (Hardness Zones: 5b, 6a)
Central MD: March 1 to May 15, August 15 to October 15 (Hardness Zones: 5b, 6b)
Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)

- 3. Sod Installation
a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform ground and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, pay or otherwise secure the sod to prevent slippage on slopes. Ensure soil contact exists between adjacent sods and the underlying soil surface.
d. Water the sod immediately following rolling and tamping until the underside of the new sod and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.
3. Sod Maintenance
a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
b. After the first week, soil watering is required as necessary to maintain adequate moisture content. Do not mow until the soil is firmly rooted. No more than 1/3 of the grass length must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE. 2011 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES CONSERVATION SERVICE.

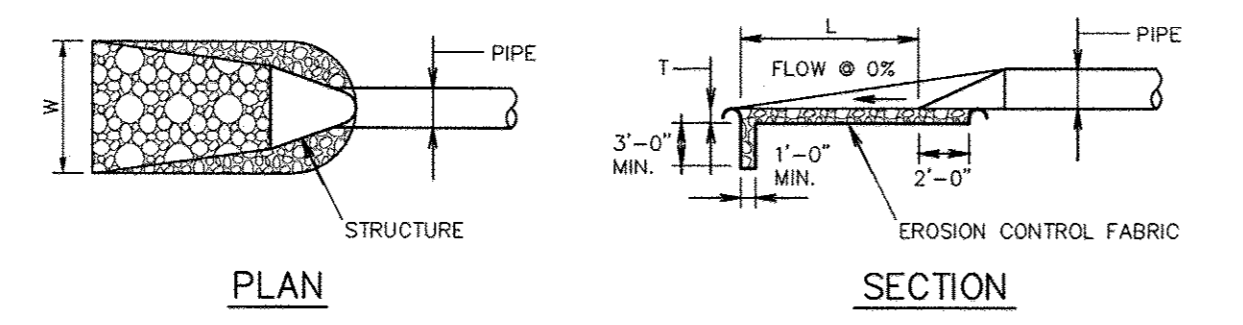
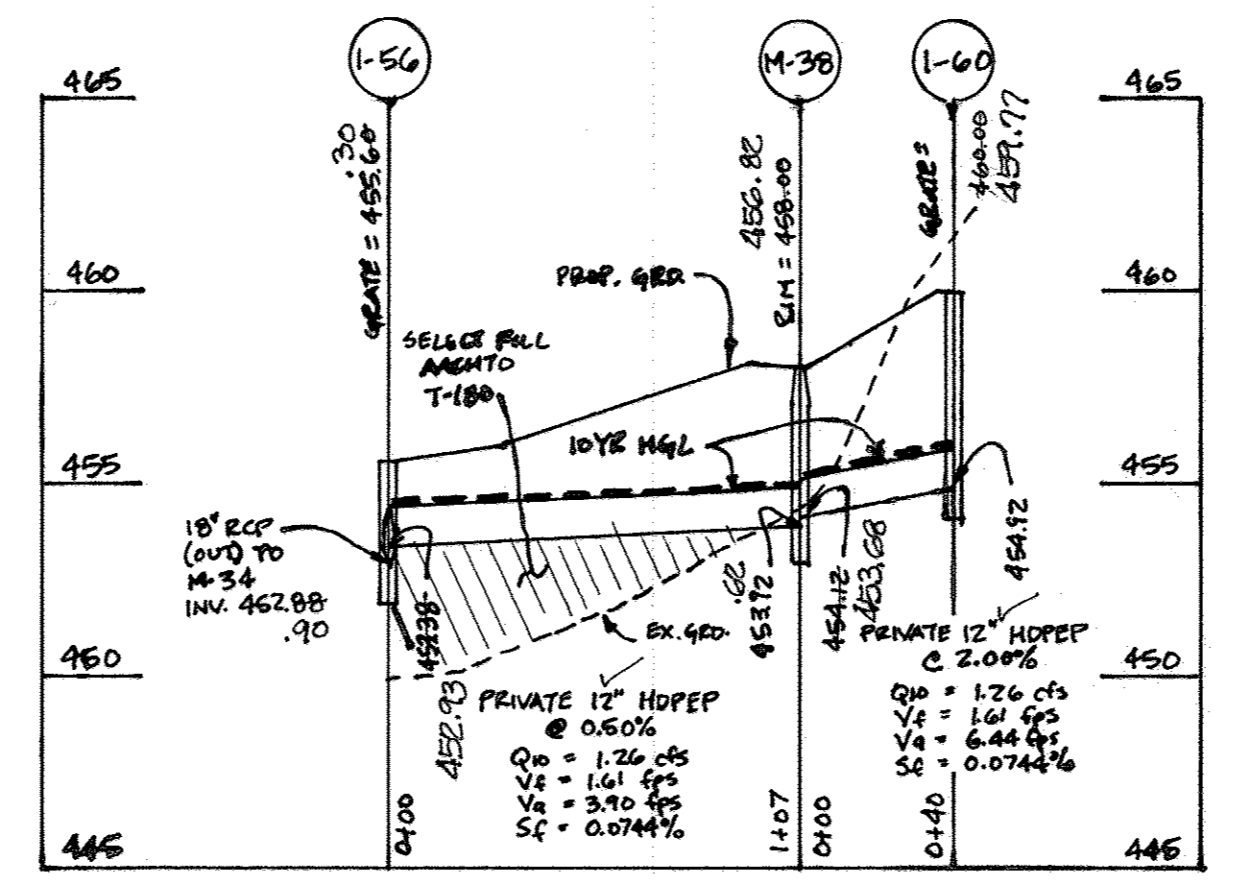


