

#3134

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 THE PROVISIONS OF SECTION 5511.02 REVISED CODE OF OHIO.

STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
LUC - 25 - 0.19
LUCAS COUNTY
 CITY OF TOLEDO

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	TYPE FUNDS
2	OHIO	I-75-6(10)200	

LUCAS COUNTY
 CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
 LUC-25-0.19

SEP 13 1962
 GROUND PHOTO LAB

I-75-6(10)200
LIMITED ACCESS

INDEX OF SHEETS

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3	PROFILES AND TYPICAL SECTIONS
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6	GRADING PLAN
7-10	CROSS SECTIONS
11	RIGHT OF WAY PLAN

TOLEDO EXPRESSWAY SYSTEM - PART 14
SOUTH END BRIDGE OVER MAUMEE RIVER
SOUTH APPROACH GRADING

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, 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 IN THE PLANS AND ESTIMATE. THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

APPROVED DATE 2/10/60 *John E. Algran* COUNTY ENGINEER, LUCAS COUNTY
 APPROVED DATE 2/10/60 *Samuel H. Fish* CITY MANAGER, CITY OF TOLEDO
 APPROVED DATE 2-10-60 *W. J. Ann* DIVISION DEPUTY DIRECTOR
 APPROVED DATE 3-16-60 *Amy E. Wagner* DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
 APPROVED DATE _____ ENGINEER OF BRIDGES
 APPROVED DATE 3-11-60 *W. M. M...* ENGINEER OF LOCATION AND DESIGN
 APPROVED DATE 3-11-60 *C. W. McLaughlin* DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
 APPROVED DATE 3-21-60 *W. A. Berry* FIRST ASSISTANT DIRECTOR
 APPROVED DATE 3-21-60 *E. J. ...* DIRECTOR OF HIGHWAYS

NOTE: THIS SET OF PLANS, THE SOUTH APPROACH ROADWAY PORTION COVERS ONLY A PART OF THIS PROJECT. THE RIVER PIERS ARE IN AN EARLIER CONTRACT. THE SUPERSTRUCTURE, AND SUBSTRUCTURE PORTIONS, AND CONTIGUOUS HIGHWAY WORK WILL BE LET IN SUBSEQUENT CONTRACTS.

LINE DATA

BEGIN PROJECT	STA. 17+80 @ EXPRESSWAY
END PROJECT	STA. 21+79 @ EXPRESSWAY
NET LENGTH OF PROJECT	399 FT. OR 0.075 MILES
BEGIN WORK	STA. 17+40 @ EXPRESSWAY
END WORK	STA. 23+10 @ EXPRESSWAY
NET LENGTH OF WORK	570 FT. OR 0.107 MILES

