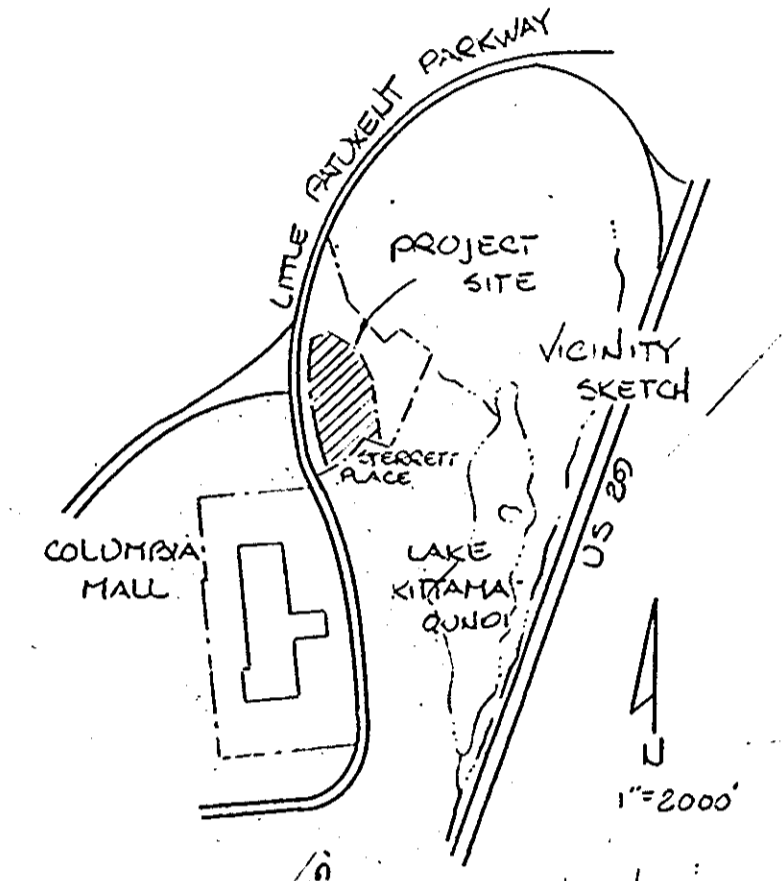


COORDINATE SCHEDULE

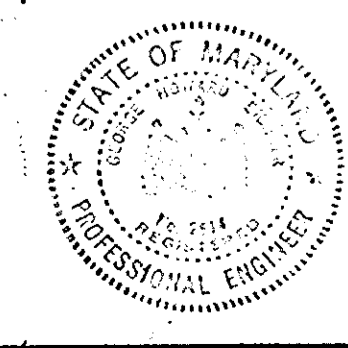
No	NORTH	EAST	REMARK
201	505,308.70	840,099.42	
202	505,417.52	840,225.23	
203	505,375.51	840,281.71	
204	505,233.58	840,439.05	
205	505,082.00	840,502.01	
206	505,047.00	840,444.01	
207	505,030.00	840,450.04	
208	505,042.00	840,521.03	
209	504,642.47	840,251.48	
210	504,582.09	840,092.66	
211	504,672.23	840,020.95	
212	504,580.89	840,088.84	
213	505,275.10	840,005.93	
214	504,841.03	840,457.23	
215	504,841.03	840,302.23	
216	505,066.03	840,302.23	
217	505,226.03	840,302.23	
218	505,294.89	840,371.09	
219	505,264.09	840,405.23	
220	505,066.03	840,405.23	



- LEGEND
- [Symbol] LIMITS OF SUBMISSION
  - [Symbol] FINAL CONTOURS
  - [Symbol] NEW PAVING
  - [Symbol] EXISTING CURB & CUTTER
  - [Symbol] PROPOSED CURB & CUTTER
  - [Symbol] STORM DRAINS
  - [Symbol] MANHOLES
  - [Symbol] INLETS
  - [Symbol] SANITARY SEWER
  - [Symbol] WATER LINE
  - [Symbol] DETAIL SHEET NO.
  - [Symbol] TREE GRATE
  - [Symbol] HANDICAP PARKING SIGN

SITE NOTES:  
 TOTAL AREA: 7.56 AC.  
 LAND USE: EMPLOYMENT CENTER COMMERCIAL  
 PLAT RECORDING: RESUBDIVISION COLUMBIA TOWN CENTER SEC 7 AREA B, SEC 7 AREA G

OPEN SPACE LOT 2  
 SUBDIVISION SEC 7 AREA B SUBMITTED TO CO PLAT #355  
 LITTLE PATIENT PARKWAY  
 Note: Vehicular ingress & egress are restricted along Little Patient Parkway as shown on Record Plat F-79-196C



5/24/79  
 George H. Eichen  
 George H. Eichen

OWNER:  
 HOWARD RESEARCH AND DEVELOPMENT CO.  
 THE ROUSE BUILDING  
 COLUMBIA, MARYLAND

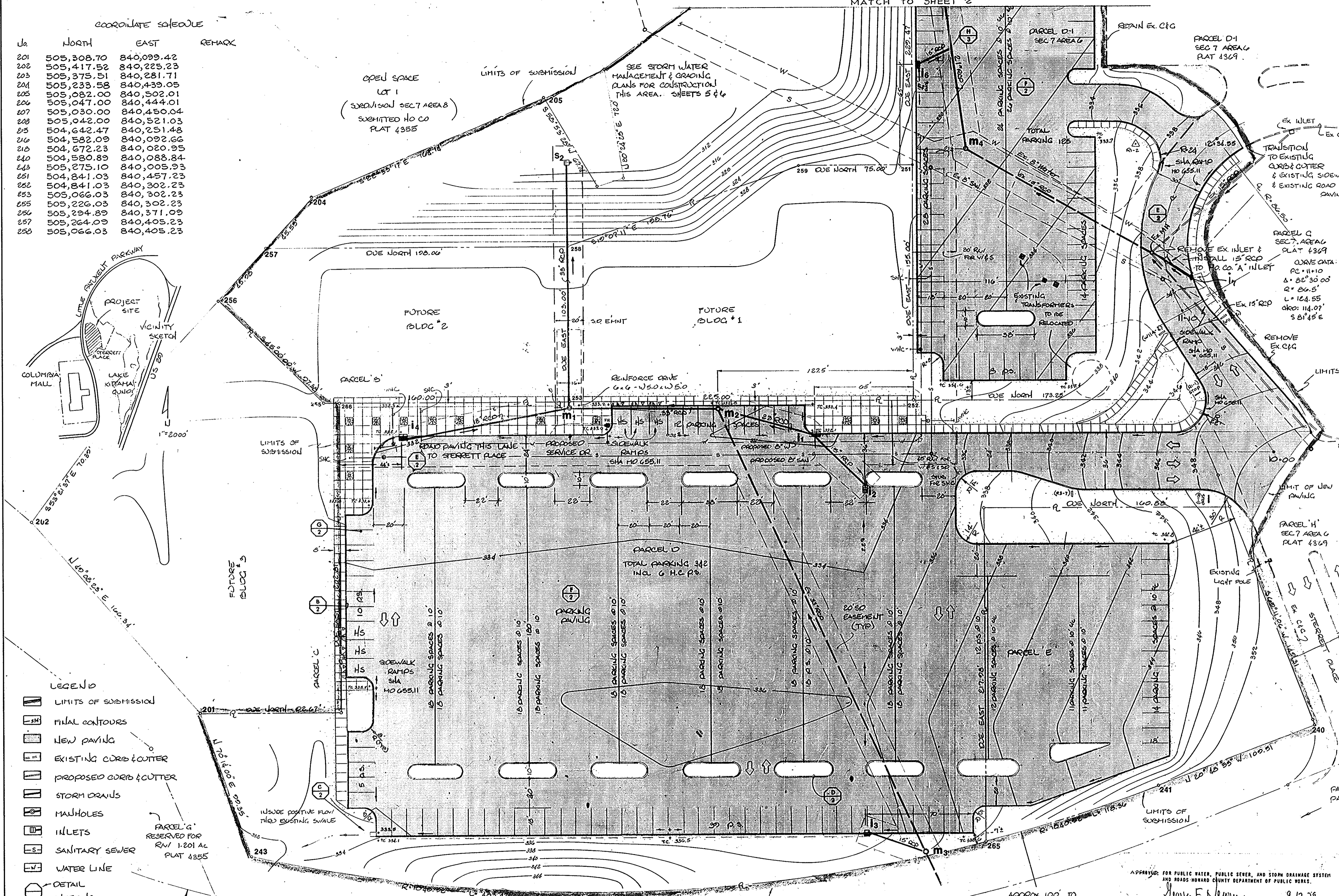
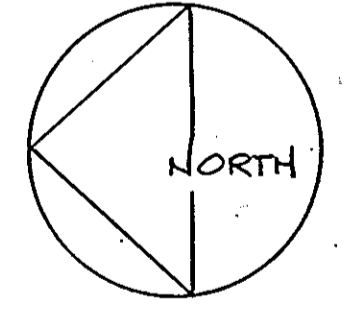
APPROVED FOR PUBLIC WATER, PUBLIC SEWER, AND STORM DRAINAGE SYSTEM AND ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 [Signature] 9-17-79  
 [Signature] 9-17-79  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
 [Signature] 9-19-79  
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 9-21-79  
 [Signature] 9-21-79

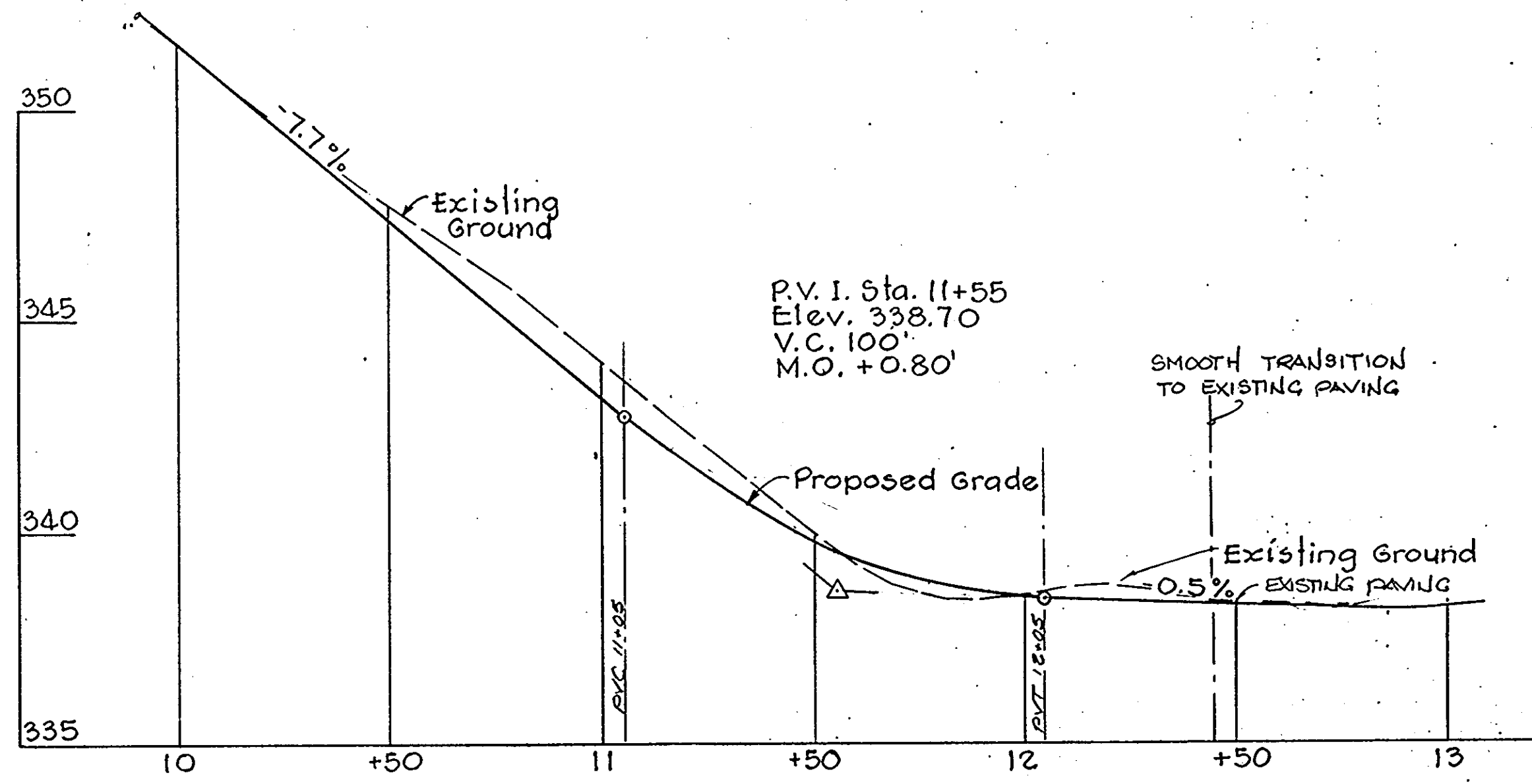
Ho. Co. COMMENTS & CORRECTIONS		13 JULY 79
		27 AUG 79
NO.	REVISIONS	DATE BY
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION		
COLUMBIA TOWN CENTER		
SECTION 7 AREA B & AREA G		
5TH ELECTION DISTRICT - HOWARD COUNTY, MD.		
FD		
site development		
SEC 7 Area G parcel D-1 Sec 7 Area B parcels D & E		
Plan Prepared by		
Greiner Engineering Sciences, Inc.		
1 Village Square Baltimore, Maryland (301) 323-8100		
DESIGNED: UCS	DRAWN: UCS	DATE: 8/15/79
SCALE: 1" = 30'	SHEET	OF 6

