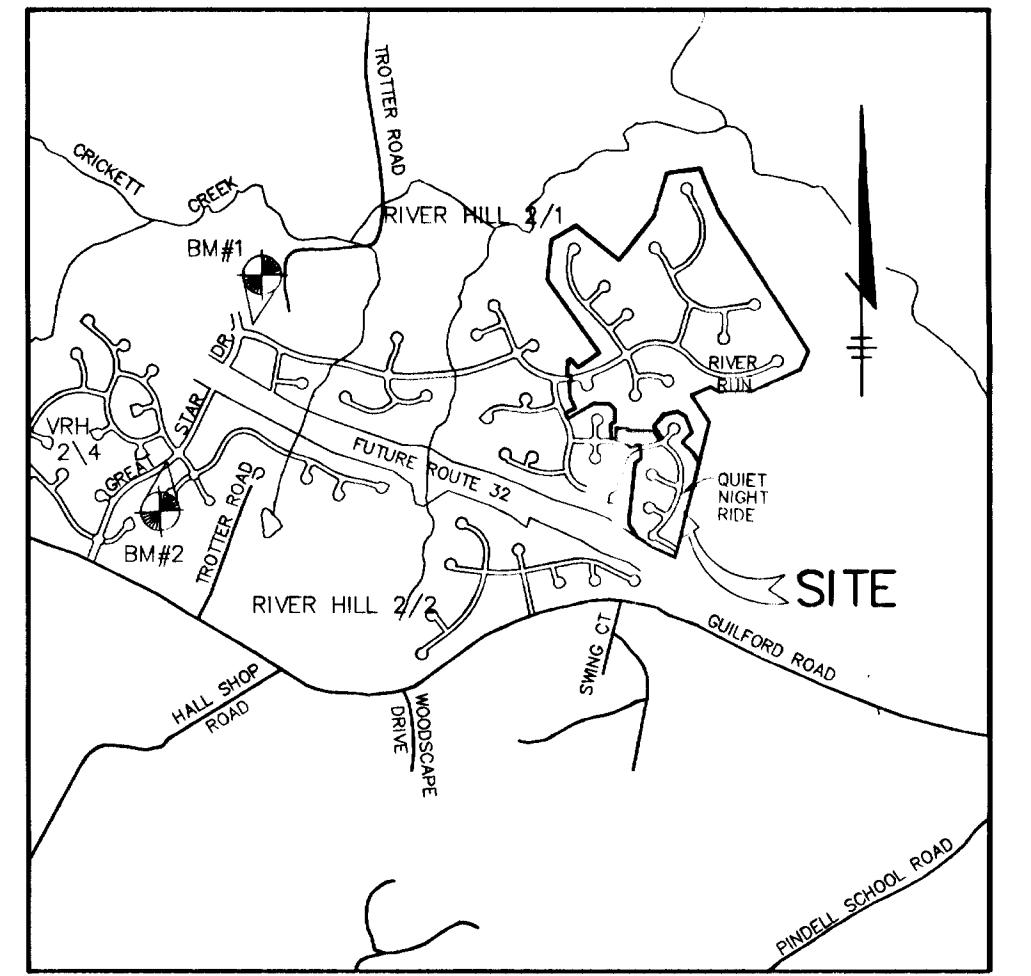


# ROADWAYS, STORM DRAINS AND STORMWATER MANAGEMENT

## VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1

LOTS 1 - 66

5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



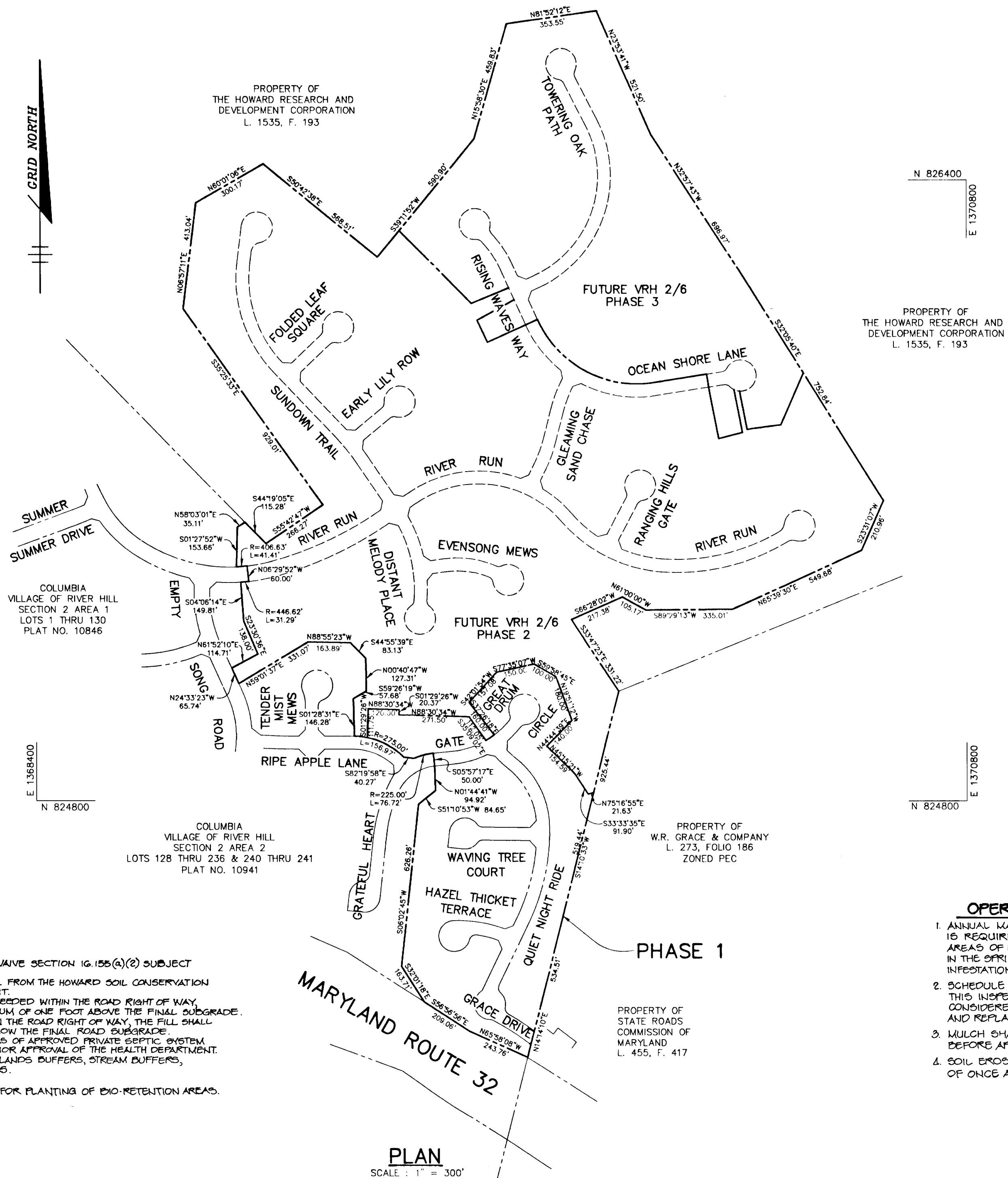
VICINITY MAP  
SCALE: 1" = 200'

NO	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE OF GRATEFUL HEART GATE AND GREAT DRUM CIRCLE
3	PLAN AND PROFILE OF QUIET NIGHT RIDE
4	PLAN AND PROFILE OF WAVING TREE COURT AND HAZEL THICKET TERRACE
5	PLAN AND PROFILE OF GRACE DRIVE AND DETAIL SHEET
6	DRAINAGE AREA MAP
7	GRADING AND SEDIMENT CONTROL PLAN
8	GRADING AND SEDIMENT CONTROL PLAN
9	STORM DRAIN PROFILES AND STRUCTURE SCHEDULE
10	SEDIMENT CONTROL DETAILS AND NOTES AND LANDSCAPING PLAN

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME # (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS," (JUNE 1993). A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY MAPPING ASSOCIATES DATED 1989.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 2337001, 2337002 AND 2437003 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 34-3434-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: MIDDLE PATUXENT. CONTRACT NO. 34-3434-D
- STORMWATER MANAGEMENT QUANTITY CONTROL IS PROVIDED BY THE MD RTE 32 STREAM CROSSINGS. WATER QUALITY IS PROVIDED BY BEST MANAGEMENT PRACTICES. COLUMBIA ASSOCIATION WILL PROVIDE ROUTINE MAINTENANCE FOR MOWING & TRASH PICK-UP. NON-ROUTINE MAINTENANCE WILL BE PROVIDED BY THE CONTRACTOR. SEE TIME SHEET FOR OPERATIONAL GUIDELINES.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THERE IS NO 100-YEAR FLOODPLAIN AFFECTING THIS PROJECT.
- WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY GEO-TECHNOLOGY ASSOCIATES INC. AND WAS APPROVED BY ARMY CORPS OF ENGINEERS ON 9-20-93.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY GOROVE/SLADE ASSOCIATES AND WAS APPROVED UNDER 5-91-03 ON 12-17-91.
- THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY STANHO ENGINEERING, INC. AND WAS APPROVED UNDER P-92-13 AND P-92-15 ON 6-28-92 AND 1-6-93 RESPECTIVELY.
- THE GEOTECHNICAL STUDIES FOR THIS PROJECT PREPARED BY ROBERT BALTER COMPANY.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY KO, INC. DATED AUGUST 28, 1991.
- SUBJECT PROPERTY ZONED (NT) PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NOS. 5-91-03, P-95-17.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS "C" AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:  
ALL 50' RIGHT OF WAYS 25 AND 30 M.P.H.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF ASBESTIC TIE.
- ALL STREET CURB RETURNS SHALL HAVE 20" RADII UNLESS OTHERWISE NOTED.
- ALL STREET LIGHTS SHALL BE LOCATED BETWEEN 2'-0" AND 4'-0" BEHIND FACE OF CURB.
- STREET TREES (24) THE LOCATION, TYPE AND NUMBER OF TREES SHOWN ON THIS PLAN ARE TENTATIVE AND ARE USED FOR BOND PURPOSES ONLY. THE FINAL LOCATION AND VARIETY OF TREES MAY VARY TO ACCOMMODATE FIELD CONDITIONS INCLUDING 20' CLEARANCE OF ANY STREET LIGHT AND BUILDERS LANDSCAPE PROGRAMS. BOND RELEASE IS CONTINGENT UPON SECTION 15.131 OF THE HOWARD COUNTY SUBDIVISION REGULATIONS, AS APPROVED BY THE DEPARTMENT OF PLANNING AND ZONING.
- LOTS 16-30 WILL EMPLOY VEGETATIVE FILTER STRIPS IN ACCORDANCE WITH DEPARTMENT OF NATURAL RESOURCES STANDARDS AND SPECIFICATIONS FOR INFILTRATION PRACTICES FOR QUALITY MANAGEMENT OF ROOFTOPS.

- WP-06-75 WAS APPROVED TO WAIVE SECTION 16.155(a)(2) SUBJECT TO THE FOLLOWING CONDITIONS:  
1. OBTAINING SIGNATURE APPROVAL FROM THE HOWARD SOIL CONSERVATION DISTRICT ON THE GRADING EXHIBIT.  
2. IN A AREA WHERE EXCAVATION IS REQUIRED WITHIN THE ROAD RIGHT OF WAY, EXCAVATION MUST STOP A MINIMUM OF ONE FOOT ABOVE THE FINAL SUBGRADE.  
3. WHERE FILL IS PROPOSED WITHIN THE ROAD RIGHT OF WAY, THE FILL SHALL BE A MINIMUM OF TWO FEET BELOW THE FINAL ROAD SUBGRADE.  
4. GRADING CANNOT OCCUR IN AREAS OF APPROVED PRIVATE SEPTIC SYSTEM PERCOLATION TESTS WITHOUT PRIOR APPROVAL OF THE HEALTH DEPARTMENT.  
5. GRADING CANNOT OCCUR IN WETLANDS BUFFER, STREAM BUFFER, STEEP SLOPES OR FOREST AREA.
- DEVELOPER IS RESPONSIBLE FOR PLANTING OF BIO-RETENTION AREAS.



### BIO-RETENTION AREAS

#### OPERATION AND MAINTENANCE GUIDELINES

- ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.
- SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR, IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.
- MULCH SHALL BE INSPECTED EACH SPRING, REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.
- SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE A MONTH AND AFTER HEAVY STORMS.

### BENCHMARKS

BM#1 RAILROAD SPIKE IN POLE #525680  
TROTTER ROAD ELEV. 393.27  
N 496697.02 E 822026.81

BM#2 RAILROAD SPIKE IN POPLAR  
ELEV. 438.92  
N 495551.90 E 820727.80

### AS BUILT CERTIFICATE

DATE	REVISION
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Pankov</i> 8-6-96 CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Jina Swinmump</i> 8/16/96 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
<i>William Dammann</i> 8/16/96 CHIEF, DIVISION OF ENGINEERING	DATE
DATE	NO.
OWNER / DEVELOPER	
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044	
PROJECT	
VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1 LOTS 1 THRU 66	
AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE	
TITLE SHEET	
RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045 410-997-8900 FAX: 410-997-9282	
7-17-96 DATE	DESIGNED BY: C.J.R.
	DRAWN BY: DAM
	PROJECT NO: HOCO\102800 PH1RD1.DWG
	DATE: JULY 17, 1996
	SCALE: AS SHOWN
<i>J. Farrell</i> JAYKANT D. PAREKH #19148	DRAWING NO. 1 OF 10

F-06-08

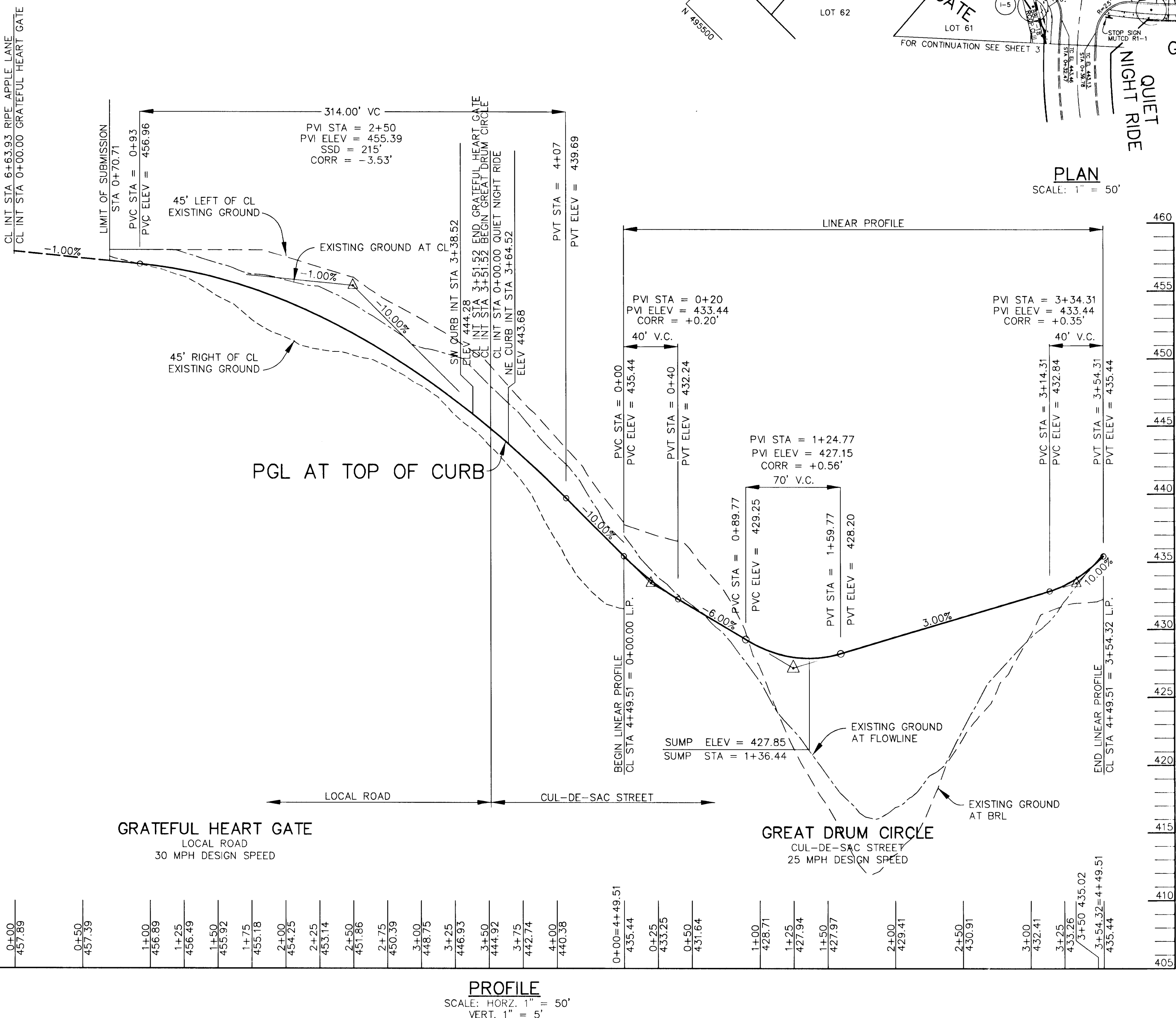
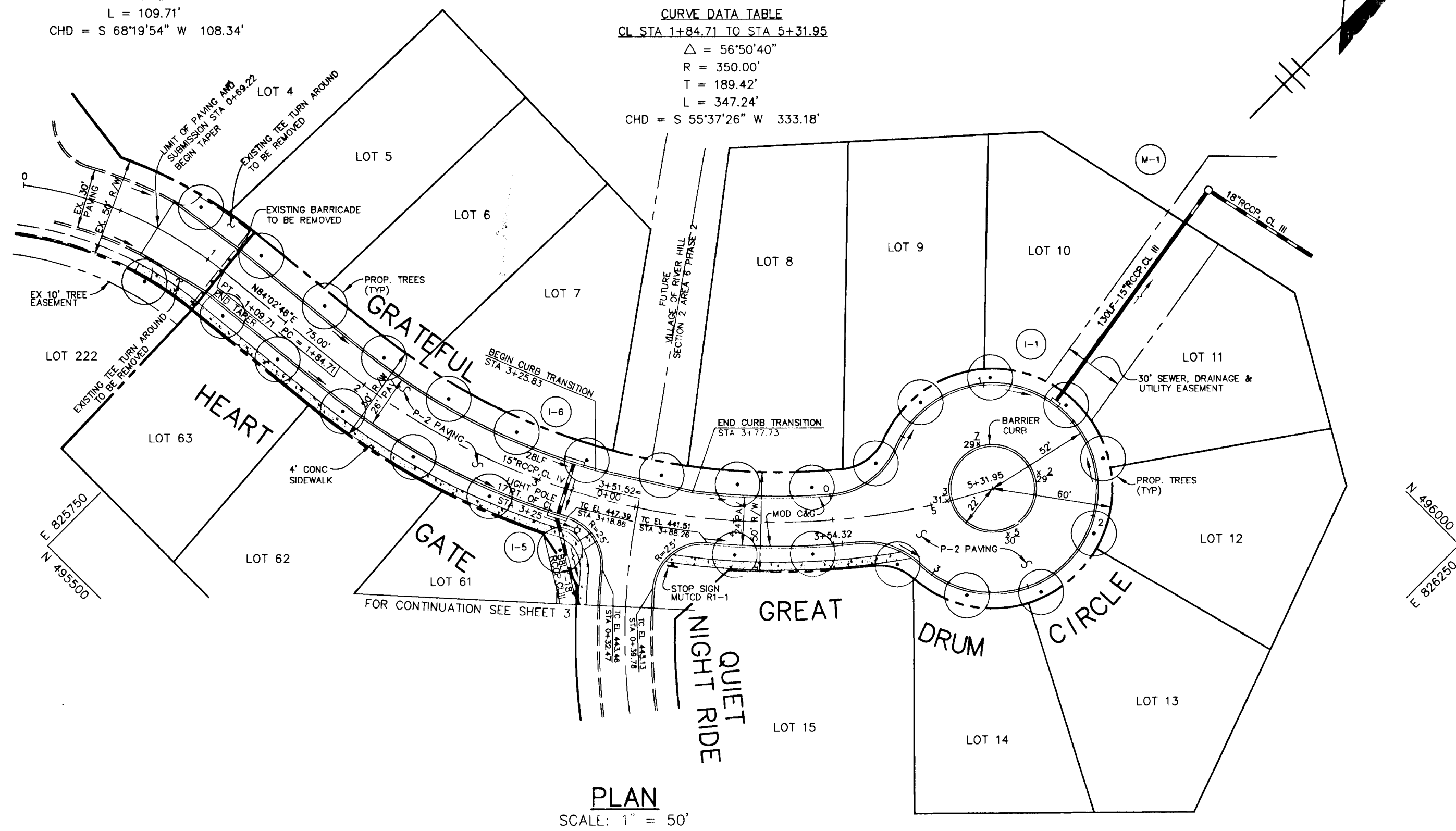
14871

