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2	TYPICAL SECTIONS & DETAILS
3	Mc GAW COURT STA. 0+00 TO 6+00
4	Mc GAW COURT STA. 6+00 TO 14+00
5	STORM DRAIN PROFILES
6	DRAINAGE AREA MAP & SOIL EROSION PLAN

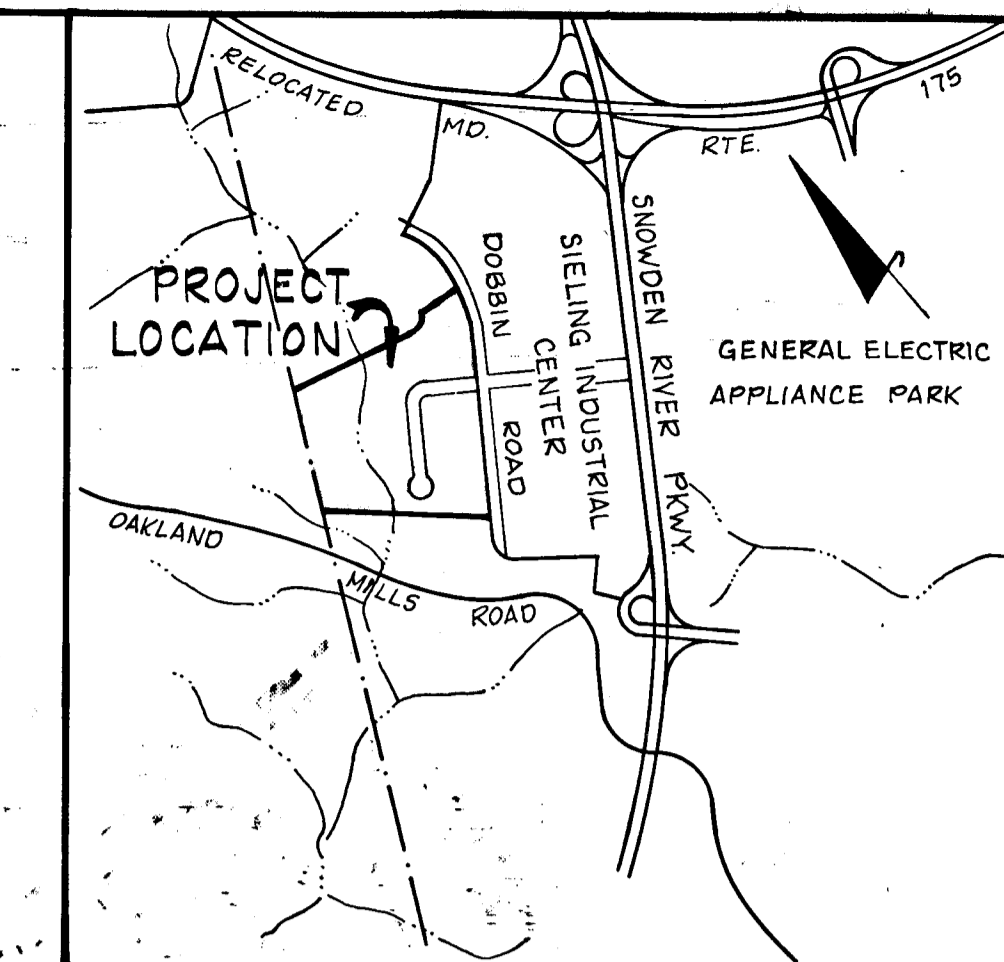
# COLUMBIA

HOWARD COUNTY, MARYLAND  
6TH ELECTION DISTRICT

## ROAD CONSTRUCTION PLANS SIELING INDUSTRIAL CENTER SECTION I AREA 2

OWNER AND DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORP.  
COLUMBIA, MARYLAND



VICINITY MAP

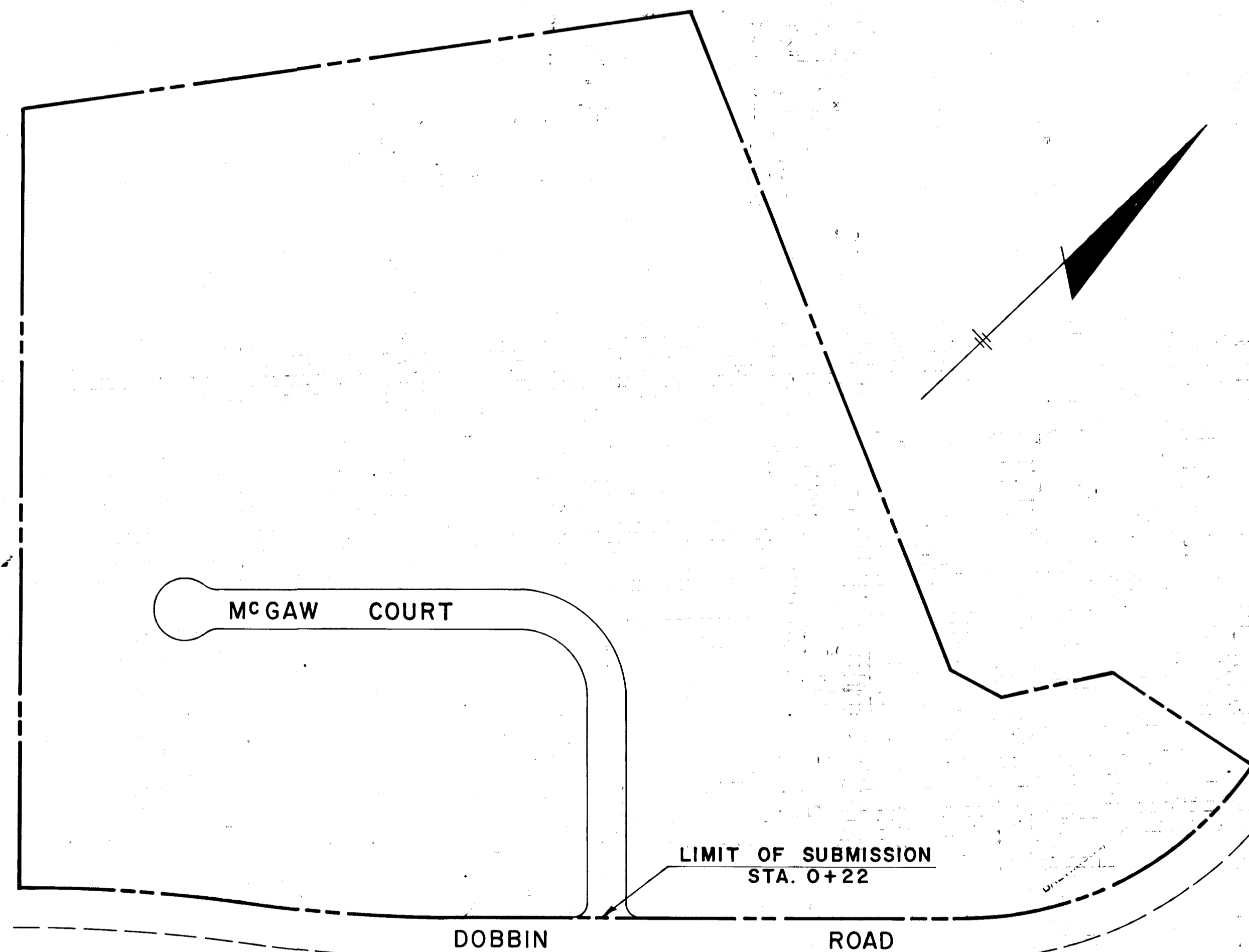


SCALE: 1" = 2000'

### GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
- 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.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
 

BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 OR 3554
BALTIMORE GAS & ELECTRIC CO.	539-8000 EXT. 691
- DEVELOPER WILL PLACE ROADS TO SUBGRADE FOR THE FULL WIDTH OF THE RIGHT-OF-WAY BEFORE INSTALLATIONS OF UTILITIES.
- BRICK BULKHEAD SHALL BE INSTALLED IN ALL STORM DRAIN STUBS.
- ALL INLETS SHALL BE HOWARD COUNTY STANDARDS UNLESS OTHERWISE SHOWN.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHTS-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS.  
Mc GAW COURT - 30 M.P.H.
- TEMPORARY, COMPACTED, 27 INCH HIGH EARTHILLED DIVERSION BERMS SHOULD BE CONSTRUCTED ABOVE THE LIPS OF FILL SLOPES ON THE R-O-W CONCURRENTLY WITH THE INITIAL GRADING AND DIRECTED TO UNDISTURBED SOD AREAS AT THE END OF EACH DAY. SEE SHEET NO. 6.
- ALL SWALES SHALL BE SODDED AND TAMPED, AND ALL SLOPES SHALL BE SEEDED OR SODDED IN CONSTRUCTION WITH THE HOWARD COUNTY SOIL CONSERVATION DISTRICT AND THE HOWARD COUNTY PLANNING BOARD STANDARDS ENTITLED "STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN URBANIZING AREAS".
- CONTRACTOR TO NOTIFY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT 465-3180 AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- ALL DISTURBED SLOPE AREAS TO BE STABILIZED AS SOON AS GRADING IS COMPLETED.
- ON ALL FILLS IN SUMP AREAS, RELIANCE PLASTIC & CHEMICAL COMPANY "FLEXIBLE TUBE DOWN DRAINS AND PANS" OR APPROVED EQUAL, SHALL BE USED. SEE SHEET NO. 6.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING, AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 EDITION.



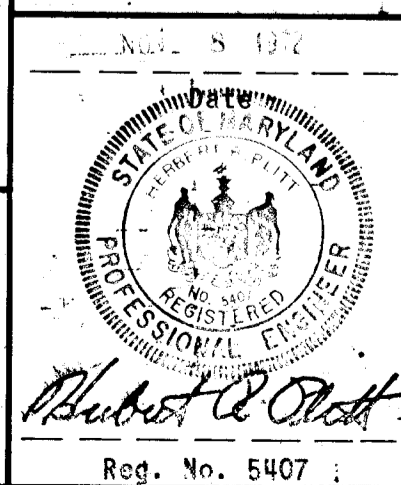
SCALE: 1" = 200'

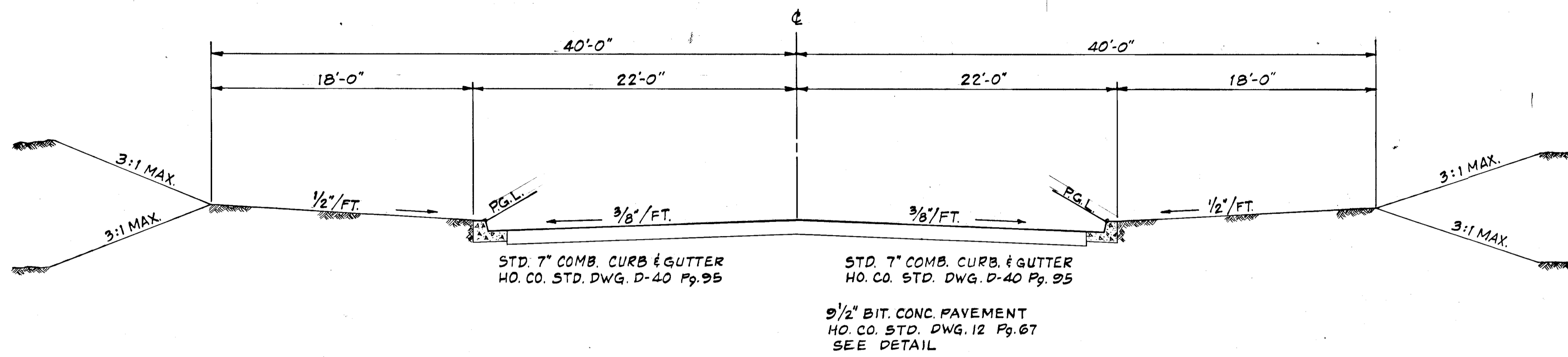
2/22/73  
J. H. Clawson, Jr.

DEPARTMENT OF PUBLIC WORKS  
*D. N. Beland* 2/26/73  
CHIEF, BUREAU OF HIGHWAYS DATE

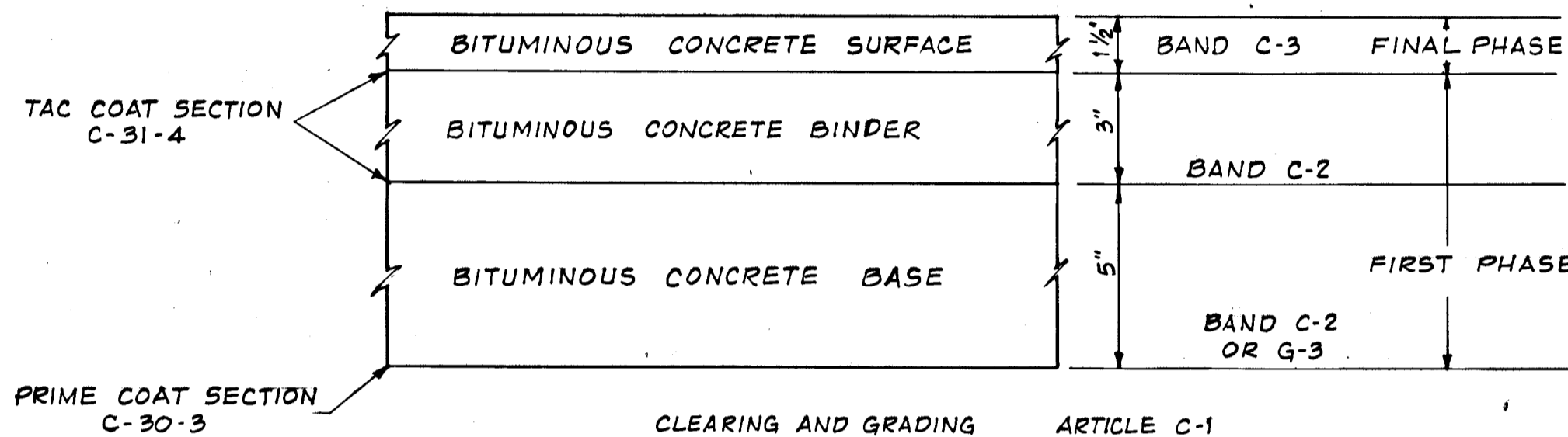
OFFICE OF PLANNING AND ZONING  
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

