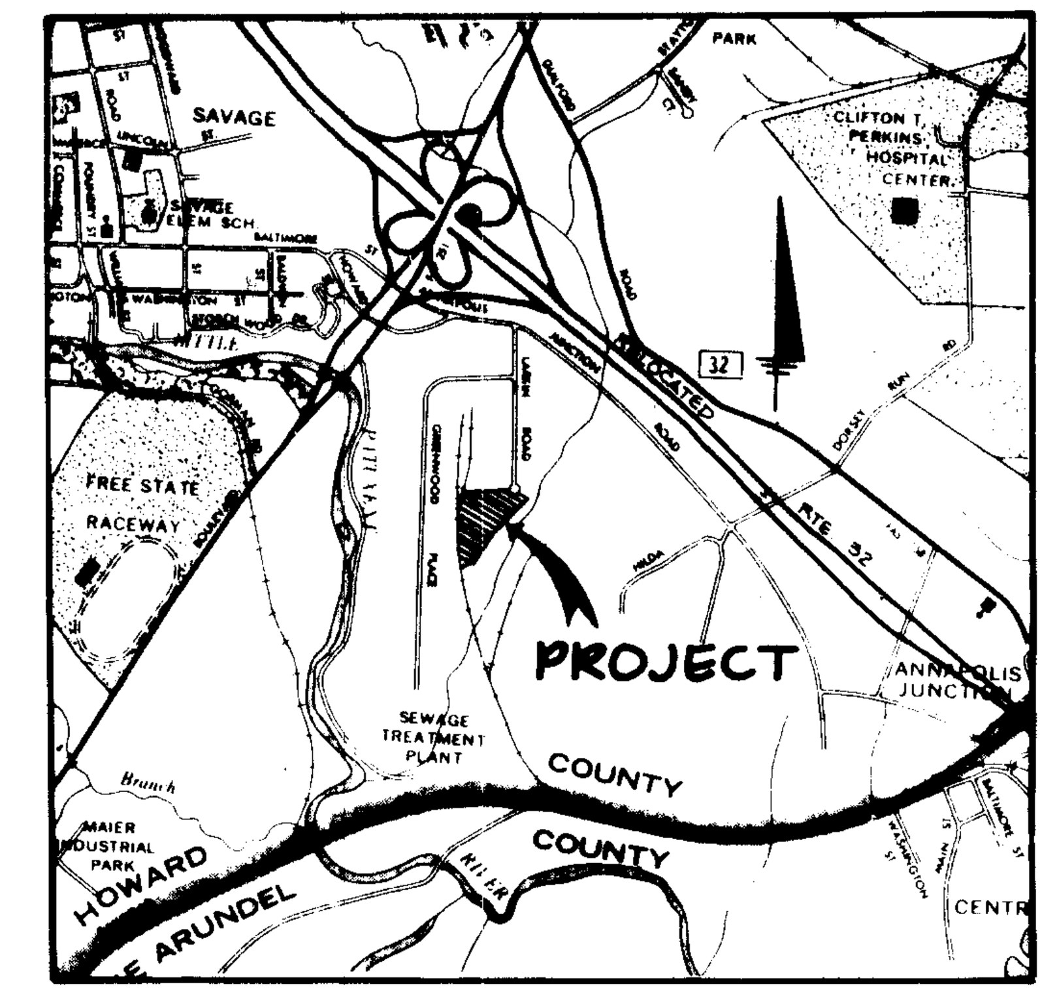
SHEET INDEX

No.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	DETAILS
4	PROFILES & DETAILS
5	SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP
6	SEDIMENT CONTROL NOTES & DETAILS
7	PLANTING PLAN

SITE DEVELOPMENT PLAN
PARCEL O
CORRIDOR INDUSTRIAL PARK
SECTION ONE
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES

1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
2. CORRUGATED STEEL PIPE SECTIONS WILL BE JOINED WITH A SINGLE OR TWO PIECE CORRUGATED BAND WITH A WATERTIGHT NEOPRENE GASKET. DIMPLE BAND CONNECTORS WILL NOT BE PERMITTED.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, i.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
4. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES , WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
6. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEASE FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:

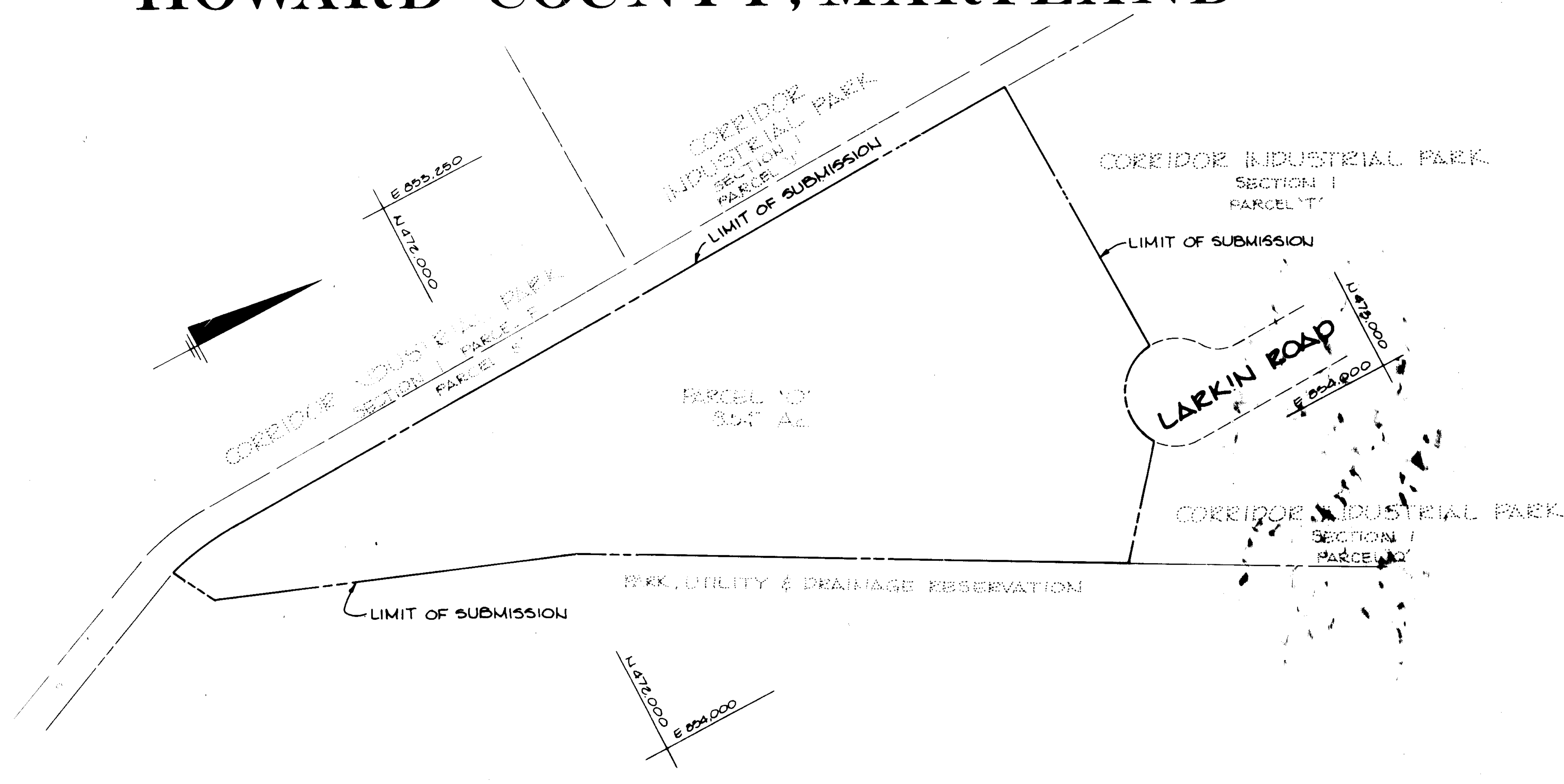
MISS UTILITY	559-0100
C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS AND ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY CONSTRUCTION/INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	792-7272

7. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
8. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
9. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
10. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
11. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
12. TOPO TAKEN FROM FIELD RUN SURVEY DATED JANUARY , 1985 BY TOM TYDINGS & ASSOC.
13. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
14. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4 IN VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
15. THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORM WATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORM WATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR GARDING AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
16. THE STORM WATER MANAGEMENT FOR THIS PROJECT WAS PROVIDED UNDER CONTRACT F-75-57

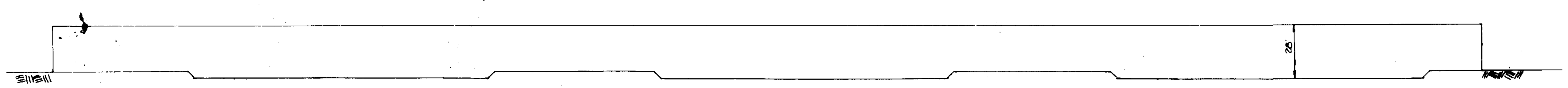
SITE TABULATION

Zoning	M-2
Total Area	8.547 Acres (372,307 sf)
Building Coverage	150,000 sf (40.3%)
Parking: Building = 150,000 sf gross area 15% Office = 22,500 sf + 150 sf/employee = 150 employees @ 7 spaces/10 employees	= 105 spaces
Warehouse Use = 5 tenants/25 employees per tenant = 125 employees @ 1 space/2 employees	= 63 spaces
Total Required Parking	170 spaces
Total Parking Provided (includes 7 handicapped spaces)	193 spaces
Open Space Required (20%)	74,462 sf
Open Space Provided (23.2%)	86,416 sf

Proposed Building will be a Single-Story Structure.



PLAN
SCALE: 1"=100'



NORTHWEST ELEVATION
SCALE: 1"=40'

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
PARCEL O	8750 LARKIN ROAD

SUBDIVISION NAME				SECT./AREA	LOT/PARCEL #
CORRIDOR INDUSTRIAL PARK				SECTION I	PARCEL O
PLAT # OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR.
PLAT BOOK 51 FOLIO 12	18	M-2	47	6	6064
WATER CODE			SEWER CODE		

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-28-85

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

COUNTY HEALTH OFFICER — DATE 7/17/85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — DATE 7-19-85

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 7-19-85

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE

CHIEF, BUREAU OF ENGINEERING — DATE 7-15-85

DATE	NO	REVISION

OWNER/DEVELOPER

CRYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK
SECTION I PARCEL O

AREA TAX MAP NO. 47 PARCEL 'O'
CORRIDOR INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
TITLE SHEET

THE RIEMER GROUP, INC.

The Riemer Group, Inc. A Land Planning, Design & Civil Engineering Firm
3105 Health Park Drive, Ellicott City, Maryland 21043 (301) 461-2690

7-9-85
DATE

ARTHUR E. MUEGGE

DESIGNED BY	J.D.
DRAWN BY	P.E.R.
PROJECT NO	15500
DATE	3/26/85
SCALE	AS SHOWN
DRAWING NO.	1 OF 7

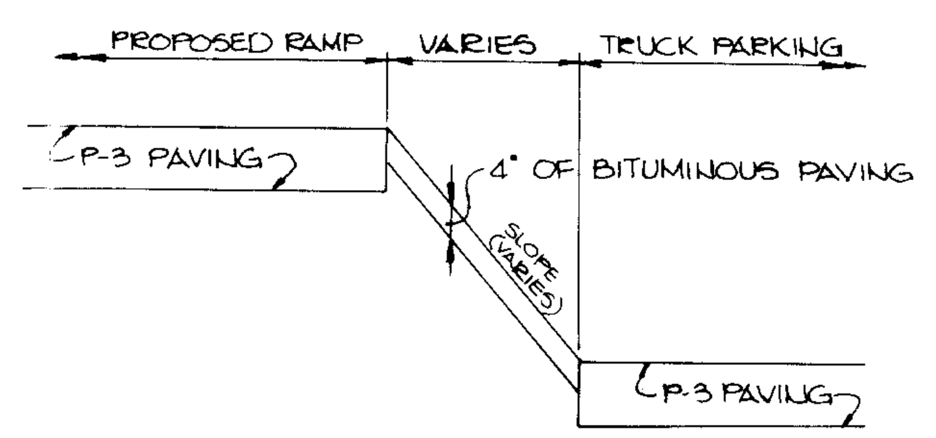
SDP-85-158

JULY 9, 1985

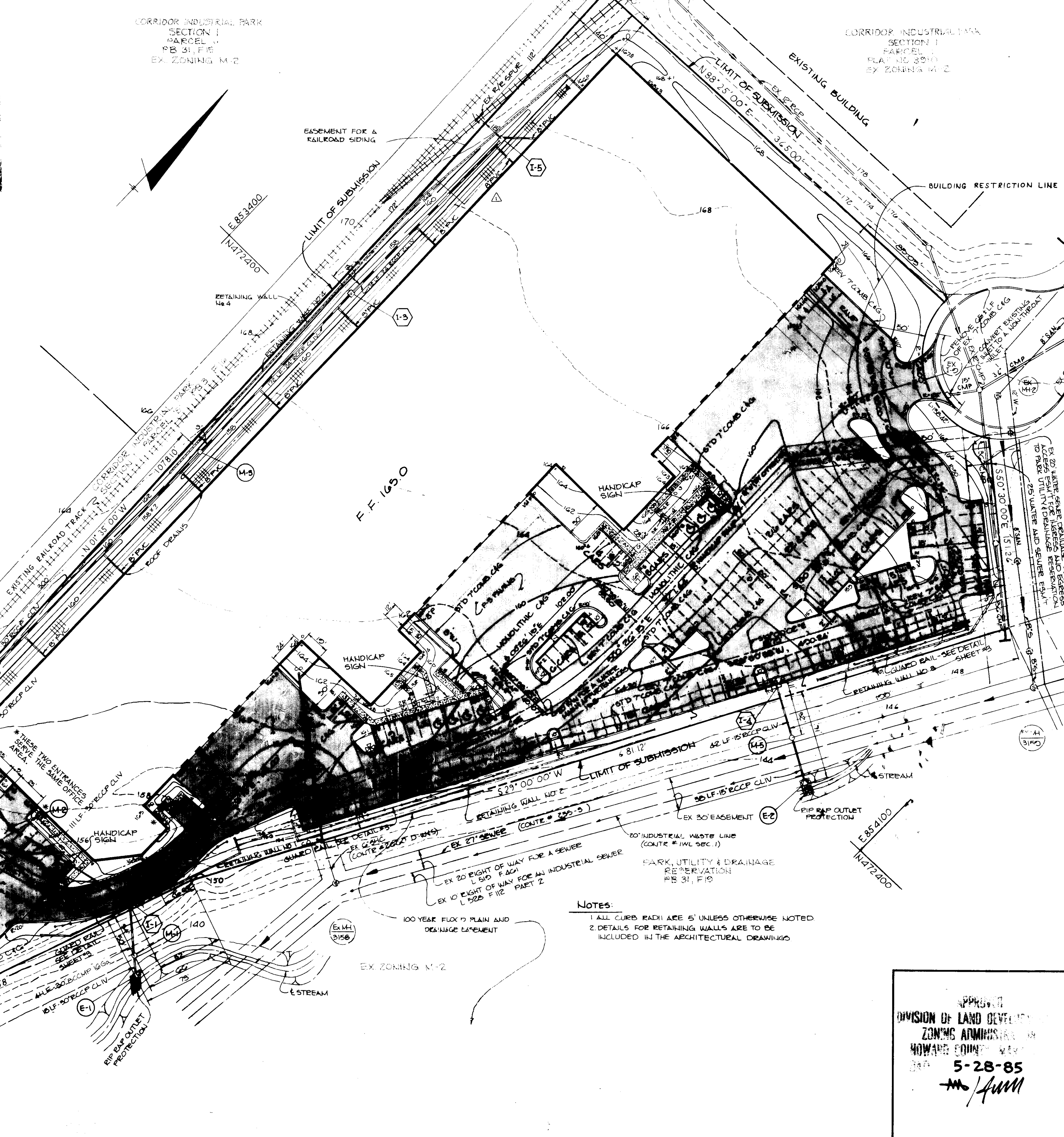
STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV/IN	INV/OUT	T.C. ELEV.	REMARKS
I-1	'S' COMB. INLET	SEE PLAN	145.60	144.44	158.6	Ho.Co.Std. SD 4.32
I-2	'K' INLET	SEE PLAN	147.84	147.64	**156.0	Ho.Co.Std. SD 4.12
I-3	'K' INLET	SEE PLAN	152.00	151.80	**156.0	Ho.Co.Std. SD 4.12
I-4	'A-10' INLET	SEE PLAN	----	147.65	154.6	Ho.Co.Std. SD 4.02
E-1	30" CONCRETE END SECTION	SEE PLAN	----	135.90	----	Ho.Co.Std. SD 5.51
E-2	15" CONCRETE END SECTION	SEE PLAN	----	136.50	----	Ho.Co.Std. SD 5.51
M-1	5'-0" DIAMETER MANHOLE	SEE PLAN	136.28	136.08	*141.8	Ho.Co.Std. G 5.13
M-2	5'-0" DIAMETER MANHOLE	SEE PLAN	146.98	146.78	*160.36	Ho.Co.Std. G 5.13
M-3	5'-0" DIAMETER MANHOLE	SEE PLAN	150.68	150.18	*158.0	Ho.Co.Std. G 5.13
I-5	'K' INLET	SEE PLAN	—	152.62	**157.65	Ho.Co.Std. SD-4.12
M-5	4'-0" DIAMETER MANHOLE	SEE PLAN	139.46	139.21	*145.5	Ho.Co.Std. G 5.12

