

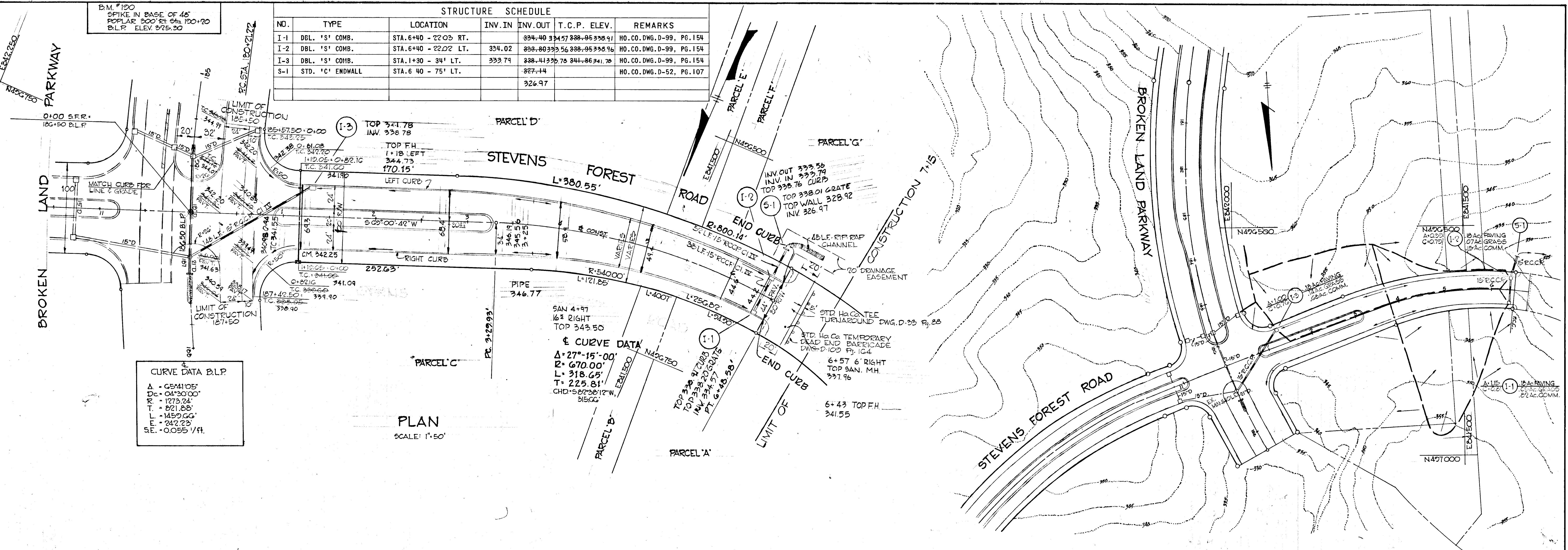
B.M. #120
SPIKE IN BASE OF 48"
POPLAR 300' E. STA. 100+70
B.L.P. ELEV. 325.30

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-1	DBL. 'S' COMB.	STA. 6+40 - 22.03' RT.	334.40	334.57	338.95	HO. CO. DWG. D-99, PG. 154
I-2	DBL. 'S' COMB.	STA. 6+40 - 22.02' LT.	334.02	333.80	338.95	HO. CO. DWG. D-99, PG. 154
I-3	DBL. 'S' COMB.	STA. 1+30 - 34' LT.	333.74	338.41	338.78	HO. CO. DWG. D-99, PG. 154
S-1	STD. 'C' ENDWALL	STA. 6 40 - 75' LT.		327.44		HO. CO. DWG. D-52, PG. 107
				326.97		

CURVE DATA B.L.P.

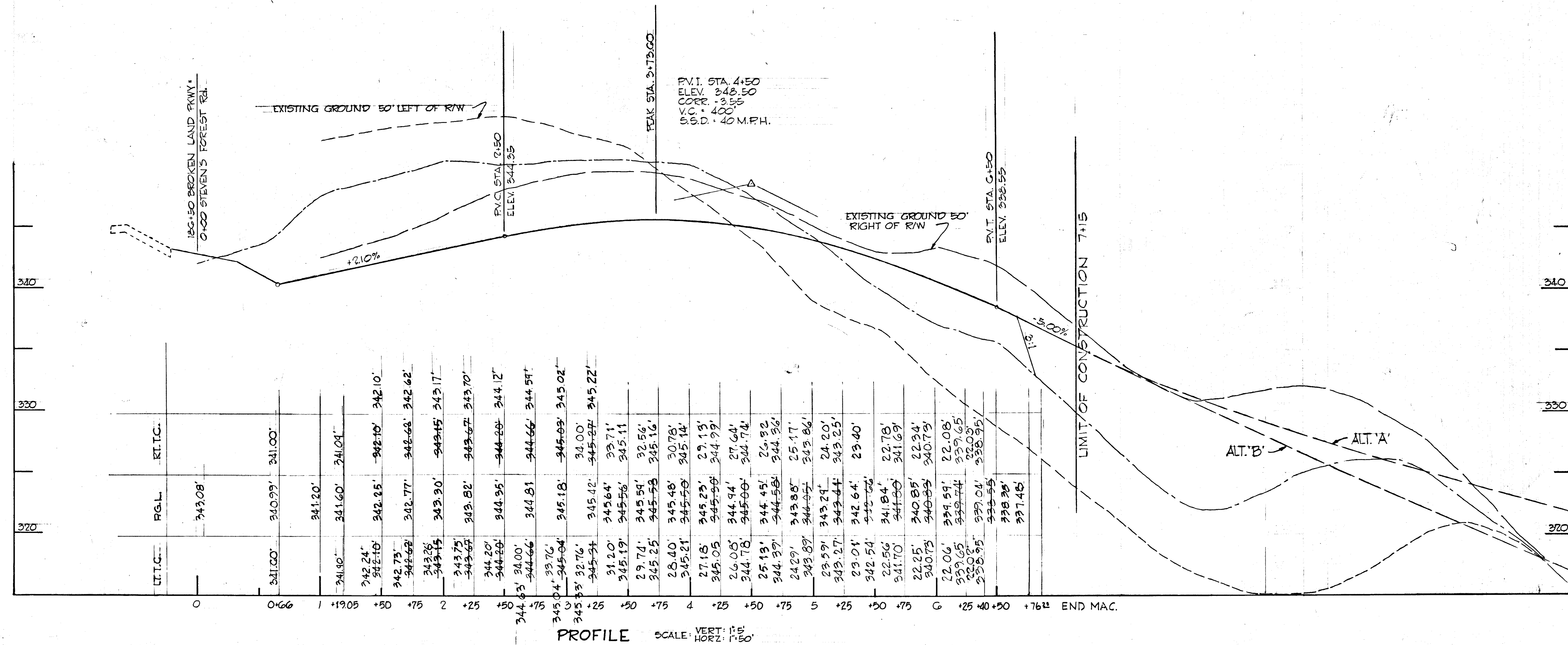
Δ	65°41'05"
D.C.	04°50'00"
R	1273.24'
T	821.88'
L	1452.00'
E	242.23'
S.E.	0.0055 1/ft.

