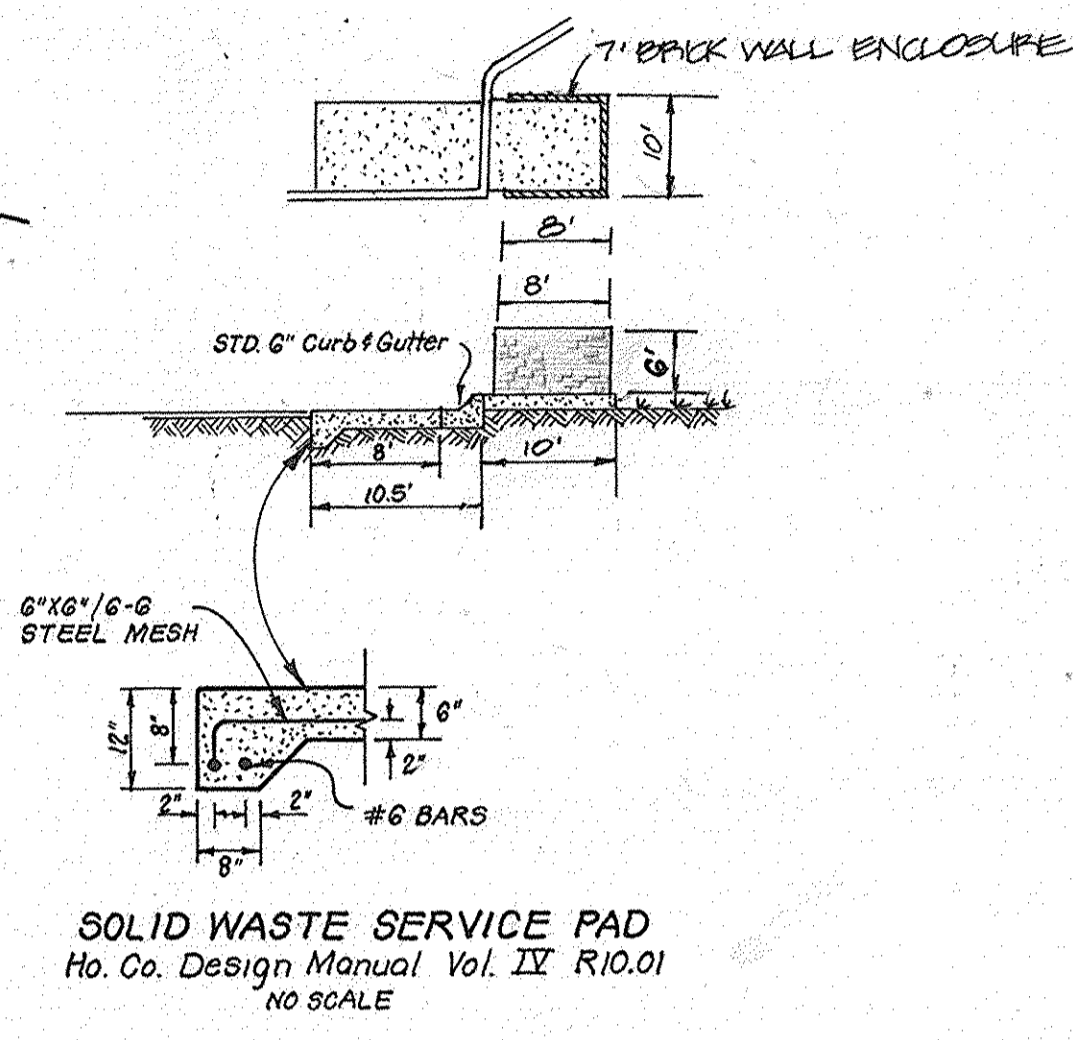
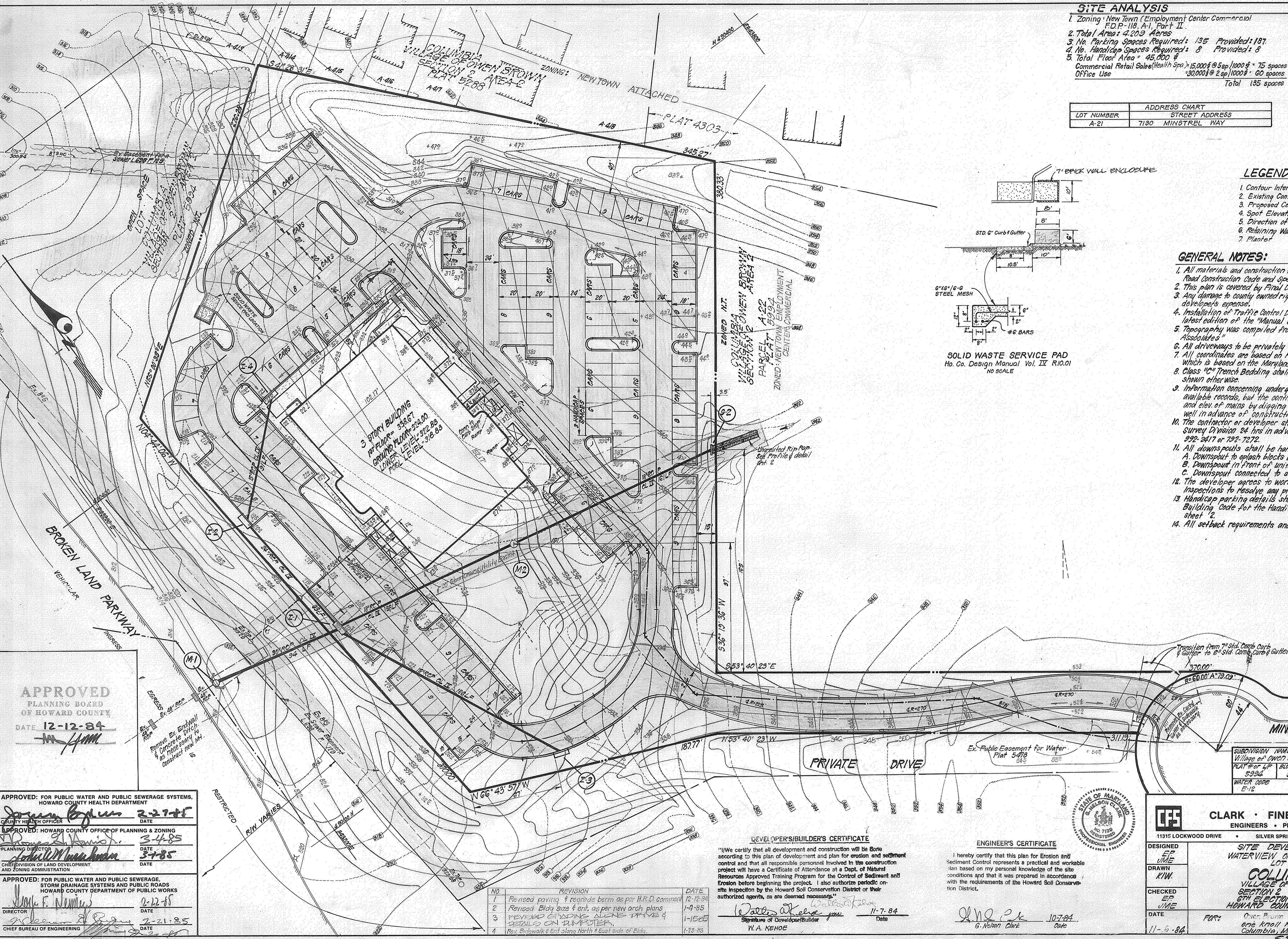
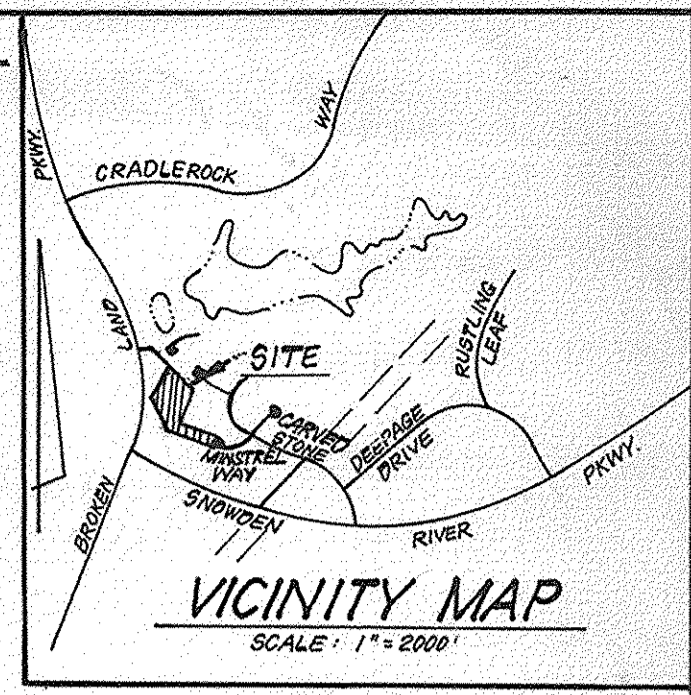


**SITE ANALYSIS**

1. Zoning: New Town (Employment Center Commercial) F.D.P. 118, A-1, Part II.
2. Total Area: 4.209 Acres
3. No. Parking Spaces Required: 135 Provided: 187.
4. No. Handicap Spaces Required: 8 Provided: 8
5. Total Floor Area = 45,000 sq ft
- Commercial Retail Sales (Health Spa): 15,000 sq ft @ 5 sp/1000 sq ft = 75 spaces
- Office Use: 30,000 sq ft @ 2 sp/1000 sq ft = 60 spaces
- Total 135 spaces

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
A-21	7180 MINSTREL WAY



**LEGEND:**

1. Contour Interval	2 FT.
2. Existing Contour	---
3. Proposed Contour	---
4. Spot Elevation	+20'
5. Direction of Drainage	→
6. Retaining Wall	▬
7. Planter	⊠

- GENERAL NOTES:**
1. All materials and construction to be in accordance with Howard County Road Construction Code and Specifications.
  2. This plan is covered by Final Development Plan: 118-A-1-Part II.
  3. Any damage to county owned rights of way shall be corrected at the developer's expense.
  4. Installation of Traffic Control Devices shall be in accordance with the latest edition of the "Manual of Uniform Traffic Control".
  5. Topography was compiled from plans prepared by Hudkins Associates.
  6. All driveways to be privately owned and maintained.
  7. All coordinates are based on Howard County Geologic Control Traverse which is based on the Maryland State Plane Coordinate System.
  8. Class "C" Trench Bedding shall be used for all storm drains unless shown otherwise.
  9. Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elev. of mains by digging test pits, by hand, at all utility crossings well in advance of construction.
  10. The contractor or developer shall contact the Construction Inspection/Survey Division 24 hrs in advance of commencement of work at 922-2417 or 792-7272.
  11. All downspouts shall be handled by one of the following methods:
    - A. Downspout to splash blocks and discharged to ground having good permeation.
    - B. Downspout in front of units, piped to curb.
    - C. Downspout connected to storm drain.
  12. The developer agrees to work with the Department of Licenses and Inspections to resolve any problem caused by roofwater discharge.
  13. Handicap parking details shall be in accordance with the "Maryland Building Code for the Handicapped" section 5.01-7.05 and details on sheet "2".
  14. All setback requirements and criteria as shown on F.D.P. 118-A-1-Part II.

