

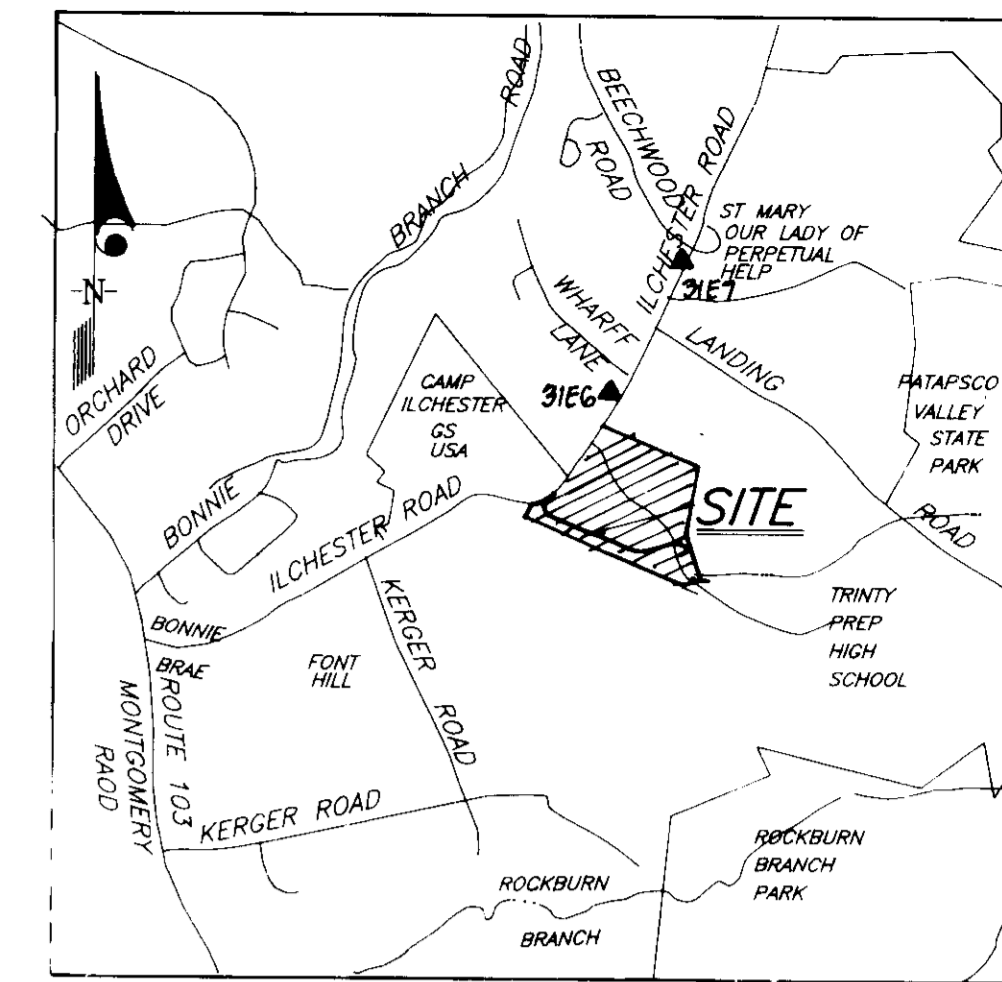
**General Notes:**

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Bureau of Engineering/Construction Inspection Division at (410) 313-1811 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.
- Project Background:**  
Location: Tax Map #31, Parcel 819 and Part of Parcel 232  
Zoning: R-20  
ZB/BA ref. N/A  
Election District: 1st Election District  
Section/Area: N/A  
Site Area: Parcel 819 27.22 Ac  
Part of Parcel 232 8.05 Ac  
Total 35.27 Ac
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- All plan dimensions are to the face of curb unless otherwise noted.
- Topography was provided by plans prepared by Schmid, Peltz & McDonald, Inc. with 2 foot contour intervals. The survey is dated January 1994.
- Coordinates are based on NAD 83 Maryland Coordinate System as projected by Howard County Geodetic Control Sta Nos. 31E6 & 31E7.
- Public water and sewer is to be utilized. Contract No. 14-3403-D
- Stormwater management is provided on-site by an extended detention facility.
- The wetland delineation was prepared by M.A. Dircks & Co., Inc. on March 3, 1994. Approved: 3/14/95
- The traffic study was prepared by Wells & Assoc., Inc. on January 18, 1994. Approved: 3/16/95
- The stormwater management facility will be privately maintained.
- The existing utilities were located by actual field survey and by a survey prepared by Schmid, Peltz & McDonald, Inc. The contractor must dig test pits, by hand, at all utility crossings and connection points to verify exact location.
- The Soils analysis was prepared by Engineering Consulting Services, LTD on July 13, 1994.
- Handicap parking details shall be in accordance with the "Maryland Building Code for the Handicapped", Section 5.01-7.05.
- All driveways and parking to be owned and maintained by Howard County Board of Education.
- Any damage to County owned right-of-way to be corrected at the contractor's expense.
- All sidewalks shall be cross sloped at 1/4" /ft. away from the building unless otherwise indicated.
- Trench bedding for storm drainage structures shall be in accordance with Howard County Standard G2.01, Class "C" Bedding.
- Gutter of curbs shall be pitched to conform to adjacent drainage patterns.
- Refer to architectural drawings for building dimensions.
- For pertinent Seeding & Landscaping Specifications see General Contract Specifications.
- Water Flow Test: Hydrant Flow Tests were taken at the existing hydrant at Ilchester Road, December 1994 with the following results: Static 58 PSI  
Residual 34 PSI  
Flow 890 GPM
- Roof Drain and Foundation Drain Clean Outs to be provided with a 4" thick x 12" x 12" minimum concrete collar flush with grade, typical.
- Refer to Electrical Site Plan for Exterior Lighting Locations and Specifications
- The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of Howard County Code Forest Conservation Act. No clearing, grading or construction is permitted within the forest conservation easements; however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

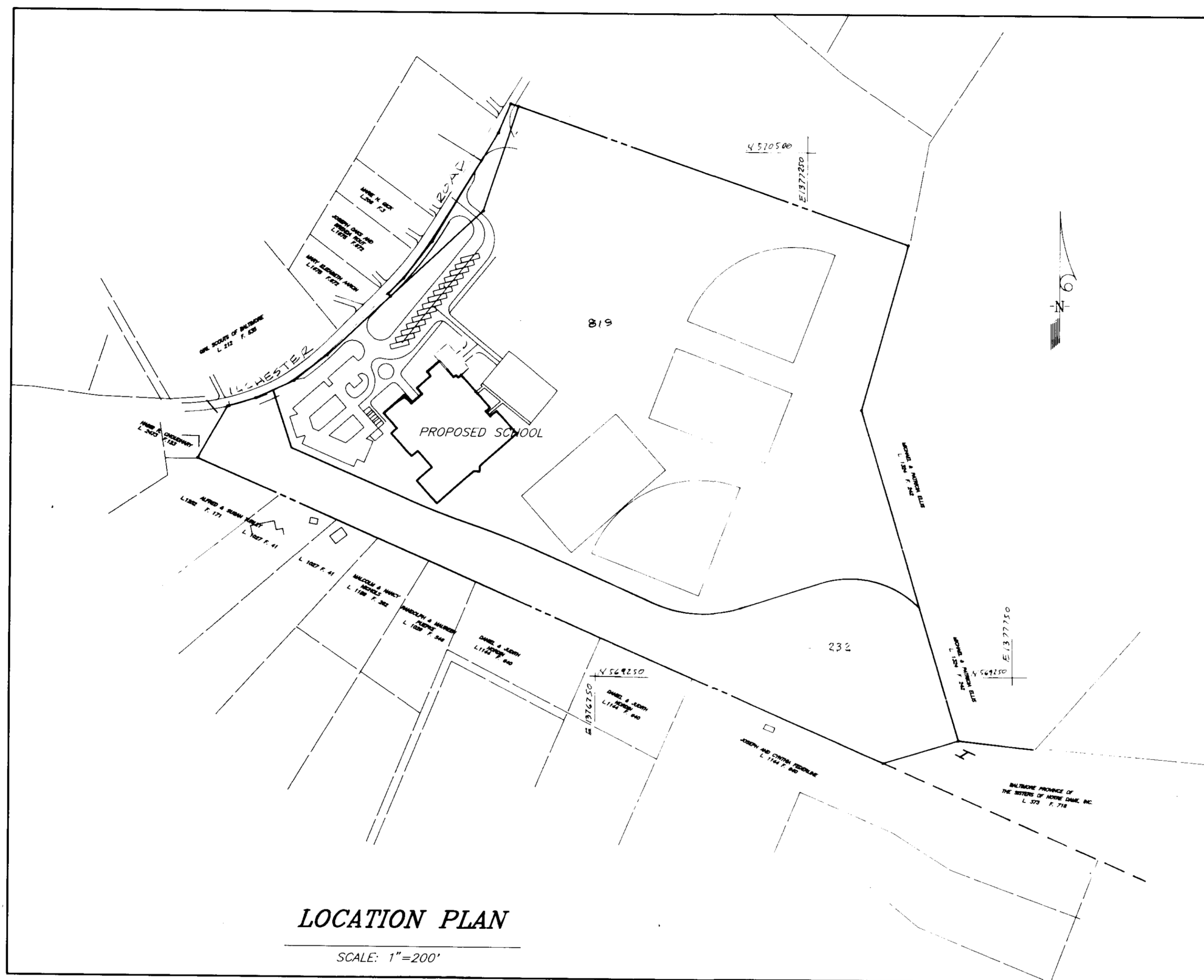
# NORTHEASTERN ELEMENTARY SCHOOL

## FIRST (1st) ELECTION DISTRICT

### HOWARD COUNTY, MARYLAND



VICINITY MAP  
SCALE 1"=2000'



LOCATION PLAN  
SCALE: 1"=200'

**SITE ANALYSIS**

- Site Area Parcel 819 = 27.22 Ac  
Part of parcel 232 = 8.05 Ac  
Total Project Area = 35.27 Ac
- Zoning: R-20
- Proposed Structure use: Elementary School
- Parking Required (per HCPSS): 78  
Parking Provided: 78
- Area Tabulation:  
Parcel 819 27.22 Ac Total Site  
Building Coverage 1.1 Ac 4.0% of site  
Paved Surfaces 2.5 Ac 9.2% of site  
Green Areas 23.6 Ac 86.8% of site  
For Part of Parcel 232: 8.05 Ac Total Site  
Paved Surfaces 1.06 Ac 13.2% of site  
Green Areas 6.99 AC 86.8% of site
- Building Restriction and Use Setbacks:  
Front BRL = 40'  
Side BRL = 10'  
Rear BRL = 30'  
Use Setbacks are 20' from Property Line

SHEET INDEX	
NO.	DESCRIPTION
C-1	COVER SHEET
C-2	SITE DEVELOPMENT PLAN (A)
C-3	SITE DEVELOPMENT PLAN (B)
C-4	PAVING LAYOUT PLAN (C)
C-5	NEW ROAD STREET GRADE
C-6	SITE DETAILS
C-7	SITE DETAILS
C-8	STORM DRAINAGE PROFILES AND DETAILS
C-9	STORM DRAINAGE PROFILES
C-10	STORM DRAINAGE AND WATER & SEWER PROFILES
C-11	STORMWATER MANAGEMENT PROFILE AND DETAILS
C-12	STORMWATER MANAGEMENT DETAILS
C-13	STORMWATER MANAGEMENT SPECIFICATIONS AND BORING LOGS
C-14	STORMWATER MANAGEMENT - DRAINAGE AREA MAP
C-15	STORM DRAINAGE - DRAINAGE AREA MAP
C-16	SEDIMENT AND EROSION CONTROL PLANS
C-17	SEDIMENT AND EROSION CONTROL PLANS
C-18	SEDIMENT AND EROSION CONTROL PLANS
C-19	SEDIMENT AND EROSION CONTROL DETAILS
C-20	SEDIMENT AND EROSION CONTROL DETAILS
C-21	LANDSCAPE PLAN
C-22	LANDSCAPE PLAN

SUPPLEMENTAL PLANS	
NO.	DESCRIPTION
1 of 2	FOREST STAND DELINEATION PLAN
2 of 2	FOREST STAND DELINEATION PLAN
1 of 3	FOREST CONSERVATION PLAN
2 of 3	FOREST CONSERVATION PLAN
3 of 3	FOREST CONSERVATION PLAN
1 of 2	EXISTING SOILS & SLOPES INVENTORY
2 of 2	EXISTING SOILS & SLOPES INVENTORY

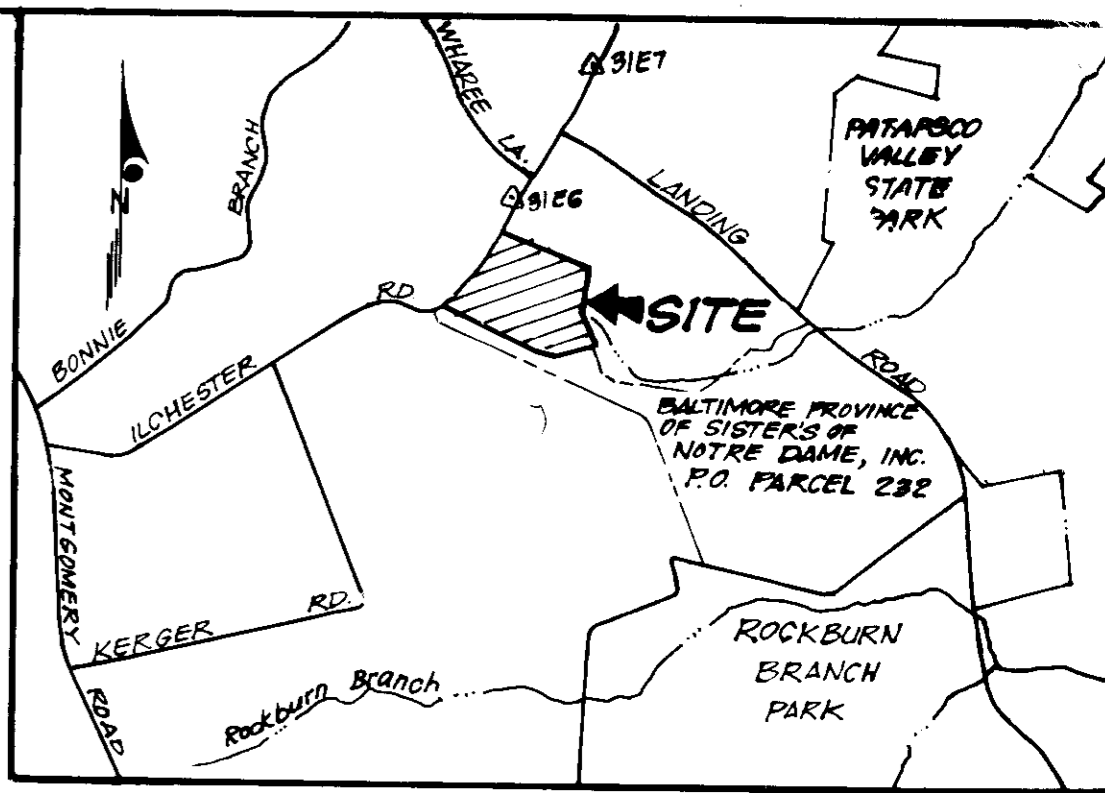
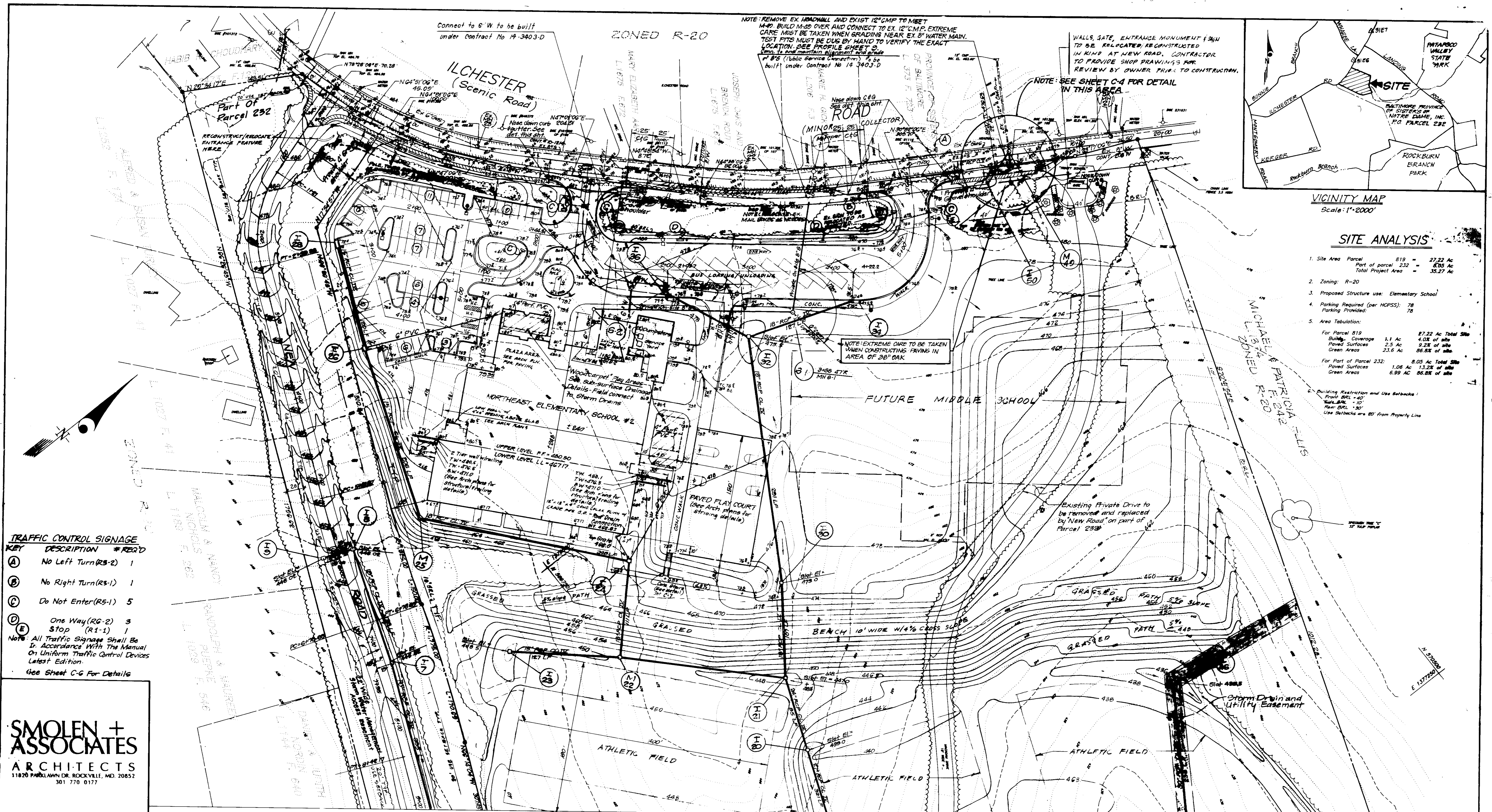
**GENERAL NOTES CONTINUED**  
28 This plan is subject to Waiver Petition WP#95-06 Approved 3/28/95 to allow disturbance of the Wetland Buffer for the construction of outfall structure S-1.  
29 A Letter of Authorization from the Maryland Department of Natural Resources is being obtained for the Wetland and Wetland Buffer disturbance.



ADDRESS CHART		
PARCEL No.	STREET ADDRESS	
819	4931 NORTHEASTERN	
SUBDIVISION NAME: PARCEL "A" NORTHEASTERN ELEMENTARY SCHOOL		
PLAT No. 332/620	SECT./AREA 1/232	
BLOCK No. 16	ZONE R-20	
TAX ZONE MAP 31	ELECT. DIST. 1st	
CENSUS TR. 6011.01	SEWER CODE 1251800	
<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINISTREEL WAY • COLUMBIA, MD 21045 • (410) 381-7500 BALTO. • (301) 621-8100 WASH.		
DESIGNED W.H.T.	COVER SHEET	SCALE As Shown
DRAWN Z.A.H.	<b>NORTHEASTERN ELEMENTARY SCHOOL #2</b>	DRAWING C-1 OF 22
CHECKED H.T.	TAX MAP No. 31, PARCEL 819 & PART OF PARCEL 232	JOB NO. 93-101
DATE 3-16-95	FIRST (1st) ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO. 93-101
OWNER: HOWARD COUNTY BOARD OF EDUCATION 10810 ROUTE 108 ELLICOTT CITY, MD. 21043		

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT COUNTY HEALTH OFFICER _____ DATE _____ APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING DIRECTOR _____ DATE 3/16/95 ALMA SWIMMANSKI CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 3/20/95		<b>SMOLEN + ASSOCIATES ARCHITECTS</b> 11820 PARKWAY DR. ROCKVILLE, MD. 20852 301 770 0177
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DIRECTOR _____ DATE 3/24/95 CHIEF BUREAU OF ENGINEERING _____ DATE 3/24/95		





VICINITY MAP  
Scale: 1"=2000'

**SITE ANALYSIS**

- Site Area Parcel 819 = 27.22 Ac  
Part of parcel 232 = 8.05 Ac  
Total Project Area = 35.27 Ac
- Zoning: R-20
- Proposed Structure use: Elementary School
- Parking Required (per HOPSS): 78  
Parking Provided: 78
- Area Tabulation:
 

For Parcel 819	Building Coverage	1.1 Ac	4.0% of site
	Paved Surfaces	2.5 Ac	9.2% of site
	Green Areas	23.6 Ac	86.8% of site
For Part of Parcel 232:	Building Coverage	1.06 Ac	13.2% of site
	Paved Surfaces	6.99 Ac	86.8% of site
	Green Areas	6.99 Ac	86.8% of site

Building Restriction and Use Setbacks:  
 Setback: 40'  
 Side B.R.L.: 10'  
 Rear B.R.L.: 30'  
 Use Setbacks are 80' from Property Line

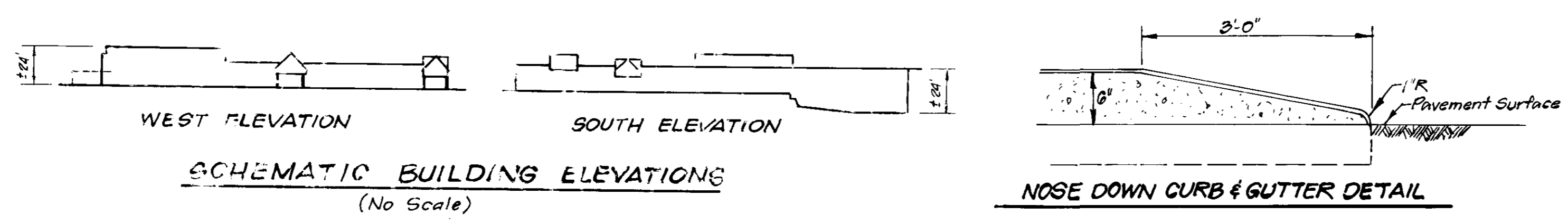
**TRAFFIC CONTROL SIGNAGE**

KEY	DESCRIPTION	*REQ'D
(A)	No Left Turn (R3-2)	1
(B)	No Right Turn (R3-1)	1
(C)	Do Not Enter (R5-1)	5
(D)	One Way (R6-2)	3
(E)	Stop (R1-1)	1

Note: All Traffic Signage Shall Be In Accordance With The Manual On Uniform Traffic Control Devices Latest Edition.  
See Sheet C-G For Details

**SMOLEN + ASSOCIATES ARCHITECTS**  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770 0177

MATCH LINE SEE SHEET 3 OF 22



NO.	REVISION	DATE
2	Revised Paved Shoulder to Gravel Shoulder of Ilchester Rd., Rev. limit of Auxiliary Lane, Rev. Pipe Size Between I-32 - I-34	8-17-95
1	Added nose down curb detail; Revised spot elev. grading @ Ilchester Road. Removed curb & gutter @ Ilchester Road; Revised S.D. Note #4.40 - M-50 added @ shoulder @ school site	8-11-95

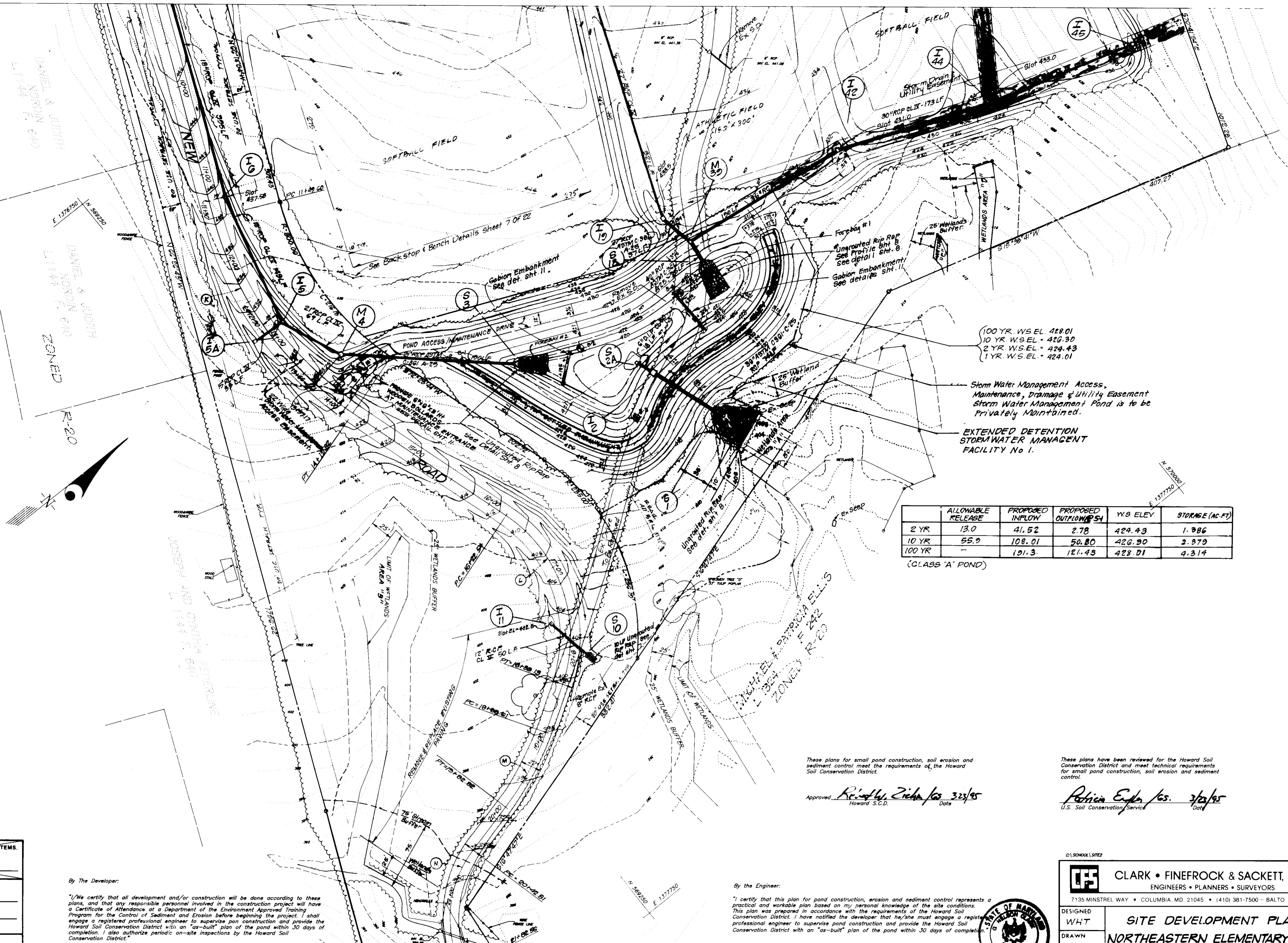
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	DATE
COUNTY HEALTH OFFICER	
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	DATE
DIRECTOR	3/23/95
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
	3/29/95
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	DATE
DIRECTOR	3/24/95
CHIEF BUREAU OF ENGINEERING	DATE
	3/24/95

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DESIGNED VHT	SCALE 1"=50'
DRAWN PTD	<b>SITE DEVELOPMENT PLAN</b>
CHECKED WKA	<b>NORTHEASTERN ELEMENTARY SCHOOL</b>
DATE 3-16-95	TAX MAP NO 31, PARCEL 819 & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
	OWNER: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLCOTT CITY, MD. 21043



SPP 95-55





100 YR WSEL - 428.01  
 10 YR WSEL - 426.30  
 2 YR WSEL - 424.43  
 1 YR WSEL - 424.01

Storm Water Management Access, Maintenance, Drainage & Utility Easement  
 Storm Water Management Pond is to be Privately Maintained.

EXTENDED DETENTION STORM WATER MANAGEMENT FACILITY No. 1.

	ALLOWABLE RELEASE	PROPOSED INFLOW	PROPOSED OUTFLOW @ 5H	W.B. ELEV.	STORAGE (AC.FT)
2 YR	13.0	41.52	2.78	424.43	1.086
10 YR	55.9	108.01	50.80	426.30	2.379
100 YR	-	101.3	121.43	428.01	4.314

(CLASS 'A' POND)

**SMOLEN + ASSOCIATES**  
 ARCHITECTS  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770 0177

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

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE 3/11/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH T.C. DATE 3/30/95

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

DIRECTOR \_\_\_\_\_ DATE 3/24/95

CHIEF BUREAU OF ENGINEERING \_\_\_\_\_ DATE 3/24/95

By The Developer:

"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 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]*  
 Signature of Developer  
 3/11/95  
 Date

The Baltimore Province of  
 The Sisters Of Notre Dame,  
 De Namur, Inc.  
 Part Of Parcel 232,  
 Zoned R-20

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

Approved: *[Signature]* 3/25/95  
 Howard S.C.D. Date

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

*[Signature]* 3/24/95  
 U.S. Soil Conservation Service Date

By The Engineer:

"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]* 3-16-95  
 Signature of Engineer Date

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 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.

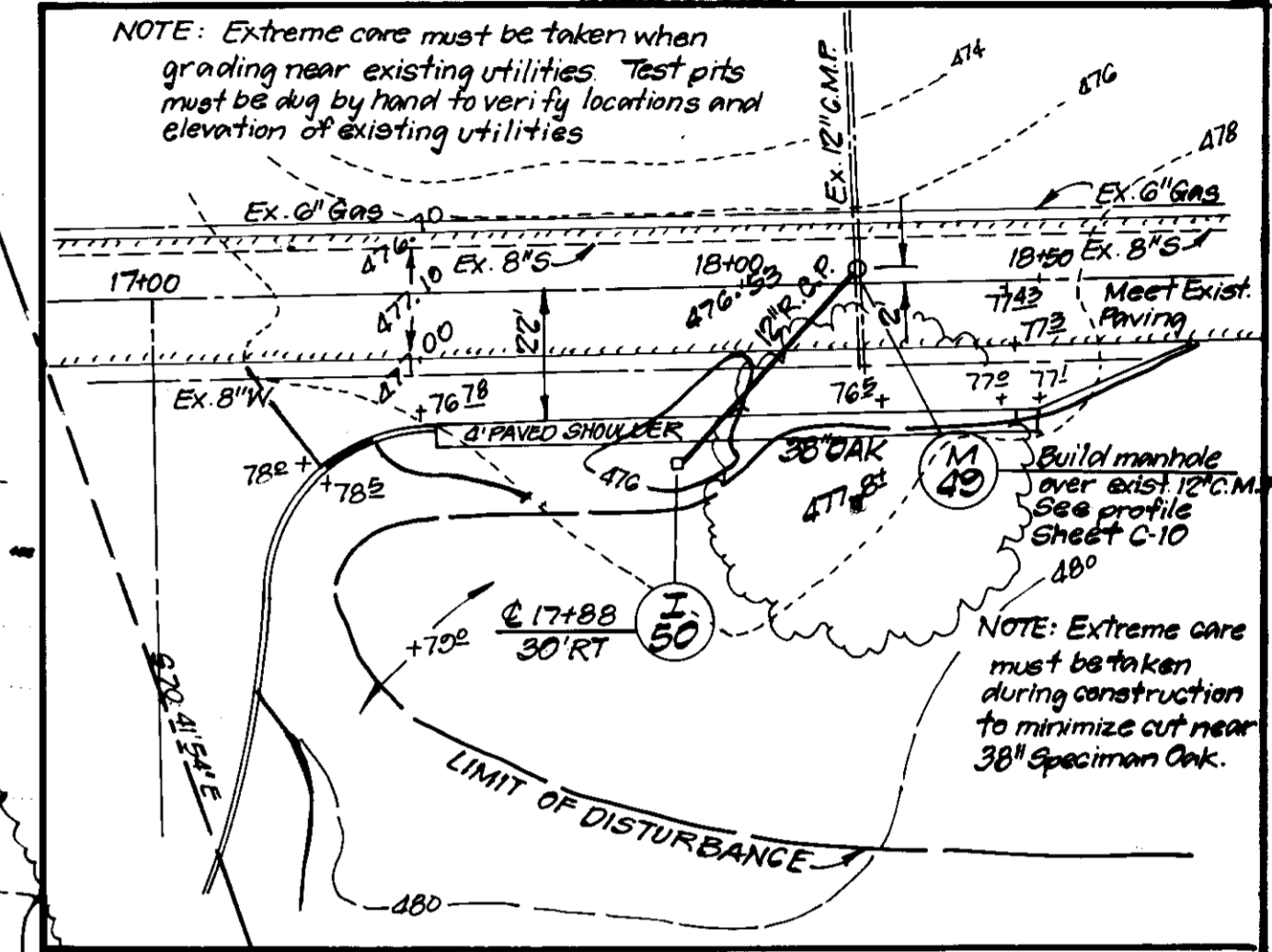
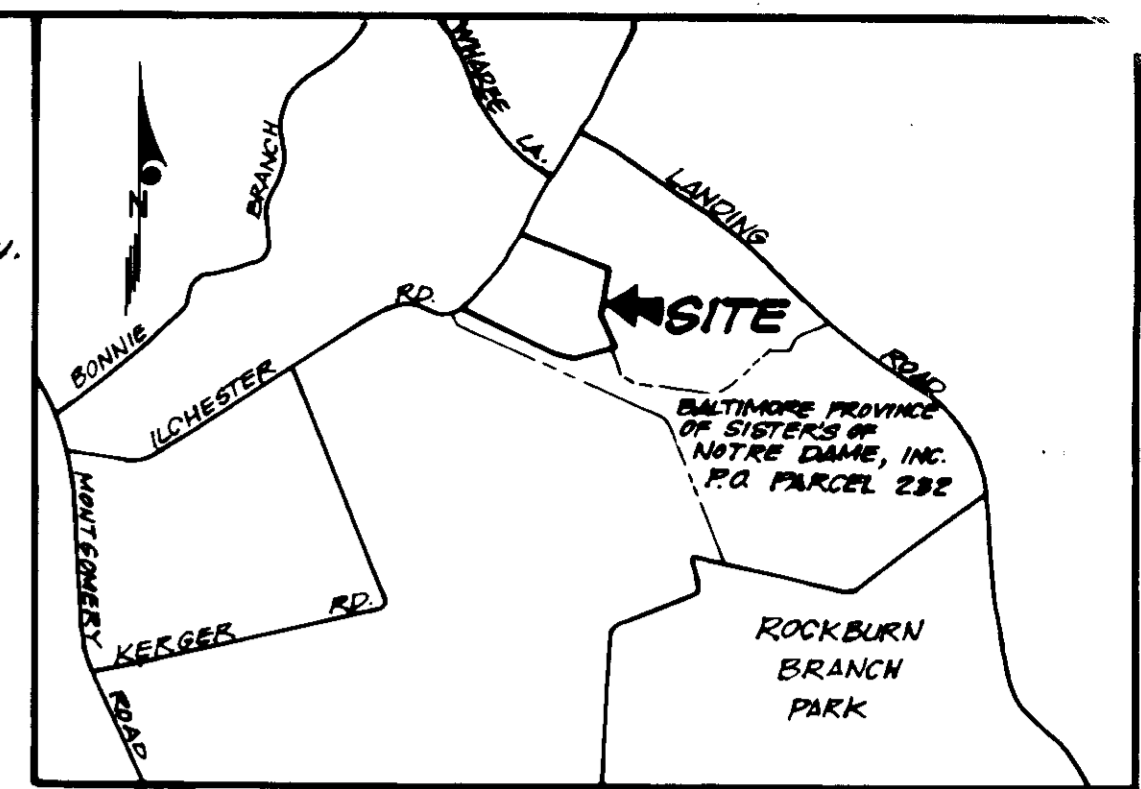
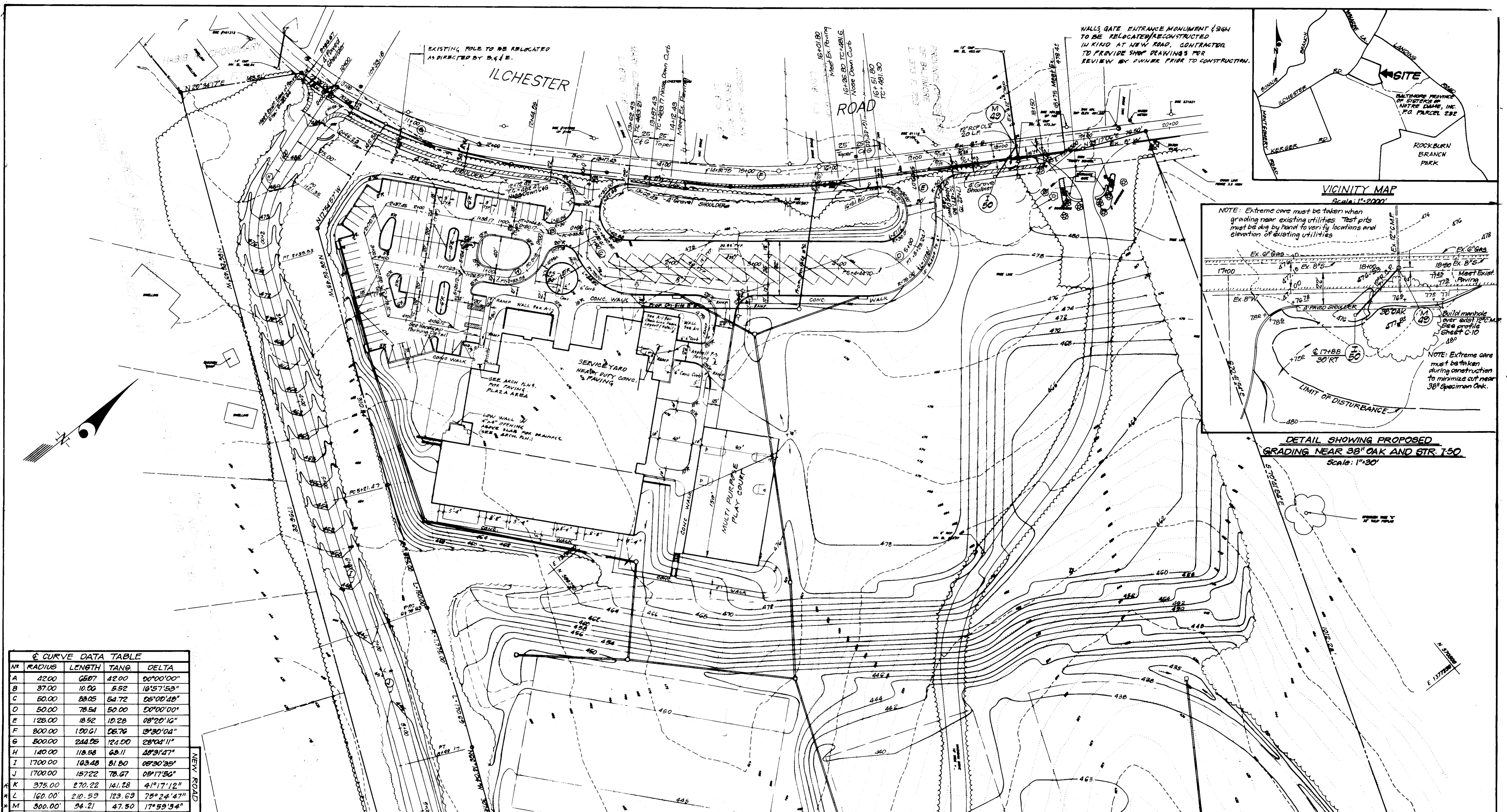
DESIGNED: WHT  
 DRAWN: PTD  
 CHECKED: MCK/KJMM  
 DATE: 3-16-95

**SITE DEVELOPMENT PLAN**  
**NORTHEASTERN ELEMENTARY SCHOOL**  
 TAX MAP NO 31, PARCEL 810 & PART OF PARCEL 237  
 1<sup>ST</sup> ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 50'  
 DRAWING: C-3 of 25  
 JOB NO: 93-101  
 FILE NO: 93-100-X

DATE: 3-16-95  
 OWNER: HOWARD COUNTY BOARD OF EDUCATION  
 10910 ROUTE 108  
 ELLICOTT CITY, MD 21043





C CURVE DATA TABLE				
NO	RADIUS	LENGTH	TANG.	DELTA
A	42.00	66.07	42.00	00°00'00"
B	37.00	10.00	5.52	16°57'53"
C	50.00	89.05	54.72	05°00'48"
D	50.00	78.54	50.00	00°00'00"
E	125.00	18.52	10.28	08°20'16"
F	800.00	150.61	06.76	13°30'04"
G	500.00	244.05	124.00	28°01'11"
H	140.00	118.58	68.11	28°31'47"
I	1700.00	163.48	81.80	08°30'35"
J	1700.00	157.22	78.67	08°17'56"
K	375.00	270.22	141.28	41°17'12"
L	160.00	210.59	123.69	75°24'47"
M	300.00	94.21	47.50	17°59'34"
N	125.00	139.74	78.18	64°03'13"

MATCH LINE SEE SHEET 2 OF 3

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT

DEPUTY HEALTH OFFICER: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
Director: *Anna Summerville* DATE: 3/31/95

COMMISSIONER OF LAND DEVELOPMENT AND RESEARCH  
DATE: 3/30/95

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

Director: *James P. Slavin* DATE: 3/24/95

DATE: 3/24/95

**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177



2 Rev. Proposed shoulder to gravel shoulder of Ilchester Rd. 8-17-95  
1. Rev. Limits of Disturbance Lines 6-11-95  
Removed curb buffer @ Ilchester Road; Added inset for grading near  
M-42 & I-50; Revised T.C. elevations @ added 4' shoulder

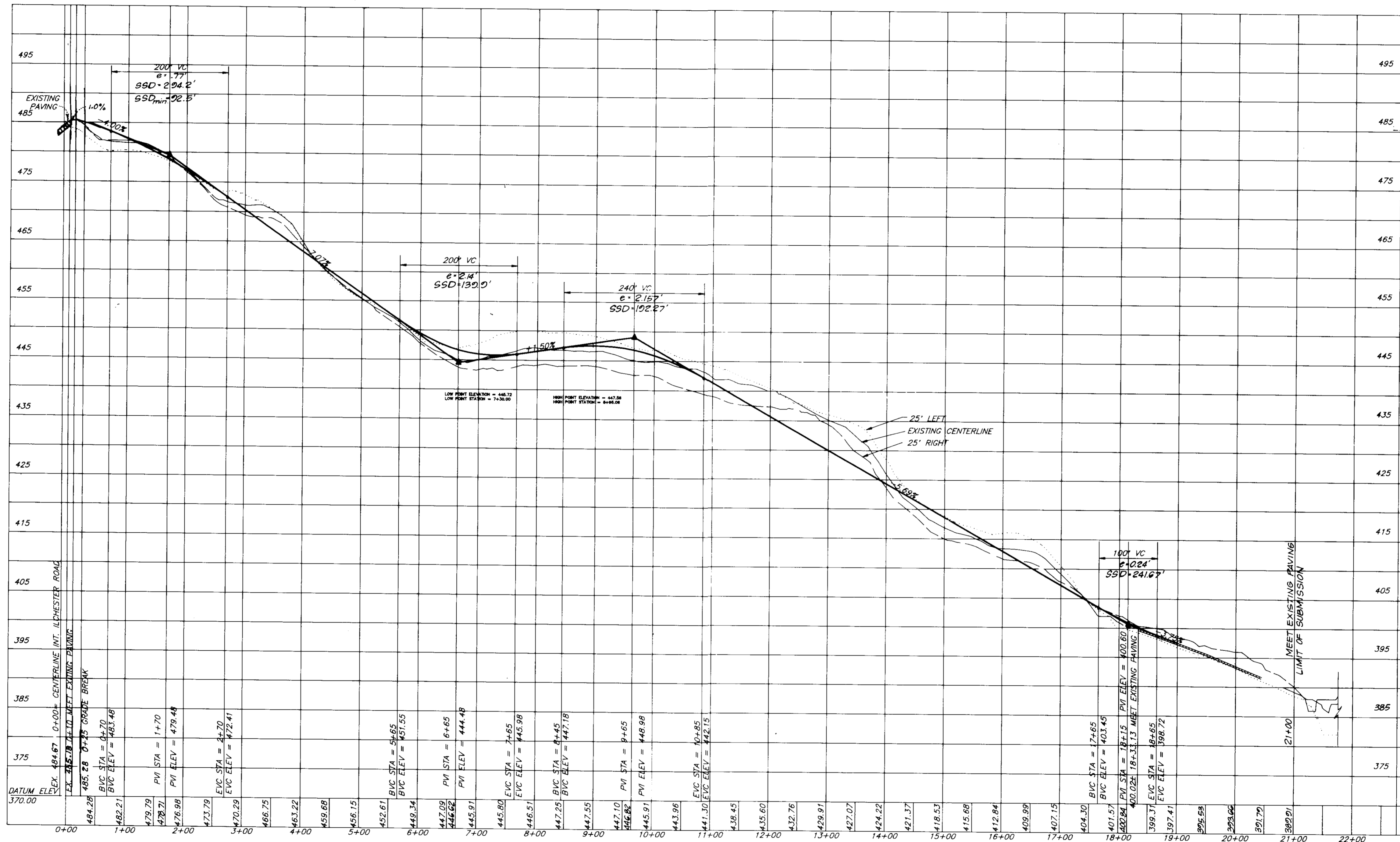
DESIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN: \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
DATE: 3-16-95

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ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 821-8100 - WASH.

