

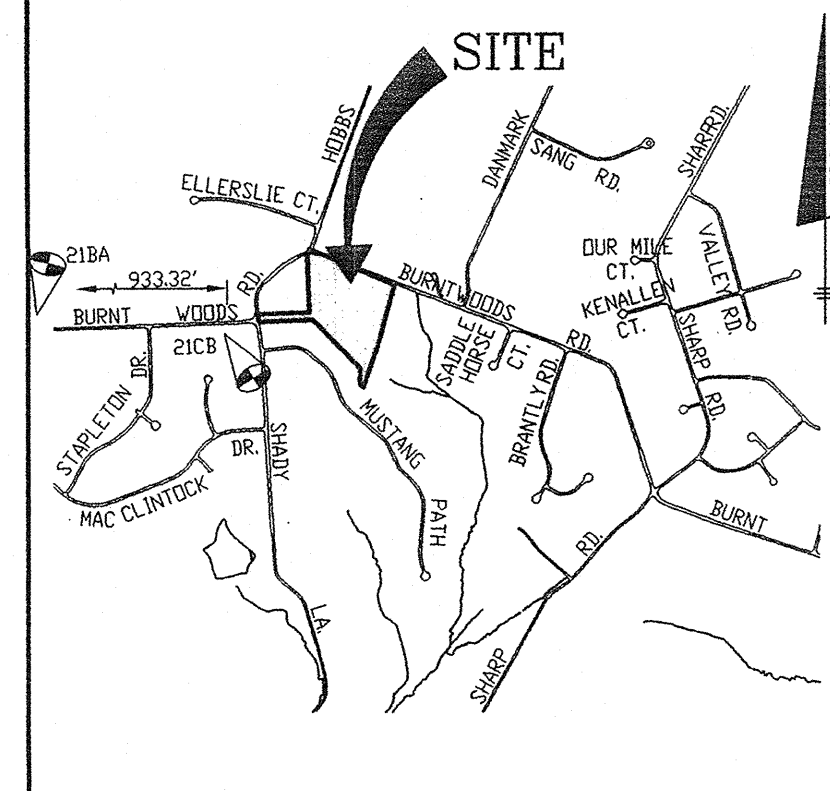
SHEET INDEX -- PRELIMINARY EQUIVALENT SKETCH PLAN	
NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN, ROAD PROFILE AND DETAILS
3	GRADING, SEDIMENT AND EROSION CONTROL PLAN AND SWM DETAILS
4	LANDSCAPE PLAN
5	FOREST CONSERVATION PLAN
6	PERCOLATION CERTIFICATION PLAN
7	ROAD IMPROVEMENT PLAN, ROAD SECTIONS AND MOT PLAN

# PRELIMINARY EQUIVALENT SKETCH PLAN

## NESHAWAT PROPERTY

### LOTS 1-7 NON-BUILDABLE BULK PARCELS A, B, D AND E AND BUILDABLE PRESERVATION PARCEL C

BENCHMARKS NAD'83 HORIZONTAL	
HO.CO. #21CB STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE N 588188.043	E 1306716.629'
HO.CO. #21BA STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE N 588125.184'	E 1303655.353'



#### SITE ANALYSIS DATA CHART

**GENERAL SITE DATA**

- PRESENT ZONING: RR-DEO
- APPLICABLE DPZ FILE REFERENCES: -
- PROPOSED USE OF SITE: RESIDENTIAL (SPD)
- PROPOSED WATER AND SEWER SYSTEMS: PRIVATE

**AREA TABULATION**

- GROSS TRACT AREA: 17.07±
- AREA WITHIN 100-YEAR FLOODPLAIN: 0.00 AC±
- TOTAL AREA OF 25% OR GREATER STEEP SLOPES: 0.00 AC±  
AREA NOT IN FLOODPLAIN (FOR NTA CALC): 0.00 AC±
- NET TRACT AREA: 17.07 AC±
- TOTAL NUMBER OF LOTS ALLOWED PER ZONING:  
1 UNIT PER 4.25 GROSS ACRES: 4  
1 UNIT PER 2 NET ACRES (MAX): 8
- TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION: 8
- AREA OF CLUSTER LOTS: 6.65 AC±
- AREA OF NON-BUILDABLE PRESERVATION PARCELS: 7.25 AC± (PARCELS A, B, D & E)
- AREA OF BUILDABLE PRESERVATION PARCELS: 2.26 AC±
- AREA OF NON-BUILDABLE BULK PARCELS: N/A
- AREA OF BUILDABLE BULK PARCELS: N/A
- AREA OF ROAD RIGHT-OF-WAY: 0.91 AC±
- OPEN SPACE ON-TOTAL SITE: N/A
- AREA OF RECREATIONAL OPEN SPACE REQUIRED: N/A

#### GENERAL STORAGE REQUIREMENT SUMMARY TABLES

##### SUMMARY OF GENERAL STORAGE REQUIREMENTS - D.A. #1

STEP	REQUIREMENT	VOLUME REQUIRED (AC.-FT.)	NOTES
1	WATER QUALITY VOLUME (WQv)	0.0642	PROVIDED WITHIN A MICRO-POOL EXTENDED DETENTION FACILITY
2	RECHARGE VOLUME (Rev)	0.0167 (OR 0.1773 ACRES)	Rev FOR D.A. 1A PROVIDED WITHIN GRASSED SWALES ELSEWHERE ON THE SITE
3	CHANNEL PROTECTION VOLUME (Cpv)	0.0678 AC. FT.	PROVIDED WITHIN A MICRO-POOL EXTENDED DETENTION FACILITY
4	OVERBANK FLOOD PROTECTION VOLUME (Op)	N/A	NOT REQUIRED
5	EXTREME FLOOD VOLUME (Of)	N/A	NOT REQUIRED

##### SUMMARY OF GENERAL STORAGE REQUIREMENTS - D.A. #2(SUB1)

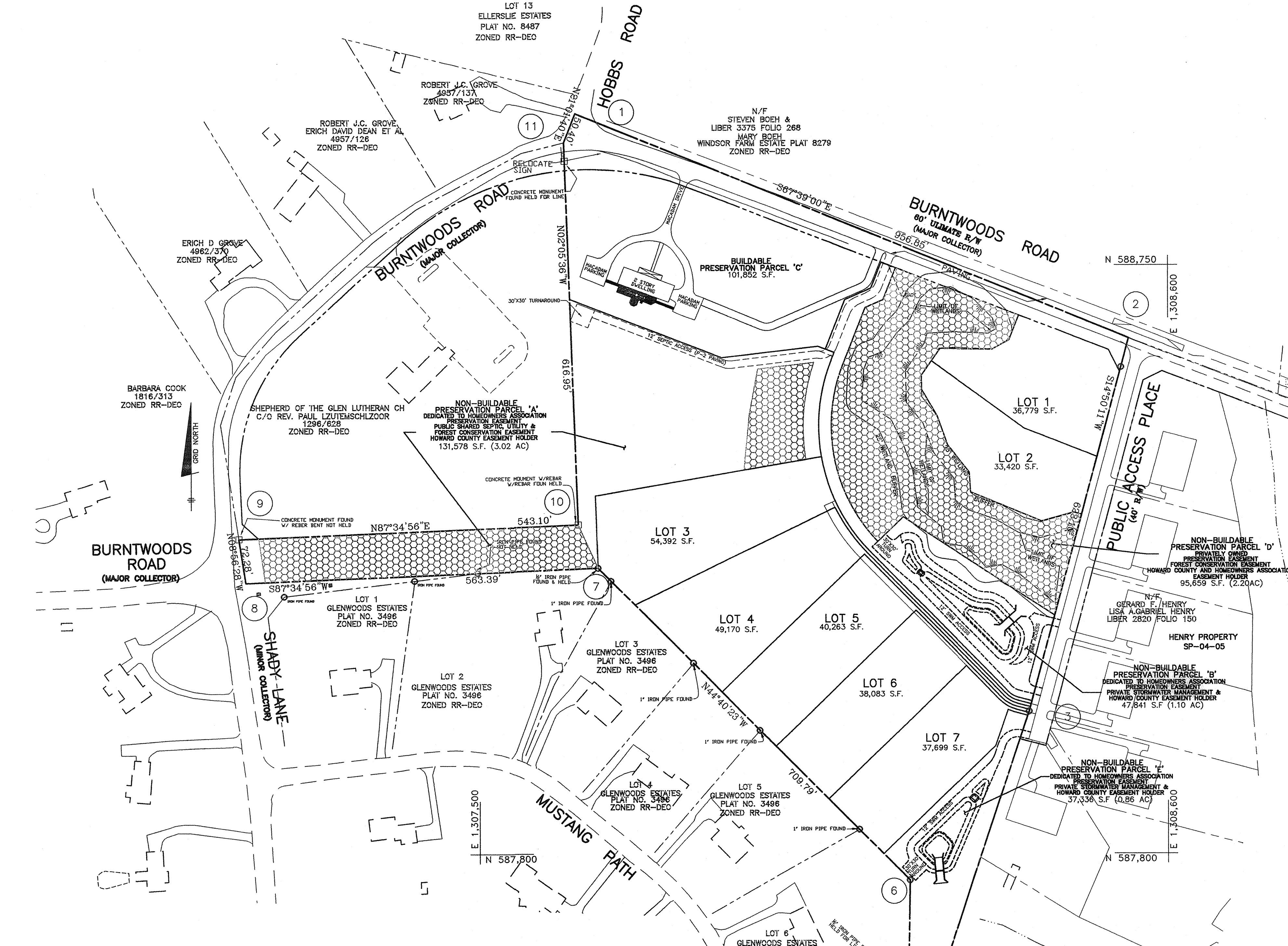
STEP	REQUIREMENT	VOLUME REQUIRED (AC.-FT.)	NOTES
1	WATER QUALITY VOLUME (WQv)	0.1061	PROVIDED WITHIN A MICRO-POOL EXTENDED DETENTION FACILITY
2	RECHARGE VOLUME (Rev)	0.0276 (OR 0.2944 ACRES)	Rev PROVIDED WITHIN GRASSED SWALES
3	CHANNEL PROTECTION VOLUME (Cpv)	0.1138 AC. FT.	PROVIDED WITHIN A MICRO-POOL EXTENDED DETENTION FACILITY
4	OVERBANK FLOOD PROTECTION VOLUME (Op)	N/A	NOT REQUIRED
5	EXTREME FLOOD VOLUME (Of)	N/A	NOT REQUIRED

##### SUMMARY OF GENERAL STORAGE REQUIREMENTS - D.A. #2 (SUB2)

STEP	REQUIREMENT	VOLUME REQUIRED (AC.-FT.)	NOTES
1	WATER QUALITY VOLUME (WQv)	0.0655	WQv PROVIDED WITH ROOFTOP AND NON-ROOFTOP DISCONNECT CREDIT
2	RECHARGE VOLUME (Rev)	0.0164 (OR 0.1591 ACRES)	Rev PROVIDED WITH ROOFTOP AND NON-ROOFTOP DISCONNECT CREDIT
3	CHANNEL PROTECTION VOLUME (Cpv)	N/A	Cpv NOT REQUIRED 1 YR. POST DEVELOPMENT DISCHARGE IS LESS THAN 2 CFS
4	OVERBANK FLOOD PROTECTION VOLUME (Op)	N/A	NOT REQUIRED
5	EXTREME FLOOD VOLUME (Of)	N/A	NOT REQUIRED

##### SUMMARY OF GENERAL STORAGE REQUIREMENTS - D.A. #3

STEP	REQUIREMENT	VOLUME REQUIRED (AC.-FT.)	NOTES
1	WATER QUALITY VOLUME (WQv)	0.0425	NO NEW IMPERVIOUS
2	RECHARGE VOLUME (Rev)	0.0111 (OR 0.1116 ACRES)	NO NEW IMPERVIOUS
3	CHANNEL PROTECTION VOLUME (Cpv)	N/A	Cpv NOT REQUIRED 1 YR. POST DEVELOPMENT DISCHARGE IS LESS THAN 2 CFS
4	OVERBANK FLOOD PROTECTION VOLUME (Op)	N/A	NOT REQUIRED
5	EXTREME FLOOD VOLUME (Of)	N/A </tr	



#### SWM DISCHARGE SUMMARY TABLES

##### DRAINAGE AREA 1

STORM FREQUENCY (YR)	EXISTING RUNOFF (cfs)	DEVELOPED DISCHARGE WITHOUT FACILITY (cfs)
1	0.12	1.30
10	3.10	7.06
100	6.63	13.03

##### DRAINAGE AREA 2

STORM FREQUENCY (YR)	EXISTING RUNOFF (cfs)	DEVELOPED DISCHARGE WITHOUT FACILITY (cfs)
1	1.59	2.86
10	18.62	19.02
100	38.50	36.41

##### DRAINAGE AREA 3

STORM FREQUENCY (YR)	EXISTING RUNOFF (cfs)	DEVELOPED DISCHARGE WITHOUT FACILITY (cfs)
1	0.65	0.65
10	4.70	4.70
100	9.08	9.08

#### MINIMUM LOT SIZE CHART

LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
3	54,392	2,160	52,232
4	49,170	1,749	47,421
5	40,263	1,172	39,091
6	38,083	608	37,475
7	37,699	158	37,541

#### COORDINATE CHART (NAD '83)

BOUNDARY COORDINATES		BOUNDARY COORDINATES	
No.	EAST	No.	EAST
1	588995.8686	7	588261.7402
2	588632.0110	8	588237.9742
3	588029.6890	9	588309.3765
4	587558.0449	10	588332.2866
5	587592.0578	11	588948.8278
6	587756.9846		1307634.6379

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

*Robert J. Walker* 10/31/05  
HOWARD COUNTY HEALTH OFFICER

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*M. H. W. W. W.* 11/14/05  
PLANNING DIRECTOR

#### GENERAL NOTES CONTINUED

- PERIMETER, STORM WATER MANAGEMENT AND STREET TREE PLANTINGS SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE LANDSCAPE MANUAL.
- LOTS 1-7 WILL DERIVE ACCESS ONTO THE PUBLIC ACCESS PLACE OF THE ADJOINING HENRY PROPERTY. (SP-05-04)
- WELLS SHALL BE PLACED AT THE FURTHEST PORTION OF THE WELL BOX. MAINTAIN 15' OF SEPARATION FROM ROADS AND R/W.
- THE MINIMUM LOT WIDTH AT BRL'S IS 100'.
- WELLS SHALL BE DRILLED BY A CERTIFIED WELL DRILLER PRIOR TO FINAL PLAN SIGNATURE PER HOWARD COUNTY HEALTH DEPARTMENT REQUIREMENTS.
- WELLER PETITION APPLICATION (WP 05-30) TO SECTION 16.120(A)(1) WAS DENIED BY HOWARD COUNTY.
- WELLER PETITION APPLICATION (WP 05-136) TO SECTION 16.120(A)(1) WAS APPROVED FOR THE RELOCATION OF THE EXISTING DRIVEWAY IN PRESERVATION PARCEL "C" AS INDICATED IN THE LETTER DATED AUGUST 9, 2005 FROM HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
- PRIOR TO DRILLING OF THE WELLS FOR LOTS 5, 6 AND 7 THE WELL DRILLER SHALL CONTACT HOWARD COUNTY DEPARTMENT OF HEALTH TO SCHEDULE AN ON-SITE MEETING TO VERIFY THE LOCATION OF THE PROPOSED WELLS.