GREEN ASSOCIATES, INC.  
CONSULTING ENGINEERS  
32 WEST ROAD  
TOWSON, MARYLAND





**80' R.O.W. TYPICAL SECTION**  
SCALE: 1" = 6.0'

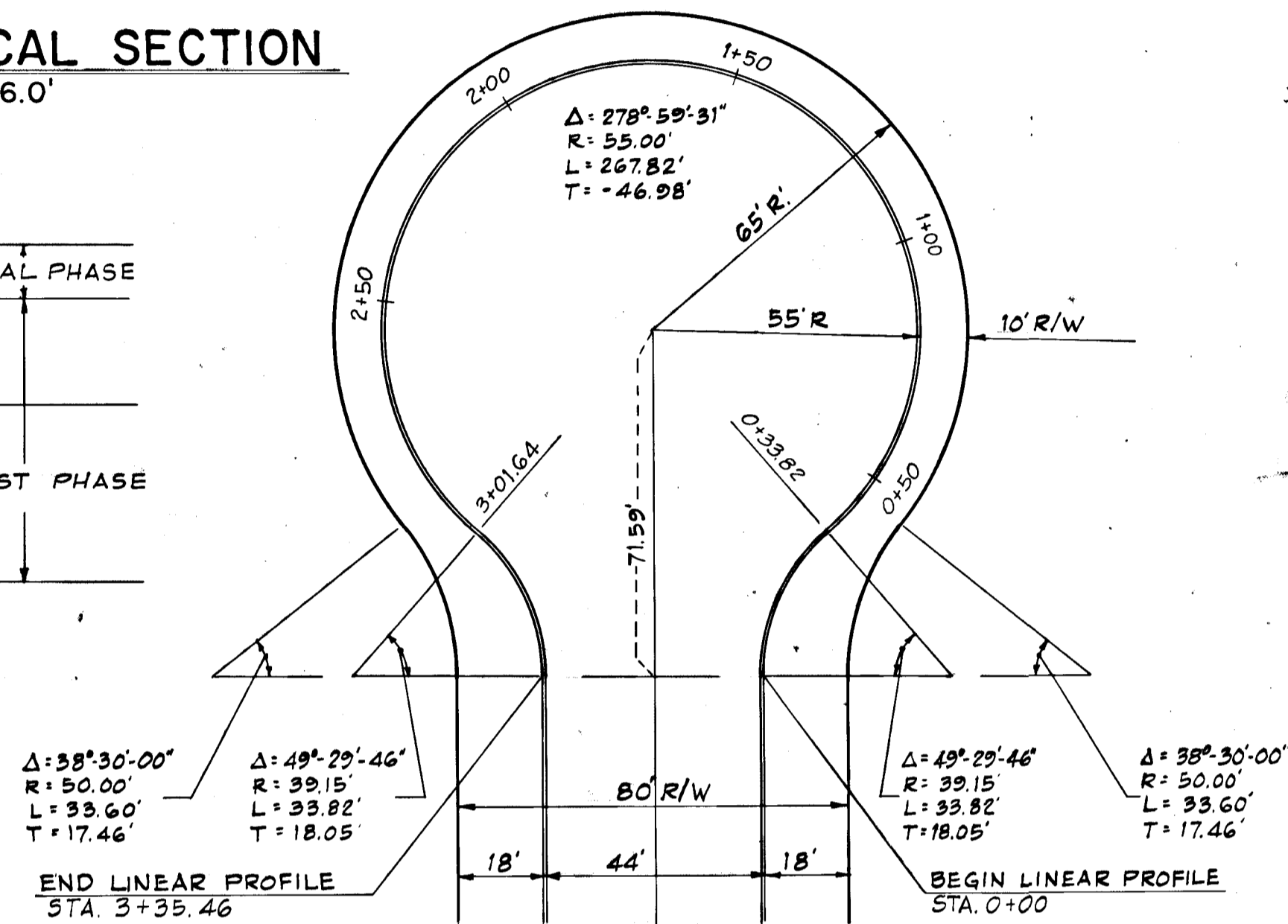


CLEARING AND GRADING  
SUBGRADE  
BASE COURSE  
BINDER COURSE  
SURFACE COURSE

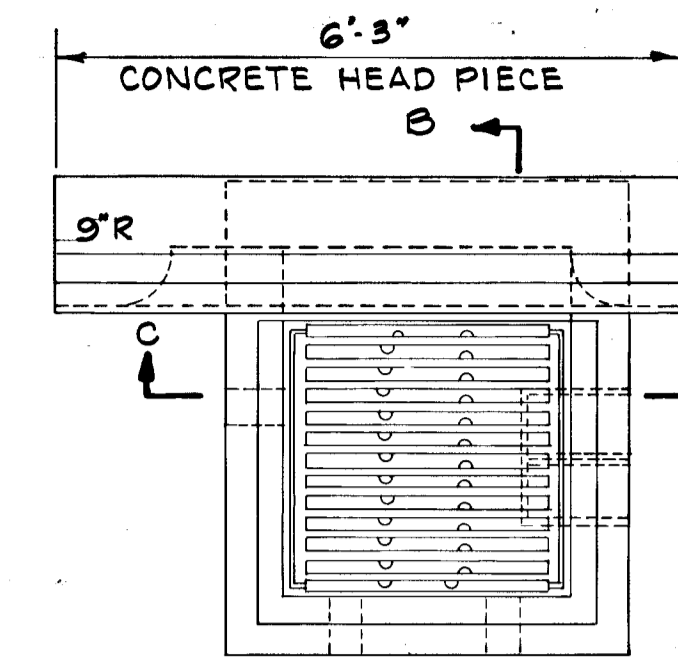
ARTICLE C-1  
ARTICLE C-2  
ARTICLE C-31 OR C-33  
ARTICLE C-31  
ARTICLE C-31

NOTE:  
PAVEMENT TO BE CONSTRUCTED IN ACCORDANCE  
WITH THE HOWARD COUNTY ROAD CONSTRUCTION  
CODE AND SPECIFICATIONS DWG. D-12 PAGE 67

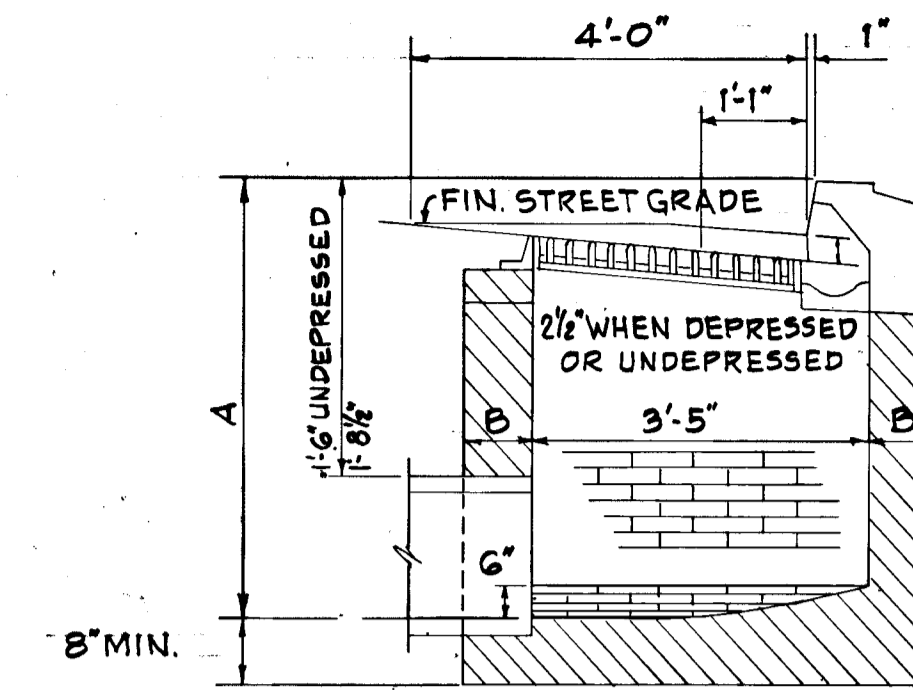
**9 1/2" PAVEMENT DETAIL**  
SCALE: 1" = 4.0'



