CURVE DATA

NO.	RADIUS	LENGTH	Δ	TANGENT	CHORD
A	30.00	[illegible]	90°00'00"	30.00'	N01°02'55.5"W 42.43'
B	790.00	901.51'	65°22'59"	507.00'	N11°15'34.5"E 853.30'
C	770.5'	409.53	30°30'03"	254.41'	S17°42'02"E 400.37'
D	577.46	300.33	29°47'55"	153.64'	S3°20'50.5"E 296.95'
E	20.55	101.81'	51°40'40"	97.61'	S02°24'31.5"E 175.70
F	30.00	47.12'	90°00'00"	30.00'	S88°57'04"W 42.43'
G	650.00'	310.42'	28°00'43"	162.74'	N29°59'43"E 315.93'
H	30.00	46.16'	88°09'03"	29.16'	N54°54'53"E 41.74'
I	125.00'	65.37'	29°57'39"	33.45'	S61°01'46"E 64.62'
J	150.00	78.44'	29°57'39"	40.14'	N61°01'46"W 77.55
K	175.00'	91.51'	29°57'39"	46.83'	N61°01'46"W 90.47'
L	30.00	43.23	82°33'55"	26.34	N34°43'40.5"W 39.50
M	150.00	84.80	0°28'24"	42.46	N02°48'44.5"E 84.74
T	650.00	509.10'	44°52'33"	268.41'	S21°30'47"W 496.19
U	650.00	509.10'	44°52'33"	268.41'	S21°30'47"W 496.19'

SITE DATA

TOTAL AREA OF SITE - 88.00 AC.± / 3,833,280 SQ.FT.
AREA OF SUBMITTAL - 37.93 AC.±
EXISTING ZONING - N.T. - EMPLOYMENT CENTER INDUSTRIAL (FDP - 117A)
PROPERTY REFERENCE - 0685-0693 SIELING INDUSTRIAL CENTER SECTION 1 AREA 1 PARCEL 'A' FOR PLAT BK. 23 FOLIO 17

EXISTING USE - VACANT
PROPOSED USE - OFFICE
TOTAL FLOOR AREA - 200,000 S.F. - 4 STORIES PER BLDG. (25,000 SQ FT PER STORY)
FLOOR AREA RATIO - 200,000 S.F. = 4.59 AC./88.00 AC. = 5.22%
% OPEN SPACE - 76.81 AC./88.00 AC. = 87.28%
% BUILDING COVERAGE W/PAVING = 11.19 AC.±/88.00 AC.± = 12.72%
% BUILDING COVERAGE = 50,000 S.F. = 1.15 AC./88.00 AC. = 1.31%
AREA TO BE DISTURBED = 37.93 AC.±
AREA TO BE VEGETATIVELY STABILIZED = 26.74 AC.±
TOTAL AREA OF PARKING AREA = 313,900 S.F./7.21 AC.±
TOTAL AREA OF LANDSCAPED AREA = 18,525 S.F./0.43 AC.±
% OF LANDSCAPED ISLANDS = 0.43 AC.±/7.21 AC.± = 5.96%

PARKING TABULATION

PARKING REQUIRED

BUILDING #1 / BUILDING #2 — 200,000 S.F.

PROPOSED USE - OFFICE = 200,000 S.F. 2 P.S. REQ'D PER 1,000 S.F (IN ACCORDANCE WITH F.D.P - 117A)

TOTAL PARKING REQUIRED = 400 P.S.
TOTAL PARKING PROVIDED = 869 P.S. (INCLUDES 18 HANDICAPPED)

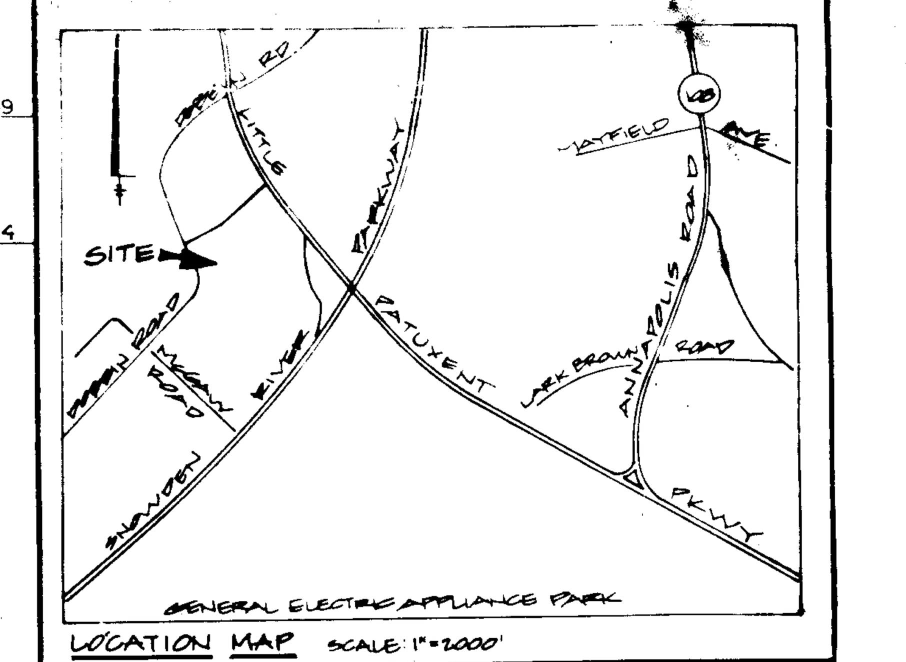
GENERAL NOTES

1. Maximum building height = 50'.
2. All areas not being paved or receiving building coverage shall be stabilized in accordance with the plans approved by Howard Soil Conservation District.
3. Any damage to public rights-of-way and/or adjacent properties shall be repaired immediately at the contractor's expense.
4. The contractor shall maintain at least a 2' level bench behind all curb and gutter in fill areas.
5. The contractor shall verify all existing utilities to his own satisfaction before starting construction.
6. All slopes shall be 2:1 or flatter.
7. All work shall be done in accordance with Howard County Standard Specifications and Details for Construction, or as shown on these plans.
8. The contractor shall notify the C&P Telephone Co. and the Gas and Electric Company five days prior to starting work shown on these plans by calling "Miss Utility". Call collect 1-559-0100.
9. For details of ramps and signs for the handicapped see the Maryland Building Code for the Handicapped and Aged and as shown hereon. See Sheet of .
10. The contractor shall maintain a minimum of 4' cover over all proposed water lines.
11. All rip-rap shall be placed on filter cloth.
12. The contractor or developer shall contact the Construction Inspection Survey Division 24 hours in advance of commencement of work at 992-2417 or 792-7272.
13. The contractor shall remove all existing paving, curb and gutter, etc. that may interfere with proposed construction.
14. All utilities installed shall receive full trench compaction.
15. All water main tees, bends, caps, etc. shall be buttressed in accordance with Howard County Design requirements.
16. All sidewalks will be 6' wide (see architectural plans for details).
17. The owner shall proved a separate and independent sewer connection for each tenant or occupant of any building, shown on this site development plan, who will discharge non-domestic waste to the public sewerage system if this waste is regulated under Section 18 122A of the Howard County Code. Each separate and independent sewer connection shall include a standard manhole and other waste pretreatment devices as required and approved by Howard County. Waste lines on the interior of the building shall be designed, constructed or modified such that non-domestic waste will be discharged to the separate and independent sewer connection. No tenant or occupant of any building shown on this site development plan shall discharge regulated non-domestic waste to the public sewerage system prior to installation of the separate and independent sewer connection and related interior waste lines. The above requirements shall apply to all initial and future occupants or tenants.

BENCH MARKS:

BM. # 234401 — ELEV. 307.49
STANDARD CONCRETE MONUMENT SET FLUSH WITH SURFACE
NORTH 491333.018 EAST 858206.723

BM. # 2343001 — ELEV. 298.24
3/4" R.B. SET 0.3FT. BELOW THE SURFACE
NORTH 492140.801 EAST 857226.671



LOCATION MAP SCALE: 1"=2000'

INDEX OF SHEETS

1. PLAN SHOWING LIMIT OF SUBMITTAL, PAVING SECTIONS, CURB SECTIONS
2. PLAN SHOWING LIMIT OF SUBMITTAL
3. SITE / STORMWATER MANAGEMENT PLAN - GENERAL NOTES
4. SITE / STORMWATER MANAGEMENT PLAN
5. SITE / STORMWATER MANAGEMENT PLAN
6. ROAD PROFILES, BUILDING SECTIONS, TYPICAL SECTIONS
7. STORM DRAIN DRAINAGE AREA MAP, HANDICAPPED DETAILS
8. STORM DRAIN PROFILES
9. STORM DRAIN PROFILES & DETAILS
10. SANITARY SEWER PROFILES
11. STORM WATER MANAGEMENT DRAINAGE AREA MAPS & MAINTENANCE SCHEDULE
12. STORM WATER MANAGEMENT PROFILES & DETAILS
13. SEDIMENT & EROSION CONTROL DRAINAGE AREA MAPS
14. SEDIMENT & EROSION CONTROL PLAN
15. SEDIMENT & EROSION CONTROL PLAN
16. SEDIMENT & EROSION CONTROL PLAN
17. SEDIMENT CONTROL PROFILES & DETAILS
18. SEDIMENT CONTROL PROFILES & DETAILS
19. LANDSCAPING PLAN
20. LANDSCAPING PLAN
21. LANDSCAPING PLAN

COORDINATE SCHEDULE

NO.	NORTH	EAST
1	493308.95	852197.32
2	493272.96	852162.62
3	493204.56	852096.86
4	493353.78	851941.90
5	493422.18	852007.83
6	493595.69	851827.85
7	493415.70	851654.34
8	493242.19	851834.32
9	493310.59	851900.26
10	493161.37	852055.04
11	492682.61	851593.50
12	492681.83	851551.08
13	492931.69	851291.91
14	492924.49	851284.97
15	492934.90	851274.17
16	493101.47	851101.39
17	493705.29	850475.04
18	493747.71	850474.26
19	494148.46	850860.60

1" BIT. CONC. SURFACE
2" BIT. CONC. BASE
PRIME
5" CRUSHER RUN BASE COARSE OR 4" DENSE GRADE STABILIZED AGGREGATE BASE COARSE

P-1 PAVING SECTION
HOWARD COUNTY STD. DETAIL R-2.01
NOT TO SCALE
SHOWN THUS

1 1/2" BIT. CONC. SURFACE
4 1/2" BIT. CONC. BASE
PRIME
6" CRUSHER RUN BASE COURSE OR 4 1/2" DENSE GRADED STABILIZED AGGREGATE BASE COURSE

P-3 PAVING SECTION
HOWARD COUNTY STD. DETAIL R-2.01
NOT TO SCALE
SHOWN THUS

1 1/2" BIT. CONC. SURFACE
1 1/2" BIT. CONC. SURFACE
5" BIT. CONC. BASE
PRIME
8" CRUSHER RUN BASE COURSE (2 COURSES) OR 6" DENSE GRADED STABILIZED AGGREGATE BASE COURSE

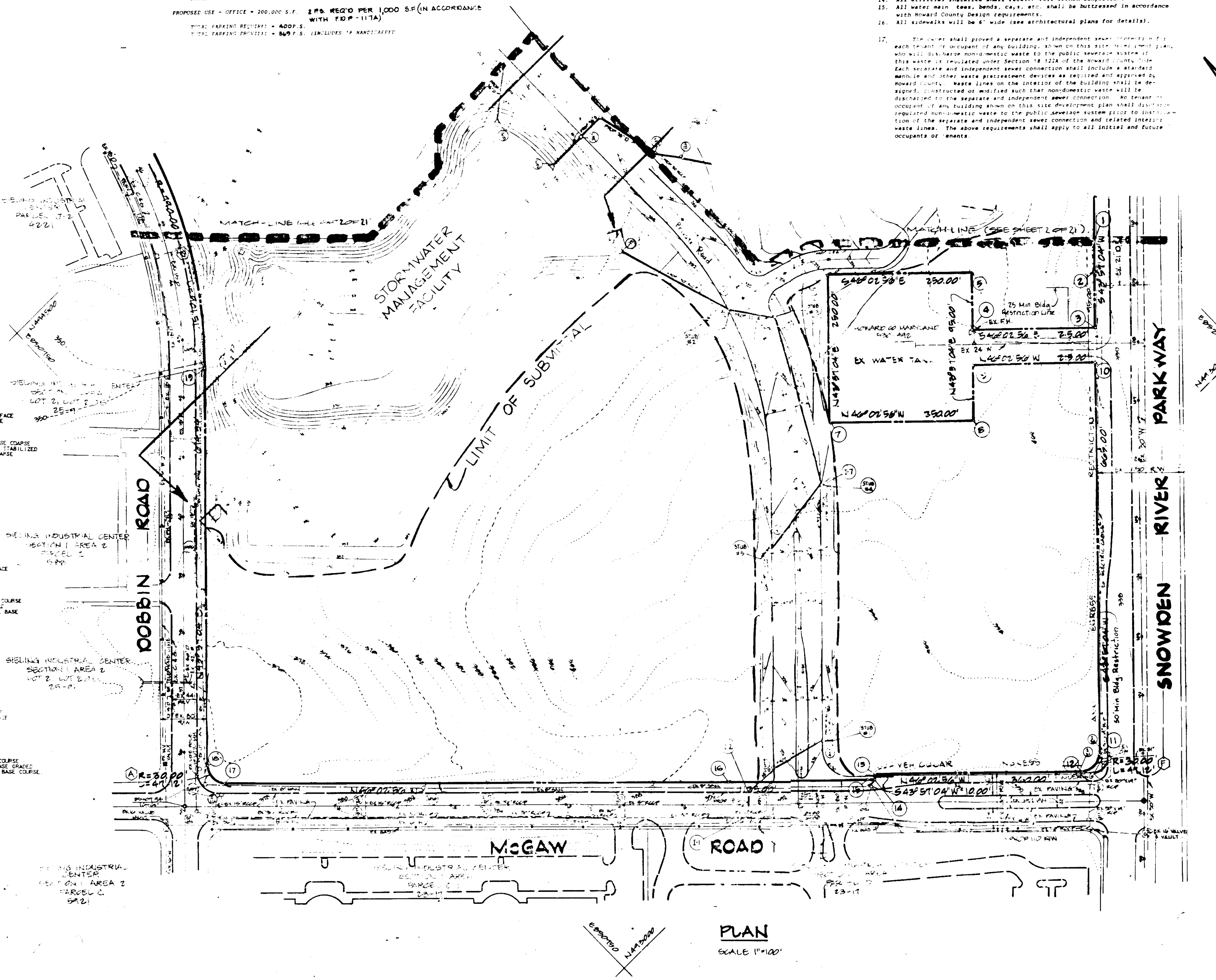
P-5 PAVING SECTION
HOWARD COUNTY STD. DETAIL R-2.01
NOT TO SCALE
SHOWN THUS

Mix 2 Concrete

STANDARD CONCRETE CURB & GUTTER

Reverse Slope
Mix 2 Concrete

REVERSE SLOPE CONCRETE CURB & GUTTER



PLAN
SCALE 1"=100'

LEGEND

EX. GROUND	
PROP. GRADE	
PROPERTY LINE	
EASEMENTS	
EX. CURB & GUTTER	
PROP. CURB & GUTTER	
EX. STORM DRAINS	
PROP. STORM DRAINS	
EX. WATER	
PROP. WATER	
NO. OF PARKING SPACES	
HANDICAPPED PARKING	
SANITARY	
HANDICAPPED RAMP	A
LIMIT OF SUBMITTAL	

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond soil erosion and sediment control.
[signature] 9-15-87
U.S. Soil Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.
Approved: [signature] 9-15-87
Howard Soil Conservation District

APPROVED: For public water and public sewerage systems Howard County Health Department
[signature] 10-1-87
County Health Officer

APPROVED: Howard County Office of Planning and Zoning
[signature] 10-5-87
Director
[signature] 10-2-87
Chief Division of Land Development & Zoning Administration

APPROVED: For public water and public sewerage systems and public roads Howard County Department of Public Works.
[signature] [date]
Director
[signature] 9-29-87
Chief Bureau of Engineering

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6-10-87

ADDRESS CHART

BUILDING #	STREET ADDRESS
1	8830 McGAW ROAD
2	8820 McGAW ROAD

SUBDIVISION NAME			SECT./AREA		PARCEL #
SIELING INDUSTRIAL CENTER			1 / 1		A
PLAT # OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST.	CENSUS TRACT
BOOK 23 FOL.10 17	23 & 24	NT (IND)	36	6	6063.02
WATER CODE	E06		SEWER CODE	339000	

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.
ENGINEER: TAPOBRATA CHAKRABARTI
REG. NO.: 8925 DATE: 3/31/87

OWNER:
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY. 07922
DEVELOPER:
MC GILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE
I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.
DEVELOPER: CHRISTOPHER W KURZ TITLE: CHAIRMAN DATE: 1987

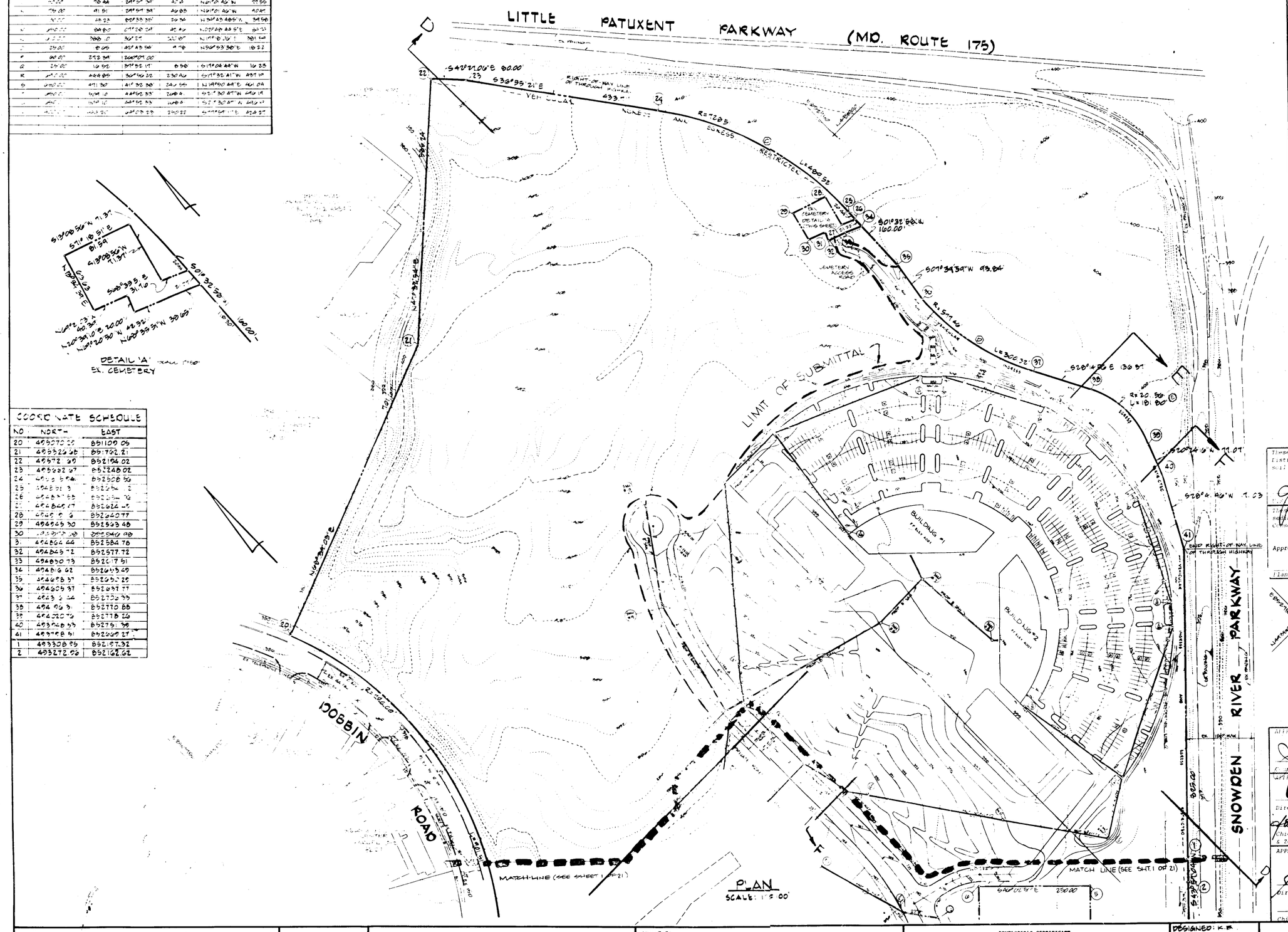
DESIGNED: K.B.
DRAWN: J.B.
CHECKED: P.C.
REVISIONS
PN 05607

PLAN SHOWING LIMIT OF SUBMITTAL
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
HOWARD COUNTY, MARYLAND — ELECT. DISTRICT 6
SCALE: 1"=100' — MARCH 23, 1987
TAX MAP 36
PARCEL 330 — SHEET 1 OF 21

SDP-87-193c

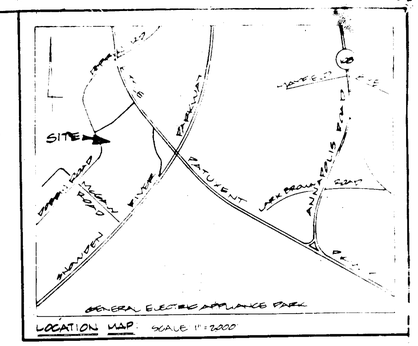
CURVE DATA

			Δ	TANGENT	CHORD	
[illegible]	[illegible]	78.44	28°57'30"	42.6	N61°0'46"W	77.55
L	75.00	41.51	28°57'30"	42.03	N61°0'46"W	40.87
[illegible]	[illegible]	42.23	80°33'35"	24.34	N39°23'48"W	38.58
N	[illegible]	84.80	67°28'30"	47.84	N33°28'48"E	79.93
[illegible]	[illegible]	300.0	30°27'	52.07"	N11°0'36"E	301.00
[illegible]	25.00	8.05	18°43'56"	4.06	N56°33'30"E	10.22
P	60.00	272.34	260°00'00"			
Q	25.00	16.02	37°52'17"	8.30	S17°04'44"W	16.23
R	[illegible]	444.85	30°16'22"	230.46	S11°32'21"W	439.78
S	[illegible]	471.30	41°32'30"	247.55	N14°50'44"E	461.04
[illegible]	[illegible]	504.10	44°50'33"	268.0	S3°30'47"W	491.19
[illegible]	[illegible]	[illegible]	30°50'33"	268.0	S3°30'47"W	491.19
[illegible]	[illegible]	103.21	28°28'23"	52.72	S[illegible]°E	102.17



PLAN
SCALE: 1"=100'

DETAIL 'A'
EX. CEMETERY



LOCATION MAP SCALE 1"=2000'

BENCH MARKS:

B.M. # 234400. ELEVATION 327.49
STANDARD CONCRETE MONUMENT SET FLUSH WITH SURFACE
NORTH 491333.018 EAST 858206.723

B.M. # 234300. ELEVATION 288.24
3/4" RB SET 0.3 FT BELOW THE SURFACE
NORTH 492140.801 EAST 857226.671

COORDINATE SCHEDULE

NO	NORTH	EAST
20	493070.55	851109.09
21	493326.68	851702.21
22	493572.80	852104.02
23	493622.67	852248.02
24	[illegible]	852508.50
25	[illegible]	[illegible]
26	[illegible]	[illegible]
27	494865.47	851602.45
28	[illegible]	852640.77
29	494545.30	852593.48
30	[illegible]	[illegible]
31	494504.44	852584.78
32	494443.72	852577.72
33	494430.73	852517.51
34	494416.02	852443.49
35	494408.57	852403.25
36	494405.37	852387.77
37	[illegible]	852350.33
38	[illegible]	852770.88
39	494520.75	852778.20
40	493040.53	852751.38
41	493308.61	852660.27
1	493308.85	852197.32
2	493272.90	852162.62

These plans have been reviewed [illegible] District meet the technical requirements for soil erosion and sediment control.
9-15-87

These plans [illegible] sediment control meet the [illegible] Conservation District.
Approved: Howard Soil Conservation District
9-15-87

Plan Number

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

APPROVED: For public water and public sewerage systems, Howard County Health Department.
10-1-87

APPROVED: Howard County Department of Planning and Zoning
Director
10-5-87
Chief Division of Land Development
10-2-87

APPROVED: For public water and public sewerage systems and public roads in Howard County, Department of Public Works.
Director
9/30/87
Chief Bureau of Engineering
9-29-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

STATE OF MARYLAND — JAYADRATA CHAKRABARTI — REGISTERED PROFESSIONAL ENGINEER — 3/31/87

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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. I HAVE NOTIFIED THE SOIL CONSERVATION DISTRICT TO PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.
ENGINEER Jayadrata Chakrabarti JAYADRATA CHAKRABARTI
REG. NO. 8930 DATE 3/31/87

