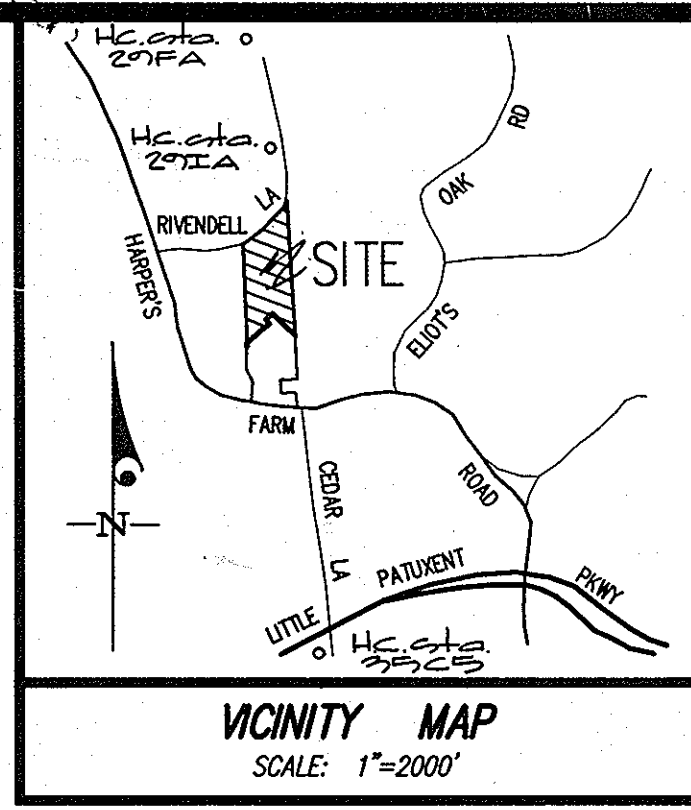
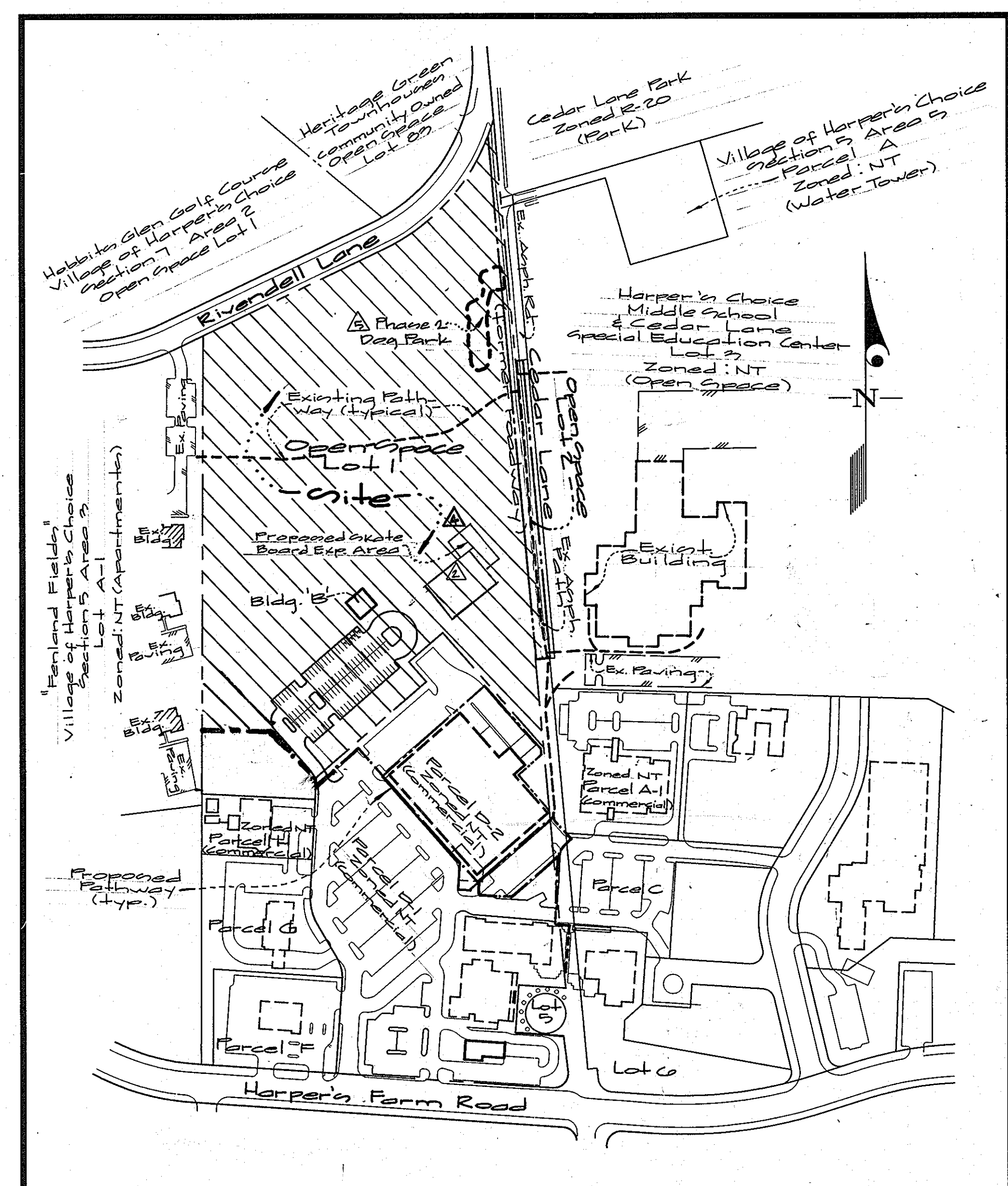


COLUMBIA VILLAGE OF HARPER'S CHOICE VILLAGE CENTER SECTION 5 AREA 11 OPEN SPACE LOT 1 SITE DEVELOPMENT PLAN



- GENERAL NOTES**
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standard and specifications if applicable.
 - The contractor shall notify the Department of Public Works, Bureau of Engineering, Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
 - The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
 - The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five working days prior to starting any excavation work.
 - Site area: 15.76 acres.
 - All plan dimensions are to face of curb unless otherwise noted.
 - Existing topography is shown per aerial photography and field run survey information. Photogrammetry by Wings Aerial Mapping Co., Inc. dated 9-15-96, field run curves by Gutschick, Little & Weber, October, 1996.
 - Coordinates and bearings are based upon the MD State plan system (NAD '27).
 - Water and sewer shown is public.
 - Stormwater management for this site is provided by a permanent retention/detention facility on-site.
 - All existing water and sewer is per Contract No. 6310-W & C99B.
 - All existing public storm drain is per
 - All curb radii is 5' unless noted otherwise.
 - Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise.
 - Contractor shall utilize PVC pipe for all sewer house connections. Contractor shall utilize D.I.P. (CL 31) for water house connections.
 - Use trench bedding class "C" for storm drains.
 - Paved areas indicated are private except as noted.
 - Project background: See Dept. of Planning & Zoning File Numbers: 6P-97-07, PDP 220, GP 97-10.
 - Recording reference: Plat No. 1284S
 - All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
 - All water meters shall be located inside buildings.
 - All proposed site utilities are to terminate 5' from the building. The building plumber shall connect to and extend these utilities to the inside of the building.
 - Existing utilities are based on approved design plans for construction, and field location by Gutschick, Little & Weber, P.A., June, 1996.
 - There is no floodplain on this site.
 - There are no wetlands on this site.
 - No traffic study is required for this site.
 - All bulk requirements and setbacks are per FDP Phase 220 recorded, 5/29/97
 - Bench Marks
#1 Right Front Corner Inlet I/c
Elev. = 475.76
#2 Rim Ex. Air Release Manhole
Elev. = 480.95
 - Minimum building setbacks are as follows:
A. From Rivendell Road Right-of-way: 20'
B. From other adjacent parcels: 25'



Legend

---(---)---	Existing Contour
---(---)---	Proposed Contour
x0.1'	Proposed Spot Elev.
---	Existing Storm Drain
---	Existing Sewer
---	Existing Water
---	Existing Curbside
①	Parking Space Count
---	Limit of Submission
☁	Existing Trees to Remain

Sheet Index

- Cover sheet
- Site Development Plan
- Site Details
- Handicap Accessibility Details
- Landscape Plan
- Landscape Details & Notes
- Sediment Control Plan
- Sediment Control Details
- Stormwater Management Details
- Sediment Control/Stormwater Management Notes
- Storm Drain Profiles & Schedule
- Water & Sewer Profiles
- Storm Drain Drainage Area Map
- Stormwater Management Drainage Area Map (Pre-Development)
- Stormwater Management Drainage Area Map (Post-Development)

Site Analysis

- Project Area: 15.76 AC
- Area of Plan Submission: 10.1 Acres
- Limit of Disturbed Area: 10.1 Acres
- Zoning: NT-Open Space
- Proposed Use: Sports Park

Site Analysis Phase 2

- Area of Plan Submission: 0.22 AC
- Limit of Disturbance: 0.22 AC

Structure Coverage

Building 'B' (Redemption Center)	2,025 S.F. (0.20%)
Batting Cages	10,100 S.F. (1.52%)
Skateboard Area	14,000 S.F. (2.00%)
Dog Park Area	2,175 S.F. (0.29%)
Total:	28,300 S.F. (4.24%)

20. All trash will be internally collected in the buildings and picked up by the Columbia Assoc.
21. Variance to structure setback for Bldg. A granted by Planning Board 4/10/97.

Approved For Public Water & Sewerage Systems
Howard County Health Dept.
Joyce M. Boydner, Esq. 9/15/97
County Health Officer

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
Legal Kulla 9/18/97
Date

Cecilia Hamilton 9/17/97
Chief, Division of Land Development

Chief, Development Engineering Division 9/15/97
Date



OWNER
The Howard Research & Development Corporation
10275 Little Patuxent Parkway
Columbia, Md. 21044
Attn.: Greg Klar
Tel.: (410) 992-0970

KEY MAP
SCALE: 1" = 200'

Prepared For: Developer
The Columbia Association
10221 Wincopin Circle
Suite 100
Columbia, Maryland 21044-7410
Attn: Dennis Matley
Phone: (410) 715-3125

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE: 9/10/97

SDP-97-75

ADDRESS CHART					
Building	STREET ADDRESS				
B	3071 Harper's Farm Road				
SUBDIVISION NAME: VILLAGE OF HARPER'S CHOICE					
PLAT	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
1284S	NEW TOWN	29	23	5	8055

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20886
TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. W. J. CHK.

DATE	REVISION	BY	APPR.
7/11/97	Amend site Analysis & Key Map A	gt	
01/20/98	Rev. site Analysis A	waj	
02/10/98	Remove Bldg. A	waj	

COVER SHEET

Harper's Choice Sports Park
Columbia - VHG 5/11
Open Space Lots 1 & 2

SCALE	ZONING	G. L. W. FILE No.
SHOWN	NEW TOWN	96045
DATE	TAX MAP No.	SHEET
April, 1997	29	1 OF 15

Clarksville Election District No. 5
Howard County, Maryland

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

Robert W. Ziehm 8/29/97
 Howard Soil Conservation District

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.

Cheyl Simmons 8/29/97
 Natural Resources Conservation Service

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/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

David E. Weber 8-13-97
 Date

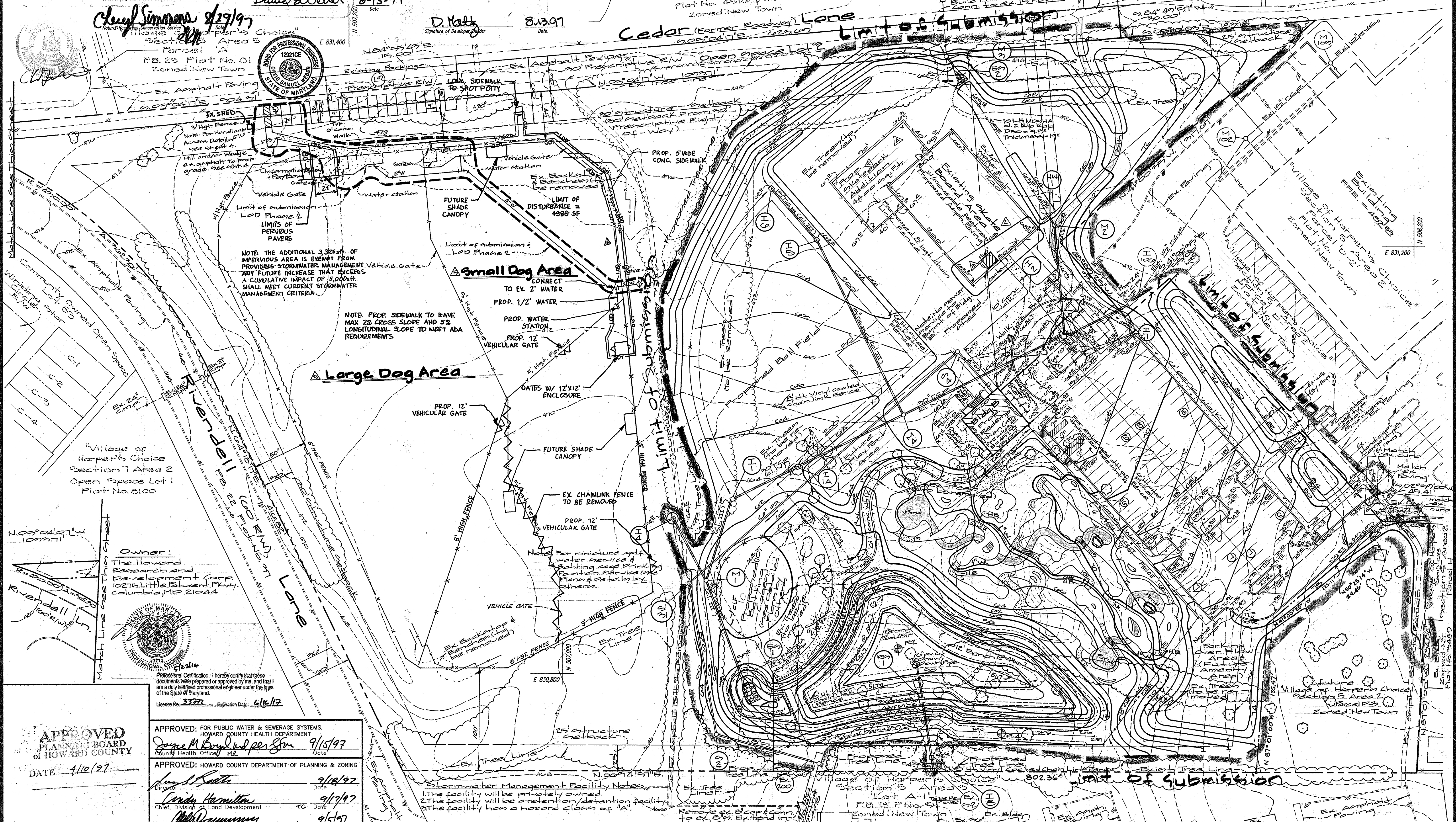
DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

D. Math 8/23/97
 Signature of Developer/Builder Date

Harper's Choice Middle School & Howard County Special Education Center
 "Village of Harper's Choice" Section 6 Area 2
 Lot 3
 Plat No. 4510 & 4517
 Zoned: New Town

"Village of Harper's Choice" Section 6 Area 2
 Parcel 15
 Plat No. 6280
 Zoned: New Town



Owner:
 The Howard Research and Development Corp.
 10215 Little Bluent Pkwy.
 Columbia, MD 21044



Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 3377, Registration Date: 6/16/97

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE: 4/10/97

APPROVED: FOR PUBLIC WATER & SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT
Joyce M. Boyd per **Sam** 9/15/97
 County Health Officer ML Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
David Hamilton 9/18/97
 Director Date

Chief, Division of Land Development
David Hamilton 9/17/97
 Chief, Development Engineering Division TC Date

Stormwater Management Facility Notes:
 1. The facility will be privately owned.
 2. The facility will be a retention/detention facility.
 3. The facility has a hazard class of "A".

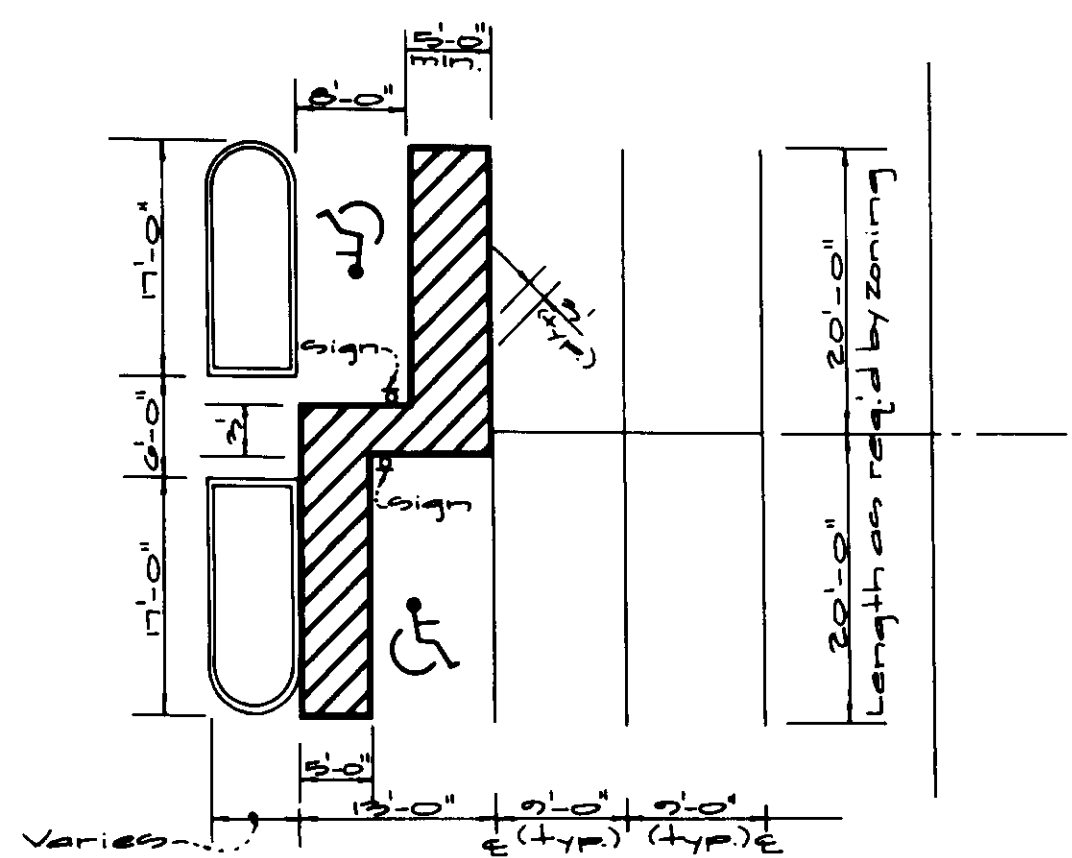
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT: (410) 680-1820 FAX: (301) 421-4186 DES. DRN. W. J. CHK.

DATE	REVISION	BY	APPR.
3/10/16	PROPOSED THIRD AREA FOR DOG PARK ADDED	KCZ	
7/11/97	Add Dog Park	JK	
8/27/97	Show Proposed Stormwater Addition	WJL	
8/27/97	Add Proposed Pond	DSS	
8/27/97	Stormwater Management Plan AS-BUILT (SEE CERT. SHT. 9 OF 15)	WJL	
8/27/97	Remove 12" water utility line and add stormwater addition	WJL	
11/12/97	Rev. Bathing Cage and miniature golf course Add alternate bldg	WJL	

PREPARED FOR:
 The Columbia Association
 10221 Winocopin Circle
 Suite 100
 Columbia, Maryland 21044-2410
 Attn: Dennis Matthey
 Phone: (410) 715-2125

Site Development & Stormwater Management Plan
Harper's Choice Sports Park
 Columbia-VHC 5/11
 Open Space Lots 1 & 2
 Clarksville Election District No. 5
 Howard County, Maryland

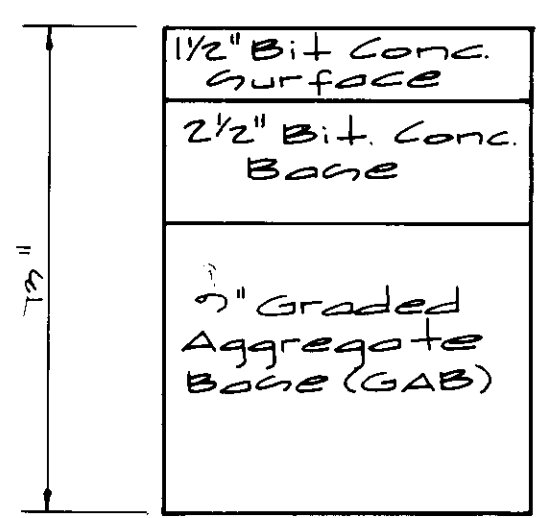
SCALE	ZONING	G. L. W. FILE NO.
1" = 40'	NT	96-072
DATE	TAX MAP No.	SHEET
April 1997	29	2 of 15



Typical Striping of Parking Lot and Handicap Parking Detail
N.T.S.

