

APPROVED - DEPARTMENT OF PLANNING AND ZONING
Anna Krumm 10/31/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
 DATE
 APPROVED - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Charles J. Crovo 8/3/95
 CHIEF, BUREAU OF ENGINEERING
 DATE
Michael J. ... 8/1/95
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE
Richard W. ... 8-1-95
 CHIEF, BUREAU OF HIGHWAYS
 DATE

FINAL ROAD CONSTRUCTION, GRADING AND STORM WATER MANAGEMENT PLANS FOR

DENSITY CALCULATION

GROSS AREA OF TRACT: 95.09 AC.
 LESS THE TOTAL AREA OF STEEP SLOPES 25% AND GREATER: 1.90 AC.
 NET AREA OF TRACT: 93.19 AC.
 NUMBER OF RESIDENTIAL LOTS ALLOWED IN THE R-ED ZONE
 * 2 UNITS PER NET ACRE: 106.
 NUMBER OF RESIDENTIAL LOTS SHOWN: 103.
 NUMBER OF BUILDABLE PARCELS SHOWN: 2 (PARCELS A & B)

OPEN SPACE REQUIREMENTS

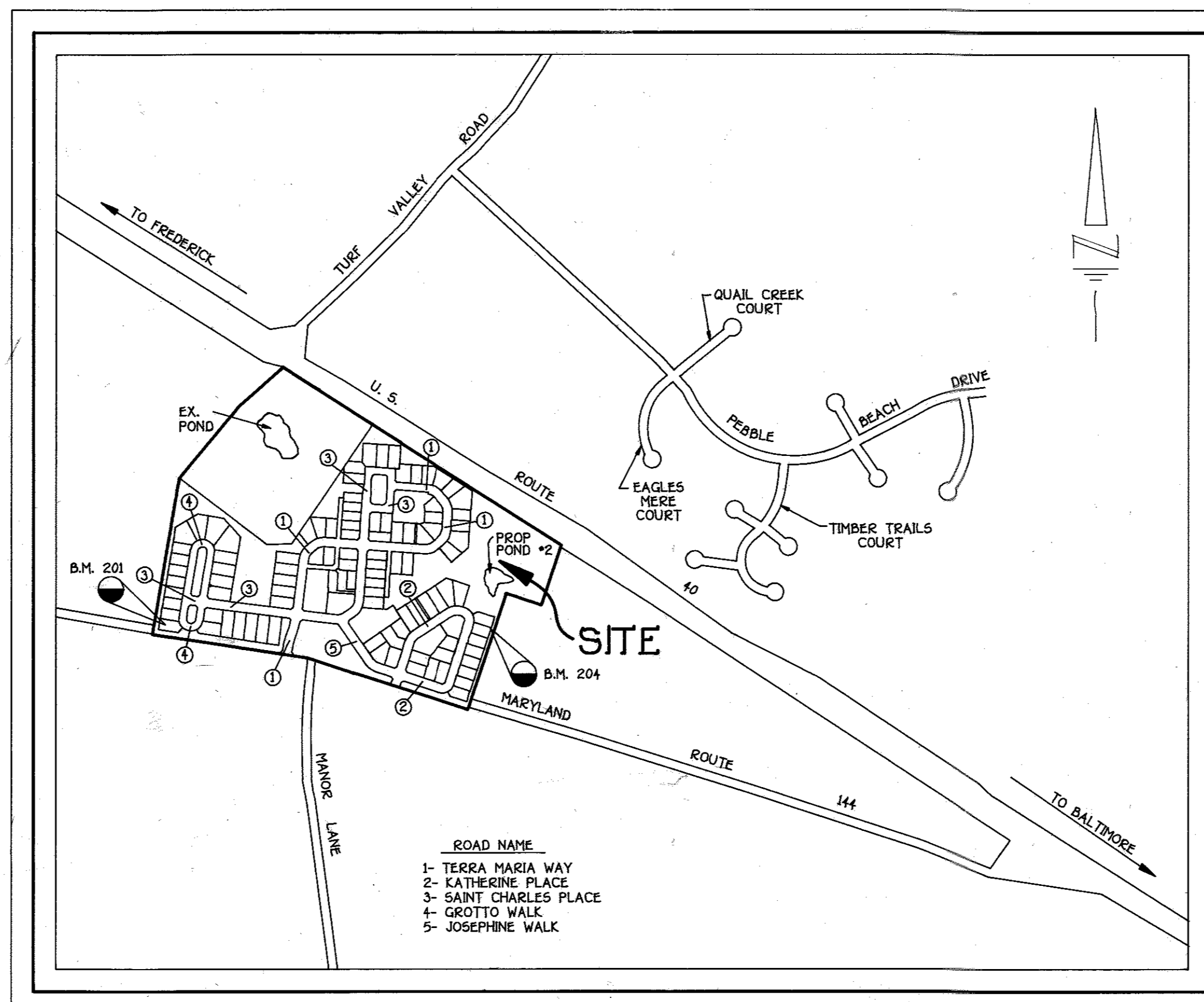
PUBLIC OPEN SPACE REQUIRED
 25% OF THE GROSS SITE ACREAGE = 13.77 AC.
 PUBLIC OPEN SPACE PROVIDED = 15.45 AC. - 0.82 AC. (AREAS LESS THAN 35' WIDE) = 14.63 AC.
 RECREATION OPEN SPACE REQUIRED
 MINIMUM OF 250 SQ.FT./UNIT = 0.60 AC.
 RECREATION OPEN SPACE PROVIDED = 2.75 AC.
 TO MEET THE TRADITIONAL NEIGHBORHOOD DESIGN (TND) REQUIREMENTS A MINIMUM OF 20% OF THE REQUIRED PUBLIC OPEN SPACE (0.375 ACRES) WILL BE DEVOTED TO FORMAL PARKS, SQUARES AND GREENS.
 FORMAL OPEN SPACE REQUIRED = 2.75 AC.
 FORMAL OPEN SPACE PROVIDED = 2.75 AC.
 TOTAL OPEN SPACE PROVIDED (NOT INCLUDING AREAS WHICH ARE LESS THAN 35' WIDE) = 17.38 AC.
 NOTE: THE RECREATIONAL OPEN SPACE REQUIREMENT WILL BE MET WITH THE FORMAL OPEN SPACE PROVIDED.

PARKING REQUIREMENTS

PARKING REQUIRED * 2.0 SPACES/UNIT = 206 SPACES.
 PARKING SUGGESTED * 2.2 SPACES/UNIT = 227 SPACES.
 PER COUNTY COMMENTS.
 PARKING PROVIDED (206 IN GARAGE, 29 PARALLEL PARKING * 8' x 22') = 235 SPACES.

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VICINITY MAP
 SCALE 1" = 600'

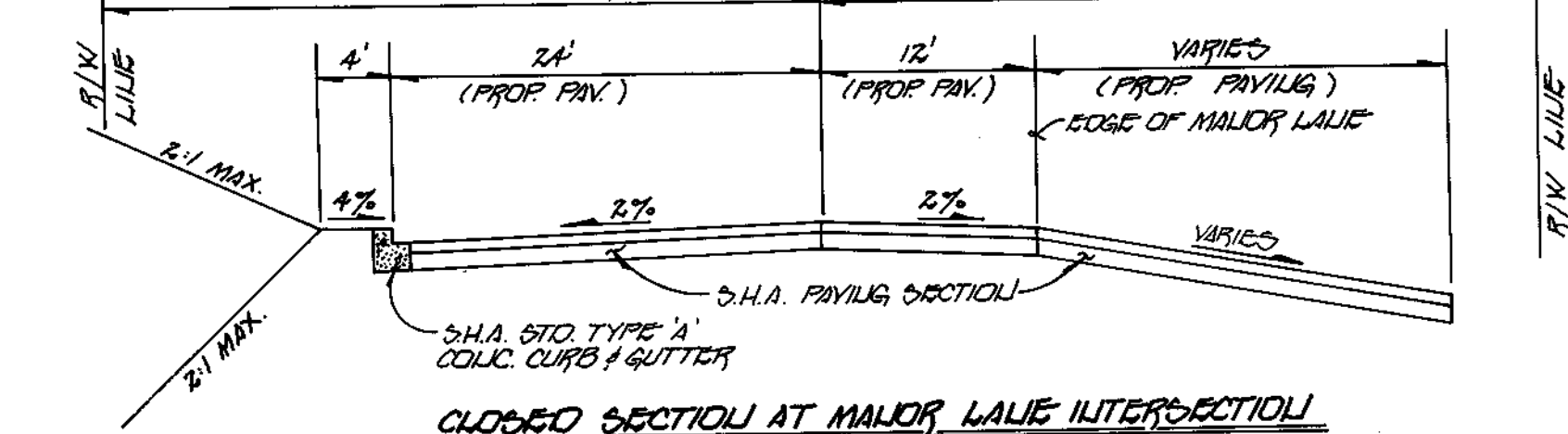
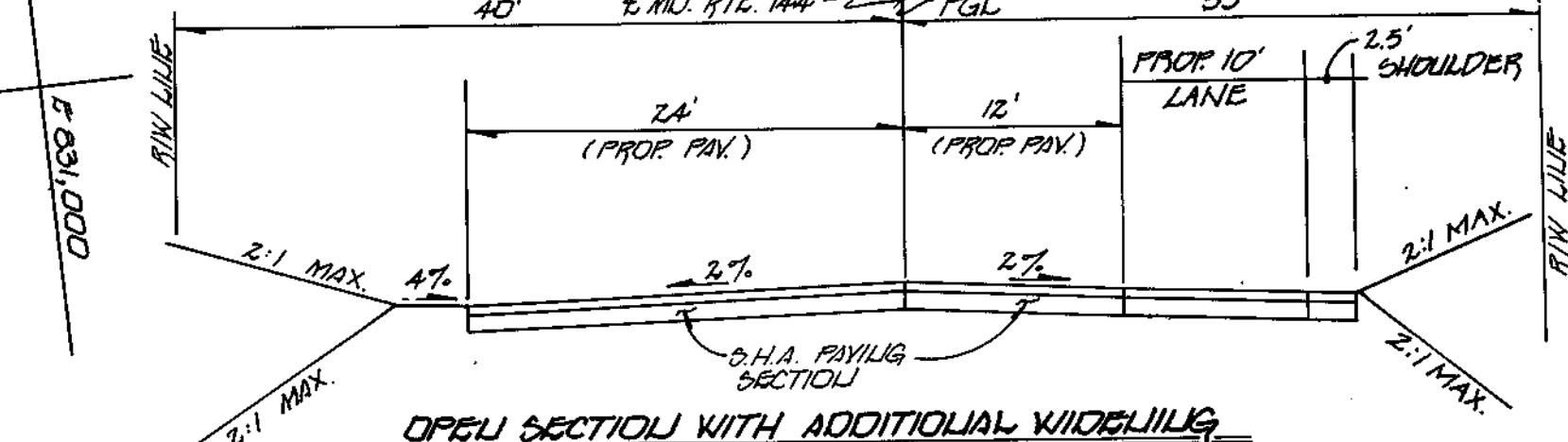
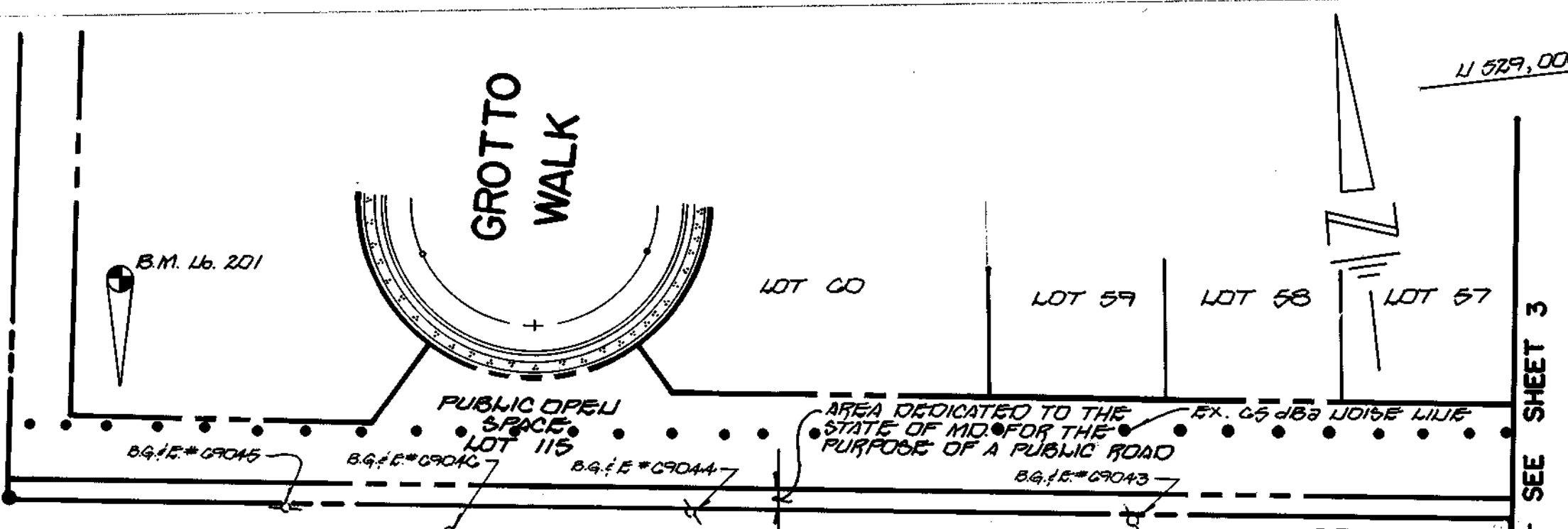
TERRA MARIA

LOTS 3-117, PARCELS A,B,C,D & E

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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DELICATE S.H.A. PAVING SECTIONS SEE DETAILS THIS SHEET.

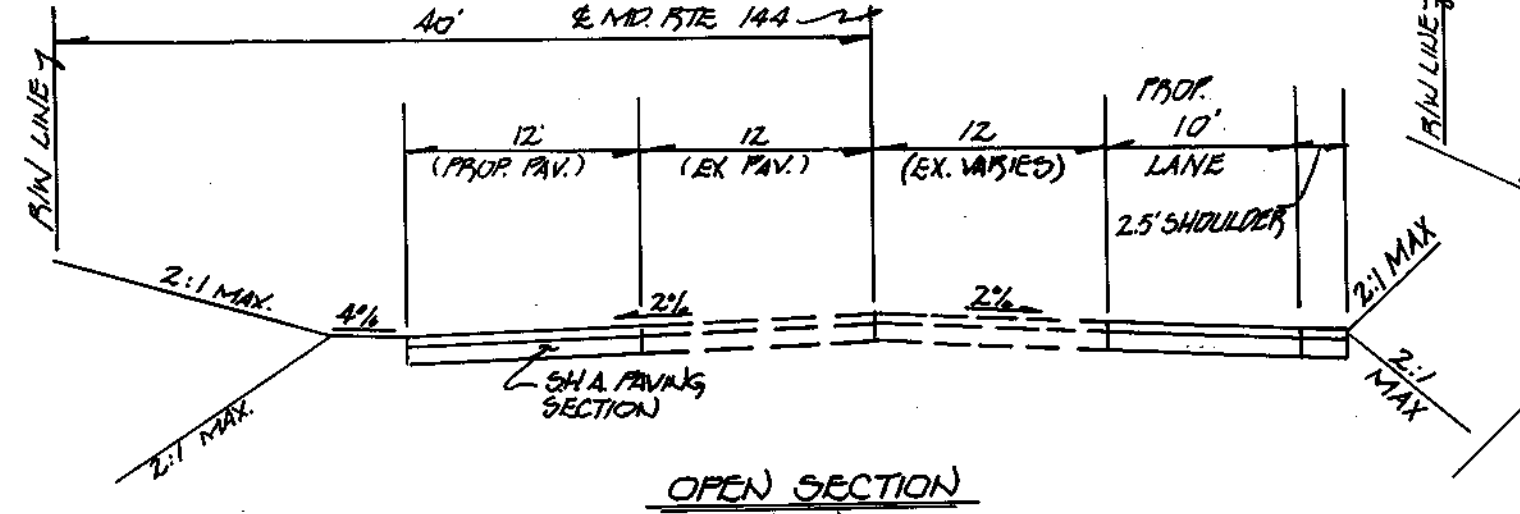


OPEN SECTION WITH ADDITIONAL WIDECURBS
(U.T.S.)
LIMITS OF WORK: 9+87 TO 10+02
DESIGN SPEED: 50 M.P.H.
ROAD CLASSIFICATION: MINOR ARTERIAL

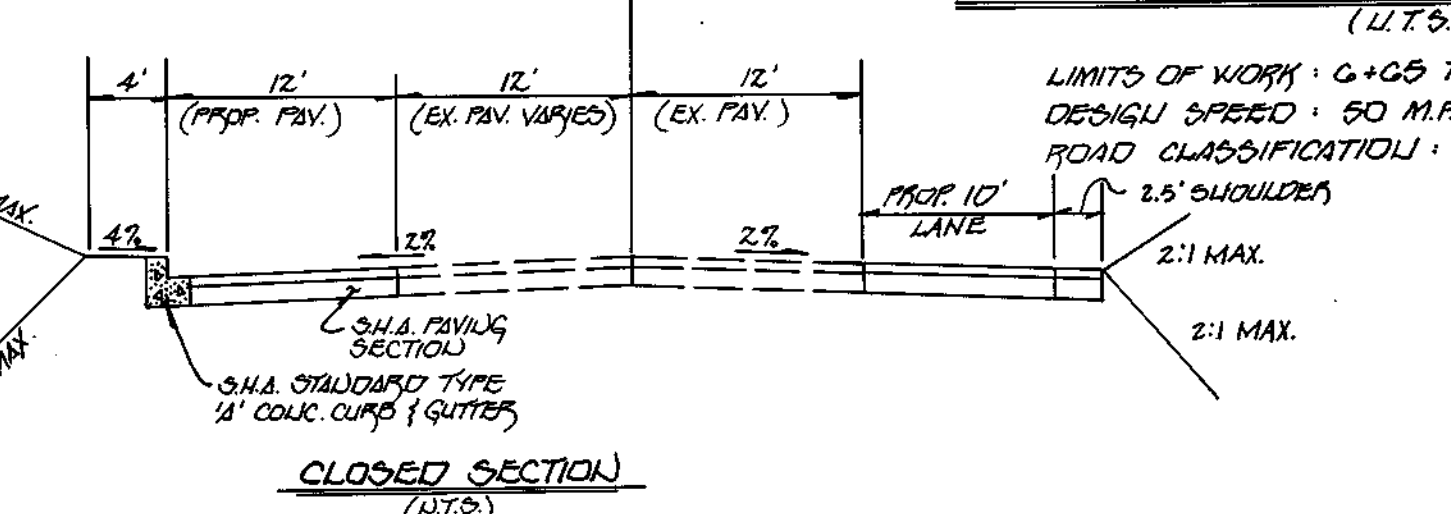
CLOSED SECTION AT MAJOR LANE INTERSECTION
(U.T.S.)
LIMITS OF WORK: 8+00 TO 9+79
DESIGN SPEED: 50 M.P.H.
ROAD CLASSIFICATION: MINOR ARTERIAL

FREDERICK ROAD (MD. ROUTE 144)

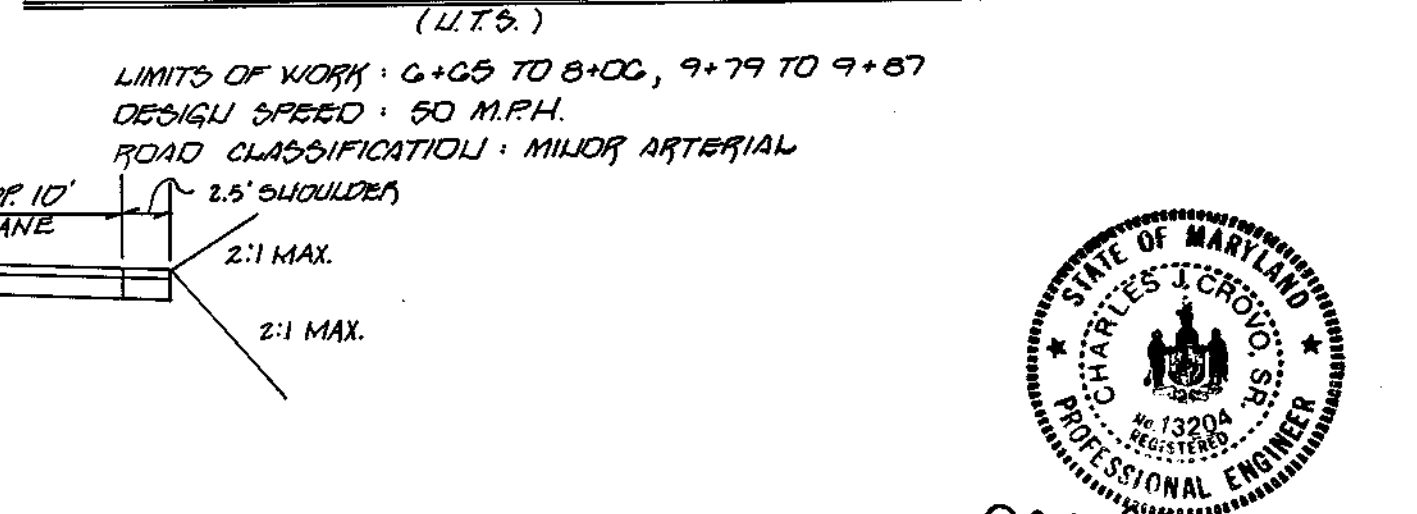
PLAN
SCALE: 1"=60'



OPEN SECTION
(U.T.S.)
LIMITS OF WORK: 4+02 TO 8+87, 10+01 TO 11+95, 16+02 TO 17+75
DESIGN SPEED: 50 M.P.H.
ROAD CLASSIFICATION: MINOR ARTERIAL



CLOSED SECTION
(U.T.S.)
LIMITS OF WORK: 8+87 TO 9+05, 11+95 TO 16+02
DESIGN SPEED: 50 M.P.H.
ROAD CLASSIFICATION: MINOR ARTERIAL



CLOSED SECTION WITH ADDITIONAL WIDECURBS
(U.T.S.)
LIMITS OF WORK: 6+05 TO 8+00, 9+79 TO 9+87
DESIGN SPEED: 50 M.P.H.
ROAD CLASSIFICATION: MINOR ARTERIAL

NOTE:
S.H.A. SECTION SHALL BE 3" (MINIMUM) BITUMINOUS CONC. SURFACE (TWO 1 1/2 COURSES), 4" (MINIMUM) BIT. CONC. BASE, AND EITHER ONE OF THE FOLLOWING: 6" BASE COURSE USING GRADED AGGREGATE BASE, OR BASE OF A 7" BASE COURSE USING BANK-RUN GRAVEL BASE, OR BASE.

TERRA MARIA

TAX MAP: 10 PARCEL: 114
ZONING DISTRICT: HOWARD CO., MD.

MD. ROUTE 144 TYPICAL ROAD SECTIONS
MD. ROUTE 144 TERRA MARIA WAY PLAN & PROFILE

OWNER: TERRA MARIA LLC, INC.
DEVELOPER: TERRA MARIA LLC, INC.

SCALE: AS SHOWN DATE: JUL 12, 1995 DRAWN: Z OF 30

DESIGNED BY: B.J.K. CHECKED BY: J.C.L. DATE: 1/23/95

9171 BALTO. NAT. PIKE, SUITE 100, ELLCOTT CITY, MARYLAND 21042

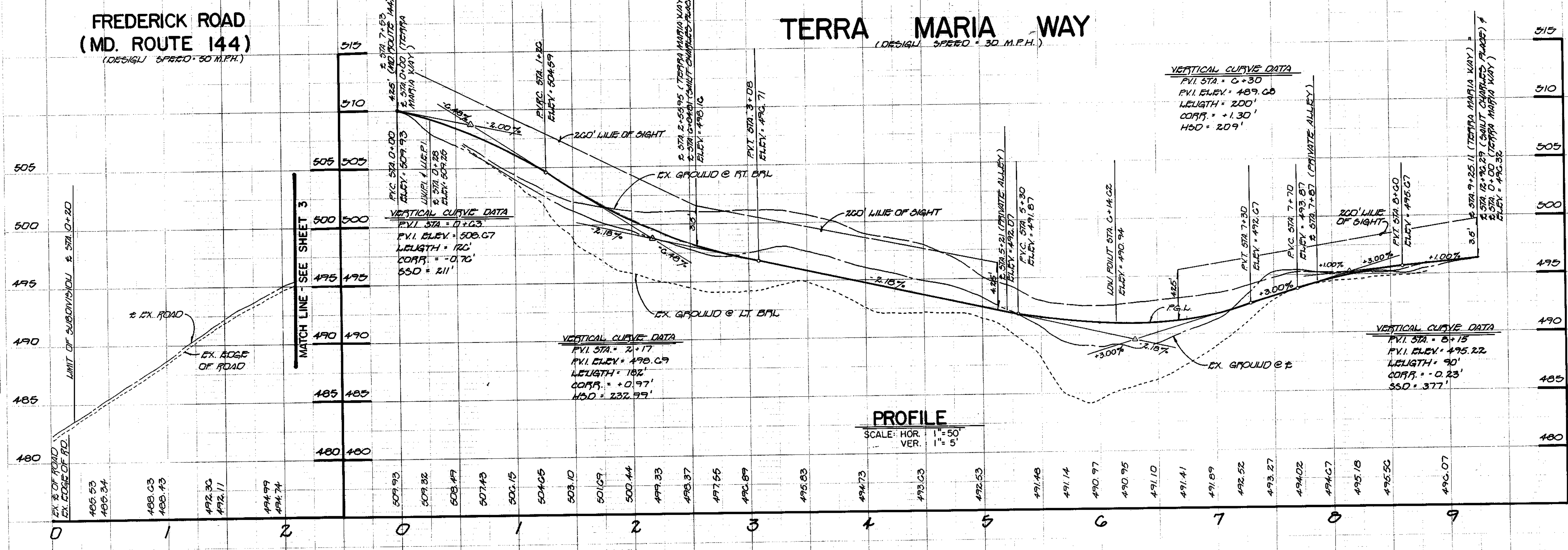


CHANGES APPROVED BY:

DATE: 1/23/95

FREDERICK ROAD (MD. ROUTE 144)
(DESIGN SPEED: 50 M.P.H.)

TERRA MARIA WAY
(DESIGN SPEED: 30 M.P.H.)



PROFILE
SCALE: HOR. 1"=50' VER. 1"=5'

1768

AS BUILT F95-99

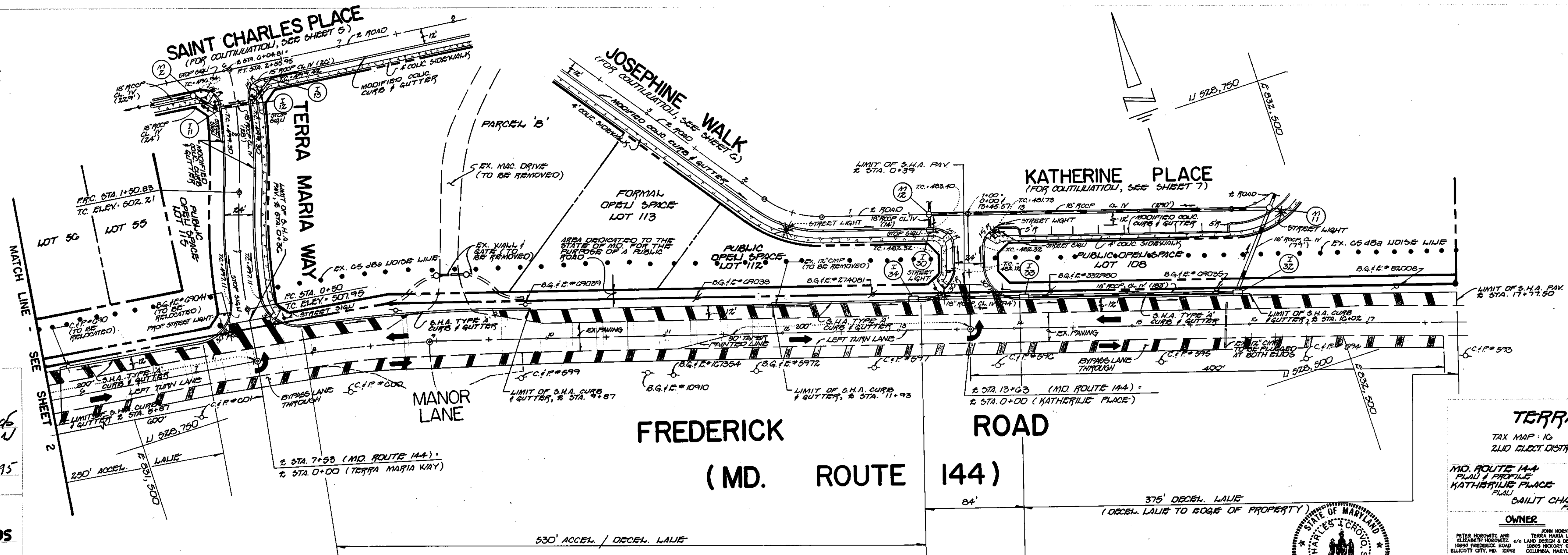
DELETED S.H.A. PAVING SECTION
SEE DETAILS, SHEET 2

DELETED 20' TRANSITION FROM
MODIFIED CONC. CURB & GUTTER
TO 30" 7" CONC. CURB & GUTTER

DATE	BY
11/19/95	W.D. Dammann
8-1-95	Andrew M. Donohue
8/3/95	Paul J. Gannon
10/31/95	Gina Arvanitoyiannis

REVISIONS

1	REVISED HANDICAPPED RAMP	3/16/96
NO	REVISIONS	DATE



PLAN
SCALE: 1" = 50'

TERRA MARIA
TAX MAP 10 PARCEL 114
2110 ELECT. DISTRICT HOWARD CO., MD.

M.D. ROUTE 144
PLANS 1 & 2
KATHERINE PLACE
SAINT CHARLES PLACE

OWNER
PETER HODONDEL AND
SUSAN HODONDEL
SCALE: AS SHOWN
DATE: JUL 12, 1995
BY: B. J. K.

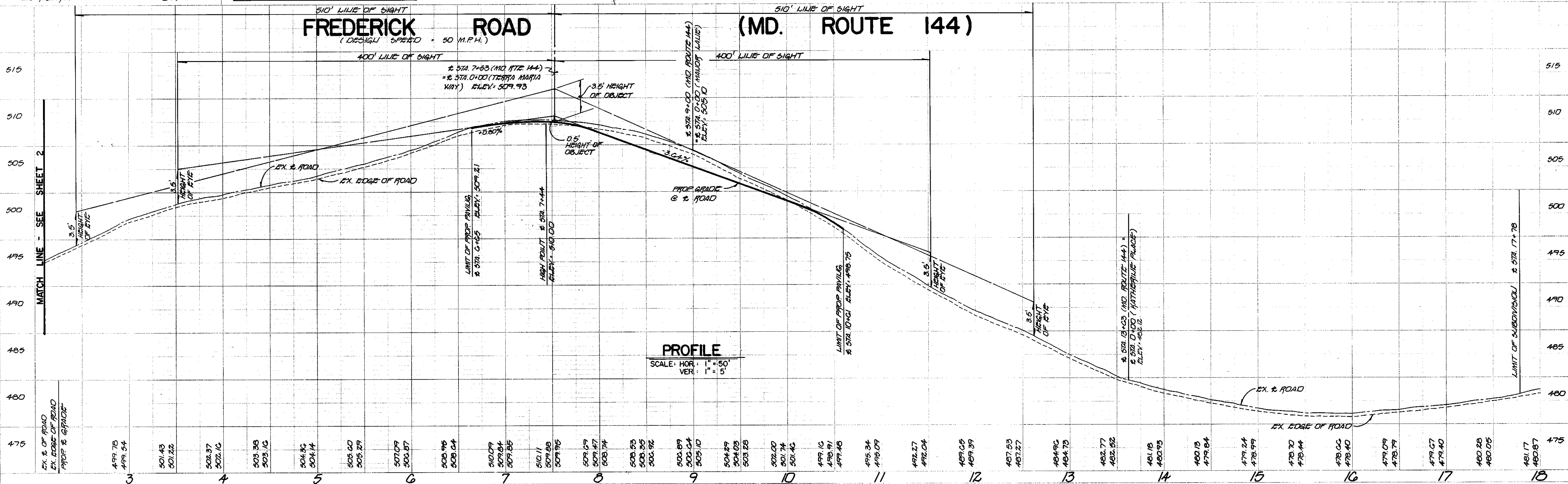
DEVELOPER
TERRA MARIA LLC, INC.
1/4" LAND DESIGN & DEVELOPMENT, INC.
1000 HICKORY EDGE ROAD
COLUMBIA, MARYLAND 21046

TERRA MARIA WAY
PLANS 3 & 4
JOSEPHINE WALK
KATHERINE PLACE

PROFESSIONAL ENGINEER
STATE OF MARYLAND
1920
1995
12345
CHARLES J. TROVINO, P.E.
DATE: 12/3/95

FISHER, COLLINS AND ASSOCIATES, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
9711 BALTO. LIAT. PIKE, SUITE 100, BALTIMORE CITY, MARYLAND 21286

DATE	BY
11/19/95	W.D. Dammann
8-1-95	Andrew M. Donohue
8/3/95	Paul J. Gannon
10/31/95	Gina Arvanitoyiannis



PROFILE
SCALE: HOR: 1" = 50'
VER: 1" = 5'

1768

DENOTES 3'-6" PAVING SECTION SEE DETAILS, SHEET 2.