OWNER:
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922
DEVELOPER:
MC GILL DEVELOPMENT COMPANY
6420 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE
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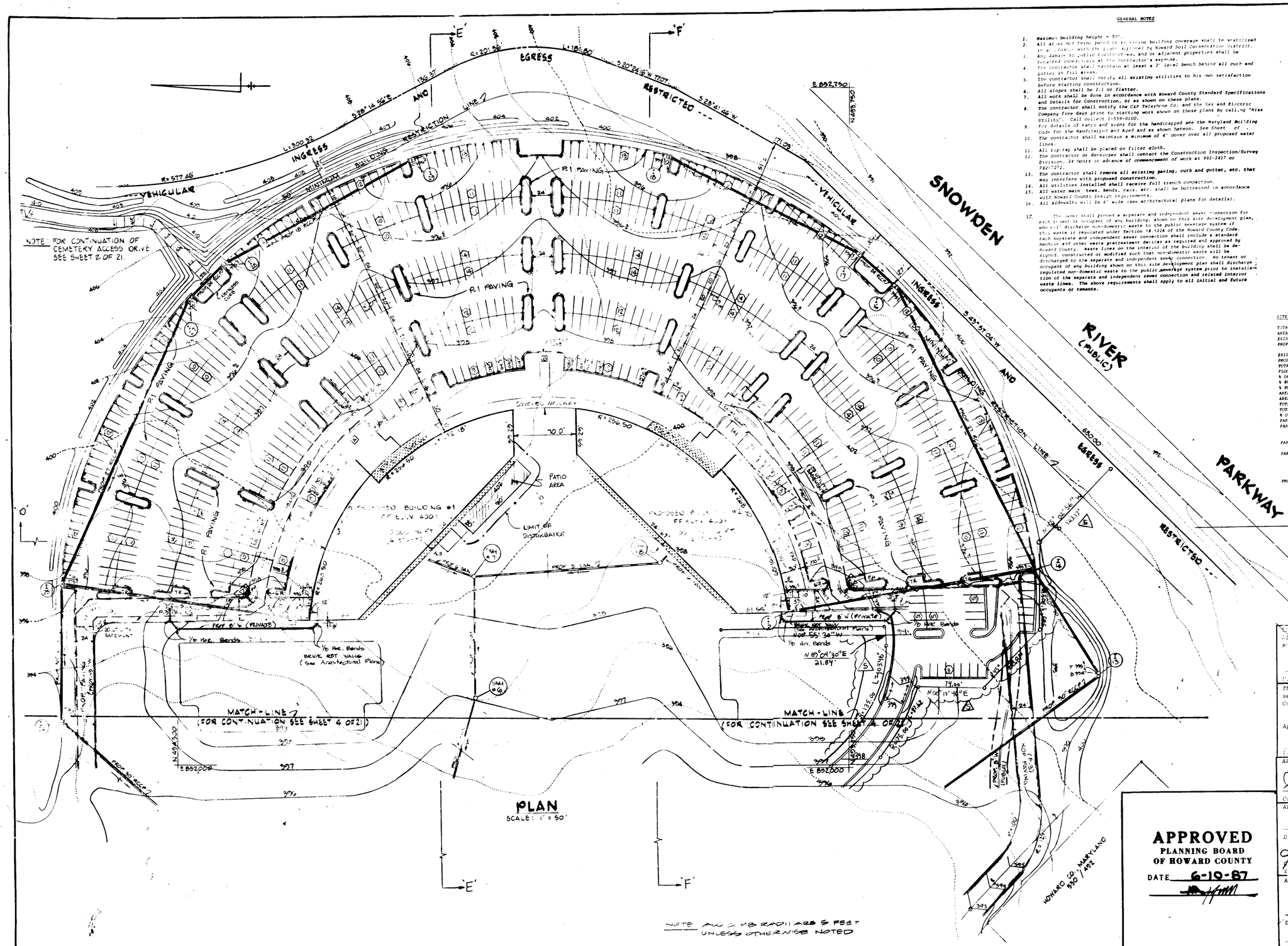
DEVELOPER: CHRISTOPHER W. KURZ TITLE CHAIRMAN DATE: 3/27/87

DESIGNED: K.R.
DRAWN: J.B.
CHECKED: P.C.
REVISIONS
PW# 35607

PLAN SHOWING LIMIT OF SUBMITTAL
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
HOWARD COUNTY, MARYLAND
SCALE: 1"=100'
TAX MAP 30
PARCEL 390
ELECT. DISTRICT 6
MARCH 23, 1987
SHEET 2 OF 21

SDP-87-193c



PLAN

SCALE: 1" = 50'

NOTE: ALL CURB RADII ARE 5 FEET UNLESS OTHERWISE NOTED

GENERAL NOTES

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SITE DATA

TOTAL AREA OF SITE = 88.00 AC ± / 3,833,280 SQ.FT.
AREA OF SUBMITTAL = 37.93 AC ±
EXISTING ZONING = M.P. - EMPLOYMENT CENTER INDUSTRIAL (EO" - 117A)
PROPERTY REFERENCE = 0685-0693 SIELING INDUSTRIAL CENTER SECTION 1 AREA 1 PARCEL 'A' (FOR PLAT BK. 23 FOLIO 17)

EXISTING USE - VACANT
PROPOSED USE - OFFICE
TOTAL FLOOR AREA = 200,000 S.F. - 4 STORIES PER BLDG. (25,000 SQ.FT PER STORY)
FLOOR AREA RATIO = 200,000 S.F. ÷ 4.59 AC./88.00 AC. = 5.22%
% OPEN SPACE = 76.81 AC./88.00 AC. = 87.28%
% BUILDING COVERAGE W/PAVING = 11.19 AC./88.00 AC. = 12.72%
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AREA TO BE DISTURBED = 37.93 AC.±
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TOTAL AREA OF PARKING AREA = 313,900 S.F./7.21 AC.±
TOTAL AREA OF LANDSCAPED AREA = 38,525 S.F./0.91 AC.±
% OF LANDSCAPED ISLANDS = 0.43 AC./7.21 AC.± = 5.96%
PARKING REQUIRED - 400 P.S.
PARKING PROVIDED - 869 P.S. (INCLUDES 18 HANDICAPPED)

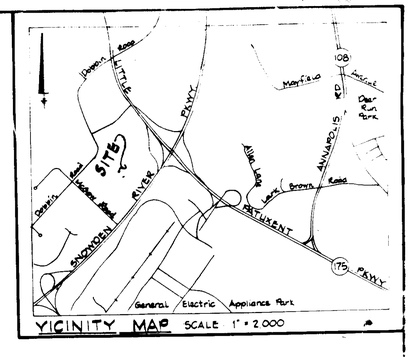
PARKING TABULATION

PARKING REQUIRED

BUILDING #1 200,000 S.F.
BUILDING #2

PROPOSED USE - OFFICE = 200,000 S.F. 2 PS. REQ'D PER 1,000 S.F. (IN A [illegible]) WITH FOP - 117A)

TOTAL PARKING REQUIRED = 400 P.S.
TOTAL PARKING PROVIDED = 869 P.S. (INCLUDES 18 HANDICAPPED)



VICINITY MAP SCALE 1" = 2000'

These plans have been reviewed by the Howard County Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard County Soil Conservation District.

Approved: Howard County Soil Conservation District — 9-15-87

File Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — 10-1-87

APPROVED: Howard County Office of Planning & Zoning

Director — 10.5.87

Chief Division of Land Development & Zoning Administration — 10-2-87

APPROVED: For public water and public sewerage systems and public roads Howard County Department of Public Works.

Director — 9/30/87 Date

Chief Bureau of Engineering — 9-30-87 Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

GWS
GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)525-8120

STATE OF MARYLAND — TAPOBRATA CHAKRABARTI — No. 8830 — PROFESSIONAL ENGINEER — 3/31/87

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE OWNER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: Tapobrata Chakrabarti
REG. NO.: 8830 DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKELEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: DATE: 3/31/87
CHRISTOPHER W. KURZ TITLE: CHAIRMAN

DESIGNED BY: K.L.B.
DRAWN BY: K.L.B.
CHECKED BY: T.C.

REVISIONS
REV 6/5/86 G.W.S. ADDED Access Rd., Ext. Hydrants, Parking & Relocate Fire & W.H.C. @ Buildings 1 & 2
REV 4/29/94 BY G.W. STEPHENS ADDED PATIO AREA TO BLDG #1

SITE AND STORMWATER MANAGEMENT PLAN
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
F.N. 05607
ELECTION DISTRICT #6
MARCH 23, 1987
SHEET #3 OF 21

SDP-87-193c

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Robert W. Ziehm 9-15-87
Howard Soil Conservation District Date

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer 10-1-87 Date

APPROVED: Howard County Office of Planning & Zoning

Director 10.5.87 Date

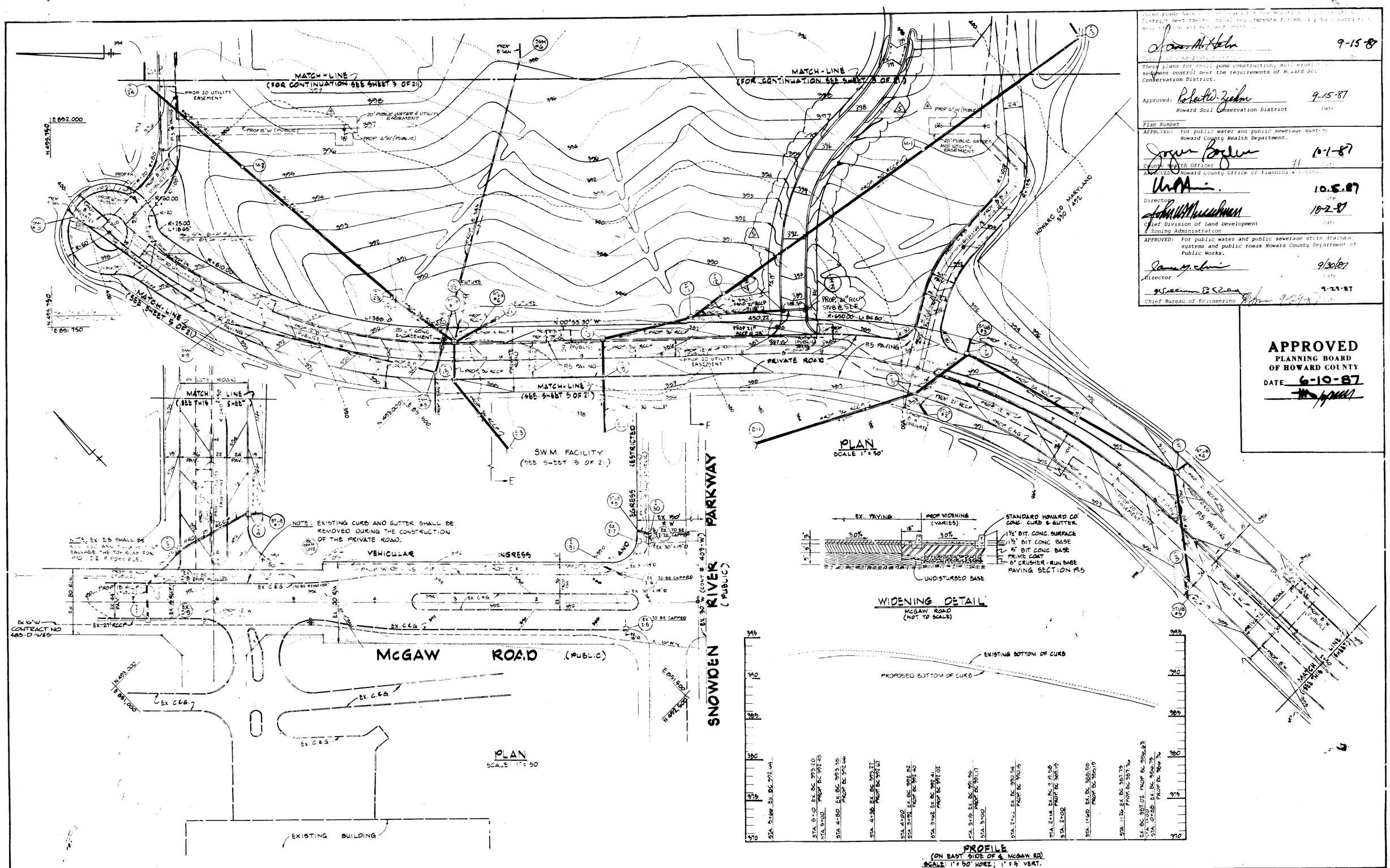
Chief Division of Land Development & Zoning Administration 10-2-87 Date

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director 9/30/87 Date

Chief Bureau of Engineering 9-29-87 Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87



GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SWM FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER Tapobrata Chakrabarti
TAPOBRATA CHAKRABARTI
REG. NO. 8930 DATE 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE
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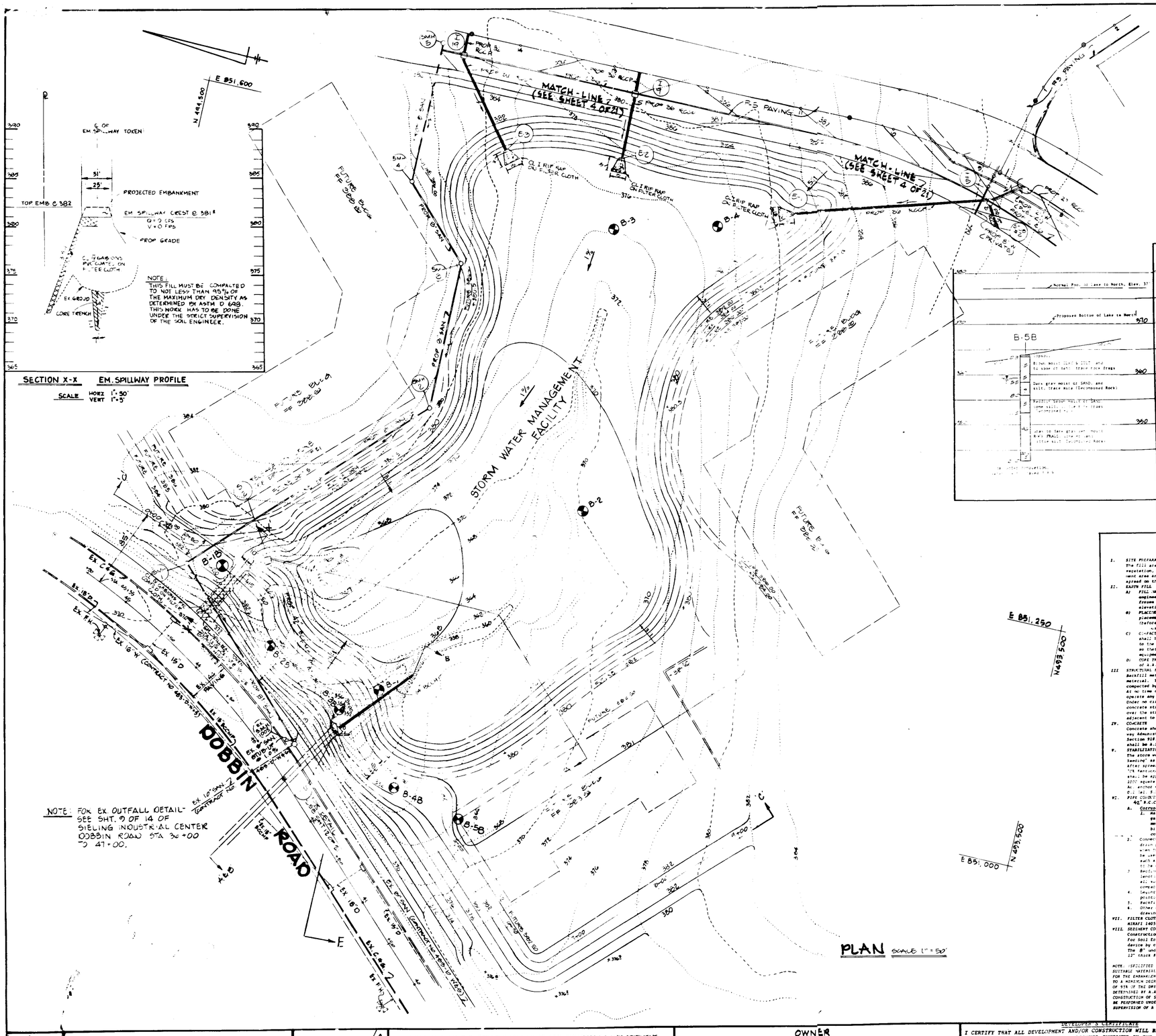
DEVELOPER: CHRISTOPHER W. KURZ TITLE: DATE: 3/24/87

DESIGNED BY: K.L.B.
DRAWN BY: K.L.B.
CHECKED BY: T.C.

REVISIONS
#1. 6/2/86 G.W.S. ADDED ACCESS RD. 2/12/87 2-2-87
#3. Relocate F.H. & WHA @ Buildings 1 & 2
⚠ ADDED 6" W AND 8" W, AND 2 F.H. 8/14/87

SITE AND STORM WATER MANAGEMENT PLAN
COLUMBIA CORPORATE PARK
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND ELECTION DISTRICT #6
SCALE AS SHOWN MARCH 23, 1987
F.N. 05607 SHEET #4 OF 21

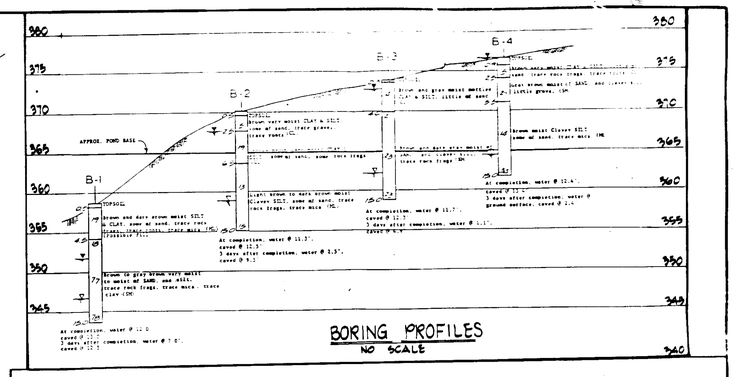
SDP-87-143c



PLAN SCALE 1" = 50'

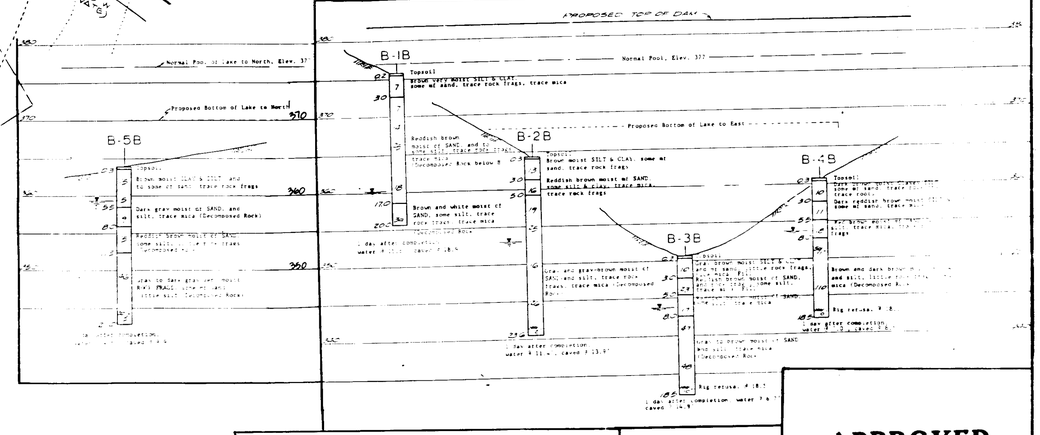
SECTION X-X EM. SPILLWAY PROFILE

SCALE HORZ 1" = 50' VERT 1" = 5'



BORING PROFILES

NO SCALE



CONSTRUCTION SPECIFICATIONS

I. SITE PREPARATION
The fill area and borrow area shall be cleared and grubbed to remove all trees, vegetation, roots and other objectionable material. The topsoil from the embankment area and borrow area shall be removed and stockpiled. The topsoil shall be spread on the completed fill area.

II. EARTH FILL
A) FILL MATERIAL shall be obtained from on-site under the supervision of a soils engineer. It shall be free from roots, stumps, wood rubbish, oversized stones frozen or other objectionable material. Fill areas shall be constructed to the elevation shown on the plan to allow for anticipated settlement.
B) PLACEMENT: Areas on which fill will be placed shall be scarified prior to placement of fill. Fill materials shall be placed in layers 6" thick maximum (before compaction) and shall be continuous over the entire length of fill. Wet porous material shall be placed in areas not adjacent to ponded water.
C) COMPACTION: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be compacted to the specified density. Fill material shall contain sufficient moisture so that the required degree of compaction can be obtained with the equipment used.
D) CORE TRENCH shall be made of SC or CL material compacted to 95% of A.A.S.H.T.O. T-99 density.

III STRUCTURAL BACKFILL
Backfill material shall be the type and quality specified for the adjoining fill material. The fill shall be placed in horizontal layers 6" thick maximum and compacted by hand tamping or manually directed power tampers or plate vibrators. At no time during backfilling operations shall driven equipment be allowed to operate any closer than four feet measured horizontally to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Materials shall fill completely all spaces under and adjacent to newly installed pipe.

IV. CONCRETE
Concrete shall meet the minimum requirements set forth in the Maryland State Highway Administration "Specifications for Construction and Materials" January 1982 Section 916.06 - "Portland Cement Concrete Mixtures", Mix No. 3 Reinforcing steel shall be A.S.T.M. A 615 Grade 60.

V. STABILIZATION
The storm water management facility will be stabilized with "Permanent Slope Seeding" as follows:
After spreading 4" topsoil seed with a mixture of 30% innoculated crown vetch and 70% tall fescue. Tall fescue applied at a rate of 60 lbs./AC. 10-20-20 fertilizer shall be applied at a rate of 25 lbs./1000 square feet, lime at a rate of 92 lbs./1000 square feet. Mulch area with unweathered small grain straw at a rate of 2-3 TO/AC. anchor with rapid curing asphalt M.C.-70, R.C.-250 or R.C.-800 at a rate of 0.1 gal. S.Y.

VI. PIPE CONNECTS
42" R.C.C.P., Type A, HOT LINED, (n=.10)
A. Corrugated Metal Pipe
1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-90 with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
2. Connections - All connections with pipes must be completely watertight. The drain pipe to barrel connection to the riser shall be welded all around where the pipe and riser are metal. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Simple bands are not considered to be watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. Backfilling shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

VII. FILTER CLOTH
MIRAFI 1403 or equivalent shall be used.

VIII. SEDIMENT CONTROL
Construction to be in accordance with "1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control". In release structure install dewatering device by connecting 20 L.F. of 8" perforated underdrain to the low flow pipe. The 8" underdrain shall be wrapped in filter cloth and covered with minimum 12" thick #2 stone.

NOTE: (SPECIFIED DENSITY)
SUITABLE MATERIAL SHALL BE USED FOR THE EMBANKMENT AND MOLDED TO A MINIMUM DEGREE OF COMPACTION OF 95% OF THE DRY UNIT WEIGHT AS DETERMINED BY A.A.S.H.T.O. T-99. CONSTRUCTION OF SWM POND SHALL BE PERFORMED UNDER STRICT SUPERVISION OF A SOILS ENGINEER.

NOTE:
IN ADDITION TO LISTED ABOVE SPECS CONTRACTOR MUST FOLLOW THE METHODS OF CONSTRUCTION OF THE DAM & LAKE AS RECOMMENDED IN THE SOIL REPORT PREPARED BY HERBS & ASSOC., INC DATED MAY 11, 1987. THE COPY OF REPORT MAYBE OBTAINED FROM MC GILL DEVELOPMENT COMPANY.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — 9-15-87 Date

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — 10-1-87 Date

APPROVED: Howard County Office of Planning & Zoning.

Director — 10-2-87 Date

Chief Division of Land Development & Zoning Administration — 10-2-87 Date

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — 9/30/87 Date

Chief Bureau of Engineering — 9-22-87 Date

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

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ENGINEER: Debabrata Chakrabarti
REG NO: 8930 DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

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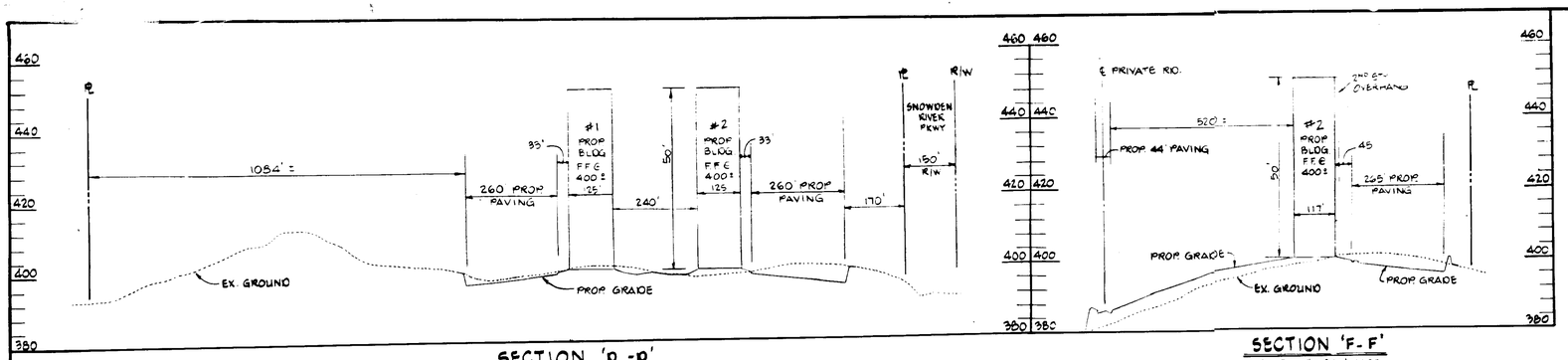
DEVELOPER: CHRISTOPHER W. KURZ - TITLE DATE: 3/26/87

DESIGNED BY: I.Z.	
DRAWN BY: K.B/D.L.	
CHECKED BY: T.C.	
REVISIONS	

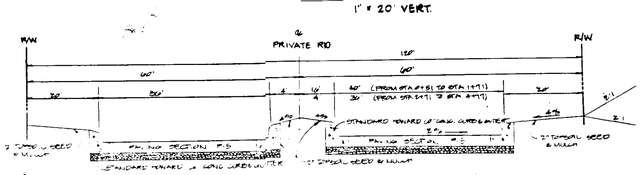
SITE AND STORMWATER MANAGEMENT PLAN
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND ELECTION DISTRICT #6
SCALE AS SHOWN MARCH 23, 1987
F.N. 05607 SHEET #5 OF 21

SDP-87-193c



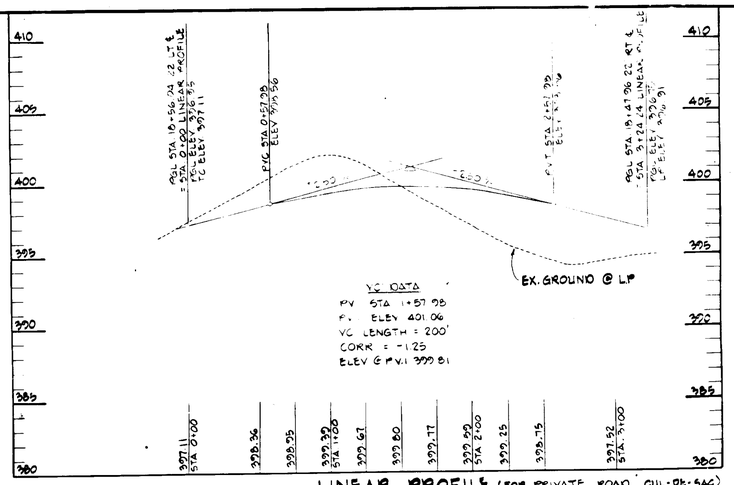
SECTION 'D-D'

SCALE: 1" = 200' HORZ.
1" = 20' VERT.