SOILS LEGEND

MAP SYMBOL	SOIL GROUP	SOIL TYPE
Bs*	D	BALE SILT LOAM
CgB2	B	CHESTER GRAVELLY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
CgC2	B	CHESTER GRAVELLY SILT LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
ChA	B	CHESTER SILT LOAM, 0 TO 3 % SLOPES
ChB2	B	CHESTER SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
ChC2	B	CHESTER SILT LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
ChC3	B	CHESTER SILT LOAM, 8 TO 15 % SLOPES, SEVERELY ERODED
CuB	B	COMUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 % SLOPES
EnC2	B	ELSNBORO LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
G1A	B	GLENELG LOAM, 0 TO 3 % SLOPES
G1C2	B	GLENELG LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
G1C3	B	GLENELG LOAM, 8 TO 15 % SLOPES, SEVERELY ERODED
GnB2*	C	GLENVILLE SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
Hs*	D	HATBORO SILT LOAM
Kn*	D	KINKORA SILT LOAM
MgB2	B	MANOR GRAVELLY LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
MgC2	B	MANOR GRAVELLY LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
MgC3	B	MANOR GRAVELLY LOAM, 8 TO 15 % SLOPES, SEVERELY ERODED
M1B2	B	MANOR LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
M1C3	B	MANOR LOAM, 8 TO 15 % SLOPES, SEVERELY ERODED
M1D2	B	MANOR LOAM, 15 TO 25 % SLOPES, MODERATELY ERODED
M1D3	B	MANOR LOAM, 15 TO 25 % SLOPES, SEVERELY ERODED
M1E	B	MANOR LOAM, 25 TO 45 PERCENT SLOPES

* INDICATES HYDRIC SOILS
TAKEN FROM: SOIL SURVEY HOWARD COUNTY, MARYLAND, ISSUED JULY 1968, MAP NO. 9

- #### CONSTRUCTION SPECIFICATIONS
1. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
 2. THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
 3. GEOTEXTILE CLASS C28 OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE PREPARED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE FABRIC. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT.
 4. STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR THE RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SMALLER FILLING THE VOIDS BETWEEN THE LARGER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
 5. THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.



STRUCTURE	V10	d10	d50	LENGTH(L)	WIDTH(W)	THICK.(T)	SHA CLASS
E-11	4.87	1.08'	9.5"	FOREBAY	FOREBAY	19"	I

OUTLET PROTECTION DETAIL
NOT TO SCALE

STRUCTURE	TYPE	LOCATION	INVERT IN	INVERT OUT	TOP ELEV.	THROAT ELEV.	STD. DETAIL	INLET NOTES	MAINTENANCE
1-60	YARD	N 593922.3154 E 1346043.6050	454.9248	460.0049	461.17	N/A	HO.CO.STD.D-4.14	PRIVATE	
1-55	A-5	CL STA. 1+52.15 WICKWOOD COURT LINEAR PROFILE	452.44	451.64	451.47	461.80	HO.CO.STD. D-4.01	3.0' WIDTH	PUBLIC
1-56	YARD	N 595898.2096 E 1345911.3908	453.30	452.93	455.40	30	HO.CO.STD. D-4.14		PRIVATE
M-34	4" DIA	N 595965.7823 E 1345915.5554	452.64	452.34	459.00	13	HO.CO.STD. G-5.12		PRIVATE
E-11	18" CONC.	N 598115.78 E 1345892.57	451.00	451.00	455.00	25	D-5.51		PUBLIC
M-30	4" DIA	N 595811.0417 E 1346017.9575	454.12	453.60	458.00	26	HO.CO.STD. G-5.12		PRIVATE

STRUCTURE LOCATION FOR MANHOLES IS AT THE CENTER OF THE MANHOLE RIM.
STRUCTURE LOCATION FOR INLETS IS AT THE CENTER OF THE INLET FACE FOR A-5 AND A-10 INLETS AND AT THE TOP CENTER OF D-INLETS.
STRUCTURE LOCATION FOR THE END-SECTIONS IS AT THE MIDPOINT OF THE END OF THE STRUCTURE.
PRECAST STRUCTURES MEETING HS-20 LOADING MAY BE USED.