Reviewed for... Howard S.C.D. Name and meets Technical Requirements  
 Signature Date  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Stephen J. Pelen 1/14/85 Approved Date

**APPROVED**  
 PLANNING BOARD OF HOWARD COUNTY  
 DATE 12-12-84  
 M. Hamm

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,**  
 HOWARD COUNTY HEALTH DEPARTMENT  
 County Health Officer 2-27-85  
**APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING**  
 Planning Director 3-4-85  
 Chief Division of Land Development and Zoning Administration 3-8-85  
**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS**  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Director 2-12-85  
 Chief Bureau of Engineering 2-21-85

NO	REVISION	DATE
1	Revised paving & regrade berm as per H.R.D. comment	12-12-84
2	Revised Bldg size & cnt. as per new orch plans	1-9-85
3	REVISED GRADING ALONG DRIVE & DETAILS ON DUMPSTER	1-15-85
4	Rev. Sidewalk & Ent along North & East side of Bldg	1-23-85

**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 Kehoe Date: 11-7-84  
 W.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.  
 Signature: G. Nelson Clark Date: 10-7-84  
 G. Nelson Clark

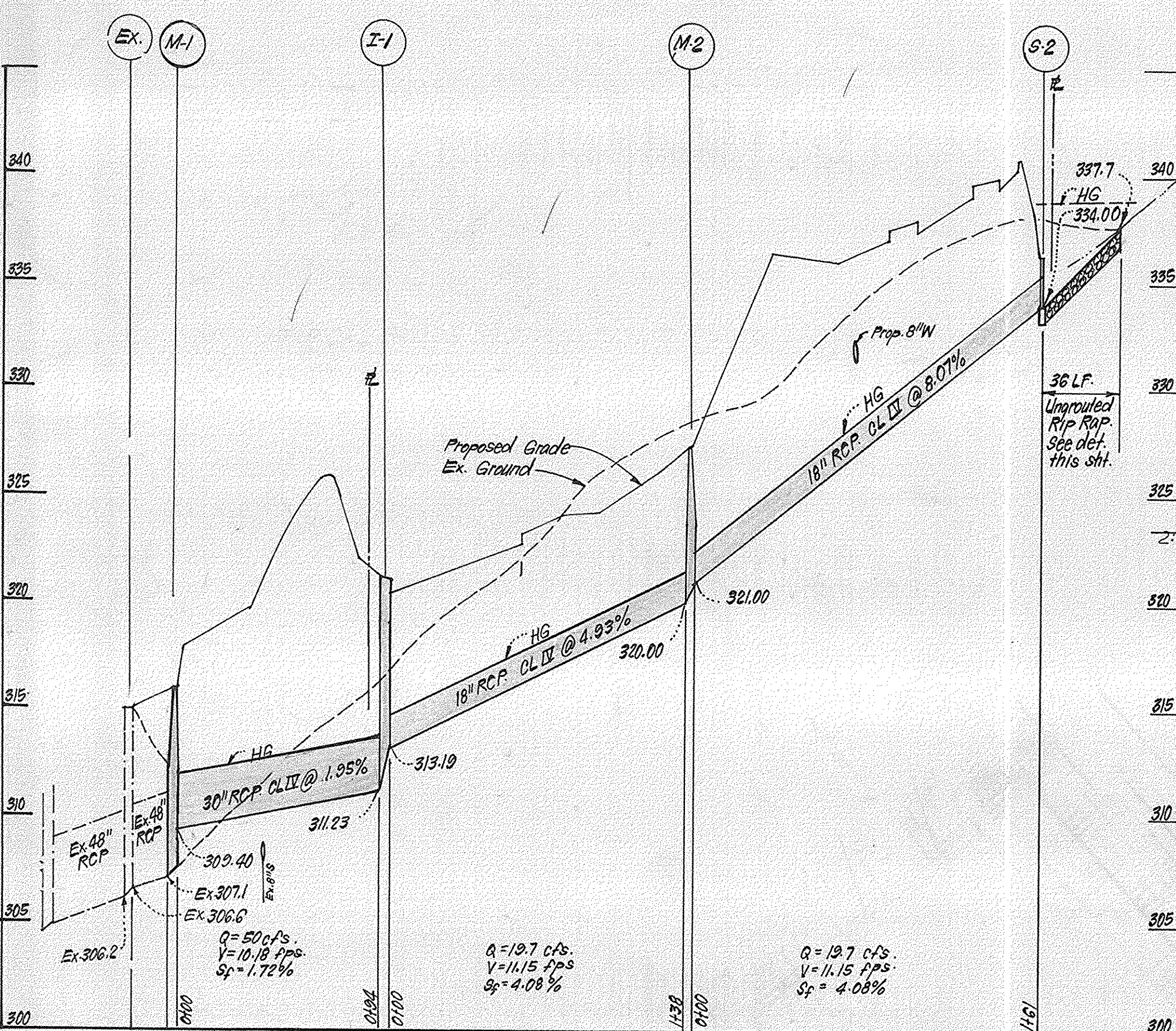


**CLARK • FINEFROCK & SACKETT**  
 ENGINEERS • PLANNERS • SURVEYORS  
 11315 LOCKWOOD DRIVE • SILVER SPRING, MARYLAND 20904 • (301) 593-3400

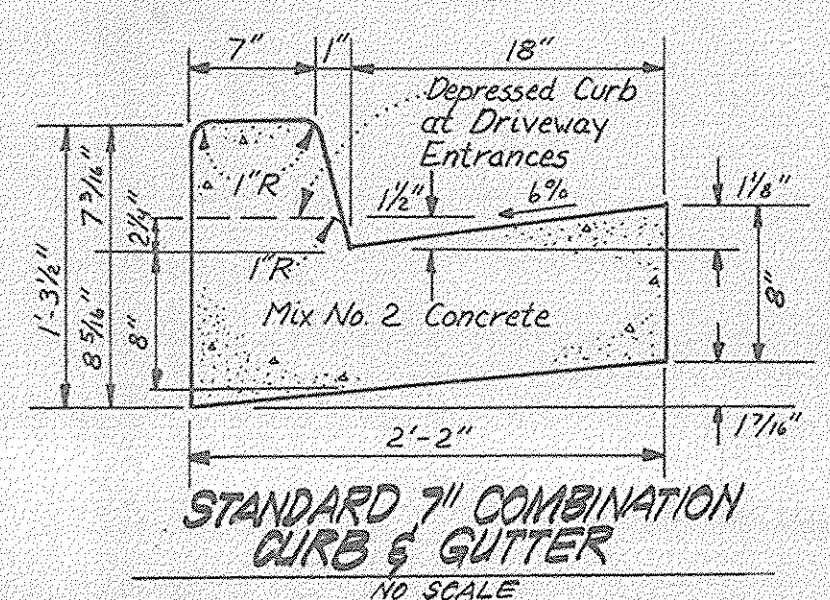
DESIGNED E.F. VIME	<b>SITE DEVELOPMENT PLAN</b> WATERVIEW OFFICE CENTRE LOT A-21 <b>COLUMBIA</b> VILLAGE OF OWEN BROWN SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: Over Blinn Assoc Limited Partnership one Knoll North Drive Columbia, Md. 21045	SCALE 1"=30'
DRAWN R.W. W		DRAWING 10F 5
CHECKED E.F. VIME		JOB NO. 84-033
DATE 11-6-84		FILE NO. 84-033-X

SDP-85-88c

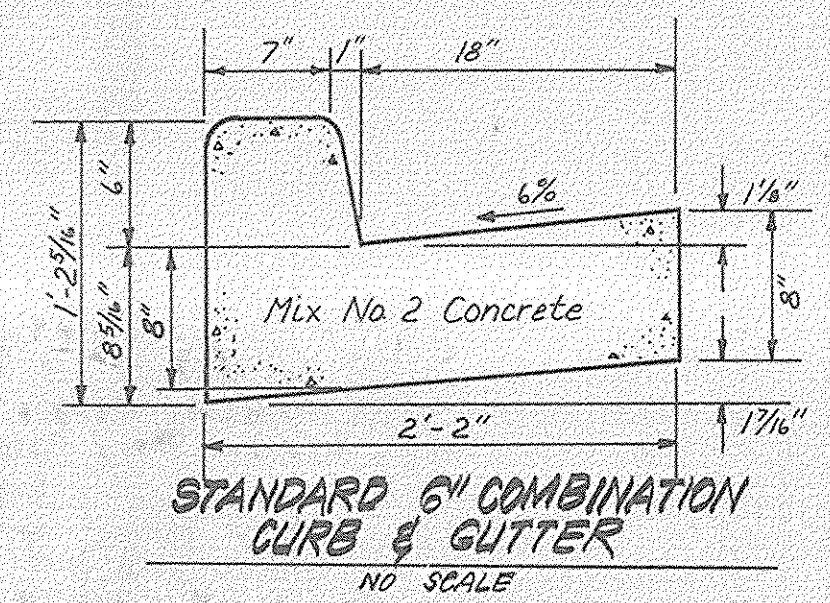




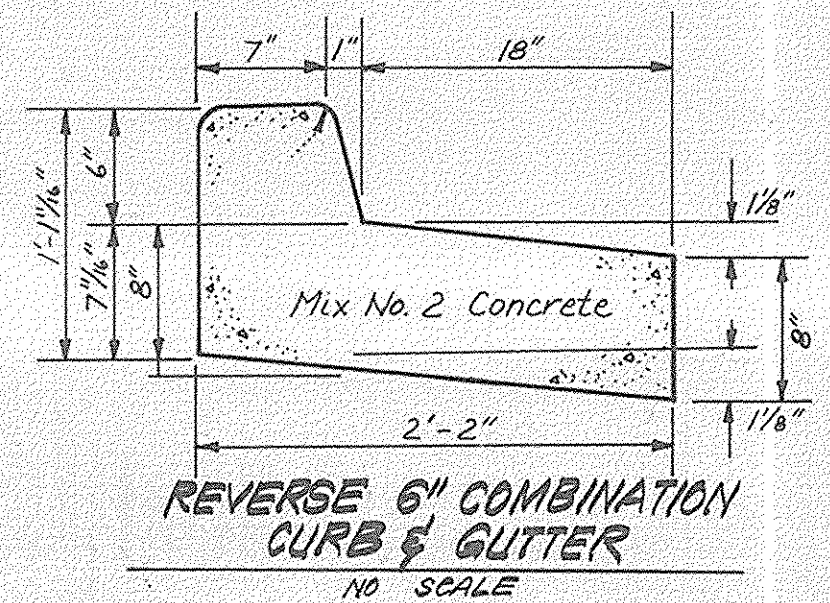
**STORM DRAINAGE PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



