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

GENERAL NOTES

1.) THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.

2.) BOUNDARY IS BASED ON A FIELD RUN MONUMENTED SUBURBAN BOUNDARY SURVEY PERFORMED BY JOHN A. MILDENBERG IN MARCH, 2006.

3.) 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.

4.) THE SUBJECT PROPERTY IS ZONED PGCC AND IS CONSIDERED 'GRANDFATHERED' TO THE 2-2-2004 COMPREHENSIVE ZONING PLAN AND THE "COMP LITE" ZONING AMENDMENTS EFFECTIVE 7-28-2006. THE GRANDFATHERING OF THIS PLAN IS IN ACCORDANCE WITH SECTION 100.E.3.b OF THE 2013 ZONING REGULATIONS SINCE THE PROPERTY RECEVEIED INITIAL SUBDIVISION APPROVAL PRIOR TO 10-6-2013.

5.) WATER IS PUBLIC. THE CONTRACT NUMBER IS 24-4549-D AND 24-4663-D.

6.) SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-4549-D AND 24-4663-D.

7.) THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE DRAINAGE AREA IS THE LITTLE PATUXENT.

8.) STORMWATER MANAGEMENT QUALITY AND QUANTITY CONTROL IS PROVIDED WITHIN SWMF #3 & #4 (P-1 MICROPOOL ED PONDS), THE OFFLINE RECHARGE CHAMBER AT SWMF#4, SWMF#5 (P-5 POCKET POND), SWMF#6 (F-1 SURFACE SAND FILTER WITH DRY DETENTION POND) AND SHEETFLOW TO BUFFER CREDITS. 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.

9.) THERE ARE NO WETLANDS, STREAMS, THEIR BUFFERS OR 100-YEAR FLOODPLAIN LOCATED ON THESE LOTS.

10.) TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES OR HISTORIC STRUCTURES LOCATED ON THIS SITE.

11.) 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 HUSH 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.

12.) THIS PROJECT IS SUBJECT TO THE TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. UNDER S-86-13, AND UPDATED IN MARCH 2004.

13.) 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.

14.) 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.

15.) 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:

A) WIDTH – 12' (16' SERVING MORE THAN ONE RESIDENCE).
B) SURFACE – 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1.5" MIN.).
C) GEOMETRY – MAX. 15% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.
D) STRUCTURES(CULVERTS/BRIDGES) – CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOAD)
E) DRAINAGE ELEMENTS – CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
F) STRUCTURE CLEARANCES – MINIMUM 12 FEET.
G) MAINTENANCE – SUFFICIENT TO ENSURE ALL WEATHER USE.

16.) THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.

17.) THE EXISTING TOPOGRAPHY SHOWN ONSITE IS BASED ON THE F-08-084 MASS GRADING PLAN..

18.) EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS, AERIAL AND FIELD SURVEYED LOCATIONS.

19). THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF, ~~EFFECTIVE TBD~~, ON WHICH DATE DEVELOPER AGREEMENT #24-4663-D WAS FILED AND ACCEPTED.

20.) 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.

21.) 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.

22.) 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 2-½" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)-3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.

23.) 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.

24.) THIS PROJECT IS SUBJECT TO THE TRAFFIC STUDY PREPARED BY THE TRAFFIC GROUP, INC. UNDER S-86-13, AND UPDATED IN MARCH 2004.

25.) 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 IVA (131 UNITS) & IVB (110 UNITS) AS ESTABLISHED BY THE REVISED PHASING PLAN DATED JUNE 21, 2000. UNDER P-06-013, 42 CONDOMINIUM UNITS THAT WERE APPROVED WERE USED FOR OAKMONT AT TURF VALLEY (F-02-082). THESE 42 CONDOMINIUM UNITS WERE NOT PREVIOUSLY INCLUDED WITH THE OAKMONT AT TURF VALLEY (F-02-82) 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-06-013). 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 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.

26.) OPEN SPACE DEDICATION FOR LOTS 258-260:

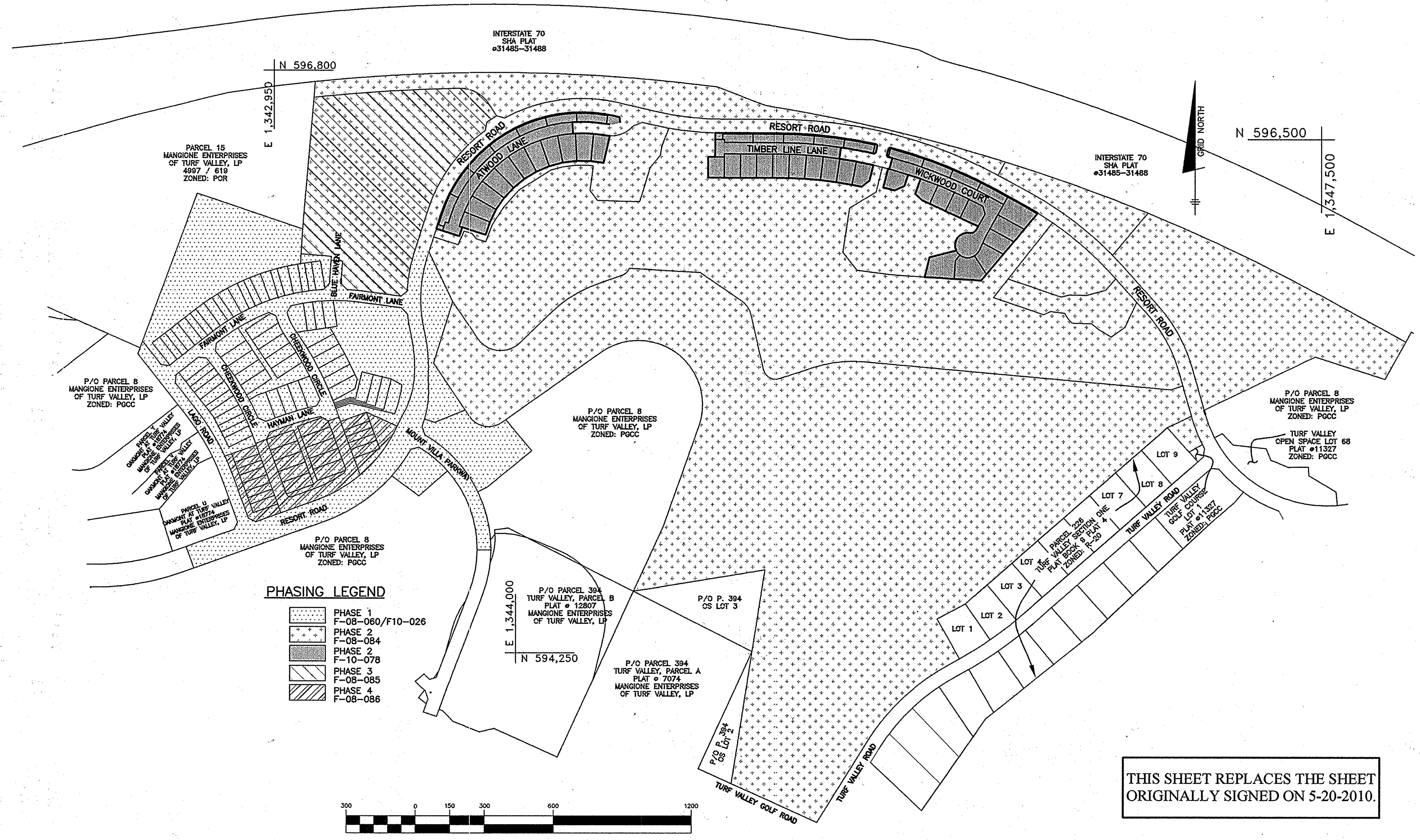
THE OPEN SPACE SHOWN HEREON IS HEREBY DEDICATED TO A PROPERTY OWNERS ASSOCIATION FOR THE RESIDENTS OF THIS SUBDIVISION AND RECORDING REFERENCES OF THE ARTICLES OF INCORPORATION AND RESTRICTIONS ARE SHOWN HEREON.

27.) THE ARTICLES OF INCORPORATION FOR THE HOMEOWNERS ASSOCIATION WAS ACCEPTED BY THE STATE DEPARTMENT OF ASSESSMENT AND TAXATION ON JUNE 23, 2014, DEPARTMENT ID# D15927346.

28.) PRIOR TO GRADING PERMIT APPLICATION, THE PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 16.129 OF THE HOWARD COUNTY CODE.

29.) NOISE WALLS SHALL BE PRIVATELY OWNED AND MAINTAINED. THE NORTH SIDE OF EACH WALL SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. THE SOUTHSIDE SHALL BE MAINTAINED BY THE OWNER OF EACH LOT ON WHICH THE WALL RESIDES.

30.) APPLICABLE DPZ FILE REFERENCES ARE:
S-86-13, S-03-01, P-06-013, WP-05-074, WP-08-009 F-08-060, F-08-084, F-09-022, F-10-026, F-10-078, WP-09-211, WP-10-159, WP-11-168, WP-12-129, WP-13-054, WP-13-164

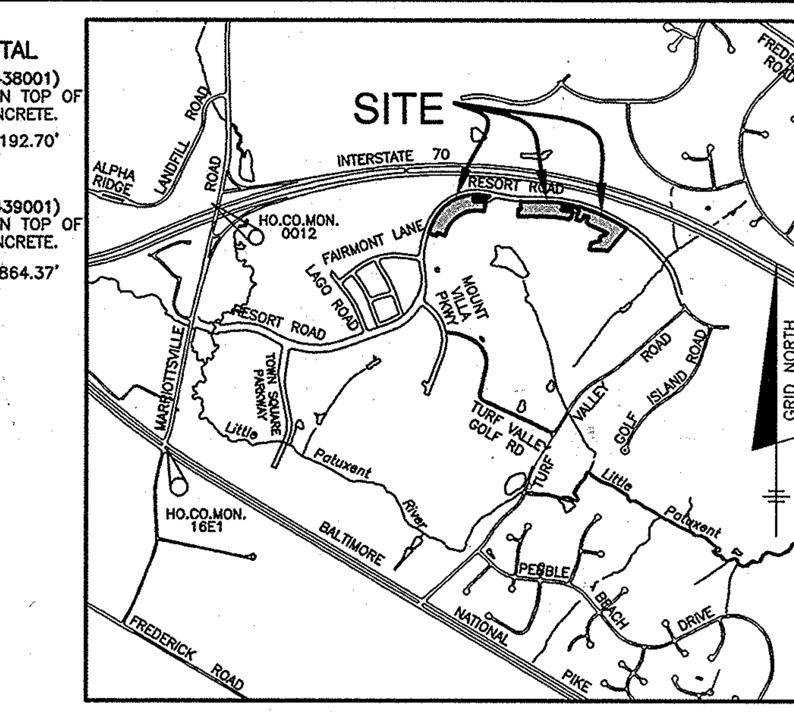


THIS SHEET REPLACES THE SHEET ORIGINALLY SIGNED ON 5-20-2010.

BENCHMARKS
NAD'83 HORIZONTAL

HO. CO. #16E1 (AKA: 3438001)
STAMPED BRASS DISK SET ON TOP OF A 3ft DEEP COLUMN OF CONCRETE.
N 593250.960' E 1340192.70'
ELEVATION: 463.981'

HO. CO. #0012 (AKA: 3439001)
STAMPED BRASS DISK SET ON TOP OF A 3ft DEEP COLUMN OF CONCRETE.
N 596502.760' E 1340864.37'
ELEVATION: 486.298'



ADC MAP: 19
GRID: D4

VICINITY MAP
SCALE: 1" = 2000'

SITE ANALYSIS DATA CHART

GENERAL SITE DATA

1.) PRESENT ZONING: PGCC
2.) APPLICABLE DPZ FILE REFERENCES: S-86-13, P-06-13, S-03-01 WP-05-074, WP-08-009, F-08-060 F-09-022, F-10-026, F-08-084
3.) PROPOSED USE OF SITE: RESIDENTIAL
4.) PROPOSED WATER AND SEWER SYSTEMS: PUBLIC

AREA TABULATION

1.) GROSS TRACT AREA 10.63 AC.±
2.) AREA WITHIN 100-YEAR FLOODPLAIN N/A
3.) TOTAL AREA OF 25% OR GREATER STEEP SLOPES N/A
AREA NOT IN FLOODPLAIN (FOR NTA CALC) N/A
4.) NET TRACT AREA 10.63 AC.±
5.) TOTAL NUMBER OF LOTS ALLOWED PER ZONING N/A
6.) TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION 48 UNITS/48 LOTS
7.) 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.

