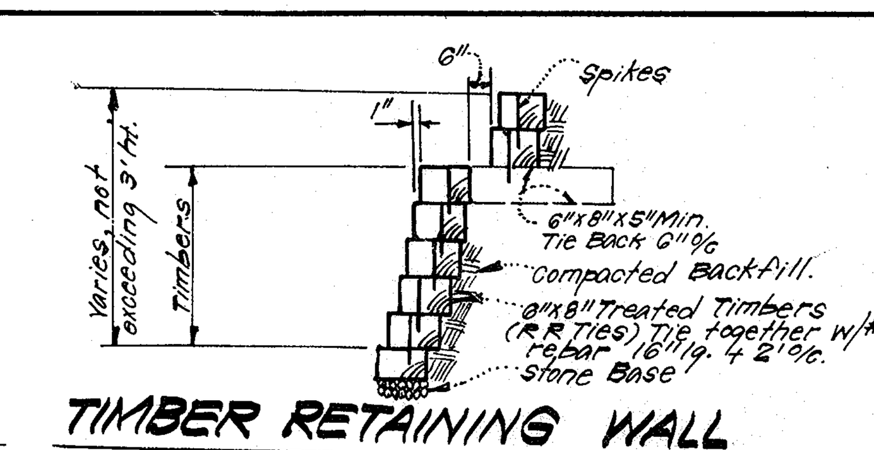
GENERAL NOTES:

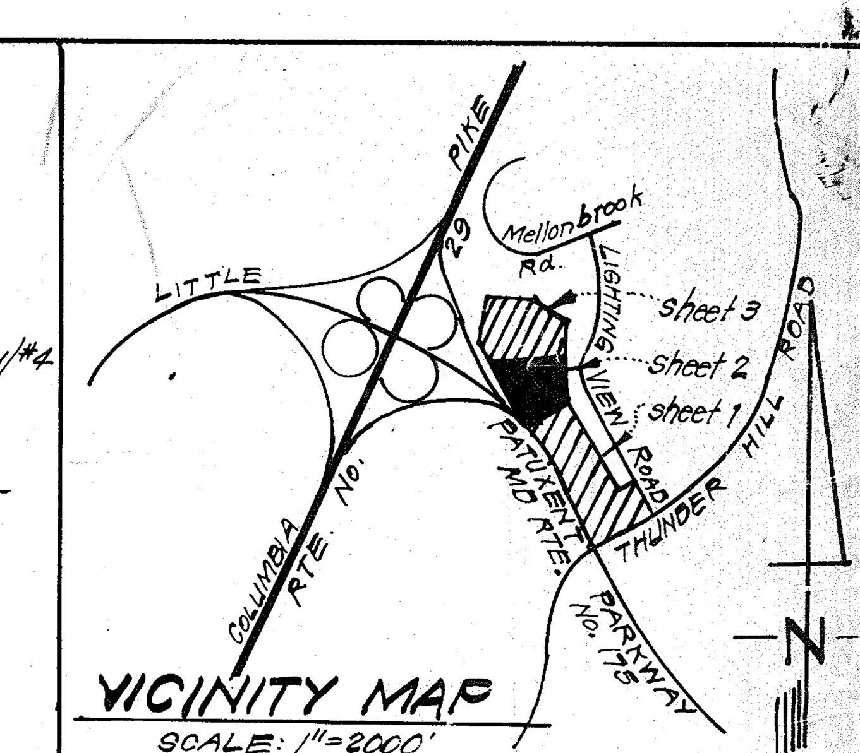
1. All materials and construction to be in accordance with Howard County Road Construction Code and Specifications.
2. The Plan shown is covered by Final Development Plan Phase 120 Recorded in P.B. 20, Folios 221 thru 226.
3. Any damage to county owned rights of way shall be corrected at the developers expense.
4. Installation of Traffic Control Devices shall be in accordance with the latest edition of the "Manual of Uniform Control Devices."
5. Topography was compiled from actual field survey.
6. The area included in this submission is located on Tax Map # 30 P. 313
7. All driveways, and parking areas are privately maintained.
8. All coordinates are based on traverse controls for Columbia established by Maps Inc., in 1965, by Purdum & Veschke in 1968, which controls were tied to Maryland Bureau of Control Survey Monuments and to U.S. Coast & Geodetic Survey Monuments in the Columbia area.
9. Parcels A-1 & A-2 are recorded in Plat No. 4897-4898
10. Trash Room will be provided in each building.
11. Handicap Parking Signs, shown thus: Ⓗ, shall be placed in approximate location shown in plan in accordance with the "Maryland Building Code for the Handicapped."

LEGEND:

1. Contour Interval — 2 Ft.
2. Existing Contour — (370)
3. Proposed Contour — 370
4. Spot Elevation — +70.5
5. Direction of Drainage
6. Exist. Trees to be Saved
7. Exist. Storm Drainage — 15" RCP
8. Proposed Storm Drainage — 15" RCP
9. Timber Retaining Wall



TIMBER RETAINING WALL
No Scale

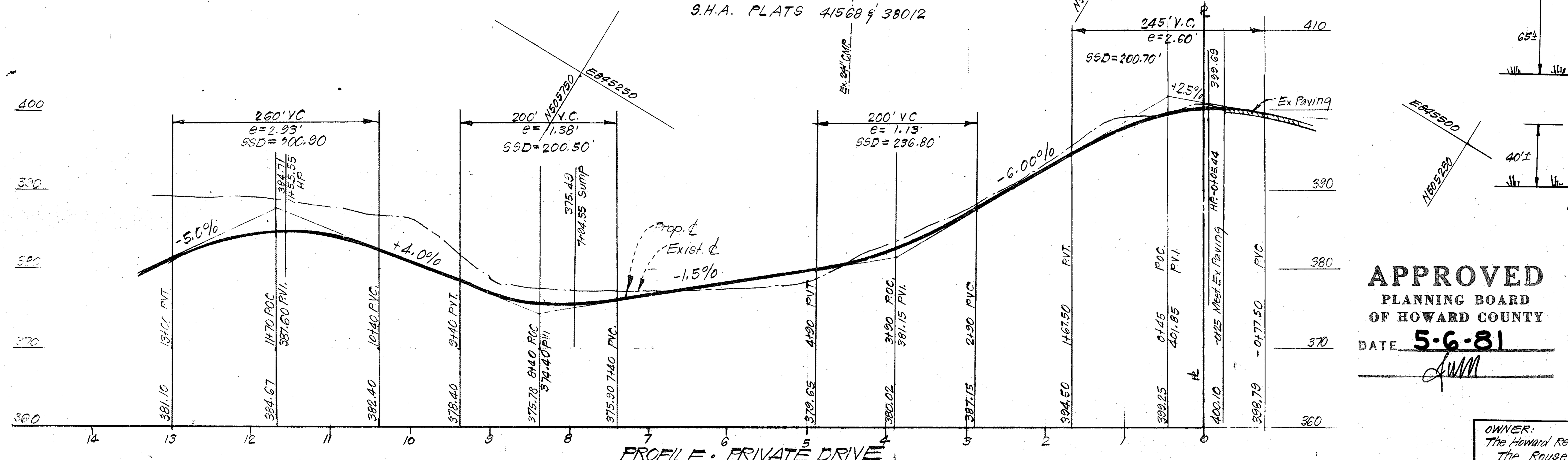


VICINITY MAP
SCALE: 1"=2000'

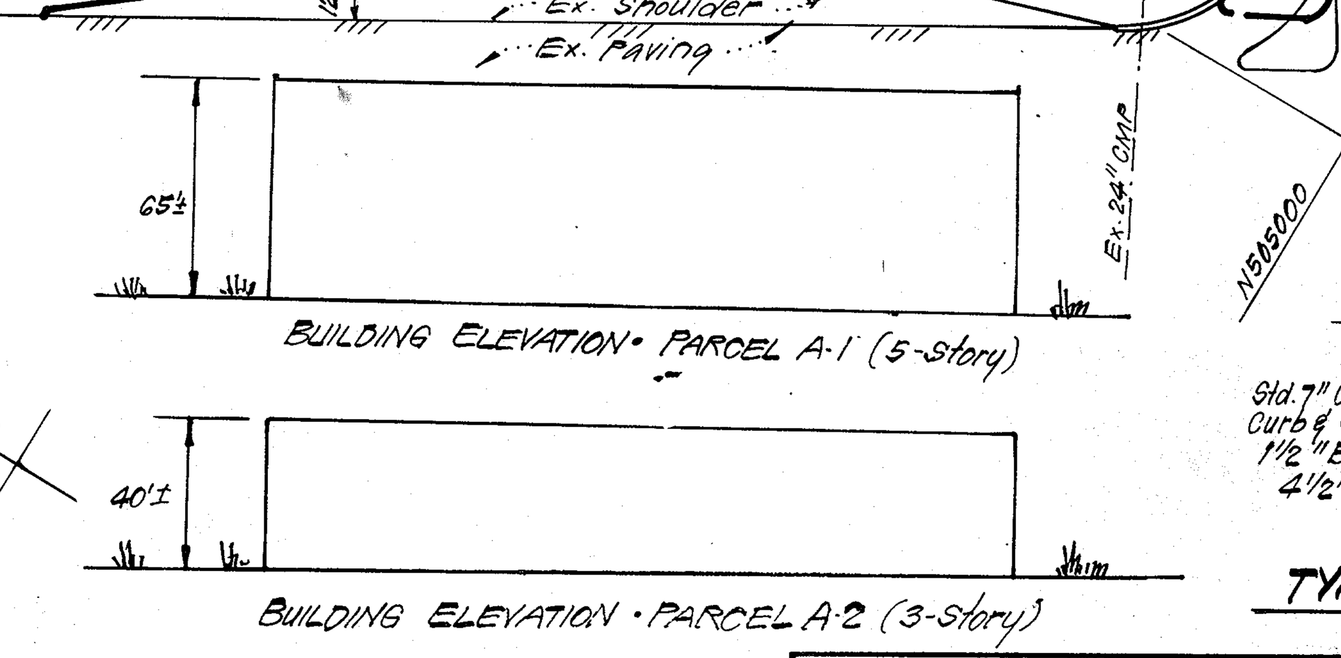
SITE ANALYSIS:

1. Zoning: New Town (Employment Center Commercial).
2. Area Tabulation:

	GROSS LEASABLE BLDG. AREA	AREA OF PARCEL	BLDG. COVERAGE	PARKING SPACE REQ'D.	PARKING SPACE PROVIDED	GREEN AREA PROVIDED
PARCEL A-1	86,000 ☐	18.166 Acres	2.6%	N/A	330	76.8%
PARCEL A-2	51,500 ☐	18.020 Acres	3.0%	N/A	220	88.5%
TOTAL	137,500 ☐	36.186 Acres	2.8%	550	550	82.8%