STREET LIGHT SUMMARY TABLE	
LOCATION	TYPE
17' RT. CL STA. 3+25 GRATEFUL HEART GATE	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE

- NOTES:
- STREET LIGHTS SHOWN AS  $\odot$  TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.
  - LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH THE NEW TOWN ALTERNATIVE COMPLIANCE PROVISION OF THE LANDSCAPE MANUAL. PERIMETER LOT LANDSCAPING WILL BE INSTALLED BY THE BUILDER(S) IN CONJUNCTION WITH THE SITE DEVELOPMENT PLANS.

CURVE DATA TABLE  
EX. CL. STA. 0+00.00 TO STA. 1+09.71  
 $\Delta = 31'25"43"$   
R = 200.00'  
T = 56.27'  
L = 109.71'  
CHD = S 68°19'54" W 108.34'

CURVE DATA TABLE  
CL. STA. 1+84.71 TO STA. 5+31.95  
 $\Delta = 56'50"40"$   
R = 350.00'  
T = 189.42'  
L = 347.24'  
CHD = S 55°37'26" W 333.18'



PLANT LIST

KEY	QTY.	BOTANICAL & COMMON NAME	SIZE	REMARKS
PC	124	PYPUS CALLERYANA (CLEVELAND SELECT)	2-1/2" - 3" CAL. 12' - 15' HT.	B&P

LEGEND

$\odot$  PROPOSED STREET TREE. SEE PLANT LIST THIS SHEET

AS BUILT CERTIFICATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Donale* 8-6-96  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Sommerville* 8/16/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*Bill Dammann* 8/16/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

OWNER / DEVELOPER  
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 1  
LOTS 1 THRU 66

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
PART OF PARCEL 70  
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

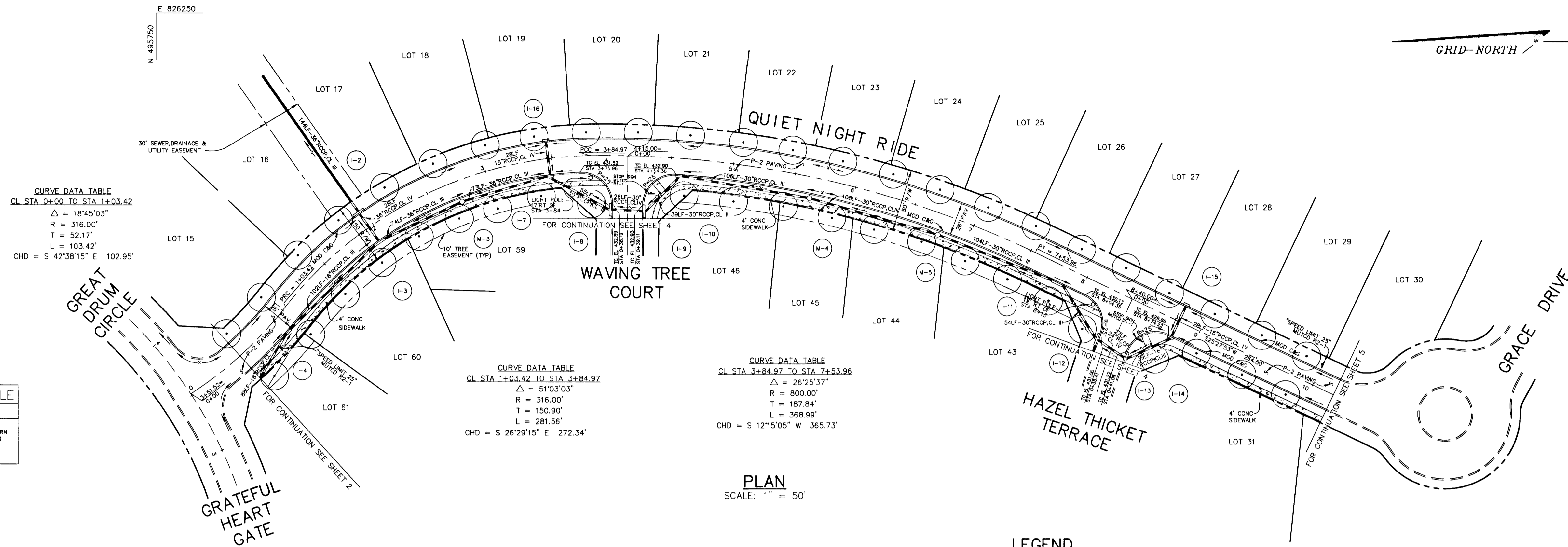
TITLE PLAN AND PROFILE OF  
GRATEFUL HEART GATE  
AND GREAT DRUM CIRCLE

RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8816 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX : 410-997-9282

7-17-96 DATE  
DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO: HOCO\102800  
PH1RD2.DWG  
DATE: JULY 17, 1996  
SCALE: AS SHOWN  
DRAWING NO. 2 OF 10

J. Laell  
JAYKANT D. PAREKH #19148  
F-26-98

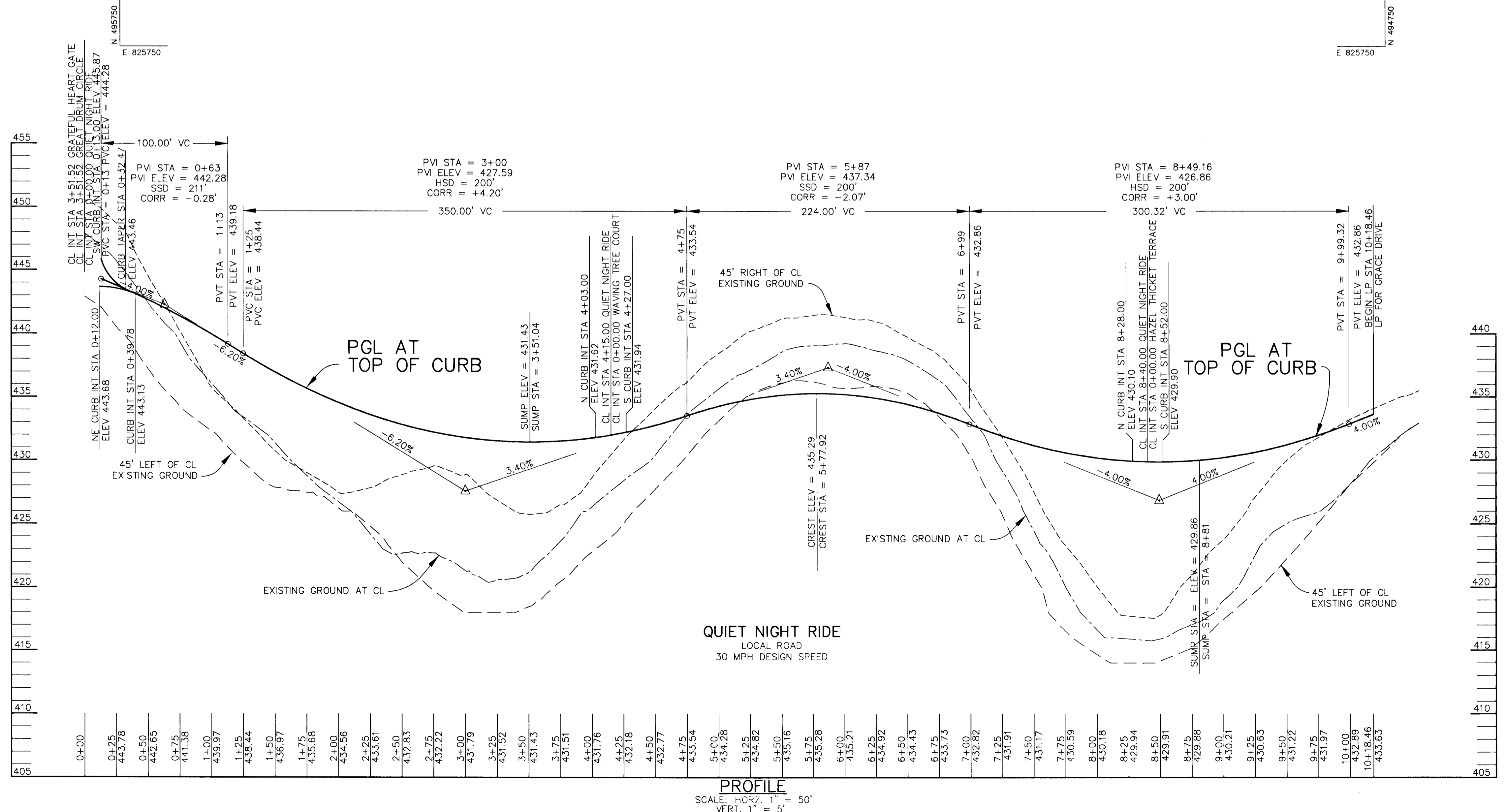
1487



**STREET LIGHT SUMMARY TABLE**

LOCATION	TYPE
17' BT. CL STA. 3+84 QUIET NIGHT RIDE	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14' BRONZE FIBERGLASS POLE
18' BT. CL STA. 8+13 QUIET NIGHT RIDE	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14' BRONZE FIBERGLASS POLE

- NOTES:**
- STREET LIGHTS SHOWN AS ○ TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14' BRONZE FIBERGLASS POLE.
  - LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH THE NEW TOWN ALTERNATIVE COMPLIANCE PROVISION OF THE LANDSCAPE MANUAL. PERIMETER LOT LANDSCAPING WILL BE INSTALLED BY THE BUILDER(S) IN CONJUNCTION WITH THE SITE DEVELOPMENT PLANS.



**AS BUILT CERTIFICATE**

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Daniels* 8-16-96  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Summerville* 8/16/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*Alan Dammas* 8/16/96  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE NO. REVISION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

PROJECT **VILLAGE OF RIVER HILL**  
 SECTION 2 AREA 6 PHASE 1  
 LOTS 1 THRU 66

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
 PART OF PARCEL 70  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

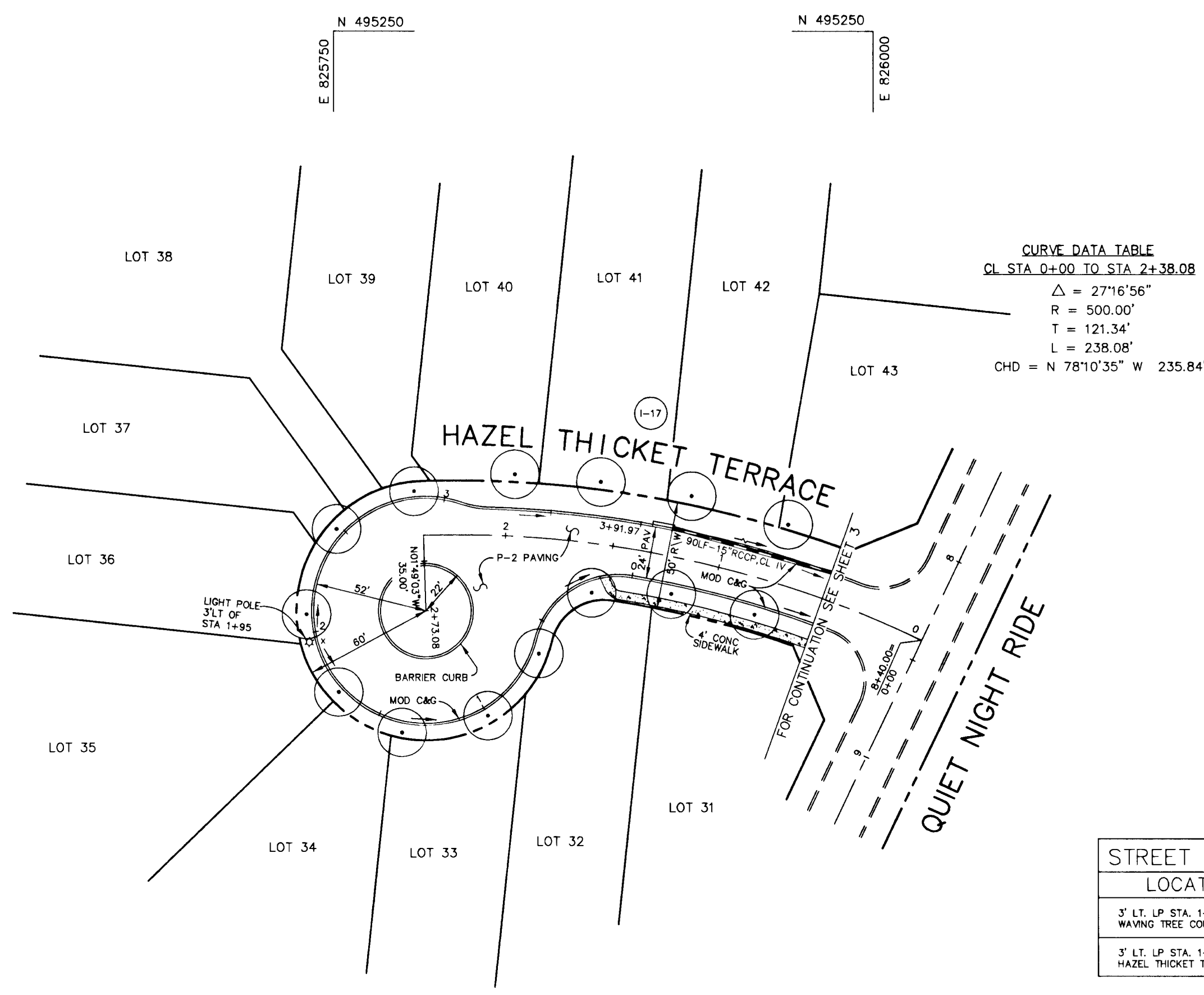
TITLE **PLAN AND PROFILE OF QUIET NIGHT RIDE**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
 410-997-8900 FAX: 410-997-9282