- GENERAL NOTES:
- PROPOSED USE: OFFICES & OUT GRADE PARKING  
 CLA  
 BLDG # 1 4000 SF  
 BLDG # 2 23000  
 BLDG # 3 25000
  - UTILITIES: PUBLIC WATER & SEWER
  - BUILDING SETBACKS PER FOP PHASE 140A & APPROVED PRELIMINARY PLAN
  - PARKING: 1) PER FOP 140A  
 SEC 7 AREA B REQUIRED: 176 PROVIDED: 342  
 2) SEC 7 AREA G: RELOCATED 125  
 3) Heap Parking: 6 (Incl'd Above)
  - SEE SEDIMENT CONTROL PLAN FOR CONSTRUCTION SEQUENCE, STORM DRAIN PROTECTION, & EROSION CONTROL PRACTICES TO REMAIN IN EFFECT UNTIL FINAL SITE STABILIZATION, GP 79-70
  - ALL UNPAVED AREAS TO BE PERMANENTLY SEEDED PER VEGETATIVE SPECIFICATIONS & SEDIMENT CONTROL PLAN.
  - GRADING PERMIT Lb GP 79-70 & GP 79-58
  - ALL SIGNS SHALL IN ACCORDANCE WITH MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- PARCEL D SEC 7 AREA B 3.114 AC FOP 140A  
 PARCEL E SEC 7 AREA B 0.815 AC FOP 140A  
 PARCEL D-1 SEC 7 AREA G 3.937 AC FOP 111A
- TC 76 F-79-174C RECORDED 8/22/79 PLAT #369  
 TC 76 F-79-176C RECORDED 7/30/79 PLAT #354-4357

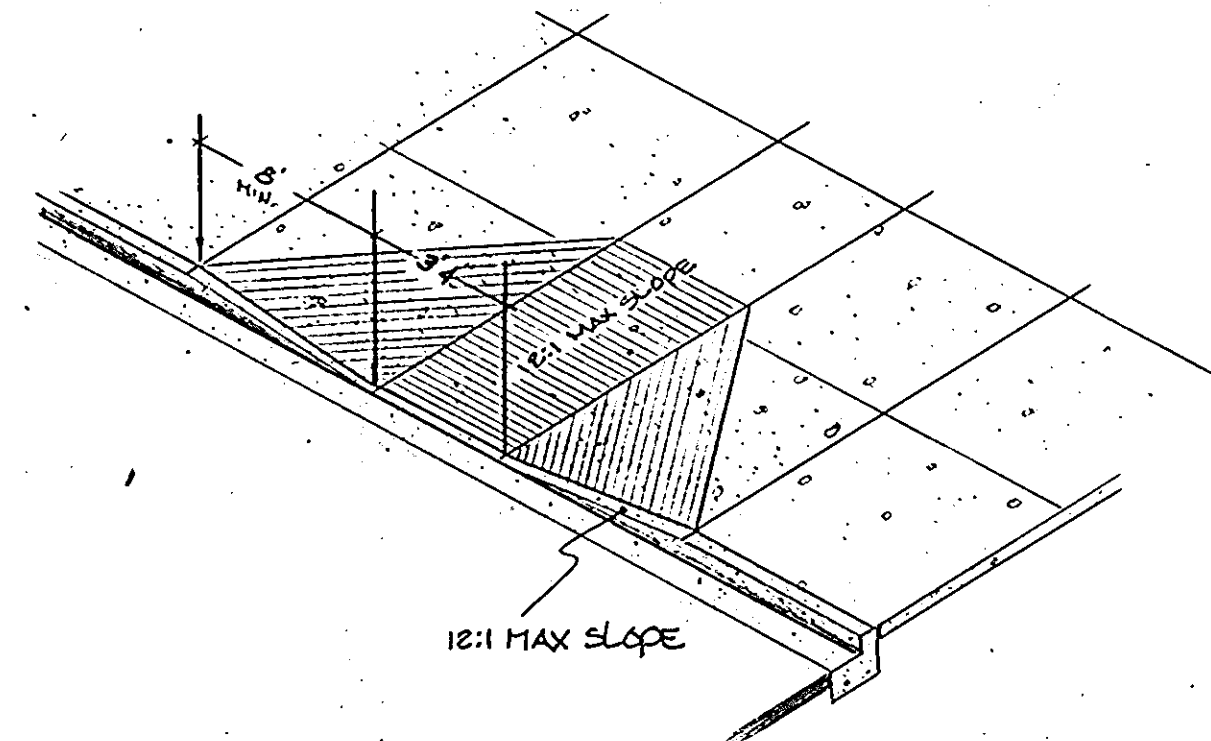
APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 7-3-79  
 [Signature]

AMENDED  
 FINAL DEVELOPMENT PLAN  
 PHASE III-A  
 SECTION 7 AREA G

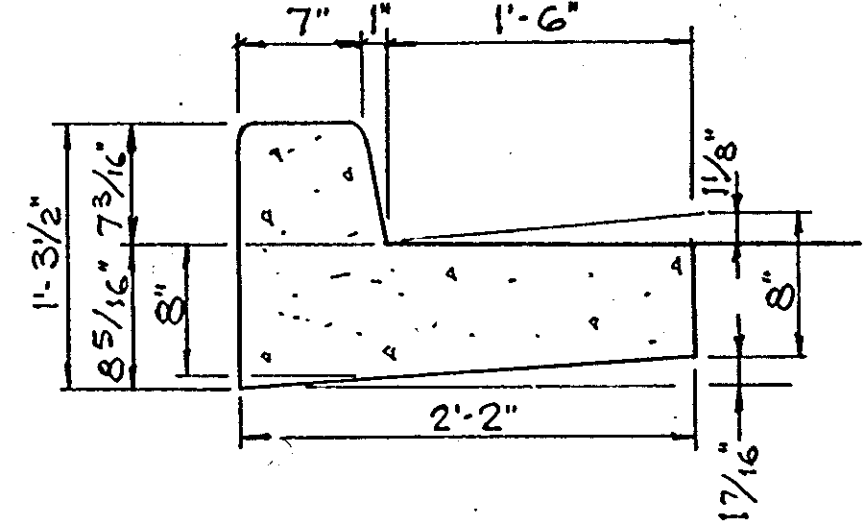




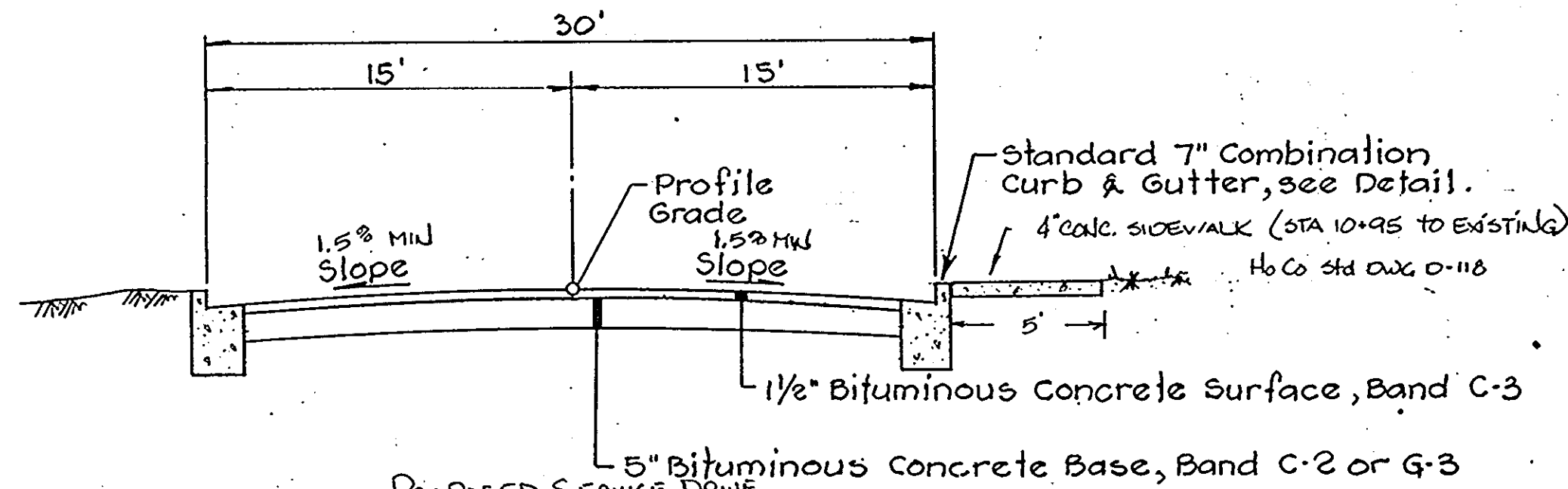
**ROADWAY PROFILE**  
Scale: 1" = 30' H.  
1" = 3' V.  
STERRETT PLACE (PRIVATE ROAD)



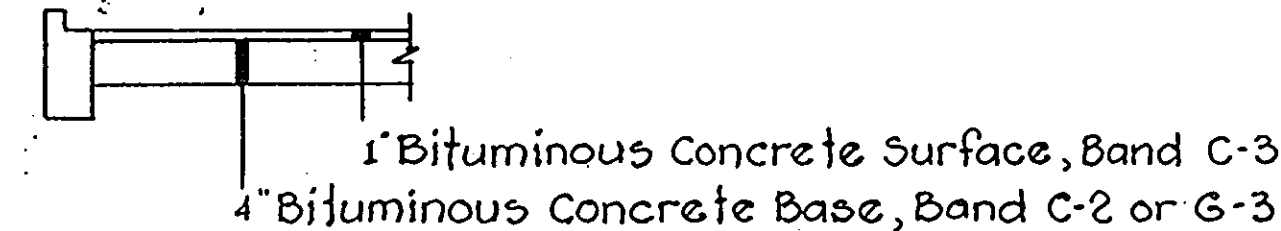
**TYPICAL HANDICAP RAMP**  
No Scale



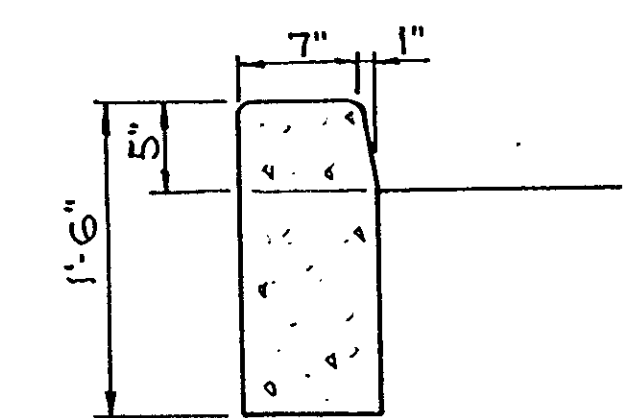
**STANDARD 7" COMBINATION CURB AND GUTTER**  
Scale: None  
B



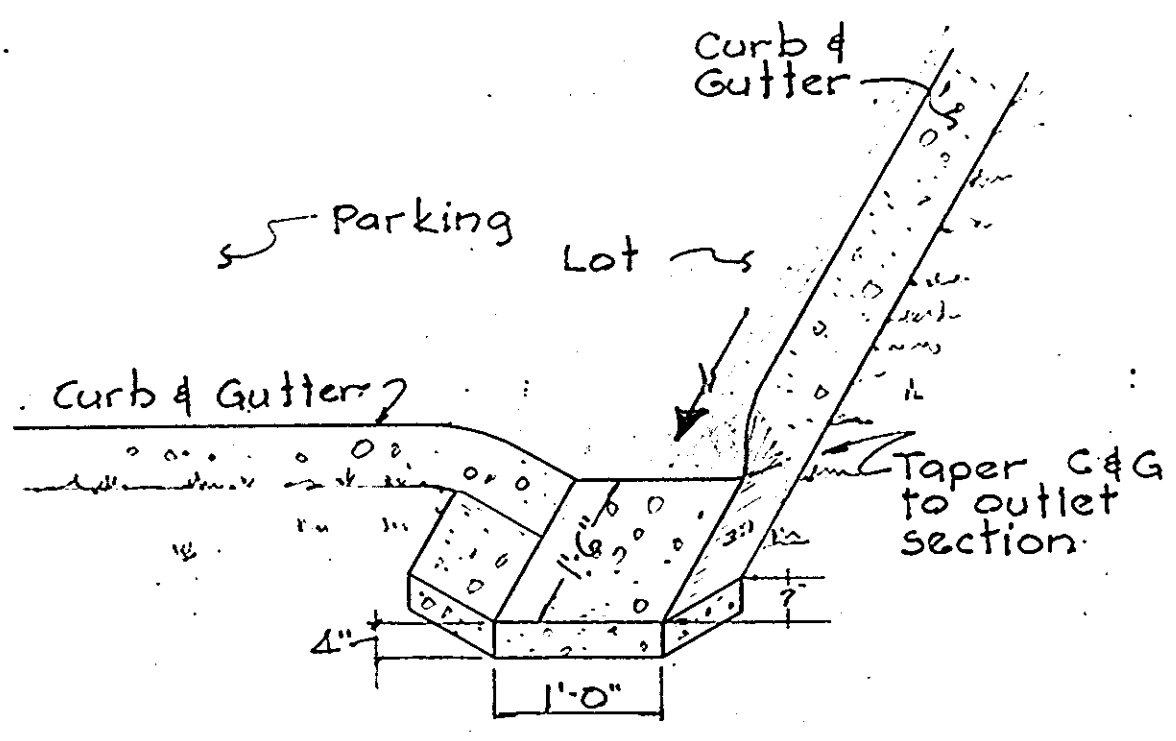
**TYPICAL ROADWAY SECTION (PRIVATE)**  
Scale: None  
E



