

GENERAL NOTES :

- All water lines shall be constructed with a minimum of 42" cover below finished grade.
- All construction shall be in accordance with the latest Standards and Specifications of Howard County and M.S.H.A. Standards and Specifications, if applicable.
- Approximate location of existing utilities are shown from best available information. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the Engineer immediately if location of utilities is other than as shown.
- The contractor shall notify the Department of Public Works/Construction Inspection Division at (410)313-1880 at least five (5) working days prior to the placement of any asphalt.
- Contractor to notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility 1-800-257-7777
 C&P Telephone Company 725-9976
 Howard County Bureau of Utilities 313-4900
 AT&T Cable Location Division 393-3553
 Baltimore Gas & Electric Company 685-0123
 State Highway Administration 531-5533

- 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 pipe elevations shown are invert elevations.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
- Profile stations shall be adjusted as necessary to conform to plan dimensions.
- No pipe shall be laid until lines of excavation have been brought to subgrade.
- Topo taken from field run survey dated February, 1993 by Riemer Muegge and Associates, Inc. Contours shown at 2 foot interval.
- Vertical control established using Howard County Monuments #2442003 & 2442002 Horizontal control established from Maryland State Coordinate System.
- Wellands delineation performed by Riemer Muegge and Associates, Inc., dated May, 1993.
- All plan dimensions are to face of curb unless otherwise noted.
- All storm drain pipe bedding shall be as shown in detail G2.01 (trench in rock or trench in earth as determined by field conditions) in Volume IV of Howard County Design Manual unless otherwise directed by the Engineer or as shown on the drawings.
- The developer is responsible for the acquisition of all easements, rights and/or rights-of-way that may be required for the sediment and erosion control practices, stormwater management practices and the discharge of stormwater onto or across adjacent or downstream properties included in this plan. He is also responsible for the acquisition of all easements, rights and/or work on adjacent properties included in this plan.
- 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 section determined by the geotechnical engineer that is less than the Howard County minimum standards, shall first be approved by the Howard County Department of Public Works. The testing and geotechnical engineer shall be furnished by the owner.
- Stormwater management quantity and quality control for this development is provided under F-87-82.
- All elevations shown are based on U.S.C. and G.S. Mean Sea Level Datum, 1929.
- Traffic study performed by The Traffic Group was approved in April, 1993.
- Existing utilities located from F-87-82 and water and sewer contract #24-258-D.
- Any damage to the County's right-of-way shall be corrected at the developer's expense.
- The Noise Study prepared by Riemer Muegge & Associates, Inc., approved in April, 1992, submitted with this plan indicates that the site does not encroach on this parcel with proposed berm.
- Water meters are to be located inside each building.
- All onsite water mains are public (see contract # 24-2361-D), all onsite sewer mains are private.
- No Flood Plain exists on this site.
- See Sheet 5 for dimension plan.
- Administrative Adjustment: AA 93-20 was signed and approved on March 24, 1994. The conditions of approval are:
 1. The Petitioner shall comply with all applicable Federal, State and County laws and regulations.
 2. The granted administrative adjustment shall apply solely to the requests involving 24 single-family attached dwellings and not to any other structure, addition, building or use.
 3. Heavy evergreen screening, as proposed by the Petitioner, be installed between Columbia 100 Pkwy, and the dwelling that will be located within the required 30-foot setback and also along the property line adjacent to the Oakland Ridge Industrial Park.

SHEET INDEX :

- TITLE SHEET
- SITE PLAN
- DRAINAGE AREA & SOILS MAP
- GRADING & SEDIMENT CONTROL PLAN
- DETAILS
- STORM DRAIN PROFILES & STRUCTURE SCHEDULE
- SANITARY SEWER PROFILES
- SEDIMENT CONTROL DETAILS
- LANDSCAPE PLAN

GENERAL NOTES (CONT.)

- Amended Decision and Order: ZB-930M was signed and dated on February 23, 1994. Subject to the Conditions of Conclusions of Law 3, 4 and 5 as follows:
 3. The Zoning Board concludes that the proposed documented site plan as approved does not provide a road connection to the Columbia Hills development, and that the Board's finding as to compatibility of the proposed development with existing land uses of the surrounding area is dependent on this fact.
 4. The Zoning Board concludes that the compatibility of the subject property's development under this documented site plan with the adjoining Dawson Lee property is dependent upon Petitioner's construction of an adequate security fence between the subject property and the Dawson Lee property.
 5. The Zoning Board concludes that approval of the proposed documented site plan, as shown on Petitioner's amendment to Exhibit 9, is subject to the required approval of applications for adjustments or variances to the bulk requirements of the Zoning Regulations, but further concludes that development approved on the documented site plan which is not directly affected by such applications for bulk regulation adjustments or variances may proceed under this Decision and Order, whether or not such applications are approved.
- Handicap ramps shall conform to current A.D.A. criteria.
- All units are to be equipped with an automatic sprinkler system.
- Fire Lanes are to be provided as shown. Developer shall contact the Department of Fire and Rescue Services for installation procedures.

SITE DEVELOPMENT PLAN M.J.F. FARMS SECTION II 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

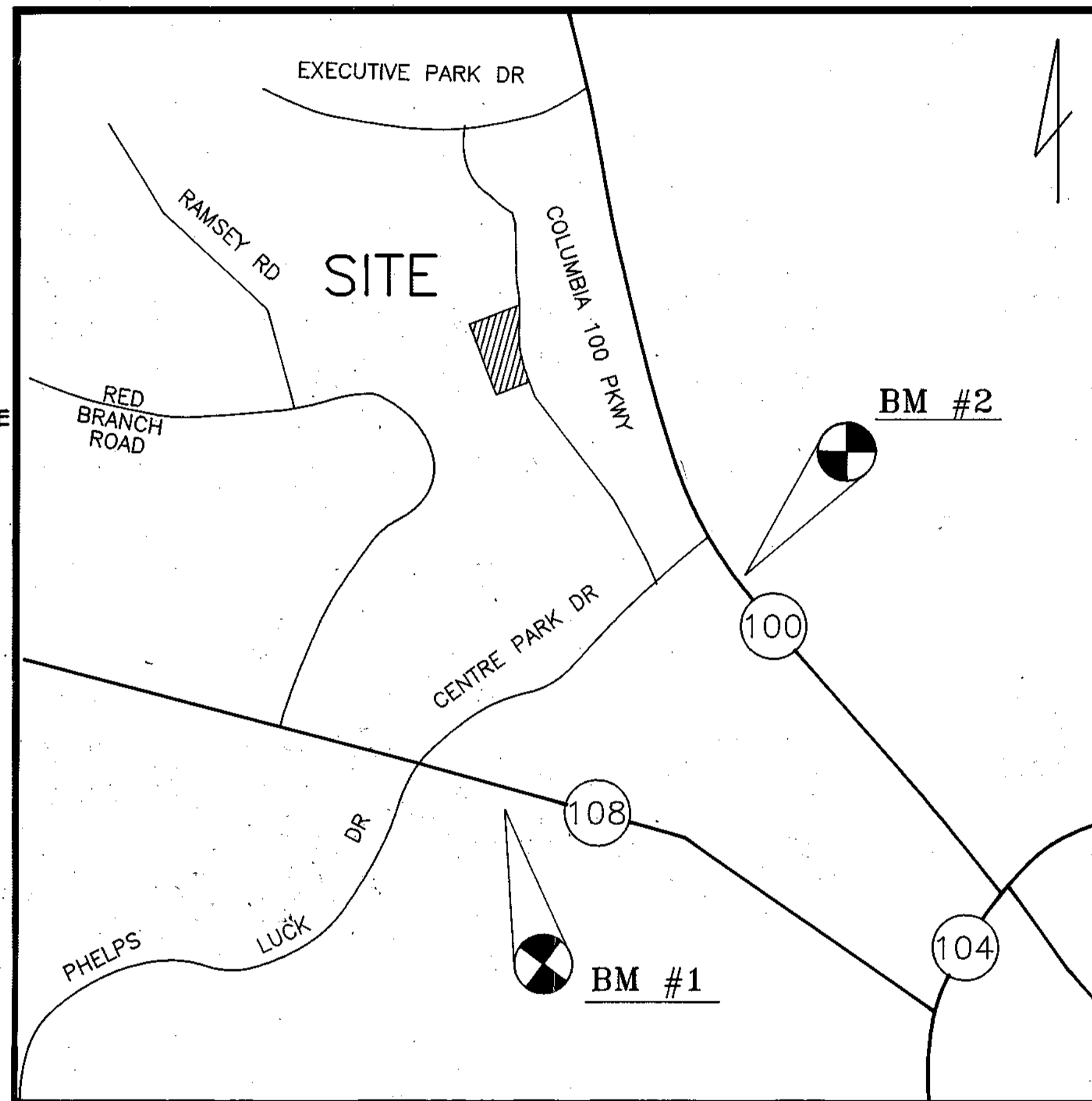
SITE ANALYSIS :

AREA OF PARCEL: 19.15 Ac. (834,037 sq. ft.)
 AREA OF FLOODPLAIN & STEEP SLOPES: 0.0 Ac. (0 sq. ft.)
 NET AREA: 5.249 Ac. (228,665 sq. ft.)
 PRESENT ZONING: R-A-15 (PER ZB : 930M)
 PROPOSED USE: SINGLE FAMILY ATTACHED DWELLINGS (CONDOMINIUMS)
 DENSITY:
 TOTAL UNITS ALLOWED
 MJF FARMS
 @ 15 D.U. x 30.039 Ac. = 449 D.U.
 TOTAL UNITS PROVIDED THIS SUBMISSION
 98 D.U. = 5.249 Ac. = 18.7 D.U./Ac.
 SINGLE FAMILY ATTACHED DWELLINGS (CONDOMINIUMS)
 TOTAL UNITS PROVIDED MJ.F. FARMS SECT.2 = 98 D.U.
 TOTAL UNITS PROVIDED ORCHARD CROSSING = 197 D.U.
 TOTAL UNITS PROVIDED MJ.F. FARMS SECT.1 = 34 D.U.
 TOTAL = 434 D.U.

OPEN SPACE:
 REQUIRED THIS SUBMISSION
 25% x 5.249 Ac. = 1.312 Ac.
 PROVIDED: = 2.049 Ac. (39%)
 RECREATION AREA:
 REQUIRED THIS SUBMISSION
 200 sq. ft. x 98 D.U. = 0.450 Ac.
 PROVIDED: (INCLUDED IN OPEN SPACE)
 PARKING REQUIRED:
 2 SPACES / UNITS, x 98 D.U. = 196 SPACES
 PARKING PROVIDED:
 197 SPACES PROVIDED IN THE FOLLOWING MANNER:
 45 IN SINGLE CAR GARAGES
 45 ON GARAGE DRIVEWAYS
 107 IN COMMON PARKING AREAS

ADDRESS CHART :

BUILDING No.	STREET ADDRESS
1	8801 GOOSE LANDING
2	8811 GOOSE LANDING
3	8821 GOOSE LANDING
4	8831 GOOSE LANDING
5	8841 GOOSE LANDING
6	8851 GOOSE LANDING
7	8850 GOOSE LANDING
8	8830 GOOSE LANDING
9	8820 GOOSE LANDING
10	8900 MALLARD COURT



VICINITY MAP

SCALE: 1" = 1000'

BM #1 ELEV. 482.29
 HOWARD COUNTY 2743010-R
 3/4" REBAR 0.4' BELOW SURFACE, 34.7' SOUTH OF CURB ON MARYLAND ROUTE 108 175'+ EAST OF PHELPS LUCK DRIVE

BM #2 ELEV. 525.51
 NAIL IN STONE AT PROPERTY CORNER COLUMBIA 100-OFFICE RESEARCH PARK.

DENSITY AND OPEN SPACE TABULATION CHART

	PARCEL 'W'	PARCEL 'X' & 'Y'	PARCEL 'Z'	PARCEL 'AA'	TOTAL
GROSS AREA					30.031 Ac.
LESS: FLOODPLAIN AND STEEP SLOPES					0.070 Ac.
NET AREA					29.961 Ac.
MAX. ALLOW. DENSITY @ 15 DU/NET ACRE					449 DU
NUMBER OF DU PROPOSED	109	187	36	98	430 DU
OPEN SPACE REQUIRED (25% OF GROSS AREA)					7.51 Ac.
OPEN SPACE PROVIDED	3.18 Ac.	3.86 Ac.	0.49 Ac.	2.05 Ac.	9.58 Ac.
REC. AREA REQUIRED (@ 200 SF/DU)	21,800 SF		7,200 SF	19,600 SF	
(@ 175 SF/DU)			32,725 SF		
TOTAL REQUIRED					81,315 SF
REC. AREA PROVIDED	9,180 SF	50,538 SF	7,200 SF	19,800 SF	86,718 SF

OWNER/DEVELOPER :

K & M DEVELOPMENT CORPORATION
 c/o PATRICK McCUAN
 THE K & M BUILDING
 5550 STERRETT PLACE
 SUITE 312
 COLUMBIA, MARYLAND 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Wanda D. Langley 8/12/94
 DIRECTOR (acting) DATE

Chris J. Swannick 8/19/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

James P. Lewis 8/16/94
 DIRECTOR DATE

Paul D. Pearson 8/16/94
 CHIEF, BUREAU OF ENGINEERING DATE

SUBDIVISION NAME: COLUMBIA 100 OFFICE RESEARCH PARK	SECTION/AREA: 1/2	PARCEL No.:	A-A
FLAT No.:	BLOCK No.:	ZONING:	TAX/ZONING MAP:
11021-11022	12	R-A15	30
WATER CODE:	SEWER CODE:	ELECT. DIST.:	CENSUS TRACT:
GO2		2nd	6023.02
		SEWER CODE:	5750639

