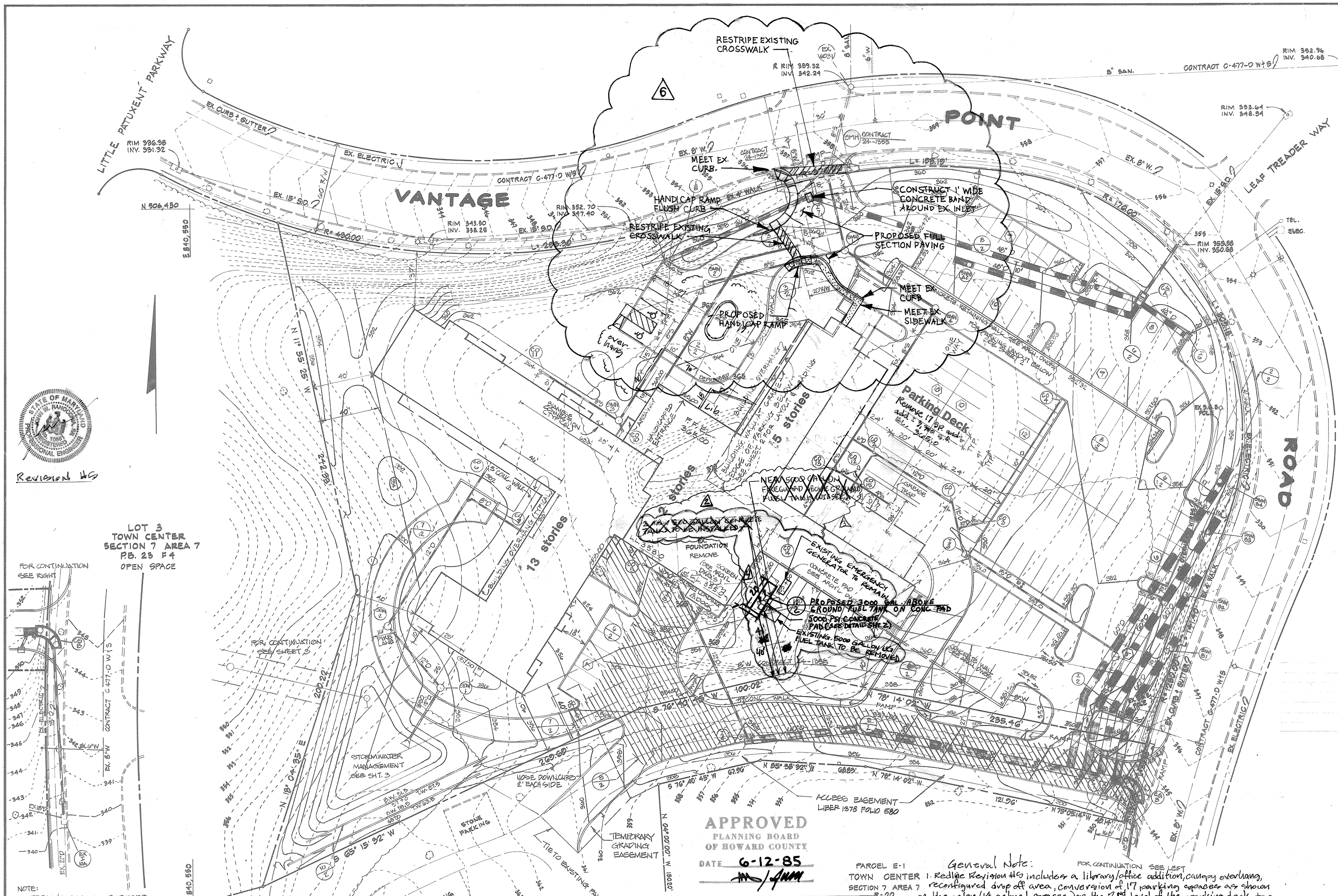
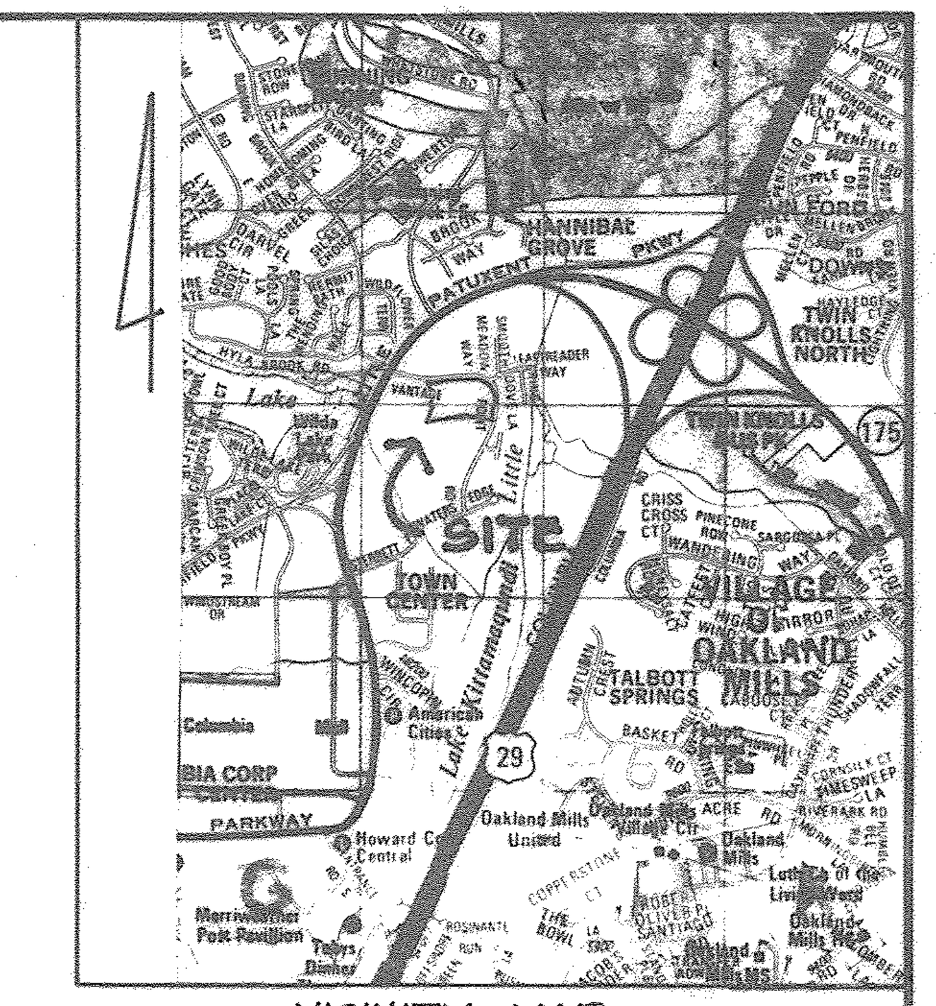




VICINITY MAP
SCALE: 1" = 2000'

GENERAL NOTES

1. All materials and construction to be in accordance with Howard County Design Manual Volume IV, Standard Specifications and Details for Construction.
2. This plan is covered by Final Development Plan Phase 107-A-III.
3. Any damage to county owned rights-of-way shall be corrected at the developers expense.
4. Topography was compiled from actual field survey.
5. The area included is located on Tax Map #30.
6. All driveways and parking areas to be privately owned and maintained.
7. All coordinates are based on Howard County Geodetic Control traverse which is based upon the Maryland State Plane Coordinate system.
8. Class "C" trench bedding shall be used for all strom drainage unless shown otherwise.
9. Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevation of the mains by digging test pits, by hand, at all utility crossing, well in advance of construction.
10. 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.
11. All downspout drains shall be handled by one of the following methods:
    - A. Downspouts to spash blocks and discharged to ground having good percolation.
    - B. Downspout in front of units piped to curb.
    - C. Downspout connected to storm drain.
12. Handicap Parking signs shown thus: shall be placed in approximate location shown in plan accordance with the "Maryland Building Code for the Handicapped" Section 5.01 - 1.05.
13. All setbacks and criteria as shown in F.D.P. Phase 107-A-III.
14. All sewer mains shall be C.S.P.X., V.C.P.X., P.V.C. or A.C.P. class 2400 unless otherwise noted.
15. All water mains 4" and larger are to be C.I.P. or D.I.P. All mains and service connections less than 4" diameter are to be copper in accordance with Howard Co. Plumbing Code.
16. All concrete sidewalks to conform to Howard Co. standards.
17. Provide one (1) handicapped parking sign for each handicapped parking space as per Maryland Department of Transportation R7-8 with $50.00 fine sign to be placed beneath. Center sign in parking space. Bottom of sign to be placed no less than 6' nor more than 10' above the ground. All signs to be mounted on wall.
18. Refuse collection will be handled by a private service.
19. All sidewalk ramps to be Howard County Standard Type A in accordance with Howard County Design Manual Volume IV, Standard Specifications and Details for Construction, unless otherwise noted.

LEGEND

DETAIL REFERENCE — DETAIL NO. / SHEET NO. (8/2)

INDICATES AREAS TO RECEIVE HEAVY DUTY PAVING. (ALL OTHER PAVED AREAS TO BE LIGHT DUTY)

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

General Note:
1. Redline Revision #5 includes a library/office addition, canopy overhang, reconfigured drop off area, conversion of 17 parking spaces as shown on the plan (14 actual spaces) on the 2nd level of the parking deck to a common space for physical & occupational therapy, and redistribution of independent living apartments (229 to 212) and domiciliary/comprehensive beds (67 to 94) and an accurate count of employee (80 to 96, 50 indicated on the app. plan). The redistribution of employees and uses and reduction of parking spaces did not meet the parking requirements of FDP 107-A-III. As a result, a parking Occupancy Study was conducted & presented to the Planning Board on 1/7/16. The Planning Board approved the request with no conditions on 1/7/16.

APPROVED
Planning Board of Howard County
date ____________

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
[signature] 10-16-81
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[signature] 10-23-85
PLANNING DIRECTOR
[signature] 10-23-85
CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
[signature] 10-10-85
DIRECTOR — DATE
[signature] 10-10-85
CHIEF: BUREAU OF ENGINEERING — DATE

SUBDIVISION NAME	SECTION/AREA			PARCEL No.	
TOWN CENTER	7/7			F-2	
PLAT No./L/F	BLOCK	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
3912/L.1035 F.364	20	NT APARTMT.	30	5th	6052.01
WATER CODE	E.03		SEWER CODE	5600100	

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

No	DATE	REVISION
1	7/1/85	FINAL ARCH'L. COORDINATION
2	10/21/02	GENERATOR FUEL TANKS
3	6/11/03	REVISED FUEL TANK
4	10/31/07	REVISED FUEL TANK FROM 5000 GAL. to 3000 GAL
5	1/15/16	rev. ent. & pkg. deck
6	3.15.18	WIDEN ENTRANCE DRIVE

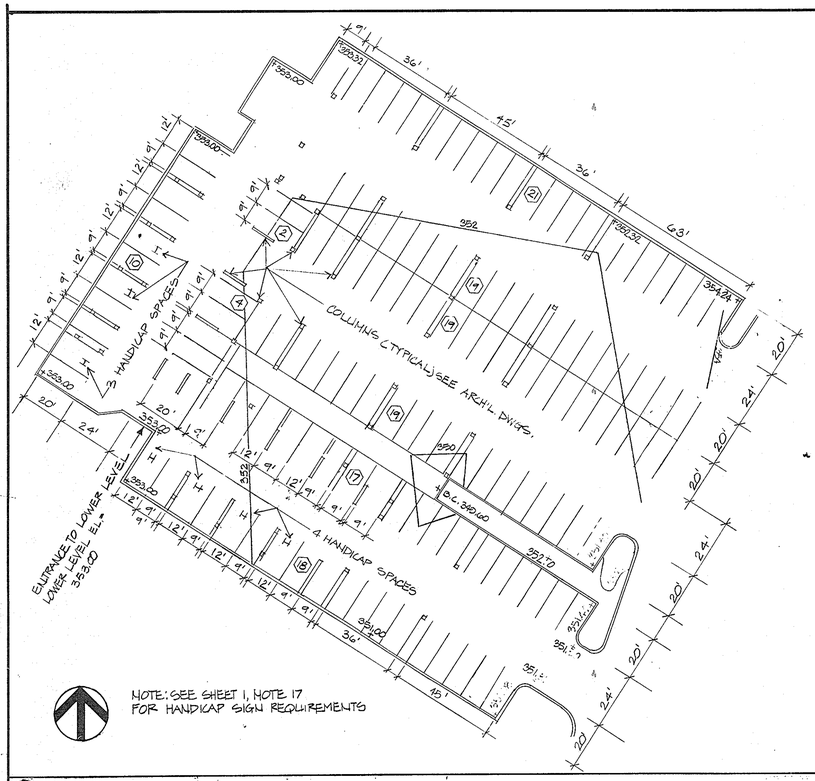
Address Chart
5400 VANTAGE POINT ROAD

OWNER / DEVELOPER
ROC-VANTAGE ASSOCIATES
c/o ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

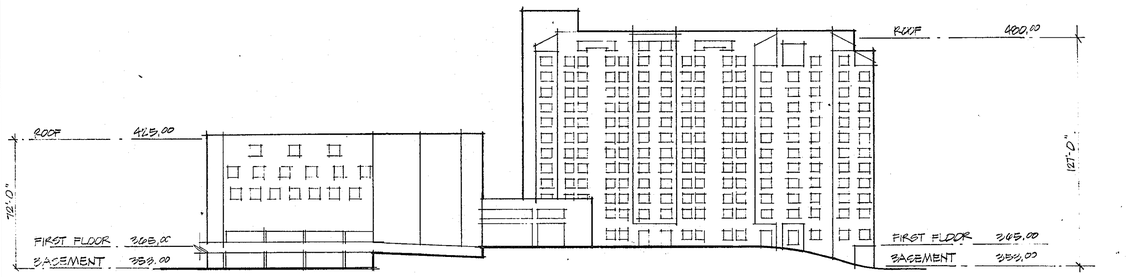
GRADING, UTILITY, AND LAYOUT PLAN
VANTAGE HOUSE
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND — JOB No. 80050
SCALE: 1" = 30' — 5th ELECTION DISTRICT
SHEET 1 OF 9, ISSUE DATE: APRIL 30, 1985

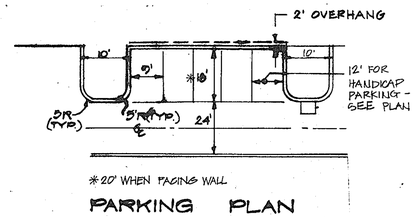
SDP-85-151.



1 Underground Parking Layout 1" = 30'

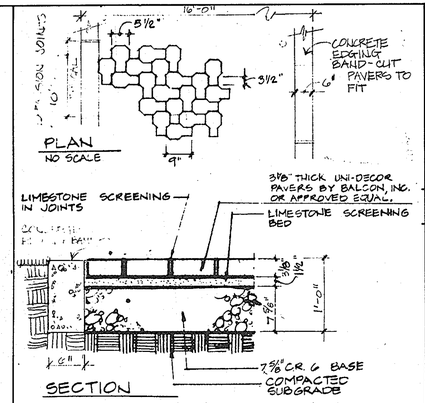


5 North Elevation NTS

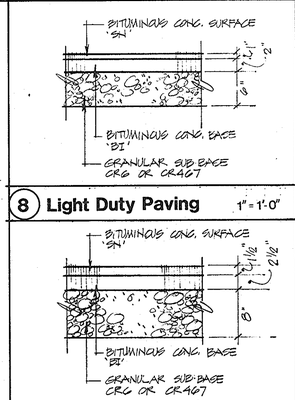


PARKING PLAN
NO SCALE

6 Typical Parking Layout

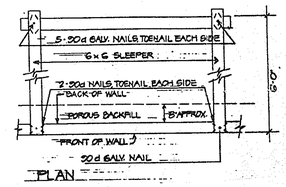


7 Uni-Decor Paving NTS

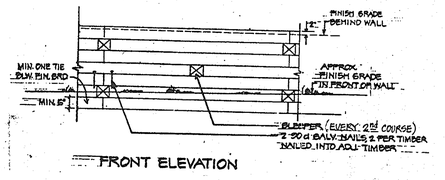


8 Light Duty Paving 1" = 1'-0"

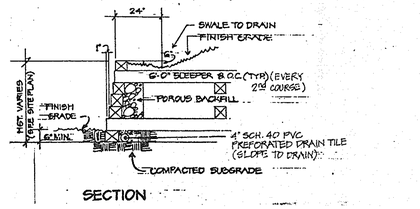
9 Heavy Duty Paving 1" = 1'-0"



10 Timber Wall

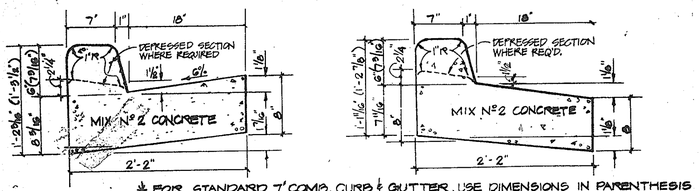


FRONT ELEVATION



SECTION

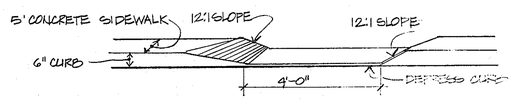
NOTE: TOP OF WALL SHALL BE CONSTRUCTED WITH PROTECTIVE RAILING. FOR CONSTRUCTION SEE HOWARD COUNTY STD. DETAIL G 7.03.



