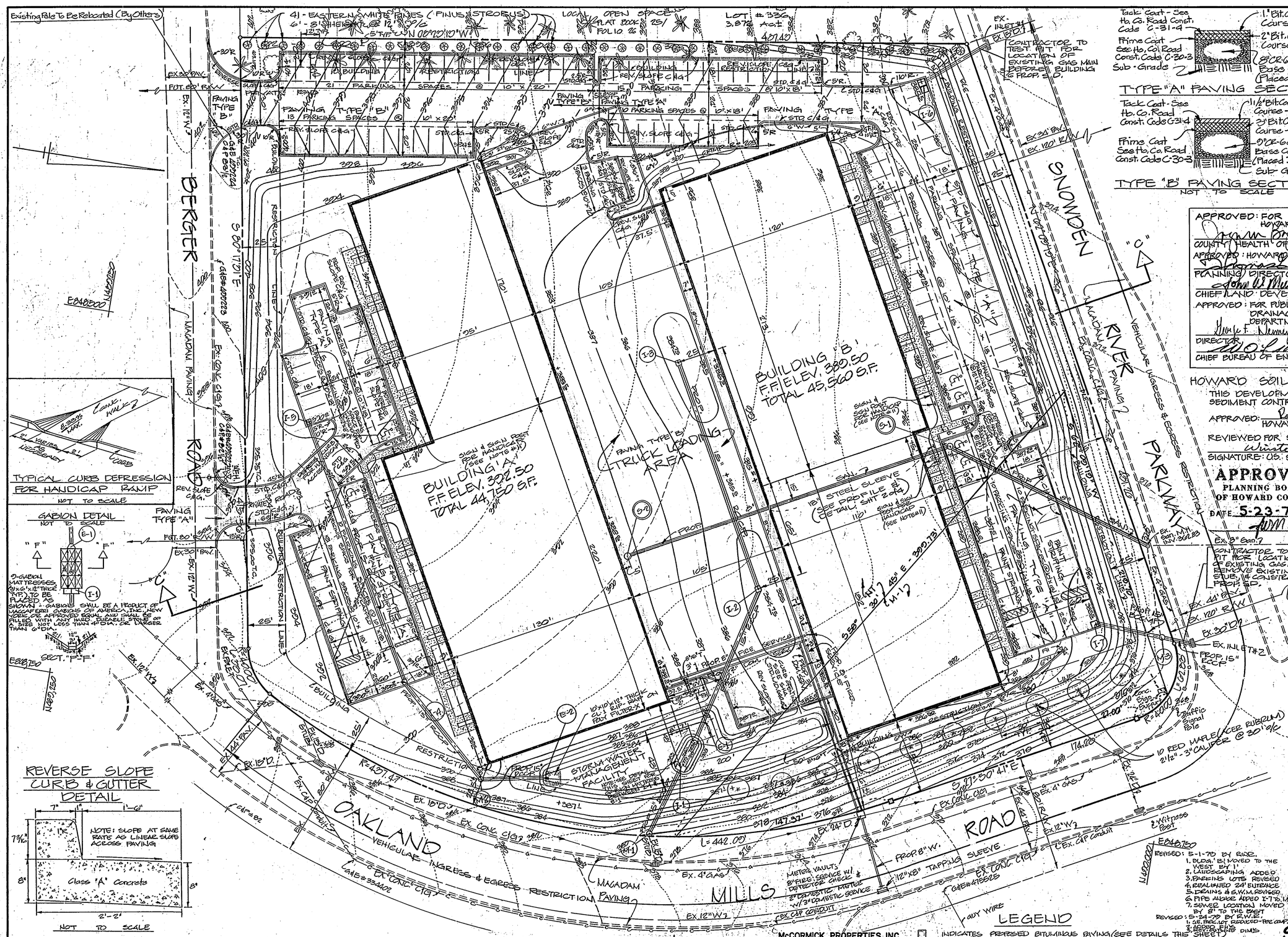
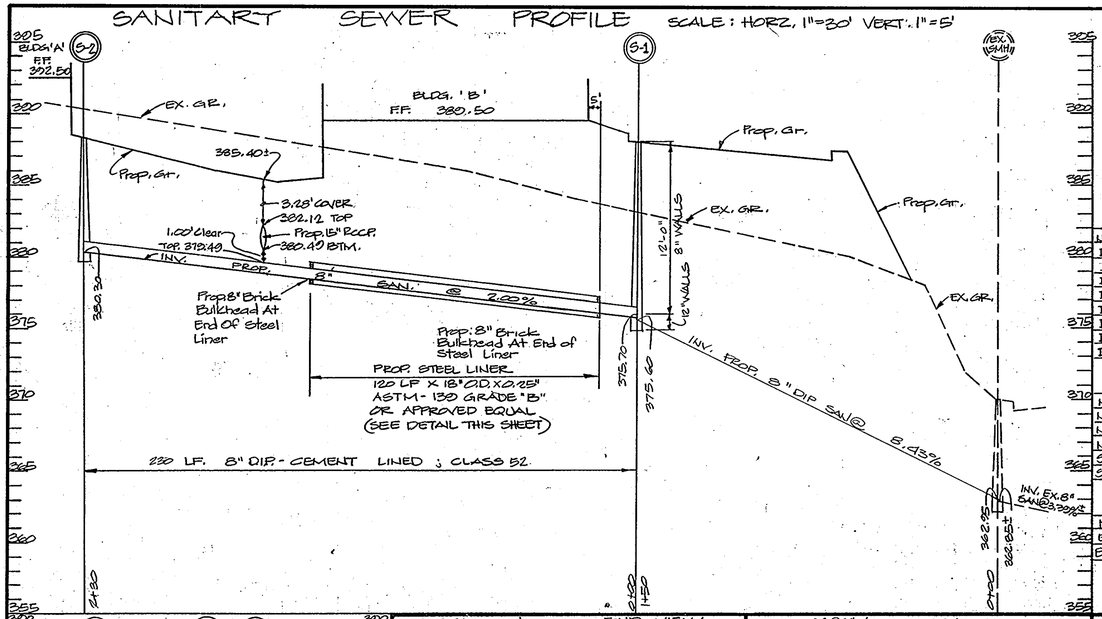
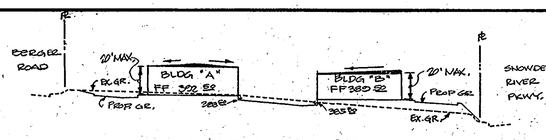