- #### GENERAL NOTES
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS WITH THE EXCEPTION OF THE APPROVED WELLS.
  - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH 2-FOOT CONTOUR INTERVALS PREPARED BY BENCHMARK ENGINEERING INC. ON OR ABOUT NOVEMBER 2003.
  - 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. 21AB AND 21CB WERE USED FOR THIS PROJECT.
  - WATER IS PRIVATE.
  - SEWER IS PRIVATE FOR LOTS 3 AND 4 AND PARCEL 'C'. SEWER FOR LOTS 1,2 AND 5-7 WILL BE A PUBLIC SHARED SEPTIC AREA WITH PRIVATELY OWNED PRETREATMENT TANKS.
  - STORMWATER MANAGEMENT SHALL BE PROVIDED BY EXTENDED DETENTION PONDS WITH MICRO-POOLS AND GRASSED SWALES.
  - EXISTING UTILITIES ARE BASED UPON FIELD SURVEY LOCATIONS.
  - THERE IS NO FLOODPLAIN ON THIS SITE.
  - THE WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS INC. IN JANUARY, 2004.
  - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM AND ASSOC., INC. DATED JUNE, 2004.
  - A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
  - THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS CARNES ENGINEERING ASSOCIATES, INC.
  - THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE 2-2-04 COMPREHENSIVE ZONING PLAN. ALL ADJACENT PROPERTIES ARE ZONED RR-DEO PER THE 2-2-04 COMPREHENSIVE ZONING PLAN.
  - TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THIS SITE.
  - THERE SHALL BE NO DISTURBANCE WITHIN THE WETLANDS OR THEIR BUFFERS UNLESS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
  - BOUNDARY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY PERFORMED DURING NOVEMBER, 2003 BY BENCHMARK ENGINEERING INC.
  - FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS IN SEPTEMBER, 2004.
  - THIS PROJECT IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
  - THE STORMWATER MANAGEMENT SYSTEM SHOWN ON THIS PLAN IS AN APPROXIMATION OF THE SIZE, SHAPE AND LOCATION. IT IS UNDERSTOOD THAT THIS SYSTEM HAS NOT BEEN DESIGNED AND THE ACTUAL DESIGN MAY CHANGE ALTERING THE NUMBER OF UNITS ALLOWED FOR THIS DEVELOPMENT.
  - THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
  - THE PURPOSE OF THE PRESERVATION PARCELS AND THE JUSTIFICATION FOR THE DESIGN OF THE CLUSTER SUBDIVISION IS AS FOLLOWS:  
PRESERVATION PARCEL 'A' IS PROPOSED AS NON-BUILDABLE PARCEL FOR A COMMUNITY SEPTIC FIELD IN ORDER TO PROVIDE SEWAGE DISPOSAL FOR LOTS 1,2,3,4,7 AND A FOREST. CONSERVATION EASEMENT AND WILL BE DEDICATED TO THE HOMEOWNERS ASSOCIATION.  
PRESERVATION PARCEL 'B' IS PROPOSED AS A NON-BUILDABLE PARCEL FOR THE SOLE PURPOSE TO PROVIDE STORMWATER MANAGEMENT, AND WILL BE DEDICATED TO THE HOMEOWNERS ASSOCIATION.  
PRESERVATION PARCEL 'C' IS PROPOSED AS A BUILDABLE PRESERVATION PARCEL AND WILL BE PRIVATELY OWNED, HOWARD COUNTY AND THE HOME OWNERS ASSOCIATION WILL BE THE EASEMENT HOLDERS.  
PRESERVATION PARCEL 'D' IS PROPOSED AS A NON-BUILDABLE PRESERVATION PARCEL TO PROTECT THE ENVIRONMENTALLY SENSITIVE AREAS, INCLUDING WETLANDS AND FOREST CONSERVATION RESTORATION. IT WILL BE PRIVATELY OWNED, HOWARD COUNTY AND THE HOME OWNERS ASSOCIATION WILL BE THE EASEMENT HOLDERS.  
PRESERVATION PARCEL 'E' IS PROPOSED AS A NON-BUILDABLE PRESERVATION PARCEL TO PROTECT THE ENVIRONMENTALLY SENSITIVE AREAS, INCLUDING WETLANDS AND FOREST CONSERVATION RESTORATION. IT WILL BE PRIVATELY OWNED, HOWARD COUNTY AND THE HOME OWNERS ASSOCIATION WILL BE THE EASEMENT HOLDERS.
  - FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH THE FOREST CONSERVATION MANUAL SHALL BE FULFILLED BY THE PLACEMENT OF 3.4 ACRES OF PLANTINGS INTO AN EASEMENT AREA WHICH IS SUFFICIENT TO MEET THE BREAK-EVEN POINT OF REQUIRED AFForestation. EXCESS EASEMENT AREA CAN NOT BE CREDITED TOWARDS ANY OTHER SITE.
  - WELL # 94-3266 SHALL BE ABANDONED PRIOR TO CONSTRUCTION BY A CERTIFIED WELL DRILLER PER HOWARD COUNTY HEALTH DEPARTMENT REQUIREMENTS.
  - THERE IS AN EXISTING RESIDENCE WHICH IS TO REMAIN LOCATED ON BUILDABLE PRESERVATION PARCEL C.
  - THE SHARED SEPTIC SYSTEM IS SUBJECT TO HEALTH DEPARTMENT REQUIREMENTS AND ACCEPTANCE BY THE DEPARTMENT OF PUBLIC WORKS.

#### OVERALL DENSITY EXCHANGE CHART

GROSS AREA	17.07 AC.±
NET TRACT AREA	17.07 AC.±
DWELLING UNITS ALLOWED (as matter of right)	17.07 AC.± @ 1 DU per 4.25 GROSS ACRES = 4
MAXIMUM DWELLING UNITS ALLOWED W/ CEO'S	17.07 AC.± @ 1 DU per 2.00 NET ACRES = 8.5
PROPOSED DWELLING UNITS	7 + 1 EXISTING DWELLING = 8
NUMBER OF CEO UNITS TO BE RECEIVED	8 - 4 (base density) = 4
SENDING PARCEL INFORMATION	SUBDIVISION NAME: HOOVER PROPERTY TAX MAP 2 PARCEL 184

### BENCHMARK ENGINEERING, INC.

ENGINEERS & LAND SURVEYORS & PLANNERS

8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
phone: 410-465-6105 & fax: 410-465-6644  
www.bei-civilengineering.com

*Donald M. Man*  
10/17/05

OWNER/DEVELOPER: GHASSANI NESHAWAT  
14445 BURNT WOODS ROAD  
GLENWOOD, MD 21738-9530

PROJECT: NESHAWAT PROPERTY  
LOTS 1 TO 7, NON-BUILDABLE BULK PARCELS  
A, B, D & E AND BUILDABLE PRESERVATION PARCEL C

LOCATION: TAX MAP 21  
PARCEL 138 - GRID 5  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN  
TITLE SHEET

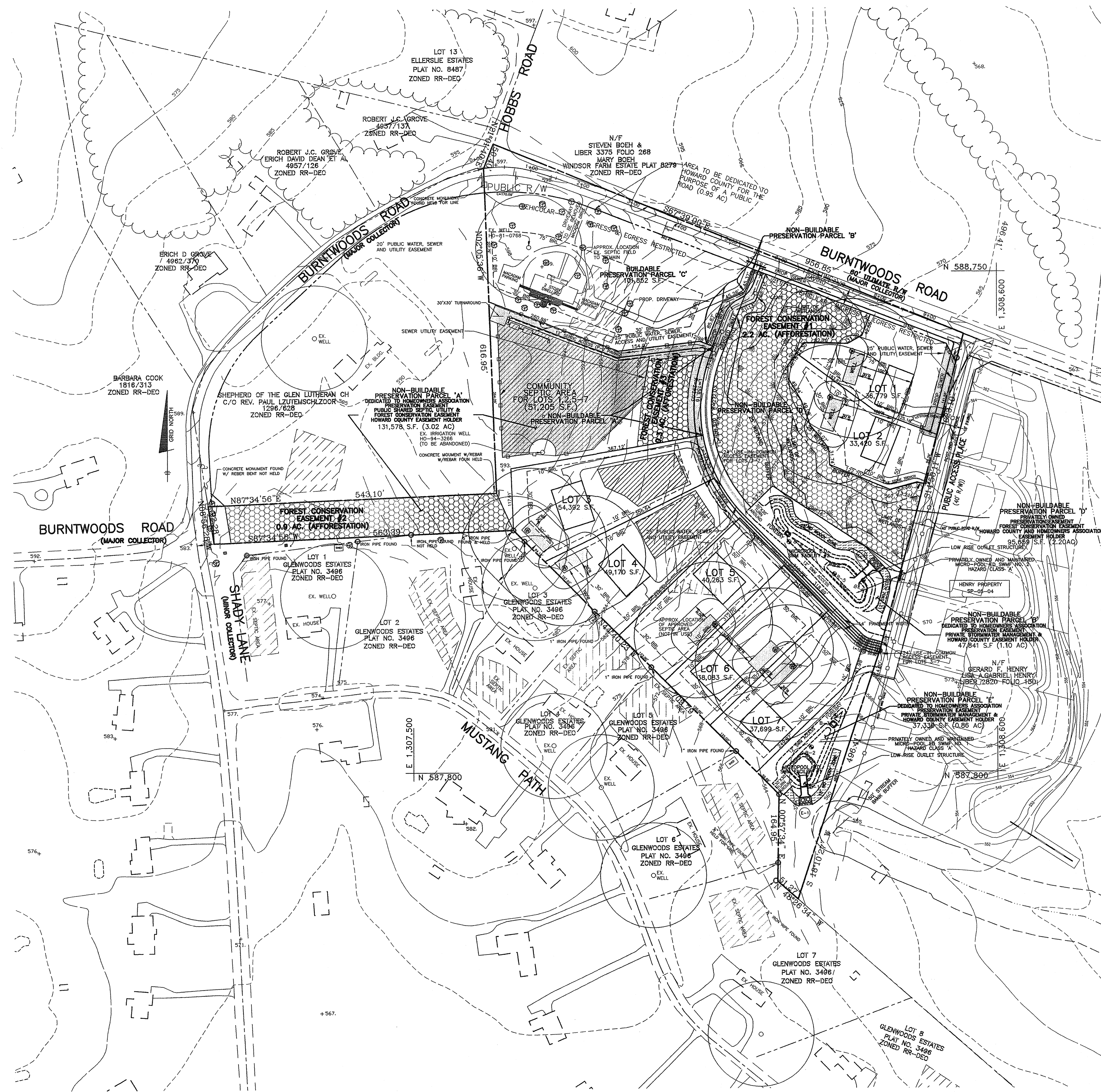
DATE: JANUARY 2004  
SEPTEMBER 2005

PROJECT NO. 1662

DESIGN: BFC DRAFT: BFC CHECK: DAM

SCALE: AS SHOWN SHEET 1 OF 7





**LEGEND**

- EXISTING CONTOURS
- PROPOSED CONTOURS
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- EXISTING WELL
- PROPOSED WELL AREA
- EXISTING SEPTIC FIELD
- PROPOSED SEPTIC FIELD
- FOREST CONSERVATION EASEMENT
- NO WOODY BUFFER
- 2" GRIND AND OVERLAY
- SPLIT RAIL FENCE

**STORMWATER MANAGEMENT FACILITIES ELEVATION TABLE**

FACILITY NO. 1	
VOLUME	ELEVATION
WQv	583.15'
Cpv	583.90'
100yr	584.50'

FACILITY NO. 2	
VOLUME	ELEVATION
WQv	571.11'
Cpv	572.14'
100yr	573.00'

NOTE: WQv AND Cpv ARE STORAGE ELEVATIONS AND THE 100YR IS A PRELIMINARY SURFACE ELEVATION.

