

E-D

STATE OF OHIO
DEPARTMENT OF HIGHWAYSCUY-90-13.33
CITY OF CLEVELAND
CUYAHOGA COUNTY
GRADE SEPARATION WITH
THE PENN CENTRAL TRANSPORTATION CO.

FED. RD.	STATE	PROJECT
2	OHIO	I-90-1(75)23

CUYAHOGA COUNTY
CUY-90-13.331
445

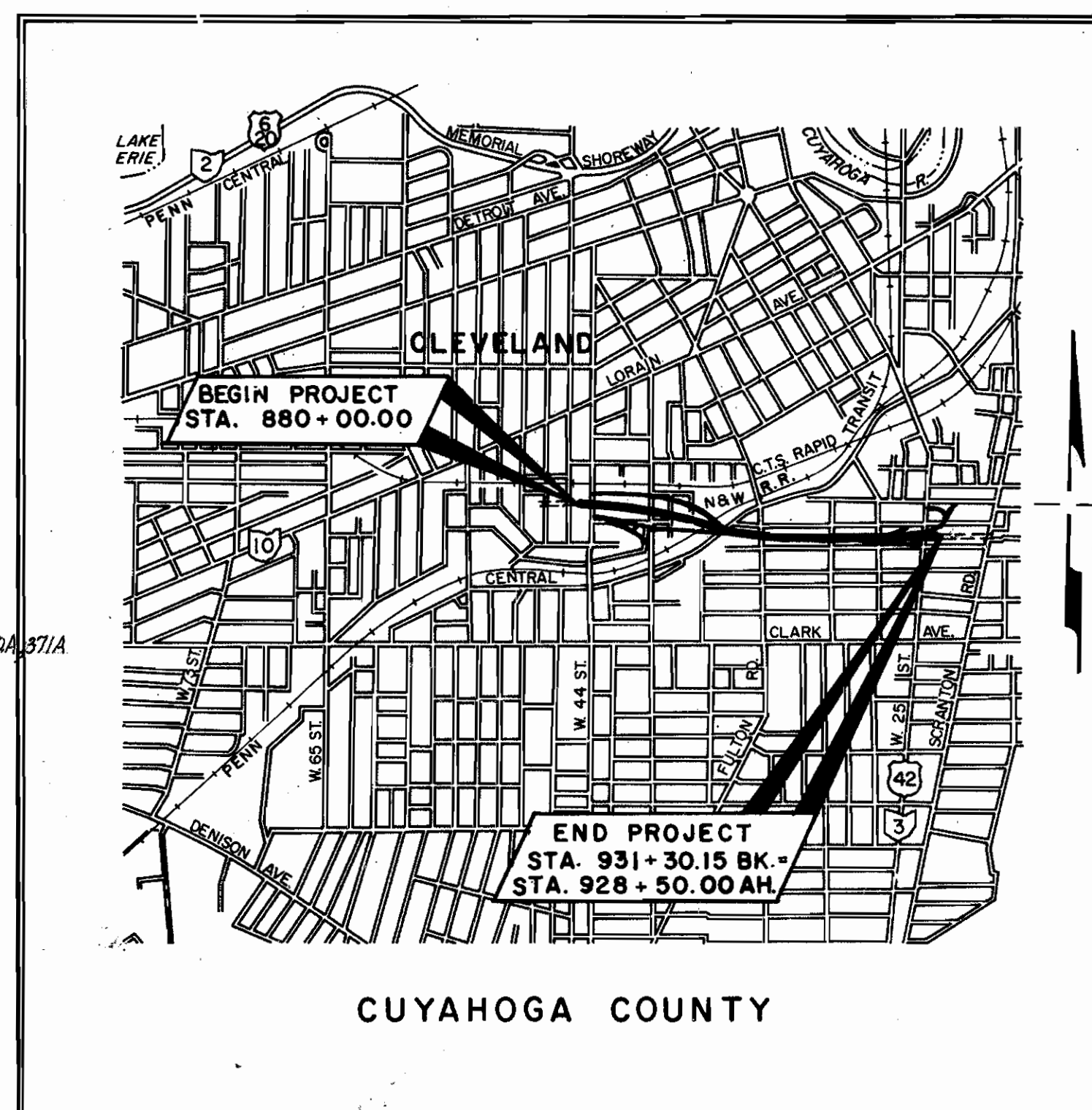
CONVENTIONAL SIGNS

State Line	-----
County Line	-----
Township Line	-----
Section Line	-----
Center Line	-----
Corporation Line	-----
Fence Line	-----
Guard Rail (existing)	-----
Guard Rail (proposed)	-----
Railroad	-----
Power Poles	-----
Telephone Poles	-----
Power or Telephone Poles with guys	-----
Tower Line	-----
Trees or Stumps (existing)	-----
Limited Access	-----
Right of Way	-----
Limited Access & Right of Way	-----