BERGER ROAD
SNOWDEN RIVER PARKWAY
OAKLAND MILLS ROAD
EX. 41 - EASTERN WHITE PINES (PINUS STROBUS) 6'-8' HIGH @ 12' O/C
LOCAL OPEN SPACE PLAT BOOK 25/ FOLIO 26
LOT # 326 Ac± 4.07 Ac±
EX. INLET #1 EL. 100.1
CONTRACTOR TO TEST PIT FOR LOCATION OF EXISTING GAS MAIN BEFORE BUILDING IS PROP. S.D.
EX. 16" W.L.
EX. 8" W.L.
EX. 12" W.L.
EX. 8" SAN.
EX. 15" RCP
EX. 18" RCP
EX. 24" RCP
EX. 42" RCP
EX. 4" GAS
EX. 6" GAS
EX. CONC. CURB & GUTTER
EX. CONC. SIDEWALK
EX. 4' CONC. SIDEWALK
EX. 6' CONC. SIDEWALK
EX. 4' GRASS
EX. 6' GRASS
EX. 8' GRASS
EX. 10' GRASS
EX. 12' GRASS
EX. 14' GRASS
EX. 16' GRASS
EX. 18' GRASS
EX. 20' GRASS
EX. 22' GRASS
EX. 24' GRASS
EX. 26' GRASS
EX. 28' GRASS
EX.

SANITARY SEWER PROFILE

SCALE: HORZ. 1"=30' VERT. 1"=5'





SECTION "C" - "C"

NOT TO SCALE

INLET SCHEDULE

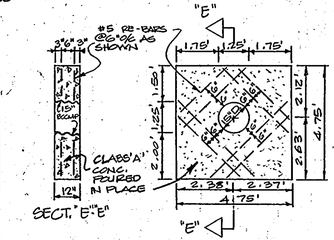
NO.	TYPE	TOP OF GRATE	INV. IN	INV. OUT	REMARKS
I-1	DBL. "S" COMB.	385.85	379.50	379.25	SEE HO. CO. STD. D-02
I-2	"S" GRATE	384.75	380.42	380.23	SEE HO. CO. STD. D-28
I-3	"S" GRATE	384.75	—	381.25	SEE HO. CO. STD. D-28
I-4	SINGLE "S" COMB.	380.20	385.03	384.83	SEE DETAIL THIS SHEET
I-5	SINGLE "S" COMB.	380.00	—	385.38	SEE DETAIL THIS SHEET
I-6	DBL. "S" COMB.	385.50	—	375.70	SEE HO. CO. STD. D-02
I-7	SINGLE "S" COMB.	385.50	—	378.70	SEE DETAIL THIS SHEET