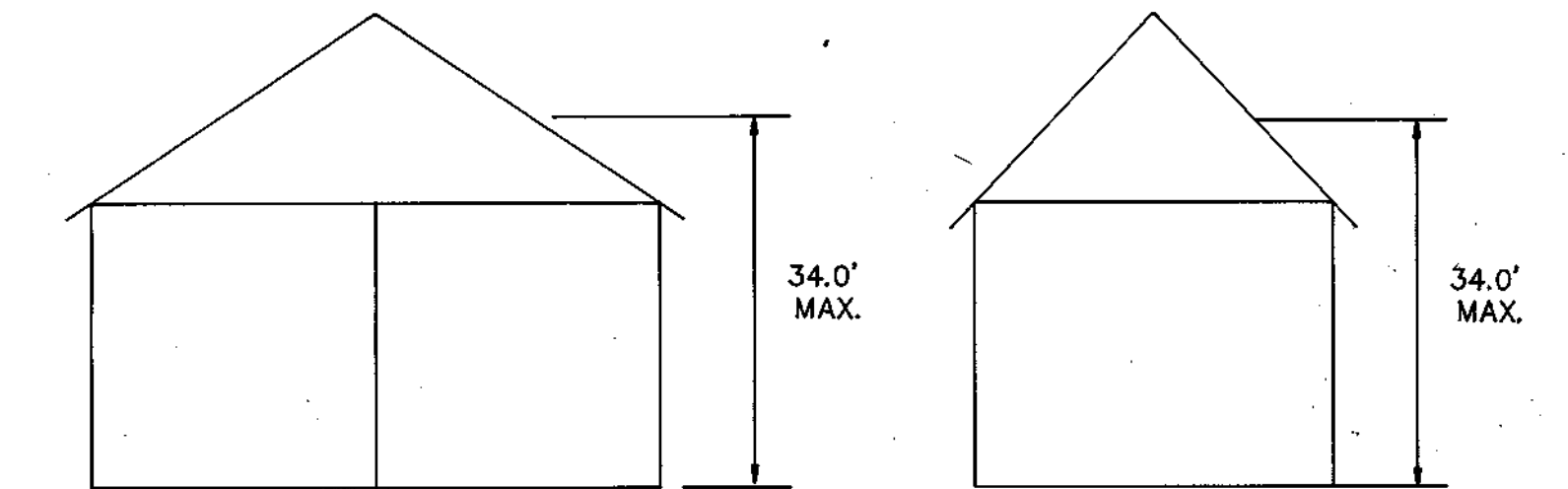


TITLE SHEET	
PROJECT:	COLUMBIA 100 OFFICE RESEARCH PARK SECTION I, AREA 2, PARCEL A-A MJF FARMS, SECTION 2, SPA UNITS
LOCATION:	2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TAX MAP:	30
PARCEL:	408
BLOCK:	12
SCALE:	AS SHOWN
DESIGNED BY:	JRG
DRAWN BY:	JE
CHECKED BY:	JE
DATE:	JAN, 1994
FIELD BOOK:	
PAGE No.:	93246
JOB No.:	
DRAWING No.:	
DATE:	
REVISION:	
BY:	

Boender Associates
 ENGINEERS - PLANNERS - SURVEYORS
 3230 BETHANY LANE
 ELLICOTT CITY, MD. 21042
 (410) 465-7777 FAX: (410) 465-7966

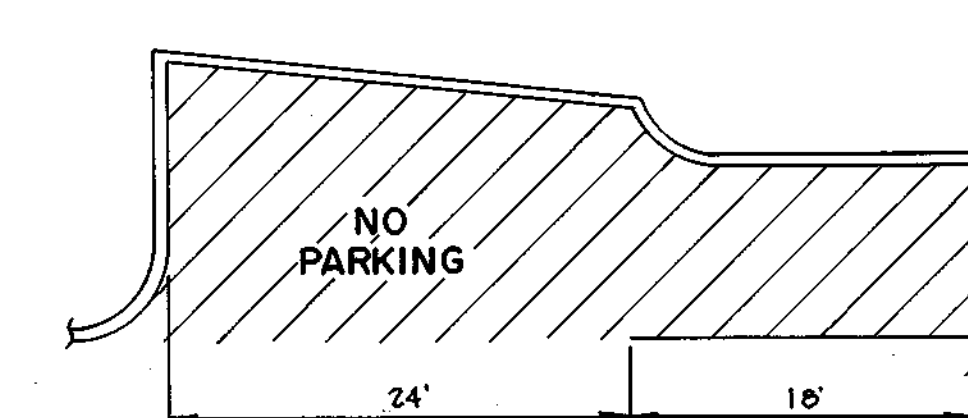
COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1, AREA 2
PARCELS Q-1 AND Q-2
A RESUBDIVISION OF PARCEL Q
ZONED: POR
PARCEL Q-2

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1, AREA 2
PARCELS G THRU U
ZONED: POR



BUILDINGS 7-10
BACK TO BACK BUILDING SIDE VIEW
NOT TO SCALE

BUILDINGS 1-6
SINGLE FAMILY ATTACHED SIDE VIEW
NOT TO SCALE



TURN AROUND AREA
DETAIL 'A'
N.T.S.

- LEGEND**
- ⊗ REFUGE REMOVAL AREA
 - ★ HPS ILLUMINATION FIXTURES (EACH ENTRANCE/SEE S.H.A. STANDARDS)

- NOTES**
1. WATER METERS ARE TO BE LOCATED INSIDE EACH BUILDING.
 2. SEE SHEET 5 FOR DIMENSION PLAN.
 3. SEE WATER CONTRACT NO. 24-3321-D FOR EASEMENT LOCATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank J. Cagle 8/19/94
DIRECTOR DATE

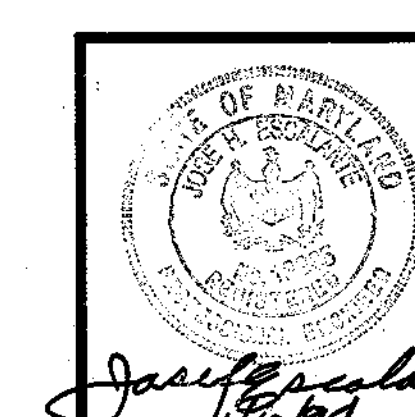
Gina Swinmami 8/19/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

James P. ... 8/19/94
DIRECTOR DATE

Paul D. ... 8/16/94
CHIEF, BUREAU OF ENGINEERING DATE

SUBDIVISION NAME: COLUMBIA 100 OFFICE RESEARCH PK		SECTION/AREA: 1/2	PARCEL No.: A-A
PLAT No.: 11021 - 11022	BLOCK No.: 12	TAX/ZONE MAP: R-A15	ELECT. DIST.: 30
WATER CODE: 002	SEWER CODE: 5750639	CENSUS TRACT: 6023.02	



TITLE:	SITE PLAN
PROJECT:	COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A M&F FARMS, SECTION 2, SFA UNITS
LOCATION:	2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TAX MAP:	30
PARCEL:	406
BLOCK:	12
SCALE:	1" = 40'
DESIGNED BY:	JRG
DRAWN BY:	JE
CHECKED BY:	JE
DATE:	JAN, 1994
FIELD BOOK:	
PAGE No.:	
JOB No.:	83246
DRAWING No.:	2 OF 2
DATE:	
REVISION:	
BY:	

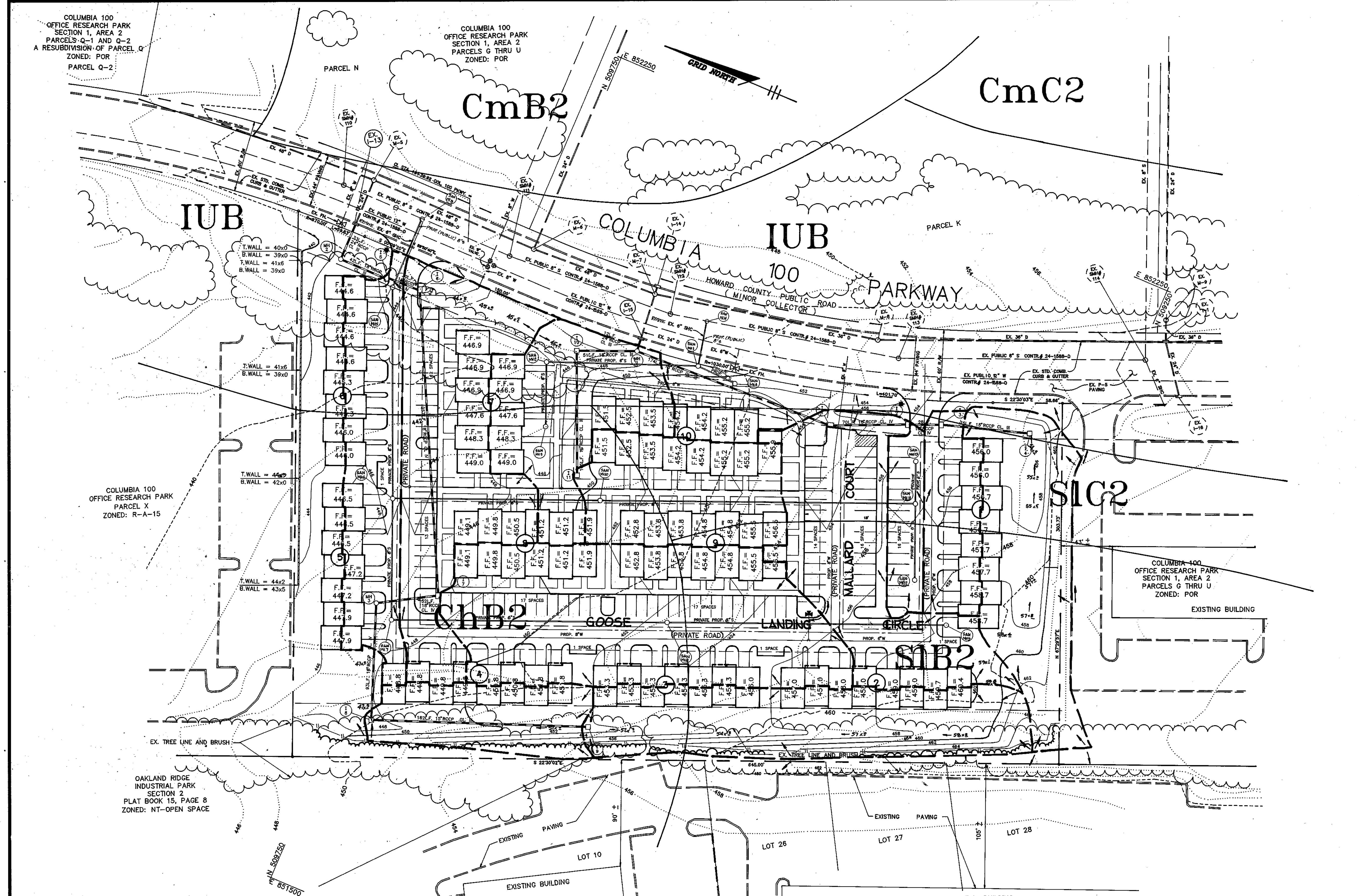
OWNER/DEVELOPER :
K & M DEVELOPMENT CORPORATION
c/o PATRICK McCUAN
THE K & M BUILDING
5550 STERRETT PLACE
SUITE 312
COLUMBIA, MARYLAND 21044

Boender Associates
ENGINEERS - PLANNERS - SURVEYORS
3230 BETHANY LANE
ELLCOTT CITY, MD. 21042
(410) 465-7777 FAX: (410) 465-7965

SDP-94-75

DRAINAGE AREA DATA			
INLET	DRAINAGE AREA	"C"	% IMP.
I-1	0.64 Acres	0.64	67%
I-2	0.11 Acres	0.86	100%
I-3	0.19 Acres	0.66	68%
I-4	0.47 Acres	0.31	15%
I-5	0.37 Acres	0.70	76%
I-6	0.62 Acres	0.65	68%
I-7	0.86 Acres	0.74	81%
I-8	0.24 Acres	0.40	29%
I-9	0.51 Acres	0.38	25%
I-10	0.40 Acres	0.53	48%
I-11	0.27 Acres	0.65	67%

SOILS CLASSIFICATION :
 ChB2 - CHESTER SILT LOAM
 CmB2 - CHILLUM SILT LOAM
 CmC2 - CHILLUM SILT LOAM
 IUB - IUKA LOAM
 SIB2 - SASSAFRAS LOAM
 SIC2 - SASSAFRAS LOAM

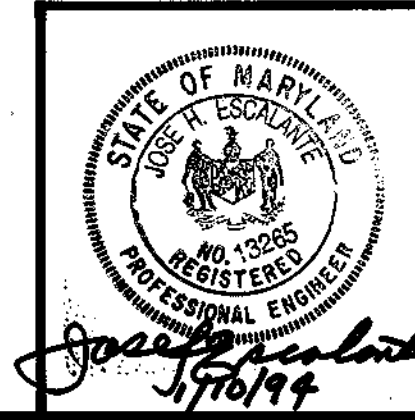


NOTE:
 SEE WATER CONTRACT
 N° 24-9361-D FOR
 EASEMENT LOCATION.

OWNER/DEVELOPER :
 K & M DEVELOPMENT CORPORATION
 c/o PATRICK McOUAN
 THE K & M BUILDING
 5550 STERRETT PLACE
 SUITE 312
 COLUMBIA, MARYLAND 21044

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Mark de la Torre 8/13/94
 DIRECTOR
Anna J. Shumway 8/19/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
James J. Sullivan 8/17/94
 DIRECTOR
Charles D. Egan 8/16/94
 CHIEF, BUREAU OF ENGINEERING



DATE	REVISION	BY
8/16/94	CHANGED SHC 912 FROM 'C' TO 'B'	NSB

TITLE: DRAINAGE AREA & SOILS MAP			
PROJECT: COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A M&J FARMS, SECTION 2, SFA UNITS			
LOCATION: 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND			
TAX MAP: 30	PARCEL: 406	BLOCK: 12	
SCALE: 1" = 40'	DESIGNED BY: JRG	DRAWN BY: JRG	CHECKED BY: JE DATE: JAN. 1994
FIELD BOOK: -	PAGE No: -	JOB No: 93246	DRAWING No: 2 OF 2

Boender Associates
 ENGINEERS - PLANNERS - SURVEYORS
 3230 BETHANY LANE
 ELLICOTT CITY, MD. 21042
 (410) 465-7777 FAX: (410) 465-7966

SDP-94-75

Reviewed for Howard Soil Conservation District and meets technical requirements.

