

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

ATHENS COUNTY BIKEWAY PHASE II

CITY OF ATHENS

DOVER TOWNSHIP

ATHENS COUNTY

FHWA REGION	STATE	PROJECT	
5	OHIO		

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II
SURFACE TRANSPORTATION PROGRAM
PID No. 5296

GRADE CROSSING WITH CONRAIL
1995 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED: Bruce Swain
ATHENS COUNTY COMMISSIONER
DATE: 3/18/94

APPROVED: James Hoff
ATHENS COUNTY COMMISSIONER
DATE: 3/18/94

APPROVED: J. P. O'Leary
DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION
DATE: 3/20/94

APPROVED: A. D. ...
ENGINEER, BUREAU OF BRIDGES AND STRUCTURAL DESIGN
DATE: 3/20/94

APPROVED: James ...
DIRECTOR, DEPARTMENT OF TRANSPORTATION
DATE: 7-28-95

DESIGN DESIGNATION

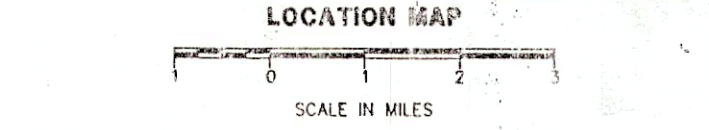
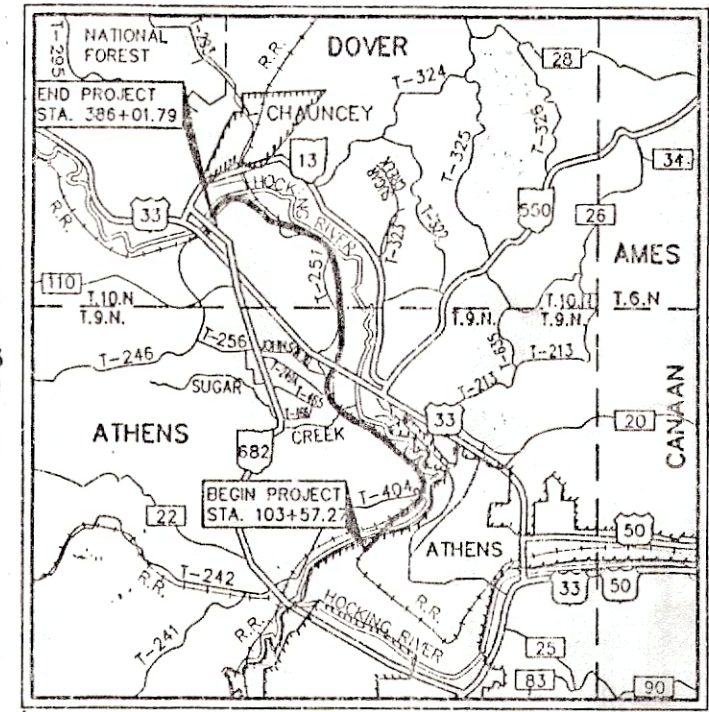
DESIGN SPEED 20 MPH (GRADE < 4.0%)

CONVENTIONAL SIGNS

COUNTY LINE	-----	POLES: TELEPHONE	⊕	POWER	⊕	LIGHT	⊕
TOWNSHIP LINE	-----	RIGHT-OF-WAY	R/W				
SECTION LINE	-----	EXIST. RIGHT-OF-WAY	R/W				
CORPORATION LINE	-----	PROPERTY LINE	---				
FENCE LINE	EXIST. x-x-x-x PROP. x-x-x-x	RAILROAD	+++++	OR	+++++		
TREES	⊙ STUMPS (TO BE REMOVED) ⊗	GUARDRAIL: EXIST.	□□□□	PROP.	□□□□		
CENTERLINE	10+00 11+00	WATER LINE	W	W			
SANITARY SEWER	SAN. ---	GAS LINE	G	G			
MANHOLES	⊙ EXISTING ⊙ ADJUSTED ⊙ PROPOSED	STORM SEWER	S	S			
	CATCH BASIN OR INLET	TELEPHONE	T	T			
		FIRE HYDRANT: EXIST.	♀	PROP.	♀		
		EXIST TREE LINE	~~~~~				

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PORTION TO BE IMPROVED - - - - -
STATE AND FEDERAL ROUTES - - - - -
COUNTY ROUTES - - - - -

SCALE:
PLAN - - - - -
PROFILE -- HORIZONTAL 0 50 VERTICAL 0 5
CROSS SECTION: HORIZONTAL 0 5 VERTICAL 0 5

LINE DATA	
BEGIN PROJECT	STA. 103+57.27
SUSPEND PROJECT	STA. 130+84.43
RESUME PROJECT	STA. 130+93.48 BACK
	STA. 139+16.24 AHEAD
END PROJECT	STA. 386+01.79
TOTAL LENGTH OF PROJECT	28,212.73 LIN. FT.
	OR 5.343 MILES
BEGIN WORK	STA. 101+07.29
END WORK	STA. 386+45.57
LENGTH	28,530.28 LIN. FT.
DEDUCT FOR STATION EQUATION	31.79 LIN. FT.
TOTAL LENGTH OF WORK	28,506.49 LIN. FT.
	OR 5.399 MILES

STANDARD CONSTRUCTION DRAWINGS			
TC 41.20	6/21/94	CB-2-2 A&B	5/1/79
TC 42.20	3/26/79	MT-97.10	4/29/88
TC 52.10	4/3/79	MT-99.10	11/14/86
TC 52.20	4/3/79	MT-105.10	7/01/92
MC-1	6/13/69	MT-105.11	7/01/92
MC-4	7/26/76	BP-1.1	2/21/92
MC-7	10/15/76	BP-3.1	2/21/92
MC-11	8/1/78	EXJ-4-87	1/30/94
HW-4B	4/1/80	3D-1-69	6/13/67

SUPPLEMENTAL SPECIFICATIONS	
820	6-14-95
944	3-23-95
931	7-17-95
910	7-17-95

PLANS PREPARED BY:
FINKBEMER, PETTIS & STROUT, LTD.
Consulting Engineers
Akron, Toledo & Greensboro

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL
OHIO UTILITIES PROTECTION SERVICE
1-800-362-2754 (TOLL FREE)
NON-MEMBERS
MUST BE CALLED DIRECTLY

Rev. 9-12-95
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED: _____
DIVISION ADMINISTRATOR DATE

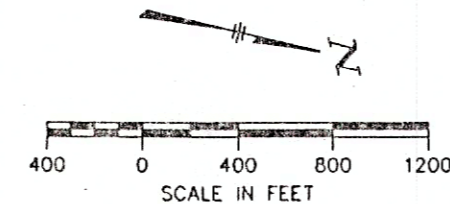
CONTRACT No. _____

SCHEMATIC PLAN

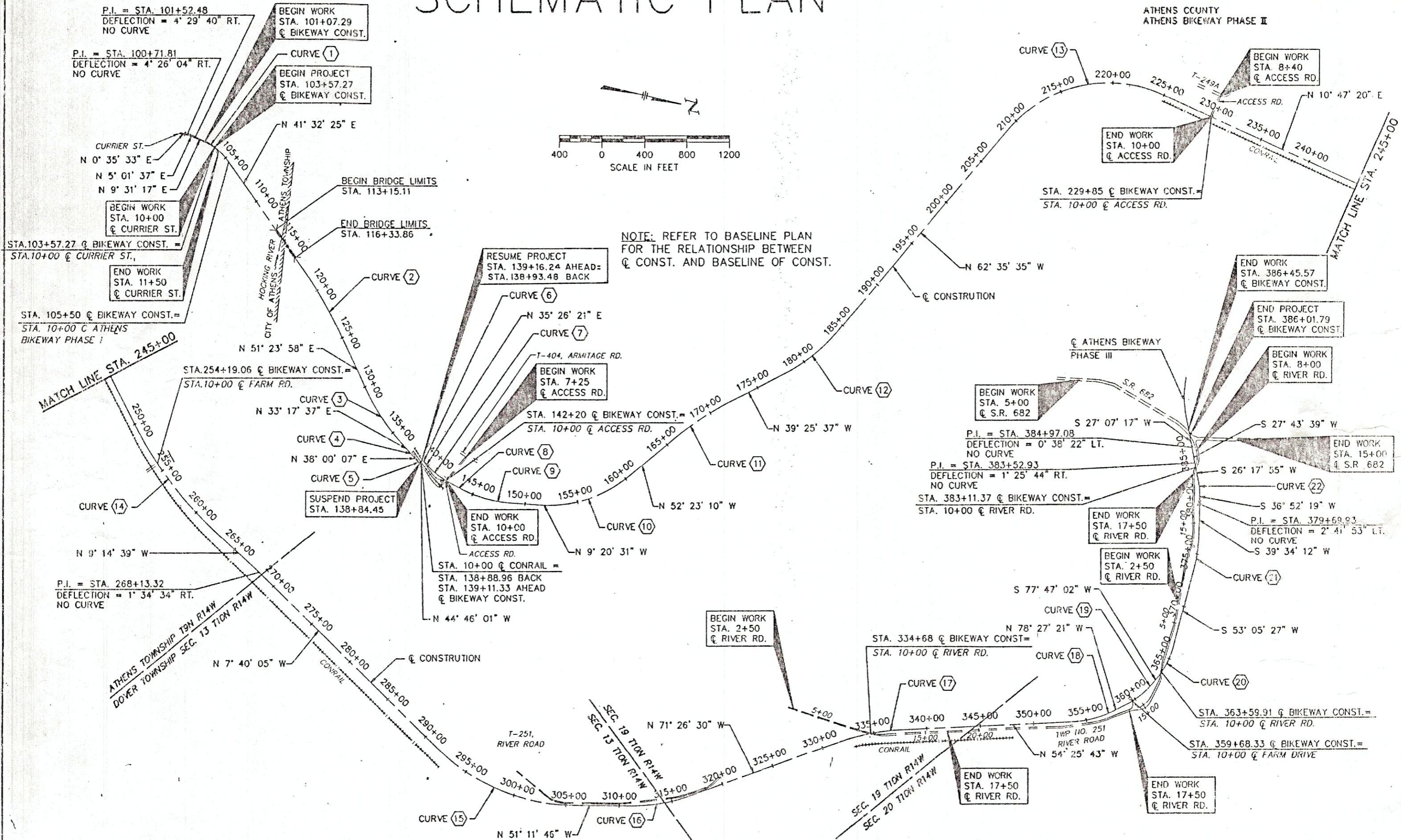
FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



NOTE: REFER TO BASELINE PLAN FOR THE RELATIONSHIP BETWEEN Q CONST. AND BASELINE OF CONST.



P.I. = STA. 101+52.48
DEFLECTION = 4° 29' 40" RT.
NO CURVE

P.I. = STA. 100+71.81
DEFLECTION = 4° 26' 04" RT.
NO CURVE

CURRIER ST.
N 0° 35' 33" E
N 5° 01' 37" E
N 9° 31' 17" E

BEGIN WORK
STA. 10+00
Q CURRIER ST.

STA. 103+57.27 Q BIKEWAY CONST. =
STA. 10+00 Q CURRIER ST.

END WORK
STA. 11+50
Q CURRIER ST.

STA. 105+50 Q BIKEWAY CONST. =
STA. 10+00 Q ATHENS
BIKEWAY PHASE I

MATCH LINE STA. 245+00

STA. 254+19.06 Q BIKEWAY CONST. =
STA. 10+00 Q FARM RD.

CURVE (3)
N 33° 17' 37" E

CURVE (4)
N 38° 00' 07" E

CURVE (5)
N 38° 00' 07" E

P.I. = STA. 268+13.32
DEFLECTION = 1° 34' 34" RT.
NO CURVE

ATHENS TOWNSHIP T19N R14W
DOVER TOWNSHIP SEC. 13 T10N R14W

N 7° 40' 05" W

RESUME PROJECT
STA. 139+16.24 AHEAD =
STA. 138+93.48 BACK

CURVE (6)
N 35° 26' 21" E

CURVE (7)
T-404, ARMITAGE RD.

BEGIN WORK
STA. 7+25
Q ACCESS RD.

STA. 142+20 Q BIKEWAY CONST. =
STA. 10+00 Q ACCESS RD.

CURVE (8)

CURVE (9)

END WORK
STA. 10+00
Q ACCESS RD.

ACCESS RD.
STA. 10+00 Q CONRAIL =
STA. 138+88.96 BACK
STA. 139+11.33 AHEAD
Q BIKEWAY CONST.

N 44° 46' 01" W

BEGIN WORK
STA. 2+50
Q RIVER RD.

STA. 334+68 Q BIKEWAY CONST. =
STA. 10+00 Q RIVER RD.

CURVE (17)

END WORK
STA. 17+50
Q RIVER RD.

END WORK
STA. 17+50
Q RIVER RD.

P.I. = STA. 384+97.08
DEFLECTION = 0° 38' 22" LT.
NO CURVE

P.I. = STA. 383+52.93
DEFLECTION = 1° 25' 44" RT.
NO CURVE

STA. 383+11.37 Q BIKEWAY CONST. =
STA. 10+00 Q RIVER RD.

END WORK
STA. 17+50
Q RIVER RD.

BEGIN WORK
STA. 2+50
Q RIVER RD.

S 77° 47' 02" W

CURVE (19)
N 78° 27' 21" W

CURVE (18)

S 53° 05' 27" W

CURVE (20)

STA. 363+59.91 Q BIKEWAY CONST. =
STA. 10+00 Q RIVER RD.

STA. 359+68.33 Q BIKEWAY CONST. =
STA. 10+00 Q FARM DRIVE

BEGIN WORK
STA. 5+00
Q S.R. 682

S 27° 07' 17" W

S 27° 43' 39" W

END WORK
STA. 15+00
Q S.R. 682

S 26° 17' 55" W

S 36° 52' 19" W

P.I. = STA. 379+69.93
DEFLECTION = 2° 41' 53" LT.
NO CURVE

S 39° 34' 12" W

CURVE (21)

CURVE (22)

BEGIN WORK
STA. 8+00
Q RIVER RD.

END PROJECT
STA. 386+01.79
Q BIKEWAY CONST.

END WORK
STA. 386+45.57
Q BIKEWAY CONST.

CURVE (13)

END WORK
STA. 10+00
Q ACCESS RD.

STA. 229+85 Q BIKEWAY CONST. =
STA. 10+00 Q ACCESS RD.

BEGIN WORK
STA. 8+40
Q ACCESS RD.

N 10° 47' 20" E

MATCH LINE STA. 245+00

CONRAIL

240+00

235+00

230+00

225+00

220+00

215+00

210+00

205+00

200+00

195+00

190+00

185+00

180+00

175+00

170+00

165+00

160+00

155+00

150+00

145+00

140+00

135+00

130+00

125+00

120+00

115+00

110+00

105+00

100+00

95+00

90+00

85+00

80+00

75+00

70+00

65+00

60+00

55+00

50+00

45+00

40+00

35+00

30+00

25+00

20+00

15+00

10+00

5+00

0+00

SCHEMATIC PLAN

CURVE DATA

FHWA REGION	STATE	PROJECT	
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

① CURVE DATA
P.I. = STA. 103+93.27
P.C. = STA. 102+49.81
P.T. = STA. 105+29.23
Δ = 32° 01' 08" RT.
D_c = 11' 28' 42"
R = 500.00'
T = 143.46'
L = 279.42'
CH = 275.79'
E = 20.17'

⑤ CURVE DATA
P.I. = STA. 138+70.60
P.C. = STA. 138+52.98
P.T. = STA. 138+81.87
Δ = 82° 46' 08" LT.
D_c = 286' 28' 44"
R = 20.00'
T = 17.62'
L = 28.89'
CH = 26.44'
E = 6.66'

⑨ CURVE DATA
P.I. = STA. 146+68.40
P.C.C. = STA. 144+68.17
P.T. = STA. 148+64.82
Δ = 19° 20' 29" LT.
D_c = 4' 52' 40"
R = 1175.00'
T = 200.23'
L = 396.64'
CH = 394.76'
E = 16.94'

⑬ CURVE DATA
P.I. = STA. 218+08.03
P.C. = STA. 208+76.61
P.T. = STA. 224+77.56
Δ = 73° 22' 55" RT.
D_c = 4' 35' 06"
R = 1250.00'
T = 931.42'
L = 1600.95'
CH = 1493.75'
E = 308.86'

⑰ CURVE DATA
P.I. = STA. 334+71.71
P.C. = STA. 331+87.53
P.T. = STA. 337+51.70
Δ = 17° 00' 47" RT.
D_c = 3' 00' 57"
R = 1900.00'
T = 284.18'
L = 564.18'
CH = 562.11'
E = 21.13'

⑳ CURVE DATA
P.I. = STA. 375+37.57
P.C. = STA. 373+59.76
P.T. = STA. 377+13.73
Δ = 13° 31' 15" LT.
D_c = 3' 49' 14"
R = 1500.00'
T = 177.81'
L = 353.98'
CH = 353.16'
E = 10.50'

② CURVE DATA
P.I. = STA. 121+21.34
P.C. = STA. 117+93.58
P.T. = STA. 124+47.48
Δ = 9° 51' 33" RT.
D_c = 1' 30' 28"
R = 3800.00'
T = 327.76'
L = 653.89'
CH = 653.09'
E = 14.11'

⑥ CURVE DATA
P.I. = STA. 139+38.86
P.C. = STA. 139+22.02
P.T. = STA. 139+50.01
Δ = 80° 12' 21" RT.
D_c = 286' 28' 44"
R = 20.00'
T = 16.84'
L = 28.00'
CH = 25.77'
E = 6.15'

⑩ CURVE DATA
P.I. = STA. 156+14.01
P.C. = STA. 151+44.73
P.T. = STA. 160+38.73
Δ = 43° 02' 39" LT.
D_c = 4' 48' 58"
R = 1190.00'
T = 469.28'
L = 894.00'
CH = 873.13'
E = 89.19'

⑭ CURVE DATA
P.I. = STA. 256+10.23
P.C. = STA. 249+92.04
P.T. = STA. 262+15.80
Δ = 20° 02' 00" LT.
D_c = 1' 38' 13"
R = 3500.00'
T = 618.19'
L = 1223.76'
CH = 1217.54'
E = 54.18'

⑱ CURVE DATA
P.I. = STA. 355+75.43
P.C. = STA. 353+62.63
P.T. = STA. 357+81.98
Δ = 24° 01' 37" LT.
D_c = 5' 43' 55"
R = 1000.00'
T = 212.80'
L = 419.35'
CH = 416.29'
E = 22.39'

㉑ CURVE DATA
P.I. = STA. 381+31.50
P.C. = STA. 380+85.23
P.T. = STA. 381+77.50
Δ = 10° 34' 24" LT.
D_c = 11' 28' 42"
R = 500.00'
T = 46.27'
L = 92.27'
CH = 92.14'
E = 2.14'

③ CURVE DATA
P.I. = STA. 133+31.69
P.C. = STA. 130+27.37
P.T. = STA. 136+30.94
Δ = 18° 06' 22" LT.
D_c = 3' 00' 00"
R = 1910.00'
T = 304.33'
L = 603.58'
CH = 601.07'
E = 24.09'

⑦ CURVE DATA
P.I. = STA. 140+92.67
P.C. = STA. 140+21.73
P.C.C. = STA. 141+62.43
Δ = 16° 16' 05" LT.
D_c = 11' 33' 52"
R = 496.29'
T = 70.93'
L = 140.67'
CH = 140.44'
E = 5.04'

⑪ CURVE DATA
P.I. = STA. 169+09.16
P.C. = STA. 165+57.08
P.T. = STA. 172+58.23
Δ = 12° 57' 33" RT.
D_c = 1' 50' 54"
R = 3100.00'
T = 352.08'
L = 701.15'
CH = 699.66'
E = 19.93'

⑮ CURVE DATA
P.I. = STA. 299+01.30
P.C. = STA. 291+62.70
P.T. = STA. 305+68.17
Δ = 43° 31' 42" LT.
D_c = 3' 05' 51"
R = 1850.00'
T = 738.60'
L = 1405.47'
CH = 1371.91'
E = 141.99'

⑲ CURVE DATA
P.I. = STA. 360+71.22
P.C. = STA. 359+02.93
P.T. = STA. 362+34.68
Δ = 23° 45' 37" LT.
D_c = 7' 10' 00"
R = 800.00'
T = 168.30'
L = 331.76'
CH = 329.38'
E = 17.51'

④ CURVE DATA
P.I. = STA. 137+67.81
P.C. = STA. 137+10.25
P.T. = STA. 138+25.30
Δ = 4° 42' 31" RT.
D_c = 4' 05' 36"
R = 1400.00'
T = 57.56'
L = 115.05'
CH = 115.02'
E = 1.18'

⑧ CURVE DATA
P.I. = STA. 143+15.63
P.C.C. = STA. 141+62.43
P.C.C. = STA. 144+68.17
Δ = 9° 10' 17" LT.
D_c = 3' 00' 00"
R = 1910.00'
T = 153.20'
L = 305.74'
CH = 305.41'
E = 6.13'

⑫ CURVE DATA
P.I. = STA. 180+87.40
P.C. = STA. 177+79.95
P.T. = STA. 183+86.44
Δ = 23° 09' 57" LT.
D_c = 3' 49' 14"
R = 1500.00'
T = 307.44'
L = 606.48'
CH = 602.36'
E = 31.18'

⑯ CURVE DATA
P.I. = STA. 314+05.37
P.C. = STA. 311+01.86
P.T. = STA. 317+02.56
Δ = 20° 14' 44" LT.
D_c = 3' 22' 15"
R = 1700.00'
T = 303.51'
L = 600.70'
CH = 597.58'
E = 26.88'

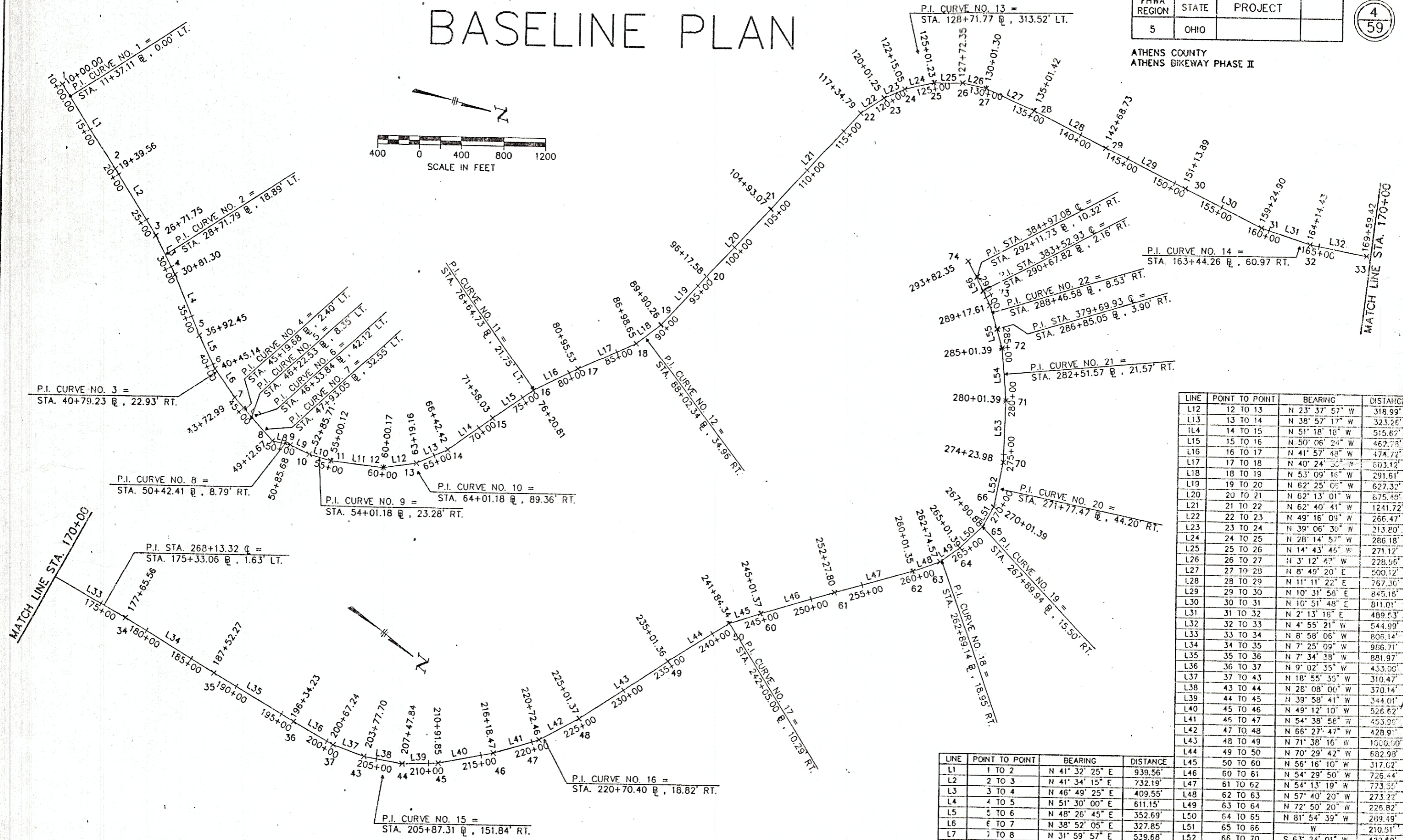
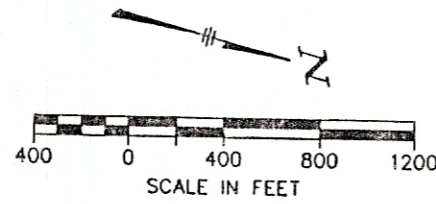
㉒ CURVE DATA
P.I. = STA. 364+64.15
P.C. = STA. 362+89.04
P.T. = STA. 366+33.83
Δ = 24° 41' 36" LT.
D_c = 7' 10' 00"
R = 800.00'
T = 175.11'
L = 344.78'
CH = 342.12'
E = 18.94'

BASELINE PLAN

FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



LINE	POINT TO POINT	BEARING	DISTANCE
L12	12 TO 13	N 23° 37' 57" W	318.99'
L13	13 TO 14	N 38° 57' 17" W	323.26'
L14	14 TO 15	N 51° 18' 18" W	515.62'
L15	15 TO 16	N 50° 06' 24" W	462.78'
L16	16 TO 17	N 41° 57' 48" W	474.72'
L17	17 TO 18	N 40° 24' 50" W	603.12'
L18	18 TO 19	N 53° 09' 18" W	291.61'
L19	19 TO 20	N 62° 25' 05" W	627.32'
L20	20 TO 21	N 62° 13' 01" W	675.49'
L21	21 TO 22	N 62° 40' 41" W	1241.72'
L22	22 TO 23	N 49° 16' 09" W	266.47'
L23	23 TO 24	N 39° 06' 30" W	213.80'
L24	24 TO 25	N 28° 14' 57" W	286.18'
L25	25 TO 26	N 14° 43' 46" W	271.12'
L26	26 TO 27	N 3° 12' 47" W	228.96'
L27	27 TO 28	N 8° 49' 20" E	500.12'
L28	28 TO 29	N 11° 11' 22" E	767.30'
L29	29 TO 30	N 10° 31' 58" E	845.16'
L30	30 TO 31	N 10° 51' 48" E	811.01'
L31	31 TO 32	N 2° 13' 18" E	489.53'
L32	32 TO 33	N 4° 55' 21" W	544.99'
L33	33 TO 34	N 8° 58' 06" W	806.14'
L34	34 TO 35	N 7° 25' 09" W	986.71'
L35	35 TO 36	N 7° 34' 38" W	881.97'
L36	36 TO 37	N 9° 02' 35" W	433.06'
L37	37 TO 43	N 18° 55' 35" W	310.47'
L38	43 TO 44	N 28° 08' 06" W	370.14'
L39	44 TO 45	N 39° 58' 41" W	344.01'
L40	45 TO 46	N 49° 12' 10" W	526.82'
L41	46 TO 47	N 54° 38' 56" W	453.95'
L42	47 TO 48	N 66° 27' 47" W	428.91'
L43	48 TO 49	N 71° 38' 16" W	1000.00'
L44	49 TO 50	N 70° 29' 42" W	682.93'
L45	50 TO 60	N 56° 16' 10" W	317.02'
L46	60 TO 61	N 54° 29' 50" W	726.44'
L47	61 TO 62	N 54° 13' 19" W	773.55'
L48	62 TO 63	N 57° 40' 20" W	273.22'
L49	63 TO 64	N 72° 50' 20" W	225.82'
L50	64 TO 65	N 81° 54' 39" W	289.49'
L51	65 TO 66	W	210.51'
L52	66 TO 70	S 63° 24' 01" W	422.59'
L53	70 TO 71	S 53° 37' 19" W	577.41'
L54	71 TO 72	S 46° 47' 45" W	500.00'
L55	72 TO 73	S 35° 13' 41" W	415.22'
L56	73 TO 74	S 24° 28' 59" W	414.74'

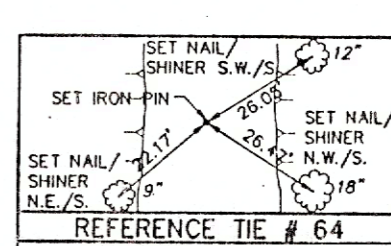
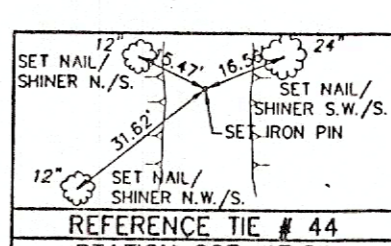
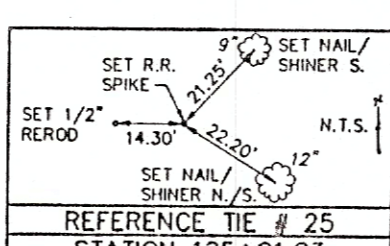
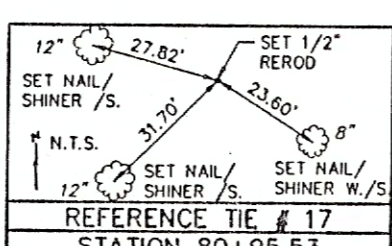
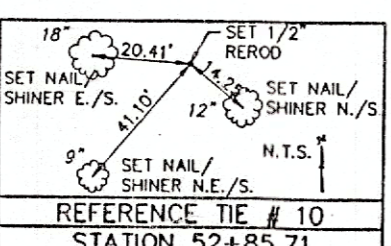
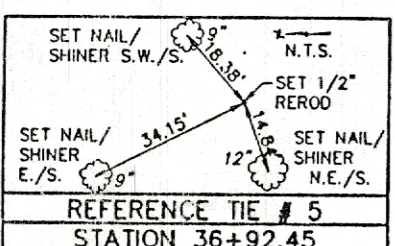
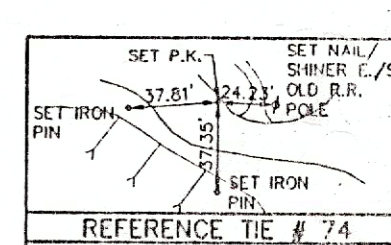
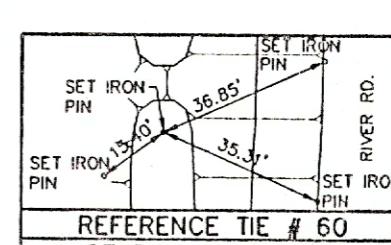
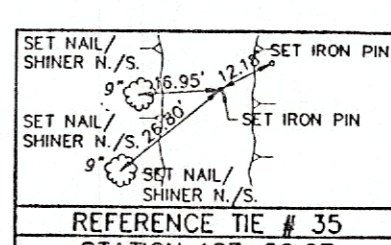
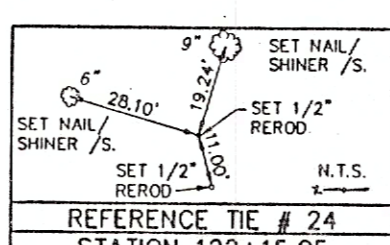
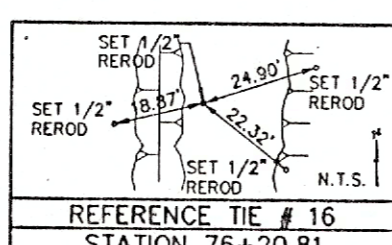
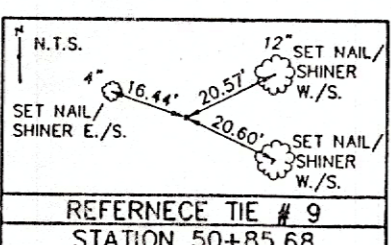
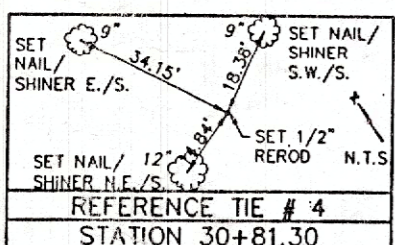
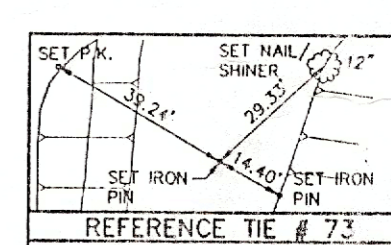
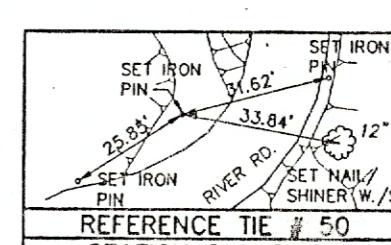
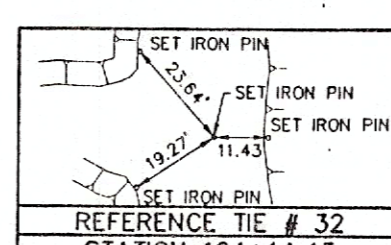
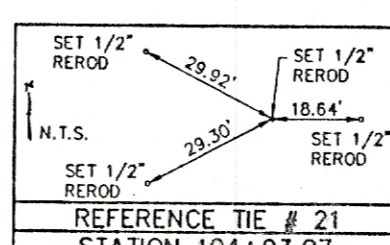
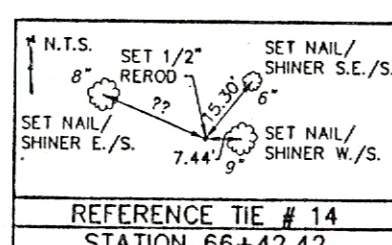
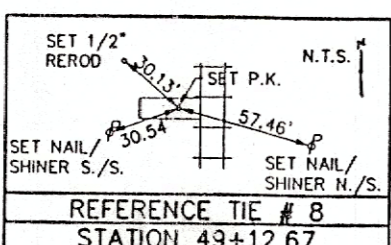
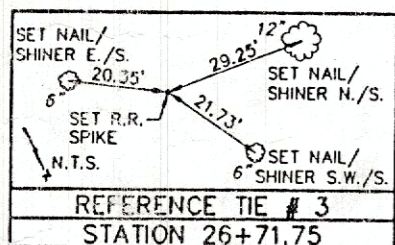
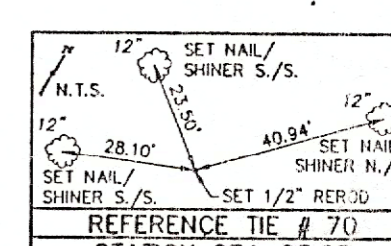
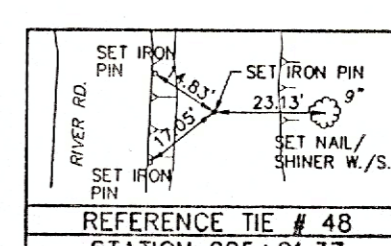
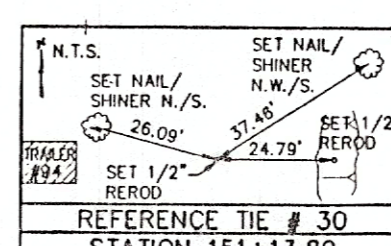
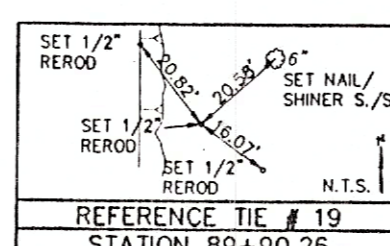
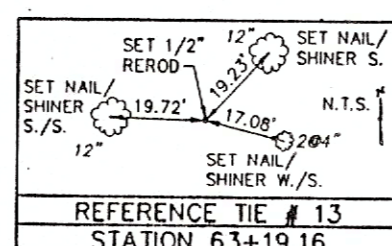
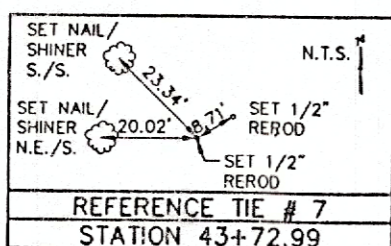
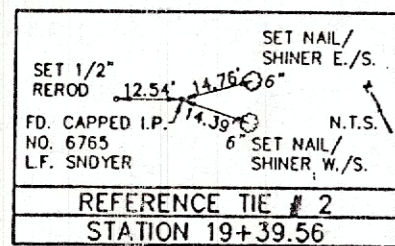
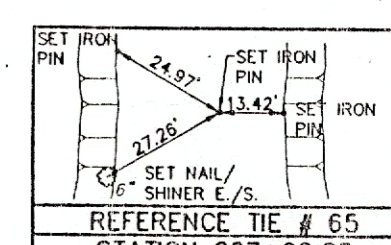
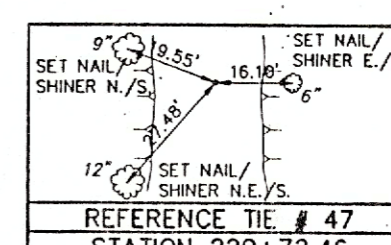
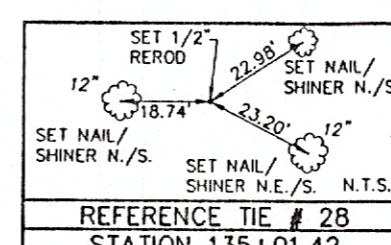
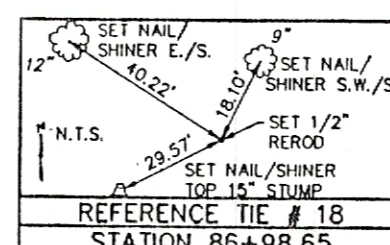
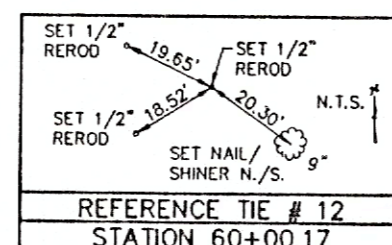
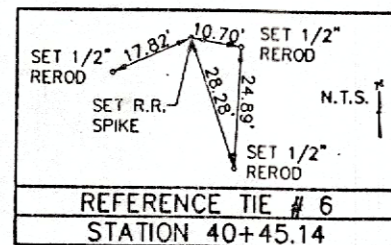
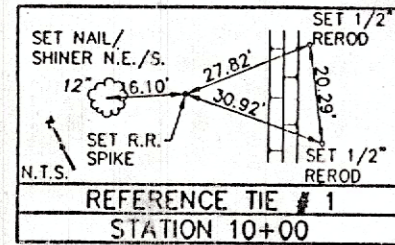
LINE	POINT TO POINT	BEARING	DISTANCE
L1	1 TO 2	N 41° 32' 25" E	939.56'
L2	2 TO 3	N 41° 34' 15" E	732.19'
L3	3 TO 4	N 46° 49' 25" E	409.55'
L4	4 TO 5	N 51° 30' 00" E	611.15'
L5	5 TO 6	N 48° 26' 45" E	352.69'
L6	6 TO 7	N 38° 52' 05" E	327.85'
L7	7 TO 8	N 31° 59' 57" E	539.68'
L8	8 TO 9	N 3° 49' 14" W	173.01'
L9	9 TO 10	N 9° 25' 04" E	200.03'
L10	10 TO 11	N 0° 14' 32" W	214.41'
L11	11 TO 12	N 9° 31' 56" W	500.05'

BASELINE REFERENCE TIES

FHWA REGION	STATE	PROJECT
5	OHIO	

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



TYPICAL SECTIONS

TYPE 404

FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

PROPOSED LEGEND

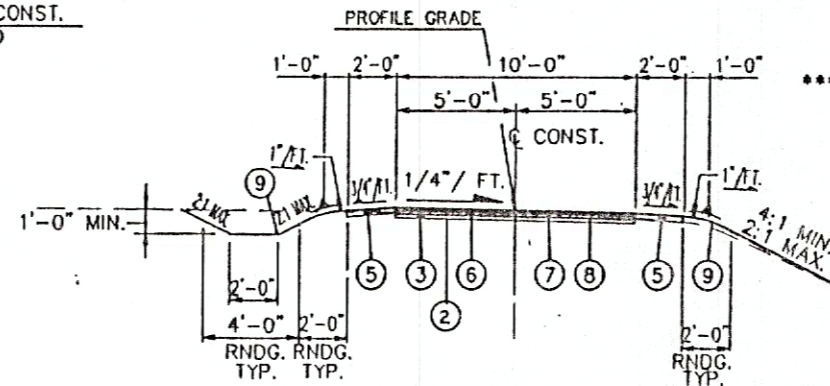
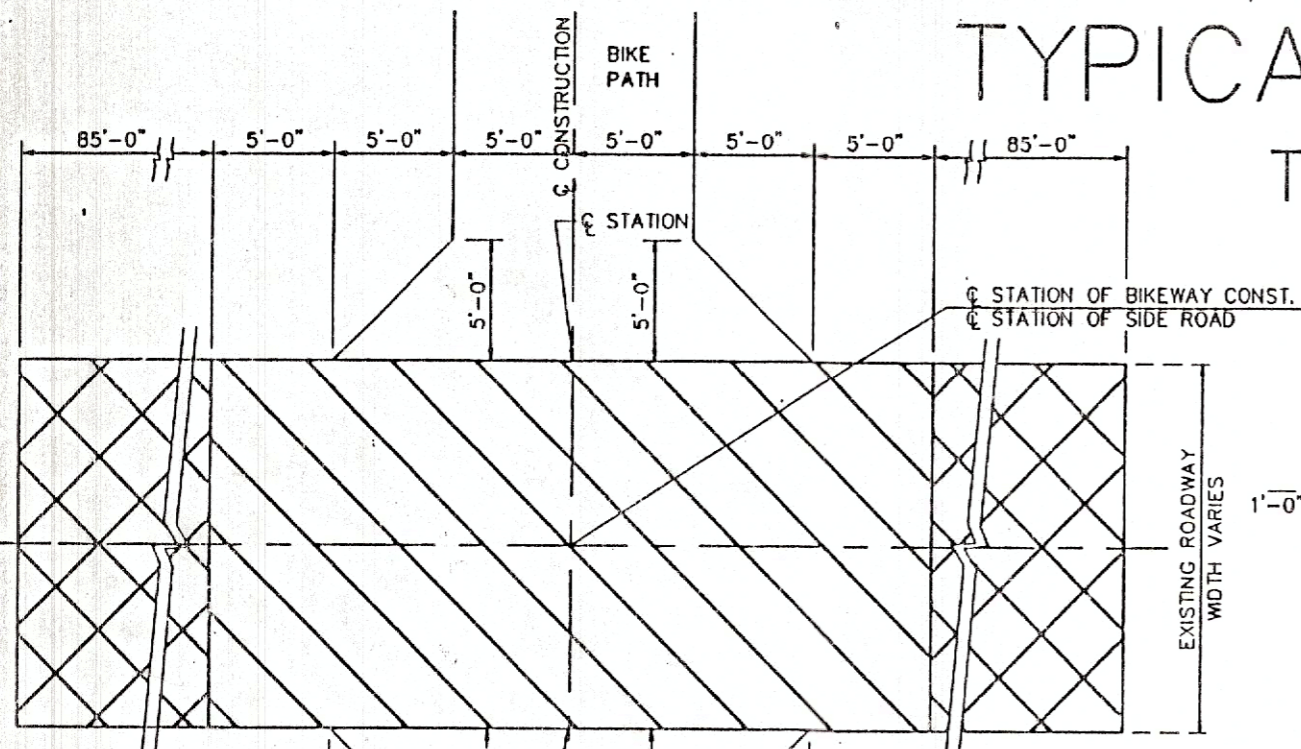
- ① ITEM 202 - RAILROAD CROSSING REMOVED, AS PER PLAN
- ② ITEM 203 - SUBGRADE COMPACTION
- ③ ITEM 304 - 2" AGGREGATE BASE
- ④ ITEM 304 - 8" AGGREGATE BASE
- ⑤ ITEM 304 - 3" AGGREGATE BASE (SHOULDER)
- ⑥ ITEM 402 - 1 3/4" ASPHALT CONCRETE, AC-20
- ⑦ ITEM 404 - 1 1/4" ASPHALT CONCRETE, AC-20
- ⑧ ITEM 408 - BITUMINOUS PRIME COAT (0.4 GAL./S.Y.)
- ⑨ ITEM 659 - SEEDING AND MULCHING
- ⑩ ITEM 517 - BRIDGE RAILING
- ⑪ ITEM SPECIAL - FENCE RAILING
- ⑫ ITEM 409 - SEAL COAT COVER AGGREGATE, No. 8 (25 LBS./S.Y.)
- ⑬ ITEM 409 - SEAL COAT BITUMINOUS MATERIAL (0.35 GAL./S.Y.)
- ⑭ ITEM 409 - SEAL COAT COVER AGGREGATE, No. 87 (30 LBS./S.Y.)
- ⑮ ITEM 409 - SEAL COAT BITUMINOUS MATERIAL (0.45 GAL./S.Y.)

* FROM STA. 112+70 TO STA. 112+95 THE PAVEMENT CROSS SLOPE SHOWN SHOULD TRANSITION FROM LEFT TO RIGHT TRANSVERSE.

** FROM STA. 138+50 TO STA. 138+84.94 AND STA. 139+15.35 TO STA. 139+50 THE PAVEMENT CROSS SLOPE SHOULD TRANSITION FROM 1/4"/FT. TO MEET THE HEADER AT THE CONRAIL CROSSING AND FROM THE HEADER TO 1/4"/FT. RESPECTIVELY.

*** REFER TO PLAN AND PROFILES AND FENCE RAILING DETAIL SHT. 8 FOR DETAILS AND PLACEMENT OF THE BRIDGE AND BIKE PATH FENCE RAILING.

NOTE:
PROPOSED TYPICAL SECTION FOR STA. 267+00 TO STA. 275+00, SEE SHEET B.