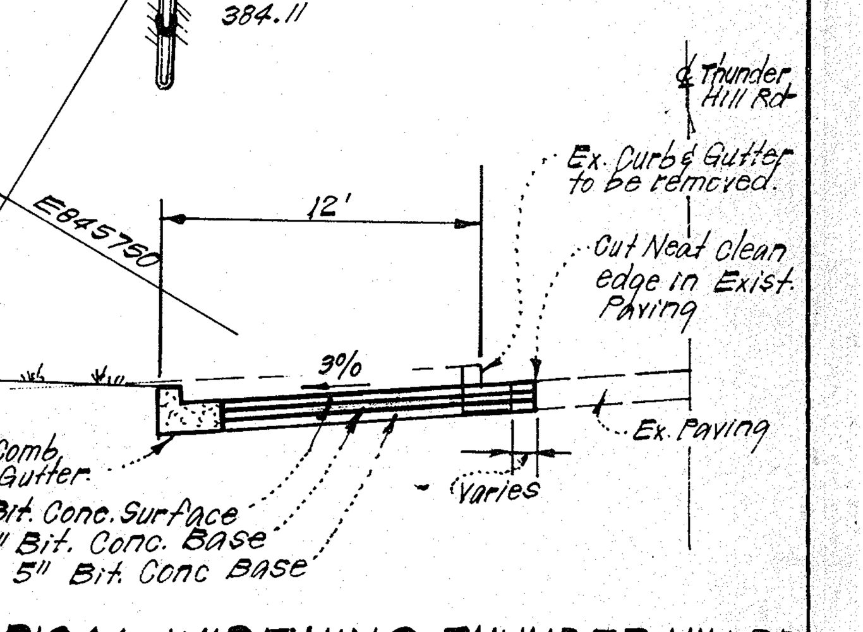


PROFILE · PRIVATE DRIVE
SCALE: HOR. 1"=100' VER. 1"=10'



BUILDING ELEVATION · PARCEL A-1 (5-Story)

BUILDING ELEVATION · PARCEL A-2 (3-Story)



TYPICAL WIDENING · THUNDER HILL RD.
No Scale

No	REVISION	DATE
1	Revised Appr. Blk, Added Street Grade, Ingress & Egress Eas'm't, owners named, address & adjusted entrance	5-29-81
2.	Added 25' R Fillets to widening lane	6-16-81
3.	Added Island in center of Lime Banks Way & private drive. V.L.B.	12-17-81

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

PLANNING DIRECTOR — DATE 7-8-81

CHIEF DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

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

DIRECTOR (Acting) — DATE 7/7/81

CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 5-6-81

STATE OF MARYLAND — DONALD E. SACKETT — REGISTERED SURVEYOR

OWNER:
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland, 21044

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING MARYLAND 20904 • (301) 593 3400

DESIGNED		SCALE
R.J.S. W.RMc	SITE DEVELOPMENT, STORM DRAIN, PAVING AND STORM WATER MANAGEMENT PLANS PARCELS A-1 & A-2	1"=50'
DRAWN	**COLUMBIA**	DRAWING
K.I.W	VILLAGE OF OAKLAND MILLS	1 OF 12
CHECKED	SECTION 3 AREA 2	JOB NO
W.RMc	6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	80-120
DATE	FOR: WA Kehoe Company 201 North Charles St. Baltimore, Md 21201	FILE NO
5-29-81		80-120-X

SDP-81-138c

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

Joyce W. Boyd [signature] — COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Thomas G. Harris Jr. [signature] — PLANNING DIRECTOR — DATE 7-8-81

[signature] — CHIEF DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

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

[signature] (Acting) — DIRECTOR — DATE 7/7/81

for William E. Riley [signature] — CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

NO	REVISION	DATE
1	Rev Approval Block, Added owners name & address revised Grading at H.P. & added Ingress & Egress Easement	5/29/81
2	ADD ENTRANCE TO NORTHSIDE OF 5500 NORTH KNOLL BUILDING, PROVIDE HC ACCESS & PARKING	11/20/12
3	Re-grade to remove berm on drop off landscape island & connect curb to fully enclose landscape island	7/2/14

NO	REVISION	DATE
4.	Plaza Renovation - Remove existing pavers and replace with new paving pattern of concentric paver bands and concrete, construct one new CMU Block Retaining wall, install new bollard lights around drop-off, grade for positive drainage - See sht. 2-A	9/25/14

OWNER:
The Howard Research & Development Corp
The Rouse Company Building
Columbia, Maryland 21044

STATE OF MARYLAND G. NELSON CLARK NO. 7139 REGISTERED PROFESSIONAL ENGINEER

G. N. Clark [signature] 6-3-81

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

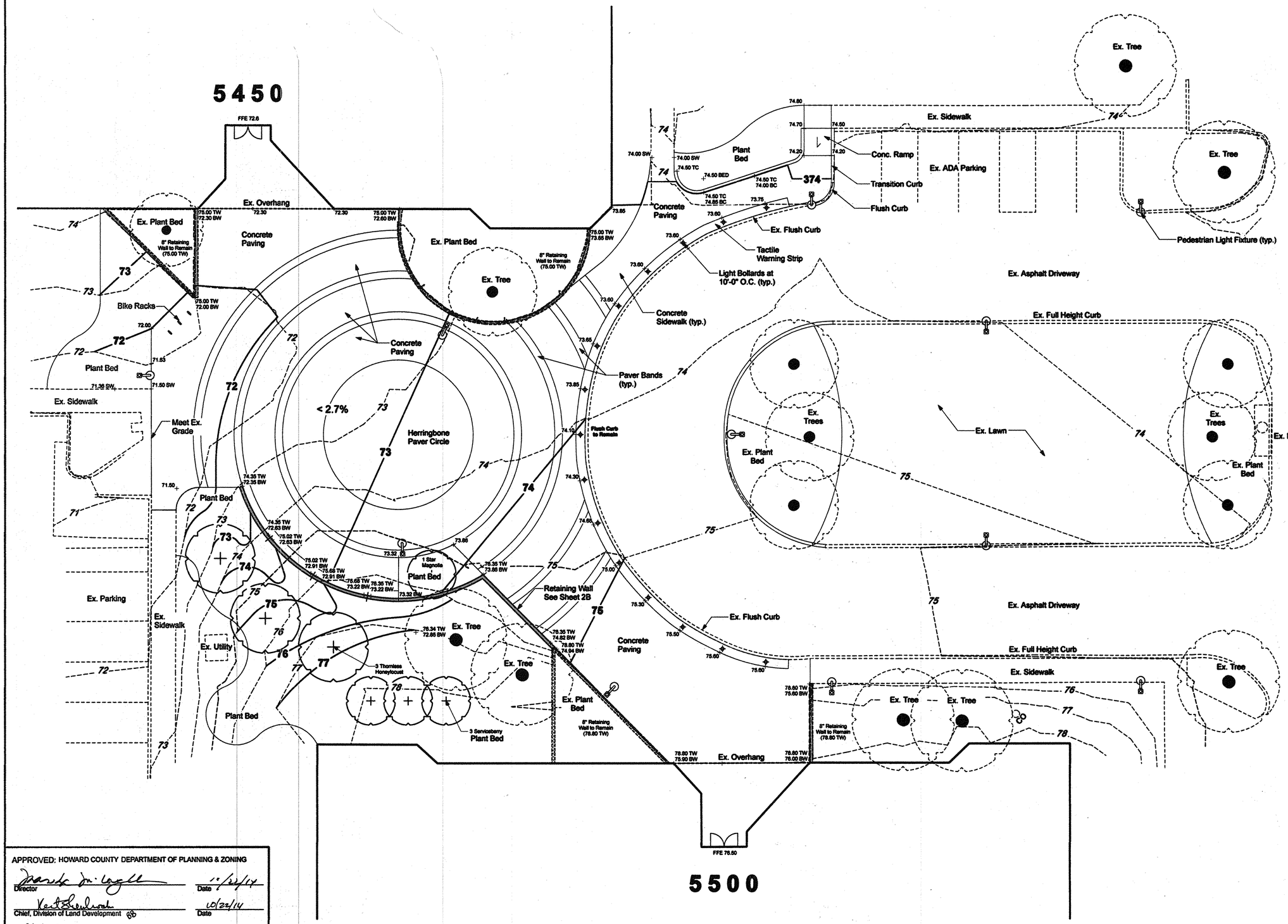
STATE OF MARYLAND NORTON H. CLOUGH No. 400 REGISTERED LANDSCAPE ARCHITECT

[signature] 7.30.14 9.25.14

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING MARYLAND 20904 • (301) 593 3400

DESIGNED R.J.S. W.RMC	SITE DEVELOPMENT, STORM DRAIN, PAVING AND STORM WATER MANAGEMENT PLANS PARCELS A-1 & A-2	SCALE 1" = 30'
DRAWN K.I.W	COLUMBIA	DRAWING 2 of 12
CHECKED W.RMC	VILLAGE OF OAKLAND MILLS SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 80-120
DATE 5-29-81	FOR: W.A. Kehoe Company 201 North Charles St. Baltimore, Md 21201	FILE NO 80-120-X

SDP-81-138c



PURPOSE STATEMENT

Due to the amount of detail to be shown for this plaza renovation project and differences in grading between the original SDP drawings and the as-built conditions, Sheets 2A and 2B have been added to the sheet set to convey the nature of the changes. Because no index of drawings is present in the original SDP drawings, one has been added below.

INDEX OF DRAWINGS

0 2.5' 5' 10' 15' 25'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director — Date 10/22/14

Chief, Division of Land Development — Date 10/22/14

Chief, Development Engineering Division — Date 10-17-14

SLATER ASSOCIATES, INC.
5560 Sterrett Pl. Suite 302
Columbia, MD 21044
410.992.0212 - fax
410.992.0001 - phone
www.slaterassociates.com
Landscape Architecture • Site Planning • Garden Design

Rev.	Date:	Description:	By:
1			
2			
3			
4			
5			

Prepared For:
Knoll North Owner, LLC
c/o Montecito Medical Management
5450 Knoll North Drive, Suite 370
Columbia, Maryland 21045
Attn: Terri Gevin (Property Manager)
Phone: (410) 740-0470

Parcel Owner:
Knoll North Owner, LLC
c/o Montecito Medical Management
5450 Knoll North Drive, Suite 370
Columbia, Maryland 21045

Project Name:
REVISED SITE DEVELOPMENT PLAN
PARCEL A-1 & A-2
COLUMBIA
VILLAGE OF OAKLAND MILLS
ELECTION DISTRICT NO. 6 SECTION-3 AREA-2 HOWARD COUNTY, MARYLAND

Scale: 1" = 10'-0" Project No: 2012-040
Designed by: PBW Tax Map: 0030
Drawn by: PBW Grid: 0022
Approved by: NHC Zoning:
Date: 09/10/14

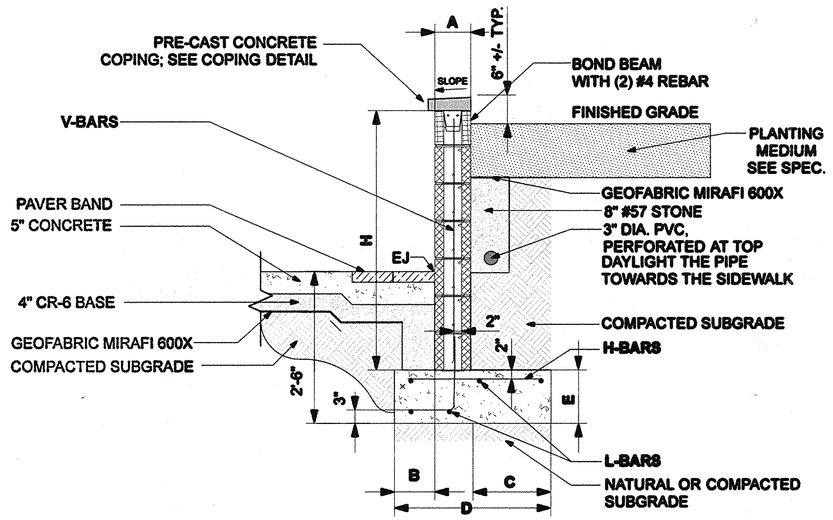
Sheet Title:
PLAZA DETAIL PLAN

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED LANDSCAPE ARCHIETCT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO.: 400
EXPIRATION DATE: 05-08-2015