**CUL-DE-SAC DETAIL**  
SCALE: 1" = 30.0'

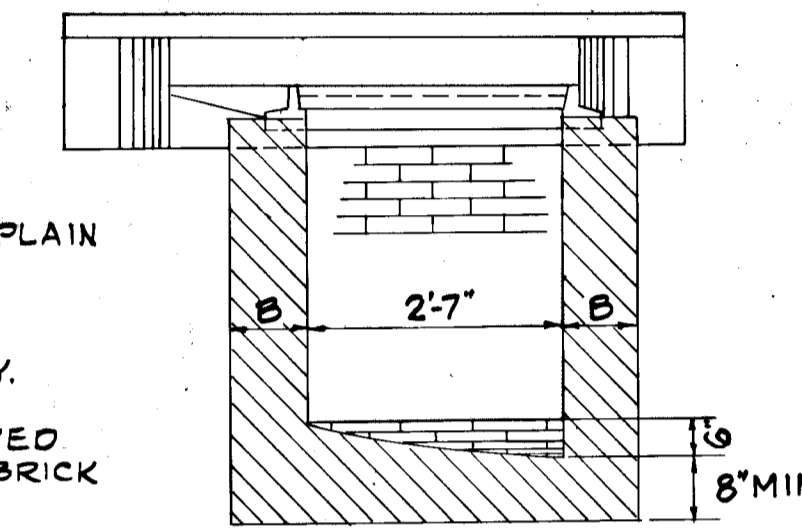


**PLAN**  
NO SCALE



**SECTION B-B**  
NO SCALE

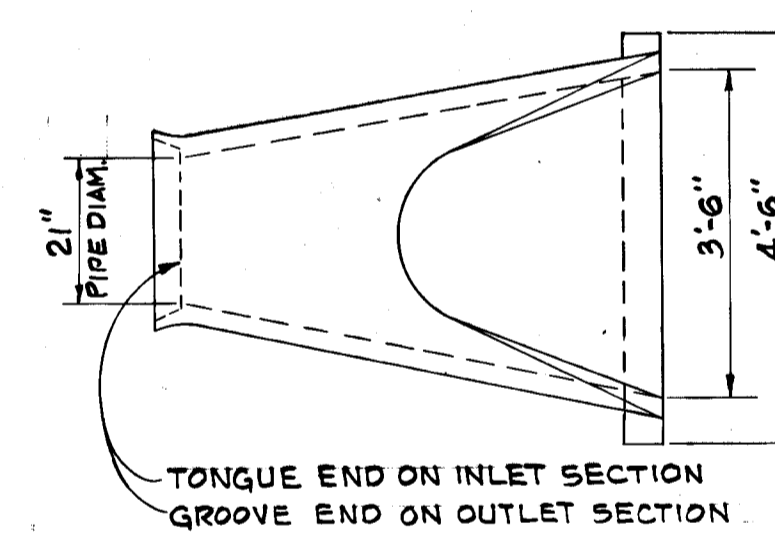
- NOTES
1. THE WALLS AND INVERT SHALL BE BRICK OR PLAIN CLASS 'A' CONCRETE
  2. B = B' WHERE A IS 7' OR LESS  
B = 12" WHERE A IS 7' TO 11'
  3. TOP 4" OF WALLS SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRATE TO EXISTING GRADE IF REQUIRED
  4. WHERE BRICK IS USED, INVERT SHALL BE BRICK LAID ON EDGE.



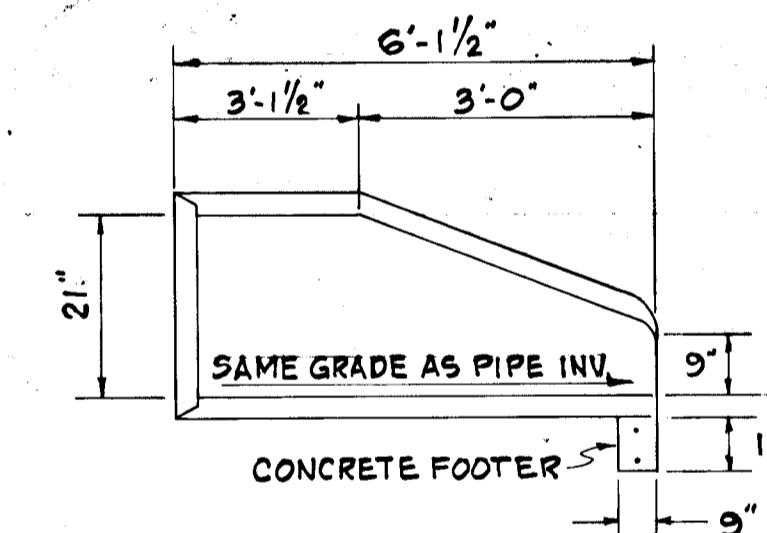
**SECTION C-C**  
NO SCALE

**TYPE 'S' COMBINATION INLET**

END SECTIONS MUST BE REINFORCED TO CONFORM WITH CLASS IV PIPE



**PLAN**

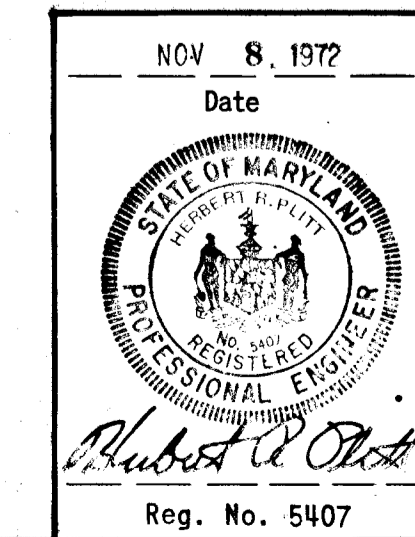


**LONGITUDINAL SECTION**

**STANDARD CONCRETE END SECTION**

APPROVED  
DIVISION OF LAND DEVELOPMENT  
AND TRANSPORTATION PLANNING  
HOWARD COUNTY, MARYLAND  
DATE: 2/22/73  
J. H. Clawson