PLAN
SCALE: 1"=50'



DRAINAGE AREA MAP
SCALE: 1"=100'

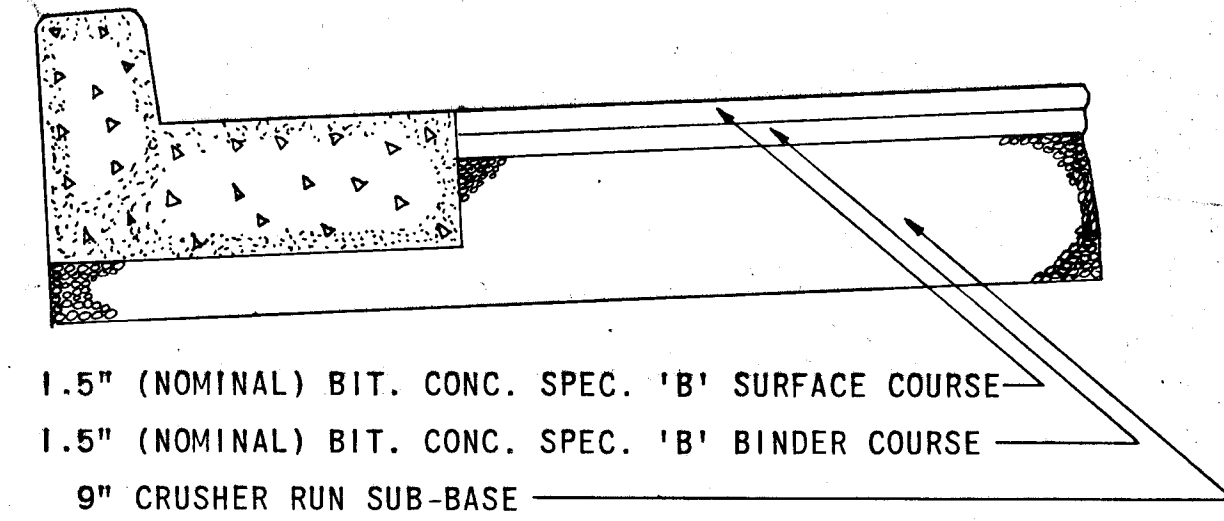
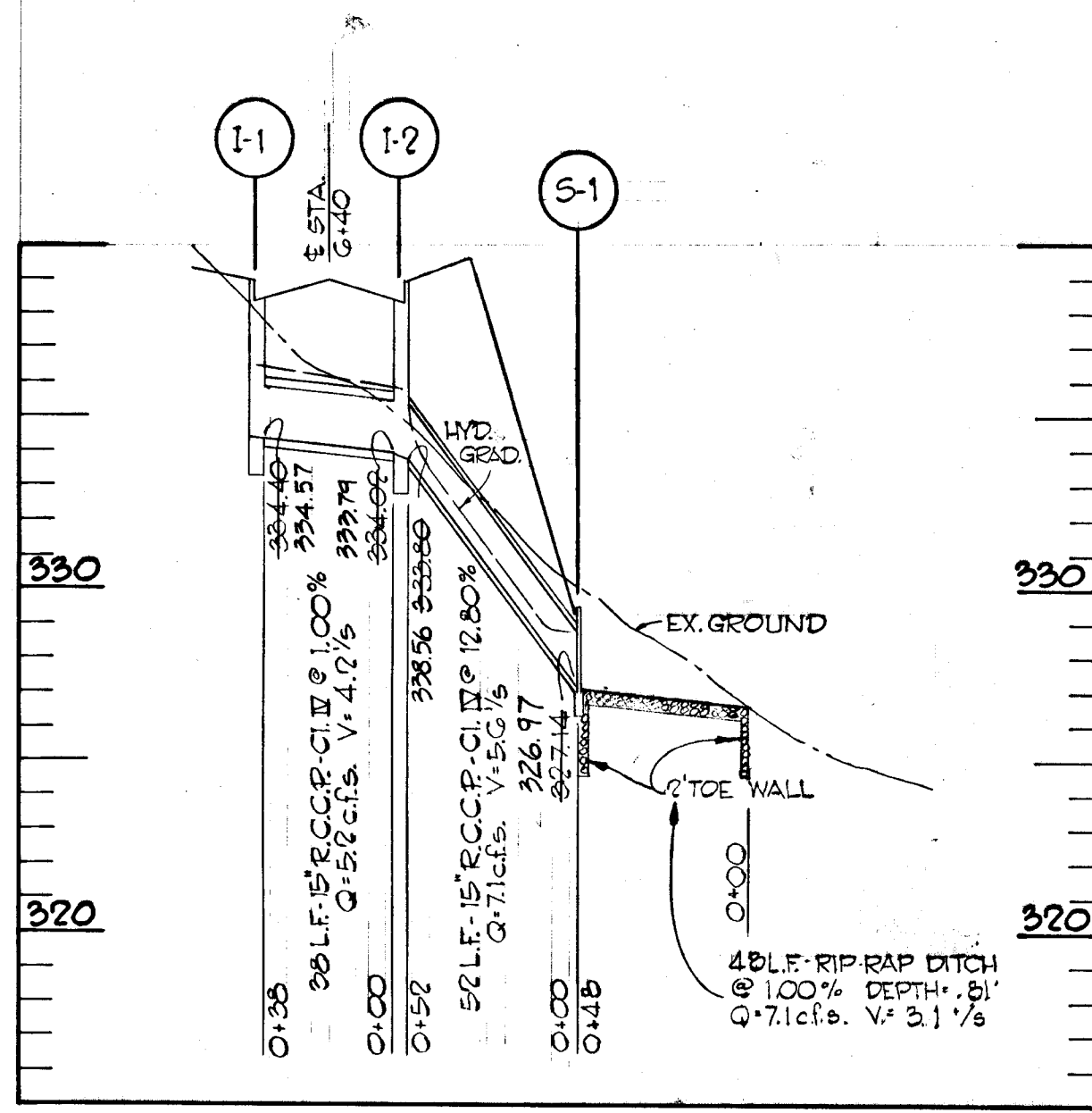
APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 1/23/75
J. N. Claimont