DENOTES 20' TRANSITION FROM MODIFIED COLIC CURBS & GUTTERS TO STD. 7" COLIC CURB & GUTTERS

2 CURVE DATA
 GROTTO WALK
 STA. 7+81.37 TO STA. 9+22.74
 R = 45.00'
 L = 141.37'
 Δ = 179° 59' 59.90"
 CHD = U 81° 32' 30.5" E, 90.00'

2 CURVE DATA
 GROTTO WALK
 STA. 2+70 TO STA. 4+11.37
 R = 45.00'
 L = 141.37'
 Δ = 179° 59' 59.90"
 CHD = S 81° 32' 30.5" E, 90.00'

2 CURVE DATA
 SAINT CHARLES PLACE
 STA. 1+32.49 TO STA. 1+72.40
 R = 932.16'
 L = 39.99'
 Δ = 02° 27' 29.5"
 T = 20.00'
 CHD = S 62° 42' 15" E, 39.99'

FOR MD. RTE. 144
 WIDENING, SEE
 SHEET 2.

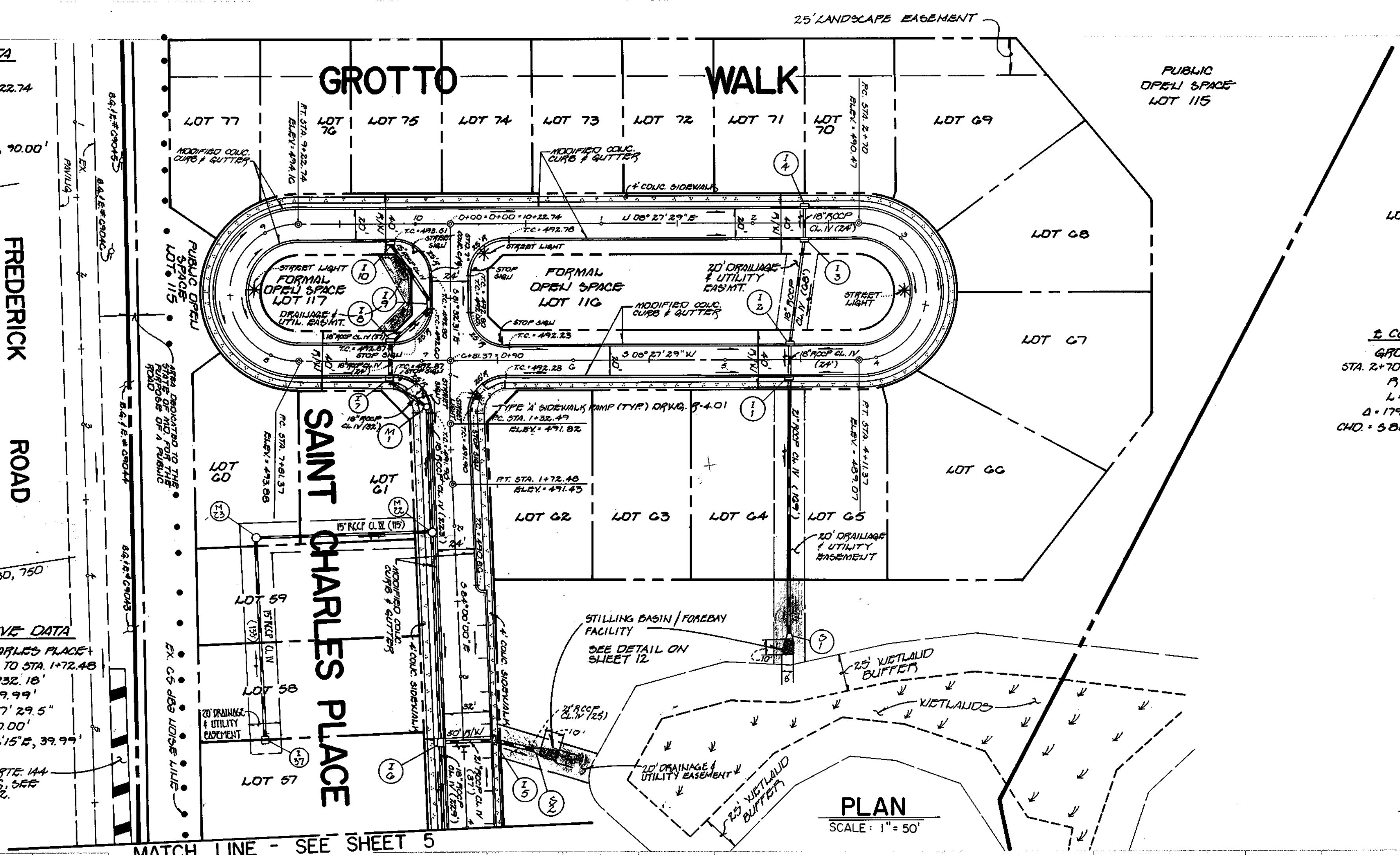
DATE	BY
8/1/95	CHAD DAMM
8-1-95	CHRIS M. DOUGHERTY
8/3/95	BOB EYON
10/31/95	JIM JANNIARY

APPROVED: *Chad Damm* 8/1/95
 CHIEF, SANITATION DIVISION

APPROVED: *Chris M. Dougherty* 8-1-95
 CHIEF, PUBLIC WORKS DIVISION

APPROVED: *Bob Eyon* 8/3/95
 CHIEF, PUBLIC WORKS DIVISION

APPROVED: *Jim Jannary* 10/31/95
 CHIEF, PUBLIC WORKS DIVISION



NO.	REVISIONS	DATE
2	ADD MAN HOLE 22, 23 AND INLET 37	10-3-96
1	REVISED HANDICAPPED RAMPS	3/6/96

TERRA MARIA
 TAX MAP: 10 PARCEL: 114
 ZONING DISTRICT: HOWARD CO., MD.

**GROTTO WALK
 SAINT CHARLES PLACE
 PLAN**

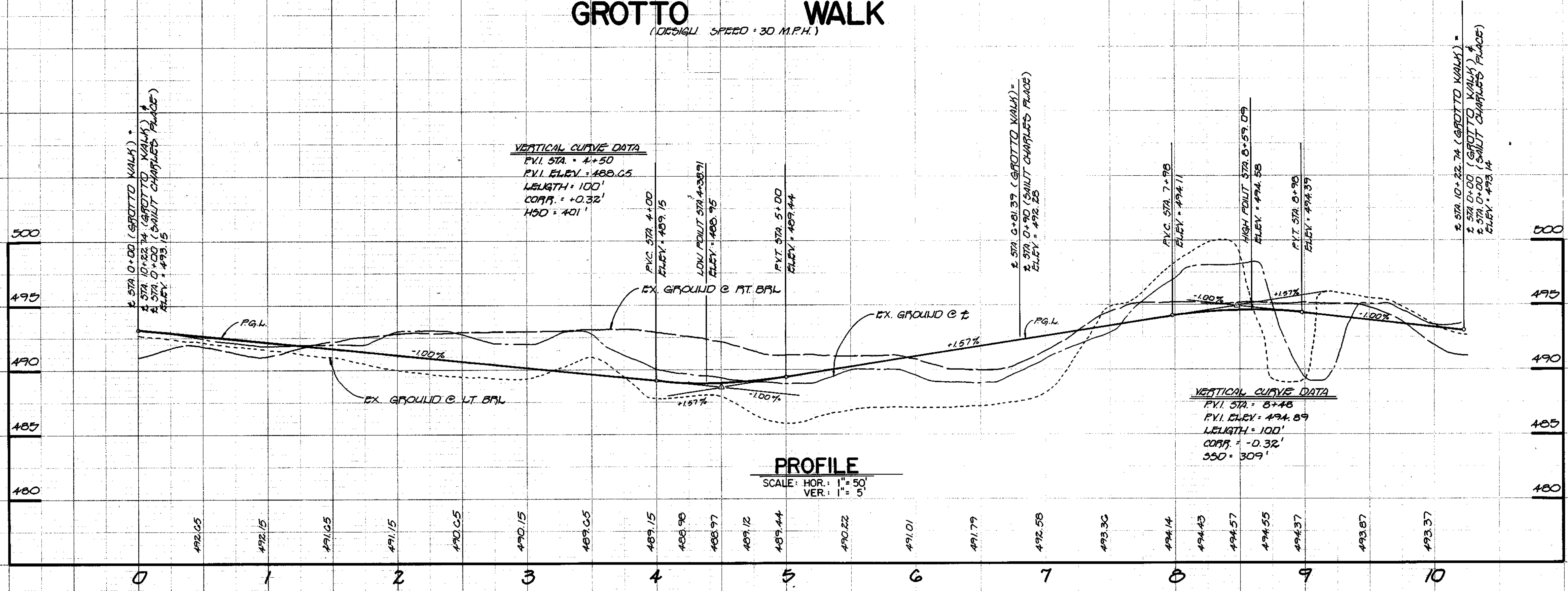
OWNER: TERRA MARIA LLC, INC.
 1000 FREDERICK ROAD
 ELLOTT CITY, MD. 21042

DEVELOPER: TERRA MARIA LLC, INC.
 1000 FREDERICK ROAD
 ELLOTT CITY, MD. 21042

DATE: JUL 12, 1995
 SCALE: 1" = 50'



GROTTO WALK
 (DESIGN SPEED = 30 M.P.H.)



1768

DATE	BY
8/1/95	CHAD DAMM
8-1-95	CHRIS M. DOUGHERTY
8/3/95	BOB EYON
10/31/95	JIM JANNIARY

2 CURVE DATA
 TERRA MARIA WAY
 STA. 0+50 TO STA. 1+50.83
 R = 428.00'
 L = 100.83'
 Δ = 13° 29' 53"
 T = 50.65'
 CHD = U 11° 17' E, 100.60'

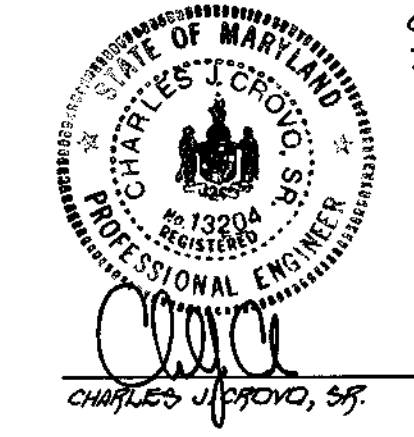
2 CURVE DATA
 TERRA MARIA WAY
 STA. 1+50.83 TO STA. 2+33.95
 R = 403.00'
 L = 105.12'
 Δ = 14° 50' 44"
 T = 52.80'
 CHD = U 13° 26' 22" E, 104.83'

2 CURVE DATA
 TERRA MARIA WAY
 STA. 5+58.83 TO STA. 6+19.57
 R = 80.00'
 L = 60.74'
 Δ = 43° 30' 00"
 T = 31.92'
 CHD = U 27° 45' 00" E, 59.29'

2 CURVE DATA
 TERRA MARIA WAY
 STA. 6+19.57 TO STA. 7+14.11
 R = 80.00'
 L = 60.74'
 Δ = 43° 30' 01"
 T = 31.92'
 CHD = U 71° 14' 59.79" E, 59.29'

DELETES S.H.A. PAVING SECTION, SEE DETAILS SHEET 2.

DELETES 20' TRANSITION FROM MODIFIED CONC. CURB & GUTTER TO STD. 7" CONC. CURB & GUTTER

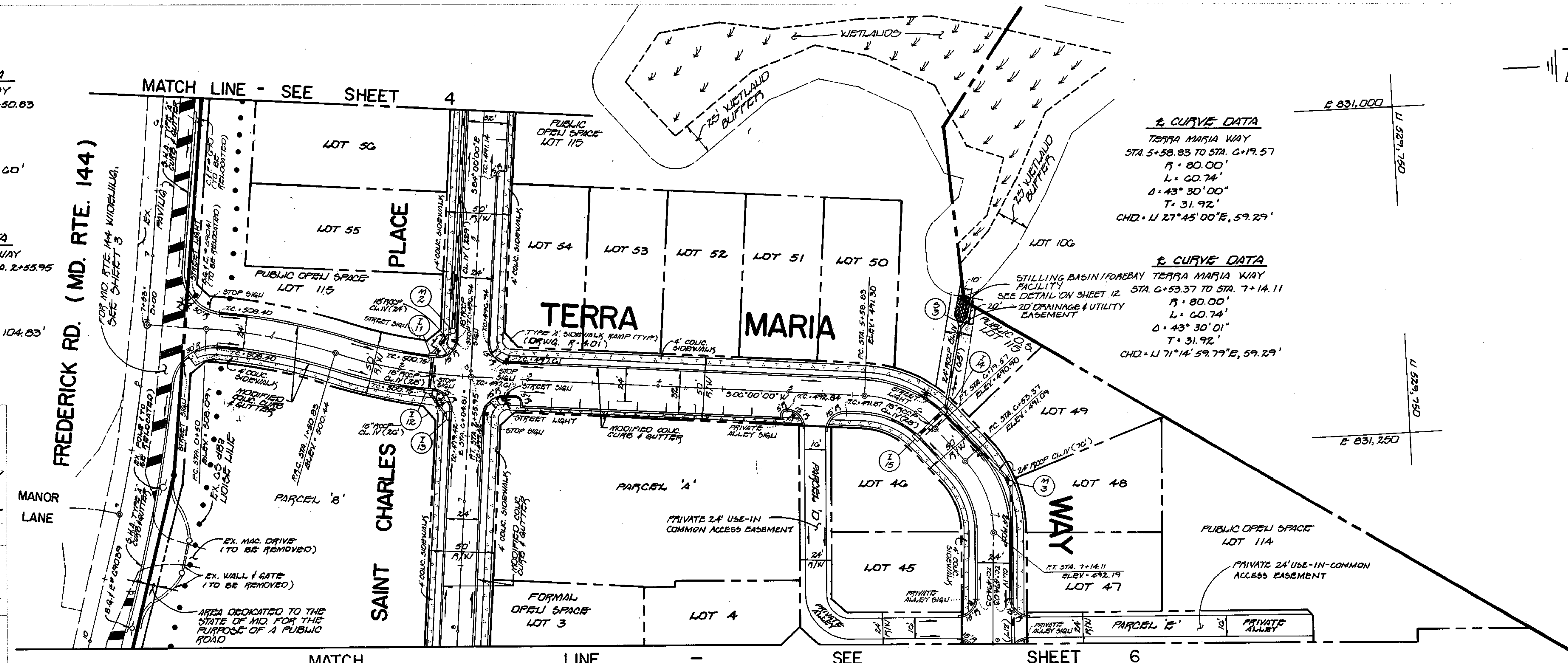


TERRA MARIA
 TAX MAP 10 PARCEL 114
 2ND ELECT. DISTRICT HONARD CO., MD.

SAILT CHARLES PLACE
 TERRA MARIA WAY PROFILE
 JOSEPHINE WALK PROFILE
 OWNER: TERRA MARIA LLC, INC.
 DEVELOPER: TERRA MARIA LLC, INC.

SCALE: AS SHOWN DATE: JULY 12, 1995 SHEET NO. 5 OF 30
 DESIGNED BY: B.J.K. DRAWN BY: J.C.L. CHECKED BY: C.J.C.

FISHER, COLLINS AND GARDNER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 9711 BALTO. LANT. PIKE, SUITE 100, CLARKOTT CITY, MARYLAND 21042

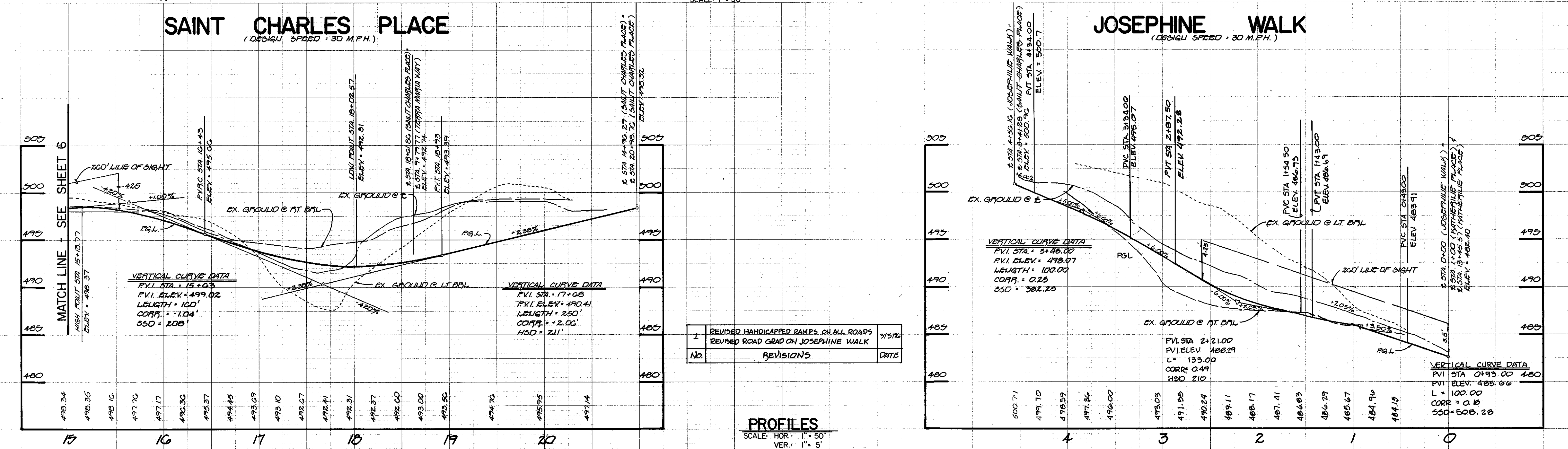


PLAN	DATE
BY: [Signature]	8/1/95
DATE: [Signature]	8/1/95
DATE: [Signature]	8/3/95
DATE: [Signature]	10/31/95

PROFILE	DATE
BY: [Signature]	8/1/95
DATE: [Signature]	8/1/95
DATE: [Signature]	8/3/95
DATE: [Signature]	10/31/95

SAINT CHARLES PLACE
 (DESIGN SPEED = 30 M.P.H.)

JOSEPHINE WALK
 (DESIGN SPEED = 30 M.P.H.)



No.	REVISIONS	DATE
1	REVISED HANDICAPPED RAMPS ON ALL ROADS REVISED ROAD GRAD ON JOSEPHINE WALK	3/5/96

PROFILES
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'

1768

§ CURVE DATA
 JOSEPHINE WALK
 STA. 1+24.83 TO STA. 1+70.60
 R = 80.00'
 L = 51.07'
 Δ = 37° 00' 40.81"
 T = 20.78'
 CHD = U 54° 30' 20" W, 50.78'

§ CURVE DATA
 SAINT CHARLES PLACE
 STA. 8+41.28 TO STA. 8+71.30
 R = 80.00'
 L = 30.01'
 Δ = 21° 27' 37.27"
 T = 15.15'
 CHD = U 66° 44' 08" E, 27.84'

§ CURVE DATA
 SAINT CHARLES PLACE
 STA. 17+00.13 TO STA. 18+28.96
 R = 40.00'
 L = 62.83'
 Δ = 90° 00' 00"
 T = 40.00'
 CHD = S 41° 59' 59.99" E, 50.57'

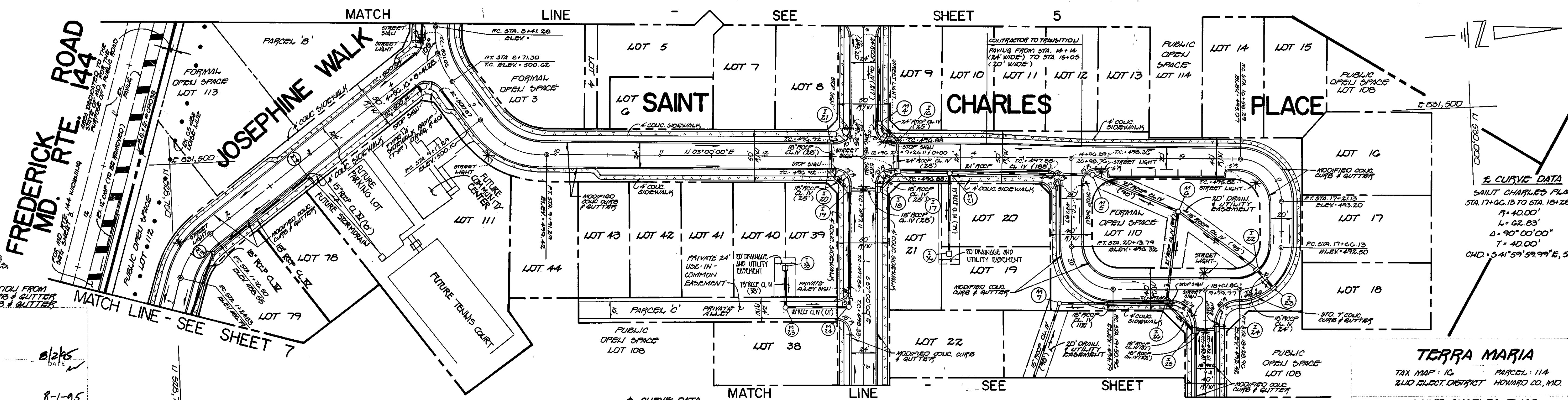
DATE	BY
8/2/95	CLB
8-1-95	MS
8/3/95	MS
10/2/95	MS

DELETES S.H.A. PAVING SECTION, SEE DETAILS SHEET 2.
 DELETES 20' TRANSITION FROM MODIFIED COUL. CURBS & GUTTER TO STD. 7" COUL. CURBS & GUTTER.

DESIGNED BY: *Charles A. Proctor, P.E.*
 CHECKED BY: *Robert M. Danek*
 APPROVED BY: *Robert M. Danek*
 DEPARTMENT OF PLANNING & RECORDS

REVISIONS:
 1 REVISED HANDICAPPED RAMP 3/16/94
 2 ADDED FUTURE CLUB AND RECREATION AREA, AND ALSO ADDED 18" RCCP FOR H13#4 3/16/94
 3 ADDED 1'-36" TO 1'-42" 1/2" RCP, ADDED 14" TO 14" 1/2" 1/2" RCP AND ADDED 1'-3" TO 14" 21" 1/2" RCP 10-3-94

NO	REVISIONS	DATE
1	REVISED HANDICAPPED RAMP	3/16/94
2	ADDED FUTURE CLUB AND RECREATION AREA, AND ALSO ADDED 18" RCCP FOR H13#4	3/16/94
3	ADDED 1'-36" TO 1'-42" 1/2" RCP, ADDED 14" TO 14" 1/2" 1/2" RCP AND ADDED 1'-3" TO 14" 21" 1/2" RCP	10-3-94



PLAN
 SCALE: 1" = 50'



TERRA MARIA
 TAX MAP: 1G PARCEL: 114
 ZONING DISTRICT: HOWARD CO., MD.

SAINT CHARLES PLACE
 PLAN & PROFILE

OWNER: PETER HODGKINS AND ELIZABETH HODGKINS, 1090 PEBBLEBROOK ROAD, ELICOTT CITY, MD. 21046

DEVELOPER: TERRA MARIA LLC, INC. 1090 PEBBLEBROOK ROAD, COLUMBIA, MARYLAND 21046

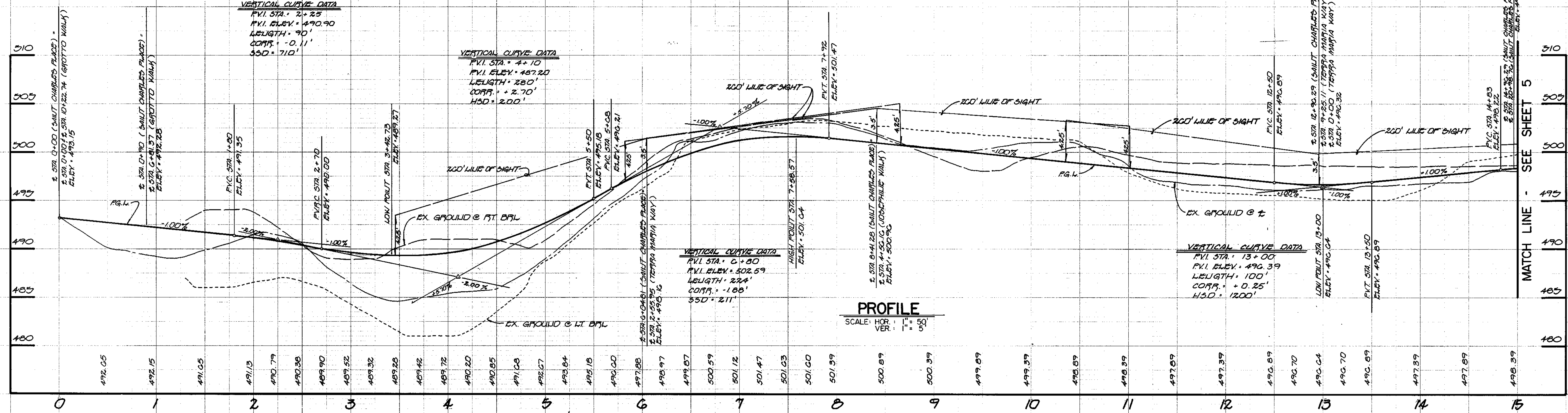
DATE: JUL 12, 1995

DESIGNER: B.J.K. **CHECKER:** J.C.L. **DATE:** 8/2/95

PROJECT: FISHER COLLINS AND ASSOCIATES, CIVIL ENGINEERS AND ARCHITECTS, 9171 BAILEY LANE, SUITE 100, BELLCASTLE CITY, MARYLAND 21046

SAINT CHARLES PLACE
 (DESIGN SPEED = 30 MPH)

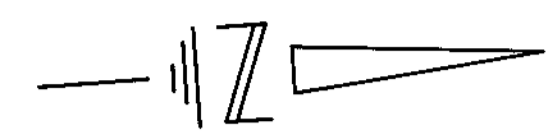
DATE	BY



PROFILE
 SCALE: HOR: 1" = 50'
 VER: 1" = 5'

1768

REVISIONS		
NO.	DATE	DESCRIPTION
1	10-5-95	ADD H&Z FROM 1-31 TO 1-31 TO H&Z "18" R&P

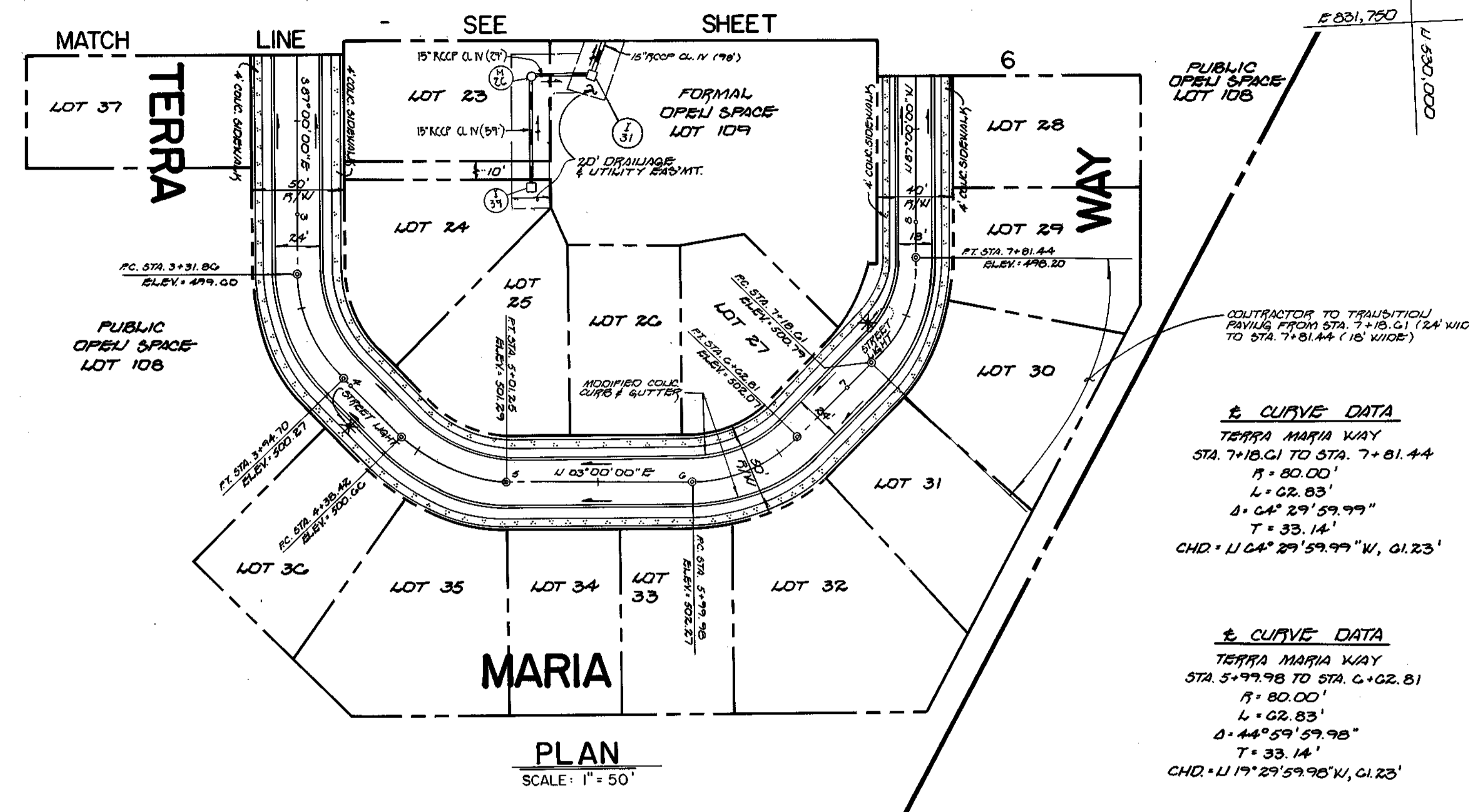


± CURVE DATA
 TERRA MARIA WAY
 STA. 3+31.86 TO STA. 3+94.70
 R = 80.00'
 L = 62.83'
 Δ = 15° 00' 00"
 T = 33.14'
 CHD = U 70° 29' 59.98" E, 61.23'

± CURVE DATA
 TERRA MARIA WAY
 STA. 4+38.42 TO STA. 5+01.25
 R = 80.00'
 L = 62.83'
 Δ = 44° 59' 59.99"
 T = 33.14'
 CHD = U 25° 29' 59.99" E, 61.23'

± CURVE DATA
 TERRA MARIA WAY
 STA. 7+18.61 TO STA. 7+81.44
 R = 80.00'
 L = 62.83'
 Δ = 64° 29' 59.99"
 T = 33.14'
 CHD = U 64° 29' 59.99" N, 61.23'

± CURVE DATA
 TERRA MARIA WAY
 STA. 5+99.98 TO STA. 6+62.81
 R = 80.00'
 L = 62.83'
 Δ = 44° 59' 59.98"
 T = 33.14'
 CHD = U 19° 29' 59.98" N, 61.23'



PLAN
 SCALE: 1" = 50'



TERRA MARIA
 TAX MAP: 10 PARCEL: 114
 ZLD. ELECT. DISTRICT HOWARD CO., MD.

TERRA MARIA WAY
 PLAN & PROFILE

OWNER	DEVELOPER
PETER MONTGOMERY AND ELIZABETH MONTGOMERY, CIVIL ENGINEERS AND ARCHITECTS, 9171 BANTO LANE, SUITE 100, ELICOTT CITY, MARYLAND 21042	TERRA MARIA LLC, INC. LAND DESIGN & DEVELOPMENT, INC. 12009 HICKORY RIDGE ROAD, COLUMBIA, MARYLAND 21046

SCALE: AS SHOWN DATE: JUL 12, 1995 SHEET: 6 OF 30
 DESIGNED BY: B.J.H. DRAWN BY: J.C.L. CHECKED BY: C.J.C.