**PLAN**  
SCALE: 1" = 100'

14' PAVEMENT WIDTH  
24' USE-IN-COMMON ACCESS EASEMENT FOR LOTS 3-7

USE-IN-COMMON  
SCALE: 1" = 20'

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM  
HOWARD COUNTY HEALTH DEPARTMENT

*Robert Walden*  
HOWARD COUNTY HEALTH OFFICER  
DATE: 10/2/05

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

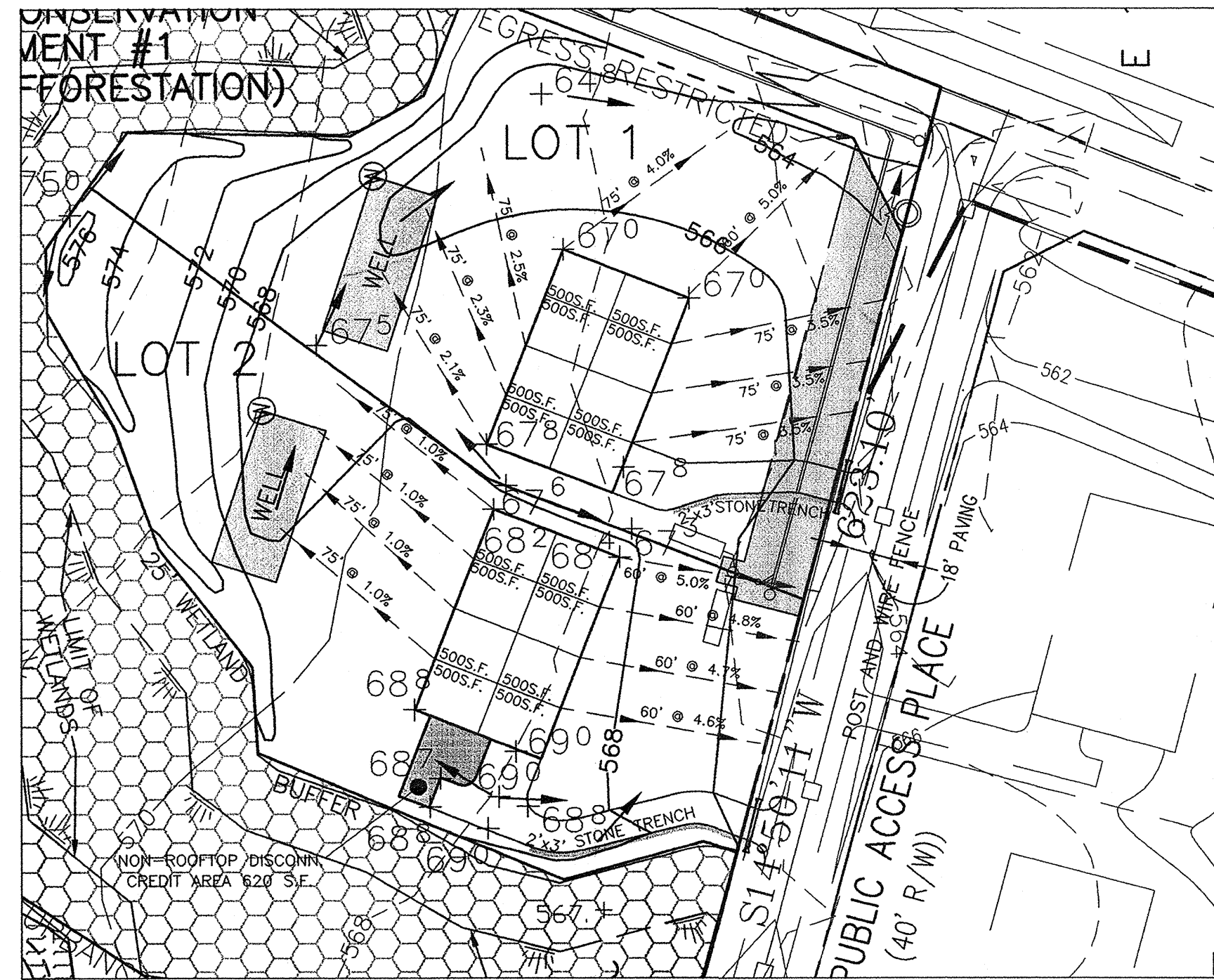
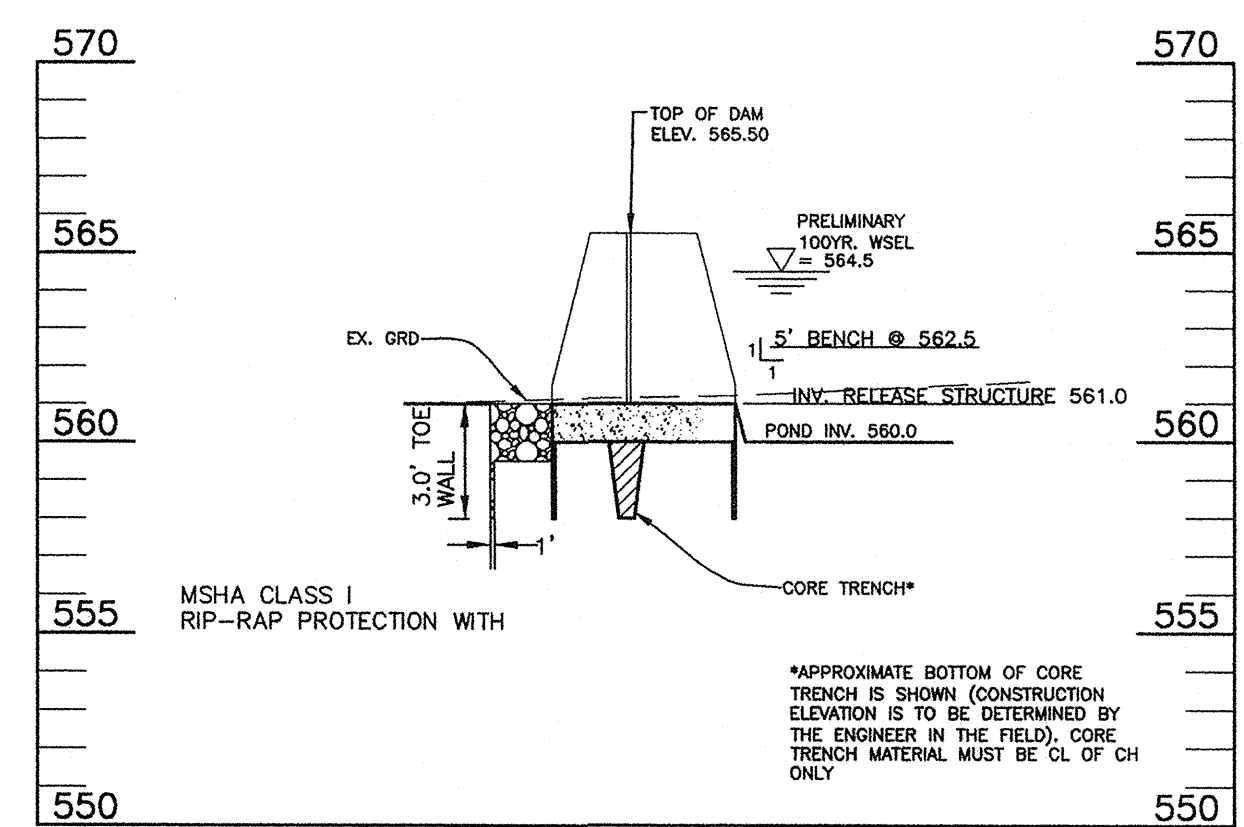
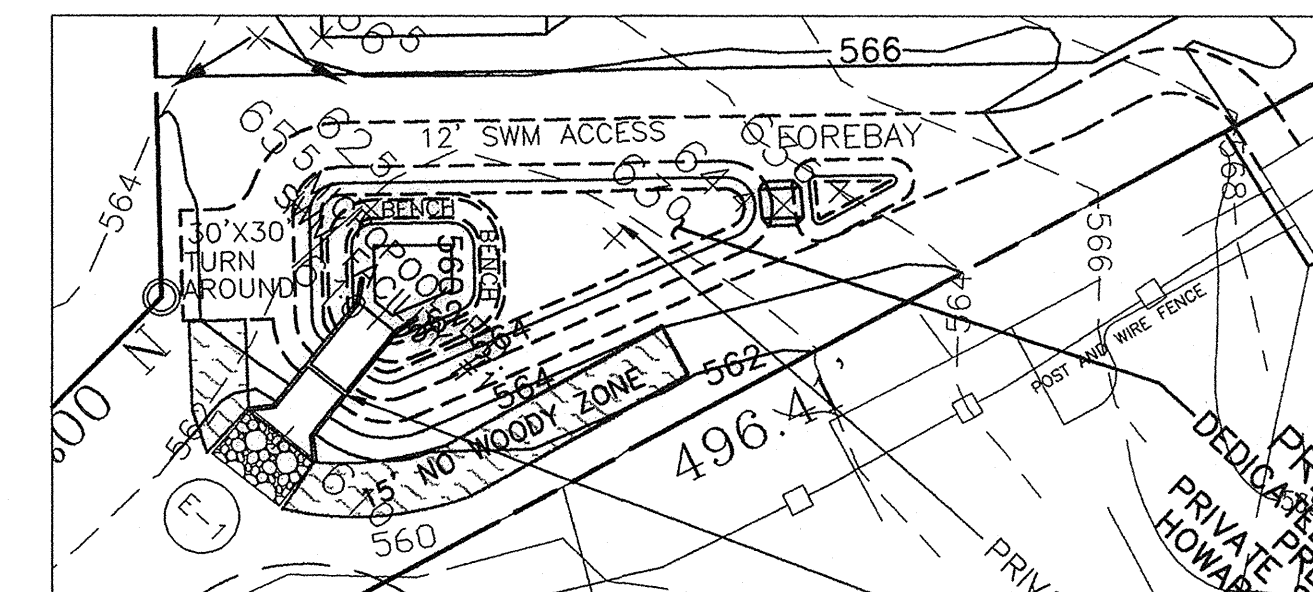
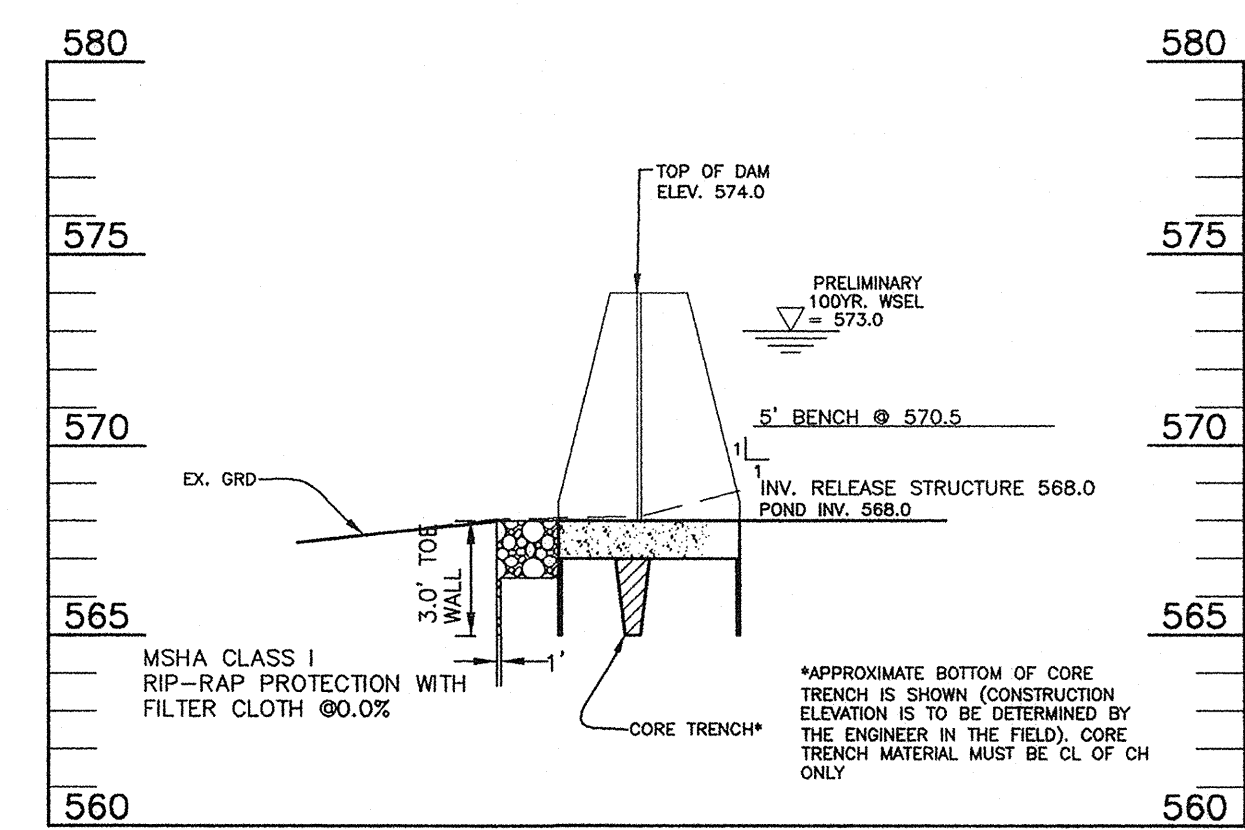
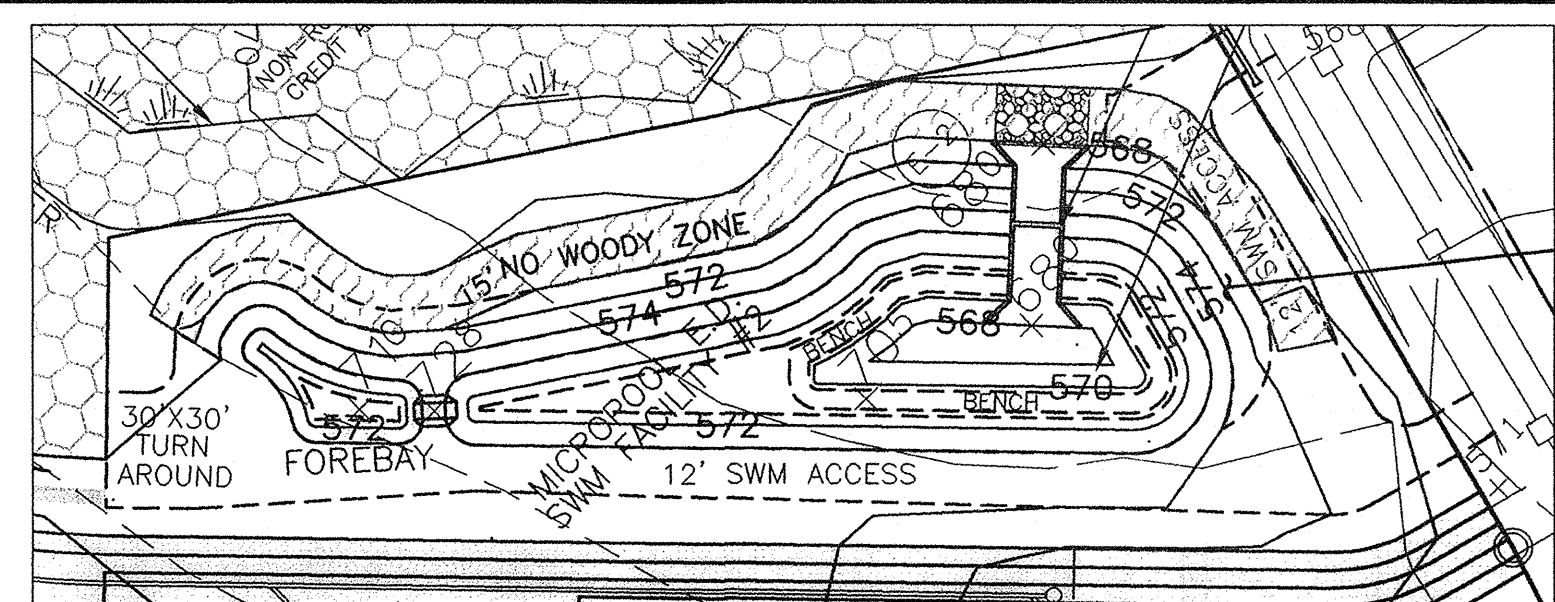
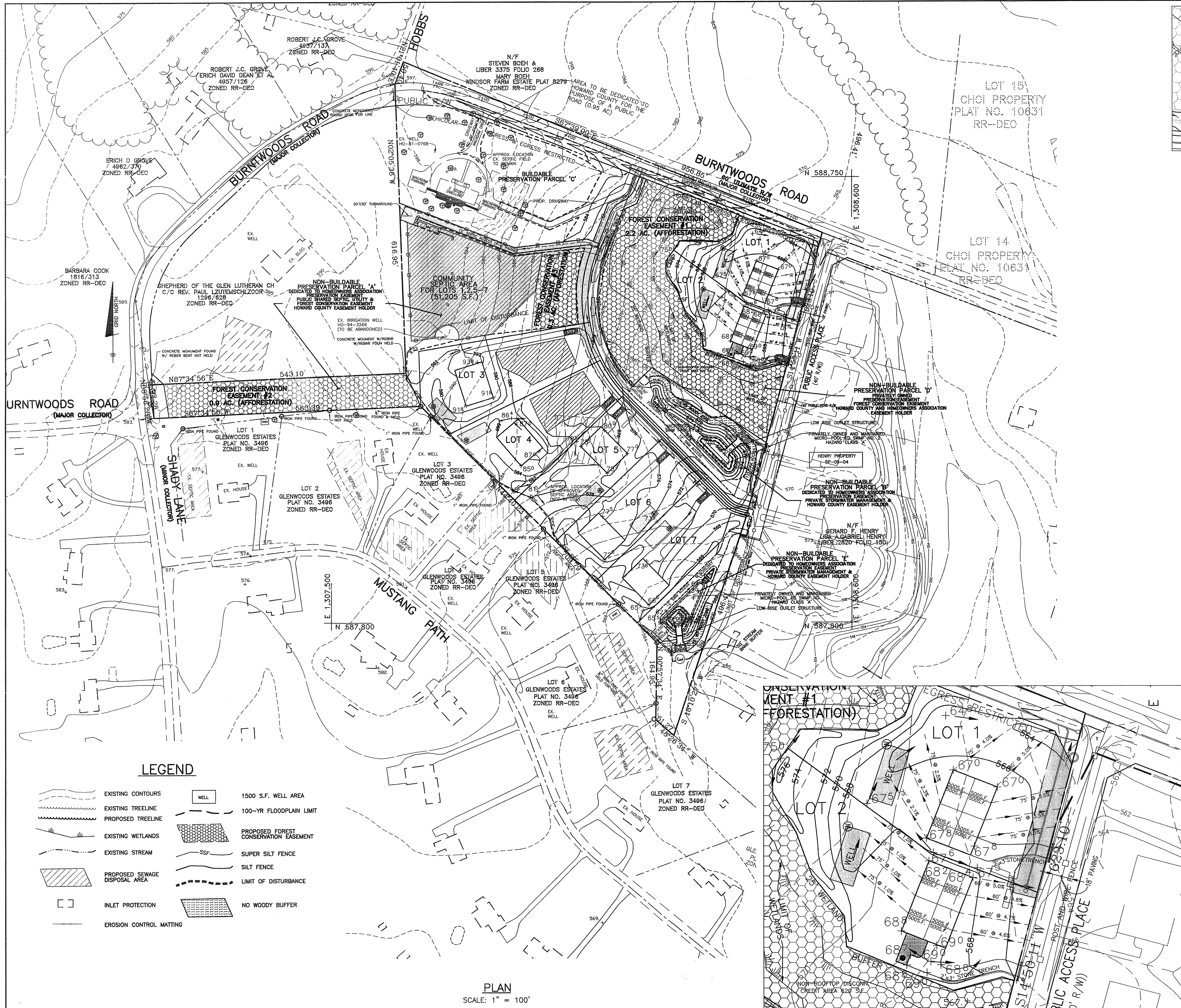
*Mark Drayton*  
PLANNING DIRECTOR  
DATE: 11/4/05