* ELEVATIONS AT RIM OR TOP OF GRATE.
** ELEVATIONS AT SWALE INVERT ⚠



SECTION A-A
NO SCALE



NOTES:
1. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
2. DETAILS FOR RETAINING WALLS ARE TO BE INCLUDED IN THE ARCHITECTURAL DRAWINGS.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.
Joyce M. Boyd M.D. — COUNTY HEALTH OFFICER — 7/10/85 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.
Thomas G. Harris Jr. — PLANNING DIRECTOR — 7-19-85 DATE
John W. Musselman — CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 7-19-85 DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
George F. Nunney — DIRECTOR — 7-16-85 DATE
CHIEF, BUREAU OF ENGINEERING — 7-15-85 DATE

DATE	NO	REVISION
9-18-85	⚠ 1	REVISED GRADING ON WEST SIDE OF BUILDING AND THE STRUCTURE SCHEDULE

OWNER / DEVELOPER
CRYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK SECTION 1 PARCEL O

AREA
TAX MAP No. 47
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
SITE DEVELOPMENT PLAN

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043

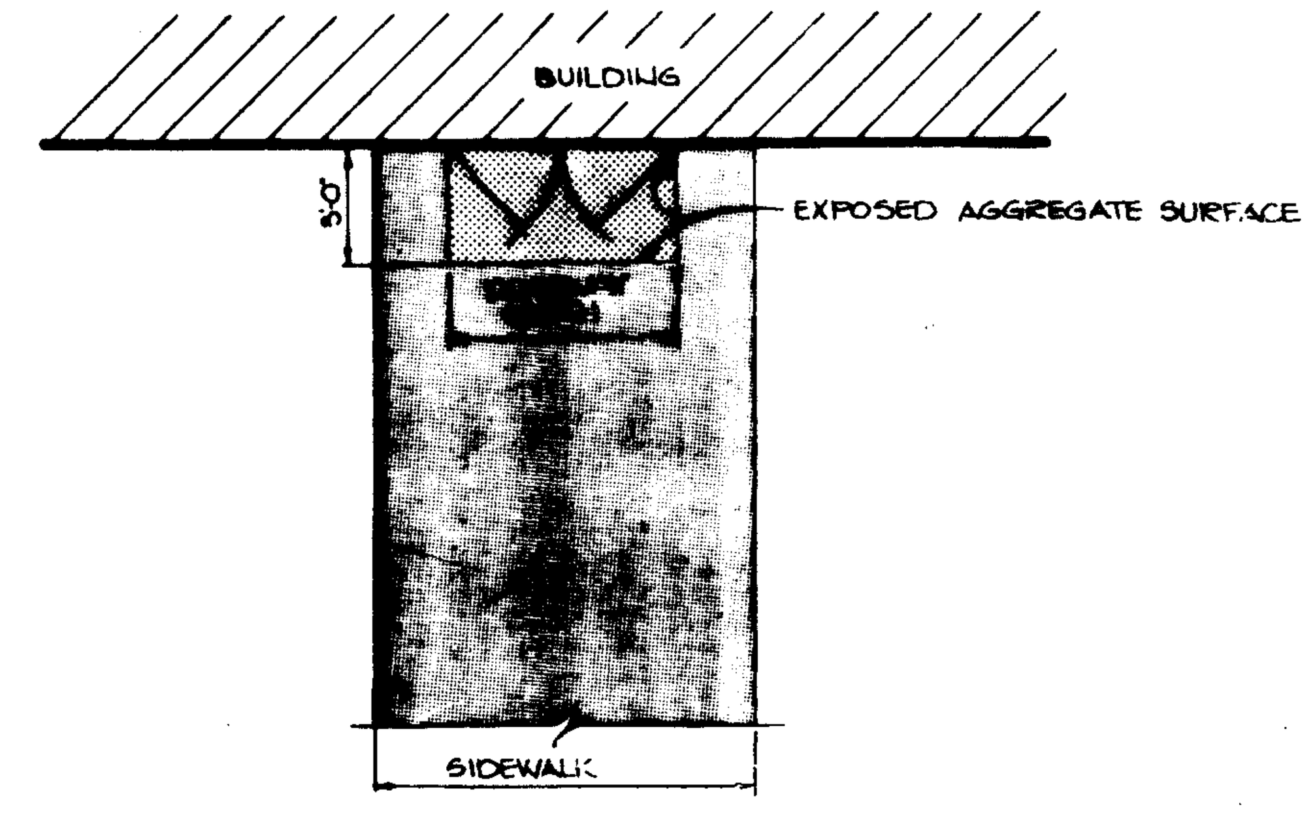
APPROVED DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION HOWARD COUNTY, MARYLAND
DATE 5-28-85

7-9-85 DATE
Arthur E. Muegge
ARTHUR E. MUEGGE 8707

DESIGNED BY	L.J.D.
DRAWN BY	DAK
PROJECT NO	15900
DATE	3/26/85
SCALE	1" = 40'
DRAWING NO.	2 OF 7

SDP-85-158 JULY 9, 1985

MARYLAND BLUEPRINT CO. INC.



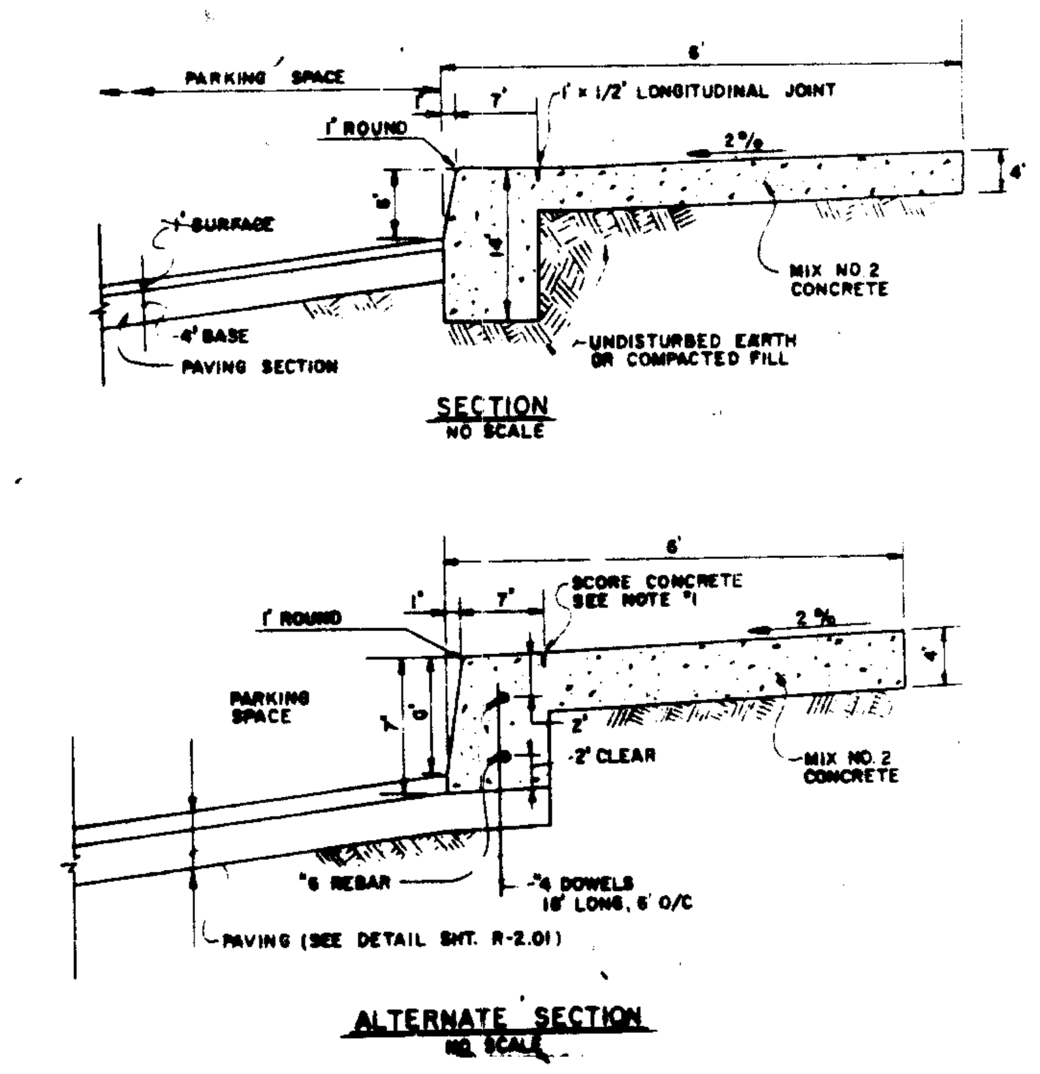
DETAIL BUILDING ENTRANCE TEXTURAL INDENTIFICATION FOR THE BLIND

NO SCALE

NOTE: TO BE USED FOR ALL BUILDING ENTRANCES EXCEPT THOSE THAT ARE EXCLUSIVELY FIRE EXITS

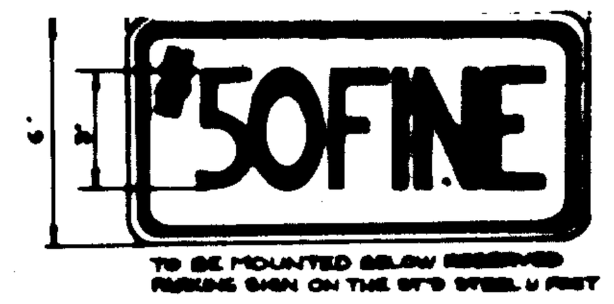
NOTES

1. LONGITUDINAL JOINT BETWEEN SIDEWALK AND CURB SHALL BE CONTINUOUS AND TO A DEPTH OF 1/4 THE SIDEWALK THICKNESS OR 1" MAX. LATITUDINAL JOINTS SHALL RUN FROM BACK EDGE OF SIDEWALK, CONTINUOUS TO THE BOTTOM FACE OF CURB TO A DEPTH OF 1/4" AND SPACED 5' APART.
2. PROVIDE 1/2" EXPANSION JOINTS AT 15' INTERVALS. IN LATITUDINAL JOINTS TO FULL CROSS-SECTION.