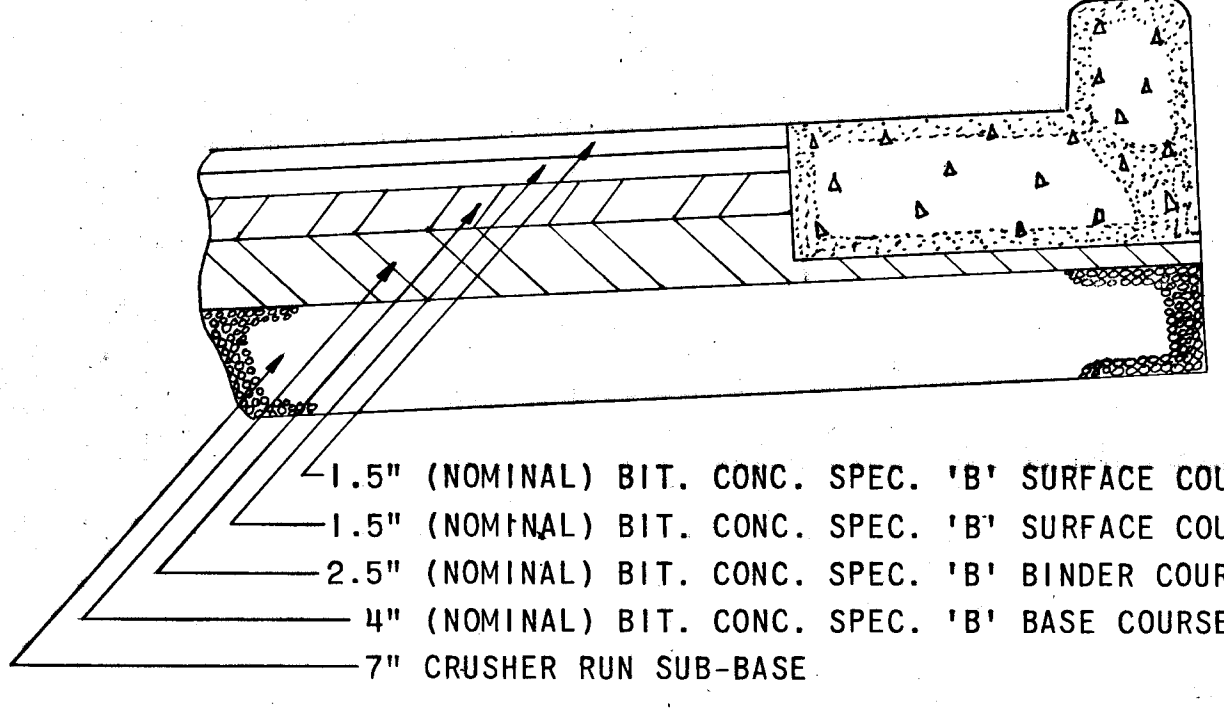
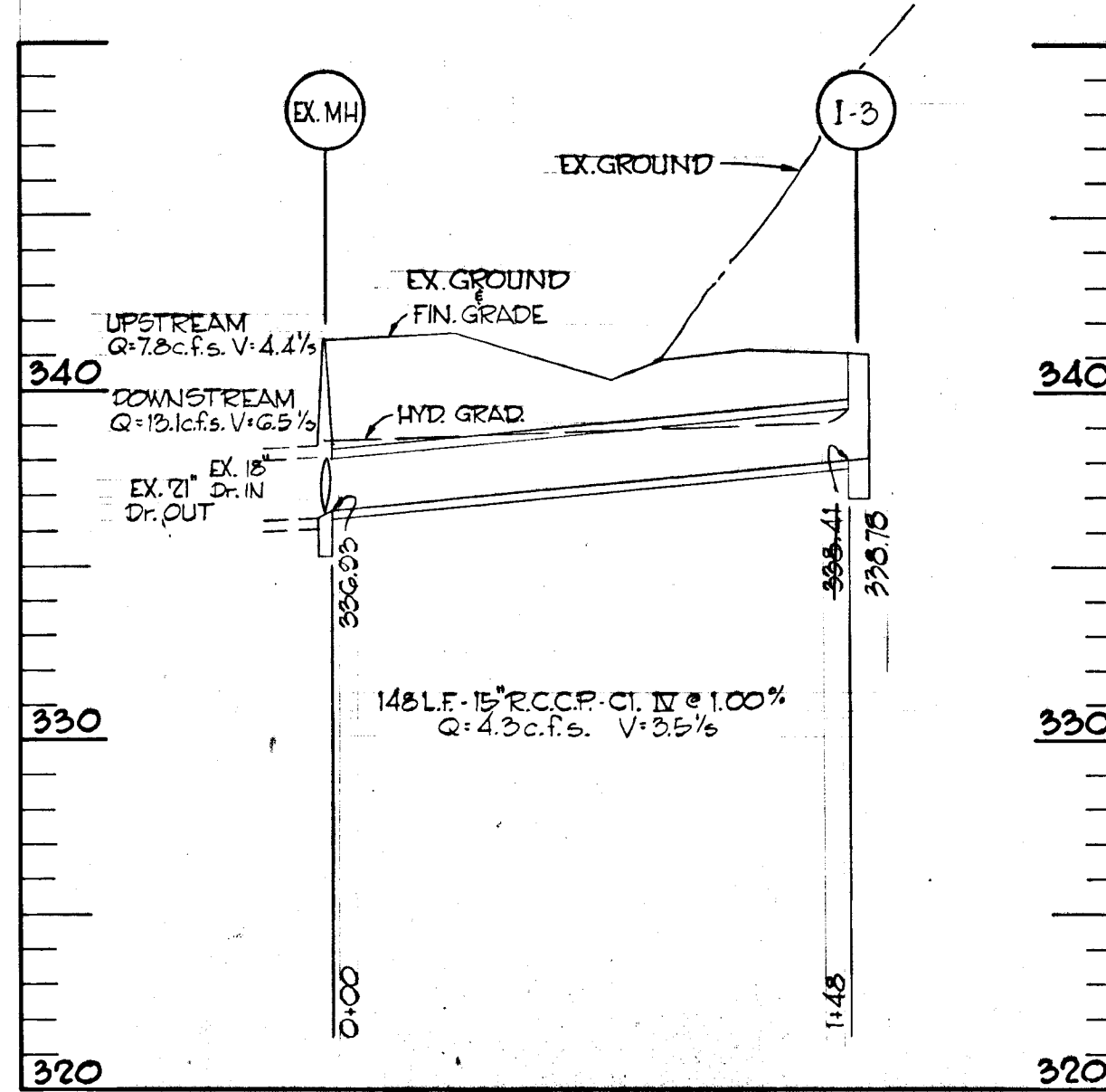
PROFILE SCALE: VERT. 1"=5'
HORIZ. 1"=50'

DEPARTMENT OF PUBLIC WORKS	
<i>Annville P. McLeod</i> 3/4/75 CHIEF, BUREAU OF HIGHWAY DATE	
OFFICE OF PLANNING AND ZONING	
<i>J. N. Claimont</i> 3/31/75 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE	
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS TOWSON, MARYLAND	
10-17-74	REV. PER HO. CO. COMMENTS DATED 11-15-74
Rev Date	Rev No
<p>COLUMBIA MARYLAND 6TH ELECTION DISTRICT HOWARD COUNTY OWNER AND DEVELOPER HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND</p>	
PROJECT AREA	VILLAGE OF OWEN BROWN SECTION 5 AREA 1
PROJECT TITLE	PLAN, PROFILE AND DRAINAGE AREA MAP
Des By	F.T.
Scale	AS NOTED
Dwg. No.	1 OF 4
Drn By	F.T.
Date	9-26-74
C.C.F. No.	
Chk By	J.T.J.
Approved	

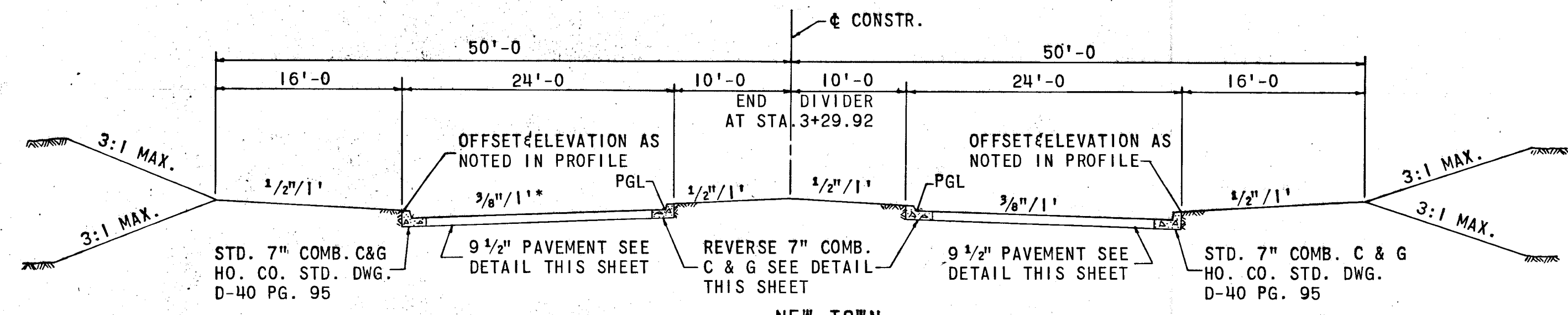
SEP. 26, 1974
Date
Robert J. Claimont
Reg. No. 5407



