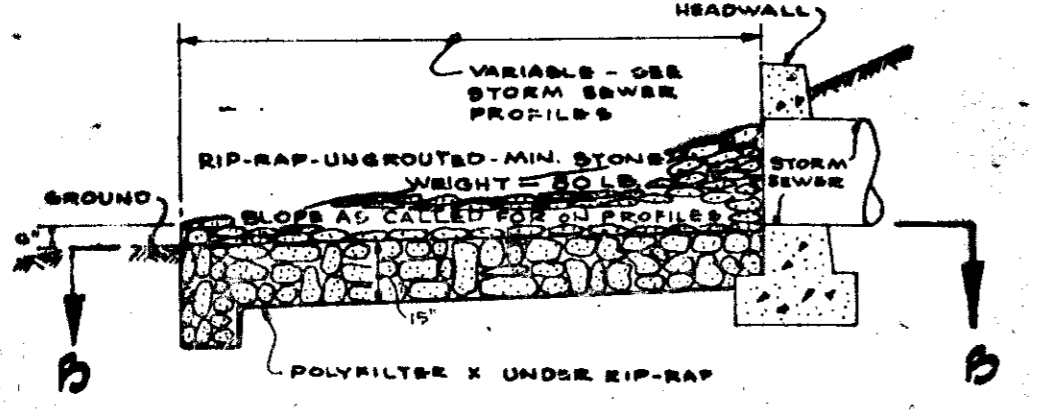
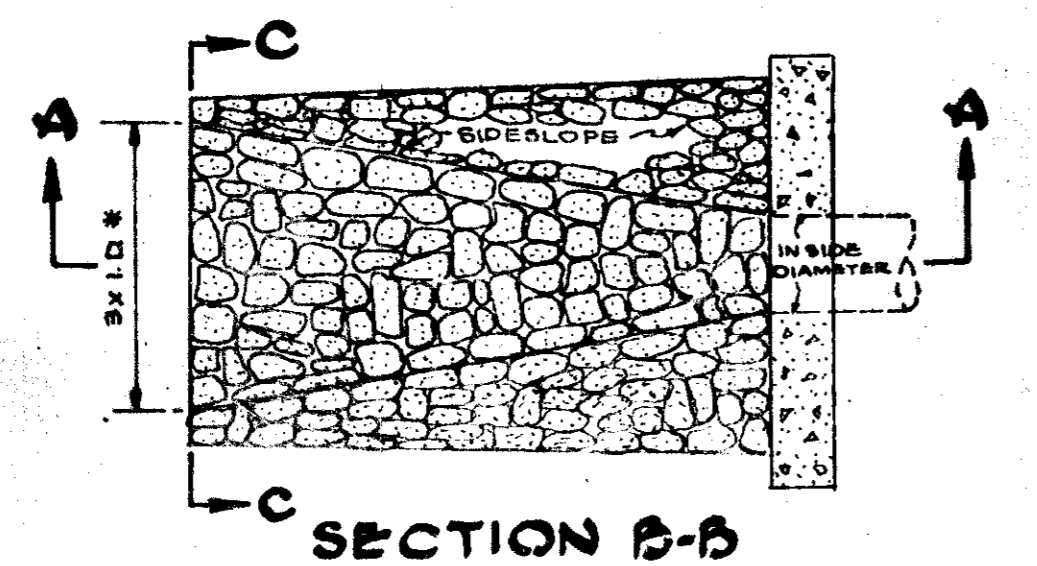


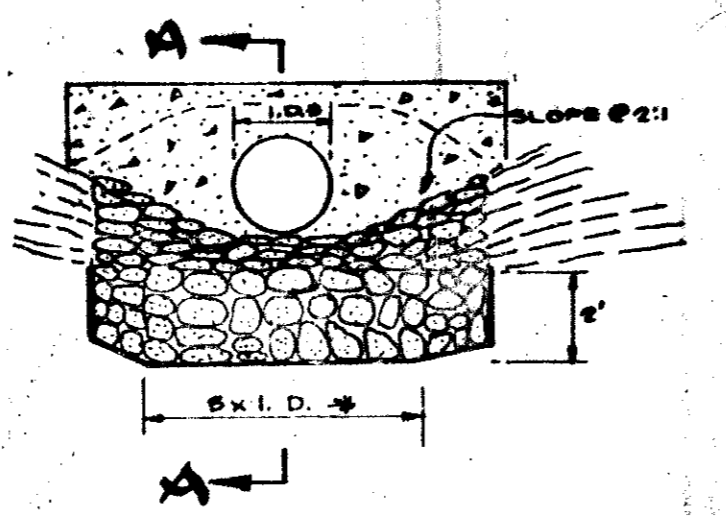
TYPICAL SECTION CONCRETE FLUME
SCALE: 1" = 2'-0"



