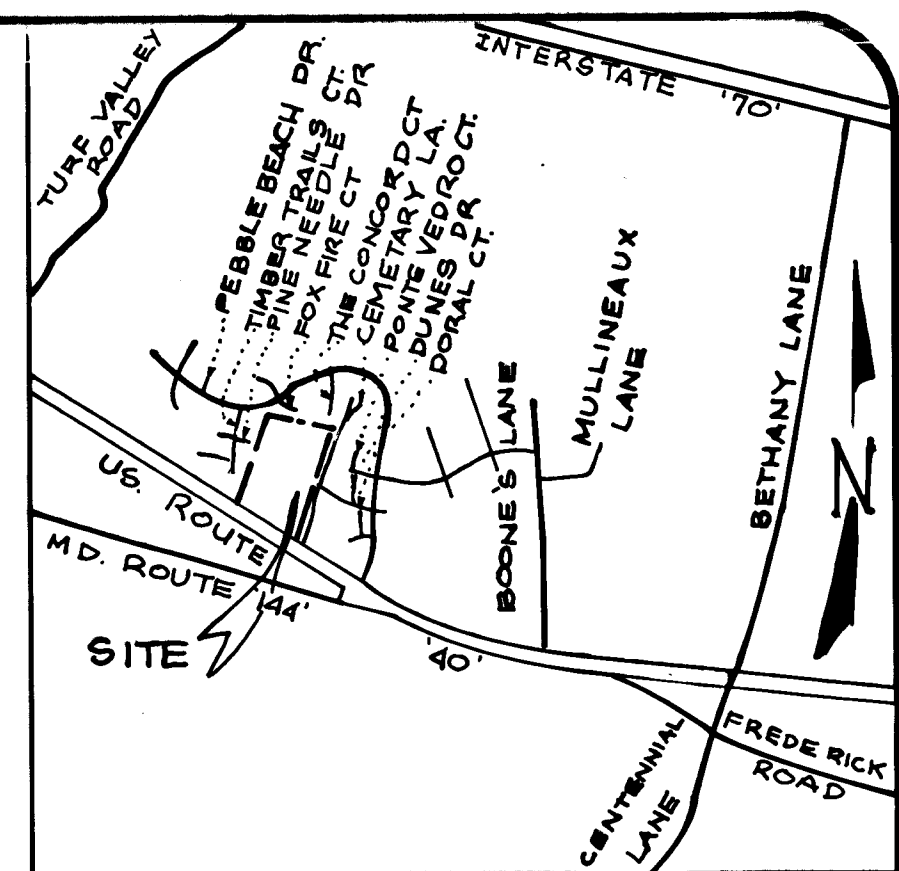


APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John Dammus 5/2/90
 CHIEF, LAND DEVELOPMENT DIVISION
Francis W. Velez 3/9/90
 CHIEF, BUREAU OF HIGHWAYS
William E. Ray 3/24/90
 CHIEF, BUREAU OF ENGINEERING
 APPROVED: DEPARTMENT OF PLANNING & ZONING
John J. Taylor 4/23/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT



GENERAL NOTES

All work shall be done in accordance with Howard County Standards, Specifications and Details for Construction.

All utility companies must be notified in advance of any construction.

Storm drainage trenches within road rights-of-way shall be backfilled and compacted in accordance with Howard County Road Code.

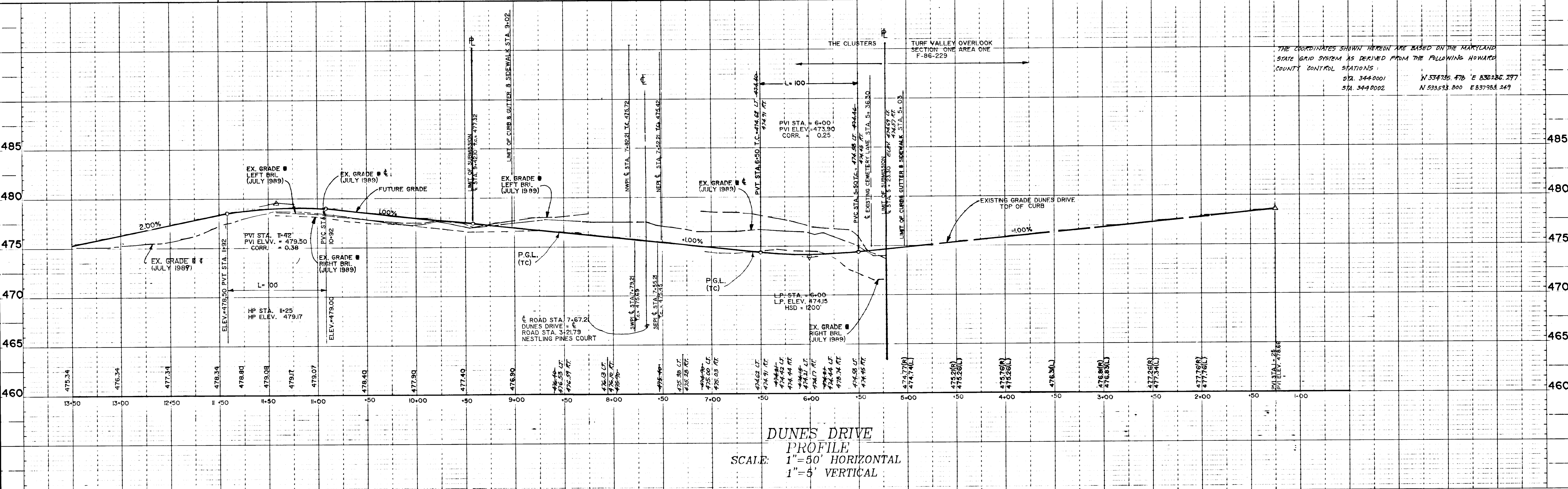
Any damage to public rights-of-way or paving will be corrected at the contractor's expense.

Contractor to notify the Howard County Inspection and Survey Division at least three days before starting work shown on these drawings (Telephone: (301) 792-7272).

All traffic control devices shall be installed in accordance with the Manual of Uniform Traffic Control Devices, 1984 Revised Edition.

Location of existing utilities shall be verified by the contractor prior to starting any work shown on these drawings. Any damage to existing utilities will be corrected at the contractor's expense.

In accordance with the study performed by Exploration Research, dated Oct. 27, 1989, I hereby certify that to the best of my knowledge the proposed construction for the referenced project does not affect any non-tidal wetland areas.



THE CLUSTERS
 TAX MAP 16 PARCELS 101 & 58
 ELECTION DISTRICT No. 2
DUNES DRIVE PLAN & PROFILE

Project: 80059-00
 Date: SEPT 1989
 Illustration: CAM/LPR, CAM
 Scale: 1" = 50'
 Date: 2/2/90
 Description: First submission to Howard County DPZ
 Revisions: 0