STANDARD 6" or 7" COMBINATION CURB & GUTTER
NO SCALE

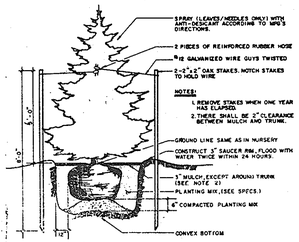
REVERSE 6" or 7" COMBINATION CURB & GUTTER
NO SCALE

2 Curb and Gutter NTS

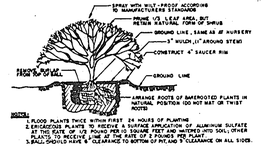


NOTE: PROVIDE COARSE BROOM FINISH ON SLOPES

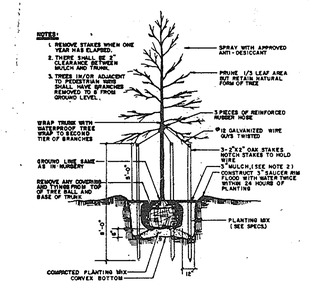
3 Handicapped Ramp (Curb Cut)



PLANTING DETAIL FOR EVERGREEN TREES 3'-8' TALL
NOT TO SCALE



PLANTING DETAIL FOR EVERGREENS AND DECIDUOUS SHRUBS
NOT TO SCALE



PLANTING DETAIL FOR TREES 1¼"-4" CAL.
NOT TO SCALE

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 10-16-85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE 10-23-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE 10-23-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR — DATE 10-10-85
CHIEF, BUREAU OF ENGINEERING — DATE 10-10-85

5a. USES :- A BANKING FACILITY, GIFT SHOP, AND BARBER AND BEAUTY SHOPS ARE PERMITTED USES WITHIN THIS FACILITY FOR THE EXCLUSIVE USE OF RESIDENTS AND STAFF. THE HOWARD COUNTY PLANNING BOARD AT ITS MEETING HELD ON DEC. 12TH 1990 APPROVED THE USES IN ACCORDANCE WITH FINAL DEVELOPMENT PLAN PHASE 107-A-III.

Site Analysis

1. AREA OF PARCEL: 4.459 ACRES
2. ZONING: NEWTOWN (APARTMENTS) F.D.P. PHASE 107-A-III.
3. NO. OF UNITS SHOWN: 225 APARTMENTS, 67 DOMICILIARY & COMPREHENSIVE CARE BEDS. NO. OF UNITS ALLOWED:
4. NO. OF PARKING SPACES REQUIRED: 242
   225 DU'S @ .7 = 158
   67 BEDS @ .5 = 34
   50 EMPLOYEES @ 1.0 = 50
   NO. OF PARKING SPACES PROPOSED: 242 (INCLUDES 7 HANDICAPPED SPACES*)
5. UNIT ANALYSIS AND FLOOR SPACE:

TYPE	NO.	MIN. SQ. FT. REQUIRED	MIN. SQ. FT. SHOWN
STUDIO	39	400	490
ONE BEDROOM	113	530	700
TWO BEDROOM	73	600	958
TOTAL	225		

6. MAXIMUM NO. OF EMPLOYEES ON SITE: 50
7. BUILDING HEIGHT:
   ALLOWED: UNLIMITED
   PROPOSED: 115' MAXIMUM
8. COVERAGE:
   ALLOWED: 30% - 58,270 SQ. FT.
   PROPOSED: 29% - 57,200 SQ. FT.

* NO. OF H.C. SPACES REQUIRED: 7 NO. H.C. SPACES PROVIDED: 7

OWNER / DEVELOPER
ROC-VANTAGE ASSOCIATES
% ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

REVISIONS	
DATE	DESCRIPTIONS
4/8/91	⚠ ADDED NOTE 5a TO SITE ANALYSIS.

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

SUBDIVISION NAME		SECTION/AREA		PARCEL Nº.
TOWN CENTER		7/7		P-2
PLAT Nº / L/F	BLOCK	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
9912 / L1095 F364	20	NT APARTMT.	30	5th	6082.01
WATER CODE			SEWER CODE		

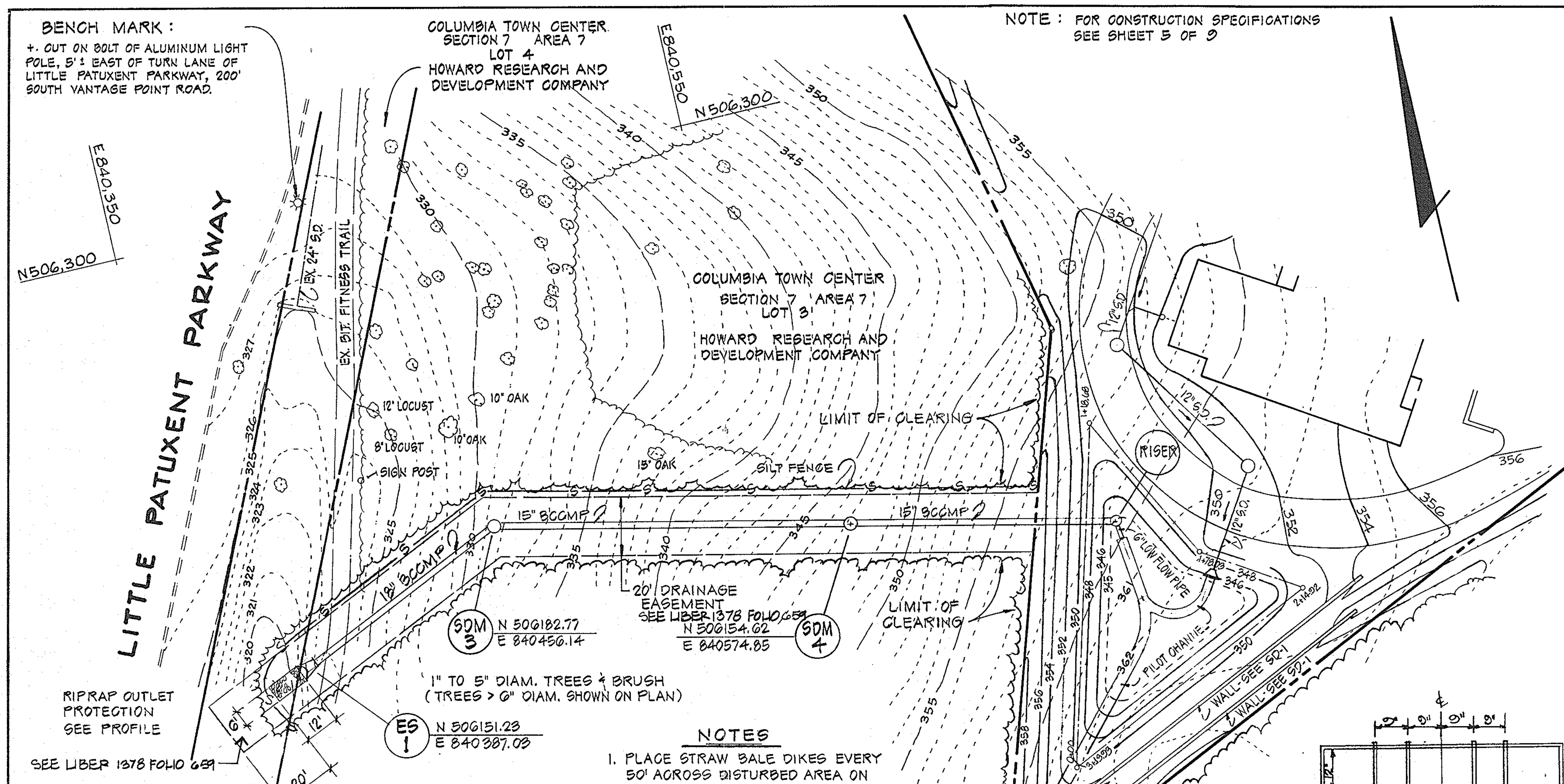
SITE DETAILS
VANTAGE HOUSE
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND
SCALE: 1" = 30'
JOB Nº. 80050
5th ELECTION DISTRICT
SHEET 2 OF 9 , ISSUE DATE: APRIL 30, 1985

SDP-85-151

NOTE: FOR CONSTRUCTION SPECIFICATIONS SEE SHEET 5 OF 9

BENCH MARK:
+. CUT ON BOLT OF ALUMINUM LIGHT POLE, 5' ± EAST OF TURN LANE OF LITTLE PATUXENT PARKWAY, 200' SOUTH VANTAGE POINT ROAD.



LITTLE PATUXENT PARKWAY
COLUMBIA TOWN CENTER SECTION 7 AREA 7 LOT 4 HOWARD RESEARCH AND DEVELOPMENT COMPANY
COLUMBIA TOWN CENTER SECTION 7 AREA 7 LOT 3 HOWARD RESEARCH AND DEVELOPMENT COMPANY
N506,300
E840,350
E840,550
LIMIT OF CLEARING
SILT FENCE
15" BCCMP
18" BCCMP
20' DRAINAGE EASEMENT SEE LIBER 1378 FOLIO 659
SDM 3 N 506182.77 E 840456.14
SDM 4 N 506154.62 E 840574.85
ES 1 N 506151.23 E 840387.03
RISER
PILOT CHANNEL
1" TO 5" DIAM. TREES & BRUSH (TREES > 6" DIAM. SHOWN ON PLAN)
RIPRAP OUTLET PROTECTION SEE PROFILE
SEE LIBER 1378 FOLIO 659
TRASH RACK

NOTES

1. PLACE STRAW BALE DIKES EVERY 50' ACROSS DISTURBED AREA ON THE CONTOUR
2. STABILIZE DISTURBED AREAS IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION.

PLAN

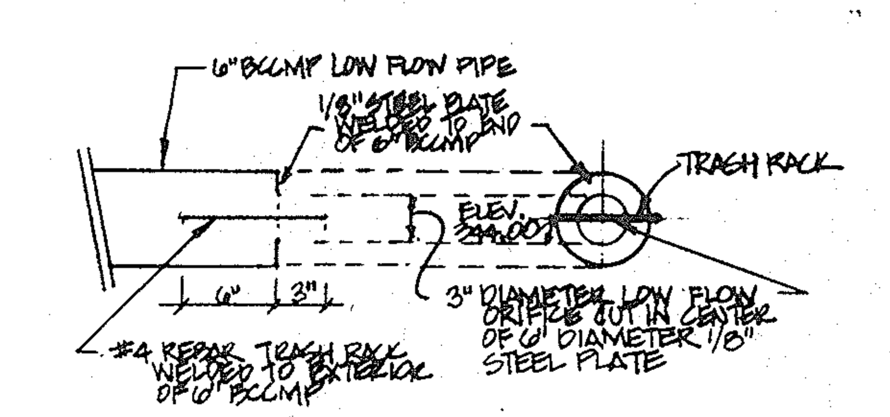
1" = 30'

STRUCTURE CLASSIFICATION

STRUCTURE CLASS:	A
STORAGE X HEIGHT PRODUCT:	EXCAVATED POND
WATERSHED AREA:	1.25Ac.
NORMAL SURFACE AREA:	DRY POND
STRUCTURE LOCATION:	URBAN

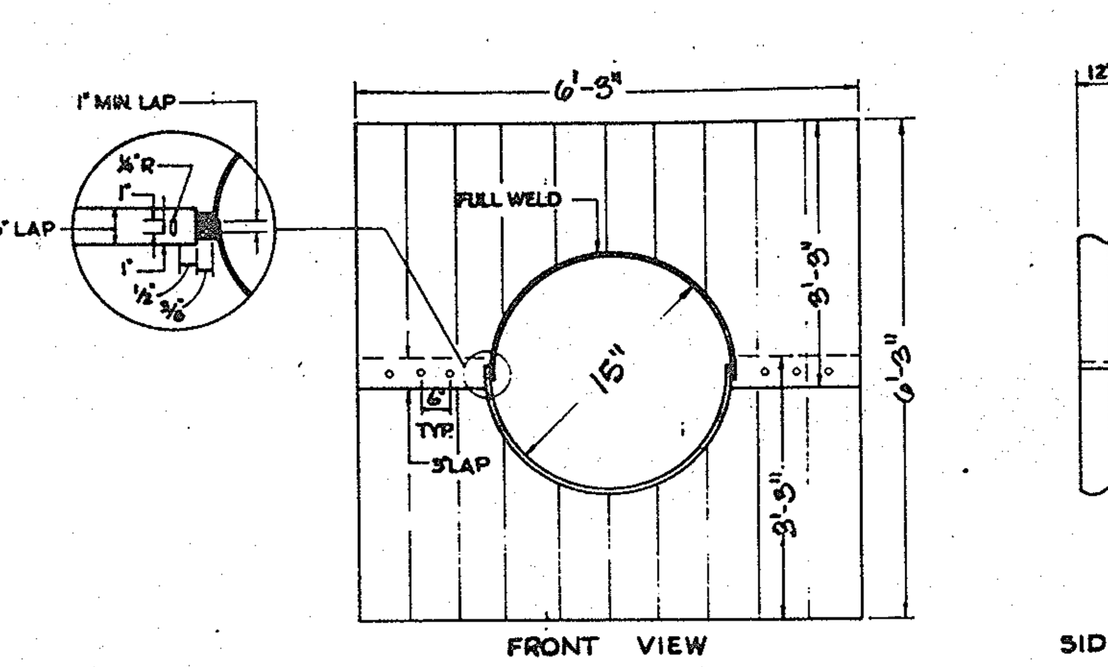
HYDROLOGIC CRITERIA

ITEM	REQUIRED	PROVIDED
PRINCIPAL SPILLWAY ROUTING	2YR & 10YR	2YR, 10YR, & 100YR.
EMERGENCY SPILLWAY ROUTING	100YR	IN PRINCIPAL SPILLWAY
FREEBOARD	1' ABOVE 100 YR DESIGN HIGH WATER	2' ABOVE 100 YR DESIGN HIGH WATER



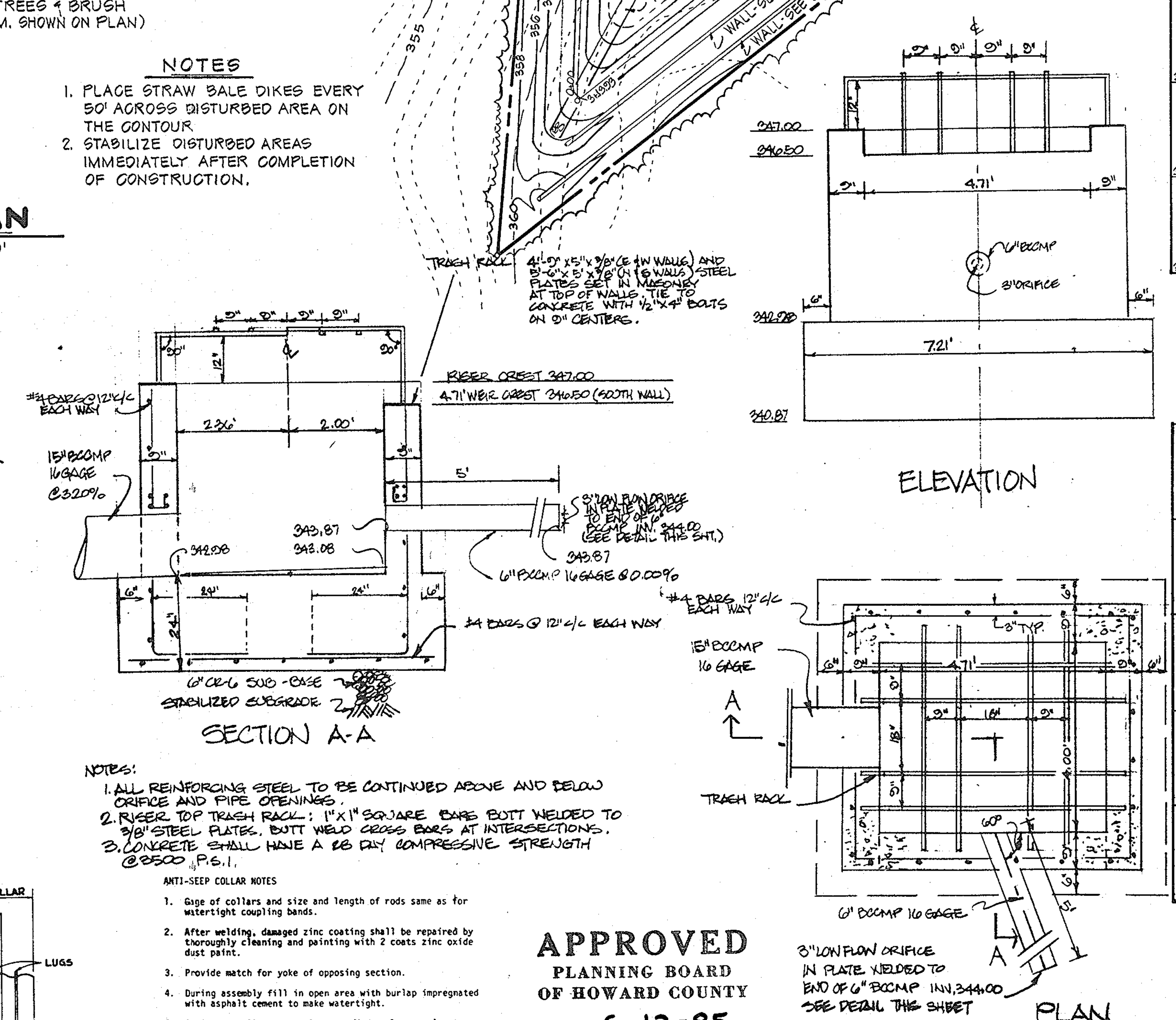
LOW FLOW ORIFICE AND TRASH RACK DETAIL

SCALE 1" = 1'-0"



DETAIL ANTI-SEEP COLLAR

NO SCALE



TRASH RACK
RISER CREST 347.00
4.71' WEIR CREST 346.50 (SOUTH WALL)
#4 BARS @ 12" c/c EACH WAY
15" BCCMP 16 GAGE @ 3.20%
2.36'
2.00'
343.87
343.08
342.08
6" BCCMP 16 GAGE @ 0.00%
6" CR-6 SUB-BASE
STABILIZED SUBGRADE
SECTION A-A
4.71'
7.21'
ELEVATION
6" BCCMP 16 GAGE
3" LOW FLOW ORIFICE IN PLATE WELDED TO END OF 6" BCCMP INV. 344.00 SEE DETAIL THIS SHEET
PLAN

NOTES:
1. ALL REINFORCING STEEL TO BE CONTINUED ABOVE AND BELOW ORIFICE AND PIPE OPENINGS.
2. RISER TOP TRASH RACK: 1"X1" SQUARE BARS BUTT WELDED TO 3/8" STEEL PLATES. BUTT WELD CROSS BARS AT INTERSECTIONS.
3. CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH @3500 P.S.I.