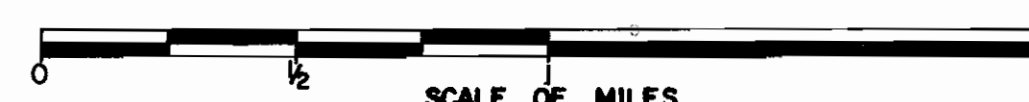
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Slits No. 374A, 414, 420, 422 & 435
revised 10-13-71 A.W.G.
Sht. No. 203 revised 12-16-71 EBL
Sht. No. 251 revised 1-3-72 EBL
Sheet 274 revised 4-14-72 EBL
Sheets 242, 245, 247, 248, 250,
251 & 252 revised 5-26-72 EBL
Sheet 247 revised 7-28-72 EBL

LOCATION MAP

PORTION TO BE IMPROVED
STATE ROADS
OTHER ROADS

SCALE

PLAN
PROFILE: HORIZONTALCROSS SECTIONS: HORIZ. & VERT.
PROFILE: VERTICAL

LINE DATA	
BEGIN PROJECT	STA. 880+00.00
END PROJECT	STA. 931+30.15 BK = STA. 928+50.00 AH
TOTAL LENGTH OF PROJECT	5130.15 Lin. Ft. or 0.971 Mile
BEGIN WORK STA. 879+30	
STA. EQUATION: 931+30.15 BK = 928+50.00 AH	5200.15 Lin. Ft.
END WORK STA. 935+90.00 AH	740.00 Lin. Ft.
Add For Cross Streets (See Sht. No. 26)	2,343.00 Lin. Ft.
TOTAL LENGTH OF WORK	8,253.15 Lin. Ft. or 1.568 MILES
FILE NO.	CUYAHOGA COUNTY CUY-90-13.33
DATE OF LETTING	196
CONTRACT NO.	

00376K

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-1	6-1-65	CB-7	6-1-65	HL-1	11-1-65	MC-5	6-1-65
BP-2	12-1-64	F-1	3-10-69	HL-2	11-1-65	MC-6	6-1-65
BP-3	1-1-71	F-2	3-10-69	HL-3	11-1-65	MC-7	10-1-68
BP-4	1-1-71	FACT-1	9-15-67	HL-4	1-1-66	MH-1	1-1-69
BP-5	1-1-71	FACT-2	6-1-65	HL-5	6-1-65	MH-1A	10-1-68
BP-7	1-1-66	BP-6	6-1-65	I-2	6-6-65	MH-2	10-1-68
CB-2-2-A EB	6-1-65	GR-2A	1-1-71	I-2A	6-6-65	MH-2A	10-1-68
CB-2-3-E-2	6-1-65	GR-2B	1-1-71	I-3	1-20-70		
CB-3	6-1-65	GR-3	1-1-71	I-4	6-1-65	BR-1-61 SHT. 1	1-1-71
CB-3A	6-1-65	GR-4	1-1-71	MC-1	6-13-65	SD-1-65	2-2-69
CB-5	9-1-69	GR-5	1-1-71	MC-3	6-20-69	AS-1-67	6-12-69
CB-6	6-1-65	GR-6	1-1-71	MC-4	6-13-65		

SUPPLEMENTAL SPECIFICATIONS	
801	1-1-69
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804	1-1-69
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899	1-1-69
900	1-1-69

1971 SPECIFICATIONS

-LIMITED ACCESS-

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS IN ACCORDANCE WITH PROVISIONS OF SECTION 5511.02 REVISED CODE OF OHIO.

I-90-1(75) 23

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

THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

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

APPROVED Charles W. Hurick
DATE 1-5-70 DIVISION DEPUTY DIRECTORAPPROVED O. J. Alvarado
DATE 3-3-70 ENGINEER OF BRIDGESAPPROVED E. J. Schaefer
DATE 6-25-71 ENGINEER OF LOCATION AND DESIGNAPPROVED William J. Schaefer
DATE 6-25-71 DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTIONAPPROVED William J. Schaefer
DATE 6-28-71 DEPUTY DIRECTOR OF RIGHT OF WAYAPPROVED William J. Schaefer
DATE 6-28-71 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMINGAPPROVED William J. Schaefer
DATE 6-28-71 FIRST ASSISTANT DIRECTORAPPROVED William J. Schaefer
DATE 6-28-71 DIRECTOR OF HIGHWAYSAPPROVED William J. Schaefer
DATE 1-2-70 DIRECTOR OF PUBLIC SERVICE, CITY OF CLEVELAND

PREPARED AND RECOMMENDED BY

DALTON · DALTON ASSOCIATES
ARCHITECTS ENGINEERS PLANNERS THE ARCADE CLEVELAND 14 OHIODEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ENGINEER

