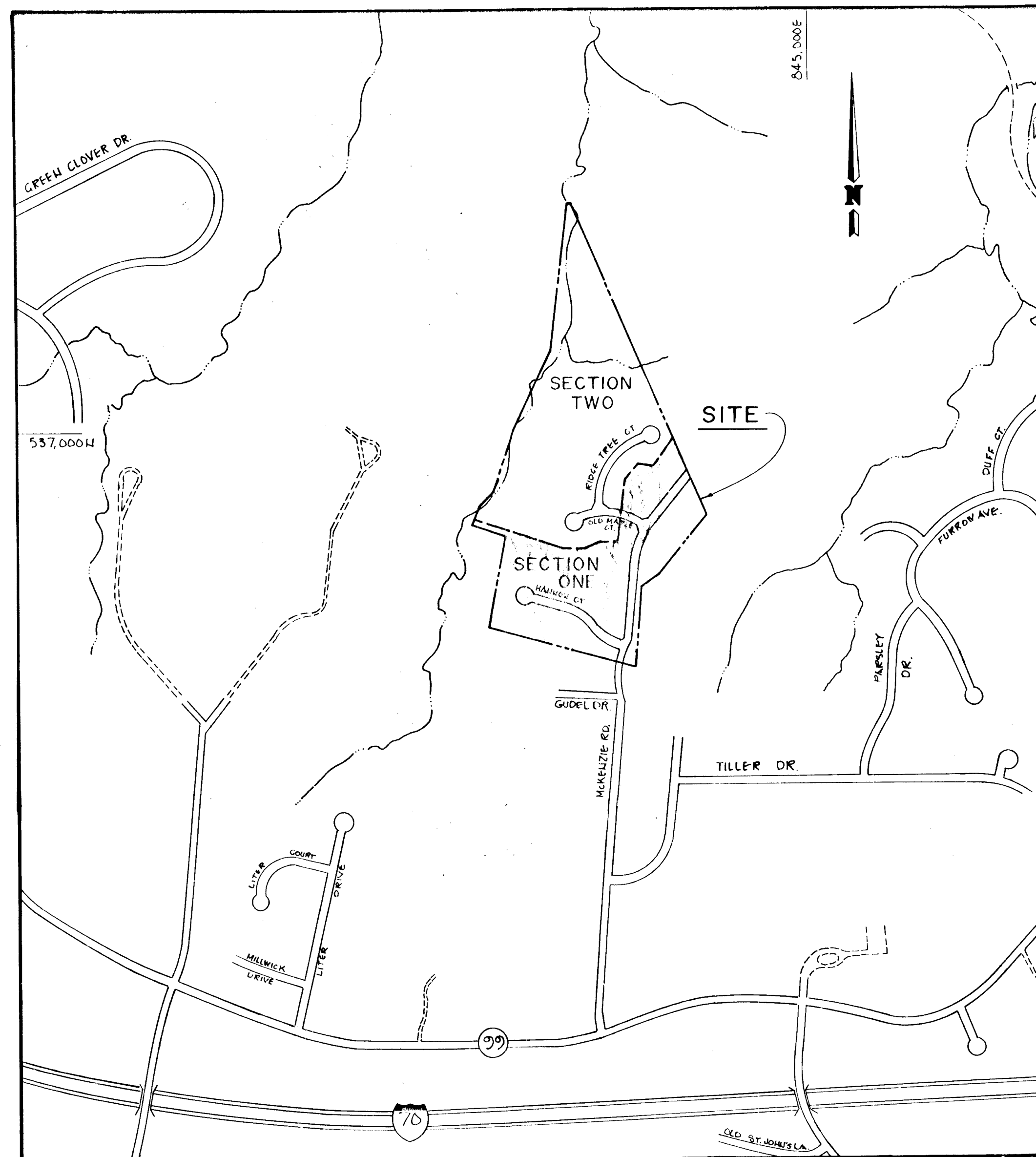


# McKENZIE'S DISCOVERY SECTION ONE HOWARD COUNTY, MARYLAND FINAL ROAD CONSTRUCTION PLANS

## INDEX

1. TITLE SHEET
2. McKENZIE ROAD PLAN & PROFILE
3. McKENZIE ROAD PLAN & PROFILE
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5. OLD MAPLE COURT PLAN & PROFILE
6. STORM DRAIN PROFILE & DETAILS
7. DRAINAGE AREA MAP & S.E.C. KEY SHEET
8. STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
9. STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
10. SEDIMENT CONTROL DETAIL SHEET
11. DETAIL SHEET



## GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS IN ADVANCE OF ANY CONSTRUCTION. CALL "MISS UTILITY" 48 HOURS IN ADVANCE OF CONSTRUCTION - 1-800-257-7777.
3. STORM DRAINAGE TRENCHES WITHIN ROAD RIGHT-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS.
4. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE 792-7272.
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1978 EDITION.
8. NO STRUCTURE IS TO BE CONSTRUCTED ON OPEN SPACE LOTS 1, 2, 18, AND 31 AT A DISTANCE LESS THAN THE ZONING REGULATIONS ALLOW.

For As-Built Only



Robert H. O'Connell 9/25/82



John E. Harms Jr. 4/14/87

APPROVED: DEPARTMENT OF PUBLIC WORKS.	
<i>William B. R...</i>	4-27-87
CHIEF, BUREAU OF ENGINEERING	DATE
APPROVED: OFFICE OF PLANNING AND ZONING	
<i>John F. W...</i>	4-27-87
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	DATE

<b>JOHN E. HARMS JR. AND ASSOCIATES INC.</b>	
CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS	
9030 RED BRANCH ROAD COLUMBIA MARYLAND 21045	SUITE 100 TELEPHONE (301) 740-5200

AS-BUILT 9/24/82

F-87-107

1261

**CURVE DATA**  
 STA. 0+17.15 TO STA. 0+83.62  
 R = 286.00'  
 L = 133.53'  
 $\Delta = 26^{\circ}45'00''$   
 T = 68.00'  
 CHD. = N08 $^{\circ}$ 36'06" W  
 132.32'

HOWARD CO. PAVING  
 TO BE INSTALLED @  
 STA. 0+00 TO STA. 0+37  
 SEE PAVING SECTION  
 SHEET 11

PROVIDE BIT CONC.  
 SURFACE COURSE  
 VARIABLE THICKNESS  
 TO ACHIEVE P.G.L.

DEPRESSED CONC.  
 CURB & GUTTER AT  
 DRIVEWAY ENTRANCE

HOWARD CO. PAVING  
 TO BE INSTALLED  
 STA. 0+50 TO STA. 0+110  
 SEE PAVING SECTION  
 SHEET 11

HOWARD CO. STD  
 DETAIL P.S. OF  
 CONCRETE CURBS  
 AND GUTTER

MEET EX.  
 BIT CONC.

ADJUST EX. MANHOLE  
 TO MEET P.G.L.  
 EX. COVER ELEV. = 435.3  
 PROP. COVER ELEV. = 436.34  
 COVER SLOPE = 3.50%

FOR CONTINUATION  
 SEE SHEET 3 OF 10

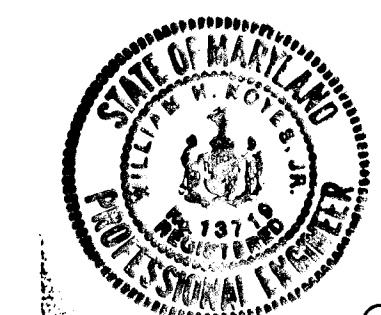
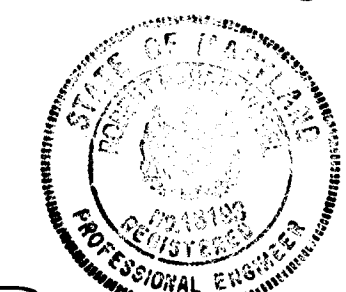
**CURVE DATA**  
 STA. 0+83.62 TO STA. 0+29.77  
 R = 286.00'  
 L = 213.33'  
 $\Delta = 42^{\circ}45'00''$   
 T = 111.94'  
 CHD. = N00 $^{\circ}$ 36'06" E  
 208.48'

**PLAN**  
 SCALE: 1" = 50'

APPROVED: DEPARTMENT OF PUBLIC WORKS.  
*William E. Pagan* 4-27-87  
 CHIEF, BUREAU OF ENGINEERING DATE  
 APPROVED: OFFICE OF PLANNING AND ZONING  
*Louis F. D. [Signature]* 4-21-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 AND ZONING ADMINISTRATION DATE

**PLAN**  
 SCALE: 1" = 50'

For As-Built Only



**MCKENZIE'S DISCOVERY**  
 SECTION ONE AREA ONE LOTS 1-31  
 TAX MAP NO. 17 PARCELS 4, 172, 360  
 (O.P. 82, REF. NO. P-87-03)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**MCKENZIE ROAD  
 PLAN & PROFILE**

OWNER: SULLIN ENTERPRISES, LTD. DEVELOPER: TALLS CONSTRUCTION  
 1133 GREENWOOD ROAD  
 PIKESVILLE, MARYLAND 21208

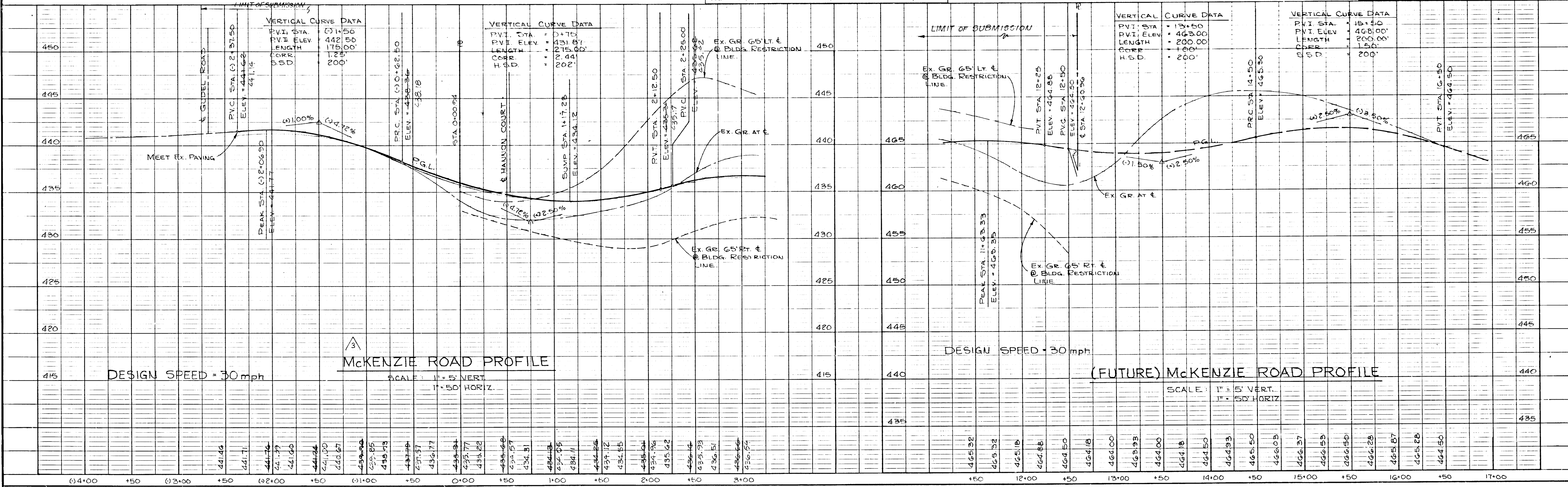
SCALE AS SHOWN DATE: DEC 86 SHEET 2 OF 11  
 DES. JAB DRN. JMM. CHK. RHY

JOHN E. HARMS JR. AND ASSOCIATES, INC.  
 CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
 9030 RED BRANCH ROAD SUITE 100  
 COLUMBIA, MARYLAND 21045 TELE. (301) 740-5200

PLAN  
 SURVEYED  
 PLOTTED  
 CHECKED  
 DATE  
 BY

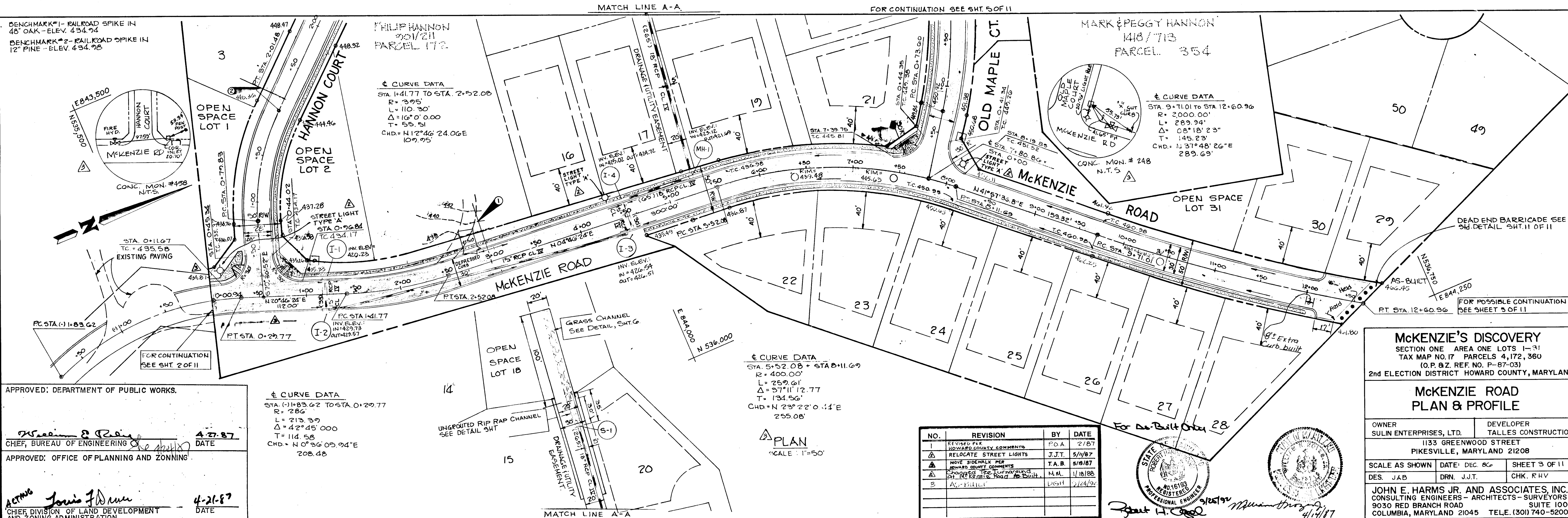
PROFILE  
 SURVEYED  
 PLOTTED  
 CHECKED  
 DATE  
 BY

1261



PLAN	DATE
SURVEYED	BY
BOOK	NO.
NO.	NO.
NO.	NO.
NO.	NO.

PROFILE	DATE
SURVEYED	BY
BOOK	NO.
NO.	NO.
NO.	NO.
NO.	NO.



APPROVED: DEPARTMENT OF PUBLIC WORKS.

*William P. Reilly* 4-27-87  
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: OFFICE OF PLANNING AND ZONING.

*Louis J. D'Amico* 4-21-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

NO.	REVISION	BY	DATE
1	REVISED PER HOWARD COUNTY COMMENTS	FOA	2/1/87
2	RELOCATE STREET LIGHTS	J.J.T.	5/11/87
3	MOVE SIDEWALK PER HOWARD COUNTY COMMENTS	T.A.B.	5/19/87
4	REMOVE THE CURB AND GUTTER AT THE INTERSECTION OF OLD MAPLE ROAD AND BUILT	N.M.L.	1/18/88
5	AS-BUILT	U.S.H.	2/24/88

**McKENZIE'S DISCOVERY**  
 SECTION ONE AREA ONE LOTS 1-31  
 TAX MAP NO. 17 PARCELS 4,172, 360  
 (O.P. & Z. REF. NO. P-87-03)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

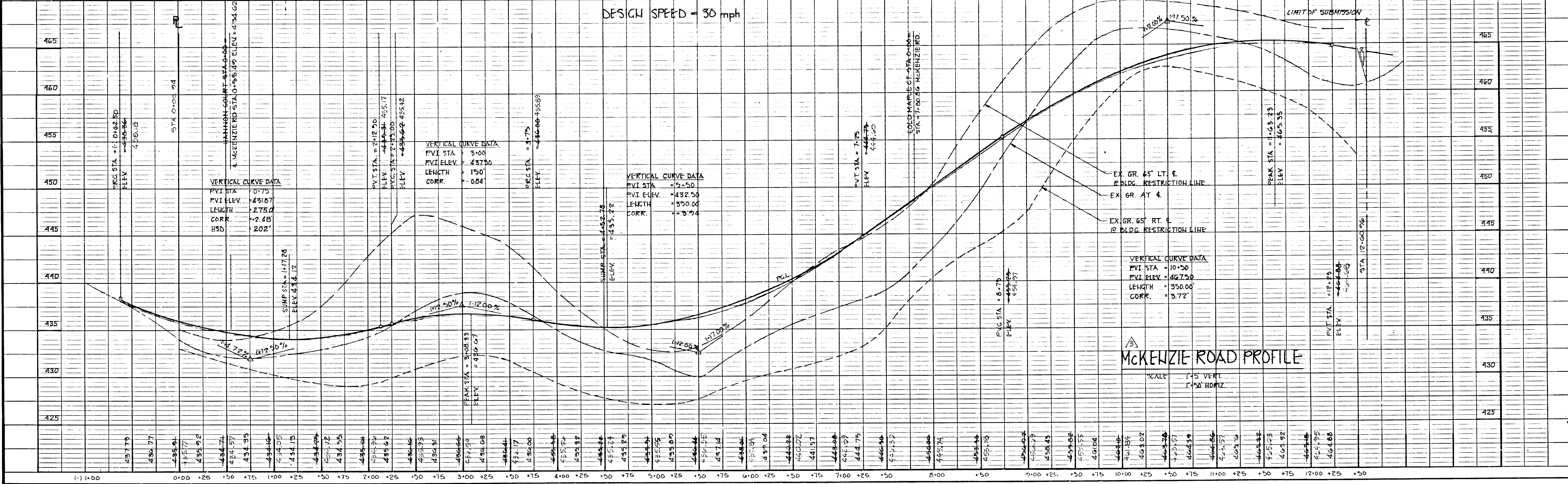
**McKENZIE ROAD PLAN & PROFILE**

OWNER: SULIN ENTERPRISES, LTD. DEVELOPER: TALLESS CONSTRUCTION  
 1133 GREENWOOD STREET  
 PIKESVILLE, MARYLAND 21208

SCALE AS SHOWN DATE: DEC. 86 SHEET 3 OF 11  
 DES. J.A.B. DRN. J.J.T. CHK. R.H.V.