**BENCHMARK**  
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8480 BALTIMORE NATIONAL PIKE & SUITE 418  
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PHONE: 410-465-6105 FAX: 410-465-6644  
www.bei-civilengineering.com

*Donald Moran*  
DATE: 10/17/05

OWNER: GHASSANI NESHAWAT 14445 BURNT WOODS ROAD GLENWOOD, MD 21738-9530	PROJECT: <b>NESHAWAT PROPERTY</b> LOTS 1 TO 7, NON-BUILDABLE BULK PARCELS A, B, D & E AND BUILDABLE PRESERVATION PARCEL C
DEVELOPER: SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLCOTT CITY, MD 21041-0417	LOCATION: TAX MAP 21 PARCEL 138 - GRID 5 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
Design: BFC Draft: BFC Check: DAM	TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN PRELIMINARY PLAN, ROAD PROFILES AND DETAILS
DATE: JANUARY 2005 SEPTEMBER 2005	PROJECT NO. 1662
SCALE: AS SHOWN	DRAWING 2 OF 7





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*Donald M. ...*  
11/17/05

OWNER: CHASSANI NESHAWAT  
14445 BURNWOODS ROAD  
GLENWOOD, MD 21738-9530

DEVELOPER: SECURITY DEVELOPMENT, L.L.C.  
P.O. BOX 417  
ELLCOTT CITY, MD 21041-0417

PROJECT: NESHAWAT PROPERTY  
LOTS 1 TO 7, NON-BUILDABLE BULK PARCELS  
A, B, D & E AND BUILDABLE PRESERVATION PARCEL C

LOCATION: TAX MAP 21  
PARCEL 138 - GRID 5  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN  
GRADING, SEDIMENT AND EROSION CONTROL PLAN  
AND SWM DETAILS

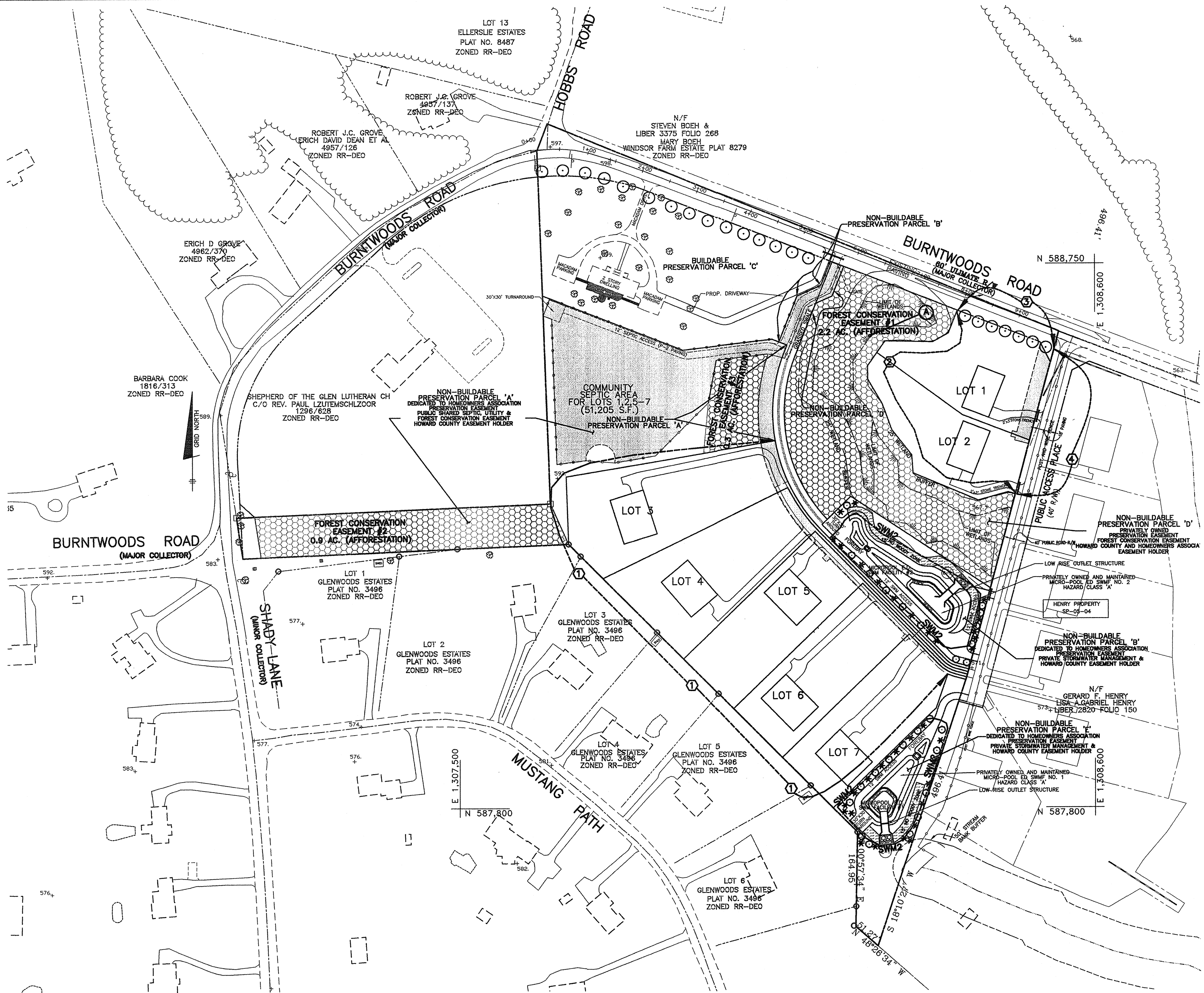
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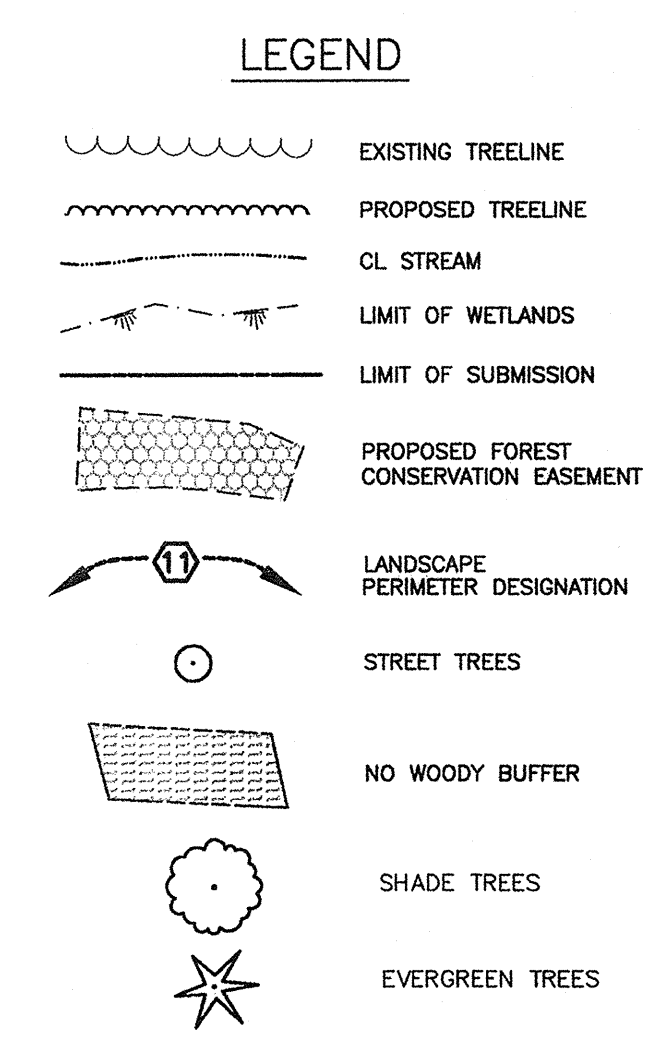
SCALE: AS SHOWN DRAWING 3 OF 7