SCALE: 1"=50'  
DRAWING NO.: 20-104  
JOB NO.: 20-104

**NORTHEASTERN ELEMENTARY SCHOOL**  
TAX MAP NO. 84, PARCEL 809 & PART OF PARCEL 236  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10810 ROUTE 108  
BELLGATE CITY, MD. 20814





PROFILE - NEW ROAD

SCALES:  
VERT.: 1"=100'  
HORIZ.: 1"=10'

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

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
\_\_\_\_\_  
DATE 2/21/95

DIRECTOR \_\_\_\_\_ DATE 3/31/95  
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH

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

\_\_\_\_\_  
DATE 3/29/95

DIRECTOR \_\_\_\_\_ DATE 3/24/95  
CHIEF BUREAU OF ENGINEERING

**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

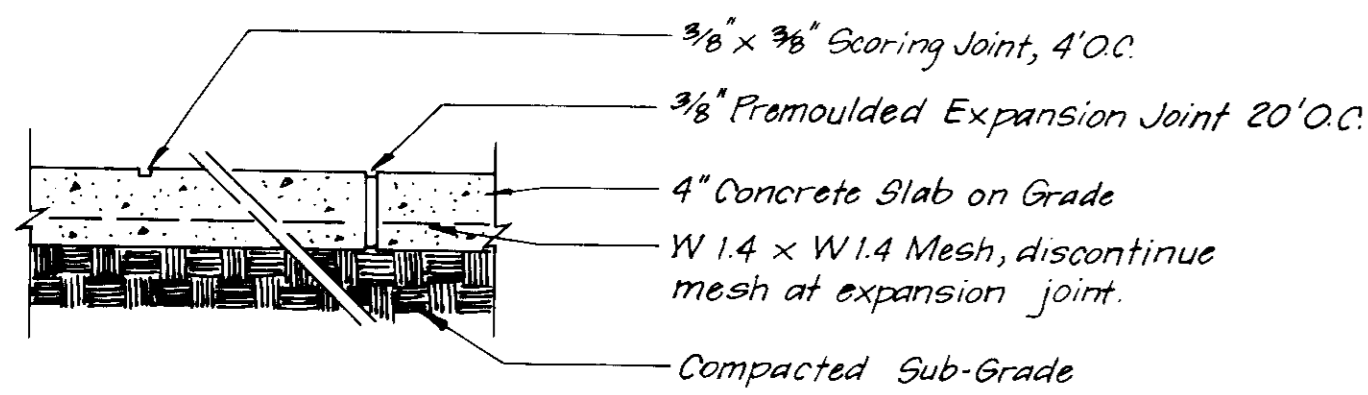


**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED KIWM	NEW ROAD STREET GRADE	SCALE As shown
DRAWN PTD	NORTHEASTERN ELEMENTARY SCHOOL #2	DRAWING C-5 OF 28
CHECKED KWK/KIWM	TAX MAP NO 31, PARCEL 819 & PART OF PARCEL 232 1ST ELECTION DISTRICT	JOB NO. 95-101
DATE 3-16-95	HOWARD COUNTY, MARYLAND	FILE NO. 95-101-X
	OWNER: HOWARD COUNTY BOARD OF EDUCATION 10610 ROUTE 108 ELLICOTT CITY, MD 21043	

SDP 95-55

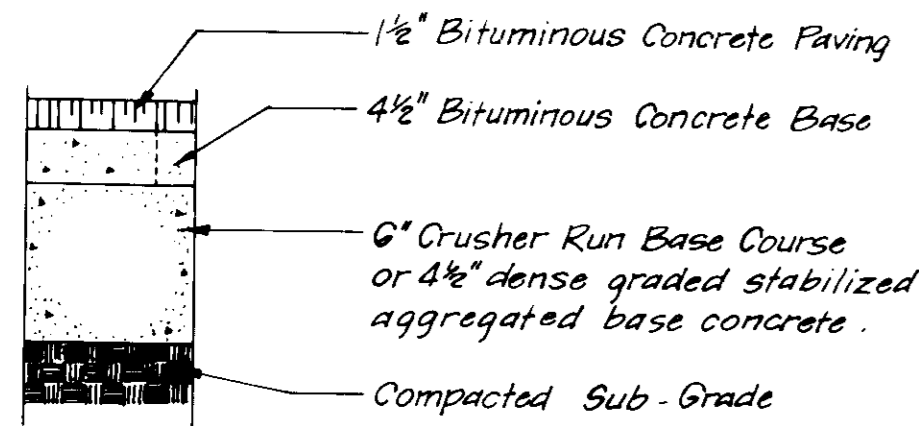




**CONCRETE WALKS**

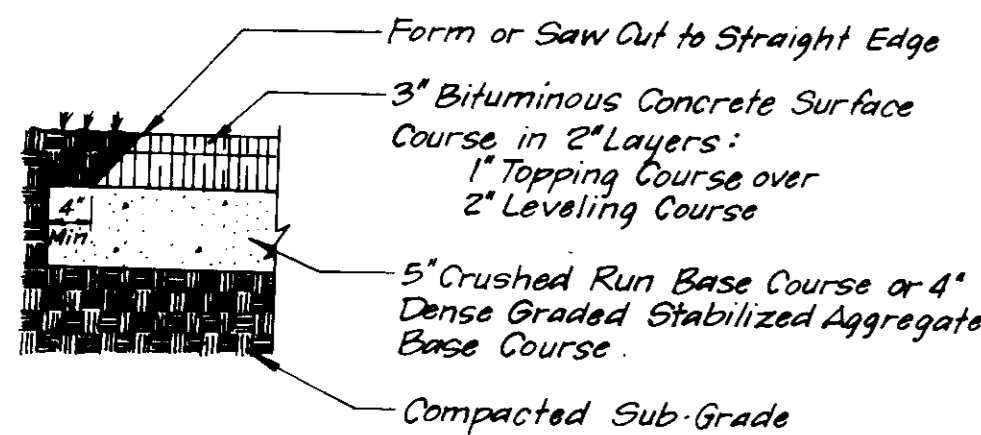
(No Scale)

NOTE: Use this expansion joint/scoring pattern, unless otherwise shown on plans.



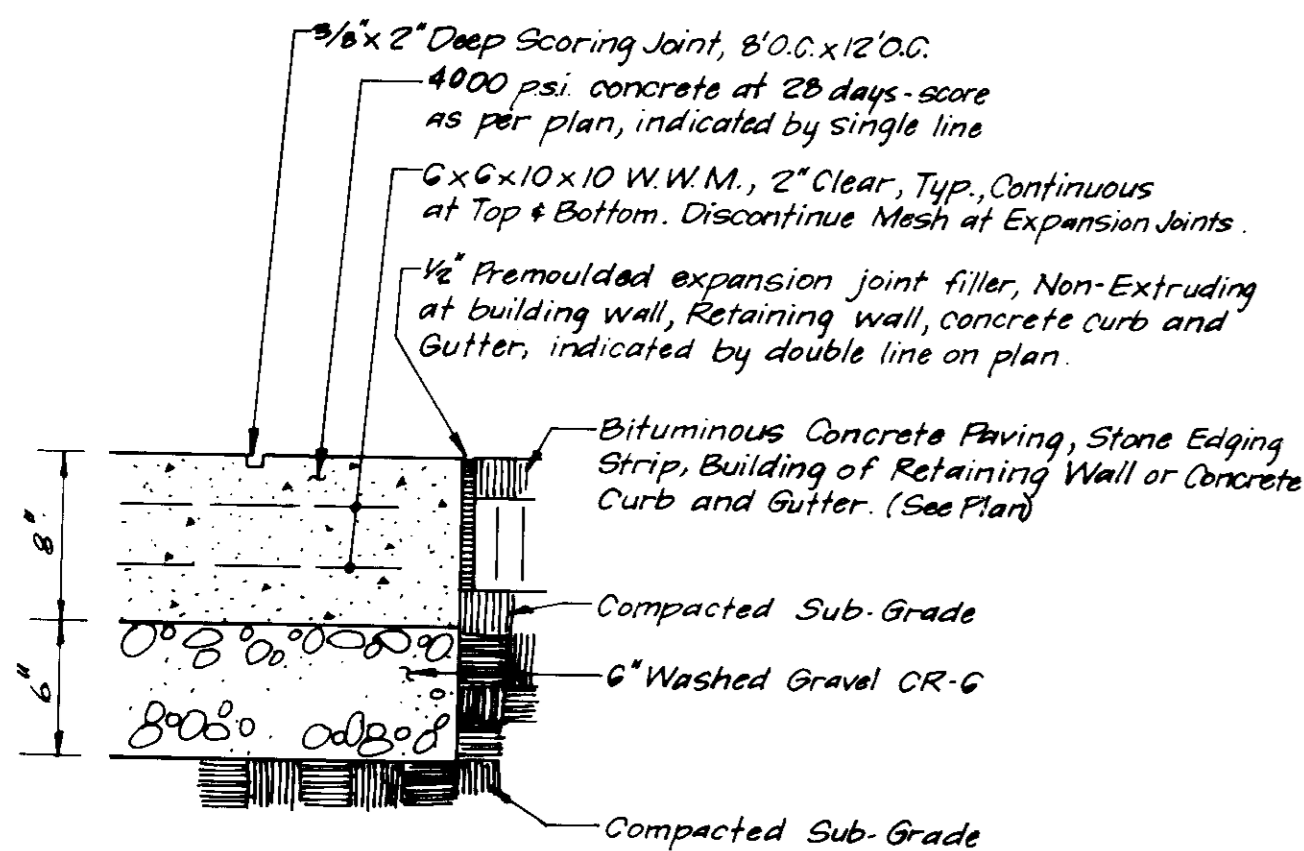
**BITUMINOUS CONCRETE PAVING (P-3)**

ENTRANCE DRIVES, PARKING & BUS LOOP  
(No Scale)



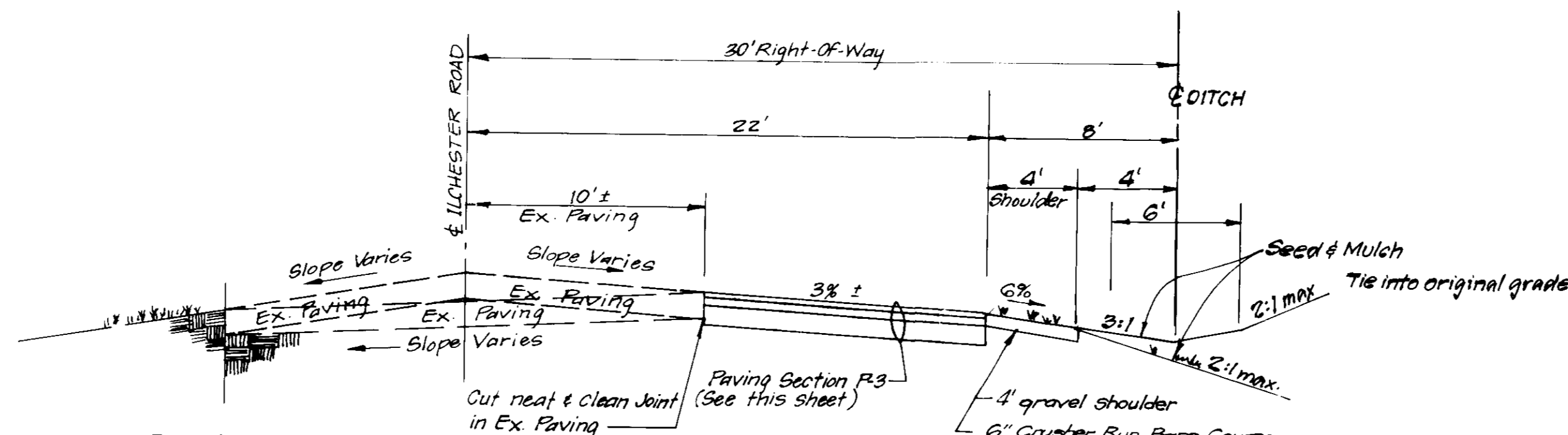
**BITUMINOUS CONCRETE PAVING (P-1)**

MULTI PURPOSE PLAY COURT  
(No Scale)



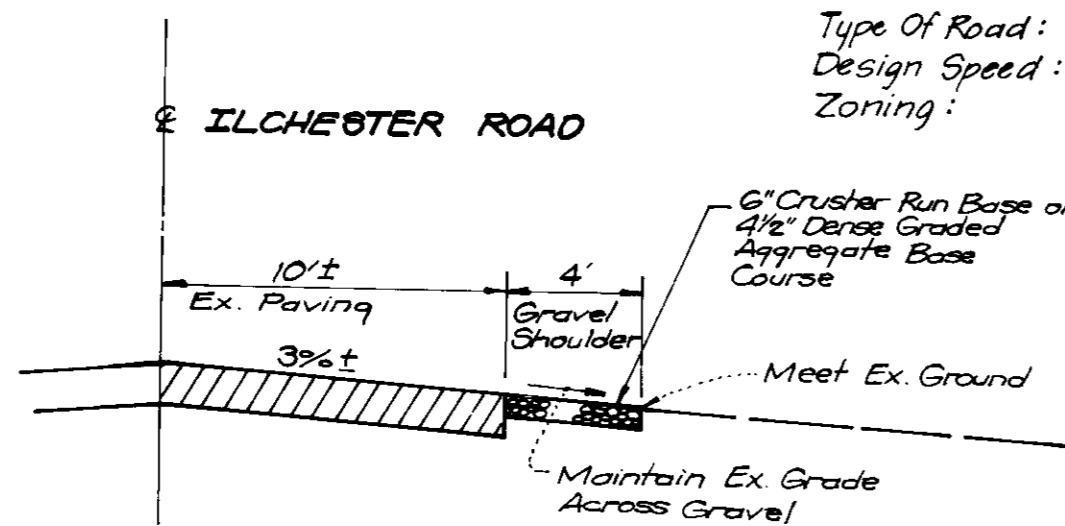
**HEAVY DUTY CONCRETE PAVING**

SERVICE YARD  
(No Scale)



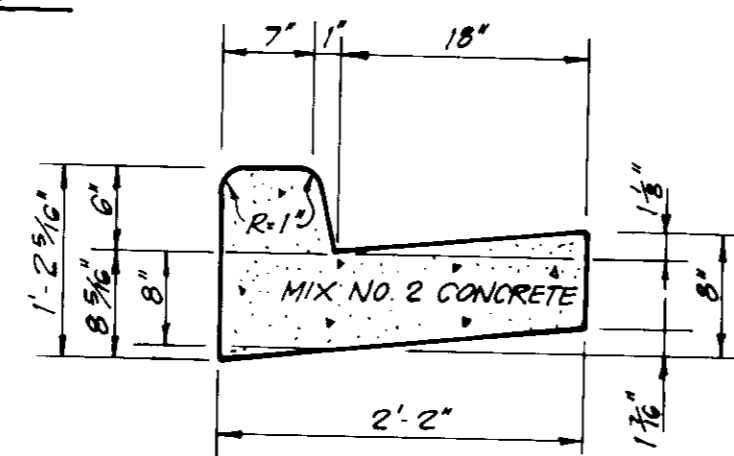
**TYPICAL PAVING SECTION (P-3)**

ILCHESTER ROAD - STA. 10+33.16 TO 13+87.43  
(No Scale)



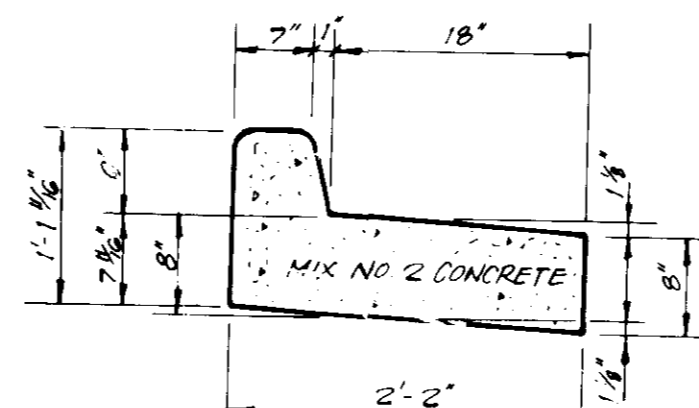
**TYPICAL HALF SECTION**

ILCHESTER ROAD  
STA. 14+12.43 TO 16+01.60  
(No Scale)



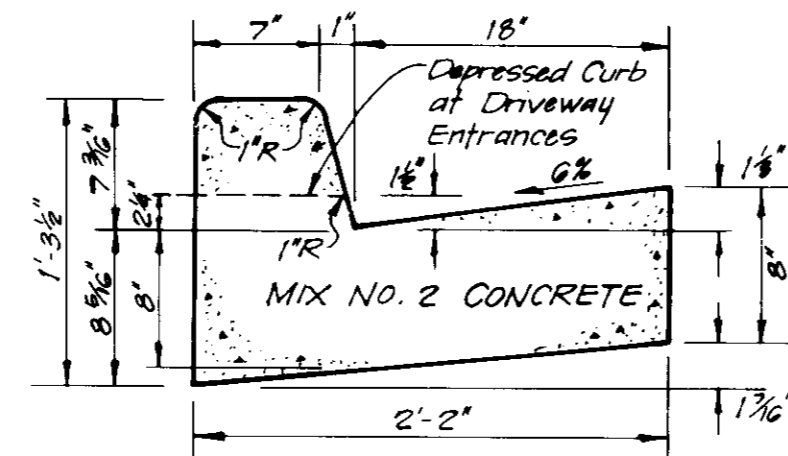
**STANDARD 6" COMBINATION**

CURB & GUTTER  
(No Scale)



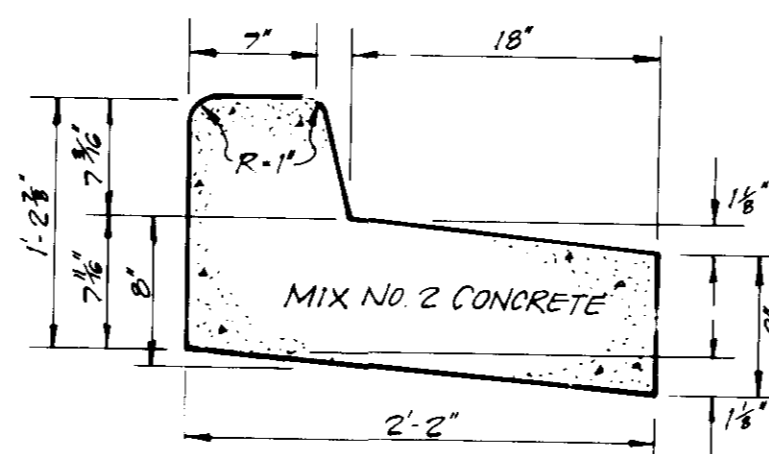
**REVERSE 6" COMBINATION**

CURB & GUTTER  
(No Scale)



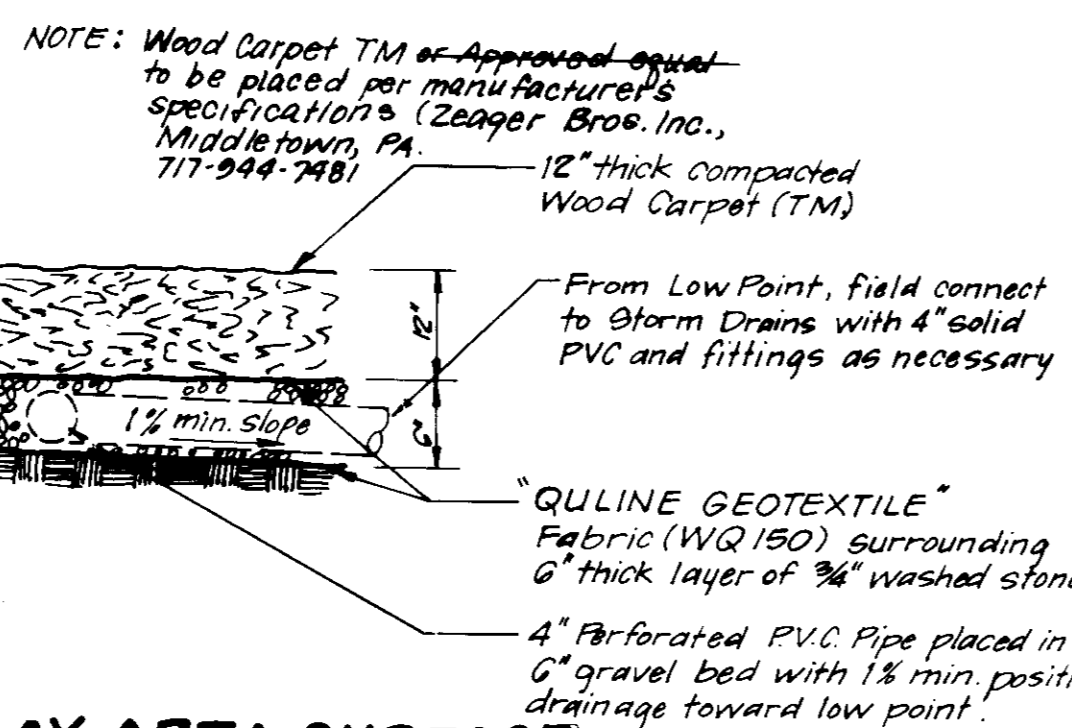
**STANDARD 7" COMBINATION**

CURB & GUTTER  
(No Scale)



**REVERSE 7" COMBINATION**

CURB & GUTTER  
(No Scale)



**PLAY AREA SURFACE AND DRAINAGE DETAILS**

NO SCALE



81-1  
30" x 30"



86-2  
18" x 24"



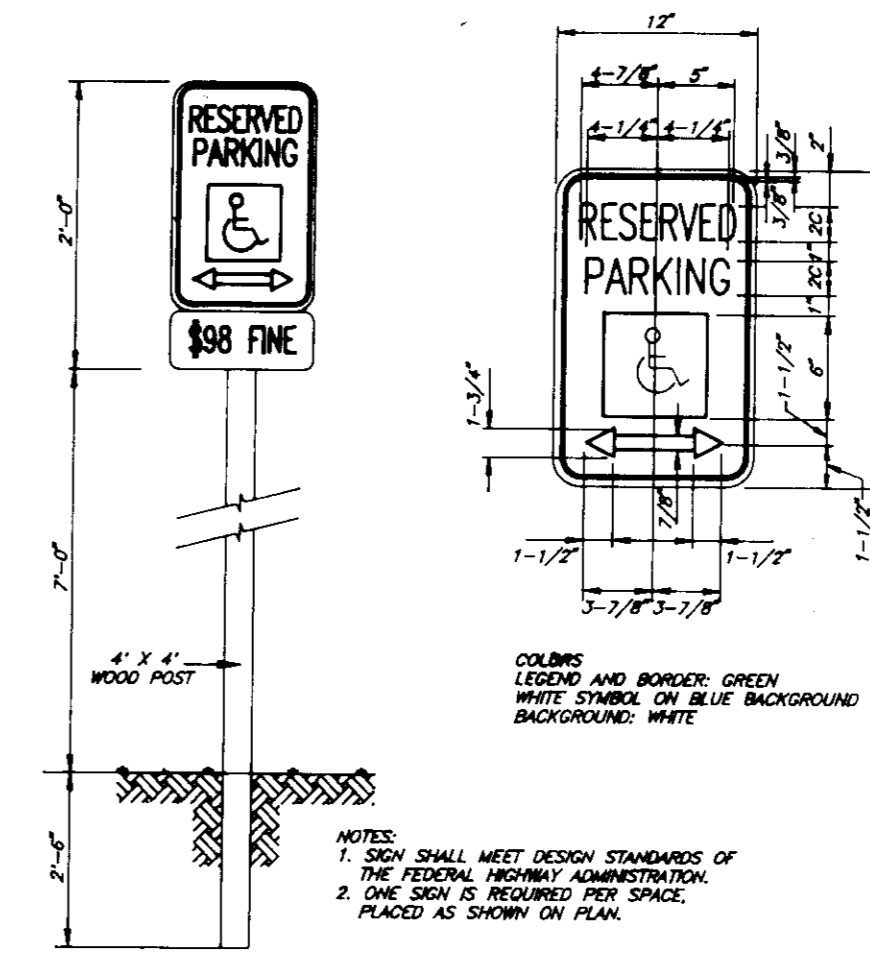
85-1  
30" x 30"



83-1  
24" x 24"

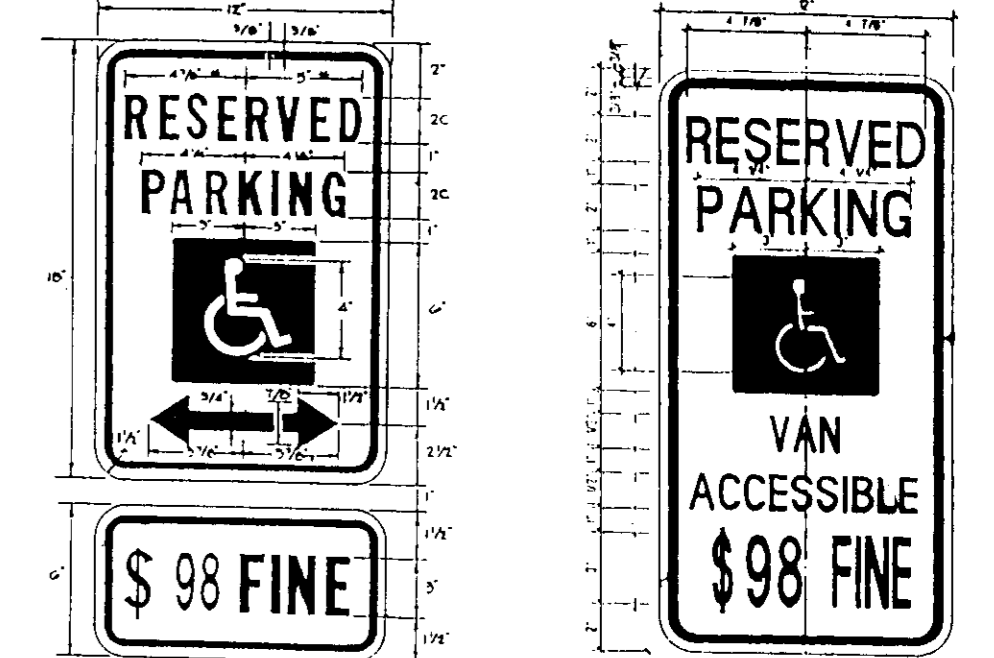
**TRAFFIC CONTROL SIGNAGE**

See Sheet C-2 For Locations And Quantities



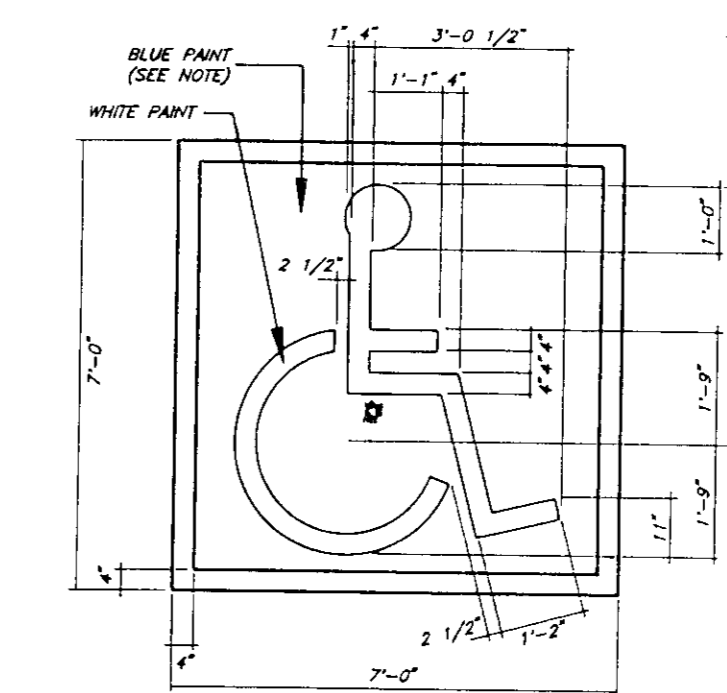
**HANDICAP PARKING SIGN DETAIL**

NO SCALE



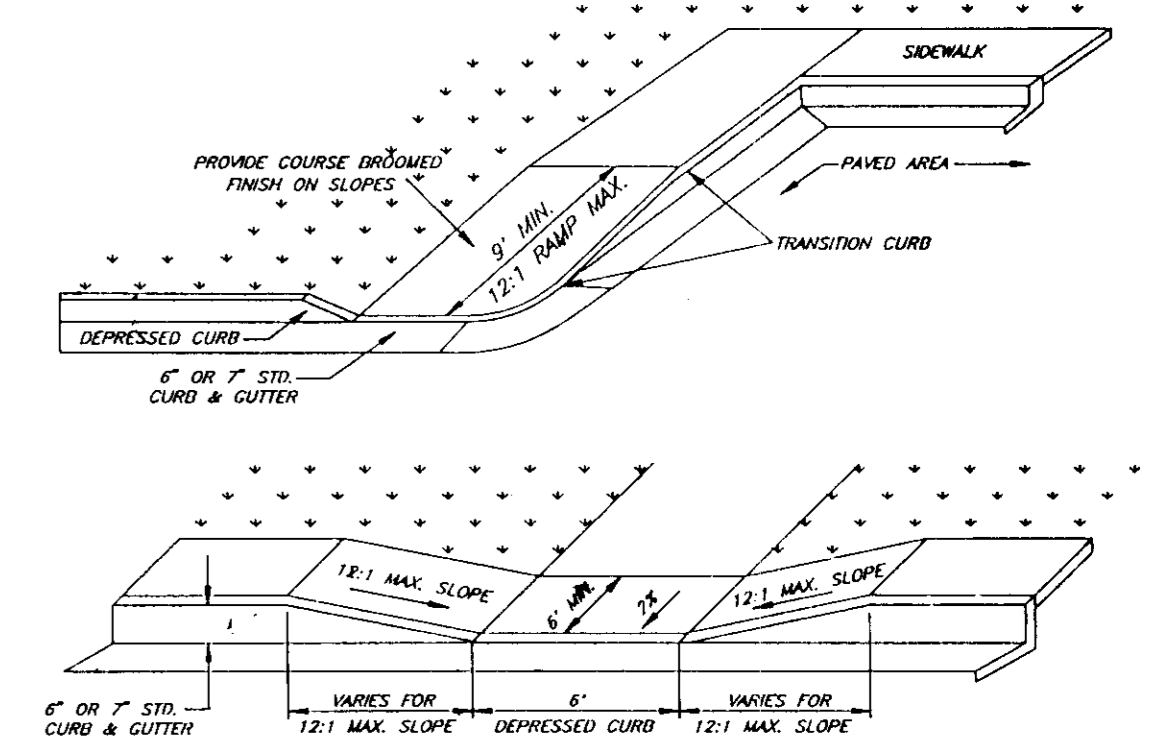
**HANDICAPPED PARKING RESTRICTION SIGN DETAIL**

NO SCALE



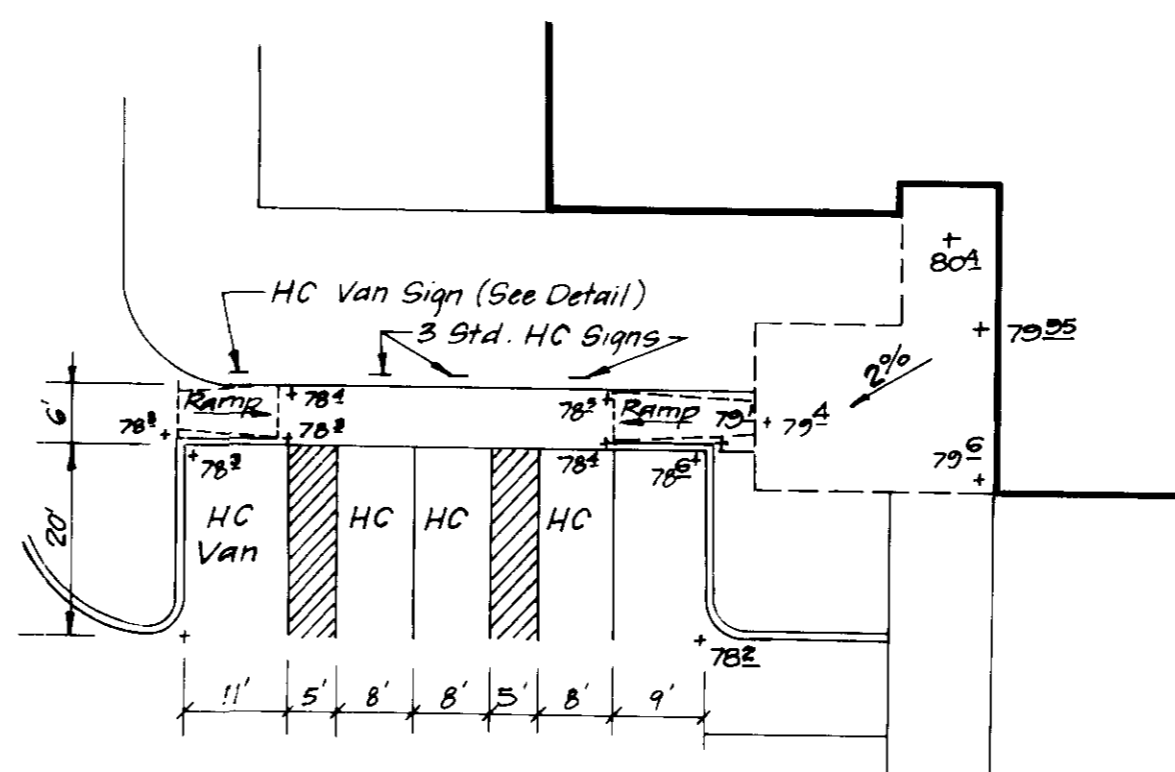
**PAINTED SYMBOL**

NO SCALE



**HANDICAP RAMP DETAILS**

NO SCALE



**HANDICAP PARKING DETAIL**

Scale: 1" = 20'



APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT COUNTY HEALTH OFFICER _____ DATE _____ APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING DIRECTOR _____ DATE 3/20/95 CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH T.C. 3/20/95		<b>SMOLEN + ASSOCIATES</b> ARCHITECTS 11820 PARKLAWN DR. ROCKVILLE, MD. 20852 301 770 0177
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DIRECTOR _____ DATE 3/26/95 CHIEF BUREAU OF ENGINEERING _____ DATE 3/24/95		
2. Rev. Paving Section to Change Paved Shoulder to Gravel Shoulder Added Paving Section for Area where no widening occurs 1. Rev'd typ. paving sect. Ilchester Rd. due to removal of curb and gutter.		8-17-95 8-11-95 REVISION DATE
<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.		
DESIGNED WHT. DRAWN PTD CHECKED WPK DATE 3-16-95	<b>SITE DETAILS</b> <b>NORTHEASTERN ELEMENTARY SCHOOL</b> TAX MAP NO 34, PARCEL 810 & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER: HOWARD COUNTY BOARD OF EDUCATION 10010 ROUTE 108 ELLICOTT CITY, MD. 21043	SCALE (As Shown) #2 DRAWING <b>C-6</b> OF 23 JOB NO. <b>93-101</b> FILE NO. <b>93-101-4</b>

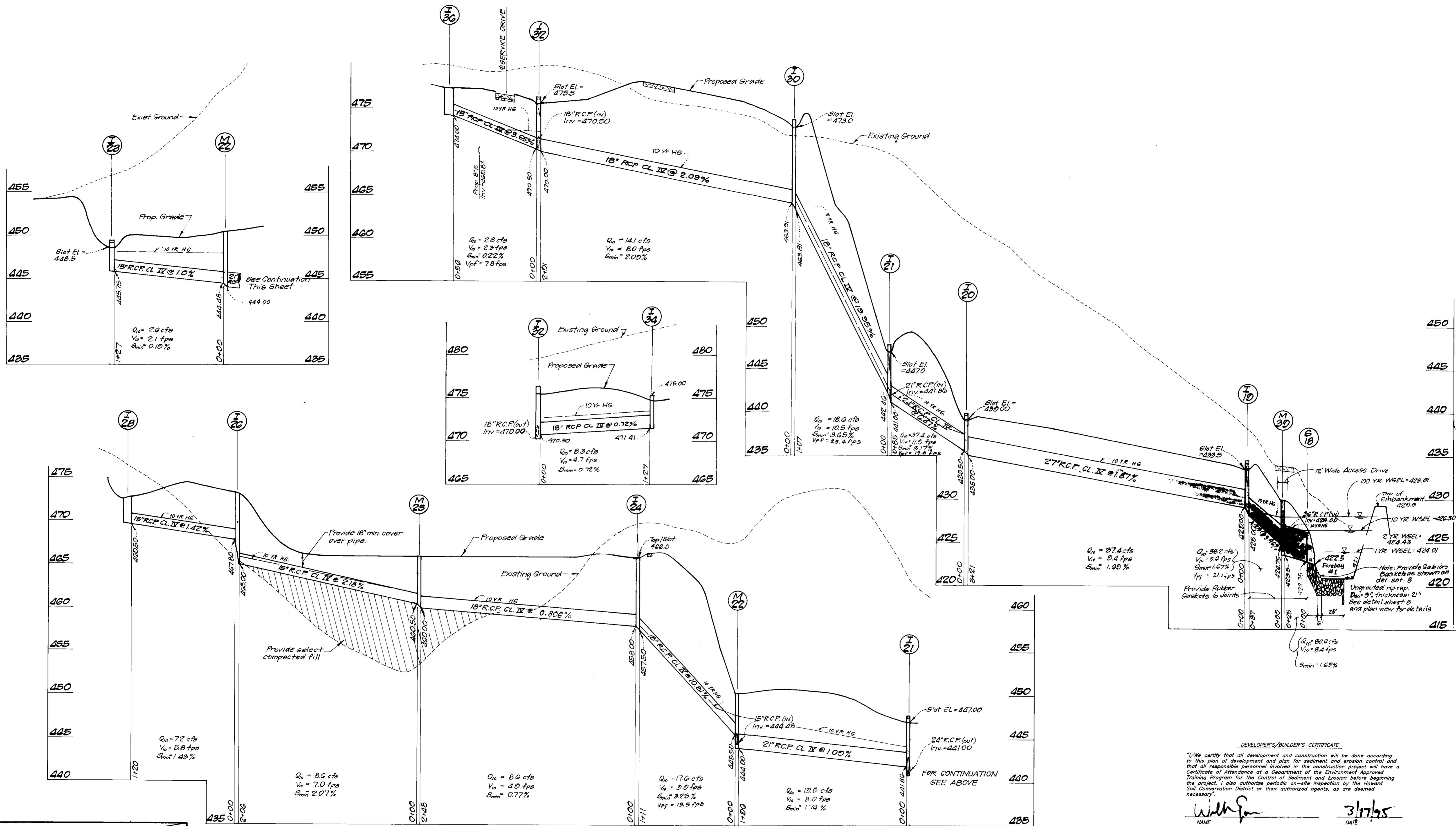
SDP 95-55











**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 sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment 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."