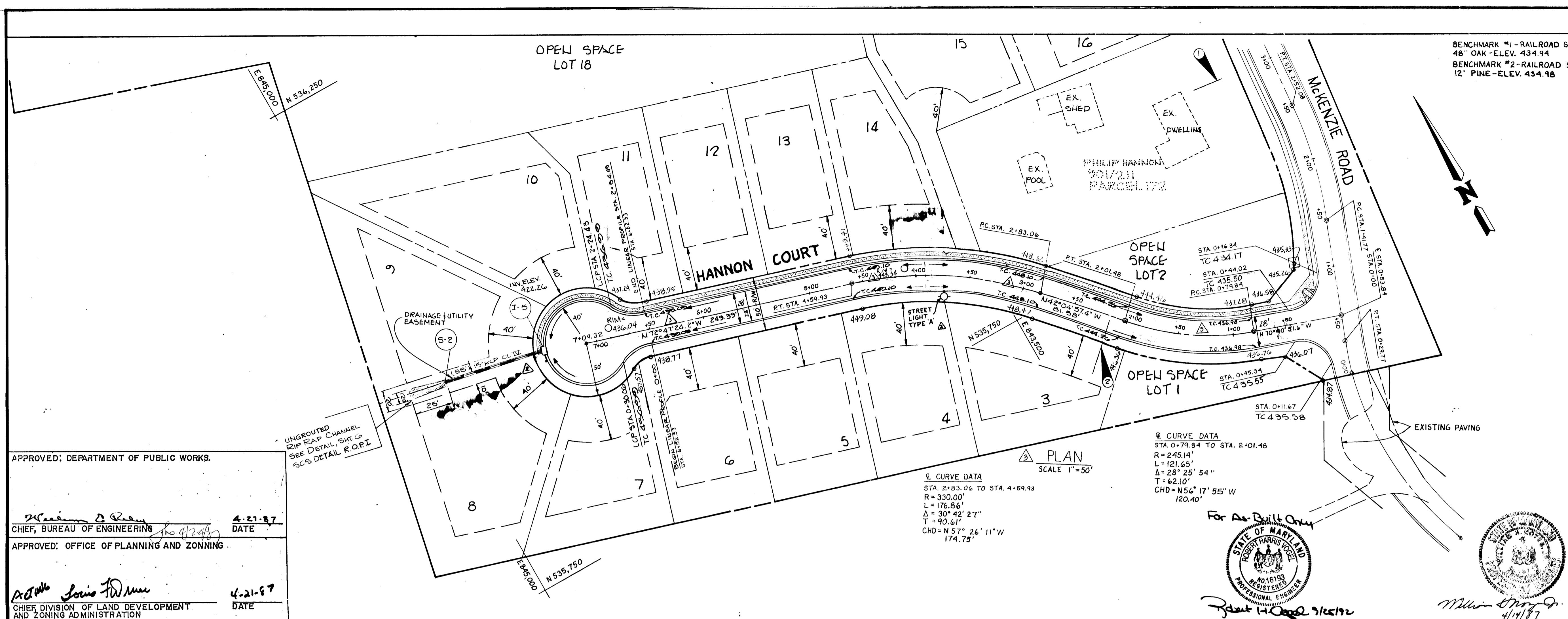
JOHN E. HARMS JR. AND ASSOCIATES, INC.  
 CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
 9030 RED BRANCH ROAD SUITE 100  
 COLUMBIA, MARYLAND 21045 TELE. (301) 740-5200

1261



McKENZIE ROAD PROFILE

PLAN	DATE
SURVEYED	BY
NOTES	BY
ALIGNED	BY
CHECKED	BY
RT. OF WAY	BY
CHECKED	BY
NO.	BY



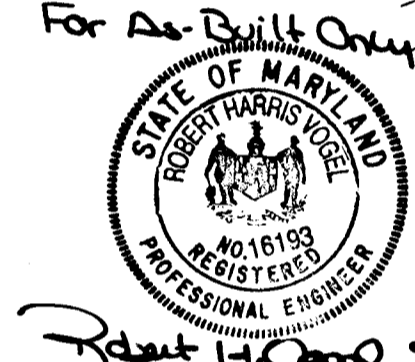
NO.	REVISION	BY	DATE
1	REV. PER. HO. CO. COMMENTS	J.J.T.	3/2/87
2	RELOCATE STREET LIGHTS	J.J.T.	5/11/87
3	CHANGE T.C. ELEVATIONS	J.J.T.	1/20/87
4	CHANGE PROFILE AND ELEVATIONS	J.J.T.	9/22/87
5	AS-BUILT	USA	9/21/92

**MCKENZIE'S DISCOVERY**  
 SECTION ONE AREA ONE LOTS 1-31  
 TAX MAP NO. 17 PARCELS 4,172, 3160  
 (O.P. & Z. REF. NO. P-87-03)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

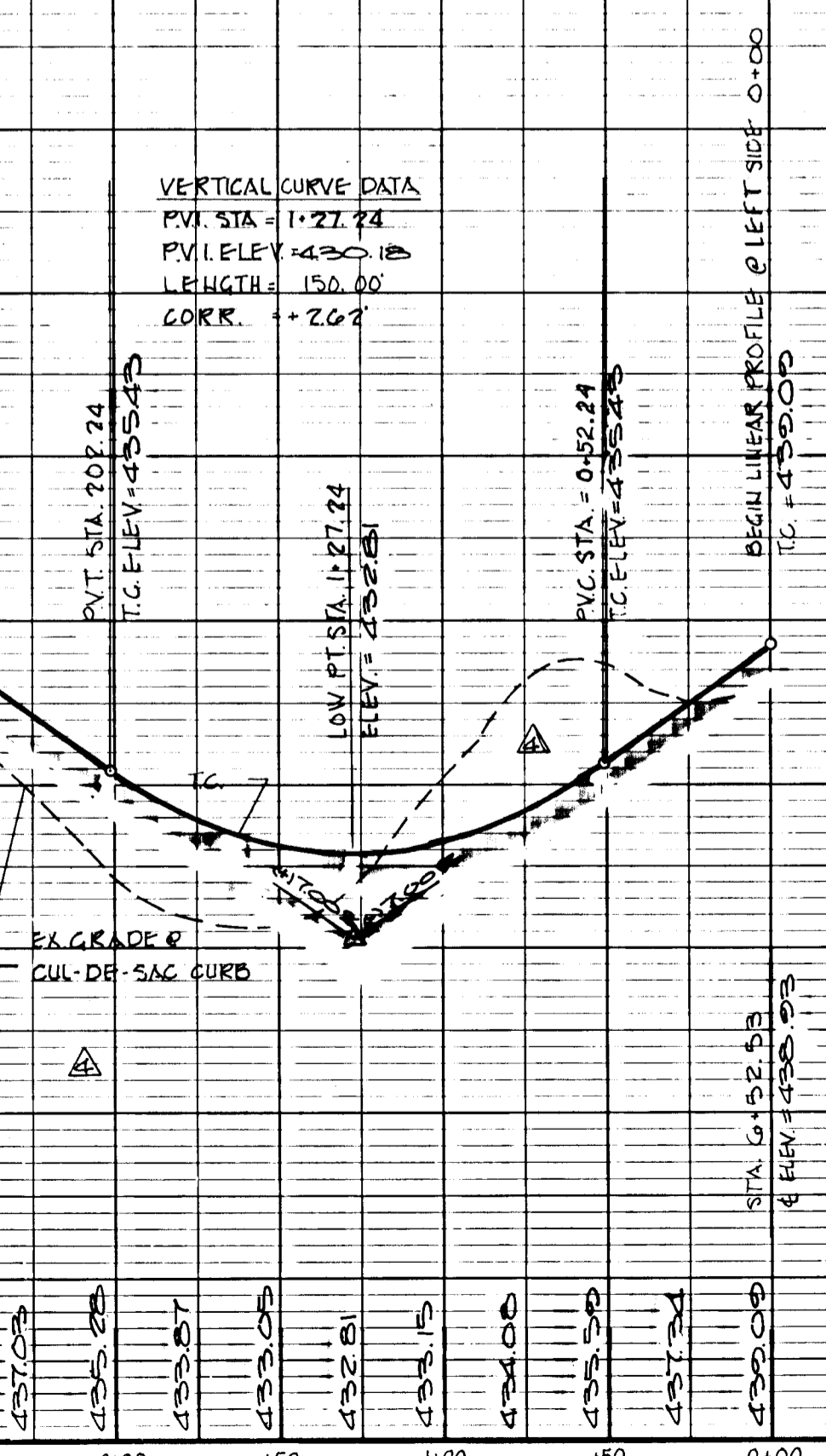
**HANNON COURT  
 PLAN & PROFILE**

OWNER: SULIN ENTERPRISES, LTD. DEVELOPER: TALLES CONSTRUCTION  
 1133 GREENWOOD ROAD  
 PIKEVILLE, MARYLAND 21208  
 SCALE AS SHOWN DATE: 11/2/86 SHEET 4 OF 11  
 DES. JAB DRN. J.J.T. CHK. RHV  
 JOHN E. HARMS JR. AND ASSOCIATES, INC.  
 CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
 9030 RED BRANCH ROAD SUITE 100  
 COLUMBIA, MARYLAND 21045 TELE. (301) 740-5200

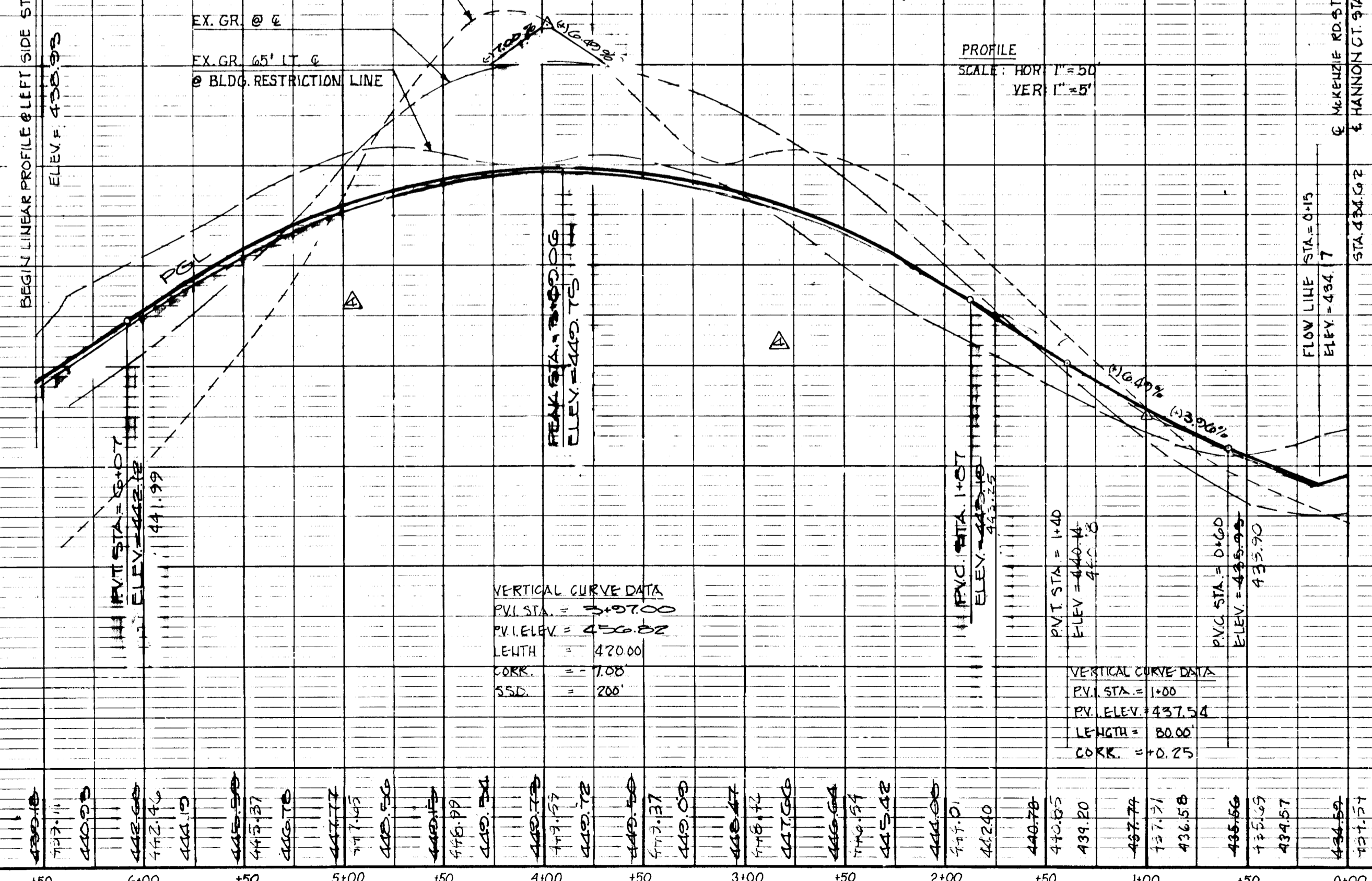
APPROVED: DEPARTMENT OF PUBLIC WORKS.  
*William D. Riley* 4-21-87  
 CHIEF, BUREAU OF ENGINEERING DATE  
 APPROVED: OFFICE OF PLANNING AND ZONING.  
*Lois J. Wm.* 4-21-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE



**LINEAR PROFILE  
 HANNON COURT  
 CUL-DE-SAC**



**HANNON COURT  
 DESIGN SPEED 30 mph**



1261

DATE \_\_\_\_\_ BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK ALIGNED CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_

DATE \_\_\_\_\_ BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK GRADES CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_

NO.	REVISION	BY	DATE
1	REVISED PER HOWARD CO COMMENTS	J.M.M.	3/87
3	AS-BUILT	DGH	9/24/92

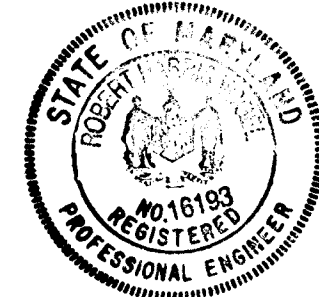
APPROVED: DEPARTMENT OF PUBLIC WORKS.

*[Signature]* 4-27-87  
 CHIEF, BUREAU OF ENGINEERING DATE

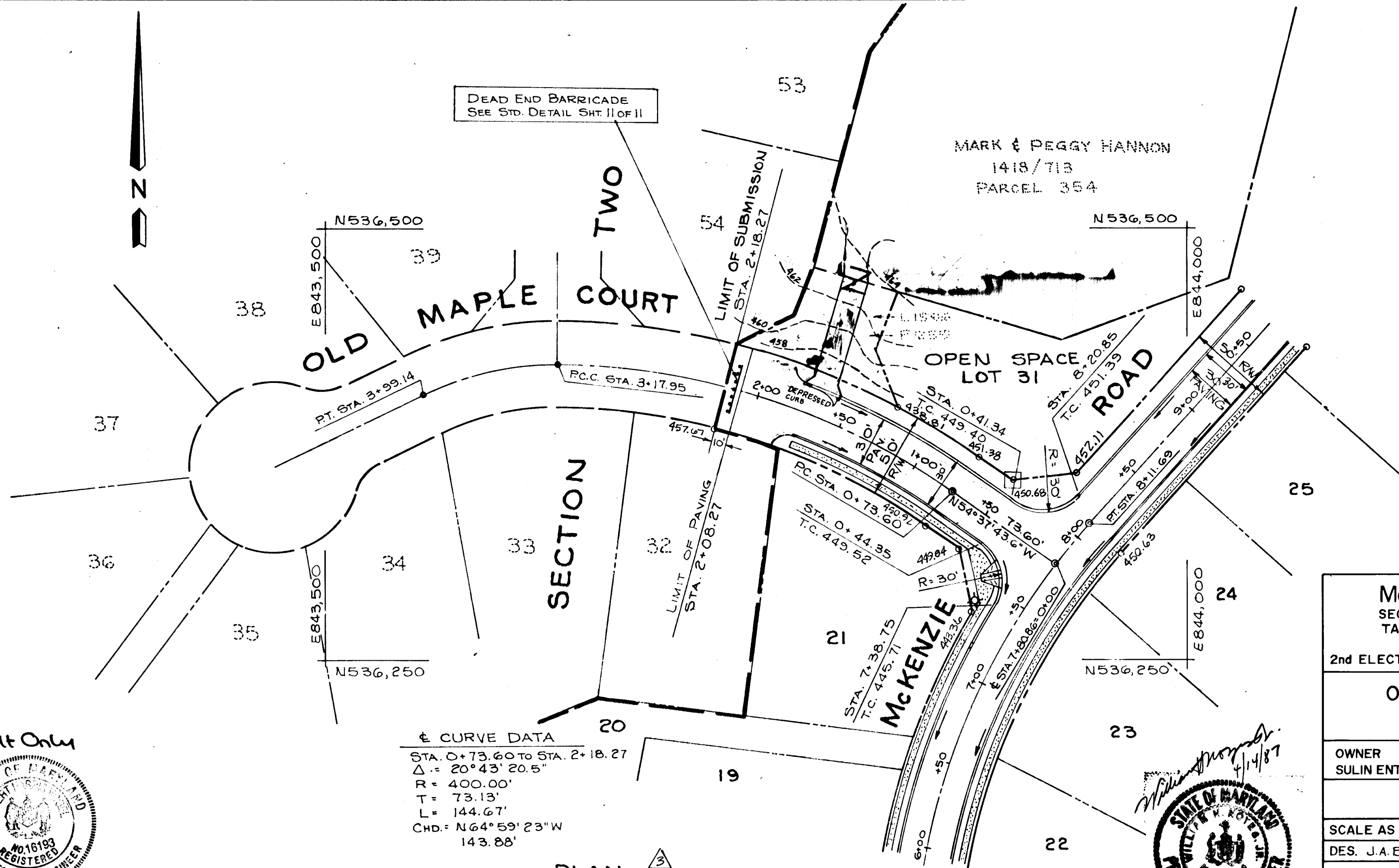
APPROVED: OFFICE OF PLANNING AND ZONING

*[Signature]* 4-21-87  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

For As-Built Only



*Robert H. Ogle 9/25/92*



**McKENZIE'S DISCOVERY**  
 SECTION ONE AREA ONE LOTS 1-31  
 TAX MAP NO. 17 PARCELS 4,172,360

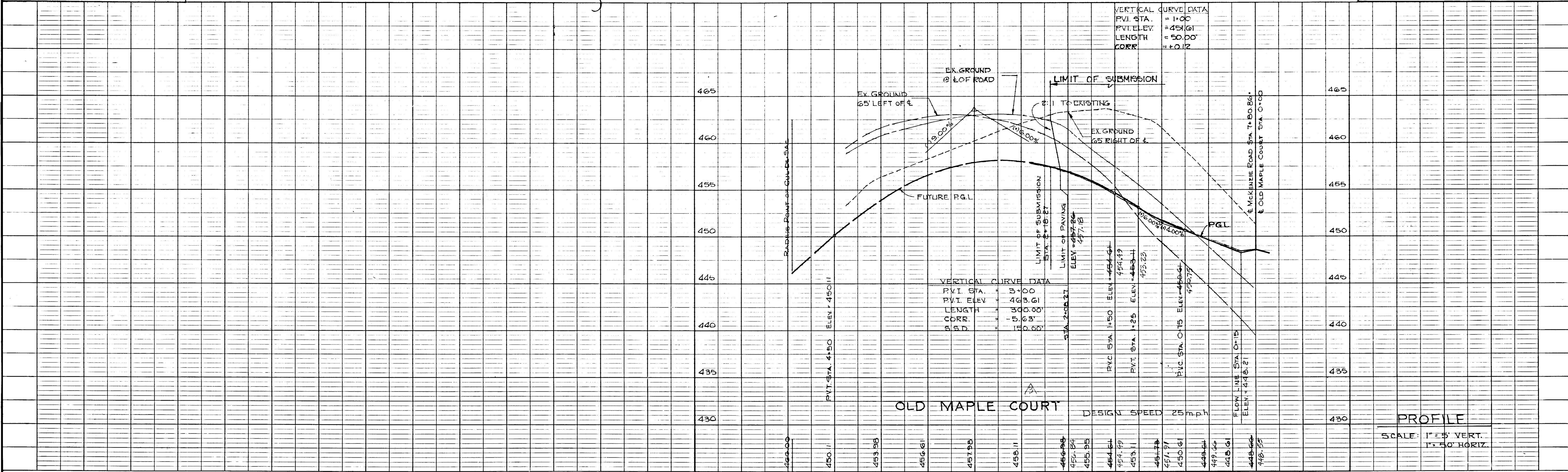
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**OLD MAPLE COURT  
 PLAN & PROFILE**