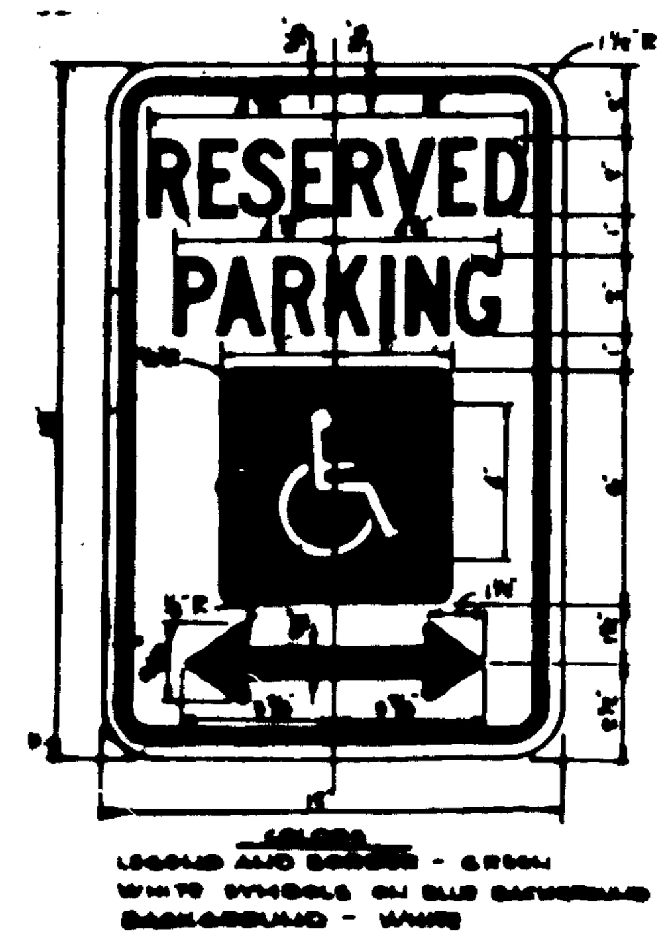


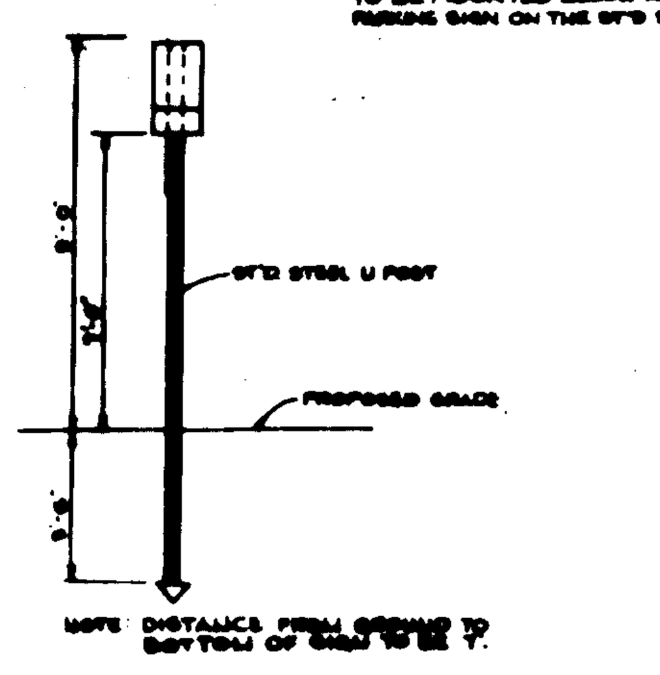
MONOLITHIC CURB & SIDEWALK

NO SCALE



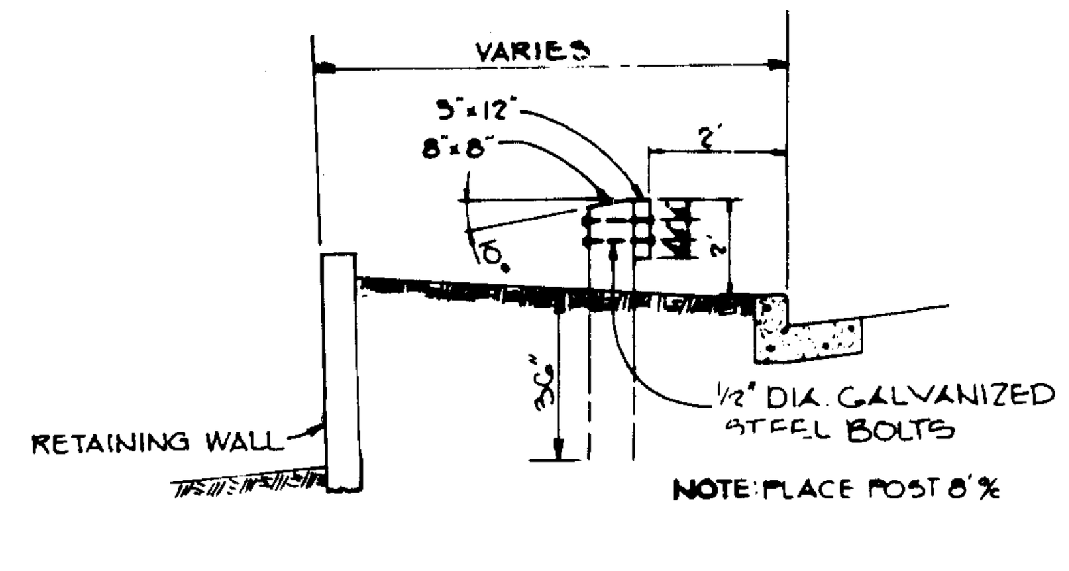
TO BE MOUNTED BELOW RESERVED PARKING SIGN ON THE STD STEEL U POST

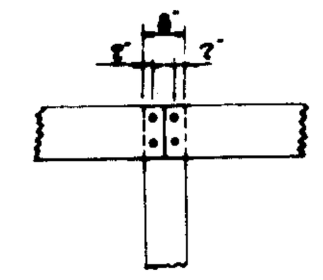




HANDICAP SIGN

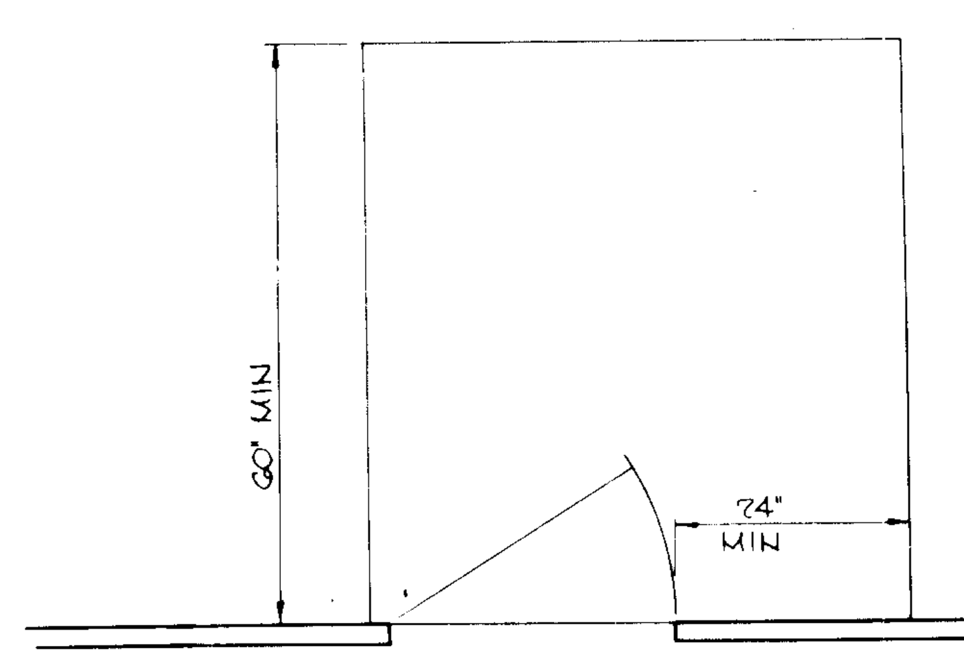
NO SCALE





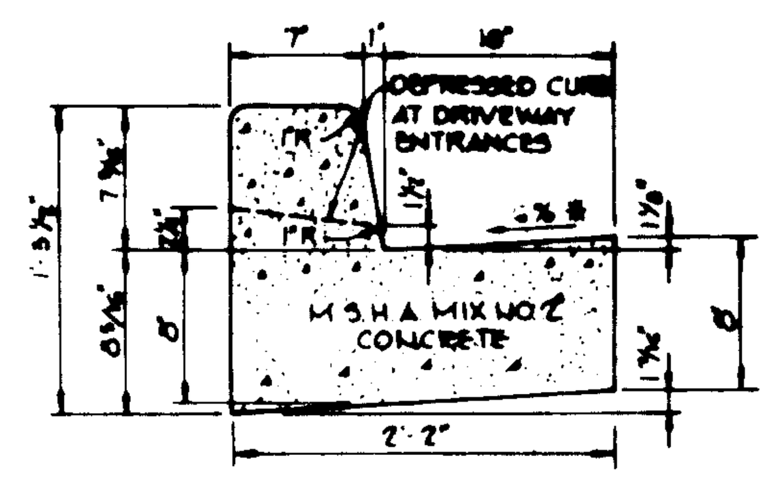
GUARDRAIL DETAIL

NO SCALE



TYPICAL ENTRANCE DETAIL

NO SCALE

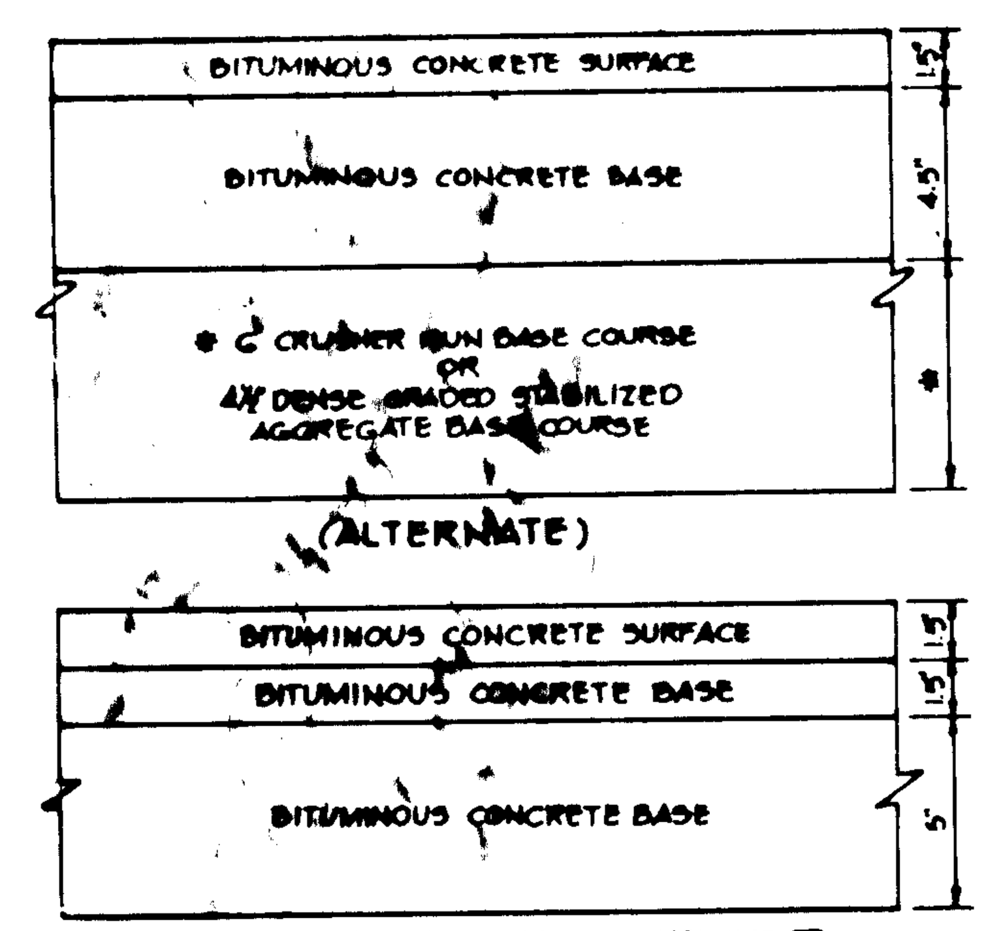


HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-8.01)

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT.

STANDARD 7" COMBINATION CURB AND GUTTER

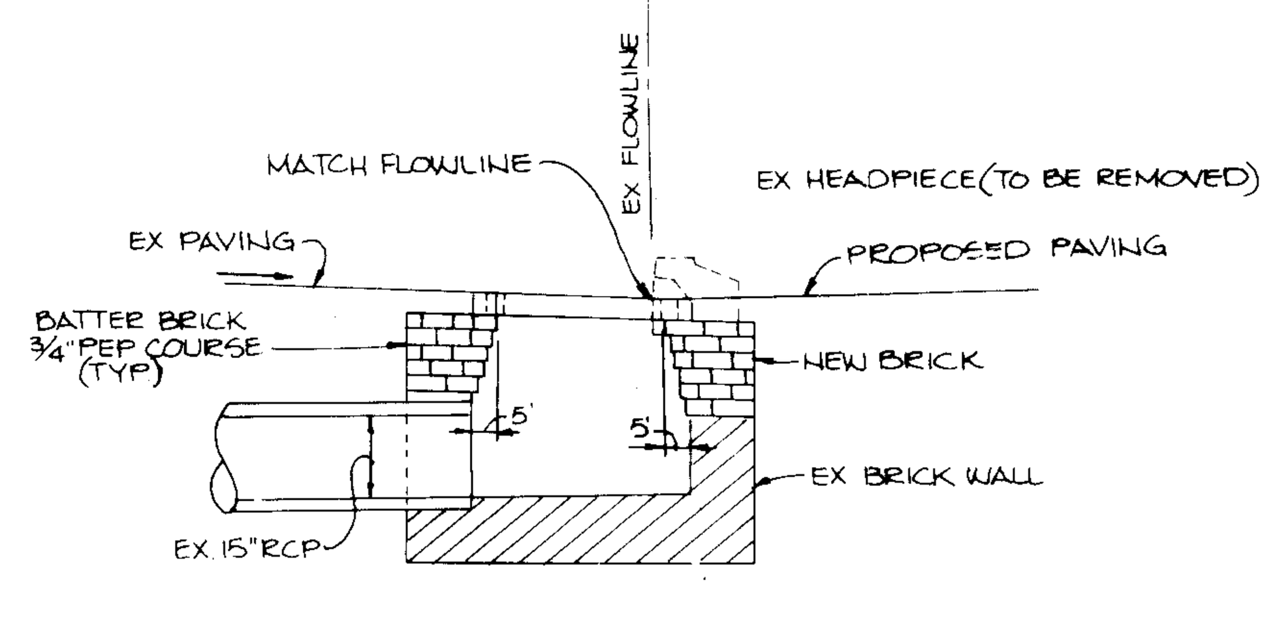
No Scale



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

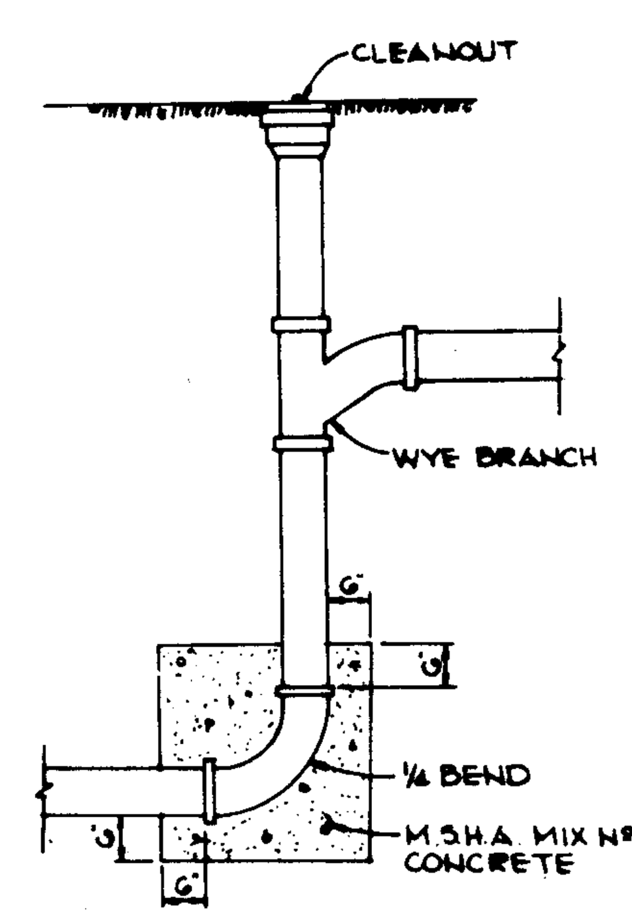
8" P-3 PAVING

NO SCALE



MODIFICATION DETAIL FOR EXISTING I-5

NO SCALE



DROP CLEANOUT DETAIL

NO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-28-85

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

COUNTY HEALTH OFFICER — DATE 7/17/85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — DATE 7-19-85

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 7-19-85

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 7-16-85

CHIEF, BUREAU OF ENGINEERING — DATE 7-15-85

DATE	NO	REVISION

OWNER / DEVELOPER

CRYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK SECTION 1 PARCEL O

AREA TAX MAP #47 PARCEL 'O'
CORRIDOR INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461 2690