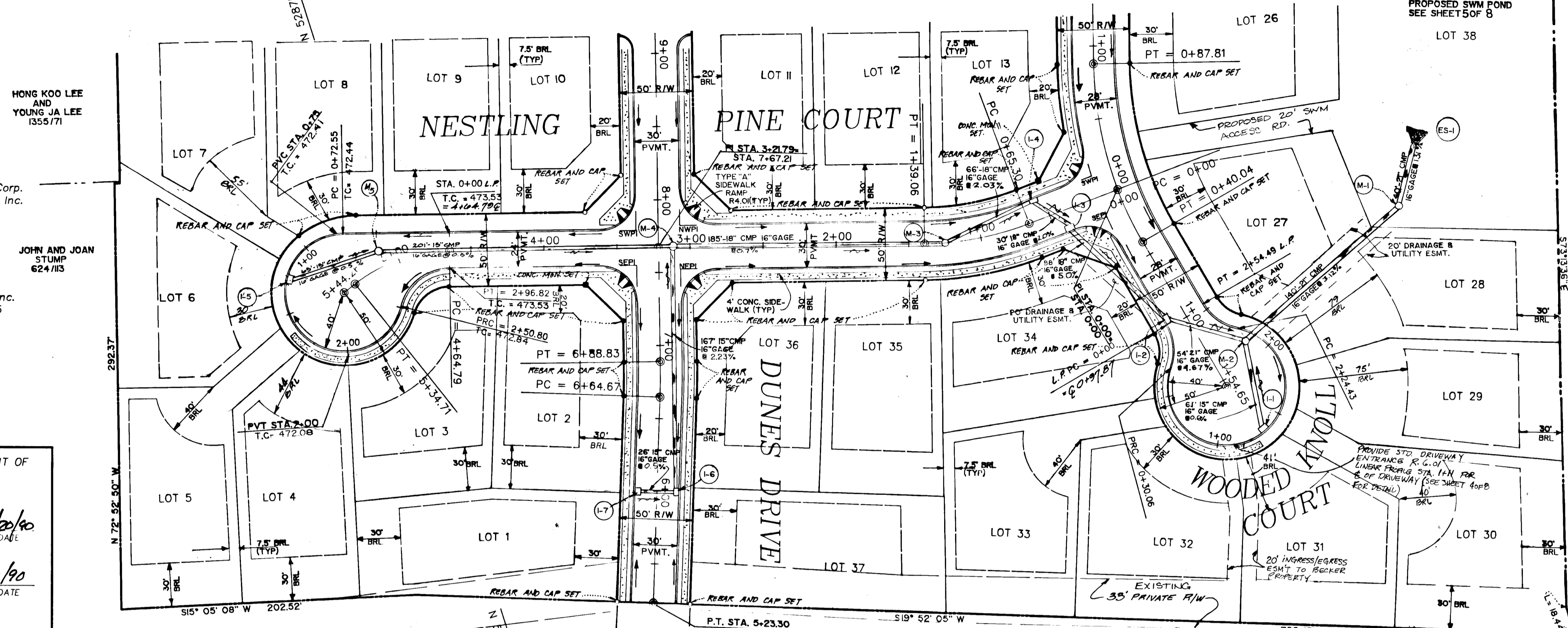
MILDENBERG MACHI & ASSOCIATES, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (301) 461-0078 D.C. Metro: (301) 621-5768

1 OF 8

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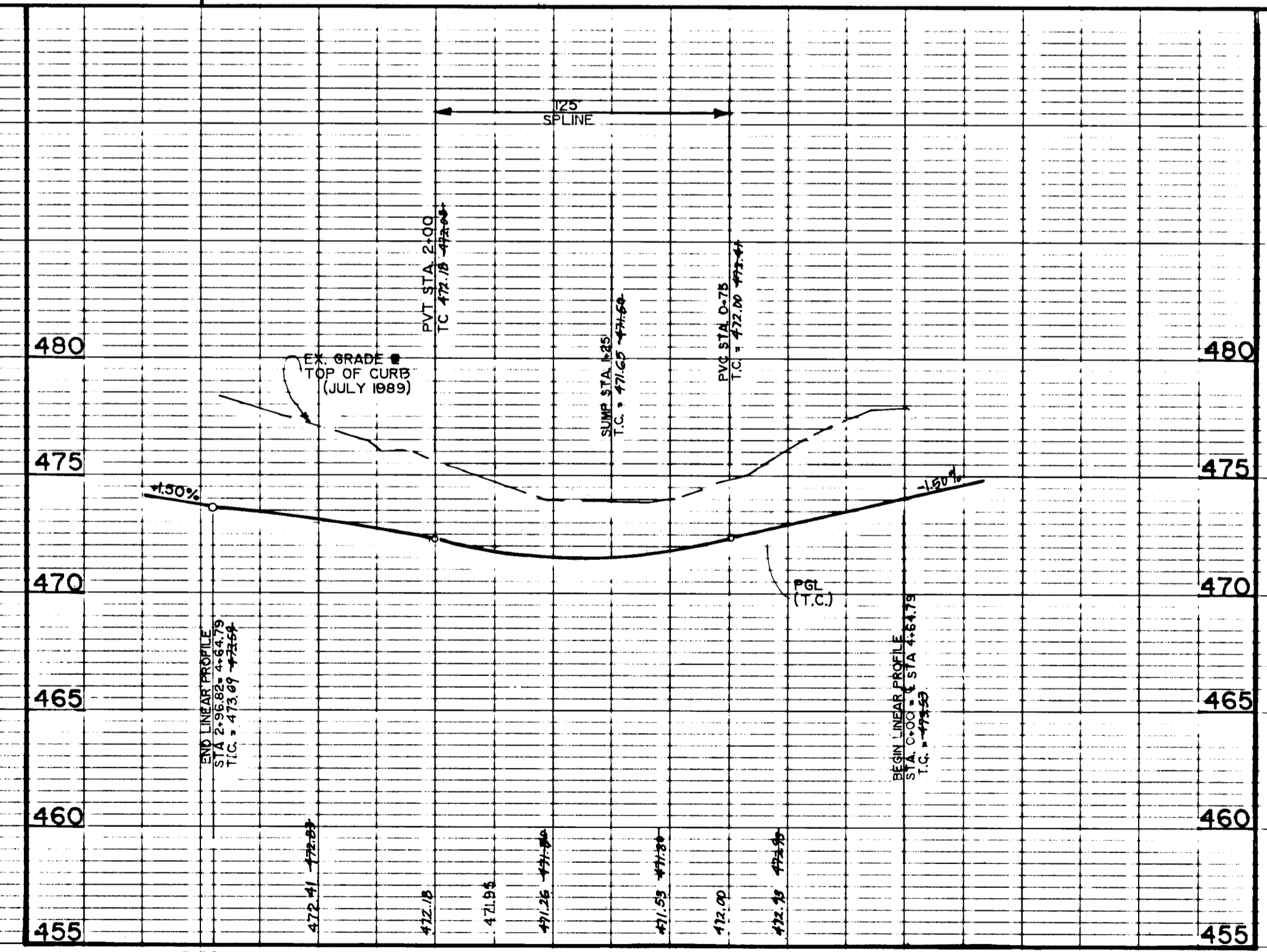
FOR PLAN AND PROFILE
SHEET 1 OF 8