W. J. [Signature] 3/17/95  
 NAME DATE

**STORM DRAIN PROFILES**  
 Scale = HOR: 1"=50'  
 VER: 1"=5'

Reviewed for HOWARD S.C.D.  
 and meets Technical Requirements  
 of the Code of Ordinances  
 [Signature] 3/23/95  
 [Signature] Date  
 US Soil Conservation Service

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

[Signature] 3/23/95  
 Approved

**ENGINEER'S CERTIFICATE**

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

[Signature] 3/16/95  
 G. NELSON CLARK DATE

**CLARK • FINEPROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.

DESIGNED: KIWM  
 DRAWN: Z.A.H.  
 CHECKED: [Signature]  
 DATE: 3-16-95

**STORM DRAIN PROFILES**  
 #2  
**NORTHEASTERN ELEMENTARY SCHOOL**  
 TAX MAP NO. 31, PARCEL 89 & PART OF PARCEL 252  
 1ST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

OWNER: HOWARD COUNTY BOARD OF EDUCATION  
 10810 ROUTE 108  
 ELLICOTT CITY, MD 21043

SCALE: Hor: 1"=50'  
 Vert: 1"=5'  
 DRAWING: C-9  
 JOB NO.: 95-101  
 FILE NO.: 95-101

**SMOLEN + ASSOCIATES ARCHITECTS**  
 11820 PARKLAWN DR. ROCKVILLE, MD 20852  
 301 770 0177

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.  
 HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 [Signature] 3/23/95  
 DIRECTOR DATE

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

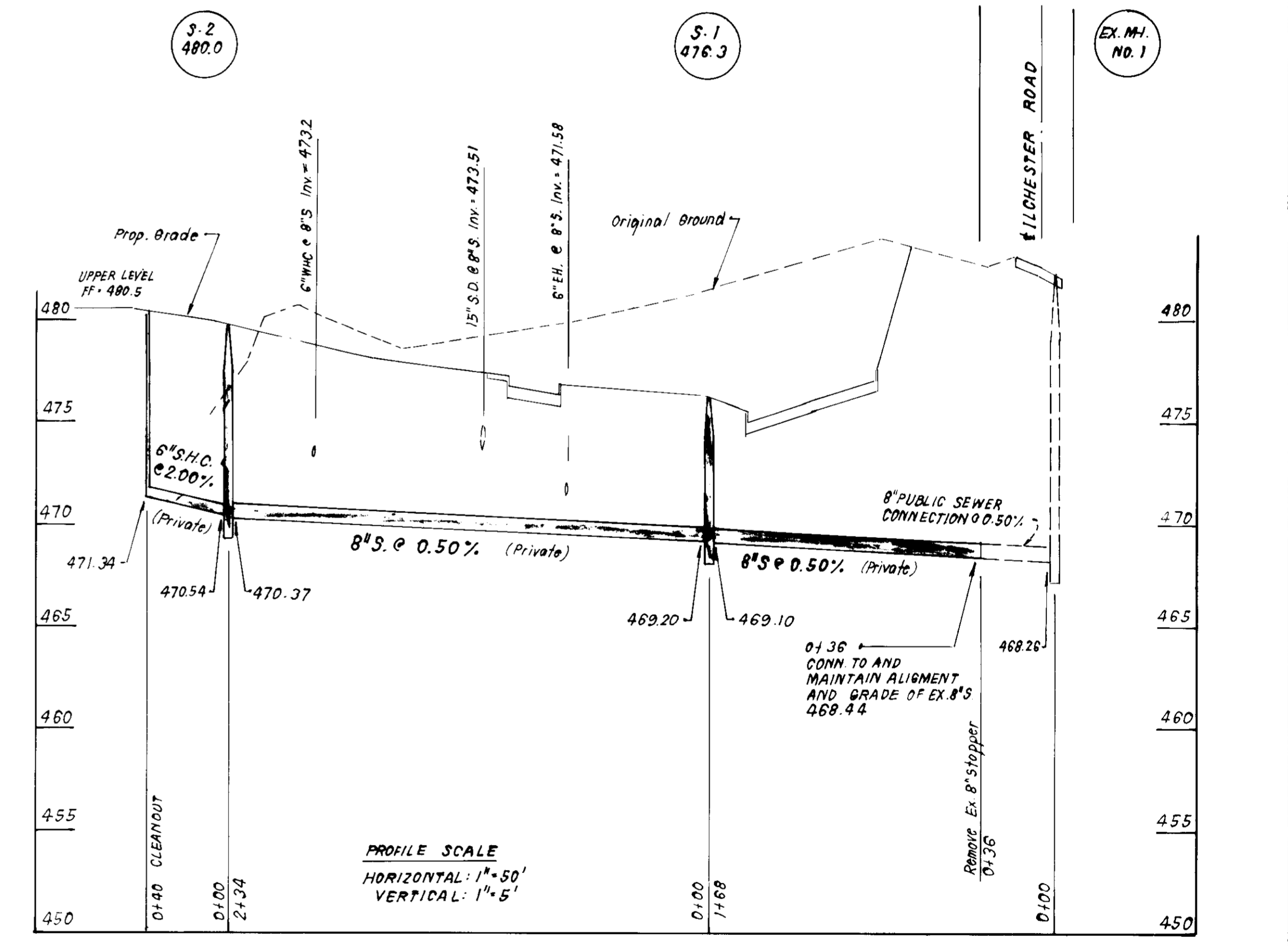
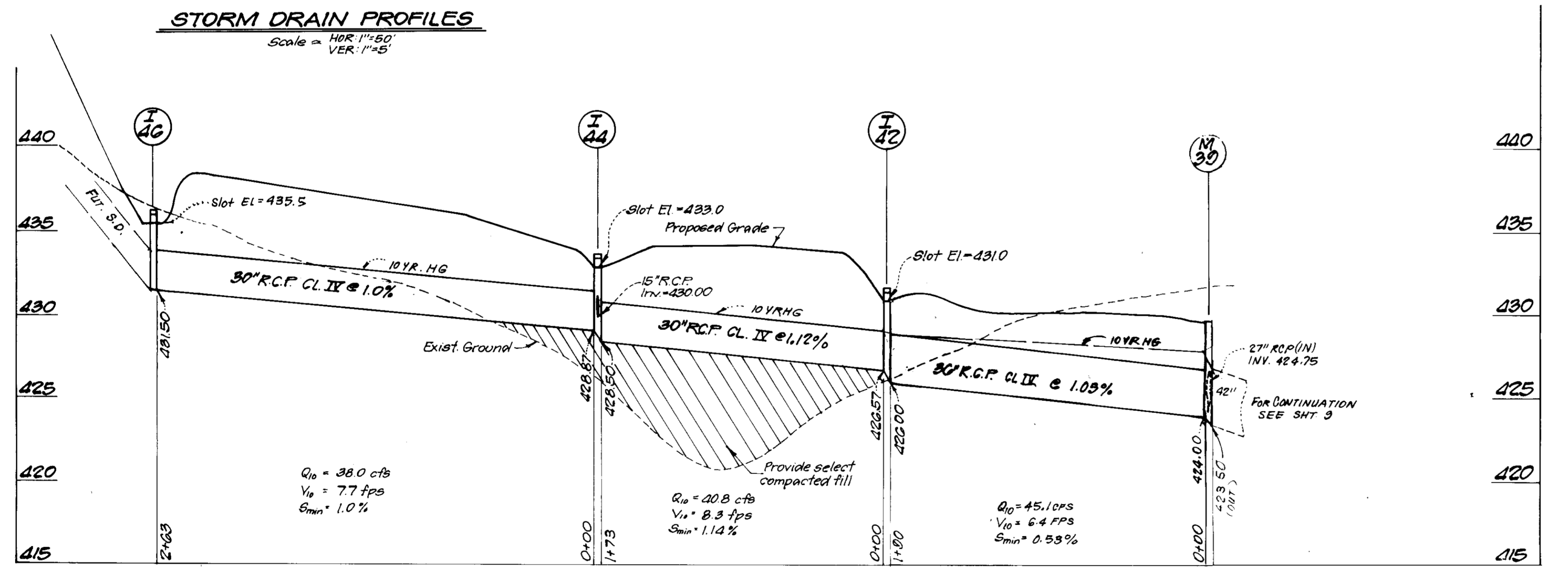
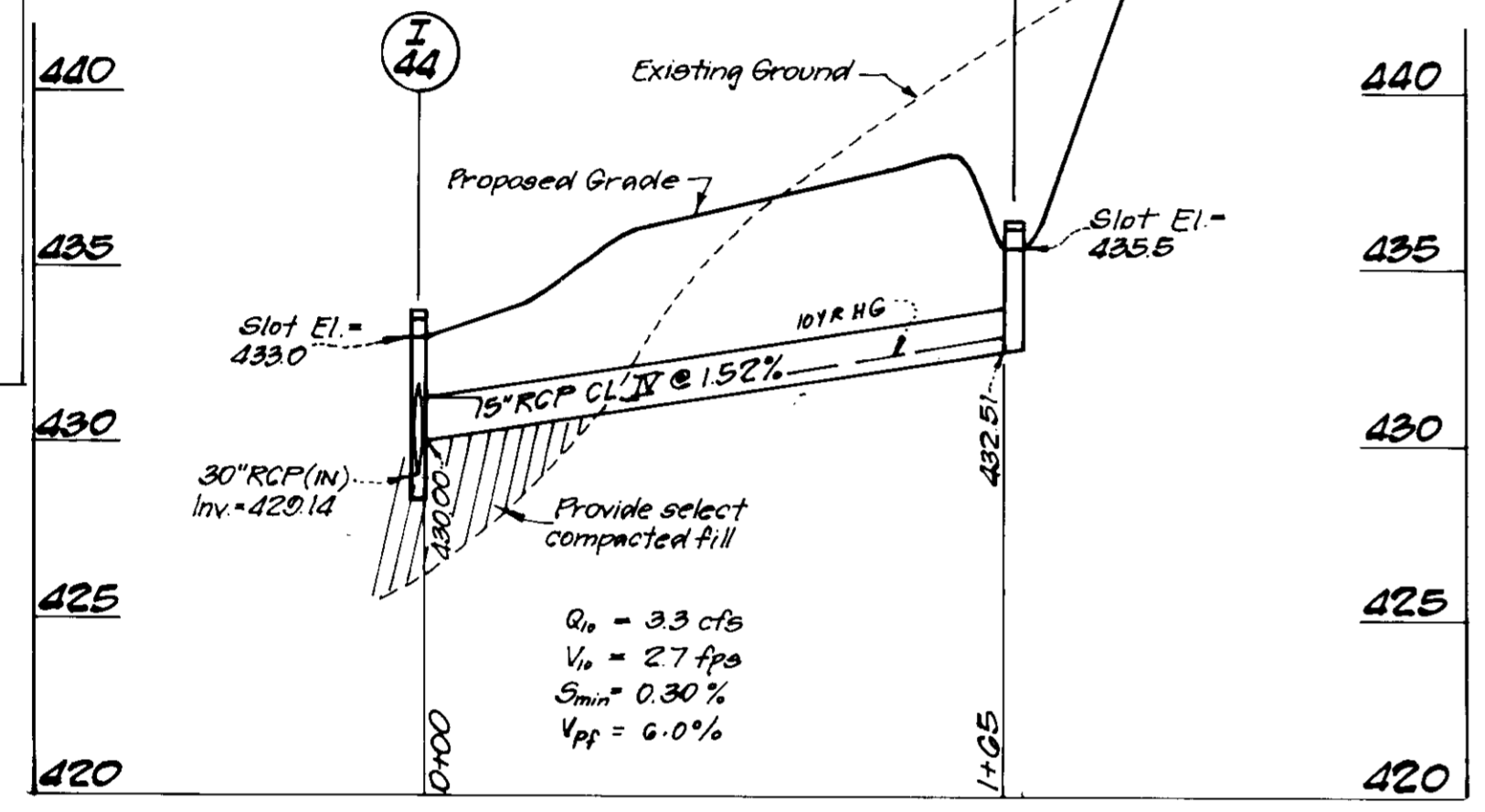
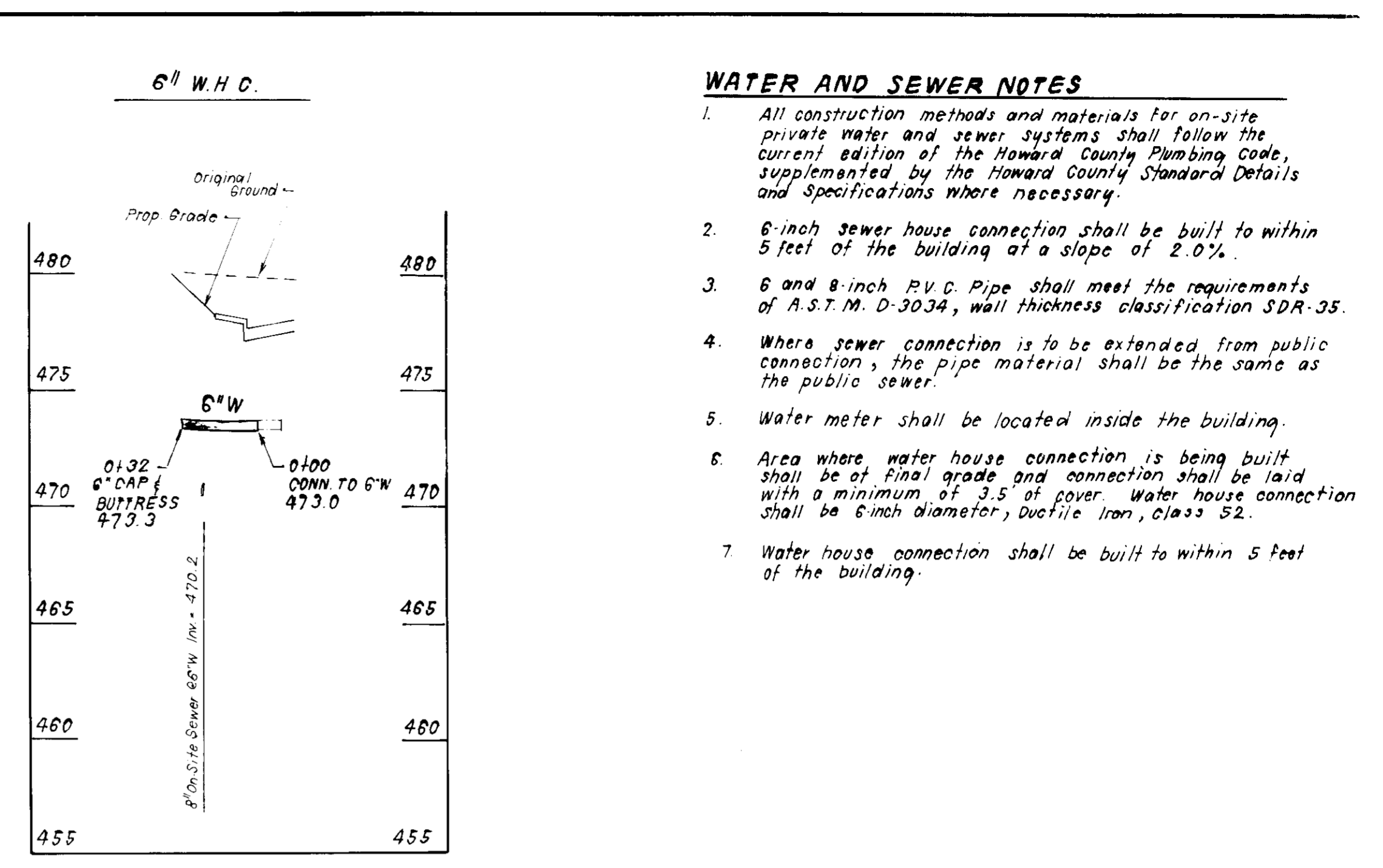
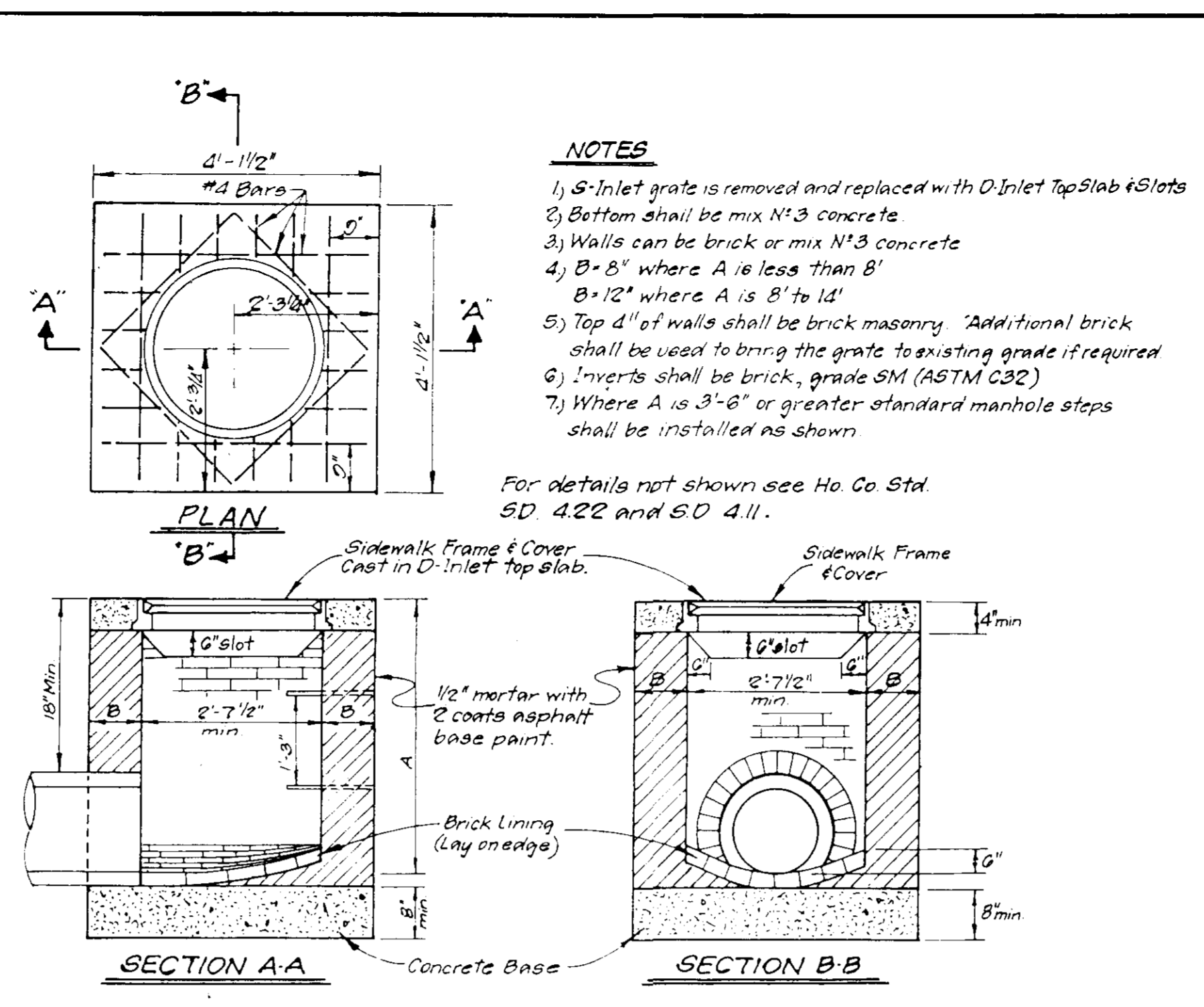
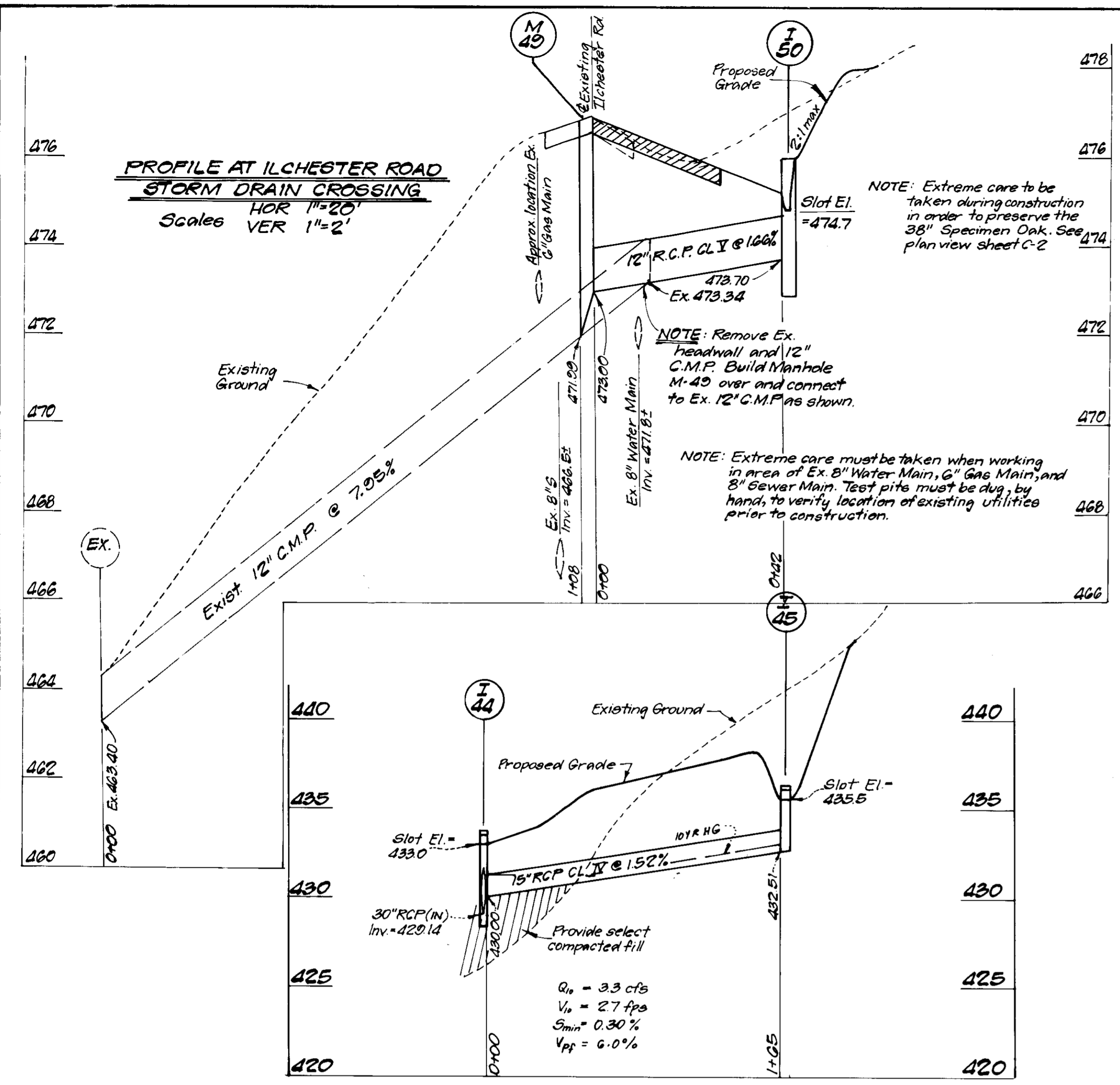
[Signature] 3/24/95  
 DIRECTOR DATE

[Signature] 3/24/95  
 CHIEF BUREAU OF ENGINEERING DATE

REVISIONS

1	Lowered pipes between structures I-21 - I-36 and increased pipe size between I-32 - I-34	8-17-95
2	Remove Profile M-90 to I-30 (Added to SHT 6-10)	8-11-95
3		





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

COUNTY HEALTH OFFICER: [Signature] DATE: 3/24/95

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR: [Signature] DATE: 3/31/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: [Signature] DATE: 3/30/95

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

DIRECTOR: [Signature] DATE: 3/24/95

CHIEF BUREAU OF ENGINEERING: [Signature] DATE: 3/24/95

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

Reviewed for HOWARD COUNTY S.C.D. and meets Technical Requirements

[Signature] DATE: 3/24/95  
[Signature] DATE: 3/24/95

US Soil Conservation Service

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

[Signature] DATE: 3/24/95

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 sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment's Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary."

[Signature] DATE: 3/17/95

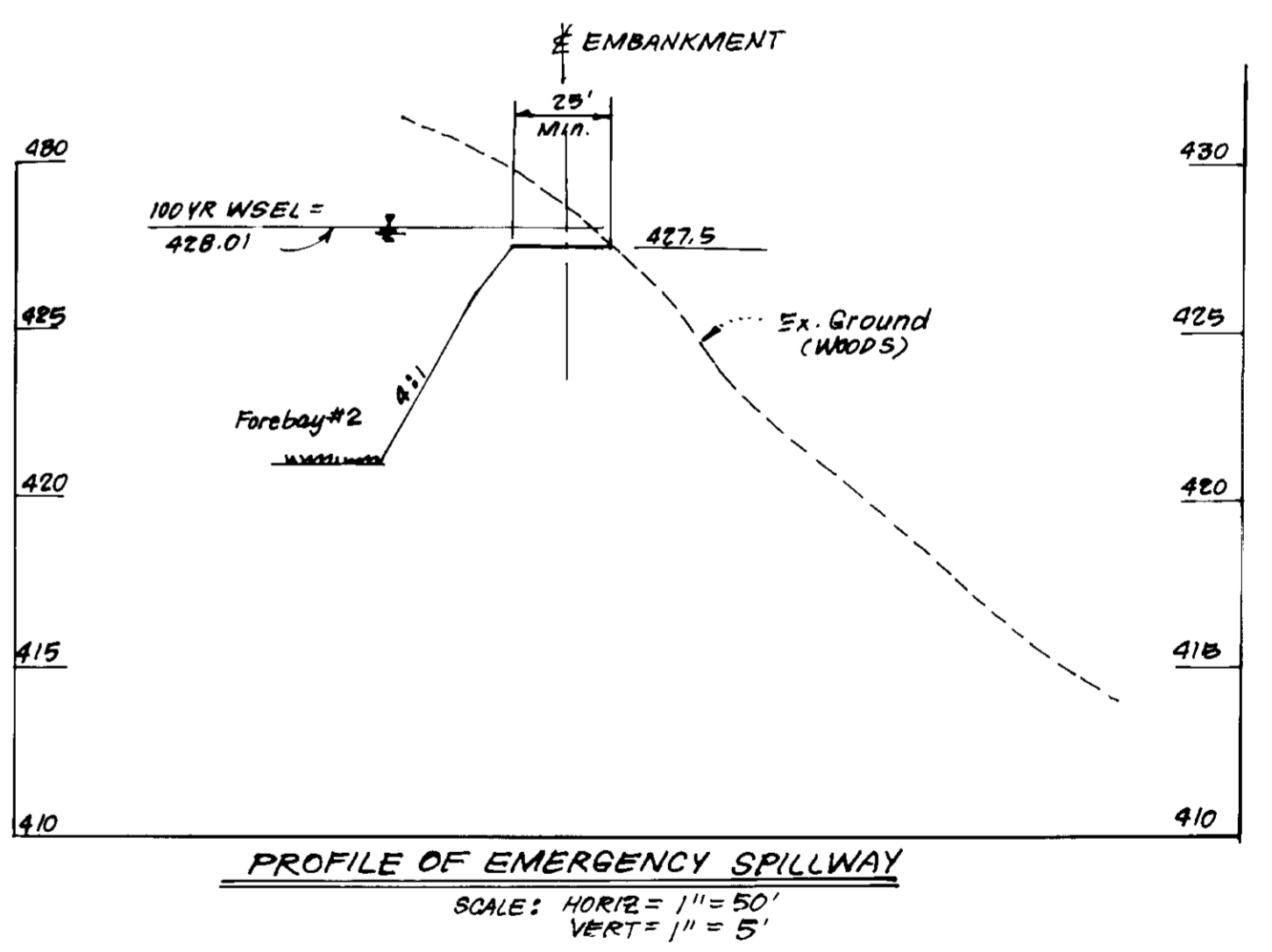
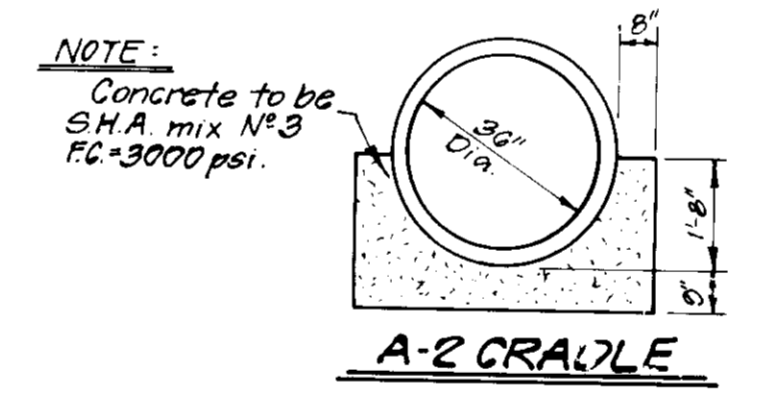
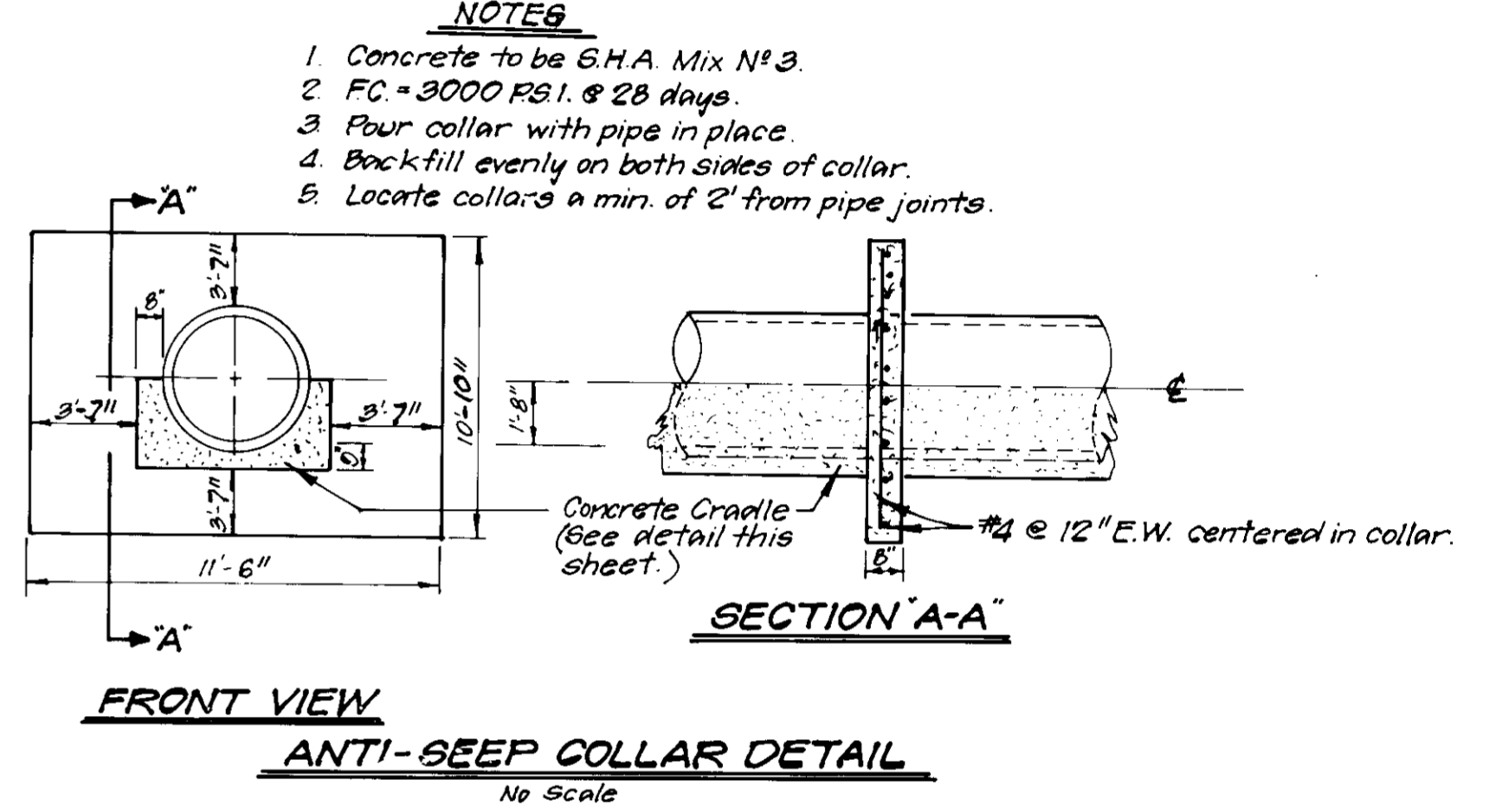
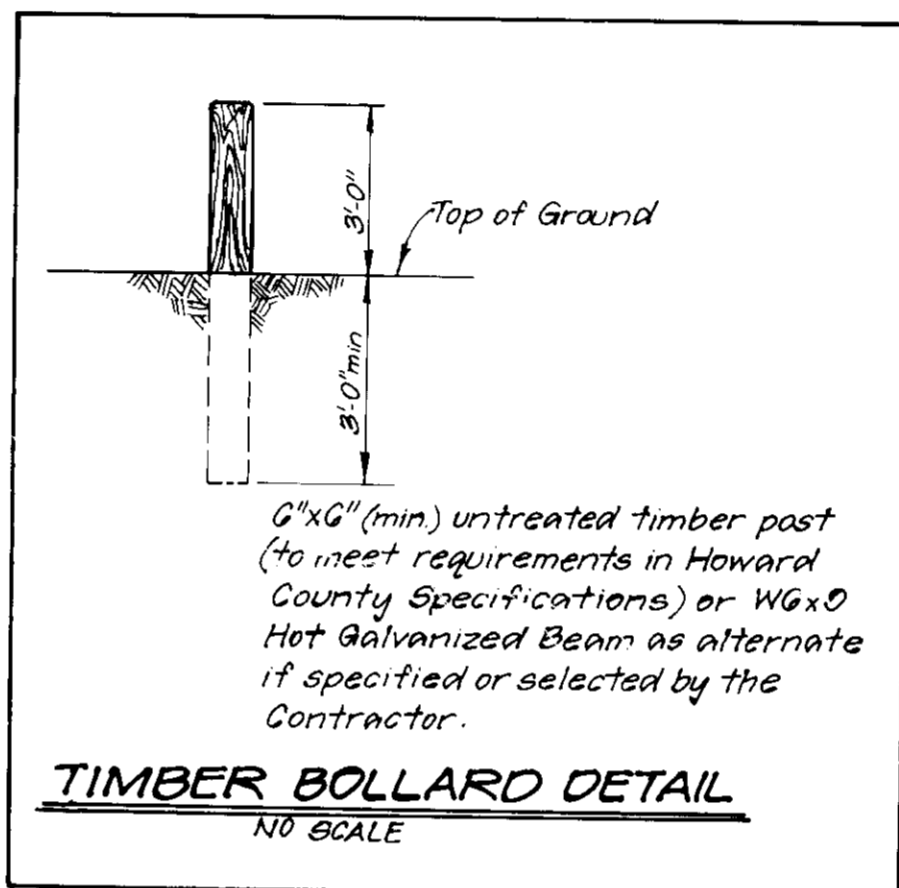
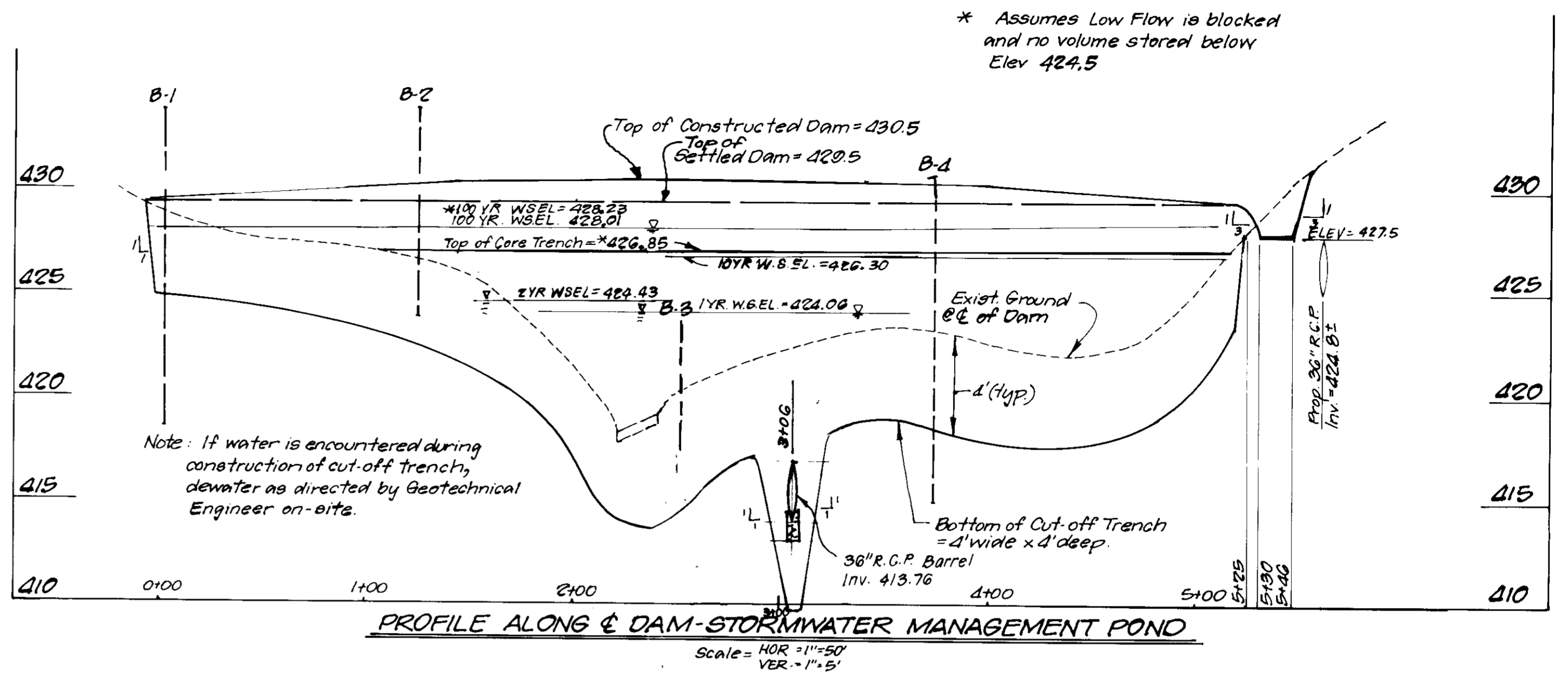
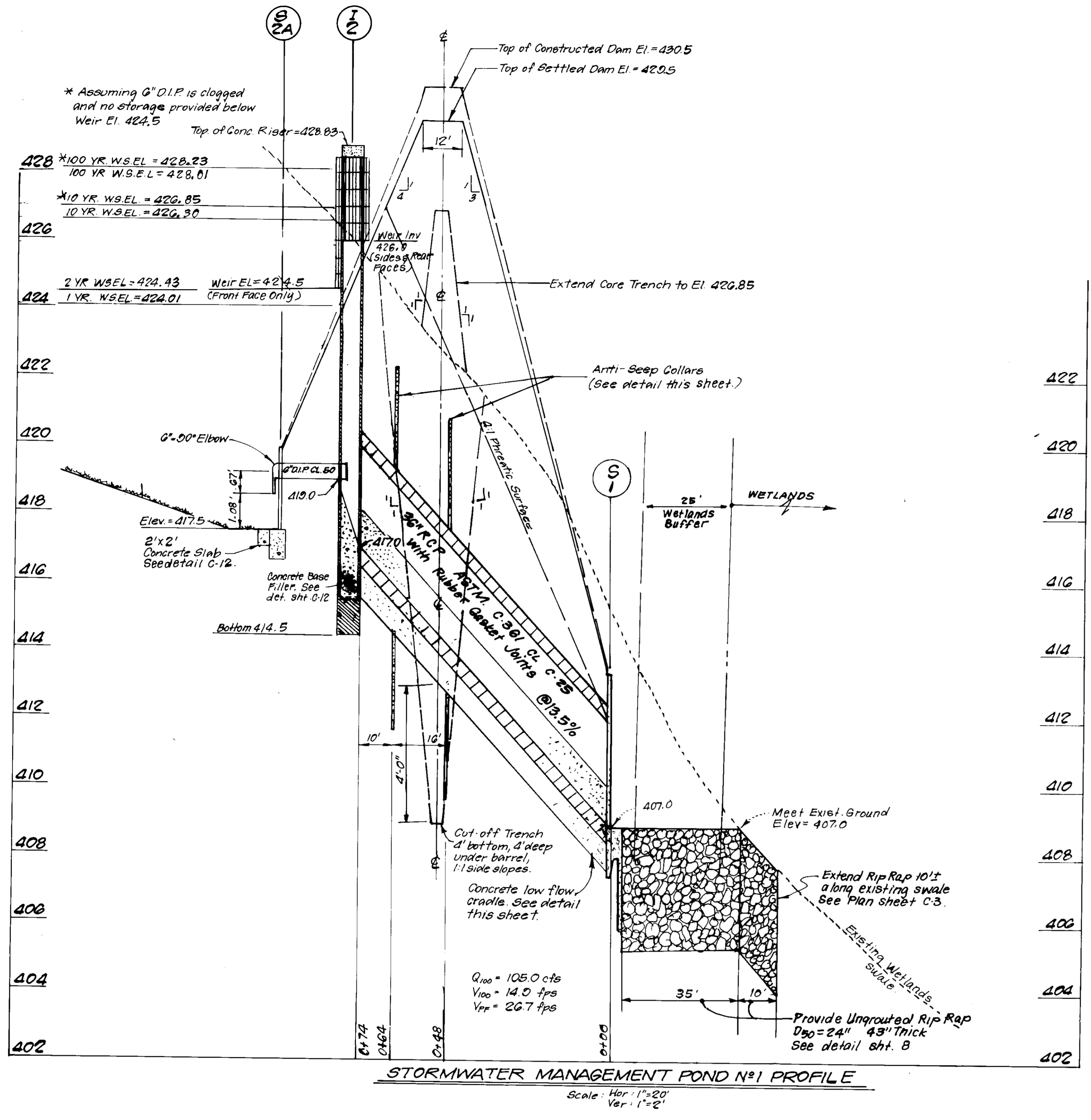
ENGINEER'S CERTIFICATE

I hereby certify that this plan for Sediment and Erosion 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 County Soil Conservation District.

[Signature] DATE: 3/16/95

1 Added Profile - Storm Drain str. M-40 to I-50		5-11-95
REVISION		DATE
<b>CLARK • FINEPROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS		
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.		
DESIGNED KIWM	<b>STORM DRAIN AND WATER &amp; SEWER PROFILES</b> #2 <b>NORTHEASTERN ELEMENTARY SCHOOL</b>	SCALE AS SHOWN
DRAWN ZAH		C-10 OF 22
CHECKED WAK/KIWM	TAX MAP NO. 81, PARCEL 819 & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 09-101
DATE 3-16-95	OWNER: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 106 ELLICOTT CITY, MD. 21043	FILE NO. 09-101

SDP 95-55



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

*Patricia Engle/65* 3/23/95  
U.S. Soil Conservation Service Date

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

Approved: *Robert W. Zick/65* 3/23/95  
Howard S.C.D. Date

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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

*Maureen A. Angelo* 3/21/95  
DIRECTOR DATE

*Ann Drummond* 3/21/95  
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

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

*James J. Schen* 3/24/95  
DIRECTOR DATE

*Robert J. Schen* 3/24/95  
CHIEF BUREAU OF ENGINEERING DATE

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

By The Developer:

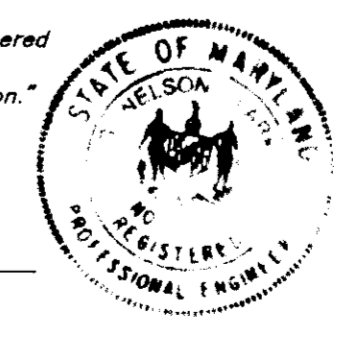
"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion 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."

*Walter Jr* 3/17/95  
Signature of Developer Date

By the Engineer:

"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."

*d. n. [Signature]* 3/16/95  
Signature of Engineer Date



APPENDUM #1 2-22-95 REVISED DETAILS

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINISTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.