SECTION A-A

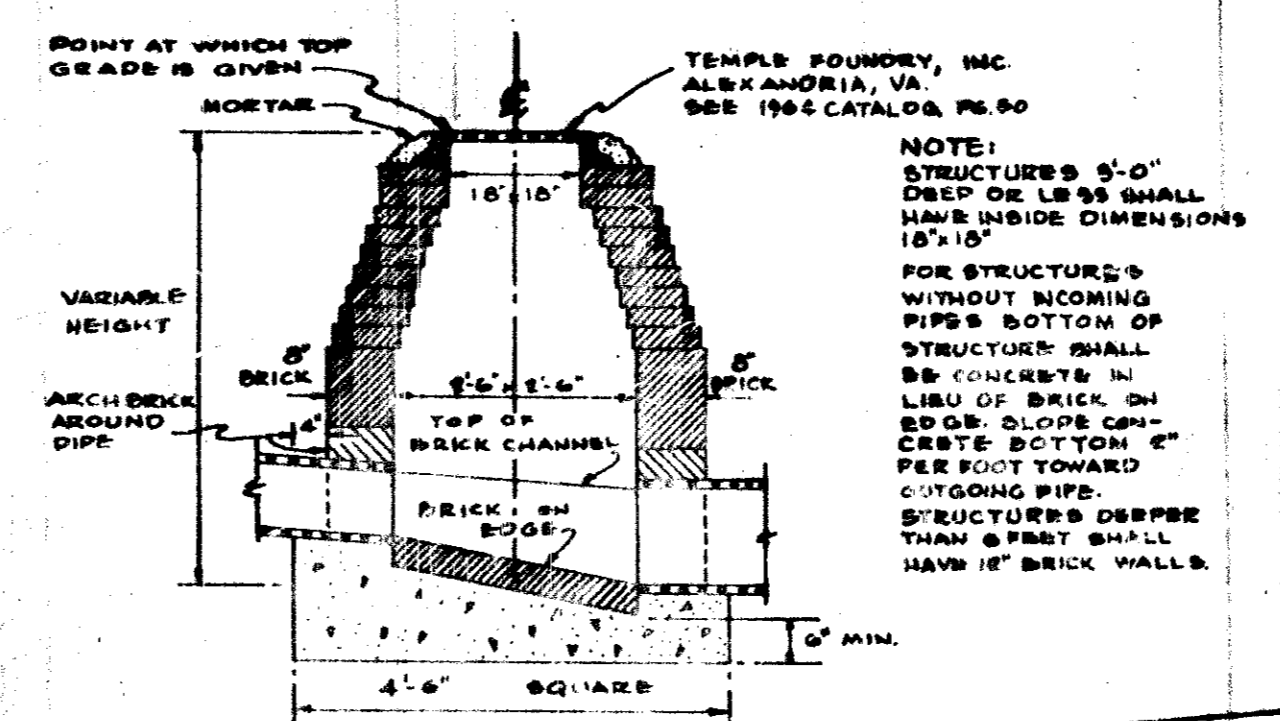


SECTION B-B



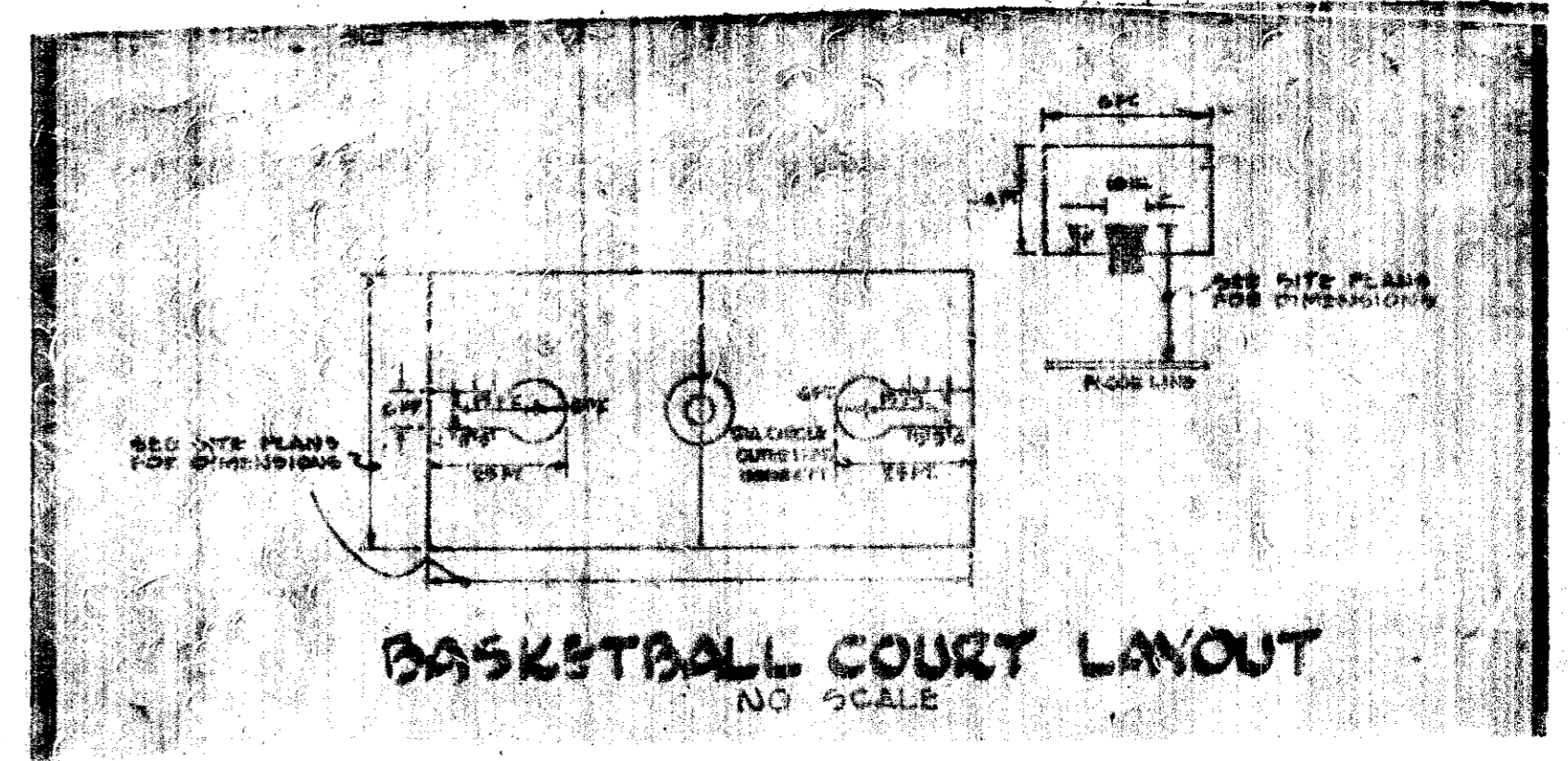
SECTION C-C
X = I.D. = INSIDE DIAMETER

TYPICAL
UNGRouted RIP-RAP DETAIL
NOT TO SCALE

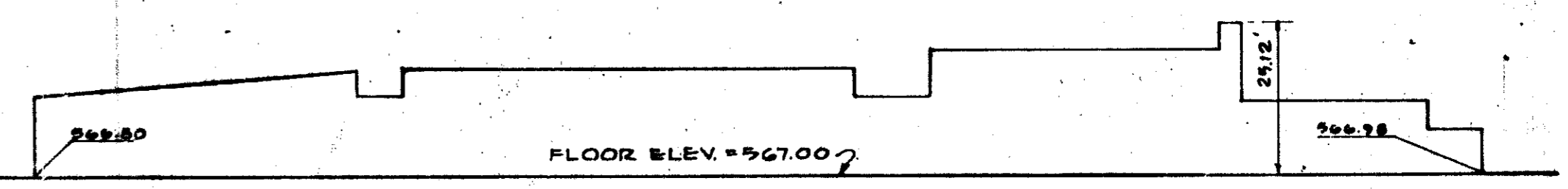


SECTION
YARD DRAIN
NOT TO SCALE

NOTE:
STRUCTURES 6'-0"
DEEP OR LESS SHALL
HAVE INSIDE DIMENSIONS
10" MIN.
FOR STRUCTURES
WITHOUT INCOMING
PIPES BOTTOM OF
STRUCTURE SHALL
BE CONCRETE IN
LIEU OF BRICK ON
EDGE. SLOPE CON-
CRETE BOTTOM 2"
PER FOOT TOWARD
OUTGOING PIPE.
STRUCTURES DEEPER
THAN 6 FEET SHALL
HAVE 12" BRICK WALLS.



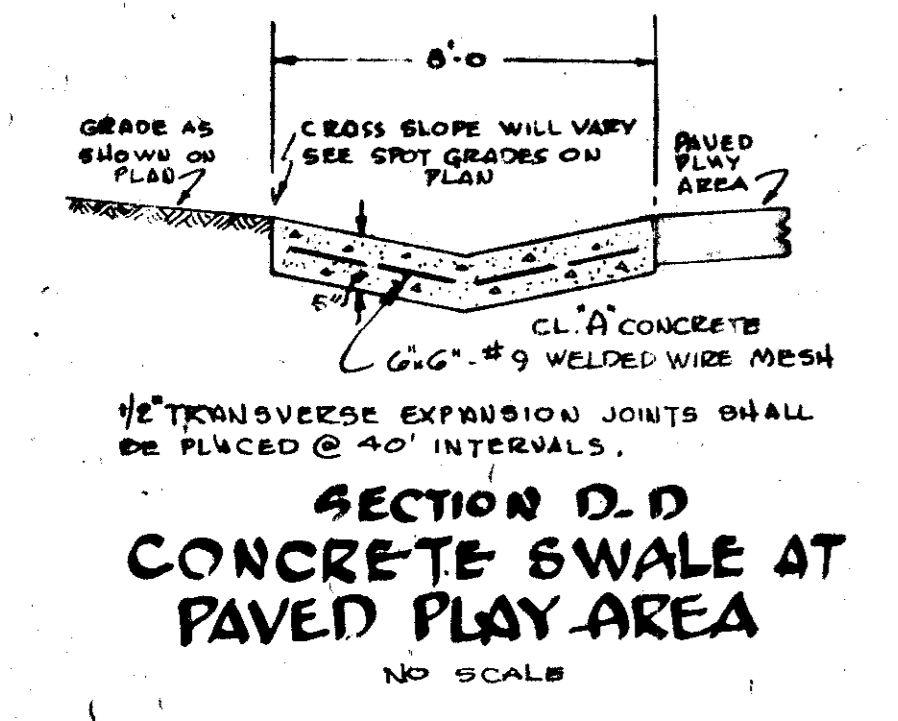
BASKETBALL COURT LAYOUT
NO SCALE



FRONT VIEW
SCALE: 1" = 2'-0"

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	DATE: 2/28/75
APPROVED, HOWARD COUNTY OFFICE OF PLANNING AND ZONING	DATE: 3-3-75
APPROVED FOR PRIVATE WATER PRIVATE SEWER AND STORM DRAINAGE SYSTEMS AND SOLID WASTE COUNTY DEPARTMENT OF PUBLIC WORKS	DATE: 3/13/75
APPROVED FOR PRIVATE WATER PRIVATE SEWER AND STORM DRAINAGE SYSTEMS AND SOLID WASTE COUNTY DEPARTMENT OF PUBLIC WORKS	DATE: 3/13/75

Reviewed for: Howard Co. D. ...
Signature: ...
Date: 2/28/75
S. S. Soil Conservation Service
THIS DRAWING PLAN IS APPROVED FOR THE LOCATION AND SETBACK COMP. BY THE HOWARD SOIL CONSERVATION DISTRICT
Date: 10-75