FOR PLAN AND PROFILE
SHEET 3 OF 8

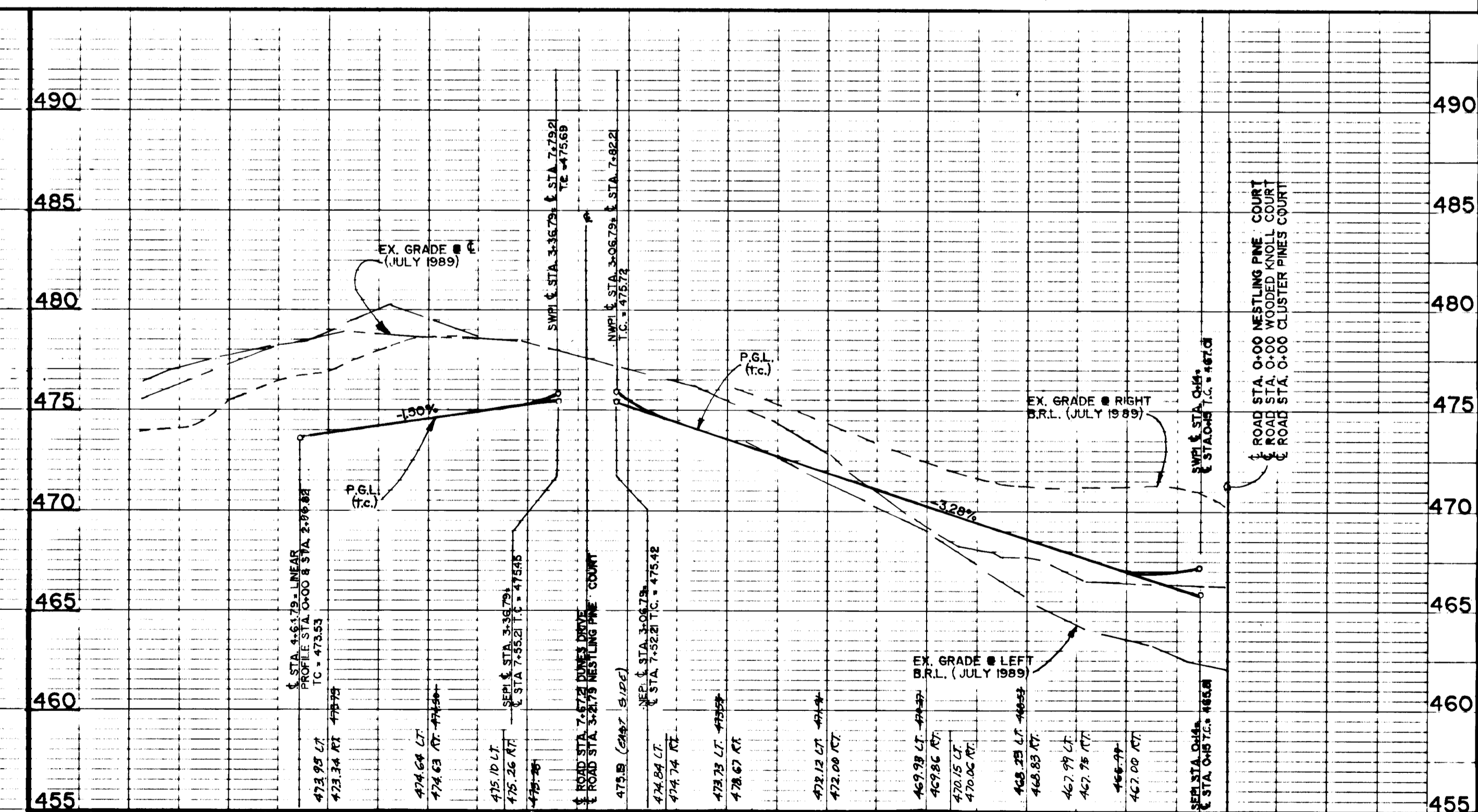


NESTLING PINE COURT		NESTLING PINE COURT	
Curve Data		Curve Data	
STA. 0+65.30 to STA. 1+39.06	Radius = 210.00'	STA. 4+64.79 to STA. 5+34.71	Radius = 106.31'
	Length = 73.76'		Length = 69.92'
	Tan = 37.26'		Tan = 36.27'
	Delta = 20°07'33"		Delta = 37°39'44"
	Chord = S 07°02'11" W, 73.38'		Chord = S 01°43'54" E, 68.66'

NESTLING PINE COURT
PLAN VIEW
SCALE: 1"=50'



NESTLING PINE COURT
LINEAR PROFILE
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL



NESTLING PINE COURT
PROFILE
SCALE: 1"=50' HORIZONTAL
1"=5' VERTICAL

Owner/Developer
Pedicord Property Development Corp.
c/o Land Design & Development Inc.
8307 Main Street
Ellicott City, Maryland
(301) 461-7100

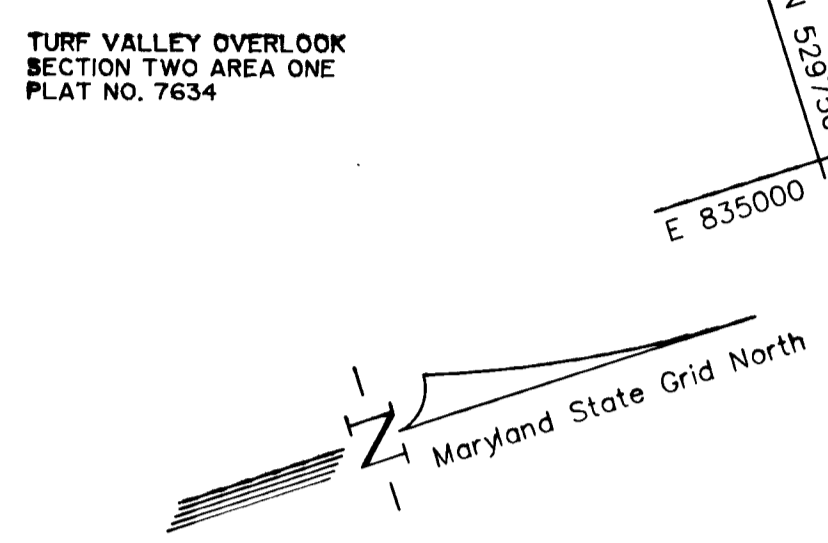
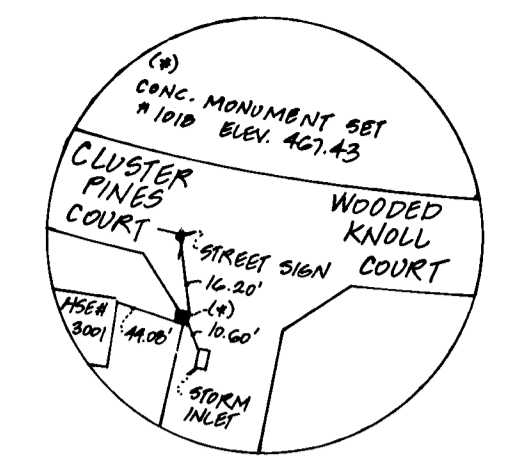
Engineer
Mildenberg, Machi & Associates, Inc.
3300 N. Ridge Road, Suite 235
Ellicott City, Maryland 21043
(301) 461-0078

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Chad Dennis 3/20/90
CHIEF, LAND DEVELOPMENT DIVISION DATE

Janville W. Wellwood 3/19/90
CHIEF, BUREAU OF HIGHWAYS DATE

Debra J. Kelly 3-20-90
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
Janice S. Taylor 3/21/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE



Project	89059-00	Date	SEPT 1989
Illustration	CAM/LPR	Engineering	CAM
Scale	1" = 50'	Approval	JBM

Revised Comments	PER HAS 7/1/89 LETTER & SEVEN COMMENTS APPROV.	Date	2/2/90
1	First submission to Howard County DPZ	Date	10/27/89
0		Date	

THE CLUSTERS
TAX MAP No. 16 PARCELS 101 & 58
ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND
NESTLING PINE COURT PLAN & PROFILE

MILDENBERG, MACHI & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
(301) 461-0078 D.C. Metro: (301) 621-5168

1547

OWNER/DEVELOPER
 Pedicord Property Development Corp.
 c/o Land Design & Development Inc.
 8307 Main Street
 Ellicott City, Maryland 21043
 (301) 461-7100