DESIGNED KIWM	<b>STORMWATER MANAGEMENT DETAILS</b> <b>NORTHEASTERN ELEMENTARY SCHOOL</b> TAX MAP 31, PARCEL 819 & PART OF PARCEL 232 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND FOR: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLICOTT CITY, MD 21043	SCALE As Shown
DRAWN ZAH		DRAWING C-11
CHECKED KIWM		JOB NO. 93-101
DATE 2-23-95		FILE NO. 93-101-X

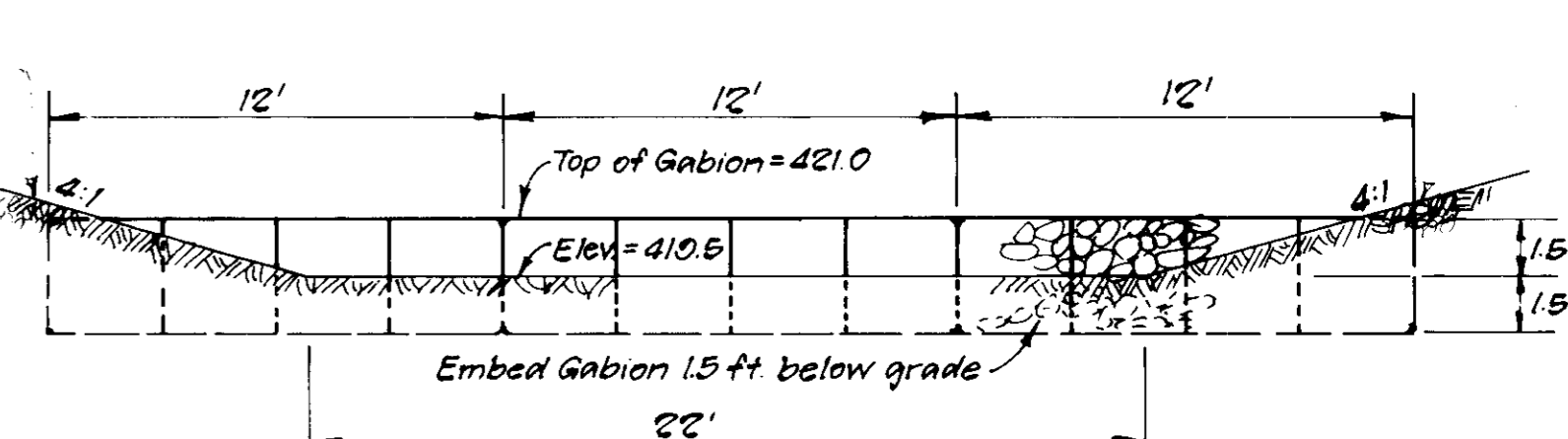


NOTE: ALL REBAR SHALL BE PAINTED BATTLESHIP GREY.

**GABION STRUCTURE NOTES**

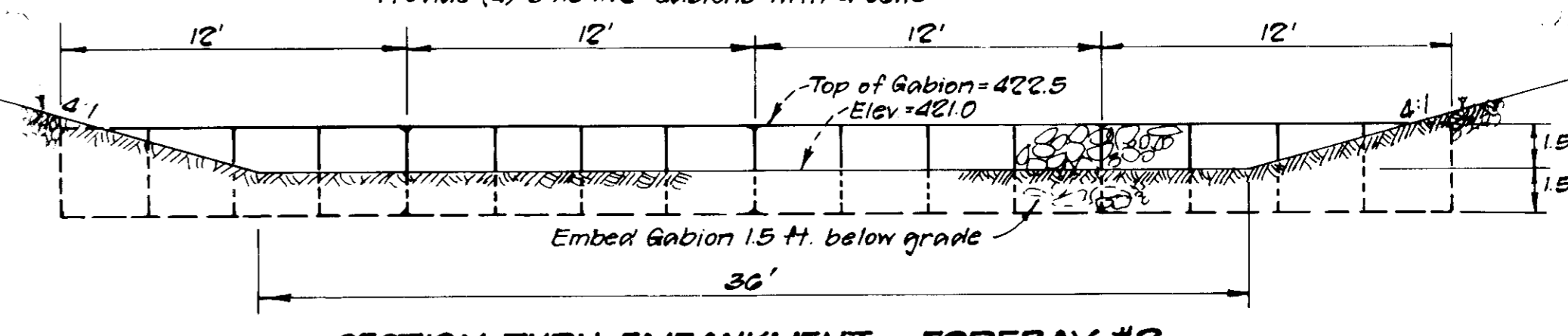
- 1) All wire used in gabion construction shall be galvanized and plastic coated. All pliers and tools shall be plastic coated.
- 2) Filter Cloth shall be placed whenever gabion comes in contact with soil.
- 3) Stone fill shall consist of hard, durable, clean stone 4" to 8" in size or approved by the Engineer.
- 4) Construction materials methods shall be in accordance with Maccaferri Gabions Inc. Specs or equal.

Provide (3) 3'x3'x12' Gabions with 4 cells



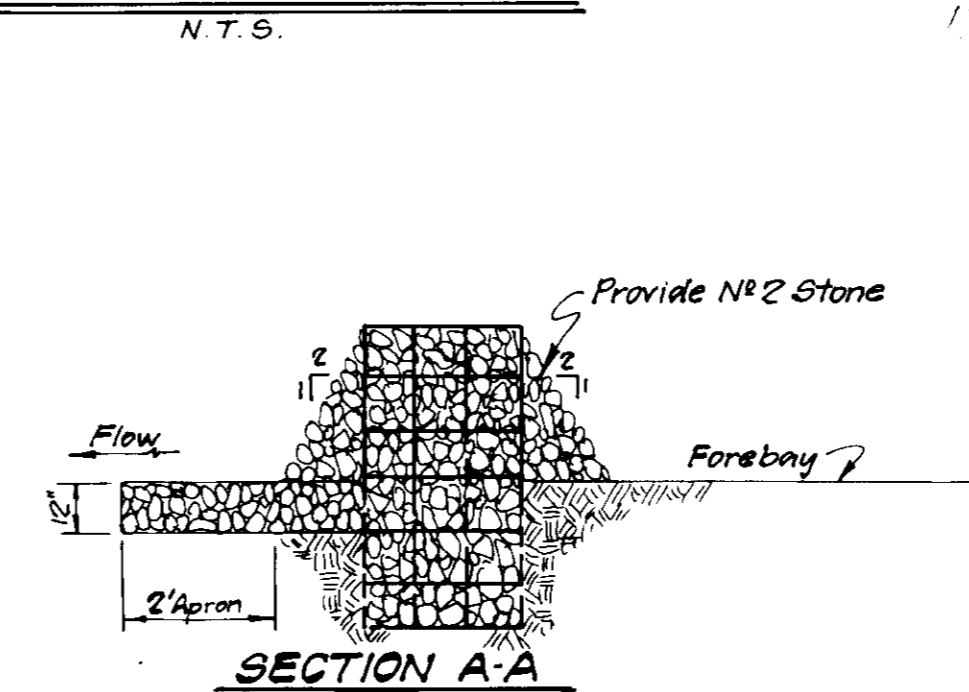
SECTION THRU EMBANKMENT - FOREBAY #1  
Scale: 1"=5'

Provide (4) 3'x3'x12' Gabions with 4 cells

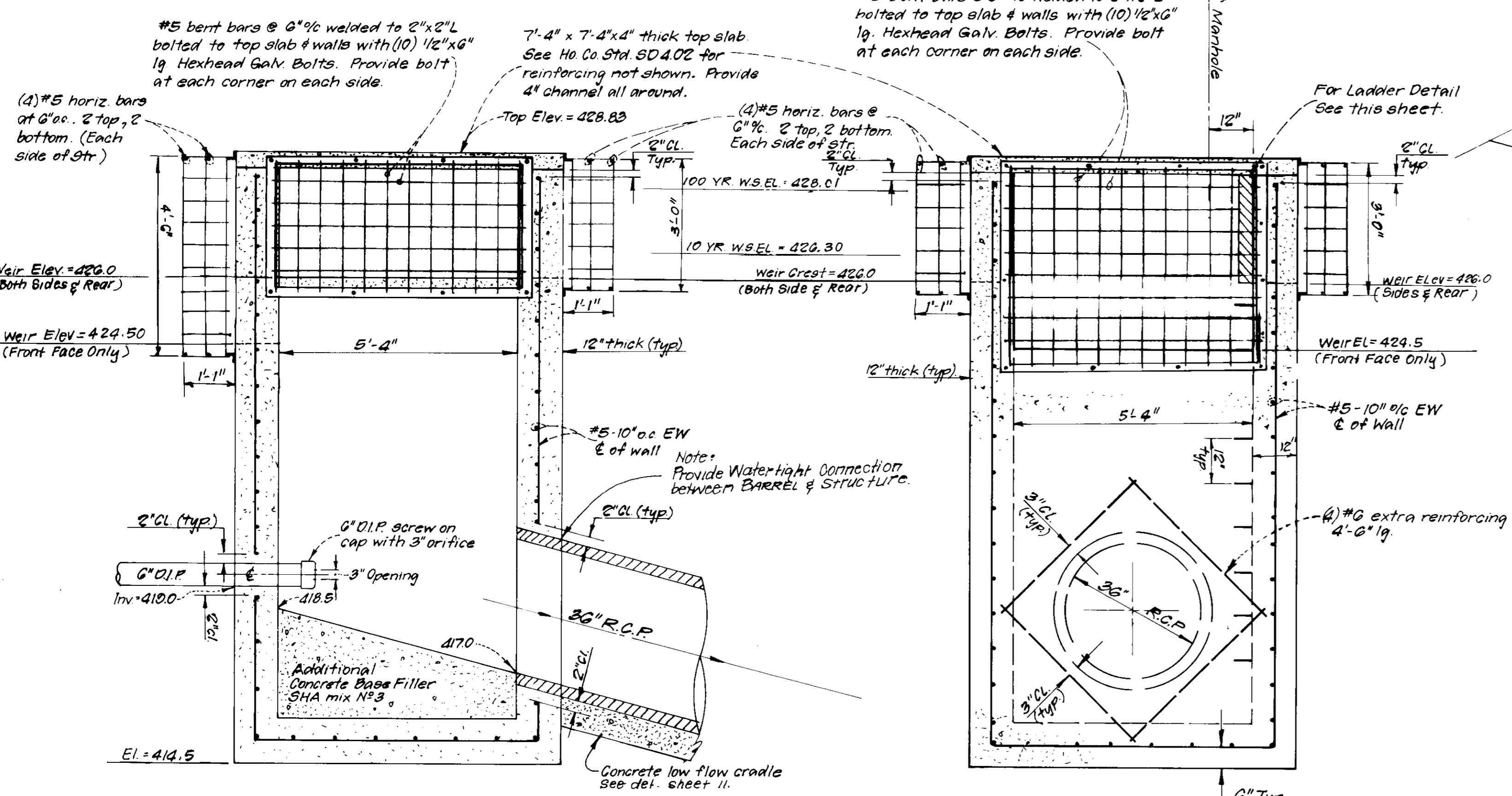


SECTION THRU EMBANKMENT - FOREBAY #2  
Scale: 1"=5'

**ISOMETRIC VIEW**



SECTION A-A  
N.T.S.

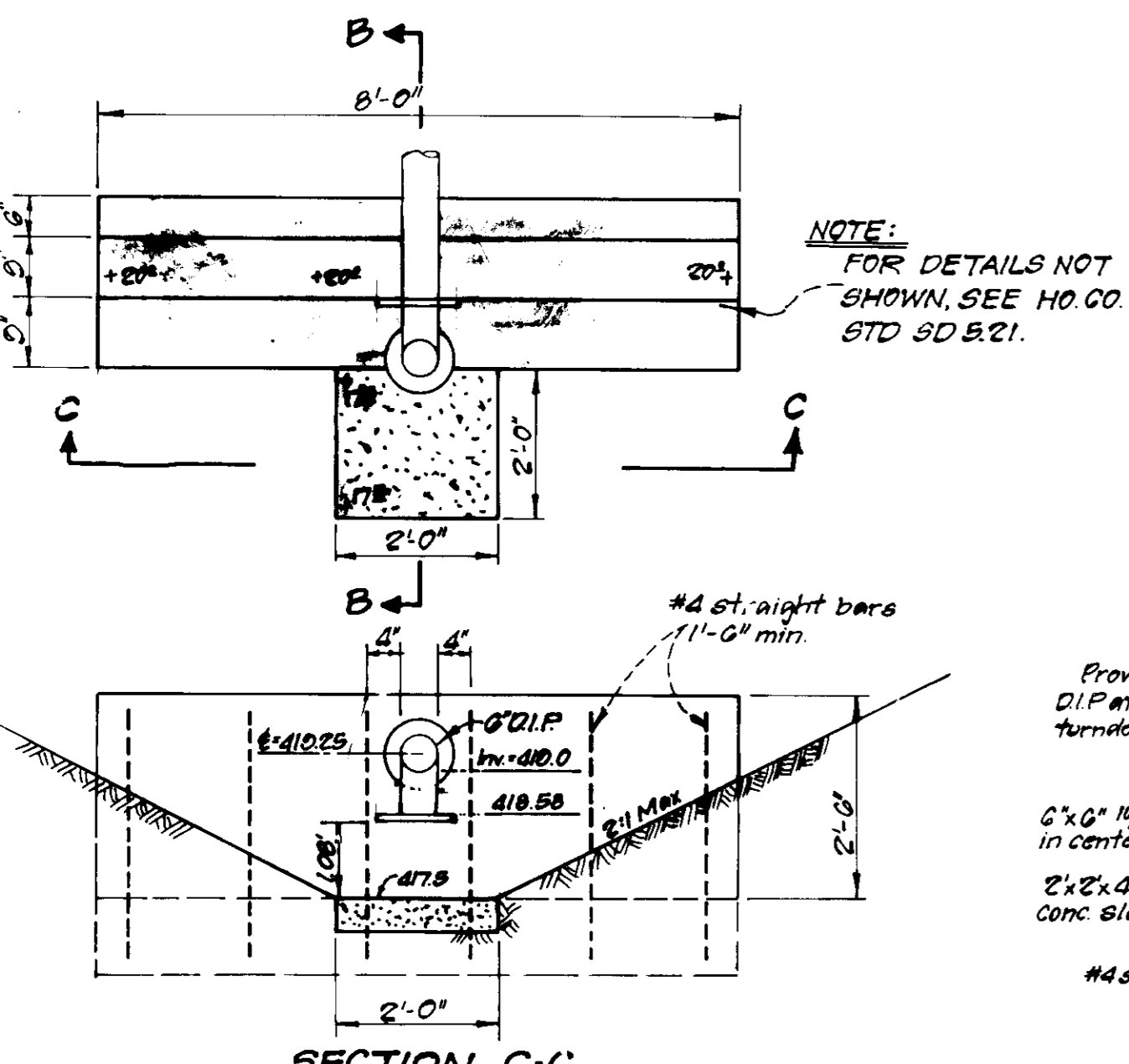


SIDE SECTION

FRONT SECTION

**STRUCTURE I-2 DETAILS**

No Scale

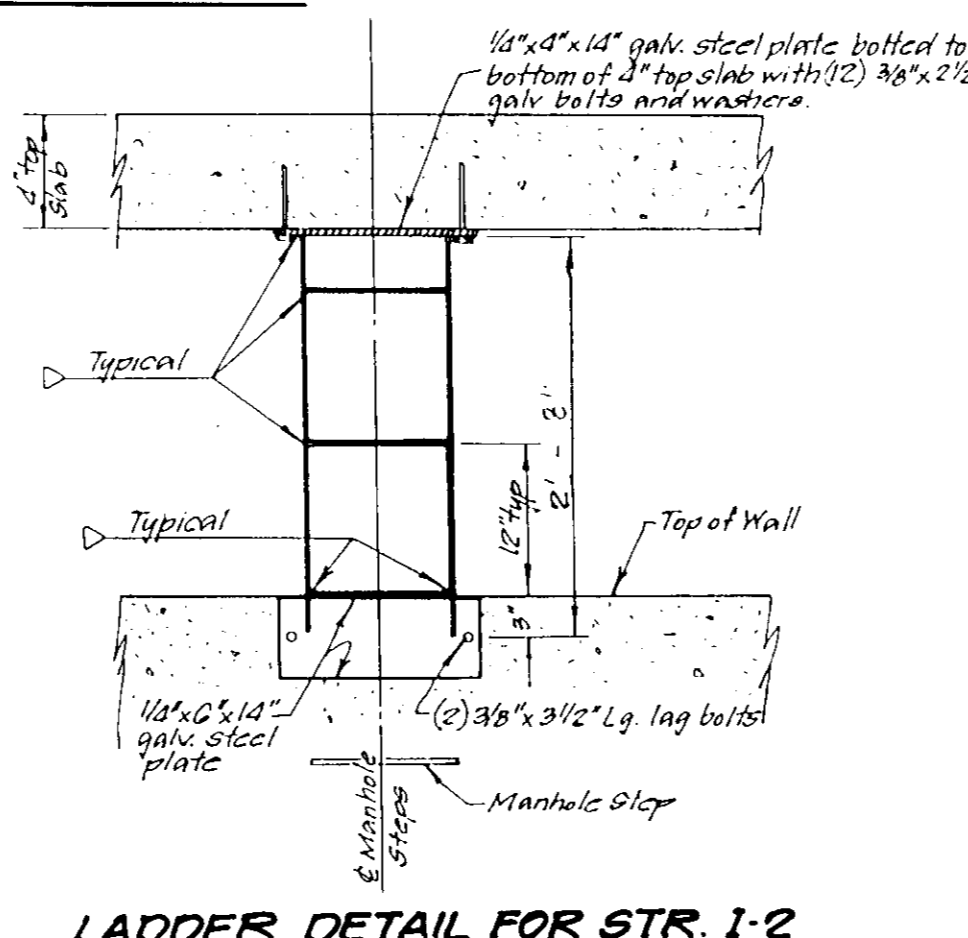


SECTION C-C

SECTION B-B

**STRUCTURE NO. 2A DETAIL**

No Scale



LADDER DETAIL FOR STR. I-2

No Scale

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

Approved: *Robert W. Zick* 3/23/95  
Howard S.C.D. Date

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

Approved: *Patricia Engle/CS* 3/23/95  
U.S. Soil Conservation Service Date

By The Developer:

"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 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."

*Walt Sp* 3/17/95  
Signature of Developer Date

By the Engineer:

"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."

*Patricia Engle* 3/16/95  
Signature of Engineer Date

APPENDUM #1 2-22-95 REVISED DETAILS

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.

DESIGNED KIWM	STORMWATER MANAGEMENT DETAILS NORTHEASTERN ELEMENTARY SCHOOL TAX MAP 31, PARCEL 819 & PART OF OF PARCEL 232 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN C-12 of 25
DRAWN ZAH		JOB NO. 03-101
CHECKED KIWM		FILE NO. 03-101-X
DATE 3-16-95		FOR: HOWARD COUNTY BOARD OF EDUCATION 12910 ROUTE 108 ELLCOTT CITY, MD 21043

SDP 95-55

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	3/23/95
DIRECTOR	
APPROVED: DIVISION OF LAND DEVELOPMENT AND RESEARCH	3/23/95
CHIEF	
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	3/24/95
DIRECTOR	
APPROVED: BUREAU OF ENGINEERING	3/24/95
CHIEF	

**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD 20852  
301 770 0177

**POND 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" in size 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** - Areas 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 into 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 no less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, 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 so wet that water can be squeezed out.

Where a minimum required density is specified, it shall not be less than 95% 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 #99.

**Cut Off Trench** - The cutoff trench shall be excavated to 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 adjacent 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: Nepon, Plast-Cote, Blac-Klad, and Sells-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.
- Materials - (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 and 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 neoprene band with 12" wide by 3/8" thick closed cell neoprene gasket; and a 12" wide hugger type band with O-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 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 with internal caulking or a neoprene bead.

- Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soil, 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."

**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 the same material 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 as shown on the drawings.

**Polymer Concrete (PC) 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 soil, 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 riprap shall be placed to the required thickness in one operation. The riprap 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**

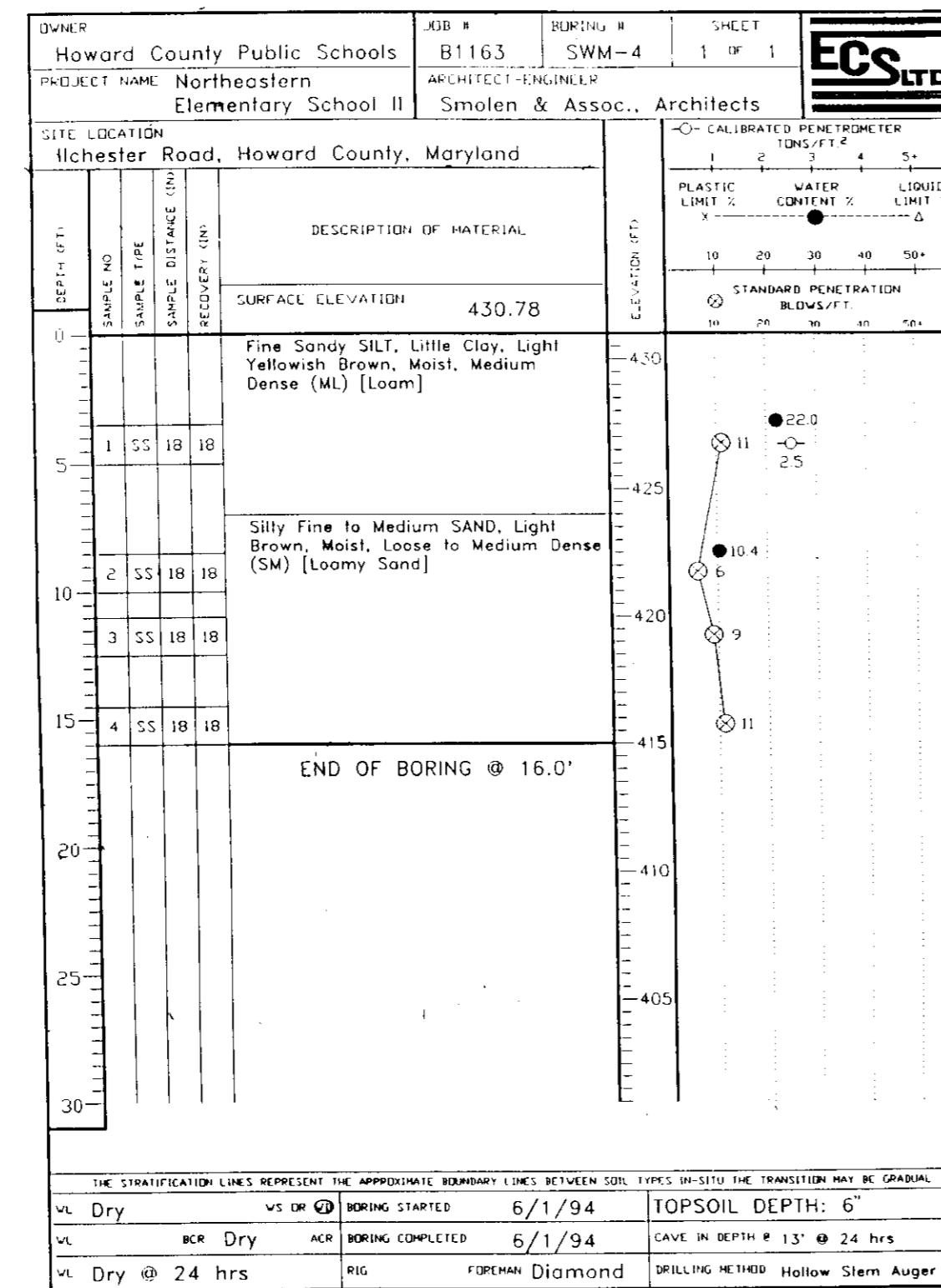
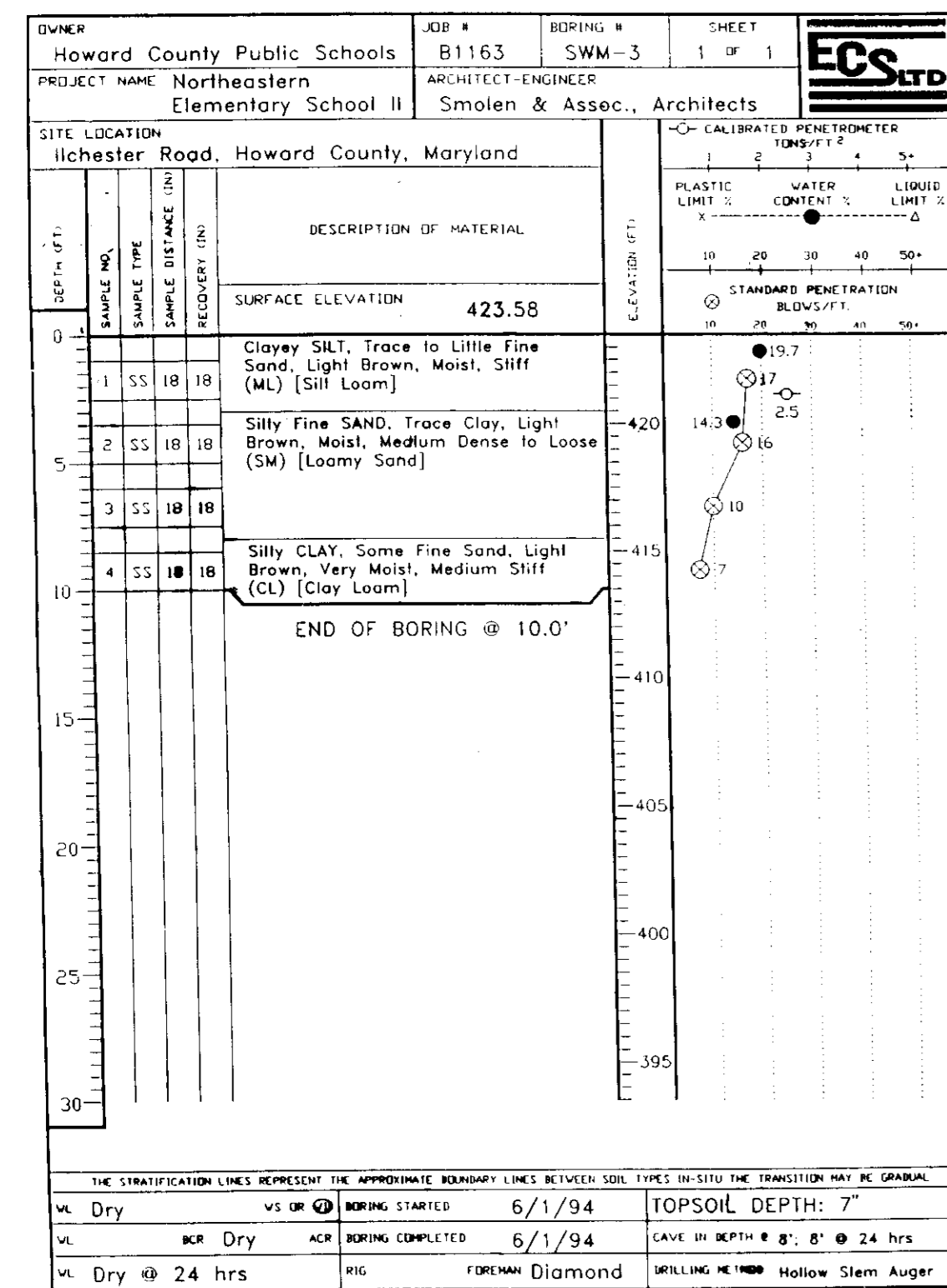
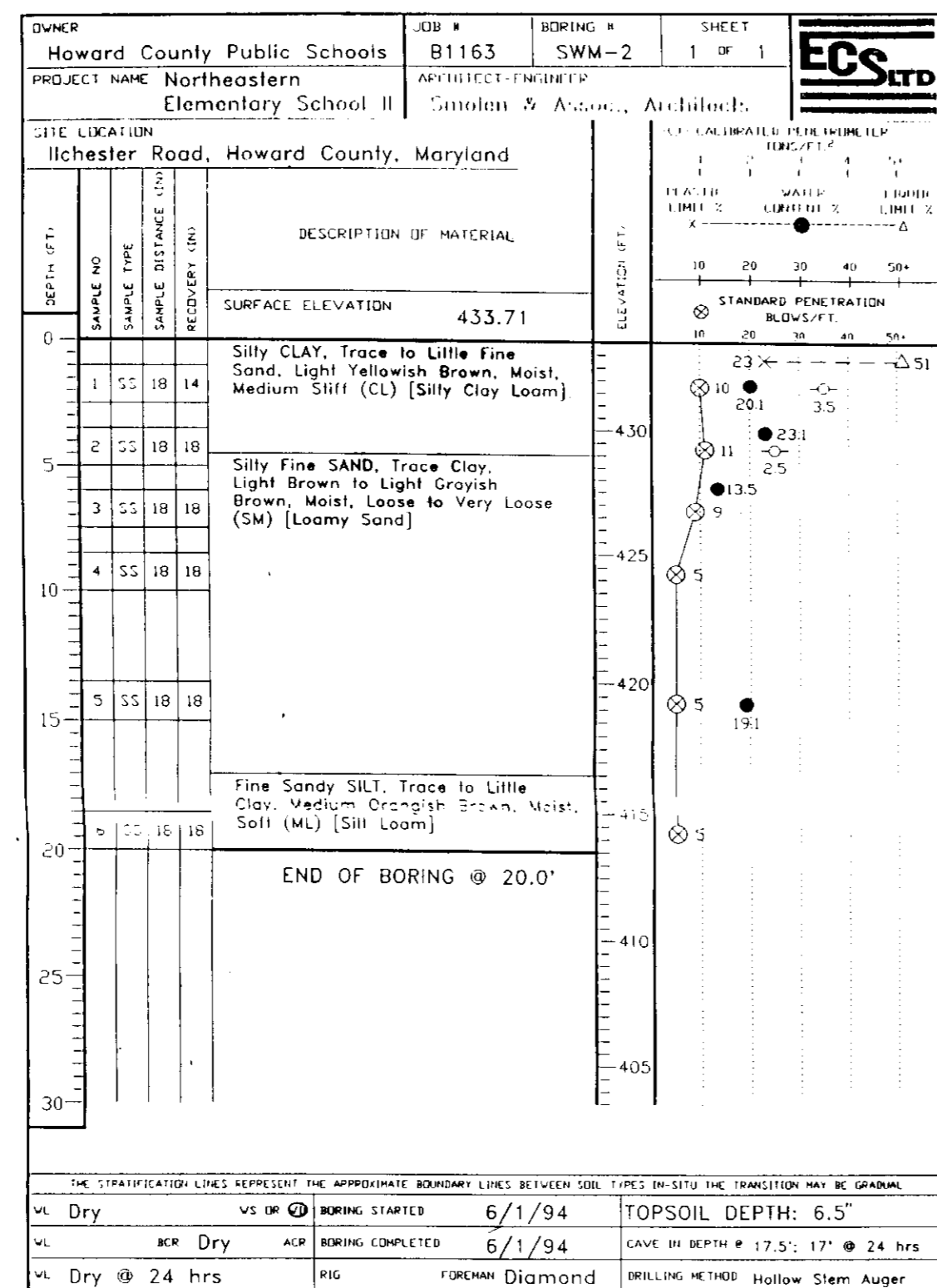
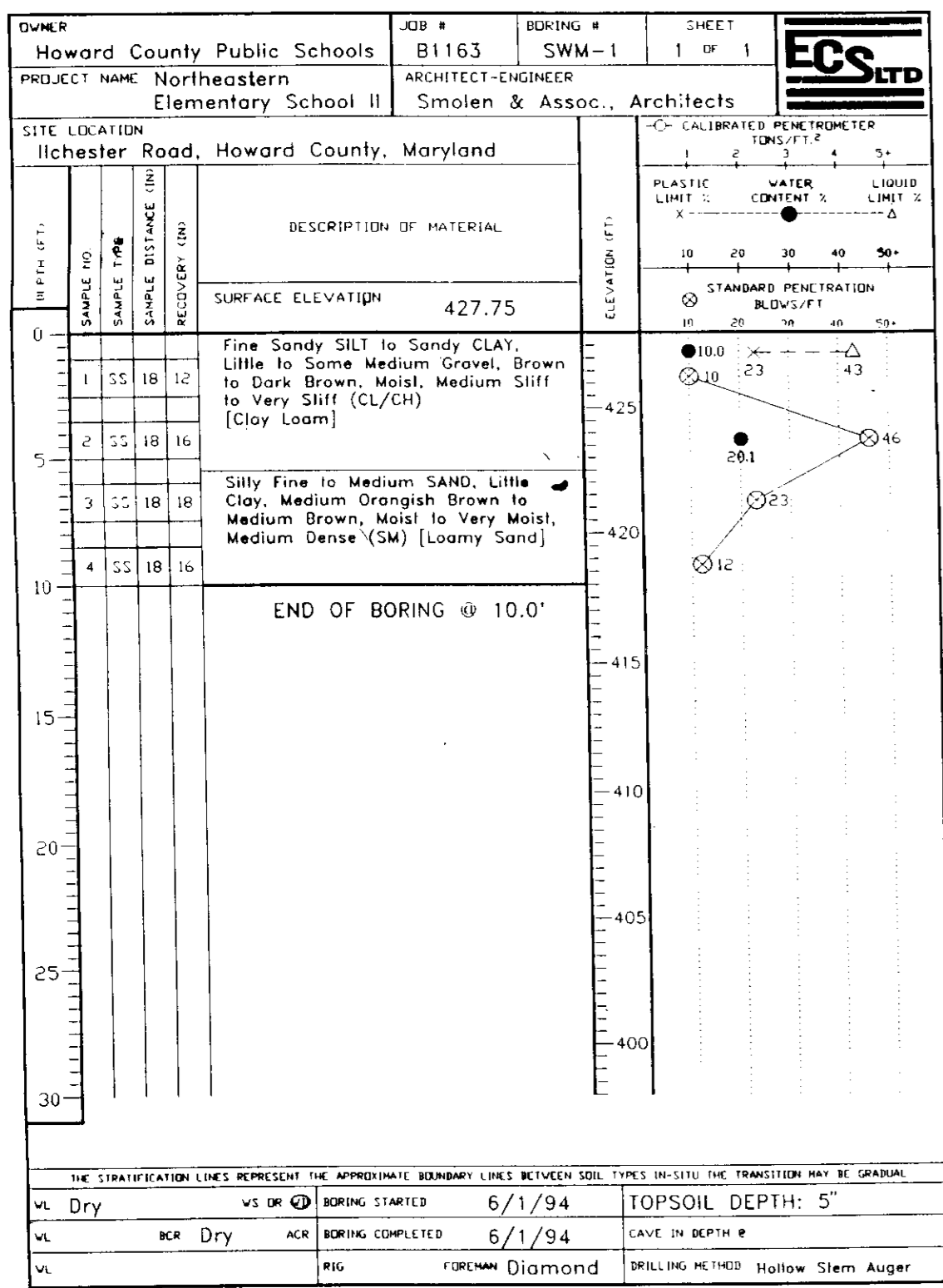
All work on permanent structures shall be carried out in areas free from water. The contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also 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 revised 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 a 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 pumps 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.



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

Approved: *Patricia Engle* 3/23/95  
U.S. Soil Conservation Service

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

Approved: *Robert W. Zickler* 3/23/95  
Howard S.C.D.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
DIRECTOR: *Qua Sammanji* 3/24/95  
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH  
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR: *James E. Hill* 3/24/95  
CHIEF BUREAU OF ENGINEERING: *Robert E. Johnson* 3/24/95

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKWAY DR. ROCKVILLE, MD. 20852  
301 770 0177

By The Developer:  
"I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a 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."  
*Wick Sp...* 3/17/95  
Signature of Developer Date

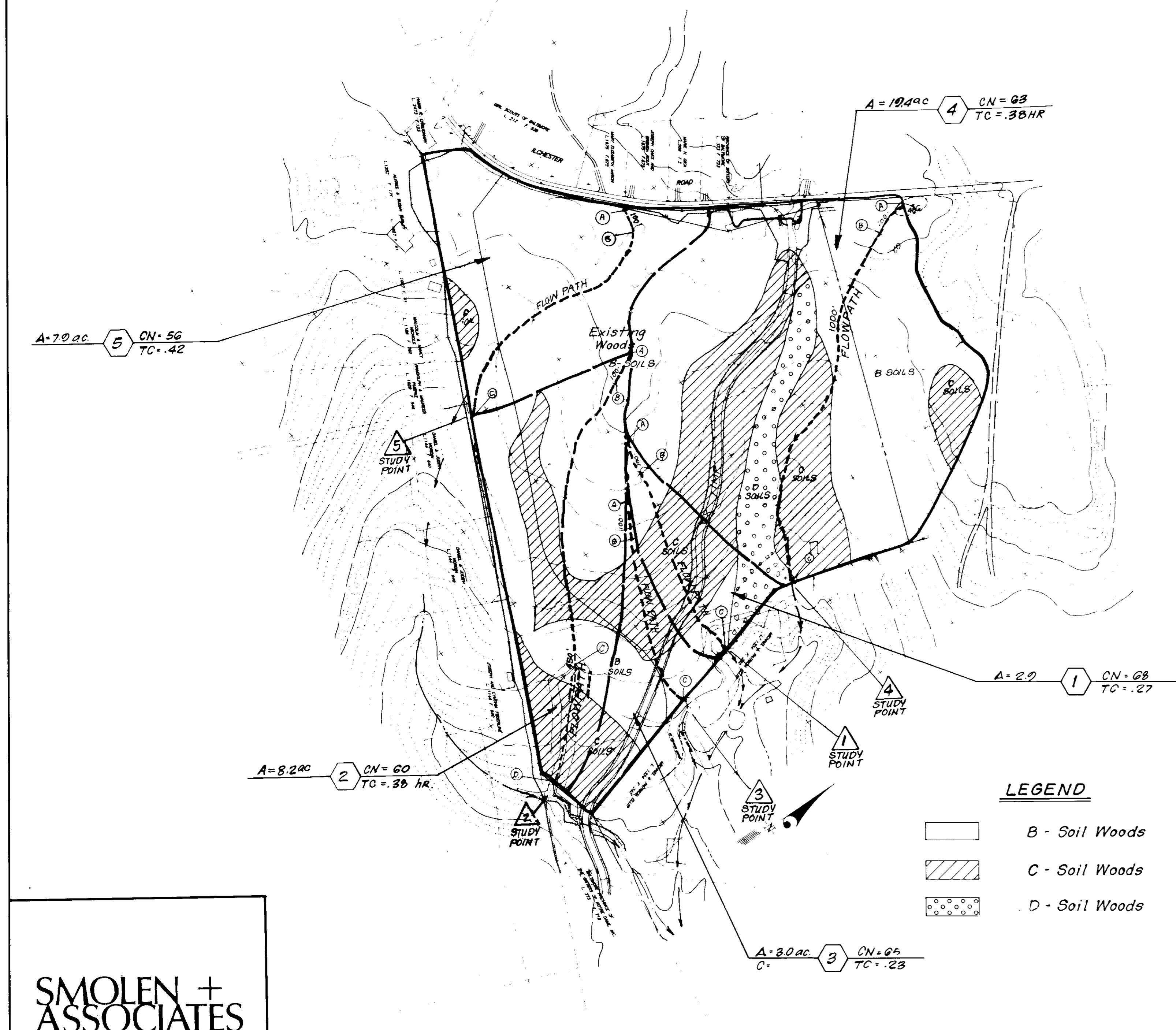
By The Engineer:  
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District and the engineer shall be notified of the date the 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."  
*Robert W. Zickler* 3-16-95  
Signature of Engineer Date

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH

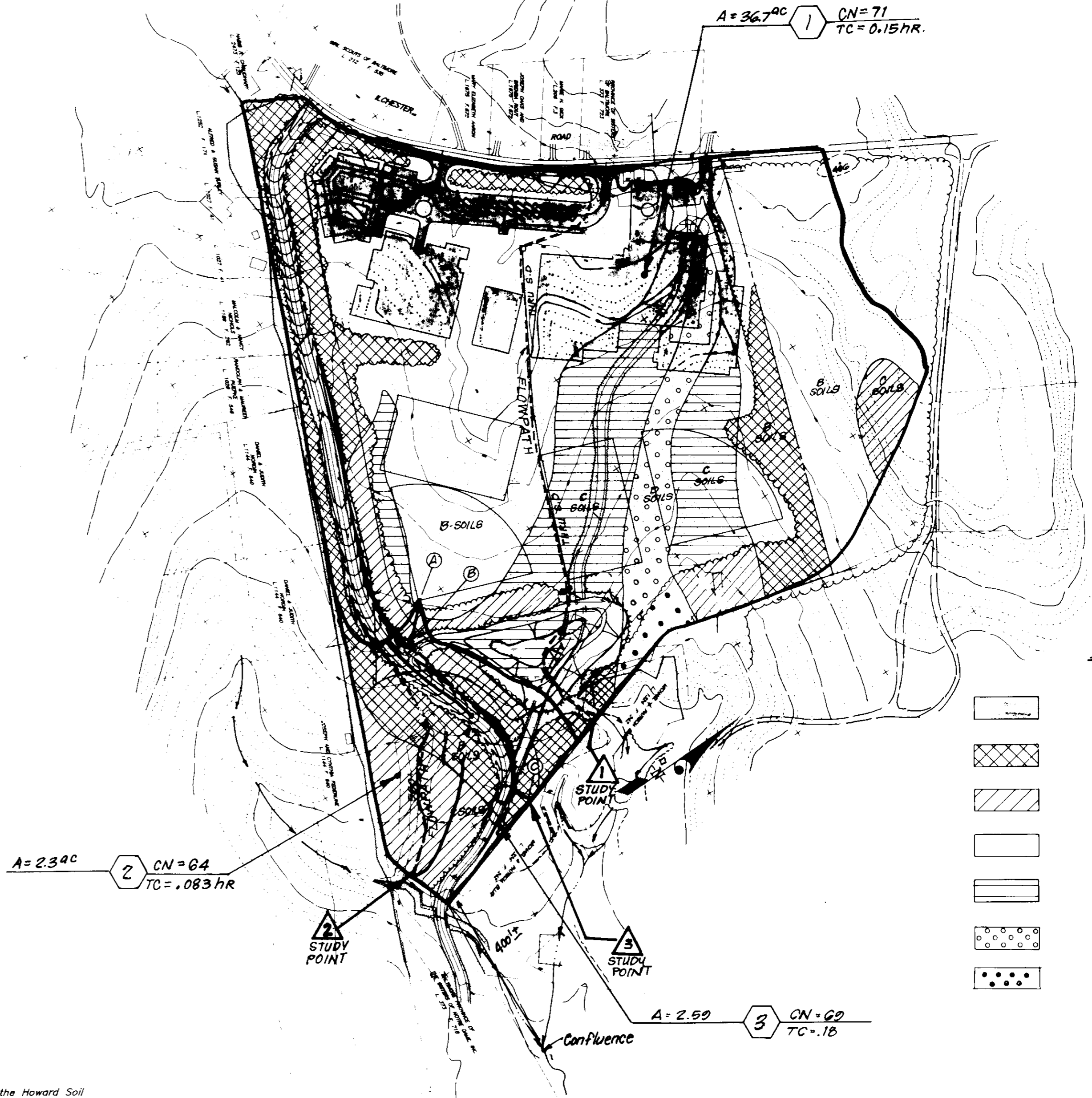
DESIGNED	<b>POND SPECIFICATIONS &amp; SOIL BORING LOGS</b>	SCALE	None
DRAWN	<b>NORTHEASTERN ELEMENTARY SCHOOL</b>	DRAWING	<b>C-13</b> of 22
CHECKED	<b>TAX MAP NO. 31, PARCEL 819 &amp; PART OF PARCEL 232</b>	JOB NO.	<b>95-108</b>
DATE	<b>1ST ELECTION DISTRICT</b>	FILE NO.	<b>95-101-X</b>
	<b>HOWARD COUNTY, MARYLAND</b>		
	<b>OWNER: HOWARD COUNTY BOARD OF EDUCATION</b>		
	<b>10910 ROUTE 108</b>		
	<b>ELLIOTT CITY, MD. 21043</b>		

SDP 95-55





- LEGEND**
- B - Soil Woods
  - C - Soil Woods
  - D - Soil Woods



- LEGEND**
- Impervious
  - B - Soil Woods
  - C - Soil Woods
  - B - Soil Open Space
  - C - Soil Open Space
  - D - Soil Open Space
  - D - Soil Woods

**DRAINAGE AREA MAP**  
(EXISTING CONDITIONS)  
Scale: 1" = 200'

**DRAINAGE AREA MAP**  
(DEVELOPED CONDITIONS)  
Scale: 1" = 200'

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
101 770 0177

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

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR *Alvin Summerville* DATE *3/31/95*

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH \_\_\_\_\_ DATE \_\_\_\_\_

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

DIRECTOR *James P. Stuenkel* DATE *3/24/95*

CHIEF BUREAU OF ENGINEERING *Richard E. ...* DATE *3/24/95*

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

Approved *Robert W. Zickler* 3/23/95  
Howard S.C.D. Date

By The Developer:

"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 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."