7.17.96 DATE  
 DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 PROJECT NO: HOCO\102800 PH1RDS.DWG  
 DATE: JULY 17, 1996  
 SCALE: AS SHOWN  
 DRAWING NO. 3 OF 10

JAYKANT D. PAREKH #19148

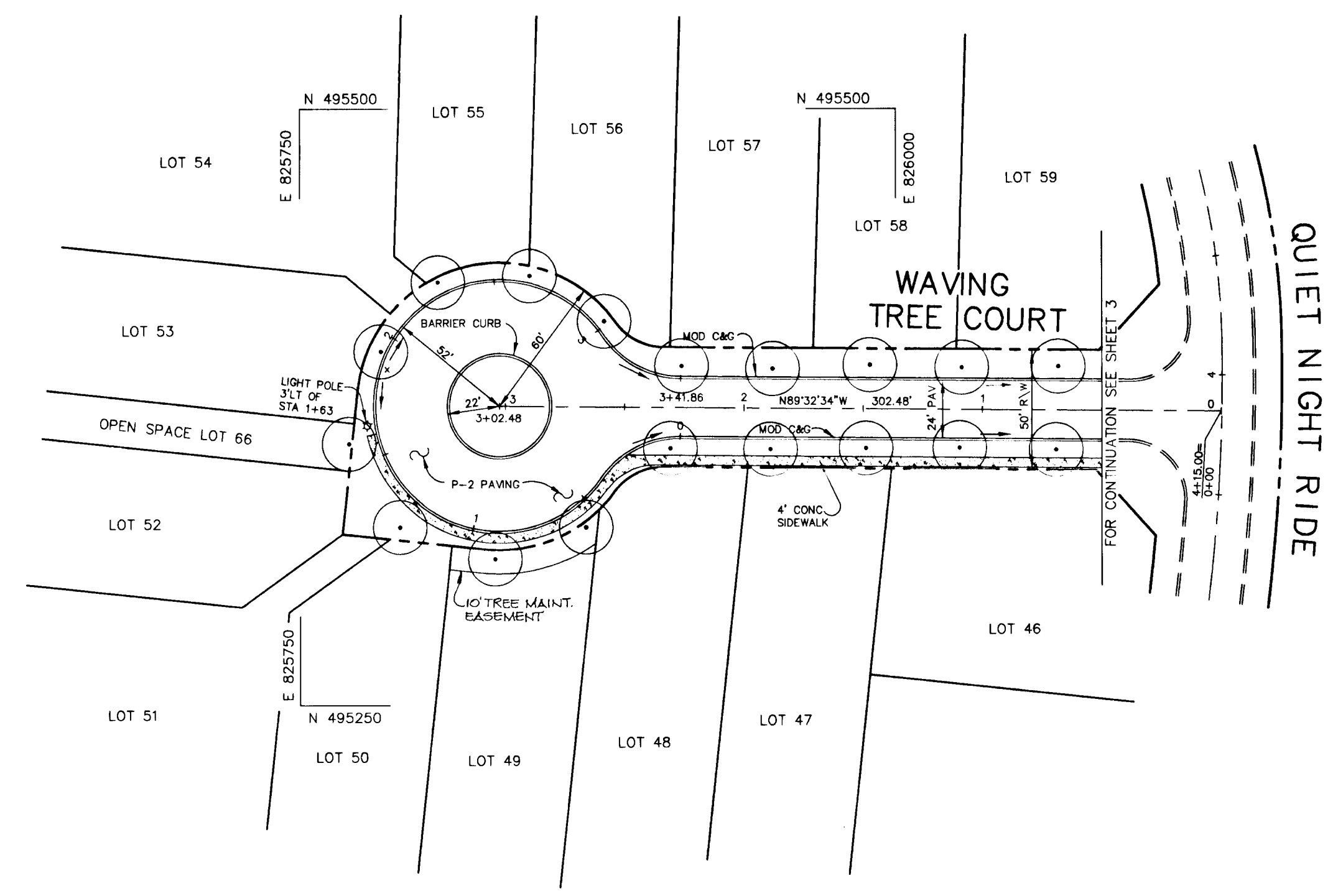
1987



LOCATION	TYPE
3' LT. LP STA. 1+63 WAVING TREE COURT	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.
3' LT. LP STA. 1+95 HAZEL THICKET TERRACE	

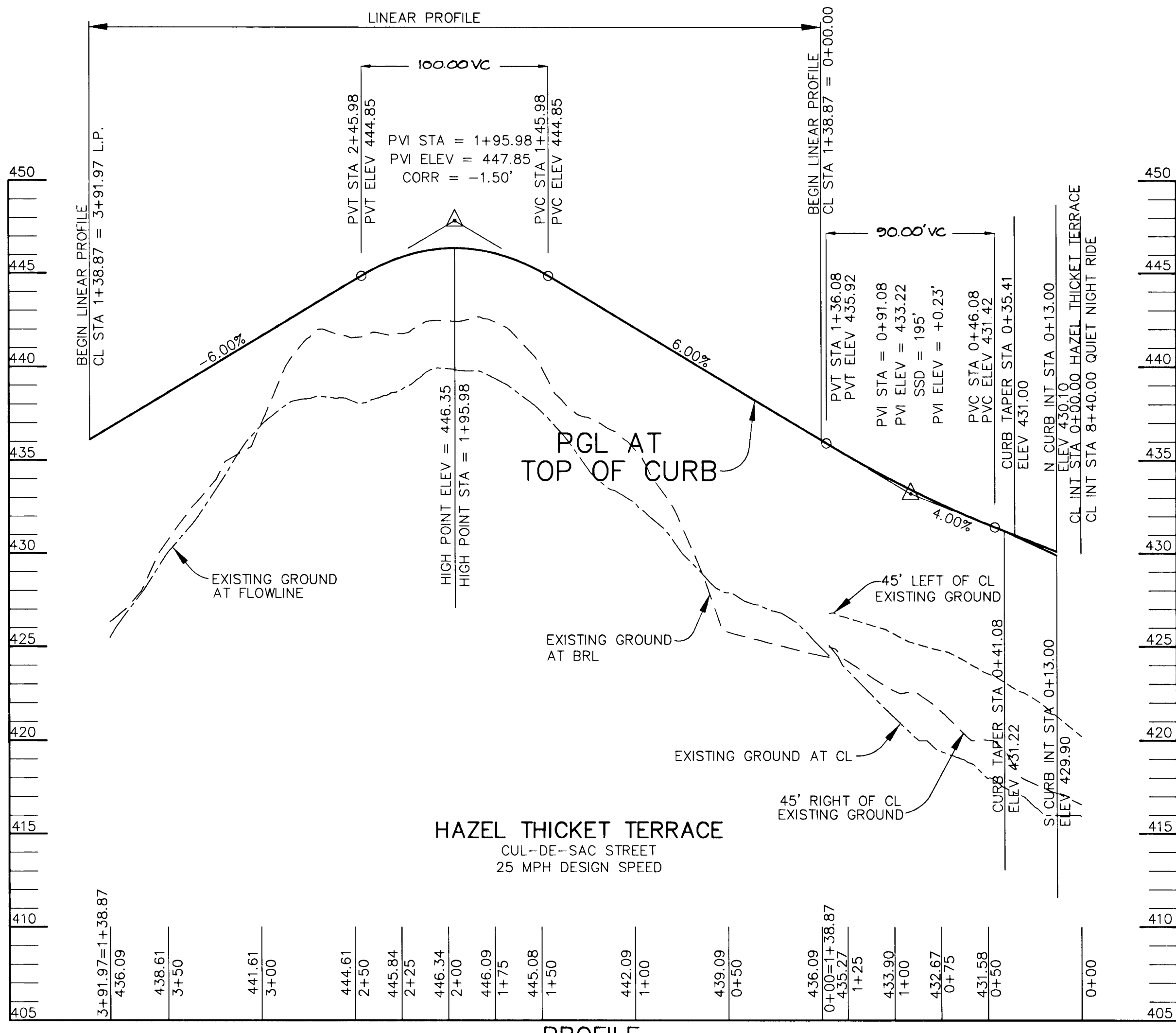
**LEGEND**

○ PROPOSED STREET TREE, SEE SHEET 2 FOR PLANT LIST

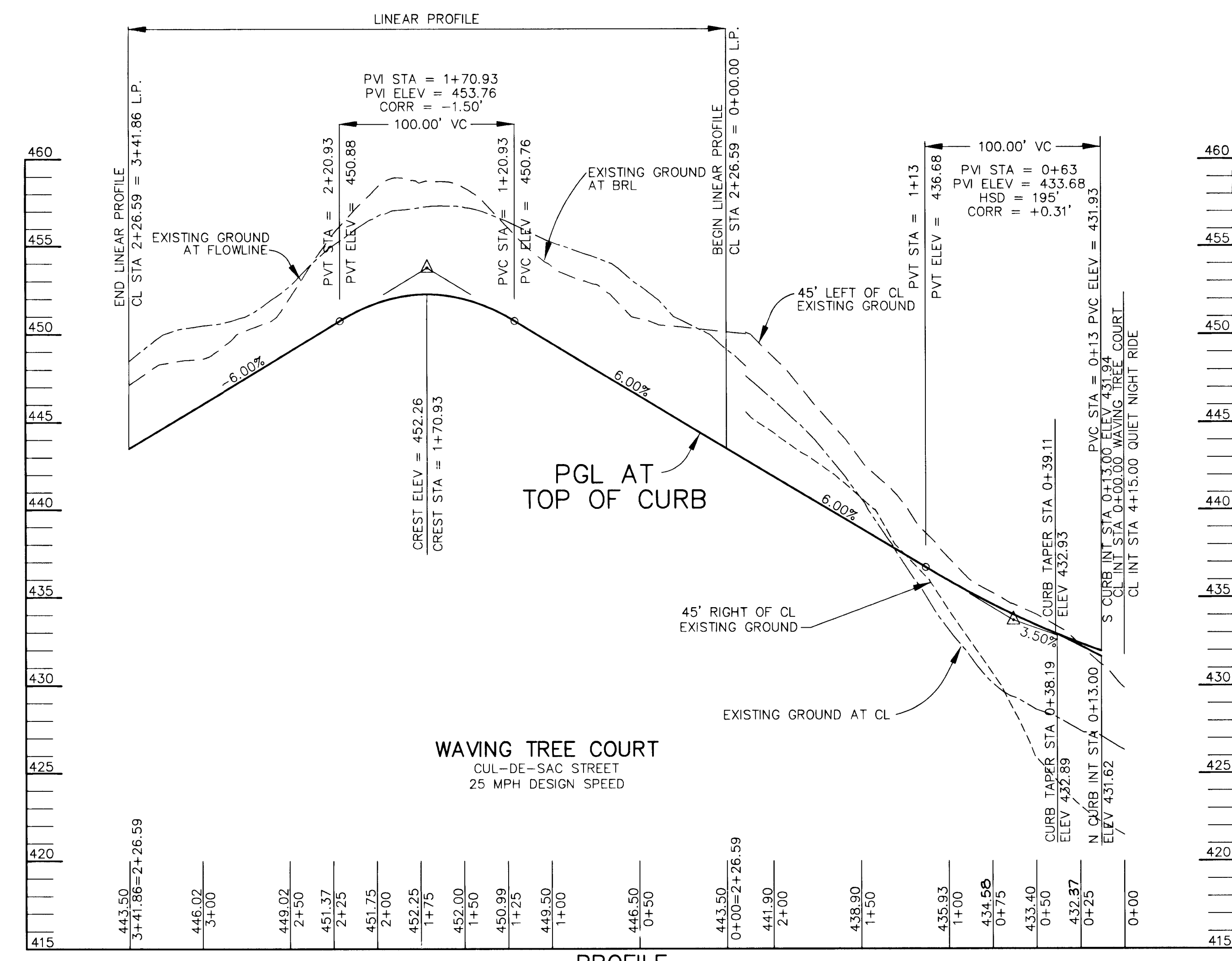


**PLAN**  
SCALE: 1" = 50'

- NOTES:
- STREET LIGHTS SHOWN AS ○ TO BE 100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE.
  - LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH THE NEW TOWN ALTERNATIVE COMPLIANCE PROVISIONS OF THE LANDSCAPE MANUAL. PERIMETER LOT LANDSCAPING WILL BE INSTALLED BY THE BUILDER(S) IN CONJUNCTION WITH THE SITE DEVELOPMENT PLANS.



**PROFILE**  
SCALE: HORZ. 1" = 50'  
VERT. 1" = 5'



**PROFILE**  
SCALE: HORZ. 1" = 50'  
VERT. 1" = 5'

AS BUILT CERTIFICATE

DATE: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Danolen* 8-6-96  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Jim Szymanski* 8/16/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*Calvin Warriner* 8/16/96  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT: VILLAGE OF RIVER HILL  
SECTION 2 AREA 6 PHASE 1  
LOTS 1 THRU 66

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
PART OF PARCEL 70  
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: PLAN AND PROFILE OF HAZEL THICKET TERRACE AND WAVING TREE COURT

RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX: 410-997-9282

7.17.96 DATE

DESIGNED BY: C.J.R.

DRAWN BY: DAM

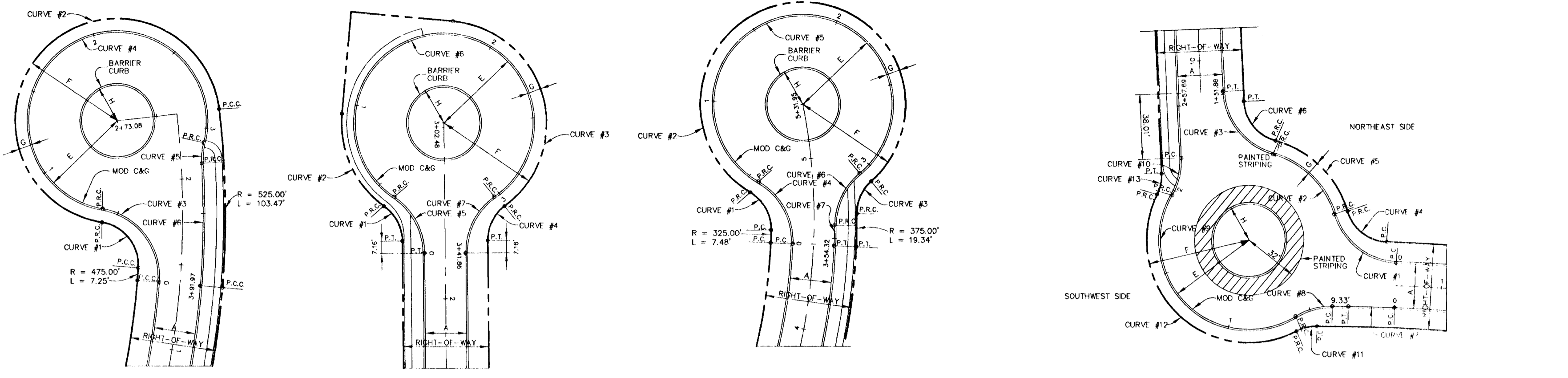
PROJECT NO: HOCO\102800 PH1R04.DWG

DATE: JULY 17, 1996

SCALE: AS SHOWN

DRAWING NO. 4 OF 10

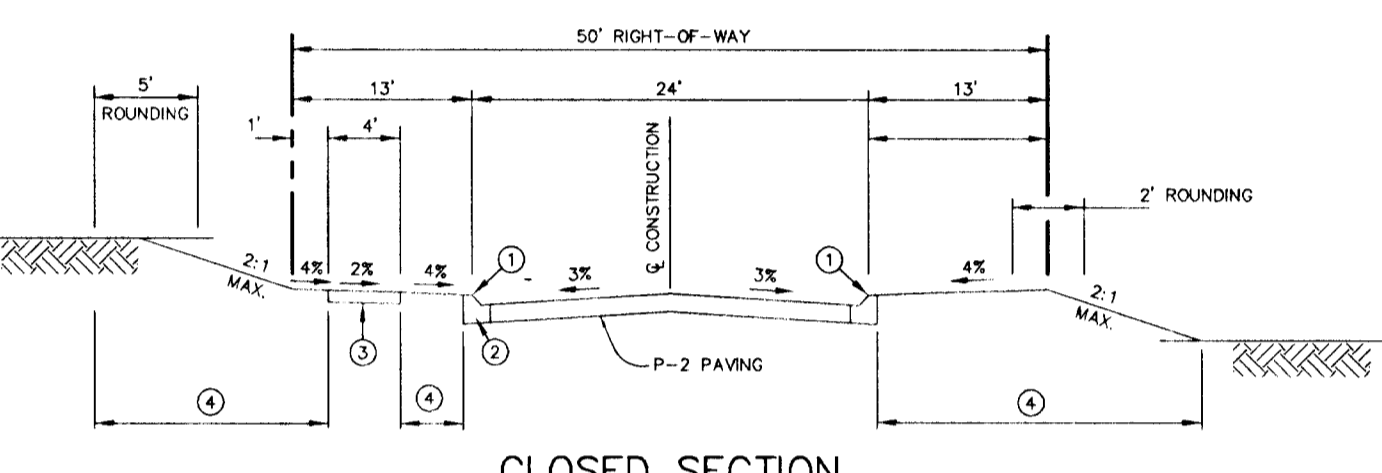
JAYKANT D. PAREKH #19148



ZONING DISTRICTS	E	F	O	H	R/W	A
RESIDENTIAL	50'	60'	8'	22'	50'	24'