ANTI-SEEP COLLAR NOTES

1. Gage of collars and size and length of rods same as for watertight coupling bands.
2. After welding, damaged zinc coating shall be repaired by thoroughly cleaning and painting with 2 coats zinc oxide dust paint.
3. Provide match for yoke of opposing section.
4. During assembly fill in open area with burlap impregnated with asphalt cement to make watertight.
5. Anti-seep collars to be located 2' Min. from culvert joints.
6. ½" X 1" slotted holes for 3/8" X 1" bolts in one half (upper or lower) of diaphragm only. Use ½" holes in other matching half.
7. All bolts, nuts, rivets and washers shall be galvanized, cadmium plated or stainless steel.
8. If stiffener is required use 1½" X 1½" X ¼" Angle (painted with two (2) coats zinc oxide-zinc dust paint).
9. Lap between two half sections and between the pipe and connecting band shall be caulked with asphalt at time of installation.
10. Install diaphragm with corrugations vertical.
11. Connect each section of diaphragm to corresponding section of collar by full weld.
12. Anti-Seep Collar shall be bituminous coated.

RISER DETAILS

SCALE: 1" = 2'-0"

APPROVED
PLANNING BOARD OF HOWARD COUNTY
DATE 6-12-85

STATE OF MARYLAND — KENNETH H. RINSE — PROFESSIONAL ENGINEER

SCHNABEL ENGINEERING ASSOCIATES GEOTECHNICAL CONSULTANTS	PROJECT: VANTAGE HOUSE, COLUMBIA, MARYLAND	Test Boring No. B-104; Sheet No. 1; Contract No. M84993A

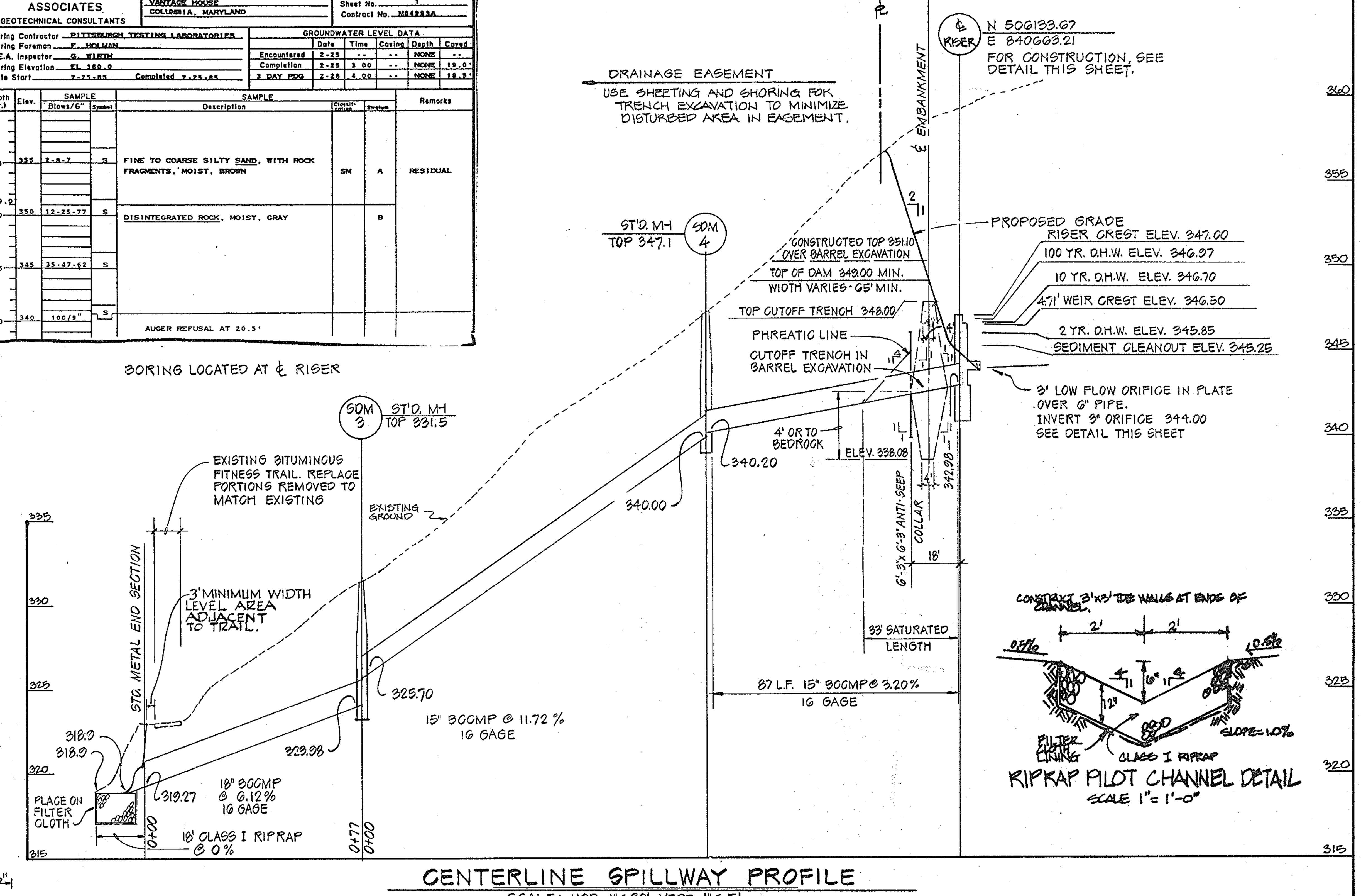
Boring Contractor: PITTSBURGH TESTING LABORATORIES
Boring Foreman: F. HOLMAN
S.E.A. Inspector: G. WIRTH
Boring Elevation: EL 360.0
Date Start: 2-25-85 Completed: 2-25-85

GROUNDWATER LEVEL DATA

	Date	Time	Casing	Depth	Caved
Encountered	2-25	--	--	NONE	--
Completion	2-25	3 00	--	NONE	19.0'
3 DAY PDG	2-28	4 00	--	NONE	18.5'

Depth (ft.)	Elev.	Blows/6"	Symbol	Description	Classification	Stratum	Remarks
5	355	2-8-7	S	FINE TO COARSE SILTY SAND, WITH ROCK FRAGMENTS, MOIST, BROWN	SM	A	RESIDUAL
9.0 / 10	350	12-25-77	S	DISINTEGRATED ROCK, MOIST, GRAY		B	
15	345	35-47-62	S				
20	340	100/9"	S	AUGER REFUSAL AT 20.5'			

BORING LOCATED AT ℄ RISER

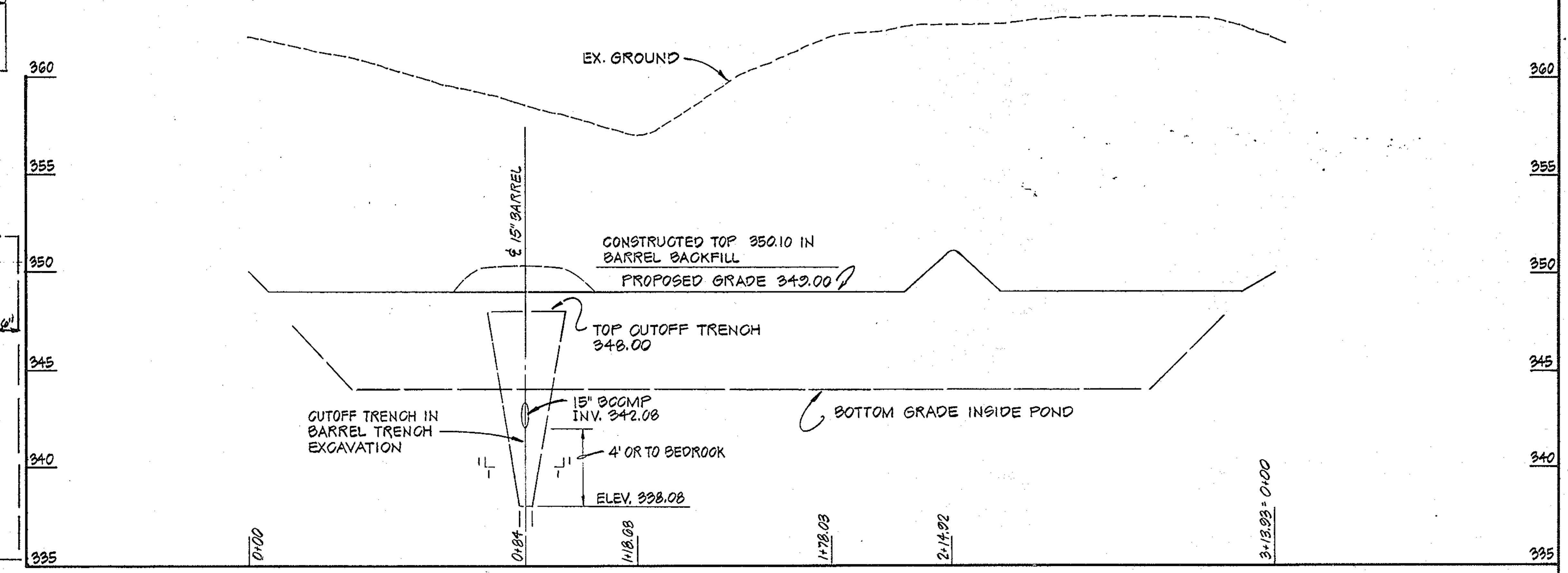


DRAINAGE EASEMENT
USE SHEETING AND SHORING FOR TRENCH EXCAVATION TO MINIMIZE DISTURBED AREA IN EASEMENT.
℄ RISER N 506133.67 E 840663.21 FOR CONSTRUCTION, SEE DETAIL THIS SHEET.
℄ EMBANKMENT
ST'D. MH TOP 347.1
SDM 4
SDM 3
ST'D. MH TOP 331.5
PROPOSED GRADE
RISER CREST ELEV. 347.00
100 YR. D.H.W. ELEV. 346.97
10 YR. D.H.W. ELEV. 346.70
4.71' WEIR CREST ELEV. 346.50
2 YR. D.H.W. ELEV. 345.85
SEDIMENT CLEANOUT ELEV. 345.25
CONSTRUCTED TOP 351.10 OVER BARREL EXCAVATION
TOP OF DAM 349.00 MIN.
WIDTH VARIES - 65' MIN.
TOP CUTOFF TRENCH 348.00
PHREATIC LINE
CUTOFF TRENCH IN BARREL EXCAVATION
3" LOW FLOW ORIFICE IN PLATE OVER 6" PIPE. INVERT 3" ORIFICE 344.00 SEE DETAIL THIS SHEET
4' OR TO BEDROCK
ELEV. 338.08
340.20
340.00
33 SATURATED LENGTH
87 L.F. 15" BCCMP @ 3.20% 16 GAGE
EXISTING BITUMINOUS FITNESS TRAIL. REPLACE PORTIONS REMOVED TO MATCH EXISTING
EXISTING GROUND
3' MINIMUM WIDTH LEVEL AREA ADJACENT TO TRAIL.
STD. METAL END SECTION
325.70
15" BCCMP @ 11.72 % 16 GAGE
323.93
18" BCCMP @ 6.12% 16 GAGE
319.27
318.9
PLACE ON FILTER CLOTH
18" CLASS I RIPRAP @ 0%
CONSTRUCT 3'X3' TOE WALLS AT ENDS OF CHANNEL
2'
2'
SLOPE=1.0%
FILTER CLOTH LINING
CLASS I RIPRAP

RIPRAP PILOT CHANNEL DETAIL
SCALE 1" = 1'-0"

CENTERLINE SPILLWAY PROFILE

SCALE: HOR. 1" = 30', VERT. 1" = 5'



EX. GROUND
℄ 15" BARREL
CONSTRUCTED TOP 350.10 IN BARREL BACKFILL
PROPOSED GRADE 349.00
TOP CUTOFF TRENCH 348.00
15" BCCMP INV. 342.08
BOTTOM GRADE INSIDE POND
CUTOFF TRENCH IN BARREL TRENCH EXCAVATION
4' OR TO BEDROCK
ELEV. 338.08
0+00
0+84
1+18.68
1+78.03
2+14.92
3+13.93 = 0+00

CENTERLINE EMBANKMENT PROFILE

SCALE: HOR. 1" = 30', VERT. 1" = 5'

LAYOUT DATA

STATION	COORDINATES NORTH	EAST	FROM	TO	℄ BEARING	DISTANCE
0+00	506054.12	840631.54	0+00	1+18.68	N14°50'55"E	118.68'
1+18.68	506168.77	840662.04	1+18.68	1+78.03	S27°46'04"E	59.35'
1+78.03	506116.25	840689.69	1+78.03	2+14.92	S57°34'10"E	36.89'
2+14.92	506096.46	840720.83	2+14.92	3+13.93	S64°40'48"W	99.01'
3+13.93	506054.12	840631.34				

DESIGN DATA

DESIGN STORM	INFLOW Q	OUTFLOW Q	DESIGN ELEVATION	STORAGE PROVIDED
2 YR.	2.43 CFS	0.31 CFS	345.85	0.053 Ac.Ft.
10 YR.	5.21 CFS	1.56 CFS	346.70	0.106 Ac.Ft.
100 YR.	8.85 CFS	5.00 CFS	346.97	0.124 Ac.Ft.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 10-11-85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.
PLANNING DIRECTOR — 10-23-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE 10-23-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR — DATE 10-10-85
CHIEF: BUREAU OF ENGINEERING — DATE 10-10-85

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

ENGINEERS CERTIFICATION

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL PREPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DATE 8/21/85

OWNER-DEVELOPER

ROC- VANTAGE ASSOCIATES
% ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

DEVELOPERS CERTIFICATION

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION".

Aug 14, 1985 — DATE

SUBDIVISION NAME			SECTION/AREA		PARCEL Nº.
TOWN CENTER			7/7		P-2
PLAT Nº / L/F	BLOCK	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
5912/L.1095 F.364	20	NT APARTMT.	30	5th	6052.01
WATER CODE			SEWER CODE		

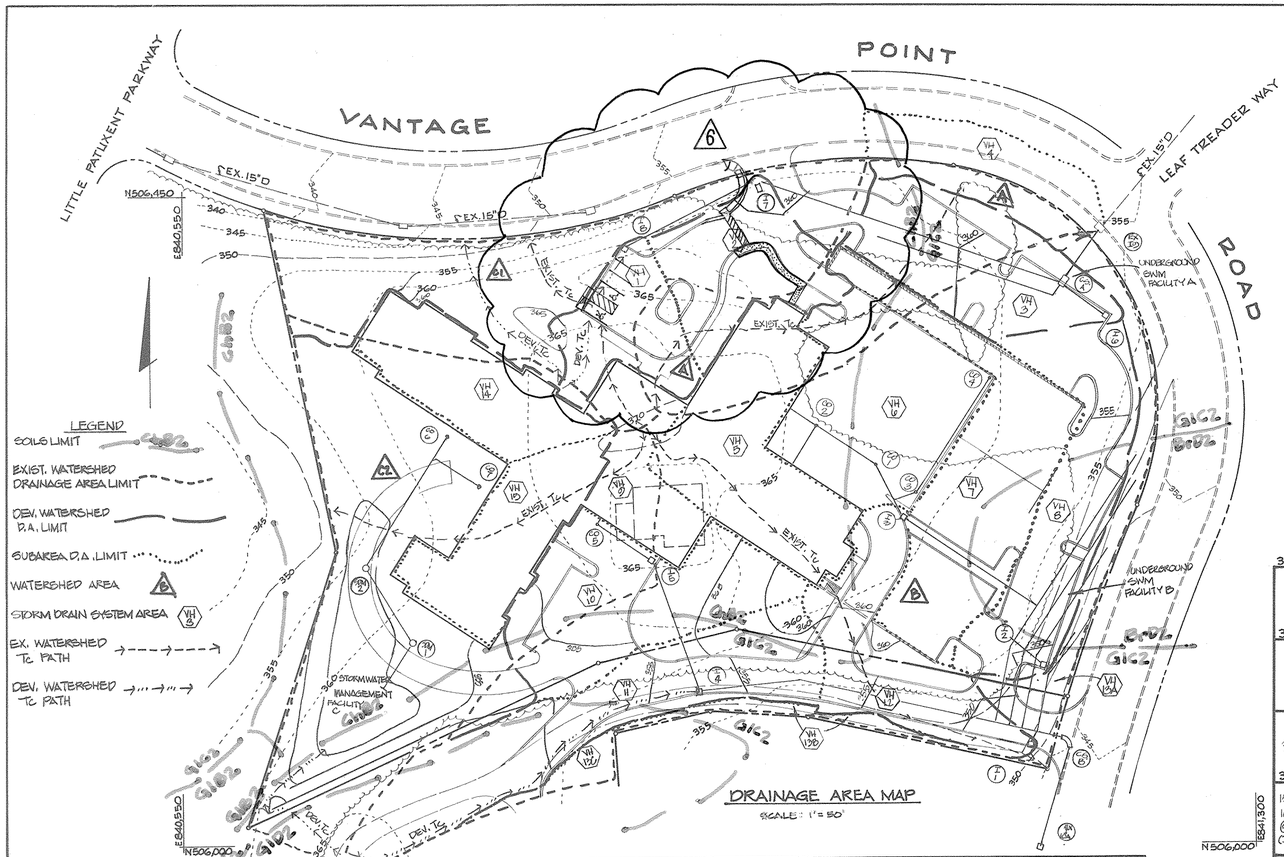
STORMWATER MANAGEMENT - FACILITY C

VANTAGE HOUSE

COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND
SCALE: 1" = 30'
JOB Nº. 80050
5th ELECTION DISTRICT
, ISSUE DATE: APRIL 30, 1985

SDP-85-151.