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK
R. J. Bergendoff

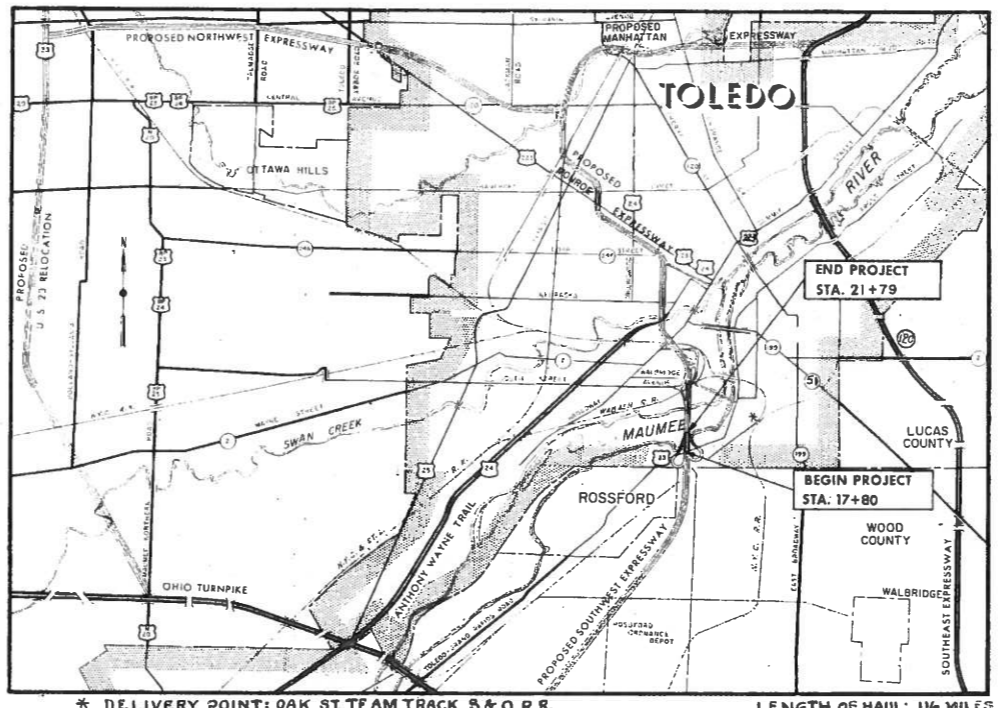
H.G. SOURS
 ASSOCIATE
 COLUMBUS

SUPPLEMENTAL SPECIFICATIONS			
NUMBER	DATE	NUMBER	DATE

LOCATION PLAN



PORTION TO BE IMPROVED



STANDARD DRAWINGS			
NUMBER	DATE	NUMBER	DATE
G-707	6-1-56		

SEP 13 1962
 GROUND PHOTO LAB

FILE NO.	LUCAS COUNTY
	SEC. LUC-25-0.19 PART 14
	DATE OF LETTING _____ 196__
	CONTRACT NO. _____

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

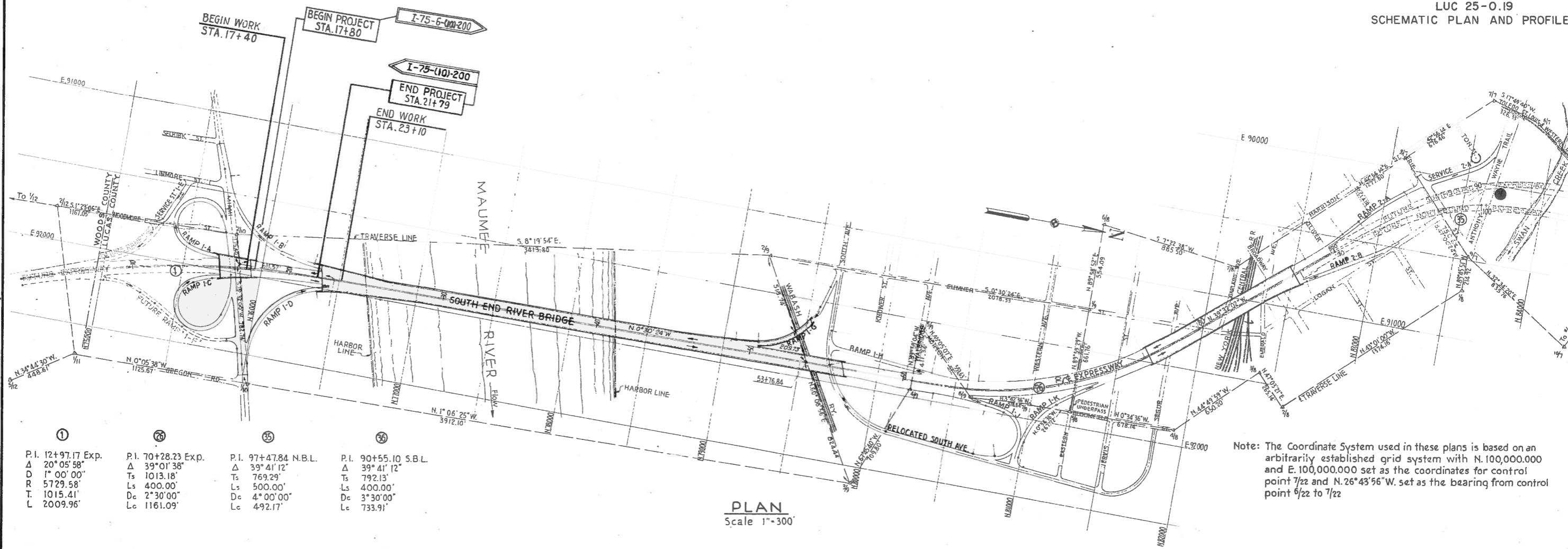
APPROVED: _____

DIVISION ENGINEER _____ DATE _____

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	TYPE FUNDS
2	OHIO		II

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 14
LUC 25-0.19
SCHEMATIC PLAN AND PROFILE