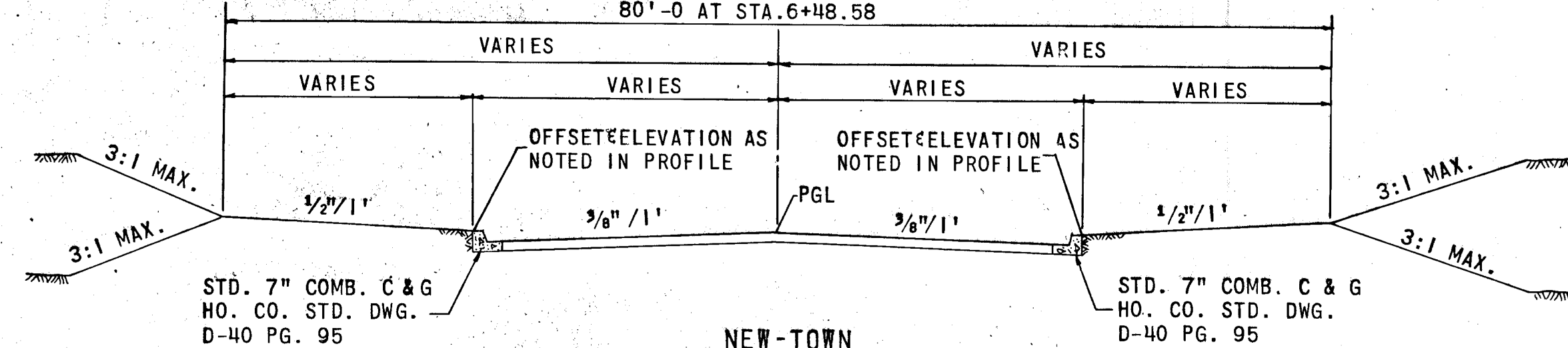
**BROKEN LAND PARKWAY
SHOULDER PAVEMENT SECTION**
NOT TO SCALE



**BROKEN LAND PARKWAY
PAVEMENT SECTION (HO. CNTY. STD. D-9, PG. 64)**
NOT TO SCALE



**NEW-TOWN
COMMERCIAL
100' R.O.W. TYPICAL SECTION**
STA. 0+75 TO STA. 2+90±
NOT TO SCALE
80'-0" AT STA. 6+48.58

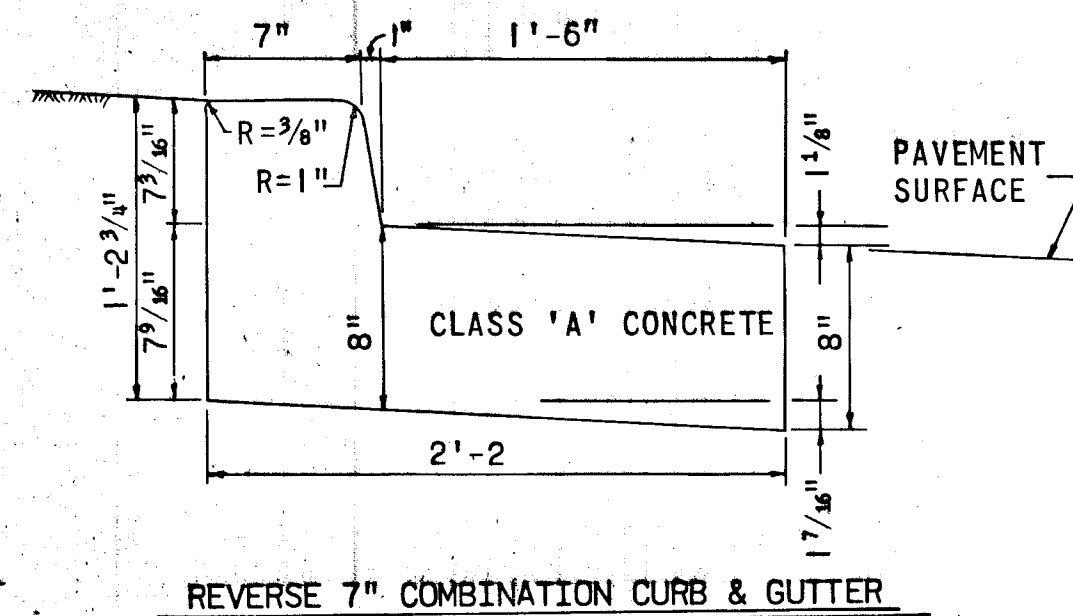


**NEW-TOWN
COMMERCIAL
VARIABLE R.O.W.**
STA. 2+90 TO STA. 6+48.58
NOT TO SCALE

BITUMINOUS CONCRETE SURFACE	1 1/2" BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BINDER	3" BAND C-2	
BITUMINOUS CONCRETE BASE	5" BAND C-2 OR G-3	FIRST PHASE

CLEARING AND GRADING ARTICLE C-1
SUBGRADE ARTICLE C-2
BASE COURSE ARTICLE C-31 OR C-33
BINDER COURSE ARTICLE C-31
SURFACE COURSE ARTICLE C-31

1. BASE WILL BE PRIMED IN ACCORDANCE WITH C-30-3 AS PROVIDED IN THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
2. TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
3. TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

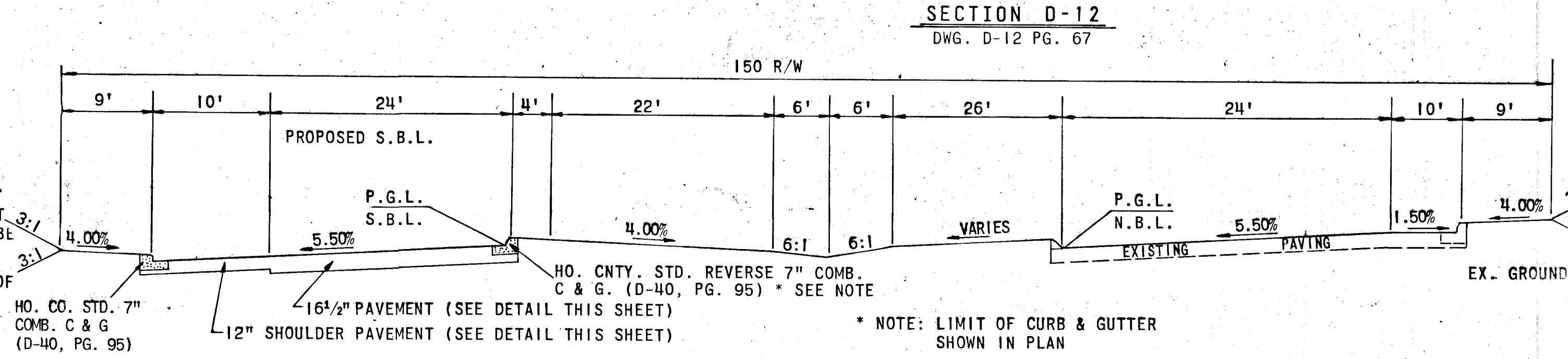


REVERSE 7" COMBINATION CURB & GUTTER

PROFILE: 1" = 5' VERT.
1" = 50' HORZ.

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
2. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
4. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THIS/ THESE DRAWINGS:
BELL TELEPHONE SYSTEM 393-3649
LONG DISTANCE CABLE DIVISION 393-3553 OR 3554
BALTIMORE GAS & ELECTRIC CO. 539-800 EXT. 691
5. BRICK BULKHEAD SHALL BE INSTALLED IN ALL STORM DRAIN STUBS WHICH ARE TO BE PROPERLY LOCATED PRIOR TO PLACING BACKFILL.
6. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
7. ALL STREET CURB RETURNS SHALL HAVE 35.0 RADII UNLESS OTHERWISE NOTED.
8. STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY.
9. DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS.
STEVENS FOREST ROAD 35 M.P.H.
10. INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 EDITION.
11. TREES ARE TO BE PROTECTED AGAINST DAMAGE TO THE MAXIMUM EXTENT REASONABLE TREES WHICH ARE TO REMAIN IN STREETS AND OTHER RIGHT-OF-WAY WILL BE MARKED BY THE ENGINEER PRIOR TO COMMENCING OF CONSTRUCTION OPERATIONS.
12. PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
13. END WALLS: THE TYPES OF ENDWALLS SHOWN ON THE PLANS ARE SUBJECT TO CHANGE, AND ARE NOT TO BE CONSTRUCTED UNTIL GRADING IS COMPLETED. DIMENSIONS OF ENDWALLS AS SHOWN ON STANDARD PLATES MAY BE MODIFIED FOR USE WITH CORRUGATED METAL PIPE, PIPE ARCH OR OTHERWISE AS DIRECTED BY THE ENGINEER.
14. INVERTS OF INLETS AND HEADWALLS: INVERT ELEVATIONS OF INLETS AND HEADWALLS MAY BE MODIFIED TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF DRAINAGE STRUCTURES. DIMENSIONS OF STRUCTURES AS SHOWN ON STANDARD PLATES MAY BE MODIFIED FOR USE WITH CORRUGATED METAL PIPE, PIPE ARCH OR OTHERWISE AS DIRECTED BY THE ENGINEER.
15. ALL COORDINATES BASED ON MARYLAND STATE GRID SYSTEM.
16. ALL ELEVATIONS SHOWN ARE BASED ON U.S.C.C.G.S. MEAN SEA LEVEL DATUM 1929.



