

FINAL ROAD PLANS ECKERS HOLLOW PHASE III

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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GENERAL NOTES

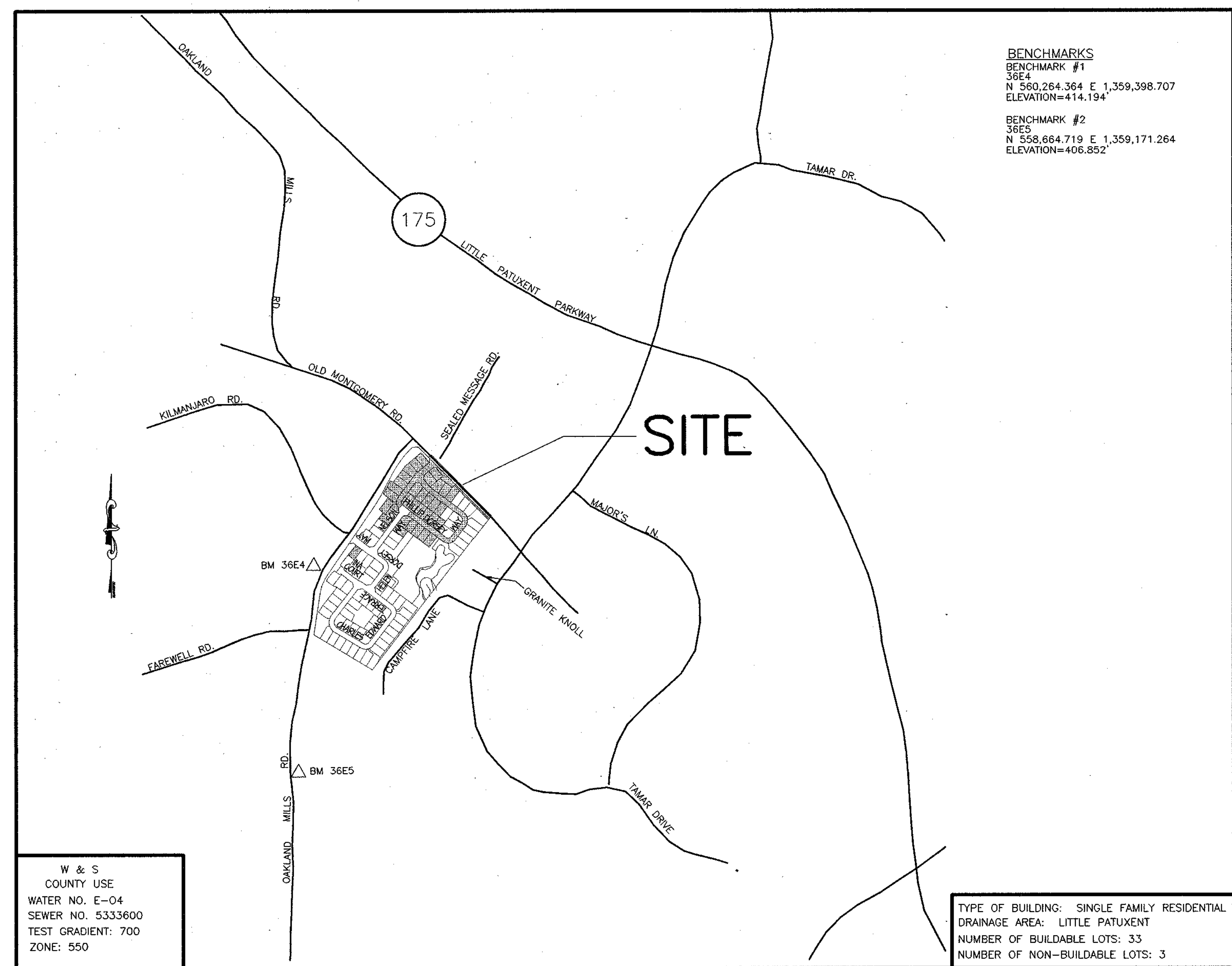
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV, DETAILS AND SPECIFICATIONS FOR CONSTRUCTION.
- COORDINATES SHOWN HEREON ARE BASED ON MARYLAND COORDINATE SYSTEM NAD '83 AS MONUMENTED BY HOWARD COUNTY GEODETIC CONTROL STATION 36E4 AND 36E5.
- SEE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS WP-01-09, S-00-02, F-01-22, P-01-02.
- ALL ROAD ELEVATIONS SHOWN ARE CENTERLINE ELEVATIONS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)-313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARDS SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES WHERE SHOWN OR NEEDED AS APPROVED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION 410-531-5533
BALTIMORE GAS & ELECTRIC CO. CONTRACTOR SERVICES 410-850-4620
BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL 410-291-4607
MISS UTILITY 1-800-257-7777
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 410-313-4900
VERIZON 1-800-446-5266
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- CONTRACTOR TO NOTIFY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION (410-313-1880) AT LEAST 3 DAYS PRIOR TO STARTING WORK SHOWN ON THESE PLANS.
- ALL STORM DRAIN STRUCTURES SHOWN ARE TO BE HOWARD COUNTY STANDARD UNLESS OTHERWISE NOTED.
- ALL STORM DRAIN TRENCHES WITHIN RIGHT-OF-WAY ARE TO BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS.
- DISTURBED SLOPE AREAS TO BE STABILIZED AS SOON AS GRADING IS COMPLETED. ALL SLOPES AND SWALES SHALL BE PERMANENTLY SEEDDED. REFER TO MASS GRADING PLANS FOR SEEDING SPECIFICATIONS.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3500 P.S.I.
- TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1988 REVISED EDITION.
- ALL FILTER FABRIC AT RIP-RAP APRONS SHALL BE MIRAFI 700-X OR EQUIVALENT. STONE FOR RIP-RAP SHALL BE AS SPECIFIED ON THESE PLANS. ALL RIP-RAP SHALL BE NON-GROUTED UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- STREET LIGHTS WILL BE INSTALLED BY B.G.&E. AT LOCATIONS SPECIFIED ON THESE PLANS. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET TREE AND ANY LIGHT.
- ALL SIDEWALKS ARE TO BE CONSTRUCTED ACCORDING TO HOWARD COUNTY STANDARD DETAIL R-3.05. ALL HANDICAP RAMPS MUST MEET ALL A.D.A. REQUIREMENTS.
- ALL CURB IS TO BE MODIFIED COMBINATION CURB & GUTTER ACCORDING TO HOWARD COUNTY STANDARD DETAIL R-3.01 EXCEPT WHERE TRANSITIONS ARE REQUIRED FOR STORM DRAIN INLETS AND FOR ROAD IMPROVEMENTS ALONG OLD MONTGOMERY ROAD. ALL CURB TRANSITIONS ARE TO BE IN ACCORDANCE WITH THE CURB TRANSITION DETAIL SHOWN ON SHEET 2.
- PROPOSED STORMWATER MANAGEMENT POND IS A PUBLIC EXTEND DETENTION FACILITY CONSTRUCTED UNDER F-01-22 AND WILL BE MAINTAINED BY HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS.
- CONTRACTOR TO VERIFY THAT ALL UNDERGROUND UTILITIES UNDERNEATH THE ROADBED AND WITHIN THE RIGHT-OF-WAY HAVE BEEN CONSTRUCTED PRIOR TO PLACEMENT OF STONE SUB-BASE AND PAVING. REMOVAL OF CURB AND GUTTER AND PAVEMENT TO INSTALL ANY MISSED UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- FILL AREA WITHIN THE RIGHT-OF-WAY AND UNDERNEATH PROPOSED UTILITIES IS TO BE SELECT BACKFILL, COMPACTED TO 95% COMPACTION IN ACCORDANCE WITH AASHTO-T 180.
- ALL EXISTING STRUCTURES WILL BE REMOVED UNDER THE MASS GRADING PERMIT GP-01-78. DEMOLITION PERMITS B00126484 AND B00126485 HAVE BEEN APPROVED BY HOWARD COUNTY TO PERFORM THIS WORK.
- FOREST CONSERVATION REQUIREMENTS FOR THIS SITE WHERE ADDRESSED UNDER SECTION 1, PHASE I FINAL ROAD AND STORM DRAIN PLAN (F-01-22).

ROAD CLASSIFICATION CHART			
ROAD	STATION	CLASSIFICATION	R/W WIDTH
PHILLIP DORSEY WAY	0+67.35 16+63.77	PUBLIC ACCESS STREET	40'
OLD MONTGOMERY ROAD	-----	MAJOR COLLECTOR ROAD	60'
OAKLAND MILLS ROAD	-----	MAJOR COLLECTOR ROAD	80'

NAD '83 COORDINATE TABLE		
POINT	NORTH	EAST
100	559,489.26	1,359,798.63
101	559,761.52	1,359,345.29
102	560,080.63	1,359,392.62
103	560,225.16	1,359,449.09
104	560,748.80	1,359,805.62
105	560,969.28	1,359,931.83
106	561,223.14	1,360,110.36
107	561,225.08	1,360,157.92
108	560,865.34	1,360,553.06
109	560,689.05	1,360,725.80
110	560,515.10	1,360,586.37
111	560,512.33	1,360,589.10

CURVE TABLE						
CURVE	RADIUS	LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING	DELTA
C1	200'	47.31'	23.77'	47.20'	N43°32'18"E	13°33'13" RIGHT
C2	50'	78.54'	50.00'	70.71'	N08°14'19"W	90°00'00" RIGHT
C3	50'	78.81'	50.28'	70.90'	S82°40'40"W	90°18'52" RIGHT
C4	60'	95.04'	60.80'	85.41'	S07°51'33"W	90°45'33" RIGHT
C5	200'	47.31'	23.77'	47.20'	N46°27'42"W	13°33'13" RIGHT

SPEED CONTROL DEVICES						
ROAD	LENGTH	# OF DEVICES REQUIRED	# OF DEVICES PROVIDED	TYPE	MIN. DEFLECTION REQUIRED	MIN. DEFLECTION PROVIDED
PHILLIP DORSEY WAY	1596.42'	4	4	AXIAL SHIFT CRITICAL BEND & SINGLE LANE SLOW POINT	60°	90°



BENCHMARKS
 BENCHMARK #1
 36E4
 N 560,264.364 E 1,359,398.707
 ELEVATION=414.194'
 BENCHMARK #2
 36E5
 N 558,664.719 E 1,359,171.264
 ELEVATION=406.852'

W & S
 COUNTY USE
 WATER NO. E-04
 SEWER NO. 5333600
 TEST GRADIENT: 700
 ZONE: 550

TYPE OF BUILDING: SINGLE FAMILY RESIDENTIAL
 DRAINAGE AREA: LITTLE PATUXENT
 NUMBER OF BUILDABLE LOTS: 33
 NUMBER OF NON-BUILDABLE LOTS: 3

SURVEY NOTE

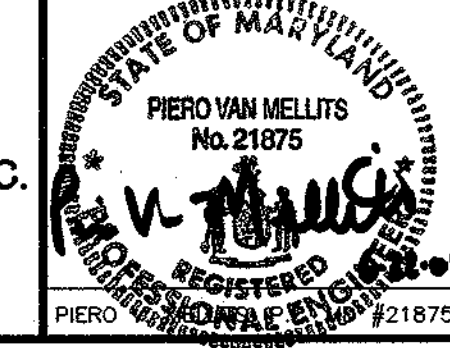
TOPOGRAPHIC INFORMATION PROVIDED BY FIELD SURVEY PERFORMED BY MORRIS & RITCHIE ASSOCIATES, INC. DATED NOVEMBER 5, 1999.
 LOCATION OF EXISTING UTILITIES, STRUCTURES, STREETS, AND ALL SITE SPECIFIC ITEMS PROVIDED BY FIELD RUN SURVEY PERFORMED BY MORRIS & RITCHIE, ASSOCIATES DATED NOVEMBER 5, 1999.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Andrew M. Douglas 7-20-01
 CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
Cindy Hamilton 7/24/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
William J. Hamilton 7/25/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 9090 JUNCTION DRIVE SUITE 9
 ANNAPOLIS JUNCTION, MARYLAND 20701
 (410) 792-9792 or (301) 776-1690
 FAX (410) 792-7395



DES: TCN/CAO			
DRN: TCN/CAO			
CHK: PVM	MRA	REMOVAL OF SPEED CONTROL ISLANDS	06/06/02
DATE: 06/22/01	BY: INO.	REVISIONS	DATE