DEPARTMENT OF PUBLIC WORKS	
<i>L. M. McLeod</i>	2/26/73
CHIEF, ENGINEER HIGHWAY	DATE
OFFICE OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING	DATE
GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND	
Rev. Date	Rev. No.
<p><b>COLUMBIA</b> MARYLAND</p> <p>6TH ELECTION DISTRICT HOWARD COUNTY</p> <p>HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND</p>	
PROJECT AREA	SIELING INDUSTRIAL PARK SECTION 1 AREA 2
PROJECT TITLE	STORM DRAIN PROFILES
Drawn By	F.T.
Scale	AS SHOWN
Sheet No.	2 OF 5
Check By	R.L.B.
Date	FEB. 1973
Checked By	J.T.J.
Approved	
Reg. No.	5407



B.M. # 16-A ELEV. 362.581  
 R.R. SPIKE IN ROOT OF 18" TWIN ASH  
 75'± RT. OF STA. 2+66 McGAW ROAD

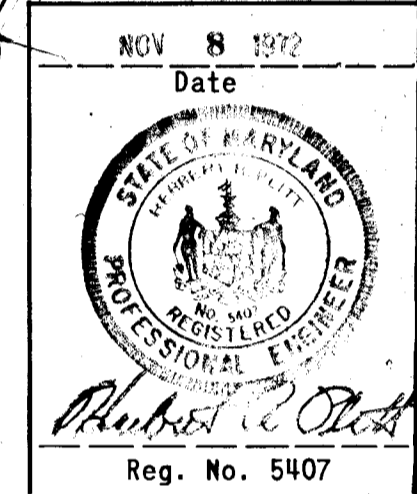
PLAN  
 SCALE = 1" = 50'

STRUCTURE		SCHEDULE				REMARKS
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	
S-1	CONC. END SECTION	STA. 4+07.60 - 55' LT.	366.84			SEE DETAIL
I-1	DBL. 'S' COMB.	STA. 4+07.60 - 22' LT.	366.52	366.27	371.87	HO. CO. DWG. 99 PG. 154
I-2	DBL. 'S' COMB.	STA. 4+07.60 - 22' RT.	365.91	365.41	371.87	HO. CO. DWG. 99 PG. 154
S-2	ST'D. 'C' ENDWALL	STA. 4+07.60 - 66' RT.		360.70		HO. CO. DWG. 52 PG. 107

± CURVE DATA  
 $\Delta = 90^\circ - 00' - 00''$   
 $R = 180.00'$   
 $L = 282.74'$   
 $T = 180.00'$

LEGEND  
 P.G.L./T.C. GRADE  
 EX. GROUND LT. BLDG. RESTRICTION LINE  
 EX. GROUND RT. BLDG. RESTRICTION LINE  
 EX. GROUND @ ±

PROFILE  
 SCALE = 1" = 50' HOR.  
 SCALE = 1" = 50' VERT.



DEPARTMENT OF PUBLIC WORKS  
 CHIEF, ENGINEER HIGHWAYS  
 DATE: 9/26/73  
 OFFICE OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING  
 DATE:  
 GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