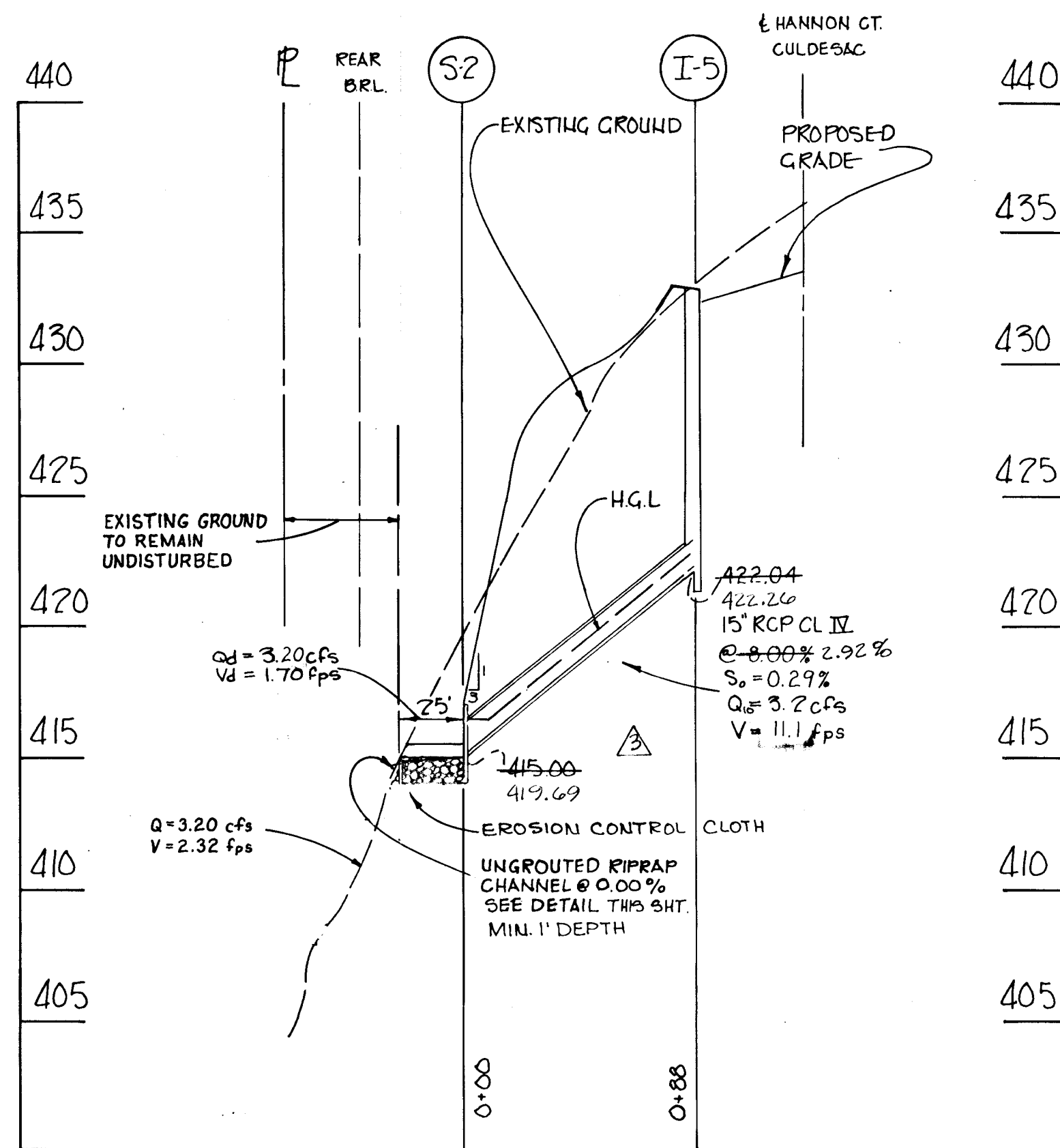
OWNER: SULLIN ENTERPRISES, LTD. DEVELOPER: TALLER CONSTRUCTION  
 1133 GREENWOOD ROAD  
 PIKESVILLE, MARYLAND 21208

SCALE AS SHOWN DATE: MARCH, 1987 SHEET 5 OF 11  
 DES. J.A.B. DRN. J.M.M. CHK. R.H.V.

JOHN E. HARMS JR. AND ASSOCIATES, INC.  
 CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
 9030 RED BRANCH ROAD SUITE 100  
 COLUMBIA, MARYLAND 21045 TELE. (301) 740-5200

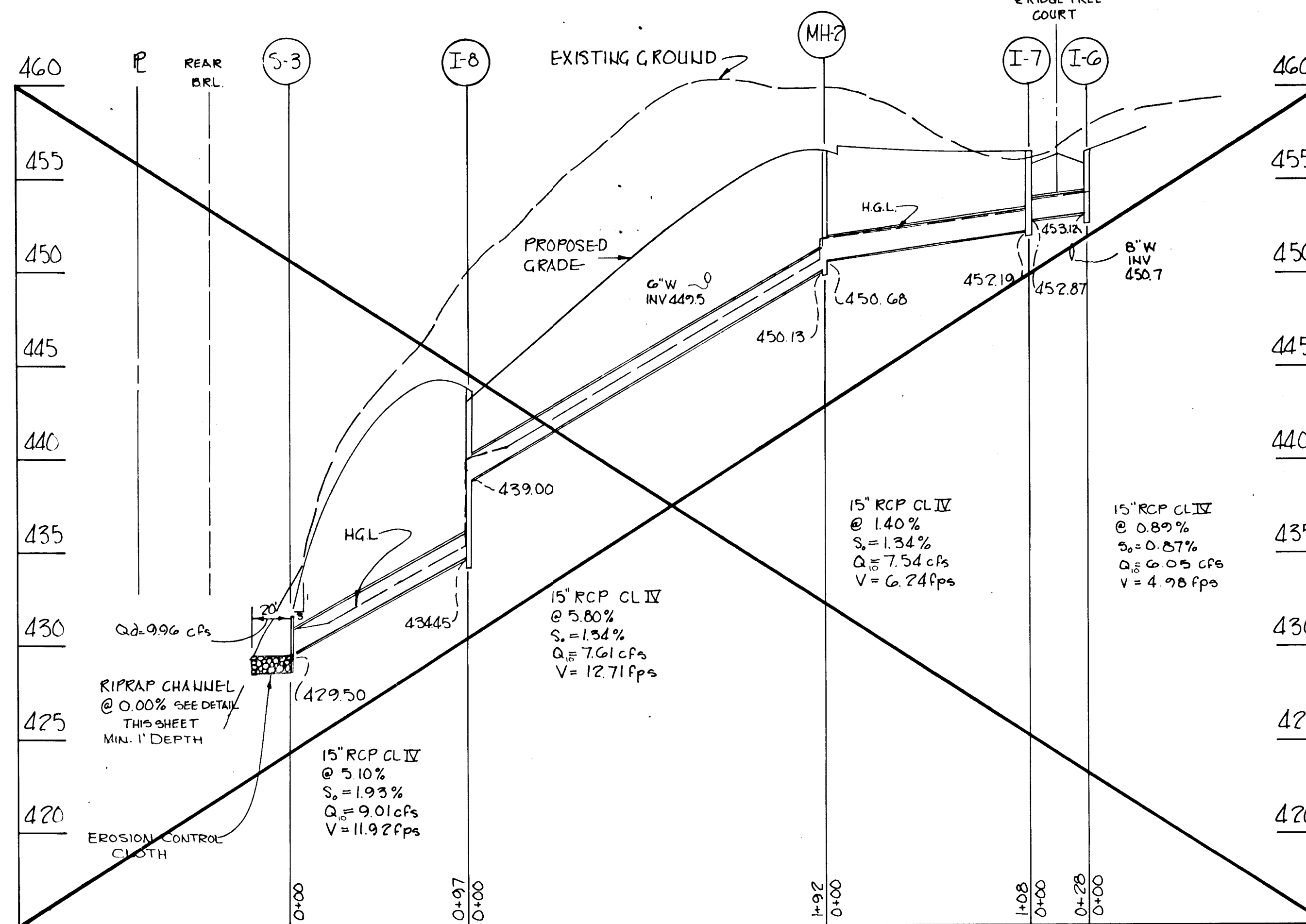


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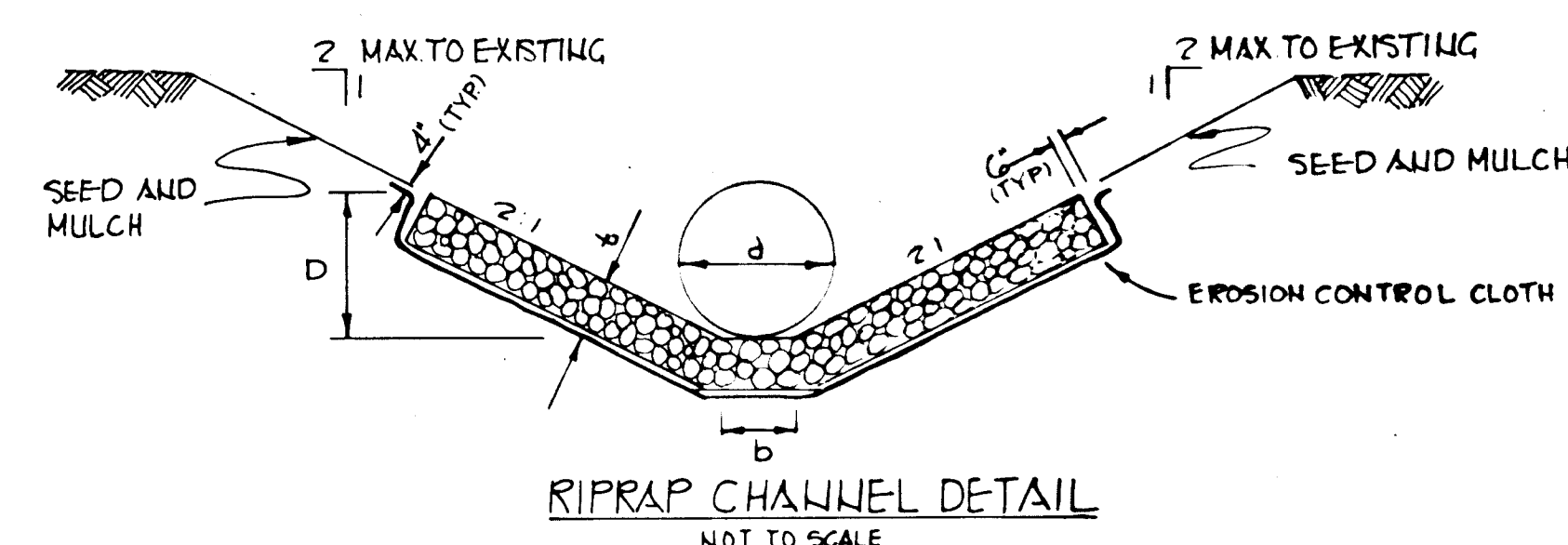
HANNON COURT (SECTION ONE)  
STORM DRAIN PROFILE

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



OLD MAPLE COURT AND RIDGE TREE COURT (SECTION TWO)  
STORM DRAIN PROFILE

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



RIPRAP CHANNEL DETAIL  
NOT TO SCALE

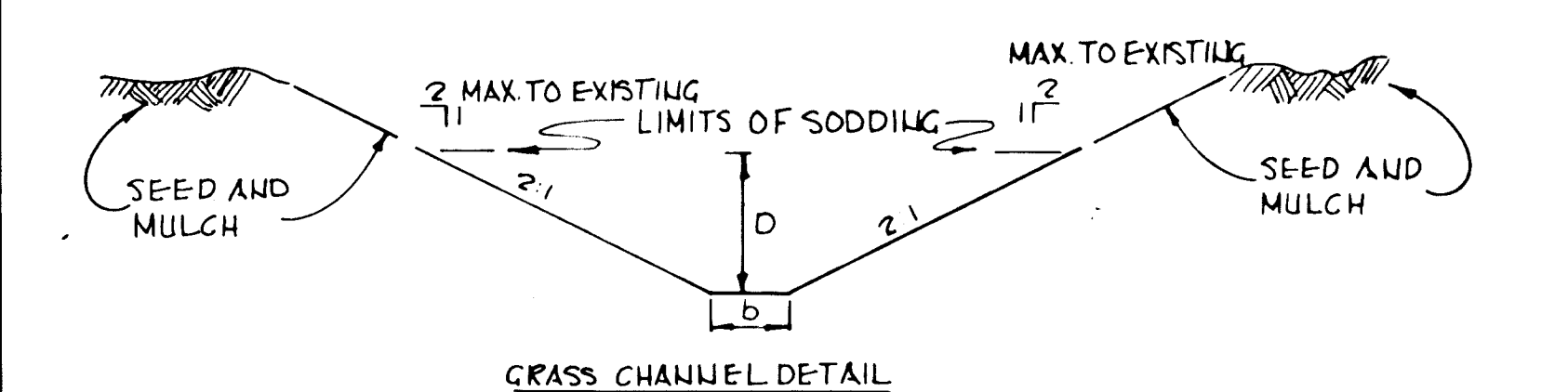
SECTION ONE RIPRAP CHANNEL DESIGN DATA (n=0.04)

STRUC	AD	P	R <sub>H</sub>	R <sub>2/3</sub>	S	S <sub>2</sub>	Q	V	d	D	b	t	d <sub>50</sub>	d <sub>max</sub>
S-1	5.63	7.46	0.75	0.85	0.01	0.10	17.41cfs	3.09fps	18"	15"	0.75	10	4"	8"
S-2	1.12	3.79	0.30	0.44	0.00	—	3.12cfs	1.70fps	15"	0.40	2.0	10	4"	8"

SECTION TWO

STRUC	AD	P	R <sub>H</sub>	R <sub>2/3</sub>	S	S <sub>2</sub>	Q	V	d	D	b	t	d <sub>50</sub>	d <sub>max</sub>
S-3	2.55	5.26	0.40	0.57	0.00	—	4.96cfs	—	11"	—	—	—	—	—

\* S.C.S. DETAIL ROP 1



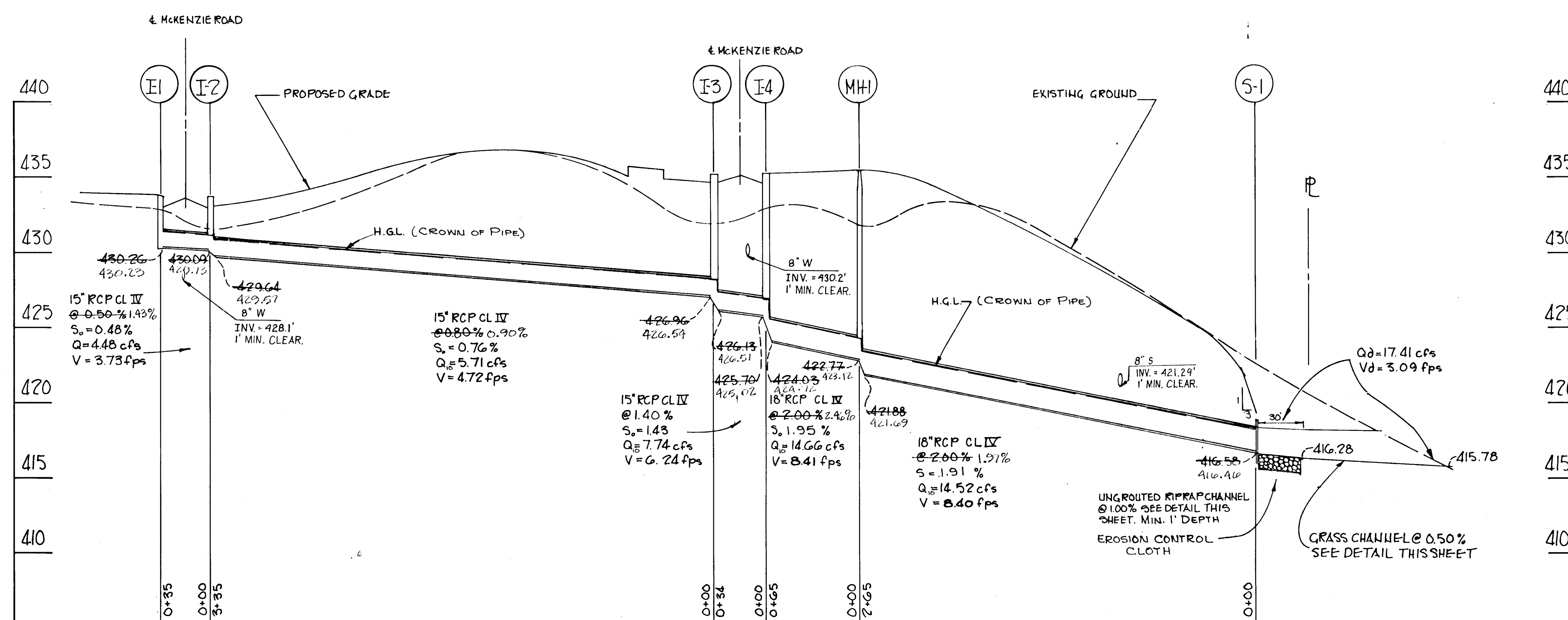
GRASS CHANNEL DETAIL  
NOT TO SCALE

SECTION ONE GRASS CHANNEL DETAIL (n=0.03)