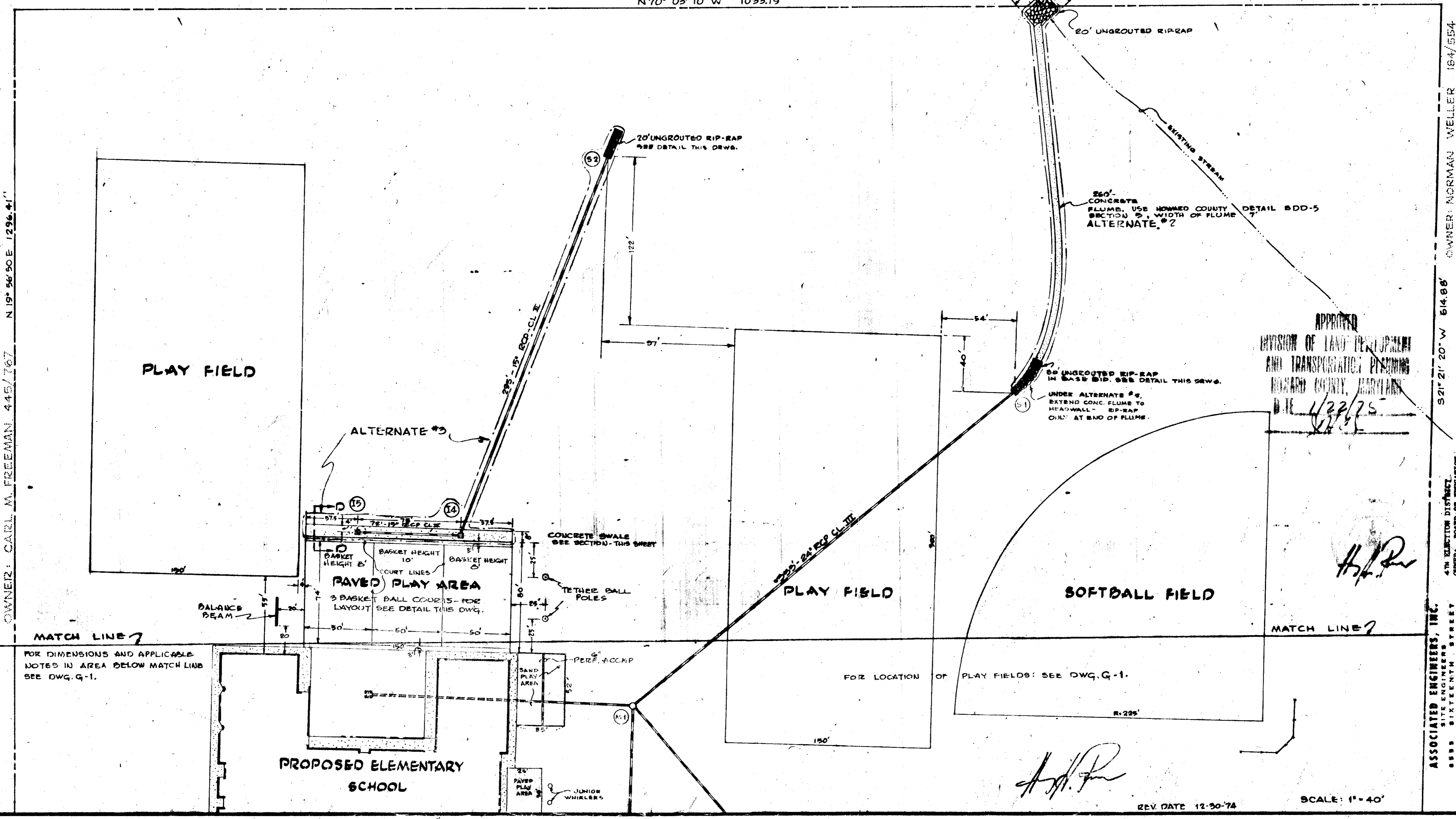


SECTION D-D
CONCRETE SWALE AT
PAVED PLAY AREA
NO SCALE

FOR LEGEND AND APPLICABLE NOTES, SEE DWG. G-1.

OWNER: CARL M. FREEMAN 445/767

N 70° 03' 10" W 1033.19'



OWNER: CARL M. FREEMAN 445/767 N 19° 56' 50" E 1296.41'

OWNER: NORMAN WELLS 164/554
S 21° 21' 20" W 614.66'

ASSOCIATED ENGINEERS, INC.
434 EIGHTH DISTRICT
SILVER SPRING, MARYLAND 20910
OWNER: BOARD OF EDUCATION
RTE. 31, CARROLLVILLE, MD.
TEL. 301-286-2711

LAYOUT PLAN

LUSBON
ELEMENTARY SCHOOL
HOWARD COUNTY, MARYLAND

G-2

REV. DATE 12-30-74

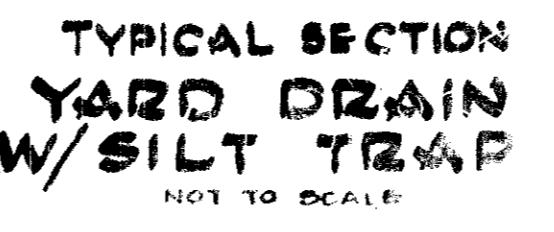
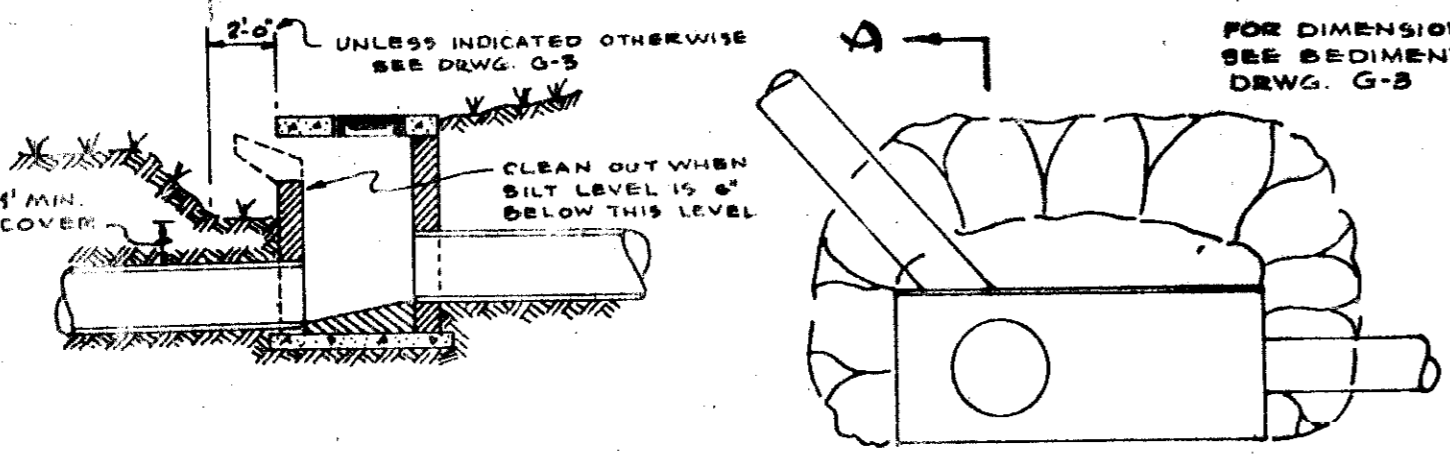
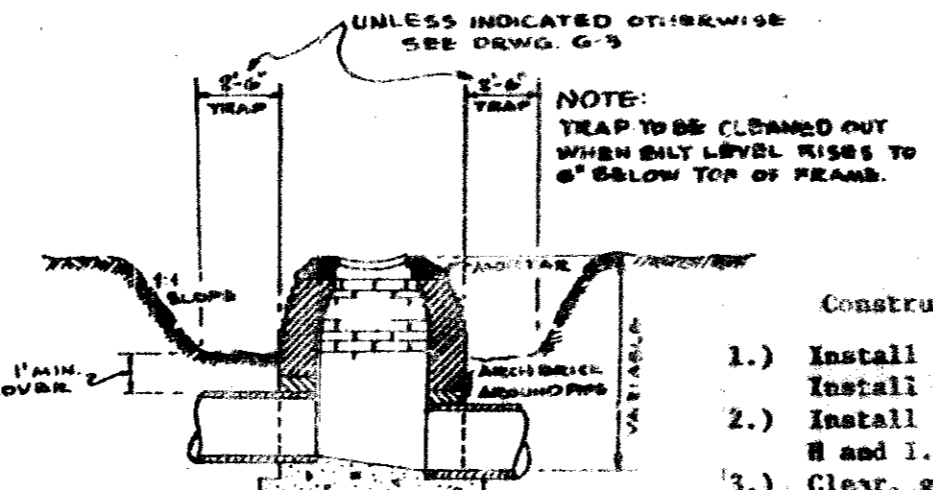
SCALE: 1" = 40'

DEVELOPER'S CERTIFICATION
 I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control and I also authorize periodic on-site inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.

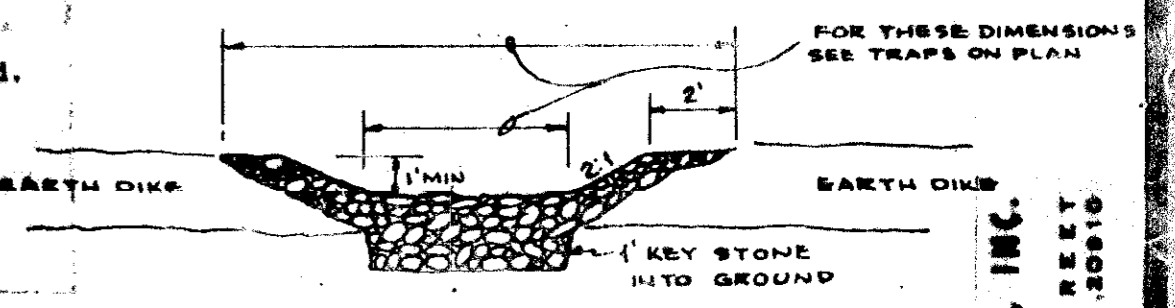
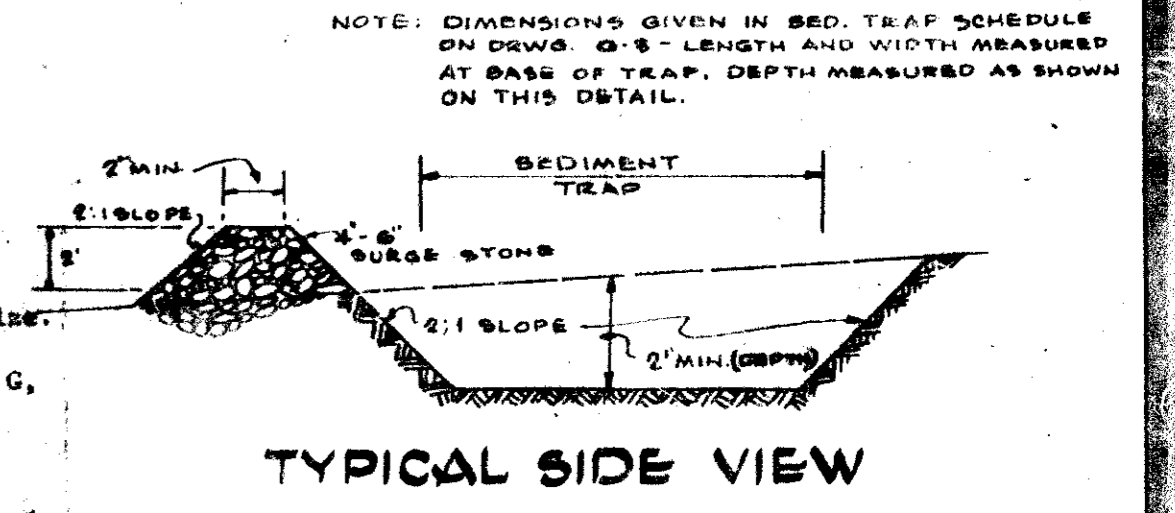
Howard County _____ Date _____