APPROVED: DEPARTMENT OF PUBLIC WORKS
Holger Seaman 9.5.14
CHIEF, BUREAU OF HIGHWAYS

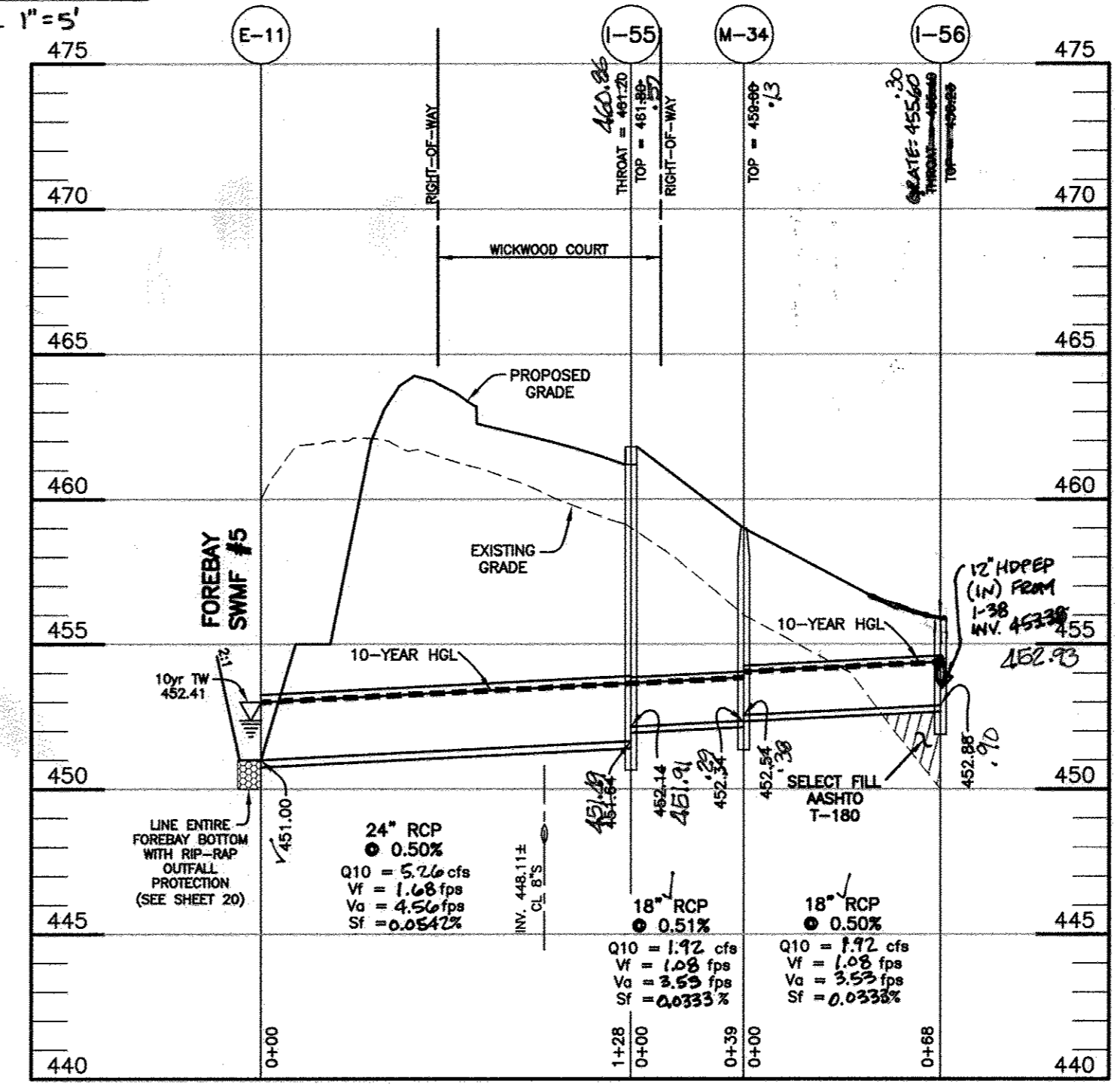
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Kate S. Doolan 9.09.14
CHIEF, DIVISION OF LAND DEVELOPMENT

John P. ... 9.14.14
CHIEF, DEVELOPMENT ENGINEERING DIVISION

PIPE SCHEDULE

SIZE	TYPE	LENGTH (L.F.)	MAINTENANCE
18"	RCP CLASS IV	107	PRIVATE
24"	RCP CLASS IV	128	PUBLIC
12"	HDPEP	147	PRIVATE

PHASE	INLET #	ZONING (Z)	AREA (Ac) (A)	"C" FACTOR (C)-25	% IMPERVIOUS (P)-25
P2S2	1-55	PGCC	0.85	0.63	74.5
P2S2	1-56	PGCC	0.36	0.29	38.0
P2S2	1-60	PqCC	0.66	0.29	38.0



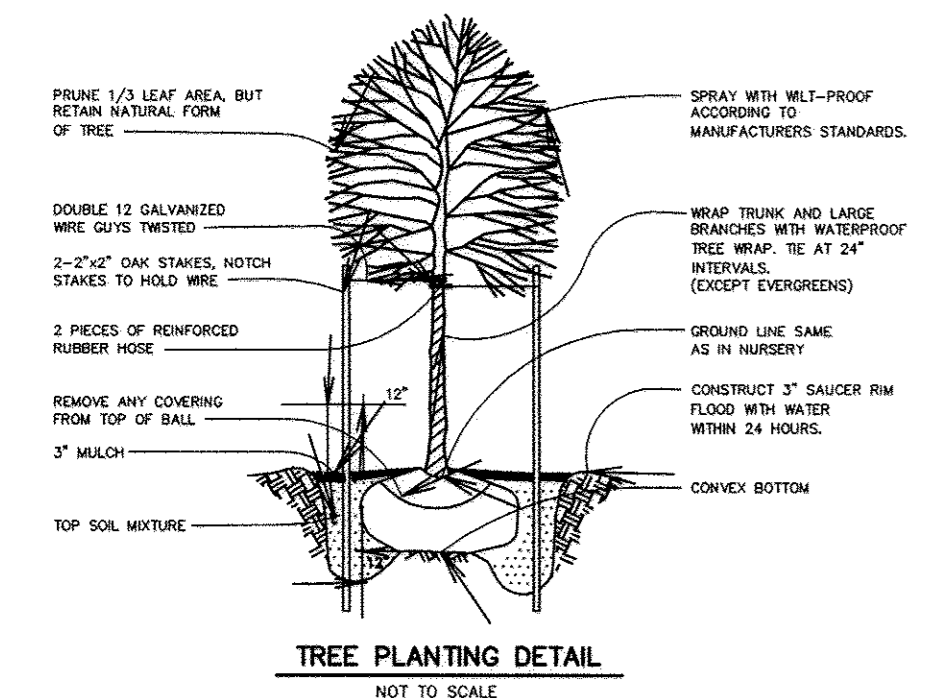
AS-BUILT CERTIFICATION
I hereby certify, by my seal, that to the best of my knowledge and belief the facilities shown on this "AS-BUILT" Plan meet the Approved Plans and Specifications
Donald Mason, P.E. Date: 8-17-17

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. 21443 Expiration Date: 8-21-18