DATE	BY
8/2/95	Andrew M. Decker
8-1-95	Andrew M. Decker
8/3/95	Paul J. Ryan
10/31/95	Jina Spurrman

APPROVED: *Andrew M. Decker* 8/2/95
 CHIEF, BUREAU OF HIGHWAYS

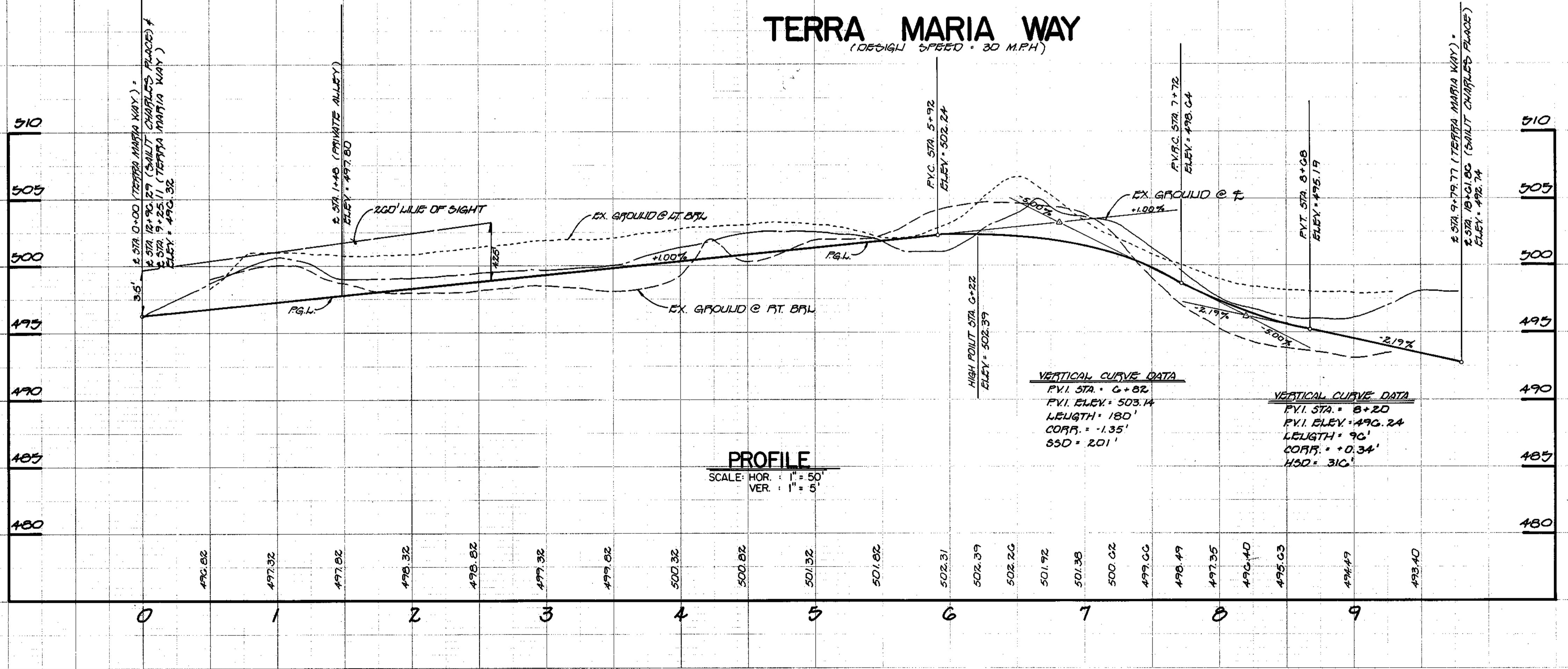
APPROVED: *Paul J. Ryan* 8/3/95
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: *Jina Spurrman* 10/31/95
 CHIEF, BUREAU OF HIGHWAYS

1768

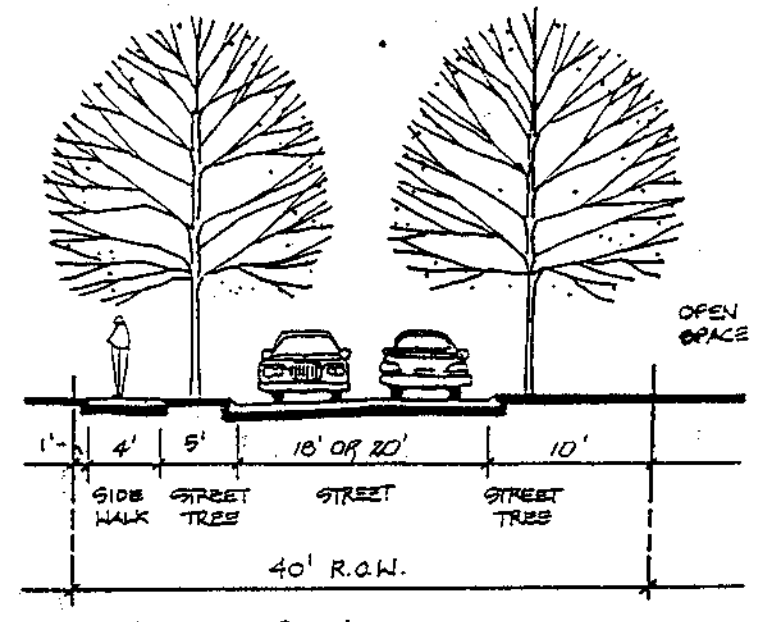
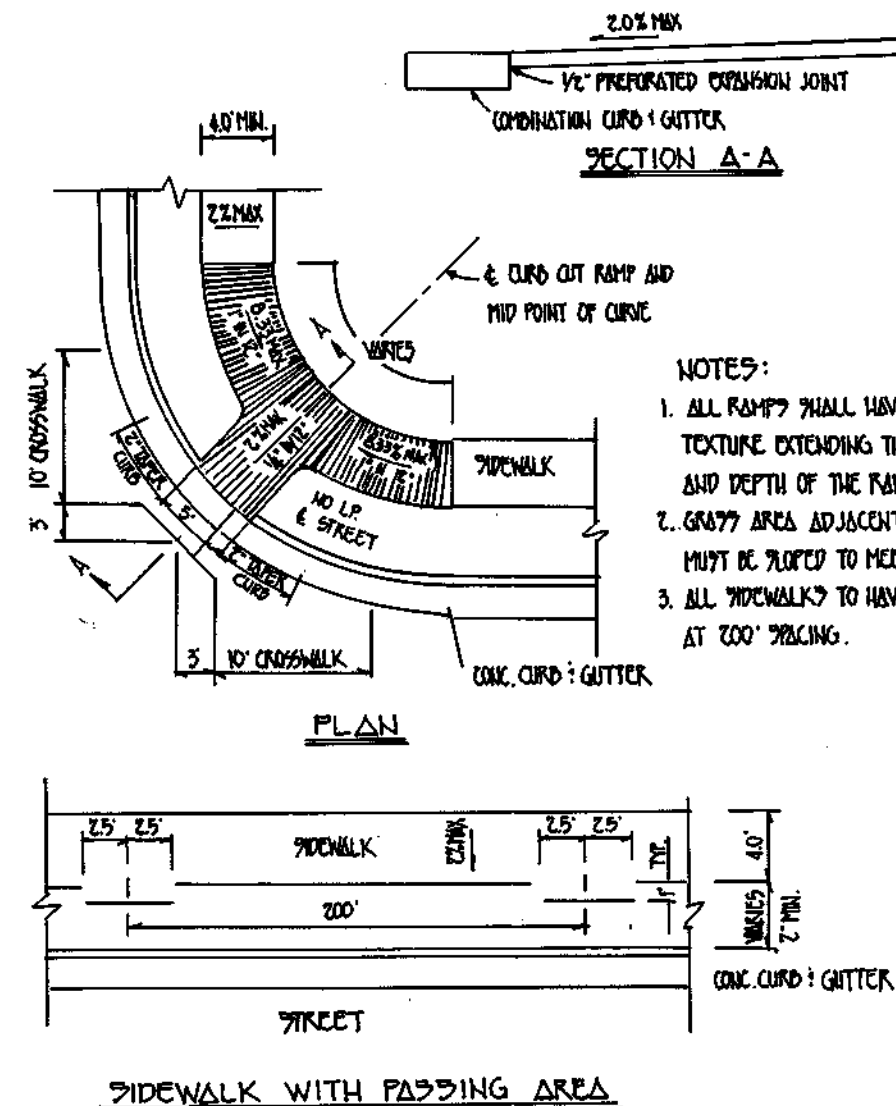
DATE	BY
8/2/95	Andrew M. Decker
8-1-95	Andrew M. Decker
8/3/95	Paul J. Ryan
10/31/95	Jina Spurrman

TERRA MARIA WAY
 (DESIGN SPEED = 30 M.P.H.)

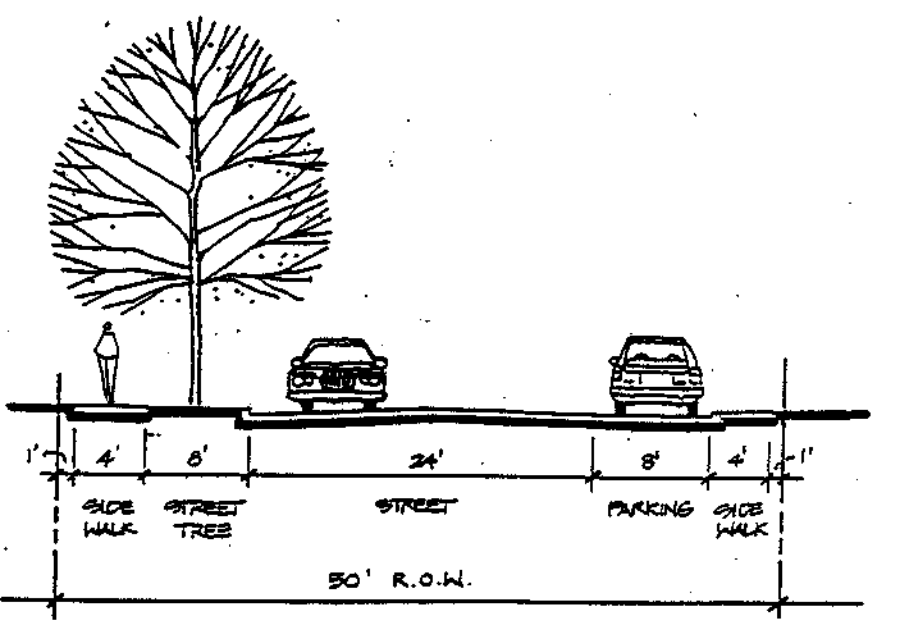


PROFILE
 SCALE: HOR. 1" = 50'
 VER. 1" = 5'

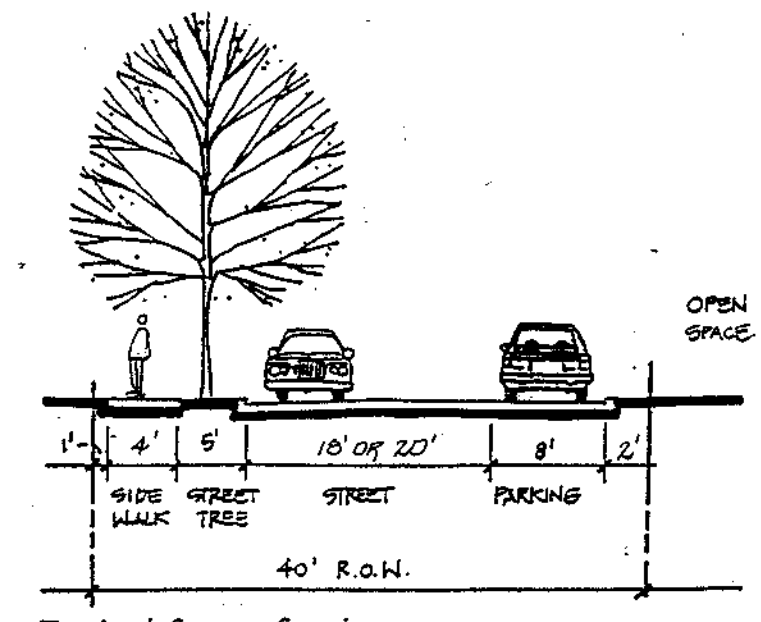
STRUCTURE SCHEDULE							
STRUCTURE NO.	TOP ELEVATION	IN. IN	IN. OUT	ROAD NAME	ROAD STA.	OFFSET	REMARKS
1-1	489.53	489.07	484.82	GROTTO WALK	4+50	10.52' LEFT	A-5 S.D. 4.40
1-2	489.53	489.56	485.31	GROTTO WALK	4+50	10.52' RIGHT	A-5 S.D. 4.40
1-3	486.33	486.49	486.24	GROTTO WALK	2+34	10.52' RIGHT	A-5 S.D. 4.40
1-4	486.33	---	486.73	GROTTO WALK	2+34	10.52' LEFT	A-5 S.D. 4.40
1-5	489.74	483.13	482.50	SANT CHARLES PLACE	3+42	12.52' LEFT	A-5 S.D. 4.40
1-6	489.74	485.23	483.50	SANT CHARLES PLACE	3+42	12.52' RIGHT	A-5 S.D. 4.40
1-7	492.92	488.21	487.96	GROTTO WALK	7+21.64	10' LEFT	A-5 S.D. 4.40
1-8	492.92	488.70	488.45	GROTTO WALK	7+21.64	10' RIGHT	A-5 S.D. 4.40
1-9	492.92	489.19	488.94	SANT CHARLES PLACE	0+48.77	12' RIGHT	A-5 S.D. 4.40
1-10	492.92	489.68	489.43	GROTTO WALK	9+28.27	10' RIGHT	A-5 S.D. 4.40
1-11	493.30	494.71	494.46	TERRA MARIA WAY	2+25	12' LEFT	A-10 S.D. 4.41
1-12	493.30	495.20	494.95	TERRA MARIA WAY	2+25	12' RIGHT	A-10 S.D. 4.41
1-13	493.02	---	495.50	SANT CHARLES PLACE	6+35	12' RIGHT	A-10 S.D. 4.41
1-14	491.41	485.72	485.47	TERRA MARIA WAY	6+44	12.52' LEFT	A-5 S.D. 4.40
1-15	491.41	---	486.00	TERRA MARIA WAY	6+44	12.52' RIGHT	A-5 S.D. 4.40
1-16	497.20	483.63	483.38	SANT CHARLES PLACE	13+30	12' LEFT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-17	497.20	487.12	486.87	SANT CHARLES PLACE	13+30	12' RIGHT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-18	497.09	484.88	484.63	TERRA MARIA WAY	0+32	12' LEFT	A-10 S.D. 4.41
1-19	497.09	492.22	490.97	TERRA MARIA WAY	0+32	12' RIGHT	A-10 S.D. 4.41
1-20	497.24	491.72	491.47	SANT CHARLES PLACE	12+65	12' LEFT	A-5 S.D. 4.40
1-21	497.24	---	492.00	SANT CHARLES PLACE	12+65	12' RIGHT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-22	492.84	488.78	488.53	SANT CHARLES PLACE	18+02	10.52' RIGHT	A-5 S.D. 4.40
1-23	492.84	---	489.00	SANT CHARLES PLACE	18+02	10.52' LEFT	A-5 S.D. 4.40
1-24	493.88	---	490.15	TERRA MARIA WAY	9+12.00	9' RIGHT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-25	493.88	489.93	489.68	TERRA MARIA WAY	9+12.00	9' LEFT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-26	493.88	489.43	489.18	SANT CHARLES PLACE	28+98.08	12' LEFT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-27	486.19	485.78	485.53	KATHERINE PLACE	6+68	12.52' LEFT	A-10 S.D. 4.41
1-28	486.19	---	481.00	KATHERINE PLACE	6+68	12.52' RIGHT	A-10 S.D. 4.41
1-29	484.22	---	480.38	JOSEPHINE WALK	0+34	12' RIGHT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-30	484.22	---	478.30	JOSEPHINE WALK	0+34	12' LEFT	A-5 W/DEFLECTORS S.D. 4.40 & S.D. 4.83
1-31	497.75	---	493.50	---	---	---	S.D. 4.11
1-32	478.83	472.72	472.47	FREDERICK ROAD	18+91	12' LEFT	CO5 15 MD-374.61
1-33	481.20	476.83	476.58	FREDERICK ROAD	14+14	12' LEFT	CO5 15 MD-374.31
1-34	484.85	---	478.31	FREDERICK ROAD	13+19	12' LEFT	CO5 15 MD-374.31
1-35	482.36	487.71	487.46	SANT CHARLES PLACE	1+02	15' RIGHT	STD. MH. G-5.01
1-36	486.90	492.50	492.25	JOSEPHINE WALK	5+71	15' RIGHT	STD. MH. G-5.01
1-37	486.90	480.71	480.46	TERRA MARIA WAY	6+92	20' LEFT	STD. MH. G-5.01
1-38	486.90	483.13	482.88	TERRA MARIA WAY	6+92	15' LEFT	STD. MH. G-5.01
1-39	487.90	486.29	486.04	SANT CHARLES PLACE	15+16	17' LEFT	STD. MH. G-5.01
1-40	488.00	487.58	487.33	---	---	---	STD. MH. G-5.01
1-41	496.48	492.52	492.27	---	---	---	STD. MH. G-5.01
1-42	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-43	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-44	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-45	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-46	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-47	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-48	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-49	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-50	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-51	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-52	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-53	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-54	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-55	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-56	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-57	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-58	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-59	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-60	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-61	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-62	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-63	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-64	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-65	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-66	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-67	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-68	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-69	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-70	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-71	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
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1-73	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-74	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-75	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-76	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
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1-81	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-82	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
1-83	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' RIGHT	STD. MH. G-5.01
1-84	482.38	480.72	480.47	KATHERINE PLACE	6+68	12.52' LEFT	STD. MH. G-5.01
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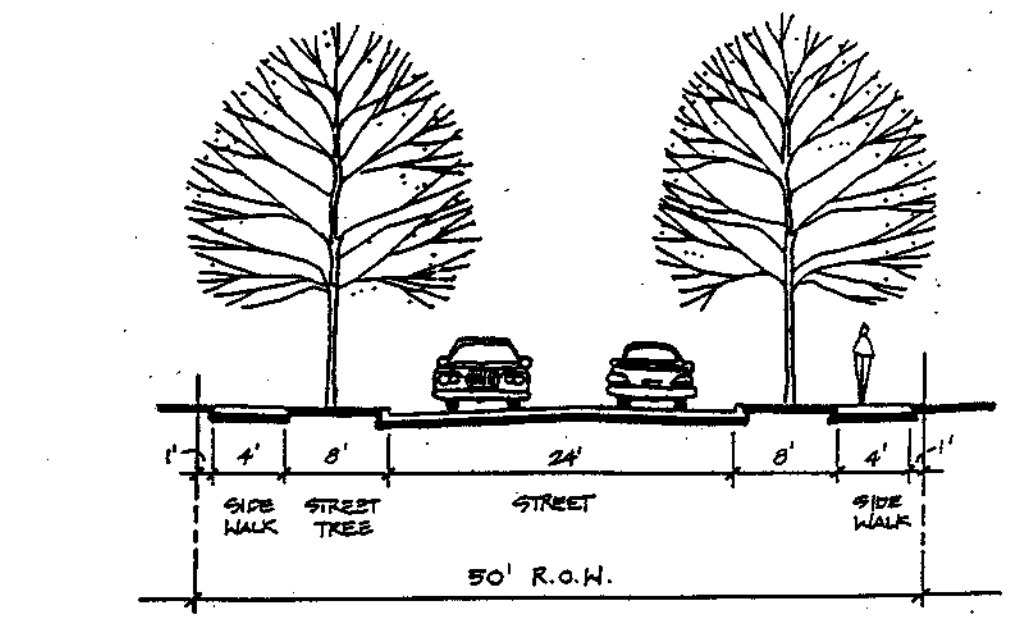
STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
ST CHARLES PLACE	20'	15+05 to 15+31	30 M.P.H.
TERRA MARIA WAY	18'	7+81.44 to 9+79.77	30 M.P.H.
ST CHARLES PLACE	20'	10+41 to 20+98.70	30 M.P.H.



STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
KATHERINE PLACE	24'	11+26 to 13+02	30 M.P.H.
TERRA MARIA WAY	24'	2+97 to 4+95	30 M.P.H.
ST CHARLES PLACE	24'	2+45 to 4+43	30 M.P.H.

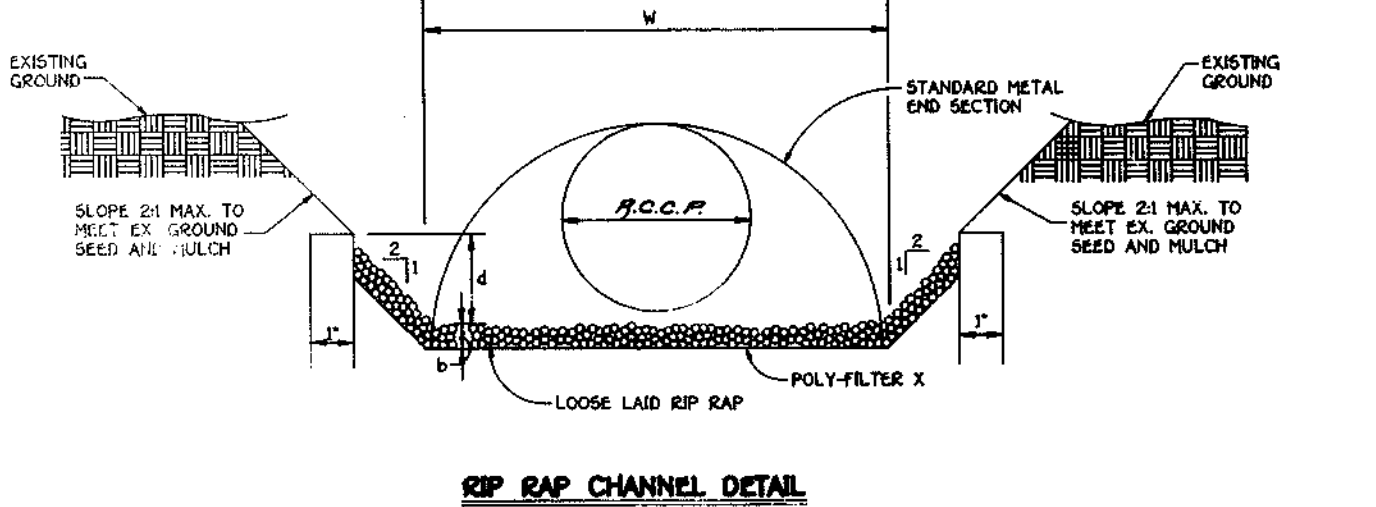


STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
GROTTO WALK	20'	0+00 to 10+22.74	30 M.P.H.
ST CHARLES PLACE	20'	15+31 to 16+41	30 M.P.H.



STREET NAME	PAVING WIDTH	STATIONS	DESIGN SPEED
KATHERINE PLACE	24'	0+00 to 11+26	30 M.P.H.
JOSEPHINE WALK	24'	0+00 to 4+50.16	30 M.P.H.
TERRA MARIA WAY	24'	0+00 to 2+97	30 M.P.H.
TERRA MARIA WAY	24'	4+95 to 9+26.11	30 M.P.H.
ST CHARLES PLACE	24'	0+00 to 2+45	30 M.P.H.
ST CHARLES PLACE	24'	4+43 to 14+14	30 M.P.H.
TERRA MARIA WAY	24'	0+00 to 7+16.61	30 M.P.H.
KATHERINE PLACE	24'	13+02 to 13+45.57	30 M.P.H.

* STA. 0+00 @ MD ROUTE 144
 ** WEST OF ST CHARLES PLACE
 *** STA. 0+00 @ ST CHARLES PLACE



STRUCTURE	AREA	NETTED PERIMETER	R	R 2/3	S	S 1/2	B	D	W	V	Q	RIP-RAP SIZE (D50) MAX	BLANKET THICKNESS
0-03	10.745	11.473	0.9423	0.9010	0.007	0.0707	5.5'	1.32'	0.035	10.6199	8.25-cfs	14"	20"

CONSTRUCTION SPECIFICATIONS FOR RIP-RAP OUTFALLS

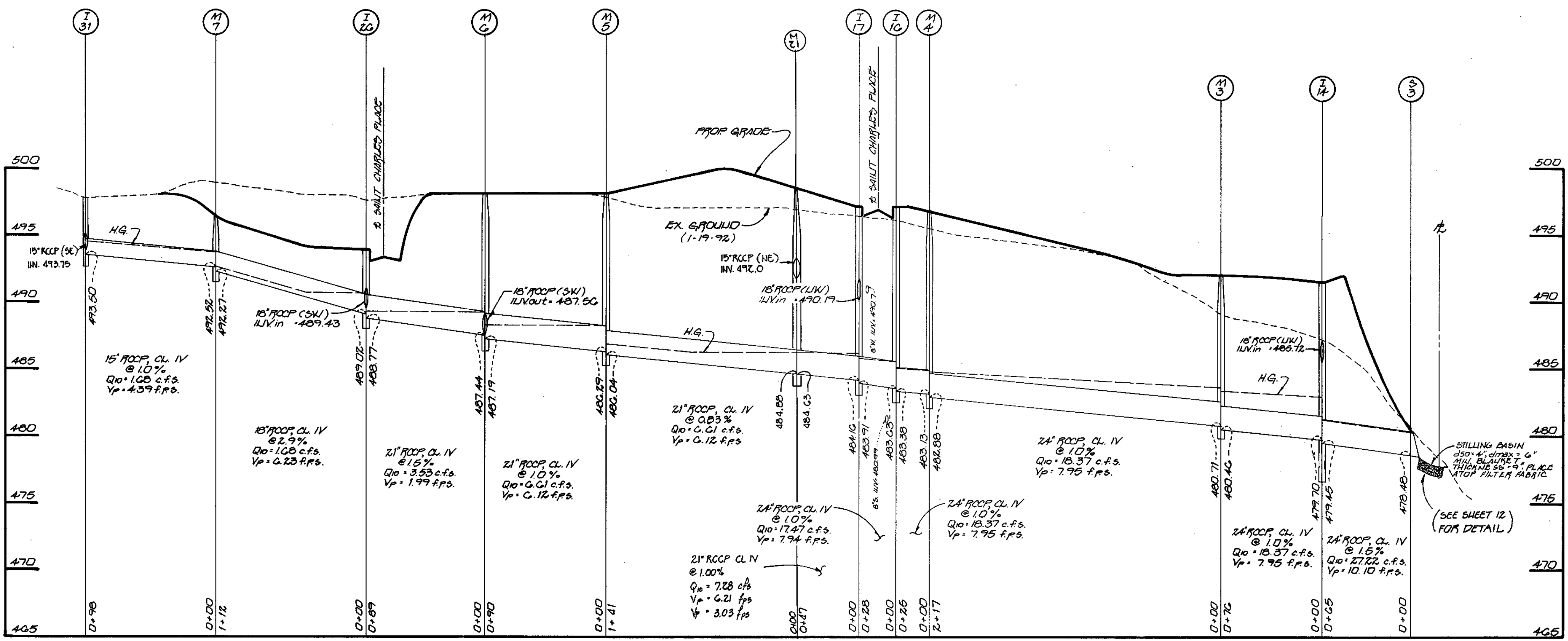
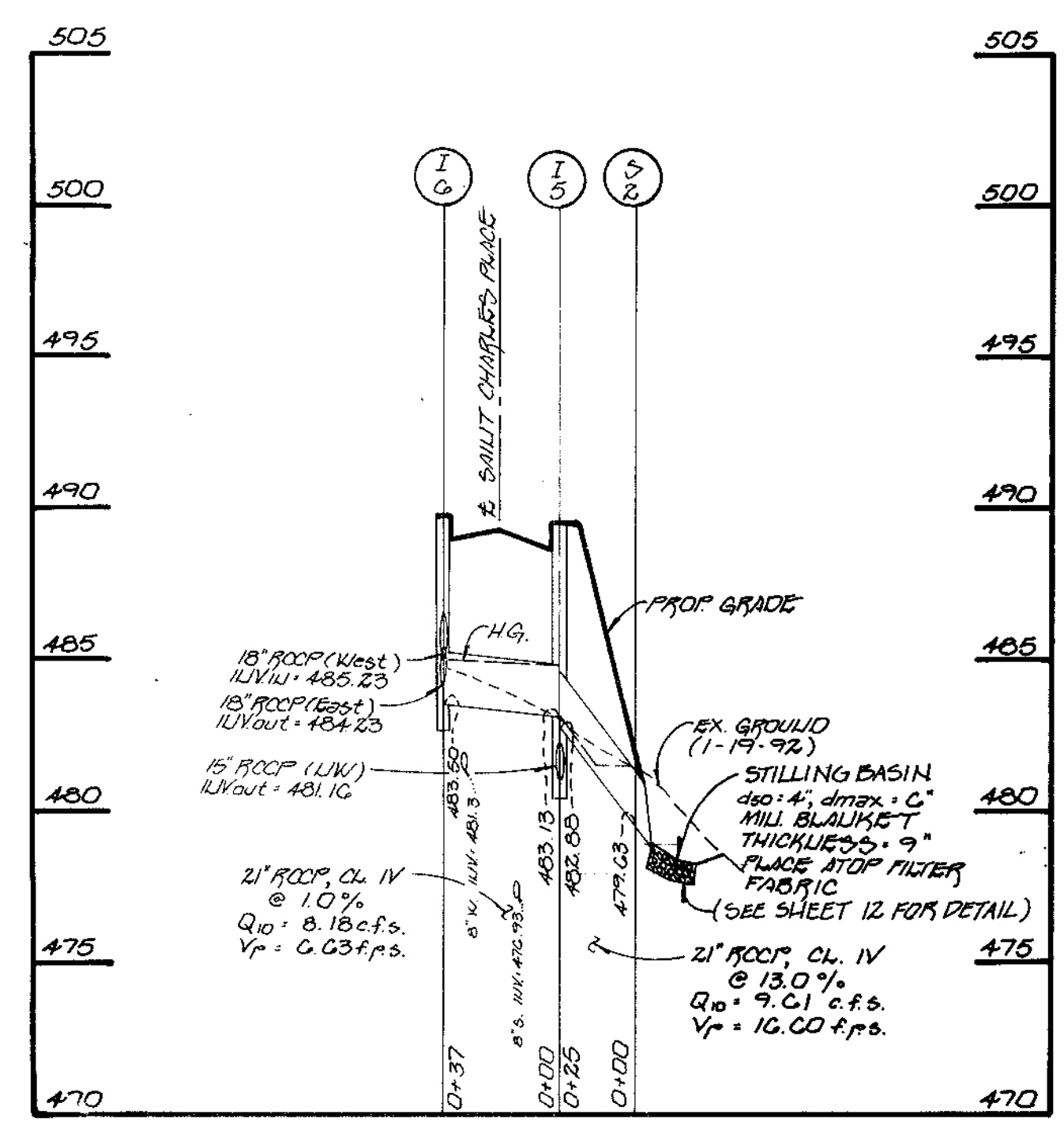
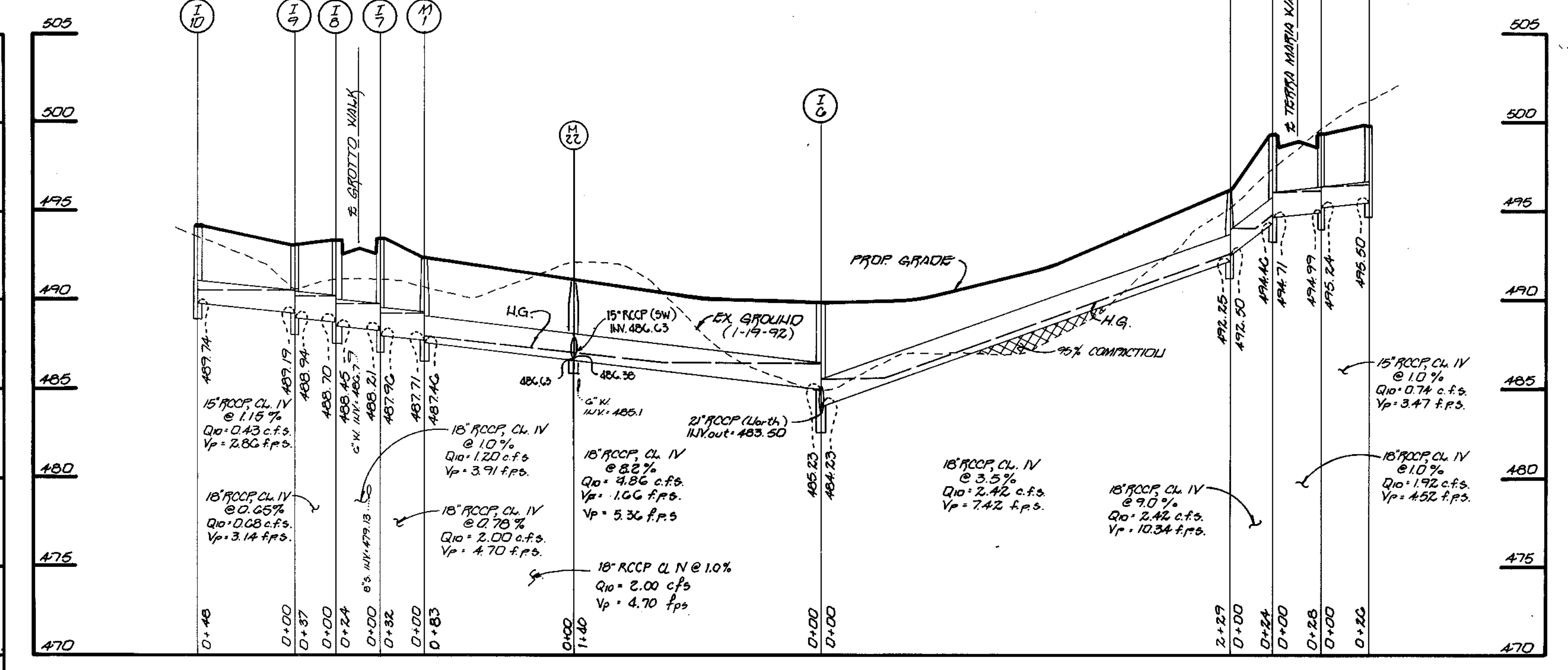
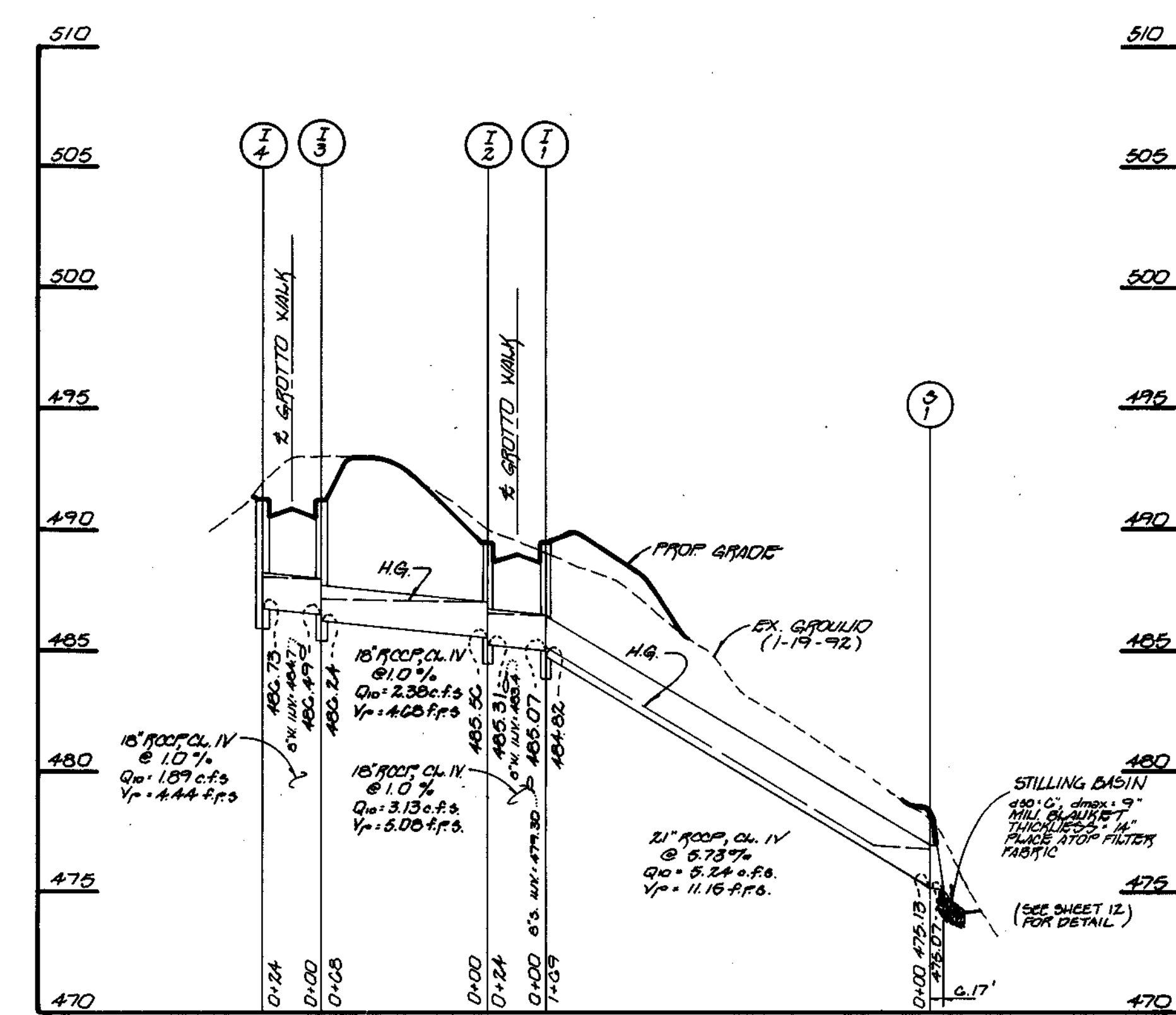
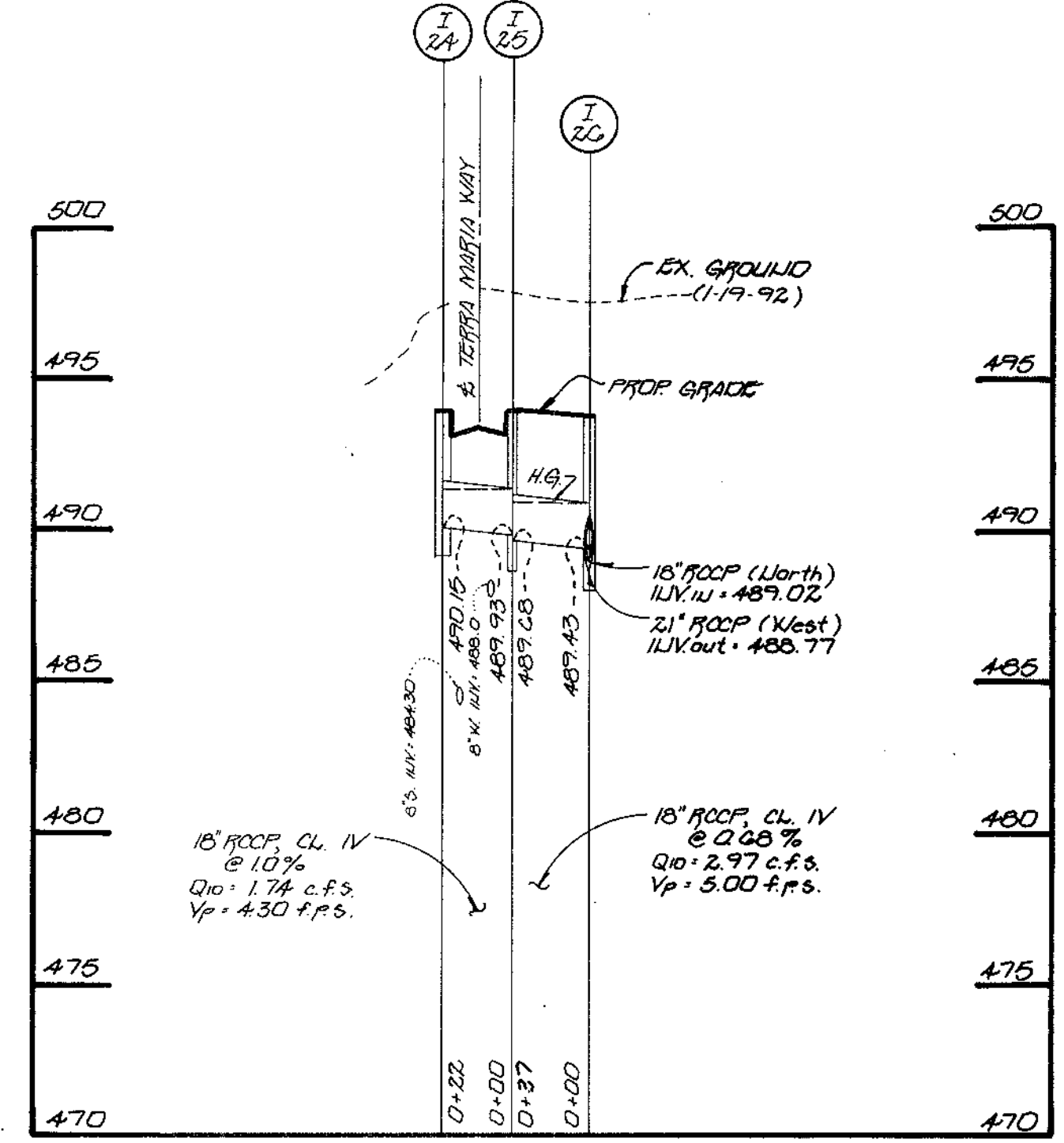
- The substrate for the filter, rip-rap or gabion shall be prepared to the required lines and grades. Any fill required to the substrate shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- Filter cloth shall be protected from punching, cutting or tearing. Any damage other than occasional small holes shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.
- Stone for the rip-rap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation but in such a manner as to avoid displacement of underlying materials. The stone for rip-rap or gabion outlets shall be delivered and placed in a manner that will insure that it is reasonably homogeneous with the smaller stones and will fill the voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter fabric or filter cloth. Careful placement will be required to the extent necessary to prevent damage to the permanent works.