PROPOSED TYPICAL SECTION

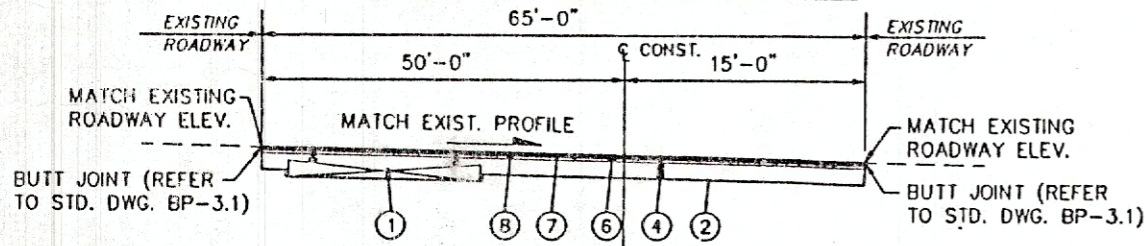
LIMITING STATIONS

STA. 116+23.85 TO STA. 137+00.00 = 2,076.15 LIN. FT.
STA. 142+26.19 TO STA. 172+75.00 = 3,048.81 LIN. FT.
STA. 173+75.00 TO STA. 229+79.68 = 5,604.68 LIN. FT.
STA. 231+00.00 TO STA. 254+13.34 = 2,313.34 LIN. FT.
STA. 254+24.77 TO STA. 267+00.00 = 1,275.23 LIN. FT.
STA. 275+00.00 TO STA. 302+00.00 = 2,700.00 LIN. FT.
STA. 304+00.00 TO STA. 312+00.00 = 800.00 LIN. FT.
STA. 315+00.00 TO STA. 334+54.85 = 1,954.85 LIN. FT.
STA. 334+82.54 TO STA. 359+63.40 = 2,480.86 LIN. FT.
STA. 359+70.62 TO STA. 363+41.84 = 371.22 LIN. FT.
STA. 363+65.97 TO STA. 382+96.42 = 1,931.45 LIN. FT.
STA. 383+24.32 TO STA. 386+01.79 = 277.47 LIN. FT.
TOTAL = 24,834.06 LIN. FT.

HATCHED AREA REPRESENTS PROPOSED FULL DEPTH PAVEMENT AS SHOWN BELOW IN THE PROP. INTERSECTION TYPICAL SECTION.

CROSS-HATCHED AREA REPRESENTS PROPOSED ADDITIONAL 409 SURFACE TREATMENT, TO BE PLACED ONLY AT THE STATIONS MARKED WITH A (Δ). REFER TO THE TYPICAL SECTION FOR THE PAVEMENT BUILD-UP.

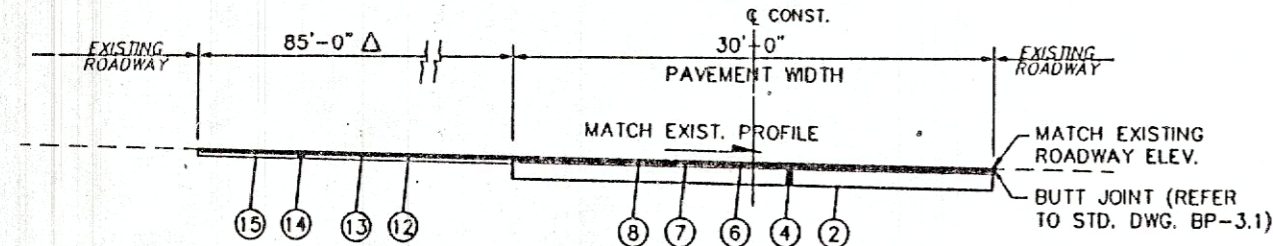
TYPICAL INTERSECTION DETAIL



PROPOSED INTERSECTION WITH RAILROAD TRACKS

LIMITING STATIONS

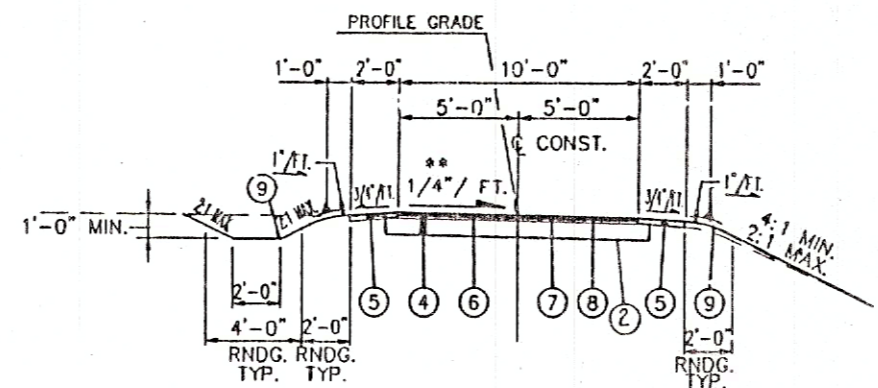
STA. 363+41.84 TO STA. 363+65.97 = 24.13 LIN. FT.
STA. 382+96.42 TO STA. 383+24.32 = 25.90 LIN. FT.
TOTAL = 50.03 LIN. FT.



PROPOSED INTERSECTION TYPICAL SECTION

LIMITING STATIONS

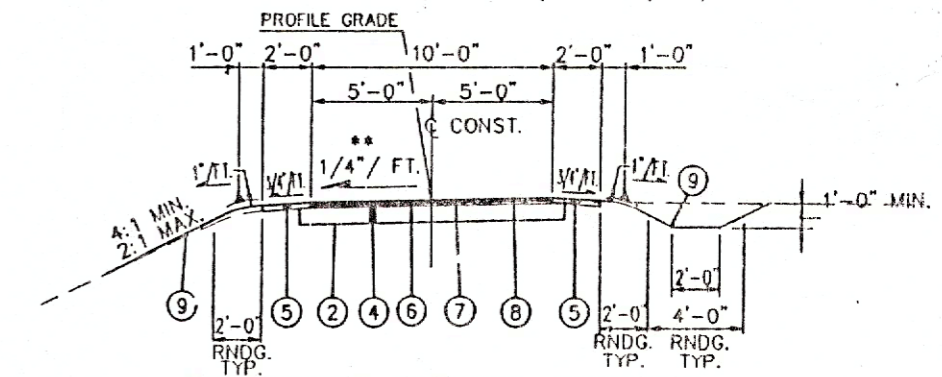
Δ STA. 142+12.99 TO STA. 142+26.19 = 13.2 LIN. FT.
Δ STA. 229+79.68 TO STA. 229+93.16 = 13.48 LIN. FT.
STA. 254+13.34 TO STA. 254+24.77 = 11.43 LIN. FT.
Δ STA. 334+54.85 TO STA. 334+82.54 = 27.69 LIN. FT.
STA. 359+63.40 TO STA. 359+70.62 = 7.22 LIN. FT.
TOTAL = 73.02 LIN. FT.



PROPOSED TYPICAL SECTION

LIMITING STATIONS

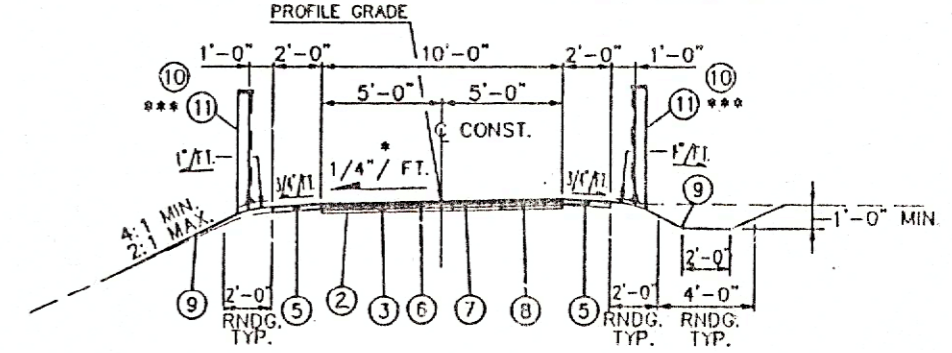
STA. 137+00.00 TO STA. 138+84.45 = 184.45 LIN. FT.
SUSPEND PROJECT = STA. 138+84.45
STATION EQUATION = STA. 138+93.48 BACK
STA. 139+16.24 AHEAD
RESUME PROJECT = STA. 139+16.24
STA. 172+75.00 TO STA. 173+75.00 = 100.00 LIN. FT.
STA. 229+93.16 TO STA. 231+00.00 = 106.84 LIN. FT.
STA. 302+00.00 TO STA. 304+00.00 = 200.00 LIN. FT.
STA. 312+00.00 TO STA. 315+00.00 = 300.00 LIN. FT.
TOTAL = 891.78 LIN. FT.



PROPOSED TYPICAL SECTION

LIMITING STATIONS

STA. 103+57.27 TO STA. 106+00.00 = 242.73 LIN. FT.
STA. 139+16.24 TO STA. 142+12.99 = 296.75 LIN. FT.
TOTAL = 539.48 LIN. FT.



PROPOSED TYPICAL SECTION

LIMITING STATIONS

STA. 106+00.00 TO STA. 113+08.18 = 708.18 LIN. FT.
STA. 113+08.18 TO STA. 116+23.85 = 315.67 LIN. FT. (DEDUCT FOR BRIDGE LIMITS)

GENERAL NOTES

FHWA REGION	STATE	PROJECT	
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

G.T.E. NORTH TELEPHONE OPERATIONS AREA 16 W. WASHINGTON STREET ATHENS, OHIO 45701 (614) 592-0540	COLUMBIA GAS TRANSMISSION CORPORATION 4111 EXECUTIVE PARKWAY WESTERVILLE, OHIO 43081 (614) 895-5033
COLUMBIA GAS OF OHIO, INC. 2009 EAST STATE STREET P.O. BOX 4220 ATHENS, OHIO 45701 (614) 597-2454	CONTINENTAL CABLE VISION 28 STATION STREET ATHENS, OHIO 45701 (614) 592-4435
NATIONAL GAS & OIL CORP. 1500 GRANVILLE ROAD NEWARK, OHIO 43055 (614) 344-2102	BELDEN & BLAKE CORPORATION 4362 GLENN HIGHWAY CAMBRIDGE, OHIO 43725 (614) 439-5558

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

REMOVAL OF TREES OR STUMPS

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	19	0	19

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

616	WATER	50 M. GAL.
616	CALCIUM CHLORIDE	5 TONS

ITEM 604. CATCH BASIN NO. 2-2-B, AS PER PLAN

CATCH BASINS SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 604 EXCEPT THAT THE GRATES SHALL BE NEENAH NO. R-4859-C OR EAST JORDAN NO. 6730-2 OR APPROVED EQUALS.

ITEM 659. SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR ITEM 659, SEEDING AND MULCHING, ARE BASED ON THESE LIMITS. THE FOLLOWING QUANTITY FOR THIS ITEM HAS BEEN CARRIED TO THE GENERAL SUMMARY:

659	SEEDING AND MULCHING	47,431 SQ. YDS.
659	COMMERCIAL FERTILIZER	4 TONS
659	AGRICULTURAL LIMING	20 TONS

WATERING PERMANENT SEEDED AREAS

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR PERMANENT SEEDED AREAS PER 659.09:

659	WATER	100 M. GAL.
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TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207	FILTER FABRIC FENCE	800 LIN. FT.
207	TEMPORARY SEEDING AND MULCHING	9,500 SQ. YD.
207	STRAW OR HAY BALES	200 EACH
601	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	1,200 CU. YD.
659	COMMERCIAL FERTILIZER	1 TON
659	REPAIR SEEDING AND MULCHING	2,500 SQ. YD.
659	WATER	21 M. GAL.

EROSION CONTROL

ITEM 601 IS PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES OF THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION. IN ADDITION, THIS ITEM SHALL MEET THE REQUIREMENT OF 108.04.

ITEM SPECIAL - FENCE RAILING

FENCE RAILING IS AS DETAILED ON THIS SHEET, WITH LOCATIONS AS INDICATED.

TIMBER RAIL IS TO BE MOUNTED ON THE SIDE TOWARD THE BIKE PATH.

SEE DETAIL FOR HEIGHT AND HORIZONTAL MEMBER SIZE ADJUSTMENT TO TRANSITION FENCE RAILING INTO BRIDGE RAILING. EXCEPT AT SUCH TRANSITIONS, HORIZONTAL MEMBERS ARE TO BE 12'-0" LONG, ALTERNATING LAP AT POSTS (END PIECES ARE TO BE SUCH LENGTH SO AS TO EXTEND THE WIDTH OF THE END POST.)

ALL TIMBER SIZES ARE NOMINAL. ALL WOOD IS TO BE PENTACHLOROPHENOL TREATED AS PER 712.06. ALL BOLTS, NUTS AND WASHERS ARE TO BE TYPE A307 GALVANIZED, UNLESS OTHERWISE NOTED.

THE COST OF ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT AND INSTALL WOODEN FENCE RAILING SHALL BE INCLUDED IN THE UNIT COST BID PER LINEAR FEET FOR ITEM SPECIAL - FENCE RAILING

ITEM 203 - DITCH CLEANOUT

THIS ITEM SHALL BE USED TO RE-ESTABLISH THE GRADE OF AN EXISTING DITCH AT LOCATIONS AS DIRECTED BY THE ENGINEER. ITS USE SHALL BE LIMITED TO MINOR GRADING FOR DITCH CLEANOUT, DEFINED AS TWO FEET, OR LESS, OF EXCAVATION. SURPLUS MATERIAL, OR UNSUITABLE MATERIAL AS DETERMINED BY THE ENGINEER, SHALL BE DISPOSED OF AS PER 203.05. EMBANKMENT REQUIRED FOR ERODED CONDITIONS SHALL BE CONSIDERED INCIDENTAL AND SHALL BE PLACED PER 203.07. COMPACTION REQUIREMENTS ARE WAIVED.

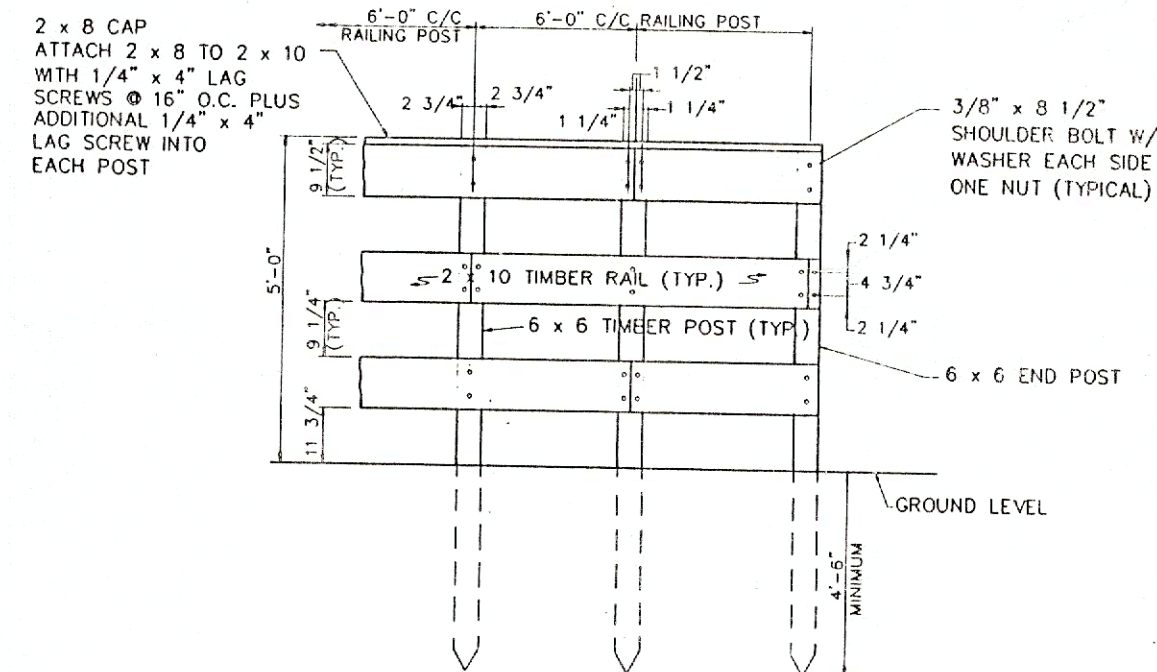
MEASUREMENT SHALL BE THE ACTUAL LINEAR FEET MEASURED ALONG THE DITCH CENTERLINE. PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT PRICE PER LINEAR FOOT FOR ITEM 203, DITCH CLEANOUT. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

203	DITCH CLEANOUT	500 LIN. FT.
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SPRING DRAINS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR DRAINING ANY SPRINGS SHOWN IN THE PLAN OR ENCOUNTERED DURING CONSTRUCTION. THE FOLLOWING TYPES OF PIPES MAY BE USED: 707.17; ASTM D3034 SDR 35, SS 931 OR SS 944 PERFORATED PER 707.15. SPRING DRAINS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD CONSTRUCTION DRAWING MC-1 AND PAID FOR AT THE CONTRACT PRICE FOR:

605	6" UNCLASSIFIED PIPE UNDERDRAIN, FOR SPRINGS	300 LIN. FT.
605	AGGREGATE DRAIN, FOR SPRINGS	100 LIN. FT.



ITEM SPECIAL - FENCE RAILING

OVERLAP HORIZ. MEMBERS WHEREVER POSSIBLE WITH PIECES 12'-0" LONG; END MEMBERS TO BE 12'-3" OR 6'-3" LONG AS APPLICABLE

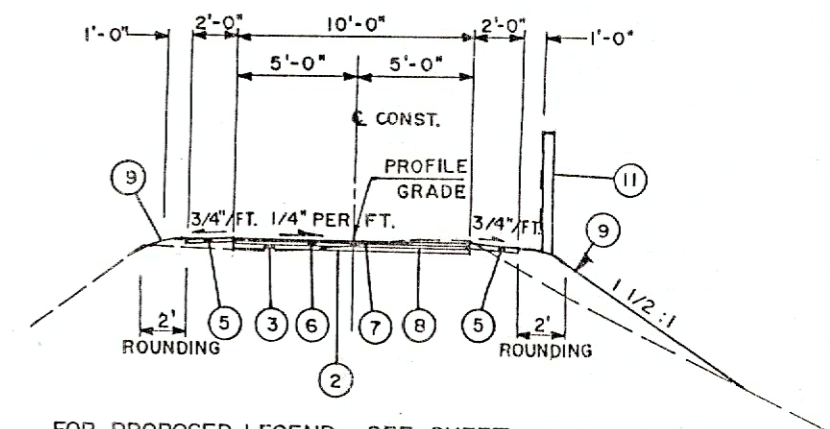
ALL WOOD SHALL MEET SPECIFICATION 711.26 AND BE PENTACHLOROPHENOL TREATED AS PER 712.06. THE WOOD SHALL BE SMOOTH AND SPLINTER FREE.

GENERAL NOTES

FHWA REGION	STATE	PROJECT	
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FOR PROPOSED LEGEND SEE SHEET 6.
PROPOSED TYPICAL SECTION
LIMITING STATIONS
STA. 267+00 TO STA. 275+00 = 800.00 LIN. FT. TOTAL

NOTE:
FOR FENCE RAILING DETAIL,
SEE SHEET 7.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE RIGHT-OF-WAY LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE E CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING MC-4, EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEM.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 603 - 8" CONDUIT, TYPE B	200 LIN. FT.
ITEM 603 - 8" CONDUIT, TYPE E	100 LIN. FT.
ITEM 603 - 8" CONDUIT, TYPE F	100 LIN. FT.
ITEM 601 - ROCK CHANNEL PROTECTION TYPE C WITH FILTER	20 CU. YDS.

ITEM SPECIAL - WOOD SIGN POST

THE COST OF ALL LABOR AND MATERIALS REQUIRED TO PROVIDE AND INSTALL 4" X 4" (NOMINAL) WOOD SIGN POSTS, AS DETAILED ON SHEET 50, SHALL BE INCLUDED IN THE LIN. FT. PRICE BID FOR ITEM SPECIAL - WOOD SIGN POST. DRILLING OF HOLES, PROVISION OF HARDWARE AND INSTALLATION OF SIGNS ON WOOD SIGN POSTS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 630 - SIGNS, FLAT SHEET.

ITEM 642 - RAILROAD SYMBOL MARKINGS, TYPE 2, AS PER PLAN

THE COST OF ALL LABOR AND MATERIALS REQUIRED TO PAINT RAILROAD SYMBOL MARKINGS, AS DETAILED ON SHEET 50, SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM 642 - RAILROAD SYMBOL MARKINGS, TYPE 2, AS PER PLAN.

ITEM 202 - RAILROAD CROSSING REMOVED, AS PER PLAN

THIS ITEM INCLUDES THE REMOVAL AND DISPOSAL OF EXISTING RAILROAD TRACKS, TIES, AND ROAD SURFACING ABOVE SAME, DISPOSAL OF REMOVED MATERIALS OFF SITE, AND THE INSTALLATION AND COMPACTION OF ITEM 304 AGGREGATE BACKFILL TO SUBGRADE WHERE SUCH ITEMS WERE REMOVED.

THE COST OF ALL LABOR, MATERIALS, AND DISPOSAL OF ITEMS, SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 202, RAILROAD CROSSING REMOVED, AS PER PLAN.

RAILROAD CROSSING IMPROVEMENT

FLASHERS, GATES AND RUBBERIZED CROSSING SURFACE WILL BE INSTALLED AT THE CONRAIL CROSSING. THE WORK IS TO BE PERFORMED BY OTHERS.

ITEM SPECIAL - BOLLARD

THE COST OF ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT AND INSTALL 8" X 8" (NOMINAL) WOODEN BOLLARDS, INCLUDING ATTACHED OBJECT MARKERS, X-2, AS DETAILED ON SHEET 50, SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR ITEM SPECIAL - BOLLARD.

ITEM SPECIAL - HINGED BOLLARD

THE COST OF ALL LABOR AND MATERIALS REQUIRED TO CONSTRUCT AND INSTALL 4" X 6" (ACTUAL) WOODEN HINGED BOLLARDS WITH CONCRETE ANCHORS, INCLUDING ATTACHED MARKERS, X-2 AS DETAILED ON SHEET 50, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL - HINGED BOLLARD.

ITEM 614 - MAINTAINING TRAFFIC

WHERE THE BIKE PATH CROSSES PUBLIC ROADS OR TWO LANE PRIVATE ROADS A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. WHERE THE BIKE PATH CROSSES ONE LANE PRIVATE ROADS ACCESS TO THE ADJACENT PROPERTY SHALL BE MAINTAINED AT ALL TIMES. TRAFFIC SHALL BE MAINTAINED BY USE OF THE EXISTING PAVEMENT AND/OR TEMPORARY PAVEMENT.

TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH ITEM 614 - MAINTAINING TRAFFIC AND AS DESCRIBED BELOW.

THE CONTRACTOR SHALL FURNISH, MAINTAIN AND REMOVE ALL SIGNS, FLAGS, FLAGGERS, WATCHERS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.

DEVICES USED TO MAINTAIN TRAFFIC SHALL BE ERECTED IMMEDIATELY PRIOR TO THE BEGINNING OF WORK AND SHALL BE REMOVED IMMEDIATELY AFTER THE TERMINATION OF WORK.

PAYMENT FOR THIS ITEM OF WORK SHALL BE AT THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC FOR ALL SIDE ROADS SHALL BE MAINTAINED AS PER STANDARD CONSTRUCTION DRAWING MT-97.10. TWO WAY TRAFFIC SHALL BE RESTORED AT THE END OF EACH WORK DAY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC

ITEM 404 - BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	20 CU. YDS.
ITEM 410 - TRAFFIC COMPACTED SURFACE, TYPE A OR B	20 CU. YDS.
ITEM 616 - CALCIUM CHLORIDE	1 TONS
ITEM 616 - WATER	1 M GALS.

ITEM 203.02 - ROCK AND SOIL, AS PER PLAN

THE MATERIAL SHALL CONFORM WITH SECTION 203.02 AND THE ROCK SHALL HAVE A MAXIMUM 18" DIAMETER.

FROM SEET NUMBER						ITEM	GRAND TOTAL TO SHEET 9	UNIT	DESCRIPTION
21	37	38	39	40	41				
	7.41	9.26	4.63	6.48		601	28	CU.YD.	ROCK CHANNEL PROTECTION, TYPE B, WITH FILTER
	3.99	1.33	2.66	3.99	3.99	601	16	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER
				20		603	20	LIN. FT.	12" CONDUIT, TYPE A, 706.02
			2			S03	2	LIN. FT.	8" CONDUIT, TYPE A, 706.02
14						603	14	LIN. FT.	12" CONDUIT, TYPE B

GENERAL SUMMARY

QUANTITIES		FHWA REGION	STATE	PROJECT
DATE: 12/93	CHKD. BY: CMG	5	OHIO	

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

ITEM	SHEET NUMBER										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	REF. SHT. NO.
	6	7	8	10	11	11A	12	36	31							
201		LUMP									201	11000	LUMP	LUMP	CLEARING AND GRUBBING	
202											202	00201	LUMP	LUMP	RAILROAD CROSSING REMOVED, AS PER PLAN	8
202						4					202	35100	4	LIN. FT.	PIPE REMOVED, 24" AND UNDER	
SPEC											203	98000	2590	CU. YD.	ROADWAY, MISC.: SOIL & ROCK FILL, AS PER PLAN	8
203											203	12000	12219	CU. YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
203					334						203	20000	4473	CU. YD.	EMBANKMENT	
203			31576								203	50000	31,576	SO. YD.	SUBGRADE COMPACTION	
203		500									203	55000	500	LIN. FT.	DITCH CLEANOUT	
616		50									616	10000	50	M. GAL.	WATER	
616		5									616	20000	5	TON	CALCIUM CHLORIDE	
SPEC											SPECIAL	69098000	32	EACH	*BOLLARD	8
SPEC											SPECIAL	69098000	16	EACH	*HINGED BOLLARD * ROADWAY, MISC.	8
SPEC											SPECIAL	69098100	1304	LIN. FT.	*FENCE RAILING * ROADWAY, MISC.	7
EROSION CONTROL																
207	800										207	30000	800	LIN. FT.	FILTER FABRIC FENCE	
207		9500									207	10000	9500	SO. YD.	TEMPORARY SEEDING AND MULCHING	
207		100									207	70000	100	EACH	STRAW OR HAY BALES	
601											601	11000	47	SO. YD.	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
601						72					601	12100	72	SO. YD.	RIPRAP, USING CONCRETE IN BAGS	
601					633						601	32000	633	CU. YD.	ROCK CHANNEL PROTECTION, TYPE A, WITH FILTER	
601			28								601	32100	28	CU. YD.	ROCK CHANNEL PROTECTION, TYPE B, WITH FILTER	
601											601	32300	31	CU. YD.	ROCK CHANNEL PROTECTION, TYPE D, WITH FILTER	
601			20								601	32200	33	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER	
601		1200	10								601	34200	1216	CU. YD.	ROCK CHANNEL PROTECTION, TYPE C, WITHOUT FILTER	
659		47431									659	10000	47,431	SO. YD.	SEEDING AND MULCHING	
659		2500									659	14000	2500	SY. YD.	REPAIR SEEDING AND MULCHING	
659		5									659	20000	5	TON	COMMERCIAL FERTILIZER	
659		20									659	30000	20	TON	AGRICULTURAL LIMING	
659		121									659	35000	121	M. GAL.	WATER	
DRAINAGE																
602											602	20000	19.1	CU. YD.	CONCRETE MASONRY	
603			20								603	04200	20	LIN. FT.	12" CONDUIT, TYPE A, 706.02	
603			200								603	01800	200	LIN. FT.	8" CONDUIT, TYPE B	
603			100								603	02500	100	LIN. FT.	8" CONDUIT, TYPE E	
603			100								603	02600	100	LIN. FT.	8" CONDUIT, TYPE F	
603											603	04900	323	LIN. FT.	12" CONDUIT, TYPE D, 706.02	
603											603	06400	48	LIN. FT.	15" CONDUIT, TYPE D, 706.02	
603			14								603	04400	14	LIN. FT.	12" CONDUIT, TYPE B	
603											603	07900	238	LIN. FT.	18" CONDUIT, TYPE D, 706.02	
603											603	08700	27	LIN. FT.	21" CONDUIT, TYPE A, 706.02	
603											603	10200	30	LIN. FT.	24" CONDUIT, TYPE A, 706.02	
603											603	13200	43	LIN. FT.	30" CONDUIT, TYPE A, 706.02	
603											603	16200	112	LIN. FT.	36" CONDUIT, TYPE A, 706.02	
603											603	19200	62	LIN. FT.	42" CONDUIT, TYPE A, 706.02	
603											603	20700	53	LIN. FT.	48" CONDUIT, TYPE A, 706.02	
604											604	04501	3	EACH	CATCH BASIN, NO. 2-2B, AS PER PLAN	7
605											605	13300	300	LIN. FT.	6" UNCLASSIFIED PIPE UNDERDRAIN FOR SPRINGS	
605		300									605	32200	100	LIN. FT.	AGGREGATE DRAIN FOR SPRINGS	

ITEM	SHEET NUMBER										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	REF. SHT. NO.
	7	8	10	11	11A	12	43									
PAVEMENT																
304											304	20000	3,105	CU. YD.	AGGREGATE BASE	
402											402	20000	1,521	CU. YD.	ASPHALT CONCRETE, AC-20	
404											404	20000	1,086	CU. YD.	ASPHALT CONCRETE, AC-20	
408											408	10000	12,512	GAL.	BITUMINOUS PRIME COAT	
409											409	12000	7	CU. YD.	SEAL COAT COVER AGREGATE NO. 8 (25 LBS/S.Y.)	
409											409	18000	8	CU. YD.	SEAL COAT COVER AGREGATE NO. 67 (30 LBS/S.Y.)	
409											409	20000	238	GAL.	SEAL COAT BITUMINOUS MATERIAL (0.35 GAL/S.Y.)	
409											409	20000	306	GAL.	SEAL COAT BITUMINOUS MATERIAL (0.45 GAL/S.Y.)	
TRAFFIC CONTROL																
630											630	02100	87	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 2 POST	
630											630	03100	162	LIN. FT.	GROUND MOUNTED SUPPORT, NO. 3 POST	
630											630	80100	303	SO. FT.	SIGN, FLAT SHEET	
642											642	01003	2	EACH	RAILROAD SYMBOL MARKING, TYPE 2, AS PER PLAN	8
SPEC											SPECIAL	69098100	582	LIN. FT.	*WOOD SIGN POST * ROADWAY, MISC.	8
MAINTENANCE OF TRAFFIC																
404											404	35000	20	CU. YD.	BITUMINOUS CONCRETE FOR MAINTAINING TRAFFIC	
410											410	12000	20	CU. YD.	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
616											616	20000	1	TON	CALCIUM CHLORIDE	
616											616	10000	1	M GAL.	WATER	
614											614	11000	LUMP	LUMP	MAINTAINING TRAFFIC	
619											619	15000	LUMP	LUMP	FIELD OFFICE, TYPE A	
623											SPECIAL	61925000	LUMP	LUMP	COMPUTER EQUIPMENT FOR TYPE A OFFICE	
623											623	10000	LUMP	LUMP	CONSTRUCTION LAYOUT STAKES	
624											624	10000	LUMP	LUMP	MOBILIZATION	
STRUCTURES OVER 20', REFER TO SHT. 52																

ITEM 203 - SUBGRADE COMPACTION

STA. 103+57.27 TO STA. 386+01.79
10' x 27,333.07' x 1/9 = 30,925.63 SQ. YD.

SUBTOTAL, AS CALCULATED ABOVE, INCLUDES DEDUCTIONS FOR SIDE ROADS, THE STATION EQUATION, AND THE BRIDGE LIMITS.

STA. 103+57.27 TO STA. 106+00
10' x 242.73' x 1/9 = 269.70 SQ. YD

SIDE ROADS

STA. 142+20 (ACCESS ROAD)
10' x 30' x 1/9 = 33.33 SQ. YD

STA. 229+85 (ACCESS ROAD)
14' x 30' x 1/9 = 46.67 SQ. YD

STA. 254+19.06 (FARM ROAD)
12' x 30' x 1/9 = 40.00 SQ. YD

STA. 254+19.06 (RIVER ROAD)
12' x 30' x 1/9 = 40.00 SQ. YD

STA. 359+68.33 (RIVER ROAD)
10' x 30' x 1/9 = 33.33 SQ. YD

STA. 363+59.91 (RIVER ROAD)
12' x 65' x 1/9 = 86.67 SQ. YD

STA. 383+11.37 (RIVER ROAD)
14' x 65' x 1/9 = 101.11 SQ. YD

TOTAL = 31,576 SQ. YD

ITEM 304 - 2" AGGREGATE BASE

STA. 106+00 TO STA. 113+08.18
10' x 708.18' x 2" x 1/12 x 1/27 = 43.71 CU. YD

STA. 116+23.85 TO STA. 137+00.00
10' x 2,076.15' x 2" x 1/12 x 1/27 = 128.16 CU. YD

STA. 142+26.19 TO STA. 172+75.00
10' x 3,048.81' x 2" x 1/12 x 1/27 = 188.20 CU. YD

STA. 173+75.00 TO STA. 229+79.68
10' x 5,604.68' x 2" x 1/12 x 1/27 = 345.97 CU. YD

STA. 231+00.00 TO STA. 254+13.34
10' x 2,313.34' x 2" x 1/12 x 1/27 = 142.80 CU. YD

STA. 254+24.77 TO STA. 302+00.00
10' x 4,775.23' x 2" x 1/12 x 1/27 = 294.77 CU. YD

STA. 304+00.00 TO STA. 312+00.00
10' x 800.00' x 2" x 1/12 x 1/27 = 49.38 CU. YD

STA. 315+00.00 TO STA. 334+54.85
10' x 1,954.85' x 2" x 1/12 x 1/27 = 120.67 CU. YD

STA. 334+82.54 TO STA. 359+63.40
10' x 2,480.86' x 2" x 1/12 x 1/27 = 153.14 CU. YD

STA. 359+70.62 TO STA. 363+41.84
10' x 371.22' x 2" x 1/12 x 1/27 = 22.91 CU. YD

STA. 363+65.97 TO STA. 382+98.42
10' x 1,931.45' x 2" x 1/12 x 1/27 = 119.23 CU. YD

STA. 383+24.32 TO STA. 386+01.79
10' x 277.47' x 2" x 1/12 x 1/27 = 17.13 CU. YD

TOTAL = 1,626 CU. YD

ITEM 304 - 8" AGGREGATE BASE

STA. 103+57.27 TO STA. 106+00
11' x 242.73' x 8" x 1/12 x 1/27 = 65.92 CU. YD

STA. 137+00.00 TO STA. 138+84.94
11' x 184.94' x 8" x 1/12 x 1/27 = 50.23 CU. YD

CALCULATIONS

STA. 139+15.35 TO STA. 142+12.99
11' x 297.64' x 8" x 1/12 x 1/27 = 80.84 CU. YD

STA. 172+75.00 TO STA. 173+75.00
11' x 100.00' x 8" x 1/12 x 1/27 = 27.16 CU. YD

STA. 229+93.16 TO STA. 231+00.00
11' x 106.84' x 8" x 1/12 x 1/27 = 29.02 CU. YD

STA. 302+00.00 TO STA. 304+00.00
11' x 200.00' x 8" x 1/12 x 1/27 = 54.32 CU. YD

STA. 312+00.00 TO STA. 315+00.00
11' x 300.00' x 8" x 1/12 x 1/27 = 81.48 CU. YD

ADDITIONAL AREA FOR INTERSECTIONS
(7 INT) x 5' x 5' x 1/2 x 4 x 8" x 1/12 x 1/27 = 8.64 CU. YD

SIDE ROADS

STA. 142+20 (ACCESS ROAD)
10' x 30' x 8" x 1/12 x 1/27 = 7.41 CU. YD

STA. 229+85 (ACCESS ROAD)
14' x 30' x 8" x 1/12 x 1/27 = 10.37 CU. YD

STA. 254+19.06 (FARM ROAD)
12' x 30' x 8" x 1/12 x 1/27 = 8.89 CU. YD

STA. 334+68 (RIVER ROAD)
12' x 30' x 8" x 1/12 x 1/27 = 8.89 CU. YD

STA. 359+68.33 (RIVER ROAD)
10' x 30' x 8" x 1/12 x 1/27 = 7.41 CU. YD

STA. 363+59.91 (RIVER ROAD)
12' x 65' x 8" x 1/12 x 1/27 = 19.26 CU. YD

STA. 383+11.37 (RIVER ROAD)
14' x 65' x 8" x 1/12 x 1/27 = 22.47 CU. YD

TOTAL = 507 CU. YD

ITEM 304 - 3" AGGREGATE BASE (SHOULDER)

STA. 103+57.27 TO STA. 106+00.00
4' x 242.73' x 3" x 1/12 x 1/27 = 8.99 CU. YD

STA. 106+00.00 TO STA. 113+08.18
4' x 708.18' x 3" x 1/12 x 1/27 = 26.23 CU. YD

STA. 116+23.85 TO STA. 137+00.00
4' x 2,076.15' x 3" x 1/12 x 1/27 = 76.89 CU. YD

STA. 137+00.00 TO STA. 138+84.94
4' x 184.94' x 3" x 1/12 x 1/27 = 6.85 CU. YD

STA. 139+15.35 TO STA. 142+12.99
4' x 297.64' x 3" x 1/12 x 1/27 = 11.02 CU. YD

STA. 142+26.19 TO STA. 172+75.00
4' x 3,048.81' x 3" x 1/12 x 1/27 = 112.92 CU. YD

STA. 172+75.00 TO STA. 173+75.00
4' x 100.00' x 3" x 1/12 x 1/27 = 3.70 CU. YD

STA. 173+75.00 TO STA. 229+79.68
4' x 5,604.68' x 3" x 1/12 x 1/27 = 207.58 CU. YD

STA. 229+93.16 TO STA. 231+00.00
4' x 106.84' x 3" x 1/12 x 1/27 = 3.96 CU. YD

STA. 231+00.00 TO STA. 254+13.34
4' x 2,313.34' x 3" x 1/12 x 1/27 = 85.68 CU. YD

STA. 254+24.77 TO STA. 302+00.00
4' x 4,775.23' x 3" x 1/12 x 1/27 = 176.80 CU. YD

QUANTITIES		FHWA REGION	STATE	PROJECT
CALC. BY: DLW	CHKD. BY: CMG	5	OHIO	
DATE: 11/93	DATE: 11/93			

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

STA. 302+00.00 TO STA. 304+00.00
4' x 200.00' x 3" x 1/12 x 1/27 = 7.41 CU. YD

STA. 304+00.00 TO STA. 312+00.00
4' x 800.00' x 3" x 1/12 x 1/27 = 29.63 CU. YD

STA. 312+00.00 TO STA. 315+00.00
4' x 300.00' x 3" x 1/12 x 1/27 = 11.11 CU. YD

STA. 315+00.00 TO STA. 334+54.85
4' x 1,954.85' x 3" x 1/12 x 1/27 = 72.40 CU. YD

STA. 334+82.54 TO STA. 359+63.40
4' x 2,480.86' x 3" x 1/12 x 1/27 = 91.88 CU. YD

STA. 359+70.62 TO STA. 363.41+84
4' x 371.22' x 3" x 1/12 x 1/27 = 13.75 CU. YD

STA. 363+65.97 TO STA. 382+98.42
4' x 1,932.45' x 3" x 1/12 x 1/27 = 71.57 CU. YD

STA. 383+24.32 TO STA. 386+01.79
4' x 277.47' x 3" x 1/12 x 1/27 = 10.28 CU. YD

ADDITIONAL AREA FOR INTERSECTIONS
(7 INT) x 5' x 5' x 1/2 x 4 x 3" x 1/12 x 1/27 = 3.24 CU. YD

TOTAL = 1032 CU. YD

ITEM 402 - 1-3/4" ASPHALT CONCRETE, AC-20

STA. 103+57.27 TO STA. 106+00.00
10' x 242.73' x 1.75" x 1/12 x 1/27 = 13.11 CU. YD

STA. 106+00.00 TO STA. 113+08.18
10' x 708.18' x 1.75" x 1/12 x 1/27 = 38.25 CU. YD

STA. 116+23.85 TO STA. 137+00.00
10' x 2,076.15' x 1.75" x 1/12 x 1/27 = 112.14 CU. YD

STA. 137+00.00 TO STA. 138+84.94
10' x 184.94' x 1.75" x 1/12 x 1/27 = 9.99 CU. YD

STA. 139+15.35 TO STA. 142+12.99
10' x 297.64' x 1.75" x 1/12 x 1/27 = 16.07 CU. YD

STA. 142+26.19 TO STA. 172+75.00
10' x 3,048.81' x 1.75" x 1/12 x 1/27 = 164.67 CU. YD

STA. 172+75.00 TO STA. 173.75.00
10' x 100' x 1.75" x 1/12 x 1/27 = 5.40 CU. YD

STA. 173+75.00 TO STA. 229+79.68
10' x 5,604.68' x 1.75" x 1/12 x 1/27 = 302.72 CU. YD

STA. 229+93.16 TO STA. 231+00.00
10' x 106.84' x 1.75" x 1/12 x 1/27 = 5.77 CU. YD

STA. 231+00.00 TO STA. 254+13.34
10' x 2,313.34' x 1.75" x 1/12 x 1/27 = 124.95 CU. YD

STA. 254+24.77 TO STA. 302+00.00
10' x 4,775.23' x 1.75" x 1/12 x 1/27 = 257.92 CU. YD

STA. 302+00.00 TO STA. 304+00.00
10' x 200.00' x 1.75" x 1/12 x 1/27 = 10.80 CU. YD

STA. 304+00.00 TO STA. 312+00.00
10' x 800.00' x 1.75" x 1/12 x 1/27 = 43.21 CU. YD

STA. 312+00.00 TO STA. 315+00.00
10' x 300.00' x 1.75" x 1/12 x 1/27 = 16.20 CU. YD

STA. 315+00.00 TO STA. 334+54.85
10' x 1,954.85' x 1.75" x 1/12 x 1/27 = 105.59 CU. YD

STA. 334+82.54 TO STA. 359+63.40
10' x 2,480.86' x 1.75" x 1/12 x 1/27 = 134.00 CU. YD

CALCULATIONS

QUANTITIES		FHWA REGION	STATE	PROJECT
CALC. BY: DLW	CHKD. BY: CMG	5	OHIO	
DATE: 11/93	DATE: 11/93			

ATHENS COUNTY ATHENS BIKEWAY PHASE II

STA. 359+70.62 TO STA. 363+41.84 10' x 371.22' x 1.75" x 1/12 x 1/27	=	20.05 CU. YD
STA. 363+65.97 TO STA. 382+98.42 10' x 1,931.45' x 1.75" x 1/12 x 1/27	=	104.38 CU. YD
STA. 383+24.32 TO STA. 386+01.79 10' x 277.47' x 1.75" x 1/12 x 1/27	=	14.99 CU. YD
ADDITIONAL AREA FOR INTERSECTIONS (7 INT) x 5' x 5' x 1/2 x 4 x 1.75" x 1/12 x 1/27	=	1.89 CU. YD
SIDE ROADS		
STA. 142+20 (ACCESS ROAD) 10' x 30' x 1.75" x 1/12 x 1/27	=	1.62 CU. YD
STA. 229+85 (ACCESS ROAD) 14' x 30' x 1.75" x 1/12 x 1/27	=	2.27 CU. YD
STA. 254+19.06 (FARM ROAD) 12' x 30' x 1.75" x 1/12 x 1/27	=	1.94 CU. YD
STA. 334+68 (RIVER ROAD) 12' x 30' x 1.75" x 1/12 x 1/27	=	1.94 CU. YD
STA. 359+68.33 (RIVER ROAD) 10' x 30' x 1.75" x 1/12 x 1/27	=	1.62 CU. YD
STA. 363+59.91 (RIVER ROAD) 12' x 65' x 1.75" x 1/12 x 1/27	=	4.21 CU. YD
STA. 383+11.37 (RIVER ROAD) 14' x 65' x 1.75" x 1/12 x 1/27	=	4.92 CU. YD
TOTAL	=	1521 CU. YD
ITEM 404 - 1-1/4" ASPHALT CONCRETE		
STA. 103+57.27 TO STA. 106+00 10' x 242.73' x 1.25" x 1/12 x 1/27	=	9.36 CU. YD
STA. 106+00 TO STA. 113+08.18 10' x 708.18' x 1.25" x 1/12 x 1/27	=	27.32 CU. YD
STA. 116+23.85 TO STA. 137+00 10' x 2076.15' x 1.25" x 1/12 x 1/27	=	80.10 CU. YD
STA. 137+00.85 TO STA. 138+84.94 10' x 184.09' x 1.25" x 1/12 x 1/27	=	7.10 CU. YD
STA. 139+15.35 TO STA. 142+12.99 10' x 297.64' x 1.25" x 1/12 x 1/27	=	11.48 CU. YD
STA. 142+26.19 TO STA. 172+75 10' x 3,048.81' x 1.25" x 1/12 x 1/27	=	117.62 CU. YD
STA. 172+75 TO STA. 173+75 10' x 100' x 1.25" x 1/12 x 1/27	=	3.86 CU. YD
STA. 173+75 TO STA. 229+79.68 10' x 5,604.68' x 1.25" x 1/12 x 1/27	=	216.23 CU. YD
STA. 229+93.16 TO STA. 231+00 10' x 106.84' x 1.25" x 1/12 x 1/27	=	4.12 CU. YD
STA. 231+00 TO STA. 254+13.34 10' x 2313.34' x 1.25" x 1/12 x 1/27	=	89.25 CU. YD
STA. 254+24.77 TO STA. 302+00 10' x 4,775.23' x 1.25" x 1/12 x 1/27	=	184.23 CU. YD
STA. 302+00 TO STA. 304+00 10' x 200' x 1.25" x 1/12 x 1/27	=	7.72 CU. YD
STA. 304+00 TO STA. 312+00 10' x 800' x 1.25" x 1/12 x 1/27	=	30.86 CU. YD

STA. 312+00 TO STA. 315+00 10' x 300' x 1.25" x 1/12 x 1/27	=	11.57 CU. YD
STA. 315+00 TO STA. 334+54.85 10' x 1954.85' x 1.25" x 1/12 x 1/27	=	75.42 CU. YD
STA. 334+82.54 TO STA. 359+63.40 10' x 2480.86' x 1.25" x 1/12 x 1/27	=	95.71 CU. YD
STA. 359+70.62 TO STA. 363+41.84 10' x 371.22' x 1.25" x 1/12 x 1/27	=	14.32 CU. YD
STA. 363+65.97 TO STA. 382+98.42 10' x 1,931.45' x 1.25" x 1/12 x 1/27	=	74.55 CU. YD
STA. 383+24.32 TO STA. 386+01.79 10' x 277.47' x 1.25" x 1/12 x 1/27	=	10.70 CU. YD
ADDITIONAL AREA FOR INTERSECTIONS (7 INT) x 5' x 5' x 1/2 x 4 x 1.25" x 1/12 x 1/27	=	1.35 CU. YD
SIDE ROADS		
STA. 142+20 (ACCESS ROAD) 10' x 30' x 1.25" x 1/12 x 1/27	=	1.16 CU. YD
STA. 229+85 (ACCESS ROAD) 14' x 30' x 1.25" x 1/12 x 1/27	=	1.62 CU. YD
STA. 254+19.06 (FARM ROAD) 12' x 30' x 1.25" x 1/12 x 1/27	=	1.39 CU. YD
STA. 334+68 (RIVER ROAD) 12' x 30' x 1.25" x 1/12 x 1/27	=	1.39 CU. YD
STA. 359+68.33 (RIVER ROAD) 10' x 30' x 1.25" x 1/12 x 1/27	=	1.16 CU. YD
STA. 363+59.91 (RIVER ROAD) 12' x 65' x 1.25" x 1/12 x 1/27	=	3.01 CU. YD
STA. 383+11.37 (RIVER ROAD) 14' x 65' x 1.25" x 1/12 x 1/27	=	3.51 CU. YD
TOTAL	=	1086 CU. YD
ITEM 408 - BITUMINOUS PRIME COAT (00.4 GAL/S.Y.)		
STA. 103+57.27 TO STA. 106+00 10' x 242.73' x 1/9 x 0.4	=	107.88 GAL.
STA. 106+00 TO STA. 113+08.18 10' x 708.18' x 1/9 x 0.4	=	314.75 GAL.
STA. 116+23.85 TO STA. 137+00 10' x 2076.15' x 1/9 x 0.4	=	922.73 GAL.
STA. 137+00 TO STA. 138+84.94 10' x 184.94' x 1/9 x 0.4	=	82.20 GAL.
STA. 139+15.35 TO STA. 142+12.99 10' x 297.64' x 1/9 x 0.4	=	132.28 GAL.
STA. 142+26.19 TO STA. 172+75 10' x 3048.81' x 1/9 x 0.4	=	1355.03 GAL.
STA. 172+75 TO STA. 173+75 10' x 100' x 1/9 x 0.4	=	44.44 GAL.
STA. 173+75 TO STA. 229+79.68 10' x 5,604.68' x 1/9 x 0.4	=	2490.97 GAL.
STA. 229+93.16 TO STA. 231+00 10' x 106.84' x 1/9 x 0.4	=	47.48 GAL.
STA. 231+00 TO STA. 254+13.34 10' x 2313.34' x 1/9 x 0.4	=	1028.15 GAL.
STA. 254+24.77 TO STA. 302+00 10' x 4775.23' x 1/9 x 0.4	=	2122.32 GAL.