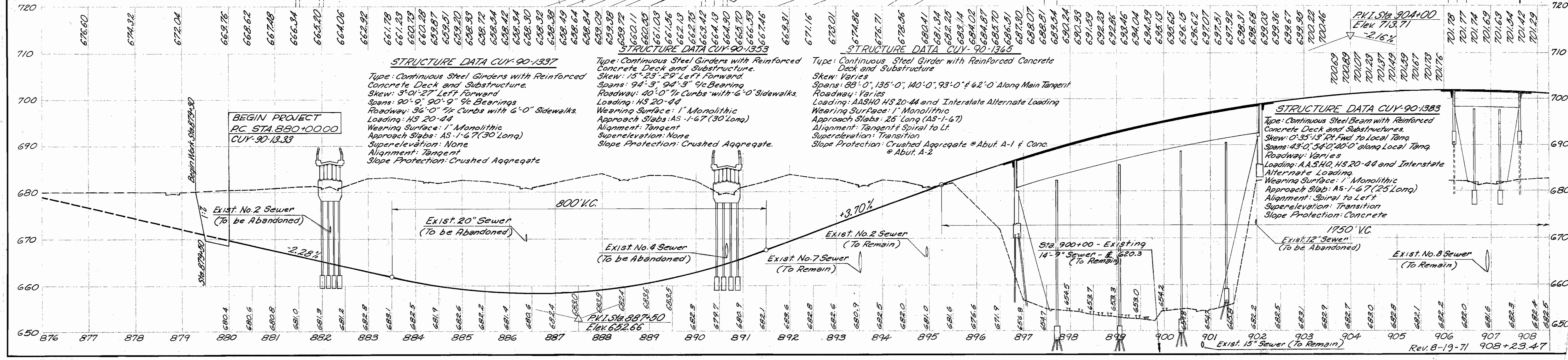
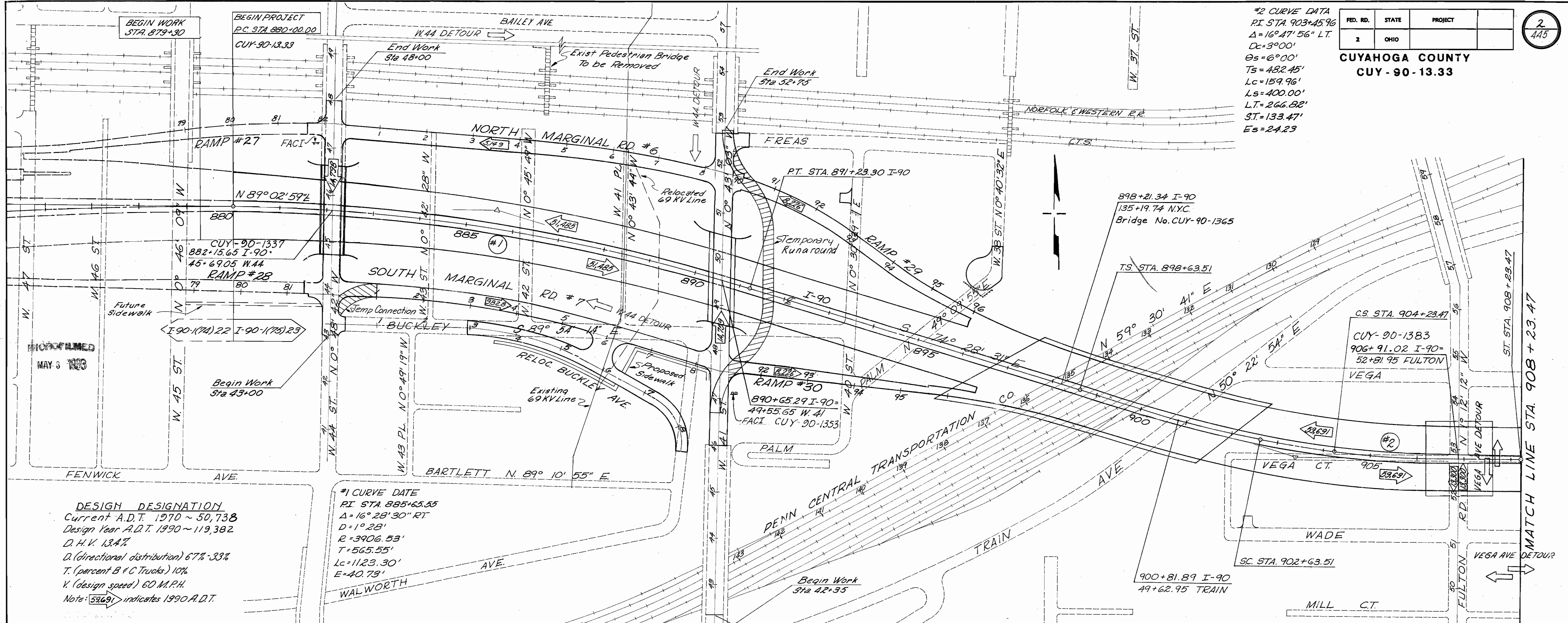
DATE

FED. RD.	STATE	PROJECT
2	OHIO	

2
445

CUYAHOGA COUNTY
CUY-90-13.33

#2 CURVE DATA
PI STA 903+45.96
 $\Delta = 16^\circ 47' 56''$ L.T.
 $D_c = 3^\circ 00'$
 $E_s = 6^\circ 00'$
 $T_s = 482.45'$
 $L_c = 159.96'$
 $L_s = 400.00'$
 $L.T. = 266.92'$
 $S.T. = 133.47'$
 $E_s = 24.23$



SCHEMATIC PLAN, DESIGN DESIGNATION & PROFILE

Q-4

FED. RD.	STATE	PROJECT
2	OHIO	

230
445

CUYAHOGA COUNTY
CUY-90-13.33

CURVE DATA

2 I-90
PI STA. 885+65.55
 $\Delta = 16^\circ 28' 30''$ RT
 $\Delta C = 1^\circ 28' 00''$
 $R = 3906.53'$
 $T = 565.55'$
 $L_c = 1123.30'$
 $E = 40.73'$

NOTE:
EARTHWORK LIMITS SHOWN ARE
SCHEMATIC; ACTUAL SLOPES
SHALL CONFORM TO PLAN CROSS-
SECTIONS.

