

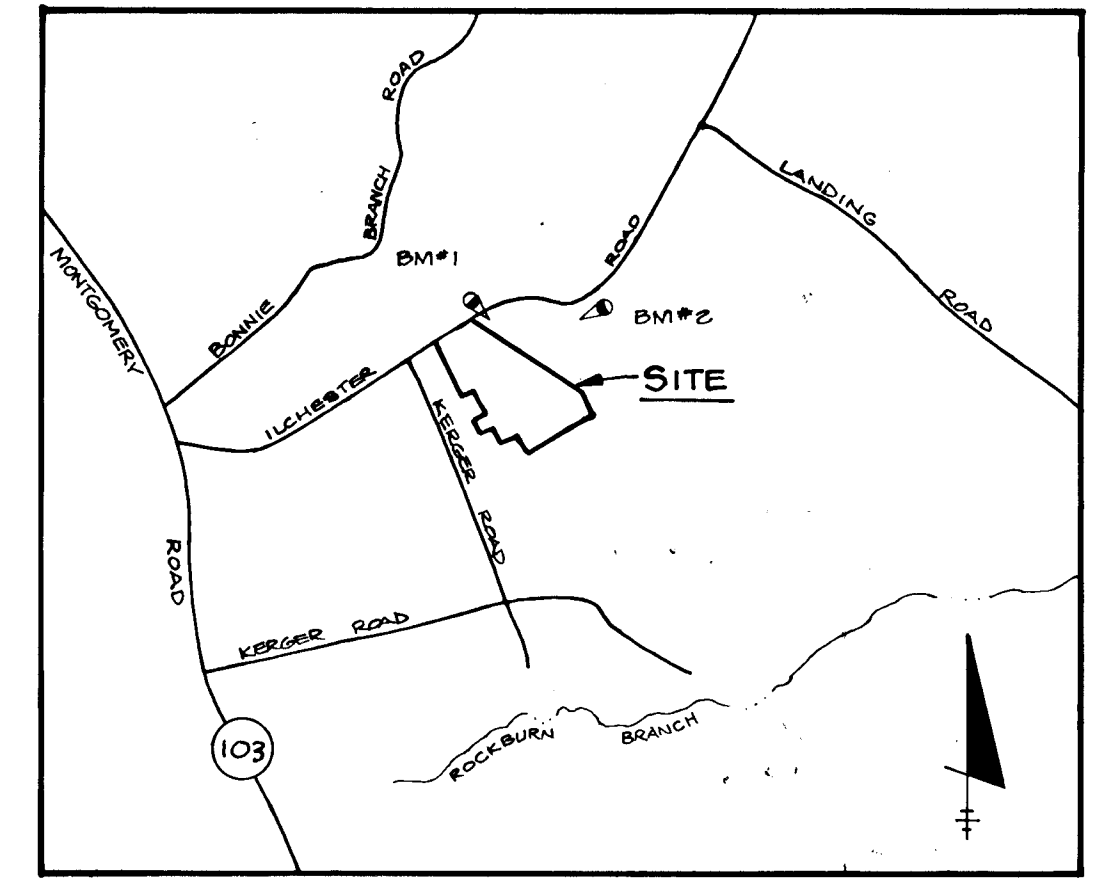
SHEET INDEX	
1	TITLE SHEET
2	ILCHESTER WOODS WAY FROM STA. 0+00 TO STA. 3+00
3	ILCHESTER WOODS WAY FROM STA. 3+00 TO STA. 15+31.93
4	ILCHESTER ROAD FROM STA. 8+03 TO STA. 13+09
5	DETAIL SHEET
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7	DRAINAGE AREA MAP
8	STORM DRAIN PROFILES
9	GRADING AND SEDIMENT CONTROL PLAN
10	GRADING AND SEDIMENT CONTROL PLAN
11	STORMWATER MANAGEMENT PROFILES AND DETAILS
12	SEDIMENT CONTROL NOTES & DETAILS

ROADWAY AND STORM DRAIN PLAN

ILCHESTER WOODS

1st ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

BENCH MARKS

BM#1: HQ CO. MONUMENT 2844005 ELEV. 483.91
N 509,160.564 E 863,542.774

BM#2: HQ CO. MONUMENT 2844007 ELEV. 470.79
N 508,941.929 E 862,452.126

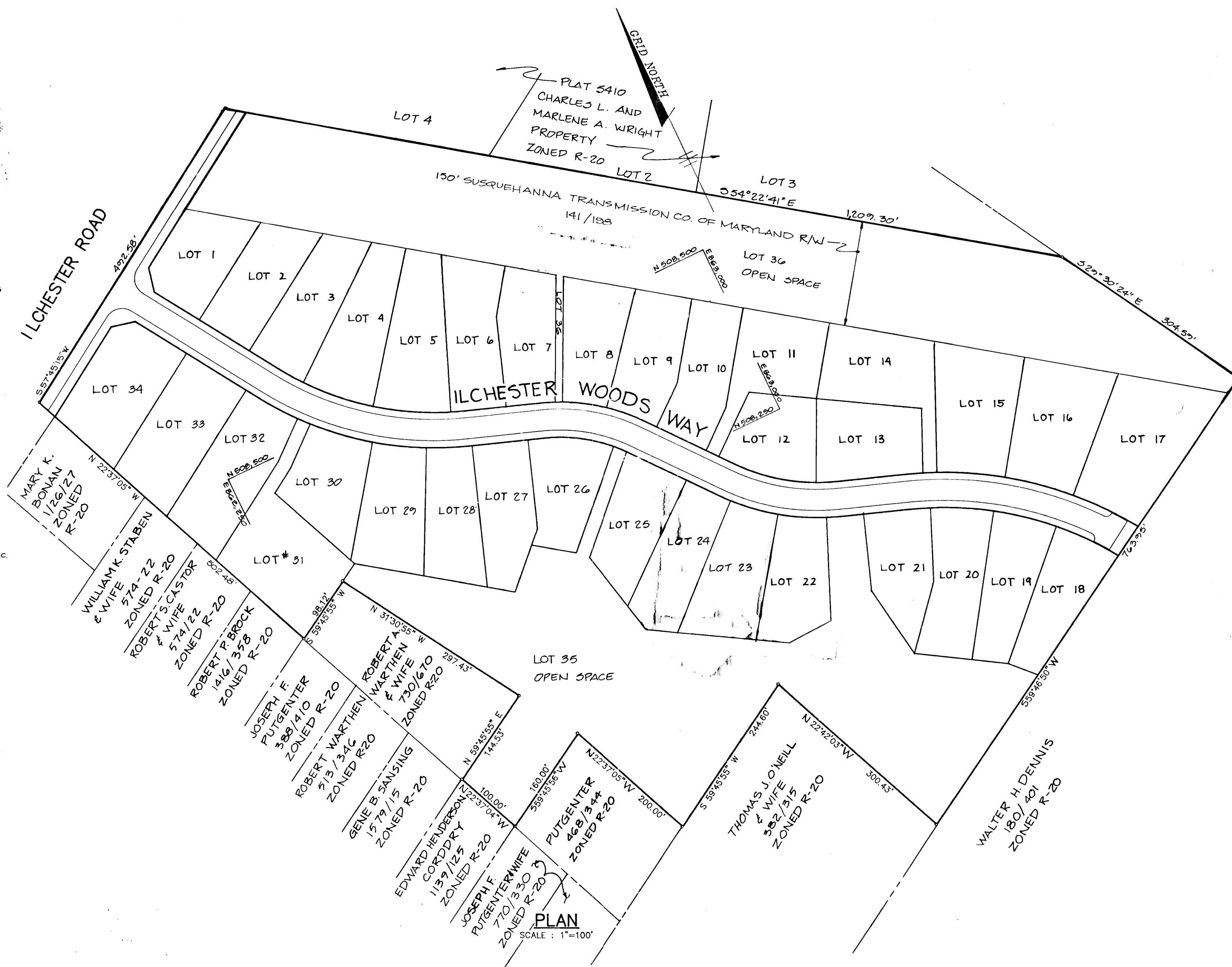
HORIZONTAL & VERTICAL CONTROL
USING THE ABOVE CORNER

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 1989 AMENDMENTS.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK ON THESE DRAWINGS:

MISS UTILITY 1-800-257-7777
BELL TELEPHONE SYSTEM 393-3649
LONG DISTANCE CABLE DIVISION 393-3553 or 3554
BALTIMORE GAS AND ELECTRIC CO. 539-8000, ext. 691
HOWARD COUNTY BUREAU OF UTILITIES 313-4700
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK) 792-7272
COLONIAL PIPELINE 795-1390

- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 35.0' RADIUS UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, 1989 AMENDMENTS.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 1988 EDITION.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:
ALL 60' RIGHT-OF-WAYS 40 M.P.H.
ALL 50' RIGHT-OF-WAYS 30 M.P.H.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED R-20 PER 6-2-85 COMPREHENSIVE ZONING PLAN.
- TOPO TAKEN FROM FIELD RUN SURVEY DATED NOV. 1987 BY RIEMER MUEGGE & ASSOCIATES, INC.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- SEE OFFICE OF PLANNING AND ZONING FILE Nos. S-88-26, P-89-11.
- THE WETLAND/STREAM BUFFER INDICATED ON THIS PLAN DOES NOT EFFECT THE INITIAL CONSTRUCTION OF A RESIDENTIAL UNIT ON ANY LOT. IT DOES PROHIBIT SUBSEQUENT CLEARING, GRADING OR CONSTRUCTION IN THE BUFFER AREA. MAINTENANCE, LANDSCAPING AND UTILITIES ARE PERMITTED.

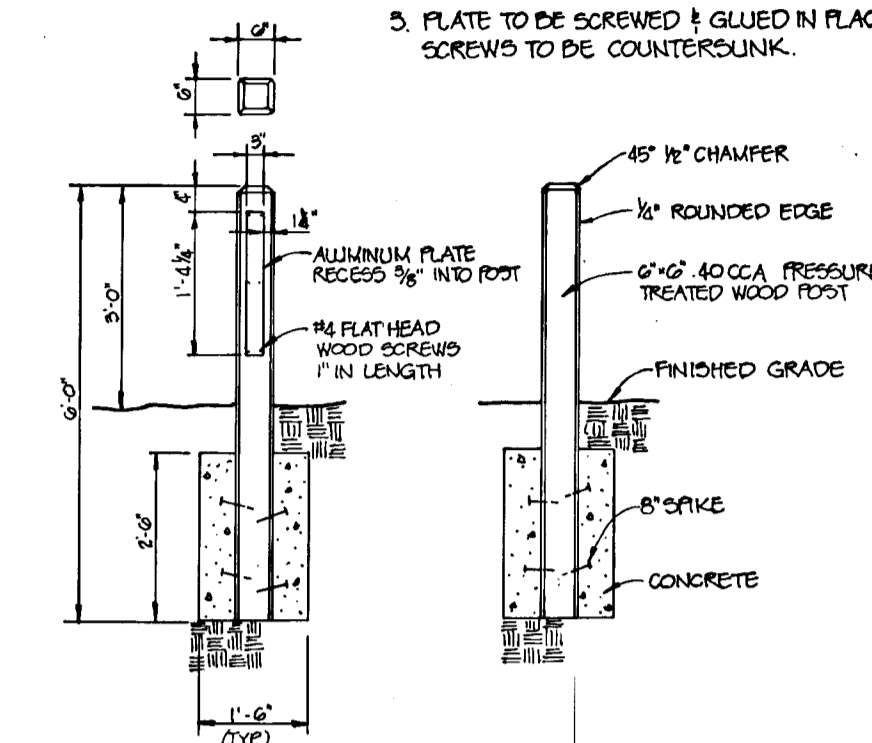


AS BUILT CERTIFICATE	
<i>J. Larell</i> JAYKANT D. PAREKH #10148	9.21.94 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Frank J. Langell</i> FRANK J. LANGELL #10148 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	11/21/94 DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>Oliver J. Taylor</i> OLIVER J. TAYLOR #10148 CHIEF, LAND DEVELOPMENT DIVISION	10/25/94 DATE
<i>Frank W. Weiland</i> FRANK W. WEILAND #10148 CHIEF, BUREAU OF HIGHWAYS	7/18/90 DATE
<i>W. G. ...</i> W. G. ... #10148 CHIEF, BUREAU OF ENGINEERING	10-29-90 DATE
9/27/91	1 ADDED ADDITIONAL BUILDABLE LOT AND OPEN SPACE LOT 36
DATE	NO REVISION
OWNER: RYAN OPERATIONS, G.P. % RYAN HOMES, INC. 20251 CENTURY BOULEVARD GERMANTOWN, MARYLAND 20874	
DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC. SUITE 200 10620 GUILFORD ROAD JESSUP, MARYLAND 20794	
PROJECT: ILCHESTER WOODS (LOTS 1 THRU 36)	
AREA TAX MAP 31 ZONED R-20 PARCEL 521 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: TITLE SHEET	
RIEMER MUEGGE & ASSOCIATES, INC. A LAND PLANNING, ENGINEERING & CONSULTING FIRM 8018 CENTER PARK DRIVE, SUITE 200 COLUMBIA, MARYLAND 21045 TEL. (301) 997-8900	
4.26.90 DATE	S-88-25, P-89-11
<i>Arthur E. Muegge</i> ARTHUR E. MUEGGE #10148	DESIGNED BY: CAD
	DRAWN BY: CAD, M.G.Y.
	PROJECT NO: 43305
	DATE: 4/26/90
	SCALE: AS SHOWN
	DRAWING NO. 1 OF 12

1605

E CURVE DATA									
CURVE	Δ	RADIUS	LENGTH	TANGENT	Dc	CHORD BEARING & DISTANCE			
E STA. 2+79.76 TO E STA. 5+34.41	57°56'17"	449.00	294.05	152.96	12°52'32"	N 81°30'15" W 289.30			
E STA. 6+1.56 TO E STA. 7+78.68	31°25'53"	250.00	157.12	70.93	22°29'06"	N 54°45'37" W 135.41			

- NOTES: 1. BOLLARDS WILL BE PLACED AT THE FOUR CORNERS OF THE OPEN SPACE ACCESS STRIP.
 2. THE ALUMINUM PLATE WILL ONLY BE REQUIRED ON THE FRONT RIGHT BOLLARD DIRECTLY FACING THE ROAD.
 3. PLATE TO BE SCREWED & GULLED IN PLACE. SCREWS TO BE COUNTERSUNK.



OPEN SPACE BOLLARD DETAIL
 1/8" SCALE

AS BUILT CERTIFICATE

J. Lavelle
 JAYKANT D. PAREKH #10148
 DATE: 9.21.94

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Howard S. Taylor
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
 DATE: 10/1/94

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Alan M. Taylor
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE: 10/1/94

Bruce W. Welsand
 CHIEF, BUREAU OF HIGHWAYS
 DATE: 7/18/90

William D. Ryan
 CHIEF, BUREAU OF ENGINEERING
 DATE: 10.29.90

5-30-93 2 ADDED OPEN SPACE BOLLARDS & DETAIL
 9/27/91 1 ADDED OPEN SPACE ACCESS BETWEEN LOTS 7 & 8, ADDED OPEN SPACE LOT 36, REEVALUATED LOTS

DATE NO REVISION

OWNER: RYAN OPERATIONS, G.P. % RYAN HOMES, INC.
 20251 CENTURY BOULEVARD
 GERMANTOWN, MARYLAND 20874

DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC.
 SUITE 200
 10620 GUILFORD ROAD
 JESSUP, MARYLAND 20794

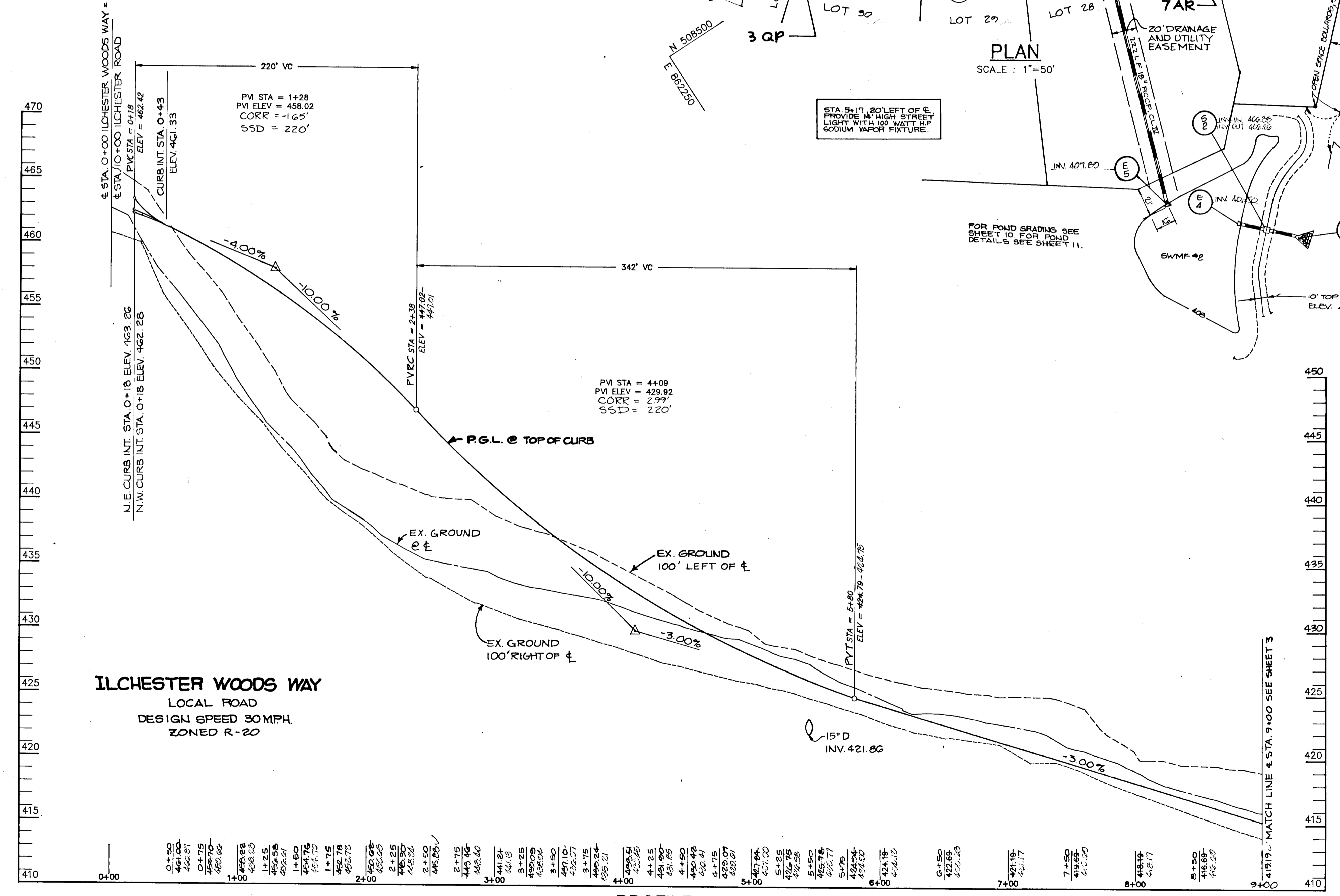
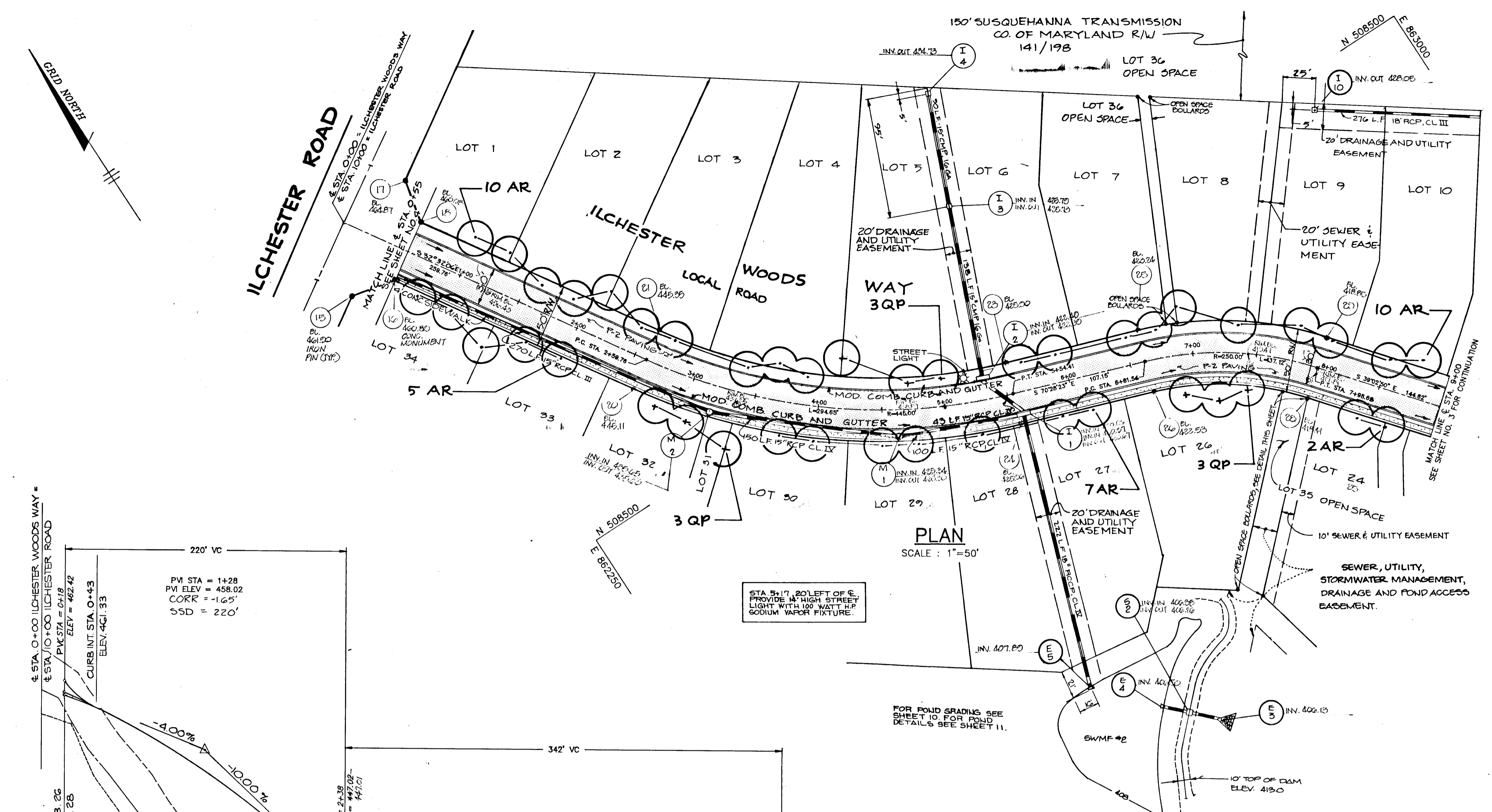
PROJECT: **ILCHESTER WOODS**
 (LOTS 1 THRU 36)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **ILCHESTER WOODS WAY**
 E STA. 0+00 TO E STA. 9+00

RIEMER MUEGGE & ASSOCIATES, INC.
 A LAND PLANNING, ENGINEERING & CONSULTING FIRM
 8818 CENTRE PARK DRIVE, SUITE 200
 COLUMBIA, MARYLAND 21045 TEL. (301) 997-8000

DATE: 4.26.90
 DESIGNED BY: J.B.
 DRAWN BY: CAD, MGY.
 PROJECT NO: 43303
 DATE: 4/26/90
 SCALE: AS SHOWN
 DRAWING NO. 2 OF 12



LEGEND

— CURB TRANSITION (SEE SHEET 5 FOR DETAIL)

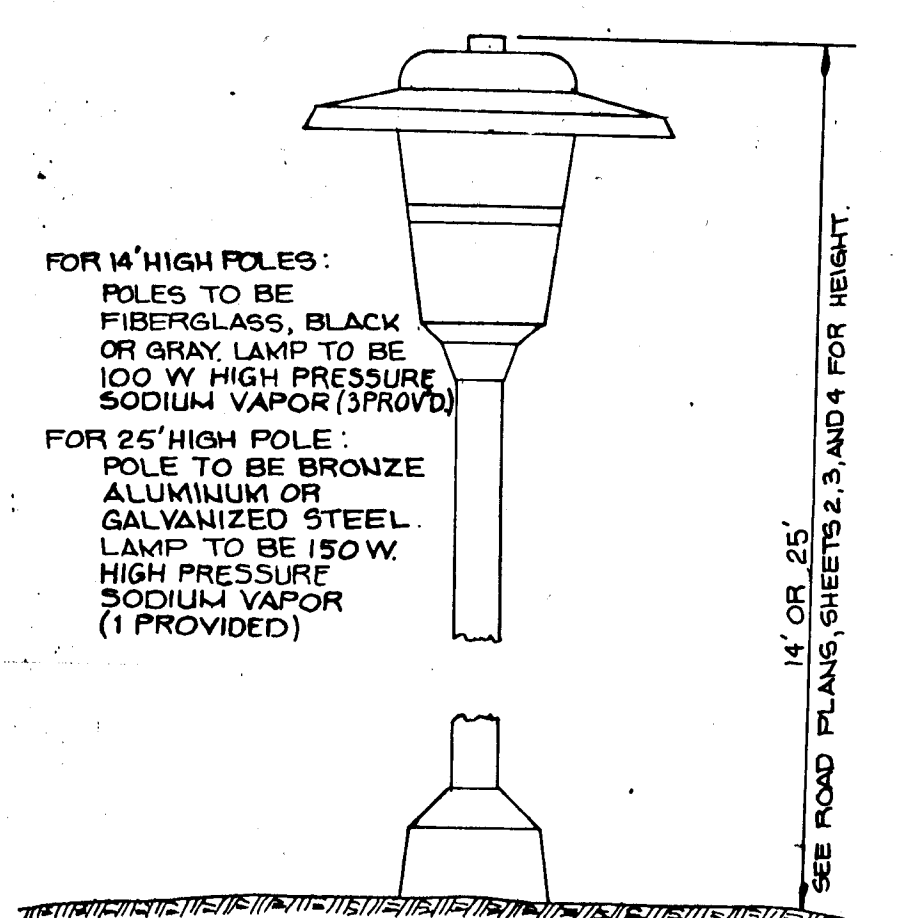
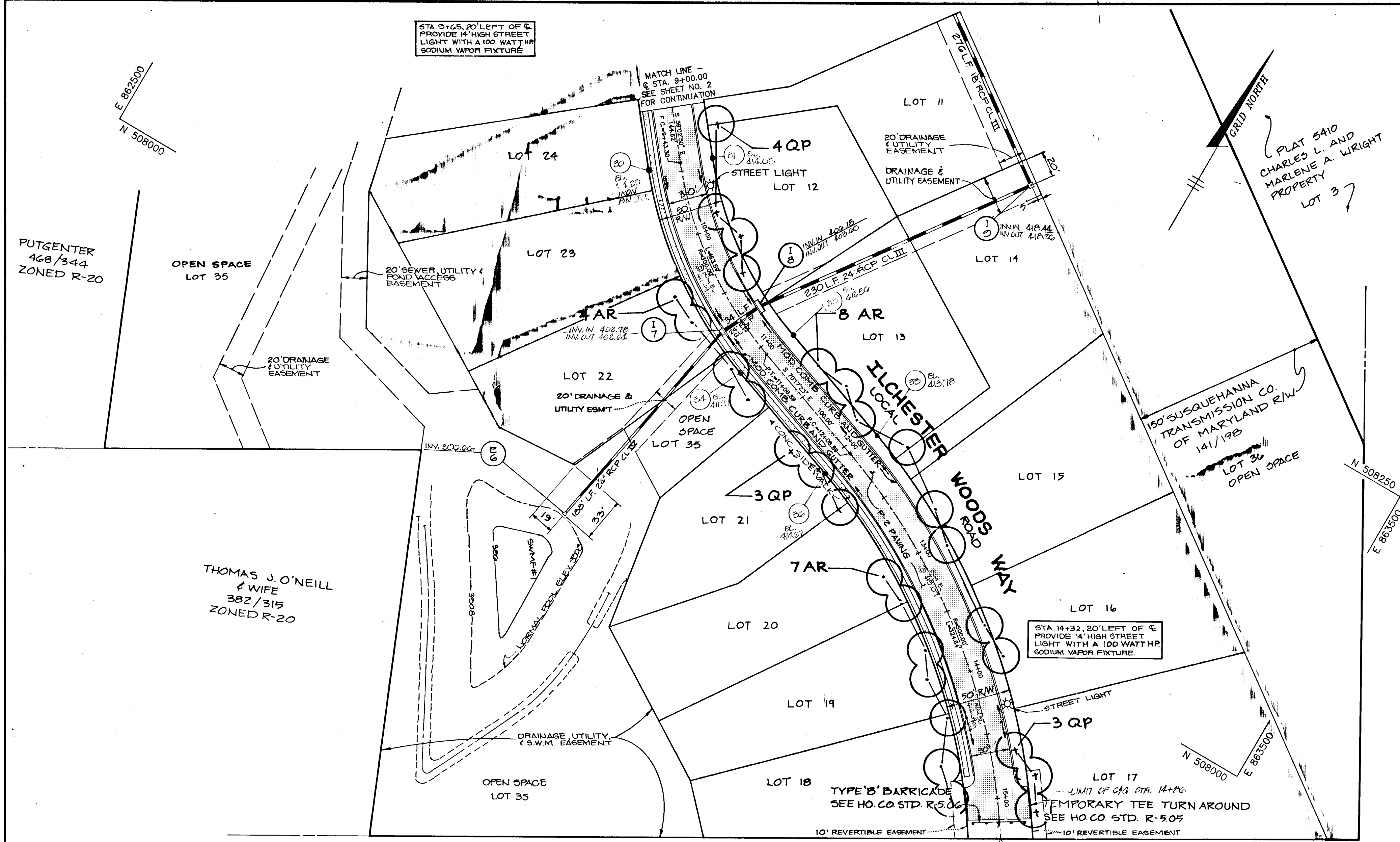
— P-2 PAVING