J. A. Ward / *JRM* 6/16/94
 U.S. SOIL CONSERVATION SERVICE 7/1/94 Date

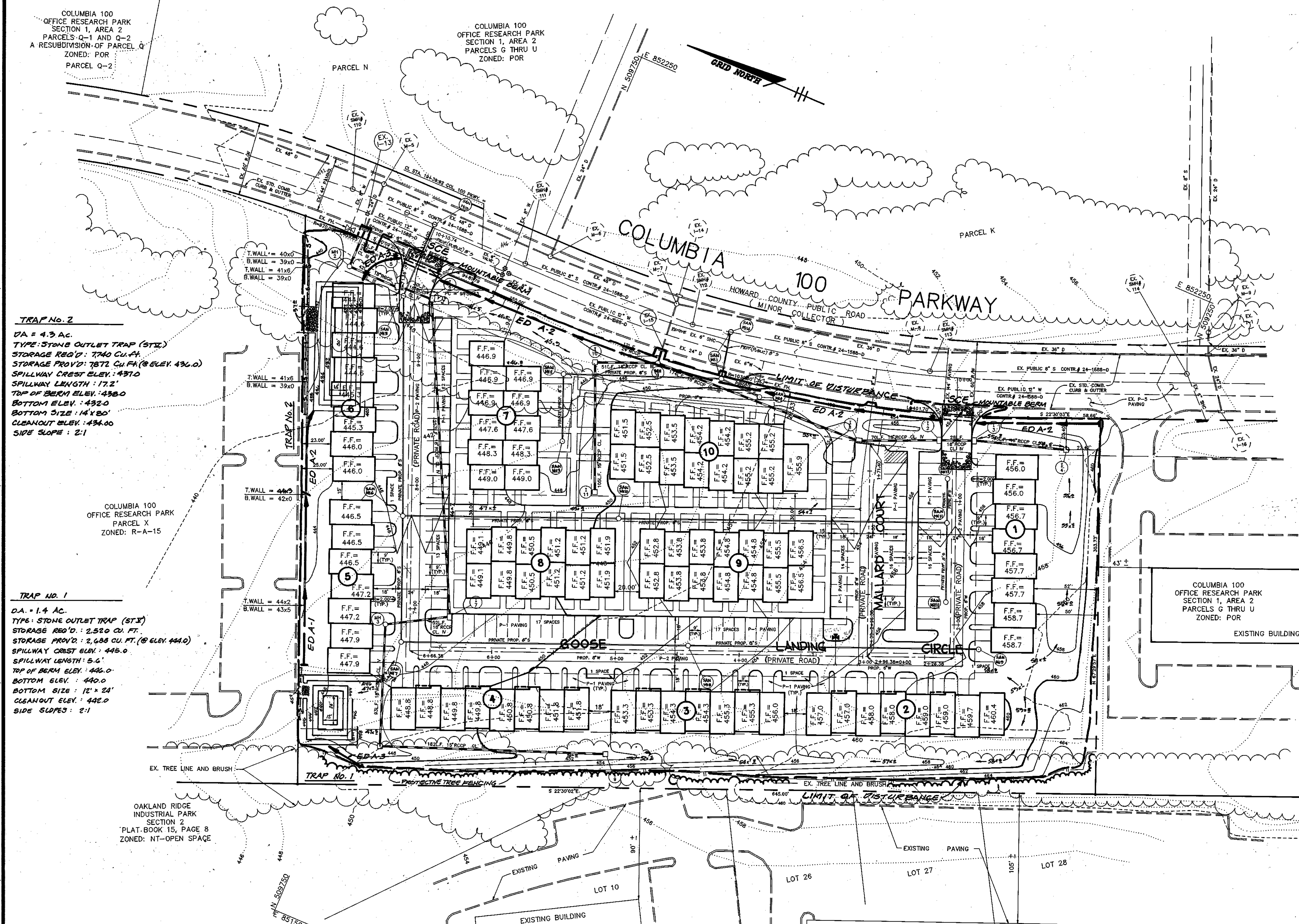
John L. Robertson 6/16/94
 SOIL CONSERVATION DISTRICT 7/1/94 Date

NOTE TO CONTRACTOR :

1. EARTH DIKE TO BE REPAIRED IMMEDIATELY AFTER INSTALLATION OF UTILITIES WHICH CROSS EARTH DIKE.
2. PROTECTIVE TREE FENCE TO BE PLACED PRIOR TO ANY CONSTRUCTION ACTIVITY.

SEQUENCE OF CONSTRUCTION :

1. Obtain Grading Permit
2. Install protective tree fencing - 3 days
3. Install stabilized construction entrances with mountable berm, earth dikes, traps number 1 and 2 and silt fence. - 5 days
4. Rough grade site for utilities - 5 days
5. Install utilities (water, sewer and storm drain) Block all inlets. Contractor to repair earth dikes immediately upon installation of utilities that cross any earth dikes. - 3 weeks
6. Grade remainder of site. Bring roads to subgrade and stabilize. - 5 days
7. Construct building except for building 6. Install curb and gutter.
8. With upstream areas stabilized and with approval of sediment inspector fill in trap number 2 and grade for building 6. - 3 days
9. Fine grade as necessary. Apply permanent stabilization. - 2 days
10. Pave Roads. - 5 days
11. With approval of sediment inspector, remove trap number 1 and inlet protection, stabilizing immediately with permanent stabilization. - 2 days



TRAP No. 2

DA = 4.3 AC.

TYPE: STONE OUTLET TRAP (STX)

STORAGE REQ'D: 7740 CU. FT.

STORAGE PROV'D: 7872 CU. FT. @ ELEV. 436.0

SPILLWAY CREST ELEV.: 437.0

SPILLWAY LENGTH: 17.2'

TOP OF BERM ELEV.: 438.0

BOTTOM ELEV.: 432.0

BOTTOM SIZE: 14' x 20'

CLEANOUT ELEV.: 434.0

SIDE SLOPE: 2:1

TRAP No. 1

DA = 1.4 AC.

TYPE: STONE OUTLET TRAP (STX)

STORAGE REQ'D: 2,520 CU. FT.

STORAGE PROV'D: 2,638 CU. FT. @ ELEV. 444.0

SPILLWAY CREST ELEV.: 445.0

SPILLWAY LENGTH: 5.6'

TOP OF BERM ELEV.: 446.0

BOTTOM ELEV.: 440.0

BOTTOM SIZE: 12' x 24'

CLEANOUT ELEV.: 442.0

SIDE SLOPE: 2:1

NOTE:

SEE WATER CONTRACT NO. 24-394-D FOR EASEMENT LOCATION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Franklin S. Langley 8/19/94
 DIRECTOR DATE

Chim Surmanianis 8/19/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

John L. Robertson 8/16/94
 DIRECTOR DATE

Paul D. Brown 8/16/94
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Franklin S. Langley 8/19/94
 DIRECTOR DATE

Chim Surmanianis 8/19/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

John L. Robertson 8/16/94
 DIRECTOR DATE

Paul D. Brown 8/16/94
 CHIEF, BUREAU OF ENGINEERING DATE

DEVELOPERS CERTIFICATE

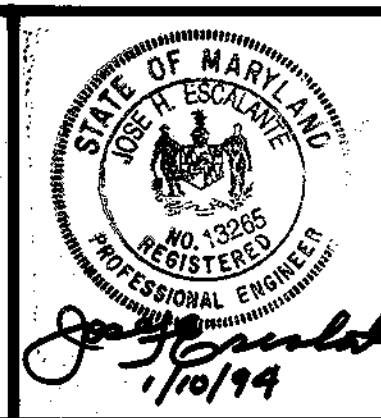
I certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a certification of attendance at a Maryland Department of Environment approved training program for the periodic on-site inspections by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

John L. Robertson 12/23/93
 Developer Date

ENGINEER CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

John L. Robertson 1/10/94
 Engineer Date



DATE	1/10/94	REVISION	CHANGED SHC SIZE FROM 6" TO 8"
BY	JRM	REVISION	

TITLE: GRADING & SEDIMENT CONTROL PLAN

PROJECT: COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A M&J FARMS, SECTION 2, SFA UNITS

LOCATION: 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TAX MAP: 30 PARCEL: 406 BLOCK: 12

SCALE: 1" = 40'

DESIGNED BY: JRG DRAWN BY: JRM CHECKED BY: JE DATE: JAN. 1993

FIELD BOOK: PAGE No. JOB No. 93246 DRAWING No. 1 OF 2

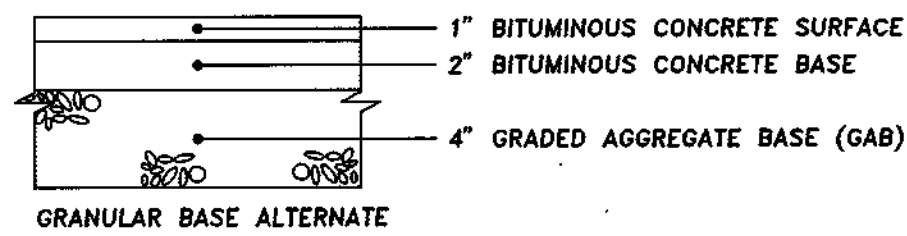
OWNER/DEVELOPER :

K & M DEVELOPMENT CORPORATION
 c/o PATRICK MCCUAN
 THE K & M BUILDING
 5550 STERRETT PLACE
 SUITE 312
 COLUMBIA, MARYLAND 21044

Boender Associates

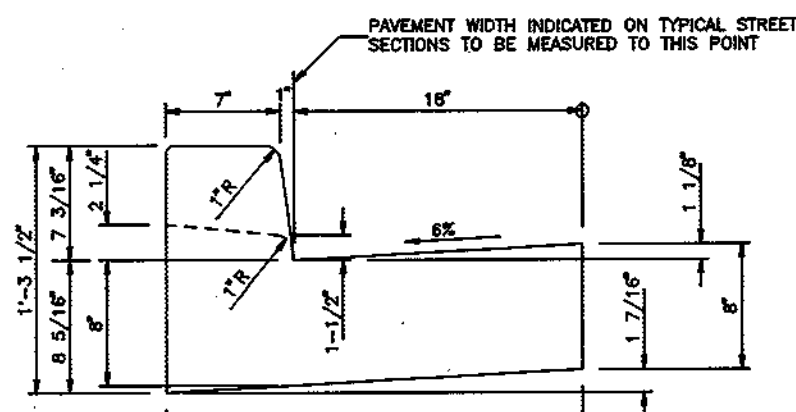
ENGINEERS - PLANNERS - SURVEYORS

3230 BETHANY LANE
 ELLICOTT CITY, MD. 21042
 (410) 465-7777 FAX: (410) 465-7966



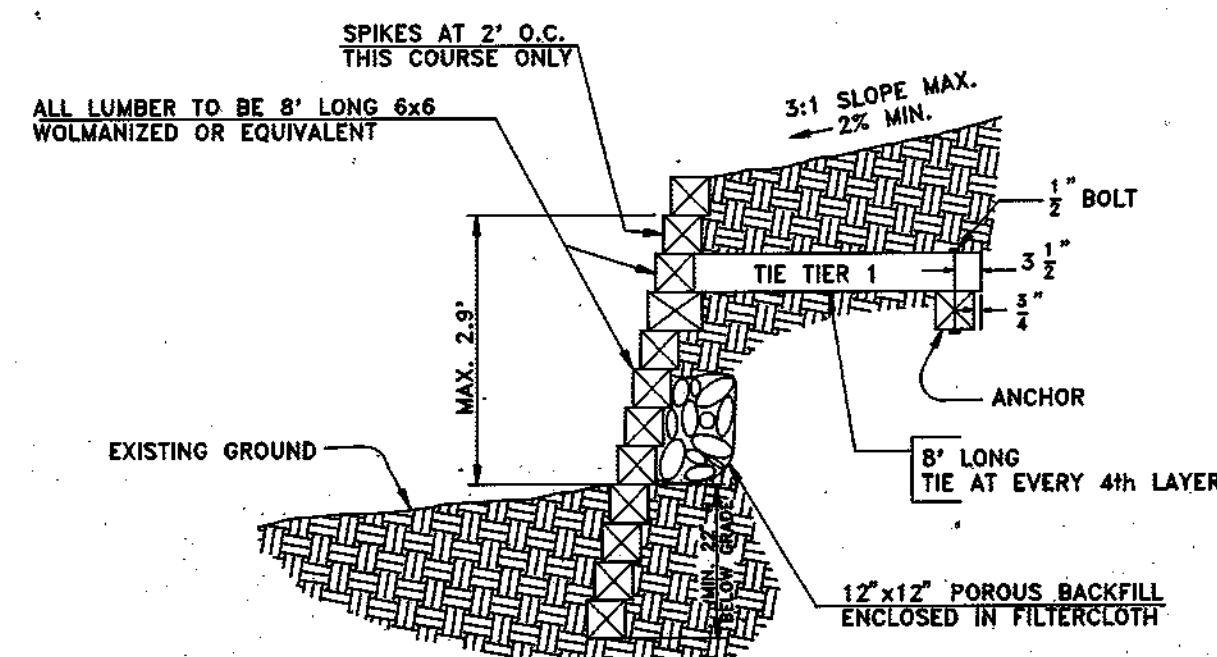
HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

