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1	TITLE SHEET
2	PLAN, TYPICAL SECTION AND STORM DRAIN
3	PROFILE
4	SEDIMENT AND EROSION CONTROL PLAN
5	SIGNING AND STRIPING PLAN CROSS SECTIONS

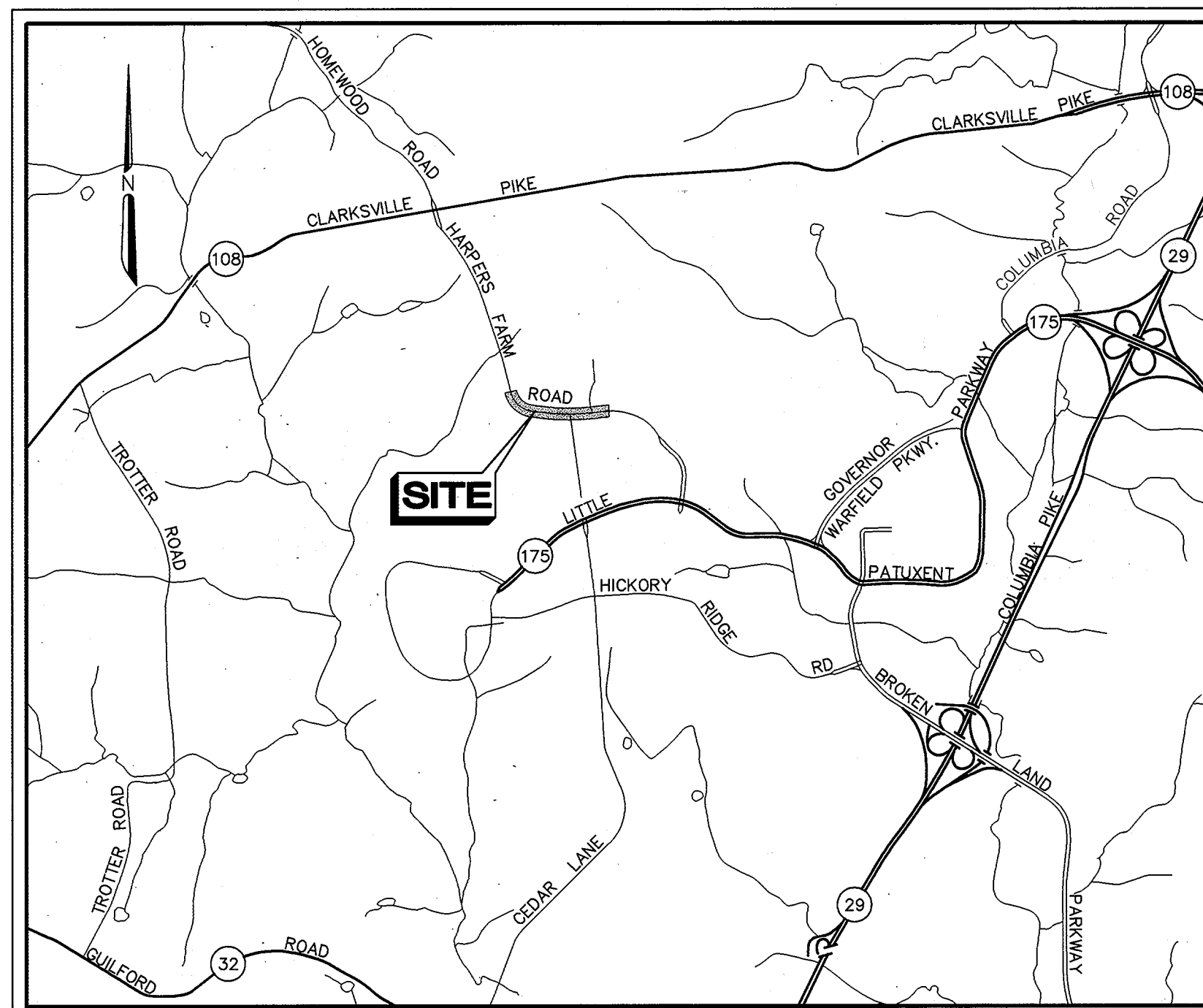
**GENERAL NOTES**

- ALL INFORMATION AND DETAILS ON THESE DRAWINGS SHALL BE AS DIRECTED BY THE HOWARD COUNTY ENGINEER.
- ALL STATIONING AND DIMENSIONING ARE TO BE FIELD VERIFIED BY CONTRACTOR.
- STORM DRAINAGE SLOPES ARE TO BE AS DIRECTED BY HOWARD COUNTY ENGINEER UNLESS OTHERWISE SHOWN ON PLANS.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.

MISS UTILITY 1-800-257-7777  
Baltimore Gas & Electric Company - Electric Distribution

THE CONTRACTOR SHALL CONTACT THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION OF ENGINEERING FOR VERIFICATION AND/OR INFORMATION REGARDING:

- PROPOSED/EXISTING RIGHT-OF-WAY.
  - UTILITY RELOCATION.
  - MAINTENANCE OF TRAFFIC DURING CONSTRUCTION.
  - EROSION/SEDIMENT CONTROL CERTIFICATION AND PERMIT
  - HORIZONTAL/VERTICAL SURVEY CONTROL.
- SEE HOWARD COUNTY STANDARD DETAILS NO'S G-1.01 & G-1.02 FOR STANDARD SYMBOLS.
  - A STAGING AND STOCKPILE AREA TO BE DETERMINED BY CONTRACTOR AND APPROVED BY HOWARD COUNTY ENGINEER.
  - TOPOGRAPHIC SURVEY INFORMATION BASED ON FIELD SURVEY PERFORMED BY R.B.A. ON 5/8/97
  - CONTRACTOR TO EXCAVATE TEST PITS AS NECESSARY TO VERIFY THE LOCATION AND ELEVATION OF ANY UTILITIES IN THE VICINITY OF DRAINAGE STRUCTURES.
  - CONTRACTOR TO VERIFY OFFSET DISTANCE AND TOP ELEVATIONS FOR DRAINAGE STRUCTURES TO CONFORM WITHOUT IRREGULARITY TO PROPOSED FINISHED PAVING SURFACE AND TOP CURB GRADES RESPECTIVELY.
  - TRAFFIC SIGNAL STRUCTURES, WIRING AND CONTROLS TO BE RELOCATED "BY OTHERS" UNDER SEPARATE CONTRACT PRIOR TO CONSTRUCTION OF IMPROVEMENTS SHOWN ON THESE PLANS.