STA. 302+00 TO STA. 304+00 10' x 200' x 1/9 x 0.4	=	88.88 GAL.
STA. 304+00 TO STA. 312+00 10' x 800' x 1/9 x 0.4	=	355.55 GAL.
STA. 312+00 TO STA. 315+00 10' x 300' x 1/9 x 0.4	=	133.33 GAL.
STA. 315+00 TO STA. 334+54.85 10' x 1954.85' x 1/9 x 0.4	=	868.82 GAL.
STA. 334+82.54 TO STA. 359+63.40 10' x 2480.86' x 1/9 x 0.4	=	1102.60 GAL.
STA. 359+70.62 TO STA. 363+41.84 10' x 371.22' x 1/9 x 0.4	=	164.99 GAL.
STA. 363+65.97 TO STA. 382+97.42 10' x 1931.45' x 1/9 x 0.4	=	858.42 GAL.
STA. 383+24.32 TO STA. 386+01.79 10' x 277.47' x 1/9 x 0.4	=	123.32 GAL.
ADDITIONAL AREA FOR INTERSECTIONS (7 INT) x 5' x 5' x 1/2 x 4 x 1/9 x 0.4	=	15.56 GAL.
SIDE ROADS		
STA. 142+20 (ACCESS ROAD) 10' x 30' x 1/9 x 0.4	=	13.33 GAL.
STA. 229+85 (ACCESS ROAD) 14' x 30' x 1/9 x 0.4	=	18.67 GAL.
STA. 254+19.06 (FARM ROAD) 12' x 30' x 1/9 x 0.4	=	16.00 GAL.
STA. 334+68 (RIVER ROAD) 12' x 30' x 1/9 x 0.4	=	16.00 GAL.
STA. 359+68.33 (RIVER ROAD) 10' x 30' x 1/9 x 0.4	=	13.33 GAL.
STA. 363+59.91 (RIVER ROAD) 12' x 65' x 1/9 x 0.4	=	34.67 GAL.
STA. 383+11.37 (RIVER ROAD) 14' x 65' x 1/9 x 0.4	=	40.44 GAL.
TOTAL	=	12,512 GAL.
ITEM 642 - RAILROAD SYMBOL MARKING, TYPE 2, AS PER PLAN		
STA. 137+83 RT.	=	1 EACH
STA. 140+17 LT.	=	1 EACH
TOTAL	=	2 EACH
ITEM 601 - ROCK CHANNEL PROTECTION TYPE A, WITH FILTER		
STA. 113+36 TO STA. 113+59 283 FT ² x 3' x 1/27	=	31 CU. YD.
STA. 113+79 TO STA. 114+48 (2100 - 234) FT ² x 3' x 1/27	=	207 CU. YD.
STA. 114+83 TO STA. 115+53 (2100 - 237) FT ² x 3' x 1/27	=	207 CU. YD.
STA. 115+80 TO STA. 116+43 1692 FT ² x 3' x 1/27	=	188 CU. YD.
TOTAL	=	633 CU. YD.
ITEM 601 - RIPRAP, USING CONCRETE IN BAGS		
STA. 113+83 TO STA. 114+43 160' x 2' x 1/9	=	36 SQ. YD.
STA. 114+89 TO STA. 115+46 160' x 2' x 1/9	=	36 SQ. YD.
TOTAL	=	72 SQ. YD.

CALCULATIONS

QUANTITIES		FHWA REGION	STATE	PROJECT
CALC. BY: DLW	CHKD. BY: CMG	5	OHIO	
DATE: 11/93	DATE: 11/93			

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ATHENS COUNTY ATHENS BIKEWAY PHASE II

ITEM 409 - SEAL COAT COVER AGGREGATE NO. 8 (25 LBS/S.Y.)

STA. 142+12.99 TO STA. 142+26.19		
10'x 170' x 1/9 x 25 LBS/S.Y. x C.Y./2600 LBS.	=	1.81 CU. YD
STA. 229+79.68 TO STA. 229+93.16		
14'x 170' x 1/9 x 25 LBS/S.Y. x C.Y./2600 LBS.	=	2.54 CU. YD
STA. 334+54.85 TO STA. 334+82.54		
12'x 170' x 1/9 x 25 LBS/S.Y. x C.Y./2600 LBS.	=	2.18 CU. YD
TOTAL	=	7 CU. YD.

ITEM 409 - SEAL COAT COVER AGGREGATE NO. 67 (30 LBS/S.Y.)

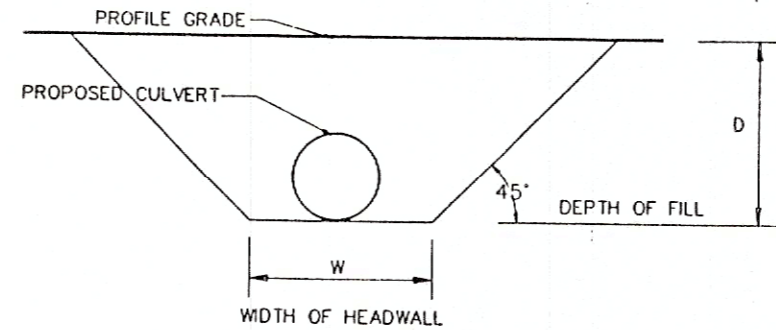
STA. 142+12.99 TO STA. 142+26.19		
10'x 170' x 1/9 x 30 LBS/S.Y. x C.Y./2600 LBS.	=	2.18 CU. YD
STA. 229+79.68 TO STA. 229+93.16		
14'x 170' x 1/9 x 30 LBS/S.Y. x C.Y./2600 LBS.	=	3.05 CU. YD
STA. 334+54.85 TO STA. 334+82.54		
12'x 170' x 1/9 x 30 LBS/S.Y. x C.Y./2600 LBS.	=	2.62 CU. YD
TOTAL	=	8 CU. YD.

ITEM 409 - SEAL COAT BITUMINOUS MATERIAL (0.35 GAL/S.Y.)

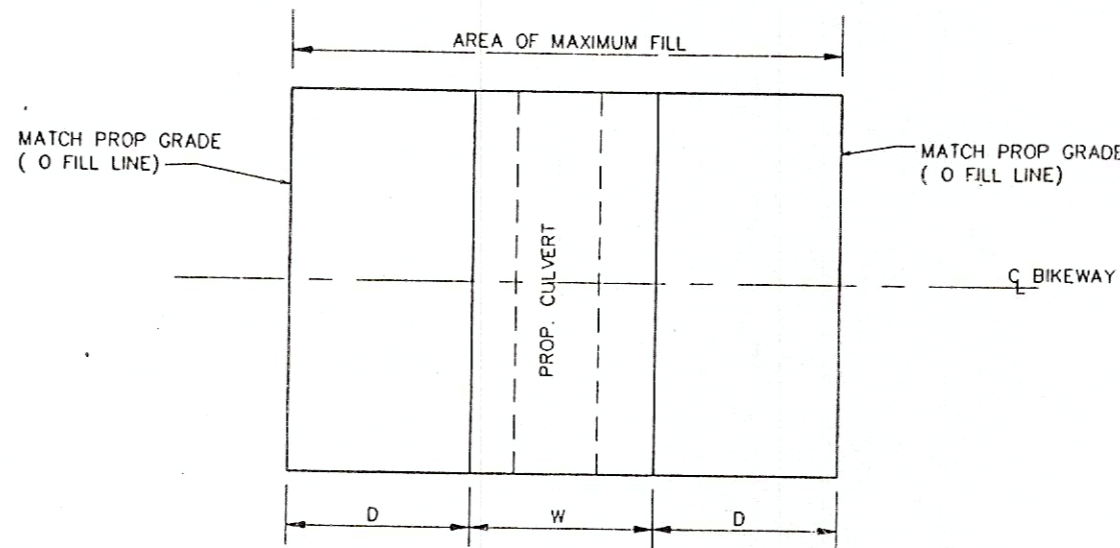
STA. 142+12.99 TO STA. 142+26.19		
10'x 170' x 1/9 x 0.35 GAL/S.Y.	=	66.1 GAL.
STA. 229+79.68 TO STA. 229+93.16		
14'x 170' x 1/9 x 0.35 GAL/S.Y.	=	92.6 GAL.
STA. 334+54.85 TO STA. 334+82.54		
12'x 170' x 1/9 x 0.35 GAL/S.Y.	=	79.3 GAL.
TOTAL	=	238 GAL.

ITEM 409 - SEAL COAT BITUMINOUS MATERIAL (0.45 GAL/S.Y.)

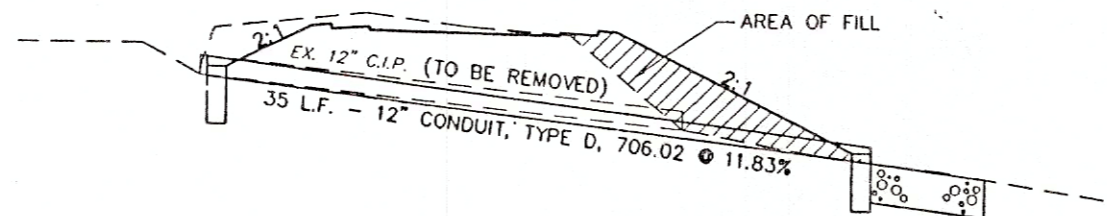
STA. 142+12.99 TO STA. 142+26.19		
10'x 170' x 1/9 x 0.45 GAL/S.Y.	=	85.0 GAL.
STA. 229+79.68 TO STA. 229+93.16		
14'x 170' x 1/9 x 0.45 GAL/S.Y.	=	119.0 GAL.
STA. 334+54.85 TO STA. 334+82.54		
12'x 170' x 1/9 x 0.45 GAL/S.Y.	=	102.00 GAL.
TOTAL	=	306 GAL.



CULVERT SECTION



CULVERT PLAN VIEW



TYPICAL CULVERT SECTION

CULVERT QUANTITIES				
CULVERT STATION	WIDTH OF FILL W	DEPTH OF FILL D	END AREA FILL	CUBIC YARDS FILL
105+88	8'-0"	12'-6"	0	
			42.02	9.73
			42.02	12.45
			0	9.73
144+24	2'-0"	7'-0"	0	
			32.65	4.23
			32.65	2.42
			0	4.23
149+35	2'-0"	6'-6"	0	
			29.17	3.51
			29.17	2.16
			0	3.51
172+89	2'-0"	7'-0"	0	
			18.83	2.44
			18.83	1.39
			0	2.44
178+76	2'-0"	11'-0"	0	
			45.81	9.33
			45.81	3.39
			0	9.33
187+76	6'-0"	11'-6"	0	
			155.24	33.06
			155.24	34.50
			0	33.06
238+76	6'-0"	4'-0"	0	
			23.36	1.73
			23.36	5.19
			0	1.73
267+44	6'-0"	7'-0"	0	
			72.29	9.37
			72.29	16.06
			0	9.37
285+74	6'-9"	10'-0"	0	
			75.66	14.01
			75.66	18.92
			0	14.01
303+67	4'-0"	4'-6"	0	
			23.17	1.93
			23.17	3.43
			0	1.93
309+30	2'-0"	3'-0"	0	
			15.57	0.87
			15.57	1.15
			0	0.87
323+81	7'-0"	12'-6"	0	
			71.51	16.55
			71.51	18.54
			0	16.55
377+08	3'-0"	3'-0"	0	
			2.47	0.14
			2.47	0.27
			0	0.14
TOTAL				334

DATE: 2/19/94
CAD FILE: ATHCAL3
PLOT FOR: P.P.-DLW
PLOT SCALE: 1"=1'

ESTIMATED QUANTITY SHEET

QUANTITIES		FHWA REGION	STATE	PROJECT
CALC. BY: DLW	CHKD. BY: CMG	5	OHIO	
DATE: 12/93	DATE: 12/93			

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

ESTIMATED QUANTITIES

SHEET No	REF. No	STATION		SIDE	ITEM 202	ITEM SPECIAL	ITEM SPECIAL	ITEM SPECIAL	ITEM 603	ITEM 603	ITEM 603	ITEM 603	ITEM 603	ITEM 603	ITEM 603	ITEM 603	ITEM 601	ITEM 601	ITEM 601	ITEM 602	ITEM 604	
		FROM	TO		PIPE REMOVED, 24" AND UNDER	BOLLARD	HINGED BOLLARD	FENCE RAILING	12" CONDUIT, TYPE D	15" CONDUIT, TYPE D	18" CONDUIT, TYPE D	21" CONDUIT, TYPE A	24" CONDUIT, TYPE A	30" CONDUIT, TYPE A	36" CONDUIT, TYPE A	42" CONDUIT, TYPE A	48" CONDUIT, TYPE A	ROCK CHANNEL PROTECTION, TYPE D, W/ FILTER	ROCK CHANNEL PROTECTION, TYPE C, W/ FILTER	RIPRAP USING 6" REINFORCED CONCRETE SLAB	CONCRETE MASONRY	CATCH BASIN NO. 2-2-B AS PER PLAN
		LIN. FT.	EACH		EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	CU. YD.	CU. YD.	SQ. YD.	CU. YD.	EACH
13	B-1	104+00		CTR.		2	1															
14	B-2	141+85		CTR.		2	1															
14	B-3	142+55		CTR.		2	1															
18	B-4	229+55		CTR.		2	1															
18	B-5	230+20		CTR.		2	1															
19	B-6	253+85		CTR.		2	1															
19	B-7	254+50		CTR.		2	1															
22	B-8	334+20		CTR.		2	1															
22	B-9	335+25		CTR.		2	1															
23	B-10	359+35		CTR.		2	1															
23	B-11	360+00		CTR.		2	1															
23	B-12	363+00		CTR.		2	1															
24	B-13	364+05		CTR.		2	1															
24	B-14	382+65		CTR.		2	1															
24	B-15	383+60		CTR.		2	1															
24	B-16	385+73		CTR.		2	1															
13	D-1A	104+52		CTR.																		
13	D-1	106+88		CTR.					100													
14	D-2	144+24		CTR.											53	13	1	7	0.62			
15	D-3	148+35		CTR.				37											2.18			
16	D-4	172+89		CTR.				35											0.40			
16	D-5	178+76		CTR.				45											0.40			
16	D-6	187+76		CTR.				54											0.40			
18	D-7	238+76		CTR.															0.40			
19	D-8	267+44		CTR.										58		6			1.38			
20	D-9	285+74		CTR.										54		2			1.38			
21	D-10	303+67		CTR.						27				43		4			1.12			
21	D-11	309+30		CTR.															4.80			
21	D-12	311+74		CTR.				39											0.86			
21	D-13	314+06		CTR.															0.20	1		
22	D-14	316+50		CTR.				26		28									0.31	1		
22	D-15	317+43		CTR.				26											0.40			
22	D-16	323+81		CTR.				61											0.40			
24	D-17	366+86		CTR.															0.40	1		
24	D-18	377+08		CTR.	3.5					62					62	6			1.68			
24	D-19	382+22		CTR.						48									0.62			
13	F-1	112+07.78	112+98.16	LT.																		
13	F-2	112+02.08	113+15.86	RT.																		
13	F-3	116+16.16	116+52.08	LT.																		
13	F-4	116+33.86	116+81.78	RT.																		
13	F-5	106+79	106+97	LT.																		
13	F-5A	106+79	106+97	RT.																		
16	F-6	172+80	172+98	LT.																		
16	F-6A	172+80	172+98	RT.																		
16	F-7	178+67	178+85	LT.																		
16	F-7A	178+67	178+85	RT.																		
16	F-8	187+67	187+85	LT.																		
16	F-8A	187+67	187+85	RT.																		
22	F-9	323+72	323+90	LT.																		
22	F-9A	323+72	323+90	RT.																		
24	F-10	376+99	377+17	LT.																		
24	F-10A	376+99	377+17	RT.																		
19	F-11	267+00	268+00	RT.																		
20	F-12	268+00	275+00	RT.																		
TOTALS					3.5	32	16	1304	323	48	238	27	30	43	112	62	53	31	13	47	19.07	3

NOTE: ALL QUANTITIES CARRIED TO GENERAL SUMMARY, SHEET 9.

CAD FILE: ATHOUAN
DATE: 1/19/94
OPERATOR: PUP.DLW
SCALE: 1"=1'

BENCHMARK NO. 144 TOP OF NAIL IN HUB SET IN R.R. BED ±380' FROM BENCHMARK NO. 143 STA. 143+68.17, 10.00' RT. ELEV. = 652.28	BENCHMARK NO. 145 SET P.K. IN 0' ALONG R.R. BED ±500' FROM BENCHMARK NO. 144. ELEV. = 652.60	BENCHMARK NO. 146 TOP OF NAIL IN HUB SET IN R.R. BED ±550' FROM BENCHMARK NO. 145 STA. 135+01.54, 37.21' LT. ELEV. = 651.67	BENCHMARK NO. 147 TOP OF NAIL IN HUB ON R.R. BED ±700' FROM BENCHMARK NO. 14 AT N END OF R.R. BRIDGE OVER HOCKING RIVER STA. 127+63.95, 5.88' RT. ELEV. = 652.70
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- NOTES:**
- FOR CULVERT DETAILS SEE SHT'S 37-41
 - FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12
 - FOR BOLLARD DETAILS REFER TO SHEET 50

FHWA REGION	STATE	PROJECT
5	OHIO	

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

- 2 CURVE DATA**
- P.I. = STA. 121+21.34
P.C. = STA. 117+93.58
P.T. = STA. 124+47.48
Δ = 9' 51' 33" RT.
D_c = 1' 30' 28"
R = 3800.00'
T = 327.76'
L = 653.89'
CH = 653.09'
E = 14.11'
- 8 CURVE DATA**
- P.I. = STA. 143+15.63
P.C. = STA. 141+62.43
P.C.C. = STA. 144+68.17
Δ = 9' 10' 17" LT.
D_c = 3' 00' 00"
R = 1910.00'
T = 153.20'
L = 305.74'
CH = 305.41'
E = 6.13'

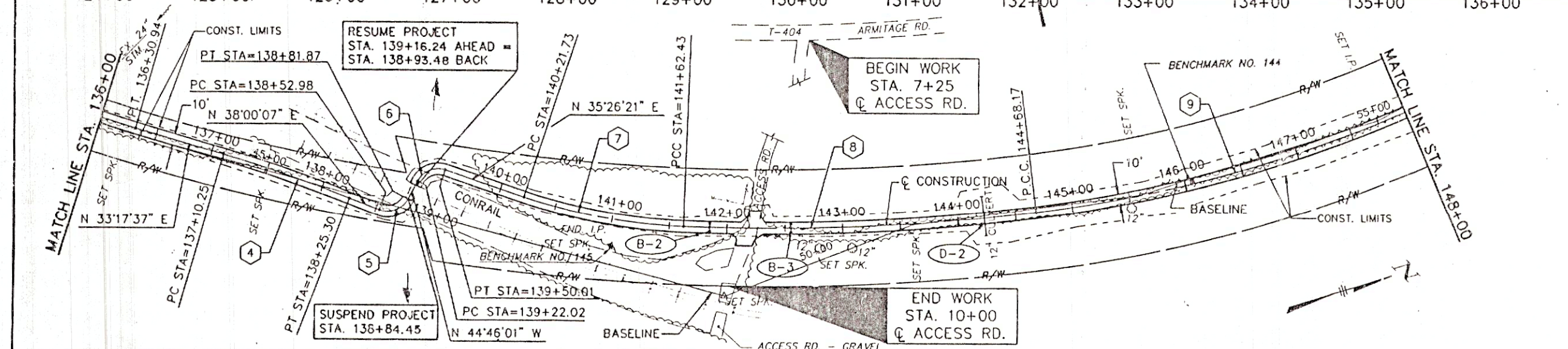
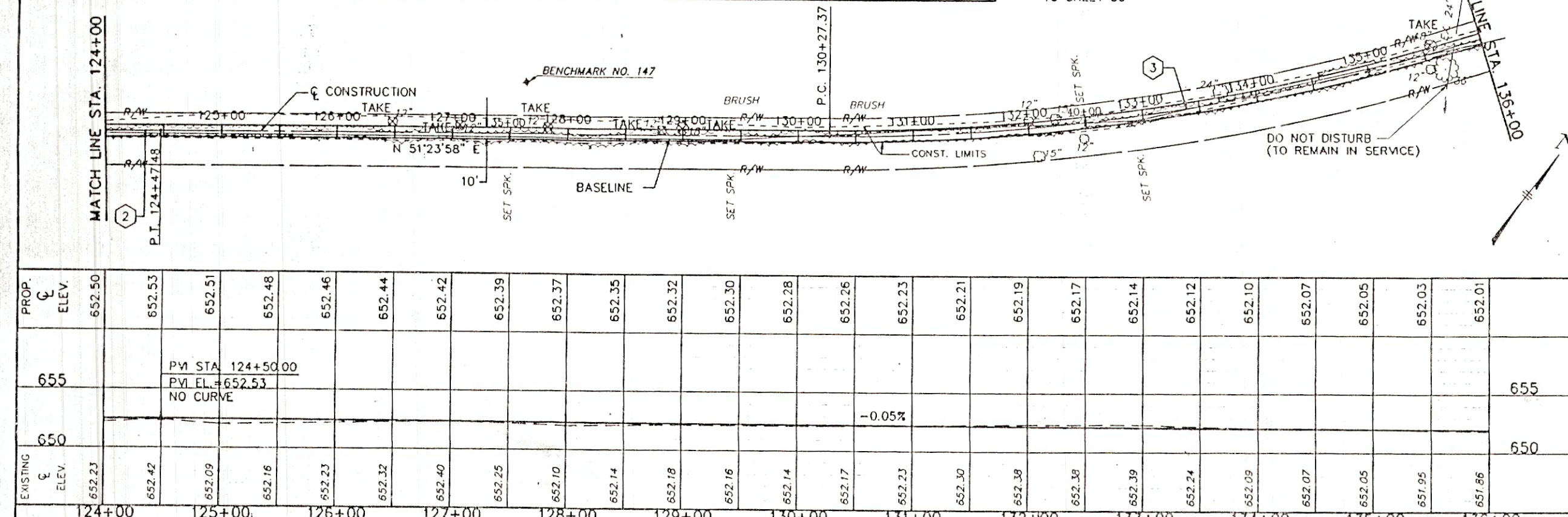
- 3 CURVE DATA**
- P.I. = STA. 133+31.69
P.C. = STA. 130+27.37
P.T. = STA. 136+30.94
Δ = 18' 06' 22" LT.
D_c = 3' 00' 00"
R = 1910.00'
T = 304.33'
L = 603.58'
CH = 601.07'
E = 24.09'
- 9 CURVE DATA**
- P.I. = STA. 146+63.40
P.C.C. = STA. 144+68.17
P.T. = STA. 148+64.82
Δ = 19' 20' 29" LT.
D_c = 4' 52' 40"
R = 1175.00'
T = 200.23'
L = 396.64'
CH = 394.76'
E = 16.94'

- 4 CURVE DATA**
- P.I. = STA. 137+67.81
P.C. = STA. 137+10.25
P.T. = STA. 138+25.30
Δ = 4' 42' 31" RT.
D_c = 4' 05' 36"
R = 1400.00'
T = 57.56'
L = 115.05'
CH = 115.02'
E = 1.18'

- 5 CURVE DATA**
- P.I. = STA. 138+70.60
P.C. = STA. 138+52.98
P.T. = STA. 138+81.87
Δ = 82' 46' 08" LT.
D_c = 286' 28' 44"
R = 20.00'
T = 17.62'
L = 28.89'
CH = 26.44'
E = 6.66'

- 6 CURVE DATA**
- P.I. = STA. 139+38.86
P.C. = STA. 139+22.02
P.T. = STA. 139+50.01
Δ = 80' 12' 21" RT.
D_c = 286' 28' 44"
R = 20.00'
T = 16.84'
L = 28.00'
CH = 25.77'
E = 6.15'

- 7 CURVE DATA**
- P.I. = STA. 140+92.67
P.C. = STA. 140+21.73
P.T. = STA. 141+62.43
Δ = 16' 16' 05" LT.
D_c = 11' 33' 52"
R = 496.29'
T = 70.93'
L = 141.91'
CH = 140.44'
E = 5.04'



PROP. ELEV.	652.01	651.98	651.96	652.32	652.68	653.05	652.84	652.24	651.64	651.63	652.25	652.27	652.28	652.29	652.30	652.31	652.32	652.33	652.34	652.35	652.36	652.37						
EXISTING ELEV.	652.23	652.42	652.09	652.16	652.23	652.32	652.40	652.25	652.10	652.14	652.18	652.16	652.14	652.17	652.30	652.38	652.38	652.39	652.24	652.09	652.07	652.05	651.95	651.86				
STATION	124+00	125+00	126+00	127+00	128+00	129+00	130+00	131+00	132+00	133+00	134+00	135+00	136+00	137+00	138+00	139+00	140+00	141+00	142+00	143+00	144+00	145+00	146+00	147+00	148+00			
GRADES																												
VERTICAL CURVE DATA	PVI STA. 124+50.00 PVI EL. = 652.53 NO CURVE																											
HORIZONTAL CURVE DATA																												

NOTES:

1. FOR CULVERT DETAILS SEE SHT'S 37-41
2. FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12
3. FOR GUARDRAIL DETAILS REFER TO SHEET 12

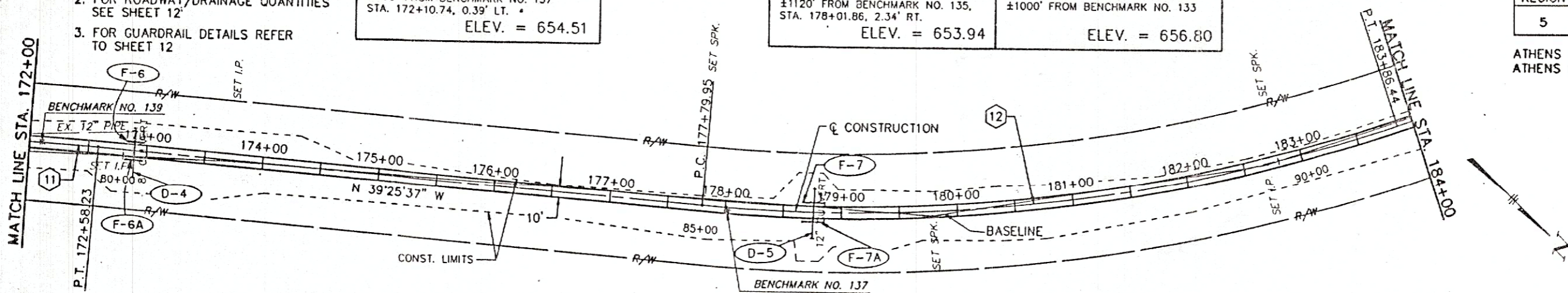
BENCHMARK NO. 139
 TOP OF NAIL IN HUB SET IN R.R. BED
 ±600' FROM BENCHMARK NO. 137
 STA. 172+10.74, 0.39' LT.
 ELEV. = 654.51

BENCHMARK NO. 137
 TOP OF NAIL IN HUB SET IN R.R. BED
 ±1120' FROM BENCHMARK NO. 135,
 STA. 178+01.86, 2.34' RT.
 ELEV. = 653.94

BENCHMARK NO. 135
 TOP OF NAIL HUB SET IN R.R. BED
 ±1000' FROM BENCHMARK NO. 133
 ELEV. = 656.80

FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
 ATHENS BIKEWAY PHASE II



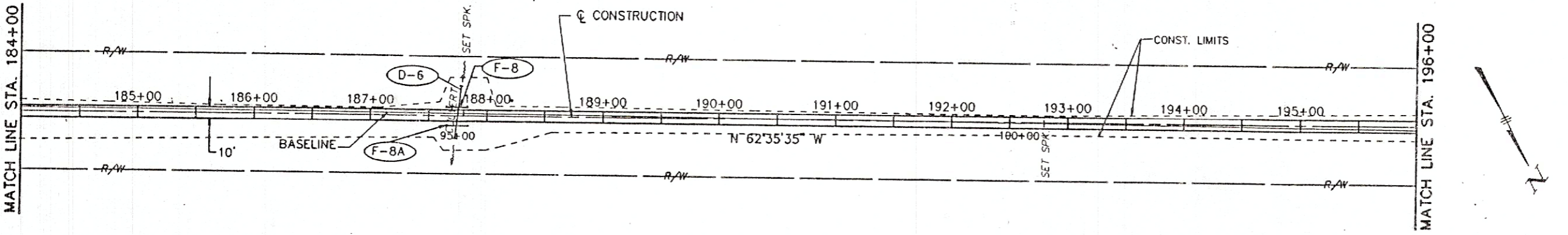
11 CURVE DATA

P.I.	= STA. 169+09.16
P.C.	= STA. 165+57.08
P.T.	= STA. 172+58.23
Δ	= 12° 57' 33\" RT.
Qc	= 1' 50' 54\"
R	= 3100.00'
T	= 352.08'
L	= 701.15'
CH	= 699.66'
E	= 19.93'

PROP. CL ELEV.	653.89	653.75	653.61	653.47	653.33	653.39	653.45	653.51	653.57	653.63	653.69	653.75	653.81	653.87	653.93	654.12	654.31	654.50	654.69	654.88	655.07	655.26	655.45	655.64	655.83	
655																										
650																										
EXISTING CL ELEV.	654.21	653.95	653.95	652.65	653.35	653.53	653.72	653.64	653.57	653.61	653.65	653.70	654.09	654.02	653.94	654.24	654.54	654.60	654.66	654.81	654.96	655.34	655.73	655.90	656.03	
172+00	173+00	174+00	175+00	176+00	177+00	178+00	179+00	180+00	181+00	182+00	183+00	184+00														
INV. = 645.18								INV. = 642.11																		

12 CURVE DATA

P.I.	= STA. 180+87.40
P.C.	= STA. 177+79.95
P.T.	= STA. 183+86.44
Δ	= 23° 09' 57\" LT.
Qc	= 3' 49' 14\"
R	= 1500.00'
T	= 307.44'
L	= 606.48'
CH	= 602.36'
E	= 31.18'



PROP. CL ELEV.	655.83	656.02	656.21	656.40	656.59	656.78	656.97	657.06	657.13	657.19	657.24	657.27	657.29	657.30	657.29	657.27	657.23	657.18	657.12	656.98	656.84	656.70	656.56	656.42	656.28	656.14	656.00	656.04	656.08	656.12	656.16	
655																																
650																																
EXISTING CL ELEV.	656.03	656.23	656.43	656.59	656.75	656.78	656.81	656.84	656.87	656.91	656.96	657.00	657.04	656.90	656.76	656.49	656.22	656.23	656.24	656.13	656.03	656.04	656.05	655.97	655.89							
184+00	185+00	186+00	187+00	188+00	189+00	190+00	191+00	192+00	193+00	194+00	195+00	196+00																				
INV. = 644.61																																

BENCHMARK NO. 133
 TOP OF SET IRON PIN IN R.R. BED
 ±1000' FROM BENCHMARK NO. 131,
 STA. 203+59.77, 1' RT.
 ELEV. = 653.82

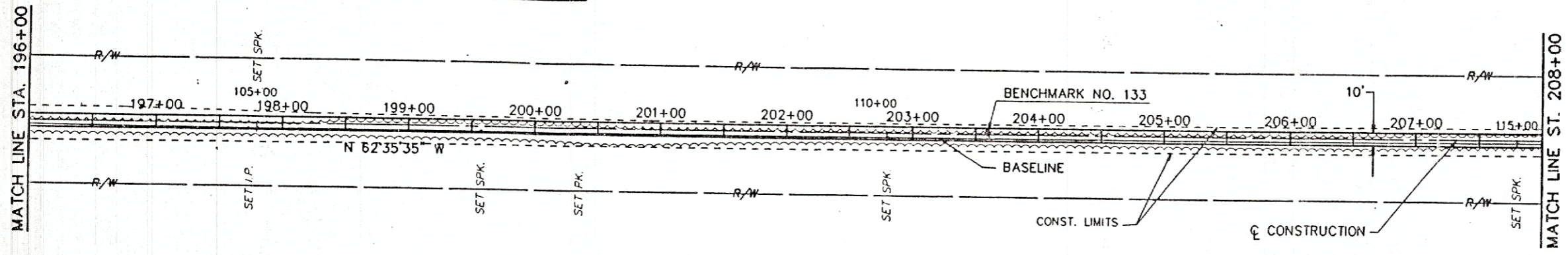
BENCHMARK NO. 131
 TOP OF SET IRON PIN ON R.R. BED
 ±450' FROM BENCHMARK NO. 133
 STA. 213+79.34, 6.44' LT.
 ELEV. = 652.42

NOTES:
 1. FOR ROADWAY QUANTITIES
 SEE SHEET 12

FHWA REGION	STATE	PROJECT
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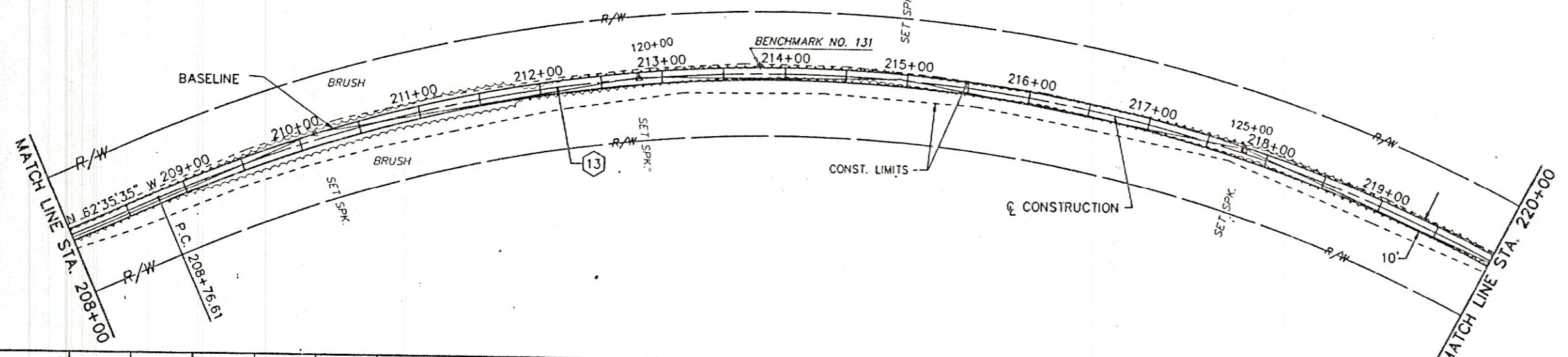
17
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ATHENS COUNTY
 ATHENS BIKEWAY PHASE II



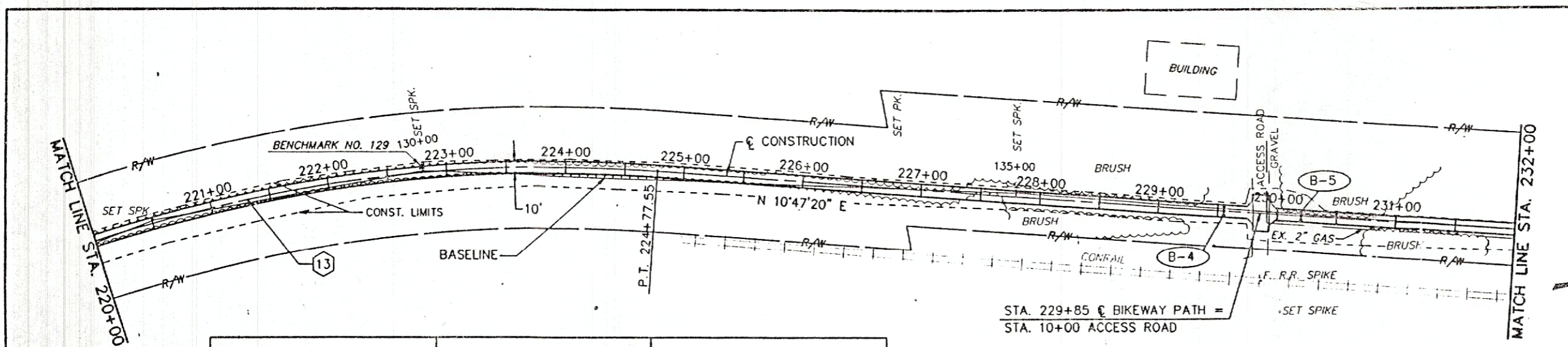
PROP. ELEV.	656.16	656.20	656.24	656.28	656.32	656.04	655.76	655.48	655.20	654.92	654.64	654.36	654.08	653.80	653.52	653.24	652.96	652.68	652.40	652.12	651.84	651.79	651.74	651.69	651.64	
655	0.08%	PVI STA. 198+00 PVI EL. = 656.32 NO CURVE										0.56%	PVI STA. 206+00 PVI EL. = 651.84 NO CURVE													
650																										
EXISTING ELEV.	655.89	656.10	656.31	656.05	655.79	655.79	655.78	655.46	655.14	654.99	654.85	654.08	653.31	653.31	653.30	653.01	652.72	652.52	652.31	652.03	651.74	651.71	651.69	651.62	651.55	
	196+00	197+00	198+00	199+00	200+00	201+00	202+00	203+00	204+00	205+00	206+00	207+00	208+00													

13 CURVE DATA
 P.I. = STA. 218+08.02
 P.C. = STA. 208+76.61
 P.T. = STA. 224+77.55
 Δ = 73° 22' 55" RT.
 D_s = 4' 35" 06"
 R = 1250.00'
 T = 931.42'
 L = 1600.95'
 CH = 1493.75'
 E = 308.86'



PROP. ELEV.	651.64	651.60	651.55	651.50	651.45	651.40	651.35	651.30	651.25	651.20	651.15	651.11	651.06	651.01	650.99	650.98	650.98	650.99	651.00	651.03	651.07	651.12	651.17	651.24	651.31	651.40	651.58	651.76	651.94	652.12	652.30	
655													PVC STA. 214+50 PVC EL. = 651.01														PVT STA. 217+50 PVI EL. = 651.40					
650					-0.10%																											
EXISTING ELEV.	651.55	651.56	651.61	651.62	651.63	651.70	651.78	651.49	651.20	651.21	651.21	651.21	651.20	651.26	651.31	651.35	651.40	651.47	651.54	651.56	651.57	651.57	651.58	651.71	651.83							
	208+00	209+00	210+00	211+00	212+00	213+00	214+00	215+00	216+00	217+00	218+00	219+00	220+00																			

ATHENS COUNTY
ATHENS BIKEWAY PHASE II



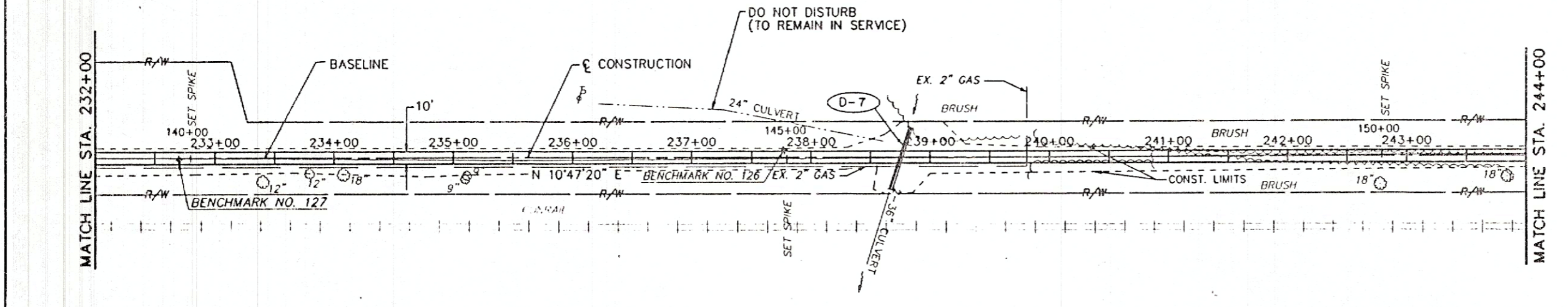
<p>BENCHMARK NO. 129 TOP OF SET IRON PIN ON R.R. BED ±1000' FROM BENCHMARK NO. 127 STA. 22+79.20, 5' LT. ELEV. = 654.10</p>	<p>BENCHMARK NO. 127 TOP OF SET IRON PIN IN R.R. BED ±500' FROM BENCHMARK NO. 126 STA. 232+38.57 1.5' RT. ELEV. = 655.35</p>	<p>BENCHMARK NO. 126 TOP OF SET IRON PIN IN R.R. BED DIRECTLY UNDER WEST BOUND US 33 STA. 237+77.12, 5.54' LT. ELEV. = 655.73</p>
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PROP. ELEV.	652.30	652.48	652.66	652.84	653.02	653.20	653.38	653.56	653.74	653.80	653.86	653.92	653.98	654.05	654.11	654.17	654.23	654.29	654.35	655.28	655.97	655.68	655.39	655.10	655.12	
655																										
650																										
EXISTING ELEV.	651.83	652.05	652.27	652.63	652.99	653.22	653.45	653.63	653.81	653.66	653.66	653.82	653.97	654.08	654.19	654.29	654.40	654.33	654.25	655.24	655.20	655.12	655.05	655.10	655.15	
STA.	220+00	221+00	222+00	223+00	224+00	225+00	226+00	227+00	228+00	229+00	230+00	231+00	232+00													

13 CURVE DATA

P.I. = STA. 218+08.02
P.C. = STA. 208+76.61
P.T. = STA. 224+77.55
Δ = 73° 22' 55" RT.
D_c = 4' 35" 06"
R = 1250.00'
T = 931.42'
L = 1600.95'
CH = 1493.75'
E = 308.86'

- NOTES:**
- FOR CULVERT DETAILS SEE SHI'S 37-41
 - FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12



PROP. ELEV.	655.12	655.14	655.16	655.18	655.21	655.23	655.25	655.27	655.29	655.31	655.33	655.35	655.38	655.40	655.42	655.44	655.46	655.41	655.35	655.30	655.25	655.19	655.14	655.09	655.04	
655																										
650																										
EXISTING ELEV.	655.15	655.21	655.28	655.19	655.09	655.19	655.29	655.21	655.12	655.11	655.09	654.96	654.84	655.09	655.35	655.41	655.46	655.16	654.85	654.78	654.71	654.86	655.01	654.95	654.89	
STA.	232+00	233+00	234+00	235+00	236+00	237+00	238+00	239+00	240+00	241+00	242+00	243+00	244+00													

PLAN AND PROFILE STA. 220+00 TO STA. 244+00

BENCHMARK NO.125
TOP OF SET I.P. IN RR BED ±500' FROM
B.M. NO. 124 STA. 244+38.40, 0.28' LT.
ELEV. = 654.87

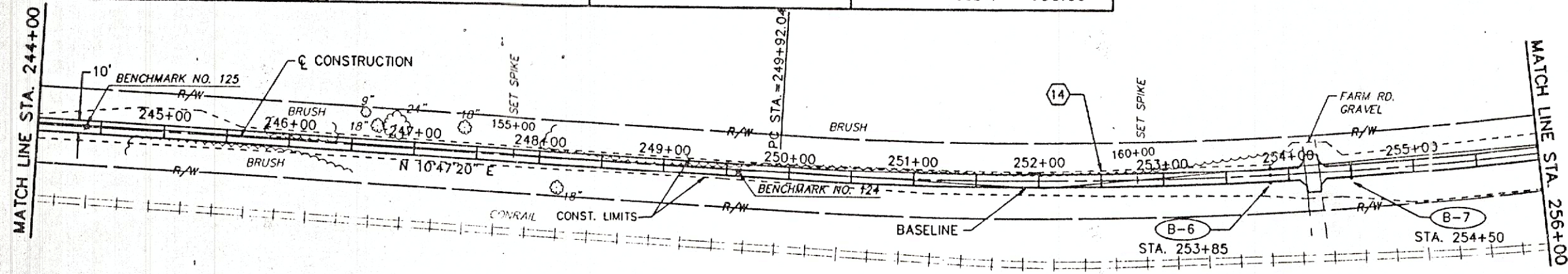
BENCHMARK NO. 124
TOP OF SET I.P. IN RR BED ±970' FROM
B.M. NO. 122 STA. 249+59.38, 1.12' RT.
ELEV. = 654.05

BENCHMARK NO. 122
TOP OF SET I.P. IN RR BED ±470' FROM
B.M. NO. 121 STA. 259+11.53, 3.68' LT.
ELEV. = 654.94

BENCHMARK NO.121
TOP OF SET I.P. IN RR BED ±460' FROM
B.M. NO. 120 STA. 264+35.54 2.14' LT.
ELEV. = 655.39

FHWA REGION	STATE	PROJECT	
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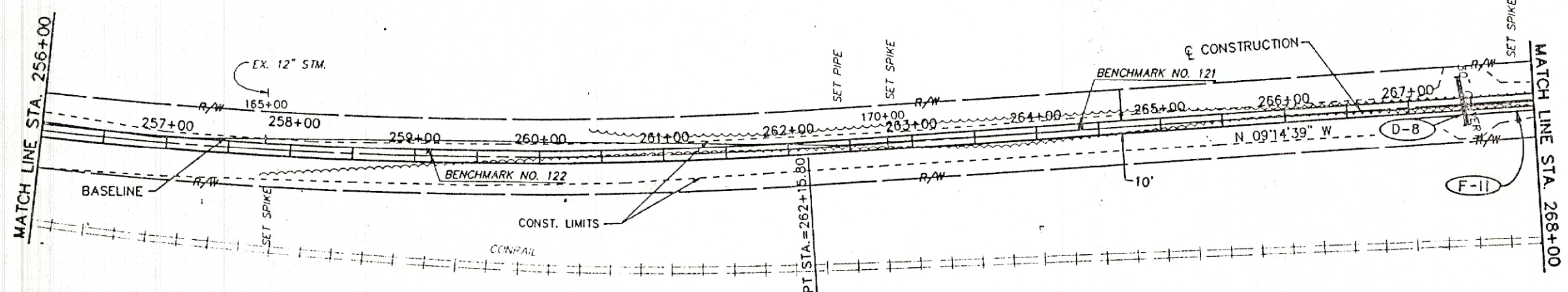
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



PROP. ELEV.	655.04	654.98	654.93	654.88	654.82	654.77	654.72	654.66	654.61	654.56	654.50	654.45	654.40	654.35	654.29	654.24	654.19	654.13	654.08	654.67	655.25	655.42	655.34	655.26	655.18	
655																					MEET EXIST. GRAVEL ROAD STA. 254+13.34	1.17%	MEET EXIST. GRAVEL ROAD STA. 254+21.77			655
650																					PVI STA. 253+00 PVI EL. = 654.08 NO CURVE					650
EXISTING ELEV.	654.89	654.82	654.75	654.58	654.42	654.38	654.33	654.44	654.55	654.35	654.16	654.22	654.20	654.03	653.86	653.95	654.04	654.06	654.08	654.66	655.24	655.03	654.18	654.27	654.35	
	244+00	245+00	246+00	247+00	248+00	249+00	250+00	251+00	252+00	253+00	254+00	255+00	256+00													

14 CURVE DATA

P.I. = STA. 256+10.23
P.C. = STA. 249+92.04
P.T. = STA. 262+15.80
Δ = 20° 02' 00" LT.
D_r = 1' 38' 13"
R = 3500.00'
T = 618.19'
L = 1223.76'
CH = 1217.54'
E = 54.18'



PROP. ELEV.	655.18	655.10	655.02	654.94	654.86	654.78	654.70	654.87	655.04	655.21	655.38	655.55	655.72	655.89	656.06	655.84	655.62	655.40	655.18	654.96	654.74	654.52	654.30	654.08	653.86	
655																										655
650																										650
EXISTING ELEV.	654.35	654.48	654.62	654.68	654.74	654.68	654.63	654.82	655.02	655.12	655.22	655.44	655.66	655.68	655.62	655.52	655.42	654.97	654.52	654.37	654.21	654.12	654.03	653.88	653.72	
	256+00	257+00	258+00	259+00	260+00	261+00	262+00	263+00	264+00	265+00	266+00	267+00	268+00													

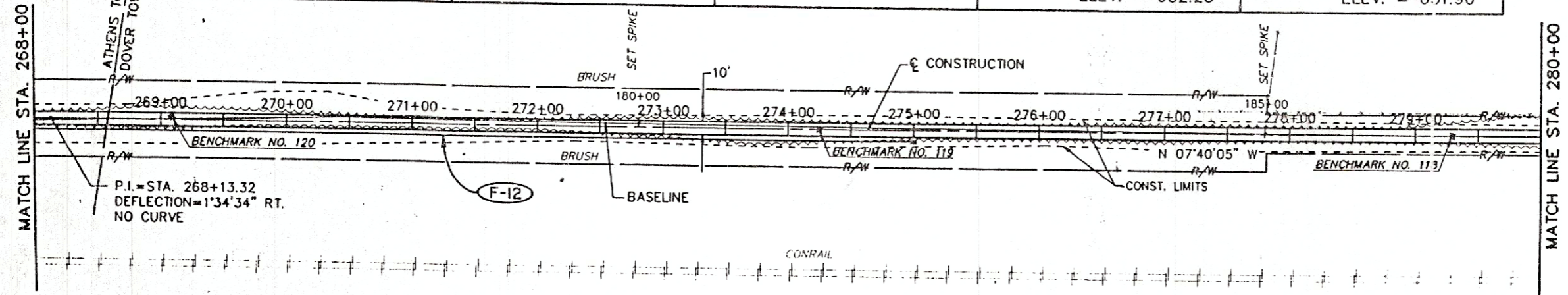
- NOTES:
1. FOR CULVERT DETAILS SEE SH'TS 37-41
 2. FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12
 3. FOR BOLLARD DETAILS REFER TO SHEET 50
 4. FOR FENCE RAILING DETAILS, SEE SHEET 7.