CURVE DATA						
RESIDENTIAL (24' APPROACH) L.P. = 391.97'						
1	2	3	4	5	6	7
Δ	85°07'33"	212°44'50"	85°52'20"	274°27'40"	172°12'26"	07°59'00"
R	25.00'	60.00'	40.00'	52.00'	40.00'	512.00'
L	22.86'	204.20'	36.71'	48.10'	15.71'	35.74'
L	31.14'	222.77'	58.40'	249.09'	12.12'	71.30'
L	33.82'	115.14'	54.09'	70.62'	12.07'	71.30'

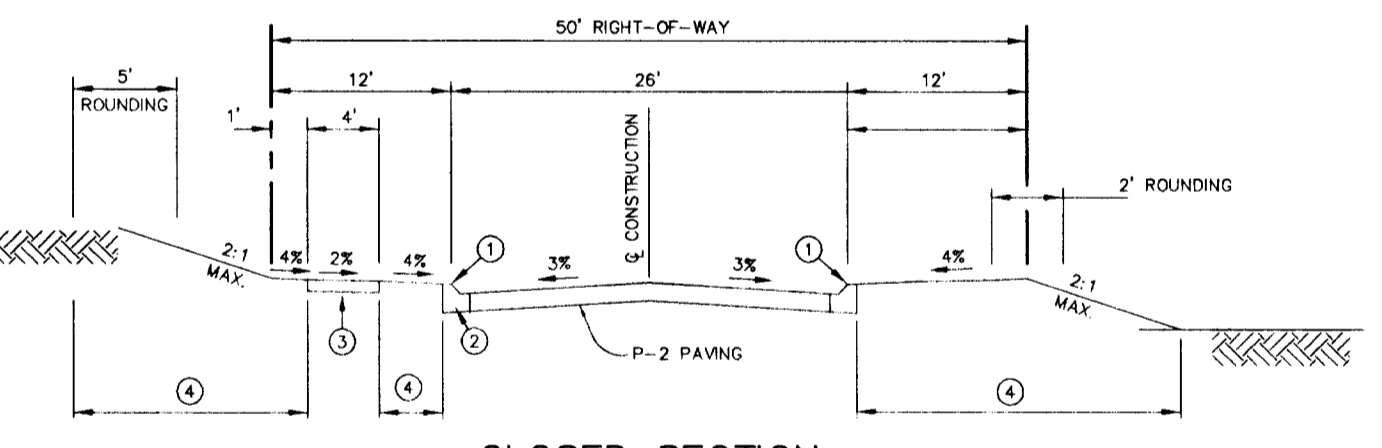
**HAZEL THICKET TERRACE CUL-DE-SAC DETAIL**  
NO SCALE



- CLOSED SECTION**
- 1 PROFILE GRADE LINE (PGL), AT TOP OF CURB
  - 2 TYPE OF CURB (MOD. COMB. CURB & GUTTER)
  - 3 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
  - 4 INDICATES 2" TOPSOIL, SEED AND MULCH
  - 5 DESIGN SPEED = 25 M.P.H.

**TYPICAL SECTION CUL-DE-SAC STREET**  
NO SCALE

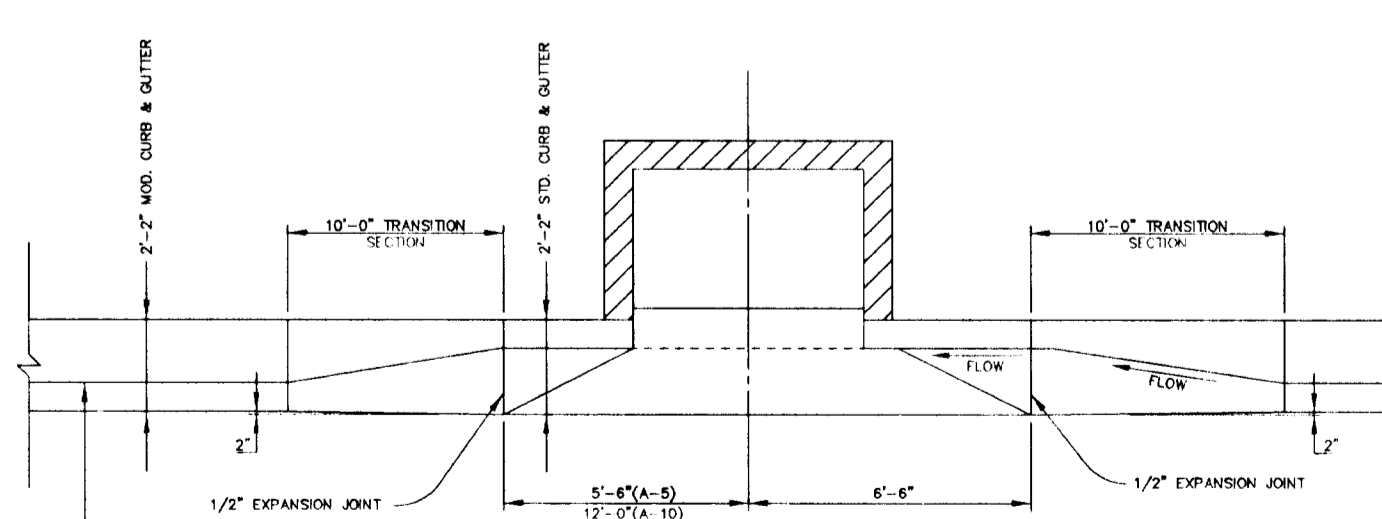
GREAT DRUM CIRCLE FROM CL STA 3+88.26 TO CL STA 4+49.51  
 WAVING TREE COURT FROM CL STA 0+39.11 TO CL STA 2+15.52  
 HAZEL THICKET TERRACE FROM CL STA 0+41.08 TO CL STA 1+34.82



- CLOSED SECTION**
- 1 PROFILE GRADE LINE (PGL), AT TOP OF CURB
  - 2 TYPE OF CURB (MOD. COMB. CURB & GUTTER)
  - 3 4" CONCRETE SIDEWALK (ONE SIDE ONLY)
  - 4 INDICATES 2" TOPSOIL, SEED AND MULCH
  - 5 DESIGN SPEED = 30 M.P.H.

**TYPICAL SECTION LOCAL ROAD**  
NO SCALE

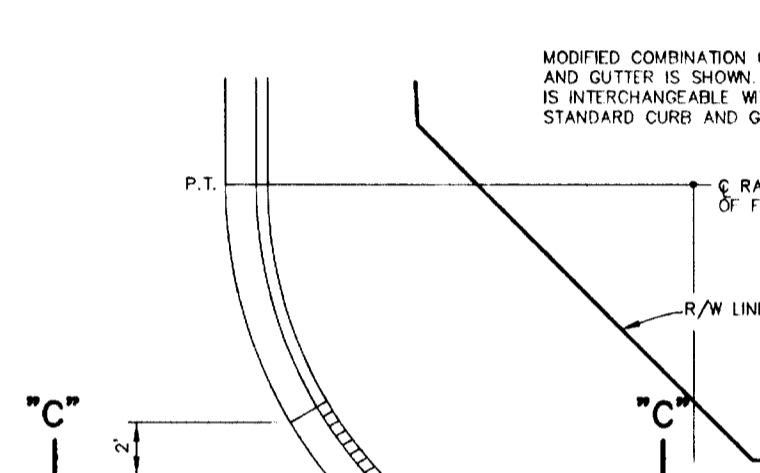
GRATEFUL HEART GATE FROM CL STA 1+09.71 TO CL STA 3+18.88  
 GRACE DRIVE FROM CL STA 0+50.00 TO CL STA 1+27.22  
 QUIET NIGHT RIDE FROM CL STA 0+39.78 TO CL STA 10+54.21



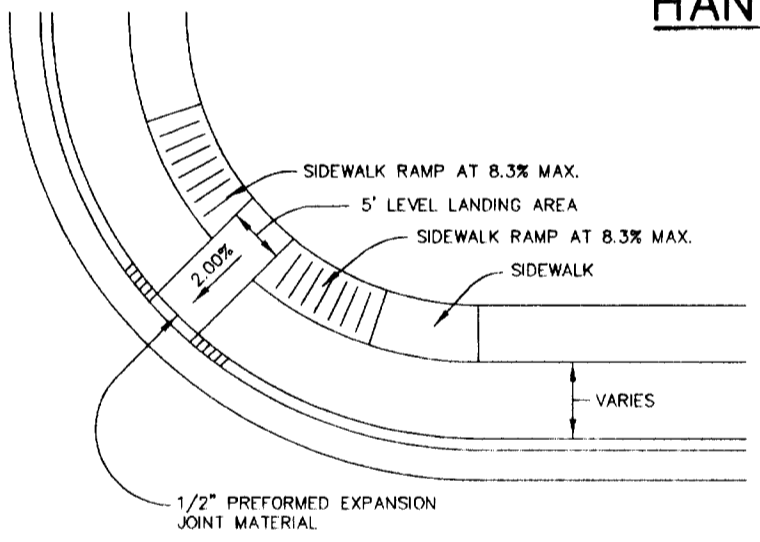
NOTE: THIS DETAIL TO BE USED FOR MODIFIED CURB & GUTTER HAVING AN OVERALL HEIGHT OF 11 1/2" AT THE BACK OF CURB SECTION.

**MODIFIED COMBINATION CURB AND GUTTER TRANSITION CURB SECTION AT "A" TYPE INLETS**  
NO SCALE

**GREAT DRUM CIRCLE CUL-DE-SAC DETAIL**  
NO SCALE

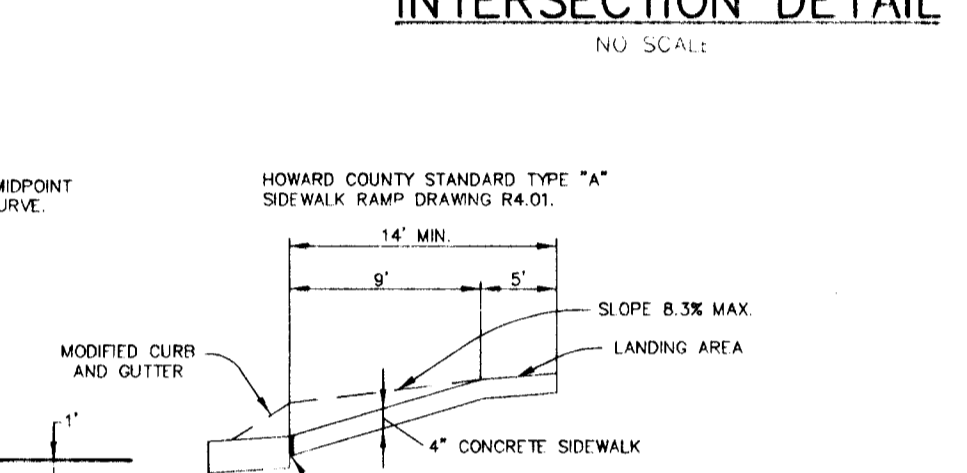


**HANDICAP RAMP DETAIL**  
NO SCALE

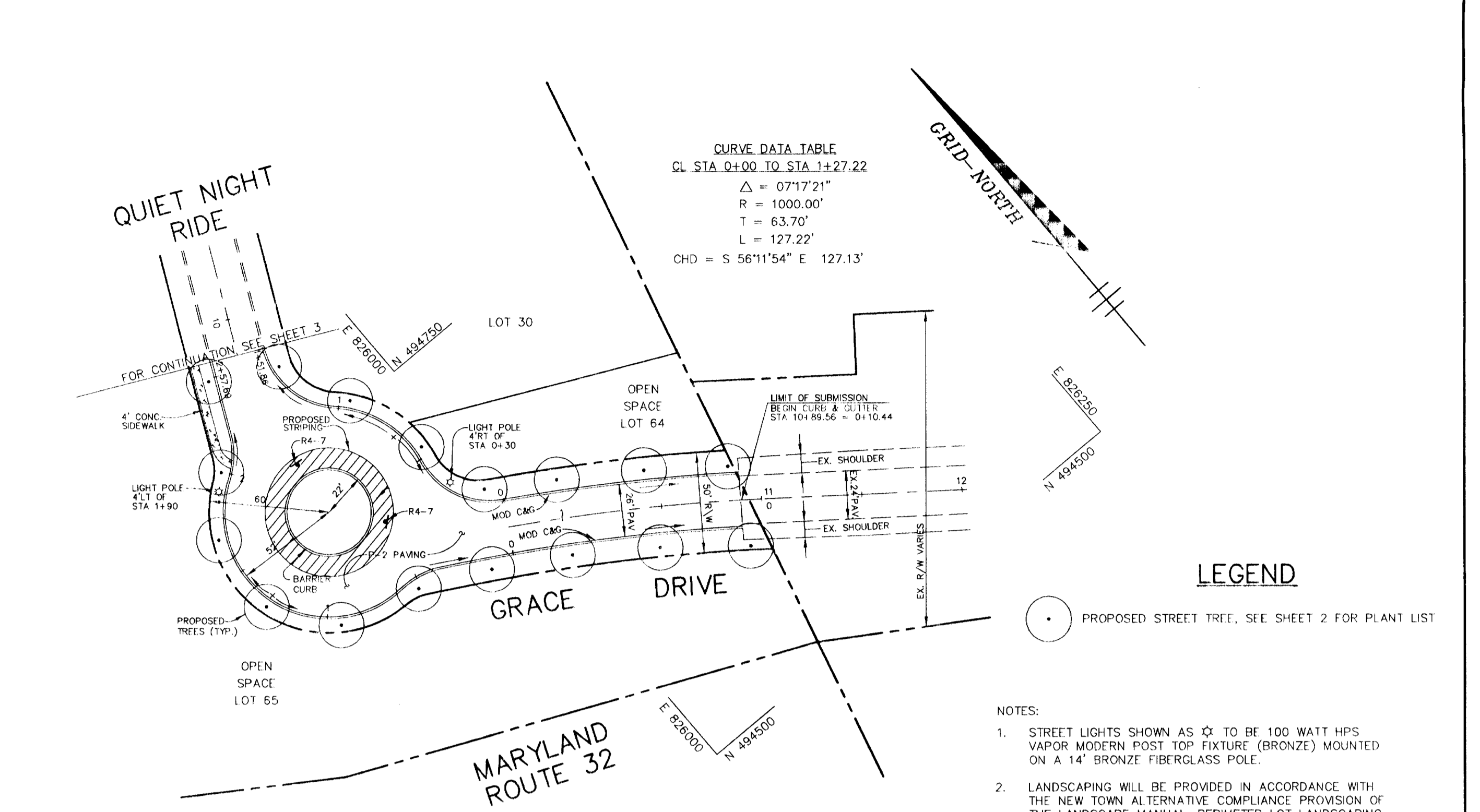


**SIDEWALK DETAIL**  
NO SCALE

**QUIET NIGHT RIDE AND GRACE DRIVE INTERSECTION DETAIL**  
NO SCALE



**TREE PLANTING DETAIL**  
NO SCALE



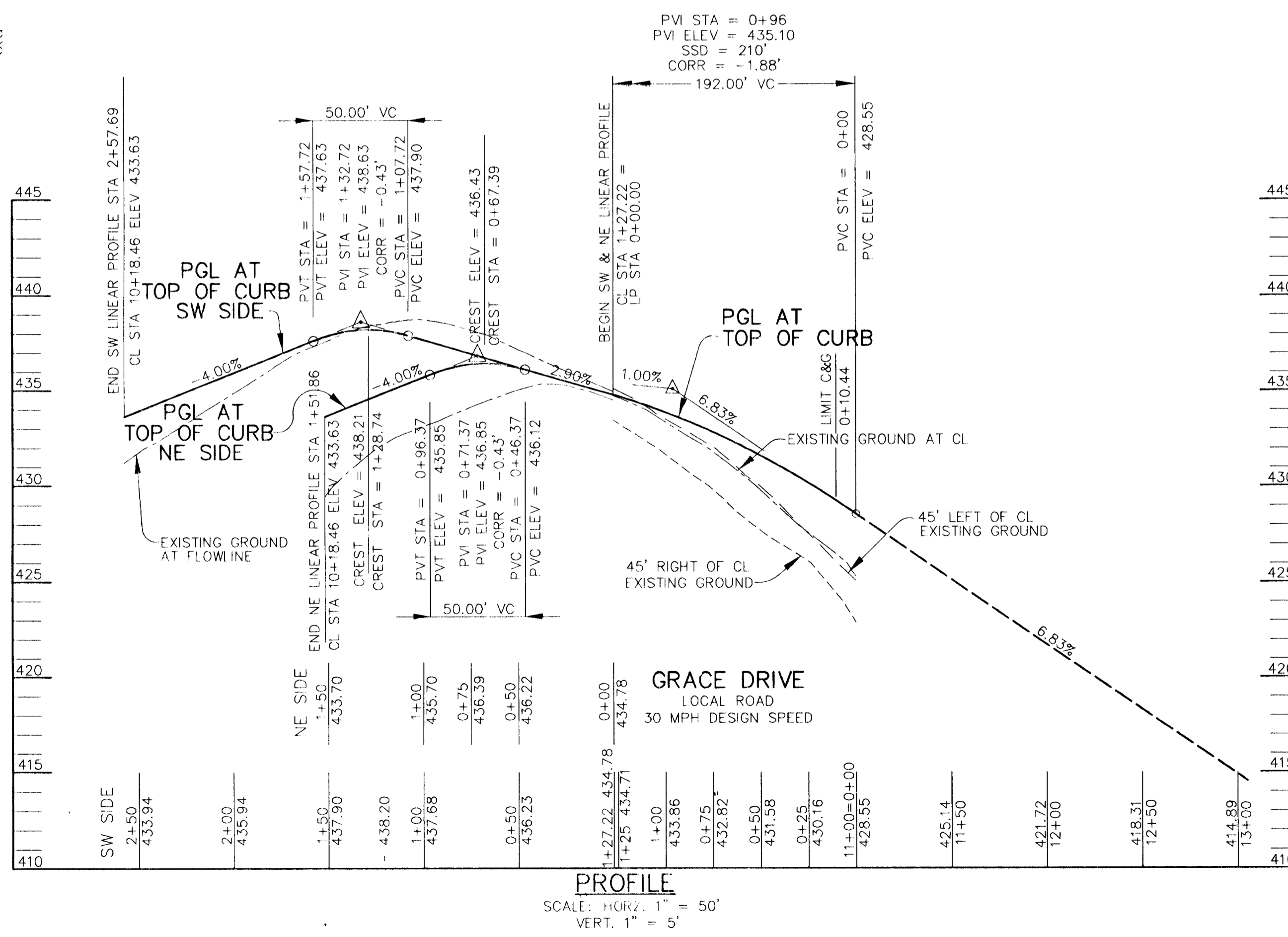
**CURVE DATA TABLE**  
CL STA 0+00 TO STA 1+27.22

Δ	071°7'21"
R	1000.00'
T	63.70'
L	127.22'
CHD	S 56°11'54" E 127.13'

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

**STREET LIGHT SUMMARY TABLE**

LOCATION	TYPE
4" RT. LP. STA. 0+30 GRACE DRIVE	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE
4" LT. LP. STA. 1+90 GRACE DRIVE	100 WATT HPS VAPOR MODERN POST TOP FIXTURE (BRONZE) MOUNTED ON A 14" BRONZE FIBERGLASS POLE



**AS BUILT CERTIFICATE**

DATE: 8-6-96

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Charles M. Swick* 8-6-96 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Hummer* 8/10/96 DATE

APPROVED: CHIEF OF LAND DEVELOPMENT AND RESEARCH  
*Chad Drummond* 8/8/96 DATE

DATE NO. REVISION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

PROJECT: VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1 LOTS 1 THRU 66

AREA: TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: PLAN AND PROFILE OF GRACE DRIVE AND DETAIL SHEET

RIEMER MUEGGE & ASSOCIATES, INC.  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
 410-997-8900 • FAX: 410-997-9282

DATE: 7.17.96

DESIGNED BY: C.J.R.