○ PROPOSED STREET TREE (FOR PLANT LIST SEE SHEET 3)

1605

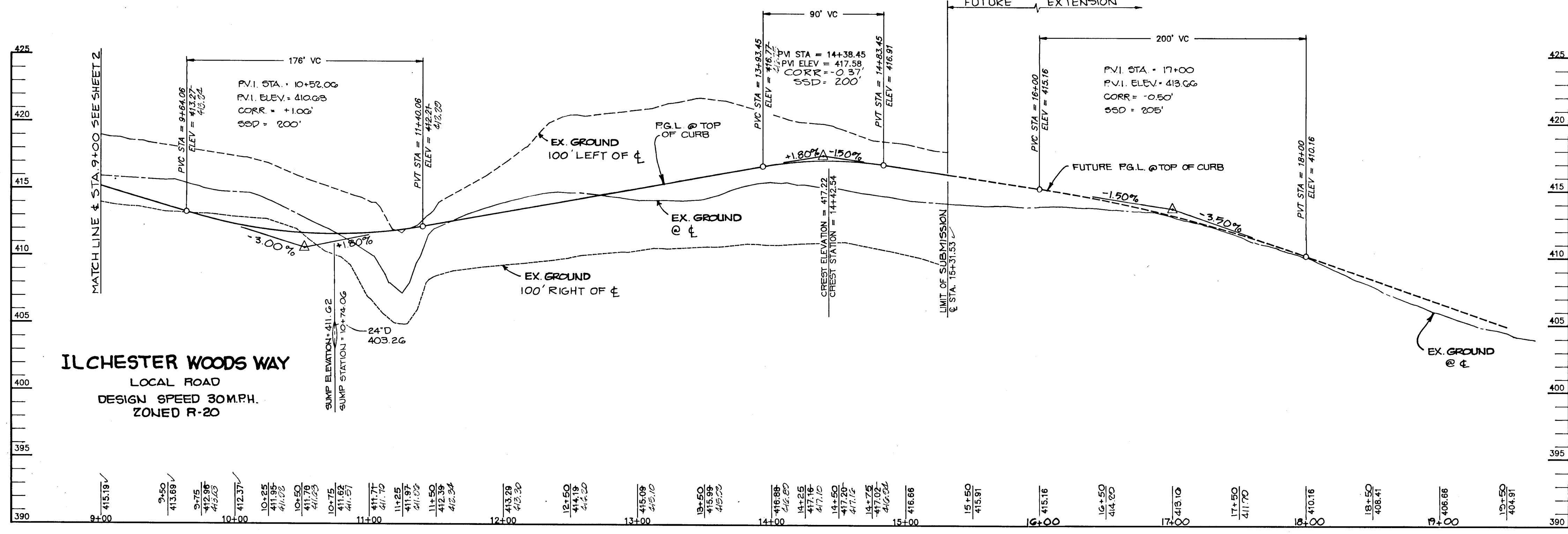
C CURVE DATA							
CURVE	Δ	RADIUS	LENGTH	TANGENT	Dc	CHORD BEARING & DISTANCE	
± STA 9+43.30 TO ± STA 11+06.89	31°14'33"	300.00	163.59	83.88	19°05'55"	654'40.06'	161.57'
± STA 12+06.89 TO ± STA 15+31.53	37°12'04"	900.00	324.64	168.27	11°27'33"	151'4'20"W	318.57'

PLANT LIST					
Qty.	Symbol	Name	Size	Remarks	
68	AR	ACER RUFRUM 'October Glory' October Glory Red Maple	2½-3" Cal. 12-14' Ht.	B & B Full Crown	
19	QP	QUERCUS PALUSTRIS Pin Oak	2½-3" Cal. 12-14' Ht.	B & B Full Crown	



DETAIL - LIGHTING FIXTURE
No Scale

PLAN
SCALE: 1"=50'



PROFILE
SCALE: HORIZ. - 1"=50'
VERT. - 1"=5'

- LEGEND**
- CURB TRANSITION SEE DETAIL SHIT 5
 - P-2 PAVING
 - PROPOSED STREET TREES SEE PLANT LIST THIS SHEET.

AS BUILT CERTIFICATE

J. B. Muegge
DATE: 9-21-94

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
DATE: 10/25/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DATE: 7/18/90

9/27/91 | 1 | ADDED 1 BUILDABLE LOT AND OPEN SPACE LOT 36, CHANGED LOT NUMBERS, REVISED PLANT LIST

OWNER: RYAN OPERATIONS, G.P. % RYAN HOMES, INC.
20251 CENTURY BOULEVARD
GERMANTOWN, MARYLAND 20874

DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC.
10220 GUILFORD ROAD
JESSUP, MARYLAND 20794

PROJECT: **ILCHESTER WOODS**
(LOTS 1 THRU 36)

AREA TAX MAP 31 ZONING R-20 PARCEL 521
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **ILCHESTER WOODS WAY**
± STA. 9+00 TO ± STA. 15+31.53

RIEMER MUEGGE & ASSOCIATES, INC.
A LAND PLANNING, ENGINEERING & CONSULTING FIRM
8018 CENTRE PARK DRIVE, SUITE 200
COLUMBIA, MARYLAND 21045 TEL. (301) 997-8000

DATE: 4-26-90

DESIGNED BY: J.B.

DRAWN BY: CAD, M.G.Y.

PROJECT NO: 43305

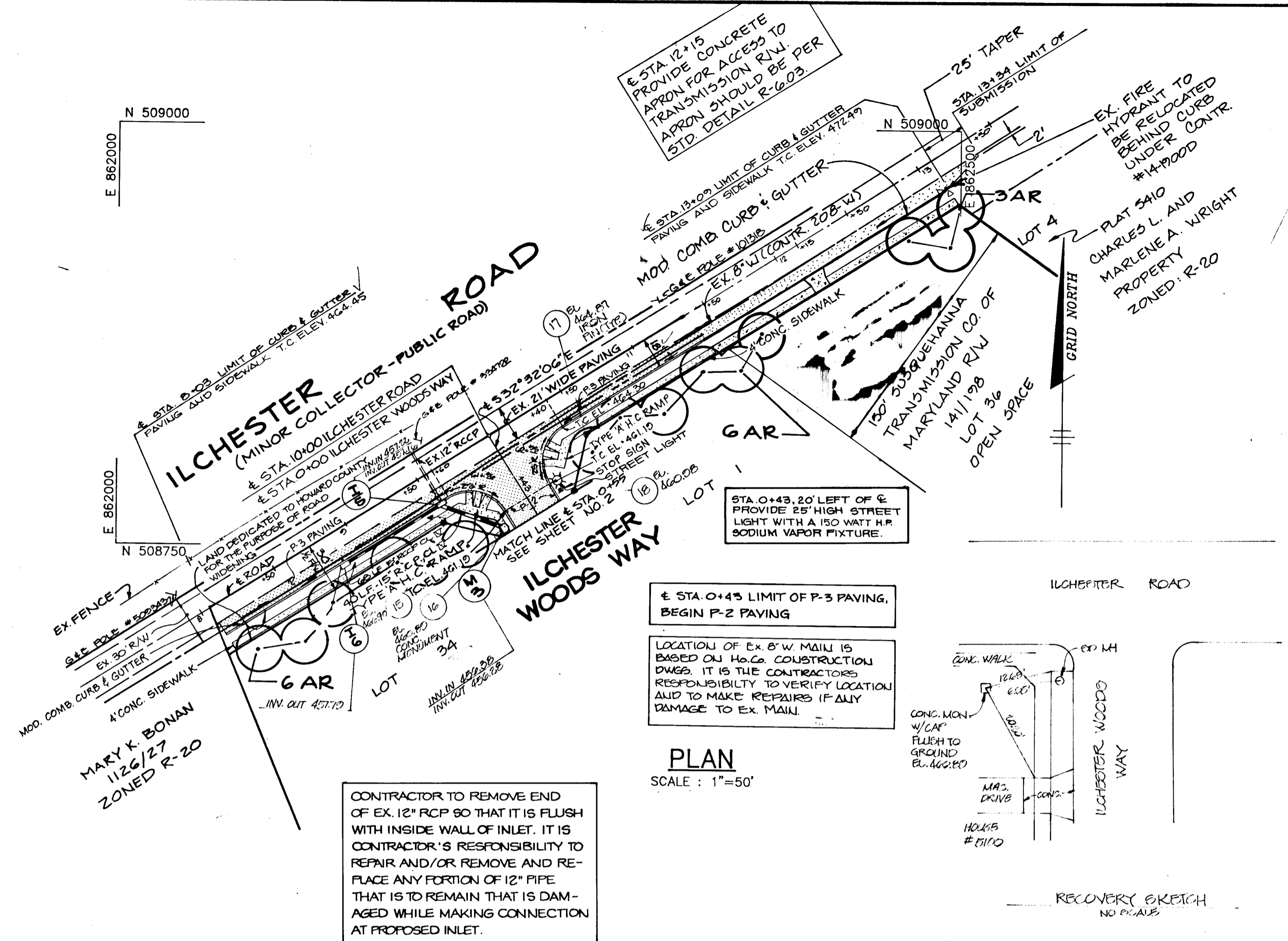
DATE: 4/26/90

SCALE: AS SHOWN

DRAWING NO. 3 OF 12

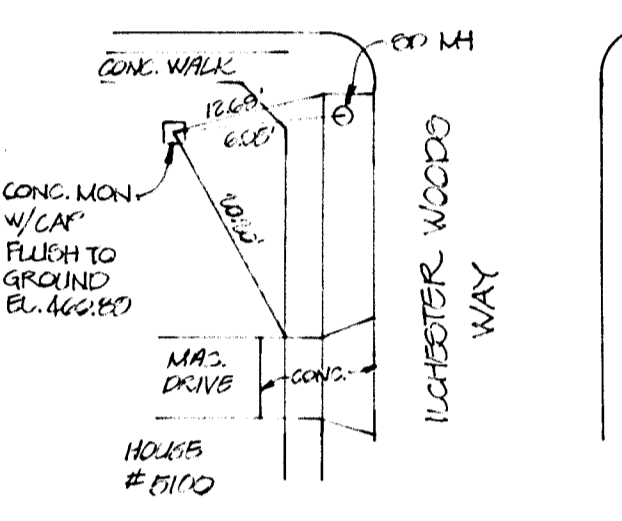
ARTHUR E. MUEGGE #8707

1605

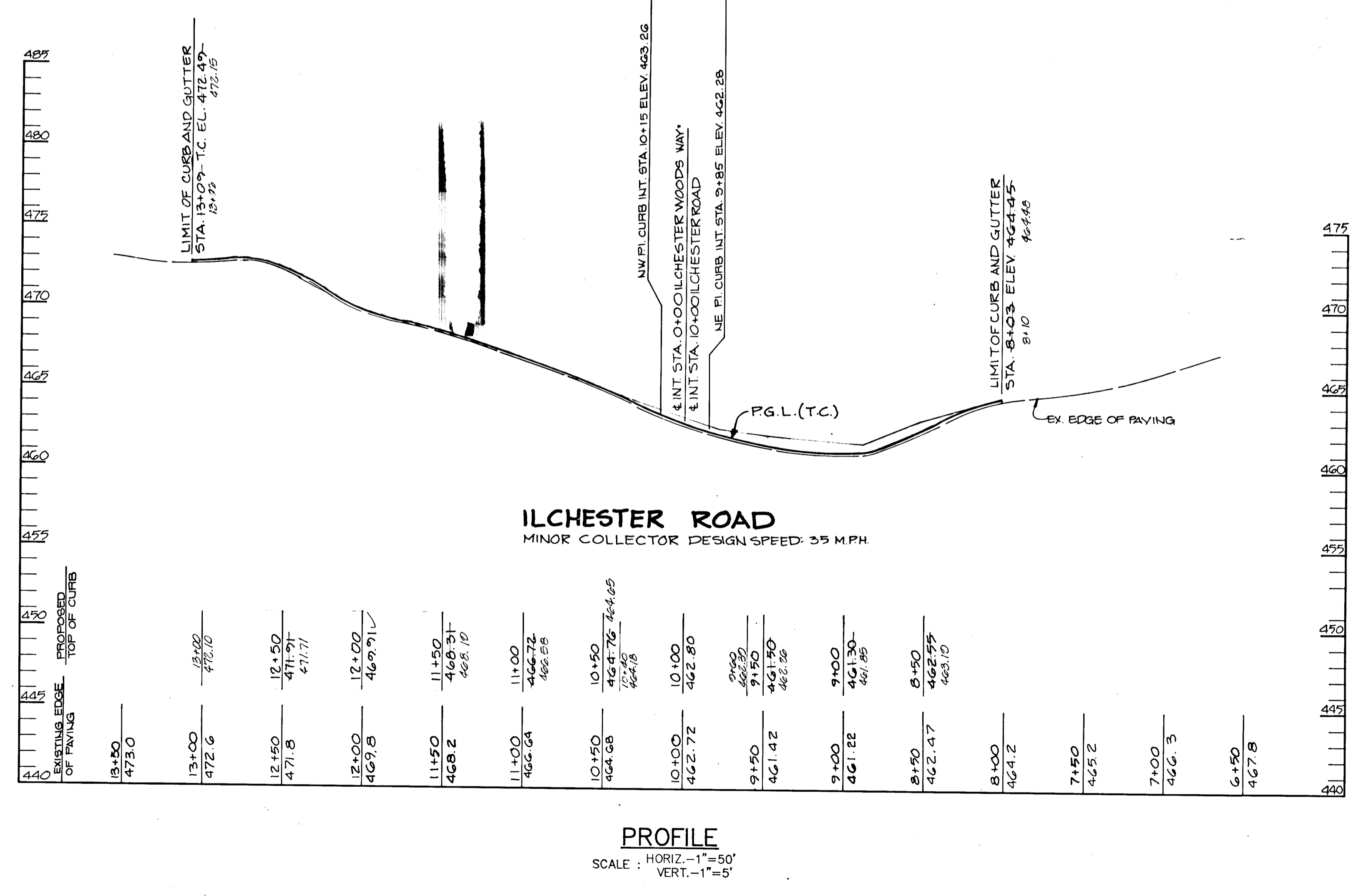


PLAN
SCALE: 1"=50'

CONTRACTOR TO REMOVE END OF EX. 12" RCP SO THAT IT IS FLUSH WITH INSIDE WALL OF INLET. IT IS CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REMOVE AND REPLACE ANY PORTION OF 12" PIPE THAT IS TO REMAIN THAT IS DAMAGED WHILE MAKING CONNECTION AT PROPOSED INLET.



RECOVERY SKETCH
NO SCALE



PROFILE
SCALE: HORIZ. - 1"=50'
VERT. - 1"=5'

LEGEND

- CURB TRANSITION SEE DETAIL SHEET 5
- ▭ P-2 PAVING
- ▭ P-3 PAVING
- PROPOSED STREET TREES, FOR PLANT LIST SEE SHEET 3.

AS BUILT CERTIFICATE

DATE: 9.21.94

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

David J. Wright 11/2/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Alan M. Taylor 11/2/90
CHIEF, LAND DEVELOPMENT DIVISION

Francis W. Weiland 7/18/90
CHIEF, BUREAU OF HIGHWAYS

James E. Rapp 10-29-90
CHIEF, BUREAU OF ENGINEERING

9/27/91	1	ADDED ROAD WIDENING, OPEN SPACE LOT 36, REVISED LOT NUMBERS	REVISION
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OWNER: RYAN OPERATIONS, G.P. 50 RYAN HOMES, INC.
20251 CENTURY BOULEVARD
GERMANTOWN, MARYLAND 20874

DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC.
SUITE 200
10620 GUILFORD ROAD
JESSUP, MARYLAND 20794

PROJECT: **ILCHESTER WOODS**
(LOTS 1 THRU 36)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **ILCHESTER ROAD FROM STA. 8+03 TO STA. 13+09**

RIEMER MUEGGE & ASSOCIATES, INC.
A LAND PLANNING, ENGINEERING & CONSULTING FIRM
8818 CENTRE PARK DRIVE, SUITE 200
COLUMBIA, MARYLAND 21045 TEL (301) 999-8900

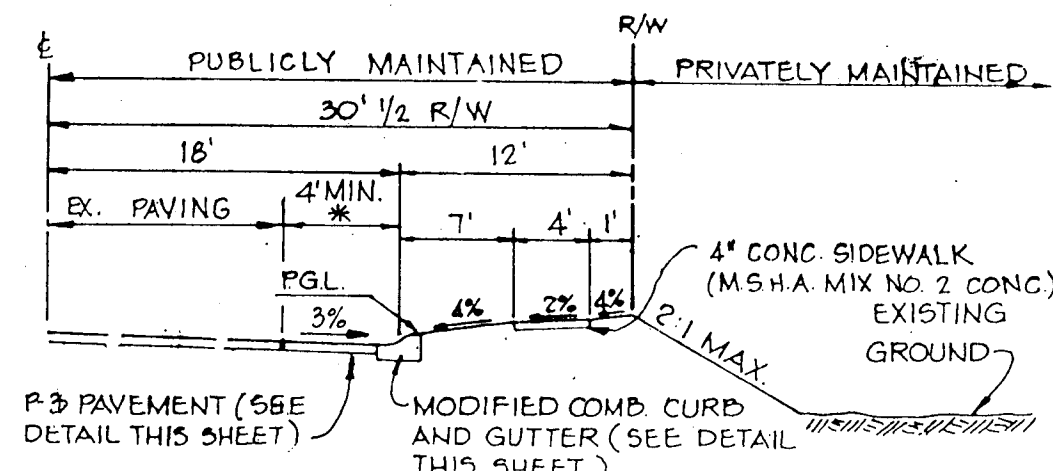
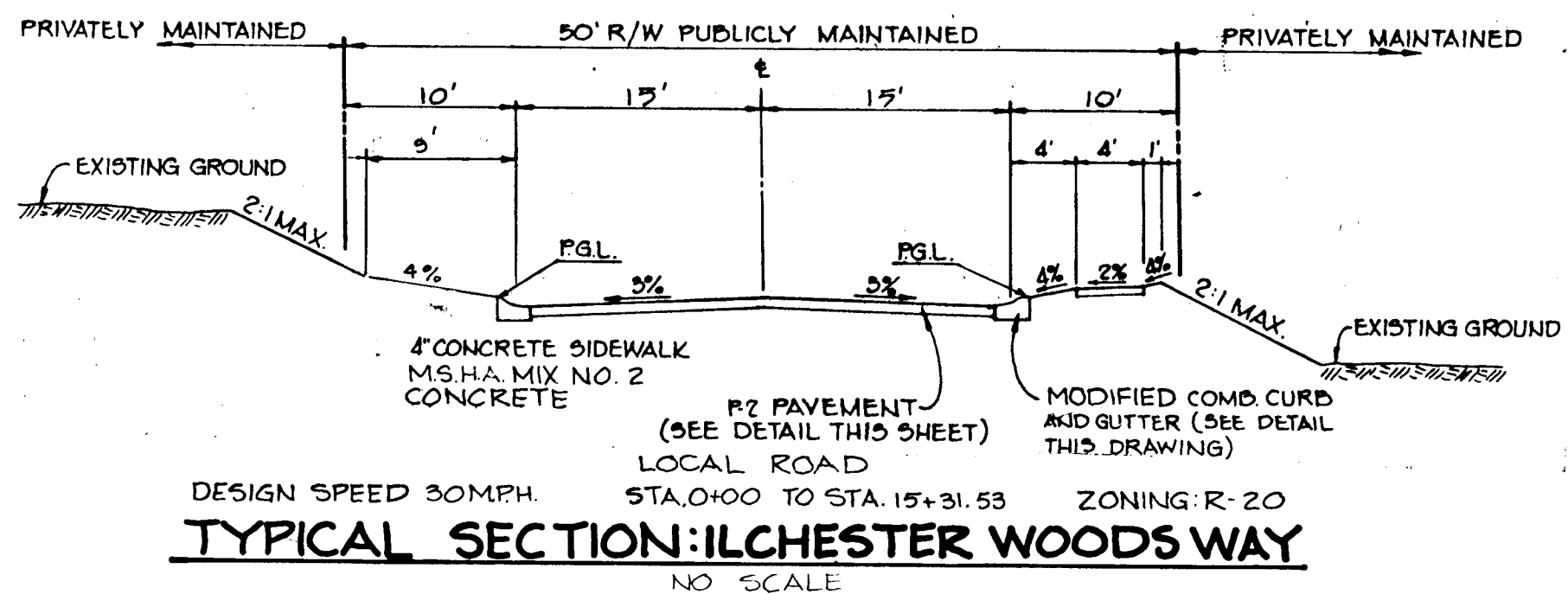
DATE: 4-26-90

DESIGNED BY: JD
DRAWN BY: CAD, MGY
PROJECT NO: 43305
DATE: 4/26/90
SCALE: AS SHOWN
DRAWING NO. 4 OF 12

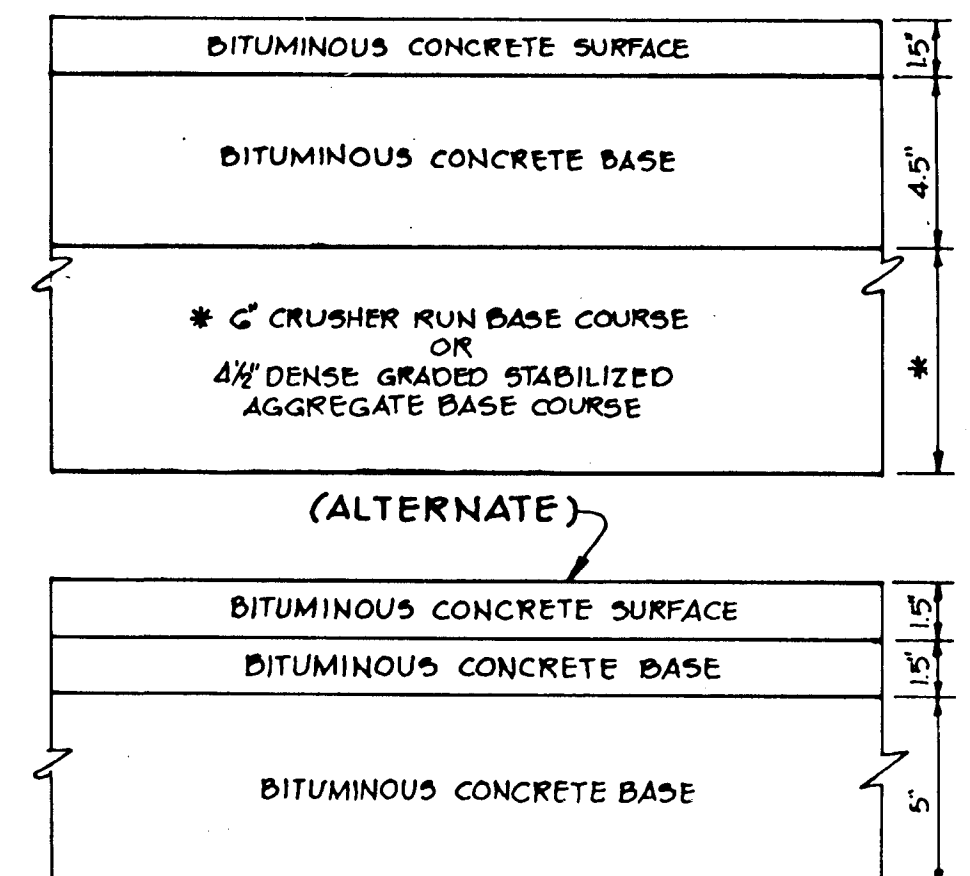
Arthur E. Muegge
ARTHUR E. MUEGGE #3707

1605

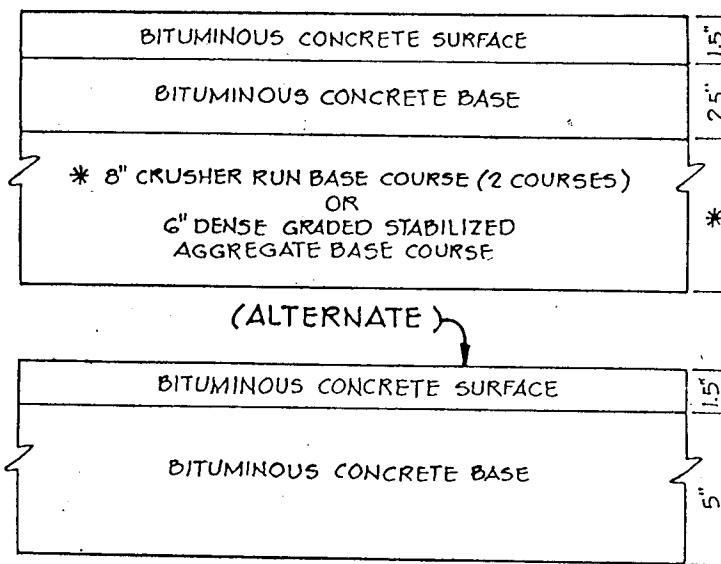
MARYLAND SURVEYING CO. INC. 100077



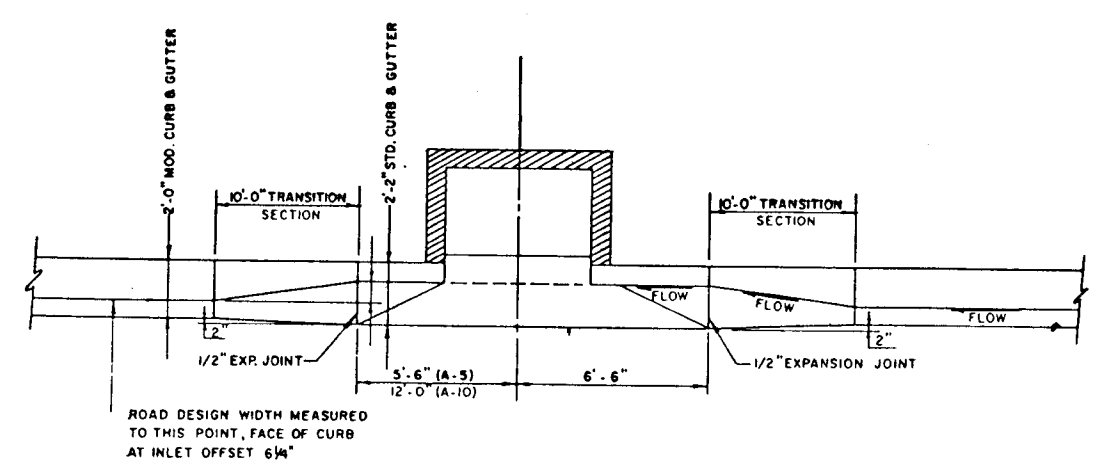
TYPICAL HALF SECTION ILCHESTER ROAD
 MINOR COLLECTOR ZONED R-20 DESIGN SPEED: 35 M.P.H.
 FROM STA. 8+03 TO STA. 13+09
 NO SCALE
 * MINIMUM WIDENING AS PER HOWARD COUNTY STANDARD DETAIL R-10.01