STRUC	AD	P	R <sub>H</sub>	R <sub>2/3</sub>	S	S <sub>2</sub>	Q	V	d	D	b	t	d <sub>50</sub>	d <sub>max</sub>
S-1	5.63	7.46	0.75	0.85	0.00	0.07	16.41cfs	2.91fps	—	18"	9"	—	—	—

STRUCTURE SCHEDULE SECTION I

STRUC	TYPE	INVERT IN	INVERT OUT	TOP ELEVATION	ROAD STA	REMARKS
I-1	TYPE "A-5"	—	430.26	430.26	ST STA 1+20	HOWARD CO. Sid SD. 4.01
I-2	TYPE "A-5"	429.75	429.75	429.75	McKENZIE RD.	HOWARD CO. Sid SD. 4.01
I-3	TYPE "A-5"	428.06	428.06	428.06	McKENZIE RD.	HOWARD CO. SW SD. 4.01
I-4	TYPE "A-10"	429.70	424.03	425.37	McKENZIE RD.	HOWARD CO. Sid SD. 4.02
I-5	TYPE "A-5"	429.50	429.50	429.50	LCP STA 1+2725 HANNON CT.	HOWARD CO. Sid SD. 4.01
MH-1	STANDARD MANHOLE	422.72	421.88	426.23	19' LT STA 5+29 McKENZIE RD.	2% CROSS SLOPE HOWARD CO. Sid 6.501
S-1	TYPE "C" END WALL	—	—	—	—	SEE PLAN & PROFILE HOWARD CO. Sid SD. 5.21 15' @
S-2	TYPE "C" END WALL	—	—	—	—	SEE PLAN & PROFILE HOWARD CO. Sid SD. 5.21 15' @



McKENZIE ROAD (SECTION ONE)  
STORM DRAIN PROFILE

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

REVIEWED FOR: *Howard Co. S.C.D.*  
NAME: *Howard Co. S.C.D.*  
SIGNATURE: *[Signature]* DATE: *4-21-87*  
U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
APPROVED BY: *[Signature]* DATE: *4/21/87*

DEVELOPER'S CERTIFICATE  
"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 Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."  
Signature of Developer: *Bernard J. Bohlin* Date: *4-13-87*

ENGINEERS' CERTIFICATE  
"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."  
Signature of Engineer: *[Signature]* Date: *4/14/87*

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*[Signature]* DATE: *4-21-87*  
CHIEF BUREAU OF ENGINEERING  
APPROVED: OFFICE OF PLANNING AND ZONING  
*[Signature]* DATE: *4-21-87*  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
U.S. SOIL CONSERVATION SERVICE DATE: *4-21-87*  
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
APPROVED: *[Signature]* DATE: *4-21-87*  
DISTRICT: HOWARD SOIL CONSERVATION DISTRICT.

For As-Built Only

STATE OF MARYLAND PROFESSIONAL ENGINEER

McKENZIE'S DISCOVERY SECTION ONE  
(O.P.E.Z. REFERENCE P-87-03)  
TAX MAP 110.17 PARCELS 4,172 & 500  
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

JOHN E. HARMS JR. AND ASSOCIATES INC.  
CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200

DESIGNED BY: *R.H.V.*  
DRAWN BY: *POA*  
CHECKED BY: *JAB*  
DATE: *NOV. 1986*  
SCALE: *AS SHOWN*  
W.O. NO. *11*

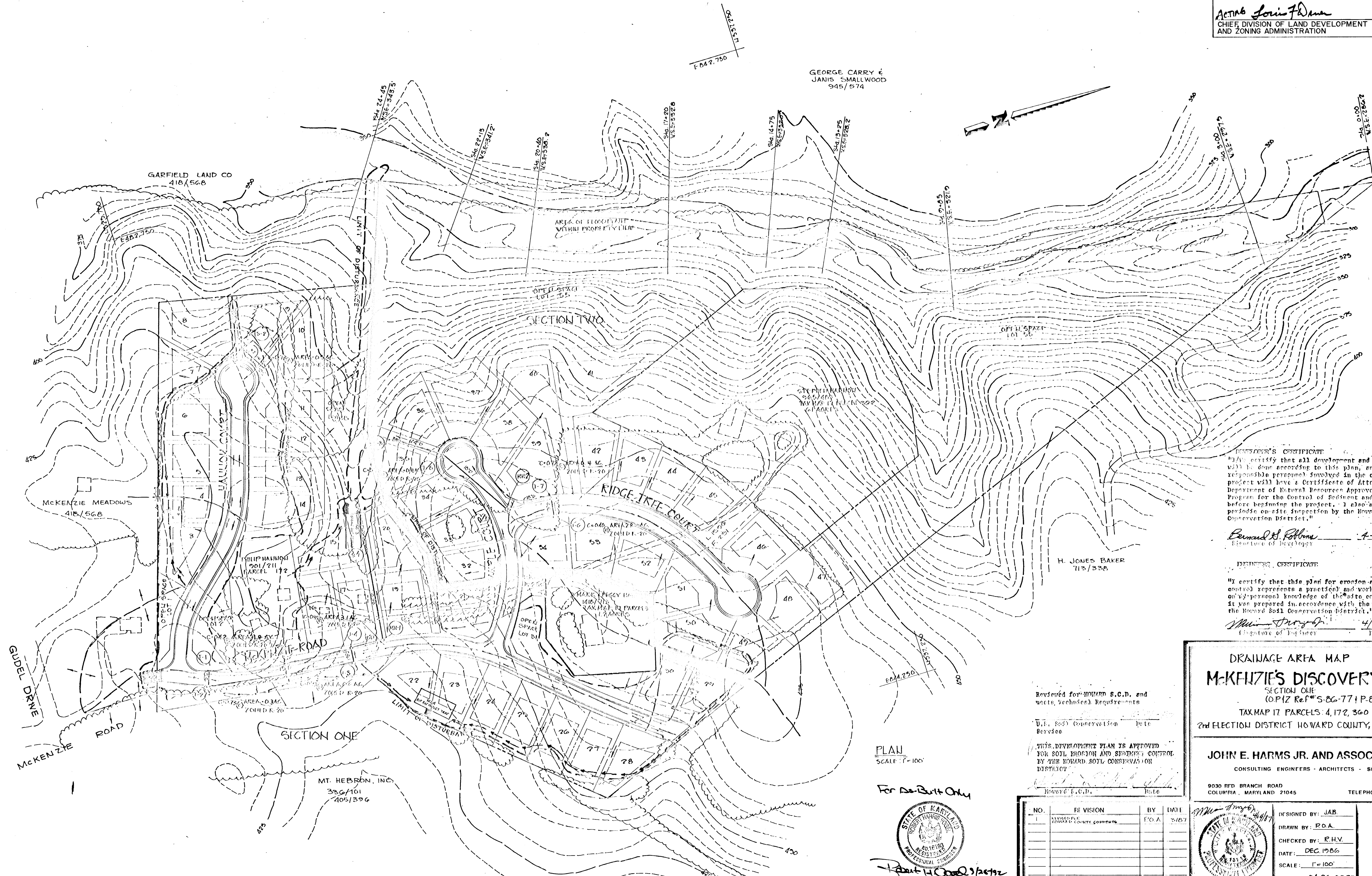
NO. REVISION BY DATE  
1 REV PER HOWARD CO COMMENTS J.E.H. 3/27/87  
2 REV PER HOWARD CO COMMENT P.E.A. 4/17/87  
3 APPROVAL J.E.H. 5/24/87

*William S. Deane*  
CHIEF, BUREAU OF ENGINEERING  
DATE 4-27-87

APPROVED: OFFICE OF PLANNING AND ZONING

*Acting Louis F. Duma*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
AND ZONING ADMINISTRATION  
DATE 4-21-87

GEORGE CARRY &  
JANIS SMALLWOOD  
945/574



**INSURER'S CERTIFICATE**  
I hereby 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 Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

*Bernard S. Robbins*  
Signature of Insurer  
DATE 4-13-87

**ENGINEER'S CERTIFICATE**  
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.

*William S. Deane*  
Signature of Engineer  
DATE 4/14/87

Reviewed for HOWARD S.C.D. and meets Technical Requirements  
U.S. Soil Conservation Service  
DATE  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
HOWARD S.C.D. DATE

PLAN  
SCALE 1"=100'

For As-Built Only



**DRAINAGE AREA MAP**  
**MCKENZIE'S DISCOVERY**  
SECTION ONE  
(O.P.I.Z. REF# S-86-77+P-87-03)  
TAX MAP 17 PARCELS: 4, 172, 360  
2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

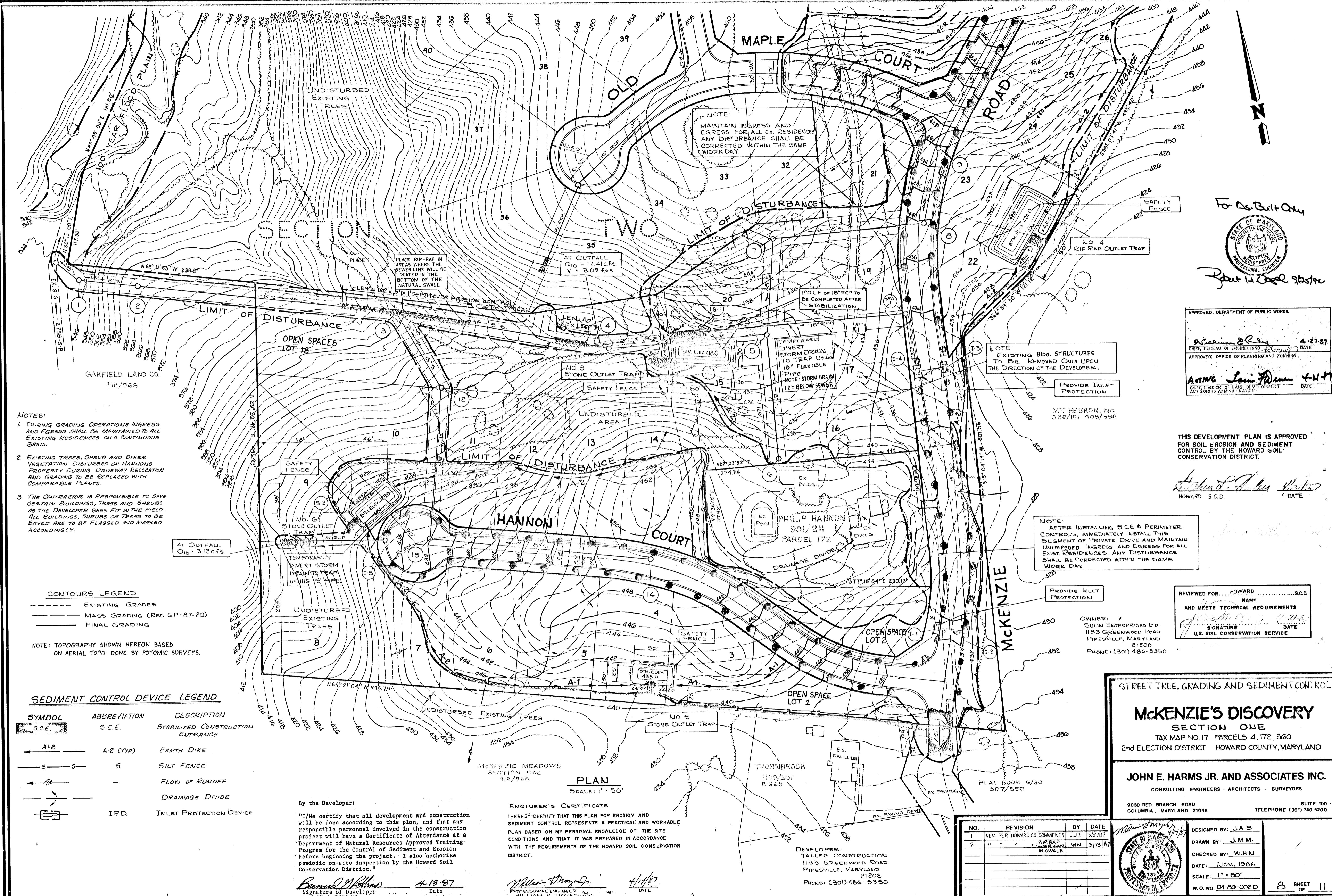
**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS

9030 RED BRANCH ROAD  
COLUMBIA, MARYLAND 21045  
SUITE 100  
TELEPHONE (301) 740-5200

NO.	REVISION	BY	DATE
1	REVISED PER HOWARD COUNTY COMMENTS	P.O.A.	2/18/87

DESIGNED BY: JAB  
DRAWN BY: P.O.A.  
CHECKED BY: R.H.V.  
DATE: DEC 1986  
SCALE: 1"=100'  
W.O. NO. 04-86-002D  
7 SHEET OF 11

1201



- NOTES:**
1. DURING GRADING OPERATIONS INGRESS AND EGRESS SHALL BE MAINTAINED TO ALL EXISTING RESIDENCES ON A CONTINUOUS BASIS.
  2. EXISTING TREES, SHRUBS AND OTHER VEGETATION DISTURBED ON HANNONS PROPERTY DURING DRIVEWAY RELOCATION AND GRADING TO BE REPLACED WITH COMPARABLE PLANTS.
  3. THE CONTRACTOR IS RESPONSIBLE TO SAVE CERTAIN BUILDINGS, TREES AND SHRUBS AS THE DEVELOPER SEES FIT IN THE FIELD. ALL BUILDINGS, SHRUBS OR TREES TO BE SAVED ARE TO BE FLAGGED AND MARKED ACCORDINGLY.

**CONTOURS LEGEND**

--- EXISTING GRADES  
 --- MASS GRADING (REF. GP-87-20)  
 --- FINAL GRADING

NOTE: TOPOGRAPHY SHOWN HEREON BASED ON AERIAL TOPO DONE BY POTOMIC SURVEYS.

**SEDIMENT CONTROL DEVICE LEGEND**

SYMBOL	ABBREVIATION	DESCRIPTION
[Symbol]	S.C.E.	STABILIZED CONSTRUCTION ENTRANCE
[Symbol]	A-2 (TYR)	EARTH DIKE
[Symbol]	S	SILT FENCE
[Symbol]	-	FLOW OF RUNOFF
[Symbol]	-	DRAINAGE DIVIDE
[Symbol]	IPD	INLET PROTECTION DEVICE

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 Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

*Bernie G. Robbins*  
 Signature of Developer  
 4-18-87  
 Date

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*William H. Nobles, Jr.*  
 PROFESSIONAL ENGINEER  
 4/14/87  
 DATE

For As-Built Only

*Robert L. Cooper*  
 REGISTERED PROFESSIONAL ENGINEER

APPROVED: DEPARTMENT OF PUBLIC WORKS

*William J. Kelly* 4-27-87  
 CHIEF, BUREAU OF ENGINEERING  
 APPROVED: OFFICE OF PLANNING AND ZONING

*Acting Louis Adams* 4-14-87  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

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

*Howard S.C.D.*  
 HOWARD S.C.D. DATE

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

*[Signature]* 4-21-87  
 SIGNATURE DATE  
 U.S. SOIL CONSERVATION SERVICE

OWNER: SULLIN ENTERPRISES LTD. 1133 GREENWOOD ROAD PIKESVILLE, MARYLAND 21208 PHONE: (301) 486-5350

STREET TREE, GRADING AND SEDIMENT CONTROL

**McKENZIE'S DISCOVERY**  
 SECTION ONE  
 TAX MAP NO. 17 PARCELS 4, 172, 360  
 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
 CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS

9030 RED BRANCH ROAD SUITE 100 COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200

NO.	REVISION	BY	DATE
1	REV. PER HOWARD CO. COMMENTS	J.J.T.	3/2/87
2	" " " " " " " "	W.N.	3/13/87

DESIGNED BY: J.A.B.  
 DRAWN BY: J.M.M.  
 CHECKED BY: W.H.N.  
 DATE: NOV. 1986  
 SCALE: 1" = 50'  
 W.O. NO. 04-86-002D

1261



SMALLWOOD PROPERTY  
1145/596

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*John E. Harms Jr.* 4-27-87  
 CHIEF, BUREAU OF ENGINEERING  
 APPROVED: OFFICE OF PLANNING AND ZONING  
*John E. Harms Jr.* 4-27-87  
 CHIEF, BUREAU OF PLANNING AND ZONING



**DEVELOPER'S/BUILDERS CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

H. JONES BAKER  
713/338  
TIM 17 PARCEL 37

*Bernie G. Robbins*  
SIGNATURE OF DEVELOPER/BUILDER: BERNIE G. ROBBINS DATE: 4-13-87

**ENGINEER'S CERTIFICATE**

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*William H. Hayes, Jr.*  
PROFESSIONAL ENGINEER  
WILLIAM H. HAYES, JR. DATE: 4/14/87

DEVELOPER:  
TALLEY CONSTRUCTION  
1133 GREENWOOD ROAD  
PIKESVILLE, MARYLAND  
21208  
PHONE: (301) 486-5350

OWNER:  
SULIN ENTERPRISES, LTD.  
1133 GREENWOOD ROAD  
PIKESVILLE, MARYLAND  
21208  
PHONE: (301) 486-5350

REVIEWED FOR: HOWARD S.C.D. NAME: \_\_\_\_\_ AND MEETS TECHNICAL REQUIREMENTS SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_ U.S. SOIL CONSERVATION SERVICE

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

*Stephen E. Huber*  
HOWARD S.C.D. DATE: \_\_\_\_\_

**STREET TREE, GRADING AND SEDIMENT CONTROL**

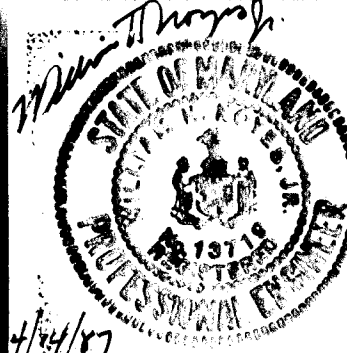
**MCKENZIE'S DISCOVERY SECTION ONE**

TAX MAP NO. 17 PARCELS 4, 172, 360  
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**JOHN E. HARMS JR. AND ASSOCIATES INC.**

CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
9030 RED BRANCH ROAD SUITE 100  
COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200

NO.	REVISION	BY	DATE



DESIGNED BY: J.A.B.  
DRAWN BY: J.M.M.  
CHECKED BY: W.H.N.  
DATE: Nov. 1986  
SCALE: 1"=50'  
W.O. NO. 01-86-002D

SHEET OF 11

1261

**SEDIMENT CONTROL NOTES**

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 34 days for 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 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 6) 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.
- 7) Site Analysis: SECTION ONE ONLY
  - Total Area of Site: 43.7 Acres
  - Area Disturbed: 18.2 Acres
  - Area to be roofed or paved: 1.6 Acres
  - Area to be vegetatively stabilized: 22.6 Acres
  - Total Cut: 14,600 Cu. Yds.
  - Total Fill: 14,600 Cu. Yds.
  - Offsite waste/borrow area location: LEFT END MCKENZIE RD. (ON SITE)
- 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 controls must be provided, if deemed necessary by the Howard County DPM 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.