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL GIRDERS WITH REINFORCED
CONCRETE DECK AND SUBSTRUCTURE.
SKEW: $3^\circ 01' 27''$ LEFT FORWARD.
SPANS: 90'-9" 90'-9" 46" BEARINGS.
ROADWAY: 36'-0" FIF CURBS WITH 6'-0"
SIDEWALKS.
LOADING: HS20-44
WEARING SURFACE: 1" MONOLITHIC
APPROACH SLABS: AS-1-67 (30' LONG)
ALIGNMENT: TANGENT
SUPERELEVATION: NONE
SLOPE PROTECTION: CRUSHED AGGREGATE

TRAFFIC 1975

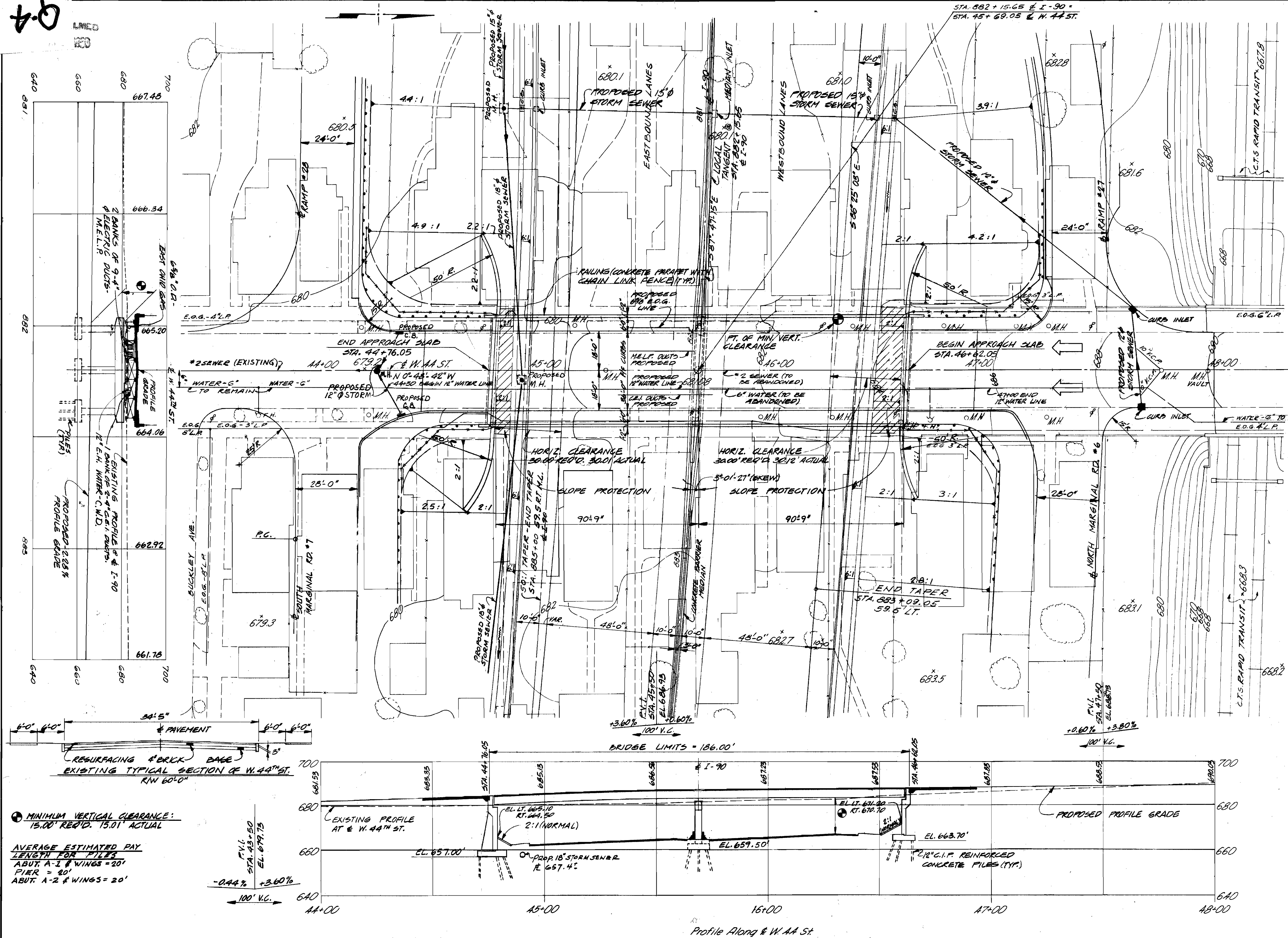
MAINLINE 102,970 ADT
W. 44TH ST. 14,798 ADT