BENCHMARK NO.120 TOP OF SET I.P. IN RR BED ±500' FROM B.M. NO. 119 STA. 269+08.76, 2.09' LT. ELEV. = 653.29	BENCHMARK NO.119 TOP OF SET I.P. IN RR BED ±500' FROM B.M. NO. 118 STA. 274+24.90, 0.29' RT. ELEV. = 653.39	BENCHMARK NO.118 TOP OF SET I.P. IN RR BED ±500' FROM B.M. NO. 117 STA. 279+29.63, 0.21' RT. ELEV. = 653.16	BENCHMARK NO.117 TOP OF SET I.P. IN RR BED ±500' FROM B.M. NO. 116 STA. 284+42.34, 0.34' RT. ELEV. = 652.25	BENCHMARK NO.116 TOP OF SET I.P. IN RR BED ±500' FROM B.M. NO. 115 STA. 289+54.40, 1.75' RT. ELEV. = 651.90
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FHWA REGION	STATE	PROJECT
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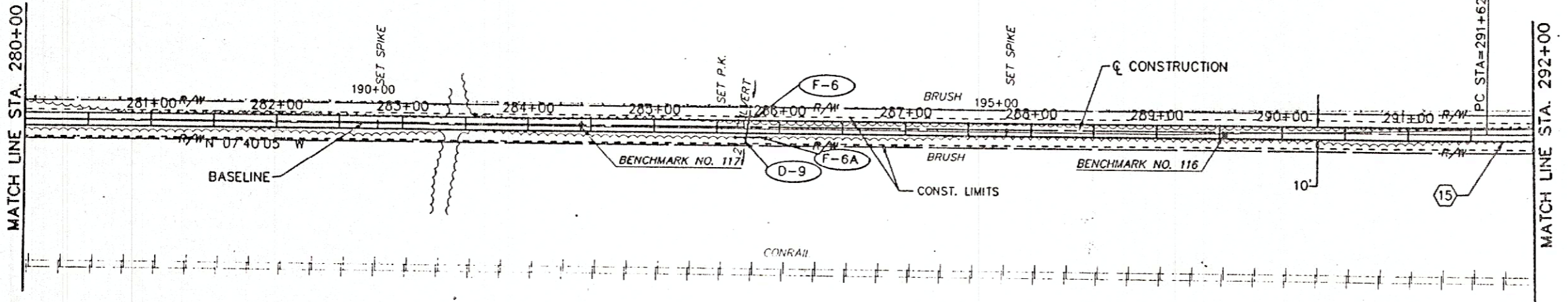
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



PROP. ELEV.	653.86	653.83	653.80	653.77	653.74	653.71	653.68	653.65	653.62	653.59	653.56	653.53	653.50	653.47	653.44	653.41	653.38	653.31	653.24	653.17	653.10	653.03	652.96	652.89	652.82	
655																										
650																										
EXISTING ELEV.	653.72	653.50	653.22	653.37	653.52	653.48	653.45	653.25	653.04	653.00	652.96	653.06	653.15	653.12	653.09	653.13	653.16	653.17	653.17	653.07	653.07	652.96	652.99	653.03	652.50	651.98
Notes																										

15 CURVE DATA
P.I. = STA. 299+01.30
P.C. = STA. 291+62.70
P.T. = STA. 305+68.17
Δ = 43° 31' 42" LT.
D_s = 3' 05" 51"
R = 1850.00'
T = 738.60'
L = 1405.47'
CH = 1371.91'
E = 141.99'



PROP. ELEV.	652.82	652.75	652.68	652.61	652.54	652.47	652.40	652.33	652.26	652.19	652.12	652.05	651.98	651.91	651.88	651.86	651.83	651.81	651.78	651.76	651.73	651.71	651.68	651.66	651.63	
650																										
645																										
EXISTING ELEV.	651.98	652.33	652.69	652.63	652.57	652.48	652.40	652.35	652.30	652.16	652.01	651.96	651.92	651.79	651.66	651.61	651.56	651.64	651.72	651.64	651.56	651.64	651.73	651.70	651.69	
Notes																										

- NOTES:
- FOR CULVERT DETAILS SEE SHT'S 37-41
 - FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12
 - FOR BOLLARD DETAILS REFER TO SHEET 50
 - FOR FENCE RAILING DETAILS, SEE SHEET 7.

DATE: 2/16/94
CAD FILE: ATHPSB
OPERATOR: P.P.D.W
PLOT SCALE: 1"=50'

PLAN AND PROFILE STA. 268+00 TO STA. 292+00

BENCHMARK NO.115
TOP OF SET I.P. ON C OF OLD R.R. BED
± 500' FROM BENCHMARK NO. 114
STA. 294+12.26, 0.43' LT.
ELEV. = 651.98

BENCHMARK NO.114
TOP OF SET I.P. ON C OF OLD R.R. BED
± 600' FROM BENCHMARK NO. 115
STA. 299+15.34, 1.50' RT.
ELEV. = 652.09

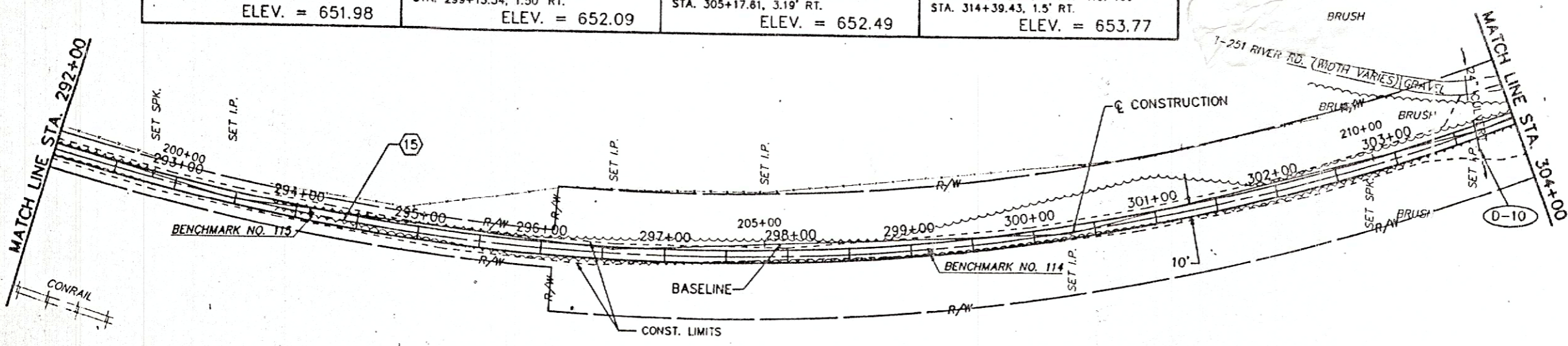
BENCHMARK NO.113
SET RE-ROD ON W. EDGE OF R.R. BED
± 500' FROM BENCHMARK NO. 112
STA. 305+17.81, 3.19' RT.
ELEV. = 652.49

BENCHMARK NO. 111
SET RE-ROD IN OLD R.R. BED
± 420' FROM BENCHMARK NO. 109
STA. 314+39.43, 1.5' RT.
ELEV. = 653.77

FWHA REGION	STATE	PROJECT
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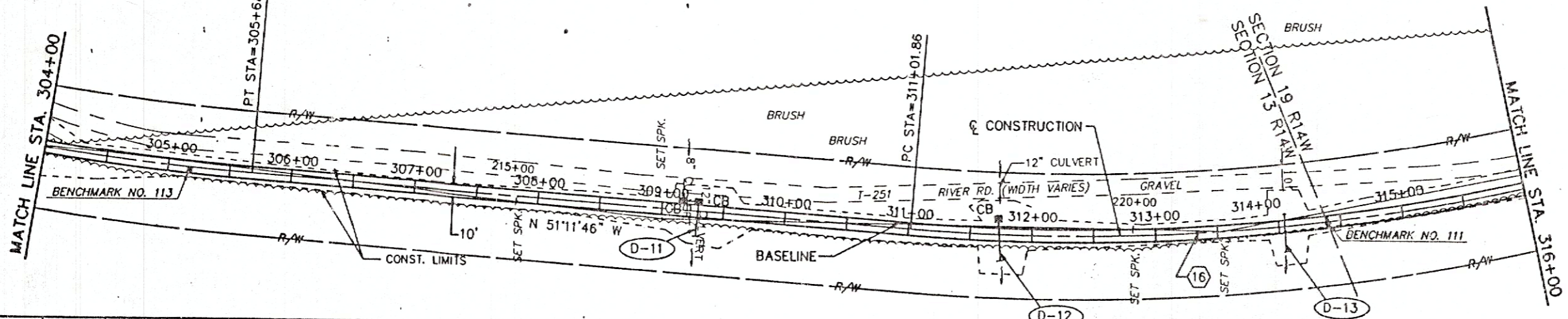
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



PROP. ELEV.	651.63	651.65	651.67	651.69	651.71	651.73	651.75	651.77	651.79	651.81	651.83	651.85	651.87	651.89	651.91	651.93	651.95	651.97	651.99	652.01	652.03	652.05	652.07	652.09	652.11
650											0.04%														
645																									
EXISTING ELEV.	651.69	651.66	651.64	651.79	651.93	651.83	651.73	651.82	651.91	651.92	651.93	651.95	651.98	651.99	652.00	651.99	651.98	651.95	651.91	651.88	651.84	651.59	651.34	651.70	652.05
	292+00	293+00	294+00	295+00	296+00	297+00	298+00	299+00	300+00	301+00	302+00	303+00	304+00												

15 CURVE DATA
P.I. = STA. 299+01.30
P.C. = STA. 291+62.70
P.T. = STA. 305+68.17
Δ = 43° 31' 42" LT.
D_s = 3' 05" 51"
R = 1850.00'
T = 738.60'
L = 1405.47'
CH = 1371.91'
E = 141.99'

16 CURVE DATA
P.I. = STA. 314+05.37
P.C. = STA. 311+01.86
P.T. = STA. 317+02.56
Δ = 20° 14' 44" LT.
D_s = 3' 22" 15"
R = 1700.00'
T = 303.51'
L = 600.70'
CH = 597.58'
E = 26.88'



PROP. ELEV.	652.11	652.38	652.65	652.67	652.69	652.71	652.73	652.75	652.77	652.79	652.81	652.83	652.85	652.87	652.89	652.91	652.93	652.95	652.97	652.99	653.01	653.03	653.05	653.07	653.09
650		0.54%																							
645																									
EXISTING ELEV.	652.05	652.34	652.64	652.60	652.61	652.58	652.56	652.57	652.58	652.77	652.95	652.90	652.86	653.01	653.16	653.12	653.09	652.27	651.45	650.99	650.54	651.81	653.07	653.18	653.29
	304+00	305+00	306+00	307+00	308+00	309+00	310+00	311+00	312+00	313+00	314+00	315+00	316+00												

NOTES:
1. FOR CULVERT DETAILS SEE SHT'S 37-41
2. FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12

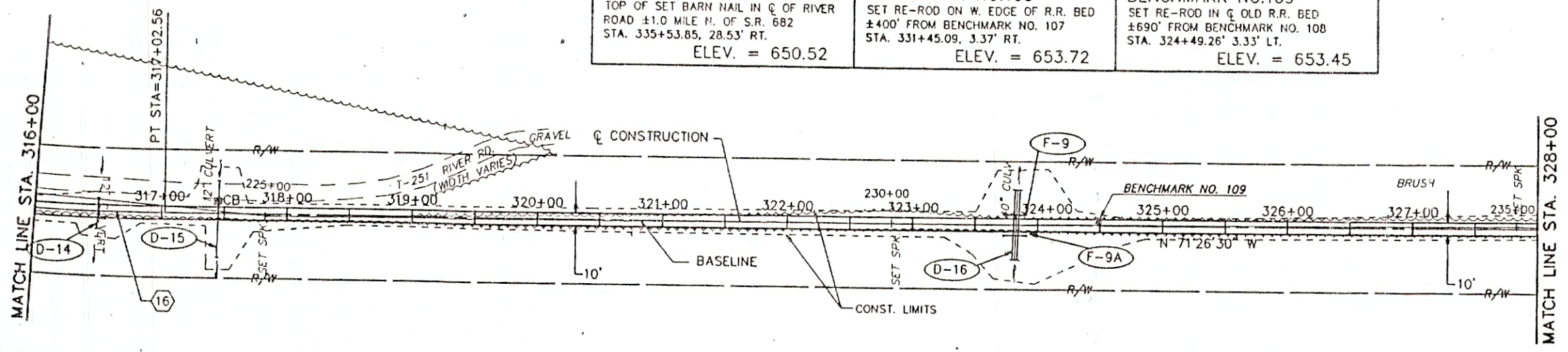
BENCHMARK NO.107
TOP OF SET BARN NAIL IN C OF RIVER
ROAD ±1.0 MILE N. OF S.R. 682
STA. 335+53.85, 28.53' RT.
ELEV. = 650.52

BENCHMARK NO.108
SET RE-ROD ON W. EDGE OF R.R. BED
±400' FROM BENCHMARK NO. 107
STA. 331+45.09, 3.37' RT.
ELEV. = 653.72

BENCHMARK NO.109
SET RE-ROD IN C OF OLD R.R. BED
±690' FROM BENCHMARK NO. 108
STA. 324+49.26' 3.33' LT.
ELEV. = 653.45

FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



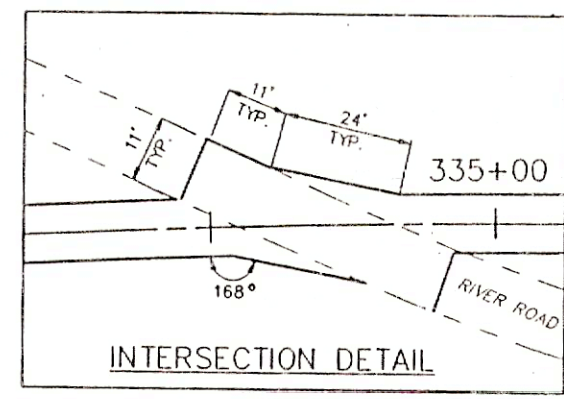
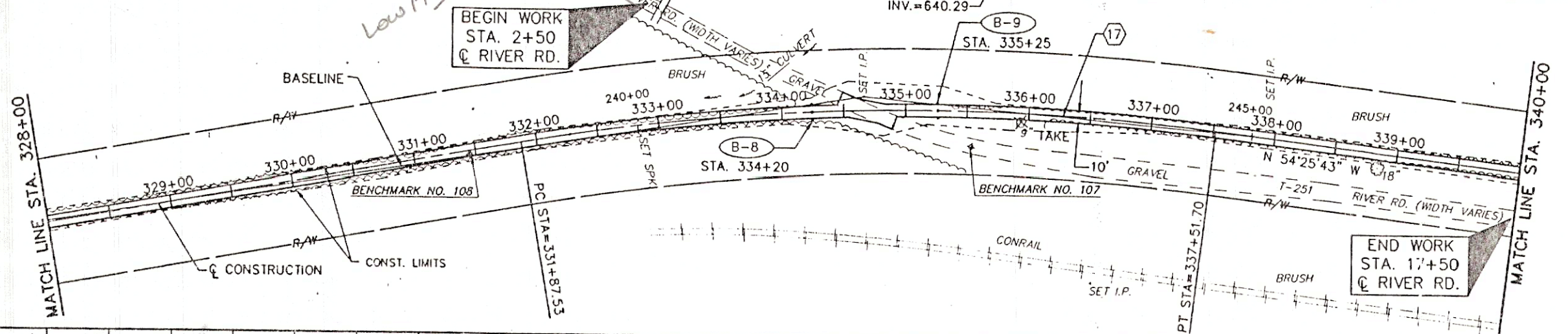
16 CURVE DATA

P.I.	= STA. 314+05.37
P.C.	= STA. 311+01.86
P.T.	= STA. 317+02.56
Δ	= 20° 14' 44" LT.
D _c	= 3' 22' 15"
R	= 1700.00'
T	= 303.51'
L	= 600.70'
CH	= 597.58'
E	= 26.88'

17 CURVE DATA

P.I.	= STA. 334+05.71
P.C.	= STA. 331+87.53
P.T.	= STA. 337+51.70
Δ	= 17° 00' 47" RT.
D _c	= 3' 00' 57"
R	= 1900.00'
T	= 284.18'
L	= 564.18'
CH	= 562.11'
E	= 21.13'

PROP. C ELEV.	653.09	653.11	653.13	653.15	653.17	653.19	653.21	653.23	653.25	653.27	653.29	653.31	653.33	653.35	653.37	653.39	653.41	653.43	653.45	653.47	653.49	653.51	653.53	653.55	653.57
650	0.04%																								
645	INV. = 648.81 INV. = 649.25																								
EXISTING C ELEV.	653.29	653.31	653.33	653.47	653.60	653.64	653.67	653.55	653.43	653.46	653.48	653.56	653.63	653.68	653.72	653.73	653.73	653.38	653.03	653.23	653.42	653.36	653.27	653.37	653.45
	316+00	317+00	318+00	319+00	320+00	321+00	322+00	323+00	324+00	325+00	326+00	327+00	328+00												



PROP. C ELEV.	653.57	653.59	653.61	653.63	653.65	653.67	653.69	653.71	653.73	653.75	653.77	653.44	653.12	652.79	652.74	652.88	653.02	653.16	653.30	653.44	653.58	653.62	653.66	653.70	653.74
655	0.04%																								
650	MEET EXIST. GRAVEL ROAD STA. 334+54.85																								
EXISTING C ELEV.	653.45	653.35	653.25	653.23	653.20	653.29	653.38	653.56	653.69	653.64	653.60	653.68	653.76	652.85	652.16	652.64	653.12	653.20	653.28	653.37	653.66	653.62	653.58	653.62	653.66
	328+00	329+00	330+00	331+00	332+00	333+00	334+00	335+00	336+00	337+00	338+00	339+00	340+00												

- NOTES:
1. FOR CULVERT DETAILS SEE SHTS 37-41
 2. FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12
 3. FOR GUARDRAIL DETAILS REFER TO SHEET 12
 4. FOR BOLLARD DETAILS REFER TO SHEET 50

BENCHMARK NO. 106
TOP OF SET BARN NAIL ±0.8 MI.
NORTH OF S.R. 682 IN RIVER ROAD
ELEV. = 654.45

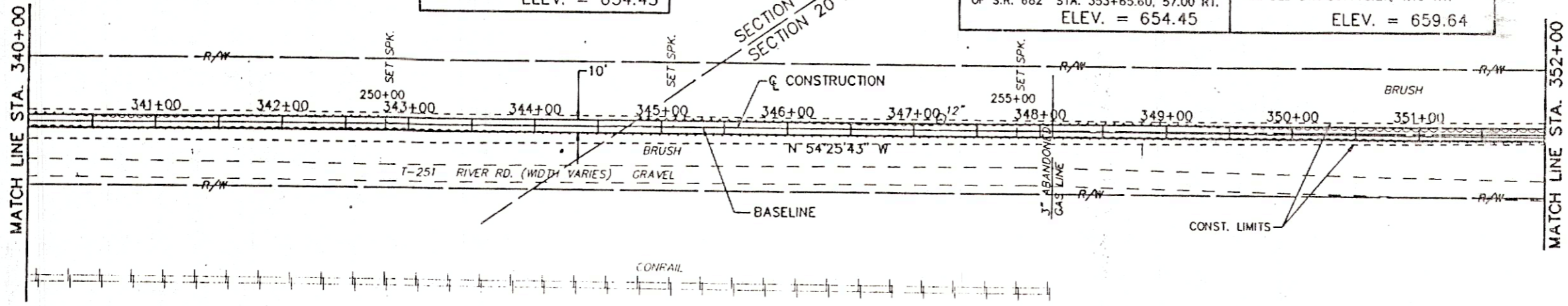
BENCHMARK NO. 105
TOP OF R.R. SPIKE @ THE S.W. CORNER
OF RIVER ROAD & DRIVEWAY ±0.65 MI. N.
OF S.R. 682 STA. 353+65.60, 57.00 RT.
ELEV. = 654.45

BENCHMARK NO. 104
TOP OF SET I.P. ±10' W. OF OLD
R.R. BED STA 361+73.27, 4.10' RT.
ELEV. = 659.64

FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



(18) CURVE DATA

P.I.	= STA. 355+75.43
P.C.	= STA. 353+62.63
P.T.	= STA. 357+81.98
Δ	= 24° 01' 37" LT.
D	= 5' 43' 55"
R	= 1000.00'
T	= 212.80'
L	= 419.35'
CH	= 416.29'
E	= 22.39'

(19) CURVE DATA

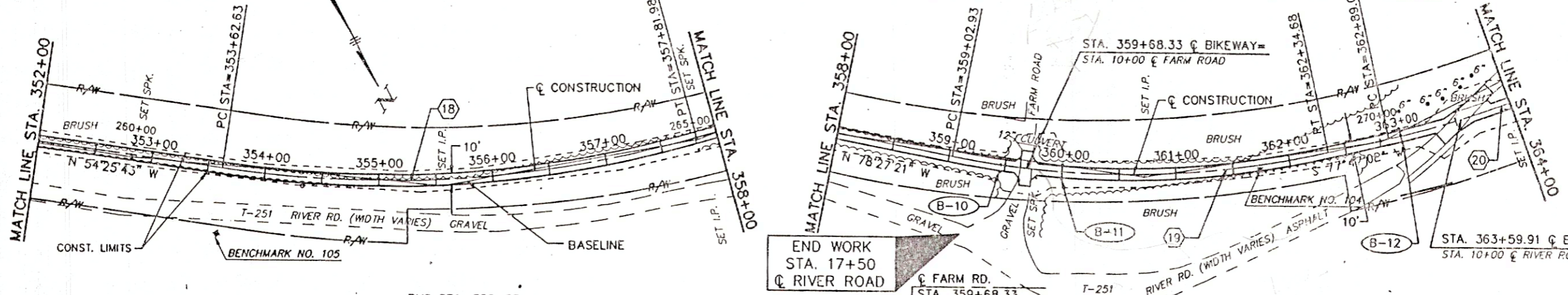
P.I.	= STA. 360+71.22
P.C.	= STA. 359+02.93
P.T.	= STA. 362+34.68
Δ	= 23° 45' 37" LT.
D	= 7' 10' 00"
R	= 800.00'
T	= 168.30'
L	= 331.76'
CH	= 329.38'
E	= 17.51'

PROP. C ELEV.	653.74	653.78	653.82	653.86	653.90	653.94	653.98	654.02	654.06	654.10	654.15	654.19	654.23	654.27	654.31	654.35	654.39	654.43	654.47	654.51	654.55	654.59	654.63	654.66	654.72	654.79	654.90	
655										0.00%																		
650																												
EXISTING C ELEV.	653.66	653.56	653.45	653.49	653.53	653.75	653.97	653.92	653.87	653.90	653.93	653.87	653.81	653.86	653.90	653.95	654.01	654.12	654.24	654.33	654.42	654.59	654.75	654.87	654.98			
STA.	340+00	341+00	342+00	343+00	344+00	345+00	346+00	347+00	348+00	349+00	350+00	351+00	352+00															

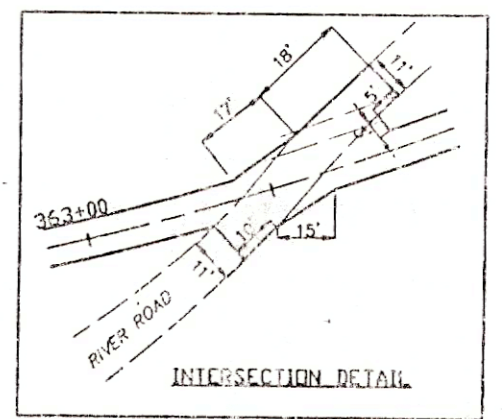
(20) CURVE DATA

P.I.	= STA. 364+64.15
P.C.	= STA. 362+89.04
P.T.	= STA. 365+33.83
Δ	= 24° 41' 36" LT.
D	= 7' 10' 00"
R	= 800.00'
T	= 175.11'
L	= 344.78'
CH	= 342.12'
E	= 18.94'

- NOTES:
- FOR BOLLARD DETAILS REFER TO SHEET 50
 - FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12



PROP. C ELEV.	654.90	655.02	655.17	655.34	655.53	655.94	656.35	656.56	656.56	656.56	656.55	656.57	656.60	656.66	656.74	656.85	656.98	657.14	657.32	657.53	657.76	658.01	658.29	658.57	658.99	659.38	659.55	659.68	659.77	659.82	659.83	659.80	659.75	659.62	659.35	659.48	659.88			
655																																								
650																																								
EXISTING C ELEV.	654.98	655.22	655.47	655.90	656.22	656.40	656.57	656.59	656.60	656.58	656.56	656.90	657.26	657.48	657.69	658.50	658.36	659.03	659.55	659.65	659.61	659.54	659.00	659.48	659.70	659.65	659.61	659.54	659.00	659.48	659.70	659.65	659.61	659.54	659.00	659.48	659.70	659.65		
STA.	352+00	353+00	354+00	355+00	356+00	357+00	358+00	359+00	360+00	361+00	362+00	363+00	364+00																											



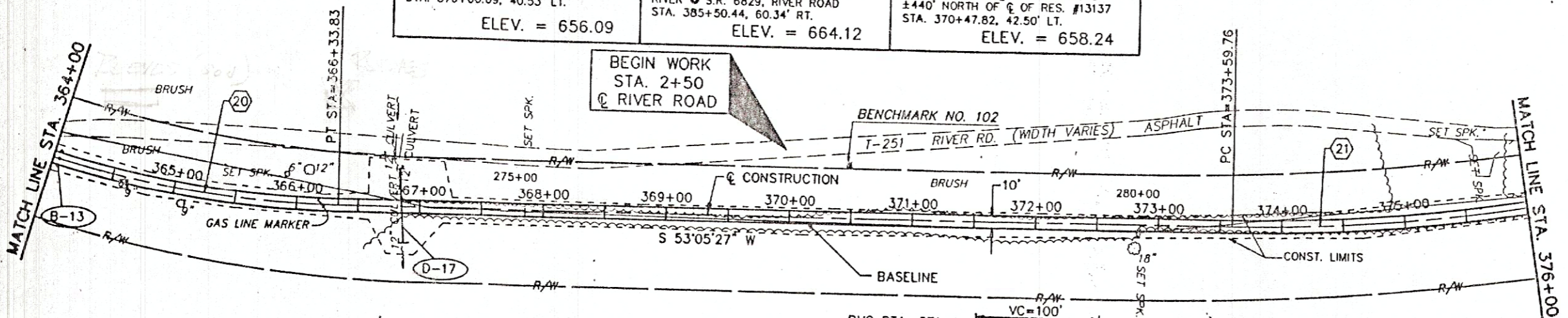
PLAN AND PROFILE STA. 340+00 TO STA. 364+00

BENCHMARK NO. 101 SET P.K. IN POLE ON W. SIDE OF RIVER ROAD, OPPOSITE RES. # 13137 STA. 376+00.09, 40.53' LT. ELEV. = 656.09	BENCHMARK NO. 43 TOP OF CONC. FILLED 8" PIPE ON N.W. HEADWALL OF BRIDGE OVER HOCKING RIVER @ S.R. 6829, RIVER ROAD STA. 385+50.44, 60.34' RT. ELEV. = 664.12	BENCHMARK NO. 102 TOP OF P.K. IN C OF RIVER ROAD ±440' NORTH OF C OF RES. #13137 STA. 370+47.82, 42.50' LT. ELEV. = 658.24
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FHWA REGION	STATE	PROJECT
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



- NOTES:
1. FOR CULVERT DETAILS SEE SHT'S 37-41
 2. FOR ROADWAY/DRAINAGE QUANTITIES SEE SHEET 12
 3. FOR GUARDRAIL DETAILS REFER TO SHEET 12
 4. FOR BOLLARD DETAILS REFER TO SHEET 50

20 CURVE DATA

P.I. = STA. 364+64.15
P.C. = STA. 362+89.04
P.T. = STA. 366+33.83
Δ = 24° 41' 36" LT.
D_c = 7' 10" 00"
R = 800.00'
T = 175.11'
L = 344.78'
CH = 342.12'
E = 18.94'

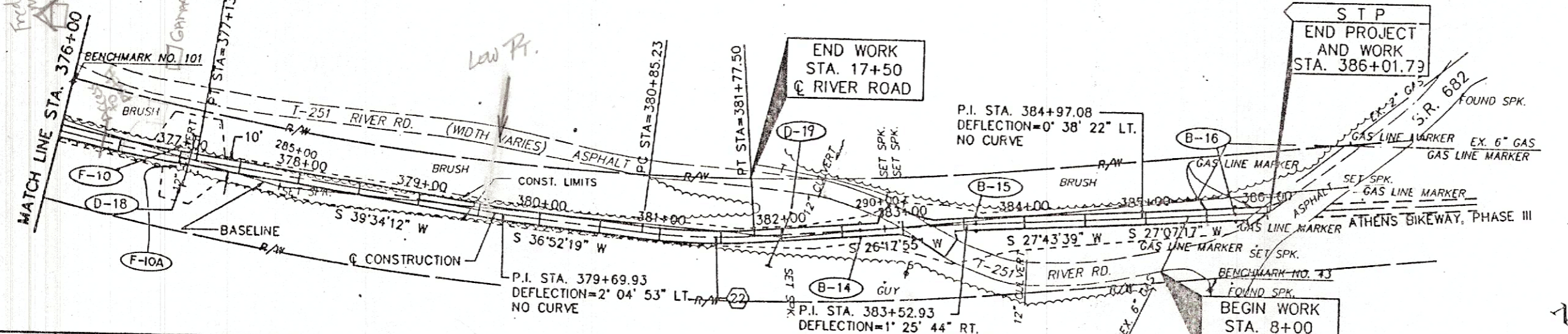
21 CURVE DATA

P.I. = STA. 375+37.57
P.C. = STA. 373+59.76
P.T. = STA. 377+13.73
Δ = 13° 31' 15" LT.
D_c = 3' 49' 14"
R = 1500.00'
T = 177.81'
L = 353.98'
CH = 353.16'
E = 10.50'

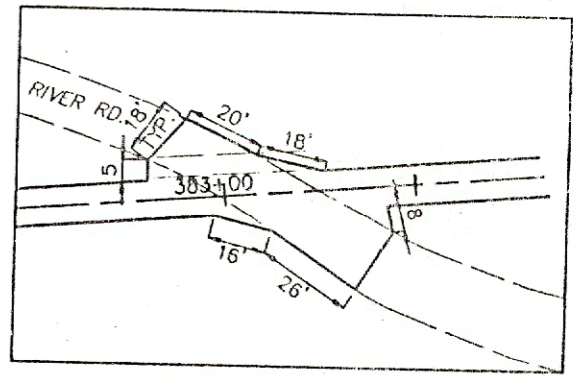
22 CURVE DATA

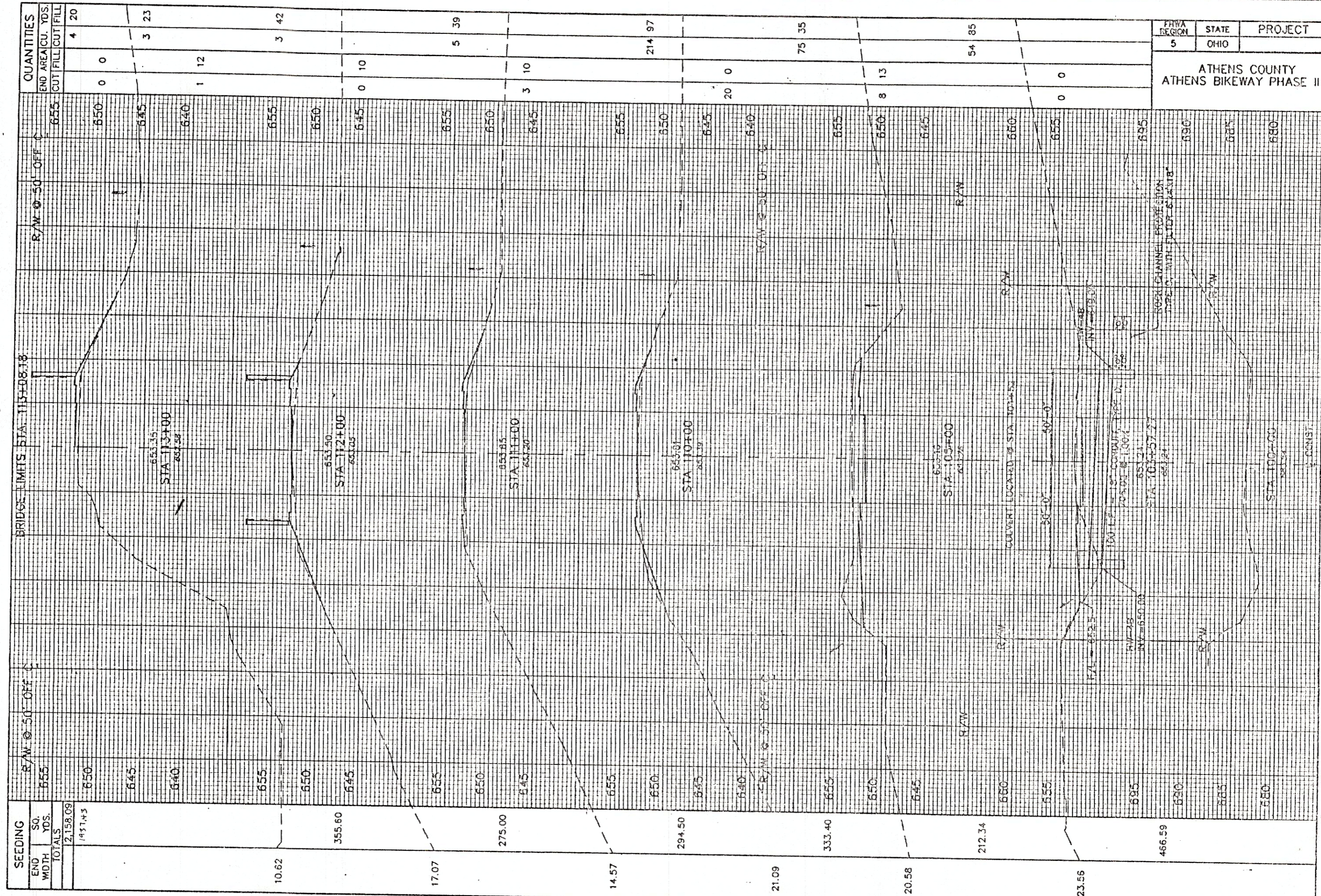
P.I. = STA. 381+31.50
P.C. = STA. 380+85.23
P.T. = STA. 381+77.50
Δ = 10° 34' 24" LT.
D_c = 11' 28' 42"
R = 500.00'
T = 46.27'
L = 92.27'
CH = 92.14'
E = 2.14'

PROP. ELEV.	659.88	659.45	659.02	658.59	658.16	657.93	657.91	657.89	657.88	657.86	657.84	657.82	657.80	657.78	657.77	657.75	657.74	657.75	657.77	657.79	657.86	657.92	657.98	658.04	658.11	658.17	658.23				
655																PVC STA. 371+00 PVC EL. = 657.75		VC = 100' SSD = 125' V = 20		PVT STA. 373+00 PVT EL. = 657.79											
650																PVI STA. 372+00 PVI EL. = 657.73		PVI STA. 376+00 PVI EL. = 658.23													
EXISTING ELEV.	659.70	659.32	658.94	658.53	658.13	657.95	657.93	658.08	658.24	658.25	658.25	658.11	657.96	658.00	658.04	657.88	657.80	657.71	657.80	657.90	658.08	658.07	657.97	657.98	658.00	658.09	658.19				
	364+00	365+00	366+00	367+00	368+00	369+00	370+00	371+00	372+00	373+00	374+00	375+00	376+00																		



PROP. ELEV.	658.23	658.16	658.09	658.02	657.95	657.88	657.81	657.74	657.80	658.01	658.22	658.43	658.60	658.89	659.32	659.86	660.48	661.03	660.79	660.61	660.44	660.26	660.64	661.01	661.39	661.77					
660																PVC STA. 381+56 PVC EL. = 658.43		VC = 100' SSD = 260' V = 36		PVT STA. 384+00 PVT EL. = 660.26											
655																PVI STA. 382+00 PVI EL. = 658.64		PVI STA. 384+00 PVI EL. = 660.26													
EXISTING ELEV.	658.19	658.08	657.97	657.87	657.71	657.74	657.77	657.76	657.84	658.03	658.27	658.57	658.92	660.00	660.41	660.66	660.92	661.01	661.39	661.77											
	376+00	377+00	378+00	379+00	380+00	381+00	382+00	383+00	384+00	385+00	386+00	387+00	388+00																		





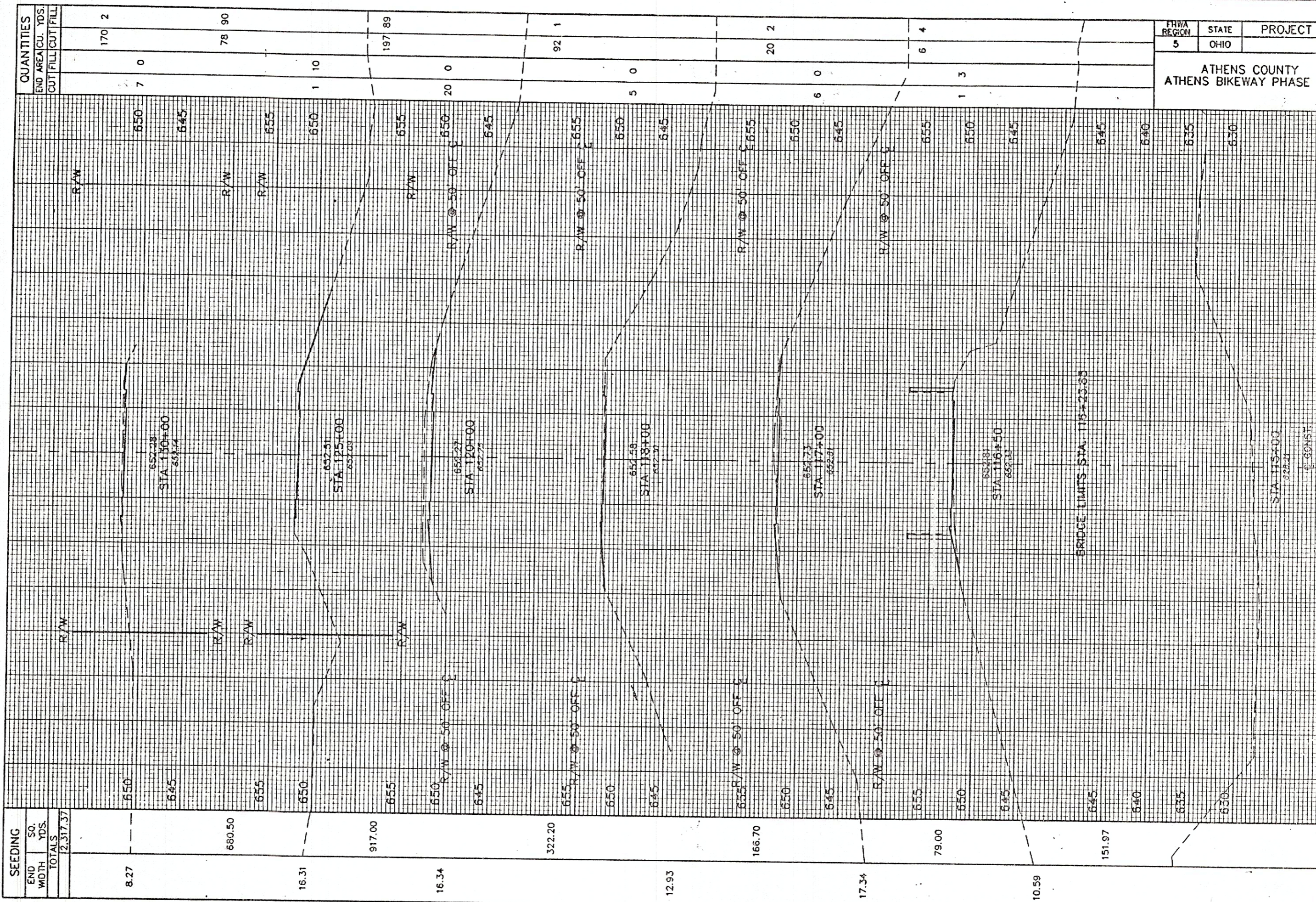
SEEDING	
END WIDTH	SO. YDS.
655	655
650	650
645	645
640	640
635	635
630	630
TOTALS	
2,158.09	1917.43

QUANTITIES	
END AREA	CUT/FILL
655	655
650	650
645	645
640	640
635	635
630	630
625	625
620	620
615	615
610	610
605	605
600	600
595	595
590	590
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90	90
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80	80
75	75
70	70
65	65
60	60
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45	45
40	40
35	35
30	30
25	25
20	20
15	15
10	10
5	5
0	0
4	20

FHWA REGION	STATE	PROJECT
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ATHENS COUNTY ATHENS BIKEWAY PHASE II		

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QUANTITIES
CALC. BY: C.K.C. DATE: 12/93
CHKD. BY: D.L.W. DATE: 12/93