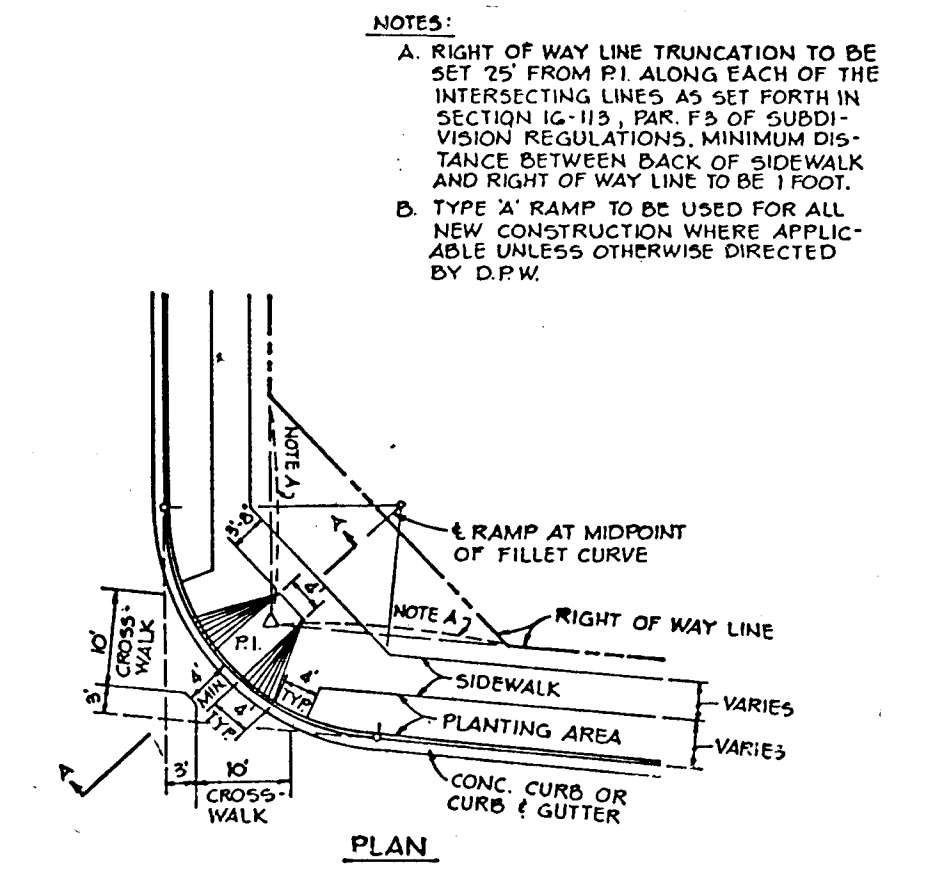
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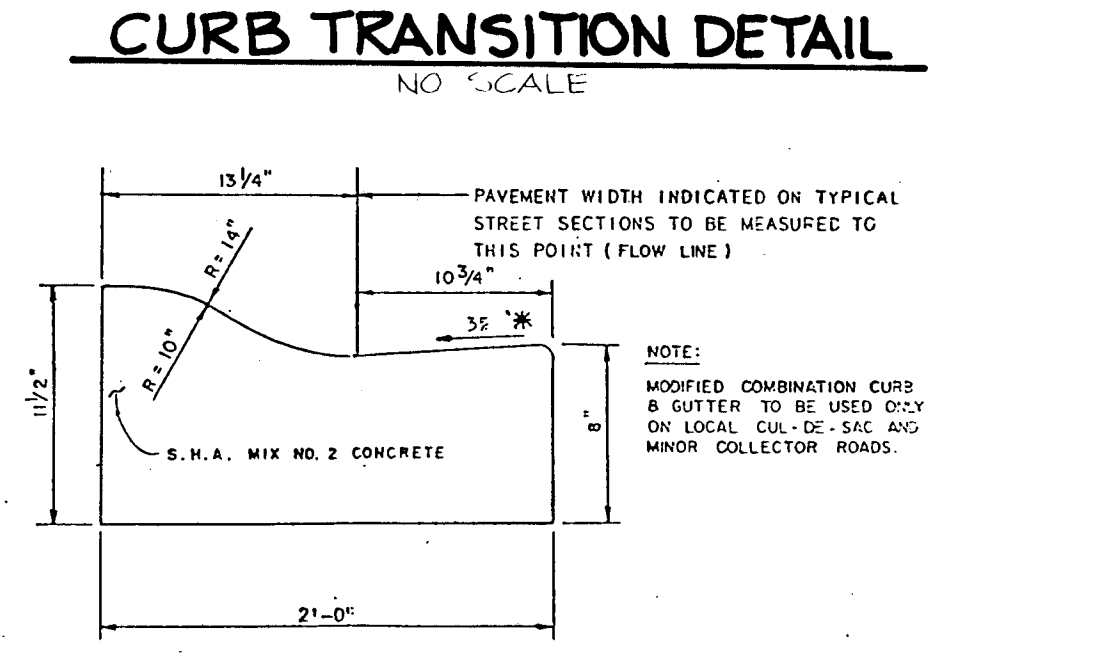
6 1/2\"/>



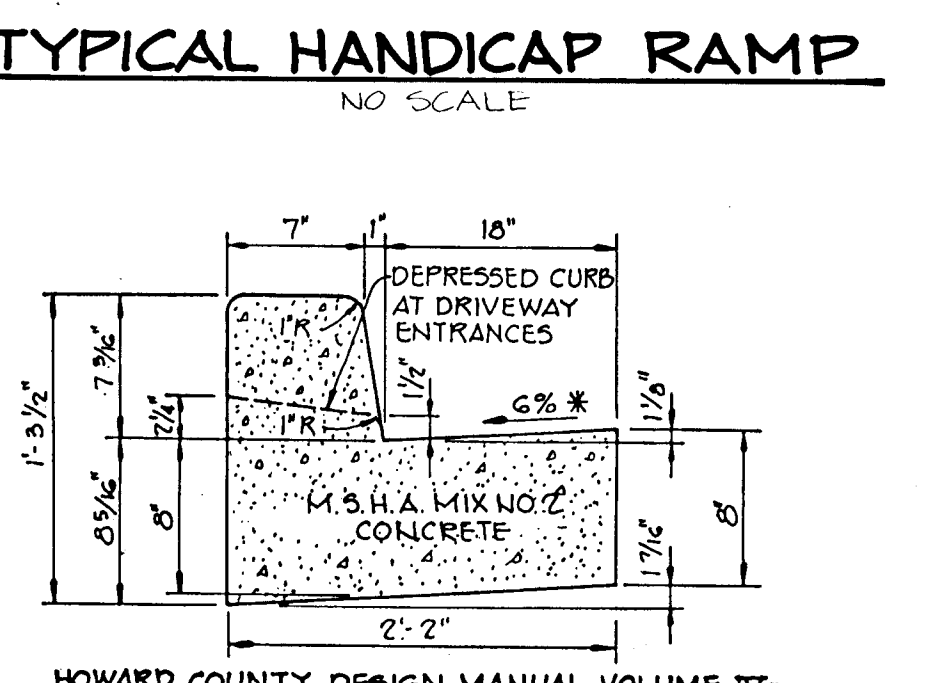
CURB TRANSITION DETAIL
 NO SCALE



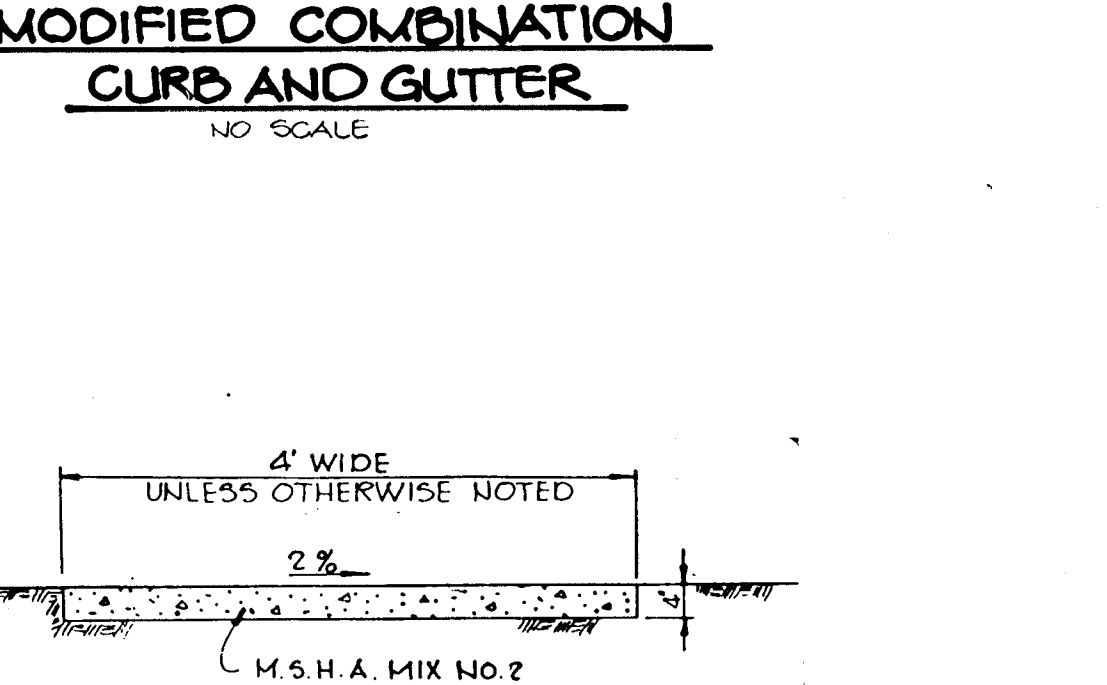
TYPICAL HANDICAP RAMP
 NO SCALE



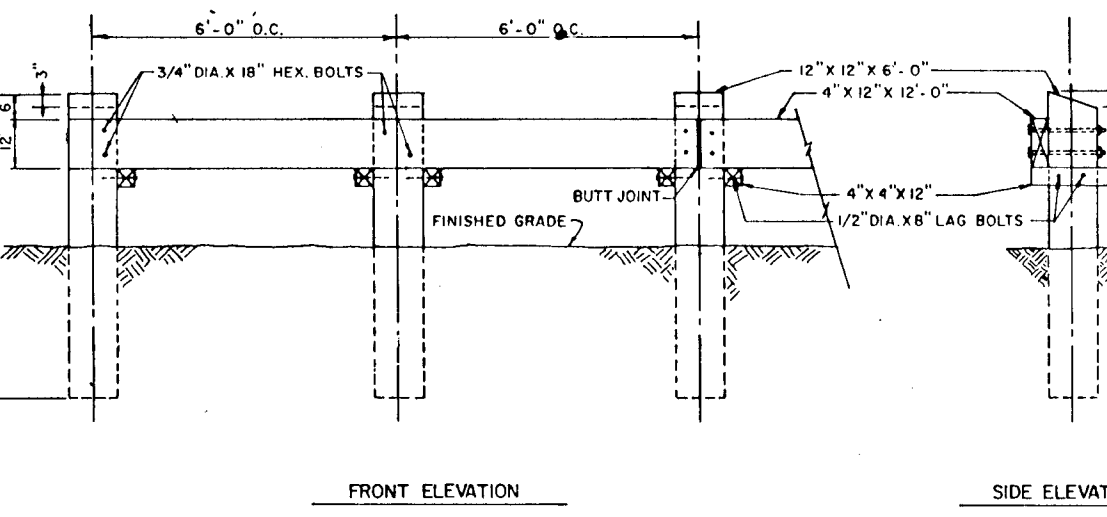
MODIFIED COMBINATION CURB AND GUTTER
 NO SCALE



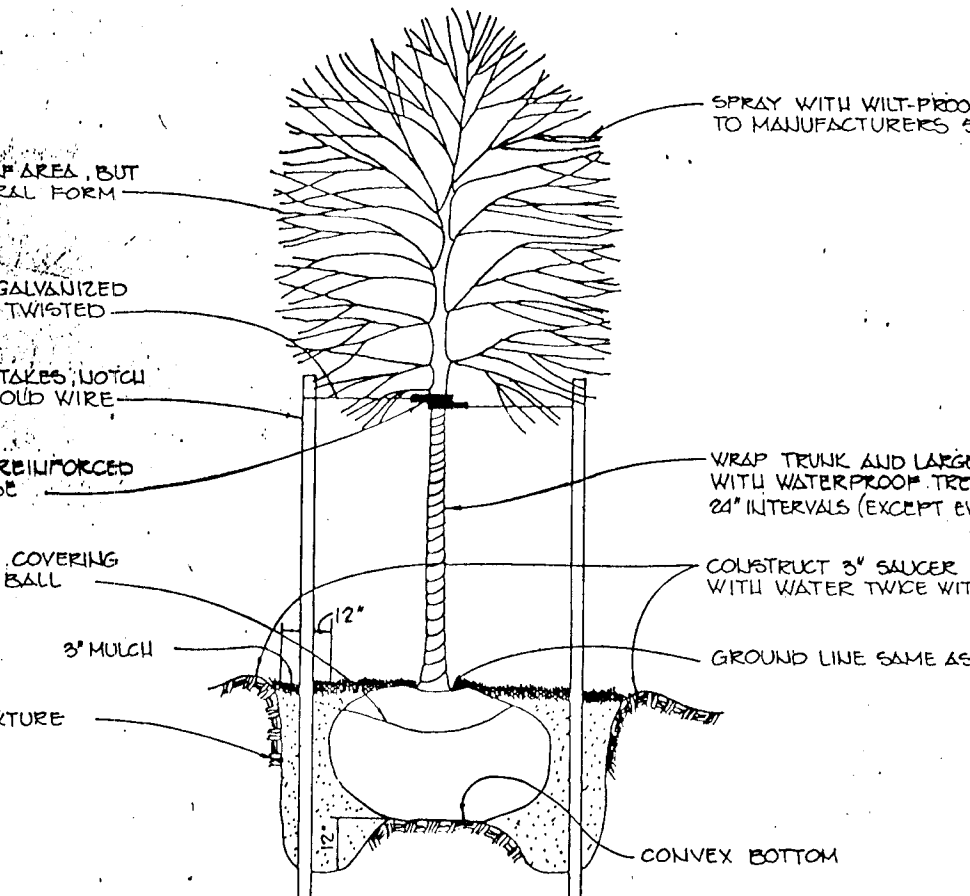
STANDARD 7\"/>



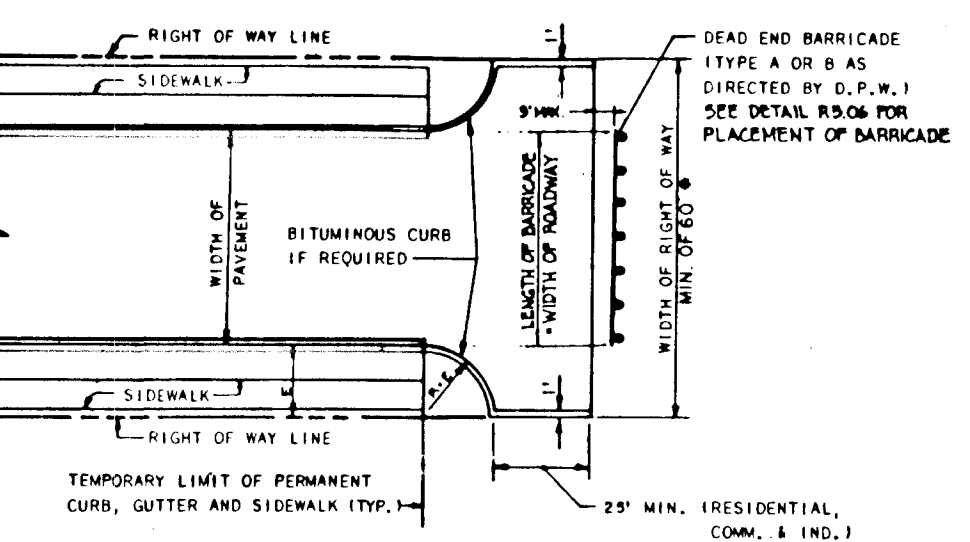
SIDEWALK DETAIL
 NO SCALE



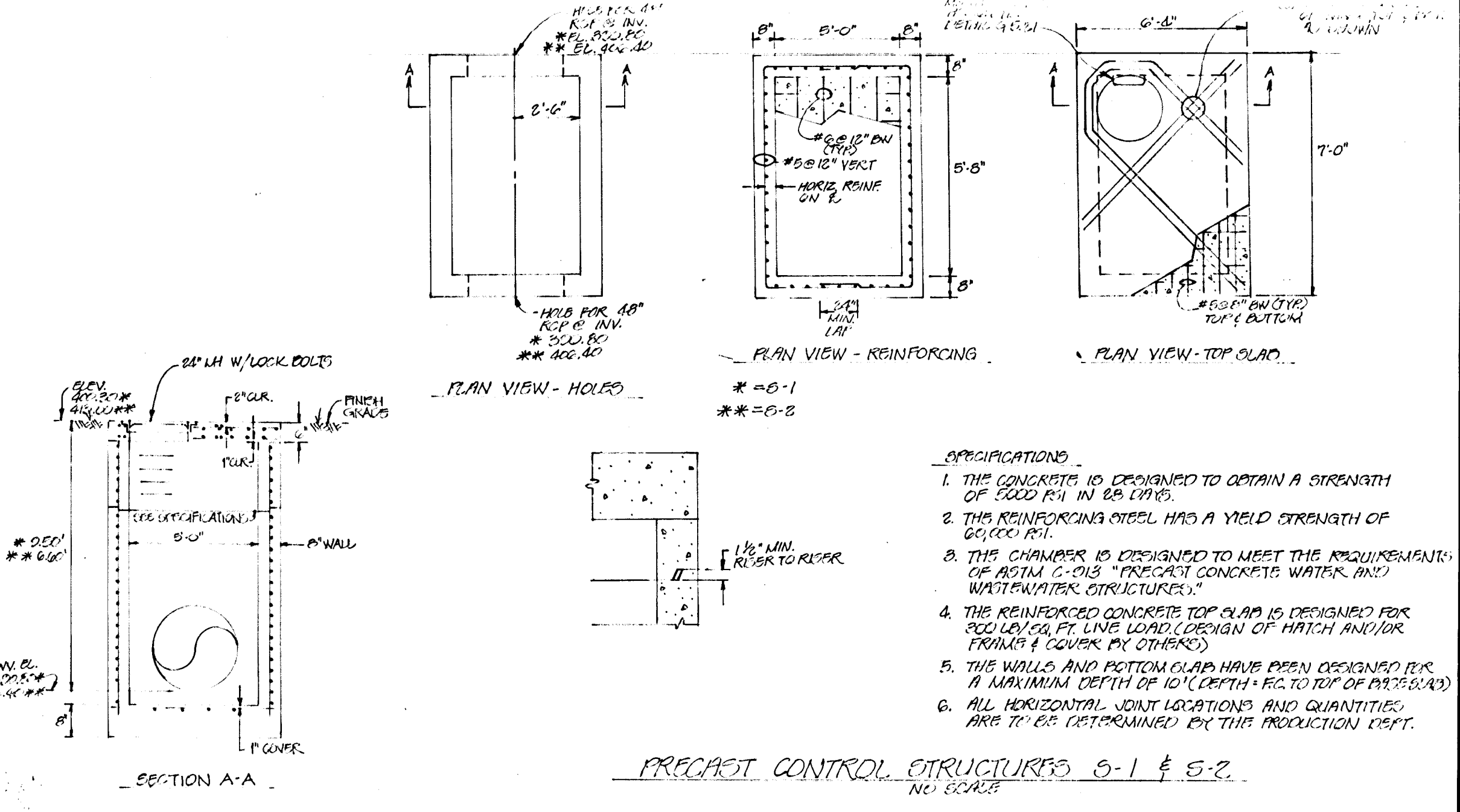
TYPE 'B' BARRICADE DETAIL
 NO SCALE



TREE PLANTING DETAIL
 NO SCALE



TEE TURNAROUND
 NO SCALE



PRECAST CONTROL STRUCTURES 5-1 & 5-2
 NO SCALE
 STRUCTURAL DESIGN BY: ATLANTIC CONCRETE PRODUCTS, INC.

AS BUILT CERTIFICATE	
	J. Parekh JAYKANT D. PAREKH #11118 DATE: 9.21.94
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Mark V. Dwyer CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE: 10/6/94	APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS Alan M. Taylor CHIEF, LAND DEVELOPMENT DIVISION DATE: 10/6/94
Rowell W. Weiland CHIEF, BUREAU OF HIGHWAYS DATE: 7/18/90	William J. Ray CHIEF, BUREAU OF ENGINEERING & SURVEYING DATE: 10-29-90

DATE	NO.	REVISION
9/27/91	1	REVISED LOT NUMBERS AND STATIONING ON TYPICAL SECTION

OWNER: RYAN OPERATIONS, G.P. 96 RYAN HOMES, INC.
 20251 CENTURY BOULEVARD
 GERMANTOWN, MARYLAND 20874

DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC.
 SUITE 200
 10620 GUILFORD ROAD
 UESBUR, MARYLAND 20794

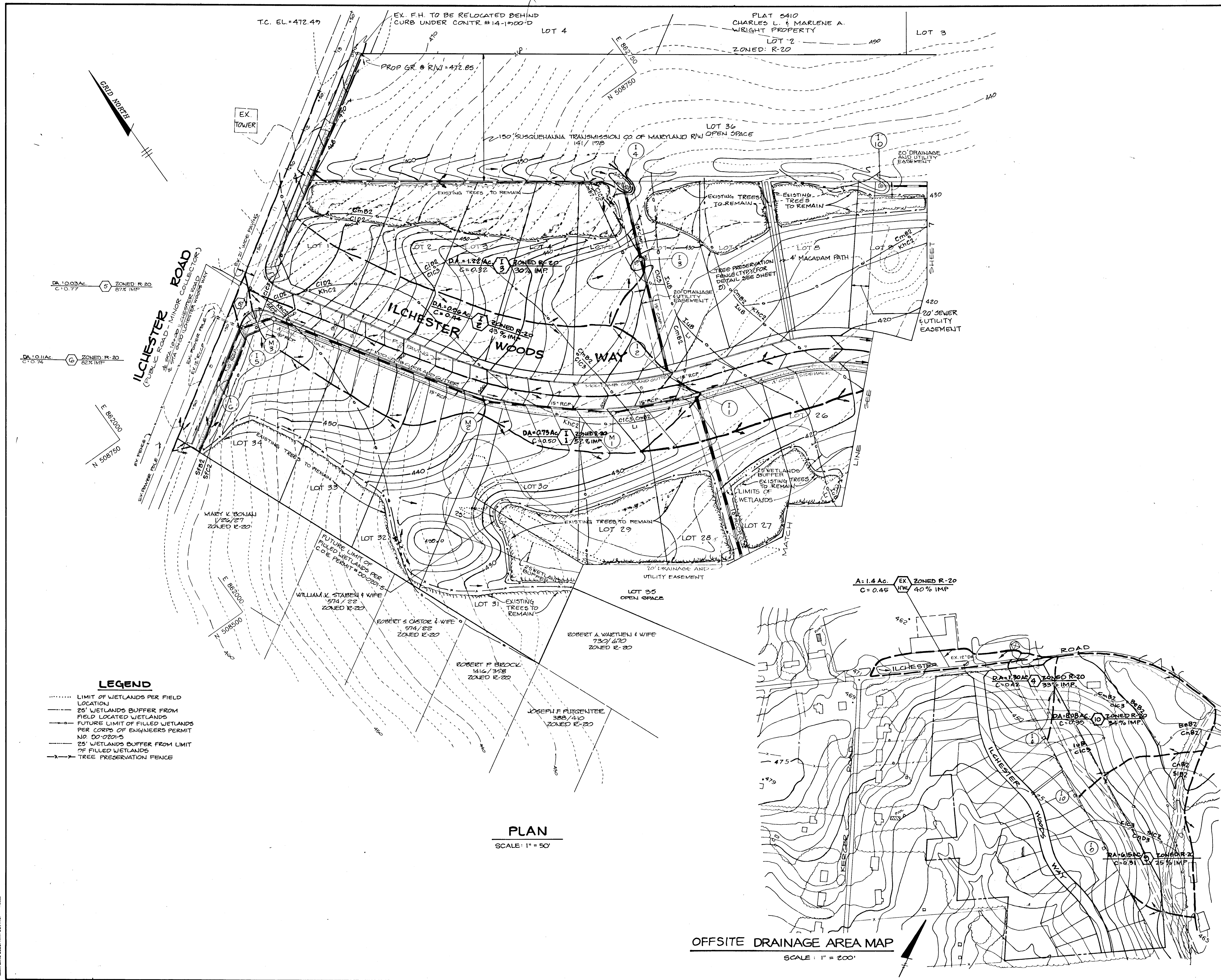
PROJECT: **ILCHESTER WOODS**
 (LOTS 1 THRU 36)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: **DETAIL SHEET**

RIEMER MUEGGE & ASSOCIATES, INC.
 A LAND PLANNING, ENGINEERING & CONSULTING FIRM
 8818 CENTRE PARK DRIVE, SUITE 200
 COLUMBIA, MARYLAND 21045 TEL (301) 997-8900

4.26.90 DATE	S-88-25, P-89-11 DESIGNED BY: J.D.
	DRAWN BY: M.G.Y.
PROJECT NO: 43305	DATE: 4/26/90
SCALE: AS SHOWN	DRAWING NO. 5 OF 12



LEGEND

- LIMIT OF WETLANDS PER FIELD LOCATION
- 25' WETLANDS BUFFER FROM FIELD LOCATED WETLANDS
- FUTURE LIMIT OF FILLED WETLANDS PER CORPS OF ENGINEERS PERMIT NO. 00-0201-5
- 25' WETLANDS BUFFER FROM LIMIT OF FILLED WETLANDS
- x-x- TREE PRESERVATION FENCE

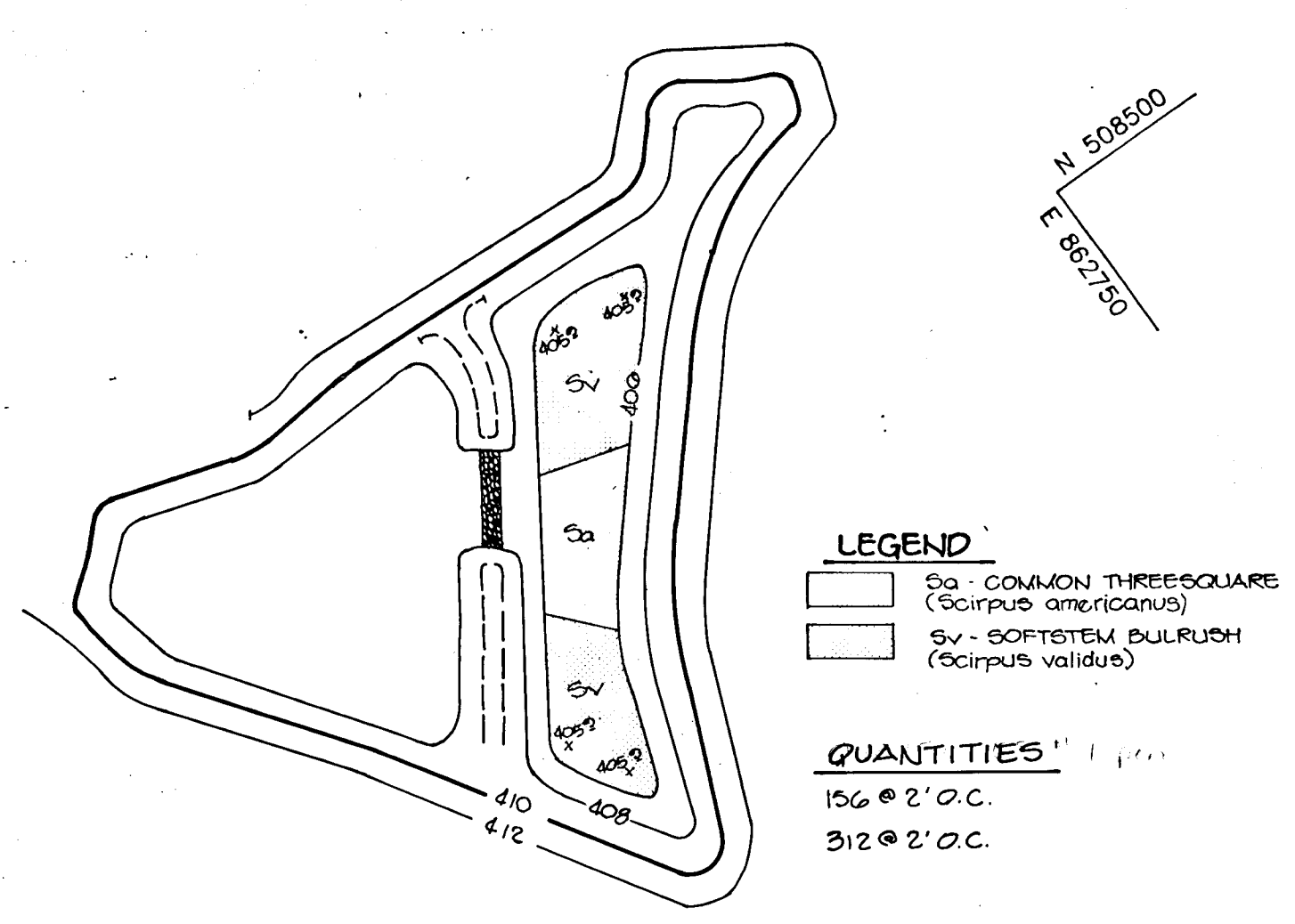
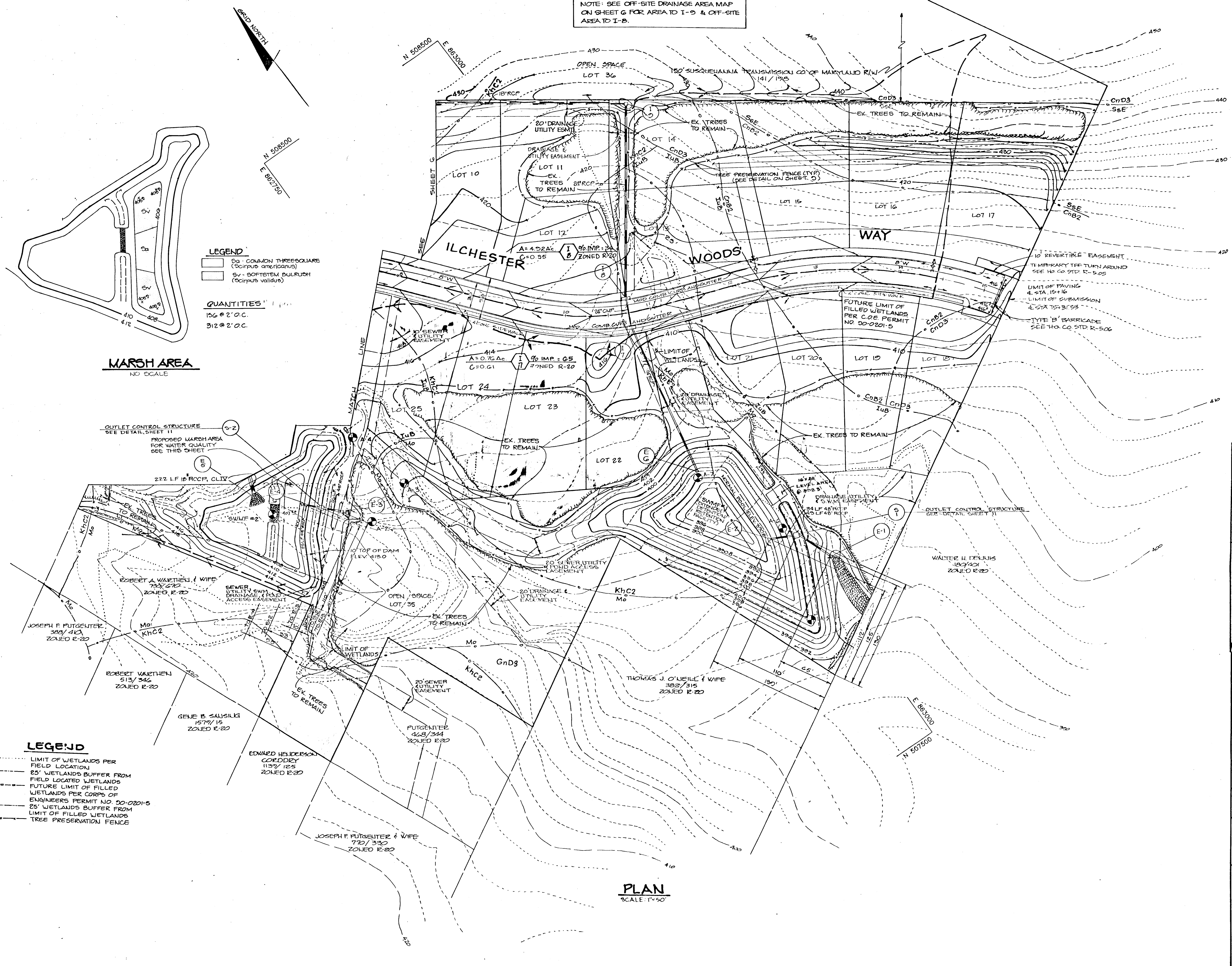
PLAN
SCALE: 1" = 50'

OFFSITE DRAINAGE AREA MAP
SCALE: 1" = 200'

AS BUILT CERTIFICATE	
APPROVED: ARTHUR E. MUEGGE #8707	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>[Signature]</i> CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT	DATE: <i>1/2/90</i>
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>[Signature]</i> CHIEF, LAND DEVELOPMENT DIVISION	DATE: <i>10/17/90</i>
<i>[Signature]</i> CHIEF, BUREAU OF HIGHWAYS	DATE: <i>7/18/90</i>
<i>[Signature]</i> CHIEF, BUREAU OF ENGINEERING	DATE: <i>10-29-90</i>
11/15/92	ADDED LEGEND, REVISED SEVERAL PROP. CONTROLS, REVISED EX. TREES TO REMAIN, ADDED LIMIT OF FILLED WETLAND
9/27/91	ADDED ROAD WIDENING, OPEN SPACE LOT 36, OPEN SPACE ACCESS BETWEEN LOTS 11 & 12, REVISED LOT NUMBERS
DATE NO.	REVISION
OWNER: RYAN OPERATIONS, G.P. 9% RYAN HOMES, INC. 20251 CENTURY BOULEVARD GERMANTOWN, MARYLAND 20874	
DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC. SUITE 200 10620 GUILFORD ROAD JESSUP, MARYLAND 20794	
PROJECT: ILCHESTER WOODS (LOTS 1 THRU 36)	
AREA TAX MAP 31 ZONED R-20 PARCEL 521 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: DRAINAGE AREA MAP	
RIEMER MUEGGE & ASSOCIATES, INC. A LAND PLANNING, ENGINEERING & CONSULTING FIRM 8818 CENTRE PARK DRIVE, SUITE 200 COLUMBIA, MARYLAND 21045 TEL. (301) 997-6900	
DATE: <i>4-16-90</i>	S-88-25, P-80-11
DESIGNED BY: JB	
DRAWN BY: GDH	
PROJECT NO: 43305	
DATE: 4/26/90	
SCALE: AS SHOWN	
DRAWING NO. <u>6</u> OF 12	

1605
MARYLAND BUREAU OF ENGINEERING CO., INC.

NOTE: SEE OFF-SITE DRAINAGE AREA MAP ON SHEET G FOR AREA TO I-D & OFF-SITE AREA TO I-B.