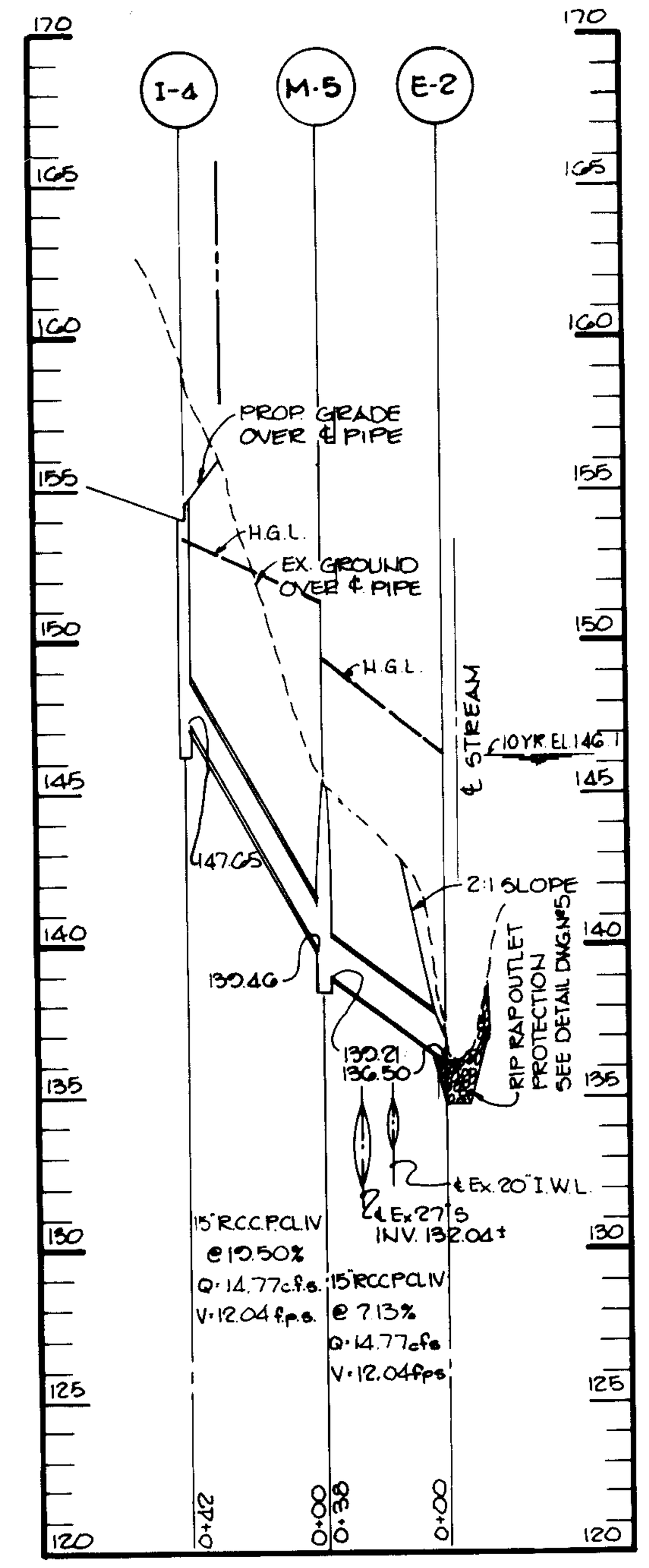
DATE

ARTHUR E. MUEGGE #8707

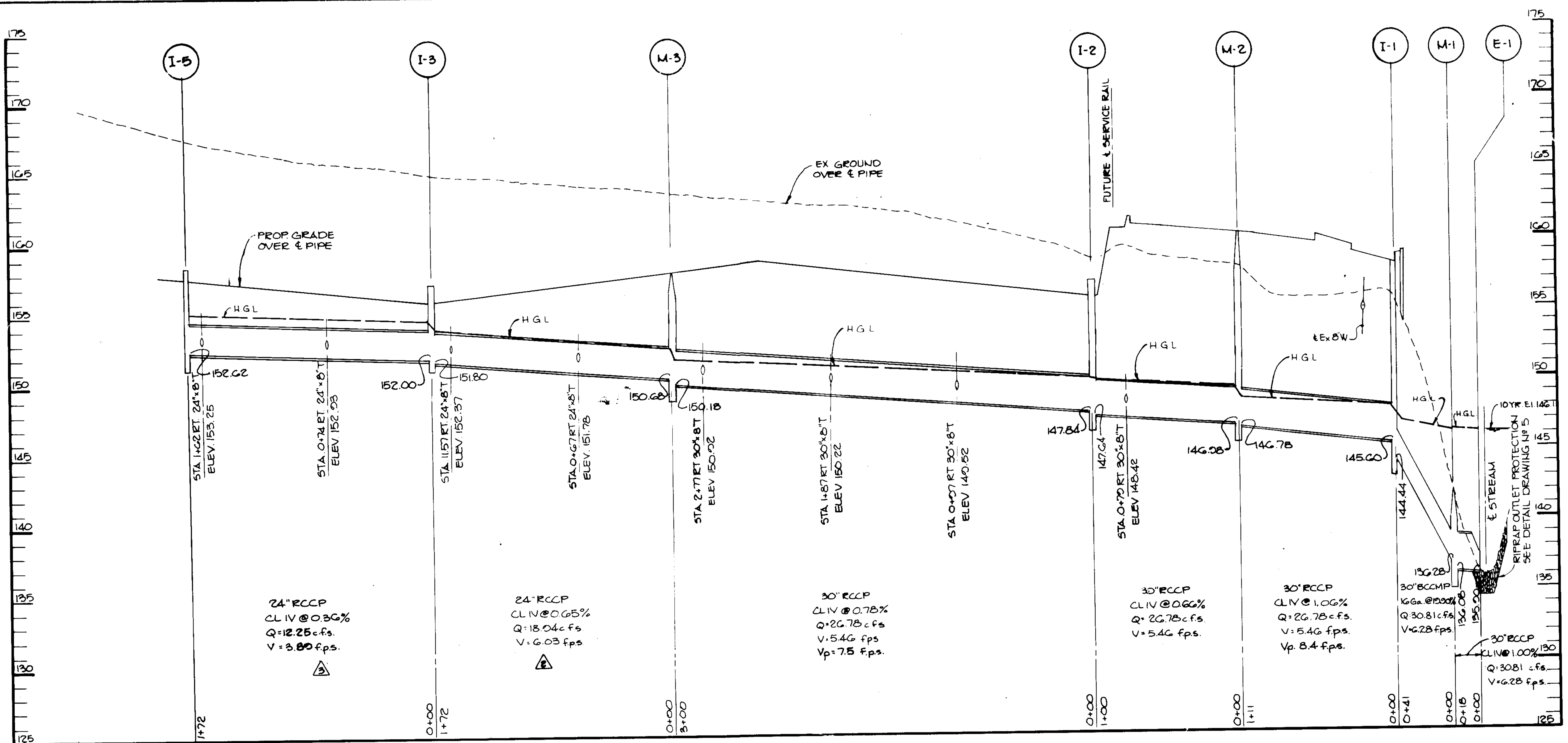
DESIGNED BY	L.J.D.
DRAWN BY	DAM
PROJECT NO	015900
DATE	3/20/85
SCALE	AS SHOWN
DRAWING NO.	3 OF 7

SDP-85-158

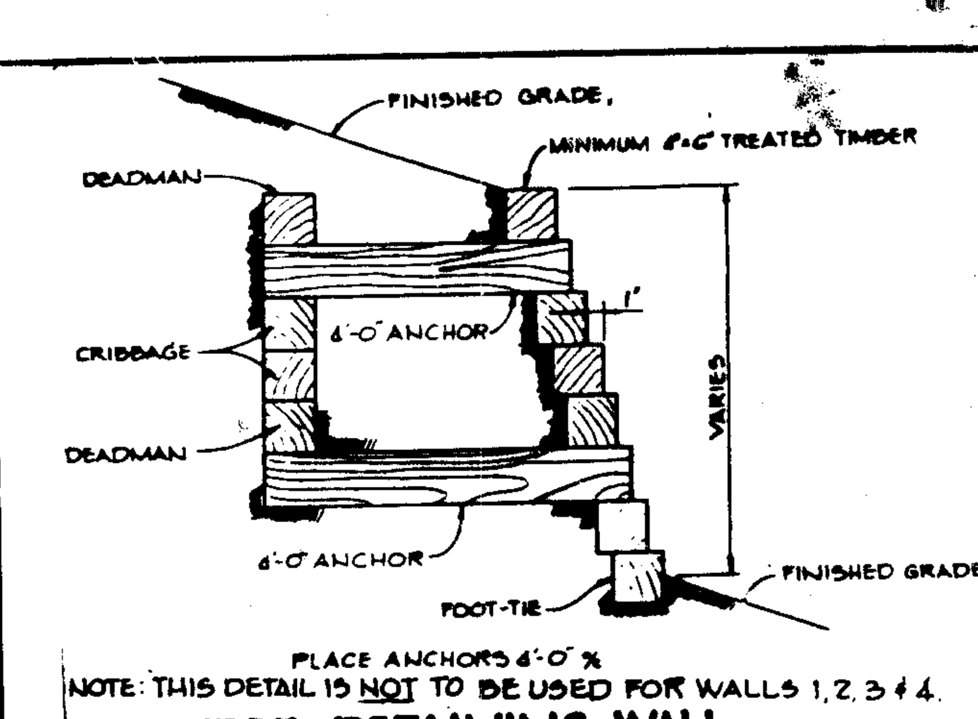
JULY 9, 1985



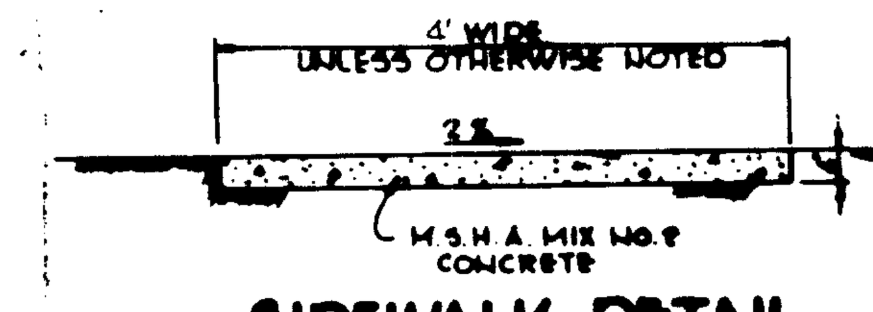
STORM DRAIN PROFILE



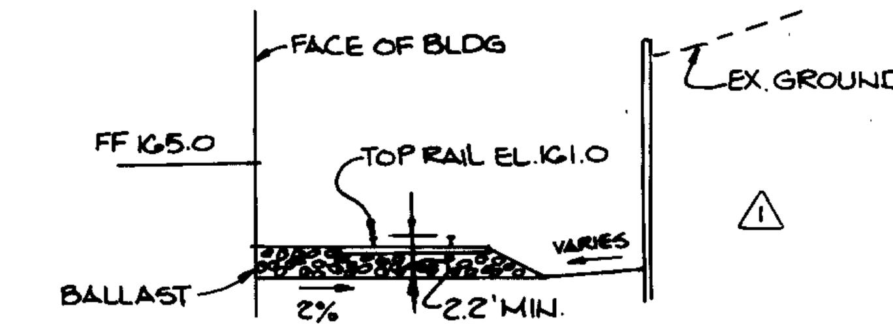
STORM DRAIN PROFILE



TIMBER RETAINING WALL
No Scale



SIDEWALK DETAIL
No Scale



TYPICAL SECTION THROUGH R/R SPUR

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
COUNTY HEALTH OFFICER	7/12/85 DATE
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
PLANNING DIRECTOR	7-17-85 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION	7-19-85 DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
DIRECTOR	DATE
CHIEF, BUREAU OF ENGINEERING	7-15-85 DATE

DATE	NO	REVISION
5-20-85	2	REMOVED PARTIAL VELOCITY
5-16-85	1	REVISED STORM DRAIN PROFILES FROM M-1 TO I-5, RETAINING WALL #4 & TYPICAL SECTION THROUGH R/R SPUR

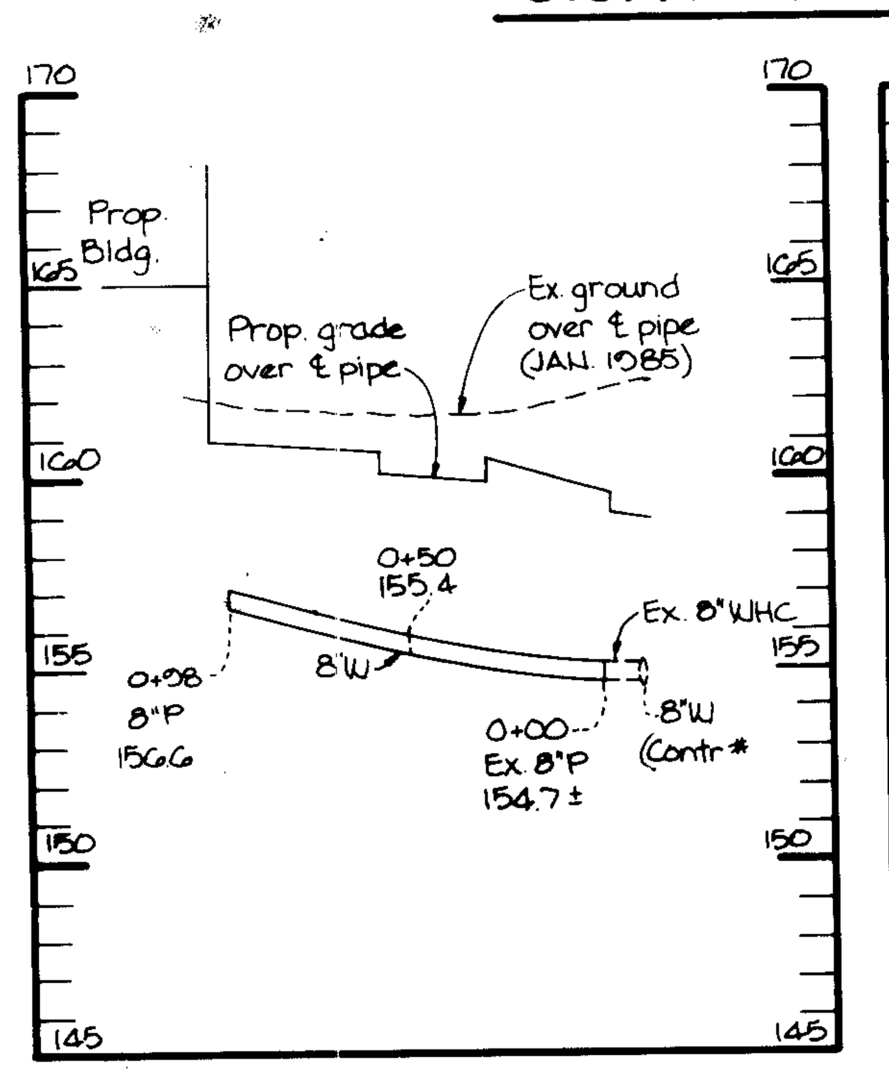
OWNER/DEVELOPER
CEYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK SECTION I PARCEL O

