

STORM WATER MANAGEMENT DATA

Per Soils Report - "Infiltration" is not feasible.

Existing Condition:

(a) Drainage Area to the South = 7.71 Ac. ±
Soil Groups "3", "4" & "6"
RCV = 74
2 yr. flow = 10.30 cfs
10 yr. flow = 24.75 cfs
100 yr. flow = 42.72 cfs

(b) Drainage Area to the North = 3.06 Ac. ±
Soil Groups "3" & "6"
RCV = 69
2 yr. flow = 3.56 cfs
10 yr. flow = 9.26 cfs
100 yr. flow = 16.78 cfs

Proposed Condition:

(a) Drainage Area - Not Managed
D.A. = 1.10 Ac. ±
RCV = 76
2 yr. flow = 1.89 cfs
10 yr. flow = 4.30 cfs
100 yr. flow = 7.28 cfs

(b) Drainage Area - Managed & Routed
D.A. = 9.67 Ac. ±
RCV = 92
2 yr. flow = 33.86 cfs
10 yr. flow = 60.18 cfs
100 yr. flow = 90.36 cfs

Allowable Release Rates to the South:

2 yr. release = 10.50 - 1.89 = 8.61 cfs
10 yr. release = 24.75 - 4.30 = 20.45 cfs
(Not Req'd) 100 yr. release = 42.72 - 7.28 = 35.44 cfs

After Routing Thru The Pond:

2 yr. release = 7.70 cfs 8.61 cfs
10 yr. release = 19.10 cfs 20.45 cfs
(Not Req'd) 100 yr. release = 34.50 cfs 35.44 cfs

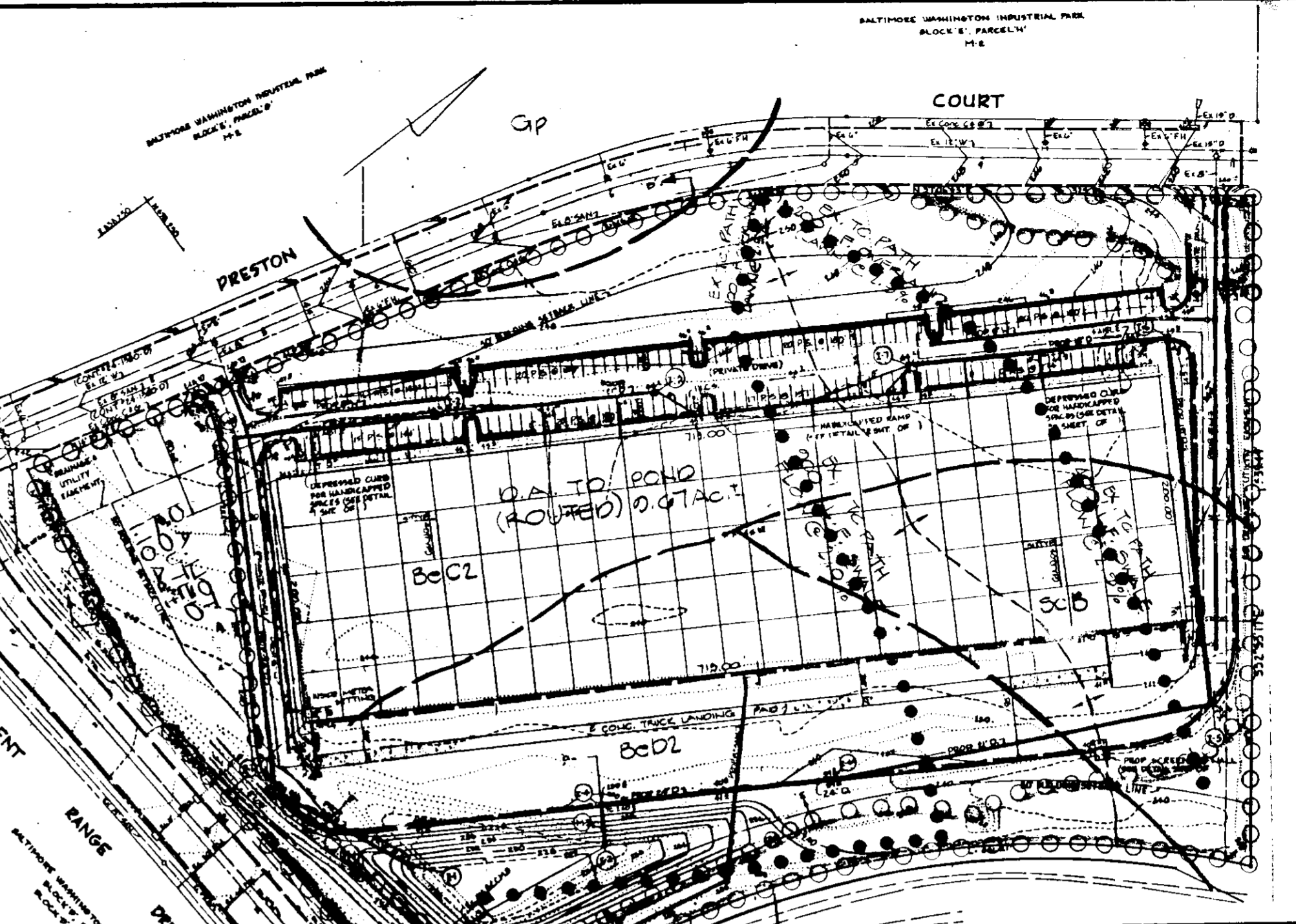
2 & 10 Yr. Storm Water Management Required
2, 10 & 100 Yr. Storm Water Management Provided

Hydrologic Criteria

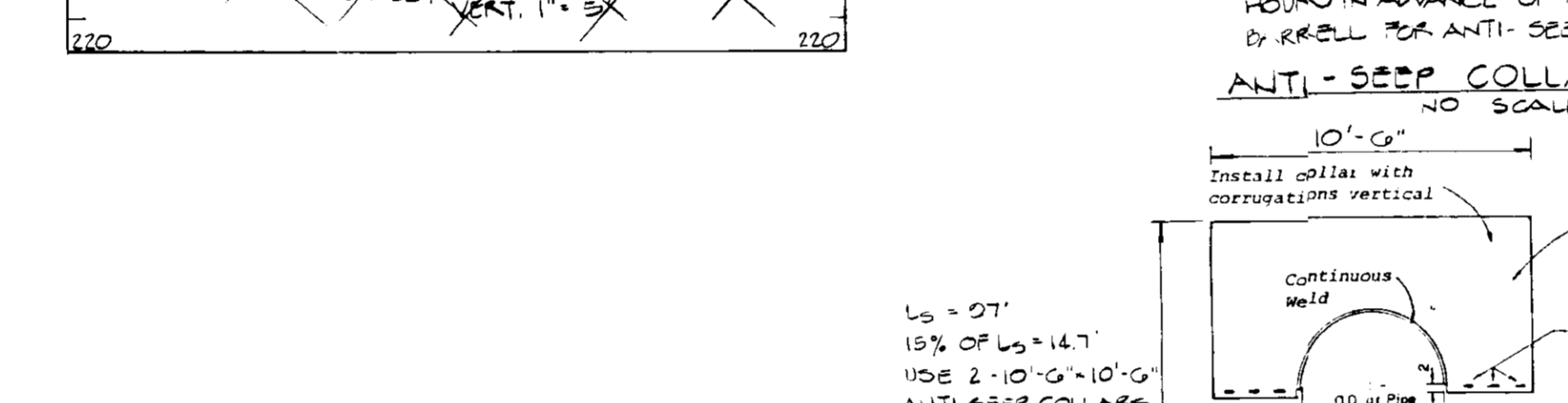
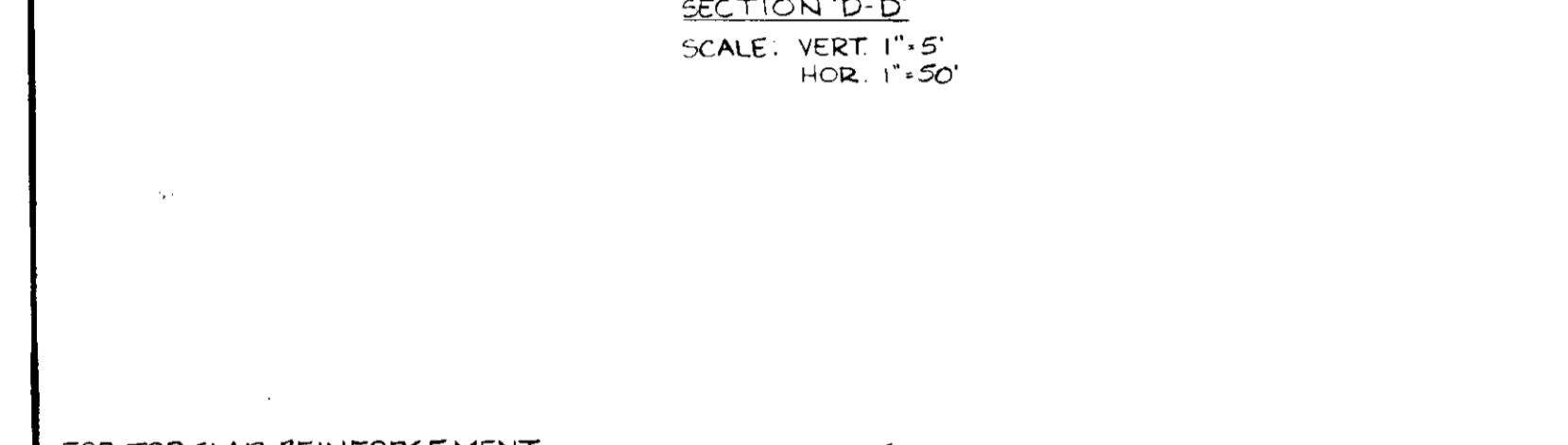
Watershed Area = 9.67 Ac. ±
Principal Spillway = 100 yr.
Emergency Spillway = 100 yr.
Freeboard above 100 yr. W.S. = 2.31'

Structure Classification:

Structure Class = "A"
Watershed Area = 9.67 Ac. ±
Storage Weight Produced =
1.49 Ac. Ft. x 5.67 Ft. = 8.45 Ac. Ft. ±