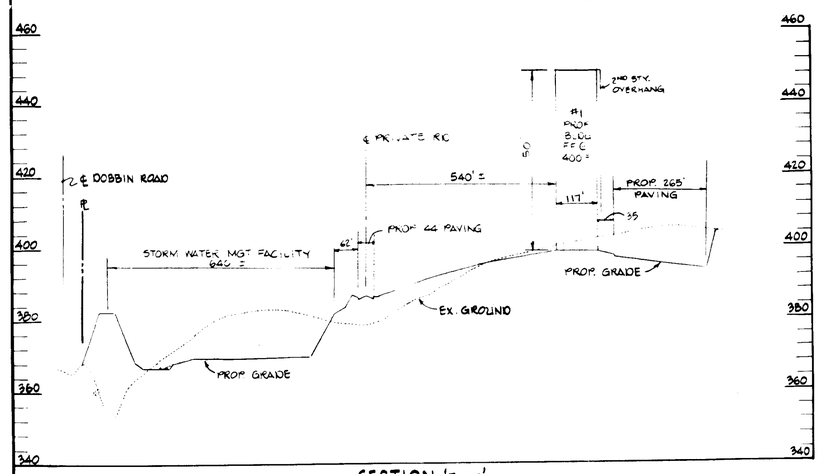
TYPICAL SECTION

NOT TO SCALE



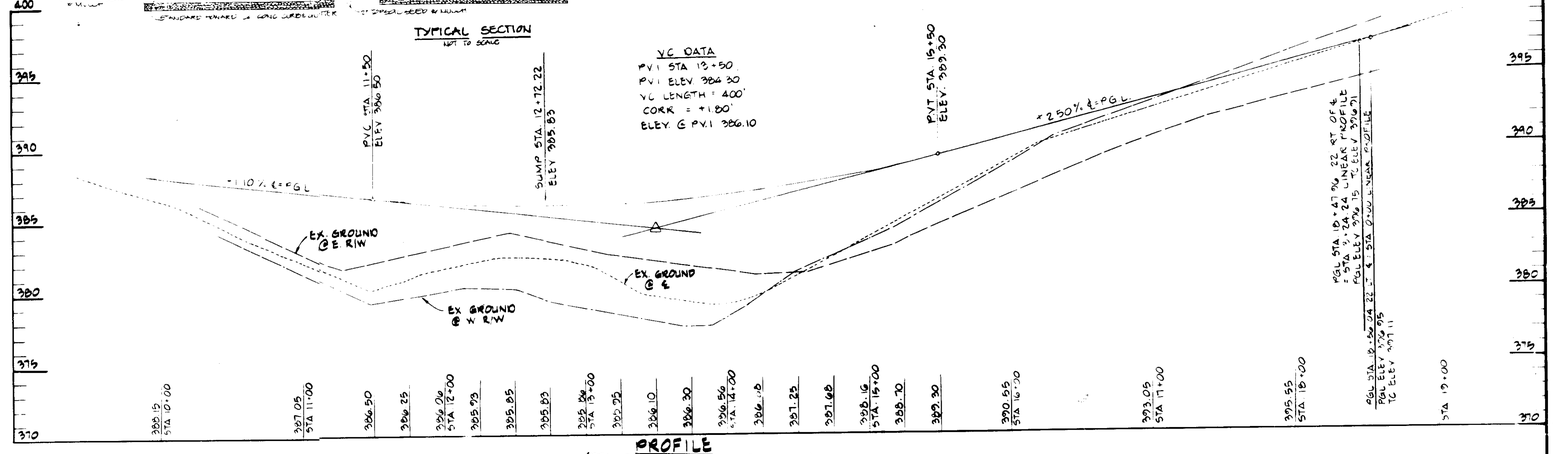
LINEAR PROFILE (FOR PRIVATE ROAD CUL-DE-SAC)

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



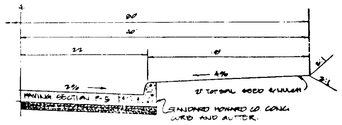
SECTION 'E-E'

SCALE: 1" = 200' HORZ.
1" = 20' VERT.

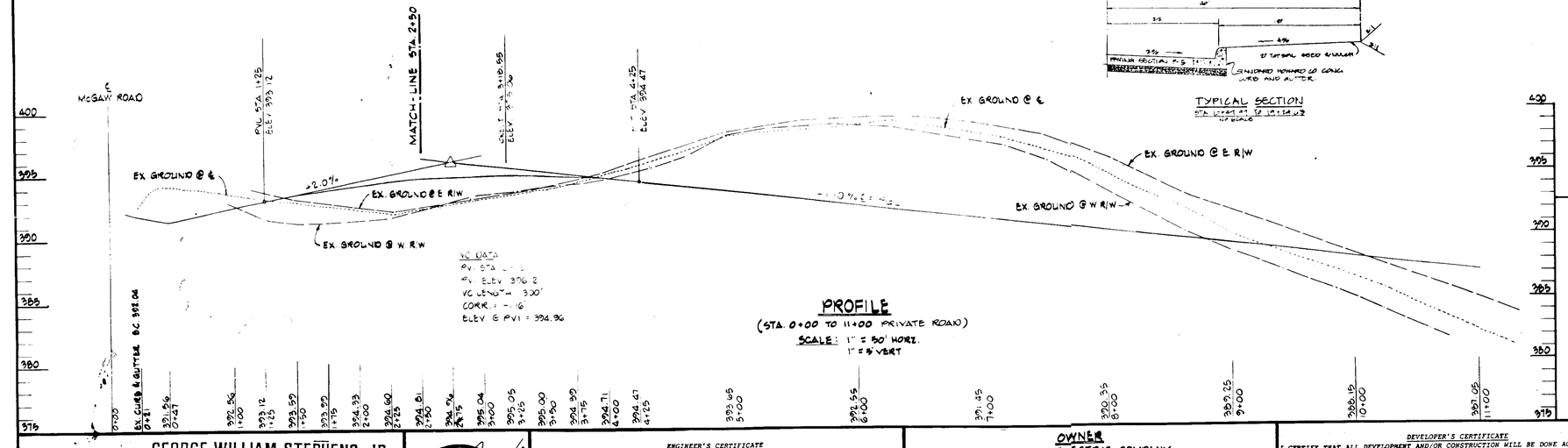


PROFILE

(STA. 10+00 TO 19+00 STANFORD BLVD)
SCALE: 1" = 50' HORZ.
1" = 5' VERT.



TYPICAL SECTION



PROFILE

(STA. 0+00 TO 11+00 PRIVATE ROAD)
SCALE: 1" = 50' HORZ.
1" = 5' VERT.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction and soil erosion and sediment control.

U.S. Soil Conservation Service — 9-15-87 Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — 9-15-87 Date

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — 10-1-87 Date

APPROVED: Howard County Office of Planning & Zoning.

Director — 10-5-87 Date

Chief Division of Land Development & Zoning Administration — 10-2-87 Date

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — 9/30/87 Date

Chief Bureau of Engineering — 9-29-87 Date

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

STATE OF MARYLAND — TAPOBRATA CHAKRADARTI — REGISTERED PROFESSIONAL ENGINEER — 8930 — 3/31/87

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT WE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: Tapobrata Chakradarti — TAPOBRATA CHAKRADARTI
REG. NO. 8930 — DATE 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

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DEVELOPER: CHRISTOPHER M. KURZ TITLE: — DATE: 3/31/87

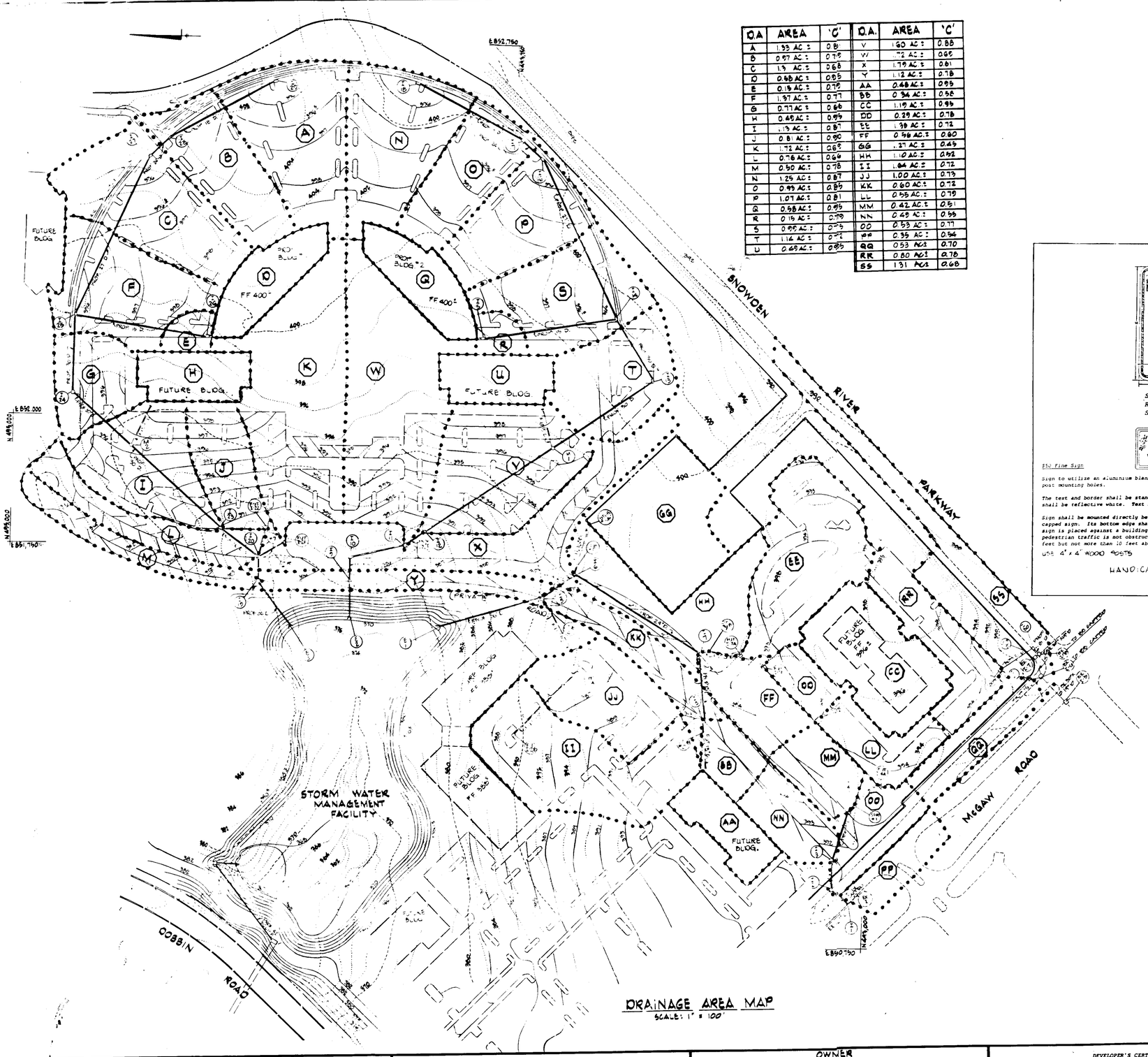
DESIGNED BY: W.E.N.B.
DRAWN BY: K.L.B.
CHECKED BY:
REVISIONS

PROFILES AND DETAILS

COLUMBIA CORPORATE PARK

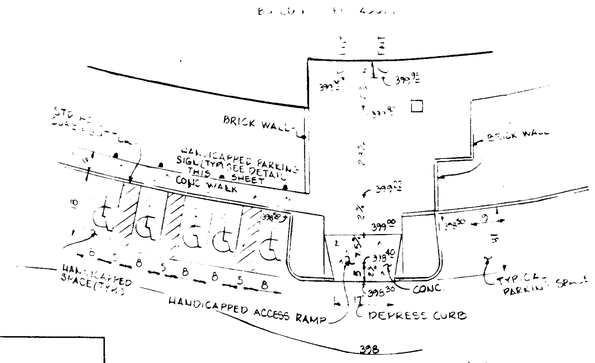
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
P.N. 05607 — SHEET #6 OF 21

SDP-87-143c

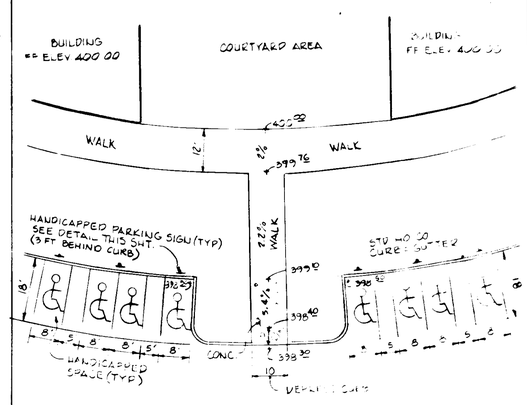


DRAINAGE AREA MAP
SCALE: 1" = 100'

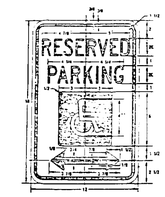
I.D.A.	AREA	'C'	I.D.A.	AREA	'C'
A	1.33 AC ±	0.81	V	1.60 AC ±	0.88
B	0.97 AC ±	0.79	W	.72 AC ±	0.65
C	1.3 AC ±	0.68	X	1.79 AC ±	0.61
D	0.68 AC ±	0.85	Y	1.12 AC ±	0.78
E	0.19 AC ±	0.79	AA	0.48 AC ±	0.95
F	1.37 AC ±	0.77	BB	0.34 AC ±	0.58
G	0.77 AC ±	0.66	CC	1.19 AC ±	0.95
H	0.40 AC ±	0.95	DD	0.29 AC ±	0.78
I	1.13 AC ±	0.87	EE	1.38 AC ±	0.72
J	0.81 AC ±	0.90	FF	0.46 AC ±	0.80
K	1.72 AC ±	0.69	GG	1.27 AC ±	0.45
L	0.76 AC ±	0.66	HH	1.10 AC ±	0.52
M	0.60 AC ±	0.78	II	1.04 AC ±	0.72
N	1.25 AC ±	0.87	JJ	1.00 AC ±	0.73
O	0.93 AC ±	0.85	KK	0.60 AC ±	0.72
P	1.07 AC ±	0.81	LL	0.55 AC ±	0.79
Q	0.58 AC ±	0.95	MM	0.42 AC ±	0.51
R	0.19 AC ±	0.79	NN	0.49 AC ±	0.55
S	0.99 AC ±	0.95	OO	0.53 AC ±	0.77
T	1.16 AC ±	0.72	PP	0.35 AC ±	0.54
U	0.49 AC ±	0.85	QQ	0.53 AC ±	0.70
			RR	0.80 AC ±	0.78
			SS	1.31 AC ±	0.68



HANDICAPPED PARKING DETAIL 'A'
SCALE: 1"=20'



HANDICAPPED PARKING DETAIL 'B'
SCALE 1"=20'



COLORS
GREEN - LEGEND AND BORDER
WHITE SYMBOL ON BLUE BACKGROUND
WHITE - BACKGROUND

STANDARD R7-8
RESERVE PARKING SIGN

$50 Fine Sign

Sign to utilize an aluminum blank 6" x 12" x 0.080 inch thick with two single post mounting holes.

The text and border shall be standard green to match that on R7-8 and the background shall be reflective white. Text shall be in 3" characters.

Sign shall be mounted directly below the standard R7-8 Reserved Parking for Handicapped sign. Its bottom edge shall be no less than 7 feet above ground. If the sign is placed against a building, structure, or other location where vehicle or pedestrian traffic is not obstructed the bottom edge of sign shall be at least 5 feet but not more than 10 feet above ground.

USE 4' x 4' WOOD POSTS

HANDICAPPED PARKING SIGN

These plans have been reviewed for the Howard Soil Conservation District to meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10.5.87

Chief Division of Land Development & Zoning Administration — Date 10-7-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 8/20/87

Chief Bureau of Engineering — Date 9-23-87

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

STATE OF MARYLAND — TAPOBRATA CHAKRABARTI — No. 8930 — 3/31/87

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: TAPOBRATA CHAKRABARTI
REG. NO.: 8930 DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: CHRISTOPHER N. KURZ TITLE: DATE: 3/26/87

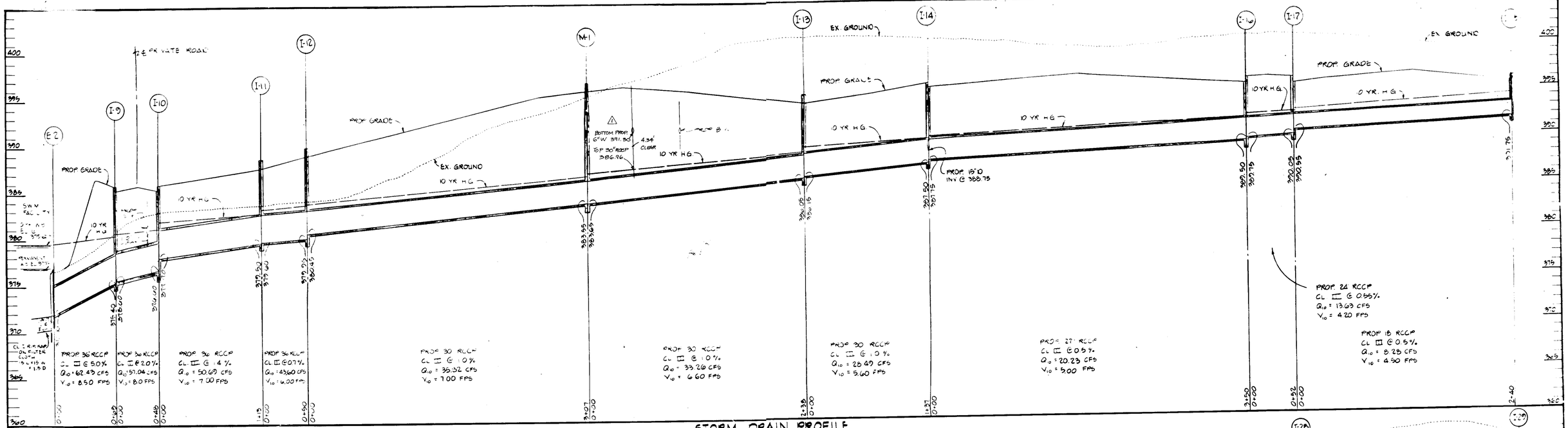
DESIGNED BY: N.J.B.
DRAWN BY: K.L.B.
CHECKED BY: T.C.
REVISIONS

STORM DRAIN DRAINAGE AREA MAP & HANDICAPPED DETAILS

COLUMBIA CORPORATE PARK

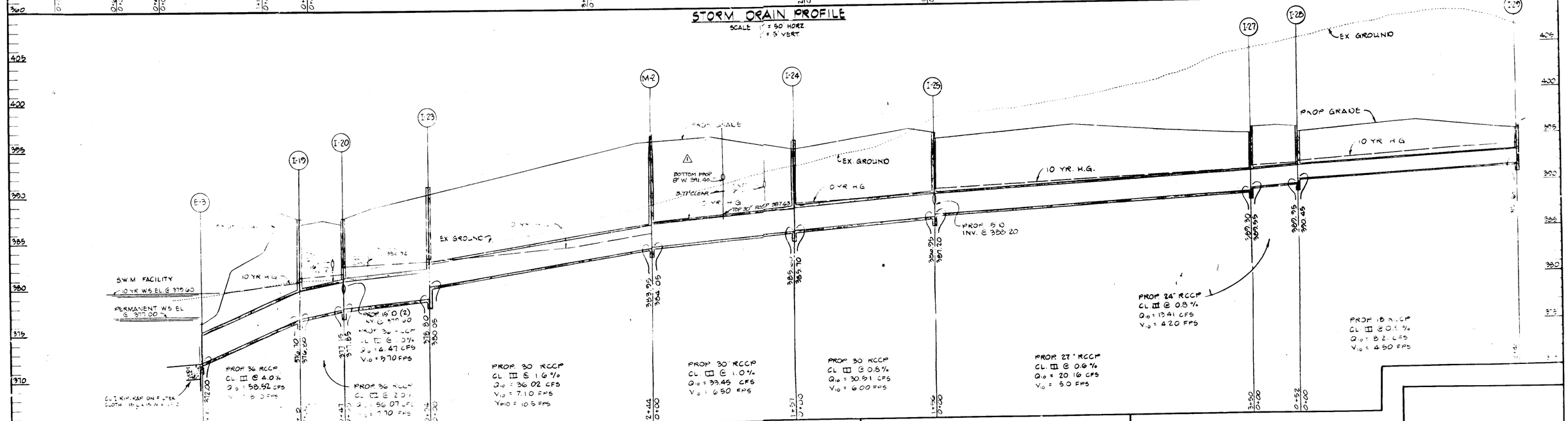
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
F.N. 05607
ELECTION DISTRICT #6
MARCH 23, 1987
SHEET # 7 OF 21

SDP-87-193c



STORM DRAIN PROFILE

SCALE 1" = 50' HORZ
1" = 5' VERT



STORM DRAIN PROFILE

SCALE 1" = 50' HORZ.
1" = 5' VERT

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10.5.87

Chief, Division of Land Development & Zoning Administration — Date 10-2-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/30/87

Chief Bureau of Engineering — Date 9-22-87

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

STATE OF MARYLAND — TEMPORARY PROFESSIONAL ENGINEER — 3/31/87

ENGINEER'S CERTIFICATE

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ENGINEER: Debabrata Chakraborti
REG. NO.: 8820 — DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: CHRISTOPHER W. KURZ, TRUST CHAIRMAN — DATE: 3/26/87

DESIGNED BY: N.B.
DRAWN BY: K.L.B.
CHECKED BY: T.C.

REVISIONS

1 ADDED WATER CROSSING BETWEEN M-1 AND I-15 AND BETWEEN M-2 AND I-24. 9/18/87

STORM DRAIN PROFILES
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP # 36 — PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
F.N. 05607 — SHEET # 8 OF 21

SDP-87-193c

INLET SCHEDULE

NO.	TYPE	ELEVATION TOP	ELEVATION INV. IN	ELEVATION INV. OUT	REMARKS
I-1	TYPE A-5 INLET	390.75	385.75	385.05	HO. CO. STD. DET. 4.01
I-2	TYPE A-5 INLET	391.20	386.80	386.05	HO. CO. STD. DET. 4.01 & 4.05
I-3	TYPE A-5 INLET	392.40	387.40	387.55	HO. CO. STD. DET. 4.01
I-4	TYPE A-5 INLET	392.85	388.50	388.40	HO. CO. STD. DET. 4.01
I-5	TYPE A-5 INLET	389.50	378.70	377.95	HO. CO. STD. DET. 4.01
I-6	TYPE A-5 INLET	390.00	382.15	381.90	HO. CO. STD. DET. 4.01
I-7	TYPE A-5 INLET	393.00	387.70	386.95	HO. CO. STD. DET. 4.01
I-8	TYPE A-5 INLET	394.10	390.15	390.05	HO. CO. STD. DET. 4.01
I-9	TYPE A-10 INLET	385.90	377.15	375.40	HO. CO. STD. DET. 4.02
I-10	TYPE A-10 INLET	385.90	377.90	377.80	HO. CO. STD. DET. 4.02
I-11	DBL. 'S' COMB.	387.20	379.60	379.50	HO. CO. STD. DET. 4.32 & 4.81
I-12	DBL. 'S' COMB.	390.60	380.45	379.95	HO. CO. STD. DET. 4.34
I-13	DBL. 'S' COMB.	396.10	386.15	386.05	HO. CO. STD. DET. 4.34
I-14	DBL. 'S' COMB.	396.10	387.75	387.50	HO. CO. STD. DET. 4.34
I-15	TYPE 'S' INLET	393.80 *	392.35	392.25	HO. CO. STD. DET. 4.22
I-16	DBL. 'S' COMB.	396.10	389.75	389.50	HO. CO. STD. DET. 4.34
I-17	DBL. 'S' COMB.	396.10	390.55	390.05	HO. CO. STD. DET. 4.34
I-18	DBL. 'S' COMB.	396.10	—	391.75	HO. CO. STD. DET. 4.34
I-19	TYPE A-5 INLET	387.70	376.80	376.70	HO. CO. STD. DET. 4.01
I-20	TYPE A-5 INLET	387.90	377.85	377.75	HO. CO. STD. DET. 4.01
I-21	DBL. 'S' COMB.	390.60	380.05	378.80	HO. CO. STD. DET. 4.34
I-22	DBL. 'S' COMB.	396.10	385.70	385.60	SEE DETAIL SHT. 18 OF 21
I-23	DBL. 'S' COMB.	396.10	387.20	386.95	HO. CO. STD. DET. 4.34
I-24	TYPE 'S' INLET	395.80 *	392.35	392.25	HO. CO. STD. DET. 4.22
I-27	DBL. 'S' COMB.	396.10	389.55	389.30	HO. CO. STD. DET. 4.34
I-28	DBL. 'S' COMB.	396.10	390.45	389.95	HO. CO. STD. DET. 4.34
I-29	DBL. 'S' COMB.	396.10	—	391.65	HO. CO. STD. DET. 4.34
I-30	DBL. 'S' COMB.	380.50	372.10	370.70	HO. CO. STD. DET. 4.34
I-33	[illegible]	390.00	—	389.00	HO. CO. STD. DET. 4.34

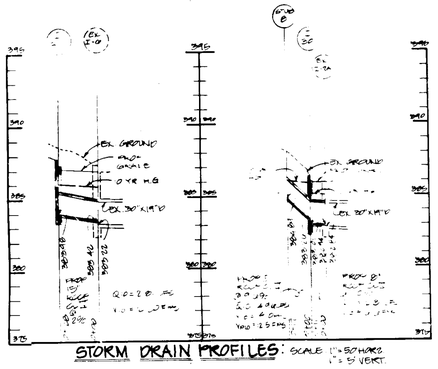
SEE SILT TRAPPING INLET DETAIL THIS SHEET

NOTE: [illegible] * [illegible] GRATE ELEVATION.