**LOCATION MAP**  
SCALE 1" = 2000'

CAPITAL PROJECT NO. J-4164

# Harpers Farm Road

STA. 45+00 to STA. 54+40 (STAGE I)

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Cheryl Simmons /as* 9/2/97  
U.S. Natural Resources Conservation Service date

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

*John A. [Signature]* 9/2/97  
Howard County Soil Conservation District date

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

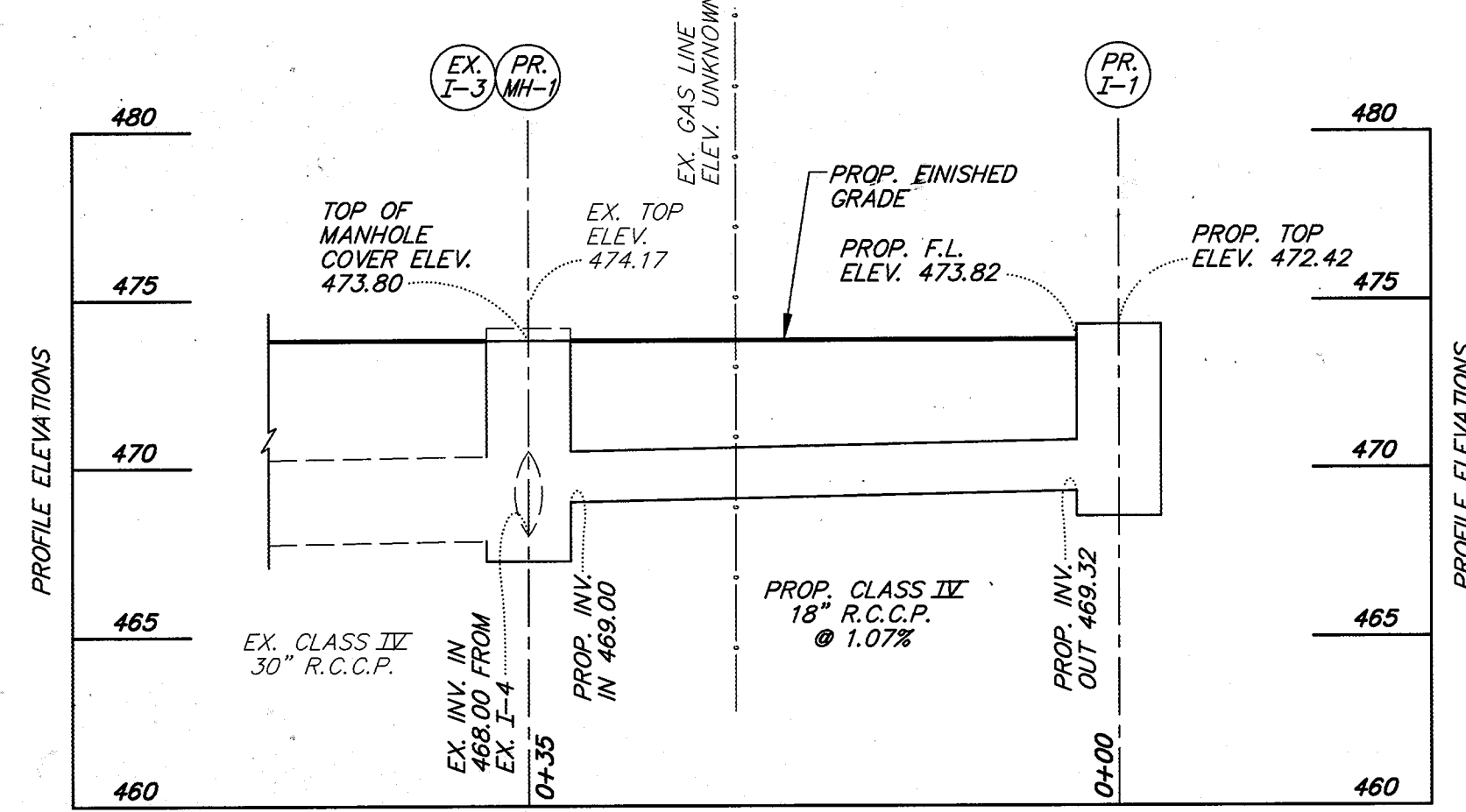
\_\_\_\_\_  
CHIEF, DIVISION OF TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT. DATE

C744DZ01

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 9/2/97 CHIEF, BUREAU OF ENGINEERING		<b>A/E GROUP, INC.</b> ENGINEERS • PLANNERS 181 E. Main Street Westminster, Maryland 21158 A/E Job No. 96-309-028		DES: S.R.H. DRN: J.N.W. CHK: J.M.C. DATE: 6/97		CAPITAL PROJECT NO. <b>J-4164</b>		TITLE SHEET <b>Harpers Farm Road</b> STA. 45+00 to STA. 52+40 (STAGE I)		SCALE AS SHOWN SHEET 1 OF 5	
DEPARTMENT OF PUBLIC WORKS DATE: 8/29/97 CHIEF, TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT DIVISION		DATE: 9-2-97 CHIEF, BUREAU OF HIGHWAYS		BY NO. REVISION DATE		600' SCALE MAP NO. DATE:					