DRAINAGE AREA MAP

SCALE: 1" = 50'

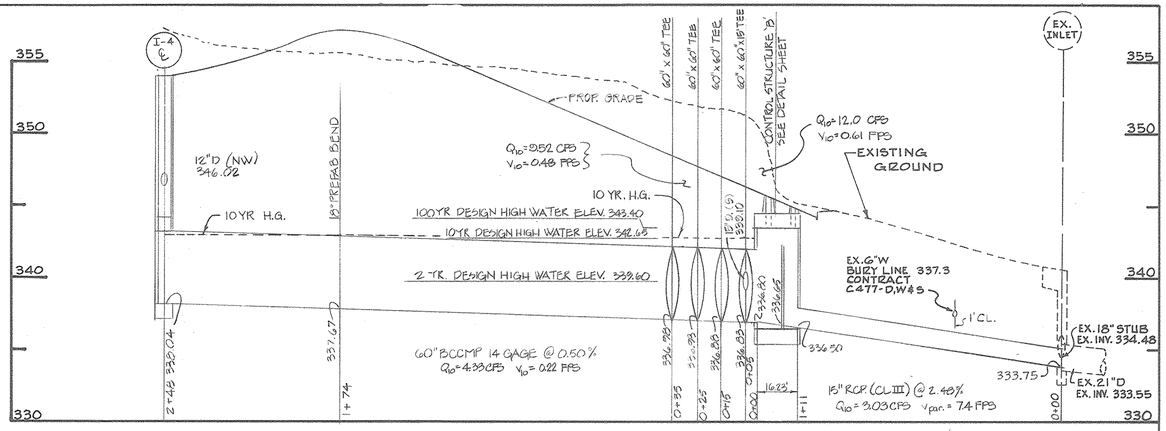
DESIGN DATA

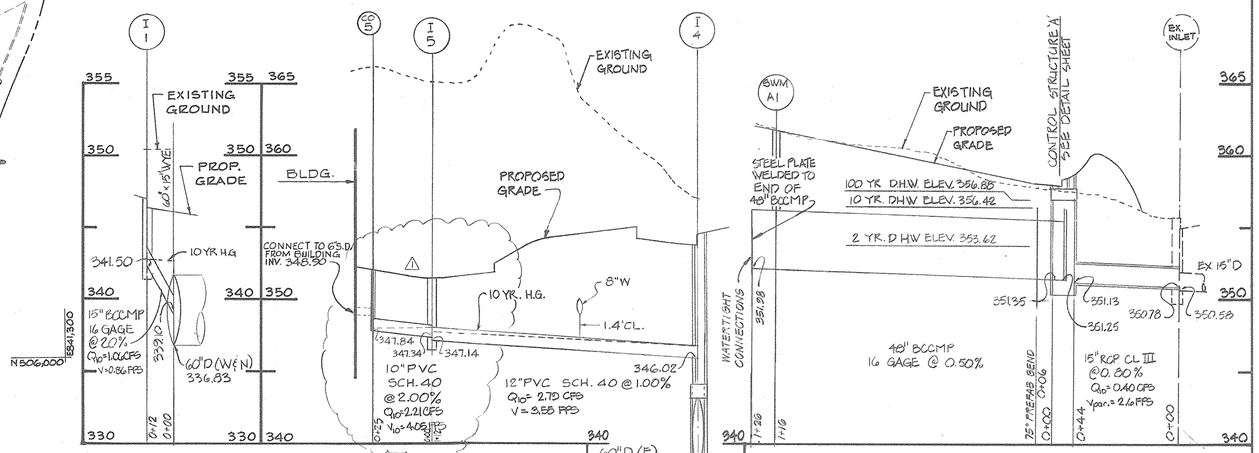
DESIGN STORM	INFLOW Q CFS	OUTFLOW Q-CFS	DESIGN ELEVATION	STORAGE CU. FT.
FACILITY "A"				
2 YR.	1.96	0.09	353.78	2465
10 YR.	3.77	0.40	356.42	5999
100 YR.	6.08	2.32	356.88	5999
FACILITY "B"				
2 YR.	8.35	0.93	339.68	7606
10 YR.	14.97	3.03	342.65	17154
100 YR.	29.08	9.58	343.40	17154

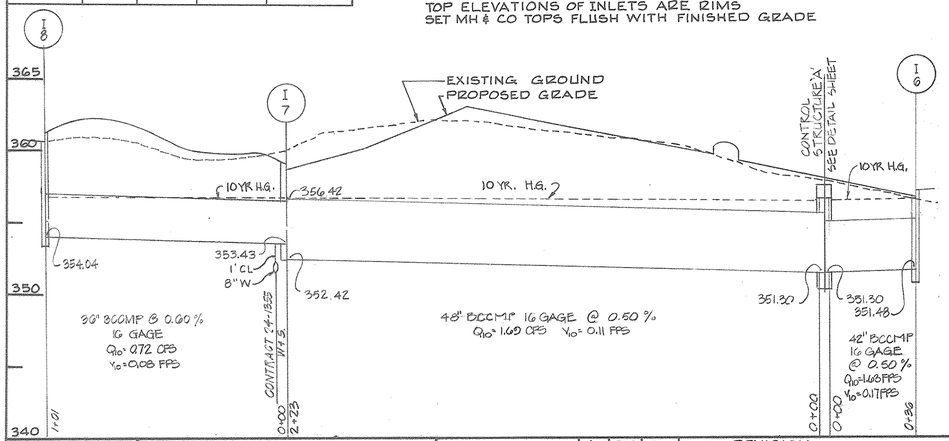
STORM DRAIN STRUCTURE SCHEDULE

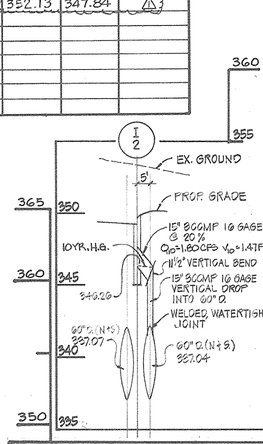
NUMBER	TYPE	TOP ELEV.	INV. OUT	REMARKS	NUMBER	TYPE	TOP ELEV.	INV. OUT	REMARKS
SWM A-1	BCCMP MH	351.0	N/A	DETAIL 4 SHT.6	CO 1	12" CO	350.40	345.80	
					CO 2	12" CO	351.30	347.00	
					CO 3	10" CO	350.10	345.86	
					CO 4	10" CO	358.00	347.76	
I-1	E' COMB	346.48	341.50		CO 5	10" CO	352.13	347.84	⚠1
I-2	"	349.26	346.26						
I-3	"	349.60	344.58						
I-4	"	353.76	338.04	DETAIL 4 SHT.6					
I-5	S-GRATE	351.40	347.14	⚠1					
I-6	'E' COMB	356.58	351.48						
I-7	'E' COMB	358.50	352.42						
I 8	S-GRATE	360.78	354.04						

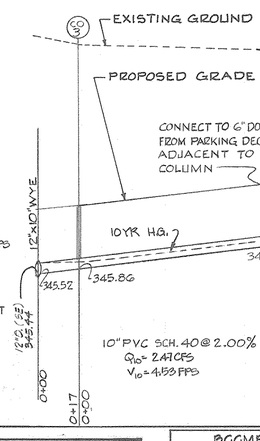
ALL 'E' COMB. INLETS SHALL HAVE RETICULAR GRATES
TOP ELEVATIONS OF INLETS ARE RIMS
SET MH & CO TOPS FLUSH WITH FINISHED GRADE

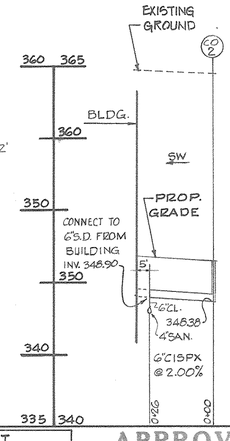


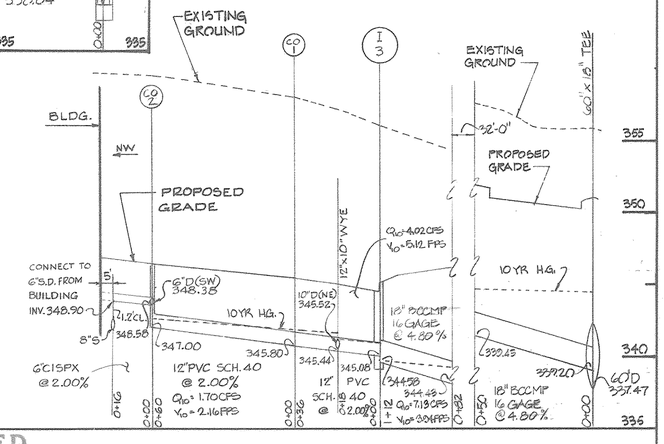












BCCMP CHART

DIAM.	GAGE	CORRUGATIONS
30"	16	½" x 2⅔"
42"	16	½" x 2⅔"
48"	16	½" x 2⅔"
60"	14	1" x 3"

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 10-16-85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE 10-23-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR — DATE 10-10-85
CHIEF, BUREAU OF ENGINEERING — DATE 10-16-85

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

OWNER / DEVELOPER
ROC - VANTAGE ASSOCIATES
℅ ROBERT B. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

No.	BY	DATE	REVISION
⚠1	C.L.M.	7-1-85	FINAL ARCH'L. COORDINATION
⚠2	C.E.I.	3.15.18	WIDEN ENTRANCE DRIVE

SUBDIVISION NAME TOWN CENTER		SECTION/AREA 7/7		PARCEL NO. F-2
PLAT NO./L/F 5912/L.1055 F.564	BLOCK 20	ZONE NT APARTMT.	TAX/ZONE MAP 30	ELEC. DIST. 5th	CENSUS TRACT 6052.01
WATER CODE		SEWER CODE		

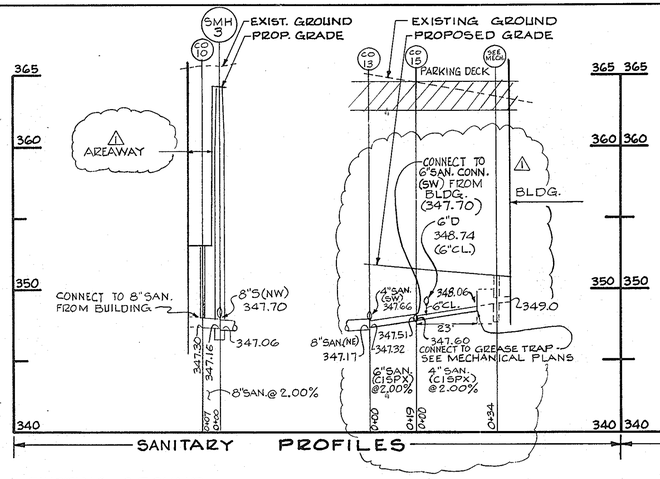
DRAINAGE AREA MAP
AND STORM DRAIN PROFILES

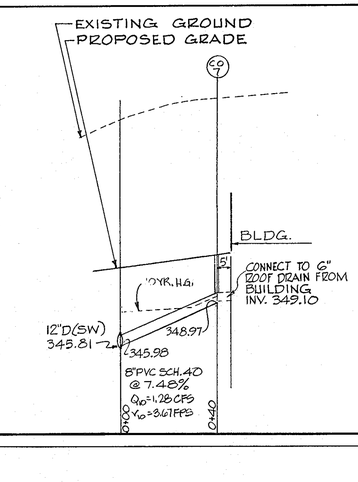
VANTAGE HOUSE

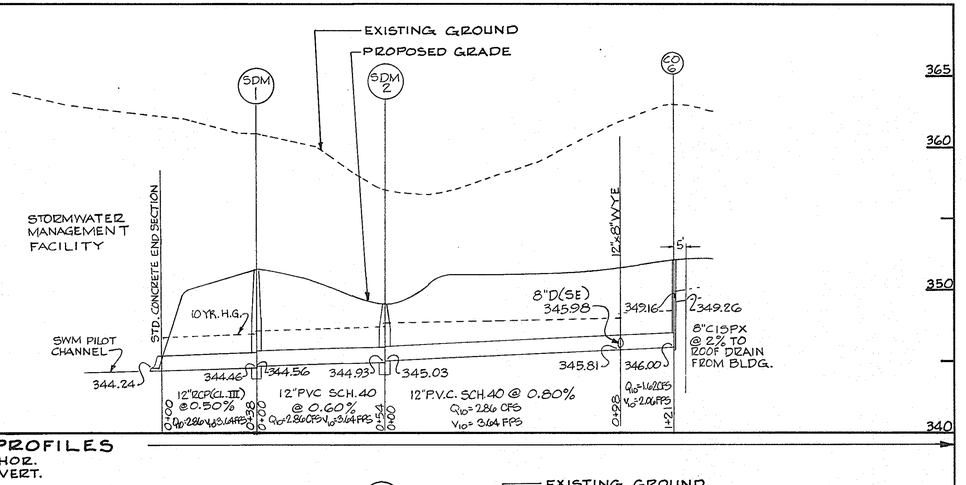
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND — JOB NO. 80050
SCALE: 1" = 50' HOR. — 5th ELECTION DISTRICT
1"=5' VERT. SHEET 4 OF 9 , ISSUE DATE: APRIL 30, 1985

SDP-85-151c







STORM DRAIN STRUCTURE SCHEDULE				
NUMBER	TYPE	TOP ELEV.	INV. OUT	REMARKS
SDM 1	STD. MH	351.10	344.46	
SDM 2	SHALLOW MH	349.00	344.93	
CO 6	12" CO	352.20	346.00	
CO 7	8" CO	352.40	348.97	

SANITARY SEWER STRUCTURE SCHEDULE				
NUMBER	TYPE	TOP ELEV.	INV. OUT	REMARKS
SMH 1	STD. MH	361.00	343.53	
SMH 2	"	361.90	344.76	
SMH 3	"	369.30	347.06	
SMH 4	"	352.90	344.69	
CO 10	STD. CO	353.00	347.30	
CO 11	"	364.10	348.92	
CO 12	"	351.70	346.95	
CO 13	"	351.70	347.17	
CO 14	"	352.40	348.76	
CO 15	"	351.40	347.51	

SET MANHOLE & CLEANOUT TOPS FLUSH WITH FINISHED GRADE

STORMWATER MANAGEMENT STRUCTURE
&
GENERAL CONSTRUCTION SPECIFICATIONS

1. GENERAL
All stormwater management facilities shall be constructed in accordance with Volume IV of the Howard County Design Manual "Standard Specifications and Details for Construction" and the S.C.S. Maryland "Standard and Specifications for Ponds".

2. SITE PREPARATION
Areas under the embankment, structural works and inlet and outlet channels and spillway shall be cleared, grubbed and topsoil stripped. All trees, debris, vegetation, roots, or other objectionable or organic material shall be removed. Areas to be covered by the pond will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material. Trees, brush, and stumps shall be cut level with the ground surface. All cleared and grubbed material shall be disposed of outside and below the limits of the dam.

3. EARTH FILL
MATERIAL. The fill material shall be taken from an approved borrow area. All material shall be free from roots, stumps, wood, rubbish, oversized stones, frozen or other objectionable materials. For cutoff trenches and dam cores the material used shall conform to the Unified Soil Classification SC or CL.
PLACEMENT. All areas on which fill is to be placed shall be scarified prior to placement of fill. Soils so scarified, or which have been disturbed by grubbing and stripping operation, shall be compacted to undisturbed soil below by discing, leveling, rolling and compacting at the moisture content and to the density specified below for compacted embankments. Where fills are made on hillsides or slopes, the slope of the original ground upon which the fill is to be placed shall be plowed or scarified deeply, or where the slope ratio of the original ground is steeper than 5 horizontal on 1 vertical, the bank shall be stepped or benched, when considered necessary by the Engineer, to permit placement of the fill in horizontal layers. The final decision as to the suitability of the exposed soil shall be made by the Soils Engineer at the time of construction. Fill materials shall be placed in 8 inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill.

Each layer shall be spread uniformly and evenly and shall be thoroughly blade mixed during the spreading to insure uniformity of materials in each layer. The most porous borrow material shall be placed in the downstream portions of the embankment.

COMPACTION. The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of equipment and compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. All compaction is to be 95 percent of the maximum density as determined by AASHTO Specification T-99 (Standard Proctor) and is to be certified for each layer by the Soils Engineers at the time of construction. The moisture content of the fill shall be as required in order to attain the degree of compaction specified. The filling operation shall be continued as specified above until the fill has been brought to the constructed top elevation shown on the plans. The fill shall be constructed in such a manner that the surface will be sloped to drain at all times, and all fill shall be deposited to prevent excessive moisture accumulation from rainwater. When the work is interrupted by rain, filling shall not be resumed until tests indicate that the moisture content and density of the top 6 inches of fill meet the above specification requirements. All fill placed around CMP barrels shall be compacted using hand compaction equipment when within 4 feet of the pipes.

CUTOFF TRENCH. A cutoff trench shall be excavated parallel to the center line of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation with the minimum width being four feet. The depth shall be 4 feet (minimum) below the barrel pipe and or existing ground. The side slopes of the trench shall be 1 to 1 or flatter.

4. STRUCTURAL BACKFILL
Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipes. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

5. PIPE CONDUITS
MATERIALS (CORRUGATED STEEL PIPE). This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO specifications M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Coated C.M.P. shall have a minimum coating thickness of 10 mil on both sides of pipe and shall meet requirements of AASHTO M-245 and M-246.
CONNECTIONS. All connections with pipes must be completely watertight. The drain pipe or barrel connections to the riser shall be welded all around. Watertight coupling bands or flanges shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight. For a prefabricated barrel and riser structure, the angle of the barrel at the barrel and riser connection must reflect the slope of the barrel.
BEDDING. The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such materials shall be removed and replaced with suitable earth material, compacted to provide adequate support.
LAYING PIPE. The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
BACKFILLING. Backfill shall conform to structural backfill as shown above.
OTHER DETAILS. (Anti-seep collars, valves, etc.) shall be as shown on the drawings.