LEGEND

- LIMIT OF WETLANDS PER FIELD LOCATION
- 25' WETLANDS BUFFER FROM FIELD LOCATED WETLANDS
- FUTURE LIMIT OF FILLED WETLANDS PER CORPS OF ENGINEERS PERMIT NO. 00-0201-5
- 25' WETLANDS BUFFER FROM LIMIT OF FILLED WETLANDS
- TREE PRESERVATION FENCE

PLAN
SCALE: 1"=50'

AS BUILT CERTIFICATE

ARTHUR E. MUEGGE #8707 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Arthur E. Muegge 1/28/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William W. Walden 1/28/90
 CHIEF, BUREAU OF HIGHWAYS
Walter H. DeJure 1/28/90
 ZONING

DATE	NO.	REVISION
11/16/02	2	REVISED SEVERAL PROP. CONTOURS, ADDED FUTURE LIMIT OF WETLANDS, ADDED EX. TREES AND LEGEND
9/27/91	1	ADDED BUILDABLE LOT OPEN SPACE LOT 36, REVISED LOT NUMBERS

OWNER: RYAN OPERATIONS, G.P. % RYAN HOMES, INC.
 20251 CENTURY BOULEVARD
 GERMANTOWN, MARYLAND 20874
 DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC.
 SUITE 200
 10620 GUILFORD ROAD
 JESSUP, MARYLAND 20794

PROJECT: **ILCHESTER WOODS**
(LOTS 1 THRU 36)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
 1ST ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

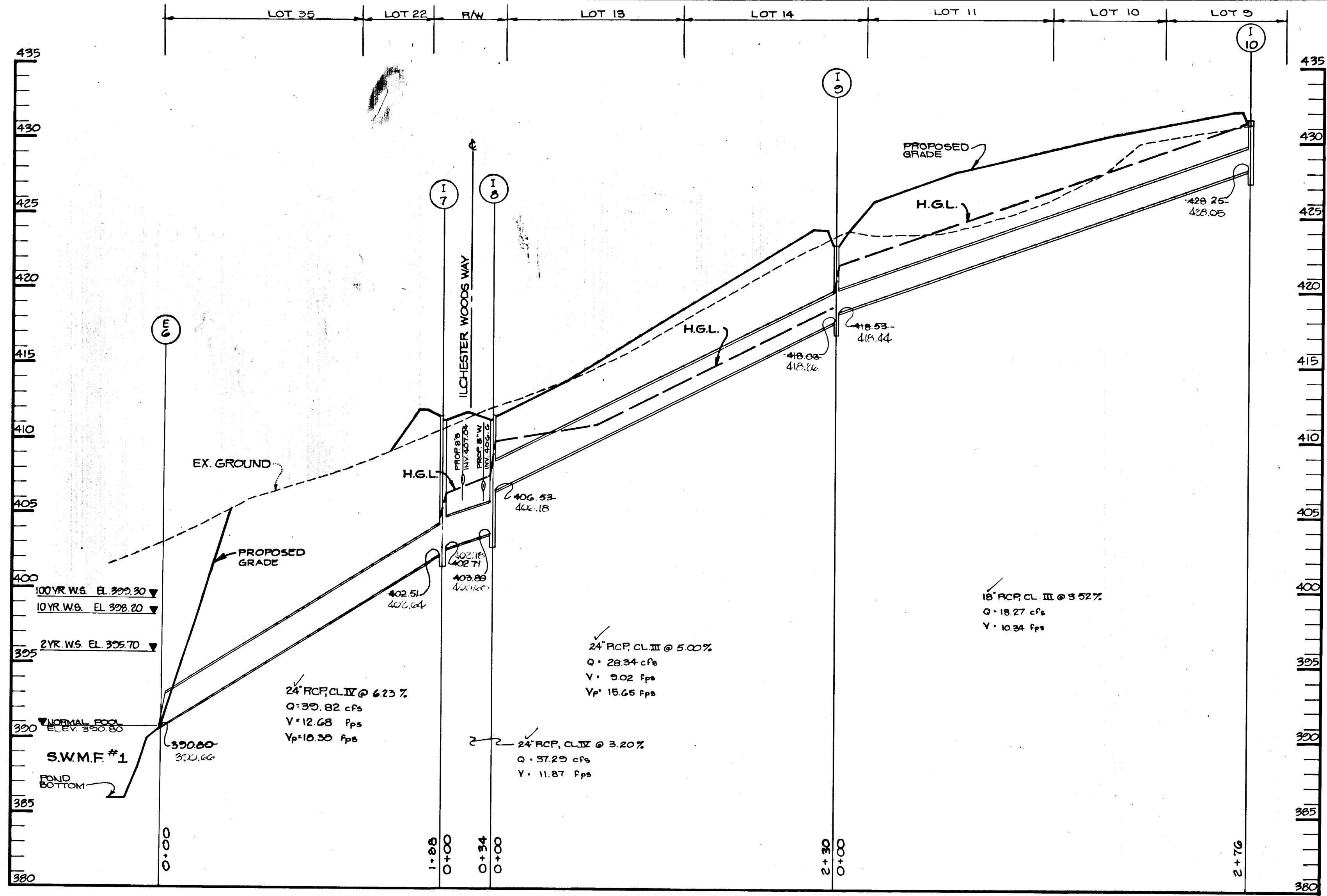
TITLE: **DRAINAGE AREA MAP**

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 8818 CENTRE PARK DRIVE, SUITE 200
 COLUMBIA, MARYLAND 21045 TEL (301) 997-8900

DATE: 4/26/90	S-08-25, P-07-11
DESIGNED BY: JD	
DRAWN BY: G.D.H.	
PROJECT NO: 43305	
DATE: 4/26/90	
SCALE: AS SHOWN	
DRAWING NO. 7 OF 12	

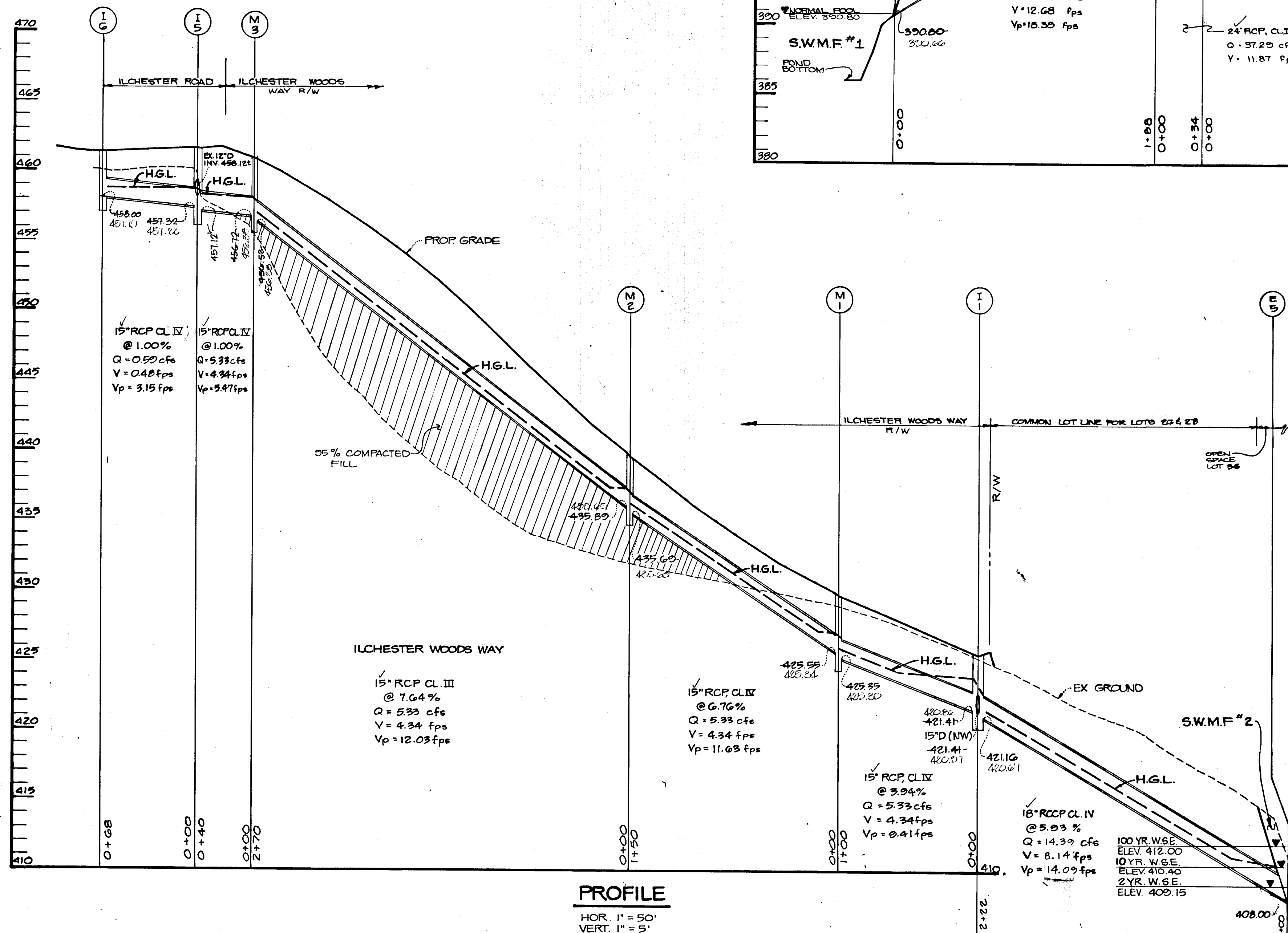
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
I-1	A-10 INLET	E STA 5+55, 15' RT.	421.41	421.16	425.70	Ho. Co. Std. SD 4.02
I-2	A-10 INLET	E STA 5+53, 15' LT.	422.40	422.29	426.71	Ho. Co. Std. SD 4.02
I-3	YARD INLET	SEE SHEET 2	426.11	425.91	429.90	Ho. Co. Std. SD 4.14
I-4	D INLET	SEE SHEET 2	---	---	440.03	Ho. Co. Std. SD 4.11
I-5	A-5 INLET	E STA 9+55, 15' RT.	457.32	457.12	461.03	Ho. Co. Std. SD 4.01
I-6	A-5 INLET	E STA 8+87, 15' RT.	---	---	461.50	Ho. Co. Std. SD 4.01
I-7	A-5 INLET	E STA 10+74.06, 15' RT.	402.71	402.51	411.00	Ho. Co. Std. SD 4.01
I-8	A-10 INLET	E STA 10+74.06, 15' LT.	406.63	403.80	411.00	Ho. Co. Std. SD 4.02
I-9	K INLET	SEE SHEET 3	418.53	418.03	422.00	Ho. Co. Std. SD 4.12
I-10	K INLET	SEE SHEET 2	---	---	428.25	Ho. Co. Std. SD 4.13
M-1	SHALLOW MH	E STA 4+63, 21' RT.	425.55	425.35	429.90	Ho. Co. Std. G 5.12
M-2	SHALLOW MH	E STA 3+19, 21' RT.	435.89	435.05	440.90	Ho. Co. Std. G 5.12
M-3	SHALLOW MH	E STA 0+52, 21' RT.	456.72	456.52	461.12	Ho. Co. Std. G 5.12
E-1	CONC. END SECTION	SEE SHEET 7	---	---	390.80	Ho. Co. Std. SD 5.51
E-2	CONC. END SECTION	SEE SHEET 7	---	---	390.80	Ho. Co. Std. SD 5.51
E-3	CONC. END SECTION	SEE SHEET 7	---	---	406.40	Ho. Co. Std. SD 5.51
E-4	CONC. END SECTION	SEE SHEET 7	---	---	406.40	Ho. Co. Std. SD 5.51
E-5	CONC. END SECTION	SEE SHEET 2	---	---	408.00	Ho. Co. Std. SD 5.51
E-6	CONC. END SECTION	SEE SHEET 2	---	---	390.00	Ho. Co. Std. SD 5.51
S-2	OUTLET CONTROL STRUCTURE	SEE SHEET 7	406.40	406.40	413.00	SEE SHEET 11
S-1	OUTLET CONTROL STRUCTURE	SEE SHEET 7	390.80	390.80	400.30	SEE SHEET 11

* - DENOTES TOP OF GRATE ELEVATION.



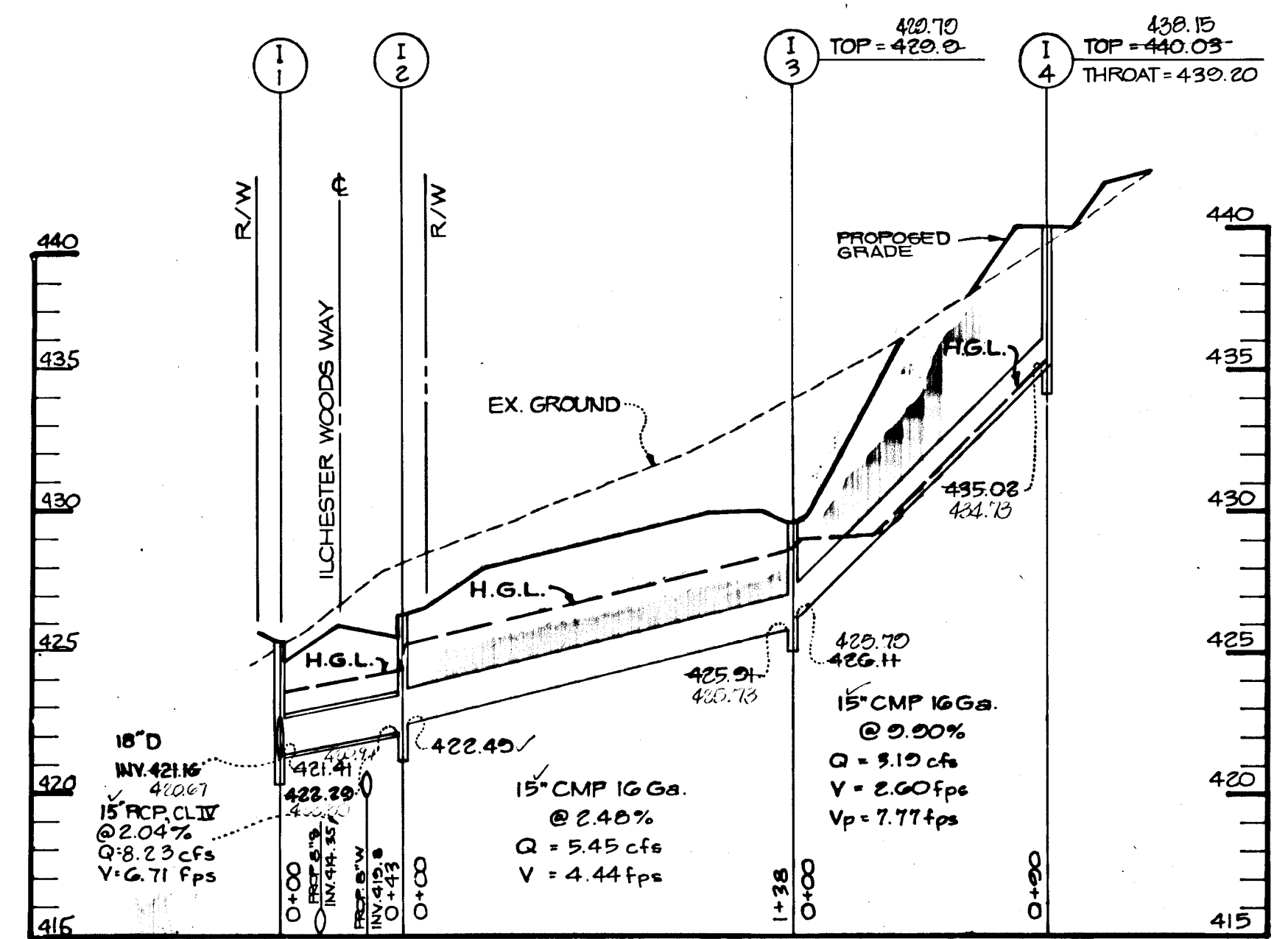
PROFILE

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



PROFILE

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



PROFILE

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

AS-BUILT CERTIFICATE

J. Pawell
PROFESSIONAL ENGINEER
JAYKANT D. PAREKH #10140
DATE: 9-21-94

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark J. ...
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT
DATE: 9/21/94

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Alan M. ...
CHIEF, LAND DEVELOPMENT DIVISION
Traville W. ...
CHIEF, BUREAU OF HIGHWAYS
William J. ...
CHIEF, BUREAU OF ENGINEERING
DATE: 10-22-90

11/6/02 2 REVISED PROP GRADE IN PROFILE
9/27/91 1 REVISED STORM DRAIN PROFILE I-1 TO E-5 AND I-1 TO I-4
DATE NO. REVISION

OWNER: RYAN OPERATIONS, G.P. % RYAN HOMES, INC.
20251 CENTURY BOULEVARD
GERMANTOWN, MARYLAND 20874

DEVELOPER: BRANTLEY DEVELOPMENT GROUP, INC.
SUITE 200
10620 GUILFORD ROAD
JESSUP, MARYLAND 20794

PROJECT: **ILCHESTER WOODS**
(LOTS 1 THRU 36)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN PROFILES**

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 CENTRE PARK DRIVE, SUITE 200
COLUMBIA, MARYLAND 21043 TEL. (301) 997-8900

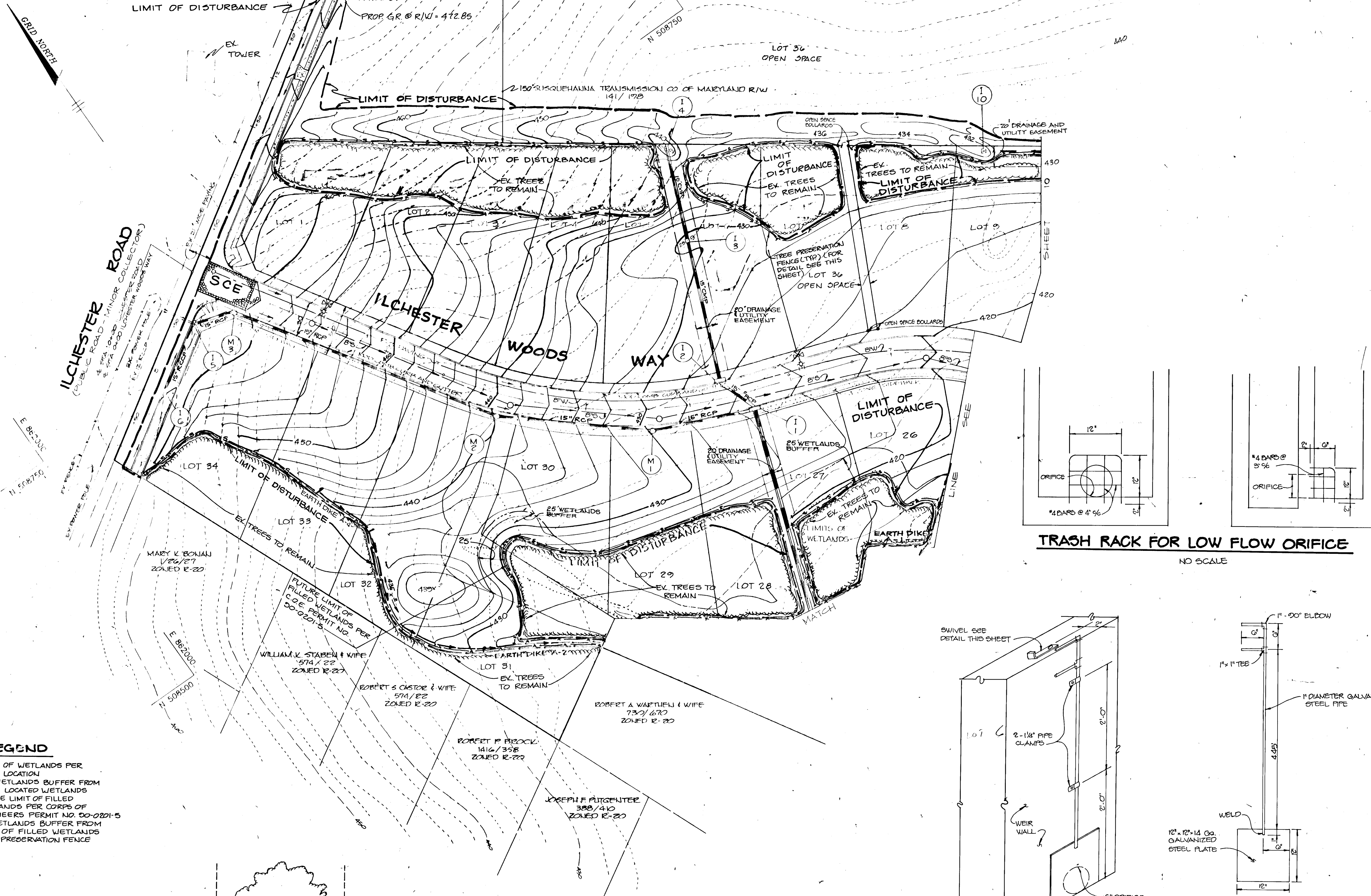
DATE: 4-26-90
DESIGNED BY: J.B.
DRAWN BY: G.D.H.
PROJECT NO: 43307
DATE: 4/26/90
SCALE: AS SHOWN
DRAWING NO. 8 OF 12

ARTHUR E. MUEGGE #8707
AS-BUILT - 9-21-94 F-20-83

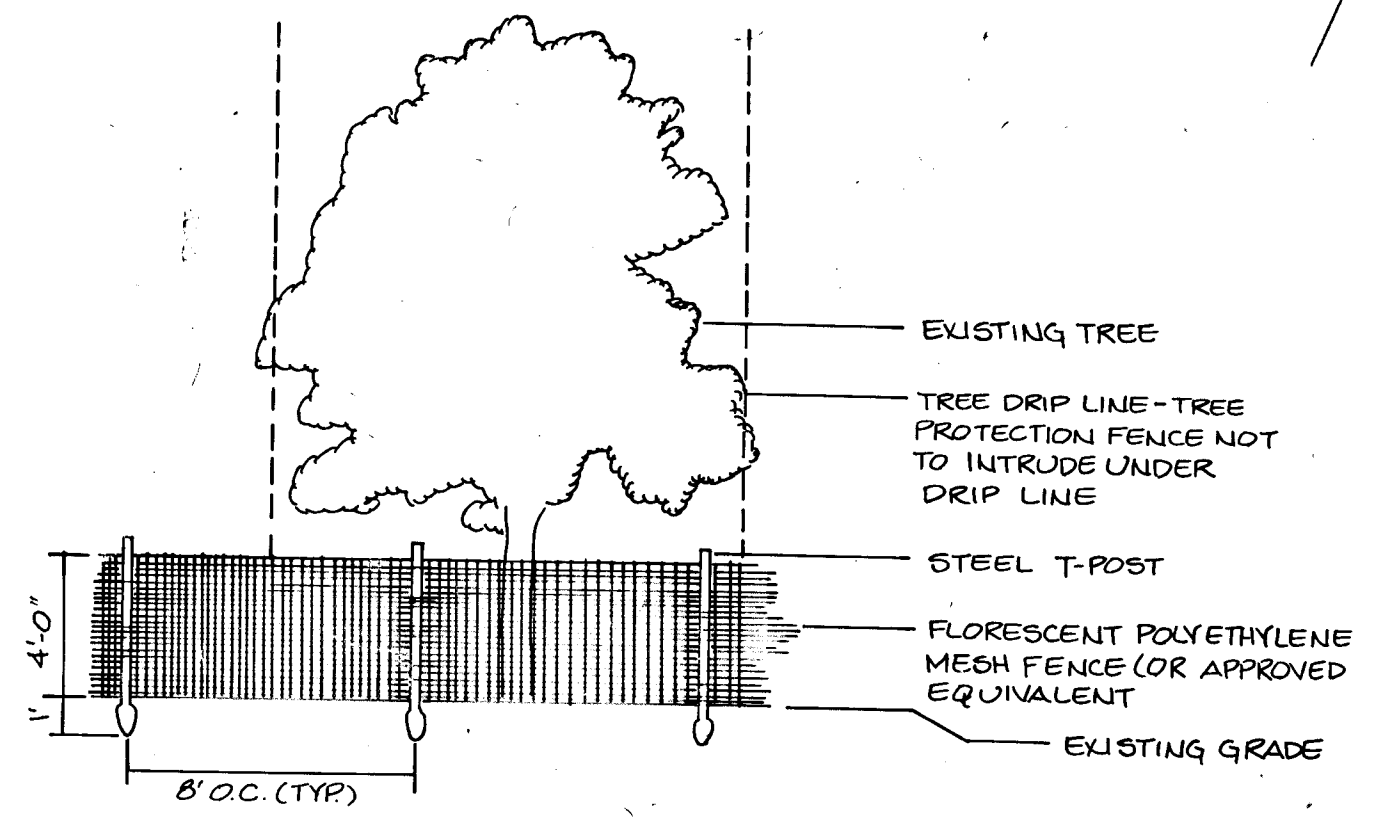
1605

STA. 13+34
LIMIT OF SUBMISSION
STA. 13+09 LIMIT OF CURB & GUTTER & SIDEWALK
T.C. EL. 472.49
LIMIT OF DISTURBANCE

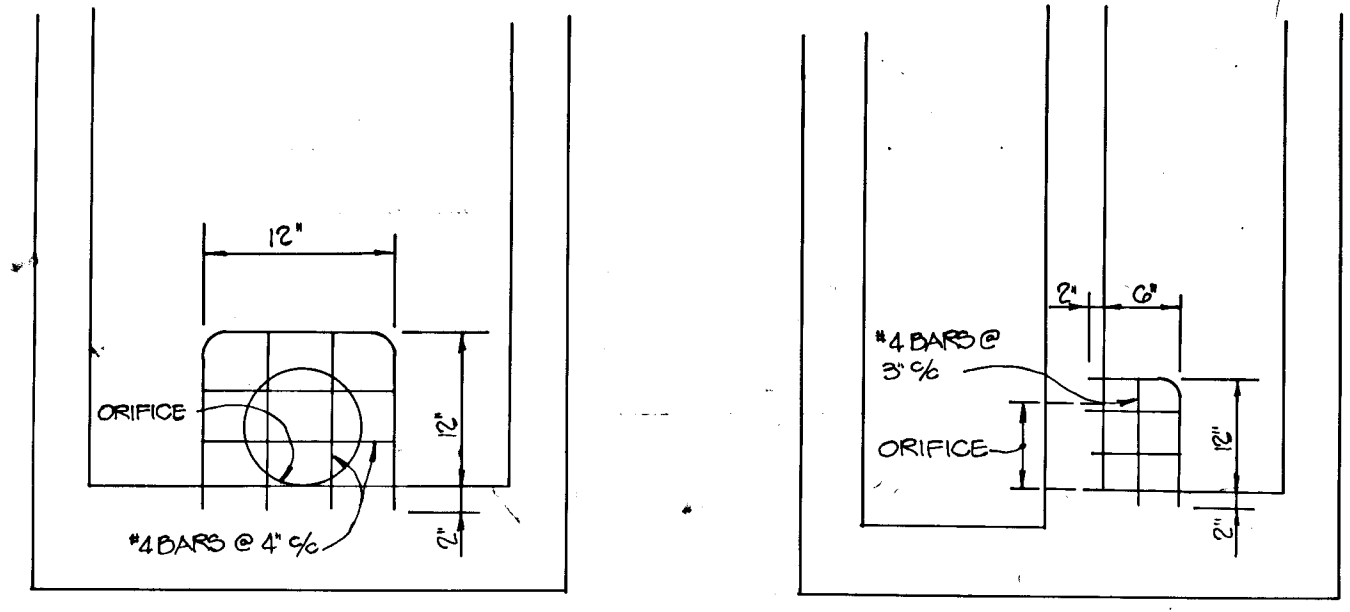
PLAT 5410
CHARLES L. & MARLENE A. WRIGHT PROPERTY
ZONED: R-20