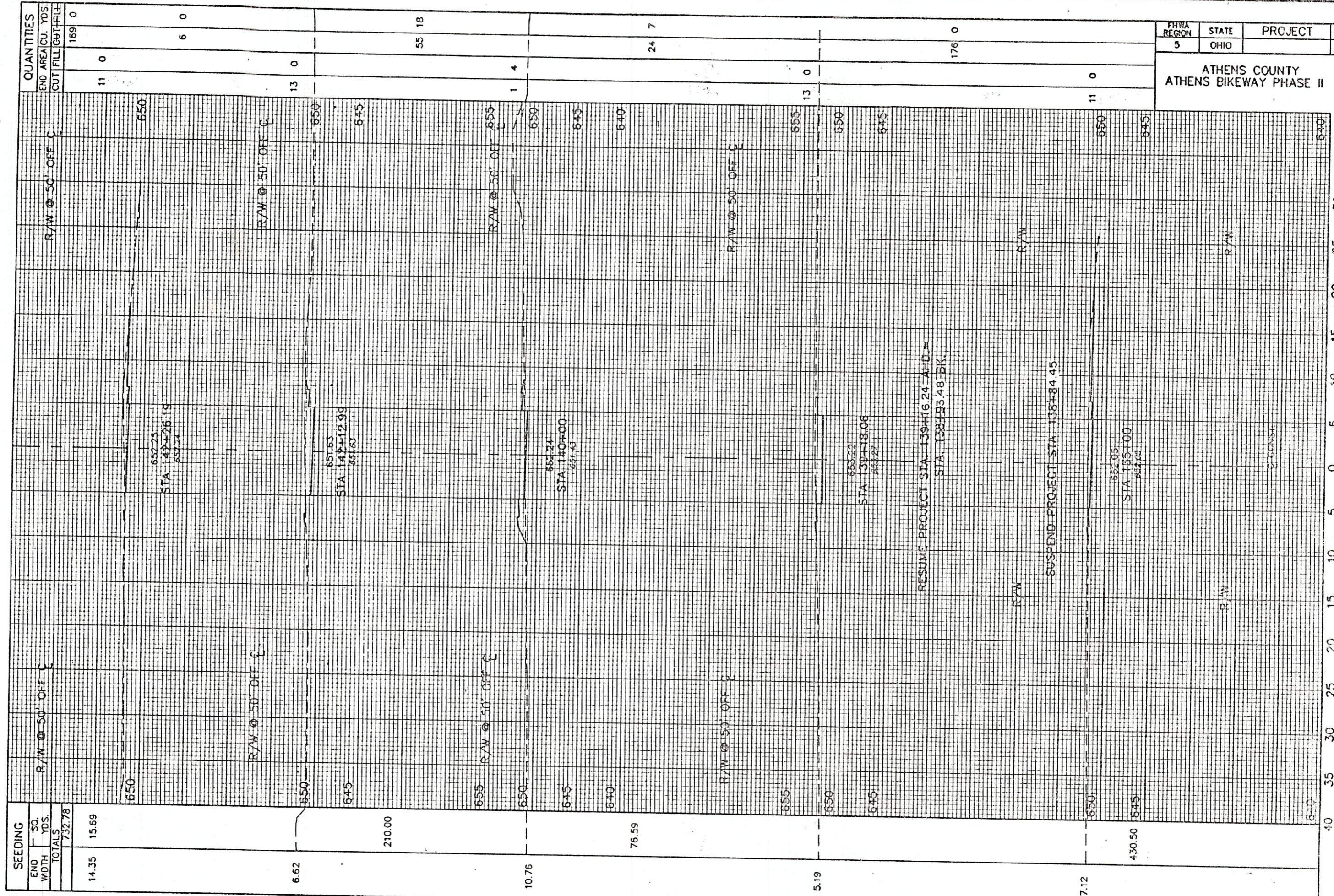
SEEDING		QUANTITIES	
END WOTH	SQ. YDS.	END AREA	CU. YDS.
TOTALS	2,317.37	CUT	FILL
8.27	650	170	2
16.31	645	7	0
16.34	655	1	10
12.93	650	197	89
17.34	655	20	0
10.59	650	92	1
	645	5	0
	640	20	2
	635	6	0
	630	6	4
	625	1	3
	620		
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	55		
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	45		
	40		

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

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QUANTITIES
CALC. BY: C.K.C.
DATE: 12/93

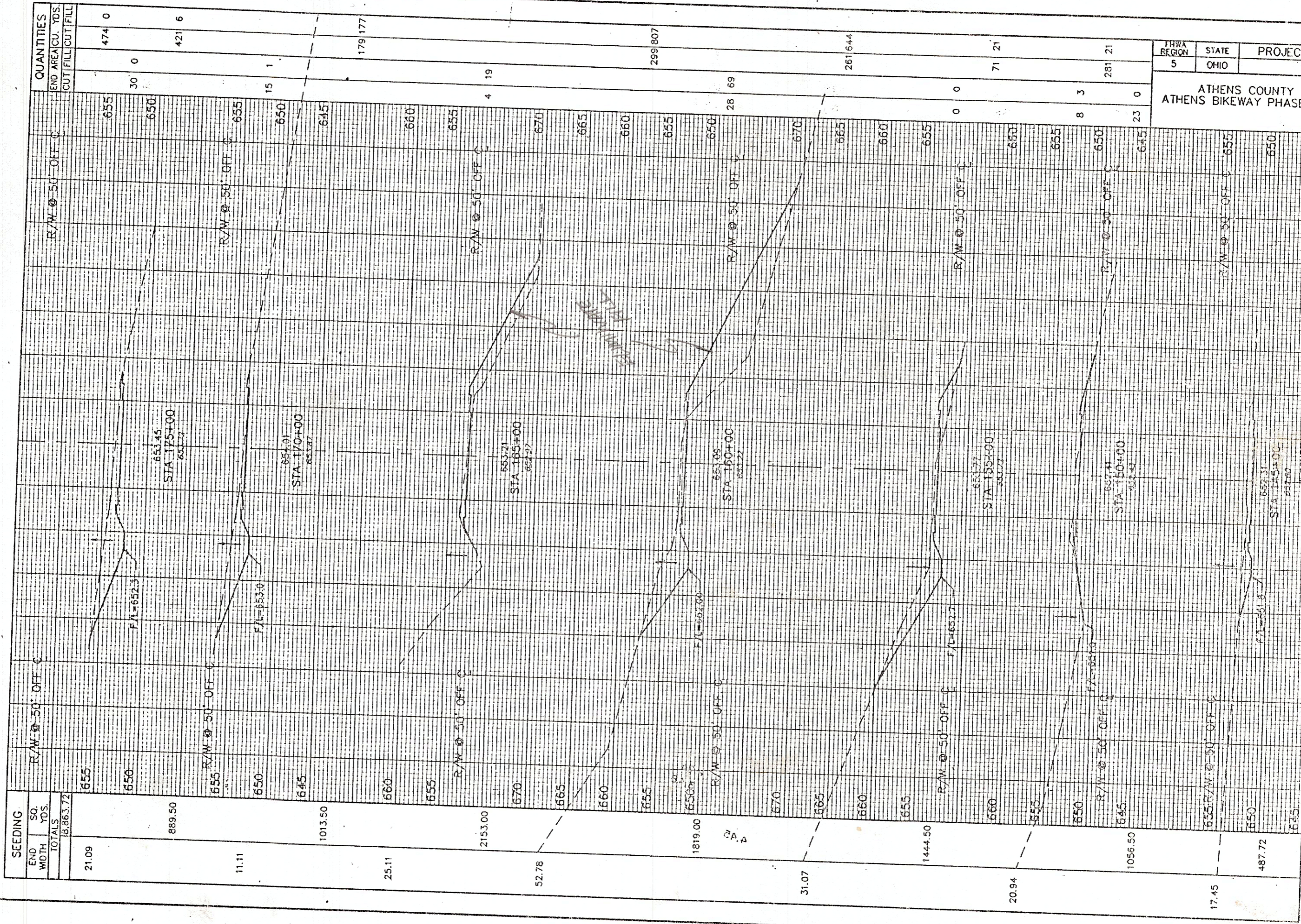
CHKD. BY: D.L.W.
DATE: 12/93



FHWA REGION 5	STATE OHIO	PROJECT
ATHENS COUNTY ATHENS BIKEWAY PHASE II		

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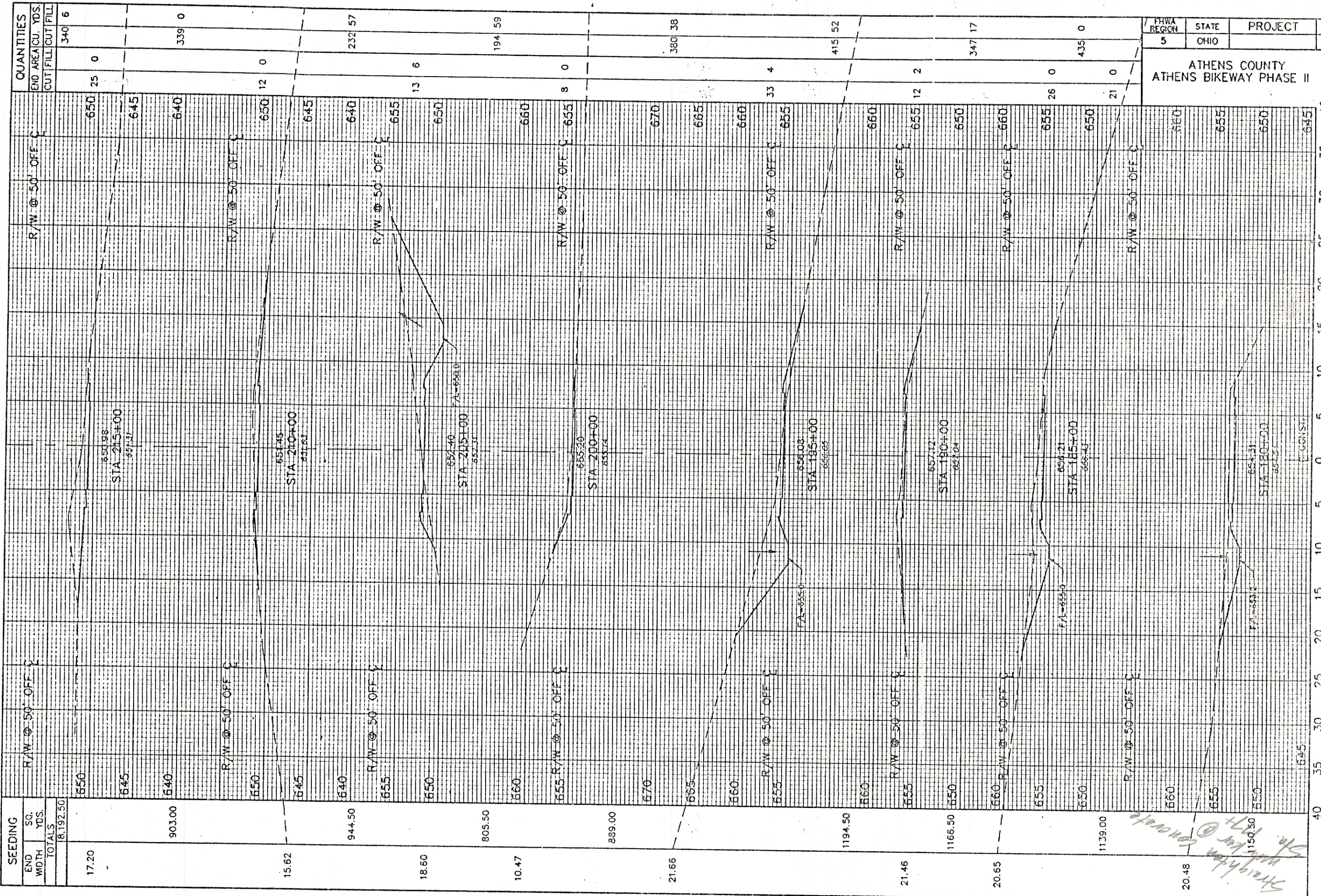
QUANTITIES
CALC. BY: C.K.C.
DATE: 12/20/93
CHKD. BY: D.L.W.
DATE: 12/20/93



FHWA REGION 5 STATE OHIO PROJECT ATHENS COUNTY ATHENS BIKEWAY PHASE II

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QUANTITIES CALC. BY: C.K.C. DATE: 12/93 CHKD. BY: D.L.W. DATE: 12/93



FHWA REGION 5	STATE OHIO	PROJECT ATHENS COUNTY ATHENS BIKEWAY PHASE II
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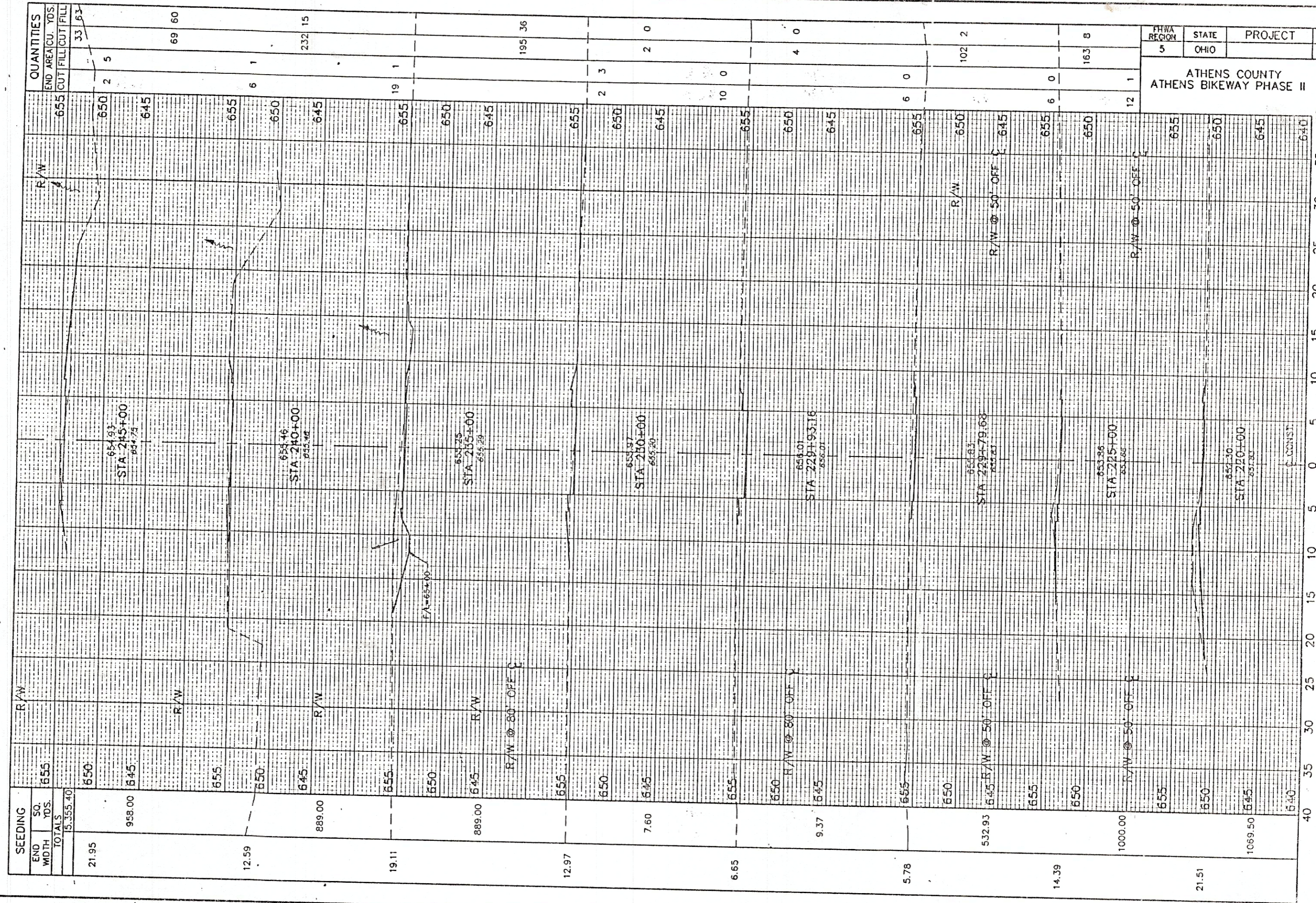
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QUANTITIES
CALC. BY: C.K.C.
DATE: 12/93

CHKD. BY: D.L.W.
DATE: 12/93

STATION	ELEVATION	R/W @ 50' OFF	QUANTITIES	
			CUT	FILL
180+00	650	650	25	0
185+00	645	645	0	0
190+00	640	640	0	0
195+00	650	650	12	0
200+00	645	645	0	0
205+00	640	640	0	0
210+00	655	655	13	6
215+00	650	650	0	0
TOTALS			340	6

Strengthen concrete
for
water
@
17+
Sta.



SEEDING	R/W		QUANTITIES
	END WIDTH	SQ. YDS.	
21.95	655	5,355.40	655
19.11	650	958.00	650
12.97	645	889.00	645
6.65	655	889.00	655
5.78	650	7.60	650
14.39	645	9.37	645
21.51	655	532.93	655
	650	1000.00	650
	645	1069.50	645
	640		640

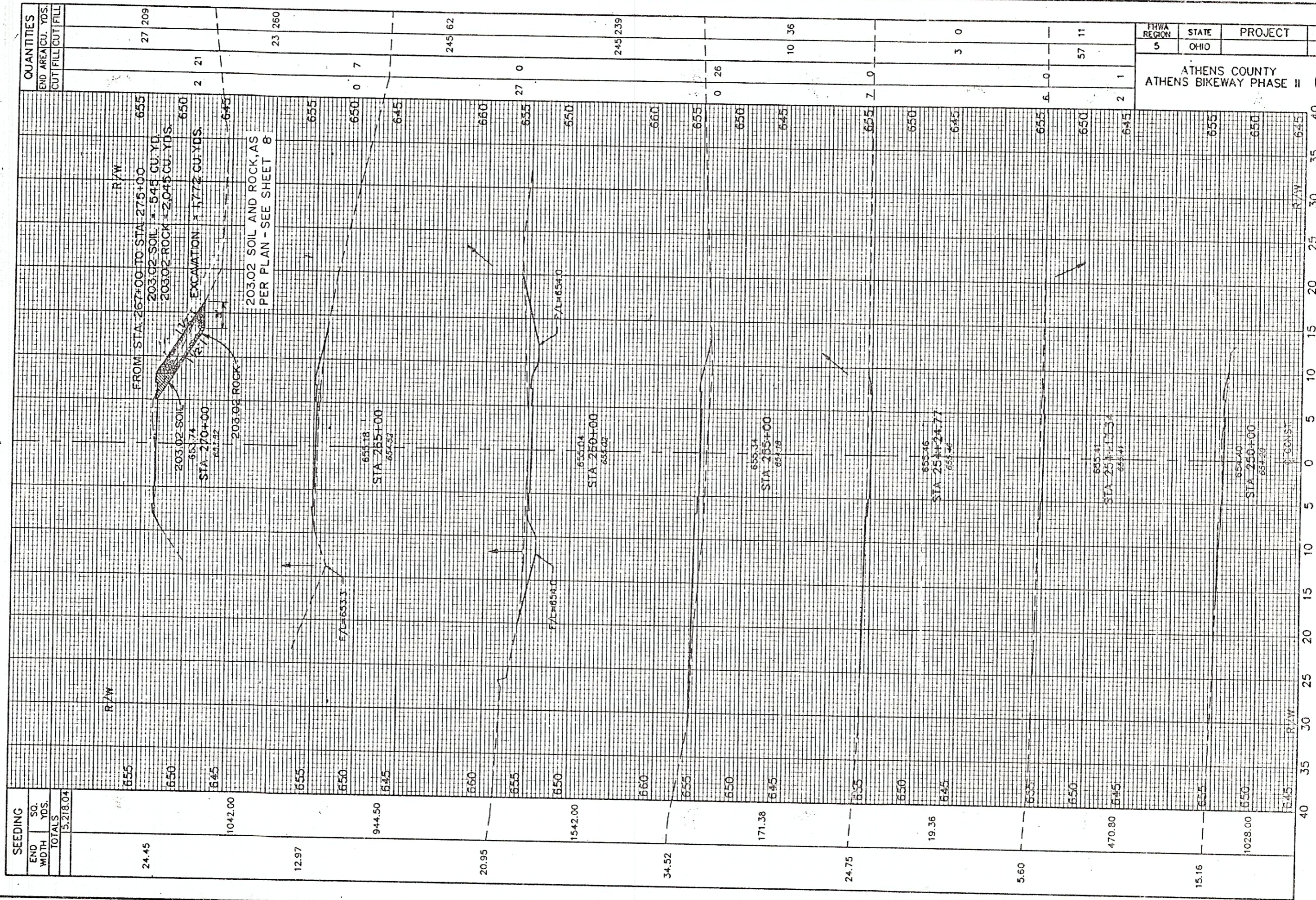
QUANTITIES	R/W		QUANTITIES
	END AREA	CUT/FILL	
53	63	5	53
69	60	1	69
232	15	1	232
195	36	1	195
2	3	1	2
10	0	1	10
4	0	1	4
6	0	1	6
102	2	1	102
163	8	1	163
12	1	1	12

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

FHWA REGION 5 STATE OHIO PROJECT

12/93

CHKD. BY: D.L.W. DATE: 12/93
CALC. BY: C.K.C. DATE: 12/93



SEEDING		QUANTITIES	
END WIDTH	SQ. YDS.	END AREA CU. YDS.	CUT/FILL/CUT/FILL
24.45	5,218.04	27	209
12.97		23	260
20.95		245	62
34.52		27	0
24.75		0	26
5.60		245	239
15.16		10	36
1028.00		3	0
		57	11
		2	1

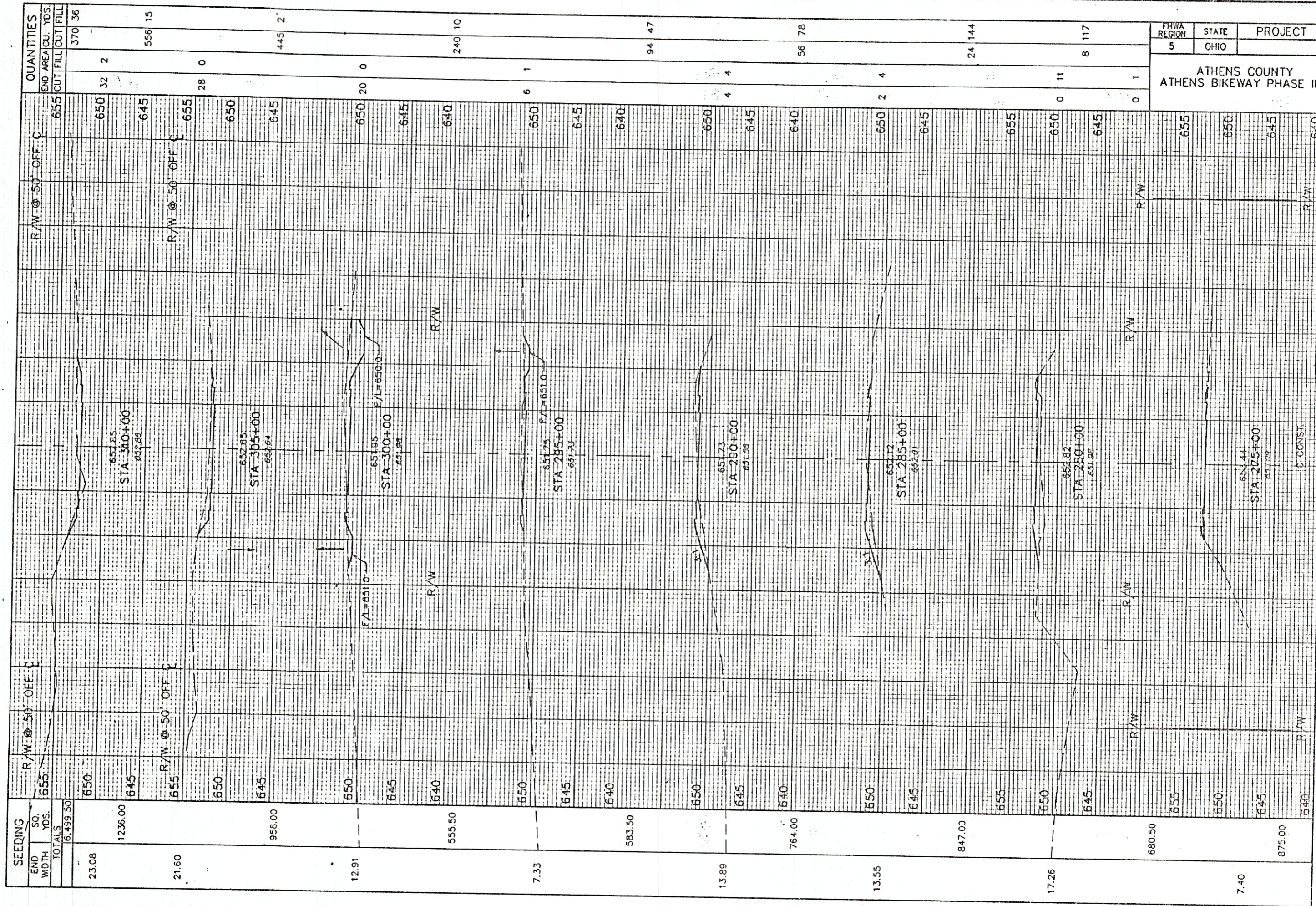
FHWA REGION	STATE	PROJECT
5	OHIO	

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

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QUANTITIES
CALC. BY: C.K.C.
DATE: 12/93

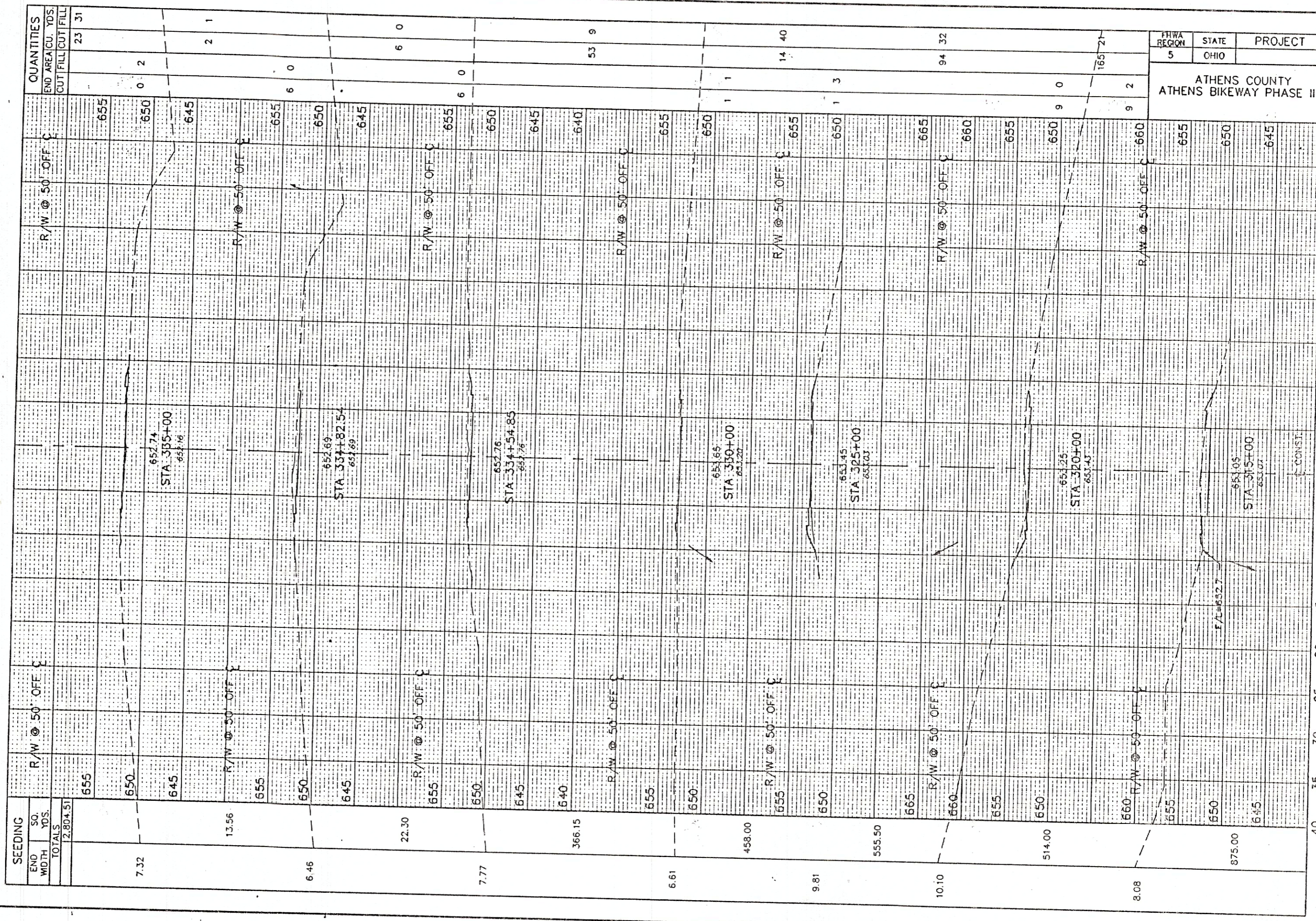
CHKD. BY: D.L.W.
DATE: 12/93



FHWA REGION 5 STATE OHIO PROJECT ATHENS COUNTY ATHENS BIKEWAY PHASE II

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QUANTITIES CALC. BY: C.K.C. DATE: 12/20
 CHKD. BY: D.L.W. DATE: 12/20



SEEDING	QUANTITIES	
	END WIDTH	SO. YDS.
7.32	655	650
6.46	645	645
7.77	655	650
6.61	655	650
9.81	655	650
10.10	665	660
8.08	655	650
875.00	645	645

SEEDING		R/W @ 50' OFF C	ELEVATION	QUANTITIES
END WIDTH	SO. YDS.			
7.32	2,804.51	655	655	23 31
6.46	13.56	650	650	0 2
7.77	22.30	645	645	2 1
6.61	366.15	655	655	6 0
9.81	458.00	650	650	6 0
10.10	555.50	665	665	53 9
8.08	514.00	660	660	1 1
875.00	875.00	645	645	14 40

QUANTITIES		END AREA CU. YDS.	
CUT	FILL	CUT	FILL
23	31	0	2
2	1	6	0
6	0	6	0
53	9	1	1
14	40	1	3
94	32	9	0
165	21	9	2

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

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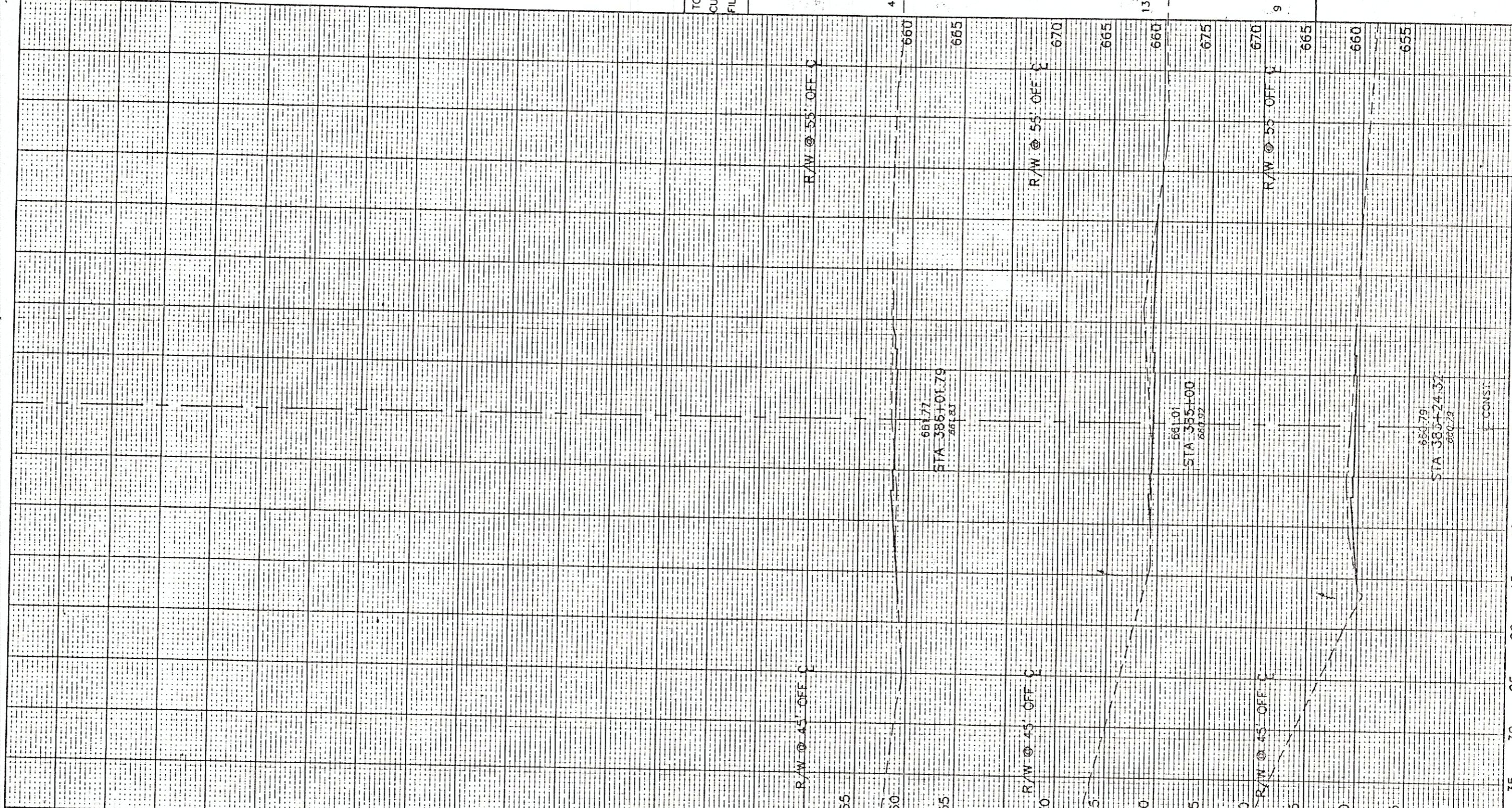
QUANTITIES
CALC. BY: C.K.C. DATE: 12/20
CHKD. BY: D.L.W. DATE: 12/20

SEEDING	
END WIDTH	SQ. YDS.
TOTALS	
	610.50

QUANTITIES	
END AREA	CUT
CUT	FILL
CUT	FILL

TOTLAS	CUT VOL= 10,447	FILL VOL= 4,139
4	3	32
13	1	70
9	0	5

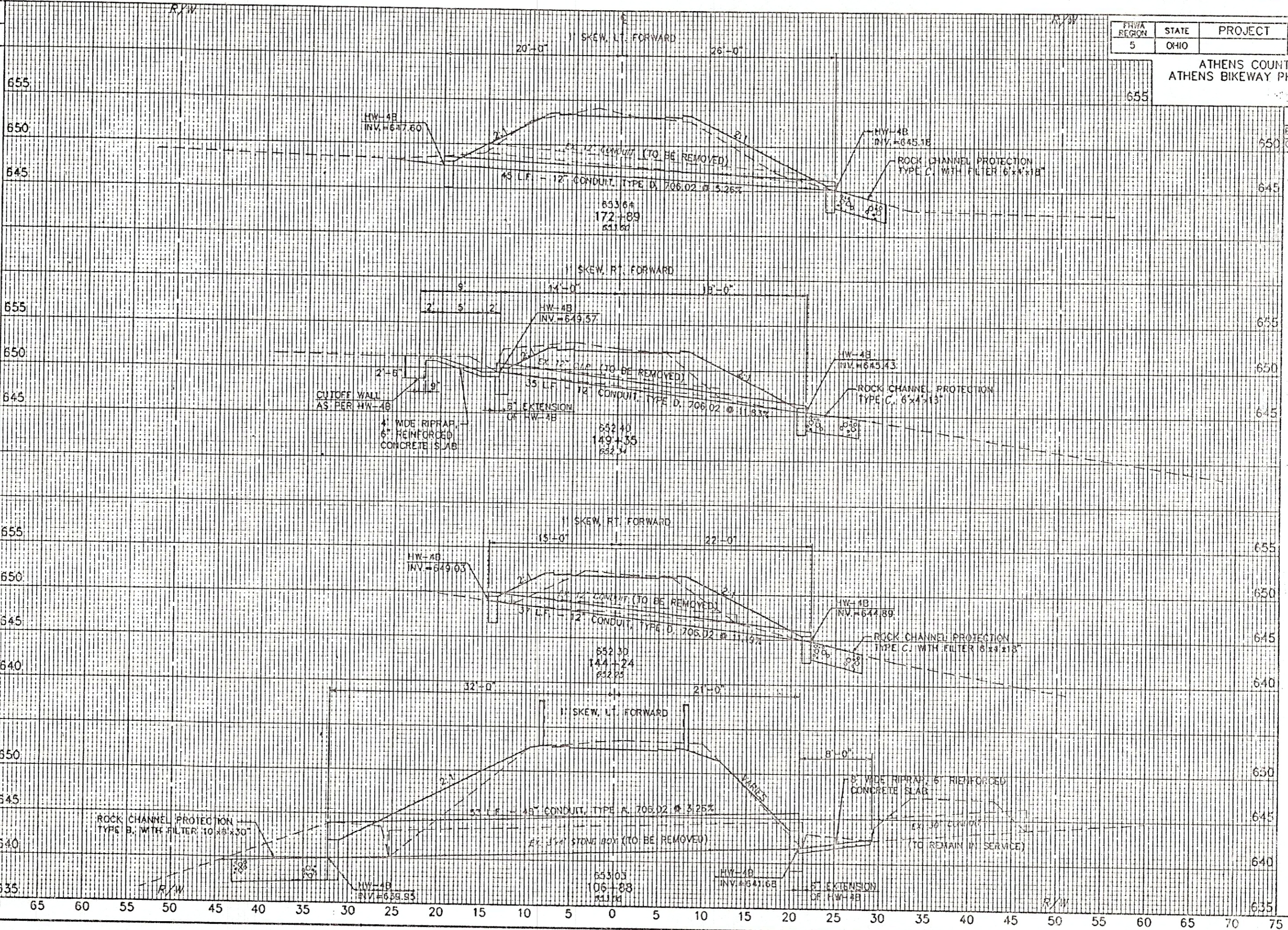
FHWA REGION	STATE	PROJECT
5	OHIO	ATHENS COUNTY ATHENS BIKEWAY PHASE II



QUANTITIES	CALC. BY: C.K.C.	CHKD. BY: D.L.W.
	DATE: 12/20	DATE: 12/20

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

SEEDING
END WIDTH SQ. YDS.



QUANTITIES
END AREA CU. YDS.
CUT FILL CUT FILL

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

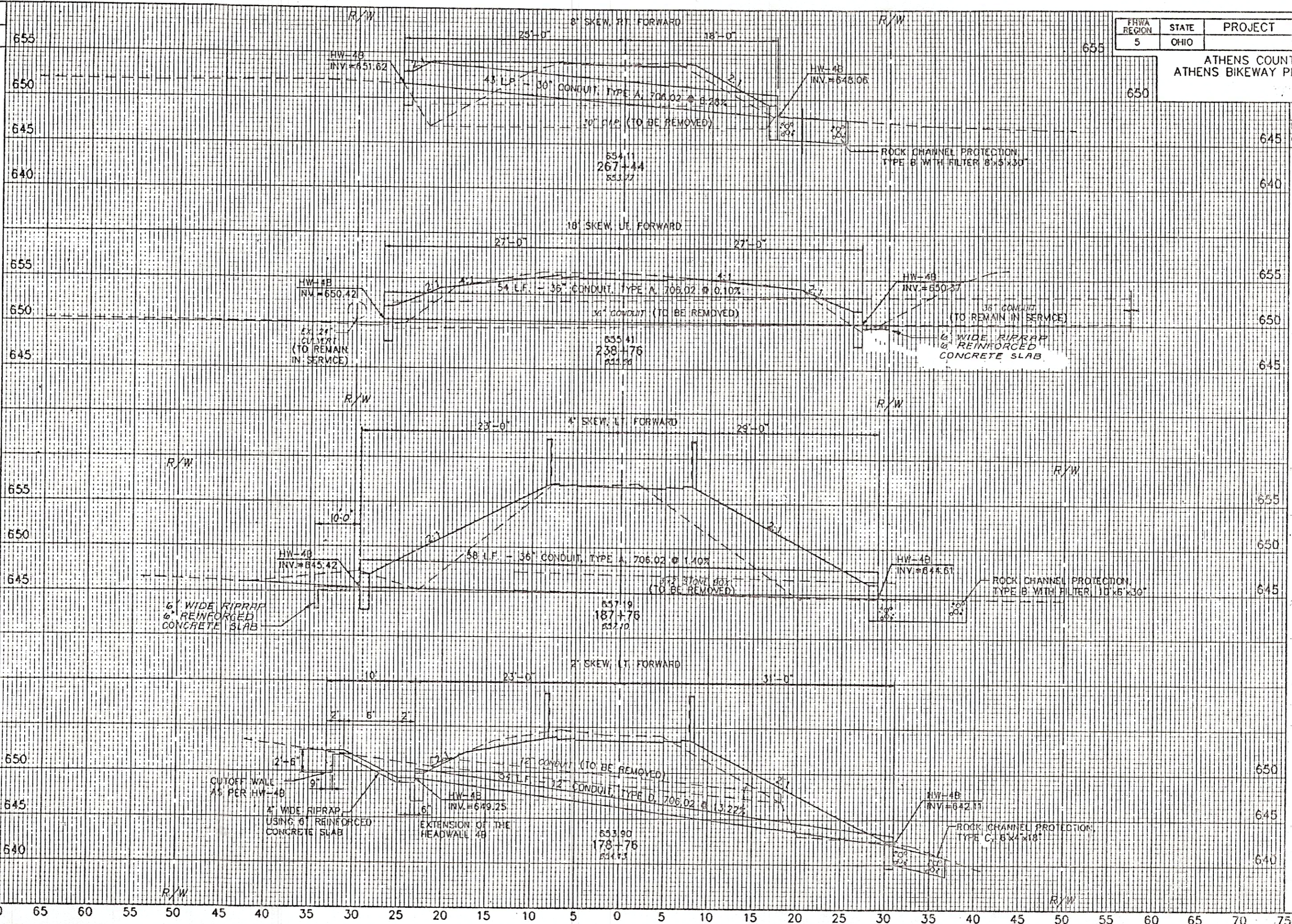
SEEDING

END SQ. YDS.
MDTH

FHWA REGION	STATE	PROJECT
5	OHIO	

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



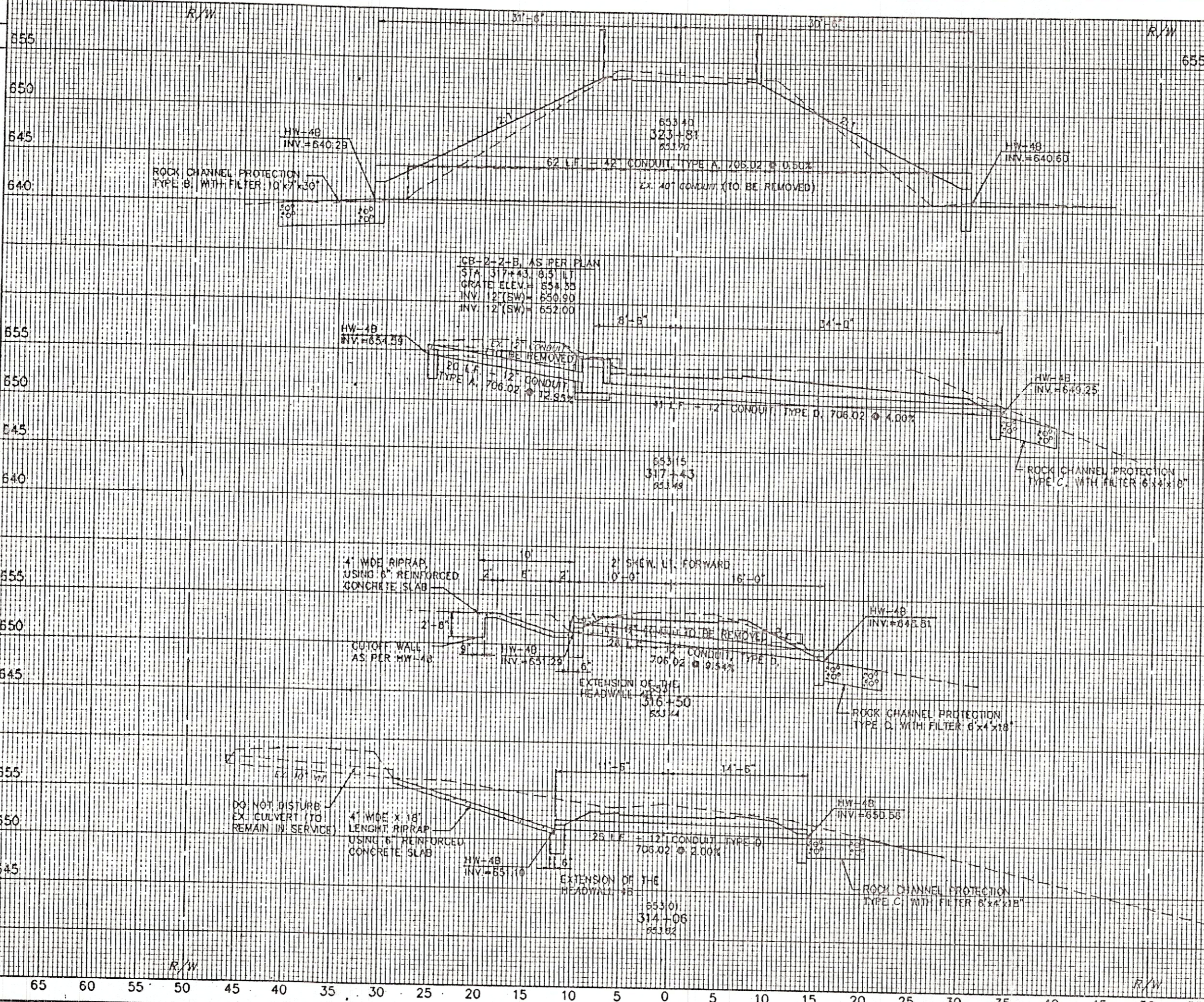
QUANTITIES

END	AREA	CUT	FILL	CUT	FILL
645					
640					
655					
650					
645					

SEEDING
END WIDTH SQ. YDS.

FHWA REGION	STATE	PROJECT	40 59
5	OHIO		

ATHENS COUNTY
ATHENS BIKEWAY PHASE II



QUANTITIES			
END AREA	CUT	FILL	CU. YDS.

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

SEEDING

END SQ. WIDTH YDS.