Note: 4' wide white stripes typical (unless noted otherwise)

Granular Base Alt.



P-2

Paving Sections

Note: Other equivalent paving sections may be approved where approved by a professional soils engineer.

Note: Paving sections indicated are Howard County Std. Sections and are nominal. Actual paving sections may vary due to subgrade conditions.

Note: Information not shown by lamp pole manufacturer.

NUMBER OF BARS A											
11-5	11-6	11-7	11-8	11-9	11-10	11-11	11-12	11-13	11-14	11-15	11-16
3-3	4	5	6	7	8	9	10	11	12	13	14
4-4	5	6	7	8	9	10	11	12	13	14	15
5-5	6	7	8	9	10	11	12	13	14	15	16

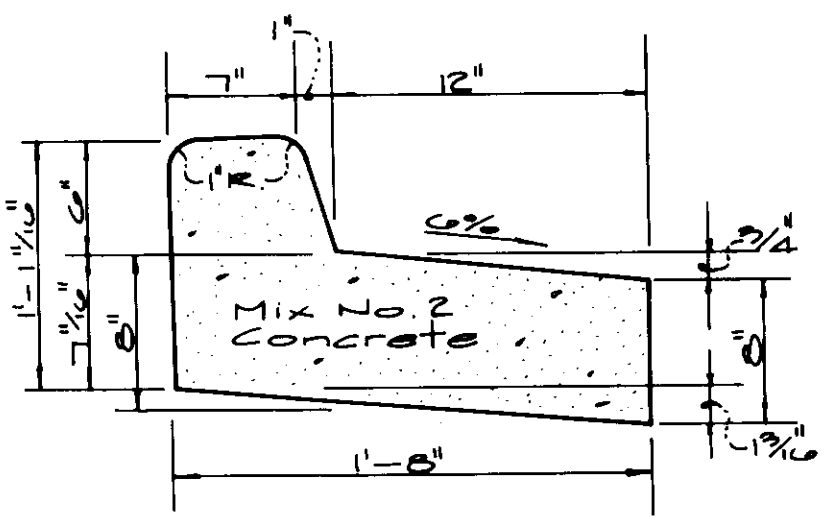
STAIRWAYS		
SLOPE	RISE	STEP
1:12:1	7"	12"-12"
2:1	6"	12"
4:1	4"	15"

FOR OTHER SLOPES, THE APPROX. SPACING OF BARS A IS IN INCHES WILL BE EQUAL TO 3600 DIV. WITH A MIN. SPACING OF 6 IN. N INDICATES NUMBER OF STEPS EXCLUSIVE OF LANDING.

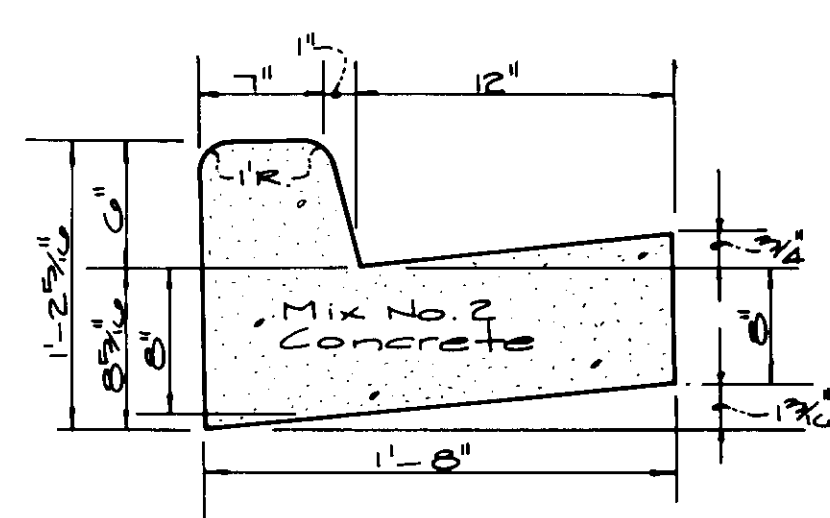
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *Madison B. Raley* 4-15-97
Chf. Dir. of Engr. Date

STANDARD CONCRETE STAIRS

REV. 08/1997
DRAWN BY: V.L. BOLLARD
CHECKED BY: J.L.R.
NO SCALE
67.01



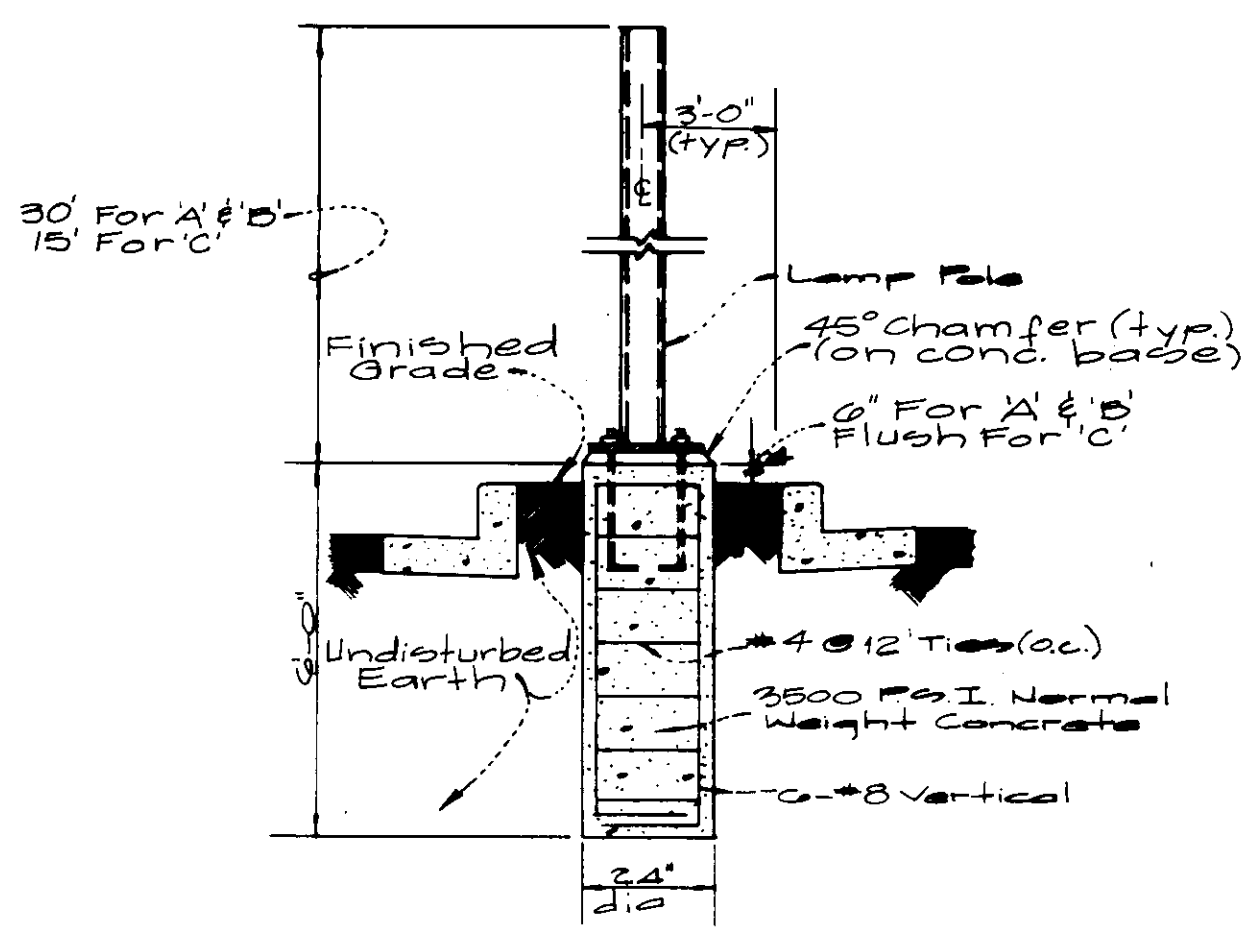
Reverse C' Combination Curb & Gutter
N.T.S.



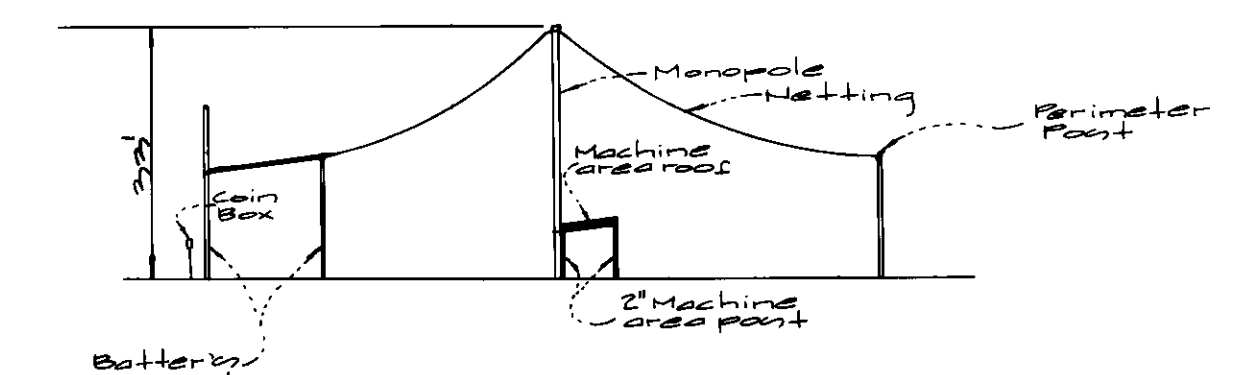
Standard C' Combination Curb & Gutter
N.T.S.



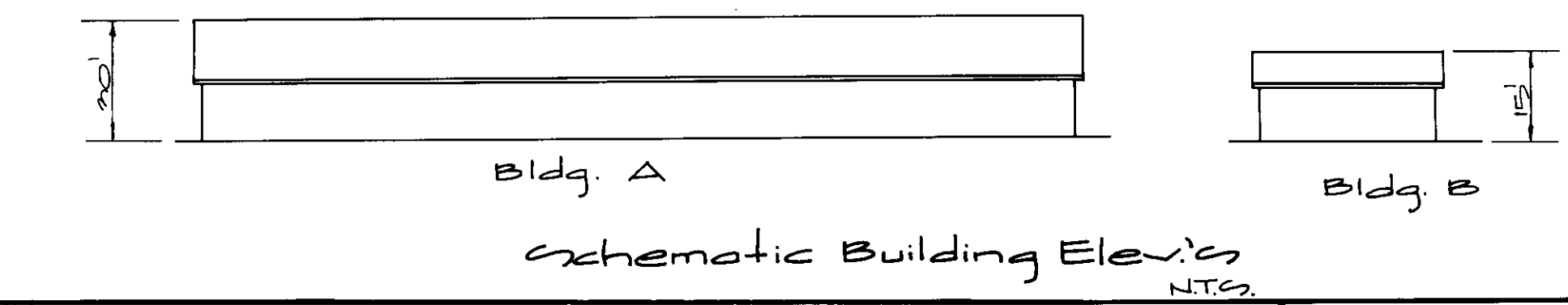
Noose Down Curb Detail
N.T.S.



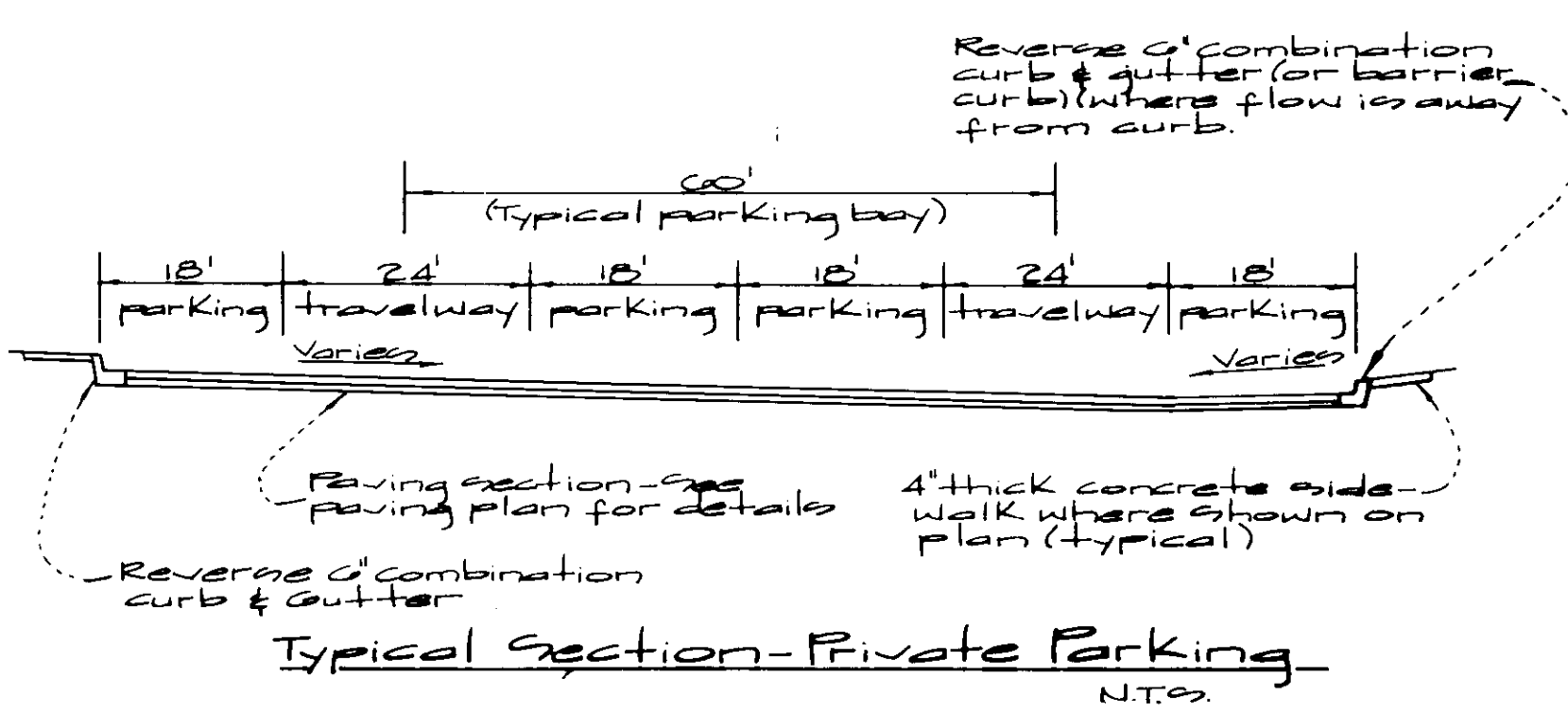
Lamp Pole Base Detail
(Behind curb & gutter) N.T.S.



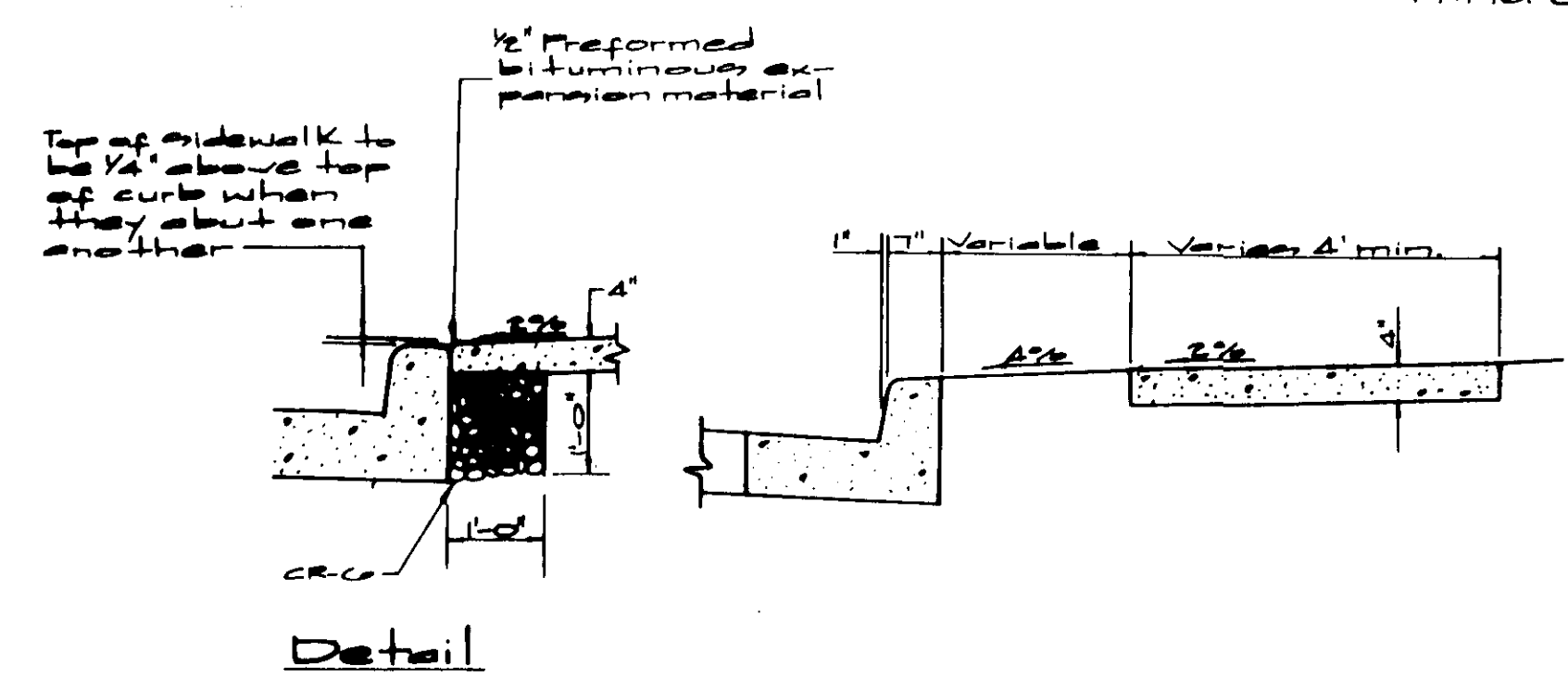
Schematic Batting Cage Elev.
N.T.S.



Schematic Building Elev's
N.T.S.