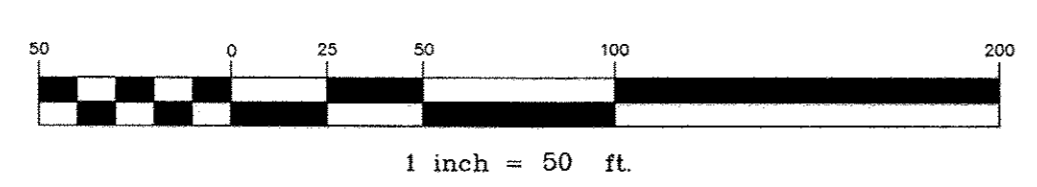
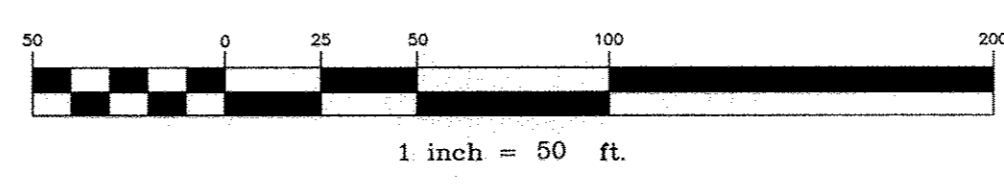
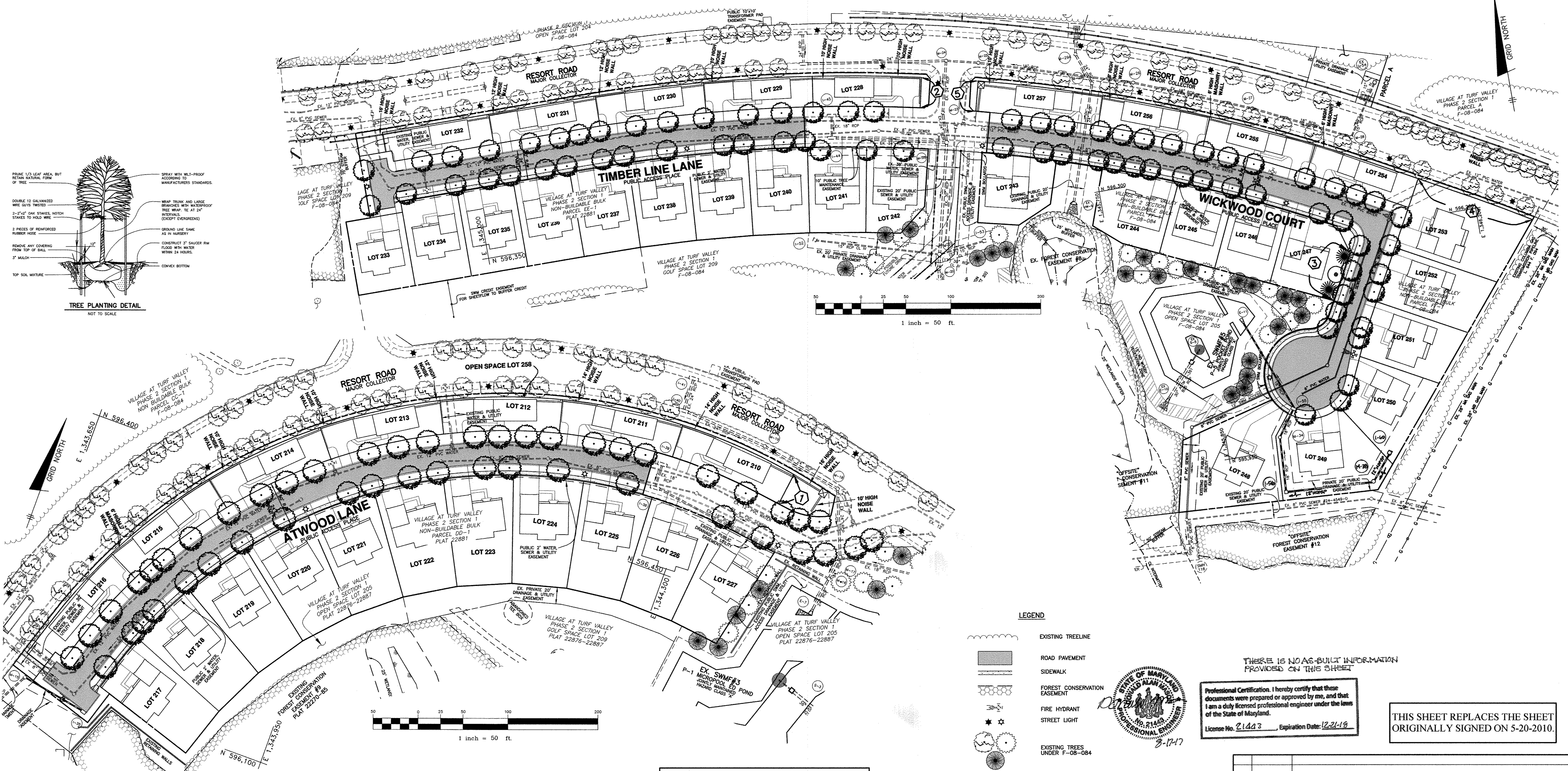


THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

<p>NO. DATE REVISION</p> <p>2 5-14-2015 ADD STORM DRAIN FROM 1-56 TO 1-60 ON LOTS 281-250. UPDATE PLAN, PROFILE CHARTS</p> <p>1 8-21-2014 revise Atwood Lane, Timber Line Lane and Wickwood Court alignment and grading, update storm drain alignment, drainage areas and profiles based on previous P2S1 redline.</p>	<p>BENCHMARK ENGINEERS & LAND SURVEYORS & PLANNERS ENGINEERING, INC. 8400 BALTIMORE NATIONAL PIKE SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVLENGINEERING.COM</p>	<p>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. 21443 Expiration Date: 8-20-2015.</p>
<p>OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>	<p>DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400</p>	<p>VILLAGES AT TURF VALLEY PHASE 2, SECTION 2 LOTS 210 THRU 257 AND OPEN SPACE LOTS 258 THRU 260; A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1'</p> <p>TAX MAP: 16, PARCEL: 401, GRID: 10 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC</p> <p>REVISED STORM DRAIN DRAINAGE AREA MAP, PROFILES AND DETAILS</p> <p>DATE: APRIL, 2010 BEI PROJECT NO. 1915 SCALE: AS SHOWN SHEET 8 OF 11</p>



TREE PLANTING DETAIL
NOT TO SCALE



LEGEND

- EXISTING TREELINE
- ROAD PAVEMENT
- SIDEWALK
- FOREST CONSERVATION EASEMENT
- FIRE HYDRANT
- STREET LIGHT
- EXISTING TREES UNDER F-08-084
- PERIMETER DESIGNATION

THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

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. 21443 Expiration Date: 12-21-19

THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION OF 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.

Louis Mangione 8/24/14
LOUIS MANGIONE DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

Hilger Seigman 9.5.14
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Ketshelwood 9.24.14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edner 9.24.14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SCHEDULE A
PERIMETER LANDSCAPE EDGE

CATEGORY	SFD SIDE TO ROADWAY 1		SFD SIDE TO ROADWAY 2		SFD SIDE TO ROADWAY 3		SFD SIDE TO ROADWAY 4		SFD SIDE TO ROADWAY 5	
	SHADE	EVERGREEN	SHADE	EVERGREEN	SHADE	EVERGREEN	SHADE	EVERGREEN	SHADE	EVERGREEN
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	37'	37'	62'	149'	37'					
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO					
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES*	YES*	NO	YES*	YES*					
NUMBER OF PLANTS REQUIRED	0	0	1	0	0	0	0	1	0	1
SHADE TREES	0	0	0	2	0	0	0	0	0	2
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	0
OTHER TREES (2:1 SUBSTITUTE)	0	0	0	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0	0	0	0
NUMBER OF PLANTS PROVIDED	0	0	1	0	0	0	0	1	0	1
SHADE TREES	0	0	0	2	0	0	0	0	0	2
EVERGREEN TREES	0	0	0	0	0	0	0	0	0	0
OTHER TREES (2:1 SUBSTITUTE)	0	0	0	0	0	0	0	0	0	0
SHRUBS	0	0	0	0	0	0	0	0	0	0

*NOISE WALL

PUBLIC STREET TREE SCHEDULE

ROAD NAME	PERIMETER	TREES REQ.	SIZE
ATWOOD LANE	1914'	48	LARGE
TIMBERLINE LANE	1328'	33	LARGE
WICKWOOD COURT	1657'	41	LARGE

PUBLIC STREET TREE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS	DESCRIPTION
	122	TILIA CORDATA 'GREENSPRING' (Greenspire Littleleaf Linden)	2 1/2" - 3" cal.	TO BE PLANTED ALONG ATWOOD LANE, TIMBERLINE LANE AND WICKWOOD COURT. TO BE PROVIDED BY THE DEVELOPER.

PERIMETER LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS	DESCRIPTION
	1	PLATANUS X ACROFOLIA 'BLOODGOOD' (Bloodgood London Plane)	2-1/2" - 3" cal.	SHADE TREES ALONG PERIMETER TO BE PROVIDED BY THE DEVELOPER
	2	CUPRESSOCYPARIS LEYLANDI (Leyland Cypress)	5' - 6' ht.	EVERGREEN TREES ALONG PERIMETER TO BE PROVIDED BY THE DEVELOPER

LANDSCAPE NOTES:

- STREET TREES TO BE CENTERED BETWEEN THE CURB AND SIDEWALK WHERE THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS 8 FEET OR GREATER. WHEN TREES ARE PLANTED BETWEEN THE SIDEWALK AND CURB, OR 6 FEET BEHIND THE CURB IF THERE IS NO SIDEWALK, THEY SHALL BE PLACED A MINIMUM OF 30 FEET FROM ALL SIGNS AND INTERSECTIONS. TREES MAY NOT BE PLANTED WITHIN 5 FEET OF A DRAIN INLET, 5 FEET OF AN OPEN SPACE ACCESS STRIP, OR 10 FEET OF A DRIVEWAY.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HEREWITH LISTED AND APPROVED FOR THIS SITE, SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO APPLICABLE PLANS AND CERTIFICATIONS.
- THE OWNER, TENANTS 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 MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

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. 21443 Expiration Date: 12-21-19

BENCHMARK ENGINEERING, INC.
ENGINEERS & LAND SURVEYORS & PLANNERS
8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
410-825-8400