MANHOLE SCHEDULE

NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	REMARKS
M-1	SHALLOW MH	379.50	375.45	375.25	SEE DETAIL THIS SHEET
M-2	SHALLOW MH	380.00 ±	384.42	384.22	SEE DETAIL THIS SHEET
M-3	SHALLOW MH	372.00	366.05	366.75	SEE DETAIL THIS SHEET
S-1	STD. LINE MH	387.95	375.70	375.60	SEE HO. CO STD. S-2
S-2	TERMINAL MH	388.50	—	380.20	SEE HO. CO STD. S-4

STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	REMARKS
E-1	CONC. END SECT.	379.69	379.64	SEE DETAIL THIS SHEET
E-2	CONC. END SECT.	384.03	384.00	SEE DETAIL THIS SHEET

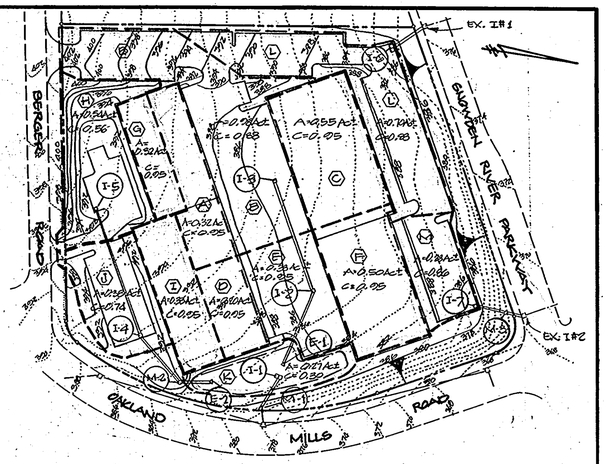


ANCHOR DETAIL

NOT TO SCALE

APPROXIMATE GRADING QUANTITIES

FILL	17,970
10% Shrinkage	1,795
TOTAL FILL	19,745
TOTAL CUT	19,750



DRAINAGE AREA MAP

SCALE: 1"=100'

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
6-22-79
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
6-22-79
PLANNING DIRECTOR — DATE
6-22-79
CHIEF, LAND DEVELOPMENT — DATE

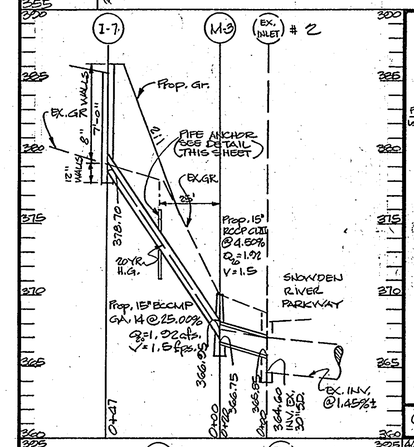
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS; HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
6-20-79
DIRECTOR — DATE
6-18-79
CHIEF BUREAU OF ENGINEERING — DATE

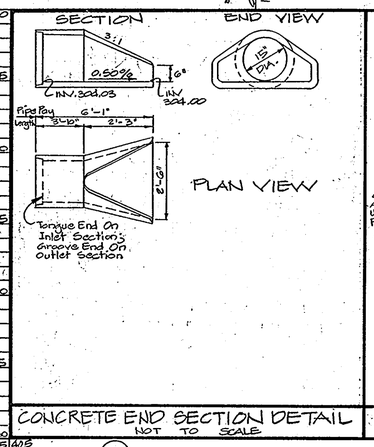
HOWARD SOIL CONSERVATION DISTRICT

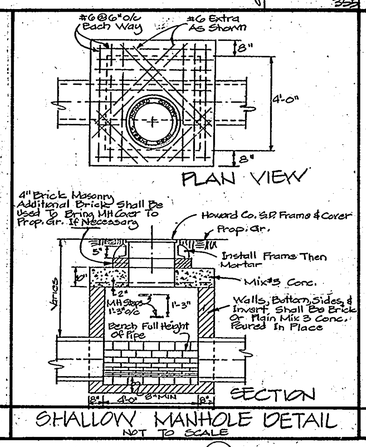
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT

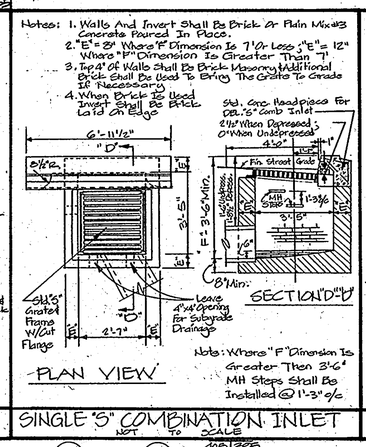
APPROVED: 6-8-79
HOWARD SOIL CONSERVATION DISTRICT — DATE

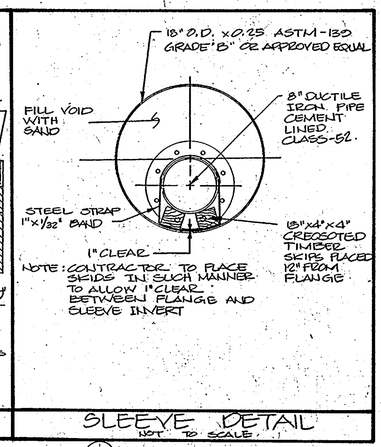
REVIEWED FOR S.C.D. & MEETS TECHNICAL REQUIREMENTS
6-8-79
SIGNATURE: U.S. SOIL CONSERVATION SERVICE — DATE









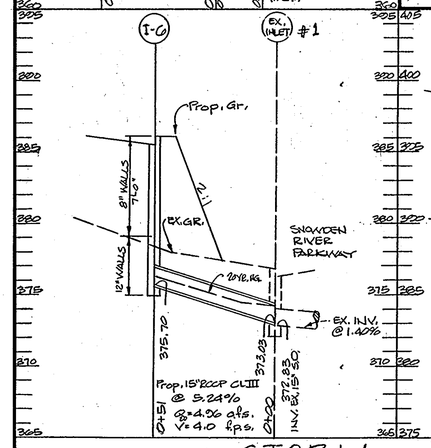


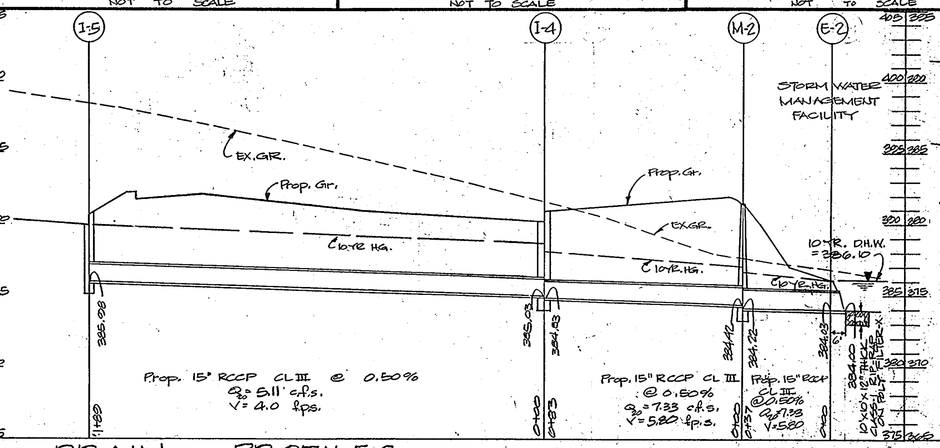
CONCRETE END SECTION DETAIL
NOT TO SCALE

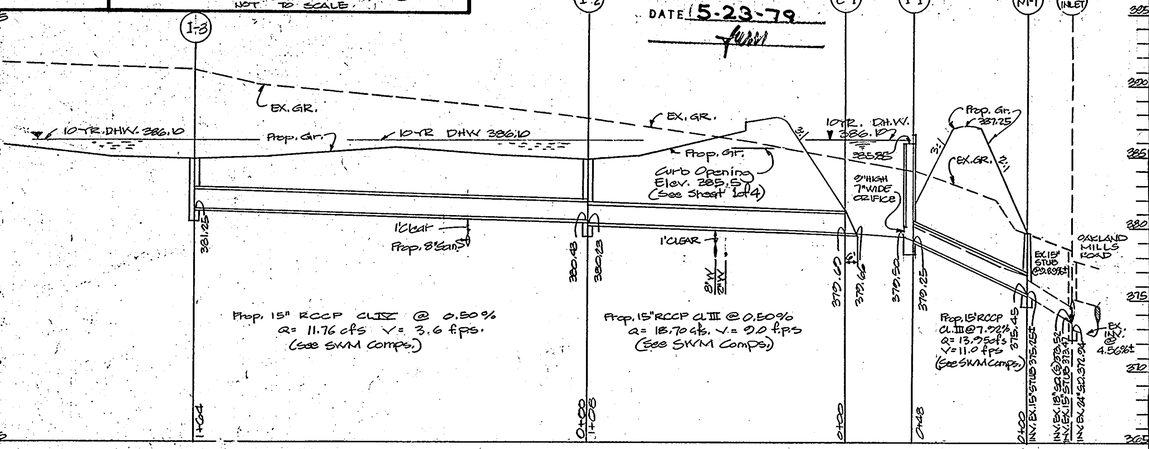
SHALLOW MANHOLE DETAIL
NOT TO SCALE

SINGLE "S" COMBINATION INLET
NOT TO SCALE

SLEEVE DETAIL
NOT TO SCALE







APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-23-79

STORM DRAIN PROFILES

SCALE: HORZ. 1" = 30' ; VERT. 1" = 5'