**NEW-TOWN
COMMERCIAL
BIFURCATED SUPERELEVATED SECTION
FOR
BROKEN LAND PARKWAY**
NOT TO SCALE

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 4/23/75
[Signature]

DEPARTMENT OF PUBLIC WORKS
[Signature] CHIEF, BUREAU OF HIGHWAY
OFFICE OF PLANNING AND ZONING
[Signature] 3/31/75
DATE

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND

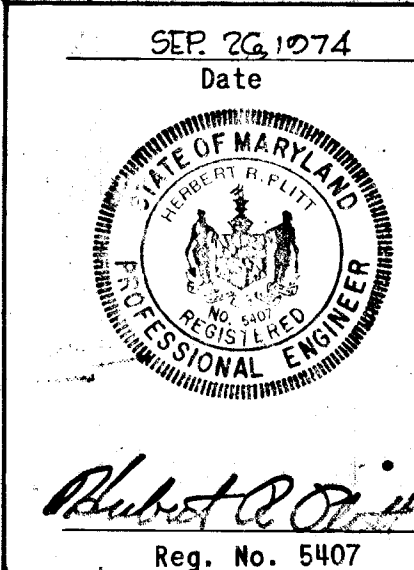
10-17-74	1	REV. PER HO. CO. COMMENTS DATED 11-15-74
Rev Date	Rev No	Revision Description

COLUMBIA
MARYLAND
6TH ELECTION DISTRICT HOWARD COUNTY
OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
COLUMBIA, MARYLAND

PROJECT AREA
VILLAGE OF OWEN BROWN
SECTION 5 AREA 1

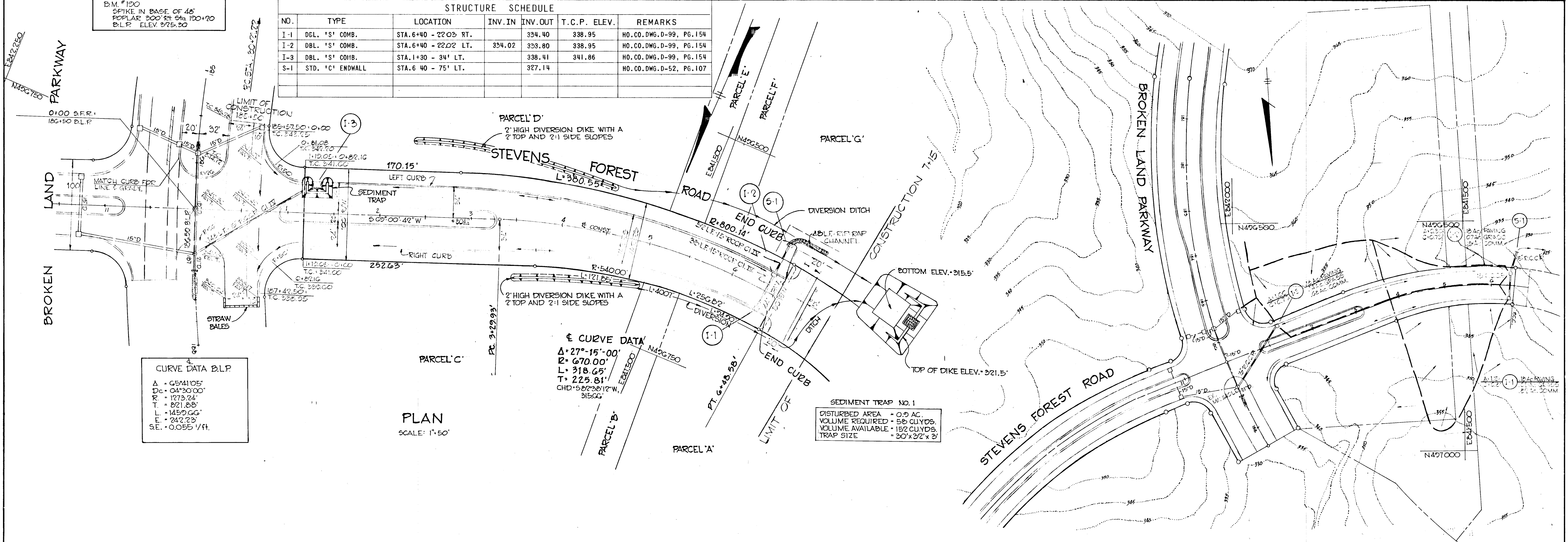
PROJECT TITLE
STORM DRAIN & TYPICALS

Des. By F.T.	Scale AS NOTED	Dwg No. 2 OF 4
Drn. By F.T.	Date 9-26-74	C.C.F. No.
Chk. By J.T.J.	Approved	



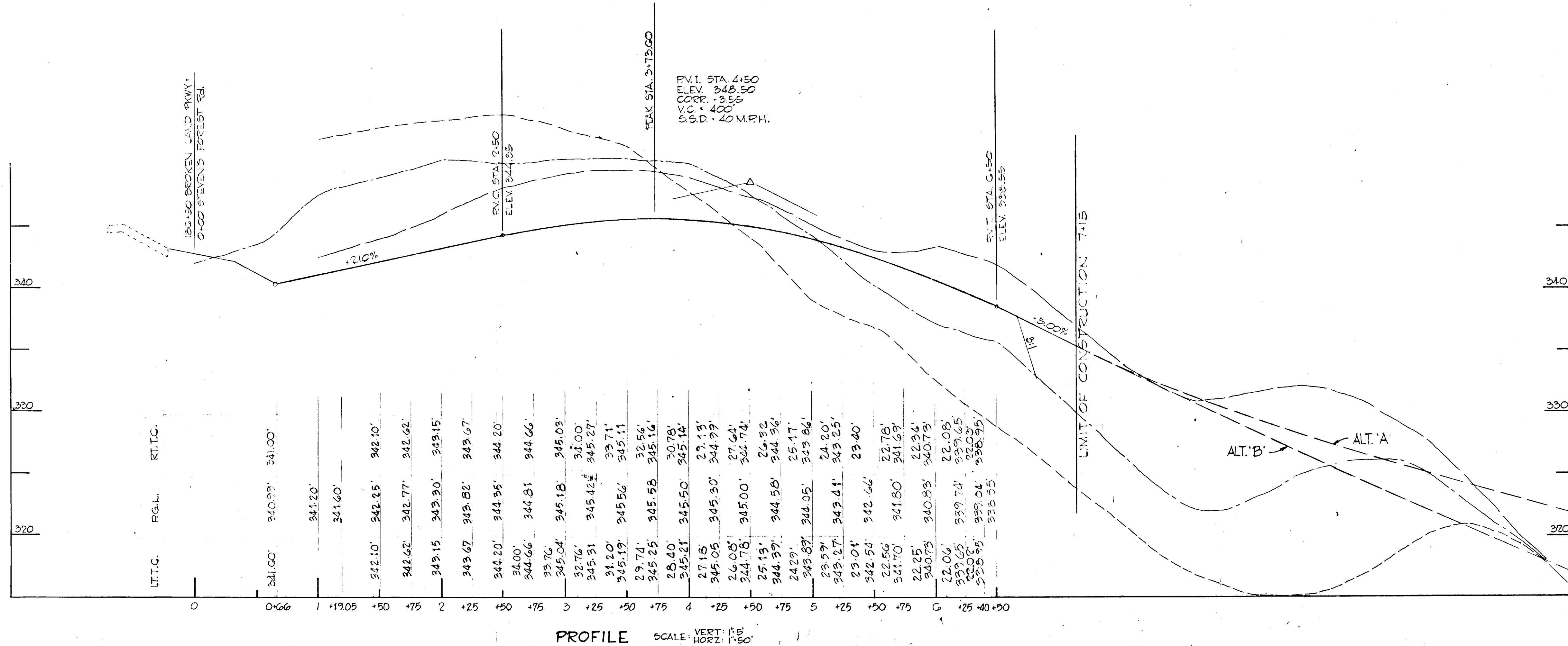
B.M. #100
SPIKE IN BASE OF 45'
POPLAR 200' RT. STA. 100+20
B.L.P. ELEV. 275.30

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-1	DBL. 'S' COMB.	STA. 6+40 - 22.03 RT.	334.40	338.95	338.95	HO. CO. DWG. D-99, PG. 154
I-2	DBL. 'S' COMB.	STA. 6+40 - 22.02 LT.	334.02	338.80	338.95	HO. CO. DWG. D-99, PG. 154
I-3	DBL. 'S' COMB.	STA. 1+30 - 34' LT.	338.41	341.86	341.86	HO. CO. DWG. D-99, PG. 154
S-1	STD. 'C' ENDWALL	STA. 6 40 - 75' LT.	327.14			HO. CO. DWG. D-52, PG. 107



PLAN
SCALE: 1"=50'

DRAINAGE AREA MAP
SCALE: 1"=100'



PROFILE
SCALE: VERT. 1"=5'
HORIZ. 1"=50'

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 1/23/75
J.H.C.