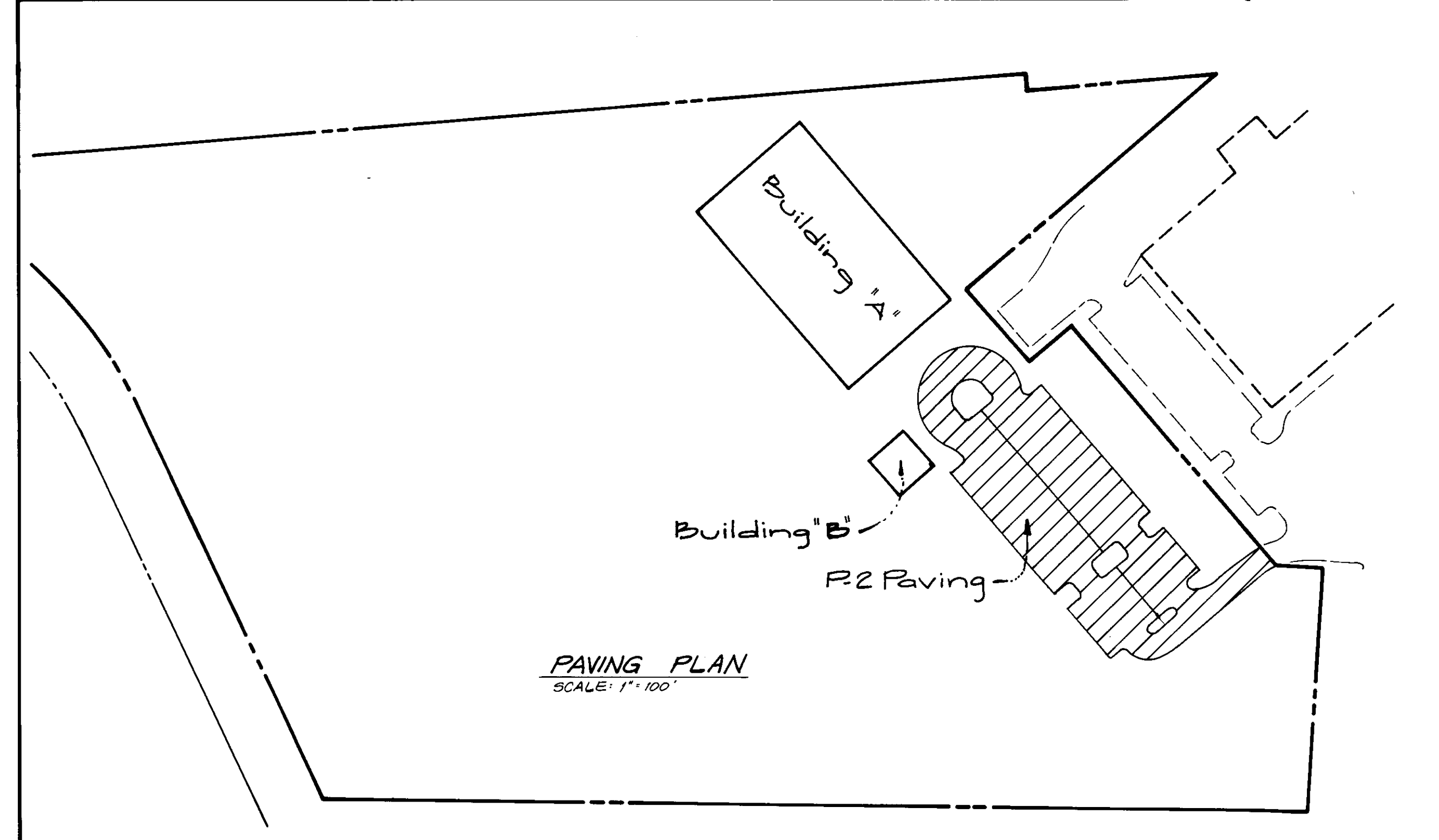


Typical Section - Private Parking
N.T.S.



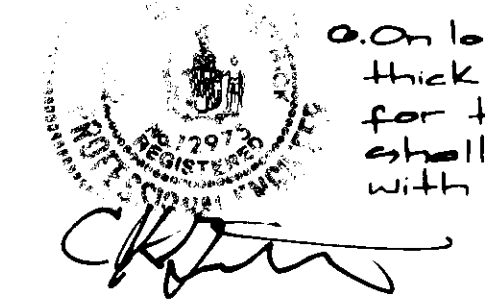
Detail

- Notes:
1. Sidewalk to be scribed in 5' maximum squares.
 2. Expansion joints across the sidewalk not to be more than 15' apart.
 3. 1/2" preformed bituminous expansion material in expansion joints to be kept 1/4" below surface of sidewalk.
 4. Concrete to be mix No. 2.
 5. When sidewalk abuts curb, walk shall be 1/4" above curb with preformed bituminous expansion material between sidewalk and curb and resting on a compacted crushed stone base. See detail A this sheet.
 6. On longitudinal sidewalk grades of 5% or greater, a concrete header, 6" thick and 6" deep below the normal 4" sidewalk thickness shall be constructed for the full width of the sidewalk at intervals of 40 feet. The headers shall be placed at expansion joint locations and shall be monolithic with the sidewalk.



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 4/10/97

Approved: For Public Water & Sewerage Systems,
Howard County Health Department
Doreen M. Boyd County Health Officer Date: 9/5/97
Approved: Howard County Dept. of Planning &
Joseph R. Smith Director Date: 9/10/97
Candy Hamilton Chief, Division of Land Development Date: 9/10/97
William Chief, Development Engineering Div. Date: 9/5/97



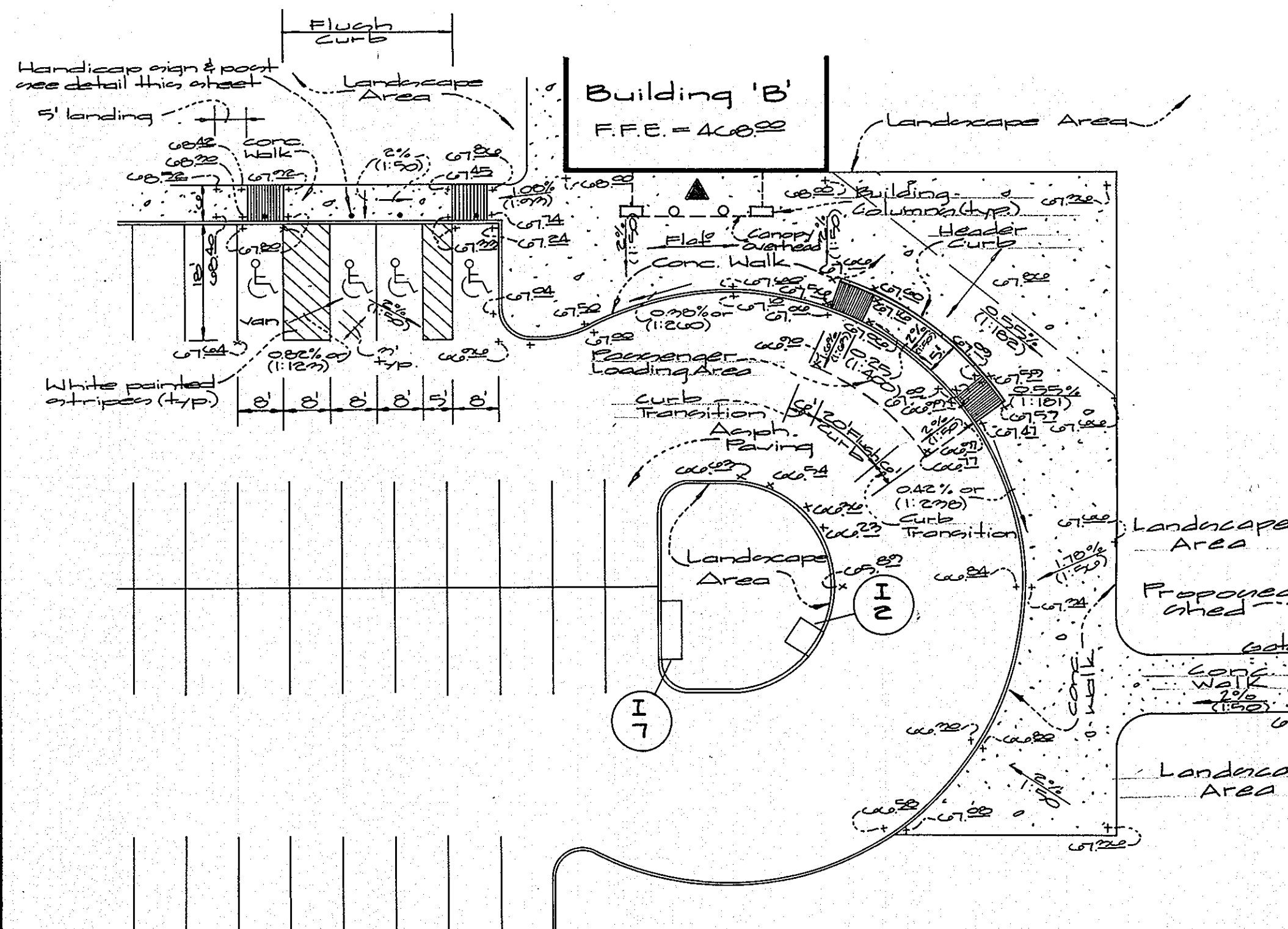
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE: (301)421-4024 NO VA (301)989-2524 BALTO (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APPR.

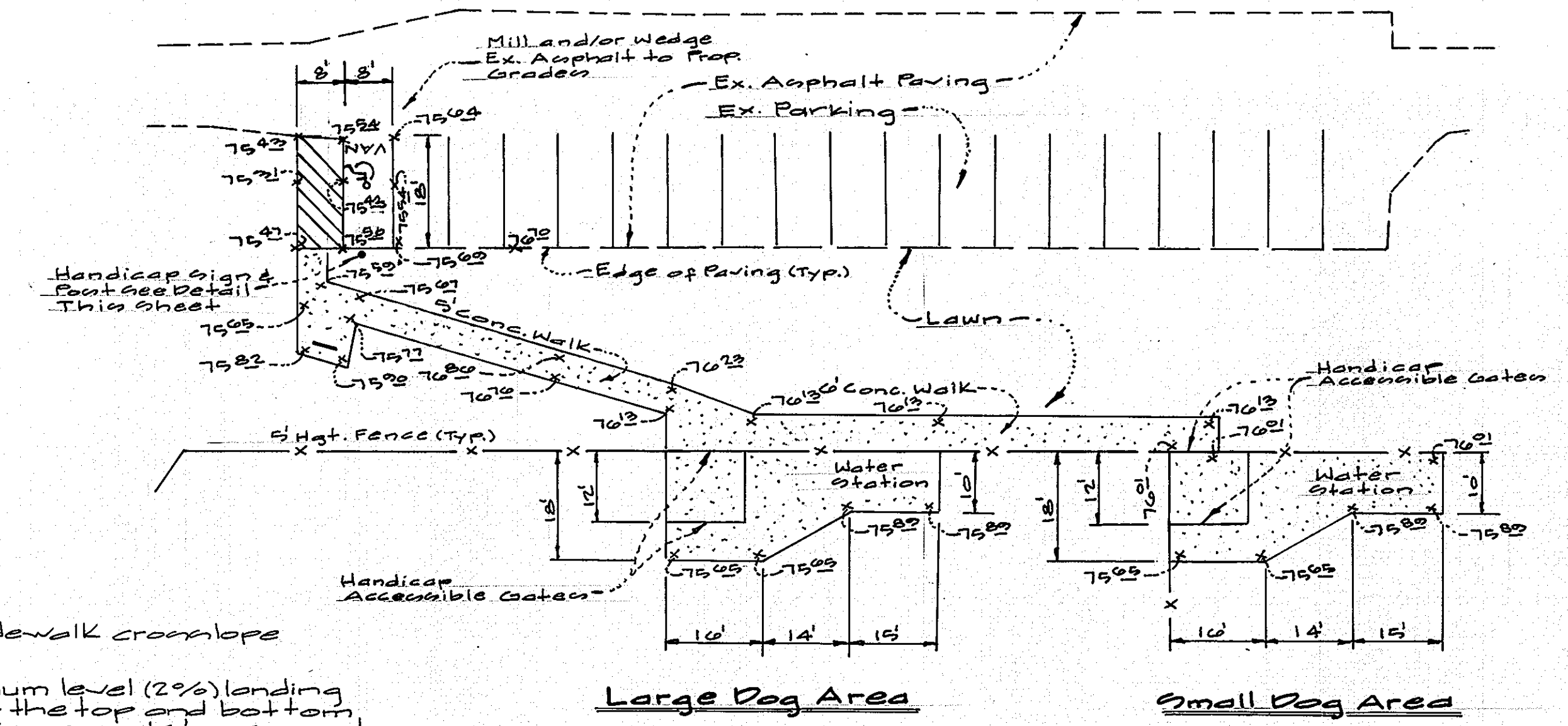
PREPARED FOR:
The Columbia Assoc.
10221 Wincopin Circle
Suite 100
Columbia, MD 21044-3410
Attn: Dennis Matthey
Phone: (410)713-3125

Site Details & Paving Plan
Harper's Choice Sports Park
Columbia - VHC 5/11
Open Space Lots 1 & 2
Clarksville Election District No. 5
Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE NO.
	As shown	NT	76-072
DRN:	DATE	TAX MAP NO.	SHEET
HKJ	April 1997	27	3 of 15
CHK.:			