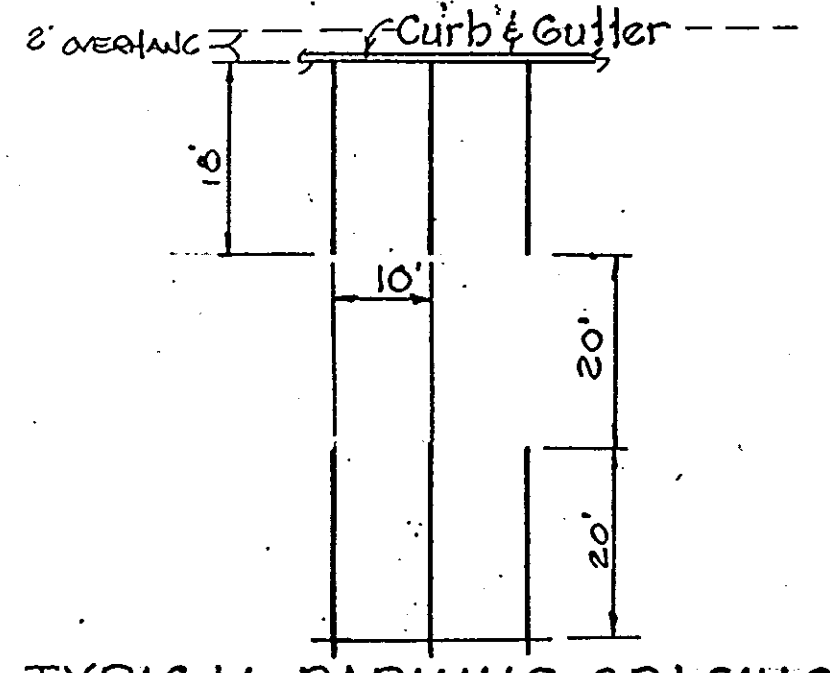
**TYPICAL PARKING AREA SECTION**  
Scale: None  
F



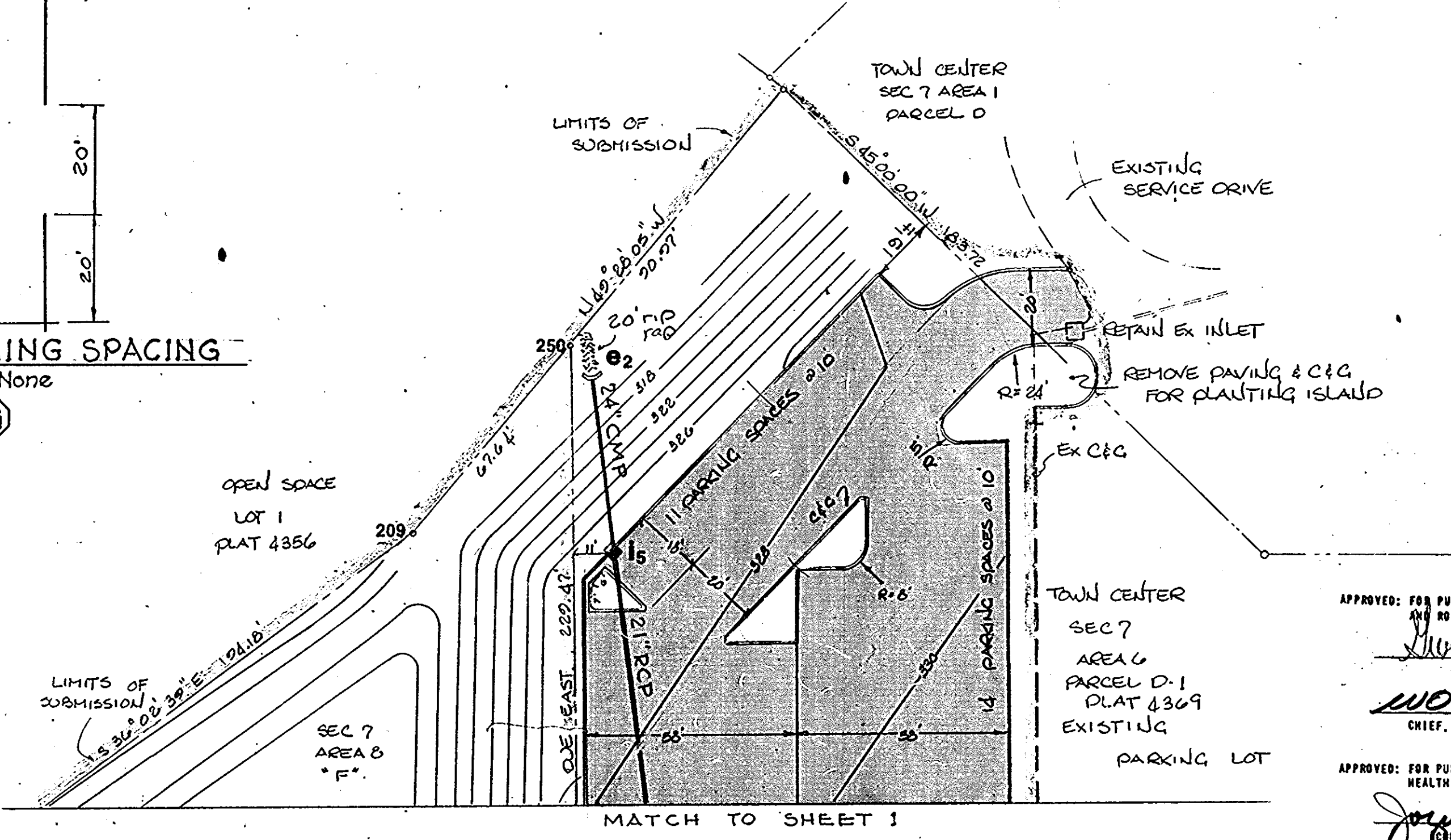
**STANDARD BARRIER CURB**  
Scale: None  
D



**CONCRETE GUTTER OUTLET**  
Scale: None  
C



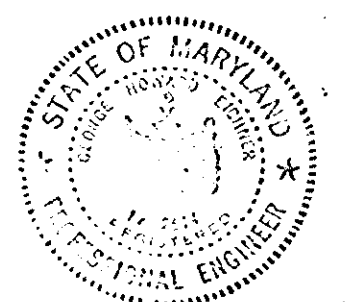
**TYPICAL PARKING SPACING**  
Scale: None  
G



MATCH TO SHEET 1

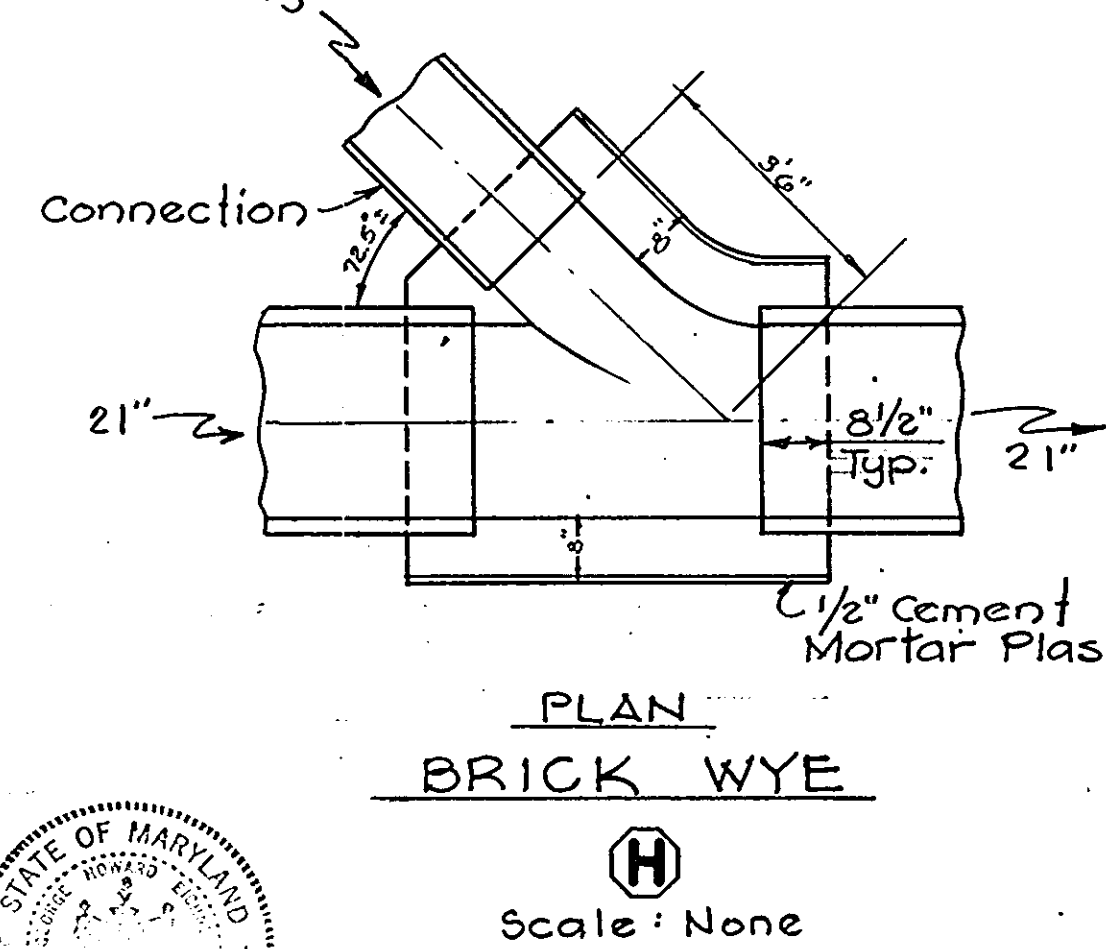
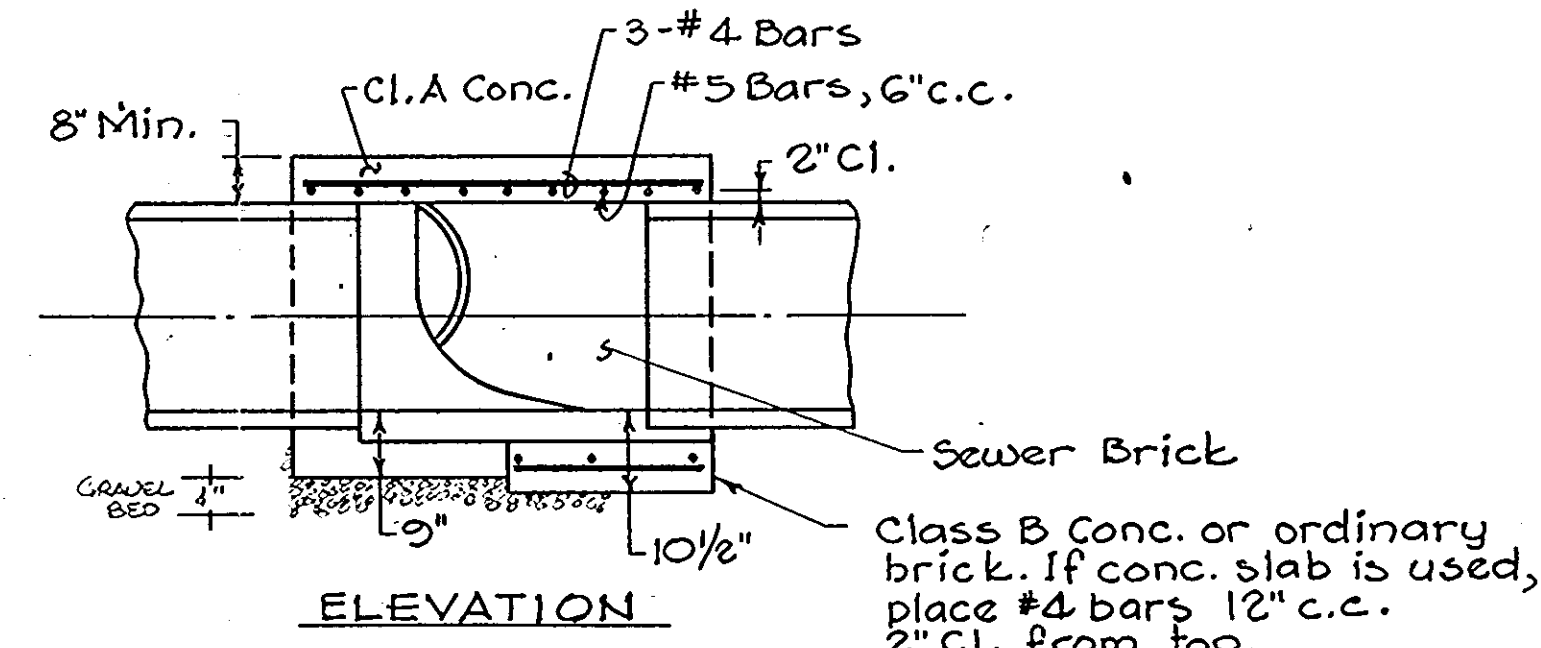
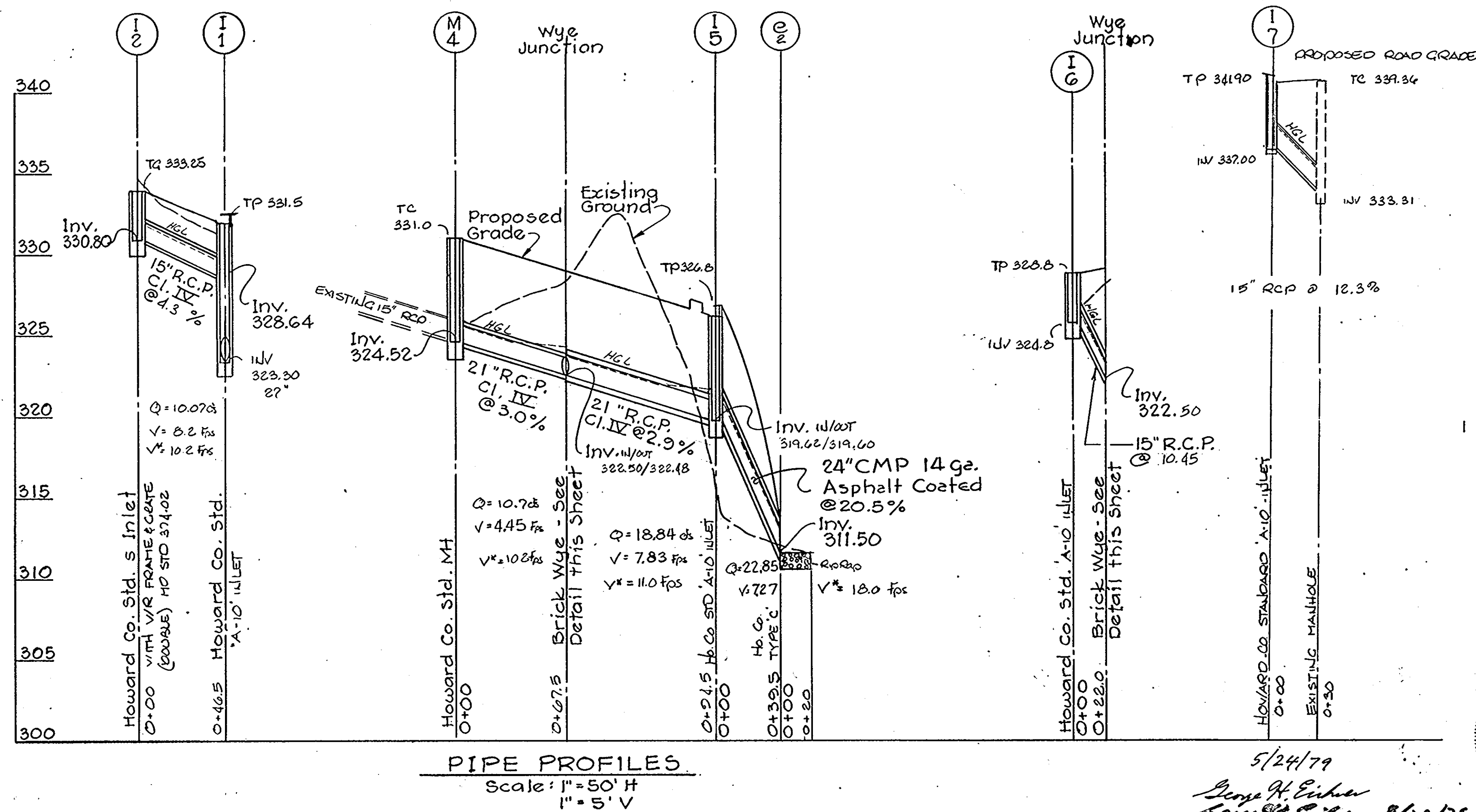
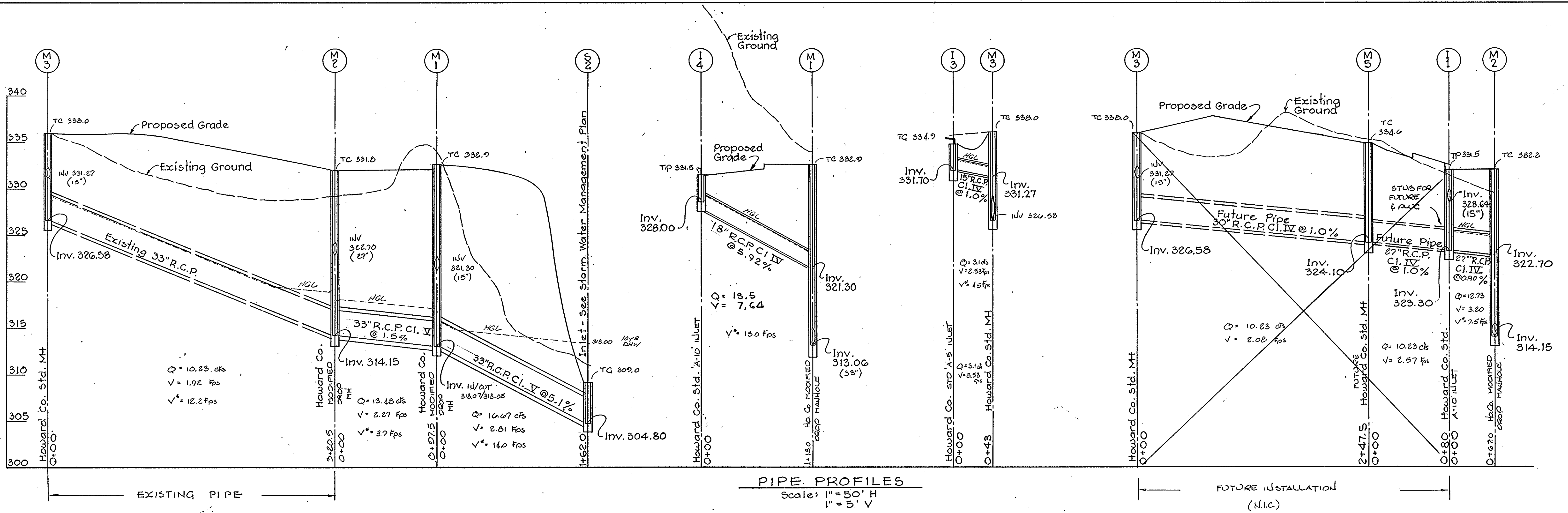
**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 7-3-79  
*[Signature]*