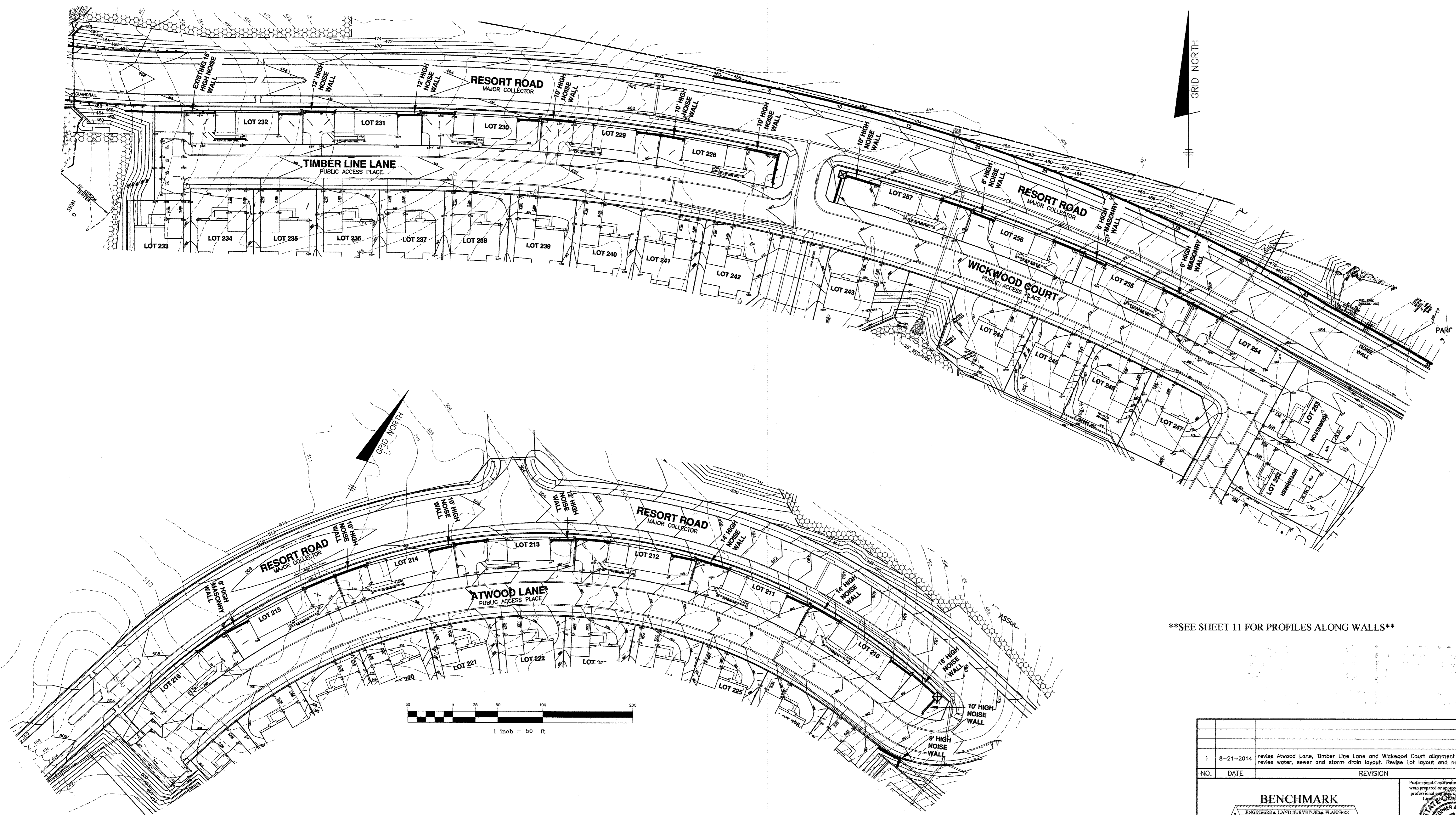
DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093
410-825-8400

VILLAGES AT TURF VALLEY PHASE 2, SECTION 2
LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260;
A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS DD-1, EE-1 AND FF-1

TAX MAP: 16, PARCEL: 40, GRID: 10
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED PERIMETER LANDSCAPE AND STREET TREE PLAN

DATE: APRIL, 2010 BEI PROJECT NO. 1915
SCALE: AS SHOWN SHEET 9 OF 11



SEE SHEET 11 FOR PROFILES ALONG WALLS

APPROVED: DEPARTMENT OF PUBLIC WORKS
H. Stevens 9-5-14
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
K. Stenhouse 9-09-14
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

C. J. [Signature] 9-14-14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

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. 21443, Expiration Date: 12-21-18