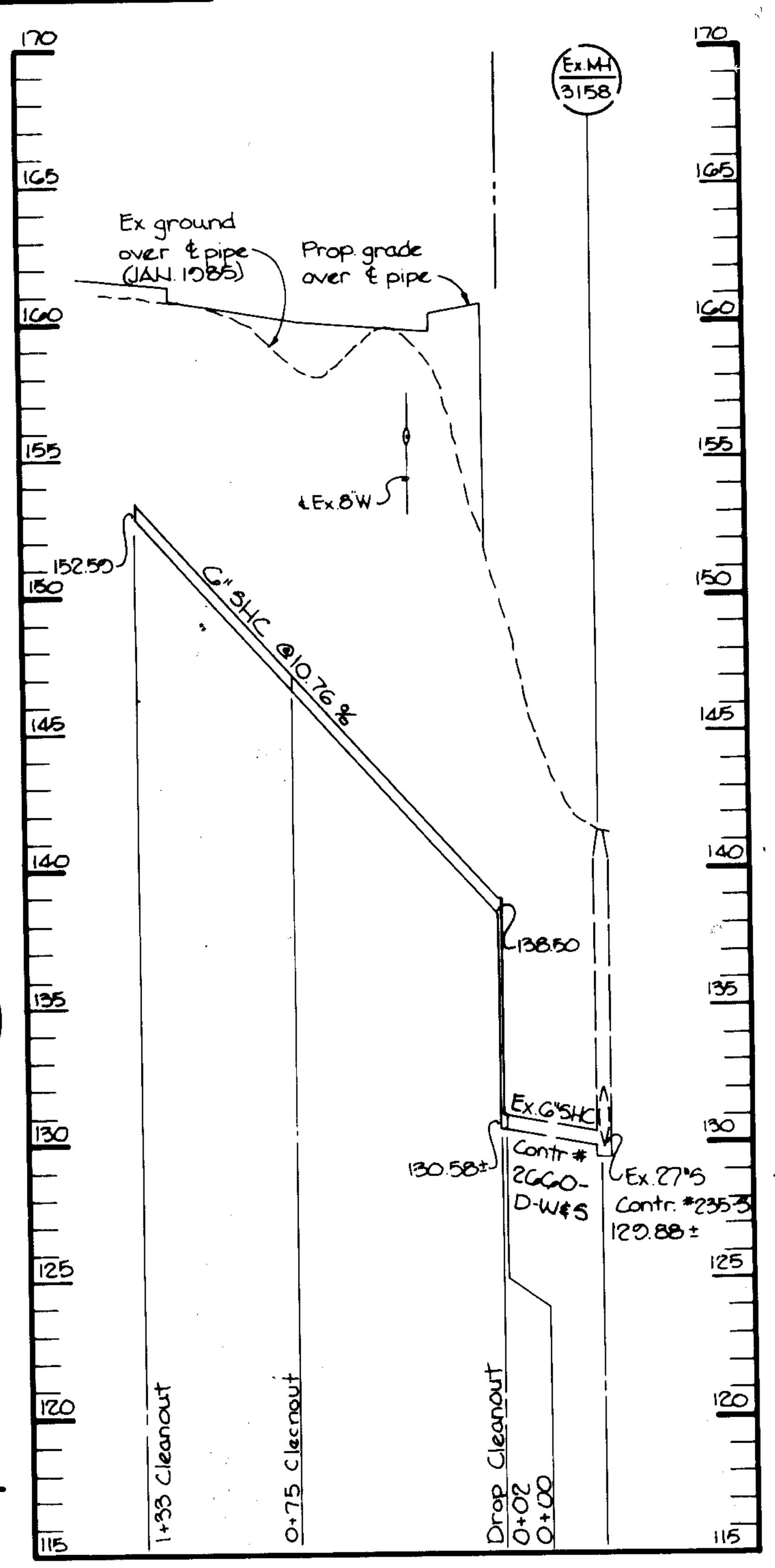
AREA
TAX MAP NO. 47
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
PROFILES & DETAILS

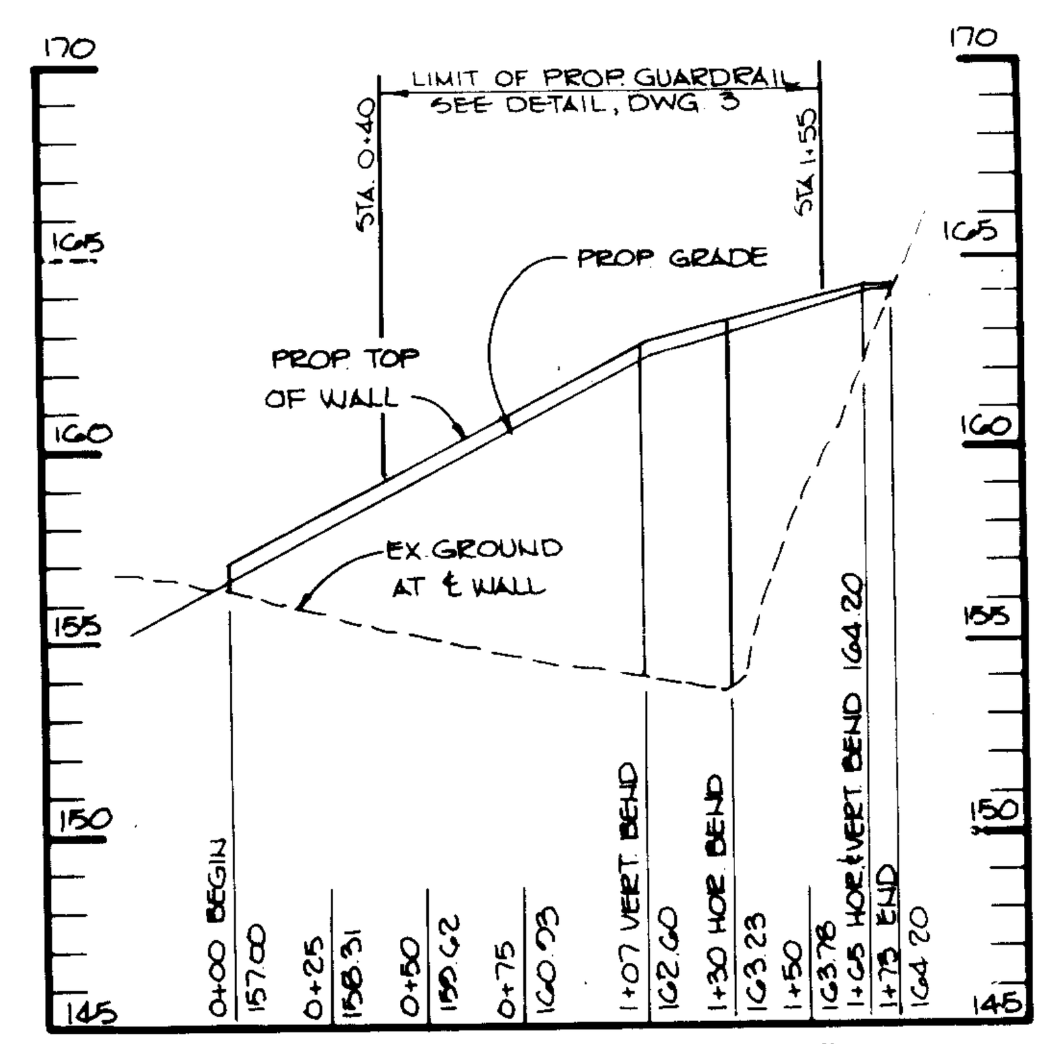
THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 4[illegible]-2690