DRAWN BY: DAM

PROJECT NO: HOCO 102800 PH1RDS.DWG

DATE: JULY 17, 1996

SCALE: AS SHOWN

DRAWING NO. 5 OF 10

JAYKANT D. PAREKH #19148

1487

**DRAINAGE AREA DATA**

INLET NO.	DRAINAGE AREA (AC)	C FACTOR	% IMP.
I-1	1.0	0.55	51
I-2	0.3	0.52	47
I-3	0.3	0.47	40
I-4	0.2	0.51	45
I-5	0.6	0.49	43
I-6	0.5	0.49	42
I-7	0.6	0.50	45
I-8	1.6	0.45	36
I-9	1.1	0.48	41
I-10	0.3	0.49	43
I-11	0.6	0.46	38
I-12	0.8	0.47	40
I-13	1.0	0.49	42
I-14	0.9	0.51	46
I-15	0.6	0.59	58
I-16	0.5	0.51	48
I-17	1.8	0.44	35

**STRUCTURE SCHEDULE**

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP. ELEV.	REMARKS
I-1	A-5	IP STA 1+36.44	-	414.74	428.13	HO. CO. STD. DETAIL SD-4.40
I-2	A-10	13.52' LT OF CL STA 1+96	419.91	419.81	435.01	HO. CO. STD. DETAIL SD-4.41
I-3	A-10	QUIET NIGHT RIDE	420.15	420.05	435.01	HO. CO. STD. DETAIL SD-4.41
I-4	A-5	13.52' RT OF CL STA 14+96	430.97(18")	430.97	440.77	HO. CO. STD. DETAIL SD-4.40
I-5	A-10	QUIET NIGHT RIDE	436.48	436.38	440.77	HO. CO. STD. DETAIL SD-4.41
I-6	A-10	13.52' LT OF CL STA 3+13	443.68	443.43	448.10	HO. CO. STD. DETAIL SD-4.41
I-7	A-5	GRATEFUL HEART GATE	443.68	443.43	448.10	HO. CO. STD. DETAIL SD-4.41
I-8	A-10	13.52' RT OF CL STA 3+13	-	443.96	448.10	HO. CO. STD. DETAIL SD-4.41
I-9	A-5	GRATEFUL HEART GATE	421.49	420.99	431.71	HO. CO. STD. DETAIL SD-4.40
I-10	A-10	13.52' RT OF CL STA 3+51.04	427.58(15")	427.58	431.71	HO. CO. STD. DETAIL SD-4.40
I-11	A-10	QUIET NIGHT RIDE	421.87	421.77	433.37	HO. CO. STD. DETAIL SD-4.41
I-12	A-10	12.52' RT OF CL STA 0+43	421.87	421.77	433.37	HO. CO. STD. DETAIL SD-4.41
I-13	A-10	WAVING TREE COURT	422.10	422.00	433.42	HO. CO. STD. DETAIL SD-4.41
I-14	A-5	13.52' LT OF CL STA 0+44	422.40	422.30	433.31	HO. CO. STD. DETAIL SD-4.40
I-15	A-10	WAVING TREE COURT	424.29	424.19	430.78	HO. CO. STD. DETAIL SD-4.41
I-16	A-10	13.52' RT OF CL STA 7+80	424.29	424.19	430.78	HO. CO. STD. DETAIL SD-4.41
I-17	A-10	QUIET NIGHT RIDE	425.06	424.96	431.46	HO. CO. STD. DETAIL SD-4.41
I-18	A-10	HAZEL THicket TERRACE	426.24(15")	426.24	431.70	HO. CO. STD. DETAIL SD-4.41
I-19	A-10	12.52' LT OF CL STA 0+46	425.71	425.61	431.70	HO. CO. STD. DETAIL SD-4.41
I-20	A-5	HAZEL THicket TERRACE	426.15	425.90	430.14	HO. CO. STD. DETAIL SD-4.40
I-21	A-5	QUIET NIGHT RIDE	-	426.29	430.14	HO. CO. STD. DETAIL SD-4.40
I-22	A-5	13.52' LT OF CL STA 8+81	-	427.86	431.71	HO. CO. STD. DETAIL SD-4.40
I-23	A-5	QUIET NIGHT RIDE	-	427.86	431.71	HO. CO. STD. DETAIL SD-4.40
I-24	A-10	13.52' LT OF CL STA 3+51.04	-	431.03	435.72	HO. CO. STD. DETAIL SD-4.41
I-25	A-10	QUIET NIGHT RIDE	-	431.03	435.72	HO. CO. STD. DETAIL SD-4.41
M-1	4'-0" DIA MANHOLE	HAZEL THicket TERRACE	409.80	408.26	415.8	HO. CO. STD. DETAIL G-5.11
M-2	5'-0" DIA MANHOLE	SEE SHEET 7	412.50	410.52	G ABOVE EX. GR.	HO. CO. STD. DETAIL G-5.13
M-3	5'-0" DIA MANHOLE	17.00' RT OF CL STA 2+74	420.62	420.52	432.4	HO. CO. STD. DETAIL G-5.13
M-4	5'-0" DIA MANHOLE	QUIET NIGHT RIDE	423.03	422.93	435.4	HO. CO. STD. DETAIL G-5.13
M-5	5'-0" DIA MANHOLE	17.00' RT OF CL STA 5+65	423.67	423.57	433.9	HO. CO. STD. DETAIL G-5.13
S-1	4'-0" DIA MANHOLE	17.00' RT OF CL STA 6+75	405.86	405.26(12")	410.0	HO. CO. STD. DETAIL G-5.13
S-2	5'-0" DIA MANHOLE	QUIET NIGHT RIDE	395.48	395.38(36")	G ABOVE EX. GR.	HO. CO. STD. DETAIL SD-5.51
E-1	12" CONCRETE END SECTION	SEE SHEET 8	404.00	-	-	HO. CO. STD. DETAIL SD-5.51
E-2	18" CONCRETE END SECTION	SEE SHEET 8	403.50	-	-	HO. CO. STD. DETAIL SD-5.51
E-3	12" CONCRETE END SECTION	SEE SHEET 8	393.50	-	-	HO. CO. STD. DETAIL SD-5.51
E-4	36" CONCRETE END SECTION	SEE SHEET 8	394.00	-	-	HO. CO. STD. DETAIL SD-5.51



AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Andrew M. Smaker* 8-6-96  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Gina Summerville* 8/16/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*Chris Dammer* 8/8/96  
 CHIEF, DIVISION OF PLANNING ENGINEERING DIVISION DATE

DATE NO. REVISION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

PROJECT  
 VILLAGE OF RIVER HILL  
 SECTION 2 AREA 6 PHASE 1  
 LOTS 1 THRU 66

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
 PART OF PARCEL 70  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
 DRAINAGE AREA MAP  
 AND STRUCTURE SCHEDULE

RIEMER MUEGGE & ASSOCIATES, INC.  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
 410-997-8900 FAX : 410-997-9282

7.17.96  
 DATE

DESIGNED BY: C.J.R.  
 DRAWN BY: DAM/BRD  
 PROJECT NO: HOCO\102800  
 PH1RD6.DWG  
 DATE: JULY 17, 1996  
 SCALE: 1" = 100'  
 DRAWING NO. 6 OF 10

JAYKANT D. PAREKH #19148

14871



PLAN  
SCALE: 1" = 50'

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Jaykant Parekh* 7-17-96  
DEVELOPER DATE

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.

*J. Farrell* 7-17-96  
ENGINEER DATE

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

*J. Workless* 8/14/96  
NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*John R. Robertson* 8/14/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Andrew M. Danals* 8-6-96  
CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Gino Sumiray* 8/14/96  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*Chris Damman* 8/16/96  
CHIEF, DIVISION OF ENGINEERING DATE

DATE	NO.	REVISION

OWNER / DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

PROJECT

VILLAGE OF RIVER HILL  
SECTION 2 AREA 1  
LOTS 1 THRU 66

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
PART OF PARCEL 70  
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE

GRADING AND SEDIMENT CONTROL PLAN

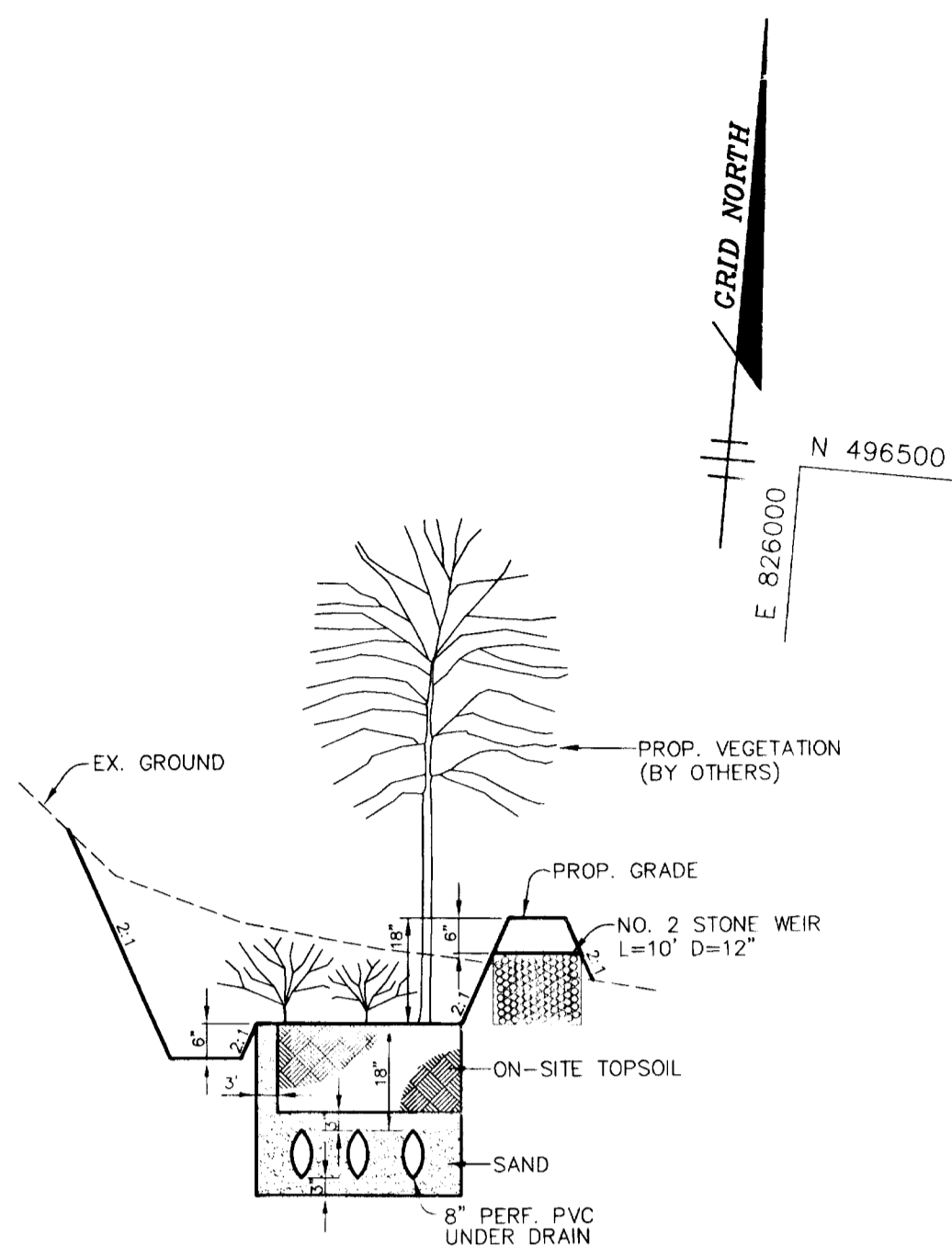
RIEMER MUEGGE & ASSOCIATES, INC.  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX : 410-997-9282

7-17-96  
DATE

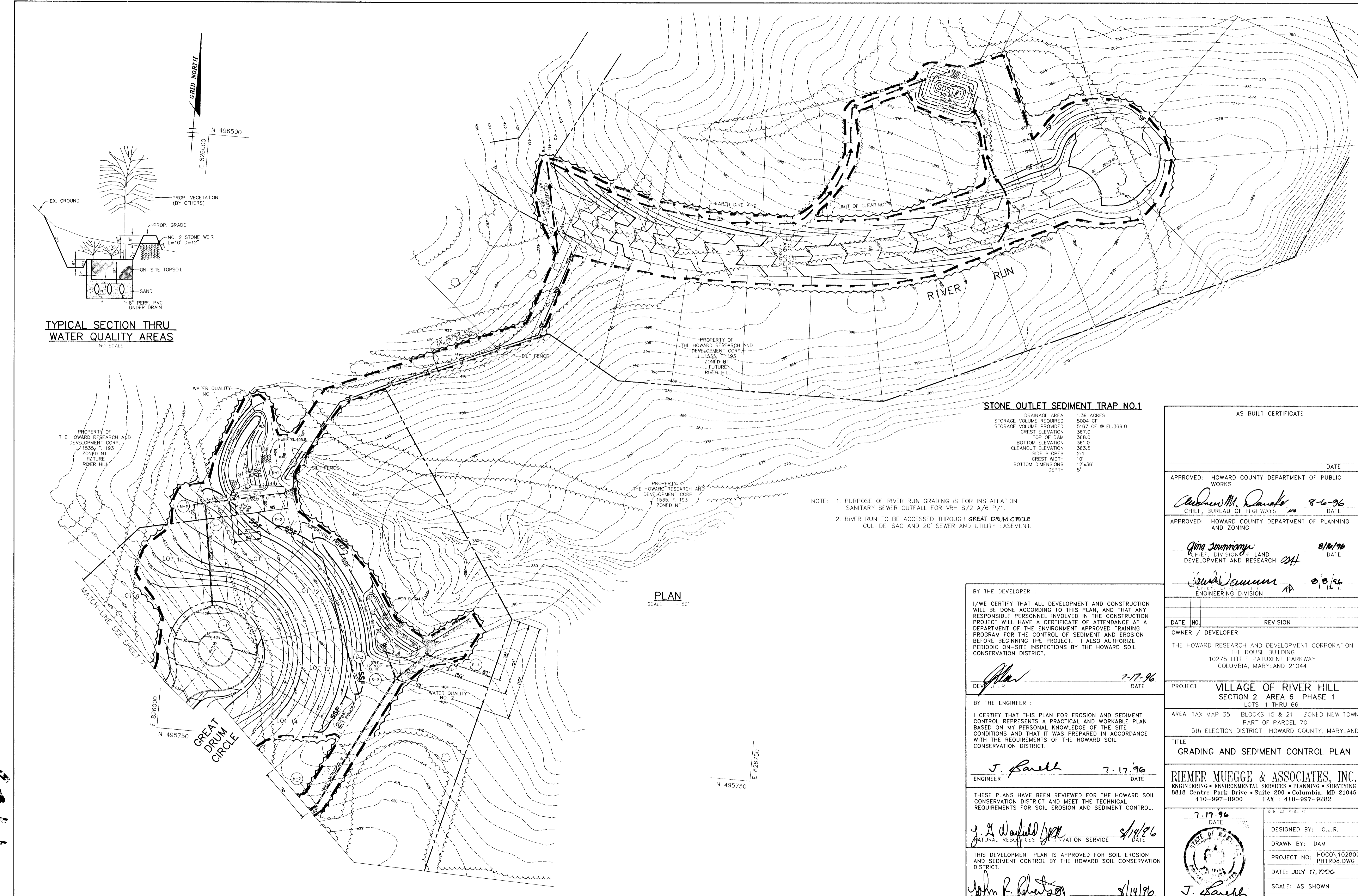
DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
PROJECT NO: HOCO102800  
PH1RD7.DWG  
DATE: JULY 17, 1996  
SCALE: AS SHOWN  
DRAWING NO. 7 OF 10

*J. Farrell*  
JAYKANT D. PAREKH #19148

6348



TYPICAL SECTION THRU WATER QUALITY AREAS  
NO SCALE



**STONE OUTLET SEDIMENT TRAP NO. 1**

DRAINAGE AREA	1.39 ACRES
STORAGE VOLUME REQUIRED	5004 CF
STORAGE VOLUME PROVIDED	5167 CF @ EL. 366.0
CREST ELEVATION	367.0
TOP OF DAM	368.0
BOTTOM ELEVATION	361.0
CLEANOUT ELEVATION	363.5
SIDE SLOPES	2:1
CREST WIDTH	10'
BOTTOM DIMENSIONS	12'x36'
DEPTH	5'

AS BUILT CERTIFICATE	
DATE	
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>Andrew M. Danek</i>	8-6-96
CHIEF, BUREAU OF HIGHWAYS	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING	
<i>Gina Summerville</i>	8/16/96
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
<i>Frank Summerville</i>	8/16/96
ENGINEERING DIVISION	

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 7-17-96  
DEVELOPER DATE

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.

