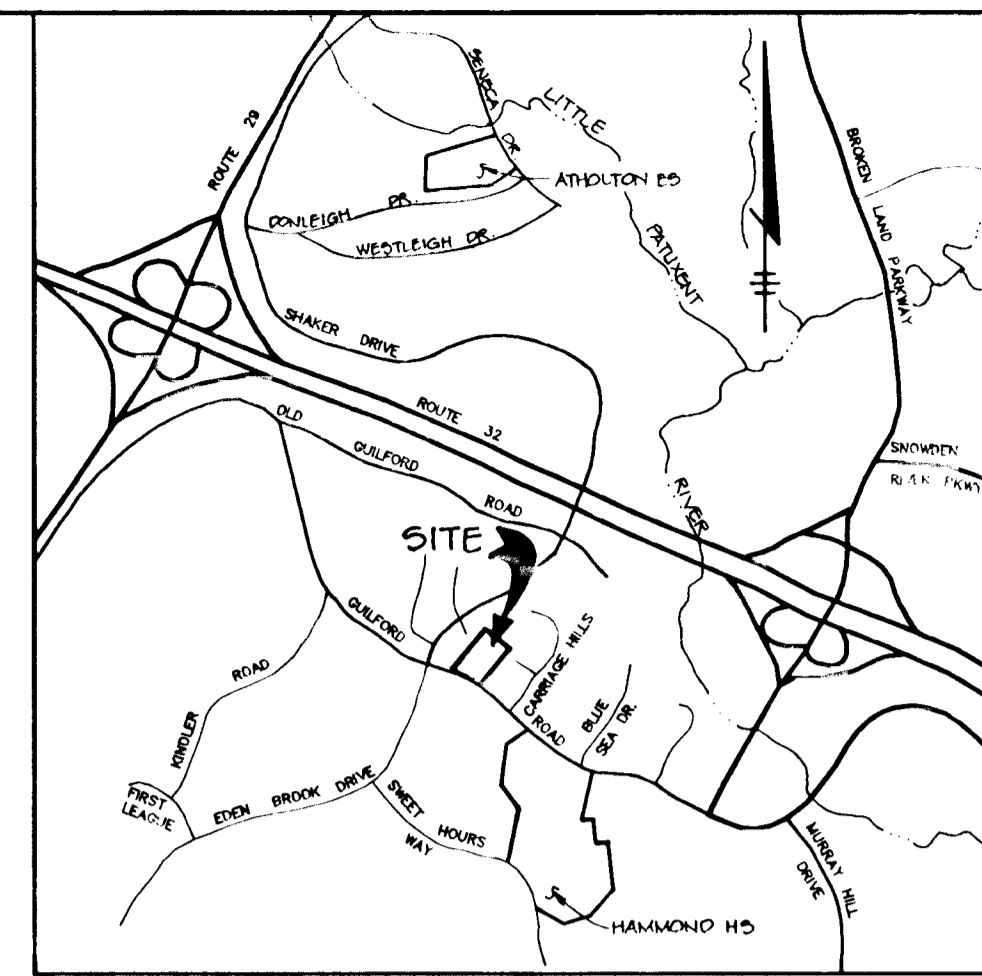


SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE OF SASSAFRAS COURT AND IMPROVEMENTS TO GUILFORD ROAD
3	GRADING, SEDIMENT CONTROL, DRAINAGE AREA MAP, PROFILES AND DETAIL SHEET
4	DETAIL SHEET

ROADWAY, STORM DRAIN & STORMWATER MANAGEMENT

COLES PROPERTY

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'

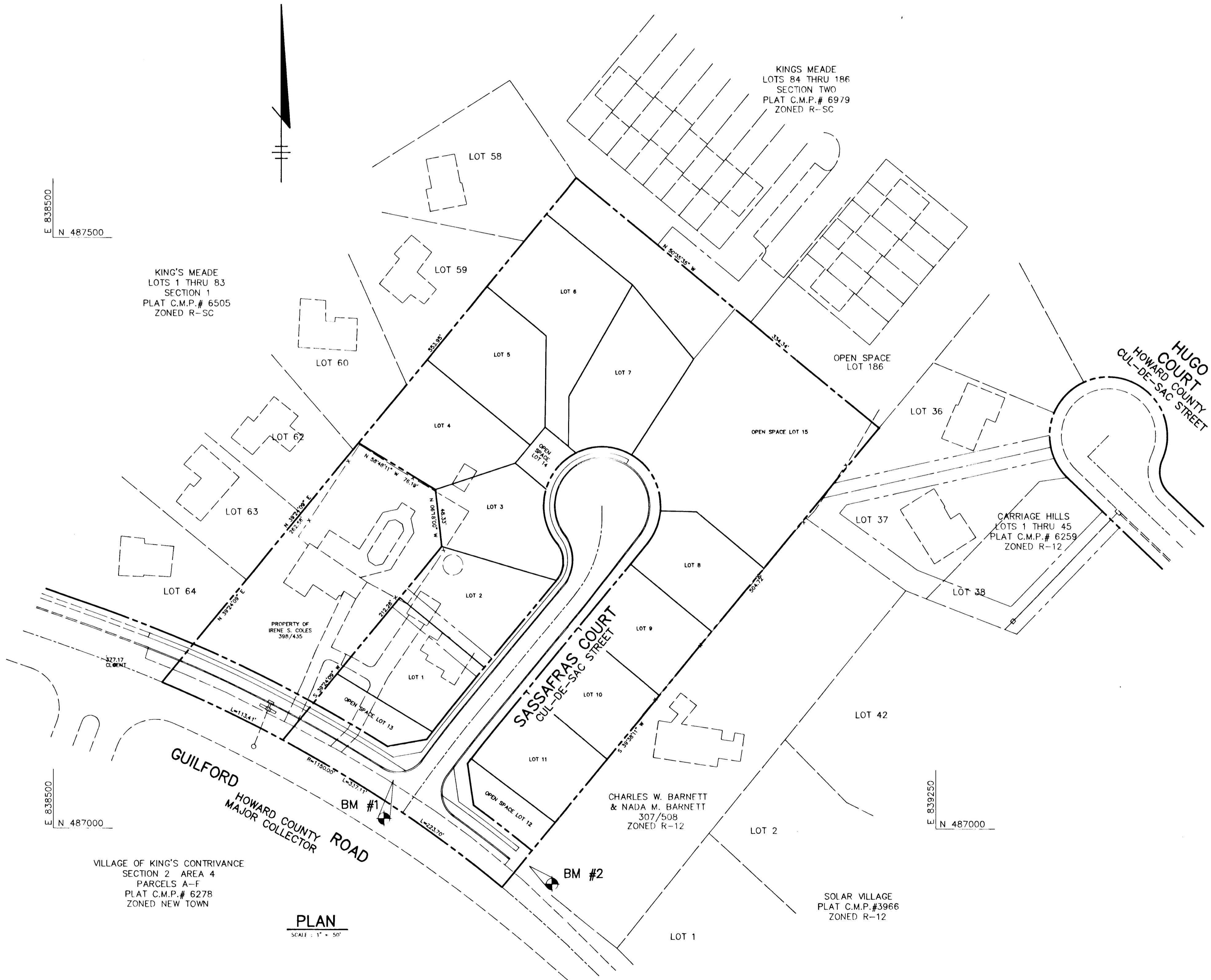
BENCHMARKS

BM #1 HO. CO. MONUMENT 2240003
N 487041.410 E 838786.085 ELEV 375.134
CONC. MON. 7'± N. OF N. EDGE ROAD, 0.3'
BELOW SURFACE

BM #2 HO. CO. MONUMENT 2240012
N 486968.704 E 838903.564 ELEV N/A
CONC. MON. 0.3' ABOVE SURFACE

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- 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.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION 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.
 - BELL TELEPHONE SYSTEM 303-3049
 - LONG DISTANCE CABLE DIVISION 303-3553 OR 3554
 - BALTIMORE GAS AND ELECTRIC CO. 539-8000
 - HOWARD COUNTY BUREAU OF UTILITIES 321-4900
 - COLONIAL PIPELINE 795-1390
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING 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.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL STREET CURB RETURNS SHALL HAVE 25' RADII UNLESS OTHERWISE NOTED.
- 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, 1990 AMENDMENTS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE HO CO ROAD DESIGN MANUAL, VOLUME III:
 - ALL CUL-DE-SACS < 600' LONG 25 M.P.H.
 - ALL 90° RIGHT OF WAYS 40 M.P.H.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- SUBJECT PROPERTY ZONED R-SC PER 6-20-06 COMPREHENSIVE ZONING PLAN.
- 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-A, VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO(S) S-92-19.
- LIGHT POLES AND FIXTURES FOR STREET LIGHTS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME II - ROAD AND BRIDGES, PAGE 4A-26.
- THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTIONS DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD, SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
- TOPOGRAPHY SHOWN HEREON IS FROM FIELD SURVEY BY RIEMER MUEGGE & ASSOC., INC. DATED MARCH, 1992.
- PUBLIC WATER AND SEWER SYSTEMS (CONTRACT NO. 24-3211-D) ARE TO BE INSTALLED FOR THIS SITE.
- STORMWATER MANAGEMENT FOR THIS DEVELOPMENT WILL BE PROVIDED BY AN INFILTRATION / DETENTION BASIN.
- THE REQUEST TO WAIVE SECTION 2.4.1 OF THE DESIGN MANUAL VOLUME III WHICH PERTAINS TO PROVIDING A 50' RIGHT OF WAY AND A 20' PAVEMENT WIDTH FOR CUL-DE-SACS WAS WAIVED TO ALLOW FOR A 40' RIGHT OF WAY AND A 24' PAVEMENT WIDTH APPROVED BY LETTER DATED JULY 21, 1999 FROM JAMES W. IRWIN, DIRECTOR.
- THE PLANTING OF THE 80' LANDSCAPED BUFFER AREAS SHALL BE DONE BY THE DEVELOPER IN ACCORDANCE WITH THE SITE DEVELOPMENT PLANS.
- ALL HANDICAP RAMPS ARE TO COMPLY WITH CURRENT A.D.A. REQUIREMENTS.