*William J. ...* 3/17/95  
Signature of Developer Date

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

*Patricia Engle* 3/23/95  
U.S. Soil Conservation Service Date

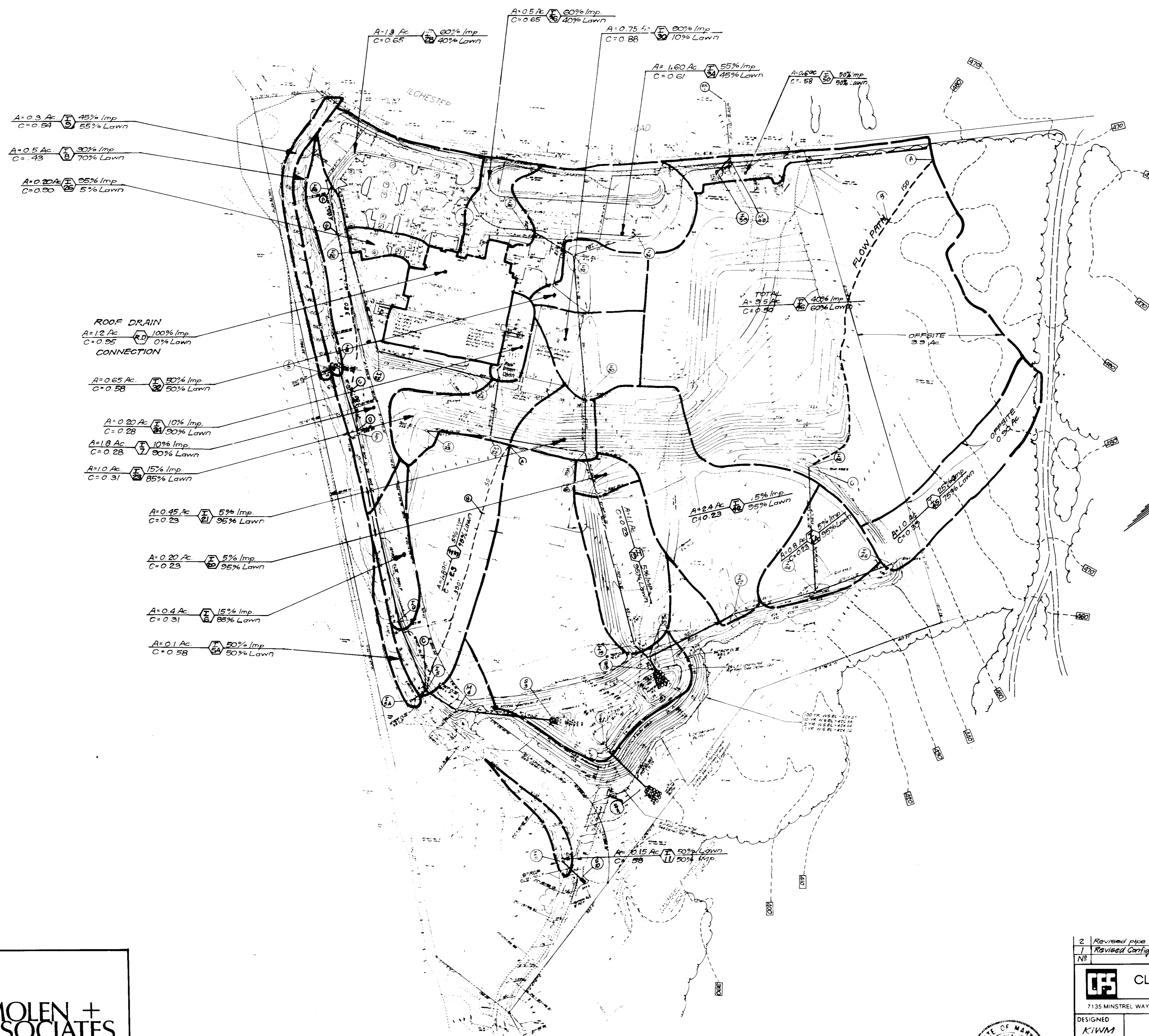
By the Engineer:

"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."

*James P. Stuenkel* 3-16-95  
Signature of Engineer Date

<b>CLARK • FINEROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.		
DESIGNED <i>KIMMI</i>	<b>STORM WATER MANAGEMENT DRAINAGE AREA MAP #2</b> NORTHEASTERN ELEMENTARY SCHOOL TAX MAP NO 31, PARCEL 819 & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND OWNER: HOWARD COUNTY BOARD OF EDUCATION 10010 ROUTE 108 ELLICOTT CITY, MD. 21043	SCALE 1" = 200'
DRAWN <i>LAJ</i>		DRAWING C-14 OF 25
CHECKED <i>WHT</i>		JOB NO. 93-101
DATE 3-16-95		FILE NO. 93-101-X

SDP 95-55



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

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director \_\_\_\_\_ DATE 3/12/95

Director *Ann Drummond* DATE 3/21/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH

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

Director \_\_\_\_\_ DATE 3/24/95

Chief Bureau of Engineering \_\_\_\_\_ DATE 3/24/95

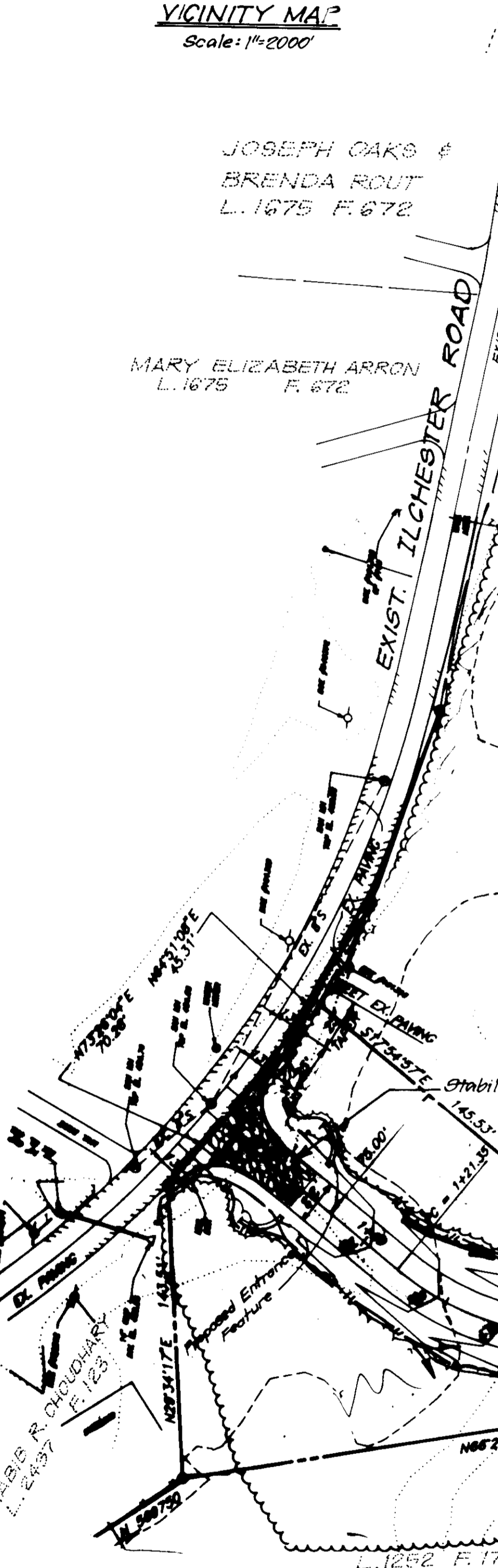
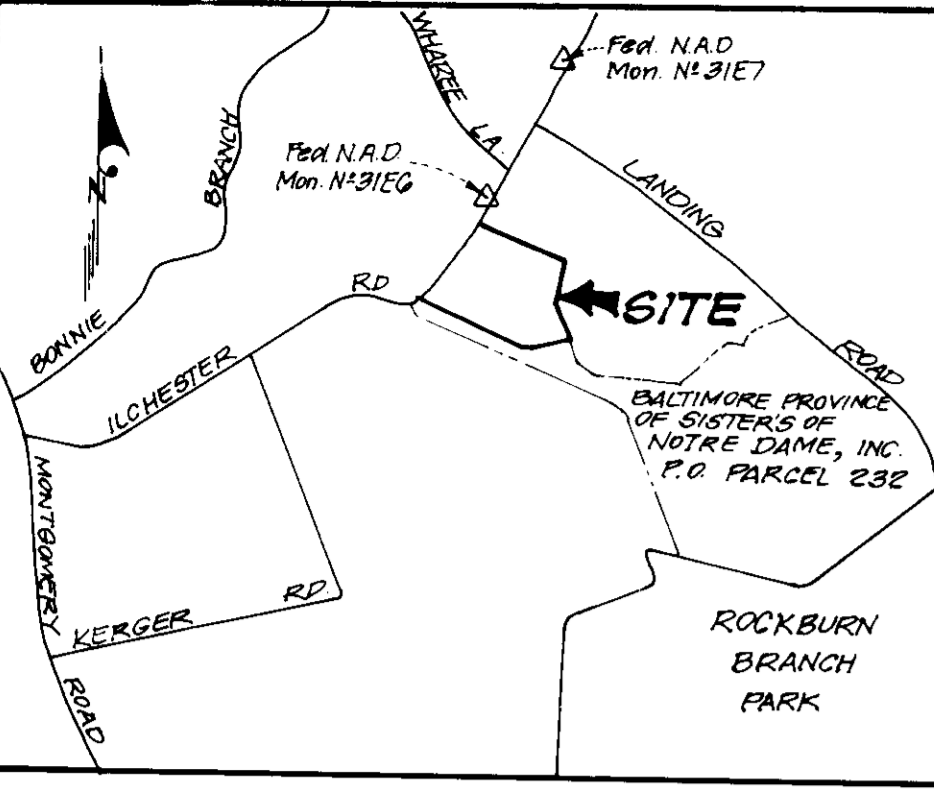
**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

2	Revised pipe size between I-32 - I-34	5-11-95
1	Revised Configuration of MAP to 150	DATE
NB	REVISION	DATE
<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH		
DESIGNED	KIWM	SCALE 1" = 100'
DRAWN	BAL	DRAWING #2 C-15
CHECKED	WJW/KIWM	JOB NO. 93-101
DATE	3-16-95	FILE NO. 93-101 K
DATE	3-16-95	



SDP 95-55





**LEGEND**

Contour Interval	2 Ft.
Existing Contour	---
Proposed Contour	- - -
Spot Elevation	+ 70.2
Direction of Drainage	→
Existing Trees To Be Saved	(Symbol)
Tree Protection Fence	
Silt Fence	SS
Earth Dike	ED (A-3)
Stabilized Construction Entrance	(Symbol)
Super Silt Fence	SS

**TRAP #2 EAST ST-V**  
 DA = 1.0 ac  
 Storage Required = 1.0 (1800) = 1800 cf  
 Storage Provided = 2222 cf  
 Storage Depth = 3 ft  
 Top of Stone Weir = 408.0  
 Cleanout Elev. = 406.5  
 Bottom Elev. = 404.0  
 Bottom Dimensions = 52' x 7'  
 L = 4'  
 1:1 Side Slopes in Cut

**TEMPORARY SEDIMENT TRAP #1 R.O.S. ST-V**  
 DA = 28 Ac [4.3 Undisturbed 3.5 Disturb]  
 Storage Required = 7.8 (1800) = 14040 cf  
 Storage Provided = 25751 cf  
 Storage Depth = 4 FT.  
 Top of Embankment = 420.0  
 Top of Stone Weir = 425.0  
 Cleanout Elev. = 422.00  
 Bottom Elev. = 420.0  
 Bottom Dimensions - Varies (see plan)  
 Side Slopes = 2:1  
 a = 16.0' b = 2.0'

Provide earth dike prior to storm drain construction. Once storm drain is complete, remove earth dike to complete grading.

**TRAP #2A EAST ST-V**  
 DA = 0.2 ac  
 Storage Req'd = 0.2 (1800) = 360 cf  
 Storage Provid' = 360 cf  
 Storage Depth = 1.0'  
 Top of Stone Weir = 403.0  
 Cleanout Elev. = 402.5  
 Bottom Elev. = 401.0  
 Bottom Dimensions = 4' x 30'  
 L = 4'  
 Side Slopes = 2:1

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

COLUMBIA HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR *Anna Swannanji* DATE 3/31/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH \_\_\_\_\_ DATE 2/24/95

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

DIRECTOR *James P. Shaw* DATE 3/24/95

CHIEF BUREAU OF ENGINEERING *Robert S. Spon* DATE 3/24/95

**SMOLEN + ASSOCIATES ARCHITECTS**  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770 0177

Reviewed for HOWARD S.C.D.  
 and meets Technical Requirements  
*William G. Zich* 3/23/95  
 Signature Date  
 US Soil Conservation Service

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

*Robert G. Zich* 3/23/95  
 Approved

**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 sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment 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."

*William G. Zich* 3/17/95  
 NAME DATE

**ENGINEER'S CERTIFICATE**

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

*G. Nelson Clark* 3-16-95  
 G. NELSON CLARK DATE

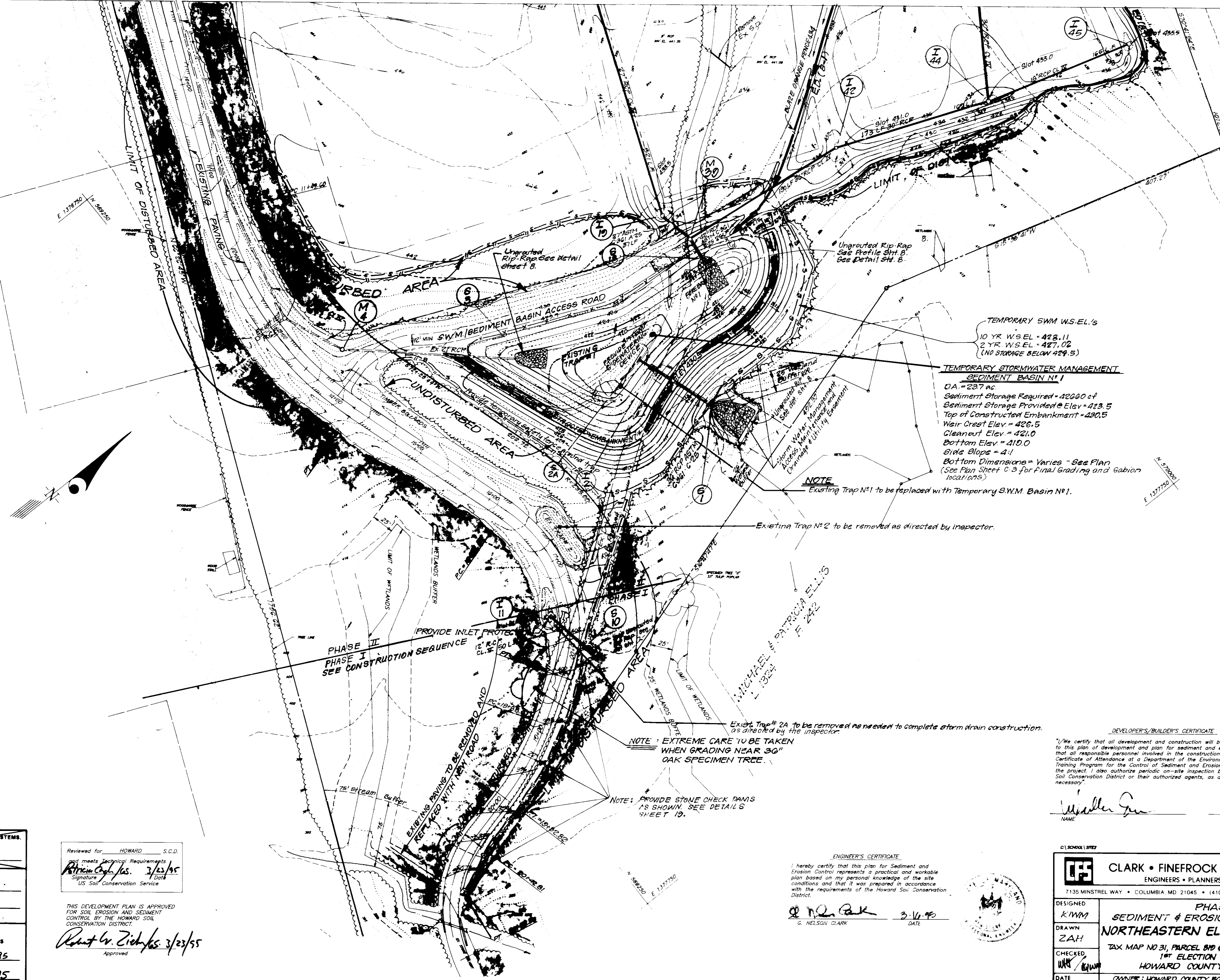


<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS		
7135 MANSFIELD WAY • COLUMBIA MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH		
DESIGNED <i>YIWM</i>	<b>PHASE I SEDIMENT &amp; EROSION CONTROL PLAN NORTHEASTERN ELEMENTARY SCHOOL</b>	SCALE 1"=50'
DRAWN <i>ZAH</i>		DRAWING C-16 OF 25
CHECKED <i>YIWM</i>	TAX MAP NO. 31, PARCEL 810 & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 95-101
DATE 3-16-95	OWNER: HOWARD COUNTY BOARD OF EDUCATION 10010 ROUTE 108 ELLCOTT CITY, MD. 21048	FILE NO. 95-101-4









**TEMPORARY SWM WS. EL.'S**  
 10 YR W.S. EL. = 428.11  
 2 YR W.S. EL. = 427.02  
 (NO STORAGE BELOW 429.5)

**TEMPORARY STORMWATER MANAGEMENT SEDIMENT BASIN NO. 1**  
 O.A. = 237 ac  
 Sediment Storage Required = 42000 cf  
 Sediment Storage Provided @ Elev = 423.5  
 Top of Constructed Embankment = 430.5  
 Weir Crest Elev = 426.5  
 Cleanout Elev = 421.0  
 Bottom Elev = 419.0  
 Side Slope = 4:1  
 Bottom Dimensions = Varies - See Plan  
 (See Plan Sheet C-3 for Final Grading and Gabion Locations)

**NOTE**  
 Existing Trap No. 1 to be replaced with Temporary SWM Basin No. 1.

Existing Trap No. 2 to be removed as directed by inspector.

**NOTE**: EXISTING TRAP # 2A TO BE REMOVED AS DIRECTED BY THE INSPECTOR.

**NOTE**: EXTREME CARE TO BE TAKEN WHEN GRADING NEAR 36" OAK SPECIMEN TREE.

**NOTE**: PROVIDE STONE CHECK DAMS AS SHOWN. SEE DETAILS SHEET 19.

**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 sediment and erosion control and that all responsible personnel involved in the construction project will have a certificate of Attendance at a Department of the Environment 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."

*Walter J...* 3/17/95  
 NAME DATE

**ENGINEER'S CERTIFICATE**

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

*G. Nelson Clark* 3-16-95  
 G. NELSON CLARK DATE

<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO • (301) 621-8100 - WASH.		
DESIGNED K/M/W	PHASE I & II SEDIMENT & EROSION CONTROL PLAN	SCALE 1" = 50'
DRAWN ZAH	NORTHEASTERN ELEMENTARY SCHOOL	DRAWING C-18 OF 25
CHECKED W/W	TAX MAP NO 31, PARCEL BID & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 95-101
DATE 3-16-95	OWNER: HOWARD COUNTY BOARD OF EDUCATION 10010 ROUTE 108 ELLCOTT CITY, MD, 21043	FILE NO. 05-101-X

**SMOLEN + ASSOCIATES**  
 ARCHITECTS  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770 0177

**APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS**  
 HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE

**APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING**

DIRECTOR DATE

*Anna Swinnami* 3/14/95

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

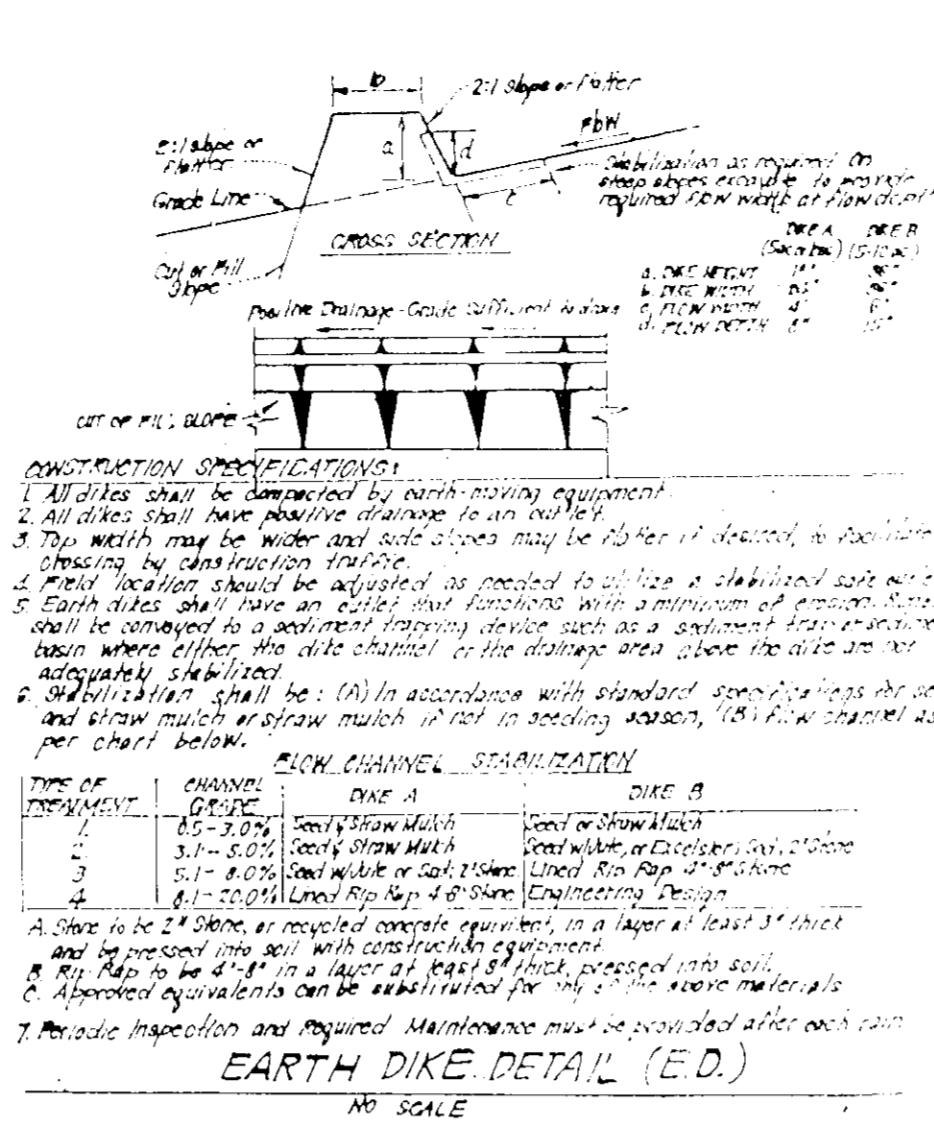
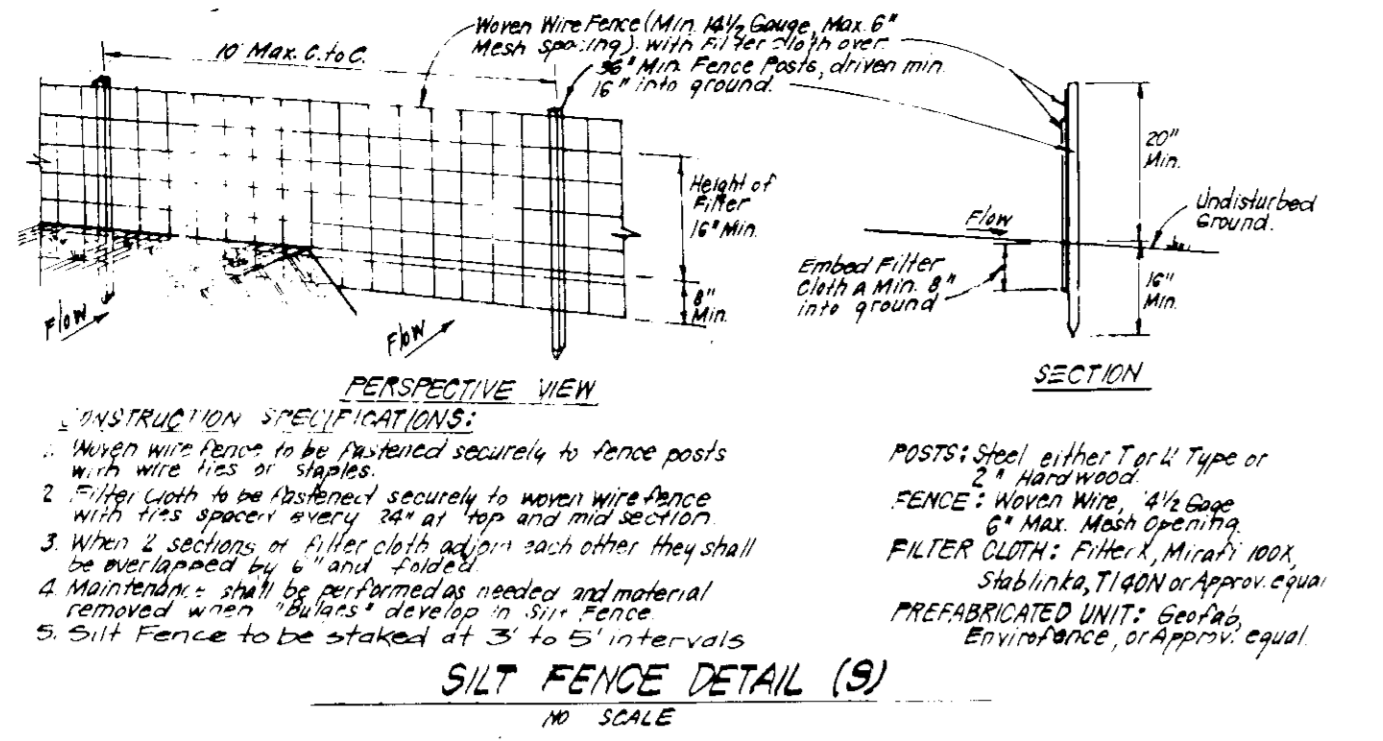
DIRECTOR DATE

*Robert W. Zich / G.S. 3/23/95*  
 Approved

Reviewed for HOWARD S.C.D.  
 and meets Technical Requirements  
*Robert W. Zich / G.S. 3/23/95*  
 Signature Date  
 US Soil Conservation Service

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





**SEDIMENT AND EROSION CONTROL NOTES**

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permit prior to the start of any construction. (918-1855).
  - All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL.
  - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
  - All sediment traps/basins shown must be fenced and warning signs posted around their perimeters 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 1983 MARYLAND STANDARDS AND SPECS. FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and temporary seedings (Sec. 52) and mulching (Sec. 52). Temporary stabilization with mulch 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 is obtained from the Howard County Sediment Control Inspector.
  - SITE ANALYSIS:**  
Total Area of Site: 35.27 AC  
Area Disturbed: 4.66 AC  
Area to be vegetatively stabilized: 21.28 AC  
Total Cut: 137.00 CU  
Total Fill: 127.00 CU  
Offsite Waste/Borrow Area Location: 3.66 AC Phase I  
22.26 AC Phase II
  - 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 DPM 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.
  - All pipes to be blocked at the end of each day (see detail this sheet).
  - The total amount of silt fence: 3425 LF
  - The total amount of super silt fence: 460 LF
- It is the responsibility of the contractor to identify the spoil/borrow site and notify and gain approval from the sediment control inspector of the site and its grading permit number at the time of construction.

**PERMANENT SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

**SEE CONTRACT SPECIFICATIONS FOR OWNER REQUIRED ALTERNATE.**

**SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

**SOIL AMENDMENTS:** In lieu of soil test recommendations, use one of the following schedules:  
1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft.) before seeding. Harrow or disc into upper three inches of soil. At the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (8 lbs/1000 sq ft.)  
2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs/1000 sq ft.) before seeding. Harrow or disc into upper three inches of soil.

**SEEDING:** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 800 lbs per acre (1.4 lbs/1000 sq ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 50 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft.) for anchoring.

**MAINTENANCE:** Inspect all seeded areas and make needed repairs, replacements and reseeding.

**TEMPORARY SEEDING NOTES**

**SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

**SOIL AMENDMENTS:** Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft.).

**SEEDING:** For periods March 1 thru April 30 and August 1 thru November 15, seed with 2 1/2 bushels per acre of annual ryegrass (3.2 lbs/1000 sq ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

**MULCHING:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft.) for anchoring.

**REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.**

**SEE ALSO CONTRACT SPECIFICATIONS FOR STABILIZATION OF REFORESTATION AREAS.**

**CONSTRUCTION SEQUENCE**

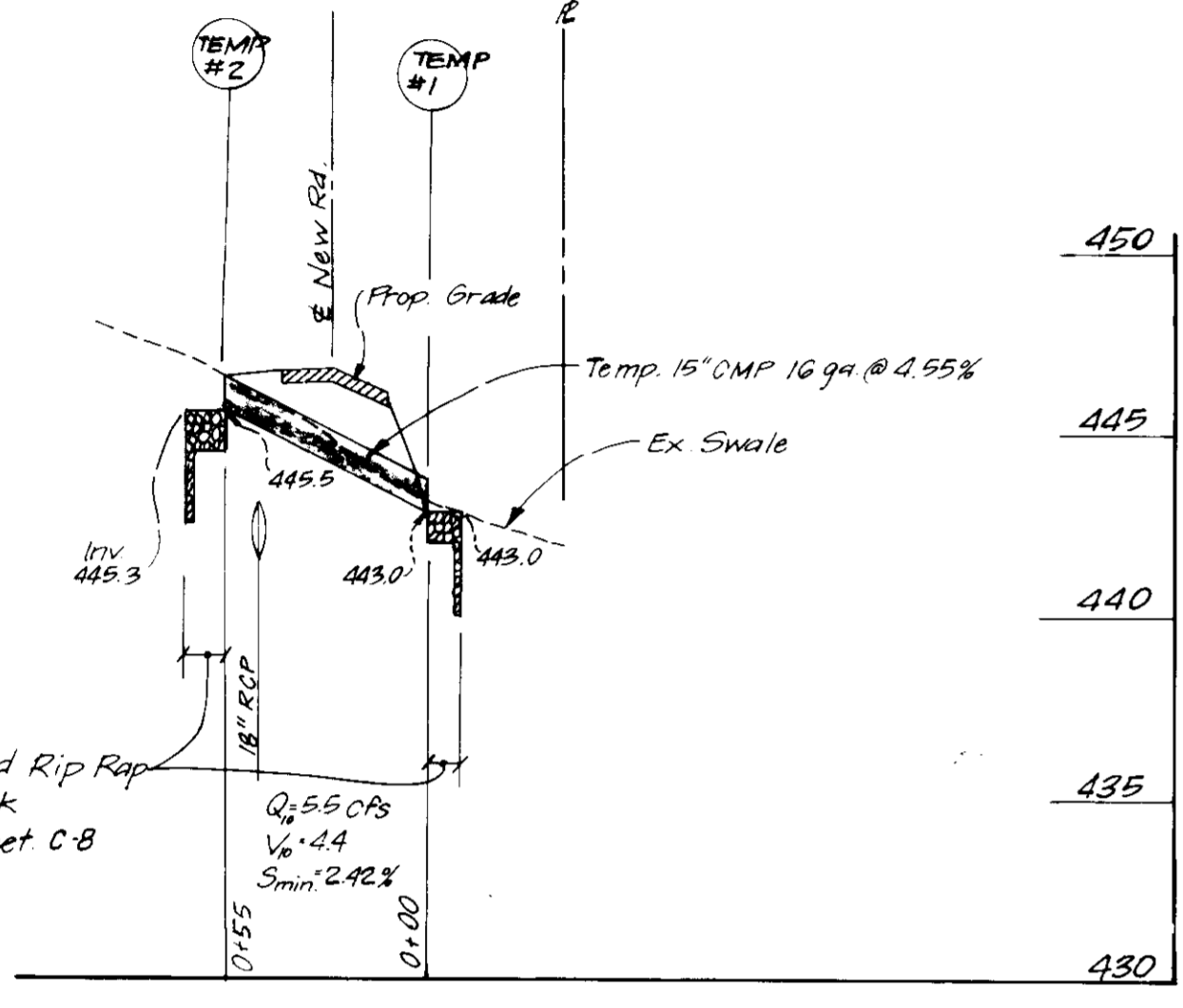
PHASE	NO. OF DAYS
1. Obtain grading permit.	7
2. Install tree protection fence.	7
3. Clear and grub as necessary to install sediment and erosion controls.	14
4. Install sediment and erosion controls including Traps #1 and 2, Stone Outlet Structure, Silt Fence, Earth Dikes and Stone Construction Entrance.	14
5. Install storm drainage Str. I-3 thru I-3 to direct runoff to Trap #1.	30
6. Rough grade road and temporarily stabilize.	30
7. Construct paving to Sta. 17+50.	30
8. Remove and replace existing paving on New Road Sta. 17+50 to 21+00. Install silt fence and complete storm drain construction, Structures I-11 to S-10, when needed. Provide inlet protection as shown in plan.	30
9. Permanently stabilize all remaining areas.	14
* Provide erosion control matting at all side ditches. See detail this sheet.	
<b>PHASE II</b>	
1. Install Tree Protection Fence.	7
2. Install Sediment and Erosion Control including completion of Temporary Sediment Basin #1. Temporarily modify structure I-2 with brick and mortar as shown on detail sheet 19. Install dewatering device. Install Super Silt Fence, Earth Dikes, Stone Construction Entrance.	30
3. Clear and grub as necessary. Rough grade site and temporarily stabilize.	14
4. Install storm drainage utilities.	30
5. Construct curb and gutter, roadways, sidewalk and structures. Time grade as necessary.	30
6. Permanently stabilize all remaining disturbed area.	14
7. Once complete stabilization has been achieved and upon approval of the Sediment Control Inspector, convert Sediment Basin No. 2 to a S.W.M. Facility as per the approved plan according to the following: a. Flush all Storm Drain systems to remove any sediment build-up. b. Pump out impounded water in basin. c. Remove temporary safety fence. d. Remove temporary brick modifications to str. No. 1-2 dewatering device and accumulated sediment. Place sediment as directed by the Sediment Control Inspector. e. Grade basin to final dimensions and grades as per plan. f. Permanently stabilize and plant according to the Landscape Plan.	14
8. Upon approval of the Sediment Control Inspector, remove all sediment and erosion controls.	7

**OPERATION MAINTENANCE & INSPECTION**

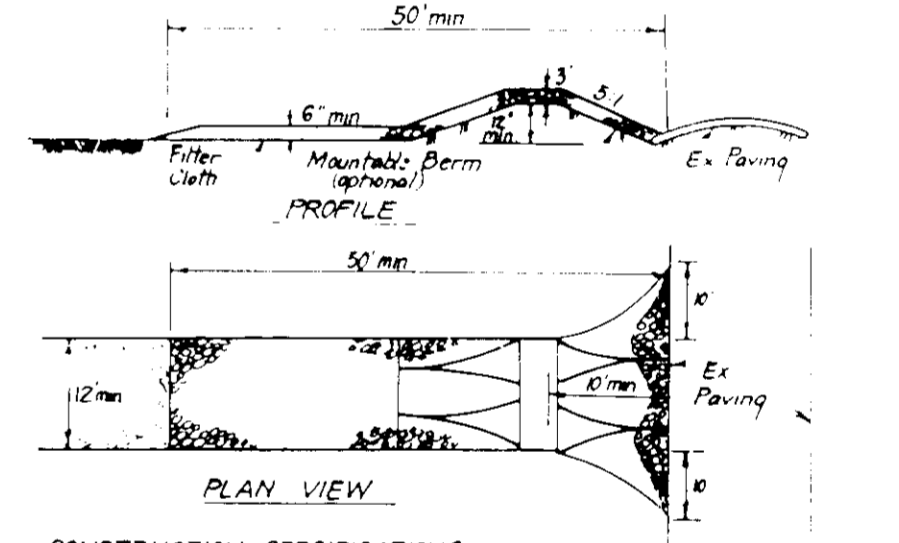
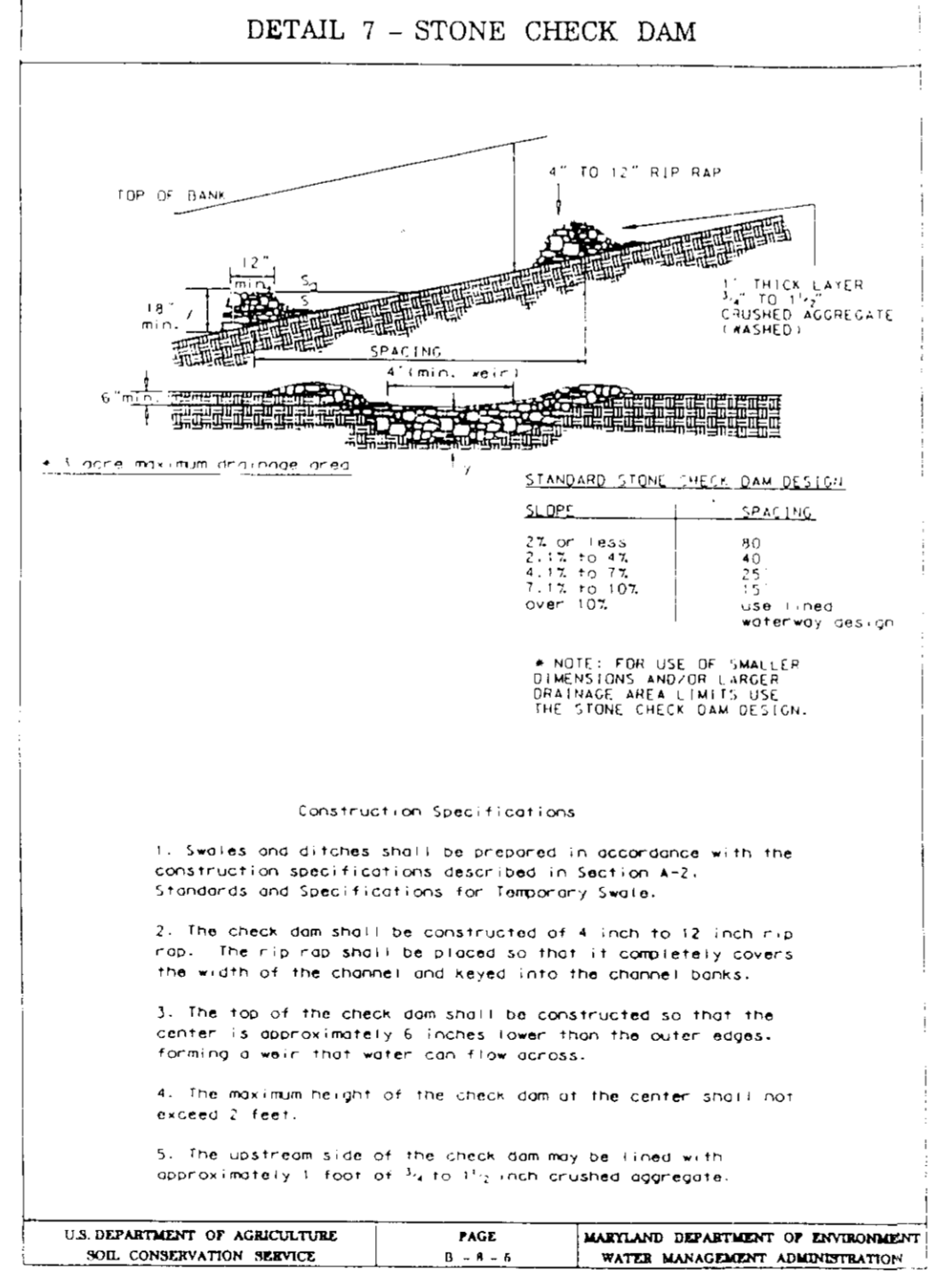
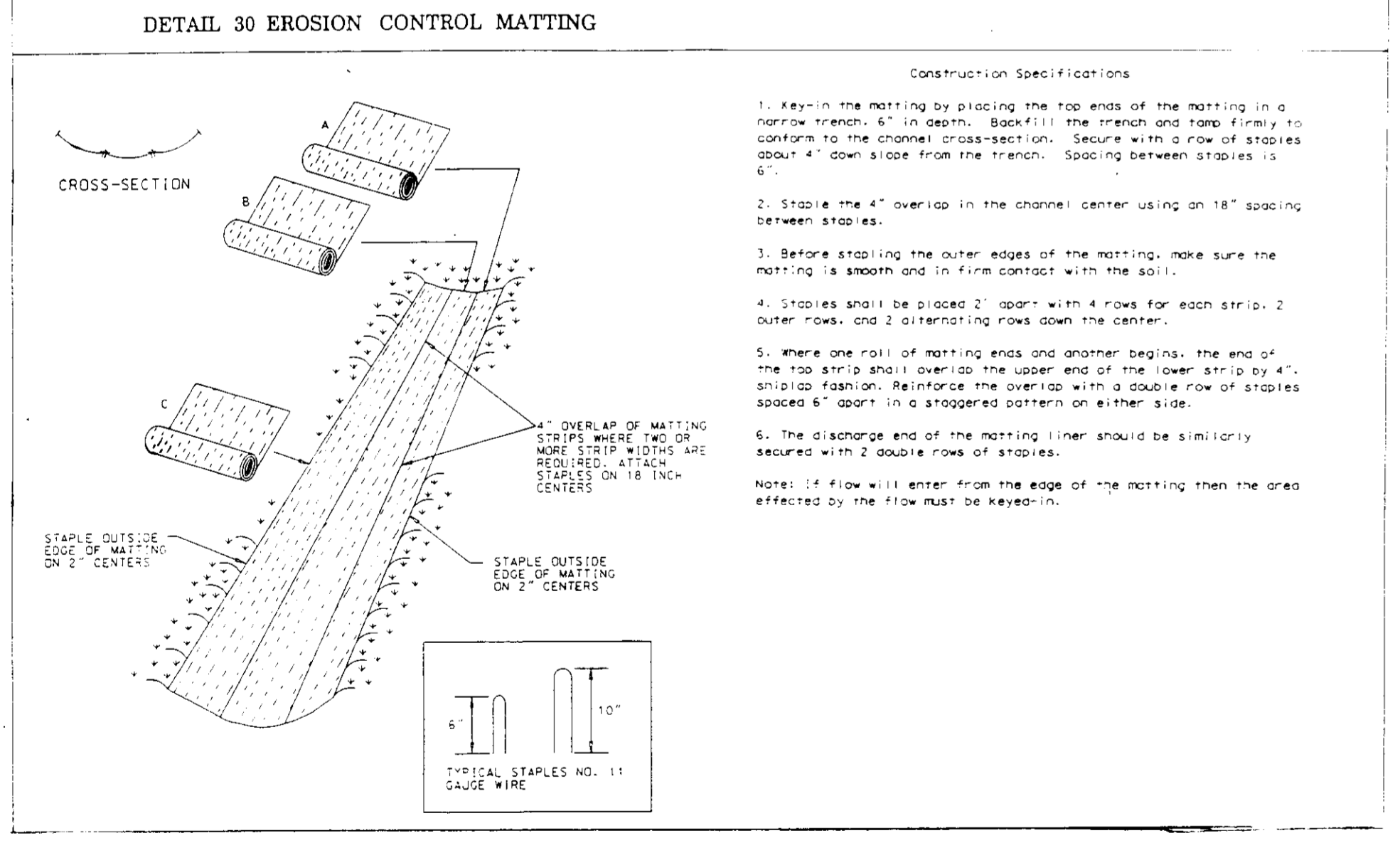
Inspection of the pond(s) shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USOA, SCS "Standards and Specifications for Ponds" (MD-378). The pond owner(s) and any heirs, successors, or assigns shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The pond owner(s) shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

**Maintenance Schedule for SWM Pond #1**

- Forebays to be inspected after each major storm or every month. Trash to be removed as necessary.
- Marsh areas to be inspected once a month and excessive growth cut or mowed as required (No growth above 18" over marsh pool elevation) during growing season.
- Pond slopes and benches to be mowed once every month during growing season.
- Trash to be removed from trash racks after each major storm or every month.
- An annual inspection of the pond is to be done.
- Remove sediment from forebay areas when depth exceed 4".
- Corrective maintenance is to be done as needed if the ponds are found to be unfunctional (i.e., water quality facilities or extended detention facilities don't drain back to the marsh pool elevation within 60 hours).