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

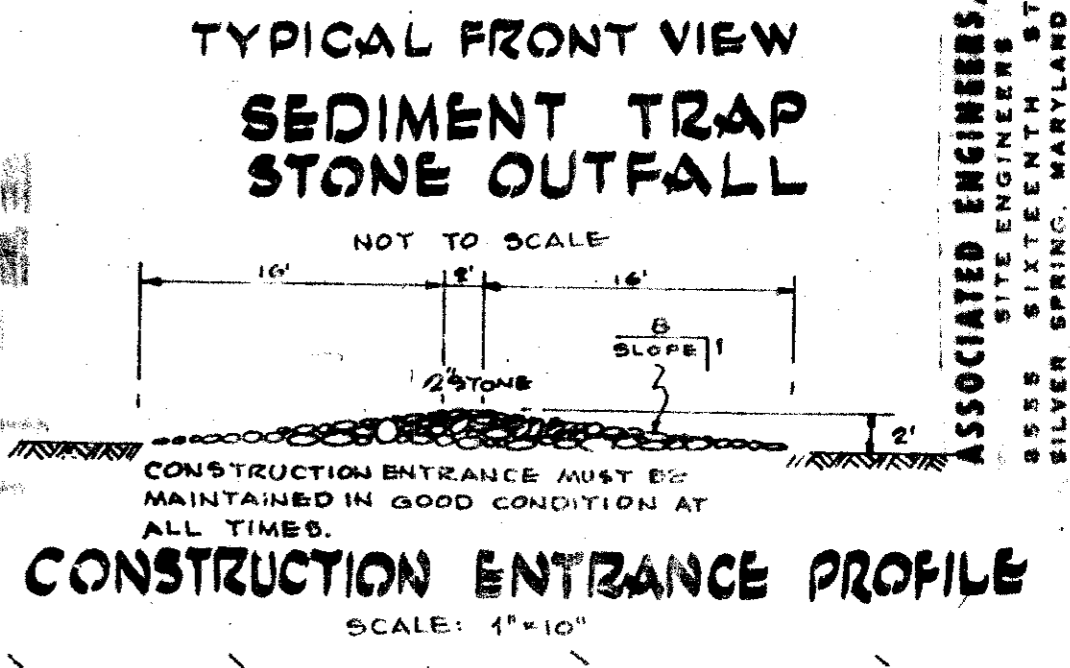
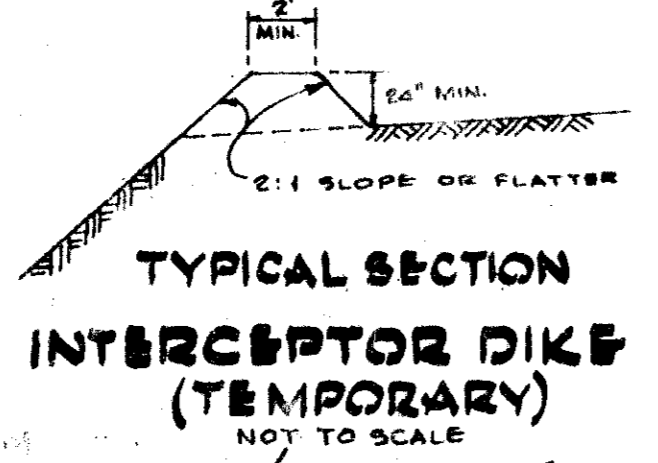
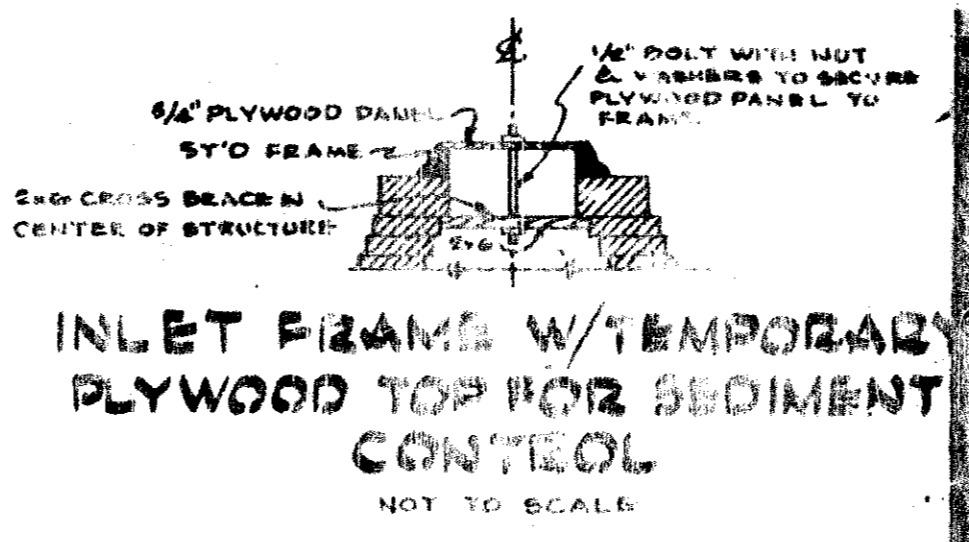
Date 11-8-79



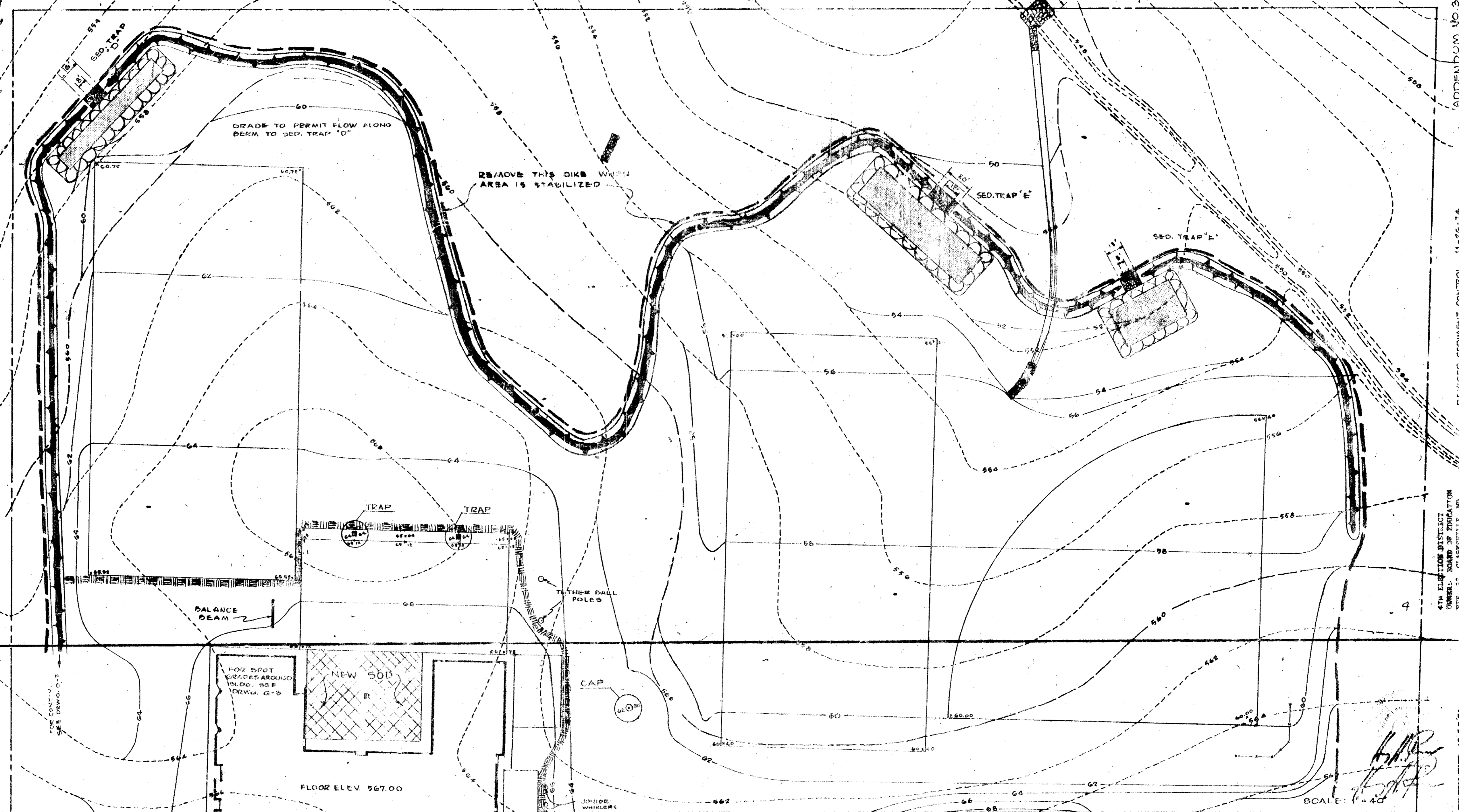
- Construction Sequence**
- 1.) Install Stone Entrance and Earth Perimeter Dikes. Compact Earth Dikes and Stabilize.
 - 2.) Install Sediment Traps B, C, D, E and F.
 - 3.) Install Storm Drainage System and provide individual structure traps and Traps A, G, H and I.
 - 4.) Clear, grub and strip topsoil.
 - 5.) Commence Grading Operations - protect storm drains while grading.
 - 6.) Start Building Construction.
 - 7.) Install curb and gutters and place base course for paving after removing individual traps if structures affected.
 - 8.) Stabilize Play Fields and Slopes, and place temporary straw bale barrier.
 - 9.) Remove dikes and traps serving stabilized play areas and stabilize areas disturbed.
 - 10.) Place paving surface course and stabilize areas disturbed.
 - 11.) Remove remaining traps, Dikes and Stone Filter on Rte. #144 after all tributary areas are stabilized, stabilize disturbed trap and dike areas and clean up construction areas.
 - 12.) Remove Straw Bales and stabilize disturbed areas.