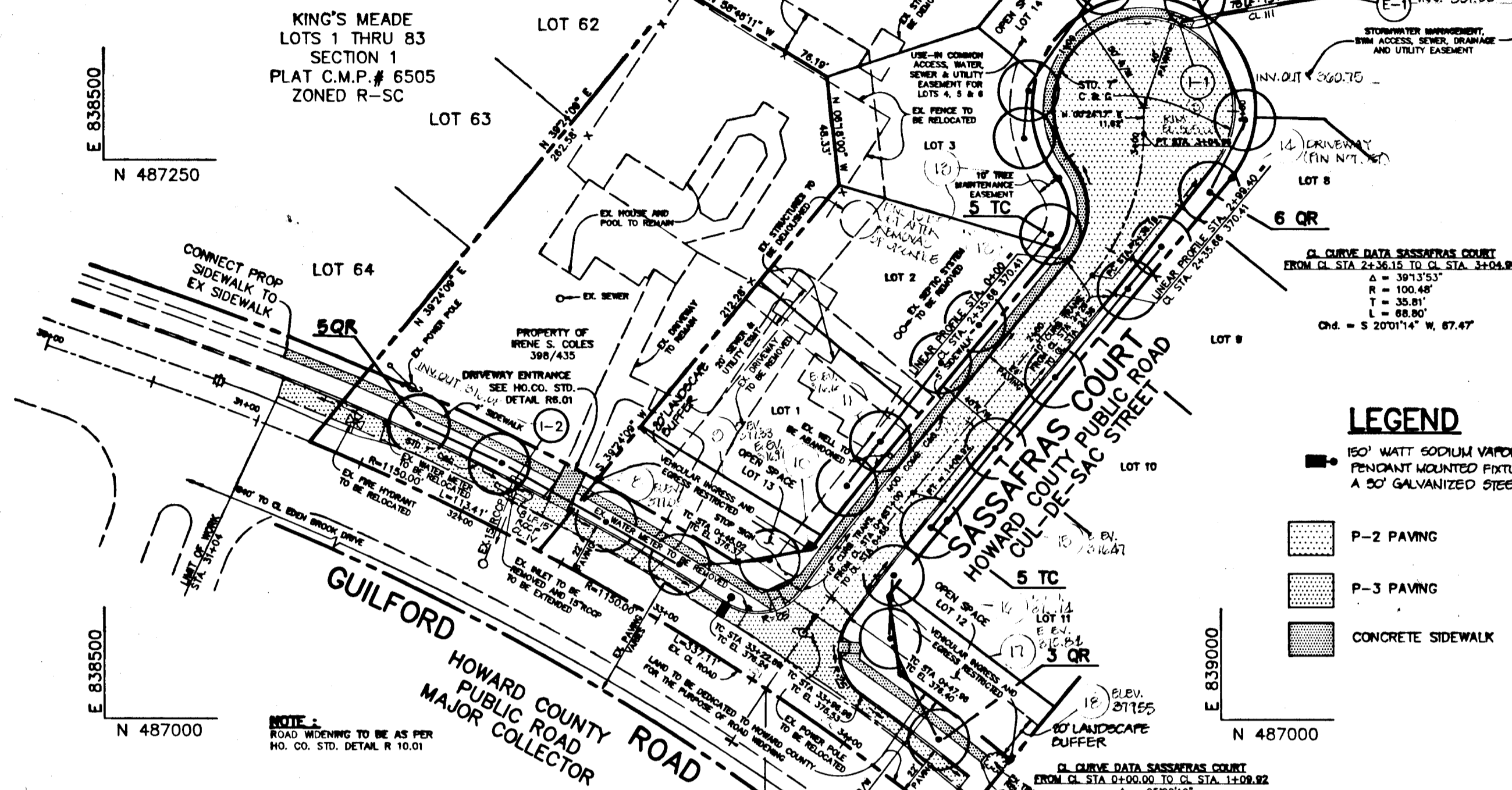
PLAN
SCALE: 1" = 50'

AS BUILT CERTIFICATE	
APPROVED:	DATE
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING <i>Emma Hulmatt</i>	2/29/93
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>John M. Tengeman</i>	2/16/93
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS <i>William E. Reed</i>	2-19-93
DATE	NO.
OWNER / DEVELOPER	REVISION
IRENE S. COLES c/o SARGENT DEVELOPMENT CORP I 13243 WESTMEATH LANE CLARKSVILLE, MARYLAND 21029	
PROJECT: COLES PROPERTY LOTS 1 THRU 15	
AREA: TAX MAP NO. 42, PARCEL 12 & P/O 325 ZONED R-SC 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE: TITLE SHEET	
RIEMER MUEGGE & ASSOCIATES, INC. A Land Planning, Engineering and Consulting Firm 8818 Centre Park Drive • Suite 200 • Columbia, Md 21045 410-997-8900 FAX: 410-997-9282	
DATE: 1-15-93	DESIGNED BY: CJR
DRAWN BY: DAM	PROJECT NO: 84502
DATE: JANUARY 15, 1993	SCALE: AS SHOWN
DRAWING NO. 1 OF 4	

1656

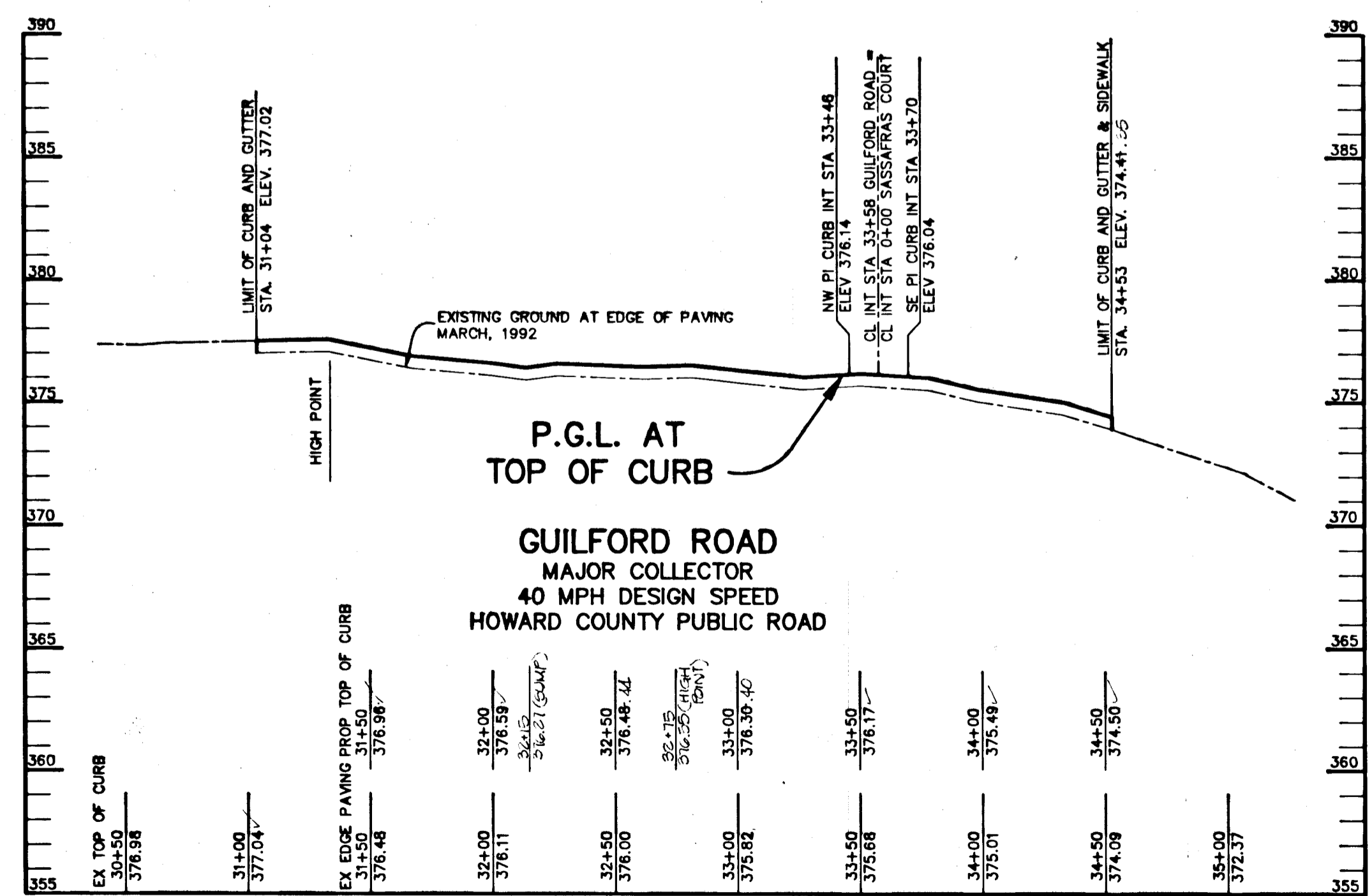
PLANT LIST

14	QR	QUERCUS RUBRA	2-1/2" - 3" CAL	B+B	FULL CROWN
		RED OAK	12"-14" HT.	B+B	FULL CROWN
10	TC	TILIA CORDATA	2-1/2" - 3" CAL	B+B	FULL CROWN
		LITTLELEAF LINDEN	12"-14" HT.	B+B	FULL CROWN