**STORM DRAIN PROFILE NOTES:**

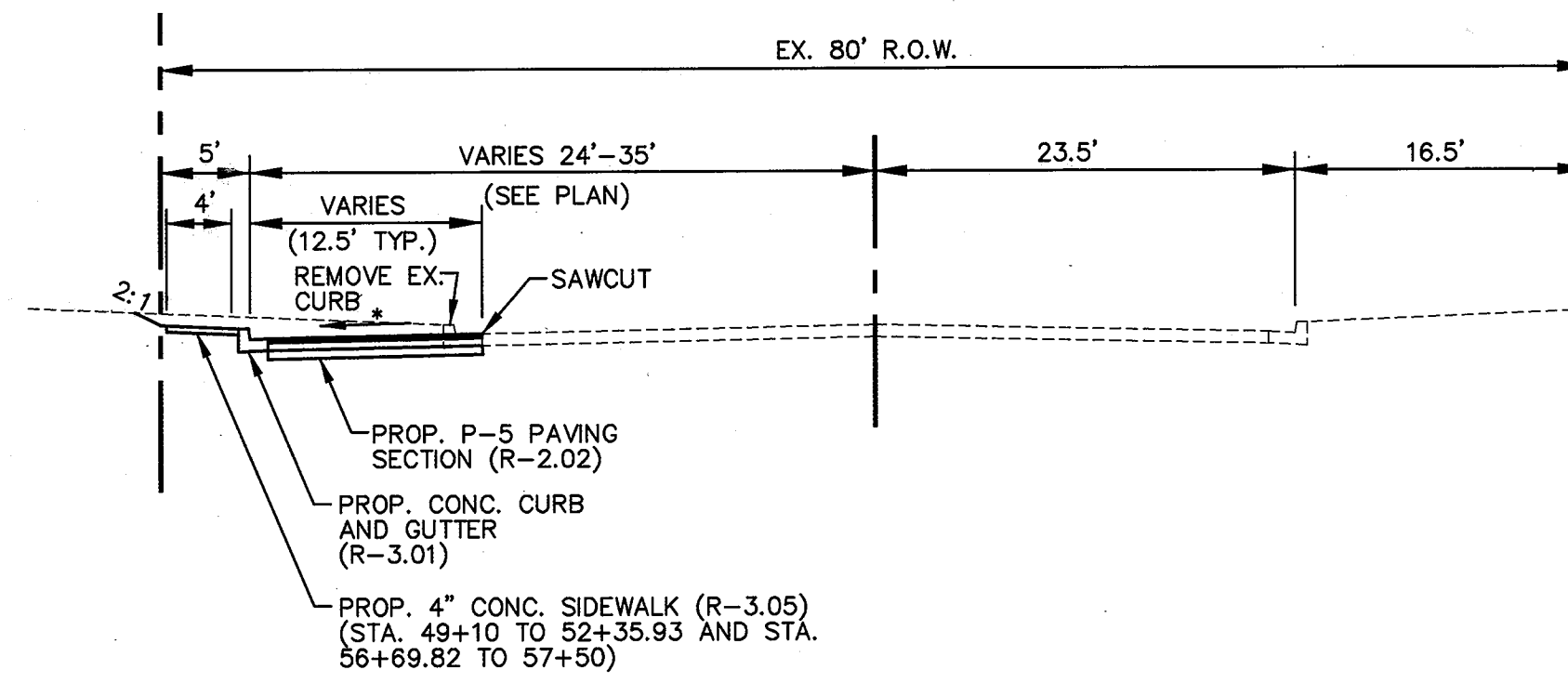
- PAVED SURFACE IS SKEWED TO ROADWAY X-SLOPE.
- EXISTING DRAINAGE STRUCTURE I.D. NUMBERS ARE BASED ON HARPER'S FARM ROAD "AS-BUILT" PLANS.



**STORM DRAIN PROFILE**

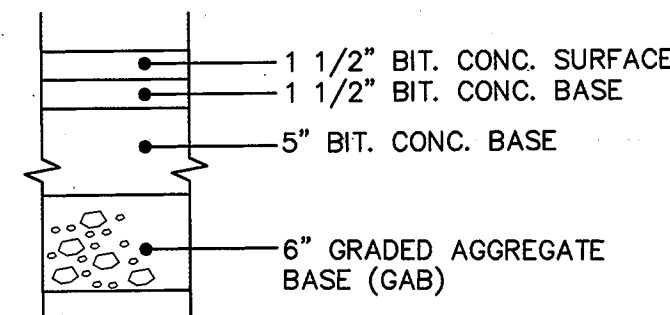
SCALE: HORZ. 1" = 10'  
VERT. 1" = 5'

N 505,800  
E 830,600



**TYPICAL SECTION**

STA. 46+69.55 TO STA. 52+35.93  
SCALE: 1" = 10'



**P-5 PAVING SECTION (R-2.02)**

NOT TO SCALE

LINE DATA		
LINE NO.	DIRECTION	DISTANCE
L1	S85° 59'29"E	956.85'
L2	S86° 49'19"E	114.34'
L3	N85° 59'28"W	49.20'
L4	N85° 59'28"W	0.44'

**REMOVE EXISTING TREE**

STA. 47+70 LT.	1 EA.
STA. 48+05 LT.	1 EA.
STA. 48+90 LT.	1 EA.
STA. 50+45 LT.	1 EA.
STA. 50+70 LT.	1 EA.
STA. 50+90 LT.	1 EA.

**RELOCATE EXISTING SIGNS AS DIRECTED BY ENGINEER**

STA. 51+52 LT.	1 EA.
STA. 51+65 LT.	1 EA.