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.

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 OUTLINED 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:
RESIDENTIAL AND NON-RESIDENTIAL STRUCTURES 30 FEET FROM A 60 FT. ROW, 20 FEET FROM A 50 FT. ROW
ACCESSORY USES 10 FEET
FROM NON-PGGC ADJACENT PROPERTIES:
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

VILLAGES AT TURF VALLEY PHASING CHART

PHASE/SECTION	S.F.A.	S.F.D.	CONDOMINIUM	TOTAL
P1S1 (F10-026)	0	0	0	0
P1S2 (F-08-060)	41	21	0	62
P2S1 (F-08-084)	0	0	43 *	43
P2S2 (F-10-078)	0	48	0	48
P3 (F-08-085)	7	0	0	7
P4 (F-08-086)	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

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	157.59	NA	191.59
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, Section2 (Non-Buildable Bulk Parcels DD-1, EE-1 & FF-1) and area for Phase 3 (Non-Buildable Bulk Parcel CC-1)

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — DATE 9.5.14

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9-09-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9-4-14

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.
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

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. 22[illegible] Expiration Date: 6-30-2015.
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
TAX MAP: 16, PARCEL: P/O 8, 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

F-10-078

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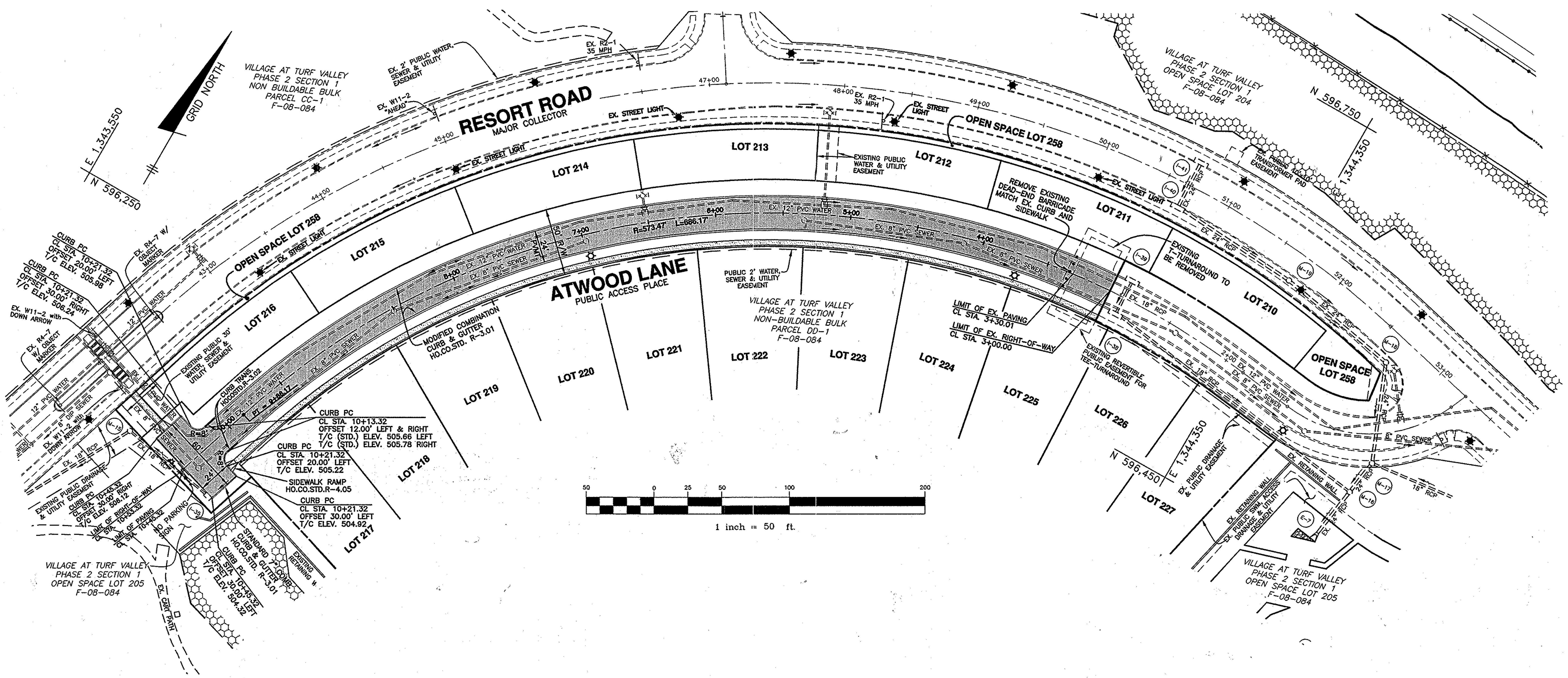
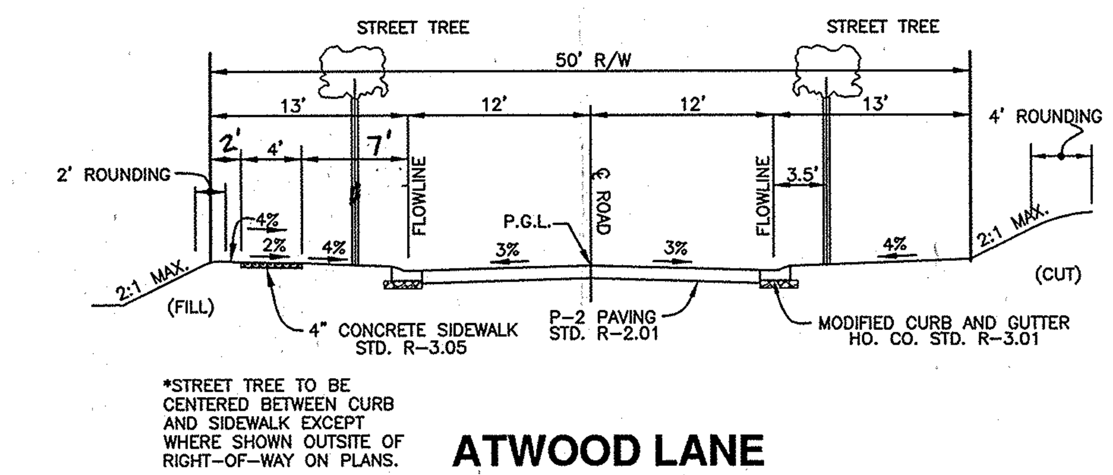


LEGEND

(shaded)	ROAD PAVEMENT
(stippled)	SIDEWALK
(heavy dashed)	STORM DRAIN PIPE
(hexagons)	FOREST CONSERVATION EASEMENT
(dashed)	EXISTING UTILITIES INSTALLED UNDER F-08-084



*STREET TREE TO BE CENTERED BETWEEN CURB AND SIDEWALK EXCEPT WHERE SHOWN OUTSITE OF RIGHT-OF-WAY ON PLANS.

ATWOOD LANE

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

STREET LIGHT SCHEDULE

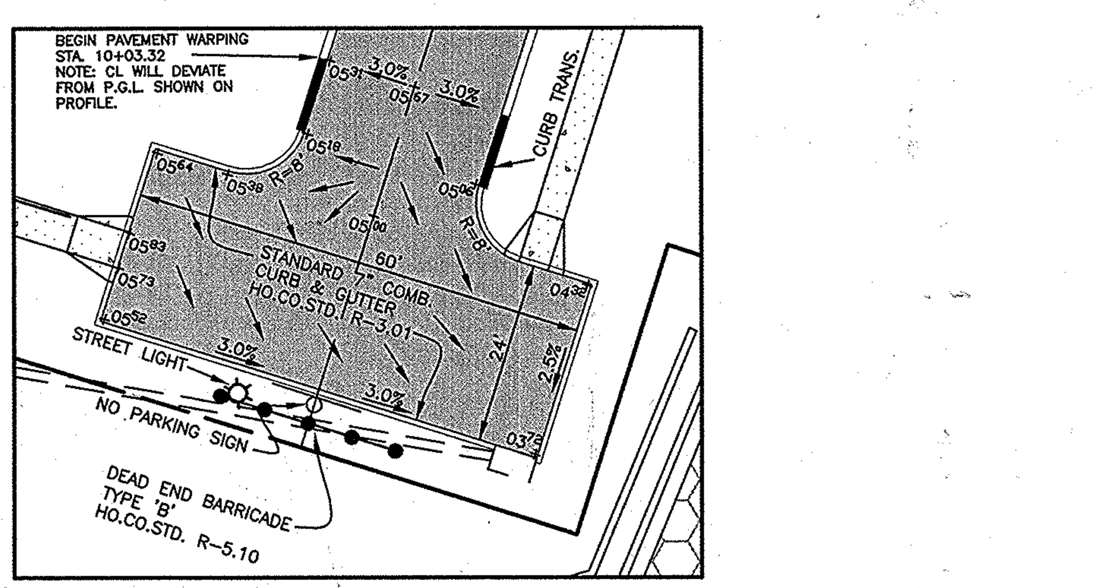
SYMBOL	LOCATION		DESCRIPTION
✡	ATWOOD LANE CL STA. 3+70	LEFT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
	ATWOOD LANE CL STA. 6+98	LEFT	
	ATWOOD LANE CL STA. 10+49	RIGHT	