GEORGE WILLIAM STEPHENS, JR. & ASSOCIATES INC.
ENGINEERS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND, 21204

Jayshree Chakraborty 3/20/79
REG. NO. 8930

STATE OF MARYLAND — JAYSHREE CHAKRABORTY — NO. 8930 — REGISTERED PROFESSIONAL ENGINEER

McCORMICK PROPERTIES, INC.
OWNER / DEVELOPER
Formerly Known As Maryland Properties Inc.
HUNT VALLEY, MARYLAND 21031
DESIGN/BUILDERS
6/4/79

REVISED: 5-1-79 (SEE SHT. 1 OF 4 FOR REVISIONS)

PROFILES & DETAILS
OWEN BROWN BUSINESS CENTER

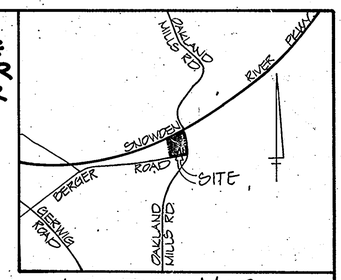
GUILFORD INDUSTRIAL PARK
VILLAGE OF OWEN BROWN, 2/3, PARCEL A
COLUMBIA
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN
ELECTION DISTRICT #6
DATE: MARCH 30, 1979

SHEET 2 OF 4
PN 4085

SDP #70-116-C

THIS SHADED AREA TO BE GRADED TO 11" BELOW THE PROPOSED GRADE IN ORDER TO CREATE STORAGE FOR SEDIMENT TRAP;

COMPUTATIONS FOR STORM INLET SEDIMENT TRAP
DA = 0.60 Ac±
STORAGE VOLUME REQUIRED = 0.60 x 67 x 27 = 1085 C.F.
STORAGE PROVIDED = 1170 C.F. (BETWEEN ELEV. 385.5 & 384.5)



LOCATION MAP
SCALE: 1"=1000

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 6-22-79

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE 6-22-79
CHIEF LAND DEVELOPMENT — DATE 6-22-79

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS; HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR — DATE 6-20-79
CHIEF BUREAU OF ENGINEERING — DATE 6-18-79

HOWARD SOIL CONSERVATION DISTRICT
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
APPROVED: HOWARD SOIL CONSERVATION DISTRICT — DATE 6-8-79
REVIEWED FOR S.C.D. & MEETS TECHNICAL REQUIREMENTS
SIGNATURE: U.S. SOIL CONSERVATION SERVICE — DATE 6-8-79

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-23-79

THIS SHADED AREA TO BE GRADED 11" BELOW THE PROPOSED GRADE IN ORDER TO CREATE STORAGE FOR SEDIMENT TRAPS;

COMPUTATIONS FOR STORM INLET SEDIMENT TRAP
D.A. = 0.28 Ac±
STORAGE VOLUME REQUIRED = 0.28 x 67 x 27 = 506 C.F.
STORAGE PROVIDED = 850 C.F. (BETWEEN ELEV. 385.5 & 384.5)

NOTE: SUITABLE MATERIAL SHALL BE USED FOR FILL AND ROLLED TO A MINIMUM DEGREE OF COMPACTION OF 95% OF THE DRY UNIT WEIGHT AS DETERMINED BY ASTM-698; ALL SUBGRADES SHALL BE COMPACTED TO THE SAME DEGREE.

GEORGE WILLIAM STEPHENS, JR. & ASSOCIATES INC.
ENGINEERS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND, 21204

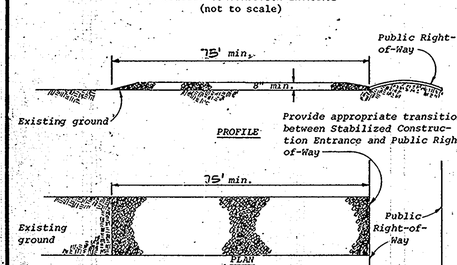
ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION & SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN, BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Tapobrata Chakrabarti — 8930 — 3/20/79
TAPOBRATA CHAKRABARTI — REG. NO. — DATE