R/W

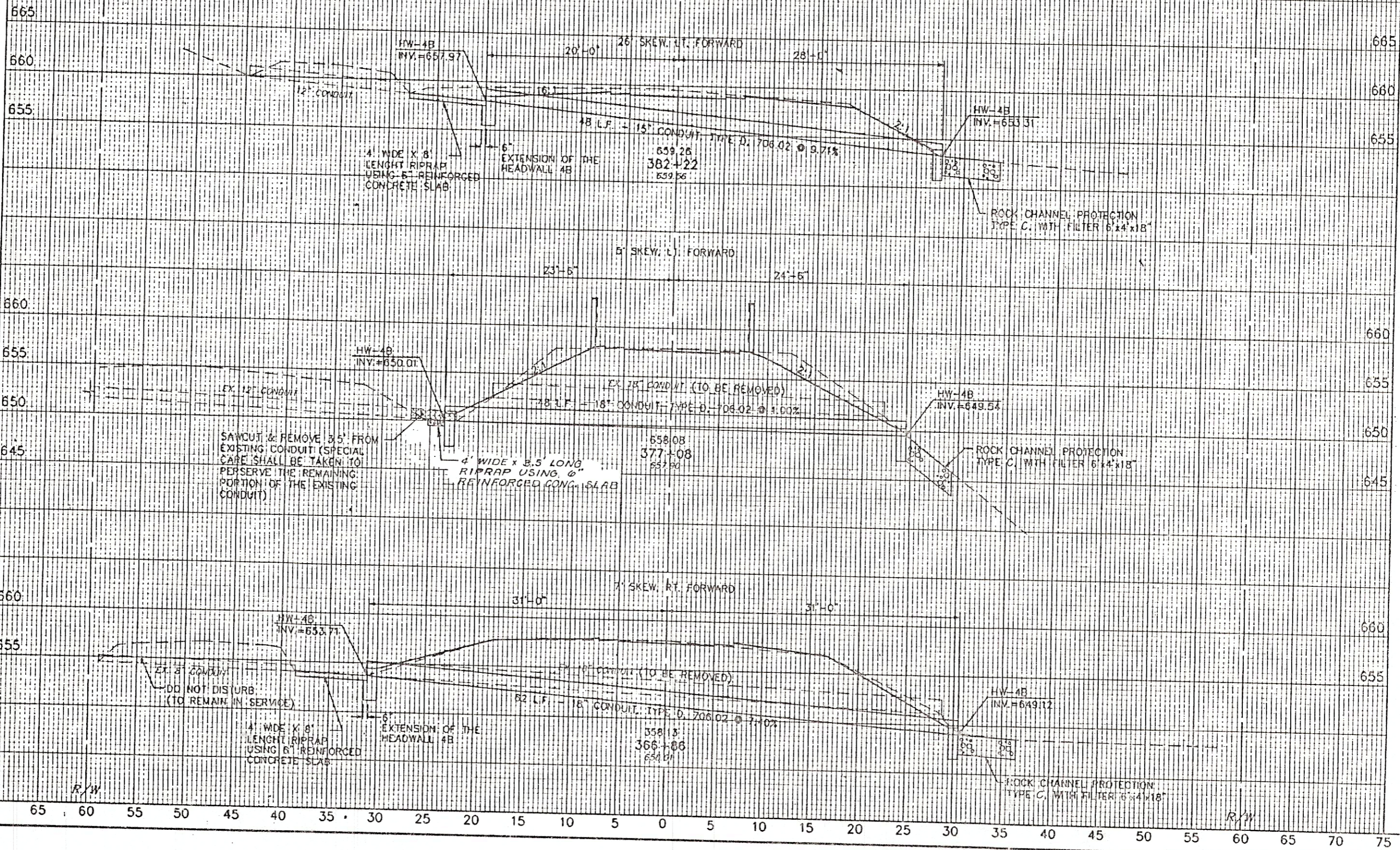
FHWA REGION	STATE	PROJECT	41 59
5	OHIO		

ATHENS COUNTY ATHENS BIKEWAY PHASE II

R/W

QUANTITIES

END AREA	CU. YDS.
CUT	FILL



70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

GROUND MOUNTED SIGN SUBSUMMARY

FHWA REGION	STATE	PROJECT
5	OHIO	

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ATHEN COUNTY
ATHENS BIKEWAY PHASE II

QUANTITIES			
CALC. BY: DEW	CHK'D. BY: DLW	DATE: 12/93	DATE: 12/93

SIGN CODE NUMBER AND SIZE

ITEM - 630 SIGN QUANTITIES

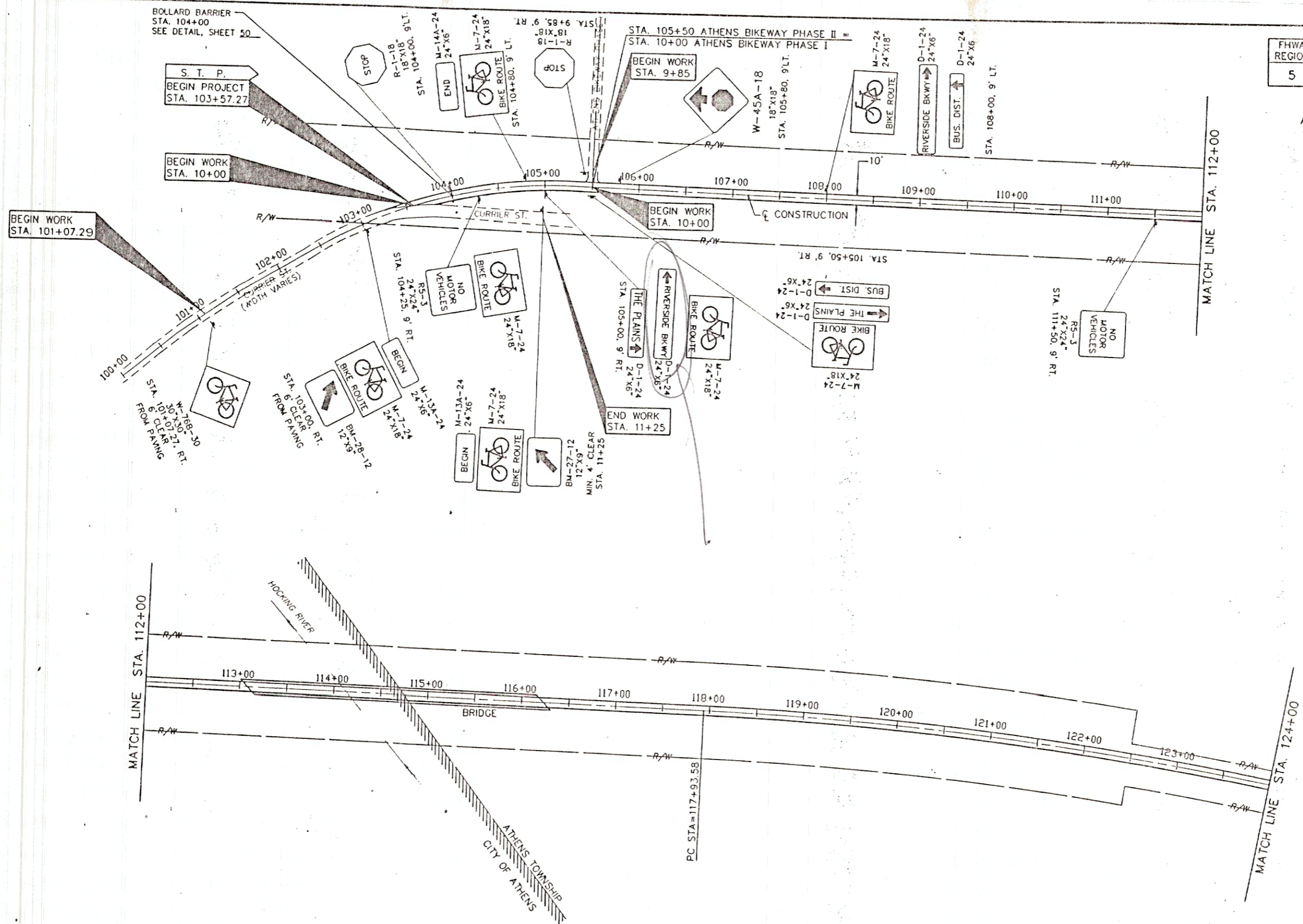
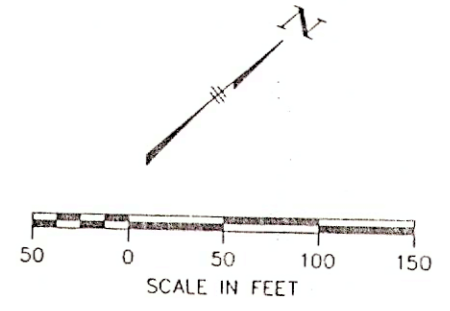
SHEET	LOCATION		SIGN CODE NUMBER AND SIZE																ITEM - 630 SIGN QUANTITIES				
			18" X 18"	18" X 18" X 18"	18" X 18"	18" X 18"	30" X 30"	24" DIA.	24" X 6"	24" X 6"	24" X 6"	24" X 6"	24" X 6"	24" X 6"	24" X 6"	12" X 9"	12" X 9"	24" X 24"	SIGNS	GROUND MOUNTED SUPPORTS			
	STATION/LOCATION	SIDE	R-1-18	R-2-18	W-13-18	W-45A-18	W-76B-30	W-94-24	O-1-24	N-15-24	N-15A-24	M-7-24	M-13A-24	M-14A-24	BM-8-24	BM-27-12	BM-28-12	RS-3-24		FLAT SHEET	NO. 2 POST	NO. 3 POST	ITEM SPECIAL WOOD POST
																			SQ. FT.				
44	101+07.27	RT.																	6.25			13.03	
	103+00	RT.																	4.75		11.42		
	104+00	LT.	1																2.25				9.88
	104+25	RT.																	5.50				11.40
	104+80	LT.																	4.00				9.90
	105+00	RT.																	5.00				11.05
	105+50	RT.																	5.00				11.05
	105+80	LT.																	2.25				9.79
	108+00	LT.																	5.00				10.54
	111+50	RT.																	4.00				10.83
	118+00	LT.																	4.00				10.83
	11+25 CURRIER ST.	LT.																	4.75		11.42		
	9+85 BIKEWAY PHASE 1	RT.	1																2.25				9.31
45	137+70	RT.																	2.25				9.63
	137+70	RT.																	4.00				9.50
	138+00	LT.																	5.50				11.08
	136+66.87	RT.	1																2.25				9.08
	139+33.06	LT.	1																2.25				9.90
	139+88	LT.																	4.00				10.02
	140+70	LT.																	2.25				10.15
	142+00	RT.																	1.00				8.80
	142+00	LT.																	5.50				11.77
	142+40	LT.																	1.00				9.49
	142+40	RT.																	5.50				11.77
	7+25 ACCESS RD.	RT.																	5.00			11.17	
46	228+50	RT.																	1.00				8.88
	229+70	RT.																	1.00				8.93
	230+20	RT.																	5.50				11.96
	230+20	LT.																	1.00				9.68
	231+00	LT.																	1.00				8.87
	8+40 ACCESS RD.	RT.																	5.00			11.17	
	254+00	RT.																	1.00				9.67
	254+00	LT.																	3.50				11.96
	254+35	RT.																	5.50				11.96
	254+35	LT.																	1.00				9.67
47	332+50	RT.																	2.25				9.48
	334+20	RT.																	2.25				9.00
	334+20	LT.																	5.50				11.40
	334+95	LT.																	2.25				9.31
	335+85	RT.																	5.50				11.60
	337+00	LT.																	2.25				9.92
	2+50 RIVER RD.	RT.																	6.25			13.03	
	9+00 RIVER RD.	RT.																	4.00		10.58		
	11+00 RIVER RD.	LT.																	4.00		10.58		
TOTALS THIS SHEET			6	6	2	3	2	2	8	1	3	19	2	1	2	1	1	11	158.75		44.00	48.40	368.06

CAD FILE: SUBSUMI
 DATE: 2/18/94
 OPERATOR: PJP
 SCALE: 1"=1'

FHWA REGION	STATE	PROJECT	
5	OHIO		

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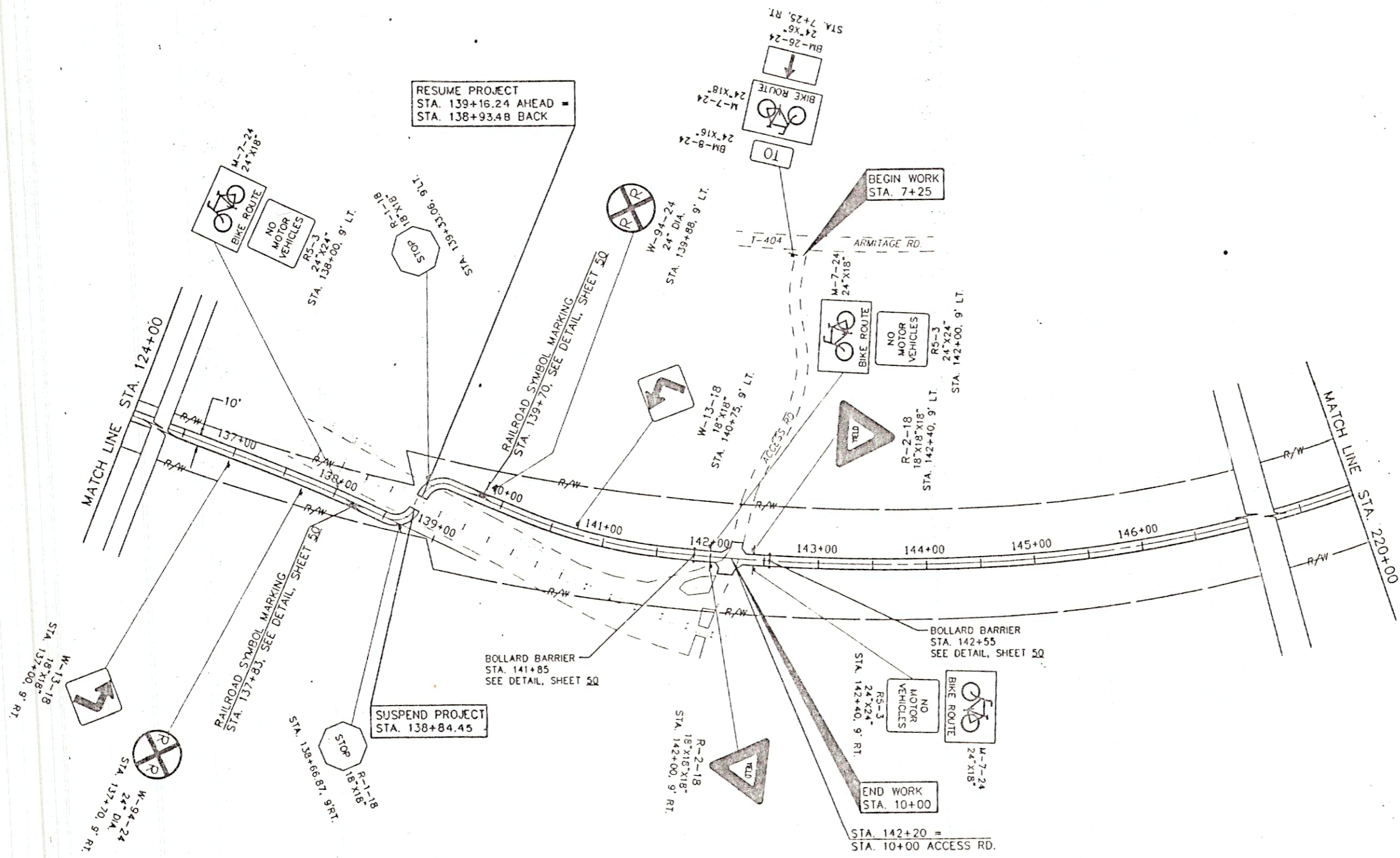
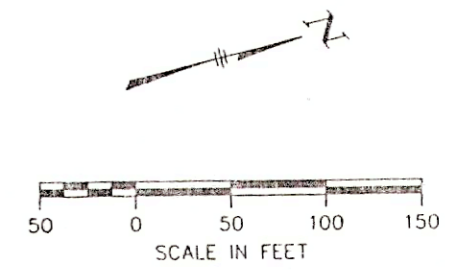
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



FHWA REGION	STATE	PROJECT	
5	OHIO		

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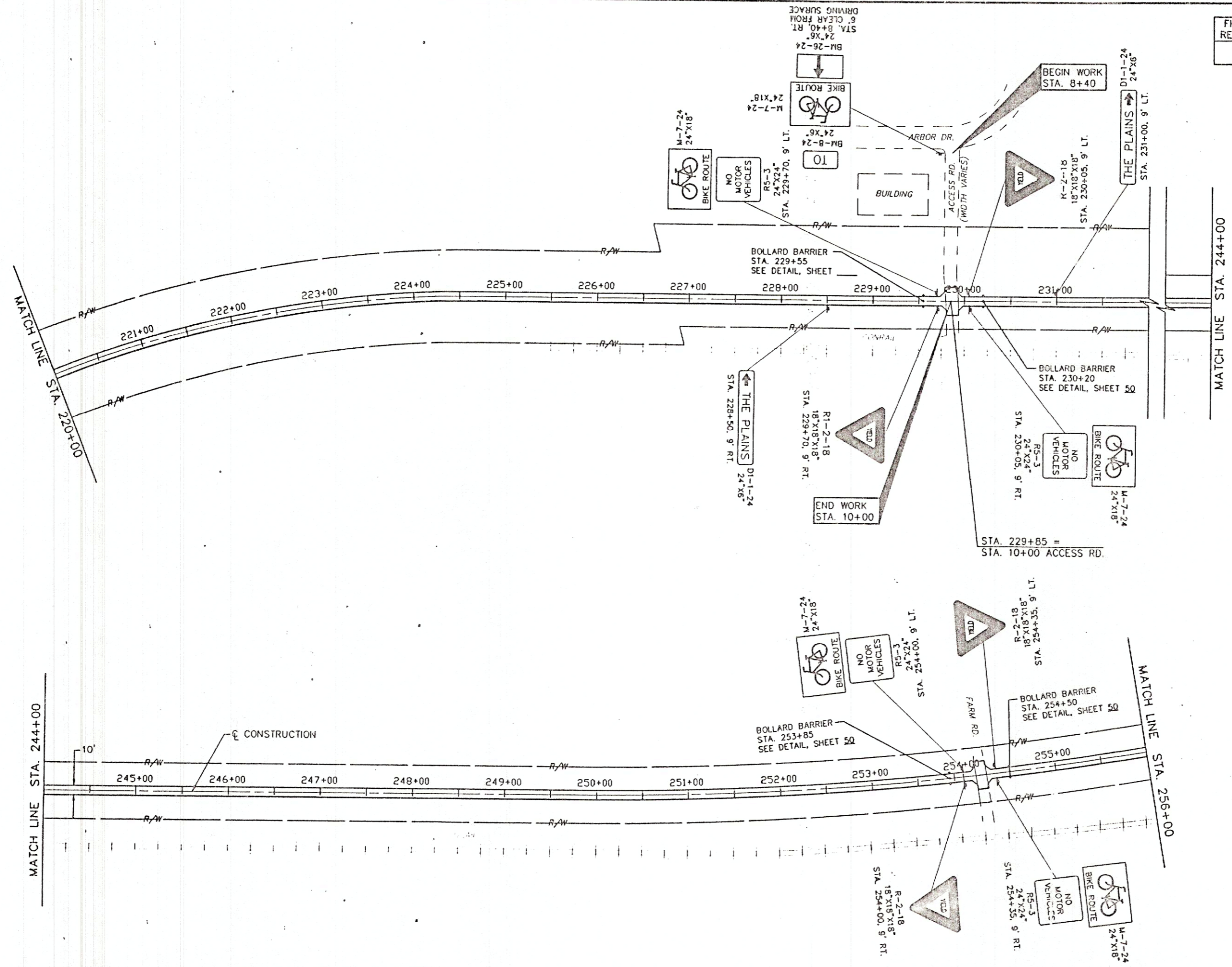
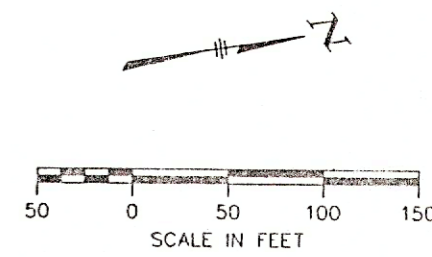
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



FHWA REGION	STATE	PROJECT	
5	OHIO		

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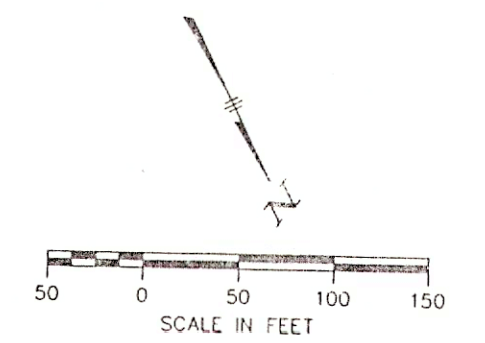
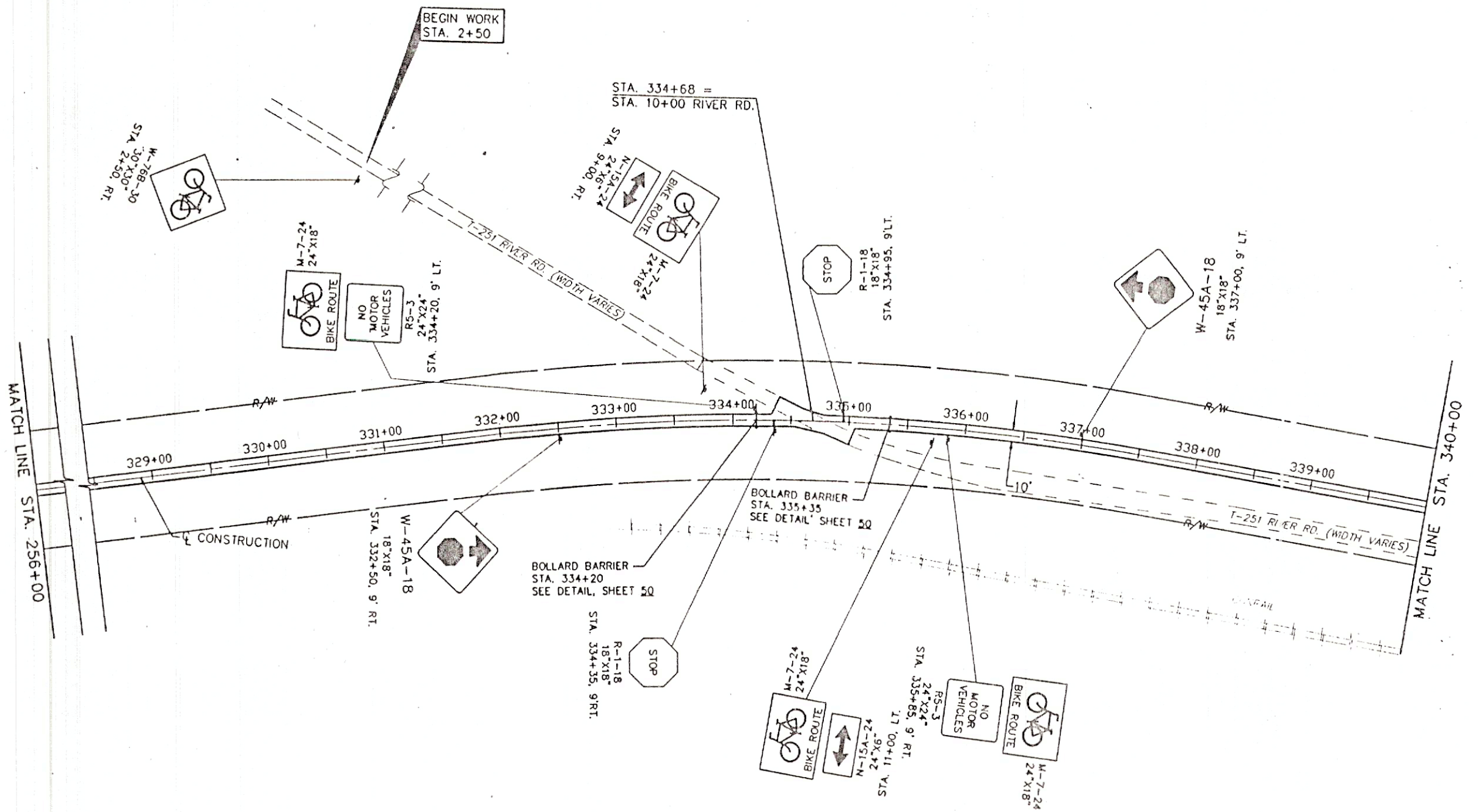
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



FHWA REGION	STATE	PROJECT	
5	OHIO		

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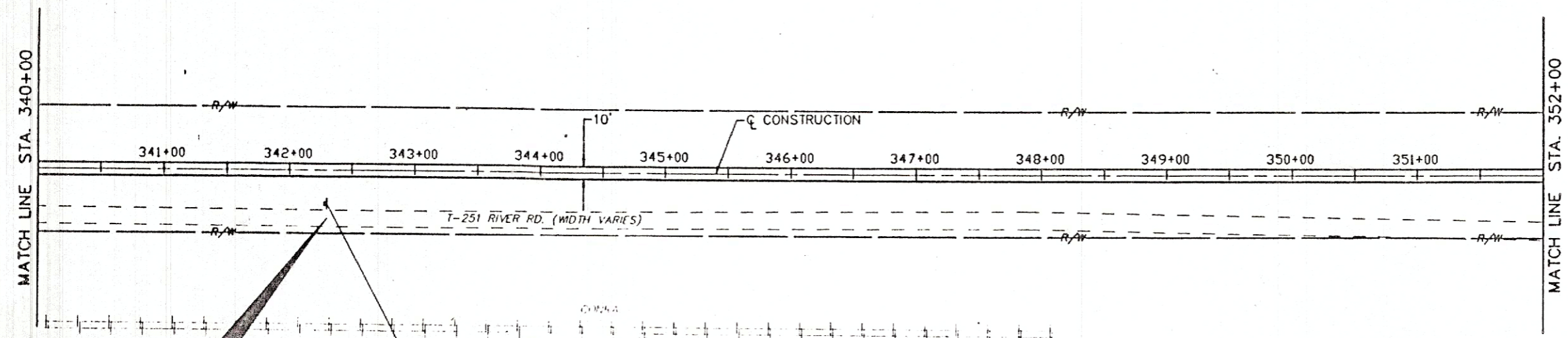
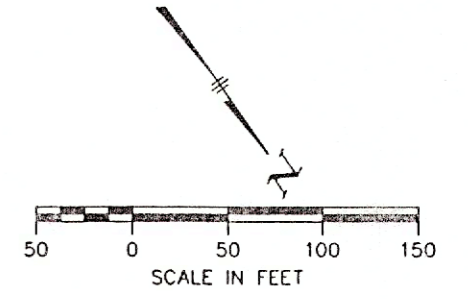
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



FHWA REGION	STATE	PROJECT	
5	OHIO		

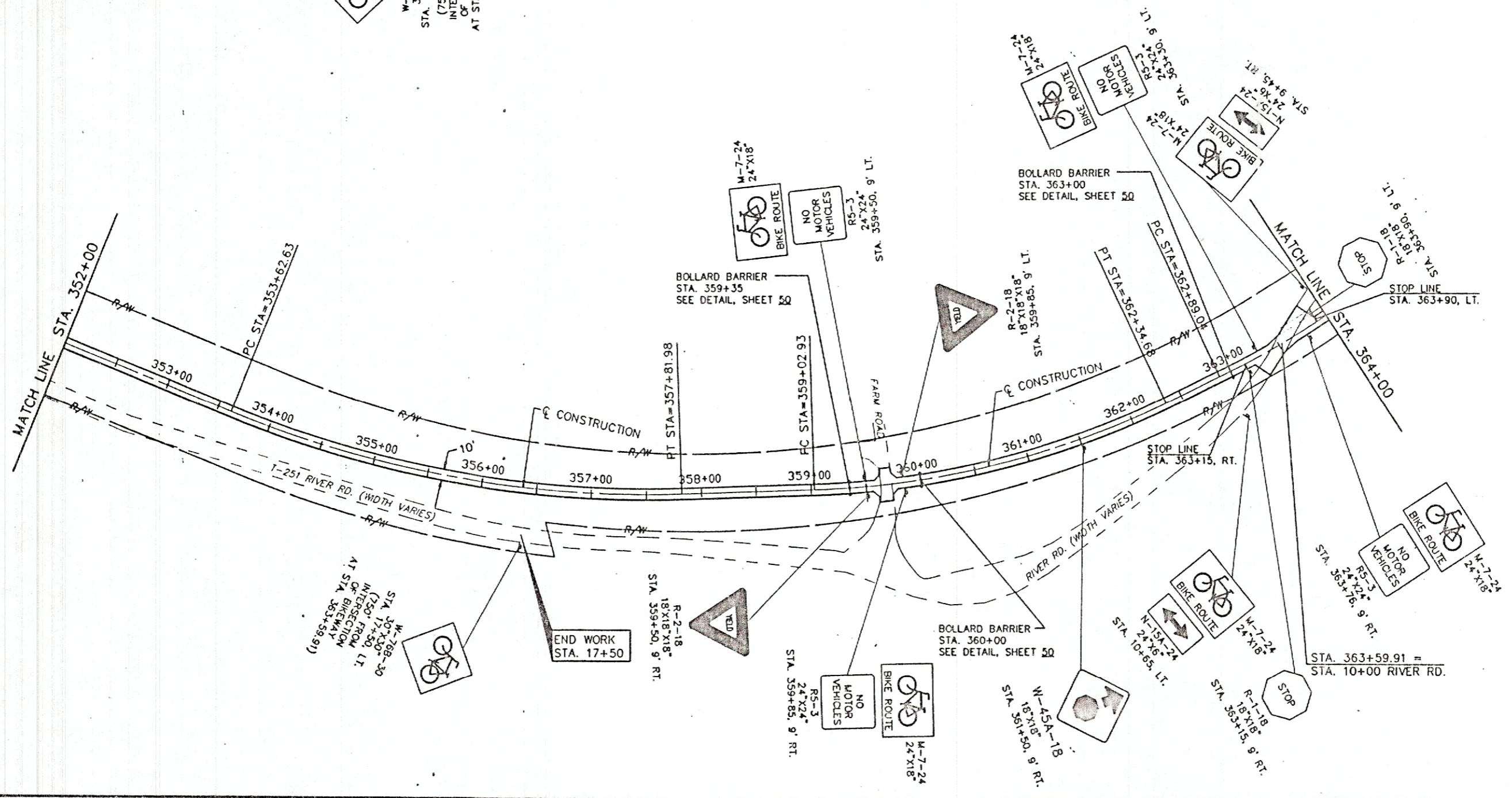
48
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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



END WORK
STA. 17+50

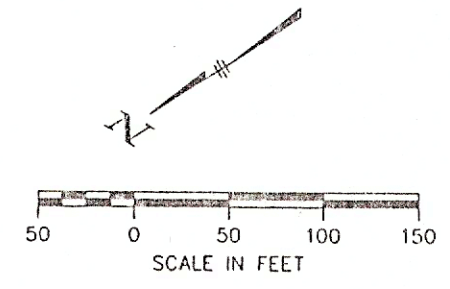
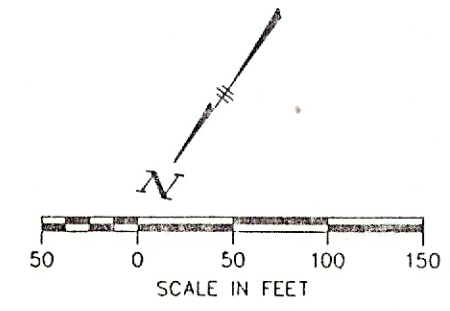
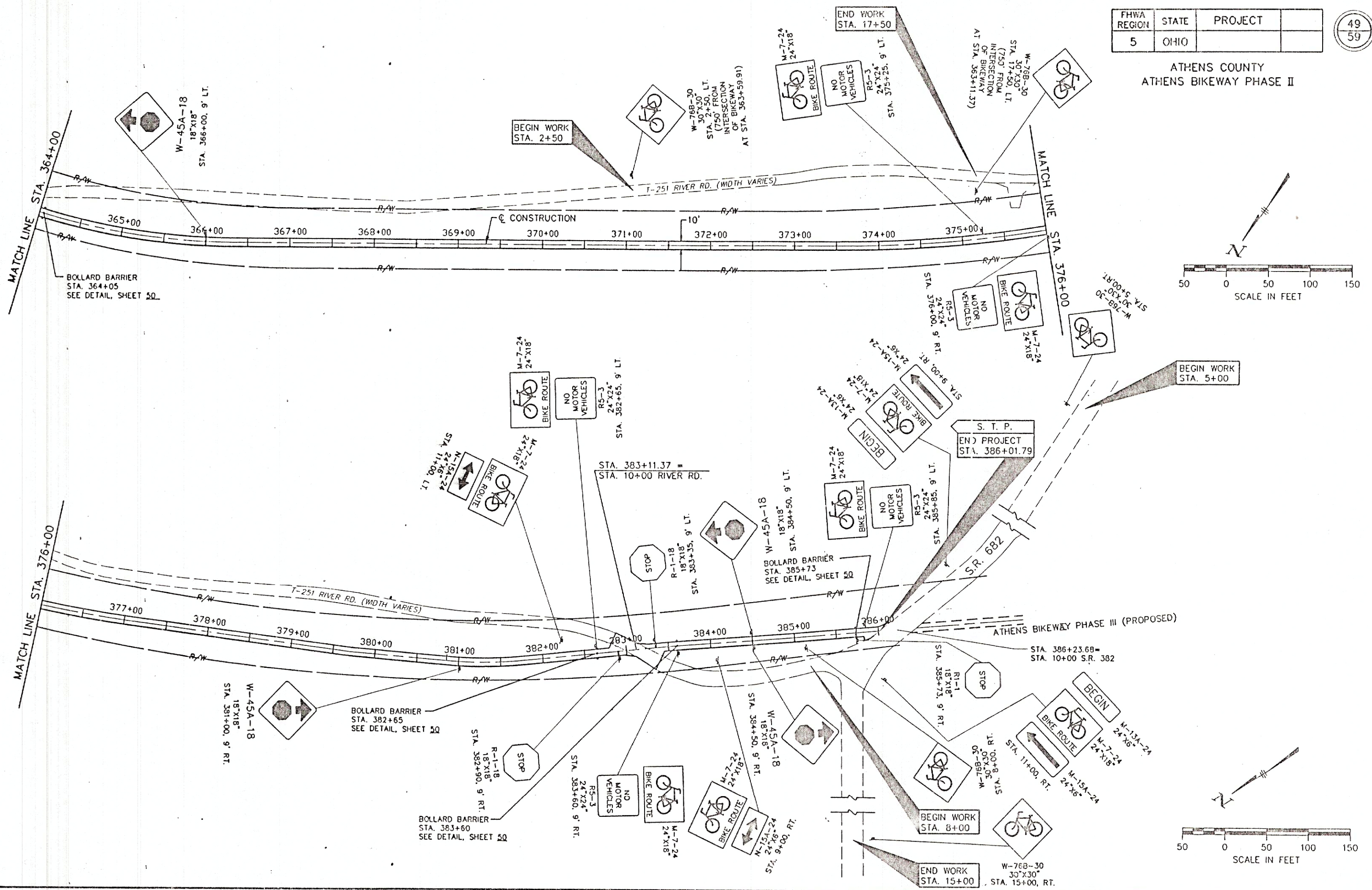
W-76B-30
30' X 30'
STA. 17+50, LT.
(750' FROM
INTERSECTION
OF BIKEWAY
AT STA. 334+68)



FHWA REGION	STATE	PROJECT	
5	OHIO		

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II



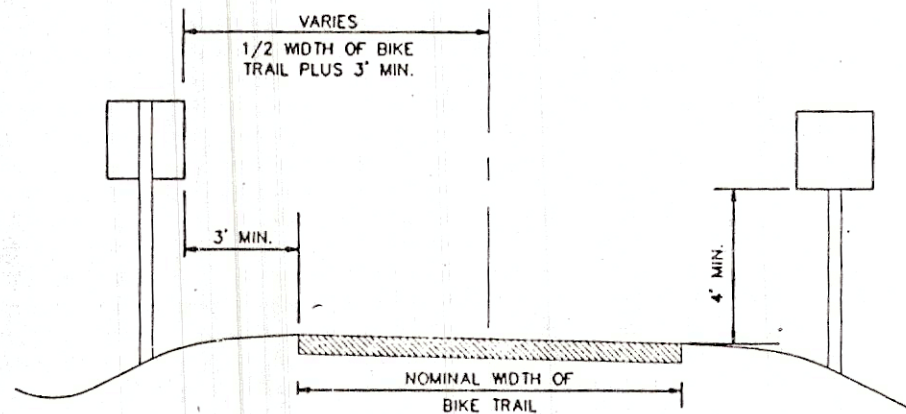
CAO FILE : ATHISS6
DATE : 2/18/94
OPERATION : P.P.
PLOT SCALE : 1" = 50'

SIGNING AND STRIPING DETAILS

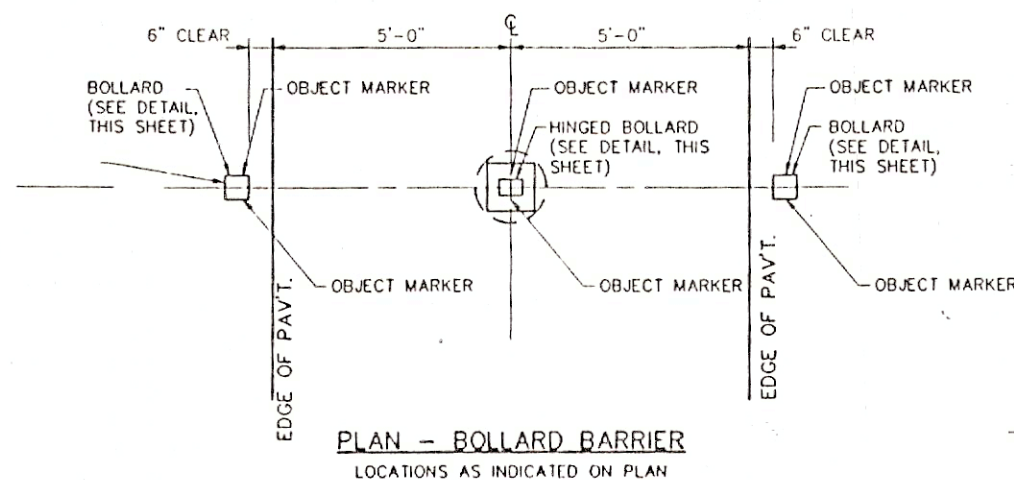
FHWA REGION	STATE	PROJECT	
5	OHIO		

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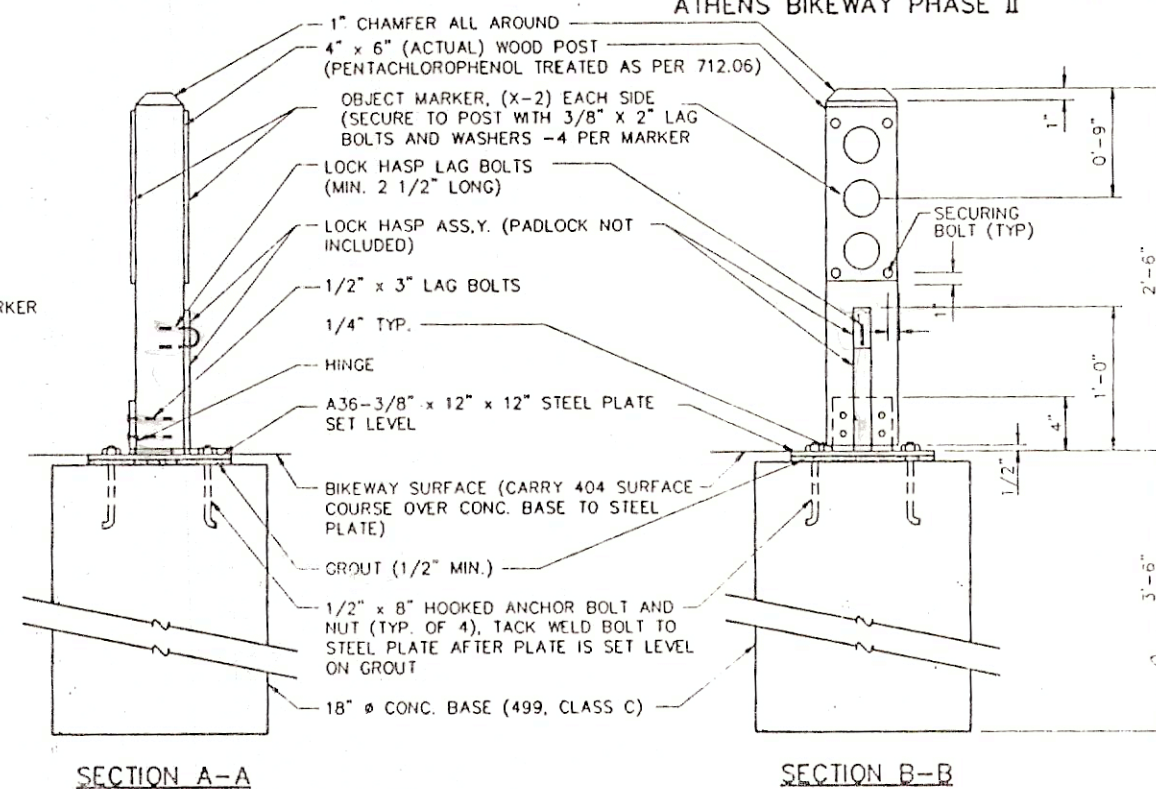
ATHENS COUNTY
ATHENS BIKEWAY PHASE II



TYPICAL - SIGN PLACEMENT ON BIKE TRAIL
NOT TO SCALE

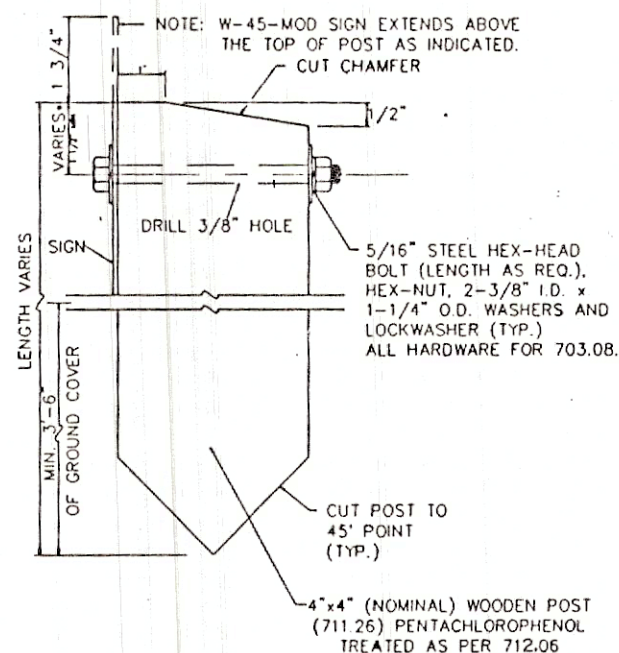


PLAN - BOLLARD BARRIER
LOCATIONS AS INDICATED ON PLAN



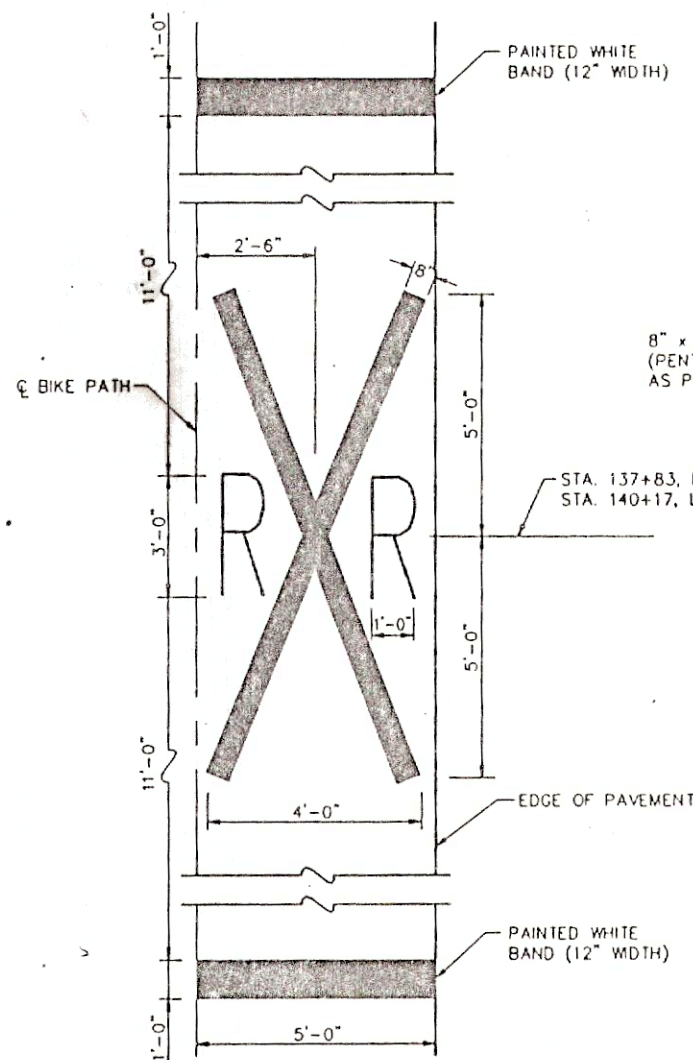
SECTION A-A

SECTION B-B



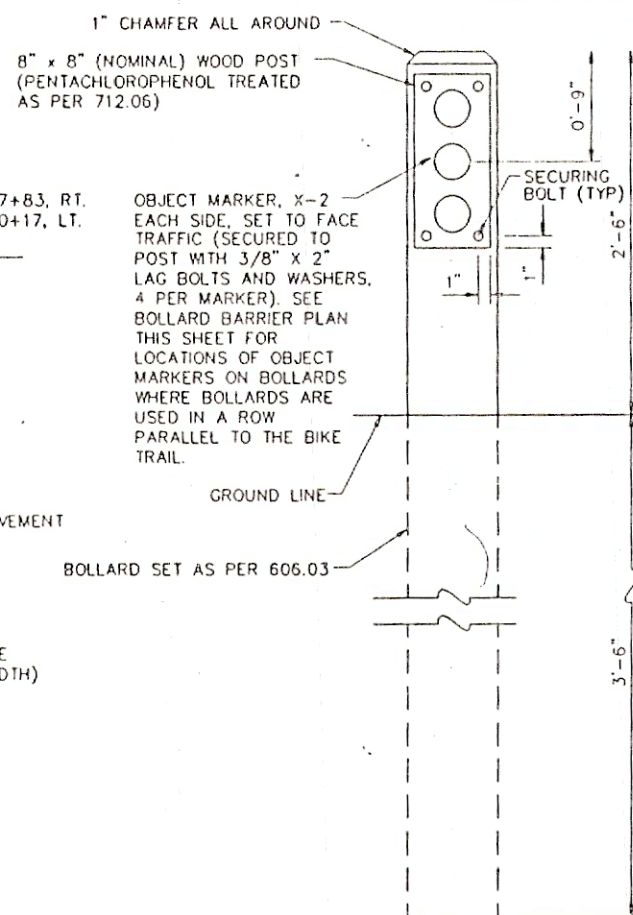
ITEM SPECIAL - WOOD SIGN POST
NOT TO SCALE

• DIMENSION VARIES DEPENDING ON SIGN SHAPE AND LOCATION OF DRILLED HOLES.
DRILLED HOLE AND HARDWARE SHOWN ARE TYPICAL FOR ALL SIGN CONNECTIONS REQUIRED.