Design: BFC Draft: BFC Check: DAM





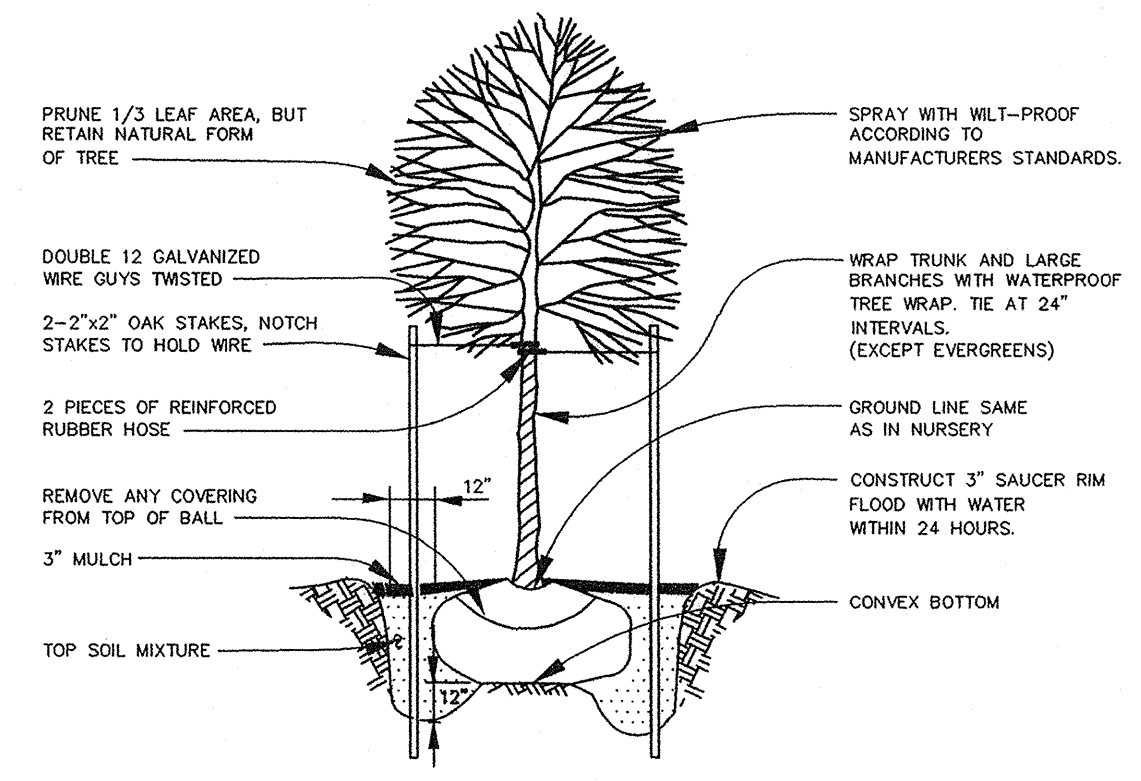
CATEGORY	ADJ. TO PERIMETER PROP.	ADJ. TO PERIMETER PROP.	ADJ. TO ROAD	ADJ. TO PERIMETER PROP.
	(1)	(2)	(3)	(4)
LANDSCAPE TYPE	A	N/A	B	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	1446'	605'	180'	263'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES 605'	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	1446'	0	180'	263'
SHADE TREES	25	-	4	5
EVERGREEN TREES	-	-	5	-
OTHER TREES (2:1 SUBSTITUTE) SHRUBS	-	-	-	-



	SWM1	SWM2
	LINEAR FEET OF PERIMETER	728'
LINEAR FEET OF EXISTING WOODS LINE	0	0
LINEAR FEET OF REQUIRED PLANTING	728'	616'
BUFFER TYPE	"B"	"B"
NUMBER OF TREES REQUIRED		
SHADE TREES	15	12
EVERGREEN TREES	18	15
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	NO	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO	NO

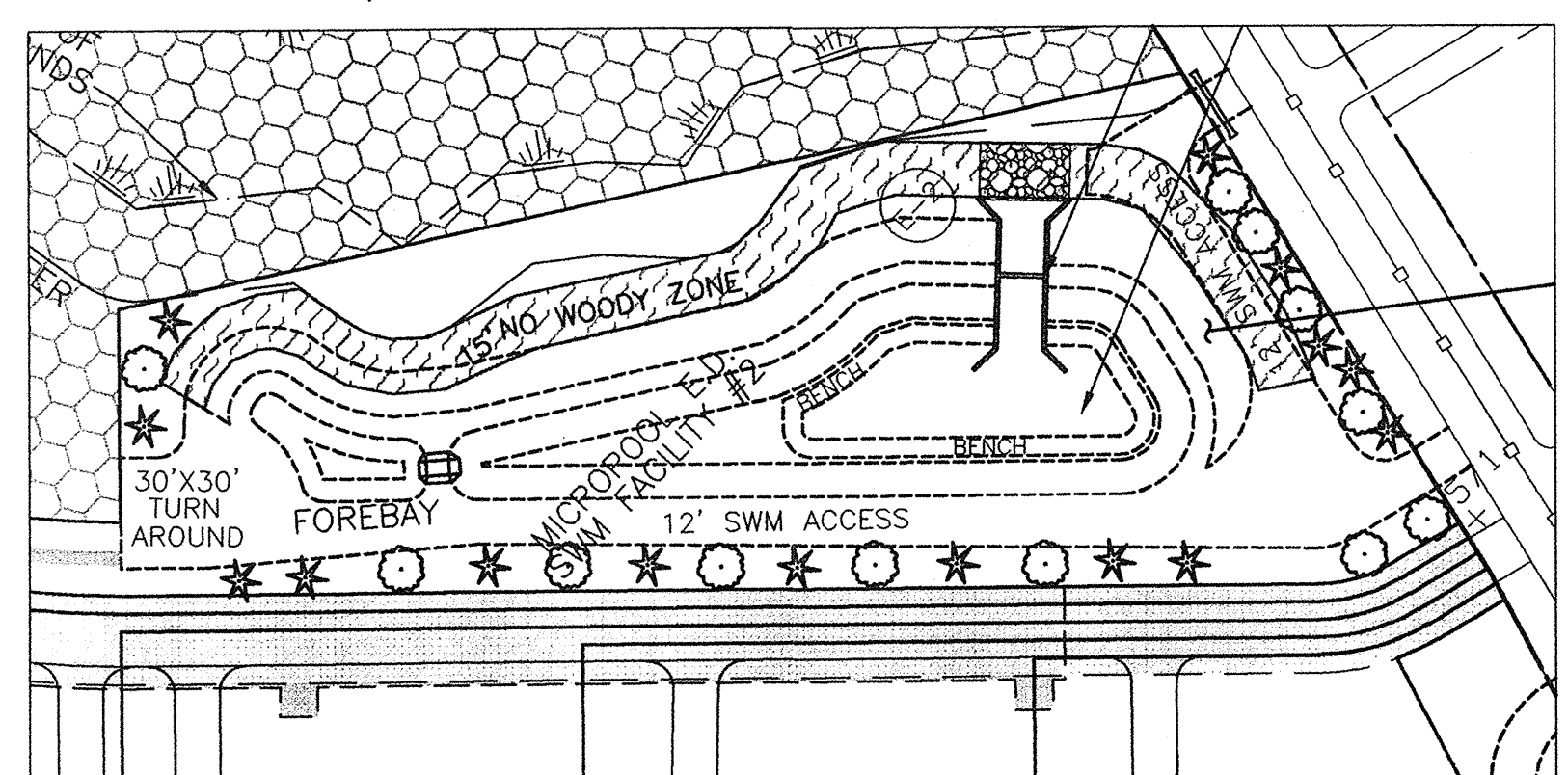
ROAD NAME	PERIMETER TREES REQ.
BURNTWOODS ROAD	871
	22

NOTE: LANDSCAPING FOR THIS SUBDIVISION IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.



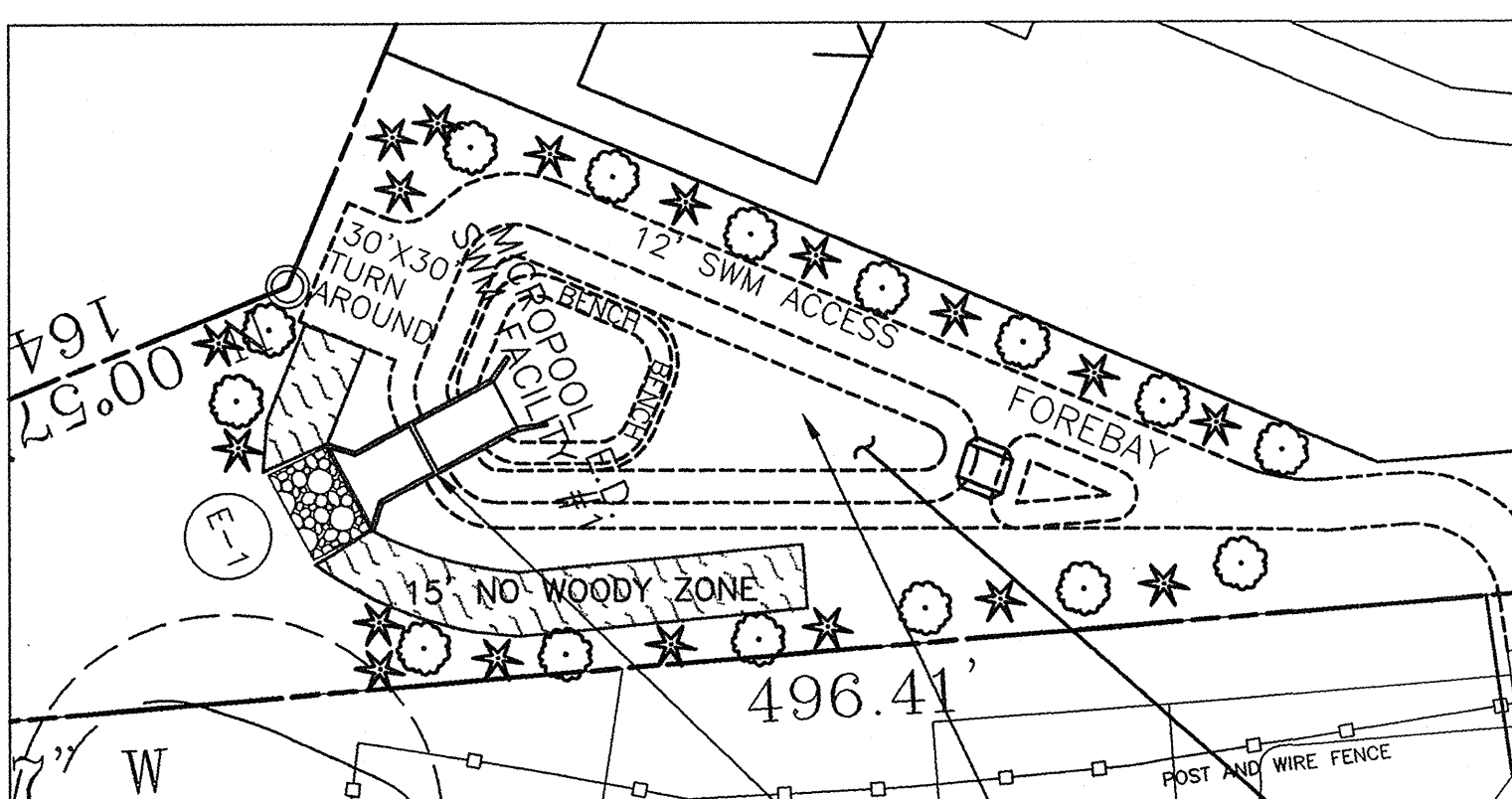
TREE PLANTING DETAIL  
NOT TO SCALE

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY  
*March 20, 2005*  
PLANNING DIRECTOR MKJ BB DATE 11/10/05



SWMF #2 LANDSCAPE PLAN  
SCALE: 1" = 50'

PLAN  
SCALE: 1" = 100'



SWMF #1 LANDSCAPE PLAN  
SCALE: 1" = 50'

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GLENWOOD, MD 21738-9530

DEVELOPER: SECURITY DEVELOPMENT, L.L.C.  
P.O. BOX 417  
ELLCOTT CITY, MD 21041-0417

PROJECT: NESHAWAT PROPERTY  
LOTS 1 TO 7, NON-BUILDABLE BULK PARCELS  
A, B, D & E AND BUILDABLE PRESERVATION PARCEL C

LOCATION: TAX MAP 21  
PARCEL 138 - GRID 5  
4th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

