

GENERAL NOTES

- ALL ASPECTS OF THIS PROJECT SHALL BE IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVER(S) HAVE BEEN APPROVED.
- THE BOUNDARY SHOWN IS BASED ON A MONUMENTED FIELD-RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC., DATED AUGUST, 2005.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL MONUMENTS 291A & 291D, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM.
- EXISTING TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY BENCHMARK ENGINEERING, INC., DATED JULY, 2005. CONTOUR INTERVAL IS 2 FEET.
- EXISTING UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATIONS AND RECORD DRAWINGS.
- THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT PER ADMINISTRATION DECISION No.3-2006, APPROVED ON FEBRUARY 13, 2006. WATER AND SEWER SHALL BE PUBLIC, CONNECTING TO CONTRACTS No.2831-W&S AND No.34-1788-D, RESPECTIVELY. DRAINAGE AREA IS WITHIN THE LITTLE PATUXENT RIVER WATERSHED.
- FOREST STAND DELINEATION PLAN WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC., DATED AUGUST, 2006 AND APPROVED UNDER S-06-003.
- NO WETLANDS OR 100-YEAR FLOODPLAIN EXIST WITHIN THE LIMITS OF PROJECT AS PER A CERTIFICATION LETTER PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. DATED FEBRUARY 3, 2006 AND APPROVED UNDER S-03-006.
- NOISE LINE SHOWN ON PLANS FOR THIS PROJECT BASED ON DATA PROVIDED BY THE MSHA AS PER CONTRACT NO.H06625170 AND APPROVED UNDER THIS PLAN.
- THE NOISE CONTOUR LINE DRAWN ON THIS PLAN IS ADVISORY AS REQUIRED BY THE HOWARD COUNTY DESIGN MANUAL, CHAPTER 5, REVISED FEBRUARY 1992, AND CANNOT BE CONSIDERED TO EXACTLY LOCATE THE 65dbA EXPOSURE. THE 65dbA EXPOSURE 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 US DEPARTMENT OF HOUSING & URBAN DEVELOPMENT.
- A.P.F.O. TRAFFIC STUDY WAS PREPARED BY THE MARS GROUP, INC. DATED JULY, 2005 AND APPROVED UNDER S-06-003.
- THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS-CARNES ENGINEERING ASSOCIATES, DATED AUGUST, 2006 AND SUPPLEMENTED IN NOVEMBER, 2006.
- THERE ARE NO EXISTING STRUCTURES LOCATED ONSITE.
- TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO CEMETERY LOCATIONS ON-SITE.
- THIS PLAN IS SUBJECT TO THE AMENDED 5th EDITION OF THE HOWARD COUNTY SUBDIVISION REGULATIONS AND THE AMENDED HOWARD COUNTY ZONING REGULATIONS. IT ALSO FALLS UNDER THE CRITERIA ESTABLISHED UNDER THE INFILL DEVELOPMENT REGULATIONS OF COUNCIL BILL 45-2003 EFFECTIVE OCTOBER 2, 2003.
- STORMWATER MANAGEMENT SHALL BE PROVIDED FOR THIS PROJECT BASED ON GUIDELINES ESTABLISHED BY THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES I & II. QUALITY CONTROL SHALL BE PROVIDED BY: A POCKET POND (P-5) & AN UNDERGROUND STONE REV. CHAMBER. QUANTITY CONTROL SHALL BE PROVIDED WITHIN THE POCKET POND (P-5) SWM FACILITY.
- 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 ALLOCATED FOR THIS DEVELOPMENT.
- STREET LIGHTS ARE REQUIRED AND SHALL BE PROVIDED PER DESIGN MANUAL REQUIREMENTS.
- ALL LANDSCAPING REQUIREMENTS AS SET FORTH IN THE LANDSCAPE MANUAL SHALL BE FULFILLED.
- 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.
 C) GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.
 D) STRUCTURES (CULVERTS, BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (425 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 INSURE ALL WEATHER USE.
- IT IS UNDERSTOOD THAT THE FINAL DESIGN OF THE ROADWAY AND TEE TURNAROUND WILL BE IN COMPLIANCE WITH ALL SPECIFICATIONS AND REGULATIONS IN EFFECT AT THE TIME OF FINAL PLAN SUBMISSION AND THAT THIS MAY ALTER THE LAYOUT AS SHOWN ON THIS PLAN.
- THE FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT WILL BE MET BY OFFSITE PLANTINGS AT A SUITABLE AND APPROVED LOCATION FOR AN OBLIGATION OF 0.37 AC. OF REFORESTATION. THE DEVELOPER IS CURRENTLY SEEKING A SUITABLE PROPERTY LOCATION AND WILL RESOLVE THIS ISSUE PRIOR TO APPROVAL OF FINAL PLANS.
- A TYPE "C" LANDSCAPING BUFFER WITHIN A 10' SETBACK IS PROVIDED ALONG THE WESTERN PROPERTY BOUNDARY, ADJACENT TO PARCEL 115, AS PER S-06-003.
- SUBJECT PROPERTY IS ZONED R-SC PER 2-02-04 COMPREHENSIVE ZONING PLAN AND THE ZONING REGULATIONS AMENDMENTS DATED 7/28/06.
- APPLICABLE HOWARD COUNTY DPZ FILE REFERENCES FOR THIS PROJECT INCLUDE:
 S-06-003, CONTR. No.24-4425-D
- WRITTEN APPROVAL FROM BG&E FOR THE PROPOSED LANDSCAPING ALONG CEDAR LANE AND MD RTE. 108 (CLARKSVILLE PIKE) WAS OBTAINED BY CORRESPONDENCE DATED APRIL 20, 2007.

CEDAR GROVE

LOTS 1 THRU 12 AND O.S. LOTS 13 & 14

PARCEL 65 / ZONE: R-SC

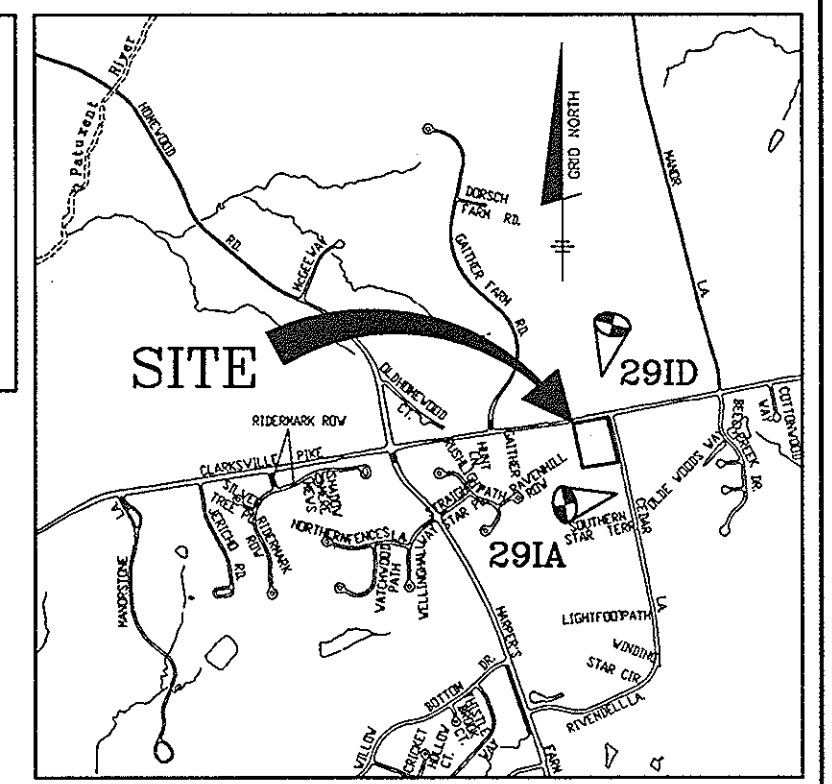
5th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

PRELIMINARY PLAN P-07-005

BENCH MARKS (NAD '83)

HO. CO. #291D	ELEV. 473.938
STANDARD DISC ON CONCRETE MONUMENT	
HO. CO. BOARD OF EDUCATION ENTRANCE	
1.5' NW FROM END OF SDWLK. ON NW EOP	E 1,343,193.07
N 571,234.369	
HO. CO. #291A	ELEV. 482.291
STANDARD DISC ON CONCRETE MONUMENT	
WEST SIDE OF CEDAR LA. 3.9' FROM EOP:	
41.7' S OF FH, 40.4M S OF MD RTE 108	E 1,343,640.14
N 568,986.053	



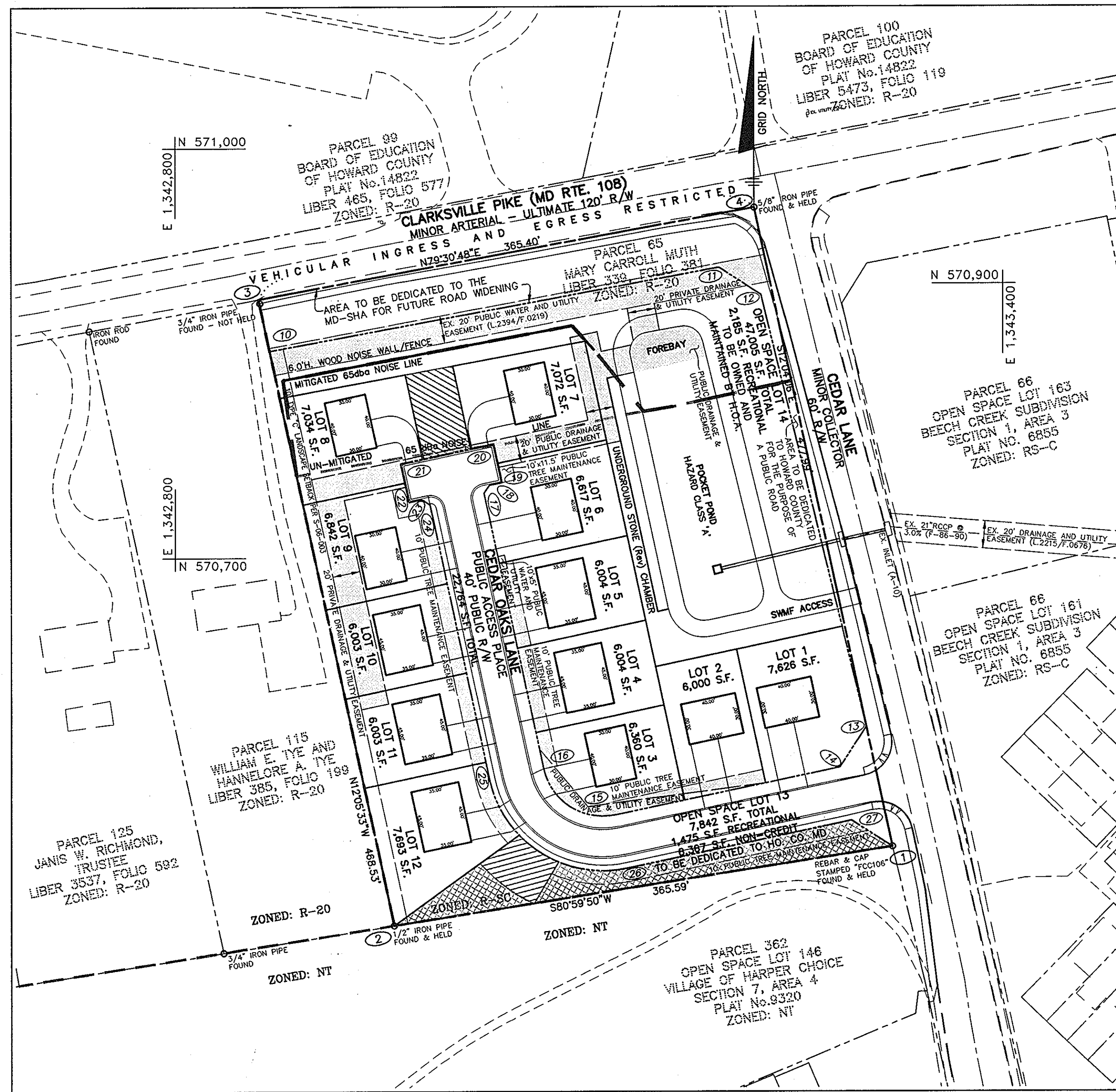
ADC MAP 15, GRIDS C-3
VICINITY MAP
SCALE: 1"=2000'

SITE DATA TABULATION

- GENERAL SITE DATA
 - PRESENT ZONING: R-SC
 - LOCATION: TAX MAP 29 - GRID 17 - PARCEL 65
 - APPLICABLE DPZ FILE REFERENCES: S-06-003
 - DEED REFERENCE: L.339 / F.381
 - PROPOSED USE OF SITE: 12 SFD HOMES
 - PROPOSED WATER AND SEWER SYSTEMS: PUBLIC
- AREA TABULATION
 - TOTAL AREA OF SITE 3.97 Ac.±
 - AREA OF 100 YEAR FLOODPLAIN (APPROX.) N/A
 - AREA OF STEEP SLOPES (25% OR GREATER) N/A
 - NET AREA OF SITE 3.97 Ac.±
 - AREA OF THIS PLAN SUBMISSION 3.97 Ac.±
 - LIMIT OF DISTURBANCE (APPROX.) 4.10 Ac.±
 - AREA OF PROPOSED BUILDABLE LOTS 1.82 Ac.±
 - AREA OF OPEN SPACE LOTS 1.26 Ac.±
 - AREA OF PROPOSED PUBLIC ROAD 0.52 Ac.±
 - AREA OF PROPOSED PUBLIC R/W DEDICATION 0.37 Ac.±
- LOT TABULATION
 - NET AREA OF SITE 3.97 Ac.±
 - ALLOWABLE RESIDENTIAL LOT YIELD 15
 - TOTAL NUMBER OF RESIDENTIAL LOTS PROPOSED ON THIS SUBMISSION 12
 - TOTAL NUMBER OF OPEN SPACE LOTS PROPOSED ON THIS SUBMISSION 2
- OPEN SPACE DATA
 - MINIMUM RESIDENTIAL LOT SIZE SELECTED 6,000 S.F.
 - OPEN SPACE REQUIRED FOR TOTAL AREA OF SITE (25% OF 3.97 AC.) 0.99 Ac.
 - TOTAL AREA OF PROPOSED OPEN SPACE LOTS PROVIDED WITH THIS SUBDIVISION 1.26 Ac.
 - OPEN SPACE AREAS LESS THAN 35' IN WIDTH (NON-CREDITED) 0.18 Ac.
 - TOTAL AREA OF OPEN SPACE MEETING MINIMUM OPEN SPACE REQUIREMENTS (CREDITED) 1.08 Ac.
 - AREA OF RECREATIONAL OPEN SPACE REQUIRED (300 SF/UNIT x 12 LOTS = 3600 SF) 0.08 Ac.
 - TOTAL AREA OF RECREATIONAL OPEN SPACE PROVIDED 0.08 Ac.