OWNER / DEVELOPER
Formerly Known As Maryland Properties Inc.
HUNT VALLEY, MARYLAND 21031
DESIGN/BUILDERS

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION & SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.
McCORMICK PROPERTIES, INC.
6/4/79 DATE

EROSION & SEDIMENT CONTROL PLAN
OWEN BROWN BUSINESS CENTER
GUILFORD INDUSTRIAL PARK
VILLAGE OF OWEN BROWN, 2/3, PARCEL 'A'
COLUMBIA
HOWARD COUNTY, MARYLAND
SCALE: 1" = 30'
ELECTION DISTRICT #6
DATE: MARCH 20, 1979
SHEET 3 OF 4
FN 4085. SDP #70-116-C

STABILIZED CONSTRUCTION ENTRANCE
(not to scale)



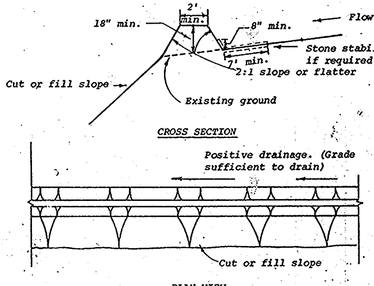
Construction Specifications

1. Stone size - Use MSHA size No. 2 (2-1/2" to 1") or AASHTO designation M43, size No. 2 (2-1/2" to 1-1/2"). Use crushed stone.
2. Length - As effective, but not less than 50 feet.
3. Thickness - Not less than eight (8) inches.
4. Width - Not less than full width of all points of ingress or egress.
5. Washing - When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards or other approved methods.
6. 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.

Standard Symbol : SCE

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-1

DIVERSION DIKE*



Construction Specifications.

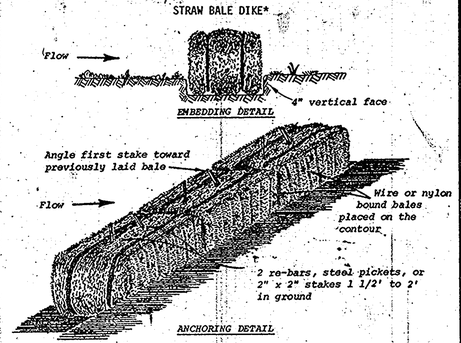
1. All dikes shall be machine compacted.
2. All diversion dikes shall have positive drainage to an outlet.
3. A. Diverted runoff from a protected or stabilized area shall outlet directly to an undisturbed stabilized area or into a level spreader or grade stabilization structure.
   B. Diverted runoff from a disturbed or exposed upland area shall be conveyed to a sediment trapping device such as a sediment trap or a sediment basin or to an area protected by any of these practices.
4. Stabilization, as specified by the plans, shall be: (1) in accordance with Standard and Specifications for Grassed Waterway, and the area to be stabilized shall be the channel (flow area); or (2) the flow area shall be lined with stone that meets MSHA size No. 2 or AASHTO M43 size No. 2 or 24 which is placed in a 3 inch thick layer and pressed into the soil. The area covered by the stone shall be as shown on the drawing above.
5. Periodic inspection and required maintenance shall be provided.

Standard Symbol — DD —

* Drainage area less than 5 acres

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	DIVERSION DIKE	Standard Drawing DD-1

STRAW BALE DIKE*



Construction Specifications

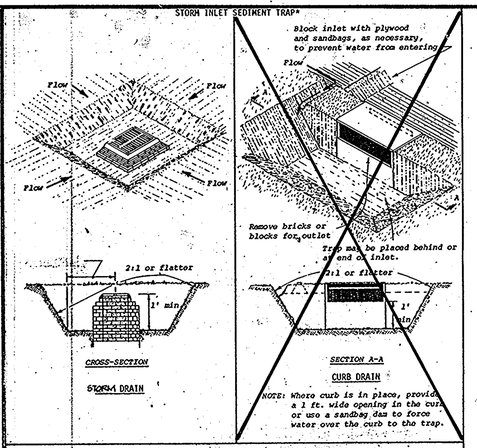
1. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
2. Each bale shall be embedded in the soil a minimum of 4".
3. Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled toward previously laid bale to force bales together.
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.