DEPARTMENT OF PUBLIC WORKS
Granville P. McLeod 4/12/75
CHIEF, BUREAU OF HIGHWAY DATE
OFFICE OF PLANNING AND ZONING
J.H. Clewley 3/31/75
DATE DATE

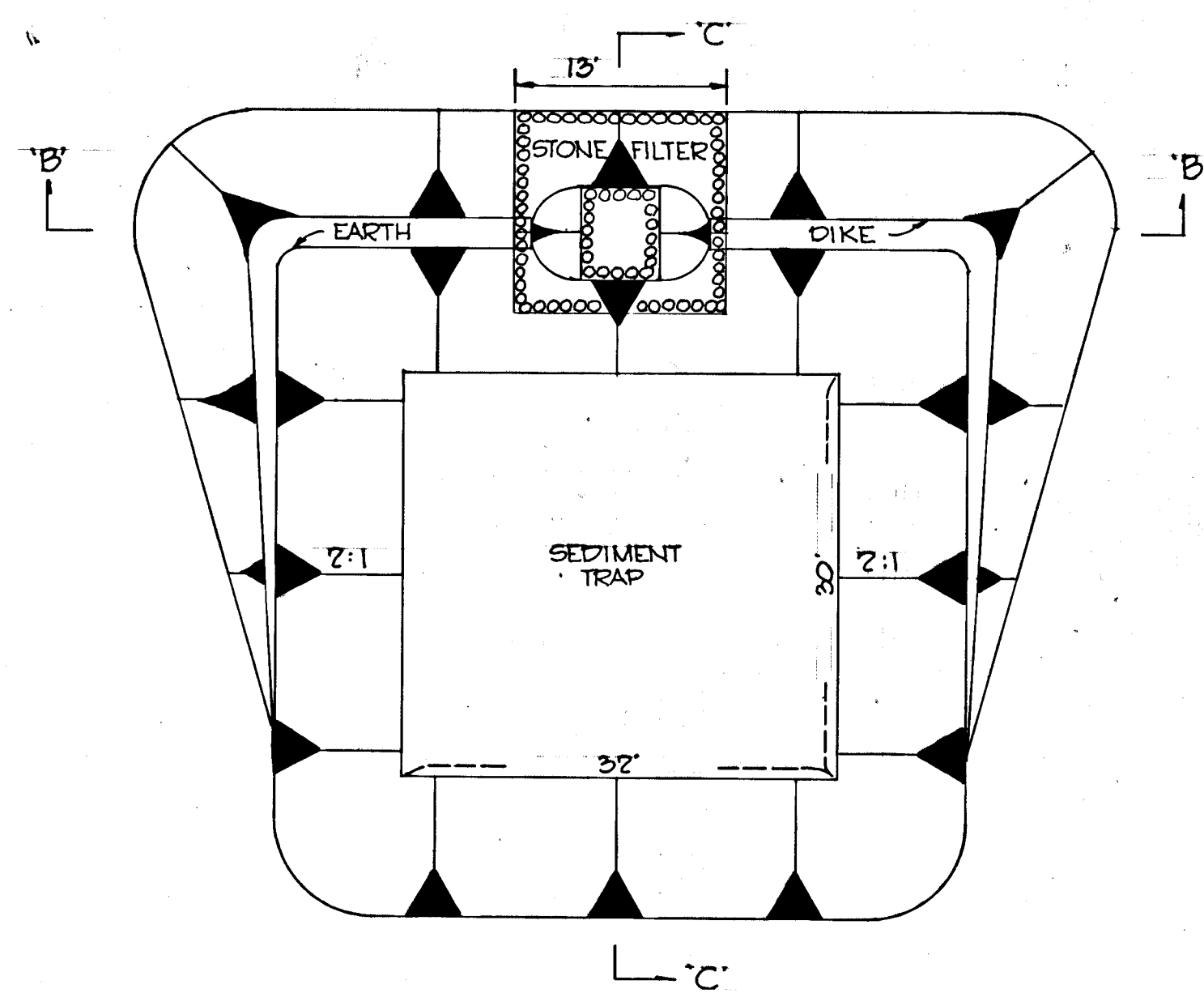
CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS
TOWSON, MARYLAND

10-17-74	1	REV. PER HO. CO. COMMENTS DATED 11-15-74
Rev. Date	Rev No.	Revision Description

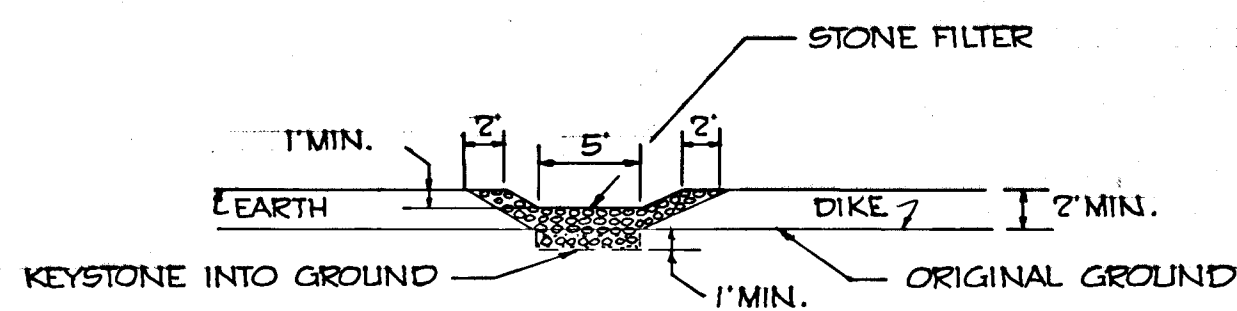
COLUMBIA
MARYLAND
6TH ELECTION DISTRICT HOWARD COUNTY
OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
COLUMBIA, MARYLAND

PROJECT AREA: VILLAGE OF OWEN BROWN
SECTION 5 AREA 1
PROJECT TITLE: SEDIMENT CONTROL PLAN
ROAD PLAN, PROFILE AND DRAINAGE AREA MAP
Drawn by: J.H.C. Date: 10-17-74
Checked by: J.H.C. Date: 10-17-74
Approved by: J.H.C. Date: 10-17-74