STATE OF MARYLAND — RONDA H. CLOUD — No. 400 — REGISTERED LANDSCAPE ARCHITECT
10/10/14

Sheet Number:
SHEET 2A OF 12

SDP-81-138c

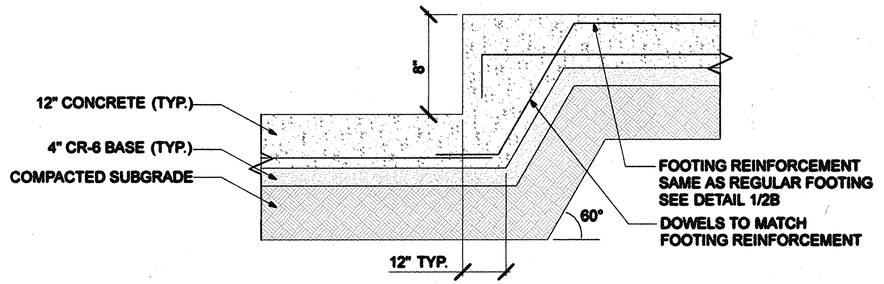


WALL TYPE	H	A	B	C	D	E	V-BARS	H-BARS	L-BARS
1	4'-0 - 5'-4"	0'-8"	0'-6"	1'-6"	2'-8"	0'-10"	#4 @ 16" O.C.	#4 @ 16" O.C.	#4 @ 12" O.C.

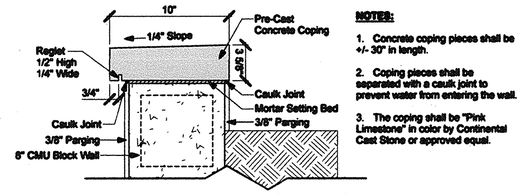
1 RETAINING WALL SCHEDULE
3/4" = 1'-0"

NOTES:

1. PLAN DIMENSIONS SHOWN ON THIS DRAWING ARE FOR REFERENCE ONLY. SEE SITE PLAN FOR WALL LOCATION.
2. CONCRETE F'C = 3000 PSI @28 DAYS IN CONFORMANCE WITH ACI 318.
3. REINFORCING REBAR SHALL CONFORM TO ASTM A615 & FS = 60,000 PSI.
4. CONCRETE BLOCKS SHALL COMPLY WITH THE REQUIREMENTS OF ASTM C-90.
5. ALL JOINT REINFORCEMENT, TIES AND OTHER ACCESSORIES SHALL BE RESISTANT TO CORROSION.
6. ALL HEAD JOINTS SHALL BE 3/8 INCH THICK. BED JOINTS OF THE STARTING COURSE OVER THE CONCRETE FOUNDATION MAY BE BETWEEN 1/2"AND 3/4".
7. MORTAR FOR MASONRY CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270.
8. THE RETAINING WALL FOOTING MUST BE ON FIRM GROUND MINIMUM OF 30 INCHES BELOW EXISTING GRADE.
9. THE SOIL BEARING PRESSURE IS ASSUMED TO BE 2000 PSF FOR FOOTING.
10. THE DESIGN EQUIVALENT LATERAL EARTH PRESSURE OF THE SOIL IS 45 PCF MAXIMUM.
11. FACTOR OF SAFETY: OVERTURN = 2; SLIDING = 2
12. THE GRADE ELEVATIONS ALONG THE RETAINING WALL ARE PER GRADING PLAN.
13. THE BACKFILLING AGAINST RETAINING WALL SHALL NOT BE PERMITTED UNTIL AT LEAST 7 DAYS AFTER PLACING GROUT IN THE CELLS.
14. THE BACKFILLING CONSTRUCTION EQUIPMENT SHALL BE KEPT AT A MINIMUM DISTANCE EQUAL TO THE HEIGHT OF THE BACKFILL BEING PLACED. THIS REQUIREMENT MUST BE FOLLOWED AS NO SURCHARGE LOAD HAS BEEN TAKEN IN ACCOUNT FOR WALL DESIGN.
15. THE BACKFILLING MATERIAL BEHIND THE BASEMENT WALLS SHALL BE DRAINING TYPE AS PER THE REQUIREMENTS OF HOWARD COUNTY, MD.
16. REFERENCE: NATIONAL CONCRETE MASONRY ASSOCIATION.



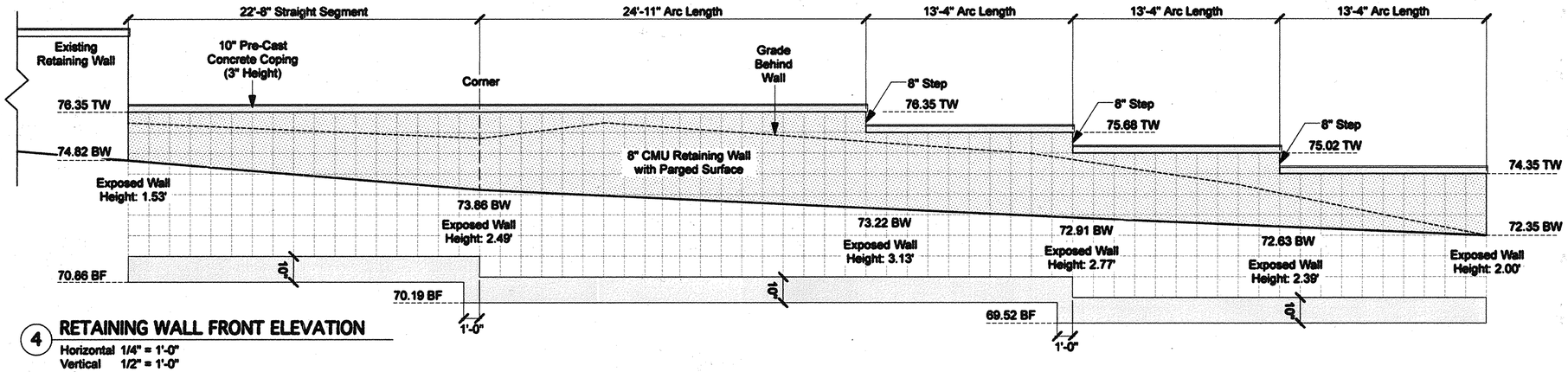
2 STEPPED FOOTER (TYP.)
3/4" = 1'-0"



NOTES:

1. Concrete coping pieces shall be +/- 30" in length.
2. Coping pieces shall be separated with a caulk joint to prevent water from entering the wall.
3. The coping shall be "Pink Limestone" in color by Continental Cast Stone or approved equal.

3 CONCRETE WALL COPING
2" = 1'-0"



4 RETAINING WALL FRONT ELEVATION
Horizontal 1/4" = 1'-0"
Vertical 1/2" = 1'-0"

PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 18731
EXPIRATION DATE: 06-15-2016

STATE OF MARYLAND · SAGARINDA NAND GUPTA · NO. 18731 · REGISTERED · PROFESSIONAL ENGINEER

STRUCTURAL ENGINEERING (DETAIL 1 WITH NOTES, DETAIL 2)

SNG ENGINEERING INC.
344 MAIN STREET, SUITE 200
GAITHERSBURG, MD 20878
301-548-0055

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director	Date 10/22/14
Chief, Division of Land Development	Date 10/22/14
Chief, Development Engineering Division	Date 10.17.14

SLATER ASSOCIATES, INC.
5560 Sterrett Pl. Suite 302
Columbia, MD 21044
410.992.0212 - fax
410.992.0001 - phone
www.slaterassociates.com
Landscape Architecture • Site Planning • Garden Design

Rev.	Date:	Description:	By:
1			
2			
3			
4			
5			

Prepared For:
Knoll North Owner, LLC
c/o Montecito Medical Management
5450 Knoll North Drive, Suite 370
Columbia, Maryland 21045
Attn: Terri Gevin (Property Manager)
Phone: (410) 740-0470

Parcel Owner:
Knoll North Owner, LLC
c/o Montecito Medical Management
5450 Knoll North Drive, Suite 370
Columbia, Maryland 21045

Project Name:
REVISED SITE DEVELOPMENT PLAN
PARCEL A-1 & A-2
COLUMBIA
VILLAGE OF OAKLAND MILLS
ELECTION DISTRICT NO. 6 SECTION-3 AREA-2 HOWARD COUNTY, MARYLAND

Scale: 1" = 10'-0" Project No: 2012-040
Designed by: PBW Tax Map: 0030
Drawn by: PBW Grid: 0022
Approved by: NHC Zoning:
Date: 09/10/14

Sheet Title:
PLAZA RETAINING WALL DETAILS

PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 400
EXPIRATION DATE: 05-08-2015

STATE OF MARYLAND · NORTON N. CLOVER · No. 400 · REGISTERED · LANDSCAPE ARCHITECT

10.16.14

Sheet Number:
SHEET 2B OF 12

SDP-81-138c

No	REVISION	DATE
1	Rev Str I-11, etc, as per H.S.C.D & S.C.S Comment	4-17-81
2	Rev Approv. Blk. & Added Owners Name & Address	5-29-81
3	Added compactor & enclosure	5-11-89
4	Added EMP. Parking, S.D. & Inlet, Oil Tank, And Grading	6/15/94
5.	Plaza Renovation – Replace Pavers with Concrete Sidewalk – See Sheet 2A	9/25/14

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

PLANNING DIRECTOR — DATE 7-8-81

CHIEF DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

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

DIRECTOR (Acting) — DATE 7/7/81

CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

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.

U.S. Soil Conservation Service — Date 6/23/81

STATE OF MARYLAND H. M. SHAKIBA NO. 15823 REGISTERED PROFESSIONAL ENGINEER — 6-15-94

DEVELOPER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. 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 pond within 30 days of completion."

Signature of Developer Walter A. Kehoe — Date 3-31-81

OWNER:
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland 21044

[illegible] for small pond construction, soil erosion and [illegible] control meet the requirements of the Howard [illegible] District.

Approved Howard S.C.D. — Date 6/22/81

Plan Number

ENGINEER'S CERTIFICATE

"I certify that this plan for pond 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 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 pond within 30 days of completion."