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES
DALTON-DALTON ASSOCIATES

SITE PLAN

BRIDGE NO. CUY-90-1337
UNDER WEST 44TH ST.
I-90 CUYAHOGA COUNTY
STA. 882+15.65

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Z.B.	R.V.P.	R.P.	D.H.S.	5-1-69		



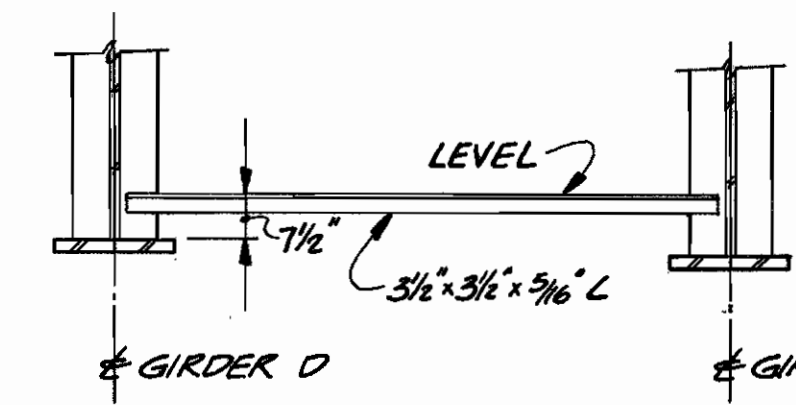
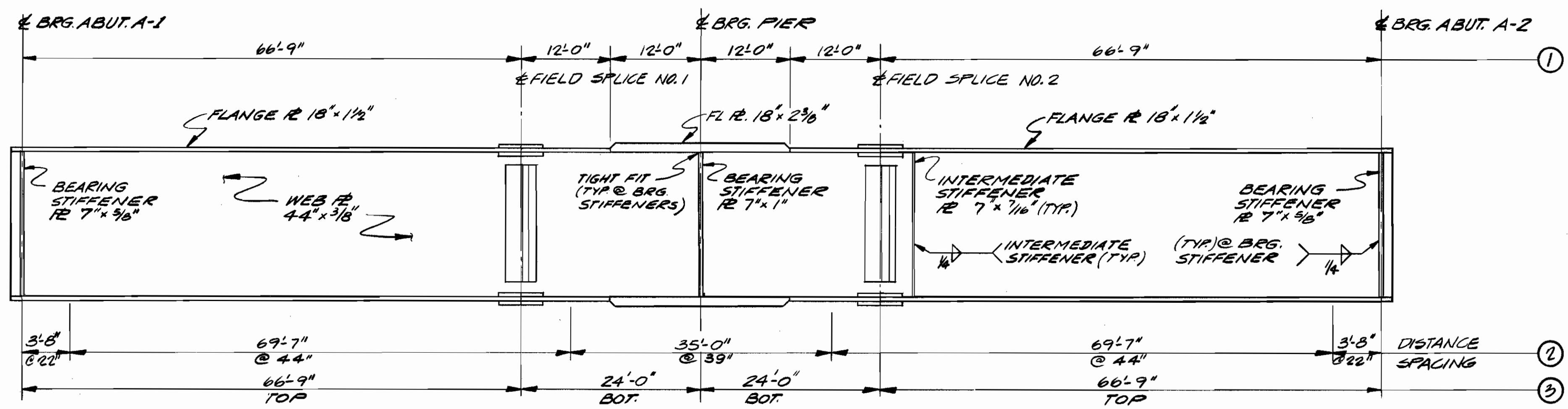
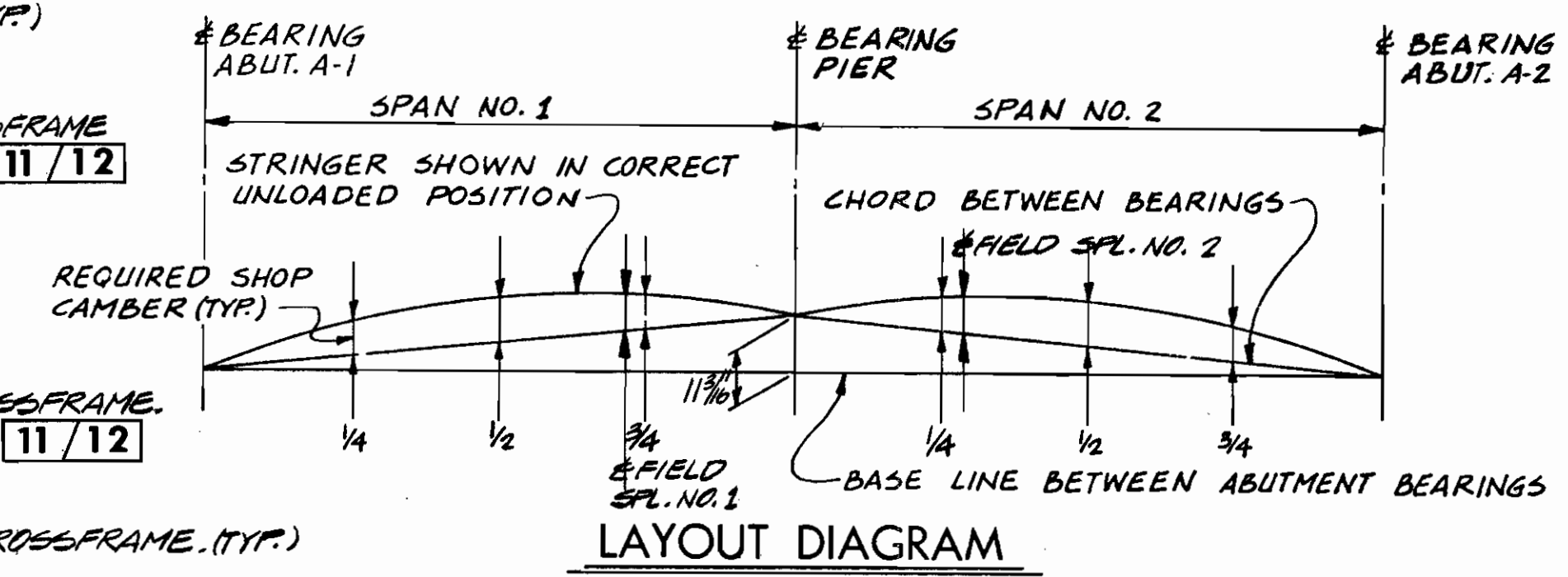
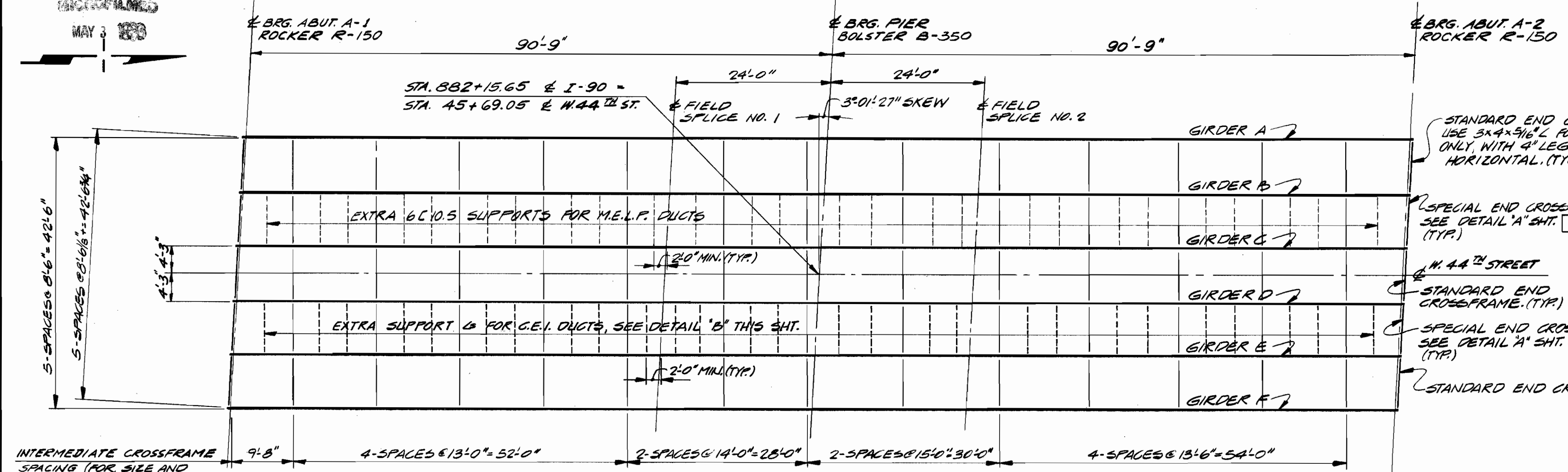
MINIMUM VERTICAL CLEARANCE:
15.00' REQ'D. 15.01' ACTUAL