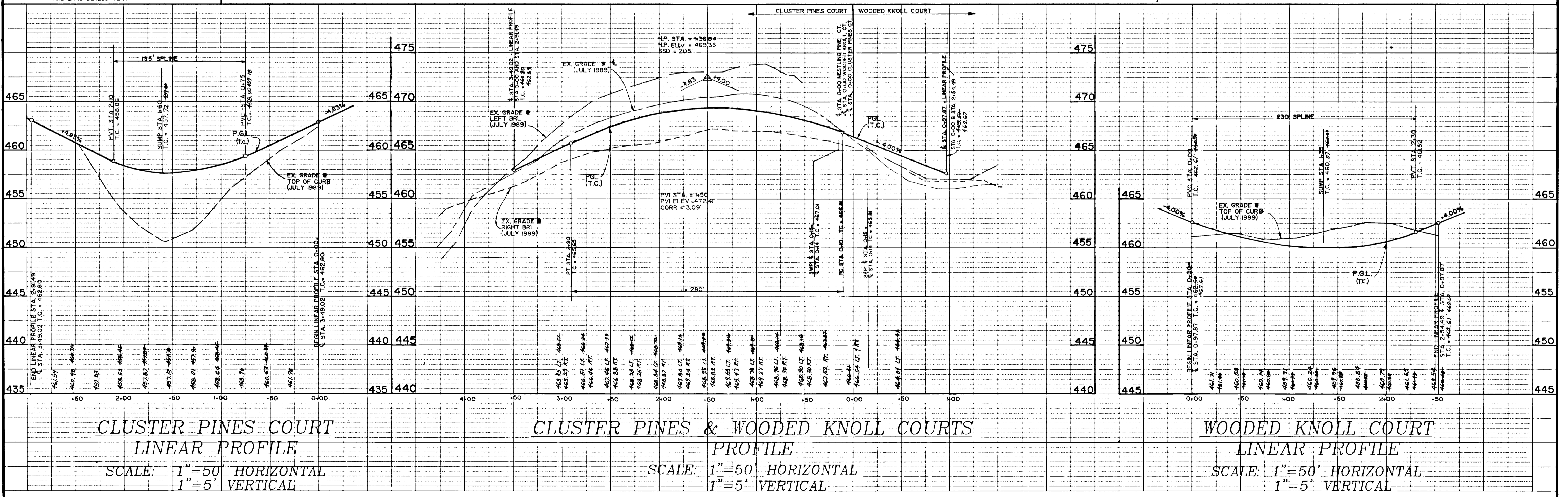
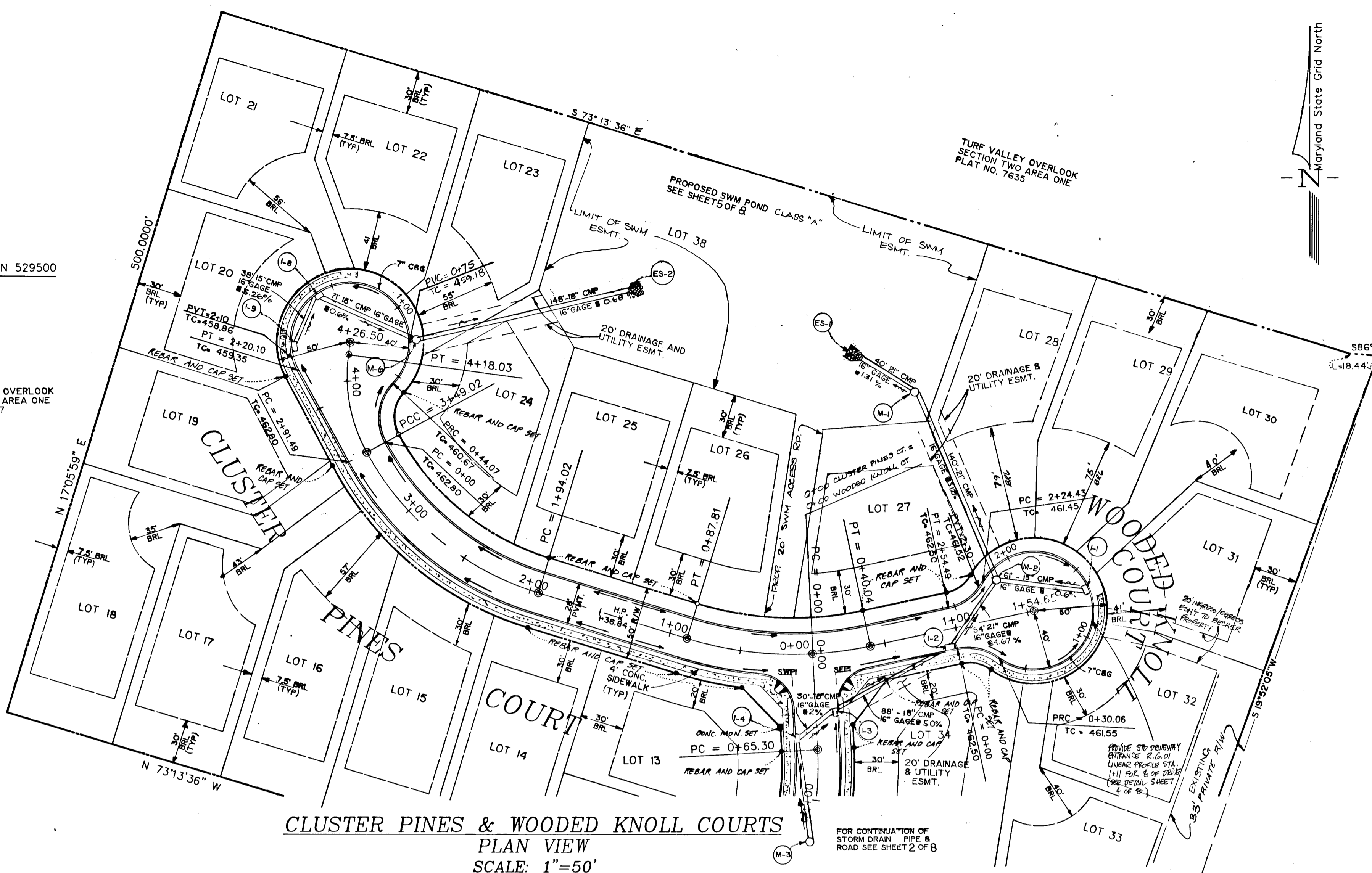
Engineer
 Mildenberg, Machi & Associates, Inc.
 3300 N. Ridge Road, Suite 235
 Ellicott City, Maryland 21043
 (301) 461-0078

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Howard 3/20/90
 CHIEF, LAND DEVELOPMENT DIVISION DATE

Granville W. Wines 3/9/90
 CHIEF, BUREAU OF HIGHWAYS DATE

William & Ray 3/20/90
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING
M. A. ... 3/21/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