BOUNDARY COORDINATE TABLE (NAD '83)

NO.	NORTHING	EASTING
1	570,488,2861	1,343,319,7701
2	570,431,0775	1,342,958,6867
3	570,889,2080	1,342,860,5357
4	570,955,7124	1,343,219,8327
5	570,851,5625	1,342,868,6010
6	570,911,8758	1,343,194,4500
7	570,892,1209	1,343,224,8863
8	570,576,2970	1,343,300,9531
9	570,546,6123	1,343,281,7348
10	570,511,8198	1,343,119,3369
11	570,545,6262	1,343,067,0956
12	570,747,2670	1,343,023,8955
13	570,753,0002	1,343,027,6056
14	570,755,1937	1,343,037,0263
15	570,783,5502	1,343,030,9512
16	570,769,0955	1,342,963,4822
17	570,740,7389	1,342,969,5574
18	570,742,7291	1,342,978,8466
19	570,738,8875	1,342,984,7831
20	570,537,2464	1,343,027,9832
21	570,472,7074	1,343,127,7165
22	570,507,4964	1,343,290,0979



LOCATION PLAN
SCALE: 1" = 60'

SHEET INDEX

NO.	DESCRIPTION
1	COVER SHEET
2	PRELIMINARY PLAN
3	GRADING, SEDIMENT & EROSION CONTROL PLAN
4	LANDSCAPE PLAN
5	FOREST CONSERVATION PLAN
6	ROAD PROFILE, NOTES, AND DETAILS
7	PUBLIC ROADWAY IMPROVEMENTS CROSS-SECTIONS AND DETAILS
8	STORM DRAINAGE AREA MAP

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Mark M. Cagle 5/10/07
PLANNING DIRECTOR DATE

LEGEND

- | | |
|----------------------------------|-----------|
| SOILS CLASSIFICATION | A&C/I |
| SOILS DELINEATION | --- |
| EXISTING CONTOURS | ---999--- |
| EXISTING WOODS LINE | ~~~~~ |
| PROPOSED WOODS LINE | ~~~~~ |
| PROPOSED STRUCTURE | [] |
| CREDITED RECREATIONAL OPEN SPACE | [/] |
| NON-CREDITED OPEN SPACE | [X] |
| 15' NO-WOODY VEGETATION ZONE | [/] |
| PROPOSED EASEMENTS | [] |
| EXISTING EASEMENTS | [] |
| DRAINAGE AREA | --- |
| DRAINAGE DIVIDE | --- |
| TO STUDY PATH | ⓐ |
| LIMIT OF DISTURBANCE | ●●●●●●●● |
| STABILIZED CONSTRUCTION ENTRANCE | [] |
| SILT DIVERSION FENCE | SDF |
| SUPER SILT FENCE | SSF |
| INLET PROTECTION | [] |
| REMOVABLE PUMP STATION | RPS |
| EARTH DIKE | →→→→ |
| SOIL STABILIZATION MATTING | [] |
| TEMPORARY SWALE | →→→→ |
| NOISE TESTING/RECEIVER LOCATIONS | ⊙ |
| UN-MITIGATED 65dbA NOISE LINE | --- |
| MITIGATED 65dbA NOISE LINE | --- |

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 E-MAIL: be@be-civilengineering.com			
DEVELOPER:	SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLICOTT CITY, MD 21041 PHONE: 410-465-4244	PROJECT:	CEDAR GROVE LOTS 1-12 AND O.S. LOTS 13-14
OWNER:	MARY C. POTTER (AKA - MARY CARROLL MUTH) 2003 BEDFORD LANE ALEXANDRIA, VA 22307-1801	LOCATION:	TAX MAP 29 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
DATE:	SEPTEMBER 11, 2006 APRIL 26, 2007	TITLE:	PRELIMINARY PLAN COVER SHEET
Design: MCR/MAN	Draft: MCR/EDD	Check: DAM	SCALE: AS SHOWN DRAWING 1 OF 8



CEDAR OAKS LANE - STREET LIGHT SCHEDULE

SYMBOL	DESCRIPTION	LOCATION
	150 WATT HPS PREMIERE POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE.	STA.0+43 OFFSET:14'R
	100 WATT HPS PREMIERE POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE.	STA.2+87 OFFSET:18'L STA.5+26 OFFSET:18'R

CEDAR LANE - STREET LIGHT SCHEDULE

SYMBOL	DESCRIPTION	LOCATION
	150-WATT HPS VAPOR PREMIERE POST-TOP FIXTURE MOUNTED ON A 14' BLACK FIBERGLASS POLE.	STA.1+25 OFFSET:22'R STA.2+25 OFFSET:22'R STA.3+25 OFFSET:22'R STA.4+95 OFFSET:22'R STA.5+80 OFFSET:25'R

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

STEP	REQUIREMENT	VOLUME REQUIRED (AC.-FT.)	NOTES
1	WATER QUALITY VOLUME (WQv)	0.1720 (7,492.32 C.F.)	POCKET POND (P-5)
2	RECHARGE VOLUME (Rev)	0.0361 OR 0.4389 AC.	UNDERGROUND STONE CHAMBER
3	CHANNEL PROTECTION VOLUME (Cpv)	0.1801 (7,845.16 C.F.)	POCKET POND (P-5)
4	OVERBANK FLOOD PROTECTION VOLUME (Op)	N/A	NOT REQUIRED
5	EXTREME FLOOD VOLUME (Q)	N/A	NOT REQUIRED

CONCLUSIONS AND RECOMMENDATIONS

Stormwater Management for this site can be provided by using a Pocket Pond (P-5)SWMF to provide, Water Quality Volume (WQv) and Channel Protection (Cpv) for the Design Drainage Area; and an Underground Stone Chamber to provide Groundwater Recharge (Rev) for the entire project.

DISCHARGE SUMMARY TABLE

Drainage Area	Condition @ Study point	Q1-yr (cfs)	Q10-yr (cfs)	Q100-yr (cfs)
1	existing	1.67	13.38	26.33
1A /1B	developed (addhyd)	1.84	13.48	27.64

The slight increase in the developed condition is negligible and will not adversely impact existing downstream conditions.

FACILITY SUMMARY TABLE

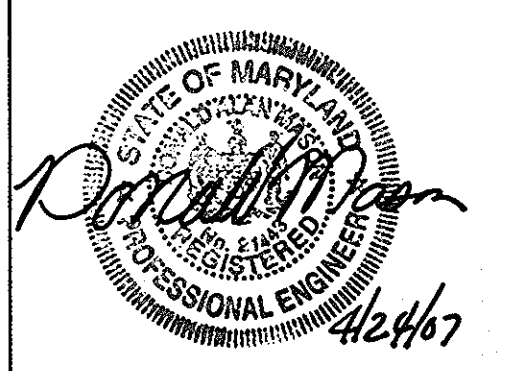
Facility No.	Type	Detention Time	1-yr WSEL	10-yr WSEL	100-yr WSEL
1	P-5	23.6 hrs	462.73	463.55	463.99

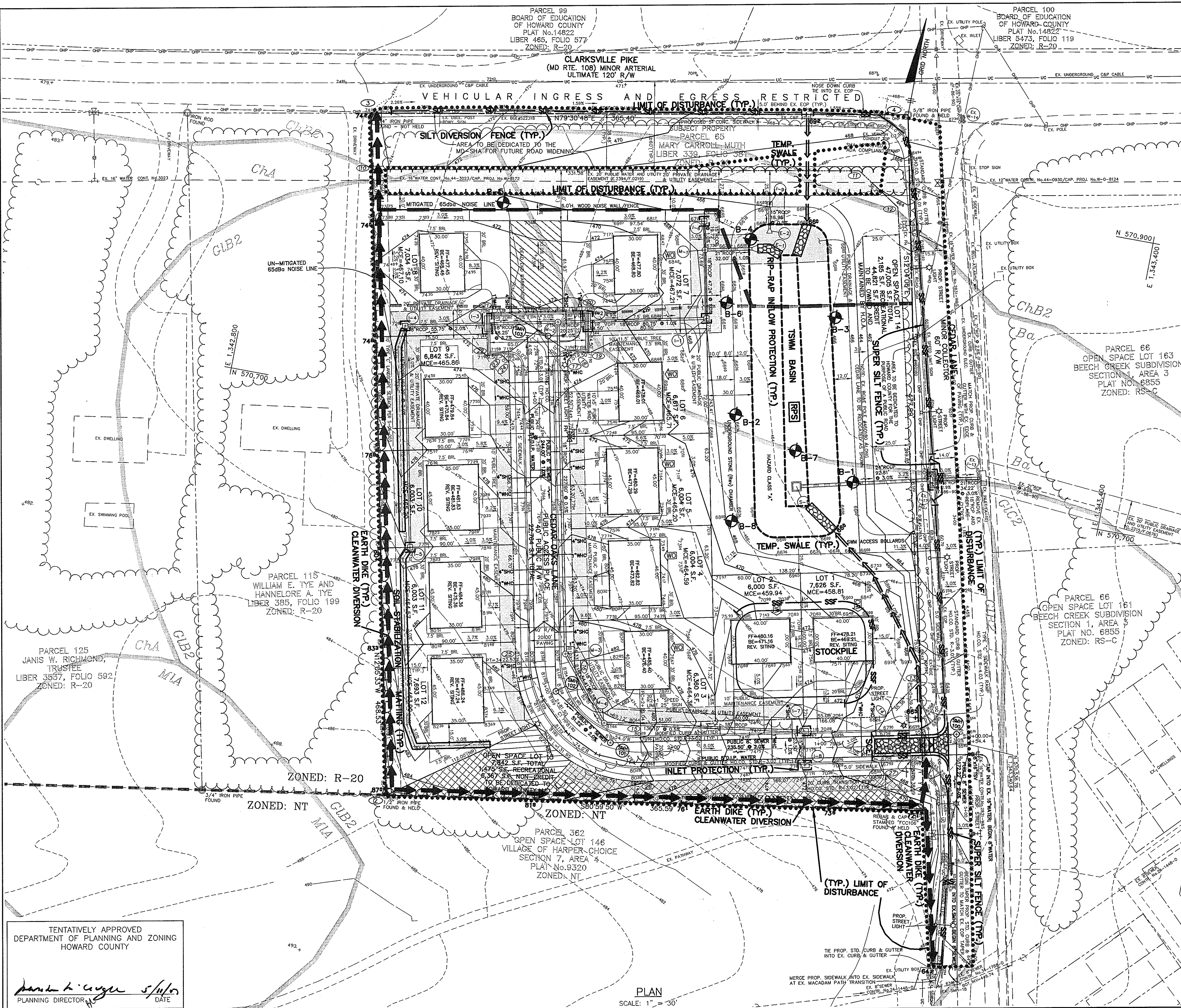
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Mary C. Potter 5/1/07
PLANNING DIRECTOR DATE

PLAN
SCALE: 1" = 30'

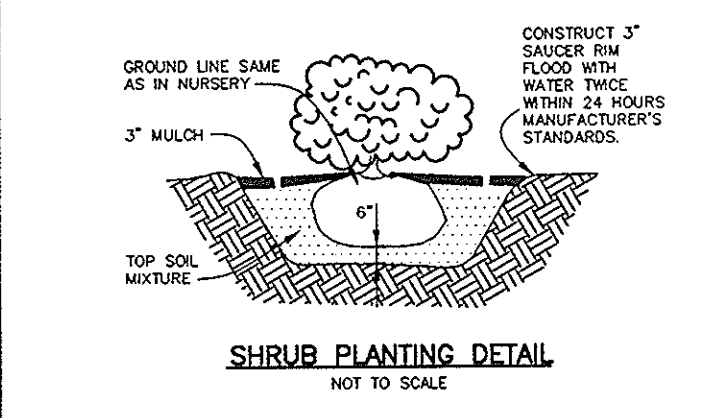
NO. DATE REVISION	
BENCHMARK ENGINEERS • LAND SURVEYORS • PLANNERS	
ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE • SUITE 418 ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 E-MAIL: bei@bei-civilengineering.com	
DEVELOPER: SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLCOTT CITY, MD 21041 PHONE: 410-465-4244	PROJECT: CEDAR GROVE LOTS 1-12 AND O.S. LOTS 13-14 LOCATION: TAX MAP 29 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
OWNER: MARY C. POTTER (AKA - MARY CARROLL MUTH) 2003 BEDFORD LANE ALEXANDRIA, VA 22307-1801	TITLE: PRELIMINARY PLAN PRELIMINARY PLAN
Design: MCR/MAN Draft: MCR/EDD Check: DAM	DATE: SEPTEMBER 11, 2006 APRIL 26, 2007 PROJECT NO. 1793 SCALE: AS SHOWN DRAWING 2 OF 8





**SCHEDULE D
SWMF AREA LANDSCAPING
TYPE "B" BUFFER**

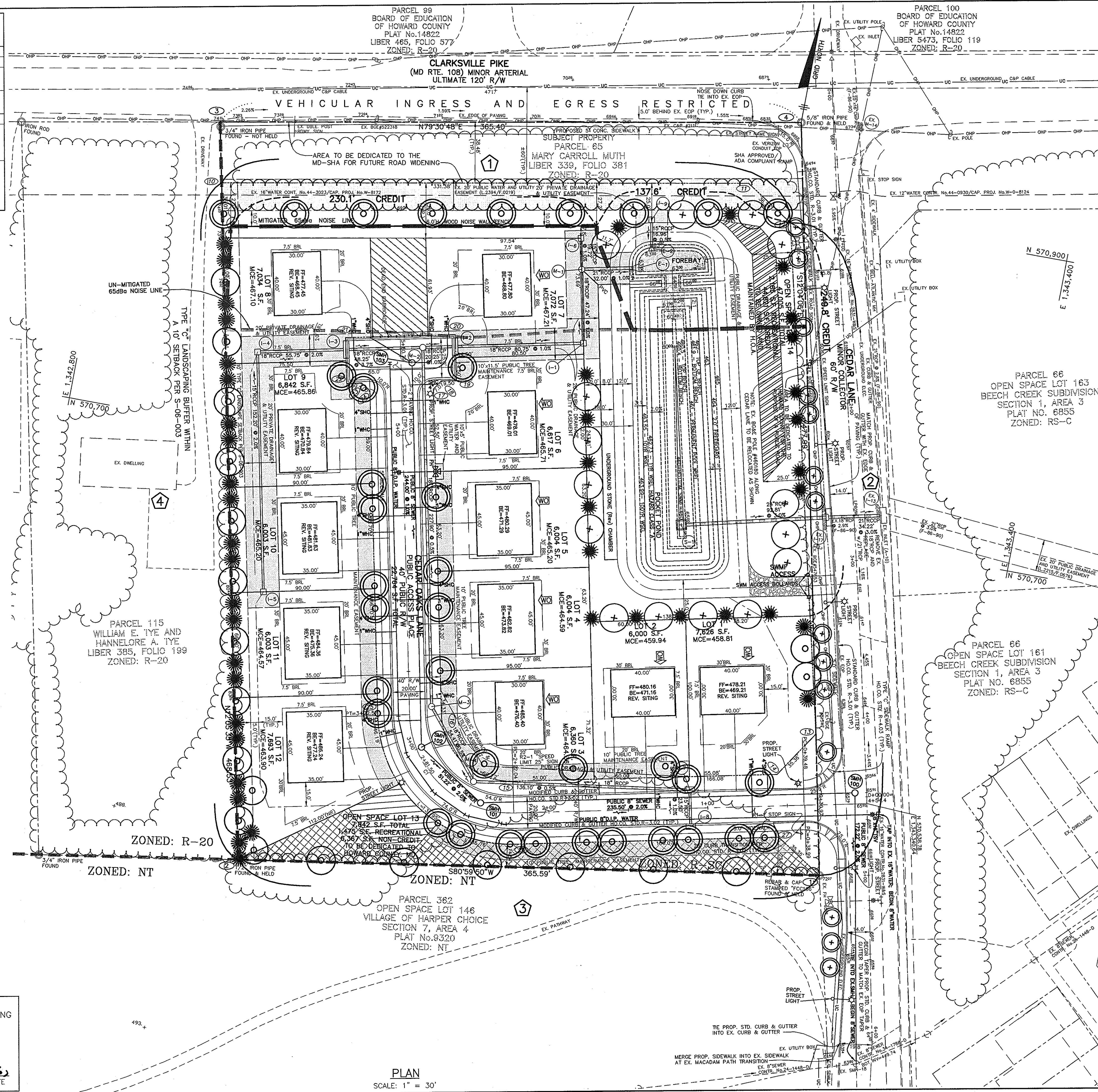
STORMWATER MANAGEMENT FACILITY No.	1
LINEAR FEET OF PERIMETER	763.4
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
CREDIT FOR OTHER LANDSCAPING: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO
LINEAR FEET OF REQUIRED PERIMETER LANDSCAPING	763.4
NUMBER OF PLANTS REQUIRED: SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS	15 19 - -
NUMBER OF PLANTS PROVIDED: SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	15 19 - -



TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

Handwritten signature and date: 5/4/03

PLANNING DIRECTOR DATE



**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

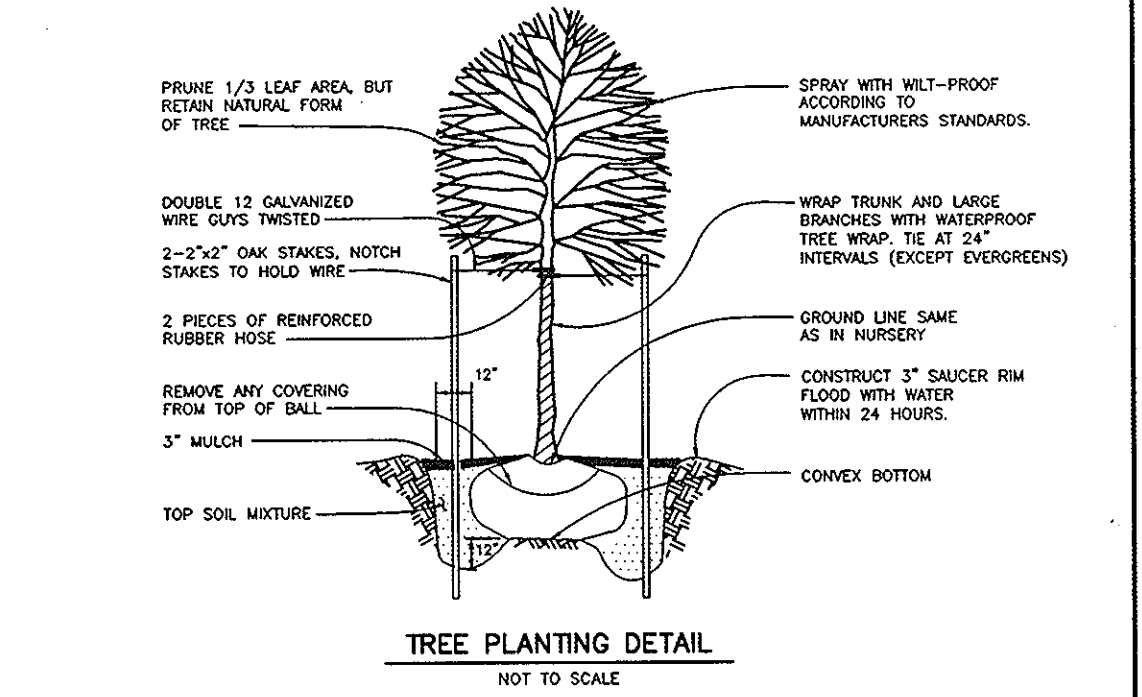
CATEGORY	ADJACENT TO ROADWAY			
	YES	YES	NO	NO
ADJACENT TO PERIMETER PROPERTIES	NO	NO	NO	NO
PERIMETER NO. / LANDSCAPE TYPE	1 B	2 B	3 A	4 C*
LINEAR FEET OF PERIMETER (FRONTAGE/ROADWAY)	367.7	324.9	365.6	468.5
CREDIT FOR EXISTING VEGETATION: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 137.6 SWMF	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM: NO OR YES (w/LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES 230.1 WALL	YES 249.8 SWMF	NO	NO
LINEAR FEET OF REQUIRED PERIMETER LANDSCAPING	0.0	75.1	365.6	468.5
NUMBER OF PLANTS REQUIRED: SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS	0 0 - -	2 2 - -	6 0 - -	12 23 - -
NUMBER OF PLANTS PROVIDED: SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	0 0 - -	2 2 - -	6 0 - -	12 23 - -

* - A TYPE "C" LANDSCAPE BUFFER WITHIN A 10' SETBACK HAS BEEN PLACED ALONG LS PERIMETER #4 AS PER S-09-003.

STREET TREE REQUIREMENTS

ROADWAY NAME:	C. OAKS	MD 108	C. LANE
LINEAR FEET OF PERIMETER	1121.6	367.7	414.8
STREET TREES REQUIRED	28	9	**14
NUMBER OF PLANTS PROVIDED: SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTE) SHRUBS (10:1 SUBSTITUTE) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	28 - - -	9 - - -	**14 - - -

** - SMALL STREET TREES AT 30' O/C ARE TO BE PLANTED ALONG CEDAR LAKE IN COMPLIANCE WITH THE BOKE "GREEN ZONE".



LANDSCAPING NOTES

- 1.) THE PROPOSED LANDSCAPING SHALL BE PROVIDED BY THE PLANTINGS AS SHOWN ON THESE PLANS.
- 2.) THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL INTERNAL PLANTINGS; THE PRESERVATION OF THE EXISTING PERIMETER VEGETATION; AND FOR THE PERIMETER PLANTINGS AS SHOWN ON THESE PLANS. BONDING FOR THE PROPOSED PLANTINGS IS THE OBLIGATION OF THE DEVELOPER AS PART OF THE DEVELOPERS AGREEMENT.
- 3.) TREES MUST BE A MINIMUM OF FOUR(4) FEET FROM THE CURB OR SIDEWALK AND MUST BE A MINIMUM OF FIVE(5) FEET FROM ANY STORM DRAIN.
- 4.) A MINIMUM DISTANCE OF TWENTY(20) FEET MUST BE MAINTAINED BETWEEN ALL TREES ALONG THE CURB LINE AND FROM STREET LIGHTS.
- 5.) TREE MUST BE PLANTED A MINIMUM OF FIVE(5) FEET FROM AN OPEN SPACE ACCESS STRIP AND TEN(10) FEET FROM A DRIVEWAY.
- 6.) THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SEC.-16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
- 7.) STREET TREES SHALL BE PLANTED SIX(6) FEET BEHIND FACE OF CURB WHEN THERE ARE NO SIDEWALKS.
- 8.) ALL LANDSCAPING PLANT TYPES SHOWN ON THESE PLANS ARE RECOMMENDATIONS AND MAY BE SUBSTITUTED WITH APPROVED EQUIVALENTS FROM THE HOWARD COUNTY LANDSCAPE MANUAL.
- 9.) NO TREES SHALL BE PLACED WITHIN 10' BEHIND A RETAINING WALL OR WITHIN A RELATED MAINTENANCE EASEMENT, WHOICHEVER IS GREATER.
- 10.) A TYPE "C" LANDSCAPE BUFFER WITHIN A 10' SETBACK HAS BEEN PLACED ALONG LS PERIMETER #4 AS PER S-09-003.
- 11.) SMALL STREET TREES AT 30' O/C ARE TO BE PLANTED ALONG CEDAR LAKE IN COMPLIANCE WITH THE BOKE "GREEN ZONE".

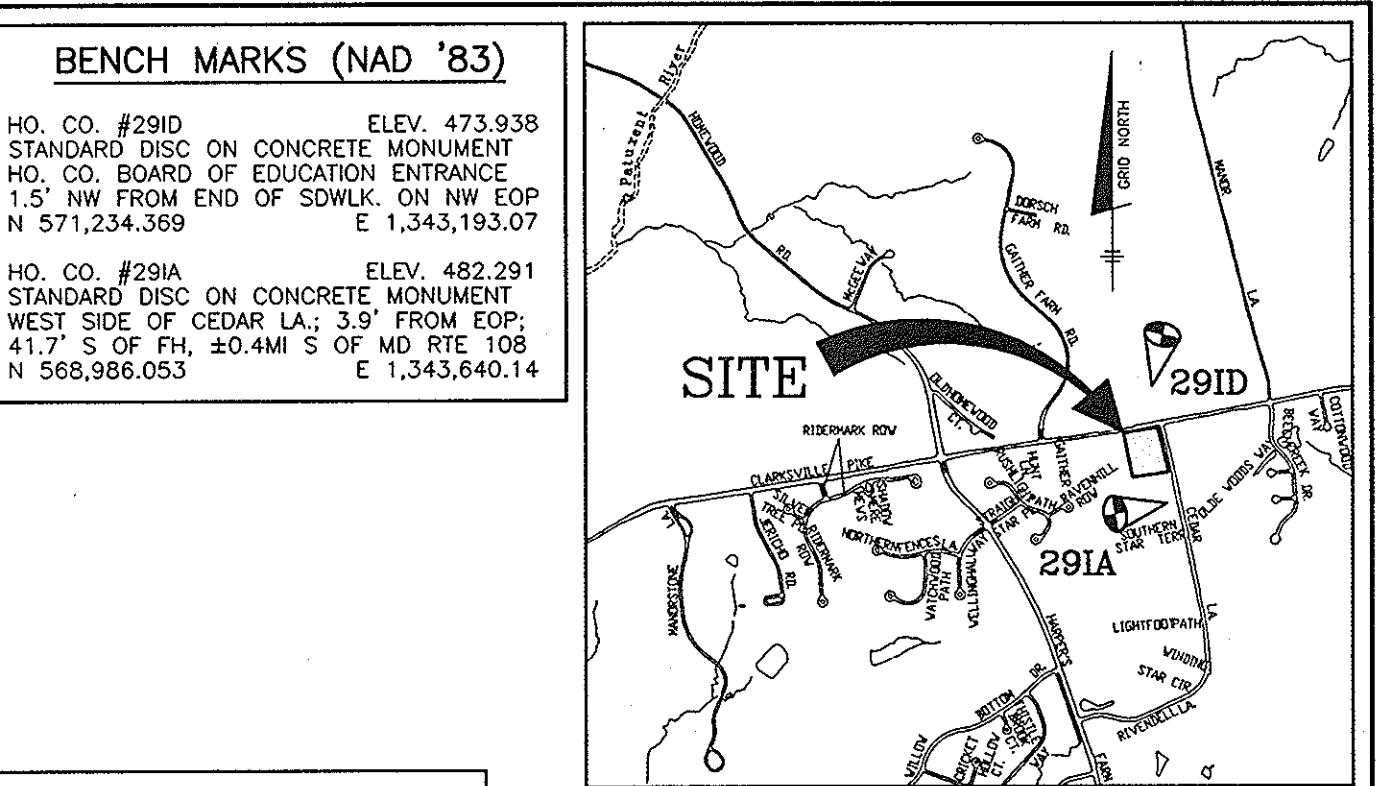
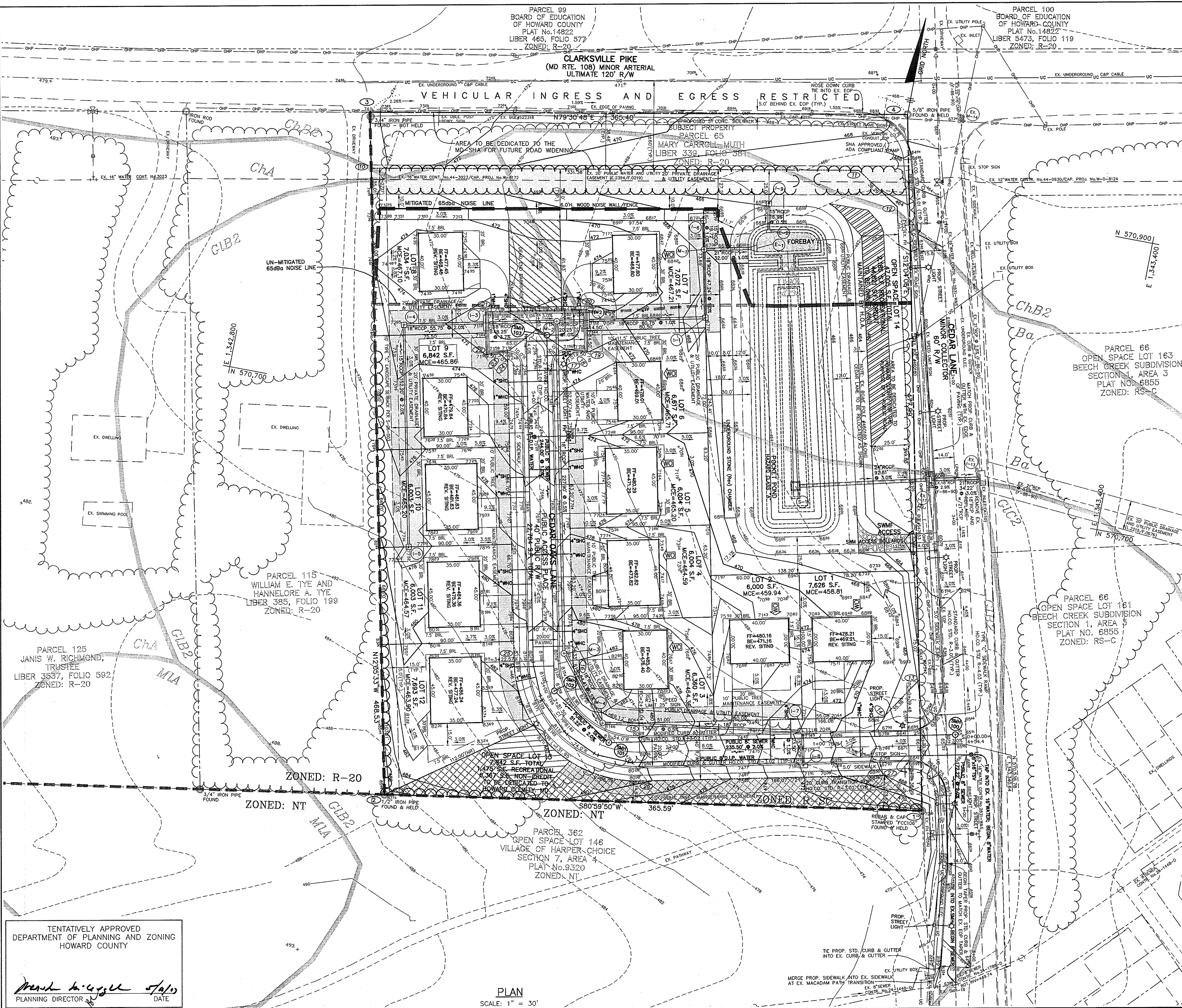
NO.	DATE	REVISION

BENCHMARK
ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.