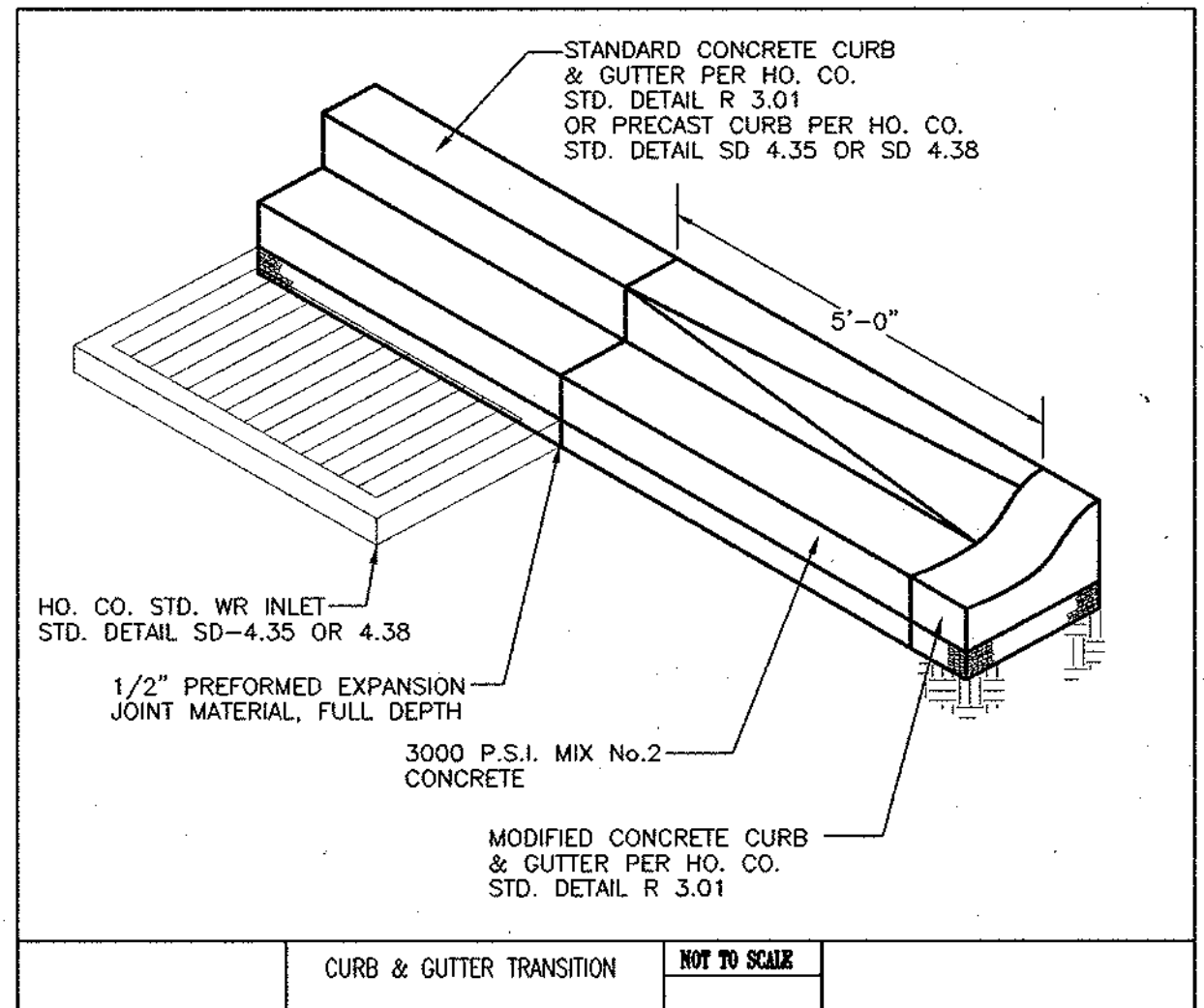
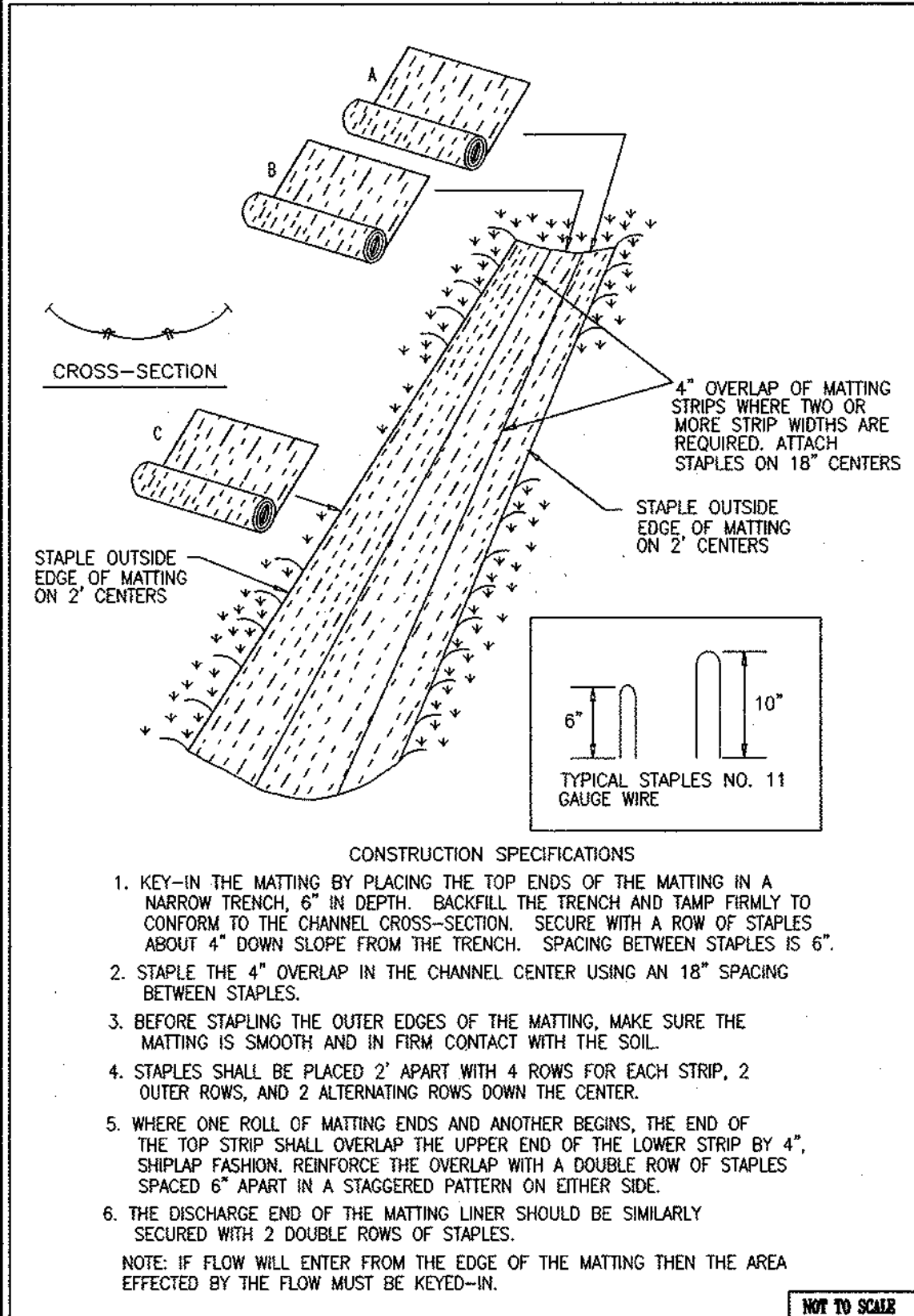
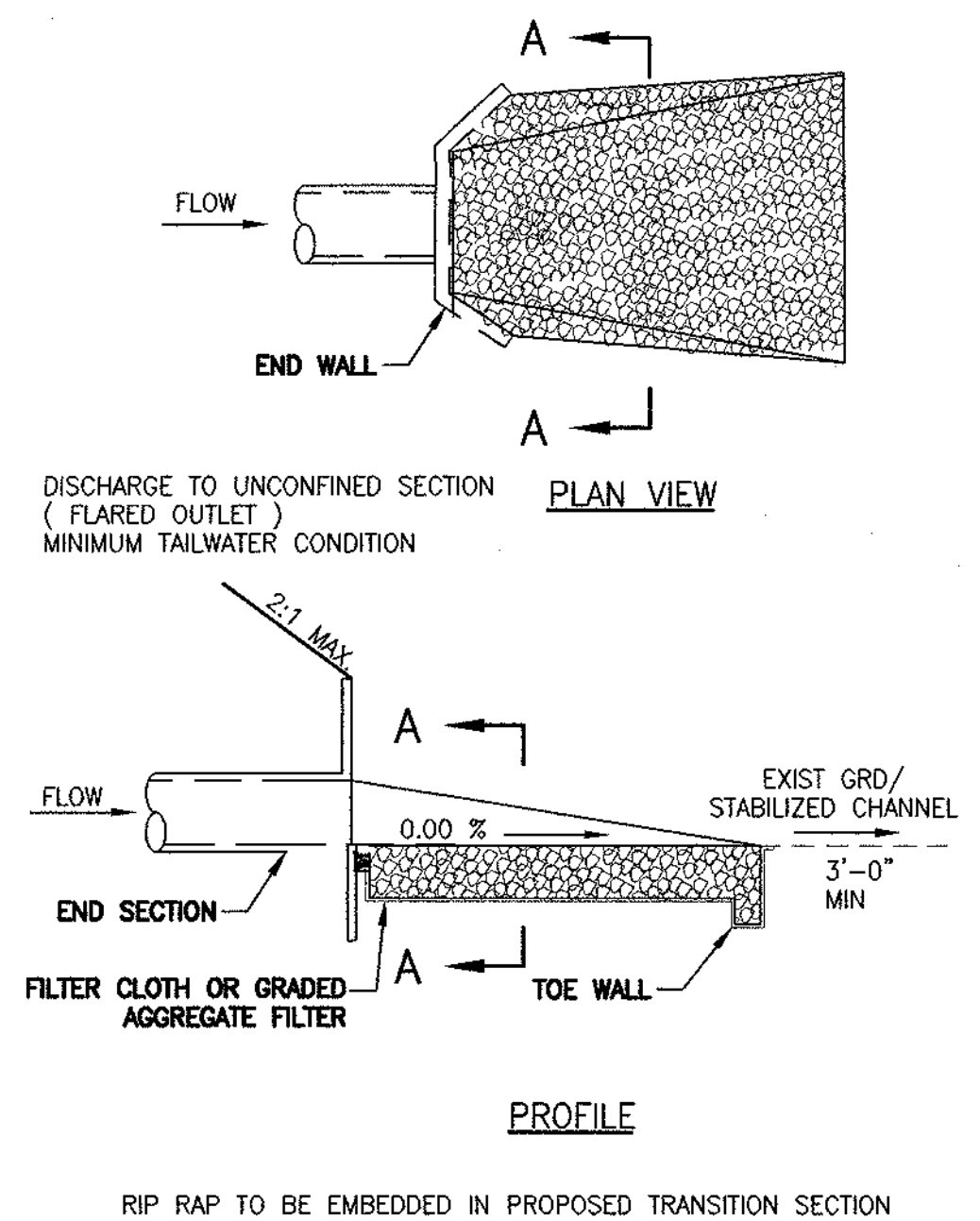
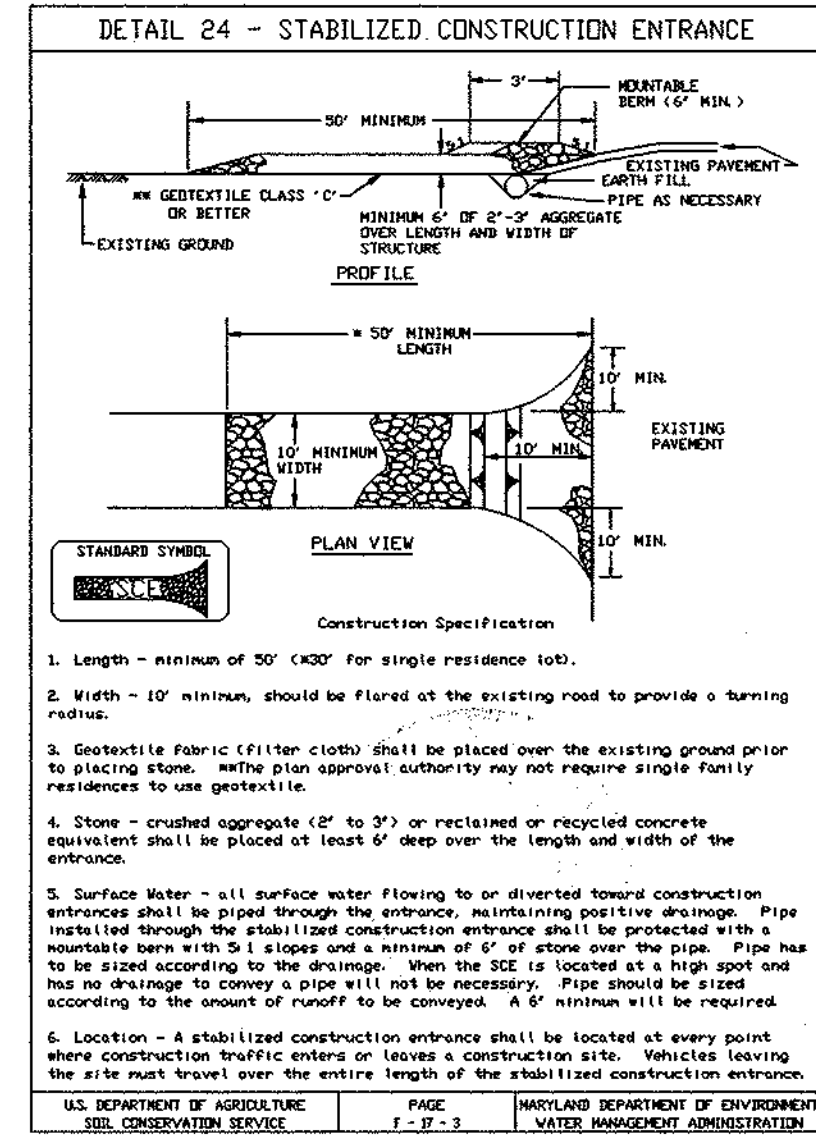
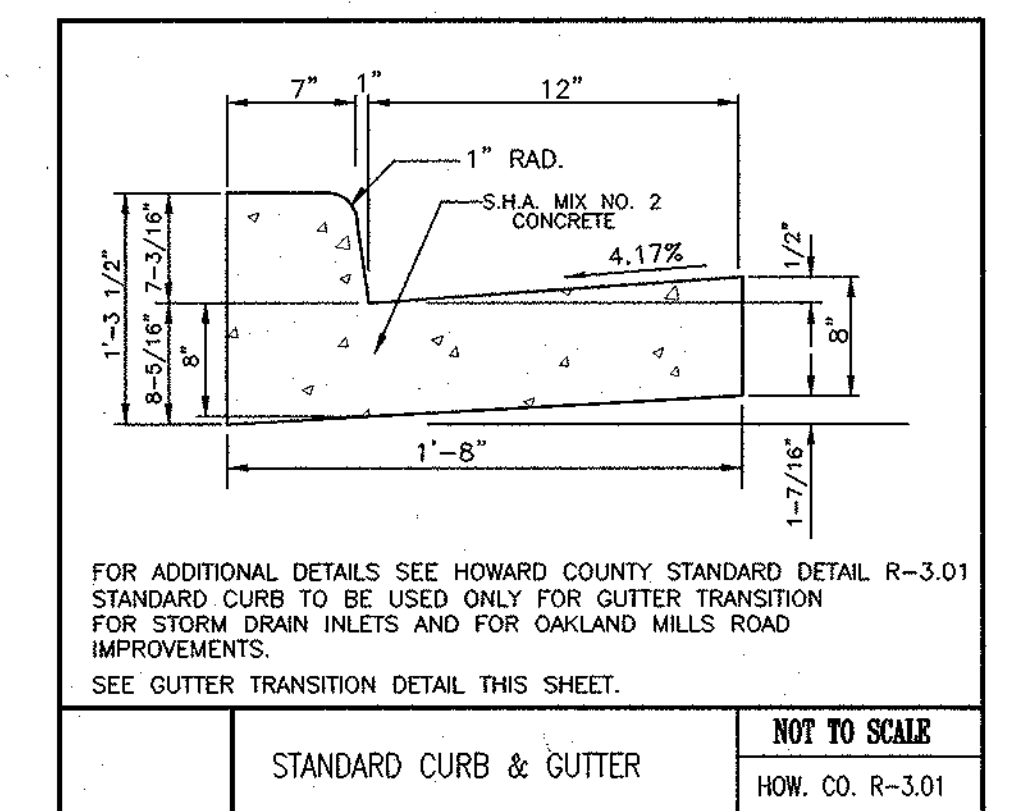
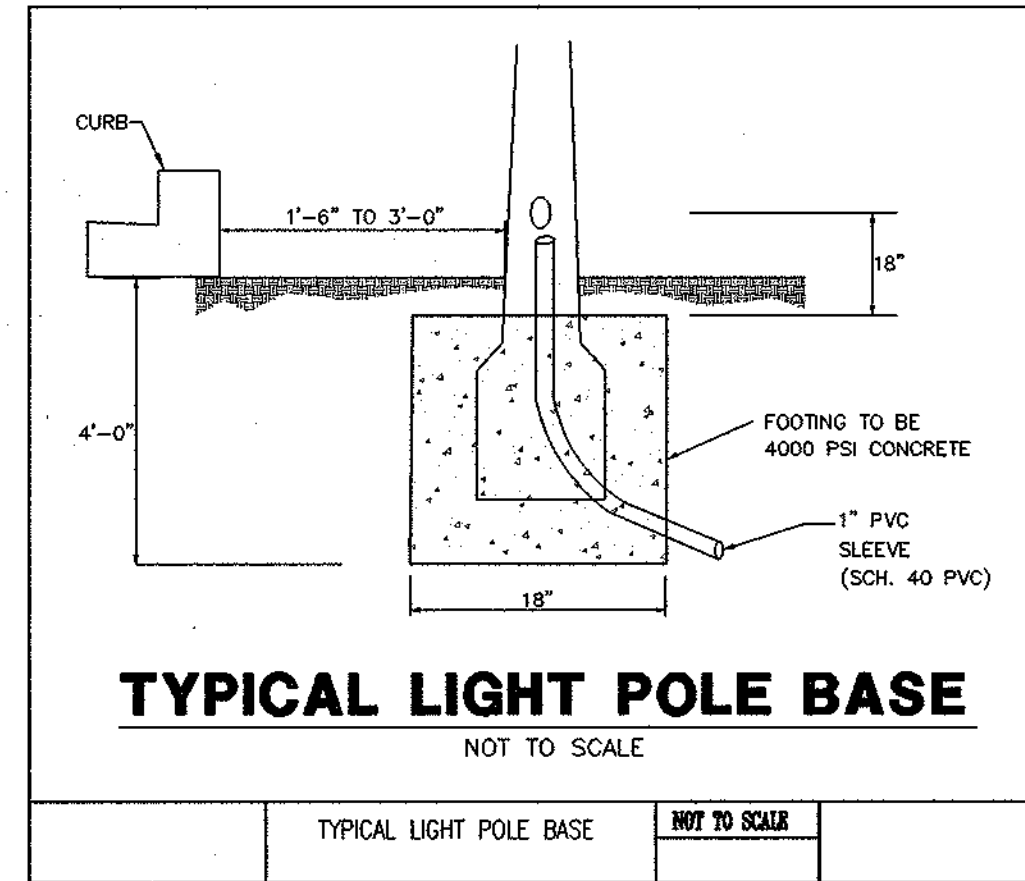
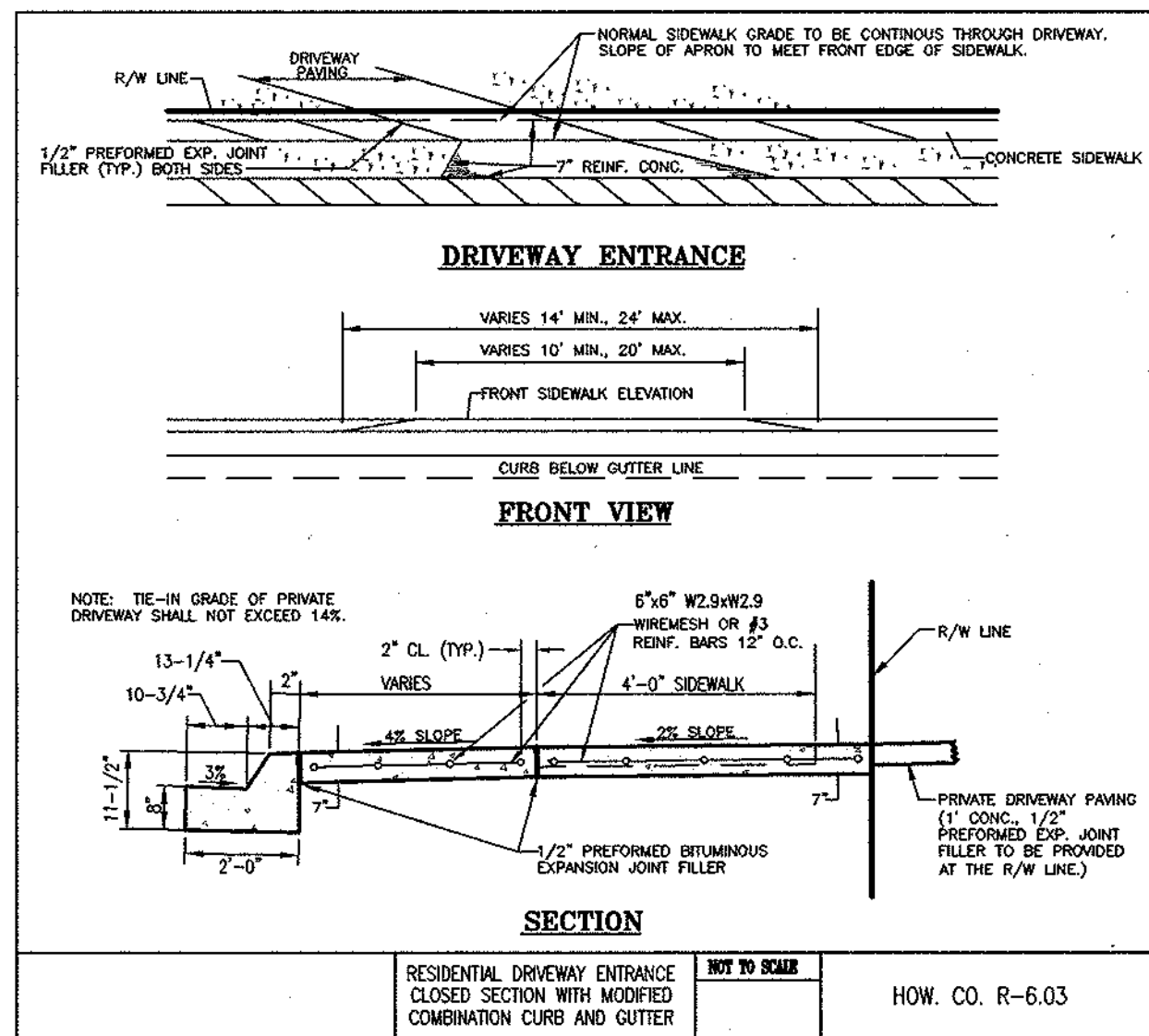
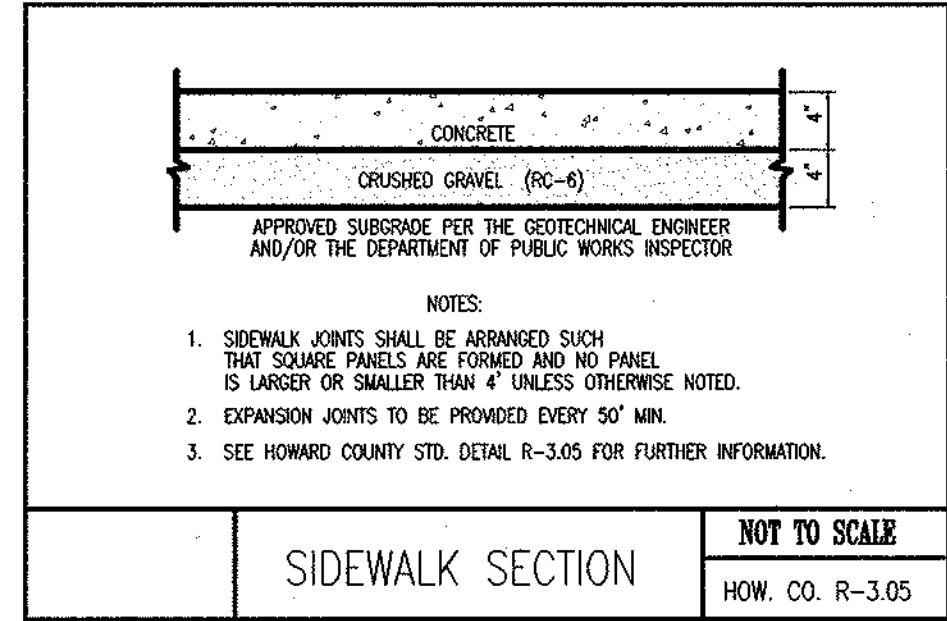
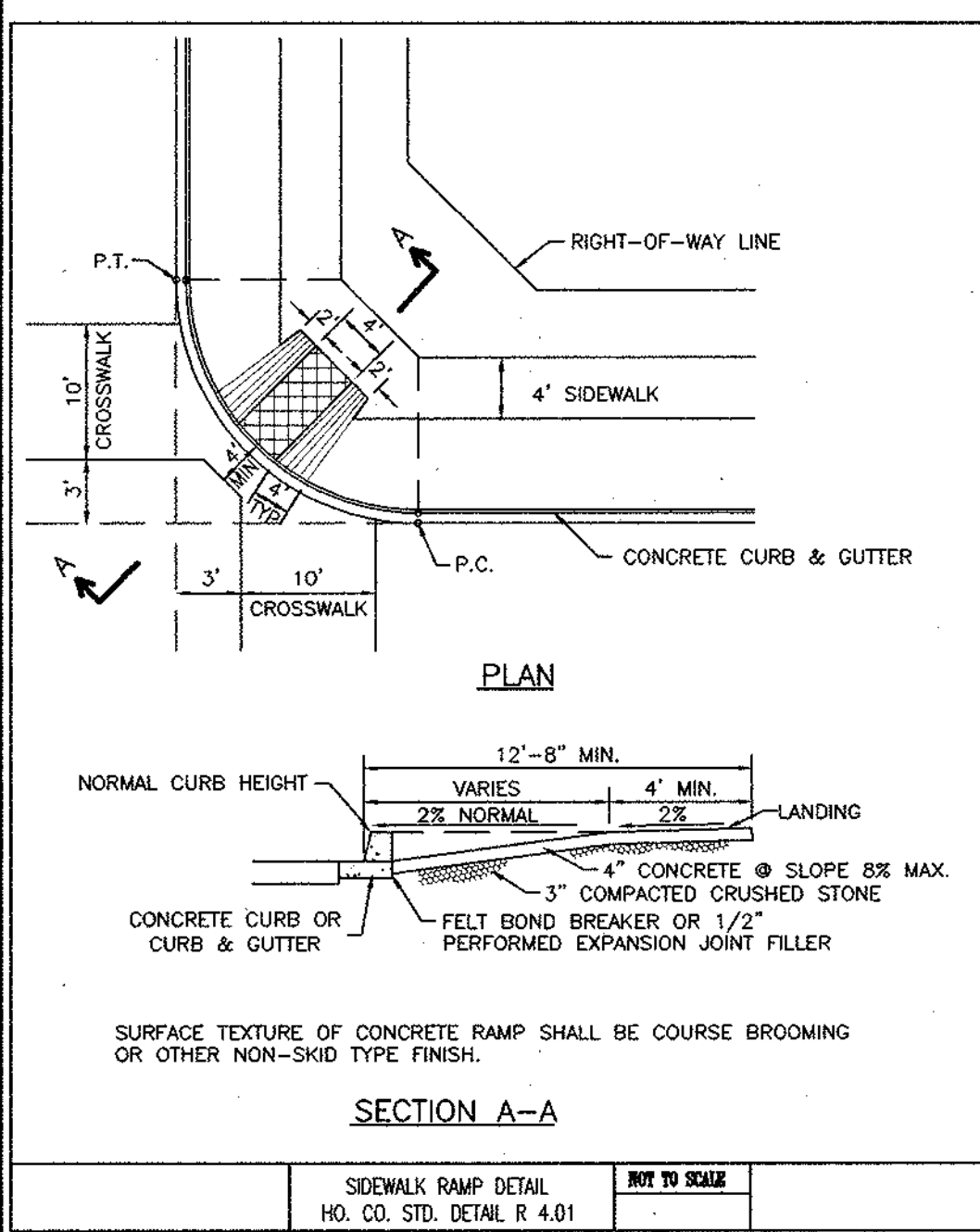
OWNER/DEVELOPER
 A. NAME: Ed Gold
 B. DAYTIME TELEPHONE: 410-712-7012
 C. COMPANY: Ryland Homes
 D. ADDRESS: 7250 Parkway Drive, Suite 520
 E. CITY: Hanover STATE: MD. ZIP: 21076
 FAX NO: 410-712-9864

**FINAL ROAD PLANS
TITLE SHEET**

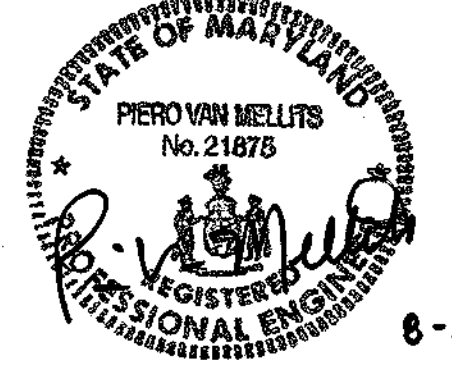
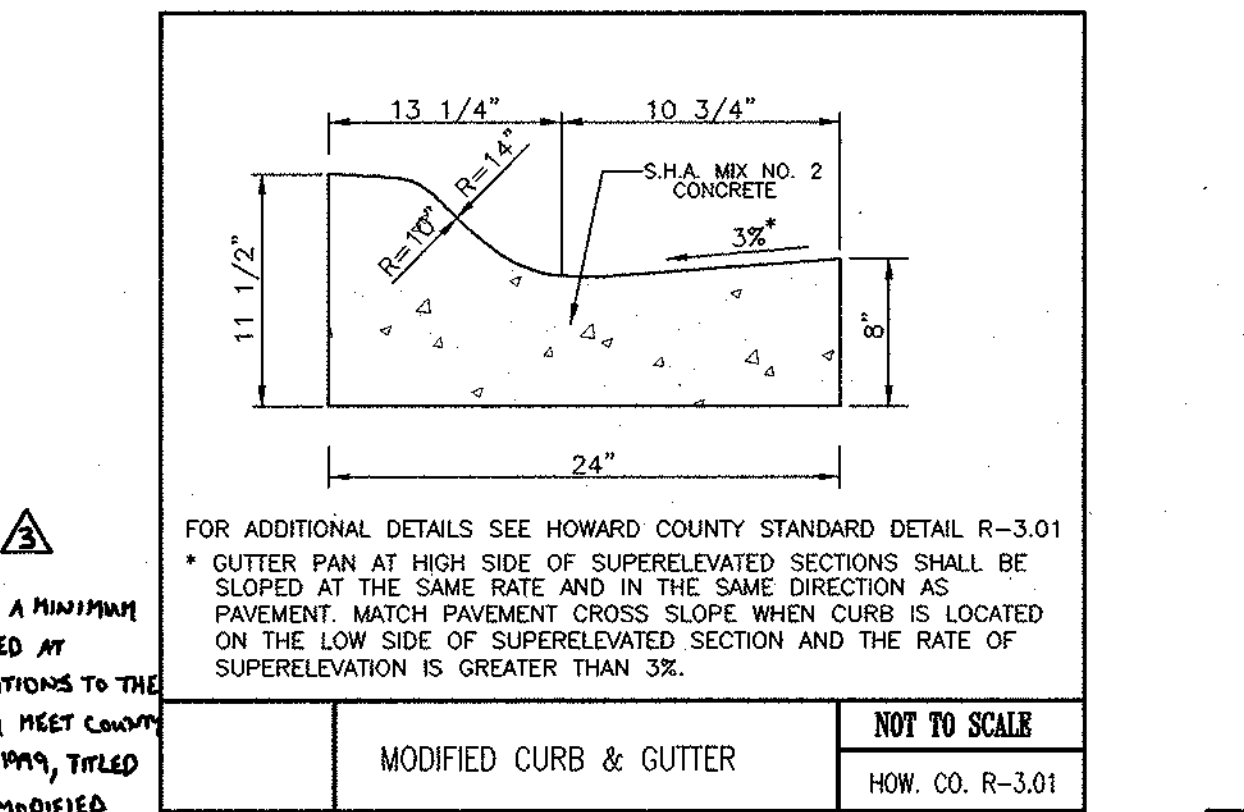
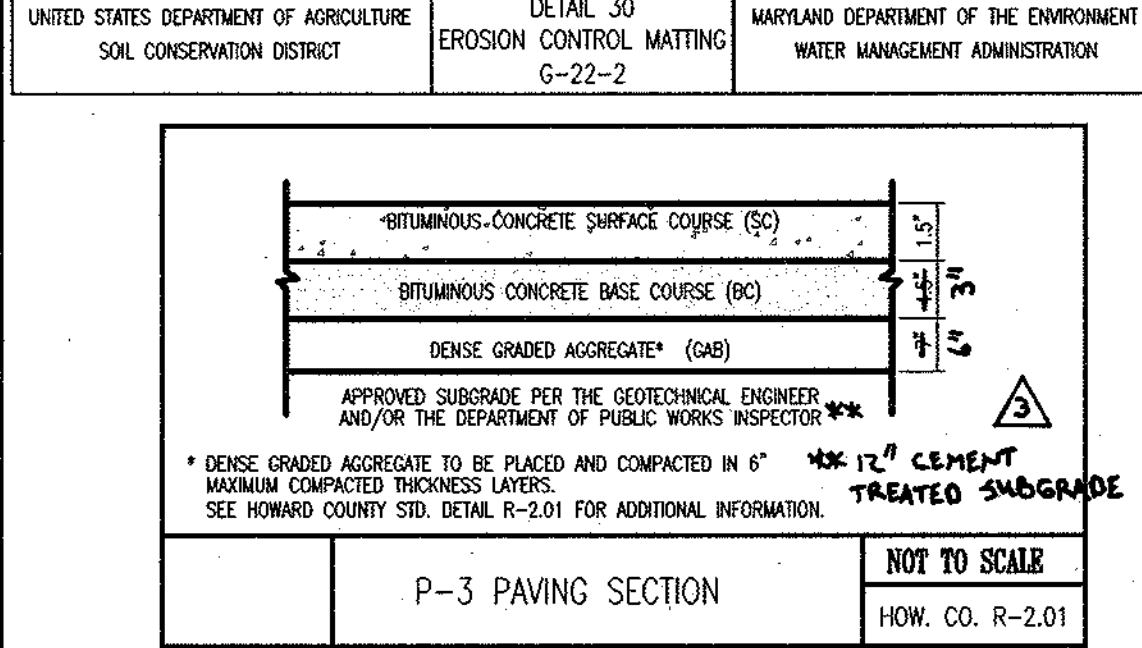
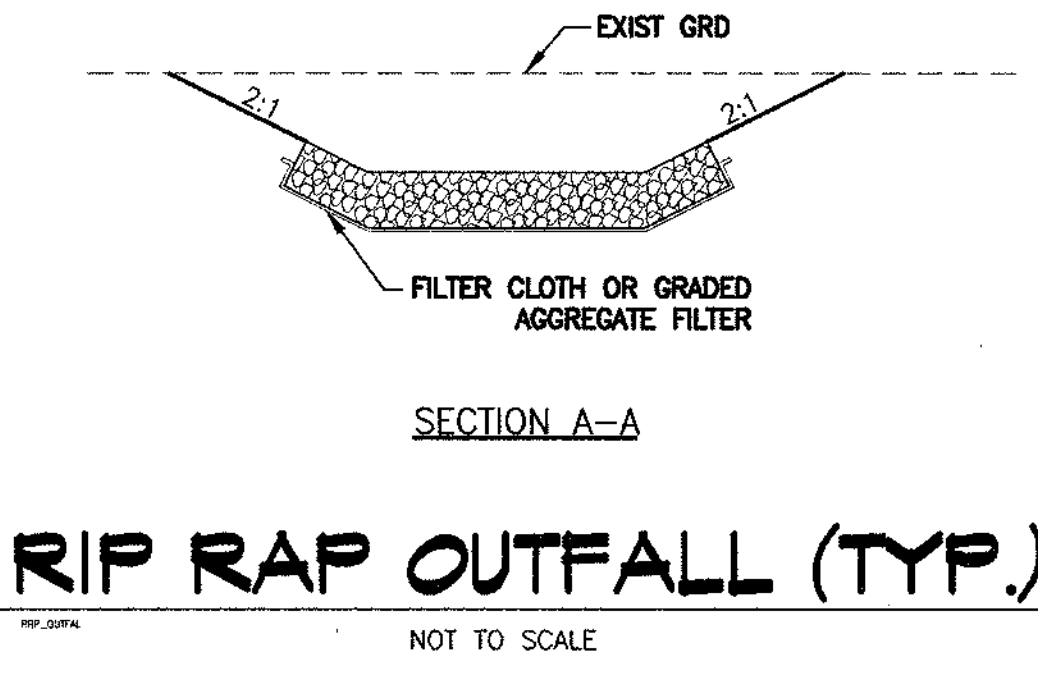
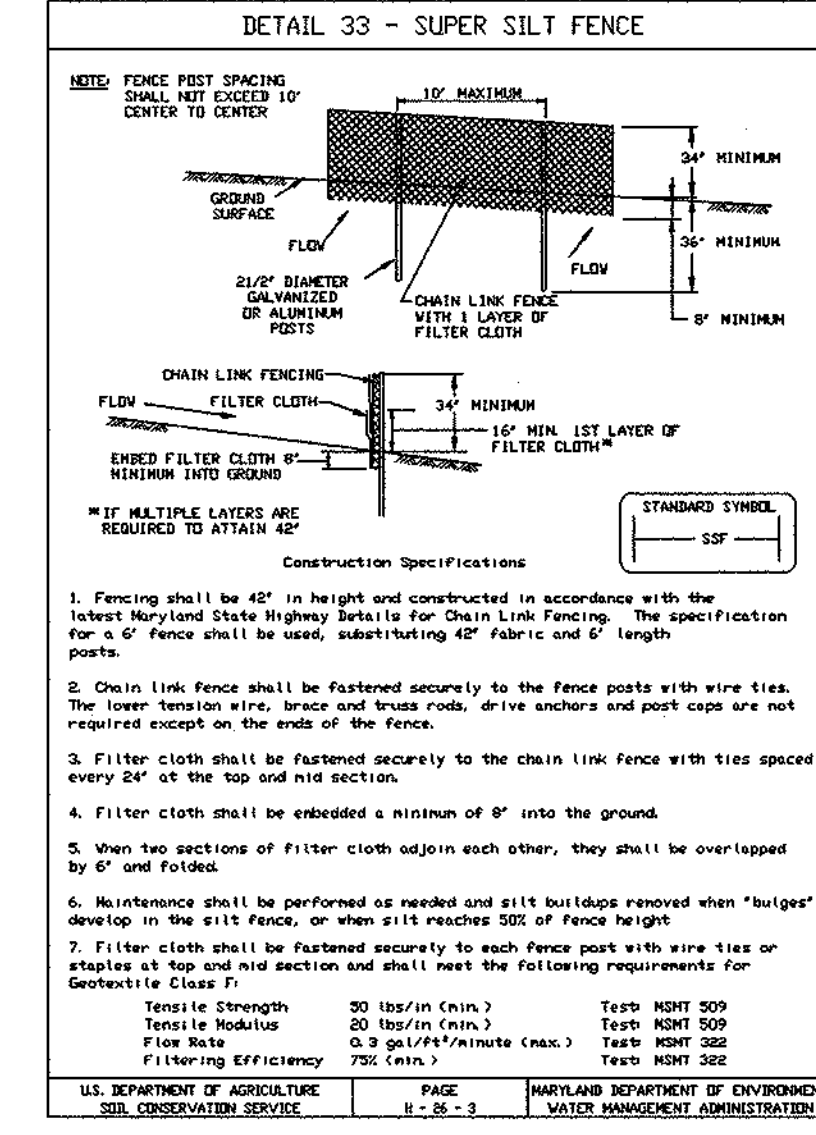
600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND**