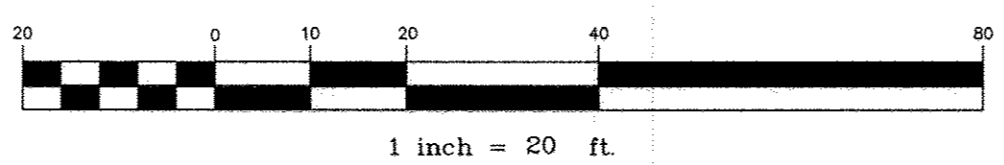
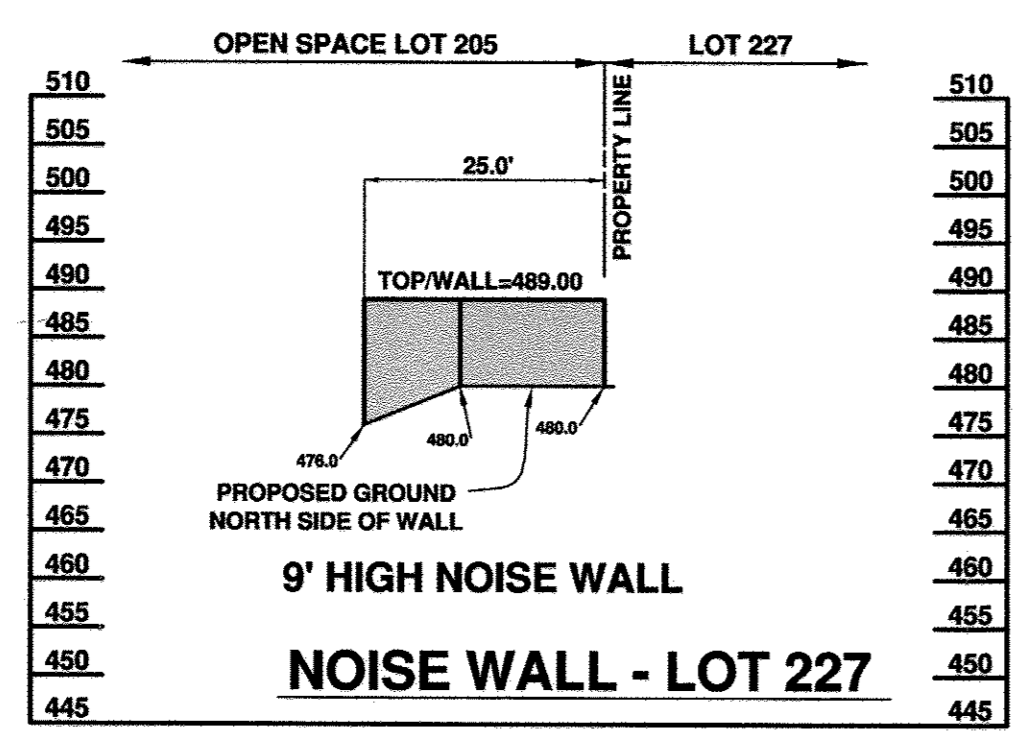
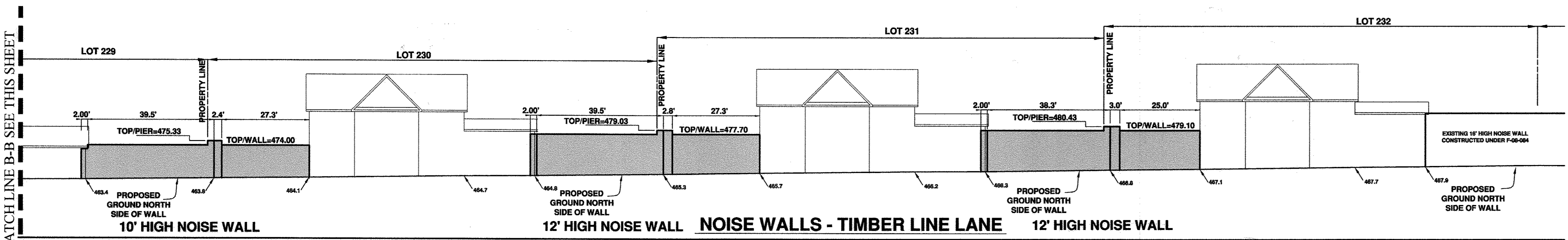
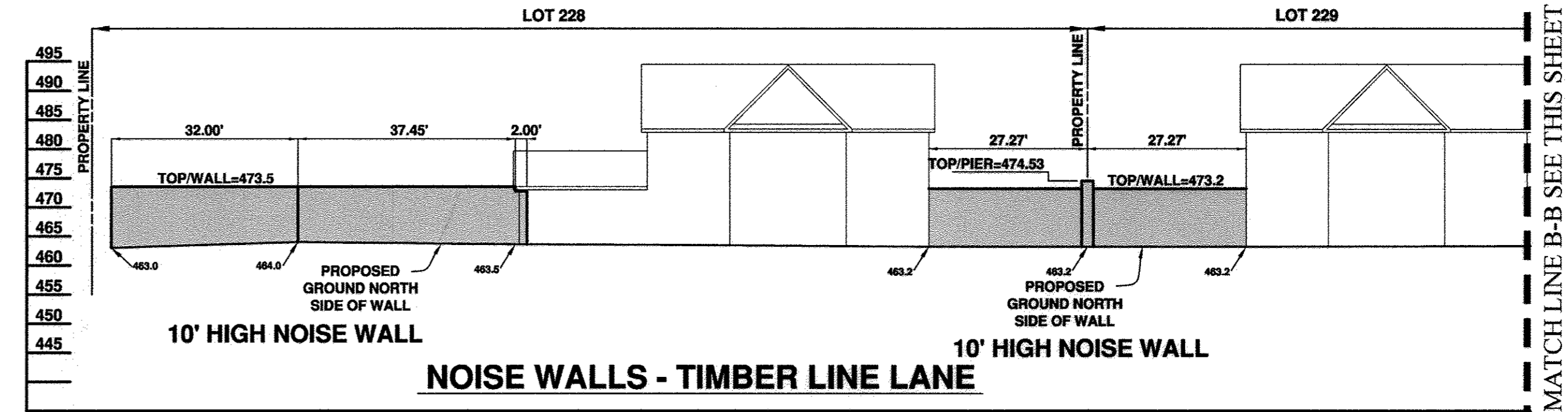
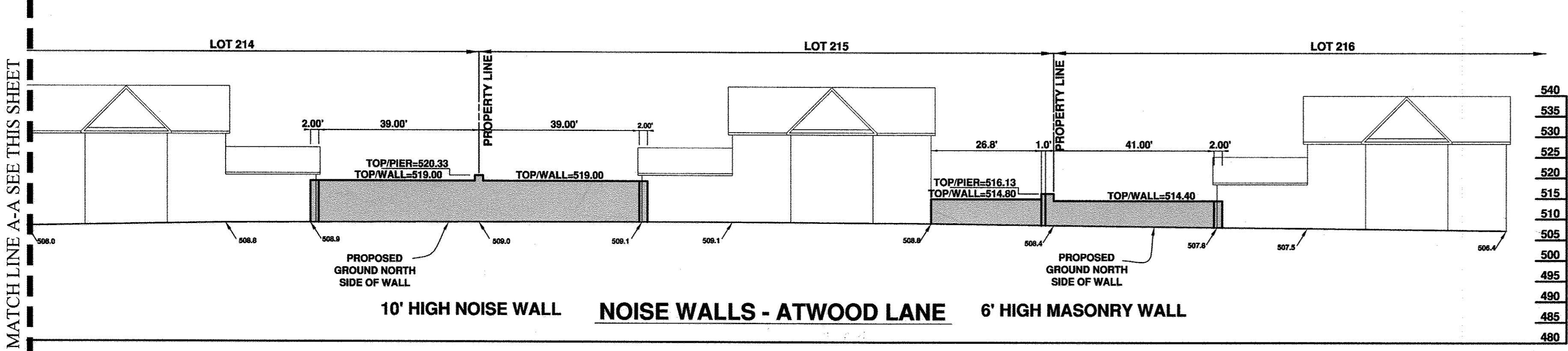
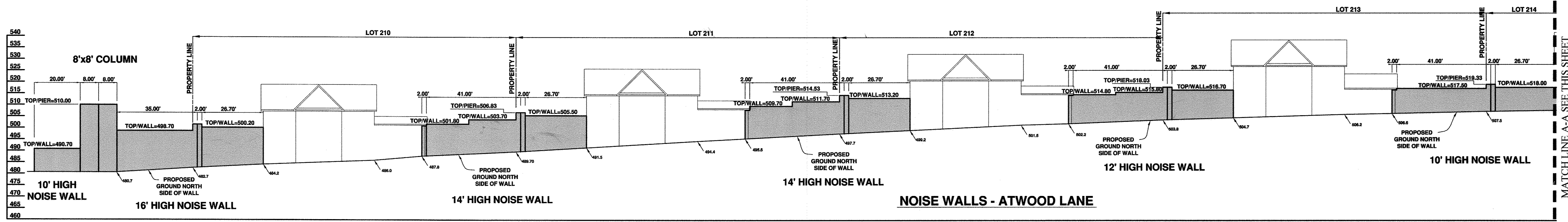
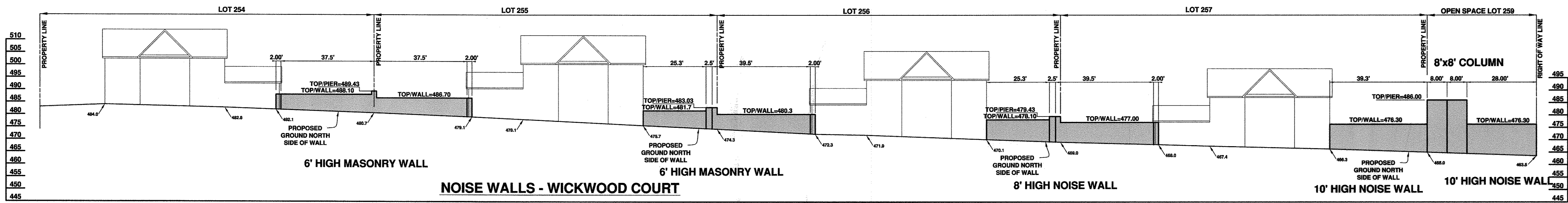
THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