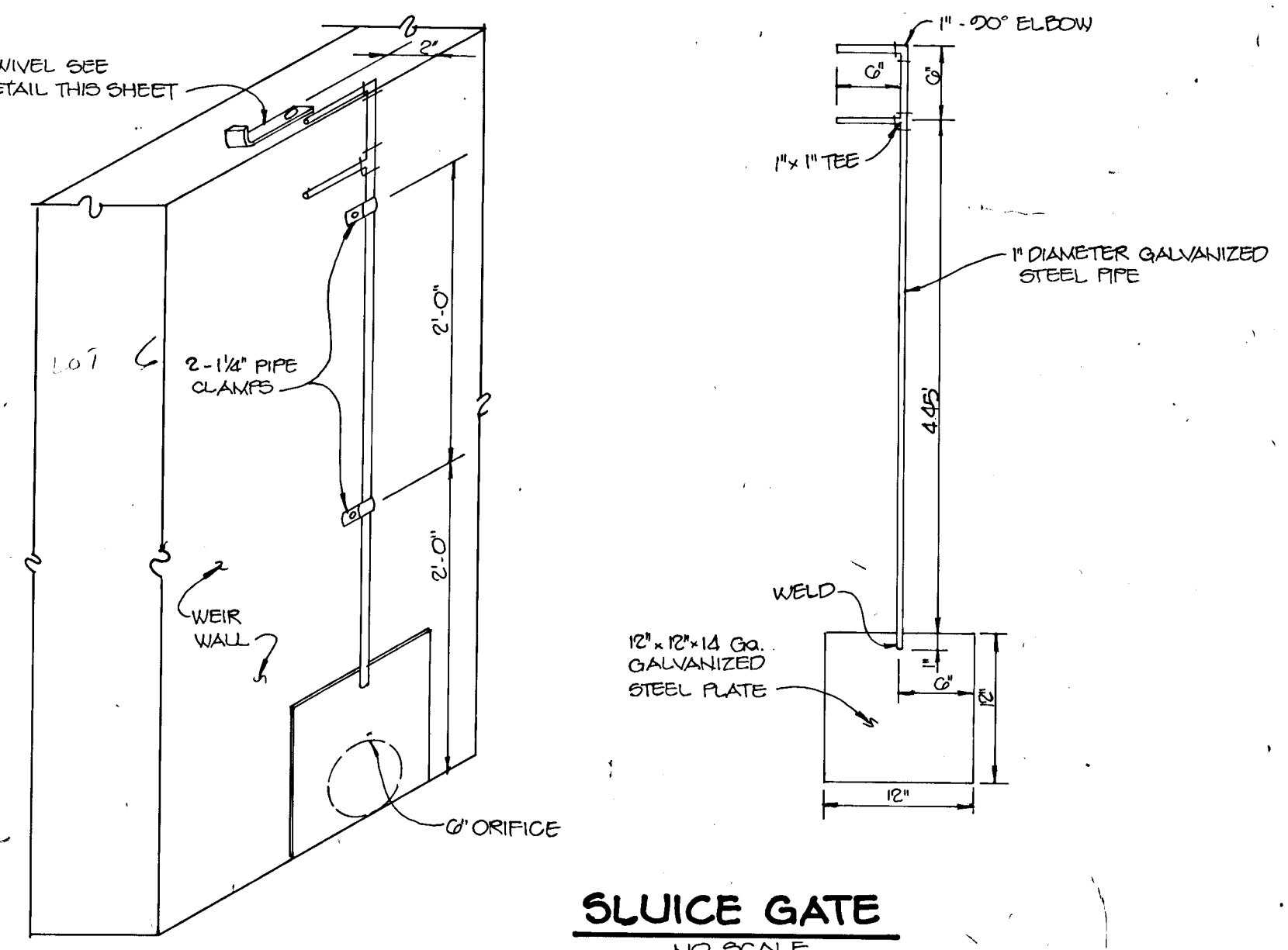
- LEGEND**
- LIMIT OF WETLANDS PER FIELD LOCATION
 - 25' WETLANDS BUFFER FROM FIELD LOCATED WETLANDS
 - FUTURE LIMIT OF FILLED WETLANDS PER CORPS OF ENGINEERS PERMIT NO. 00-0201-5
 - 25' WETLANDS BUFFER FROM LIMIT OF FILLED WETLANDS
 - x-x- TREE PRESERVATION FENCE



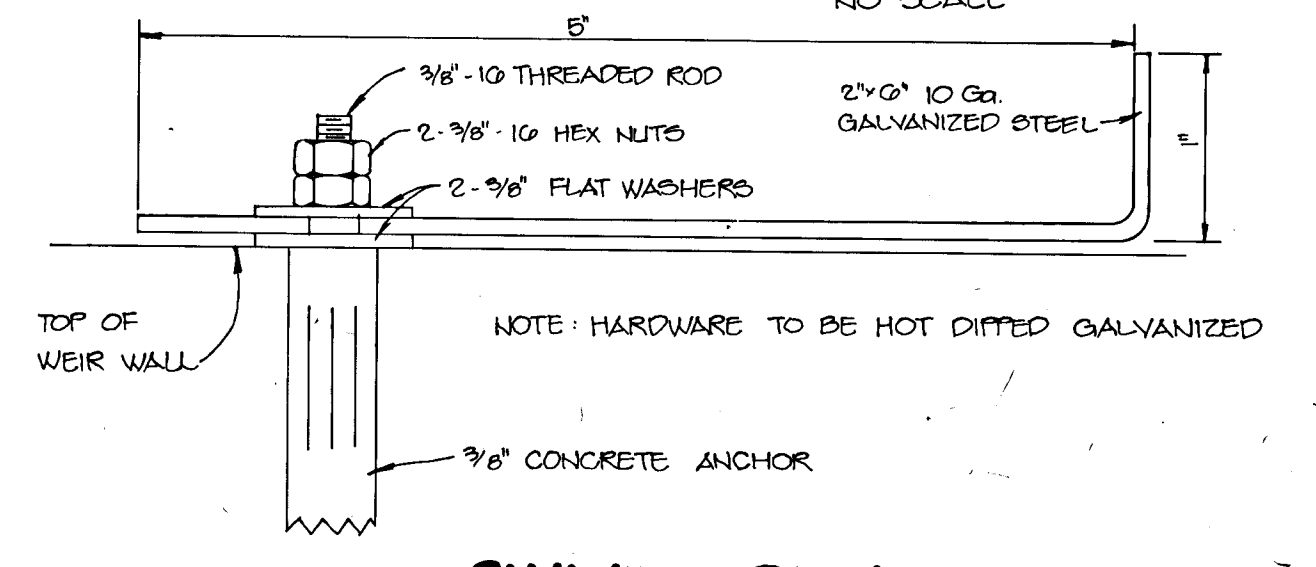
PROTECTIVE TREE FENCING ELEVATION



TRASH RACK FOR LOW FLOW ORIFICE
NO SCALE



SLUICE GATE
NO SCALE



SWIVEL DETAIL
NO SCALE

AS BUILT CERTIFICATE
ARTHUR E. MUEGGE #8707 DATE

BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."
Bradley T. Tavel DEVELOPER 4-26-90 DATE

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."
Arthur E. Muegge ENGINEER 4-26-90 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
John J. Ziehm SOIL CONSERVATION SERVICE 5/17/90 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Robert W. Ziehm HOWARD S.D. 5/17/90 DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Mark S. D'Amico CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT 11/4/90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Alan M. Thompson CHIEF, Land Development Division 10/27/90 DATE
Dorville W. Massaud CHIEF, Bureau of Highways 7/10/90 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William S. Ray CHIEF, Bureau of Engineering 10-29-90 DATE

11/6/92 2 REVISED LIMIT OF DIST. (SEVERAL ADDED LEGEND AND EX. TREES, REVISED GENERAL PROP. CONTOURS, ADD. FILLED WETLANDS)
9/27/91 1 ADDED ROAD WIDENING, OPEN SPACE LOT 36, OPEN SPACE ACCESS BETWEEN LOTS 717, REVISED LOT NUMBERS

OWNER: RYAN OPERATIONS, G/P % RYAN HOMES, INC.
20251 CENTURY BOULEVARD
GERMANTOWN, MARYLAND 20874

DEVELOPER: BRANTLY DEVELOPMENT GROUP, INC.
SUITE 200
10620 GUILFORD ROAD
JESSUP, MARYLAND 20704

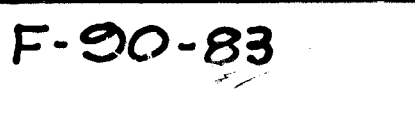
PROJECT: **ILCHESTER WOODS**
(LOTS 1 THRU 36)

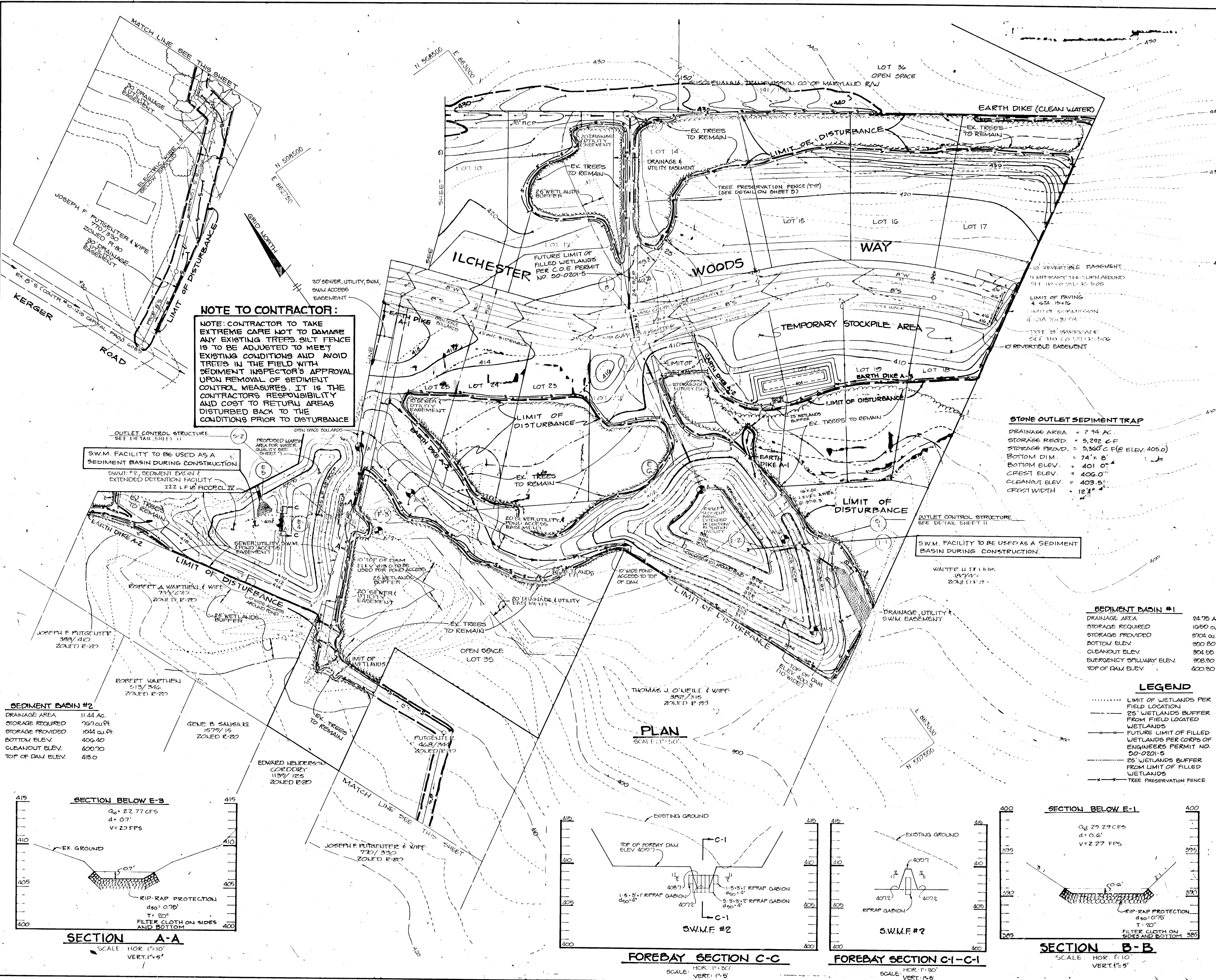
AREA TAX MAP 31 ZONED R-20 PARCEL 521
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **GRADING AND SEDIMENT CONTROL PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 CENTRE PARK DRIVE, SUITE 200
COLUMBIA, MARYLAND 21045 TEL. (301) 997-8900

DATE: 4-26-90
S-88-25, P-80-11
DESIGNED BY: J.B.
DRAWN BY: G.D.H.
PROJECT NO: 43305
DATE: 4/26/90
SCALE: AS SHOWN
DRAWING NO: 9 OF 12





1-11-2014 4 REV. POND GRADING
 3-30-2015 5 ADDED OPEN SPACE DOLLARDS

AS BUILT CERTIFICATE

J. Fawcett 9.21.94
 JAYKANT D. FAREKH #10148 DATE

BY THE DEVELOPER:

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Bradley T. Tavel 4-26-90
 DEVELOPER DATE

BY THE ENGINEER:

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Arthur E. Muegge 4-26-90
 ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Robert W. Ziehm 5/17/90
 U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED: *Robert W. Ziehm* 5/17/90
 HOWARD S.C. DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING
Mark A. Taylor 11/2/90
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Alan M. Tanager 10/17/90
 Chief, Land Development Division DATE

Francis W. Wetland 7/18/90
 Chief, Bureau of Highways DATE

William E. Riley 10-29-90
 Chief, Bureau of Engineering DATE

11/16/92 2 REVISED PER LIMIT OF DIST., REVISED SEVERAL PROP. CONTROLS, ADDED EX-TREES AND LEGEND & LIMIT FIELD WIDEN ACCESS BETWEEN LOTS 12 & 13, REVISED LOT NUMBERS

9/27/91 1 ADDED ROAD WIDENING, OPEN SPACE LOT 36, OPEN SPACE ACCESS BETWEEN LOTS 12 & 13, REVISED LOT NUMBERS

DATE NO. REVISION

OWNER: RYAN OPERATIONS, G.P. & RYAN HOMES, INC.
 20251 CENTURY BOULEVARD
 GERMANTOWN, MARYLAND 20874

DEVELOPER: PRANITY DEVELOPMENT GROUP, INC.
 SUITE 200
 10620 GUILFORD ROAD
 JESSUP, MARYLAND 20794

PROJECT: **ILCHESTER WOODS**
 (LOTS 1 THRU 36)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
 127 ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

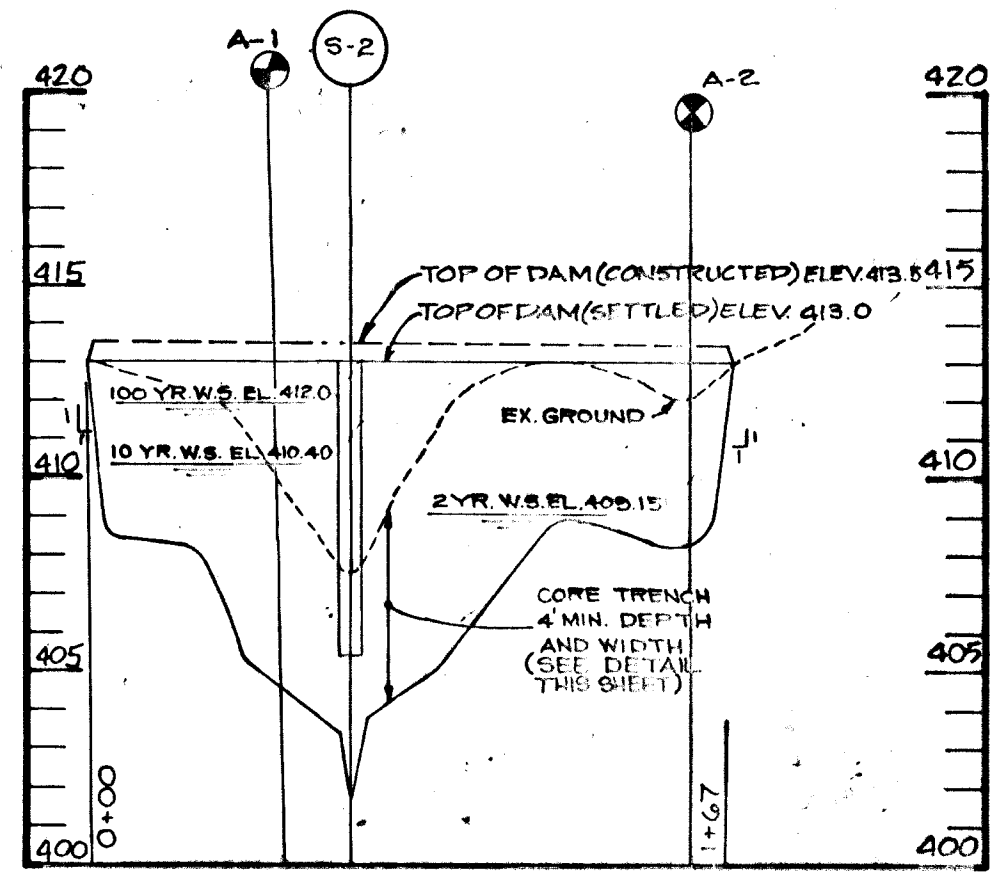
TITLE: **GRADING AND SEDIMENT CONTROL PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
 A Land Planning, Engineering and Consulting Firm
 8818 CENTRE PARK DRIVE, SUITE 200
 COLUMBIA, MARYLAND 21045 TEL. (301) 997-8900

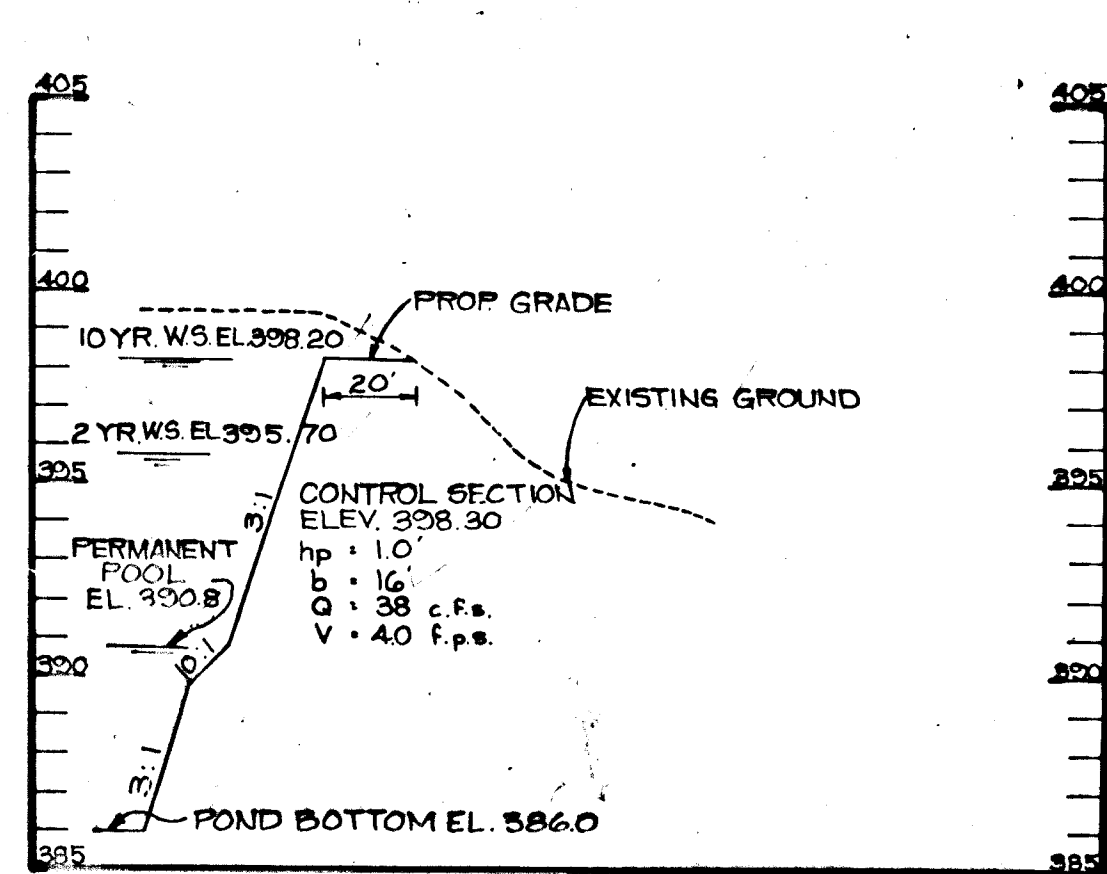
4-26-90 DATE
 S-88-25, P-89-11
 DESIGNED BY: J.B.
 DRAWN BY: G.D.H.
 PROJECT NO: 43305
 DATE: 4/26/90
 SCALE: AS SHOWN
 DRAWING NO. 10 OF 12