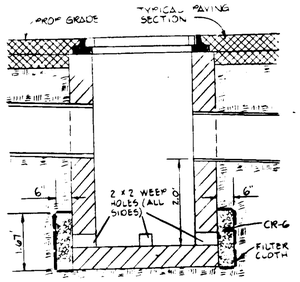
SEE SILT TRAPPING INLET DETAIL - THIS SHEET

STRUCTURE SCHEDULE

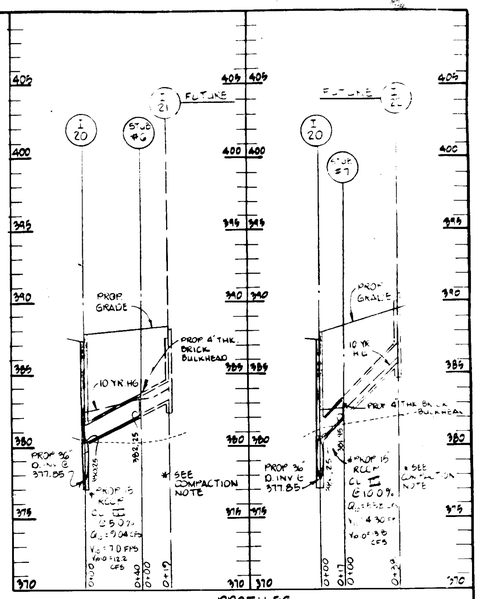
NO.	TYPE	ELEVATION TOP	ELEVATION INV. IN	ELEVATION INV. OUT	REMARKS
M-1	5'-0 BRICK MH	396.50	383.65	383.55	HO. CO. STD. DET. 5.02
M-2	5'-0 BRICK MH	396.50	384.05	383.95	HO. CO. STD. DET. 5.02
E-1	TYPE 'A' HEADWALL	—	372.00	371.90	HO. CO. STD. DET. 505.11
E-2	TYPE 'A' HEADWALL	—	372.00	371.90	HO. CO. STD. DET. 505.11
E-3	TYPE 'A' HEADWALL	—	372.00	371.90	HO. CO. STD. DET. 505.11



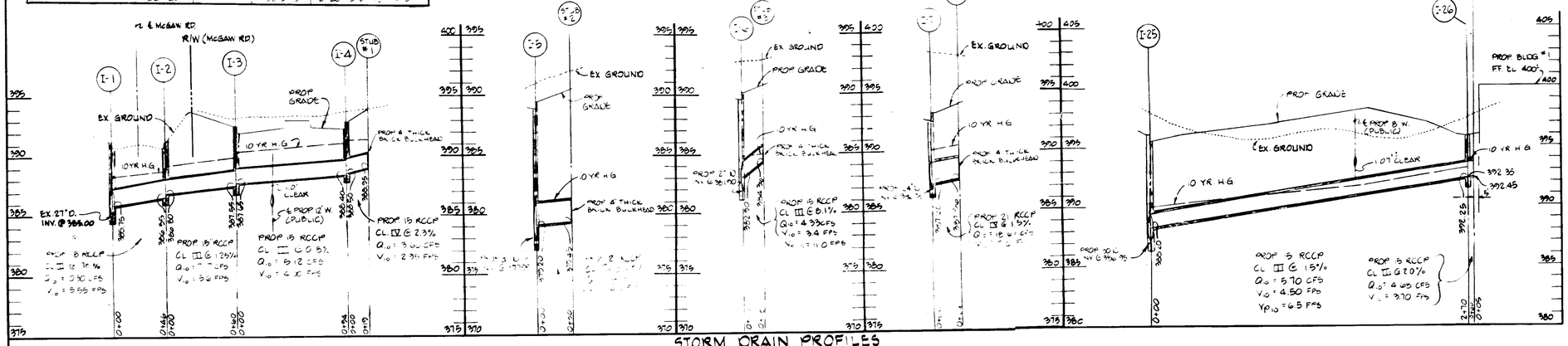
STORM DRAIN PROFILES: SCALE 1" = 50' HORZ. 1" = 5' VERT.



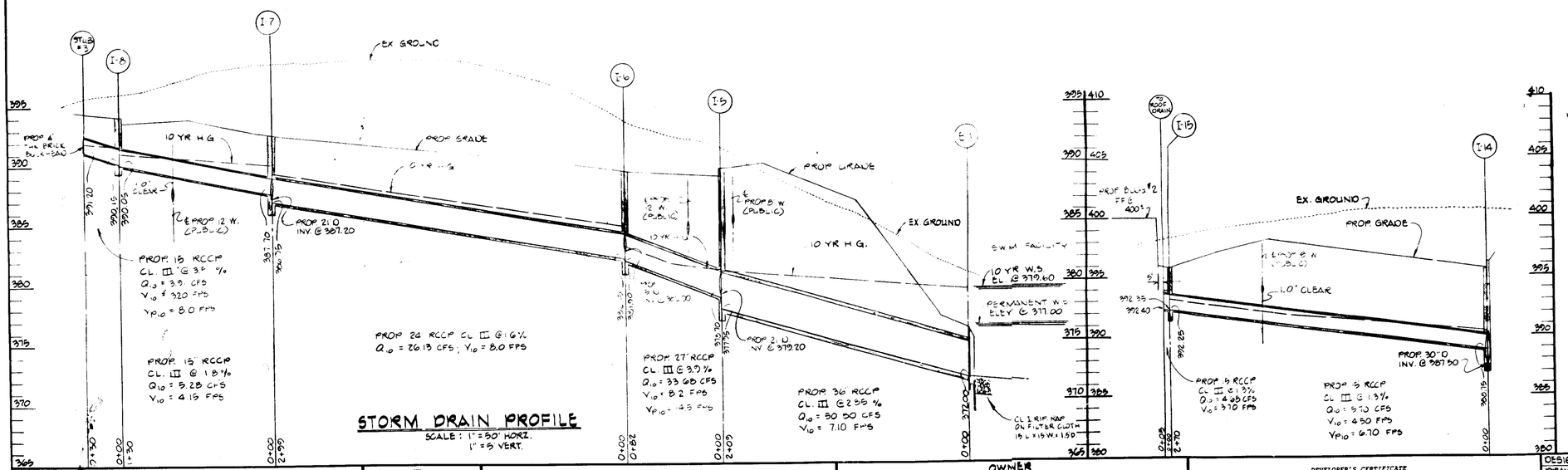
DETAIL
TYPICAL SILT TRAPPING INLET
NO SCALE



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



STORM DRAIN PROFILES
SCALE 1" = 50' HORZ. 1" = 5' VERT.



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

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning

Director — Date 10.5.87

Chief Division of Land Development & Zoning Administration — Date 10-2-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/30/87

Chief Bureau of Engineering — Date 9-29-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

STATE OF MARYLAND — TAPOBRATA CHAKRABARTI — No. 8730 — PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: TAPOBRATA CHAKRABARTI — DATE: 2/21/87
REG. NO.: 8730

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

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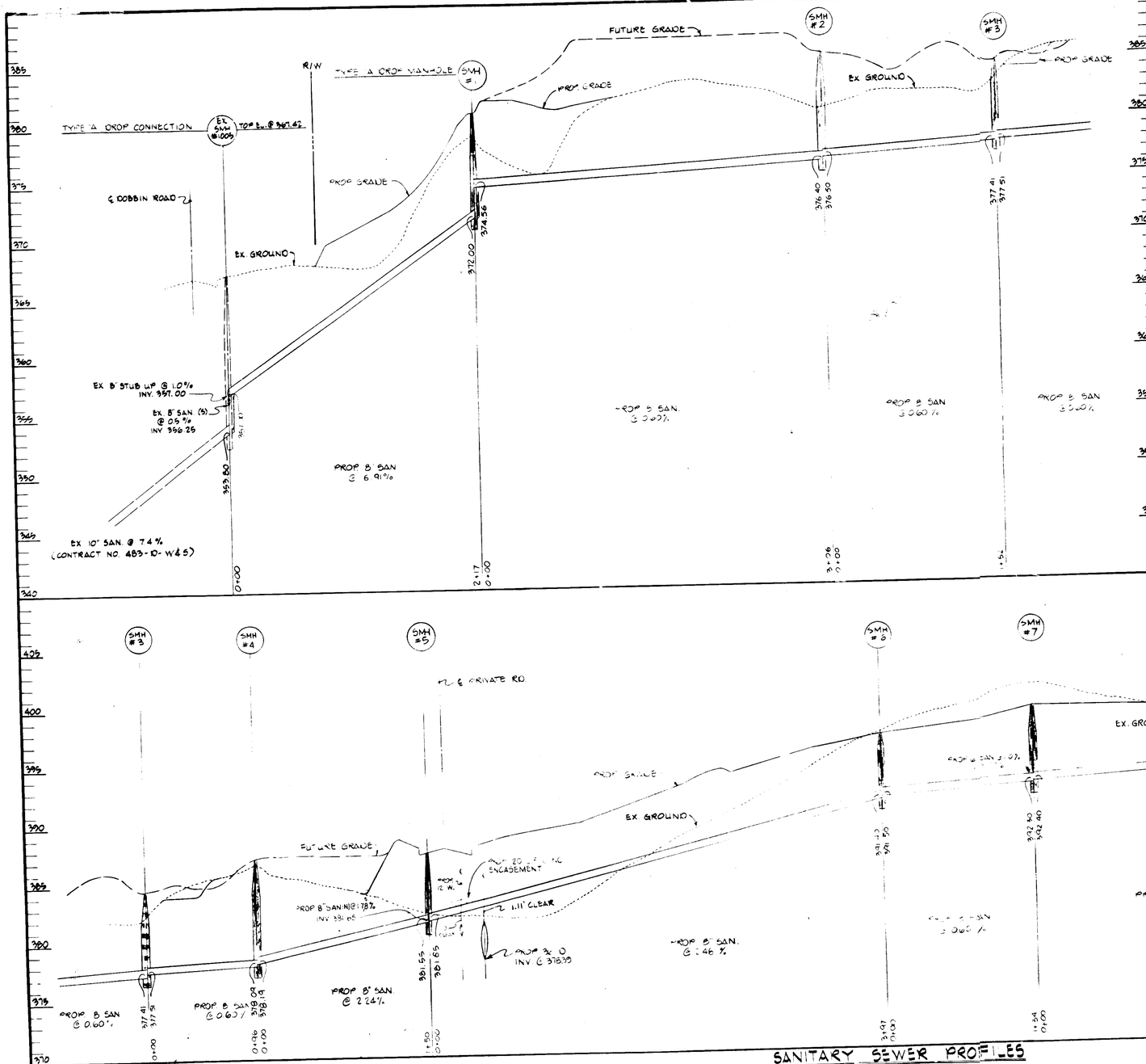
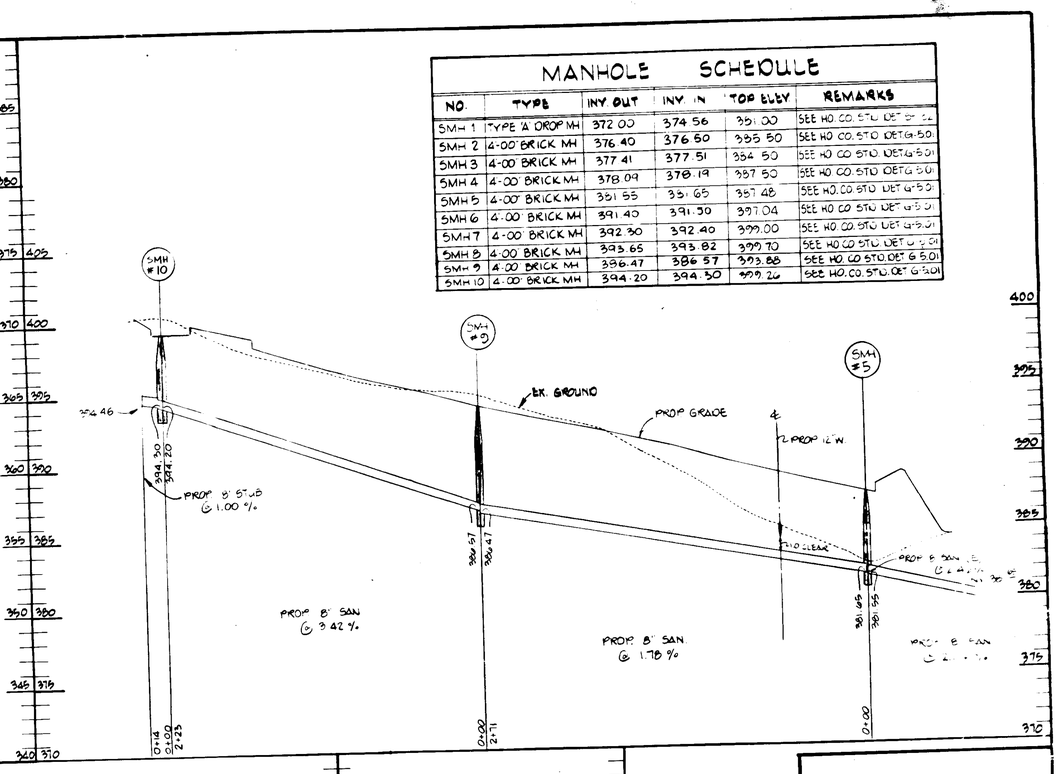
DEVELOPER: CHRISTOPHER W. KURZ, VICE CHAIRMAN — DATE: 2/2/87

DESIGNED BY: N.J.B.
DRAWN BY: K.L.B.
CHECKED BY:
REVISIONS

STORM DRAIN PROFILES AND DETAILS
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP # 36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
F.N. 05607 — SHEET # 9 OF 21

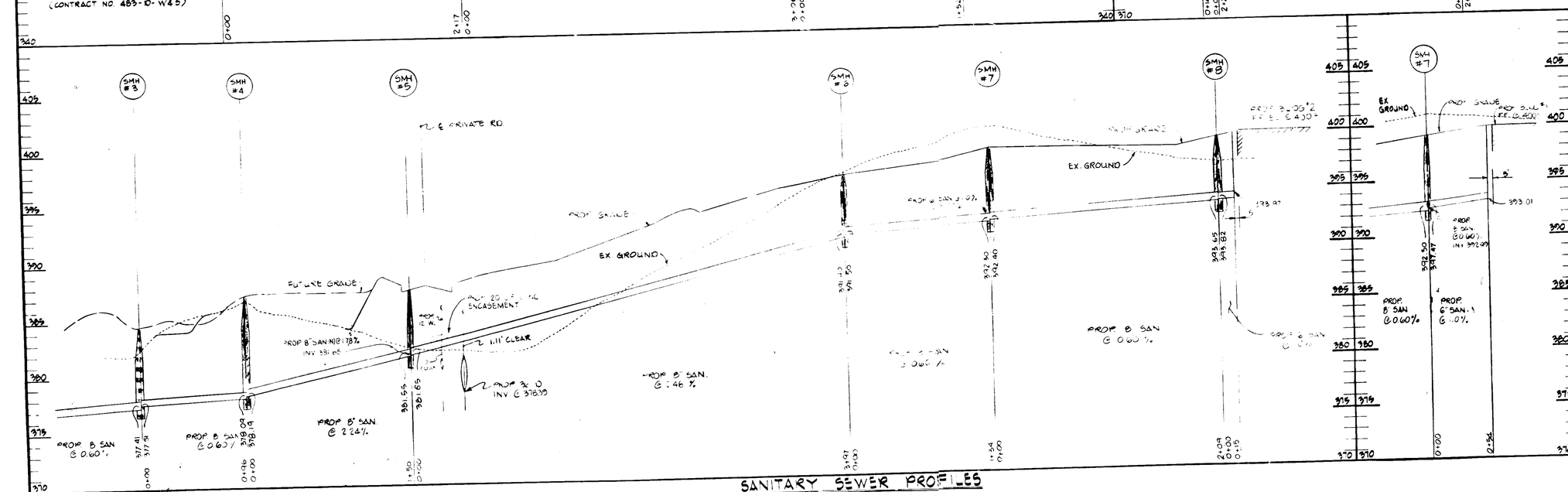
SDP-87-193c





MANHOLE SCHEDULE

NO.	TYPE	INV OUT	INV. IN	TOP ELEV	REMARKS
SMH 1	TYPE 'A' DROP MH	372.00	374.56	391.00	SEE HO. CO. STD. DET. G-5.02
SMH 2	4'-00" BRICK MH	376.40	376.50	393.50	SEE HO. CO. STD. DET. G-5.01
SMH 3	4'-00" BRICK MH	377.41	377.51	394.50	SEE HO. CO. STD. DET. G-5.01
SMH 4	4'-00" BRICK MH	378.09	378.19	397.50	SEE HO. CO. STD. DET. G-5.01
SMH 5	4'-00" BRICK MH	381.55	381.65	397.48	SEE HO. CO. STD. DET. G-5.01
SMH 6	4'-00" BRICK MH	391.40	391.50	397.04	SEE HO. CO. STD. DET. G-5.01
SMH 7	4'-00" BRICK MH	392.30	392.40	399.00	SEE HO. CO. STD. DET. G-5.01
SMH 8	4'-00" BRICK MH	393.65	393.82	399.70	SEE HO. CO. STD. DET. G-5.01
SMH 9	4'-00" BRICK MH	386.47	386.57	393.88	SEE HO. CO. STD. DET. G-5.01
SMH 10	4'-00" BRICK MH	394.20	394.30	399.26	SEE HO. CO. STD. DET. G-5.01



SANITARY SEWER PROFILES

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

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

Plans have been reviewed by the Howard County Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

James M. Helm 9-15-87
U.S. Soil Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard County Soil Conservation District.

APPROVED: Robert W. Zielke 9-15-87
Howard Soil Conservation District

Water Market

APPROVED: For public water and public sewerage systems Howard County Health Department.

Joseph Boddie 10-1-87
Howard County Health Officer

APPROVED: Howard County Office of Planning and Zoning

Director 10.5.87
Date

John W. Muchelhausen 10-2-87
Chief Division of Land Development & Zoning Administration

APPROVED: For public water and public sewerage systems and public roads Howard County Department of Public Works.

James M. Helm 9/30/87
Director Date

Kaaman B. Ray 9-29-87
Chief Bureau of Engineering Date

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

STATE OF MARYLAND — JAYACHANDRA CHAKRABARTI — No. 8738 — REGISTERED PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: Jayachandra Chakrabarti
JAYACHANDRA CHAKRABARTI
REG. NO.: 8738 DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

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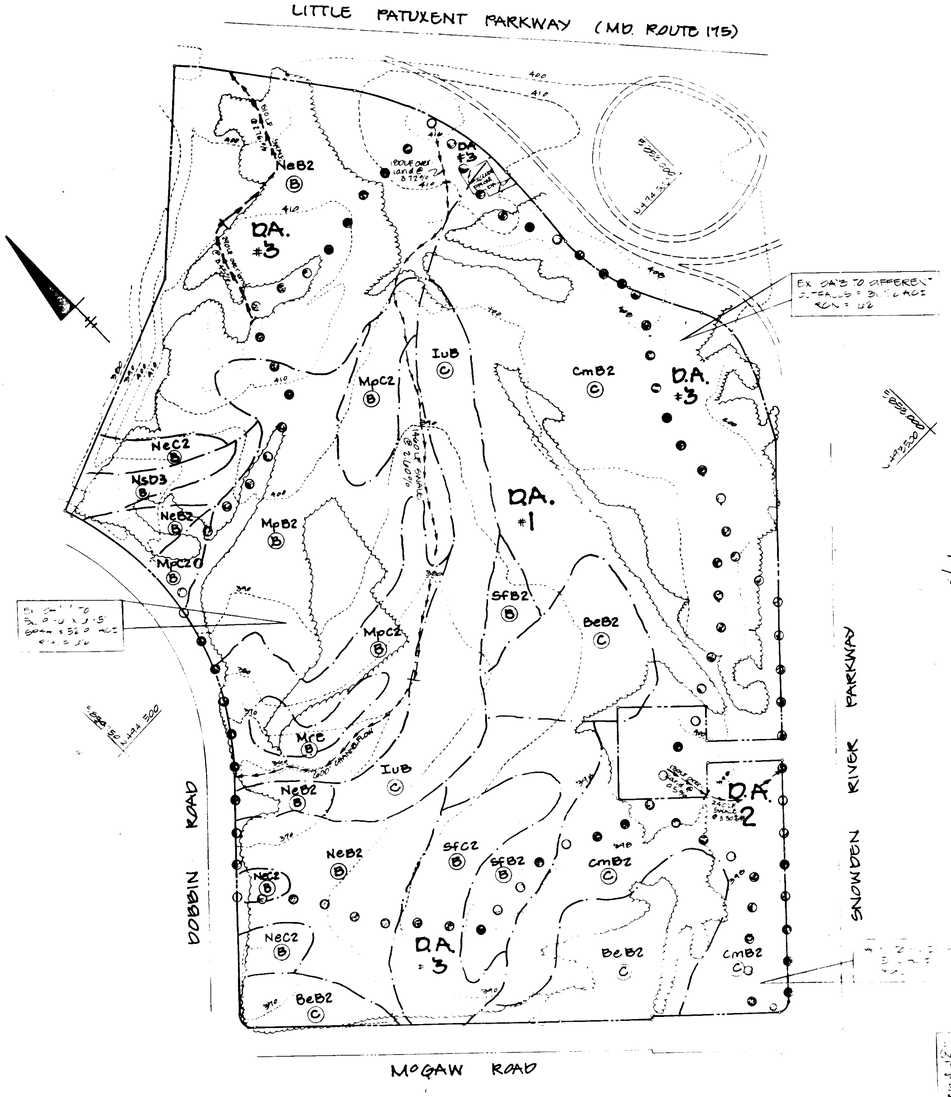
DEVELOPER: CHRISTOPHER W. KURZ — VICE-CHAIRMAN DATE: 3/30/87

DESIGNED BY: W.Z.
DRAWN BY: E.L.B.
CHECKED BY: T.C.
REVISIONS

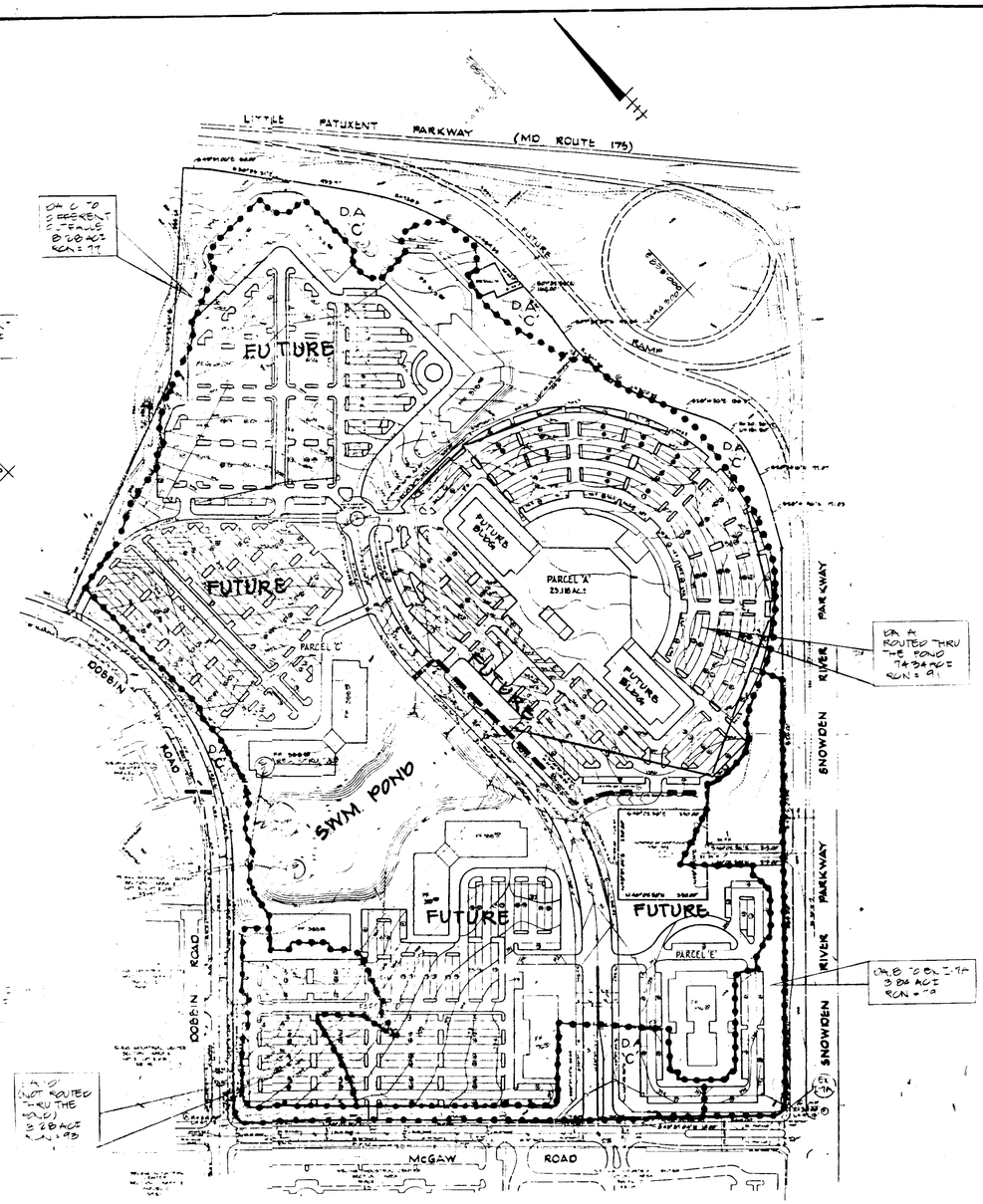
SANITARY SEWER PROFILES
COLUMBIA CORPORATE PARK
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
FN. 05607 — SHEET #10 OF 21