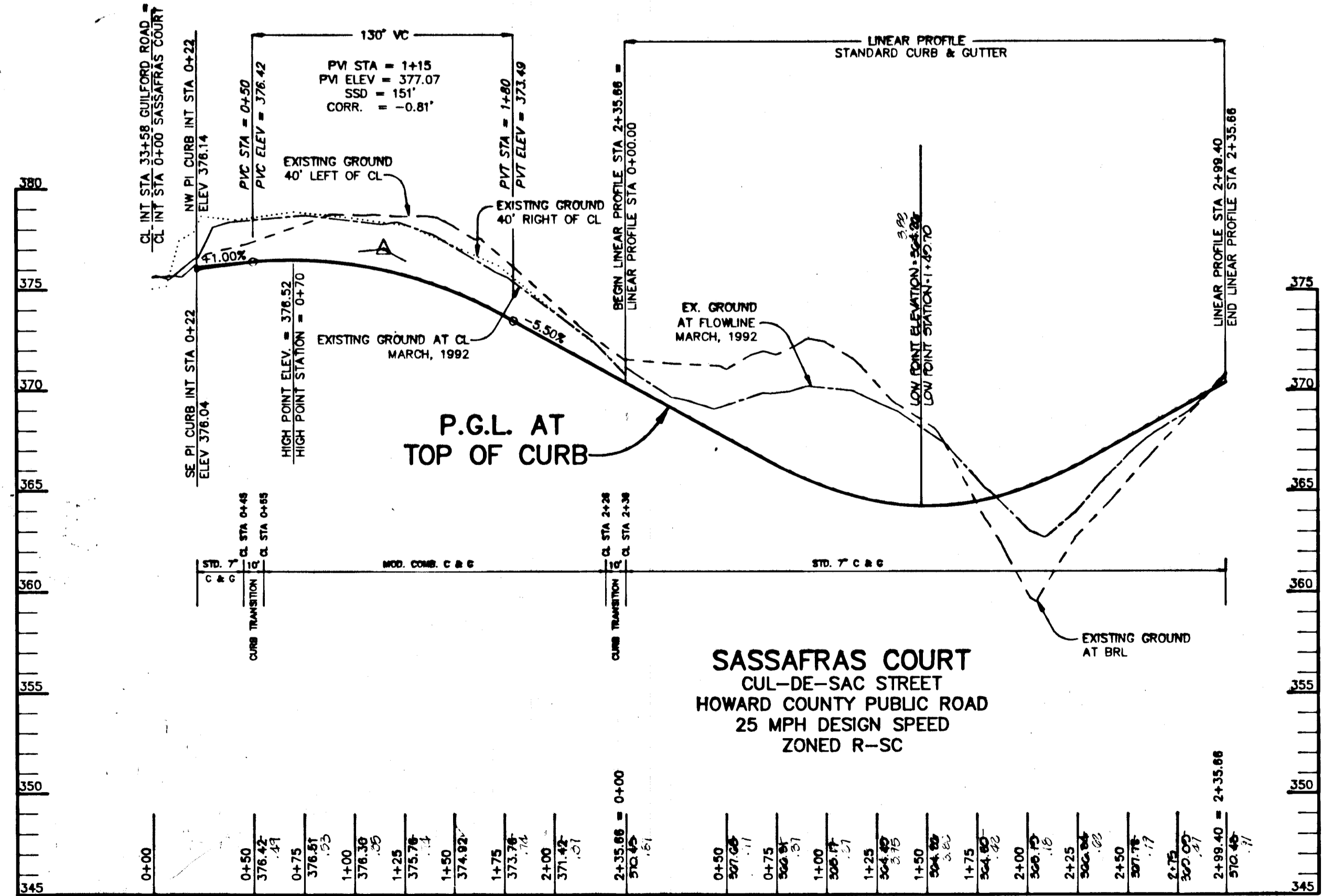


VILLAGE OF KING'S CONTRIVANCE
SECTION 2 AREA 4
PARCELS A-F
PLAT C.M.P.# 6278
ZONED NEW TOWN

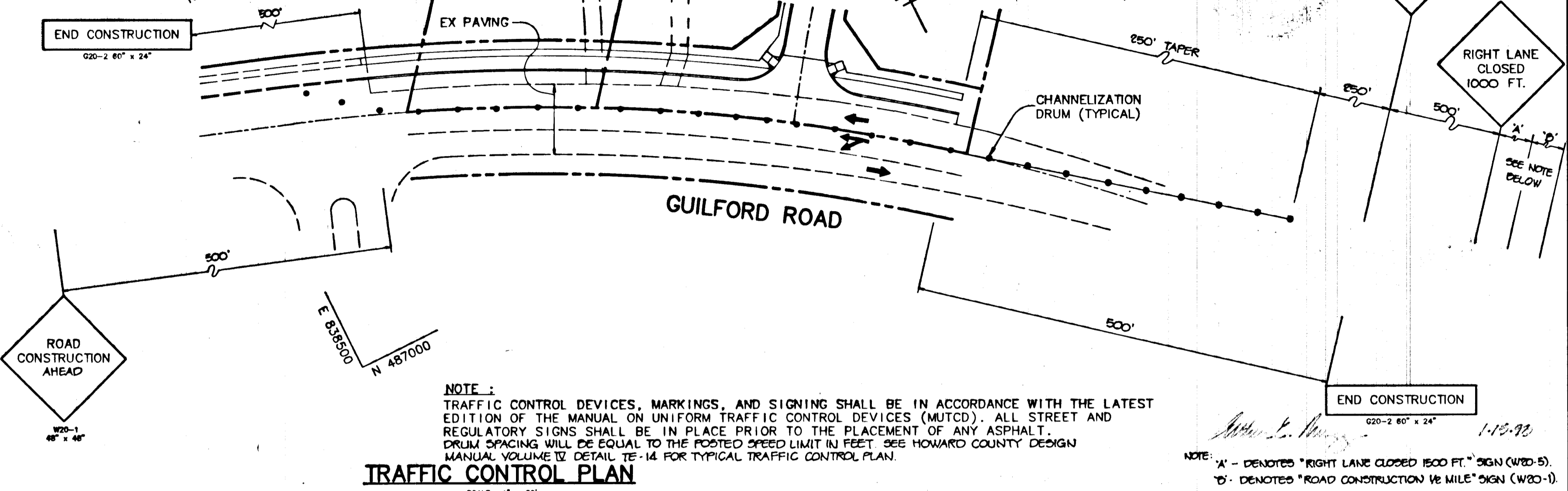
PLAN
SCALE: 1" = 50'



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



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



AS BUILT CERTIFICATE

DATE: 11.8.94

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Anna Holmuth 2/4/93
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
John M. Penson 2/14/93
CHIEF, BUREAU OF HIGHWAYS

John M. Penson 2.14.93
CHIEF, BUREAU OF ENGINEERING

DATE NO. REVISION

OWNER / DEVELOPER
IRENE S. COLES
c/o SARGENT DEVELOPMENT CORP. I
13245 WESTMEATH LANE
CLARKSVILLE, MARYLAND 21029

PROJECT
COLES PROPERTY
LOTS 1 THRU 15

AREA
TAX MAP NO. 42 PARCEL 12 & PD 525 ZONED R-CC
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
PLAN AND PROFILE OF
SASSAFRAS COURT AND
IMPROVEMENTS TO GUILFORD RD.

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX: 410-997-9282

DATE: 1.13.95

DESIGNED BY: C.JR

DRAWN BY: DAM

PROJECT NO.: 84502

DATE: JANUARY 13, 1995

SCALE: AS SHOWN

DRAWING NO. 2 OF 4

ARTHUR E. MUEGGE 018707

1656

E. 838500
N 487500

KING'S MEADE
LOTS 1 THRU 83
SECTION 1
PLAT C.M.P.# 6505
ZONED R-SC

KING'S MEADE
LOTS 84 THRU 186
SECTION TWO
PLAT C.M.P.# 6979
ZONED R-SC

0'	CLAYEY SILT WITH TRACES OF SAND, REDDISH BROWN (CL)
5'	GRAVELLY SANDY LOAM
10'	SILTY SAND WITH TRACES OF MICA, MEDIUM TO FINE GRAINED, BROWN (SM)
	SANDY LOAM
12'	SAND WITH TRACES OF MICA, AND A LITTLE GRAVEL, MEDIUM TO FINE GRAINED, GREYISH BROWN (SP)
	LOAMY SAND
12'	TERMINATED AT 12 FT.

0'	SILTY CLAY WITH TRACES OF MICA, BROWN (CL-ML)
	GRAVELLY LOAM
2.5'	SAND WITH TRACES OF MICA AND LITTLE GRAVEL MEDIUM TO FINE GRAINED, GREYISH BROWN (SP)
	LOAMY SAND
7.5'	SILTY SAND WITH TRACES OF MICA, MEDIUM TO FINE GRAIN, BROWN (SM)
10'	SANDY LOAM
10'	TERMINATED AT 10 FT.

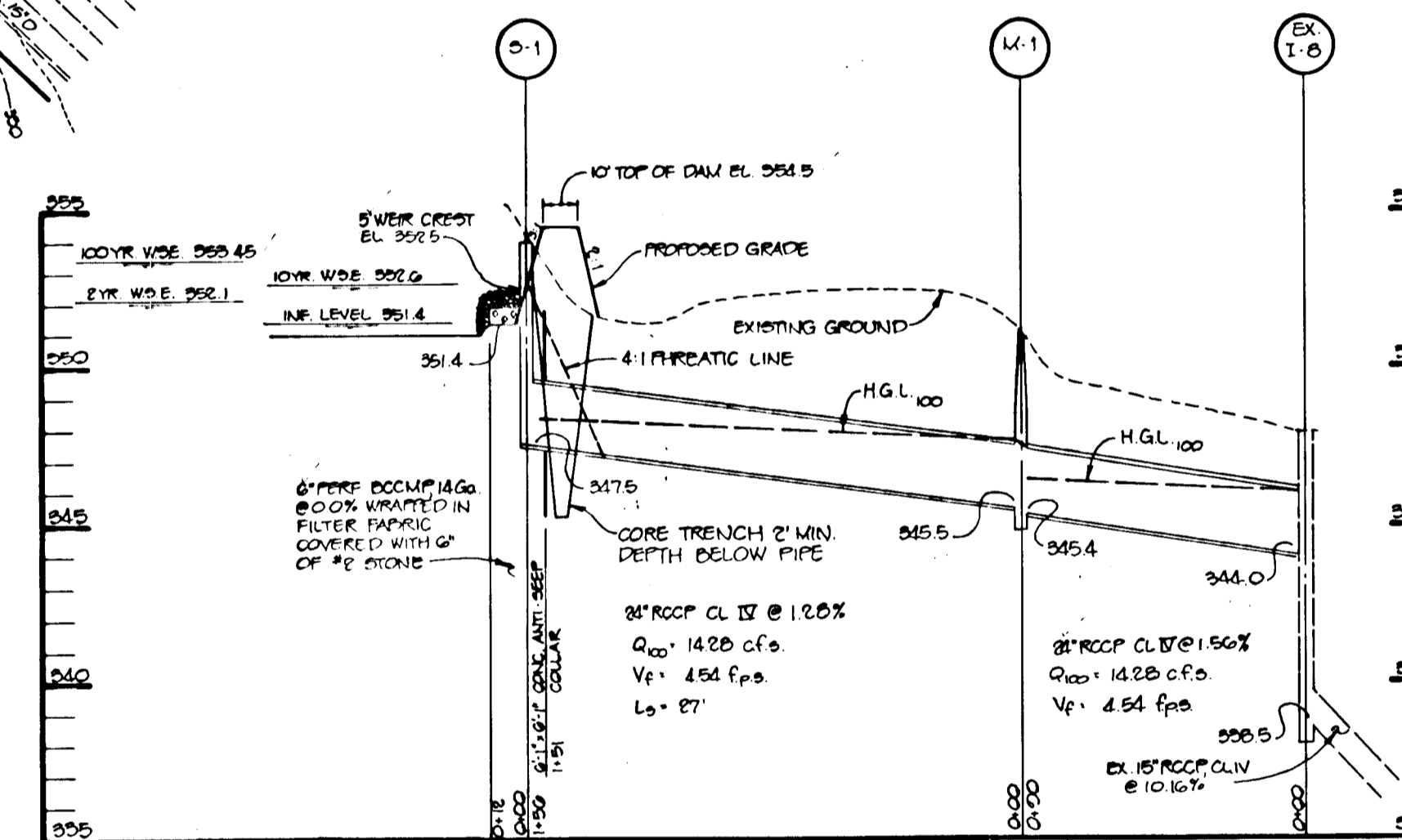
BORING B-1
NO SCALE

BORING B-2
NO SCALE

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	TC ELEV.	INV. IN	INV. OUT	REMARKS
I-1	A-5 INLET	LP STA 1+42.70	264.22	300.41		HO. CO. STD. DETAIL SD 4.01
I-2	A-5 INLET	22' LT. OF CL GUILFORD RD	376.42	372.31		HO. CO. STD. DETAIL SD 4.01
E-1	15" CONC. END SECTION	SEE PLAN SHEET 2		351.00		HO. CO. STD. DETAIL SD 5.51
M-1	4" DIA. PRECAST MANHOLE	SEE THIS SHEET	351.00	345.50	345.40	HO. CO. STD. DETAIL G 9.12
D-1	MODIFIED A-5 INLET	SEE THIS SHEET	354.00	351.40	347.50	HO. CO. STD. DETAIL SD 4.01 & DETAIL THIS SHEET

PROFILE THRU PRINCIPAL SPILLWAY

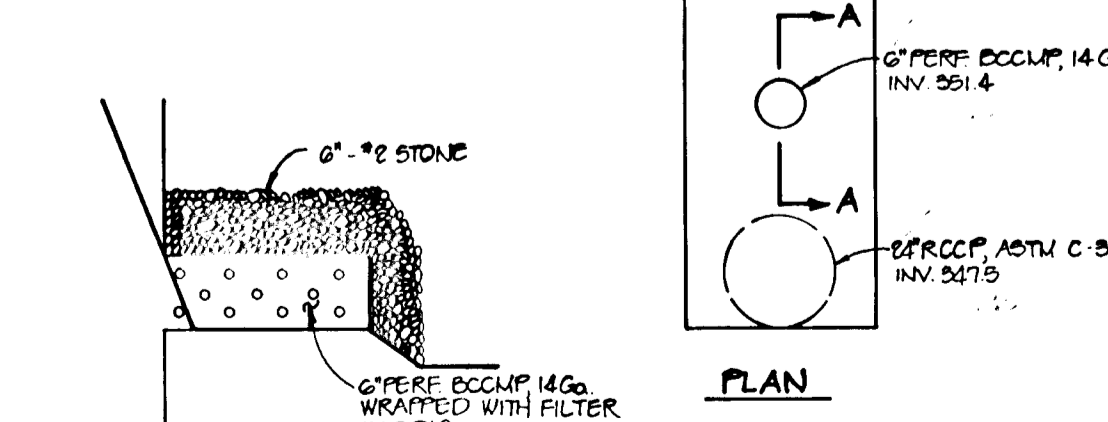
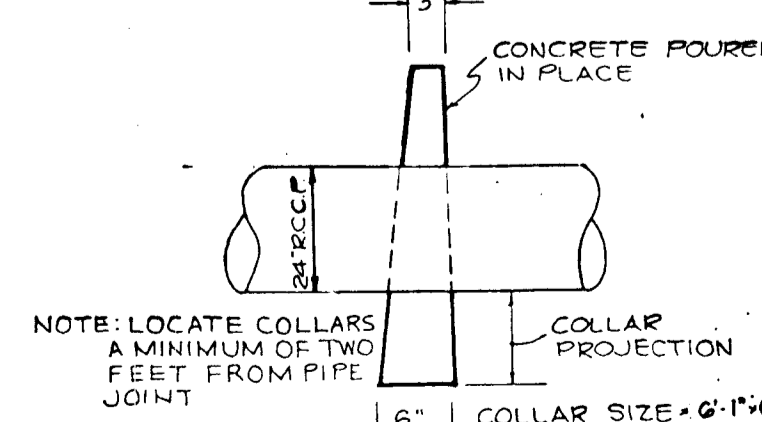
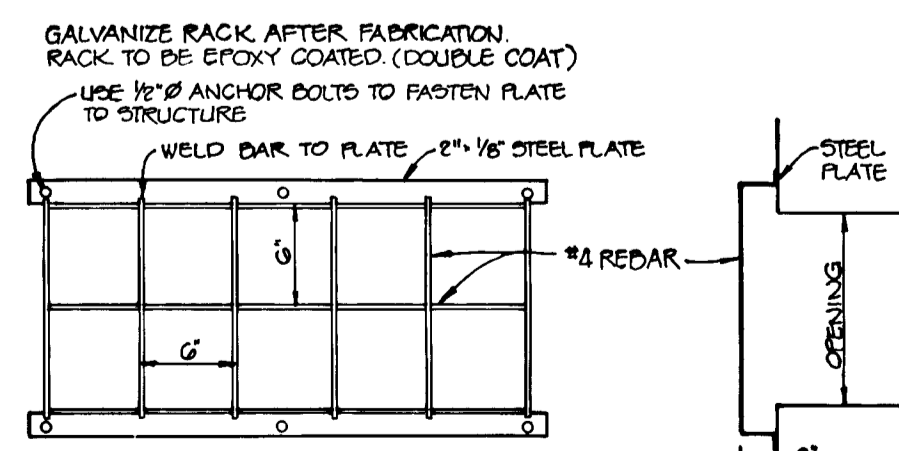


SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT.
- INSTALL SILENT, EARTH DIKE, SILT FENCE, TREE FENCE AND STONE OUTLET SEDIMENT TRAP. NOTE: CONTRACTOR TO ENSURE THAT HEAVY CONSTRUCTION TRAFFIC AVOIDS AREA TO BE USED FOR INFILTRATION. (2 DAYS)
- BEGIN GRADING FOR ROADWAY CONSTRUCTION SASSAFRAS COURT.
- REMOVE EXISTING STRUCTURES AND DRIVEWAY AS SHOWN ON SHEET 2. (1 WEEK)
- PERFORM GUILFORD ROAD WIDENING INCLUDING UTILITY RELOCATION. SEE TRAFFIC CONTROL PLAN SHEET 2 OF 4. (3 DAYS)
- INSTALL I-1. DO NOT INSTALL THE PIPE FROM I-1 TO E-1 UNTIL THE GRADING FOR SASSAFRAS COURT IS COMPLETED AND STABILIZED.
- INSTALL CURB AND GUTTER AND STABILIZE ROAD BED WITH BASE COURSE. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR REMOVE SEDIMENT TRAP #1.
- INSTALL INFILTRATION BASIN, INCLUDING PIPE FROM I-1 TO E-1.
- PAVE ROADWAYS.
- STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROLS.

LEGEND

- DRAINAGE AREAS
- LIMIT OF DISTURBANCE
- SILT FENCE
- STONE FILTER INLET PROTECTION
- TREE PROTECTION FENCE



PLAN

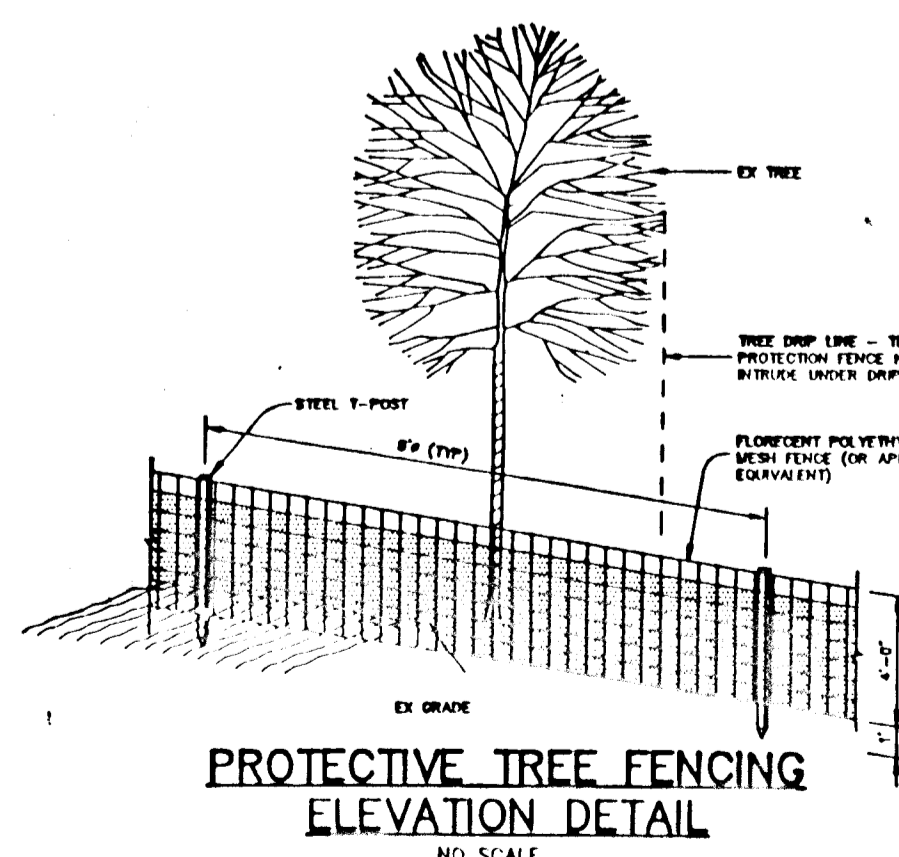
SCALE: 1" = 50'

SOLAR VILLAGE
PLAT C.M.P.#3966
ZONED R-12

NOTE: GRADING INDICATED WITHIN THE BUILDING LOTS IS TEMPORARY FOR THE PURPOSE OF ROAD GRADING AND INSTALLATION OF SEDIMENT CONTROL MEASURES. THE FINAL SITE GRADING FOR THE BUILDING LOTS WILL BE IN COMPLIANCE WITH THE MINIMUM LOT SIZE REQUIREMENTS OF THE SITE DEVELOPMENT PLAN.

TREE PRESERVATION PROCEDURES

- THE EDGE OF WORK TO BE PROTECTED SHALL BE MARKED IN THE FIELD BY THE PROPERTY OWNER OR THE CONTRACTOR TO BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES.
- PROTECTIVE FENCING SHALL BE INSTALLED AT THE END OF THE LINE OF THE EDGE OF WORK TO BE PROTECTED. THE FENCING SHALL BE CONSTRUCTED OF LIGHT GAUGE GALVANIZED STEEL PIPE AND SHALL BE 4 FEET HIGH.
- PROTECTIVE FENCING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES.
- PROTECTIVE FENCING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES.
- PROTECTIVE FENCING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING AND CONSTRUCTION ACTIVITIES.



BUILT CERTIFICATE

DATE: 11.8.94

BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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.

Developer: *James B. Sargent* DATE: 1.15.93

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Engineer: *Arthur E. Muegge* DATE: 1.15.93

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

U.S. SOIL CONSERVATION SERVICE DATE: 2/3/93

HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. APPROVED: *Anna M. Halm* DATE: 2/24/93

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. APPROVED: *John J. Dorman* DATE: 2/17/93

CHIEF, LAND DEVELOPMENT DIVISION

John M. Torgerson DATE: 2/16/93

CHIEF, BUREAU OF HIGHWAYS

William E. Pugh DATE: 2-19-93

CHIEF, BUREAU OF ENGINEERING

DATE	NO.	REVISION

OWNER / DEVELOPER: IRENE S. COLES, c/o SARGENT DEVELOPMENT CORP. I, 13243 WESTMEATH LANE, CLARKSVILLE, MARYLAND 21029

PROJECT: COLES PROPERTY, LOTS 1 THRU 15

AREA: TAX MAP NO. 42 PARCEL 12 & P10 320 ZONED R-SC, 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: GRADING, SEDIMENT CONTROL, DRAINAGE AREA MAP, PROFILES AND DETAIL SHEET

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX: 410-997-9282

DATE: 1.15.93

DESIGNED BY: CJR
DRAWN BY: DAM
PROJECT NO: 84502
DATE: JANUARY 15, 1993
SCALE: AS SHOWN
DRAWING NO. 3 OF 4

ARTHUR E. MUEGGE #18707
PROFESSIONAL ENGINEER
STATE OF MARYLAND
11-8-94

1657

PERMANENT SEEDING

Seedbed Preparation: Flat areas and slopes up to 3:1 slope shall be limed and tilled to a depth of at least 3 inches. The top layer of soil shall be loosened by raking, disking or other acceptable means before seeding. Slopes steeper than 3:1 shall have the top 1 to 3 inches of soil scarred and tilled before seeding.

Soil Amendments: Use one of the following schedules.

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 LBS/1000 SF) and 600 LBS per acre 10-10-10 fertilizer (14 LBS/1000 SF) before seeding. However, on sites with upper three inches of soil. At time of seeding, apply 400 LBS per acre 30-0-0 ureaform fertilizer (11 LBS/1000 SF).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 LBS/1000 SF) and 1000 LBS per acre 10-10-10 fertilizer (23 LBS/1000 SF) before seeding. However, on sites with upper three inches of soil.

On slopes steeper than 3:1 slope, the lime and fertilizer shall be worked the best way possible. On seeding land, the final harrowing or disking operation should be on the contour wherever feasible. No attempt should be made to drop any direct seed to make the soil surface smooth after disking.

Seeding:
For the period March 1 thru April 30, and August 1 thru October 15. Seed with 80 LBS per acre (14 LBS/1000 SF) of Kentucky 31 Tall Fescue.

For the period May 1 thru July 31. Seed with 80 LBS Kentucky 31 Tall Fescue per acre and 2 LBS per acre (0.5 LBS/1000 SF) of Weeping Lovegrass.

For the period October 16 thru February 28, plant site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
Option (2) Use seed.
Option (3) Seed with 80 LBS/acre (14 LBS/1000 SF) Kentucky 31 Tall Fescue and mulch with 2 tons per acre well-anchored straw.

Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed and fertilizer) on a firm, moist seedbed. Maximum seeding depth should be 1/4 inch on clayey soils and 1/2 inch on sandy soils, when using other than hydroseeder method of application. Note: If hydroseeding is used and the seed and fertilizer is mixed, they shall be mixed on site and the seeding shall be immediate without interruption.

Mulching: See Mulching Specifications.
Irrigation:
If soil moisture is deficient, apply new seedlings with adequate water for plant growth until they are firmly established. If feasible, irrigation should be especially true when seedlings are more than 12 inches in height, in abnormally dry or hot seasons, or on adverse sites.

Maintenance:
Irrigation - If soil moisture becomes deficient, irrigate to prevent loss of stand of protective vegetation, if feasible.
Repairs - Inspect all seeded areas for fullness and make necessary repairs, replacements, and reseeding within the planting season, or as soon as possible.

- 1) If field is inadequate for erosion control, overseed and fertilize using half of the rates originally applied.
- 2) If stand is over 80% damaged, reestablish following original lime, fertilizer, seeding preparation and seeding recommendations.

TEMPORARY SEEDING

Seedbed Preparation:
When the area to be seeded has been recently loosened to the extent that an adequate seedbed exists, no additional treatment is required. However, when the area to be seeded is rocky, eroded, and more than 3 inches of soil shall be loosened by disking, raking or other acceptable means before seeding.

Soil Amendments:
For temporary seedings, fertilizer shall be applied at the rate of 600 LBS per acre (15 LBS/1000 SF) using 10-10-10 or equivalent. Soils which are highly acidic should be limed.