CENTERLINE CONTROL DATA

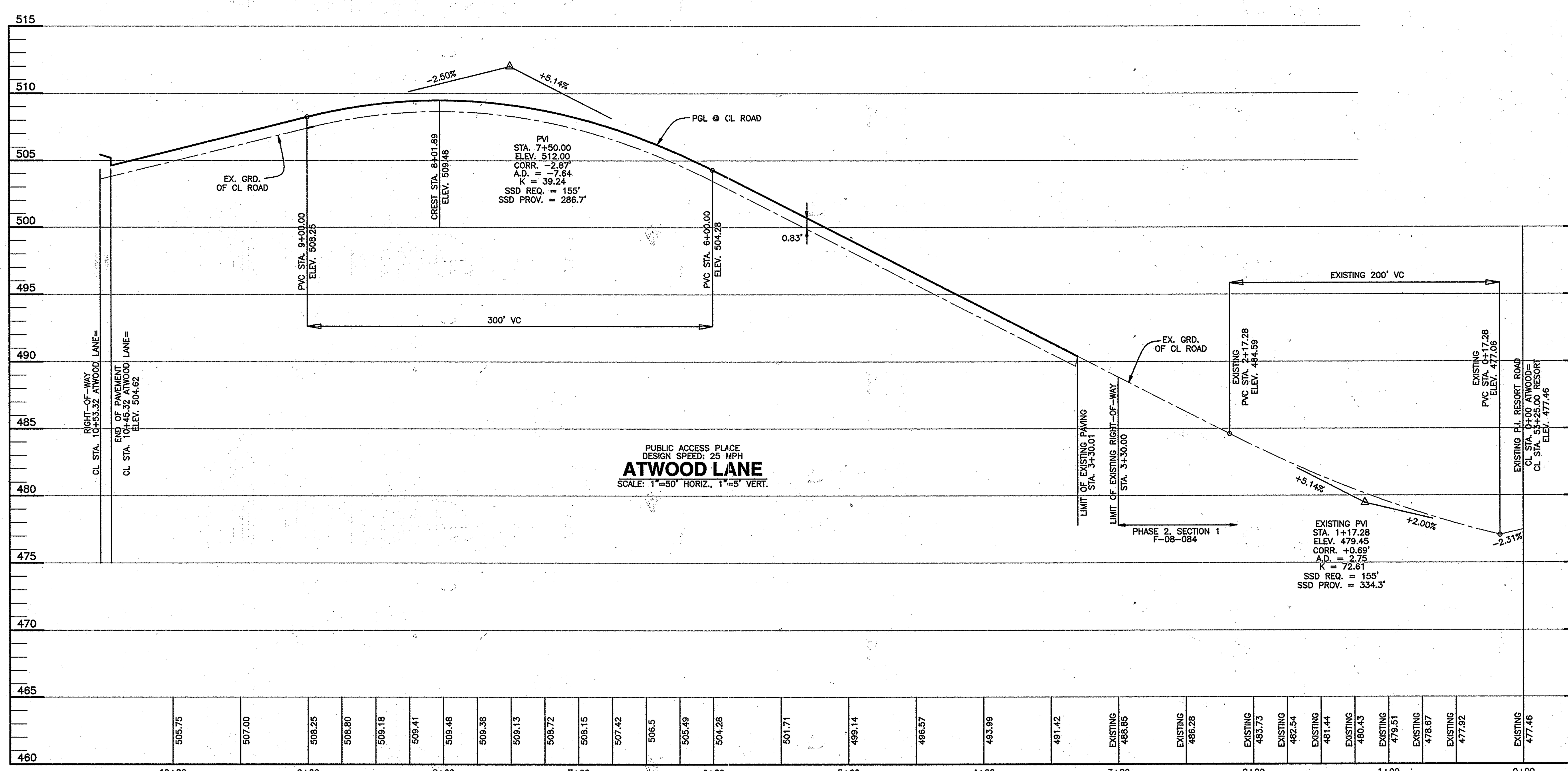
STREET NAME	STATION	NORTH	EAST
ATWOOD LANE	3+00.00	596550.2142	1344245.8669
	9+86.17	596150.8759	1343738.1235
	10+53.32	596086.8532	1343717.8917

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'



TEE-TURNAROUND DETAIL
SCALE: 1" = 20'



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

APPROVED: DEPARTMENT OF PUBLIC WORKS

(signature) 9.5.14
CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

(signature) 9-09-18
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

(signature) 9.4.14
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

NO.	DATE	REVISION
2	1-15-2016	REVISE TYPICAL SECTION TO REFLECT 7' FROM FLOWLINE TO SIDEWALK
1	8-21-2014	revise Atwood Lane alignment and profile, revise water, sewer and storm drain layout.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (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. 22390, Expiration Date: 6-30-2015.

(Seal: STATE OF MARYLAND — CHRISTOPHER ALAN MALAGARI — REGISTERED PROFESSIONAL ENGINEER) 8/22/14

OWNER:

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

DEVELOPER:

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VILLAGES AT TURF VALLEY PHASE 2, SECTION 2

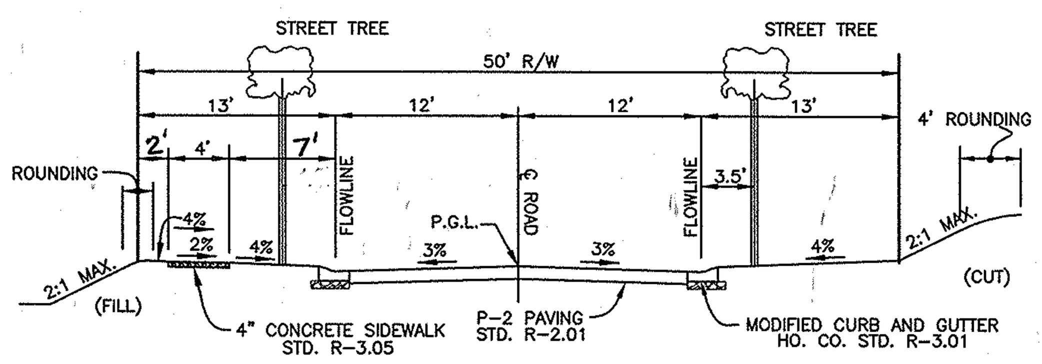
LOTS 210 thru 257 and OPEN SPACE LOTS 258 thru 260;
A RESUBDIVISION OF VILLAGES AT TURF VALLEY, PHASE 2, SECTION 1
NON-BUILDABLE BULK PARCELS 'DD-1', 'EE-1' AND 'FF-1'

TAX MAP: 16, PARCEL: 401, GRID: 10
TAX MAP: 16, PARCEL: P/O 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED ROAD PLAN AND PROFILE ATWOOD LANE

DATE:	APRIL, 2010	BEI PROJECT NO.	1915
SCALE:	AS SHOWN	SHEET	2 OF 11

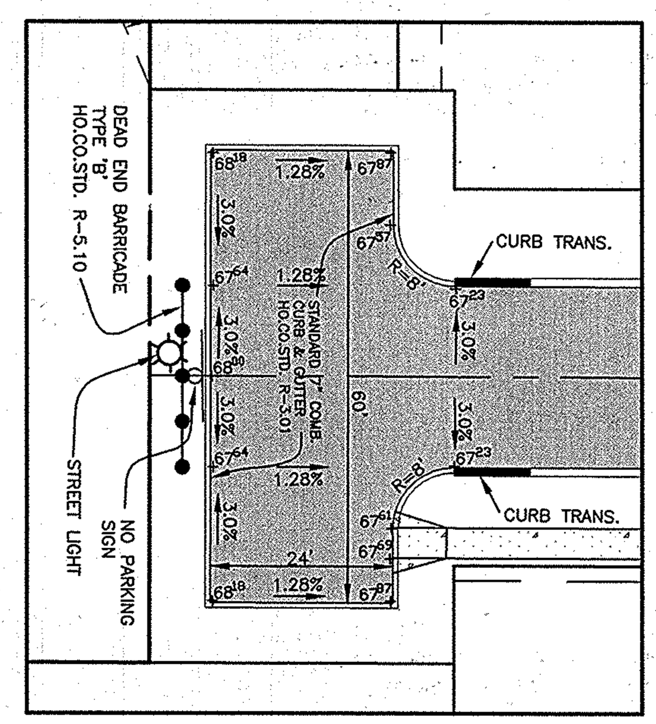
F-10-078



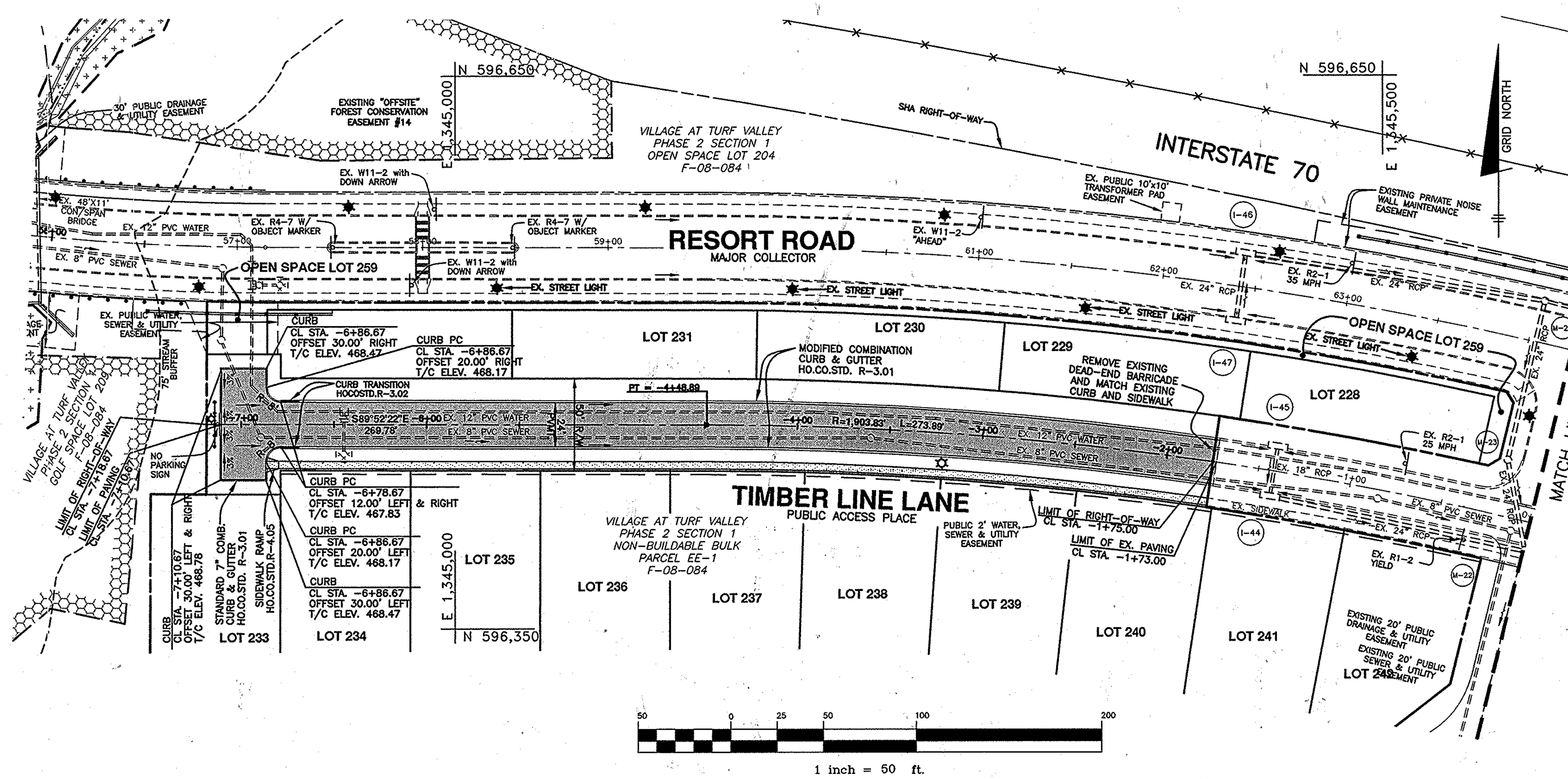
*STREET TREE TO BE CENTERED BETWEEN CURB AND SIDEWALK EXCEPT WHERE SHOWN OUTSITE OF RIGHT-OF-WAY ON PLANS.