SDP-87-193c



EXISTING STORMWATER MANAGEMENT DRAINAGE AREA MAP

SCALE 1" = 200'



PROPOSED STORMWATER MANAGEMENT DRAINAGE AREA MAP

SCALE 1" = 200'

EXISTING CONDITIONS

D.A. #1 - [illegible]
RCN = [illegible]
2 Yr. Flow = [illegible]
10 Yr. Flow = [illegible]
100 Yr. Flow = [illegible]

D.A. #2 - [illegible] Snowden River
RCN = [illegible]
2 Yr. Flow = [illegible]
10 Yr. Flow = [illegible]
100 Yr. Flow = [illegible]

PROPOSED CONDITIONS

D.A. "B" - [illegible] Snowden River
RCN = [illegible]
2 Yr. Flow = [illegible]
10 Yr. Flow = [illegible]
100 Yr. Flow = [illegible]

D.A. "C" - 8.28 AC.± - to different outfall
RCN = [illegible]
2 Yr. Flow = 14.93 cfs
10 Yr. Flow = 33.32 cfs
100 Yr. Flow = 96.03 cfs

A: Not Routed
D.A. = [illegible]
RCN = [illegible]
2 Yr. Flow = [illegible]
10 Yr. Flow = [illegible]
100 Yr. Flow = [illegible]

B: Routed
D.A. = [illegible] - not Sedimentation Pond
D.A. = [illegible]
RCN = [illegible]

BEFORE MANAGEMENT

2 Yr. Flow = [illegible] cfs
10 Yr. Flow = [illegible] cfs
100 Yr. Flow = [illegible] cfs

AFTER MANAGEMENT (ROUTING)

14.93 cfs (W.S. elev. = [illegible])
56.25 cfs (W.S. elev. = [illegible])
131.30 cfs (W.S. elev. = [illegible])

ALLOWABLE RELEASE: Flow from D.A. #11 (Flow from D.A. "B")

For 2 Yr. Storm = [illegible] - [illegible] = 14.93 cfs
For 10 Yr. Storm = [illegible] - [illegible] = 60.58 cfs
For 100 Yr. Storm = [illegible] - [illegible] = 128.79 cfs

HYDROLOGIC CRITERIA

Required - [illegible] and 10 yr. storm water management
Provided - [illegible] and 100 yr. storm water management
Freeboard - TOP OF DAM ELEV. - EMERGENCY SPILLWAY CREST = 98.5' - 98.1' = 1.0'
Structure Classification - A
Maximum Depth of Water - 14.89'
Storage - Maximum product: 53.02 AC-FT = 15.89 - 142.4 AC-FT
Normal Facilities - [illegible]

SPIRAL REQUIREMENT

For [illegible] Storm = 470,000 C.F.
For [illegible] Storm = 493,000 C.F.
For 100 Yr. Storm = 872,000 C.F.

SUMMARY OF SWM

A: Existing Condition:
Flow From D.A. #1 - Flow From D.A. #1
2 Yr. Storm = 6.72 - 16.36 = 23.08 cfs
10 Yr. Storm = 55.74 - 45.41 = 101.15 cfs
100 Yr. Storm = [illegible] - [illegible] = [illegible] cfs

Flow From D.A. #2
2 Yr. Storm = 26.57 cfs
10 Yr. Storm = 87.4 cfs
100 Yr. Storm = 559.93 cfs

B: Proposed Condition
Flow From D.A. "B" - Flow From D.A. #1
2 Yr. Storm = 7.6 - 14.93 = [illegible]
10 Yr. Storm = 16.34 - [illegible]
100 Yr. Storm = 27.8 - [illegible]

Flow From D.A. "C" - Reduce
2 Yr. Storm = 11.99 - [illegible]
10 Yr. Storm = 21.02 - [illegible]
100 Yr. Storm = 31.74 - [illegible]

STORMWATER MANAGEMENT MAINTENANCE SCHEDULE

MAINTENANCE ITEM	1	2	3	4	5	6
MAINTENANCE FREQUENCY	B	T	B	B	T	B
REPAIR DURATION	4	10	4	4	10	4

1 CLEAN OUT SILT
2 CLEAN OUT TRASH
3 CHECK WEEK CLEANING
4 CHECK SLOPE STABILIZATION
5 CUT GRASS
6 CHECK STRUCTURAL INTEGRITY
T EVERY TWO WEEKS
B EVERY THREE MONTHS
4 ONE WEEK MAXIMUM
10 TWO DAYS

* ALL MAINTENANCE INSPECTIONS AND REPAIR SHALL BE THE RESPONSIBILITY OF THE OWNER
* INSPECT ALL ABOVE ITEMS AFTER EACH MAJOR RAINFALL AND REPAIR IF NECESSARY

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond soil erosion and sediment control.

U.S. Soil Conservation Service — 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — 9-15-87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — 10.6.87

Chief Division of Land Development & Zoning Administration — 10-2-87

APPROVED: For public water and public sewerage systems and public roads Howard County Department of Public Works.

Director — 9/30/87

Chief Bureau of Engineering — 9-29-87

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

GWS
GEORGE WILLIAM STEPHENS, JR AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

STATE OF MARYLAND — PROFESSIONAL ENGINEER — PARBHATA CHANDRA JAIN — No. 8930 — EXPIRES 30 JUNE 1987

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: PARBHATA CHANDRA JAIN — DATE: 3/31/87
REG. NO.: 8930

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

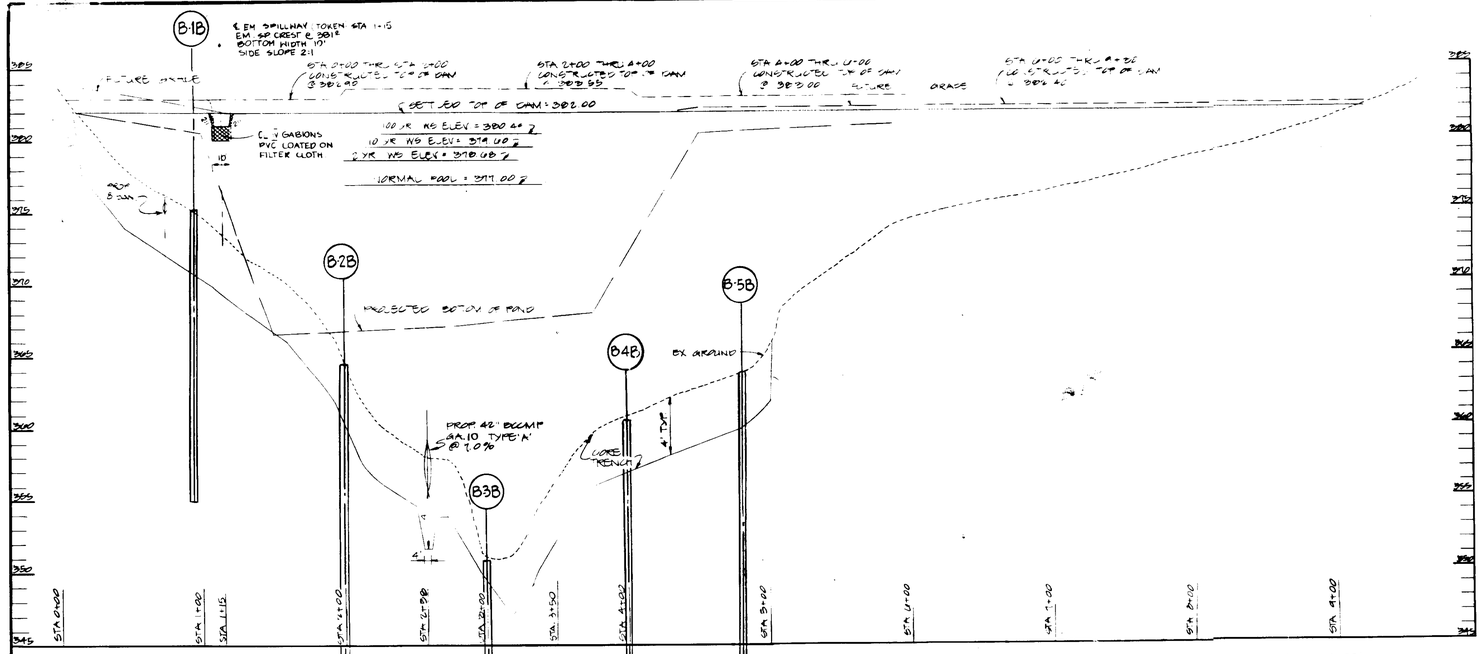
DEVELOPER: GERALD W. NAGEL — TITLE CHAIRMAN — DATE: 3/31/87

DESIGNED: LZ.
DRAWN: D.A.L.
CHECKED: LZ.
REVISIONS

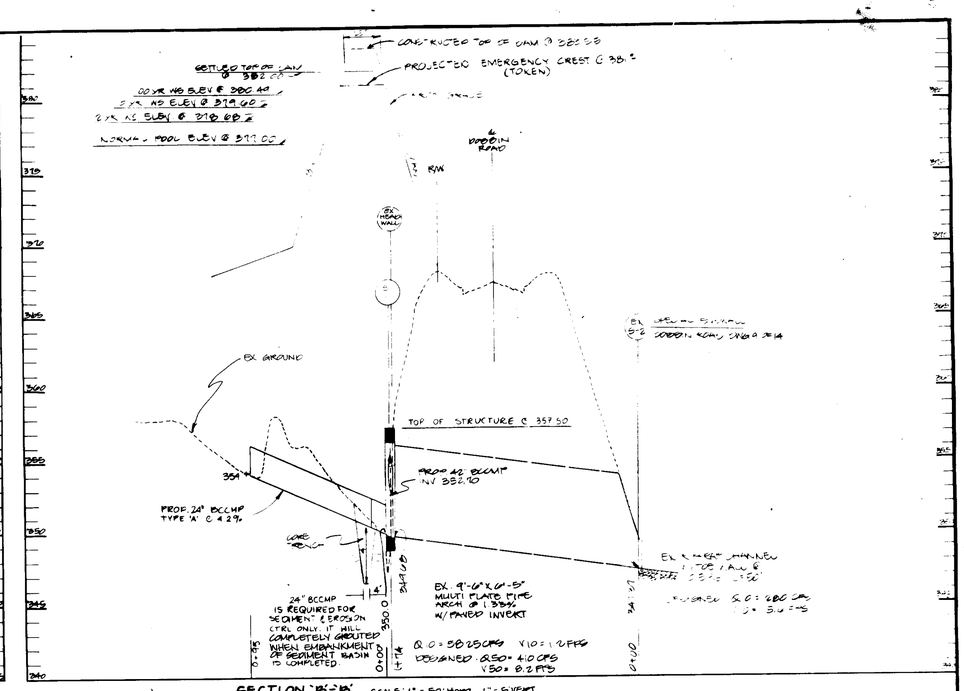
STORMWATER MANAGEMENT DRAINAGE AREA MAP

COLUMBIA CORPORATE PARK

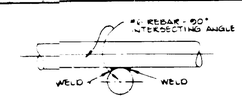
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP # 36 — PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 20, 1987
F.N. 05607 — SDP-87-193, — SHEET # 11 OF 21



SECTION 'C'-'C' SCALE 1" = 50' HORZ., 1" = 5' VERT.

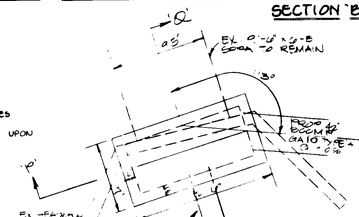


SECTION 'B'-'B' SCALE: 1" = 50' HORZ., 1" = 5' VERT.

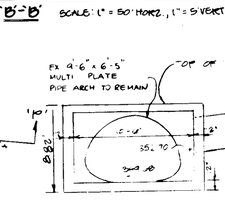


NOTES
1. NO RUST SHALL BE PERMITTED ON REBAR SURFACES TO BE WELDED.
2. BITUMINOUS COATING SHALL BE APPLIED TO BARS UPON COMPLETION OF WELDING

WELDING DETAIL
NO SCALE



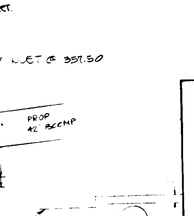
PLAN
NO SCALE



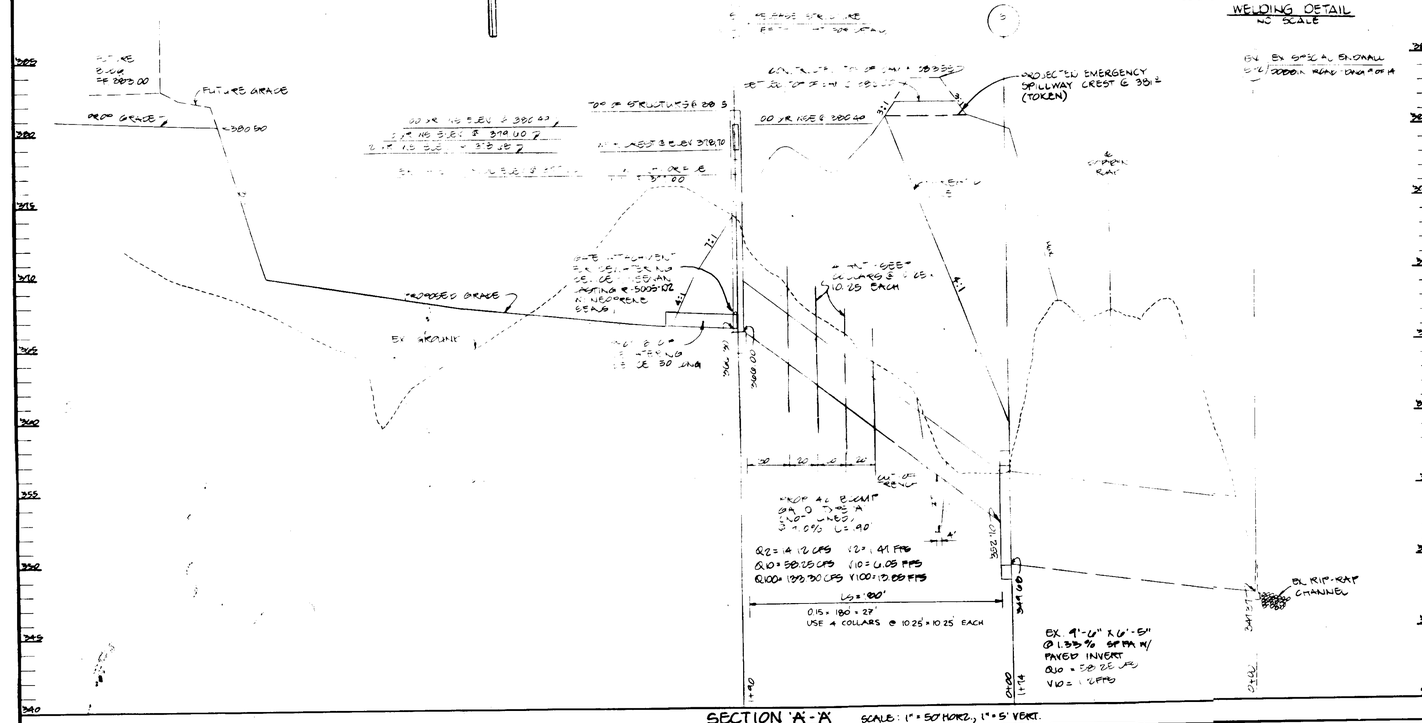
SECTION 'P'-'P'

NOTE FOR RE INFORCEMENT OF INLET SEE DETAIL OF RELEASE STRUCTURE THIS SHEET

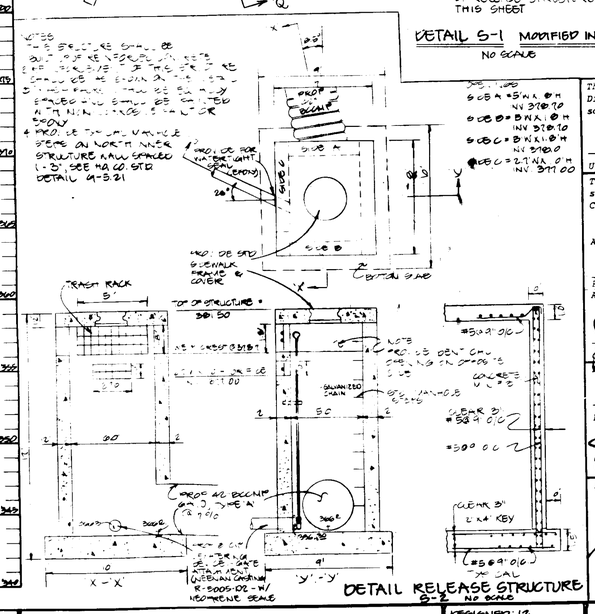
DETAIL S-1 MODIFIED INLET
NO SCALE



SECTION 'Q'-'Q'



SECTION 'A'-'A' SCALE: 1" = 50' HORZ., 1" = 5' VERT.



DETAIL RELEASE STRUCTURE
S-2
NO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10-5-87

Chief Division of Land Development & Zoning Administration — Date 10-7-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/30/87

Chief Bureau of Engineering — Date 9-23-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

STATE OF MARYLAND — JAYPRAKASH CHAKRABARTI — REG. NO. 8930

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: JAYPRAKASH CHAKRABARTI — REG. NO. 8930 — DATE 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

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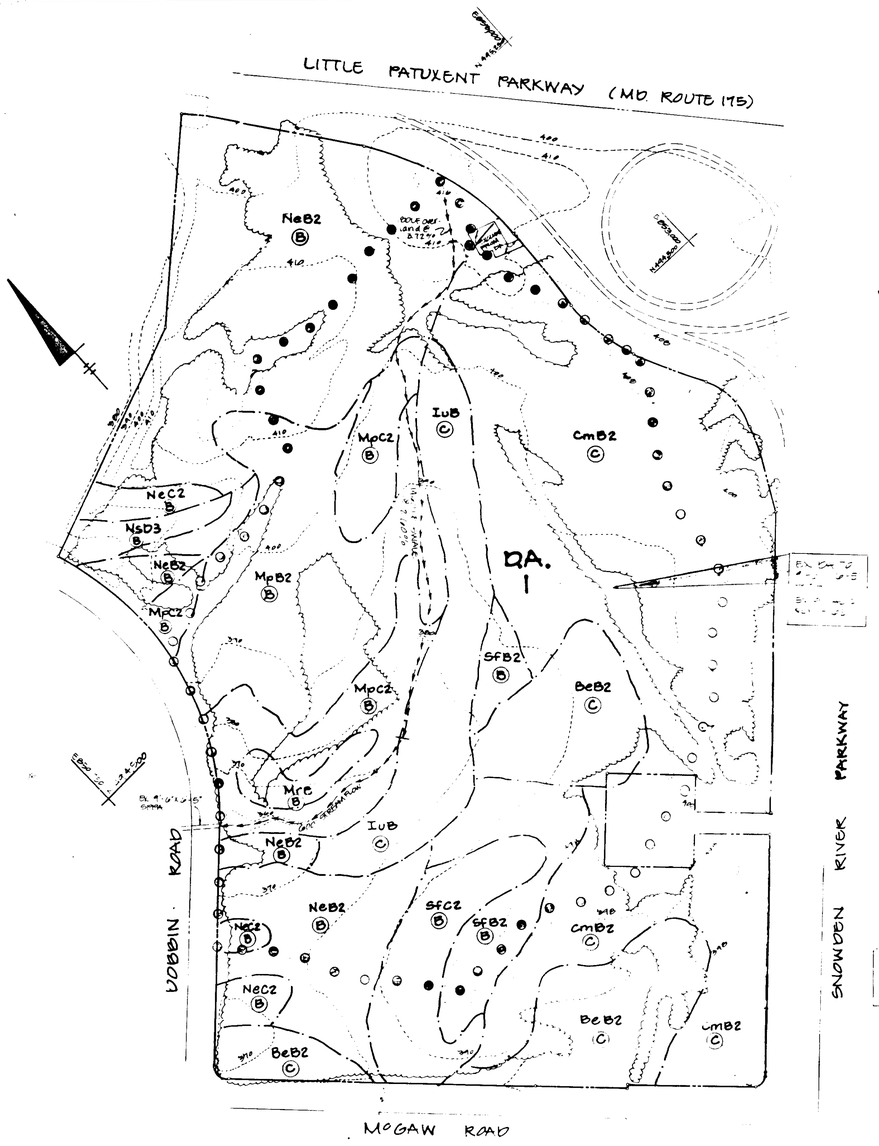
DEVELOPER: CHRISTOPHER W. KURZ, VICE CHAIRMAN — DATE: 3/31/87

DESIGNED: JJ
DRAWN: D.A.L.
CHECKED: TO
REVISIONS

STORMWATER MANAGEMENT PROFILES AND DETAILS

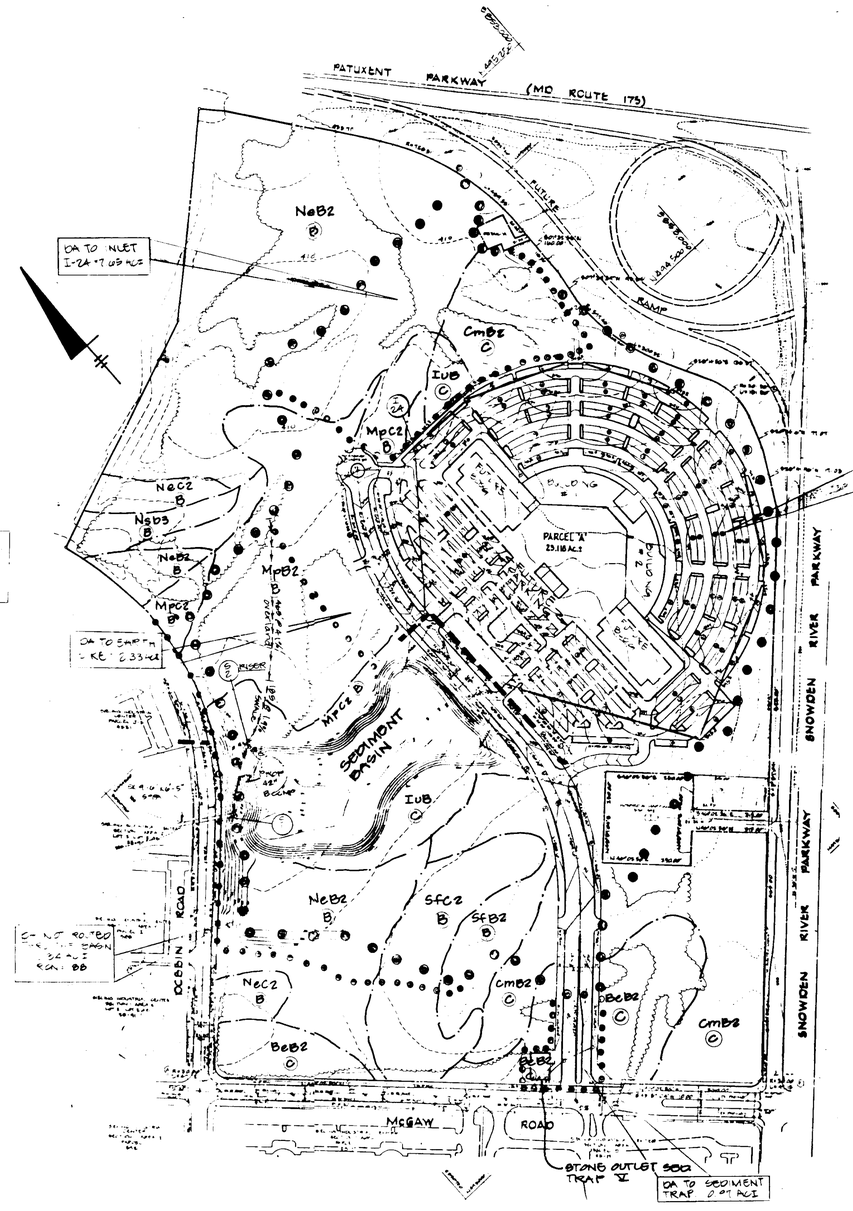
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 396
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
#N. 05607
ELECTION DISTRICT #6
MARCH 23, 1987
SHEET #12 OF 21

SDP-87-193c



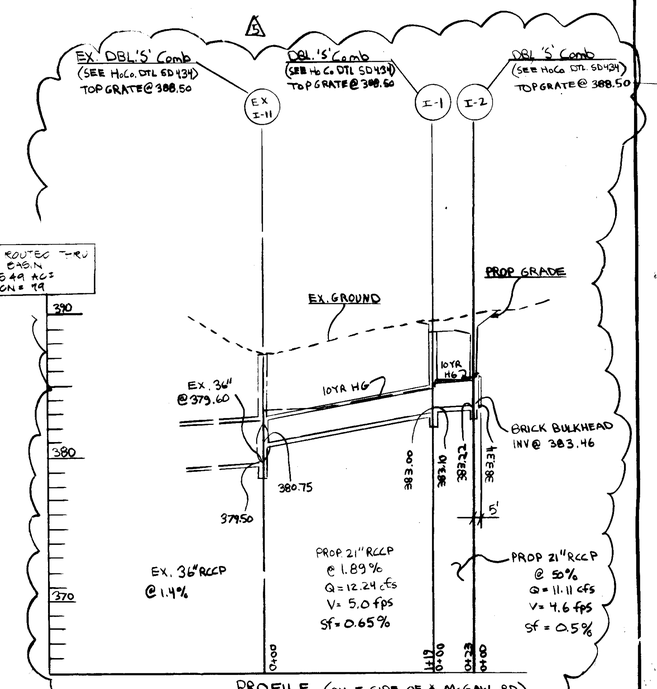
EXISTING DRAINAGE AREA MAP

SCALE: 1"=200'



PROPOSED DRAINAGE AREA MAP

SCALE 1"=200'



PROFILE (ON E. SIDE OF S. McGAW RD.)