Signature of Engineer G. Nelson Clark — Date 6-3-81

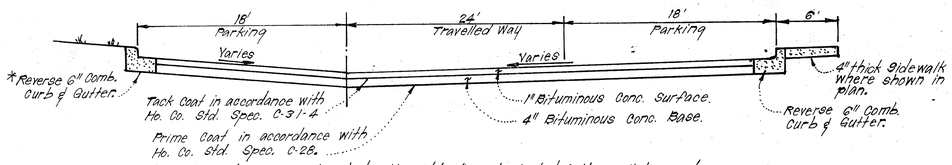
STATE OF MARYLAND G. NELSON CLARK NO. 7139 REGISTERED PROFESSIONAL ENGINEER — 6-3-81

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING MARYLAND 20904 • (301) 593 3400

DESIGNED	SITE DEVELOPMENT, STORM DRAIN, PAVING AND STORM WATER MANAGEMENT PLANS	SCALE
RJ.S W.RMc	PARCELS A-1 & A-2	1" = 30'
DRAWN	COLUMBIA	DRAWING
K.I.W.	VILLAGE OF OAKLAND MILLS	3 OF 12
CHECKED	SECTION 3 AREA 2 6TH ELECTION DISTRICT	JOB NO.
W.RMc	HOWARD COUNTY, MARYLAND	80-120
DATE	FOR: W.A. Kehoe Company 201 North Charles Street Baltimore, Md 21201	FILE NO
5-29-81		80-120-X

SDP-81-138c

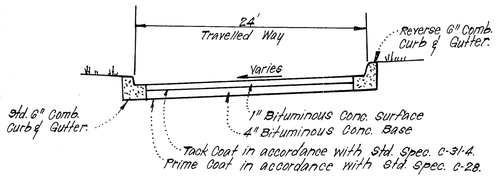
No	REVISION	Date
1	Rev 6th I-11, etc. as per HSCD & S.C.S. Comments	4-17-81



* Where flow is forward curb & gutter, Std. 6" Comb. Curb & Gutter will be used.

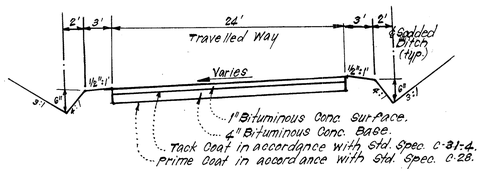
TYPICAL PAVING SECTION - PRIVATE DRIVE AND PRIVATE PARKING

No SCALE



TYPICAL PAVING SECTION PRIVATE DRIVE

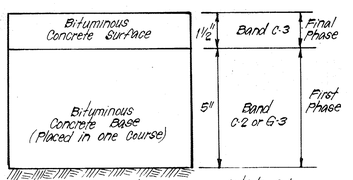
No SCALE



TYPICAL RURAL PAVING SECTION PRIVATE DRIVE

No SCALE

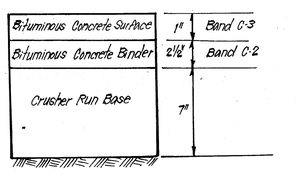
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81



To be constructed in accordance with the Howard County Road Construction Code and Specifications

PAVING SECTION FOR PUBLIC ROADS AND ENTRANCES TO PUBLIC ROADS

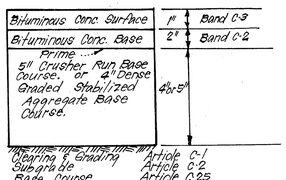
No SCALE



To be constructed in accordance with the Howard County Road Construction Code and Specifications.

ALTERNATE PAVING SECTION

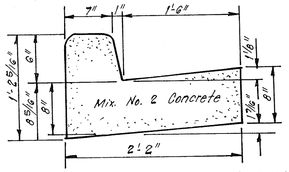
No SCALE



To be constructed in accordance with Ho. Co. Road Construction Code and Specifications.

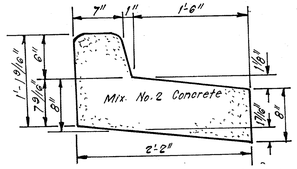
ALTERNATE PAVING SECTION FOR PRIVATE DRIVE & PRIVATE PARKING

No SCALE



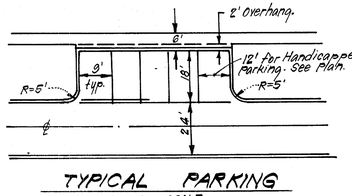
STANDARD 6" COMBINATION CURB & GUTTER

No SCALE



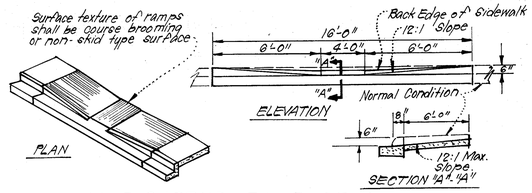
REVERSE 6" COMBINATION CURB & GUTTER

No SCALE



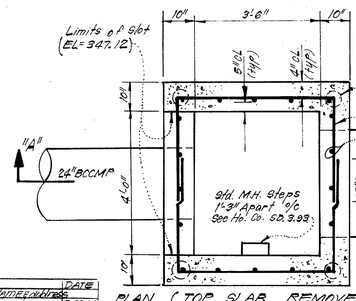
TYPICAL PARKING

No SCALE

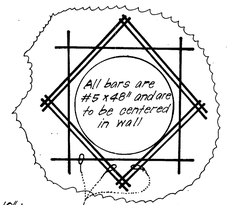


HANDICAPPED RAMP DETAIL

No SCALE

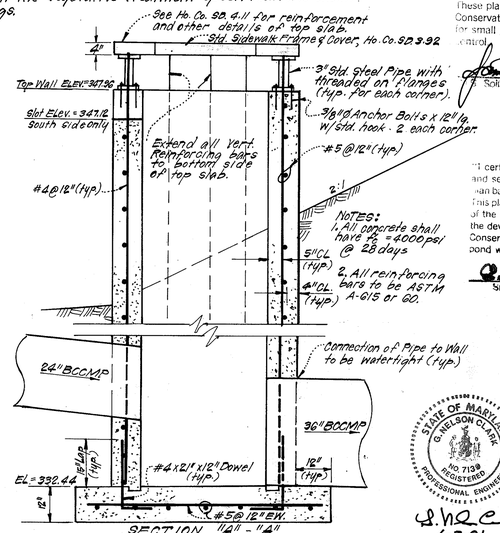


PLAN (TOP SLAB REMOVED)



EXTRA REINFORCING AT PIPE OPENINGS

No SCALE



DETAILS OF SPECIAL STR. #11

SCALE: 1" = 2'-0"

STORM WATER MANAGEMENT POND NOTES

I. CONCRETE:

A. MATERIALS:

a. Cement: Normal Portland Cement shall conform to the latest ASTM Spec. C-150.

b. Water: The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.

c. Sand: The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.

d. Course Aggregate: The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one half (1½) inches.

e. Reinforcing Steel: The reinforcing steel shall be deformed bars of intermediate grade billlet steel or rail steel conforming to ASTM Specification A-615.

B. DESIGN MIX:
The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5½:6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3½. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

C. MIXING:
The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than 1½ minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicated on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specs. given here.

D. FORMS:

a. The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar tight and constructed so that they can be removed without hammering or prying against the concrete.

b. The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

c. Forms may be removed 24 hrs. after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

E. REINFORCING STEEL:
All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

F. CONSOLIDATING:
Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

G. FINISHING:
Defective concrete, honey combed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

H. PROTECTION AND CURING:
Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first 3 days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.

I. PLACING TEMPERATURE
Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° F with the temperature rising.

II. STABILIZATION:
All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spill way, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.

III. SITE PREPARATION:

a. Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material.

b. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

c. All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quanity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

IV. EARTH FILL:

A. MATERIAL: The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The full height, all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

B. PLACEMENT: Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8" max. thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

C. COMPACTION: The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each fill shall be traversed by not less than one tread track of the equipment. If compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

D. CUTOFF TRENCH: Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1:1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available onsite and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

V. STRUCTURAL BACKFILL:
Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate 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 twenty-four inches or greater over the structure or pipe.

VI. PIPE CONDUITS:

A. CORRUGATED METAL PIPE:
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-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
Materials: (Aluminum Pipe) This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 of M-211 with watertight couplings bands. Coupling bands, anti-seep collars, end sections, etc. must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanize bolts may be used for connections. The pH of the surrounding soils shall be less than 9 and greater than 4.
Helically corrugated pipe in addition to the requirements above shall have either continuously welded seams or have lock seams which are caulked, during fabrication, with a neoprene bead.
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 shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
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.
Laying Pipe: The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
Back Filling shall conform to structural backfill as shown above.
Other details (anti-seep collars, valves, etc.) shall be as shown on the drawing.

These plans for small [illegible] sediment [illegible]

Approved Howard S.C.D. 6/22/81 Date

Plan Number

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.

Soil Conservation Service 6/23/81 Date

ENGINEER'S CERTIFICATE

"I certify that this plan for pond 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 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 pond within 30 days of completion."

Signature of Engineer G. Nelson Clark — Date

DEVELOPER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. 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 pond within 30 days of completion."

Signature of Developer Walter A. Kehoe — 3-31-81 Date

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — DATE 7-8-81
CHIEF DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81
for CHIEF BUREAU OF HIGHWAYS — DATE 7-7-81

OWNER:
The Howard Research & Development Corporation
The Rouse Company Building
Columbia, Maryland, 21044

No	REVISION	Date
1	Revised Approval Block & Added Owners Names, address	5-29-81

STATE OF MARYLAND — G. NELSON CLARK — NO. 7138 — REGISTERED PROFESSIONAL ENGINEER
6-3-81

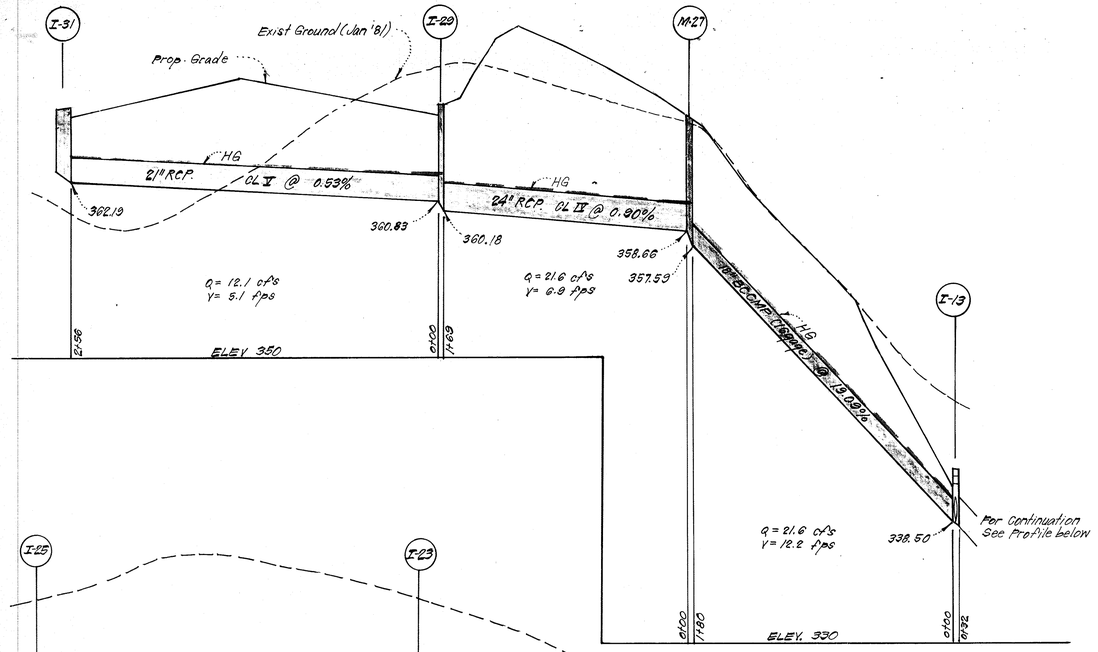
CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593 3400

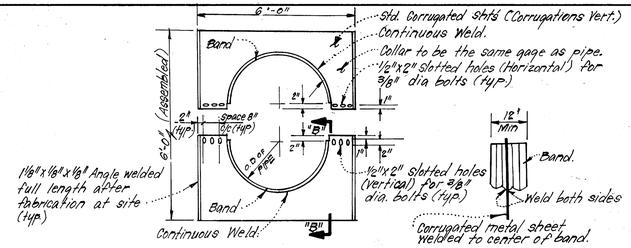
DESIGNED	R.J.S.
DRAWN	K.I.W.
CHECKED	R.V.S.
DATE	5-29-81

SITE DEVELOPMENT, STORM DRAIN, PAVING AND STORM WATER MANAGEMENT PLANS
PARCELS A-1 & A-2
COLUMBIA
VILLAGE OF OAKLAND MILLS
SECTION 3 AREA 2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
FOR: W.A. Kehoe Company
201 North Charles St.
Baltimore, Md 21201

SCALE	As Shown
DRAWING	4 OF 12
JOB NO.	80-120
FILE NO.	80-120-X

SDP-81-138.