AVERAGE ESTIMATED PAY
LENGTH FOR PILES
ABUT. A-1 & WINGS = 20'
PIER = 20'
ABUT. A-2 & WINGS = 20'

Profile Along W. 44th St.

RECORDED
MAY 3 1969

CUYAHOGA COUNTY
CUY - 90 - 13.33



- NOTES
- TOP AND BOTTOM FLANGE PLATES ARE TO BE THE SAME AND SHALL BE SPICED AT POINTS SHOWN ON THE GIRDER ELEVATION.
 - INTERMEDIATE STIFFENERS SHALL BE PLACED IN PAIRS EQUALLY SPACED BETWEEN FIELD SPLICE ANGLES AND/OR CROSSFRAME STIFFENERS AND/OR BEARING STIFFENERS IN ACCORDANCE WITH MAXIMUM STIFFENER SPACING SHOWN ON THE GIRDER ELEVATION, EXCEPT AS IN ⑥
 - INTERMEDIATE STIFFENERS SHALL HAVE CONTACT BEARING WITH THE TOP OR BOTTOM FLANGE AS INDICATED ON THE GIRDER ELEVATION.
 - ALL GIRDER FIELD SPLICES SHALL BE MADE WITH 1" ϕ HIGH STRENGTH STEEL BOLTS. THE BOLTS SHALL BE PLACED WITH THEIR HEADS ON THE OUTSIDE FACE OF EXTERIOR GIRDERS AND ON THE BOTTOM OF ALL FLANGE PLATES.
 - FOR ADDITIONAL SUPERSTRUCTURE DETAILS, SEE SHEET 11/12
 - FOR GIRDERS B AND C, USE THE REQUIRED NUMBER OF INTERMEDIATE STIFFENERS IN PAIRS BUT SPACED BETWEEN CROSS FRAME STIFFENERS AND/OR BEARING STIFFENERS SO THAT THE EXTRA SUPPORTS FOR M.E.L.P. WILL BE AS NEAR AS POSSIBLE TO THE THIRD POINTS WITHOUT ADDITIONAL STIFFENERS.
 - FOR GIRDERS D AND E, SPACE STIFFENERS SO THAT SUPPORTS FOR G.E.I. DUCTS ARE AT A MAXIMUM OF 5'-0".

DEFLECTION AND CAMBER								
SPANS	NO. 1				NO. 2			
POINTS	1/4	1/2	SPL. NO. 1	3/4	1/4	SPL. NO. 2	1/2	3/4
DEFLECTION DUE TO WEIGHT OF STEEL	1/8"	3/16"	1/16"	1/16"	1/16"	1/16"	3/16"	1/8"
DEFLECTION DUE TO REMAINING DEAD LOAD	3/16"	3/4"	3/16"	3/16"	3/16"	3/16"	3/4"	3/16"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	2 1/8"	3 1/4"	2 3/8"	2 3/16"	1 3/16"	1 3/16"	3/8"	3/16"
REQUIRED SHOP CAMBER	2 3/8"	4 3/16"	3 1/16"	2 5/16"	1 3/16"	1 3/16"	1 3/16"	1 3/16"

B 350

A	B	C	D	E	F	G	H	K	L	M	N	T	Y
4"	22"	4"	3 1/2"	3 1/4"	14"	2 1/2"	15"	50"	27"	12"	5 1/2"	1 1/2"	1 1/2"