**STANDARD 7" COMBINATION CURB & GUTTER**  
NO SCALE



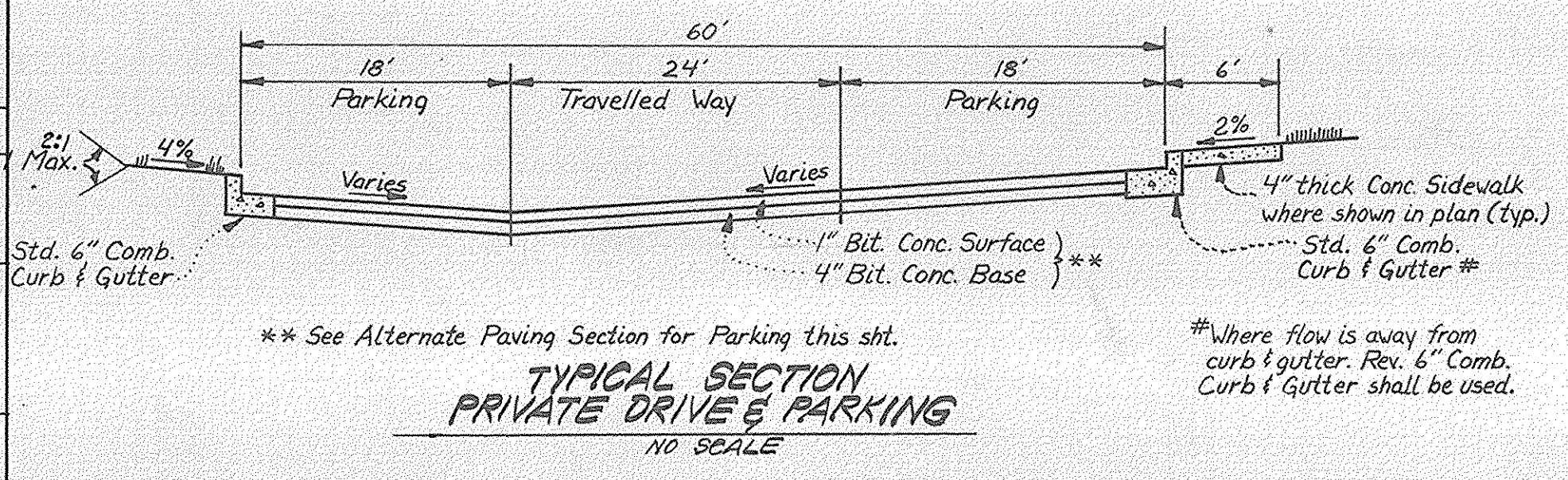
**STANDARD 6" COMBINATION CURB & GUTTER**  
NO SCALE



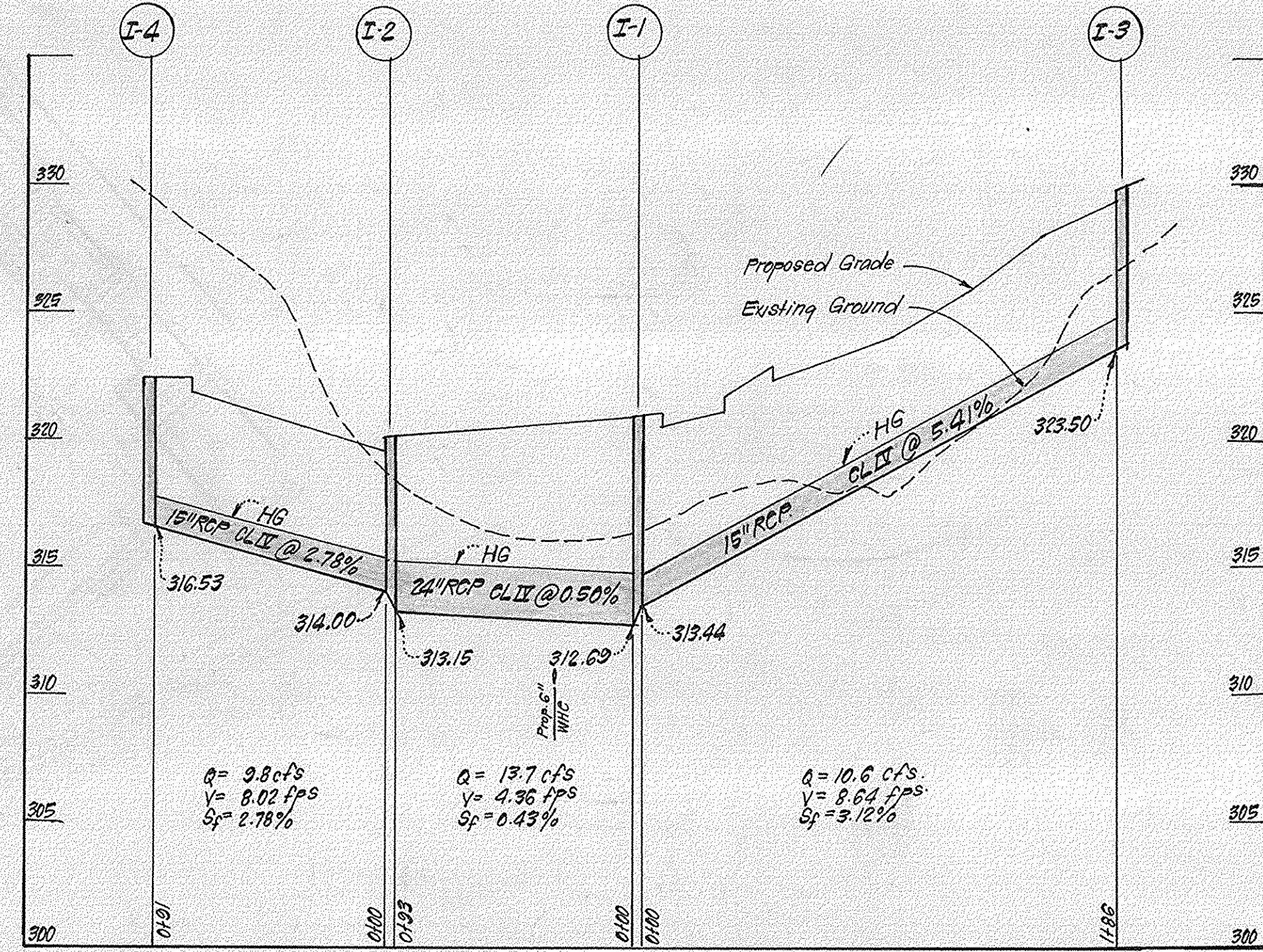
**REVERSE 6" COMBINATION CURB & GUTTER**  
NO SCALE

No.	TYPE	INV. IN		INV. OUT		TOP ELEVATION		REMARKS	LOCATION
		1	2	1	2	LOWER	UPPER		
M-1	Manhole	309.40	307.10	316.00	-	Hd. Co. Std. @ 1.50'3	6'	SEE PLAN	
M-2	Manhole	321.00	320.00	327.50	-	" " "	"	"	
I-1	A-10 Inlet	314.00	313.23	320.80	320.80	" " "	SD 4.02 W=3.0	"	
I-2	A-10 Inlet	-	313.15	320.00	320.20	" " "	SD 4.02 W=3.0	"	
I-3	A-10 Inlet w/ Deflectors	-	323.50	329.47	330.20	" " "	SD 4.02 & SD 4.83	"	
I-4	A-10 Inlet	-	316.53	322.50	323.11	" " "	SD 4.02 W=2.5	"	
S-2	Type C Headwall	-	334.00	-	-	" " "	SD 5.21	"	

△ All Inlets to be Fully Developed.

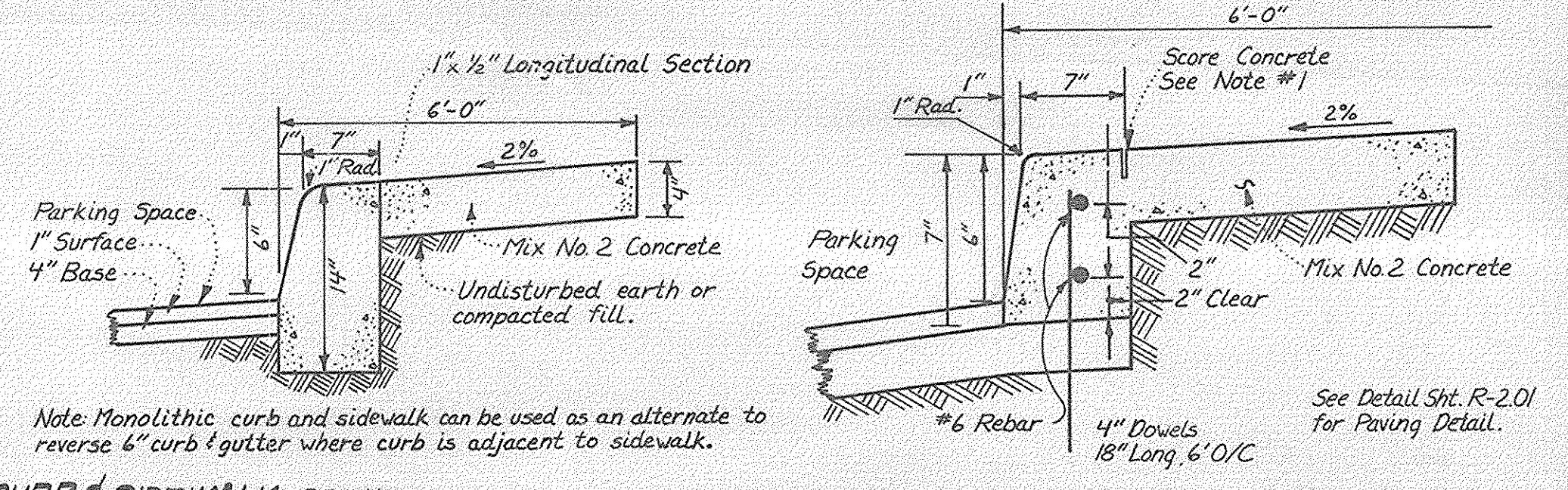


**TYPICAL SECTION PRIVATE DRIVE & PARKING**  
NO SCALE



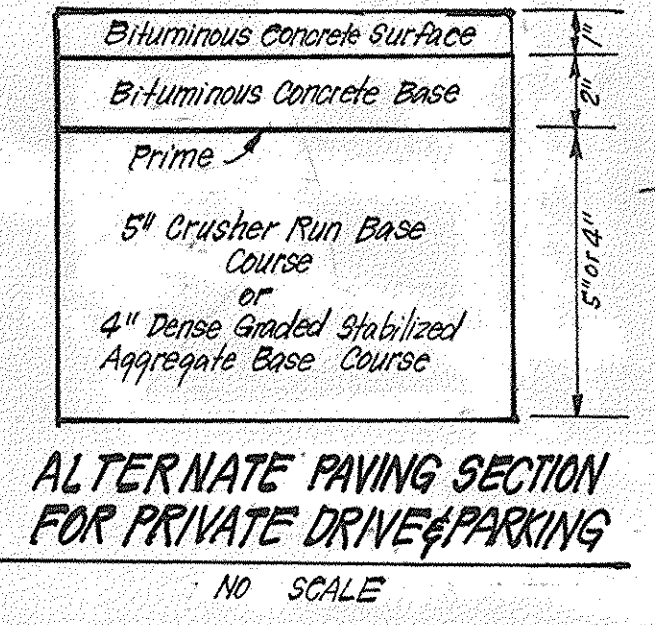
**STORM DRAINAGE PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

Notes:  
1. Longitudinal Joint between sidewalk & curb shall be continuous and to a depth of 1/4 the thickness of the sidewalk or 1" longitudinal joints shall run from back edge of sidewalk continuous to the bottom face of curb to a depth of 1/4 the sidewalk thickness or 1" and spaced 5' apart.  
2. Provide 1/2" expansion joints at 15' intervals. In longitudinal joints to full cross-section.