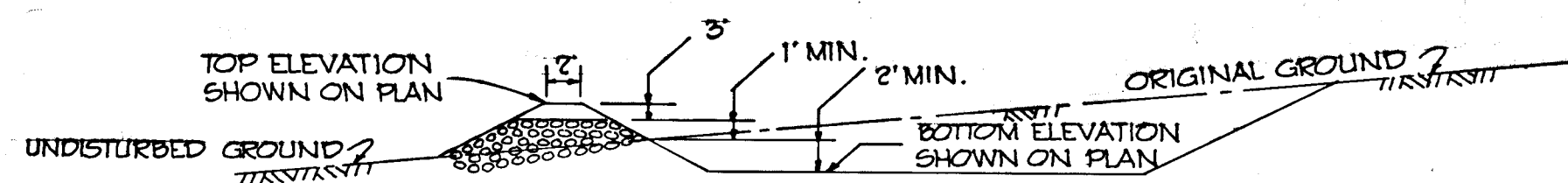




PLAN



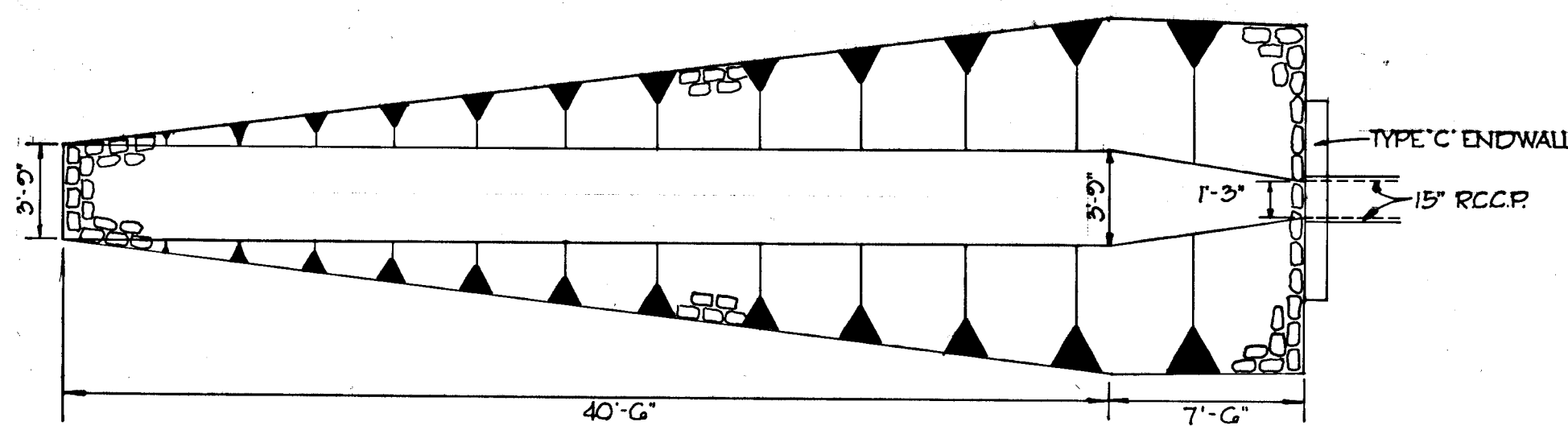
SECTION 'B-B'



SECTION 'C-C'

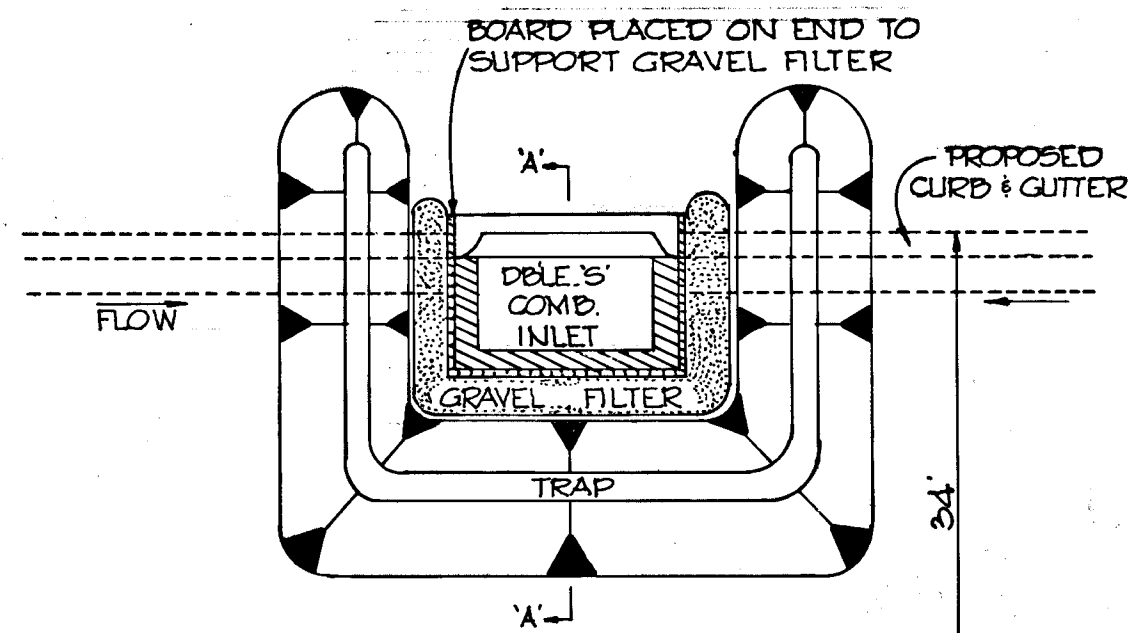
SEDIMENT TRAP DETAIL

NO SCALE

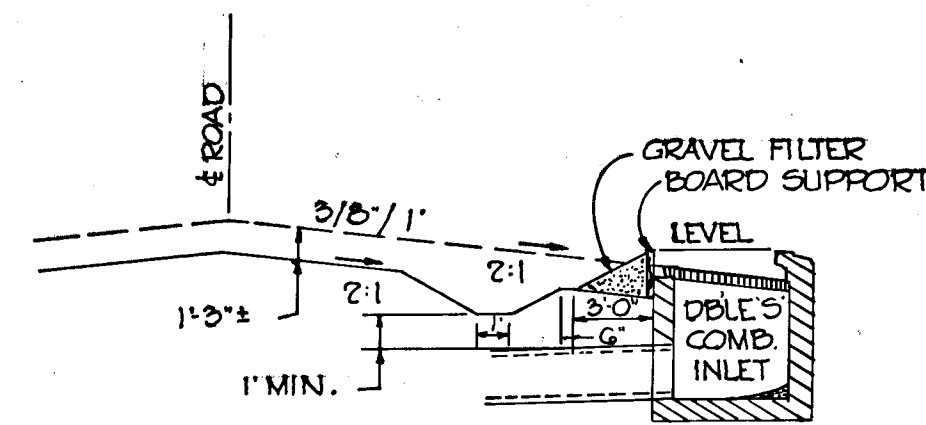


RIPRAP DITCH END TREATMENT

NO SCALE



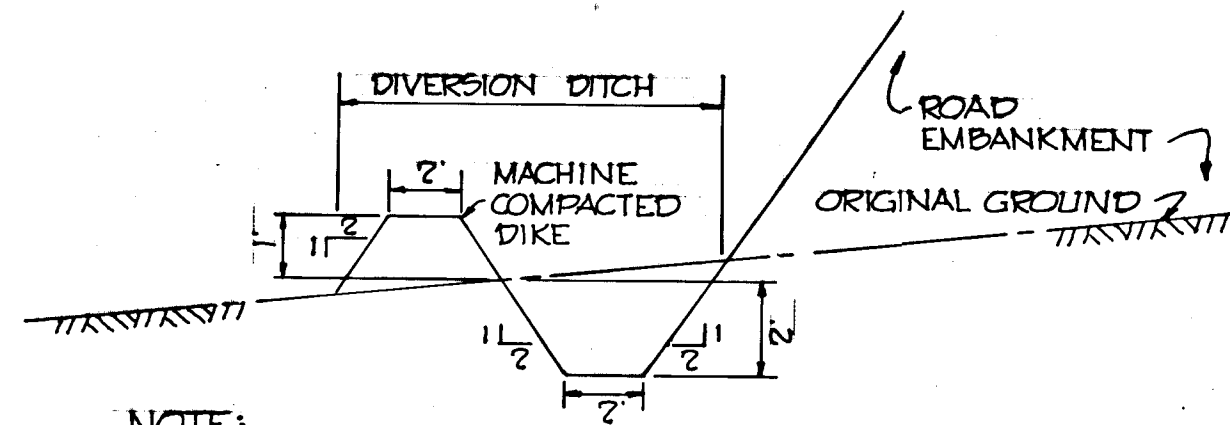
PLAN



SECTION 'A-A'