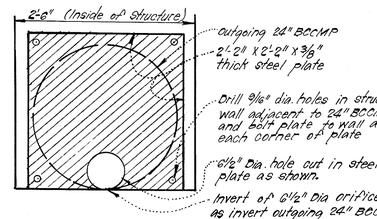




Notes:
1. All materials to be in accordance with construction and Construction Material Specification.
2. When specified on the plans, coating of collars shall be in accordance with Constr. Const. Material Specs.
3. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
4. The lap between the two half sections and between the pipe and connection Band shall be caulked with asphalt mastic at time of installation.
5. Each collar shall be furnished with two ½" dia rods with std. tank lugs for connecting collars to pipe

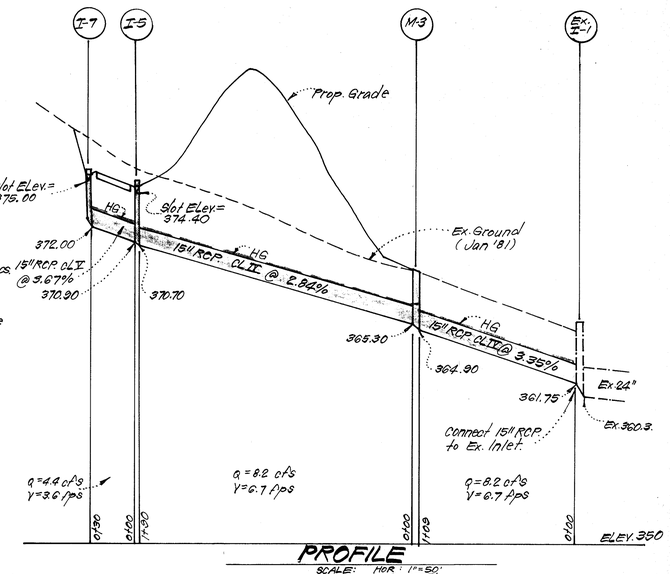
CORRUGATED METAL ANTI-SEEP COLLAR FOR 36" BCCMP

No SCALE



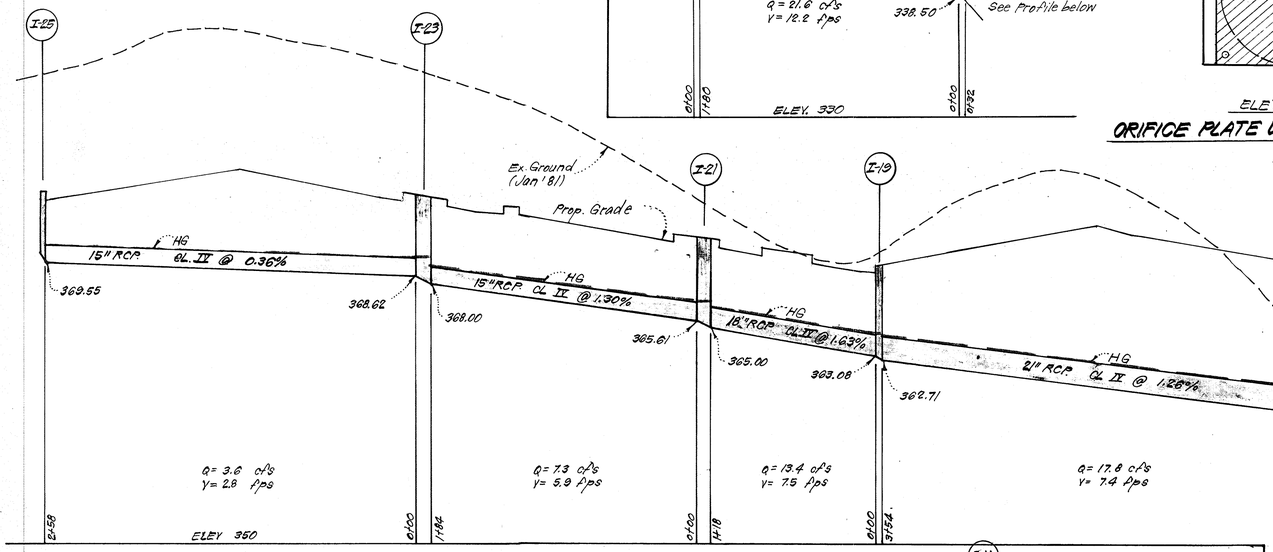
ORIFICE PLATE DETAIL - STR. NO. I-13

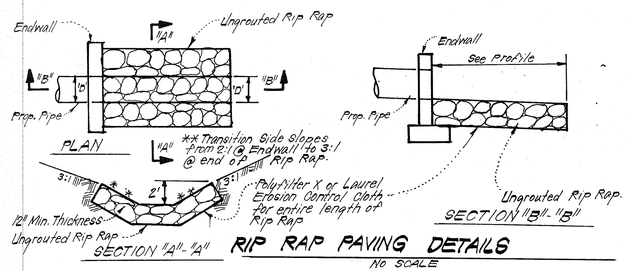
No Scale



PROFILE

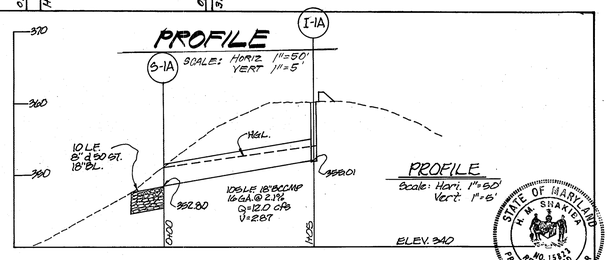
SCALE: HOR 1"=50' VER 1"=5'

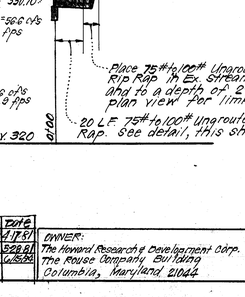




RIP RAP PAVING DETAILS

No SCALE





Note: Bolt grate securely to inside of structure wall with ½"ø, 6" lg. Hex. Head Bolts, each corner

GRATING FOR STR. NOS. I-29 & I-15

No SCALE

SECTION "A"-"A"

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

PIPE SCHEDULE

SIZE	TYPE	LENGTH
18"	RCP. CLASS V	30 LF
15"	RCP CLASS III	741 LF
24" *	BCCMP 16 gage	32 LF
21"	RCP CLASS V	256 LF
21"	RCP CLASS III	354 LF
24"	RCP CLASS III	169 LF
18" *	BCCMP 16 gage	257 LF
30" *	BCCMP 14 gage	71 LF
18	RCP CLASS III	116 LF

* 2¾"x½" Corrugations.

STRUCTURE SCHEDULE

No.	TYPE	INV IN	INV. OUT	TOP ELEVATION UPPER	TOP ELEVATION LOWER	REMARKS	LOCATION
M-3	B- Manhole	365.30	364.90		369.10	Ho. Co. Std. Fig. S.D. 3.03	See Plan
I-5	K - Inlet	370.90	370.70	*	374.40	Ho. Co. Std. Fig. S.D. 4.12	See Plan
I-7	K - Inlet	–	372.00	*	376.00	Ho. Co. Std. Fig. S.D.4.12	See Plan
I-13	D - Inlet	338.50	337.97	# ##	341.00	Ho. Co. Std. Fig. S.D.4.11	See Plan
I-15	A-10 Inlet	358.31	356.57		360.50	Ho. Co. Std. Fig. SD 4.02 W=2'-6"	See Plan
I-19	A-10 Inlet	363.08	362.71		369.50	Ho. Co. Std. Fig. SD 4.02 W=2'-6"	See Plan
I-21	A-10 Inlet	365.61	365.00	371.23	371.13	Ho. Co. Std. Fig. SD 4.02 W=2'-6"	See Plan
I-23	A-10 Inlet	368.62	368.00	374.28	374.12	Ho. Co. Std. Fig. SD 4.02 W=2'-6"	See Plan
I-25	A-S Inlet	–	369.55		–	Ho Co. Std. Fig. SD 4.01 W=2'-6"	See Plan
M-27	A-1 Manhole	358.66	357.58		366.50	Fig. S.D. 3.01	See Plan
I-29	A-10 Inlet	360.83	360.18		367.90	Ho. Co. Std. Fig SD 4.02 W=2'-6"	See Plan
I-31	A-10 Inlet	–	362.19		367.50	Ho. Co. Std. Fig. SD 4.02 W=2'-6"	See Plan
I-11	Special Structure	334.45	332.44	##	347.96	See Detail Sheet #	See Plan
S-9	C-Endwall	330.70	–		–	Ho. Co. Std. Fig. SD. 5.01 Dia. 36"	See Plan
T-1A	A-10 Inlet	356.01	354.01		360.00	Ho. Co. Std. Fig. SD 4.02 W=2'-6"	See Plan
S-1A	C-Endwall w/ Baffles	352.80	350.80		–	Ho. Co. Std. Fig. S.D. 5.21	See Plan

* See detail for orifice plate this sht.
Top Grate Elevation

No	REVISION	Date
1	Rev Str. I-11, etc. as per M.S.C.D. & S.C.S. comments	4/7/81
2	Added Owners Name & Address, Plus adjusted Appr. Block	5/28/81
3	Added S.D. Details & Modify Struct. Schedule	6/5/81

OWNER:
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland 21044

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — DATE 7-8-81
CHIEF DIVISION OF LAND DEVELOP. (ZONING ADMIN.) — DATE 7-8-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81
CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 5-6-81

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for the work shown hereon that affect soil erosion and sediment control.
Soil Conservation Service — 6/23/81 Date

Approved: Howard S.C.D. — 6/23/81 Date
Plan Number

ENGINEER'S CERTIFICATE

"I certify that this plan for pond 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 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 pond within 30 days of completion."

Signature of Engineer G. Nelson Clark — 6-3-81 Date

DEVELOPER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. 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 pond within 30 days of completion."