Arthur E. Muegge
 ARTHUR E. MUEGGE #8707

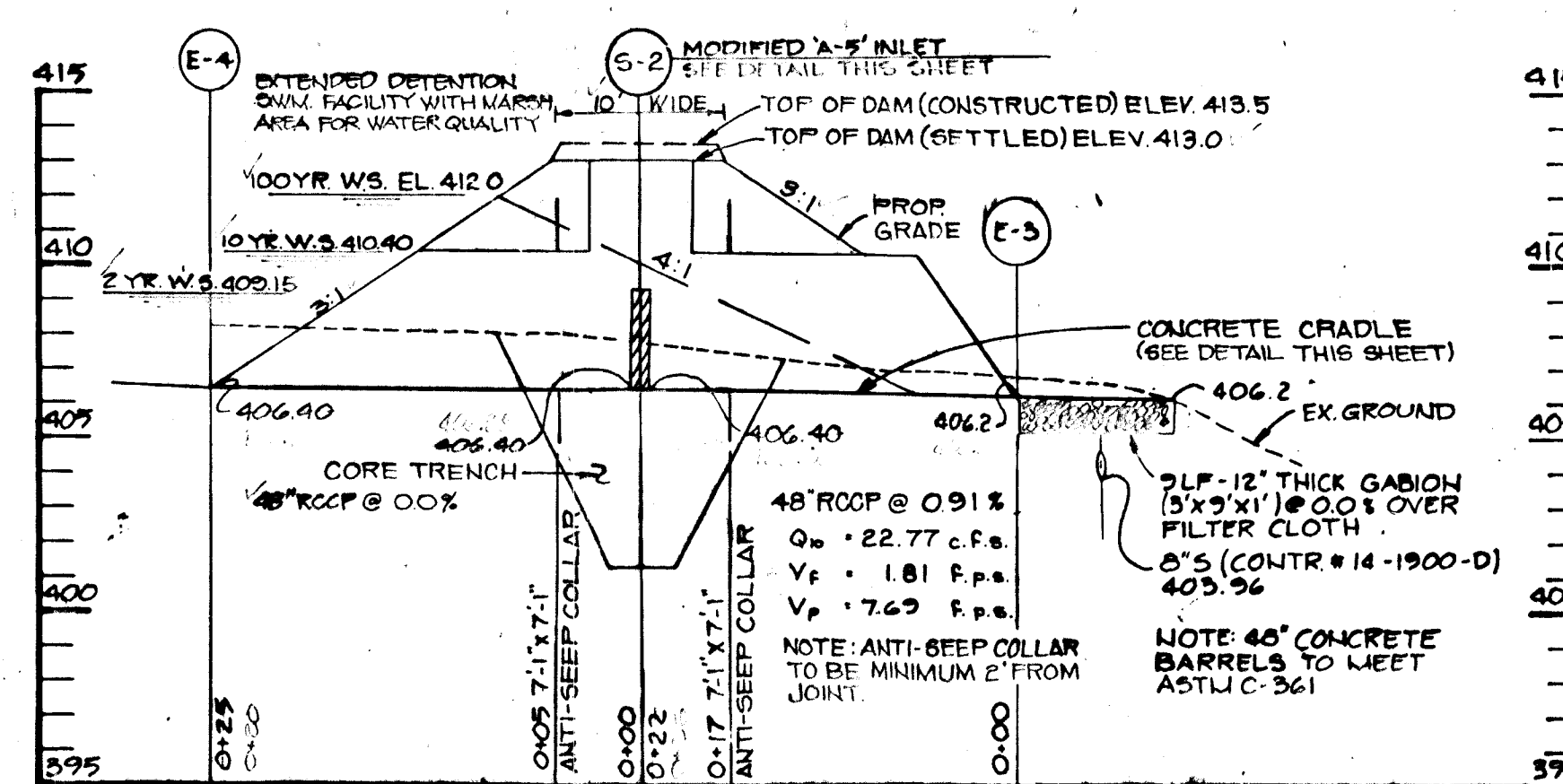
1605



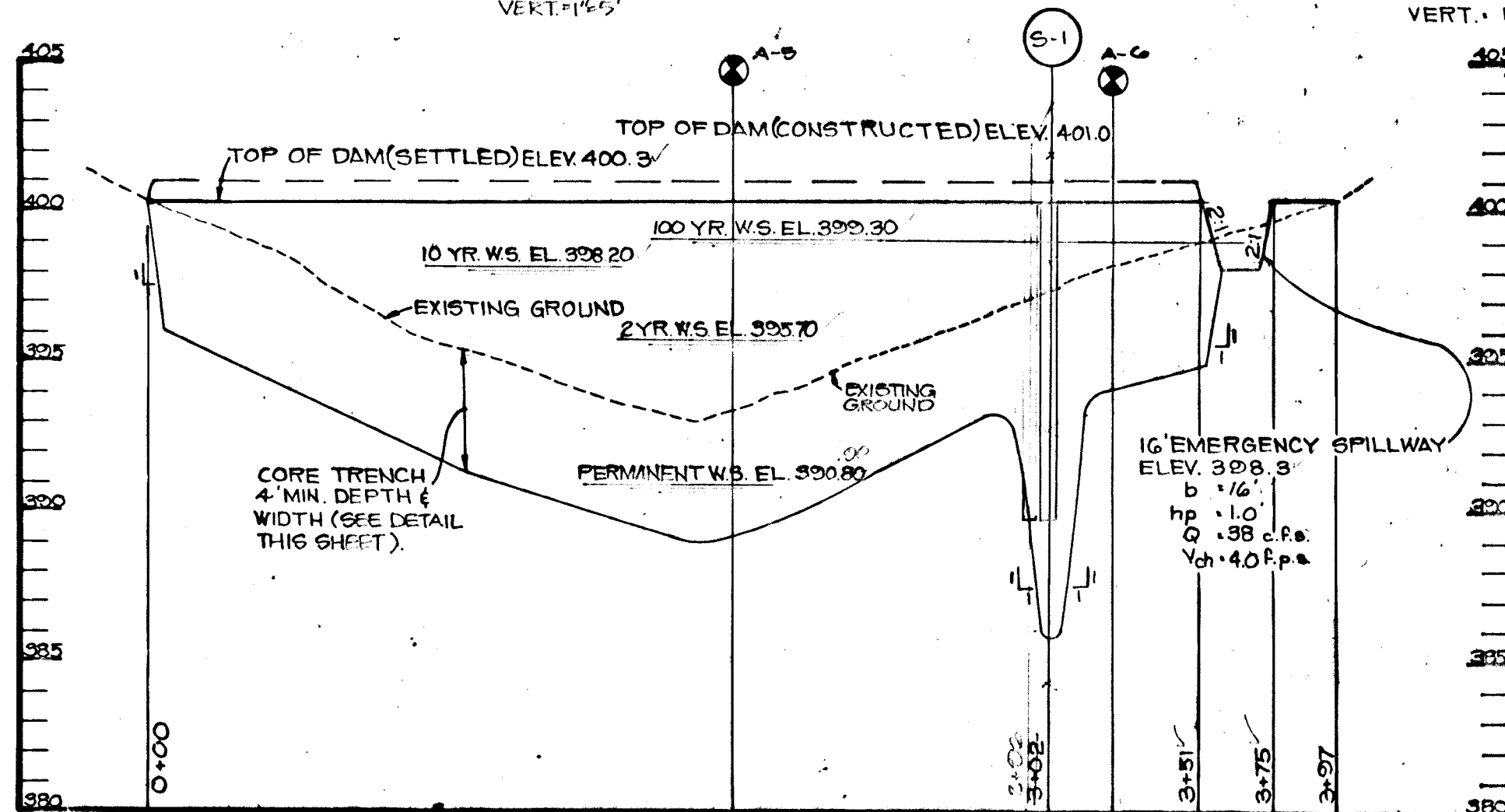
PROFILE ALONG EMBANKMENT



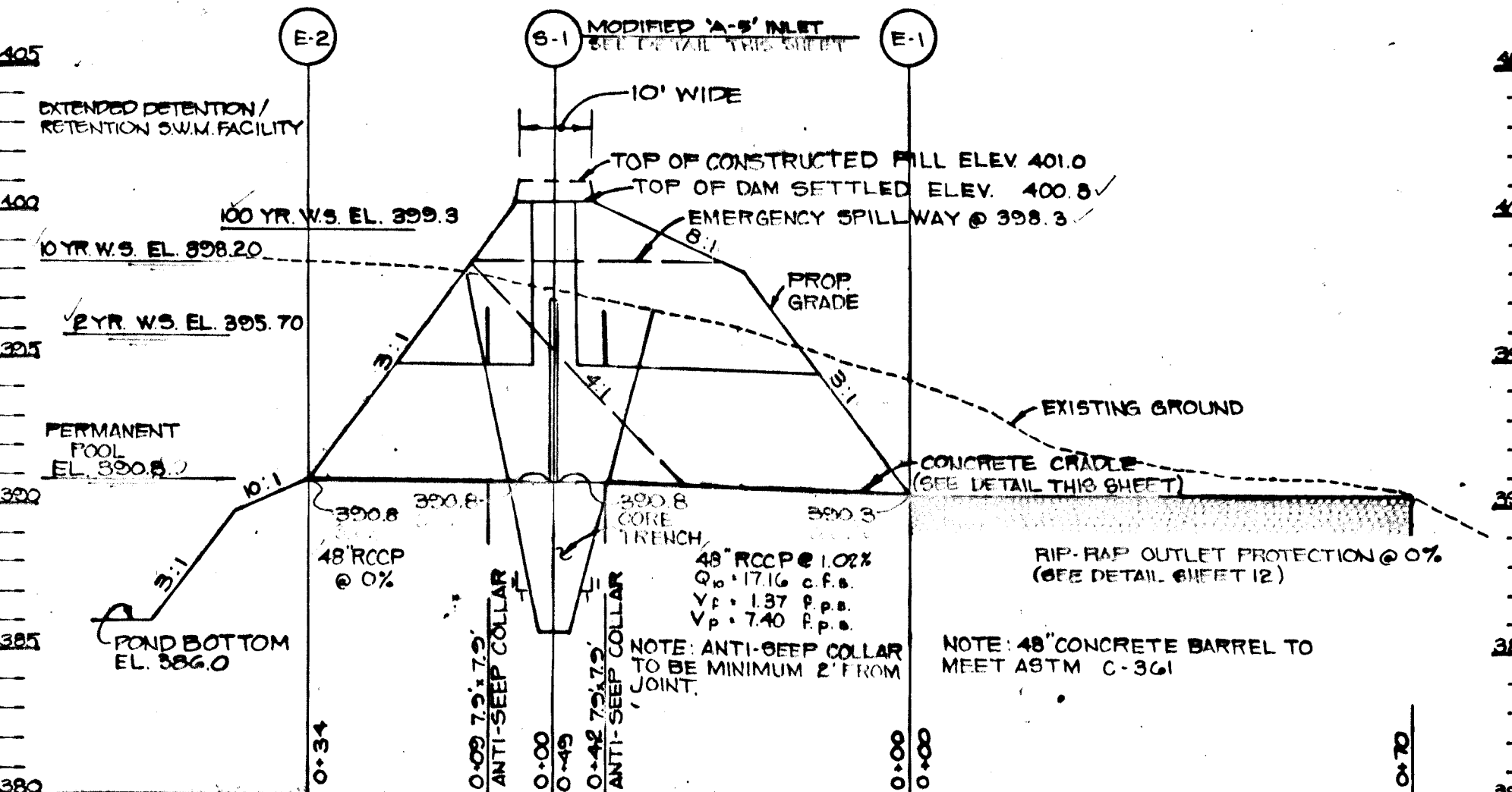
PROFILE THROUGH EMERGENCY SPILLWAY SWMF #1



PROFILE THRU PRINCIPAL SPILLWAY SWMF #2



PROFILE ALONG CENTERLINE OF EMBANKMENT SWMF #1



PROFILE THROUGH PRINCIPAL SPILLWAY SWMF #1

SOIL BORING A-1

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
4.0	Brown micaceous silt with rock fragments	1-1-2-4	1	OS	0.6		2" Topsoil
5.0	Brown gray clayey silt	6-8-7-2	2	OS	1.3		Water encountered at 10 ft.
6.0		8-7-6-6	4	OS	0.7		
10.0	Green silt with rock fragments	5-5-10-11	5	OS	1.0		
12.0		6-9-11-18	6	OS	1.2		
15.0		12-14-35-41	7	OS	1.0		
15.0		35-44	8	OS	0.9		

SOIL BORING A-2

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
2.0	Brown clayey silt	1-3-3-3	1	OS	1.0		2" Topsoil
4.0	Green-white clayey silt	4-2-3-0	2	OS	1.3		Water encountered at 2.0 ft.
5.0	Brown silty sand	18-19-21-13	3	OS	1.2		
10.0	Green silt with rock fragments	6-8-14-21	4	OS	0.9		
10.0		18-24-36-64	5	OS	1.1		
10.0		29-37-67-67	6	OS	1.2		
13.5		60-75-100/5	7	OS	0.6		

SOIL BORING A-3

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
2.0	Brown silty sandy silt	1-4-5-13	1	OS	0.6		2" Topsoil
5.0	Green silt with rock fragments	3-6-9-12	2	OS	1.6		Water encountered at 2.0 ft.
10.0		10-10-12-17	3	OS	1.1		
10.0		32-31-45-47	4	OS	0.7		
10.0		22-31-37-42	5	OS	1.0		
10.0		21-35-56-61	6	OS	0.8		
15.0		69-68-102/4	7	OS	0.7		

SOIL BORING A-4

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
2.0	Brown clayey silt	1-2-2-2	1	OS	0.7		2" Topsoil
5.0	Brown micaceous sandy silt	2-2-4-6	2	OS	1.2		Water encountered at 5.0 ft.
10.0	Gray micaceous sandy silt	9-10-12-17	3	OS	1.1		
10.0		11-14-18-22	4	OS	1.1		
10.0		17-19-26-41	5	OS	NR		
15.0	Brown silty sand	22-23-40-52	6	OS	-		
15.0		36-43-55-62	7	OS	0.7		

SOIL BORING A-5

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
2.0	Brown silty sand	2-3-4-5	1	OS	1.2		3" Topsoil
4.0	Gray silty clay	4-6-9-7	2	OS	1.0		Water encountered at 8.0 ft.
5.0	Brown micaceous sandy silt	5-8-11-11	3	OS	1.6		
10.0	Green sandy silt	9-9-14-21	4	OS	1.1		
10.0		9-21-22-30	5	OS	1.1		
10.0		12-17-25-29	6	OS	1.2		
15.0	Gray green silty sand	13-22-48-68	7	OS	0.9		
15.0		42-59	8	OS	0.7		

SOIL BORING A-6

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
2.0	Brown clayey silt	2-3-4-6	1	OS	0.7		No water encountered
4.0	Gray brown silty clay	4-6-10-14	2	OS	0.8		
8.0	Brown clayey sand with rock fragments	10-24-26-15	3	OS	1.3		
10.0	Brown micaceous sandy silt	15-19-13	4	OS	1.2		
10.0		11-22-24-18	5	OS	1.4		
10.0		12-19-21-20	6	OS	1.1		
15.0	Green-brown micaceous sandy silt	20-27-27-35	7	OS	1.2		
15.0		37-42	8	OS	0.6		

SOIL BORING A-7

ELEV	SOIL DESCRIPTION	DEPTH	BLOWS*	NO	TYPE	REC	REMARKS
2.0	Brown clayey silt, cr. of sand	3-5-6-8	1	OS	0.6		2" Topsoil
5.0	USDA: Silty loam	7-9-13-16	2	OS	1.0		
10.0	Brown micaceous sandy silt	12-13-17-22	3	OS	1.1		
10.0		17-22-25-21	4	OS	1.0		
10.0		13-17-22	8	OS	0.9		
10.0		18-18-19-22	6	OS	1.1		
15.0	Green brown sandy silt	19-22-22-28	7	OS	0.9		
15.0		46-47	8	OS	0.8		

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

APPROVED: *Robert Zehn* 5/17/90
HOWARD COUNTY ENGINEER DATE

BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

Bradley T. Tavel 4-26-90
DEVELOPER DATE

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Arthur E. Muegge 4-26-90
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Robert Zehn 5/17/90
HOWARD COUNTY ENGINEER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Mark S. Tauler 4/6/90
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Alan M. Torgan 10/25/90
CHIEF, LAND DEVELOPMENT DIVISION DATE

David W. Westland 7/18/90
CHIEF, BUREAU OF HIGHWAYS DATE

William R. Ray 10-22-90
CHIEF, BUREAU OF ENGINEERING DATE

9-27-91 REVISED LOT NUMBERS

DATE NO. REVISION

OWNER: RYAN OPERATIONS, G.P. & RYAN HOMES, INC.
20251 CENTURY BOULEVARD
GERMANTOWN, MARYLAND 20874

DEVELOPER: BEAUTIFUL DEVELOPMENT GROUP, INC.
SUITE 200
10620 GUILFORD ROAD
JESSUP, MARYLAND 20794

PROJECT: **ILCHESTER WOODS**
(LOTS 1 THRU 34)

AREA TAX MAP 31 ZONED R-20 PARCEL 521
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: **STORMWATER MANAGEMENT PROFILES AND DETAILS**

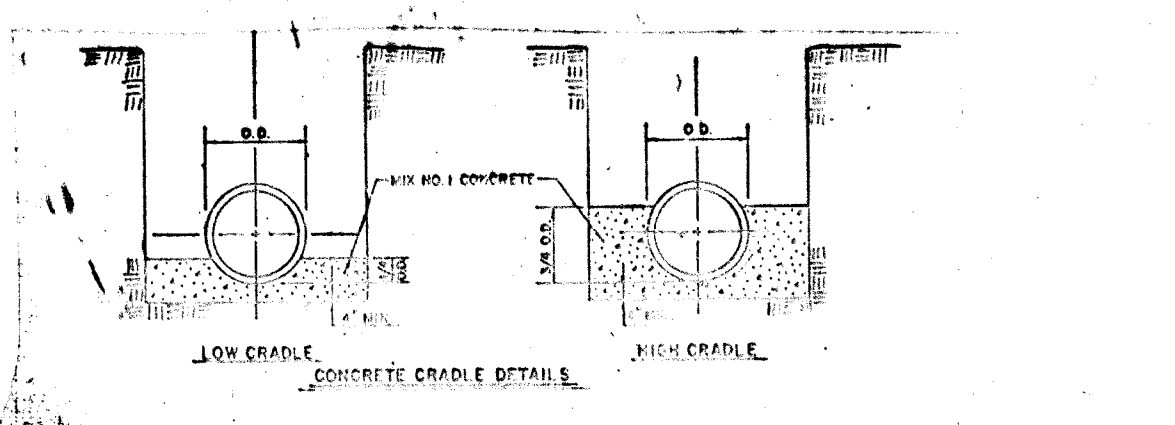
RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
488 CENTRE PARK DRIVE, SUITE 200
COLUMBIA, MARYLAND 21045 TEL. (301) 997-8000

4-26-90 DATE
S-88-25, P-89-11
DESIGNED BY: CJR
DRAWN BY: M.G.Y.
PROJECT NO: 43305
DATE:
SCALE: AS SHOWN
DRAWING NO. 11 OF 12

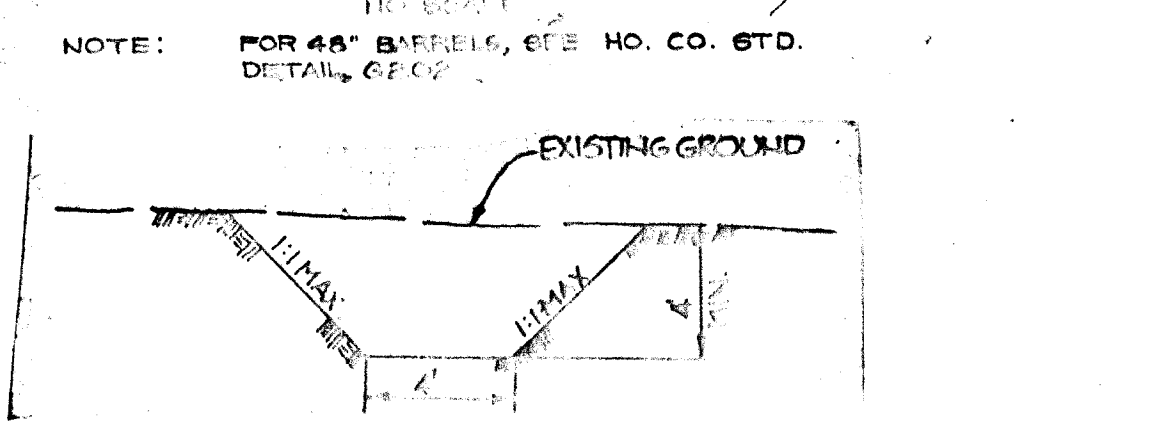
FOR POND CONSTRUCTION SPECIFICATIONS SEE SHEET 12.