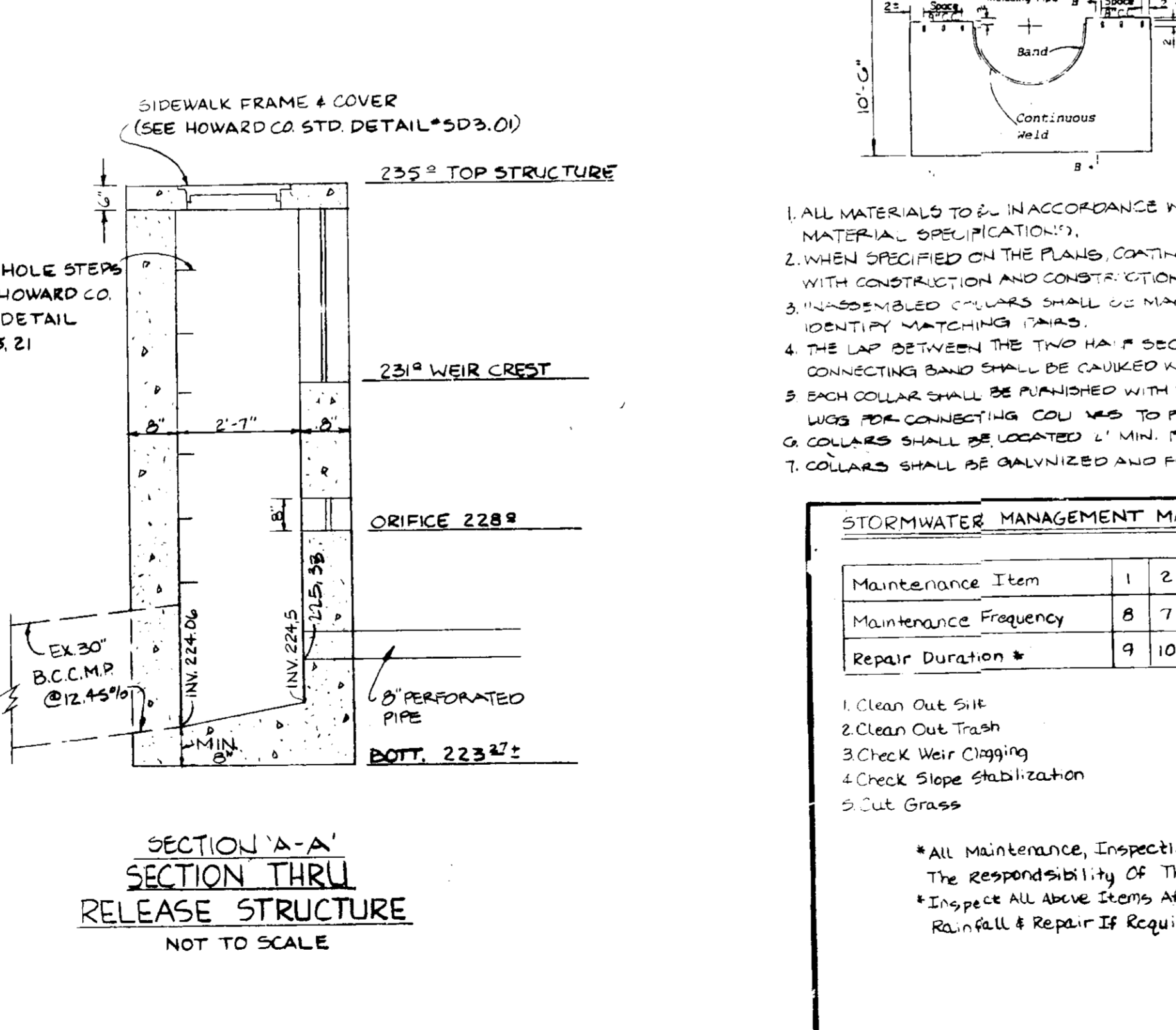
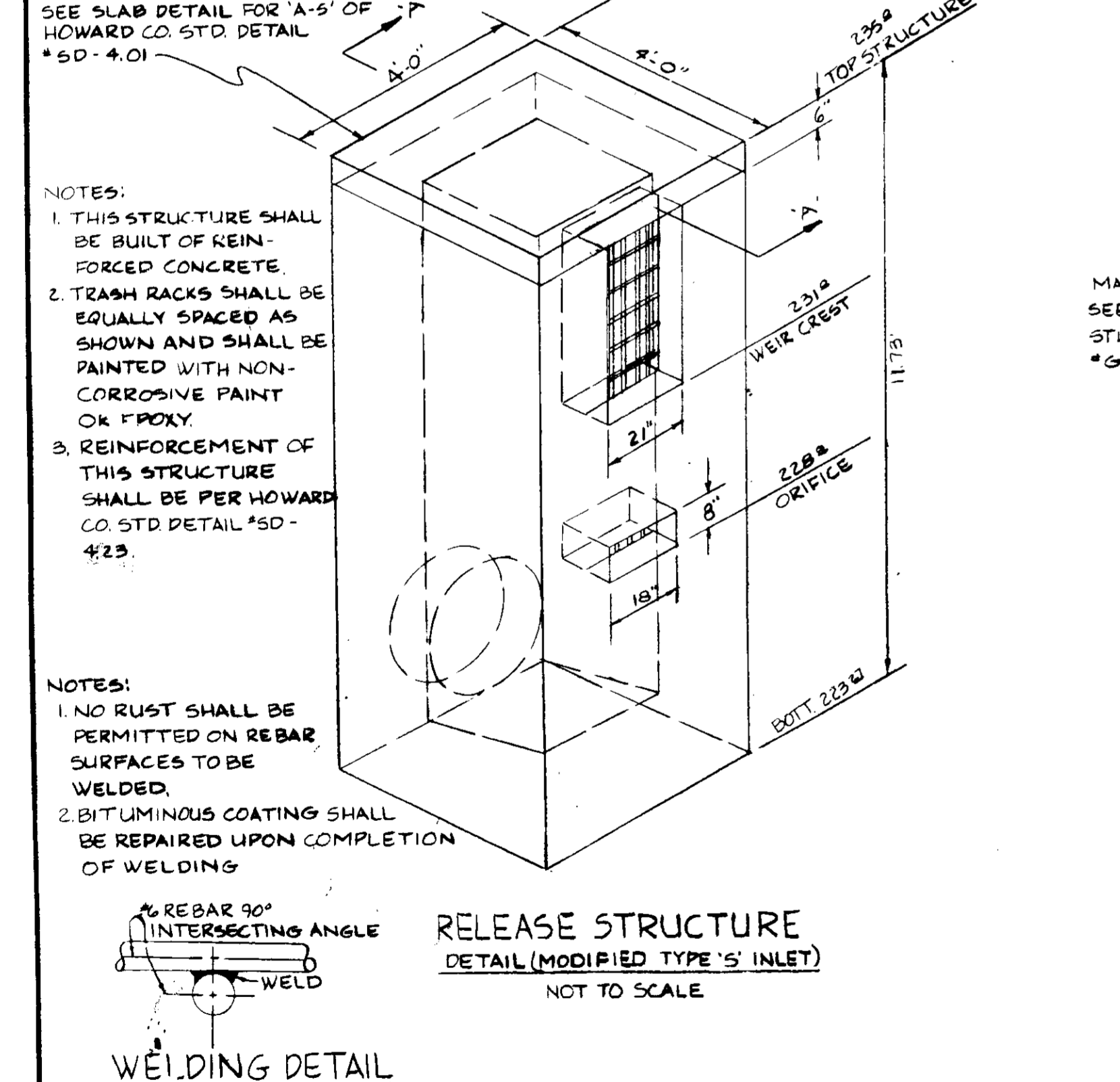
APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 8-19-86
M. J. ...



ANTI-SEEP COLLAR DETAIL
NO SCALE

Notes: THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF BACKFILLING THE RELEASE STRUCTURE BY ROLL FOR ANTI-SEEP COLLAR'S INSPECTION.

1. ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. IDENTIFIABLE COLLARS SHALL BE MARKED BY PAINT, OR LABELING TO IDENTIFY MATCHING PAIRS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF CONSTRUCTION.
5. EACH COLLAR SHALL BE FINISHED WITH TWO (2) 1/2" DIA. RODS WITH STANDARD TANK WELDS FOR CONNECTING COLLARS TO PIPES.
6. COLLARS SHALL BE LOCATED 1" MIN. FROM ALL PIPE JOINTS.
7. COLLARS SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED.



STORMWATER MANAGEMENT MAINTENANCE SCHEDULE

Maintenance Item	1	2	3	4	5	6
Maintenance Frequency	8	7	8	8	7	8
Repair Duration *	9	10	9	9	10	9

1. Clean Out Silt
2. Clean Out Trash
3. Check Weir Clipping
4. Check Slope Stabilization
5. Cut Grass

6. Check Structural Integrity
7. Every Two Weeks
8. Every Three Months
9. One Week Maximum
10. Two Days

* All Maintenance, Inspection & Repair shall Be The Responsibility Of The Owner.
* Inspect All Above Items After Each Major Rainfall & Repair If Required.

STORMWATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

I. **SITE PREPARATION**
The fill area and borrow area shall be cleared and grubbed to remove all trees, vegetation, roots and other objectionable material. The topsoil from the embankment area and borrow area shall be removed and stockpiled. The topsoil shall be spread on the completed fill area.

II. **SOIL FILL**
A) FILL MATERIAL shall be obtained from on-site under the supervision of a soils engineer. It shall be free from roots, stumps, wood rubbish, oversized stones frozen or other objectionable material. Fill areas shall be constructed to the elevation shown on the plan to allow for anticipated settlement.
B) PLACEMENT: Areas on which fill will be placed shall be scarified prior to placement of fill. Fill materials shall be placed in layers of their maximum moist porous material shall be placed in areas not adjacent to ponded water. (before construction) and shall be continuous over the entire length of fill.
C) 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 compacted to the specified density. Fill material shall contain sufficient moisture so that the required degree of compaction can be obtained with the equipment used.
D) **COMPACTNESS** shall be made of **CLAY** material compacted to 94% density. **CLAY** shall be made of **CLAY** material compacted to 94% density.

III. **STRUCTURAL BACKFILL**
Backfill material shall be type and quality specified for the adjoining fill material. The fill shall be placed in horizontal layers 4" thick maximum and compacted by hand tamping or manually directed power tampers or plate vibrators. At no time during backfilling operations shall driven equipment be allowed to operate any closer than four feet measured horizontally to any part of a structure under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless "Arco" is a completely filled 4" or greater or "Arco" use or pipe. Materials shall fill completely all spaces under and adjacent to newly installed pipe.

IV. **CONCRETE**
Concrete shall be in accordance with the minimum requirements set forth in the Maryland State Highway Administration for Construction and Materials' January 1982 edition 118.06 - "Portland Cement Concrete Mixtures", Mix No. 3. Reinforcing steel shall be A-36, A-615, Grade 60.

V. **PERMANENT SLOPE STABILIZATION**
The storm water management facility will be stabilized with "Permanent Slope Seeding" as follows:
After application of topsoil seed with a mixture of 30% inoculated orna vetch and 70% Kentucky 11 Tall Fescue applied at a rate of 60 lbs./Ac. 10-10-20 fertilizer shall be applied at a rate of 25 lbs./1000 square feet, low - a rate of 92 lbs./1000 sq. ft. which area with weathered soil; 1/2" x 1/2" x 1/2" at a rate of 1.5 lb./Ac. anchor with rapid curing asphalt (R.C.-70, R.C.-250 or R.C.-900) at a rate of 1/2" x 1/2" x 1/2".

VI. **PIPE CONDUITS**
All pipes shall be circular in cross section.
A) **Corrugated Metal Pipe (C.M.P.)**
1. Materials (Iron Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of MASTO Specification M-30 with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
2. 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. Watertight coupling bands or flanges shall be used at all joints. All pipe collars shall be 10" to 12" in diameter in such a manner as to be completely watertight. Dipole bands are not considered to be watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or silt, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. Backfilling shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the other details.
VII. **FILTER CLOTH**
MERPE 1400 or equivalent shall be used.
VIII. **SEDIMENT CONTROL**
Construction to be in accordance with 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control". In release structure install demarcating device by connecting 25 L.F. of 12" perforated underdrain to the low flow pipe. The 12" underdrain shall be wrapped in filter cloth and covered with minimum 12" thick stone.

NOTE: (SPECIFIED DENSITY) SUITABLE WATER SHALL BE USED FOR THE EMBANKMENT AND ROLLED TO A MINIMUM DEGREE OF COMPACTION OF 94% OF THE DRY UNIT WEIGHT AS DETERMINED BY A.S.T.M. T-99. CONSTRUCTION OF SWM POND SHALL BE PERFORMED UNDER STRICT SUPERVISION OF A SOILS ENGINEER.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
John G. ... 11-6-86
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
James E. ... 11-7-86
DIRECTOR DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John W. ... 11-7-86
DIRECTOR DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William ... 10-30-86
CHIEF BUREAU OF ENGINEERING DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
... 10-25-86
DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
... 10-25-86
DATE

PLAN NUMBER: _____

GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(501) 825-8120

ENGINEER
John ...
4732
REG. NO.

10/13/86
6-3-86
DATE

OWNER
B.W.I.P. ASSOCIATES PARTNERSHIP
110 WEST ROAD
TOWSON, MD. 21204 (301) 221-0430

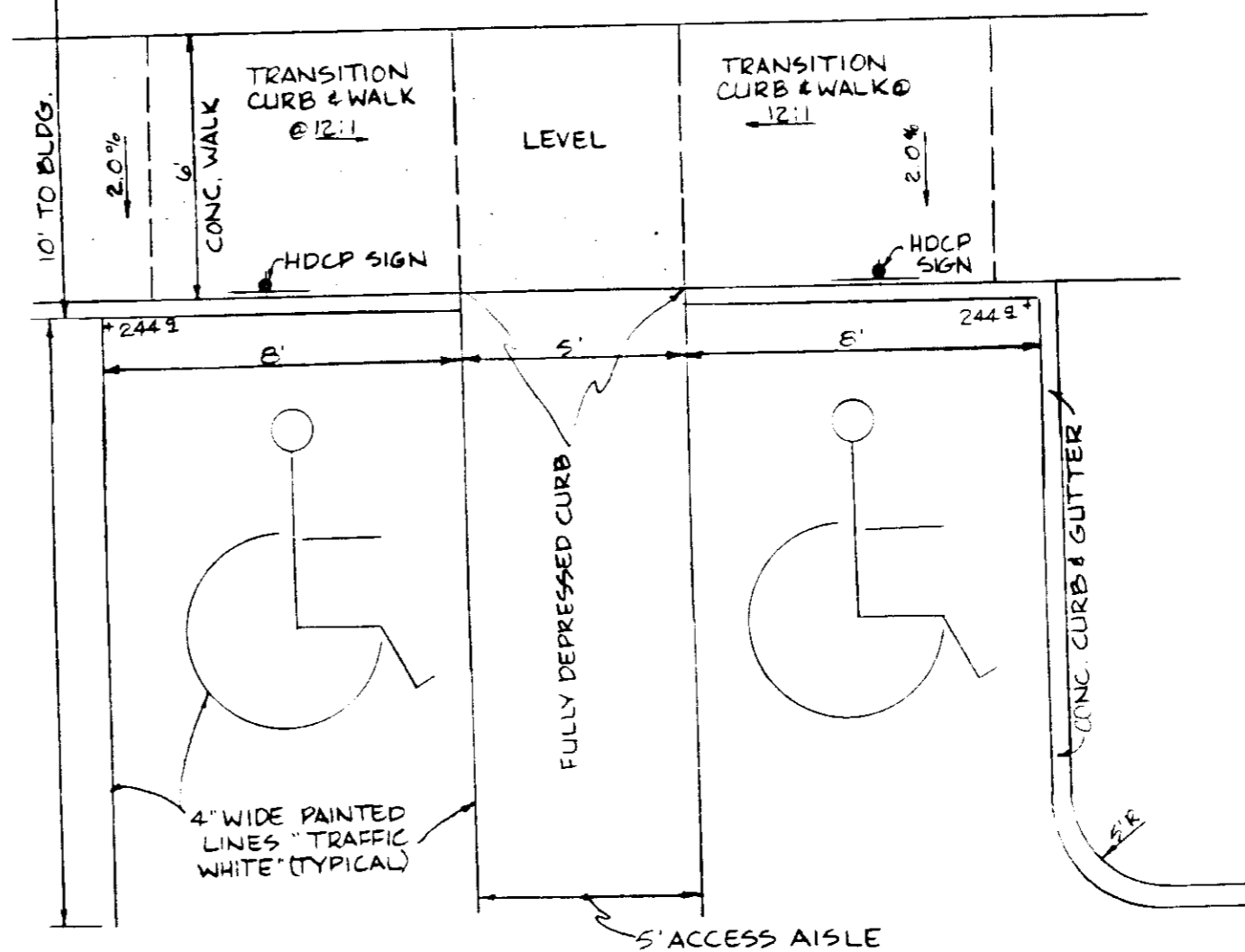
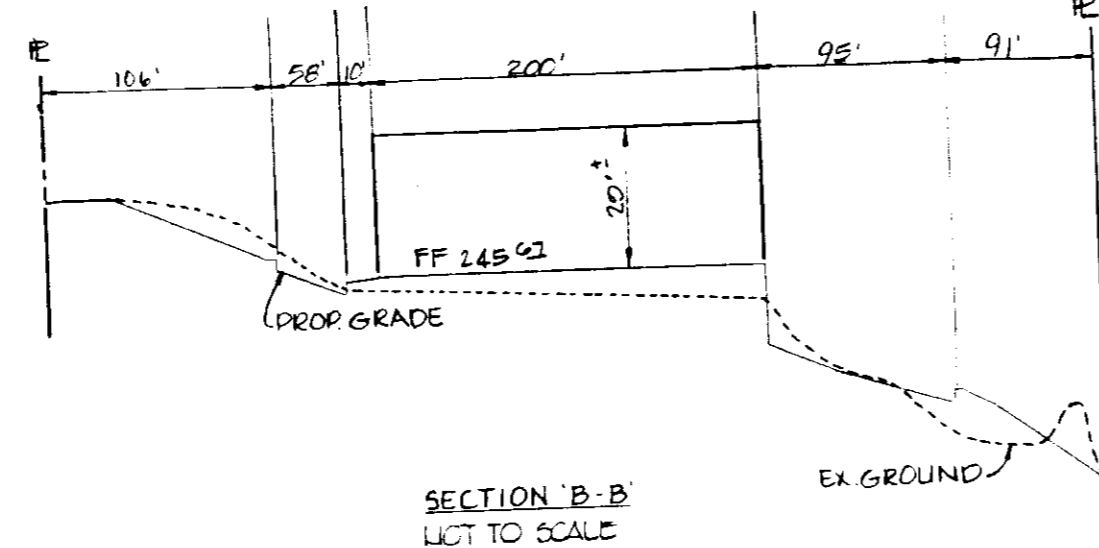
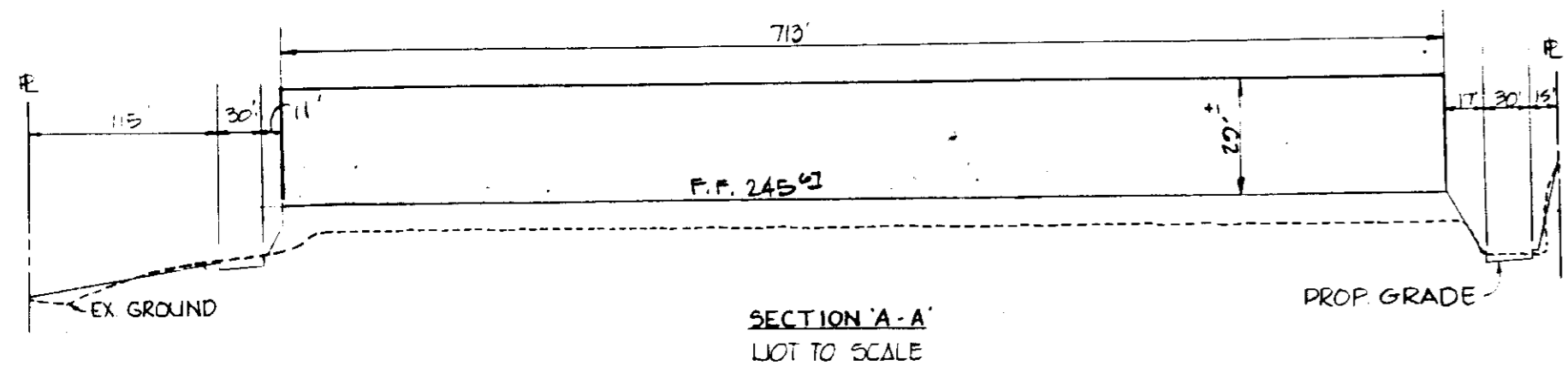
DEVELOPER
JAMES F. KNOTT DEVELOPMENT CORP.
110 WEST ROAD
TOWSON, MD. 21204 (301) 221-0430