P-1 PAVING
NOT TO SCALE
Ho.Co.Std.R-2.01

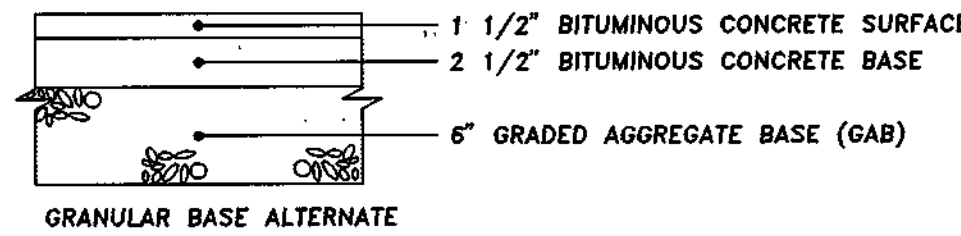


HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

STANDARD 7" COMBINATION CURB AND GUTTER
NOT TO SCALE
Ho.Co.Std.R-3.01

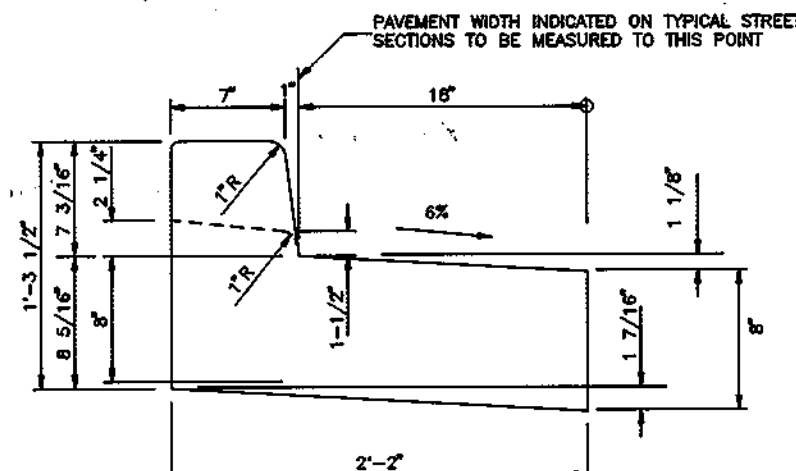


RETAINING WALL DETAIL
NOT TO SCALE

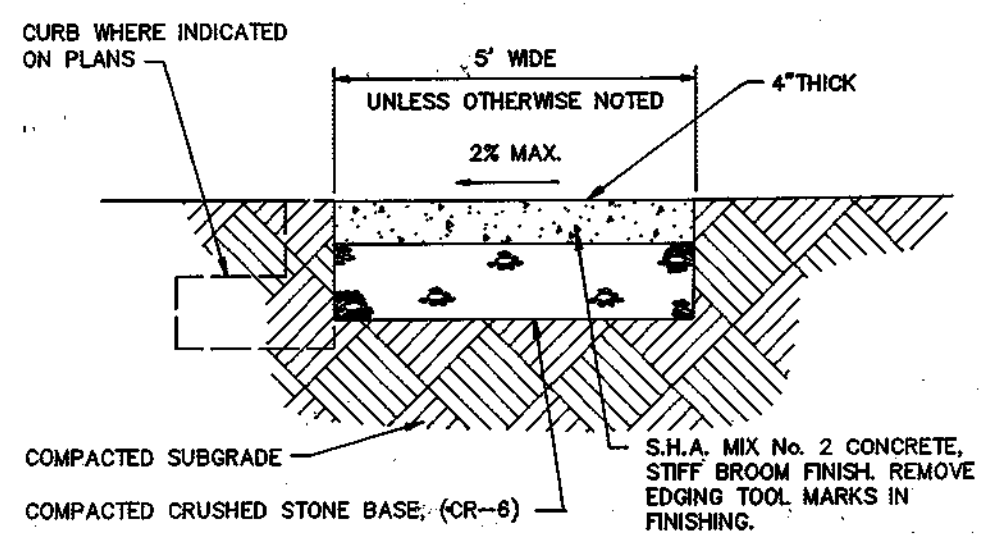


HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

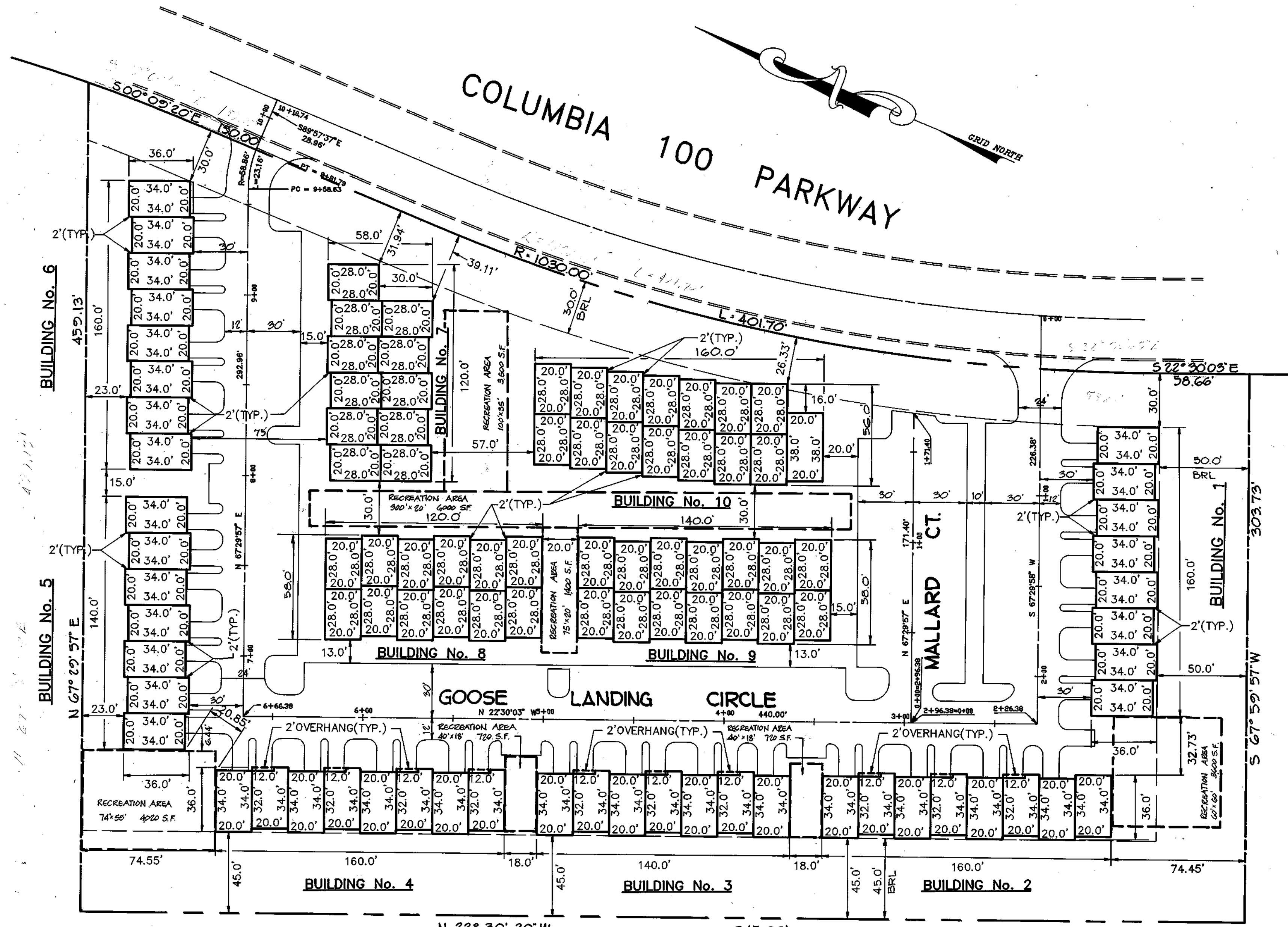
P-2 PAVING
NOT TO SCALE
Ho.Co.Std.R-2.01



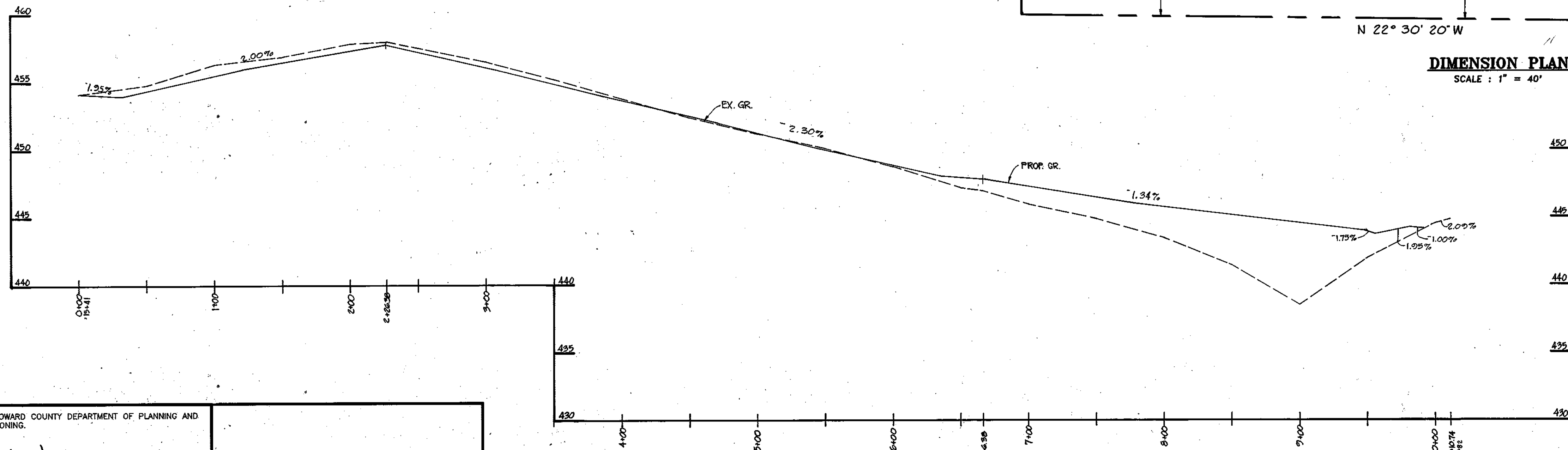
REVERSE 7" COMBINATION CURB AND GUTTER
NOT TO SCALE



SIDEWALK DETAIL
NOT TO SCALE

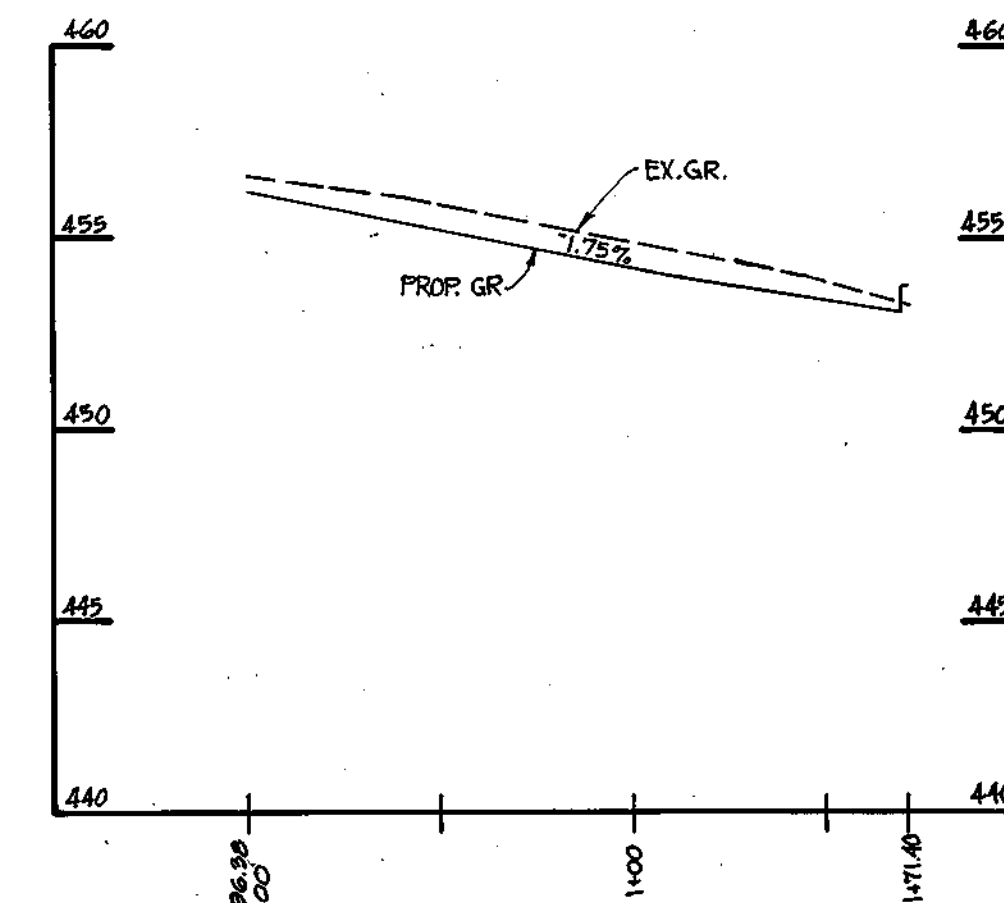


DIMENSION PLAN
SCALE: 1" = 40'

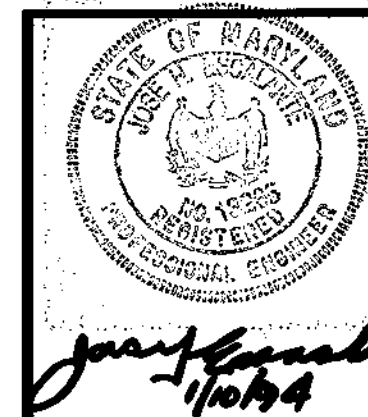


PROPOSED ROAD PROFILES

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



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Frank J. Carlini 8/14/94
 DIRECTOR DATE
 Gina Summariva 8/19/94
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.
 James P. Law 8/16/94
 DIRECTOR DATE
 Paul J. Egan 8/16/94
 CHIEF, BUREAU OF ENGINEERING DATE

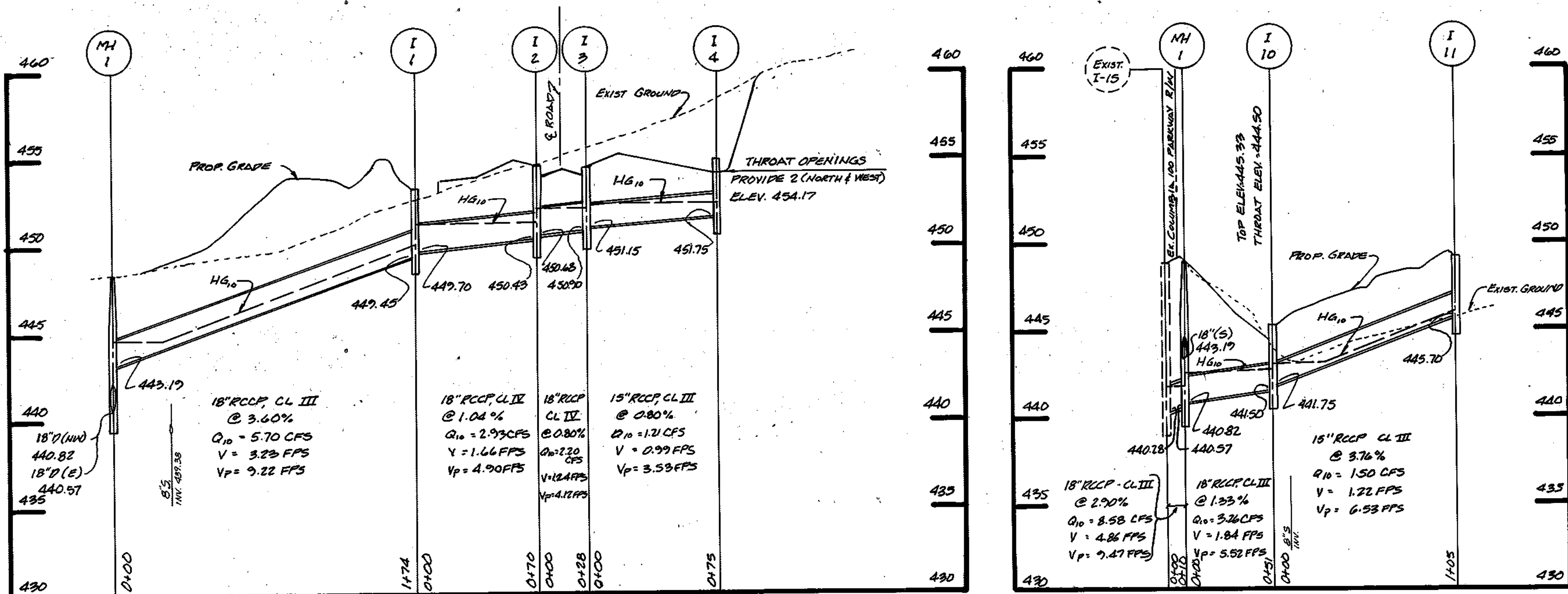


DATE	REVISION	BY

DETAIL SHEET			
PROJECT: COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A MJF FARMS, SECTION 2, SPA UNITS			
LOCATION: 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND			
TAX MAP: 30	PARCEL: 406	BLOCK: 12	
SCALE: AS SHOWN	DESIGNED BY: JRG	DRAWN BY: JE	CHECKED BY: JE DATE: JAN, 1994
FIELD BOOK: -	PAGE No: -	JOB No: 93246	DRAWING No: 3 OF 3