SCALE AS SHOWN
 SHEET 1 OF 12



- CONSTRUCTION SEQUENCE**
1. SET UP A PRE-CONSTRUCTION MEETING WITH THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY WORK (THE CONTRACTOR MUST BE IN RECEIPT OF THE SITE GRADING PERMIT PRIOR TO SETTING UP THE PRE-CONSTRUCTION MEETING). ALSO THE CONTRACTOR WILL HAVE A CERTIFICATE OF ATTENDANCE FROM A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT.
 2. INSTALL SEDIMENT CONTROL PRACTICES AS SHOWN ON THIS PLAN AND AS DIRECTED BY THE SEDIMENT AND EROSION CONTROL INSPECTOR.
 3. EXISTING 15" RCP STORM DRAIN LOCATED TO THE WEST OF TRAP #4 TO BE BULKHEADED AND ABANDONED IN PLACE.
 4. BEGIN CLEARING, ROUGH GRADING, INSTALLATION OF UTILITIES.
 5. START CONSTRUCTION OF CURB AND GUTTER AND ROADS.
 6. COMPLETE THE FINAL PAVING OF ROAD AND CONSTRUCTION OF SIDEWALKS.
 7. WHEN ALL CONSTRUCTION IS COMPLETE STABILIZE ENTIRE SITE.
 8. ONCE THE SITE IS STABILIZED, AND WITH WRITTEN PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Andrew M. Dandee 7-20-02
CHIEF, BUREAU OF HIGHWAYS

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Mike Dammann 7/25/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
8090 JUNCTION DRIVE SUITE 9
ANNAPOLIS, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Piero Van Mellits 8-5-02
REGISTERED PROFESSIONAL ENGINEER
NO. 21875

DES:	TCN/CAO		
DRN:	TCN/CAO		
CHK:	PVM		
DATE:	06/22/01		
BY:	NO.	REVISIONS	DATE
		MRA	REVISE PHILLIP DORSEY WAY PAVEMENT SECTION 6-25-02

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT

John R. Robinson 7/19/01
HOWARD S.C.D. DATE

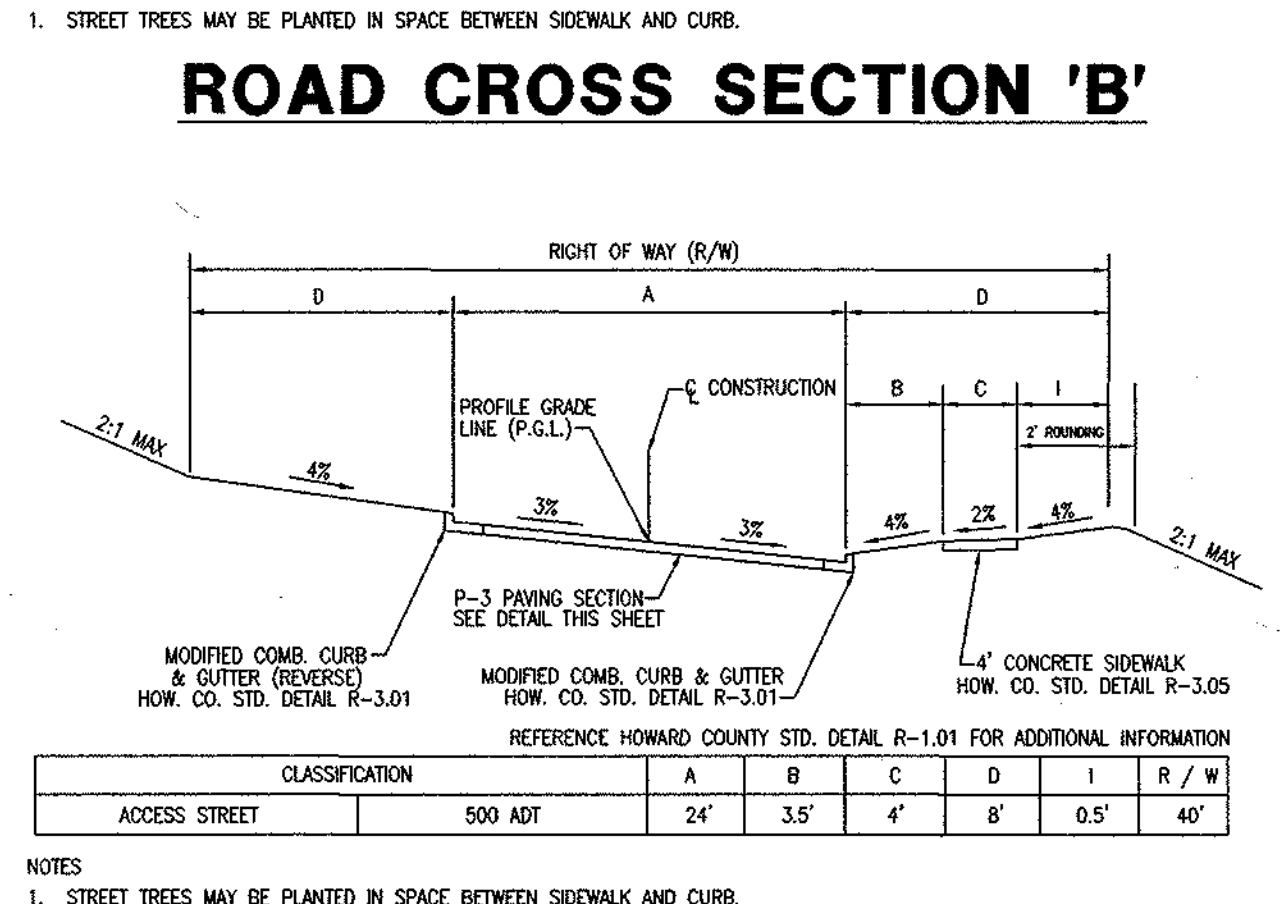
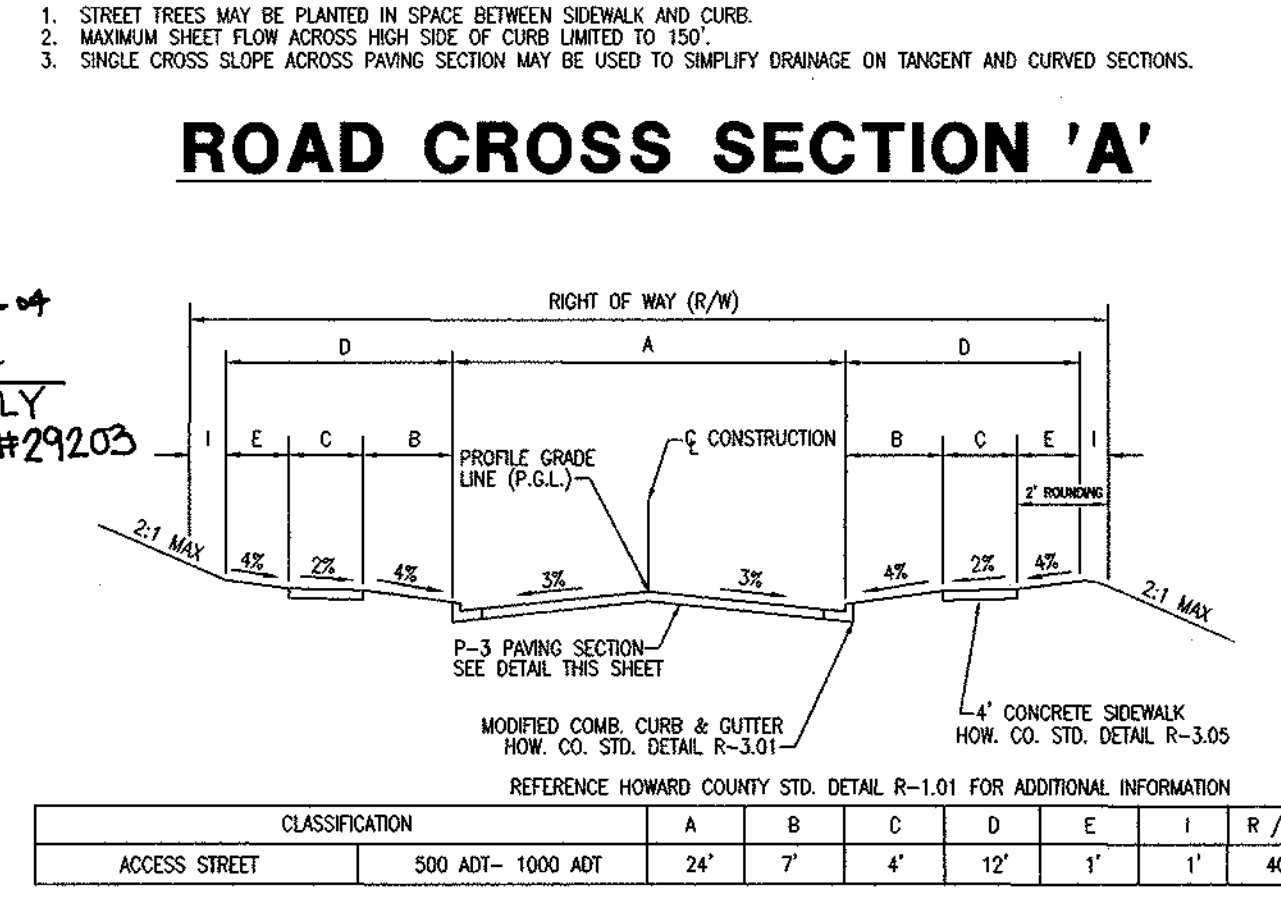
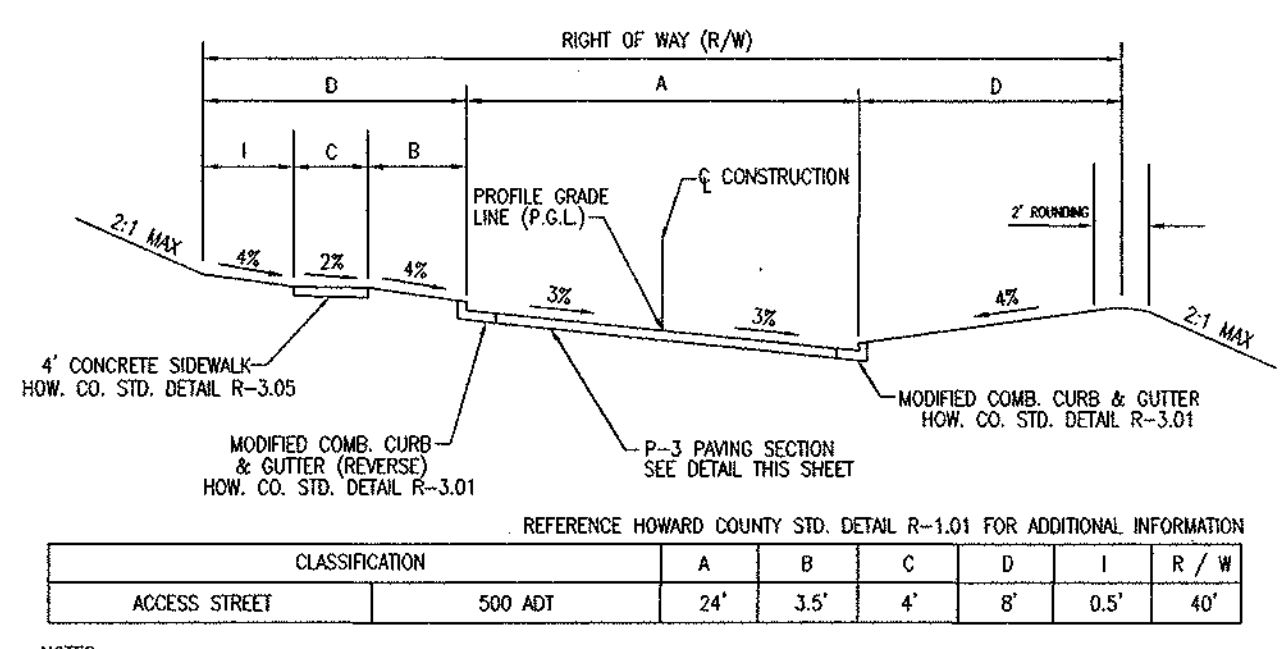
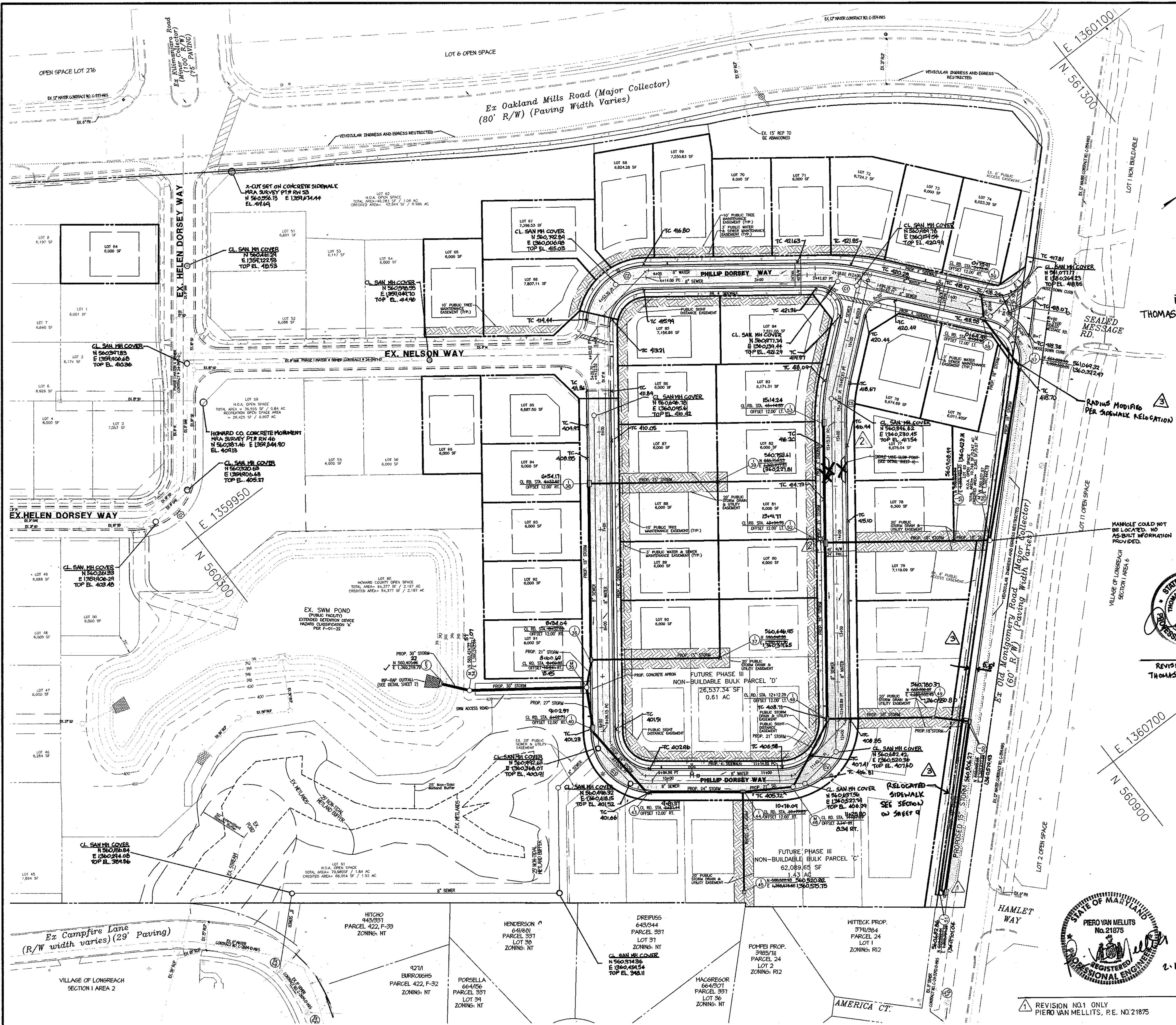
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

Jim Myers 7/19/01
S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE DATE

FINAL ROAD PLANS
ROAD & SITE DETAILS

ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 12



ROAD CROSS SECTION 'C'

TRANSITION TABLE

ROAD	STATION	SECTION CHANGE	R/W WIDTH
PHILLIP DORSEY WAY	1+54.36 TO 2+43.85	SECTION 'B' TO SECTION 'C'	50' TO 40'
PHILLIP DORSEY WAY	4+92.62 TO 5+42.62	SECTION 'C' TO SECTION 'A'	NO CHANGE
PHILLIP DORSEY WAY	11+59.89 TO 12+09.89	SECTION 'A' TO SECTION 'C'	NO CHANGE

CROSS SECTION TABLE

ROAD	STATION	SECTION
PHILLIP DORSEY WAY	0+22.49 TO 1+54.36	SECTION B
PHILLIP DORSEY WAY	2+43.85 TO 4+92.62	SECTION C
PHILLIP DORSEY WAY	5+42.62 TO 11+59.89	SECTION A
PHILLIP DORSEY WAY	12+09.89 TO 16+63.77	SECTION C

THIS AS-BUILT IS BASED ON A FIELD-RUN SURVEY PERFORMED BY MORRIS & RITCHIE ASSOCIATES, INC. DATED 2/10/04

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Cindy Hamstra 7/29/04
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

OWNER/DEVELOPER
A. NAME: Ed Gold B. DAYTIME TELEPHONE: 410-712-7012
C. COMPANY: Ryland Homes
D. ADDRESS: 7250 Parkway Drive, Suite 520
E. CITY: Hanover STATE: MD. ZIP: 21076

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Andrew M. Daneker 7-20-01
CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Ed Gold 7/25/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

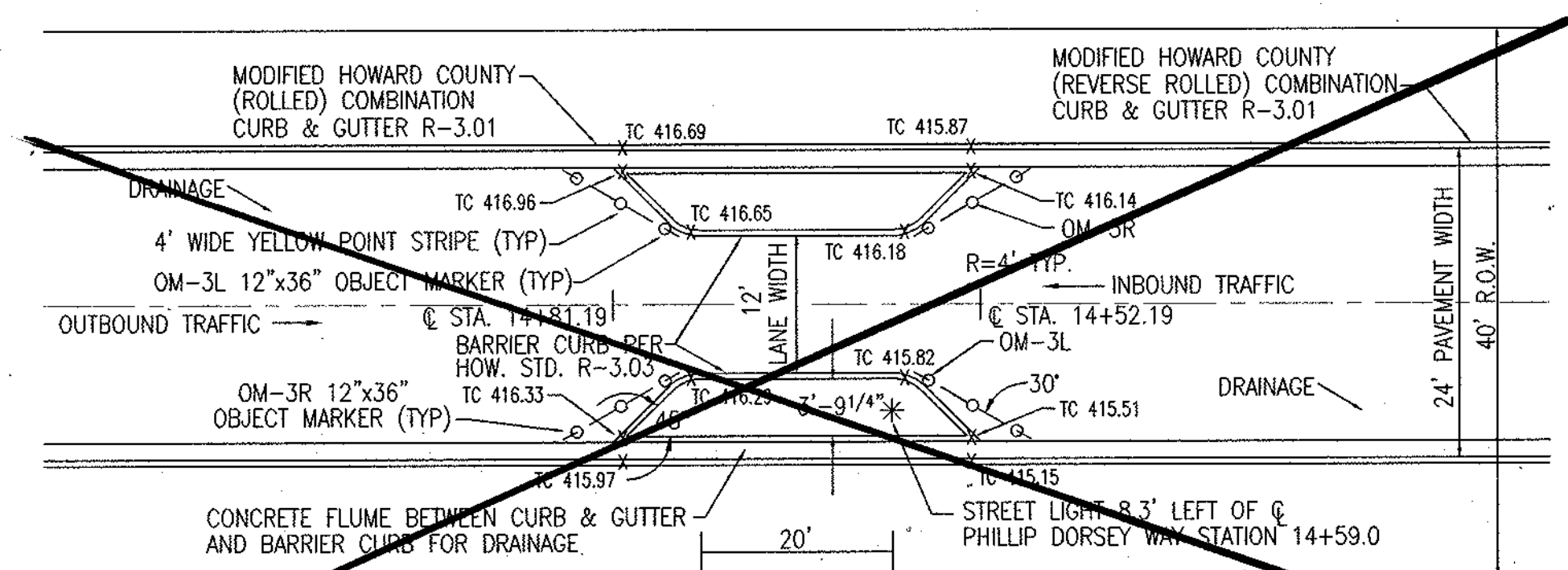
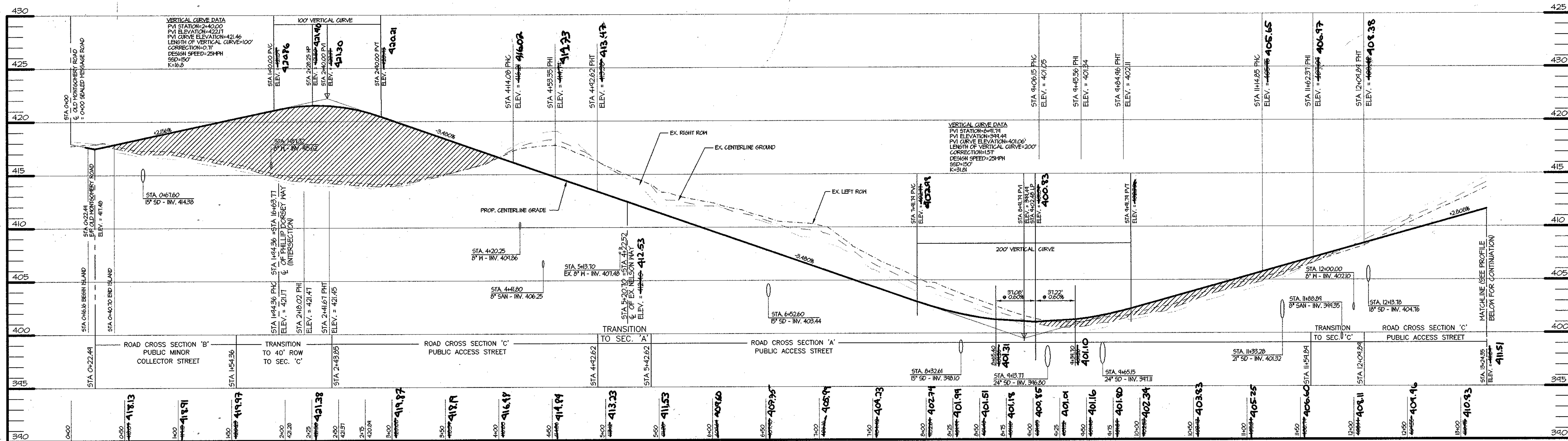
MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
9030 JUNCTION DRIVE SUITE 3
ANNAPOLIS, JUNCTION, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395

STATE OF MARYLAND
PIERO VAN MELLITS
No. 21875
REGISTERED PROFESSIONAL ENGINEER

DES:	TCN/CAO	DATE:	06/22/01
DRN:	TCN/CAO	MRA A	ADDED AS-BUILT INFORMATION TO PLAN 7/04
CHK:	PVM	MRA B	RELOCATED SIDEWALK ALONG OLD MONTGOMERY RD 10/22/03
		MRA C	REMOVAL OF SPEED CONTROL ISLANDS 06/06/02
		MRA D	STORM DRAIN REVISION FOR 150 AND 151 02/09/2002

FINAL ROAD PLANS
ROAD PLAN - PHILLIP DORSEY WAY
600' SCALE MAP NO. 36 BLOCK NO. 10

ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE
1" = 50'
SHEET
3 OF 12



SINGLE LANE SLOW POINT
N.T.S.

PHILLIP DORSEY WAY - 25 MPH

HOR. 1" = 50'
VERT. 1" = 5'

PROVIDE CONTROL FILL TO 95%
COMPACTION PER AASHTO T-100.
PLACEMENT TO BE APPROVED
BY THE GEOTECHNICAL ENGINEER.