TYPICAL STREET SECTIONS (NO SCALE)

STRUCTURE NO.	TOP ELEVATION	IN. IN	IN. OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
I-36	497.12	---	492.79	SANT CHARLES PLACE	3+77	11.82' LEFT	'D' INLET	30.411
I-37	497.33	---	492.88	SANT CHARLES PLACE	3+77	11.82' RIGHT	'D' INLET	30.411
I-38	497.99	---	493.71	---	---	---	'D' INLET	30.411
I-39	500.33	---	494.88	---	---	---	'D' INLET	30.411
I-40	495.47	---	490.89	---	---	---	'D' INLET	30.411
I-41	470.15	46						

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 DATE 2/2/66
 Chief, Bureau of Highways
 DATE 9-1-95
 Chief, Bureau of Engineering
 DATE 8/3/98

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development & Research
 DATE 10/21/95
 JA



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

NOTE:
 1) Vp DENOTES PARTIAL FLOW VELOCITY
 2) Vc DENOTES FULL FLOW VELOCITY
 3) STORM DRAIN BEDDING TYPE CLASS C TO BE USED.

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 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
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DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

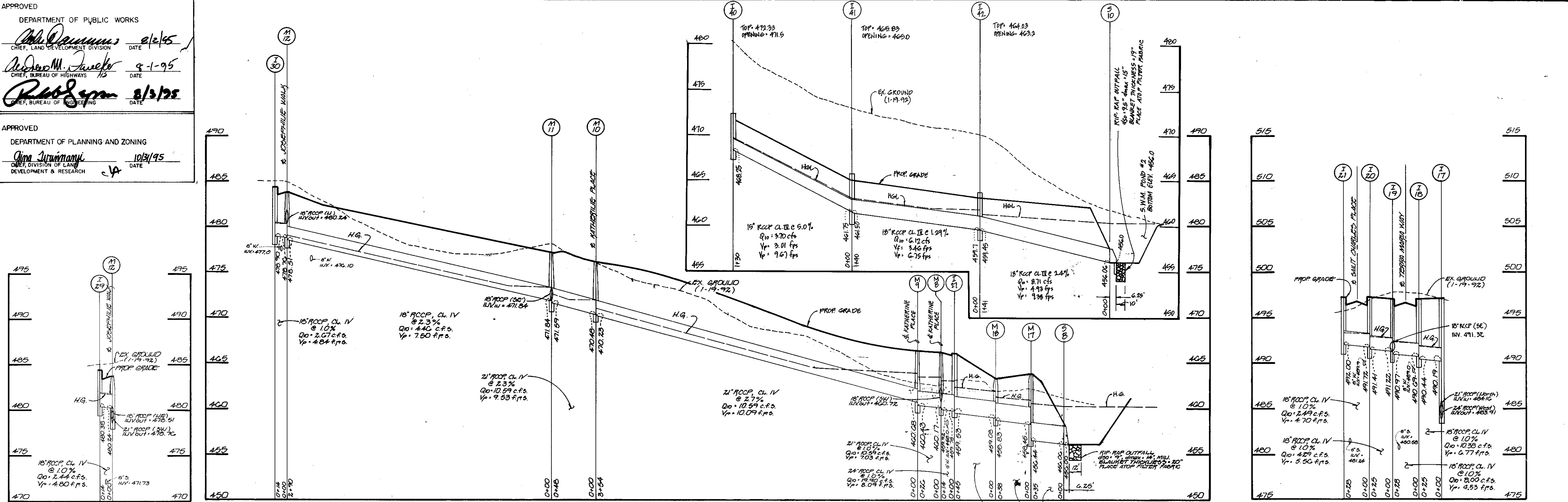


STORM DRAIN PROFILES
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 16 PARCEL 114
 DATE: JANUARY 12, 1995
 SHEET 10 OF 30

1768

APPROVED
 DEPARTMENT OF PUBLIC WORKS
John Damm 8/2/95
 CHIEF, LAND DEVELOPMENT DIVISION
Robert M. Jurek 9-1-95
 CHIEF, BUREAU OF HIGHWAYS
Robert M. Jurek 8/3/95
 CHIEF, BUREAU OF ENGINEERING

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
Anna Turumany 10/3/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH



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

- NOTE:
 1) V_p DENOTES PARTIAL FLOW VELOCITY
 2) V_f DENOTES FULL FLOW VELOCITY
 3) STORM DRAIN BEDDING TYPE CLASS 'C' TO BE USED

NO.	REVISIONS	DATE
2	ADDED PROFILE FOR I 90-910, ADDED PROFILE I 45	2/2/98
1	ADDED PROFILES FOR MH 14, 13, & 27	9/12/96

1768

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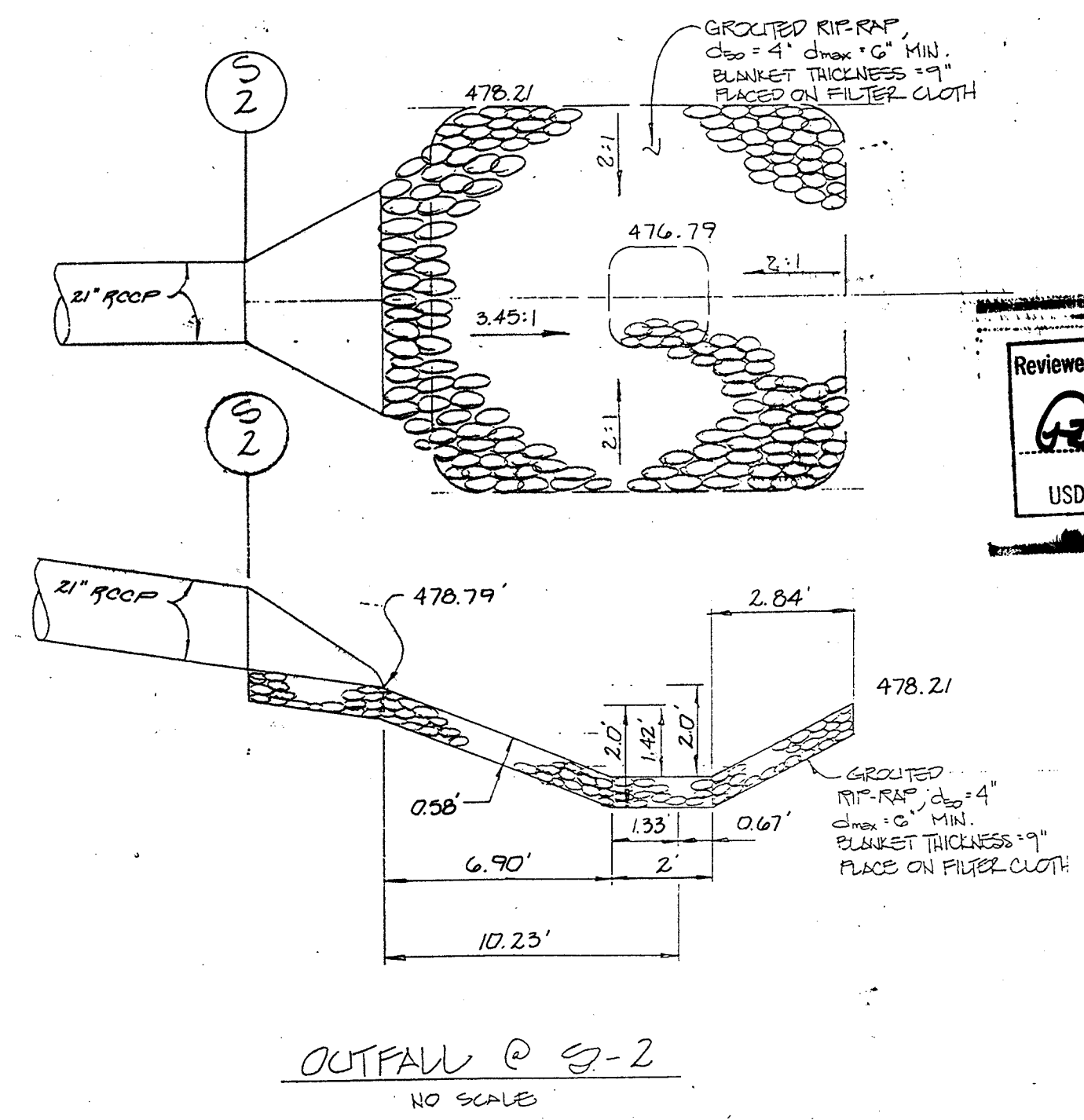
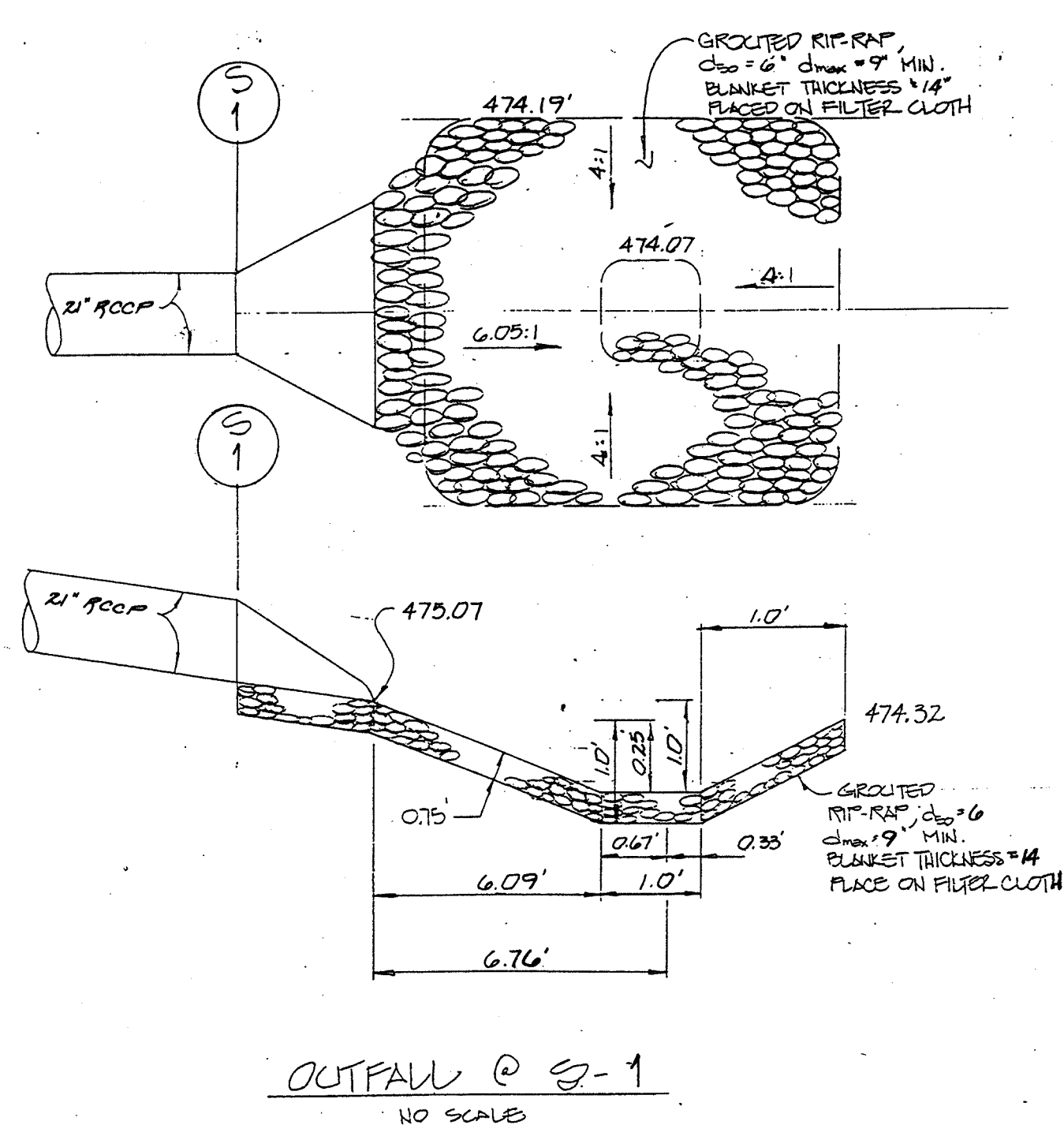
DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044



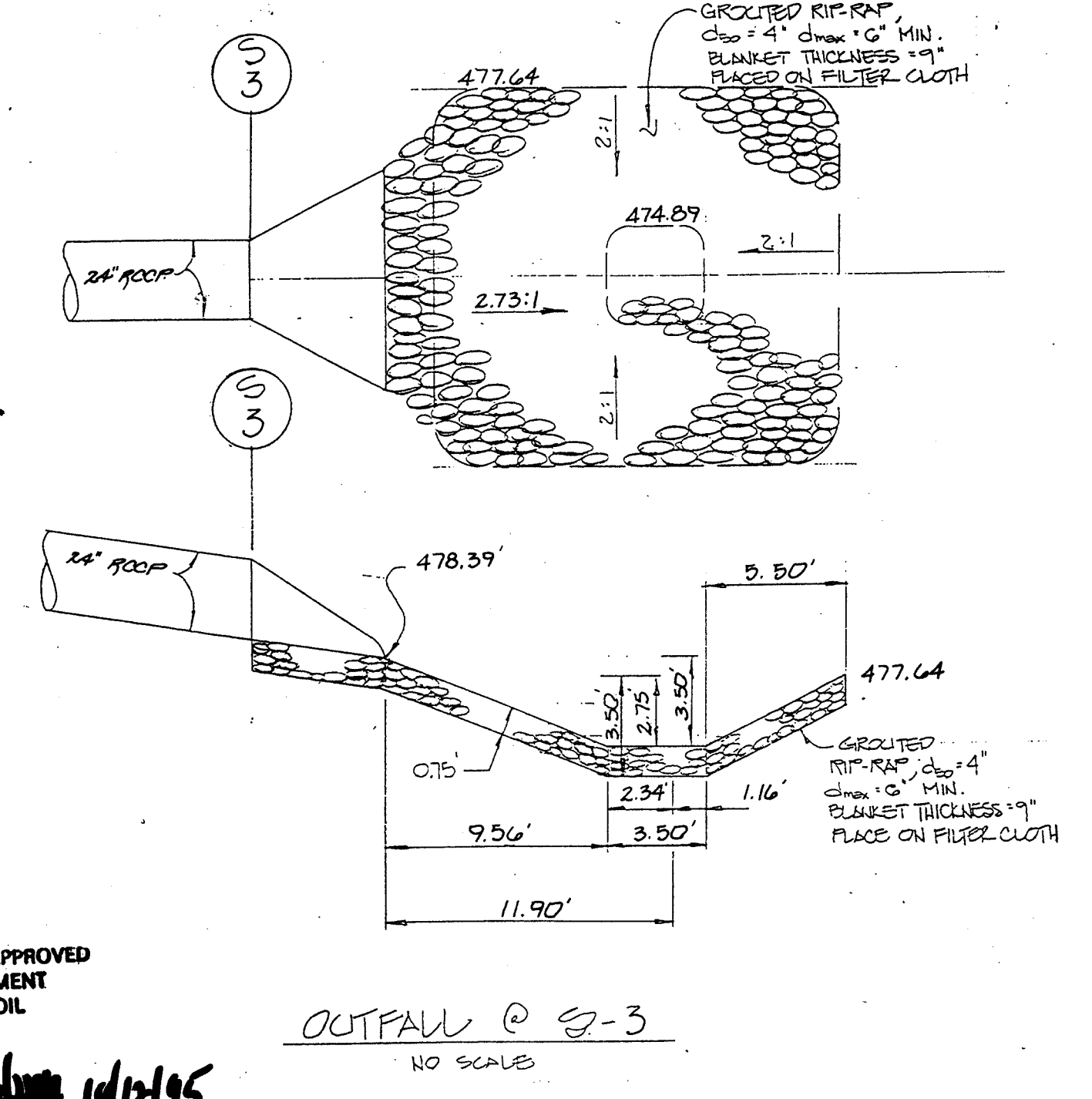
STORM DRAIN PROFILES
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP: 16 PARCEL: 114
 DATE: JANUARY 12, 1995
 SHEET 11 OF 30

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIVISION DATE 2/2/95
 CHIEF, BUREAU OF HIGHWAYS DATE 9-1-95
 CHIEF, BUREAU OF ENGINEERING DATE 2/3/95

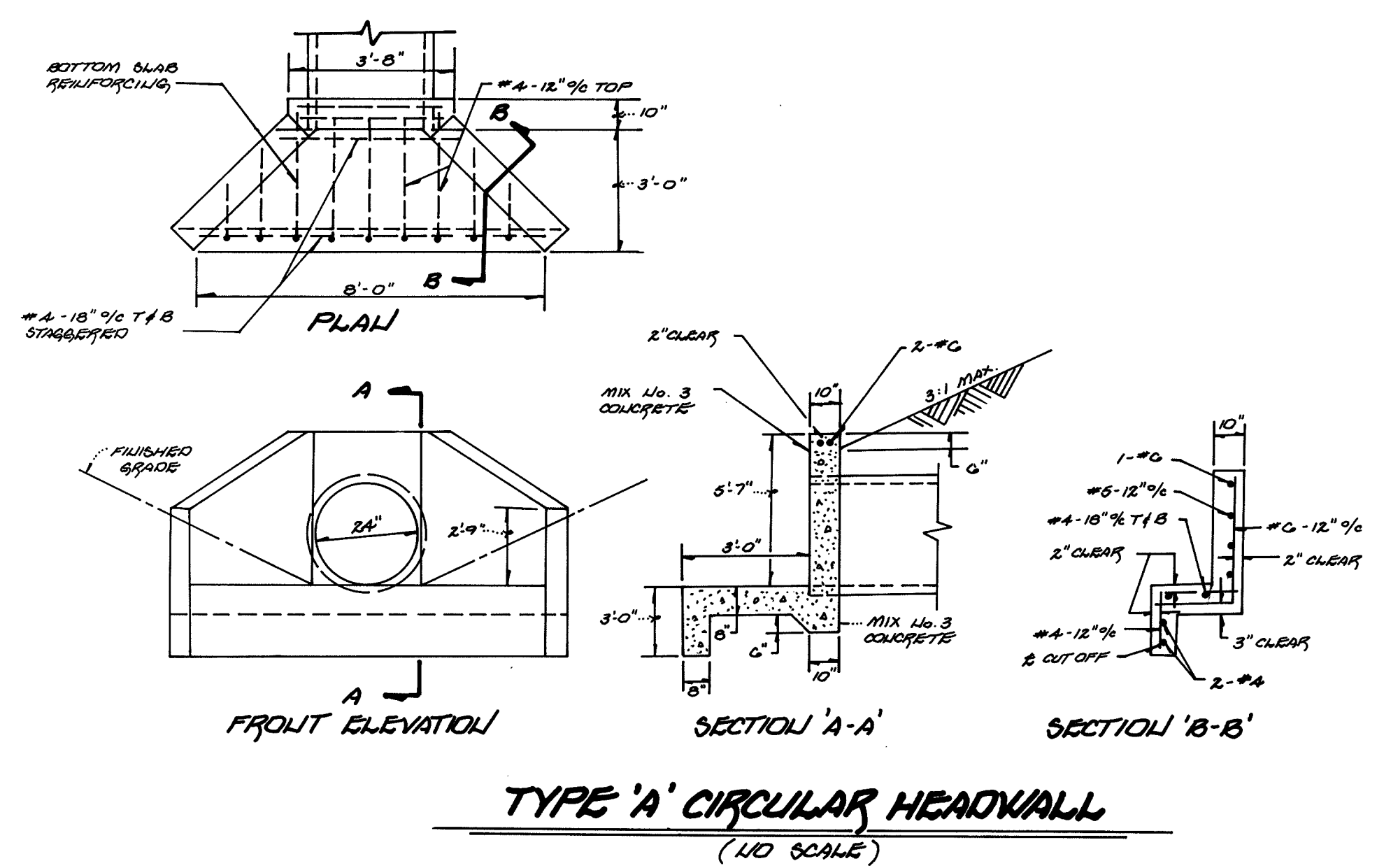
APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE 10/31/95



Reviewed for HOWARD S.C.D.
 Name
 Signature Date 10/12/95
 Signature
 USDA, NATURAL RESOURCES CONSERVATION SERVICE

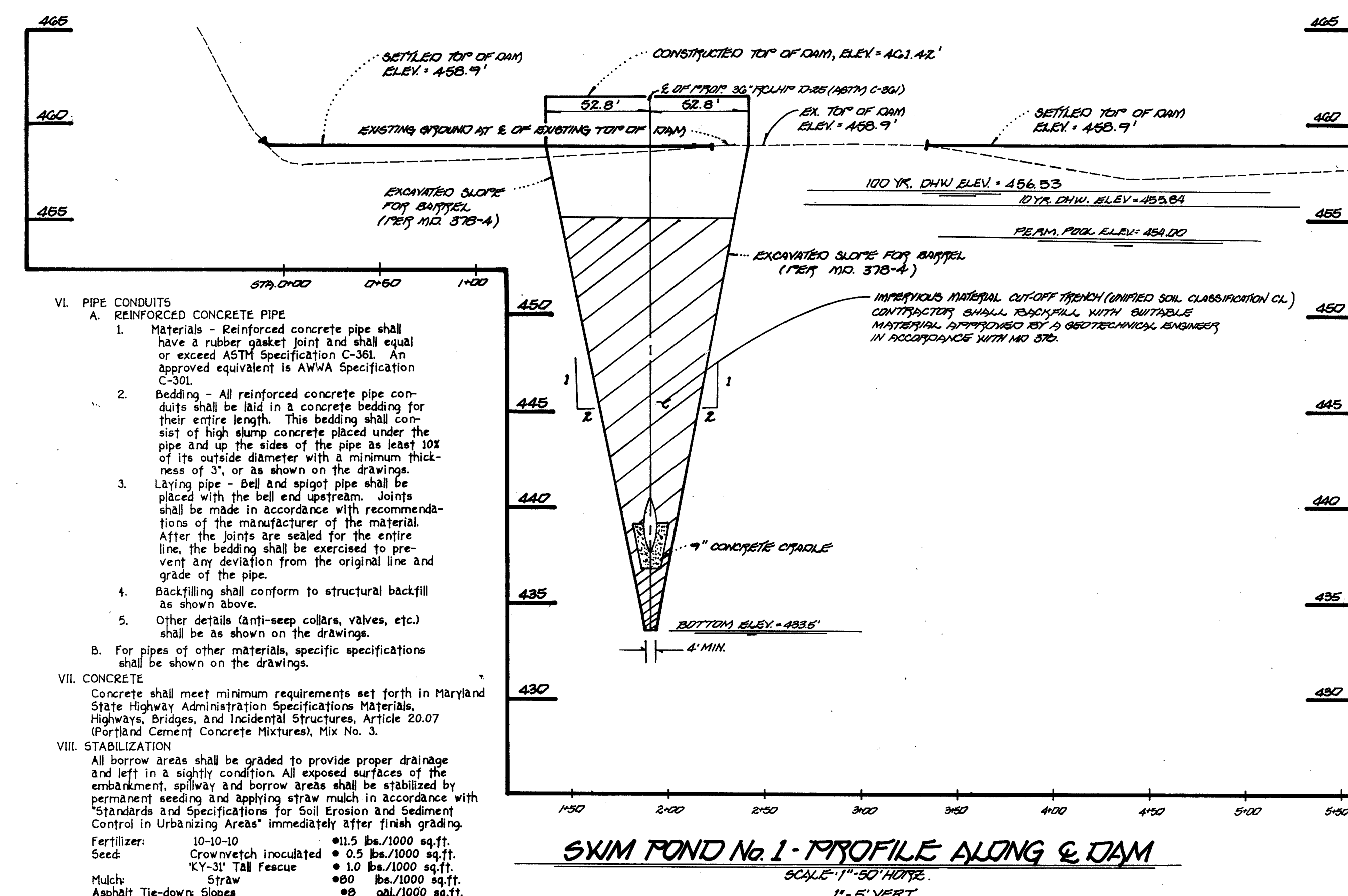


THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 Approved Date 10/12/95
 HOWARD W.B.D.



POND SPECIFICATION

- SITE PREPARATION**
 Areas under the embankment and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. To facilitate clean out and restoration, it is recommended that the permanent pool area be cleared of all brush and trees.
- EARTH FILL**
 Material
 The fill material shall be taken from approved designated borrow area or areas. It shall be free from roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased at least 10 percent above the design elevation (including free-board) unless otherwise shown on the plans. All fill materials shall be CL, CH, GC or SC, as approved by Soils Engineer.
- Placement**
 Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8 inch maximum thickness before compaction layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the down-stream portions of the embankment.
- Core trench**
 Where specified, a core trench shall be excavated along or parallel to the centerline of the embankment, as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation with the minimum width being 4-feet. The depth shall be at least 4-feet or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill material for the core trench shall be compacted either by equipment or rollers to assure maximum density and minimum permeability. Compact to 95% of AASHTO T-99 density. GC, SC, CH or CL materials only shall be used in the core trench as approved by Soils Engineer.
- STRUCTURAL BACKFILL**
 Backfill material shall be of the type and quality conforming to that specified for the adjacent fill material. The fill shall be placed in horizontal layers not to exceed 4 inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than 4 feet to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a structure or pipe unless there is a compacted fill of 2 feet or greater over the structure or pipe.



VI. PIPE CONDUITS
 REINFORCED CONCRETE PIPE

- Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. An approved equivalent is AWWA Specification C-301.
- Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3", or as shown on the drawings.
- Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be exercised to prevent any deviation from the original line and grade of the pipe.
- Backfilling shall conform to structural backfill as shown above.
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. For pipes of other materials, specific specifications shall be shown on the drawings.

VII. CONCRETE
 Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Specifications Materials, Highways, Bridges, and Incidental Structures, Article 20.07 (Portland Cement Concrete Mixtures), Mix No. 3.

VIII. STABILIZATION
 All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway and borrow areas shall be stabilized by permanent seeding and applying straw mulch in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas" immediately after finish grading.

Fertilizer:
 10-10-10 • 11.5 lbs./1000 sq.ft.
 Seeds:
 Crownvetch inoculated • 0.5 lbs./1000 sq.ft.
 KY-31 Tall fescue • 1.0 lbs./1000 sq.ft.
 Mulch:
 Straw • 80 lbs./1000 sq.ft.
 Asphalt Tie-down Slopes • 80 gal/1000 sq.ft.
 Flat areas • 5 gal/1000 sq.ft.

IX. FENCING
 A 3'-0" chain-link fence shall be constructed in the location specified on the plan. Materials and construction shall be in accordance with Maryland State Highway Administration Standard Details 690.01 and 690.02.