SCALE: 1"=50' HORZ ; 1"=5' VERT.

LEGEND

WOODS
SOIL TYPE MpB2
HYDROLOGIC SOIL GROUP (B)
TC PATH
DRAINAGE AREA
EX. CONTOURS
PROPOSED GRADES
LIMIT OF SOILTYPES

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond soil erosion and sediment control.

U.S. Soil Conservation Service — 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — 9-15 87 Date

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — 10-1-87 Date

APPROVED: Howard County Office of Planning & Zoning.

Director — 10.5.87 Date

Chief Division of Land Development & Zoning Administration — 10-2-87 Date

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — 9/30/87 Date

Chief Bureau of Engineering — 9-28-87 Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

GEORGE WILLIAM STEPHENS, JR AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

STATE OF MARYLAND — PROFESSIONAL ENGINEER — PROBHAKAR CHAKRABARTI — No. 8920

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: PROBHAKAR CHAKRABARTI — DATE: 3/3/87
REG. NO.: 8920

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

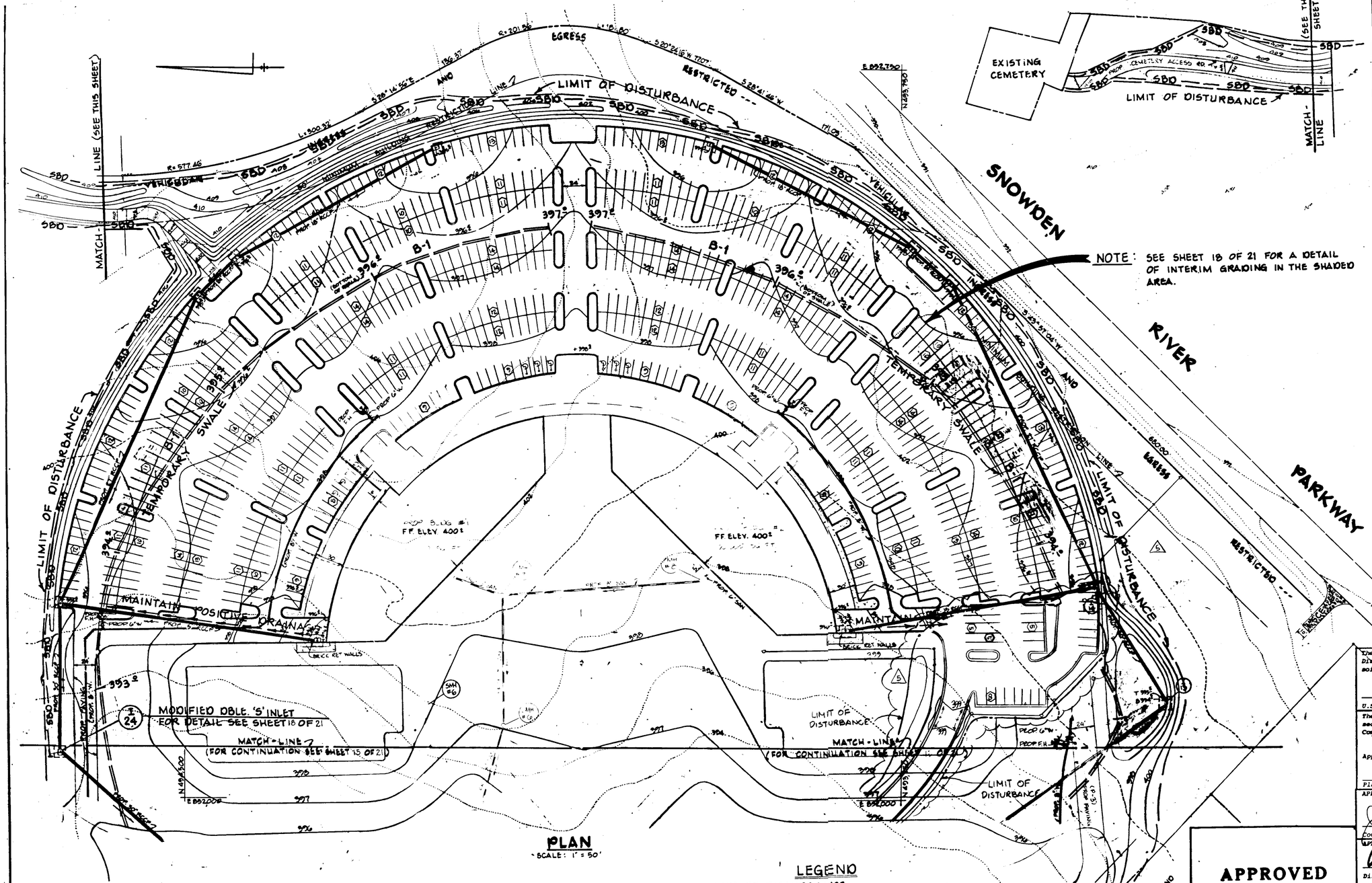
DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: CHRISTOPHER J. KUKEL TITLE: DATE: 3/2/87

DESIGNED: E.Z.
DRAWN: D.A.L.
CHECKED: TC
REVISIONS
REV 6/21/96 G.W.S.
ADD. S.D. PROFILE FROM EX. I-11 TO I-2.

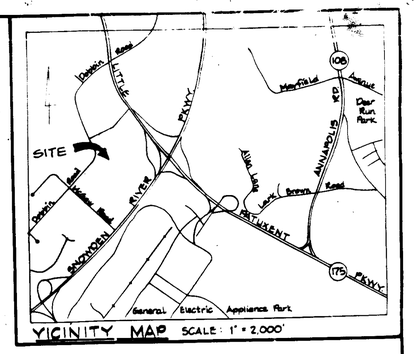
SEDIMENT & EROSION CONTROL DRAINAGE AREA MAPS
COLUMBIA CORPORATE PARK
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP # 36 — PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
F.N. 05607 — SDP-87-193c — SHEET # 2 OF 21



PLAN

SCALE: 1" = 50'

NOTE: SEE SHEET 18 OF 21 FOR A DETAIL OF INTERIM GRADING IN THE SHADED AREA.



BENCH MARKS:

B.M. #234401 — ELEVATION: 307.49
Standard concrete monument set flush with the surface.
NORTH 491333.018 EAST 856206.723

B.M. #234300I — ELEVATION: 288.26
3/4" R.B. set 0.3 feet below the surface.
NORTH 492140.801 EAST 857226.671

LEGEND

- LIMIT OF DISTURBANCE
- DRAINAGE AREA
- STRAW BALE DIKE — SBD —
- EARTH DIKE
- TEMPORARY SWALE
- STABILIZED CONSTRUCTION ENTRANCE — SCE
- INLET PROTECTION
- SILT FENCE — S — S — S —

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10.5.87

Chief Division of Land Development & Zoning Administration — Date 10-2-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/30/87

Chief Bureau of Engineering — Date 9-22-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

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ENGINEER: Vaghorata Charavarty — VAGHORATA CHARAVARTY
REG. NO.: 19738 — DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

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DEVELOPER: CHRISTOPHER W. KURZ TITLE: CHAIRMAN — DATE: 3/31/87

DESIGNED BY: I.Z.	
DRAWN BY: K.L.B.	
CHECKED BY: T.C.	
REVISIONS	
REV. 6/21/96 ADDED ACCESS RD., PARKING	

SEDIMENT AND EROSION CONTROL PLAN
COLUMBIA CORPORATE PARK

BIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND ELECTION DISTRICT #6
SCALE AS SHOWN MARCH 23, 1987
F.N. 05607 SHEET #14 OF 21

SDP-87-193c

These plans have been reviewed by the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

Howard Soil Conservation Service — Date: 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date: 9-15-87

Plan Number:

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date: 16-1-87

APPROVED: Howard County Office of Planning & Zoning

Director — Date: 10.5.87

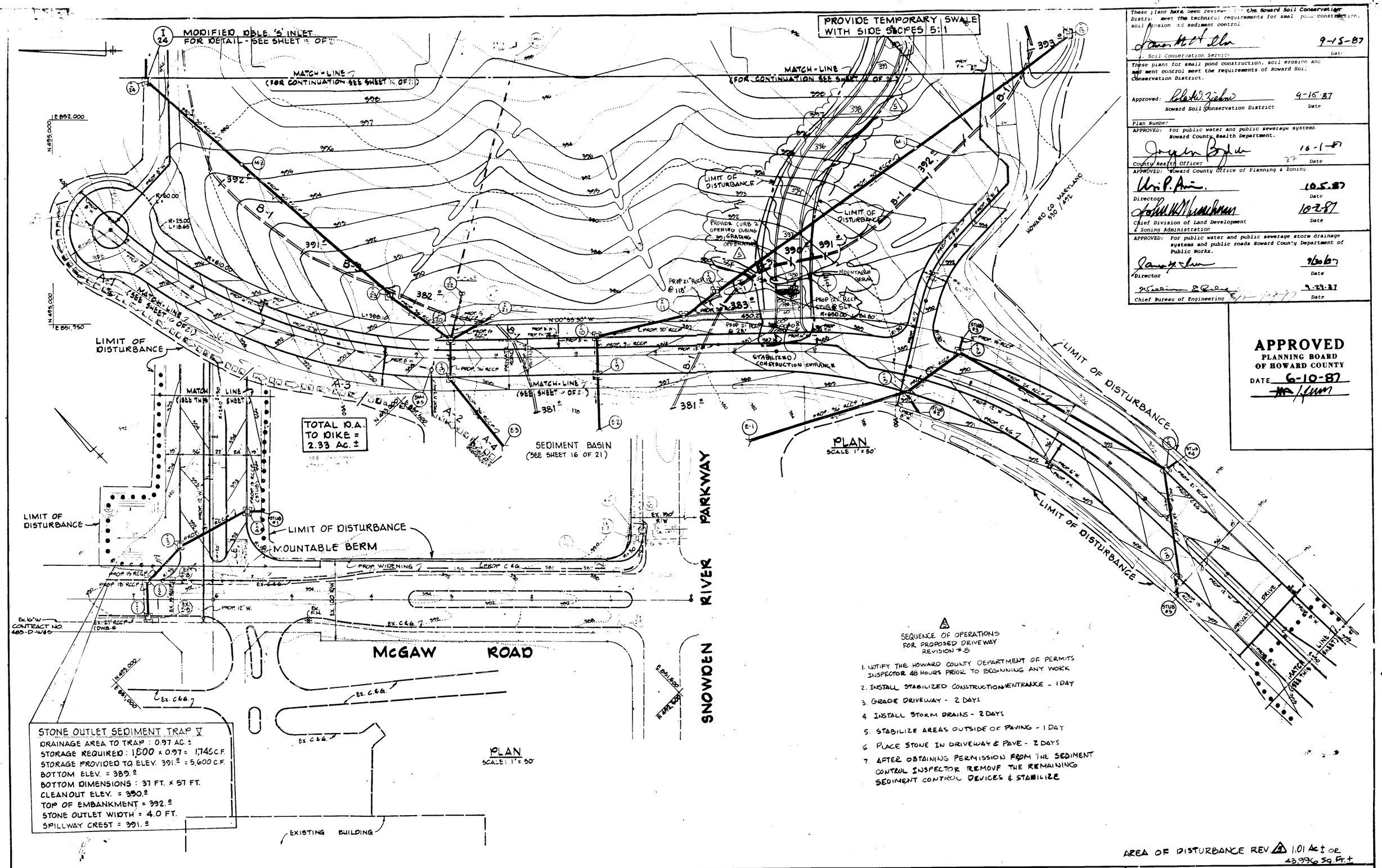
Chief Division of Land Development & Zoning Administration — Date: 10-2-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date: 9/30/87

Chief Bureau of Engineering — Date: 9-29-87

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87



STONE OUTLET SEDIMENT TRAP V
DRAINAGE AREA TO TRAP : 0.97 AC. ±
STORAGE REQUIRED : 1,800 x 0.97 = 1,745 C.F.
STORAGE PROVIDED TO ELEV. 391.0 = 5,600 C.F.
BOTTOM ELEV. = 389.0
BOTTOM DIMENSIONS : 37 FT. x 57 FT.
CLEANOUT ELEV. = 390.0
TOP OF EMBANKMENT = 392.0
STONE OUTLET WIDTH = 4.0 FT.
SPILLWAY CREST = 391.0

SEQUENCE OF OPERATIONS FOR PROPOSED DRIVEWAY REVISION #5

1. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS INSPECTOR 48 HOURS PRIOR TO BEGINNING ANY WORK
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE - 1 DAY
3. GRADE DRIVEWAY - 2 DAYS
4. INSTALL STORM DRAINS - 2 DAYS
5. STABILIZE AREAS OUTSIDE OF PAVING - 1 DAY
6. PLACE STONE IN DRIVEWAY & PAVE - 2 DAYS
7. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR REMOVE THE REMAINING SEDIMENT CONTROL DEVICES & STABILIZE

AREA OF DISTURBANCE REV. 5 1.01 Ac ± OR 43,996 Sq. Ft. ±

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: Vasanta Chakravarty — REG. NO.: 8730 — DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
5430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

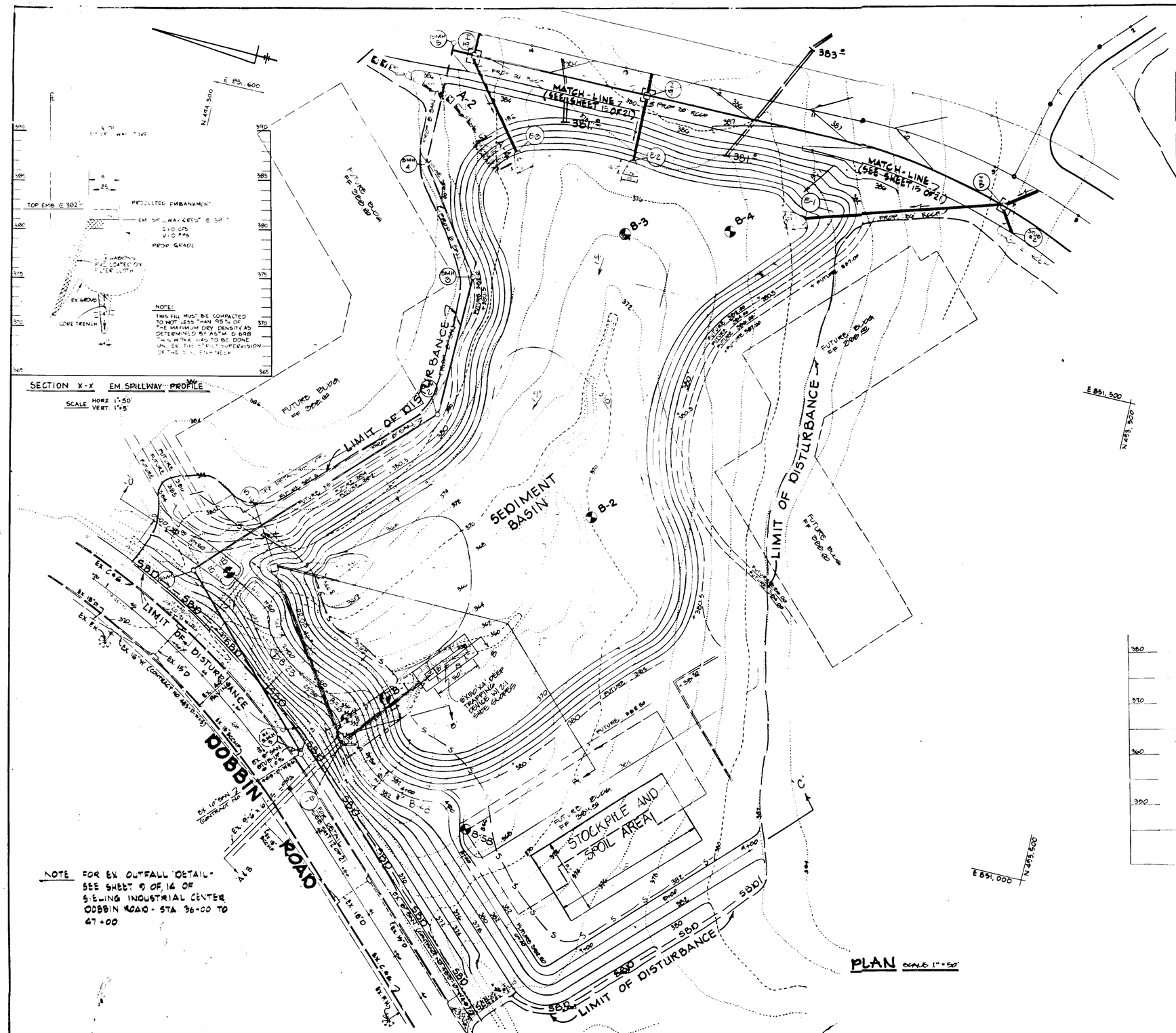
DEVELOPER: CHRISTOPHER W. KURZ TITLE CHAIRMAN — DATE: 3/27/87

DESIGNED BY: I.Z.
DRAWN BY: K.L.D.
CHECKED BY: T.C.

REVISIONS
REV 6/21/86 ADDED ACCESS ROAD, I-11 & I-2 & PARKING

SEDIMENT AND EROSION CONTROL PLAN
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
F.N. 06607 — SHEET #5 OF 21

SDP-87-193.

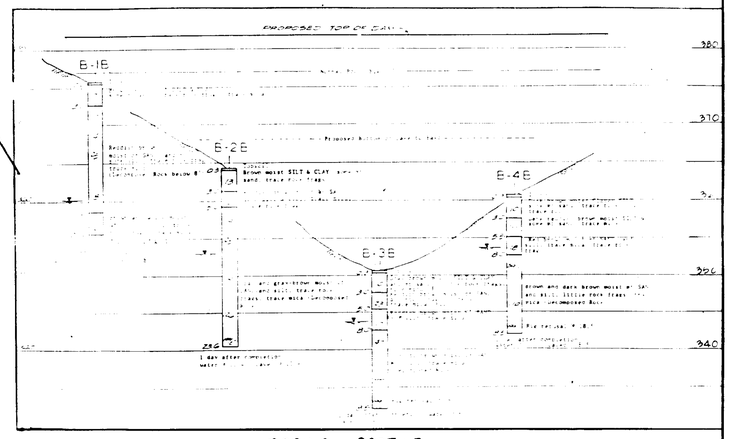


PLAN SCALE 1"=50'

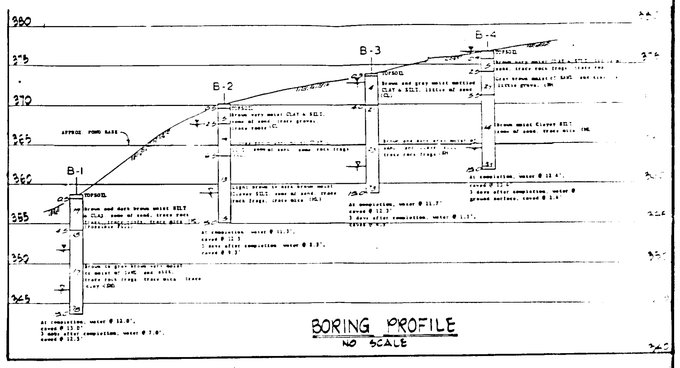
SECTION X-X EM SPILLWAY PROFILE

SCALE HORZ 1"=50' VERT. 1"=5'

NOTE FOR EX. OUTFALL DETAIL - SEE SHEET 9 OF 16 OF SIELING INDUSTRIAL CENTER DOBBIN ROAD - STA 36+00 TO 47+00.



BORING PROFILE
NO SCALE



BORING PROFILE
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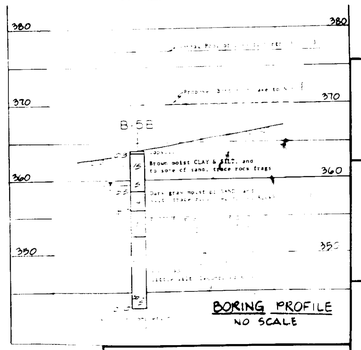

BORING PROFILE
NO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10-5-87

Chief Division of Land Development & Zoning Administration — Date 10-7-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/30/87

Chief Bureau of Engineering — Date 9-29-87

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

STATE OF MARYLAND — PROFESSIONAL ENGINEER — 3/31/87

ENGINEER'S CERTIFICATE

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ENGINEER: Chakrabarty — PRABHATA CHAKRABARTY
REG. NO.: 8430 — DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

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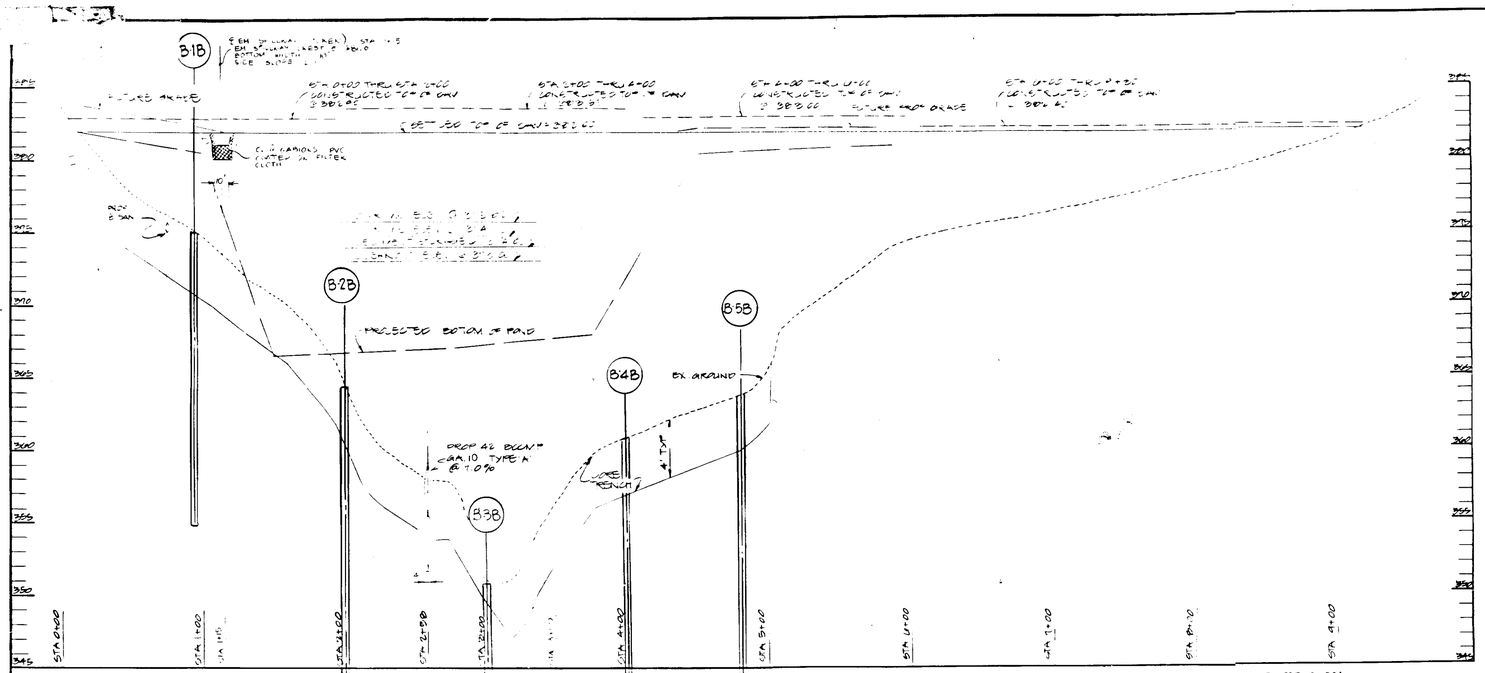
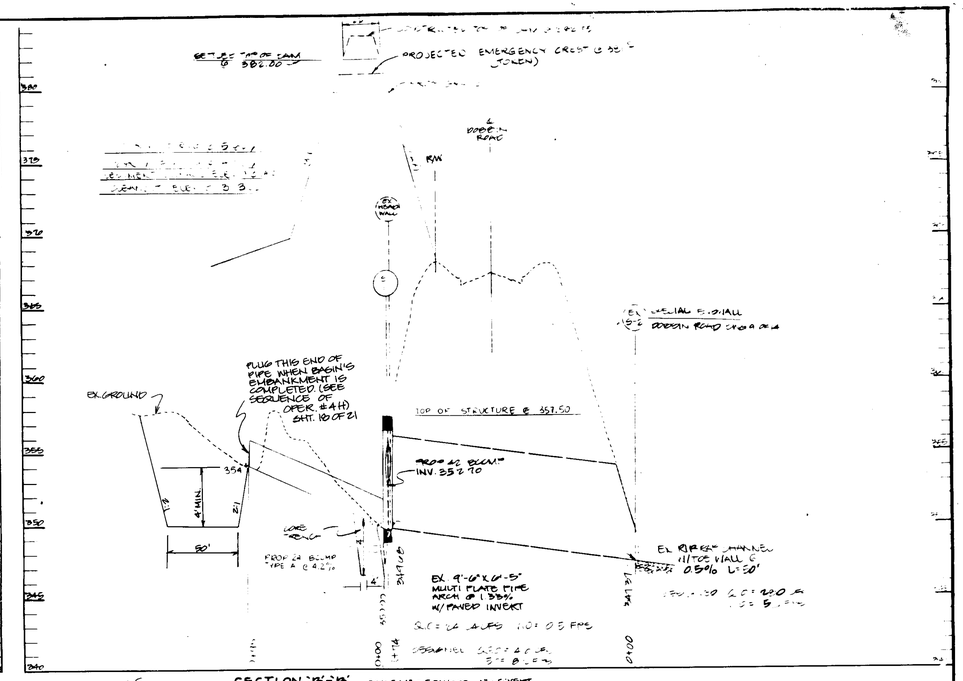
DEVELOPER: — DATE: 3/27/87
CHRISTOPHER W. KURZ TITLE: CHAIRMAN