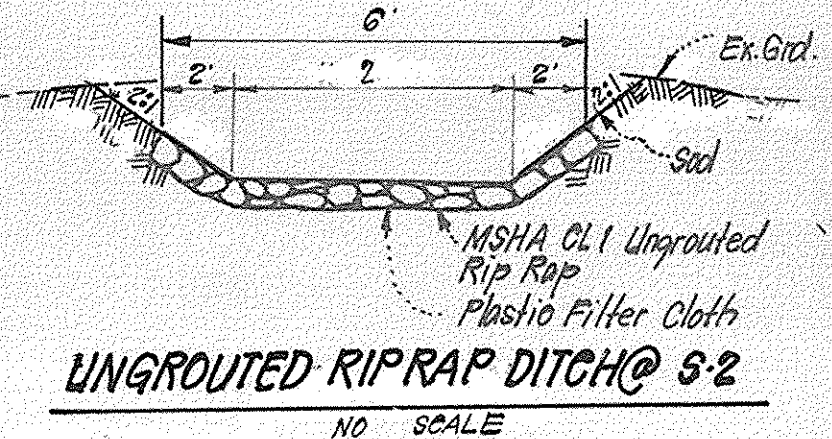


**MONOLITHIC CURB & SIDEWALK - PRIVATE PARKING AREA**  
NO SCALE

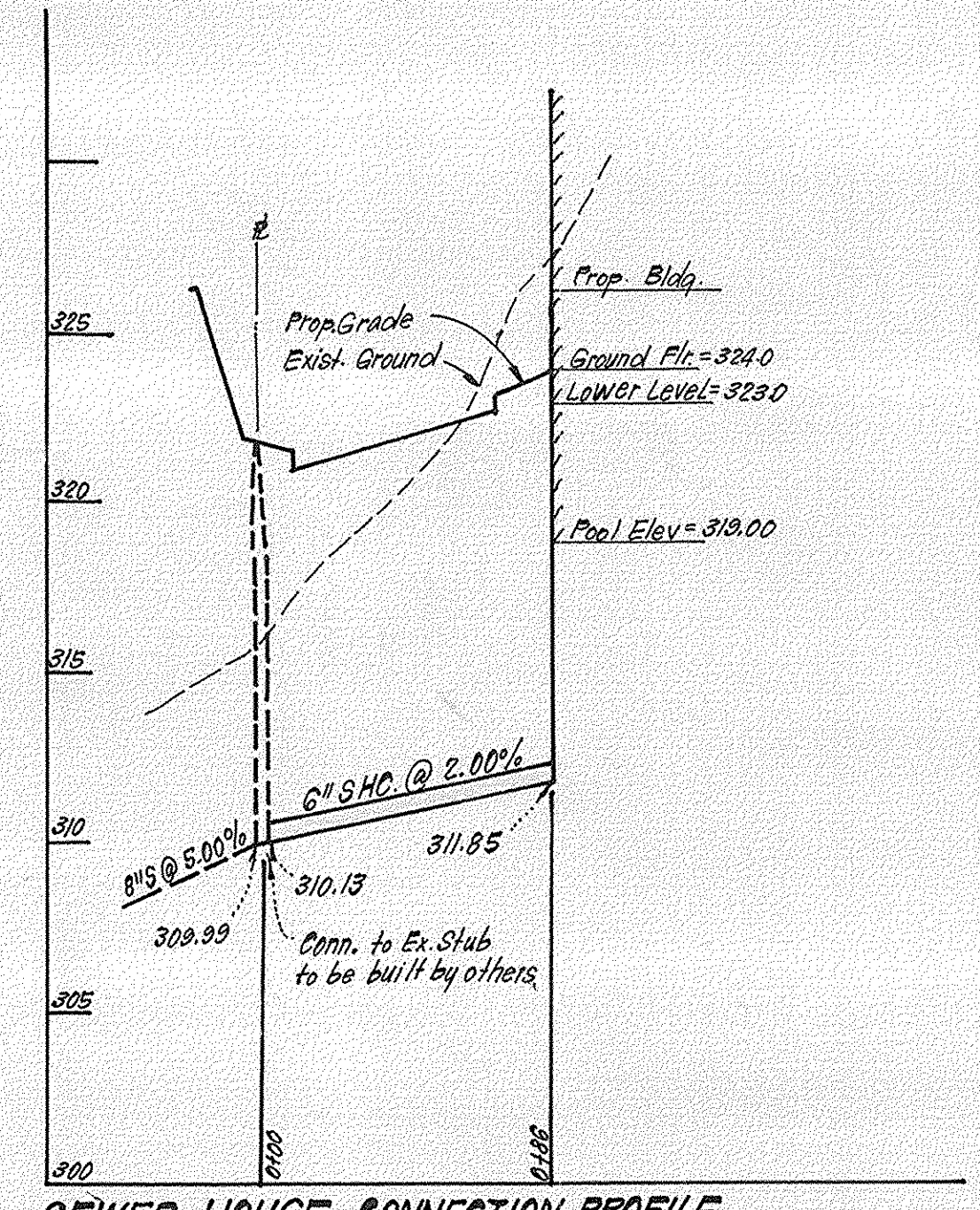
**ALTERNATE SECTION**  
NO SCALE



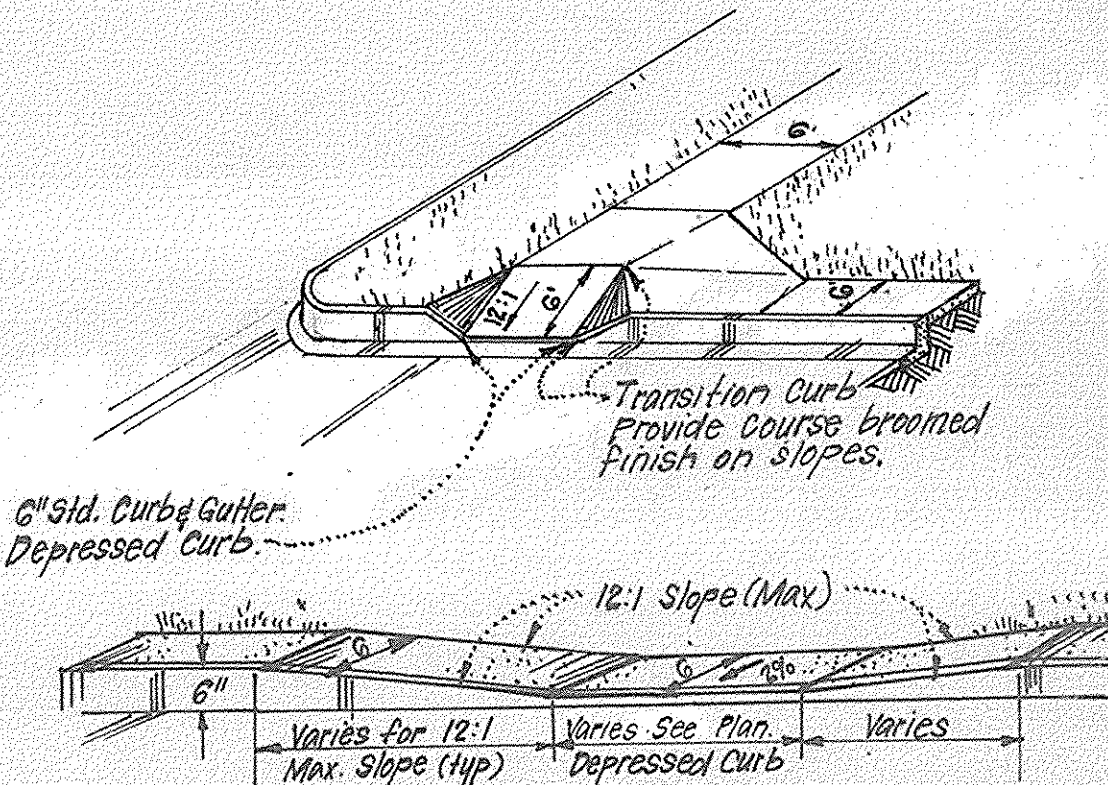
**ALTERNATE PAVING SECTION FOR PRIVATE DRIVE & PARKING**  
NO SCALE



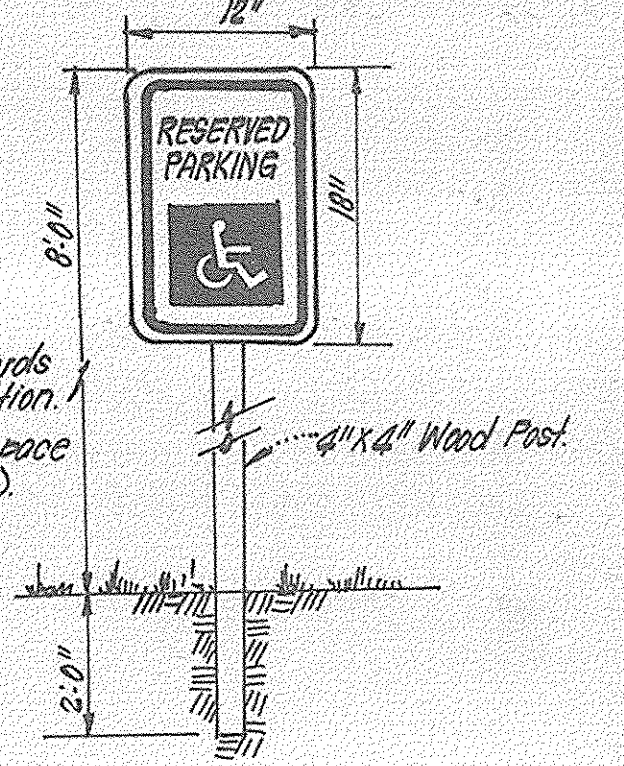
**UNGROUTED RIPRAP DITCH @ S-2**  
NO SCALE



**SEWER HOUSE CONNECTION PROFILE**  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



**HANDICAP RAMP DETAILS**  
NO SCALE

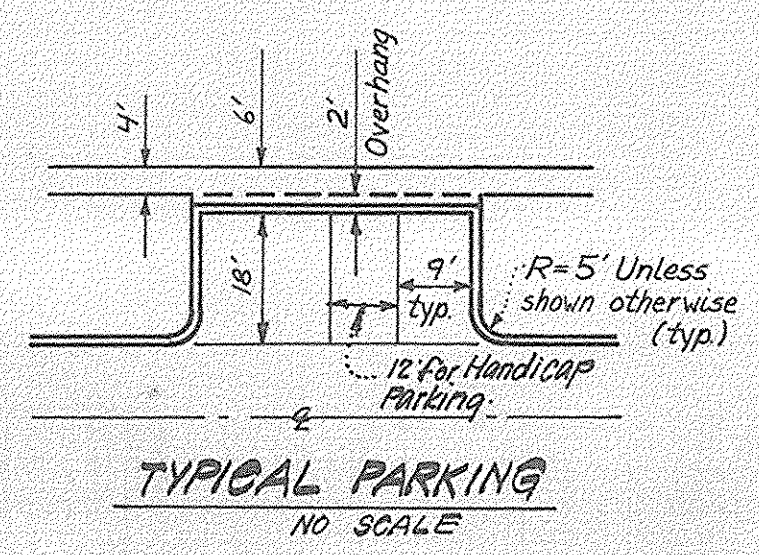


**HANDICAP PARKING SIGN DETAIL**  
NO SCALE

**WATER AND SEWER NOTES:**  
1. All sewer mains shall be P.V.C., OSPX, VCPX or ACP Class 2000 except where indicated.  
2. All construction methods and materials for onsite private water & sewer systems shall follow the current edition of the Howard County Plumbing Code, supplemented by the Howard County Standard Details and Specifications where necessary.  
3. All water mains shall be D.I.P.  
4. All water mains shall have a min. of 3.5' of cover.  
5. Block all fittings with concrete.  
6. Sewer house connections shall be built to within 5' of buildings at a slope of 2.0%.  
7. Areas where water house connections are to be built shall be of final grade and connections shall be laid with a minimum of 3.5' of cover.