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

DEVELOPER: SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLCOTT CITY, MD 21041 PHONE: 410-465-4244	PROJECT: CEDAR GROVE LOTS 1-12 AND O.S. LOTS 13-14
OWNER: MARY C. POTTER (AKA - MARY CARROLL MUTH) 2003 BEDFORD LANE ALEXANDRIA, VA 22307-1801	LOCATION: TAX MAP 29 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: PRELIMINARY PLAN LANDSCAPE PLAN	DATE: SEPTEMBER 11, 2006 APRIL 26, 2007
Design: MCR/MAN Draft: MCR/EDD Check: DAM	PROJECT NO. 1793 DRAWING 4 OF 8

PLAN
SCALE: 1" = 30'



SITE DATA

GROSS AREA (INCL. ALL PROP. LOTS)	4.0 AC ±
100 YEAR FLOOD PLAIN	0.0 AC ±
EX. APPLICABLE LOT AREA	0.0 AC ±
NET TRACT AREA (NTA)	4.0 AC ±
EXISTING FOREST (NTA)	4.0 AC ±
AFFORESTATION THRESHOLD	0.6 AC ±
CONSERVATION THRESHOLD	0.8 AC ±
BREAK EVEN POINT	1.4 AC ±
FOREST TO BE CLEARED (NTA)	4.0 AC ±
FOREST TO BE RETAINED IN FCE	0.0 AC ±
REFORESTATION REQUIRED	2.37 AC ±
FEE-IN-LIEU COST	\$1,618.60

FOREST CONSERVATION WORKSHEET (VERSION 1.0)

NET TRACT AREA	
A. TOTAL TRACT AREA (INCLUSIVE OF ALL PROPOSED LOTS)	3.97 AC ±
B. AREA WITHIN 100 YEAR FLOOD PLAIN	0.00 AC ±
C. AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL	0.00 AC ±
D. NET TRACT AREA	3.97 AC ±
LAND USE CATEGORY	
HDR (ZONING = R-20)	0.56 AC ±
F. AFFORESTATION THRESHOLD (15% x D =)	0.79 AC ±
EXISTING FOREST COVER	
G. EXISTING FOREST COVER (EXCLUDING FLOODPLAIN)	3.97 AC ±
H. AREA OF FOREST ABOVE AFFORESTATION THRESHOLD	3.41 AC ±
I. AREA OF FOREST ABOVE CONSERVATION THRESHOLD	3.18 AC ±
BREAK EVEN POINT	
J. FOREST RETENTION ABOVE THRESHOLD W/O MITIGATION	0.63 AC ±
K. CLEARING PERMITTED WITHOUT MITIGATION	1.42 AC ±
PROPOSED FOREST CLEARING	
L. TOTAL AREA OF FOREST TO BE CLEARED (CANNOT EXCEED EXIST.)	3.97 AC ±
M. TOTAL AREA OF FOREST TO BE RETAINED	0.00 AC ±
PLANTING REQUIREMENTS	
N. REFORESTATION FOR CLEARING ABOVE CONSERVATION THRESHOLD	0.79 AC ±
P. REFORESTATION FOR CLEARING BELOW CONSERVATION THRESHOLD	1.58 AC ±
Q. CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	0.00 AC ±
R. TOTAL AFFORESTATION REQUIRED	0.00 AC ±
S. TOTAL AFFORESTATION REQUIRED	0.00 AC ±
T. TOTAL REFORESTATION AND AFFORESTATION REQUIRED	2.37 AC ±

FCP NOTES:

1.) THE FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT WILL BE MET BY OFFSITE PLANTINGS AT A SUITABLE AND APPROVED LOCATION FOR AN OBLIGATION OF 2.37 AC. OF REFORESTATION. THE DEVELOPER IS CURRENTLY SEEKING A SUITABLE PROPERTY LOCATION AND WILL RESOLVE THIS ISSUE PRIOR TO APPROVAL OF FINAL PLANS.

SOILS LEGEND

MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Bo	D	BALE SILT LOAM
ChA	B	CHESTER SILT LOAM - 0 TO 3 PERCENT SLOPES
ChB	B	CHESTER SILT LOAM - 3 TO 8 PERCENT - MODERATELY REGOED
GIB2	B	CLENGEL LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED
MIA	B	MANOR LOAM - 0 TO 3 PERCENT SLOPES

USDA - HOWARD COUNTY SOILS SURVEY, MAP No. 19, ISSUED JULY 1968

Eco-Science Professionals, Inc.
CONSULTING ECOLOGISTS

MD DNR Qualified Professional
USACM Virginia Delineator
Certification No. 9952MD06104423

P.O. Box 9056 Glen Arm, MD 21057 (410) 592-6752

John P. Caplow
John P. Caplow

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: be@be-civilengineering.com

DEVELOPER: SECURITY DEVELOPMENT, L.L.C.
P.O. BOX 417
ELLCOTT CITY, MD 21041
PHONE: 410-465-4244

OWNER: MARY C. POTTER
(AKA - MARY CARROLL MUTH)
2003 BEDFORD LANE
ALEXANDRIA, VA 22307-1801

PROJECT: CEDAR GROVE
LOTS 1-12 AND O.S. LOTS 13-14

LOCATION: TAX MAP 29 - GRID 17
PARCEL 65
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: PRELIMINARY PLAN
FOREST CONSERVATION PLAN

DATE: SEPTEMBER 11, 2006
APRIL 26, 2007

PROJECT NO.: 1793

SCALE: AS SHOWN

DRAWING: 5 OF 8

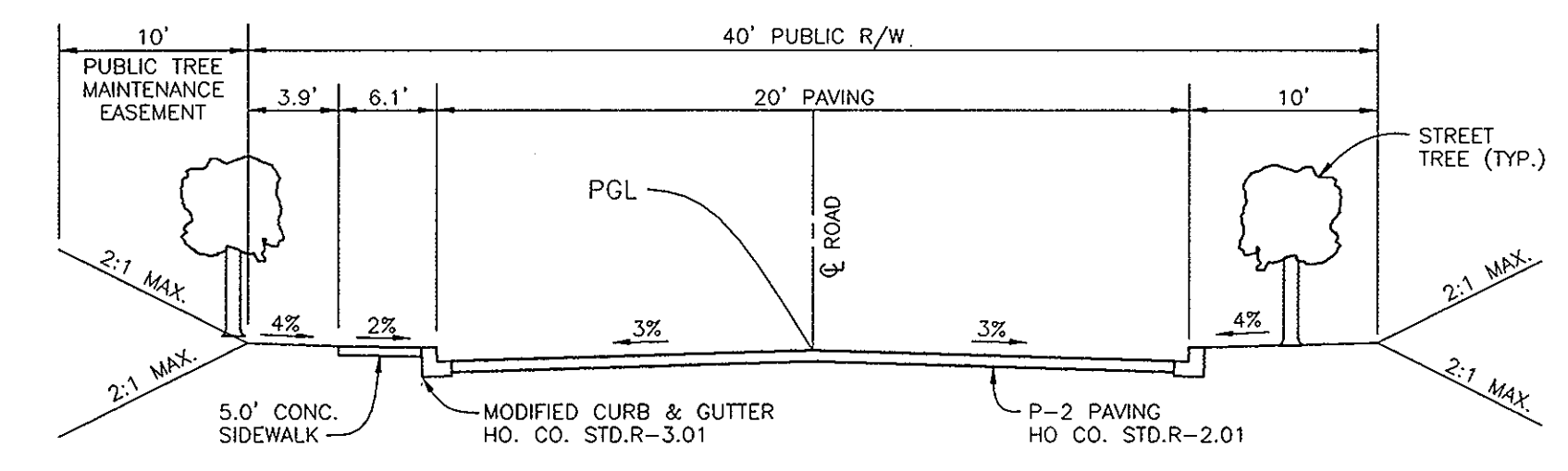
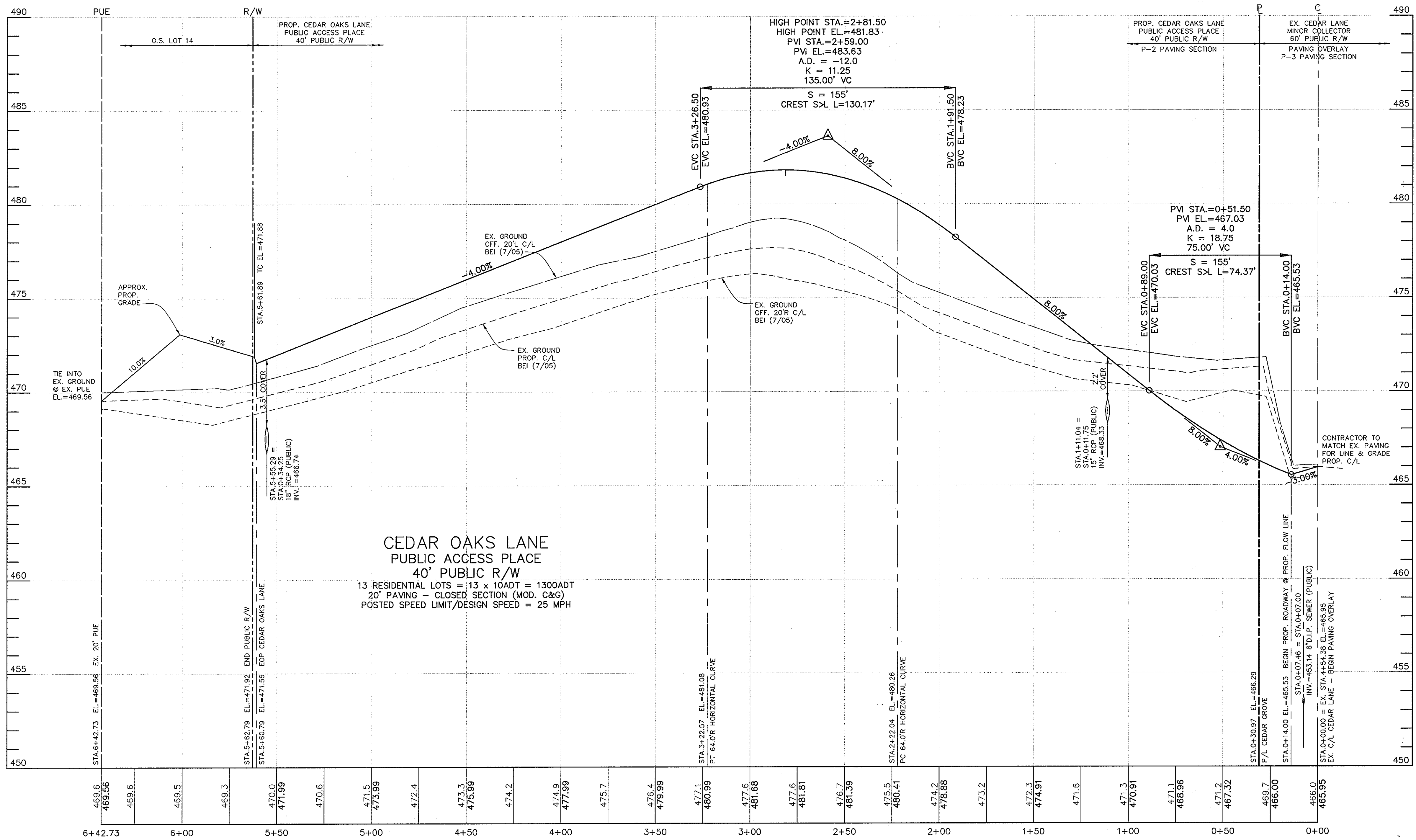
Design: MCR/MAN Draft: MCR/EDD Check: DAM

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DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

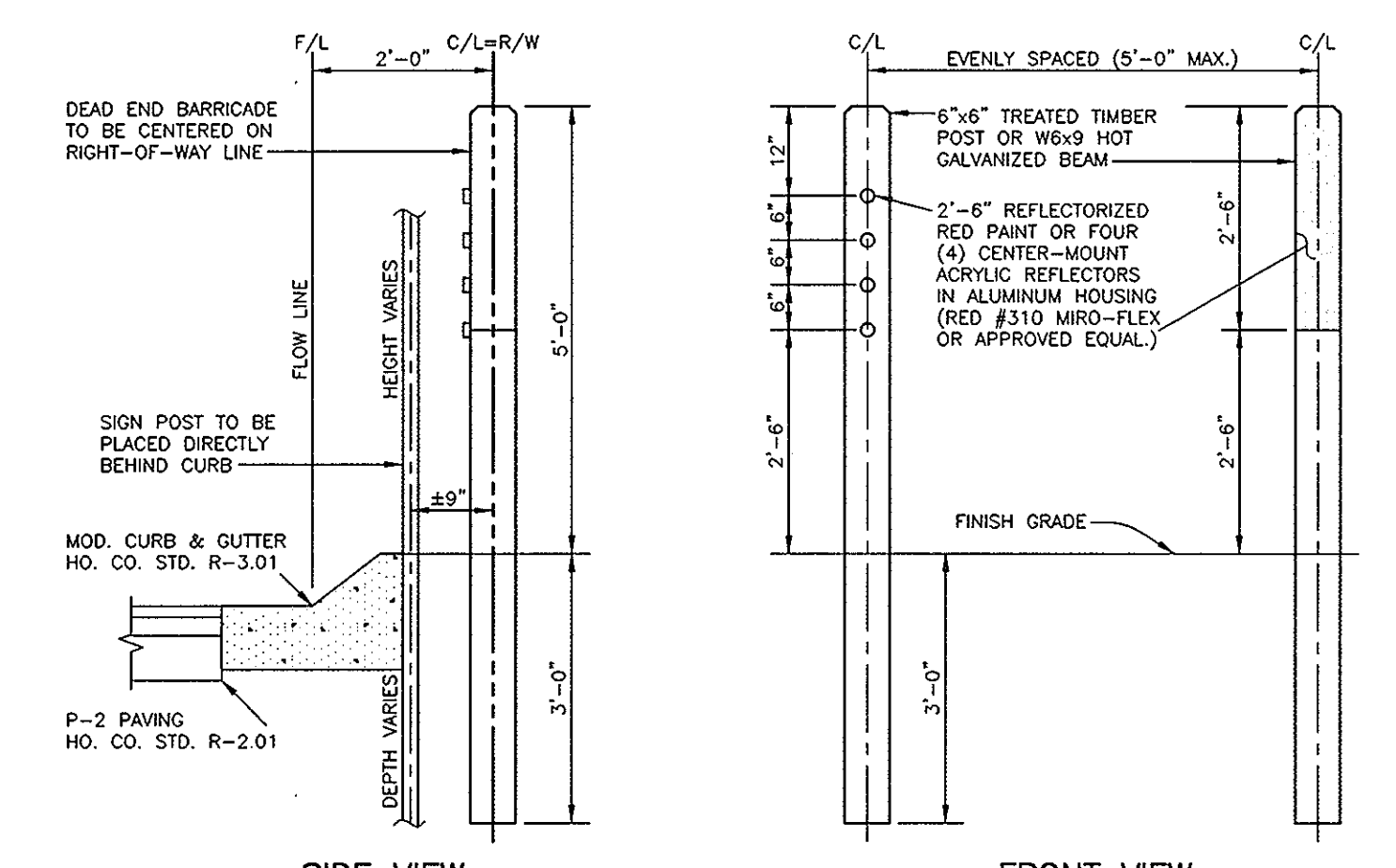
Mark A. Gysell
PLANNING DIRECTOR

DATE: 5/1/07

PLAN
SCALE: 1" = 30'