DEVELOPER
James J. ...
10-3-86
6-1-86
DATE

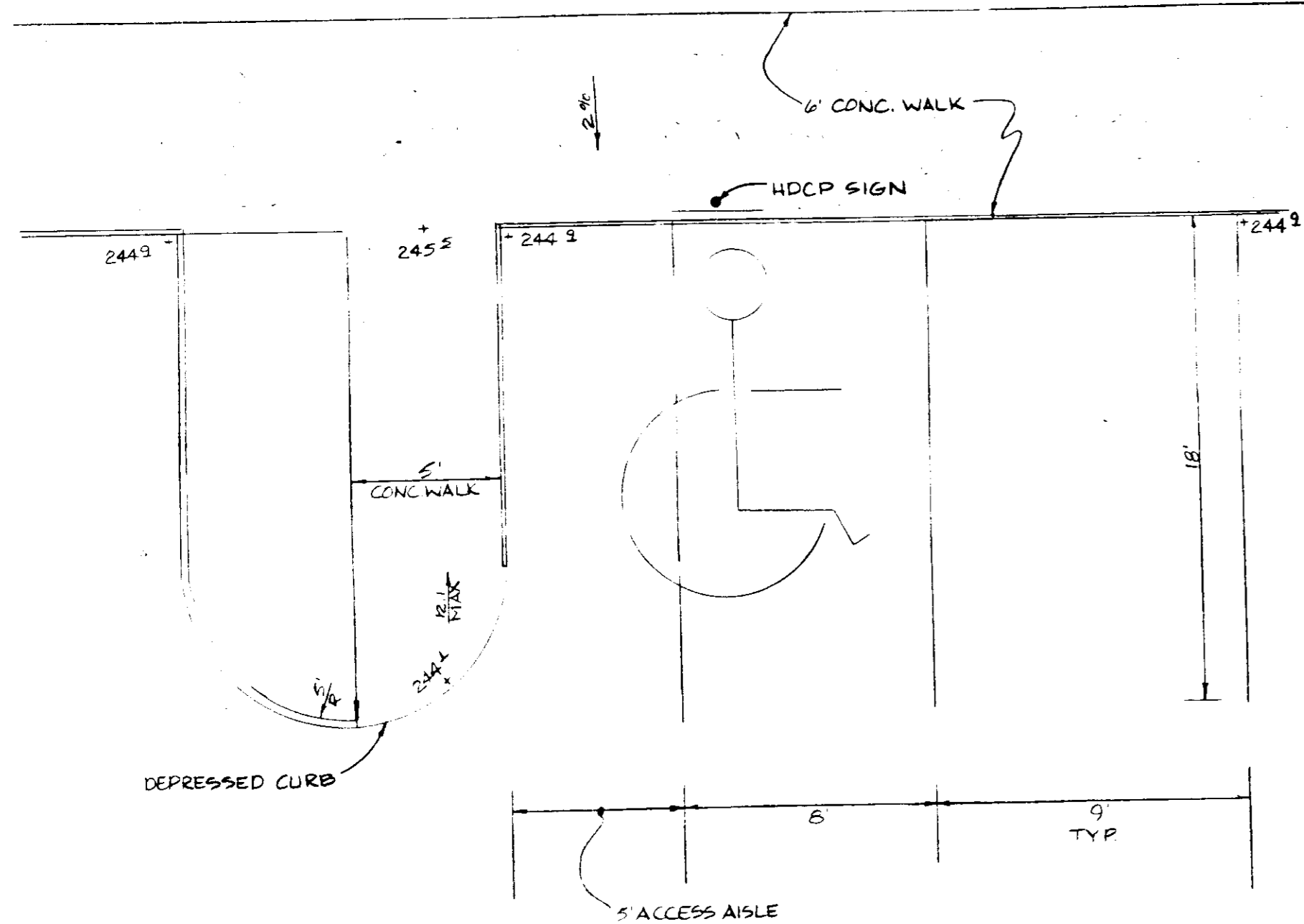
DESIGNED BY: _____
DRAWN BY: D.M.C.
CHECKED BY: _____
REVIEWER'S: _____

STORMWATER MANAGEMENT PROFILE* AND DETAILS FOR
BALTIMORE, WASHINGTON INDUSTRIAL PARK
BLOCK 'E', PARCEL 'F'
PLAT # 3523
TAX MAP 48, PARCEL # 0
ELECT. DIST. # _____ HOWARD COUNTY, MD
SCALE: 1"=50' AUG. 15, 1986 SHEET 2 OF 2

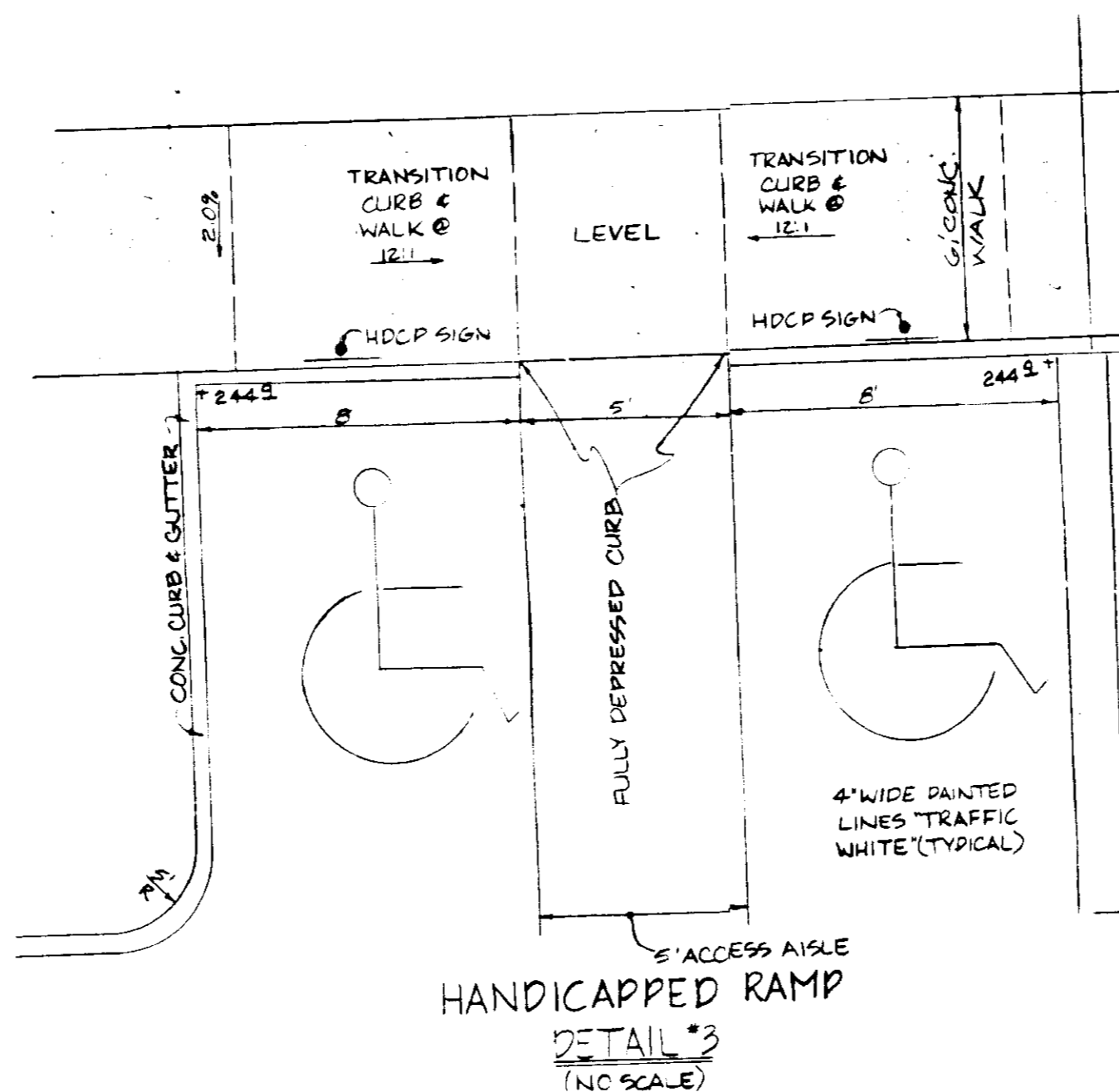
SDF-86-266



**HANDICAPPED RAMP
DETAIL #1
(NO SCALE)**



**HANDICAPPED RAMP
DETAIL #2
(NO SCALE)**



**HANDICAPPED RAMP
DETAIL #3
(NO SCALE)**



\$50 Fine Sign
Sign to utilize an aluminum blank 6" x 12" x 0.080 inch thick with two single post mounting holes.
The text and border shall be standard green to match that on R7-8 and the background shall be reflective white. Text shall be in 3" characters.
Sign shall be mounted directly below the standard R7-8 Reserved Parking for Handicapped sign. Its bottom edge shall be no less than 7 feet above ground. If the sign is placed against a building, structure, or other location where vehicle or pedestrian traffic is not obstructed the bottom edge of sign shall be at least 6 feet but not more than 10 feet above ground.