TIMBER LINE LANE

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



TEE-TURNAROUND DETAIL
SCALE: 1" = 20'



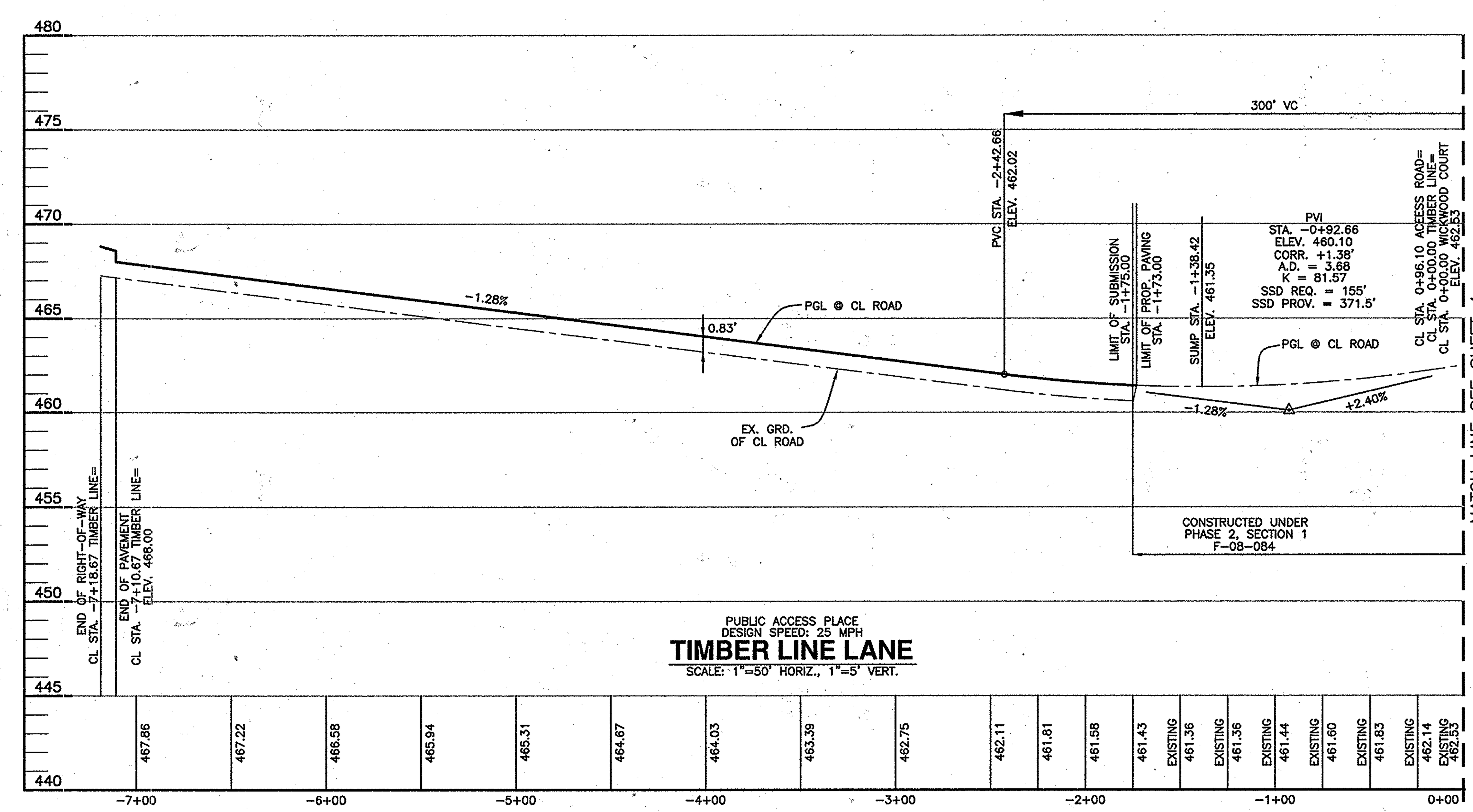
LEGEND

- ROAD PAVEMENT
- SIDEWALK
- STORM DRAIN PIPE
- FOREST CONSERVATION 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	

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

CENTER LINE 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'



APPROVED: DEPARTMENT OF PUBLIC WORKS

[signature] 9.5.14
CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature] 9-09-14
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 9.4.14
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

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

NO.	DATE	REVISION
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.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (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. 22390, Expiration Date: 6-30-2015.

STATE OF MARYLAND — CHRISTOPHER ALAN MALAGARI — NO. 22390 — REGISTERED PROFESSIONAL ENGINEER — 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
TAX MAP: 16, PARCEL: P/O 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED ROAD PLAN AND PROFILE
TIMBER LINE LANE

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

F-10-078

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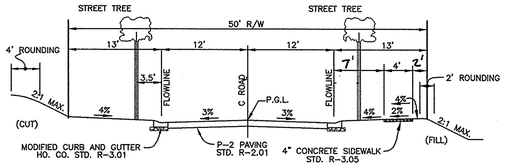
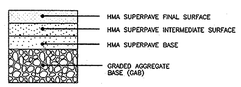


WICKWOOD COURT

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

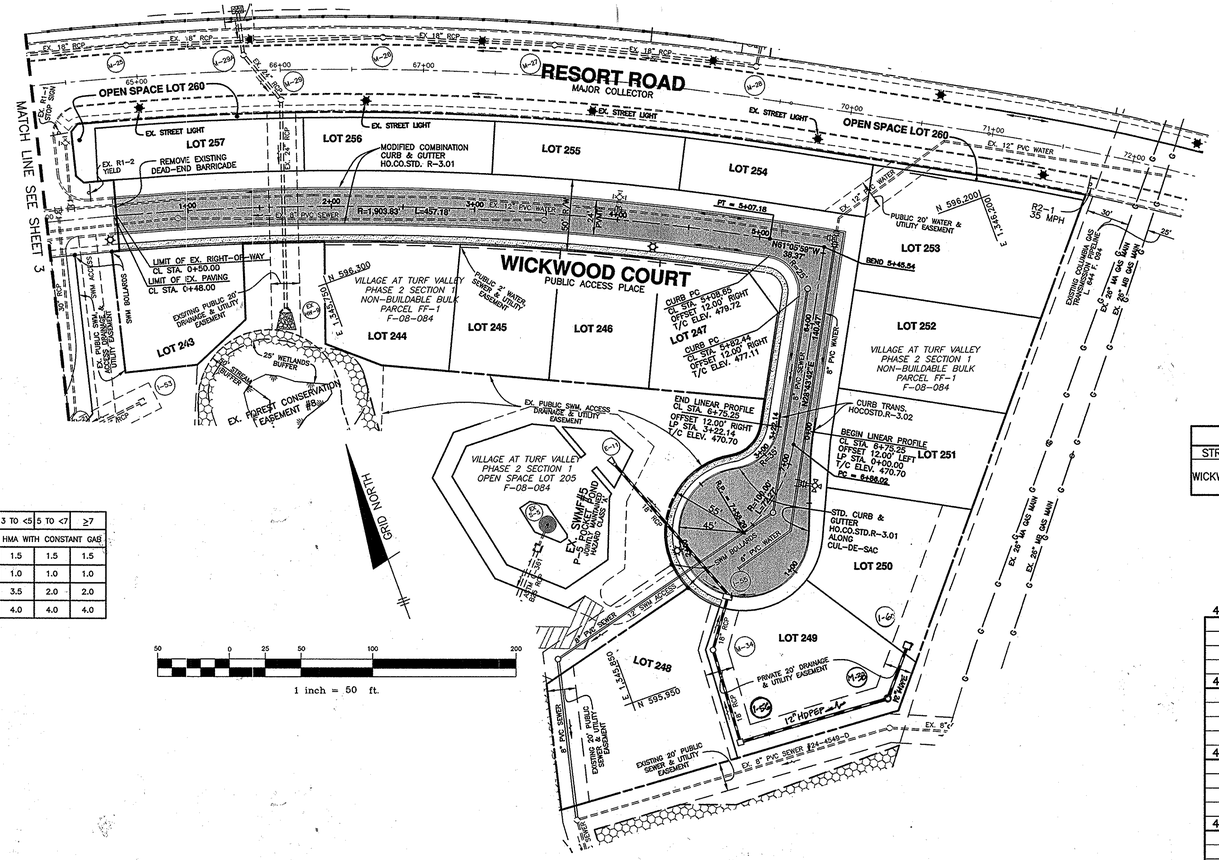
*STREET TREE TO BE CENTERED BETWEEN CURB AND SIDEWALK EXCEPT WHERE SHOWN OUTSITE OF RIGHT-OF-WAY ON PLANS.

NOTE: SIDEWALK TO BE 5' FROM FLOWLINE AROUND CUL-DE-SAC BULB.



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5	5 TO <7	≥7	3 TO <5	5 TO <7	≥7
		PAVEMENT MATERIAL (INCHES)	MIN HMA WITH GAB			HMA WITH CONSTANT GAB		
P-2	PARKING DRIVE AISLES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SAC: RESIDENTIAL	HMA SUPERPAVE FINAL SURFACE 9.5 MM PG 64-22, LEVEL 1 (LOW ESAL)	1.5	1.5	1.5	1.5	1.5	1.5
		HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM PG 64-22, LEVEL 1 (LOW ESAL)	1.0	1.0	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM PG 64-22, LEVEL 1 (LOW ESAL)	2.0	2.0	2.0	3.5	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0	4.0	4.0

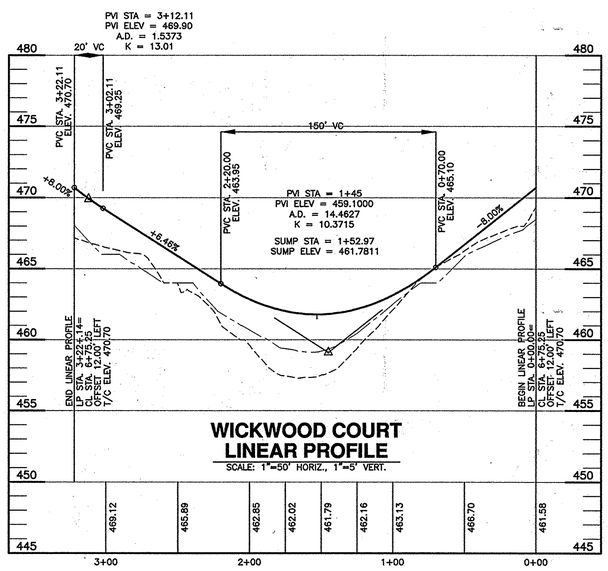
P-2 PAVING DETAIL

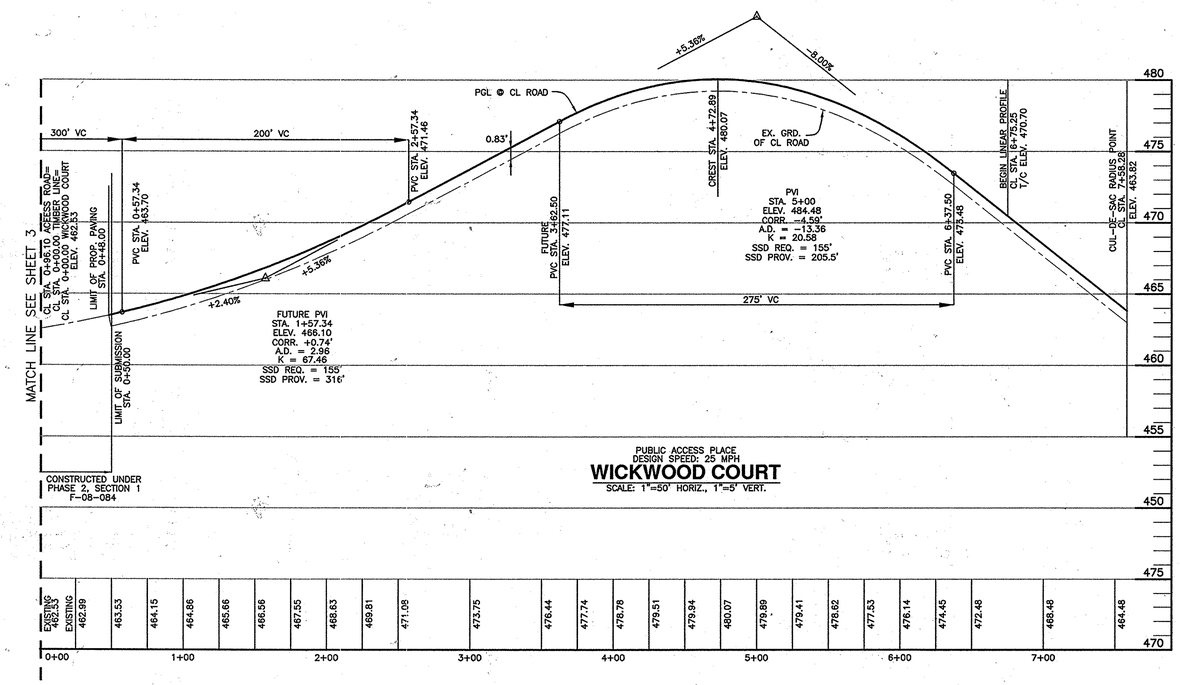


STREET LIGHT SCHEDULE				
SYMBOL	LOCATION			DESCRIPTION
☼	WICKWOOD COURT STA.	0+44	RIGHT	100 WATT HPS VAPOR PREMIER POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE
		4+27	RIGHT	
	WICKWOOD COURT LP STA.	2+00	LEFT	

CENTERLINE CONTROL DATA			
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

CENTER LINE CURVE DATA								
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'	





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

NO.	DATE	REVISION
3	1-15-2016	RESET TYPICAL SECTION TO REFLECT 7' FROM FLOWLINE TO SIDEWALK
2	5-14-2015	ADD STORM DRAIN FROM I-56 TO I-60 ON LOTS 249-250
1	8-21-2014	revise Wickwood Court alignment and profile, revise water, sewer and storm drain layout.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
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(P) 410-465-6105 (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. 15824, Expiration Date: 6-30-2015.