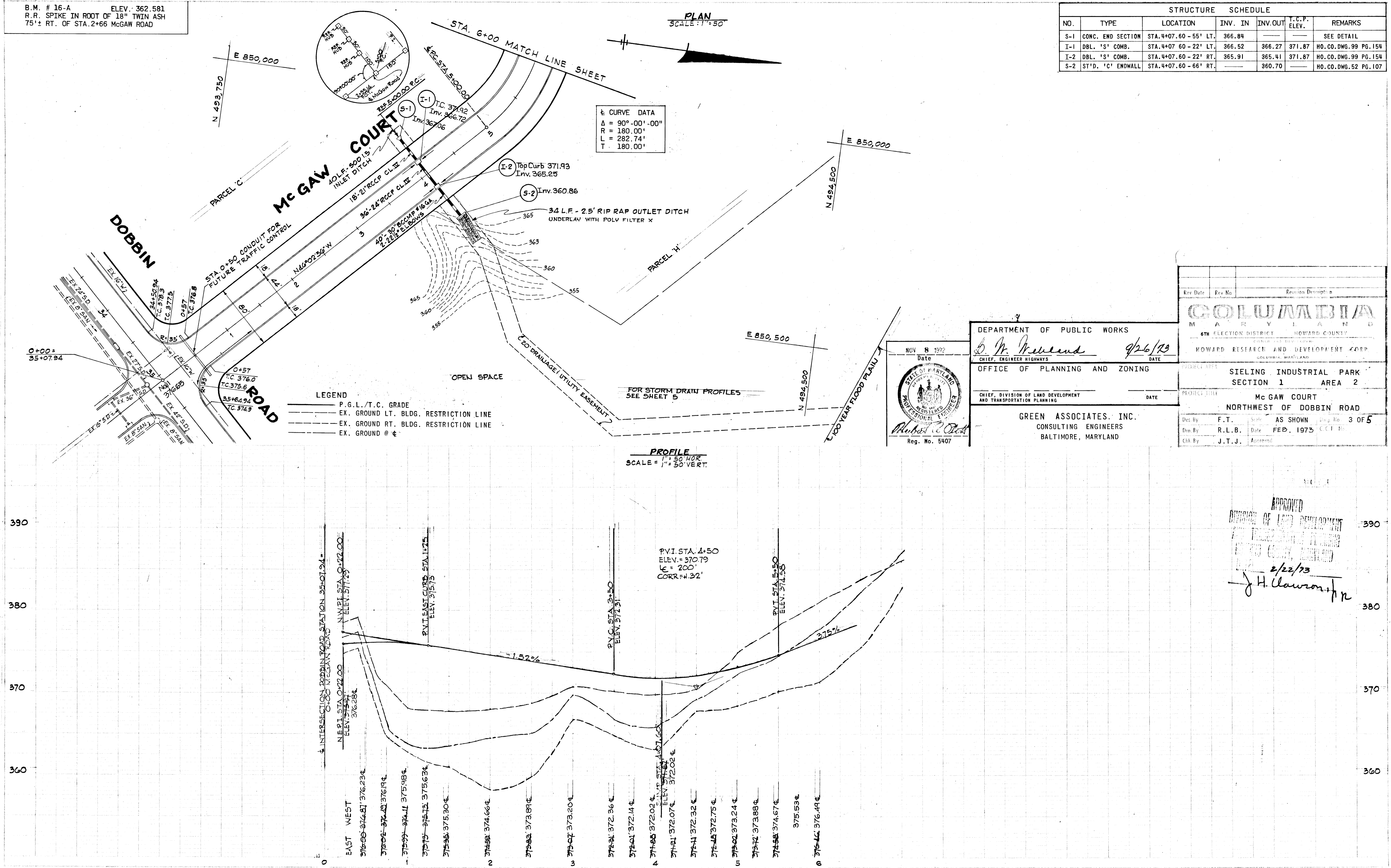
Rev. Date	Rev. No.	Revision Description

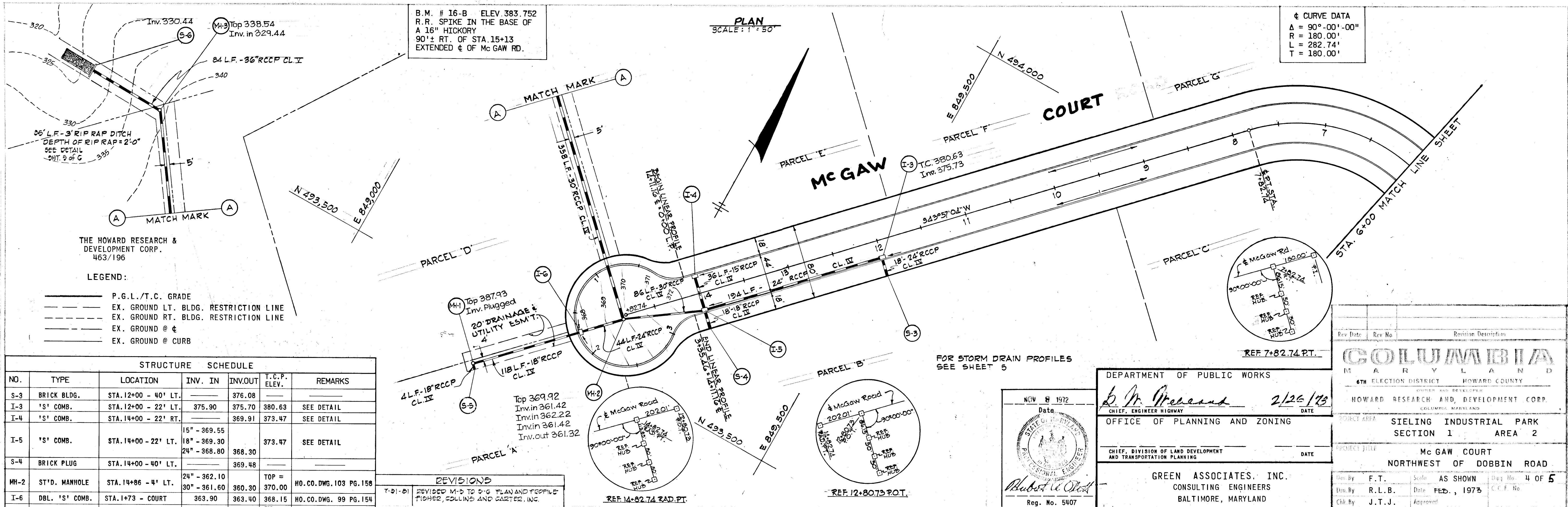
COLUMBIA  
 MARYLAND  
 6TH ELECTION DISTRICT HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 COLUMBIA, MARYLAND

PROJECT TITLE: Mc GAW COURT  
 NORTHWEST OF DOBBIN ROAD

Des. By: F.T. Scale: AS SHOWN Proj. No: 3 OF 5  
 Dwn. By: R.L.B. Date: FEB. 1973 CCT No:  
 Chk. By: J.T.J. Approval:

APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 2/22/73  
 J. H. Lawson

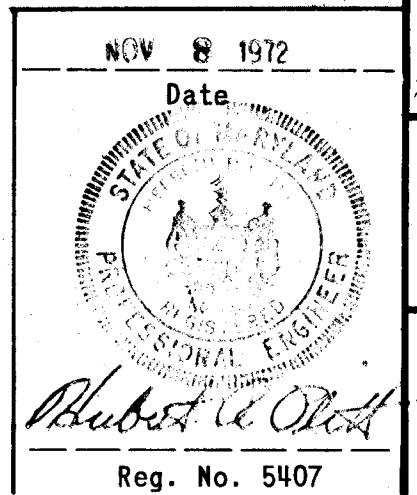
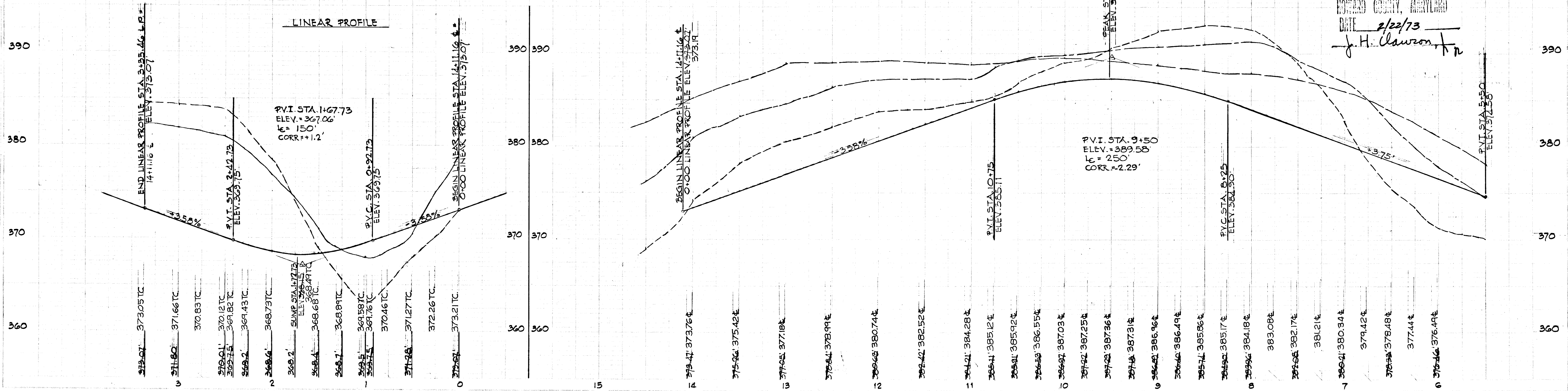




**REVISIONS**

7-21-73 REVISED M-2 TO 2-G PLAN AND PROFILE FISHER, COLLINS AND GARTER, INC.

**PROFILE**  
SCALE: 1" = 50' HOR. 1" = 50' VERT.



DEPARTMENT OF PUBLIC WORKS  
 CHIEF, ENGINEER HIGHWAY  
 DATE 2/26/73

OFFICE OF PLANNING AND ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING  
 DATE

GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

Rev. Date	Rev. No.	Revision Description

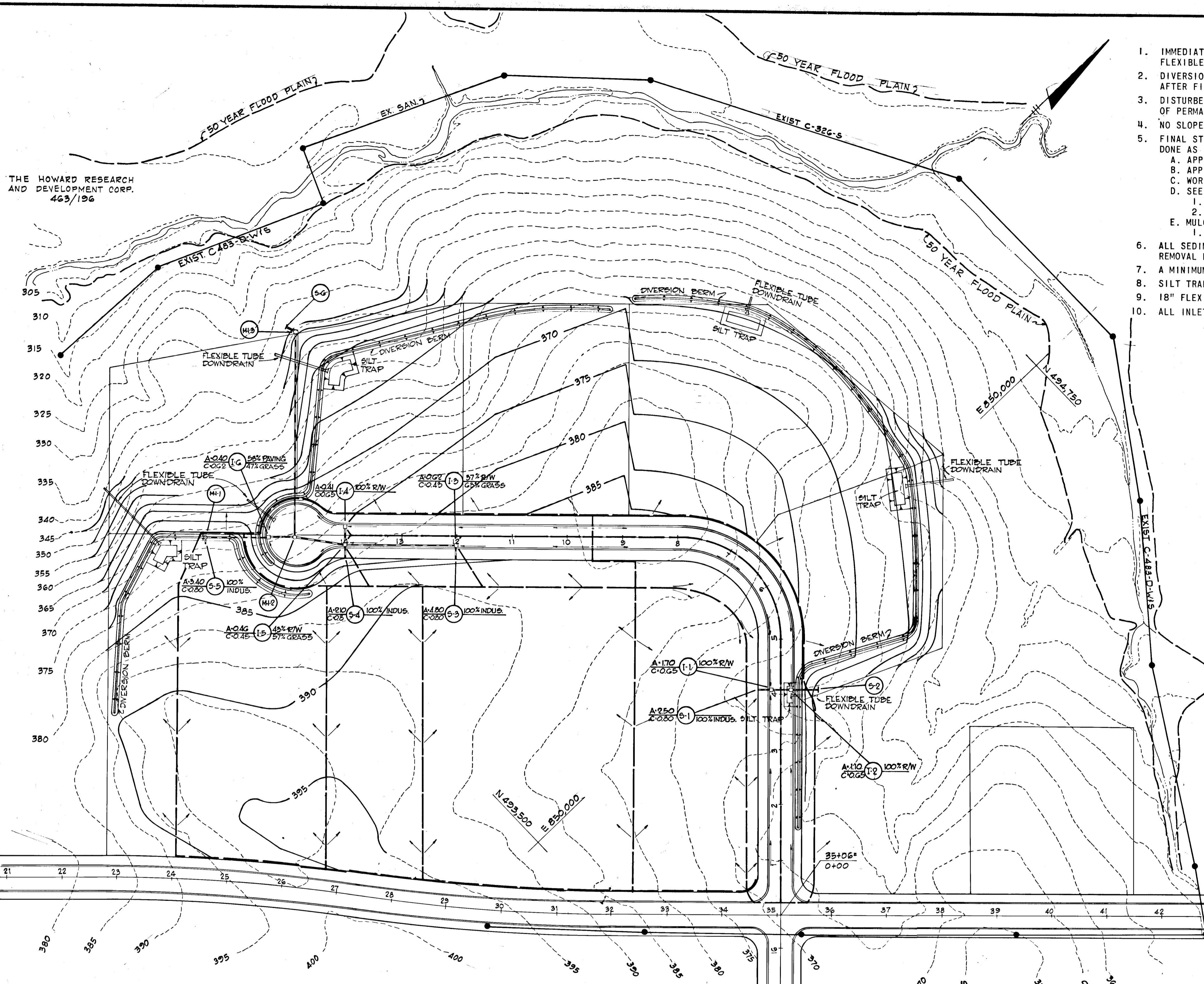
**COLUMBIA**  
 MARYLAND  
 6TH ELECTION DISTRICT HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 SIELING INDUSTRIAL PARK SECTION 1 AREA 2  
 Mc GAW COURT  
 NORTHWEST OF DOBBIN ROAD

Prep. By: F.T. Scale: AS SHOWN Day No: 4 OF 5  
 Dir. By: R.L.B. Date: FEB., 1973 C.F. No.  
 Chk. By: J.T.J. Approved:

APPROVED  
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING  
 HOWARD COUNTY, MARYLAND  
 DATE 2/22/73  
 J.H. Lawson Jr.