SECTION A-A
TEMPORARY SILT TRAP FOR CURB INLETS
 TYPICAL
 NOT TO SCALE



- GRADING NOTES**
1. Existing topography is based on field survey conducted during March and April 1974 by Associated Engineers, Inc. Bench mark used was MSHA B.M. No. 2, a spike in an 18 inch Spycore, located at the S.W. corner of the Rte. 144 - Rte. 94 Intersection, elevation 591.52. Bench Mark set by Associated Engineers is a P.K. nail set in the S.W. corner of the existing school, elevation 572.18.
 2. Pitch gutter to conform to runoff flow.
 3. The level of the play fields may be adjusted in order to balance all suitable fill material on site. However, cross slopes of fields must be maintained as shown on plan and Architect's approval must be obtained prior to adjusting level of fields. (See space). Retention drainage shall be installed until erosion fill has been completed and compacted.
 4. A prefix of 5 may have to be added to contour and spot grades.



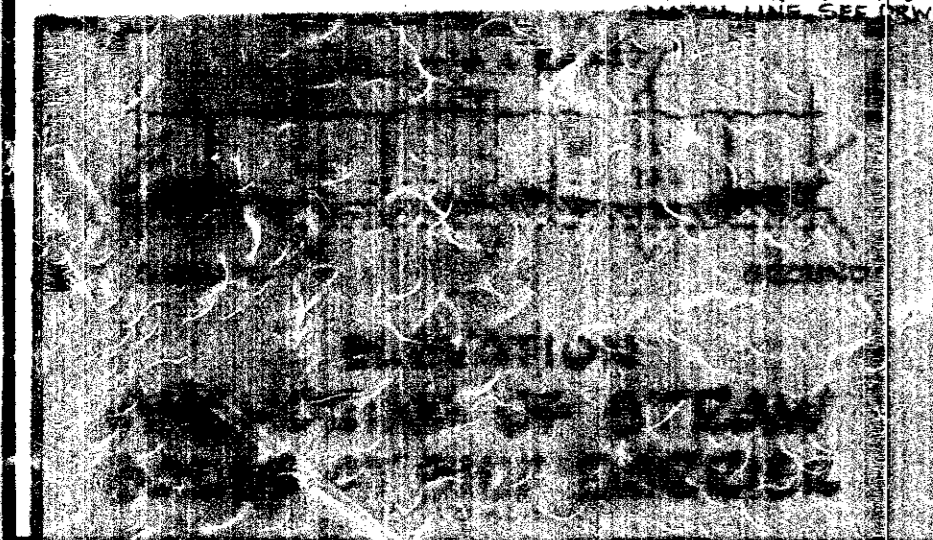
Reviewed for Howard S.C.D.
 and meets Technical Requirements
 Date 11/2/79
 Signature _____
 U.S. Soil Conservation Service

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

Approved _____ Date 11/2/79
 Howard S.C.D.

GRADING PLAN
SEDIMENT CONTROL

APPENDIX A NO. 3
 REVISIONS TO PLAN CONTROL 11-22-79
 4TH ELECTION DISTRICT
 OWNER: BOARD OF EDUCATION
 3717 ST. CHARLES ST., CLARKSBURG, MD.



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

Thomas J. Harris 3-3-75
PLANNING DIRECTOR DATE

W. J. Albert 2-20-75
DATE

APPROVED FOR PRIVATE WATER PRIVATE SEWER AND STORM DRAINAGE SYSTEMS AND ROAD BONDING ENGINEER, DEPARTMENT OF PUBLIC WORKS

W. J. Albert 2-20-75
DATE

W. J. Albert 2-20-75
DATE

Howard

James M. ... 2-20-75
DATE

...

...

...

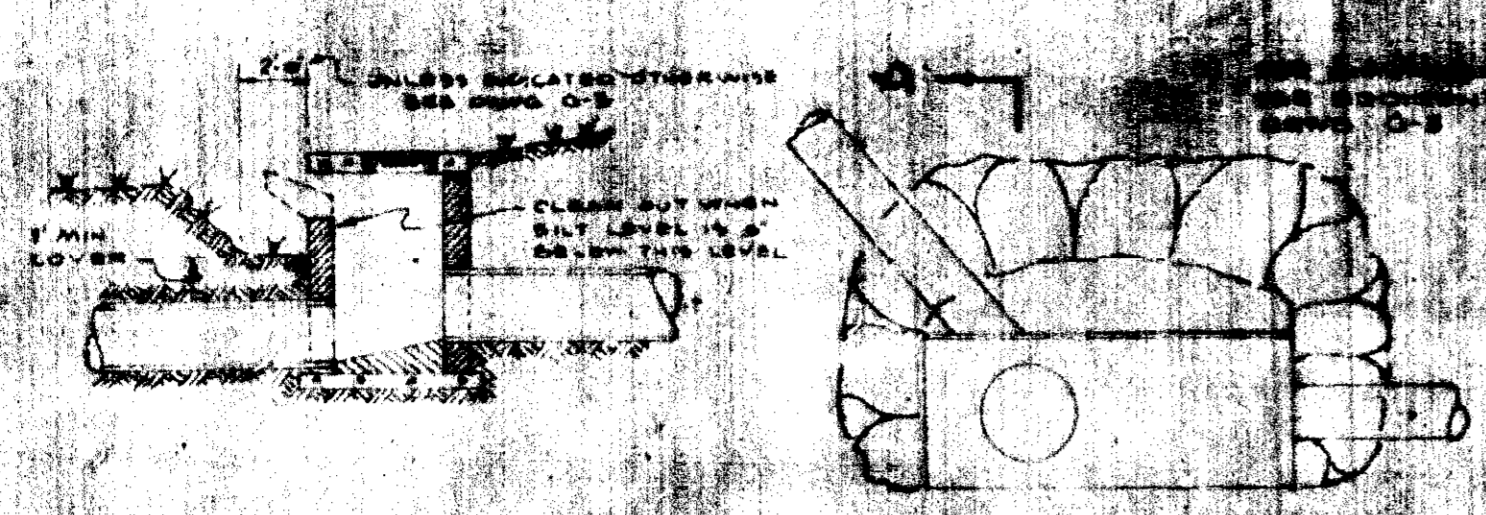
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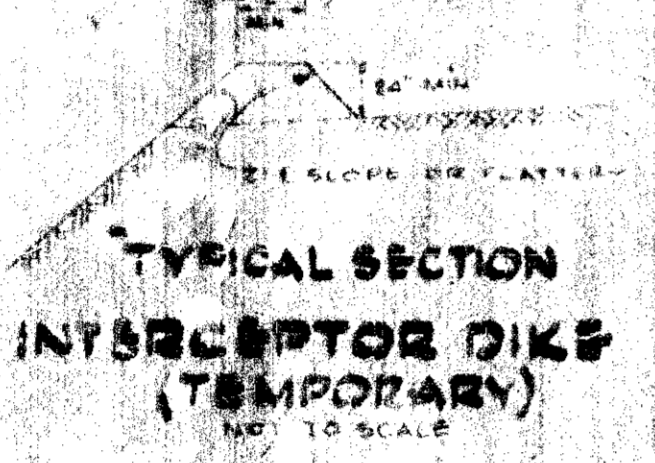
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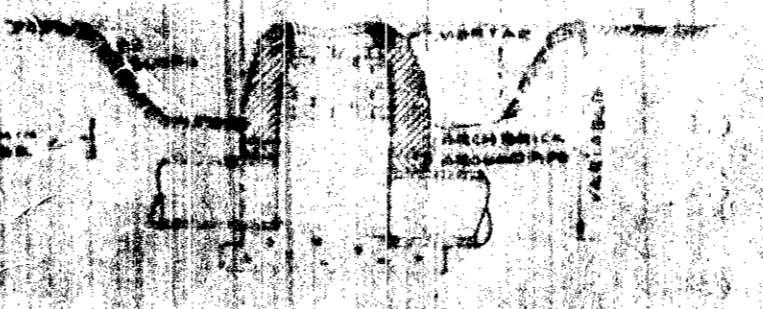
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SECTION A-A
TEMPORARY SILT TRAP FOR CURB INLETS
TYPICAL
NOT TO SCALE