STILLING BASIN DETAILS AND POND CONSTRUCTION SPECIFICATIONS

TERRA MARIA

SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 16 PARCEL 114
 DATE: JANUARY 12, 1995
 SHEET 12 OF 30



FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 971 BALTIMORE NATIONAL PKWY. SUITE 100
 ELICOTT CITY, MARYLAND 21042
 (410) 421-2222

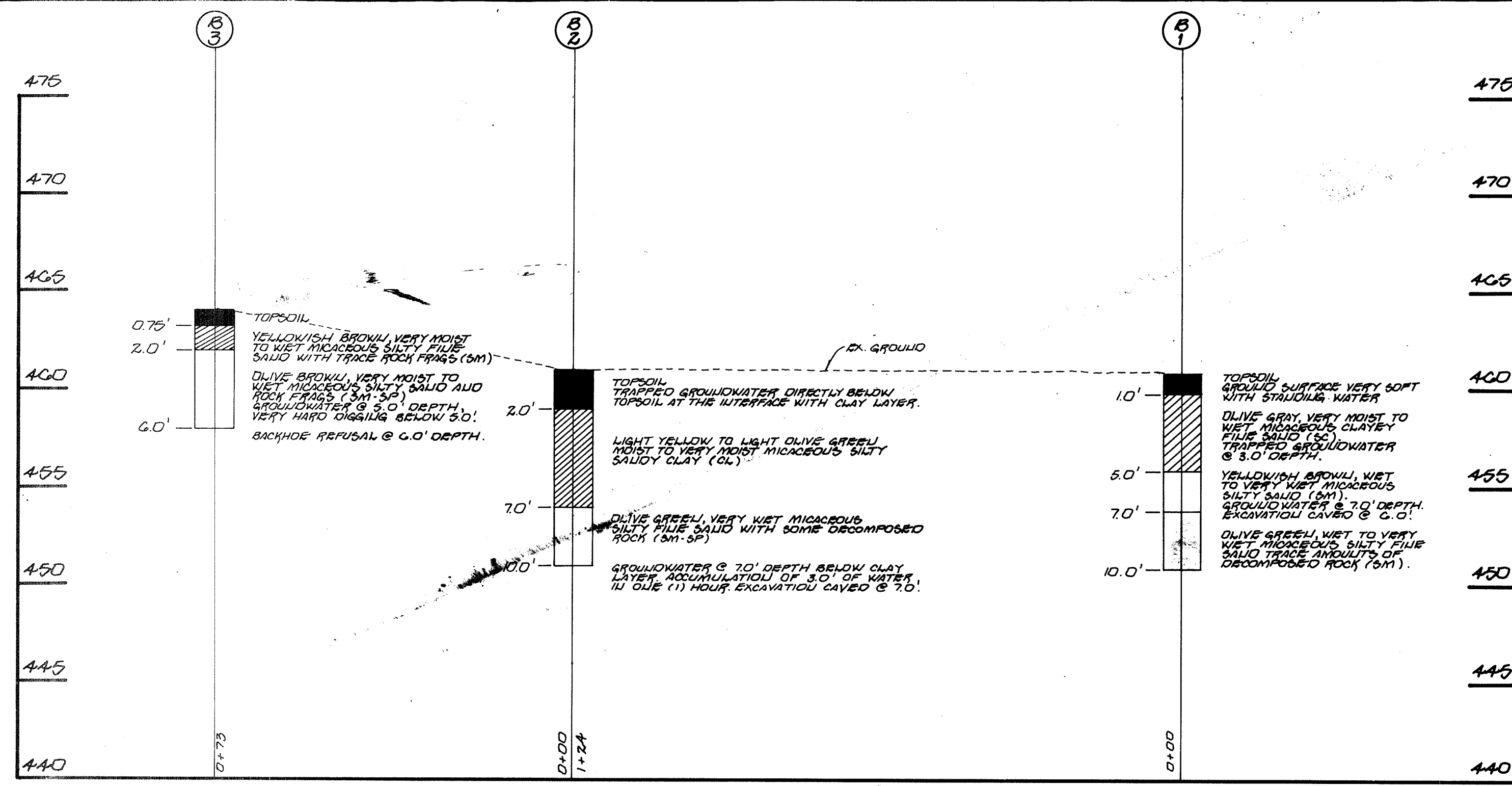
OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBERG
 TERRA MARIA L.L.C., INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

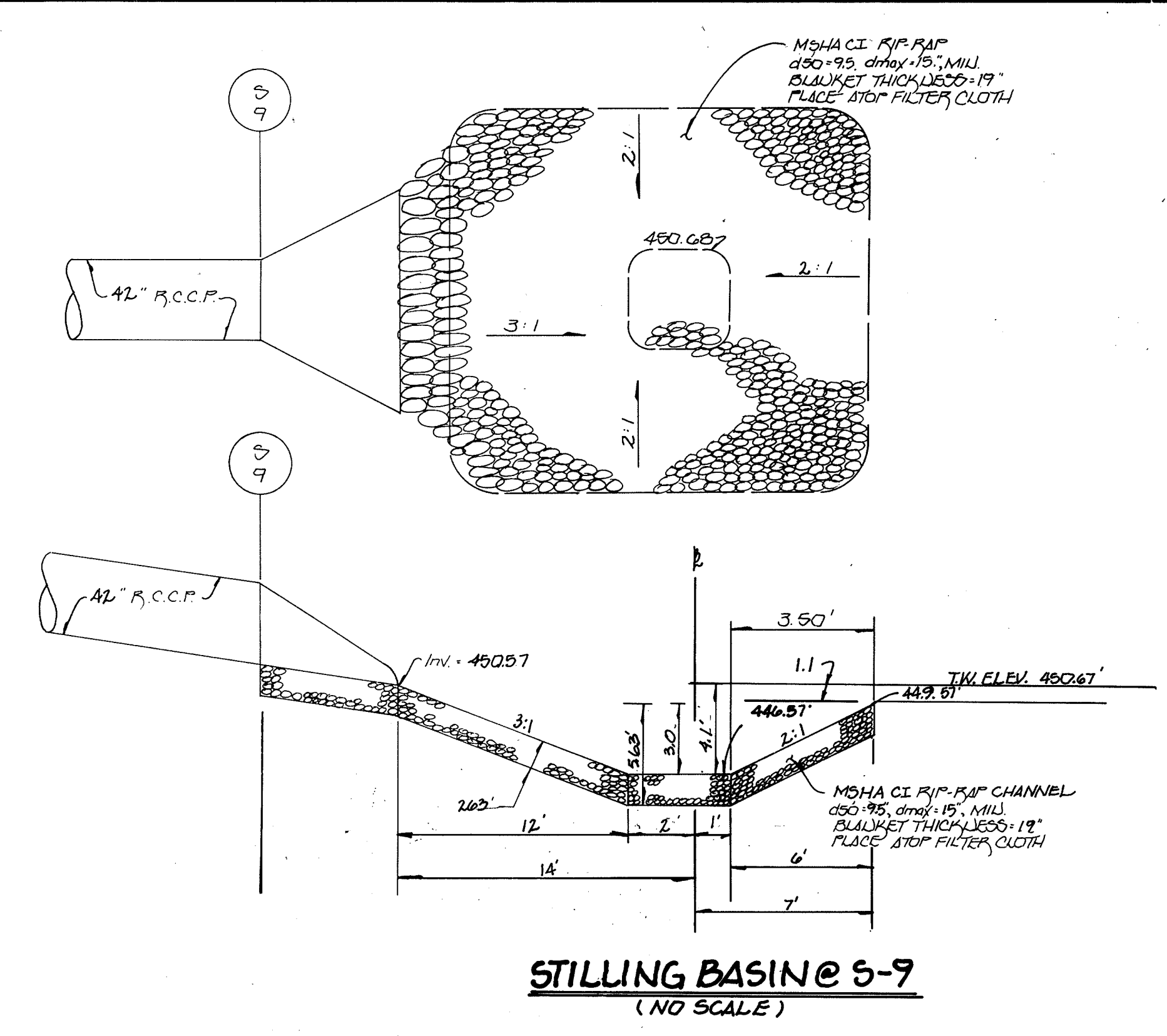
DEVELOPER
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 c/o LAND DESIGN & DEVELOPMENT, INC.
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 COLUMBIA, MARYLAND 21044

NO.	REVISIONS	DATE
1	CHANGE ELEV. 100YR & 10YR DHW. AND CHANGED ELEV. ON PERM. POOL.	3/13/96

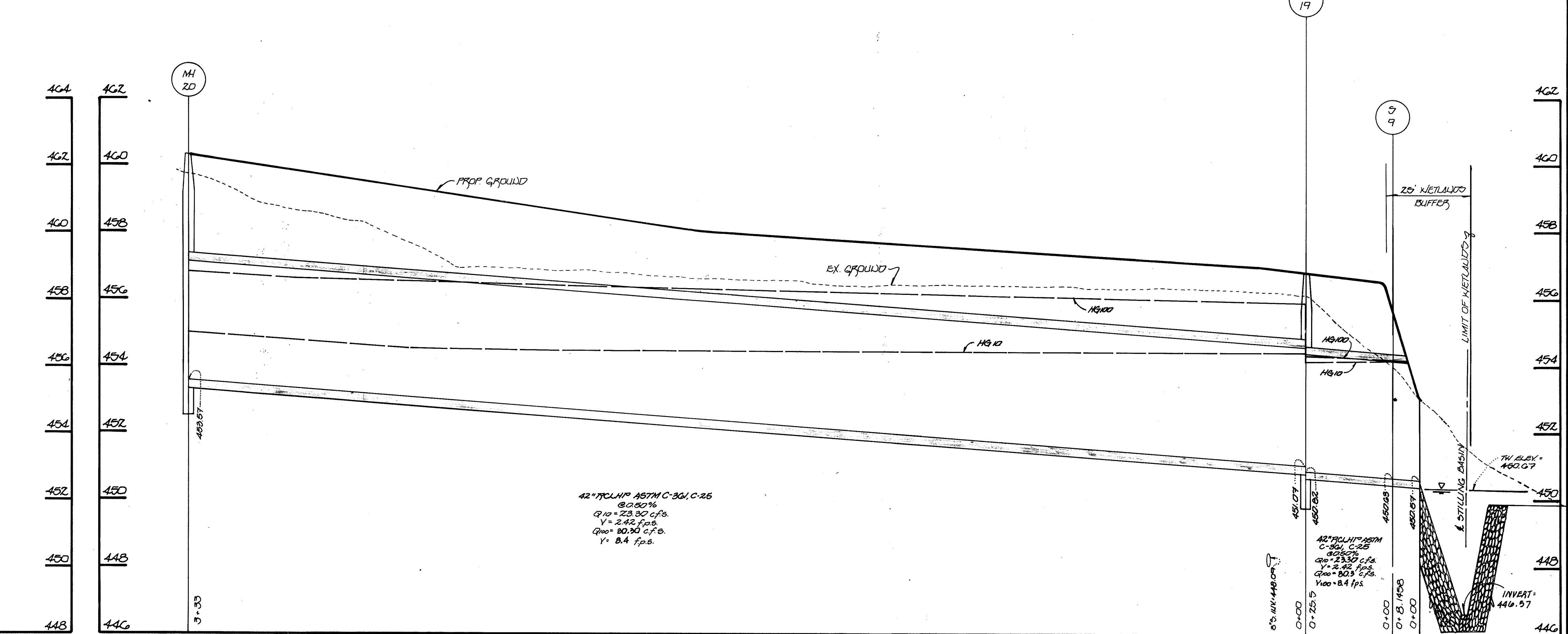
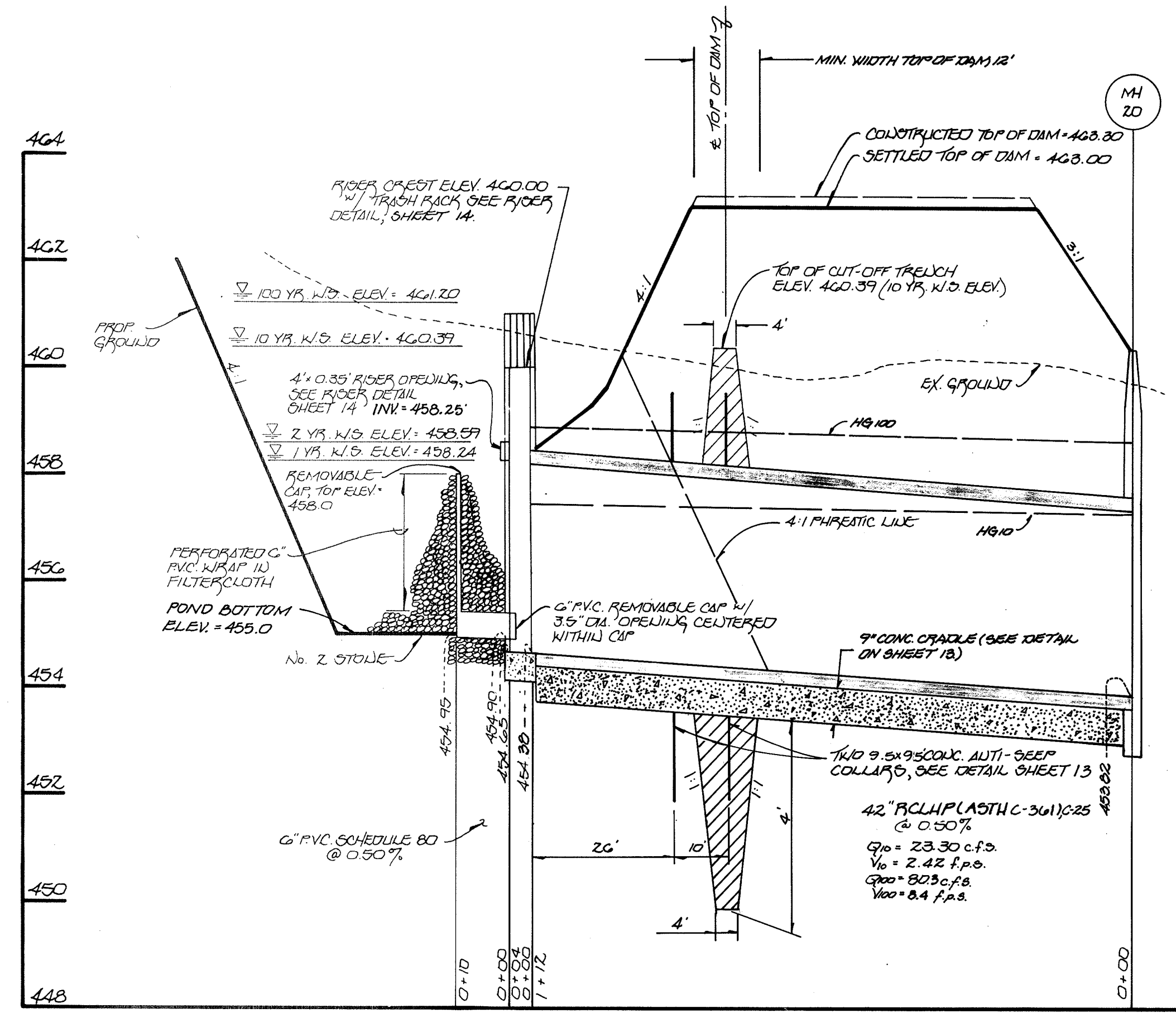
17628



- NOTE: FOR TEMPORARY STORMWATER MANAGEMENT STAGE
1. THE CONTRACTOR SHALL INSTALL THE 6" PVC HORIZONTAL & VERTICAL PIPES ONLY AFTER THE POND IS CONVERTED TO A PERMANENT FACILITY.
 2. THE 6" Ø OPENING IN THE RISER STRUCTURE SHALL BE BLOCKED AS LONG AS THE POND FUNCTIONS FOR TEMPORARY S.W.M. & SEDIMENT CONTROL.
 3. THE 4" X 0.35" OPENING IN THE RISER SHALL BE TEMPORARILY PARTIALLY BLOCKED (0.22') UP TO ELEV. 458.87.
 4. 2 YR. W.S. EL. FOR TEMPORARY STORMWATER MANAGEMENT = ELEV. 459.84.



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
SIGNATURE OF ENGINEER	1/23/95 DATE
DEVELOPER'S 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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.	
SIGNATURE OF DEVELOPER	1/23/95 DATE
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.	
SIGNATURE OF DISTRICT OFFICIAL	10/12/95 DATE
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
APPROVED:	10/12/95 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
SIGNATURE OF DISTRICT OFFICIAL	10/13/95 DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
SIGNATURE OF DISTRICT OFFICIAL	8/2/95 DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
SIGNATURE OF DISTRICT OFFICIAL	8-1-95 DATE
APPROVED: DEPARTMENT OF PUBLIC WORKS	
SIGNATURE OF DISTRICT OFFICIAL	8/2/95 DATE



1768

FISHER, COLLINS & CARTER, INC.
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 901 BALTIMORE NATIONAL, FEE, SUITE 100
 ELICOTT CITY, MARYLAND 21042
 (410) 481-2255

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBERG
 TERRA MARIA L.L.C., INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

DEVELOPER
 TERRA MARIA L.L.C., INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044



TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 16 PARCEL 114
 DATE: JANUARY 12, 1995
 SHEET 15 OF 30

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE: 1/23/95
 SIGNATURE OF ENGINEER: [Signature]

DEVELOPER'S CERTIFICATE
 I HEREBY 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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

DATE: 1/23/95
 SIGNATURE OF DEVELOPER: [Signature]

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 DATE: 10/12/95
 [Signature]

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

APPROVED: [Signature] 10/12/95
 HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 10/21/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 8/3/95
 CHIEF, BUREAU OF ENGINEERING

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 8-1-95
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 8/2/95
 CHIEF, LAND DEVELOPMENT DIVISION

NOTE: THE EXISTING S.W.M. AND V.G. POND NO. 1 SHALL BE DEWATERED AND DREDGED TO THE BOTTOM ELEVATIONS SET ON PROFILE, SHEET 13 OF 30.

RIPRAP OUTLET SEDIMENT TRAP NO. 1

DRAINAGE = 1.597 AC. ±
 STORAGE REQUIRED = 2514 C.F.
 STORAGE PROVIDED = 3520 C.F.
 WEIR LENGTH = 48'
 CLEANOUT ELEV. = 485.75
 TOP OF EMBANKMENT = 487.0

SYMBOL	SOIL DESCRIPTION
ChA	CHESTER SILT LOAM, 0-3% SLOPES
ChBZ	CHESTER SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
ChCZ	CHESTER SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
Cs	COMUS SILT LOAM
G1A	GLENELG LOAM, 0-3% SLOPES
G1BZ	GLENELG LOAM, 3-8% SLOPES, MODERATELY ERODED
G1CZ	GLENELG LOAM, 8-15% SLOPES, MODERATELY ERODED
GnA	GLENVILLE SILT LOAM, 0-3% SLOPES
MgBZ	MANOR GRAVELLY LOAM, 3-8% SLOPES, MODERATELY ERODED
MgCZ	MANOR GRAVELLY LOAM, 8-15% SLOPES, MODERATELY ERODED
M1CZ	MANOR LOAM, 15-25% SLOPES, MODERATELY ERODED
M1E	MANOR LOAM, 25-45% SLOPES

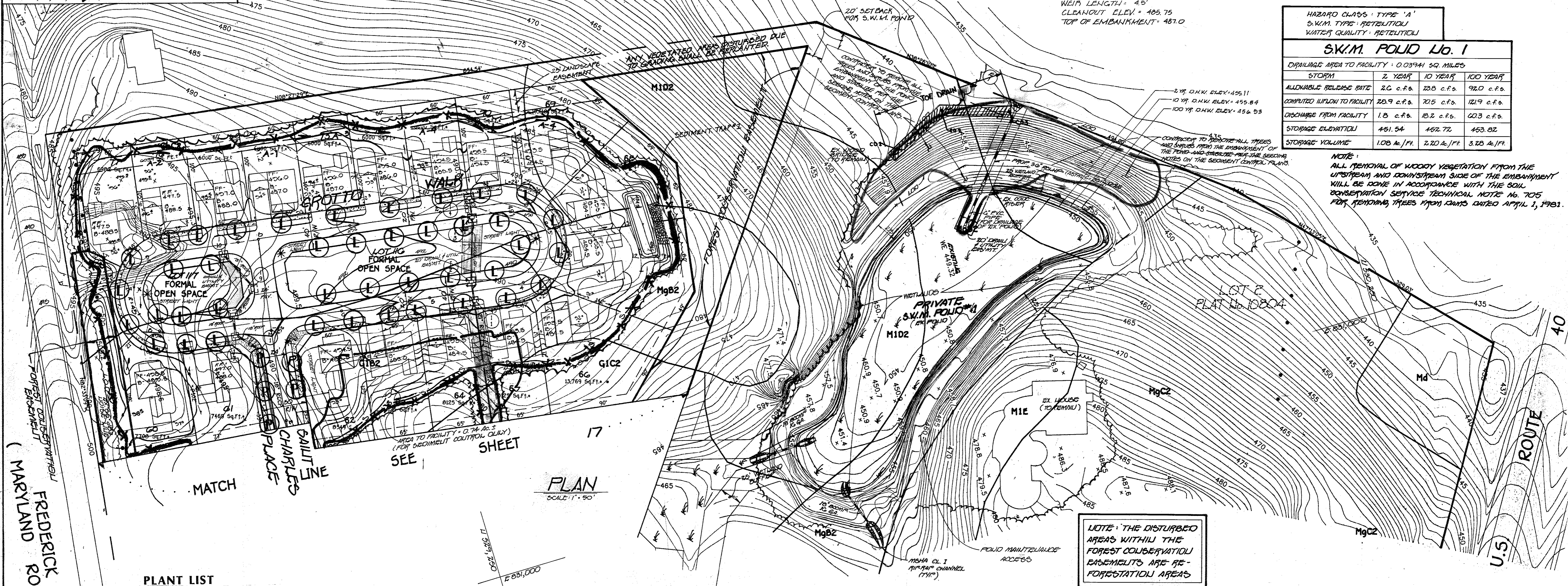
HAZARDOUS CLASS: TYPE 'A'
 S.W.M. TYPE: RETENTION
 WATER QUALITY: RETENTION

S.W.M. POND No. 1

DRAINAGE AREA TO FACILITY: 0.03941 SQ. MILES

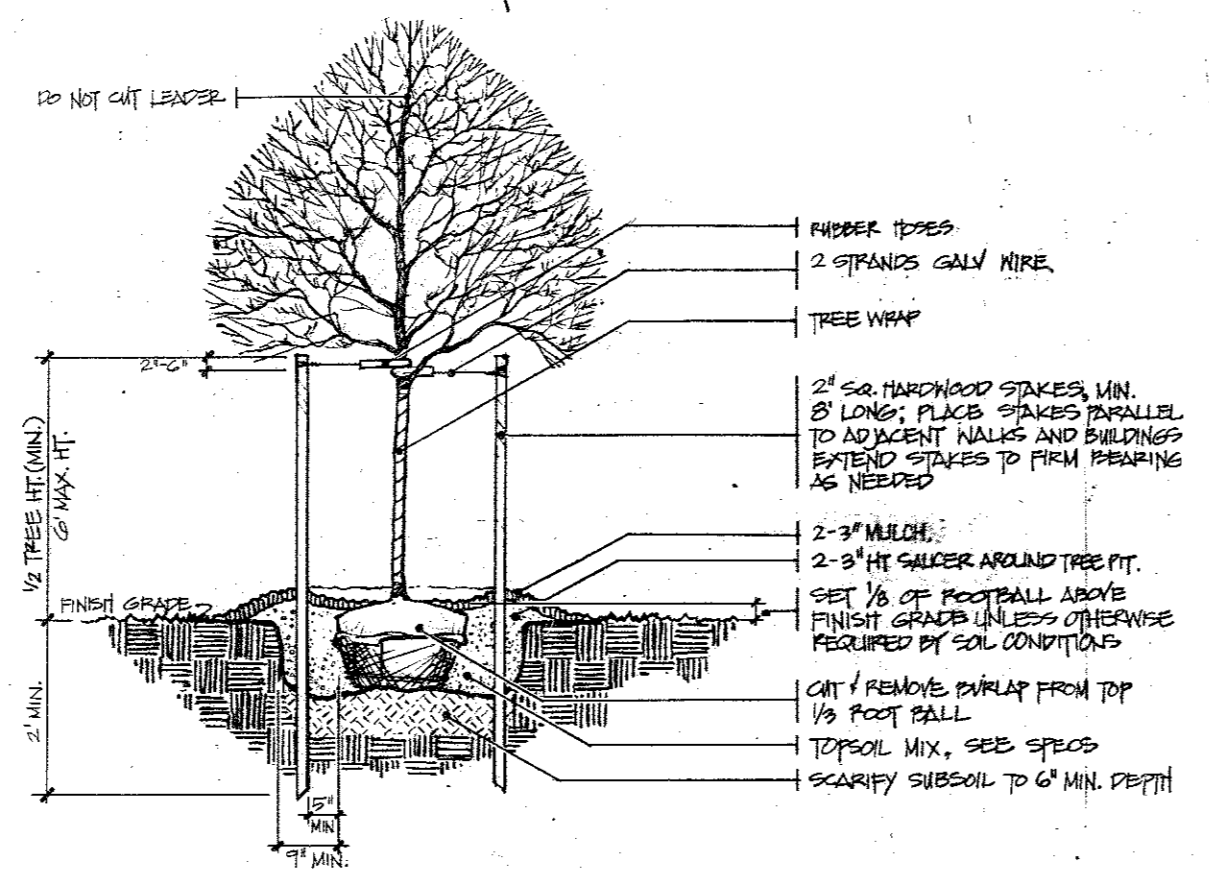
STORM	2 YEAR	10 YEAR	100 YEAR
ALLOWABLE RELEASE RATE	2.0 c.f.s.	23.6 c.f.s.	92.0 c.f.s.
COMPUTED INFLOW TO FACILITY	26.9 c.f.s.	70.5 c.f.s.	121.9 c.f.s.
DISCHARGE FROM FACILITY	1.8 c.f.s.	18.2 c.f.s.	60.3 c.f.s.
STORAGE ELEVATION	451.54	452.72	453.82
STORAGE VOLUME	1.08 cu ft.	2.20 cu ft.	3.28 cu ft.

NOTE: ALL REMOVAL OF WOODY VEGETATION FROM THE UPSTREAM AND DOWNSTREAM SIDE OF THE EMBANKMENT WILL BE DONE IN ACCORDANCE WITH THE SOIL CONSERVATION SERVICE TECHNICAL NOTE NO. 705 FOR REMOVING TREES FROM DAMS DATED APRIL 1, 1981.



PLANT LIST

Qty	Key	Botanical/Common Name	Size	Remarks
77	M	Acer rubrum 'Red Sunset' Red Sunset Maple	13-15' ht. 2 1/2-3" cal.	B&B Full
7	A	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	13-15' ht. 2 1/2-3" cal.	B&B Full
92	P	Quercus phellos Willow Oak	12-14' ht. 2 1/2-3" cal.	B&B Full
71	R	Quercus rubra Red Oak	13-15' ht. 2 1/2-3" cal.	B&B Full
41	L	Tilia cordata 'Greenspire' Greenspire Linden	13-15' ht. 2 1/2-3" cal.	B&B Full



GENERAL PLANTING NOTES

- All plant material shall conform to the sizes given in the plant list and shall be nursery grown in accordance with the "American Standard for Nursery Stock", latest edition.
- All planting shall be in accordance with standard American Association of Nurserymen procedures and specifications.
- Contractor and Owner's Representative shall verify the correct location of all underground utilities in the field prior to installation of any plant materials.
- Deciduous tree staking is optional based on plants exposure to high winds or if steep slopes are present. (Movement is necessary to strengthen the trunk of the planted tree).
- Plant material location to be flagged in the field and approved by the Landscape Architect or Owner's Representative prior to planting.
- All plant beds and planting areas to be mulched to a depth of 3" unless otherwise indicated.
- All disturbed lawn areas shall be fine graded and seeded.
- All plant beds shall be contained with a spaced edge unless noted otherwise.
- Obtain approval from Landscape Architect or Owner's Representative before making any substitutions or changes.
- Quantities shown on plan list are for the Contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the plant list, the quantities on the plan shall apply.

SCHEDULE FOR RETROFITTING STORMWATER MANAGEMENT POND NO. 1

- EXISTING STORMWATER MANAGEMENT IS TO BE PUMPED DRY FOR WORK TO PROCEED.
- DAM IS TO BE EXCAVATED AT THIS TIME.
- REMOVE EXISTING RISER, BARREL AND SPILLWAY.
- CONSTRUCT NEW RISER, BARREL, SPILLWAY AND ANTI-SEEP COLLARS.
- BACK FILL POND WITH PROPER MATERIAL AND APPROPRIATE COMPACTION (SHALL BE IN ACCORDANCE WITH MD 318 SPECIFICATIONS).
- EXCAVATE TOP OF POND TO NEW ELEVATION (456.0).
- ALL DISTURBED AREA WILL BE SEEDED AND MULCH APPLIED FOR AREA'S NEEDED.

NO.	CHANGED ELEV. ON 2YR., 10YR., AND 100YR. D.M.W.	DATE
1		3/19/95
	REVISIONS	

LEGEND

★ TREE PROTECTION

□ DENOTES INLET PROTECTION

FREDERICK ROAD 144

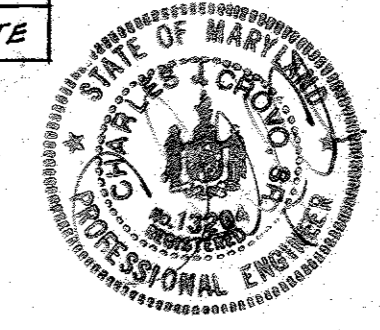
ROUTE 40

8921
 FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 901 BALTIMORE NATIONAL PKWY. SUITE 100
 ELICOTT CITY, MARYLAND 21042
 (410) 761-2825

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10950 FREDERICK ROAD
 ELICOTT CITY, MD. 21042

OWNER
 JOHN HORNBERG
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044



STREET TREE, GRADING AND SEDIMENT CONTROL PLAN

TERRA MARIA

SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 16 PARCEL 114
 DATE: JANUARY 12, 1995
 SHEET 16 OF 30

CONTRACTOR TO REMOVE ALL TREES AND BUFFER FROM THE EMBANKMENT OF THE ROAD AND STRIPLIZE PER THE ASSOCIATED NOTES ON THE EROSION CONTROL PLAN.

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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: Robert Zieher 10/12/95
 HOWARD SOIL CONSERVATION DIST.
 DATE
 APPROVED: DEPARTMENT OF PLANNING AND ZONING 10/31/95
Ann Shannon SA
 CHIEF, DIVISION OF PLANNING AND ZONING
 DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS 8/1/95
Robert M. Snelgrove
 CHIEF, BUREAU OF ENGINEERING
 DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS 8/1/95
Robert M. Snelgrove
 CHIEF, BUREAU OF HIGHWAYS
 DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS 8/1/95
Robert M. Snelgrove
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE

DEVELOPER'S CERTIFICATE
 I HEREBY 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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 SIGNATURE OF DEVELOPER: John Hornburg DATE: 10/12/95
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Thomas E. ... DATE: 10/12/95
 DISTRICT NATURAL RESOURCES COORDINATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: Robert Zieher 10/12/95
 HOWARD SOIL CONSERVATION DIST.
 DATE
 APPROVED: DEPARTMENT OF PLANNING AND ZONING 10/31/95
Ann Shannon SA
 CHIEF, DIVISION OF PLANNING AND ZONING
 DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS 8/1/95
Robert M. Snelgrove
 CHIEF, BUREAU OF ENGINEERING
 DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS 8/1/95
Robert M. Snelgrove
 CHIEF, BUREAU OF HIGHWAYS
 DATE
 APPROVED: DEPARTMENT OF PUBLIC WORKS 8/1/95
Robert M. Snelgrove
 CHIEF, LAND DEVELOPMENT DIVISION
 DATE



MATCH LINE SEE SHEET 16



FREDERICK ROAD (MARYLAND ROUTE 144)

U.S. ROUTE 40

NOTE: THE DISTURBED AREAS WITHIN THE FOREST CONSERVATION EASEMENTS ARE RE-FORESTATION AREAS

LEGEND
 * TREE PROTECTION AT L.O.D.
 □ DENOTES TRAILER PROTECTION

NO.	REVISIONS	DATE
2	ADDED M21, I-36, I-37 AND I-38	10-3-96
1	CHANGED GRADING ON JOSEPHINE WALK AND ADDED 18" RCCP FOR M414	5/18/96

FOR PLANT LIST AND GENERAL NOTES SEE SHEET 16



TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP #16 PARCEL #14
 DATE: JANUARY 12, 1995
 SHEET 17 OF 30

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 9711 MALTWOOD NATIONAL FIRE SITE 100
 ELLICOTT CITY, MARYLAND 21114
 (410) 461-2295

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

1768

F95-99

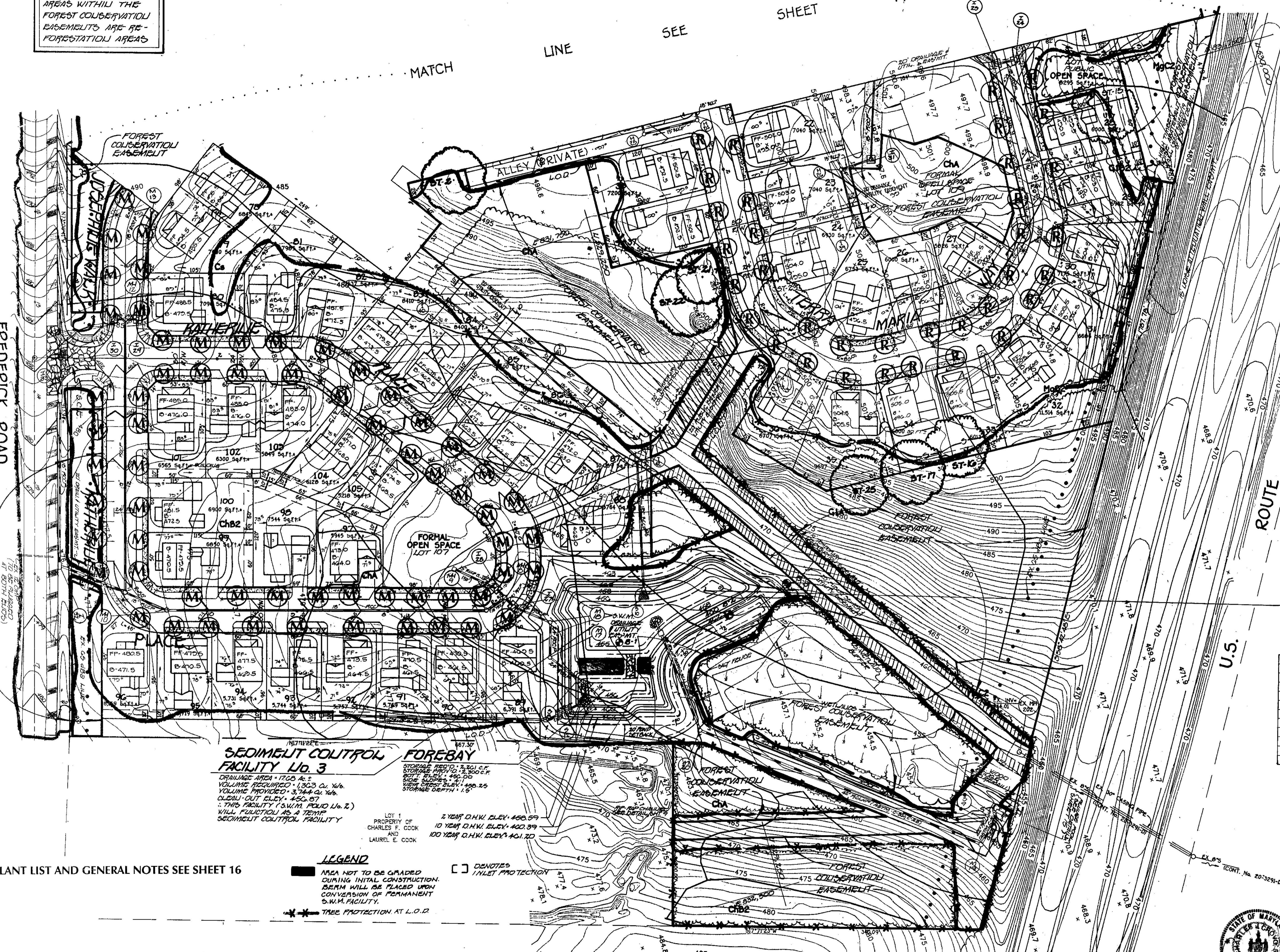
NOTE: THE DISTURBED AREAS WITHIN THE FOREST CONSERVATION EASEMENTS ARE RE-FORESTATION AREAS

SHEET 17

MATCH LINE

FREDERICK ROAD (MARYLAND ROUTE 144)

ROUTE U.S.