Signature of Developer Walter A. Kehoe — 5-31-81 Date

STATE OF MARYLAND G. NELSON CLARK NO. 7139 REGISTERED PROFESSIONAL ENGINEER 6-3-81

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593 3400

DESIGNED	R.J.S.
DRAWN	K.I.W.
CHECKED	R.J.S.
DATE	5-29-81

SITE DEVELOPMENT, STORM DRAIN, PAVING AND STORM WATER MANAGEMENT PLANS PARCELS A-1 & A-2

COLUMBIA

VILLAGE OF OAKLAND MILLS SECTION 3 AREA 2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FOR: W.A. Kehoe Company, 201 North Charles St. Baltimore, Md 21201

SCALE	As Shown
DRAWING	5 OF 12
JOB NO.	80-120
FILE NO.	80-120-X

SDP-81-138c

LEGEND:

1. Contour Interval — 2 Ft.
2. Existing Contour — 370
3. Proposed Contour — 370
4. Spot Elevation — +705
5. Direction of Drainage
6. Exist. Trees to be Saved
7. Exist. Storm Drainage — 15" RCP
8. Proposed Storm Drainage — 15" RCP
9. Timber Retaining Wall
10. Perimeter Dike — P.D.
11. Straw Bale Dike or Silt Fence — SBD/SF
12. Diversion Dike — D.D.
13. Sediment Trap.
14. Stone Filter Inlet Protection — SFIP

VICINITY MAP
SCALE: 1" = 2000'

Sheet 3 · Sheet 2 · Sheet 1

LITTLE PATUXENT · Melton Brook Rd. · Swingley Road · Gateway Drive · Thunder Hill Road · Columbia Pike (Rte. 108) · Patuxent Parkway (MD. Rte. 175) · N

TRAP#1 S.D.S.T. (ST-3)
DA = 1.9 Acres
Storage Required: 1.9 x 1800 = 3420 cf
Storage Provided: 3528 cf
Top of Stone Crest: 368.50
Bottom Elevation: 365.50
Bottom Dimensions: 50' x 15' x 3' Deep

TRAP#2 S.D.S.T. (ST-4)
DA = 4.9 Acres
Storage Required: 4.9 x 1800 = 8820 cf
Storage Provided: 8904 cf
Brick Opening Elev. = 374.50 (West Side Only)
Bottom Elevation = 371.00
Bottom Dimensions: 100' x 18' x 3.5' Deep

A = 1.6 ac, C = .47 — B — 65% Open Sp., 35% Pavement
A = 3.7 ac, C = .24 — A — 100% Open Space

Ex. 20' Utility & Drainage Easement

OPEN SPACE 339 · 342 · 587 · 588 · 589 · OPEN SPACE 586 · 582 · 583 · 584 · 585

VILLAGE OF OAKLAND MILLS
SECTION 1 AREA 5 P.B. 17 F. 6
SECTION 1 AREA 4 P.B. 17 F. 5

LIME BANKS WAY · LIGHTNING VIEW ROAD · THUNDER HILL ROAD

Ex. Woodland to be preserved

Vehicular Ingress and Egress Restricted

LITTLE PATUXENT PARKWAY (MD. RTE. #175)

S.H.A. PLATS 41568 & 38012

Ex. Shoulder · Ex. Paving · Ex. 18" RCP · Ex. 24" CMP

BM. Nail & Washer Cor. Traffic Sign 389.66 · BM. Nail in 45 mph sign 390.42 · BM. "X" Cut in Cor. Head wall 350.66 · BM. "X" Cut in Inlet 394.11 · BM. "X" Cut in Cor. Catch Basin 395.45

Match Line "A"

No.	REVISION	DATE
1	Revised Approv Blk. & Added Owners Name & Address	6-29-81

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — DATE 7-8-81
CHIEF DIVISION OF LAND DEVELOPMENT & ZONING ADMIN. — DATE 7-8-81

APPROVED: FOR PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81
CHIEF BUREAU OF ENGINEERING — DATE 7:7:81

OWNER:
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland 21044

Reviewed for Howard S.C.D.
Name
and meets Technical Requirements
Signature — Date 6/23/81
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
William T. Rau — Approved — 6-23-81 Date

DEVELOPER'S/BUILDER'S CERTIFICATE

"I(We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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."

Signature of Developer/Builder — Walter A. Kehoe — 3-31-81 Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

G. Nelson Clark — 3-31-81 Date

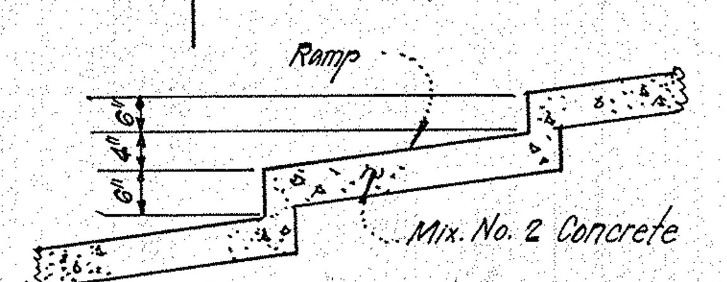
STATE OF MARYLAND · G. NELSON CLARK · NO. 7126 · REGISTERED PROFESSIONAL ENGINEER

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593 3400

DESIGNED: D.A.B	SCALE: 1" = 50'
DRAWN: K.I.W	DRAWING: 6 of 12
CHECKED: D.A.B	JOB NO: 80-120
DATE: 5-29-81	FILE NO: 80-120-X

SEDIMENT & EROSION CONTROL PLAN & DRAINAGE AREA MAP
PARCELS A-B-C
COLUMBIA
VILLAGE OF OAKLAND MILLS
SECTION 3 AREA 2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
FOR: W.A. Kehoe Company
201 North Charles St.
Baltimore, Md. 21201

SDP-81-138



STEP RAMP DETAIL
NO SCALE

NO	REVISION	DATE
1	Rev. Approv. Blk. and added owners name & address	5-29-81

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

[signature] 7-8-81
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

[signature] 7-8-81
PLANNING DIRECTOR — DATE

[signature] 7-8-81
CHIEF DIVISION OF LAND DEVELOP & ZONING ADMIN. — DATE

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

[signature] (acting) 7/7/81
DIRECTOR — DATE

[signature] 7-7-81
CHIEF BUREAU OF ENGINEERING — DATE

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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."

[signature] 3-31-81
Signature of Developer/Builder — Date
Walter A. Kehoe

Reviewed for Howard S.C.D.
Name
and meets Technical Requirements
[signature] 6/23/81
Signature — Date
U.S. Soil Conservation Service

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

[signature] 6-22-81
Approved — Date

OWNER:
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland 21044

NO.	REVISION	DATE
1.	Re-grade to remove berm on drop-off landscape island & connect curb to fully enclose landscape island.	7/2/14
2.	Plaza Renovation. Remove existing pavers and replace with new paved pattern of concentric paver bands and concrete. Construct one new block retaining wall. Install new light bollards around drop-off. Grade for positive drainage. See Sht. 2-A.	9/25/14

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

[signature] 3-31-81
G. Nelson Clark — Date

STATE OF MARYLAND G. NELSON CLARK NO. 7138 REGISTERED PROFESSIONAL ENGINEER

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

STATE OF MARYLAND NORTON H. CLOUGH NO. 400 REGISTERED LANDSCAPE ARCHITECT

[signature] 7-30-14
9/25/14

CFS CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING MARYLAND 20904 • (301) 593 3400

DESIGNED	SEDIMENT & EROSION CONTROL PLAN & DRAINAGE AREA MAP PARCELS A-1 & A-2	SCALE
DAB	COLUMBIA	1" = 30'
DRAWN	VILLAGE OF OAKLAND MILLS	DRAWING
K.I.W.	SECTION 3 AREA 2	7 of 12
CHECKED	6TH ELECTION DISTRICT	JOB NO
DAB	HOWARD COUNTY, MARYLAND	80-120
DATE	FOR: W.A. Kehoe Company 201 North Charles St. Baltimore, Md. 21201	FILE NO
5-29-81		80-120-X

SDP-81-138c

No.	REVISION	Date
1	Added Compactor and enclosure	5-11-81
2.	Plaza Renovation. Replace pavers with concrete sidewalk - See Sht 2-A	9/15/14

VILLAGE OF OAKLAND MILLS
SECTION 1 AREA 5
P.B. 15 F. 73
ALSO GUILFORD DOWNS P.B.7 F.21

OAKLAND MILLS
AREA 5
F.74

VILLAGE OF OAKLAND MILLS
SECTION 1
P.B. 15

Ex. Drainage & Utility Reservation & 100 Yr. Flood Plain

Place 75# to 100# Ungrouted RIP RAP to limits and to a depth of 2' in ex. stream. See Profile sht. 6.

Limit of Grading

50 LF. 75# to 100# Ungrouted RIP RAP. See profile sht. 6.

Ex. 100 Yr. Flood Plain & Drainage Easement P.B 25, F.44

Existing Woodland To Be Preserved

Over-flow Channel

Provide Stone in accordance with S.F.I.R. detail, sht. 9.

Diversion Embankment 10' high w/ brick walls

Compactor

Gate

Fence

Retaining Wall Fabricated Steps

Ex. 20' Drainage Easement P.B. 25 F. 442

A.T.&T. Easement L. 167 F. 285

Sprinkler Retaining Wall Easement L. 114 F. 165

TRAP #4 S.D.S.T. (ST-3)
DA. = 4.3 Acres
Storage Required = 4.8 X 1800 = 8640 cf
Storage Provided = 9360 cf
Top of Stone Crest: 454.50
Bottom Elevation: 451.50
Bottom Dimensions: See Plan
Depth = 3.0'

TRAP AT STR. I-13, I-11
DA. = 3.2 Acres
Storage Required = 3.2 X 1800 = 5760 cf
Storage Provided = 37,138 cf
Str. I-11 crest elev. = 347.12
Bottom Elev. = 340.00
Bottom Configuration = As Shown
Depth = 7.12'

TRAP #3 (See Sht. 7 of 33)

A=1.39ac C=.24 (J) 100% Grass

A=1.39ac C=.60 (H) 45% Grass 55% Pavement + Roof

A=1.79ac C=.80 (E) 15% Grass 85% Pavement & Roof

A=1.39ac C=.80 (I) 15% Grass 85% Pavement and Roof

A=1.7ac C=.87 (E) 5% Grass 95% Pavement & Roof

FF = 373.00

See Sht-2A for Plaza Details

MATCH LINE "B-B" SEE SHEET 7

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — DATE 7-8-81
CHIEF DIVISION OF LAND DEVELOPE ZONING ADMIN. — DATE 7-8-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81
CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

Reviewed for HOWARD S.C.D. (Name) and meets Technical Requirements
Signature — Date 6/22/81
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Approved — Date 6-22-81

OWNER
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland 21044

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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."