CHRISTOPHER ALAN LAGAN — STATE OF MARYLAND — No. 15824 — PROFESSIONAL ENGINEER
8/22/14

OWNER:
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LUTHERVILLE, MARYLAND 21093
410-825-8400

DEVELOPER:
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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: P/O 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED ROAD PLAN AND PROFILE WICKWOOD COURT

DATE: APRIL, 2010 | BEI PROJECT NO. 1915
SCALE: AS SHOWN | SHEET 4 OF 11

APPROVED: DEPARTMENT OF PUBLIC WORKS
CHIEF, BUREAU OF HIGHWAYS — DATE 9-5-14

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9-09-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9-4-14

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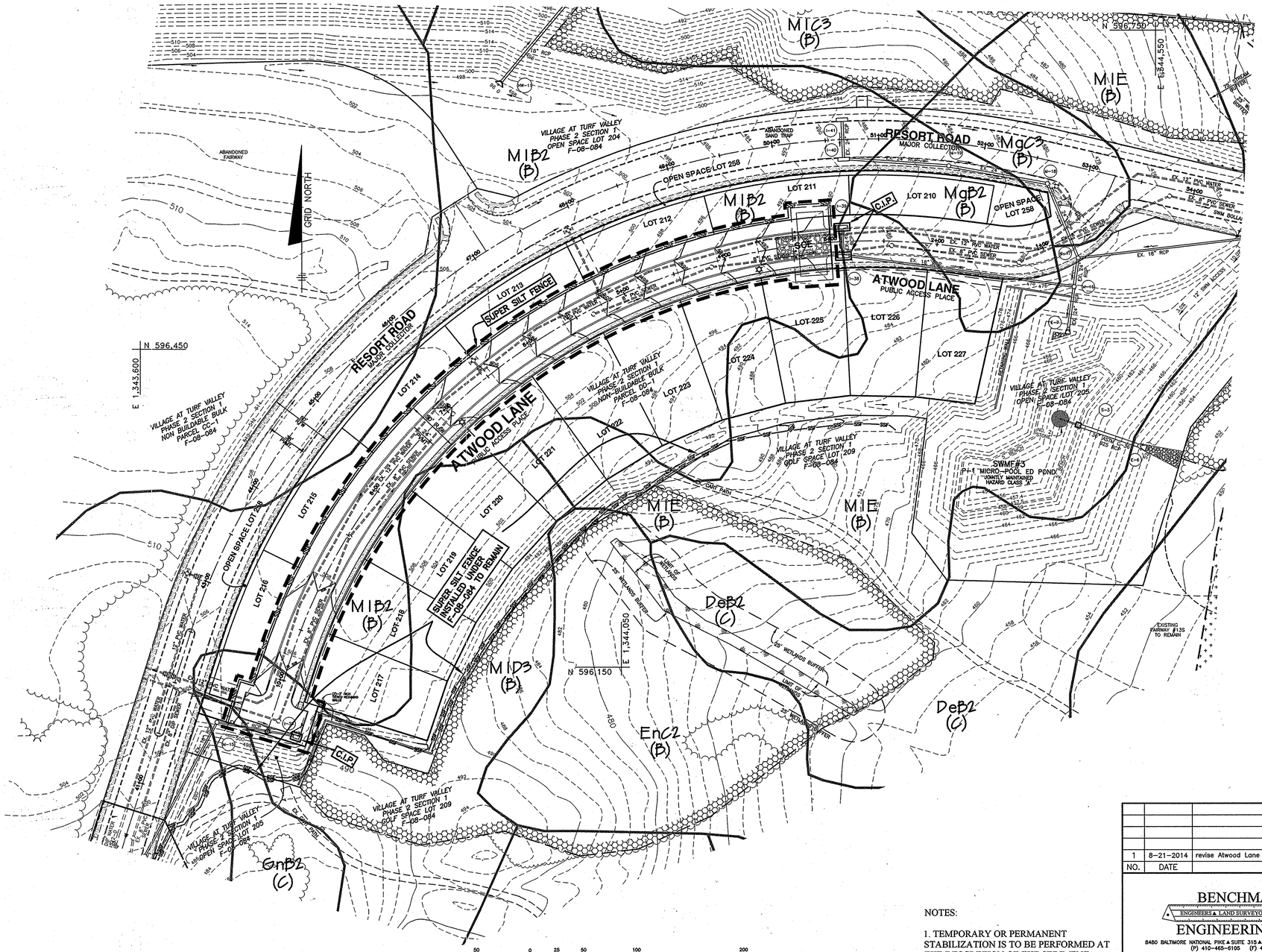

1 inch = 50 ft.

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. — INLET PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- SOILS DELINEATION LINE
- GIA (P) — SOILS TYPE AND CLASS

NOTES:

1. TEMPORARY OR PERMANENT STABILIZATION IS TO BE PERFORMED AT THE DESCRETION OF THE SEDIMENT CONTRL INSPECTOR REGARDLESS OF ANY OTHER STANDARD STABILIZATION NOTES WITH THE STANDARD NOTES BEING THE MINIMUM.

2. 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

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 — 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 — DATE 8/22/14

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 9/2/14

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 9-5-14

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9-09-14

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9-4-14

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

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
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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. 27203, Expiration Date: 6-30-2015.

STATE OF MARYLAND — CHRISTOPHER ALAN KALLOGER — No. 27203 — PROFESSIONAL ENGINEER — 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
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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: P/O 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED GRADING, SEDIMENT AND EROSION CONTROL PLAN

DATE:	APRIL, 2010	BEI PROJECT NO.	1915
SCALE:	1" = 50'	SHEET	5 OF 11

F-08-084

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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. — INLET PROTECTION
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- SOILS DELINEATION LINE
- GIA (B) — 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 — 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."

C. Malaga — ENGINEER — DATE 8/22/14

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 9/2/14

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 9.5.14

APPROVED: DEPARTMENT OF PLANNING AND ZONING

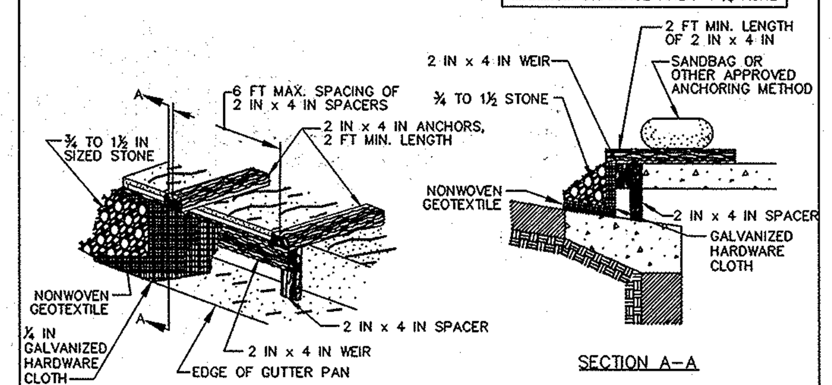
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9-09-14

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9.4.14

DETAIL E-9-3 CURB INLET PROTECTION

STANDARD SYMBOL: CIP

MAXIMUM DRAINAGE AREA = ¼ ACRE



CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH x 4 INCH LUMBER
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF ¼ INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. 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.

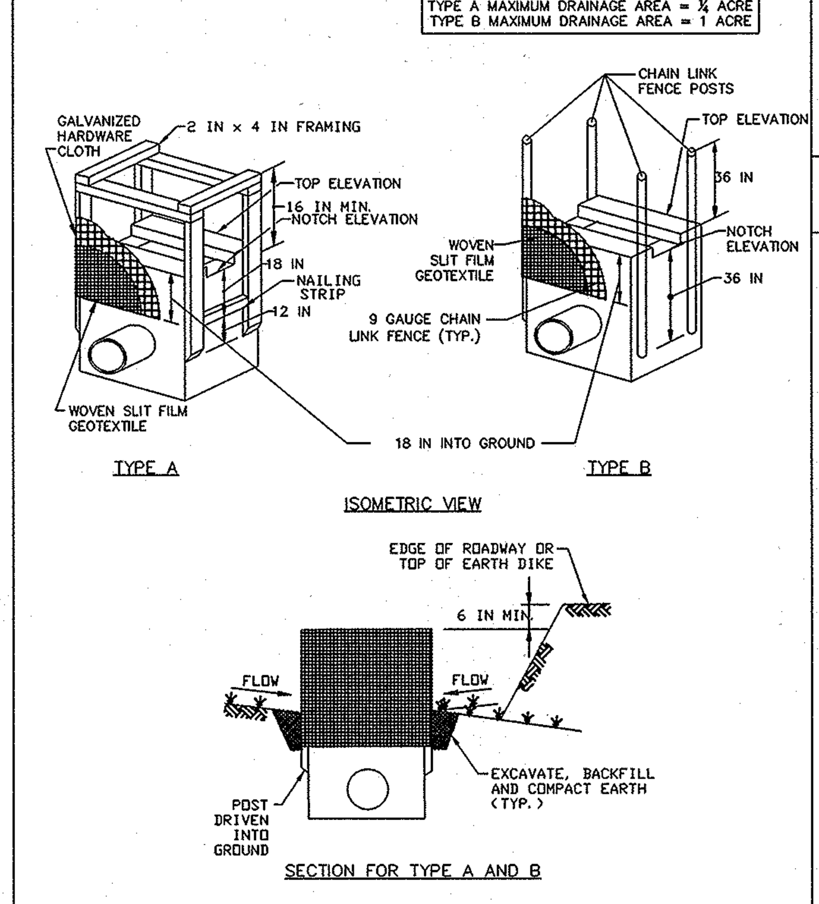
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

TYPE A MAXIMUM DRAINAGE AREA = ¼ ACRE
TYPE B MAXIMUM DRAINAGE AREA = 1 ACRE



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL: SIP

CONSTRUCTION SPECIFICATIONS

1. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18 INCHES BELOW THE NOTCH ELEVATION.
3. 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 ½ INCH GALVANIZED HARDWARE CLOTH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. FASTEN GEOTEXTILE SECURELY TO THE HARDWARE CLOTH 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 FOLDED, THEN FASTENED TO THE POST.

   FOR TYPE B, USE 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND 6 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.
4. BACKFILL AROUND THE INLET IN LOOSE 4 INCH LIFTS AND COMPACT UNTIL SOIL IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
5. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. 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.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

NOTES:

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2. 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.

NO.	DATE	REVISION
2	5-14-2015	ADD STORM DRAIN FROM I-56 TO I-60 ON LOTS 249-250.
1	8-21-2014	revise Timbler Line Lane and Wick Wood Court alignment. revise grading, water, sewer, storm drain and lot layout.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
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STATE OF MARYLAND — CHRISTOPHER ALAN MALAGARI — No. 22390 — REGISTERED PROFESSIONAL ENGINEER — 8/22/14

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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: P/O 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED GRADING, SEDIMENT AND EROSION CONTROL PLAN

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

F-10-078

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B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Definition

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.

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

1. Adequate vegetative stabilization requires 95 percent groundcover.
2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Definition

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.

Criteria

A. Incremental Stabilization - Cut Slopes
  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 excavation 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.