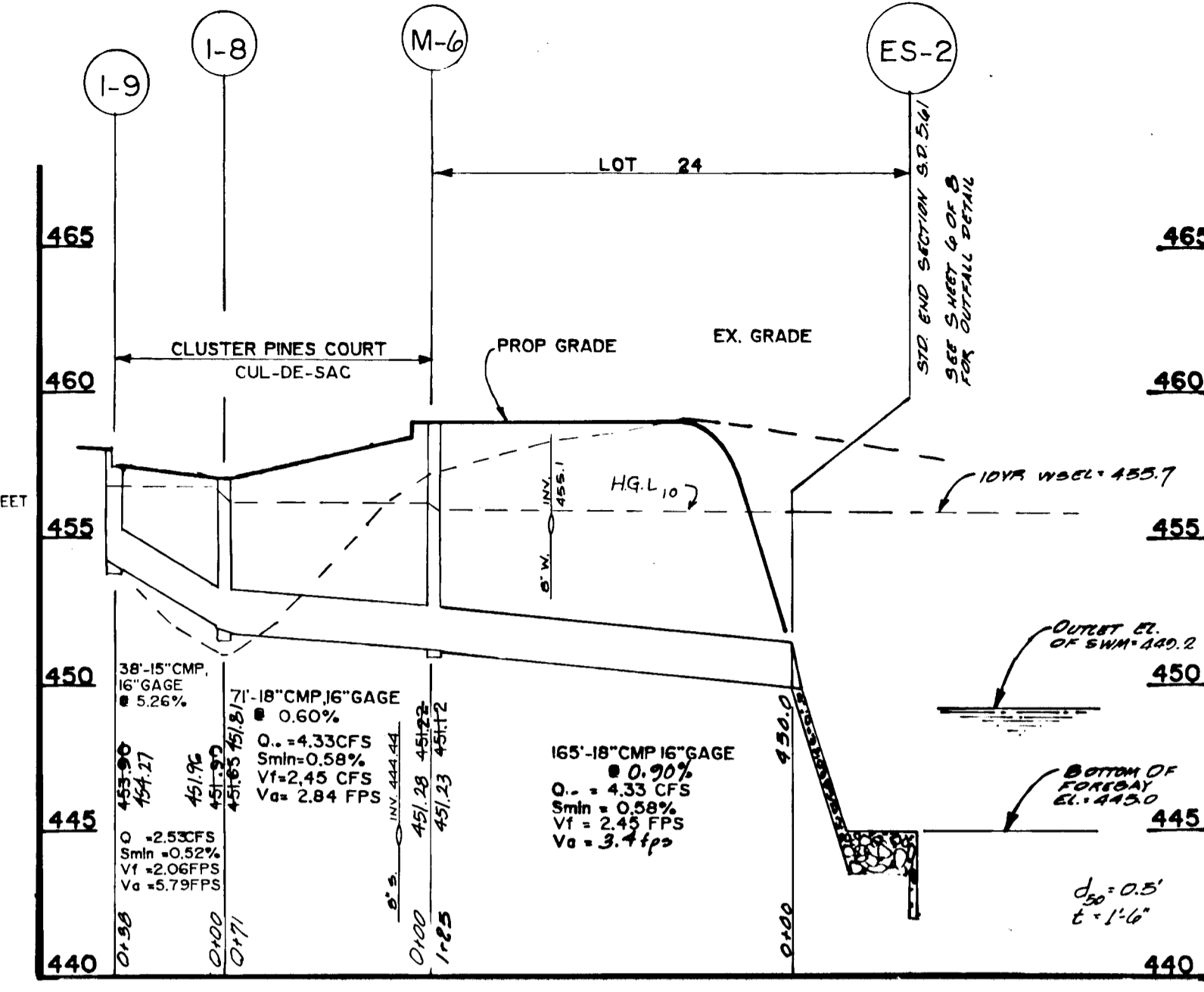
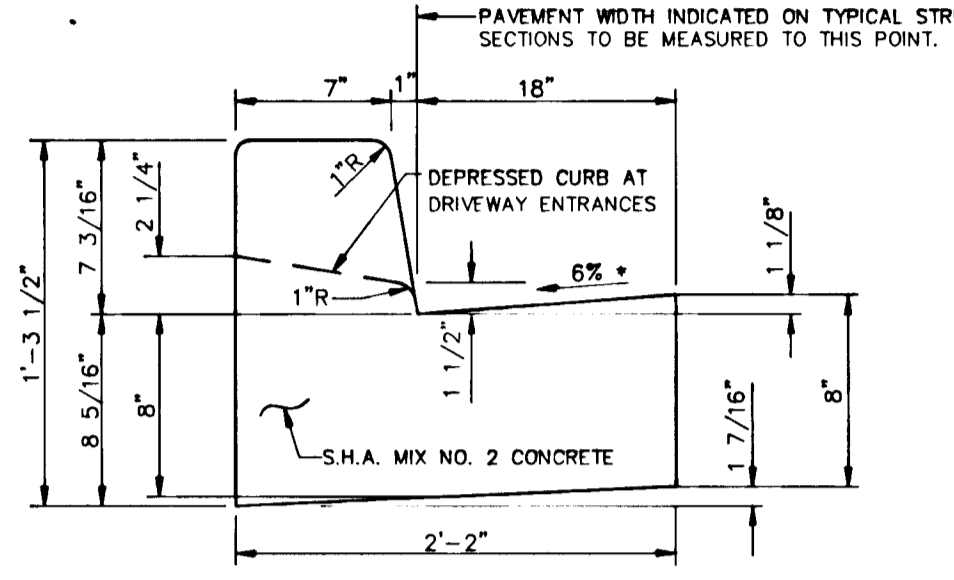
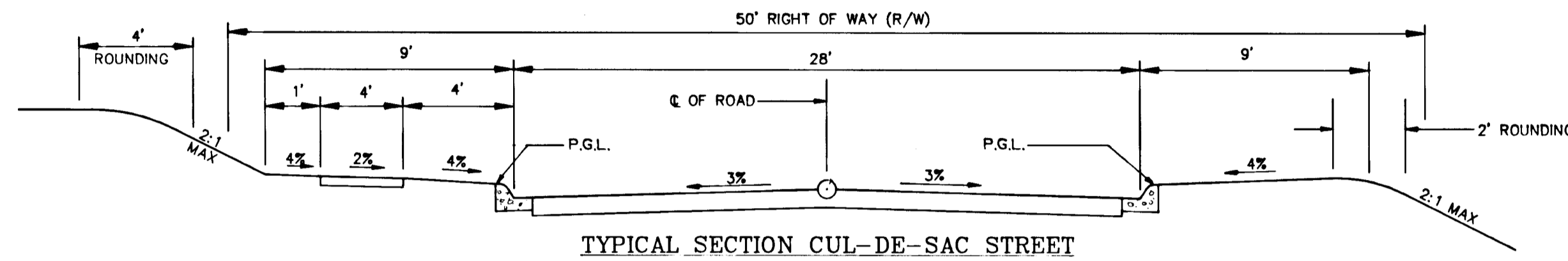
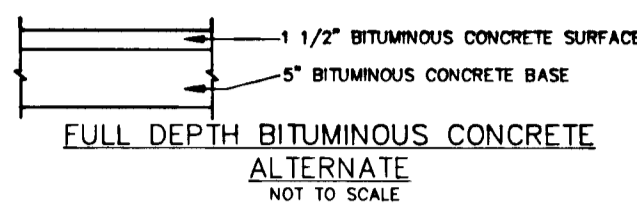
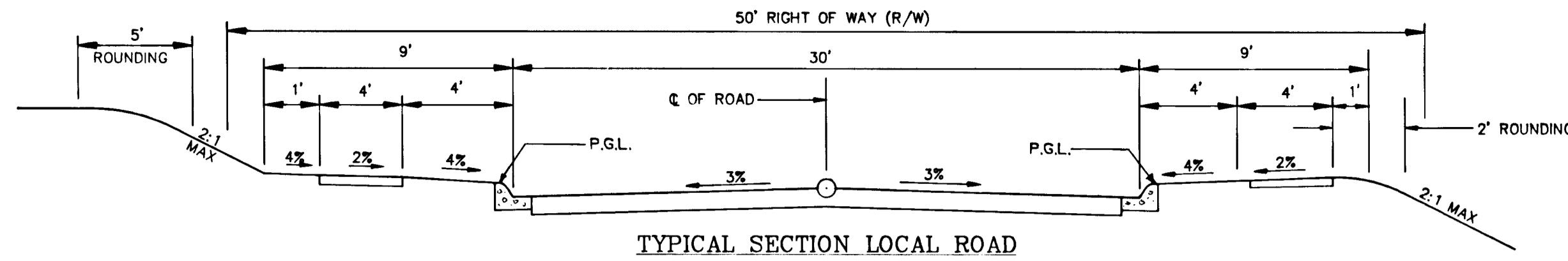
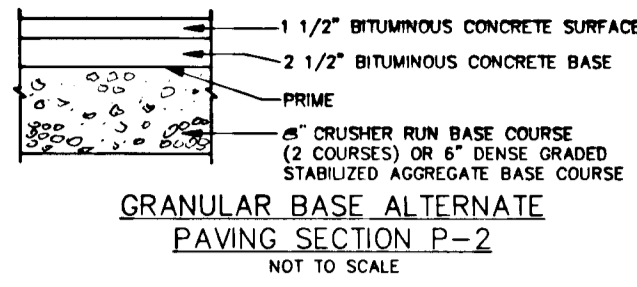


Project	89059-00	Date	SEPT. 1989
Illustration	CAM/LPR	Scale	1" = 50'
Approval	CAM	Date	

Revised Comments	PER PLAN 241890 LETTER & SUBMIT FOR SIGNATURE APPROVAL	Date	2/2/90
First Submission	to Howard County DPZ	Date	10/27/89
Revisions		Date	

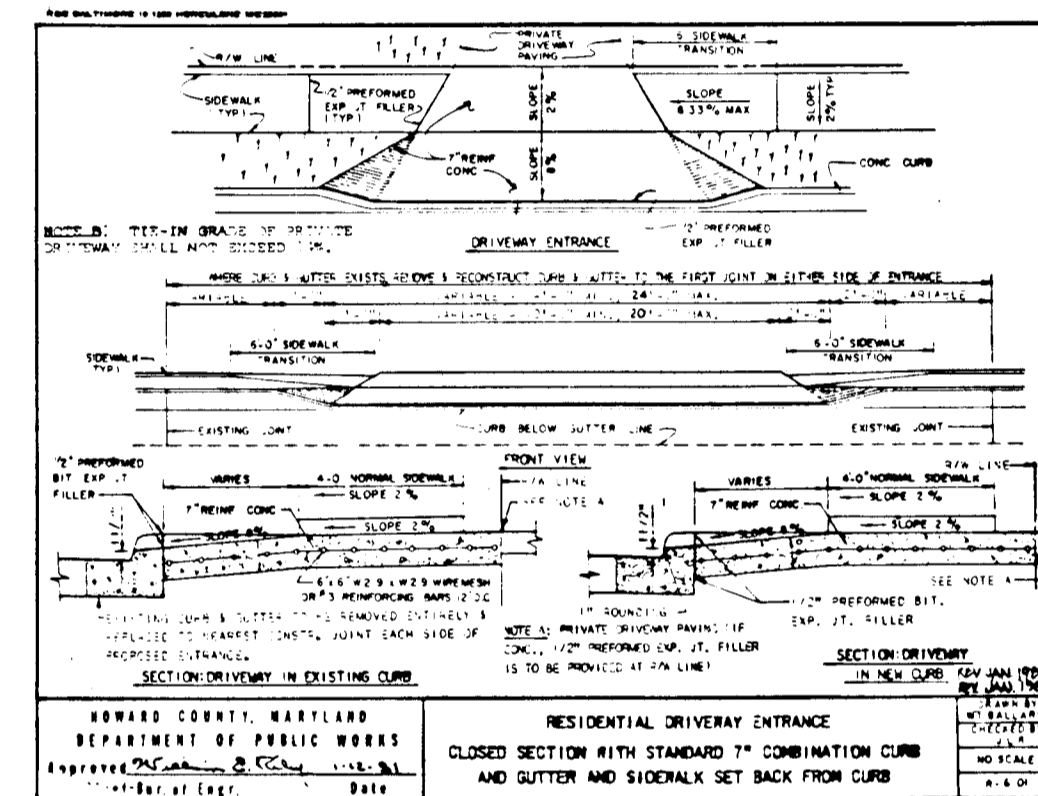
THE CLUSTERS
 TAX MAP 16 PARCEL 101 & 58
 ELECTION DISTRICT No. 2
 HOWARD COUNTY, MARYLAND
 CLUSTER PINES & WOODED KNOLL COURT PLAN & PROFILE

MILDENBERG, MACHI & ASSOCIATES, INC.
 ENGINEERS - ARCHITECTS - PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (301) 461-0078 D.C. Metro. (301) 521-5788



STANDARD 7" COMBINATION CURB AND GUTTER

PROVIDE A 10' TRANSITION BEFORE AND AFTER ALL INLETS TO PROVIDE FOR THE 7" STANDARD CURB AND THE 8" INLET CURB.