**RELOCATE EXISTING STREET LIGHT (BY OTHERS)**

STA. 51+47 LT.	1 EA.
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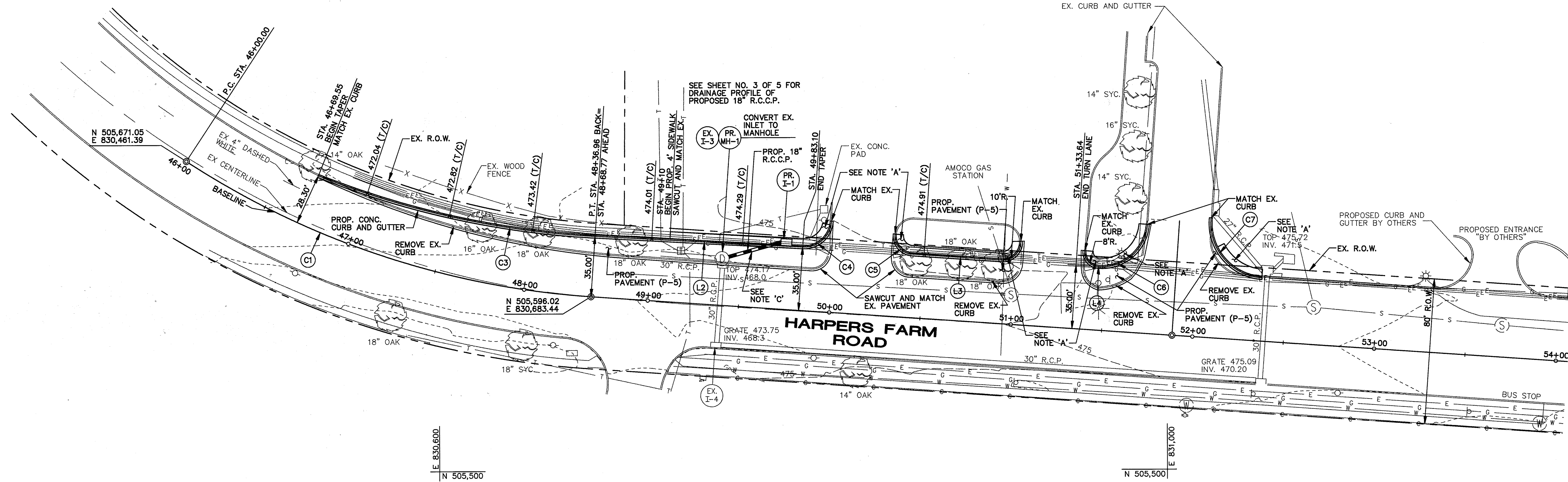
CURVE DATA						
CURVE NO.	P.C. STA./OFFSET	P.T. STA./OFFSET	Δ	R	T	L
C1	46+00.00/0'	48+36.96/0'	29°19'24.8"	463.00'	121.14'	236.96'
C3	46+69.55/28.30' LT.	48+36.96/33.26' LT.	18°43'07"	478.19'	78.81'	156.22'
C4	49+83.10/34.92' LT.	49+97.88/50.13' LT.	90°04'48"	15.00'	15.02'	23.58'
C5	50+33.30/45.00' LT.	50+43.30/35.00' LT.	91°50'36"	10.00'	10.33'	16.03'
C6	51+46.27/35.00' LT.	51+71.27/59.94' LT.	85°52'02"	25.00'	24.94'	39.21'
C7	52+05.93/64.73' LT.	52+43.30/35.00' LT.	89°40'06"	30.00'	29.83'	46.95'

**STRUCTURE SCHEDULE**

STRUCTURE NO.	TYPE	REMARKS	STATION/OFFSET
I-1	A-5 INLET SD-4.01 OR SD-4.40	A=5.1' TOP ELEV. 474.42	49+74.0 35.0' LT.
MH-1	CONVERT EX. INLET TO M.H.	TOP M.H. SURF. ELEV. 473.80 HEAVY TRAFFIC M.H. COVER REQUIRED G-5.51	49+40.0 25.0' LT.

**PIPE SCHEDULE**

FROM	TO	TYPE	SIZE	LENGTH	SLOPE	INV. FROM	INV. TO
I-1	MH-1	R.C.C.P.	18"	30 LF.	1.07%	469.32	469.00



**PLAN**

SCALE: 1" = 30'

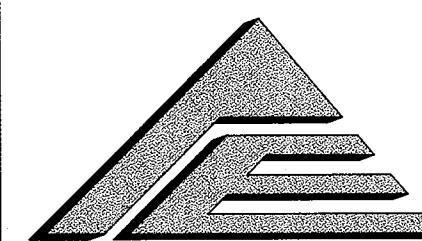
**NOTES**

- TYPE 'C' SIDEWALK RAMP (R-4.03) TO BE INCLUDED AT ALL SIDE ENTRANCES.
- BASELINE STATIONING AND ALIGNMENT WAS ESTABLISHED FROM AS-BUILT PLANS FOR HARPER'S FARM ROAD DATED: FEBRUARY, 1967.
- CONTRACTOR TO TEST PIT AT EX. GAS LINE CROSSING WITH PROP. 18" R.C.C.P. TO VERIFY VERTICAL CLEARANCE. 1' VERTICAL CLEARANCE TO BE MAINTAINED OR AS DIRECTED BY ENGINEER.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
DATE: 8/29/97  
WILSON J. WILSON  
CHIEF, TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT DIVISION

9/2/97  
CHIEF, BUREAU OF ENGINEERING  
2/2/97  
CHIEF, BUREAU OF HIGHWAYS



**A/E GROUP, INC.**  
ENGINEERS • PLANNERS  
181 E. Main Street  
Westminster, Maryland 21158  
A/E Job No. 96-309-028



DES: S.R.H.

DRN: J.N.W.

CHK: J.M.C.

DATE: 6/97

BY NO. REVISION DATE

CAPITAL PROJECT NO.