COLORS
GREEN - LEGEND AND BORDER
WHITE SYMBOL ON BLUE BACKGROUND
WHITE - BACKGROUND

1. THE ENVIRONMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Approved: *Robert J. Zick* 10/24/86
Howard S.C.D.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
James B. ... 11-6-86
COUNTY HEALTH OFFICER DATE

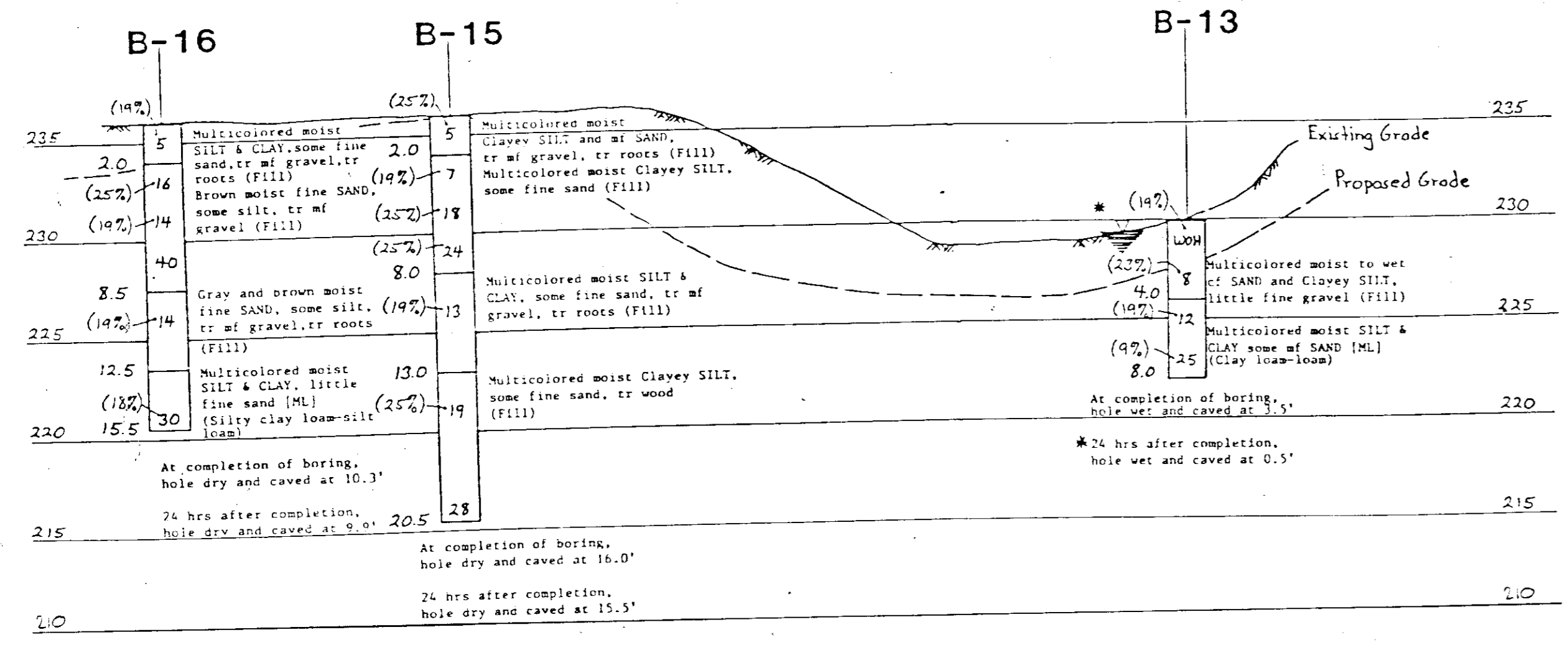
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
Donald ... 11-7-86
DIRECTOR DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
... 11-4-86
DIRECTOR DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
... 10-30-86
CHIEF BUREAU OF ENGINEERING DATE

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS
... 10-28-86
THE UNITED STATES SOIL CONSERVATION DISTRICT DATE

APPROVED:
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 8-19-86
...



**GEORGE WILLIAM STEPHENS, JR.
AND ASSOCIATES, INC.**
CIVIL ENGINEERS & LAND SURVEYORS
303 ALLEGHENY AVENUE
TOWSON, MARYLAND 21204
(301) 825-8120

ENGINEER
John ...
4732
REG NO.
10/13/86
5-5-86
DATE

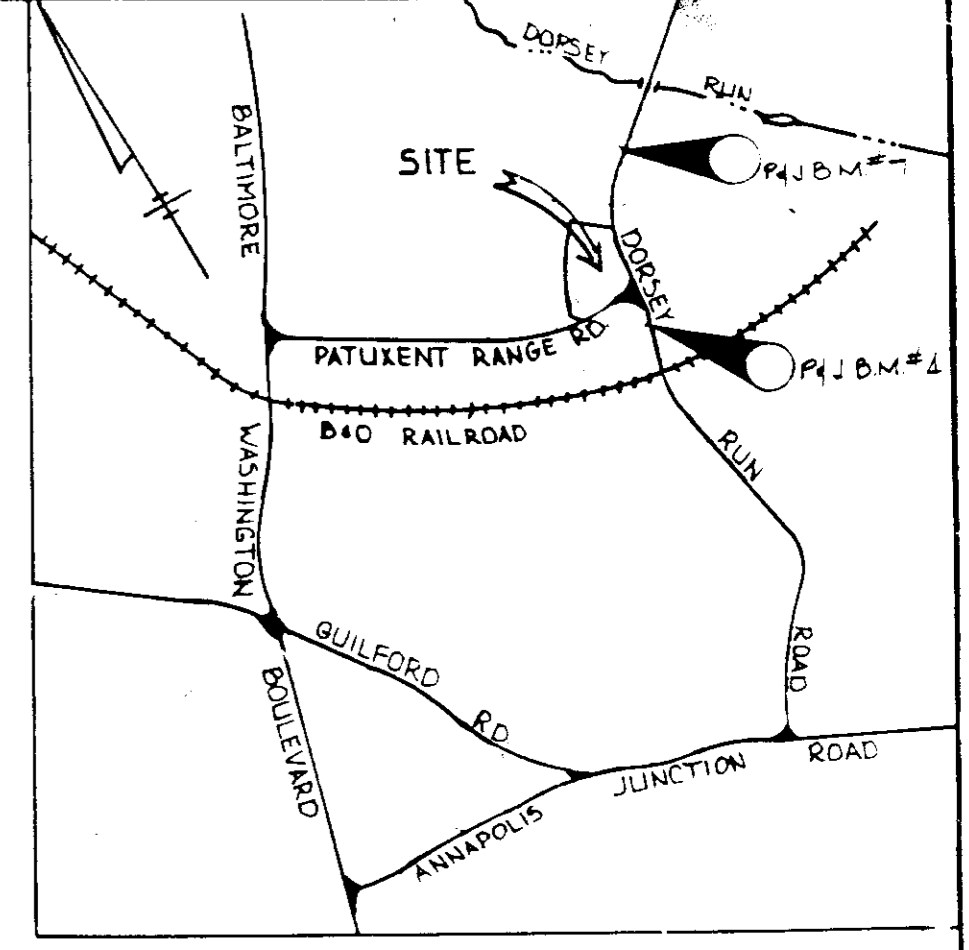
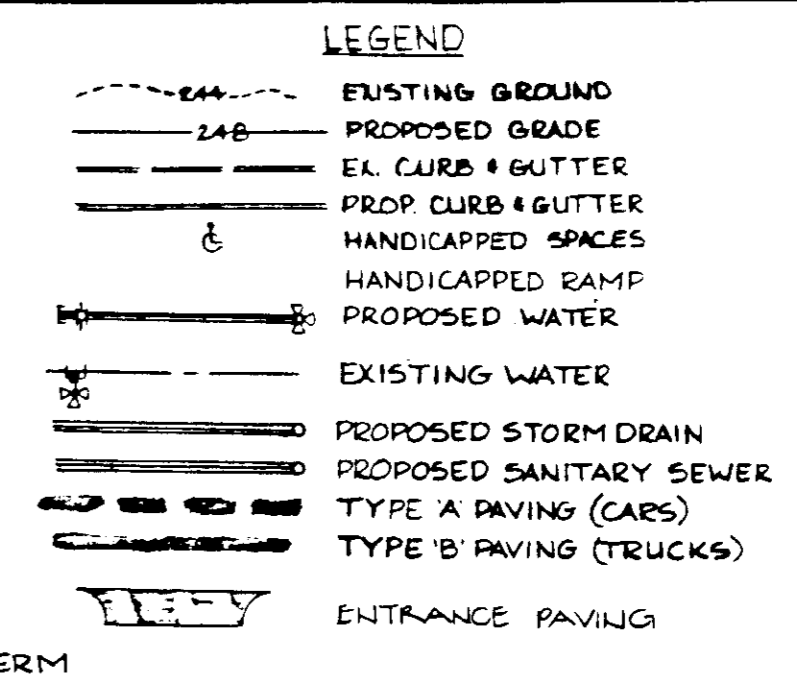
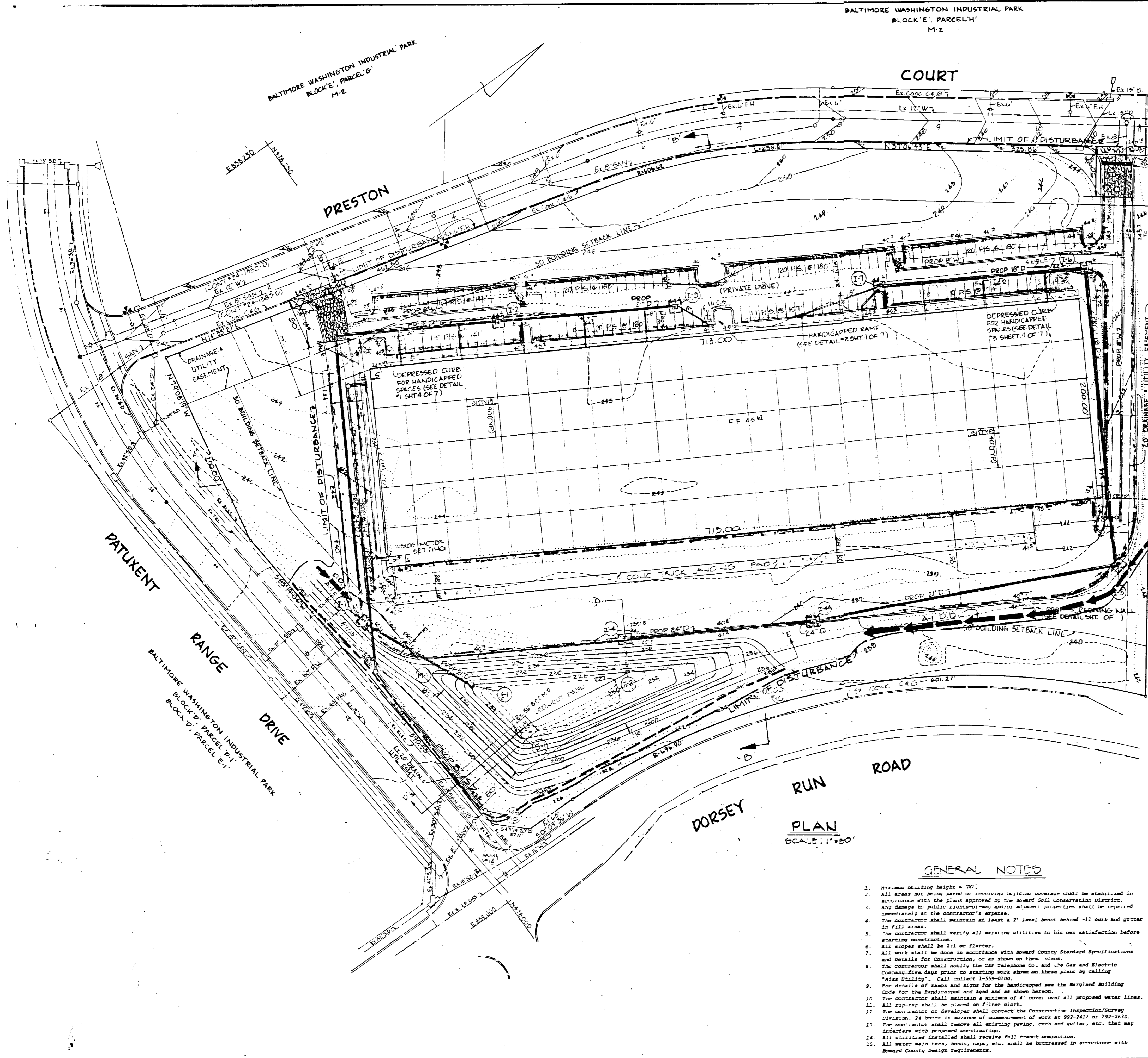
OWNER
B.W.P. ASSOCIATES PARTNERSHIP
110 WEST ROAD
TOWSON, MD. 21204 (301) 921-8435

DEVELOPER
JAMES F. KNOTT DEVELOPMENT CORP.
110 WEST ROAD
TOWSON, MD. 21204 (301) 921-8435

DEVELOPER
James J. King
10-14-86
6-5-86
DATE
SIGNATURE

DESIGNED BY: B.F.
DRAWN BY: D.M.D.
CHECKED BY: J.J.S.
REVISIONS

DETAILS
- FOR -
BALTIMORE, WASHINGTON INDUSTRIAL PARK
BLOCK 'E', PARCEL 'P'
PLAT # 8523
TAX MAP 4B, PARCEL # 0
ELECT. DIST. NO. 6, HOWARD COUNTY, MD.
SCALE: 1"=50' AUG 13 1986 SHEET 4 OF 7
SDP-86-266



BENCH MARKS
 P.1. B.M. #4 ELEV. 211.740
 R.R. SPIKE SET IN C.P. #20, G.P.E. #200650,
 S. SIDE DORSEY RUN ROAD.
 P.1. B.M. #7
 R.R. SPIKE SET IN G.P.E. POLE #200650,
 S. SIDE DORSEY RUN ROAD.