Arthur E. Muegge 9-21-94
ARTHUR E. MUEGGE (REG. 107) DATE

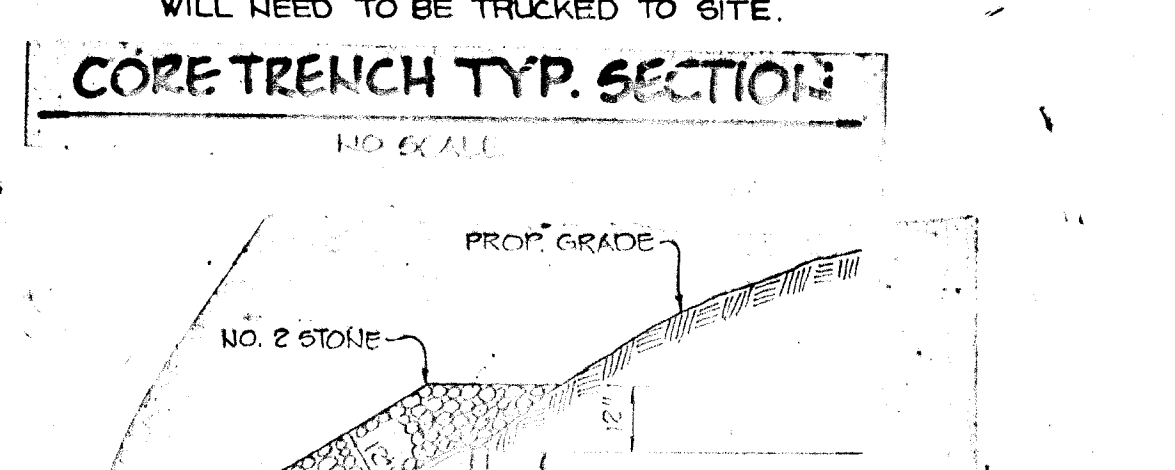
AS-BUILT - 9-21-94



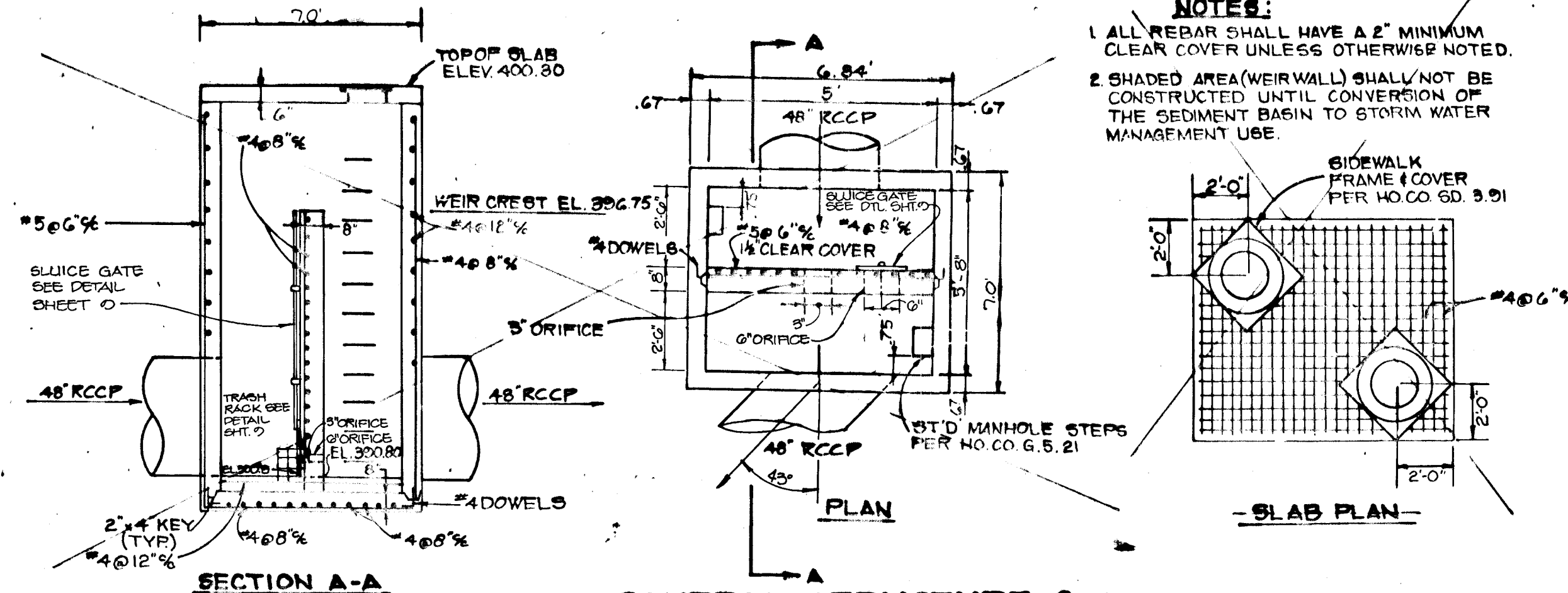
CONCRETE CRADLE DETAIL



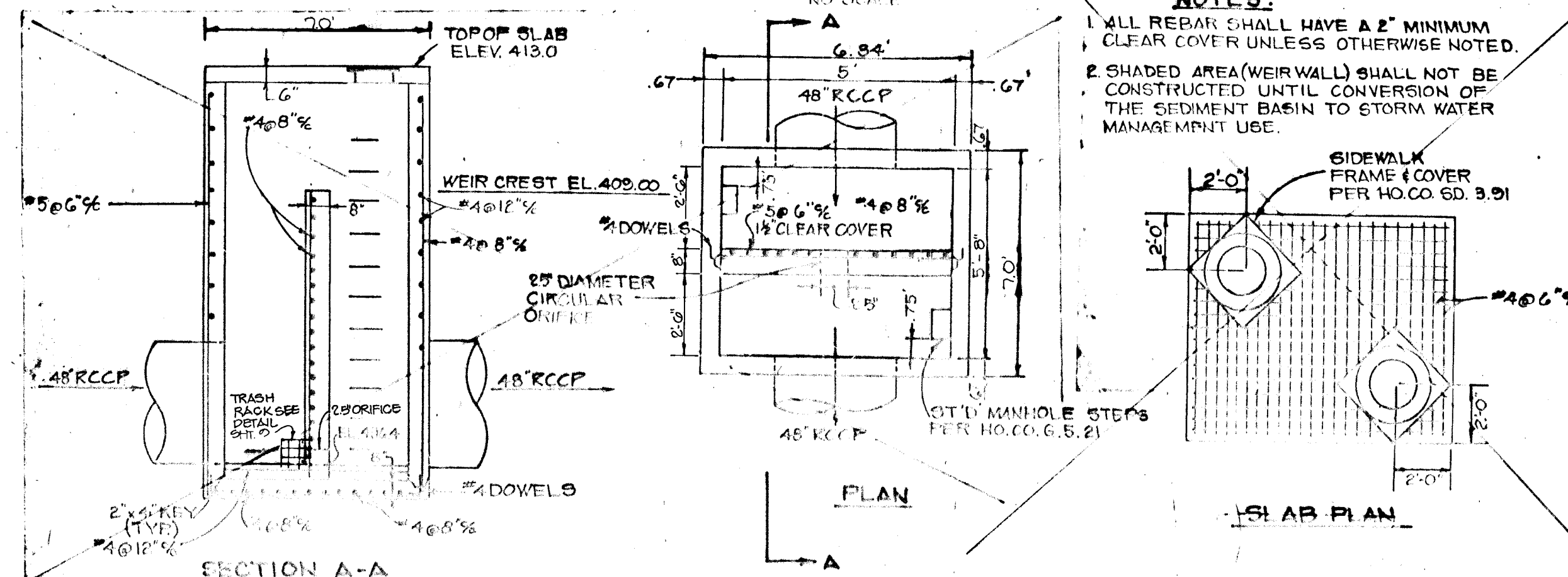
CORE TRENCH TYP. SECTION



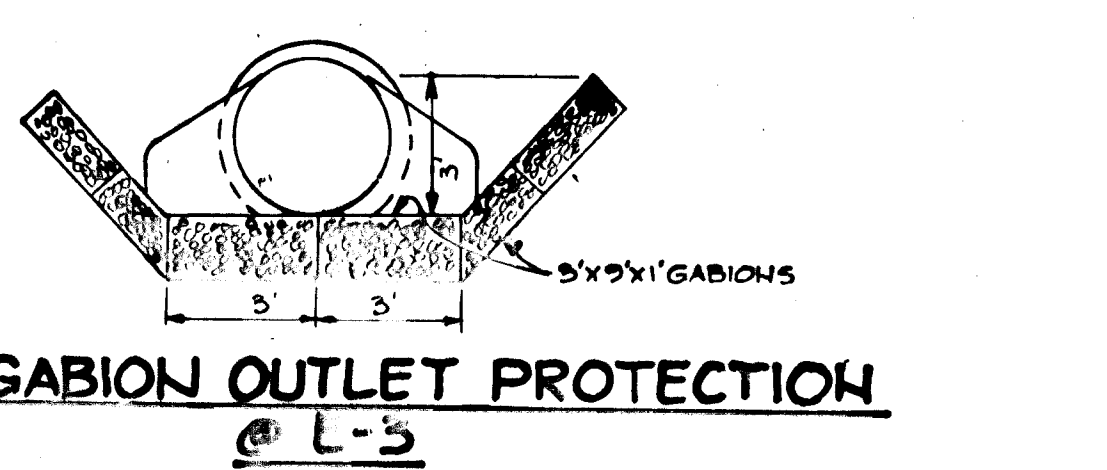
END SECTION BLOCKING DETAIL



CONTROL STRUCTURE S-1



CONTROL STRUCTURE S-2



GABION OUTLET PROTECTION

AS-BUILT CERTIFICATE

J. Sarell 9-21-94
DATE

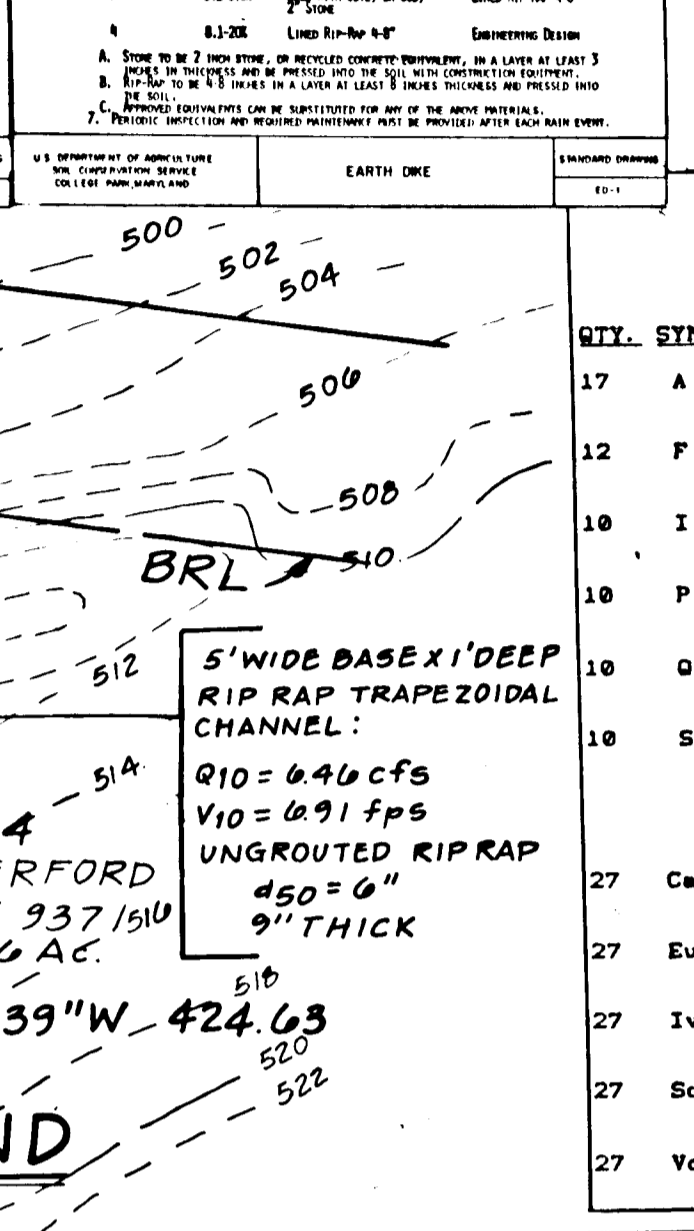
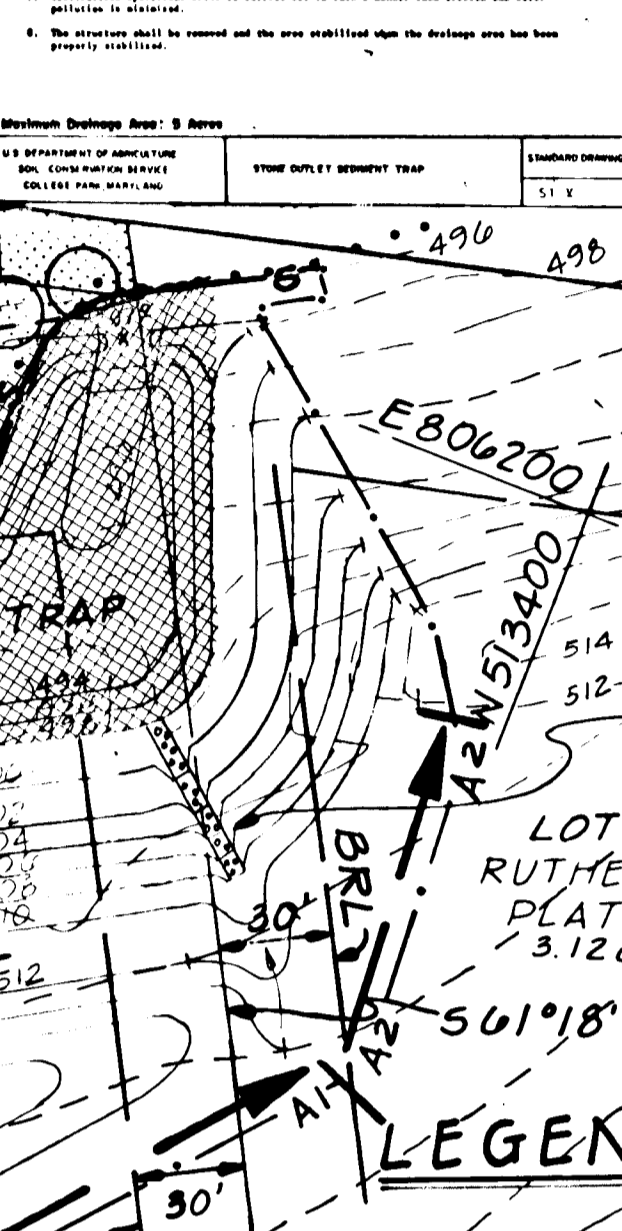
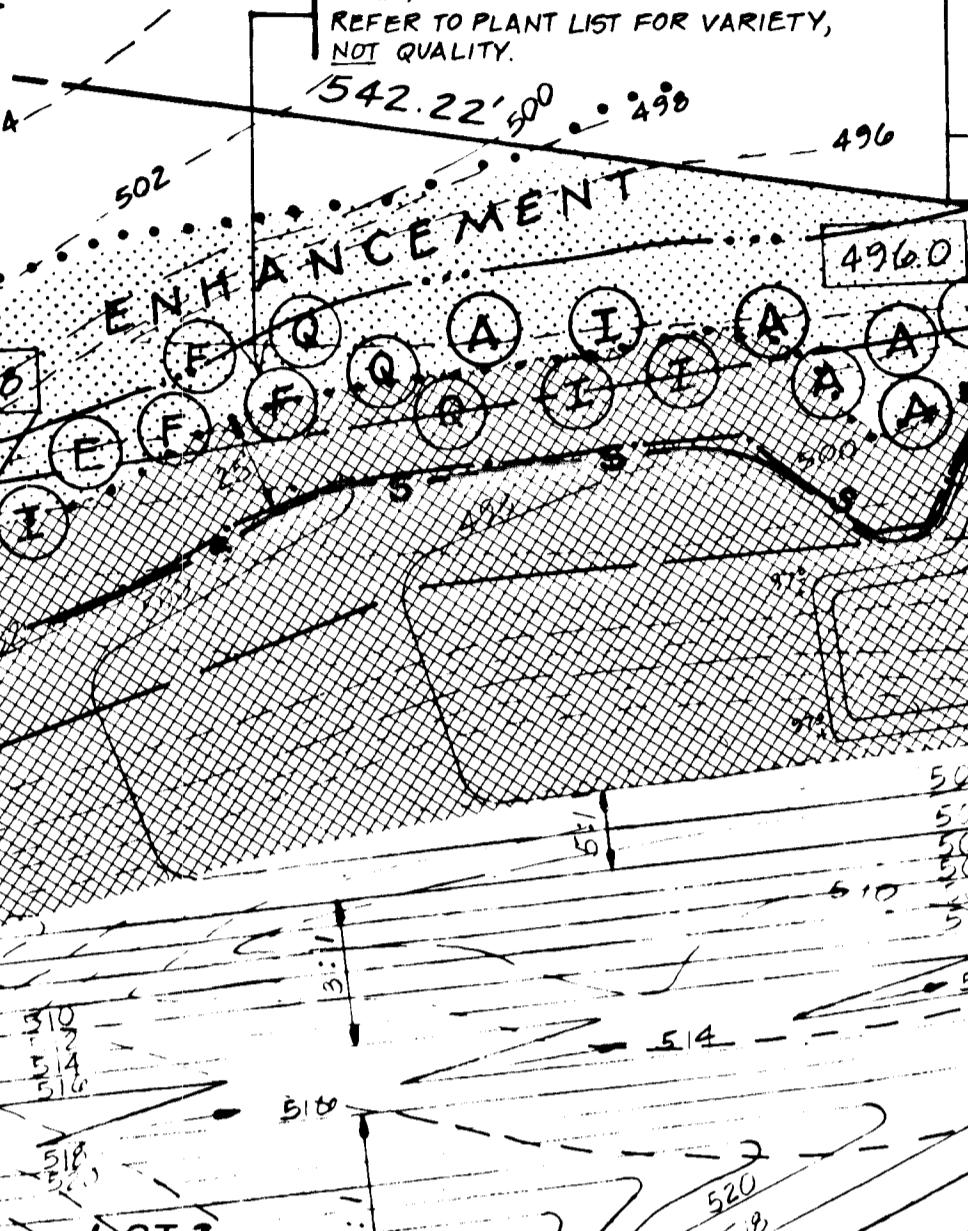
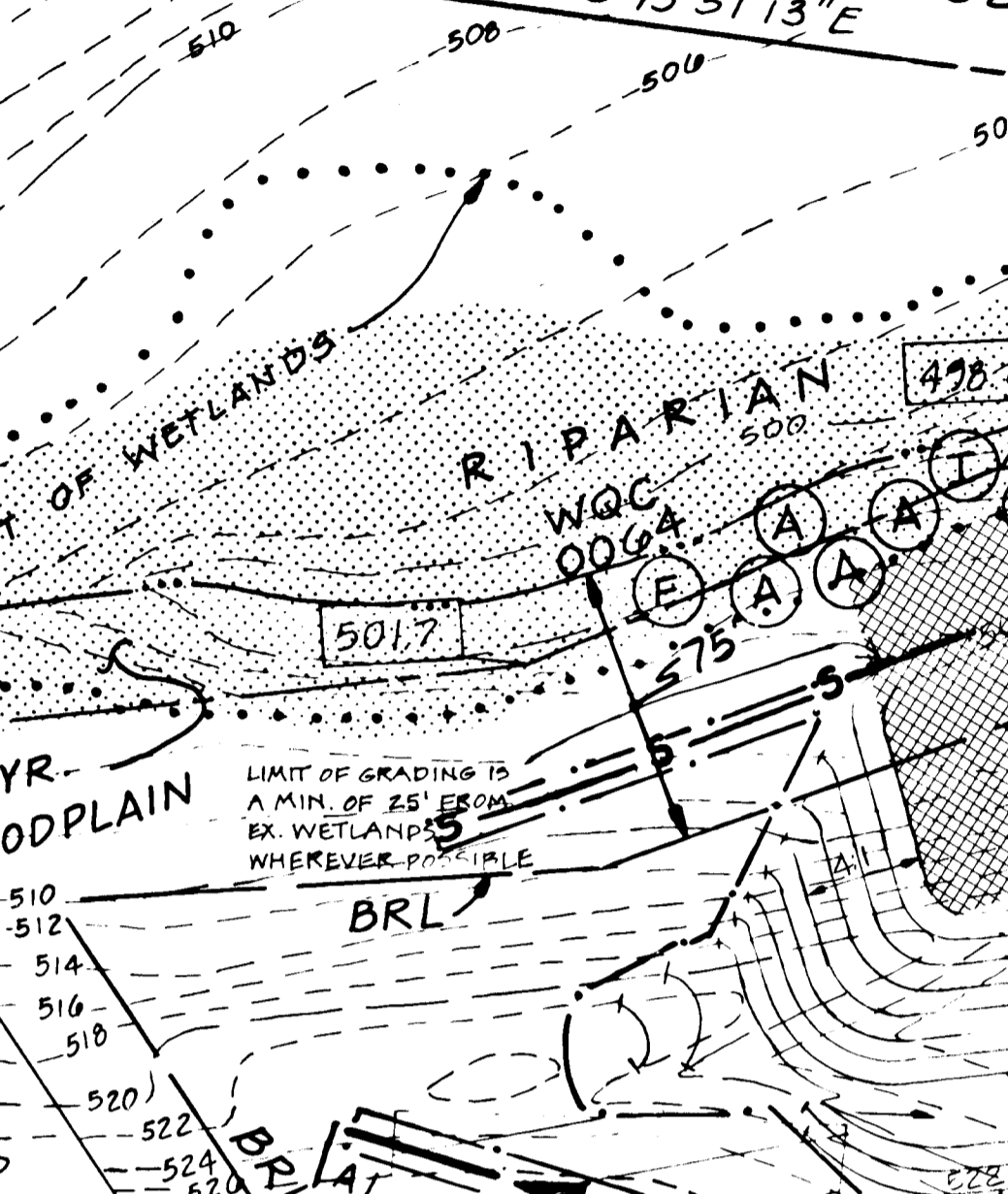
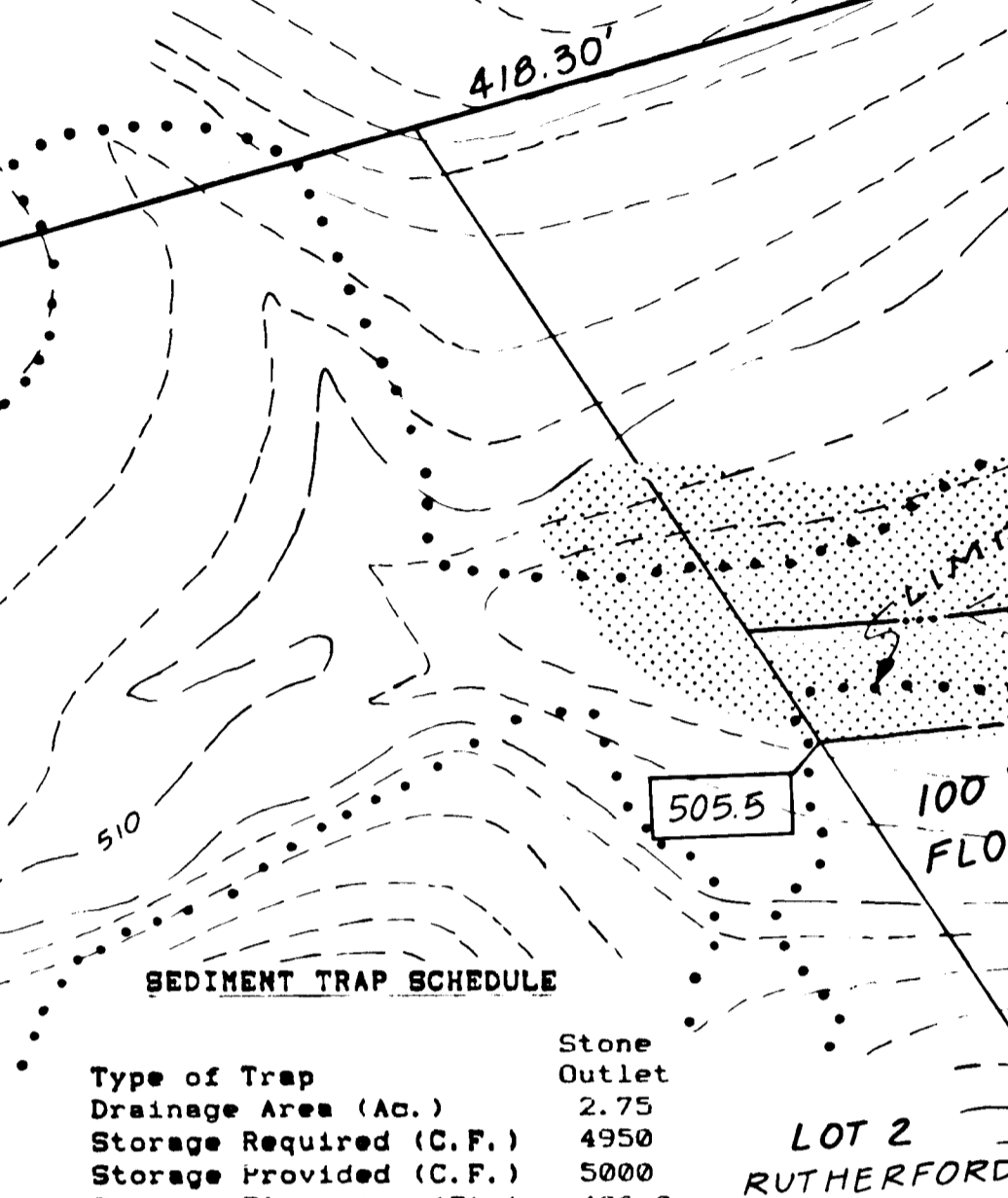
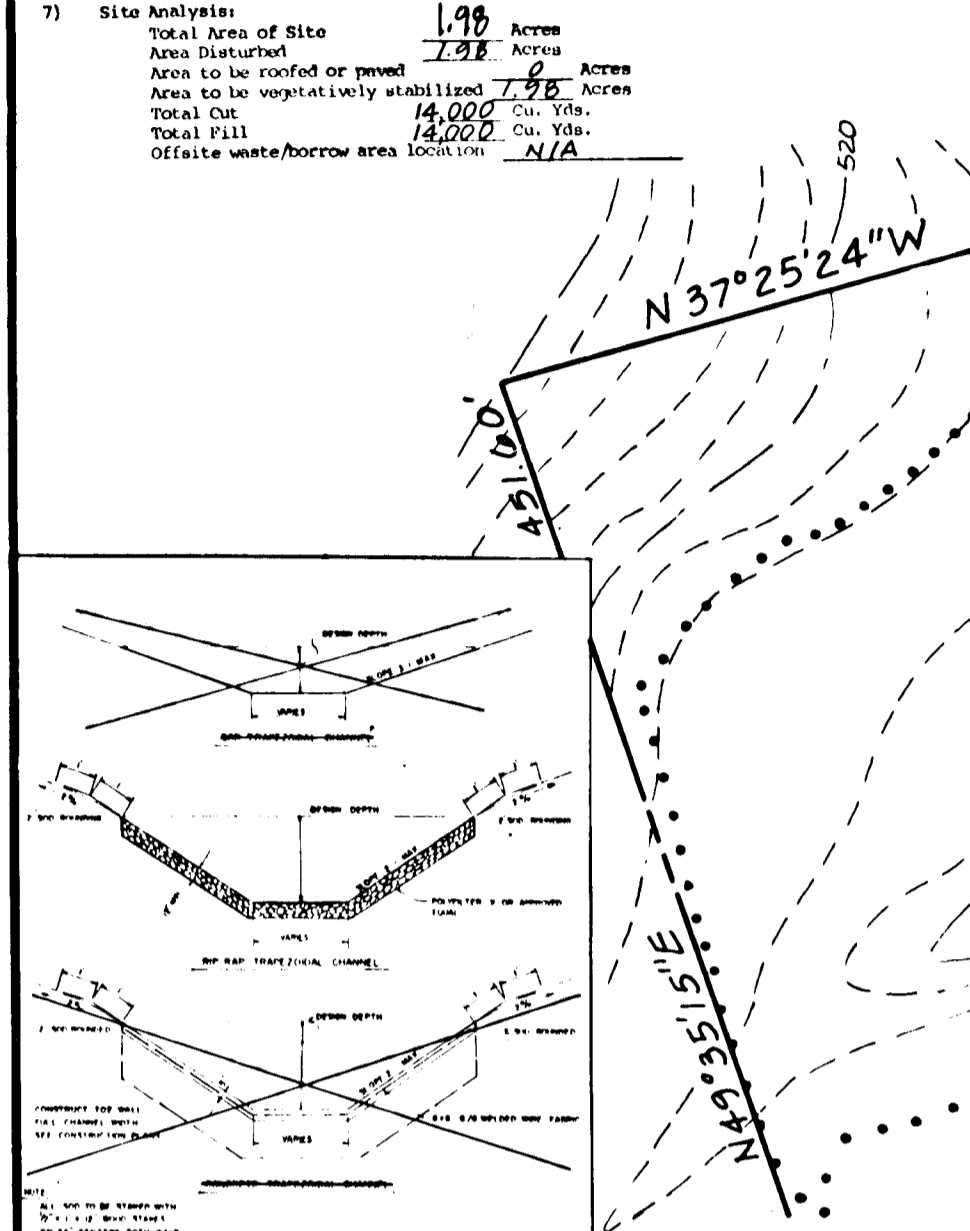
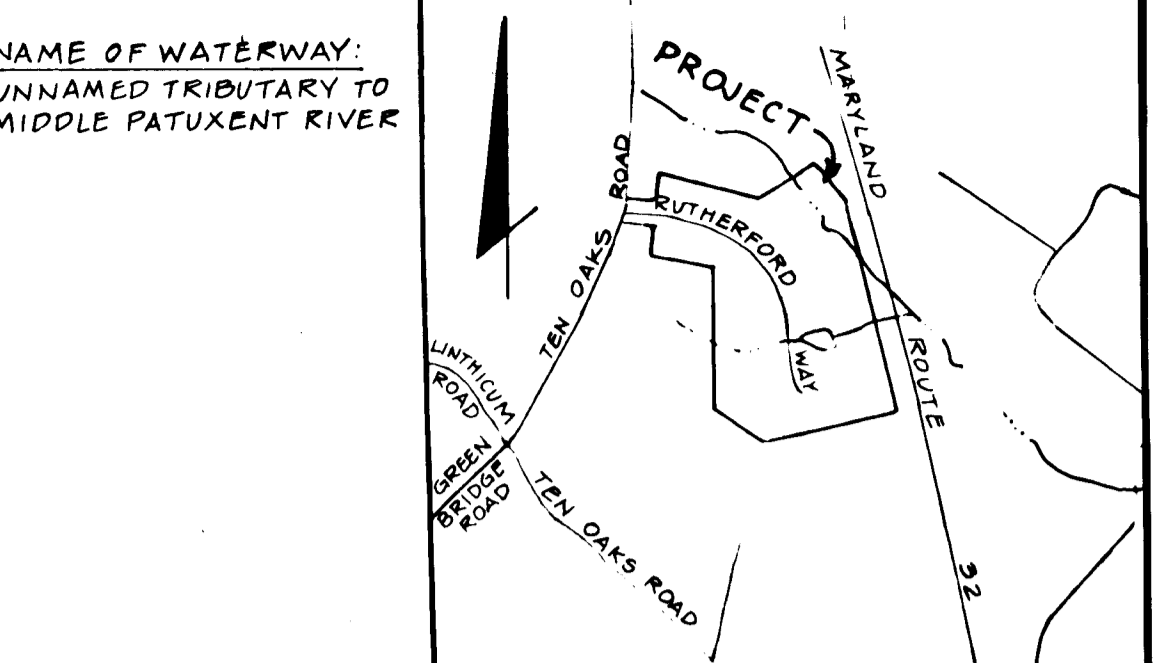
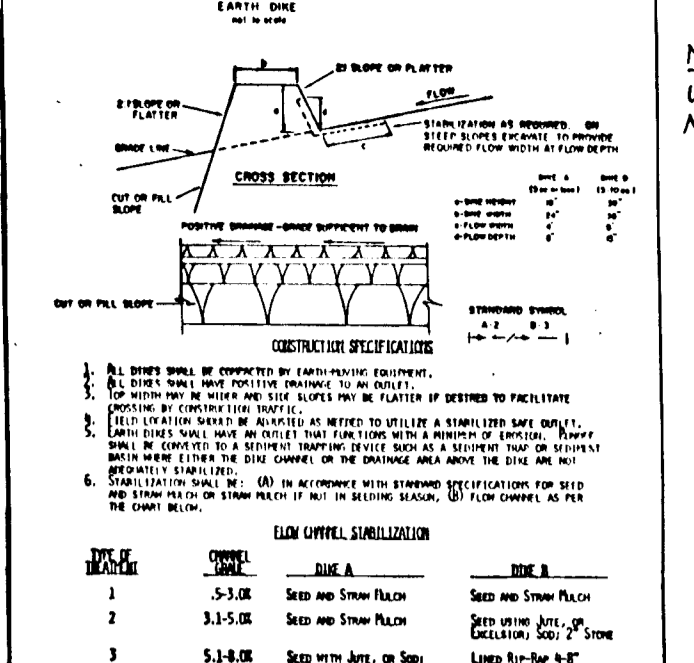
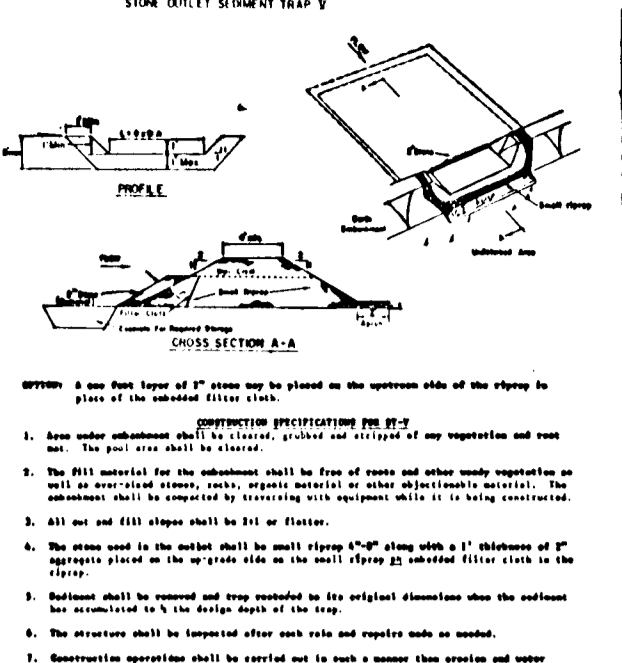
1005

- HOWARD SOIL CONSERVATION DISTRICT**
SEMINAR OPERATIVE CONTROL NOTES
- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licensing and Permits, Sediment Control Division prior to the start of any construction. (10/25/92)
 - All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current "HOWARD COUNTY REGULATIONS AND SPECIFICATIONS FOR EROSION CONTROL AND SEDIMENT CONTROL" and previous thereto.
 - Following initial soil disturbance or earthmoving, permanent or temporary stabilization shall be completed within a 7 calendar day period for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1. 14 days to all other disturbed or graded areas on the project site.
 - All sediment traps/basins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1993 HOWARD COUNTY REGULATIONS AND SPECIFICATIONS FOR EROSION CONTROL AND SEDIMENT CONTROL. For permanent seeding (Sec. 521) and temporary seeding (Sec. 522), temporary stabilization with mulch alone can only be done when recommended seeding rates 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: 1.98 Acres
 - Area Disturbed: 1.98 Acres
 - Area to be seeded or paved: 0.00 Acres
 - Area to be vegetatively stabilized: 1.98 Acres
 - Total Cnt: 4,000 Cnt. Yds.
 - Total Fill: 14,000 Cnt. Yds.
 - Off-site water/hollow area location: N/A

- SPRINKLE SOIL CONSERVATION DISTRICT**
SEMINAR OPERATIVE CONTROL NOTES
- Apply to graded or cleared areas not subject to immediate further disturbance when a permanent long-lived vegetative cover is needed.
 - Soil 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:
 - Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (15 lbs./1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs. per acre liquid urea fertilizer (9 lbs./1000 sq. ft.)
 - Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (15 lbs./1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.
 - Seeding - For the period March 1 thru April 30, and August 1 thru October 15, seed with 80 lbs. per acre (1.4 lbs./1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. per acre of Kentucky 31 Tall Fescue per acre and 1 lb. per acre (1.0 lbs./1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 29, period site by (1) - 2 tons per acre of well-rotted straw mulch and seed as soon as possible in the spring. (2) - Seed with 10 lbs. per acre of Kentucky 31 Tall Fescue and mulch with 2 tons/acre well-rotted straw.
 - Maintenance - Inspect all seeding areas and make needed repairs, replacements and reseedings.