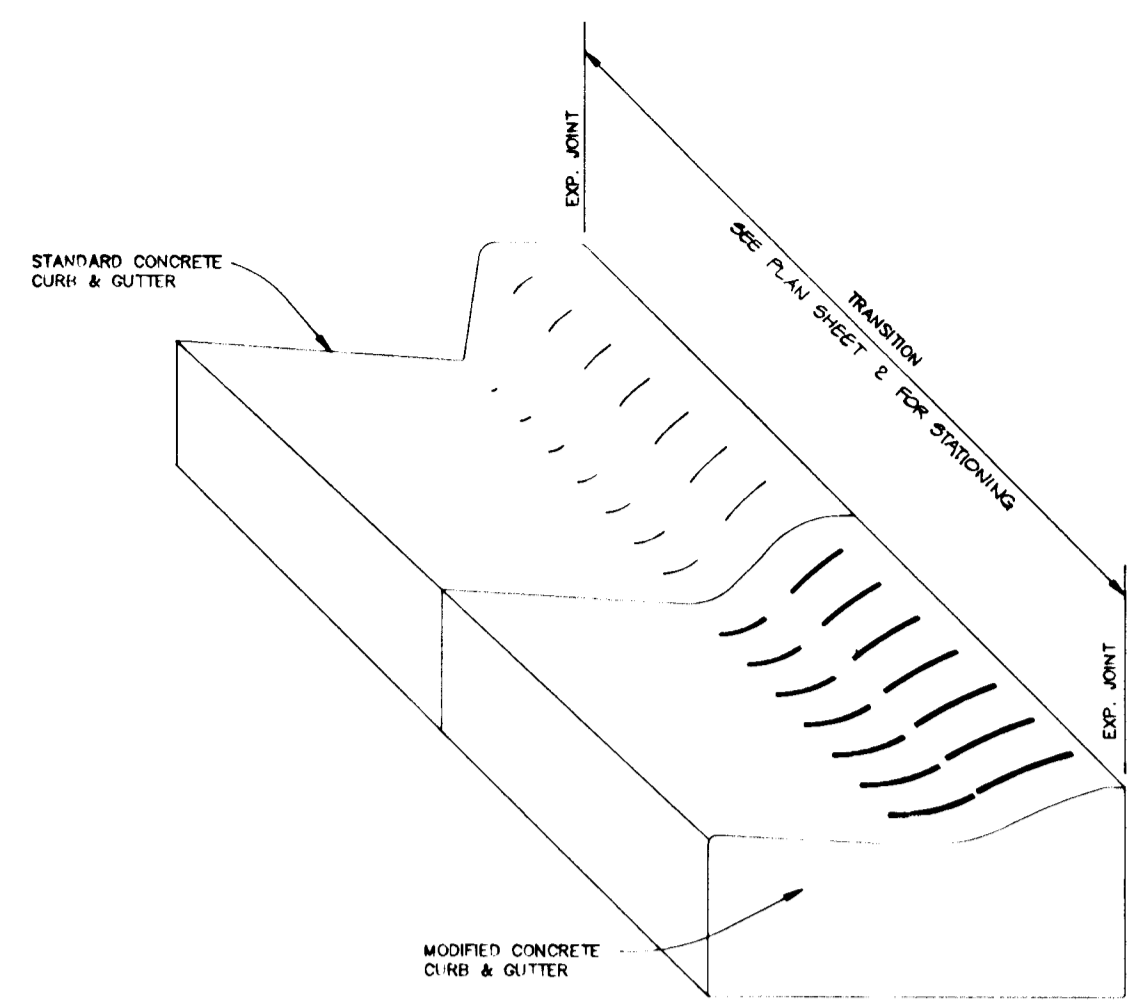
Seeding:
For periods March 1 thru April 30 and August 1 thru November 15. Seed with 7 1/2 BU per acre (3.2 LBS/1000 SF) of annual ryegrass.
For the period May 1 thru August 14. Seed with 3 LBS per acre (0.7 LBS/1000 SF) of Weeping Lovegrass.

For the period November 16 thru February 28, plant site by Applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use seed.
Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry includes seed and fertilizer).

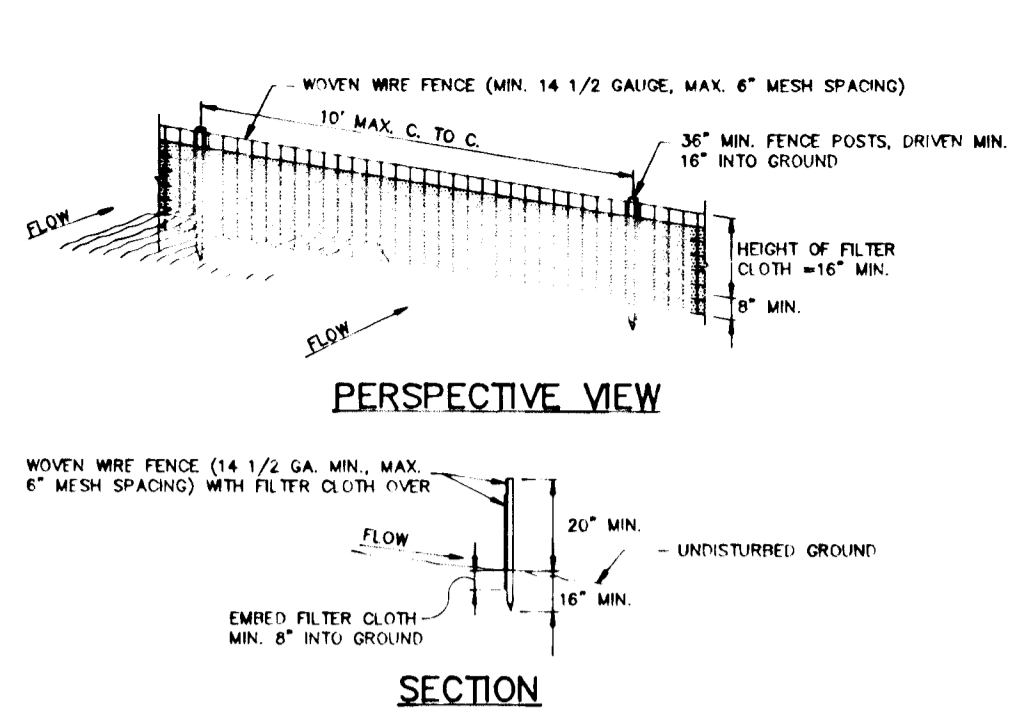
Mulching: See Mulching Specifications.

SEDIMENT CONTROL NOTES

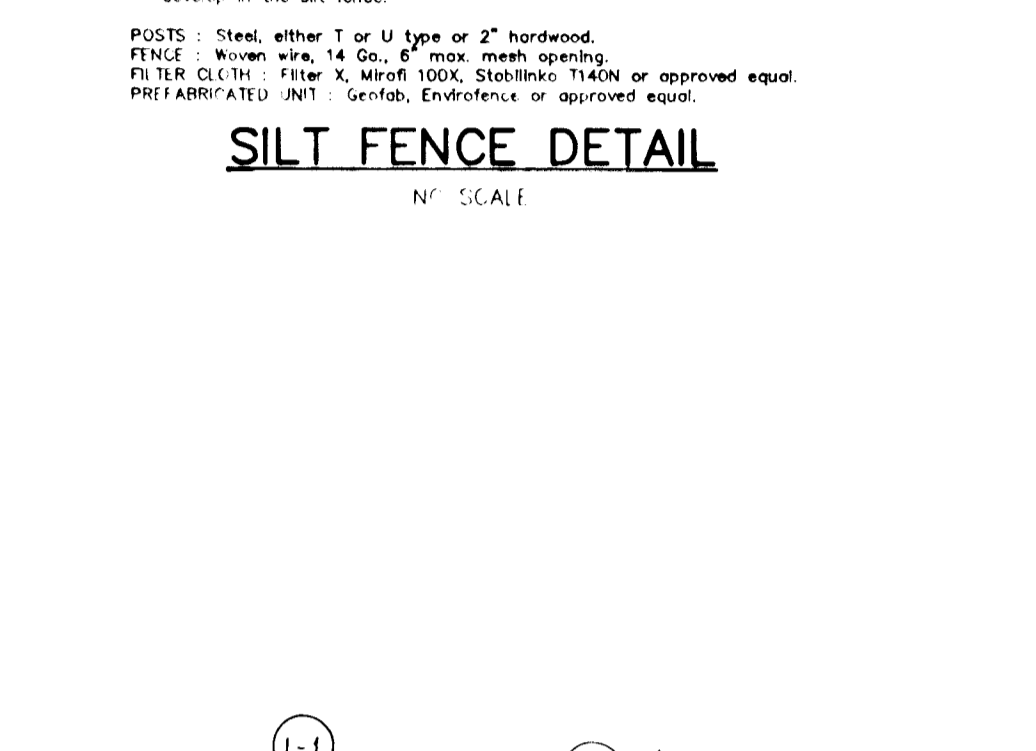
1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (887-2172).
2. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter pipes and all slopes greater than 3:1, (b) 14 days on all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 53), and (Sec. 54) temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dikes do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:
Total Area of Site: 3.35 acres
Area Disturbed: 1.82 acres
Area to be roofed or paved: 0.38 acres
Area to be veg. stabilized: 1.14 acres
Total Cut: 4,470 cu. yds.
Total Fill: 635 cu. yds.
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be rechecked on the same day of disturbance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control Inspector.
10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
12. Cut and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between borrow, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unstable material. The contractor shall familiarize himself with site conditions which may affect the work.
13. Borrow site to be pre-approved by the sediment control inspector or, in case of access material, an approved sediment control plan will be needed to detail access material off-site.



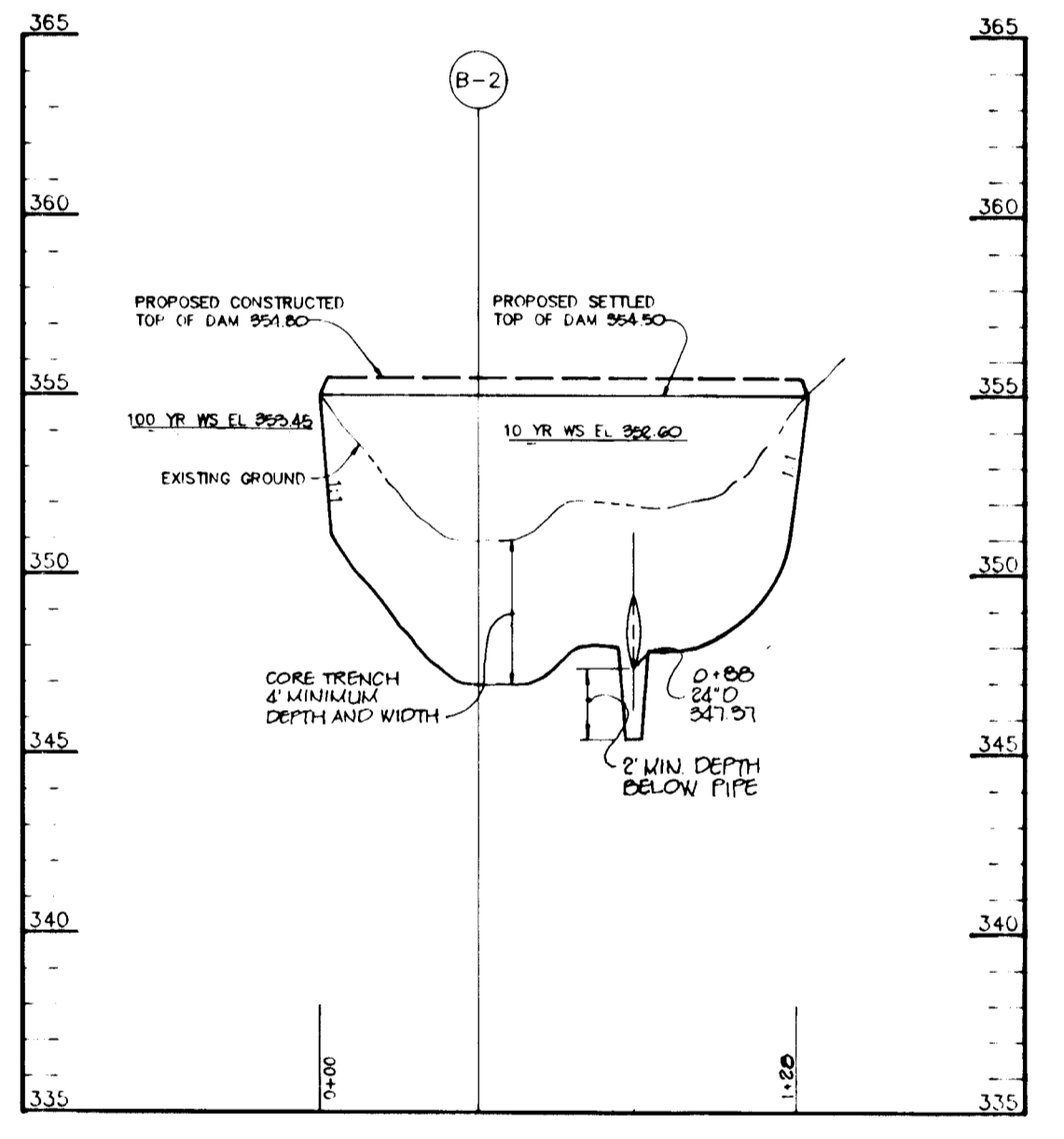
CONCRETE CURB AND GUTTER TRANSITION
NO SCALE