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 12-12-84  
[Signature]

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
[Signature] 2-27-81  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
[Signature] 3-4-85  
[Signature] 3-1-85  
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
[Signature] 2-22-85  
[Signature] 2-21-85



**TYPICAL PARKING**  
NO SCALE

Reviewed for: HOWARD S.D.D.  
and meets Technical Requirements  
[Signature]  
U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
[Signature] 2/1/85

**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] 11-7-84  
W. 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.  
[Signature] 10-7-84  
G. Nelson Clark

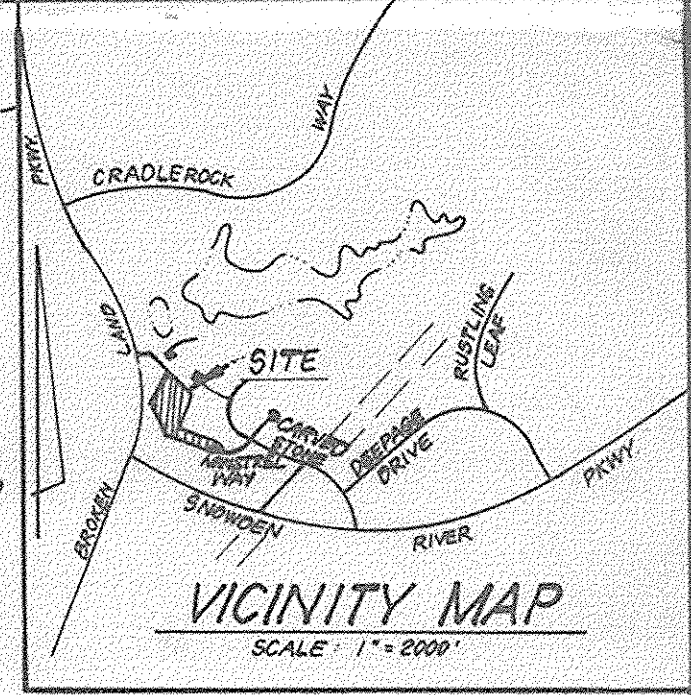
**CLARK · FINEFROCK & SACKETT**  
ENGINEERS · PLANNERS · SURVEYORS  
11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 (301) 583-3400

DESIGNED	EP	<b>SITE DEVELOPMENT PLAN</b> <b>WATERVIEW OFFICE CENTRE</b> <b>COLUMBIA</b> VILLAGE OF OWEN BROWN SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: The Owen Brown Assoc. Ltd. Partnership One Knoll North Dr. Columbia, MD 21045	SCALE	AS SHOWN
DRAWN	KIW		DRAWING	2 OF 5
CHECKED	EP		JOB NO.	84-033
DATE	11-6-84		FILE NO.	84-033-X
				SDP-85-88C



**CONSTRUCTION SEQUENCE:**

1. Obtain Grading Permit.
2. Install Stabilized Construction Entrance and Silt Fence along Broken Land Parkway, temporary S.O.S.T. #2 and Earth's Dike along existing SWALE.
3. Install storm drainage excluding I-4 and pipe from I-2 to I-4.
4. Abandon S.O.S.T. #2 and construct S.I.S.T. #1.
5. Install remaining sediment control devices.
6. Clear & rough grade site excluding Trap #1.
7. Install Water & Sewer.
8. Install Base Course of Asphalt Paving, excluding Trap #1.
9. Stabilize all disturbed areas outside of building area and sediment control.
10. Construct Building.
11. Remove Sediment Control Devices with approval of SCS Inspector.
12. Grade area occupied by Trap #1 and install remaining storm drainage.
13. Place final Asphalt Paving.



**LEGEND:**

- 1 Contour Interval 2 FT
- 2 Existing Contour ---
- 3 Proposed Contour ---
- 4 Spot Elevation + 20'
- 5 Direction of Drainage
- 6 Retaining Wall
- 7 Earth Dike
- 8 Silt Fence
- 9 Inlet Protection Detail
- 10 Stabilized Construction Entrance

**TRAP #1 S.I.S.T. (ST. III)**  
 D.A. = 4.0 Acres  
 Storage Required = 7200 c.f.  
 Storage Provided = 10,752 c.f.  
 Outlet Length = 16 FT.  
 Storage depth below  
 Cleardown elev. = 2 FT.  
 Bottom Elev. = 310.0  
 Outlet Crest Elev. = 314.0  
 Bottom Dimensions = 72' x 28'

**TRAP #2 S.O.S.T. (ST. I)**  
 D.A. = 1.37 Acres  
 Storage Required = 2465 c.f.  
 Storage Provided = 2460 c.f.  
 Outlet Length = 6 FT.  
 Storage Depth below Outlet = 3 FT.  
 Embankment Height = 18"  
 Embankment Elev. = 314.5  
 Crest Elevation = 313.0  
 Bottom Dimensions = 22' x 22'  
 Bottom Elevation = 310.0

A=2.8 Acres  
 C=0.86 N.T. COMM  
 30% R.F.P.

A=1.5 AC  
 C=0.88 N.T. COMM  
 30% R.F.P.

Reviewed for... **HOWARD**... S.C.D.  
 Name  
 SCS meets Technical Requirements  
 Date 2-15-85  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED  
 FOR SOIL EROSION AND SEDIMENT  
 CONTROL BY THE HOWARD SOIL  
 CONSERVATION DISTRICT.  
 Approved 2/14/85

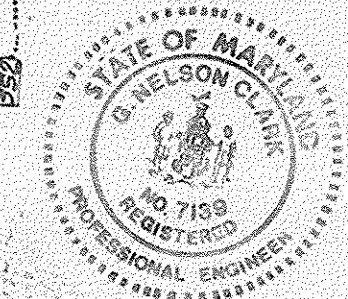
**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 12-12-84

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER DATE 2-27-85  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 PLANNING DIRECTOR DATE 3-4-85  
 CHIEF DIVISION OF LAND DEVELOPMENT  
 AND ZONING ADMINISTRATION DATE 3-7-85  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DIRECTOR DATE 3-22-85  
 CHIEF BUREAU OF ENGINEERING DATE 2-21-85

NO.	REVISION	DATE
1	Revised paving & regrade berm as per H.R.D. comment	12-12-84
2	Revised Bldg. size & entrances as per new arch. plans	1-8-85

**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 W. Johnson* Date: 12-3-84

**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: *G. Nelson Clark* Date: 12-17-84



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

DESIGNED: EP JME  
 DRAWN: KWM VHL  
 CHECKED: EP JME  
 DATE: 12-13-84

PROJECT: SEDIMENT & EROSION CONTROL PLAN AND DRAINAGE AREA MAP WATERYVIEW OFFICE CENTRE, LOT A-21  
**COLUMBIA**  
 VILLAGE OF OWEN BROWN SECTION 2 AREA 2 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

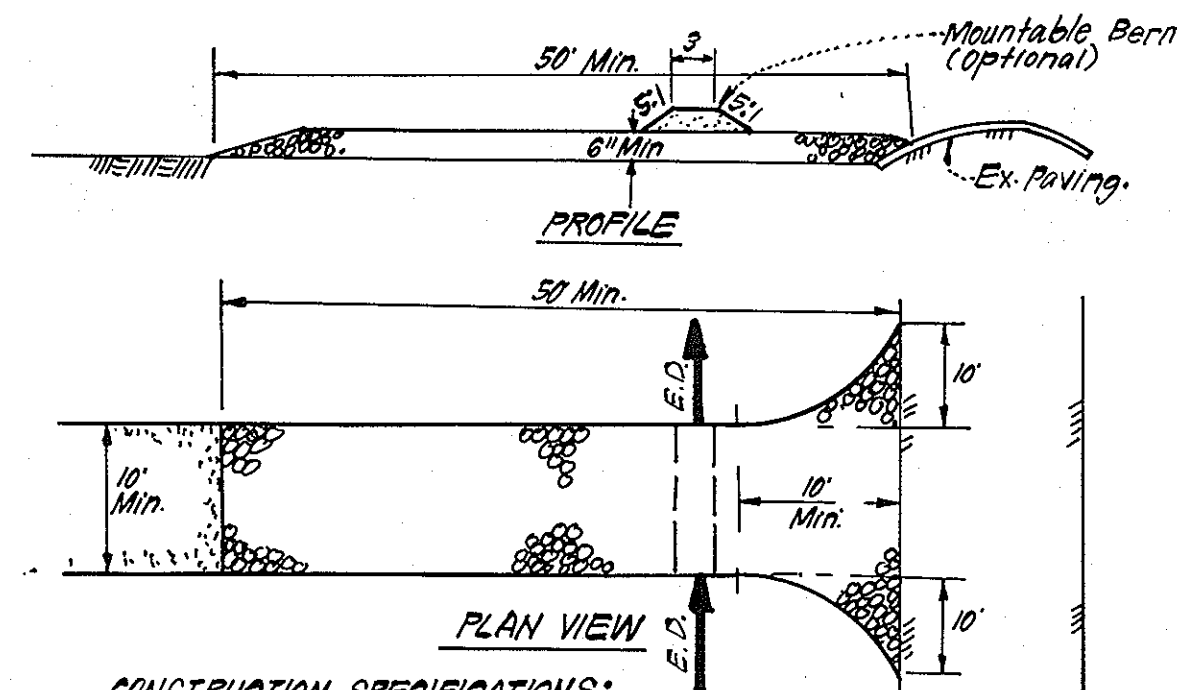
SCALE: 1"=30'  
 DRAWING: 3 OF 5  
 JOB NO.: M-133  
 FILE NO.: 040339E

FOR: Owen Brown Assoc. Limited Partnership One Knoll North Drive Columbia, Md. 21045