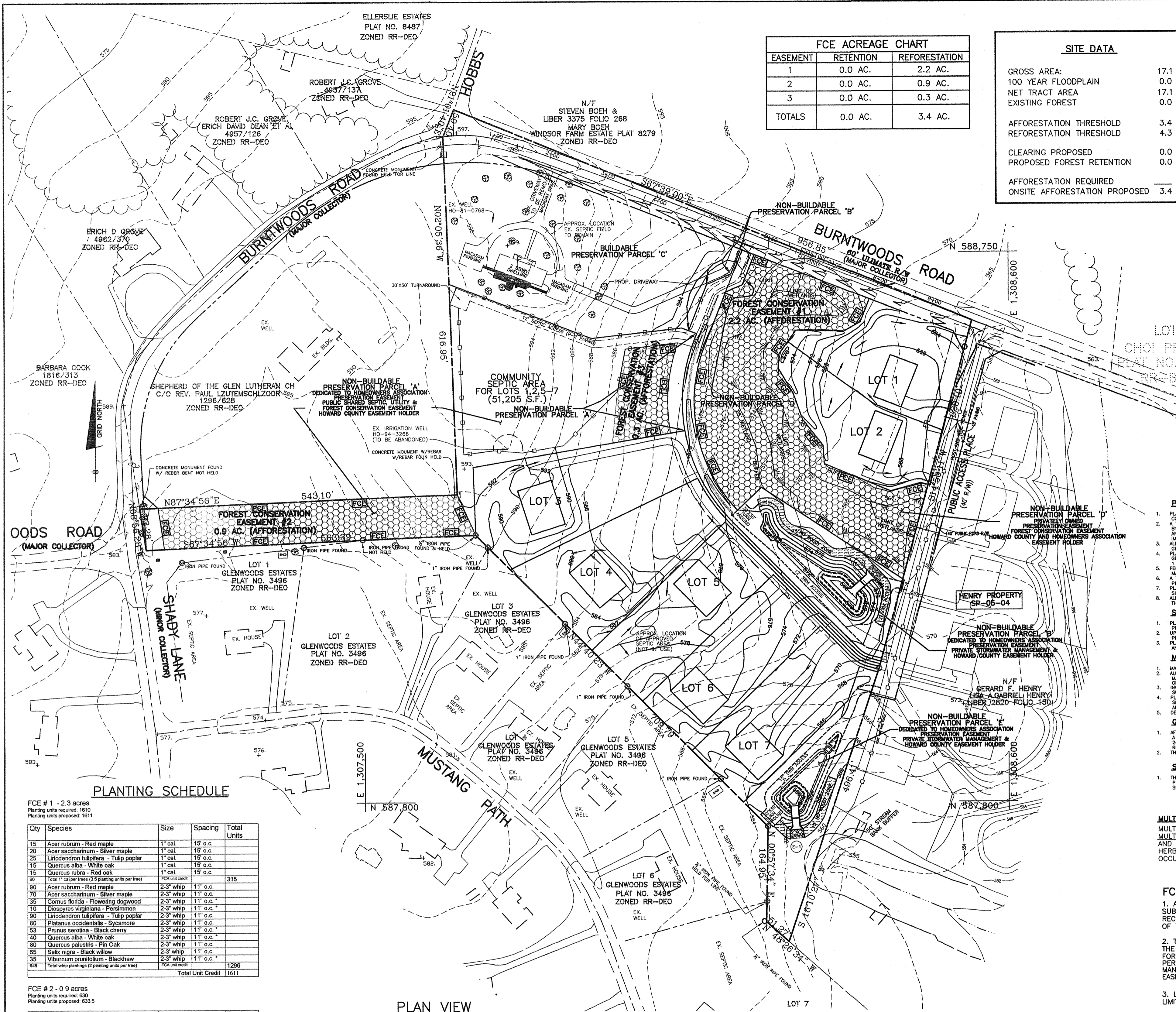
TITLE: PRELIMINARY EQUIVALENT SKETCH PLAN  
LANDSCAPE PLAN

DATE: JANUARY, 2005  
SEPTEMBER 2005

PROJECT NO. 1662

Design: BMC Draft: BMC Check: DAM SCALE: AS SHOWN DRAWING 4 OF 7

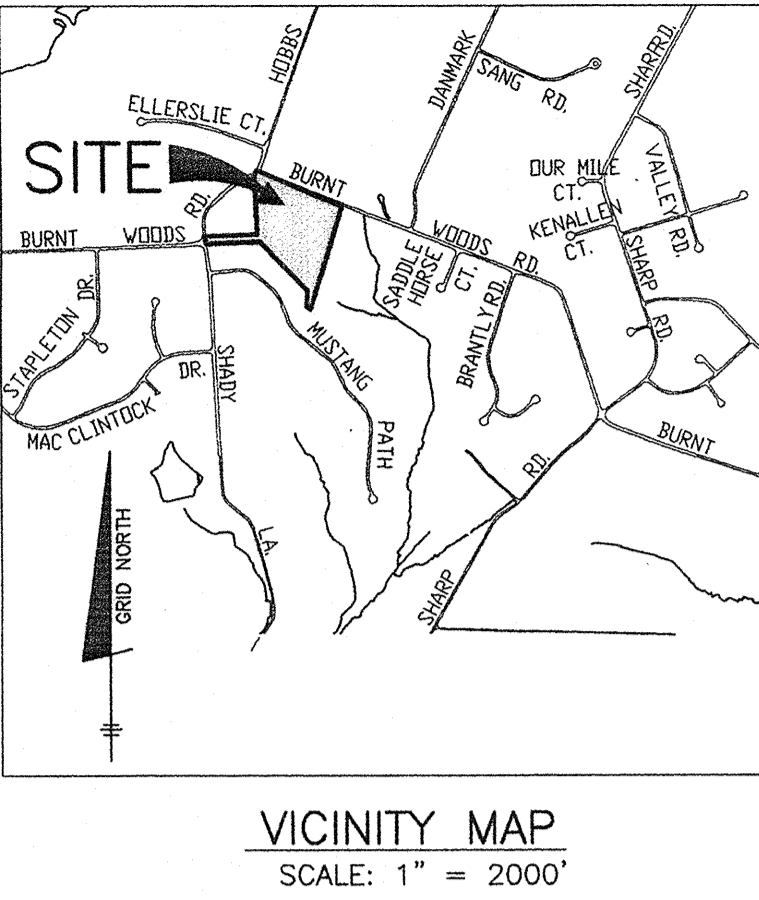
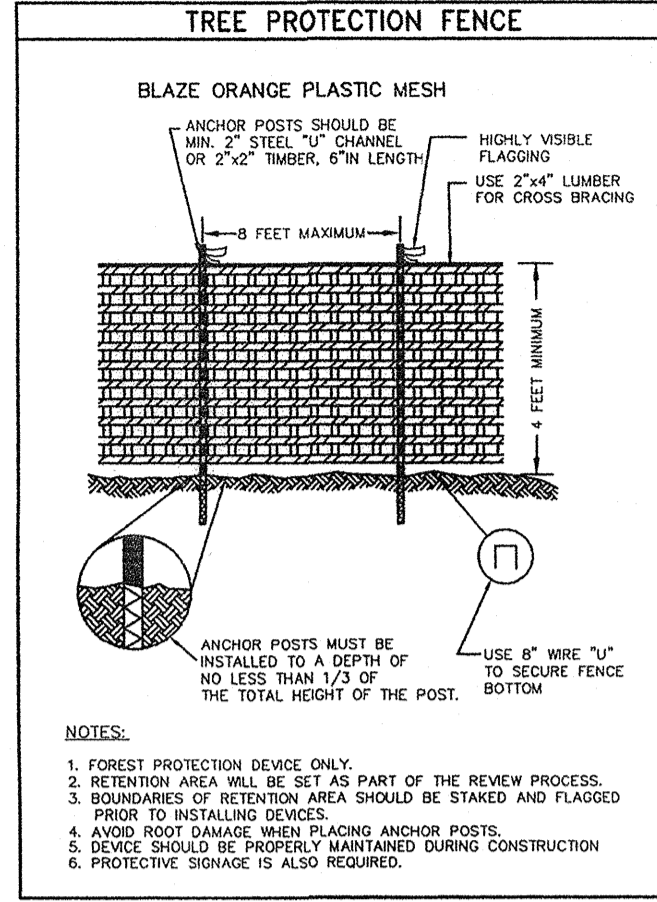




EASEMENT	RETENTION	REFORESTATION
1	0.0 AC.	2.2 AC.
2	0.0 AC.	0.9 AC.
3	0.0 AC.	0.3 AC.
TOTALS	0.0 AC.	3.4 AC.

GROSS AREA:	17.1
100 YEAR FLOODPLAIN:	0.0
NET TRACT AREA:	17.1
EXISTING FOREST:	0.0
AFFORESTATION THRESHOLD:	3.4
REFORESTATION THRESHOLD:	4.3
CLEARING PROPOSED:	0.0
PROPOSED FOREST RETENTION:	0.0
AFFORESTATION REQUIRED:	3.4
ON-SITE AFFORESTATION PROPOSED:	3.4

	EXISTING CONTOURS
	EXISTING TREELINE
	PROPOSED TREELINE
	EXISTING WETLANDS
	EXISTING STREAM
	EXISTING SLOPES 25% OR GREATER
	EXISTING SLOPES 15% - 24.99%
	100-YR FLOODPLAIN LIMIT
	SOILS DELINEATION LINE
	SOILS TYPE
	PROPOSED HOUSE AND DRIVEWAY LOCATION
	FOREST CONSERVATION SIGNAGE
	FOREST CONSERVATION EASEMENT



ACRES (1/10 acre)	ACRES (1/10 acre)
A. NET TRACT AREA	17.1
B. AFFORESTATION MINIMUM (20% x A)	3.4
C. EXISTING FOREST ON NET TRACT AREA	0.0
D. FOREST AREAS TO BE CLEARED	0.0
E. FOREST AREAS TO BE RETAINED	0.0

ACRES (1/10 acre)	ACRES (1/10 acre)
A. NET TRACT AREA	17.1
B. AFFORESTATION THRESHOLD (25% x A)	4.3
C. AFFORESTATION MINIMUM (20% x A)	3.4
D. EXISTING FOREST ON NET TRACT AREA	0.0
E. FOREST AREAS TO BE CLEARED	0.0
F. FOREST AREAS TO BE RETAINED	0.0

ACRES (1/10 acre)	ACRES (1/10 acre)
A. NET TRACT AREA	17.1
B. AFFORESTATION THRESHOLD (25% x A)	4.3
C. AFFORESTATION MINIMUM (20% x A)	3.4
D. EXISTING FOREST ON NET TRACT AREA	0.0
E. FOREST AREAS TO BE CLEARED	0.0
F. FOREST AREAS TO BE RETAINED	0.0

Qty	Species	Size	Spacing	Total Units	
15	Acer rubrum - Red maple	1" cal.	15' o.c.		
20	Acer saccharinum - Silver maple	1" cal.	15' o.c.		
25	Liriodendron tulipifera - Tulip poplar	1" cal.	15' o.c.		
15	Quercus alba - White oak	1" cal.	15' o.c.		
15	Quercus rubra - Red oak	1" cal.	15' o.c.		
90	Acer rubrum - Red maple	2 1/2" whp	11' o.c.	315	
70	Acer saccharinum - Silver maple	2 1/2" whp	11' o.c.		
35	Cornus florida - Flowering dogwood	2 1/2" whp	11' o.c.		
10	Diospyros virginiana - Persimmon	2 1/2" whp	11' o.c.		
80	Liriodendron tulipifera - Tulip poplar	2 1/2" whp	11' o.c.		
80	Platanus occidentalis - Sycamore	2 1/2" whp	11' o.c.		
53	Prunus serotina - Black cherry	2 1/2" whp	11' o.c.		
40	Quercus alba - White oak	2 1/2" whp	11' o.c.		
40	Quercus palustris - Pin oak	2 1/2" whp	11' o.c.		
65	Salix nigra - Black willow	2 1/2" whp	11' o.c.		
35	Viburnum prunifolium - Blackhaw	2 1/2" whp	11' o.c.		
548	Total whip trees (2 planting units per tree)	FCX unit credit		1296	
				Total Unit Credit	1611

Qty	Species	Size	Spacing	Total Units	
6	Acer rubrum - Red maple	2" cal.	20' o.c.		
6	Liriodendron tulipifera	2" cal.	20' o.c.		
6	Quercus alba - White oak	2" cal.	20' o.c.		
6	Quercus rubra - Red oak	2" cal.	20' o.c.		
70	Total 2" caliper trees (2 planting units per tree)	FCX unit credit		70	
12	Acer rubrum - Red maple	1" cal.	15' o.c.		
12	Liriodendron tulipifera - Tulip poplar	1" cal.	15' o.c.		
12	Quercus alba - White oak	1" cal.	15' o.c.		
9	Quercus rubra - Red oak	1" cal.	15' o.c.		
157.5	Total 1" caliper trees (2 planting units per tree)	FCX unit credit		157.5	
18	Acer rubrum - Red maple	2 1/2" whp	11' o.c.		
18	Cornus florida - Flowering dogwood	2 1/2" whp	11' o.c.		
15	Diospyros virginiana - Persimmon	2 1/2" whp	11' o.c.		
40	Liriodendron tulipifera - Tulip poplar	2 1/2" whp	11' o.c.		
35	Prunus serotina - Black cherry	2 1/2" whp	11' o.c.		
35	Quercus alba - White oak	2 1/2" whp	11' o.c.		
20	Sassafras albidum - Sassafras	2 1/2" whp	11' o.c.		
406	Total whip trees (2 planting units per tree)	FCX unit credit		406	
				Total Unit Credit	633.5