Standard Symbol — SBD —

* Drainage area less than 1/2 acre.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STRAW BALE DIKE	Standard Drawing SBD-1

STORM INLET SEDIMENT TRAP*

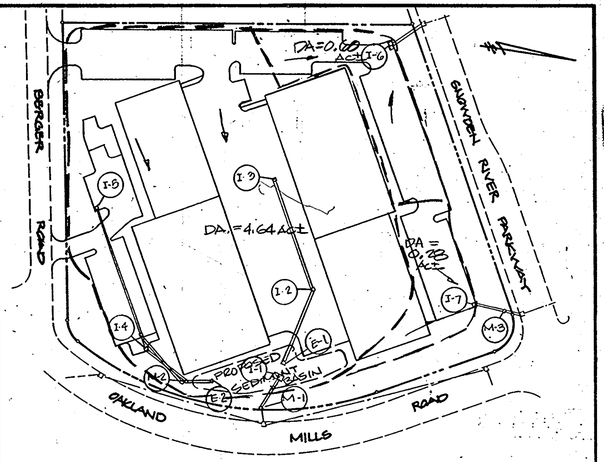


CONSTRUCTION SPECIFICATIONS

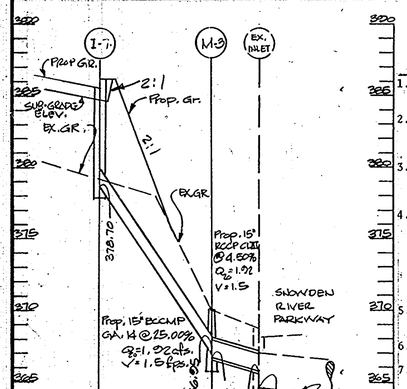
1. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
2. The structure shall be inspected after each rain and repairs made as needed.
3. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
4. The sediment trap shall be removed and area stabilized when the remaining drainage area has been properly stabilized.
5. All cut and fill slopes shall be 2:1 or flatter.

*Drainage area less than 5 acres.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STORM INLET SEDIMENT TRAP	Standard Drawing ST-4



EROSION & SEDIMENT CONTROL
DRAINAGE AREA MAP
SCALE: 1"=100'



8. UPPER END OF STORM DRAIN PIPE WILL BE PLUGGED AT THE END OF EACH WORKING DAY, DURING CONSTRUCTION. (SEE DETAIL THIS SHEET.)

GENERAL NOTES

1. CONTRACTOR TO PLACE 4" OF TOPSOIL THEN SEED AND MULCH ALL DISTURBED AREAS, AS SOON AS THE FINAL GRADING HAS BEEN COMPLETED.
2. CONTRACTOR IS TO TAKE CARE AT ALL TIMES DURING CONSTRUCTION TO PREVENT SEDIMENT DAMAGE TO ADJACENT PROPERTIES AND/OR SILTING OF THE ROADWAYS.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH THE "STANDARDS AND SPECIFICATIONS FOR THE SOIL AND SEDIMENT CONTROL" IN DEVELOPING AREAS JULY 1975.
4. DURING THE LAYOUT OF SEDIMENT CONTROL PRACTICES REQUIRED BY THIS PLAN, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO ASSURE THE ARREST AND CONTROL OF ANY SEDIMENT BEFORE IT LEAVES THE CONSTRUCTION SITE. CHANGES TO SEDIMENT CONTROL PRACTICES, AS ESTABLISHED BY THIS PLAN, REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE HOWARD CTY. SOIL CONSERVATION DISTRICT.
5. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN AN OPERATIONAL CONDITION.
6. TEMPORARY DRAINAGE SHALL BE PROVIDED TO AVOID PONDING OF WATER.
7. PERMANENT SEEDING SPECIFICATIONS: SEED SHALL BE KENTUCKY 31 TALL FESCUE APPLIED AT A RATE OF 5#/1000 S.F.; LIME SHALL BE APPLIED AT A RATE OF 50#/1000 S.F.; COMMERCIAL FERTILIZER (10-10-10) AT A RATE OF 3/4 T./AC; UNIFORMLY MULCH AREAS WITH UNWEATHERED SMALL GRAIN STRAW (PREFERABLY WHEAT) AT A RATE OF 1-1/2 T./AC. AND ANCHOR WITH ASPHALT TIE DOWN USING LIQUID ASPHALT RAPID CURING (RC-70, RC-250, RC-800) AT A RATE OF 0.1 GDL./S.Y.