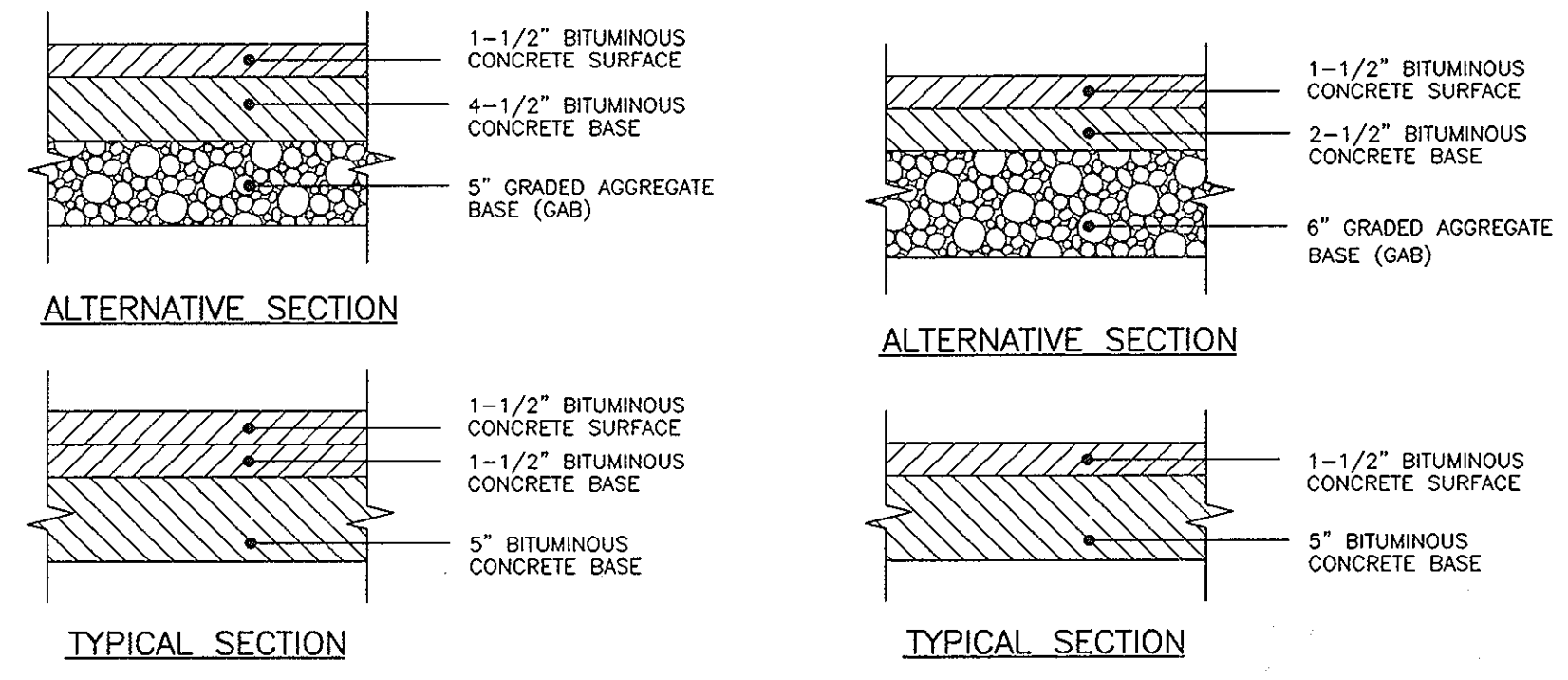


TYPICAL ROADWAY SECTION
NOT TO SCALE
VIEW TOP ROAD
PUBLIC ACCESS PLACE - LESS THAN 200 ADT
POSTED SPEED: 15 MPH (DESIGN SPEED: 25 MPH)
FROM STA. 0+14.25 (BEGIN PROP. ROADWAY @ EX. FLOWLINE)
TO STA. 5+56.67 (EOP PROP. ROADWAY)

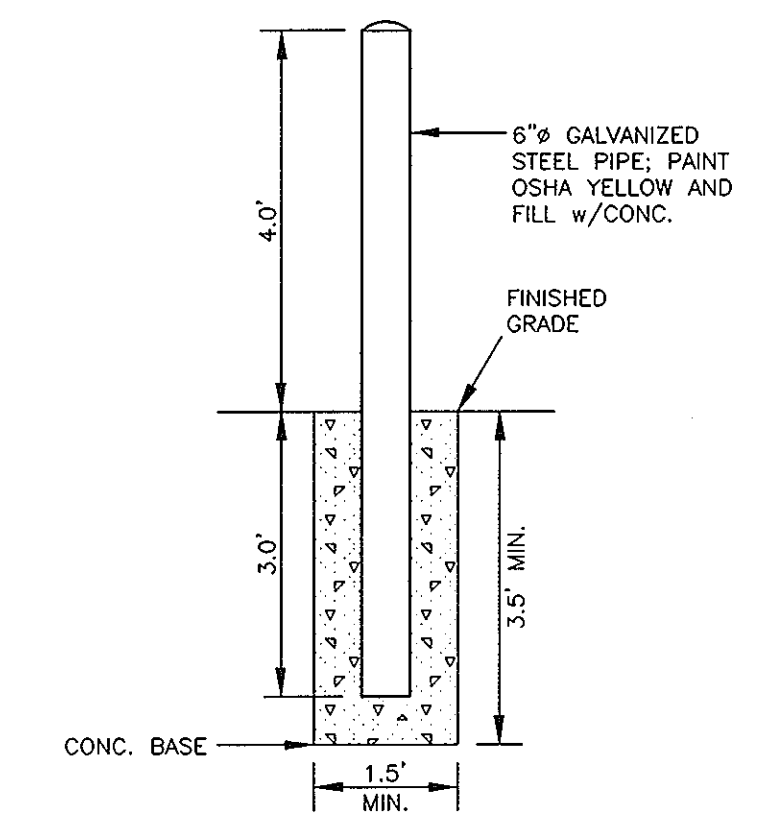


DEAD END BARRICADE DETAIL
NOTE: THIS DETAIL CONFORMS TO HO.CO. STD.R-7.10
SCALE: 1" = 2'

ROADWAY PROFILE VIEW
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'



P-3 PAVEMENT DETAIL
NOT TO SCALE
P-2 PAVEMENT DETAIL
NOT TO SCALE



SWM BOLLARD DETAIL
SCALE: 1" = 2'

CENTERLINE CONTROL DATA - BEARINGS

DESCRIPTION	STATIONS	BEARING	DISTANCE
POB - P/L	0+00.00 - 0+30.97	S77°54'27"W	30.97'
P/L - PC	0+30.97 - 2+22.04	S77°54'27"W	191.07'
PT - END	3+22.57 - 5+60.79	N12°05'33"W	238.22'

CENTERLINE CONTROL DATA - COORDINATES

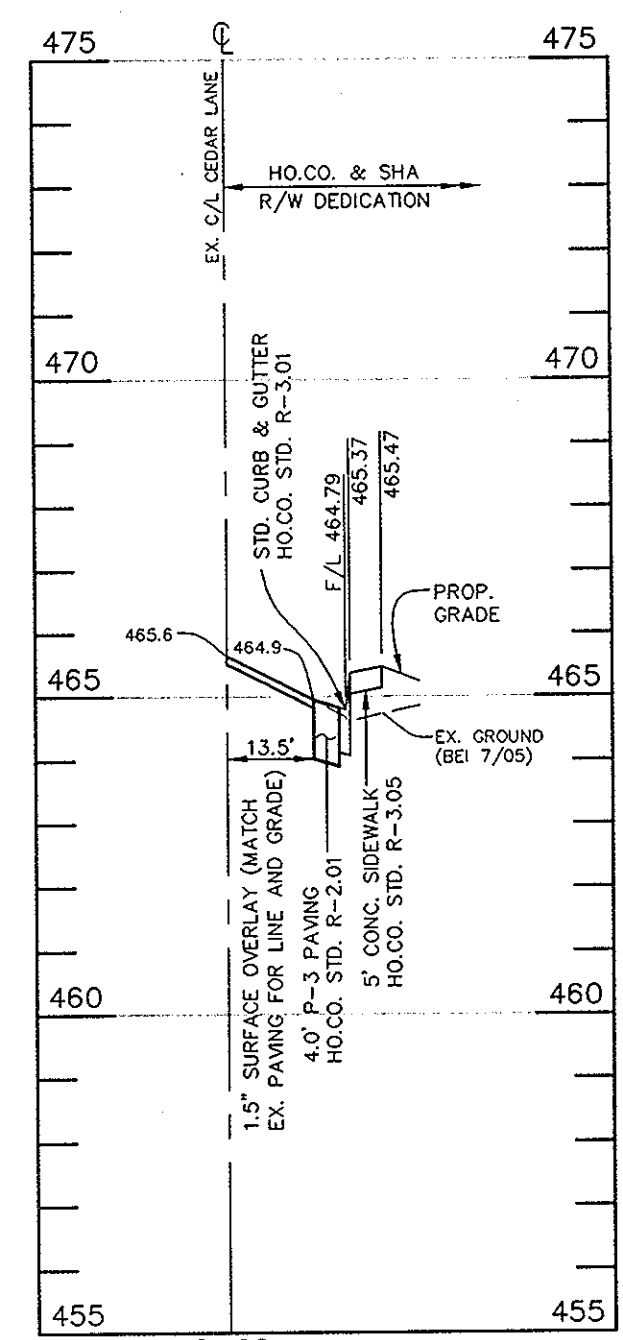
DESCRIPTION	STATION	NORTH	EAST
POB = EX. C/L CEDAR LANE	0+00.00 = 4+54.4	570,538.78	1,343,340.64
INT @ P/L	0+30.97	570,532.2916	1,343,310.3616
PC 64.0'R HC	2+22.04	570,492.2636	1,343,123.5266
PT 64.0'R HC	3+22.57	570,541.4362	1,343,047.5394
END = END PUBLIC R/W	5+60.79	570,776.3228	1,342,997.2167

CENTERLINE CURVE DATA

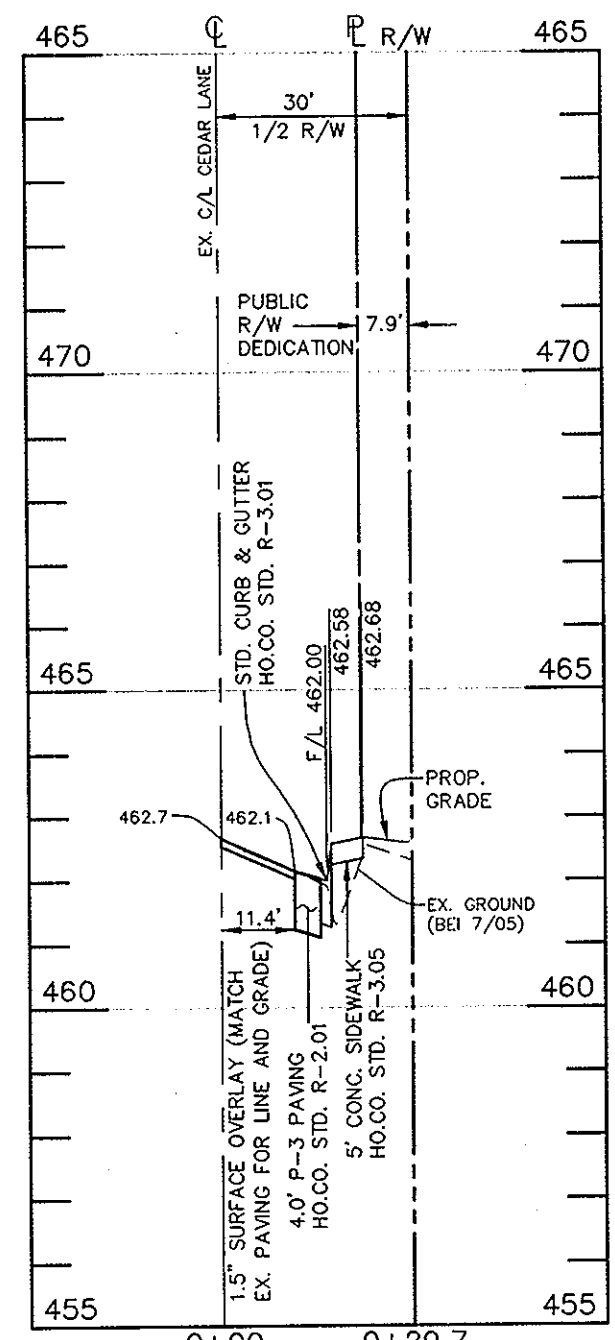
CURVE	STATION	RADIUS	ARC	DELTA	TANGENT	CHORD
C1	PC=2+22.04 PT=3+22.57	64.00'	100.53'	90°00'00"	64.00'	S57°05'33"E 90.51'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
Mark A. Gagliardi 5/10/07
PLANNING DIRECTOR DATE