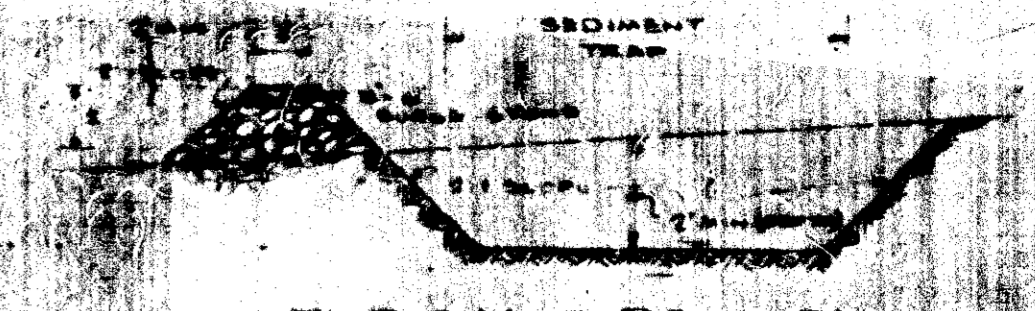
TYPICAL SECTION
INTERCEPTOR DIKE
(TEMPORARY)
NOT TO SCALE



TYPICAL SECTION
YARD DRAIN
W/ SILT TRAP
NOT TO SCALE



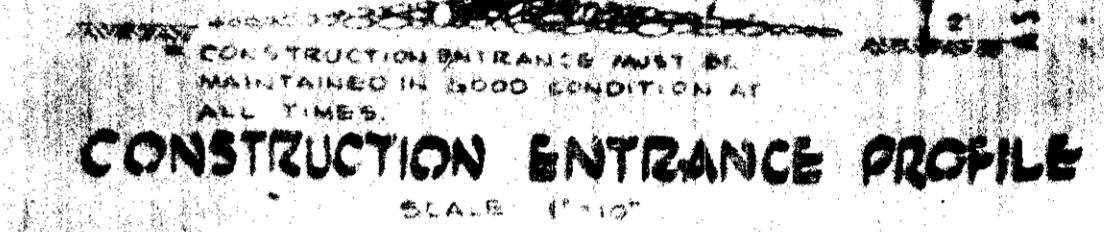
INLET FRAME W/ TEMPORARY
PLYWOOD TOP FOR SEDIMENT
CONTROL
NOT TO SCALE



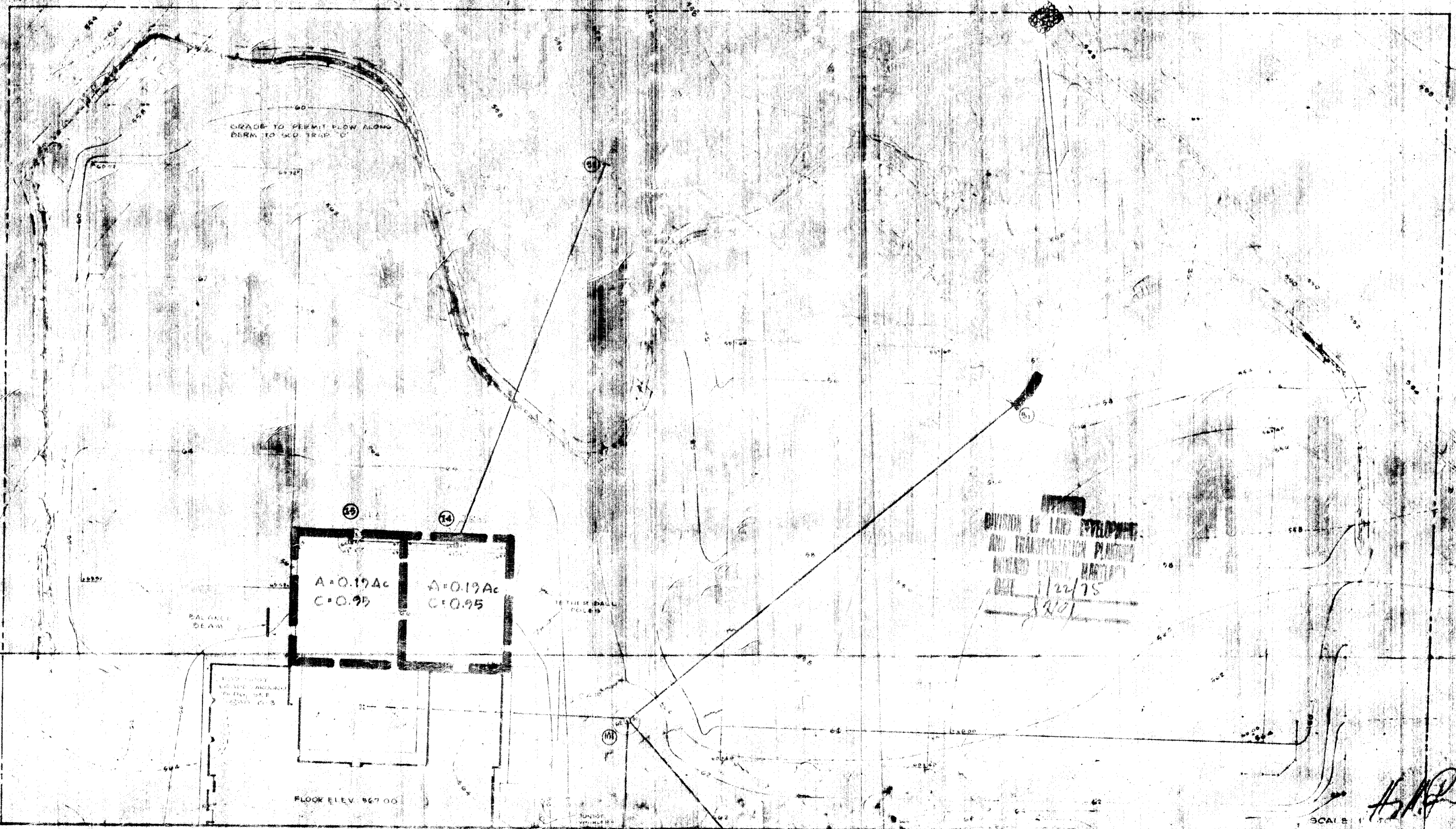
TYPICAL SIDE VIEW
SEDIMENT TRAP



TYPICAL FRONT VIEW
SEDIMENT TRAP
STONE OUTFALL
NOT TO SCALE



CONSTRUCTION ENTRANCE PROFILE
SCALE 1/4\"/>



McLEOD, FERRARA, ENSIGN
ARCHITECTS
ENGINEERS & SURVEYORS
ASSOCIATED ENGINEERS, INC.

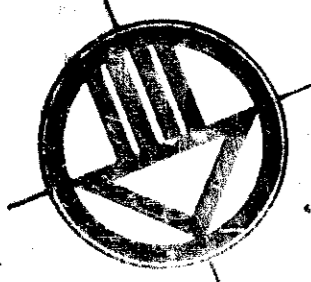
DRAINAGE
DIVIDES

LISBON
ELEMENTARY SCHOOL
HOWARD COUNTY, MARYLAND

DATE 11-11-75
SHEET NO. DD-2

SITE AREA ANALYSIS

TOTAL AREA OF SITE: 24.7 AC
 AREA TO BE PAVED OR ROOFED: 4.5 AC
 AREA TO BE REVEGETATED BY SEEDING OR SODDING: 11.5 AC
 AREA TO REMAIN UNDISTURBED: 8.9 AC



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

DATE: 3/8/75

DATE: 3-3-75

DATE: 5/2/75

DATE: 7-10-75

DATE: 11/8/75

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

Date: 11-8-74

DEVELOPER'S CERTIFICATION
 I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control and I also authorize periodic on-site inspection by the Howard County Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.