SITE DATA

TOTAL AREA OF SITE	= 10.767 AC ± (460,000 S.F.)
EXISTING ZONING	= M-2
TOTAL FLOOR AREA	= 142,600 S.F.
EXISTING USE	= VACANT
PROPOSED USE	= OFFICE / WAREHOUSE
PARKING REQUIRED	
OFFICE: 1 E.M.P.L., 200 S.F. = 142 E.M.P.L.	
142 E.M.P.L. @ 7 P.S./10 E.M.P.L. = 100 P.S.	
WAREHOUSE: 1 E.M.P.L./1000 S.F. = 114 E.M.P.L.	
114 E.M.P.L. @ 1 P.S./3 E.M.P.L. = 38 P.S.	
TOTAL P.S. REQ'D	138 P.S.
PARKING PROVIDED	= 147 P.S.
(INCLUDES 5 HANDICAPPED P.S.)	
FLOOR AREA RATIO	= 3.168 - 10.767 = 29%
PROPERTY REFERENCE	=
% OPEN SPACE	= 4.700 - 10.767 = 44%
% BUILDING COVERAGE	= 3.168 - 10.767 = 29%
AREA TO BE DISTURBED	= 400,075 S.F. = 5.88 AC ±
AREA TO BE VEGETATIVELY STABILIZED	= .45025 S.F. = .0006 AC ±
BUILDING COVERAGE WITH PAVING	= 6.020 - 10.767 = 56%
AREA OF PARKING LOTS	= 40,000 S.F. (0.58 AC ±)
AREA OF LANDSCAPING ISLANDS	= 2,184 S.F. (0.03 AC ±)
% OF LANDSCAPED ISLANDS TO PARKING LOT	= 5.3%

APPROVED
 DIVISION OF LAND DEVELOPMENT &
 ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE **8-19-86**
[Signature]

THESE PLANS FOR SMALL PAVED CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *[Signature]* **10-28-86**
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
[Signature] **11-6-86**
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
[Signature] **11-7-86**
 DIRECTOR DATE
[Signature] **11-7-86**
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
[Signature] **11-4-86**
 DIRECTOR DATE
[Signature] **10-30-86**
 CHIEF BUREAU OF ENGINEERING DATE

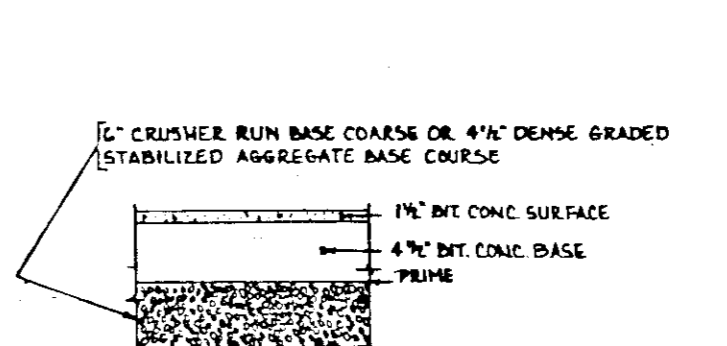
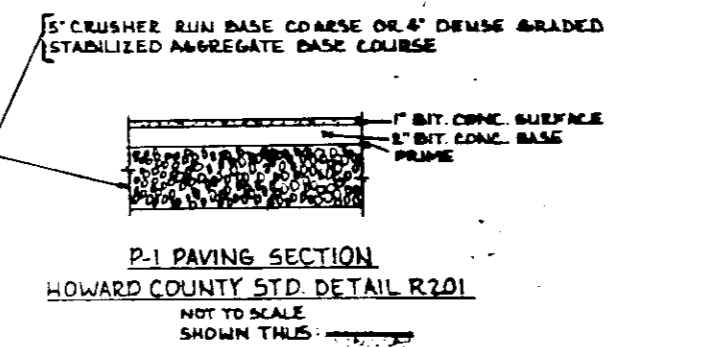
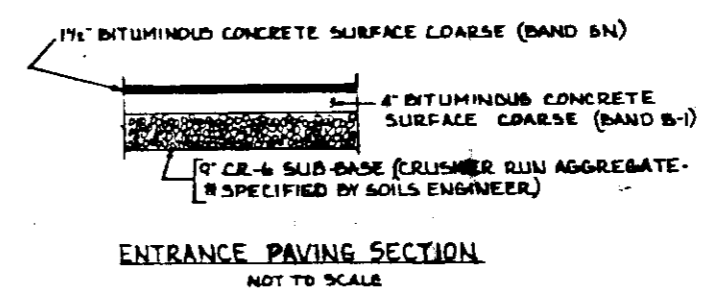
REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
[Signature] **10-28-86**
 THE UNITED STATES SOIL CONSERVATION DISTRICT DATE

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
P.1. P.	8100 PRESTON COURT
SUBDIVISION NAME: BALTIMORE WASHINGTON INDUSTRIAL PARK	
PLAT OR L.P. BLOCK: 2	ZONE: M-2
TAX MAP NO. 48	ELECT. DIST. 6
WATER CODE: 802	SEWER CODE: 802 0000

PLAN
 SCALE: 1"=50'

GENERAL NOTES

- Maximum building height = 30'
- All areas not being paved or receiving building coverage shall be stabilized in accordance with the plans approved by the Howard Soil Conservation District.
- Any damage to public rights-of-way and/or adjacent properties shall be repaired immediately at the contractor's expense.
- The contractor shall maintain at least a 2' level bench behind all curb and gutter in fill areas.
- The contractor shall verify all existing utilities to his own satisfaction before entering construction.
- All slopes shall be 2:1 or flatter.
- All work shall be done in accordance with Howard County Standard Specifications and details for construction, or as shown on these plans.
- The contractor shall notify the CAP Telephone Co. and the Gas and Electric Company five days prior to starting work shown on these plans by calling "Miss Dilling", call collect 4559-0100.
- For details of ramps and signs for the handicapped see the Maryland Building Code for the Handicapped and Amend. as shown herein.
- The contractor shall maintain a minimum of 4' cover over all proposed water lines.
- All rip-rap shall be placed on filter cloth.
- The contractor or developer shall contact the Construction Inspection/Survey Division, 74 hours in advance of commencement of work at 992-2417 or 792-2630.
- The contractor shall remove all existing paving, curb and gutter, etc. that may interfere with proposed construction.
- All utilities installed shall receive full trench compaction.
- All water main tees, bends, caps, etc. shall be buttressed in accordance with Howard County Design Requirements.



GEORGE WILLIAM STEPHENS, JR. AND ASSOCIATES, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 303 ALLEGHENY AVENUE
 TOWSON, MARYLAND 21204
 (301)825-8120

ENGINEERS CERTIFICATION
 I hereby certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
[Signature] **10/13/86**
 REG. NO. 2732 DATE

OWNER
 BWIP ASSOCIATED PARTNERSHIP
 110 WEST ROAD
 TOWSON, MD. 21204 (301) 921-3430

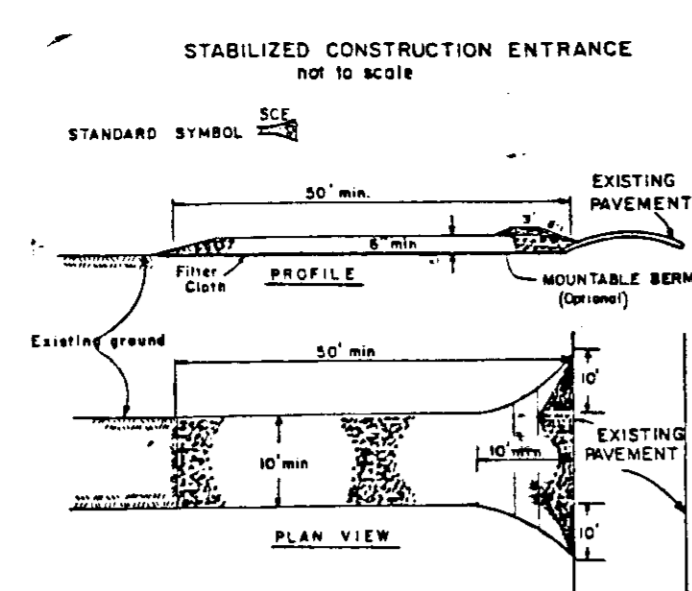
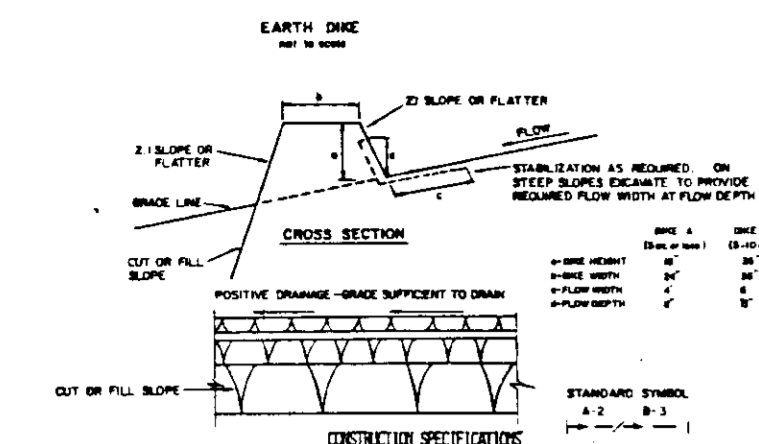
DEVELOPER
 JAMES F. KNOTT DEVELOPMENT CORP.
 110 WEST ROAD
 TOWSON, MD. 21204 (301) 921-3430

DEVELOPERS CERTIFICATION
 I hereby 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 Soil Conservation District or their authorized agents as deemed necessary. I also certify that any responsible person 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.
[Signature] **6-5-86 10/11/86**
 DEVELOPER DATE

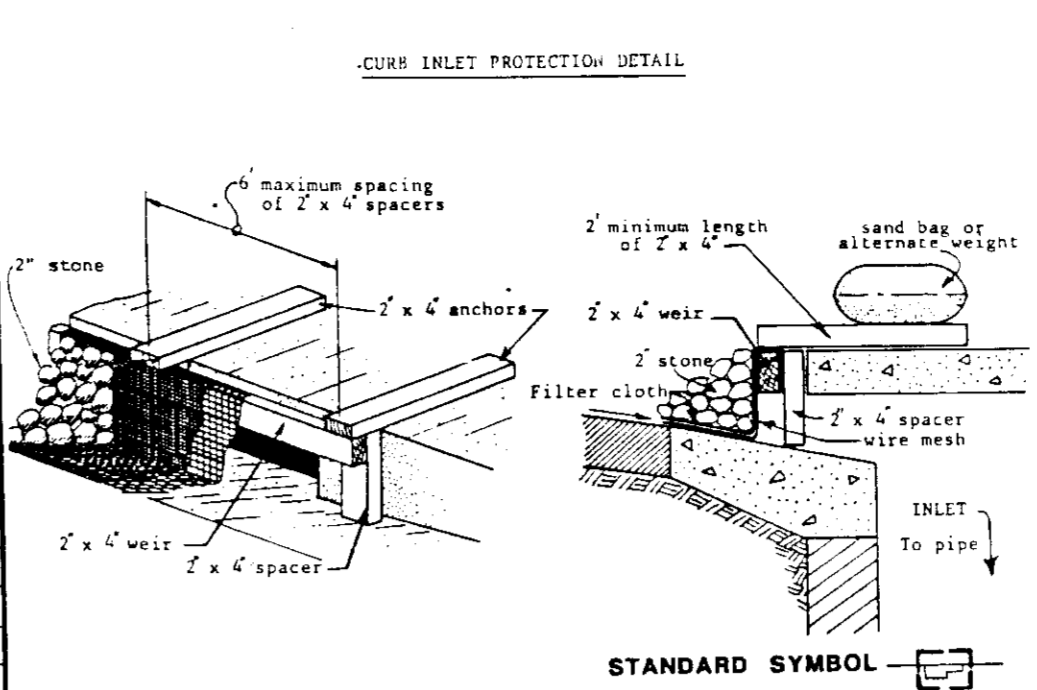
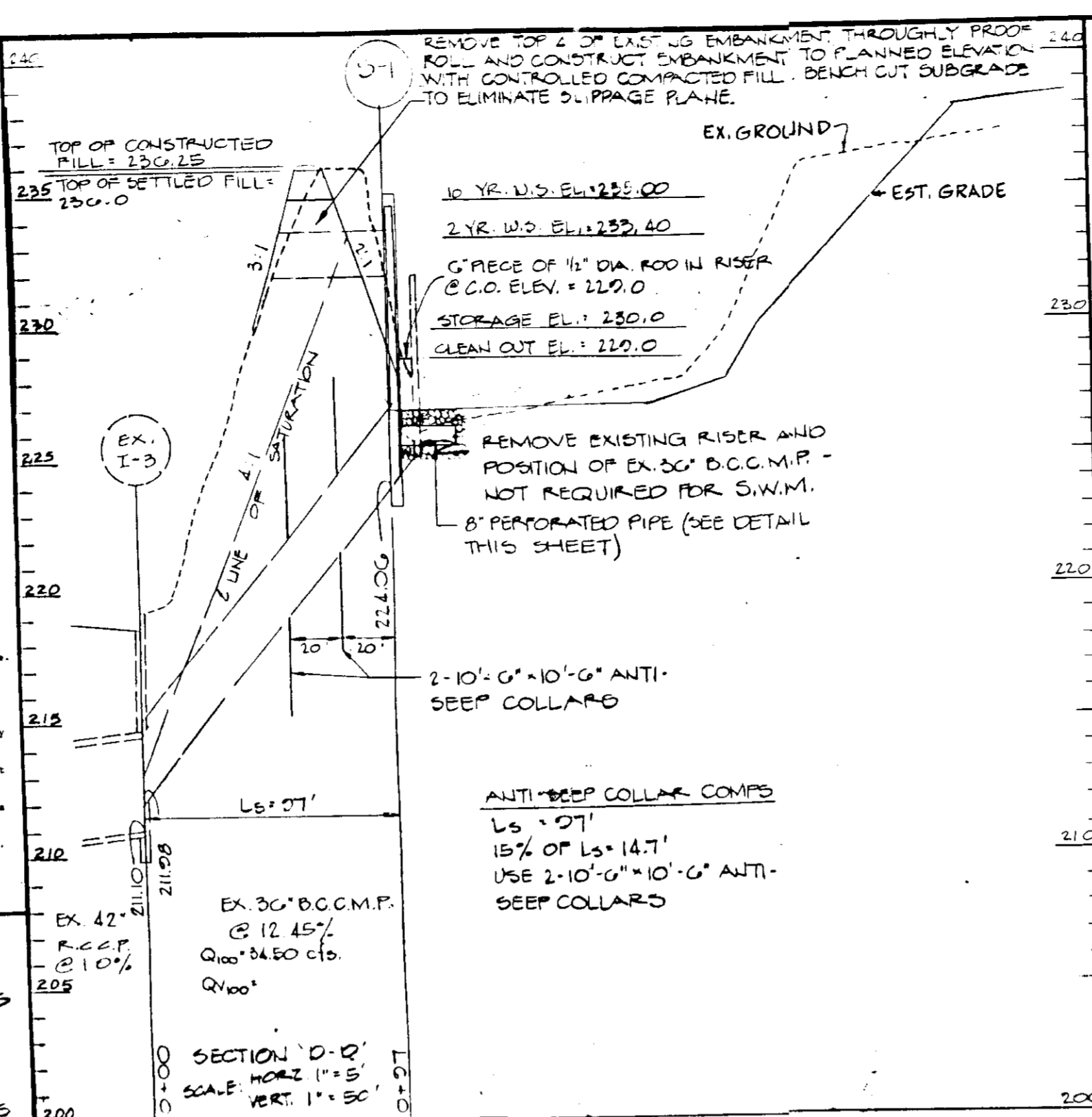
DESIGNED BY: B.F.
 DRAWN BY: D.M.D.
 CHECKED BY: J.J.S.
 REVISIONS:

BALTIMORE, WASHINGTON INDUSTRIAL PARK
 BLOCK 'E', PARCEL 'P'
 PLAT # 8823
 TAX MAP 48, PARCEL # 0
 ELECT. DIST. NO. 6, HOWARD COUNTY, MD.
 SCALE: 1"=50' AUG. 5, 1986 SHEET # OF 7

SDF-86-266



- CONSTRUCTION SPECIFICATIONS**
- Frame Size - See 2" stone, or reclaimed or recycled concrete equivalent.
 - Length - As specified, but not less than 10 feet, except on a slight resistance in where a 10 foot minimum length would apply.
 - Thickness - Not less than 6" (6 inches).
 - Frame Spacing - Not less than 12" (12 inches), but not less than the full width of stone.
 - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter cloth will be secured on a slight slope to the stone.
 - Surface Wear - All surfaces shall be finished with a smooth finish. The surface shall be finished with a smooth finish. The surface shall be finished with a smooth finish.
 - Installation - The entrance shall be maintained in a condition which will prevent the entrance from becoming a hazard to the public. The entrance shall be maintained in a condition which will prevent the entrance from becoming a hazard to the public.
 - Maintenance - The entrance shall be maintained in a condition which will prevent the entrance from becoming a hazard to the public. The entrance shall be maintained in a condition which will prevent the entrance from becoming a hazard to the public.
 - Inspection - The entrance shall be maintained in a condition which will prevent the entrance from becoming a hazard to the public. The entrance shall be maintained in a condition which will prevent the entrance from becoming a hazard to the public.



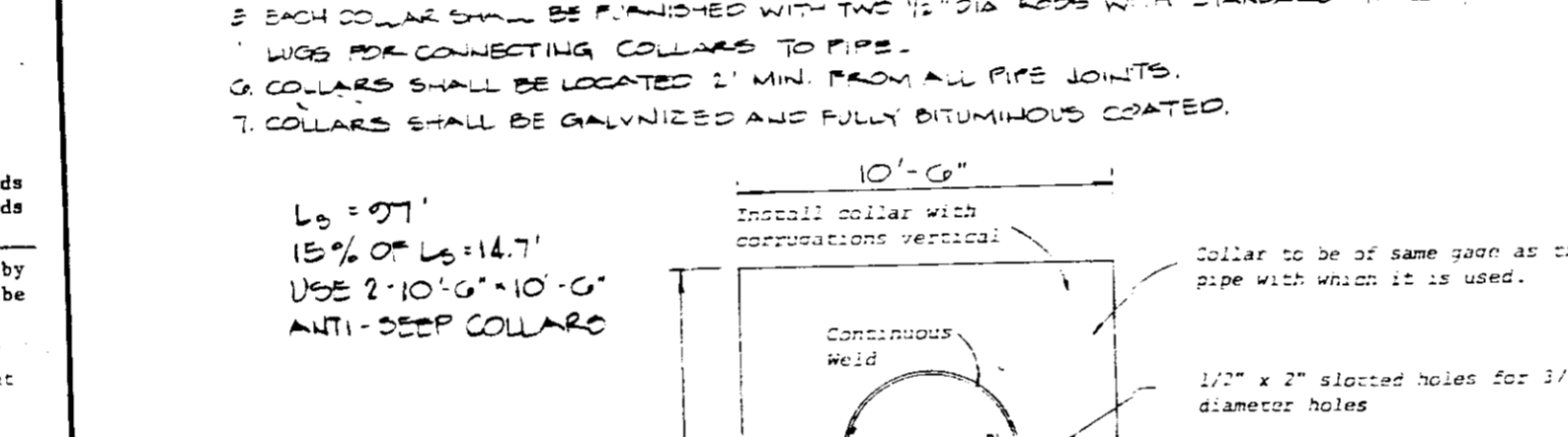
- Construction Specifications**
- Materials**
 - Wooden frame is to be constructed of 2" x 4" construction grade lumber.
 - Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
 - Filter cloth must be of a type approved for this purpose; resistant to sunlight with wave size, 80S, 40-85, to allow sufficient passage of water and removal of sediment.
 - Stone is to be 2" in size and clean, since fines would clog the cloth.
 - Procedure**
 - A weale, ditchline or yard inlet protection.
 - Excavate completely around inlet to a depth of 18" below notch elevation.
 - 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.
 - Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.
 - Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be overlapped and folded, then fastened down.
 - Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation on sides.
 - If the inlet is set 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).
 - This structure must be inspected frequently and the filter fabric replaced when clogged.
 - Curb Inlet Protection.
 - Attach a continuous piece of wire mesh (30" min. width by three length plus 4") to the 2" x 4" weir (securing throat length plus 2") as shown on the standard drawing.
 - Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2" x 4" weir.
 - Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6" apart).
 - 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.
 - The assembly shall be placed so that the end spacers are a minimum 1" beyond both ends of the throat opening.
 - 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.
 - This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 - Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

- GENERAL NOTES**
- Refer to 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for standard details and detailed specifications of each practice specified herein.
 - With the approval of the sediment control inspector, minor field adjustments can and will be made to ensure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the Baltimore County Soil Conservation District.
 - At the end of each working day, all sediment control practices will be inspected and left in operational condition.
 - Following initial soil disturbance or redistribution, placement or temporary stabilization shall be completed within: a.) seven calendar days as to the surface of all perimeter controls, dikes, mounds, ditches, perimeter slopes, and all slopes greater than 3:1 (horizontal to 1 vertical) and b.) fourteen days as to all other disturbed or graded areas on the project site.
 - Any change to the grading proposed on this plan requires re-submission to Baltimore County Soil Conservation District for approval.
 - Dust control will be provided for all disturbed areas. Refer to 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control, pp. 220 and 221, for acceptable methods and specifications for dust control.
 - Any violation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the Baltimore County Soil Conservation District prior to the initiation of the change.

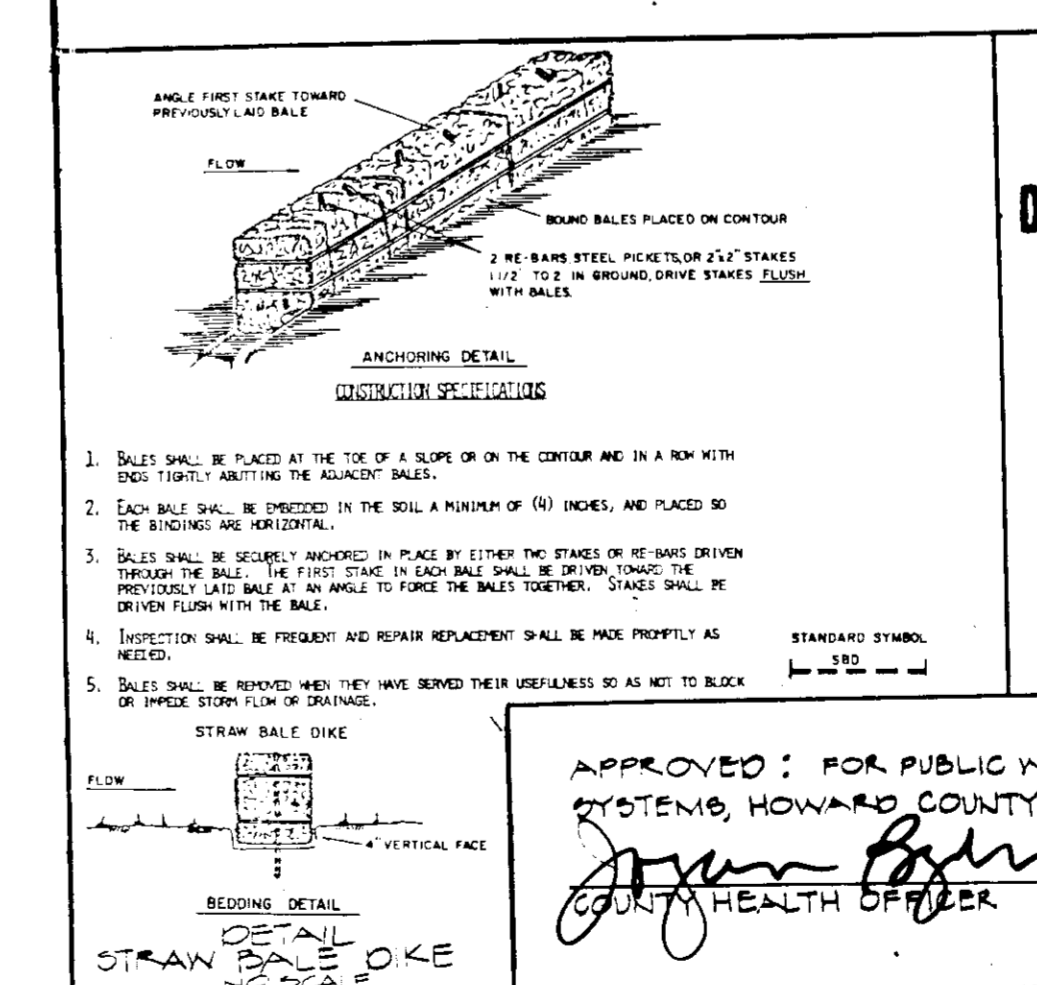
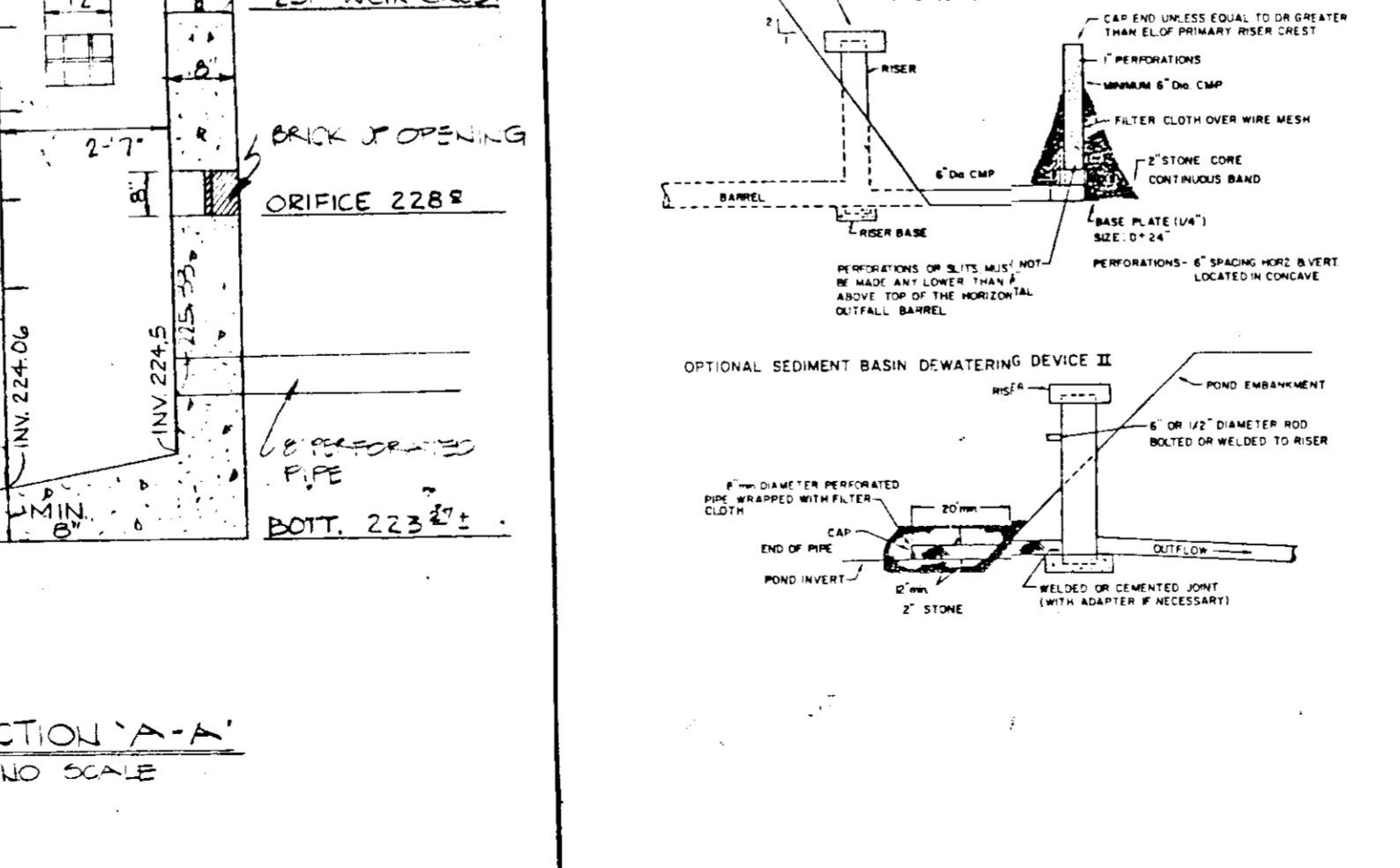
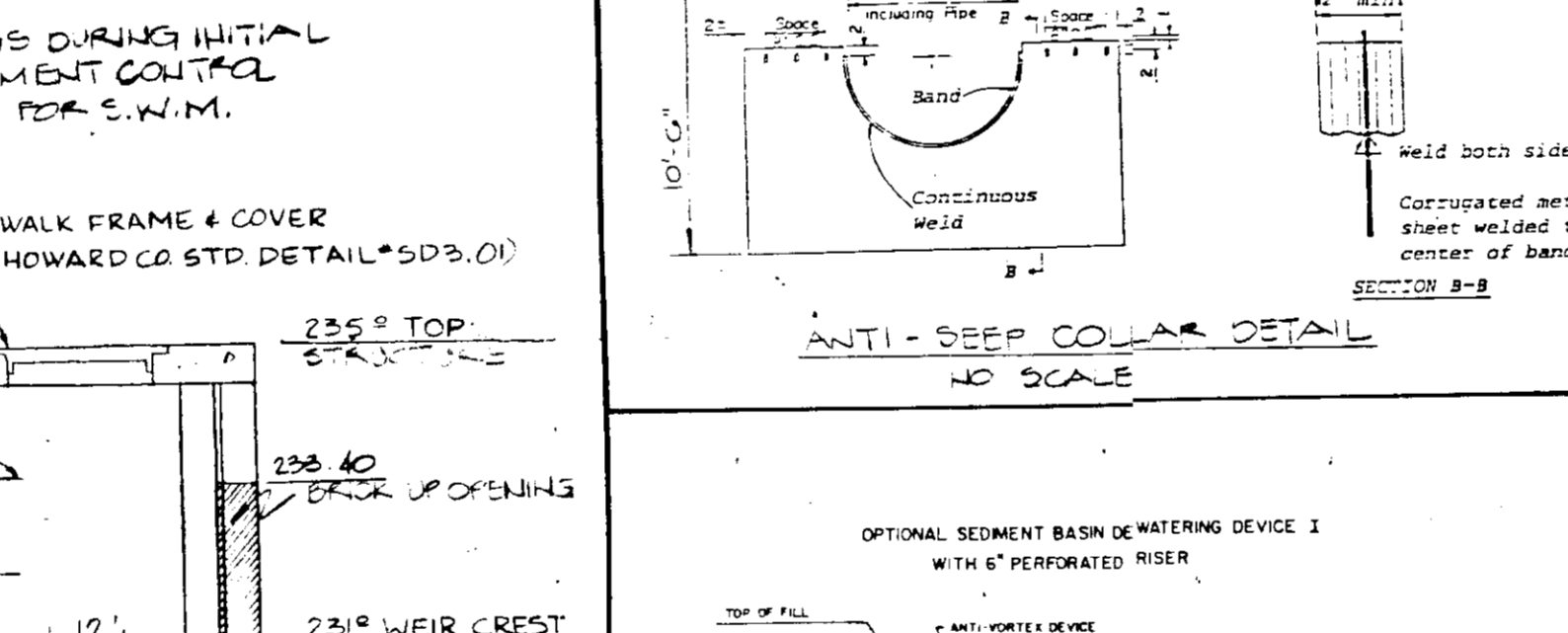
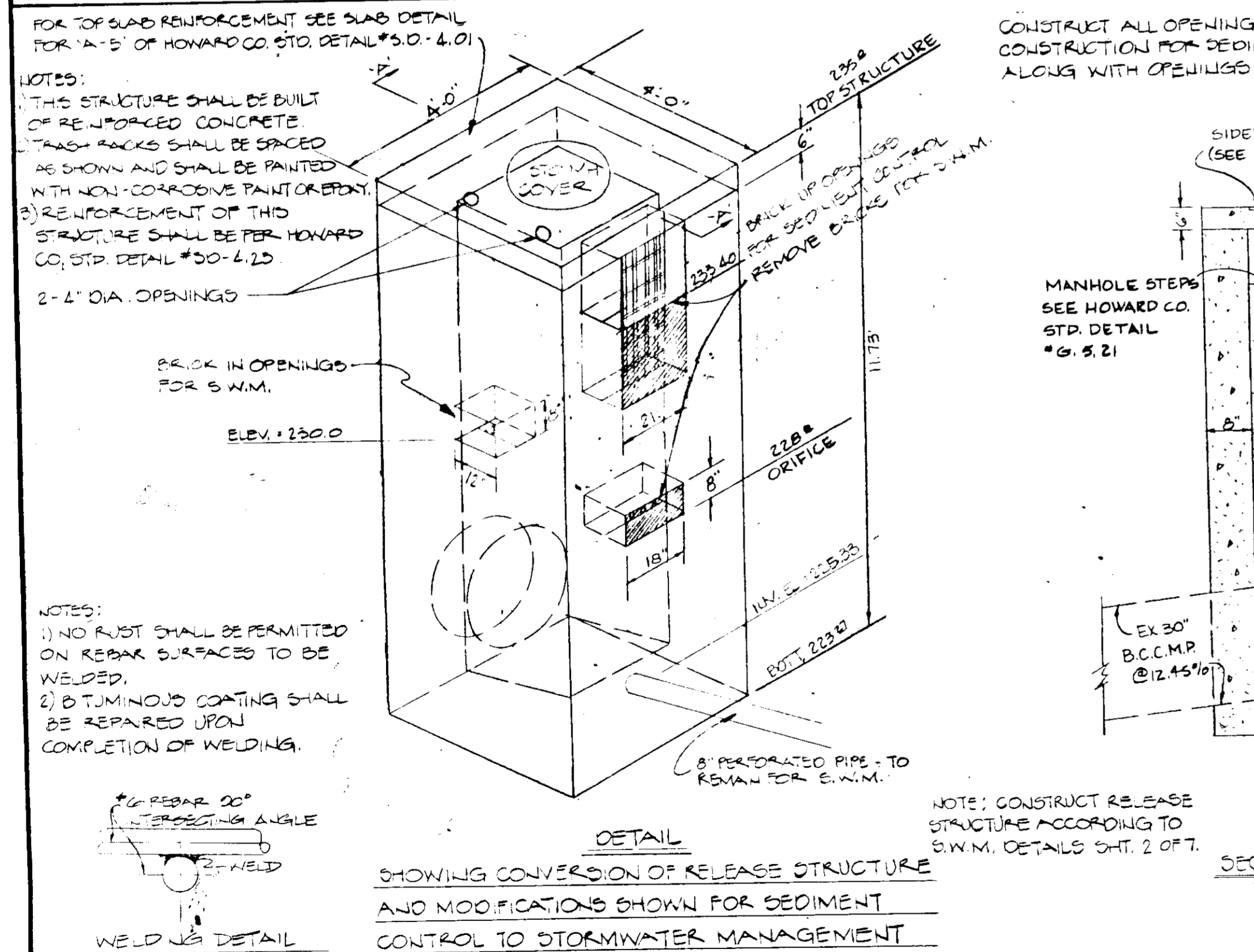
SEQUENCE OF CONSTRUCTION

- NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, PERMITS INSPECTOR 48 HOURS PRIOR TO STARTING ANY WORK. 2 DAYS
- INSTALL STABILIZED CONSTRUCTION ENTRANCE. 1 DAY
- INSTALL STRAW BALE DIKE, EARTH DIKE & SEDIMENT BASIN, MAINTAIN POSITIVE DRAINAGE TO BASIN AT ALL TIMES. 12 DAYS
- GRADE DITS. 7 DAYS
- PLACE BUILDING FLOOR AREA AND PARKING AREA TO SUB-GRADE. 9 DAYS
- INSTALL ALL REMAINING UTILITIES. 5 DAYS
- PLACE BASE STONE ON BUILDING AND PAVING. 4 DAYS
- STABILIZE ALL AREAS OUTSIDE BUILDING & PAVING. 5 DAYS
- COMPLETE PAVING. 5 DAYS
- REMOVE ALL SEDIMENT CONTROL DEVICES AND STABILIZE THOSE AREAS AFTER OBTAINING PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR. 3 DAYS

- ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
- WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
- UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
- THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPES AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF CONSTRUCTION.
- EACH COLLAR SHALL BE FINISHED WITH TWO 1/2" DIA. BOLTS WITH STANDARD TANK WELDS FOR CONNECTING COLLARS TO PIPES.
- COLLARS SHALL BE LOCATED 2" MIN. FROM ALL PIPE JOINTS.
- COLLARS SHALL BE GALVANIZED AND FULLY DUTYMANHOOD COATED.



- SEDIMENT CONTROL NOTES**
- 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 (1992-2437).
 - 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.
 - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a.) 7 calendar days for all permanent 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 perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control for permanent seedings and mulching (Sec. 52), temporary seedings (Sec. 50) and (Sec. 51) and (Sec. 54), temporary stabilization with which alone can only be done when recommended seedings do not allow for proper germination and establishment of grasses.
 - All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 - Site Analysis:
 - Total Area of Site: 10,701 acres
 - Area Disturbed: 2,227 acres
 - Area to be vegetatively stabilized: 2,227 acres
 - Total Fill: 1,222 Cu. Yds
 - Offset: 1,222 Cu. Yds
 - Any sediment control practice which is disturbed by grading activity for placement of utilities must be replaced on the same day of disturbance.
 - Additional sediment controls must be provided, if deemed necessary by the Howard County SDI sediment control inspector.



APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 8-19-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING
 DIRECTOR
 DATE 11-7-86
 DATE 11-7-86

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
 DIRECTOR
 DATE 11-4-86
 DATE 10-30-86

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS
 DATE 10-28-86

SEDIMENT & EROSION CONTROL DETAILS
 FOR
 BALTIMORE WASHINGTON INDUSTRIAL PARK
 BLOCK 'E', PARCEL 'P'
 PLAT # 3523
 TAX MAP 48 PARCEL # 0
 ELEC. DIST. NO. G HOWARD COUNTY, MD.
 SCALE: 1" = 50' 4" = 300G 1" = 50' 1" = 50' 1" = 50'
 SHEET # OF 7
 SDP-86-266

GEORGE WILLIAM STEPHENS, JR.
 AND ASSOCIATES, INC.
 CIVIL ENGINEERS & LAND SURVEYORS
 303 ALLEGHENY AVENUE
 TOWSON, MARYLAND 21204
 (301) 255-8120