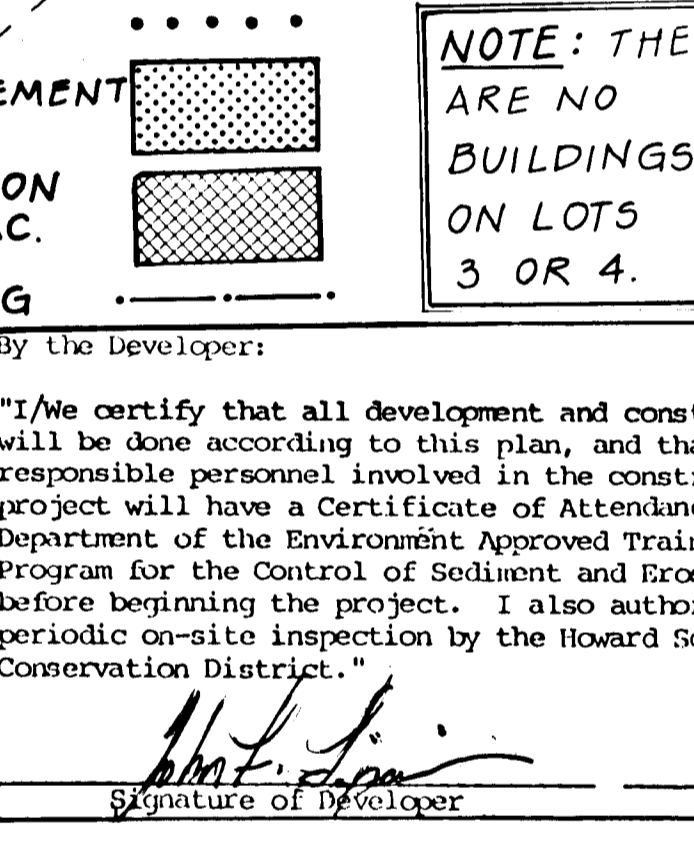
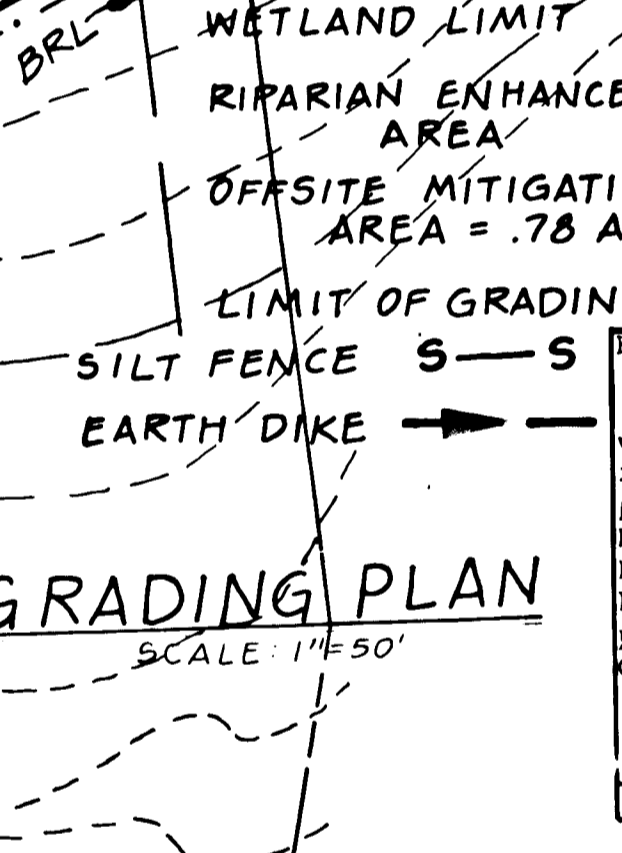
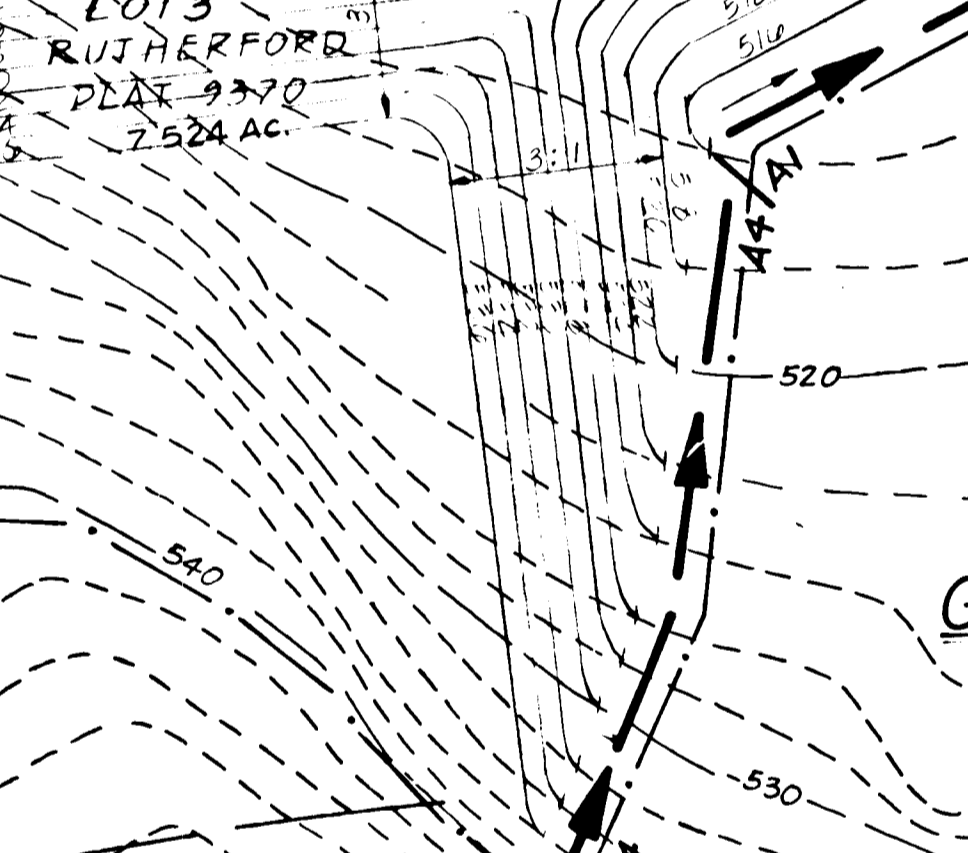
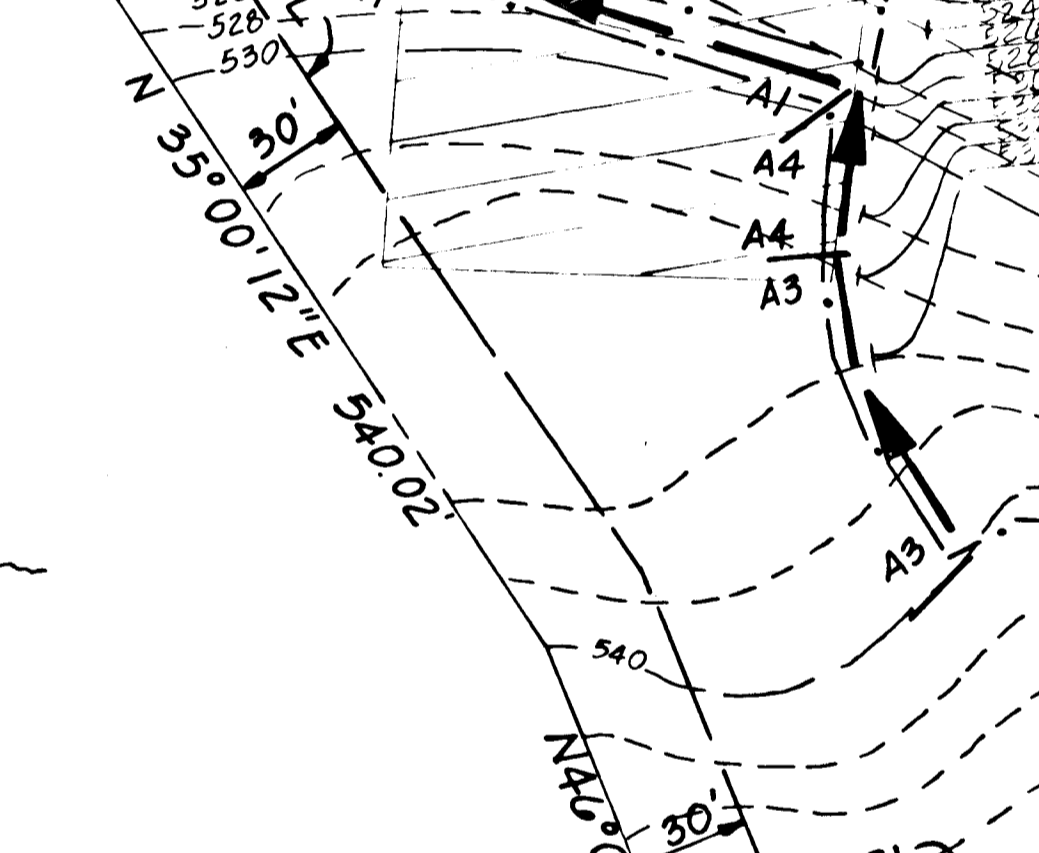
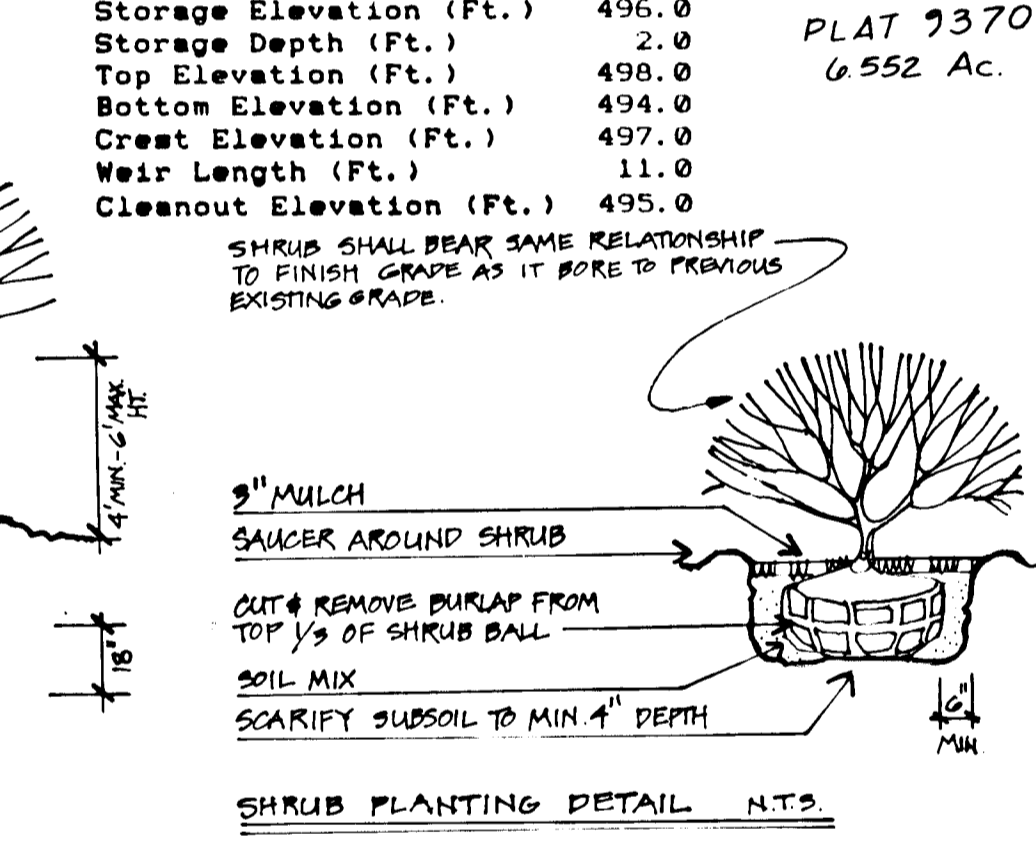
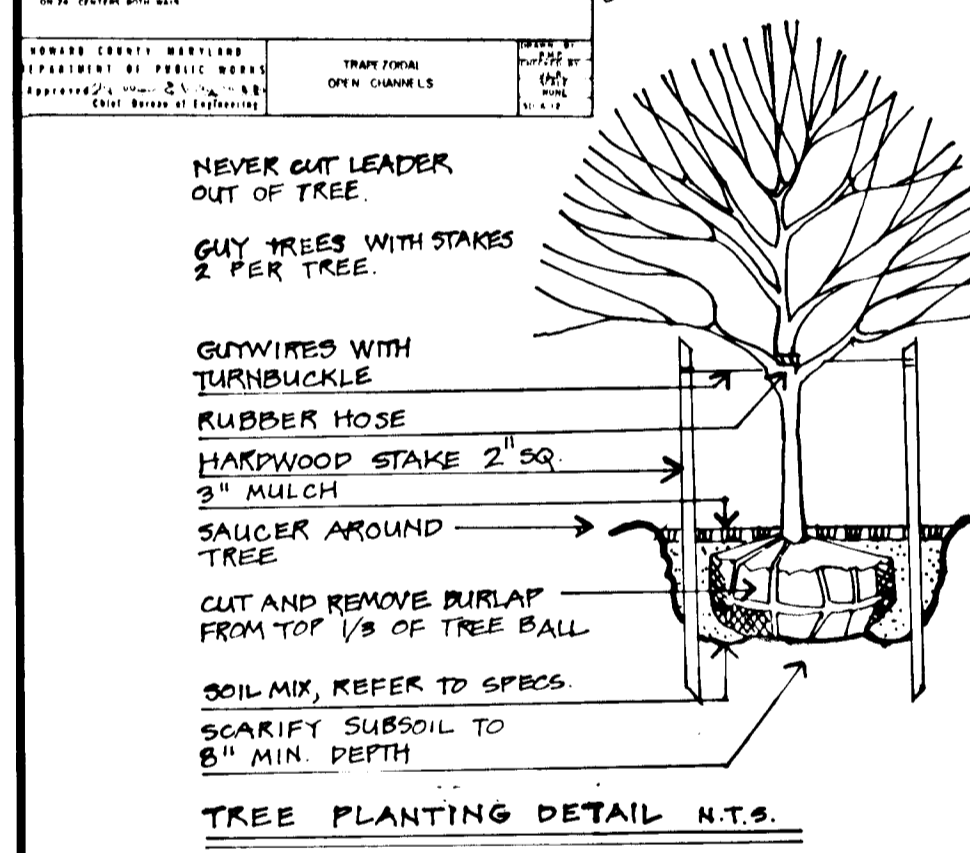
- SEMINAR OPERATIVE CONTROL NOTES**
- Apply to graded or cleared areas likely to be reforested where a short-term vegetative cover is needed.
 - Soil Preparation - Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.
 - Soil Amendments - Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq. ft.).
 - Seeding - For the period March 1 thru April 30 and from August 15 thru October 15, seed with 7-1/2 bushels per acre of annual ryegrass (3.2 lbs./1000 sq. ft.). For the period May 1 thru August 14, seed with 2 lbs. per acre of weeping lovegrass (1.07 lbs./1000 sq. ft.). For the period November 15 thru February 29, protect site by applying 2 tons per acre of well-rotted straw mulch and seed as soon as possible in the spring, or use seed.
 - Seeding - Apply 1-1/2 to 2 tons per acre (10 to 20 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using asphalt on flat areas. On slopes 8 feet or higher use 340 gallons/acre of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 380 gallons per acre (8 gal/1000 sq. ft.) for anchoring.
 - Maintenance - Inspect all seeding areas and make needed repairs, replacements and reseedings.

- SEMINAR OPERATIVE CONTROL NOTES**
- Apply to graded or cleared areas likely to be reforested where a short-term vegetative cover is needed.
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 - Maintenance - Inspect all seeding areas and make needed repairs, replacements and reseedings.



PLANT LIST

QTY.	SYMBOL	NAME	SIZE	REMARKS
17	A	ACER RUBRUM Red Maple	1-1/4" Cal. 8'-10" Ht.	BB or Full Head
12	F	FRAXINUS PENNSYLVANIA Green Ash	1-1/4" Cal. 8'-10" Ht.	BB or Full Head
10	I	ILEX OPACA American Holly	1-1/4" Cal. 8'-10" Ht.	BB or Full Head
10	P	PLATANUS OCCIDENTALIS American Sycamore	1-1/4" Cal. 8'-10" Ht.	BB or Full Head
10	Q	QUERCUS PALUSTRIS Pin Oak	1-1/4" Cal. 8'-10" Ht.	BB or Full Head
10	S	SALIX NIGRA Black Willow	1-1/4" Cal. 8'-10" Ht.	BB or Full Head
SHRUBS				
27	Ca	CORNUS ANOMUM Silky Dogwood	18" - 24" Ht.	BB or Cont.
27	Eu	ELAAGNUS UMBELLATA Autumn Olive	18" - 24" Ht.	BB or Cont.
27	Iv	ILEX VERTICILLATA Winterberry	18" - 24" Ht.	BB or Cont.
27	Sc	SAMBURUS CANADENSIS Elderberry	18" - 24" Ht.	BB or Cont.
27	Vd	VIBURNUM DENTATUM Arrowwood	18" - 24" Ht.	BB or Cont.



NOTE: THERE ARE NO BUILDINGS ON LOTS 3 OR 4.

I, *[Signature]*, owner of Lots 3 and 4 at Rutherford acknowledge the proposed plan for mitigation on these lands.

By the Engineer:
[Signature] 10/21/92
Signature of Engineer Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 12/2/92
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CHIEF, LAND DEVELOPMENT DIVISION DATE
CHIEF, BUREAU OF HIGHWAYS DATE
CHIEF, BUREAU OF ENGINEERING DATE

PLANTING SPECIFICATION AND NOTES

EXISTING WETLAND PROTECTION

- Install temporary Protective Fencing to clearly define the protected areas on the plan.
- Signs indicating "WETLAND PRESERVATION AREA" shall be affixed to fence and be clearly visible.

WETLAND PLANT SOILS

- Topsoil shall be salvaged from within the project limit of work as indicated on the Plan. Salvaged topsoil shall be stockpiled for ultimate application to the mitigation area.
- Topsoil mixture for all plant material: 200 lb dehydrated raw manure and ten 5.5 cu. ft. bale of peat humus to 12 cu. yds. of on site furnished topsoil. Composted sludge in the amount of 4.8 cu. yds. may be substituted for the raw manure, peat moss or peat humus.
- All mixing shall be confined to the planting area and shall be accomplished to the satisfaction of the Engineer.

WETLAND PLANT ESTABLISHMENT

- Plant species required are normally unavailable from standard landscape nursery sources. The Contractor must make arrangements with competent wetlands restoration specialists to insure a supply of the required material.
- The Contractor and/or his subcontractor should be aware of the site design conditions and should take all prudent steps to insure that the plant material specified on the plans is acclimated to wetland conditions prior to delivery to the job site. If the plant material is available from sources where wetland conditions are duplicated at the nursery, the contractor should favor these sources as the supplier.
- Fertilizer for wetland trees and shrubs shall be a 21 gr. tightly compressed, long lasting slow release (2 year) planting tablet with a minimum quantitated analysis of 20-10-5.
- Fertilizer for container grown material shall apply the following rates:
 - 1 gal. Container 1 ea. 21 gr. Tablets
 - 3 gal. Container 2 ea. 21 gr. Tablets
 - 5 gal. Container 3 ea. 21 gr. Tablets
 - 7 gal. Container 5 ea. 21 gr. Tablets
- 8BS or Container Stock shall be positioned in the planting hole. Backfill halfway up the root ball. Water to the top of the partially filled hole to saturate root ball. Place tablet(s) beside the root ball approximately 1 inch from the root tips, no deeper than 18 inches from top of root ball. Do not place tablets in the bottom of the hole. Complete backfill, firmly tamp and water.

6. Construct an earthen basin around each plant. Basins to be constructed with native soil. Depth of basin shall be able to hold two inches (2") of water, minimum.

PLANTING SCHEDULE

Planting shall not start until final grading is approved by the Engineer. It is recommended that planting be done early in Spring. Plant Seasons: Spring, Mar. 15 to May 15, Fall, Sept. 1 to Nov. 15. Variations will be permissible with Engineer's approval.

PLANTING MATERIAL

- Rootstock of wetland plant material shall be kept moist during the transport from the source to the job site and until planted. Protect leaves from wind during transport from the source.
- Plant material shall be planted in the soil provided with each planting pit excavated to a size sufficient to contain the entire root stock or root mass without crowding, preferably twice the width and depth of the original plant container.
- No more plants shall be distributed on any day than can be planted and watered.

LIMITS OF WORK

The construction procedure shall not damage wetlands outside of the grading limits or damage areas designated to be undisturbed on the plans that occur within the project limits. Any damage shall be restored by the Contractor at his expense and to the satisfaction of the Engineer.

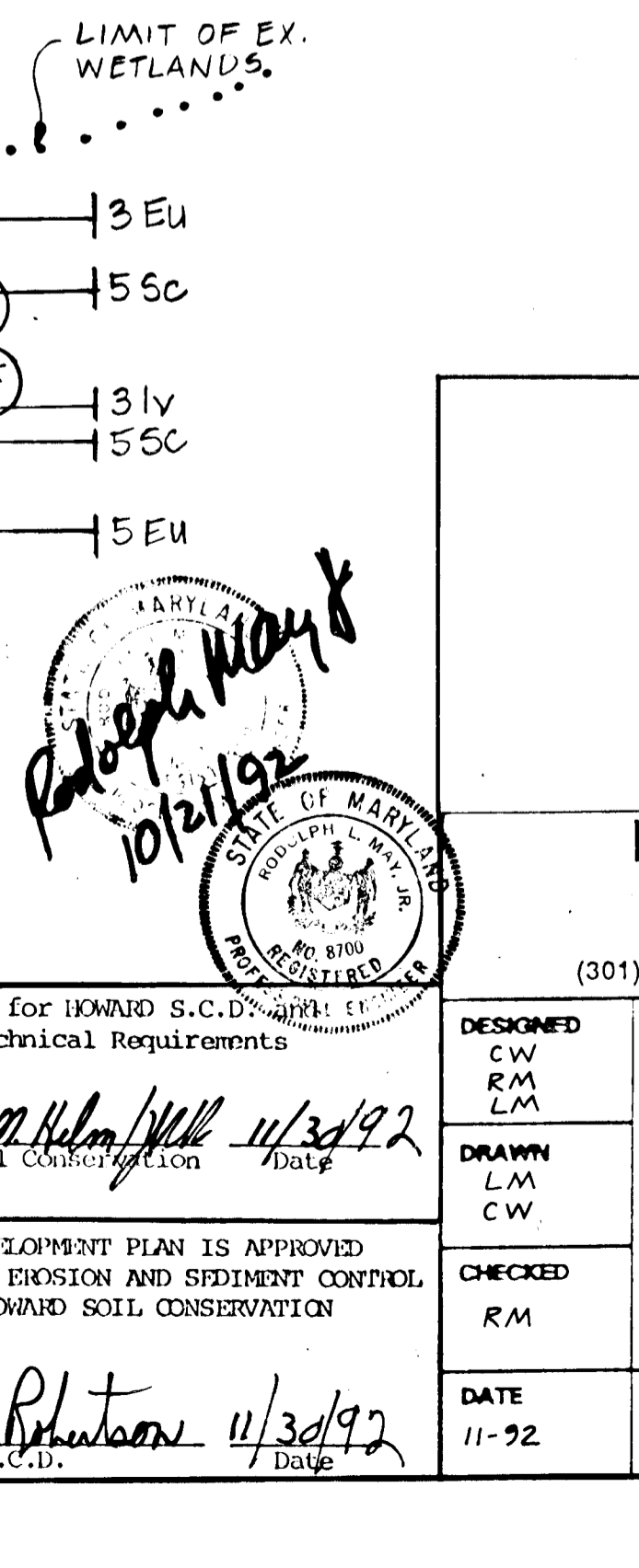
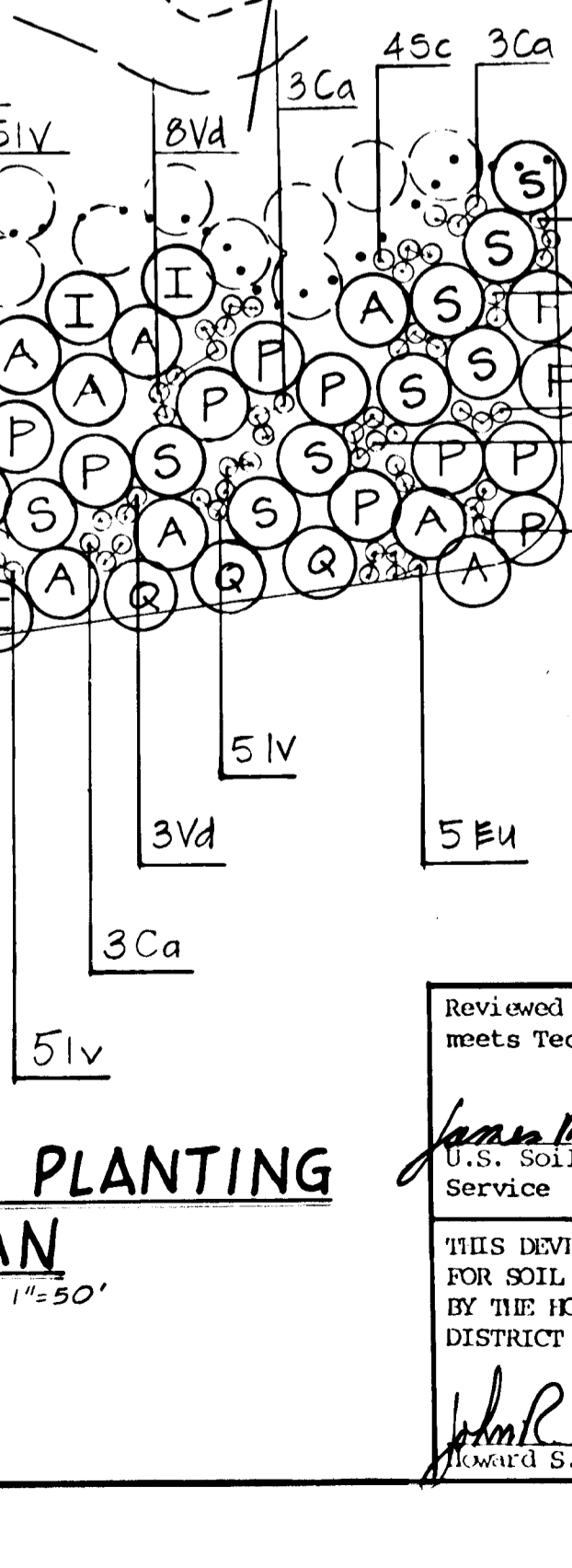
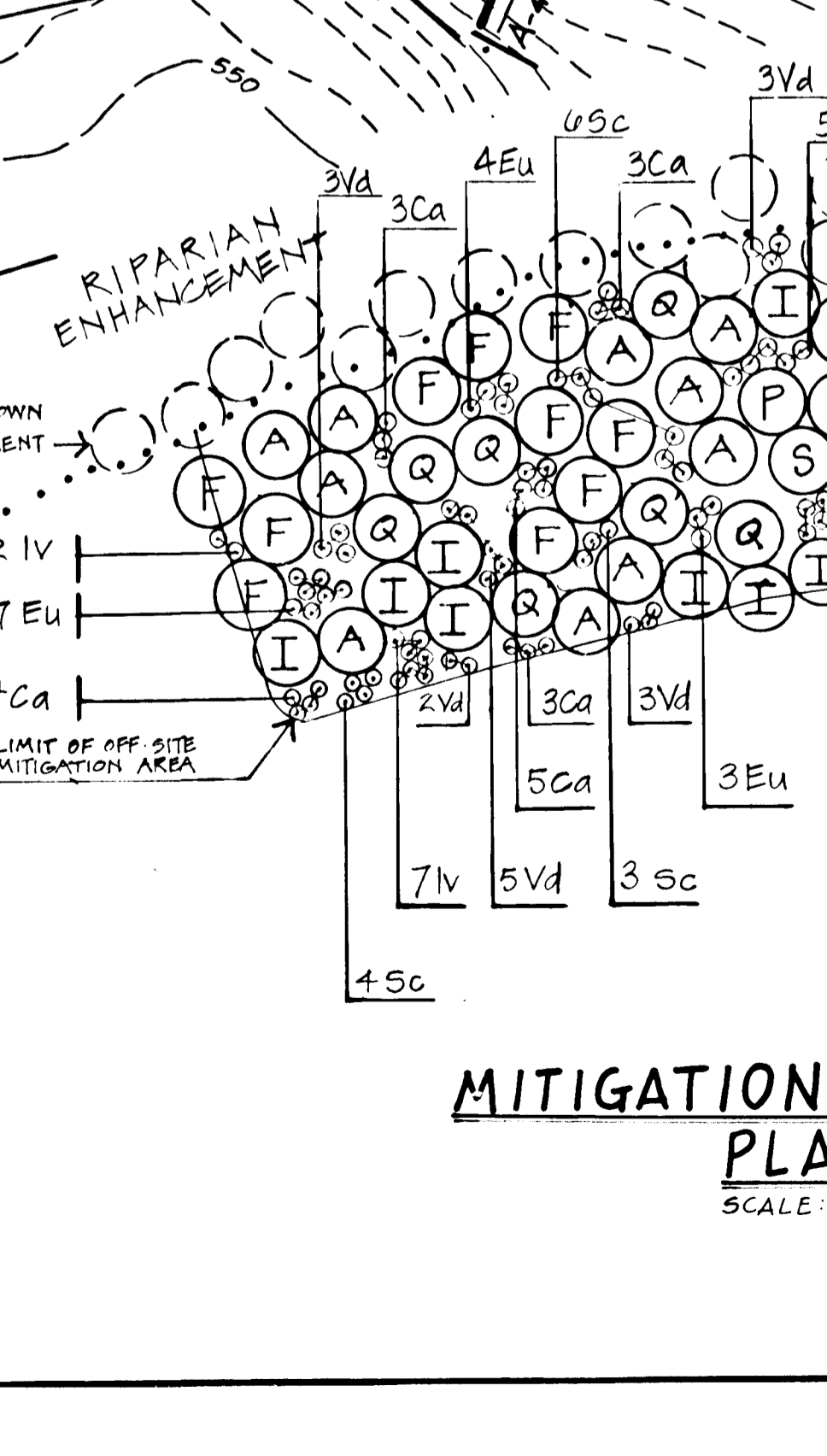
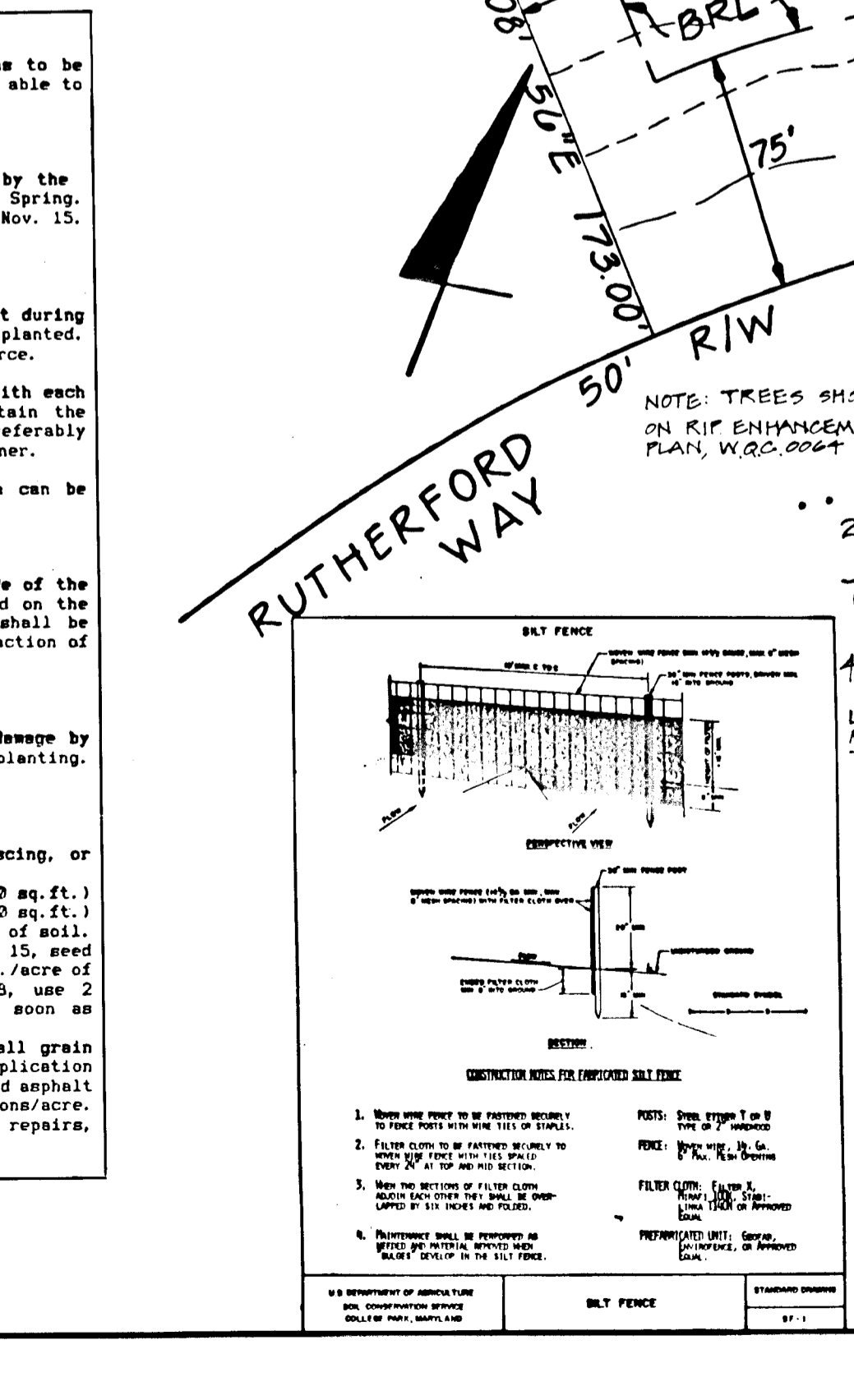
PEST CONTROL

All planted oak trees shall be protected from gypsy moth damage by using gypsy moth repellent tape or other suitable means after planting.

STABILIZATION

PERMANENT SEEDING NOTES

- Loosen upper three inches (3") of soil by raking, disking, or other acceptable means if not previously loosened.
- Apply 2 tons/acre of dolomitic limestone (92 lbs./1000 sq. ft.) and 1000 lbs. acre of 10-10-10 fertilizer (15 lbs./1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. Seeding: Mar. 1 through Apr. 30 and Aug. 1 through Oct. 15, seed with 60 lbs./acre of Kentucky 31 Tall Fescue and 2 lbs./acre of weeping lovegrass. During Oct. 16 through Feb. 29, use 2 tons/acre of well-rotted straw mulch and seed as soon as possible in the spring.
- During the period of March 1 thru April 30 and August 1 thru October 15, apply 1-1/2 to 2 tons/acre of unrotted small grain straw immediately after seeding. Anchor mulch after application with an anchoring tool or 210 gallons/acre of emulsified asphalt on flat areas. On slopes 8 ft. or higher use 340 gallons/acre. Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.



MITIGATION PLANTING PLAN
SCALE: 1"=50'

Reviewed for HOWARD S.C.D. meets Technical Requirements
[Signature] 11/30/92
U.S. Soil Conservation Service Date

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
[Signature] 11/30/92
HOWARD S.C.D. Date

LAND DESIGN ENGINEERING, INC.
10620 Guilford Road - Suite 110 - Jessup - Maryland 20794
(301) 604-6264 (Wash.) (410) 880-0034 (Balt.) (301) 604-6735 (Fax.)

ILCHESTER WOODS
WETLAND OFFSITE MITIGATION
AT RUTHERFORD LOTS 3 AND 4
(Approved 10-23-92) (WQC 90-0064)

SCALE: 1"=50'
DRAWING: 12A OF 12
JOB NO.: 91-140.2
FILE NO.:
OWNER/DEVELOPER: HILL FARM PARTNERSHIP
10620 GUILFORD ROAD SUITE 100
JESSUP, MARYLAND 20794
F-90-83

1605