CURB TRANSITION TABLE

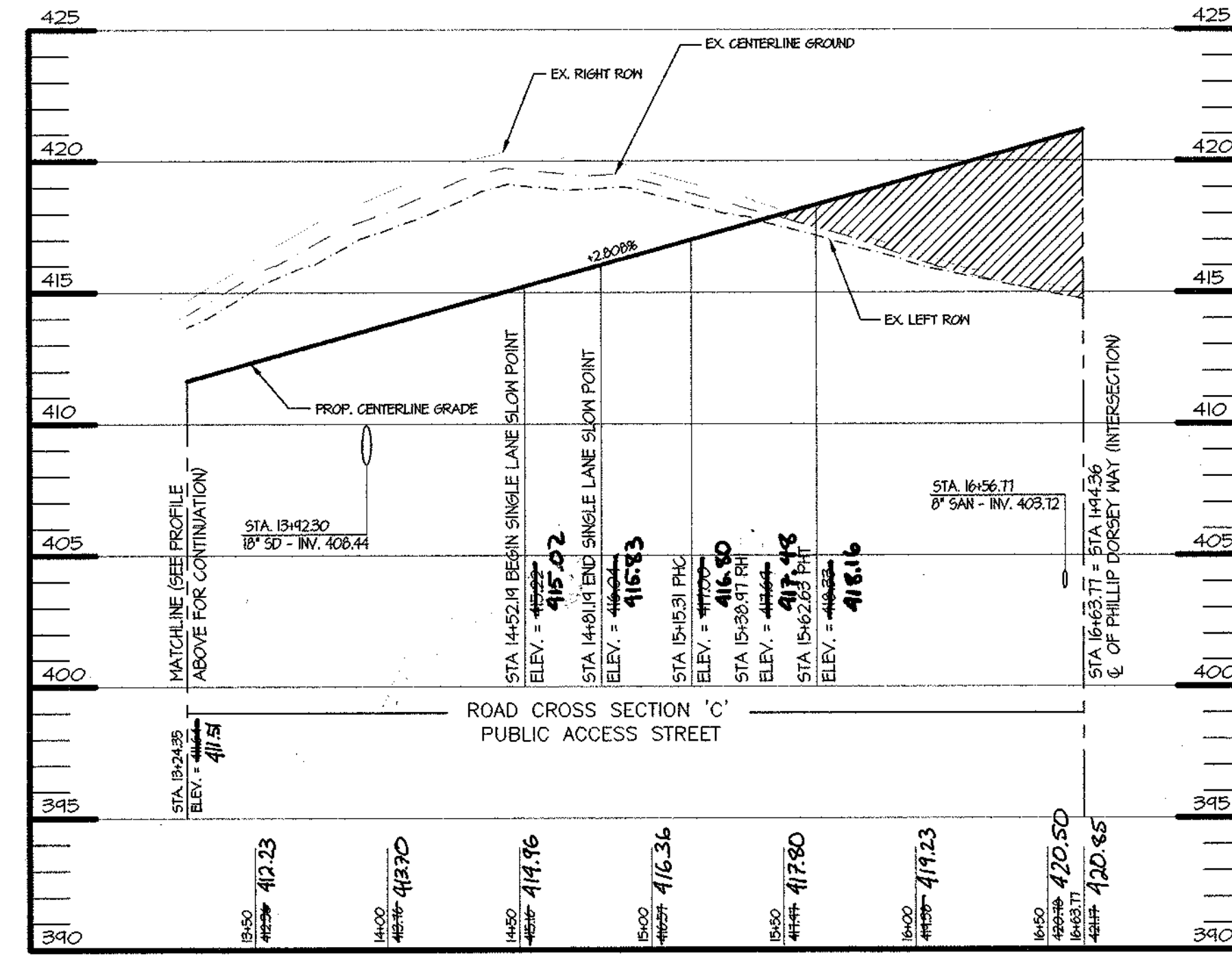
STATION	OFFSET	CURB TRANSITION	STRUC.	ELEVATION
0+45.38 TO 0+49.38	14'/12.7" LEFT	STANDARD 7" COMB. TO REVERSE 7" STD. COMB.	--	418.36 / 418.39
0+66.80 TO 0+71.80	12' LEFT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-58	418.65 / 418.51
0+73.15 TO 0+78.15	12' RIGHT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-59	418.79 / 418.65
1+96.60 TO 2+01.60	12' RIGHT	MODIFIED (ROLLED) TO REVERSE MODIFIED (ROLLED)	--	421.52 / 421.63
5+15.12 TO 5+20.12	12' LEFT	MODIFIED (ROLLED) TO REVERSE MODIFIED (ROLLED)	--	SEE NOTE #3
6+44.36 TO 6+49.36	12' RIGHT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-38	408.07 / 408.14
6+55.87 TO 6+60.87	12' RIGHT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-38	407.92 / 407.74
8+25.21 TO 8+30.21	12' RIGHT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-36	401.95 / 402.11
8+35.01 TO 8+40.01	12' RIGHT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-36	402.00 / 401.63
8+94.54 TO 8+99.54	12' RIGHT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-40	401.06 / 401.30
9+06.19 TO 9+11.19	12' RIGHT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-40	401.30 / 401.06
9+74.43 TO 9+79.43	12' RIGHT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-43	401.83 / 402.21
9+83.46 TO 9+88.46	12' RIGHT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-43	402.32 / 402.18
10+69.85 TO 10+74.85	12' RIGHT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-44	404.46 / 405.87
10+79.61 TO 10+84.61	12' RIGHT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-44	405.00 / 404.87
11+82.39 TO 11+87.39	12' RIGHT	MODIFIED (ROLLED) TO REVERSE MODIFIED (ROLLED)	--	408.09 / 408.01
11+82.39 TO 11+87.39	12' LEFT	REVERSE MODIFIED (ROLLED) TO MODIFIED (ROLLED)	--	408.15 / 407.94
12+04.89 TO 12+09.89	12' LEFT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-48	408.25 / 408.66
12+14.69 TO 12+19.69	12' LEFT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-48	408.80 / 408.67
13+83.53 TO 13+88.53	12' LEFT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-52	413.27 / 413.68
13+95.03 TO 14+00.03	12' LEFT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-52	413.86 / 413.73
15+06.56 TO 15+11.56	12' LEFT	MODIFIED (ROLLED) TO STANDARD 7" COMB.	I-53	416.72 / 417.13
15+17.97 TO 15+22.97	12' LEFT	STANDARD 7" COMB. TO MODIFIED (ROLLED)	I-53	417.45 / 417.18
16+41.95 TO 16+46.95	17.1'/22.2' RT	REVERSE MODIFIED (ROLLED) TO MODIFIED (ROLLED)	--	420.92 / 420.88

CROSS SECTION TABLE

ROAD	STATION	SECTION
PHILLIP DORSEY WAY	0+22.49 TO 1+54.36	SECTION 'B'
PHILLIP DORSEY WAY	2+43.85 TO 4+92.62	SECTION 'C'
PHILLIP DORSEY WAY	5+42.62 TO 11+59.89	SECTION 'A'
PHILLIP DORSEY WAY	12+09.89 TO 16+63.77	SECTION 'C'

TRANSITION TABLE

ROAD	STATION	SECTION CHANGE	R/W WIDTH
PHILLIP DORSEY WAY	1+54.36 TO 2+43.85	SECTION 'B' TO SECTION 'C'	50' TO 40'
PHILLIP DORSEY WAY	4+92.62 TO 5+42.62	SECTION 'C' TO SECTION 'A'	NO CHANGE
PHILLIP DORSEY WAY	11+59.89 TO 12+09.89	SECTION 'A' TO SECTION 'C'	NO CHANGE



PHILLIP DORSEY WAY - 25 MPH

HOR. 1" = 50'
VERT. 1" = 5'

PROVIDE CONTROL FILL TO 95%
COMPACTION PER AASHTO T-100.
PLACEMENT TO BE APPROVED
BY THE GEOTECHNICAL ENGINEER.

- NOTES:
- ALL ELEVATIONS ARE TOP OF CURB AND CORRESPOND TO STATION TRANSITIONS.
 - FOR STRUCTURES MARKED "--", CURB TRANSITION IS REQUIRED FOR PAVEMENT SECTION TRANSITION.
 - THIS CURB TRANSITION IS TO BE CONSTRUCTED AS PART OF THE TEE TURN-AROUND UNDER THE PHASE I ROAD PLANS.

THIS AS-BUILT IS BASED ON A FIELD-RUN
SURVEY PERFORMED BY MORRIS & RITCHIE
ASSOCIATES, INC. DATED 2/02/04

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

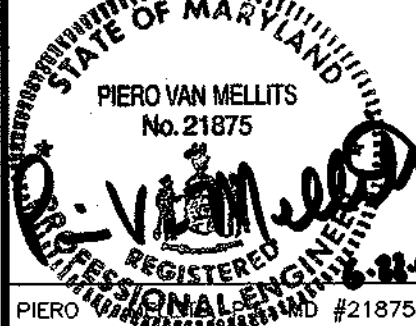


FOR AS-BUILT ITEM ONLY
THOMAS C. NEUGEBAUER, P.E. #29203

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
9090 JUNCTION DRIVE SUITE 9
ANNAPOLIS JUNCTION, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395



DES:	TCN/CAO	DATE:	NO.	REVISIONS	DATE
DRN:	CAO	06/22/01	1	ADDED AS-BUILT INFORMATION TO PLAN	7/04
CHK:	PVM		2	REMOVAL OF SPEED CONTROL ISLANDS	06/06/02

**FINAL ROAD PLANS
ROAD PROFILE
PHILLIP DORSEY WAY**

**ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND**

SCALE
AS SHOWN

SHEET
4 OF 12

TRAFFIC CONTROL SIGN TABLE

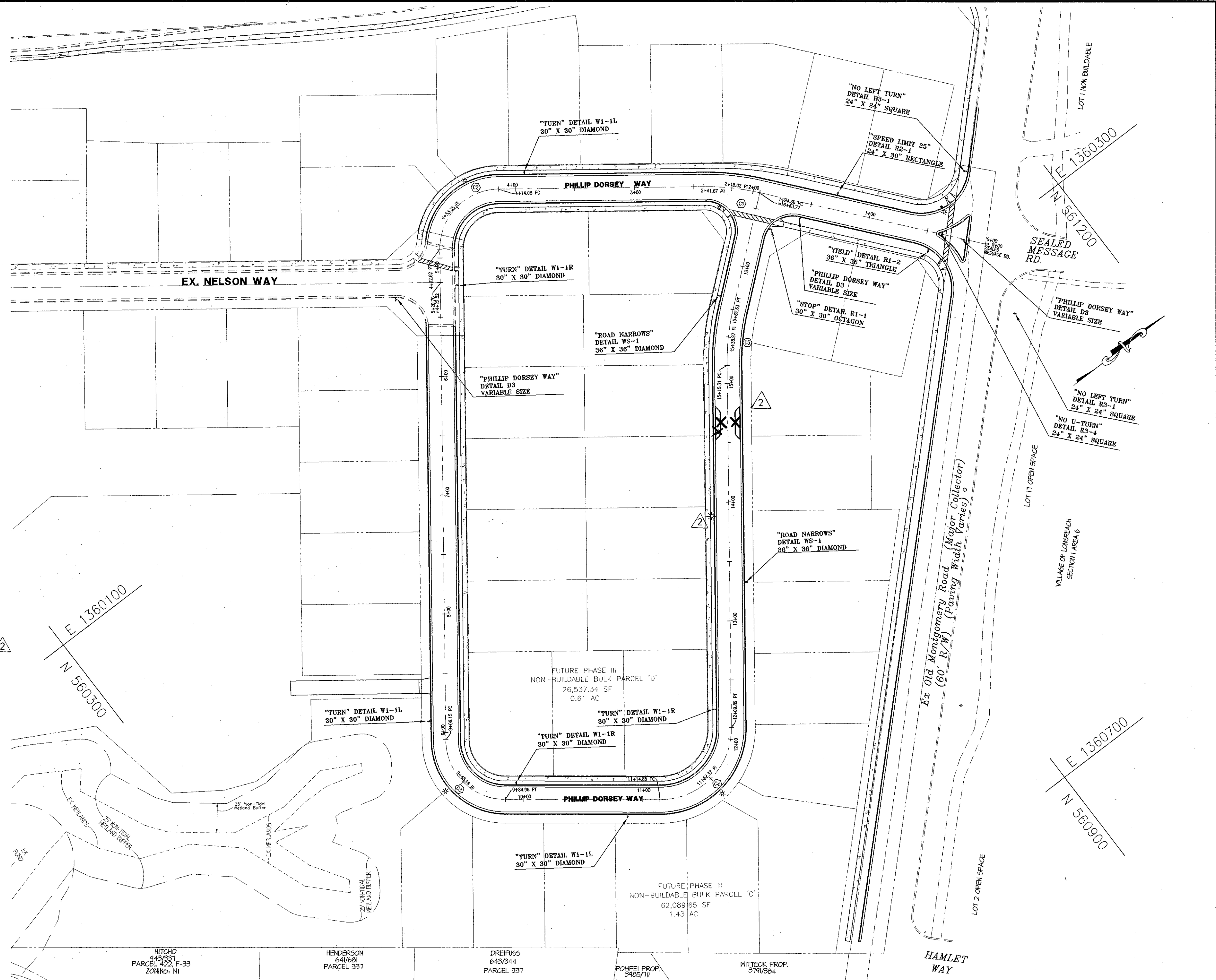
ROAD	STATION	OFFSET	SIGN	NOTES
SEALED MESSAGE ROAD	0+32.8	54' RIGHT	"NO LEFT TURN" DETAIL R3-1	24" x 24" SQUARE
PHILLIP DORSEY WAY	0+19.2	0'	"PHILLIP DORSEY WAY" DETAIL D3	VARIABLE SIZE
PHILLIP DORSEY WAY	0+30.0	55.3' RIGHT	"NO LEFT TURN" DETAIL R3-1	24" x 24" SQUARE
PHILLIP DORSEY WAY	0+36.7	0'	"NO U-TURN" DETAIL R3-4	24" x 24" SQUARE
PHILLIP DORSEY WAY	0+45.6	16.5' LEFT	"YIELD" DETAIL R1-2	36" x 36" TRIANGLE
PHILLIP DORSEY WAY	1+57.4	14.0' LEFT	"PHILLIP DORSEY WAY" DETAIL D3	VARIABLE SIZE
PHILLIP DORSEY WAY	1+30.5	14.0' RIGHT	"SPEED LIMIT 25" DETAIL R2-1	24" x 30" RECTANGLE
PHILLIP DORSEY WAY	3+92.4	14.0' RIGHT	"TURN" DETAIL W1-1L	30" x 30" DIAMOND
PHILLIP DORSEY WAY	3+95.5	14.0' RIGHT	"PHILLIP DORSEY WAY" DETAIL D3	VARIABLE SIZE
PHILLIP DORSEY WAY	5+23.1	14.0' LEFT	"TURN" DETAIL W1-1R	30" x 30" DIAMOND
PHILLIP DORSEY WAY	8+90.5	14.0' RIGHT	"TURN" DETAIL W1-1L	30" x 30" DIAMOND
PHILLIP DORSEY WAY	9+94.1	14.0' LEFT	"TURN" DETAIL W1-1R	30" x 30" DIAMOND
PHILLIP DORSEY WAY	10+87.8	14.0' RIGHT	"TURN" DETAIL W1-1L	30" x 30" DIAMOND
PHILLIP DORSEY WAY	12+25.4	14.0' LEFT	"TURN" DETAIL W1-1R	30" x 30" DIAMOND
PHILLIP DORSEY WAY	13+32.3	14.0' RIGHT	"ROAD NARROWS" DETAIL WS-1	36" x 36" DIAMOND
PHILLIP DORSEY WAY	15+72.0	14.0' LEFT	"ROAD NARROWS" DETAIL WS-1	36" x 36" DIAMOND
PHILLIP DORSEY WAY	16+35.9	15.5' RIGHT	"STOP" DETAIL R1-1	30" x 30" OCTAGON

NOTES: SIGN DESIGNATION COORESPONDS TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 1988 EDITION.

STREET LIGHTING SCHEDULE

ROAD	STATION	OFFSET	DIRECTION	TYPE
PHILLIP DORSEY WAY	0+42.9	22.0 FT	RIGHT	250 WATT
PHILLIP DORSEY WAY	2+27.6	17.1 FT	LEFT	150 WATT
PHILLIP DORSEY WAY	4+37.0	14.0 FT	RIGHT	150 WATT
PHILLIP DORSEY WAY	9+41.9	16.0 FT	RIGHT	150 WATT
PHILLIP DORSEY WAY	11+60.8	16.0 FT	RIGHT	150 WATT
PHILLIP DORSEY WAY	13+95.0	15 FT	LEFT	150 WATT

- NOTES:
- STREET LIGHTING TO BE INSTALLED BY BGE ACCORDING TO ABOVE SCHEDULE AND STREET LIGHT LOCATIONS AS SHOWN ON THESE PLANS. (X) DENOTES STREET LIGHT LOCATIONS.)
 - STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE USED SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS" (1993).
 - 250-WATT HPS VAPOR PENDANT FIXTURE SAG MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.
 - 150-WATT HPS VAPOR "PREMIER COLONIAL" POST TOP FIXTURE MOUNTED ON 14 FOOT BLACK FIBERGLASS POLE.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Andrew M. Danz 7/20/01
CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Cindy Hammett 7/20/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John Dammann 7/25/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MIRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
9090 JUNCTION DRIVE SUITE 9
ANNAPOLIS JUNCTION, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395

STATE OF MARYLAND
PIERO VAN MELLITS
No. 21875
PROFESSIONAL ENGINEER

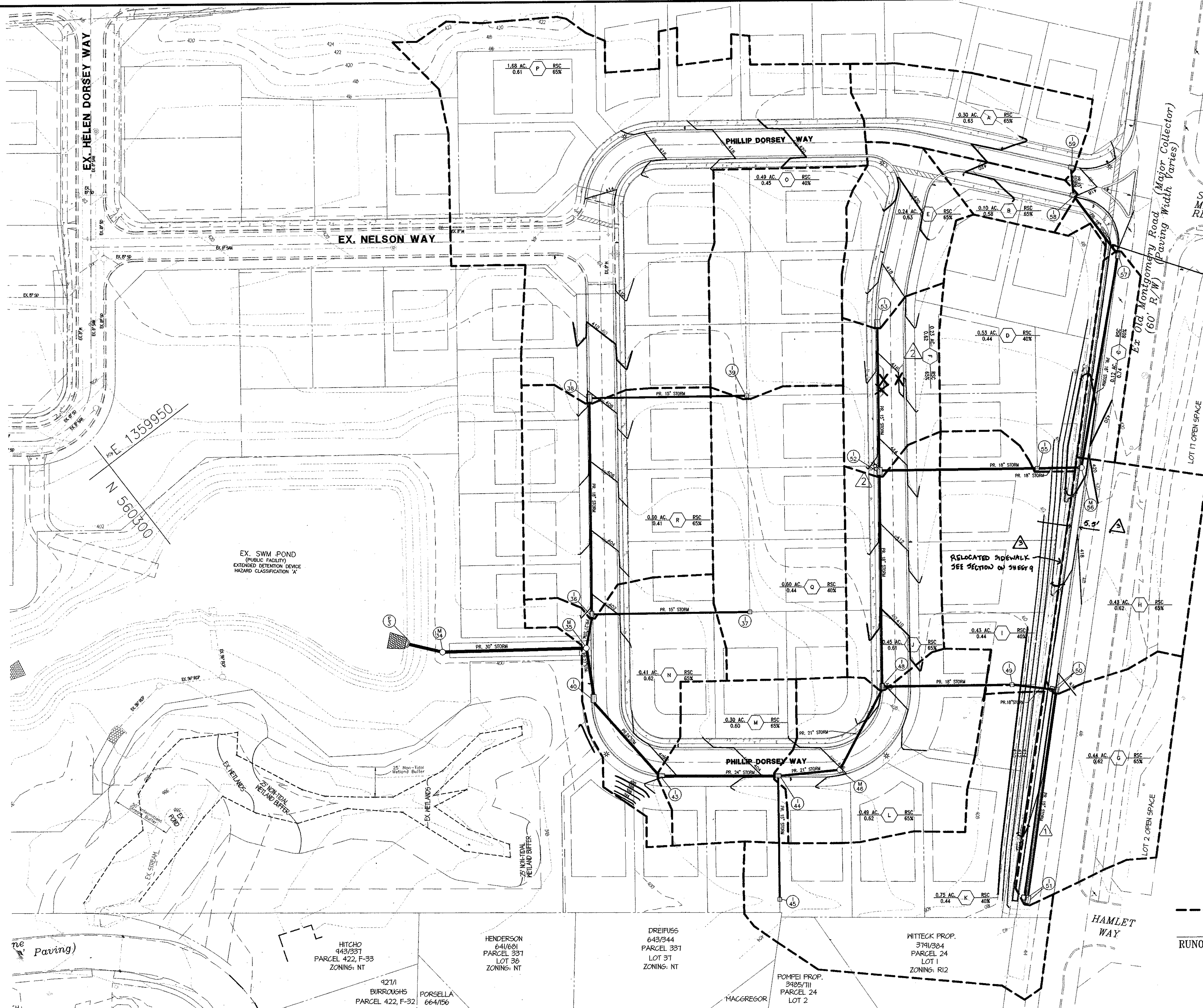
DES:	TCN/CAO		
DRN:	TCN/CAO		
CHK:	PVM	MIRA	REMOVAL OF SPEED CONTROL ISLANDS 06/06/02
DATE:	06/22/01	BY NO.	REVISIONS

**FINAL ROAD PLANS
TRAFFIC CONTROL SIGN PLAN
& STREET LIGHT PLAN**

600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND**

SCALE
1" = 40'
SHEET
5 OF 12



LOT I NON-BUILDABLE
 N 567200
 SEALED MESSAGE RD.
 RADIUS MODIFIED PER SIDEWALK RELOCATION

LOT II OPEN SPACE
 VILLAGE OF LONGREACH SECTION AREA 6
 STATE OF MARYLAND
 PIERO VAN MELLITS
 No. 21875
 REGISTERED PROFESSIONAL ENGINEER
 2.1.02

REVISION NO.1 ONLY
 PIERO VAN MELLITS P.E. NO. 21875

STATE OF MARYLAND
 THOMAS C. NEUGEBAUER, P.E.
 12/1/03
 REVISION #3 ONLY

LEGEND

--- PHASE II STORM DRAIN DRAINAGE AREA

AREA RUNOFF COEFF. DA ZONING % IMPERVIOUS

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

Christa Hamilton 7/25/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Richard M. Danville 7/25/04
 CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

Chris Danville 7/25/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
 MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 9090 JUNCTION DRIVE SUITE 9
 ANNAPOLIS JUNCTION, MARYLAND 20701
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 FAX (410) 792-7395

STATE OF MARYLAND
 PIERO VAN MELLITS
 No. 21875
 REGISTERED PROFESSIONAL ENGINEER
 PIERO V. MELLITS
 MD #21875

DES: TCN/CAO			
DRN: TCN/CAO			
CHK: PVM			
DATE: 06/22/01			
BY NO.			
MRA	RELOCATED SIDEWALK ALONG OLD MONTGOMERY ROAD	10/22/03	
MRA	REMOVAL OF SPEED CONTROL ISLANDS	06/06/02	
MRA	STORM DRAIN REVISION FOR I50 AND I51	02/10/2002	
REVISIONS		DATE	

**FINAL ROAD PLANS
 STORM DRAIN
 DRAINAGE AREA MAP**

600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW
 PHASE II - OAKLAND MILLS ROAD
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

SCALE 1"=40'
 SHEET 6 OF 12

HITCHO 443/331 PARCEL 422, F-33 ZONING: NT

HENDERSON 641/601 PARCEL 331 LOT 30 ZONING: NT

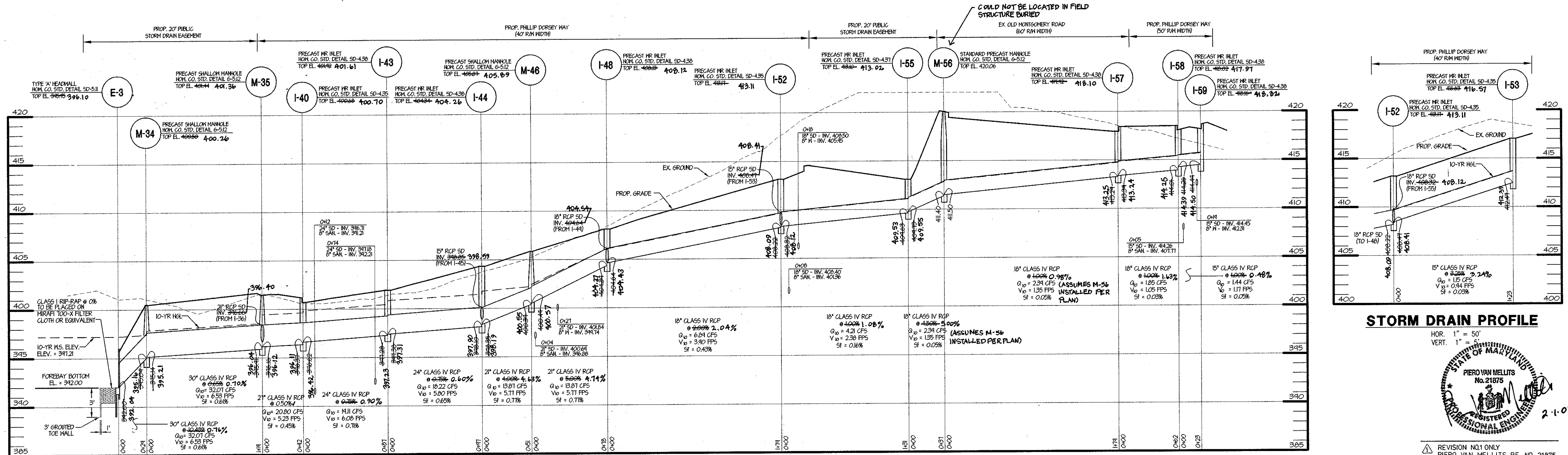
DREIFUSS 643/344 PARCEL 331 LOT 31 ZONING: NT