**J-4164**

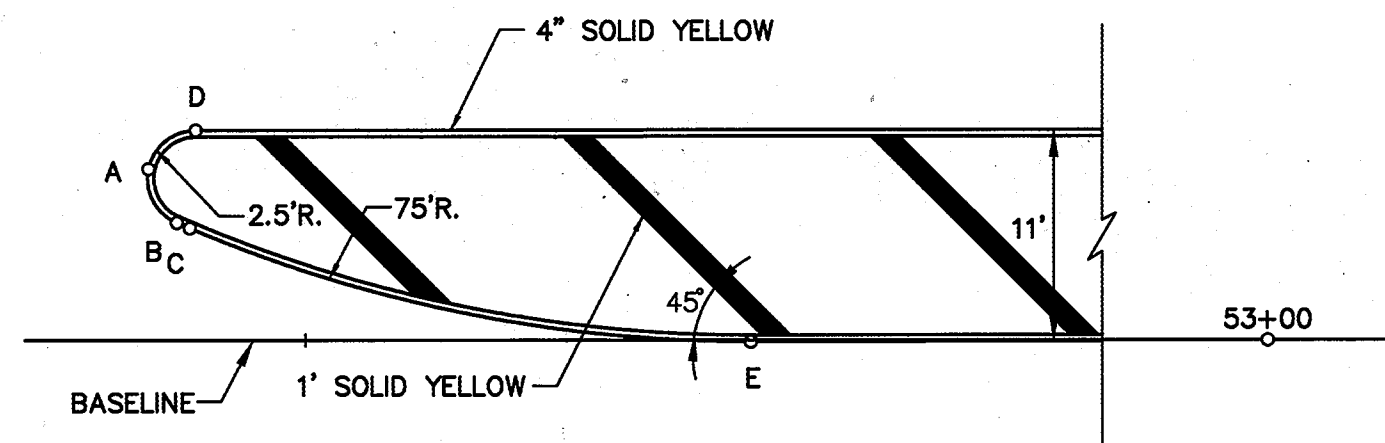
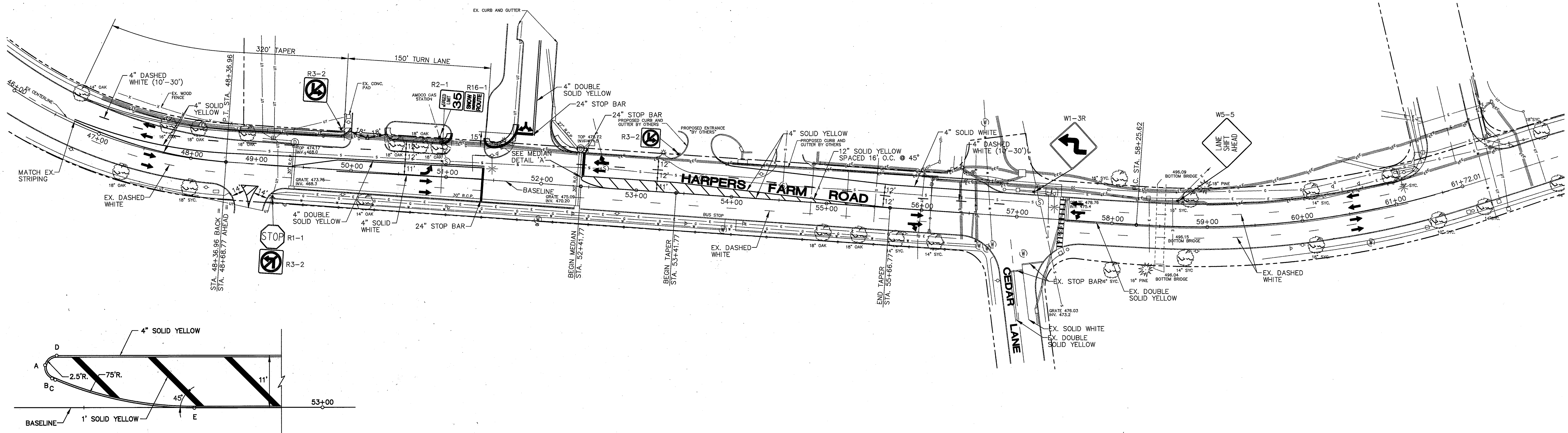
600' SCALE MAP NO. DATE:

PLAN AND TYPICAL SECTIONS  
**Harpers Farm Road**  
STA. 45+00 to STA. 52+40 (STAGE I)

SCALE AS SHOWN

SHEET 2 OF 5





REF.	STATION	OFFSET
A	52+41.77	8.42'
B	52+43.30	6.11'
C	52+43.98	5.83'
D	52+44.27	10.92'
E	52+73.16	0'

**MEDIAN DETAIL 'A'**  
SCALE: 1"=10'

**PLAN**  
SCALE: 1" = 50'

**NOTES:**

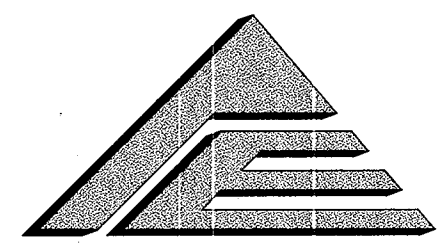
- EXISTING DASHED WHITE PAVEMENT MARKING (LANE DIVIDE) ALONG WESTBOUND LANES BETWEEN STATION 46+70 AND 56+50 SHALL BE REMOVED.
- ALL SIGNS SHOWN ARE EXISTING AND ARE TO BE RELOCATED AS SHOWN ON PLAN. EXCEPT NO LEFT TURN SIGN AT STA. 53+45.
- EXISTING PAVEMENT MARKINGS NOT SHOWN ON THESE PLANS TO BE REMOVED, THAT CONFLICT WITH PROPOSED, SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

**LEGEND**

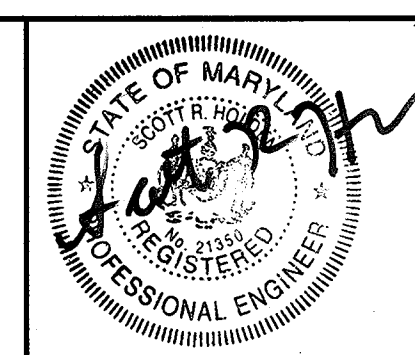
→ - DIRECTION OF TRAFFIC

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS DATE: 8/29/97  
 Chief, Bureau of Engineering  
 Chief, Transportation Projects and Watershed Management Division DATE: 8/29/97  
 Chief, Bureau of Highways DATE: 9/2/97



**A/E GROUP, INC.**  
ENGINEERS • PLANNERS  
181 E. Main Street  
Westminster, Maryland 21158  
A/E Job No. 96-309-028



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DRN: J.N.W.			
CHK: J.M.C.			
DATE: 6/97	BY	NO.	REVISION