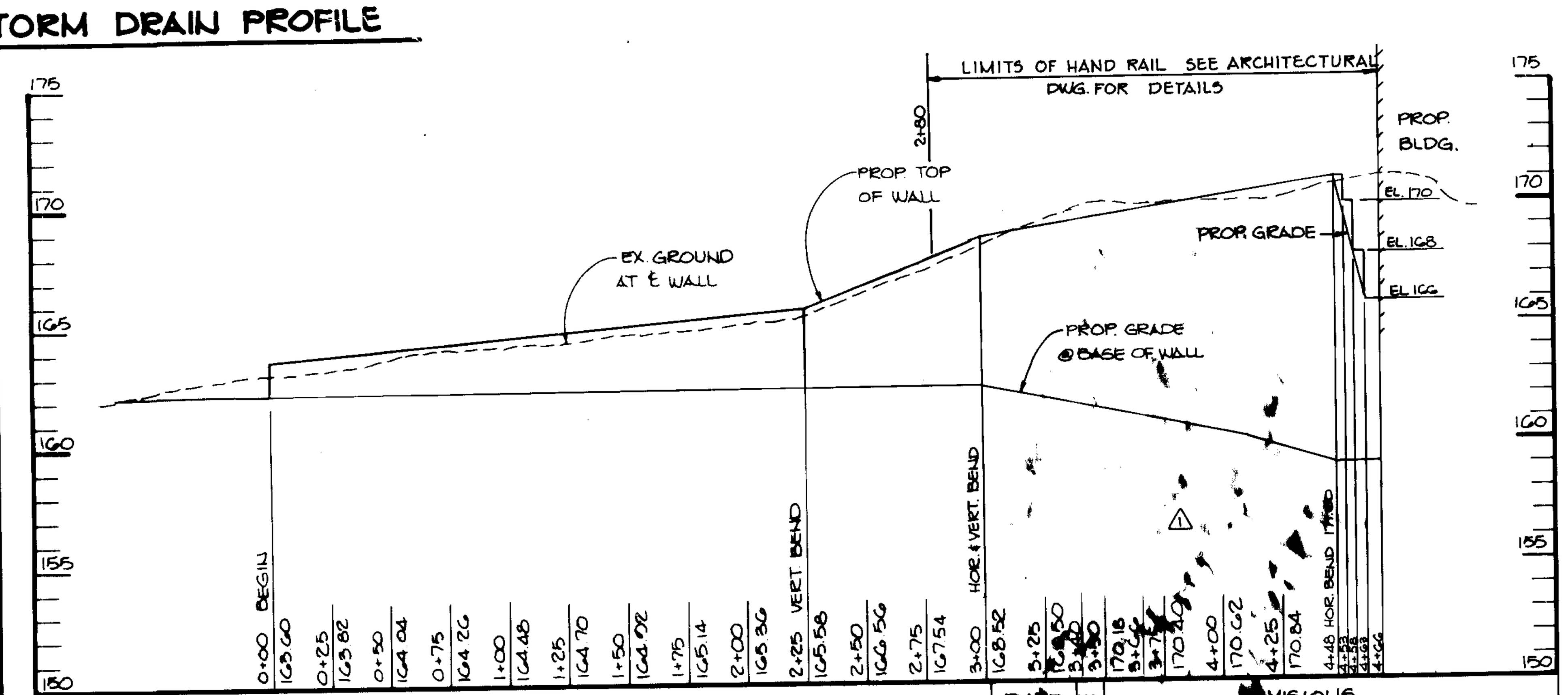
WATER PROFILE



SEWER PROFILE



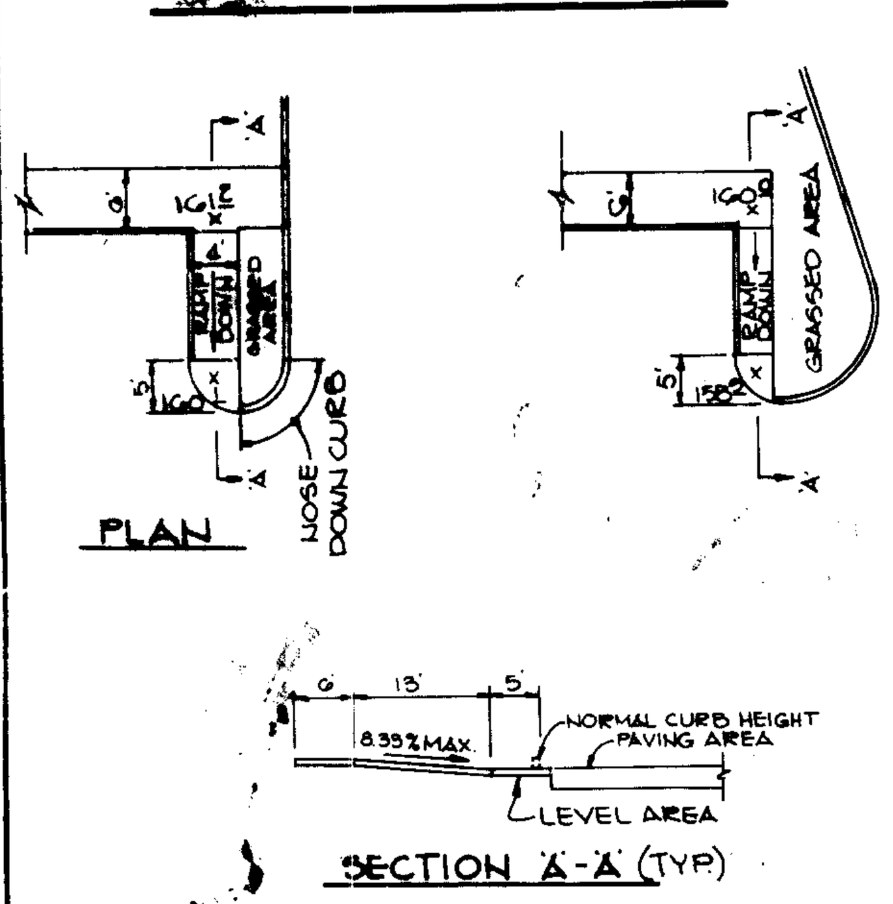
RETAINING WALL #3



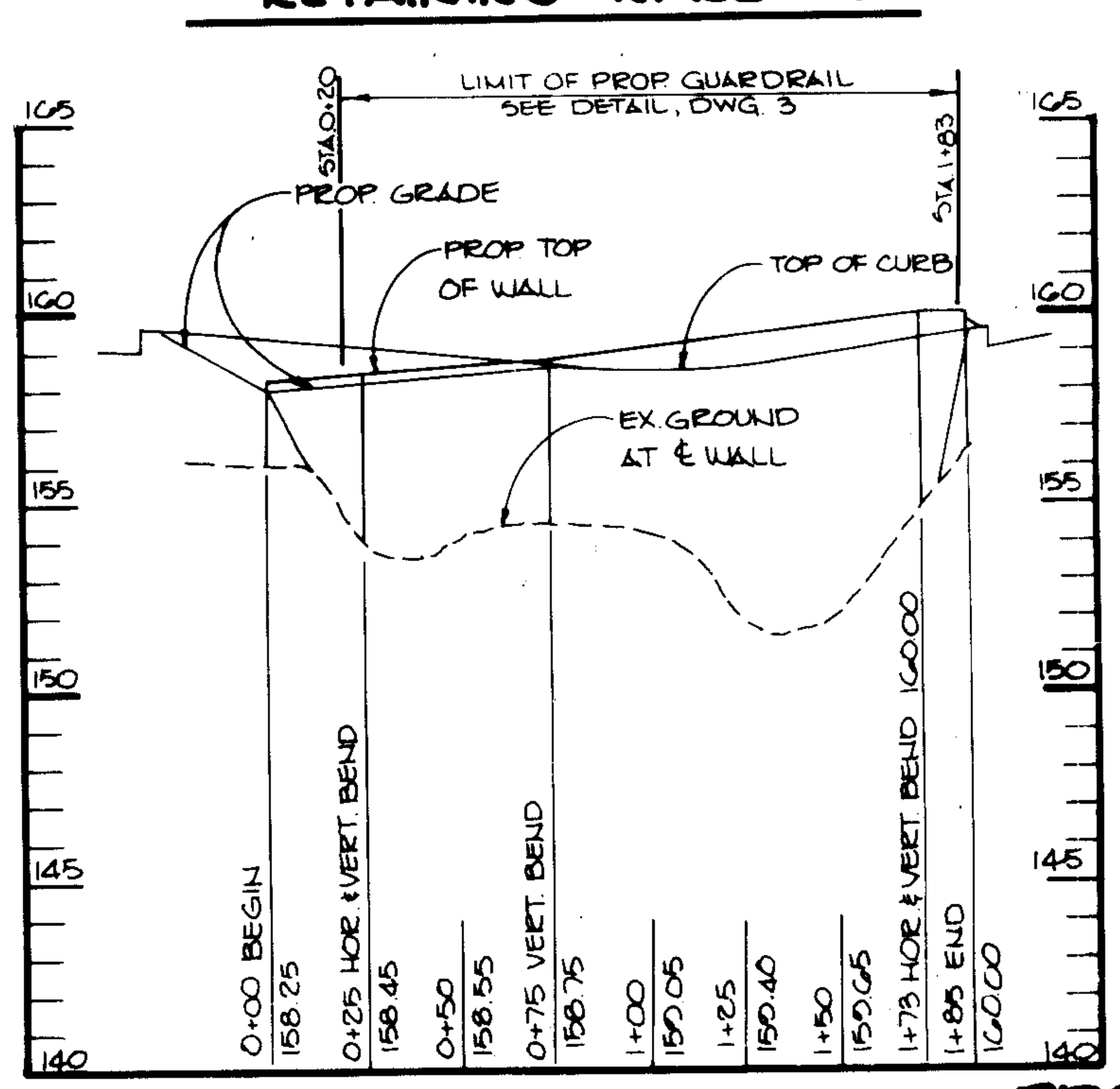
NOTE: FOR DETAILS OF RETAINING WALLS SEE ARCHITECTURAL DRAWINGS

RETAINING WALL #4

DATE	NO.	REVISIONS
6-25-85	3	REVISED Q # BETWEEN I-5 AND I-3

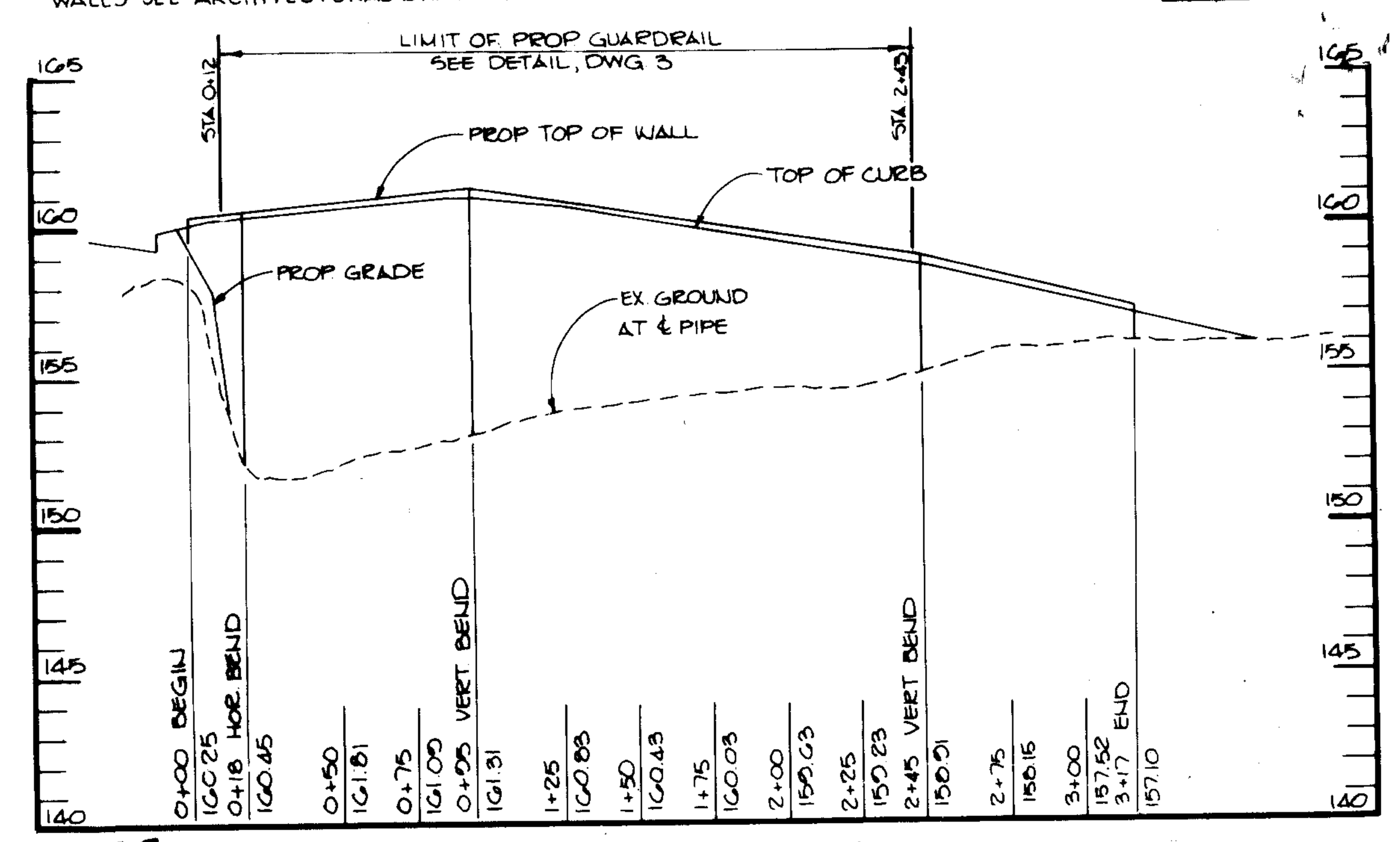


HANDICAP RAMP DETAIL
NO SCALE



RETAINING WALL #1

PROFILES
SCALE: HORIZ 1"=50' VERT 1"=5'



RETAINING WALL #2

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-28-85

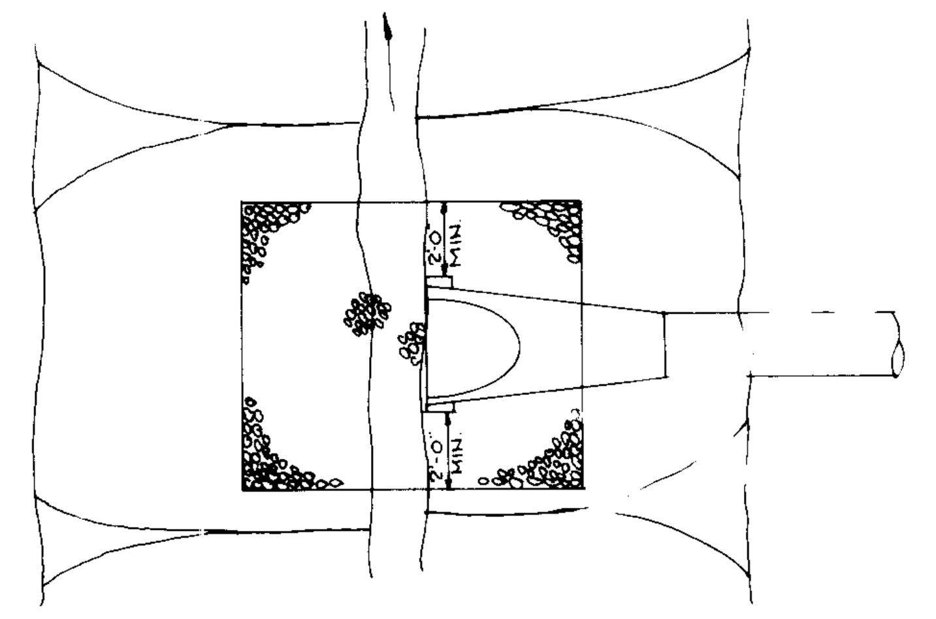
7-9-85
DATE
ARTHUR E. MUEGGE #8707

DESIGNED BY	L.J.D.
DRAWN BY	DAM
PROJECT NO	015500
DATE	3-26-85
SCALE	AS SHOWN
DRAWING NO.	4 OF 7

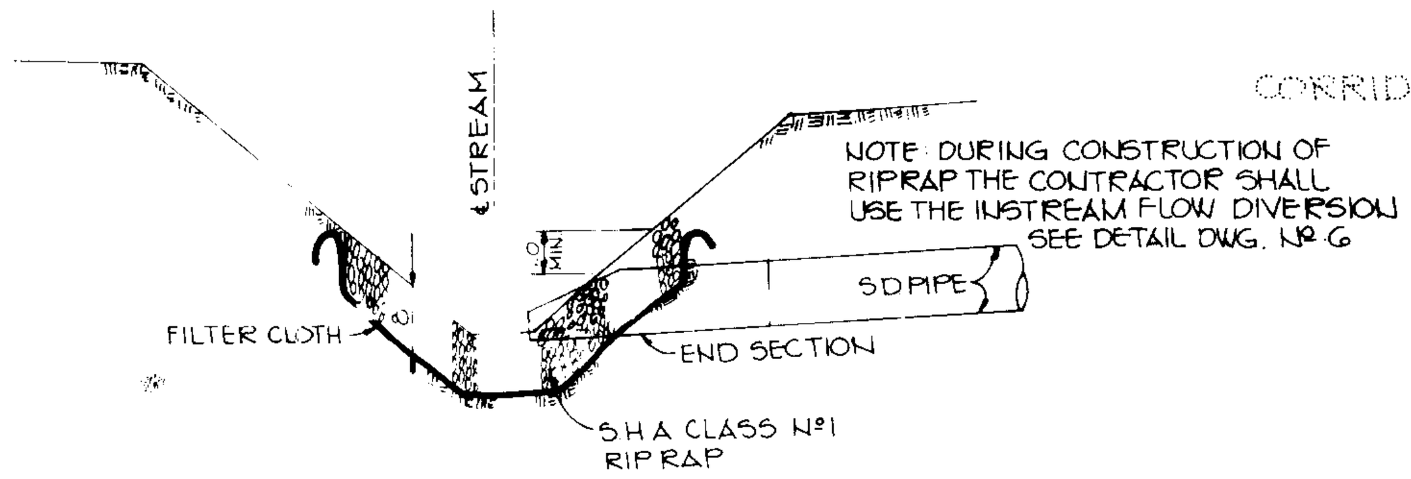
SDP-85-158

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT AND A WRA PERMIT
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE.
3. OBTAIN DNR PERMIT FOR STORM DRAINS AND CONSTRUCT STORM DRAIN FROM I-4 TO E-2
4. INSTALL TRAP NO. 1, TRAP NO. 2 AND EARTH DIKES.
5. ROUGH GRADE SITE, REBUILDING EARTH DIKES TO PROVIDE POSITIVE DRAINAGE TO TRAP NO. 1 OR TRAP NO. 2.
6. INSTALL REMAINING UTILITIES, STORM DRAINS AND STORM FILTER INLET PROTECTION.
7. FINISH REMAINING CONSTRUCTION EXCEPT IN AREA OF TRAP NO. 1 AND TRAP NO. 2.
8. STABILIZE ALL UPSTREAM AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES SO THAT APPROVAL MAY BE GIVEN BY THE COUNTY REPRESENTATIVE TO REMOVE TRAP NO. 1 AND TRAP NO. 2 AND COMPLETE CONSTRUCTION IN THESE AREAS.
9. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE IN ACCORDANCE WITH PERMANENT SEEDING NOTES.

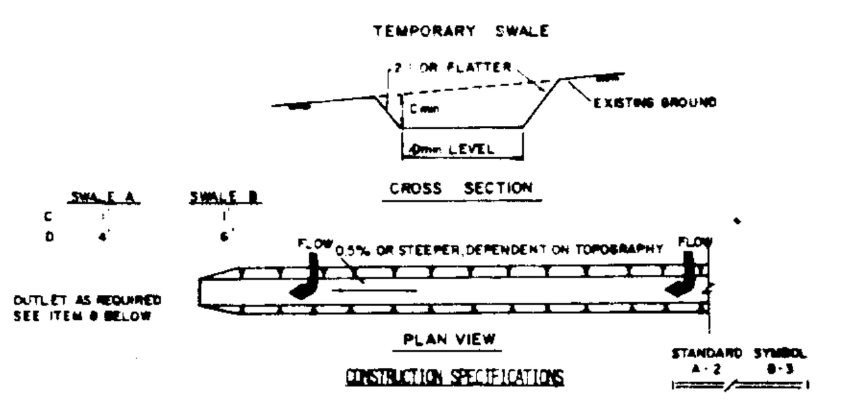


PLAN



SECTION

RIPRAP DETAIL @ E-1 & E-2
NO SCALE



CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

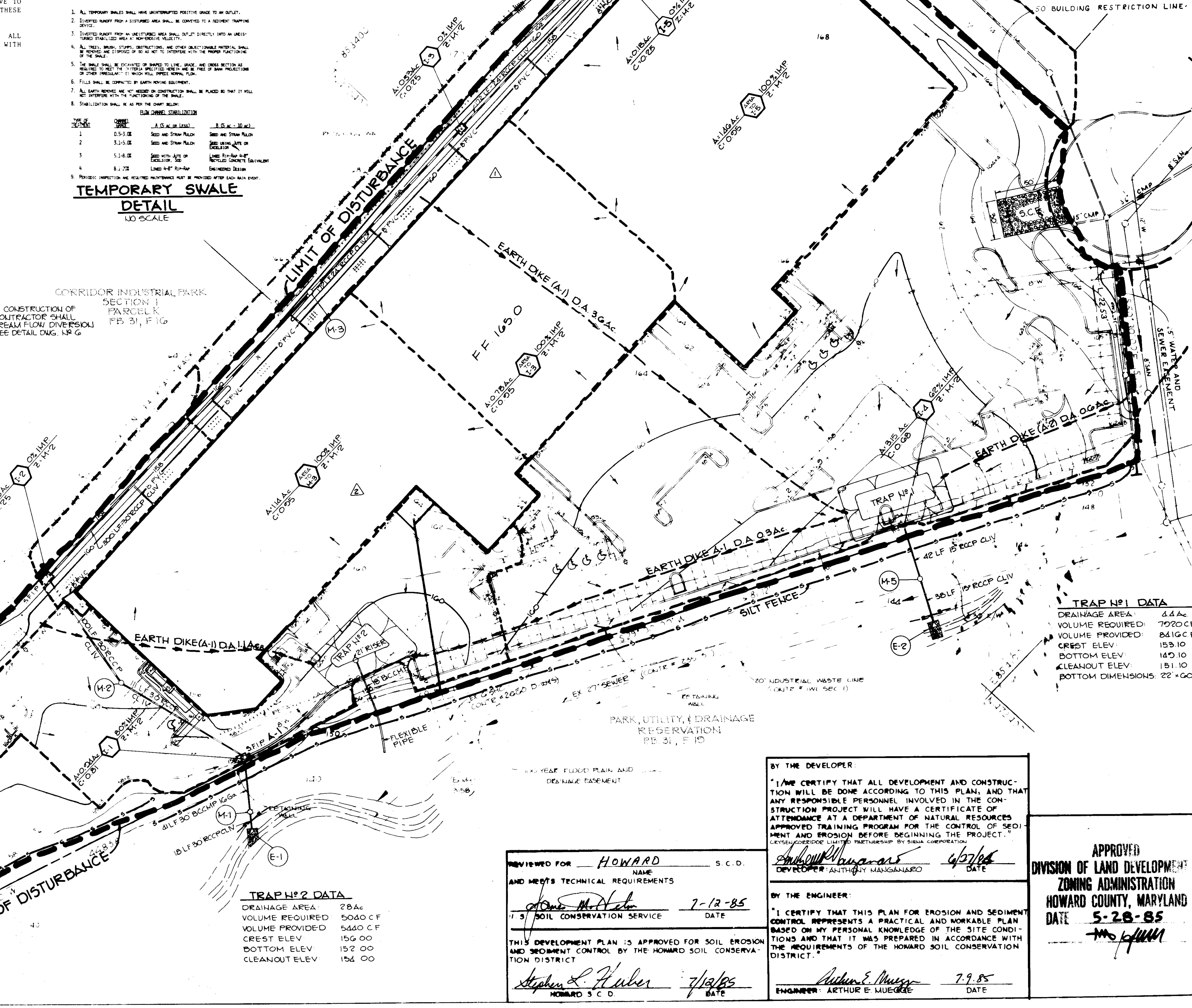
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC - 10 AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR, SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

TEMPORARY SWALE DETAIL
NO SCALE

LEGEND
EARTH DIKE
SILT FENCE
DRAINAGE AREAS
LIMIT OF DISTURBANCE



TRAP Nº1 DATA

DRAINAGE AREA	4.4 Ac.
VOLUME REQUIRED	7920 C.F.
VOLUME PROVIDED	8416 C.F.
CREST ELEV	153.10
BOTTOM ELEV	149.10
CLEANOUT ELEV	151.10
BOTTOM DIMENSIONS	22' × 60'

TRAP Nº2 DATA

DRAINAGE AREA	2.8 Ac.
VOLUME REQUIRED	5040 C.F.
VOLUME PROVIDED	5440 C.F.
CREST ELEV	156.00
BOTTOM ELEV	152.00
CLEANOUT ELEV	154.00

REVIEWED FOR HOWARD S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE — DATE 7-12-85

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

HOWARD S.C.D. — DATE 7/12/85

BY THE DEVELOPER:

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."