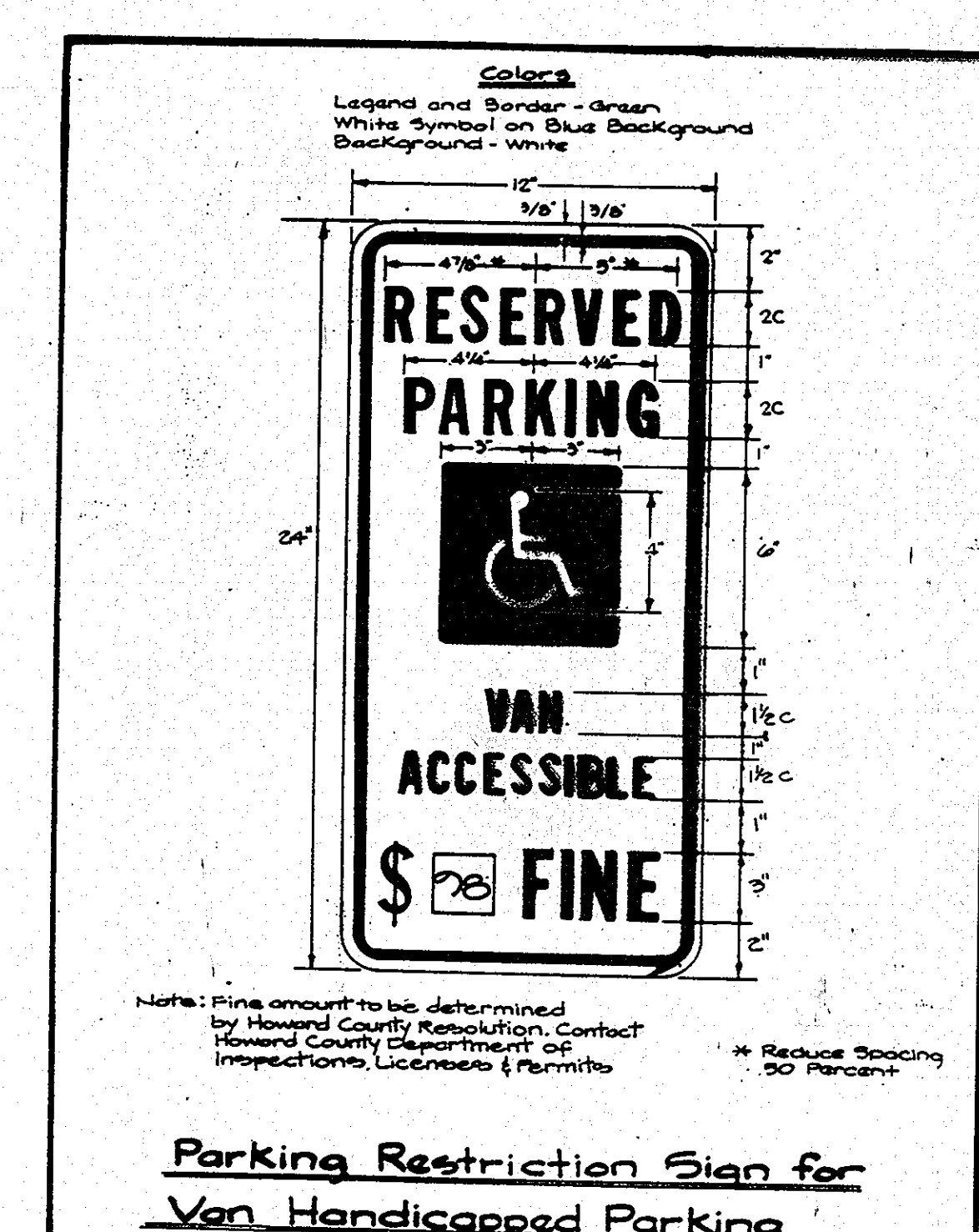
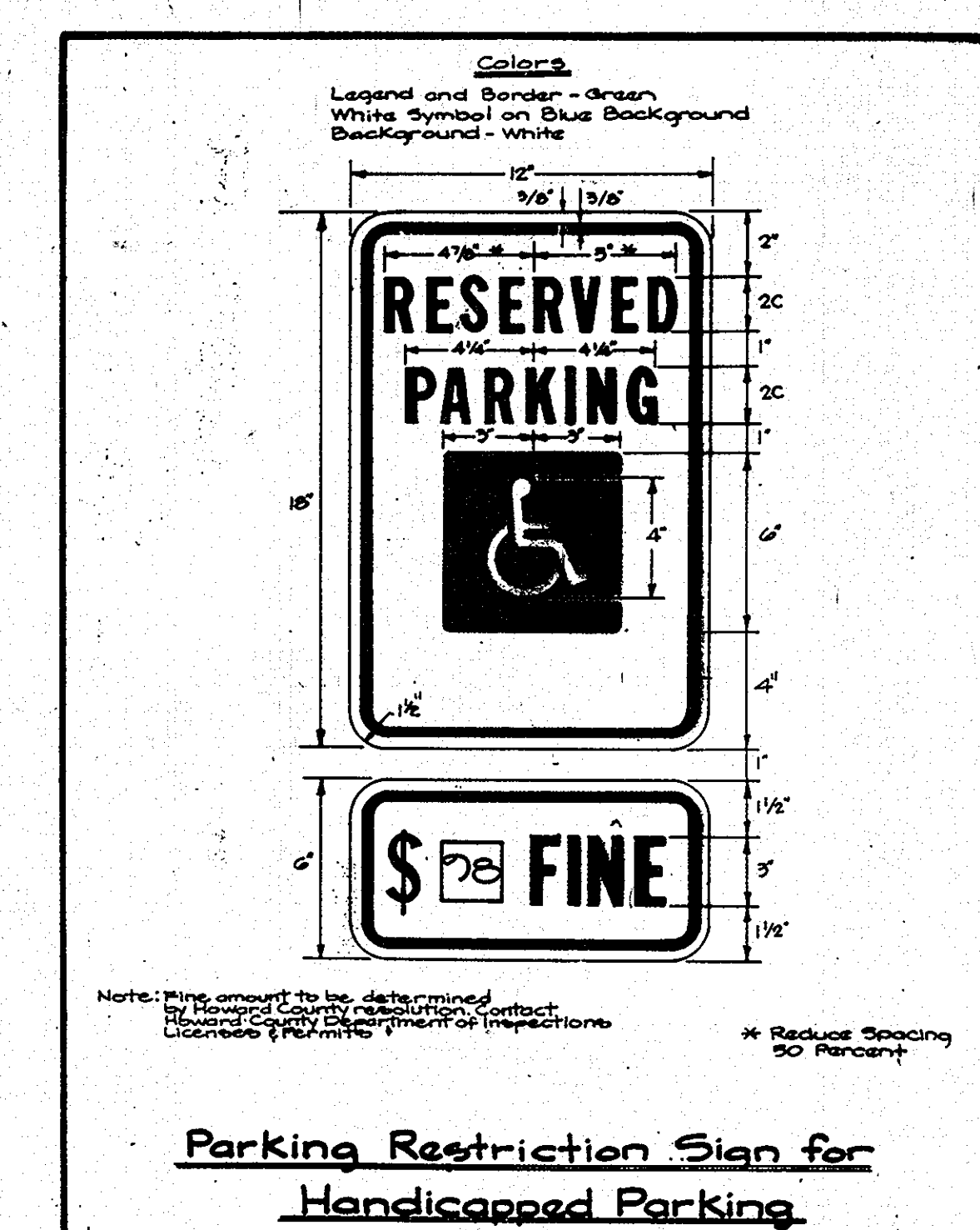
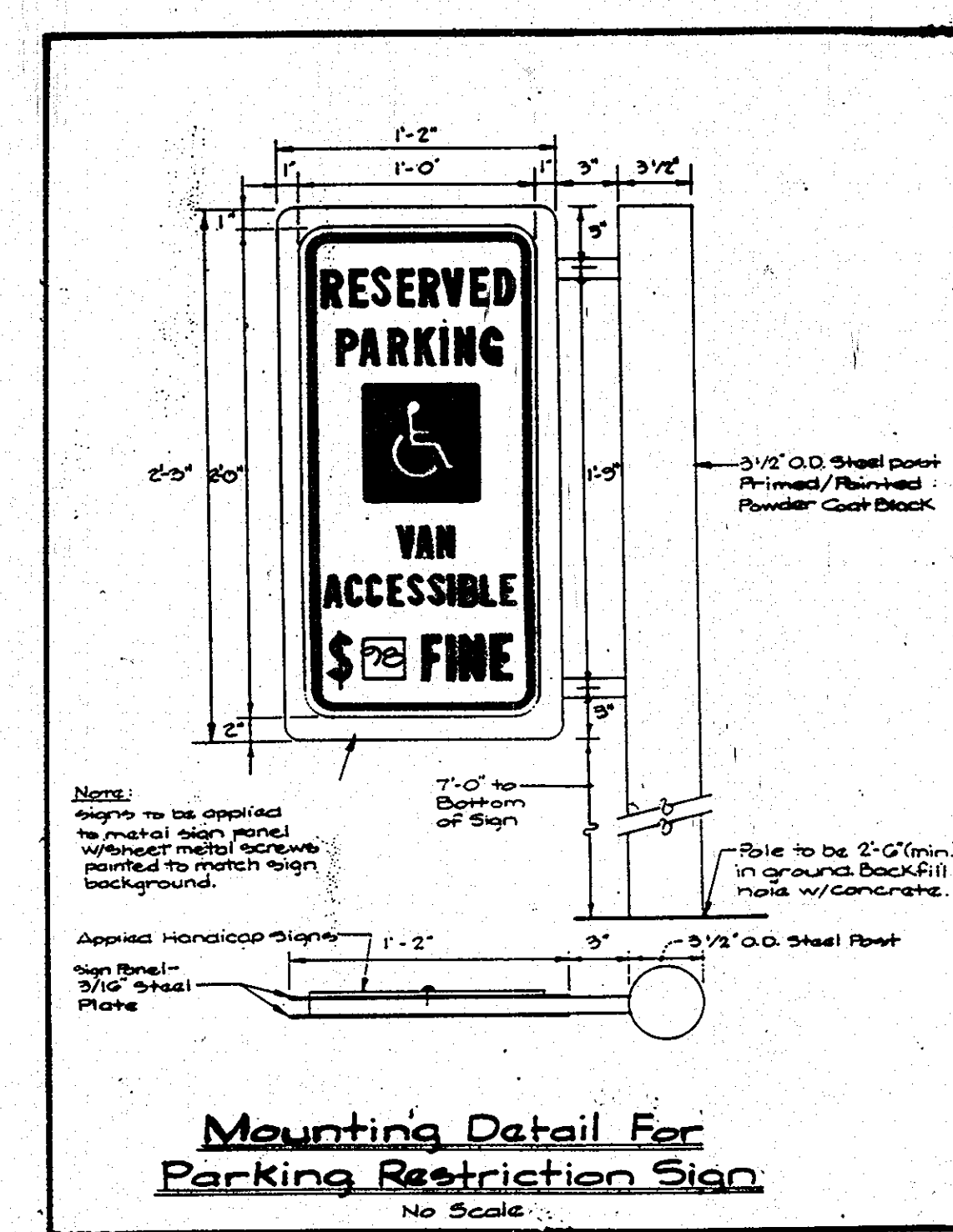
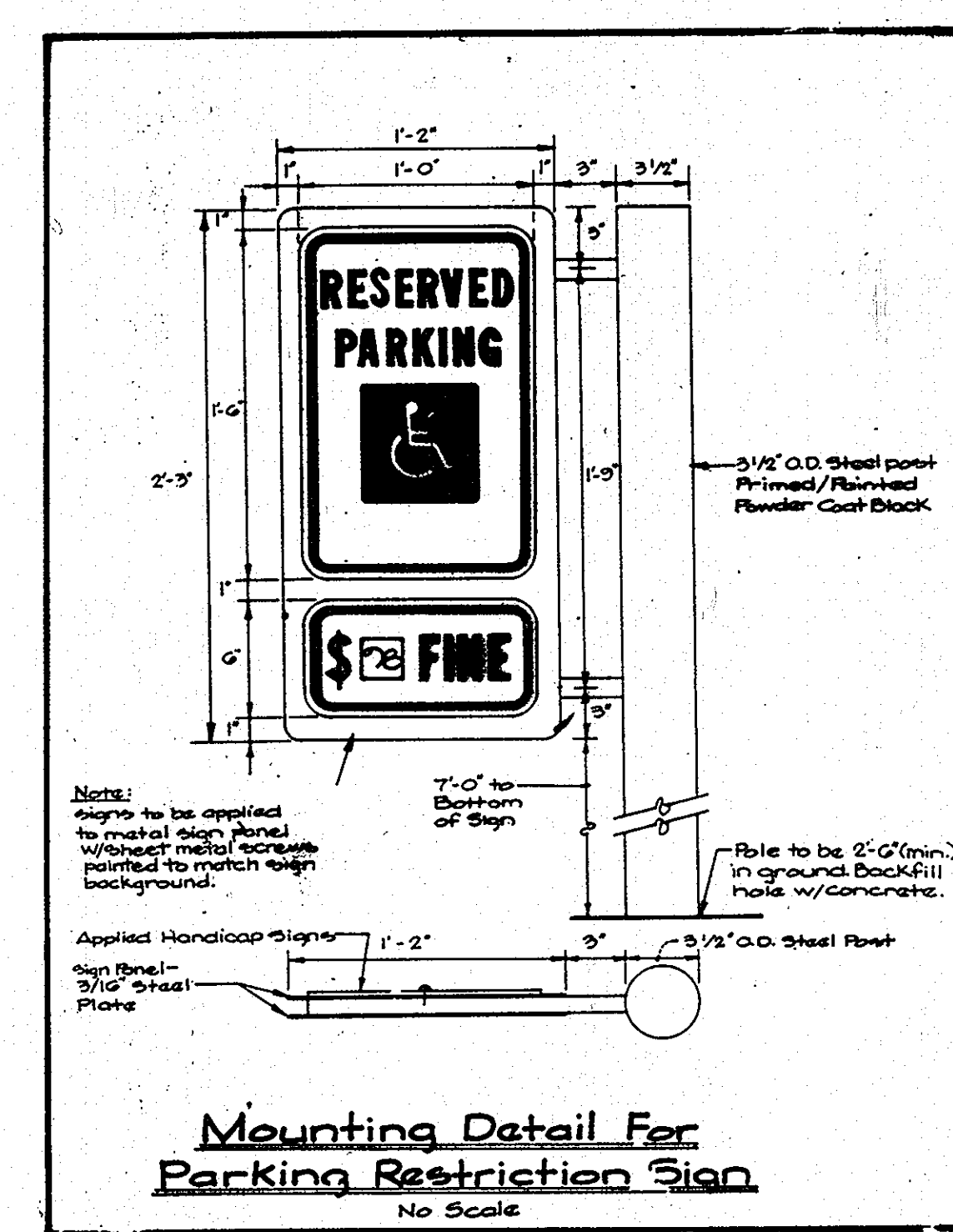
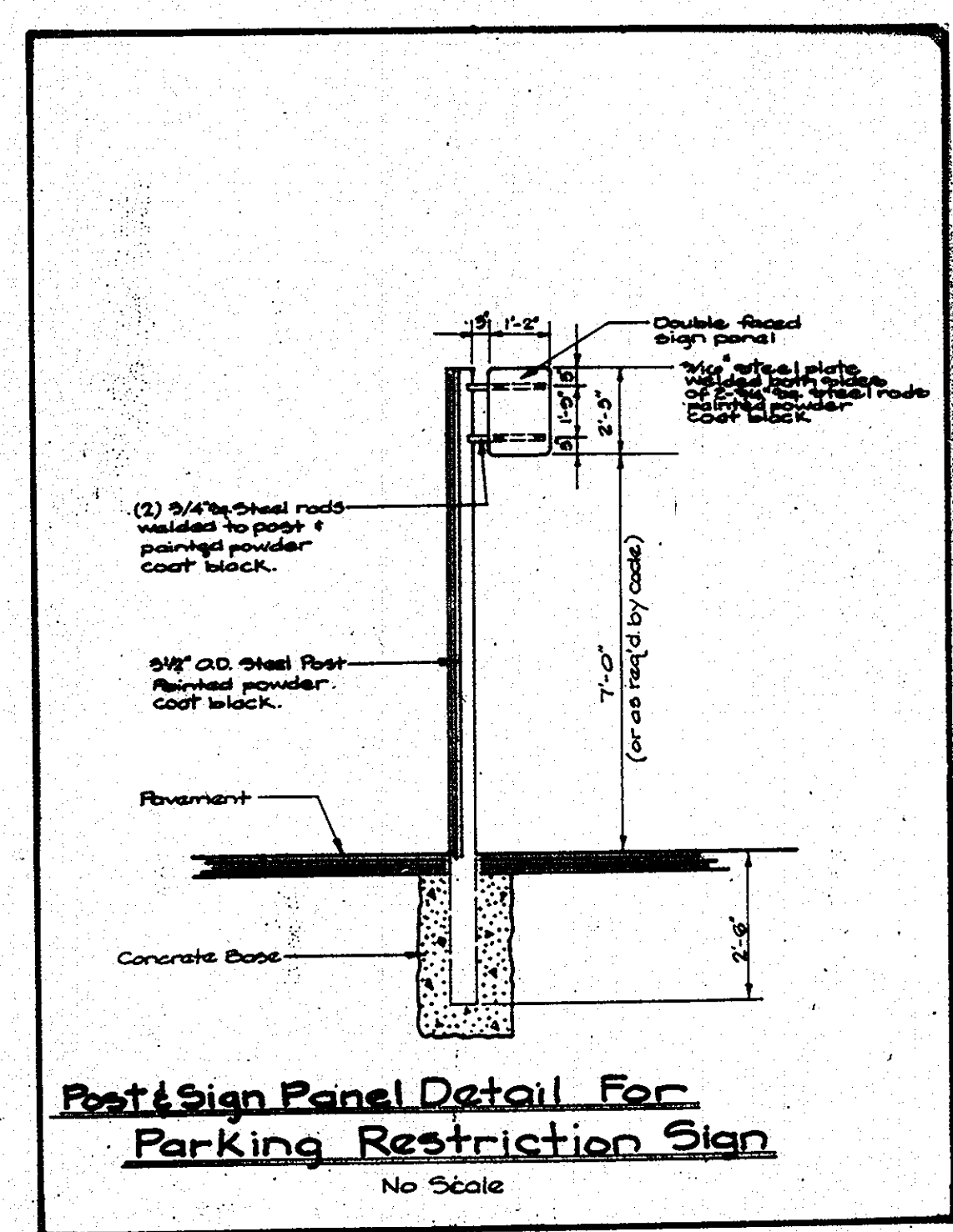


- Notes**
1. Maximum sidewalk crosslope is 2% (1:50).
 2. A 5'x5' minimum level (2%) landing is required at the top and bottom of all ramps, Ramps and slopes greater than 2%.
 3. Maximum slope in any direction of the handicap accessible parking is 2%.



Handicap Accessibility Detail
Scale: 1" = 20'

Handicap Accessibility Detail
Scale: 1" = 20'



APPROVED
PLANNING BOARD
of HOWARD COUNTY

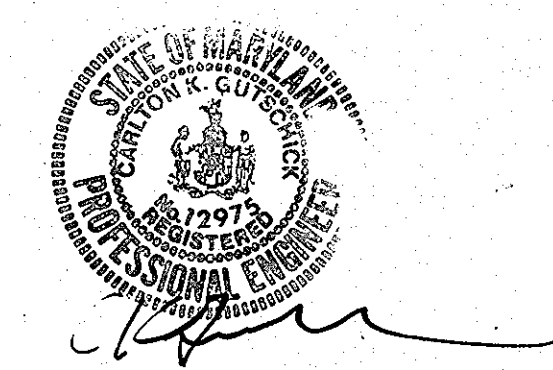
DATE: 4/10/97

Approved: For Public Water & Sewerage Systems, Howard County Health Dept.
James M. Kondrup 9/15/97
County Health Officer - HR

Approved: Howard County Dept. of Planning & Zoning
James S. Koster 9/10/97
Director

Cindy Hamilton 9/10/97
Chief, Div. of Land Development

Chad Williams 9/15/97
Chief, Development Engineering Div.



GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD. 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

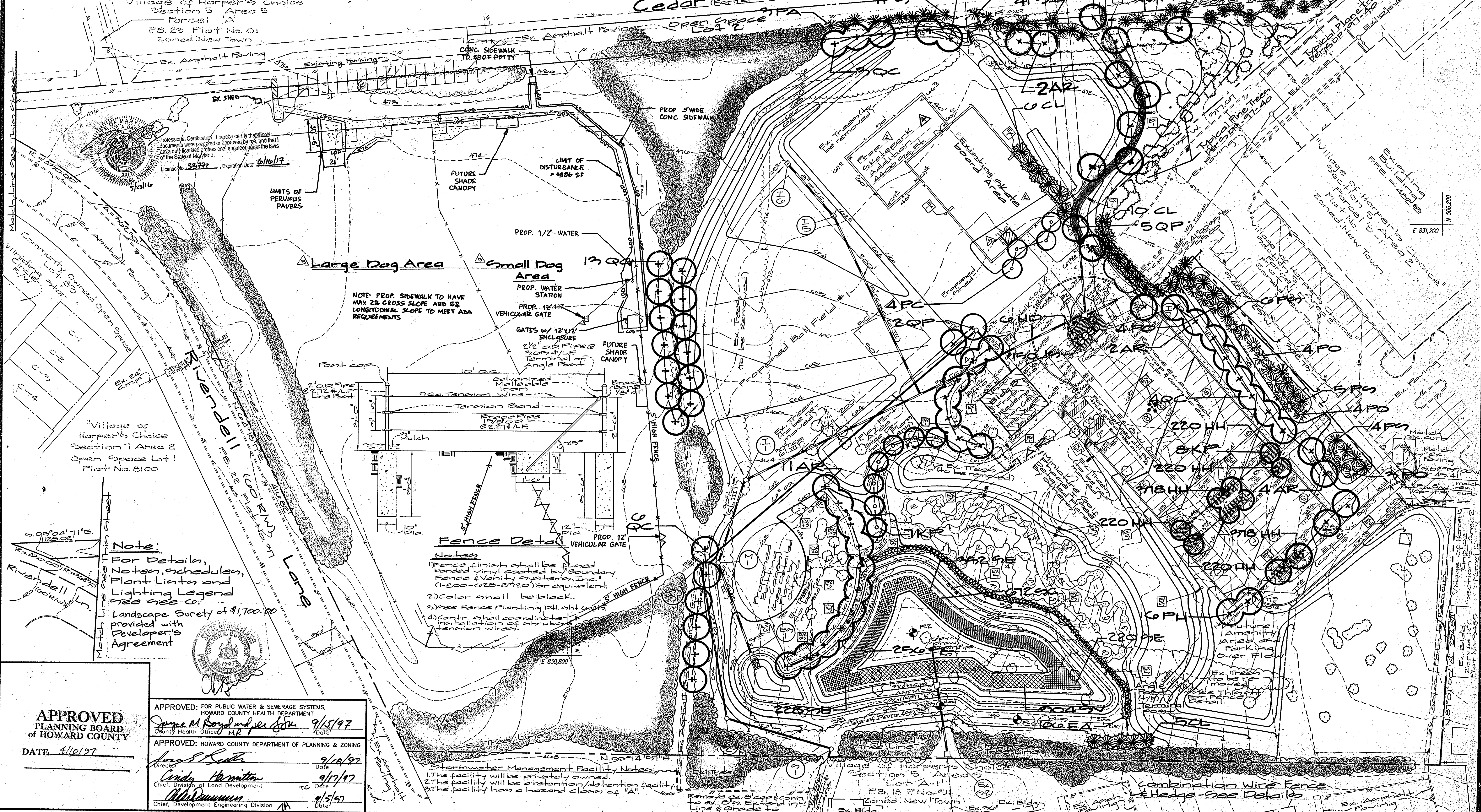
DATE	REVISION	BY	APPR.
7/11/97	Add Dog Park Accessibility Detail. A	gt	
7/27/97	Remove Bldg. "A" & Add Skateboard Area A	wesj	
11/2/97	Add Bldg. B columns	wesj	

PREPARED FOR:
The Columbia Association
10221 Wincopin Circle
Suite 100
Columbia, Maryland 21044-2410
Attn: Dennis Mathey
Phone: (410) 715-2125

Handicap Accessibility Details
Harper's Choice Sports Park
Columbia-VHC 5/11
Open Space Lots #2
Clarksville Election District No. 5
Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE NO.
K.L.F.	As shown	NT	90072
CHK.:	DATE	TAX MAP NO.	SHEET
	April 1997	27	4 of 15

This Plan For Landscape Purposes Only!



Professional Certification documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License No. 33732, Expiration Date: 6/16/17

Note:
 For Details, Notes, Schedules, Plant Lists and Lighting Legend see see Co.
 Landscape Society of \$1,700.00 provided with Developer's Agreement

Fence Detail
 Notes:
 1) Fence finish shall be fused bonded vinyl coated by Boundary Fence & Varsity Systems, Inc. (1-800-628-8720) or equivalent.
 2) Color shall be black.
 3) See Fence Planting Plan sheet.
 4) Contr. shall coordinate installation of shrubs & tension wires.

Stormwater Management Facility Notes:
 1) The facility will be privately owned.
 2) The facility will be retention/detention facility.
 3) The facility has a hazard class of "A".

APPROVED PLANNING BOARD OF HOWARD COUNTY
 DATE: 4/16/97

APPROVED: FOR PUBLIC WATER & SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 James M. Boydland per [Signature] 9/15/97
 County Health Officer MR Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 9/16/97
 Director Date

[Signature] 9/17/97
 Chief, Division of Land Development TC Date

[Signature] 9/15/97
 Chief, Development Engineering Division GJ Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20886
 TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. W. J. CHK.

DATE	REVISION	BY	APPR.
3/3/16	PROPOSED THIRD AREA FOR DOG PARK ADDED	KCB	WJL
7/11/16	Add Dog Park	WJL	WJL
6/26/16	Show Proposed Skatepark Addition	WJL	WJL
7/20/16	Add Proposed shed	WJL	WJL
6/16/16	Remove bldg 'A' & Add skateboard Area, Rev. Trees in Vicinity	WJL	WJL
6/16/16	Revise Lighting	WJL	WJL

PREPARED FOR:
 The Columbia Association
 10221 Wincopin Circle
 Suite 100
 Columbia, Maryland 21044-9410
 Attn: Dennis Matley
 Phone: (410) 715-2125

Landscape/Lighting Plan
Harper's Choice Sports Park
 Columbia-VHC5/11
 Open Space Lots 1&2
 Clarksville Election District No. 5
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 40'	NT	00-012
DATE	TAX MAP No.	SHEET
April, 1997	29	5 of 13

ENGINEER'S CERTIFICATE

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

John W. Gilman 8/29/97
John W. Gilman 8/29/97
 Date: 8/29/97
 E 831,400

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/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

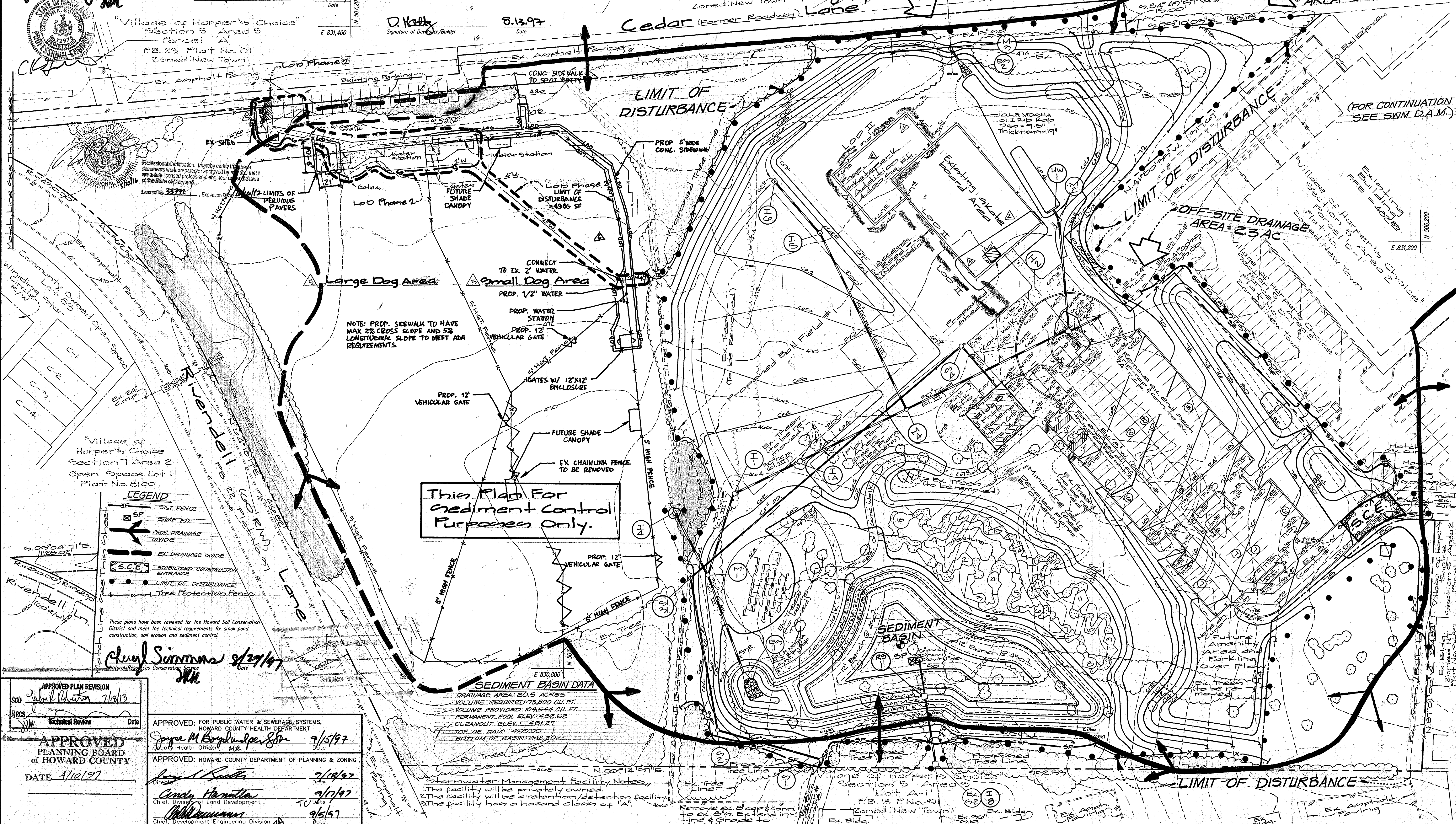
D. Kelly 8.13.97
 Signature of Developer/Builder
 Date

Harper's Choice Middle School & Howard County Special Education Center
 "Village of Harper's Choice" Section 5 Area 2
 Lot 3
 Plat No. 4516 & 4517
 Zoned: New Town

OFF-SITE DRAINAGE AREA = 2.3 AC. (FOR CONTINUATION SEE SWM D.A.M.)