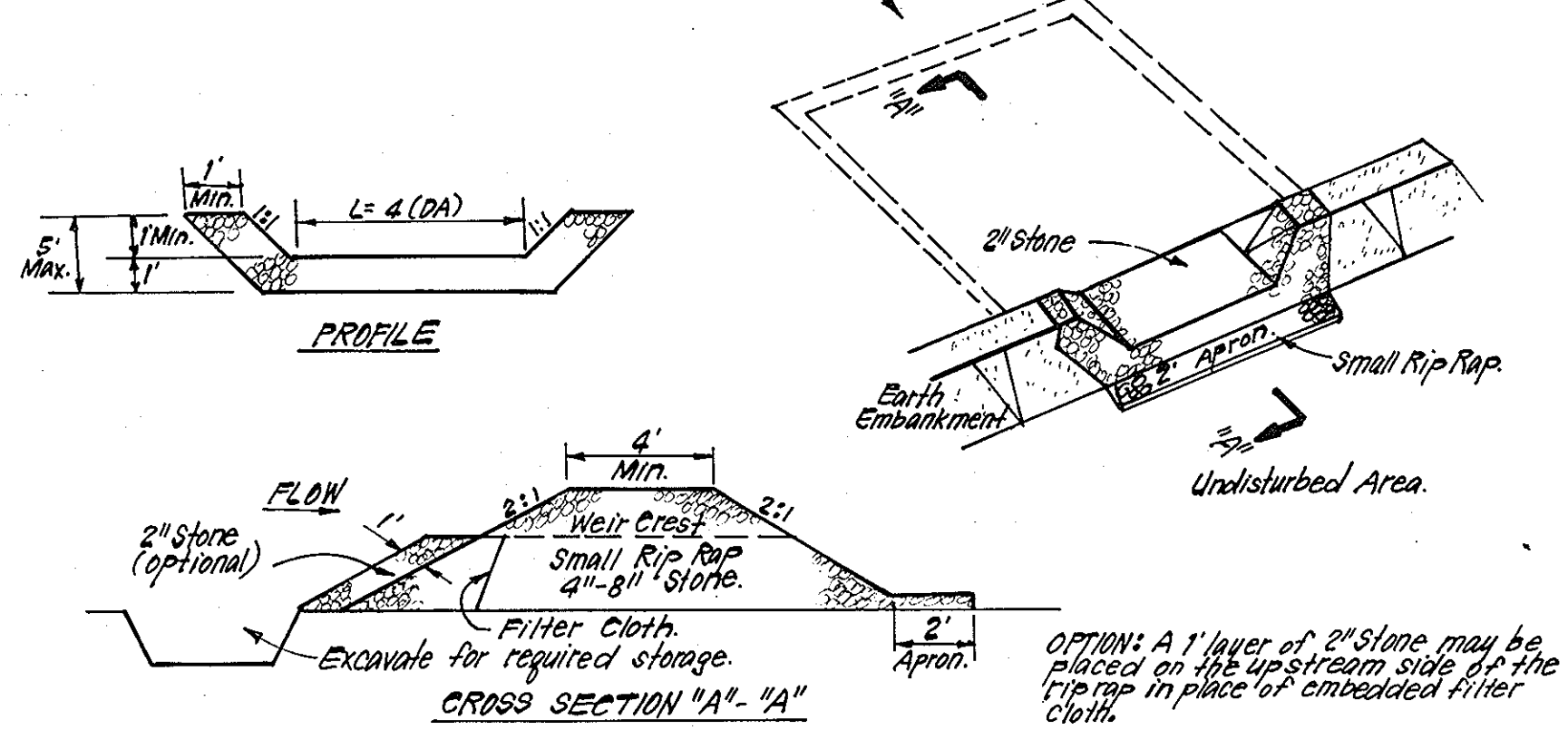
**GENERAL NOTES**

- Grading Permits shall be obtained prior to installation of sediment control.
- All Sediment Control Measures will be installed and stabilized according to this plan prior to any other grading, clearing or disturbance of existing surface of site.
- Notify the Bureau of Inspections and Permits at least 24 hours before starting any work.
- All Sediment Control Practices to conform to the "Standards and Specs. for Soil Erosion and Sediment Control in Developing Areas", and shall be adjusted to meet actual field conditions.
- All structural Sediment Control Measures are to remain in place until permission for their removal has been obtained from the Bureau of Inspections and Permits.
- 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.
- It will be the developer's responsibility to provide additional Sediment & Erosion Control Devices to protect stabilized areas during construction.
- The contractor shall keep all public roads free of sediment deposits left from traffic leaving construction site.
- 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.
- See Pages 51.01 - 51.08 of the Maryland Stds & Specs. for Soil Erosion and Sediment Control for Permanent Seeding and Pages 50.01 - 50.05 for Temporary Seeding.
- As per COMAR 08.05.01.06 - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3:1 horizontal to one vertical (3:1) and (b) fourteen days as to all other disturbed graded areas on the project site.
- All Pipes to be blocked at the end of each day (See detail below).
- The total amount of Straw Bale Dikes/Silt Fence shown = 1500 L.F.
- SITE ANALYSIS:**
  - A Total Area: 4.209 Acres
  - B Area to be Reroofed: 0.359 Acres
  - C Area to be Paved: 2.086 Acres
  - D Area to be Seeded: 1.764 Acres
  - E Area Undisturbed: NONE Acres
- All sediment traps must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the Ho. Co. Design Manual for Storm Drainage.



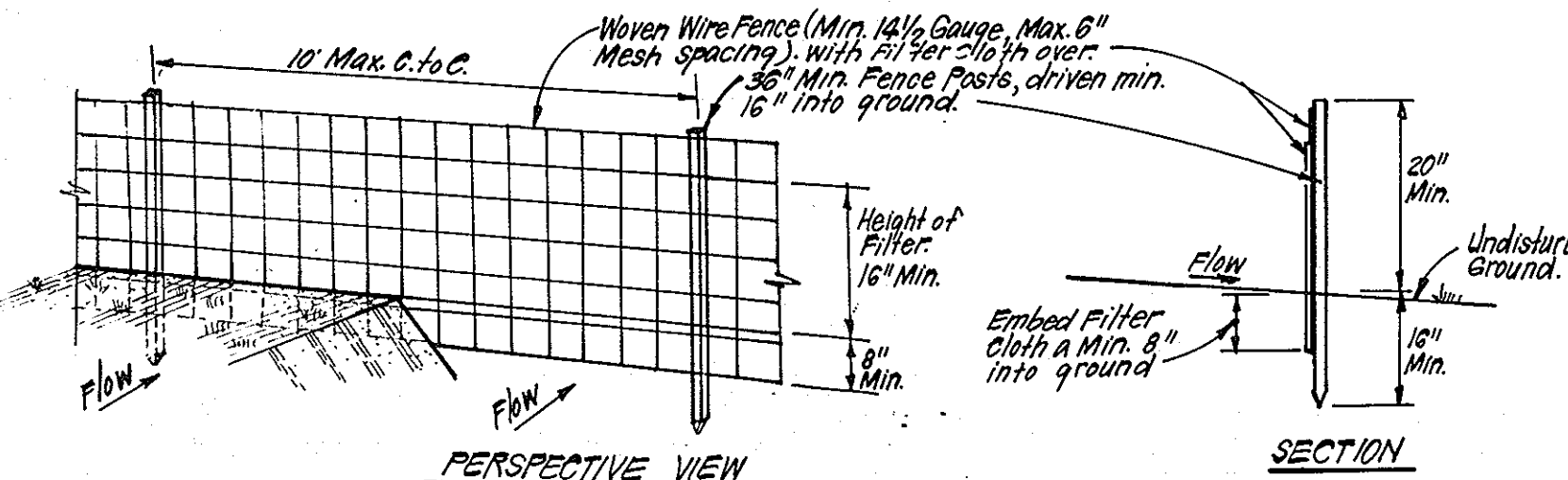
**CONSTRUCTION SPECIFICATIONS:**

- Stone Size - Use 2" Stone, or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 50 feet (except on a single residence lot where a 30 min. length would apply).
- Thickness - Not less than 12".
- Width - Ten foot min, but not less than the full width at point where ingress occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand. Sediment or fill dumped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.



**CONSTRUCTION SPECIFICATIONS:**

- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The soil area shall be cleared.
- The fill material for the embankment shall be free of roots and other objectionable material. The embankment shall be compacted by hand using a tamper or other suitable equipment. It is to be constructed.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small rip-rap 4"-8" along with 1" thickness of 2" aggregate placed on the up-grade side on the small rip-rap or embedded filter cloth in the rip-rap.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

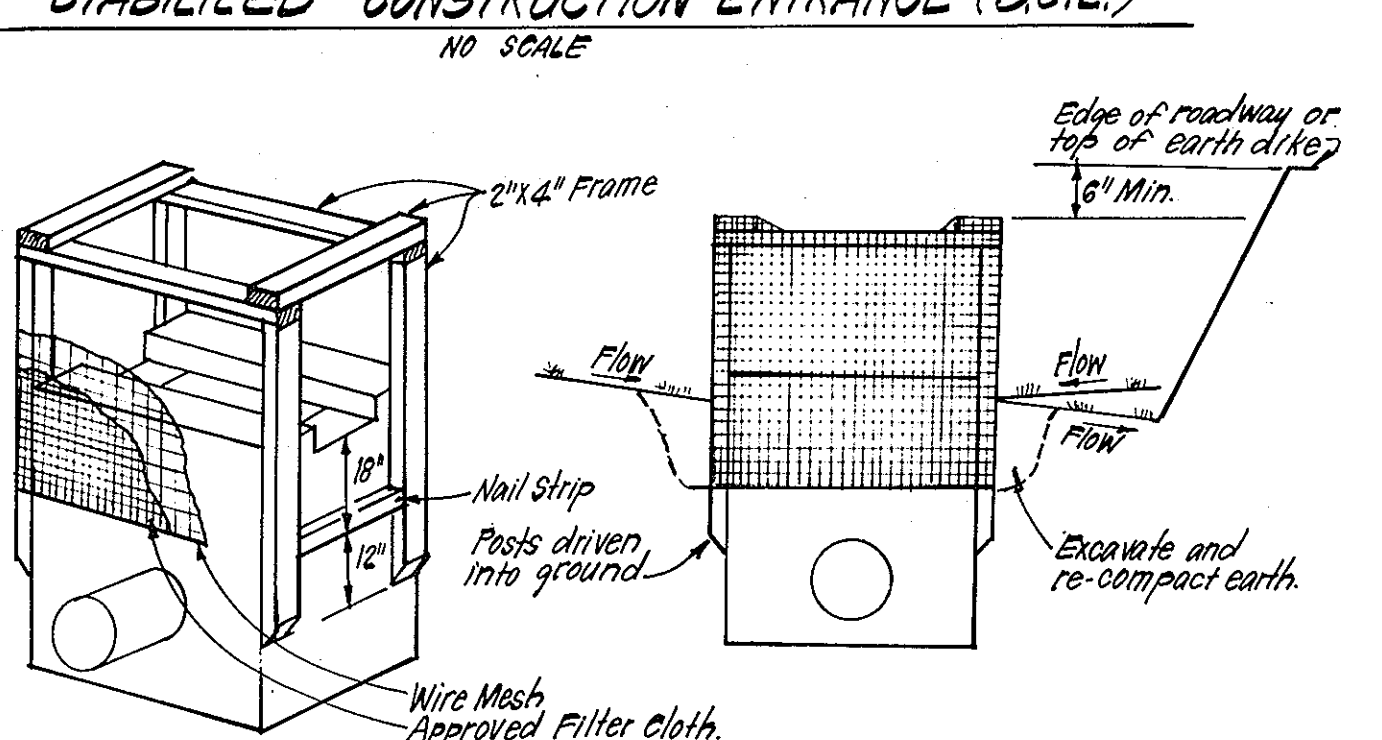


**CONSTRUCTION SPECIFICATIONS:**

- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
- When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and material removed when "bulges" develop in Silt Fence.