Signature of Developer/Builder — Date 3-31-81
Walter A. Kehoe

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan, based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

STATE OF MARYLAND — G. NELSON CLARK — NO. 7138 — REGISTERED PROFESSIONAL ENGINEER

G. Nelson Clark — Date 3-31-81

No.	REVISION	DATE
1	Revised Approv Block & Added Owners Name & Address	9/29/81

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING MARYLAND 20904 • (301) 593 3400

DESIGNED	DAB
DRAWN	K.I.W.
CHECKED	DAB.
DATE	5-29-81

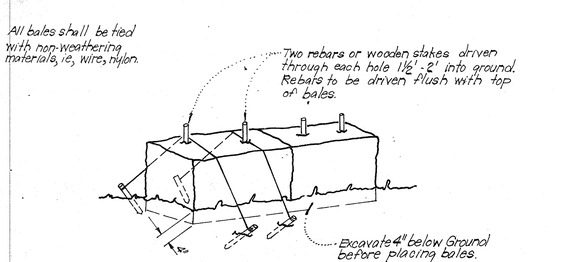
SEDIMENT & EROSION CONTROL PLAN & DRAINAGE AREA MAP
PARCELS A-1 & A-2
COLUMBIA
VILLAGE OF OAKLAND MILLS
SECTION 3 AREA 2
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
FOR: W.A. Kehoe Company
201 North Charles Street
Baltimore, Md. 21201

SCALE 1"=30'
DRAWING 8 OF 12
JOB NO. 80-120
FILE NO. 80-120-X

STATE OF MARYLAND — NORTON H. CLARK — No. 406 — REGISTERED LANDSCAPE ARCHITECT
9/15/14

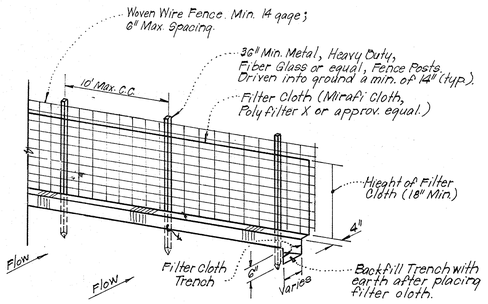
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

SDP-81-138



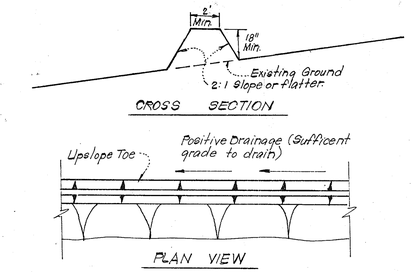
Note:
1. In lieu of the use of rebars each straw bale may be fastened to ground with pegs (4 per bale and wire or nylon as shown above.)

TYPICAL STRAW BALE DIKE DETAIL (S.B.D.)
No Scale

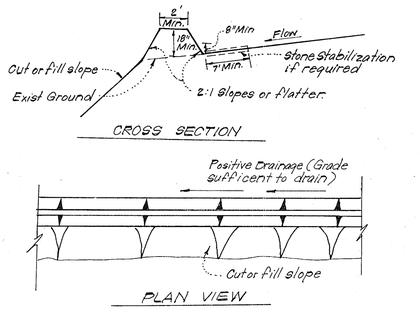


Notes:
1. Woven Wire Fence to be fastened securely to fence posts by use of wire ties.
2. Filter Cloth to be fastened securely to Woven Wire, by use of wire ties spaced every 24"x24"

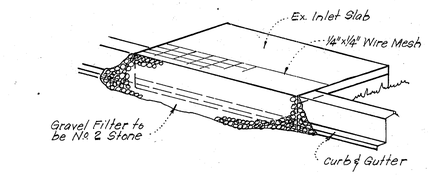
TYPICAL SILT FENCE DETAIL (S.F.)
No Scale



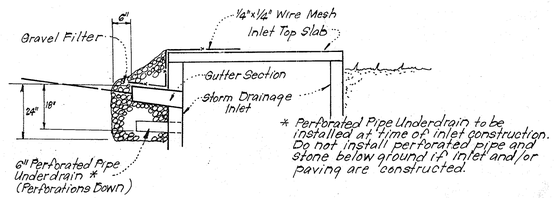
TYPICAL PERIMETER DIKE DETAIL (P.D.)
No Scale



TYPICAL DIVERSION DIKE DETAIL (D.D.)
No Scale

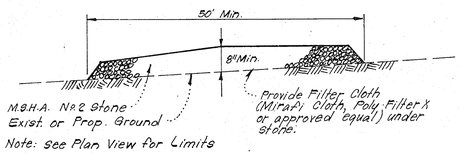


ISOMETRIC VIEW



SECTION VIEW

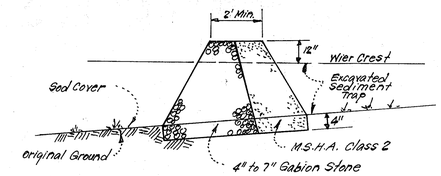
STONE FILTER INLET PROTECTION (S.F.I.P.)
No Scale



Note: See Plan View for Limits

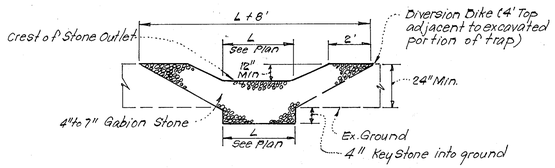
SECTION VIEW

STABILIZED CONSTRUCTION ENTRANCE
No Scale



Note: For Dimensions not shown, see plan.

PROFILE

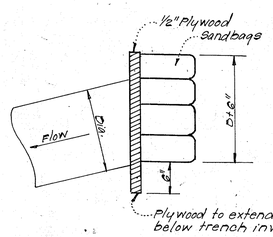


CROSS SECTION

Notes:
1. Sediment Trap to be cleaned out when sediment reaches a level of 1 Ft. below crest of stone outlet.
2. Bottom of Sediment Trap to be level and constructed to the dimensions shown on plan.
3. Stone outlet to be constructed through diversion dike adjacent to excavated portion of sediment trap.

DETAILS OF STONE FILTER OUTLET (FOR STONE OUTLET SEDIMENT TRAP)
No Scale

CONVERSION NOTES FOR S.&E BASIN AT STR. I-13.
1. Pump all standing water from basin.
2. Remove all sediment & dispose of same so as not to generate sediment off-site.
3. Immediately stabilize Basin area and remove blockage at I-13.



PIPE BLOCKING DETAIL
No Scale

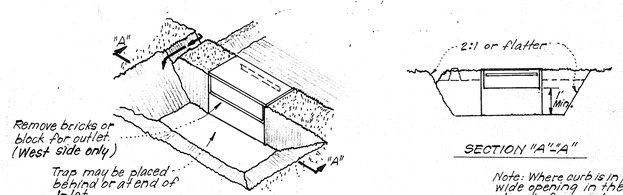
GENERAL NOTES

1. Grading Permits shall be obtained prior to installation of Sediment Control & Grading.
2. All Sediment and Erosion Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of the existing surface of the site. See note #6 for stabilization except that the seed mixture will be annual rye applied at a rate of 1.4 lbs/1000 s.f.
3. Notify the Bureau of Inspections and Permits at least 24 hrs before starting any work.
4. All Sediment Control Practices to conform to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" and shall be adjusted to meet actual field conditions.
5. Stabilization of Disturbed ground to be done as soon after construction as possible.
6. All disturbed area to be stabilized in accordance with the following Specifications:
   A. Seed - certified 85% germination applied at the rate of 3 lbs/1000 s.f. Mixture - 40% Kentucky Blue, 20% chewing Fescue, 20% Kentucky 31 and 20% annual rye.
   B. Fertilizer - 10-10-10 applied at a rate of 23 lbs/1000 s.f. Ground Agricultural Lime or Dolomatic Lime applied at a rate of 90 lbs/1000 s.f.
   C. Mulch - Weed free grain straw applied at a rate of 70-90 lbs/1000 s.f. Mulch shall be secured to the ground by any approved method ie; asphalt tacks, chemical binder, etc.
   D. All Sod used shall be Maryland State Certified.
7. All Structural Sediment Control Measures are to remain in place until permission for their removal has be obtained from the Bureau of Inspections and Permits.
8. On-Site Inspection and Maintenance of all Sediment Control Measures including clean out of Sediment Traps and dikes, and proper establishment of all planned vegetative measures will be the responsibility of the developer or his representative on the site, on a continuing day to day basis.
9. It will be the developers responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
10. The Contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
11. Approval of this plan is conditional upon the approval of Sediment Control Plan for the off-site waste or borrow area prior to the import of any borrow or export of waste to or from this site.
12. SITE ANALYSIS:

A. TOTAL AREA:	36.20	Acres
B. AREA TO BE ROOFED:	0.90	Acres
C. AREA TO BE PAVED:	7.00	Acres
D. AREA TO BE SEEDED:	6.90	Acres
E. AREA UNDISTURBED:	21.40	Acres

Total Amount of S.B.D/S.F. = 40 L.F.

13. CONSTRUCTION SEQUENCE:
   A. Install Storm Drainage Ex. I-1 to I-7.
   B. Install Stabilized Construction Entrance at Lime Banks Way.
   C. Install Perimeter Dike along East Property Line in Vicinity of Trap #1.
   D. Excavate for Trap #1 & #2
   E. Protect Inlet I-5 With SBD/S.F.
   F. Install Storm Drainage S-9 to I-15 & I-13 to M-27
   G. Excavate for S.W.M. Basin, protect I-13 in accordance with Plan
   H. Install Perimeter Dike & S.O.S. for Traps #3 & #4.
   I. Excavate Traps #3 & #4.
   J. Rough Grade Area & Roadway.
   K. Excavate for Foundations & Rough Grade. Complete Storm Drains & Install all S.F.I.P's.
   L. Erect Structures, Install Utilities, construct Curb & Gutter, Sidewalks and Paving.
   M. Final Grade and Stabilize in accordance with note #6. See Special Notes for conversion of Sediment & Erosion Control Basin @ I-13 to permanent Storm Water Management Facility.



PLAN

SECTION "A"-"A"

Note: Where curb is in place, provide a 1 Ft. wide opening in the curb or use a sandbag dam to force water over the curb to the trap.

STORM INLET SEDIMENT TRAP (S.I.S.T.)
No Scale

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — DATE 7-8-81
CHIEF DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81
for DIRECTOR — DATE 7-7-81
CHIEF BUREAU OF ENGINEERING

No.	REVISION	DATE
1.	Revise, Approval Blk & Added Owners Name & address	5/29/81

OWNER:
The Howard Research & Development Corp.
The Rouse Company Building
Columbia, Maryland 21044

Reviewed for HOWARD S.C.D.
Name
and meets Technical Requirements
Signature — Date 6/23/81
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Approved — Date 6/22/81

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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."