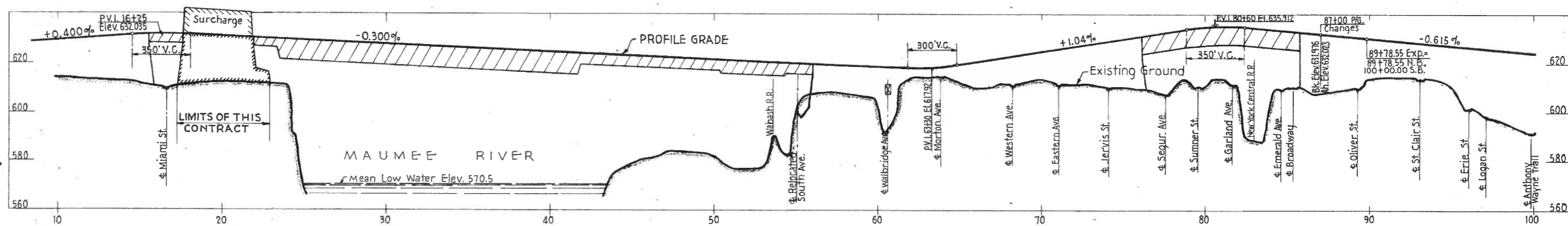
NOTE:
Marker will be furnished and erected,
on the right at Sta. 17+80 and on left at Sta.
21+79, by State Forces prior to acceptance
of this improvement.



①	②	③	④
P.I. 12+97.17 Exp.	P.I. 70+28.23 Exp.	P.I. 97+47.84 N.B.L.	P.I. 90+55.10 S.B.L.
Δ 20° 05' 58"	Δ 39° 01' 38"	Δ 39° 41' 12"	Δ 39° 41' 12"
D 1° 00' 00"	Ts 1013.18'	Ts 769.29'	Ts 792.13'
R 5729.58'	Ls 400.00'	Ls 500.00'	Ls 400.00'
T 1015.41'	Dc 2° 30' 00"	Dc 4° 00' 00"	Dc 3° 30' 00"
L 2009.96'	Lc 1161.09'	Lc 492.17'	Lc 733.91'

Note: The Coordinate System used in these plans is based on an arbitrarily established grid system with N. 100,000,000 and E. 100,000,000 set as the coordinates for control point 7/22 and N. 26° 43' 56" W. set as the bearing from control point 6/22 to 7/22

PLAN
Scale 1"=300'



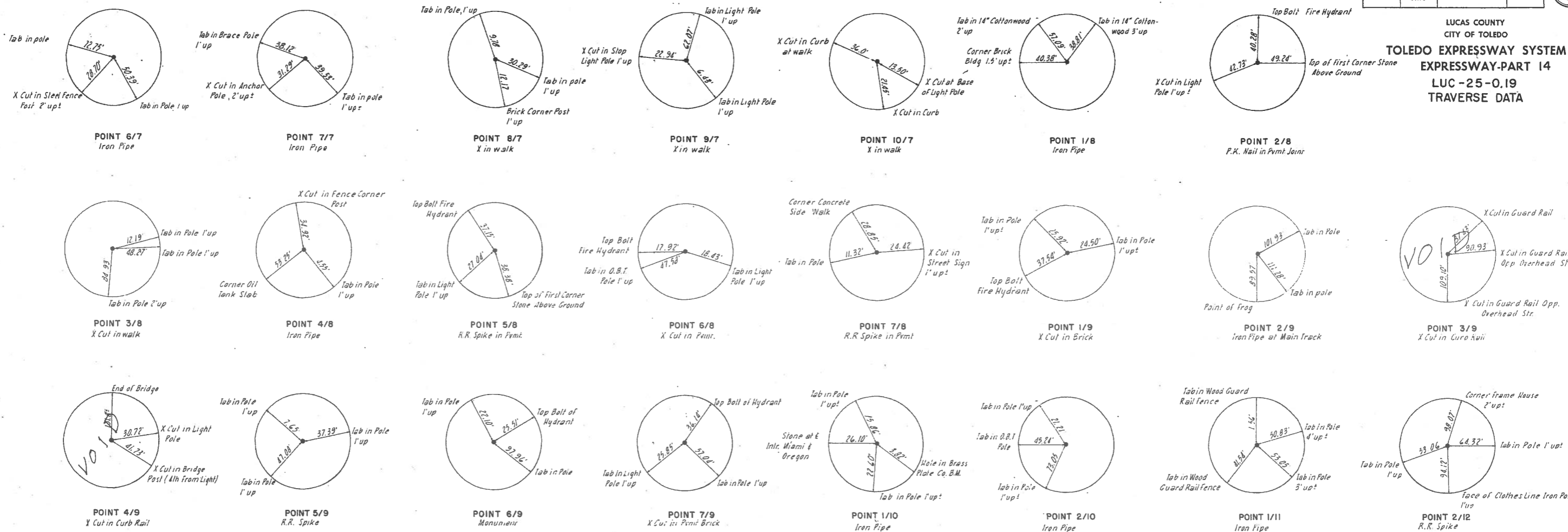
PROFILE
Scale: Vert. 1"=20'
Hor. 1"=300'

Note: The bench mark datum used in these plans has been established from triangulation station No. 10 <Elev. 592.73>. This elevation was established by the Bentley Company on a closed circuit run from a bench mark set by the Ohio State Highway Department who established their bench mark from U.S.G.S. System.