CRYSEN CORRIDOR LIMITED PARTNERSHIP BY SIENA CORPORATION

DEVELOPER: ANTHONY MANGANARO — DATE 6/27/85

BY THE ENGINEER:

"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."

ENGINEER: ARTHUR E. MUEGGE — DATE 7.9.85

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-28-85

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

COUNTY HEALTH OFFICER — DATE 7/12/85

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — DATE 7-19-85

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 7-19-85

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 7-16-85

CHIEF, BUREAU OF ENGINEERING — DATE 7-15-85

DATE	NO	REVISION
9-25-85	2	REVISED INLET AND MANHOLE NUMBERS
9-18-85	1	REVISED GRADING AND DRAINAGE AREAS ON WEST SIDE OF BUILDING & AREAS OF I-3 & I-4

OWNER DEVELOPER
CRYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK
SECTION I PARCEL O

AREA
TAX MAP No 47
6TH ELECTION DISTRICT
HOWARD COUNTY MARYLAND

TITLE
SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP

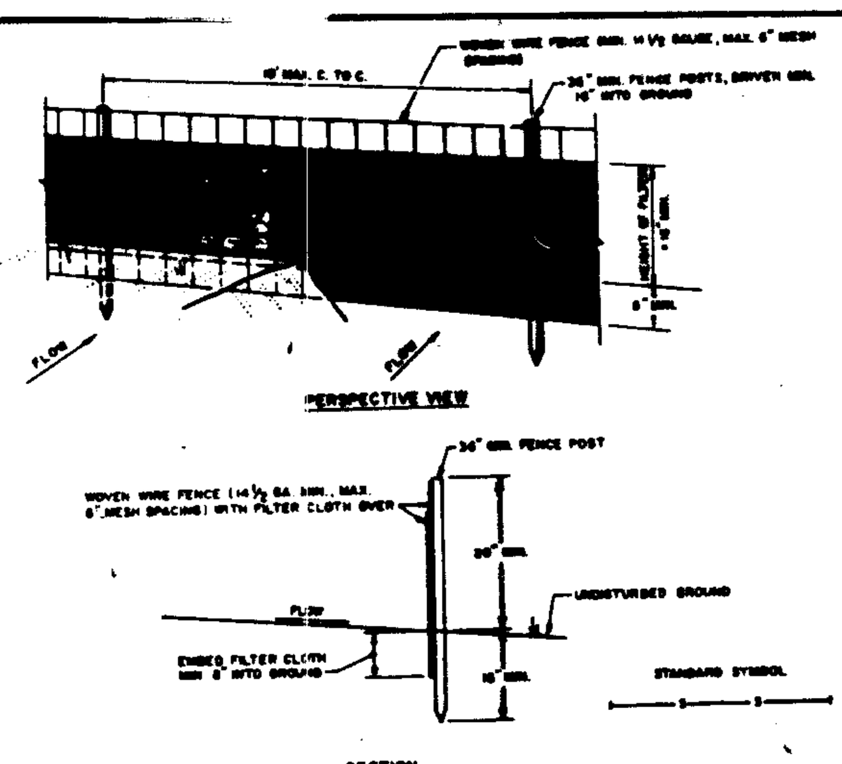
THE RIEMER GROUP, INC.

7.9.85
DATE
ARTHUR E. MUEGGE #8707

DESIGNED BY	
DRAWN BY	D.A.M.
PROJECT NO.	15900
DATE	3/26/85
SCALE	1" = 40'
DRAWING NO	5 OF 7

SDP-85-158

JULY 9, 1985



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

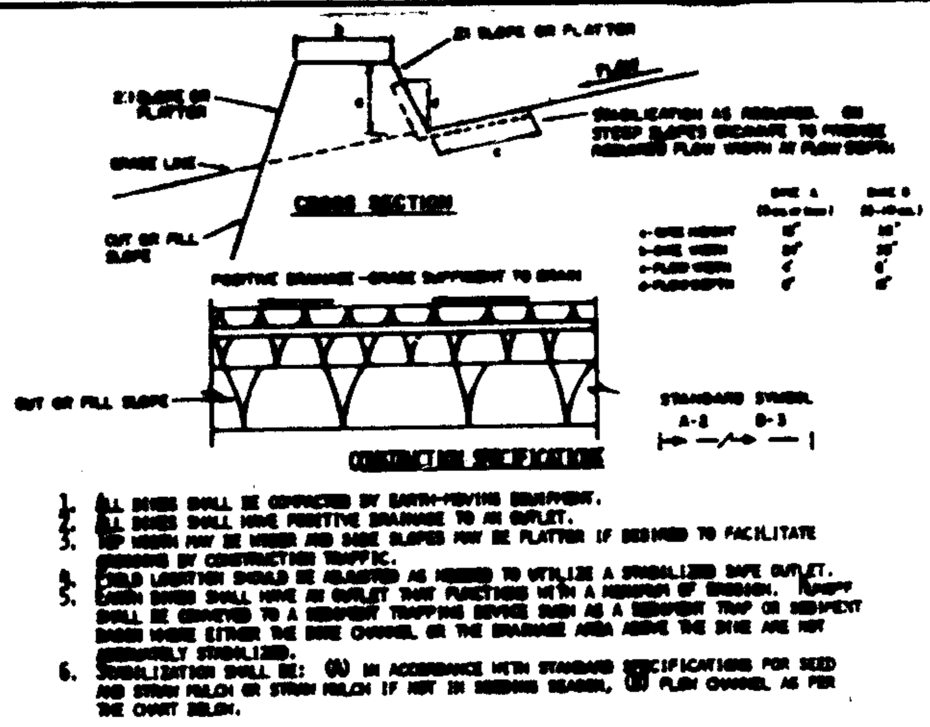
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

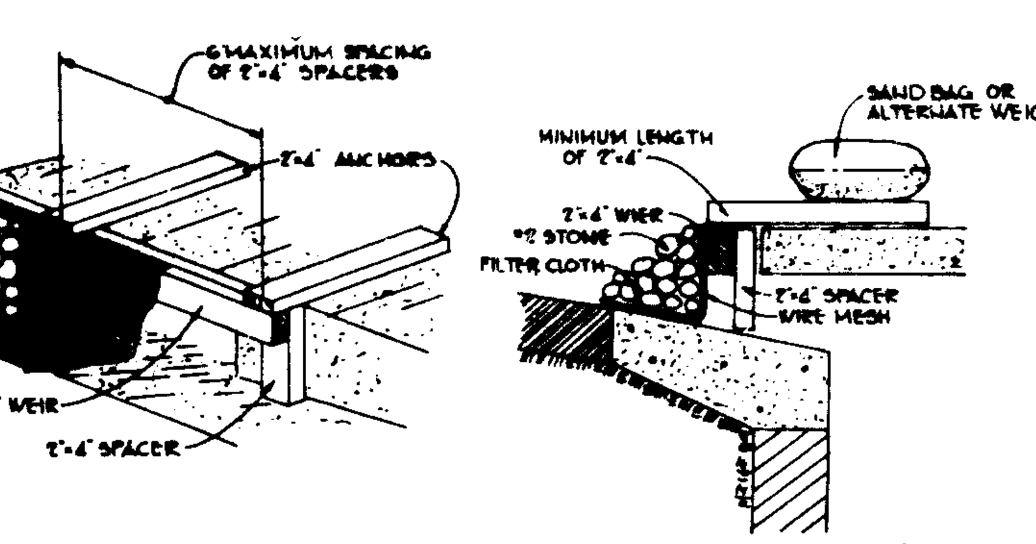
SILT FENCE
NO SCALE



FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

EARTH DIKE
NO SCALE



STONE FILTER INLET PROTECTION
NO SCALE

STANDARD SYMBOL — SFIP

Construction Specifications

I. Materials

A. Wooden frame is to be constructed of 2" x 4" construction grade lumber.

B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.

C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, EOS, 40-85, to allow sufficient passage of water and removal of sediment.

4. Stone is to be 2" in size and clean, since fines would clog the cloth.

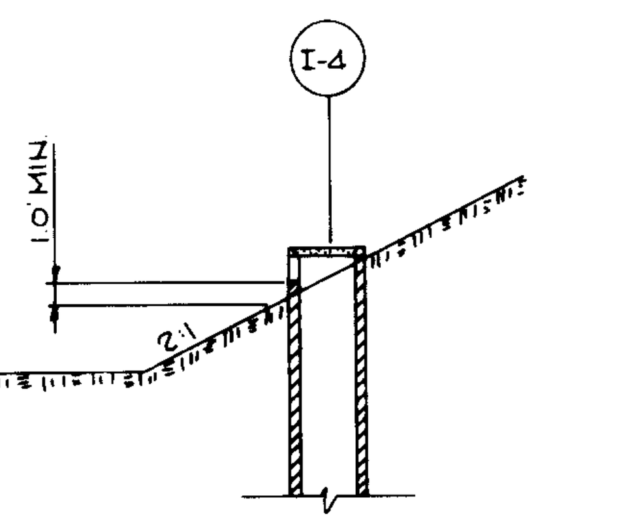
II. Procedure

A. A swale, ditchline or yard inlet protection.

1. Excavate completely around inlet to a depth of 18" below notch elevation.
2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to inlet.
3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
4. Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
5. Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
6. If the inlet is not in a low point, construct a compacted earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
7. This structure must be inspected frequently and the filter fabric replaced when clogged.

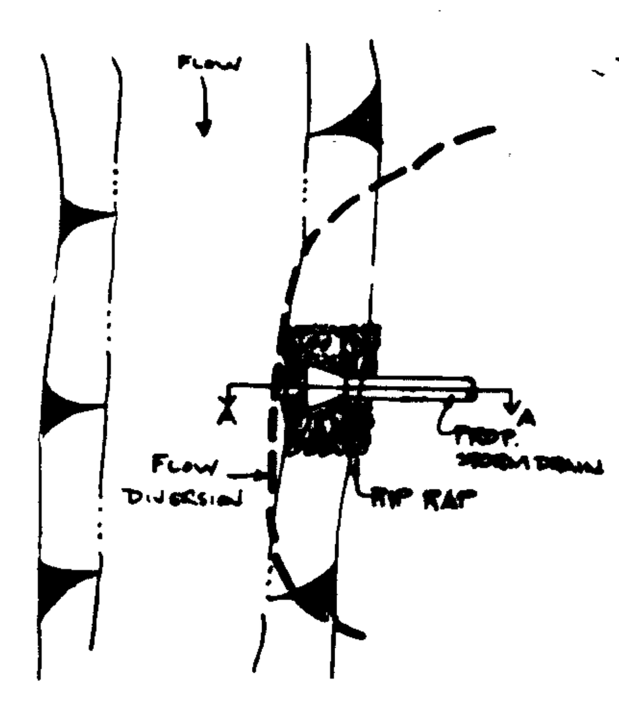
B. Curb Inlet Protection.

1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
2. Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
3. Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir at spacer locations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place clean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

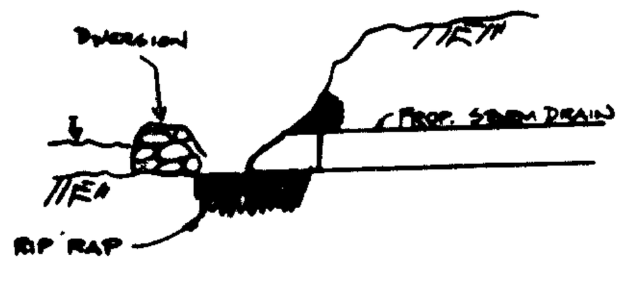


1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
2. The structure shall be inspected after each rain and repairs made as needed.
3. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
4. The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
5. All cut slopes shall be 1:1 or flatter.

INLET SEDIMENT TRAP Nº 1
NO SCALE



PLAN



SECTION A-A

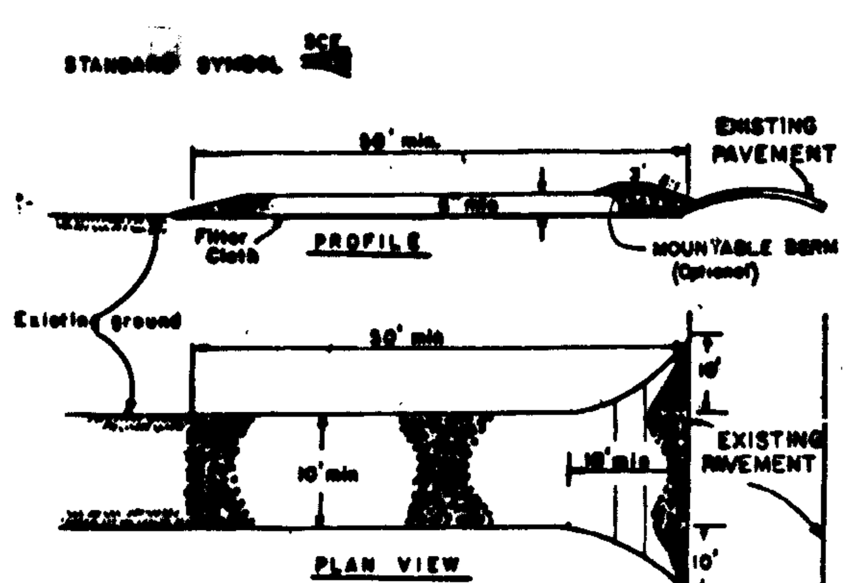
I. Description
The work shall consist of installing flow diversions for the purpose of erosion control when construction activities take place within the stream channel such as bank stabilization or channel relocation.