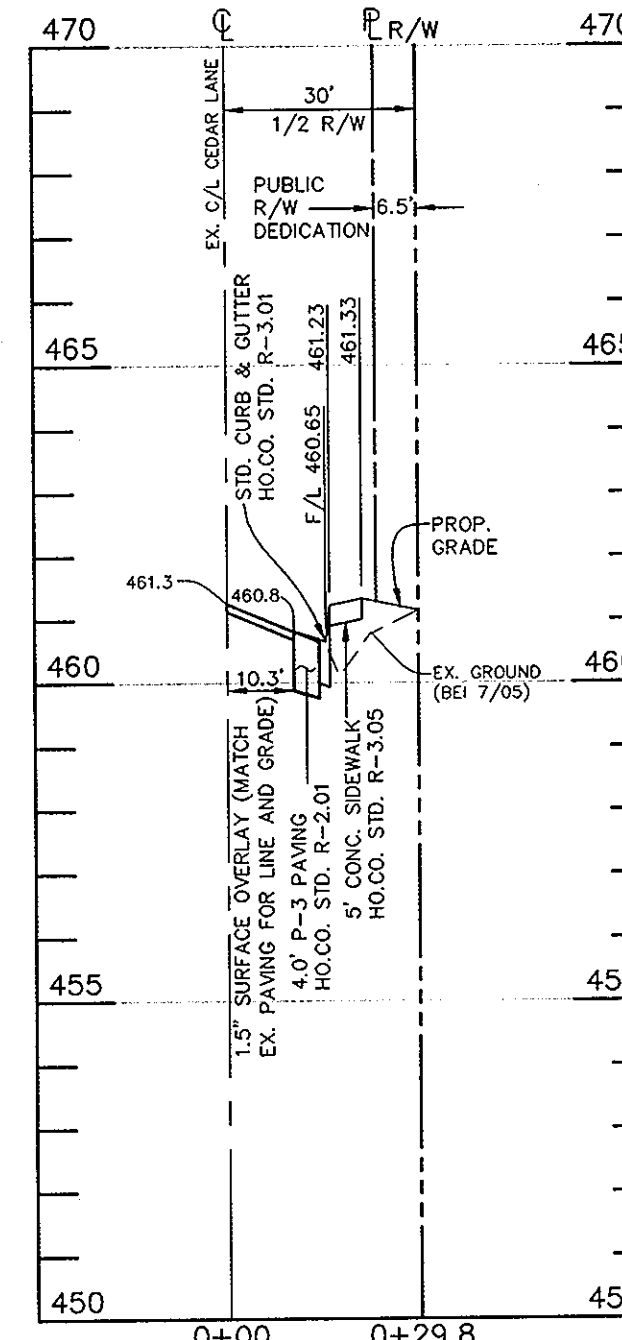
NO. DATE REVISION	
BENCHMARK ENGINEERING, INC.	
8480 BALTIMORE NATIONAL PIKE SUITE 418 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6844 E-MAIL: bei@bei-civilengineering.com	
DEVELOPER: SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLICOTT CITY, MD 21041 PHONE: 410-465-4244	PROJECT: CEDAR GROVE LOTS 1-12 AND O.S. LOTS 13-14 LOCATION: TAX MAP 29 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
OWNER: MARY C. POTTER (AKA - MARY CARROLL MUTH) 2003 BEDFORD LANE ALEXANDRIA, VA 22307-1801	TITLE: PRELIMINARY PLAN ROAD PROFILE, NOTES AND DETAILS
Design: MCR/MAN Draft: MCR/EDD Check: DAM	DATE: SEPTEMBER 11, 2007 APRIL 26, 2007 PROJECT NO. 1793 SCALE: AS SHOWN DRAWING 6 OF 8



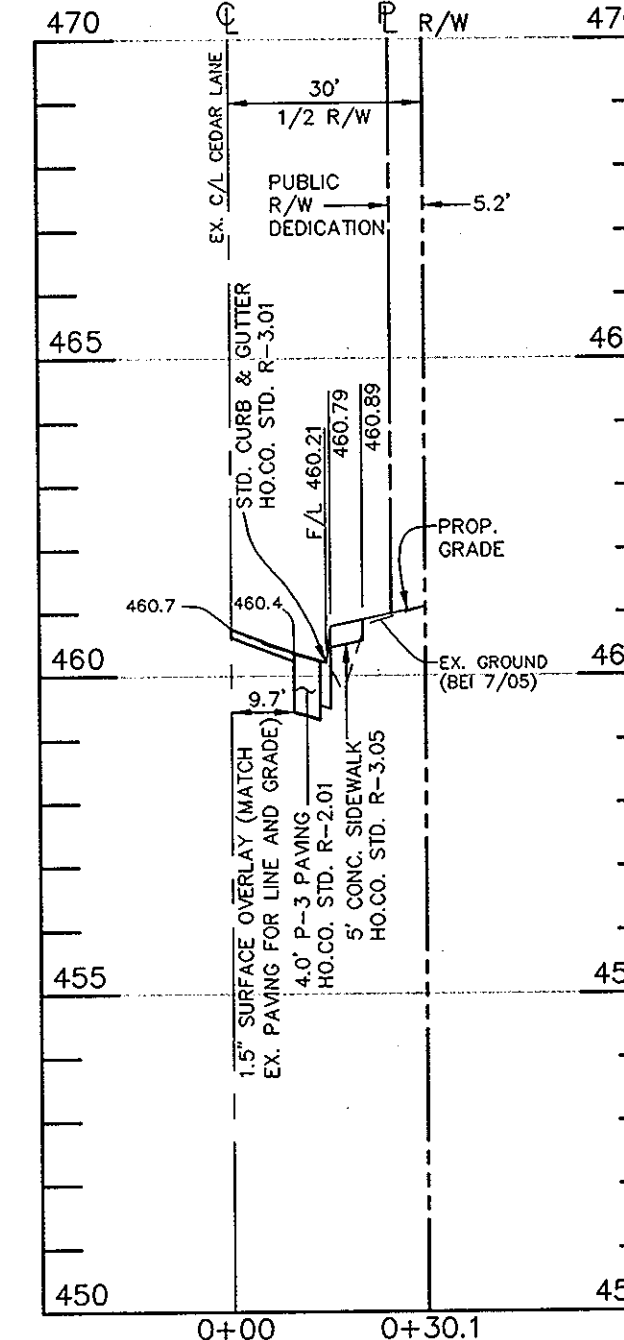
ROADWAY CROSS-SECTION
EX. STA.0+51.7 (@ Curb Return)
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



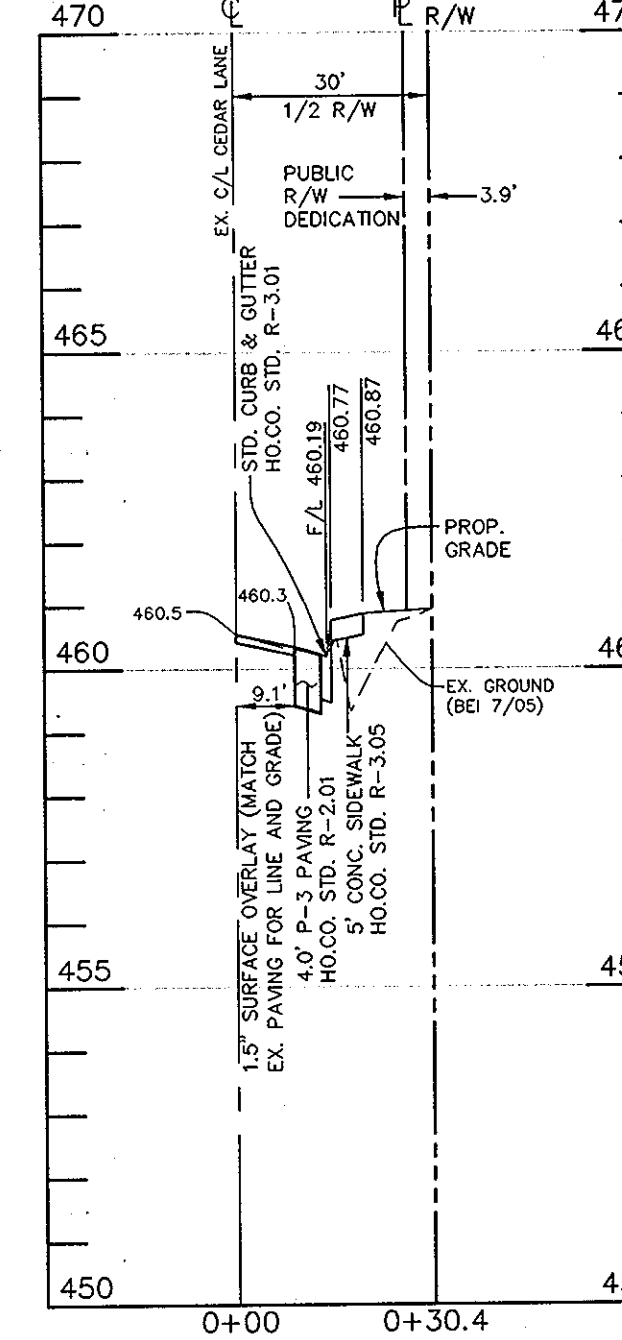
ROADWAY CROSS-SECTION
EX. STA.1+01.7
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 VERTICAL SCALE: 1" = 3'



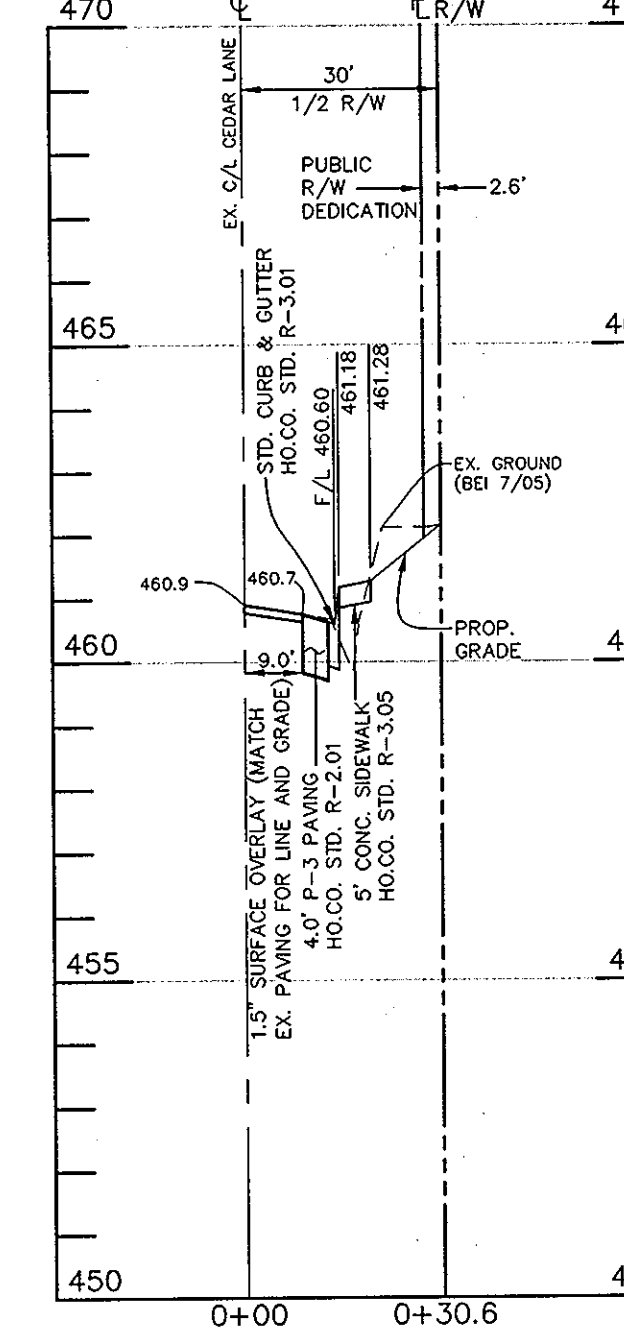
ROADWAY CROSS-SECTION
EX. STA.1+51.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



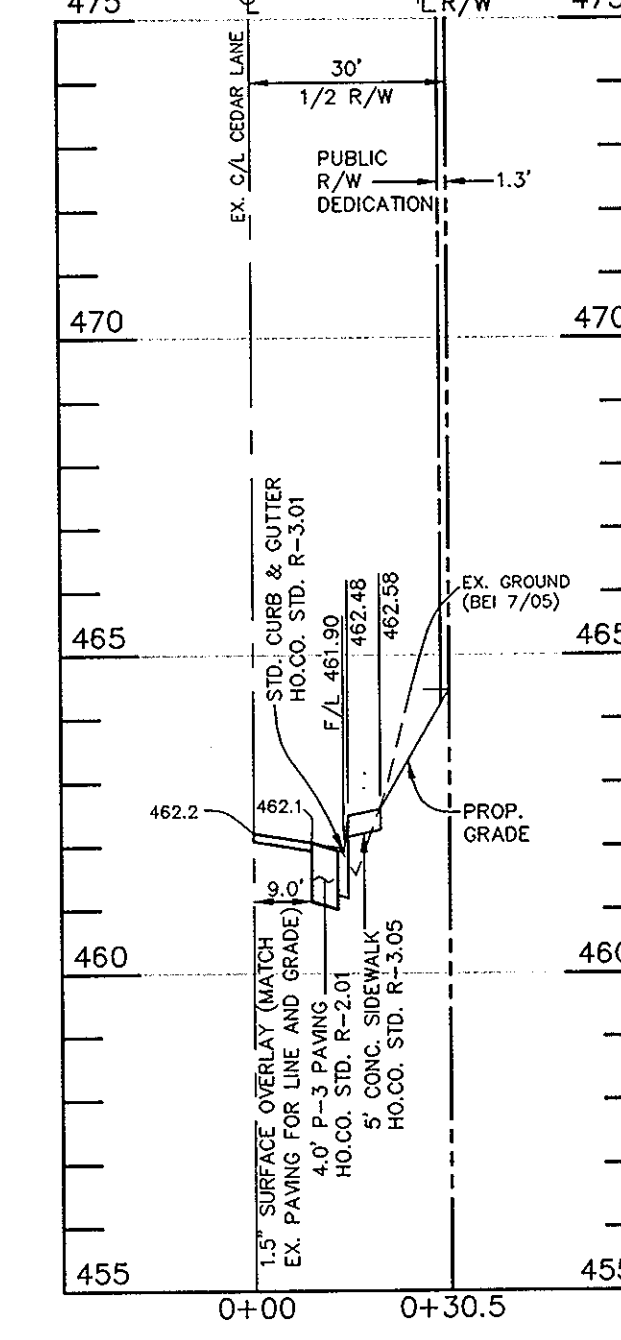
ROADWAY CROSS-SECTION
EX. STA.2+01.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



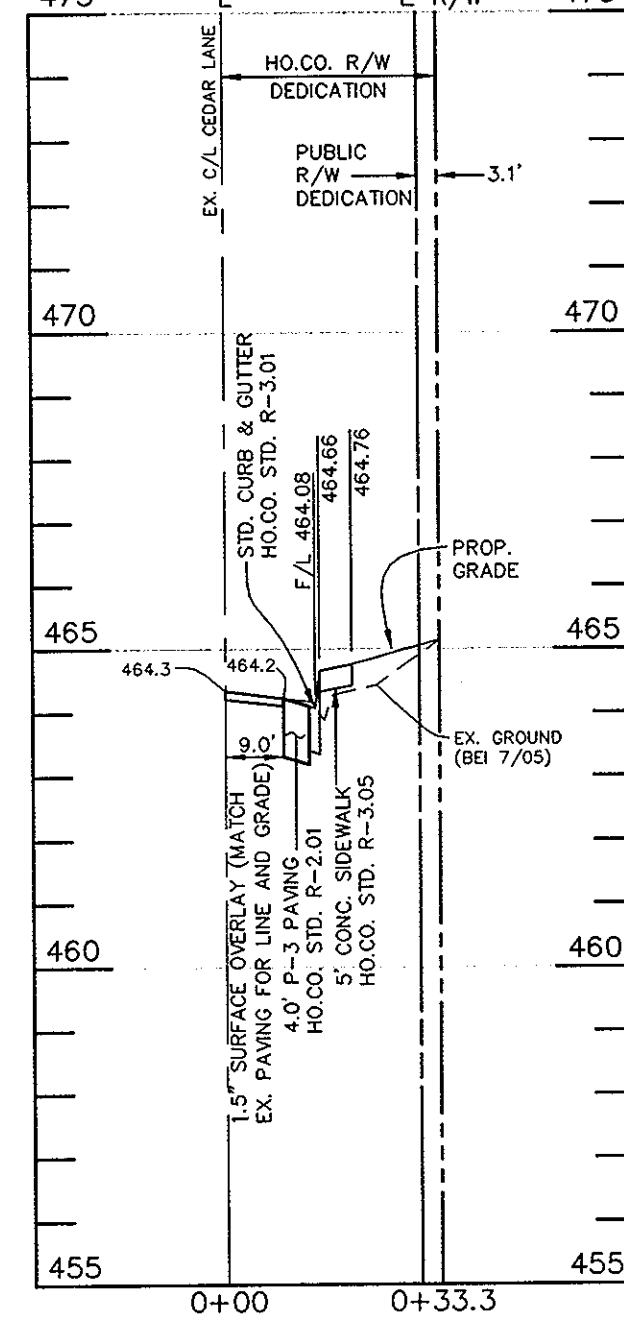
ROADWAY CROSS-SECTION
EX. STA.2+51.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