OFF-SITE DRAINAGE AREA = 0.4 AC.

OFF-SITE DRAINAGE AREA = 2.3 AC. (FOR CONTINUATION SEE SWM D.A.M.)



APPROVED PLAN REVISION

SCD *John W. Gilman* 7/15/13
 Technical Review Date

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE: 11/19/97

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

James M. Boudreau 9/5/97
 County Health Officer, MD Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Greg A. Beatty 9/18/97
 Director Date

Cindy Hamilton 9/17/97
 Chief, Division of Land Development Date

William 9/5/97
 Chief, Development Engineering Division Date

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866

TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 DES. DRN. CHK.

DATE	REVISION	BY	APPR.
3/3/16	PROPOSED THIRD AREA FOR DOG PARK ADDED		
7/11/13	Add Dog Park Phase 2 Sediment Control		
6/26/09	show Proposed Skatepark Addition		
7/27/07	Add Proposed Pond		
6/12/02	Remove Bldg. A & Add Skateboard Area		
11/2/00	Loc. loc. of ex. Inlet I-1A, 5th material & miniature gate labels		

PREPARED FOR:

The Columbia Association
 10221 Wincopin Circle
 Suite 100
 Columbia, Maryland 21044-7410
 Attn: Bennie Matney
 Phone: (410) 715-2125

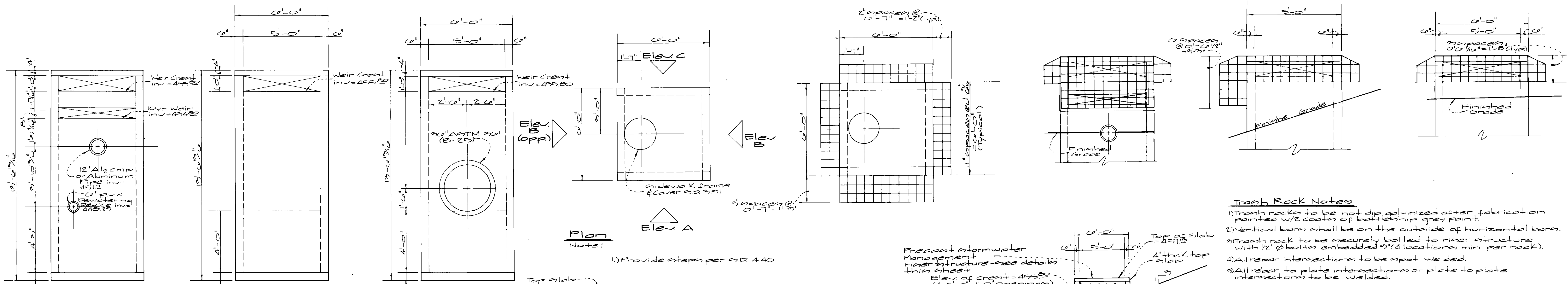
Sediment Control Plan

Harper's Choice Sports Park

Columbia-VHC 5/11
 Open Space Lots 1&2
 Clarksville Election District No. 5
 Howard County, Maryland

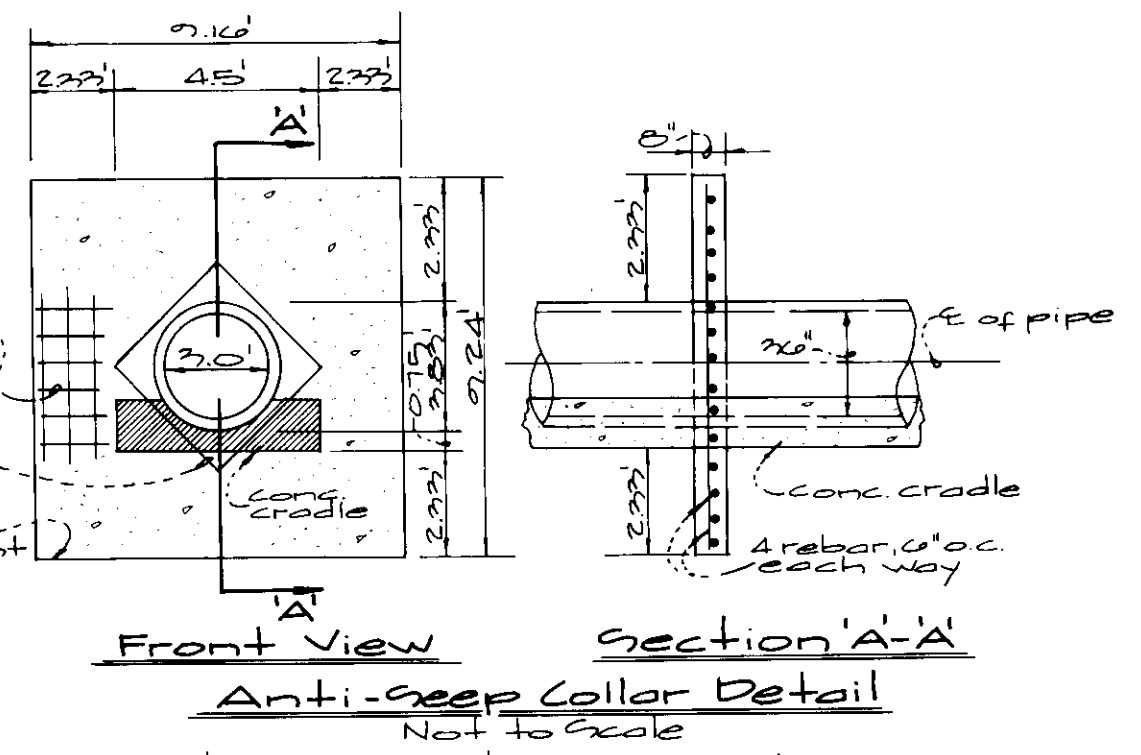
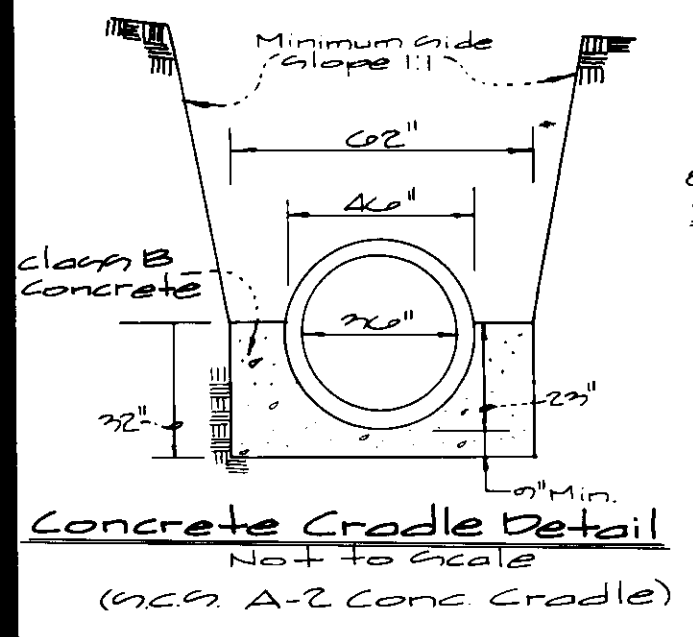
SCALE	ZONING	G. L. W. FILE No.
1" = 40'	NT	90-072
DATE	TAX MAP No.	SHEET
April, 1997	27	7 of 15

SDP-97-75



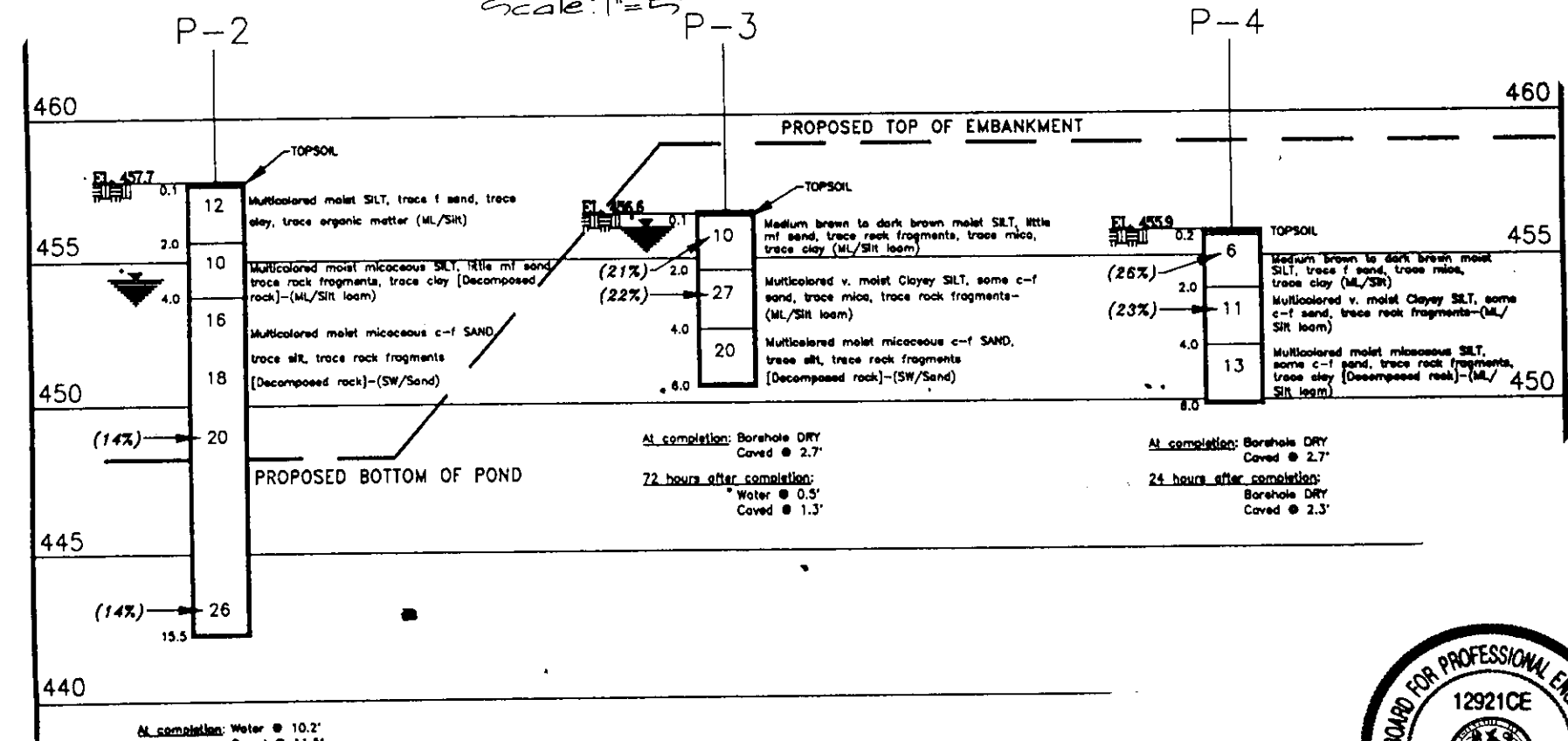
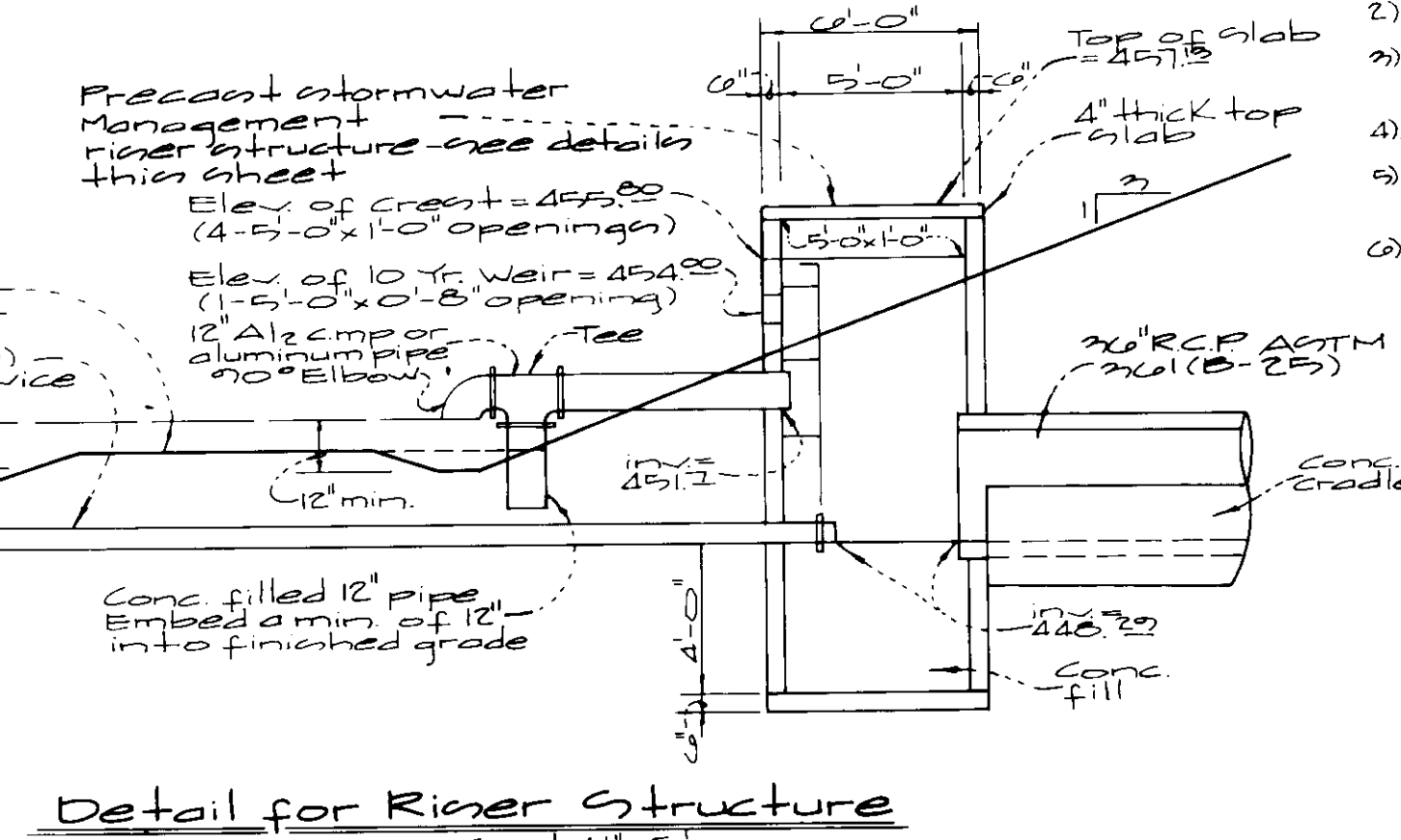
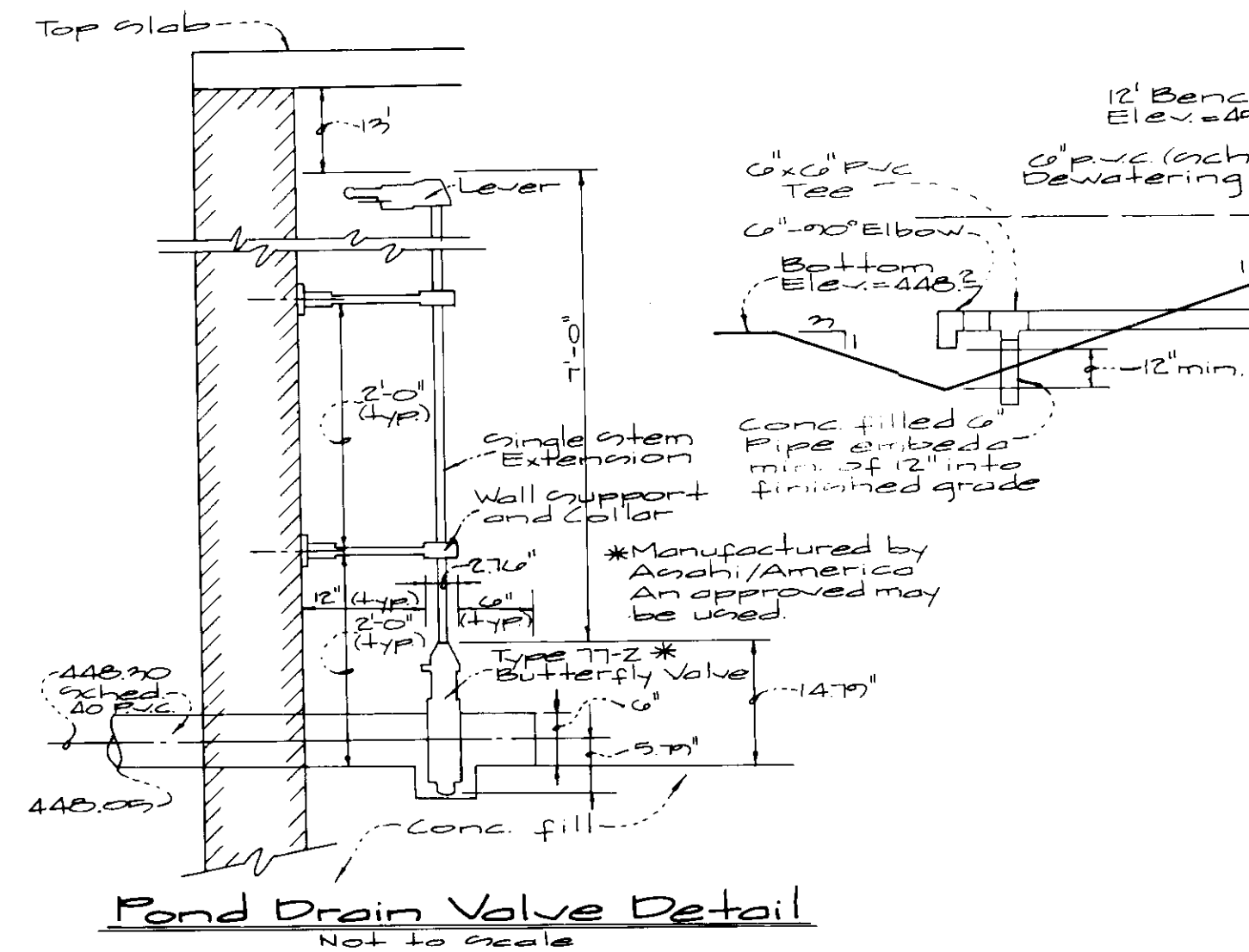
Trash Rack Notes

- 1) Trash racks to be hot dip galvanized after fabrication painted w/2 coats of battlebalm grey paint.
- 2) Vertical bars shall be on the outside of horizontal bars.
- 3) Trash rack to be securely bolted to riser structure with 1/2" Ø bolts embedded 3" (4 locations min. per rack).
- 4) All rebar intersections to be spot welded.
- 5) All rebar to plate intersections or plate to plate intersections to be welded.
- 6) Minimum opening size 6"x6".