II. Material Specifications
1. Sandbags: Sandbags shall consist of materials which are resistant to ultraviolet radiation, tearing and puncture and woven tightly enough to prevent leakage of fill material (i.e., sand, fine gravel, etc.).
2. Stone: Stone shall be washed and have a minimum diameter of 6 inches.
3. Sheeting: Sheeting shall consist of polyethylene or other material which is impervious and resistant to puncture and tearing.

III. Construction Requirements
1. All erosion and sediment control devices shall be installed as the first order of work.
2. The diversion structure shall be installed from upstream to downstream.
3. The diversion structure shall be a minimum of two feet high or one foot higher than the depth of water, whichever is greater.
4. All excavated materials shall be disposed of in an SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
5. All dewatering of the construction area shall be pumped to a dewatering basin or otherwise filtered prior to re-entering the stream.
6. Sheeting shall be overlapped such that the stream portion covers the downstream portion with at least an 18-inch overlap.
7. Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspecting authority approves their removal.

INSTREAM FLOW DIVERSION DETAIL
NO SCALE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

STABILIZED CONSTRUCTION ENTRANCE
NO SCALE

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

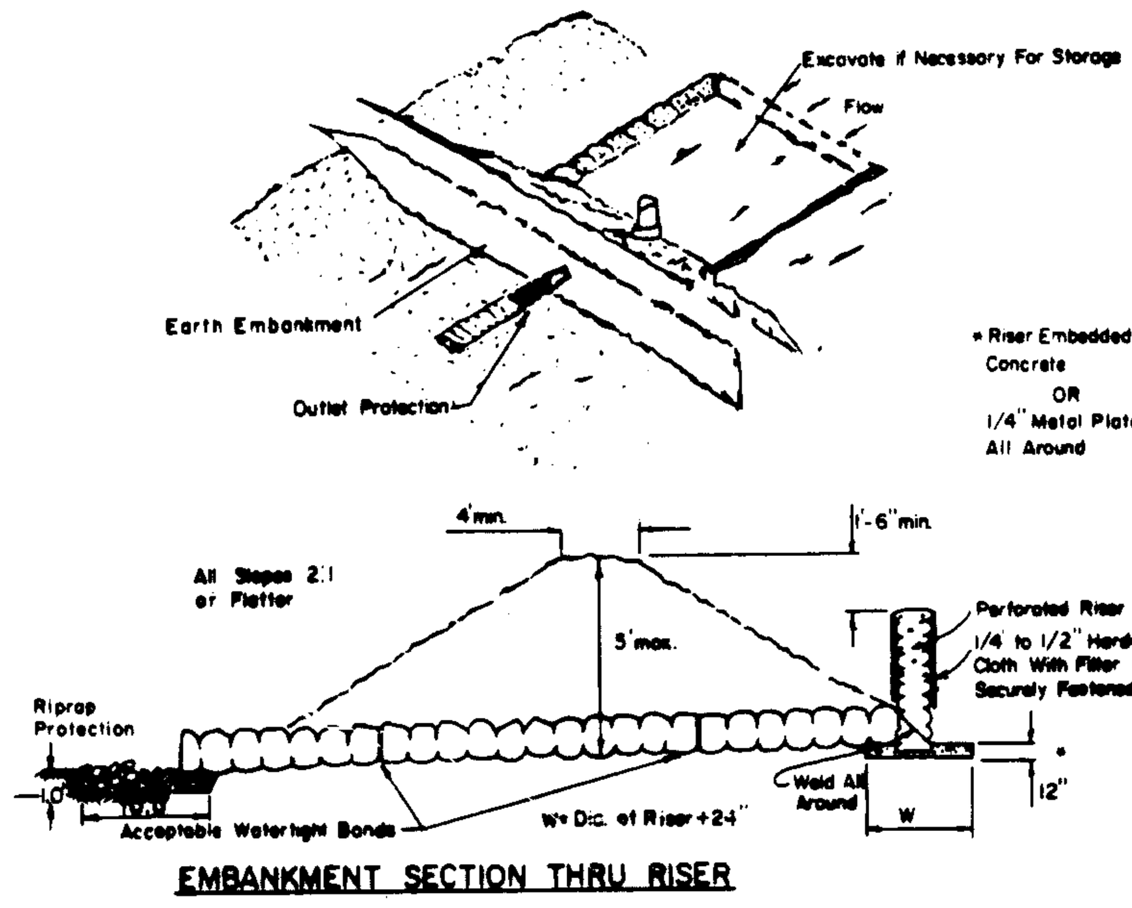
Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 0-20-20 fertilizer at the rate of 600 lbs. per acre. Harrow or disc lime and 0-20-20 fertilizer into the soil to a minimum depth of 3". Lawns or high maintenance areas will be dragged and leveled with a York rake. At the time of seeding, apply 400 lbs. of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent fertilizer per acre.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 40 lbs. per acre (1 lb/1000 sq.ft.) of a mixture of certified 'Merion' Kentucky bluegrass; common Ketucky bluegrass @ 40 lbs. per acre (1 lb./1000 sq.ft.) and Red Fescue, Pennlawn or Jamestown @ 20 lbs. per acre (0.5 lb./1000 sq.ft.) for the period May 1 thru July 31, seed with 40-40-20 mix as specified above and 2 lbs. per acre (0.05 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 of well-anchored straw mulch and seed as soon as possible in the spring. (Option 2) Use sod. (Option 3) Seed with 40-40-20 mix specified above and mulch with 2 tons/acre well-anchored straw.

Mulching: Apply 1½ 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 reseedings.



EMBANKMENT SECTION THRU RISER

SIZES OF PIPE NEEDED

Barrel Diameter 18".

Riser Diameter 21".

Pipe Outlet Trap
CONSTRUCTION SPECIFICATION FOR ST-I

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material, or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. Volume of sediment storage shall be 1800 cubic feet per acre of contributory drainage.
4. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
5. The structure shall be inspected after each rain and repairs made as needed.
6. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
7. The structure shall be removed and area stabilized when the drainage area has been properly stabilized.
8. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
9. All pipe connections shall be watertight.
10. The top 2/3 of the riser shall be perforated with one (1) inch diameter holes or slits spaced six(6) inches vertically and horizontally and placed in the concave portion of pipe. No holes will be allowed within six(6) inches of the horizontal barrel.
11. The riser shall be wrapped with 1/4 to 1/2 inch hardware cloth wire then wrapped with filter cloth (having an equivalent sieve size of 40 - 80). The filter cloth shall extend six (6) inches above the highest hole and six (6) inches below the lowest hole. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent bypass.
12. Straps or connecting bands shall be used to hold the filter cloth and wire fabric in place. They shall be placed at the top and bottom of the cloth.
13. Fill material around the pipe spillway shall be hand compacted in four(4) inch layers. A minimum of two (2) feet of hand-compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment.
14. The riser shall be anchored with either a concrete base or steel plate base to prevent flotation. For concrete bases the depth shall be 12 inches with the riser embedded nine (9) inches. A 1/4 inch minimum thickness steel plate shall be attached to the riser by a continuous weld around the bottom to form a watertight connection and then place two (2) feet of stone, gravel, or tamped earth on the plate.

PIPE OUTLET SEDIMENT TRAP #2
NO SCALE

SEDIMENT CONTROL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (992-2437)
2. All vegetative 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 SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
3. Following initial soil disturbance or redisturbance, 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.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis:

Total Area of Site	8.55	acres
Area Disturbed	8.3	acres
Area to be roofed or paved	6.2	acres
Area to be vegetatively stabilized	2.1	acres
Total Cut	19038	Cu. yds.
total Fill	21229	Cu. yds.
TOPSOIL	5051	Cu. yds.

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of distrubance.
9. Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
11. Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.) Where soil is highly acidic, apply dolomitic limestone at the rate of 1 ton per acre.

Seeding: For periods March 1 thru April 30 and from Agust 15 thru November 15, seed with 140 lbs. per acre of annual rye (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 1½ 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 gal. per acre (5 gal./1000 sq.ft.), of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal. 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.

BY THE DEVELOPER

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT."

CRYSEN/CORRIDOR LIMITED PARTNERSHIP BY SIENA CORPORATION

DEVELOPER: ANTHONY MANGANARO — 6/27/85 DATE

BY THE ENGINEER:

"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."

ENGINEER: ARTHUR E. MUEGGE — 7-9-85 DATE

REVIEWED FOR HOWARD S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS

U.S. SOIL CONSERVATION SERVICE — 7-12-85 DATE

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

HOWARD S.C.D. — 7/12/85 DATE

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

COUNTY HEALTH OFFICER — 7/12/85 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — 7-19-85 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 7-19-85 DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — 7-16-85 DATE

CHIEF, BUREAU OF ENGINEERING — 7-15-85 DATE

DATE	NO.	REVISION

OWNER/DEVELOPER
CRYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK
SECTION 1 PARCEL O

AREA TAX MAP Nº 47 PARCEL 'O'
CORRIDOR INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE SEDIMENT CONTROL NOTES & DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-28-85

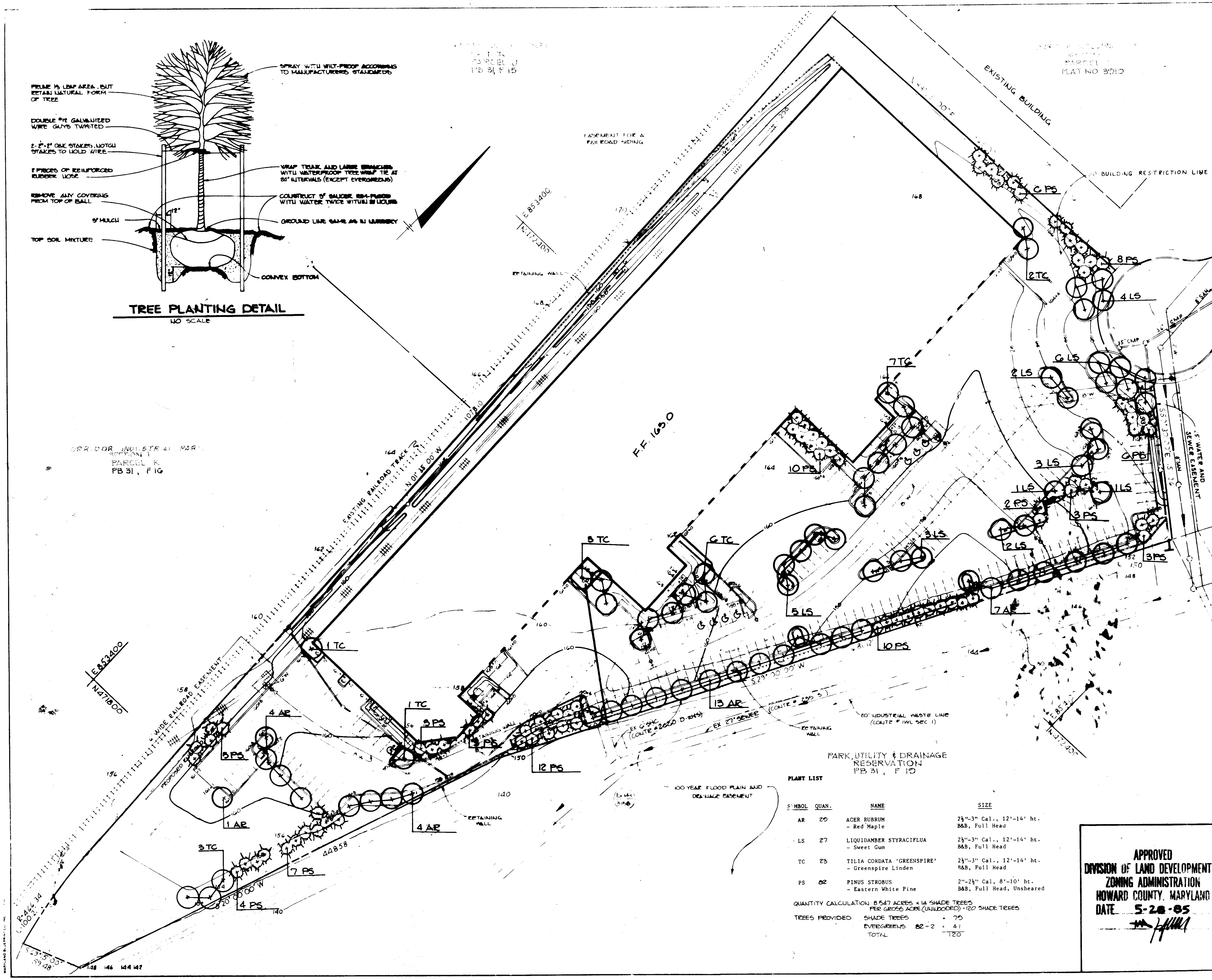
7-9-85
DATE

ARTHUR E. MUEGGE #8707

DESIGNED BY	L.J.D.
DRAWN BY	D.A.M.
PROJECT NO	015000
DATE	3/26/85
SCALE	AS SHOWN
DRAWING NO.	6 OF 7

SDP-85-158

JULY 9, 1985



PLANT LIST

SYMBOL	QUAN.	NAME	SIZE
AR	20	ACER RUBRUM - Red Maple	2½"-3" Cal., 12'-14' ht. B&B, Full Head
LS	27	LIQUIDAMBER STYRACIFLUA - Sweet Gum	2½"-3" Cal., 12'-14' ht. B&B, Full Head
TC	23	TILIA CORDATA 'GREENSPIRE' - Greenspire Linden	2½"-3" Cal., 12'-14' ht. B&B, Full Head
PS	82	PINUS STROBUS - Eastern White Pine	2"-2½" Cal, 8'-10' ht. B&B, Full Head, Unsheared

QUANTITY CALCULATION: 8.547 ACRES × 14 SHADE TREES PER GROSS ACRE (UNWOODED) = 120 SHADE TREES

TREES PROVIDED: SHADE TREES = 79
EVERGREENS 82 ÷ 2 = 41
TOTAL 120

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 5-28-85

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

COUNTY HEALTH OFFICER — DATE 7/12/85

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — DATE 7-19-85

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 7-19-85

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 7-16-85

CHIEF, BUREAU OF ENGINEERING — DATE 7-15-85

DATE NO. REVISION

OWNER DEVELOPER
KEYSEN CORRIDOR LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA MARYLAND 21045

PROJECT
CORRIDOR INDUSTRIAL PARK SECTION I PARCEL O

AREA
TAX MAP No 47
6TH ELECTION DISTRICT
HOWARD COUNTY MARYLAND

TITLE
PLANTING PLAN

THE RIEMER GROUP, INC.

July 9, 1985

STATE OF MARYLAND — MELANIE MOSER — No. 551 — LANDSCAPE ARCHITECT

Melanie Moser

DESIGNED BY
DRAWN BY DAM
PROJECT NO.
DATE 3-22-85
SCALE 1" = 40'
DRAWING NO. 7 OF 7

SDP-85-158

JULY 9, 1985