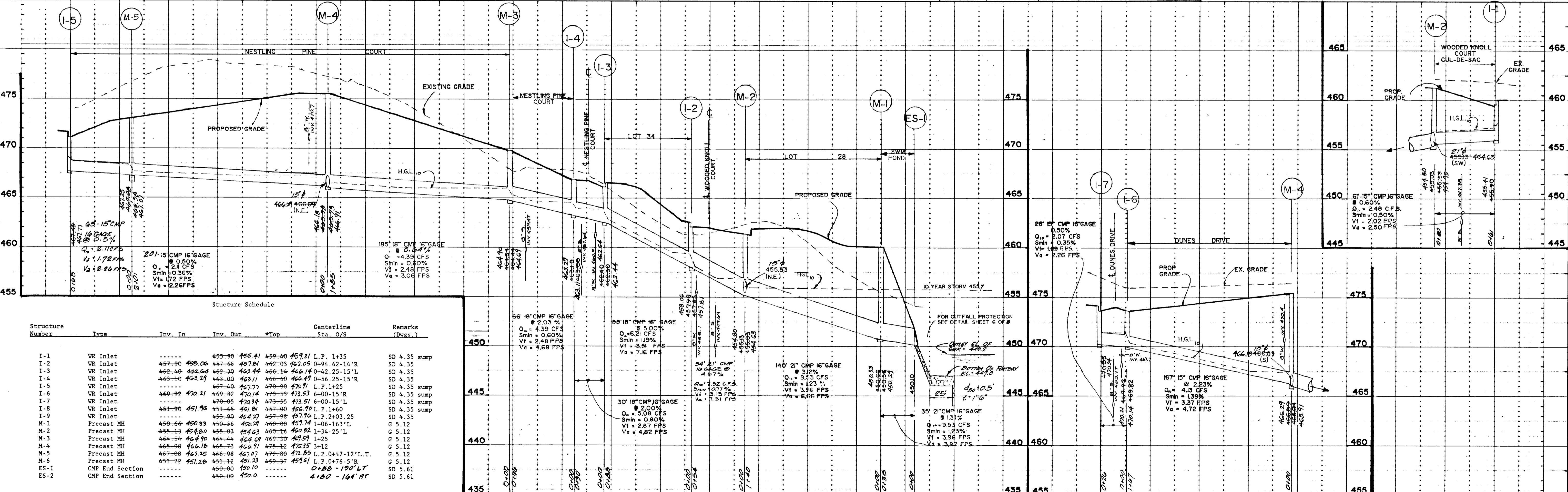
Owner/Developer
 Pedicor Property Development Corp.
 c/o Land Design & Development, Inc.
 8307 Main Street
 Ellicott City, Maryland 21043
 (301) 461-7100

Engineer
 Mildenberg, Mochi & Associates, Inc.
 3300 North Ridge Road, Suite 235
 Ellicott City, Maryland 21043
 (301) 461-0078

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 3/20/90
 CHIEF, LAND DEVELOPMENT DIVISION

APPROVED: DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/20/90
 CHIEF, BUREAU OF ENGINEERING

APPROVED: [Signature] 4/22/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT



Structure Number	Type	Inv. In	Inv. Out	*Top	Centerline Sta. O/S	Remarks (Drgs.)
I-1	WR Inlet	455-00	455-00	455-00	459.31 L.P. 1+35	SD 4.35 sump
I-2	WR Inlet	457-00	457-00	457-00	462.05 0+94.62-10'R	SD 4.35
I-3	WR Inlet	462-00	462-00	462-00	466.14 0+42.25-15'L	SD 4.35
I-4	WR Inlet	463-00	463-00	463-00	466.49 0+56.25-15'R	SD 4.35
I-5	WR Inlet	467-00	467-00	467-00	470.71 L.P. 1+25	SD 4.35 sump
I-6	WR Inlet	469-00	469-00	469-00	473.53 6+00-15'R	SD 4.35 sump
I-7	WR Inlet	470-00	470-00	470-00	473.51 6+00-15'L	SD 4.35 sump
I-8	WR Inlet	451-00	451-00	451-00	456.70 L.P. 1+60	SD 4.35 sump
I-9	WR Inlet	453-00	453-00	453-00	457.96 L.P. 2+03.25	SD 4.35
M-1	Precast MH	450-66	450-36	450-29	457.74 1+06-163'L	G 5.12
M-2	Precast MH	455-33	455-03	454-63	460.82 1+34-25'L	G 5.12
M-3	Precast MH	464-04	464-04	464-04	464.09 0+00-00	G 5.12
M-4	Precast MH	465-08	465-08	465-08	465.35 3+12	G 5.12
M-5	Precast MH	467-08	467-08	467-08	472.85 L.P. 0+47-12'L.T.	G 5.12
M-6	Precast MH	451-22	451-22	451-22	451.61 L.P. 0+76-5'R	G 5.12
ES-1	CMP End Section	450-00	450-00	450-00	4+00-190' LT	SD 5.61
ES-2	CMP End Section	450-00	450-00	450-00	4+00-104' RT	SD 5.61

1547

* Top of Inlet - Street Grade Elevation at Gate/Rim
 L.P. - Linear Profile Station

THE CLUSTERS
 Parcel 101 & 58
 Tax Map 16
 ELECTION DISTRICT No. 2

HOWARD COUNTY, MARYLAND
 STORM DRAIN PROFILES & DETAILS

MILDENBERG, MOCHI & ASSOCIATES, INC.
 ENGINEERS • PLANNERS
 3300 North Ridge Road, Suite 235, Ellicott City, Maryland 21043-3350
 (301) 461-0078