Notes for Anti-creep Collar

- 1) Four concrete to undisturbed earth.
- 2) Remove sheeting before pouring concrete.
- 3) FC = 4000 psi @ 28 days
- 4) Four collars with pipe in place
- 5) Backfill evenly on both sides of collars.
- 6) Locate collars a min. of 2' from pipe joints.



DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

Signature of Developer/Builder: *D. Magg* Date: *8.13.97*

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/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Signature: *David Swicher* Date: *8-13-97*

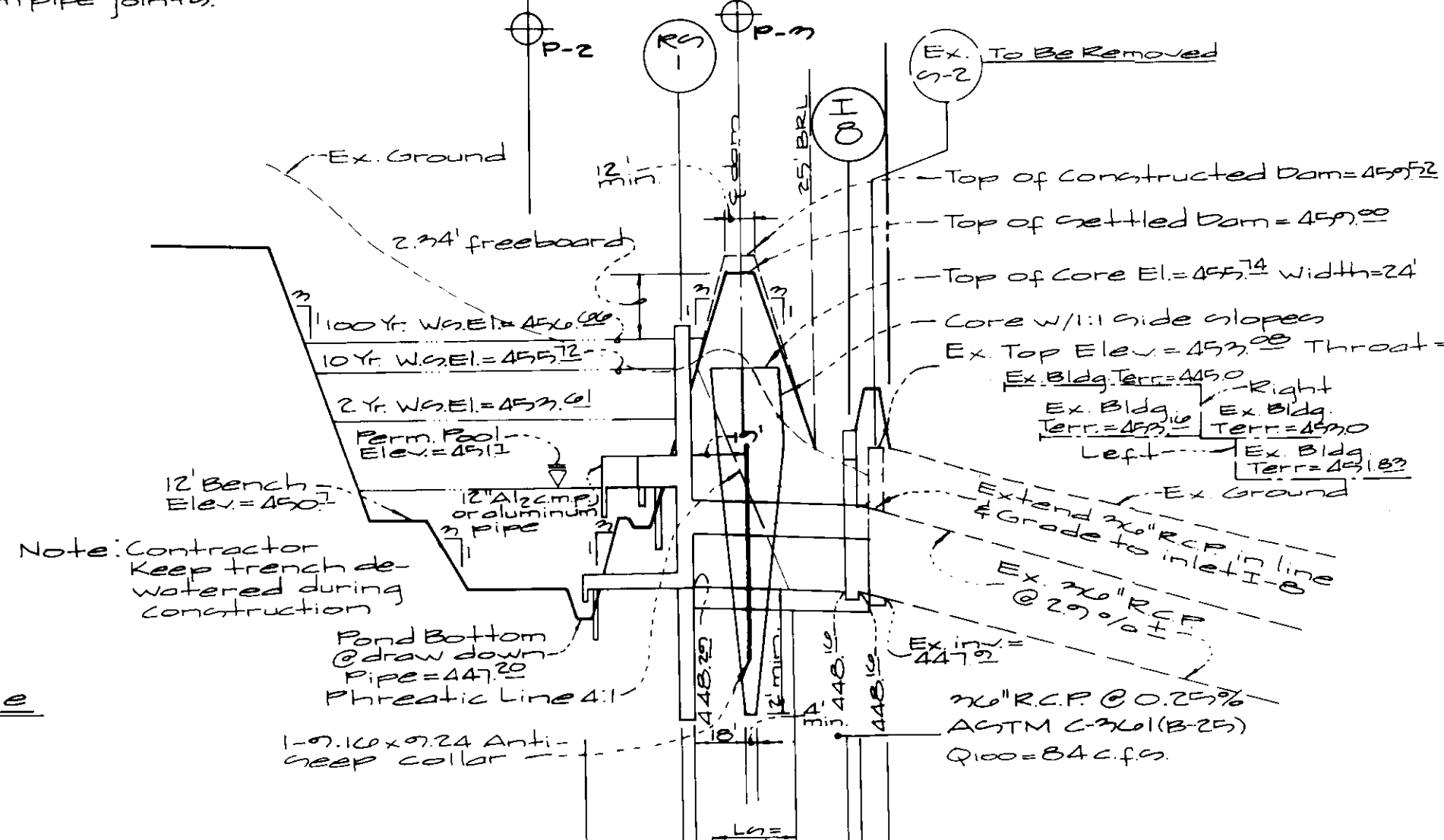
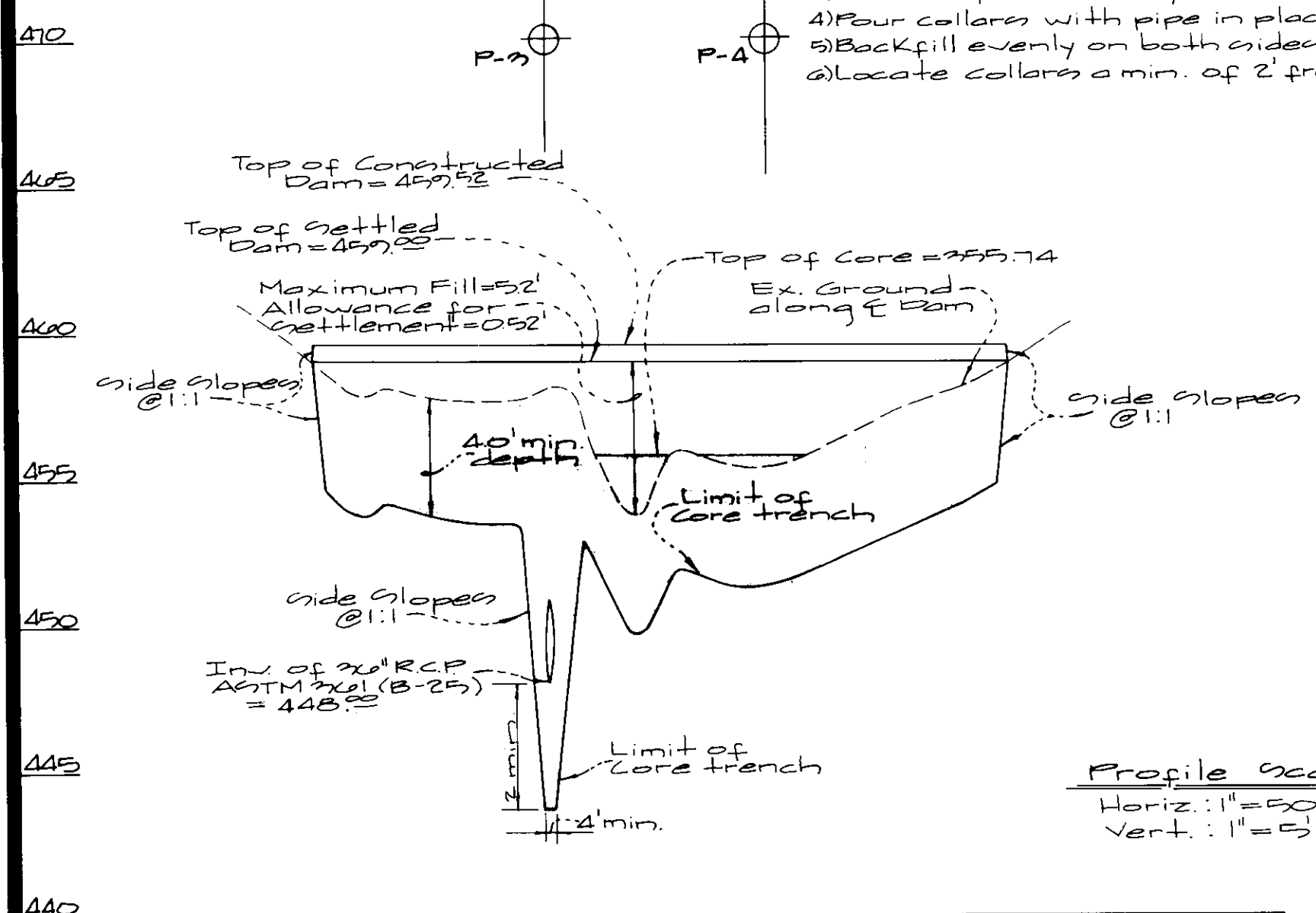


These Plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

Signature: *Robert W. Ziehm* Date: *8/29/97*

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.

Signature: *Cheryl Simmons* Date: *8/29/97*



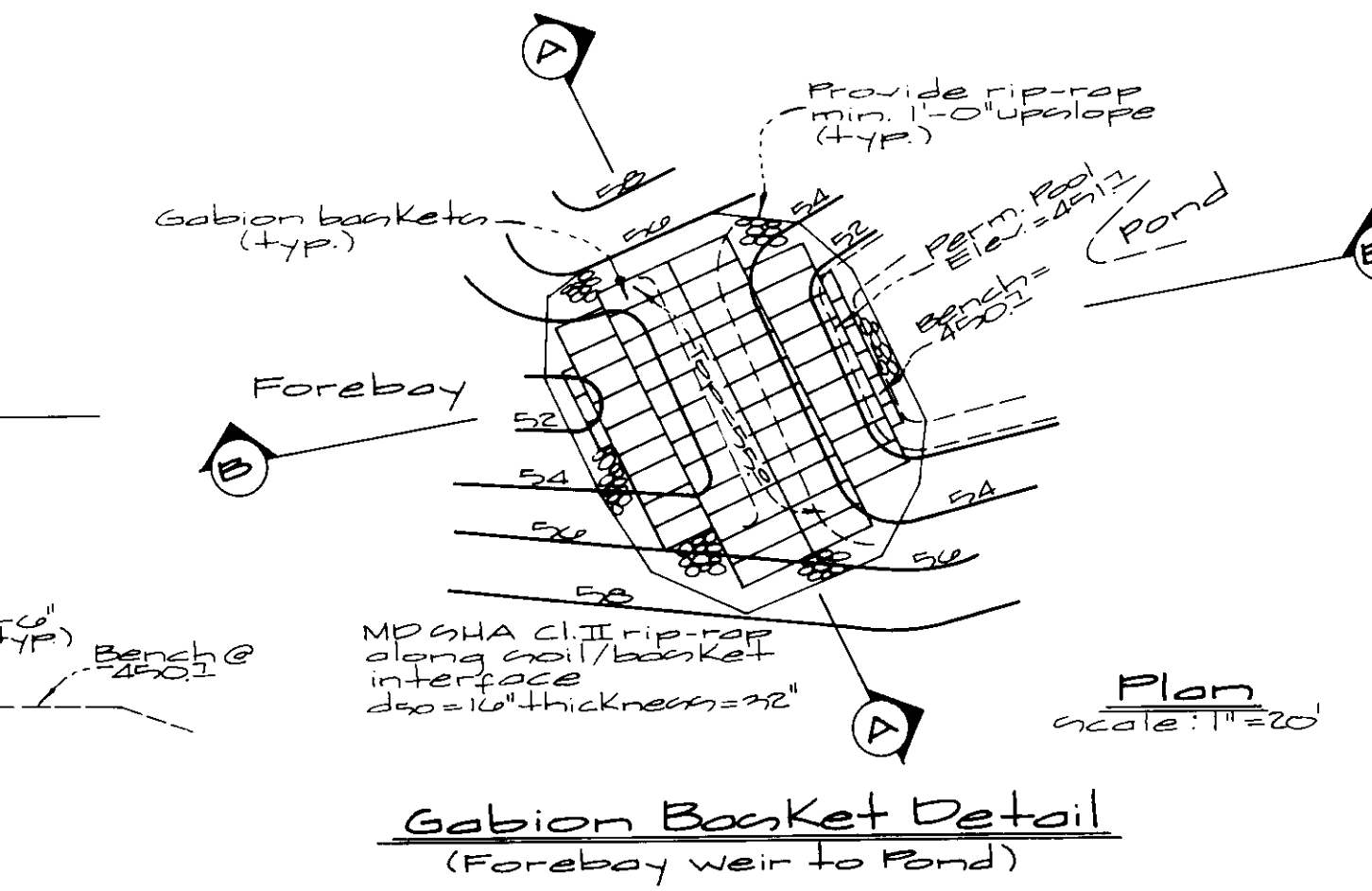
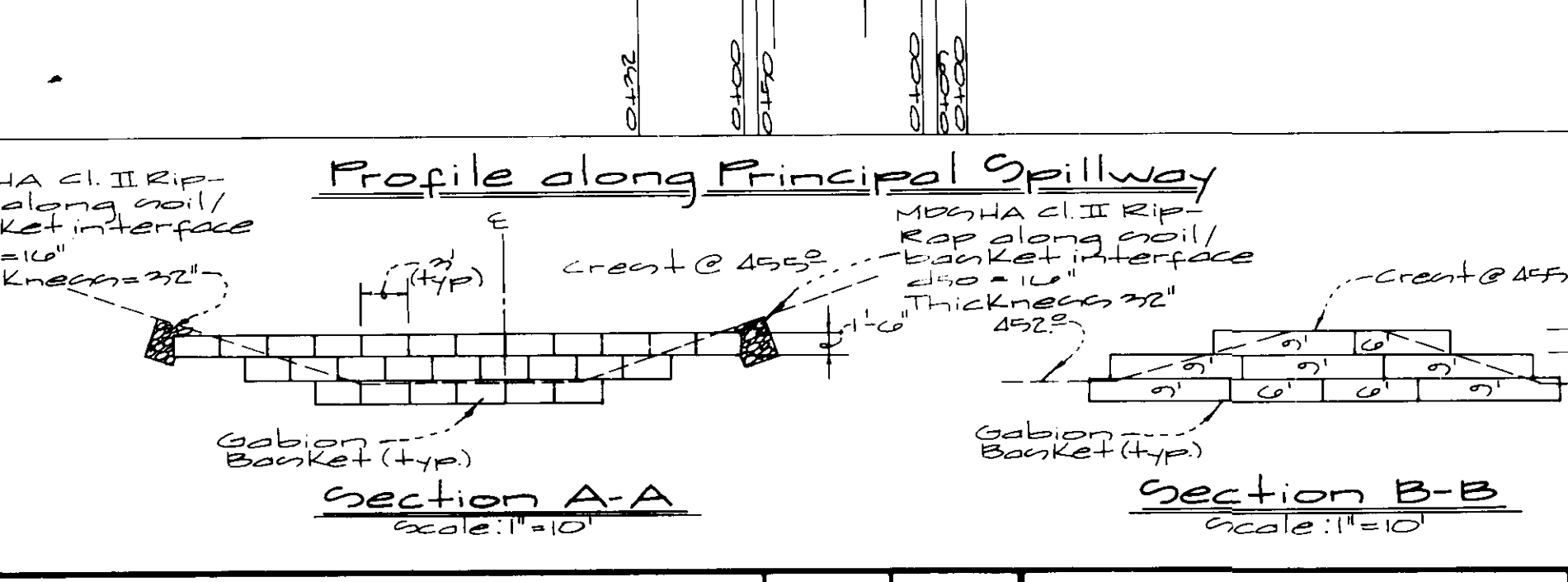
APPROVED PLANNING BOARD
HARPER'S CHOICE SPORTS PARK

Approved: For Public Water Sewerage Systems
Howard County Health Dept.
Joyce M. Boyd per *John* 9/15/97
County Health Officer Date

Approved: Howard County Dept. of Planning & Zoning
James R. Smith 9/18/97
Director Date

Candy Hamilton 9/17/97
Chief, Div. of Land Development Date

Michael 9/15/97
Chief, Development Engineering Div. Date



GW GUTSCHICK LITTLE & WEBER, P.A. CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS 3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD 20886 TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186	DATE	REVISION	BY	APP'R.	PREPARED FOR: The Columbia Association 10221 Winopin Circle Suite 100 Columbia, Maryland 21044-2410 Attn: Dennis Matley Phone: (410) 713-7125	Stormwater Management Details Harper's Choice Sports Park Columbia-VHC 5/11 Open Space Lots 1 & 2 Clarksville Election District No. 5 Howard County, Maryland	DES.:	SCALE:	ZONING:	G.L.W. FILE NO.:
							As shown	NT	28072	
							DATE:	TAX MAP NO.:	SHEET:	
							Apr. 1997	27	9 of 15	

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation

Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas to be covered by the 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. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.

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

Earth Fill

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.

Placement - Area on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated in to the embankment.

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 traversed by not less than one tread track of the equipment or 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 will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 90% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99.

Cut Off Trench - The cutoff trench shall be excavated into impervious material 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 below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Structure Backfill

Backfill adjacent to pipes or structures 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 manually directed 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 equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for 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. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plast-Cote, Bloc-Klad, and Bell-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
- Materials - (Aluminum Coated Steel Pipe)** - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Material - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

- 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.

- 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 & riser are metal. 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.

All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with 0-ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using rods and lugs. A 12" wide by 3/8" thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24".

Helically corrugated pipe shall have either continuously welded seams or have lock seams.

- 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.
- Backfilling** shall conform to "Structure Backfill".
- Other details** (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

- Materials** - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.
- Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its outside diameter with a minimum thickness of 3 inches, or as shown on the drawings.
- Laying pipe** - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 2 feet from the riser.

- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be shown on the drawings.

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Materials** - PVC pipe shall be PVC - 1120 or PVC - 1220 conforming to ASTM D-1785 or ASTM D-2241.
- Joints and connections** to anti-seep collars shall 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.
- Backfilling shall conform to "Structure Backfill".
- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

Rock Riprap

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.

The rip rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.

Care of Water during Construction

All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.

Stabilization

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

Erosion and Sediment Control

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.

SEDIMENT CONTROL NOTES

- 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. (410) 313-1855
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2017 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 7 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 2017 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (B-4-9) and mulching (B-4-9). Temporary stabilization, with mulch alone, can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:**

Total Area of Site	: 15.26	Acres
Area Disturbed	: 10.1	Acres
Area to be roofed or paved	: 2.5	Acres
Area to be vegetatively stabilized	: 7.6	Acres
Total Cut	: 22,545	Cu. Yds.
Total Fill	: 10,355	Cu. Yds.

Off-site waste/borrow area location: See mass grading Plan GP-07-70
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County DPW Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within 1 working day, whichever is shorter.

Site Analysis Phase 2

Area Disturbed:	0.22 Ac.
Area to be roofed or paved:	0.04 Ac.
Area to be vegetatively stabilized:	0.17 Ac.
Total cut:	no cu.
Total fill:	no cu.
Off-site waste/borrow area location:	N.A.

PERMANENT SEEDING NOTES

See B-4-9 standards and specifications for Permanent Stabilization.

STORMWATER MANAGEMENT FACILITY OPERATIONS AND MAINTENANCE GUIDELINES

Operations:

- Owner shall keep accurate records of inspections and maintenance type repairs. These records should also include a copy of the "as-built" plans and small pond summary sheet.
- Owner shall make a visual inspection of the facility at least twice a year. Once in the summer after the facility has been mowed and during the winter when the vegetation is inactive. Additional inspections shall be made during and after extreme rainfalls.
- During the extreme weather or rainfall events, the owner shall check for overtopping, seepage, or dam failure. In order to avoid overtopping, either place sandbags on top of the embankment or lower the water elevation by using a dewatering device.
- If a severe problem develops, the owner shall contact a Professional Engineer to assess the problem and make a suggestion to remedy the situation. The Howard Soil Conservation District or Maryland Dam Safety Division shall be contacted before major repairs are made.