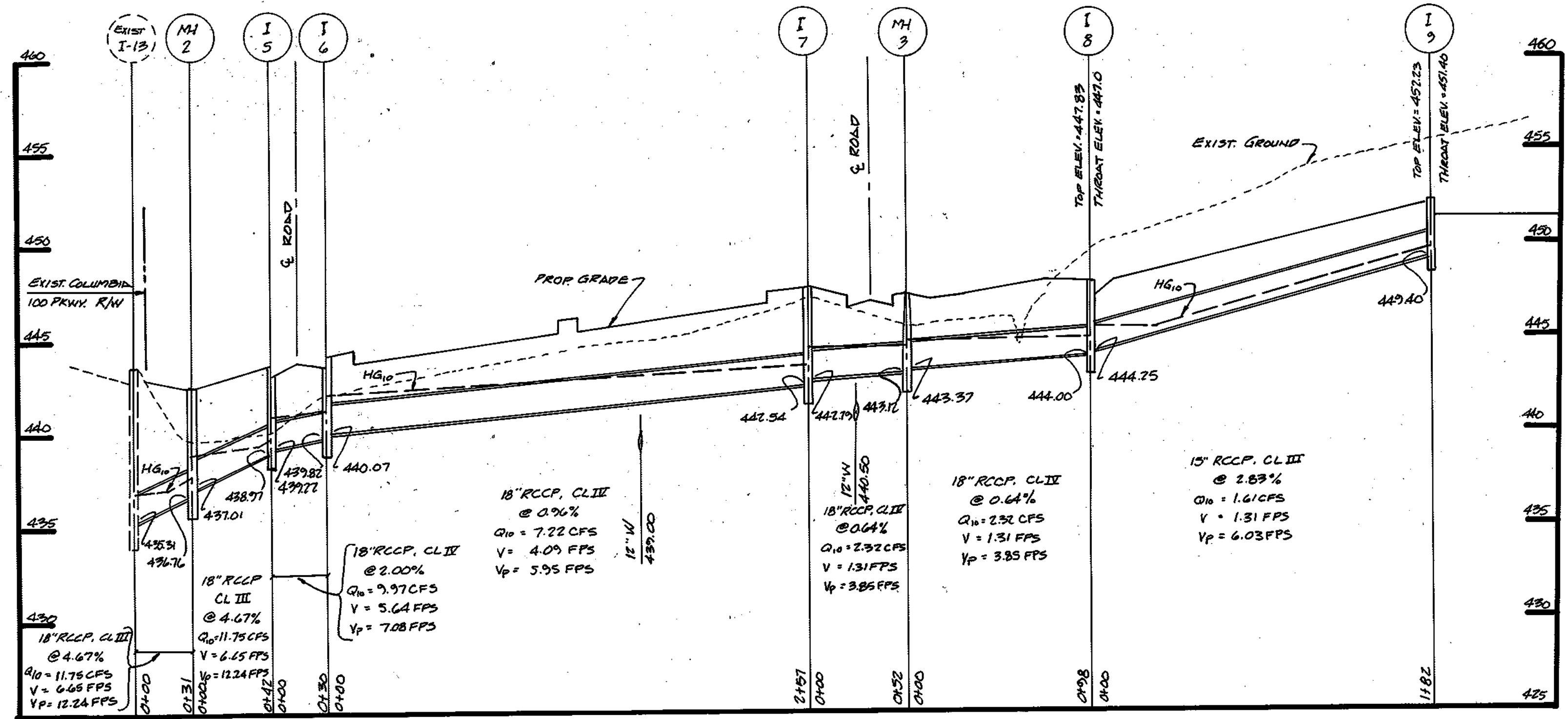
OWNER/DEVELOPER :
 K & M DEVELOPMENT CORPORATION
 c/o PATRICK McCUAN
 THE K & M BUILDING
 5550 STERRETT PLACE
 SUITE 312
 COLUMBIA, MARYLAND 21044

Boender Associates
 INCORPORATED
 ENGINEERS • PLANNERS • SURVEYORS
 3230 BETHANY LANE
 ELLICOTT CITY, MD. 21042
 (410) 465-7777 FAX: (410) 465-7966



STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE	TYPE	INV. IN	INV. OUT	TOP ELEV.	REMARKS	LOCATION
I-1	A-5 INLET	449.70	449.45	463.34(TC)	HO.CO.STD. SD-4-40	N 509466.23 E 852035.04
I-2	A-5 INLET	450.68	450.43	454.65(TC)	HO.CO.STD. SD-4-40	§ STA. 0+51, 12' RT
I-3	A-5 INLET	451.15	450.90	454.65(TC)	HO.CO.STD. SD-4-40	§ STA. 0+51, 12' LT
I-4	D INLET	---	451.75	454.65	HO.CO.STD. SD-4-39	SEE SHEET 2 OF 9
I-5	A-5 INLET	438.22	438.97	443.77(TC)	HO.CO.STD. SD-4-40	2 THROAT OPENING, EL. 444.17
I-6	A-5 INLET	440.07	439.82	444.15(TC)	HO.CO.STD. SD-4-40	§ STA. 9+51.13, 12' LT
I-7	A-5 INLET	442.79	442.54	447.77(TC)	HO.CO.STD. SD-4-40	§ STA. 6+34.39, 27.5' RT
I-8	D INLET	---	444.00	447.83	HO.CO.STD. SD-4-39	SEE SHEET 2 OF 9
I-9	D INLET	---	449.40	452.23	HO.CO.STD. SD-4-39	1 THROAT OPENING, EL. 447.00
I-10	D INLET	---	441.50	445.33	HO.CO.STD. SD-4-39	1 THROAT OPENING, EL. 451.40
I-11	YARD INLET	---	445.70	459.20	HO.CO.STD. SD-4-14	N 509706.98 E 851990.20
MH-1	STD. MANHOLE	443.19 & 440.82	440.57	448.40	HO.CO.STD. G-5-12	§ STA. 7+96.38, 148' RT
MH-2	STD. SHALLOW MANHOLE	437.01	436.76	442.50	HO.CO.STD. G-5-12	N 509640.52 E 852028.45
MH-3	STD. SHALLOW MANHOLE	443.37	443.12	447.40	HO.CO.STD. G-5-12	N 509800.82 E 852028.45



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

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

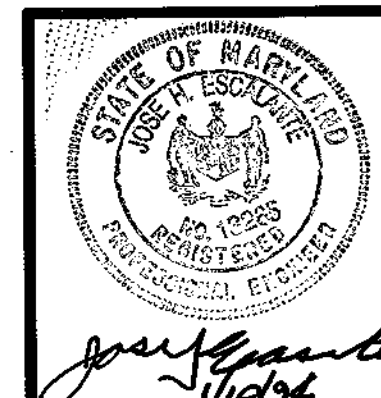
Mark DeLong 8/15/94
DIRECTOR

Quin Swinamy 8/19/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

James P. Lee 8/17/94
DIRECTOR

Michael P. Brown 8/16/94
CHIEF, BUREAU OF ENGINEERING



DATE: 8/16/94

REVISION: 1

BY: JWP

CHANGED 3/16 SIZE FROM 6" TO 8"

TITLE: STORM DRAIN PROFILES & STRUCTURE SCHEDULE

PROJECT: COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A MJF FARMS, SECTION 2, SFA UNITS

LOCATION: 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TAX MAP: 30 PARCEL: 408 BLOCK: 12

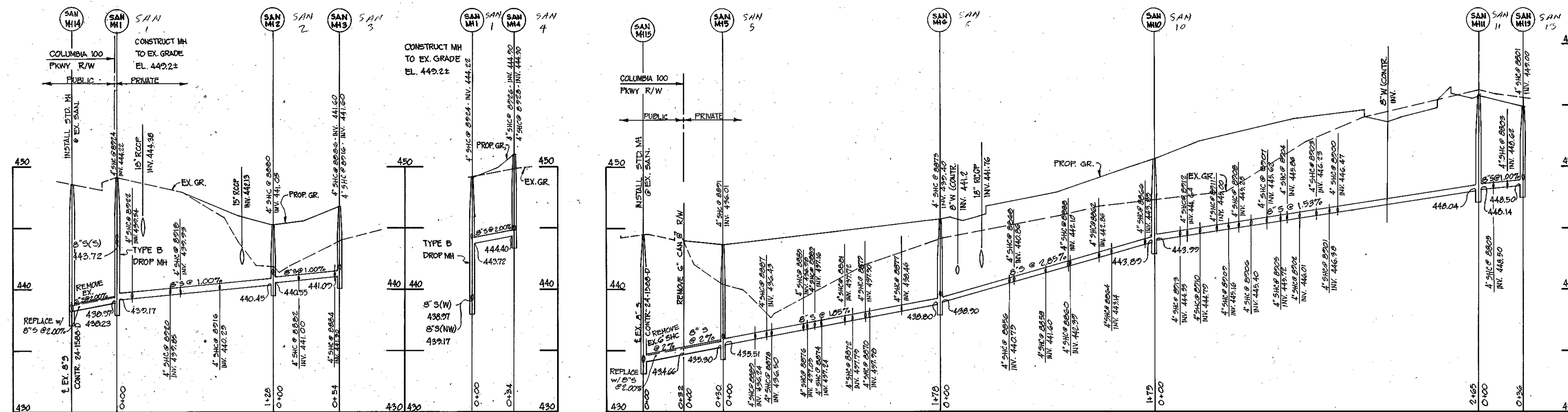
SCALE: AS SHOWN DESIGNED BY: JWB DRAWN BY: JRG CHECKED BY: JE DATE: JAN. 1993

FIELD BOOK: PAGE No.: JOB No.: 93246 DRAWING No.: 2 OF 2

OWNER/DEVELOPER :

K & M DEVELOPMENT CORPORATION
c/o PATRICK McCUAN
THE K & M BUILDING
5550 STERRETT PLACE
SUITE 312
COLUMBIA, MARYLAND 21044

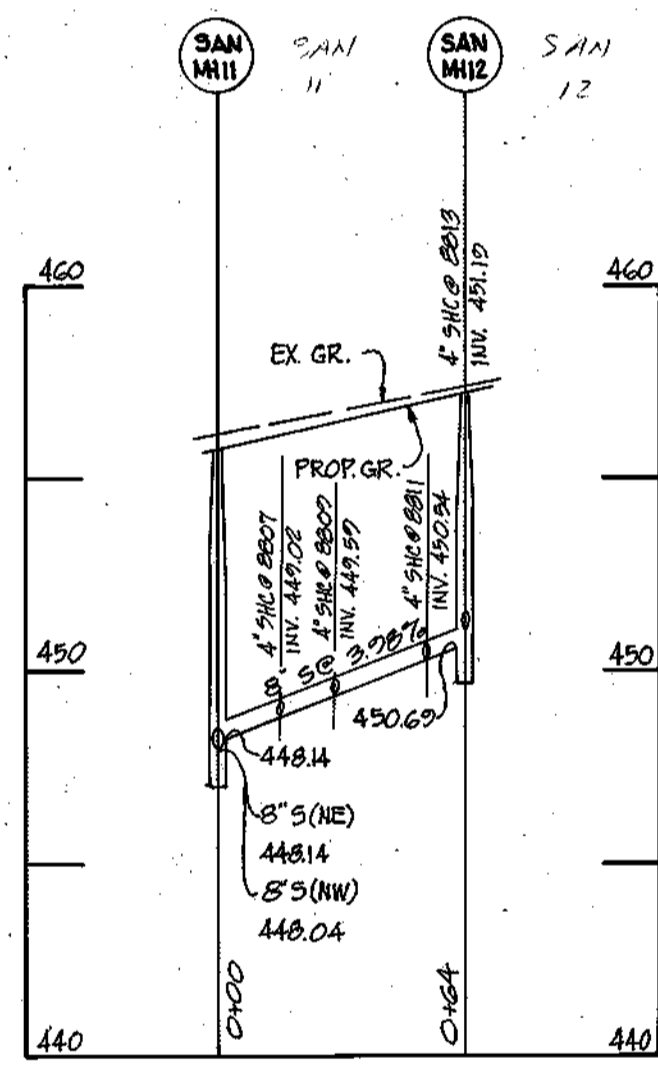
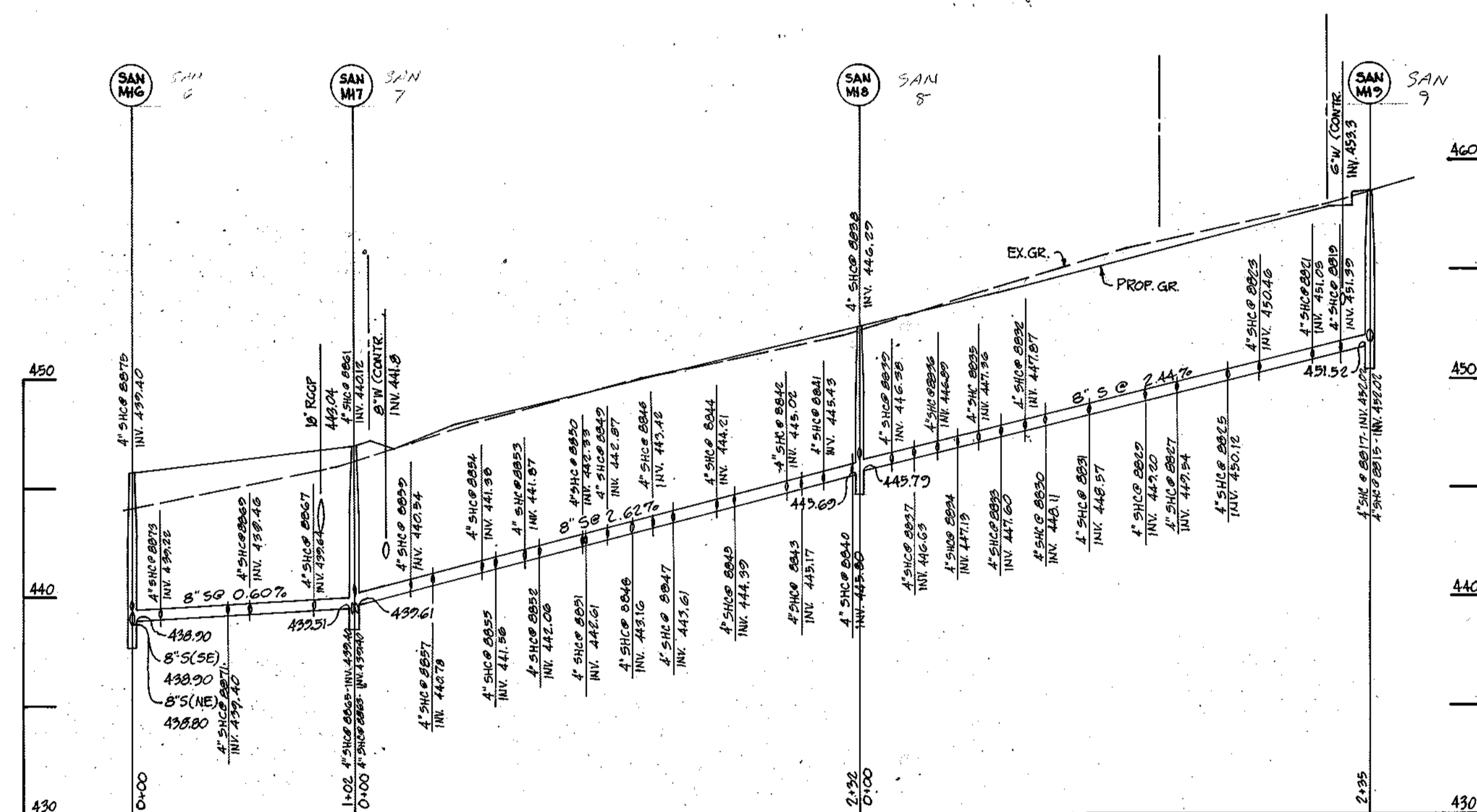
Boender Associates
ENGINEERS • PLANNERS • SURVEYORS
3230 BETHANY LANE
ELLCOTT CITY, MD. 21042
(410) 465-7777 FAX: (410) 465-7966



SANITARY SEWER MANHOLE SCHEDULE

MH	LOCATION	TOP ELEV.	INV. IN.	INV. OUT.
1*	N 50° 58' 12" E 85' 03" 79	449.2	440.55	438.97
2	N 50° 58' 12" E 85' 03" 79	445.3	440.55	440.45
3	N 50° 58' 12" E 85' 03" 79	446.9	-	441.09
4	N 50° 58' 12" E 85' 03" 79	452.0	-	444.40
5	± STA. 7+59.17, 8.98 LI.	449.6	439.51	439.30
6	± STA. 7+75.34, T.I.	445.8	438.90	438.00
7	± STA. G+73.38, T.I.	446.98	439.61	439.51
8	± STA. A+41.38, T.RT.	452.46	445.79	445.69
9	± STA. 2+19.36, 20 LI.	450.6	-	451.52
10	± STA. 4+28.84, 10.5 R.	450.6	443.99	443.89
11	± STA. 1+17.85, T.RT.	455.72	448.14	448.04
12	± STA. 1+81.64, T.RT.	457.20	-	450.69
13	± STA. 0+81.64, T.RT.	454.9	-	448.50

* NOTE:
TYPE 'B' DROP MANHOLE.