**POSTS:** Steel, either T or U Type or 2" Hardwood.  
**FENCE:** Woven Wire, 14 1/2 Gauge, 6" Max. Mesh Opening.  
**FILTER CLOTH:** Filter K, Mirafly 100X, Stablanta, T140N or Approv. equal.  
**PREFABRICATED UNIT:** Geofab, Envirofence, or Approv. equal.

**SILT FENCE DETAIL (S)**  
NO SCALE



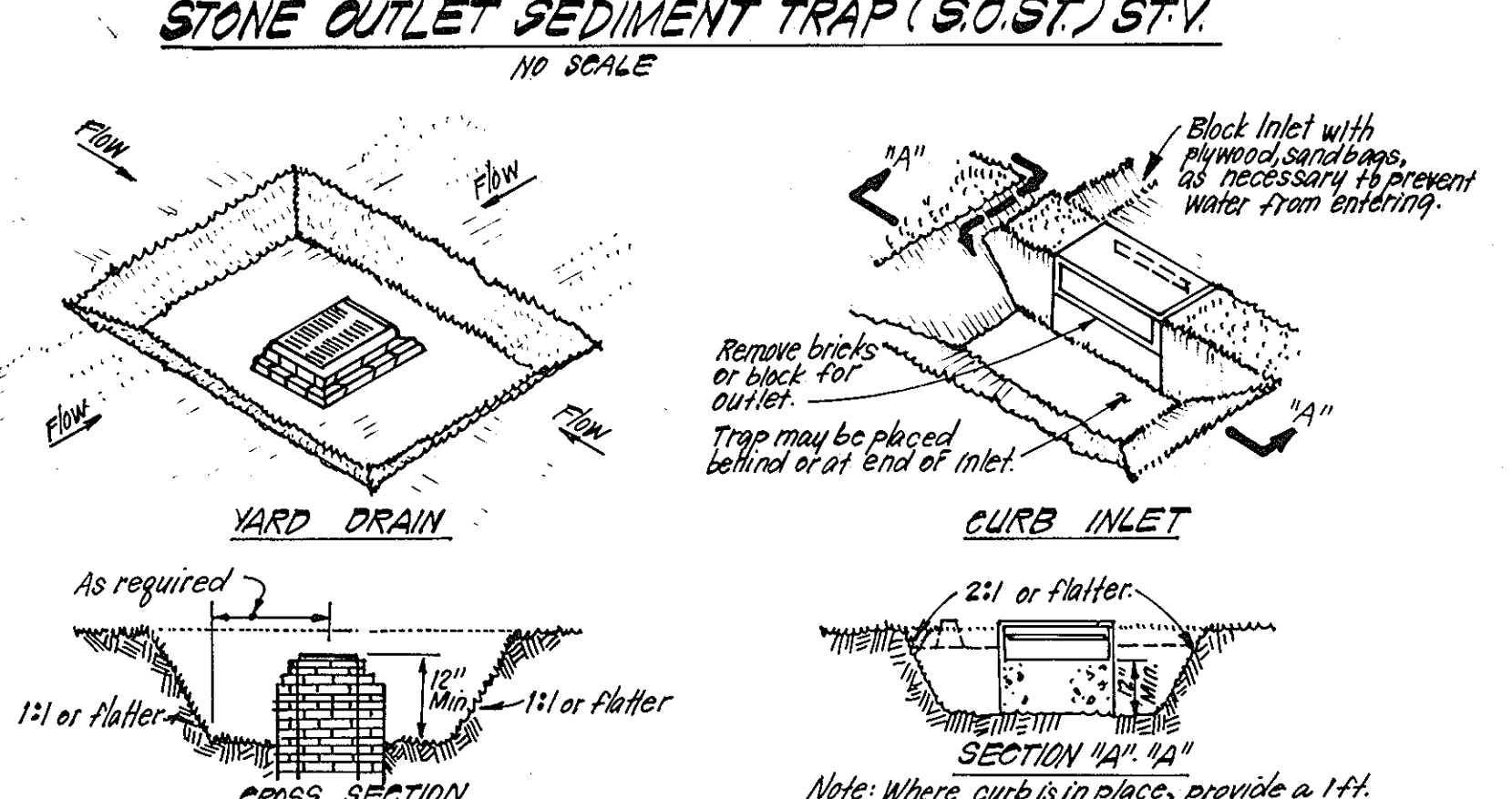
**CONSTRUCTION SPECIFICATIONS:**

- Woven wire fence to be fastened securely to fence posts with wire ties or staples.
- Filter cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
- When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and material removed when "bulges" develop in Silt Fence.

**POSTS:** Steel, either T or U Type or 2" Hardwood.  
**FENCE:** Woven Wire, 14 1/2 Gauge, 6" Max. Mesh Opening.  
**FILTER CLOTH:** Filter K, Mirafly 100X, Stablanta, T140N or Approv. equal.  
**PREFABRICATED UNIT:** Geofab, Envirofence, or Approv. equal.

**SWALE INLET PROTECTION DETAIL**  
NO SCALE

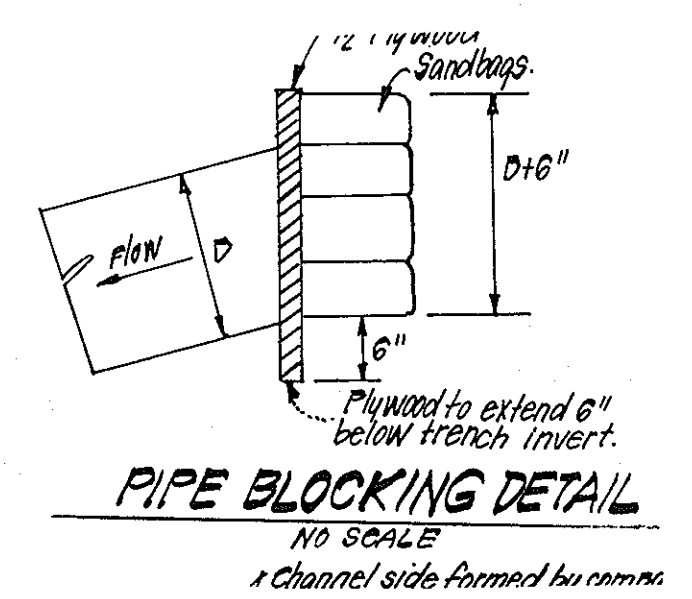
**CURB INLET PROTECTION DETAIL**  
NO SCALE



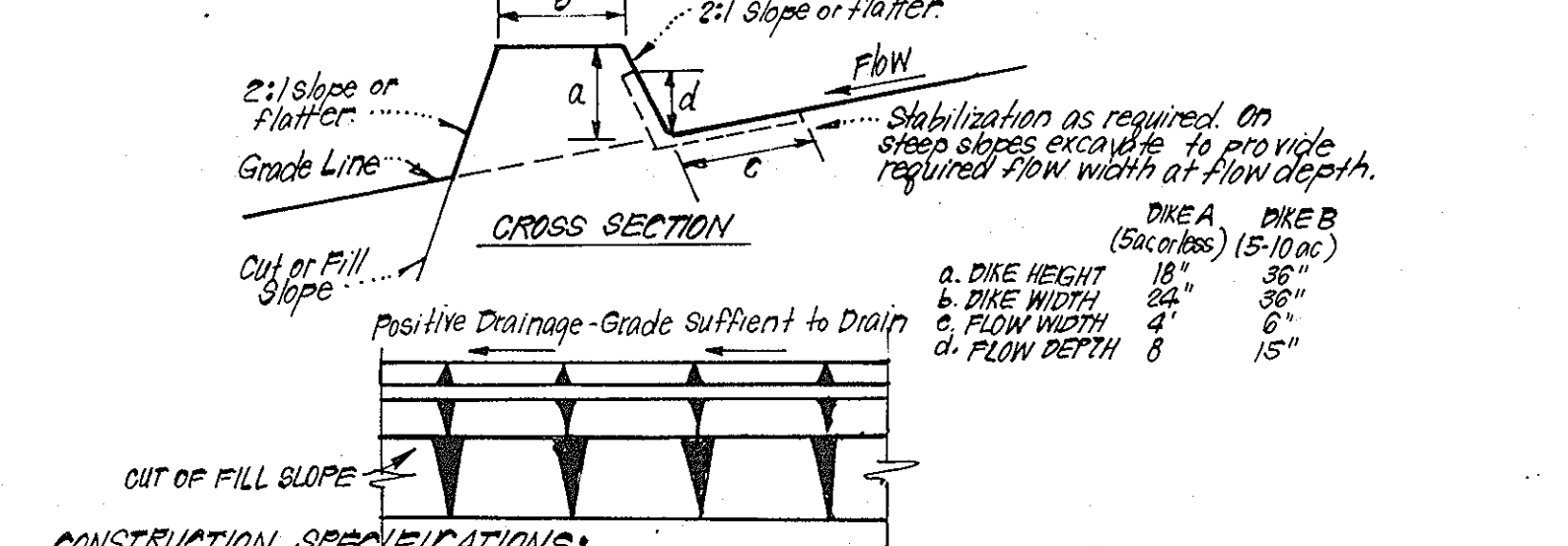
**CONSTRUCTION SPECIFICATIONS:**

- Sediment shall be removed and the trap restored to its original dimensions when sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The volume of sediment storage shall be 1000 cu. ft. per acre of contributing drainage.
- The structure shall be inspected after each rain and repairs made as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
- The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
- All cut slopes shall be 1:1 or flatter.

**STORM INLET SEDIMENT TRAP (S.I.S.T.) ST III**  
NO SCALE



**PIPE BLOCKING DETAIL**  
NO SCALE



**CONSTRUCTION SPECIFICATIONS:**

- All dikes shall be compacted by earth-moving equipment.
- All dikes shall have positive drainage to an outlet.
- Top width may be wider and side slopes may be flatter if desired, to facilitate crossing by construction traffic.
- Final location should be adjusted as needed to utilize a stabilized safe outlet.
- Earth dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin where either the dike channel or the drainage area above the dike are not adequately stabilized.
- Stabilization shall be: (A) in accordance with standard specifications for seed and straw mulch or straw mulch if not in seeding season, (B) flow channel as per chart below.

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5 - 3.0%	Seed & Straw Mulch	Seed or Straw Mulch
2	3.1 - 5.0%	Seed & Straw Mulch	Seed, W/line, or Excelsior's Sod, 2" Stone
3	5.1 - 8.0%	Seed W/line, or Sod, 2" Stone	Lined Rip Rap 4"-8" Stone
4	8.1 - 20.0%	Lined Rip Rap 4"-8" Stone	Engineering Design

A. Stone to be 2" Stone, or recycled concrete equivalent, in a layer at least 3" thick and be pressed into soil with construction equipment.  
 B. Rip Rap to be 4"-8" in a layer at least 8" thick, pressed into soil.  
 C. Approved equivalents can be substituted for any of the above materials.