B. Incremental Stabilization - Fill Slopes
  1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
  2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
  3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
  4. Construction sequence example (Refer to Figure B.2):
     a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
     b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
     c. Place Phase 1 fill, prepare seedbed, and stabilize.
     d. Place Phase 2 fill, prepare seedbed, and stabilize.
     e. Place final phase fill, 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.

Figure B.

B-4-2 STANDARDS 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
  1. Temporary Stabilization
     a. 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 plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
     b. Apply fertilizer and lime as prescribed on the plans.
     c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
  2. Permanent Stabilization
     a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
        i. Soil pH between 6.0 and 7.0.
        ii. Soluble salts less than 500 parts per million (ppm).
        iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
        iv. Soil contains 1.5 percent minimum organic matter by weight.
        v. Soil contains sufficient pore space to permit adequate root penetration.
     b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
     c. 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.
     d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
     e. 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 branches, and ready the area for 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. Track slopes 3:1 or flatter with 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 friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling
  1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
  2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
  3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
     a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
     b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
     c. The original soil to be vegetated contains material toxic to plant growth.
     d. The soil is so acidic that treatment with limestone is not feasible.
  4. Areas having slopes steeper than 2:1 require special consideration and design.
  5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
     a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.
     b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
     c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
  6. Topsoil Application
     a. Erosion and sediment control practices must be maintained when applying topsoil.
     b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
     c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)
  1. 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 analyses.
  2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
  3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
  4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
  5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

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

Criteria

A. Seeding
  1. Specifications
     a. All seed must meet the requirements of the Maryland State Seed Law. 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.
     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 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 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 phyto-toxic 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 Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
        i. Cultipacking 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. Hydroseeding: Apply seed uniformly with hydroseeder (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; P2O5 (phosphorous), 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 hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
        iii. Mix seed and fertilizer on site and seed immediately and without interruption.
        iv. When hydroseeding do not incorporate seed into the soil.

B. Mulching
  1. Mulch Materials (in order of preference)
     a. 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 Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
     b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
        i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
        ii. WCFM, including dye, must contain no germination or growth inhibiting factors.
        iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-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 the grass seedlings.
        iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic.
        v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.
  2. Application
     a. Apply mulch to all seeded areas immediately after seeding.
     b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
     c. 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.
  3. Anchoring
     a. 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:
        i. A 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 land, this practice should follow the contour.
        ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder 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.
        iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs 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.
        iv. 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.

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

A. Seed Mixtures
1. General Use
   a Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (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.
   b 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 Guild, 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 areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ 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 Cultivars 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. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. 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.
   iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 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 area. Mixture includes Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 ½ 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.
   c. Ideal Times of Seeding for Turf Grass Mixtures
      Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)
      Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)
      Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)
   d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 ½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
   e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is not especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

B. Sod: to provide quick cover on disturbed areas (2:1 grade or flatter).
1. General Specifications
   a. Class of turfgrass must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
   b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and tom or uneven ends will not be acceptable.
   c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
   d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
   e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.
2. Sod Installation
   a. During periods of excessively high temperature or in areas having dry subsoil, lightly 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 growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
   c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
   d. Water the sod immediately following rolling and tamping until the underside of the new sod pad 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, sod watering is required as necessary to maintain adequate moisture content.
   c. Do not mow until the sod is firmly rooted. No more than 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABLIZATION

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

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

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, 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.
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
3. 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.b and maintain until the next seeding season.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
3. Runoff from the stockpile area must drain to a suitable sediment control practice.
4. Access the stockpile area from the upgrade side.
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

H-5 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.

Specifications

1. 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.
2. Vegetative Cover: See Section B-4-4 Temporary Stabilization.
3. Tillage: Till to roughen surface and bring clods 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.
4. Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must not be irrigated to the point that runoff occurs.
5. Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing.
6. Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan review authority.

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 STABILIZATION SHALL BE COMPLETED WITHIN: A) 3 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 7 DAYS 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. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

5. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION 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
OFFISTE WASTE/BORROW LOCATION:	N/A	

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

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

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

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.

*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 I-35, I-38, I-39, I-44 AND I-45. (DAY 3)

4). UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, INSTALL STORM DRAINS, WATER AND SEWER MAINS ON WICKWOOD 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)

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."

[signature] 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."

C. Malagari 8/22/14

ENGINEER - ~~DONALD A. MASON, P.E. # 21443~~ — DATE

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

John K Robertson 9/2/14

HOWARD SOIL CONSERVATION DISTRICT — DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS

Holger Serrano 9.5.14

CHIEF, BUREAU OF HIGHWAYS — DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature] 9.09.14

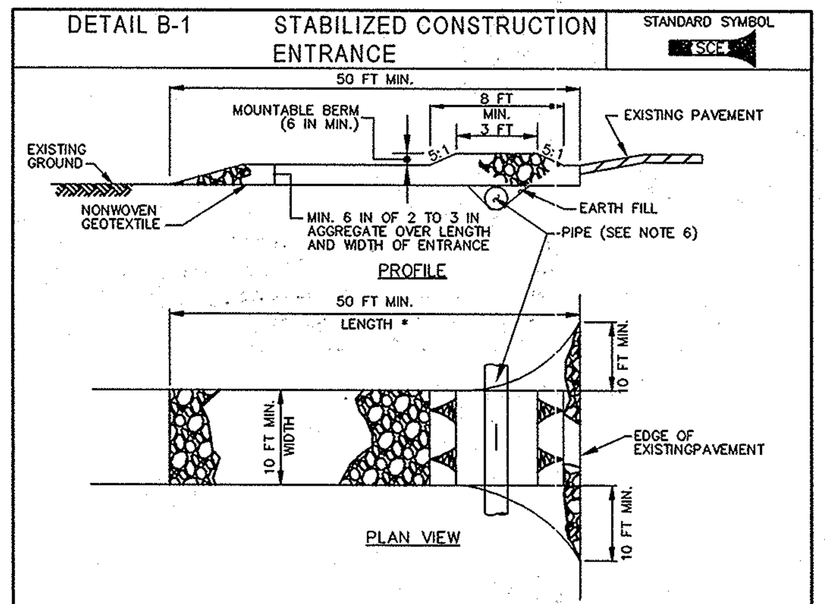
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE

[signature] 9.4.14

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

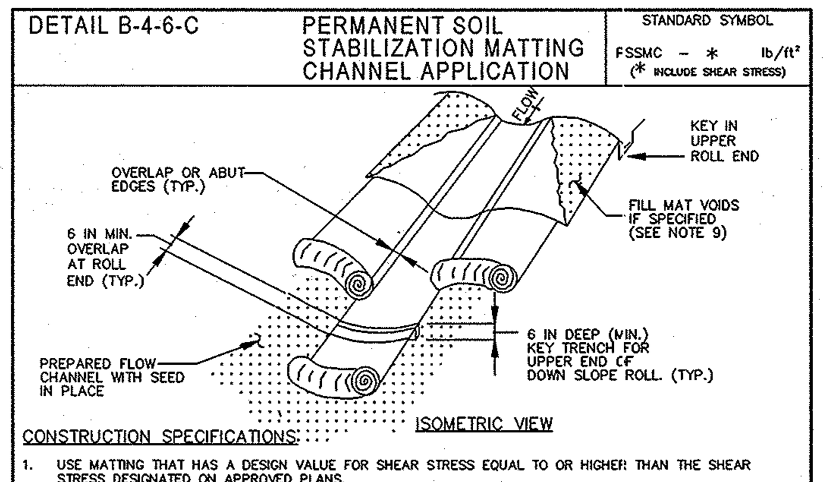
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL FSSMC - * lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

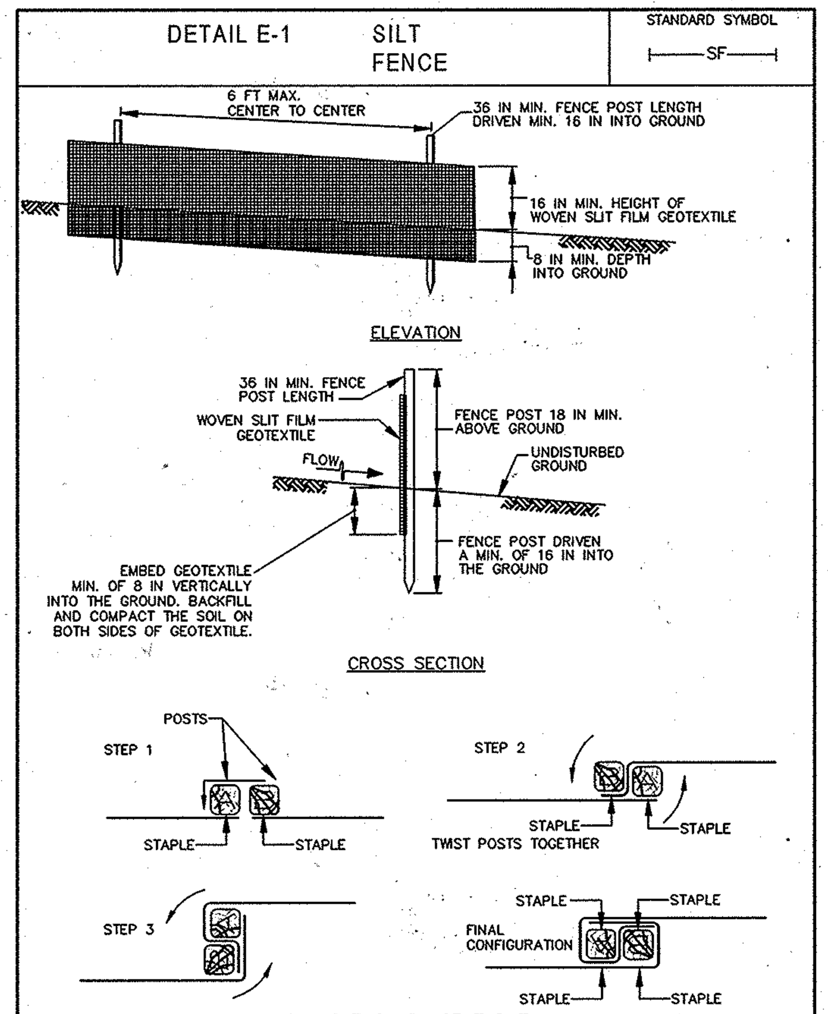
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL —SF—



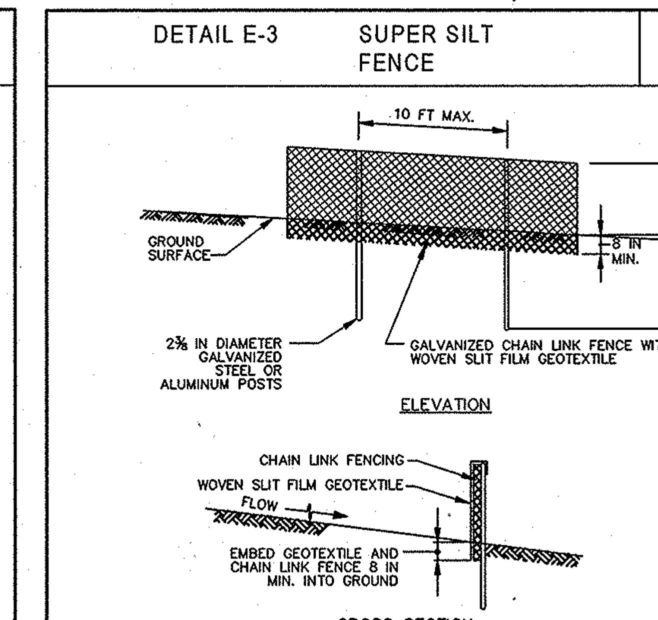
1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL —SSF—



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

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

NO.	DATE	REVISION
1	8-21-2014	update notes, specifications and details per MDE 2011 standards.

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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.