**PERMANENT SEEDING NOTES**

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

**Soil Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 400 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

**Seeding --** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 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 Kentucky 31 tall fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, project site by 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 tall fescue and mulch with 2 tons/acre well anchored straw.

**Mulching --** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using a rich anchoring tool or 216 gallons per acre (6 gal/1000 sq ft) of emulsified asphalt on "at areas. On slopes 8 ft or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

**Maintenance --** Inspect all seeded areas and make needed repairs, replacements and touchings.

**TEMPORARY SEEDING NOTES**

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

**Soil Preparation:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

**Soil Amendments:** Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

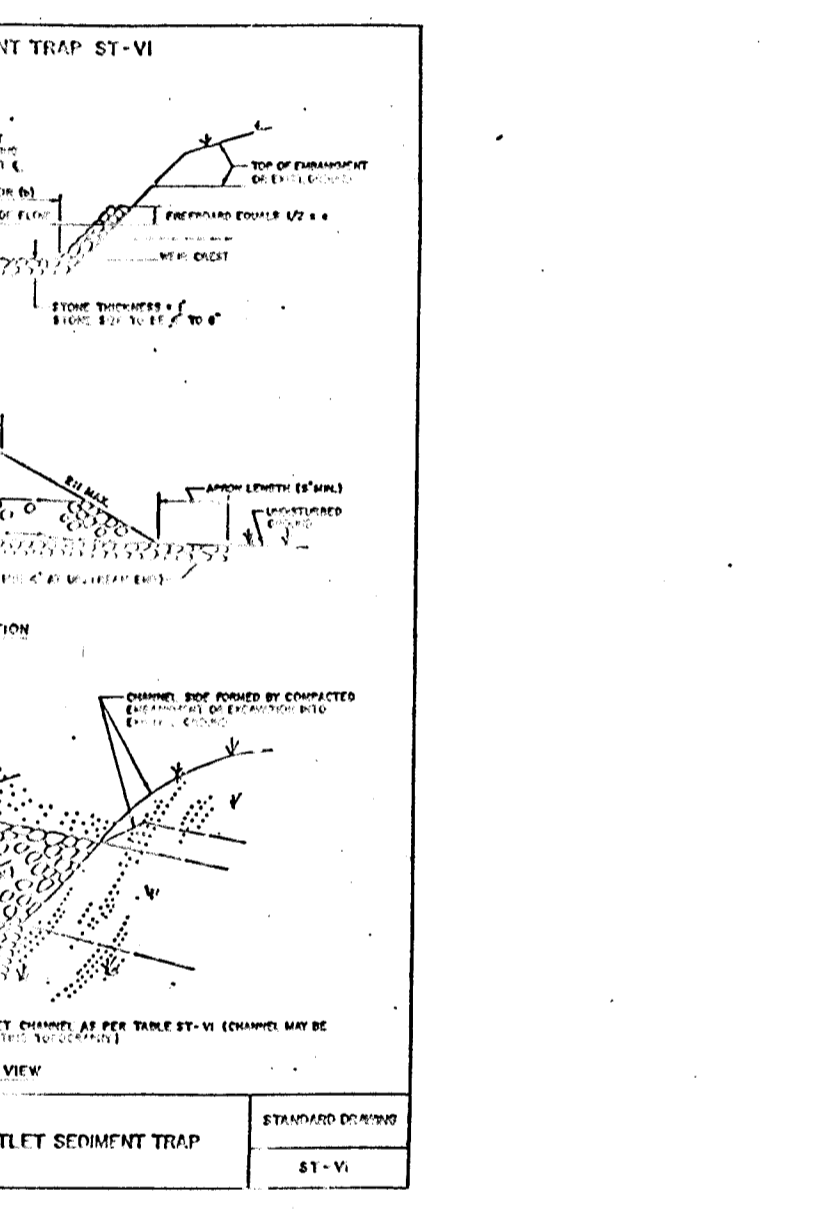
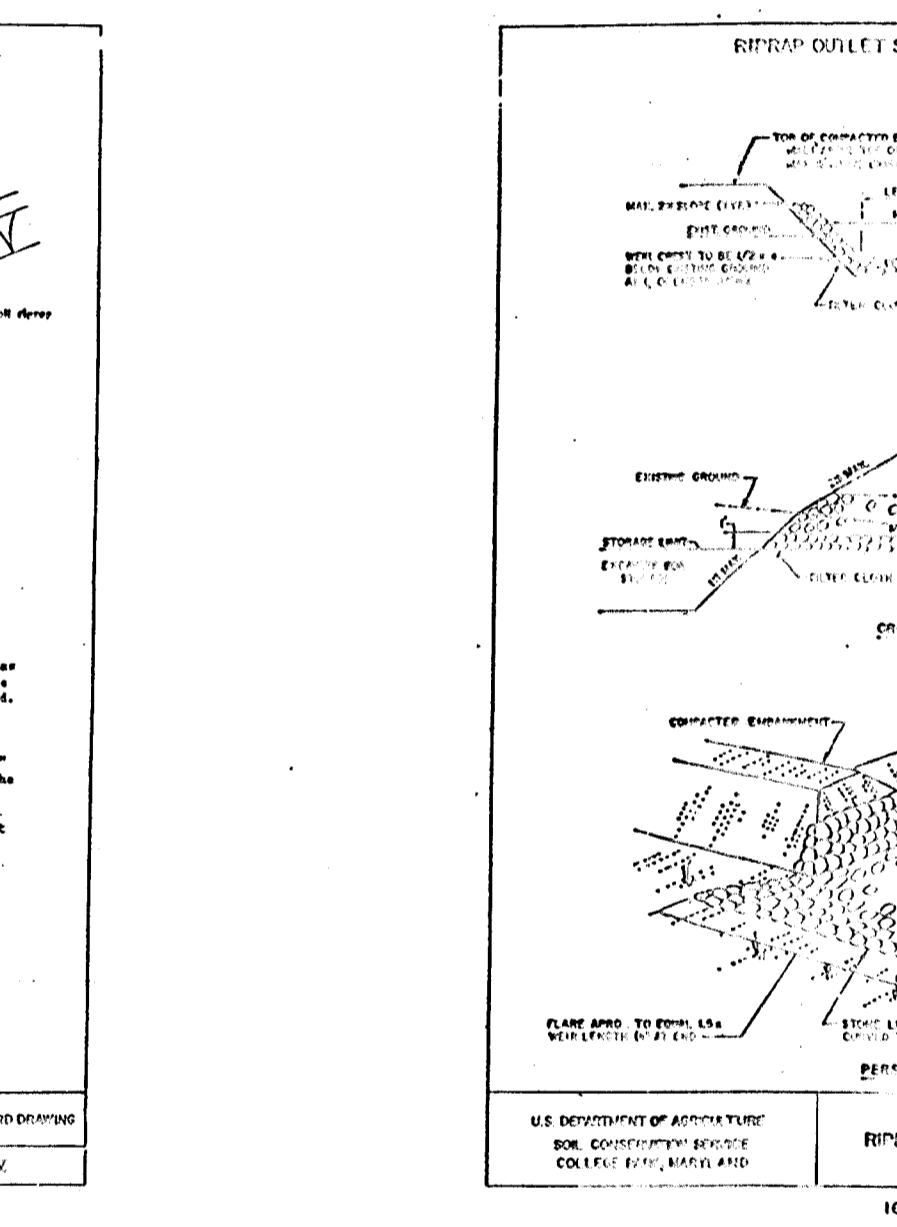
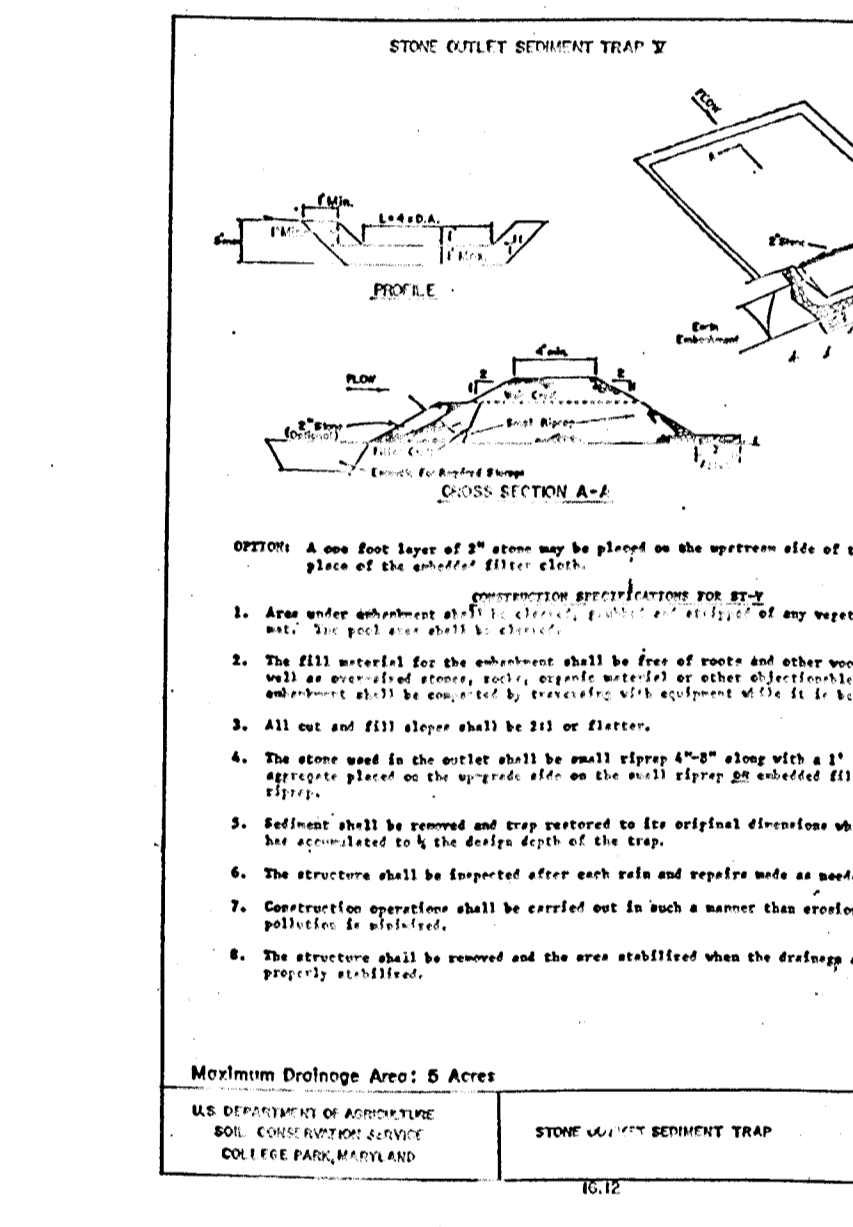
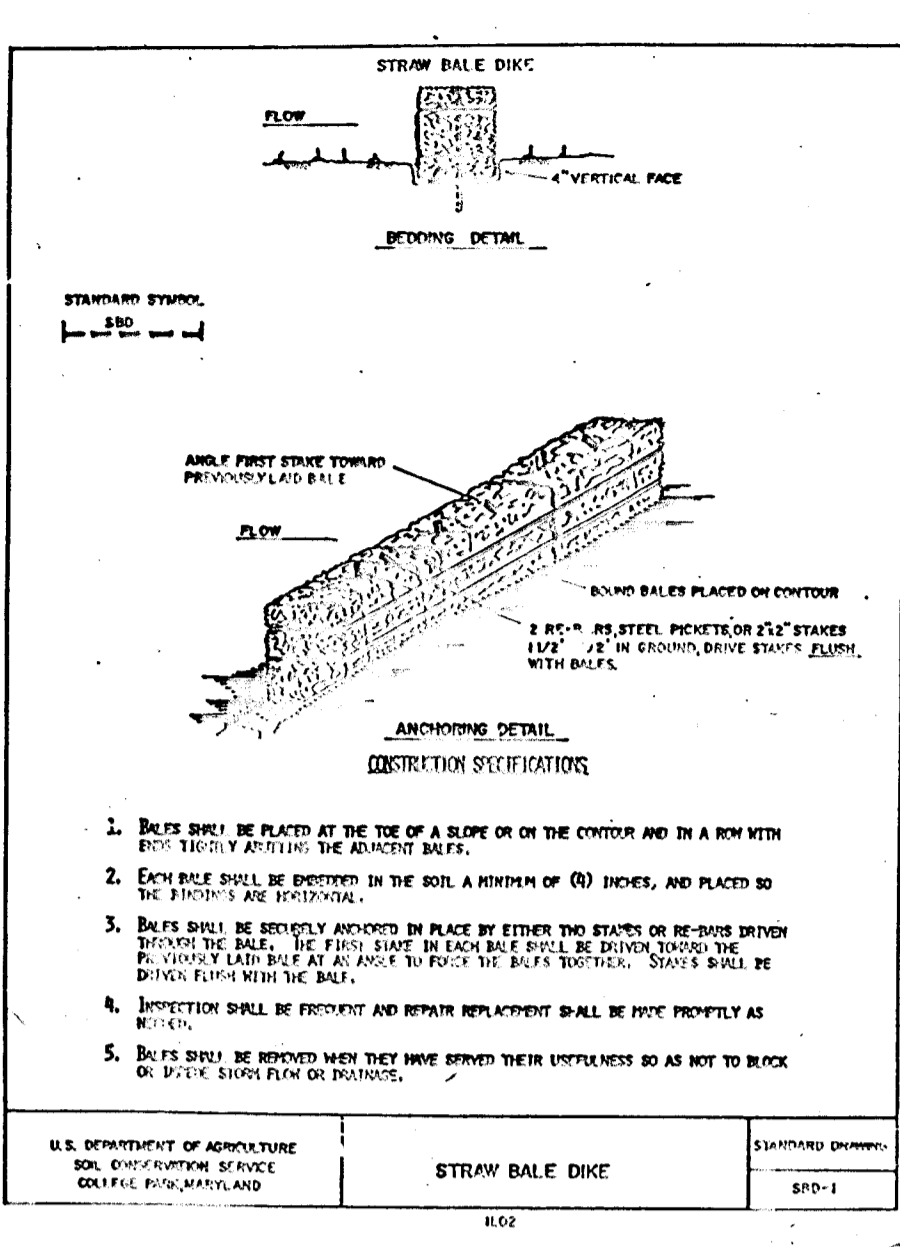
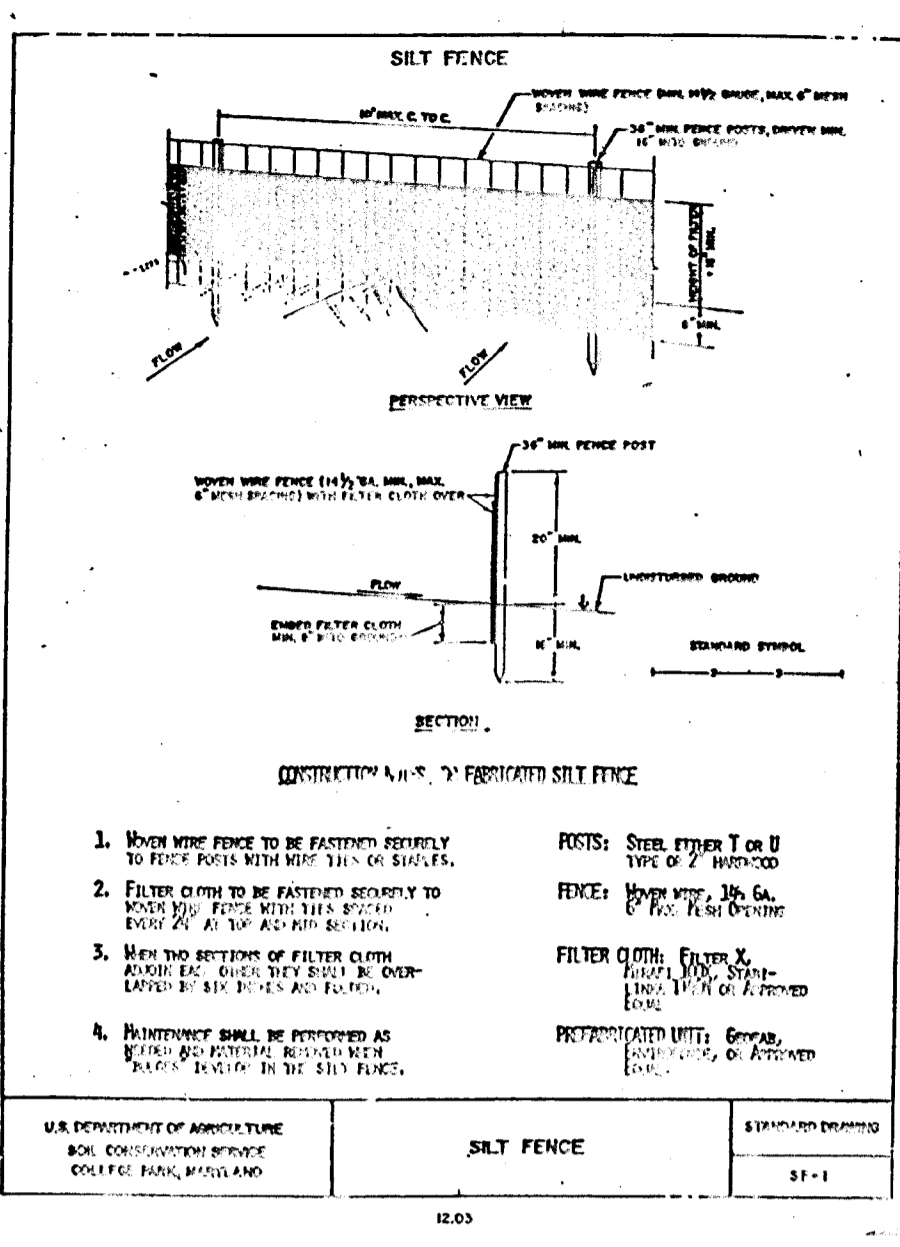
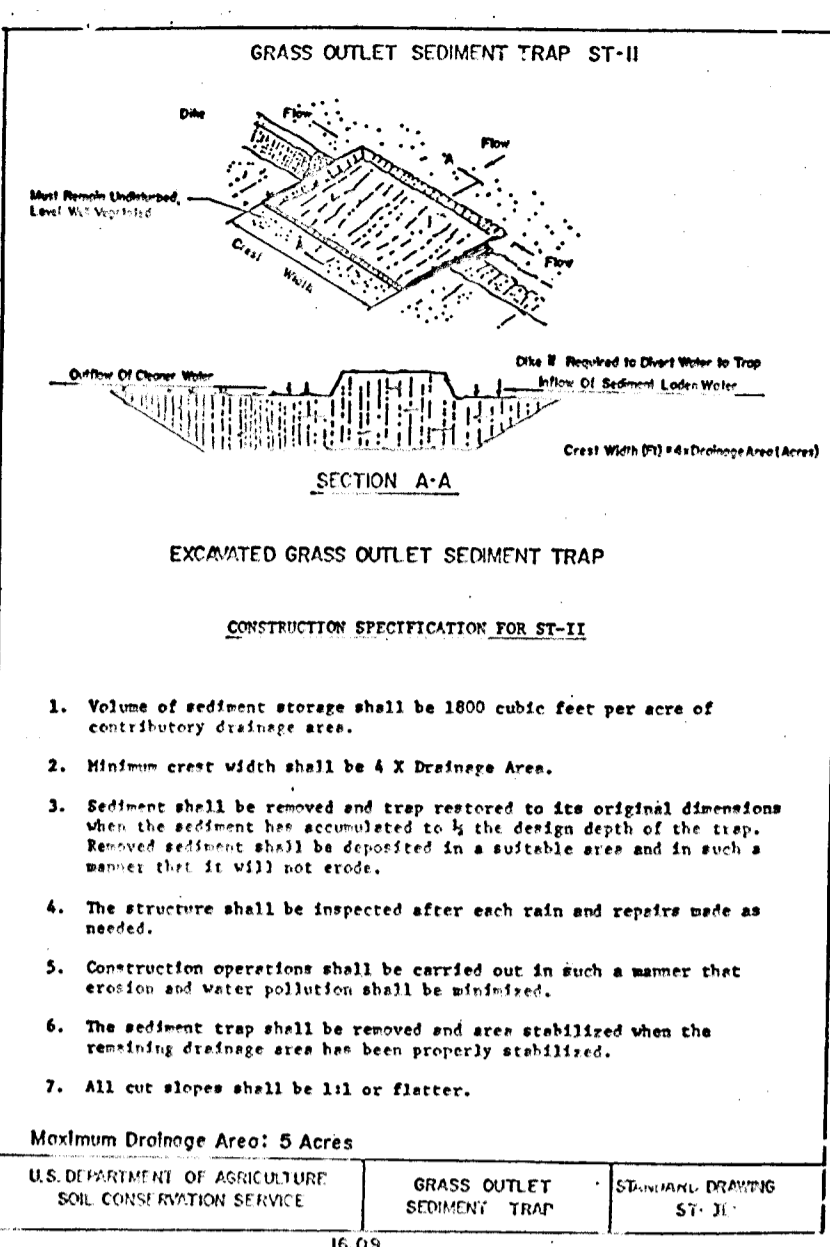
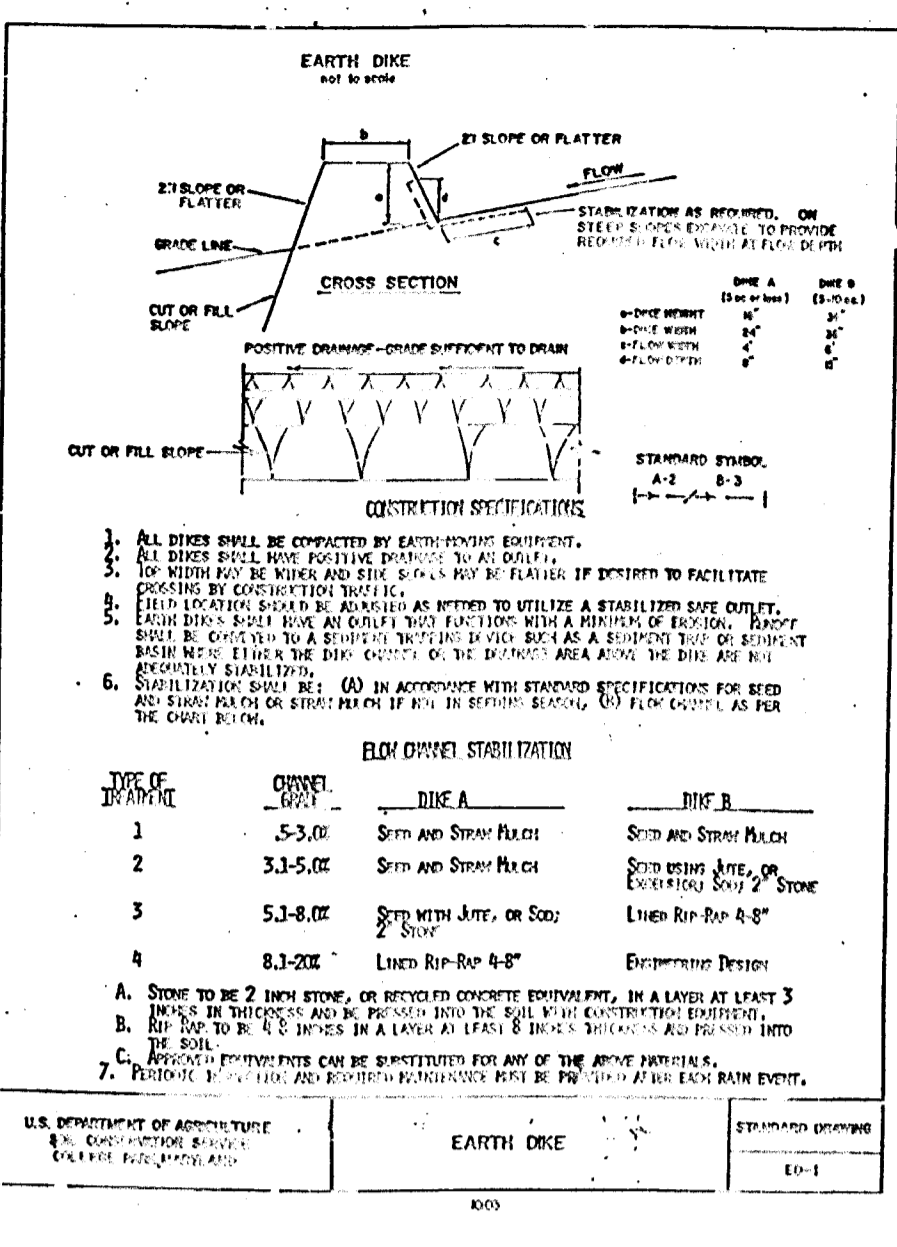
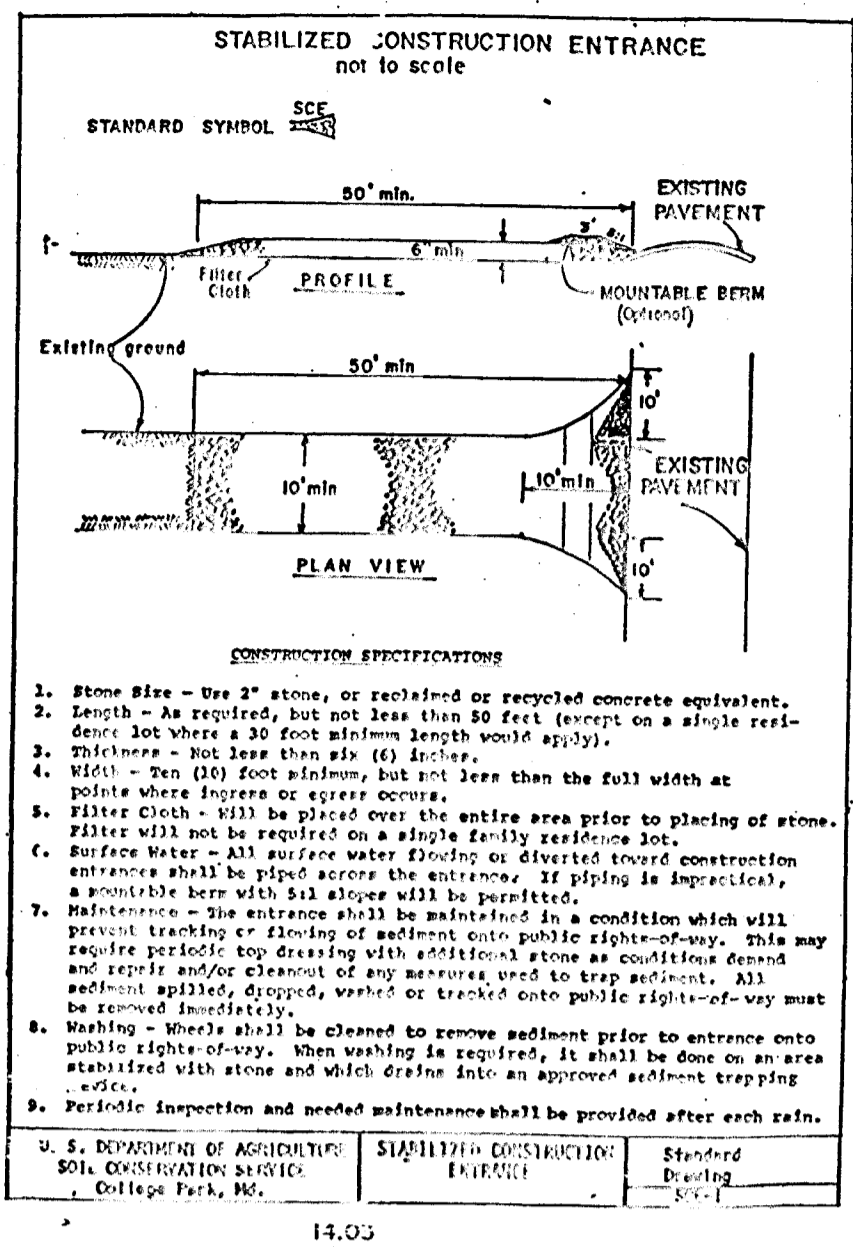
**Seeding --** For periods March 1 thru April 30 and from August 1 thru November 15, seed with 2 bushels per acre of annual ryegrass (2.2 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, project site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