PLAN VIEW  
SCALE: 1" = 100'

PLANTING SCHEDULE CONTINUED

Qty	Species	Size	Spacing	Total Units	
2	Acer rubrum - Red maple	2" cal.	20' o.c.		
2	Liriodendron tulipifera	2" cal.	20' o.c.		
2	Quercus alba - White oak	2" cal.	20' o.c.		
2	Quercus rubra - Red oak	2" cal.	20' o.c.		
70	Total 2" caliper trees (2 planting units per tree)	FCX unit credit		70	
11	Acer rubrum - Red maple	1" cal.	15' o.c.		
11	Fraxinus pennsylvanica - Green ash	1" cal.	15' o.c.		
11	Liriodendron tulipifera - Tulip poplar	1" cal.	15' o.c.		
11	Quercus alba - White oak	1" cal.	15' o.c.		
152.5	Total 1" caliper trees (2 planting units per tree)	FCX unit credit		152.5	
8	Acer rubrum - Red maple	2 1/2" whp	11' o.c.		
8	Cornus florida - Flowering dogwood	2 1/2" whp	11' o.c.		
5	Diospyros virginiana - Persimmon	2 1/2" whp	11' o.c.		
15	Liriodendron tulipifera - Tulip poplar	2 1/2" whp	11' o.c.		
15	Prunus serotina - Black cherry	2 1/2" whp	11' o.c.		
15	Quercus alba - White oak	2 1/2" whp	11' o.c.		
15	Sassafras albidum - Sassafras	2 1/2" whp	11' o.c.		
90	Total whip trees (2 planting units per tree)	FCX unit credit		90	
				Total Unit Credit	212.5

- PLANTING NOTES:**
- 2" caliper trees = 7 planting units, 1" caliper trees = 3.5 planting units, whips with shelter = 2 planting units
  - These species should not be planted within the wetland limits.
  - 2" caliper trees should be staggered along the outer perimeter of the planting area to serve as demarcation of the boundary. The tree should be no closer than 20 foot spacing.
  - Planting shall be made in a curvilinear fashion along contour. The planting should avoid a grid appearance but should be spaced to facilitate maintenance.
  - Multiflora rose removal/control may be required prior to installation of planting.

**MULTIFLORA ROSE CONTROL NOTE**

MULTIFLORA ROSE IS PREVALENT IN CERTAIN AREAS TO BE AFFORESTED. PRIOR TO PLANTING ALL MULTIFLORA ROSE SHOULD BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWED BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDE TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURERS SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

MAP SYMBOL	SOIL GROUP	SOIL TYPE
ChB2	B	CHESTER SILT LOAM, 3 TO 8 % SLOPES, MODERATELY ERODED
ChA	B	CHESTER SILT LOAM 0 TO 3 % SLOPES
GhB2	C	GLENVILLE SILT LOAM 3 TO 8 % SLOPED, MODERATELY ERODED
CuB	B	COMUS SILT LOAM, LOCAL ALLUVIUM, 3 TO 8 % SLOPES

- PLANTING/SOIL SPECIFICATIONS**
- PLANTING OF NURSERY STOCK SHALL TAKE PLACE BETWEEN MARCH 15TH AND APRIL 30TH. CONTAINER STOCK MAY BE PLANTED BETWEEN SEPTEMBER 1ST AND OCTOBER 30TH.
  - A THREE (3) INCH LAYER OF TOPSOIL SHALL BE SPREAD OVER ALL REFORESTATION AREAS IMPACTED BY THE GRADING TO ASSURE A SUITABLE PLANTING AREA. BUSHES AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT SEEDING SHALL BE SEEDED WITH A SUITABLE PLANTING MIXTURE BY REGIONAL PRACTICES.
  - ALL BAREROOT PLANTING STOCK SHALL HAVE THEIR ROOT SYSTEMS DIPPED INTO AN ANTI-DESICCANT DIPPING SOLUTION.
  - PLANTS SHALL BE INSTALLED SO THAT THE TOP OF ROOT MASS IS LEVEL WITH THE TOP OF EXISTING GRADE. EXCEPT IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL TO 1 PART FINE FINESS OR EQUIVALENT.
  - FERTILIZER SHALL CONSIST OF AGROFORM 22-8-2, OR EQUIVALENT, APPLIED AS PER MANUFACTURER'S SPECIFICATIONS.
  - TWO (2) INCH LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER THE ROOT AREA OF ALL PLANTINGS.
  - PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TRAPPER OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
  - ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

- SEQUENCE OF CONSTRUCTION**
- PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND PLANTING/SOIL SPECIFICATIONS FOR THE FOREST CONSERVATION EASEMENT.
  - UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS PER THE FOREST RETENTION AREA.
  - PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.
- GO TO SECTION IV**
- MAINTENANCE OF PLANTINGS**
- MAINTENANCE OF ALL PLANTINGS SHALL LAST FOR A PERIOD OF 24 MONTHS.
  - ALL PLANT MATERIAL SHALL BE WATERED TWICE A MONTH DURING THE 1ST GROWING SEASON. WATERING MAY BE MORE OR LESS FREQUENT DEPENDING ON WEATHER CONDITIONS DURING SECOND GROWING SEASON.
  - INVASIVE EXOTIC AND NOXIOUS WEEDS WILL BE REMOVED FROM REFORESTATION AREAS. OLD FIELD "SUCCESSIONAL" SPECIES WILL BE RETAINED.
  - PLANTS WILL BE EXAMINED A MINIMUM OF TWO TIMES DURING THE GROWING SEASON FOR SERIOUS PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE APPROPRIATE AGENTS.
  - DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS.
- GUARANTEE REQUIREMENTS**
- AFTER ONE GROWING SEASON, PLANT MATERIAL SHALL BE MAINTAINED AT 90% SURVIVAL THRESHOLD.
  - IF THE SURVIVAL RATE OF PLANTINGS IS BELOW THE 90% SURVIVAL THRESHOLD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THE DEFICIENT PLANTINGS WITHIN A 24 MONTH MAINTENANCE PERIOD. ALL PLANT MATERIAL BELOW THE 75% THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE GROWING SEASON.
  - THE CONTRACTOR WILL NOT BE LIABLE FOR PLANT LOSS DUE TO THEFT OR VANDALISM.

- SURETY FOR REFORESTATION**
- THE DEVELOPER SHALL POST A SURETY (BOND, LETTER OF CREDIT) TO ENSURE THAT REFORESTATION OBLIGATIONS ARE COMPLETED. UPON ACCEPTANCE OF THE PLANTINGS BY THE COUNTY, THE BOND SHALL BE RELEASED.

**MULTIFLORA ROSE CONTROL NOTE**

MULTIFLORA ROSE IS PREVALENT IN CERTAIN AREAS TO BE AFFORESTED. PRIOR TO PLANTING ALL MULTIFLORA ROSE SHOULD BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWED BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHEREVER POSSIBLE. HERBICIDE

- FCP NOTES:**
- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
  - THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16-1200 OF THE HOWARD COUNTY CODE. FOREST CONSERVATION ACT, NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS; HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
  - LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
  - THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY DPZ.
  - NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
  - TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
  - PERMANENT SIGNAGE SHALL BE PLACED 50'-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.
  - THE TOTAL FOREST CONSERVATION OBLIGATION AMOUNT OF 3.4 ACRES SHALL BE MET BY THE ON-SITE RETENTION OF 0 AC. WITHIN A FOREST CONSERVATION EASEMENT, THE ON-SITE REFORESTATION OF 3.4 AC. WITHIN A FOREST CONSERVATION EASEMENT DEVELOPER'S AGREEMENT WITH SURETY IN THE TOTAL AMOUNT OF \$44,431.20

\* FOREST CONSERVATION EASEMENT BEARING AND DISTANCE DESCRIPTIONS ARE PROVIDED ON THE FINAL PLAN.

**Eco-Science Professionals, Inc.**  
CONSULTING SC00021578  
MD DNR Qualified Professional  
Geospatial Information Specialist  
Certification # WDCPS2MD0104022  
John P. Cavali

**Forest Conservation Area**  
**REFORESTATION PROJECT**  
*Trees For Your Future*

MIN. 15'  
MIN. 11'

SIGNAGE NOT TO SCALE

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*David A. Boyle*  
PLANNING DIRECTOR 88 MW

*1/17/05*  
DATE

NO.	DATE	REVISION

**BENCHMARK ENGINEERING, INC.**  
8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLCOTT CITY, MARYLAND 21043  
phone: 410-465-6105 • fax: 410-465-6644  
email: Benchmark@bco.com

*Donald Maas*  
1/17/05

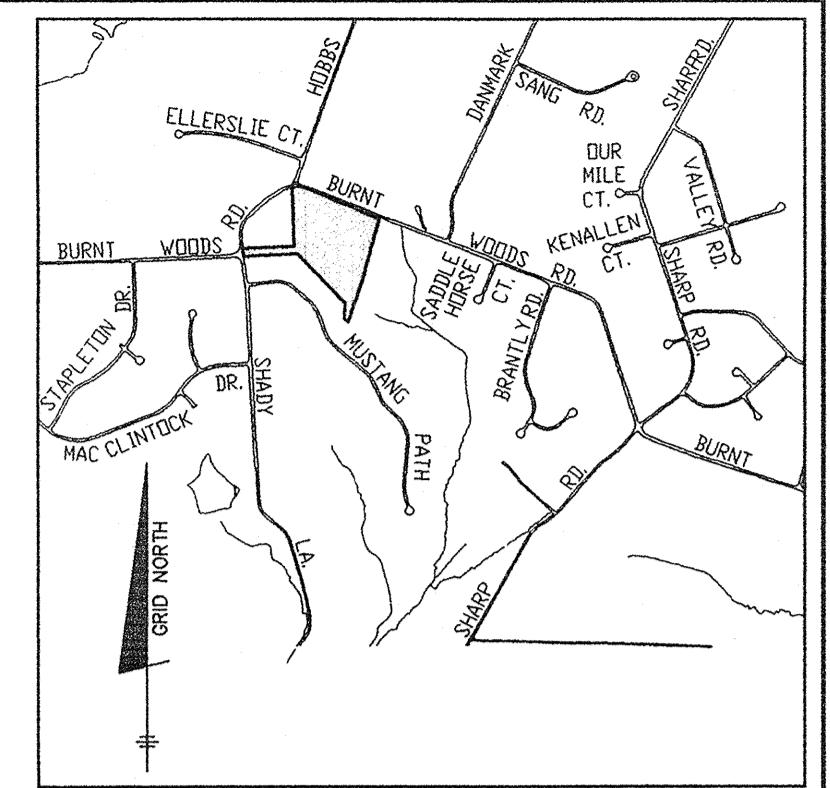
OWNER:	GHASSANI NESHAWAT 14445 BURNTWOODS ROAD GLENWOOD, MD 21738-9530	PROJECT:	NESHAWAT PROPERTY LOTS 1 TO 7, NON-BUILDABLE BULK PARCELS A, B, D & E AND BUILDABLE PRESERVATION PARCEL C
DEVELOPER:	SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLCOTT CITY, MD 21041-0417	LOCATION:	TAX MAP 21 PARCEL 138 - GRID 5 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DESIGN:	BFC	TITLE:	FOREST CONSERVATION PLAN
DRAFT:	BFC	DATE:	JANUARY, 2005 SEPTEMBER 2005
CHECK:	DAM	PROJECT NO.:	1662
SCALE:	AS SHOWN	SHEET:	5 OF 7





**GENERAL NOTES**

- 1) THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENT INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
- 3) UNLESS OTHERWISE SHOWN NO WELLS OR SEWERAGE EASEMENTS ARE LOCATED WITHIN 100 FEET OF THE PROPERTY.
- 4) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF PERMIT ISSUANCE.
- 5) TOPOGRAPHY SHOWN HEREON WAS PURCHASED FROM HOWARD COUNTY, GEOGRAPHICAL INFORMATION SYSTEMS BY BENCHMARK ENGINEERING, INC. AND FIELD VERIFIED.
- 6) WELLS TO BE DRILLED PRIOR TO RECORD PLAT SUBMITTAL FOR SIGNATURE.
- 7) PRIOR TO DRILLING OF THE WELLS FOR LOTS 5, 6 AND 7, THE WELL DRILLER SHALL CONTACT HOWARD COUNTY HEALTH DEPARTMENT TO SCHEDULE AN ON-SITE MEETING TO VERIFY THE LOCATION OF THE PROPOSED WELLS.



VICINITY MAP  
SCALE: 1"=2000'

I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF.