SEDIMENT TRAP @ I-3

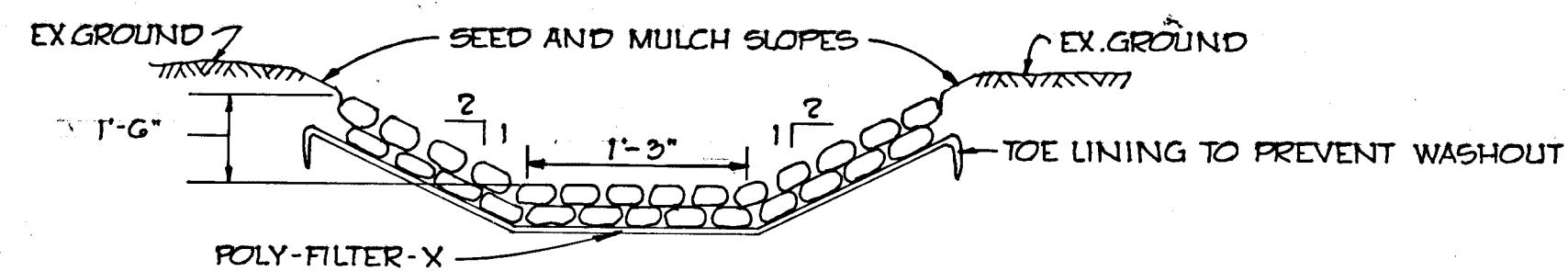
NO SCALE



NOTE: ALL DISTURBED GROUND TO BE SEED & MULCHED

DIVERSION DITCH

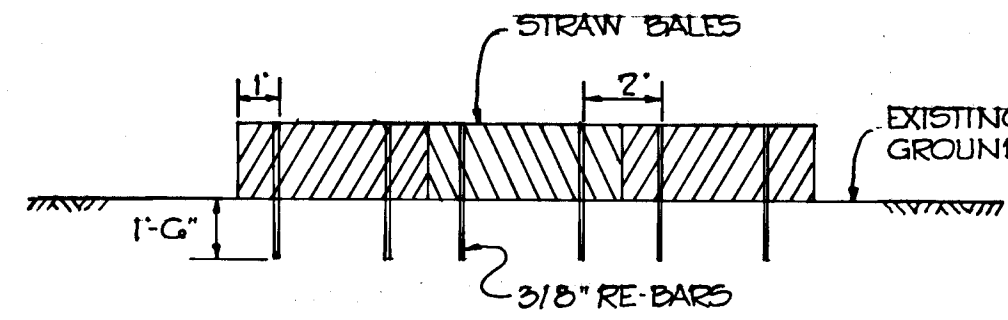
NO SCALE



RIPRAP DITCH

NO SCALE

NOTE:
 1. RIP-RAP TO BE 8" IN DIAMETER RESISTANT TO THE ACTION OF WATER.
 2. A 2' TOEWALL IS REQUIRED BOTH AT THE BEGINNING AND END OF CHANNEL.
 3. BEFORE PLACING RIP-RAP LINE CHANNEL W/ POLY-FILTER-X AS MFG. BY CARTHAGE MILLS, INC., EROSION CONTROL DIV., 124 W. 66TH STREET, CINN. OHIO OR AN APPROVED EQUAL.



STRAW BALE TREATMENT

NO SCALE

CONSTRUCTION SEQUENCE

1. INSTALL SEDIMENT TRAP, STONE FILTER, EARTH DIKE AND STABILIZE ACCORDING TO NOTE 3.
2. INSTALL 2' HIGH DIVERSION DIKE AND DIVERSION DITCH AND STABILIZE ACCORDING TO NOTE 3.
3. PERFORM CUT AND FILL OPERATION TO BRING ROAD TO SUB-GRADE.
4. INSTALL STORM DRAINAGE PIPES AND STRUCTURES WITH SEDIMENT TRAP AND APPURTENANCES AT INLET 1-3.
5. INSTALL CURB AND GUTTER.
6. REMOVE TRAP AT INLET 1-3 AND PAVE ROADWAY.
7. FINISH GRADE AND REMOVE SEDIMENT CONTROL STRUCTURES.
8. STABILIZE ALL DISTURBED AREAS ACCORDING TO NOTE 3.

SITE ANALYSIS

- | | | |
|-------------------------------|---|----------|
| 1. TOTAL AREA OF TRACT | = | 1.40 AC. |
| 2. AREA TO BE DISTURBED | = | 0.90 AC. |
| 3. AREA TO BE PAVED OR ROOFED | = | 0.50 AC. |
| 4. AREA TO BE RE-VEGETATED | = | 0.40 AC. |

SEDIMENT CONTROL NOTES

1. THE DEVELOPER SHALL NOTIFY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AT LEAST 24 HOURS PRIOR TO ANY CONSTRUCTION IN THIS AREA. (465-5000)
2. ALL SEDIMENT CONTROL STRUCTURES SHALL BE BUILT AND STABILIZED PRIOR TO CONSTRUCTION AND WILL REMAIN IN PLACE UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN GRANTED BY THE HOWARD SOIL CONSERVATION DISTRICT.
3. ALL GRADED AREAS SHALL BE STABILIZED BY SEEDING AND MULCHING IN ACCORDANCE WITH THE FOLLOWING:
 - A. SITE PREPARATION
 - 1) APPLY PULVERIZED LIMESTONE AT THE RATE OF 2 TONS PER ACRE.
 - 2) APPLY COMMERCIAL FERTILIZER 10-10-10 AT THE RATE OF 1/2 TON PER ACRE.
 - 3) WORK BOTH INTO SOIL AND PREPARE AREA TO BE SEED WITH A YORK RAKE.
 - B. SEEDING
 - 1) SEED ALL DISTURBED AREAS WITH KENTUCKY 31 TALL FESCUE @ 120 LBS. PER ACRE AND ANNUAL RYE GRASS @ 15 LBS. PER ACRE.
 - 2) THE SEEDED AREA SHALL BE RAKED WITH A MINIMUM 2 PASSES WITH A YORK RAKE, COVERED AND COMPACTED WITH A MULTIPACKER OR OTHER APPROVED METHOD.
 - C. MULCHING
 - 1) SEEDER AREAS SHALL BE UNIFORMLY MULCHED IMMEDIATELY AFTER SEEDING WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE.
 - 2) TIE MULCH WITH LIQUID ASPHALT AT 0.1 GAL. PER SQ. YD. OR EMULSIFIED ASPHALT AT 0.04 GAL. PER SQ. YD. OR MULCH NETTING.

ENGINEER'S CERTIFICATE

I certify that these plans 3 through 4 for Erosion and Sediment Control represent practical and workable plans based on my personal knowledge of the site conditions and that they were prepared in accordance with the requirements of the Howard Soil Conservation District.

Robert C. Platt 10-17-74
 Signature of Engineer Date

DEVELOPER'S CERTIFICATE

I hereby certify that all development and/or construction will be done in accordance with these plans of development and plans for Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard County Soil Conservation District or their authorized agents, as deemed necessary.

Deviation from these plans will not be made unless authorized by the Howard Soil Conservation District.

John J. Cappiuni 12/7/74
 Signature of Developer Date

Reviewed for Howard S.C.D. and meets Technical Requirements.
 Name

James M. Hala 3-24-75
 Signature
 U.S. Soil Conservation Service

These Development Plans are approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Robert W. Zielhuis 3-24-75
 Approved Date
 Howard S.C.D.

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 1/23/75
[Signature]

DEPARTMENT OF PUBLIC WORKS
Brenville M. McElreath 4/2/75
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING
J.H. Clewson 3/31/75
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS
 TOWSON, MARYLAND

10-17-74	1	REV. PER HO. CO. COMMENTS DATED 11-15-74
Rev. Date	Rev. No.	Revision Description

COLUMBIA
 MARYLAND
 6th ELECTION DISTRICT HOWARD COUNTY
 OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 COLUMBIA, MARYLAND

PROJECT AREA VILLAGE OF OWEN BROWN
 SECTION 5 AREA 1

PROJECT TITLE SEDIMENT CONTROL DETAILS

Des. By	A.W.R.	Scale	AS NOTED	Dwg. No.	4 OF 4
Des. By	A.W.R.	Date	10-17-74	C.C.F. No.	
Chk. By	F.T.	Approved			

10-17-74
 Date

Robert C. Platt
 Engineer Reg. No. 5407