[Seal: STATE OF MARYLAND, CHRISTOPHER ALAN MALAGARI, NO. 22390, REGISTERED PROFESSIONAL ENGINEER] [signature] 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
TAX MAP: 16, PARCEL: P/O 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED SEDIMENT AND EROSION CONTROL NOTES AND DETAILS

DATE:	APRIL, 2010	BEI PROJECT NO.	1915
SCALE:	AS SHOWN	SHEET	7 OF 11

F-10-078

P:\1915\dwg\Phase 2 Section 2\7023_s05-07.dwg, 8/20/2014 2:27:27 PM

SOILS LEGEND

MAP SYMBOL	SOIL GROUP	SOIL TYPE
Ba*	D	BAILE SILT LOAM
CgB2	B	CHESTER GRAVELY SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
CgC2	B	CHESTER GRAVELY 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	ELSINBORO LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
GlA	B	GLENELG LOAM, 0 TO 3 % SLOPES
GlC2	B	GLENELG LOAM, 8 TO 15 % SLOPES, MODERATELY ERODED
GlC3	B	GLENELG LOAM, 8 TO 15 % SLOPES, SEVERELY ERODED
GnB2*	C	GLENVILLE SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
Ho*	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
MlB2	B	MANOR LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
MlC3	B	MANOR LOAM, 8 TO 15 % SLOPES, SEVERELY ERODED
MlD2	B	MANOR LOAM, 15 TO 25 % SLOPES, MODERATELY ERODED
MlD3	B	MANOR LOAM, 15 TO 25 % SLOPES, SEVERELY ERODED
MlE	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

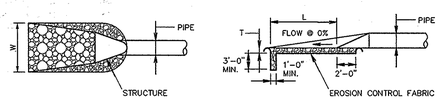
1. THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

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 HE RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS 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.

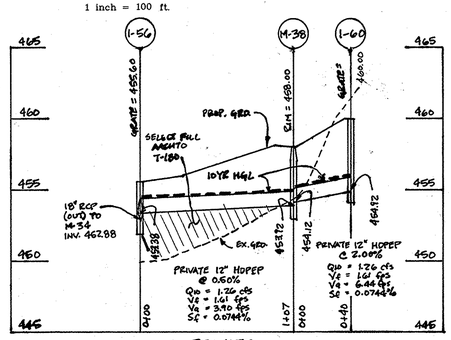


PLAN SECTION

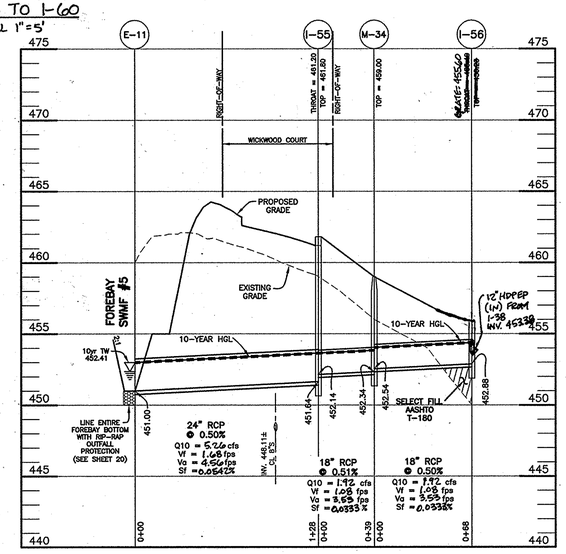
STRUCTURE	V10	d10	d50	LENGTH(L)	WIDTH(W)	THICK.(T)	SHA CLASS
E-11	4.87	1.08'	9.5"	FOREBAY	FOREBAY	19"	I

OUTLET PROTECTION DETAIL

NOT TO SCALE



PRIVATE
STORM DRAIN PROFILE I-56 TO I-60
SCALE: HORIZONTAL 1"=50'; VERTICAL 1"=5'



STORM DRAIN PROFILE E-11 TO I-56
SCALE: HORIZONTAL 1"=50'; VERTICAL 1"=5'

I-60	YARD	N 595922.3154 E 1346043.6050	—	—	454.92	460.00	NA	HO.CO.STD.D-4.14	—	PRIVATE

STRUCTURE TABLE

STRUCTURE	TYPE	LOCATION	INVERT IN	INVERT OUT	TOP ELEV.	THROAT ELEV.	STD. DETAIL	INLET NOTES	MAINTENANCE
INLETS									
I-55	A-5	CL STA. 1+52.15 WICKWOOD COURT LINEAR PROFILE	452.14	-	451.64	461.20	461.80	HO.CO.STD. D-4.01	3.0' WIDTH	PUBLIC
I-56	YARD	N 595898.2096 E 1345911.3908	453.38	-	452.88	455.60	NA	HO.CO.STD. D-4.14	—	PRIVATE
M-34	4' DIA	N 595965.7823 E 1345915.5554	452.54	-	452.34	459.00		HO.CO.STD. G-5.12		PRIVATE
E-11	18" CONC.	N 596115.78 E 1345892.57	-	-	451.00			D-5.51		PUBLIC
M-38	4' DIA	N 595891.0417 E 1346017.9575	454.12	—	453.97	458.00	—	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

Roger Scheuerman 9.5.14
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Kent Sheubrooks 9-09-14
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Chad Edwards 9-4-14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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	I-55	PGCC	0.85	0.63	74.5
P2S2	I-56	PGCC	0.30	0.29	38.0
P2S2	I-60	PGCC	0.66	0.29	38.0

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

NO.	DATE	REVISION
2	5-14-2015	ADD STORM DRAIN FROM I-56 TO I-60 ON LOTS 249-250. UPDATE PLAN, PROFILE, CHARTS
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.

BENCHMARK
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WWW.BEI-CMLENGINEERING.COM

Professional Certification. I hereby certify that those 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. 15257, Expiration Date: 6-30-2015.
STATE OF MARYLAND CHRISTOPHER ALAN MARCHESINI PROFESSIONAL ENGINEER
8/20/14

OWNER:
MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIP
1205 YORK ROAD, PENTHOUSE
LUTHERVILLE, MARYLAND 21093
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DEVELOPER:
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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 'D-1', 'E-1' AND 'F-1'

TAX MAP: 16, PARCEL: 401, GRID: 10
TAX MAP: 16, PARCEL: PO 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: PGCC

REVISED STORM DRAIN DRAINAGE AREA MAP, PROFILES AND DETAILS

DATE:	APRIL, 2010	BEI PROJECT NO.	1915
SCALE:	AS SHOWN	SHEET	8 OF 11

F-10-078

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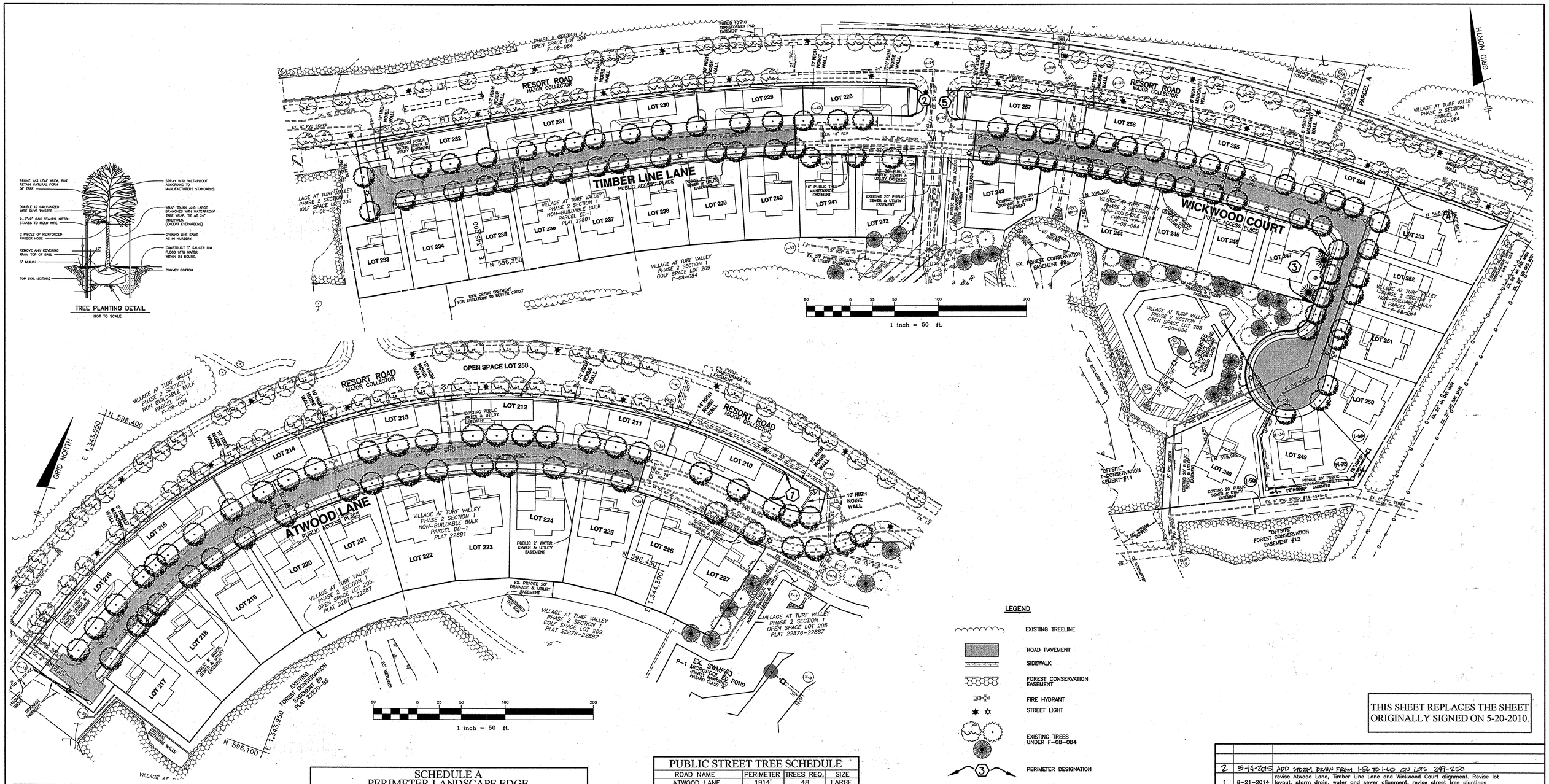

TREE PLANTING DETAIL

NOT TO SCALE

LEGEND

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

LANDSCAPE NOTES:

1. STREET TREES TO BE CENTERED BETWEEN THE CURB AND SIDEWALK WHERE THE DISTANCE BETWEEN THE CURB AND SIDEWALK IS 6 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.

2. 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.

3. 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.

4. 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.

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 'GREENSPIRE' (Greenspire Littleleaf Linden)	2 1/2" -3" cal.	TO BE PLANTED ALONG ATWOOD LANE, TIMBER LINE LANE AND WICKWOOD COURT. TO BE PROVIDED BY THE DEVELOPER.

PERIMETER LANDSCAPE PLANTING LIST

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

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	TOTALS
LANDSCAPE TYPE	B 1:50 shade 1:40 evergreen	B 1:50 shade 1:40 evergreen	B 1:50 shade 1:40 evergreen	B 1:50 shade 1:40 evergreen	B 1:50 shade 1:40 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* 100%	YES* 100%	NO	YES* 100%	YES* 100%	
NUMBER OF PLANTS REQUIRED						
SHADE TREES	0	0	1	0	0	1
EVERGREEN TREES	0	0	2	0	0	2
OTHER TREES (2:1 SUBSTITUTE)	–	–	–	–	–	–
SHRUBS	–	–	–	–	–	–
NUMBER OF PLANTS PROVIDED						
SHADE TREES	0	0	1	0	0	1
EVERGREEN TREES	0	0	2	0	0	2
OTHER TREES (2:1 SUBSTITUTE)	–	–	–	–	–	–
SHRUBS	–	–	–	–	–	–

*NOISE WALL

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 — DATE 8/22/14

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 9.5.14

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9-09-14

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9.4.14

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

NO.	DATE	REVISION
2	5-14-2015	ADD STORM DRAIN FROM I-56 TO I-60 ON LOTS 249-250
1	8-21-2014	revise Atwood Lane, Timber Line Lane and Wickwood Court alignment. Revise lot layout, storm drain, water and sewer alignment. revise street tree plantings accordingly.