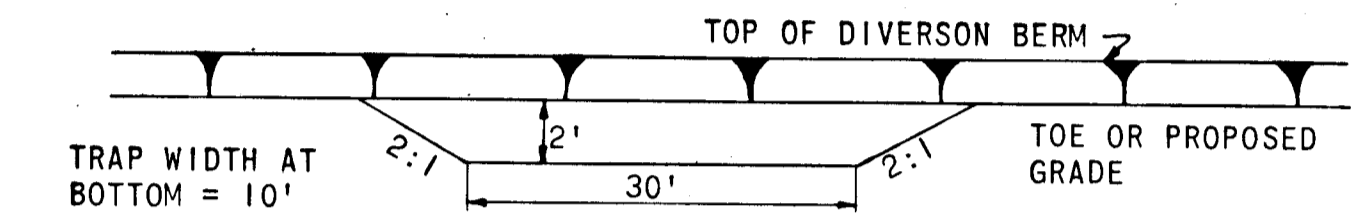


THE HOWARD RESEARCH AND DEVELOPMENT CORP. 463/196

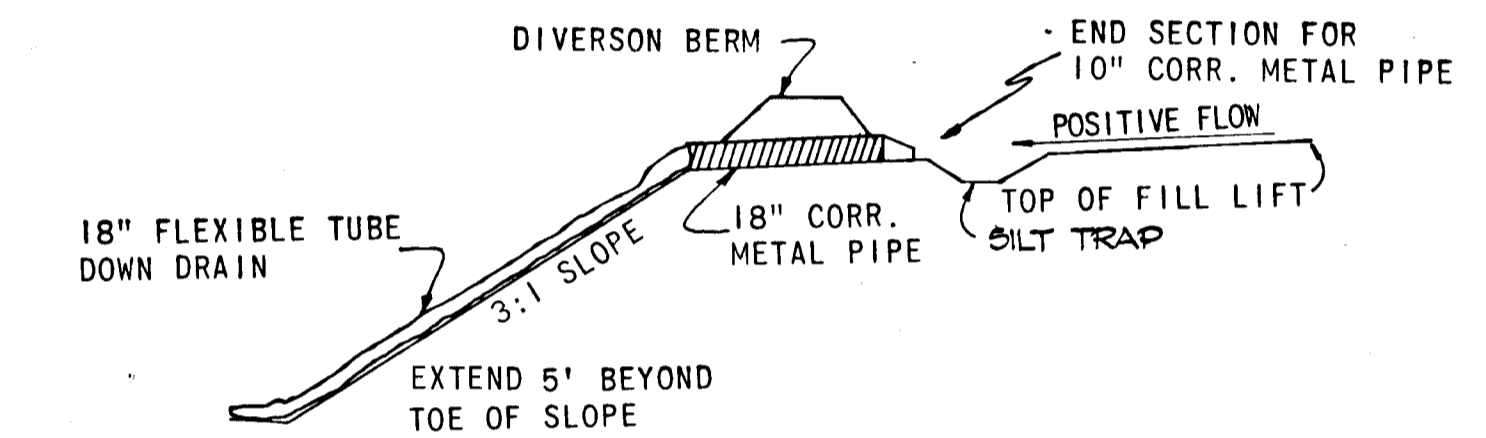


SEDIMENT CONTROL NOTES

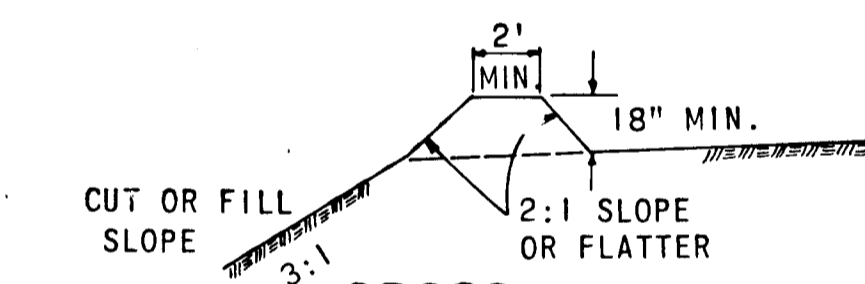
1. IMMEDIATELY FOLLOWING THE START OF GRADING OPERATIONS THE DIVERSION BERMS SHOWN ON THIS PLAN WILL BE CONSTRUCTED USING 18" FLEXIBLE TUBE DOWN DRAINS WHERE GRADE STABILIZATION STRUCTURES ARE SHOWN.
2. DIVERSION BERMS WILL BE REBUILT AS THE FILLING OPERATION PROCEEDS IN LIFTS. SILT TRAPS, SWALES AND BERMS WILL BE RETAINED AFTER FINAL LIFT.
3. DISTURBED AREAS ARE TO BE MAINTAINED IN A ROUGH GRADED CONDITION UNTIL PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
4. NO SLOPES SHALL BE STEEPER THAN 1' VERTICAL ON 3' HORIZONTAL (3:1).
5. FINAL STABILIZATION WITH VEGETATIVE COVER WILL TAKE PLACE AS EARLY IN THE SPRING AS WEATHER CONDITIONS PERMIT. IT WILL BE DONE AS FOLLOWS:
  - A. APPLY GROUND AGRICULTURAL LIMESTONE AT ONE TON PER ACRE.
  - B. APPLY 10-10-10 FERTILIZER 1000 LBS. PER ACRE.
  - C. WORK BOTH INTO SOIL AND PREPARE SEEDING AREA WITH YORK RAKE.
  - D. SEEDING
    1. SEED FLAT AREAS WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE.
    2. SEED ALL 3:1 SLOPES WITH 15 LBS. CROWN FETCH (INNOCULATED) PER ACRE 40 LBS. KENTUCKY 31 TALL FESCUE PER ACRE.
  - E. MULCHING
    1. UNWEATHERED SMALL GRAIN STRAW WILL BE APPLIED AT 1 1/2-2 TONS PER ACRE. MULCH WILL BE TIED DOWN WITH ASPHALT.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND MAINTAINED IN EFFECTIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD SOIL CONSERVATION DISTRICT. (465-3180 OR 465-5007 EXT. 291)
7. A MINIMUM 24 HOUR NOTICE MUST BE GIVEN TO THE HOWARD CONSERVATION DISTRICT (465-3180) PRIOR TO THE START OF ANY WORK.
8. SILT TRAPS WILL BE CLEANED OUT WHENEVER SILT REACHES A DEPTH OF ONE FOOT.
9. 18" FLEXIBLE TUBE DOWN DRAIN AVAILABLE AS "RELDRAIN-NO" FROM ELPHINSTONE INC. ROUTE 16, BALTIMORE, MD. OR AS APPROVED EQUAL.
10. ALL INLETS SHALL BE PROTECTED WITH EARTH BERMS UNTIL FINAL PAVING IS COMPLETE.



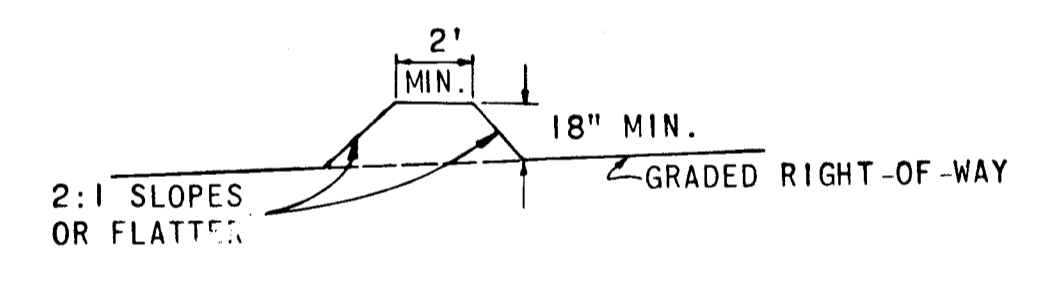
SILT TRAP SECTION



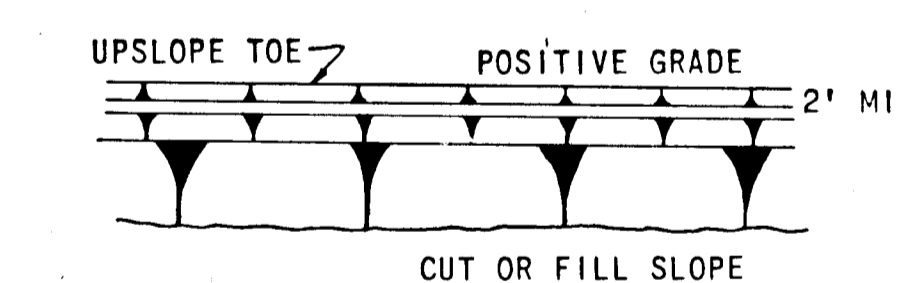
FLEXIBLE TUBE DOWN DRAIN



CROSS SECTION

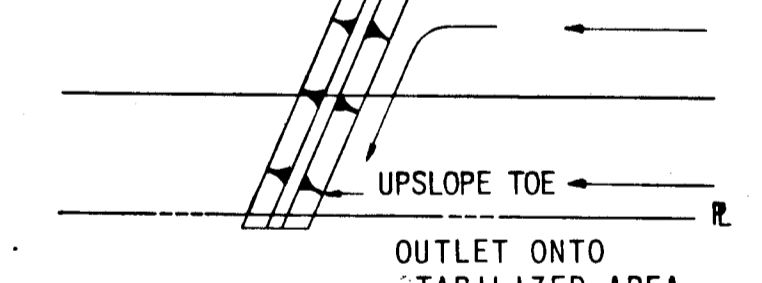


CROSS SECTION



DIVERSION BERM

PLAN VIEW



INTERCEPTOR BERM

PLAN VIEW

SEDIMENT CONTROL DETAILS

NO SCALE

By the Developer:  
 "I certify that all development and/or construction will be done according to this plan of development and plan for Sediment and Erosion Control."  
*J. L. Cooper, PROJ. MGR.* 2-20-73  
 SIGNATURE OF DEVELOPER DATE

By the Engineer:  
 "I certify that this plan for erosion and sediment control has been prepared in accordance with the Standards and Specifications for Erosion and Sediment Control in Urbanizing Areas adopted by the Howard Soil Conservation District."  
*Richard B. 1277* NOV 8 1973  
 SIGNATURE OF ENGINEER DATE

DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF HIGHWAYS DATE  
 OFFICE OF PLANNING AND ZONING DATE  
 DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE



GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

Rev. Date	Rev. No.	Revision Description
<b>COLUMBIA</b> MARYLAND 6TH ELECTION DISTRICT HOWARD COUNTY OWNER AND DEVELOPER <b>HOWARD RESEARCH AND DEVELOPMENT CORP.</b> COLUMBIA, MARYLAND		
PROJECT AREA SIELING INDUSTRIAL CENTER SECTION 1 AREA 2		
PROJECT TITLE DRAINAGE AREA MAP & SOIL EROSION PLAN		
Des. By	K.A.L.	Scale NO SCALE
Drawn by	R.L.B.	Date FEB., 1973
Chk. By	J.T.J.	App. No.

"This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District."  
 REVIEWED: *James M. Nelson* 2/23/73  
 DISTRICT COORDINATOR DATE  
 APPROVED: *Richard B. 1277* 2/23/73  
 DISTRICT COORDINATOR DATE  
 HOWARD SOIL CONSERVATION DISTRICT

#602