PROFILES

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

UNIT NO.	STA. ON MAIN	INV. SHC AT SEWER MAIN	INV. SHC AT ROW ESMT.	FF ELEV.
8801	0+36 @ MH-13	449.00	449.60	456.00
8803	0+23	448.62	448.22	456.00
8805	0+11	448.50	449.10	456.70
8807	0+16	449.02	449.62	456.70
8809	0+30	449.59	450.19	457.70
8811	0+54	450.54	451.14	457.70
8813	0+64 @ MH-12	451.19	451.79	458.70
8815	2+35 @ MH-9	452.02	452.62	460.40
8817	2+35 @ MH-9	451.97	452.57	459.70
8819	2+19	451.37	451.97	459.60
8821	2+06	451.05	451.65	459.60
8823	1+82	450.46	451.06	459.00
8825	1+63	450.12	450.72	458.00
8827	1+44	449.54	450.14	458.00
8829	1+30	449.80	450.40	457.00
8831	1+04	448.57	449.17	457.00
8833	0+64	448.20	448.80	456.00
8835	0+54	447.96	448.56	455.30
8837	0+24	446.93	447.53	455.30
8839	0+14	446.38	446.98	454.90
8841	2+13	445.43	446.03	454.30
8843	2+03	445.77	446.37	453.30
8845	1+73	444.90	445.50	453.30
8847	1+45	444.31	444.91	451.80
8849	1+15	442.87	443.47	451.80
8851	1+05	442.61	443.21	450.80
8853	0+77	441.87	442.47	450.80
8855	0+65	441.56	421.16	449.80
8857	0+35	440.78	441.38	449.80
8859	0+25	440.54	441.14	448.80
8861	0+00 @ MH-7	440.72	441.32	448.80
8863	0+00 @ MH-7	439.40	439.76	447.90
8865	1+02 @ MH-7	439.40	439.76	447.90
8867	0+82	439.64	440.00	447.20
8869	0+52	439.46	439.82	447.20
8871	0+42	439.40	439.76	446.50
8873	0+12	439.22	439.58	446.50
8875	0+00 @ MH-6	439.40	439.76	446.50
8877	1+46	438.60	438.76	446.00
8879	1+16	437.90	438.20	446.00
8881	1+06	437.72	438.02	445.30
8883	0+76	437.16	437.46	445.30
8885	0+66	436.98	437.28	444.60
8887	0+36	436.43	436.73	444.60
8889	0+26	436.24	436.55	444.60
8891	0+00 @ MH-5	436.01	436.31	444.60
8893	0+60	441.31	442.00	448.20
8895	1+20	437.98	439.00	448.30
8897	1+10	437.79	437.80	447.60

UNIT NO.	STA. ON MAIN	INV. SHC AT SEWER MAIN	INV. SHC AT ROW ESMT.	FF ELEV.
8874	0+80	437.24	438.25	446.90
8876	0+70	437.05	438.05	446.90
8878	0+40	436.50	437.50	446.90
8880	0+00 @ MH-2	441.05	441.33	446.90
8882	0+20	441.00	441.30	446.90
8884	0+50	441.30	441.60	447.60
8886	0+54	441.60	441.90	448.30
8888	1+04	442.11	442.61	449.00
8844	1+06	444.21	444.96	451.90
8846	1+36	443.42	444.17	451.20
8848	1+22	443.16	443.91	451.20
8850	1+04	442.33	443.08	450.50
8852	0+84	442.06	442.81	449.80
8854	0+58	441.38	442.13	449.10
8856	0+56	440.75	440.95	449.10
8858	0+86	441.60	441.80	449.80
8860	1+05	442.39	442.59	450.50
8862	1+30	442.86	443.06	451.20
8864	1+40	443.34	443.54	451.90
8866	1+35	443.85	444.05	452.60
8830	0+85	448.11	448.86	456.50
8832	0+75	447.87	448.62	455.50
8834	0+45	447.13	447.88	454.80
8836	0+35	446.89	447.64	454.80
8838	0+00 @ MH-8	446.23	447.04	453.80
8840	2+27	446.55	446.55	453.80
8842	1+97	445.92	445.77	452.80
8901	1+40	446.23	446.58	454.20
8903	1+30	446.23	446.43	454.20
8905	1+00	445.77	445.97	454.20
8907	0+90	445.62	445.82	454.80
8909	0+60	445.16	445.36	453.80
8911	0+50	445.20	445.20	453.80
8913	0+20	444.55	444.75	452.80
8900	1+46	446.97	446.97	455.90
8902	1+16	446.01	446.51	455.20
8904	1+06	445.86	446.36	454.20
8906	0+76	445.40	445.90	454.20
8908	0+66	445.25	445.75	454.20
8910	0+36	444.79	445.29	453.50
8912	0+26	444.64	445.14	452.50
8914	0+54 @ MH-3	444.20	445.20	451.50
8916	0+83	440.25	440.88	451.50
8918	0+51	439.93	440.56	452.50
8920	0+43	439.85	440.45	453.50
8922	0+12	439.54	440.14	454.20
8924	0+00 @ MH-1	444.22	444.82	454.20
8926	0+34 @ MH-4	444.90	445.40	455.20
8928	0+34 @ MH-4	444.90	445.40	455.20

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Mark M. Long 5/19/94
DIRECTOR

Quia Strumman 8/19/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

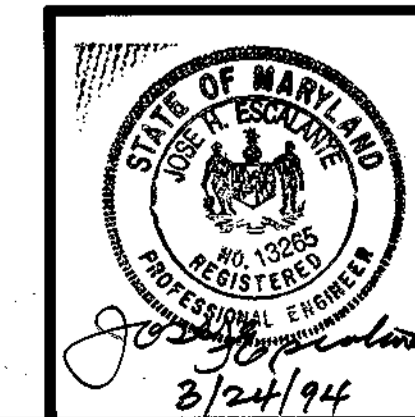
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

James P. Lee 8/19/94
DIRECTOR

Paul Peppin 8/16/94
CHIEF, BUREAU OF ENGINEERING

OWNER/DEVELOPER :
K & M DEVELOPMENT CORPORATION
c/o PATRICK McCUAN
THE K & M BUILDING
5550 STERRETT PLACE
SUITE 312
COLUMBIA, MARYLAND 21044

Boender Associates
ENGINEERS - PLANNERS - SURVEYORS
3230 BETHANY LANE
ELLCOTT CITY, MD. 21042
(410) 485-7777 FAX: (410) 485-7986



DATE		REVISION		BY	
3/24/94		ADDED SEWER HOUSE CONNECTIONS		WCB	

TITLE	SANITARY SEWER PROFILE				
PROJECT	COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A M.J.F. FARMS, SECTION 2, SFA UNITS				
LOCATION	2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND				
TAX MAP	30	PARCEL	408	BLICK	12
SCALE	AS SHOWN	DESIGNED BY	JRB	DRAWN BY	JE
CHECKED BY	DATE	JUN, 1993			
FIELD BOOK	PAGE No.	JOB No.	DRAWING No.	DATE	
		83346	2	JUN, 1993	