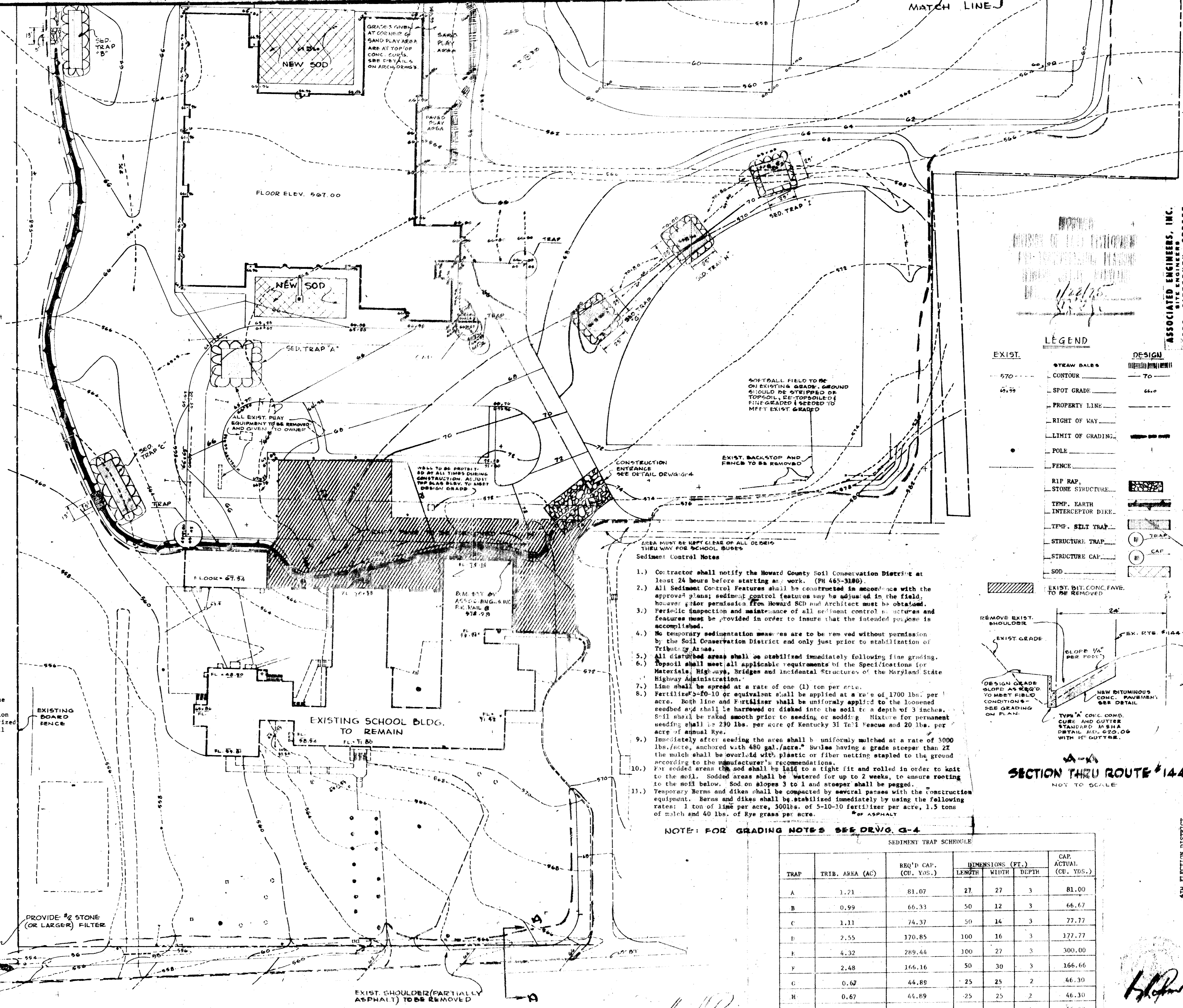
Reviewed for Howard Co. S.C.D. Name

and meets Technical Requirements
 Signature: [Signature] Date: 2-10-75

U.S. Soil Conservation Service

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

Approved: [Signature] Date: 2-11-75
 Howard S.C.D.



- Sediment Control Notes**
- Contractor shall notify the Howard County Soil Conservation District at least 24 hours before starting any work. (PH 465-3180)
 - All Sediment Control Features shall be constructed in accordance with the approved plans; sediment control features may be adjusted in the field, however prior permission from Howard SCD and Architect must be obtained.
 - Periodic inspection and maintenance of all sediment control structures and features must be provided in order to insure that the intended purpose is accomplished.
 - No temporary sedimentation measures are to be removed without permission by the Soil Conservation District and only just prior to stabilization of Tributary Areas.
 - All disturbed areas shall be stabilized immediately following final grading.
 - Topsoil shall meet all applicable requirements of the Specifications for Materials, Highways, Bridges and Incidental Structures, of the Maryland State Highway Administration.
 - Lime shall be spread at a rate of one (1) ton per acre.
 - Fertilizer 5-10-10 or equivalent shall be applied at a rate of 1700 lbs. per acre. Both lime and Fertilizer shall be uniformly applied to the loosened sodded and shall be harrowed or disked into the soil to a depth of 3 inches. Soil shall be raked smooth prior to seeding or sodding. Mixture for permanent seeding shall be 230 lbs. per acre of Kentucky 31 Tall Fescue and 20 lbs. per acre of annual Rye.
 - Immediately after seeding the area shall be uniformly mulched at a rate of 3000 lbs./acre, anchored with 460 gal./acre. Swales having a grade steeper than 2% the mulch shall be overlaid with plastic or fiber netting stapled to the ground according to the manufacturer's recommendations.
 - For sodded areas the sod shall be laid to a tight fit and rolled in order to knit to the soil. Sodded areas shall be watered for up to 2 weeks, to ensure rooting to the soil below. Sod on slopes 3 to 1 and steeper shall be pegged.
 - Temporary berms and dikes shall be compacted by several passes with the construction equipment. Berms and dikes shall be stabilized immediately by using the following rates: 1 ton of lime per acre, 500 lbs. of 5-10-10 fertilizer per acre, 1.5 tons of mulch and 40 lbs. of Rye grass per acre.

NOTE: FOR GRADING NOTES SEE DRWG. G-4

SEDIMENT TRAP SCHEDULE

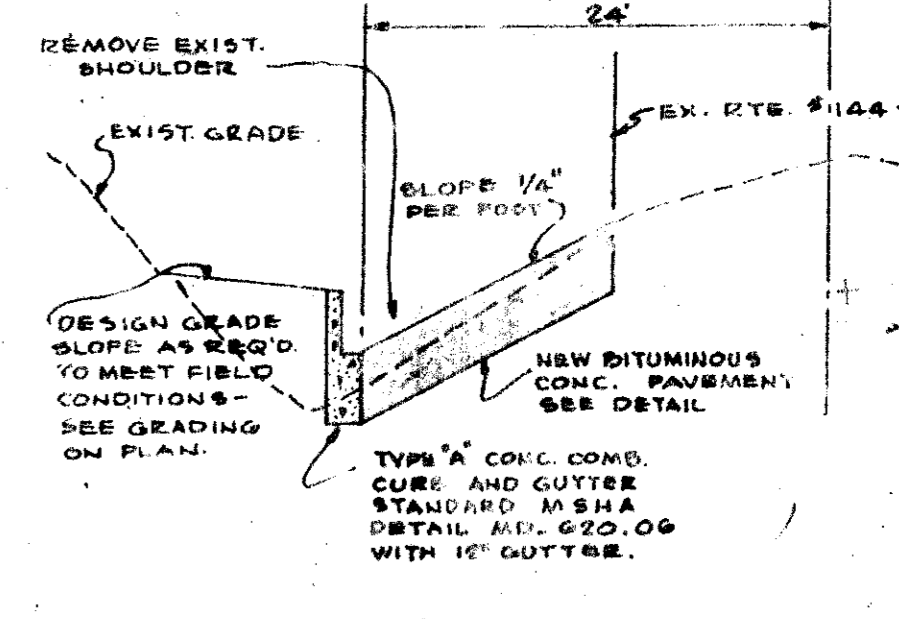
TRAP	TRIB. AREA (AC)	REQ'D CAP. (CU. YDS.)	DIMENSIONS (FT.)			CAP. ACTUAL (CU. YDS.)
			LENGTH	WIDTH	DEPTH	
A	1.21	81.07	27	27	3	81.00
B	0.99	66.33	50	12	3	66.67
C	1.11	74.37	50	14	3	77.77
D	2.55	170.85	100	16	3	177.77
E	4.32	289.44	100	27	3	300.00
F	2.48	166.16	50	30	3	166.66
G	0.62	44.89	25	25	2	46.30
H	0.67	44.89	25	25	2	46.30
J	0.67	44.89	25	25	2	46.30

REQUIRED CAPACITY BASED ON .67 CU. YDS. PER ACRE OF TRIBUTARY AREA

SCALE: 1" = 40'

LEGEND

EXIST. 570	STREAM DALES	DESIGN 70
57.75	CONTOUR	66.0
	SPOT GRADE	
	PROPERTY LINE	
	RIGHT OF WAY	
	LIMIT OF GRADING	
	POLE	
	FENCE	
	RIP RAP	
	STONE STRUCTURE	
	TEMP. EARTH INTERCEPTOR DIKE	
	TEMP. SILT TRAP	
	STRUCTURE TRAP	
	STRUCTURE CAP	
	SOD	
	EXIST. BIT. CONC. FAVE. TO BE REMOVED	