APPROVED: FOR PUBLIC WATER, PUBLIC SEWER, AND STORM DRAINAGE SYSTEMS AND ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*[Signature]* 9-17-79  
DIRECTOR  
*[Signature]* 9-17-79  
CHIEF, BUREAU OF ENGINEERING  
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*[Signature]* 9-19-79  
COUNTY HEALTH OFFICER  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*[Signature]* 9-21-79  
PLANNING DIRECTOR  
*[Signature]* 9-21-79  
CHIEF DIVISION OF LAND DEVELOPMENT



Ho Co. COMMENTS & CORRECTIONS		13.10.79	
NO.		27 AUG 79	
NO.	REVISIONS	DATE	BY
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION			
COLUMBIA TOWN CENTER			
SECTION 7 AREA 6 & AREA 6			
5TH ELECTION DISTRICT HOWARD COUNTY, MD.			
<b>site development</b>			
sec 7 Area 6 Parcel D-1, Sec 7 Area 6 parcels D & E			
Plan Prepared by Greiner Engineering Sciences, Inc.			
1 Village Square Baltimore, Maryland (301) 323-8180			
DESIGNED: <i>[Signature]</i>	DRAWN: <i>[Signature]</i>	DATE:	
SCALE: 1" = 30'	SHEET 2	OF 6	

5/24/79  
*[Signature]*  
*[Signature]* 8/18/79



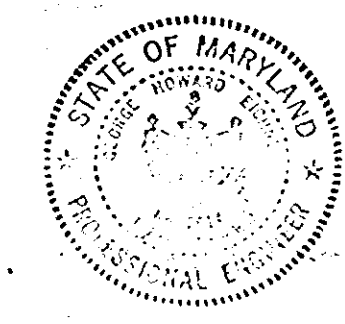
No	TYPE	INVERT IN/OUT	TOP ELEV.
1-1	40 Co STANDARD A-10 INLET	323.21/323.29	331.5
1-2	40 Co STANDARD S INLET	328.80	333.25
1-3	40 Co STANDARD A-10 INLET	331.70	335.0
1-4	40 Co STANDARD A-10 INLET	328.00	331.5
1-5	40 Co STANDARD A-10 INLET	319.02/319.60	326.8
1-6	40 Co STANDARD A-10 INLET	324.80	328.2
M-1	40 Co MODIFIED DROP MANHOLE	313.07/313.05	332.9
M-2	40 Co MODIFIED DROP MANHOLE	313.15	332.0
M-3	40 Co STANDARD MANHOLE	326.58	338.0
M-4	40 Co STANDARD MANHOLE	324.52	331.0
M-5	FUTURE MANHOLE (N.I.C.)		
WYE	SEE DETAIL	322.50/322.48	-
E-2	40 Co STANDARD TYPE C ENOVALL A-10	311.50	-
1-7	40 Co STANDARD A-10 INLET	337.0	341.90

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY

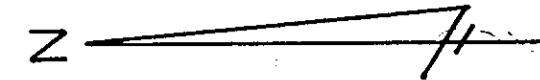
DATE: 7-3-79

APPROVED FOR PUBLIC WATER, PUBLIC SEWER, AND STORM DRAINAGE SYSTEMS AND HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 [Signature] DIRECTOR  
 [Signature] CHIEF, BUREAU OF ENGINEERING  
 APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
 [Signature] COUNTY HEALTH OFFICER  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 [Signature] PLANNING DIRECTOR  
 [Signature] CHIEF, DIVISION OF LAND DEVELOPMENT

Ho Co Comments & Corrections		13 Jul 79
NO. REVISIONS		27 Aug 79
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION		
COLUMBIA TOWN CENTER		
SECTION 7 AREA 8 & AREA 6		
5TH ELECTION DISTRICT HOWARD COUNTY, MD.		
<b>storm drain profiles</b>		
SITE DEVELOPMENT		
SEC 7 Area 6 parcel D-1, Sec 7 Area 8, parcels D1 & E		
Plan Prepared by Greiner Engineering Sciences, Inc.		
1 Village Square Baltimore, Maryland (301) 323-8100		
DESIGNED:	DRAWN: E.R.A.	DATE:
SCALE: AS SHOWN	SHEET 3	OF 6

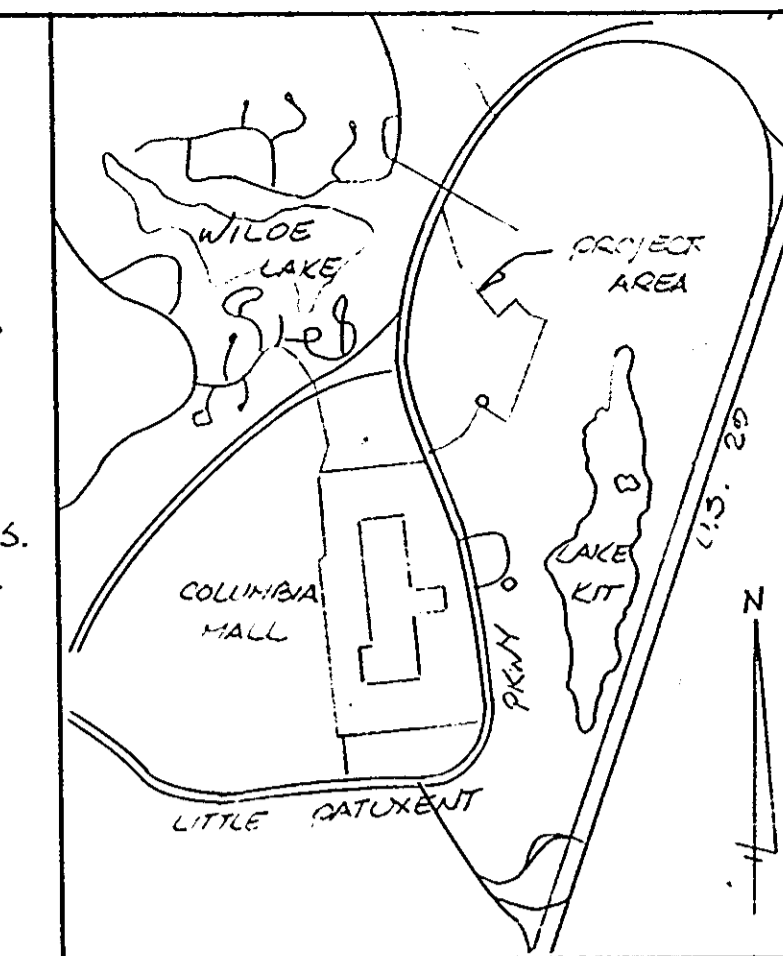


5/24/79  
George H. Eicher  
George H. Eicher 8/12/78



NOTES:

- 1. EXISTING PARKING LOT & GRADED AREA TO BE REMOVED.
- 2. REFER TO SEDIMENT CONTROL PLAN FOR INITIAL PRACTICES TO BE ESTABLISHED PRIOR TO LAND DISTURBANCE.
- 3. CALL MISS UTILITY
- 4. EXISTING STORM DRAINS TO BE PRESERVED AS NOTED.
- 5. STORM DRAINS TO BE IN ACCORDANCE WITH HOWARD CO STDS. & SPECS.



VICINITY MAP

E 842500 N 505300

E 840750 N 504500

NOTE: ALL PROPOSED GRADES SHOWN REPRESENT FINISHED ELEVATIONS.

FOR GRADING EMERGENCY SALLYWAY SEE STORM WATER MANAGEMENT PLANS.

CONCRETE ENCASUREMENT  
PRINCIPAL SALLYWAY TO BE IN PLACE FOR SEDIMENT CONTROL (SEE SC SHEET) S-2.