*J. Farrell* 7-17-96  
ENGINEER DATE

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

*J. A. Warfield* 8/14/96  
NATURAL RESOURCES DIVISION SERVICE DATE

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

*John R. Robertson* 8/14/96  
HOWARD SOIL CONSERVATION DISTRICT DATE

DATE	NO.	REVISION
OWNER / DEVELOPER		
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044		

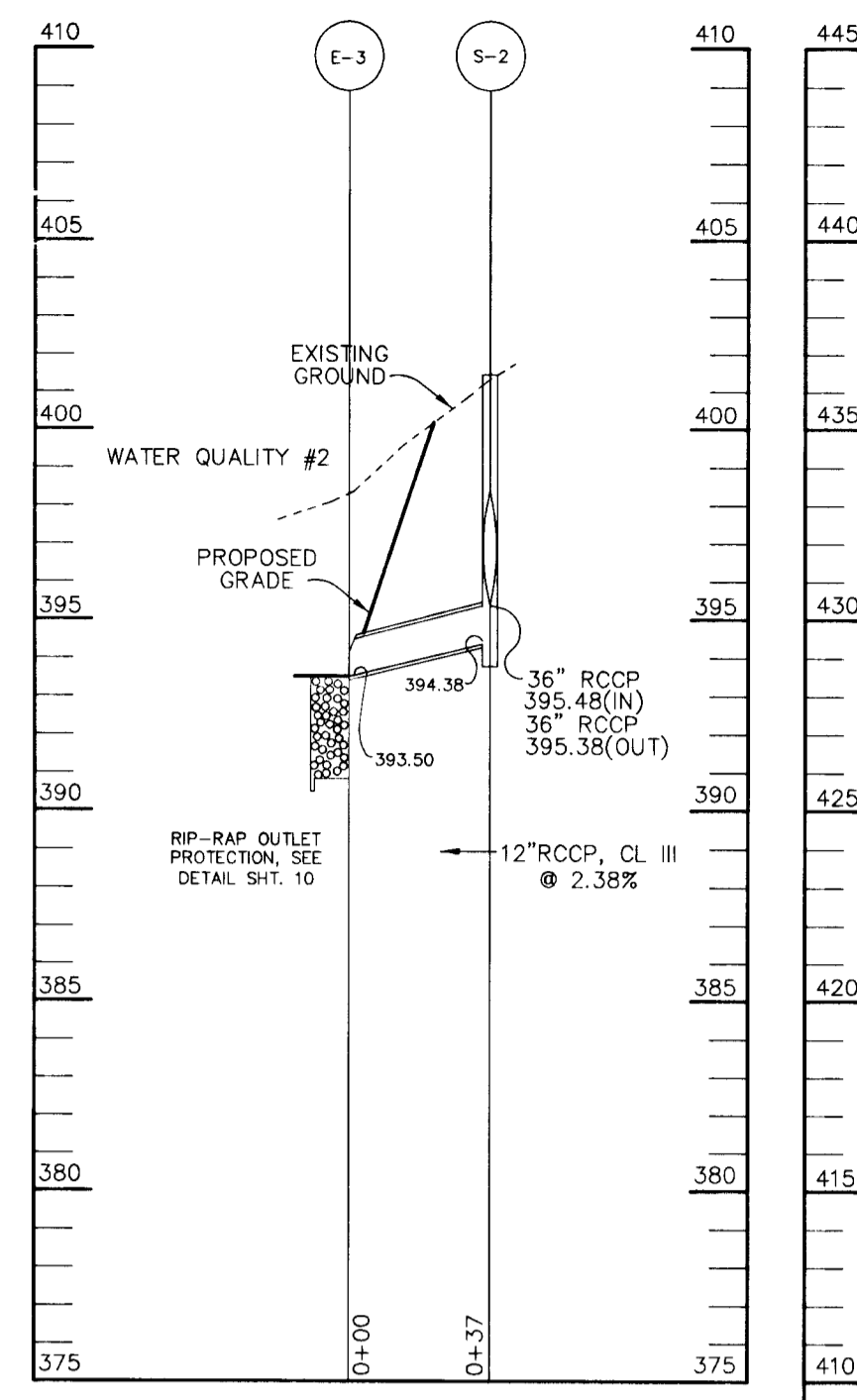
PROJECT	VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1 LOTS 1 THRU 66
AREA TAX MAP	35 BLOCKS 15 & 21 ZONED NEW TOWN PART OF PARCEL 70 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	GRADING AND SEDIMENT CONTROL PLAN

**RIEMER MUEGGE & ASSOCIATES, INC.**  
ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
410-997-8900 FAX : 410-997-9282

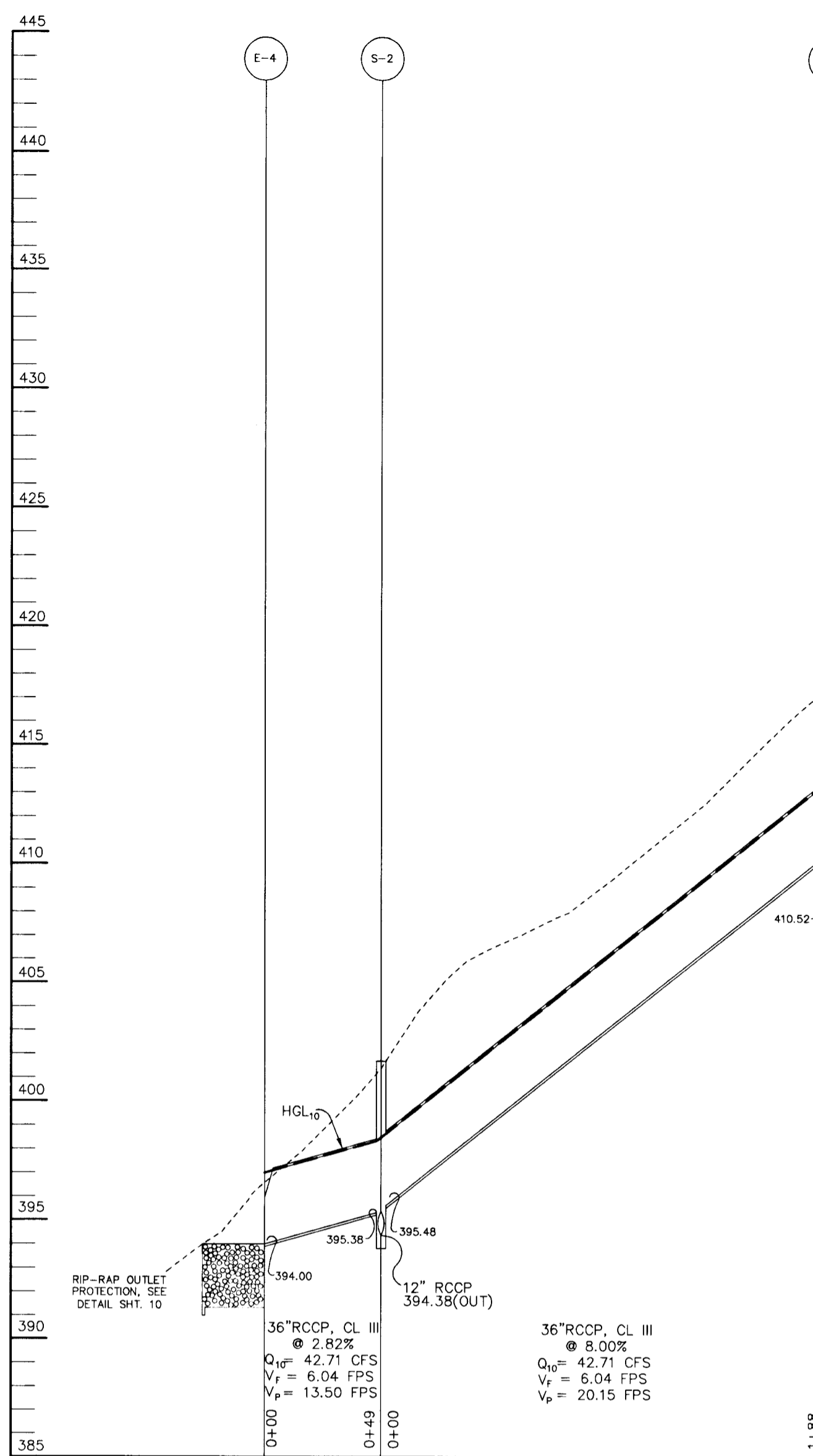
DATE	7-17-96
DESIGNED BY:	C.J.R.
DRAWN BY:	DAM
PROJECT NO.:	HOCO\102800 PH1RDB.DWG
DATE:	JULY 17, 1996
SCALE:	AS SHOWN
DRAWING NO.:	B OF 10

14871

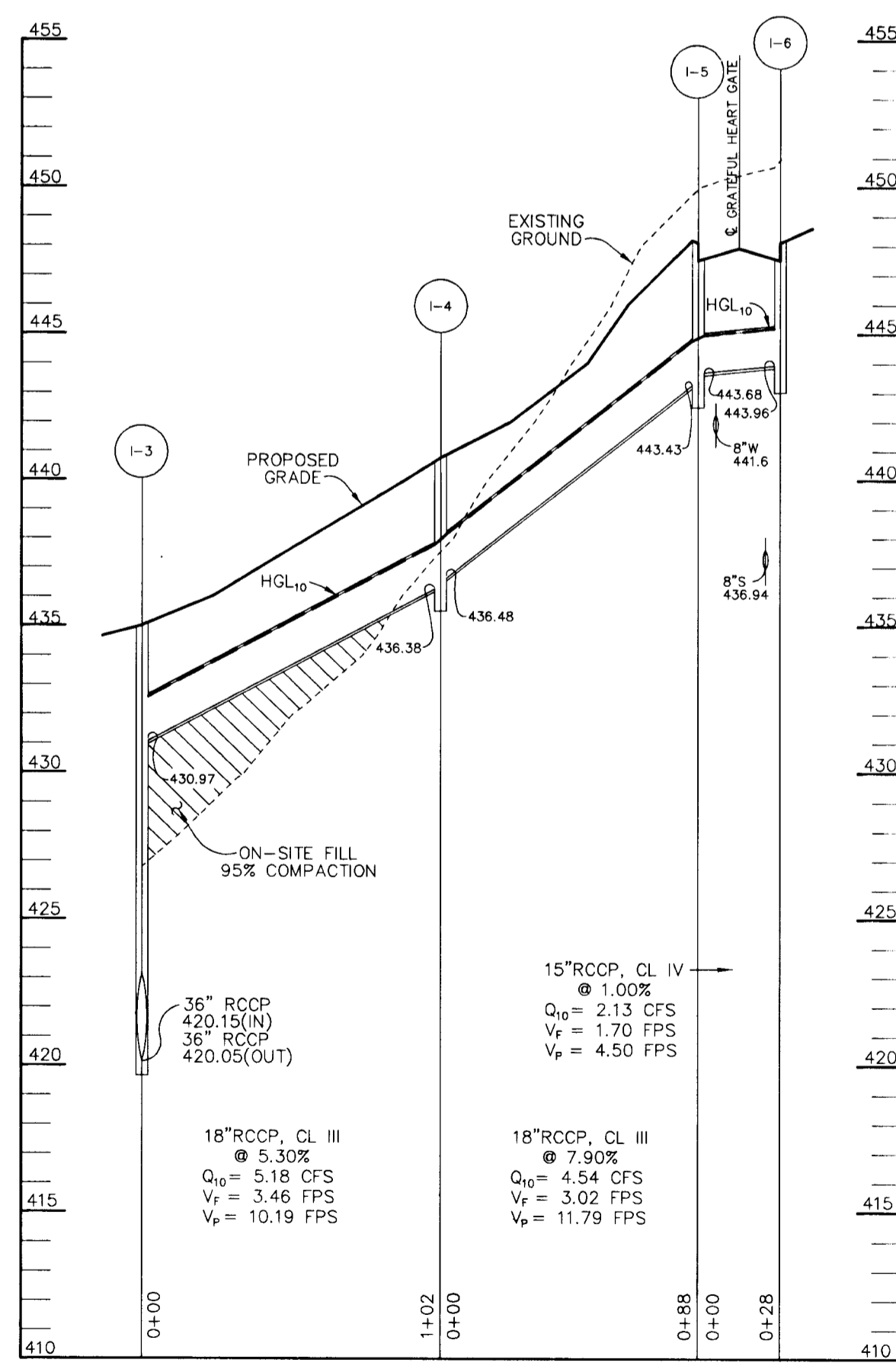
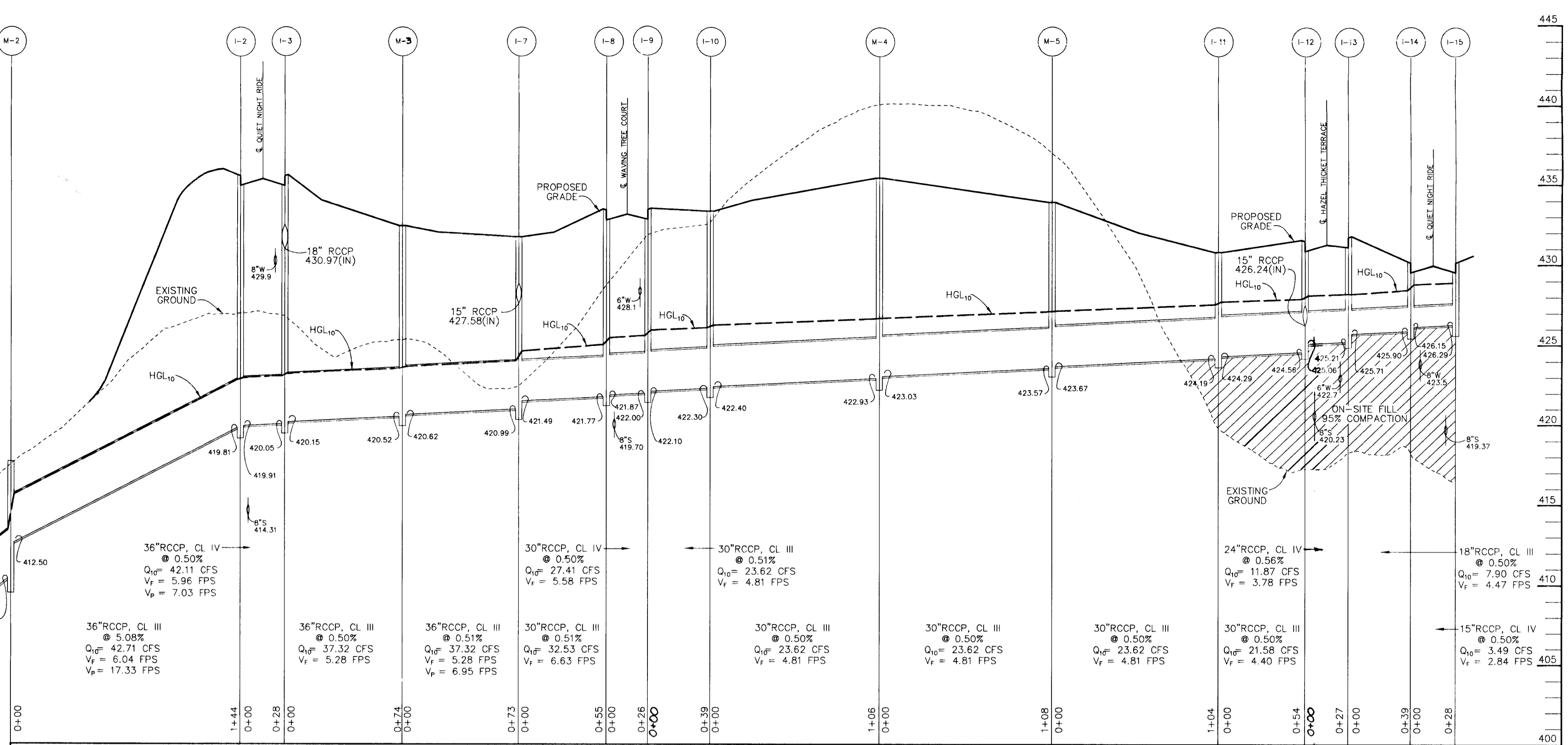