6. CONCRETE
Concrete shall meet minimum requirements set forth in Maryland State Highway Administration Standard Specifications for Construction and Materials Section 918 (Portland and Cement Concrete Mixtures), Mix No. 3. Reinforcing steel shall be ASTM A-615, Grade 60. Rebars shall have 3" cover (minimum) and a minimum overlap of 30 bar diameters, except as noted on the plans. Steel angles and anchor bars shall be ASTM A-36.

7. STABILIZATION
All borrow and spoil areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, berms, borrow and spoil areas shall be stabilized by seeding and applying straw mulch in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas", or as shown elsewhere in these specifications, immediately after finished grading.

8. EROSION CONTROL FACILITIES
All disturbed areas shall be controlled by an Erosion and Sediment Control Plan which has been approved by the Howard County Soil Conservation District (HCSCD).

9. SEEDING
Seeding, fertilizing and mulching shall be as follows:

Seed Mix: 90% Kentucky 31 Tall Fescue
10% Kenblue
Applied at a rate of 300 lbs. per acre.

Lime: 2 tons/acre Dolomitic Limestone.

Fertilizer: 600 lbs./acre 10-20-20 fertilizer before seeding, disc in 400 lbs./acre 38-0-0 ureaform fertilizer, and 500 lbs./acre 10-20-20 fertilizer at time of seeding.

Mulch: Straw at 4,000 lbs. per acre.

Anchoring: Mulching tool or emulsified asphalt binder at a rate of 8 gal. per 1,000 square feet.

10. FILTER CLOTH
All filter cloth shall be Polyfilter - X or equivalent.

11. RIPRAP
All riprap shall conform to Howard County Specifications.

12. CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS
The construction of the pond and embankment, and certification that the pond and embankment have been built in accordance with the plans shall be under the supervision of a Registered Professional Engineer. The Engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for 1) inspection of pipe trench and bedding, 2) inspection of riser and anti-seep collars and 3) supervision of embankment construction and compaction testing. The Engineer shall direct the handling of water during construction, minor changes not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 11-16-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE 10-23-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE 10-23-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR — DATE 10-10-85
CHIEF, BUREAU OF ENGINEERING — DATE 10-10-85

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

REGISTERED PROFESSIONAL ENGINEER 13876

No.	BY	DATE	REVISION
1	C.L.M	7-1-85	FINAL ARCH'L COORDINATION.

OWNER / DEVELOPER
ROC - VANTAGE ASSOCIATES
% ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

SUBDIVISION NAME TOWN CENTER			SECTION/AREA 7/7		PARCEL NO. P-2
PLAT NO/L/F 5912/L1095 F364	BLOCK 20	ZONE MH APARTMENTS	TAX/ZONE MAP 30	ELEC. DIST. 5th	CENSUS TRACT 6052.01
WATER CODE			SEWER CODE		

STORMWATER MANAGEMENT SPECIFICATIONS AND UTILITY PROFILES
VANTAGE HOUSE
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

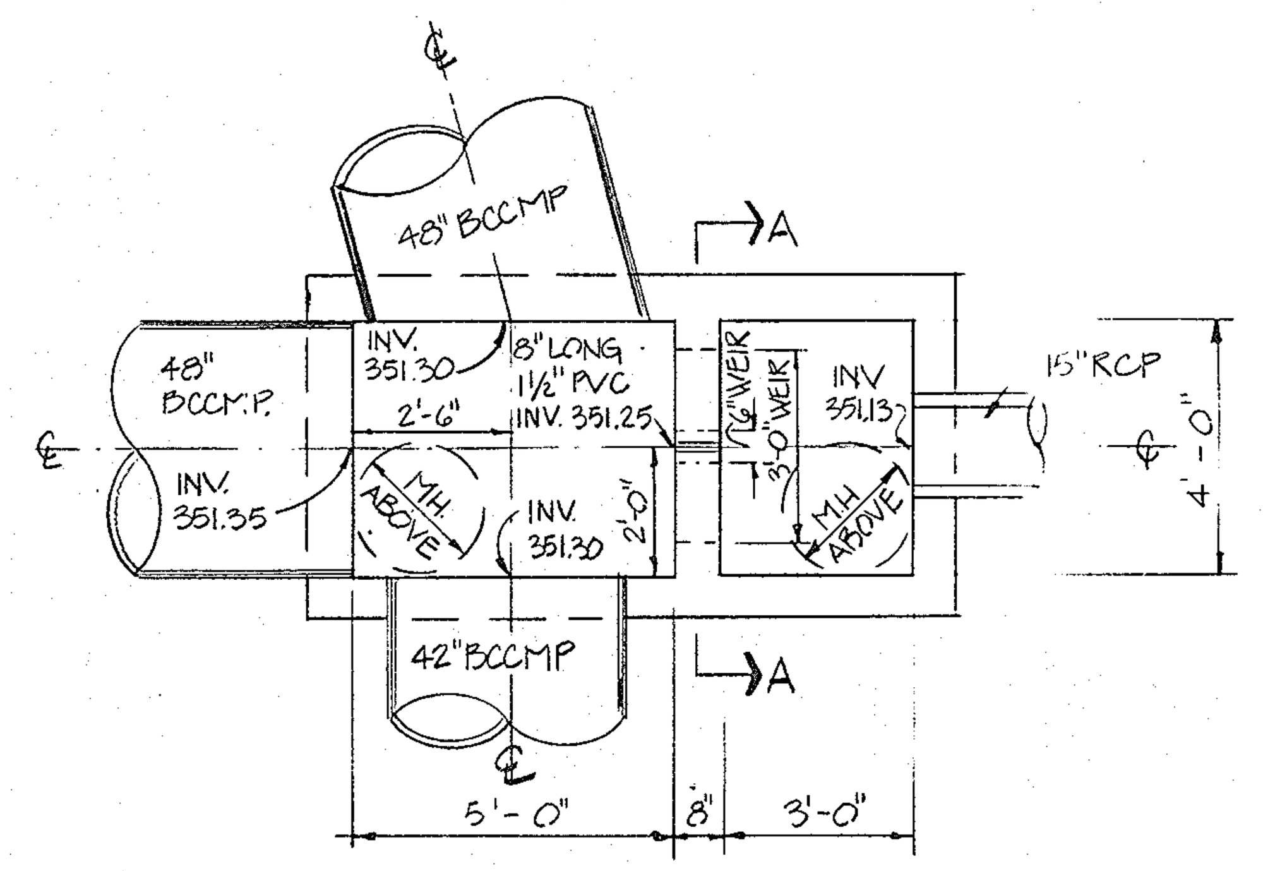
HOWARD COUNTY, MARYLAND — JOB NO. 80050
SCALE: AS SHOWN — 5th ELECTION DISTRICT
SHEET 5 OF 9 , ISSUE DATE: APRIL 30, 1985

SDP-85-151.

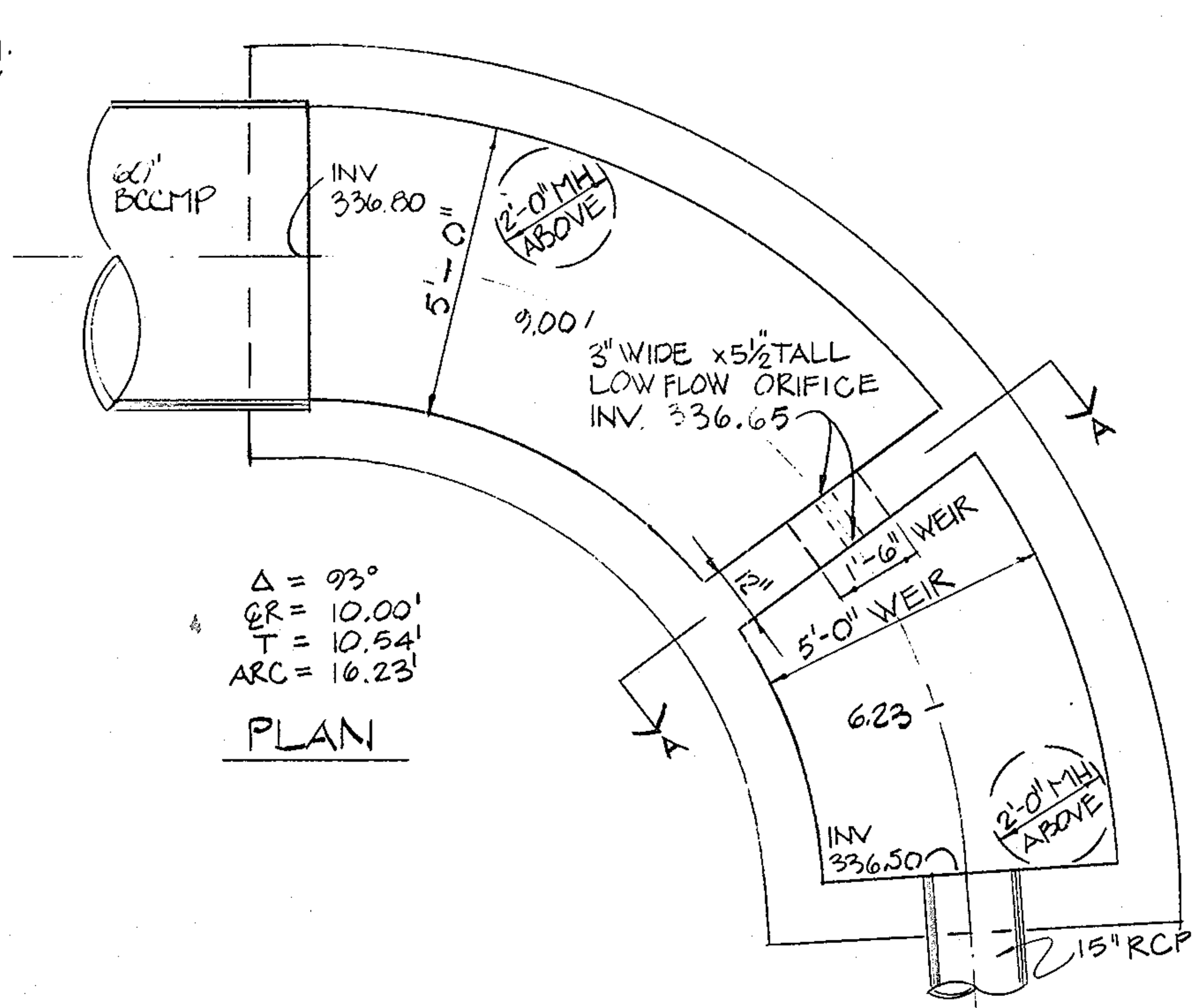
NOTE:
ALL 60" BCCMP SHALL HAVE 1"x3" CORRUGATIONS.

NOTES

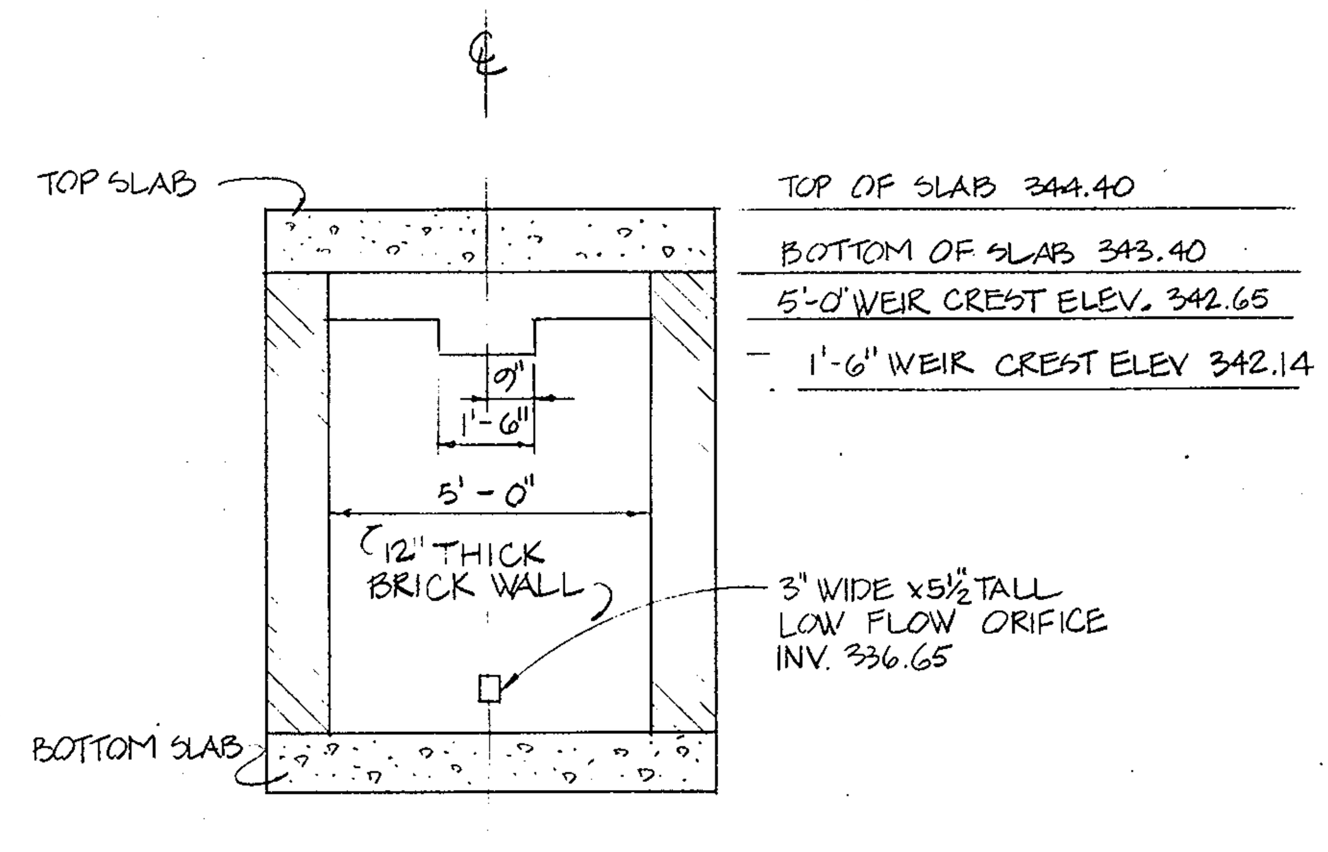
1. BOTTOM SLAB, TOP SLAB AND WALLS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL SD 1.01.
2. TOP ELEVATION OF THE TOP SLAB IS SET 1" BELOW FINISHED GRADE TO ALLOW FOR SURFACE COURSE OF BITUMINUS PAVING.
3. UPSTREAM MANHOLE SHALL CONFORM TO HOWARD COUNTY STANDARD DETAIL G 5.03. TOP ELEV. 345.6.
4. DOWNSTREAM MANHOLE FRAME AND COVER SHALL BE SET IN TOP SLAB. TOP ELEV. 344.48.
5. SET MANHOLE TOPS FLUSH WITH FINISHED GRADE.



PLAN



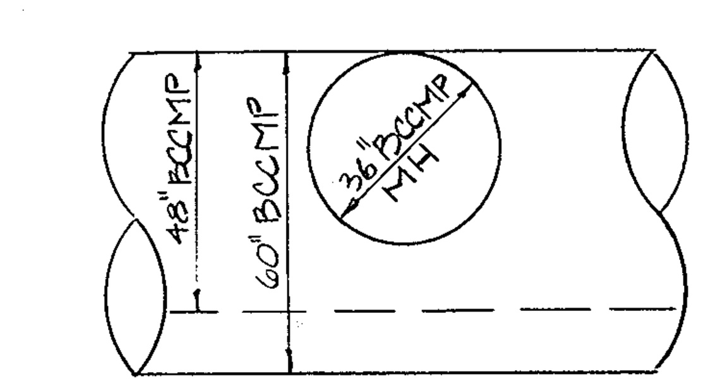
PLAN



SECTION A-A

② CONTROL STRUCTURE 'B'

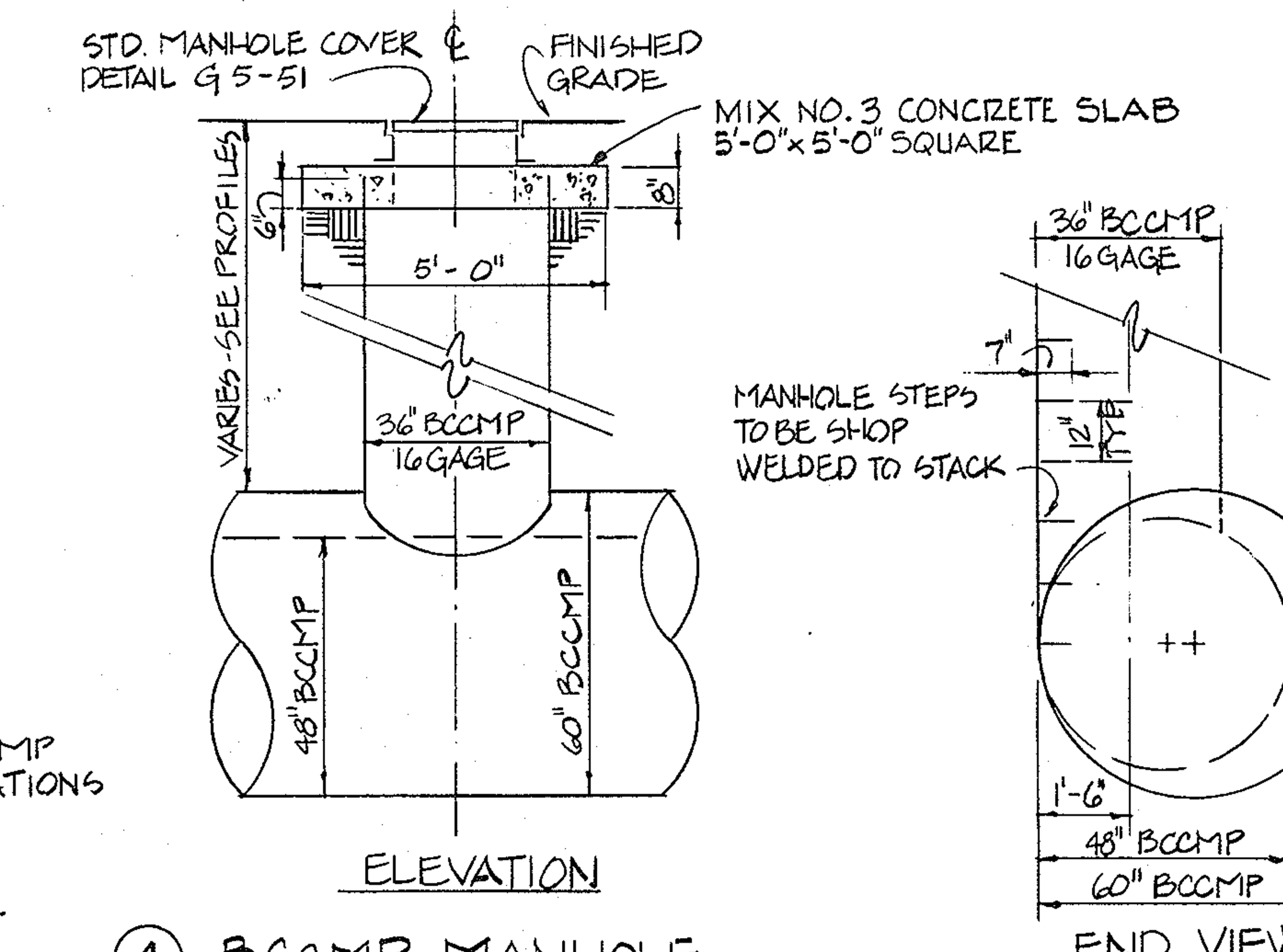
1" = 3'-0"



PLAN

NOTES:

1. ALL CONNECTIONS TO BE SHOP WELDED AND WATERTIGHT.
2. BITUMINUS COAT TO BE APPLIED AFTER WELDING
3. MANHOLE RISER IS 36" DIAM. BCCMP 16 GAGE WITH 1/2" x 2 2/3" CORRUGATIONS
4. TOP SLAB REINFORCING: #5 BARS @ 6" % EACH WAY 3 EXTRA #5 BARS E.S. OF MH OPENING.