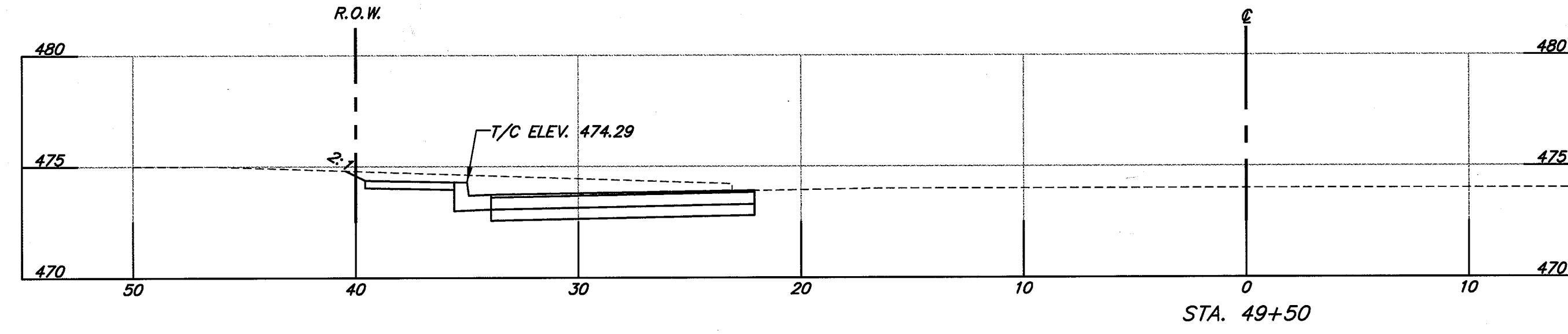
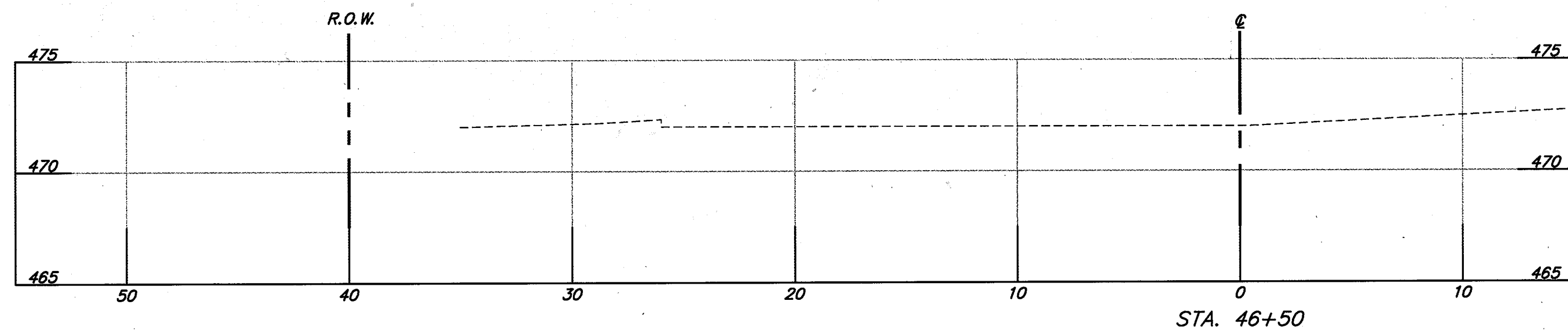
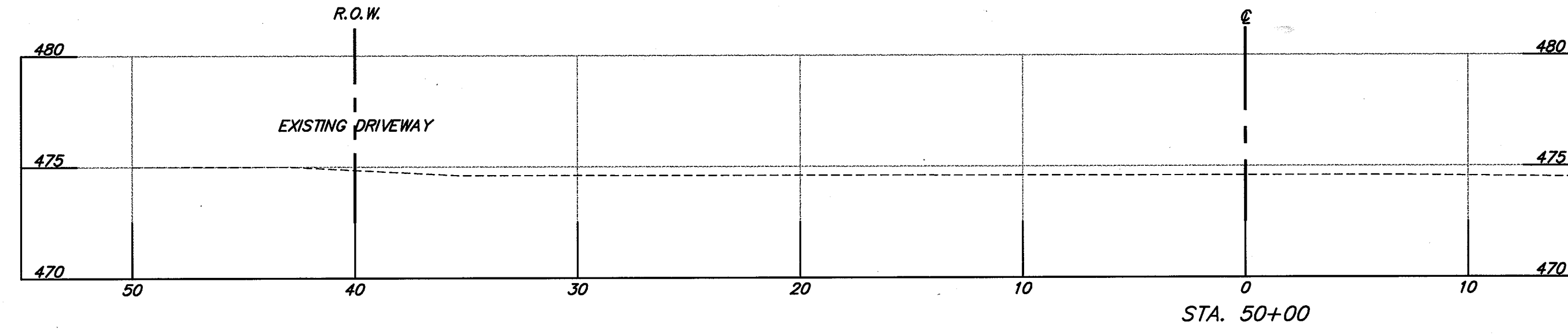
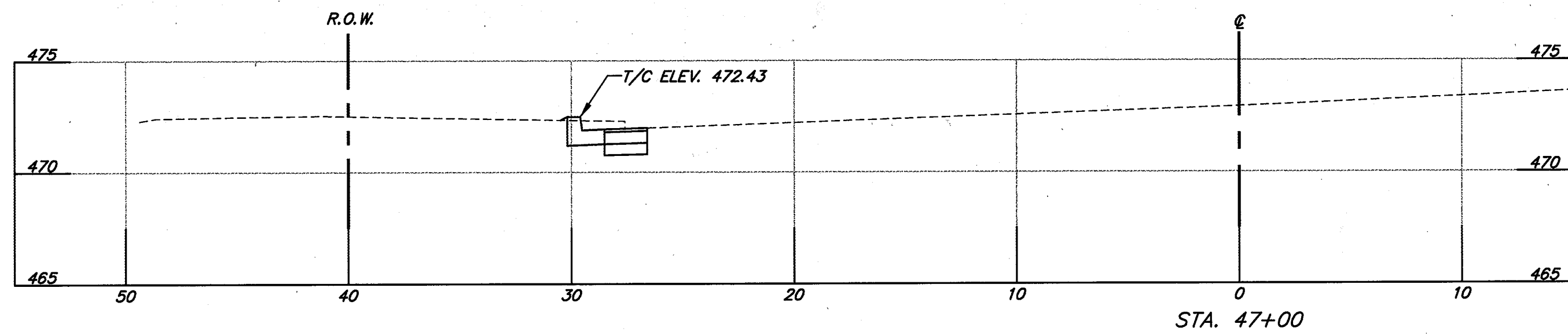
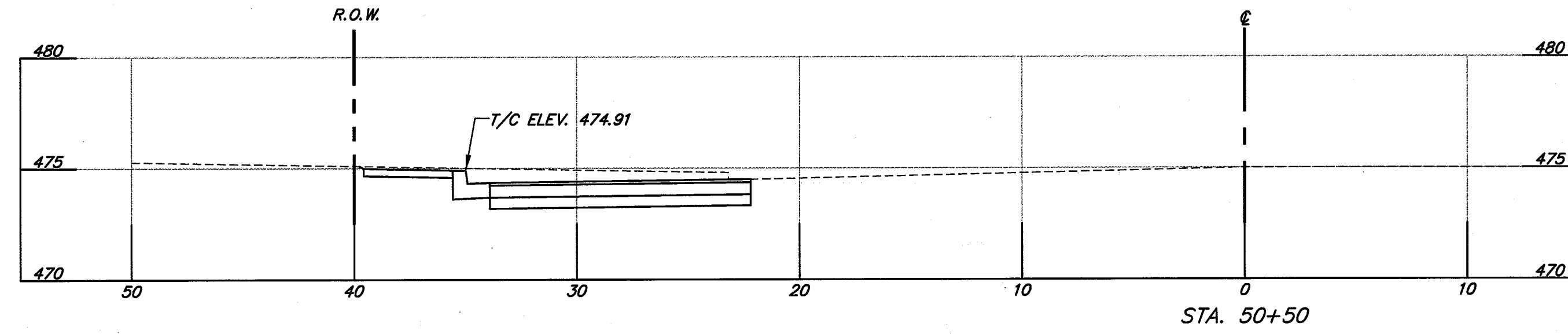
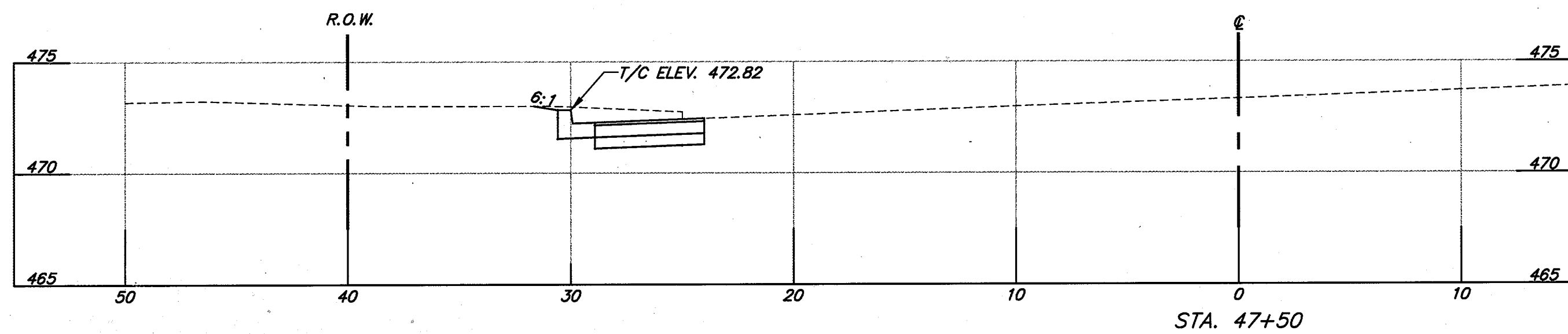
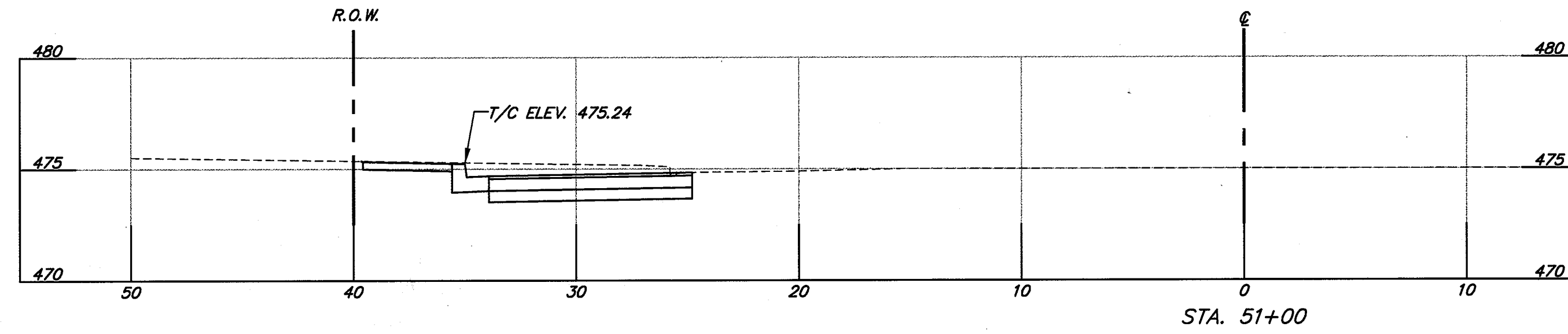
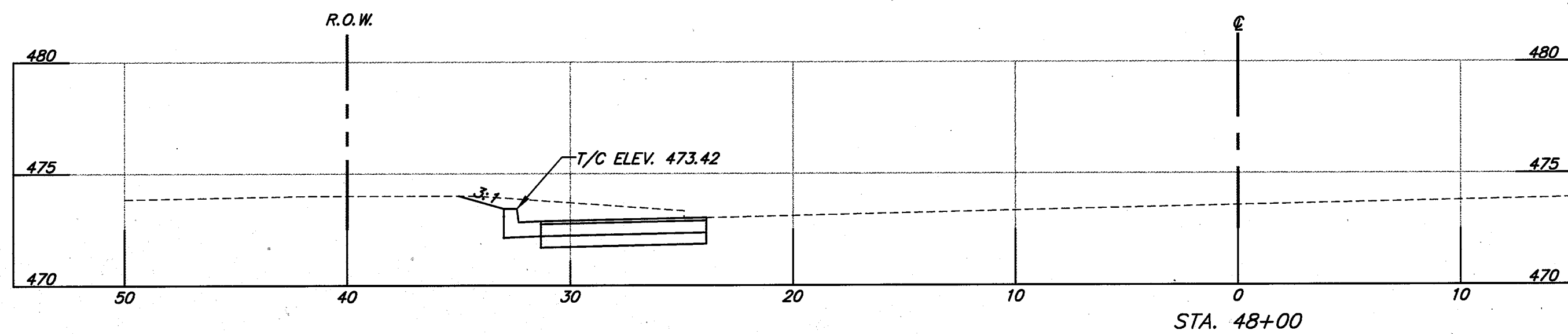
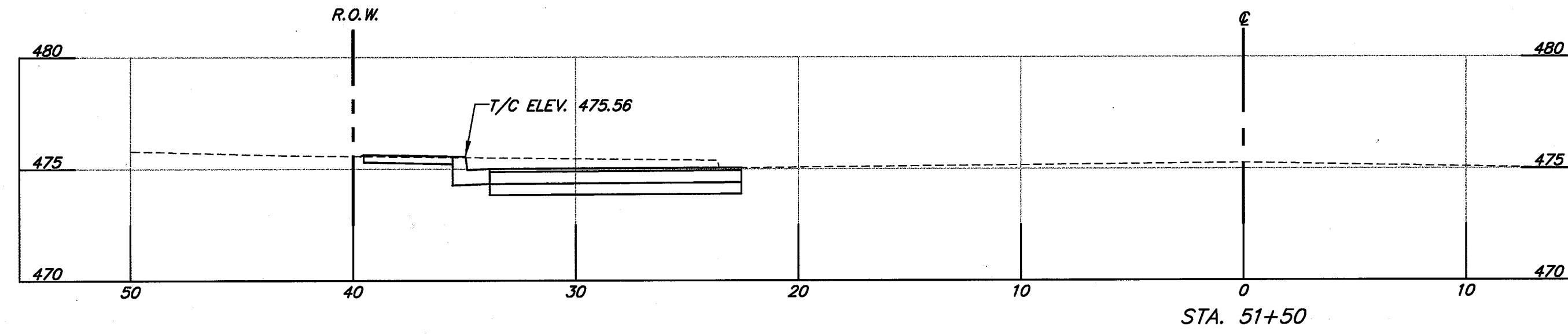
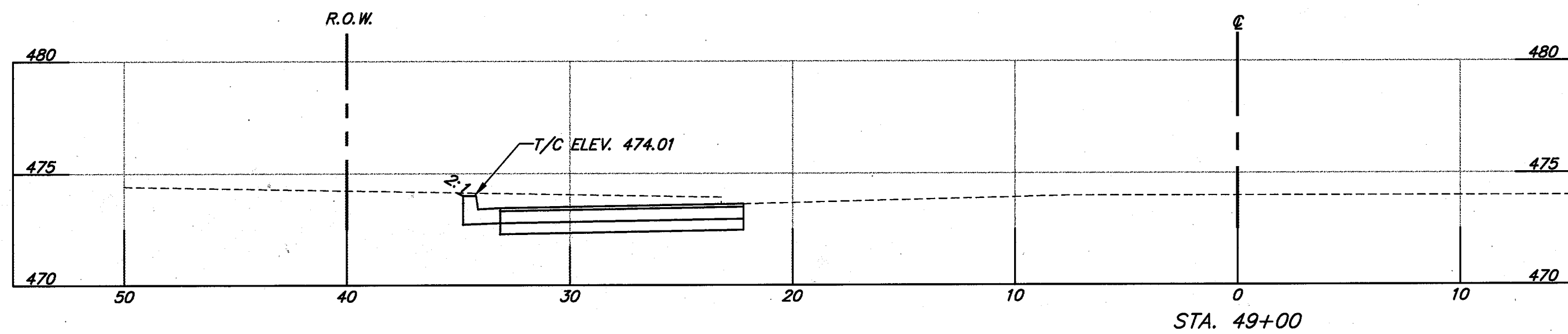
CAPITAL PROJECT NO.

**J-4164**

600' SCALE MAP NO. DATE:

SIGNING AND STRIPING PLAN  
**Harpers Farm Road**  
STA. 45+00 to STA. 52+40 (STAGE I)

SCALE AS SHOWN  
SHEET 4 OF 5



**CROSS SECTIONS**  
SCALE: HORIZ. 1"=5'  
VERT. 1"=5'

CADD501-02

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS DATE  
Walter R. Malen 8/29/97  
CHIEF, TRANSPORTATION PROJECTS AND WATERSHED MANAGEMENT DIVISION

DATE  
9/2/97  
CHIEF, BUREAU OF ENGINEERING

DATE  
7-2-97  
CHIEF, BUREAU OF HIGHWAYS

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ENGINEERS • PLANNERS  
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BY	NO.	REVISION	DATE

CAPITAL PROJECT NO.  
**J-4164**

600' SCALE MAP NO. \_\_\_\_\_ DATE: \_\_\_\_\_

CROSS SECTIONS  
**Harpers Farm Road**  
STA. 45+00 to STA. 52+40 (STAGE I)

SCALE AS SHOWN  
SHEET 5 OF 5