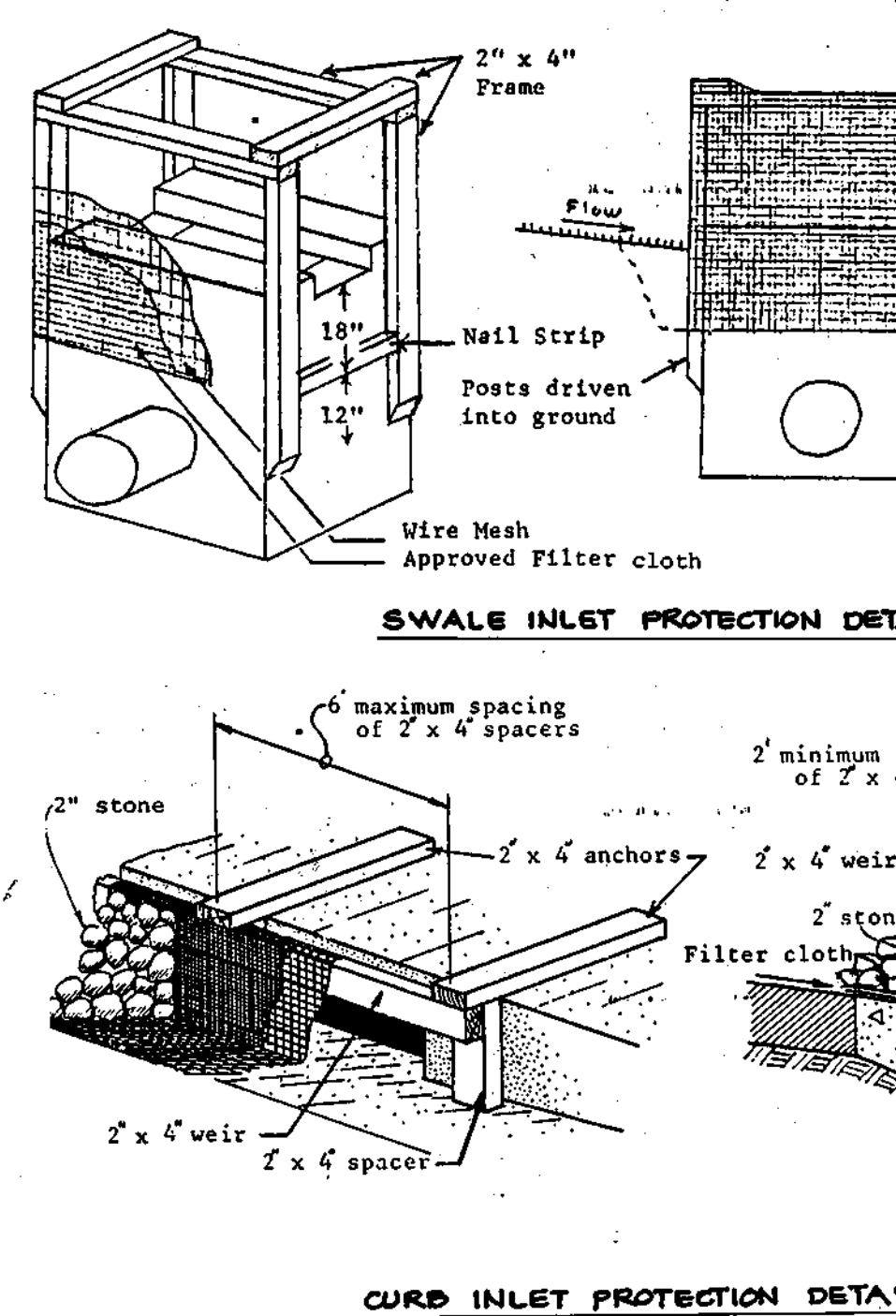
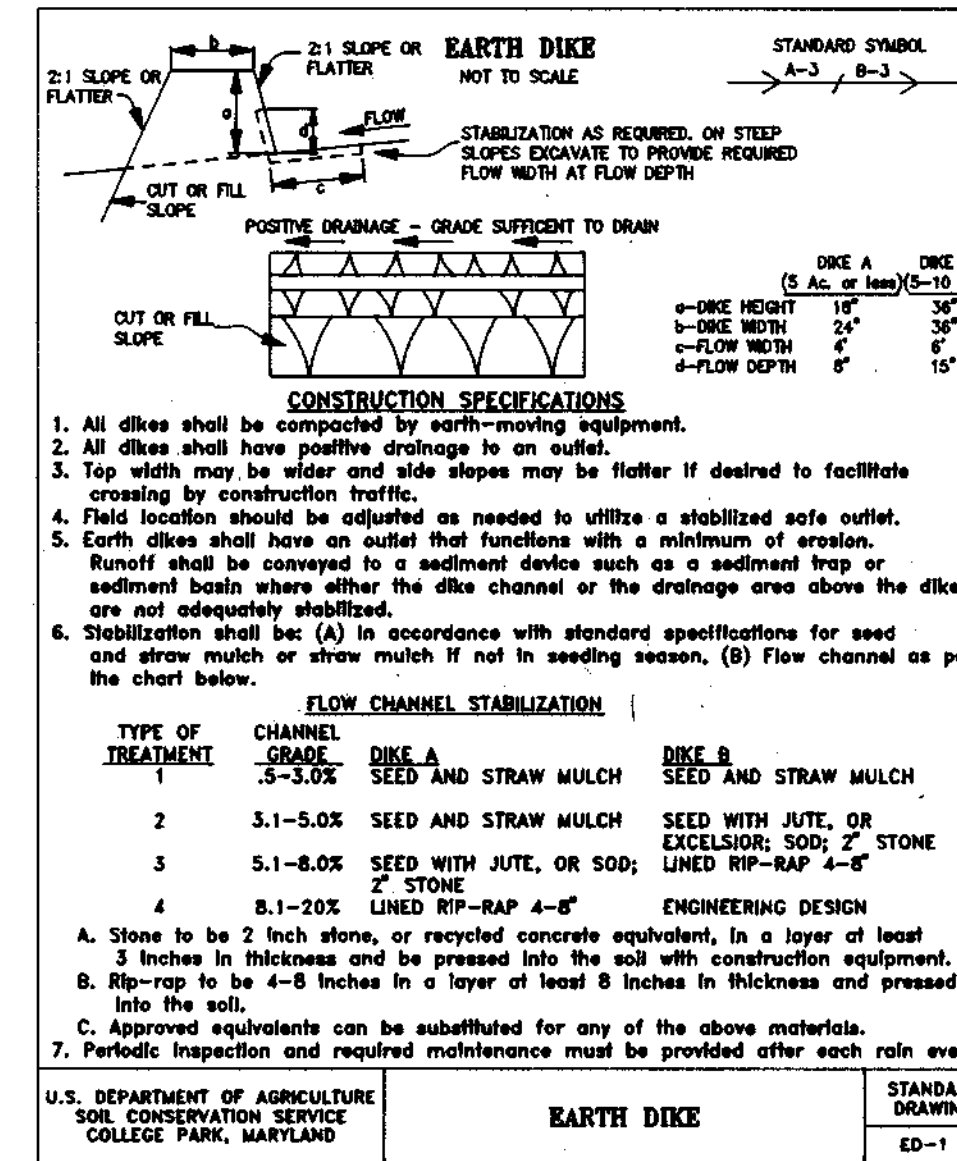
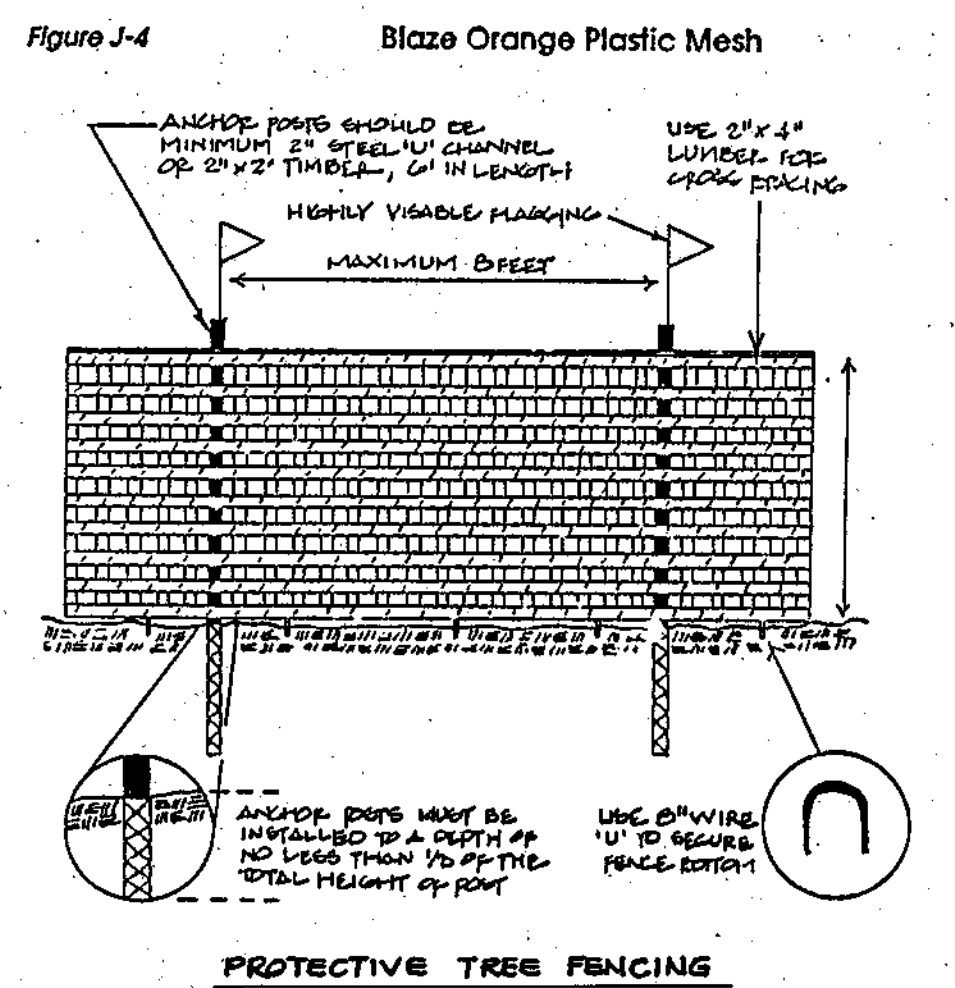
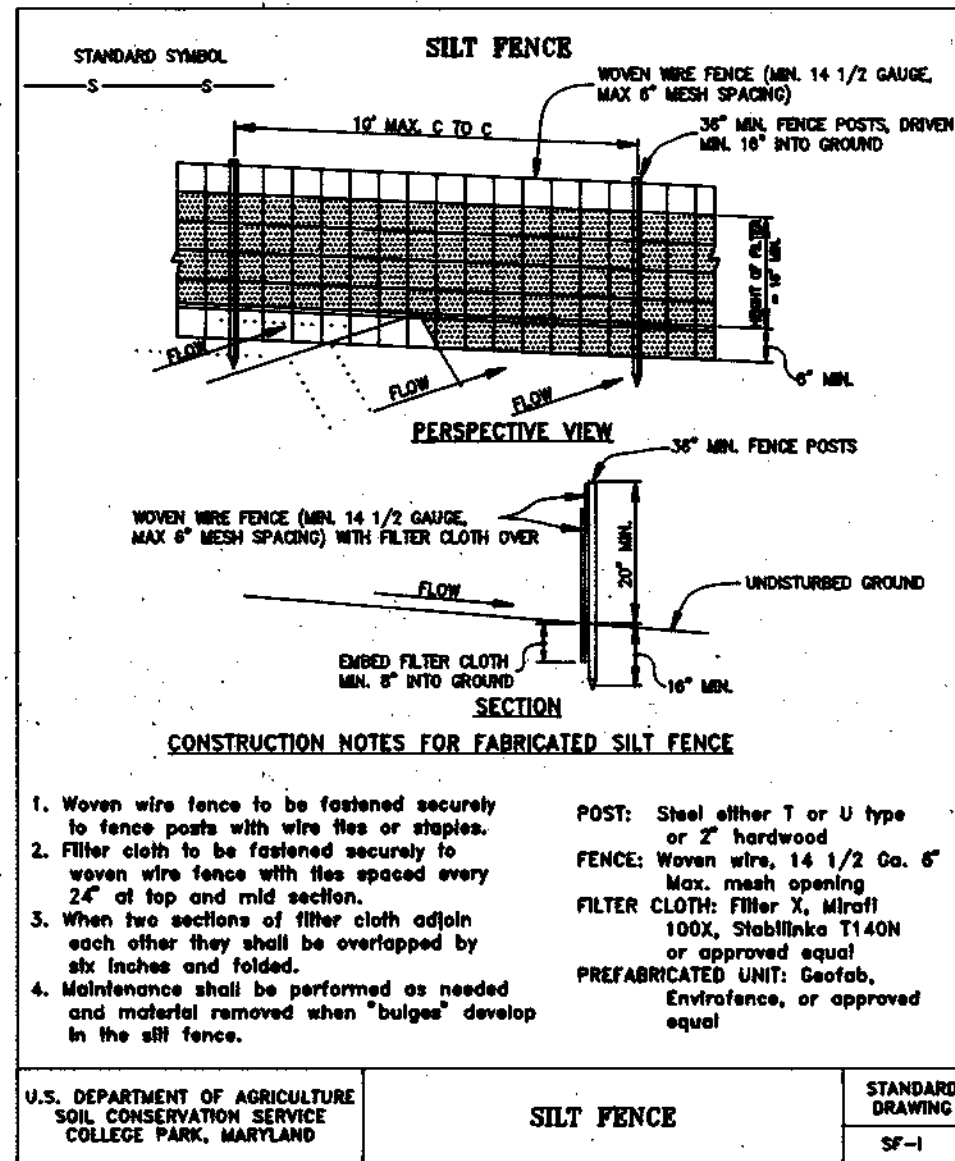
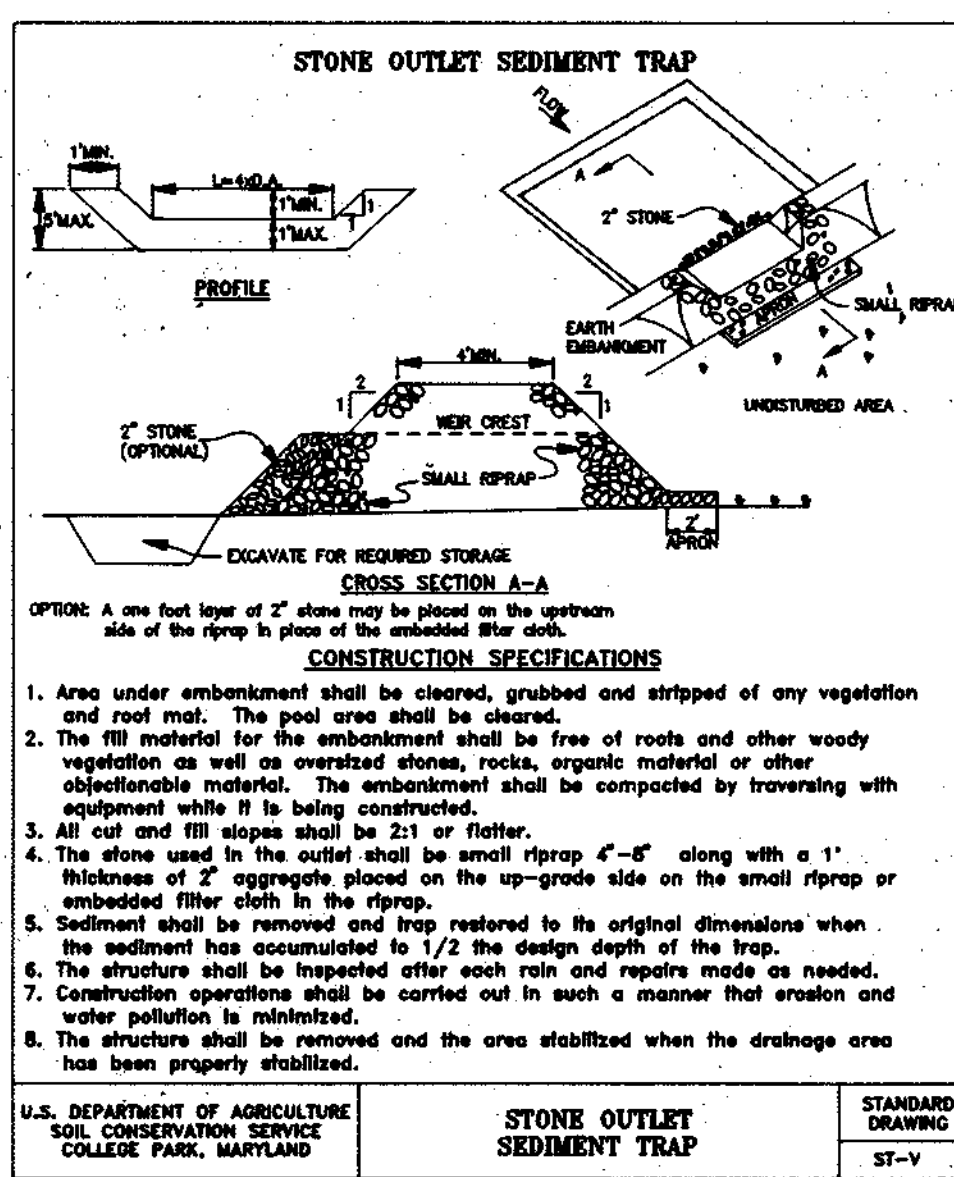
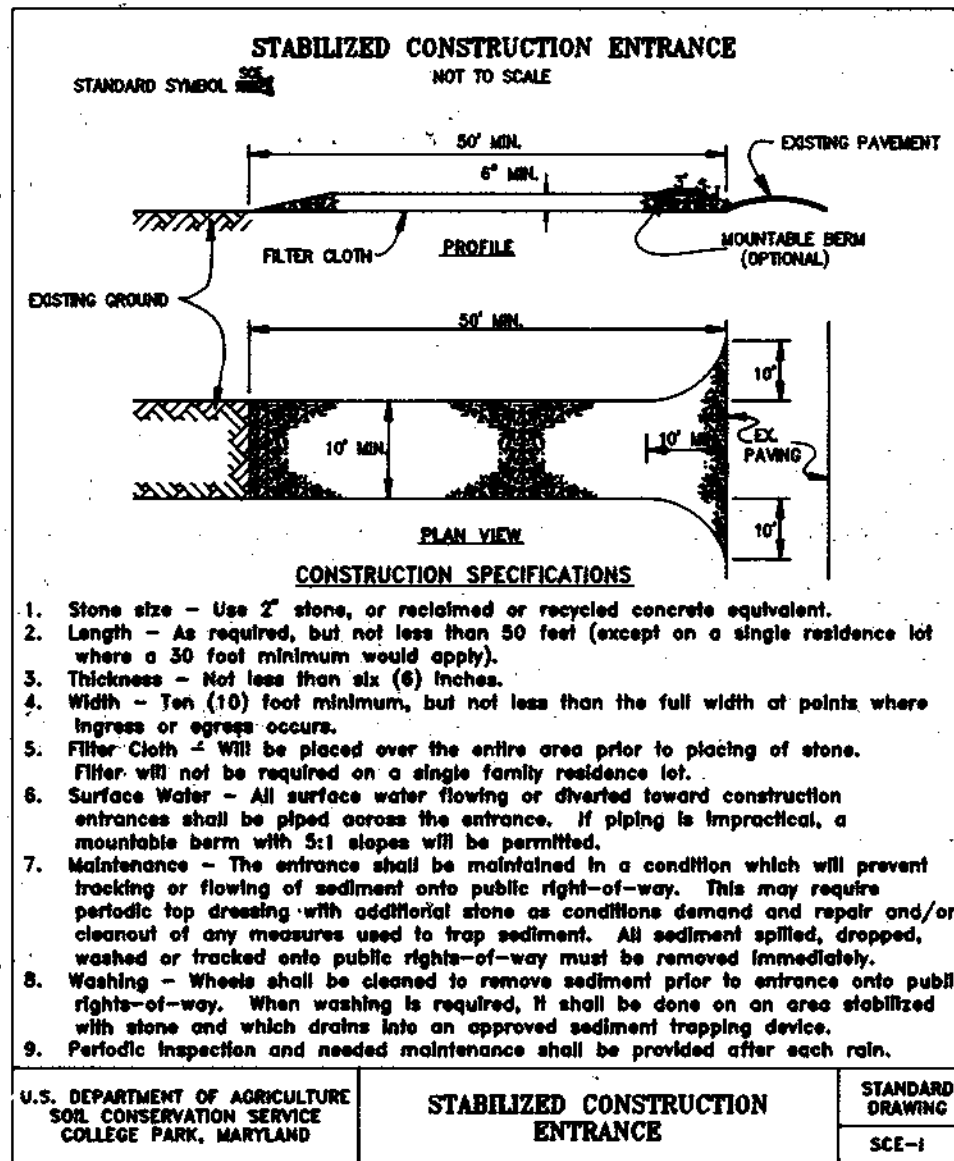
SEDIMENT CONTROL

- A minimum of 24-hour notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total area of site	5.2 Acres
Area disturbed	5.0 Acres
Area to be roofed or paved	3.2 Acres
Area to be vegetatively stabilized	1.8 Acres
Total cut	333 Cu. Yds.
Total fill	12542 Cu. Yds.