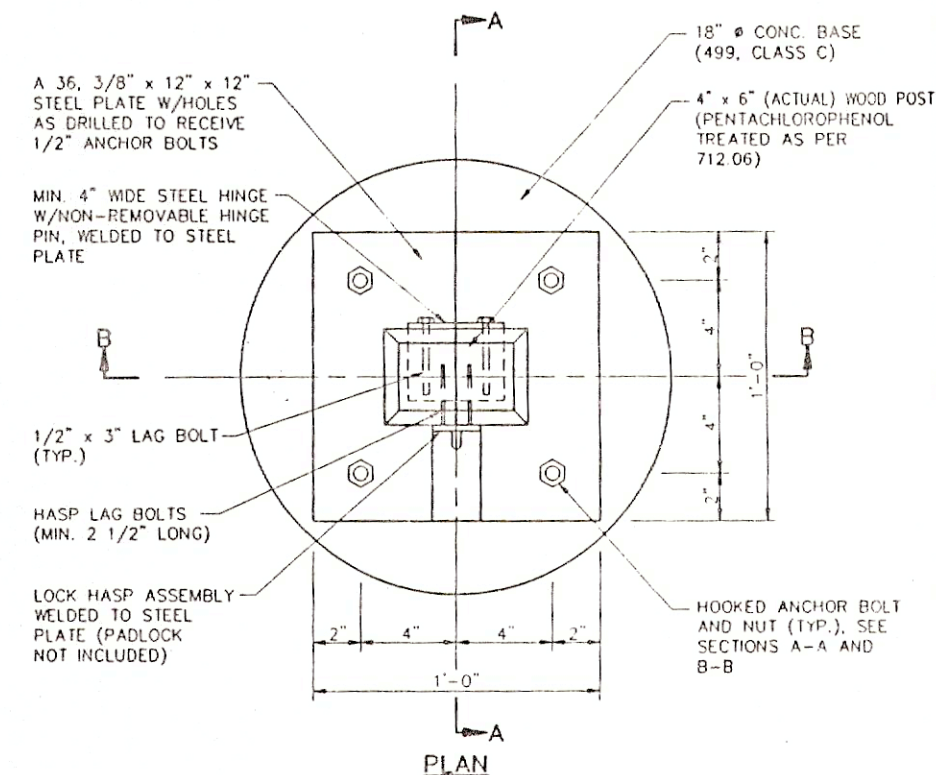


TYPICAL - ITEM 642 RAILROAD SYMBOL MARKING TYPE 2, AS PER PLAN

NOTE: THIS SYMBOL IS A HALF-SIZE OF THAT INDICATED FOR AN 18' PAVEMENT PER PAGE P-24 OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.



ITEM SPECIAL - BOLLARD
NOT TO SCALE



NOTE: FOLLOWING INSTALLATION, ALL EXPOSED METAL PARTS ARE TO BE PAINTED WITH ONE COAT OF RUST-INHIBITING ALKYD ENAMEL PRIMER AND A FINISHED COAT OF ALKYD ENAMEL PAINT, COLOR-BLACK.

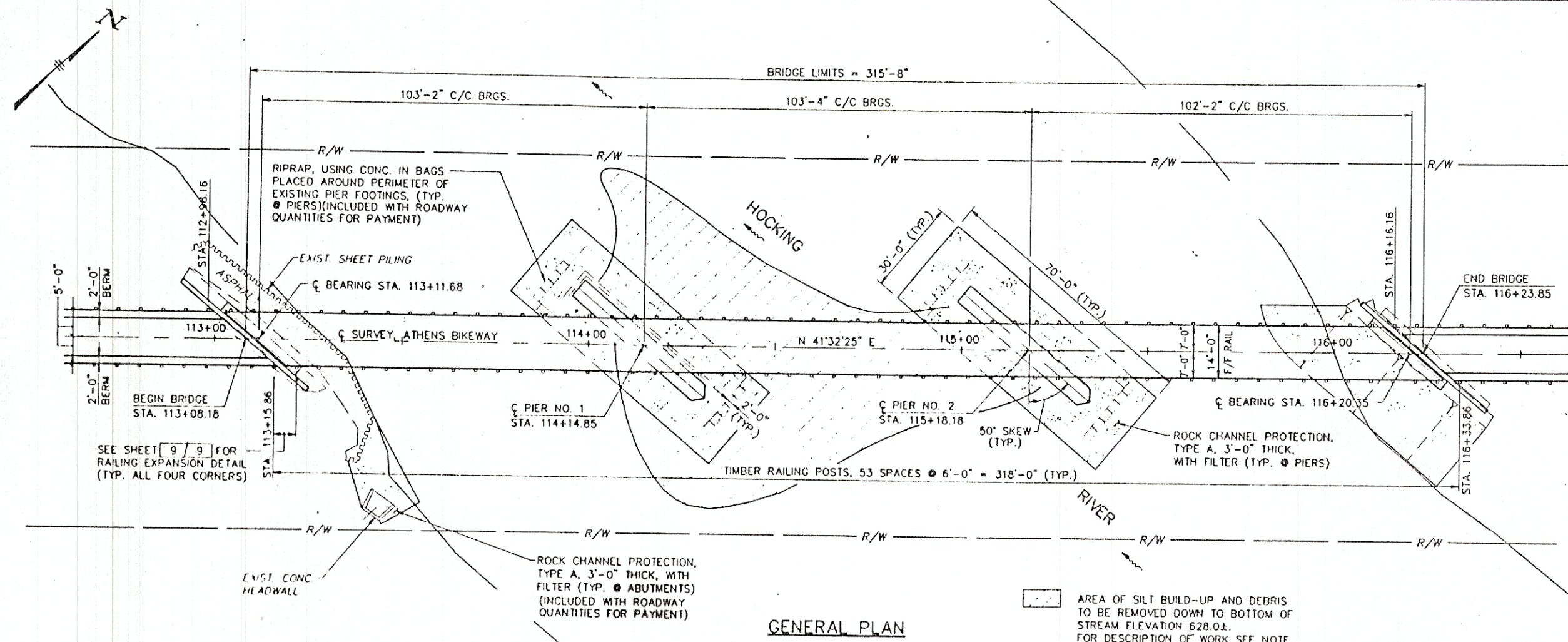
ITEM SPECIAL - HINGED BOLLARD
NOT TO SCALE

FHWA REGION	STATE	PROJECT	
5	OHIO		

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ATHENS COUNTY
ATHENS BIKEWAY PHASE II

① FOR EARTHWORK LIMITS AND SLOPES SEE PLAN CROSS SECTIONS.



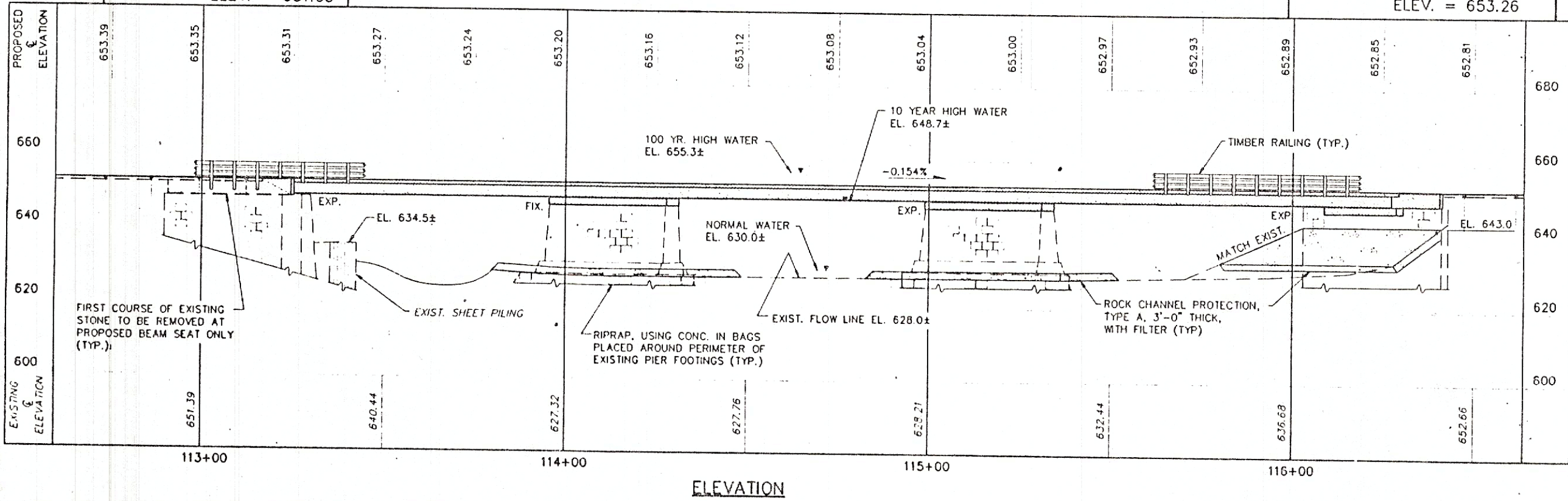
BENCHMARK NO. 1-A
SET PK IN POWER POLE WEST OF LAST HOUSE ON CURRIER ST. S/S. RD. STA. 108+58.55, 46.44' RT. ELEV. = 651.03

BENCHMARK NO. 149
TOP OF NAIL IN HUB SET ON R.R. BED ±700' FROM BENCHMARK NO. 148 ● NORTH END OF R.R. BRIDGE OVER HOCKING RIVER, STA. 116+27.15, 1' LT. ELEV. = 653.26

DRAINAGE DATA
FROM FEMA STUDY (MARCH, 1980)
DRAINAGE AREA = 875.0 SQ. MI.
Q10 = 22,000 CFS V = UNKNOWN EL. = 648.7
Q100 = 44,800 CFS V = 3.7 FPS EL. = 655.3
NORMAL WATER EL. = 630.0

EXISTING STRUCTURE
TYPE: SANDSTONE ABUTMENTS AND PIERS WITHOUT SUPERSTRUCTURE
SPAN: 104'-0"±, 103'-0"± & 103'-0"± C/C SUBSTRUCTURES
ROADWAY: ABANDONED RAILROAD
LOADING: UNKNOWN
SKEW: 50'± RIGHT FORWARD
BUILT: UNKNOWN
CONDITION: FAIR
STRUCTURE FILE NUMBER: NONE

PROPOSED STRUCTURE
PROPOSED WORK: NEW CONTINUOUS COMPOSITE STEEL BEAMS (A588) WITH REINFORCED CONCRETE DECK ON MODIFIED SANDSTONE ABUTMENTS AND PIERS
SPANS: 103'-2", 103'-4" & 102'-2" C/C BEARINGS
ROADWAY: 14'-0" F/F RAILING
LOADING: 85 PSF OR H20-44 ● 136.5% OF ALLOWABLE
ALIGNMENT: TANGENT
SKEW: 50'± RIGHT FORWARD
WEARING SURFACE: MONOLITHIC CONCRETE
APPROACH SLABS: NONE
SUPERELEVATION: 1/4"/FT.
LATITUDE: 39° 22' 27"
LONGITUDE: 82° 06' 35"



FINKBEINER, PETTIS & STROUT, LTD. 1/9
CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

GENERAL PLAN AND ELEVATION
ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

ATHENS COUNTY STA. 113+08.18
TO STA. 116+23.85

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
J.G.C.	C.A.F.		M.R.S.	P.A.H.	1/94	

CAD FILE: ATMCPLAN
DATE: 02/16/94
OPERATOR: MPB
PLOT SCALE: 1"=16'

ESTIMATED QUANTITIES

CALC. BY: J.G.C. DATE: 1/94
CHKD. BY: G.M.L. DATE: 1/94

AS BUILT

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	AS BUILT			AS BUILT		
					ABUTS	PIER	SUPER	ABUTS	PIER	SUPER
202	11201	LUMP		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN				LUMP		
202	98000	LUMP		REMOVAL MISCELLANEOUS: SILT AND DEBRIS REMOVAL IN RIVER				LUMP		
503	21301	LUMP		UNCLASSIFIED EXCAVATION, AS PER PLAN						
509	15824	31,388	POUND	EPOXY COATED REINFORCING STEEL, GRADE 60	4942	8364	18082			
510	11101	348	EACH	DOWEL HOLE, AS PER PLAN	180	168				
511	31500	135	CU.YD.	CLASS S CONCRETE, SUPERSTRUCTURE			135			
511	42500	38	CU.YD.	CLASS C CONCRETE, PIER CAP		38				
511	45500	38	CU.YD.	CLASS C CONCRETE, ABUTMENT	38					
SPECIAL	51267502	332	SQ.YD.	SEALING OF CONCRETE SURFACES (EPOXY)*						
513	11300	190,815	POUND	STRUCTURAL STEEL, A588 AISC CATEGORY I *			190,815			
513	20000	1110	EACH	WELDED STUD SHEAR CONNECTOR			1110			
514	00620	580	S.F.	FIELD PAINTING OF NEW STEEL, SYSTEM IZEU *			580			
516	11210	44	LIN.FT.	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL *			44			
516	44200	6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (11"x12"x3 1/4") WITH (12"x19"x1 1/2") LOAD PLATE *			6			
516	44000	6	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), (11 1/2"x18"x1 7/8") WITH (12 1/2"x2'-0"x1 1/2") LOAD PLATE *			6			
517	74001	636	LIN.FT.	RAILING, TIMBER, AS PER PLAN			636			
518	21200	12	CU.YD.	POROUS BACKFILL WITH FILTER FABRIC	12					
SPECIAL	51822300	622	LIN.FT.	STEEL DRIP STRIP			622			
518	40001	80	LIN.FT.	6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN	80					
518	40011	3	LIN.FT.	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	3					
601	20501	1	CU.YD.	CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN	1					

* SEE PROPOSAL NOTE

CAD FILE: ATHONTON
DATE: 02/15/94
OPERATOR: J.G.P./M.P.B.
SCALE: 1"=1'

FHWA REGION	STATE	PROJECT
5	OHIO	

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ATHENS COUNTY
ATHENS BIKEWAY-PHASE II

STRUCTURAL GENERAL NOTES

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS:

EXJ-4-87 1-20-94
SD-1-69 DATED 6-12-69

AND TO SUPPLEMENTAL SPECIFICATIONS:

944 DATED 5-2-94

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1992 INCLUDING THE 1993 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING:

H20-44 AT 136.5% OF BASIC UNIT STRESS OR 85 P.S.F., WHICHEVER IS GREATER

DESIGN DATA:

CONCRETE, CLASS S - COMPRESSIVE STRENGTH 4500 P.S.I. (SUPERSTRUCTURE)

CONCRETE, CLASS C - COMPRESSIVE STRENGTH 4000 P.S.I. (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615, A616 OR A617 GRADE 60, MINIMUM YIELD STRENGTH 60,000 P.S.I.

STRUCTURAL STEEL - ASTM A588-ALLOWABLE STRESS 27,500 P.S.I.

TIMBER - SHALL CONFORM TO 711.26 OF THE CMS WITH THE ADDITIONAL REQUIREMENTS:

MATERIAL - SOUTHERN PINE-SELECT STRUCTURAL DESIGN STRESSES (P.S.I.) (INCLUDES MODIFICATION FACTORS)

	RAILS	POSTS
BENDING, Fb	3065	2475
TENSION PARALLEL TO GRAIN, Ft	1995	1650
SHEAR PARALLEL TO GRAIN, Fv	165	180
COMPRESSION PARALLEL TO GRAIN, Fc	2735	1565
COMPRESSION PERPENDICULAR TO GRAIN, Fc⊥	715	615

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL.

2 1/2" CONCRETE COVER.

SEALING OF CONCRETE SURFACES, (EPOXY).

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

ITEM 202. REMOVAL MISCELLANEOUS: SILT AND DEBRIS REMOVAL IN RIVER

THIS ITEM SHALL INCLUDE REMOVAL OF SILT AND DEBRIS BUILD UP BETWEEN AND AROUND THE EXISTING PIERS IN THE RIVER. SILT AND DEBRIS SHALL BE REMOVED DOWN TO ELEVATION 628.0±. LIMITS SHALL BE AS DIRECTED BY THE ENGINEER.

PROPOSED WORK (NOT NECESSARILY IN THE FOLLOWING ORDER)

- REMOVE EXISTING STONE AND CONCRETE BACKWALL AND STONE PIER CAP AS SHOWN ON SHEET [3/9].
- REPLACE DETERIORATED STONE ON REAR ABUTMENT AS SHOWN ON SHEET [3/9].
- CONSTRUCT NEW ABUTMENT SEAT AND BACKWALL AND PIER CAP.
- PLACE STRUCTURAL STEEL.
- POUR REINFORCED CONCRETE DECK.
- INSTALL TIMBER RAILING.
- PLACE RIPRAP AROUND PIER FOOTINGS. PLACE ROCK CHANNEL PROTECTION AT ABUTMENTS AND PIERS.
- PAINT STRUCTURAL STEEL AS SHOWN ON THE PLANS.
- SEAL CONCRETE DECK, PIER CAP AND ABUTMENTS AS SHOWN ON THE PLANS.
- REMOVE SILT AND DEBRIS FROM RIVER.

ITEM 510. DOWEL HOLES, AS PER PLAN:

THIS ITEM SHALL INCLUDE THE DRILLING OF HOLES INTO CONCRETE OR MASONRY AND THE FURNISHING AND PLACING OF GROUT INTO HOLES. NONSHRINKING EPOXY GROUT SHALL BE USED IN ACCORDANCE WITH CMS 510 ANCHORING SHALL CONFORM TO CMS 510 PAYMENT SHALL BE INCLUDED WITH ITEM 510.

PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:

EXISTING STONE AND CONCRETE BACKWALL SHALL BE REMOVED AS SHOWN ON SHEET [3/9] AND AS PER 202.03, IN ORDER TO CONSTRUCT THE PROPOSED BEAM SEAT, ABUTMENT BACKWALL AND PIER CAP. SUITABLE WASTE MATERIAL MAY BE PLACED AS BANK PROTECTION AS DIRECTED BY THE ENGINEER. ALL SALVAGEABLE STONES FROM EXISTING ABUTMENTS SHALL BE CAREFULLY REMOVED AND STORED ON SITE FOR SUBSEQUENT REMOVAL BY COUNTY FORCES.

ITEM 518. 6" PERFORATED CORRUGATED PLASTIC PIPE, AS PER PLAN:

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE SIX (6) INCH DIAMETER, PLASTIC CORRUGATED AS PER SUPPLEMENTAL SPECIFICATION 944, AASHTO M294, TYPE SP.

ITEM 518. 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN:

CORRUGATED PIPE USED IN ABUTMENT DRAINAGE SHALL BE SIX (6) INCH DIAMETER, PLASTIC CORRUGATED AS PER SUPPLEMENTAL SPECIFICATION 944, AASHTO M 294, TYPE S. THIS ITEM SHALL INCLUDE ALL ELBOWS, TEES AND END CAPS REQUIRED TO COMPLETE THE ABUTMENT DRAINAGE SYSTEM.

EXISTING STRUCTURE VERIFICATION:

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

ITEM SPECIAL. SEALING OF CONCRETE SURFACES, EPOXY:

A CONCRETE SEALER SHALL BE APPLIED TO THE CONCRETE SURFACES AS SHOWN ON SHEETS [4/9], [5/9] AND [8/9]. SEE PROPOSAL NOTE FOR SURFACE PREPARATION REQUIREMENTS, APPLICATION RATES, MATERIAL REQUIREMENTS AND APPLICATION PROCEDURES. THE COLOR OF THE EPOXY SHALL BE THE SAME ON ALL SURFACES AND SHALL BE APPROVED BY THE ENGINEER.

FINKBEINER, PETTIS & STROUT, LTD. 2/9
CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

GENERAL NOTES AND ESTIMATED QUANTITIES

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/94	

FHWA REGION	STATE	PROJECT	
5	OHIO		

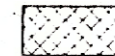
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59

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

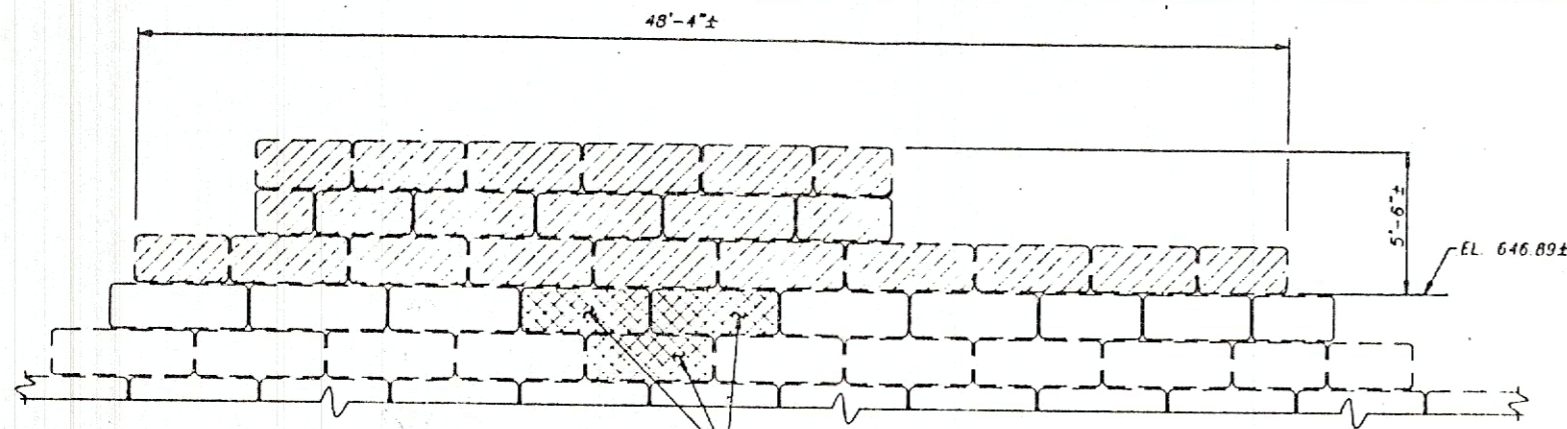
LEGEND



INDICATES AREA OF EXISTING STRUCTURE TO BE TOTALLY REMOVED, AS PER ITEM 202.

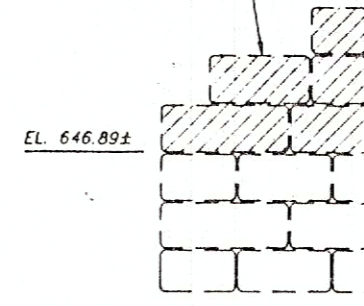


INDICATES AREA OF EXISTING STRUCTURE TO BE REPAIRED, TO BE INCLUDED IN ITEM 202.

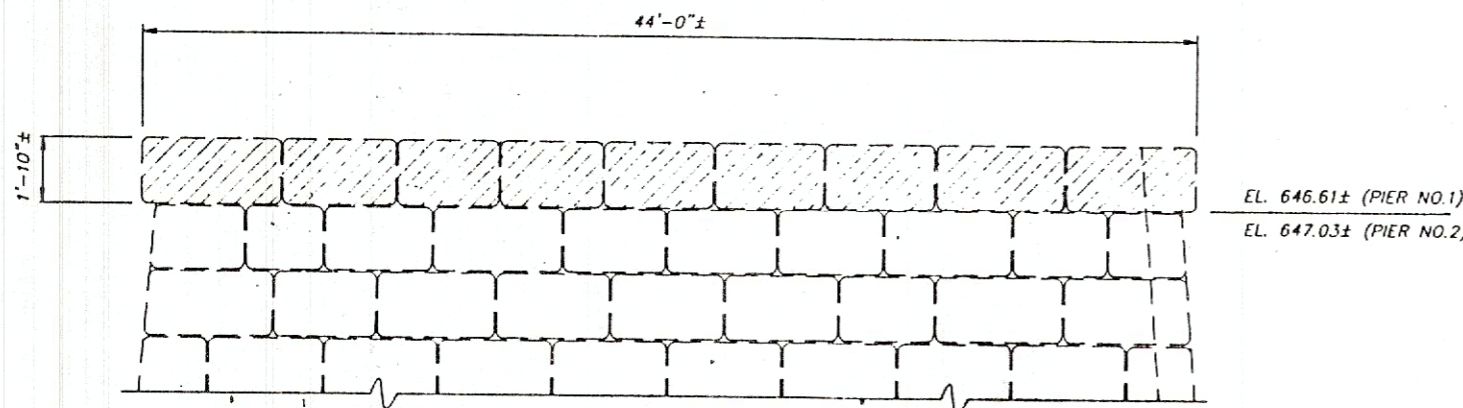


REAR ABUTMENT ELEVATION

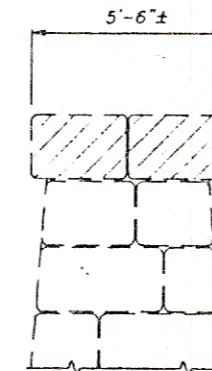
SANDSTONE BLOCKS TO BE REMOVED. STONE WILL BE PROPERTY OF ATHENS COUNTY ENGINEER (TYP.)



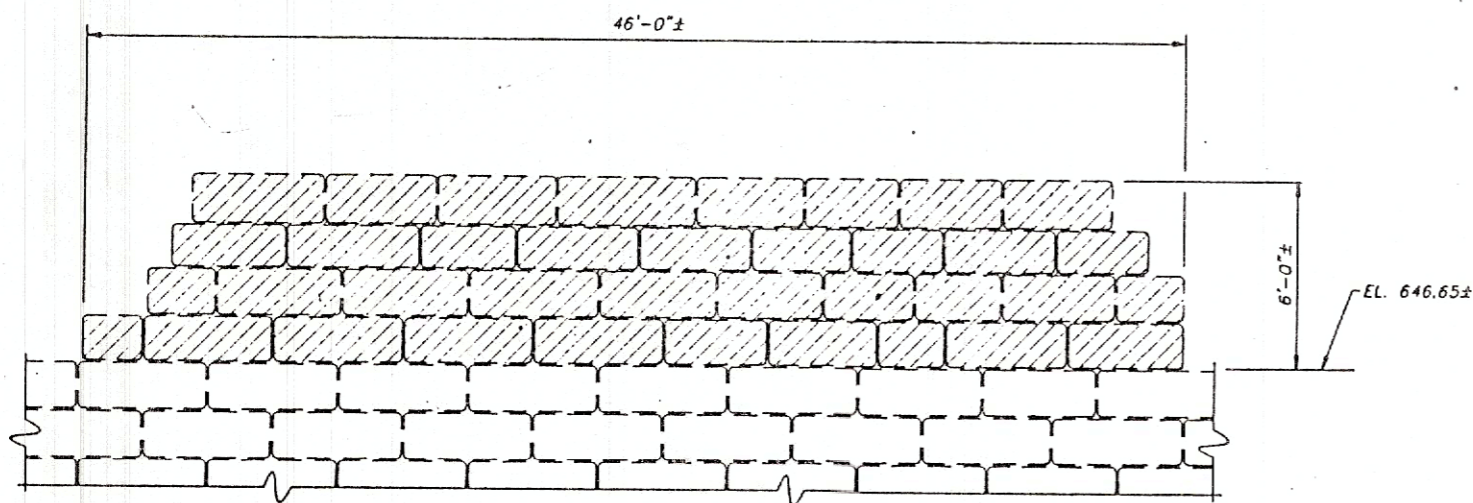
SECTION THRU REAR ABUTMENT



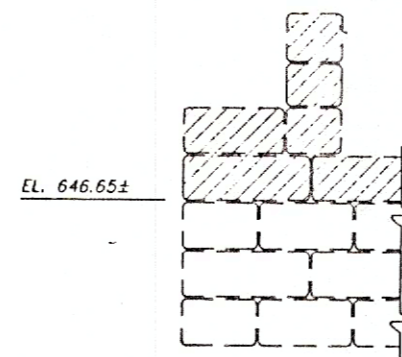
PIER ELEVATION



SECTION THRU PIER



FORWARD ABUTMENT ELEVATION



SECTION THRU FWD. ABUTMENT

NO FILE ATHENS
02/17/94
DRAWN BY
SCALE: 1"=1'

FINKBEINER, PETTIS & STROUT, LTD. 3 / 9
CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

DEMOLITION AND REPAIR DETAILS

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/94	

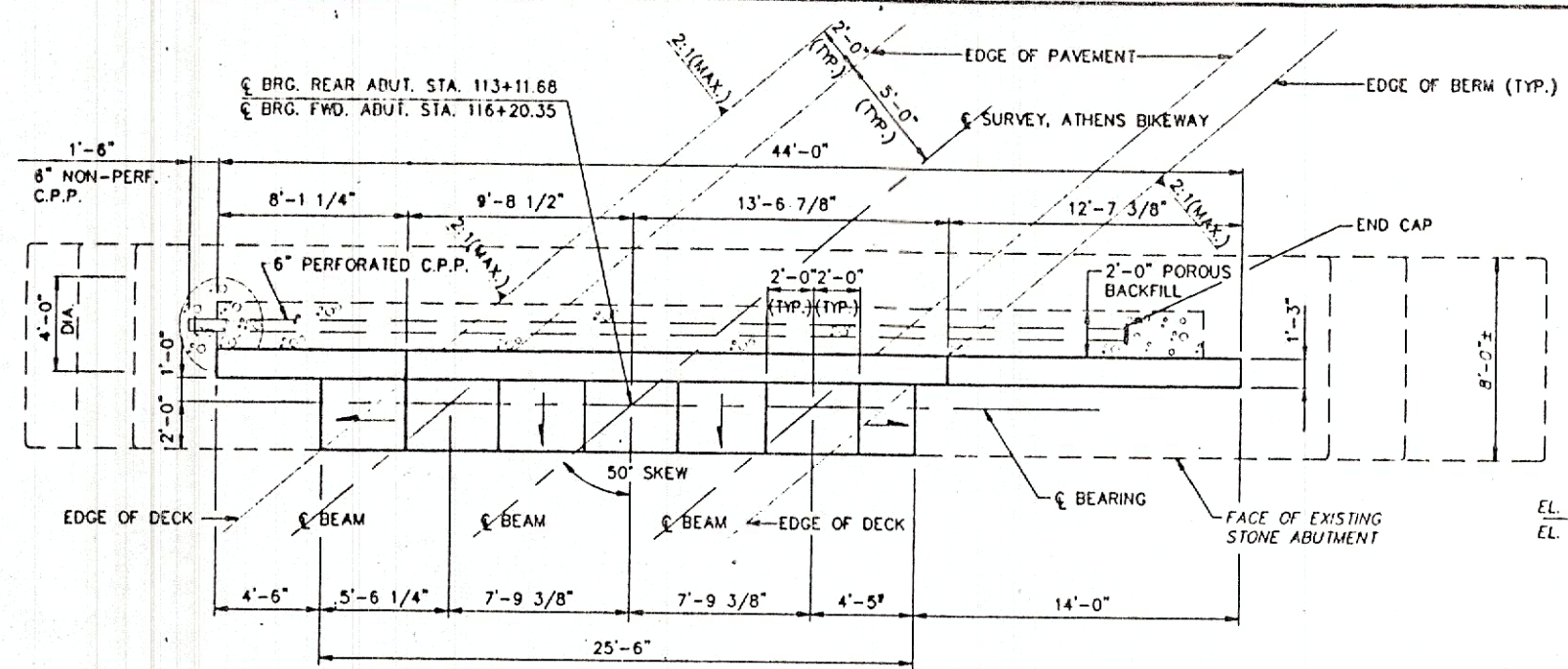
FHWA REGION	STATE	PROJECT
5	OHIO	

54
59

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

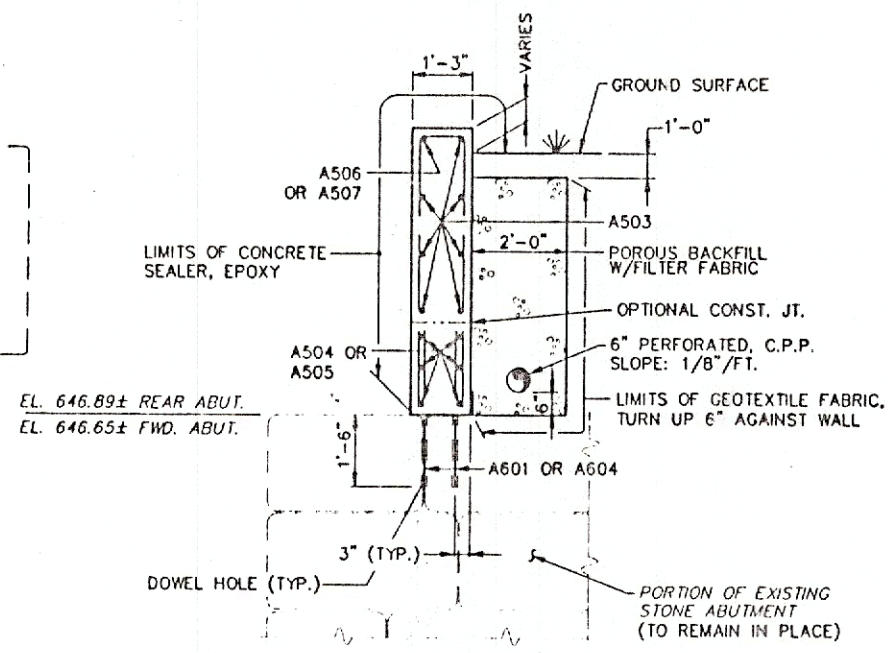
NOTES

- ALL EXCAVATION BEHIND THE ABUTMENTS SHALL BE BACKFILLED WITH ITEM 310 MATERIAL IN ACCORDANCE WITH ITEM 203 COMPACTION REQUIREMENTS. BACKFILLING SHALL BE PAID FOR UNDER ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN.
- MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 2" UNLESS OTHERWISE NOTED.
- ABBREVIATIONS: N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE
C.P.P. = CORRUGATED PLASTIC PIPE
- MINIMUM LAPS ARE AS FOLLOWS:
#5 BAR = 24"

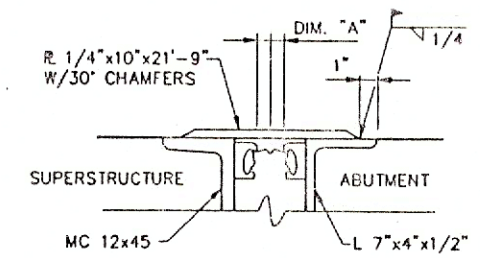


PLAN

LOCATION	A	B	C	D	E	F
REAR ABUTMENT	653.17	653.50	648.93	649.04	649.15	646.89±
FORWARD ABUTMENT	653.02	652.69	648.68	648.57	648.46	646.65±

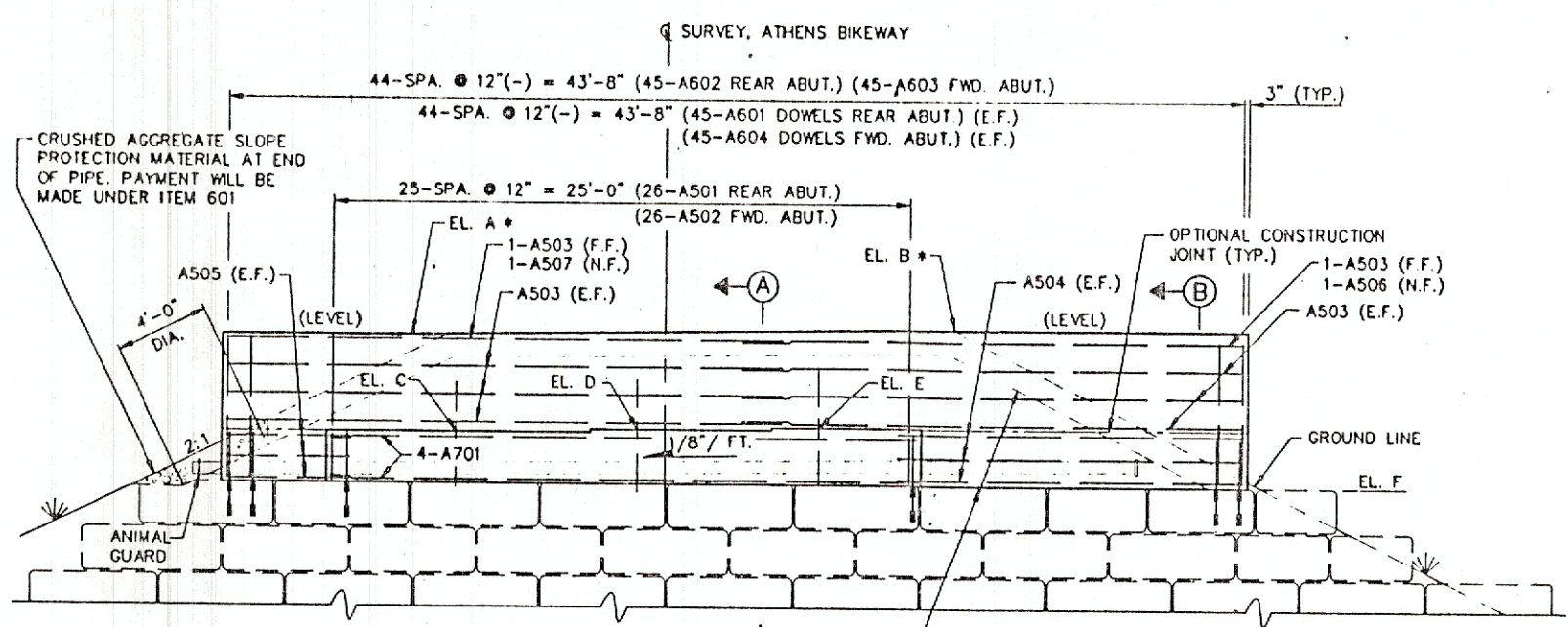


SECTION B-B



EXPANSION JOINT DETAIL

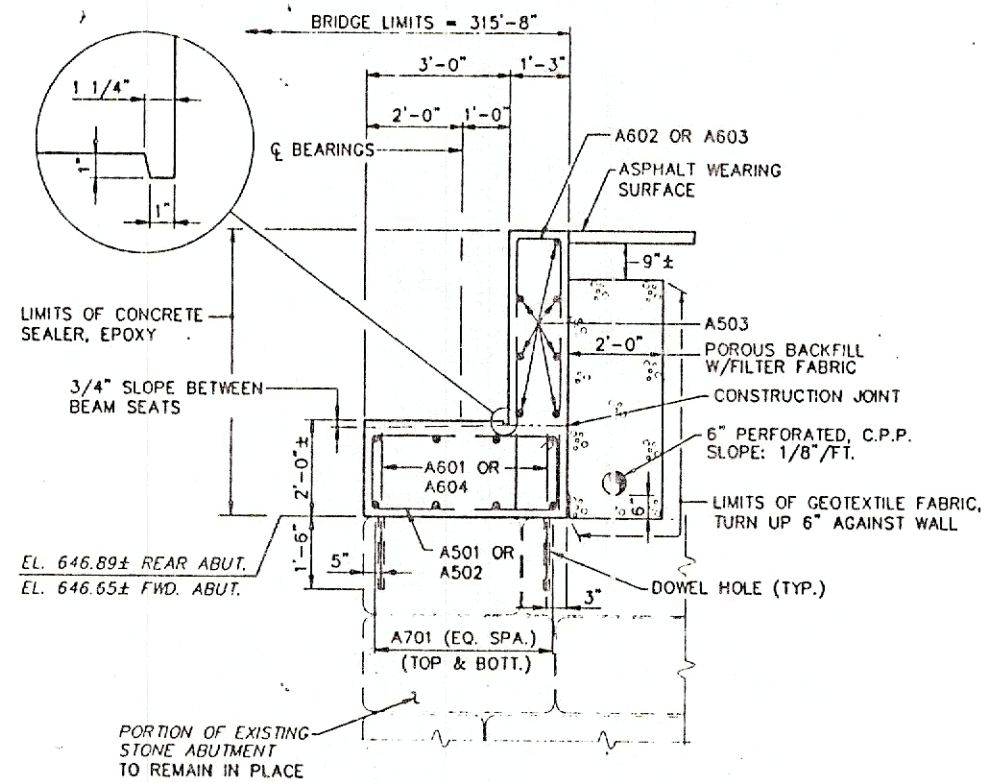
USE 3" STRIP SEAL FOR REAR ABUTMENT AND 4" STRIP SEAL FOR FORWARD ABUTMENT. FOR ADDITIONAL EXPANSION JOINT DETAILS SEE STD. DWG. EXJ-4-87.



ABUTMENT ELEVATION

REAR ABUTMENT SHOWN,
FORWARD ABUTMENT SIMILAR

* ELEVATIONS TAKEN AT FACE OF BACKWALL.
OTHER ELEVATIONS TAKEN AT Q BEARING.



SECTION A-A

TEMPERATURE (F)	REAR ABUTMENT	FWD. ABUTMENT
30	1 13/16"	2 7/16"
40	1 3/4"	2 5/16"
50	1 3/4"	2 3/16"
60	1 11/16"	2 1/16"
70	1 5/8"	2"
80	1 9/16"	1 7/8"
90	1 1/2"	1 3/4"

NOTE: THE MINIMUM JOINT OPENING (DIM. "A") AT THE TIME OF STEEL GLAND INSTALLATION SHALL NOT BE LESS THAN 1 1/2". SEE STD. DWG. EXJ-4-87, SHEET 5 OF 5 FOR ADDITIONAL INFORMATION ON JOINT OPENING.

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ABUTMENT DETAILS

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/94	

CAO FILE: ATHABUT
DATE: 02/18/94
OPERATOR: JOP/JLP/S
SCALE: 1/4"

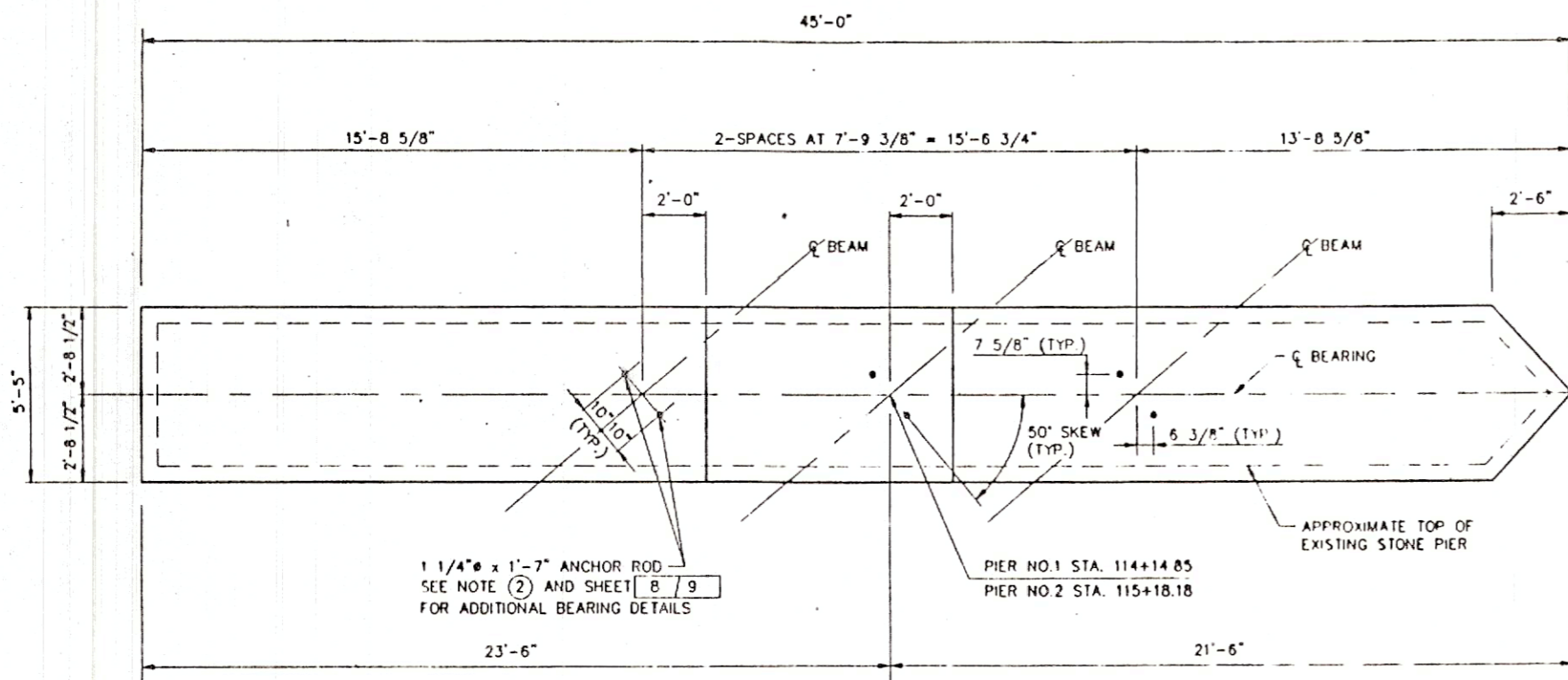
FHWA REGION	STATE	PROJECT	
5	OHIO		

55
59

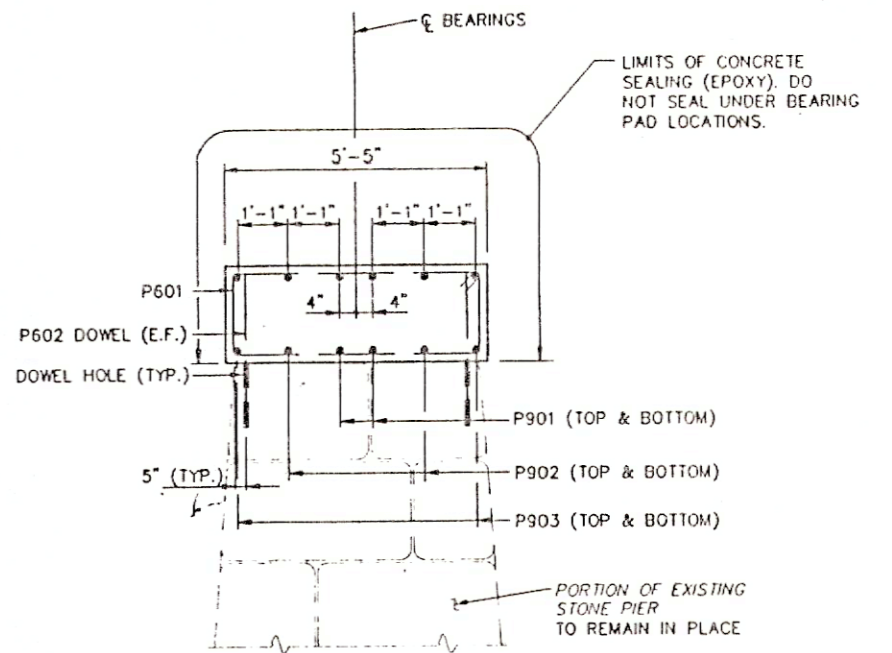
ATHENS COUNTY
ATHENS BIKEWAY PHASE II

NOTES

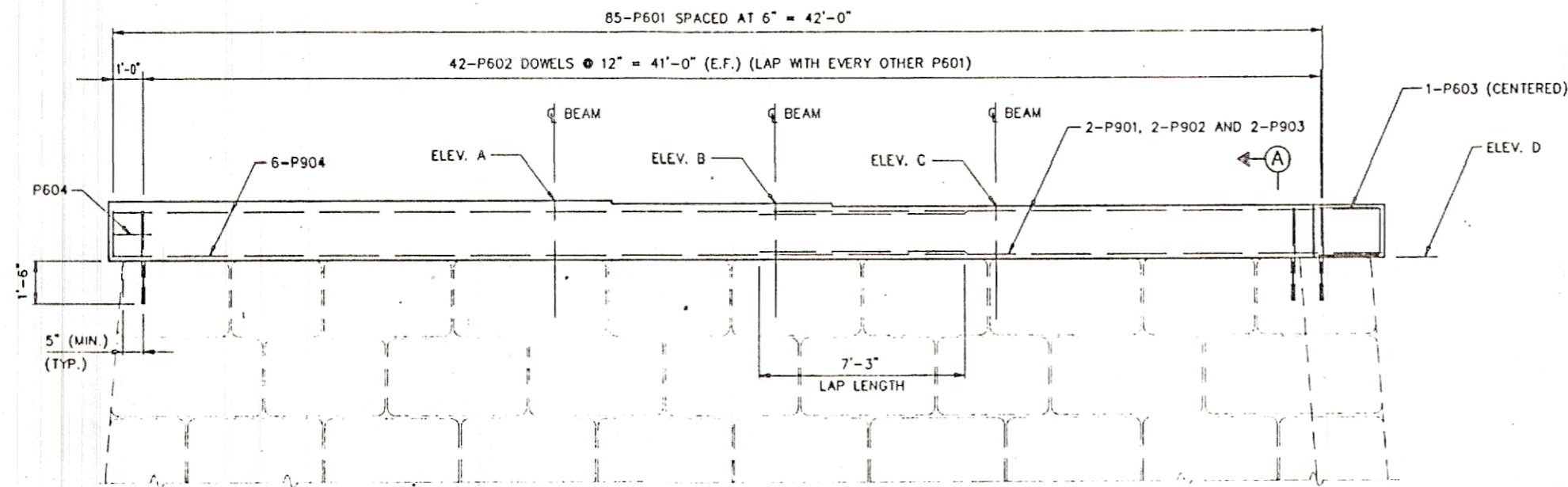
- BRIDGE SEAT REINFORCING: REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES.
- ABBREVIATIONS:
E.F. = EACH FACE



PLAN



SECTION A-A



ELEVATION

LOCATION	A	B	C	D
PIER NO.1	649.14	649.03	648.92	646.61±
PIER NO.2	648.97	648.85	648.75	647.03±

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CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

PIER DETAILS

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVERED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/94	

CAD FILE: A10001
DATE: 02/18/94
OPERATOR: MAB
SCALE: 1"=1'

FHWA REGION	STATE	PROJECT	
5	OHIO		

56
59

ATHENS COUNTY
ATHENS BIKEWAY-PHASE II

NOTES

① BEARING REPOSITIONING: IF DECK CONCRETE IS PLACED AT AN AMBIENT TEMPERATURE HIGHER THAN 80°F OR LOWER THAN 40°F AND THE BEARING SHEAR DEFLECTION EXCEEDS 1/6 OF THE BEARING HEIGHT AT 60°F (+/-) 10°F, THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 60°F (+/-) 10°F.