NO.	DATE	REVISION
1	8-21-2014	revise Atwood Lane, Timber Line Lane and Wickwood Court alignment and profile, revise water, sewer and storm drain layout. Revise Lot layout and numbering.

BENCHMARK ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE SUITE 315 A ELLICOTT CITY, MARYLAND 21043
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 WWW.BEI-CVLENGINEERING.COM

Professional Engineer Seal for Christopher Alan Mager, No. 21443, State of Maryland, dated 8/22/14.

OWNER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400	DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400	VILLAGES AT TURF VALLEY PHASE 2, SECTION 2 LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260; A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1 NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1' TAX MAP: 16, PARCEL: 401, GRID: 10 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC REVISED NOISE WALL PLAN AND PROFILE DATE: APRIL, 2010 BEI PROJECT NO. 1915 SCALE: AS SHOWN SHEET 10 OF 11
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- NOTES:**
- PROFILES ARE SHOWN FACING THE NORTH SIDE OF THE WALL FROM RESORT ROAD.
 - WALLS ARE TO BE PRIVATELY OWNED AND PRIVATELY MAINTAINED. THE NORTH SIDE OF THE WALLS SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. THE SOUTH SIDE OF THE WALLS SHALL BE MAINTAINED BY THE RESPECTIVE LOTS OWNER ON WHICH THE WALL RESIDES.
 - CONSTRUCTION OF THE WALLS SHALL BE DEFERRED TO SITE DEVELOPMENT PLAN STAGE SINCE THE WALLS NEED TO BE CONSTRUCTED SIMULTANEOUSLY WITH EACH HOME. THE WALLS SHALL BE BONDED UNDER THIS F-PLAN.
 - FOUNDATION AND STRUCTURAL DETAILS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS WHEN FILING FOR PERMIT.

APPROVED: DEPARTMENT OF PUBLIC WORKS
Holger Serrano 9.5.14
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Robert L. ... 9.09.14
 CHIEF, DIVISION OF LAND DEVELOPMENT

Chad ... 9.4.14
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET.

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. 21443 Expiration Date: 12-31-18

BENCHMARK ENGINEERING, INC.
 ENGINEERS & LAND SURVEYORS & PLANNERS
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DEVELOPER: MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400

VILLAGES AT TURF VALLEY PHASE 2, SECTION 2
 LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260;
 A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1
 NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1'

TAX MAP: 16, PARCEL: 401, GRID: 10
 TAX MAP: 16, PARCEL: P0 & GRID: 17
 ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

NOISE WALL PROFILES

DATE: APRIL, 2010 BEI PROJECT NO. 1915
 SCALE: AS SHOWN SHEET 11 OF 11

AS-BUILT F-10-078