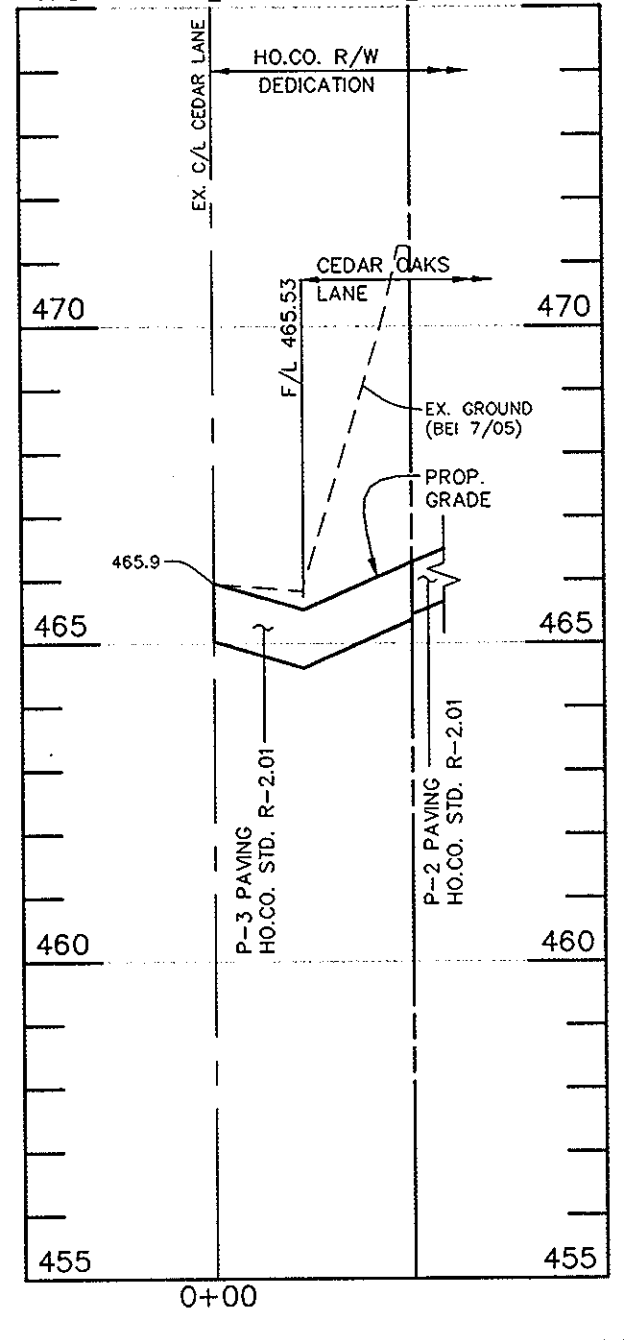
ROADWAY CROSS-SECTION
EX. STA.3+01.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



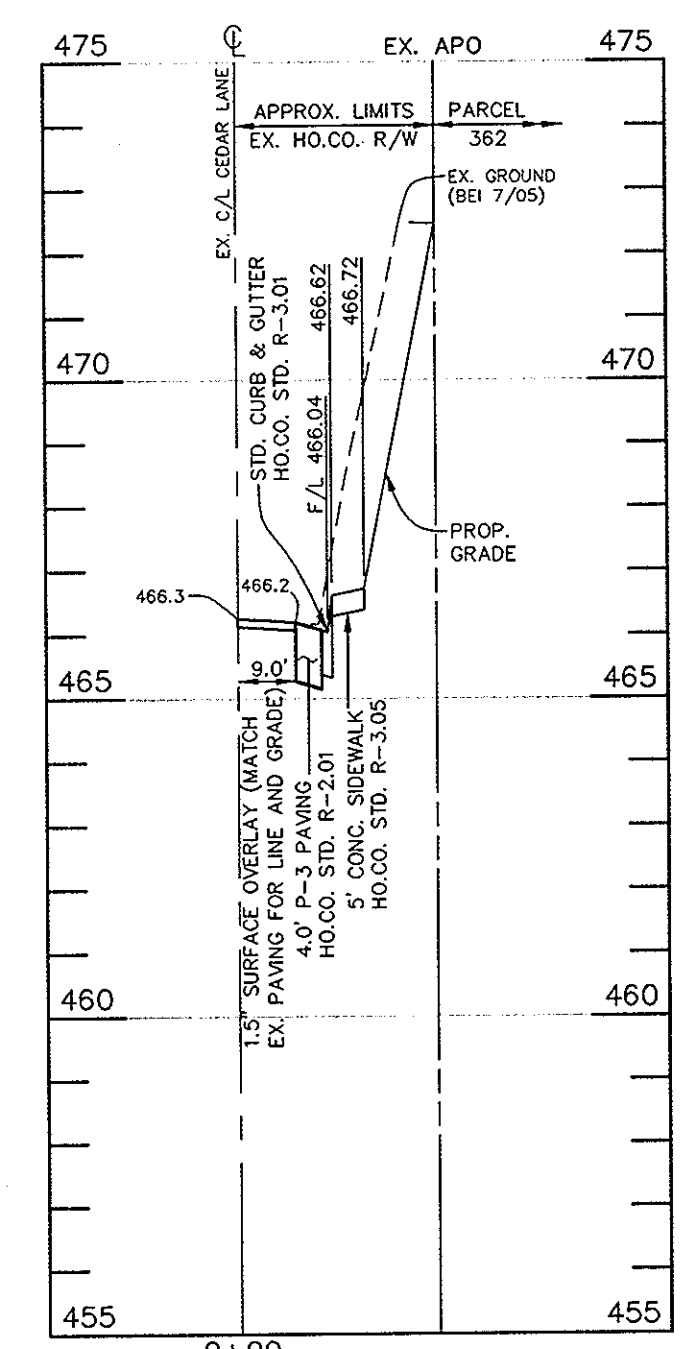
ROADWAY CROSS-SECTION
EX. STA.3+51.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



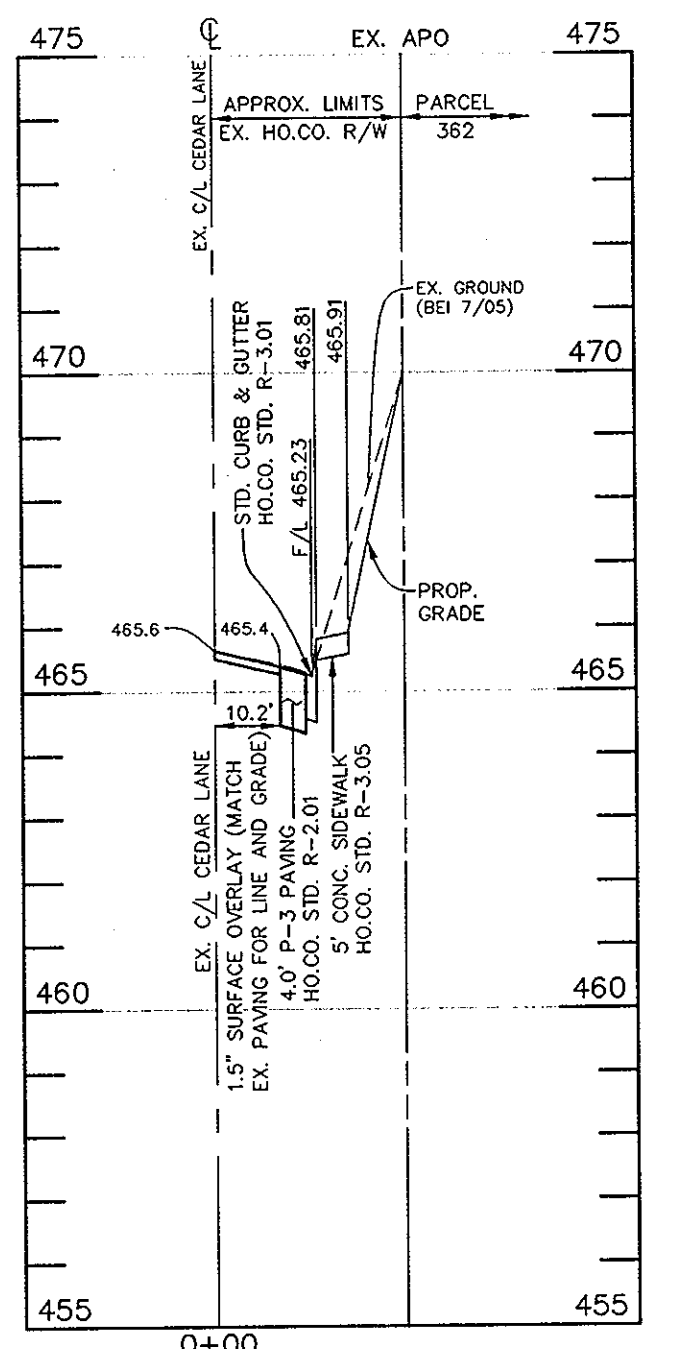
ROADWAY CROSS-SECTION
EX. STA.4+01.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



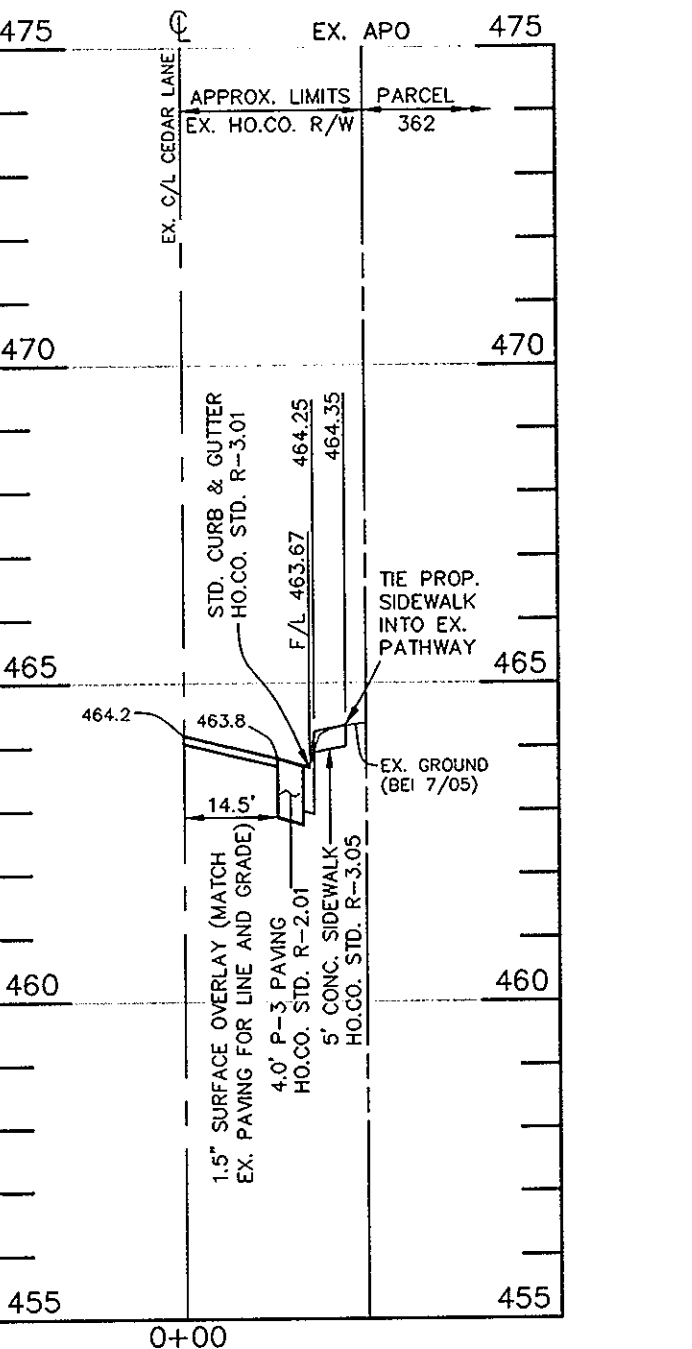
ROADWAY CROSS-SECTION
EX. STA.4+54.4
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



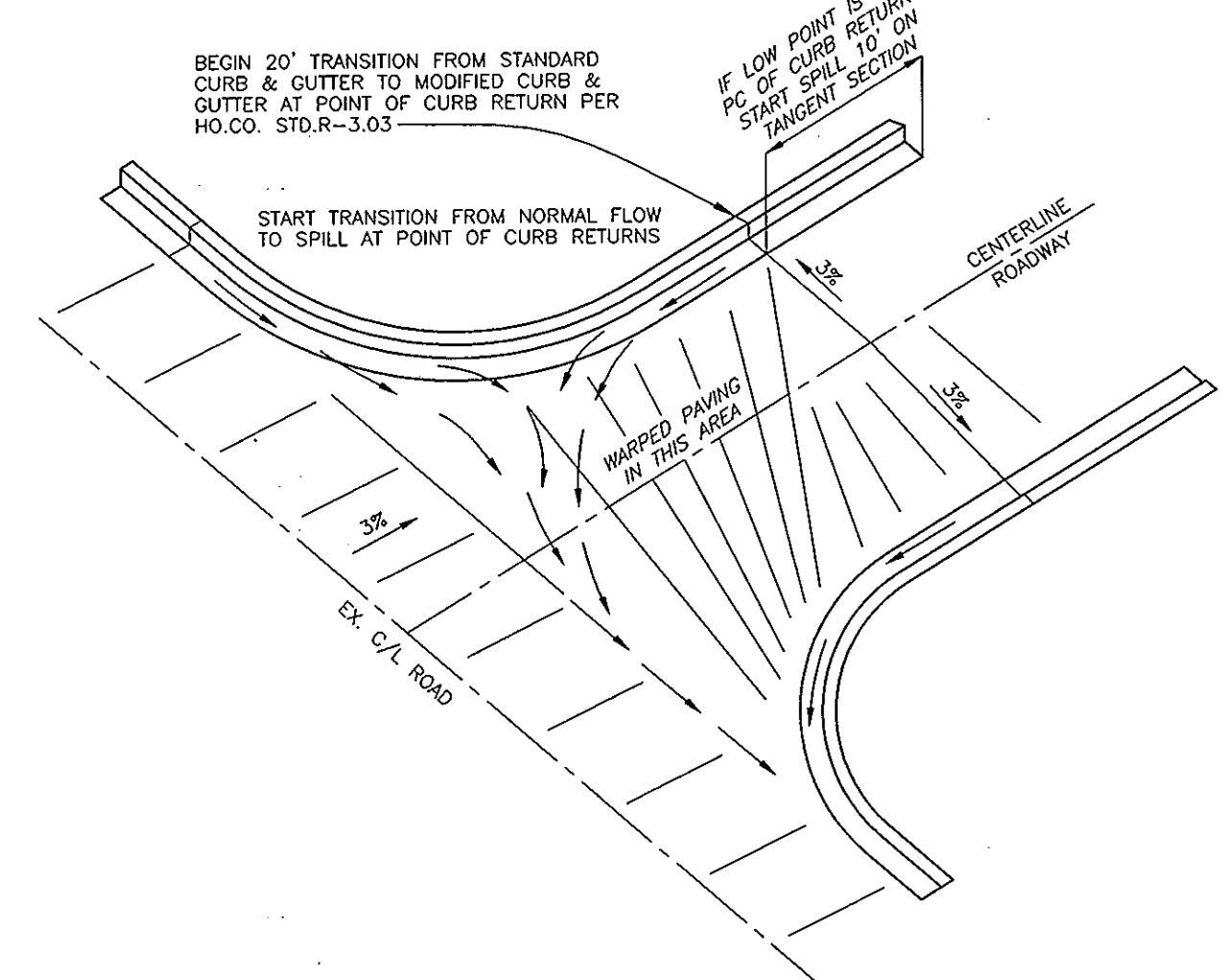
ROADWAY CROSS-SECTION
EX. STA.5+01.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