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 CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF ENGINEER: [Signature] DATE: 1/24/95

DEVELOPER'S CERTIFICATE
 I HEREBY 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 DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 SIGNATURE OF DEVELOPER: [Signature] DATE: 1/24/95

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS:
 [Signature] DATE: 10/12/95
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] DATE: 10/13/95

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 8/13/95
 APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 8-1-95

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] DATE: 8/2/95

PUBLIC STORM WATER MANAGEMENT FOLIO No. 2
 S.W.M. TYPE: DETENTION
 WATER QUALITY: EXTENDED DETENTION
 HAZARD CLASS: TYPE 'A'
 DRAINAGE AREA: 17.08 Ac. ±

	2 YEAR	10 YEAR	100 YEAR
ALLOWABLE RELEASE	6.8 C.F.S.	24.2 C.F.S.	BUTHE AMOUNT
INFLOW TO FACILITY	23.8 C.F.S.	92.4 C.F.S.	93.7 C.F.S.
ACTUAL RELEASE	3.1 C.F.S.	23.3 C.F.S.	84.8 C.F.S.
ELEV @ DISCHARGE	458.59	400.39	401.20
STORAGE @ ELEV.	0.78 Ac./Ft.	1.60 Ac./Ft.	1.91 Ac./Ft.
POUD INVERT ELEV. = 455.00			
INVERT OF 3.6" DIA. LOW FLOW = 455.00			
CREST ELEV OF 4" x 0.36' RIBBON OPENING = 455.25			
RIBBON CREST ELEV. = 400.00			
EMERGENCY SPILLWAY CREST ELEV. = 401.00			
CONSTRUCTED TOP OF DAM ELEV. = 403.60			

SEDIMENT CONTROL FOREBAY FACILITY No. 3
 DRAINAGE AREA = 17.08 Ac. ±
 VOLUME REQUIRED = 1,303 Cu. Yds.
 VOLUME PROVIDED = 3,744 Cu. Yds.
 CLEAR-OUT ELEV. = 453.00
 THIS FACILITY (S.W.M. FOLIO No. 2) WILL FUNCTION AS A TEMP. SEDIMENT CONTROL FACILITY.
 LOT 1 PROPERTY OF CHARLES F. COOK AND LAUREL E. COOK
 2 YEAR O.H.W. ELEV. = 456.59
 10 YEAR O.H.W. ELEV. = 400.39
 100 YEAR O.H.W. ELEV. = 401.20

LEGEND
 [Symbol] AREA NOT TO BE GRADED DURING INITIAL CONSTRUCTION. BERM WILL BE PLACED UPON CONVERSION OF PERMANENT S.W.M. FACILITY.
 [Symbol] TREE PROTECTION AT L.O.D.
 [Symbol] DENOTES INLET PROTECTION

FOR PLANT LIST AND GENERAL NOTES SEE SHEET 16

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBURG
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

PLAN SCALE: 1" = 50'

NO	REVISIONS	DATE
2	ADDED 15" RCP FOR MH 13	2/1/95
1	ADDED 15" RCP FOR MH 13	1/15/95



TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP: 16 PARCEL: 114
 DATE: JANUARY 12, 1995
 SHEET 13 OF 30

1768

FISHBURN, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 971 BALTIMORE NATIONAL PKWY. SUITE 100
 ELLICOTT CITY, MARYLAND 21044
 (410) 481-2255

F95-99

SYMBOL	SOIL DESCRIPTION
ChA	CHESTER SILT LOAM, 0-3% SLOPES
ChB2	CHESTER SILT LOAM, 3-8% SLOPES, MODERATELY ERODED
ChC2	CHESTER SILT LOAM, 8-15% SLOPES, MODERATELY ERODED
Cs	COMUS SILT LOAM
GIA	GLENELG LOAM, 0-3% SLOPES
GIB2	GLENELG LOAM, 3-8% SLOPES, MODERATELY ERODED
GIC2	GLENELG LOAM, 8-15% SLOPES, MODERATELY ERODED
GnA	GLENVILLE SILT LOAM, 0-3% SLOPES
MgB2	MANOR GRAVELLY LOAM, 3-8% SLOPES, MODERATELY ERODED
MgC2	MANOR GRAVELLY LOAM, 8-15% SLOPES, MODERATELY ERODED
MID2	MANOR LOAM, 15-25% SLOPES, MODERATELY ERODED
MIE	MANOR LOAM, 25-45% SLOPES

PROPERTY OF
WILLIAM P. RUTH E.
POE
L. 3089 F. 83

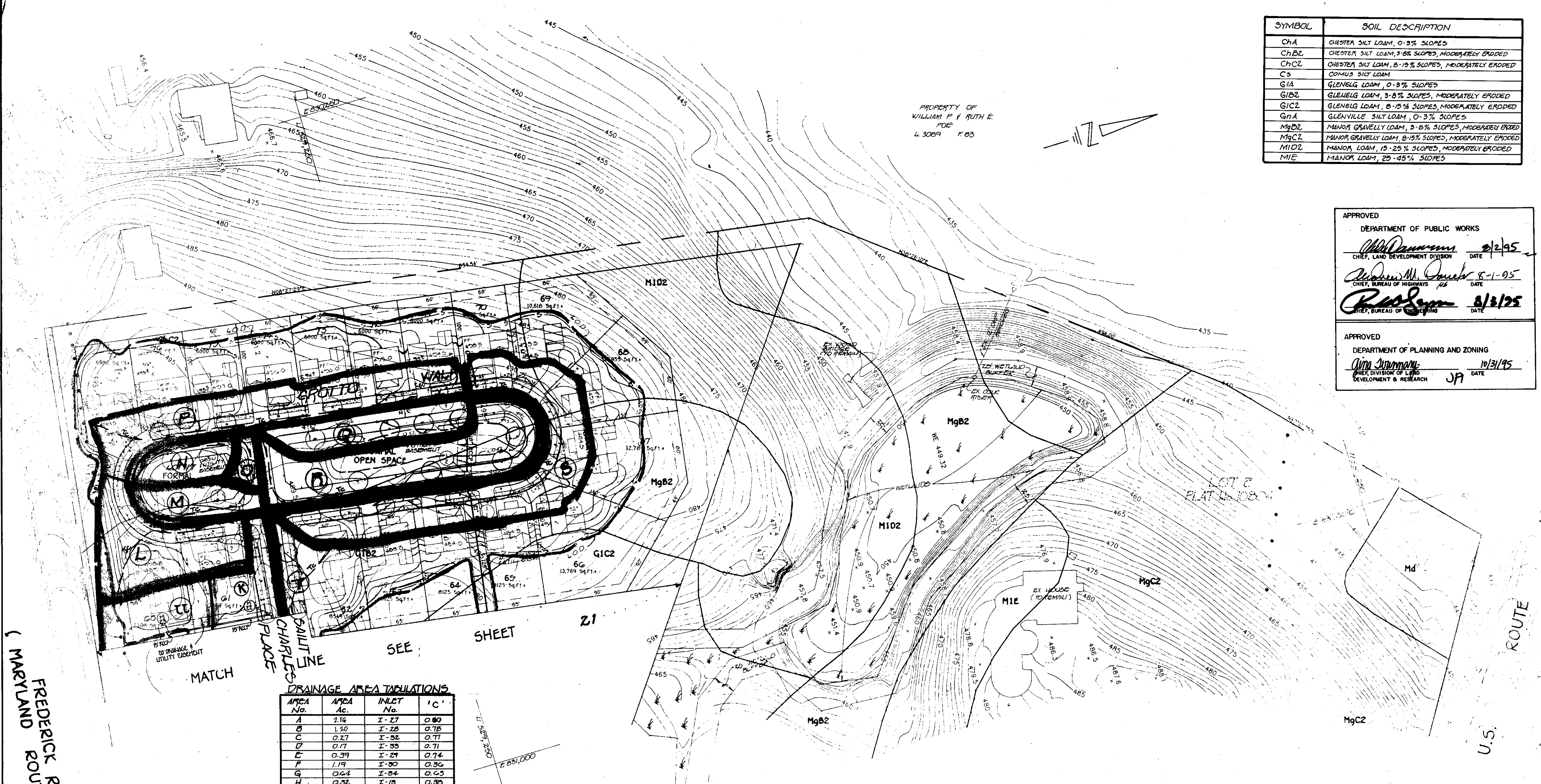


APPROVED
DEPARTMENT OF PUBLIC WORKS
William M. Damm 2/2/95
CHIEF, LAND DEVELOPMENT DIVISION DATE

William M. Damm 8-1-95
CHIEF, BUREAU OF HIGHWAYS DATE

Paul Ryan 8/3/95
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING
Anna Surmon 10/31/95
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE



DRAINAGE AREA TABULATIONS

AREA No.	AREA Ac.	INLET No.	I.C.
A	2.16	I-27	0.80
B	1.20	I-28	0.78
C	0.27	I-52	0.77
D	0.17	I-35	0.71
E	0.39	I-24	0.74
F	1.19	I-30	0.30
G	0.64	I-34	0.63
H	0.32	I-18	0.38
I	0.53	I-12	0.30
J	0.12	I-11	0.22
K	2.06	I-6	0.49
L	0.31	I-7	0.46
M	0.12	I-8	0.30
N	0.10	I-10	0.60
O	0.04	I-9	0.75
P	0.50	I-4	0.70
Q	0.18	I-3	0.60
R	0.45	I-2	0.31
S	0.59	I-1	0.22
T	0.34	I-5	0.08
U	0.77	I-14	0.71
V	2.06	I-15	0.50
W	0.82	I-21	0.52
X	0.44	I-20	0.28
Y	0.23	I-16	0.70
Z	0.80	I-23	0.66
AA	0.48	I-22	0.40
BB	0.47	I-26	0.66
CC	0.91	I-31	0.35
DD	0.31	I-25	0.61
EE	0.35	I-24	0.74
FF	0.72	I-18	0.71
GG	0.66	I-19	0.77
HH	0.22	I-17	0.64

AREA No.	AREA Ac.	INLET No.	I.C.
II	0.25	I-36	0.48
JJ	1.27	I-37	0.35
KK	0.27	I-38	0.48
LL	0.80	I-39	0.42
MM	1.48	I-40	0.35
NN	1.09	I-41	0.34
OO	1.96	I-42	0.30
PP	0.32	I-43	0.67
QQ	1.42	I-44	0.71
RR	1.06	I-45	0.60

NOTE: BUILDING WITHIN THE DRAINAGE AREA FOR ALL OTHERS OF THIS PROJECT IS 19,150.

PLAN

FREDERICK ROAD 144)
(MARYLAND ROUTE 144)

MATCH

CHARLES SALINE PLACE

SEE SHEET 21

No.	DATE	DESCRIPTION
2	2-2-95	ADD NEW DRAINAGE AREAS PER 143, 15-45
1	10-3-94	ADD MH 22, 23 AND REV. CHART



DRAINAGE AREA MAP
TERRA MARIA
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 16 PARCEL 114
DATE JANUARY 12, 1995
SHEET 20 OF 30

OWNER
PETER HOROWITZ AND ELIZABETH HOROWITZ
10805 FREDERICK ROAD
ELLICOTT CITY, MD. 21042

DEVELOPER
JOHN HORNBERG
TERRA MARIA LLC, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER
TERRA MARIA LLC, INC.
LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

FISHER, COLLINS & CARTER, INC.

8921

F95-99

MATCH LINE SEE SHEET 20

APPROVED
 DEPARTMENT OF PUBLIC WORKS
Michael D. ... 8/2/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Richard M. ... 8-1-95
 CHIEF, BUREAU OF HIGHWAYS DATE
Robert ... 8/1/95
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
Jim ... 10/3/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

6891,000
 U.S. 144

FREDERICK ROAD
 (MARYLAND ROUTE 144)

U.S. ROUTE 40

NOTE: ZONING WITHIN THE OLD AREA FOR ALL STORM DRAINS ON THE PROJECT IS 'A'-EO

NO.	REVISIONS	DATE
2	ADDED 14 31, 1-36, 1-37-1-38	8/2/95
1	ADDED NEW 18' RCCT FOR MH 14	5/13/94



DRAINAGE AREA MAP
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 16 PARCEL 114
 DATE: JANUARY 12, 1995
 SHEET 21 OF 30

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 971 SALTICREASE NATIONAL FREEWAY SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 1987-88-89-90

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBERG
 TERRA MARIA L.L.C., INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

MATCH

LINE SEE SHEET 22

PLAN
 SCALE: 1"=60'

1768



FREDERICK ROAD
(MARYLAND ROUTE 144)

MATCH

LINE SEE SHEET 21

ROUTE 40
U.S.

APPROVED
DEPARTMENT OF PUBLIC WORKS
Michael J. Quinn 2/2/95
CHIEF, LAND DEVELOPMENT DIVISION DATE
Robert M. Quinlan 8-1-95
CHIEF, BUREAU OF HIGHWAYS DATE
Robert J. Quinn 8/1/95
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
DEPARTMENT OF PLANNING AND ZONING
Christa J. Quinn 10/31/95
CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE

PUBLIC STORM WATER MANAGEMENT POND No. 2

S.W.M. TYPE : DETENTION
WATER QUALITY : EXTENDED DETENTION
HAZARD CLASS : TYPE 'A'
DRAINAGE AREA : 17.68 AC ±

	2 YEAR	10 YEAR	100 YEAR	ENTIRE AMOUNT
ALLOWABLE RELEASE	6.8 CFS	24.2 CFS	95.7 CFS	
INFLOW TO FACILITY	23.5 CFS	55.4 CFS	84.0 CFS	
ACTUAL RELEASE	3.1 CFS	23.3 CFS	46.1 CFS	
ELEV. @ DISCHARGE	498.59	490.39	461.20	
STORAGE @ ELEV.	0.78 AC/FT	1.50 AC/FT	1.91 AC/FT	
POND INVERT ELEV.	499.00			
INVERT OF 3.5' DIA. LOW FLOW	495.00			
CREST ELEV. OF 4' x 0.25' RIPRAP OPENING	498.25			
RISEWAY CREST ELEV.	460.00			
EMERGENCY SPILLWAY CREST ELEV.	461.00			
CONSTRUCTED TOP OF DTM ELEV.	463.50			

SEDIMENT CONTROL FACILITY No. 3
DRAINAGE AREA : 17.68 AC ±
VOLUME ACQUIRED : 1,325 Cu. Yds.
VOLUME PROVIDED : 3,744 Cu. Yds.
CLEAN-OUT ELEV. : 460.87
THIS FACILITY (S.W.M. POND No. 2) WILL FUNCTION PROPERLY AS A TYPICAL SEDIMENT CONTROL FACILITY.

FOREBAY
STORAGE CAPACITY : 1,325 C.F.
TOTAL ELEV. : 460.00
SIDE SLOPES : 1:1
MIN. CREST ELEV. : 460.25
STORAGE DEPTH : 1.5'

NOTE: ZONING WITHIN THE SHAD AREA FOR ALL STORM DRAINAGE ON THE PROJECT IS R-1C.

NO.	REVISIONS	DATE
3	ADDED S-44 TO S-12, 1 S-45	2-2-95
2	ADDED I-40, I-41, I-42 AND S-10	10-3-90
1	ADDED 18" RCP FOR M-13	9/13/90



DRAINAGE AREA MAP
TERRA MARIA
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
TAX MAP 16 PARCEL 114
DATE: JANUARY 12, 1995
SHEET 22 OF 30

1768

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
471 MALTBY NATIONAL PARKWAY, SUITE 100
ELICOTT CITY, MARYLAND 21042
1989-1995

OWNER
PETER HOROWITZ AND ELIZABETH HOROWITZ
10890 FREDERICK ROAD
ELICOTT CITY, MD 21042

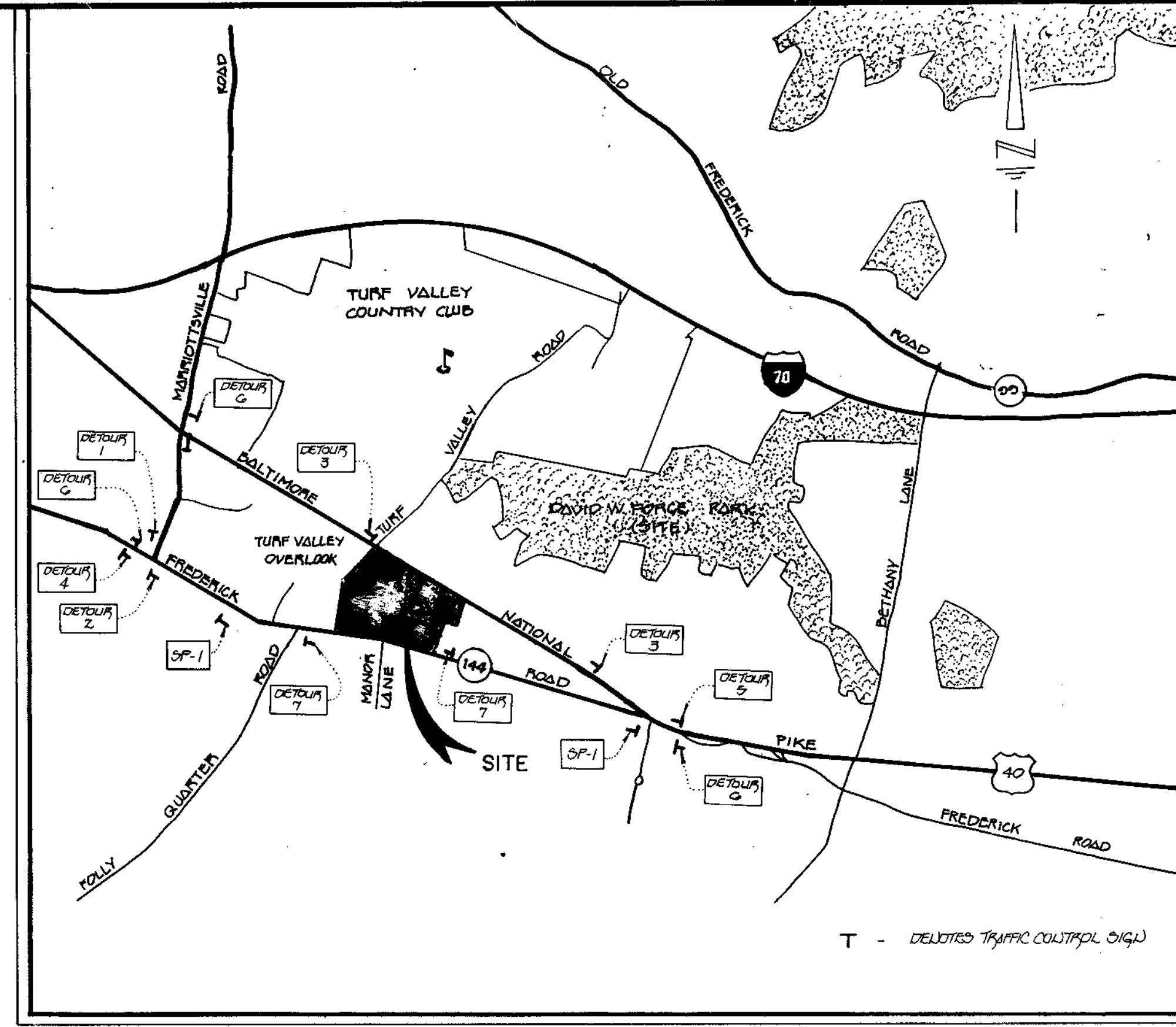
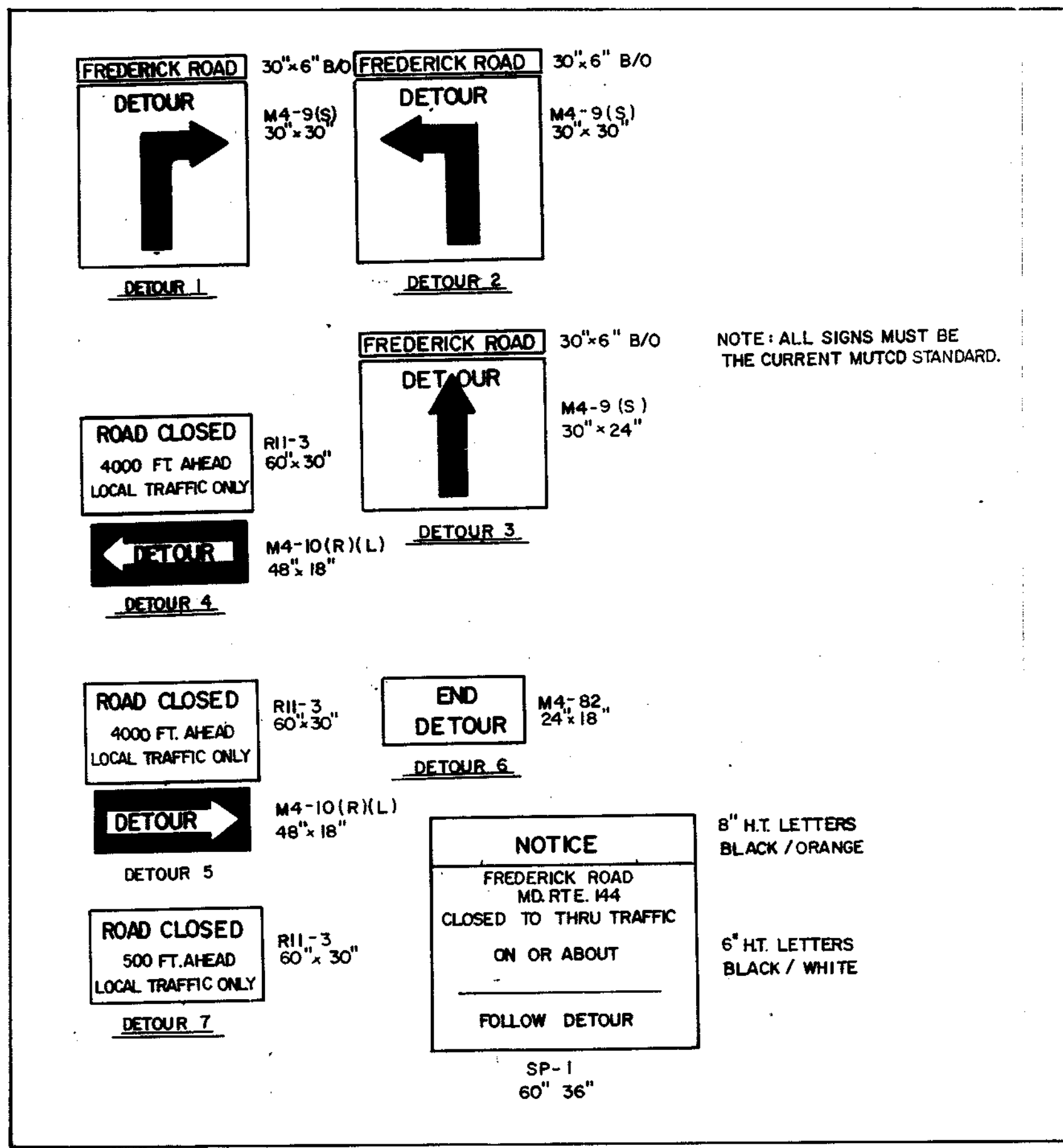
DEVELOPER
TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

DEVELOPER
TERRA MARIA LLC, INC.
c/o LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

PLAN
SCALE 1" = 50'

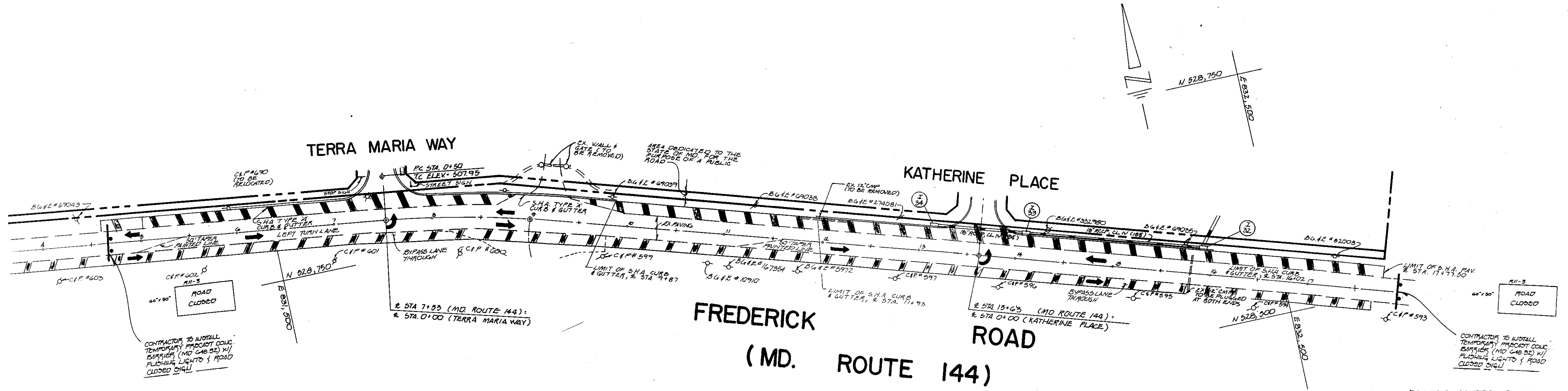
APPROVED
 DEPARTMENT OF PUBLIC WORKS
 Chief, Land Development Division
 Chief, Bureau of Highways
 Chief, Bureau of Engineering

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development & Research



GENERAL NOTES

- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENT INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
- THIS AREA DESIGNATES AN EXISTING PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS PER RECORD PLAT NO. 4565.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE PURPOSE OF THIS PLAT IS TO REVISE THE EXISTING PRIVATE SEWERAGE EASEMENT RECORDED IN PLAT NO. 4565 TO THE LOCATION SHOWN HEREON.
- OWNER & DEVELOPER:
 WILDER HOMES
 3243 SONIA TRAIL
 ELLICOTT CITY, MARYLAND 21043



TRAFFIC CONTROL PLAN
 NOTES & DETAILS
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP 116 PARCEL 114
 DATE: JANUARY 12, 1995
 SHEET 23 OF 30

1768

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 871 BALTIMORE NATIONAL PKZ. SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 198 18 - 2999