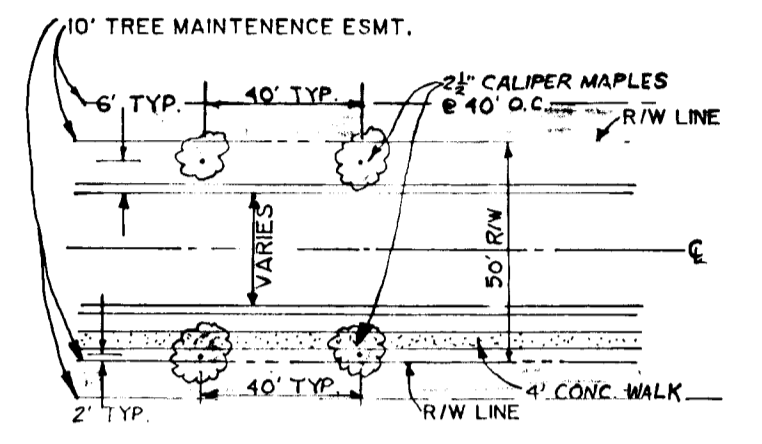
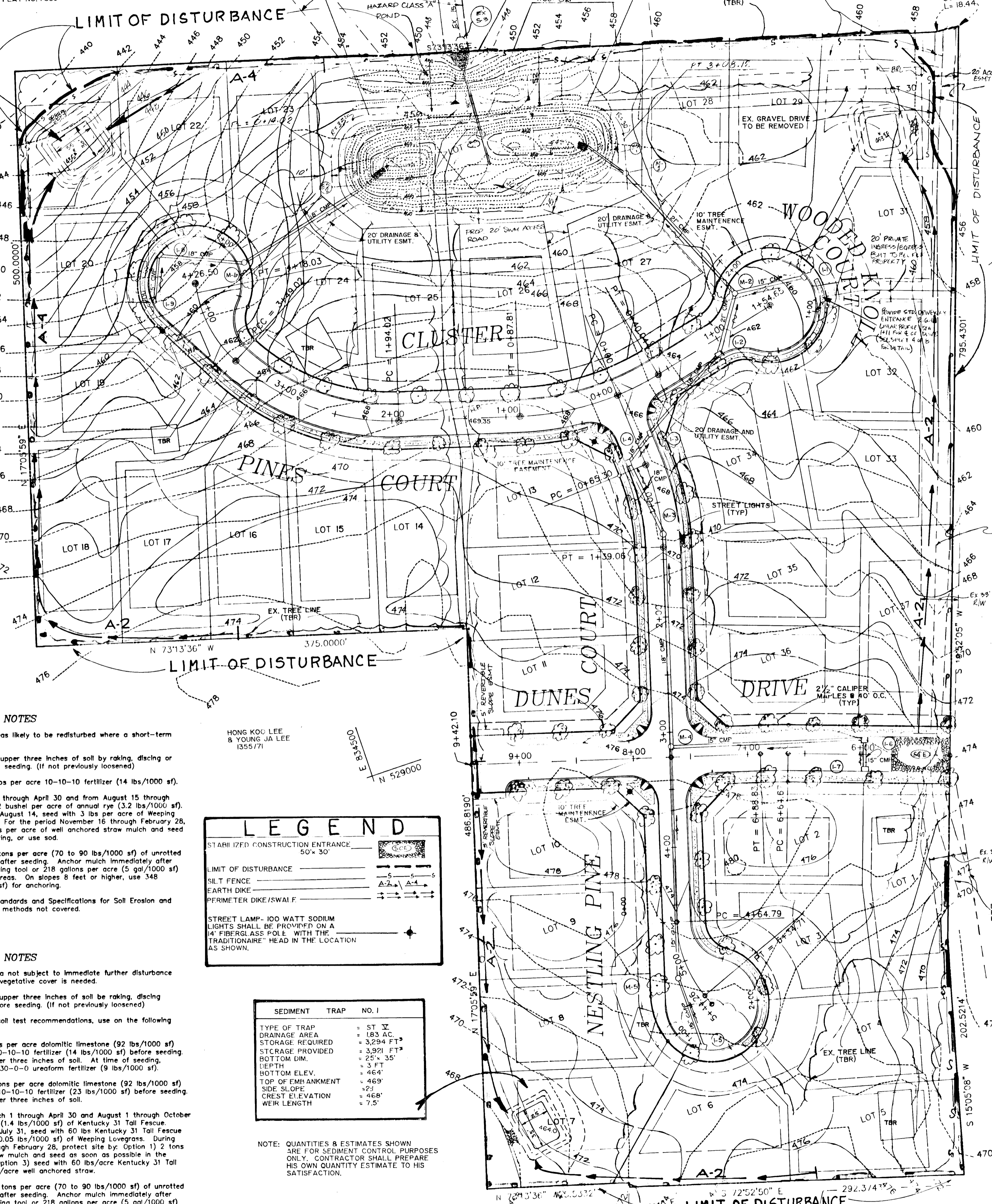
4 OF 8

SEDIMENT TRAP NO. 2	
TYPE OF TRAP	= ST V
DRAINAGE AREA	= 3.96 AC
STORAGE REQUIRED	= 6408 FT ³
STORAGE PROVIDED	= 6792 FT ³
BOTTOM DIM.	= 30'x35'
DEPTH	= 4 FT
BOTTOM ELEV.	= 435 FT
TOP OF EMBANKMENT	= 441 FT
SIDE SLOPE	= 2:1
CREST ELEVATION	= 440 FT
WEIR LENGTH	= 14 FT

SEDIMENT TRAP NO. 1	
TYPE OF TRAP	= ST V
DRAINAGE AREA	= 2.52 AC
STORAGE REQUIRED	= 4536 FT ³
STORAGE PROVIDED	= 4963 FT ³
BOTTOM DIM.	= 30'x30'
DEPTH	= 3.5'
BOTTOM ELEV.	= 453.5 FT
TOP OF EMBANKMENT	= 459 FT
SIDE SLOPE	= 2:1
CREST ELEV.	= 458 FT
WEIR LENGTH	= 10 FT

TURF VALLEY OVERLOOK
SECTION TWO AREA ONE
PLAT NO. 7635

TURF VALLEY OVERLOOK
SECTION ONE AREA ONE
PLAT NO. 7636



STREET TREE DETAIL
NOT TO SCALE
NOTE: TREES SHALL BE PLANTED 2' FROM THE SIDEWALK NEAR THE PROPOSED R/W WHERE THERE IS SIDEWALK WHERE THERE ARE NO SIDEWALKS TREES SHALL BE PLANTED 6' BEHIND THE CURB.

Engineer
Mildenberg, Mochi & Associates, Inc.
3300 N. Ridge Road, Suite 235
Ellicott City, Maryland 21043
(301) 461-0078

Owner/Developer
Pedicard Property Development Corp.
c/o Land Design & Development Inc.
8307 Main Street
Ellicott City, Maryland 21043
(301) 461-7100

REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Joseph Hahn 2-12-90
DATE

DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Ziehm 2/12/90
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chad Commins 3/0/90
DATE

Francis W. Weiland 3/9/90
DATE

Kearney B. Ray 3-26-90
DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

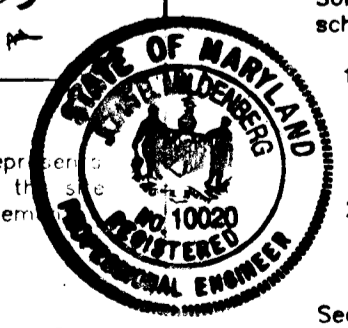
David J. Young 3/23/90
DATE

ENGINEER'S CERTIFICATE
I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John M. Kelly FEB. 8, 1990
DATE

DEVELOPER'S CERTIFICATE
I/We certify that all development and construction will be done in accordance with this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction of this project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Christine A. Richards 2-7-90
DATE



TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf).

Seeding: For periods March 1 through April 30 and from August 15 through November 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sf). For the period May 1 through August 14, seed with 3 lbs per acre of Weeping Lovegrass (0.07 lbs/1000 sf). For the period November 16 through February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sf) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

Refer to the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for rate and methods not covered.

PERMANENT SEEDING NOTES

Apply to graded or cleared area not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding. (If not previously loosened)

Soil Amendments: In lieu of soil test recommendations, use on the following schedules.

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sf).

2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sf) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.

Seeding: For the periods March 1 through April 30 and August 1 through October 15, seed with 60 lbs per acre (1.4 lbs/1000 sf) of Kentucky 31 Tall Fescue. For the period May 1 through July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.05 lbs/1000 sf) of Weeping Lovegrass. During the period of October 16 through February 28, protect site by: Option 1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option 2) use sod. Option 3) seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sf) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sf) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sf) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

LEGEND

- STABILIZED CONSTRUCTION ENTRANCE 50' x 30'
- LIMIT OF DISTURBANCE
- SILT FENCE
- EARTH DIKE
- PERIMETER DIKE/SWALF
- STREET LAMP - 100 WATT SODIUM LIGHTS SHALL BE PROVIDED ON A 14' FIBERGLASS POLE WITH THE TRADITIONAL HEAD IN THE LOCATION AS SHOWN.

SEDIMENT TRAP NO. 1	
TYPE OF TRAP	= ST V
DRAINAGE AREA	= 1.83 AC
STORAGE REQUIRED	= 3294 FT ³
STORAGE PROVIDED	= 3391 FT ³
BOTTOM DIM.	= 25'x35'
DEPTH	= 3 FT
BOTTOM ELEV.	= 464'
TOP OF EMBANKMENT	= 469'
SIDE SLOPE	= 2:1
CREST ELEVATION	= 468'
WEIR LENGTH	= 7.5'

NOTE: QUANTITIES & ESTIMATES SHOWN ARE FOR SEDIMENT CONTROL PURPOSES ONLY. CONTRACTOR SHALL PREPARE HIS OWN QUANTITY ESTIMATE TO HIS SATISFACTION.