Maintenance

During the semi-annual visual inspections, the following items must be checked and documented by the owner:

I. Spillways and Outlet Device

- Pipes - check for sagging, misalignment, gaps at joints, cracks, leaks, and wear along inside surface of pipes. Also remove any blockages.
- Trash Racks - inspect and replace if necessary. Actual time for removal of trash racks should be limited. Trash racks shall be painted once a year.
- Concrete Surfaces - check for cracks or any other signs of failure.
- Forebay and Spillway - check for stone & wire mesh deterioration or loss and spillway failure.
- Rip Rap Outlet - check for stone deterioration or stone loss.
- Dewatering Device - remove blockages.

II. Embankments

- Vegetation - proper vegetative cover is required on all embankments. The owner shall follow proper seeding specifications for reseeding.
- Trees and Brush - trees and brush shall be removed from the embankment. Stumps can be removed using silvicide.
- Mowing - mowing is necessary to control the establishment of woody growth and to maintain the vegetative cover. The embankment, a 25-foot wide (except in wetland/stream buffers) strip adjacent to the toe, upstream and downstream of the embankment, and the area within 50 feet of the control structures need to be mowed. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes, and maintenance access should be mowed as needed. Debris and litter shall be removed during regular mowing operations and as needed.
- Seepage - the following warning signs should be looked for when inspecting for seepage problems: cracks (longitudinal and vertical), soft spots or boggy areas on downstream embankment, seepage along downstream toe of embankment.
- Stability - large cracks, slides, sloughing and excessive settlement are signs of embankment instability and a need for repair. Repairs must be approved by Howard Soil Conservation District.
- Rodents - check for burrows, which can lead to seepage, and remove rodents when encountered.
- Sediment - When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

TEMPORARY SEEDING NOTES

See B-4-4 standards and specifications for Temporary Stabilization.

APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE 4/10/97

Approved For: Public Water & Sewerage Systems, Howard County Health Dept.

Joyce M. Bond, M.D., Health Officer, 9/15/97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: [Signature], 9/10/97

Chief, Division of Land Development and Research: Andy Hammita, 9/11/97

Chief, Development Engineering Division: [Signature], 9/5/97

APPROVED PLAN REVISION
SCD [Signature] 7/14/13
MRS. [Signature] Technical Review Date

Owner:
The Howard Research & Development Corporation
10215 Little Patuxent Parkway
Columbia, Maryland 21044
Attn: Greg Klar
Tel: (410) 992-0370



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 Maryland Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

David J. Weber, 8/13/97

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Maryland Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered Professional Engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

D. Hasty, 8.13.97

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

Robert W. Zuhm, 8/29/97

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.

Cheryl Simmons, 8/29/97

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-4024 NO. VA.: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186

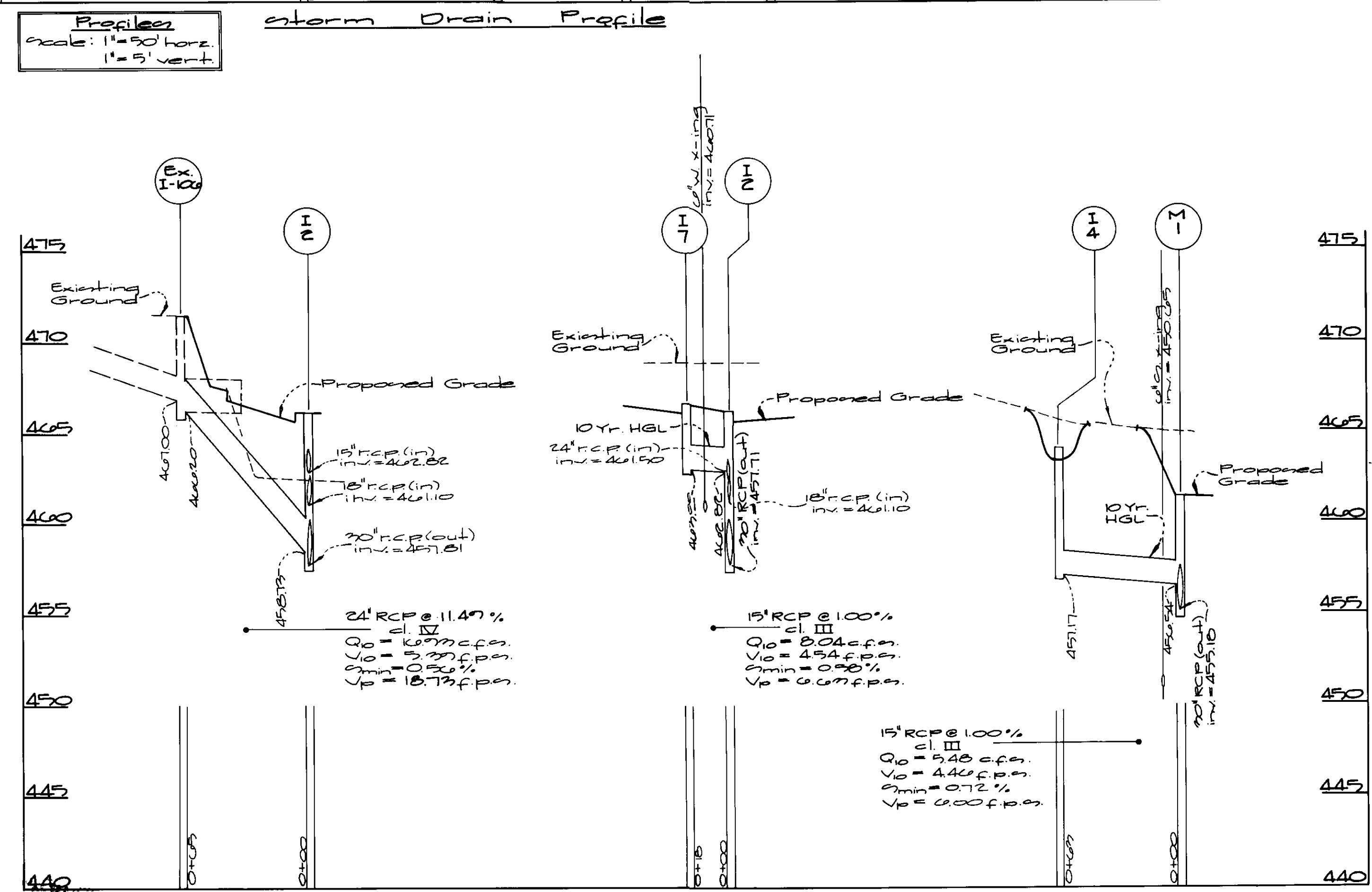
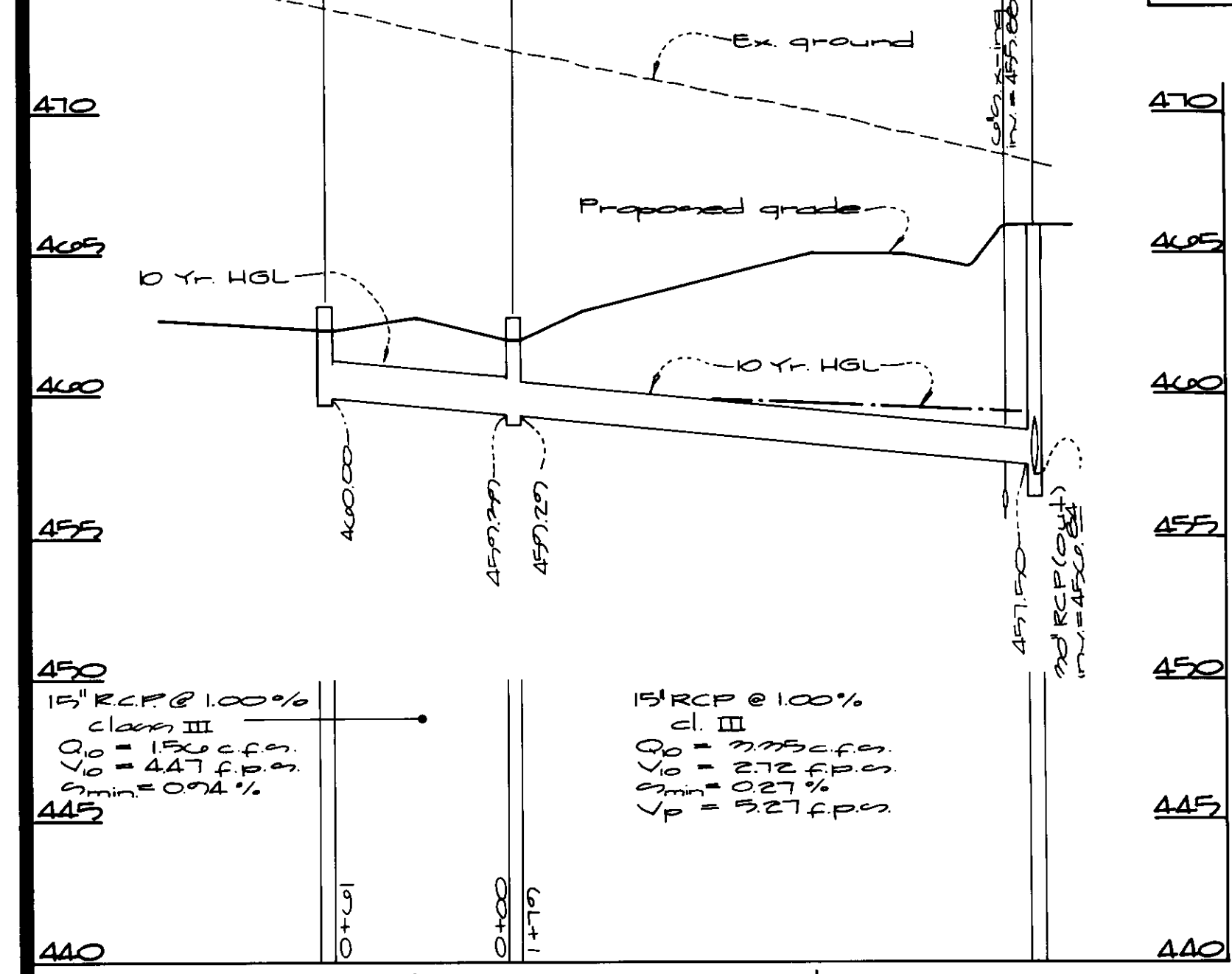
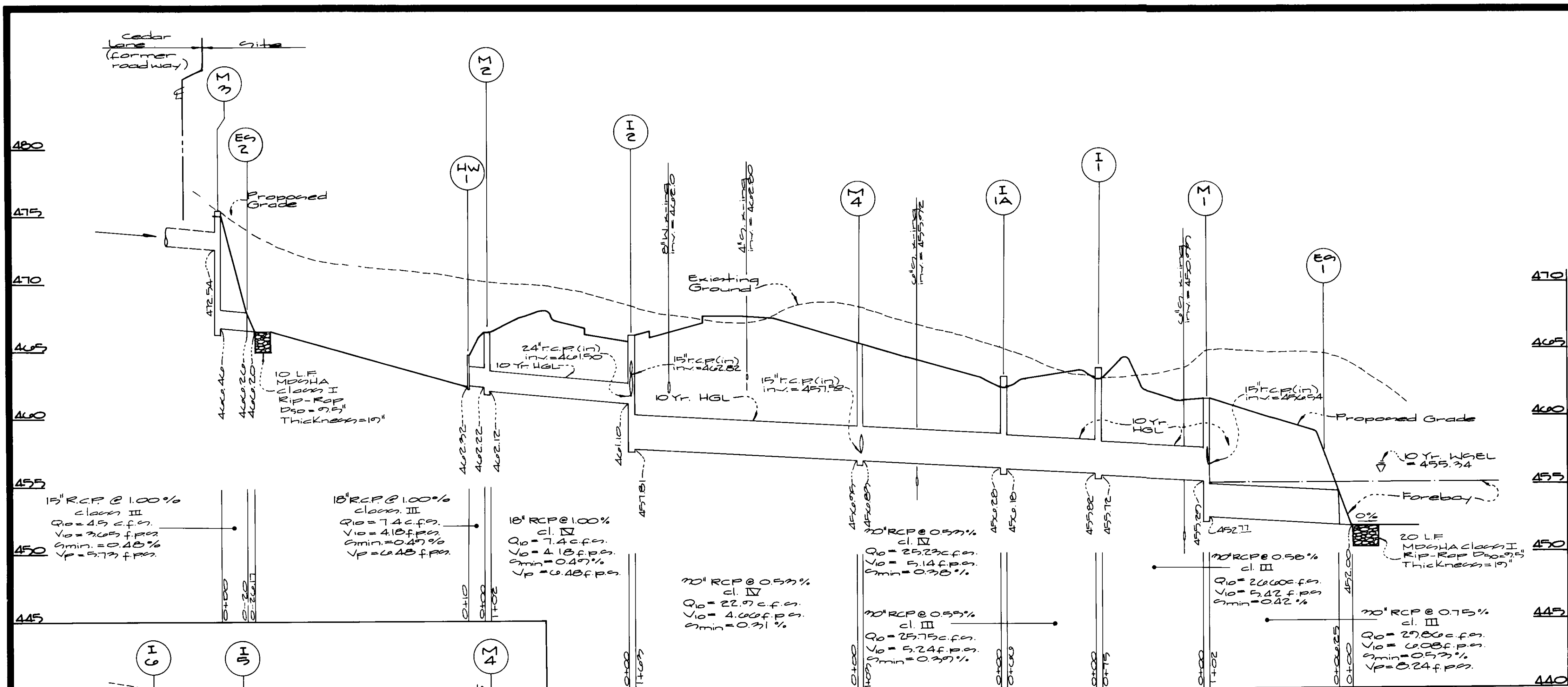
DATE	REVISION	BY	APPR.
1/11/12	Revise sediment control notes; Amend site analysis	gt	
2/19/19	STORMWATER MANAGEMENT POND AS-BUILT (SEE CERT. SUR. 9 OF 15)	DSS	

PREPARED FOR:
The Columbia Association
10221 Wincopin Circle
Suite 100
Columbia, Maryland 21044-3410
Attn: Dennis Matthey
Phone: (410) 715-7125

Sediment Control/Stormwater Management Notes
Harper's Choice Sports Park
Columbia - VHC 5/11
Open Space Lot 1
AS-BUILT
Clarksville Election District No. 5
Howard County, Maryland

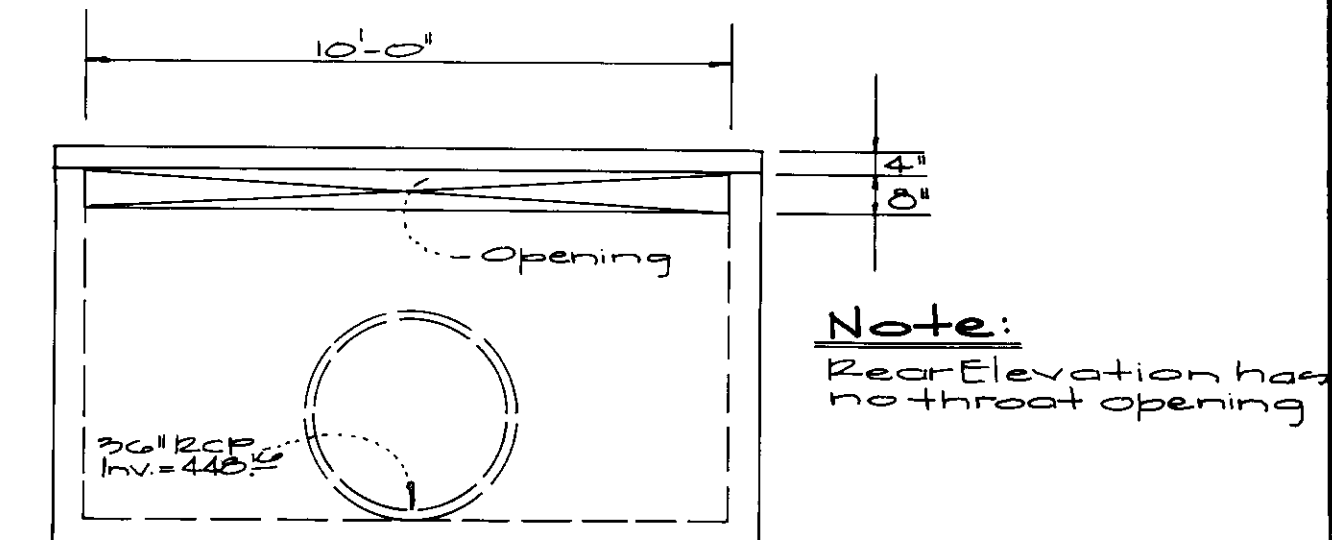
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April, 1997	20	10 of 15

SDP-97-75

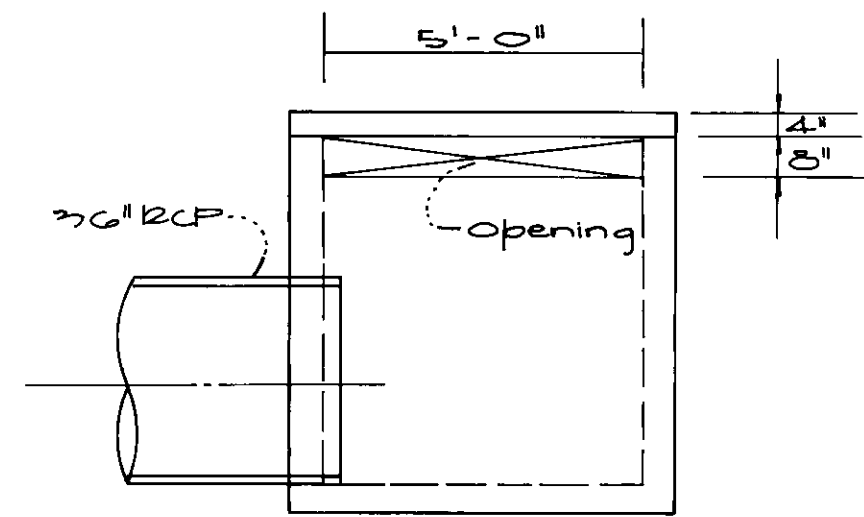


Structure Schedule

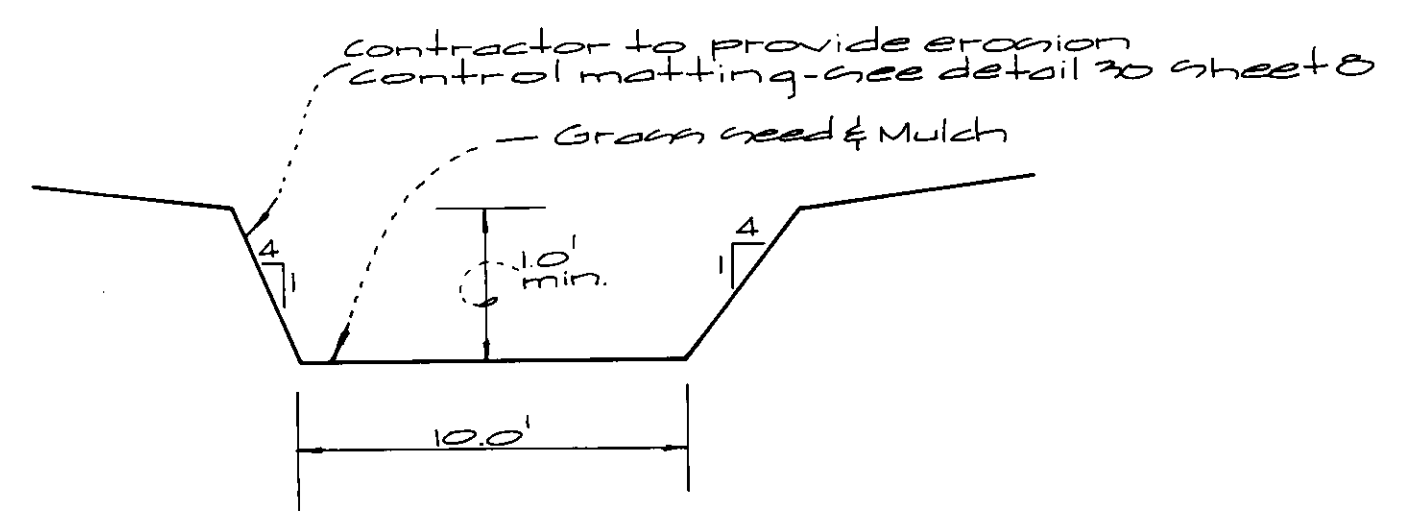
No.	Type	Width diam	Top Elevation		Inv. Elevation		Std. Detail	Remarks
			Upper	Lower	Upper	Lower		
I-1	Type 'D' Inlet (modified)	5'-0"	469.07	—	455.82	455.72	SD 4.77	inlet NE
I-1A	Type 'D' Inlet (modified)	4'-0"	462.77	—	456.28	456.18	SD 4.77	inlet SE
I-2	Type A-5 Inlet (modified)	4'-0"	466.16	—	461.50	457.81	SD 4.40	
I-4	Type 'D' Inlet	2'-7"	464.2	—	—	457.17	"	inlet NE NW, ESE
I-5	Type 'D' Inlet	2'-7"	462.87	—	459.77	457.27	"	inlet NE & SW
I-6	Type 'D' Inlet	2'-7"	469.17	—	—	460.00	"	inlet NE & SW
I-7	Type A-10 Inlet	2'-0"	466.77	—	—	469.00	SD 4.41	
I-8	Type A-10 Inlet (modified)	2'-0"	457.60	—	—	447.7	SD 4.41	see opening det.
M-1	5' Manhole	5'-0"	461.50	—	455.27	452.77	G 5.13	
M-2	4' Manhole	4'-0"	467.50	—	462.22	462.12	G 5.12	
M-3	4' Manhole	4'-0"	475.50	—	472.54	466.46	"	
M-4	5' Manhole	5'-0"	466.50	—	456.77	456.87	G 5.13	
Hw-1	Headwall	—	464.07	—	—	462.72	SD 5.21	



Front Elevation I-8
NTS



Left Elevation I-8
NTS
(Right Elevation Similar)



swale section south of Bldg. 'A'

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 4/10/97

Approved: For Public Water & Sewerage Systems,
Howard County Health Dept.
Joseph M. Boyd per *SM* 9/15/97
Quality Health Officer
Approved: Howard County Dept. of Planning & Zoning
Joseph M. Boyd 9/18/97
Director
Wanda Hamilton 9/17/97
Chief, Planning & Zoning
Bill Vanaman 9/15/97
Chief, Development Engineering Div.