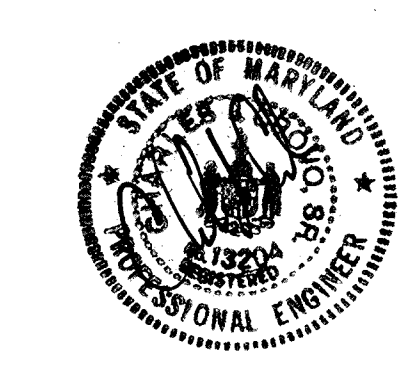
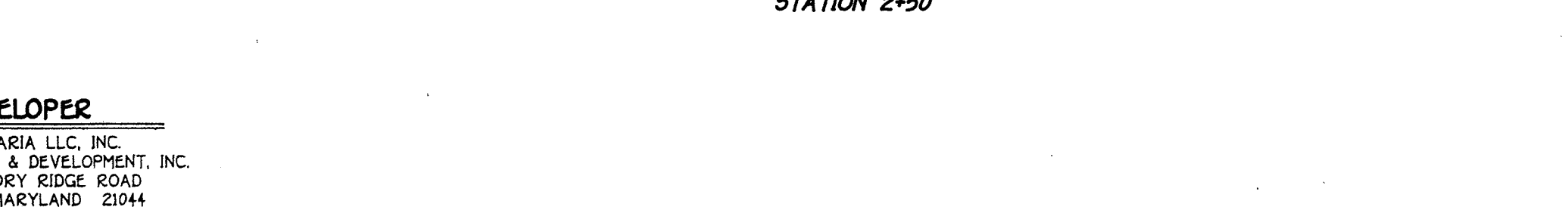
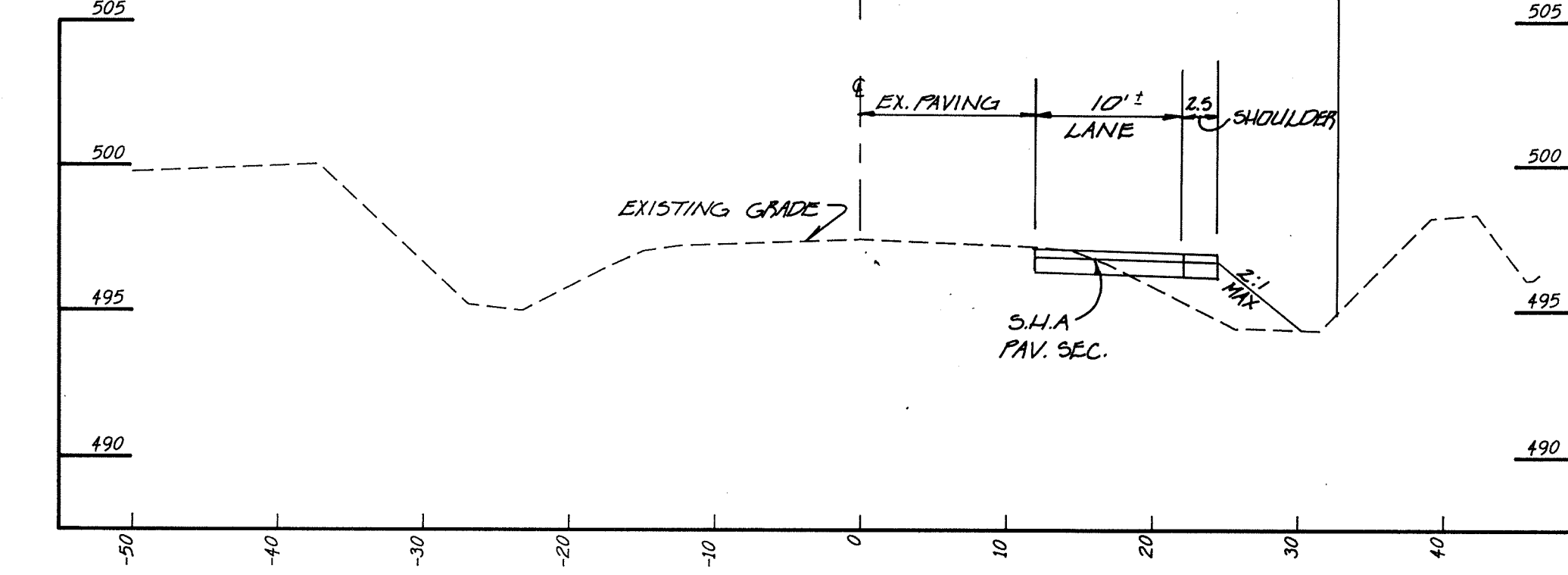
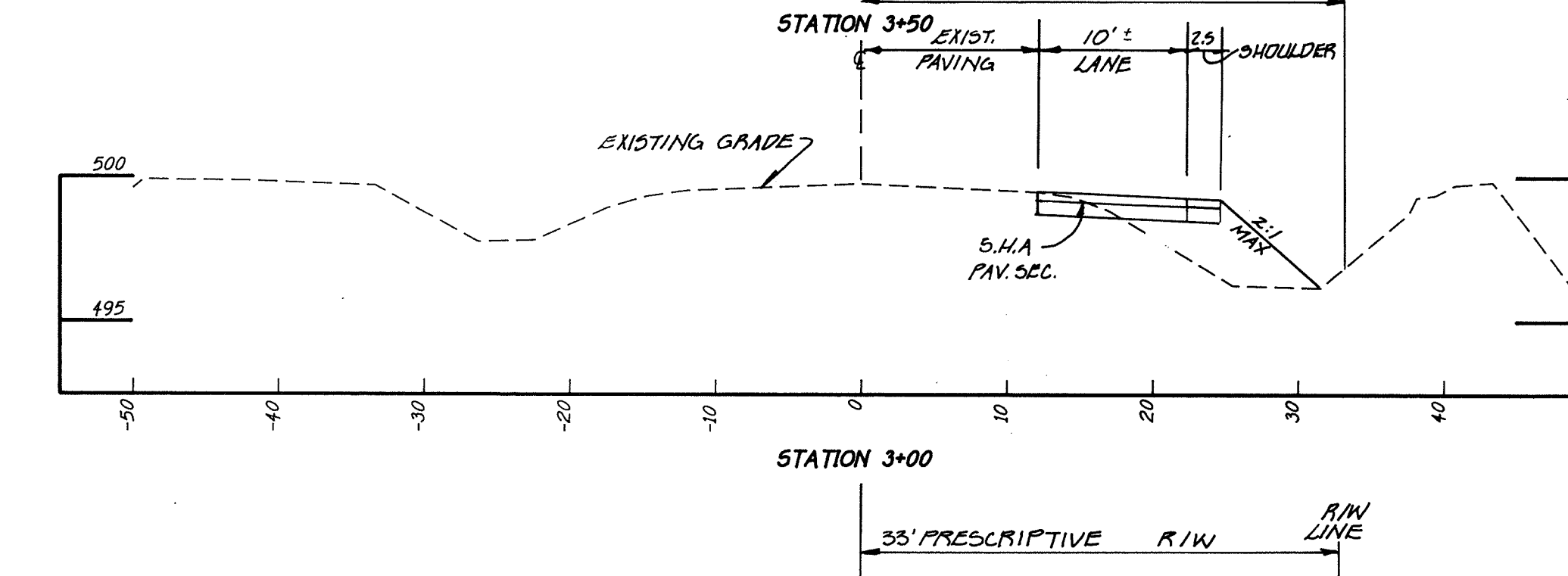
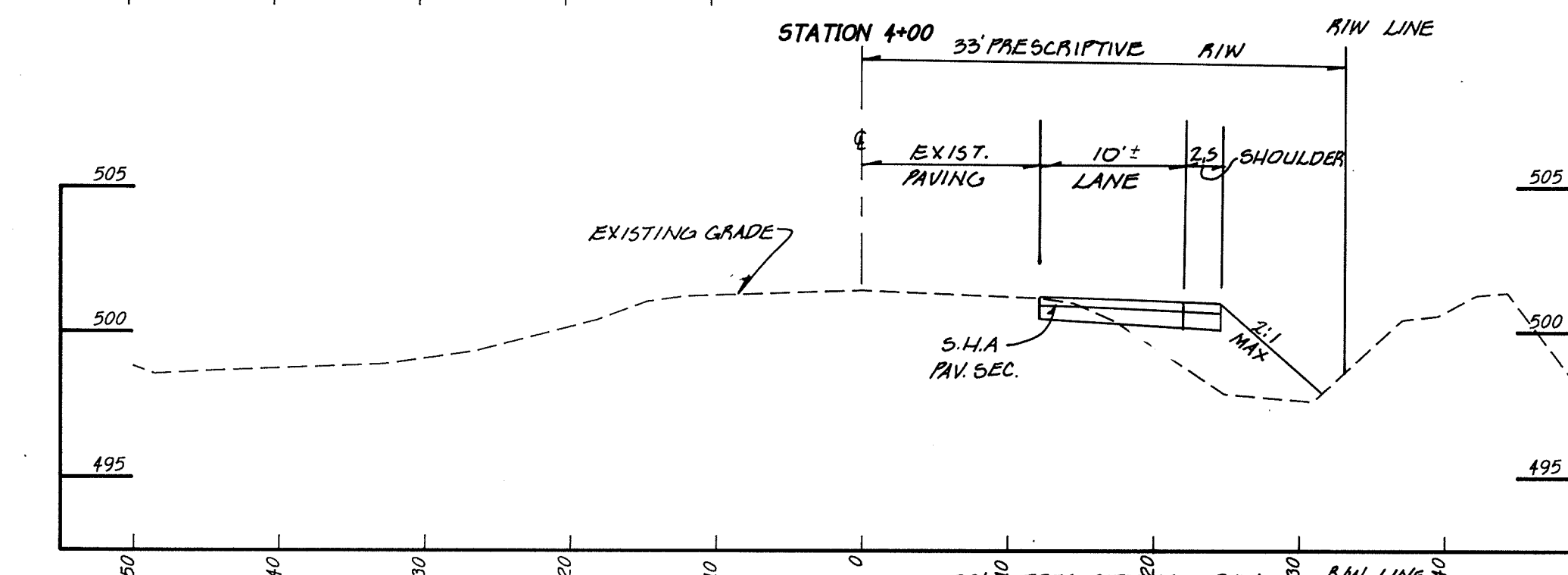
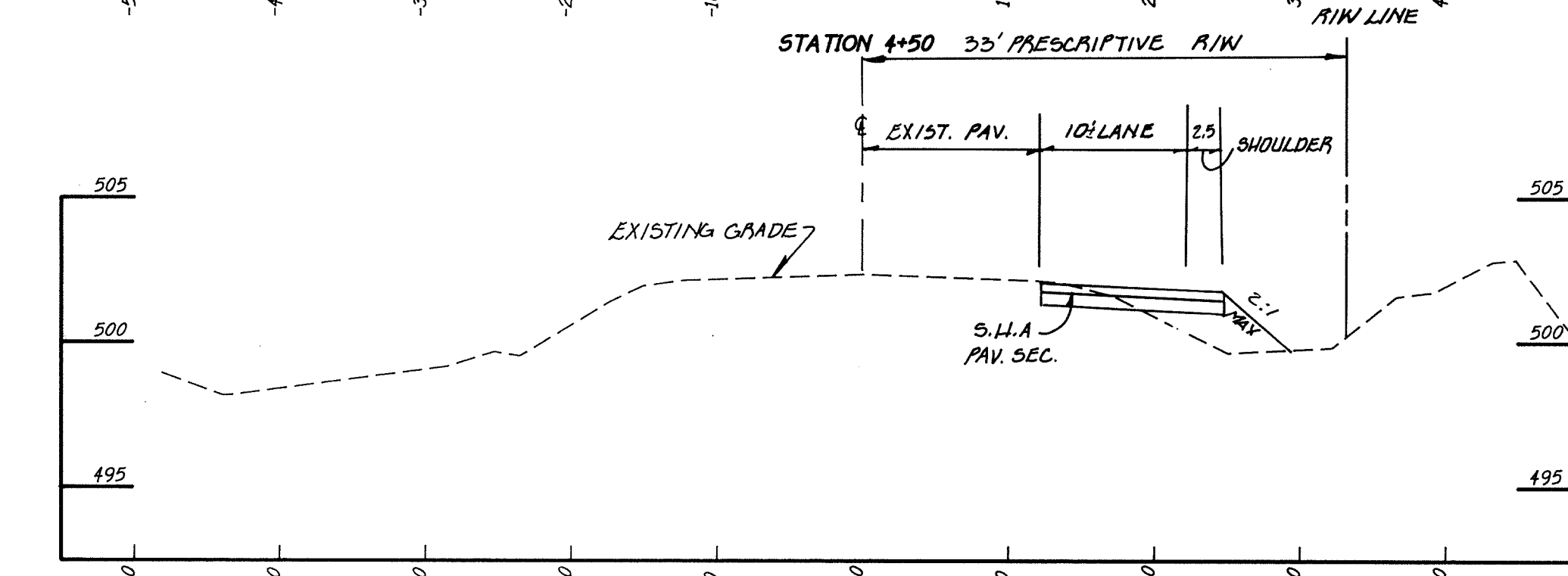
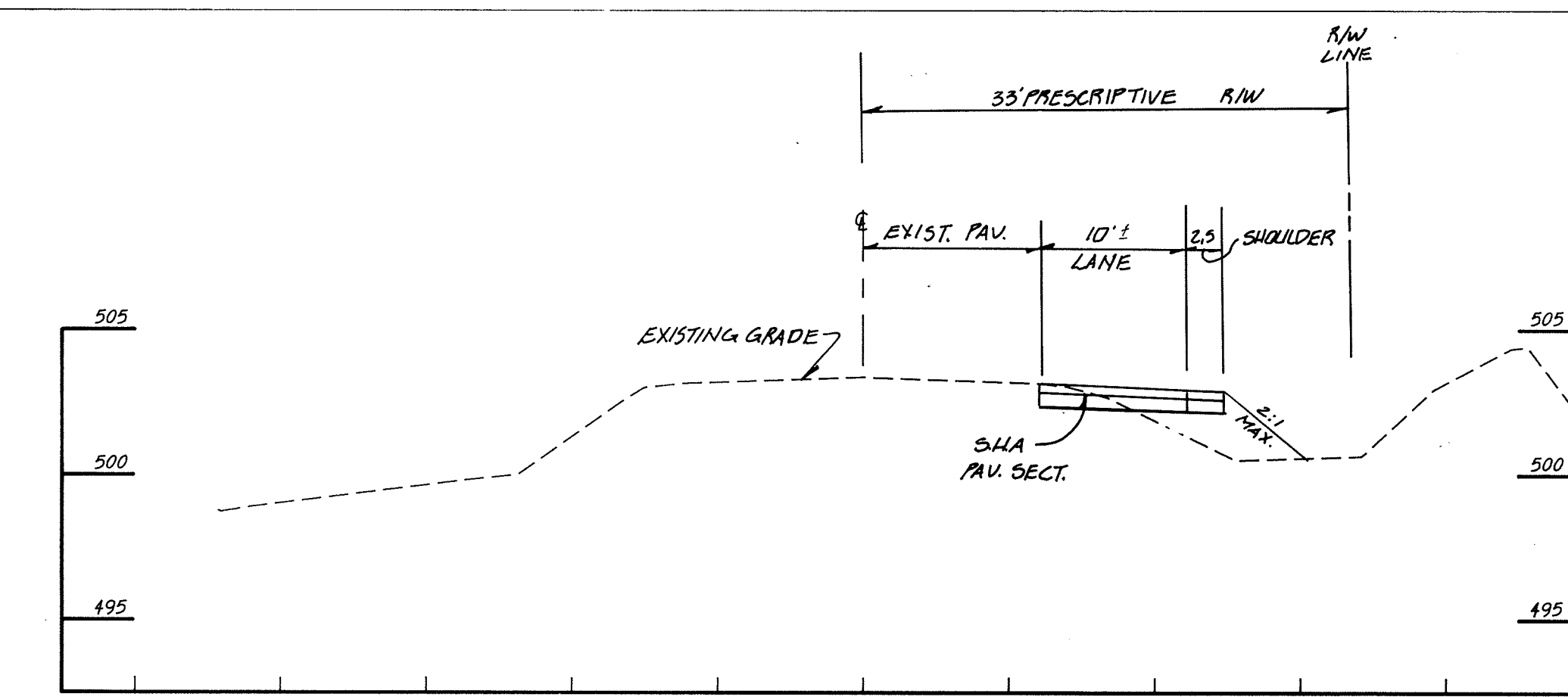
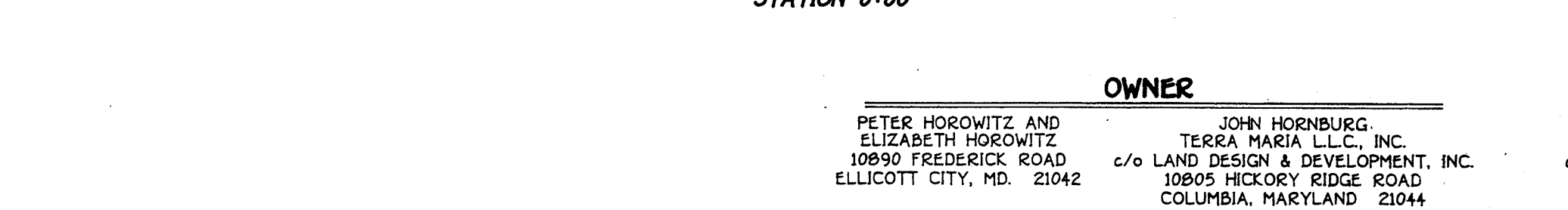
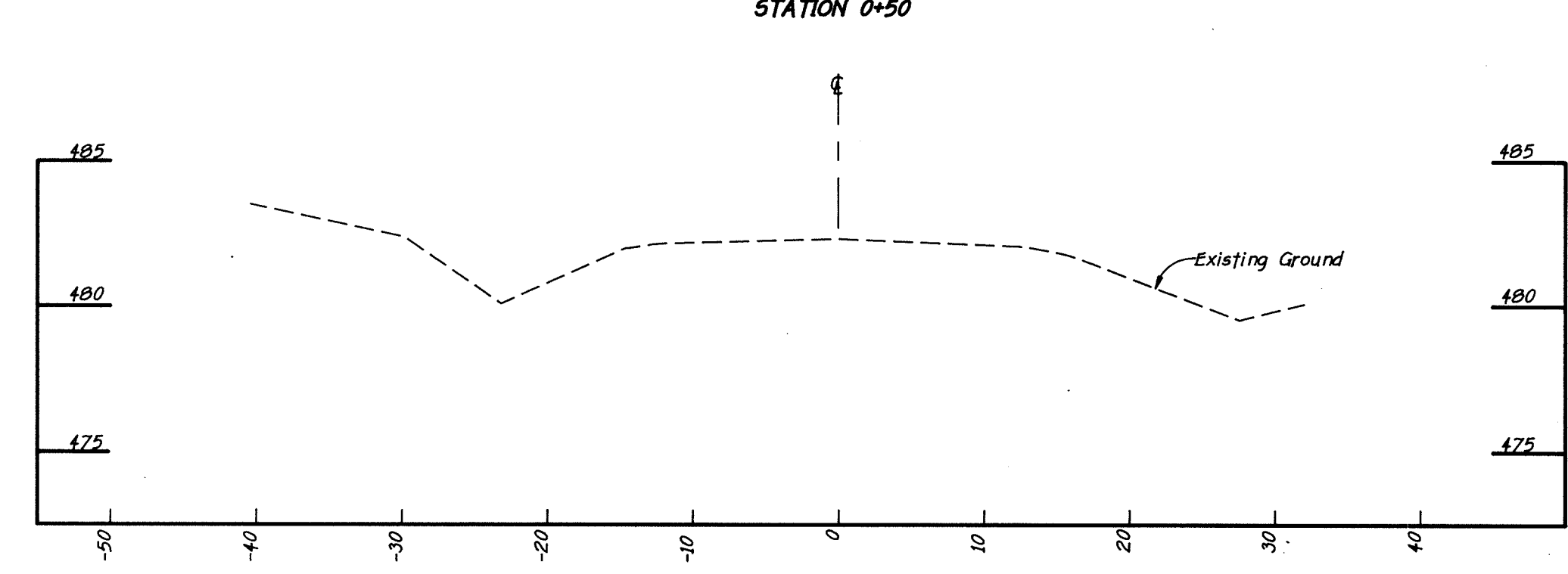
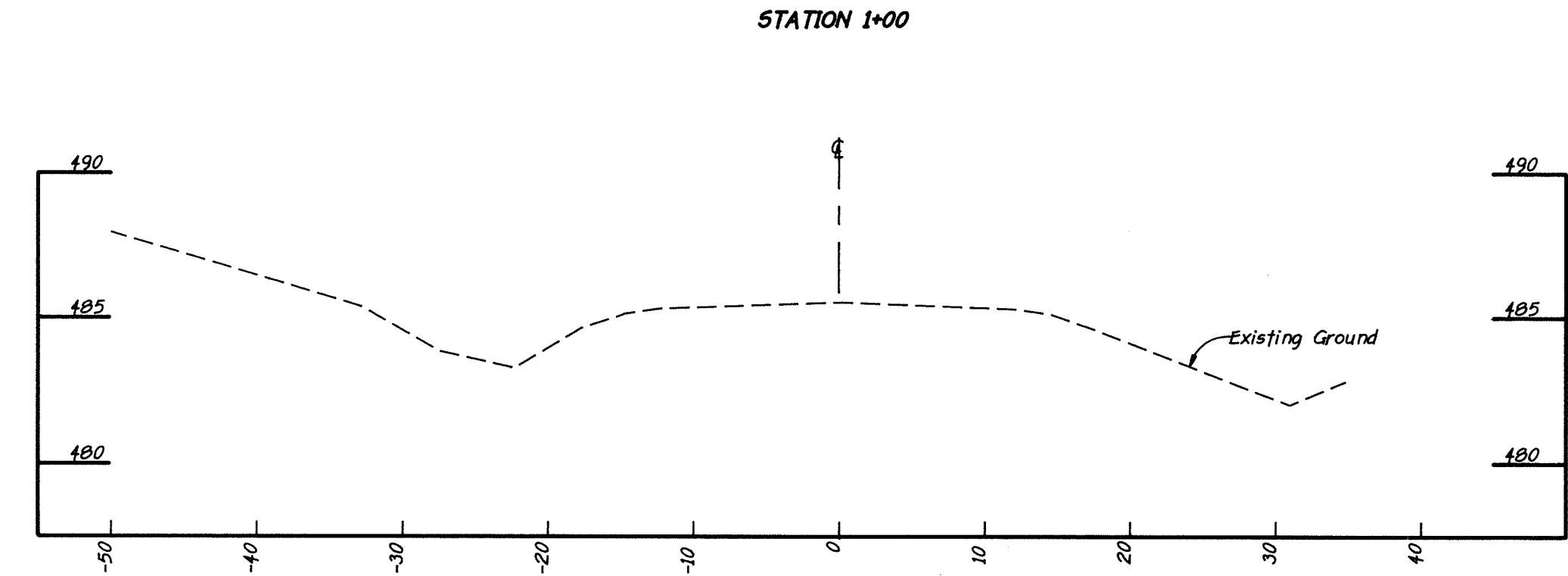
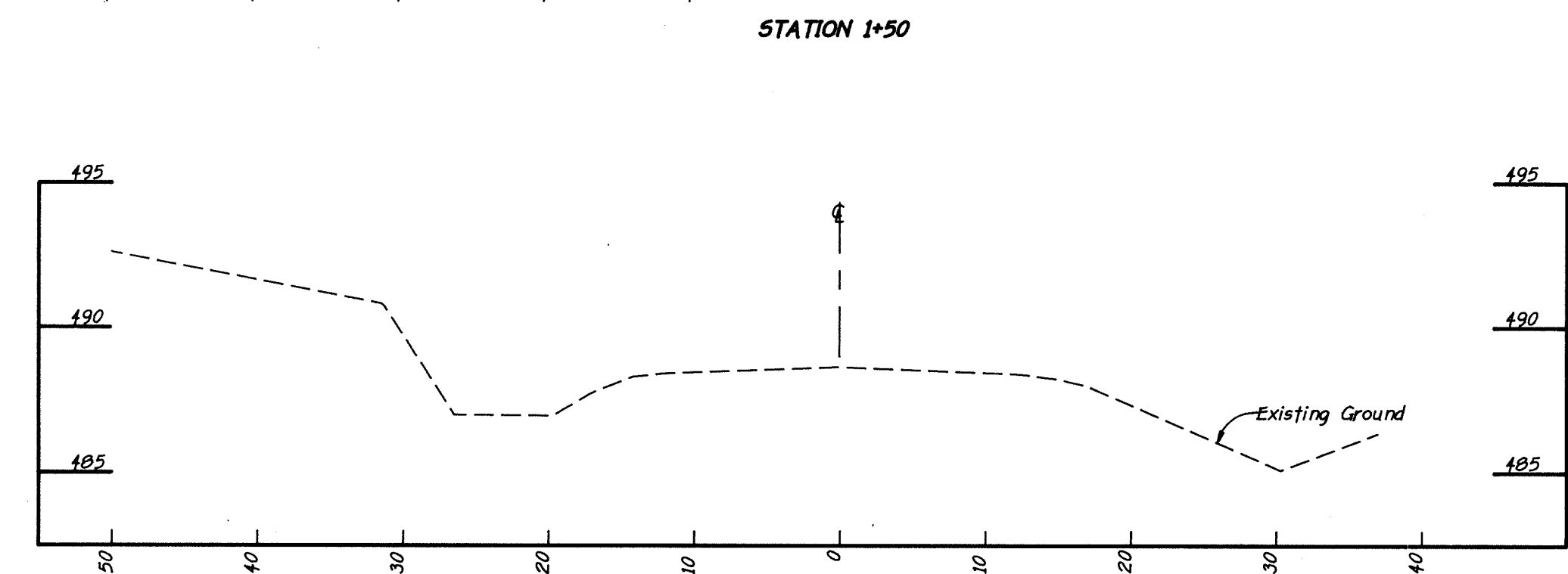
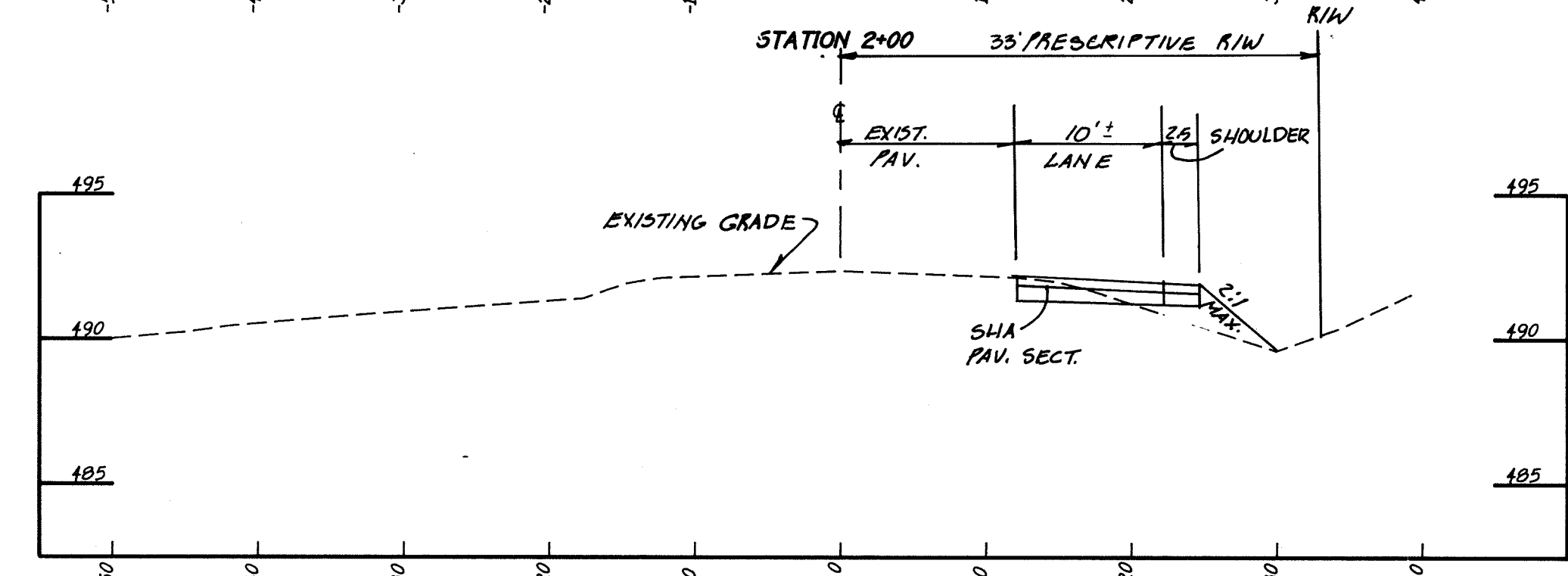
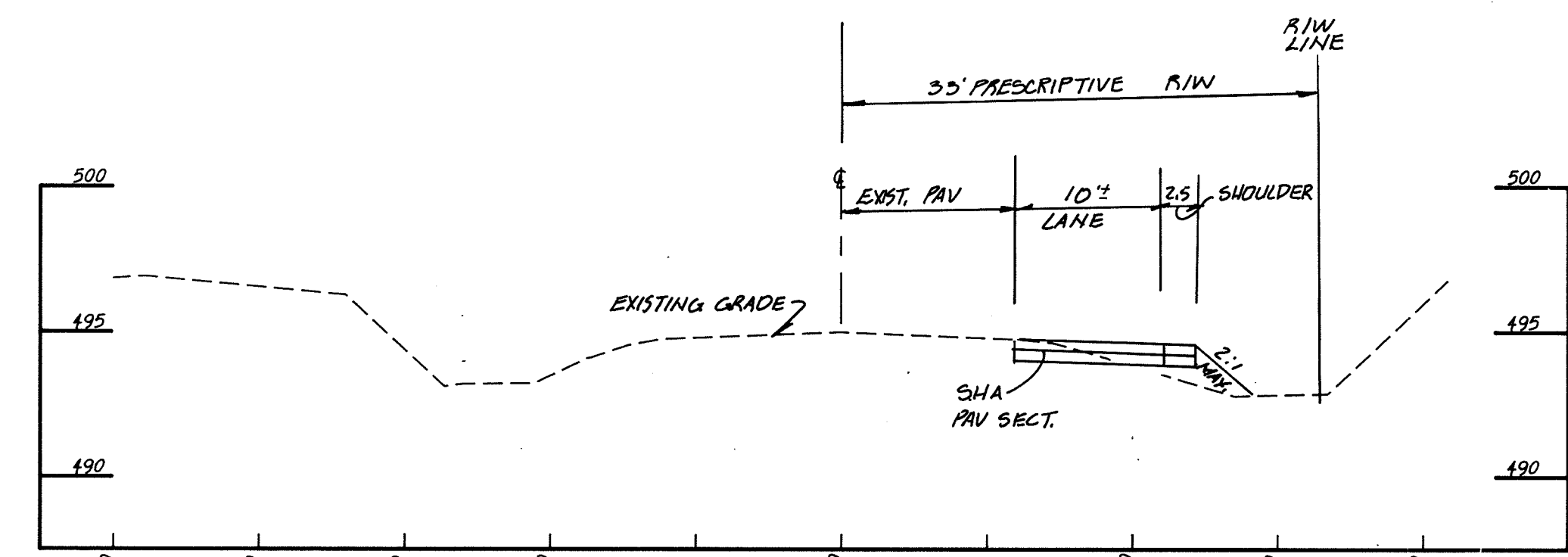
OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

F95-99

APPROVED
 DEPARTMENT OF PUBLIC WORKS
John D. ... 6/2/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Andrew M. ... 9-1-95
 CHIEF, BUREAU OF HIGHWAYS DATE
Robert ... 8/2/95
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
Jim ... 10/31/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE
 SA



CROSS SECTIONS MARYLAND ROUTE 144
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 12, 1995
 SCALE: HORIZONTAL: 1"=10'
 VERTICAL: 1"=5'
 SHEET 24 of 30

1768

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 9171 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 (410) 481-2855

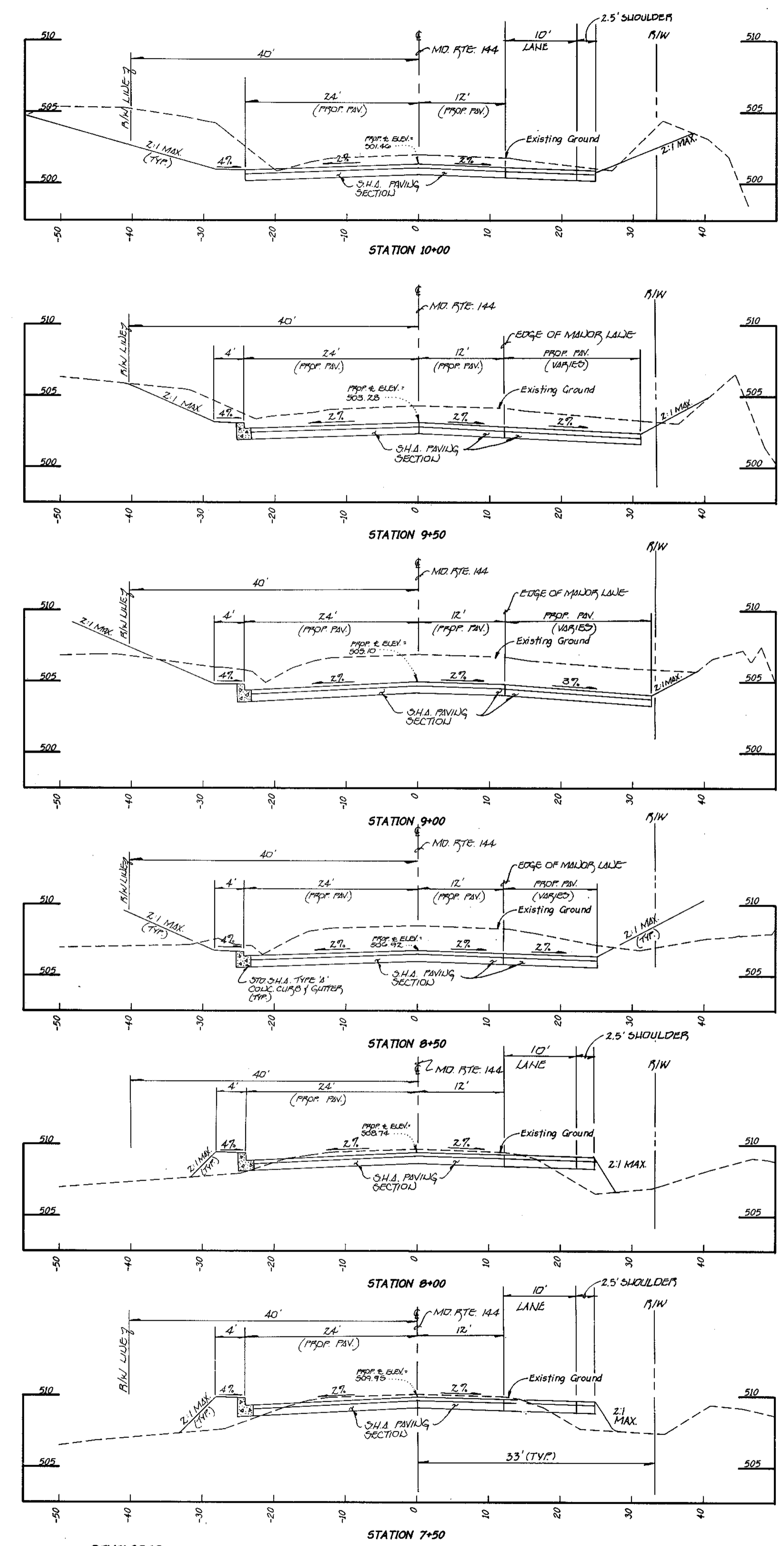
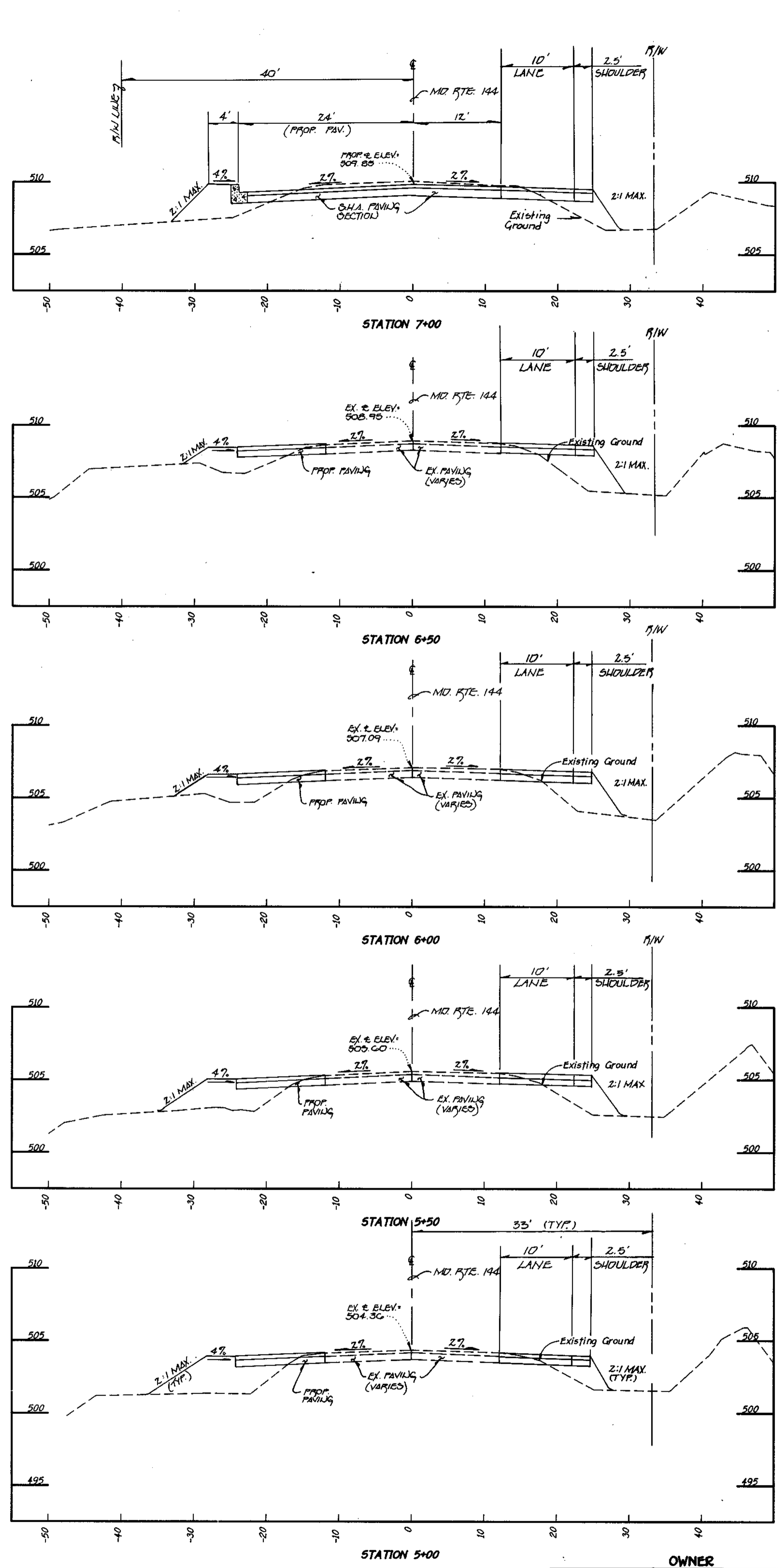
OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBERG
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