 Offsite waste/borrow area location
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

* Earthwork quantities shown hereon are to be verified by contractor for bid.
Contractor to provide positive drainage.



TEMPORARY SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (0.7 lbs/1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

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

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

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

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

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect 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 sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

J. L. Washburn 11/16/94
SOIL CONSERVATION SERVICE

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

John P. Robertson 11/16/94
SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank M. Casli 8/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT

Gina Swirnamy 8/19/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED: FOR PUBLIC WATER, PUBLIC SEWAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

James J. DeW... 8/17/94
DIRECTOR

Robert P. ... 8/16/94
CHIEF, BUREAU OF ENGINEERING

DEVELOPERS CERTIFICATE

I 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 certification of attendance of a Maryland Department of Environment approved training program for the periodic on-site inspections by the Howard Soil Conservation District or their authorized agents, as deemed necessary.

[Signature] 12/23/93
Date

ENGINEER CERTIFICATE

I certify that this plan for erosion and sediment control represents a practical and workable plan based on personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[Signature] 11/10/94
Date

STATE OF MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES PROFESSIONAL ENGINEER	DATE	REVISION	BY

TITLE: SEDIMENT CONTROL DETAILS
PROJECT: COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL A-A
LOCATION: 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TAX MAP # 30 PARCEL # 406 BLOCK # 12
SCALE: AS SHOWN DESIGNED BY: JRG DRAWN BY: JE CHECKED BY: DATE: DEC, 1993
FIELD BOOK: PAGE No. JOB No. 63246 DRAWING No. 8 OF 2

OWNER/DEVELOPER :

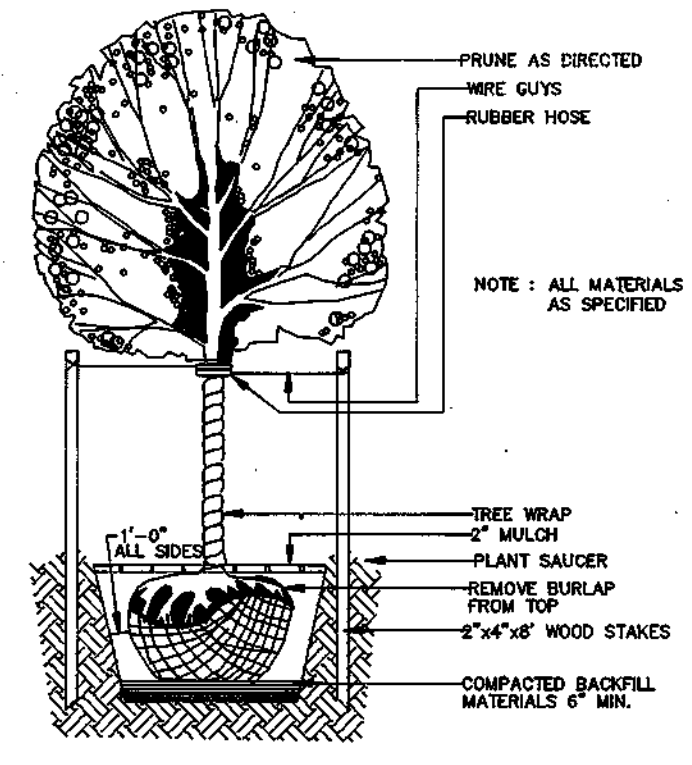
K & M DEVELOPMENT CORPORATION
c/o PATRICK MCCUAN
THE K & M BUILDING
5550 STERRETT PLACE
SUITE 312
COLUMBIA, MARYLAND 21044

Boender Associates
ENGINEERS - PLANNERS - SURVEYORS
3230 BETHANY LANE
ELICOTT CITY, MD. 21042
(410) 465-7777 FAX: (410) 465-7966

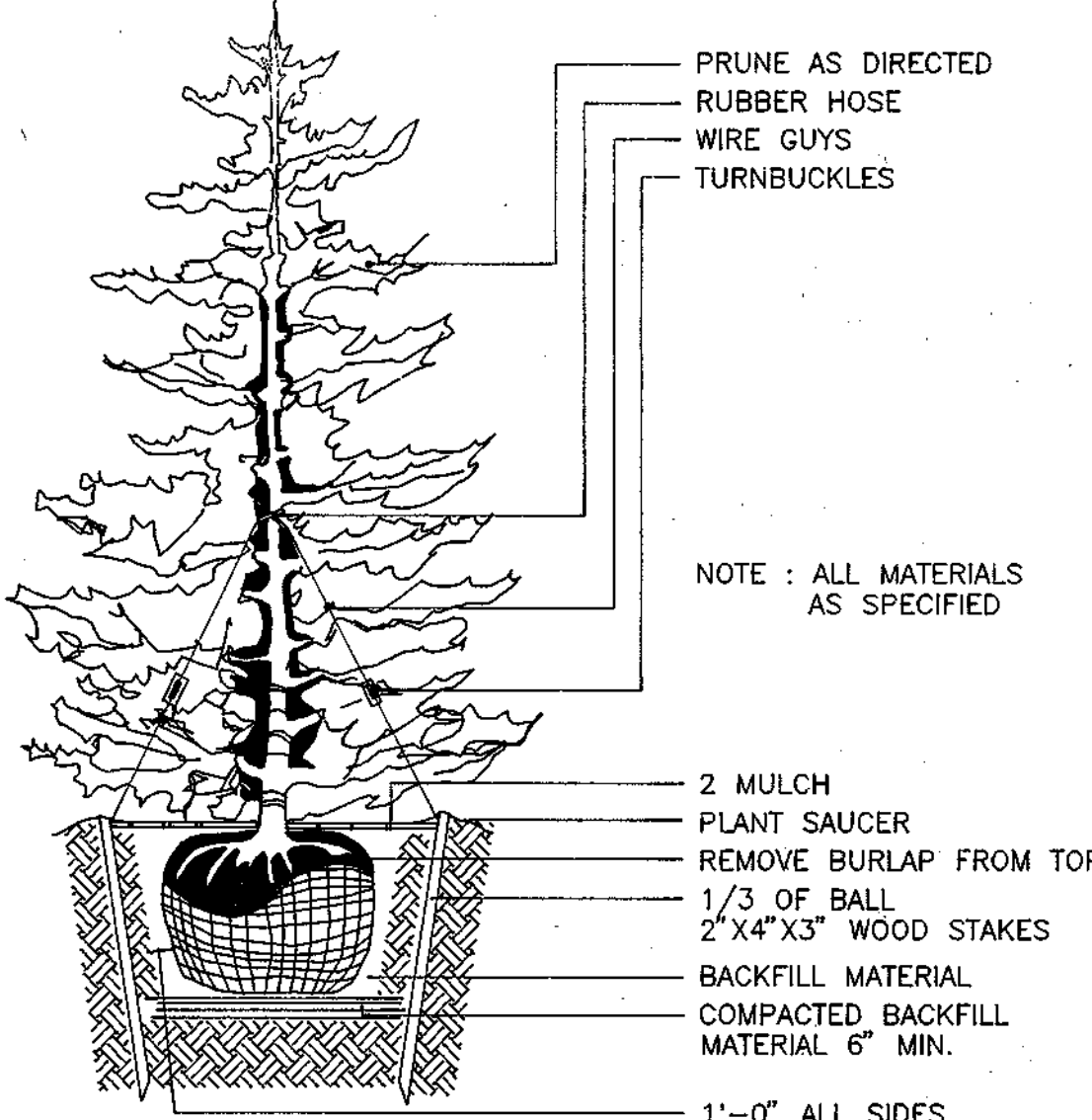
SDP-94-75

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1, AREA 2
PARCELS Q-1 AND Q-2
A RESUBDIVISION OF PARCEL Q
ZONED: POR
PARCEL Q-2

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1, AREA 2
PARCELS G THRU U
ZONED: POR



TYPICAL DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

PLANTING SCHEDULE :

SYM	QTY	BOTANICAL NAME/ COMMON NAME	SIZE	REMARKS
CL	9	CUPRESSOCYPARIS LEYLANDI/ LEYLAND CYPRESS	5'-6' HT.	B&B
PS	71	PINUS STROBUS/ EASTERN WHITE PINE	6'-8' HT.	B&B
GF	53	ABELIA X GRANDIFLORA/ GLOSSY ABELIA	2.5'-3' HT.	3.5'-4' O.C. CON. OR B&B
IO	5	ILEX OPACA/ AMERICAN HOLLY	5'-6' HT.	B&B
AR	47	ACER RUBRUM 'OCTOBER GLORY/ OCTOBER GLORY RED MAPLE	2.5'-3' CAL	B&B
QR	43	QUERCUS RUBRA/ RED OAKS	2.5'-3' CAL	B&B
LP	31	PLATANUS X ACERIFOLIA 'BLOODGOOD'/BLOODGOOD LONDON PLANE	2.5'-3' CAL	B&B

SCHEDULE A - PERIMETER LANDSCAPE EDGE

CATEGORY	AMOUNT TO PROVIDE	AMOUNT TO PROVIDE PER 100' OF PERIMETER
LANDSCAPE TYPE	TYPE A	TYPE B
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	665'	1,400'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	0
CREDIT FOR WALL, FENCE OF BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO
NUMBER OF PLANTS REQUIRED		
SHADE TREES	9	25
EVERGREEN TREES	11	N/A
SHRUBS	N/A	N/A
NUMBER OF PLANTS PROVIDED		
SHADE TREES	22	0
EVERGREEN TREES	25	69
OTHER TREES (2:1 SUBSTITUTION)	N/A	N/A
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	13	40

SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING

NUMBER OF PARKING SPACES	109
NUMBER OF TREES REQUIRED	16
NO. OF LANDSCAPED ISLANDS/PROVIDED	16
NO. OF LANDSCAPED ISLANDS PROVIDED	24
NUMBER OF PLANTS PROVIDED	
SHADE TREES	10
OTHER TREES (2:1 SUBSTITUTION)	10
EVERGREEN = 2	3

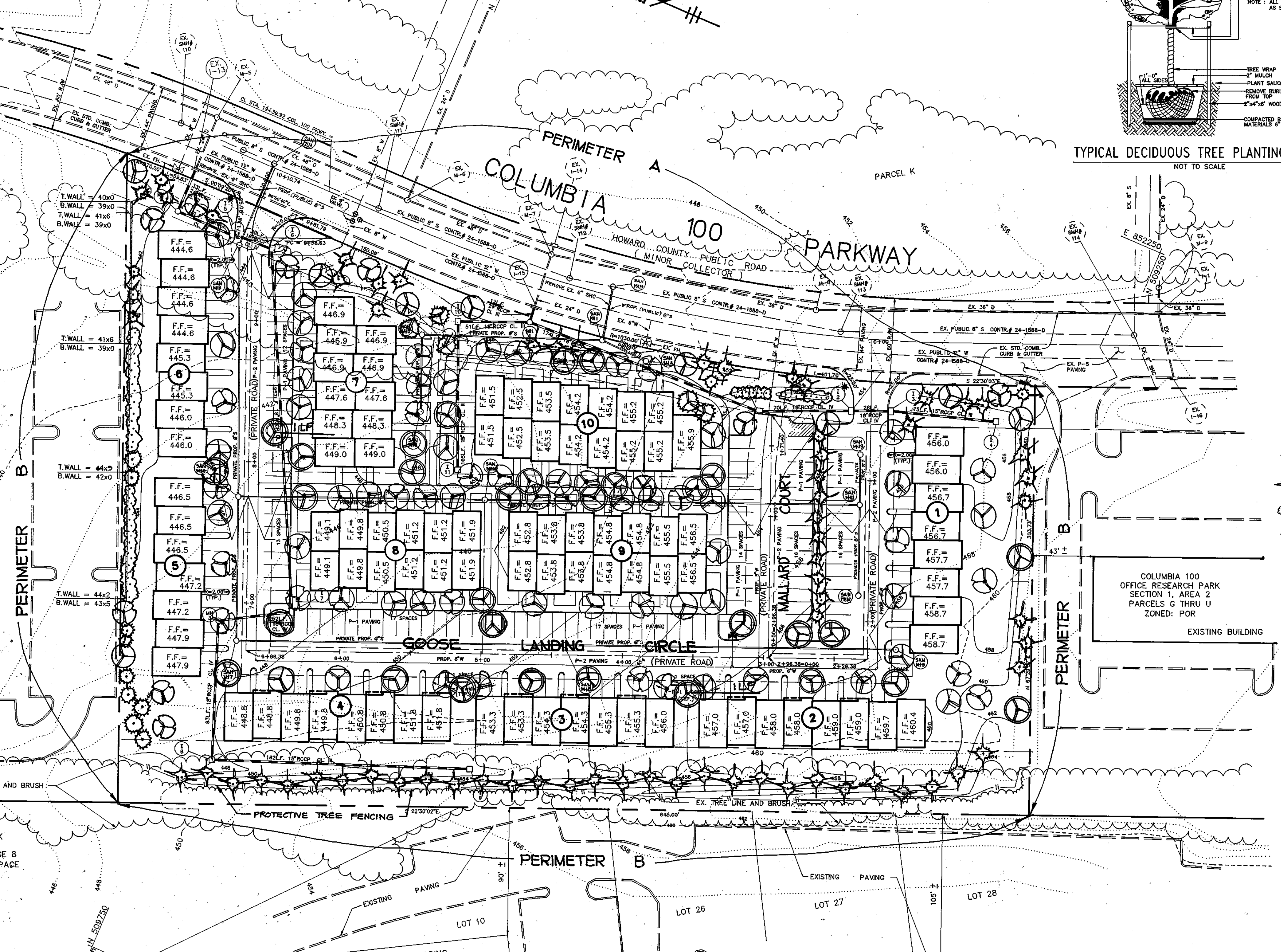
SCHEDULE C - RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING

NUMBER OF DWELLING UNITS	98
NUMBER OF TREES REQUIRED (1:1 DU APFTS)	98
NUMBER OF PLANTS PROVIDED	
SHADE TREES	26
OTHER TREES (2:1 SUBSTITUTION)	4
EVERGREEN = 2	3

OWNER/DEVELOPER :

K & M DEVELOPMENT CORPORATION
c/o PATRICK McCUAN
THE K & M BUILDING
5550 STERRETT PLACE
SUITE 312
COLUMBIA, MARYLAND 21044

NOTE:
SEE WATER CONTRACT NO. 24-3361-D
FOR EASEMENT LOCATION.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Frank D. Layle - 8/19/94
DIRECTOR DATE

Uma Surransy - 8/19/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

James P. Lee - 8/19/94
DIRECTOR DATE

Paul D. Papan - 8/16/94
CHIEF, BUREAU OF ENGINEERING DATE

NOTE: 1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
2. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$15,000.



DATE	REVISION	BY
7/19/94	CHANGED SIZE OF SHC FROM 6" TO 8"	WCP

Boender Associates
ENGINEERS - PLANNERS - SURVEYORS
3230 BETHANY LANE
ELLCOTT CITY, MD. 21042
(410) 465-7777 FAX: (410) 465-7966