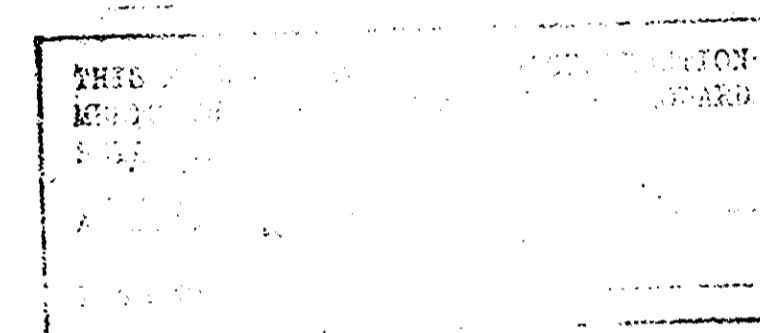
TEMPORARY EXT.

MAINTAIN EX. 12' PAV. EX. 6' SALLYWAY

LIMITS OF GRADING TO MAINTAIN EX. UTILITY ACCESS.

THIS PLAN IS SUBMITTED FOR THE HOWARD COUNTY PLANNING BOARD AND MEETS THE TECHNICAL REQUIREMENTS FOR A GRADING PERMIT.

U.S. Soil Conservation Service Date



SHEET INDEX

- gr GRADING PLAN
- SC SEDIMENT CONTROL
- SW1 STORM WATER MANAGEMENT 1
- SW2 STORM WATER MANAGEMENT 2

ABOVE PLANS APPROVED GRADING PERMIT NO. GP 79-70

APPROVED PLANNING BOARD OF HOWARD COUNTY

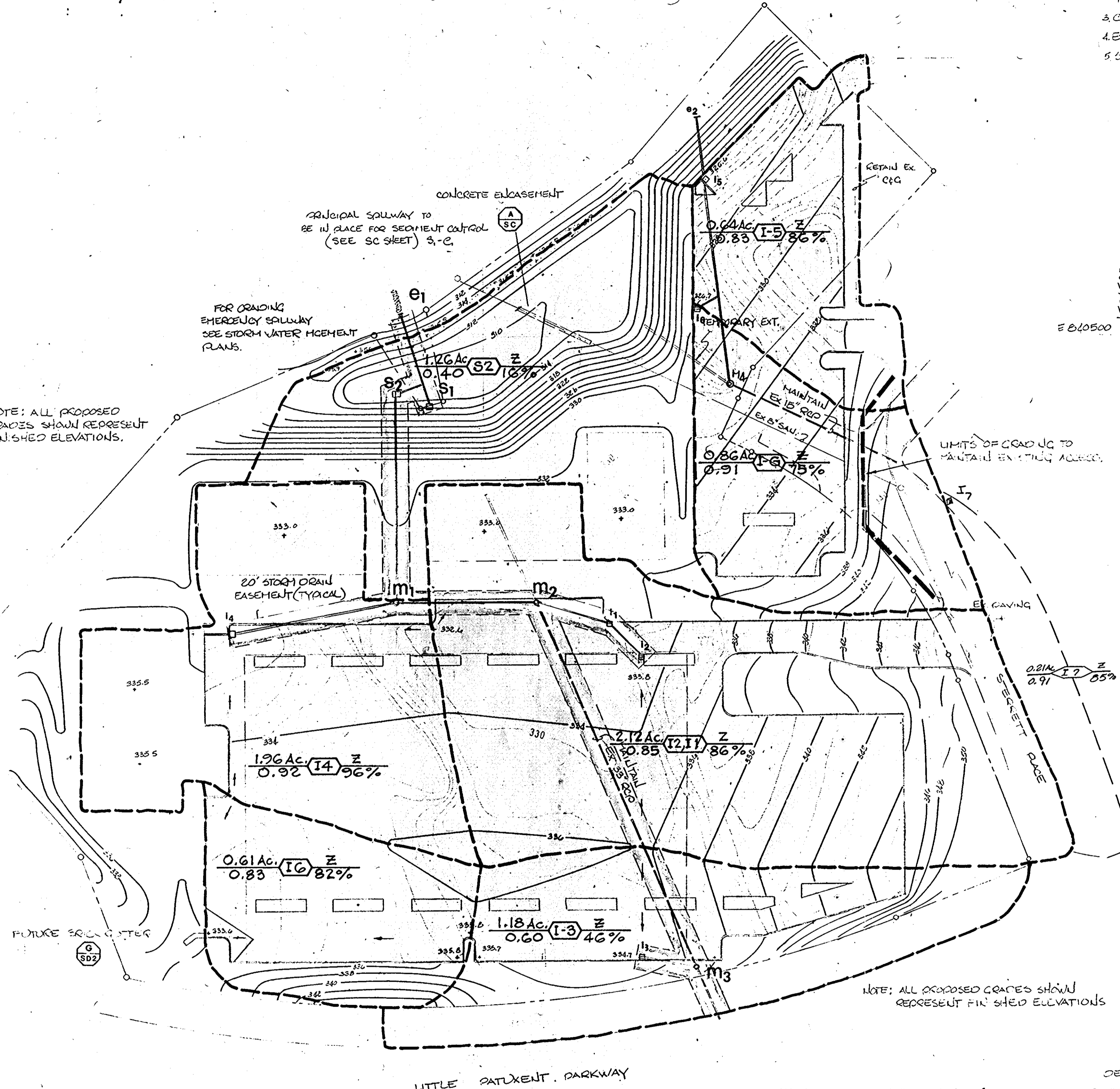
DATE 7-3-79



LEGEND

- PROPOSED CONTOUR
- EX. STORM CONTOUR
- STORM DRAIN (FUTURE)
- MANHOLE (FUTURE)
- INLET (FUTURE)
- AREA TO BE PAVED (FUTURE)
- PROPERTY BOUNDARY
- HIGH POINT

DETAIL SHEET NO.



NOTE: ALL PROPOSED GRADES SHOWN REPRESENT FINISHED ELEVATIONS

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

Signature of F. Neumann, Director, dated 9-17-79.

Signature of W. P. Holt, Chief, Bureau of Engineering, dated 9-14-79.

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

Signature of James J. ... County Health Officer, dated 9-17-79.

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Signature of Thomas J. ... Planning Director, dated 9-21-79.

Signature of ... Chief, Division of Land Development, dated 9-21-79.

DEVELOPERS CERTIFICATION: I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE MADE ACCORDING TO THIS PLAN OF DEVELOPMENT & PLAN OF SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Signature of Joseph H. Necker, Jr., dated 5/4/79.

Signature of George H. ... dated 5/14/79.

Ho. Co	COMMENTS	27 AUG 79
NO.	REVISIONS	DATE BY
1	X out Prop. 15 D per Sec 5	5/79 JHN

THE HOWARD RESEARCH & DEVELOPMENT CORPORATION  
COLUMBIA TOWN CENTER  
SECTION 7 AREA 8  
5TH ELECTION DISTRICT HOWARD COUNTY, MD.