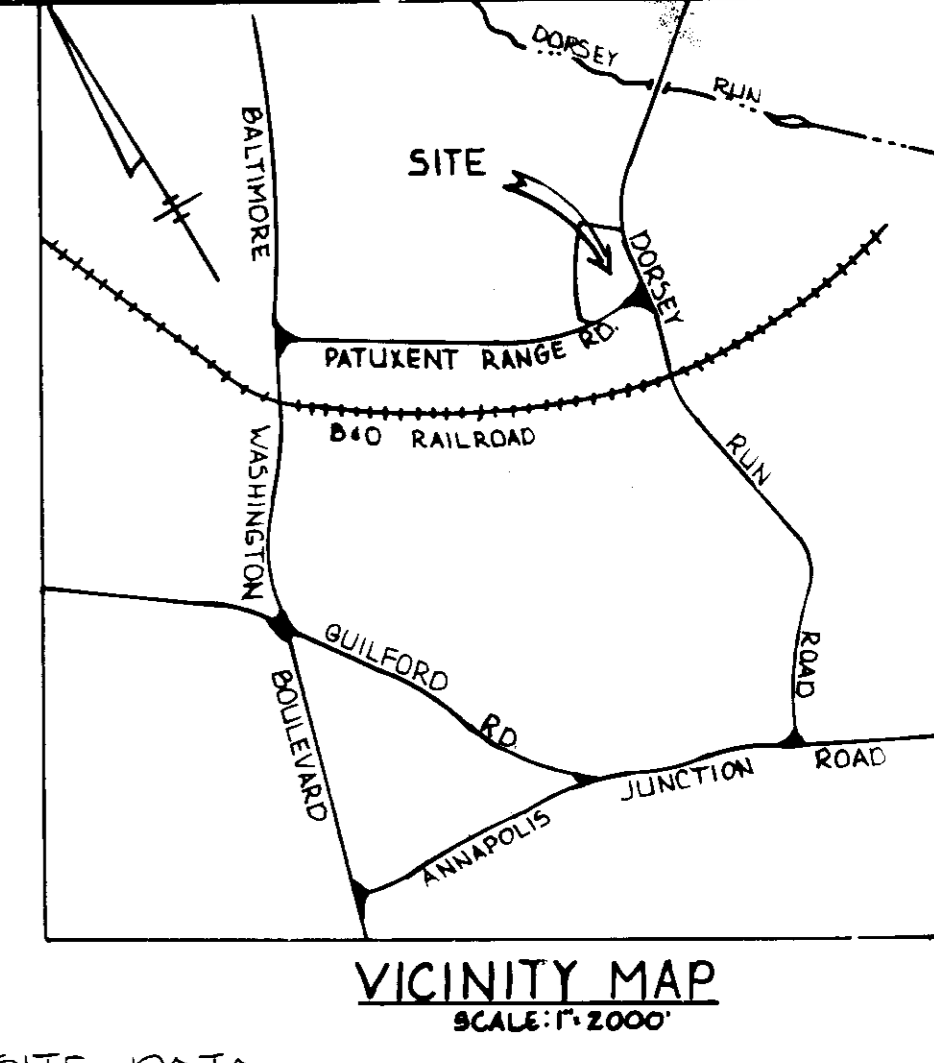
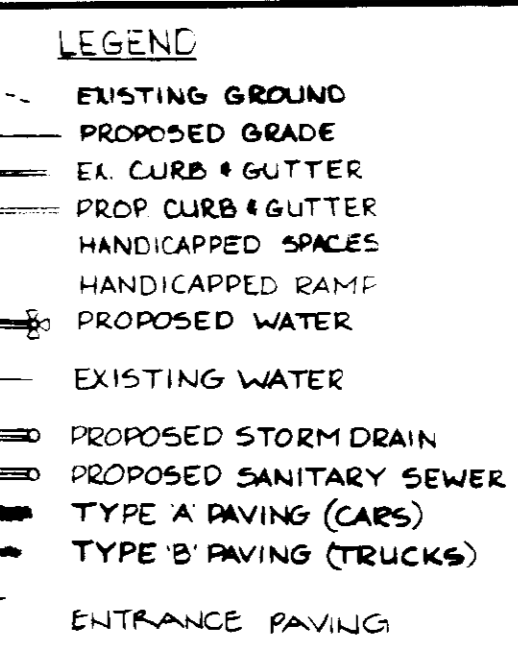
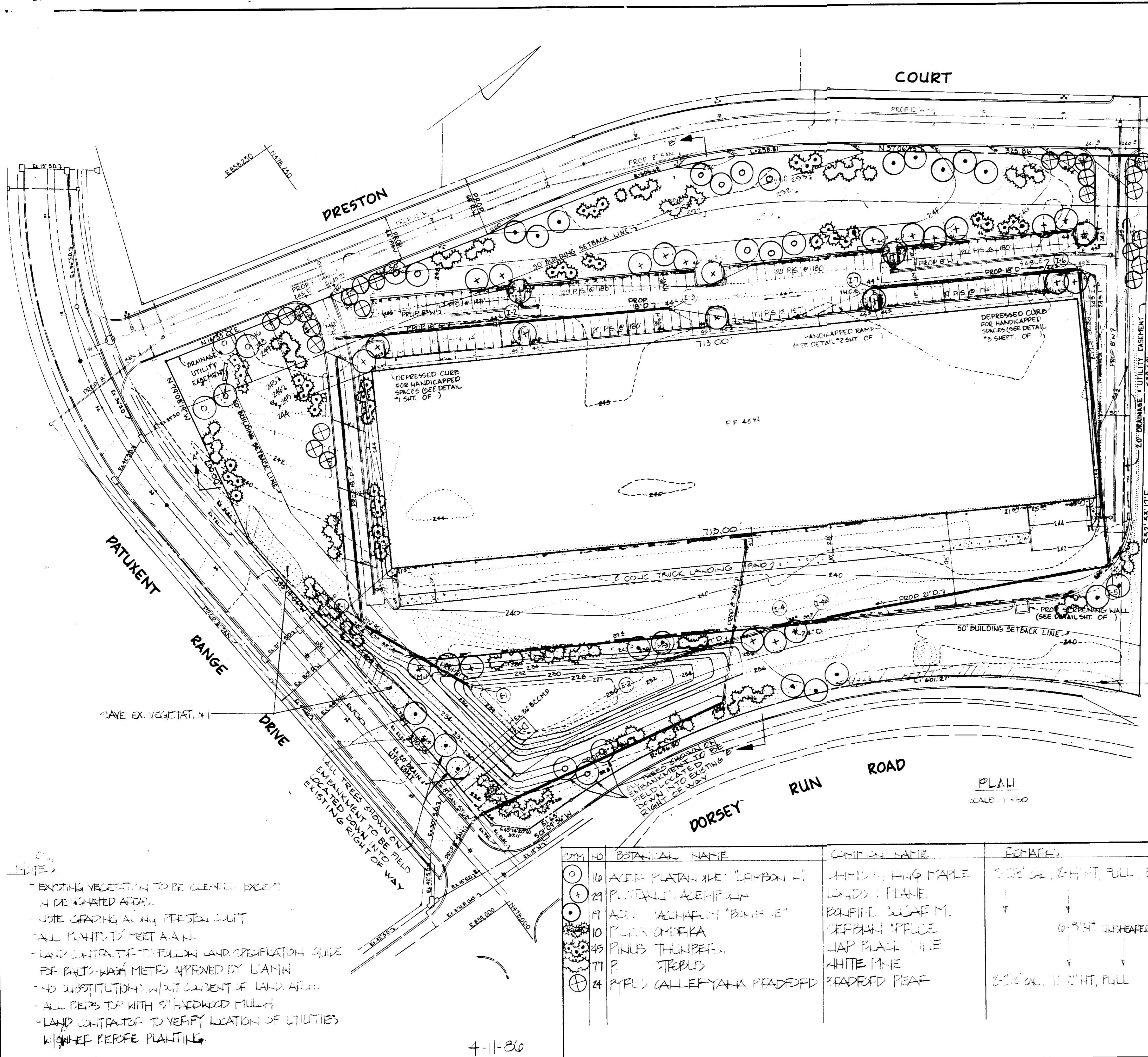
ENGINEER
 DATE 11/12/86

OWNER
 B.W.P. ASSOCIATED PARTNERSHIP
 110 WEST ROAD
 TOWSON, MD. 21284 (301) 321-6436

DEVELOPER
 JAMES F. KNOTT DEVELOPMENT CORP.
 110 WEST ROAD
 TOWSON, MD. 21284 (301) 321-6436

DEVELOPER
 DATE 10-14-86

DESIGNED BY: B.F.
 DRAWN BY: D.M.D.
 CHECKED BY: J.J.S.
 REVISIONS



BENCH MARKS
 P+J BM #4 ELEV. 211.740
 R.R. SPIKE SET IN CAP #20 GAE #203656
 S. SIDE DORSEY RUN ROAD
 P+J BM #7
 R.R. SPIKE SET IN GAE POLE #203650
 S. SIDE DORSEY RUN ROAD

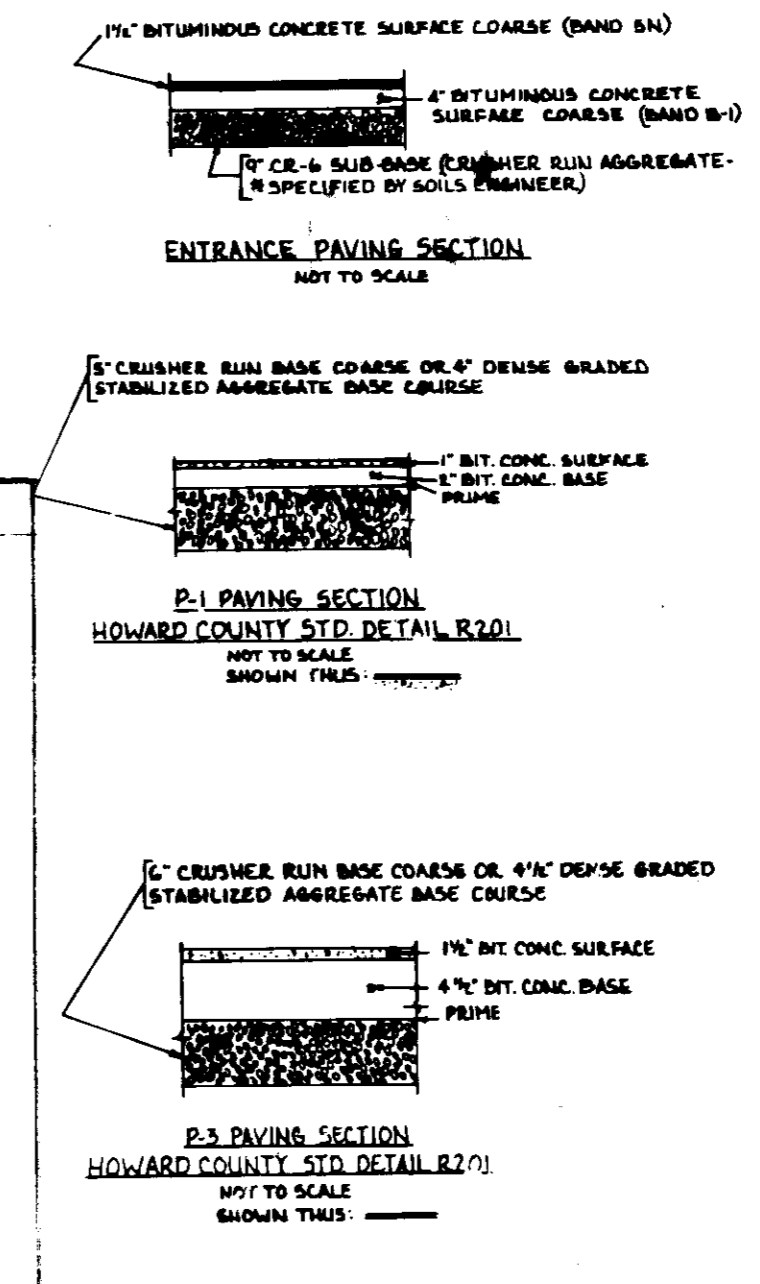
SITE DATA

TOTAL AREA OF SITE	= 10.767 AC. (460,011 SF)
EXISTING ZONING	= M-2
TOTAL FLOOR AREA	= 142,000 SF
EXISTING USE	= VACANT
PROPOSED USE	= OFFICE / WAREHOUSE
PARKING REQUIRED	
OFFICE: 1 EMPL./200 SF = 142 EMPL.	
143 EMPL. @ 7 PS./10 EMPL. = 100 PS.	
WAREHOUSE: 1 EMPL./1000 SF = 142 EMPL.	
114 EMPL. @ 1 PS./3 EMPL. = 38 PS.	
TOTAL PS. REQ'D	138 PS.
PARKING PROVIDED (INCLUDING 5 HANDICAPPED PS.)	= 147 PS.
FLOOR AREA RATIO	= 3.168 - 10.767 = 29%
PROPERTY REFERENCE	
% OPEN SPACE	= 4.700 - 10.767 = 44%
% BUILDING COVERAGE	= 3.168 - 10.767 = 29%
AREA TO BE DISTURBED	
AREA TO BE VEGETATIVELY STABILIZED	= 0.020 - 10.767 = 36%
BUILDING COVERAGE WITH PAVING	= 40,800 SF. (0.04 AC.)
AREA OF PARKING LOTS	= 2,104 SF. (0.05 AC.)
AREA OF LANDSCAPING ISLANDS	
% OF LANDSCAPED ISLANDS TO PARKING LOT	= 5.3%

THIS PLAN IS FOR TYPE, SIZE, AND LOCATION OF LANDSCAPE PLANTING ONLY.

APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 8-19-86
 [Signature]

- GENERAL NOTES**
- Maximum building height = 30'
 - All areas not being paved or resurfaced shall be stabilized in accordance with the plans approved by the Howard County Conservation District.
 - Any damage to public right-of-way and/or adjacent properties shall be repaired immediately at the contractor's expense.
 - The contractor shall maintain a 2' level bench behind all curbs and gutters in fill areas.
 - The contractor shall verify all existing utilities to his own satisfaction before starting construction.
 - All slopes shall be 3:1 or flatter.
 - All work shall be done in accordance with Howard County Standard Specifications and details for Construction, or as shown on these plans.
 - The contractor shall notify the C & P Telephone Co. and the Gas and Electric Company five days prior to starting work shown on these plans by calling "Gas Utility" call collect #-899-0100.
 - For details of ramps and signs for the handicapped see the Maryland Building Code for the Handicapped and AED and as shown herein.
 - The contractor shall maintain a minimum of 4' cover over all proposed water lines.
 - All 21/2" PIP shall be placed on fillers.
 - The contractor or developer shall contact the Construction Inspection/Survey Division 24 hours in advance of commencement of work at 992-2417 or 792-7272.
 - The contractor shall remove all existing paving, curbs and gutters, etc. that interfere with proposed construction.
 - All utilities installed shall receive full trench compaction.
 - All water main lines, basins, manholes, etc. shall be constructed in accordance with Howard County design requirements.



SYM	NO	BOTANICAL NAME	COMMON NAME	REMARKS
○	10	ACER PLATANOIDES "LONDON E"	LEAFLESS LINDEN	2-3" CAL, 12-14" HT, FULL
○	29	PLATANUS ACERIFOLIA	LEAFLESS LINDEN	2-3" CAL, 12-14" HT, FULL
○	19	ACER SACCHARINUM "BURNING BUSH E"	BURNING BUSH	2-3" CAL, 12-14" HT, FULL
○	10	PIERIS OMPLEXICA	PIERIS	6-8" HT UNHEAVED
○	45	PINUS THUNBERGII	JAPANESE PINE	2-3" CAL, 12-14" HT, FULL
○	71	? STROBUS	WHITE PINE	
○	24	PIFUS CALLEPYANA PRADERFORD	PRADERFORD PEAF	

- NOTES**
- EXISTING VEGETATION TO BE CLEARED EXCEPT IN DESIGNATED AREAS.
 - NOTE GRADING AND PRELIMINARY SLOTTING.
 - ALL PLANTING TO MEET A.A.N.
 - LAND CONTRACTOR TO FOLLOW LAND SPECIFICATION GUIDE FOR AUTO-WASH METERS APPROVED BY L.A.M.N.
 - NO SUBSTITUTION WITHOUT CONSENT OF LAND ARCH.
 - ALL BEDS TOP WITH 2" HARDWOOD MULCH.
 - LAND CONTRACTOR TO VERIFY LOCATION OF UTILITIES BEFORE PROCEEDING WITH PLANTING.

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 (301) 825-8120

CHIEF ASSOCIATES
 LAND ARCHITECTURE/PLANNING
 MILL ENTER - 3000 CHESTNUT ST
 BALTIMORE MD 21211

OWNER
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 110 WEST ROAD
 TOWSON, MD 21204 (301) 321-6436

DEVELOPER
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 110 WEST ROAD
 TOWSON, MD 21204 (301) 321-6436

DESIGNED BY: [Signature]
 DRAWN BY: D.M.D.
 CHECKED BY: [Signature]
 REVISIONS: [Table]
 P.N. 3.40

LANDSCAPE PLAN FOR
 BALTIMORE, WASHINGTON INDUSTRIAL PARK
 BLOCK 'E', PARCEL 'P'
 PLAT # 3523
 TAX MAP 48, PARCEL #9
 ELECT. DIST. NO. 6 HOWARD CO., MD.
 SCALE: 1" = 50' AUG. 15, 1986 SHEET 7 OF 7

SDP-86-266