SEQUENCE OF CONSTRUCTION

- Obtain grading permit.
- Construct stabilized construction entrance.
- Clear and grub areas surrounding sediment control features.
- Construct permanent stormwater management pond, sediment trap and stabilize using temporary seeding method. Block off office of stormwater management pond.
- Construct silt fence and earth dikes. Stabilize earth dikes with temporary seeding.
- Clear proposed roads.
- Do not place inlet protection devices per SC's request.
- Grade roads, construct base course and concrete curb and gutter and stabilize side slopes with permanent seed and mulch.
- Upon stabilization of graded areas, all accumulated sediment shall be removed from the storm drain system.
- During construction, sediment shall be removed from the stormwater management pond and trays when the elevation has been reached. (See SWM profile for elevations.)
- Stabilized construction entrance may be removed with approval of Sediment Control Inspector to facilitate paving activities.
- Clean base course. Apply tack coat to base course and lay surface course. Stabilize all shoulders using permanent seeding method.
- Inspect all sediment control devices daily and after each rainfall. Repair as necessary.
- When all contributing areas to sediment control devices have been permanently stabilized, remove sediment control devices, grade areas disturbed, and provide permanent seed and mulch.
- Contractor shall remove sediment and flush storm drain system at end of construction period.
- Contractor shall de-water the stormwater management pond and remove accumulated sediment. 12" perforated pipe and #2 stone shall be cleared of accumulated sediment or replaced. Open R" outlet.
- Contractor shall proceed with final grading of the stormwater management pond in accordance with this plan and stabilize using permanent seeding methods.
- Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter slopes and all slopes greater than 3:1; b) 14 days for all other disturbed graded areas on the project site.
- Notify Howard County Office of Inspection and Permits for final inspection at duration of project.

SEDIMENT CONTROL NOTES

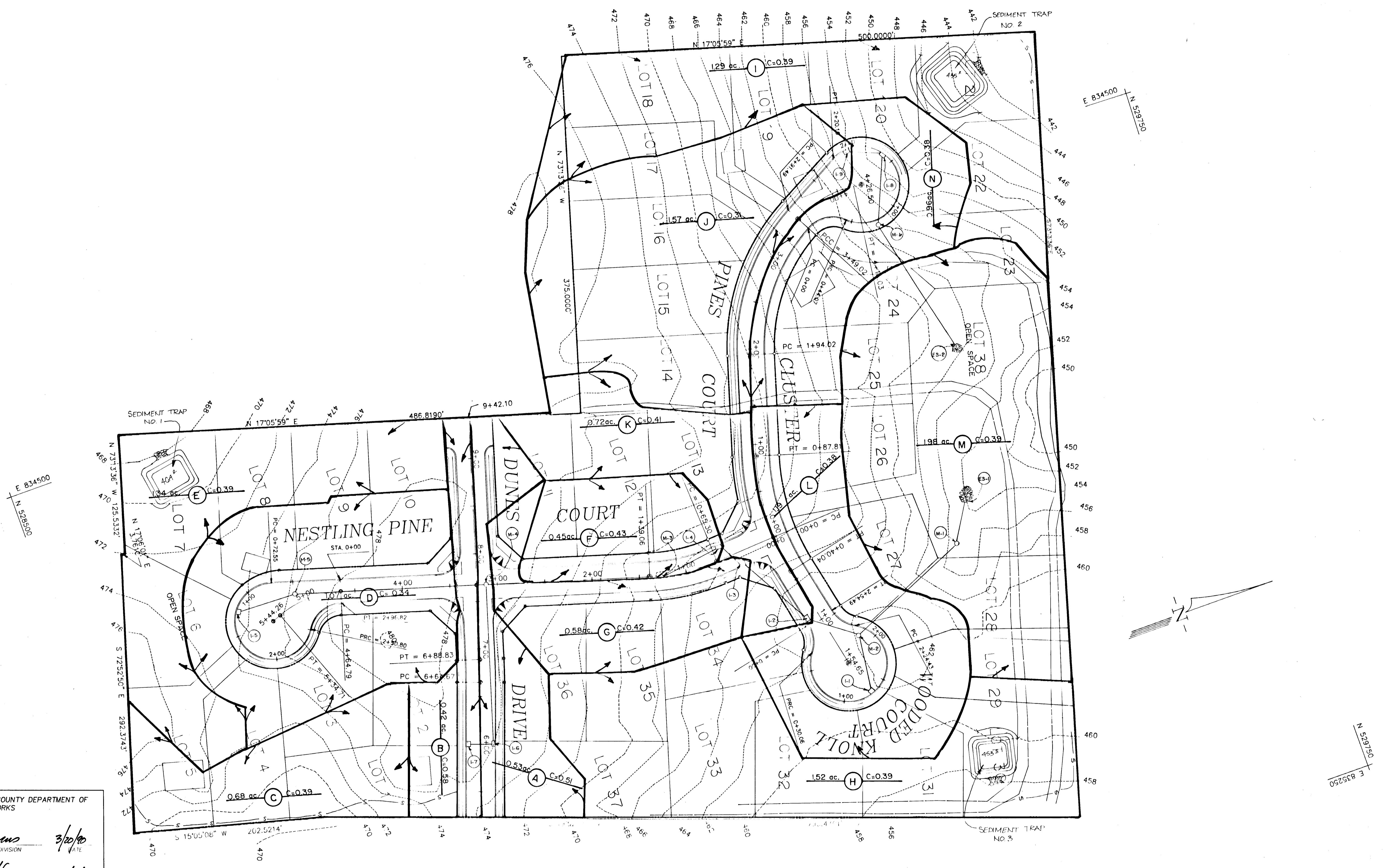
- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- All vegetative and structural practices are to be installed accordingly to the provisions of this plan and are to be in conformance with the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1; b) 14 calendar days as to all other disturbed or graded areas on the project site.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for Permanent Seeding (Sec. 51) Sod (Sec. 54), Temporary Seeding (Sec. 50) and Mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
Total Area of Site: 14.00± AC.
Area to be disturbed: 14.00± AC.
Area to be roofed or paved: 2.15 AC.
Area to be vegetatively stabilized: 11.85 AC.
Total Cut: 15,254 yd³
Total Fill: 14,025 yd³
Off-Site Waste/Borrow Area Location
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.

89059-001 SEPT. 1990
Illustration: engineering
Scale: CAM ILPR CAM
Date: 10/27/90

1. Revised SWM plan, per comments, see as contract.
2. First submission to Howard County DPW
3. Final submission to Howard County DPW

THE CLUSTERS
TAX MAP 16 PARCELS 58 & 101
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 2
GRADING & SEDIMENT CONTROL PLAN

MILDENBERG, MOCHI & ASSOCIATES, INC.
ENGINEERS - SURVEYORS - PLANNERS
3300 North Ridge Road, Suite 423, Ellicott City, Maryland 21043-3550
(301) 461-0075 D.C. Metro. (301) 662-5188



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Chad Dammus 3/20/90
CHIEF, PLANNING DIVISION DATE

Devin W. Wessand 3/9/90
CHIEF, BUREAU OF HIGHWAYS DATE

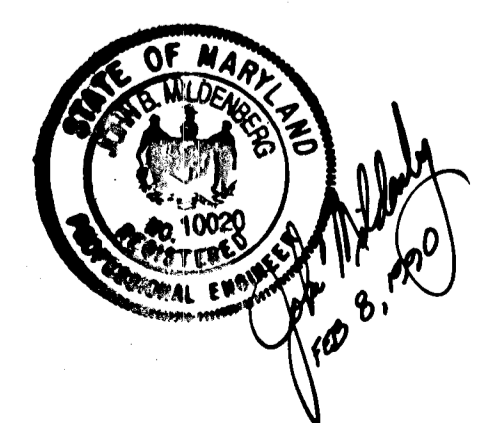
William E. Riley 3/20/90
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPARTMENT OF PLANNING & ZONING

David S. Taylor 3/23/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

Owner/Developer
Radford Property Development Corp.
c/o Land Design & Development, Inc.
8307 Main Street
Ellicott City, Maryland 21043
(301) 461-7100

Engineer
Mildenberg, Muchi & Associates, Inc.
3300 N. Ridge Road, Suite 235
Ellicott City, Maryland 21043
(301) 461-0078



THIS SHEET IS FOR DRAINAGE AREA ONLY!
NOT TO BE USED FOR SEDIMENT CONTROL CONSTRUCTION

F-90-93

4791

Project: 89059-00 10/89
Instruction: Engineering
Drawn by: CAM/JAKS CAM
Scale: as shown
Date: 10/89
1" = 50'

REVISED COMMENTS PER JAN 24 LETTER & 3/8/90 FOR 1990 PRE APPROVAL
D FIRST SUBMISSION TO HO. CO. DPZ
Description: Drainage
Date: 10/89
1" = 50'

THE CLUSTERS
ELECTION DISTRICT No. 2
HOWARD COUNTY, MARYLAND
DRAINAGE AREA MAP

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