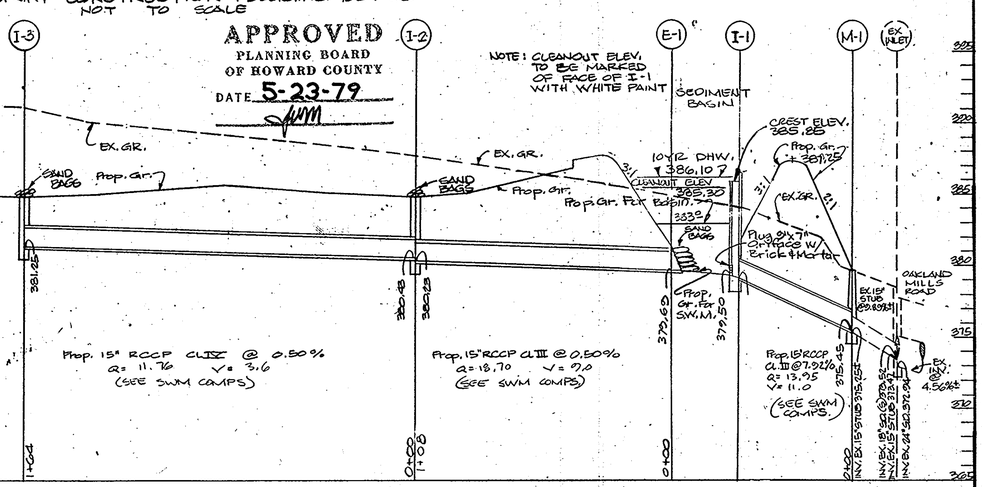
CONSTRUCTION SEQUENCE

1. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS, INSPECTOR PRIOR TO STARTING ANY WORK.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
3. INSTALL STRAW BALE DIKES AND STONE OUTLET STRUCTURE AS INDICATED ON PLAN SHEET 3 OF 4.
4. INSTALL ALL DRAINAGE SYSTEMS.
5. CONSTRUCT THE SEDIMENT BASIN & PLUG THE 2'x7' ORIFICE IN THE SIDEWALL OF I-1 & PLUG INLET GRATES OF I-2 & I-3, & E-1
6. CREATE INLET TRAPS AS INDICATED ON SHEET 3 OF 4.
7. STATE MAJOR GRADING, MAINTAINING POSITIVE DRAINAGE TO SEDIMENT CONTROL FACILITIES.
8. PLACE SUB-BASE MATERIALS ON THE PARKING, DRIVE, AND BUILDING AREAS AS SOON AS POSSIBLE.
9. STABILIZE ALL DISTURBED SOIL OUTSIDE OF BUILDING & PAVING AREAS WITH 4" TOPSOIL, PERMANENT SEEDING, AND MULCH.
10. CLEAN OUT SEDIMENT BASIN AND STABILIZE BEFORE CONVERTING IT TO STORM WATER MANAGEMENT, STABILIZE ACCORDING TO GRN. NOTE #7
11. REMOVE TEMPORARY PLUG FROM LOWER ORIFICE I-1.
12. REMOVE TEMPORARY SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.

INLET PLUGGING DETAIL
NOT TO SCALE

INTERIM CONSTRUCTION PLUGGING DETAIL
NOT TO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-23-79



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE 6-21-79

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

PLANNING DIRECTOR — DATE 6-22-79

CHIEF, LAND DEVELOPMENT — DATE 6-22-79

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS; HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

DIRECTOR — DATE 6-20-79

CHIEF BUREAU OF ENGINEERING — DATE 6-18-79

HOWARD SOIL CONSERVATION DISTRICT

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

APPROVED: Robert W Zickuhr 6-8-79
HOWARD SOIL CONSERVATION DISTRICT — DATE

REVIEWED FOR S.C.D. & MEETS TECHNICAL REQUIREMENTS
Winifred Burdette 6/8/79
SIGNATURE: U.S. SOIL CONSERVATION SERVICE — DATE

GEORGE WILLIAM STEPHENS, JR. & ASSOCIATES INC.
ENGINEERS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND, 21204

STATE OF MARYLAND — TAPOBRATA CHAKRABARTI — No. 8930 — REGISTERED PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION & SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN, BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE HOWARD SOIL CONSERVATION DISTRICT.

Tapobrata Chakrabarti 8930 3/20/79
TAPOBRATA CHAKRABARTI — REGNO. — DATE

mpl — Formerly Known As Maryland Properties Inc. — HUNT VALLEY, MARYLAND 21031 — DESIGN/BUILDERS

McCORMICK PROPERTIES, INC.
OWNER / DEVELOPER

DEVELOPER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION & SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Vice Pres. - Treas. 6/4/79
DATE

EROSION & SEDIMENT CONTROL PLAN
OWEN BROWN BUSINESS CENTER
GUILFORD INDUSTRIAL PARK
VILLAGE OF OWEN BROWN, 2/3, PARCEL A
COLUMBIA
HOWARD COUNTY, MARYLAND — ELECTION DISTRICT #6
SCALE: AS SHOWN — DATE: MARCH 20, 1979

SHEET 4 OF 4
PN 4085
SDP# 79-116