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (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. 22399, Expiration Date: 6-30-2015.
STATE OF MARYLAND — CHRISTOPHER ALAN MALKUS — No. 22399 — REGISTERED PROFESSIONAL ENGINEER
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
TAX MAP: 16, PARCEL: PO 8, GRID: 17
ELECTION DISTRICT NO. 3 - HOWARD COUNTY, MARYLAND - ZONED: POCC

REVISED PERIMETER LANDSCAPE AND STREET TREE PLAN

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

F-10-078

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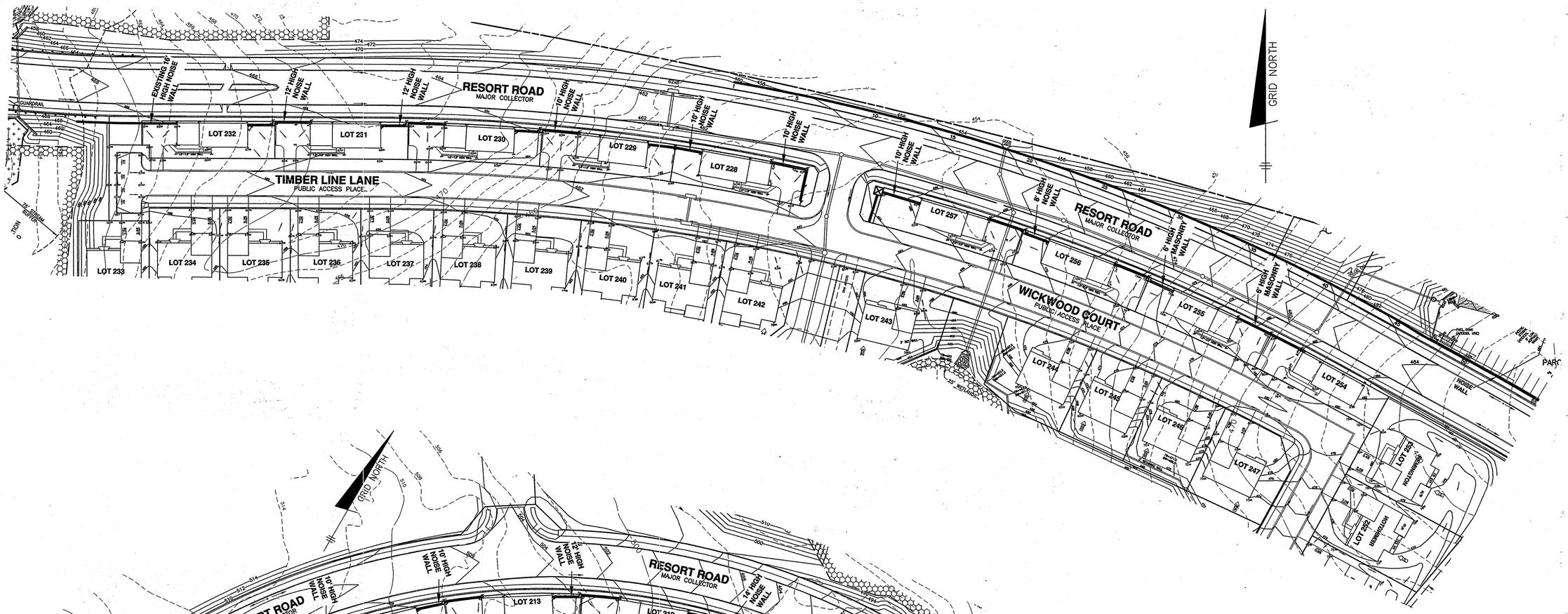

SEE SHEET 11 FOR PROFILES ALONG WALLS

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.

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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. 22340, Expiration Date: 6-30-2015.

STATE OF MARYLAND CHRISTOPHER ALAN MALAGASI REGISTERED PROFESSIONAL ENGINEER
8/22/14

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

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TAX MAP: 16, PARCEL: P/O 8, GRID: 17
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

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

APPROVED: DEPARTMENT OF PUBLIC WORKS
Holger Serrano 9-5-14
CHIEF, BUREAU OF HIGHWAYS DATE

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

Chad Edwards 9.4.14
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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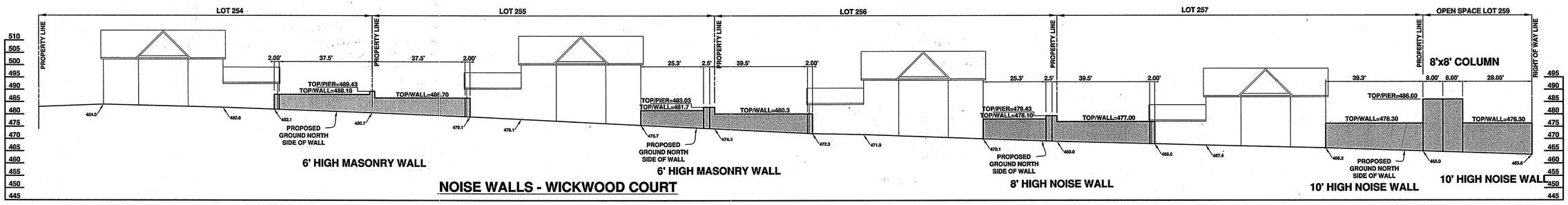
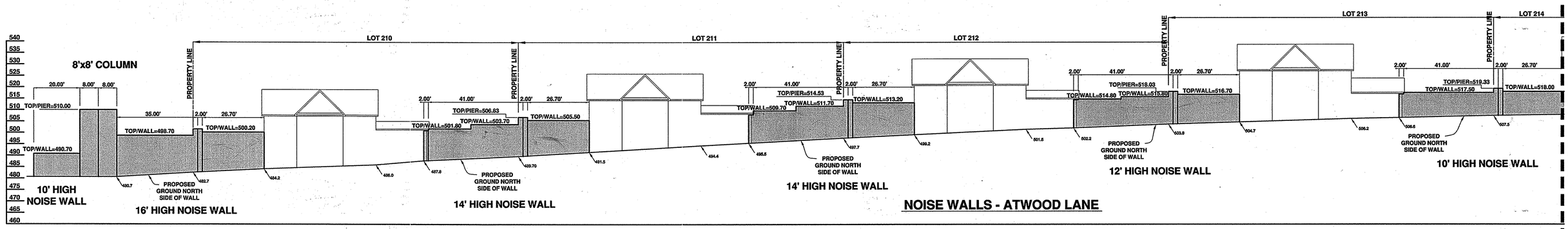
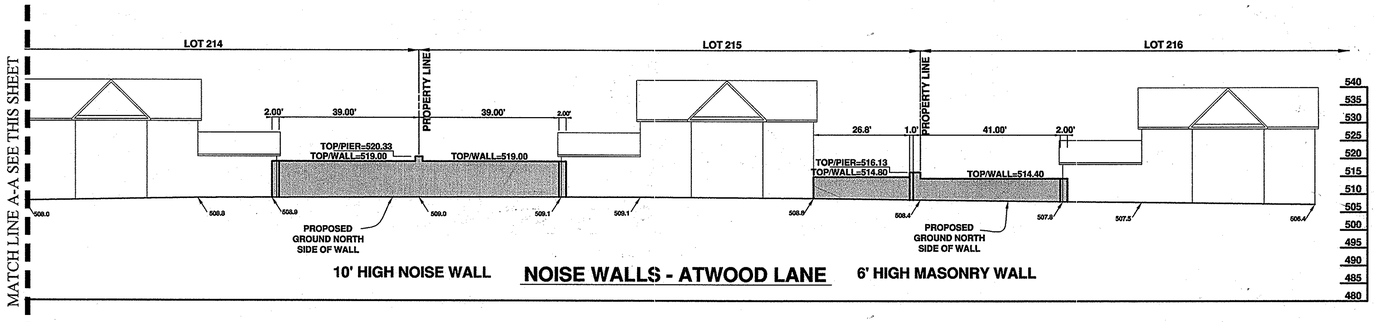


NOISE WALLS - WICKWOOD COURT



NOISE WALLS - ATWOOD LANE

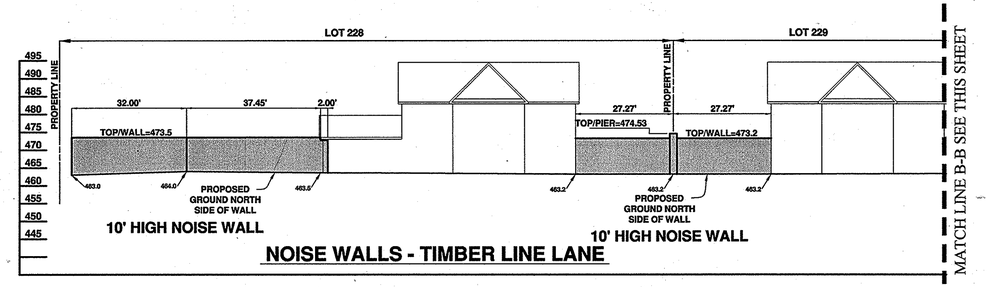
MATCH LINE A-A SEE THIS SHEET



NOISE WALLS - ATWOOD LANE

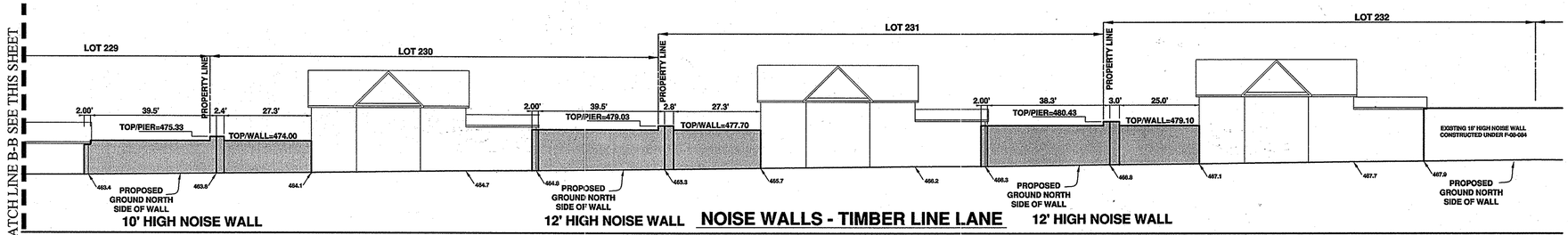
MATCH LINE A-A SEE THIS SHEET

MATCH LINE B-B SEE THIS SHEET

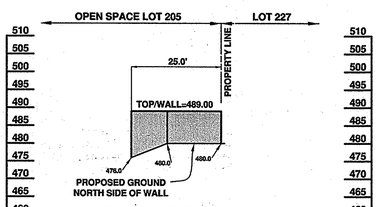


NOISE WALLS - TIMBER LINE LANE

MATCH LINE B-B SEE THIS SHEET



NOISE WALLS - TIMBER LINE LANE



NOISE WALL - LOT 227

1 inch = 20 ft.

NOTES:

1. PROFILES ARE SHOWN FACING THE NORTH SIDE OF THE WALL FROM RESORT ROAD.

2. 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.

3. 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.

4. FOUNDATION AND STRUCTURAL DETAILS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS WHEN FILING FOR PERMIT.

NO.	DATE	REVISION
1	8-21-2014	sheet added to show new noise wall profiles.

APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS — DATE 9.5.14

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 9-09-14

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 9.4.14

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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. 9[illegible] Expiration Date: 6-30-2015.

CHRISTOPHER ALAN KALBACH — STATE OF MARYLAND — PROFESSIONAL ENGINEER — 8/22/14

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NOISE WALL PROFILES

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

F-10-078

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