drainage area plan

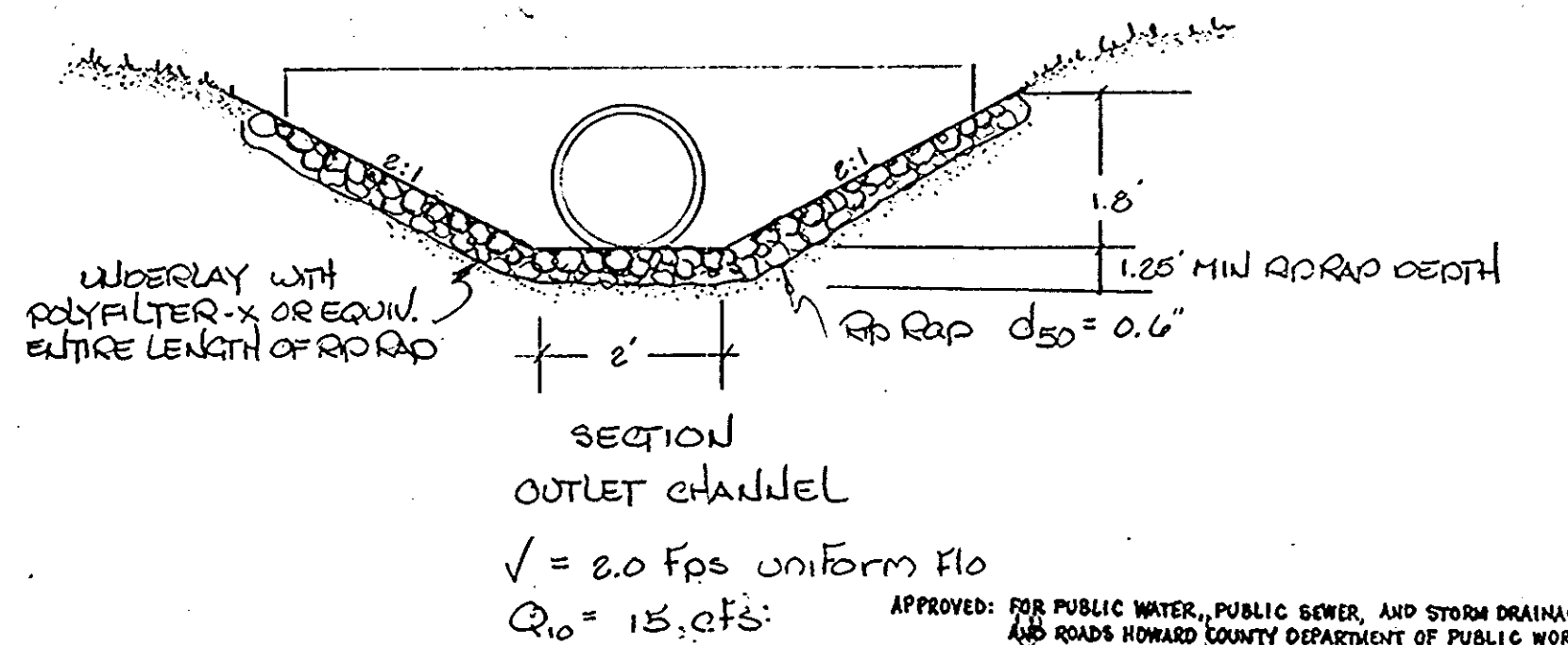
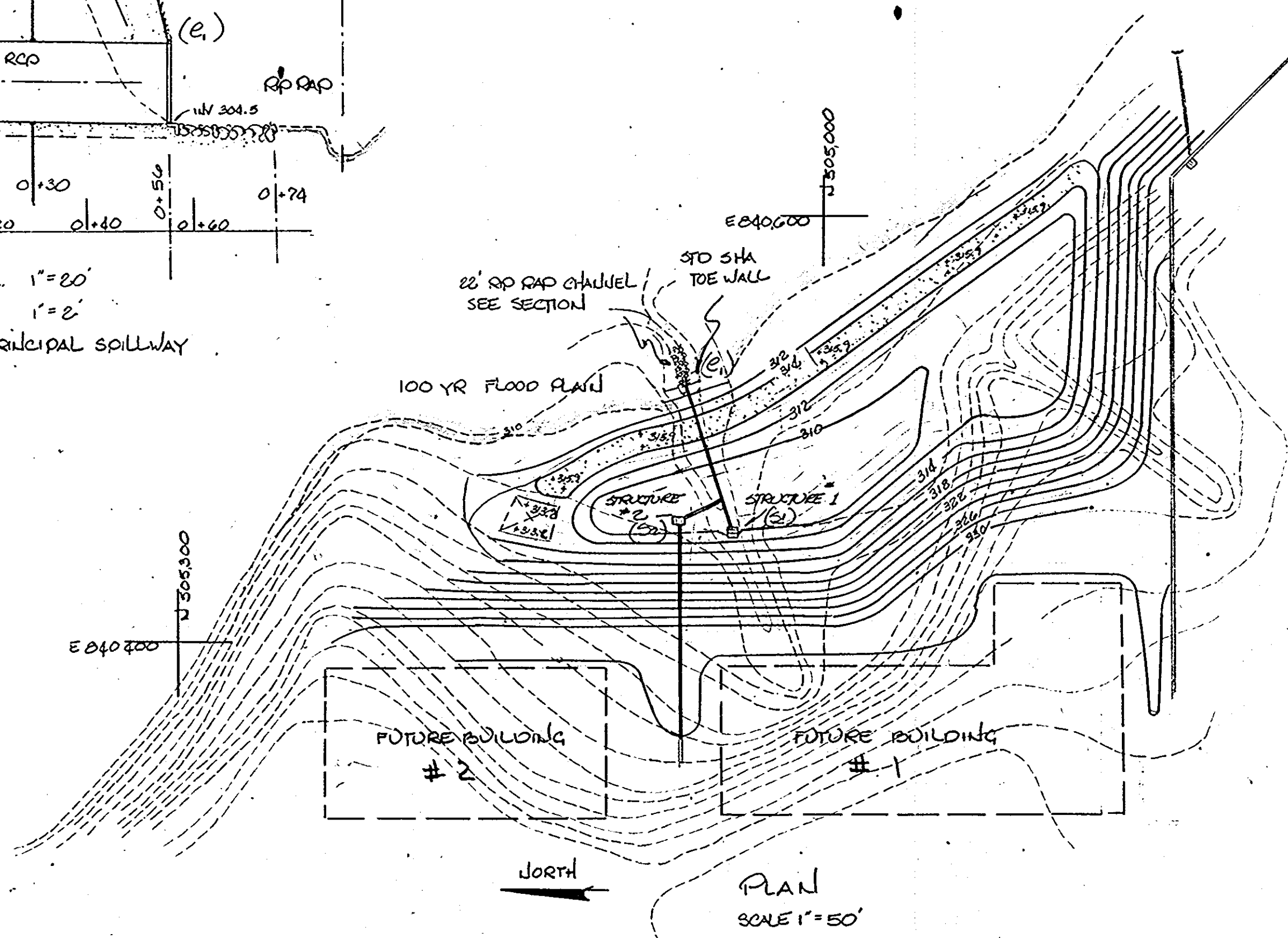
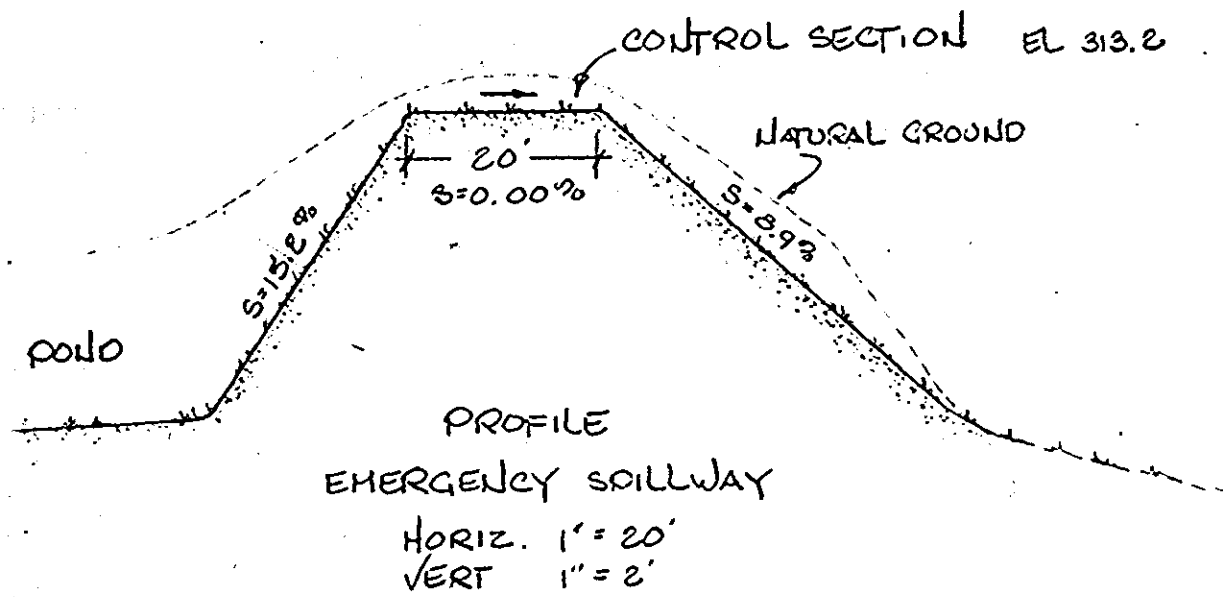
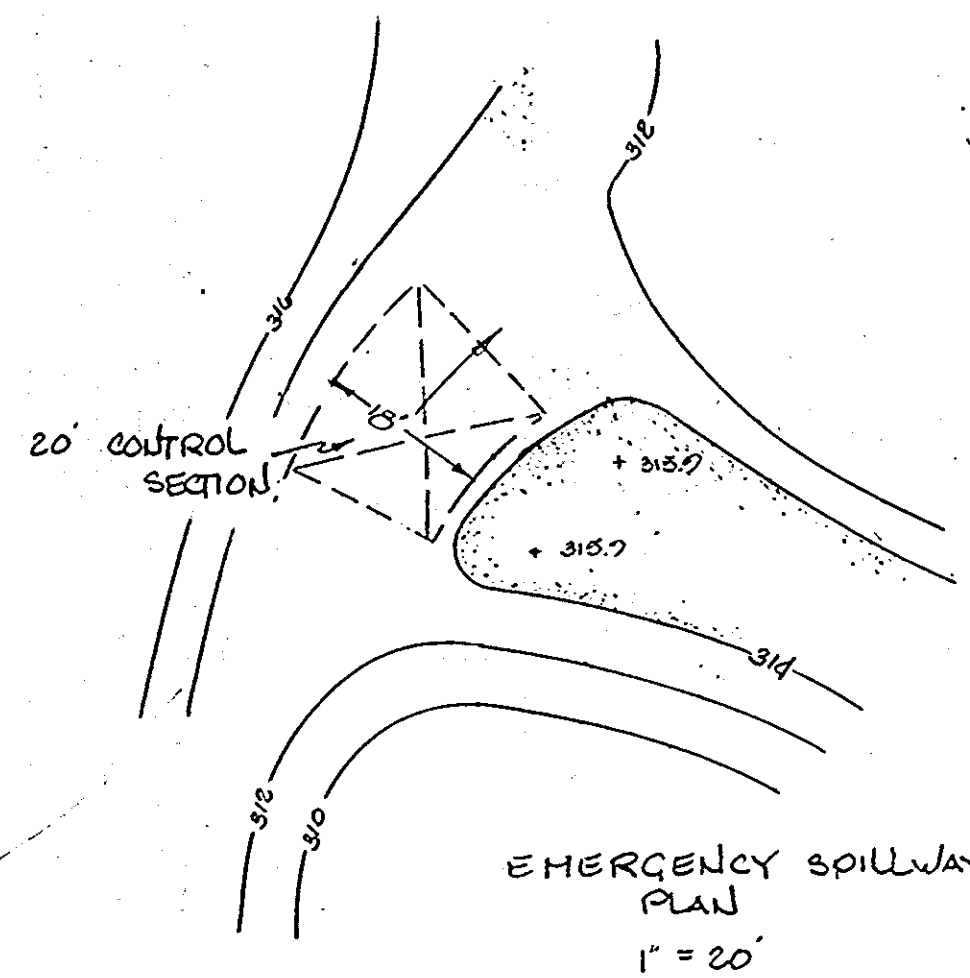
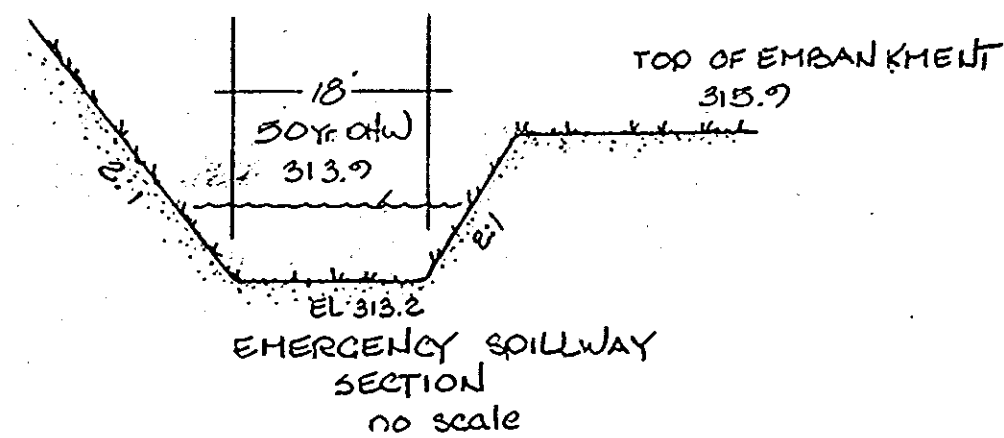
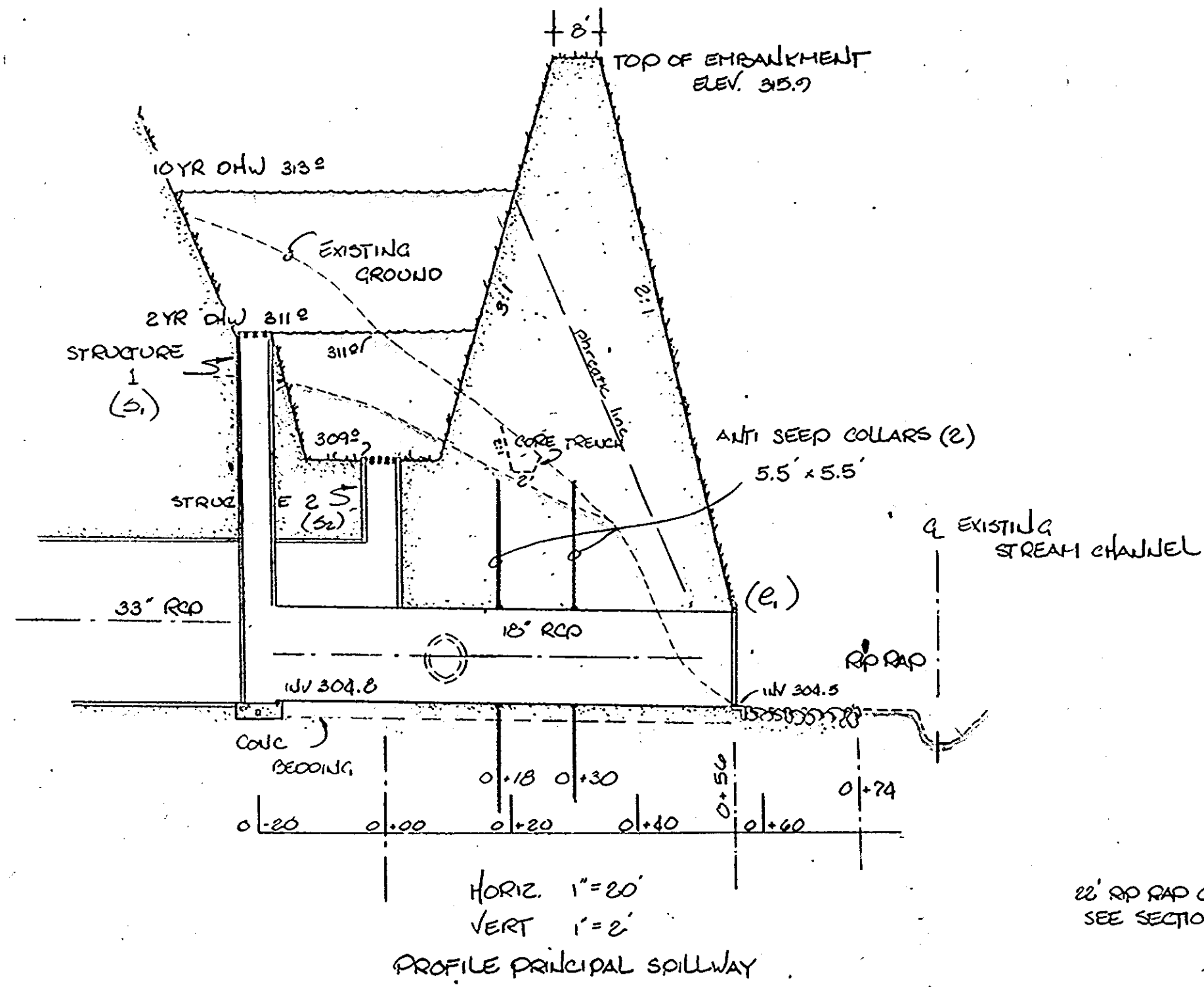
Plan Prepared by Greiner Engineering Sciences, Inc., 1 Village Square Baltimore, Maryland (301) 323-8100

DESIGNED: JCS DRAWN: JCS DATE: 6/18/79

SCALE: 1" = 50' SHEET 4 OF 6

SDP-79-156c

Note: Structure 2 to be raised to elev. of Structure 1 until pond is used solely for SWM & not Sediment Control.

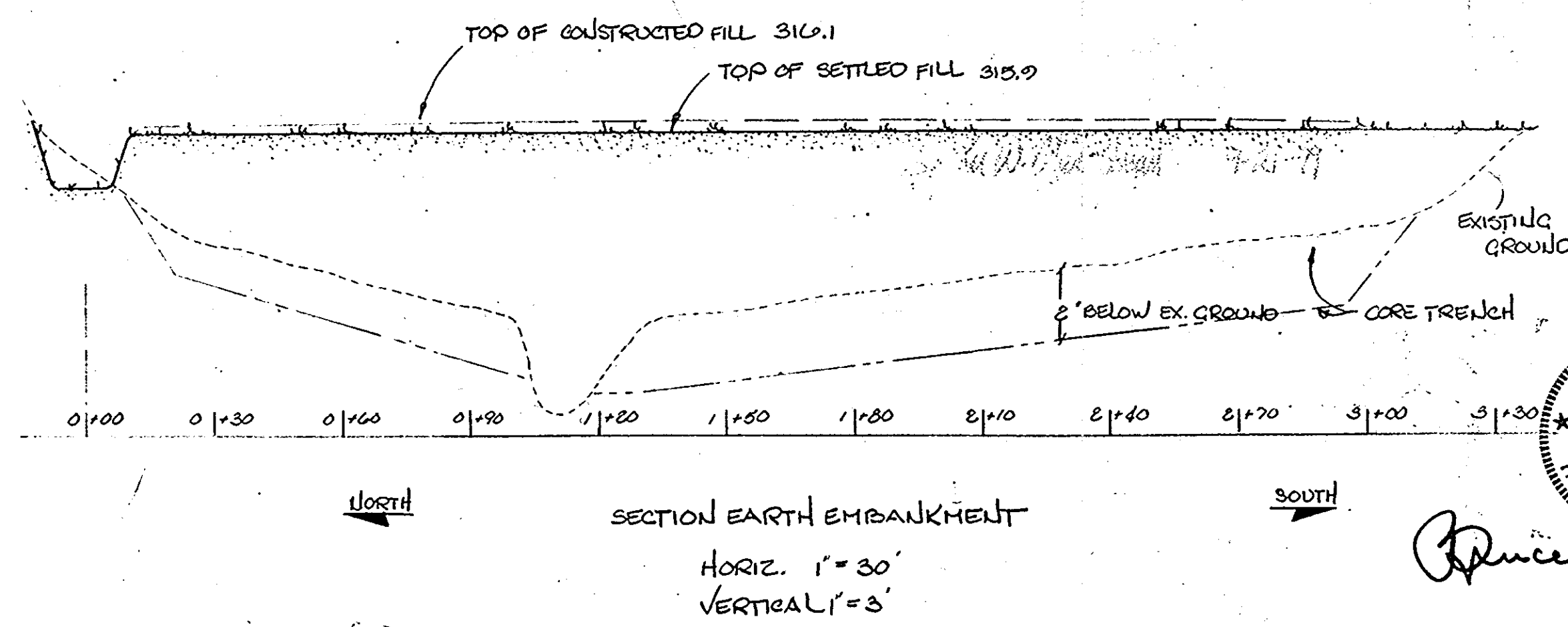


THIS PLAN HAS BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION.