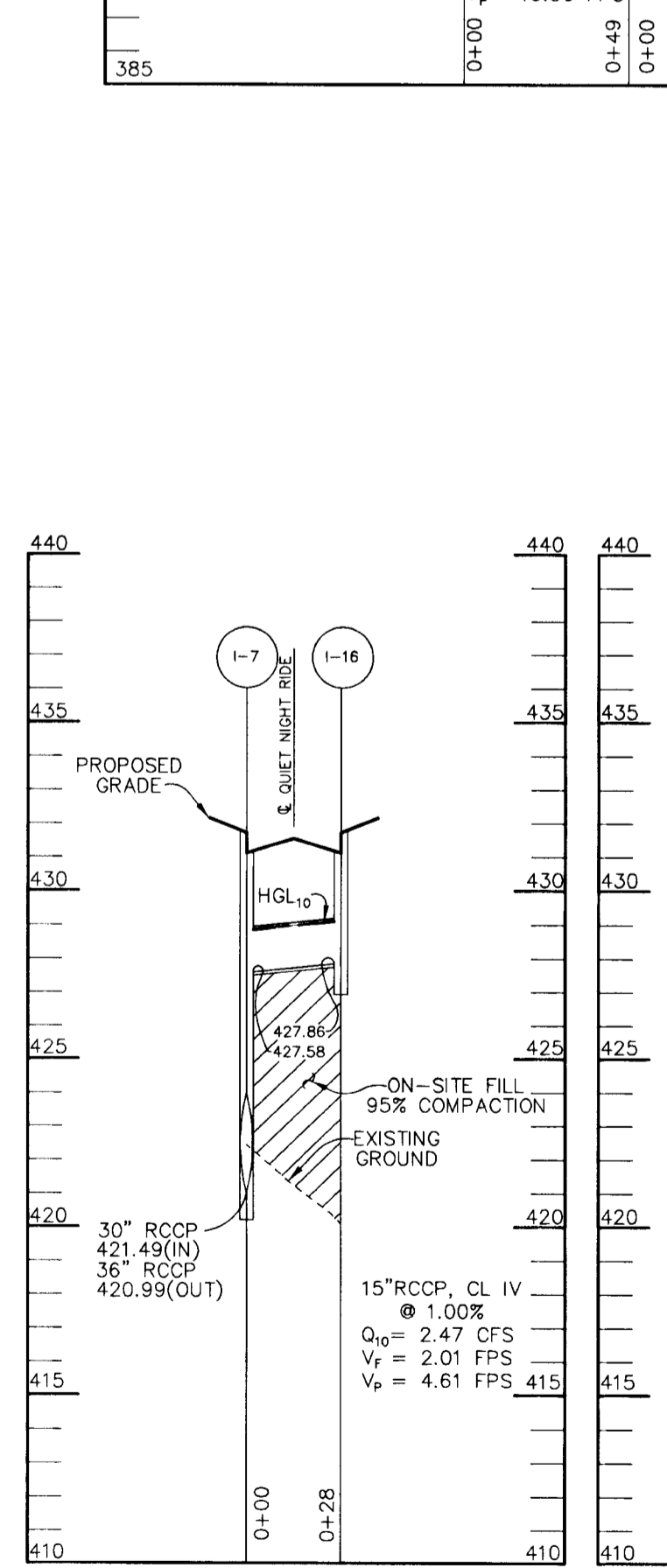
**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



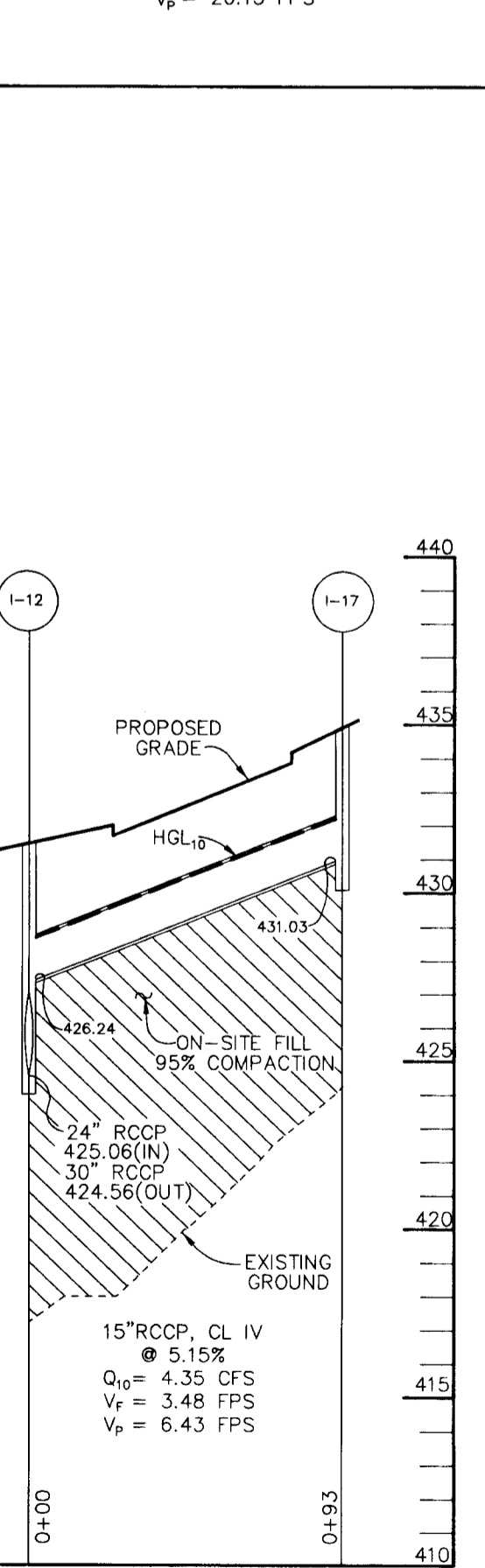
**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



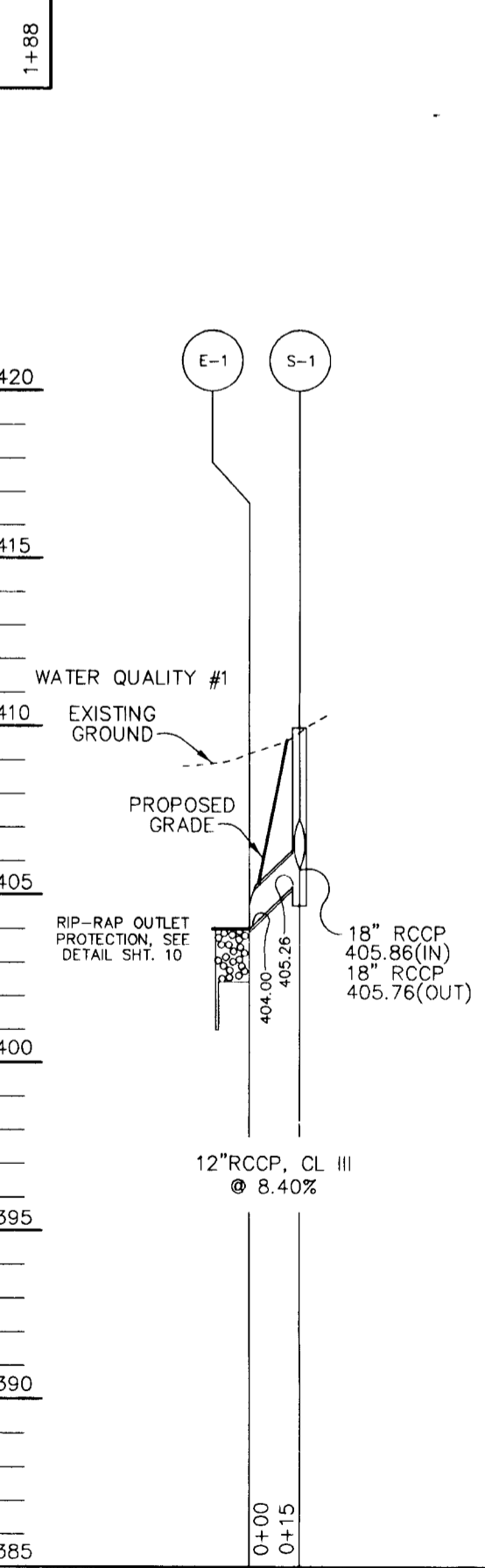
**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



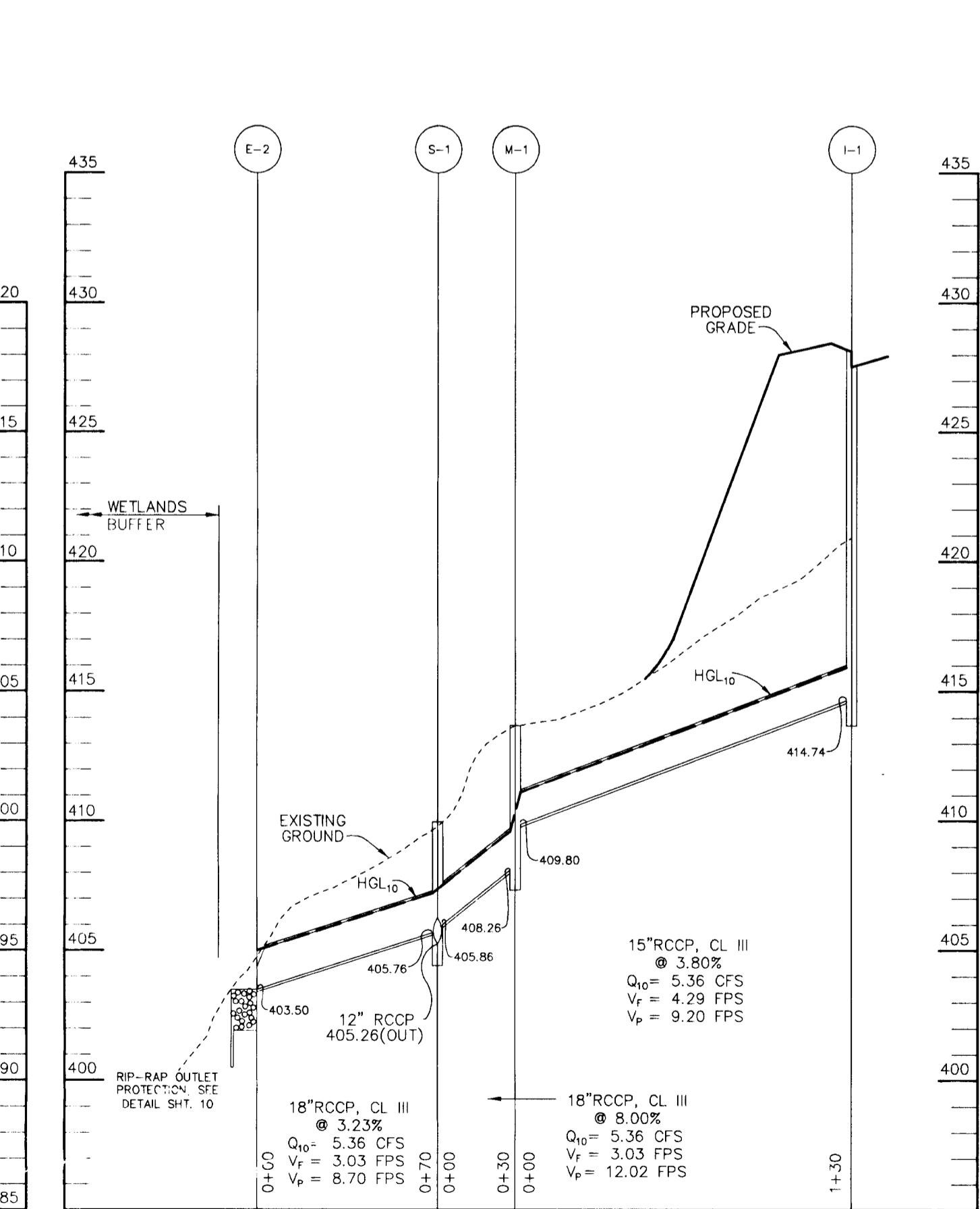
**PROFILE**  
SCALE:  
HOR.-1"=50'  
VERT.-1"=5'



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



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



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

14871

AS BUILT CERTIFICATE

DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Adnan M. Danesh* 8-6-96  
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Jina Jaramany* 8/16/96  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

*Chad Dummer* 8/18/96  
 CHIEF, DIVISION OF PLANNING ENGINEERING DIVISION DATE

DATE	NO.	REVISION

OWNER / DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044

PROJECT  
 VILLAGE OF RIVER HILL  
 SECTION 2 AREA 6 PHASE 1  
 LOTS 1 THRU 66

AREA TAX MAP 35 BLOCKS 15 & 21 ZONED NEW TOWN  
 PART OF PARCEL 70  
 5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
 STORM DRAIN PROFILES

RIEMER MUEGGE & ASSOCIATES, INC.  
 ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING  
 8818 Centre Park Drive • Suite 200 • Columbia, MD 21045  
 410-997-8900 FAX: 410-997-9282

7-17-96  
 DATE

DESIGNED BY: C.J.R.