**Mulching --** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 216 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas on slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for methods not covered.

**SEQUENCE OF CONSTRUCTION**

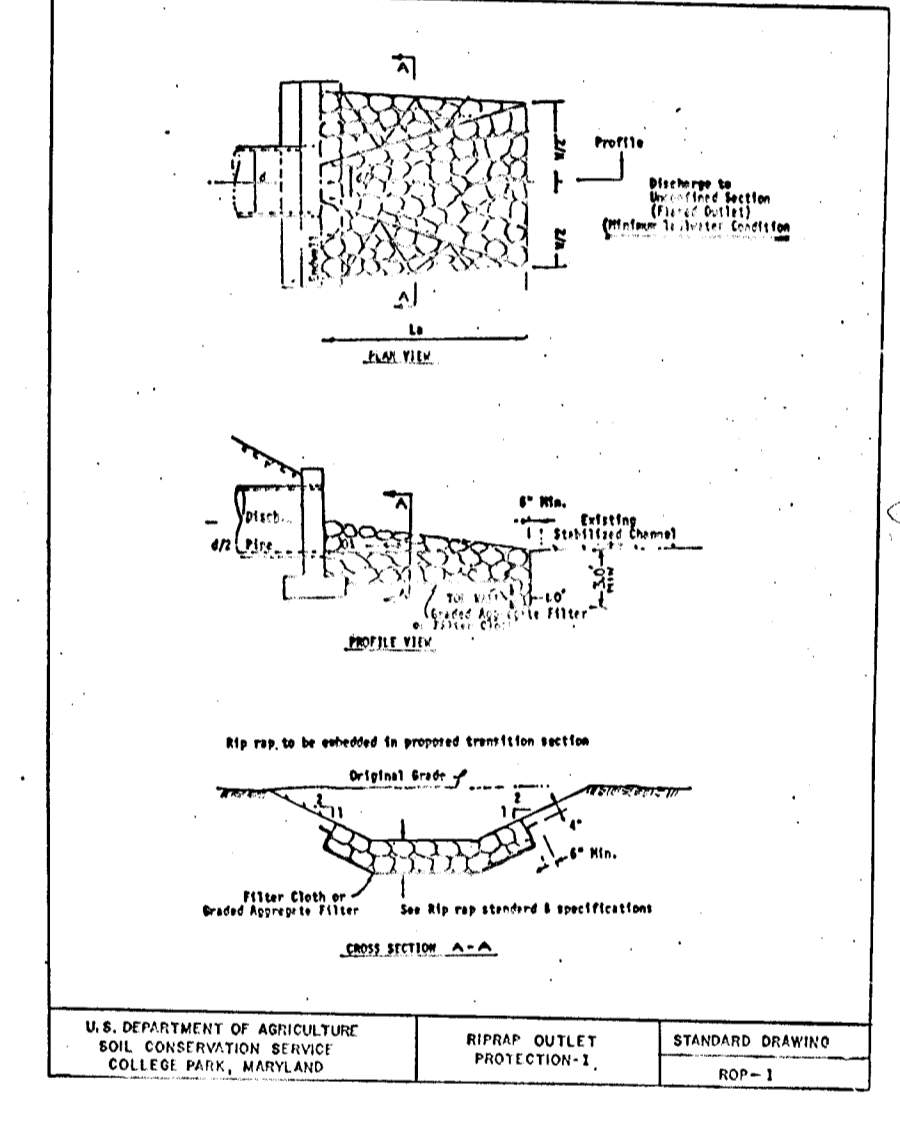
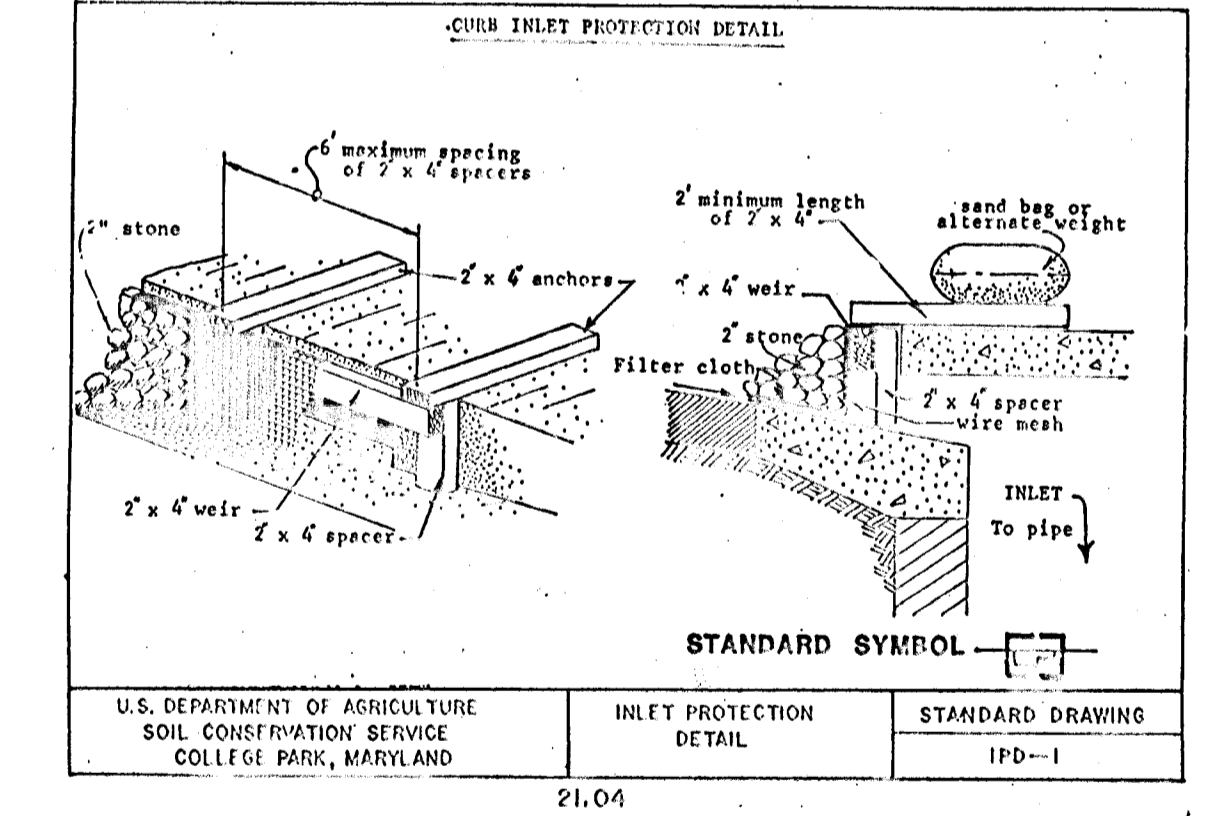
- 1) OBTAIN GRADING PERMIT.
- 2) NOTIFY HOWARD COUNTY BUREAU OF INSPECTIONS AND PERMITS (992-2437) AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
- 3) CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
- 4) RECONSTRUCT TRAPS (NO. 3, 4, 5, 6 AS OF MASS GRADING PLAN GP-87-20) AS NECESSARY TO OBTAIN BOTTOM ELEVATION.
- 5) RECONSTRUCT ALL OTHER SEDIMENT CONTROL DEVICES AS NEEDED.
- 6) INSTALL WATER AND SEWER, SECTION 1 ONLY.
- 7) SUPPLY RIP-RAP AS NEEDED IN DISTURBED AREAS OF NATURAL SWALE WATERWAY BETWEEN SEWER MANHOLES 1 THRU 5.
- 8) RECONSTRUCT SEDIMENT TRAP NO. 3.
- 9) DURING CONSTRUCTION AND AFTER EACH RAINFALL, THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE ON THE SEDIMENT AND EROSION CONTROL STRUCTURES SHOWN ON THIS PLAN.
- 10) CONSTRUCT ALL STORM DRAIN SYSTEMS (SECTION 1). (REF. STEP 12)
- 11) INSTALL INLET PROTECTION DEVICES ON SPECIFIED INLETS.
- 12) DIVERT MAIN STORM DRAIN SYSTEM TO SEDIMENT TRAP NO. 3.
- 13) CONSTRUCT CONCRETE CURB AND LAY BASE COURSE.
- 14) UPON STABILIZATION OF GRADED AREAS, INLETS SHALL BE OPEN AND ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE STORM DRAIN SYSTEMS.
- 15) INSTALL REMAINDER OF STORM DRAIN SYSTEM AND OUTFALLS.
- 16) REMOVE SEDIMENT TRAPS AND ALL OTHER SEDIMENT CONTROL DEVICES ONCE ALL DISTURBED AREAS HAVE BEEN STABILIZED.