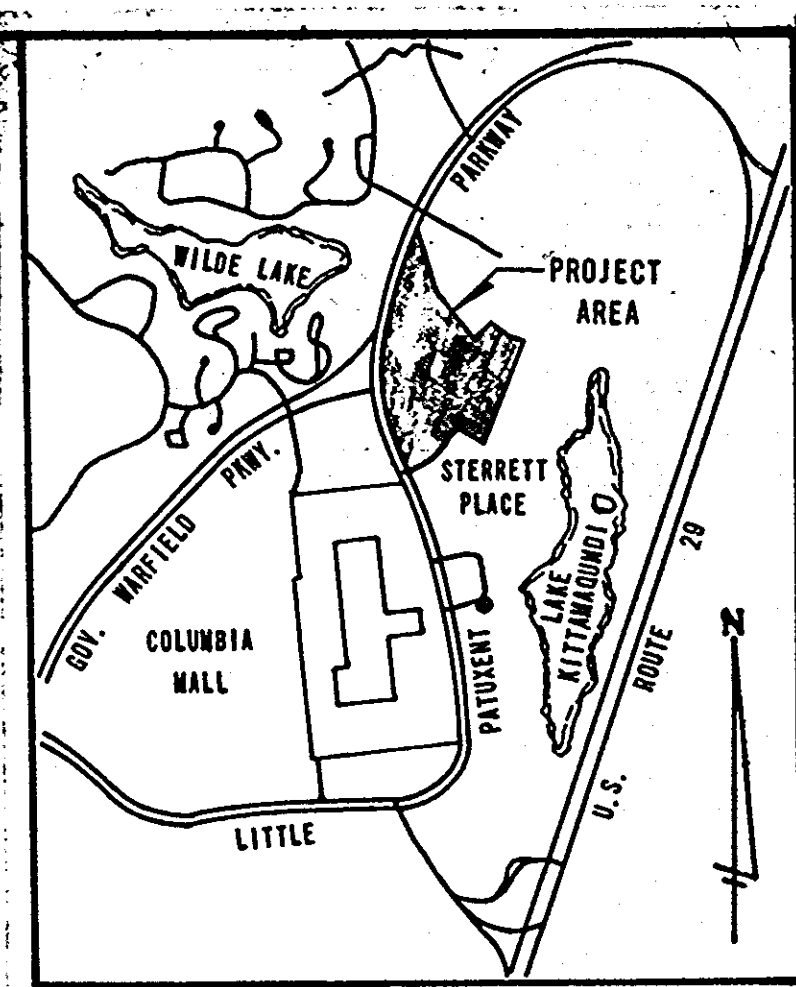
Winters Burdette 9/6/79  
U. S. Soil Conservation Service - Date

THIS PLAN FOR SMALL POND CONSTRUCTION MEETS THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
Approved: Robert Zehner 9/16/79  
Plan Number: \_\_\_\_\_

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 7-3-79



Professional Engineer stamps for Prince A. Jernan, State of Maryland, License No. 10033.



VICINITY MAP  
SCALE: 1" = 2000'

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

Approved: [Signature] 9-17-79  
DIRECTOR DATE

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

Approved: [Signature] 9-18-79  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Approved: [Signature] 9-21-79  
PLANNING DIRECTOR DATE

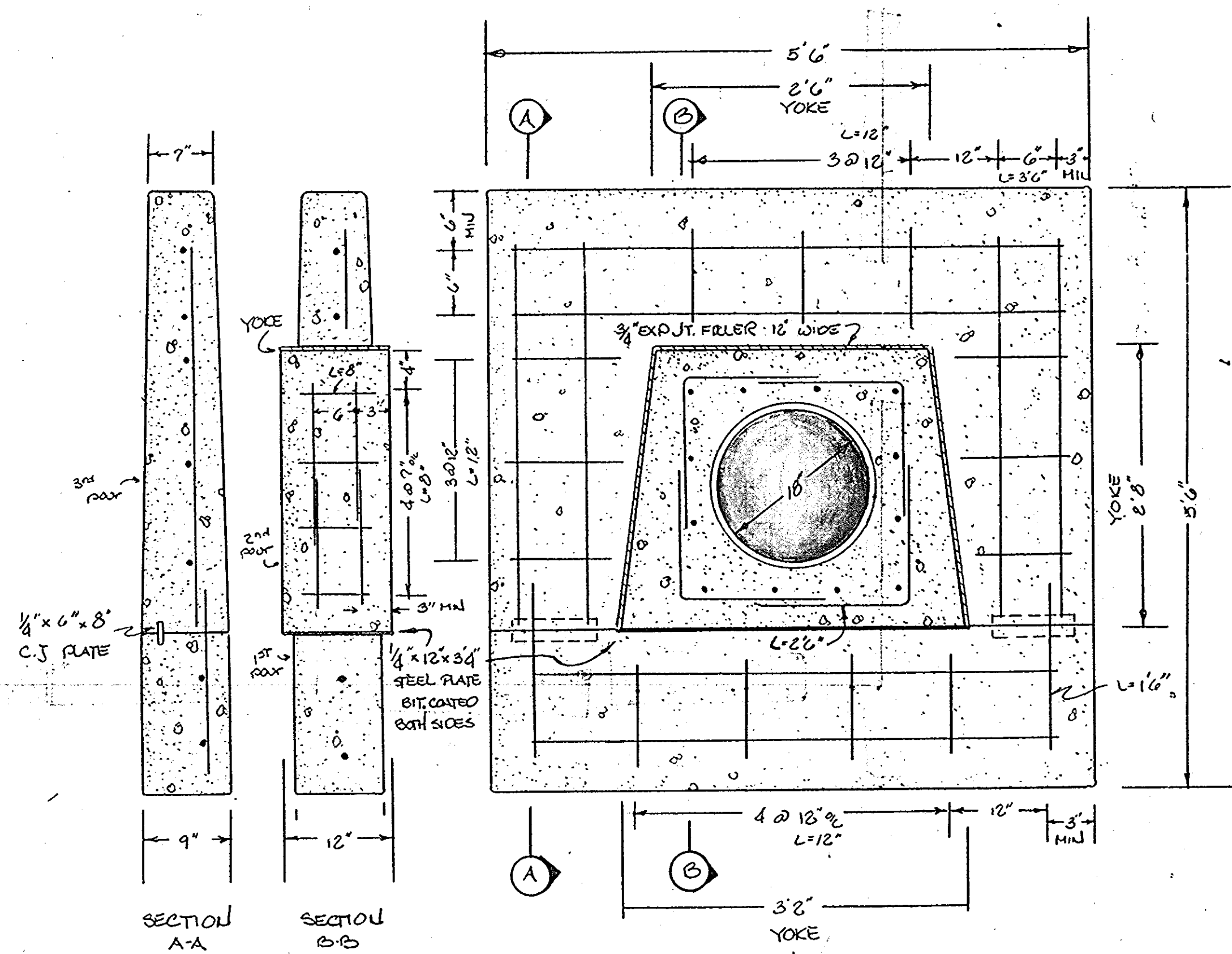
Approved: [Signature] 9-21-79  
CHIEF DIRECTOR OF LAND DEVELOPMENT DATE

DEVELOPER'S CERTIFICATION  
I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT & PLAN OF SEDIMENT CONTROL AND I ALSO AUTHORIZE DEGREE OF SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Approved: [Signature] 5/79  
DATE

3. Add Note re: Structure 2 per SCS 5/79 JAN  
1 EMERG SPILLWAY, ANTI-SEEP COLLARS, EXISTING SPEC. 4 APR 79 JCS  
2 POND RECONFIGURED - VOLUME THE SAME 4 MAY 77 JCS

NO.	REVISIONS	DATE	BY
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION			
COLUMBIA TOWN CENTER			
SECTION 7 ARER 8			
5TH ELECTION DISTRICT - HOWARD COUNTY, MD.			
storm water management			
Plan Prepared by Greiner Engineering Sciences, Inc.			
1 Village Square Baltimore, Maryland (301) 323-8100			
DESIGNED: JCS	DRAWN: JCS	DATE: 9 MAR 79	
SCALE: AS SHOWN	SHEET 5 OF 6		



NOTE: ALL REBAR #4

ANTI-SEEP COLLAR  
1" = 10'

VEGETATIVE SPECIFICATIONS

**SEEDBED PREPARATION:**  
FLAT AREAS & SLOPES UP TO 3:1 SHALL BE LOOSE & FRAGILE TO A DEPTH OF AT LEAST 3 IN. THE TOP LAYER OF SOIL SHALL BE LOOSENED BY RAKING, DISING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

**SOIL AMENDMENTS:**  
LIME & FERTILIZE ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TEST APPLY:  
2 TONS COLOMBIAN LIMESTONE PER ACRE } BEFORE SEEDING  
600 LBS 0-20-20 OR ACRE }  
400 LBS 30-0-0 UREA FORM FERTILIZER } AT TIME OF SEEDING  
500 LBS 10-20-20 }

**SEED:**  
KENTUCKY 31 TALL FESCUE 40 LBS/AC.  
REED CALARY GRASS 20 LBS/AC.

**MULCH:**  
SMALL GRAIN STRAW @ 1 1/2 - 2 TONS/AC.  
ANCHORED WITH CUTBACK RAPID CURING ASPHALT @ 400 GAL/AC.

**STRUCTURE CLASSIFICATION:**  
CLASS 2  
STORAGE HEIGHT PRODUCT < 3000  
STORM WATER MANAGEMENT CRITERIA  
2 & 10 YR STORM (HOWARD CO.)  
EMERGENCY SPILLWAY CAPACITY - 25 YR STORM

CONSTRUCTION SPECIFICATIONS

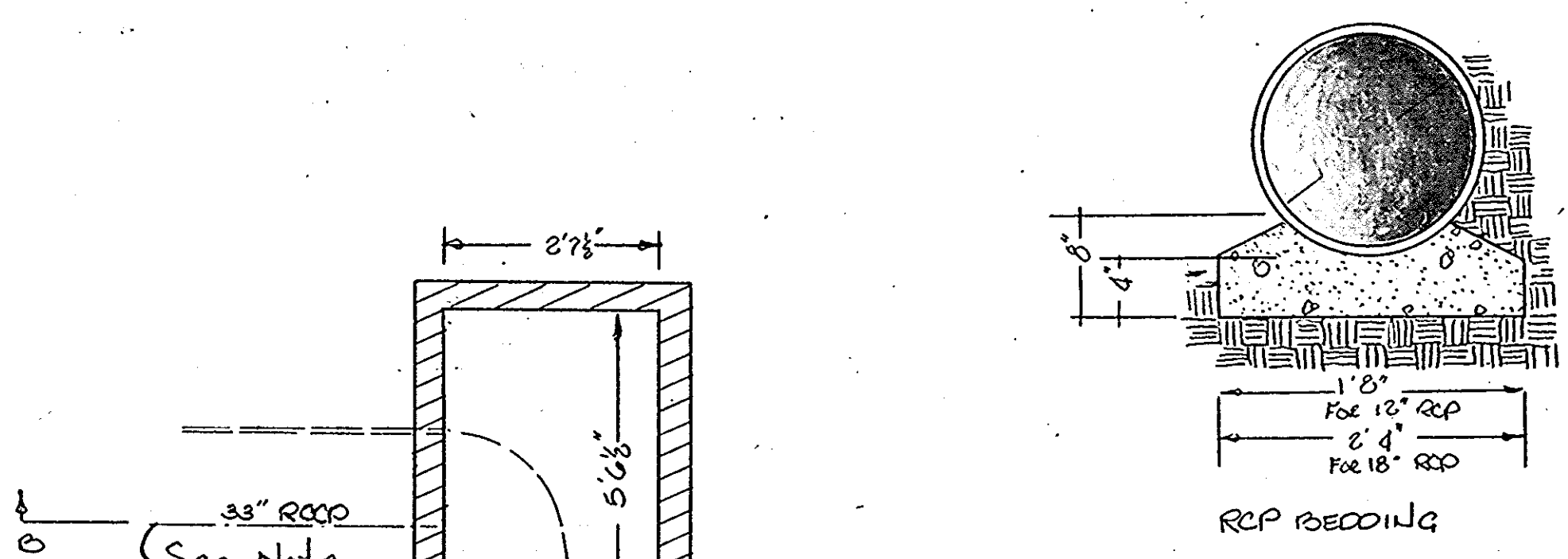
**SITE PREPARATION**  
THE EMBANKMENT AREA, EMERGENCY SPILLWAYS, BORROW AREA & OUTLET CHANNEL SHALL BE CLEARED & GRUBBED TO REMOVE ALL TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. THE TOPSOIL FROM THE EMBANKMENT AREA, EMERGENCY SPILLWAYS AND BORROW AREA SHALL BE REMOVED & STOCKPILED. THE TOPSOIL SHALL BE SPREAD ON THE COMPLETED EMBANKMENT & EMERGENCY SPILLWAY.