**PROFILE OF TEMPORARY CLEAN WATER DIVERSION**



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

COUNTY HEALTH OFFICER: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
DATE: 3/21/95

DIRECTOR: \_\_\_\_\_

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH

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

DIRECTOR: \_\_\_\_\_ DATE: 3/24/95

CHIEF BUREAU OF ENGINEERING: \_\_\_\_\_ DATE: 3/24/95

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKWAY, ROCKVILLE, MD. 20852  
301 770 0177

Reviewed for: HOWARD S.C.D.  
Date: 3/21/95

Signature: \_\_\_\_\_  
US Soil Conservation Service

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

Signature: \_\_\_\_\_  
Date: 3/21/95

Signature: \_\_\_\_\_  
Date: 3/16/95

Signature: \_\_\_\_\_  
Date: 3/16/95

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINISTERS WAY • COLLEMBIA MD 21115 • (410) 381-7500 BALTO • (301) 621-8100 WASH

DESIGNED: KIWM  
DRAWN: BAL  
CHECKED: WIK/KIWM  
DATE: 3-16-95

**SEDIMENT & EROSION CONTROL DETAILS**

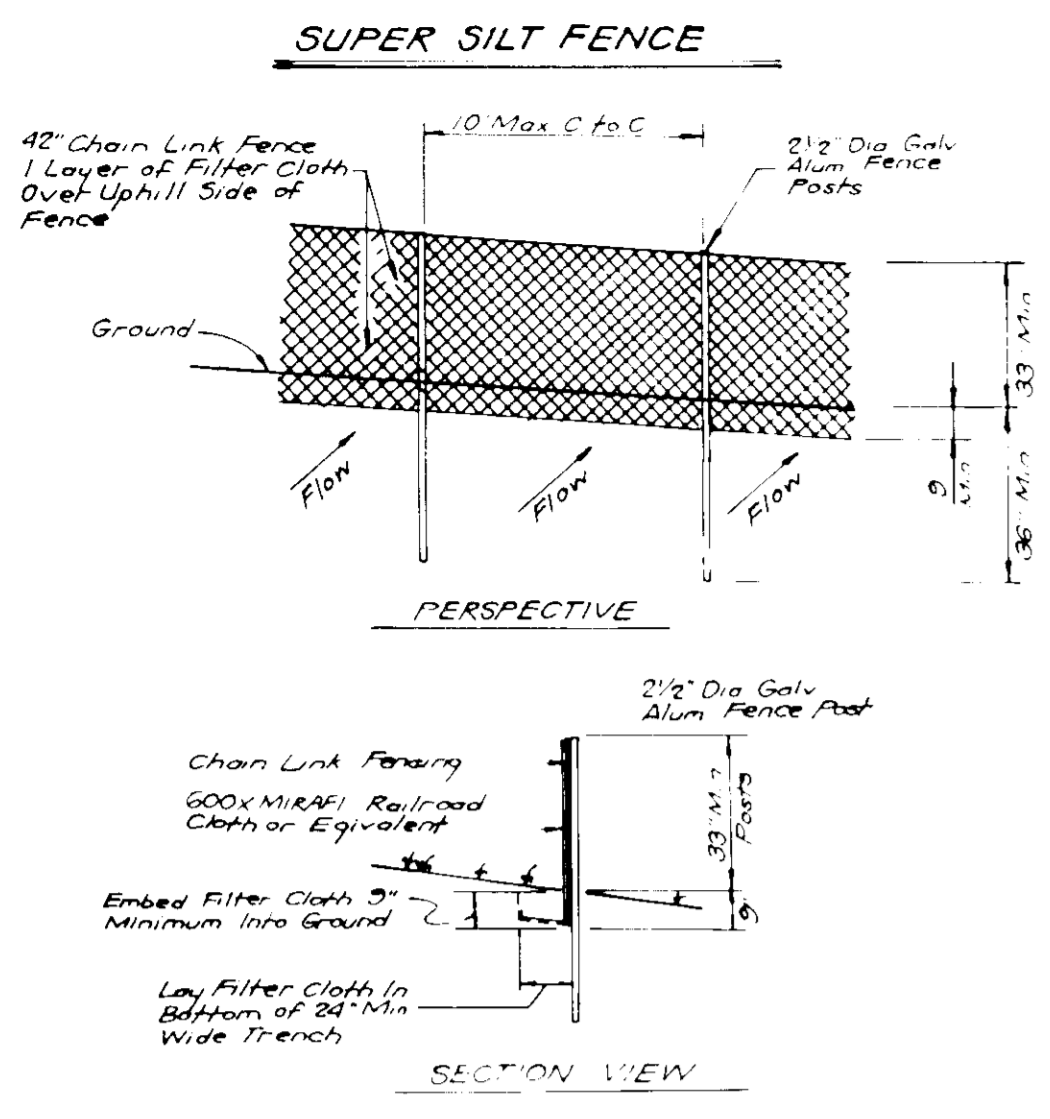
#2  
**NORTHEASTERN ELEMENTARY SCHOOL**

TAX MAP NO 31, PARCEL 810 & PART OF PARCEL 232  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10310 ROUTE 105  
ELLCOTT CT, MD. 21043

SCALE: As Shown  
DRAWING: C-19  
JOB NO: 93-101  
FILE NO: 93-101

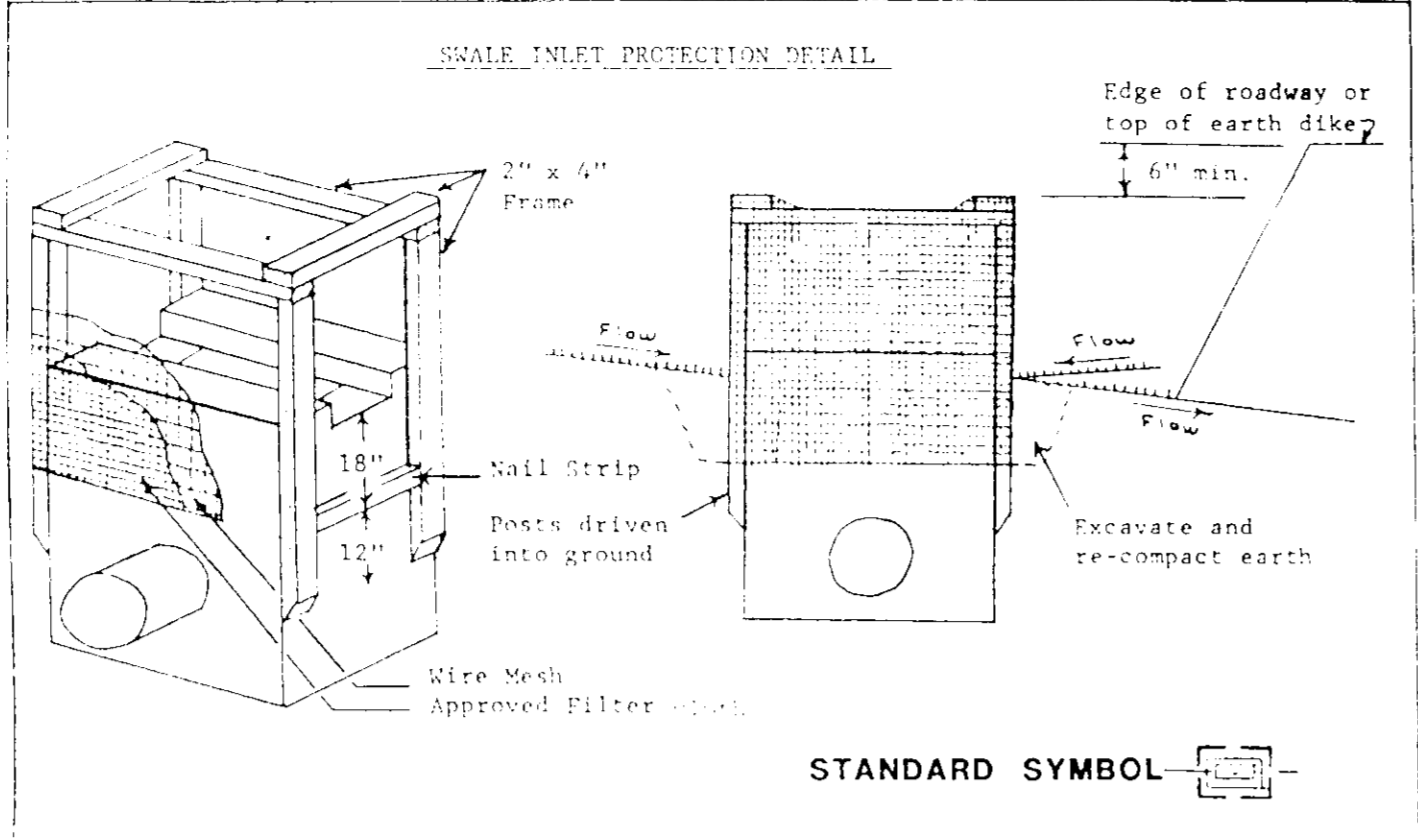




**Fencing**

Fencing shall be 42" high chain link fence constructed in accordance with the latest Maryland State Highway Administration Standard Details 690.01 and 690.02. The specifications for a 3" x 6" fence shall be used, substitute 42 inch fabric and posts. Posts shall be placed without concrete embedment.

- Chain link fence to be fastened securely to fence posts with ties or staples.
- Filter cloth to be fastened securely to chain link fence with ties spaced every 24 inches at top and mid section.
- When two sections of filter cloth adjoin each other they shall be overlapped by 6 inches and folded.
- Maintenance shall be performed as needed and material removed when bulges develop in the silt fence.

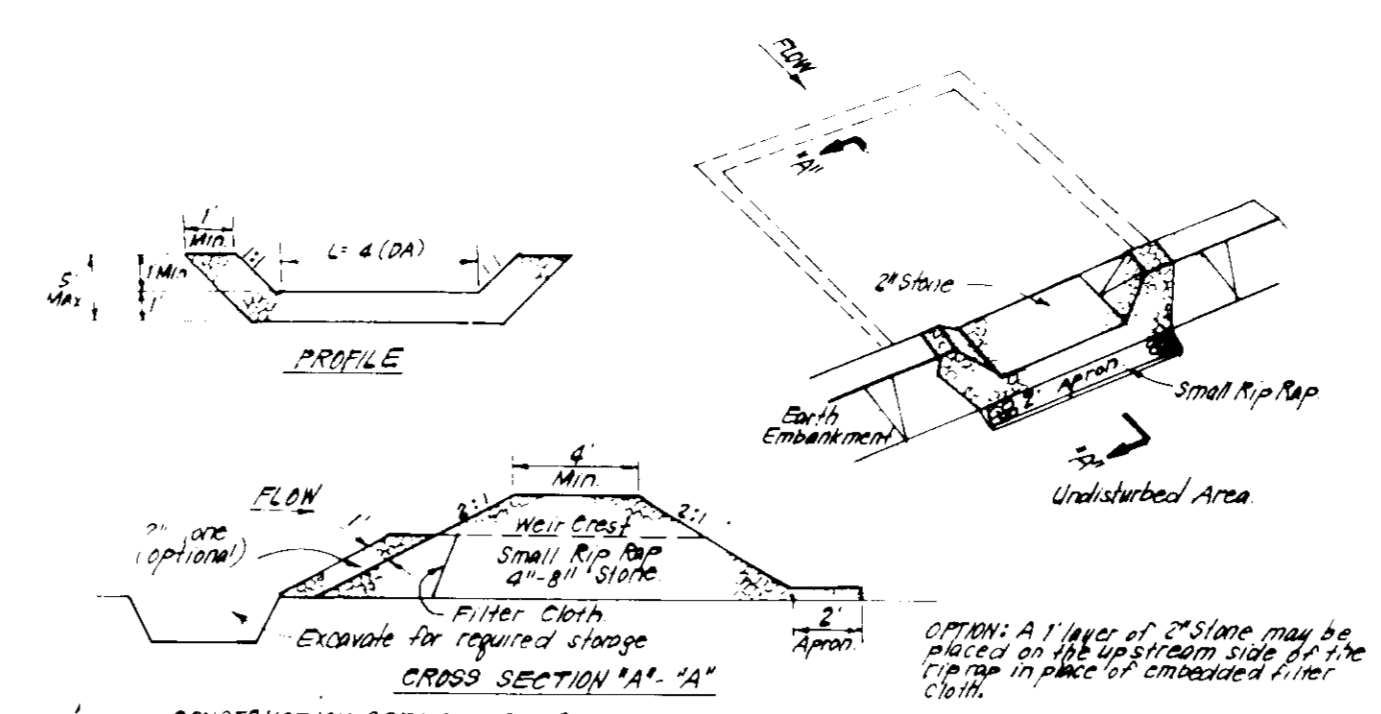


**II. Procedure**

A. A water ditchline or sand inlet protection.

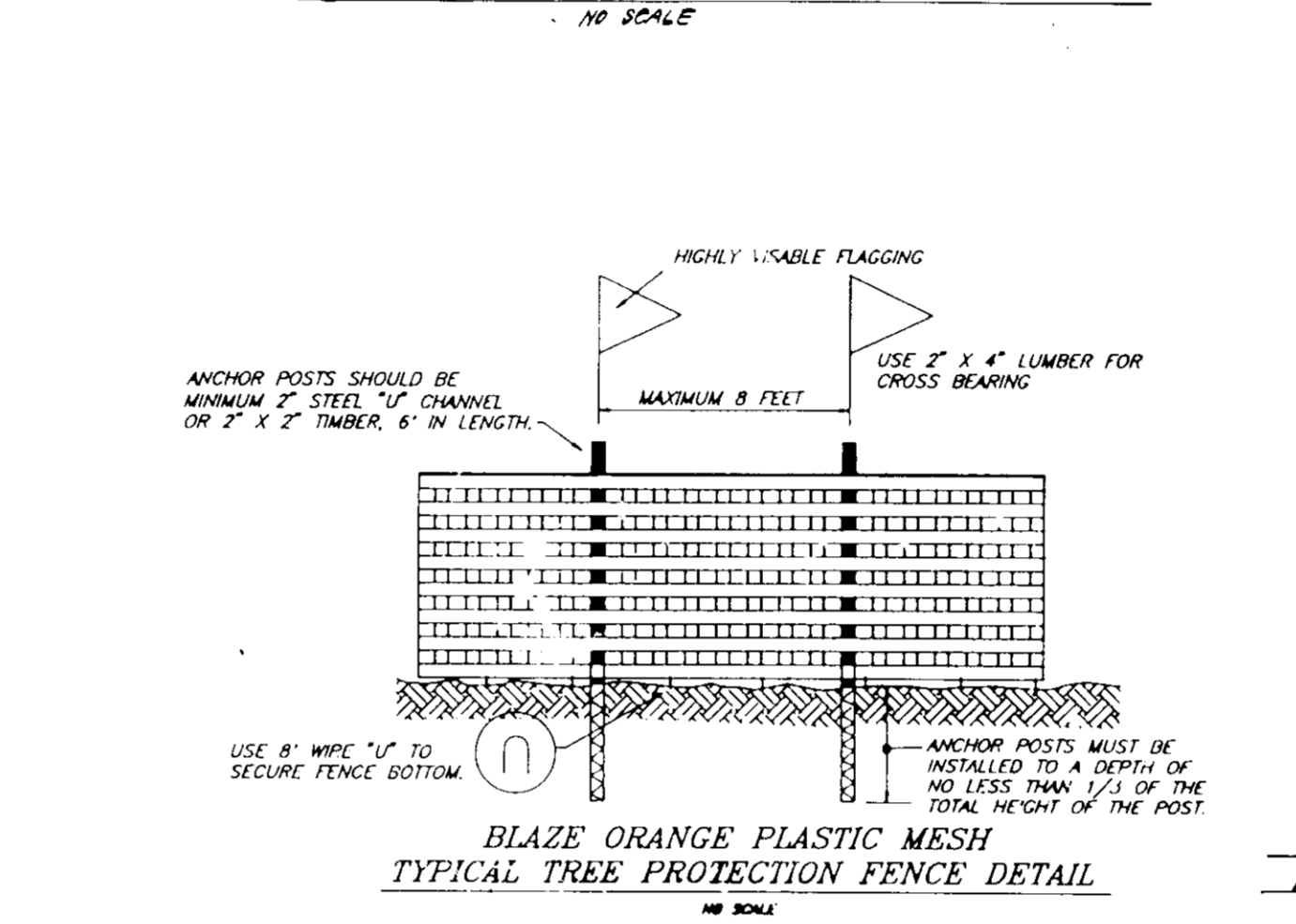
- Excavate completely around inlet to a depth of 12" to 18" at each elevation.
- Below 2 x 4 post 12" into ground at four corners of inlet. Place nail strip between ends of post. Assemble top portion of 2 x 4 frame, no overlap joint shown. Top of frame (wire) must be at least 6" above ground surface.
- Stretch wire mesh tightly around frame and fasten securely. Ends must meet at joint.
- Stretch filter cloth 2" into ground, also mesh. The cloth must extend from the end frame 12" below ground surface. Fasten securely to frame with ties spaced every 24 inches. The overlapped end should be folded over.
- Backfill around inlet to a depth of 12 inches with 1/2" layer of earth to meet with top of dike. The top elevation of earth to be at least 6" above the top of dike.
- If the inlet is used for a water pipe, the inlet must be earth diked to the top of dike. The top of dike must be at least 6" above the top of dike.
- This structure must be inspected after each rain and the filter fabric replaced when needed.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	APPROVED FOR THE PROJECT DATE: 1/15/95	STANDARD DRAWING IPD-1
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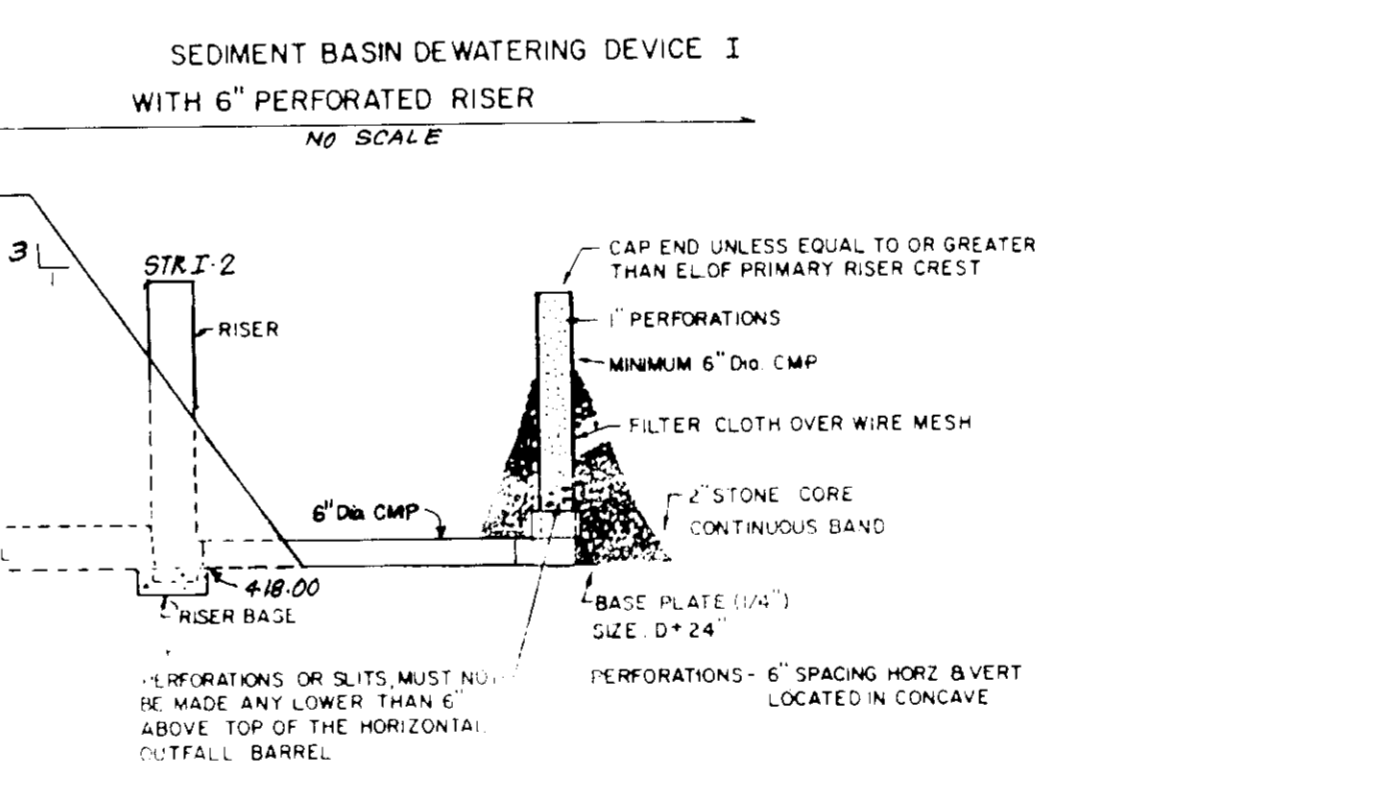
**CONSTRUCTION SPECIFICATIONS:**

- Any water embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The top edge shall be compacted.
- The fill material for the embankment shall be free of rocks and other woody vegetation as well as oversized stones, logs, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
- All cut and fill slopes shall be 2:1 or flatter.
- The stone used in the outlet shall be small rip rap 4" x 8" along with 1" thickness of 2" aggregate placed on the up-grade side on the small rip rap of embedded filter cloth in the rip rap.
- Settlement shall be repaired 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.



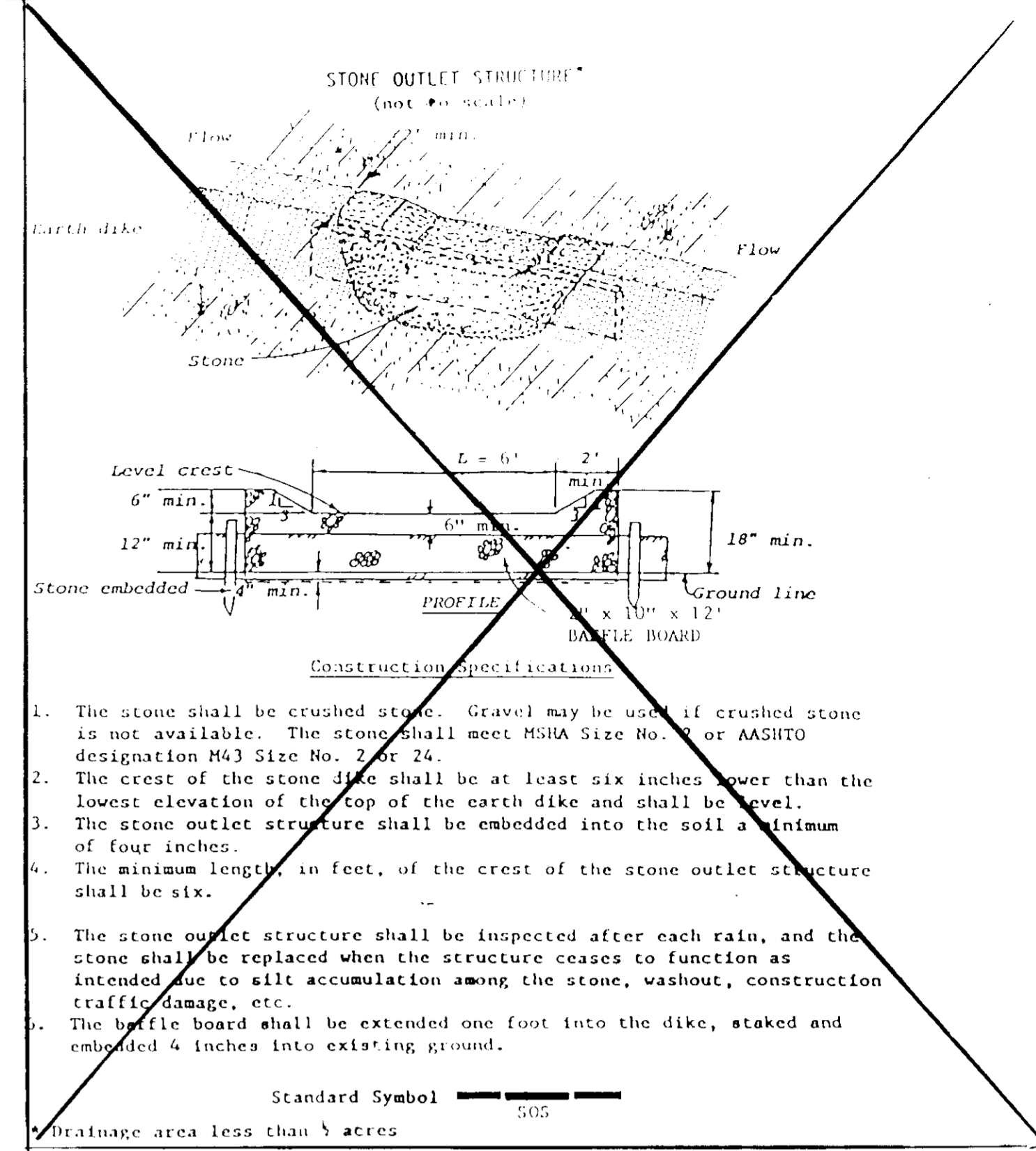
**NOTES:**

- Forest protection device only.
- Retention area will be set as part of the review process.
- Boundaries of retention area should be staked and flagged prior to installing device.
- Root damage should be avoided.
- Protection signage may also be used.
- Device should be maintained throughout construction.



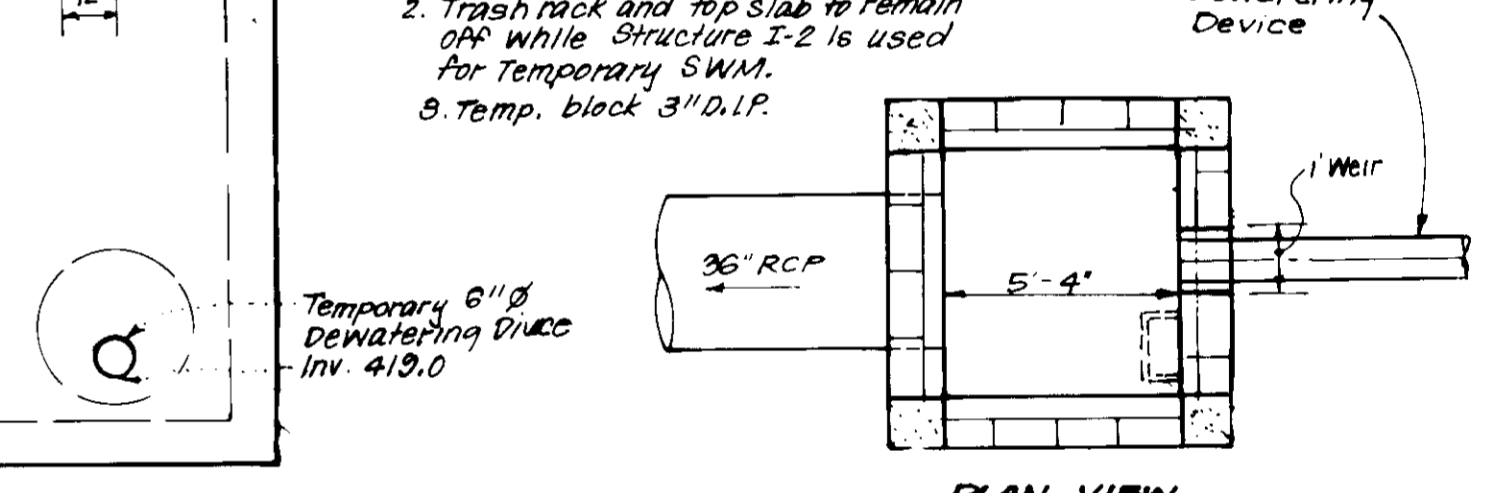
**NOTES:**

- Perforations or slits must not be made any lower than 6" above top of the horizontal cutfall barrel.
- Perforations - 6" spacing horizontal & vertical located in concave.
- Filter cloth over wire mesh.
- 2" stone core continuous band.
- Base plate (1/4" size D=24").
- Cap end unless equal to or greater than elevation of primary riser crest.
- Minimum 6" diameter CMP.
- 6" diameter CMP riser base.
- 48" diameter riser barrel.
- 3:1 slope.
- Top of fill.
- Strat 2.
- Riser.
- Perforations.
- Filter cloth over wire mesh.
- 2" stone core continuous band.
- Base plate (1/4" size D=24").
- Perforations - 6" spacing horizontal & vertical located in concave.



**CONSTRUCTION SPECIFICATIONS:**

- The stone shall be crushed stone. Gravel may be used if crushed stone is not available. The stone shall meet MSHA Size No. 10 or AASHTO designation M43 Size No. 10 or 24.
- The crest of the stone dike shall be at least six inches lower than the lowest elevation of the top of the earth dike and shall be level.
- The stone outlet structure shall be embedded into the soil a minimum of four inches.
- The minimum length in feet, of the crest of the stone outlet structure shall be six.
- The stone outlet structure shall be inspected after each rain, and the stone shall be replaced when the structure ceases to function as intended due to silt accumulation among the stone, washout, construction traffic damage, etc.
- The baffle board shall be extended one foot into the dike, staked and embedded 4 inches into existing ground.



**NOTES:**

- Heighten walls in Structure I-2 with brick and mortar to dimensions and elevations shown.
- Trash rack and top slab to remain open while Structure I-2 is used for Temporary SWM.
- Temp. block 3" D.I.P.

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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR DATE 3/21/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 3/21/95

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

DIRECTOR DATE 3/21/95

CHIEF BUREAU OF ENGINEERING DATE 3/24/95

**SMOLEN + ASSOCIATES ARCHITECTS**

11820 PARKLAWN DR. ROCKVILLE, MD 20852  
301 770 0177

Reviewed for HOWARD SCD  
and meets Technical Requirements  
Signature: Robert G. Gyles 3/21/95  
Date: 3/21/95  
US Soil Conservation Service

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

Signature: Robert G. Gyles 3/21/95  
Approved

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

We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible persons involved in the construction project will have a Certificate of Attendance at a Department of the Environment 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: William Sp...  
Date: 3/16/95

**ENGINEER'S CERTIFICATE**

I hereby certify that this plan for Sediment and Erosion 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: 3/16/95

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINTREL WAY • CO. UMBIA, MD 21045 • (410) 381-7500 • BALTO. • (301) 621-8100 • WASH.

DESIGNED: K/W/M  
DRAWN: B.A.L.  
CHECKED: W.H.H./K/W/M  
DATE: 3-16-95

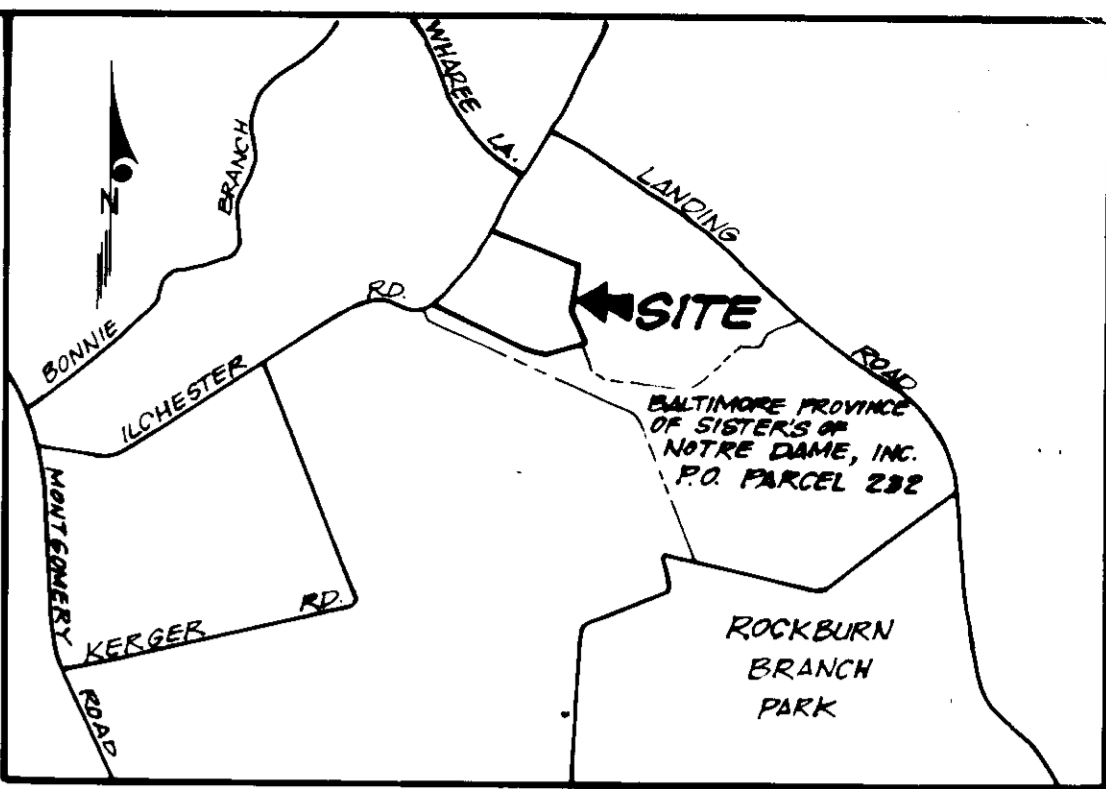
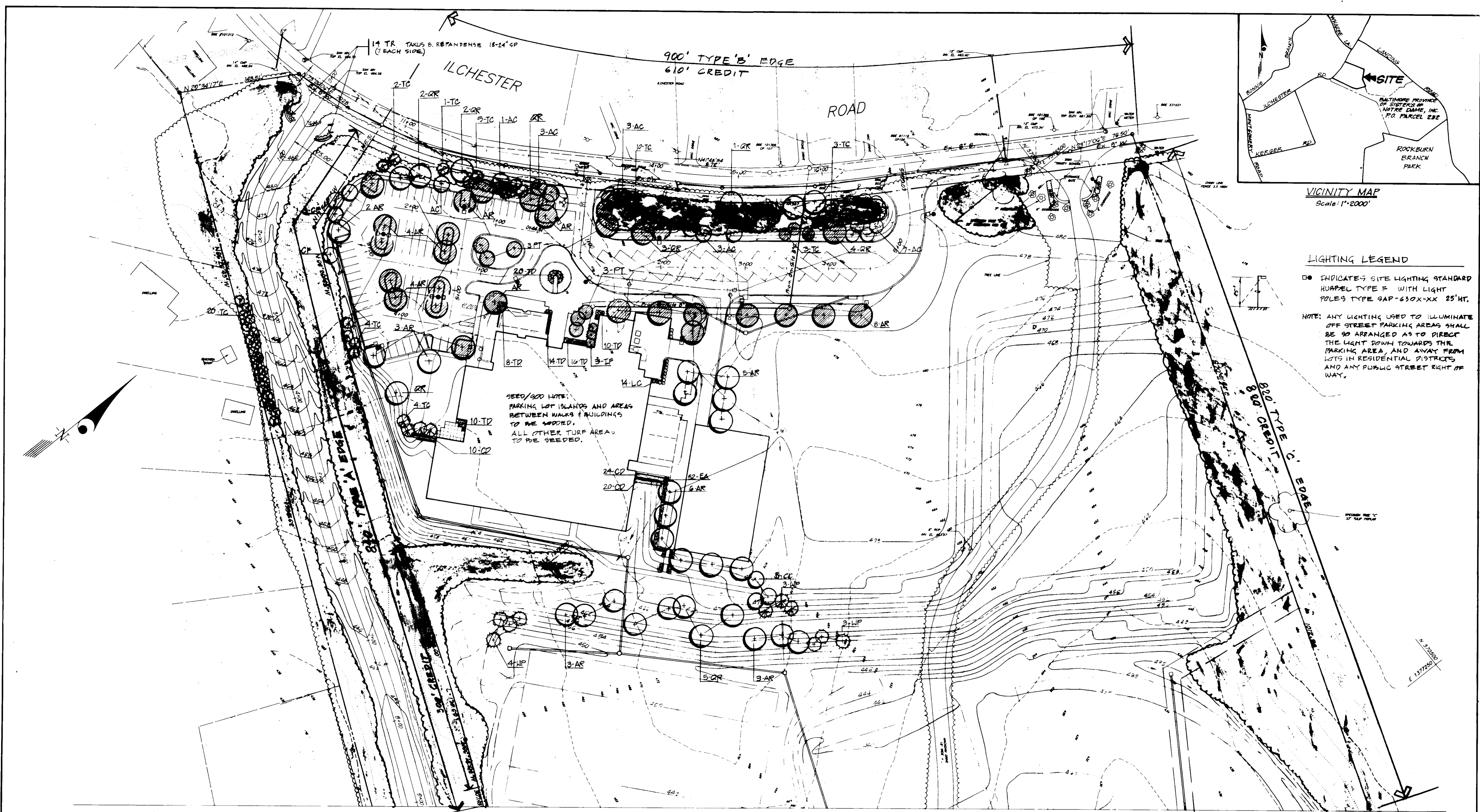
**SEDIMENT & EROSION CONTROL DETAILS**

**NORTHEASTERN ELEMENTARY SCHOOL**

TAX MAP NO 31, PARCEL 810 & PART OF PARCEL 232  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10910 ROUTE 105  
ELLCOTT CITY, MD. 21043

SCALE: 1" = 50'  
DRAWING NO: C-20  
JOB NO: 93-101  
FILE NO: 93-101-X



VICINITY MAP  
Scale: 1"=2000'

**LIGHTING LEGEND**

● INDICATES SITE LIGHTING STANDARD HUBBEL TYPE F WITH LIGHT POLES TYPE 9AP-630X-XX 25' HT.

NOTE: ANY LIGHTING USED TO ILLUMINATE OFF STREET PARKING AREAS SHALL BE SO ARRANGED AS TO DIRECT THE LIGHT DOWN TOWARDS THE PARKING AREA, AND AWAY FROM LOTS IN RESIDENTIAL DISTRICTS AND ANY PUBLIC STREET RIGHT OF WAY.

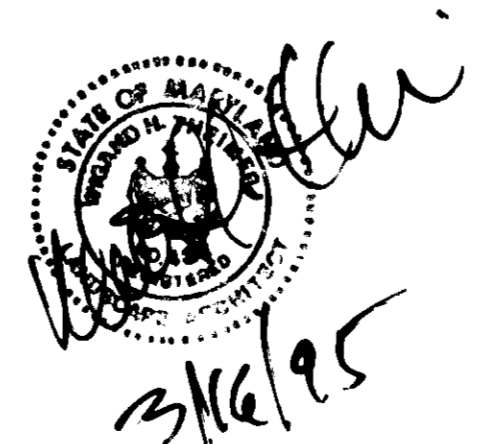
SEED/300 NOTE:  
PARKING LOT ISLANDS AND AREAS BETWEEN WALKS & BUILDINGS TO BE SEEDED.  
ALL OTHER TURF AREAS TO BE SEEDED.