**SEDIMENT TRAPS**

SEDIMENT TRAP NO.	SECTION 2			SECTION 1		
	1	2	3	4	5	6
TYPE OF TRAP	S.O.*	S.O.*	S.O.*	R.R.O.**	S.O.*	S.O.*
DRAINAGE AREA	2.24AC	3.04 AC	4.10 AC	5.34 AC	1.35 AC	1.61 AC
STORAGE REQUIRED (CY)	150.0	204.0	275.0	328.0	91.0	108.0
STORAGE PROVIDED (CY)	167.0	209.0	278.0	404.0	97.0	116.0
STORAGE ELEVATION (FT)	459	447	473	479	481	476
BOTTOM ELEVATION (FT)	454	438	418	474	438	473
DIMENSIONS: (F x F)						
@ STORAGE ELEV.	30 x 50	34 x 60	30 x 80	36 x 90	50 x 75	25 x 60
@ BOTTOM ELEV.	10 x 30	10 x 44	10 x 60	16 x 70	13 x 36	13 x 48
STORAGE DEPTH (FT)	5.0	4.0	5.0	5.0	3.0	3.0
CLEARANCE ELEV. (FT)	456.5	440.0	471.5	476.5	439.5	474.5
CRISP ELEV. (FT)	460.0	445.0	474.0	480.0	447.0	477.0
WEIR LENGTH (FT)	10.0	12.0	17.0	14.0	6.0	7.0

S.O.\* = STONE OUTLET TRAP (ST-V)  
R.R.O.\*\* = RIP-RAP OUTLET TRAP (ST-VI)



**DEVELOPER'S CERTIFICATE**

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 Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."

Signature: *Bernie G. Robbins* Date: 4-13-87

BERNIE G. ROBBINS

**ENGINEER'S CERTIFICATE**

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."

Signature: *William J. ...* Date: 4/14/87

Reviewed for: HOWARD S.C.D. Name and meets Technical Requirements.

U.S. Soil Conservation Service Date: 4/13/87

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

Signature: *Howard S.C.D.* Date: 4/13/87

APPROVED: DEPARTMENT OF PUBLIC WORKS.

Signature: *William J. ...* Date: 4-27-87

APPROVED: OFFICE OF PLANNING AND ZONING.

Signature: *William J. ...* Date: 4-27-87

OWNER:  
SULIN ENTERPRISES, LTD  
1133 GREENWOOD ROAD  
PIKESVILLE, MARYLAND  
21208  
PHONE: (301) 486-5350

DEVELOPER:  
TALLEY CONSTRUCTION  
1133 GREENWOOD ROAD  
PIKESVILLE, MARYLAND  
21208  
PHONE: (301) 486-5350

**SEDIMENT CONTROL DETAIL**  
**MCKENZIE'S DISCOVERY**  
**SECTION ONE**

TAX MAP 17 PARCELS: 4, 172, 360  
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS

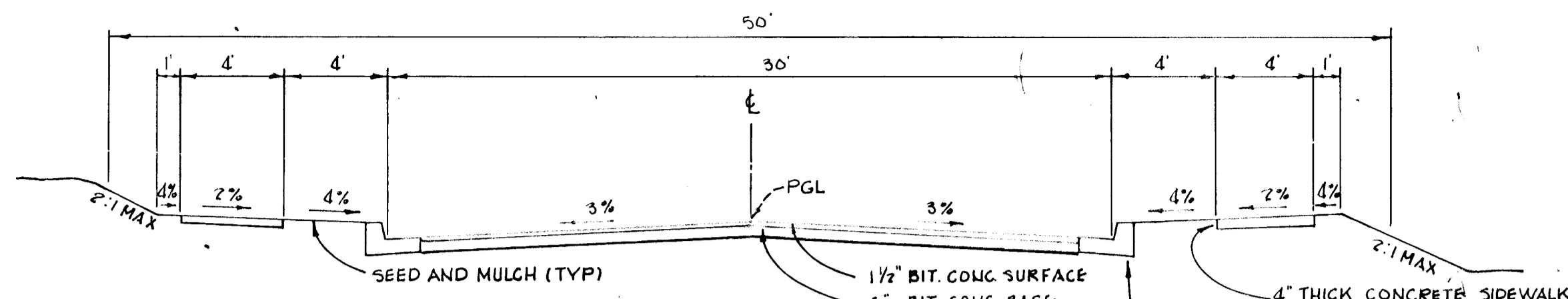
9030 RED BRANCH ROAD SUITE 100  
COLUMBIA MARYLAND 21045 TEL: (301) 740-5200

DESIGNED BY: J.A.B.  
DRAWN BY: J.O.A.  
CHECKED BY: W.H.N.  
DATE: NOV 1986  
SCALE: AS SHOWN  
W.O. NO. 04-06-002D

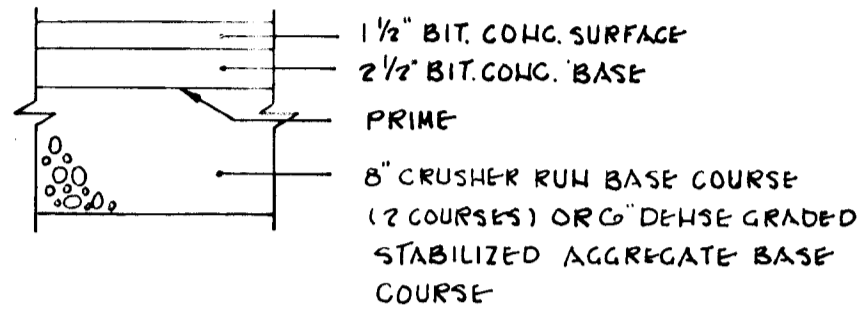
NO. REVISION BY DATE

10 SHEET OF 11

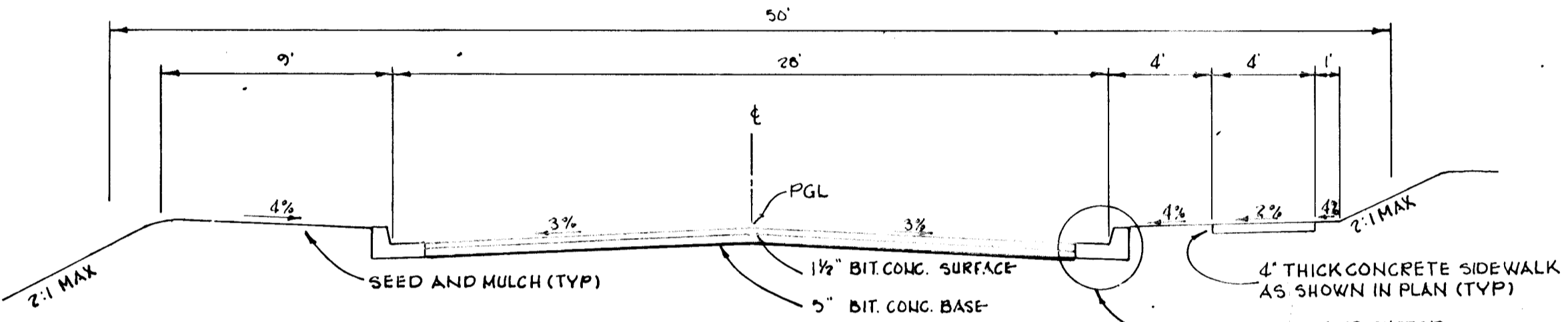
1261



McKENZIE ROAD  
TYPICAL PAVING SECTION  
NOT TO SCALE

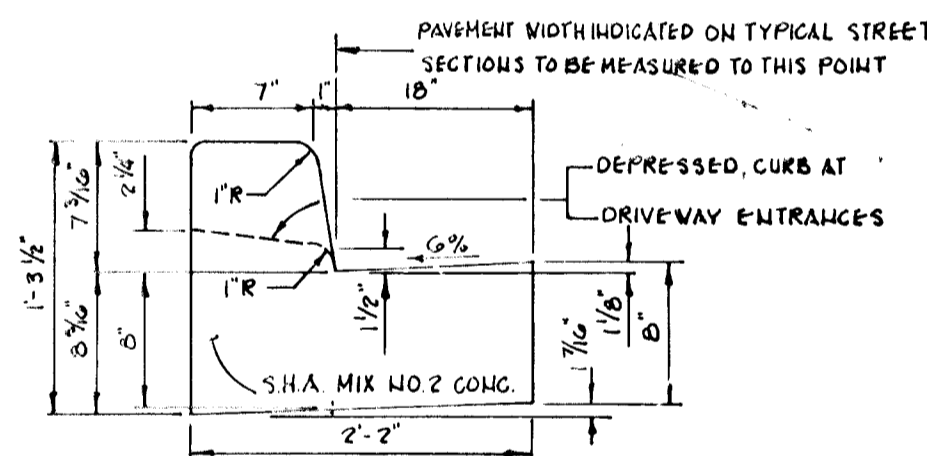


ALTERVATE PAVING SECTION  
NOT TO SCALE

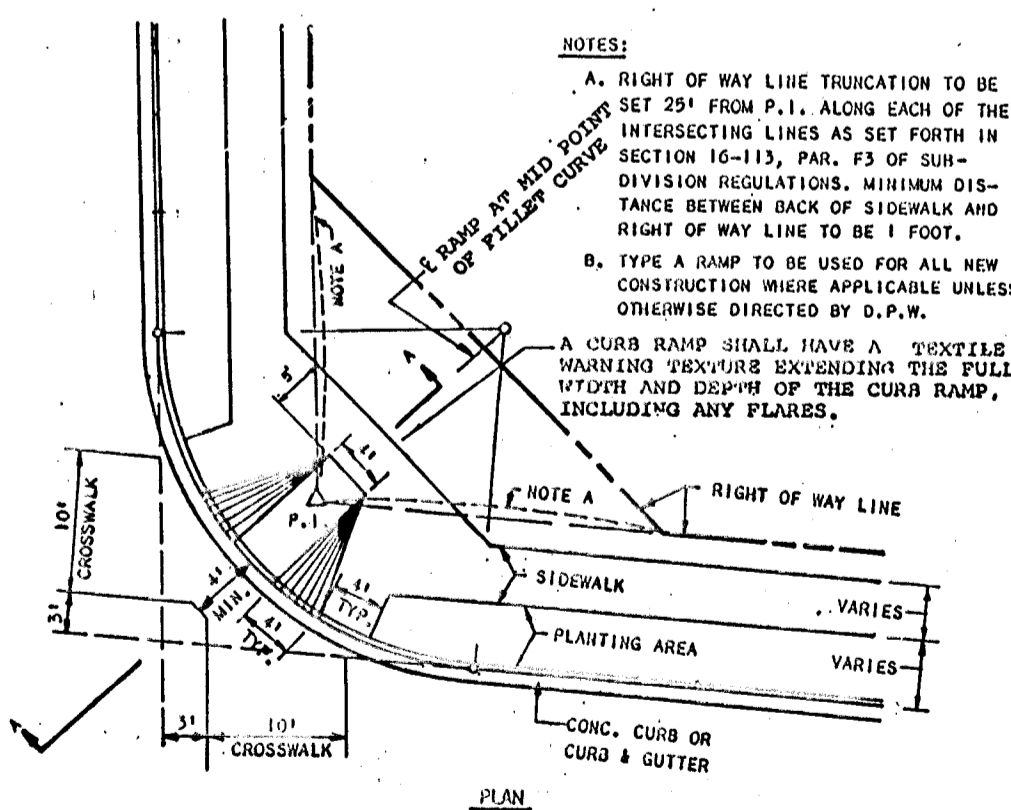


HANNON COURT  
TYPICAL PAVING SECTION  
NOT TO SCALE

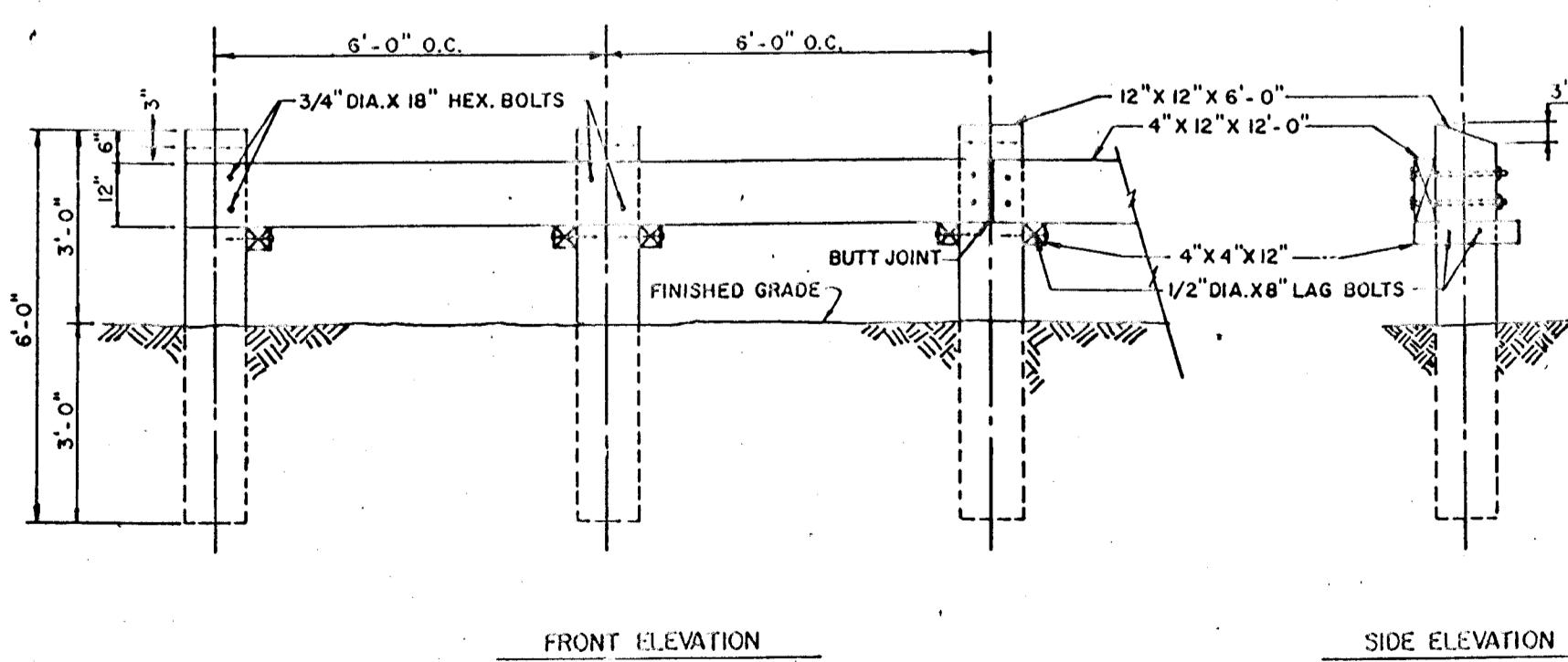
NOTE:  
ZONING: R-20  
ROAD CLASSIFICATION: LOCAL ROADS  
DESIGN SPEED: 30 MPH.