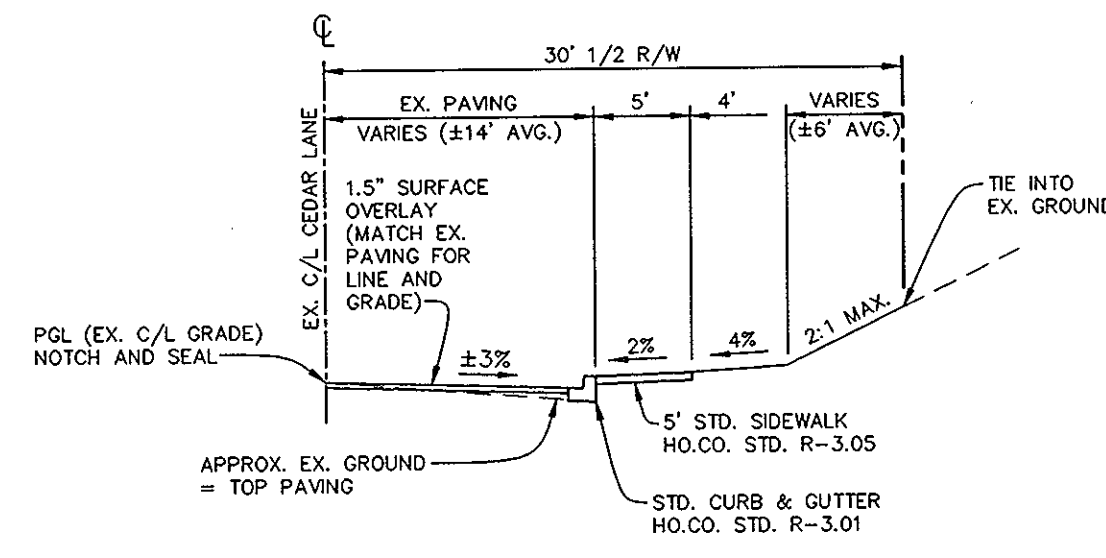
ROADWAY CROSS-SECTION
EX. STA.5+51.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



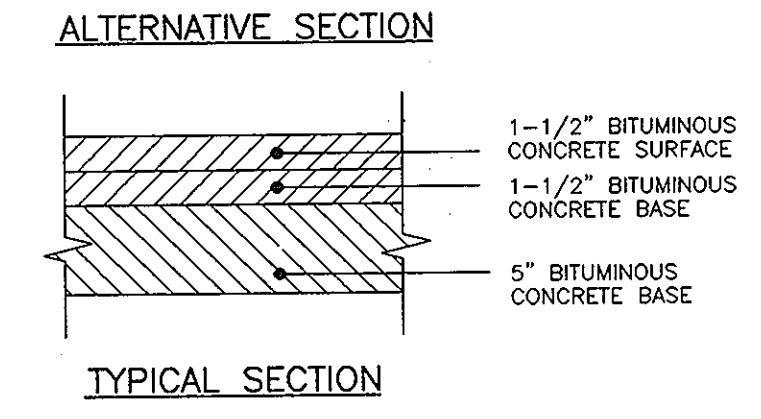
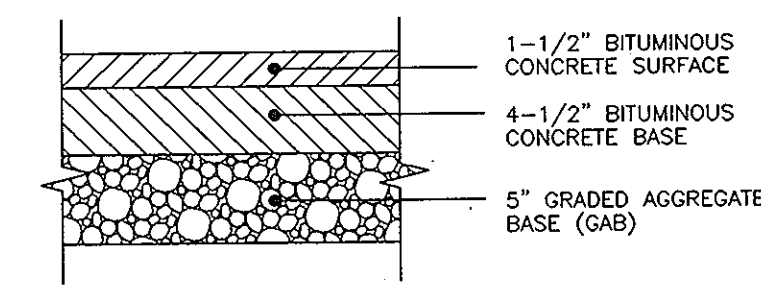
ROADWAY CROSS-SECTION
EX. STA.6+01.7
 HORIZONTAL SCALE: 1" = 30'
 VERTICAL SCALE: 1" = 3'



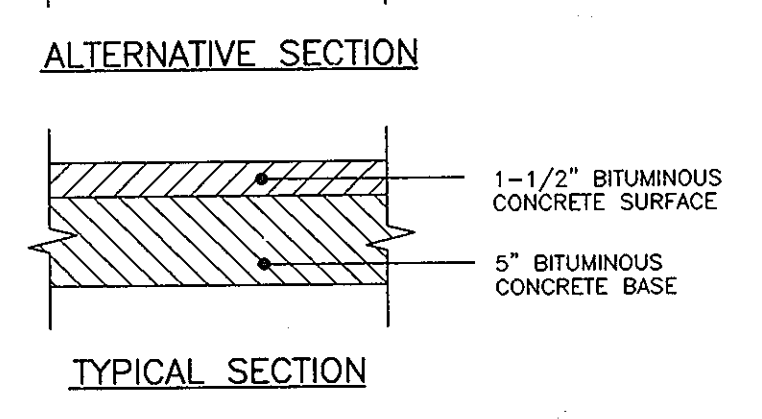
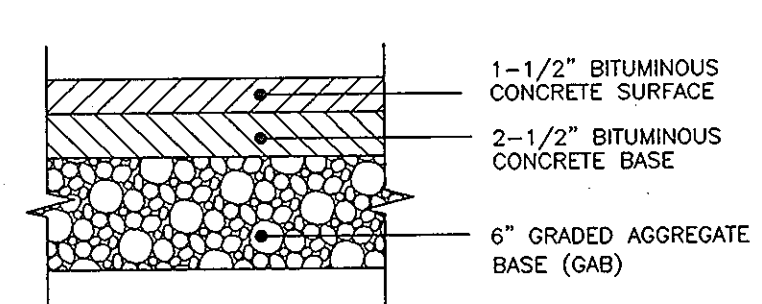
TYPICAL INTERSECTION DRAINAGE DETAIL
 NOT TO SCALE



CEEDAR LANE
 MINOR COLLECTOR - 60' R/W
 POSTED SPEED: 30 MPH
 FROM EX. STA. 0+00 @ INT MD RTE. 108
 TO EX. STA. 6+08 @ EX. CURB & GUTTER
 NOTE: THIS DETAIL CONFORMS TO HO.CO. STD. R-10.01
TYPICAL SECTION - PAVEMENT WIDENING
 NOT TO SCALE



P-3 PAVEMENT DETAIL
 NOT TO SCALE



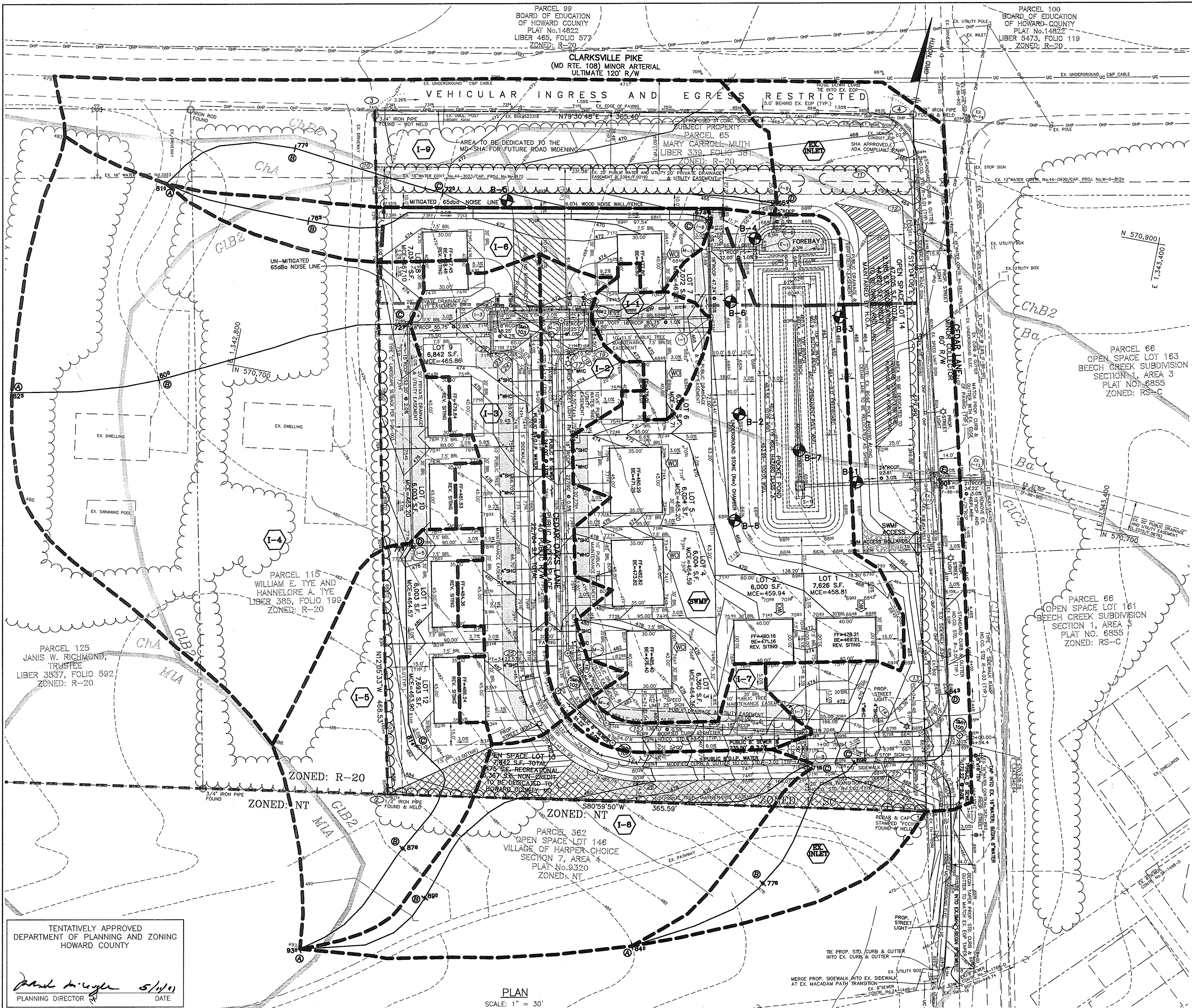
P-2 PAVEMENT DETAIL
 NOT TO SCALE

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Mark A. Gagliardi
 PLANNING DIRECTOR

DATE: 5/1/07

NO.		DATE		REVISION	
BENCHMARK					
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS					
ENGINEERING, INC.					
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 418 ELLICOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6844 E-MAIL: bei@bei-civilengineering.com					
DEVELOPER: SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLICOTT CITY, MD 21041 PHONE: 410-465-4244			PROJECT: CEEDAR GROVE LOTS 1-12 AND O.S. LOTS 13-14		
OWNER: MARY C. POTTER (AKA - MARY CARROLL MUTH) 2003 BEDFORD LANE ALEXANDRIA, VA 22307-1801			LOCATION: TAX MAP 29 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
TITLE: PRELIMINARY PLAN PUBLIC ROADWAY IMPROVEMENTS CROSS-SECTIONS AND DETAILS			DATE: SEPTEMBER 11, 2006 APRIL 26, 2007		
Design: MCR/MAN			PROJECT NO. 1793		
Draft: MCR/EDD			SCALE: AS SHOWN		
Check: DAM			DRAWING 7 OF 8		



AREA AND "C" FACTOR TABULATION							
PROJECT:	CEDAR GROVE		DATE:	3/27/2007	BEI JOB #:	1793	
PHASE	INLET #	ZONING	SUBAREA (B)	AREA (Ac) (A)	"C" FACTOR <25yrs (C)	"C" FACTOR ≥25yrs(C)	% IMPERVIOUS (P)
	I-1	R-SC		0.1106	0.36	0.42	0.20
	I-2	R-SC		0.2398	0.72	0.81	0.80
	I-3	R-SC		0.4684	0.58	0.66	0.60
	I-4	R-SC		1.7863	0.24	0.32	0.24
	I-5	R-SC		0.6257	0.24	0.32	0.21
	I-6	R-SC		0.2918	0.31	0.38	0.22
	I-7	R-SC		0.1006	0.78	0.88	0.89
	I-8	R-SC		0.6809	0.24	0.29	0.12
	I-9	R-SC		0.8859	0.55	0.64	0.59
	SWMF	R-SC		1.1592	0.29	0.34	0.15
	EX INLET	R-SC		1.1882	0.51	0.58	0.48
	12	R-SC		0.0000	0.00	0.00	0.00

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Bs	D	BAILE SILT LOAM
ChA	B	CHESTER SILT LOAM - 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM - 3 TO 8 PERCENT - MODERATELY ROODED
GIB2	B	GLENHOLD LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED
MIA	B	MANOR LOAM - 0 TO 3 PERCENT SLOPES

USDA - HOWARD COUNTY SOILS SURVEY, MAP No. 19, ISSUED JULY 1968

NO.	DATE	REVISION

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

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ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
E-MAIL: bei@bei-civilengineering.com

DEVELOPER:	SECURITY DEVELOPMENT, L.L.C. P.O. BOX 417 ELLICOTT CITY, MD 21041 PHONE: 410-465-4244	PROJECT:	CEDAR GROVE LOTS 1-12 AND O.S. LOTS 13-14
OWNER:	MARY C. POTTER (AKA - MARY CARROLL MUTH) 2003 BEDFORD LANE ALEXANDRIA, VA 22307-1801	LOCATION:	TAX MAP 28 - GRID 17 PARCEL 65 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
		TITLE:	PRELIMINARY PLAN STORM DRAINAGE AREA MAP
		DATE:	SEPTEMBER 11, 2006 APRIL 26, 2007
		PROJECT NO.:	1793
Design: MCR/MAN	Draft: MCR/EDD	Check: DAM	SCALE: AS SHOWN
			DRAWING # 8 OF 8

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

David M. Weller 5/11/11
PLANNING DIRECTOR DATE

PLAN
SCALE: 1" = 30'