**EARTH DIKE DETAIL (E.D.)**  
NO SCALE

**CONSTRUCTION SPECIFICATIONS:**

- Excavate completely around inlet to a depth of 18" below notch elevation.
- Drive 2x4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2x4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
- Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
- Stretch filter cloth tightly over wire mesh. The cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and lashed when fastened down.
- Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
- If the inlet is not in a low point, construct a compacted earth dike in the ditch line below it. The top of this earth dike is to be at least 6" higher than the top of frame (weir).
- The structure must be inspected frequently and filter fabric replaced when clogged.

**II PROCEDURE: SWALE, DITCHLINE OR YARD INLET PROTECTION**

- Attach a continuous piece of wire mesh (30" min. width by throat length plus 4" to the 2x4" weir (measuring throat length plus 2" as shown on site drawing).
- Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2x4" weir.
- Securely nail the 2x4" weir to 3" long vertical spacers to be located between the weir and inlet face (max 6" apart).
- Place the assembly against the inlet throat and nail (min. 2" lengths of 2x4" to the top of the weir at spacer locations. These 2x4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight).
- The assembly shall be placed so that the end spacers are a min. 1' beyond both ends of throat opening.
- From the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
- This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow to inlet.

**INLET PROTECTION DETAIL (I.P.D.)**  
NO SCALE

**DEVELOPER'S/BUILDER'S CERTIFICATE**

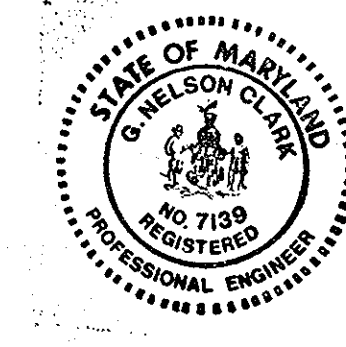
"I/We certify that all development and construction will be done according to this plan of development and plan for erosion and sediment control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Dept. of Natural Resources Approved Training 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 J. [Signature]* Date: 12-3-84  
 W.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.

Signature of Engineer: *G. Nelson Clark* Date: 12-3-84  
 G. Nelson Clark



**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 12-12-84  
*[Signature]*

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

DESIGNED	SCALE
EP	As Shown
DRAWN	DRAWING
KIW	4 OF 5
CHECKED	JOB NO.
EP	84-033
DATE	FILE NO.
12-3-84	84-033 SE

**SEDIMENT & EROSION CONTROL PLAN**  
 WATERVIEW OFFICE CENTRE  
 LOT A-21  
**COLUMBIA**  
 VILLAGE OF OWEN BROWN  
 SECTION 2 AREA 2  
 6TH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 FOR: Owen Brown Assoc. Limited Partnership  
 One Knoll North Drive  
 Columbia, Md. 21045

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,**  
 HOWARD COUNTY HEALTH DEPARTMENT  
 Signature: *Joseph Boylen* Date: 2-27-85  
 COUNTY HEALTH OFFICER

**APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING**  
 Signature: *Donald Davis* Date: 3-4-85  
 PLANNING DIRECTOR

**CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION**  
 Signature: *William Whittman* Date: 3-1-85

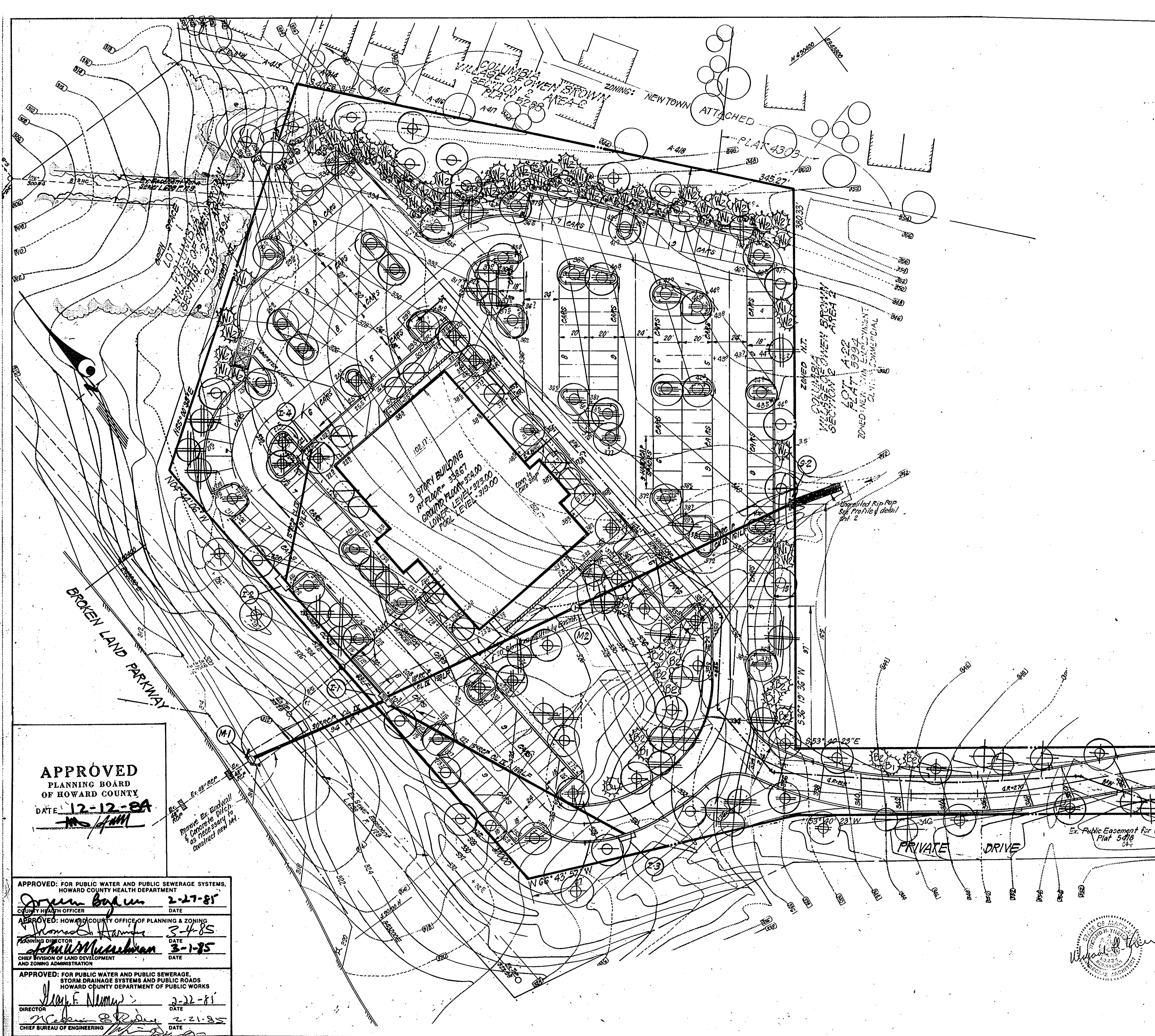
**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS**  
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Signature: *Walter F. Nummy* Date: 2-22-85  
 DIRECTOR

**CHIEF BUREAU OF ENGINEERING**  
 Signature: *Walter F. Nummy* Date: 2-21-85

**Reviewed for:** *Howard* S.C.D.  
 Memo  
 and meets Technical Requirements  
 Signature: *Howard* Date: 2-15-85  
 U.S. Soil Conservation Service

**THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.**  
 Signature: *Stephen J. [Signature]* Date: 2/16/85  
 Approved





PLANT SCHEDULE				
KEY	PLANT NAME	SIZE	QUAN	PERIOD
⊙	ZELKOVA 'VILLAGE GREEN'	2 1/2" DIA	34	D&D
⊙	VILLAGE GREEN ZELKOVA	12-14 FT		HEAT HEAD
⊙	ACER FRUIT PLUM 'RED SUNSET'		18	
⊙	RED SUNSET MAPLE			
⊙	QUERCUS FALLOUTA'S		20	
⊙	FIN OAK			
⊙	QUERCUS PILIFERA		9	
⊙	NORTHERN RED OAK			
⊙	ELECTRO T. INERMIS		12	
⊙	SHADENECTER HORTICOLA			
⊙	FRUNDO 'KAWAZAN'	2 1/2" DIA	15	
⊙	KAWAZAN CHERRY	8-10 FT		
⊙	FRUNDO C. 'THUNDERBOLT'		7	
⊙	FRUNDO C. 'THUNDERBOLT'			
⊙	FRUNDO C. 'THUNDERBOLT'		9	
⊙	WASHINGTON HANDBORN			
⊙	FRUNDO C. 'THUNDERBOLT'		12	
⊙	FRUNDO C. 'THUNDERBOLT'			
⊙	FRUNDO C. 'THUNDERBOLT'		9	
⊙	FRUNDO C. 'THUNDERBOLT'			
⊙	FRUNDO C. 'THUNDERBOLT'		2	
⊙	FRUNDO C. 'THUNDERBOLT'			
⊙	FRUNDO C. 'THUNDERBOLT'		24	D&D HEAVY
⊙	FRUNDO C. 'THUNDERBOLT'			
W1	FRUNDO C. 'THUNDERBOLT'	6-7' HT	19	D&D HEAVY
W2	FRUNDO C. 'THUNDERBOLT'	7-8' HT	25	
B1	FRUNDO C. 'THUNDERBOLT'	6-7' HT	4	
B2	FRUNDO C. 'THUNDERBOLT'	7-8' HT	10	

NOTES

CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING OF ALL PLANTING.

ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH COLUMBIA LAND PLANTING SPECIFICATIONS.

PLANTING QUANTITIES MAY BE ADJUSTED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT.

DATE: 12-12-84

REVISION

12-12-84 REVISED AS PER CLIENT

12-14-84 ADDED PLANTING ON GRADED AREAS OFF-SITE & ON 2:1 SLOPE

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 12-12-84  
*[Signature]*

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,  
HOWARD COUNTY HEALTH DEPARTMENT  
*[Signature]* 2-27-85  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*[Signature]* 3-4-85  
PLANNING DIRECTOR DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 3-1-85  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,  
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS  
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 3-22-85  
DIRECTOR DATE

*[Signature]* 2-21-85  
CHIEF BUREAU OF ENGINEERING DATE

**CLARK • FINEPROCK & SACKETT**  
ENGINEERS • PLANNERS • SURVEYORS  
11315 LOCKWOOD DRIVE SILVER SPRING, MARYLAND 20904 101-513-7400

**LANDSCAPE PLANTING PLAN**  
WATERMEN OFFICE CENTER - LOT A-21  
COLUMBIA

DESIGNED: JBC  
DRAWN: JBC  
CHECKED: WHT  
DATE: NOV 84

VILLAGE OF OWEN BROWN SECTION 2 AREA 2 GITHLETON DISTRICT HOWARD COUNTY MARYLAND  
OWEN BROWN ASSOC. LIMITED PARTNERSHIP  
COLUMBIA, MD 21046

SCALE: 1" = 20'  
DRAWING: 50P5  
JOB NO.: 84-023  
FILE NO.: 84-023

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