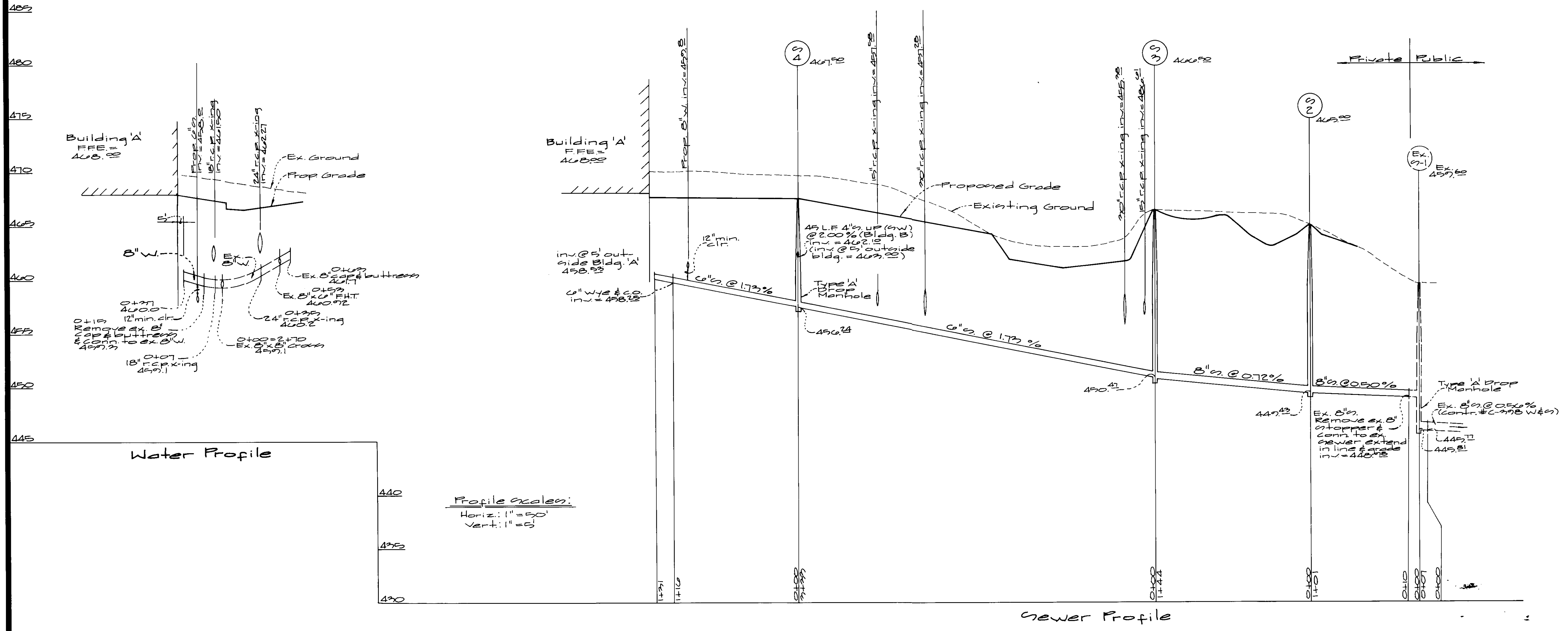
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX: (301)421-4186

DATE	REVISION	BY	APP'R.
	11/13/96	ADD 4\"/>	

PREPARED FOR:
The Columbia Association
10221 Winsopin Circle
Suite 100
Columbia, Maryland 21044-3400
Attn.: Dennis Mathey
Phone: (410) 715-2125

Storm Drain Profiles
Harper's Choice Sports Park
Columbia - VHC 5/11
Open Space Lots 1 & 2
Clerksville Election District No. 5
Howard County, Maryland

DES.:	SCALE	ZONING	G.L.W. FILE NO.
MJT	As Shown	NT	2007E
DRN.:	DATE	TAX MAP NO.	SHEET
klp	April, 1997	29	11 of 15
CHK.:			



APPROVED
 BOARD OF
 HOWARD COUNTY
 4/10/97

Approved: For Public Water & Sewerage Systems
 Howard County Health Dept.
Joseph M. Boyd 9/15/97
 County Health Officer MK Date
 Approved: Howard County Dept. of Planning & Zoning
Ann S. Smith 9/18/97
 Director Date
Linda Hamilton 9/17/97
 Chief, Development TC
Michael... 9/15/97
 Chief, Development Engineering Div. Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
 TELEPHONE (301)421-4024 NO. VA (301)989-2524 BALTO (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:
 The Columbia Association
 10221 Winopin Circle
 Suite 100
 Columbia, Maryland 21044-3210
 Attn: Dennis Mathey
 Phone: (410) 715-3125

Water & Sewer Profiles
Harper's Choice Sports Park
 Columbia-VHC 5/11
 Open Space Lots 1&2
 Clarksville Election District No. 5
 Howard County, Maryland

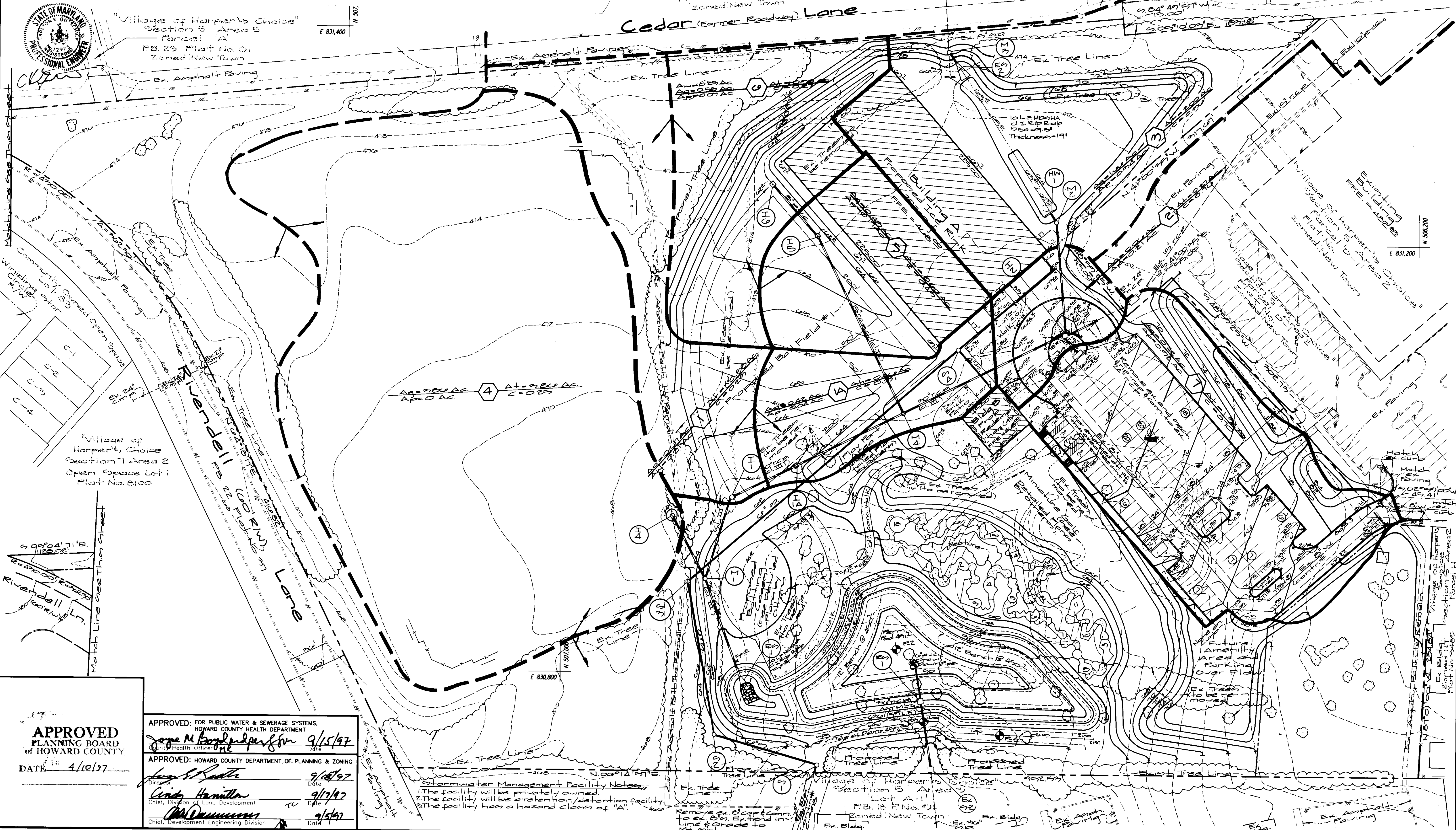
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DRN.:	As shown	NT	90072
W.E.J.	DATE	TAX MAP NO.	SHEET
CHK.:	April 15 1997	29	12 of 15



"Village of Harper's Choice"
Section 5 Area 5
Parcel A
P.B. 23 Plat No. 01
Zoned: New Town

Harper's Choice Middle School &
Howard County Special Education Center
"Village of Harper's Choice"
Section 6 Area 2
Lot 3
Plat No. 4816 & 4817
Zoned: New Town

"Village of Harper's Choice"
Section 6 Area 2
Parcel B
Plat No. 4816 & 4817
Zoned: New Town



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 4/10/97

APPROVED: FOR PUBLIC WATER & SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
James M. Boyle 9/15/97
Chief Health Officer
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
James S. Smith 9/15/97
Director
Cindy Hamilton 9/17/97
Chief, Division of Land Development
John DeMunnis 9/15/97
Chief, Development Engineering Division

Stormwater Management Facility Notes:
1. The facility will be privately owned.
2. The facility will be a retention/detention facility.
3. The facility has a hazard class of "A".

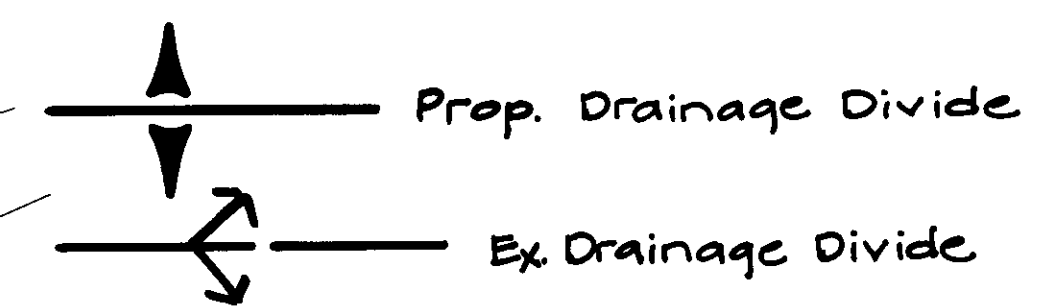
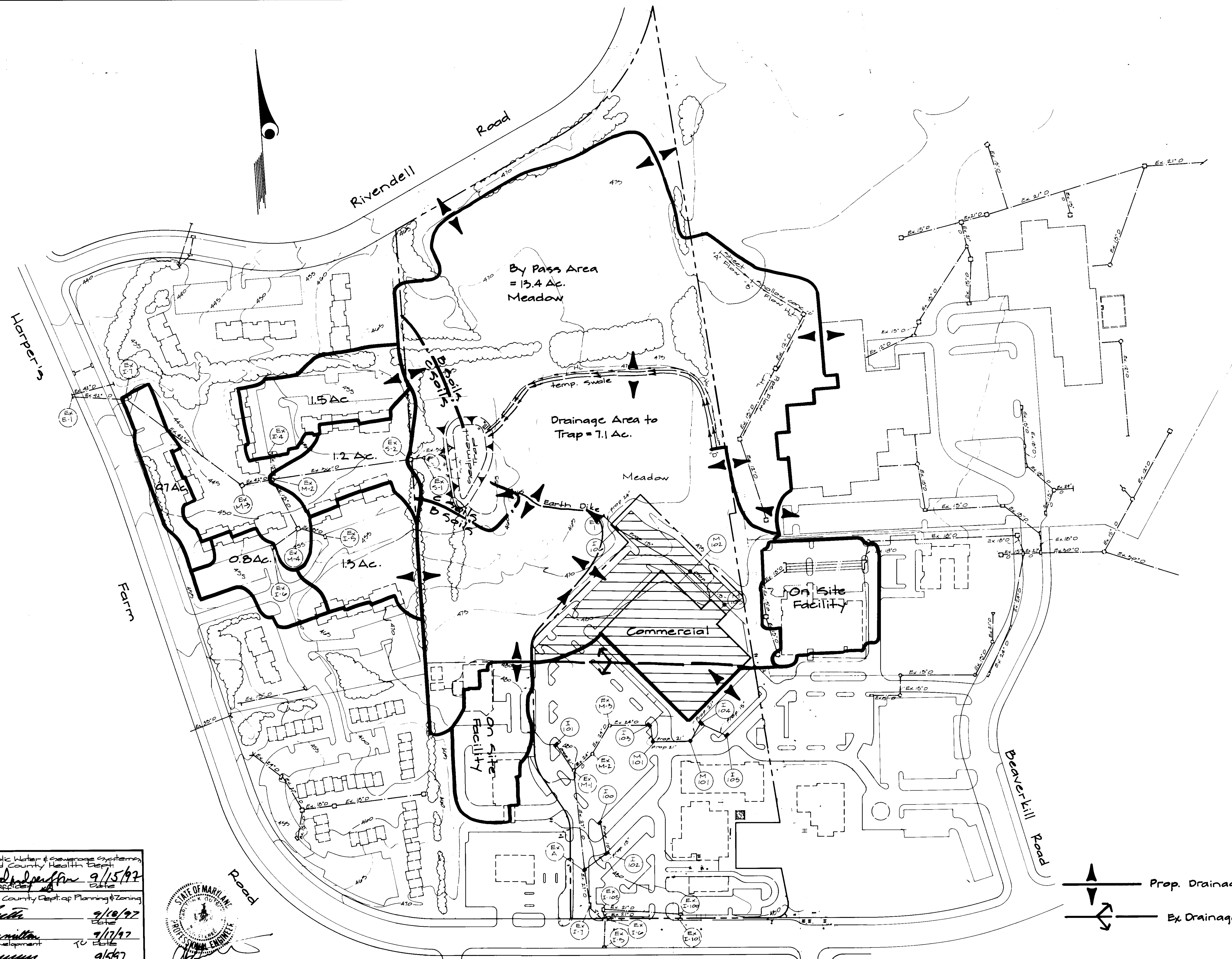
PREPARED FOR:
The Columbia Association
10221 Wincopin Circle
Suite 100
Columbia, Maryland 21044-3410
Attn: Dennis Matney
Phone: (410) 715-3125

Storm Drain Drainage Area Map
Harper's Choice Sports Park
Columbia - VHC 5/11
Open Space Lot 1 & 2
Clarksville Election District No. 5
Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1" = 40'	NT	90-072
DATE	TAX MAP No.	SHEET
April 1997	27	13 of 15

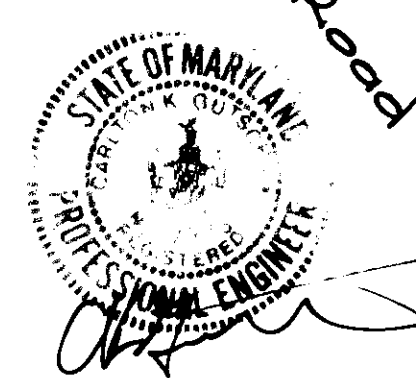
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
TEL: (301) 421-0024 MD. VA.: (301) 989-2524 BALT. (410) 880-1820 FAX: (301) 421-4106 DES. DRN. W. J. CHK.

DATE	BY	APPR.	REVISION
11/2/96	Ex Drainage Divide Bldg. B		



APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE 4/10/97

Approved: For Public Water & Sewerage Systems,
 Howard County Health Dept.
James M. [Signature] 9/15/97
 County Health Director Date
 Approved: Howard County Dept. of Planning & Zoning
Joseph [Signature] 9/10/97
 Director Date
Cindy Hamilton 9/17/97
 Chief Div. of Land Development Date
[Signature] 9/15/97
 Chief Development Engineering Div. Date



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 NO. VA: (301) 989-2524 BALT: (410) 880-1820 FAX: (301) 421-4186 DES. DRN.W./J. CHK.

DATE	REVISION	BY	APPR.

PREPARED FOR:
 The Columbia Association
 10221 Wincopin Circle
 Suite 100
 Columbia, Maryland 21044-2410
 Attn: Dennis Matley
 Phone: (410) 715-2125

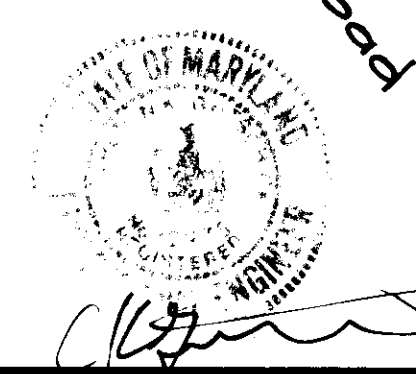
stormwater Management Drainage Area Map (P&E)
Harper's Choice Sports Park
 Columbia - VHC 5/11
 Open Space Lots 1 & 2
 5th Election District
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1"=100'	NT	70072
DATE	TAX MAP No.	SHEET
April 1997	29	14 of 15



APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE 4/10/97

Approved: For Public Water & Sewerage Systems,
 Howard County Health Dept.
James M. Bond 9/15/97
 Deputy Health Officer
 Approved: Howard County Dept. of Planning & Zoning
David Smith 9/18/97
 Director
Cathy Hamilton 9/17/97
 Chief of Land Development
John DeWanna 9/15/97
 Chief Development Engineering Div.



GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 MO. VA.: (301) 989-2524 BALT.: (410) 880-1820 FAX: (301) 421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 The Columbia Association
 10221 Wincopin Circle
 Suite 100
 Columbia, Maryland 21044-3410
 Attn: Dennis Matthey
 Phone: (410) 715-3125

Stormwater Management Drainage Area Map (Part)
Harper's Choice Sports Park
 Columbia-VHC 5/11
 Open Space Lots 1 & 2
 5th Election District
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
1"=100'	LT	99072
DATE	TAX MAP No.	SHEET
April, 1997	27	15 of 15