APPROVED
 DEPARTMENT OF PUBLIC WORKS
John D. ... 8/2/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Richard M. ... 8-1-95
 CHIEF, BUREAU OF HIGHWAYS DATE
Robert ... 8/3/95
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
Jim ... 10/31/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE
 SA



OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD 21042

DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044



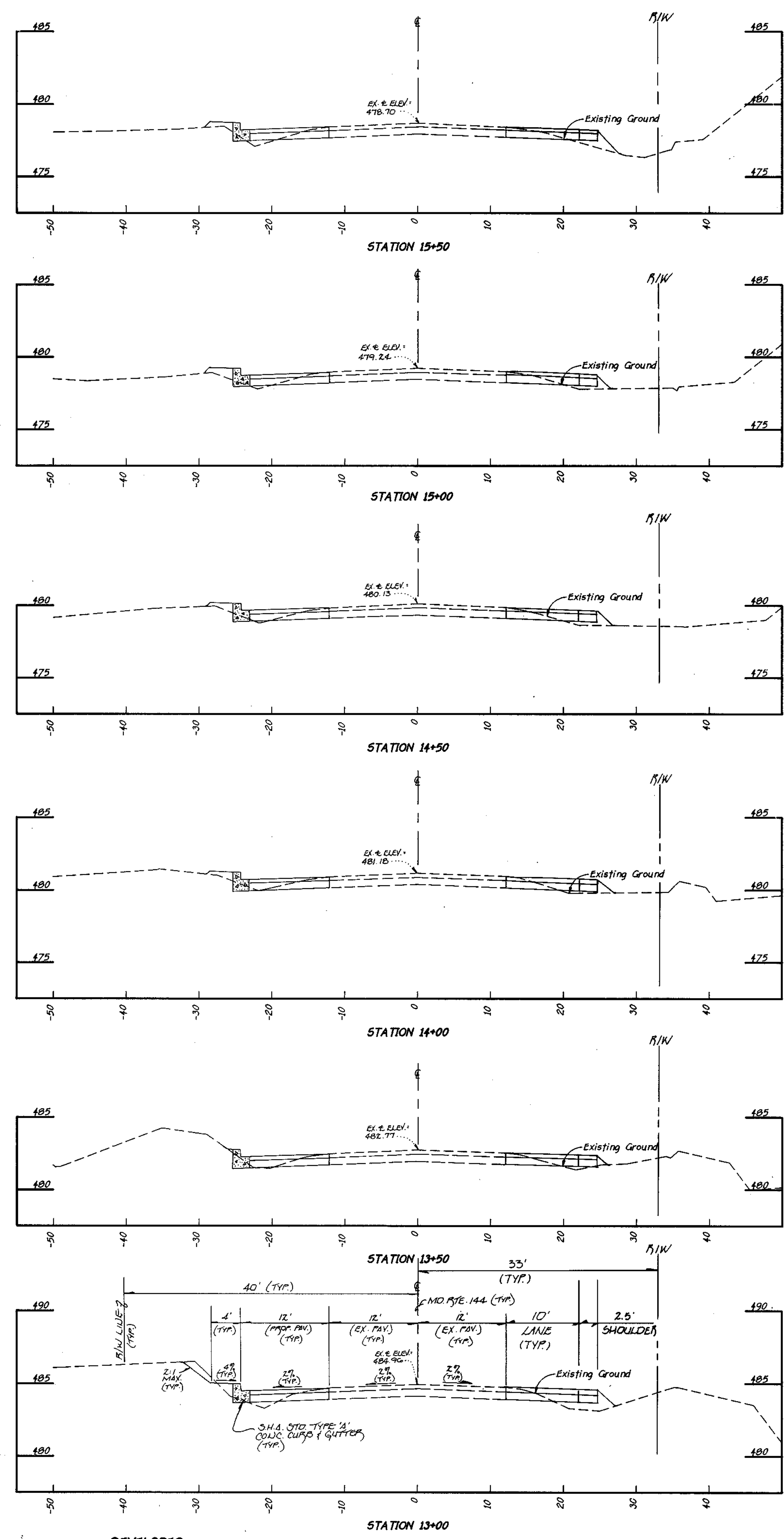
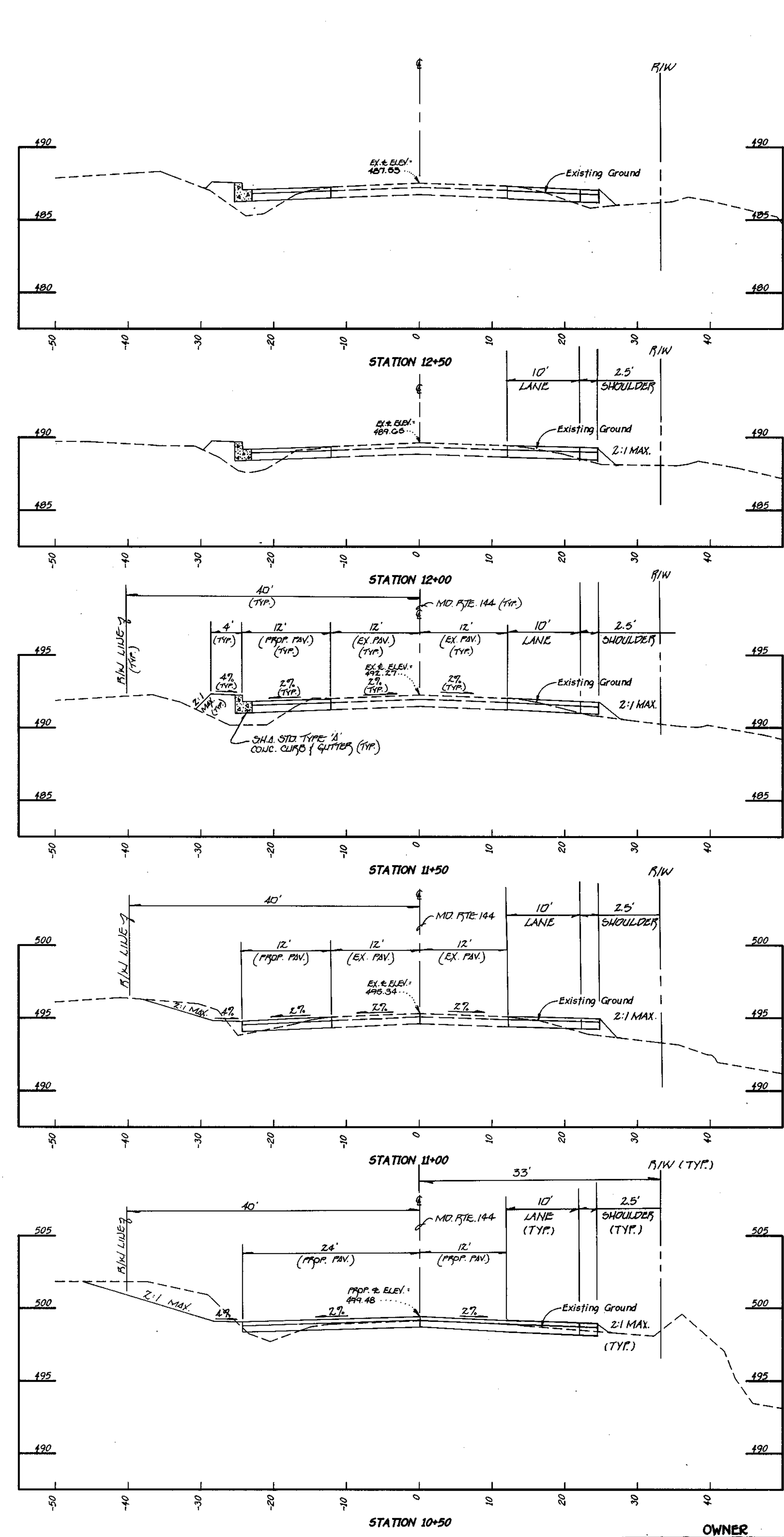
CROSS SECTIONS MARYLAND ROUTE 144
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 12, 1995
 SCALE: HORIZONTAL: 1"=10'
 VERTICAL: 1"=5'
 SHEET 26 OF 30

1768

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 9771 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2655

APPROVED
 DEPARTMENT OF PUBLIC WORKS
Michael J. ... 8/2/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Robert M. ... 8-1-95
 CHIEF, BUREAU OF HIGHWAYS DATE
Robert ... 8/2/95
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
John ... 10/31/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE
 JA



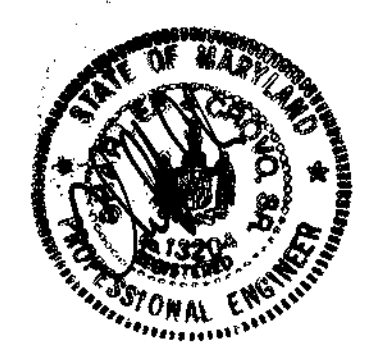
1768

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 971 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBERG
 TERRA MARIA LLC, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

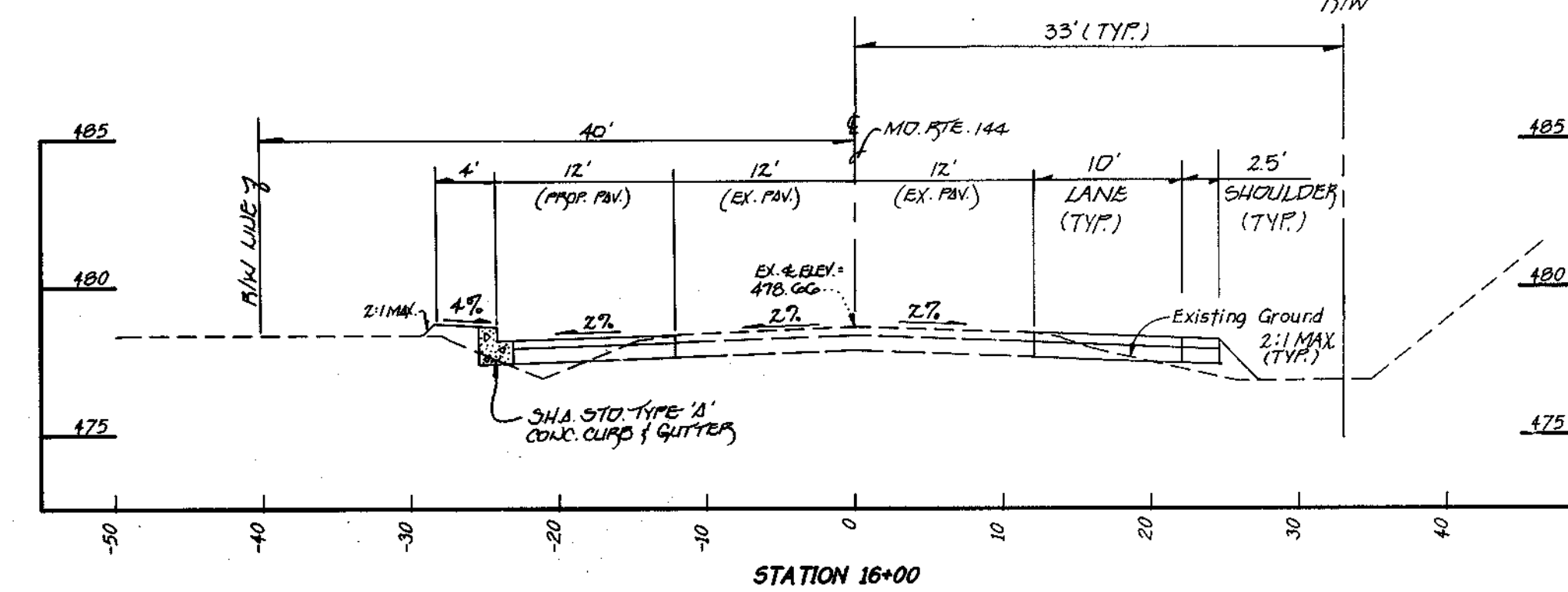
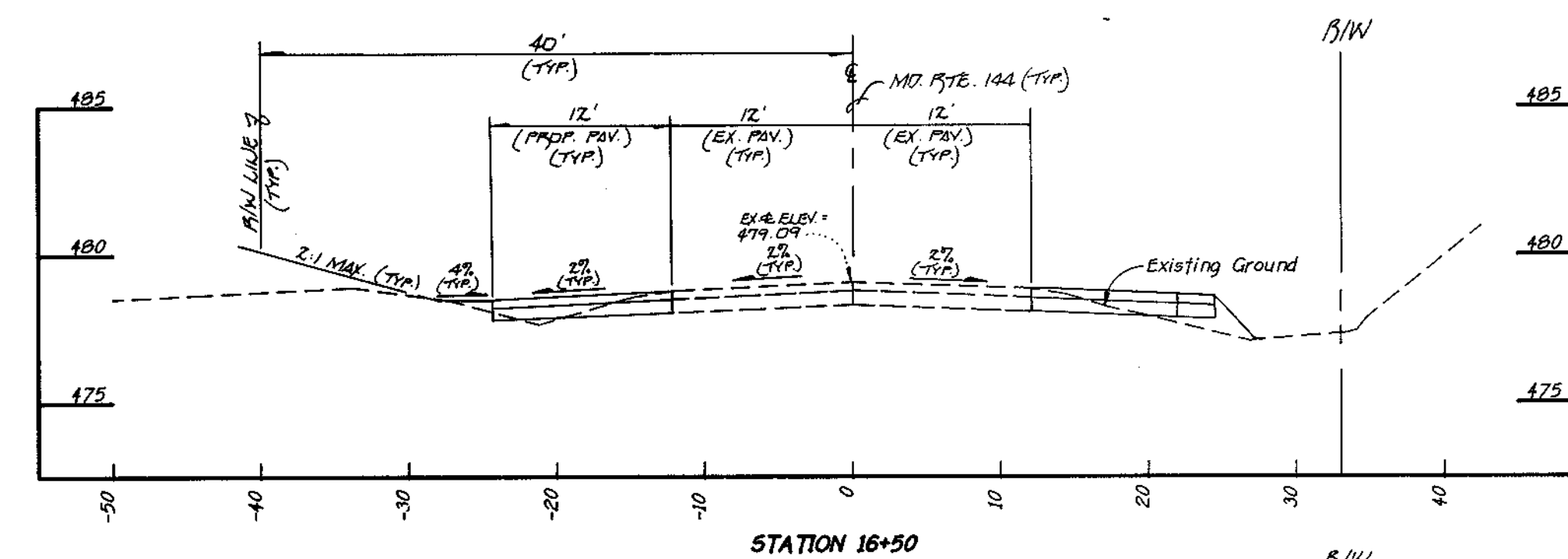
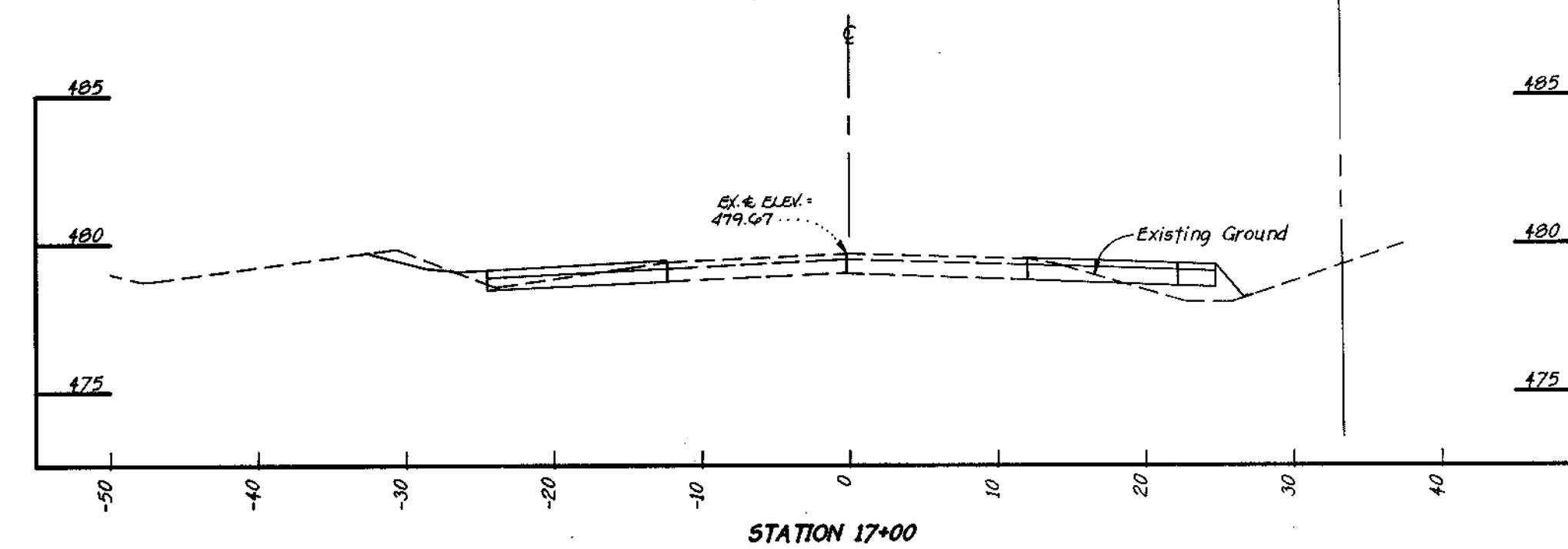
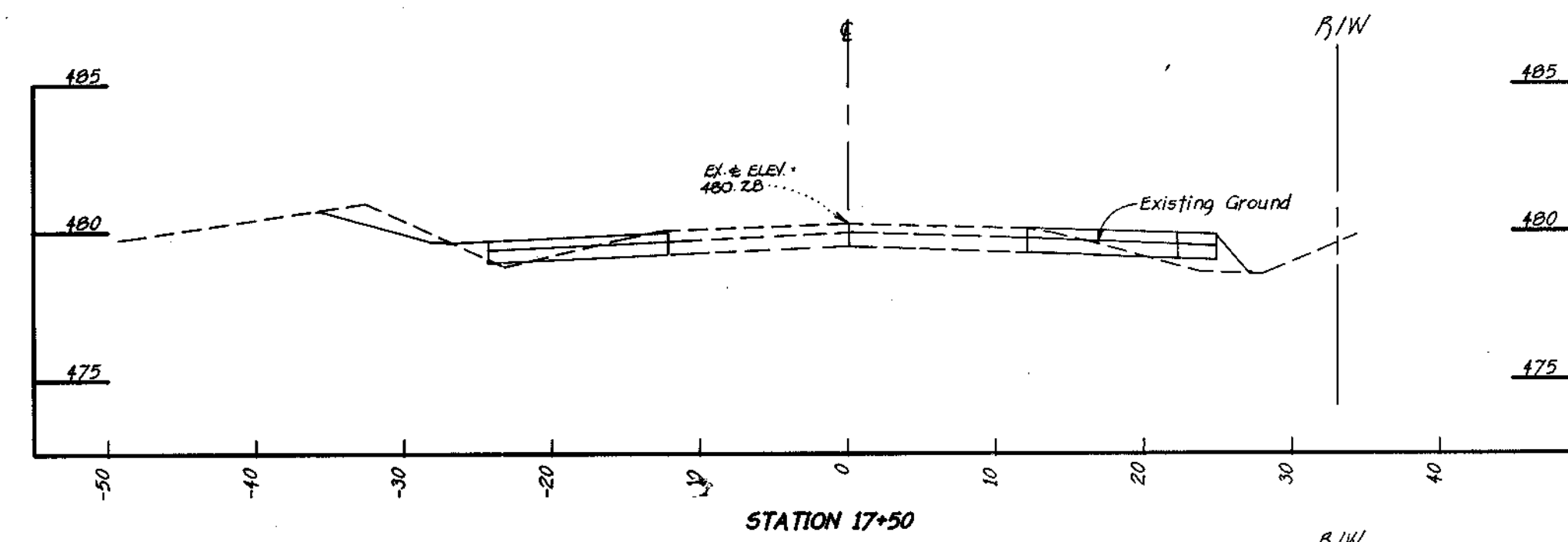
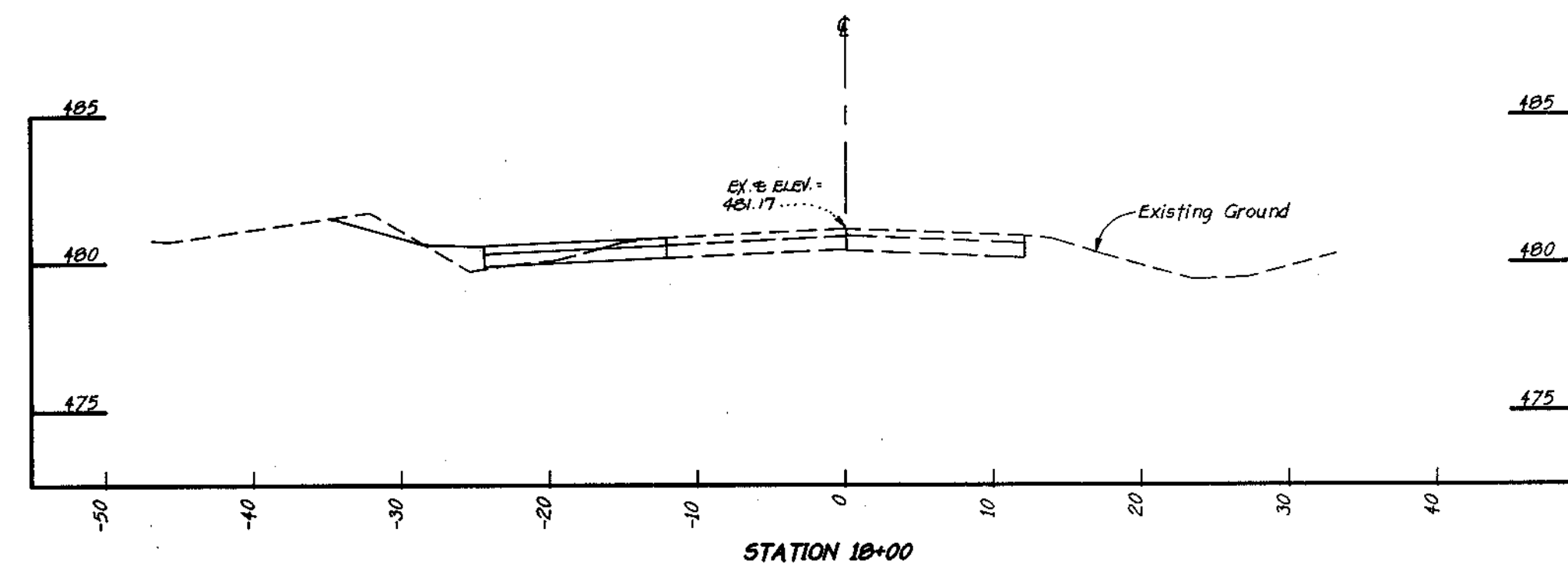
DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044



**CROSS SECTIONS MARYLAND ROUTE 144
 TERRA MARIA**
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 12, 1995
 SCALE: HORIZONTAL: 1"=10'
 VERTICAL: 1"=5'
 SHEET 22 OF 30

APPROVED
 DEPARTMENT OF PUBLIC WORKS
John D. ... 9/2/95
 CHIEF, LAND DEVELOPMENT DIVISION DATE
Andrew M. Daniels 8-1-95
 CHIEF, BUREAU OF HIGHWAYS DATE
Rob ... 8/13/95
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
Jim ... 10/3/95
 CHIEF, DIVISION OF LAND DEVELOPMENT & RESEARCH DATE
 JA



CROSS SECTIONS MARYLAND ROUTE 144
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: JANUARY 12, 1995
 SCALE: HORIZONTAL: 1"=10'
 VERTICAL: 1"=5'
 SHEET 27 of 30

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 977 BALTIMORE NATIONAL PIKE, SUITE 100
 ELLICOTT CITY, MARYLAND 21042
 (410) 461-2855

OWNER
 PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

DEVELOPER
 JOHN HORNBERG
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

DEVELOPER
 TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

1768

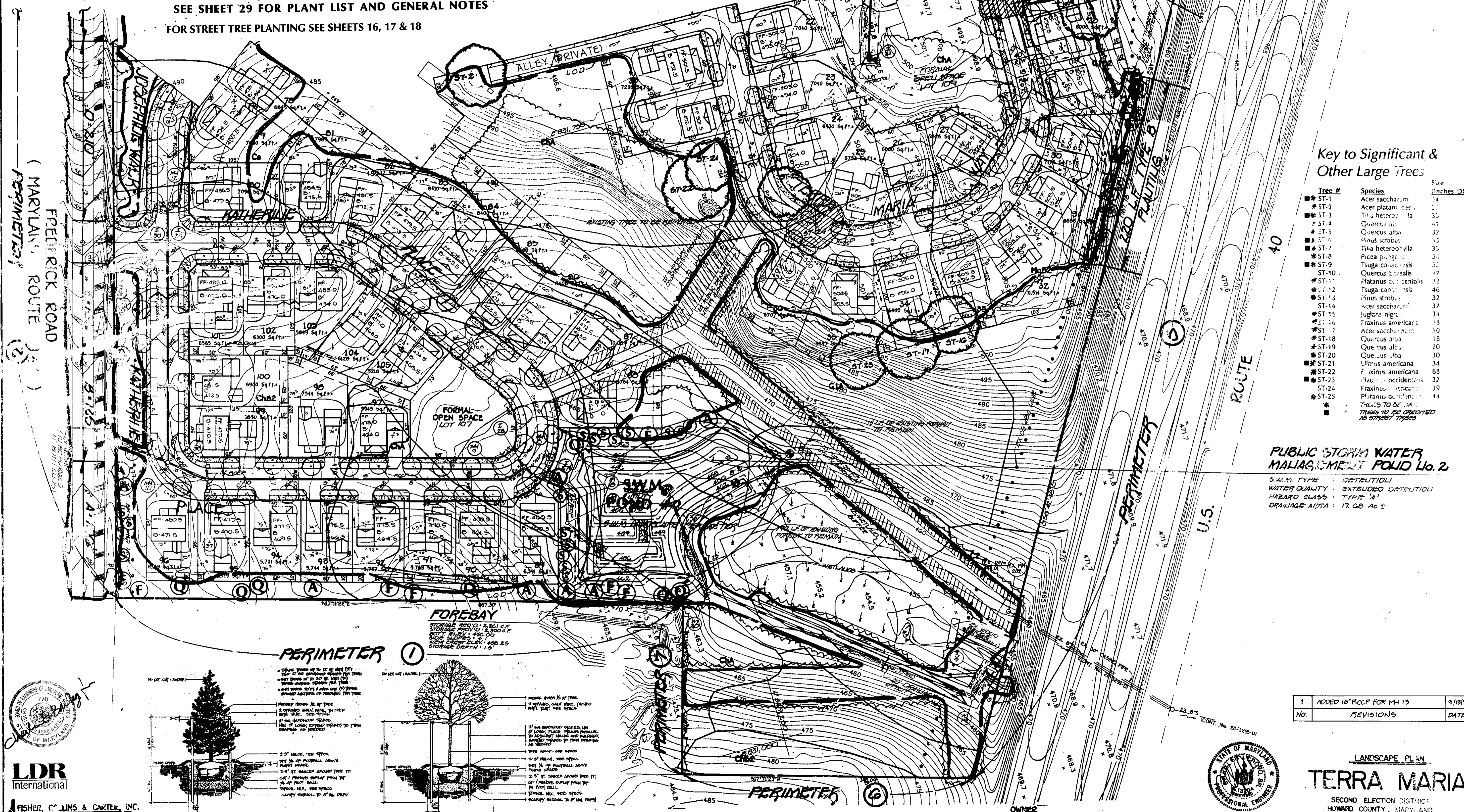
F95-99

APPROVED
 DEPARTMENT OF PUBLIC WORKS
 [Signature] 2/2/95
 CHIEF, BUREAU OF HIGHWAYS
 DATE

APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 [Signature] 10/3/95
 CHIEF DIVISION OF LAND DEVELOPMENT & RESEARCH
 DATE

SHEET 29

SEE SHEET 29 FOR PLANT LIST AND GENERAL NOTES
 FOR STREET TREE PLANTING SEE SHEETS 16, 17 & 18



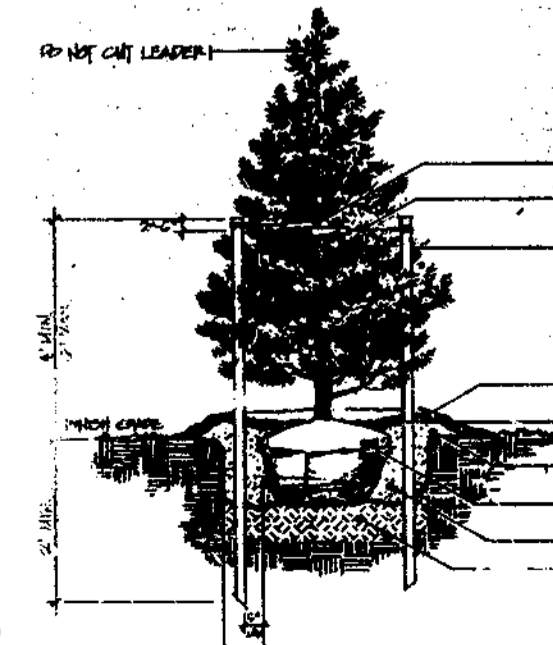
Key to Significant & Other Large Trees

Tree #	Species	Size (Inches DBH)
ST-1	Acer saccharum	14
ST-2	Acer glabrum	14
ST-3	Tilia heterophylla	35
ST-4	Quercus alba	32
ST-5	Pinus strobus	35
ST-6	Tilia heterophylla	35
ST-7	Picea canadensis	34
ST-8	Quercus borealis	47
ST-9	Platanus occidentalis	32
ST-10	Tsuga canadensis	46
ST-11	Pinus strobus	32
ST-12	Acer saccharum	37
ST-13	Juglans nigra	34
ST-14	Fraxinus americana	18
ST-15	Acer saccharum	50
ST-16	Quercus alba	16
ST-17	Quercus alba	20
ST-18	Quercus alba	30
ST-19	Ulmus americana	34
ST-20	Fraxinus americana	68
ST-21	Platanus occidentalis	32
ST-22	Fraxinus americana	39
ST-23	Platanus occidentalis	44
ST-24	Trees to be removed as street trees	
ST-25	Trees to be removed as street trees	

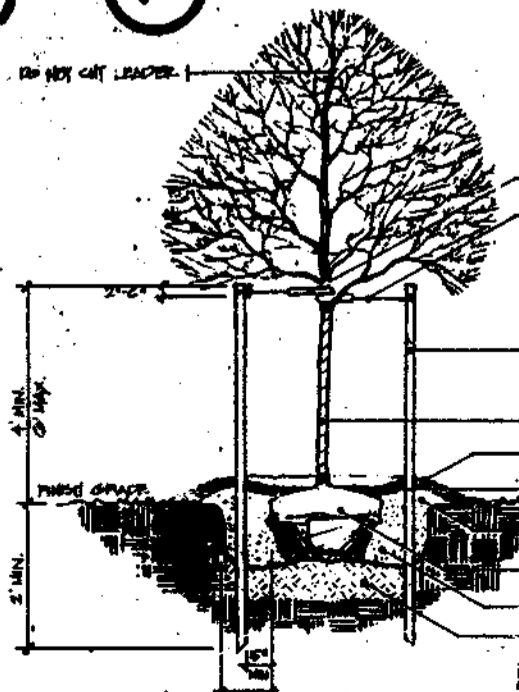
PUBLIC STORM WATER MANAGEMENT POND No. 2

S.W.M. TYPE: DETENTION
 WATER QUALITY: EXTENDED DISTRIBUTION
 HAZARD CLASS: TYPE "A"
 DRAINAGE AREA: 17.68 Ac ±

PERIMETER ①



Evergreen Tree
 NOT TO SCALE



Deciduous Shade Tree
 NOT TO SCALE

PLAN
 SCALE: 1" = 50'

1	ADDED 18" RCCP FOR MH 13	3/13/96
No.	REVISIONS	DATE



LDR International
 FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 1000 W. NATIONAL AVE. SUITE 100
 SILVER SPRING, MARYLAND 20910



LANDSCAPE PLAN
TERRA MARIA
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 TAX MAP #16 PARCEL 114
 DATE: JANUARY 1995
 SHEET 30 OF 30

PETER HOROWITZ AND ELIZABETH HOROWITZ
 10890 FREDERICK ROAD
 ELLICOTT CITY, MD. 21042

OWNER: JOHN HORNBURG
 DEVELOPER: TERRA MARIA LLC, INC.
 c/o LAND DESIGN & DEVELOPMENT, INC.
 10805 HICKORY RIDGE ROAD
 COLUMBIA, MARYLAND 21044

1768