DRAWN BY: DAM

PROJECT NO: HOCO\102800  
 PH1RD9.DWG

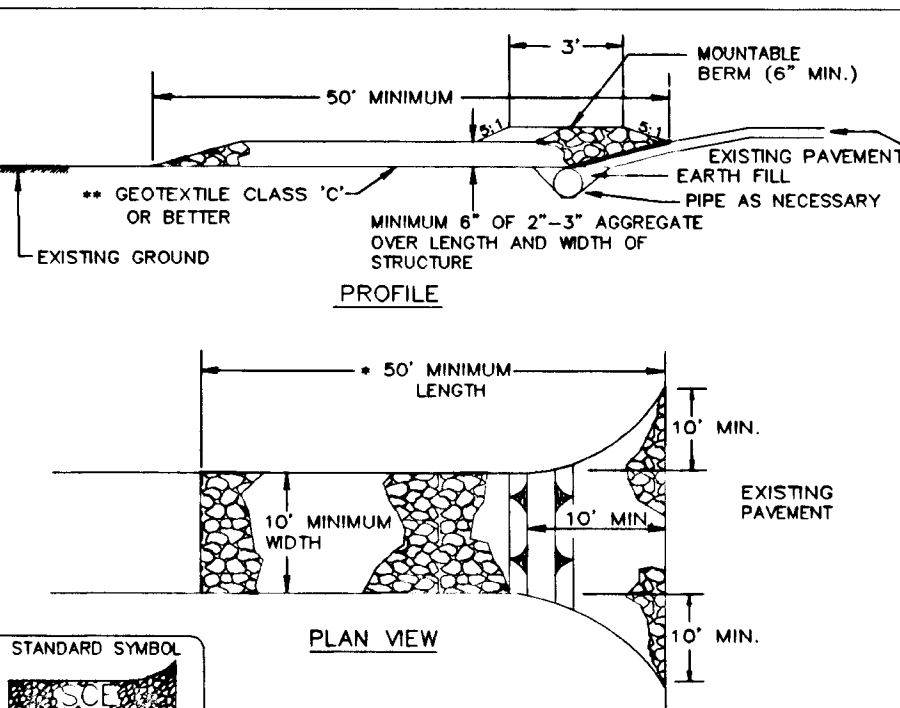
DATE: JULY 17, 1996

SCALE: AS SHOWN

DRAWING NO. 9 OF 10

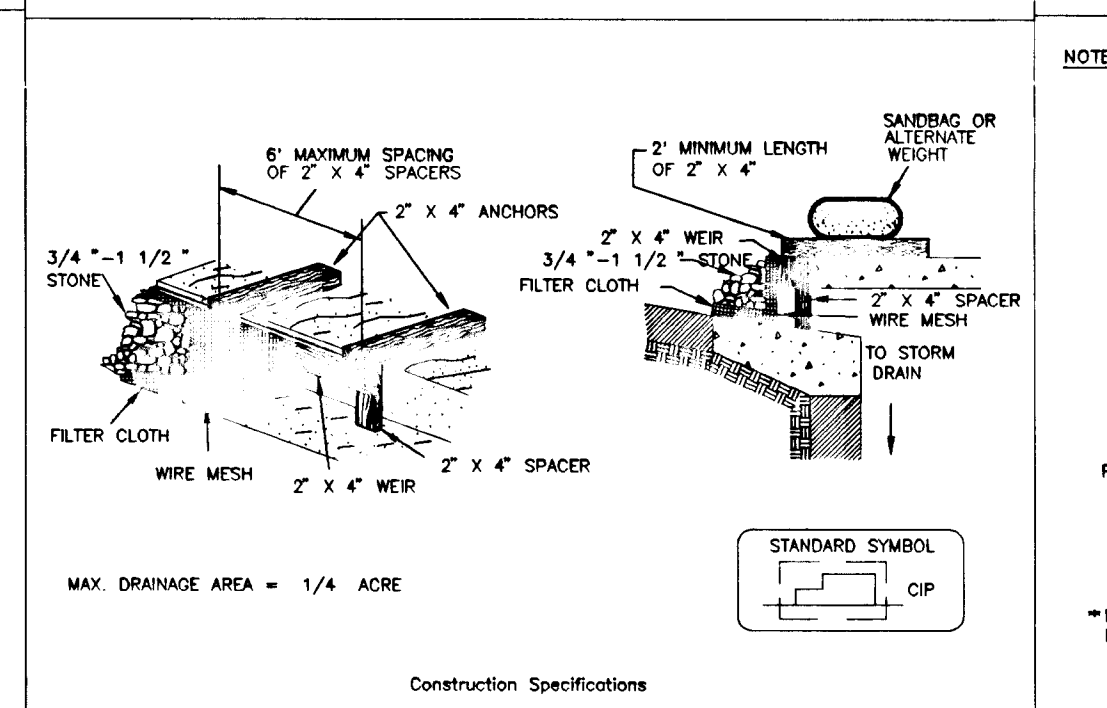
JAYKANT B. PAREKH #19148

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



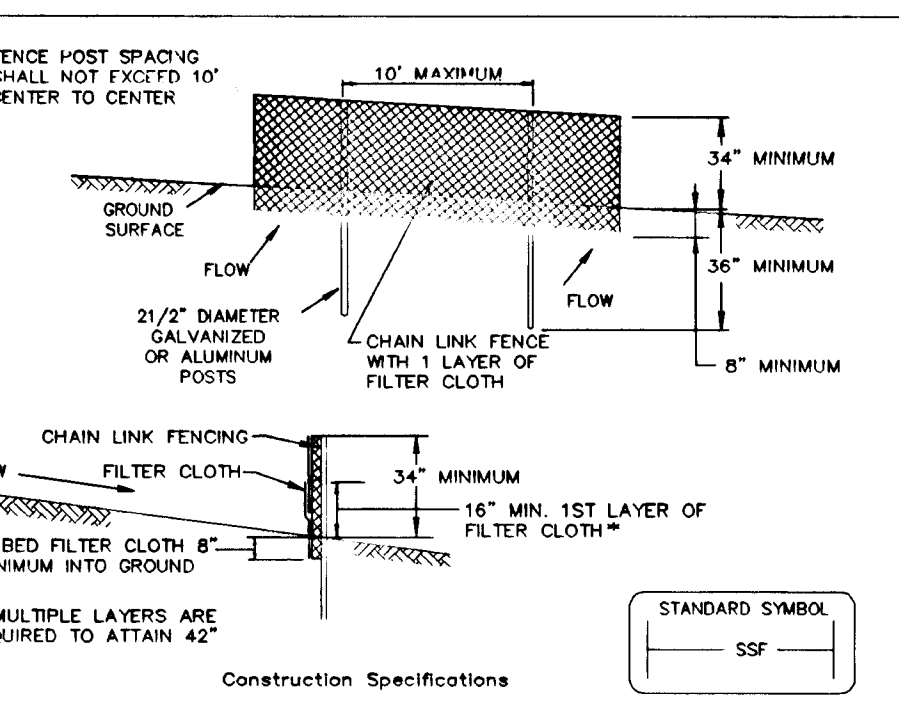
Construction Specifications
1. Length - minimum of 50' (+30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stones.

DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



Construction Specifications
1. Attach a continuous piece of wire mesh (32" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the weir and securely attach it to the 2" x 4" weir.

DETAIL 33 - SUPER SILT FENCE



Construction Specifications
1. Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
2. Chain link fence shall be fastened securely to the fence posts with wire ties.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.
Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

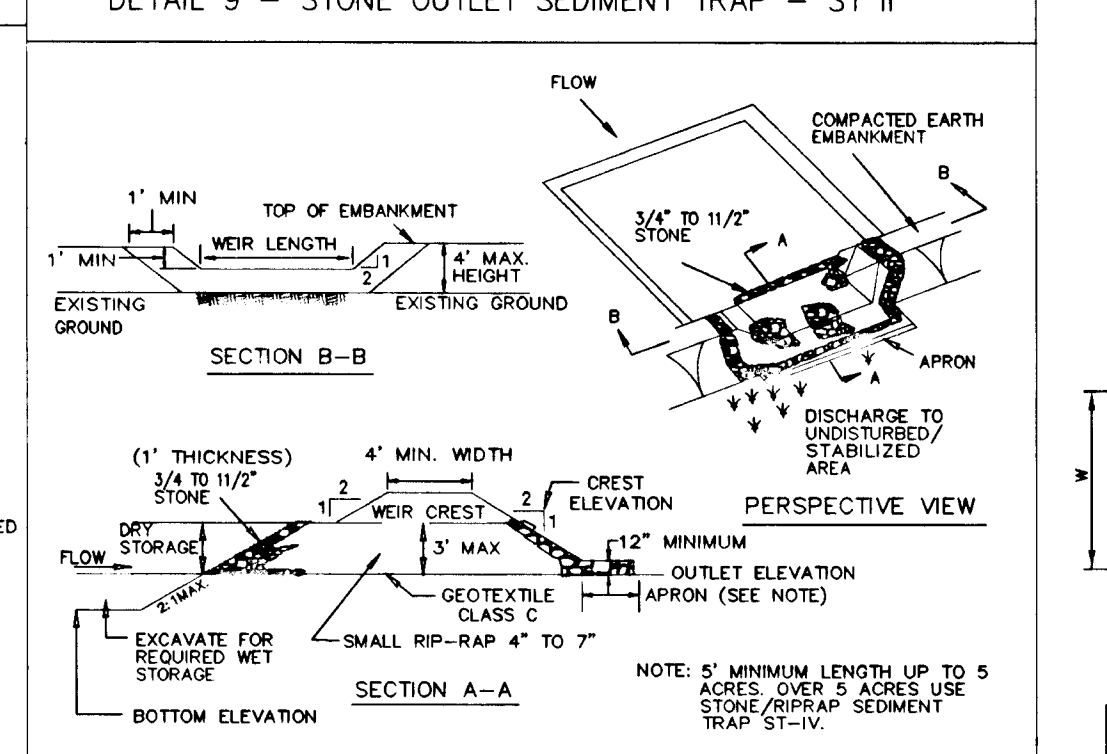
SEDIMENT CONTROL NOTES

A minimum of 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
1. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, AND REVISIONS THERE TO.

PERMANENT SEEDING NOTES

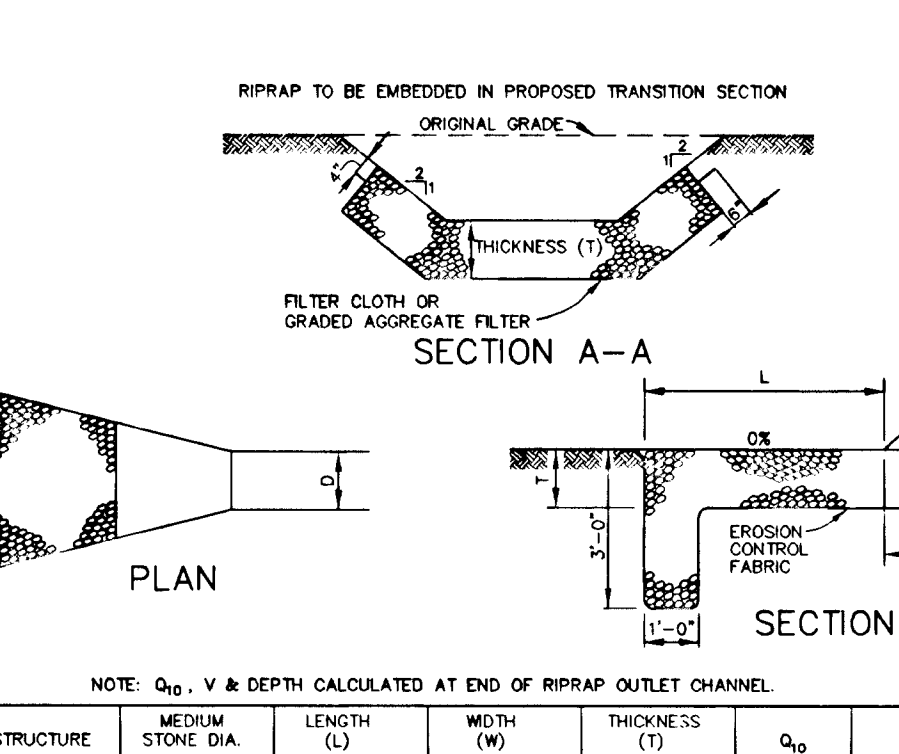
Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.
Seeded Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

DETAIL 9 - STONE OUTLET SEDIMENT TRAP - ST II



Construction Specifications
1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mass. The post hole shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material.

DETAIL 22 - SILT FENCE



Construction Specifications
1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) soil, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood.

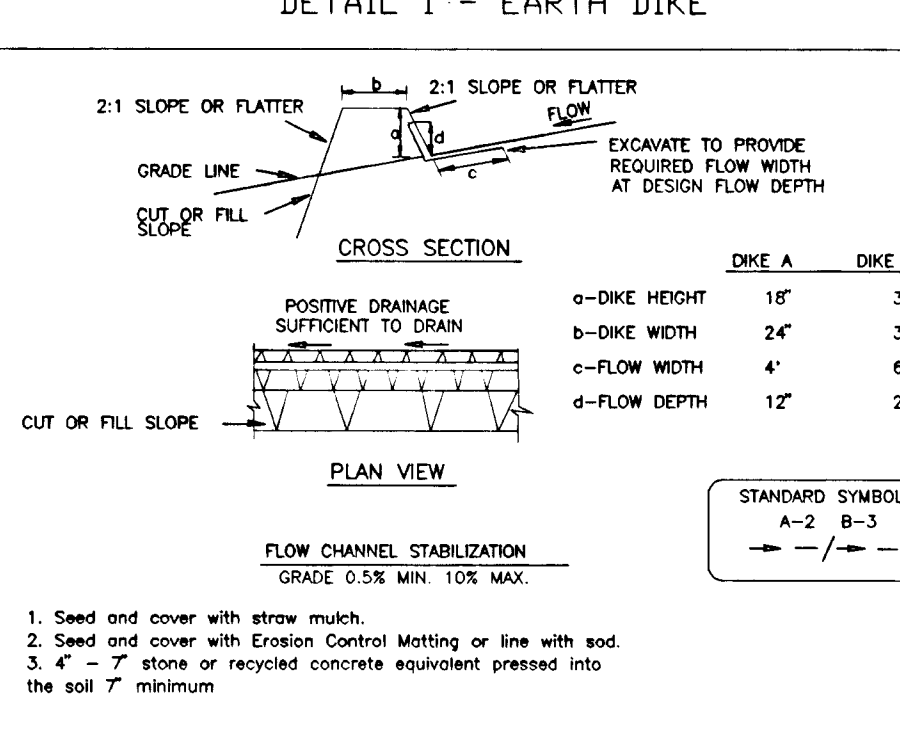
SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCE, SILT FENCE, EARTH DIKE, AND TREE PROTECTION FENCE. (3 DAYS)
3. PERFORM CLEARING AND GRUBBING AS NECESSARY AND START ROUGH GRADING. CONSTRUCTION TRAFFIC WILL UTILIZE GRACE DRIVE (FORMERLY MILL ROAD) FOR ACCESS ONTO SITE. (20 DAYS)

WETLAND QUALITY PLANTING DETAIL



DETAIL 1 - EARTH DIKE

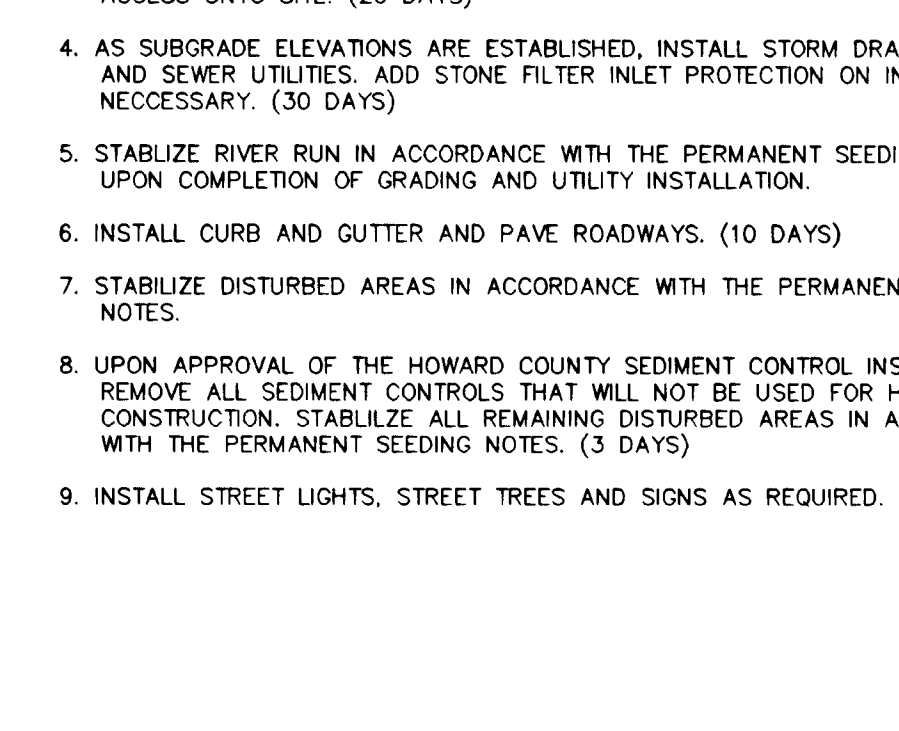


Construction Specifications
1. All temporary earth dikes shall have uninterrupted positive grades to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.

STONE OUTLET SEDIMENT TRAP - ST II

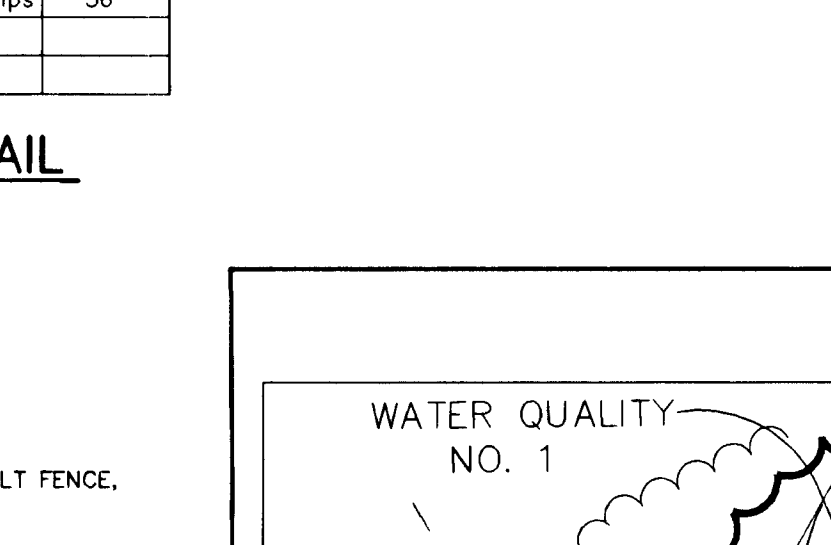
6. The structure shall be inspected periodically and after each rain and repairs made as needed.
7. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentration inflow shall be protected in accordance with Grass Stabilization Structure criteria.

RIPRAP OUTLET PROTECTION DETAIL



Construction Specifications
1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mass. The post hole shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material.

PROTECTIVE TREE FENCING ELEVATION DETAIL



Construction Specifications
1. All temporary earth dikes shall have uninterrupted positive grades to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.

WATER QUALITY PLANTING SPECIFICATIONS

1. PLANT SPECIES REQUIRED ARE NORMALLY UNAVAILABLE FROM STANDARD LANDSCAPE NURSERY SOURCES. THE CONTRACTOR MUST MAKE ARRANGEMENTS WITH COMPETENT WETLANDS RESTORATION SPECIALISTS TO INSURE A SUPPLY OF THE REQUIRED MATERIAL.

WATER QUALITY PLANTING SCHEDULE

Table with columns: SYMBOL, QTY, SPECIES, SIZE, SPACING. Rows include Juncus effusus, Feltria, and Scirpus pumilus.

BY THE DEVELOPER: [Signature] 7-17-96 DATE

BY THE ENGINEER: [Signature] 7-17-96 DATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE.

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. [Signature] 8-6-96 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. [Signature] 8/14/96 DATE

APPROVED: ANNE ARUNDEL COUNTY DEPARTMENT OF LAND DEVELOPMENT AND RESEARCH. [Signature] 8/14/96 DATE

APPROVED: JOHN HANNAH. [Signature] 8/13/96 DATE

DATE NO. REVISION

OWNER / DEVELOPER: THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044

PROJECT: VILLAGE OF RIVER HILL SECTION 2 AREA 6 PHASE 1 LOTS 1 THRU 66

TITLE: SEDIMENT CONTROL DETAILS AND NOTES AND LANDSCAPING PLAN

RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282

DATE: 7-17-96 DESIGNED BY: C.J.R. DRAWN BY: DAM PROJECT NO: HOCO102800 PH1010.DWG DATE: JULY 17, 1996 SCALE: AS SHOWN DRAWING NO. 10 OF 10