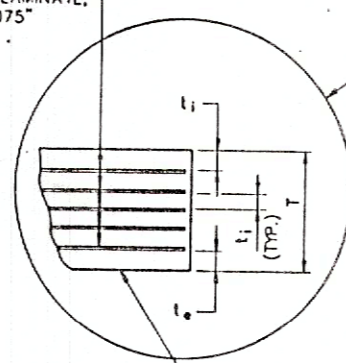
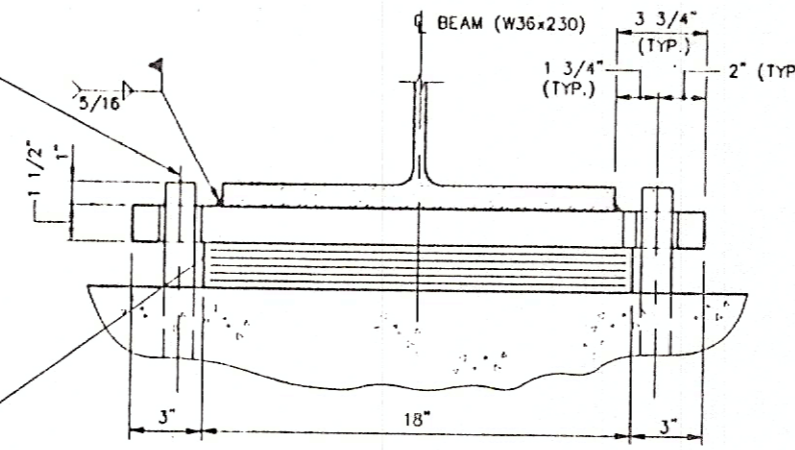
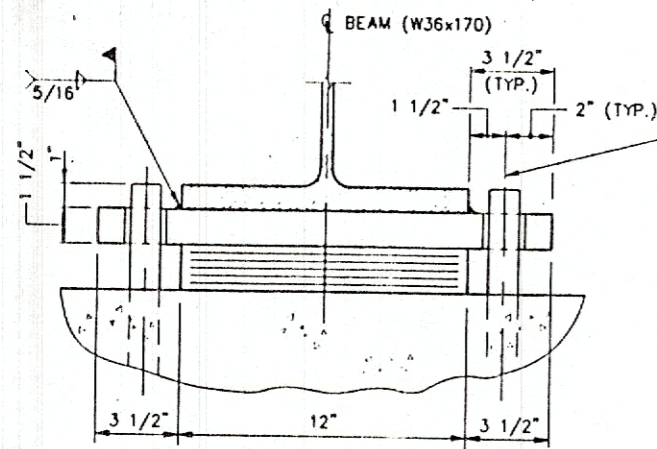
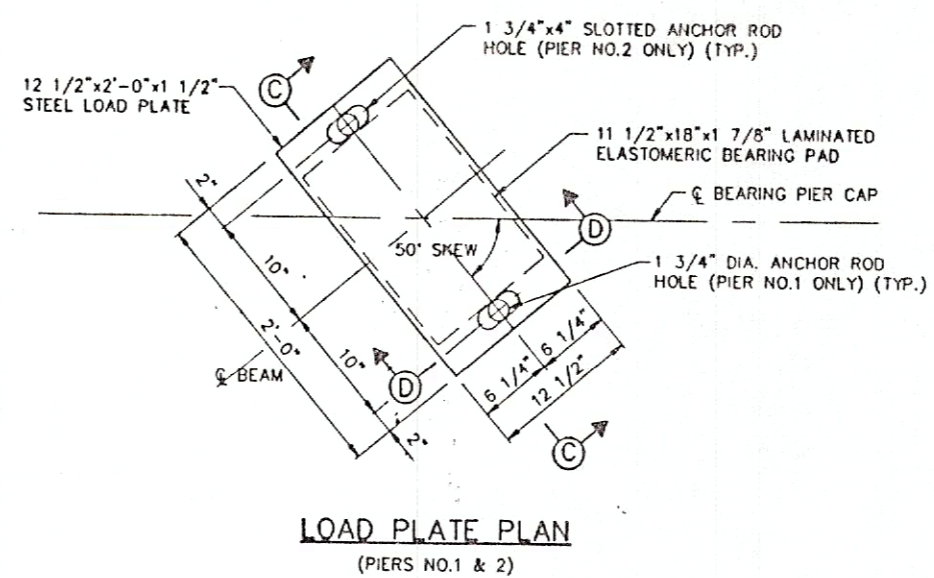
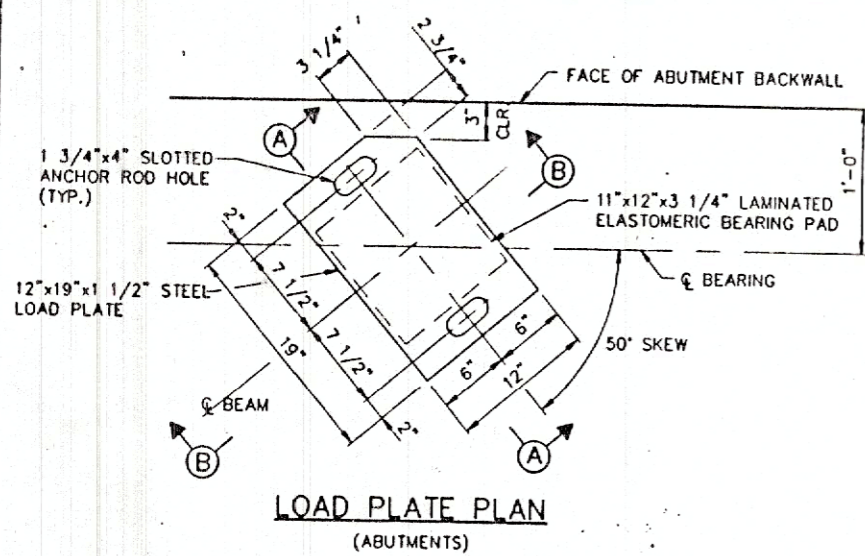
WELDING SHALL BE CONTROLLED SO THAT THE PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS CORRESPONDING TO DESIGN METHOD A. TESTING SHALL BE INCLUDED IN THE PRICE BID FOR THE BEARINGS.

STEEL LOAD PLATES SHALL BE A588 STEEL.

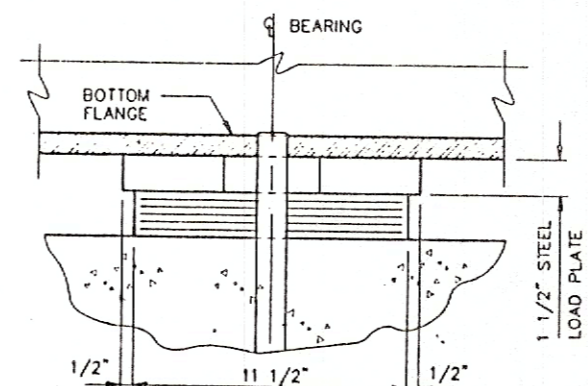
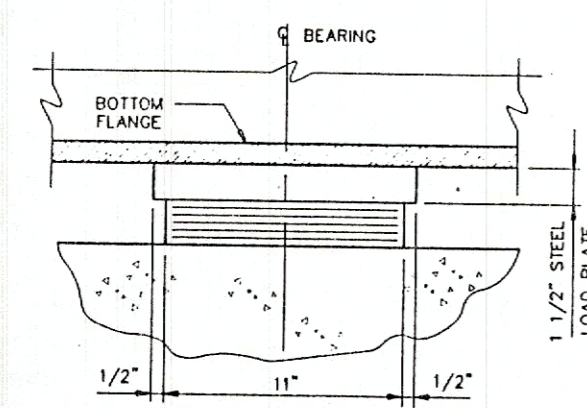
② ANCHOR RODS TO BE GALVANIZED ACCORDING TO 711.02. INSTALL ANCHOR RODS AS PER ITEM 510. INCLUDE DOWEL HOLES AND ANCHOR RODS WITH ITEM 516 FOR PAYMENT.

③ FOR ADDITIONAL SUPERSTRUCTURE DETAILS SEE SHEETS 7/9, 8/9 & 9/9.



SECTION A-A

SECTION C-C



SECTION B-B
ABUTMENT BEARING DETAILS

SECTION D-D
PIER BEARING DETAILS

DEAD LOAD = 45.3 (KIPS)
LIVE LOAD (WITHOUT IMPACT) = 20 (KIPS) } DESIGN LOAD=65.3 (KIPS)

DEAD LOAD = 129.2 (KIPS)
LIVE LOAD (WITHOUT IMPACT) = 53.3 (KIPS) } DESIGN LOAD=182.5 (KIPS)

BEARING DATA							
50 DUROMETER							
LOCATION	SIZE (IN.)		(THICKNESS) "DIM. T"	t _i	t _e	NUMBER OF t _i	NUMBER OF STEEL LAMINATES
	L	W					
ABUTMENTS	11"	12"	3 1/4"	0.50	0.39	5	5
PIERS	11 1/2"	18"	1 7/8"	0.26	0.20	5	5

(SEE NOTE No. ① THIS SHEET)

FINKBEINER, PETTIS & STROUT, LTD. 6/9
CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

BEARING DETAILS

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	C.A.F.		M.R.S.	R.A.H.	1/94	

CAD FILE: ATHENS02
DRAWN BY: J.G.C.
OPERATOR: J.G.C.
SCALE: 1/4"

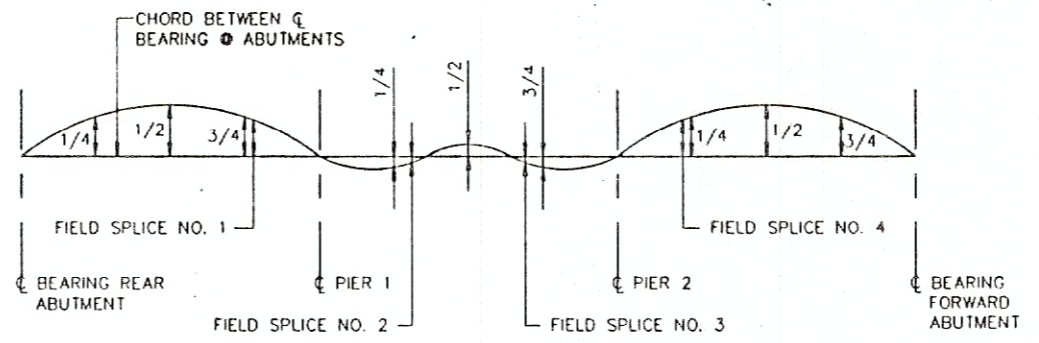
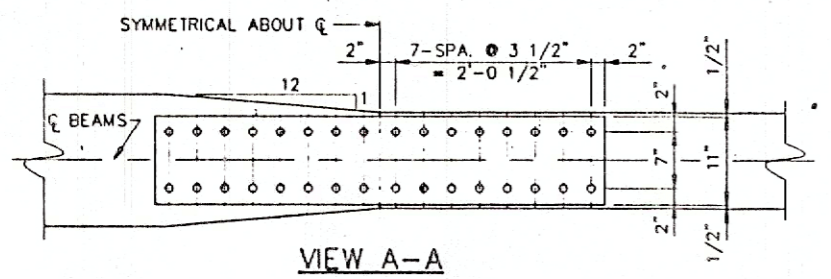
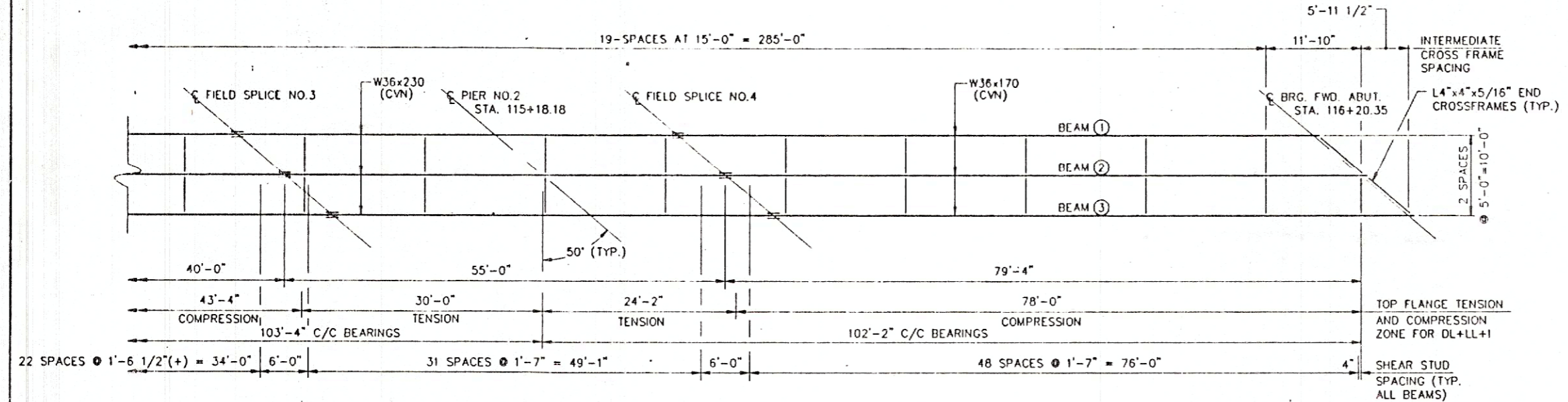
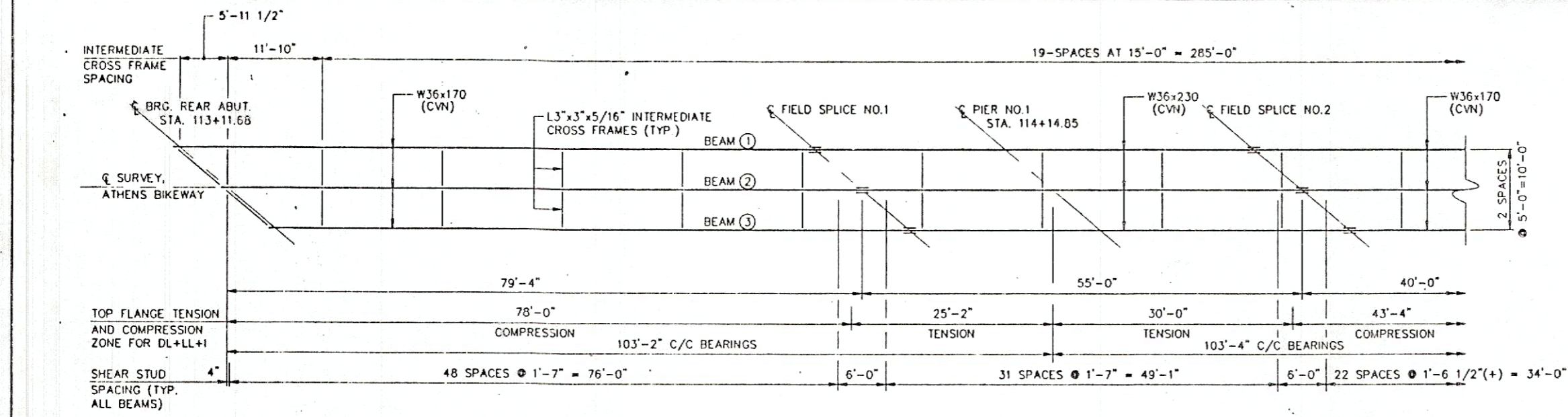
FHWA REGION	STATE	PROJECT
5	OHIO	

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59

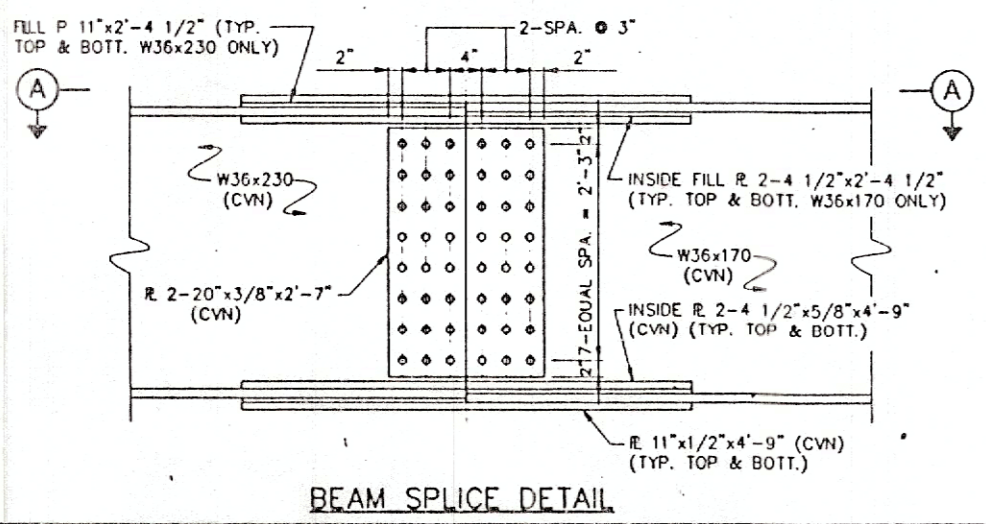
ATHENS COUNTY
ATHENS BIKEWAY PHASE II

NOTES

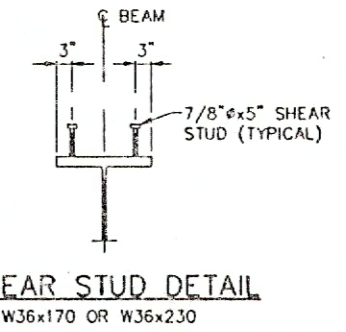
- ALL STRUCTURAL STEEL SHALL BE ASTM A588 UNLESS NOTED OTHERWISE.
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01 OF THE SPECIFICATIONS
- HIGH STRENGTH BOLTS SHALL BE 1" DIA. A325 UNLESS OTHERWISE NOTED.
- FOR ADDITIONAL END CROSSFRAME DETAILS AND NOTES SEE STD. DWGS. EXJ-4-87 AND SD-1-69.
- WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MAY BE MADE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL NOT BE CLOSER THAN 1" FROM EDGE OF FLANGE AND NOT MORE THAN 2" LONG AND NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO.
- WELDED STUD SHEAR CONNECTORS SHALL CONFORM TO ITEM 513. CONNECTORS SHALL BE MOVED TO AVOID INTERFERENCE WITH BOLT HEADS.
- FOR ADDITIONAL SUPERSTRUCTURE DETAILS SEE SHEETS 6/9, 8/9 AND 9/9.
- FOR DETAIL SHOWING FLANGE CLIP AT END OF BEAM SEE STANDARD DRAWING SD-1-69.



NOTE:
PARTIAL PAINTING OF A588 STEEL: A 10 FOOT LENGTH FROM THE ENDS OF BEAMS ADJACENT TO ABUTMENTS AND ALL CROSS FRAMES AND OTHER A588 STEEL WITHIN THESE LIMITS SHALL BE PAINTED. PAINT SHALL BE SYSTEM IZEU. THE PRIME COAT SHALL BE 708.17 THE TOP COAT COLOR SHALL CLOSELY APPROACH FEDERAL STANDARD NO. 5950 - 20045 OR 20059 (THE COLOR OF WEATHERING STEEL).



LOCATION	SPAN NO. 1			SPAN NO. 2			SPAN NO. 3						
	1/4	1/2	3/4	SPLICE NO. 1	SPLICE NO. 2	SPLICE NO. 3	SPLICE NO. 4	1/4	1/2	3/4			
DEFLECTION DUE TO WEIGHT OF STEEL	5/8	3/4	7/16	3/8	1/16	1/16	1/8	1/16	1/16	5/16	7/16	3/4	5/8
DEFLECTION DUE TO REMAINING NON-COMP. DEAD LOAD	1 7/8	2 3/8	1 5/16	1 3/16	-3/16	-1/8	-1/16	-1/8	-3/16	1 1/8	1 3/16	2 1/4	1 13/16
DEFLECTION DUE TO COMPOSITE DEAD LOAD	1/8	1/8	1/16	1/16	-1/16	1/16	1/16	1/16	-1/16	1/16	1/16	1/8	1/16
REQUIRED SHOP CAMBER	2 5/8	3 3/4	1 13/16	1 5/8	-3/16	-1/16	1/8	-1/16	-3/16	1 1/2	1 11/16	3 1/8	2 1/2



FINKBEINER, PETTIS & STROJT, LTD. 7/9
CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

FRAMING PLAN

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/94	

DATE 07/16/94
SCALE 1/4" = 1'-0"

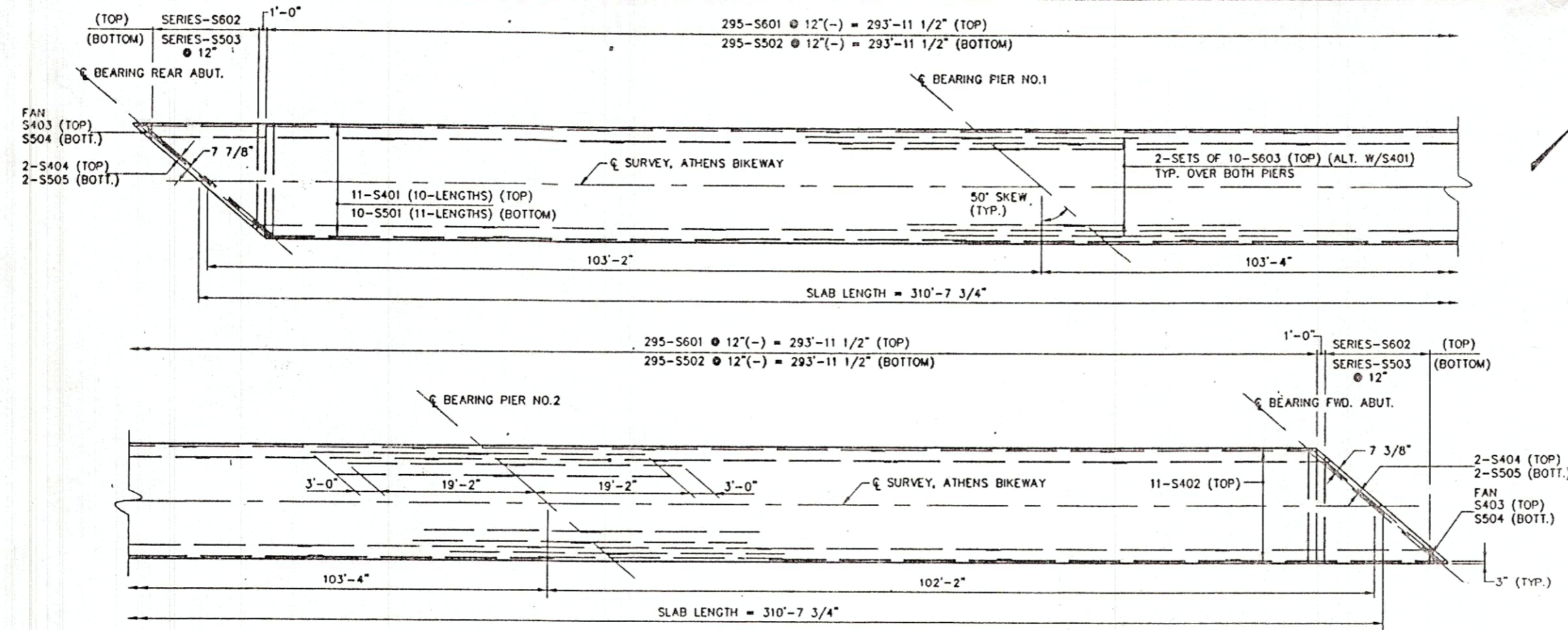
FHWA REGION	STATE	PROJECT
5	OHIO	

58
59

ATHENS COUNTY
ATHENS BIKEWAY PHASE II

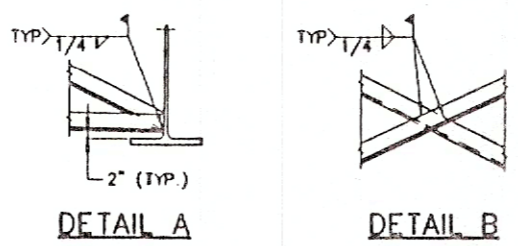
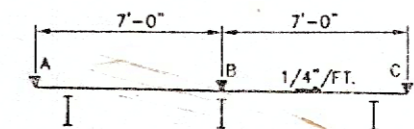
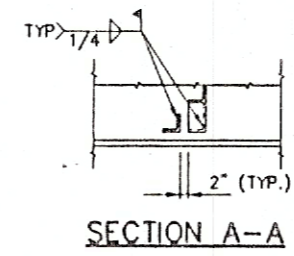
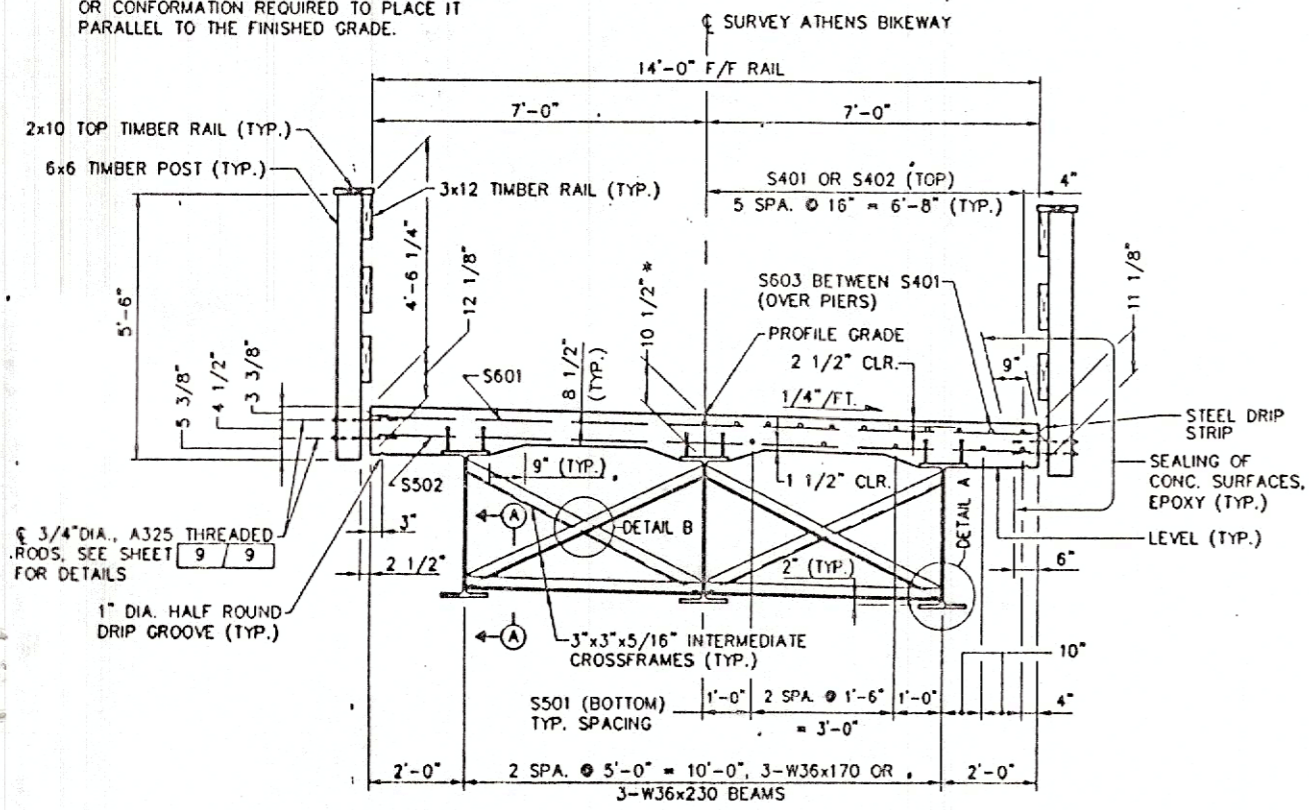
NOTES

- A HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12".
- MINIMUM BAR LAPS ARE AS FOLLOWS:
#4 BAR = 20"
#5 BAR = 24"
#6 BAR = 30"
UNLESS OTHERWISE NOTED.
- FOR TIMBER RAILING DETAILS SEE SHEET 9/9.
- ALL TIMBER DIMENSIONS ARE NOMINAL.
- STAINLESS STEEL DRIP STRIP: PRIOR TO THE CONCRETE DECK PLACEMENT A BENT DRIP STRIP SHALL BE INSTALLED ALONG THE EDGES OF THE DECK BY ANCHORING TO THE TOP LAYER OF REINFORCING STEEL AND BEING BUTTED, WITH A 90 DEGREE BEND, AGAINST THE FORMWORK. AN ADDITIONAL 1'-0" LONG DRIP STRIP SHALL ALSO BE INSTALLED CENTERED ON EACH POST.
THE STRIPS SHALL BE PLACED THE FULL LENGTH OF THE DECK, ENDING AT THE ABUTMENTS. WHERE SPLICES ARE REQUIRED THE INDIVIDUAL PIECES SHALL BE BUTTED TOGETHER. STAINLESS STEEL SHALL BE 22 GAUGE ASTM A167, TYPE 304, MILL FINISH.
THE FINAL PAY QUANTITY SHALL BE THE ACTUAL OVERALL LENGTH OF THE DRIP STRIP. ADDITIONAL STRIPS AT POSTS SHALL NOT BE MEASURED FOR PAYMENT.
PAYMENT SHALL BE MADE AT THE CONTRACT PRICE BID FOR ITEM SPECIAL, LINEAR FEET, STEEL DRIP STRIP, WHICH SHALL INCLUDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM.
- DRIP GROOVES SHALL TERMINATE 2'-0" FROM FACE OF ABUTMENT
- FOR ADDITIONAL SUPERSTRUCTURE DETAILS AND NOTES SEE SHEETS 6/9, 7/9 AND 9/9.



* DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS A THEORETICAL DESIGN DIMENSION. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.

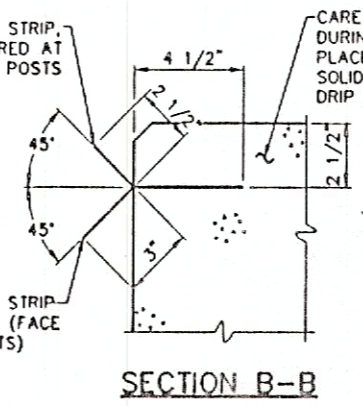
NOTE: FOR FIELD CUTTING DRIP STRIP AT RAILING ANCHOR BOLT SEE DETAILS ON SHEET 9/9



ADDITIONAL DRIP STRIP, 12" LONG CENTERED AT ALL GUARD RAIL POSTS

CARE SHALL BE TAKEN DURING DECK SLAB PLACEMENT TO ENSURE SOLID FILLING UNDER DRIP STRIP

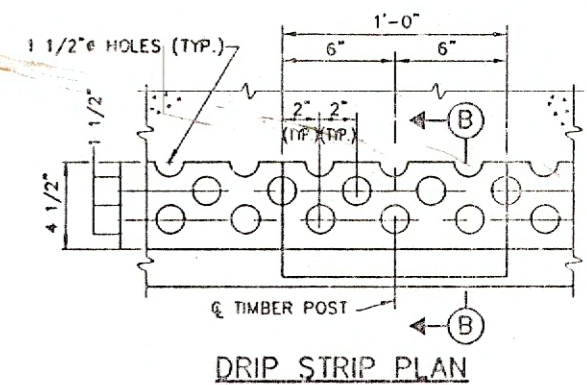
STAINLESS STEEL DRIP STRIP FULL LENGTH OF DECK (FACE TO FACE OF ABUTMENTS)



SCREED ELEVATIONS			
* LOCATION	POINT-A	POINT-B	POINT-C
REAR ABT	653.49	653.33	653.17
1/4	653.62	653.46	653.30
1/2	653.62	653.46	653.30
3/4	653.48	653.32	653.16
SPLICE NO.1	653.47	653.31	653.15
PIER NO.1	653.33	653.17	653.01
1/4	653.27	653.11	652.95
SPLICE NO.2	653.28	653.12	652.96
1/2	653.25	653.09	652.93
SPLICE NO.3	653.22	653.06	652.90
3/4	653.19	653.03	652.87
PIER NO.2	653.17	653.01	652.85
SPLICE NO.4	653.24	653.08	652.92
1/4	653.23	653.07	652.91
1/2	653.29	653.13	652.97
3/4	653.21	653.05	652.89
FWD. ABT.	653.02	652.86	652.70

* SEE KEY ELEVATION

THE ELEVATIONS SHOWN ARE ON TOP OF THE PORTLAND CEMENT CONCRETE AND ARE THOSE WHICH ARE REQUIRED BEFORE THE CONCRETE IS PLACED. PROPER ALLOWANCE HAS BEEN MADE FOR DEAD LOAD DEFLECTION CAUSED BY THE WEIGHT OF THE CONCRETE.



FINKBEINER, PETTIS & STROUT, LTD. B / 9
CONSULTING ENGINEERS
AKRON TOLEDO GREENSBORO

SLAB PLAN AND TRANSVERSE SECTION
ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/94	

NO. FILE
DATE
SCALE

EPOXY COATED REINFORCING SCHEDULE

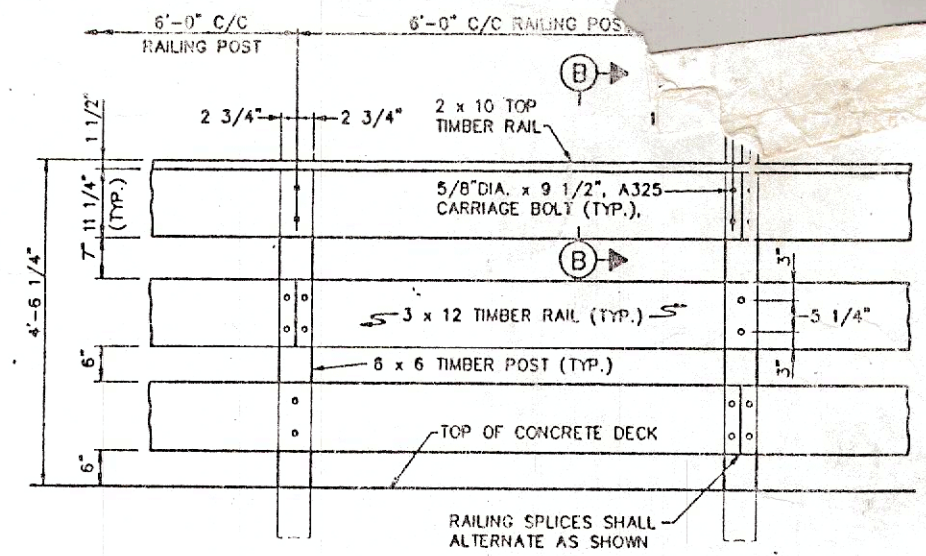
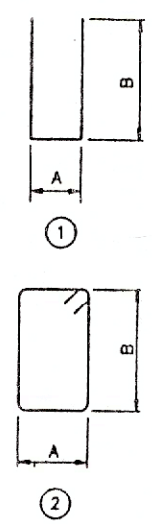
ABUTMENTS										
MARK	REAR ABUT.	FWD. ABUT.	TOTAL	LENGTH	WEIGHT	TYPE	A	B	C	INC.
A501	26		26	11'-6"	312	2	3'-11"	1'-8"		
A502		26	26	11'-3"	305	2	3'-11"	1'-6"		
A503	14	14	28	22'-10"	667	ST.				
A504	6	6	12	16'-0"	200	ST.				
A505	6	6	12	6'-6"	60	ST.				
A506	1	1	2	12'-0"	25	ST.				
A507	1	1	2	7'-9"	16	ST.				
A601	90		90	3'-4"	451	ST.				
A602	45		45	12'-5"	839	1	11"	5'-11"		
A603		45	45	11'-11"	805	1	11"	5'-8"		
A604		90	90	3'-3"	439	ST.				
A701	8	8	16	25'-2"	823	ST.				
TOTAL ABUTMENTS					4,942					

PIERS										
MARK	PIER 1	PIER 2	TOTAL	LENGTH	WEIGHT	TYPE	A	B	C	INC.
P601	85	85	170	13'-4"	3404	2	1'-4"	5'-1"		
P602	84	84	168	3'-2"	799	ST.				
P603	1	1	2	7'-5"	22	1	1'-4"	2'-2"		
P604	1	1	2	10'-9"	32	1	5'-0"	3'-0"		
P901	4	4	8	19'-5"	528	ST.				
P902	4	4	8	20'-4"	553	ST.				
P903	4	4	8	21'-3"	578	ST.				
P904	12	12	24	30'-0"	2448	ST.				
TOTAL PIERS					8,364					

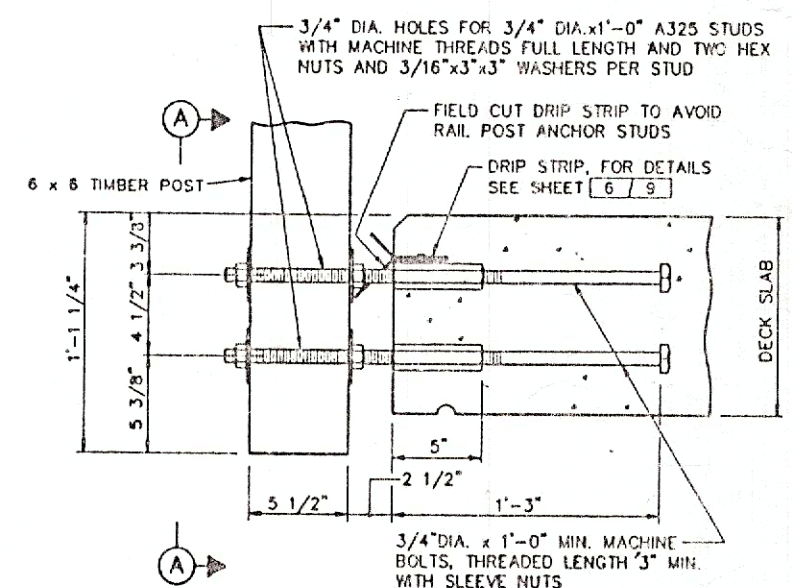
SUPERSTRUCTURE										
MARK			TOTAL	LENGTH	WEIGHT	TYPE	A	B	C	INC.
S401			110	30'-0"	2204	ST.				
S402			11	27'-0"	198	ST.				
S403			4	21'-3"	57	ST.				
S404			2	2'-5"	3	ST.				
S501			110	30'-0"	3442	ST.				
S502			295	13'-8"	4205	ST.				
SERIES S503		2-SETS/14 BARS		1'-7" TO 12'-8"	208	ST.				1'-10"
S504			4	21'-3"	87	ST.				
S505			2	2'-5"	5	ST.				
S601			295	13'-8"	6056	ST.				
SERIES S602		2-SETS/14 BARS		1'-7" TO 12'-8"	300	ST.				1'-10"
S603			40	21'-11"	1317	ST.				
TOTAL SUPERSTRUCTURE					18,082					
GRAND TOTAL					31,388					

NOTE: ALL REINFORCING STEEL SHALL BE EPOXY COATED.

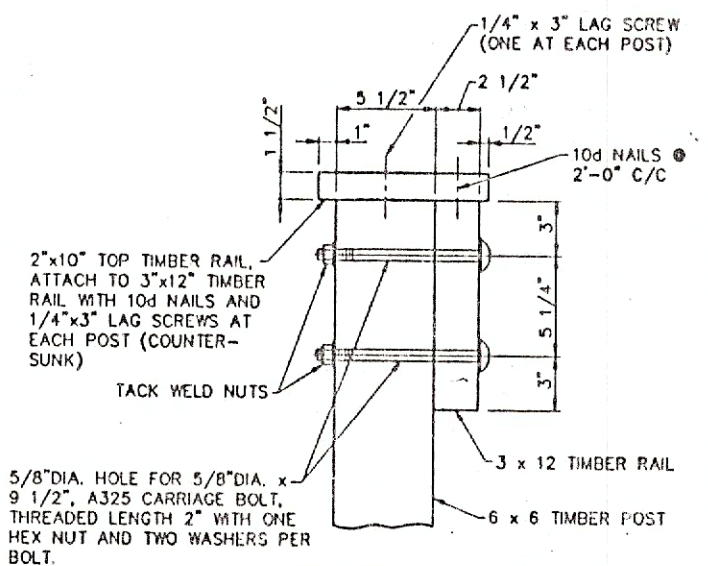
CAD FILE: ATHRAIL
DATE: 02/14/13
OPERATOR: J.D.P./M.P.R.
SCALE: 1/8"=1'-0"



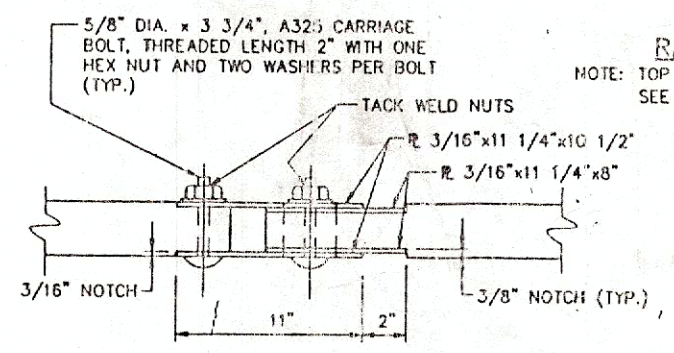
RAILING ELEVATION



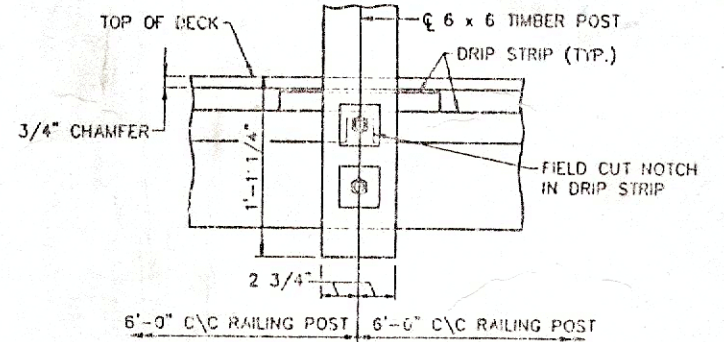
RAILING ANCHOR DETAIL



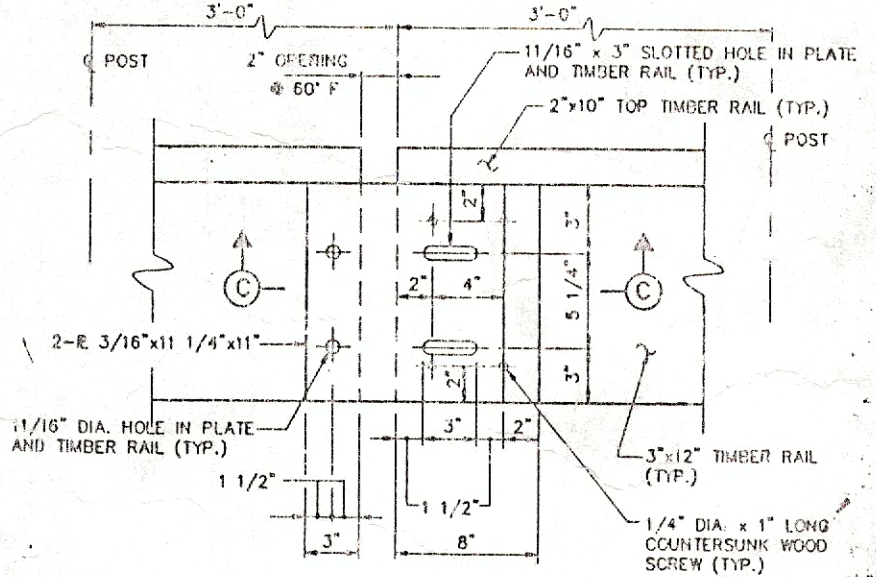
SECTION B-B



SECTION C-C



VIEW A-A



RAILING EXPANSION DETAIL

NOTE: TOP TIMBER RAIL SHOWN, OTHER RAILS SIMILAR SEE SHEET 1/9 FOR LOCATIONS

SECTION	STATE	PROJECT
5	OHIO	

**ATHENS COUNTY
ATHENS BIKEWAY-- PHASE II**

NOTES

- FOR ADDITIONAL SUPERSTRUCTURE NOTES AND DETAILS SEE SHEETS 6/9, 7/9 AND 8/9.
- PAYMENT FOR ALL MATERIAL AND LABOR NECESSARY TO INSTALL TIMBER RAILING INCLUDING POSTS AND HARDWARE SHALL BE INCLUDED WITH ITEM 517 - RAILING, TIMBER, AS PER PLAN.
- TIMBER FOR CONSTRUCTION OF THE RAILING SHALL CONFORM TO 711.26 OF THE C.M.S. ALL TIMBER SHALL BE TREATED AS PER 712.06, EXCEPT CREOSOTE PRESERVATIVES ARE NOT PERMITTED.
- ALL HARDWARE FOR THE ASSEMBLY OF THE RAILING SHALL BE GALVANIZED.

FINKBEINER, PETTIS & STROUT, LTD. 9/9
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**REINFORCING SCHEDULE
& RAILING DETAILS**

ATHENS BIKEWAY PHASE II
OVER HOCKING RIVER

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.G.C.	J.D.P.		M.R.S.	R.A.H.	1/04	