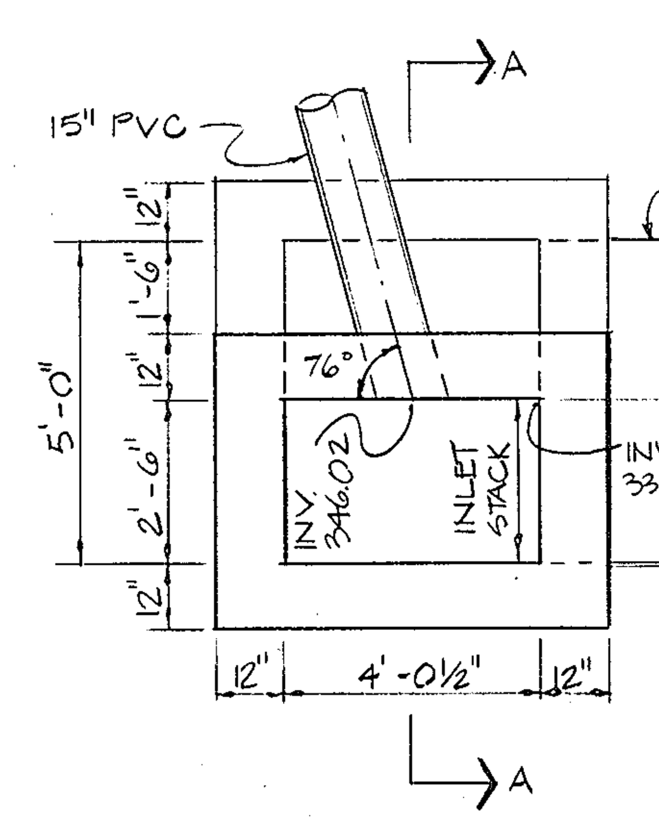
ELEVATION

END VIEW

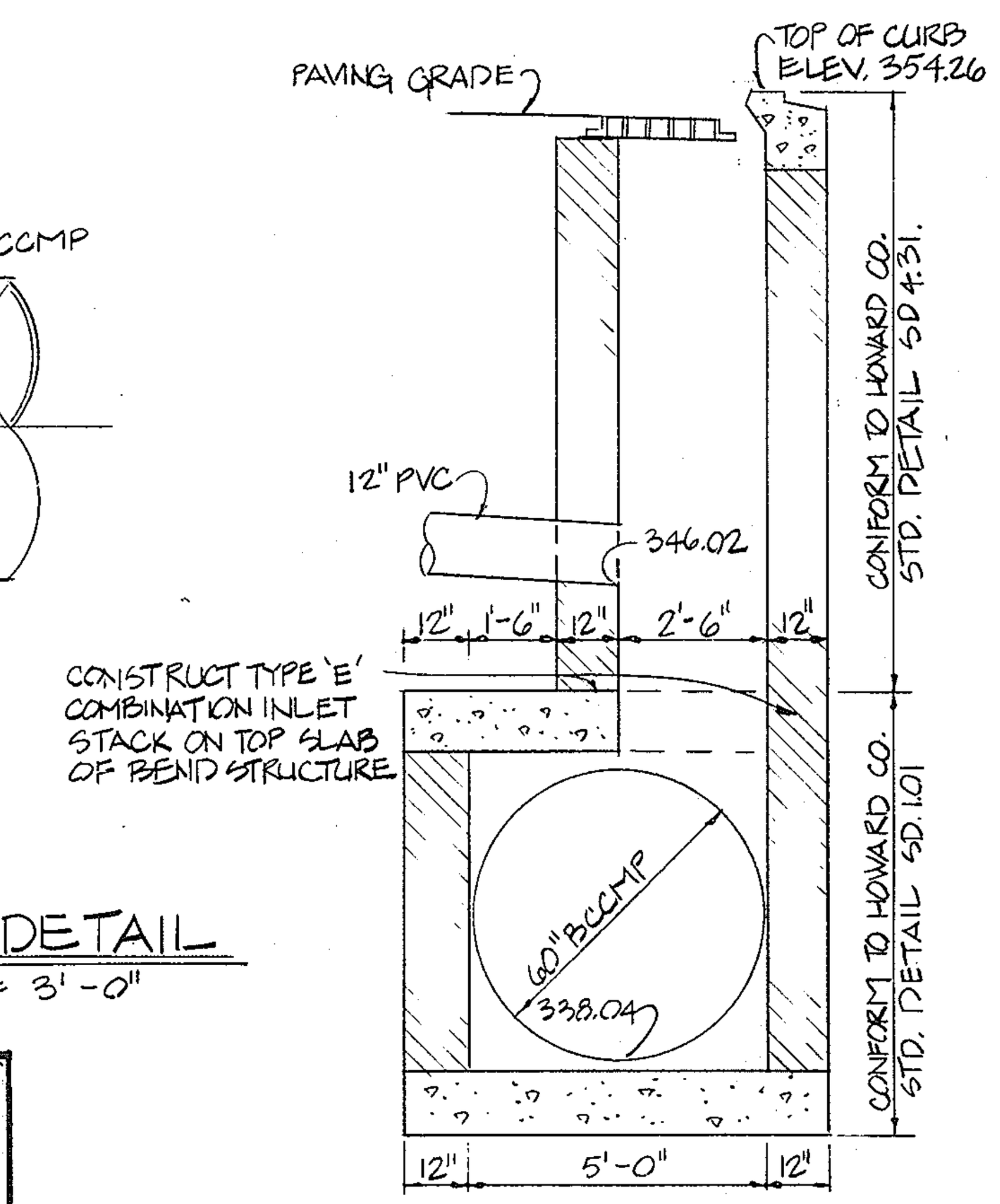
④ BCCMP MANHOLE

1" = 3'-0"

STORM DRAIN STRUCTURE SCHEDULE			
NUMBER	TYPE	TOP ELEV.	REMARKS
SWB1	CMP MH	351.0	DETAIL 4 THIS SHT.
SWB2	CMP MH	353.0	DETAIL 4 THIS SHT.
SWB3	CMP MH	354.0	DETAIL 4 THIS SHT.
SWB4	CMP MH	355.5	DETAIL 4 THIS SHT.



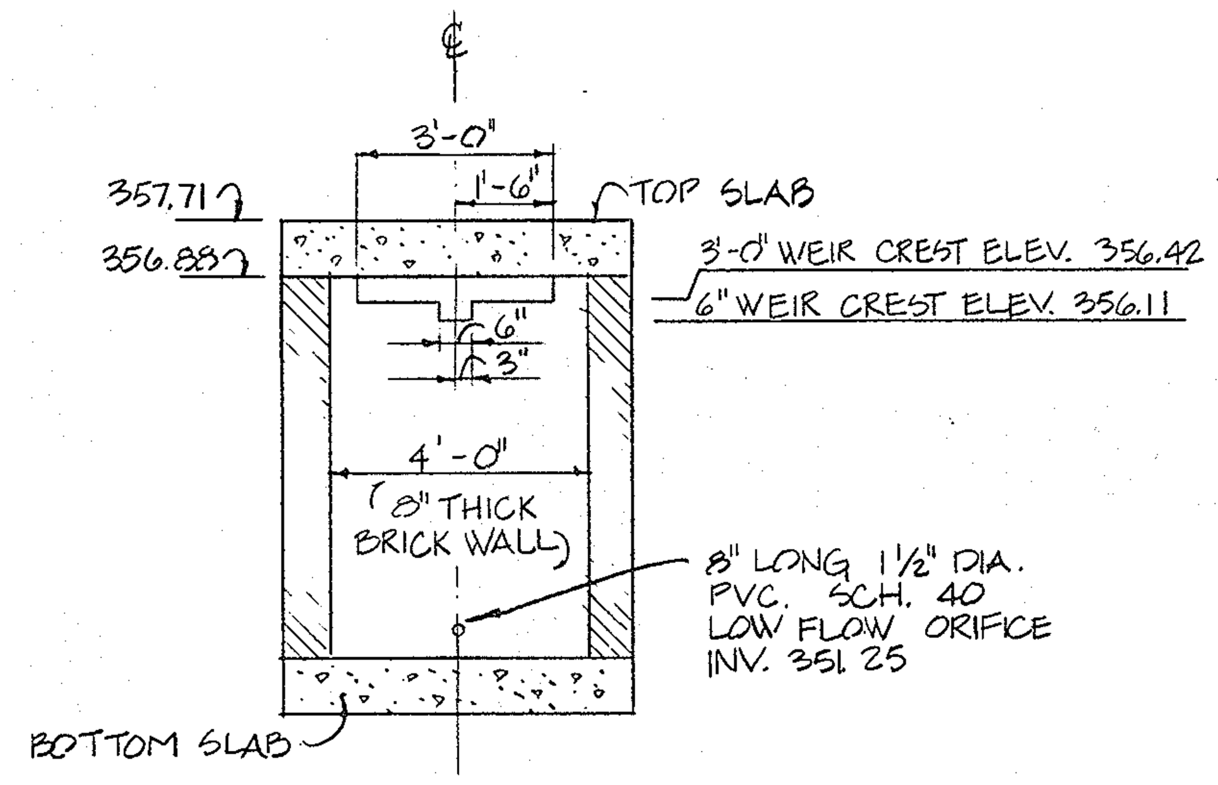
PLAN



SECTION A-A

③ I-4 DETAIL

1" = 3'-0"



SECTION A-A

NOTES

1. BOTTOM SLAB, TOP SLAB AND WALLS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL SD 1.01.
2. TOP ELEVATION OF THE TOP SLAB IS SET 1" BELOW FINISHED GRADE TO ALLOW FOR SURFACE COURSE OF BITUMINUS PAVING.
3. UPSTREAM MANHOLE FRAME AND COVER SHALL BE SET IN TOP SLAB. TOP ELEV. 357.79.
4. DOWNSTREAM MANHOLE SHALL CONFORM TO HOWARD COUNTY STANDARD DETAIL G 5.03. TOP ELEV. 358.50
5. SET MANHOLE TOPS FLUSH WITH FINISHED GRADE.

① CONTROL STRUCTURE 'A'

1" = 3'-0"

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

COUNTY HEALTH OFFICER 10-16-85 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

PLANNING DIRECTOR 10-23-85

CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. 10-23-85 DATE

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

DIRECTOR 10-10-85 DATE

CHIEF: BUREAU OF ENGINEERING 10-10-85 DATE

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

OWNER / DEVELOPER
ROC - VANTAGE ASSOCIATES
c/o ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

SUBDIVISION NAME TOWN CENTER		SECTION/AREA 7/7			PARCEL No. P-2
PLAT No./L/F 5912/L1055 F.364	BLOCK 20	ZONE NT APARTMT.	TAX/ZONE MAP 30	ELEC. DIST. 5th	CENSUS TRACT 6052.01
WATER CODE			SEWER CODE		

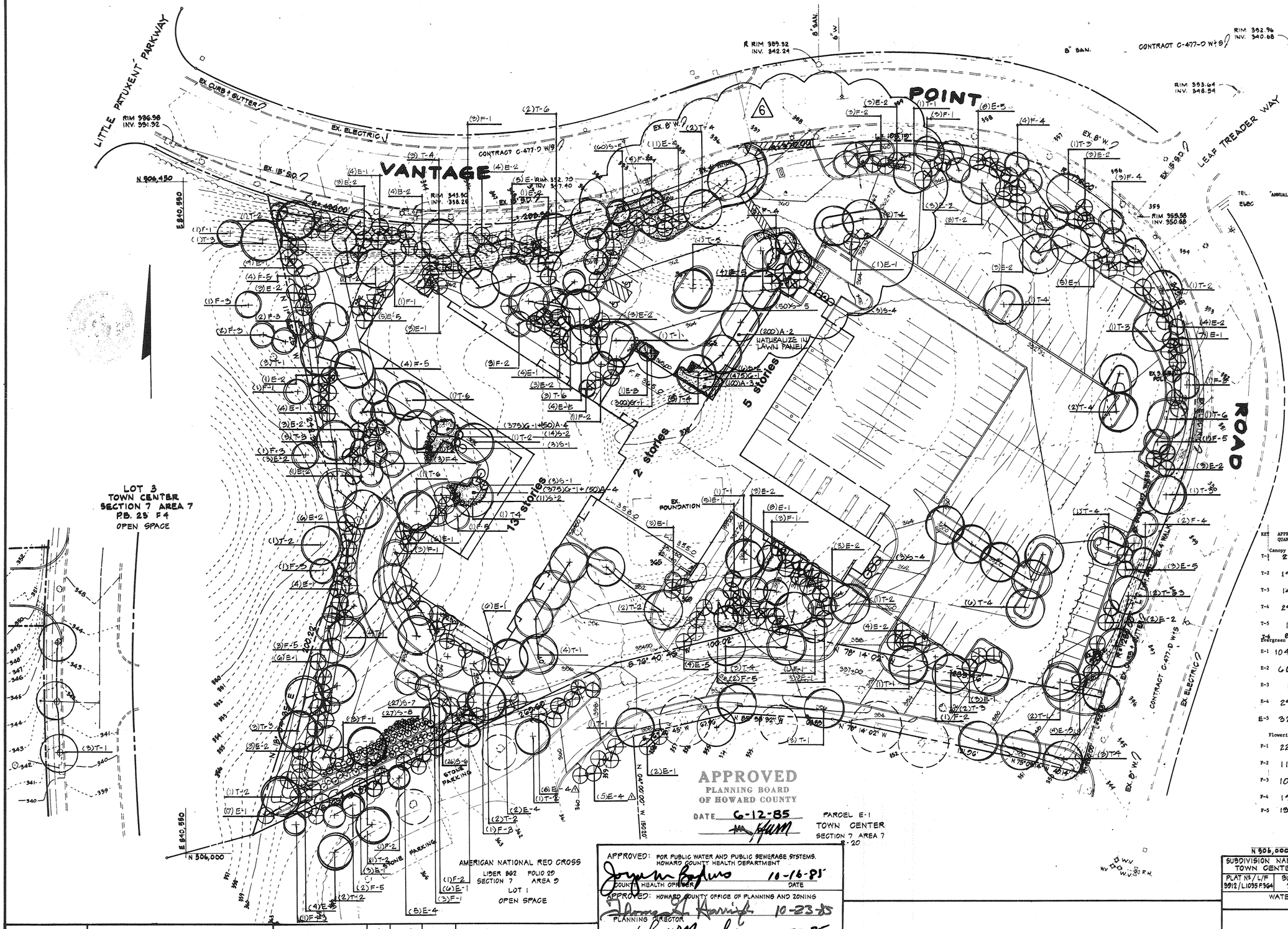
DETAILS AND
STORM DRAIN PROFILES

VANTAGE HOUSE

COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND JOB No. 80050
SCALE: 1" = 30' HOR. 5th ELECTION DISTRICT
1" = 5' VERT. SHEET 6 OF 9 ISSUE DATE: APRIL 30, 1985

SDP-85-151.



Plant List

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
		APPROX.				
SHRUBS						
S-1	9	BUDDLEIA DAVIDII	BUTTERFLY BUSH	3-4' HT.	B&B	
S-2	30	AZALEA BLAAUW'S PINK	PINK AZALEA	18-24" HT.	B&B	
S-3	6	PRUNUS LAUROCERASUS 'SCHIPKAENSIS'	CHERRY LAUREL	24-30" HT.	B&B	
S-4	6	ILEX X ATTENUATA 'FOSTERI'	FOSTER'S HOLLY	5-6' HT.	B&B	
S-5	150	COTONEASTER SALICIFOLIA REPANDENS	WILLOWLEAF COTONEASTER	18-24" HT.	B&B	
S-6	20	FORSYTHIA SUSPENSA	WEEPING FORSYTHIA	3-4' HT.	B&B	
S-7	27	CORNUS SERICEA	RED-TWIG DOGWOOD	4-5' HT.	B&B	
S-8	27	CLETHRA ALNIFOLIA	SWEET PEPPER BUSH	3-4' HT.	B&B	
ANNUALS						
A-1	125	GERANIUMS				8" OC
A-2	200	CROCUS				8" OC
A-3	100	TULIPS FOSTERIANA 'EMPEROR WHITE'	WHITE DARWIN TULIP			6" OC
A-4	100	DAFFODIL 'KING ALFRED'				6" OC
GROUNDCOVER						
G-1	1525	VINCA MINOR	PERIWINKLE	2" POT		8" OC

NOTE: SEE SHEET 2 FOR PLANTING DETAILS.