MATCH LINE SEE SHEET 22

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

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

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

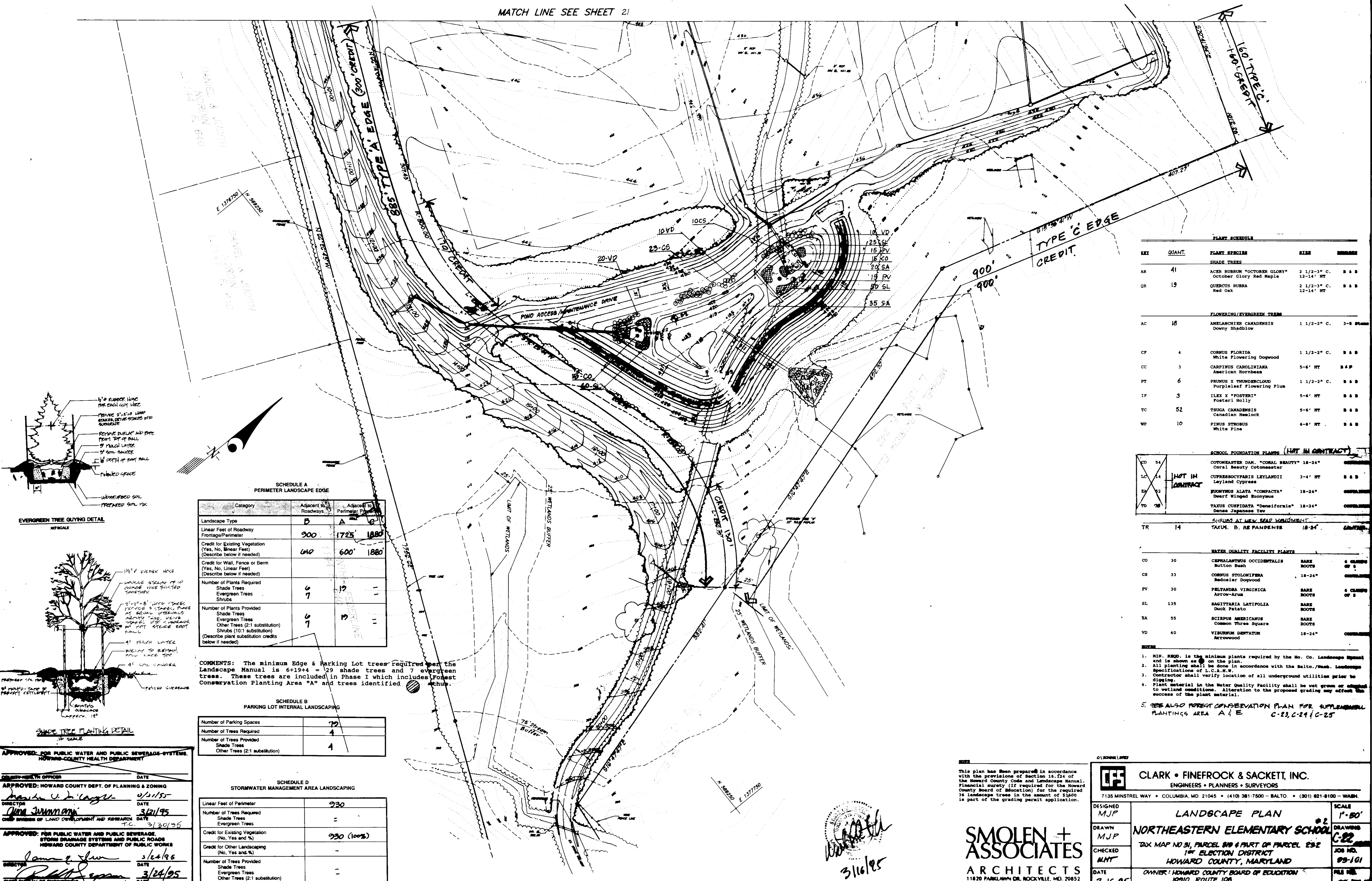


**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

REVISION		DATE
1. Removed curb along Ilchester Road		3-11-95
<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 981-7500 • BALTO. • (301) 821-8100 - WASH.		
DESIGNED MJP	LANDSCAPE PLAN AND LIGHTING #2	SCALE 1"=50'
DRAWN MJP	NORTHEASTERN ELEMENTARY SCHOOL	DRAWING C-21
CHECKED NHT	TAX MAP NO 81, PARCEL B19 & PART OF PARCEL 232	JOB NO. 28-101
DATE 3-16-95	1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	FILE NO. 25-101-X
OWNER: HOWARD COUNTY BOARD OF EDUCATION 10010 ROUTE 108 ELLCOTT CITY, MD. 21043		

SDP 25-55





PLANT SCHEDULE				
KEY	QUANT.	PLANT SPECIES	SIZE	REMARKS
<b>SHADE TREES</b>				
AR	41	ACER RUBRUM "OCTOBER GLORY" October Glory Red Maple	2 1/2-3" C. 12-14' HT	B & B
OR	19	QUERCUS RUBRA Red Oak	2 1/2-3" C. 12-14' HT	B & B
<b>FLOWERING/EVERGREEN TREES</b>				
AC	18	AMELANCHIER CANADENSIS Downy Shadblow	1 1/2-2" C.	3-B SPECIES
CP	4	CORNUS FLORIDA White Flowering Dogwood	1 1/2-2" C.	B & B
CC	3	CARYOPHILLUM CAROLINIANA American Hornbeam	5-6' HT	B & B
PT	6	PRUNUS X HYBRIDUS Purpleleaf Flowering Plum	1 1/2-2" C.	B & B
IF	3	ILEX "FOSTERI" Fosteri Holly	5-6' HT	B & B
TC	52	TSUGA CANADENSIS Canadian Hemlock	5-6' HT	B & B
WP	10	PINUS STROBUS White Pine	6-8' HT	B & B
<b>SCHOOL FOUNDATION PLANTS (NOT IN CONTRACT)</b>				
CD	54	COTONEASTER DAM. "CORAL BEAUTY" Coral Beauty Cotoneaster	18-24"	CONTRACT
LC	4	CUPRESSOCYPARIS LEYLANDII Leyland Cypress	3-4' HT	B & B
EA	2	RUONIVUS ALATA "COMPACTA" Dwarf Winged Buonymus	18-24"	CONTRACT
TD	78	TAXUS CUSPIDATA "densiformis" Dense Japanese Yew	18-24"	CONTRACT
<b>SHRUBS AT NEW MAP MOUNTAIN</b>				
TR	14	TAXUS. B. RE PANDENSIS	18-24"	CONTRACT
<b>WATER QUALITY FACILITY PLANTS</b>				
CO	30	CERIALANTHUS OCCIDENTALIS Button Bush	BARE ROOTS	6 CLUMPS OF 5
CS	33	CORNUS STOLONIFERA Redoak Dogwood	18-24"	CONTRACT
PV	30	PELTIANDRA VIRGINICA Arrow-Arrow	BARE ROOTS	6 CLUMPS OF 5
SL	135	SAGITTARIA LATIFOLIA Duck Potato	BARE ROOTS	
SA	55	SCIRPUS AMERICANUS Common Three Square	BARE ROOTS	
VD	40	VIBURNUM DEPATATUM Arrowwood	18-24"	CONTRACT

Category	Adjacent to Roadways	Adjacent to Perimeter Plantings
Landscape Type	B	A
Linear Feet of Roadway Frontage/Perimeter	300	1725' 1880'
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	0/0	600' 1880'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)		
Number of Plants Required		
Shade Trees	6	19
Evergreen Trees	7	11
Shrubs		
Number of Plants Provided		
Shade Trees	6	19
Evergreen Trees	7	11
Other Trees (2:1 substitution)		
Shrubs (10:1 substitution)		

COMMENTS: The minimum Edge & Parking Lot trees required per the Landscape Manual is 6+19+4 = 29 shade trees and 7 evergreen trees. These trees are included in Phase I which includes Forest Conservation Planting Area "A" and trees identified in the plan.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of Parking Spaces	72
Number of Trees Required	4
Number of Trees Provided	
Shade Trees	4
Other Trees (2:1 substitution)	

SCHEDULE D STORMWATER MANAGEMENT AREA LANDSCAPING	
Linear Feet of Perimeter	930
Number of Trees Required	
Shade Trees	=
Evergreen Trees	=
Credit for Existing Vegetation (No, Yes and %)	930 (100%)
Credit for Other Landscaping (No, Yes and %)	-
Number of Trees Provided	
Shade Trees	=
Evergreen Trees	=
Other Trees (2:1 substitution)	

KEY	QUANT.	PLANT SPECIES	SIZE	REMARKS
CD	54	COTONEASTER DAM. "CORAL BEAUTY"	18-24"	CONTRACT
LC	4	CUPRESSOCYPARIS LEYLANDII	3-4' HT	B & B
EA	2	RUONIVUS ALATA "COMPACTA"	18-24"	CONTRACT
TD	78	TAXUS CUSPIDATA "densiformis"	18-24"	CONTRACT
TR	14	TAXUS. B. RE PANDENSIS	18-24"	CONTRACT

- NOTES:
- MIN. REQD. is the minimum plants required by the No. Co. Landscape Manual and is shown as (M) on the plan.
  - All planting shall be done in accordance with the Balto./Wash. Landscape Specifications of L.C.A.M.W.
  - Contractor shall verify location of all underground utilities prior to digging.
  - Plant material in the Water Quality Facility shall be wet grown or adapted to wetland conditions. Alteration to the proposed grading may affect the success of the plant material.
  - SEE ALSO FOREST CONSERVATION PLAN FOR SUPPLEMENTAL PLANTINGS AREA A & E C-23, C-24 & C-25

APPROVED FOR PUBLIC WATER AND PUBLIC BEVERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

CHIEF HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director: *Howard U. ...* DATE: 4/21/95

Director: *Chia Swannona* DATE: 3/21/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE: 3/30/95

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

Director: *James J. ...* DATE: 3/24/95

Director: *...* DATE: 3/24/95

CHIEF BUREAU OF ENGINEERING

This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual. Financial surety (if required for the Howard County Board of Education) for the required 16 landscape trees in the amount of \$3600 is part of the grading permit application.

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 821-8100 - WASH.

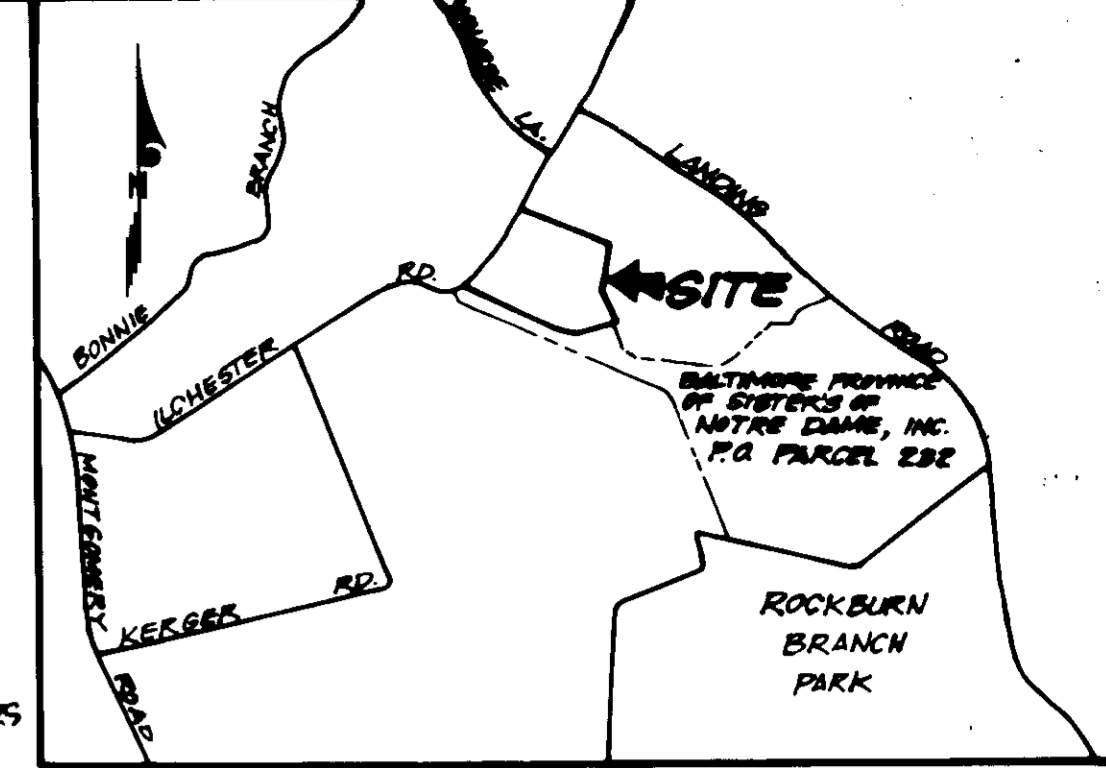
DESIGNED: MJP  
DRAWN: MJP  
CHECKED: MHT  
DATE: 3-16-95

**LANDSCAPE PLAN**  
NORTHEASTERN ELEMENTARY SCHOOL #2  
TAX MAP NO 31, PARCEL 819 & PART OF PARCEL 232  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE: 1"=50'  
DRAWING: C-22  
JOB NO.: 95-101  
FILE NO.: 95-101

OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10810 ROUTE 108  
ELLCOTT CITY, MD. 21048





- LEGEND**
- EXISTING FOREST EDGE
  - - - LIMIT OF DISTURBANCE (TREE PROTECTION FENCE)
  - ▨ FOREST CONSERVATION EASEMENT (SHADED AREAS)
  - SUPPLEMENTAL PLANTINGS (AREAS A & E)
  - ⊙ FOREST RETENTION SIGNAGE
  - ⊕ SPECIMEN TREE SIGNAGE

20 *FRUGA CANADENSIS* 5'-6" HT. SPECIFIED UNDER THE LANDSCAPE PLAN

PLANTING AREA E 1.0 AC

PLANTING AREA D 5.5 AC

PART B (0.3 AC)

PART I (0.5 AC)

MATCH LINE SEE SHEET 2 OF 3

**NOTE:**  
 Clearing and grading outside of the Elementary School area is being provided by this plan to preserve the site for the construction of a future Middle School. This work is necessary to facilitate a practical and economical approach to providing the necessary earthwork balance, and the construction of storm drainage and Stormwater Management for the ultimate use of the site. While a 450' wide strip of no disturbance against the northwestern edge of the property is being retained at this time, additional grading and clearing will likely be required for the future Middle School.

The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of Howard County Code Forest Conservation Act. No clearing, grading or construction is permitted within the forest conservation easements; however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

*Handwritten signature and date: 3/16/95*

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_  
 APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
 Director \_\_\_\_\_ DATE 2/15/95  
 Director \_\_\_\_\_ DATE 3/31/95  
 COUNTY BOARD OF LAND DEVELOPMENT  
 COUNTY ENGINEER \_\_\_\_\_ DATE 2/20/95  
 APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Director \_\_\_\_\_ DATE 3/24/95  
 Director \_\_\_\_\_ DATE 3/28/95

**SMOLEN + ASSOCIATES ARCHITECTS**  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770 0177

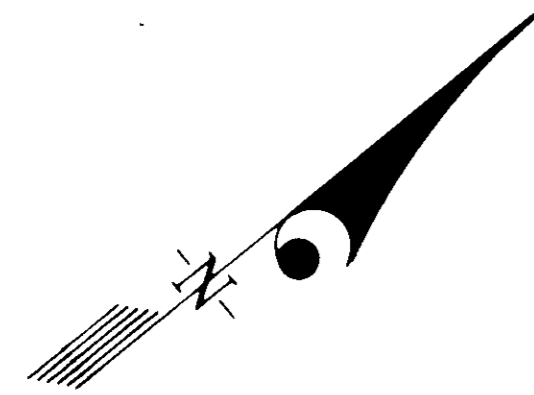
2.	Removed curb along Ilchester Rd; Added F.C.E. Areas	5-11-95
1-17-95	ADDED LEGEND & F.C. EASEMENT AREA (SHT 3)	
REVISION/DATE	DESCRIPTION	
<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS		
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 821-8100 - WASH.		
DESIGNED	<b>FOREST CONSERVATION PLAN</b>	SCALE 1"=50'
DRAWN	<b>NORTHEASTERN ELEMENTARY SCHOOL</b>	#2 DRAWING 28-101
CHECKED	TAX MAP NO. 81, PARCEL 819 & PART OF PARCEL 23C	JOB NO. 28-101
DATE	1ST ELECTION DISTRICT	FILE NO. 28-101-001
3-16-95	HOWARD COUNTY, MARYLAND	
	OWNER: HOWARD COUNTY BOARD OF EDUCATION	
	10910 ROUTE 108	
	ELLCOTT CITY, MD. 21042	

SDP 95-5



MATCH LINE SEE SHEET 2 OF 3

65 M



PLANTING AREA E 1.0 AC

FOREST CONSERVATION EASEMENT

PART 2 (1.0 AC)

PART 3 (0.4 AC)

PART 2 (2.0 AC)

TREE PROTECTION FENCE AT CRITICAL ROOT ZONE  
SPECIMEN TREE 'E'  
95" WHITE OAK  
TREE PROTECTION SIGNAGE (TYP) 2 PLACES

NOTE:

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APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT	
CITY HEALTH OFFICER	DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>Frank J. DeLong</i>	3/21/95
DIRECTOR	DATE
<i>Anna J. Jannone</i>	3/21/95
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
	3/20/95
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>James J. Jannone</i>	3/24/95
CHIEF BUREAU OF ENGINEERING	DATE
	3/24/95

**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

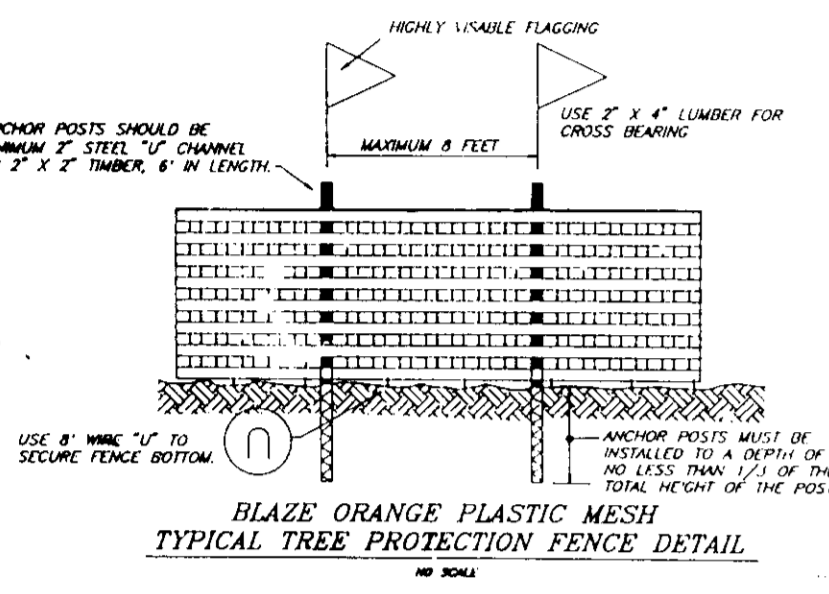
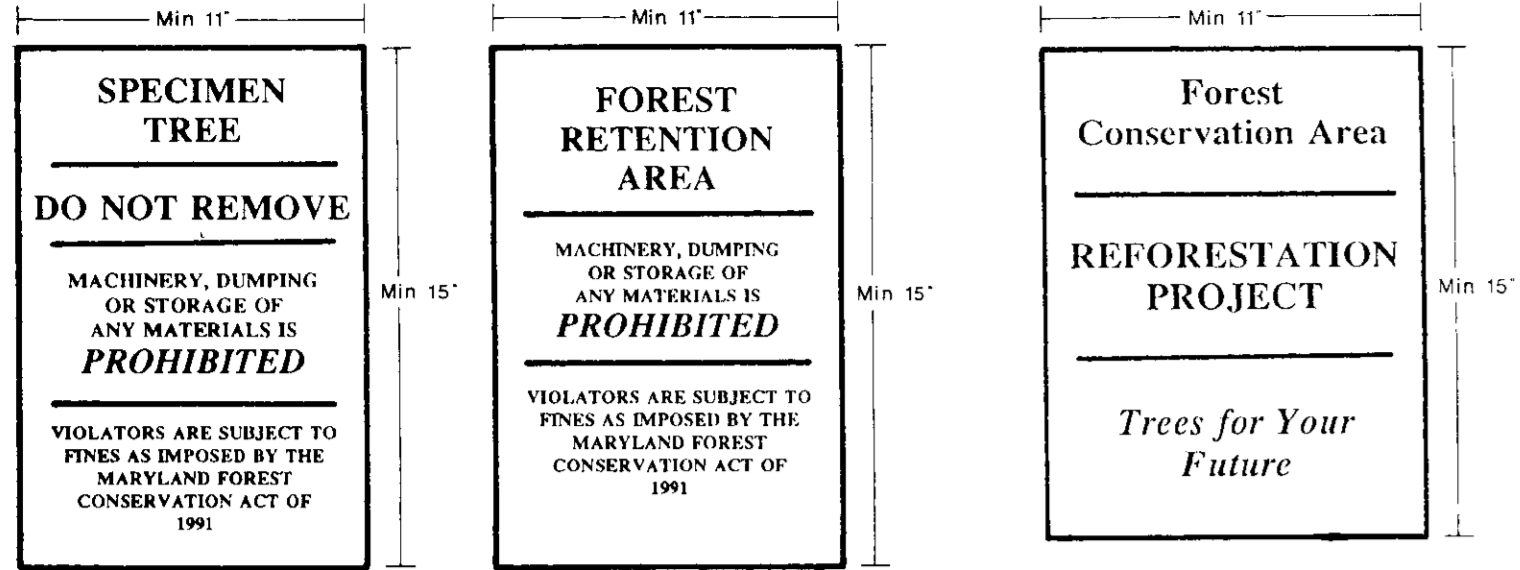
1	Revised Areas Per FC Easement Descriptions	5-11-95
N2	Revision	Date



<b>CLARK • FINEFROCK &amp; SACKETT, INC.</b> ENGINEERS • PLANNERS • SURVEYORS 7135 MINSTREL WAY • COLUMBIA, MD 21045 • (410) 381-7500 - BALTO. • (301) 821-8100 - WASH.		
DESIGNED UHT	FOREST CONSERVATION PLAN	SCALE 1" = 50'
DRAWN UHT	NORTHEASTERN ELEMENTARY SCHOOL #2	DRAWING C-24
CHECKED UHT	TAX MAP NO 31, PARCEL 810 & PART OF PARCEL 232 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND	JOB NO. 95-101
DATE 3-16-95	OWNER: HOWARD COUNTY BOARD OF EDUCATION 10910 ROUTE 108 ELLCOTT CITY, MD. 21049	FILE NO. 95-101-00

SDP 95-55



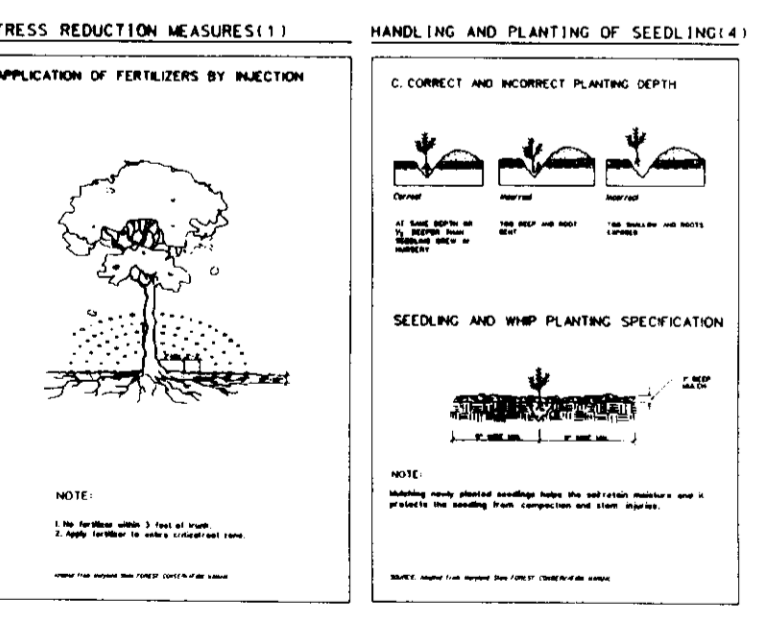
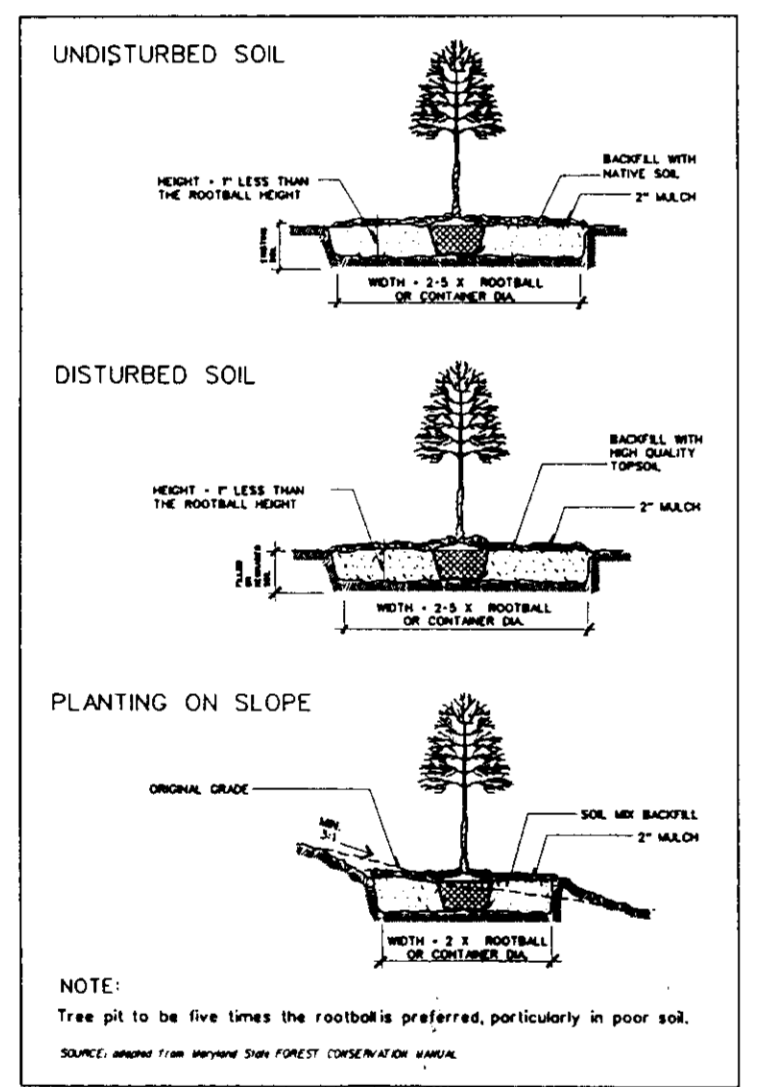


- NOTES:
- Forest protection fence only.
  - Retention area will be set as part of the review process.
  - Boundaries of retention area should be staked and flagged prior to installing fence.
  - Flag damage should be avoided.
  - Protection signage must stay in use.
  - Devices should be maintained throughout construction.

**TREE PLANTING AND MAINTENANCE CALENDAR**

TASKS	MONTHS
INSTALLMENT OF FENCE OR BARRIERS	JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
REMOVAL OF FENCE OR BARRIERS	
PLANTING	
WATERING	
MULCHING	
WEEDING	
PRUNING	

**CONTAINER GROWN AND BALLED AND BURLAPPED STOCK**



**GENERAL NOTES:**

- WORK RELATED TO THIS FOREST CONSERVATION PLAN SHALL BE PERFORMED ONLY BY A LANDSCAPE CONTRACTOR EXPERIENCED IN REFORESTATION/AFFORESTATION PRACTICES.

**PLANT MATERIAL STANDARDS:**

- PLANTS SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL LISTED PLANTS SHALL BE CONTAINERIZED STOCK WITH MINIMUM CALIPER OR HEIGHTS AS INDICATED.
- NO ROOT PRUNING OR TOP PRUNING SHALL BE DONE AT THE JOB SITE.

**PLANTING PROCEDURES:**

- REFER TO PLANTING & MAINTENANCE CALENDAR FOR APPROPRIATE PLANTING AND MAINTENANCE SEASONS.
- ALL PLANTING AREAS SHALL BE IN A STABILIZED CONDITION IN ACCORDANCE WITH TEMPORARY SOIL-COMM UNDER THE APPROVED SEDIMENT AND EROSION CONTROL PLAN.
- THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES PRIOR TO DIGGING AND BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE CAUSED BY SAME.
- PLANTING SHOULD COMMENCE WITHIN 24 HOURS OF DELIVERY OF PLANT MATERIAL TO THE SITE AND BE COMPLETED WITHIN ONE WEEK OF SAME.
- UNPLANTED STOCK SHALL BE KEPT COOL, MOIST AND PROTECTED FROM SUN AND WIND AT ALL TIMES AND ONLY THAT WHICH CAN BE PLANTED IN ONE DAY SHALL BE BROUGHT TO THE FIELD.
- PLANTING CONTAINERIZED STOCK:
  - ALL REFORESTATION PLANTING SHALL BE IN A RANDOMIZED PATTERN AVOIDING THE APPEARANCE OF STRAIGHT ROWS.
  - REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER.
  - USE A KNIFE OR SHARP BLADE TO MAKE 4 TO 5 1/4" CUTS THE LENGTH OF THE ROOT BALL, AND LOOSEN THE ROOTS FROM THE OUTSIDE OF THE ROOT BALL.
  - A PIT SHALL BE DUG LARGE ENOUGH FOR THE PROPER SETTING OF THE ROOT BALL (1" WIDER THAN THE ROOT BALL) AND DEEP ENOUGH TO ALLOW 1"-2" OF THE ROOT BALL TO SET ABOVE EXISTING GRADE IF HIGH WATER TABLE IS PRESENT OTHERWISE PLANT FLUSH WITH EXISTING GRADE. PLANTS FROM FLAT-BOTTOMED CONTAINERS SHALL NOT BE PLANTED IN V-SHAPED PITS, SUCH AS PRODUCED BY A DIBBLE BAR OR POINTED SPADE.
  - SET THE PLANT STRAIGHT AND IN THE CENTER OF THE PIT.
  - BACKFILL THE SIDES OF THE PIT WITH LOCAL SOIL MIXTURE AND TAMP FIRMLY AS THE PIT IS BEING FILLED.
  - MAKE SURE THE PLANT REMAINS ERECT DURING THE BACKFILLING PROCEDURE. TREES SHALL NOT HAVE MORE THAN 10% LEAN FOLLOWING BACKFILLING.
  - LEFTOVER SOIL FROM THE PIT EXCAVATION SHALL BE RAKED AROUND THE PLANT CAREFUL NOT TO ALTER THE EXISTING GRADE SIGNIFICANTLY. A SAUCER SHALL NOT BE FORMED AROUND THE PLANT.
  - WATER THE PLANT THOROUGHLY UNTIL SOIL IS SATURATED, EVEN IF IT IS RAINING.
  - REMOVE TAGS, LABELS, STRINGS, ETC. FROM THE PLANT.
  - MULCH 1" DEEP X 12" DIAMETER AROUND EACH PLANT WITH SHREDDED HARDWOOD BARK MULCH.
  - FERTILIZE ONLY IN ACCORDANCE WITH RECOMMENDATIONS BASED ON A STATE LABORATORY SOIL TEST.

**GUARANTEE & REPLACEMENT:**

- THE LANDSCAPE CONTRACTOR SHALL MAINTAIN AND GUARANTEE THAT THE PLANTINGS SHALL BE HEALTHY AND VIGOROUS FOR A PERIOD OF ONE YEAR.
- AT THE END OF THE WARRANTY PERIOD THE OWNER'S REPRESENTATIVE SHALL MAKE AN INSPECTION OF THE PLANTINGS. ANY PLANTS THAT ARE NOT SUFFICIENTLY VIGOROUS OR THAT SHOW DIE-BACK OF MORE THAN 25% SHALL BE REMOVED FROM THE SITE AND REPLACED IN MANNER AND KIND AT NO ADDITIONAL COST TO THE OWNER.

**CONSTRUCTION PERIOD PROTECTION & MANAGEMENT:**

- THE CONSTRUCTION PERIOD EXTENDS FROM APPROVAL OF THE PROPOSAL UNTIL COMPLETION OF ALL SITE IMPROVEMENTS AND RELEASE OF DEVELOPER AGREEMENTS & BONDS.
- ALL APPLICABLE CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE TERMS AND CONDITIONS OF THE APPROVED SEDIMENT AND EROSION CONTROL PLAN.
- TREE PROTECTION FENCING AND TEMPORARY SIGNAGE SHALL BE INSTALLED ALONG TREE SAVE AREAS THAT ARE WITHIN 50' OF ANY CONSTRUCTION ACTIVITIES AND IN ACCORDANCE WITH THE APPROVED SEDIMENT AND EROSION CONTROL PLAN.
- PLACE PROTECTIVE FENCING & SIGNAGE AROUND SPECIMEN TREES, "A & B" AS SHOWN ON THE PLAN.
- VEHICLES, EQUIPMENT, MACHINERY, DEBRIS, TEMPORARY STRUCTURES AND/OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL NOT BE PERMITTED IN THE RETENTION AREAS.
- THE REFORESTATION AREAS SHALL BE CLEARLY MARKED BY PERMANENT SIGNAGE AT +/- 100' INTERVALS AS SHOWN ON THE PLAN. IF IT IS DETERMINED TO BE NECESSARY, CERTAIN SEGMENTS OF THE REFORESTATION EDGES MAY BE ENCLOSED BY POSTS AND SMOOTH WIRE FENCE. THE FENCE SHALL BE OF SUFFICIENT CONSTRUCTION TO IMPED ENTRY AND MARKED APPROPRIATELY WITH CONSPICUOUS MARKERS AND/OR SIGNAGE.
- ALL TEMPORARY FENCING SHALL BE REMOVED AT THE END OF THE CONSTRUCTION PERIOD WITH THE APPROVED SEDIMENT AND EROSION CONTROL PLAN.
- SUMMARY OF CONSTRUCTION PERIOD SEQUENCE:
  - OBTAIN GRADING PERMIT.
  - INSTALL TEMPORARY TREE PROTECTION FENCING AND SIGNAGE ALONG LIMITS OF DISTURBANCE AND AROUND SPECIMEN TREES.
  - PROCEED WITH CLEARING, GRADING, STABILIZATION ON CONSTRUCTION IN ACCORDANCE WITH APPROVED PLAN.
  - AFTER COMPLETED CONSTRUCTION REMOVE TEMPORARY TREE PROTECTION DEVICES.
  - INSTALL PLANTINGS.
  - PLACE PERMANENT PROTECTIVE DEVICES, I.E. SIGNAGE AND FENCING AS DEEMED NECESSARY.
  - INITIATE POST CONSTRUCTION PROTECTION AND MANAGEMENT PROGRAM.

**POST CONSTRUCTION PROTECTION & MANAGEMENT:**

- THE POST-CONSTRUCTION PERIOD FOR WHICH THE OWNER IS RESPONSIBLE IS A 2 YEAR PERIOD DURING WHICH INSPECTIONS AND FOREST MANAGEMENT PRACTICES GUARANTEE SHORT-TERM SURVIVAL OR REPLACEMENT OF FOREST RESOURCES RETAINED OR CREATED UNDER THIS PLAN. THE PERIOD ENDS WITH THE RELEASE OF MAINTENANCE AGREEMENTS AND BONDS.
- TWO INSPECTIONS PER YEAR BY A QUALIFIED PROFESSIONAL AT BEGINNING AND END OF THE GROWING SEASON, ARE RECOMMENDED IN ORDER TO TAKE REMEDIAL STEPS AS NECESSARY.
- IF, AFTER ONE YEAR, THE POSSIBILITY EXISTS THAT THE ORIGINAL PLANTING WILL NOT MEET SURVIVAL STANDARDS, THE APPLICANT MAY CHOOSE TO ESTABLISH REINFORCEMENT PLANTINGS. IF PLANT MORTALITY OF REFORESTATION OR REFORESTATION EXCEEDS 10% OF PLANTED MATERIALS AT THE END OF THE FIRST GROWING SEASON, SUCH MATERIAL SHOULD BE REPLACED TO BRING THE TOTAL NUMBER OF TREES TO 90% OF THE ORIGINAL TOTAL. SUCH MATERIAL SHALL BE INSTALLED BY THE BEGINNING OF THE SECOND GROWING SEASON. IF AT THE END OF THE SECOND GROWING SEASON, SURVIVAL RATE DROPS BELOW 75%, SUCH MATERIAL AS NEEDED TO GUARANTEE A 75% SURVIVAL RATE BY THE END OF THE SUBSEQUENT YEAR SHALL BE INSTALLED.
- AT THE END OF THE POST-CONSTRUCTION MANAGEMENT AND PROTECTION PERIOD, THE DESIGNATED RESPONSIBLE PROFESSIONAL SHALL CONVEY TO THE ADMINISTRATOR OF HOWARD COUNTY FOREST CONSERVATION PROGRAM CERTIFICATION THAT ALL FOREST CONSERVATION AREAS HAVE REMAINED INTACT OR HAVE BEEN RESTORED TO THE APPROPRIATE CONDITION, AND THAT THE STIPULATED SURVIVAL RATES ARE IN PLACE.

The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of Howard County Code Forest Conservation Act. No, clearing, grading or construction is permitted within the forest conservation easements; however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

**FOREST CONSERVATION WORKSHEET:**

	ACRES (1/10 acre)
I. BASIC SITE DATA	
GROSS SITE AREA	35.3
AREA WITHIN 100 YEAR FLOODPLAIN	-
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	-
NET TRACT AREA	35.3
LAND USE CATEGORY (R-RLD, R-RMD, R-S, C/O, I)	I

	ACRES
II. INFORMATION FOR CALCULATIONS	
A. NET TRACT AREA	35.3
B. REFORESTATION THRESHOLD (20% x A)	7.1
C. AFFORESTATION MINIMUM (15% x A)	5.3
D. EXISTING FOREST ON NET TRACT AREA	33.4
E. FOREST AREAS TO BE CLEARED	23.4
F. FOREST AREAS TO BE RETAINED	7.6

	ACRES
IV. REFORESTATION CALCULATIONS	
A. NET TRACT AREA	35.3
B. REFORESTATION THRESHOLD (20% x A)	7.1
D. EXISTING FOREST ON NET TRACT AREA	33.4
E. FOREST AREAS TO BE CLEARED	23.4
F. FOREST AREAS TO BE RETAINED	7.6
G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD (D - F, if F equals or is greater than B, Alternate 1)	15.8
H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD (B - F, if applicable)	-
I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD (F - B, Retention Credit, if applicable)	0.7

Select the alternative that applies:

- Clearing above the threshold only

If forest areas to be retained equal or are greater than the reforestation threshold (if F equals or is greater than B), the following calculations apply:

REFORESTATION FOR CLEARING ABOVE THRESHOLD (G x 1/4)	6.4
CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD (I = Retention Credit)	0.7
TOTAL REFORESTATION REQUIRED (G x 1/4) - I	5.7

**PROPOSED METHOD OF SATISFYING REFORESTATION OBLIGATION:**

AREA	METHOD	MITIGATION VALUE
A	SUPPLEMENTAL RETENTION AREA 63 2" CAL. TREES @ 1/100	= 0.6 Ac
B	SUPPLEMENTAL RETENTION AREA 200 1" CAL. TREES @ 1/200	= 1.0 Ac
	TOTAL MITIGATION VALUE	= 1.6 Ac
	REFORESTATION OBLIGATION	= 5.8 Ac
	REQUIRED ADDITIONAL OFF SITE MITIGATION (SITE LOCATION TO BE DETERMINED)	4.2 Ac

**FOREST CONSERVATION EASEMENT AREA:**  
 On Elementary School Site 3.6 ac  
 On Sisters of Notre Dame (Parcel 232) 4.2 ac

TOTAL ON-SITE P.C. EASEMENT PROVIDED	7.8 AC
OFF-SITE P.C. EASEMENT REQUIRED	4.1 AC

**MASTER PLANT LIST**

QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING (RANDOM)
30	QUERCUS -RUBRA	RED OAK	1" CAL.	CONT.	15' R.S.
30	ACER -RUBRUM	RED MAPLE	1" CAL.	CONT.	15' R.S.
50	CORNUS-FLORIDA	WHITE DOGWOOD	1" CAL.	CONT.	15' R.S.
20	CARPINUS-CAROLIN	IRONWOOD	1" CAL.	CONT.	15' R.S.
20	AMELANCHIER-CANAD	SERVICEBERRY	1" CAL.	CONT.	15' R.S.
50	CERCIS-CANADENSIS	RED BUB	1" CAL.	CONT.	15' R.S.

**PLANTING AREA A (0.6 Ac)**

QTY	NAME	SIZE
63	OAKS, MAPLES, HEMLOCK, DOGWOOD, AMELANCHIER (PER LANDSCAPE PLAN)	2" CAL.

**PLANTING AREA E (0.5 Ac)**

QTY	NAME	SIZE
30	RED OAK	1" CAL.
30	RED MAPLE	1" CAL.
50	WHITE DOGWOOD	1" CAL.
50	CORNUS-CANADENSIS	1" CAL.
20	IRONWOOD	1" CAL.
20	SERVICEBERRY	1" CAL.

- NOTE:
- ABOVE PLANTS TO BE PLANTED RANDOMLY ALONG NEW ROAD FOREST EDGE AND TO SUPPLEMENT RETAINED FOREST WHERE NEEDED.
  - PLANT MIX TO BE VERIFIED AFTER CLEARING AND GRADING OPERATIONS.
  - FINAL LOCATIONS TO BE VERIFIED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING.