*Donald A. Mason*  
DONALD A. MASON P.E. NO. 21443  
PLAN PREPARER

APPROVED: FOR PRIVATE WATER AND SEWER SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT

*Robert J. Walker* 10/3/05  
COUNTY HEALTH OFFICER DATE

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY

*Robert D. Coyle* 11/16/05  
PLANNING DIRECTOR DATE

**LEGEND**

SOILS CLASSIFICATION: AbC1

SOILS DELINEATION: ---

EXISTING CONTOURS: --- 999 ---

PROPOSED CONTOURS: --- 999 ---

LIMIT OF WETLANDS: [Symbol]

EXISTING WOODS LINE: [Symbol]

PROPOSED WOODS LINE: [Symbol]

EXISTING STRUCTURE: [Symbol]

PROPOSED STRUCTURE: [Symbol]

EXISTING SEPTIC FIELD: [Symbol]

PROPOSED SEPTIC FIELD: [Symbol]

EXIST. PERCOLATION TEST (PASS): ○

EXIST. PERCOLATION TEST (FAIL): ○

PASSED PERC TEST DUG 8/23/03: ● P-99

FAILED PERC DUG 8/23/03: ○ P-99

PASSED PERC TEST DUG 10/14/03: ■ P-99

**SOILS LEGEND**

MAP SYMBOL	SOIL TYPE	MAPPING UNIT
CHA	B	CHESTER SILT LOAM - 0 TO 3 PERCENT SLOPES
CHB2	B	CHESTER SILT LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED
CuB	B	COMUS SILT LOAM - LOCAL ALLUVIUM - 3 TO 8 PERCENT SLOPES
GnB2	C	GLENVILLE SILT LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED

SOILS MAP No. 13

NO.	DATE	REVISION

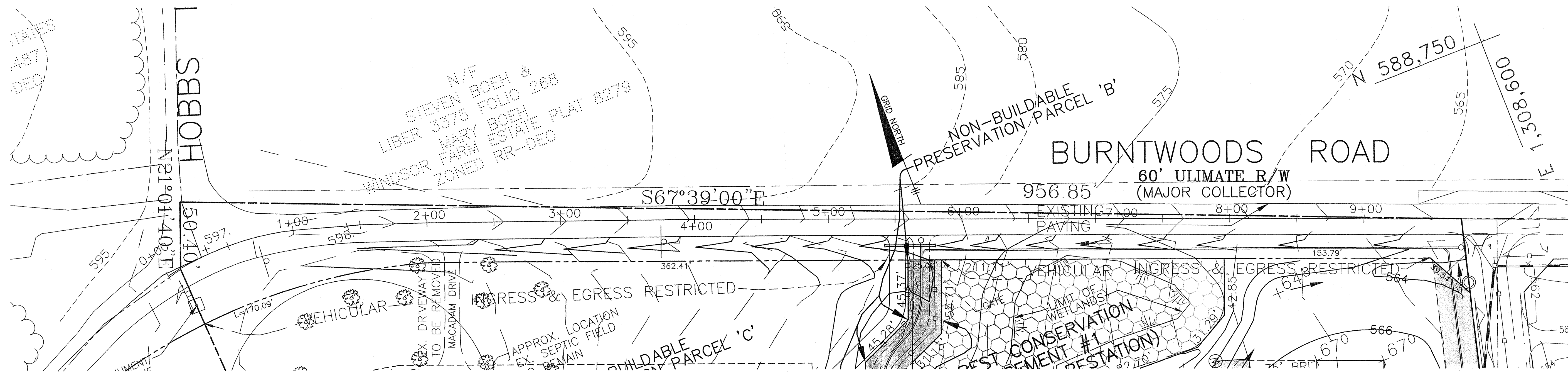
**BENCHMARK ENGINEERING, INC.**  
ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE & SUITE 418  
ELLCOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 FAX: 410-465-6644  
E-MAIL: benchmrk@ccis.com

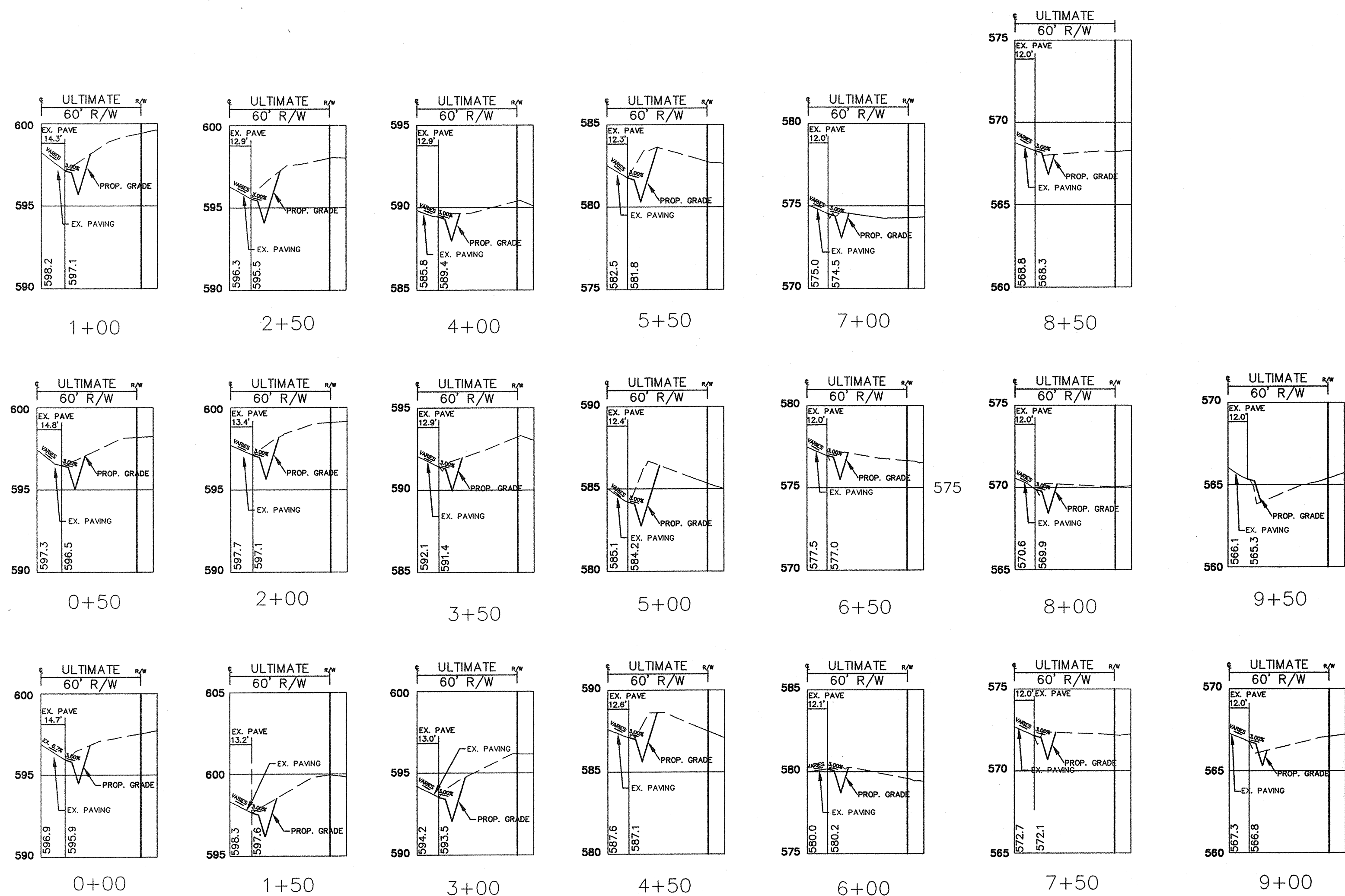
*Donald A. Mason* 10/17/05

OWNER: GHASSANI NESHAWAT 14445 BURNT WOODS ROAD GLENWOOD, MD 21738-9530	PROJECT: <b>NESHAWAT PROPERTY</b>
DEVELOPER: SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLCOTT CITY, MD 21041-0417	LOCATION: TAX MAP 21 PARCEL 138 - GRID 5 ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE: OCTOBER, 2003 SEPTEMBER 2005	TITLE: <b>PERCOLATION CERTIFICATION PLAN</b>
Design: DAM Draft: MCR Check: DAM	PROJECT NO. 1662 SCALE: 1" = 100' DRAWING 6 OF 7



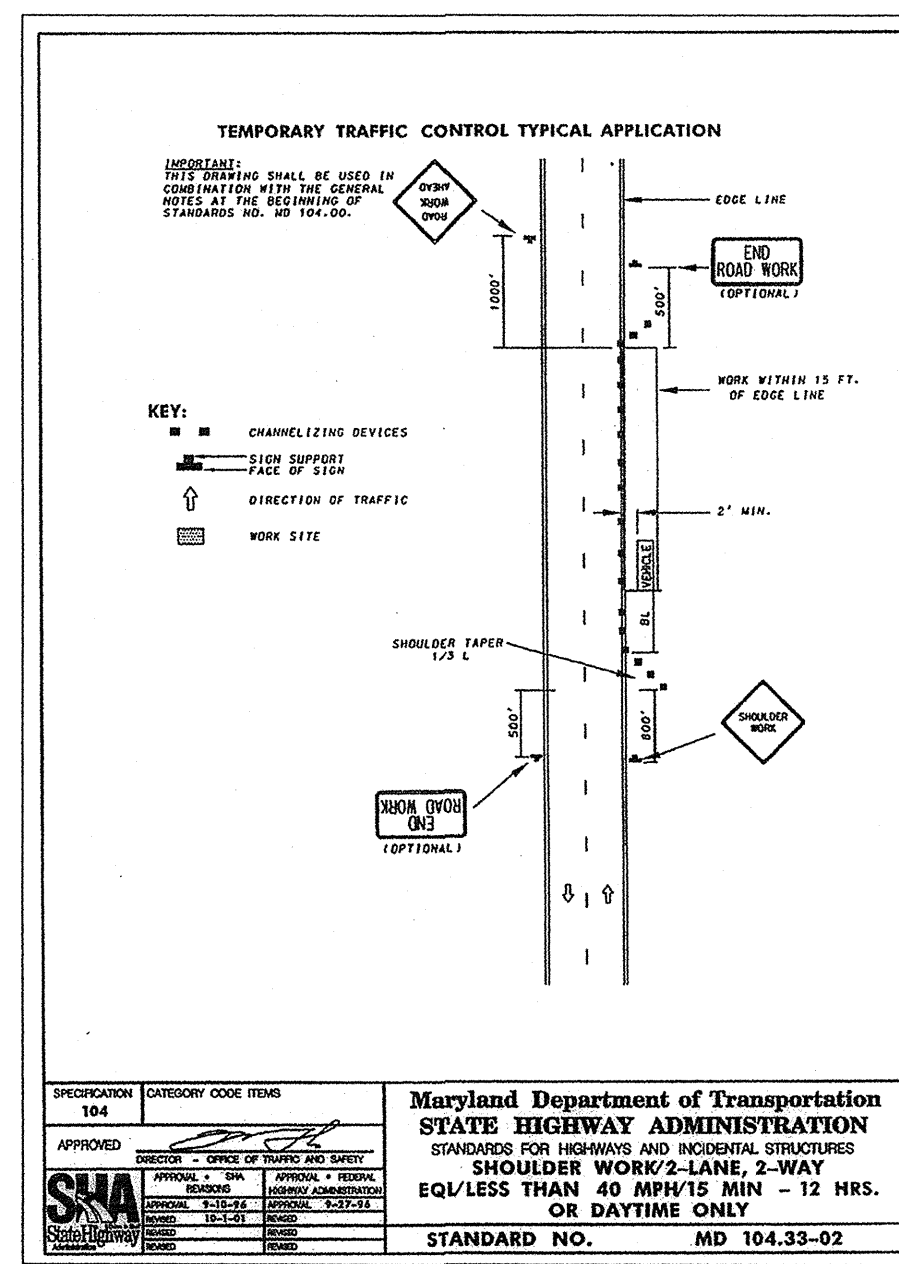


PAVEMENT MARKING PLAN  
SCALE: 1" = 40'



PAVEMENT MARKING PLAN  
SCALE: HORIZONTAL 1" = 100', VERTICAL 1" = 10'

NOTE: ROAD IMPROVEMENTS WILL INCLUDE SHOULDER AND SIDE DITCH GRADING ONLY. THE EXISTING ROADWAY PROVIDES A MINIMUM 12' LANE WIDTH ON THE EASTBOUND LANE.



- LEGEND**
- EXISTING CONTOURS
  - PROPOSED CONTOURS
  - LIMIT OF WETLANDS
  - EXISTING WOODS LINE
  - PROPOSED WOODS LINE
  - EXISTING STRUCTURE
  - PROPOSED STRUCTURE
  - EXISTING WELL
  - PROPOSED WELL AREA
  - EXISTING SEPTIC FIELD
  - PROPOSED SEPTIC FIELD
  - FOREST CONSERVATION EASEMENT
  - NO WOODY BUFFER
  - 2" GRIND AND OVERLAY
  - SPLIT RAIL FENCE

TENTATIVELY APPROVED  
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY  
*David Knight*  
PLANNING DIRECTOR  
11/16/05  
DATE

**BENCHMARK ENGINEERING, INC.**  
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ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 FAX: 410-465-6644  
www.bel-civilengineering.com

OWNER: GHASSANI NESHAWAT  
14445 BURNWOODS ROAD  
GLENWOOD, MD 21738-9530

PROJECT: NESHAWAT PROPERTY  
LOTS 1 TO 7, NON-BUILDABLE BULK PARCELS  
A, B, D & E AND BUILDABLE PRESERVATION PARCEL C

DEVELOPER: SECURITY DEVELOPMENT, L.L.C.  
P.O. BOX 417  
ELLICOTT CITY, MD 21041-0417

TITLE: PRELIMINARY SKETCH EQUIVALENT PLAN  
ROAD IMPROVEMENT PROFILES  
AND MAINTENANCE OF TRAFFIC

DATE: JANUARY, 2005  
SEPTEMBER 2005

PROJECT NO. 1662

SCALE: AS SHOWN DRAWING 7 OF 7