MITTECK PROP. 3191/304 PARCEL 24 LOT 1 ZONING: R12

POMPEI PROP. 3195/711 PARCEL 24 LOT 2

MACGREGOR

HAMLET WAY



STORM DRAIN PROFILE

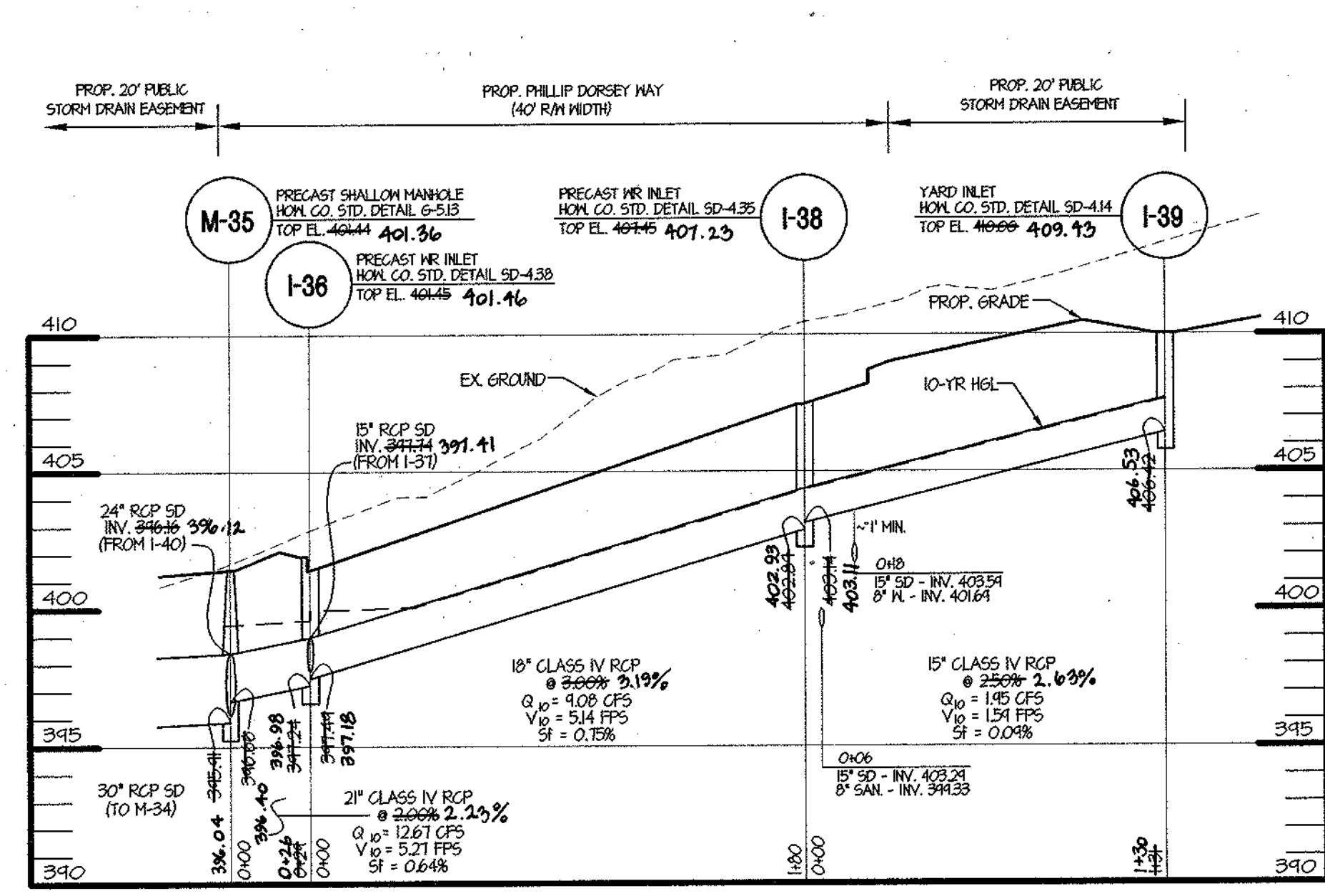
HOR. 1" = 50'
VERT. 1" = 5'

STORM DRAIN PROFILE

HOR. 1" = 50'
VERT. 1" = 5'

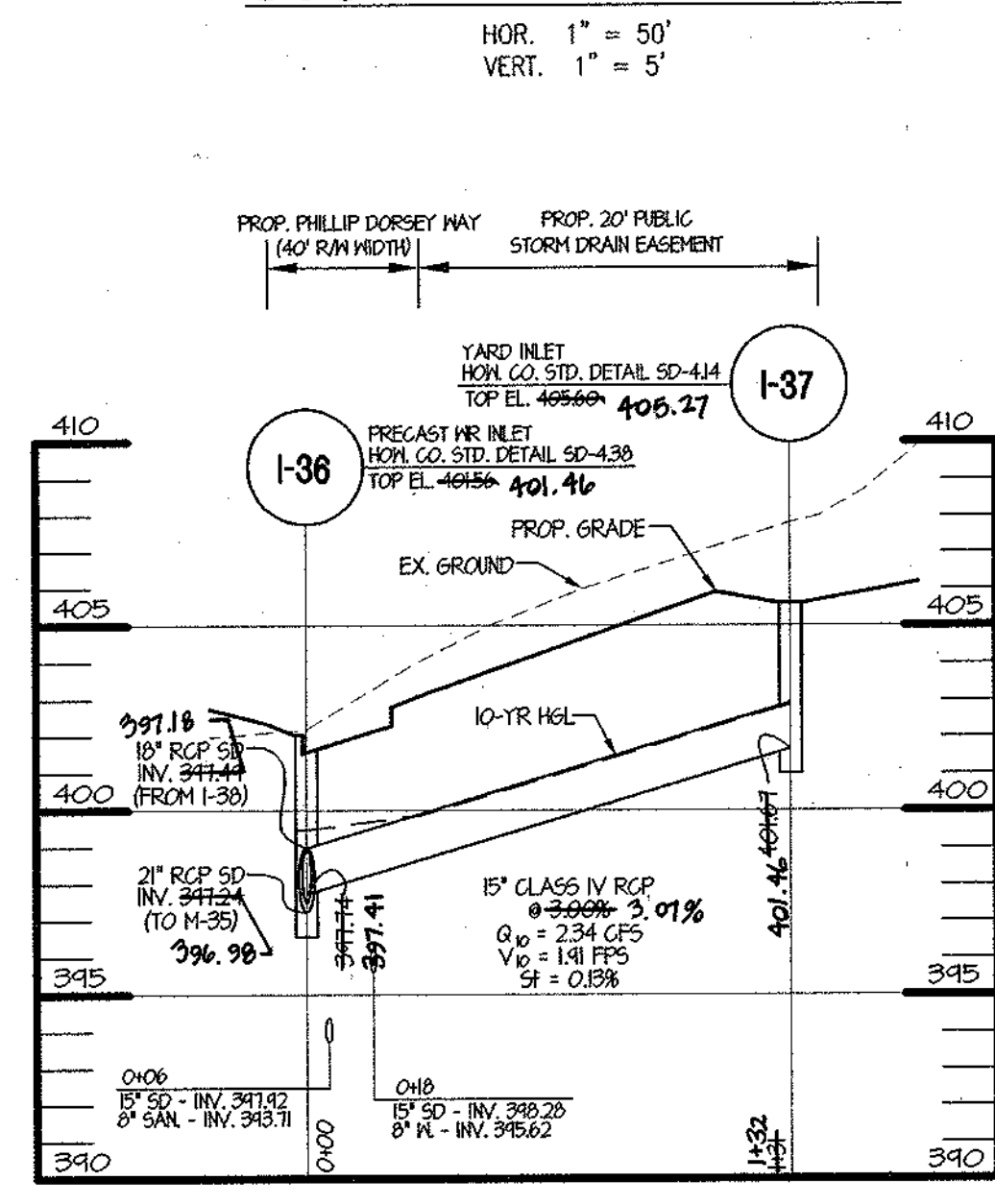


REVISION NO.1 ONLY
PIERO VAN MELLITS P.E. No. 21875



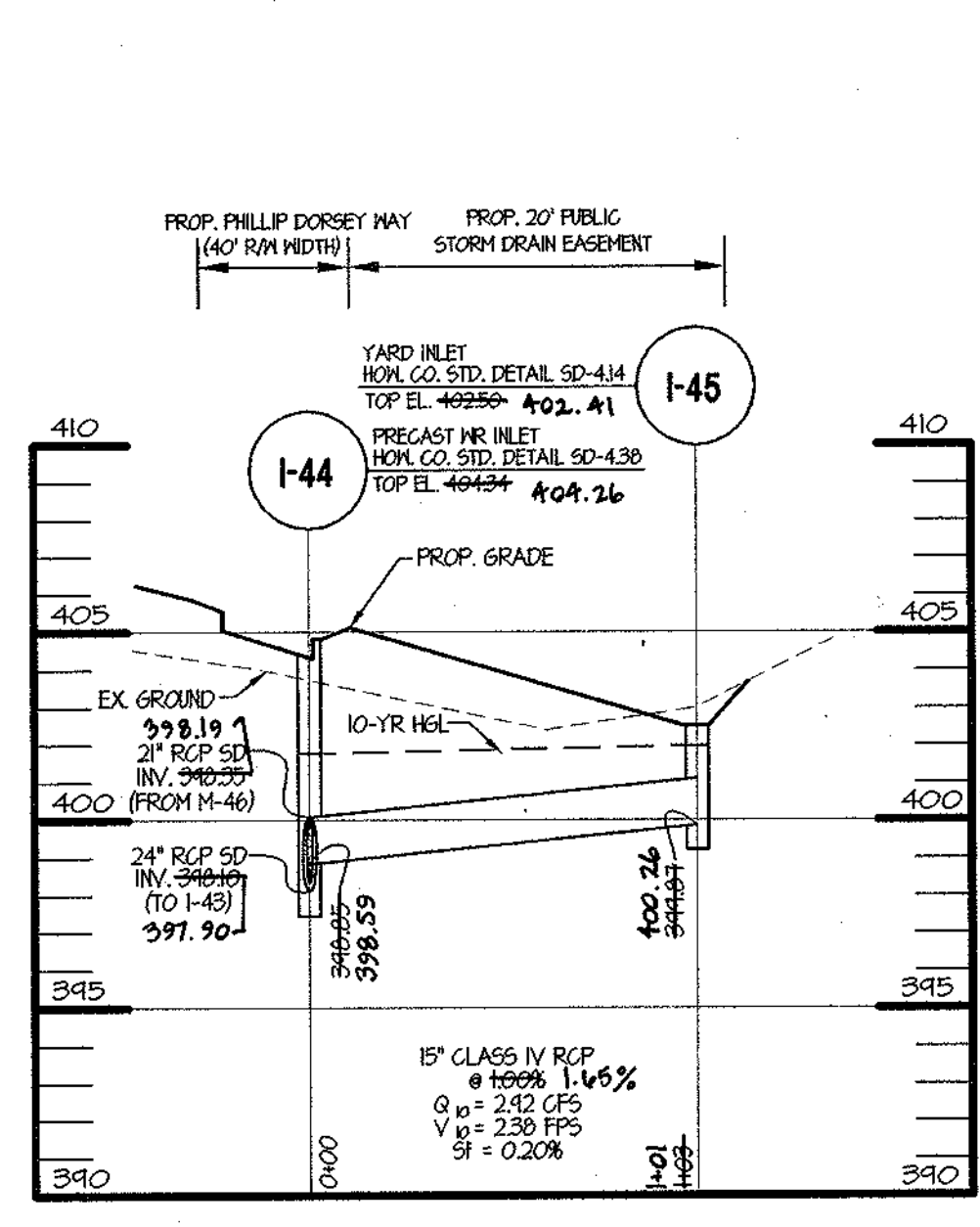
STORM DRAIN PROFILE

HOR. 1" = 50'
VERT. 1" = 5'



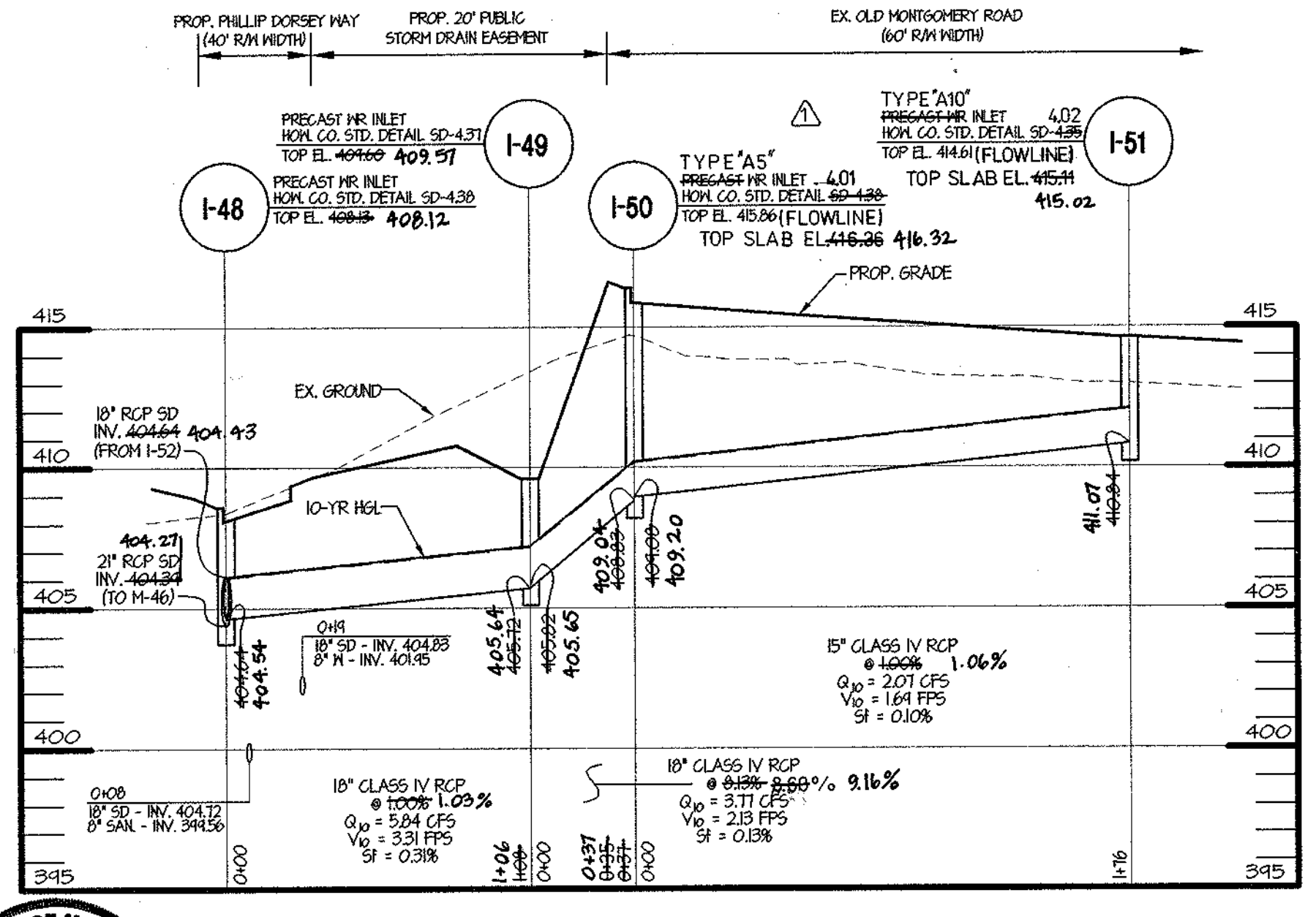
STORM DRAIN PROFILE

HOR. 1" = 50'
VERT. 1" = 5'



STORM DRAIN PROFILE

HOR. 1" = 50'
VERT. 1" = 5'



STORM DRAIN PROFILE

HOR. 1" = 50'
VERT. 1" = 5'

SIZE	TYPE	LENGTH
15"	RCP CL IV	687'
18"	RCP CL IV	913'
21"	RCP CL IV	158'
24"	RCP CL IV	184'
27"	RCP CL IV	42'
30"	RCP CL IV	148'

NOTE: SEE ABOVE PROFILES FOR UPDATED INFORMATION FOR THE STRUCTURE SCHEDULE

● COORDINATES TO CENTER OF STRUCTURE AT FACE OF CURB FOR INLETS. CENTER OF STRUCTURE FOR MANHOLES AND YARD INLETS.
* TOP OF GRATE ELEVATION AT CENTER OF STRUCTURE AT FACE OF CURB. MANHOLE AND YARD INLET ELEVATIONS ARE AT CENTER OF RIM AND GRATE.

STR NO.	TOP ELEV	INV IN	INV IN	INV OUT	TYPE	REMARKS	NORTHING	EASTING
E-3	395.00	---	392.08	---	TYPE 'A' HEADWALL	HOW. CO. STD. DETAIL SD-5.11	560,405.66	1,360,219.79
M-34	408.50	---	395.14	---	SHALLOW MANHOLE	HOW. CO. STD. DETAIL G-5.13	560,424.22	1,360,242.61
M-35	401.44	---	396.16	---	SHALLOW MANHOLE	HOW. CO. STD. DETAIL G-5.13	560,520.77	1,360,312.86
I-36	401.45	397.49	397.74	397.24	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	560,541.65	1,360,292.84
I-37	405.60	---	401.67	---	YARD INLET	HOW. CO. STD. DETAIL SD-4.14	560,646.89	1,360,371.84
I-38	407.45	403.17	---	402.89	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.35	560,648.78	1,360,148.64
I-39	410.00	---	406.42	---	YARD INLET	HOW. CO. STD. DETAIL SD-4.14	560,754.63	1,360,227.61
I-40	400.68	396.62	---	396.37	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.35	560,499.95	1,360,349.03
I-43	401.82	397.38	---	397.28	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	560,505.94	1,360,435.96
I-44	404.34	398.35	398.10	---	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	560,581.58	1,360,494.95
I-45	402.50	---	399.87	---	MODIFIED YARD INLET	HOW. CO. STD. DETAIL SD-4.14	560,520.39	1,360,576.68

FOR AS-BUILT INFORMATION ONLY
THOMAS C. NEUGEBAUER, P.E. #29203

STR NO.	TOP ELEV	INV IN	INV IN	INV OUT	TYPE	REMARKS	NORTHING	EASTING
M-46	405.87	400.49	---	400.38	SHALLOW MANHOLE	HOW. CO. STD. DETAIL G-5.13	560,625.66	1,360,521.68
I-48	405.13	404.64	404.64	404.39	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	560,695.14	1,360,487.56
I-49	409.68	405.82	---	405.72	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.37	560,782.07	1,360,552.49
I-50	415.86	409.08	---	408.83	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.36.01	560,808.25	1,360,577.98
I-51	414.64	---	---	410.84	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.36.02	560,882.51	1,360,701.25
I-52	413.17	408.39	408.47	408.22	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.35	560,802.58	1,360,343.76
I-53	416.63	---	---	412.47	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.35	560,876.21	1,360,245.48
I-55	413.10	409.73	---	409.63	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.37	560,908.62	1,360,422.35
M-56	420.06	411.50	---	411.40	STD. PRECAST MANHOLE	HOW. CO. STD. DETAIL G-5.12	560,937.97	1,360,444.19
I-57	417.92	413.39	---	413.29	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	561,069.10	1,360,322.26
I-58	418.02	414.01	---	414.26	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	561,070.22	1,360,260.85
I-59	418.16	---	---	414.48	PRECAST WR INLET	HOW. CO. STD. DETAIL SD-4.38	561,084.63	1,360,240.64

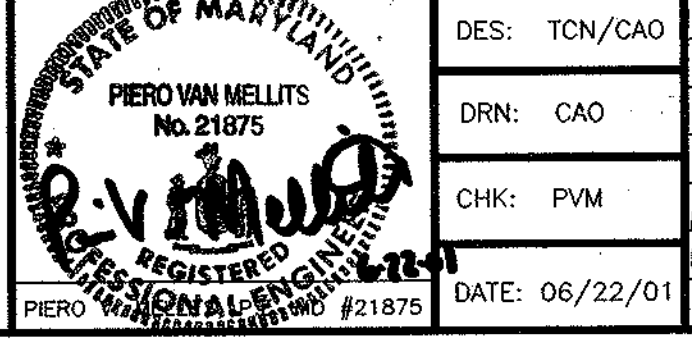
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Andrew M. Onick 7-20-01
CHIEF, BUREAU OF HIGHWAYS

THIS AS-BUILT IS BASED ON A FIELD-RUN SURVEY PERFORMED BY MORRIS & RITCHIE ASSOCIATES, INC. DATED 7/20/04.

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Cindy Hamstra 7/26/04
CHIEF, DIVISION OF LAND DEVELOPMENT

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Piero Van Mellits 7/25/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION

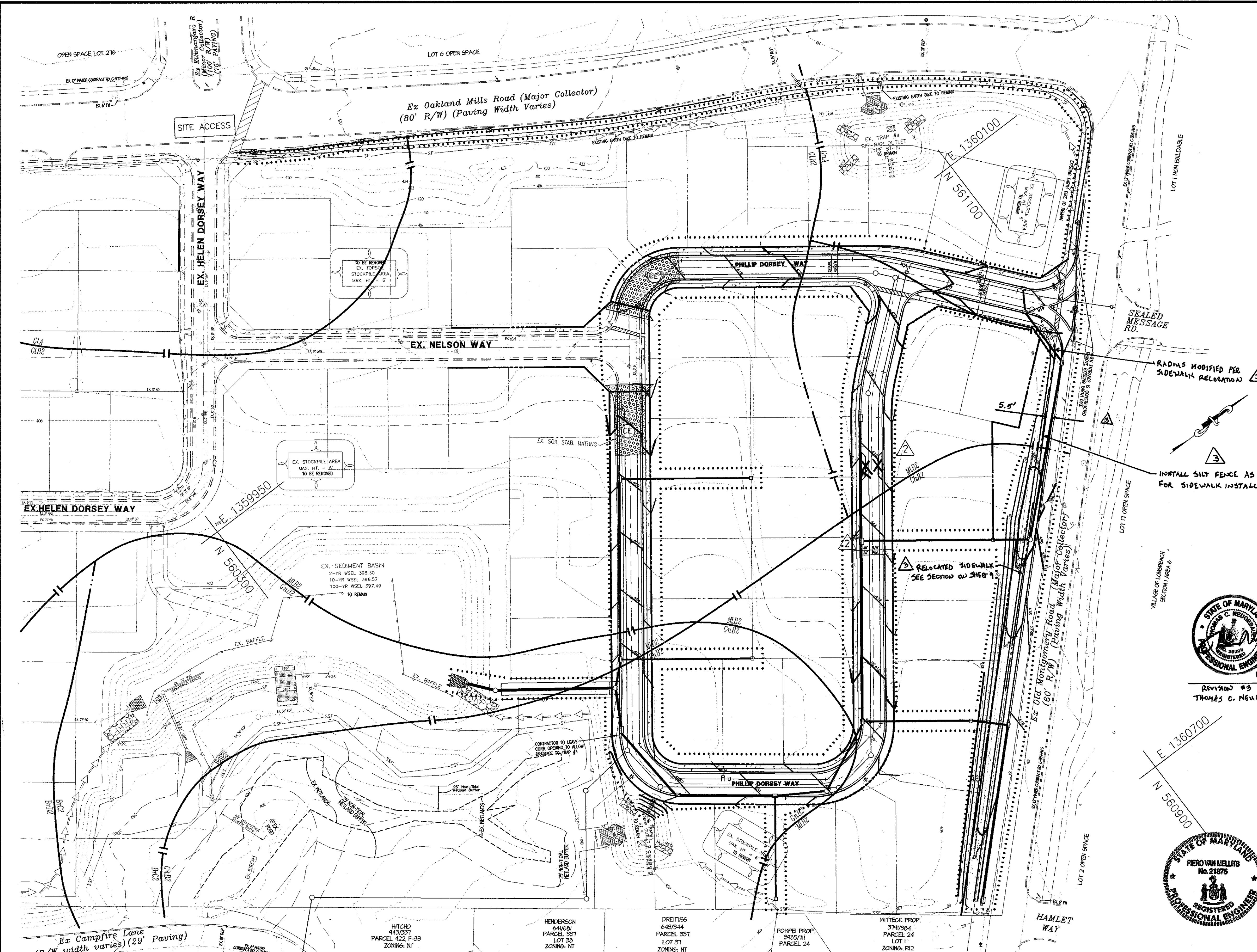
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
9090 JUNCTION DRIVE SUITE 9
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(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395



DES: TCN/CAO
DRN: CAO
CHK: PVM
MRA 4 ADDED AS-BUILT INFORMATION TO PLAN 7/04
MRA 1 STORM DRAIN REVISION FOR I50 AND I51 02/10/2002
DATE: 06/22/01

FINAL ROAD PLANS
STORM DRAIN PROFILES
& STRUCTURE SCHEDULE
600' SCALE MAP NO. 36 BLOCK NO. 10

ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 7 OF 12



PERMANENT SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
SEEDING PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
SOIL AMENDMENTS - IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:
 1. **DESIRED** - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SF) AND 900 LBS./ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SF) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS./ACRE 30-0-0 UREA/FORM FERTILIZER (9 LBS./1,000 SF).
 2. **ACCEPTABLE** - APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SF) AND 1,000 LBS./ACRE 10-10-10 FERTILIZER (23 LBS./1,000 SF) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.
SEEDING - FOR THE PERIODS MARCH 1 - APRIL 30, AND AUGUST 1 - OCTOBER 15, SEED WITH 60 LBS./ACRE (1.4 LBS./1,000 SF) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 - AUGUST 14, SEED WITH 60 LBS./ACRE KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS./ACRE (0.05 LBS./1,000 SF) OF HEARNS LIVERGRASS. DURING THE PERIOD OF OCTOBER 16 - FEBRUARY 28, PROTECT SITE BY: **OPTION 1** - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. **OPTION 2** - USE SOO. **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./1,000 SF) OF UNROTATED SMALL GRASS IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL/ACRE (5 GAL/1,000 SF) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GAL/ACRE (8 GAL/1,000 SF) FOR ANCHORING.
MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.
TEMPORARY SEEDING NOTES
 APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.
SEEDING PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.
SOIL AMENDMENTS - APPLY 600 LBS./ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SF).
SEEDING - FOR PERIODS MARCH 1 - APRIL 30 AND FROM AUGUST 15 - OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1,000 SF). FOR THE PERIOD MAY 1 - AUGUST 14, SEED WITH 3 LBS./ACRE OF WEEPING LOVEGRASS (0.07 LBS./1,000 SF). FOR THE PERIOD NOVEMBER 16 - FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING OR USE SOO.
MULCHING - APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS./1,000 SF) OF UNROTATED WEED-FREE, SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL/ACRE (5 GAL/1,000 SF) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPE 8 FT. OR HIGHER, USE 348 GAL/ACRE (8 GAL/1,000 SF) FOR ANCHORING.
 REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

STANDARD SEDIMENT CONTROL NOTES
 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION.
 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7 OF THE HOWARD COUNTY DESIGN MANUAL - SEDIMENT CONTROL.
 5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING, SOO, TEMPORARY SEEDING, MULCHING (SEE C). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 7. **SITE ANALYSIS:**
 TOTAL AREA OF SITE: 27.1 ACRES
 AREA DISTURBED: 6.79 ACRES
 AREA TO BE ROOFED OR PAVED: 1.24 ACRES
 AREA TO BE VEGETATIVELY STABILIZED: 5.58 ACRES
 TOTAL CUT: 0 CU. YDS.
 TOTAL FILL: 0 CU. YDS.
 GROSS WASTE/BORROW AREA LOCATION: N/A
 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
 11. TECHNIQUES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
DUST CONTROL
 DEFINITION: CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.
 PURPOSE: TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFFSET DAMAGE, HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY. CONDITIONS WHERE PRACTICE APPLIES: THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.
SPECIFICATIONS:
 1. VEGETATIVE METHODS - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
 2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
 3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLDS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12' APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
 4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED, AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
 5. BARRIERS - SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURRAP FENCES, STRAW BALES, AND SIMILAR MATERIALS CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREDOMINANT CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
 6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED TREATMENT.
PERMANENT METHODS:
 1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOO. EXISTING TREES OR LARGE SHRUBS MAY BE LEFT UNLESS PROTECTION IS LEFT IN PLACE.
 2. TOPSOILING - COVERING WITH LESS ERODIBLE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
 3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.
REFERENCES:
 1. AGRICULTURE HANDBOOK 346: WIND EROSION FORCES IN THE UNITED STATES AND THEIR USE IN PREDICTING SOIL LOSS.
 2. AGRICULTURE INFORMATION BULLETIN 354: HOW TO CONTROL WIND EROSION, USDA-ARS.