Plant List

KEY	APPROX. QUANTITY	BOTANICAL NAME/ COMMON NAME	SIZE	ROOT COND.	REMARKS
Canopy Trees					
T-1	22	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE	△ 3½-4" CAL.	B&B	
T-2	19	QUERCUS RUBRA RED OAK	2½-3" CAL.	B&B	
T-3	14	FRAXINUS PENNSYLVANICA 'MARSHALL SEEDLESS' MARSHALL'S ASH	3-3½" CAL.	B&B	
T-4	29	ACER RUBRUM 'RED SUNSET' RED SUNSET MAPLE	3-3½" CAL.	B&B	
T-5	1	FAGUS SYLVATICA EUROPEAN BEECH	5-6" CAL	B&B	
T-6	8	QUERCUS RUBRA - RED OAK	3½-4" CAL.	B&B	
Evergreen Trees					
E-1	104 △	PINUS STROBUS EASTERN WHITE PINE	7-8' HT.	B&B	
E-2	66 △	PICEA ABIES NORWAY SPRUCE	7-8' HT.	B&B	
E-3	1	CRYPTOMERIA JAPONICA JAPANESE CRYPTOMERIA	10-12' HT.	B&B	
E-4	29 △	PINUS THUNBERGII JAPANESE BLACK PINE	8-9' HT.	B&B	
E-5	32	PINUS STROBUS EASTERN WHITE PINE	9-10' HT.	B&B	
Flowering Trees					
F-1	22	CORNUS FLORIDA 'WHITE' WHITE FLOWERING DOGWOOD	2-2½" CAL.	B&B	
F-2	11	PRUNUS YEDOENSIS YOSHINO CHERRY	2½-3" CAL.	B&B	
F-3	10	CERCIS CANADENSIS REDBUD	2-2½" CAL.	B&B	
F-4	19	CORNUS FLORIDA 'WHITE' WHITE FLOWERING DOGWOOD	△ 3-3½" CAL.	B&B	
F-5	13	MAGNOLIA VIRGINIANA SWEETBAY MAGNOLIA	2½-3" CAL.	B&B	

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

PARCEL E-1
TOWN CENTER
SECTION 7 AREA 7
R-20

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS.
HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — DATE 10-16-85

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR — DATE 10-23-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE 10-23-85

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR — DATE 10-10-85
CHIEF, BUREAU OF ENGINEERING — DATE 10-10-85

No.	BY	DATE	REVISION
1	C.E.I.	3.15.18	WIDEN ENTRANCE DRIVE

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

STATE OF MARYLAND — No. 405 — REGISTERED LANDSCAPE ARCHITECT

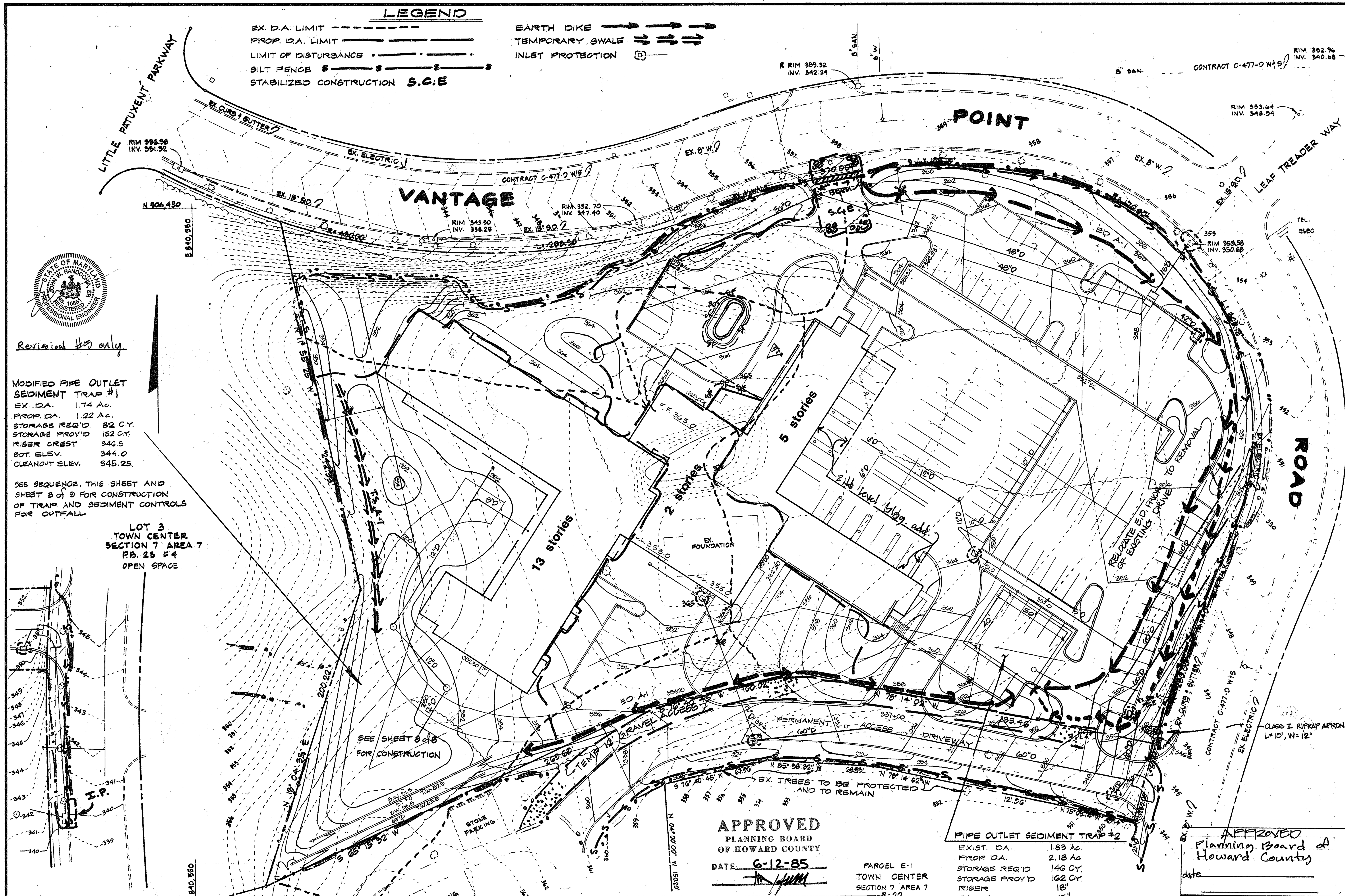
OWNER / DEVELOPER
ROC - VANTAGE ASSOCIATES
% ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

SUBDIVISION NAME		SECTION/AREA		PARCEL NO.
TOWN CENTER		7/7		F-2
PLAT NO./ L/F	BLOCK	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
9912/LI095 F364	20	NT APARTMT	30	5th	6052.01
WATER CODE		SEWER CODE			

PLANTING PLAN
VANTAGE HOUSE
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND
SCALE: 1" = 30'
JOB NO. 80050
5th ELECTION DISTRICT
SHEET 7 OF 9 , ISSUE DATE: APRIL 30, 1985

SDP-85-151c



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	4.52 acres
Area Disturbed	4.2 acres
Area to be roofed or paved	3.04 acres
Area to be vegetatively stabilized	1.16 acres
Total Cut	26,500 Cu. yds
Total Fill	2,300 Cu. yds
Offsite waste/borrow area location	

8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.

SEQUENCE OF OPERATIONS

1. Notify Howard County Office of Inspections and Permits (O.I.P.) (992-2437) a minimum of 24 hours prior to the start of any construction
2. Clear and grub for only those areas required for construction of sediment control devices.
3. Construct sediment controls, excluding sediment trap number one.
4. Notify Howard County (O.I.P.) (992-2437) following installation of sediment controls.
5. With the approval of the (O.I.P.), construct the 12' temporary gravel access drive to the Red Cross Building. Clear and grub areas draining to trap #2 and silt fences. Do not remove existing aspalt driveway for Red Cross north of the temporary gravel access drive at this time. Construct sediment trap number one, including storm drain outfall. See sheet 3 of 8 for grading and layout. Plug low flow orifice. Do not construct pilot channel at this time.
6. Following construction of trap #1, clear and grub remaining areas to be disturbed.
7. Rough grade site. Begin building. Construct utilities. Following installation of stone base for permanent Red Cross access drive, remove temporary gravel access drive and remainder of existing aspalt drive.
8. Finish grade, pave and stabilize disturbed areas.
9. Following stabilization of disturbed areas, and with the approval of the (O.I.P.), remove sediment controls.
   a. Spoil to be removed to a site with an approved sediment control plan.
   b. Construct low flow orifice and pilot channel of Stormwater Management.
10. Finish grade, pave and stabilize these remaining disturbed areas.

SEDIMENT CONTROL PLAN CERTIFICATIONS

DEVELOPERS CERTIFICATION

"I/We certify that all development and construction will be done pursuant 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."

[signature] Aug 14, 1985
Signature of Developer — Date
Roc Vantage Associates
Name of Developer

ENGINEER'S CERTIFICATION

"I certify that this plan of erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site, and that this plan was prepared in accordance with the requirements of the Howard County Soil Conservation District."

[signature] 8/21/85
Signature of Engineer — Date
KEN KINSEY
Name of Engineer

Reviewed For HOWARD S.C.D.
Name
and meets Technical Requirements.
[signature] 10-3-85
U.S. Soil Conservation Service — Date

This development plan is approved for soil erosion and sediment control by the Howard Soil conservation District.
[signature] 10-3-85
Howard Soil Conservation District — Date

NOTE: ALL INLETS DRAINING TO UNDERGROUND STORMWATER MANAGEMENT FACILITIES SHALL BE BLOCKED UNTIL CONTRIBUTING AREAS HAVE BEEN STABILIZED.

FOR DETAILS AND SPECIFICATIONS, SEE SHEET 9 of 9.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
[signature] 10-16-85
COUNTY HEALTH OFFICER — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[signature] 10-23-85
PLANNING DIRECTOR
[signature] 10-23-85
CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. — DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
[signature] 10-10-85
DIRECTOR — DATE
[signature] 10-10-85
CHIEF: BUREAU OF ENGINEERING — DATE

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

Rev	date	revision
5	1/85(?)	add 1st floor addition

OWNER / DEVELOPER
ROC - VANTAGE ASSOCIATES
c/o ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

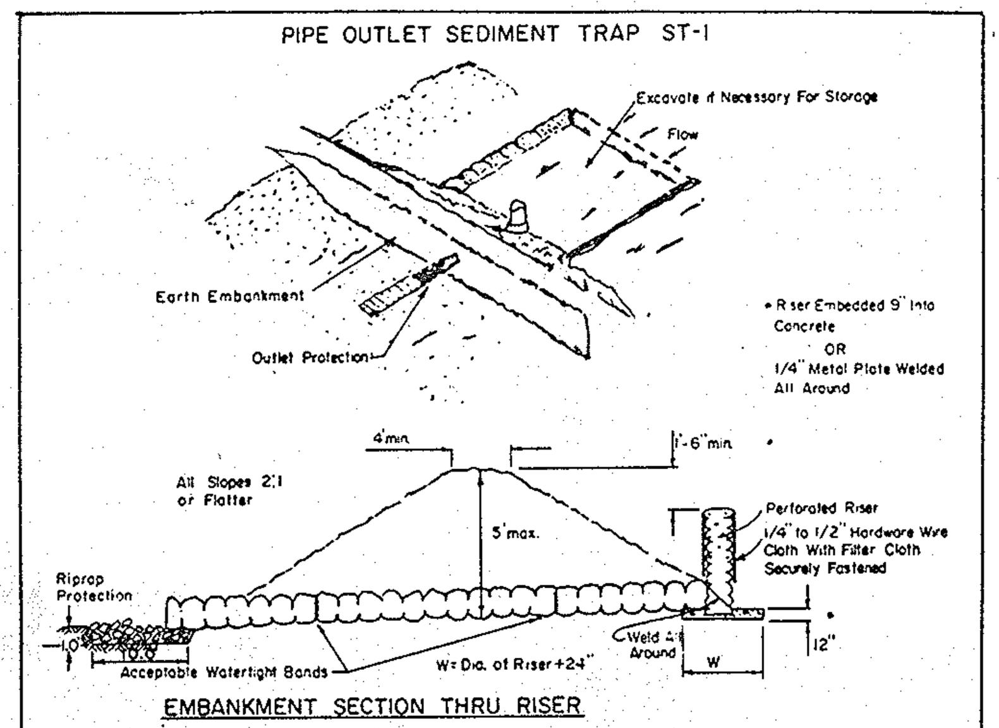
SUBDIVISION NAME		SECTION/AREA		PARCEL No.	
TOWN CENTER		7/7		F-2	
PLAT No./L/F	BLOCK	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TRACT
3912/L.1035 F.364	20	NT APARTMT.	30	5th	6052.01
WATER CODE			SEWER CODE		

SEDIMENT CONTROL PLAN
VANTAGE HOUSE
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND — JOB No. 80050
SCALE: 1" : 30' — 5th ELECTION DISTRICT
SHEET 8 OF 9, ISSUE DATE: APRIL 30, 1985

SDP-85-151c

PIPE OUTLET SEDIMENT TRAP ST-I



SIZES OF PIPE NEEDED

Barrel Diameter ________

Riser Diameter ________

Note:

For Construction Specification see sheet 16.08

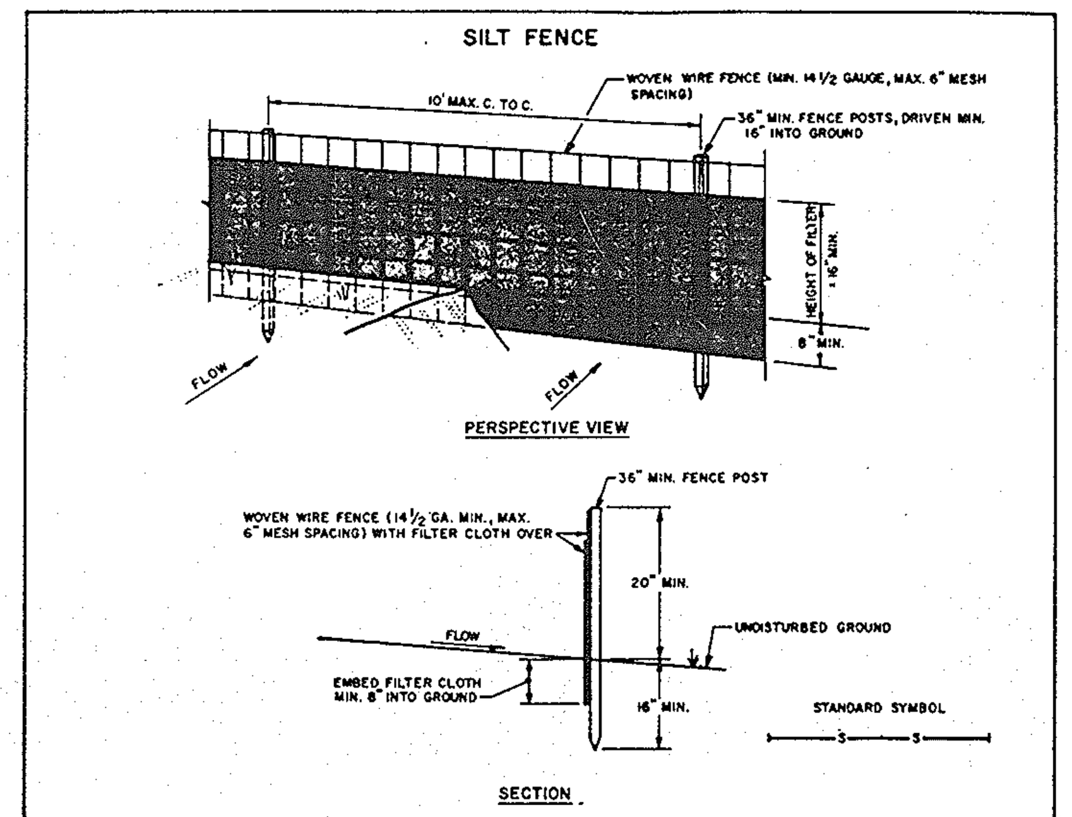
Max. Drainage Area: 5 Acres

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	PIPE OUTLET SEDIMENT TRAP	STANDARD DRAWING ST-I

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.