DESIGNED BY: T.C.
DRAWN BY: K.B./D.L.
CHECKED BY: T.C.
REVISIONS

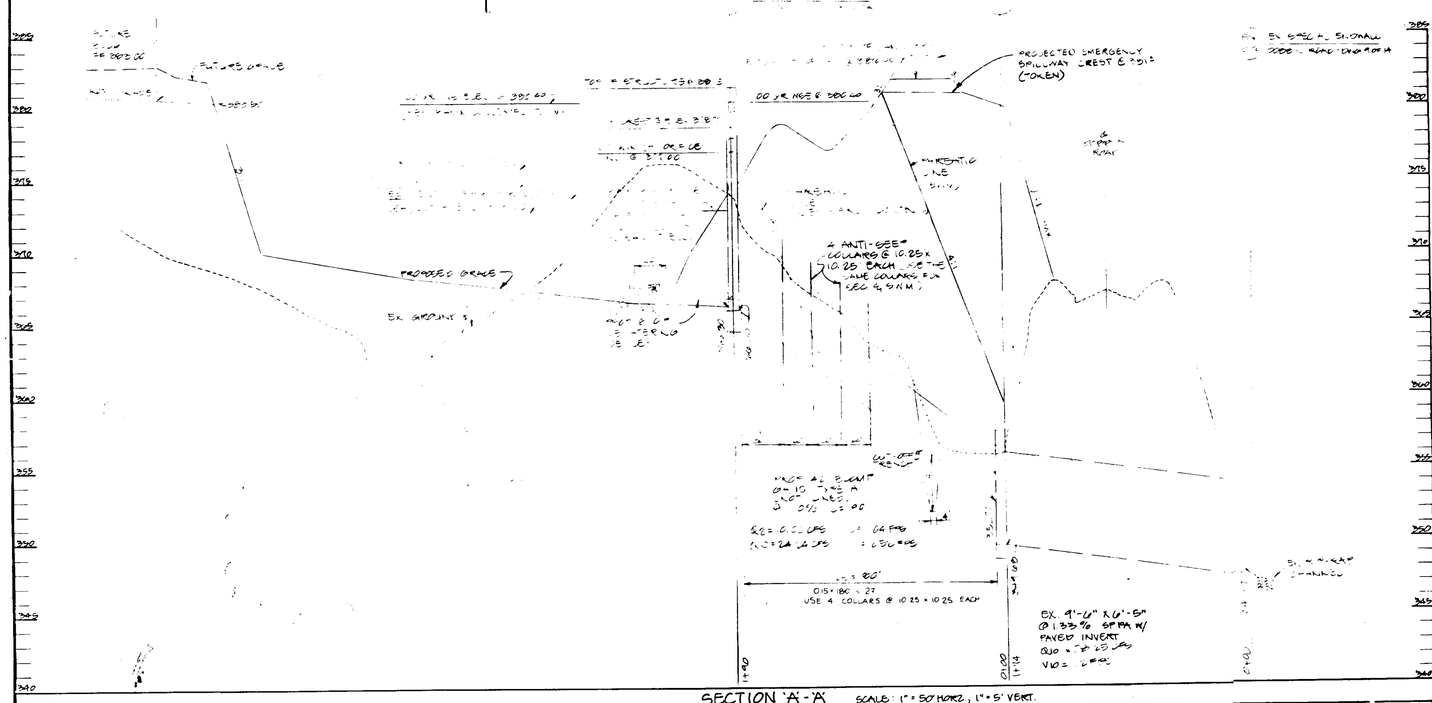
SEDIMENT AND EROSION CONTROL PLAN
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
P.N. 05607 — SDP-87-193c — SHEET #16 OF 21



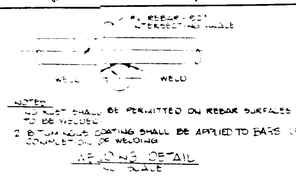
SECTION 'C'-'C' SCALE 1" = 50' HORZ., 1" = 5' VERT.



SECTION 'B'-'B' SCALE: 1" = 50' HORZ., 1" = 5' VERT.

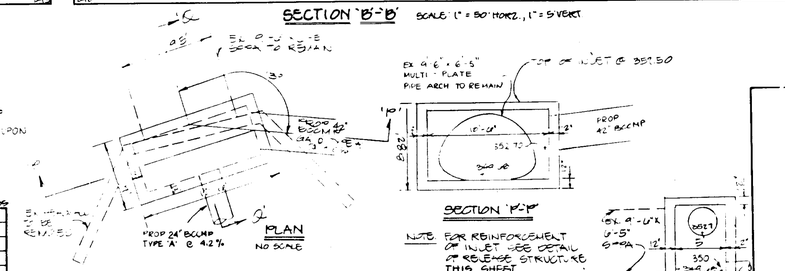


SECTION 'A'-'A' SCALE: 1" = 50' HORZ., 1" = 5' VERT.



NOTES
1. NO PAINT SHALL BE PERMITTED ON REBAR SURFACES TO BE WELDED
2. BITUMINOUS COATING SHALL BE APPLIED TO BASE UPON COMPLETION OF WELDING

REBAR DETAIL
NO SCALE

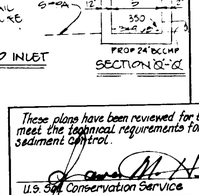


PLAN
NO SCALE

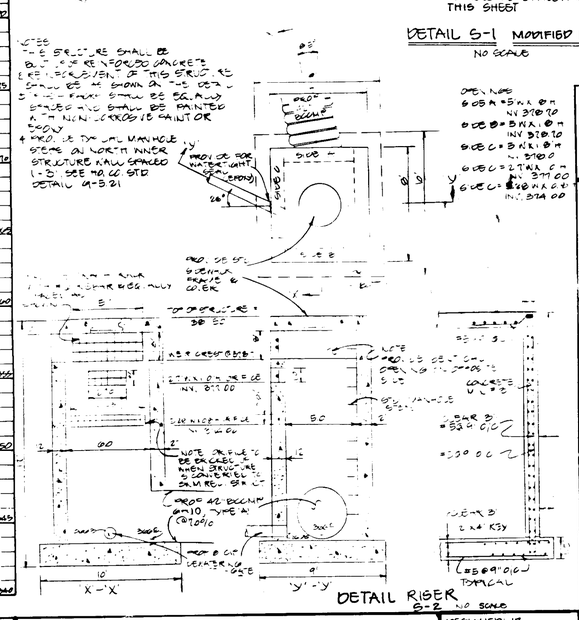
SECTION 'X'-'X'

NOTE FOR REINFORCEMENT OF INLET SEE DETAIL OF RISER STRUCTURE THIS SHEET

DETAIL S-1 MODIFIED INLET
NO SCALE



SECTION 'Q'-'Q'



DETAIL RISER
S-2 NO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion & sediment control.

U.S. Soil Conservation Service — 9-15-87

These plans for small pond construction, soil erosion & sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — 9-15-87 Date

plan number

APPROVED: For public water & sewerage systems Howard Co. Health Department.

County Health Officer — 10-1-87 Date

APPROVED: Howard County Office of Planning & Zoning

Director — 10.5.87 Date

Chief, Div. of Land Development & Zoning Administration — 10-7-87 Date

APPROVED: For Public water & public sewerage storm drainage systems and public roads Howard County Department of Public Works

Director — 9/30/87 Date

Chief, Bureau of Engineering — 9-29-87 Date

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ENGINEER: Jaqueta Chandra — JAQUETA CHANDRA
REG. NO.: 8930 — DATE: 3/21/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

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DEVELOPER: CHRISTOPHER W. KUHZ TITLE CHAIRMAN — DATE 3/2/87

DESIGNED: TC
DRAWN: DAL
CHECKED: TC
REVISIONS

SEDIMENT & EROSION CONTROL PROFILES AND DETAILS

COLUMBIA CORPORATE PARK
STERLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 396
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
#N. 05607
ELECTION DISTRICT 5
MARCH 23, 1987
SHEET 8 OF 21

SDP-87-193c

CONSTRUCTION SPECIFICATIONS

I. SITE PREPARATION
The fill area and borrow area shall be cleared and grubbed to remove all trees, vegetation, roots and other objectionable material. The topsoil in the embankment area and borrow area shall be removed and stockpiled ... spread on the completed fill area.

II. EARTH FILL
A. FILL MATERIAL shall be obtained from on-site under the supervision of the engineer. It shall be free from roots, stumps, ... frozen or other objectionable material. Fill areas shall be constructed to the elevation shown on the plan to allow for anticipated settlement.
B. PLACEMENT: Areas on which fill will be placed shall be scarified prior to placement of fill. Fill materials shall be placed in layers ... thick maximum (before compaction) and shall be continuous over the entire length of fill. The most porous material shall be placed in areas not adjacent to ponded water.
C. COMPACTION: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be compacted to the specified density. Fill material shall contain sufficient moisture so that the required degree of compaction can be obtained with the equipment used.

III. ... shall be the type and quality ... shall be placed in horizontal layers ... compacted ... hand tamping or manually directed power tampers or plate vibrators. At no time during backfilling operations shall driven equipment be allowed to operate any closer than four feet measured horizontally to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Materials shall fill completely all spaces under and adjacent to newly installed pipe.

IV. CONCRETE
Concrete shall meet the minimum requirements set forth in the Maryland State Highway Administration "Specifications for Construction and Materials" January 19.., Section 915.06 - "Portland Cement Concrete Mixtures". ... reinforcing steel shall be A.S.T.M. A 615 Grade 60.

V. STABILIZATION
The storm water management facility will be stabilized with "Permanent Stone seeding" as follows: ... topsoil seed with a mixture of ... Tall Fescue applied at a rate of 60 lbs. ... shall be applied at a rate of 25 lbs. 1000 square feet lime at a rate of ... square feet mulch area with unweathered small grain straw at a rate of ... rapid curing asphalt R.C.-70, R.C.-250 or ...

VI. PIPE CONDUITS
4½" B.C.C.M.P., Type A, NOT LINED, (GA. 16)
A. Corrugated Metal Pipe:
1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-90 with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. Backfilling shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

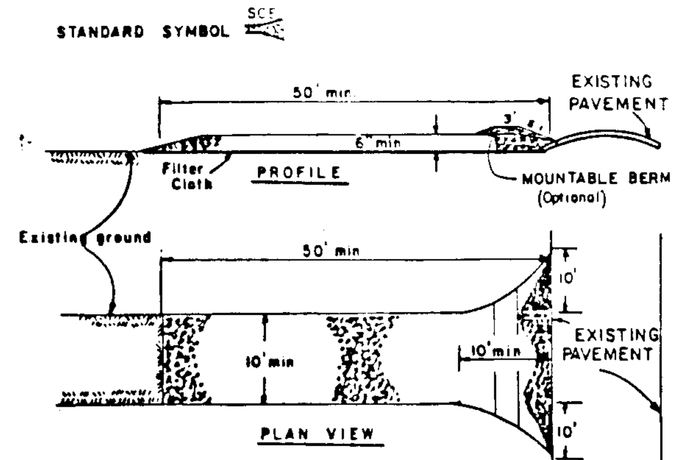
VII. FILTER CLOTH
MIRAFI 140S or equivalent shall be used.

VIII. SEDIMENT CONTROL
Construction to be in accordance with "1983 Maryland Standards and Specifications For Soil Erosion and Sediment Control". In release structure install dewatering device by connecting 20 L.F. of 8" perforated underdrain to the low flow pipe. The 8" underdrain shall be wrapped in filter cloth and covered with minimum 12" thick #7 stone.

NOTE: SPECIFIED DENSITY
SUITABLE MATERIAL SHALL BE USED FOR THE EMBANKMENT AND ... TO A MINIMUM DEGREE OF COMPACTION OF 95% OF THE DRY UNIT WEIGHT AS DETERMINED BY A.A.S.H.T.O. T-99 ... SHALL BE UNDER THE DIRECT SUPERVISION OF A SOILS ENGINEER.

NOTE:
IN ADDITION TO LISTED ABOVE SPECS CONTRACTOR MUST FOLLOW THE METHODS OF CONSTRUCTION OF THE DAM & LAKE AS RECOMMENDED IN THE SOIL REPORT PREPARED BY HERBST & ASSOC. INC. DATED MAY .. 1987. THE COPY OF REPORT MAY BE OBTAINED FROM MC GILL DEVELOPMENT COMPANY.

STABILIZED CONSTRUCTION ENTRANCE
not to scale



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

PERMANENT SEEDING NOTES

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Use one of the following schedules.

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 square ft.) and 600 lbs. per acre 10-20-20 fertilizer (14 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs./1000 sq. ft.)

2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs./1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of Kentucky 31 tall fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 tall fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 thru February 28, 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 1½ 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.

TEMPORARY SEEDING NOTES

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

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 Nov. 15, seed with 2½ bu. per acre of annual rye (3.2 lbs./1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs/1000 sq. ft). For the period November 16 thru February 28, 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 1½ to 2 tons per acre (70-90 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 (5gal./1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal. per acre (8 gal./1000 sq.ft.) for anchoring.

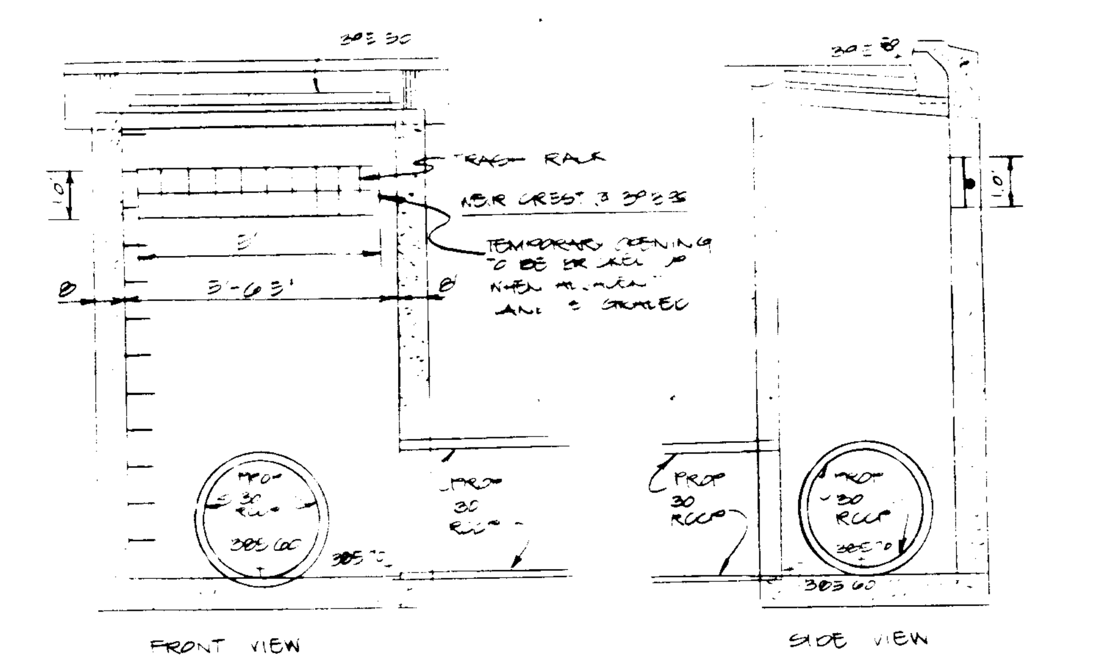
SEQUENCE OF OPERATIONS

1. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, PERMITS INSPECTOR, 48 HOURS PRIOR TO BEGINNING WORK.
2. CLEAR AND GRUB FOR STABILIZED CONSTRUCTION ENTRANCES AND ALSO THE AREA NECESSARY TO BUILD STRUCTURES ...
* 3. INSTALL SILT FENCE ... STREAM ... AS SHOWN ON THE PLAN ...
4. ... SEDIMENT BASIN SHALL BE CONSTRUCTED PER THE ... STORM WATER MANAGEMENT PONDS (PER SPECS. AS SHOWN ON SHEET ... FOR INITIAL CONSTRUCTION AS FOLLOWS:
A. INSTALL CORE TRENCH AND CUTOFF TRENCH UNDER THE BARREL.
B. PLACE 42" BARREL WITH ANTI-SEEP COLLARS.
C. START CONSTRUCTION OF THE RISER TO ELEV. 378.0
D. CLEAR AND GRUB FOR SEDIMENT CONTROL MEASURES ONLY FOR THE CONSTRUCTION OF THE EMBANKMENT.
* E. EXTEND 24" BCCMP BEYOND THE INSIDE TOE OF SCOPE OF THE EMBANKMENT AS SHOWN ALSO INSTALL SILT FENCE ALONG THE ENTIRE LENGTH OF INSIDE TOE ... SLOPE OF THE ... EMBANKMENT. INSTALL STRAW BALE DIKES ON THE OUTSIDE ... OF THE EMBANKMENT. INSTALL TRAPPING DEVICE UPSTREAM OF 24" BCCMP.
F. INSTALL ... EMBANKMENT. START CONSTRUCTION FROM BOTH ENDS AND MOVE TOWARDS ... (SEE CONSTRUCTION SPECIFICATIONS THIS SHEET & HERBST SOILS REPORT)
G. WHEN FILL OF EMBANKMENT IN AREA ... REACHES THE TOP OF STRUCTURE ... INSTALL CONCRETE SLAB ... AND COMPLETE THE CONSTRUCTION OF THE DAM.
(THIS PORTION OF WORK MUST BE ACCOMPLISHED DURING 5-DAY DRY WEATHER FORECAST.)
H. COMPLETE THE CONSTRUCTION OF THE RISER. 24" BCCMP TO BE COMPLETELY GROUTED. REMOVE THE SILT FENCE FROM THE BASIN AREA.
I. INSTALL 8" DEWATERING DEVICE.
J. CLEAR AND GRUB FOR THE REMAINING AREAS OF SEDIMENT BASIN AND FOR REMAINING SEDIMENT CONTROL FEATURES.
K. PROVIDE ADEQUATE GRADING IN BOTTOM AREA OF BASIN TO DIVERT WATER THROUGH 8" PIPE.
L. GRADE REMAINDER OF THE BASIN ACCORDING TO THE PLAN.

EXCAVATED MATERIAL SHALL BE USED FOR FILLING THE AREAS ADJACENT TO THE BASIN UP TO ELEVATIONS TO PROVIDE POSITIVE DRAINAGE TO BASIN.

5. INSTALL EARTH DIKES AND STRAW BALES AND SEDIMENT TRAP.
6. BEGIN GRADING ALONG PROPOSED PRIVATE ROAD (STA. 0+50 - STA. 10+70 APPROX.) ...
7. BEGIN MAJOR GRADING AND MAINTAIN POSITIVE DRAINAGE TO THE SEDIMENT BASIN AT ALL TIMES.
8. DO NOT GRADE THE SHADED AREA (SEE PLAN) TO ITS FINAL FINISHED GRADE UNTIL STORM DRAINS ARE BUILT. IN ORDER TO PROVIDE POSITIVE DRAINAGE BY WAY OF SHALLOW SWALES AS SHOWN ON THE PLAN. (ALSO SEE DETAIL SHEET THIS SHEET FOR INTERIM GRADING IN THE SHADED AREA).
9. INSTALL STORM DRAINS. PROVIDE INLET PROTECTION. A TEMPORARY WEIR OPENING ON THE BACK OF THE INLET I-24 TO DRAIN THE SUMP AREA NORTH OF THE INLET.
10. FINE GRADE REMAINING AREAS.
11. BRING TO GRADE REMAINING PROPOSED PRIVATE ROAD.
12. STABILIZE AREAS OF THE SITE NOT RECEIVING PAVING.
13. INSTALL SUBBASE MATERIAL IN PARKING AND BUILDING AREAS.
14. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, CLEAN OUT ... SEDIMENT BASIN ... REMOVE ... AND ... THE RELEASE ... ACCORDING TO THE APPROVED ...
15. AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE THE REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE.

* 24" BCCMP TO BE COMPLETELY WATER TIGHT IN ACCORDANCE WITH 378 CONSTRUCTION SPECIFICATIONS FOR PIPES & FILL MATERIAL.

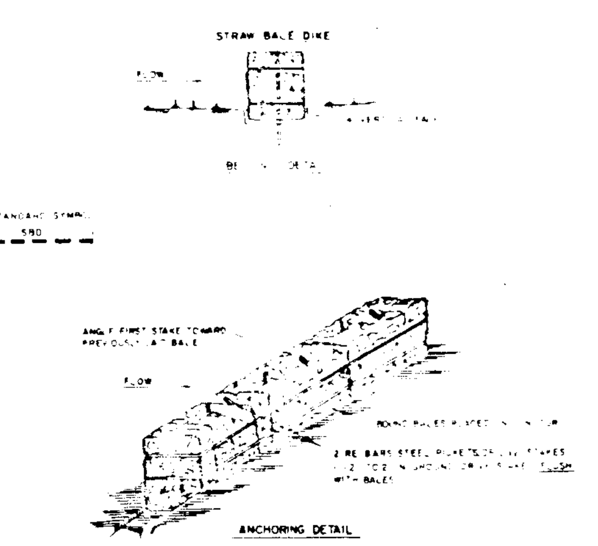


MODIFIED DOUBLE TYPE S COMB. INLET 'I-24'
NO SCALE

UNLESS OTHERWISE NOTED INLET SHALL BE BUILT UP ACCORDING TO HOWARD CO. STANDARD & DETAILS PLATE SD-4.34

SEDIMENT CONTROL NOTES

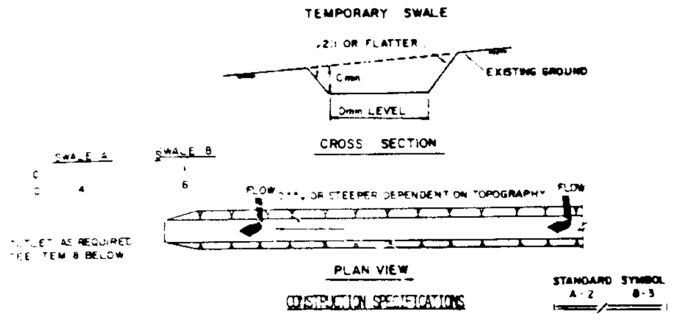
1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3) Following initial soil disturbance or redisturbance, 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.
4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chaper 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 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.
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 88.00 Acres
   - Area Disturbed 37.93 Acres
   - Area to be roofed or paved 11.19 Acres
   - Area to be vegetatively stabilized 26.74 Acres
   - Total Cut 86,356 Cu. yds
   - Total Fill 86,356 Cu. yds
   - Offsite waste/borrow area location N/A
8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

TEMPORARY SWALE



CONSTRUCTION SPECIFICATIONS

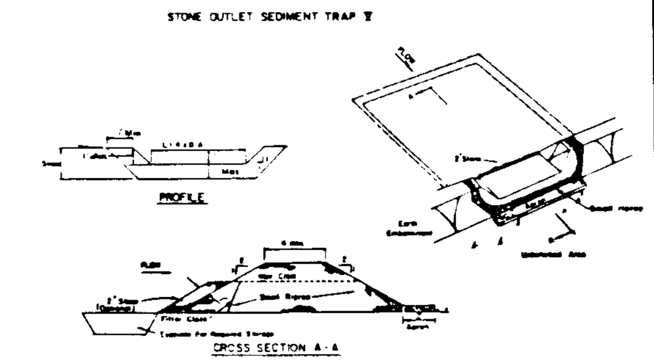
1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	SWALE A	SWALE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

STONE OUTLET SEDIMENT TRAP V



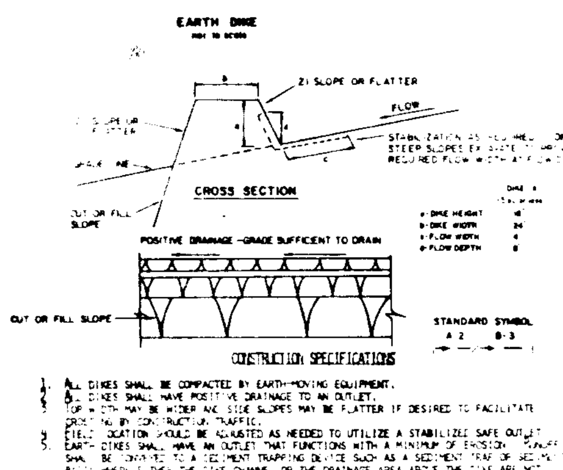
OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area 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. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap or embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