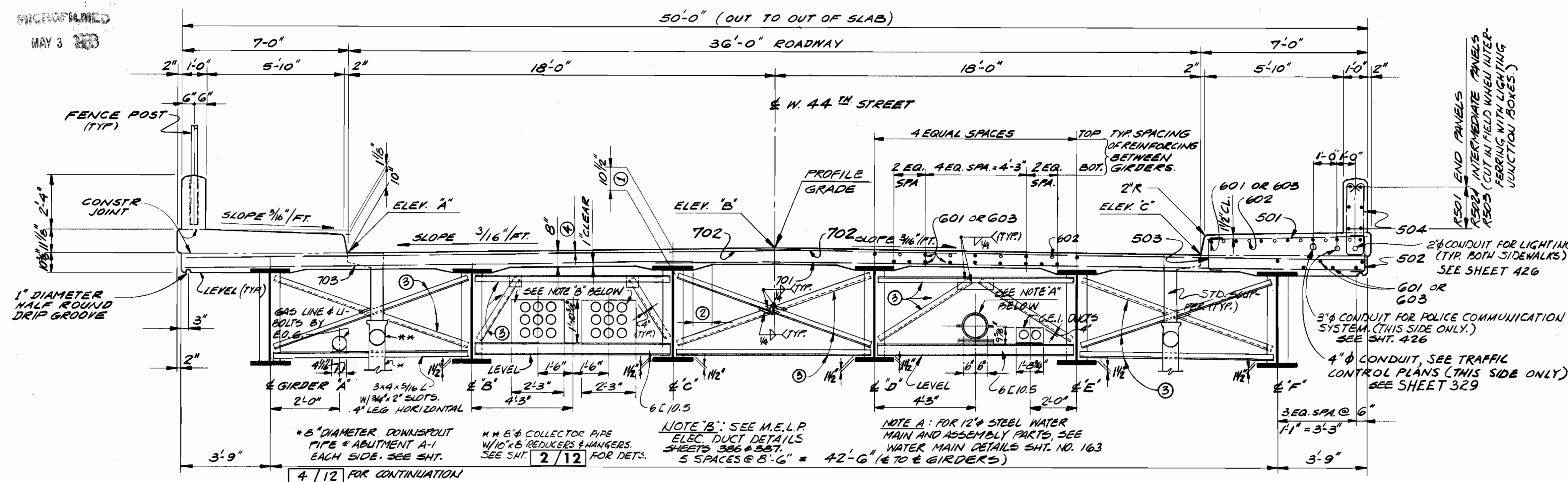
EST. WT. = 1170 #

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MAY 3 1983

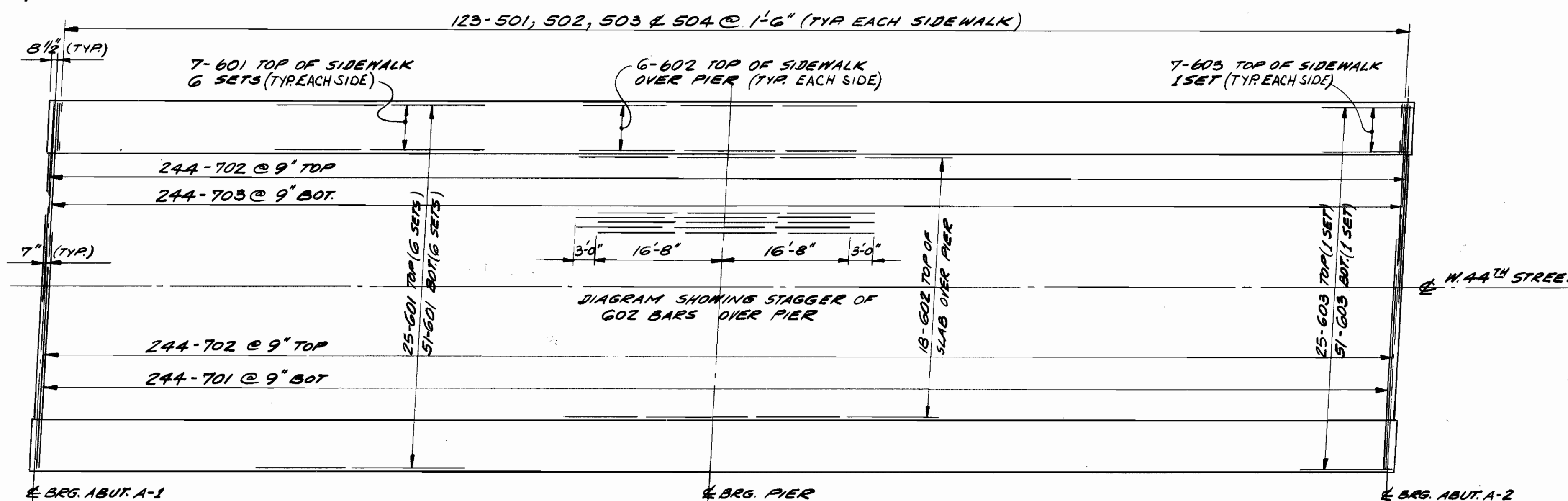
FED. RD.	STATE	PROJECT
2	OHIO	

239
445

CUYAHOGA COUNTY
CUY-90-13.33



TRANSVERSE SECTION



SLAB PLAN

TABLE OF PAVEMENT ELEVATIONS				
STATIONS	PROFILE GRADE ELEV'S	ELEV. "A"	ELEV. "B"	ELEV. "C"
45+00	685.13	684.90	685.18	684.90
45+25	685.94	685.71	685.99	685.71
45+50	686.56	686.29	686.57	686.29
45+75	686.99	686.71	686.99	686.71
46+00	687.23	686.99	687.27	686.99
46+25	687.33	687.16	687.44	687.16
46+50	687.33	687.28	687.55	687.27

NOTES

- THIS IS THE NOMINAL DIMENSION. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED UPON THIS DIMENSION, EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE GIRDER MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE. DEDUCTION SHALL BE MADE FOR VOLUME OF ENCASED STEEL PLATES AS PER 511.18.
- A TYPICAL HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12" PROVIDED THAT THE SLOPE SHALL BE NOT MORE THAN 1:4 FOR A HAUNCH LESS THAN 9" IN WIDTH.
- INTERMEDIATE CROSSFRAME ANGLES 3 x 3 x 5/16.
- CLEARANCE= 2", WHICH INCLUDES 1" FOR MONOLITHIC WEARING SURFACE.
- THESE ELEVATIONS ARE THOSE WHICH ARE REQUIRED BEFORE THE CONCRETE IS PLACED. PROPER ALLOWANCE HAS BEEN MADE FOR DEAD LOAD DEFLECTIONS CAUSED BY THE WEIGHT OF CONCRETE.
- TRANSVERSE REINFORCEMENT SHALL BE FIELD BENT AS REQUIRED AND PAYMENT SHALL BE INCLUDED WITH ITEM 509, REINFORCING STEEL.
- THE PREFIX "S" SHALL BE ADDED TO ALL REINFORCING BAR MARKS IN THE SUPERSTRUCTURE UNLESS SHOWN OTHERWISE.
- FOR ADDITIONAL SUPERSTRUCTURE DETAILS, SEE SHEET 11/12
- FOR LOCATION OF LIGHT STANDARD SUPPORTS SEE SHEET 2/12
- FOR ELECTRICAL CONDUIT ON BRIDGE, SEE LIGHTING PLANS SHEET 426

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

10/12

DALTON • DALTON ASSOCIATES

SLAB PLAN & SECTION

BRIDGE NO. CUY-90-1337
UNDER WEST 44th ST.
I-90 CUYAHOGA COUNTY
STA. 882 + 15.65

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.B.	M.J.S.		R.R.	D.H.S.	5-1-69	