STANDARD CURB AND GUTTER DETAIL  
NOT TO SCALE



HANDICAPPED RAMP DETAIL  
NOT TO SCALE

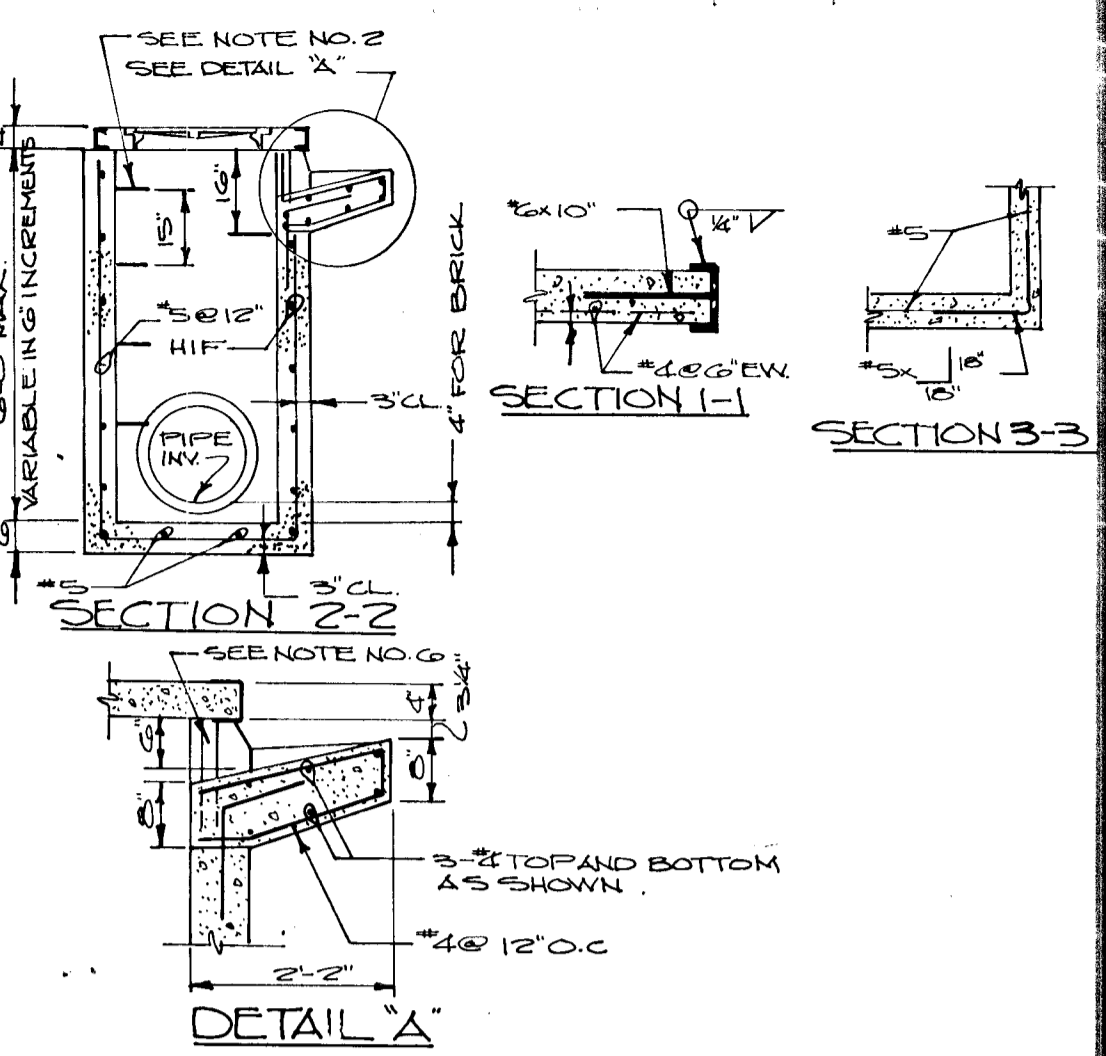
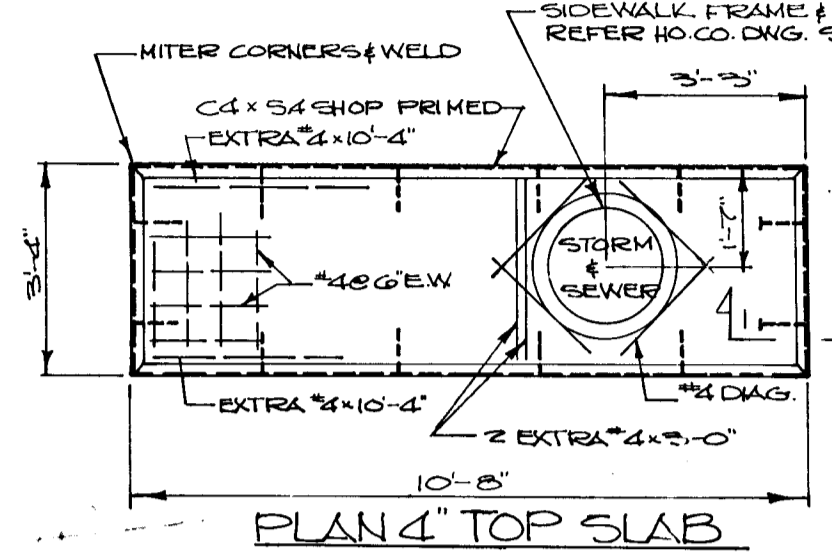
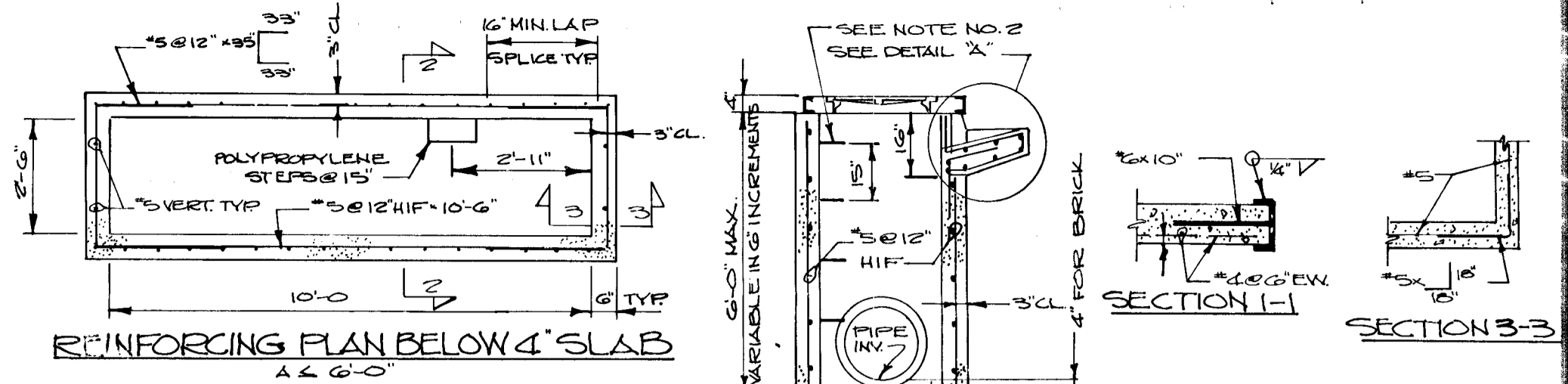


DEAD END BARRICADE DETAIL  
NOT TO SCALE

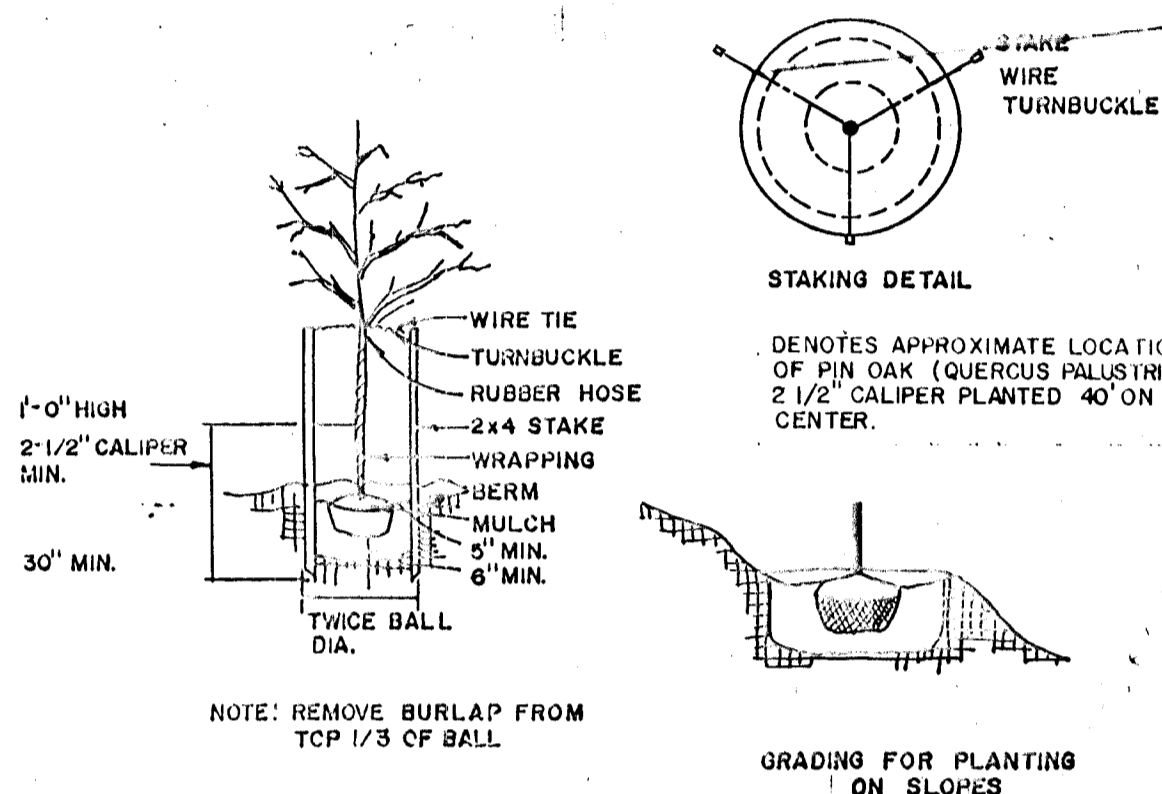
- NOTES:
1. ALL TIMBER TO BE PRESSURE TREATED.
  2. ALL HARDWARE TO BE HOT DIPPED GALVANIZED.
  3. BEVEL ALL EXPOSED EDGES 1/2" X 1/2".
  4. MAY BE USED AS GUARDRAIL WITH APPROVAL OF D.P.W.
  5. BARRICADE TO EXTEND FULL WIDTH OF R/W.
  6. TYPE B BARRICADE TO BE USED ONLY WHEN ANTICIPATED TIME OF USE EXCEEDS ONE YEAR.

STREET LIGHT SCHEDULE

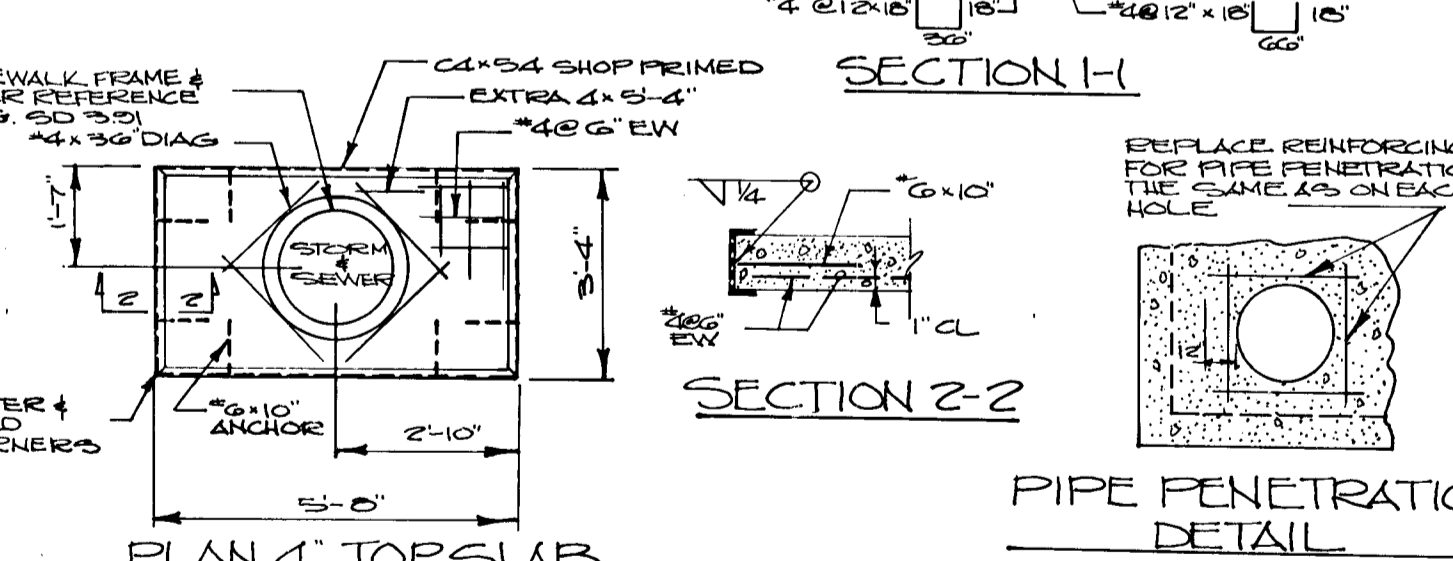
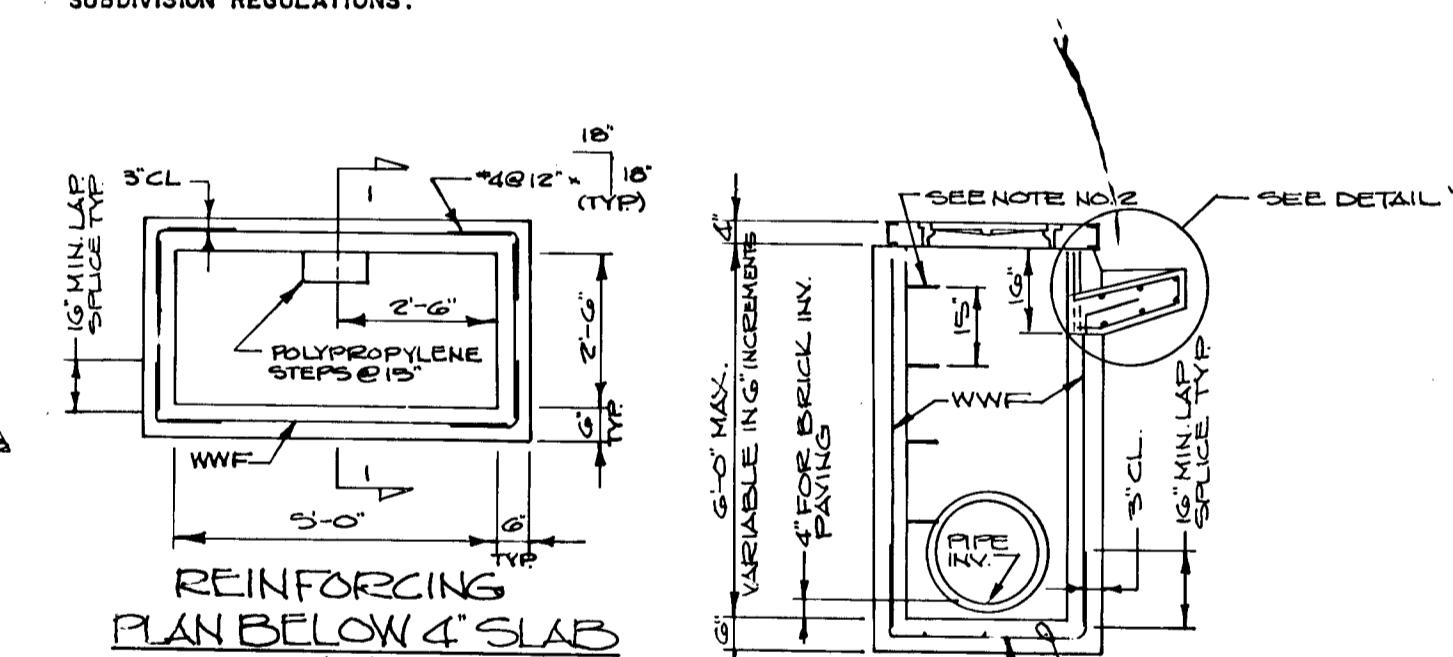
- TYPE A: 175 WATT MERCURY VAPOR LAMP MOUNTED ON A 14' FIBERGLASS BRONZE POLE LOCATED AT
1. LEFT CORNER OF THE INTERSECTION OF McKENZIE ROAD AND HANNON COURT
  2. RIGHT CORNER OF THE INTERSECTION OF McKENZIE ROAD AND OLD MAPLE COURT.
  3. LEFT SIDE McKENZIE RD. @ STA. 4+35
  4. LEFT SIDE ALONG HANNON CT. @ STA. 3+60



- NOTES:
1. CONCRETE SHALL CONFORM TO MARYLAND DOT STANDARD SPECIFICATION FOR CONSTRUCTION & MATERIALS 1982, MK IN ADDITION, P2=4500 PSI @ 28 DAYS, CEMENT SHALL BE TYPE III, AND 8 COURSE AGGREGATE SHALL BE USED.
  2. POLYPROPYLENE STEPS SHALL BE TYPE P24 OR P25 AS MANUFACTURED BY M.A. INDUSTRIES, INC.
  3. STEPS SHALL BE INSTALLED IN LINE WHERE A 7'-6" (SEE G 5 21)
  4. REINFORCING SCHEDULE IS BASED ON USD METHOD AND DESIGN LOADS AS SPECIFIED IN AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 1983 EDITION, 1983 AND INTERIM SPECIFICATIONS.
  5. WEIGHTS: 4" TOP SLAB = 2000 LBS/100 SQ. FT. MAX. INLET BOX WT = 2400 (10' HEIGHT, 1.0') RISE/R WT/VF = 2000/VF
  6. PROVIDE 3" OF RUST PROOF STEEL PIPE, PAINTED GRAY AT MID POINT OF THREAT, FILL WITH CONCRETE.



- NOTE: CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING. FINAL LOCATIONS OF TREES MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE FIELD CONDITIONS. PLANTING PROCEDURES SHALL COMPLY WITH "LANDSCAPE SPECIFICATIONS FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS". SUBSTITUTIONS TO THE ABOVE SPECIES MAY BE PERMITTED, PROVIDED THAT THE PLANTING IS IN ACCORDANCE WITH THE STREET TREE AND LANDSCAPE REQUIREMENTS AS SPECIFIED IN SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS.

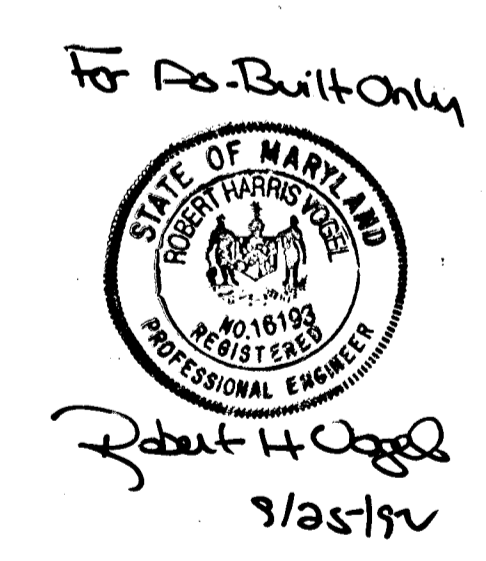


- NOTES:
1. CONCRETE SHALL CONFORM TO MARYLAND DOT STANDARD SPECIFICATION FOR CONSTRUCTION & MATERIALS 1982, MK IN ADDITION, P2=4500 PSI @ 28 DAYS, CEMENT SHALL BE TYPE III, AND 8 COURSE AGGREGATE SHALL BE USED. WWF IS 15" WIDE x 4" WIDE (0.21 SQ. IN./FT.)
  2. POLYPROPYLENE STEP SHALL BE TYPE P24 OR P25 AS MANUFACTURED BY M.A. INDUSTRIES, INC. STEPS SHALL BE INSTALLED IN LINE WHERE A 7'-6" (SEE G 5 21)
  3. REFERENCED DRAWING FOR TYPE A'S INLET IS HOWARD COUNTY STANDARD DRAWING NO. SD 401
  4. REINFORCING SCHEDULE IS BASED ON USD METHOD AND DESIGN LOADS AS SPECIFIED IN AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 1983 EDITION, 1983 AND INTERIM SPECIFICATIONS.
  5. WEIGHTS: 4" TOP SLAB = 2000 LBS/100 SQ. FT. MAX. INLET BOX WT = 2400 LBS RISE/R WT/VF = 2000/VF
  6. PROVIDE 3" OF RUST PROOF STEEL PIPE, PAINTED GRAY AT MID POINT OF THREAT, FILL WITH CONCRETE.

DEVELOPER'S CERTIFICATE  
"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 Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."  
Signature of Developer: [Signature] Date: 4/13/87

ENGINEER'S CERTIFICATE  
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."  
Engineer: [Signature] Date: 4/14/87

APPROVED: DEPARTMENT OF PUBLIC WORKS.  
[Signature] 4-27-87  
CHIEF, BUREAU OF ENGINEERING DATE  
APPROVED: OFFICE OF PLANNING AND ZONING  
[Signature] 4-21-87  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE



DETAIL SHEET  
**McKENZIE'S DISCOVERY**  
SECTION ONE  
TAX MAP 1017 PARCELS 4.172 360  
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
CONSULTING ENGINEERS - ARCHITECTS - SURVEYORS  
9030 RED BRANCH ROAD SUITE 160  
COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200

NO.	REVISION	BY	DATE
1	REVISED LIGHT SCHEDULE	J.J.T.	5/11/87
2	ADD PRECAST STANDARDS	FEA	5/11/87
3	ADD PRECAST STANDARDS	FEA	5/11/87

DESIGNED BY: J.A.B.  
DRAWN BY: P.O.A.  
CHECKED BY: R.H.V.  
DATE: DEC. 1986  
SCALE: AS SHOWN  
W.O. NO. 04-86-0020

1261