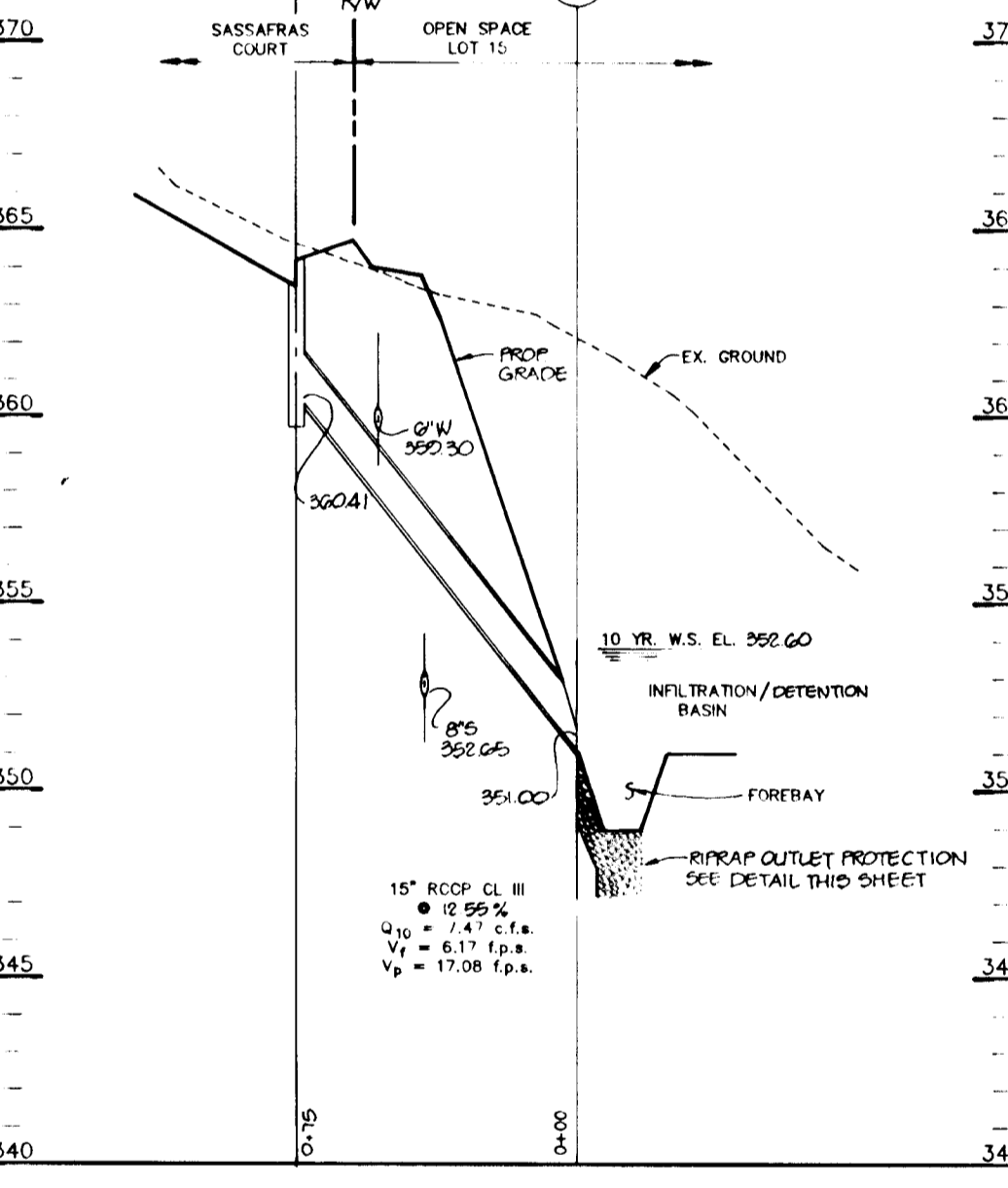
SILT FENCE DETAIL
NO SCALE



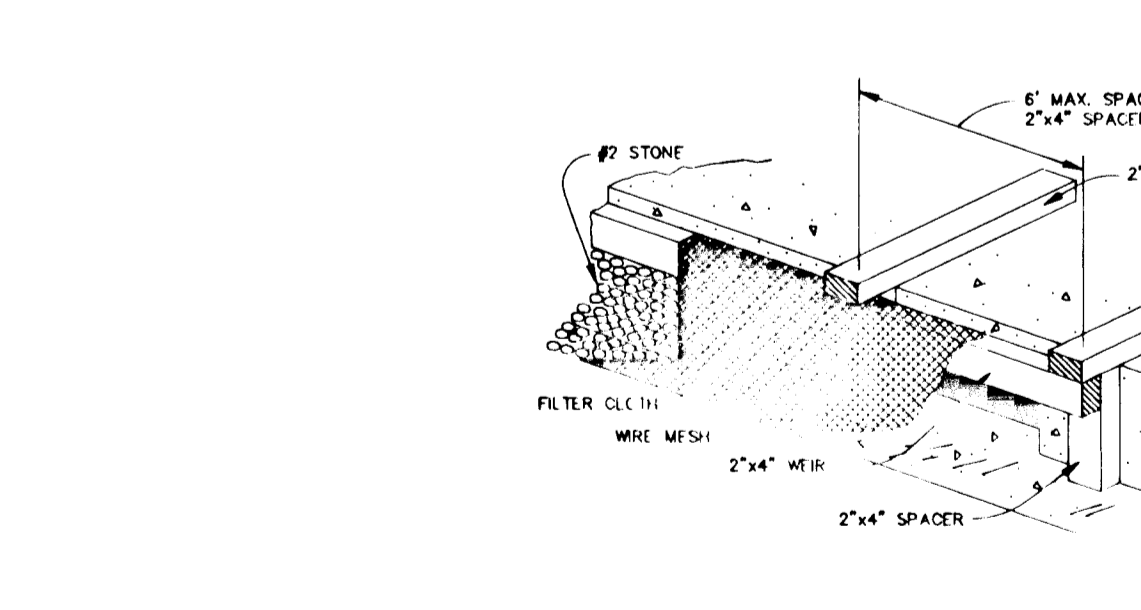
TREE PLANTING DETAIL
NO SCALE



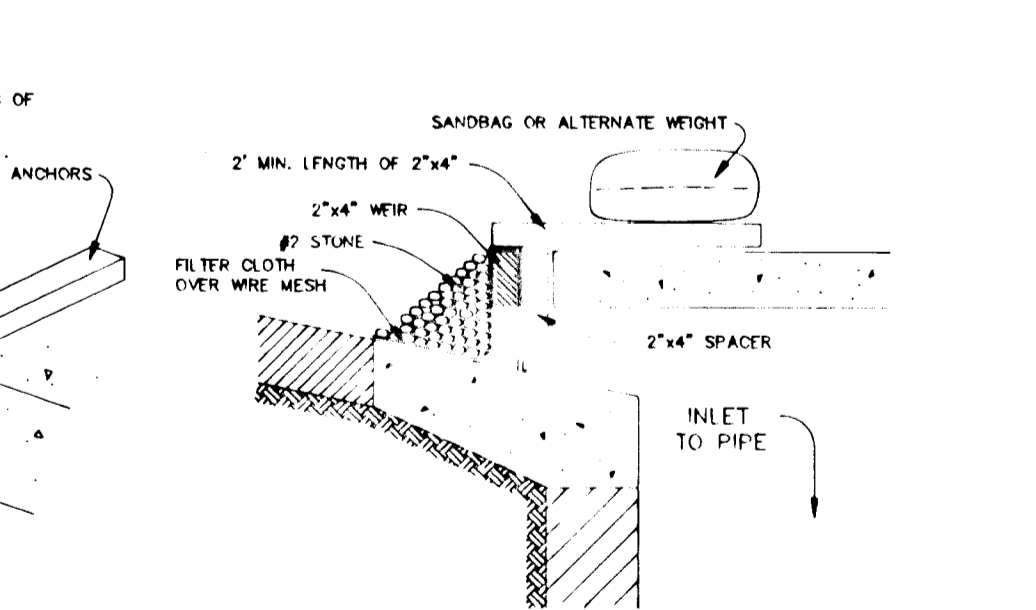
PROFILE ALONG CL OF EMBANKMENT
NO SCALE



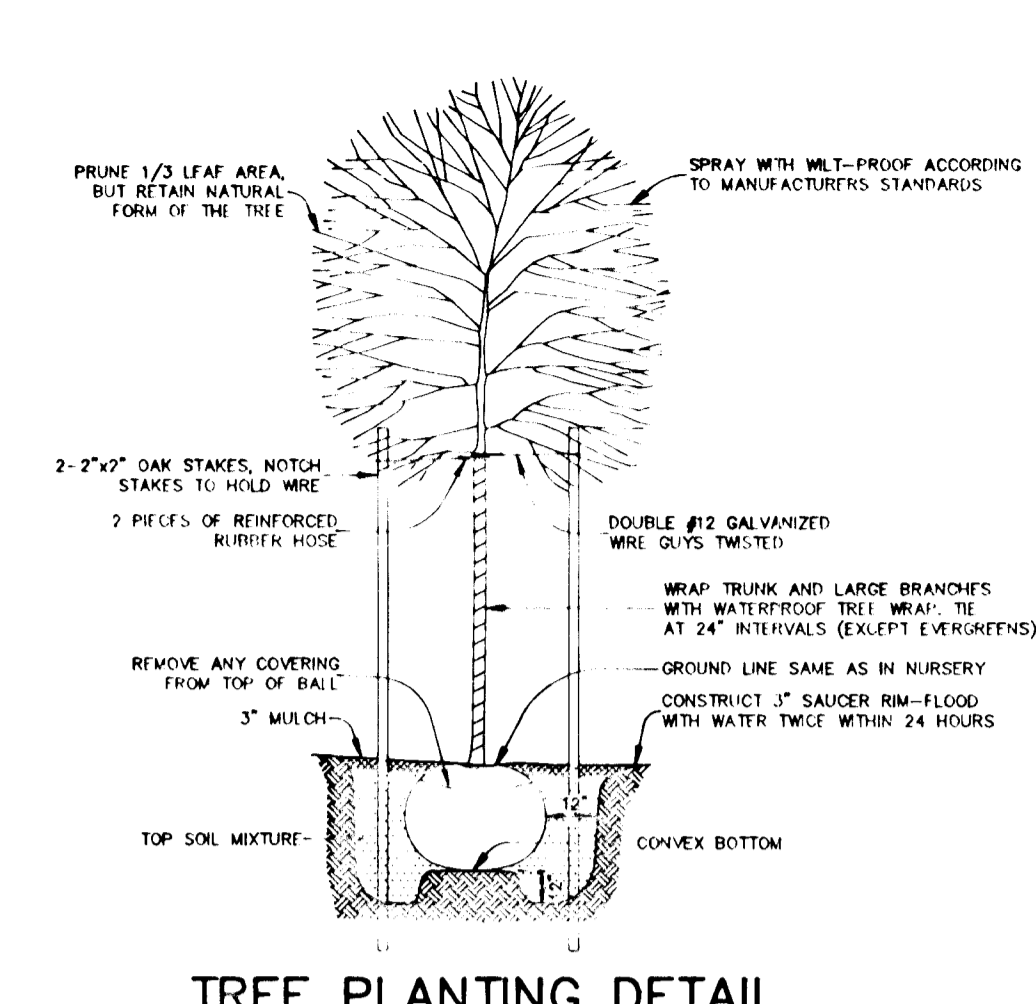
STORM DRAIN PROFILE
NO SCALE



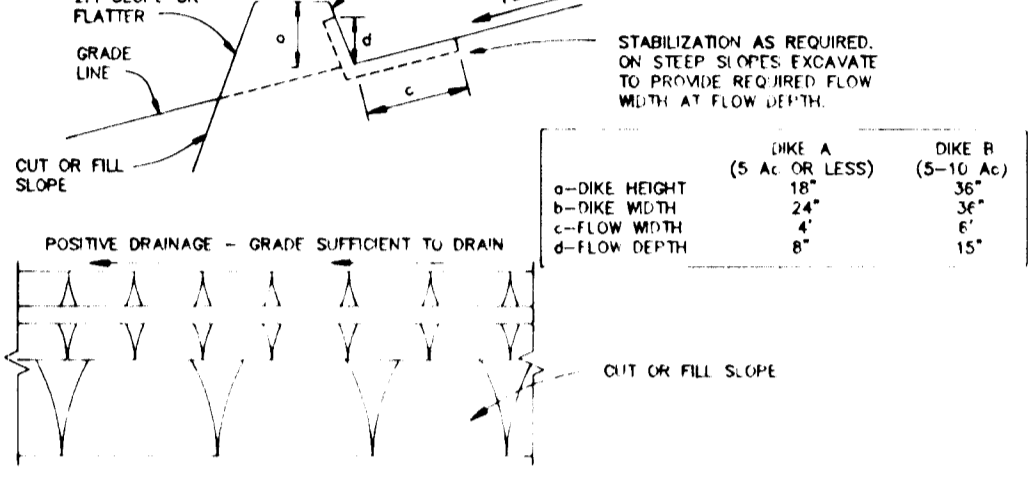
STONE FILTER INLET PROTECTION
NO SCALE



STONE OUTLET SEDIMENT TRAP
NO SCALE



RIPRAP OUTLET PROTECTION DETAIL
NO SCALE



CONSTRUCTION SPECIFICATIONS

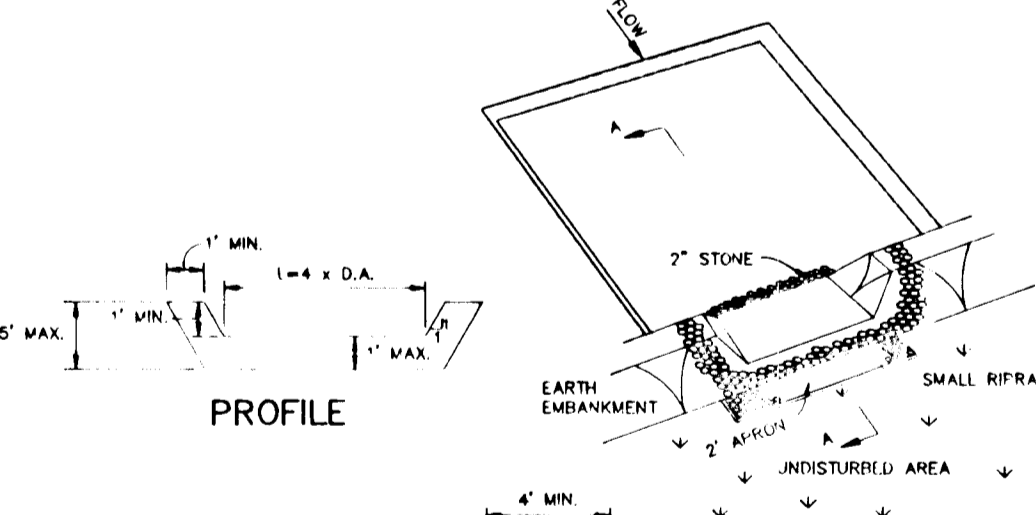
LOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED & STRAW MULCH	SEED & STRAW MULCH
2	3.1-5.0%	SEED & STRAW MULCH	SEED, LOGS, JUTE, OR EXCELLENT SOE, 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOE, 2" STONE	LINED RIPRAP 4"-8"
4	8.1-20%	LINED RIPRAP 4"-8"	ENGINEERED DESIGN

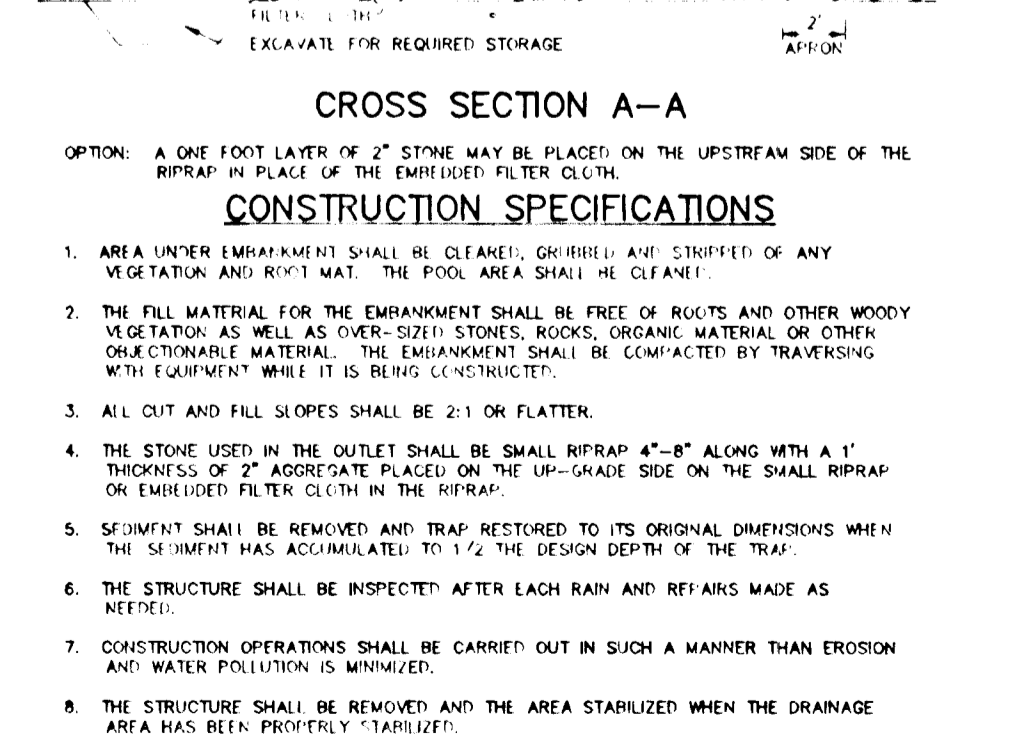
EARTH DIKE
NO SCALE

The diagram shows a cross-section of an earth dike with a 2:1 slope on both sides. It includes details of the dike structure, including a core trench, filter cloth, and riprap outlet protection. The dike is shown on a slope with a 2:1 ratio.