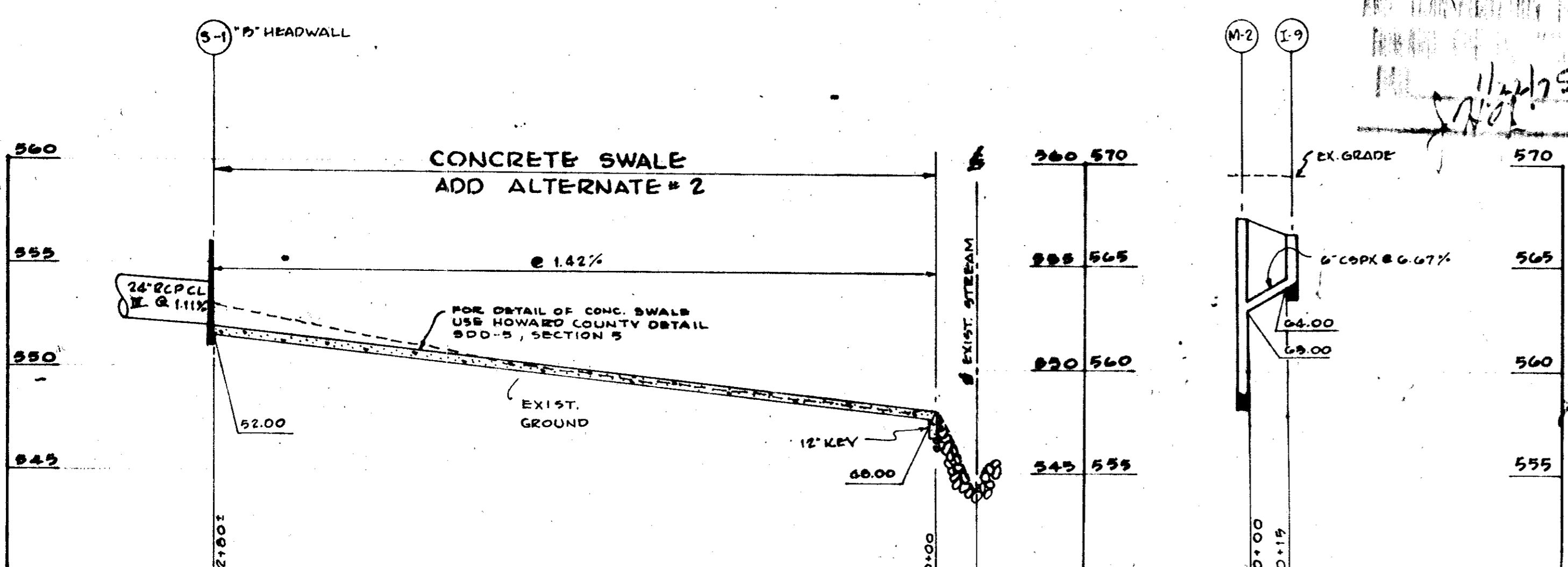
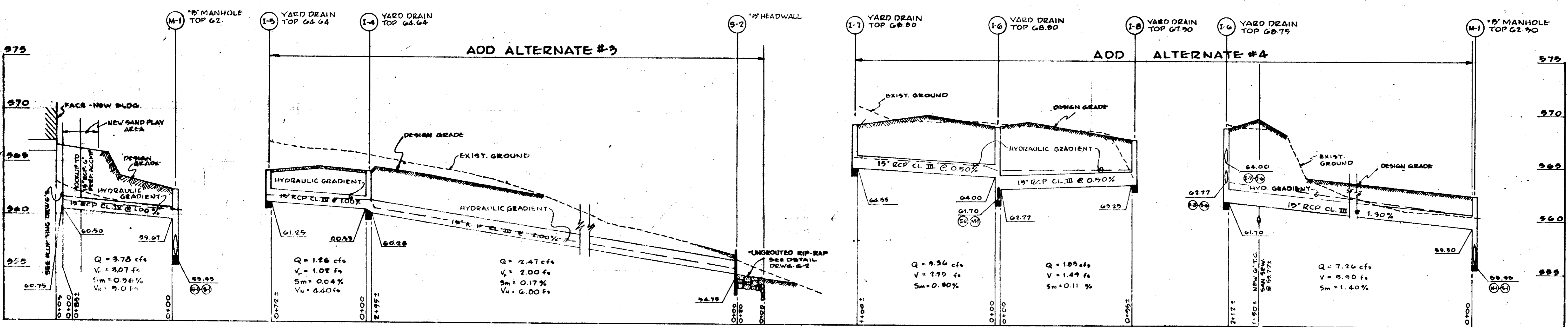
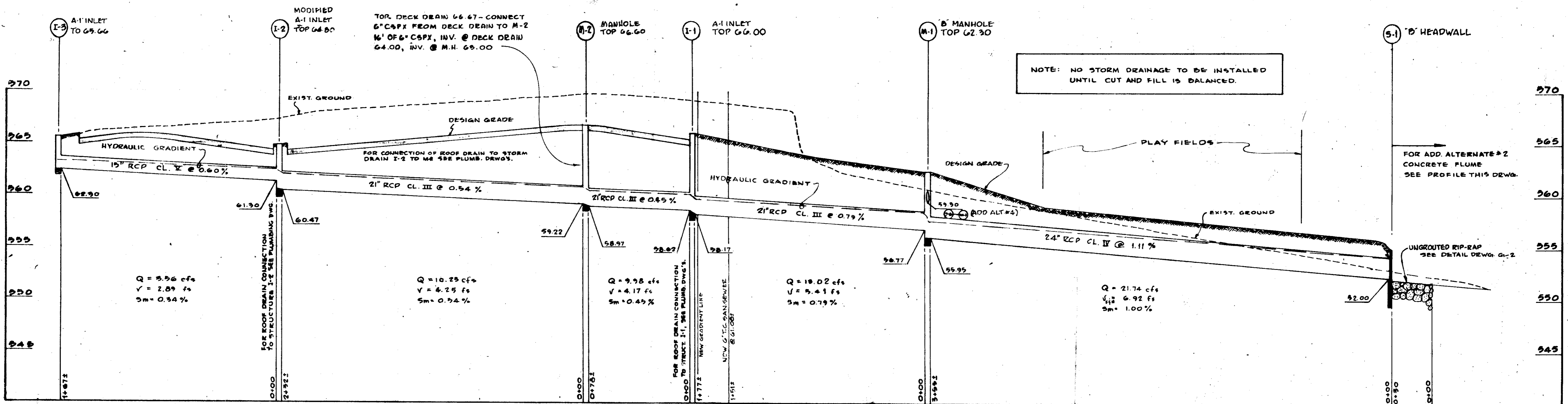


ASSOCIATED ENGINEERS, INC.
 6835 SILVER SPRING STREET
 SILVER SPRING, MARYLAND 20910
 TEL. 301-587-8111

APPENDUM NO. 2

GRADING PLAN
 SEDIMENT CONTROL

4TH ELECTION DISTRICT
 CLARKEVILLE, MD.



STORM SEWER PROFILES SCALE: HOR. 1"=40' VERT. 1"=5'

APPROVED FOR PRIVATE USE AND PRIVATE SWIMMING SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

APPROVED FOR PRIVATE USE AND PRIVATE SWIMMING SYSTEMS AND EXIST. TRAILSIDE OFFICES AND BLDGS. BEARING HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PRIVATE USE AND PRIVATE SWIMMING SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

APPROVED FOR PRIVATE USE AND PRIVATE SWIMMING SYSTEMS AND EXIST. TRAILSIDE OFFICES AND BLDGS. BEARING HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

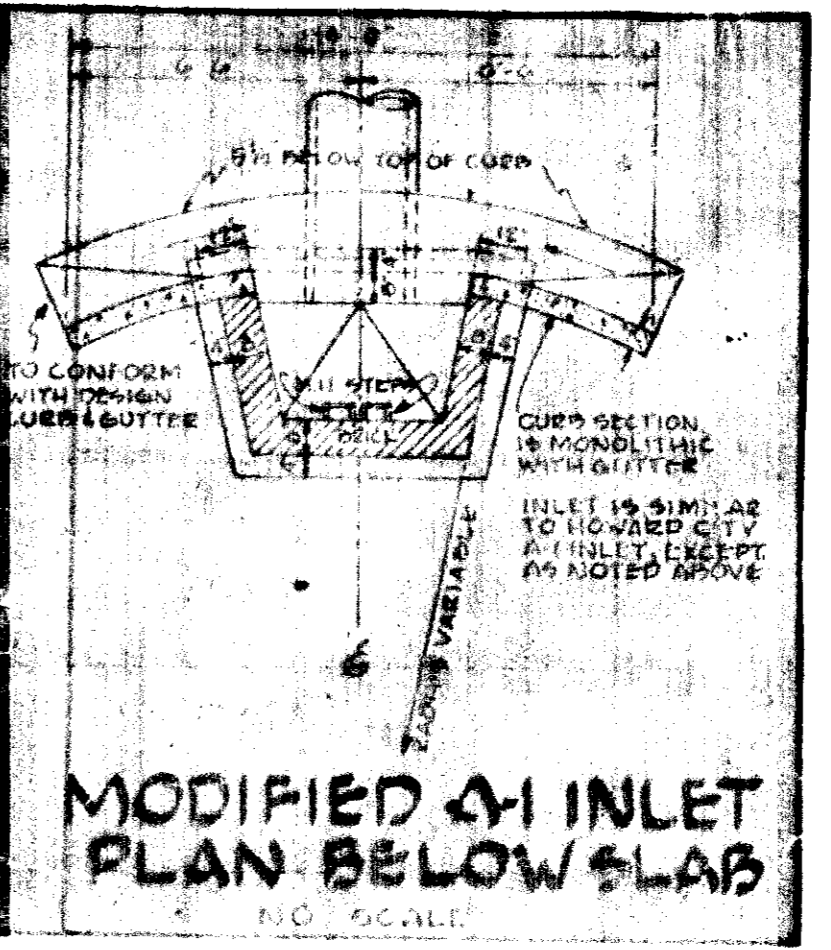
DATE 2/10/75

DATE 3-3-75

DATE 3/16/75

DATE 2/10/75

DATE 2/10/75



STRUCTURE TABLE				
NO.	TYPE	TOPELEV.	REMARKS	INV.**
S-1	8" HEADWALL	-	HOWARD CTY DETAIL SDD-21	59.00
S-2	"	"	"	54.75
M-1	15" MANHOLE	62.30	HOWARD CTY DETAIL SDD-9	55.95
M-2	8" MANHOLE	66.60	"	58.97
I-1	A-1 INLET	66.00	HOWARD CTY DETAIL SDD-29	58.97
I-2	MODIFIED A-1 INLET	64.80	SEE DETAIL, THIS DRWG.	60.47
I-3	A-1 INLET	65.66	HOWARD CTY DETAIL SDD-27	62.30
I-4	YARD DRAIN	64.25	AS DETAILED DRWG. G-2	60.25
I-5	"	64.25	"	61.25
I-6	5" INLET	62.80	HOWARD CTY DETAIL SDD-43	61.70
I-7	YARD DRAIN	66.80	AS DETAILED DRWG. G-2	66.50
I-8	"	67.50	"	64.50
I-9	"	66.67	"	64.00

* ADD ALTERNATE. SEE PROFILES ADD ALTERNATE NO.

** OUTFALL INVERT

ADD PREFIX OF 5 TO ALL INVERT & TOPELEV. SHOWN ON THIS SHEET

ASSOCIATED ENGINEERS, INC.
5855 SIKKENTH STREET
SILVER SPRING, MARYLAND 20910
TEL. 301-588-2811

MCLEOD, FERRARA, ENSIGN
REGISTERED PROFESSIONAL ENGINEERS
ARCHITECTS
STRUCTURAL ENGINEERS
MECHANICAL & ELECTRICAL ENGINEERS
HYDRAULIC ENGINEERS
SITE ENGINEERS

STORM SEWER PROFILES

LISBON
ELEMENTARY SCHOOL
HOWARD COUNTY, MARYLAND

G-5

7