**EARTH FILL**  
THE FILL MATERIAL SHALL BE FROM ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZE STONES, FROZEN OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE CONSTRUCTED TO THE ELEVATION AS SHOWN TO ALLOW FOR ANTICIPATED SETTLEMENT.  
AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIAL SHALL BE PLACED IN 6" MAXIMUM THICKNESS LAYERS (BEFORE CONTRACTION) WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF FILL. THE MOST POROUS BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTION OF THE EMBANKMENT.  
THE MOVEMENT OF THE HAULING & 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 THE EQUIPMENT, OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEP-FOOT ROLLER.  
THE CORE TRENCH SHALL BE EXCAVATED ALONG THE CENTERLINE OF THE EMBANKMENT. THE BACKFILL MATERIAL FOR THE CORE TRENCH SHALL BE THE MOST IMPROVISED MATERIAL AVAILABLE AND SHALL BE COMPACTED WITH EQUIPMENT OR ROLLERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

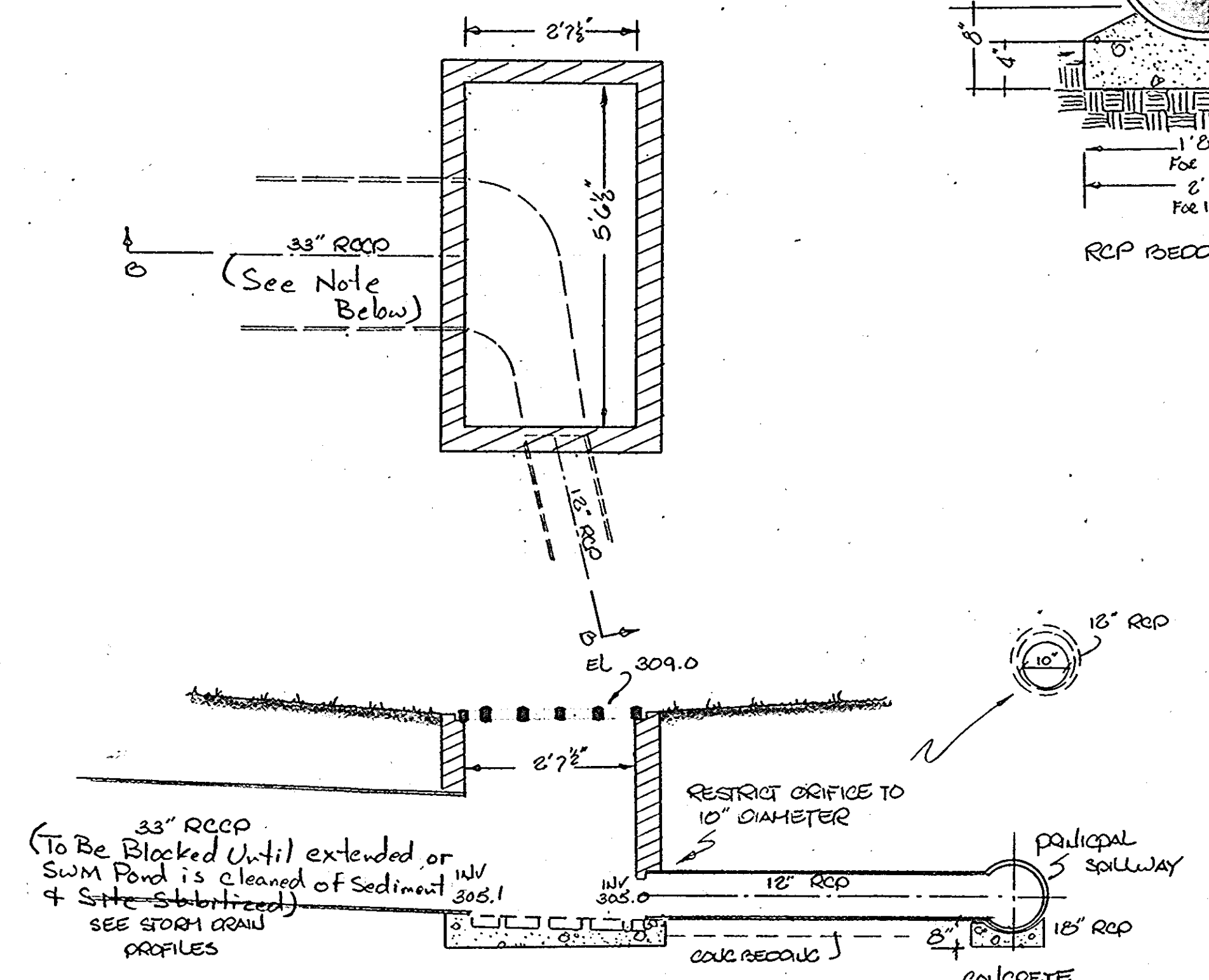
**STRUCTURAL BACKFILL**  
THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED 4 IN. IN THICKNESS AND COMPACTED BY HAND TAMPING OR MANUALLY DIRECTED POWER TAMPERS OR PLATE VIBRATORS. AT NO TIME DURING THE BACKFILL OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE ANY CLOSER THAN 4' HORIZONTAL TO ANY PART OF A STRUCTURE.

**MATERIALS**  
METAL PIPE CONDUITS SHALL BE CORRUGATED STEEL - BITUMINOUS COATED WITH WATER TIGHT COUPLING ENDS. WATER TIGHT COUPLINGS SHALL BE ANY OF THE FOLLOWING:  
1. ANNULAR CORRUGATED METAL SHEET 2 FEET WIDE WRAPPED AROUND CUTTING PIPE AND SHEET ENDS LAPPING 6" WHEN INSTALLED. USE 4 CIRCUMFERENTIAL STEEL RODS WITH TANK LUGS. PIPE JOINTS SHALL BE COATED WITH A THIN LAYER OF BITUMINOUS ASBESTOS COMPOUND.  
2. STAMPED OR CUT FLANGES CONTINUOUSLY WELDED TO EACH PIPE END & BOLTED ON APPROXIMATELY 4" CENTERS.  
3. PREFORMED PIPE END TO RECEIVE A RUBBER GASKET IN CONJUNCTION WITH A SOLID METAL SLEEVE.  
REINFORCED CONCRETE PIPE SHALL HAVE A RUBBER GASKET JOINT AND SHALL EQUAL OR EXCEED ASTM SPECIFICATION C-301. APPROVED EQUIVALENTS ARE AWWA SPECIFICATION C-300, 301, 302.  
BEDDING - ALL REINFORCED CONCRETE PIPE CONDUITS TO THE LIMITS SHOWN SHALL BE LAID IN A CONCRETE BEDDING FOR THEIR ENTIRE LENGTH. THIS BEDDING SHALL CONSIST OF HIGH STRENGTH CONCRETE PLACED UNDER THE PIPE AND UP THE SIDES OF THE PIPE AT LEAST 10% OF ITS DIAMETER WITH A MINIMUM THICKNESS OF 3". WSSC LOW GRADE BEDDING IS AN APPROVED EQUIVALENT.  
LAYING PIPE - BELL & SPIGOT PIPE SHALL BE PLACED WITH THE BELL END UPSTREAM. JOINTS SHALL BE MADE IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL. AFTER THE JOINTS ARE SEALED ON THE ENTIRE LINE THE BEDDING SHALL BE PLACED SO THAT ALL SPACES UNDER THE PIPE ARE FILLED. CARE SHALL BE EXERCISED TO PREVENT ANY DEVIATION FROM THE ORIGINAL LINE AND GRADE OF THE PIPE.  
BACKFILLING SHALL CONFORM TO STRUCTURAL BACKFILL AS ABOVE.

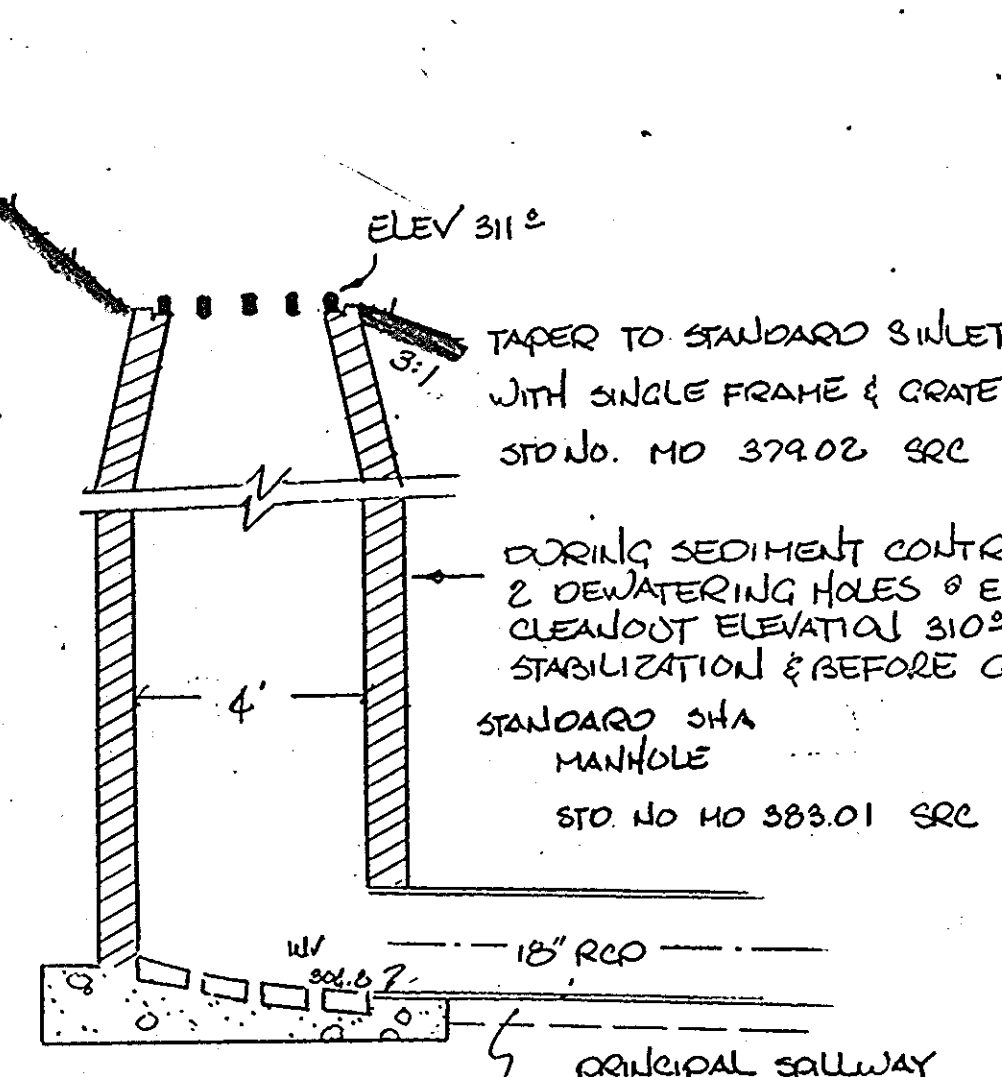
**STABILIZATION**  
ALL DISTURBED AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AND LEFT IN A SIGHTLY CONDITION. VEGETATIVE STABILIZATION SHALL BE AS SPECIFIED THIS SHEET.



RCP BEDDING



STRUCTURE 2 (S2)  
STANDARD TYPE 'K' INLET  
DOUBLE FRAME & GRATE  
SHA STD NO HO 378.02  
NO SCALE



STRUCTURE 1 (S1)  
PRINCIPAL SPILLWAY  
NO SCALE

THIS PLAN HAS BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION.

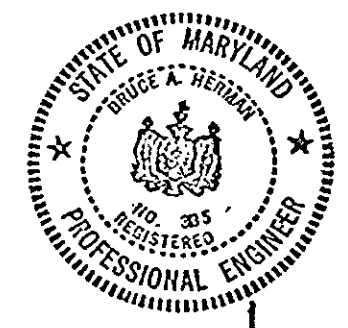
Approved: *Walter Benditt* 9/6/79  
U.S. Soil Conservation Service Date

APPROVED PLANNING BOARD OF HOWARD COUNTY  
DATE 7-3-79

APPROVED FOR PUBLIC WATER, PUBLIC SEWER, AND STORM DRAINAGE SYSTEMS AND ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Frank F. Neumann* 9-17-79  
DIRECTOR DATE  
*W.O. Pickett* 9-17-79  
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
*Reginald Boyles* 9-19-79  
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*James H. Hamrick* 9-21-79  
PLANNING DIRECTOR DATE  
*John W. Mustardman* 9-21-79  
CHIEF, DIRECTOR OF LAND DEVELOPMENT DATE



*Bruce A. Jernan* *Bruce A. Jernan*  
7-21-79

3 Note re: Blocking 33" D per SCS 5/79 JHM

1 EMERG SPILLWAY ANTI-SEEP COLLARS & DETAILS LAGE 79-16			
2 RECTANGULAR POND 6/14/79 JCS			
NO.	REVISIONS	DATE	BY
THE HOWARD RESEARCH & DEVELOPMENT CORPORATION			
COLUMBIA TOWN CENTER SECTION 7 AREA 8 PAR. D-1 5TH ELECTION DISTRICT HOWARD COUNTY, MD.			
storm water management			
Plan Prepared by Greiner Engineering Sciences, Inc. 1 Village Square Baltimore, Maryland (301) 323-8100			
DESIGNED: JCS	DRAWN: JCS	DATE: 9 MAR 79	
SCALE:	SHEET 6 OF 6		

SDP-79-156c