LEGEND

- PROP. STONE CONSTRUCTION ENTRANCE (SCE)
- EX. SILT FENCE
- EX. SUPER SILT FENCE
- EX. INFLOW PROTECTION
- EX. EARTH DIKE
- EX. WATERLINE
- EX. SAN SEWER
- EX. STORM DRAIN
- EX. 2" CONTOUR
- EX. 10' CONTOUR
- EX. CURB & GUTTER
- EX. PROPERTY LINE
- EX. TREE LINE
- PROP. 2" CONTOUR
- PROP. 10' CONTOUR
- PROP. L.D.
- PROP. SILT FENCE
- SOILS DIVIDE

BY THE ENGINEER
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
P. V. MULLIS 6-22-01
 SIGNATURE OF ENGINEER DATE
 PRINT NAME BELOW SIGNATURE
PIERO VAN MELLITS
 REGISTERED PROFESSIONAL ENGINEER
 No. 21875
 12/11/03
 REVISION #3 ONLY
 Thomas G. NEUGEBAUER, P.E.

BY THE DEVELOPER
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND SOIL EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson 6/20/01
 SIGNATURE OF DEVELOPER DATE
 EX. GOLD

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 NOTE: EXISTING SEDIMENT CONTROLS AS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. MASS GRADING AND SEDIMENT CONTROL INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE APPROVED MASS GRADING PLANS WP-01-09, GRADING PERMIT GP-01-78. SEE GRADING & SEDIMENT CONTROL DETAILS ON SHEET 2. ALL SWALES AND AREAS OF CONCENTRATED FLOW ARE TO BE STABILIZED WITH EROSION CONTROL MATTING.
Richard M. Daniels 7-20-01
 CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
Michelle D. Williams 7/25/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 9090 JUNCTION DRIVE SUITE 9
 ANNAPOLIS JUNCTION, MARYLAND 20701
 (410) 792-9792 or (301) 776-1690
 FAX (410) 792-7395

PIERO VAN MELLITS
 No. 21875
 REGISTERED PROFESSIONAL ENGINEER
 06/22/01

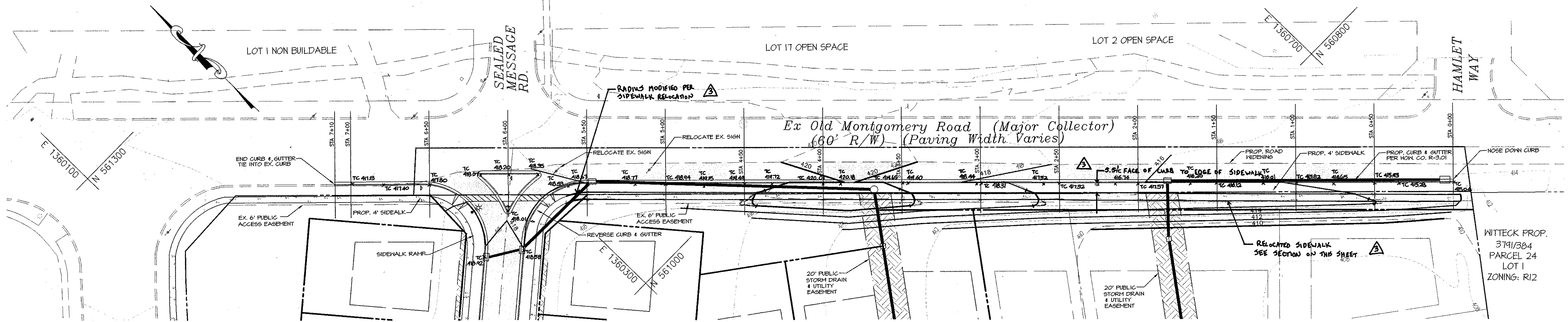
EX. SEDIMENT TRAP #1 SUMMARY TABLE	PR. SEDIMENT BASIN SUMMARY TABLE	EX. SEDIMENT TRAP #4 SUMMARY TABLE
EXISTING DRAINAGE AREA: 3.24 ACRES PROPOSED DRAINAGE AREA: 3.88 ACRES VOLUME REQUIRED: 3,88 X 1800 WET 6,984 C.F. 3,88 X 1800 DRY 43,830 C.F.	EXISTING DRAINAGE AREA: 15.40 ACRES PROPOSED DRAINAGE AREA: 24.35 ACRES VOLUME REQUIRED: 24.35 X 1800 WET 43,830 C.F. 24.35 X 1800 DRY 43,830 C.F.	EXISTING DRAINAGE AREA: 3.28 ACRES PROPOSED DRAINAGE AREA: 1.43 ACRES VOLUME REQUIRED: 3.28 X 5400 WET 6,028 C.F.
TYPE OF TRAP: ST-II TOTAL VOLUME REQUIRED: 13,988 C.F. TOTAL VOLUME PROVIDED: 18,742 C.F. WEIR LENGTH: 5.0 FT. WEIR STORAGE DEPTH: 16 FT. LIMIT OF WET STORAGE ELEVATION: 398.00 CLEANOUT ELEVATION: 398.50 EMBANKMENT ELEVATION: 400.00 EMBANKMENT HEIGHT: 4.0 FT. BOTTOM ELEVATION: 393.00 WET STORAGE VOLUME: 45,370 C.F. DMS CREST ELEVATION: 397.00 DMS LENGTH: 20 FT. WET STORAGE VOLUME: 400.50 WEIR CREST ELEVATION: 400.50 TRAP BOTTOM DIMENSIONS: 20 FT. (W) X 40 FT. (L)	TOTAL VOLUME REQUIRED: 116,551 C.F. TOTAL VOLUME PROVIDED: 394.30 WEIR LENGTH: 393.30 WEIR STORAGE DEPTH: 3.3 FT. LIMIT OF WET STORAGE ELEVATION: 394.40 CLEANOUT ELEVATION: 396.40 EMBANKMENT ELEVATION: 391.00 WET STORAGE VOLUME: 45,370 C.F. DMS CREST ELEVATION: 397.00 DMS LENGTH: 20 FT. WET STORAGE VOLUME: 400.50 WEIR CREST ELEVATION: 400.50 TRAP BOTTOM DIMENSIONS: 30 FT. (W) X 60 FT. (L)	TYPE OF TRAP: ST-III TOTAL VOLUME REQUIRED: 17,712 C.F. TOTAL VOLUME PROVIDED: 25,982 C.F. WEIR LENGTH: 14 FT. WEIR STORAGE DEPTH: 6.5 FT. LIMIT OF WET STORAGE ELEVATION: 414.50 CLEANOUT ELEVATION: 412.00 EMBANKMENT HEIGHT: 1.5 FT. BOTTOM ELEVATION: 416.00 WET STORAGE VOLUME: 408.00 WEIR STORAGE VOLUME: 25,982 C.F. WEIR CREST ELEVATION: 414.50 TRAP BOTTOM DIMENSIONS: 30 FT. (W) X 60 FT. (L)

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John R. Robertson 7/9/01
 HOWARD S.C.D. DATE

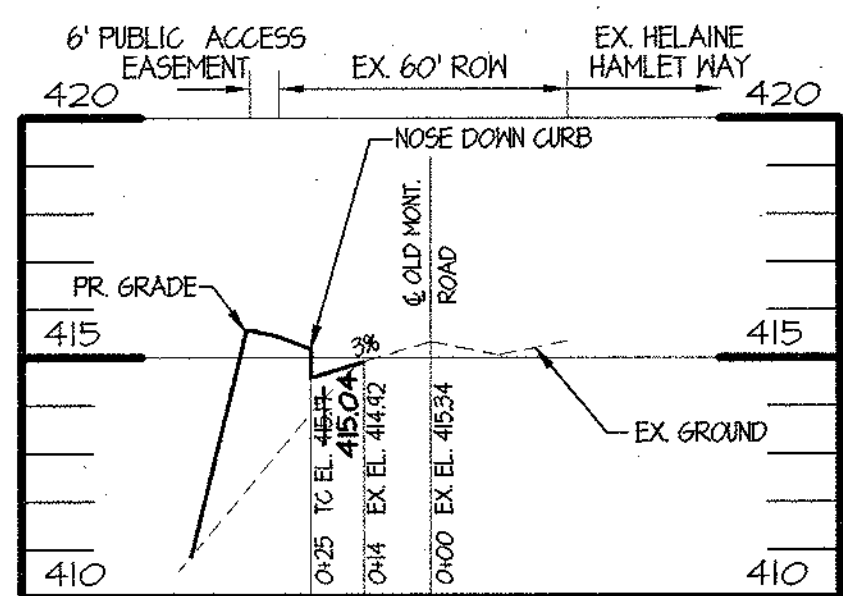
REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.
Jim Myers 7/9/01
 U.S.D.A.-NATURAL RESOURCES CONSERVATION SERVICE DATE

ECKERS HOLLOW
 PHASE II - OAKLAND MILLS ROAD
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

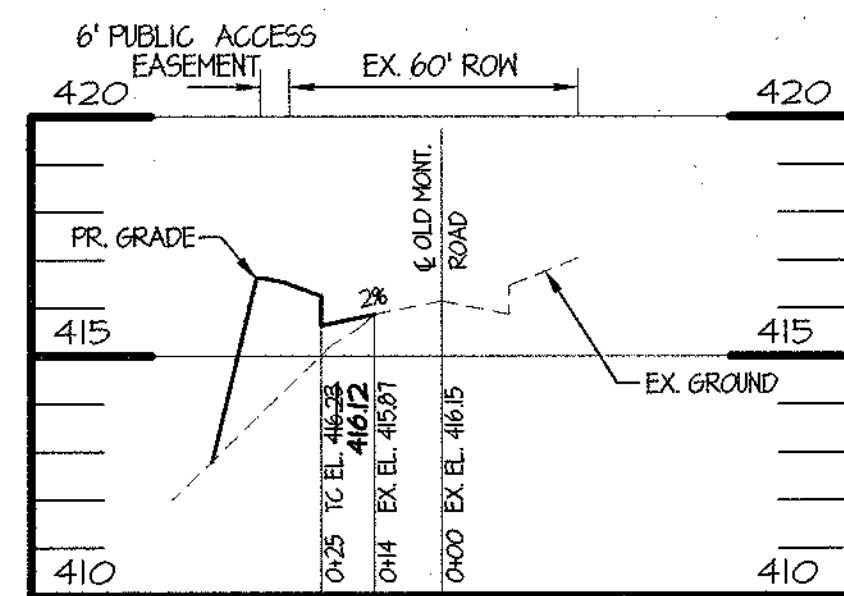
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 SHEET 8 OF 12



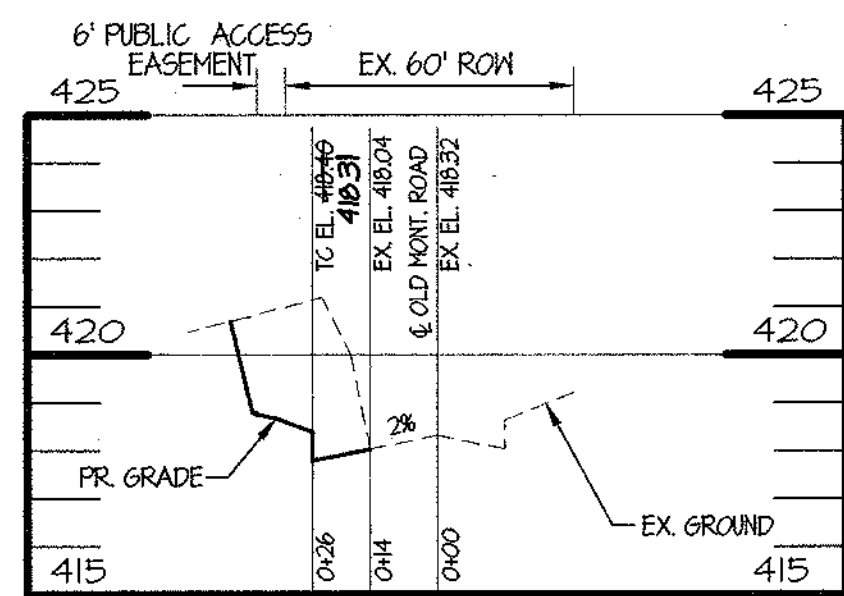
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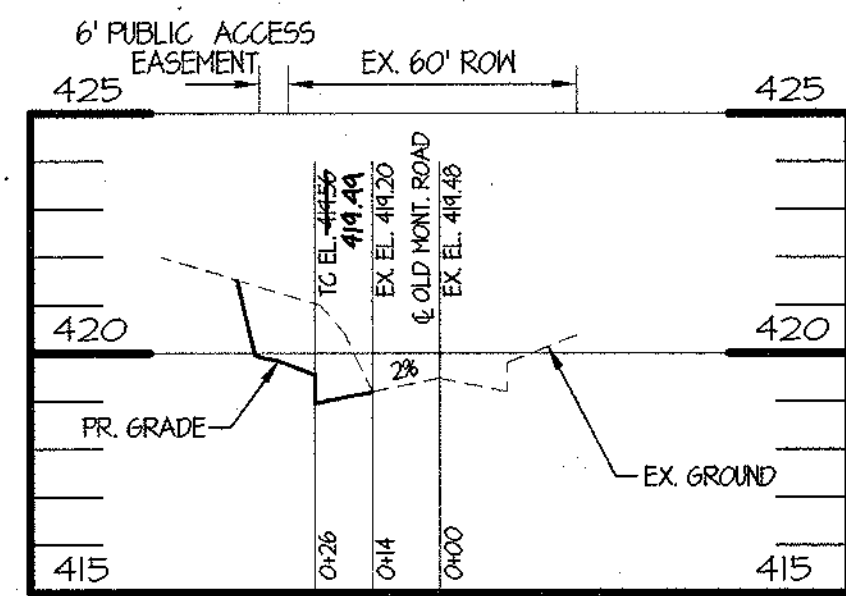
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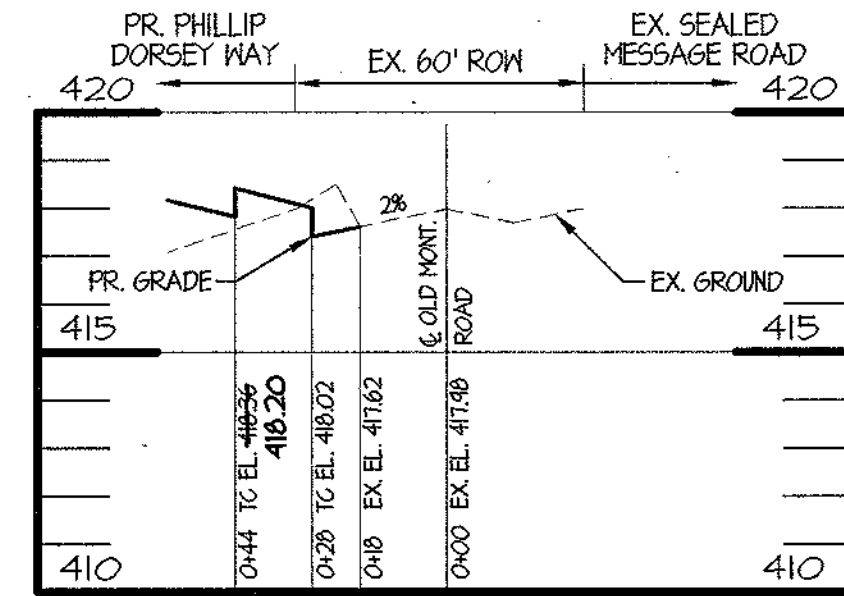
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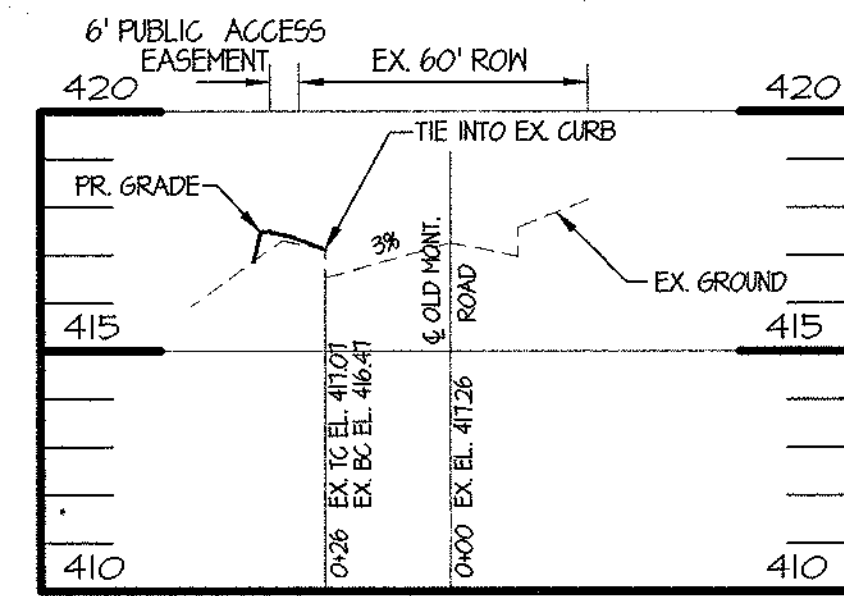
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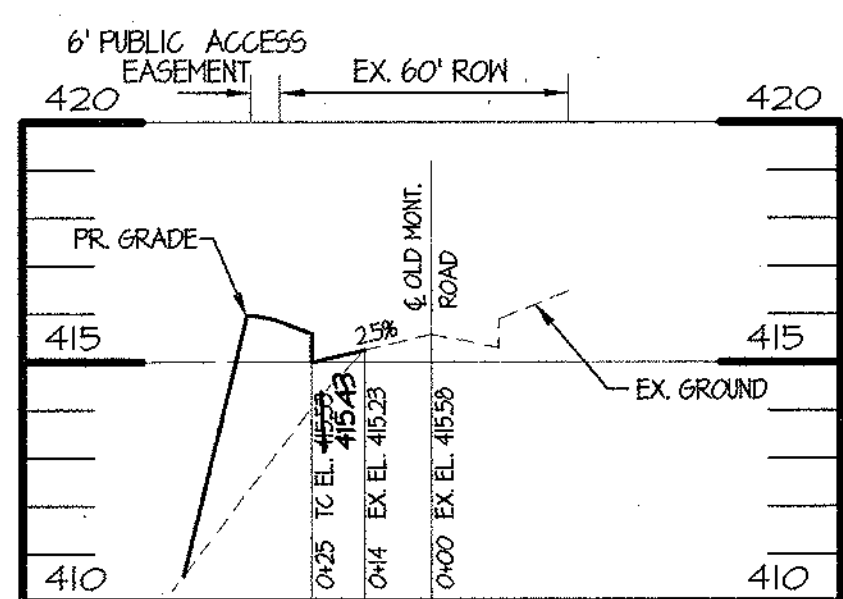
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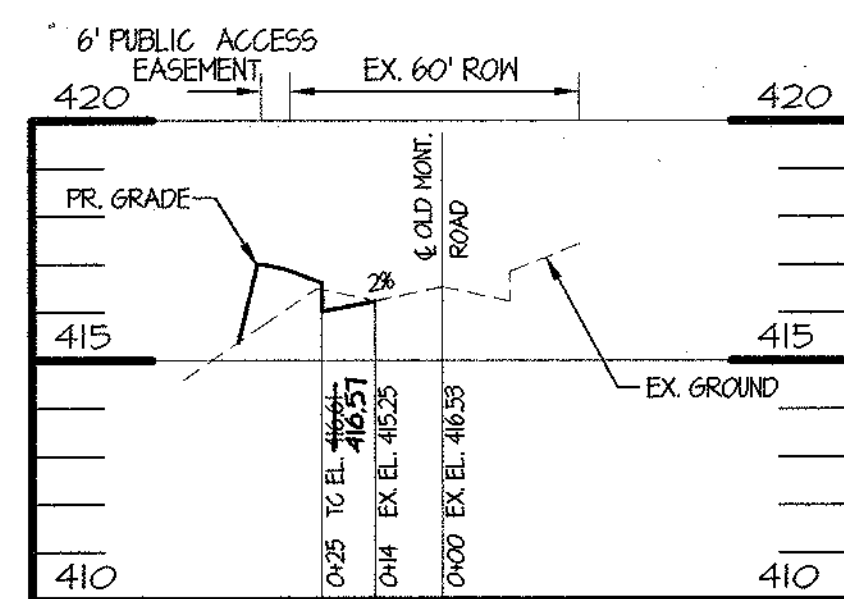
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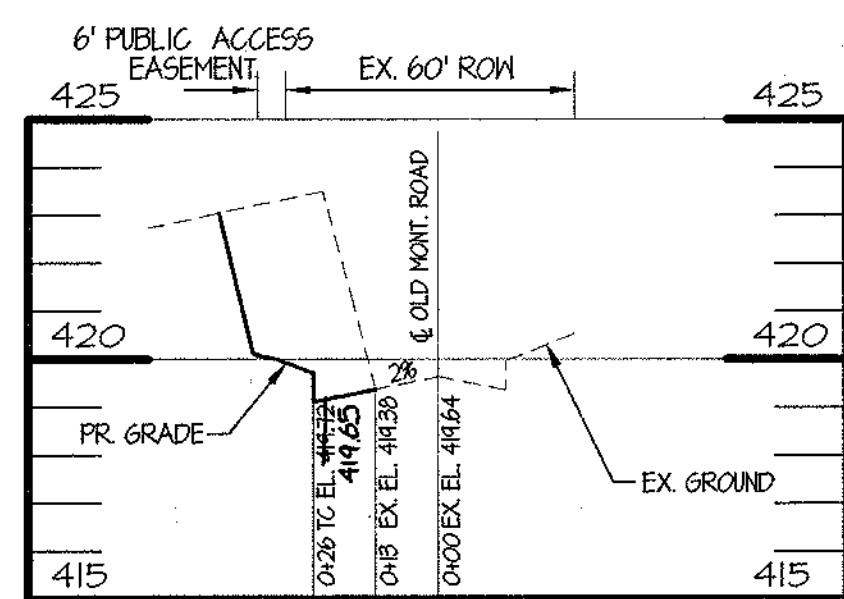
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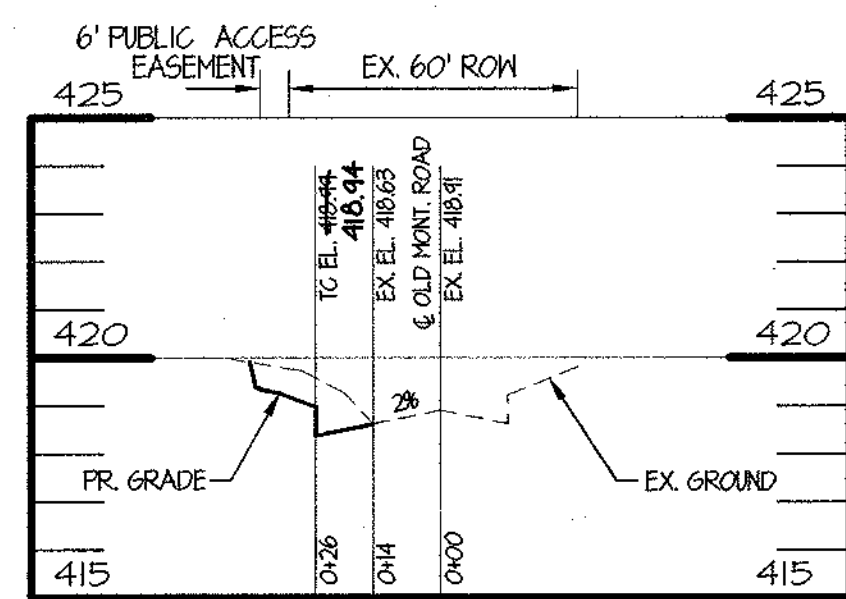
STA 0+50