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

DATE: 3/21/95

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

DATE: 3/24/95

**SMOLEN + ASSOCIATES ARCHITECTS**  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770 0177



**CLARK • FINEFROCK & SACKETT, INC.**  
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**DESIGNED WMT** FOREST CONSERVATION PLAN SCALE

**DRAWN WMT** NORTHEASTERN ELEMENTARY SCHOOL #2 DRAWING C-25

**CHECKED WMT** TAX MAP NO 31, PARCEL B10 & PART OF PARCEL 232 JOB NO. 95-101

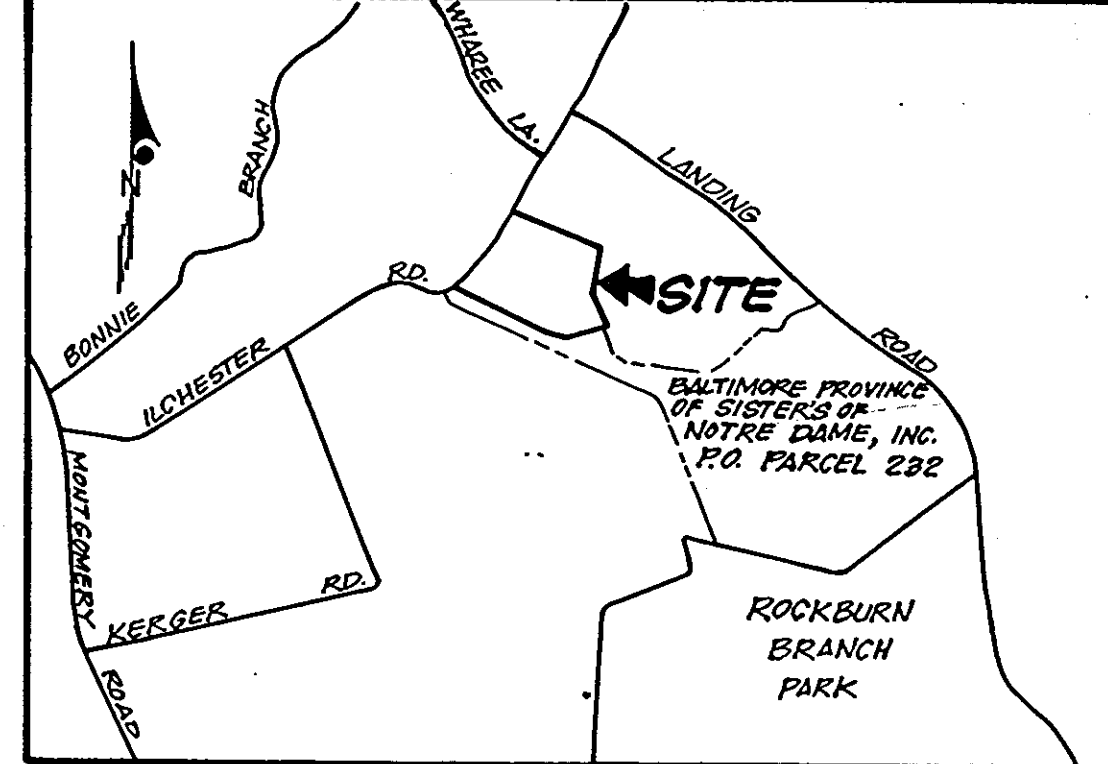
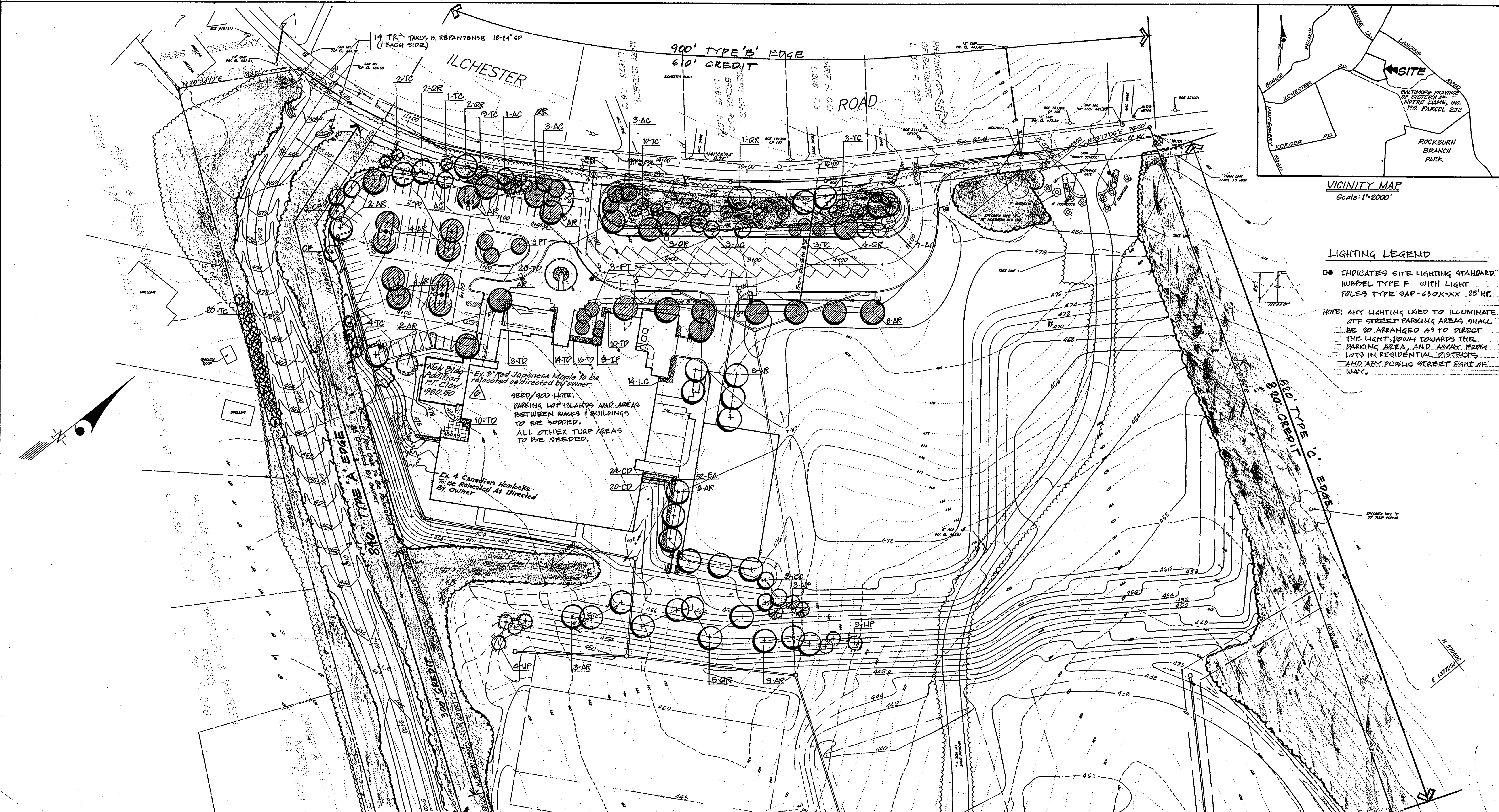
**DATE 3-16-95** OWNER: HOWARD COUNTY BOARD OF EDUCATION 10310 ROUTE 108 ELLICOTT CTRY, MD. 21048 FILE NO. 95-10108

SDP 95-5









VICINITY MAP  
Scale: 1"=2000'

**LIGHTING LEGEND**

● INDICATES SITE LIGHTING STANDARD HUBBEL TYPE F WITH LIGHT POLES TYPE 9AP-630X-XX 25' HT.

NOTE: ANY LIGHTING USED TO ILLUMINATE OFF STREET PARKING AREAS SHALL BE SO ARRANGED AS TO DIRECT THE LIGHT DOWN TOWARDS THE PARKING AREA, AND AWAY FROM LOTS IN RESIDENTIAL DISTRICTS AND ANY PUBLIC STREET RIGHT OF WAY.

SEED/200 LOTS:  
PARKING LOT ISLANDS AND AREAS BETWEEN WALKS & BUILDINGS TO BE SEEDED.  
ALL OTHER TURF AREAS TO BE SEEDED.

Ex. 4 Canadian Hemlocks to be Relocated as Directed by Owner.

MATCH LINE SEE SHEET 22

No.	Revision	Date
1	Added new building addition & relocated trees	3/23/97

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

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director *Mark U. Langley* 3/20/95

Director *Anna Jovanovic* 3/31/95

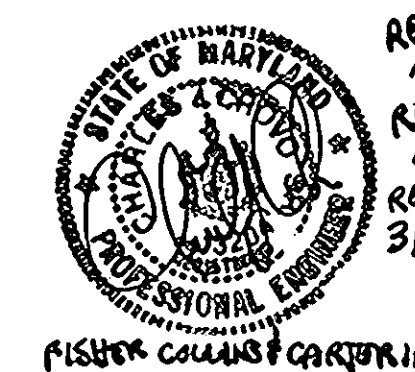
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

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

Director *James E. Shaw* 3/24/95

Director *Robert J. Spon* 3/24/95

CHIEF BUREAU OF ENGINEERING DATE



**SMOLEN + ASSOCIATES**  
ARCHITECTS  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

5	Revise Location & Type of Play Area and Relocate & Trees	04-18-00
4	ADD PROPOSED MULCH PLAY AREA & CHAIN LINK FENCE.	03-31-00
1	Removed Curb along Ilchester Road	02-11-95
1	REVISION	DATE

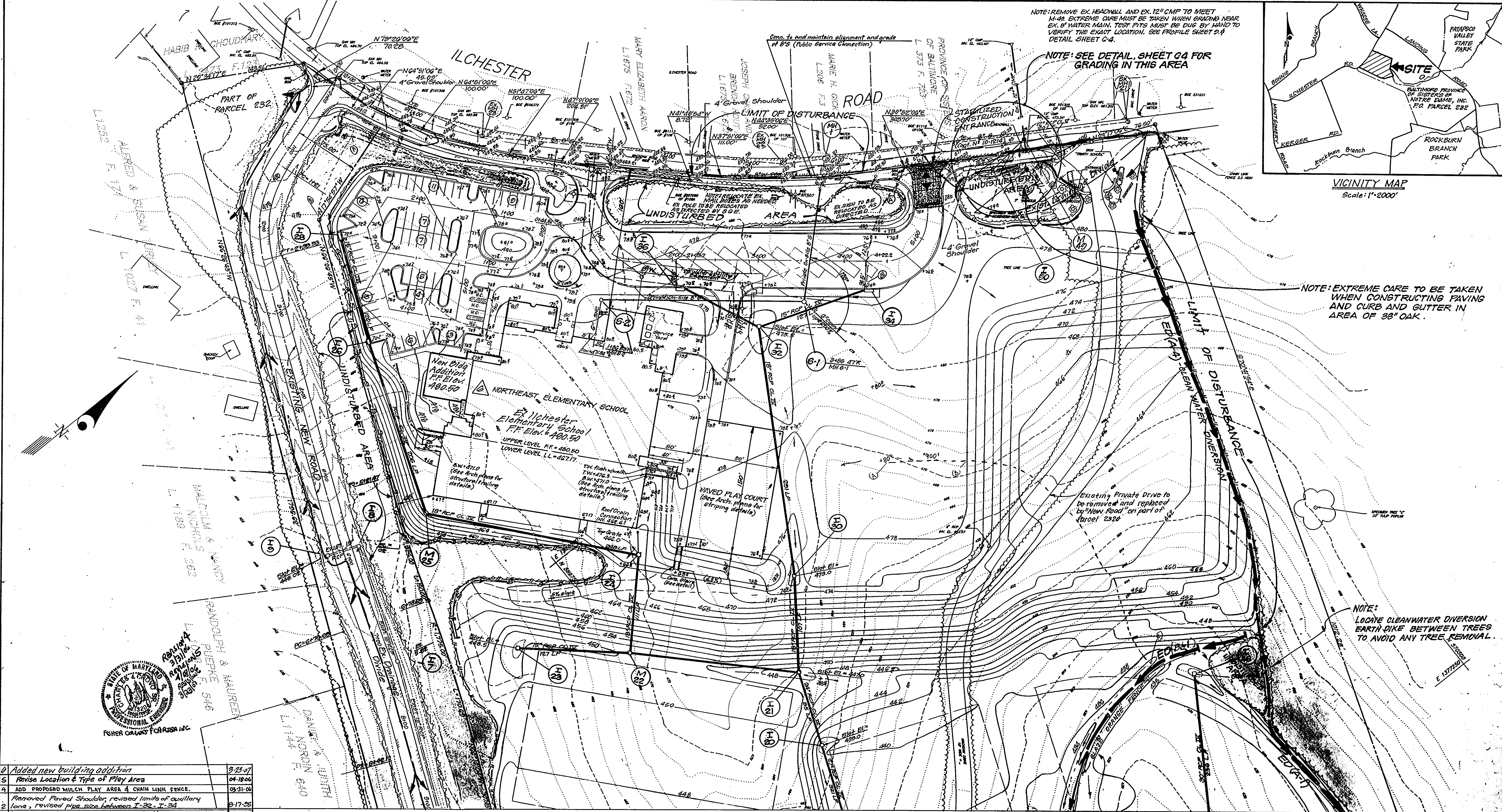
**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED	MJP	SCALE	1"=50'
DRAWN	MJP	DRAWING	#2 C-21
CHECKED	MHT	JOB NO.	02-28 23-101
DATE	3-16-95	FILE NO.	23-101-X

**LANDSCAPE PLAN AND LIGHTING**  
**NORTHEASTERN ELEMENTARY SCHOOL**  
TAX MAP NO 31, PARCEL 819 & PART OF PARCEL 232  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10910 ROUTE 108  
ELLCOTT CITY, MD. 21043

SDP 95-55





NOTE: REMOVE EX. HEADWALL AND EX. 12" CMP TO MEET M-42. EXTREME CARE MUST BE TAKEN WHEN GRADING NEAR EX. 8" WATER MAIN. TEST PITS MUST BE DUG BY HAND TO VERIFY THE EXACT LOCATION. SEE PROFILE SHEET 2-4 DETAIL SHEET C-4.

NOTE: SEE DETAIL, SHEET G4 FOR GRADING IN THIS AREA

NOTE: EXTREME CARE TO BE TAKEN WHEN CONSTRUCTING PAVING AND CURB AND GUTTER IN AREA OF 38" OAK.

NOTE: LOCATE CLEANWATER DIVERSION EARTH DIKE BETWEEN TREES TO AVOID ANY TREE REMOVAL.

NOTE: PLACE BLARE ORANGE FENCE ALONG EARTH DIKE TO ENSURE THAT THIS DIVERSION DIKE TO TEMP SWIMM IS NOT DESTROYED ACCIDENTALLY DURING GRADING OPERATION

NO.	REVISION	DATE
0	Added new building addition	3-25-97
5	Revise Location & Type of Play Area	04-18-06
4	ADD PROPOSED MULCH PLAY AREA & CHAIN LINK FENCE	03-31-06
3	Removed Paved Shoulder, revised limits of auxiliary	01-17-95
2	lane, revised pipe size between T-32 & T-34	01-17-95
1	Removed Curb & Gutter @ Ilchester Road, Rev'd SD str. N40 to E50	01-11-95

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

COMMUNITY HEALTH OFFICER: *[Signature]* DATE: 3/24/95

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DIRECTOR: *[Signature]* DATE: 3/24/95

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH: *[Signature]* DATE: 3/24/95

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

DIRECTOR: *[Signature]* DATE: 3/24/95

CHIEF OF ENGINEERING: *[Signature]* DATE: 3/24/95

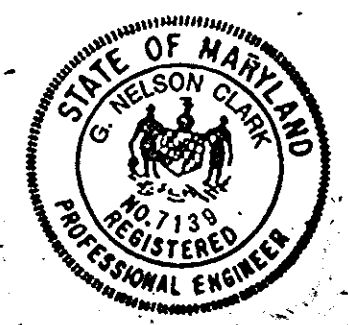
**SMOLEN + ASSOCIATES ARCHITECTS**  
 11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
 301 770-0177

Reviewed for HOWARD S.C.D. and meets Technical Requirements  
*[Signature]* Date: 3/23/95  
 US Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*[Signature]* Approved: 3/23/95

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 sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment 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]* NAME: *[Signature]* DATE: 3/16/95

ENGINEER'S CERTIFICATE  
 I hereby certify that this plan for Sediment and Erosion 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: 3-16-95



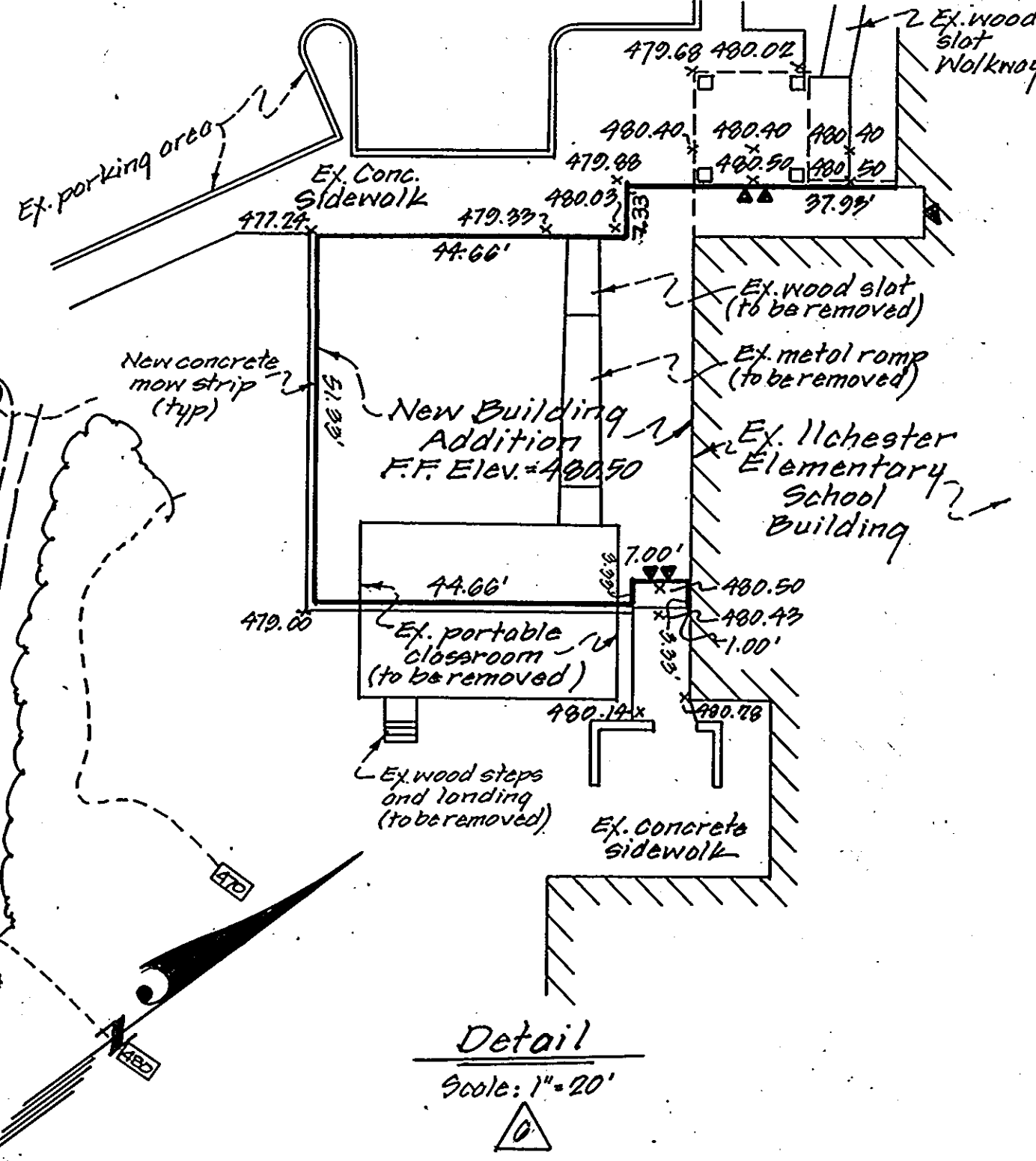
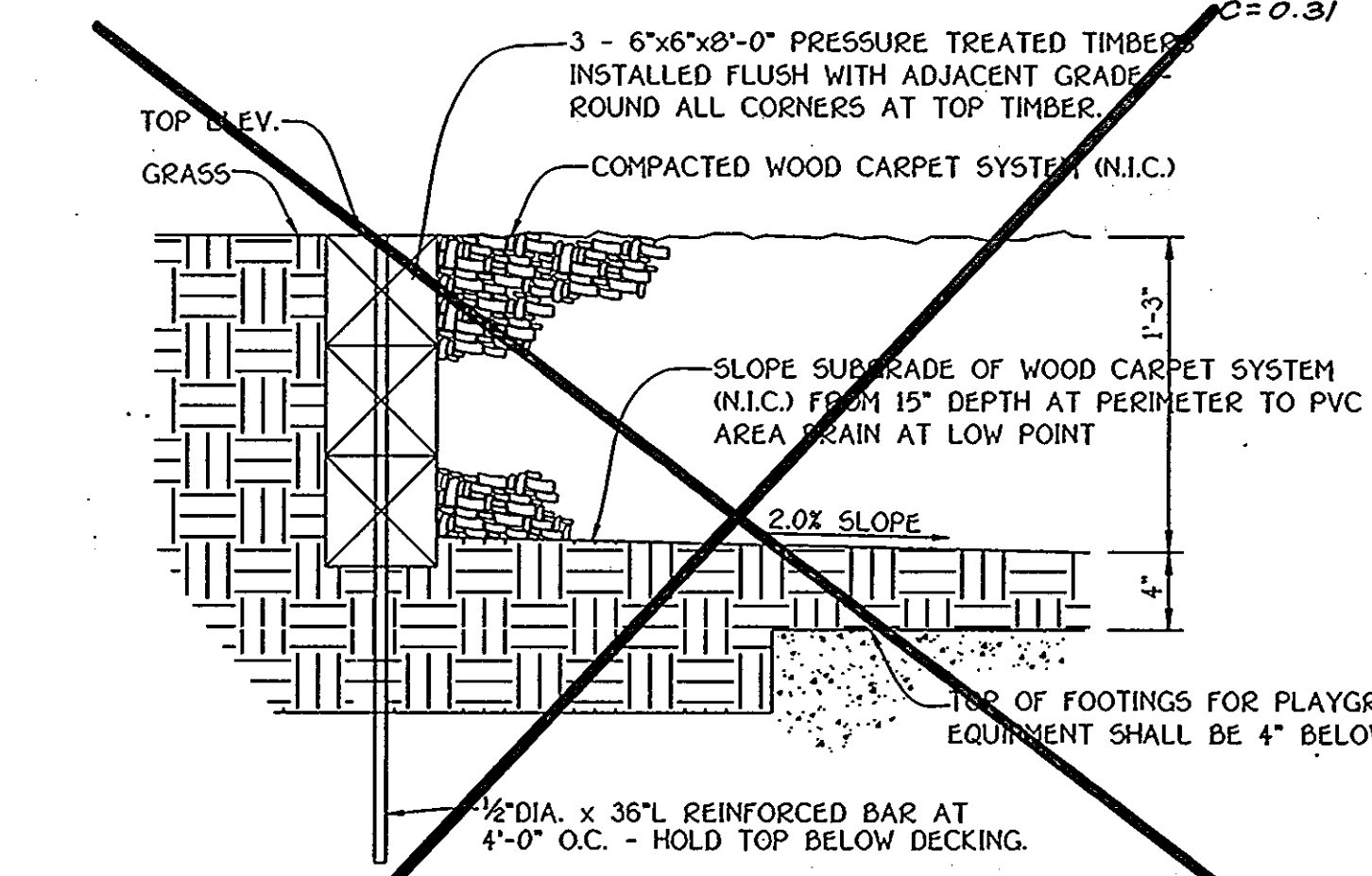
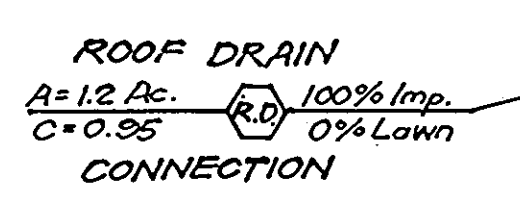
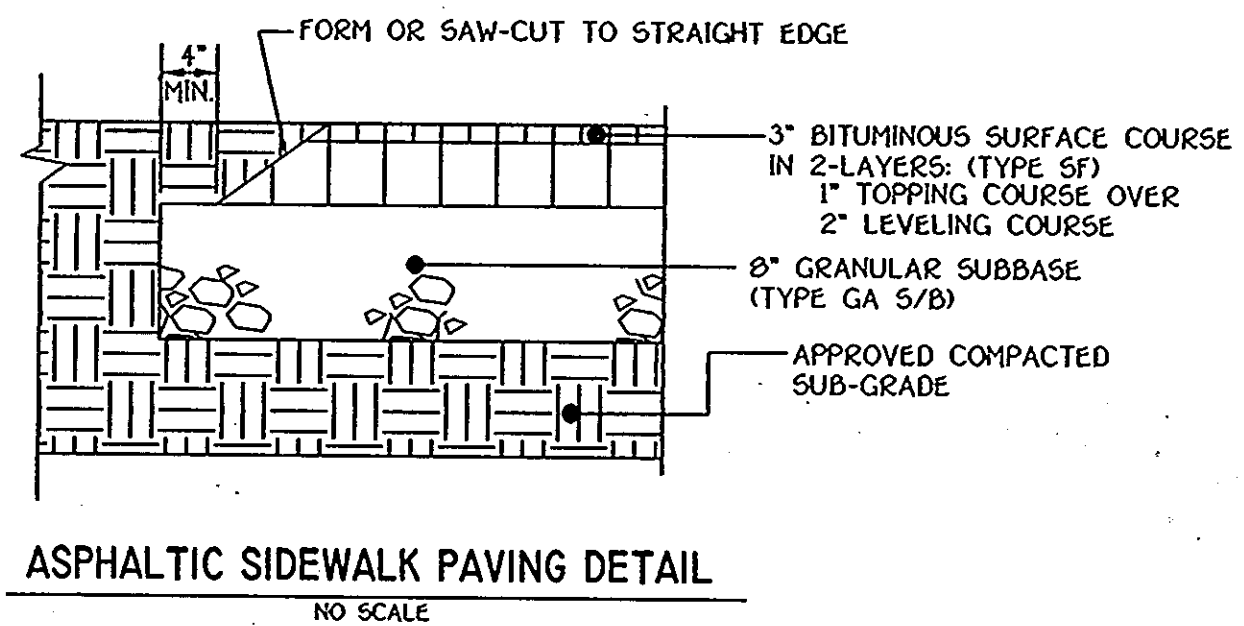
**CLARK • FINEFROCK & SACKETT, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS  
 7135 MINISTREL WAY • COLUMBIA, MD. 21046 • (410) 381-7600 - BALTO. • (901) 821-8100 - WASH.

DESIGNED: KIWM  
 DRAWN: ZAH  
 CHECKED: JMK/KIM  
 DATE: 3/16/95

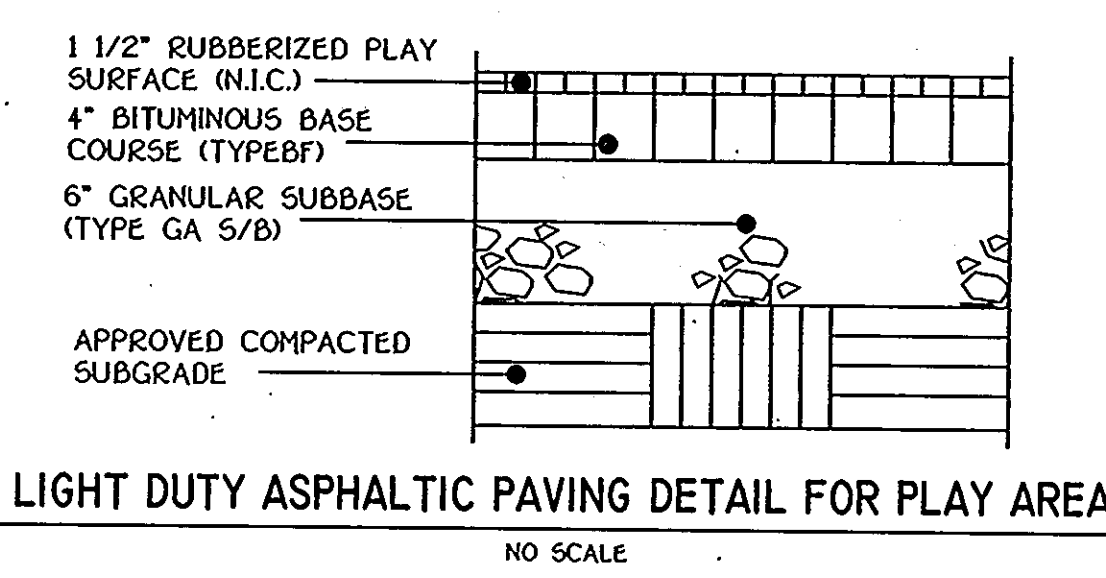
PHASE II  
 SEDIMENT & EROSION CONTROL PLAN  
 NORTHEASTERN ELEMENTARY SCHOOL  
 TAX MAP NO. 8, PARCEL 17, PART OF PARCEL 17, ELECTION DISTRICT 1 AND HOWARD COUNTY, MARYLAND  
 OWNER: HOWARD COUNTY BOARD OF EDUCATION  
 1000 ROUTE 165

MATCH LINE SEE SHEET 18 OF 22





- Construction Sequence for Classroom Addition**
1. Obtain grading permit.
  2. Notify "Miss Utility" at least 48 hours before beginning any work at 1-800-257-7777. Notify the Howard County Office of Construction Inspection at 410-313-1930 24 hours before starting work.
  3. Remove portable classroom and wood and metal walkways. 2 weeks.
  4. Install sediment control measures shown on plans. 1 week.
  5. Grade to subgrade classroom addition area.
  6. Construct classroom addition. 2 months.
  7. Fine grade disturbed areas and stabilize with permanent seeding.
  8. Notify the Howard County Office of Construction/Inspection for permission to remove sediment control measures and stabilize disturbed areas with permanent seeding.



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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Director *Manisha V. Singh* DATE 3/2/15

Director *Ann Swannery* DATE 3/2/15

CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH T.C. DATE 3/30/15

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

Director *James G. Shaw* DATE 3/24/15

CHIEF BUREAU OF ENGINEERING DATE 3/24/15

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301.770.0177

5 REVISE LOCATION AND TYPE OF PLAY AREA. 01-18-06

6 Added new building addition, added detail for new addition and Const. Seq. Notes 9-29-07

4 ADD PROPOSED MULCH PLAY AREA & CHAIN LINK FENCE. 03-31-06

2 Revised pipe size between I-32 - I-34

1 Revised Configuration Str. M42 to 150 3-11-95

NO REVISION DATE

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS

7135 MINSTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 • BALTO. • (301) 621-8100 - WASH.

DESIGNED K'JWM SCALE 1"=100'

DRAWN BAL DRAWING C-15

CHECKED W'K' DATE 03-10-11

DATE 3-16-95 OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10910 ROUTE 108  
ELLCOTT CITY, MD. 21043

FILE NO. 03-101K

SDP 95-55







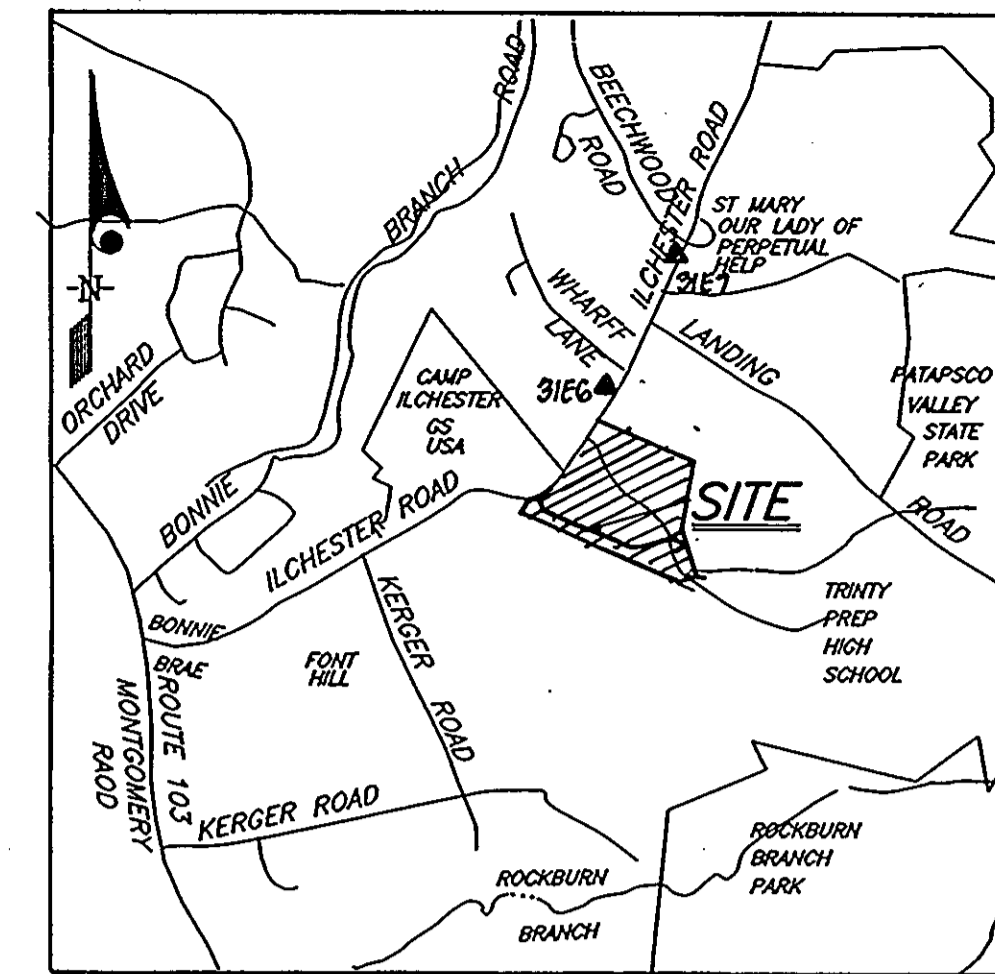
**General Notes:**

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Bureau of Engineering/Construction Inspection Division at (410) 313-1880 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.
- Project Background:**  
Location: Tax Map #31, Parcel 819 and Part of Parcel 232  
Zoning: R-20  
ZB/BA ref: N/A WP-95-86  
Election District: 1st Election District  
Section/Area: N/A  
Site Area: Parcel 819 27.22 Ac  
Part of Parcel 232 8.05 Ac  
Total 35.27 Ac
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- All plan dimensions are to the face of curb unless otherwise noted.
- Topography was provided by plans prepared by Schmid, Pflantz & McDonald, Inc. with 2 foot contour intervals. The survey is dated January 1994.
- Coordinates are based on NAD 83 Maryland Coordinate System as projected by Howard County Geodetic Control Sta Nos. 31E6 & 31E7.
- Public water and sewer is to be utilized. Contract No. 14-3403-D
- Stormwater management is provided on-site by an extended detention facility.
- The wetland delineation was prepared by M.A. Dircks & Co., Inc. on March 3, 1994. Approved: 3/14/95
- The traffic study was prepared by Wells & Assoc., Inc. on January 18, 1994. Approved: 2/16/95
- The stormwater management facility will be privately maintained.
- The existing utilities were located by actual field survey and by a survey prepared by Schmid, Pflantz & McDonald, Inc. The contractor must dig test pits, by hand, at all utility crossings and connection points to verify exact location.
- The Soils analysis was prepared by Engineering Consulting Services, LTD on July 13, 1994.
- Handicap parking details shall be in accordance with the "Maryland Building Code for the Handicapped", Section 5.01-7.05.
- All driveways and parking to be owned and maintained by Howard County Board of Education.
- Any damage to County owned right-of-way to be corrected at the contractor's expense.
- All sidewalks shall be cross sloped at 1/4" /ft. away from the building unless otherwise indicated.
- Trench bedding for storm drainage structures shall be in accordance with Howard County Standard G2.01. Class "C" Bedding.
- Gutter of curbs shall be pitched to conform to adjacent drainage patterns.
- Refer to architectural drawings for building dimensions.
- For pertinent Seeding & Landscaping Specifications see General Contract Specifications.
- Water Flow Test: Hydrant Flow Tests were taken at the existing hydrant at Ilchester Road, December 1994 with the following results: Static 53 PSI Residual 34 PSI Flow 890 GPM
- Roof Drain and Foundation Drain Clean Outs to be provided with a 4" thick x 12" x 12" minimum concrete collar flush with grade, typical.
- Refer to Electrical Site Plan for Exterior Lighting Locations and Specifications.
- The Forest Conservation Easement has been established to fulfill the requirements of Section 16.1200 of Howard County Code Forest Conservation Act. No clearing, grading or construction is permitted within the forest conservation easements; however, forest management practices as defined in the Deed of Forest Conservation Easement are allowed.

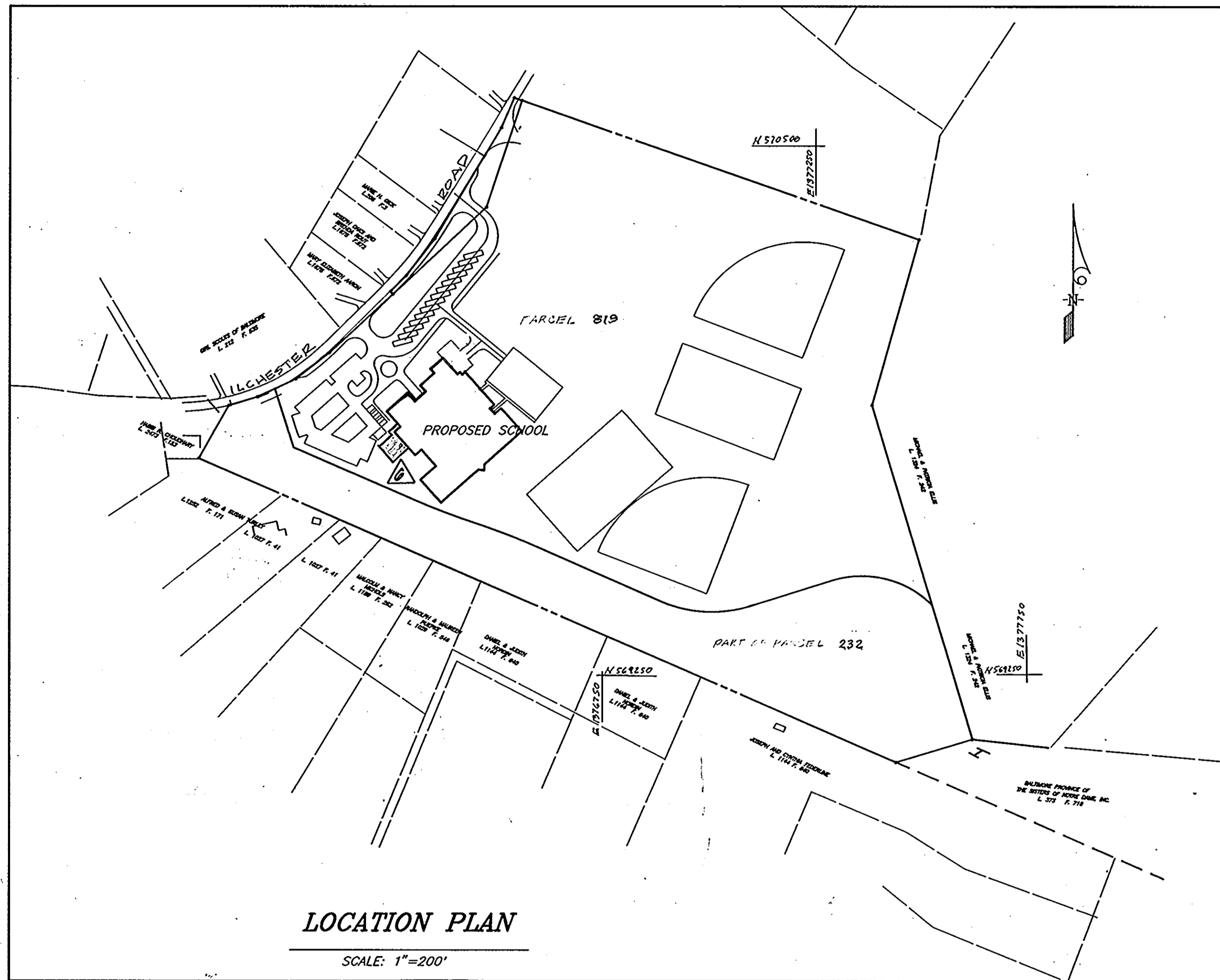
# NORTHEASTERN ELEMENTARY SCHOOL

## FIRST (1st) ELECTION DISTRICT

### HOWARD COUNTY, MARYLAND



VICINITY MAP  
SCALE 1"=2000'



LOCATION PLAN  
SCALE: 1"=200'

**SITE ANALYSIS**

- Site Area Parcel 819 = 27.22 Ac  
Part of parcel 232 = 8.05 Ac  
Total Project Area = 35.27 Ac
- Zoning: R-20
- Proposed Structure use: Elementary School
- Parking Required (per HCPSS): 78  
Parking Provided: 78
- Area Tabulation:  
For Parcel 819 27.22 Ac Total Site  
Building Coverage 1.16 Ac 4.2% of site  
Paved Surfaces 2.5 Ac 9.2% of site  
Green Areas 23.6 Ac 86.8% of site  
For Part of Parcel 232: 8.05 Ac Total Site  
Paved Surfaces 1.06 Ac 13.2% of site  
Green Areas 6.99 Ac 86.8% of site
- Building Restriction and Use Setbacks:  
Front BRL = 40'  
Side BRL = 10'  
Rear BRL = 20'  
Use Setbacks are 20' from Property Line

Note:  
A building permit for the proposed school expansion shall be applied for within one (1) year measured from the DEED approval letter for this red-line revision or before March 9, 2006.

SHEET INDEX	
NO.	DESCRIPTION
C-1	COVER SHEET
C-2	SITE DEVELOPMENT PLAN (A)
C-3	SITE DEVELOPMENT PLAN (B)
C-4	PAVING LAYOUT PLAN (C)
C-5	NEW ROAD STREET GRADE
C-6	SITE DETAILS
C-7	SITE DETAILS
C-8	STORM DRAINAGE PROFILES AND DETAILS
C-9	STORM DRAINAGE PROFILES
C-10	STORM DRAINAGE AND WATER & SEWER PROFILES
C-11	STORMWATER MANAGEMENT PROFILE AND DETAILS
C-12	STORMWATER MANAGEMENT DETAILS
C-13	STORMWATER MANAGEMENT SPECIFICATIONS AND BORING LOGS
C-14	STORMWATER MANAGEMENT - DRAINAGE AREA MAP
C-15	STORM DRAINAGE - DRAINAGE AREA MAP
C-16	SEDIMENT AND EROSION CONTROL PLANS
C-17	SEDIMENT AND EROSION CONTROL PLANS
C-18	SEDIMENT AND EROSION CONTROL PLANS
C-19	SEDIMENT AND EROSION CONTROL DETAILS
C-20	SEDIMENT AND EROSION CONTROL DETAILS
C-21	LANDSCAPE PLAN
C-22	LANDSCAPE PLAN
C-23, 24, 25	FOREST CONSERVATION PLAN (1, 2, 3 & 4)

SUPPLEMENTAL PLANS	
NO.	DESCRIPTION
1 of 2	FOREST STAND DELINEATION PLAN
2 of 2	FOREST STAND DELINEATION PLAN
1 of 3	FOREST CONSERVATION PLAN
2 of 3	FOREST CONSERVATION PLAN
3 of 3	FOREST CONSERVATION PLAN
1 of 2	EXISTING SOILS & SLOPES INVENTORY
2 of 2	EXISTING SOILS & SLOPES INVENTORY

GENERAL NOTES CONTINUED:  
23. This plan is subject to Waiver Petition WP#95-86 Approved 2/28/95 to allow disturbance of the Wetland Buffer for the construction of outfall structure S-1.  
24. A Letter of Authorization from the Maryland Department of Natural Resources is being obtained for the Wetland and Wetland Buffer disturbance.

**SMOLEN + ASSOCIATES ARCHITECTS**  
11820 PARKLAWN DR. ROCKVILLE, MD. 20852  
301 770 0177

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT**  
COUNTY HEALTH OFFICER DATE  
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING  
DIRECTOR DATE  
CHIEF DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

**APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS**  
DIRECTOR DATE  
CHIEF BUREAU OF ENGINEERING DATE



OWNERS:  
PARCEL 819 HOWARD COUNTY BOARD OF EDUCATION  
10910 ROUTE 108  
ELLICOTT CITY, MD 21043  
PART OF PARCEL 232 THE BALTIMORE PROVINCE OF THE SISTERS OF NOTRE DAME DE NAMUR, INC.

NO.	REVISIONS	DATE
0	Added new building addition, building permit	3-23-97
1	note, revised Site Anal. Note No. 5, Area Tab.	
5	Revise Location & Type of Play Area	04-18-06
4	ADD PROPOSED MULCH PLAY AREA & CHAIN LINK FENCE	08-31-06

ADDRESS CHART			
PARCEL No.	STREET ADDRESS		
819	4981 ILCHESTER ROAD		
SUBDIVISION NAME: PARCEL "A" NORTHEASTERN ELEMENTARY SCHOOL		SECT./AREA: NA	PARCEL No.: 819/232
PLAT No. or L/P: 3322/620	BLOCK No.: 16	ZONE: R-20	ELECT. DIST.: 1st
WATER CODE: 409		SEWER CODE: 1251800	

**CLARK • FINEFROCK & SACKETT, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
7135 MINISTREL WAY • COLUMBIA, MD. 21045 • (410) 381-7500 - BALTO. • (301) 621-8100 - WASH.

DESIGNED: W.H.T.  
DRAWN: Z.A.H.  
CHECKED: W.H.T.DATE: 3-16-95

**COVER SHEET**  
**NORTHEASTERN ELEMENTARY SCHOOL #2**  
TAX MAP No. 31, PARCEL 819 & PART OF PARCEL 232  
FIRST (1st) ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

OWNER: HOWARD COUNTY BOARD OF EDUCATION  
10910 ROUTE 108  
ELLICOTT CITY, MD. 21043

SCALE: As Shown  
DRAWING: C-1 OF 25  
JOB NO.: 93-101  
FILE NO.: 93-101 X

SDP 95-55