Signature of Developer/Builder
Walter A. Kehoe — 3-31-81 Date

ENGINEER'S CERTIFICATE

I hereby certify that this plan for Erosion and Sediment Control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

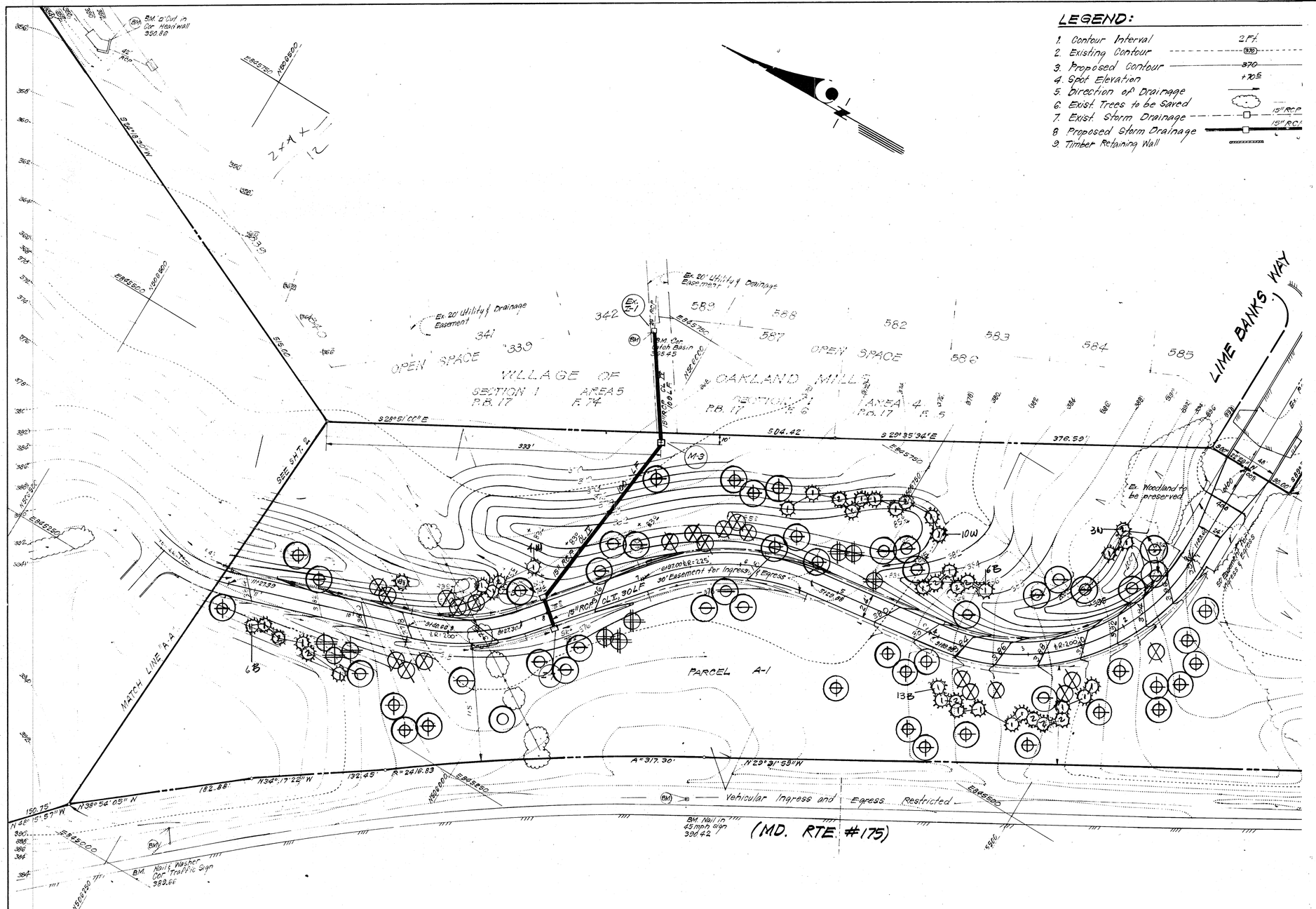
G. Nelson Clark — 3-31-81 Date

STATE OF MARYLAND — G. NELSON CLARK — No. 7139 — REGISTERED PROFESSIONAL ENGINEER

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

DESIGNED: D.A.B	SEDIMENT & EROSION CONTROL PLAN PARCELS 'A-1' & 'A-2'	SCALE: As Shown
DRAWN: K.I.N.	COLUMBIA	DRAWING: 9 of 12
CHECKED: DAB	VILLAGE OF OAKLAND MILLS SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 80-120
DATE: 5-29-81	FOR: W.A. Kehoe Company 201 North Charles St. Baltimore, Md 21201	FILE NO. 80-120-X

SDP-81-138



PLANT SCHEDULE

KEY	PLANT NAME	SIZE	QUANT	REMARKS
	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY MAPLE	2½-3" CAL 12-14' HT	SEE PLAN	B&B HEAVY HEADS
	GLEDITSIA T. INERMIS 'SHADEMASTER'	2½-3" CAL 12-14' HT.		" " "
	TILIA CORDATA LITTLE LEAF LINDEN	2½-3" CAL 12-14' HT.		" " "
	QUERCUS RUBRA RED OAK	2½-3" CAL 12-14' HT		" " "
	SALIX BABYLONICA BABYLON WHEEPING WILLOW	2½-3" CAL 12-14' HT.		" " "
	ZELKOVA SERRATA 'VILLAGE GREEN' VILLAGE GREEN ZELKOVA	2½-3" CAL 12-14' HT.		" " "
	PRUNUS CERASIFERA 'THUNDERCLOUD' PURPLELEAF FLOWERING PLUM	2-2½" CAL 8-10' HT.		B&B HEAVY HEADS
	PRUNUS SERRULATA 'KWANZAN' KWANZAN FLOWERING CHERRY	2-2½" CAL 8-10' HT.		" " "
	PRUNUS YEDOENSIS YOSHINO CHERRY	2-2½" CAL 8-10' HT.		" " "
	CORNUS FLORIDA FLOWERING DOGWOOD	2-2½" CAL 8-10' HT.		" " "
	PYRUS CALLERYANA 'BRADFORD' BRADFORD PEAR	2-2½" CAL 8-10' HT.		" " "
	CRATAEGUS PHAENOPYRUM WASHINGTON HAWTHORN	2-2½" CAL. 8-10' HT.		" " "
W	PINUS STROBUS WHITE PINE	6-8' HT.		B&B HEAVY
W	PINUS STROBUS WHITE PINE	8-10' HT		" "
B	PINUS THUNBERGI JAPANESE BLACK PINE	6-8' HT.		" "
B	PINUS THUNBERGI JAPANESE BLACK PINE	8-10' HT.		" "

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
DIRECTOR — DATE 7-8-81
CHIEF, DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81
CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

STATE OF MARYLAND — CARLSON CLARK — NO. 7198 — REGISTERED PROFESSIONAL ENGINEER
6-8-81

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS

DESIGNED THEIMER	**LANDSCAPE PLANTING PLAN** 'KNOLL NORTH' COLUMBIA	SCALE 1"=30'
DRAWN	PARCELS "A-1 & A-2" VILLAGE OF OAKLAND MILLS SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY MD.	DRAWING 10 of 12
CHECKED		JOB NO.
DATE 6/1/81	FOR: WA. KEHOE COMPANY 201 NORTH CHARLES STREET BALTIMORE, MD. 21201	FILE NO. 80-120LS

SDP-81-138c

NO.	REVISION	
1	Remove exist. diseased ash trees, establish two new plant beds on island with a total of 6 new trees. Date: 7.30.14.	
2.	Courtyard Renovations. Remove exist. overgrown and diseased trees and vegetation as indicated, plant new trees, shrubs and perennials in newly established beds. See Sht. 2-A	9/25/14

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER (signature) — DATE 7-8-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

PLANNING DIRECTOR (signature) — DATE 7-8-81

CHIEF DIVISION OF LAND DEVELOPMENT (signature) — DATE 7-8-81

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

DIRECTOR — DATE

CHIEF BUREAU OF ENGINEERING (signature) — DATE 7-7-81

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

STATE OF MARYLAND — MORTON H. CLOUSE — No. 400 — REGISTERED LANDSCAPE ARCHITECT
7.30.14
9.25.14

STATE OF MARYLAND — G. NELSON CLARK — NO. 7130 — REGISTERED PROFESSIONAL ENGINEER
6-3-81

CFS CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE • SILVER SPRING MARYLAND 20904 • (301) 593 3400

DESIGNED WHT	LANDSCAPE PLANTING PLAN	SCALE 1" = 30'
DRAWN	PARCELS "A-1 & A-2" COLUMBIA	DRAWING 11 of 12
CHECKED	VILLAGE OF OAKLAND MILLS SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO 80-120
DATE 6·1·81	FOR: W.A. Kehoe Company 201 North Charles St. Baltimore, Md 21201	FILE NO 80-120-LS

SDP-81-138

VILLAGE OF OAKLAND MILLS
SECTION 1 AREA 5
P.B. 15 F. 73
ALSO GUILFORD DOWNS P.B.7 F.21

No.	REVISION	DATE
1.	Rev Sht I-11, Etc, as per H.S.C.D. & S.C.S. Comment	6-1781
2.	Added compactor Enclosure	8-11-80
3.	Plaza Renovation - Establish new Plant beds - See Sht. - 2A	9.25.81

Ex. Drainage & Utility Reservation & 100 Yr. Flood Plain

Place 75# to 100# Ungrouted R/R Rap to limits shown and to a depth of 2' in ex. stream. See profile sht. 5

Limit of Grading

Ex. 100 Yr. Flood Plain & Drainage Easement P.B. 25, F. 44

Existing Woodland - To Be Preserved

Storm Water Management Pond

Boring #1 Boring #2 Boring #3 Boring #4

TOP ELEVATION Boring #3 351.00

For Section "1A" - "1A" See Sheet 5

A.T.&T. Easement L. 167 F. 285

Sinclair Refining Co. Easement L. 1744 F. 166

Ex. Gr. Drainage Easement P.B. 25 F. 44

18" BCCMP 16 gage 180 L.F.

24" BCCMP 16 gage 92 L.F.

24" BCCMP CL. II 16 GA L.F.

24" BCCMP CL. II 16 GA L.F.

Phase I

Phase II

Dumpster Enclosure 8'6" High Brick with Wood Gate

12' x 13'8" Conc. Approach per Detail

6 Trees @ 40'± Per Planting

See Sht. 2A for Plaza Details

CARS

N607450 E845000 E845300 E845600

N607300 E844700 E845600

N607150 E845600

N607000 E844700 E845600

S63°04'52"E 270.00

S88°04'52"E 200.00

S37°07'04"E 75.00

N88°37'56"E 97.50

S37°07'04"E 35.40

S88°37'56"W 6.80

S26°30'08"W 405.01

S37°14'32"E 215.20

N70°18'55"E 240.00

N53°00'00"W 113.75

N53°00'00"W 224.00

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 5-6-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 7-8-81

APPROVED HOWARD COUNTY OFFICE OF PLANNING & ZONING
PLANNING DIRECTOR — DATE 7-8-81
CHIEF DIVISION OF LAND DEVELOP. & ZONING ADMIN. — DATE 7-8-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — DATE 7/7/81 (acting)
CHIEF BUREAU OF ENGINEERING — DATE 7-7-81

STATE OF MARYLAND — CHARLES R. CLARK — No. 7199 — REGISTERED PROFESSIONAL ENGINEER
6-3-81

STATE OF MARYLAND — NORTON H. GRIMM — No. 401 — REGISTERED LANDSCAPE ARCHITECT
9.25.81

CLARK • FINEFROCK & SACKETT
ENGINEERS • PLANNERS • SURVEYORS
11315 LOCKWOOD DRIVE · SILVER SPRING, MARYLAND 20904 · (301) 593-3400

DESIGNED WHT	LANDSCAPE PLANTING PLAN PARCELS "A-1 & A-2" COLUMBIA VILLAGE OF OAKLAND MILLS SECTION 3 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE 1"=30'
DRAWN		DRAWING 12 of 12
CHECKED		JOB NO 80-120
DATE 6-1-81	FOR: W.A. Kehoe Company 201 North Charles Street Baltimore, Md 21201	FILE NO 80-120-LS

SDP-81-138c