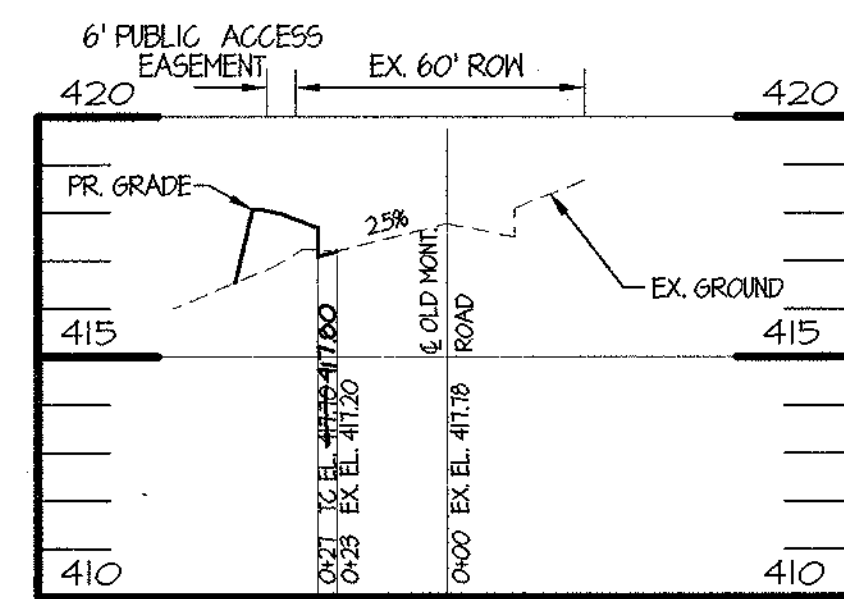
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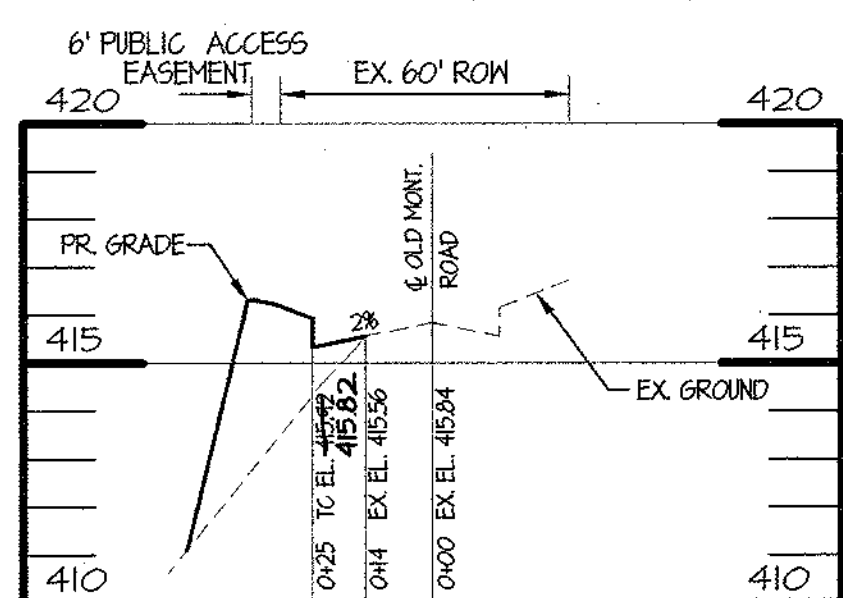
STA 3+50



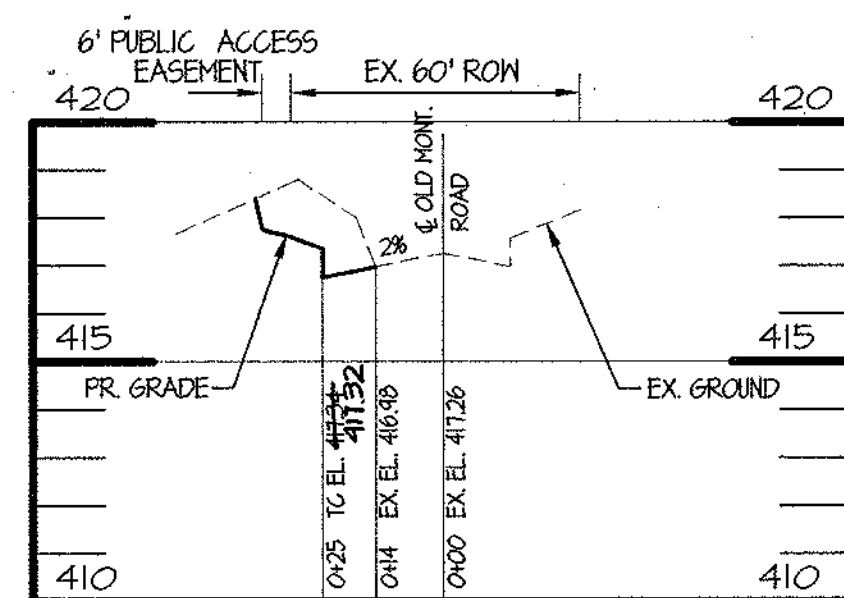
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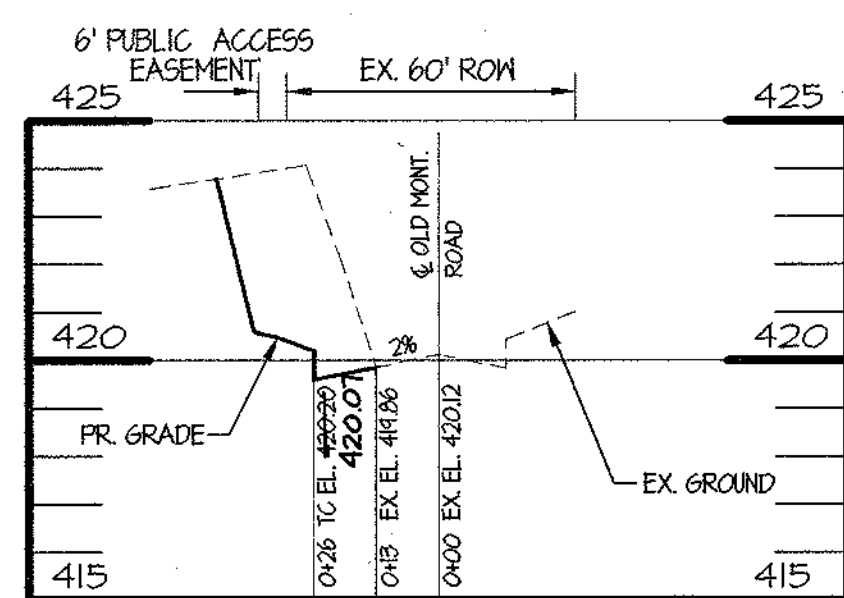
STA 6+50



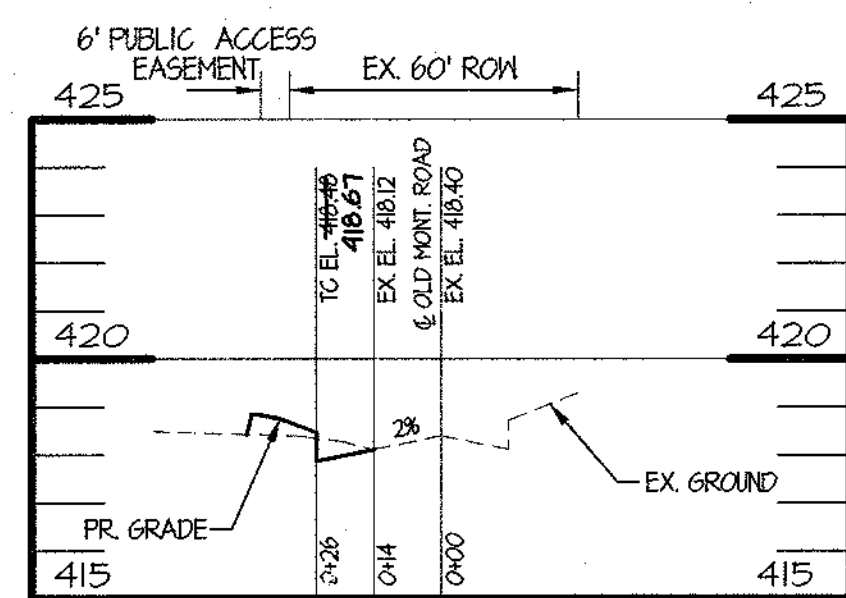
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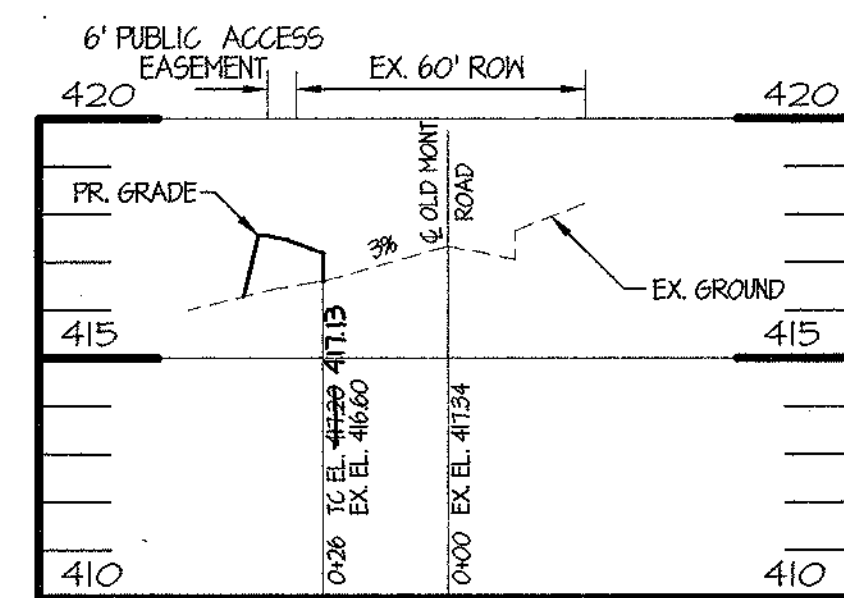
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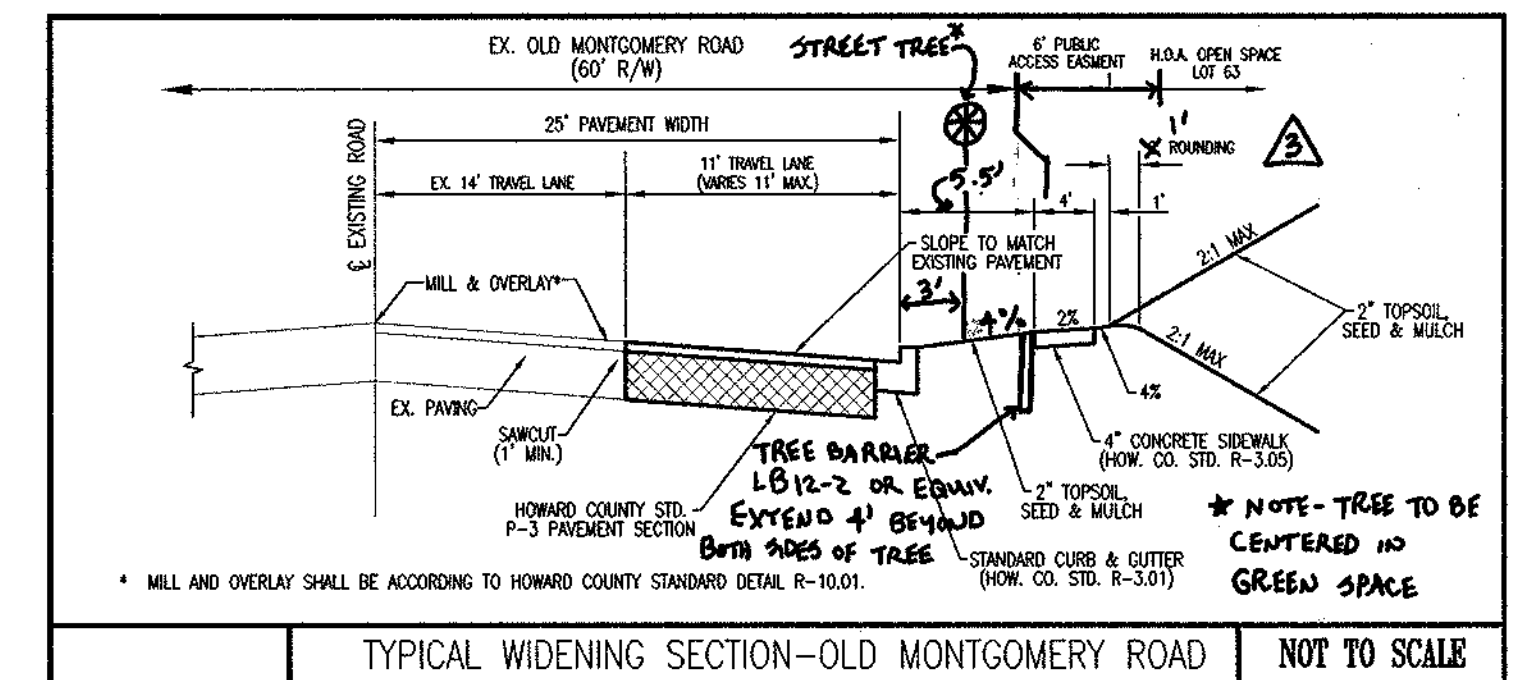
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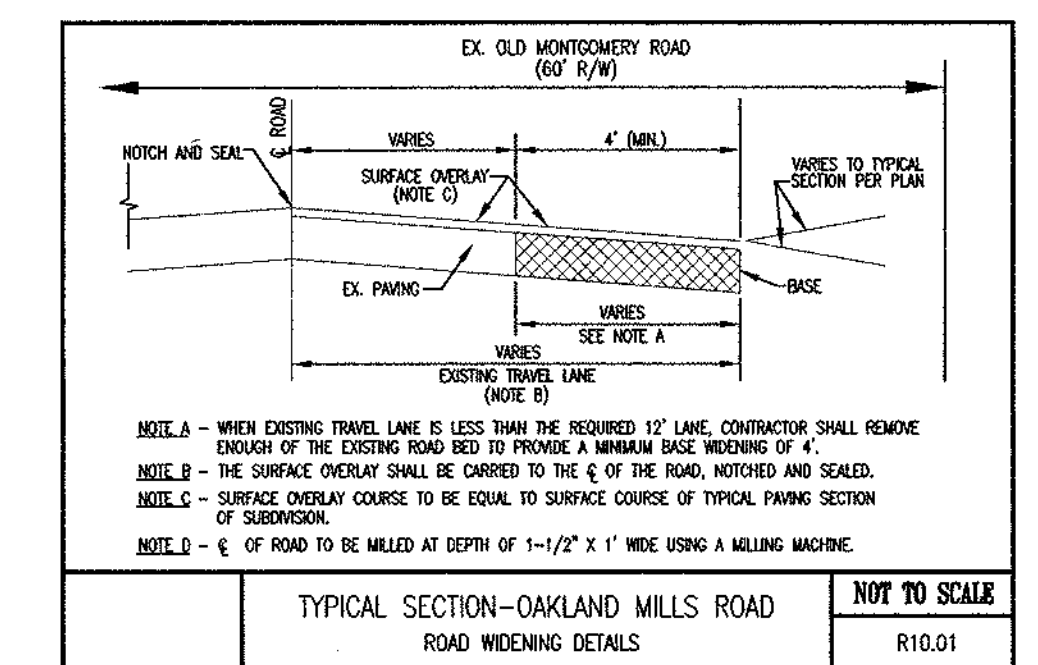
STA 5+50



STA 7+00



TYPICAL WIDENING SECTION-OLD MONTGOMERY ROAD NOT TO SCALE



TYPICAL SECTION-OAKLAND MILLS ROAD NOT TO SCALE ROAD WIDENING DETAILS R10.01

SCALE: HORIZ. 1"=40'
VERT. 1"=4'

THIS AS-BUILT IS BASED ON A FIELD-RUN SURVEY PERFORMED BY MORRIS RITCHIE ASSOCIATE, INC. DATED 2/02/04

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Richard M. Davelos 7-20-01
CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Cindy Hammett 7/26/09
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

STATE OF MARYLAND
THOMAS C. NEUGEBAUER, P.E. #29203
PROFESSIONAL ENGINEER
7-1-04
FOR AS-BUILT ITEM ONLY

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Thomas C. Neugebauer 7/26/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
9090 JUNCTION DRIVE, SUITE 9
ANNAPOLIS, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395

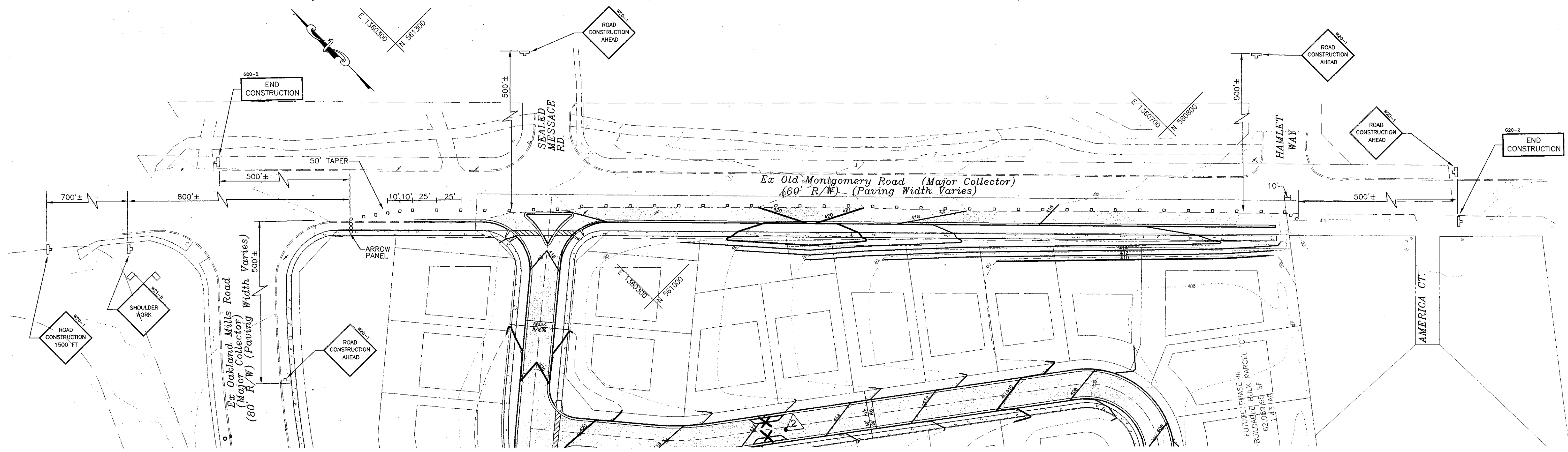
STATE OF MARYLAND
PIERO VIN MELLITS
No. 21875
REGISTERED PROFESSIONAL ENGINEER
12/11/03
THOMAS C. NEUGEBAUER, P.E.
REVISION #3 ONLY

DES:	TCN/CAO		
DRN:	TCN/CAO	MRA A	ADDED AS-BUILT INFORMATION TO PLAN 7/04
CHK:	PVM	MRA A	RELOCATED SIDEWALK ALONG OLD MONTGOMERY RD 10/22/03
DATE:	06/22/01	BY:	NO.
REVISIONS		DATE	600' SCALE MAP NO. 36 BLOCK NO. 10

FINAL ROAD PLANS
ROAD IMPROVEMENT PLAN
OLD MONTGOMERY ROAD

ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 9 OF 12



SCALE: 1"=40'

WORK ZONE TRAFFIC CONTROL NOTES

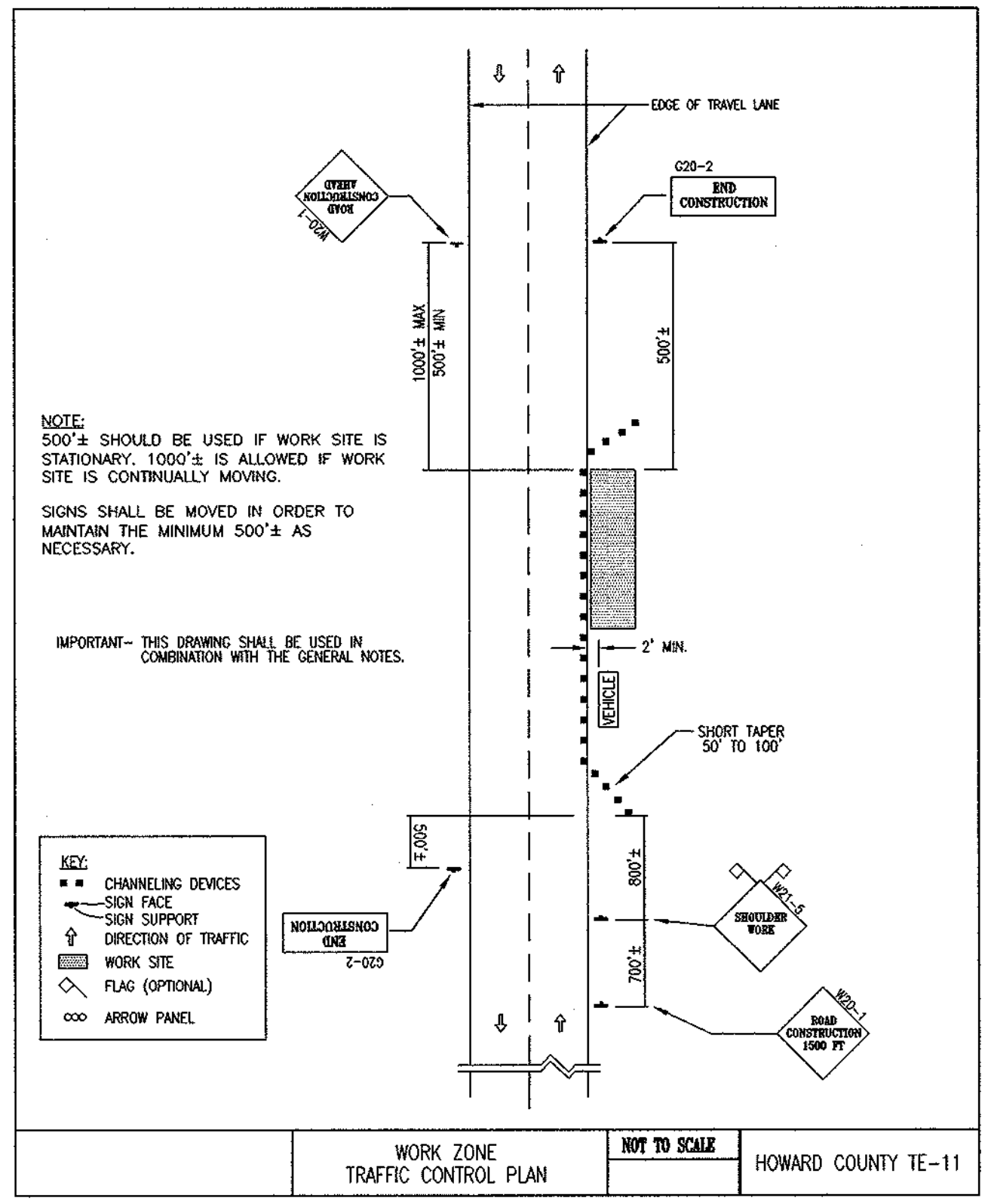
- SEE HOWARD COUNTY STANDARD DETAILS TE-10 AND TE-11 FOR PLACEMENT OF ALL TRAFFIC CONTROL SIGNS AND BARRICADES.
- AN ARROW PANEL, IN THE FLASHING MODE, SHALL BE USED ANYTIME THERE IS A LANE CLOSURE ON A MULTILANE HIGHWAY. ARROW PANELS SHALL NOT BE USED ALONG TWO-WAY ROADWAYS UNLESS THEY DISPLAY MSHA'S "FOUR CORNER" LAMP ARRAY.
- VEHICLES SHOULD NOT OCCUPY OR BE STOPPED IN A LANE BEYOND A HORIZONTAL CURVE OR A VERTICAL CURVE. INSTEAD, VEHICLES STOPPING ARE TO BE PULLED AS FAR OFF THE ROAD AS POSSIBLE, OR BE OTHERWISE PARKED IN A MANNER AS TO INHIBIT THE MOVEMENT OF TRAFFIC AS LITTLE AS POSSIBLE.
- WARNING SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE HOWARD COUNTY DETAILS LISTED IN NOTE #1. THE BOTTOM OF EACH SIGN SHALL NOT BE LESS THAN ONE FOOT ABOVE THE PAVEMENT ELEVATION. ALL SIGNS SHALL BE PLACED IN SUCH A MANNER AS TO PROVIDE ADEQUATE VISIBILITY OF THESE SIGNS, AND ALL OTHER EXISTING SIGNS ON THE HIGHWAY TO THE DRIVER.
- FOR URBAN AREAS WHERE THE PREVAILING SPEED IS 35 MPH OR LESS, THE MINIMUM WARNING SIGN SIZE MAY BE 36" X 36".
- NO WORK OPERATIONS, WHICH INTERFERES WITH THE FLOW OF TRAFFIC, MAY TAKE PLACE DURING PEAK HOURS 6 AM-9AM, AND 3PM-7PM MONDAY-FRIDAY UNLESS WRITTEN APPROVAL IS RECEIVED FROM THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- ALL SIGNS, CHANNELIZING DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 1988 EDITION.