SILT FENCE



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 OVER-LAPPED 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

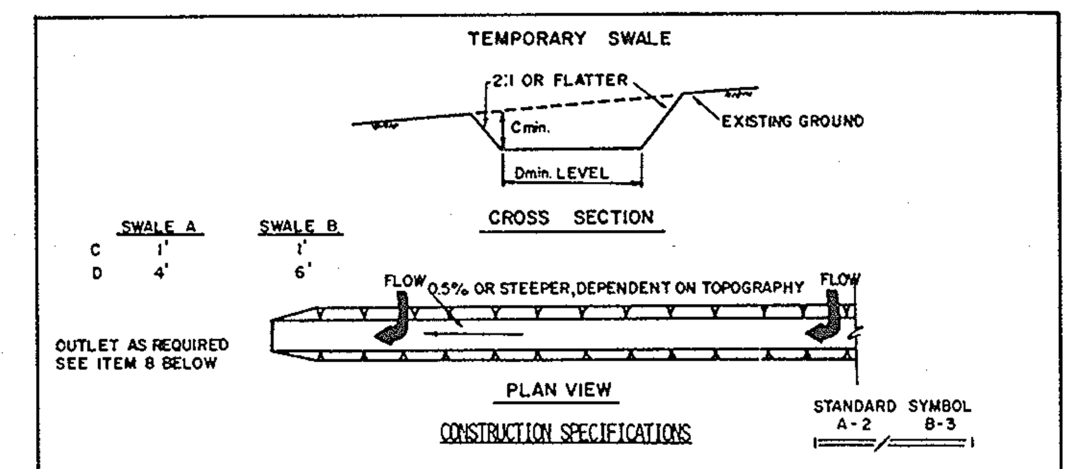
FENCE: WOVEN WIRE, 14½ GA. 6" MAX. MESH OPENING

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

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	SILT FENCE	STANDARD DRAWING SF-I

TEMPORARY SWALE



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:

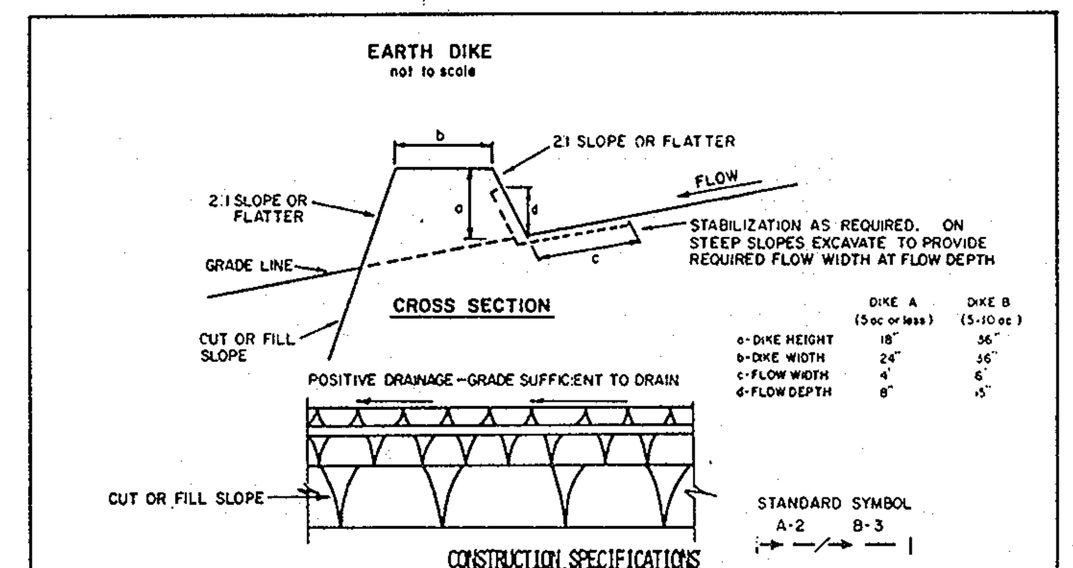
FLOW CHANNEL STABILIZATION

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.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	TEMPORARY SWALE	STANDARD DRAWING TS-I

EARTH DIKE



	DIKE A (5 ac or less)	DIKE B (5-10 ac)
a-DIKE HEIGHT	18"	36"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	8"	15"

CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

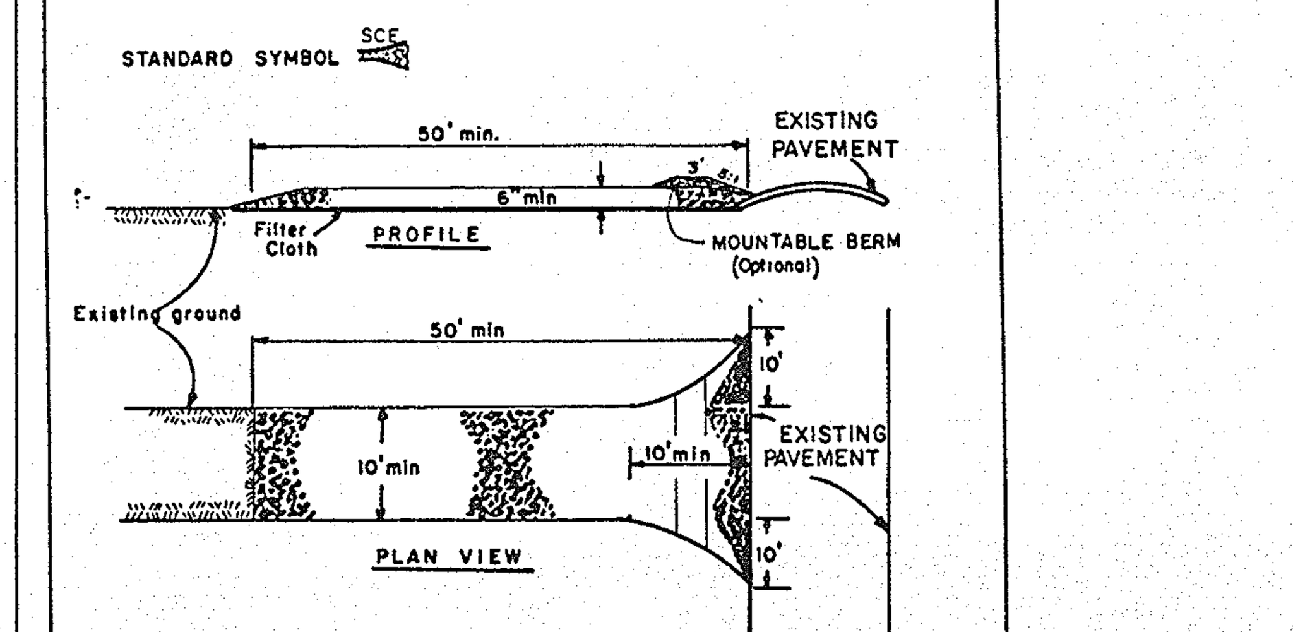
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

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

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	EARTH DIKE	STANDARD DRAWING ED-I

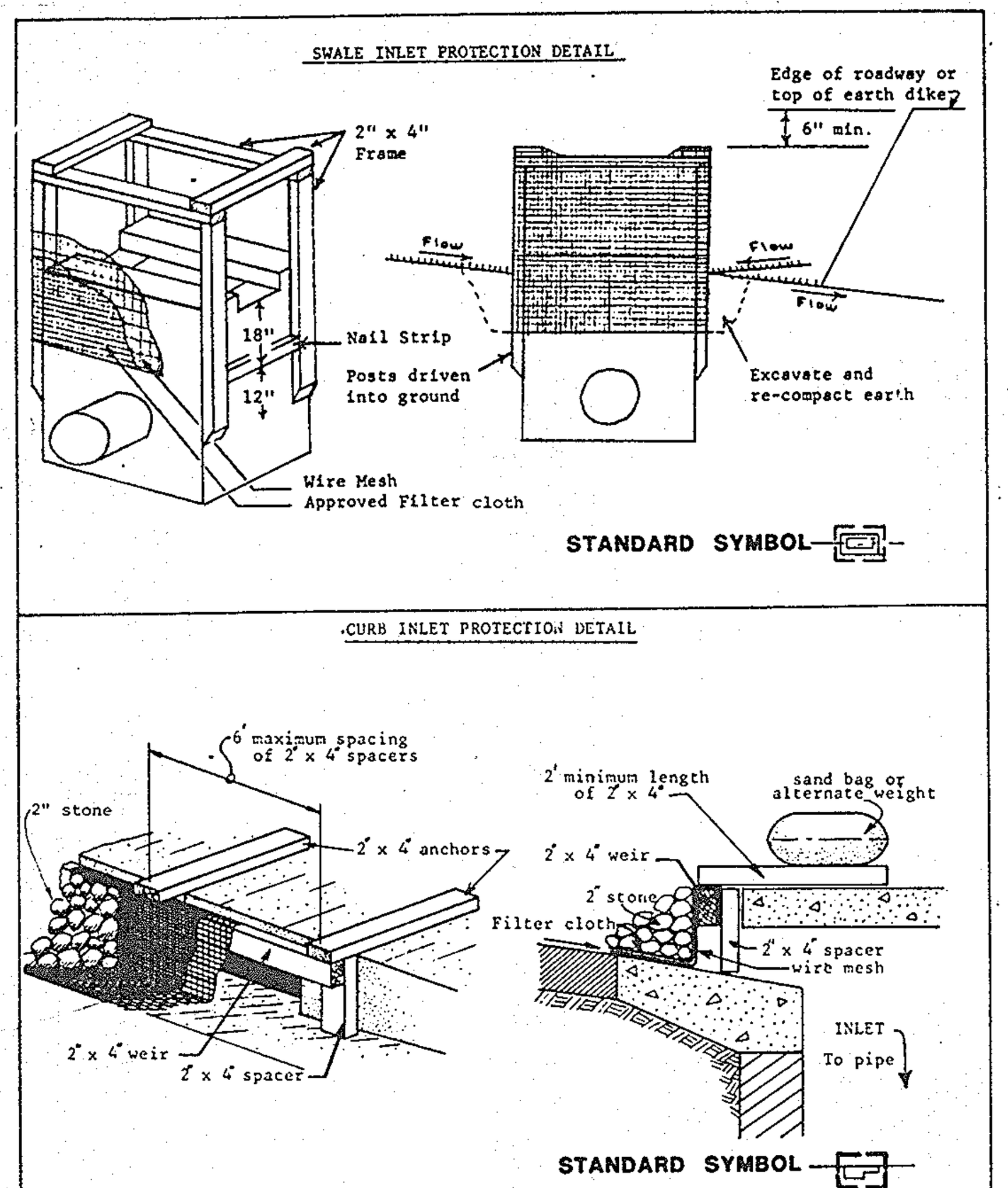
STABILIZED CONSTRUCTION ENTRANCE
not to scale



CONSTRUCTION SPECIFICATIONS

1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md.	STABILIZED CONSTRUCTION ENTRANCE	Standard Drawing SCE-I



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	INLET PROTECTION DETAIL	STANDARD DRAWING IPD—I

INLET PROTECTION

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.

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

II. Procedure

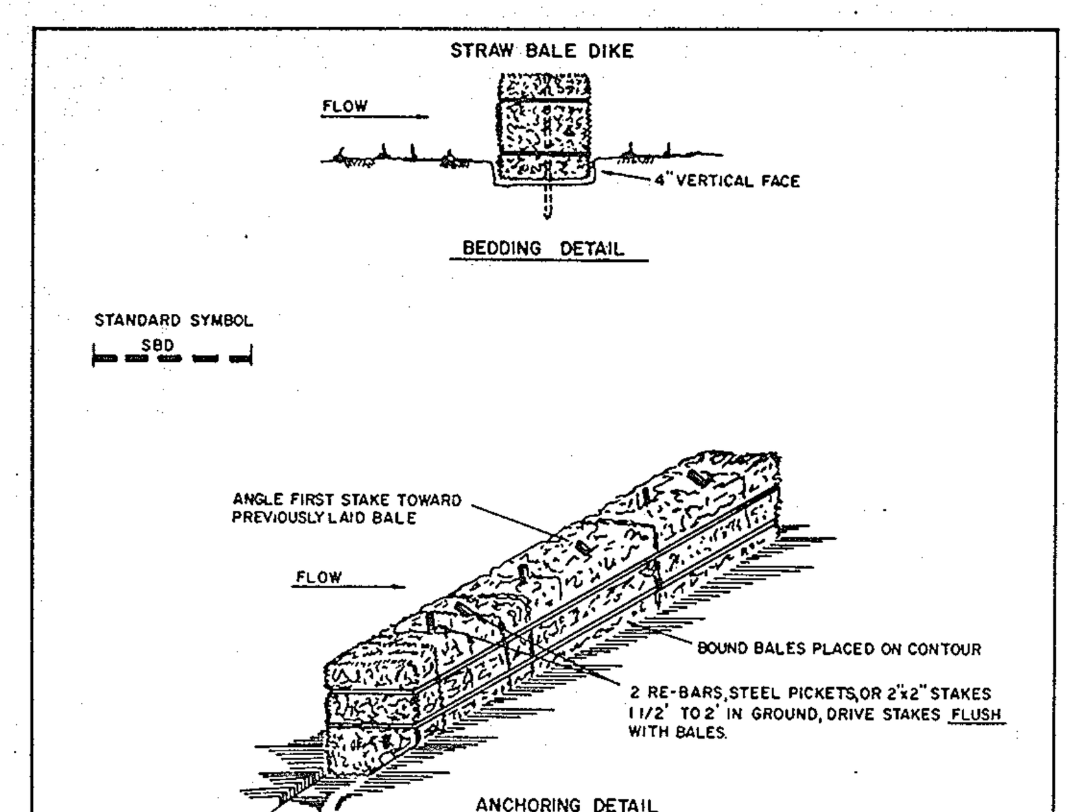
A. A swale, ditchline or yard inlet protection.

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.

STRAW BALE DIKE



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	STRAW BALE DIKE	STANDARD DRAWING SBD-I

STANDARD AND SPECIFICATIONS
FOR
STRAW BALE DIKE

Definition

A temporary barrier of straw or similar material used to intercept sediment laden runoff from small drainage areas of disturbed soil.

Purpose

The purpose of a bale dike is to reduce runoff velocity and effect deposition of the transported sediment load. Straw bale dikes are to be used for no more than three (3) months.

Conditions Where Practice Applies

The straw bale dike is used where:

1. No other practice is feasible.
2. There is no concentratration of water in a channel or other drainage way above the barrier.
3. Erosion would occur in the form of sheet erosion.
4. Length of slope above the straw bale dike does not exceed these limits:

Constructed Slope	Percent Slope	Slope Length Feet
2:1	50	25
2½:1	40	50
3:1	33	75
3½:1	30	100
4:1	25	125

Where slope gradient changes through the drainage area, steepness refers to the steepest slope section contributing to the straw bale dike.

The practice may also be used for a single-family lot if the slope is less than 15 percent. The contributing drainage area in this instance shall be less than one acre and the length of slope above the dike shall be less than 200 feet.

Design criteria

A design is not required. All bales shall be placed on the contour with cut edge of bale adhering to the ground. See Standard Drawing SBD-1 for details.

PERMANENT SEEDING NOTES
Kentucky Bluegrass

Seedbed Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means. Remove all sticks, debris and stones larger than 1 inch in size.

Soil Amendments: Apply 2 tons per acre of ground dolomitic limestone (92 lbs./1,000 square feet) and 600 lbs. per acre 10-20-10 fertilizer (14 lbs./1,000 square feet) or equivalent rate. Harrow or disc lime into upper 3 inches of soil. (Omit lime application if area was previously amended with lime for Temporary Seeding as specified below). At time of seeding, apply 400 lbs. per acre (9.2 lbs./1,000 square feet) of 30-0-0 ureaform fertilizer.

Seeding: For the periods March 1st through May 15th, and August 1st through November 1st, seed with 90 lbs. per acre (2 lbs./1,000 square feet) of 80% A-34 Adelphi Kentucky Bluegrass and 20% Merion Kentucky Bluegrass. During the period of November 1st through February 28th and May 16th through July 31st refer to temporary seeding notes.

Hydroseeding: Wood cellulose fiber mulch (45 lbs./1,000 square feet - dry weight) shall be incorporated as an integral part of a slurry mix after seed, fertilizer and water have been thoroughly mixed. Mix shall be uniformly applied, by an approved hydroseeding machine on all lawn areas designated on the Drawings after the prepared soil seedbed has been limed. The applied slurry shall form a blotter like cover uniformly impregnated with grass seed, fertilizer and fiber mulch. An approved tackifier shall be immediately applied to the hydroseeded areas if a ready-mixed tackifier was not incorporated into the mulch.

Maintenance: Seeded areas shall be watered and maintained until a thick stand of grass is established. Bare spots which persist after three weeks of favorable growing weather shall be recultivated and reseeded as specified except that lime and fertilizer may be omitted. Lawn areas shall be mowed to maintain turf between 2 inches and 4 inches at all times, until a thick stand of turf is established.

TEMPORARY SEEDING NOTES

Seedbed Preparation: Loosen upper 3 inches by discing, raking or other acceptable means.

Soil Amendments: Apply 2 tons (92 lbs./1,000 square feet) per acre of ground dolomitic limestone and 600 lbs. per acre (15 lbs./1,000 square feet) of 10-20-10 fertilizer (or equivalent rate). Harrow or disc lime into upper 3 inches of soil.

Seeding: For periods March 1st through April 30th, and from August 15th through October 31st, seed with 40 lbs. per acre (.92 lb./1,000 square feet) of Italian Ryegrass. For the period May 1st through August 14th seed with 3 lbs./acre (0.07 lbs./1,000 square feet) of Weeping Lovegrass. For the period November 1st through February 28th protect the site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs./1,000 square feet) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using 218 gallons per acre (5 gallons/1,000 square feet) of emulsified asphalt on flat areas. On slopes 8 feet or higher use 348 gallons per acre (8 gallons/1,000 square feet) for anchoring.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 6-12-85

Reviewed For ________________ S.C.D.
Name
and meets Technical Requirements.

________________ U.S. Soil Conservation Service ________ Date

This development plan is approved for soil erosion and sediment control by the Howard Soil conservation District.

Howard Soil Conservation District 10/3/85 Date

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER 10-16-85 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR 10-23-85
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. 10-23-85 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE. STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR 10-10-85 DATE
CHIEF: BUREAU OF ENGINEERING 10-10-85 DATE

DAFT · McCUNE · WALKER INC.
LAND PLANNING CONSULTANTS
LANDSCAPE ARCHITECTS
ENGINEERS
530 E. JOPPA ROAD
TOWSON, MD. 21204
TELEPHONE: (301) 296-3333

Address Chart

OWNER / DEVELOPER
ROC - VANTAGE ASSOCIATES
% ROBERT S. OLNICK
909 THIRD AVENUE
NEW YORK, NEW YORK 10022

SUBDIVISION NAME TOWN CENTER		SECTION/AREA 7/7		PARCEL No. F-2	
PLAT No. / L/F 3912/L.1095 F.364	BLOCK 20	ZONE NT APARTMT.	TAX/ZONE MAP 30	ELEC. DIST. 5th	CENSUS TRACT 6052.01
WATER CODE			SEWER CODE		

SEDIMENT CONTROL DETAILS
VANTAGE HOUSE
COLUMBIA TOWN CENTER
SECTION 7 AREA 7

HOWARD COUNTY, MARYLAND
JOB No. 80050
SCALE: 1" : 30'
5th ELECTION DISTRICT
SHEET 9 OF 9, ISSUE DATE: APRIL 30, 1985
SDP-85-151.