EARTH DIKE
not to scale



CONSTRUCTION SPECIFICATIONS

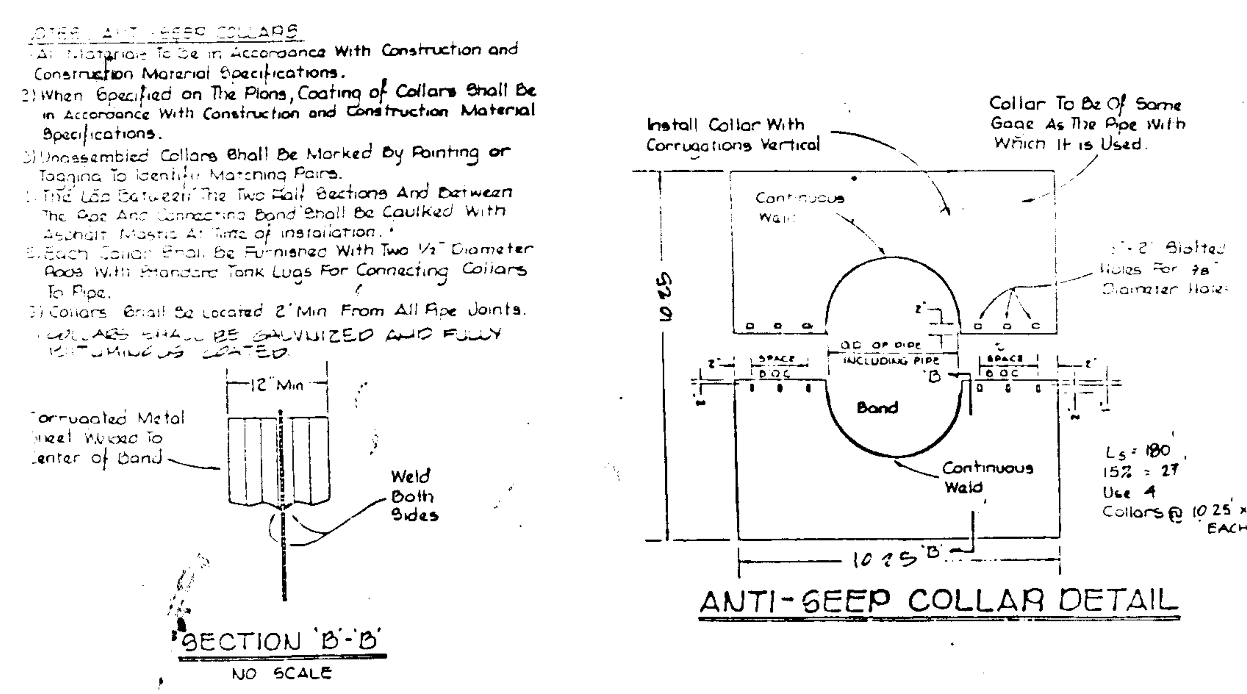
1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

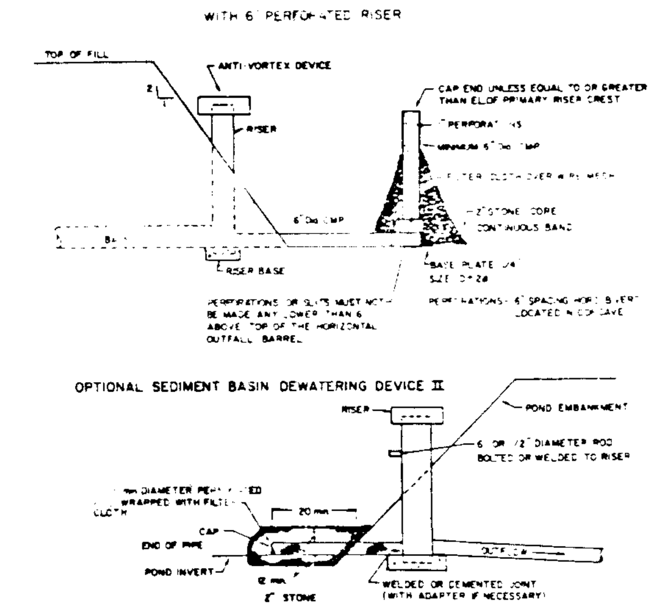
FLOW CHANNEL STABILIZATION

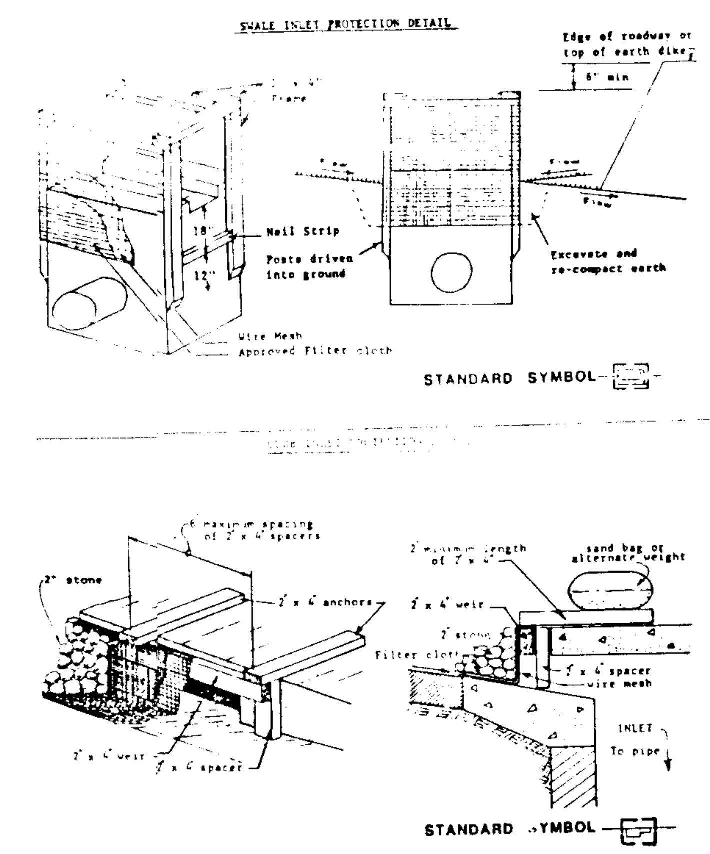
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR, SOD, 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

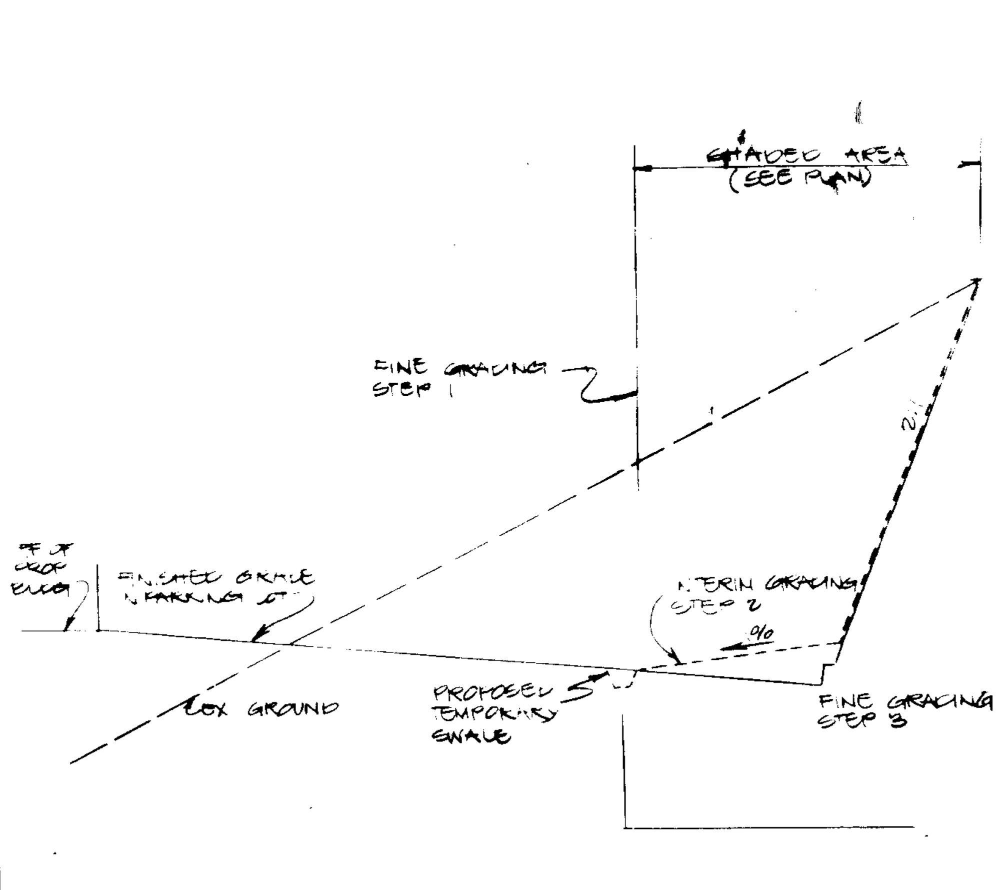
A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

NOTES: ANTI-SEEP COLLARS
1) All Materials To Be in Accordance With Construction and Construction Material Specifications.
2) When Specified on The Plans, Coating of Collars Shall Be in Accordance With Construction and Construction Material Specifications.
3) Unassembled Collars Shall Be Marked By Painting or Tagging To Identify Matching Pairs.
4) The Lap Between The Two Half Sections And Between The Pipe And Connecting Band Shall Be Caulked With Asphalt Mastic At Time of Installation.
5) Each Collar Shall Be Furnished With Two ½" Diameter Rods With Standard Tank Lugs For Connecting Collars To Pipe.
6) Collars Shall Be Located 2' Min. From All Pipe Joints.
COLLARS SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED.









DETAIL OF INTERIM GRADING IN THE SHADED AREA
(NO SCALE)

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.
9-15-87
U.S. Soil Conservation Service

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.
Approved: 9-15-87
Howard Soil Conservation District — Date

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.
10-1-87
County Health Officer — Date

APPROVED: Howard County Office of Planning & Zoning.
10.5.87
Director — Date
10-2-87
Chief Division of Land Development & Zoning Administration

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.
9/30/87
Director — Date
9-29-87
Chief Bureau of Engineering — Date

GEORGE WILLIAM STEPHENS, JR AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

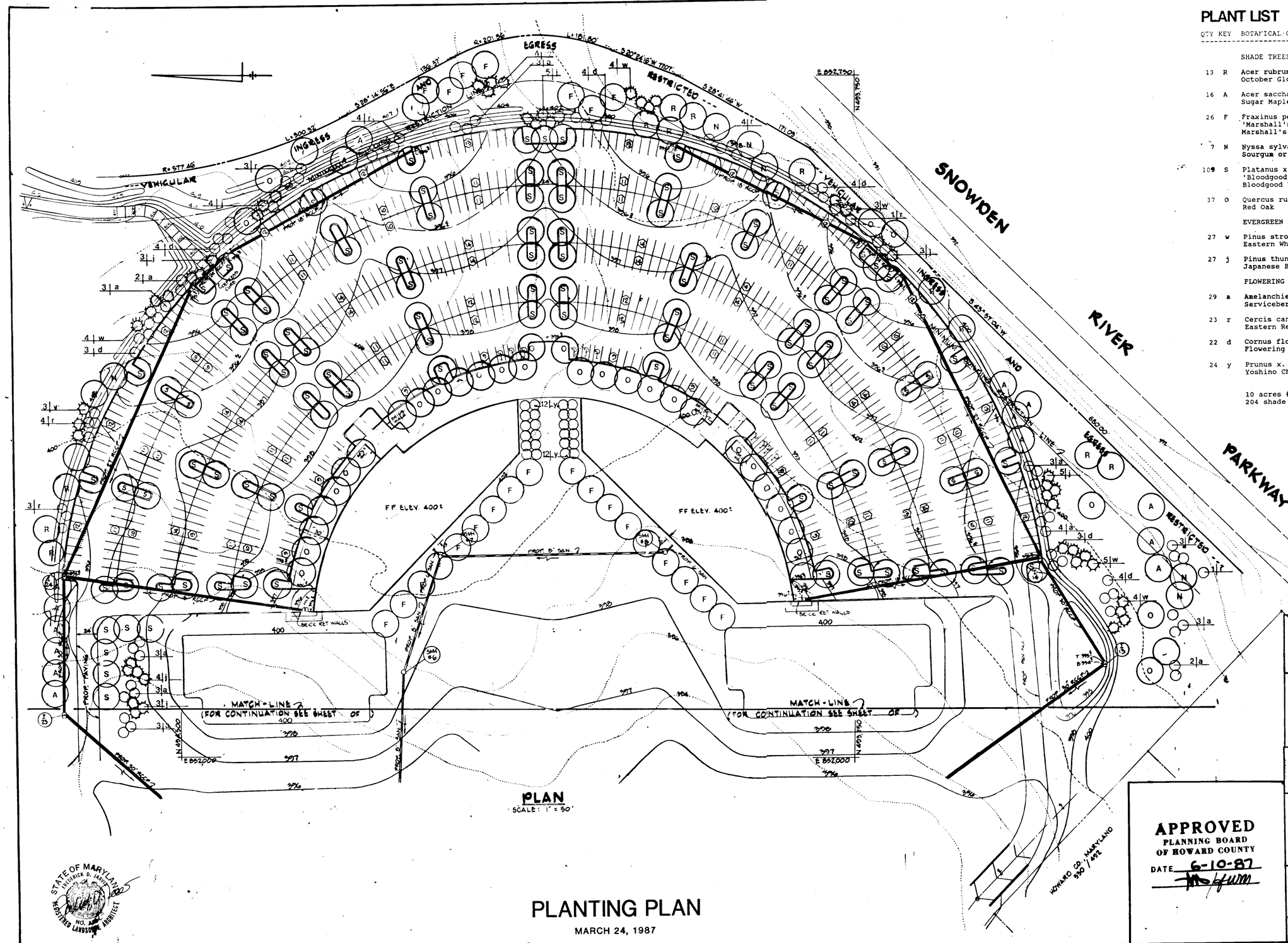
ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENT A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.
ENGINEER: TAPOBRATA CHAKRABARTI
REG. NO.: 8930
DATE: 3/31/87

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922
DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE
I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.
DEVELOPER: CHRISTOPHER W. KURZ — TITLE: CHAIRMAN
DATE: 3/25/87

DESIGNED: I.Z.
DRAWN: D.A.L.
CHECKED: I.Z.
REVISIONS

SEDIMENT & EROSION CONTROL PROFILES & DETAILS
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 23, 1987
P.N. 05607 SDP-87-193 — SHEET #18 OF 21



PLAN
SCALE: 1" = 50'

PLANTING PLAN

MARCH 24, 1987

PLANT LIST

QTY	KEY	BOTANICAL/COMMON NAME	SIZE	REMARKS
		SHADE TREES		
13	R	Acer rubrum 'October Glory' October Glory Maple	13-15' ht. 2 1/2-3" cal.	B & B Full
16	A	Acer saccharum Sugar Maple	13-15' ht. 2 1/2-3" cal.	B & B Full
26	F	Fraxinus pennsylvanica 'Marshall's Seedless' Marshall's Seedless Green Ash	13-15' ht. 2 1/2-3" cal.	B & B Full
7	N	Nyssa sylvatica Sourgum or Tupelo	12-14' ht. 2 1/2-3" cal.	B & B Full
109	S	Platanus x. acerfolia 'Bloodgood' Bloodgood London Planetree	13-15' ht. 2 1/2-3" cal.	B & B Full
37	O	Quercus rubra Red Oak	13-15' ht. 2 1/2-3" cal.	B & B Full
		EVERGREEN TREES		
27	w	Pinus strobus Eastern White Pine	6-8' ht.	B & B Full
27	j	Pinus thunbergiana Japanese Black Pine	6-8' ht.	B & B Full
		FLOWERING TREES		
29	a	Amelanchier canadensis Serviceberry	8-10' ht.	B & B Heavy
23	r	Cercis canadensis Eastern Redbud	8-10' ht.	B & B Full
22	d	Cornus florida Flowering Dogwood	8-10' ht.	B & E Heavy
24	y	Prunus x. yedoensis Yoshino Cherry	8-10' ht. 2-2 1/2" cal.	B & B Full

10 acres @ 28 shade trees/acre = 280 trees
204 shade trees, 152 flowering/evergreen trees

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15 87

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10.5.87

Chief Division of Land Development & Zoning Administration — Date 10-2-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/30/87

Chief Bureau of Engineering — Date 9-29-87

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87

STATE OF MARYLAND
FREDERICK D. LAWRENCE
REGISTERED LANDSCAPE ARCHITECT
NO. 2000

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

LDR
Land Design/Research, Inc.
Quarry Park Place/Suite 100
9175 Guilford Road
Columbia, Maryland 21046
301/792-4360 Baltimore
301/498-8500 Washington

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: _____
REG. NO.: _____ DATE: _____

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: CHRISTOPHER W. KURZ TITLE: CHAIRMAN DATE: 3/2/87

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVISIONS

LANDSCAPING PLAN
COLUMBIA CORPORATE PARK
SIELING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND ELECTION DISTRICT #6
SCALE AS SHOWN MARCH 1987
PN. 05607 SHEET # 1 OF 21

SDP-87-193c

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

9-15-87
U.S. Soil Conservation Service — Date

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Robert W. Zühlke — 9-15-87
Howard Soil Conservation District — Date

Plan Number

APPROVED: For public water and public sewerage systems Howard County Health Department.

10-1-87
County Health Officer — Date

APPROVED: Howard County Office of Planning & Zoning.

10.5.87
Director — Date

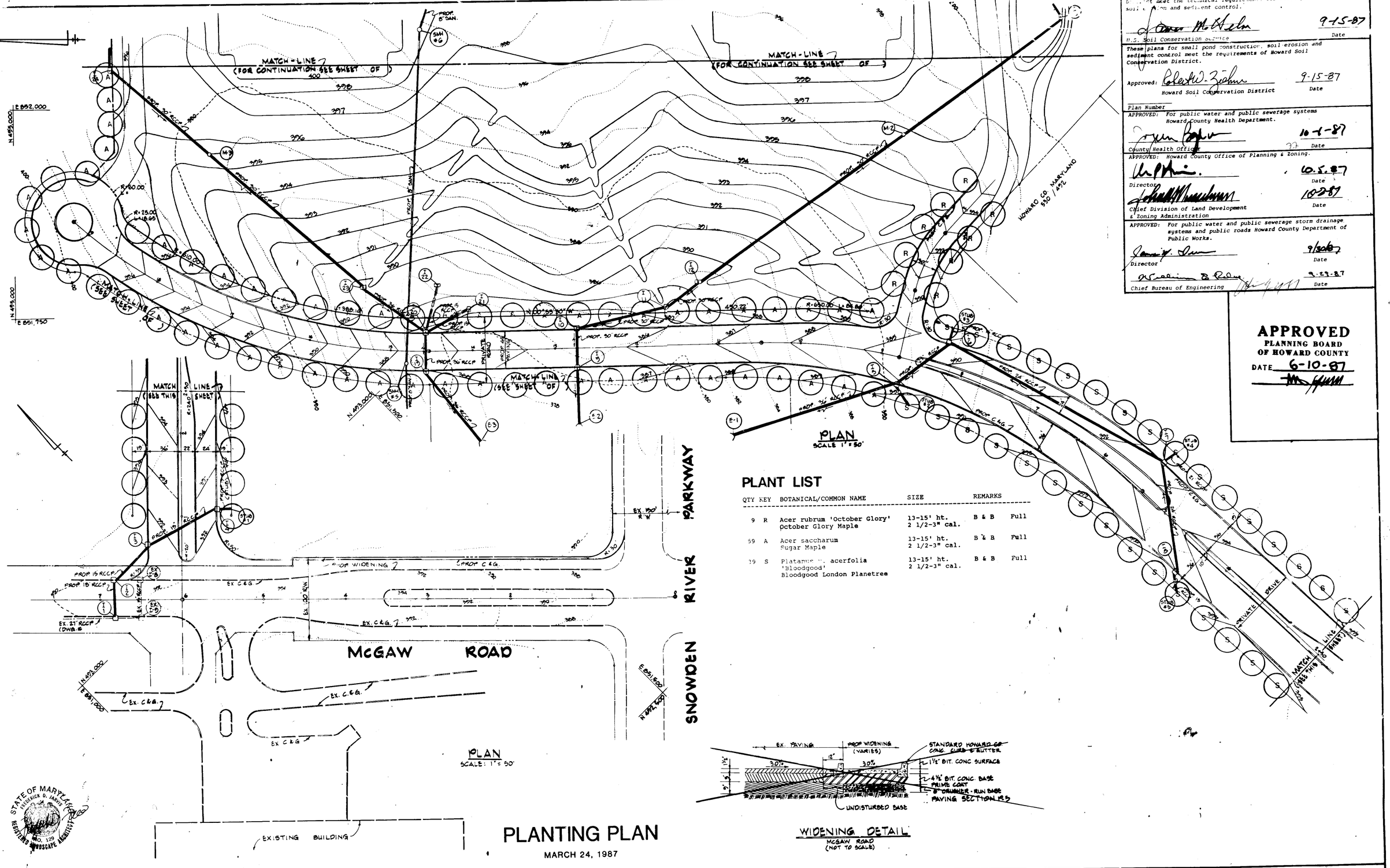
10-2-87
Chief Division of Land Development & Zoning Administration — Date

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

9/30/87
Director — Date

9.29.87
Chief Bureau of Engineering — Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-10-87



PLANT LIST

QTY	KEY	BOTANICAL/COMMON NAME	SIZE	REMARKS	
9	R	Acer rubrum 'October Glory' October Glory Maple	13-15' ht. 2 1/2-3" cal.	B & B	Full
59	A	Acer saccharum Sugar Maple	13-15' ht. 2 1/2-3" cal.	B & B	Full
39	S	Platanus x. acerfolia 'Bloodgood' Bloodgood London Planetree	13-15' ht. 2 1/2-3" cal.	B & B	Full

WIDENING DETAIL
MCGAW ROAD
(NOT TO SCALE)

PLANTING PLAN

MARCH 24, 1987

STATE OF MARYLAND — FREDERICK D. JARVIS — NO. 129 — REGISTERED LANDSCAPE ARCHITECT

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

LDR Land Design Research, Inc.
Quarry Park Place/Suite 100
9175 Guilford Road
Columbia, Maryland 21046
301/792-4360 Baltimore
301/498-8300 Washington

ENGINEER'S CERTIFICATE
I CERTIFY THAT THIS PLAN FOR S.W.M. FACILITY CONSTRUCTION, 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 SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

ENGINEER: _____
REG. NO.: _____ DATE: _____

OWNER
WESTERN ELECTRIC COMPANY
1 OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07922

DEVELOPER
McGILL DEVELOPMENT COMPANY
6430 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE
I 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 NATURAL RESOURCES APPROVED PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE S.W.M. FACILITY WITHIN 30 DAYS OF COMPLETION.

DEVELOPER: CHRISTOPHER W. KURZ TITLE: CHAIRMAN DATE: 3/26/87

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVISIONS

LANDSCAPING PLAN
COLUMBIA CORPORATE PARK
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH, 1987
FN. 05607 — SHEET #2 OF 1

SDP-87-193

PLANTING PLAN

MARCH 24, 1987

PLANT LIST

KEY	QTY	BOTANICAL COMMON NAME	SIZE		REMARKS
R	18	Acer rubrum 'October Glory' October Glory Maple	13-15' ht. 2 1/2-3" cal.	B & B	Full
N	6	Nyssa sulvatica Tupelo	12-14' ht. 2 1/2-3" cal.	B & B	Full
W	12	Salix babylonia Babylon Weeping Willow	11-13' ht. 2 1/2-3" cal.	B & B	Full

These plans have been reviewed for the Howard Soil Conservation District meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service — Date 9-15-87

These plans for small pond construction, soil erosion and sediment control meet the requirements of Howard Soil Conservation District.

Approved: Howard Soil Conservation District — Date 9-15-87

Plan Number

APPROVED: For public water and public sewerage system. Howard County Health Department.

County Health Officer — Date 10-1-87

APPROVED: Howard County Office of Planning & Zoning.

Director — Date 10.5.87

Chief Division of Land Development & Zoning Administration — Date 10-8-87

APPROVED: For public water and public sewerage storm drainage systems and public roads Howard County Department of Public Works.

Director — Date 9/29/87

Chief Bureau of Engineering — Date 9-29-87

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6-10-87

STATE OF MARYLAND — FREDERICK D. JAMIESON — REGISTERED LANDSCAPE ARCHITECT

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301)825-8120

LDR Land Design/Research, Inc.
Quarry Park Place/Suite 100
9175 Guilford Road
Columbia, Maryland 21046
301/792-4360 Baltimore
301/498-8508 Washington

ENGINEER'S CERTIFICATE

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ENGINEER: _____ REG. NO. _____ DATE: _____

OWNER
WESTERN ELECTRIC COMPANY
OAK WAY
BERKLEY HEIGHTS, NEW JERSEY 07022

DEVELOPER
McGILL DEVELOPMENT COMPANY
8450 DOBBIN ROAD
COLUMBIA, MARYLAND 21045

DEVELOPER'S CERTIFICATE

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DEVELOPER: CHRISTOPHER W. KORK TITLE: CHAIRMAN DATE: 3/25/87

DESIGNED BY:
DRAWN BY:
CHECKED BY:
REVISIONS

LANDSCAPING PLAN
COLUMBIA CORPORATE PARK
SIBLING INDUSTRIAL CENTER
SECTION 1, AREA 1, PARCEL 'A'
TAX MAP #36 PARCEL 356
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE AS SHOWN — MARCH 1987
P.N. 05307 — SHEET #21 OF 21

SDP-87-193c