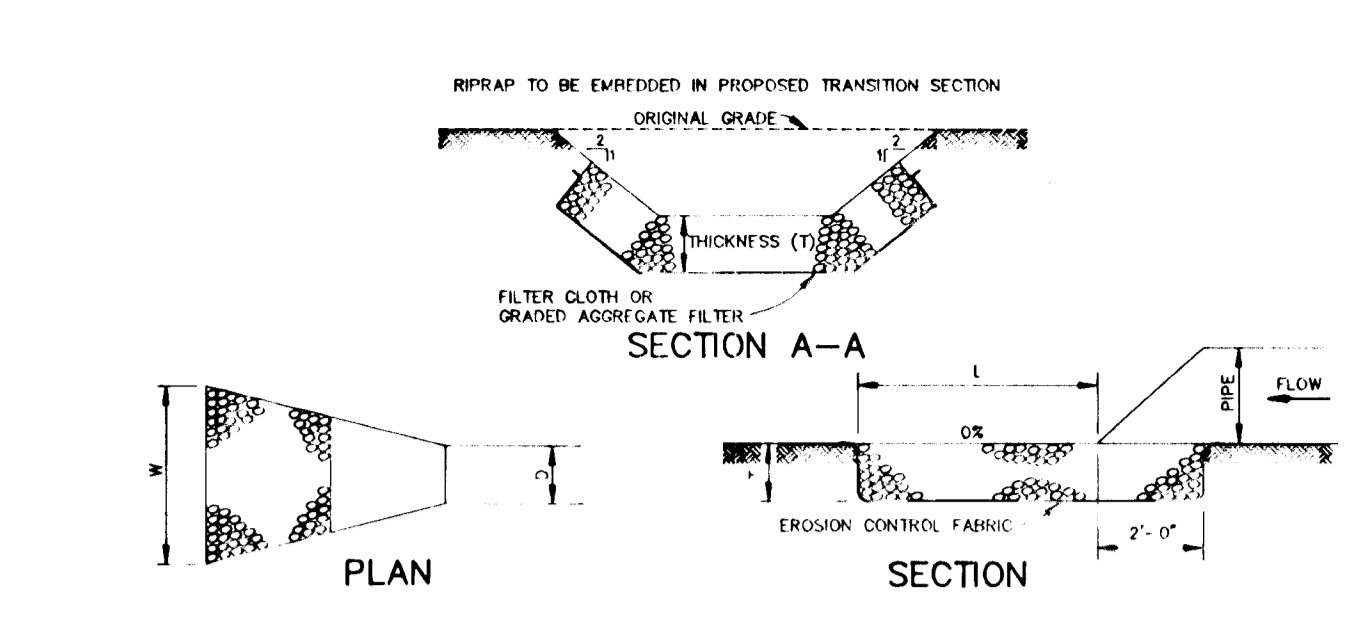
EARTH DIKE
NO SCALE



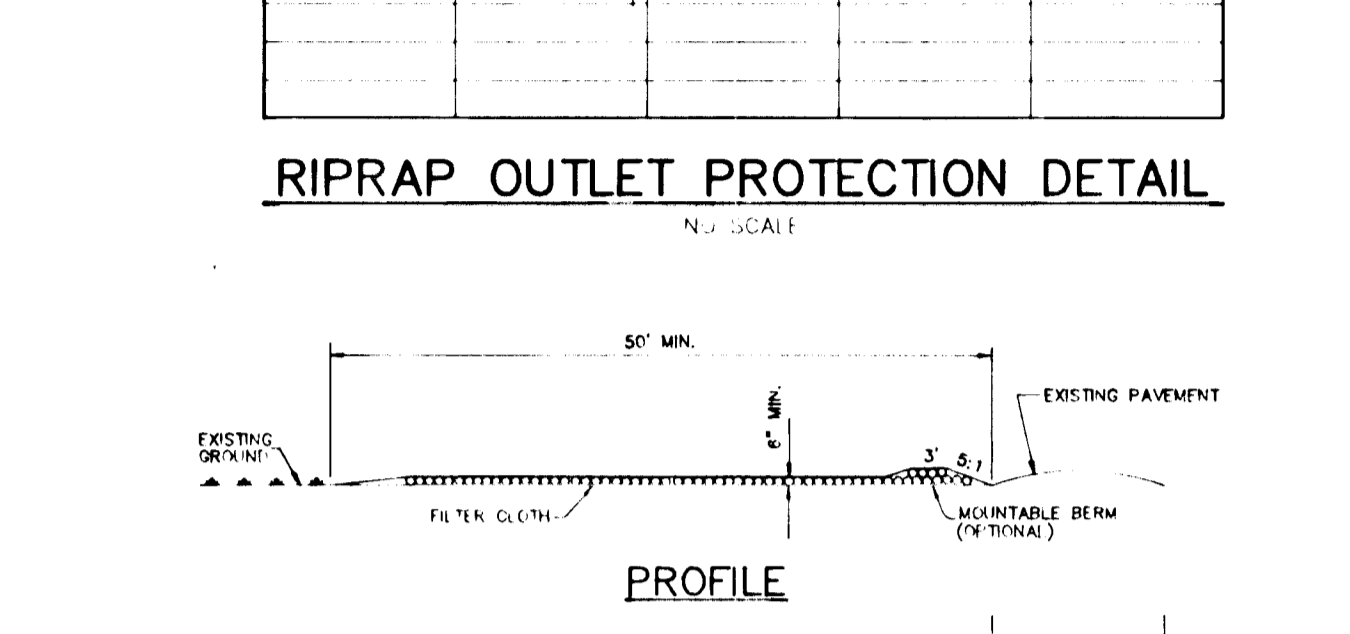
CROSS SECTION A-A
NO SCALE



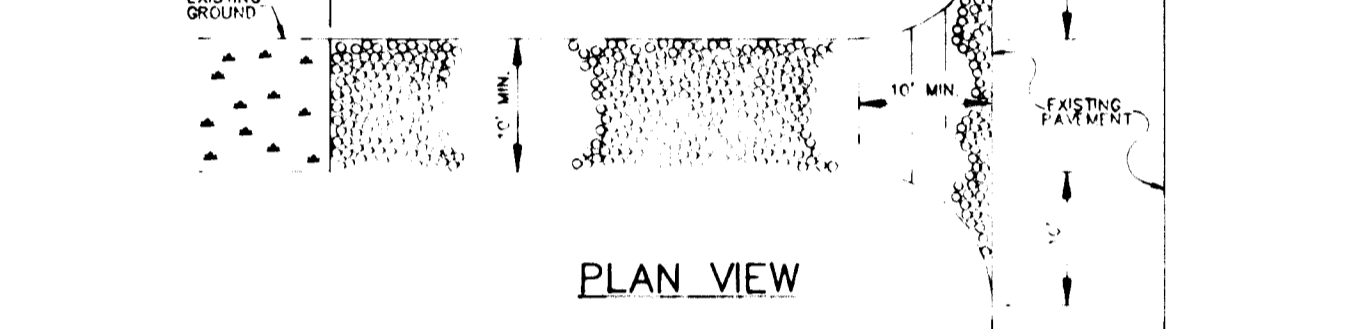
MODIFIED TYPICAL SECTION SASSAFRAS COURT
NO SCALE



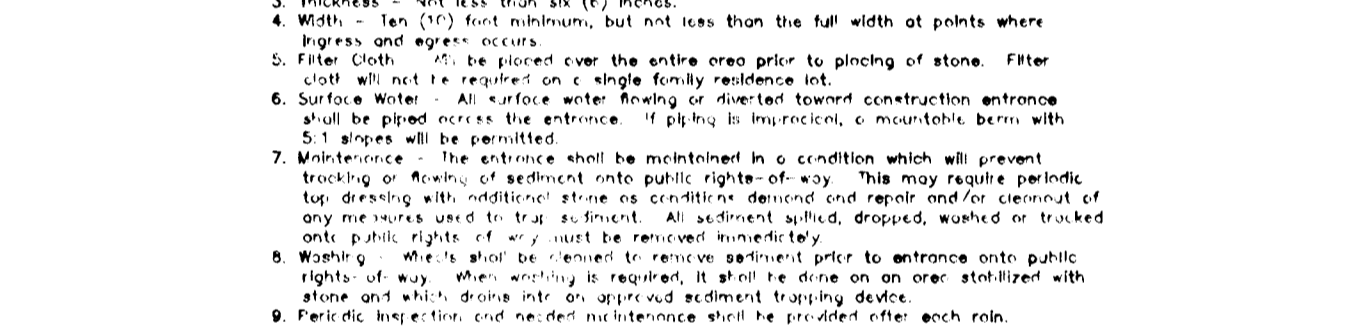
RIPRAP OUTLET PROTECTION DETAIL
NO SCALE



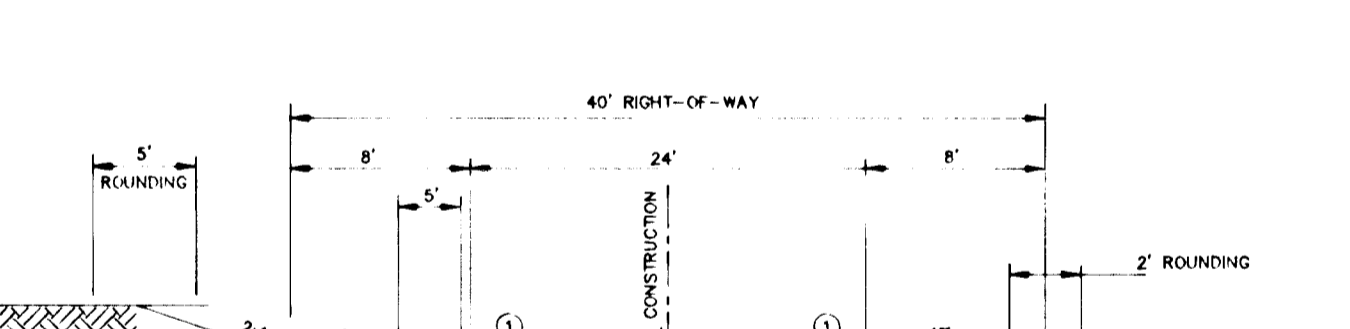
PROFILE
NO SCALE



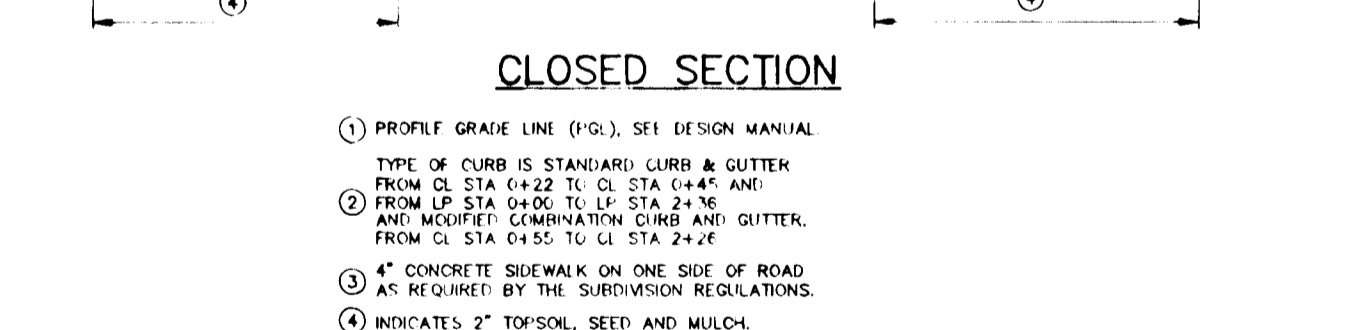
PLAN VIEW
NO SCALE



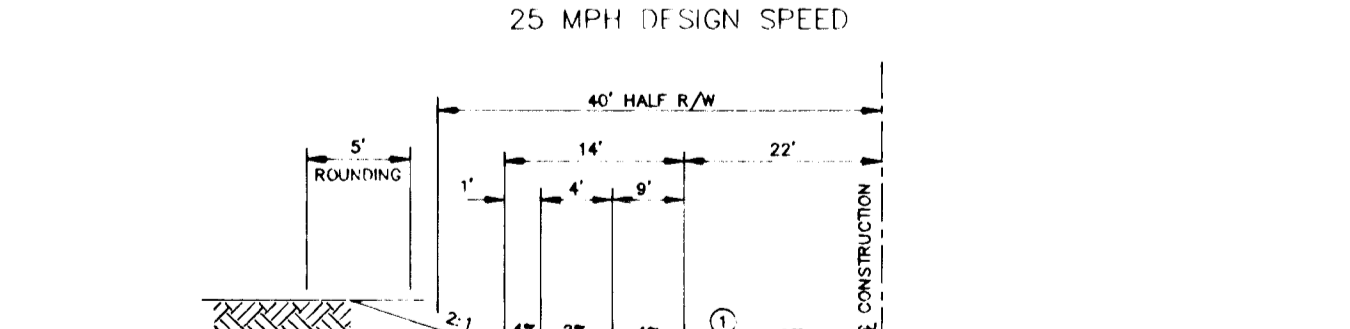
STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



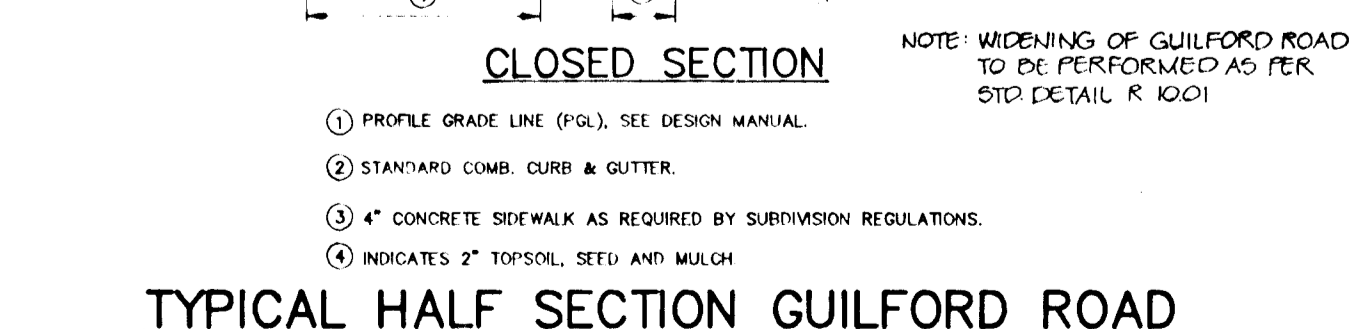
CLOSED SECTION
NO SCALE



TYPICAL HALF SECTION GUILFORD ROAD
NO SCALE



CLOSED SECTION
NO SCALE



TYPICAL HALF SECTION GUILFORD ROAD
NO SCALE

AS-BUILT CERTIFICATE

J. Fanelle 11-8-94
DATE

BY THE DEVELOPER:
1/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF 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.

David B. Simpson 11-15-94
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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Arthur E. Muegge 1-15-93
ENGINEER DATE

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

John R. Roberts 2/3/93
HOWARD SOIL CONSERVATION SERVICE DATE

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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Annal Kinnell 2/24/93
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. Ryan 2/10/93
CHIEF, LAND DEVELOPMENT DIVISION DATE

William J. Ryan 2/16/93
CHIEF, BUREAU OF HIGHWAYS DATE

William J. Ryan 2-19-93
CHIEF, BUREAU OF ENGINEERING DATE

DATE	NO.	REVISION

OWNER / DEVELOPER: IRENE S. COLES, 46 SARGENT DEVELOPMENT CORP. I, 13243 WESTMEATH LANE, CLARKSVILLE, MARYLAND 21029

PROJECT: COLES PROPERTY LOTS 1 THRU 15

AREA: TAX MAP NO. 42, PARCEL 12 & 170-925 ZONED R-5G, 6TH ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: DETAIL SHEET

RIEMER MUEGGE & ASSOCIATES, INC.
A Land Planning, Engineering and Consulting Firm
8818 Centre Park Drive • Suite 200 • Columbia, Md 21045
410-997-8900 FAX: 410-997-9282

1-15-93
DATE

DESIGNED BY: CJK
DRAWN BY: DAM
PROJECT NO: 84502
DATE: JANUARY 15, 1993
SCALE: AS SHOWN
DRAWING NO. 4 OF 4
F-93-283

1656