*SPEED M.P.H.	MINIMUM DISTANCE FROM TAPER TO FIRST SIGN	ADDITIONAL SIGNS IN A SERIES TO BE SPACED AT A MINIMUM			MINIMUM COMBINED ADVANCED WARNING
	A	B	C	D	A
0 - 25	200'	200'	200'	-	600'
30 - 35	300'	300'	300'	-	900'
40	500'	500'	500'	-	1500'
41 - 55	800'	700'	1100'	2800' (1/2 MILE)	5200' (1 MILE)

*SPEED LIMIT OR PREVAILING TRAVEL SPEED, WHICH EVER IS HIGHER.
 BELOW EXAMPLE: TWO LANES ONE-WAY ROADWAY / SPEED LIMIT IS 35 MPH / PREVAILING SPEED IS 38 MPH (USE 40 MPH)

TERMINATION AREA	WORK AREA	BUFFER AREA	TRANSITION AREA	ADVANCE WARNING AREA
---LETS TRAFFIC RESUME NORMAL DRIVING		PROVIDES ADDITIONAL PROTECTION FOR TRAFFIC AND WORKERS	---MOVES TRAFFIC OUT OF ITS NORMAL PATH	---TELLS TRAFFIC WHAT TO EXPECT AHEAD
	A TO 500' MAX		TRANSITION LENGTH PREDEFINED ON USAGE. SEE THE GENERAL NOTES FOR APPROPRIATE LENGTHS	A 500' B 500' C 500'

WORK ZONE TRAFFIC CONTROL PLAN NOT TO SCALE HOWARD COUNTY TE-10



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Andrew M. Duncle 7-20-01
 CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
Cindy Harrold 7/24/01
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
Mark Deumer 7/25/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
 MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 9090 JUNCTION DRIVE SUITE 9
 ANNAPOLIS JUNCTION, MARYLAND 20701
 (410) 792-9792 or (301) 776-1690
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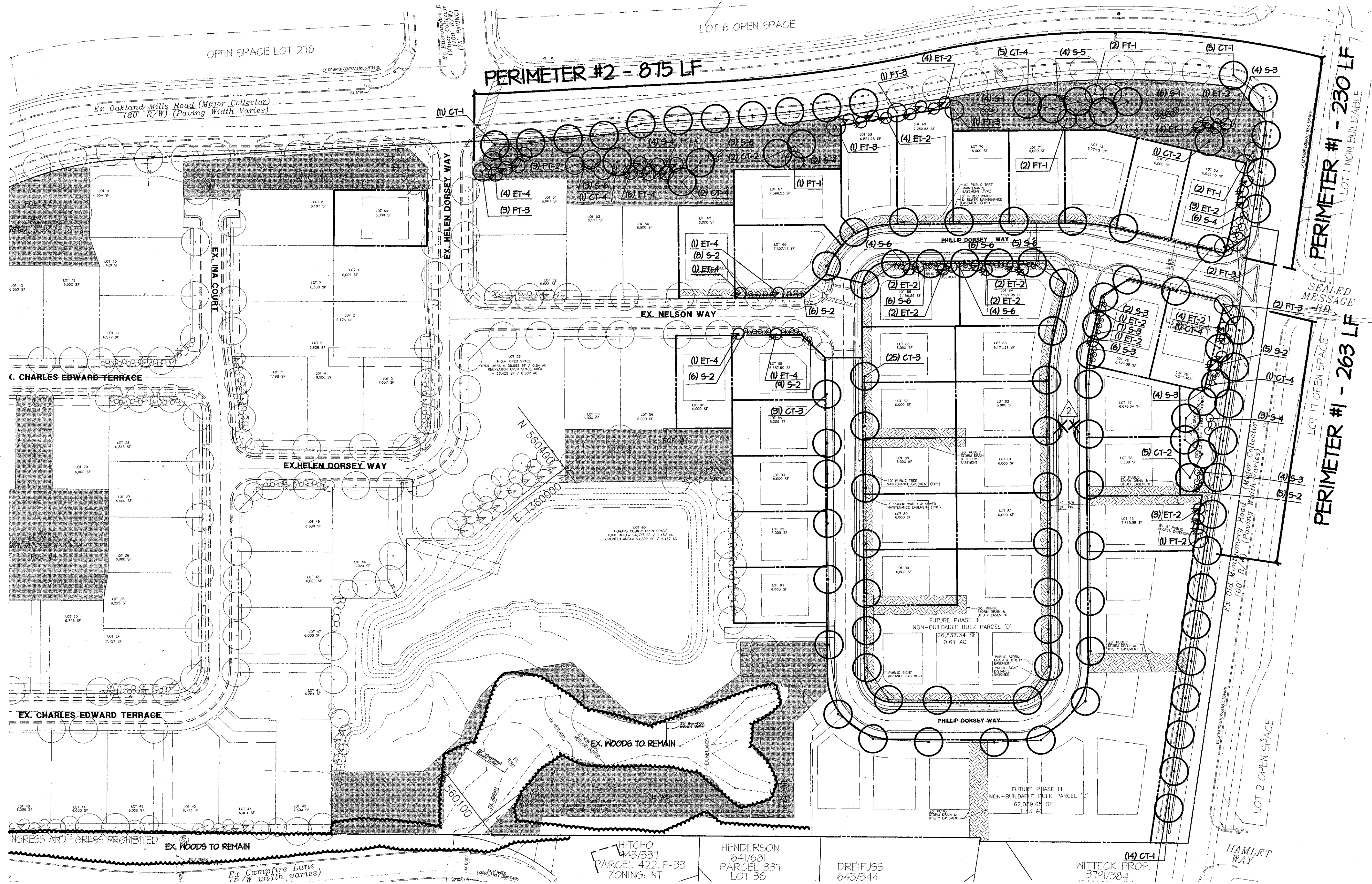
STATE OF MARYLAND
 PIERO VAN MELLITS
 No. 21875
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 PIERO VAN MELLITS No. 21875

DES:	TCN/CAO			
DRN:	TCN/CAO			
CHK:	PVM	MRA	REMOVAL OF SPEED CONTROL ISLANDS	06/06/02
DATE:	06/22/01	BY:	NO.	REVISIONS

**FINAL ROAD PLANS
 TRAFFIC CONTROL PLAN
 OLD MONTGOMERY ROAD**
 600' SCALE MAP NO. 36 BLOCK NO. 10

**ECKERS HOLLOW
 PHASE II - OAKLAND MILLS ROAD
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND**

SCALE AS SHOWN
 SHEET 10 OF 12



- LEGEND**
- DECIDUOUS TREES
 - FLOWERING TREES
 - EVERGREEN TREES
 - SHRUBS
 - FOREST CONSERVATION AREAS PER F-01-22

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Andrew M. Daniels 7-20-01
CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Cindy Hamrick 7/2/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Mark Dammann 7/25/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
9090 JUNCTION DRIVE, SUITE 9
ANNAPOLIS JUNCTION, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395

STATE OF MARYLAND
DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES
LANDSCAPE ARCHITECT
Dean W. Meyer 6/21/01
DEAN W. MEYER #200030

DES: TCN/CAO			
DRN: TCN/CAO			
CHK: DWM	MRA 2	REMOVAL OF SPEED CONTROL ISLANDS	06/06/02
DATE: 06/22/01	BY NO.	REVISIONS	DATE

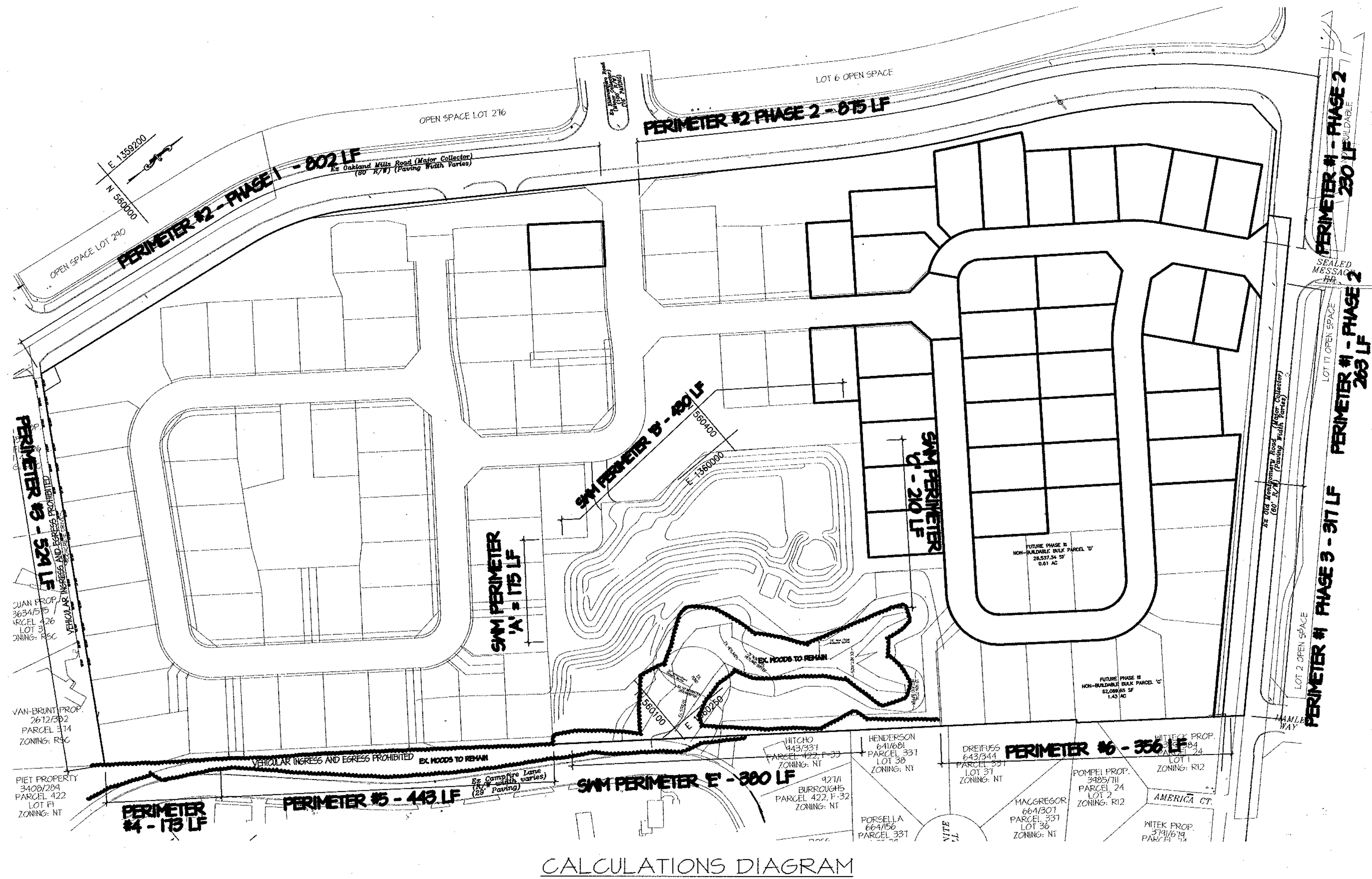
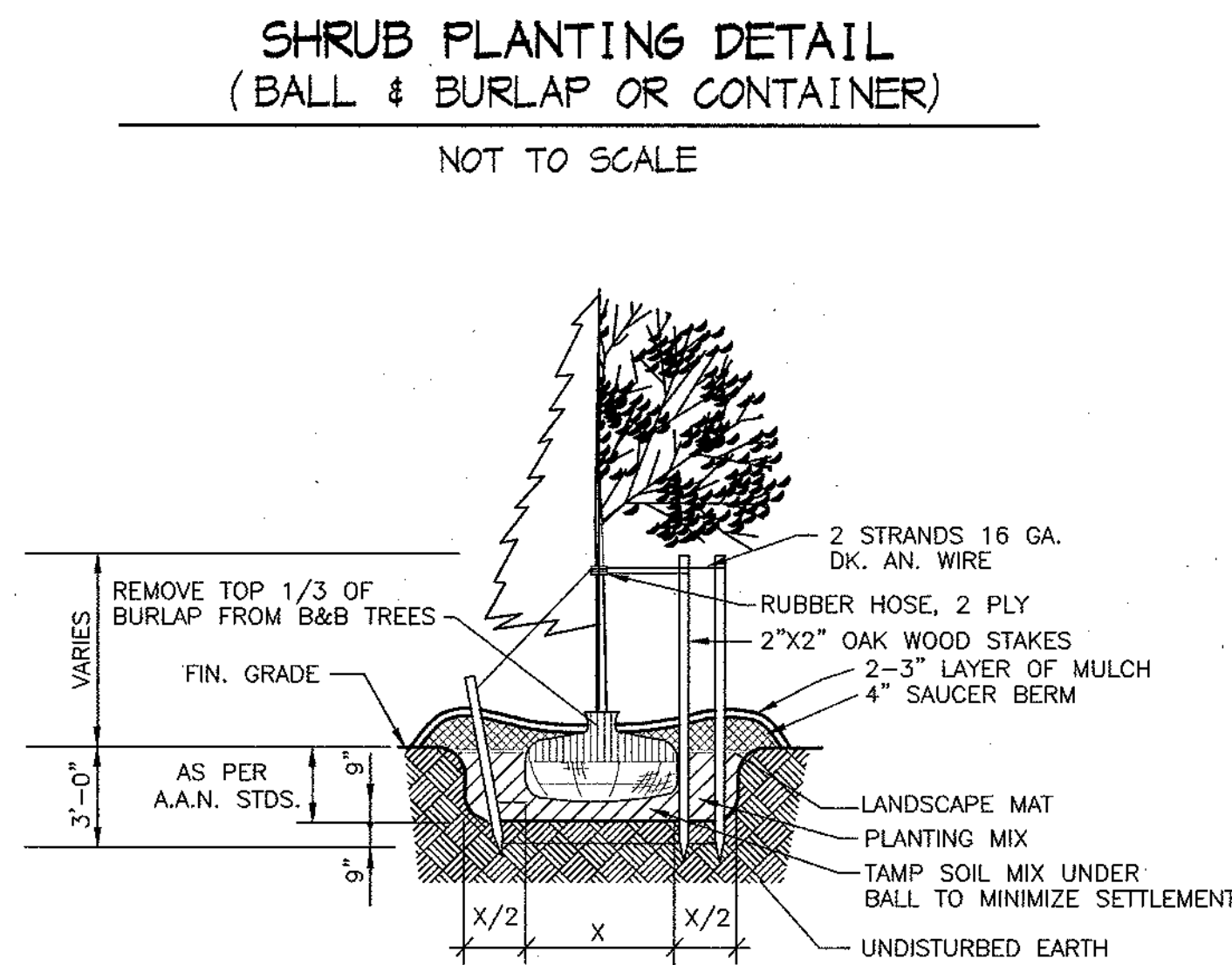
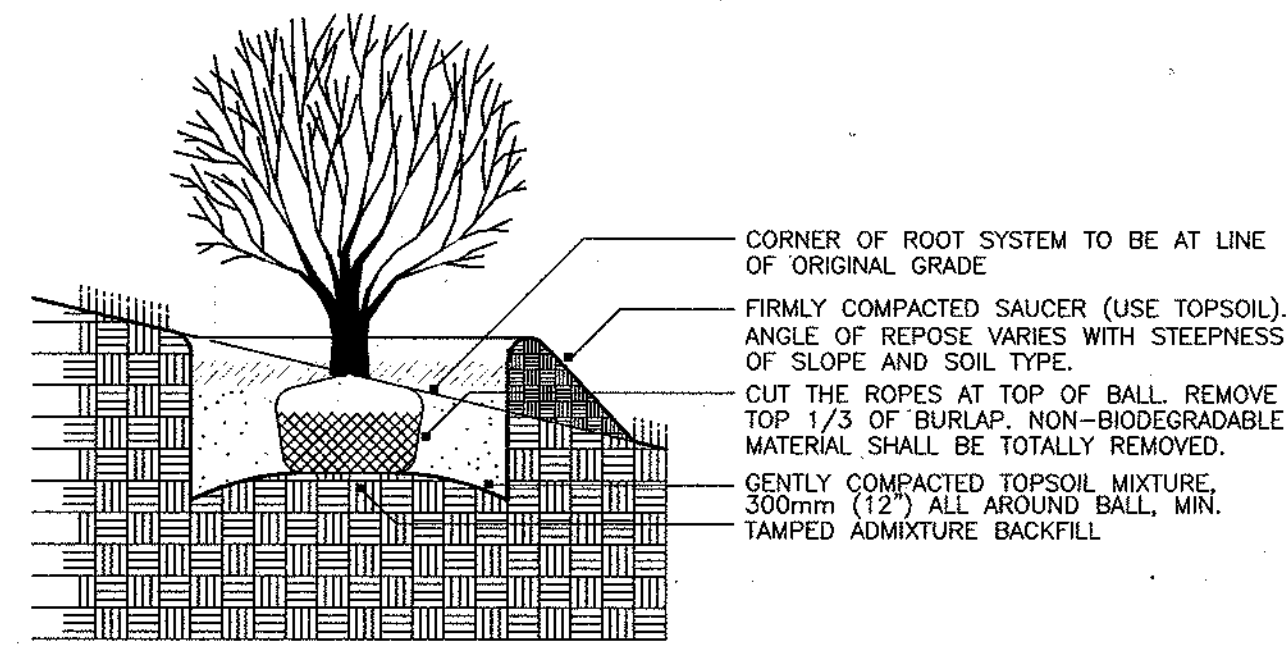
FINAL ROAD PLANS
STREET TREE & LANDSCAPE PLAN
600' SCALE MAP NO. 36 BLOCK NO. 10

ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE
1"=50'
SHEET
11 OF 12

GENERAL NOTES:

- ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- TREES AND SHRUBS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED, DENSELY FOLIATED BRANCHES, AND VIGOROUS, FIBROUS ROOT SYSTEMS.
- TREES AND SHRUBS SHALL BE FRESHLY DUG AND NURSERY GROWN. THEY SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT OR PROPERLY ACCLIMATED TO CONDITIONS OF THE LOCALITY OF THE PROJECT.
- TREES AND SHRUBS SHALL BE FREE FROM DEFECTS AND INJURIES AND CERTIFIED BY APPROPRIATE FEDERAL AND STATE AUTHORITIES TO BE FREE OF DISEASES AND INSECT INFESTATIONS.
- THE LANDSCAPE CONTRACTOR SHALL WARRANT ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) FULL YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS, UNSATISFACTORY GROWTH, DISEASE OR DEATH. UNSATISFACTORY, UNHEALTHY, DYING OR DEAD PLANT MATERIAL (IN THE OPINION OF THE LANDSCAPE ARCHITECT) SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES.
- IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO ADEQUATELY AND PROPERLY MAINTAIN THE LANDSCAPED AREAS, WHICH SHALL INCLUDE WATERING, CLEANING OF NEEDLES AND DEBRIS, PRUNING AND TRIMMING, REPLACEMENT OF DEAD OR DISEASED PLANTINGS, AND FERTILIZING TO MAINTAIN HEALTHY GROWTH.
- THE LANDSCAPE CONTRACTOR SHALL STAKEOUT PLANT LOCATIONS IN THE FIELD. THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE SHALL OBSERVE THESE LOCATIONS PRIOR TO COMMENCING PLANT PIT EXCAVATION. THE LANDSCAPE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS AS REQUESTED BY THE LANDSCAPE ARCHITECT.
- ALL PLANT SAUCERS AND PLANT BEDS SHALL BE MULCHED WITH DOUBLE SHREDDED HARDWOOD MULCH, A MINIMUM OF 3" IN DEPTH.
- NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE AND QUANTITY.
- THE LANDSCAPE CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD BARK MULCH TO A DEPTH OF 3" UNDER AND SURROUNDING ALL NEW LANDSCAPED MASS PLANTING AREAS TO PROVIDE A UNIFORM AND CONTINUOUS SURFACE AND APPEARANCE BETWEEN AND AROUND ALL PLANT MATERIAL, BUILDING LINES AND PAVED AREAS. IN GENERAL, THIS PERTAINS TO ALL PLANT MATERIAL THAT IS PLANTED CLOSER THAN SIX (6) FEET CENTER TO CENTER. IT IS THE INTENT OF THIS CONTRACT TO INSTALL LANDSCAPE MAT UNDER THE ENTIRE AREA OF SHREDDED BARK MULCH.
- TREES SHALL BE LOCATED A MINIMUM OF 5' FROM SEWER/WATER CONNECTIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC AND PRIVATE UTILITIES, WATER AND SEWER LINES.
- ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
- CONTRACTOR SHALL SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS NOT TO IMPEDE DRAINAGE AWAY FROM BUILDINGS.
- TREE STAKING AND GUYING SHALL BE DONE PER DETAILS. CONTRACTOR SHALL ENSURE THAT TREES REMAIN PLUMB AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD.
- ALL TREE PITS, SHRUB BEDS, AND PREPARED PLANTING BEDS ARE TO BE COMPLETELY EXCAVATED IN ACCORDANCE WITH THE PLANTING DETAILS.
- CROWN OF ROOT BALL SHALL BE HIGHER (AFTER SETTING) THAN ADJACENT SOIL.
- SHADE TREES: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF 'Y' CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.
- CONTRACTOR MUST CONTACT THE OWNER AT LEAST TEN WORKING DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S). CONTRACTOR MUST REPLACE ALL DEAD OR UNACCEPTABLE PLANTS DURING THE FOLLOWING RECOMMENDED PLANTING SEASON.
- TREES SHALL BE PLANTED DURING ACCEPTABLE PLANTING SEASONS: BETWEEN MARCH 15 AND MAY 15 AND BETWEEN AUGUST 15 AND NOVEMBER 15 OR AS APPROVED BY OWNERS REPRESENTATIVE.
- ALL TREE STAKING AND GUYING SHALL BE REMOVED BY THE CONTRACTOR AFTER THE TREES ARE ESTABLISHED.
- SEEDING AREAS THAT WASH OUT MUST BE FILLED AND GRADED AS NECESSARY AND THE RESEED. SOME TYPE OF ANCHORING METHOD SHOULD THEN BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATER COURSED, IN SWALES AND AREAS OF CONCENTRATED FLOWS, AND ON SLOPES.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DPN DEVELOPERS AGREEMENT IN THE AMOUNT OF \$13,500.00. (20 SHADE TREES @ \$300.00 ea., 34 EVERGREEN TREES @ \$150.00 EA.) THIS AMOUNT REPRESENTS THE REQUIRED LANDSCAPING OBLIGATIONS FOR PHASE TWO PERIMETER PLANTING REQUIREMENTS. THIS AMOUNT DOES NOT INCLUDE STREET TREES AND EXCESS VOLUNTARY PLANTINGS BY THE DEVELOPER. VOLUNTARY PLANTINGS BY THE DEVELOPER.



PERIMETER	SCHEDULE 'A' PERIMETER LANDSCAPE EDGE						ADDITIONAL P1 AND P6 OBLIGATIONS WILL BE ADDRESSED UNDER FUTURE PHASE 3.
	①	②	③	④	⑤	⑥	
LANDSCAPE EDGE TYPE	(B) SFD SIDE/REAR TO ROAD	(B) SFD SIDE/REAR TO ROAD	(A) SFD TO SFD	(A) SFD TO SFD	(B) SFD SIDE/REAR TO ROAD	(A) SFD TO SFD	
LINEAR FEET OF PERIMETER	493 LF	875 LF	0	0	0	0	
NUMBER OF TREES REQUIRED	1:50 = 10 1:40 = 12 *	1:50 = 18 1:40 = 22 *	ADDRESSED WITH PHASE 1	ADDRESSED WITH PHASE 1	ADDRESSED WITH PHASE 1	0	
CREDIT FOR EXISTING VEGETATION	NO	NO	NO	NO	NO	NO	
CREDIT FOR WALL, FENCE OR BERM	NO	NO	NO	NO	NO	NO	
NUMBER OF TREES PROVIDED	7 10 *	11 22 *	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
	6 FLOWERING TREES SUBSTITUTED FOR 3 SHADE TREE REQUIREMENTS 20 SHRUBS SUBSTITUTED FOR 2 EVERGREENS ALL OTHER SURPLUS PLANTINGS BY DEVELOPER AND NOT BONDED IN SURETY AMOUNT	30 SHRUBS SUBSTITUTED FOR 3 SHADE TREES 8 FLOWERING TREES SUBSTITUTED FOR 4 SHADE TREE REQUIREMENTS ALL OTHER SURPLUS PLANTINGS BY DEVELOPER AND NOT BONDED IN SURETY AMOUNT					

* SUBSTITUTIONS WERE MADE FOR SHADE TREE REQUIREMENTS WITH THE FOLLOWING RATES; 2:1 FLOWERING AND EVERGREEN TREES, 10:1 SHRUBS

COMPOSITE STREET, PERIMETER & SMM PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
CANOPY TREES					
CT-1	16	Acer rubrum 'RED SUNSET'	Red Sunset Red Maple	2 1/2" - 3' cal.	B4B
CT-2	8	Acer saccharum 'GREEN MOUNTAIN'	Green Mountain Sugar Maple	2 1/2" - 3' cal.	B4B
CT-3	56	Platanus x acerifolia 'Bloodgood'	Bloodgood London Plane	2 1/2" - 3' cal.	B4B
CT-4	10	Quercus coccinea	Scarlet Oak	2 1/2" - 3' cal.	B4B
CT-5	0	Quercus phellos	Willow Oak	2 1/2" - 3' cal.	B4B
CT-6	0	Salix babylonica	Weeping Willow	1 1/2" - 2' cal.	B4B
CT-7	0	Zelkova serrata 'VILLAGE GREEN'	Village Green Japanese Zelkova	2 1/2" - 3' cal.	B4B
FLOWERING TREES					
FT-1	7	Cercis canadensis	Eastern Redbud	6' - 8'	B4B
FT-2	5	Magnolia stellata	Star Magnolia	6' - 8'	B4B
FT-3	10	Prunus serrulata 'KWANZAN'	Kwanzan Cherry	1 1/2" - 2' cal.	B4B
EVERGREEN TREES					
ET-1	4	Cedrus deodora	Deodar Cedar	6' - 8'	B4B
ET-2	28	Cupressocyparis leylandii	Leyland Cypress	5' - 6'	B4B
ET-3	0	Ilex opaca	American Holly	5' - 6'	B4B
ET-4	14	Pinus strobus	Eastern White Pine	6' - 8'	B4B
SHRUBS					
S-1	10	Cornus stolonifera	Red-Osier Dogwood	2 1/2" - 3'	cont.
S-2	34	Glythra alnifolia	Summersweet Glythra	2 1/2" - 3'	cont.
S-3	27	Ilex glabra	Inkberry	2 1/2" - 3'	cont.
S-4	15	Myrica pennsylvanica	Northern Bayberry	2' - 2 1/2'	cont.
S-5	4	Prunus laurocerasus 'SCHIFFERDEISS'	Skip Cherry Laurel	2 1/2" - 3'	cont.
S-6	31	Viburnum carlesii	Korean Spice Viburnum	2 1/2" - 3'	cont.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

ED GOLD DATE 6/22/01

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Andrew M. Daniels 7-20-01
CHIEF, BUREAU OF HIGHWAYS DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Andy Rowan 7/2/01
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
C. Dan... 7/25/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
8090 JUNCTION DRIVE SUITE 9
ANNAPOLIS JUNCTION, MARYLAND 20701
(410) 792-9792 or (301) 776-1690
FAX (410) 792-7395
DEAN W. MEYER #200030

DES: TCN/CAO	
DRN: TCN/CAO	
CHK: DWM	
DATE: 6/22/01	BY NO. 1

FINAL ROAD PLANS
LANDSCAPING & TREE
PLANTING DETAILS
600' SCALE MAP NO. 36 BLOCK NO. 10

ECKERS HOLLOW
PHASE II - OAKLAND MILLS ROAD
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 12 OF 12