SCALE As shown
MADE Y.F.D. DATE 2-24-58
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
1068 SHEET 14.04

Revised 1-27-60 U.R.B.

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 14
LUC-25-0.19
TRAVERSE DATA



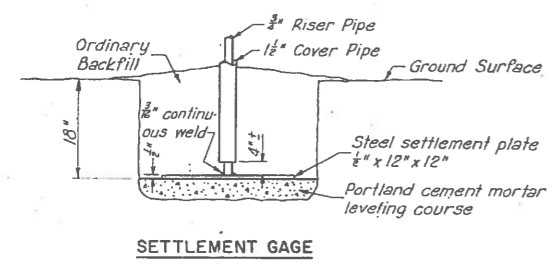
BENCH MARKS

NO.	DESCRIPTION	ELEVATION
96	Spike in Power Pole S.W. Corner Anthony Wayne Trail & Vinton	590.59
97	S. Bolt of Fire Hydrant Logan & Erie	603.57
98	Arrow Head on Fire Hydrant Erie & Anthony Wayne Trail	599.88
99	Arrow Head on Fire Hydrant Erie & Hamilton	586.55
109	N.W. Bolt of Fire Hydrant Jervis & Sumner	613.00
110	S. Bolt of Fire Hydrant Wade & Newion	609.59
115	Shiner, E Logan & Oliver	611.09
116	N.W. Bolt of Fire Hydrant Sumner & Western	615.45
117	E. Bolt of Fire Hydrant Sumner & Walbridge	612.43
118	Arrow Head on Fire Hydrant E. End Sumner St	600.95
119	X Cut E Sumner & South	608.12
120	Arrow Head on Fire Hydrant E. End Knower St.	614.35
121	N.E. Bolt of Fire Hydrant W. End Fassett St Bridge	612.66
122	S. Bolt of Fire Hydrant Marton & Bloomfield	615.19
123	Arrow Head on Fire Hydrant Bloomfield & Jervis	614.16
124	Top Stone Monument E Sagor & Sumner	608.92
130	Top Stone Monument E Miami St. & Oregon Rd.	606.76
131	N. Bolt of Fire Hydrant 550' W. Oregon on Miami St.	612.20
132	N. Bolt of Fire Hydrant Miami & Linmore	612.50

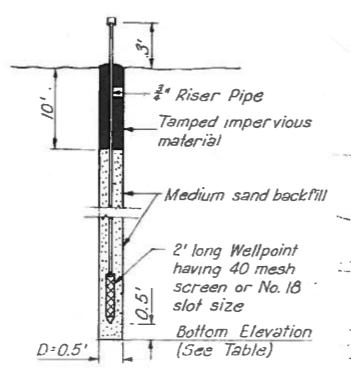
TRAVERSE POINT COORDINATES

POINT	NORTH	EAST
6/7	83,881.89	89,568.44
7/7	83,571.23	89,468.53
8/7	83,076.00	89,923.53
9/7	83,587.37	90,478.38
10/7	84,292.18	90,973.32
11/8	83,526.99	90,693.30
2/8	82,582.26	91,530.76
3/8	82,401.63	91,436.68
4/8	81,940.53	91,895.10
5/8	81,262.43	91,901.92
6/8	81,262.34	90,686.06
7/8	82,140.52	90,799.76
1/9	81,262.53	91,240.16
2/9	79,184.28	91,258.54
3/9	79,957.24	92,605.44
1/9	80,225.87	91,948.40
5/9	80,225.98	91,537.06
6/9	80,616.88	91,929.12
7/9	80,994.72	91,904.61
1/10	76,045.87	92,680.97
2/10	75,806.51	91,753.20
1/11	74,920.20	92,682.82
2/12	74,639.80	91,781.41

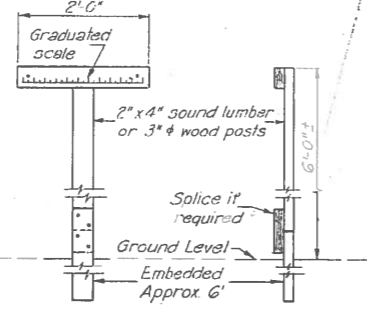
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 14
LUC-25-0.19
GRADING PLAN



SETTLEMENT GAGE



TYPICAL DETAILS
OBSERVATION WELL

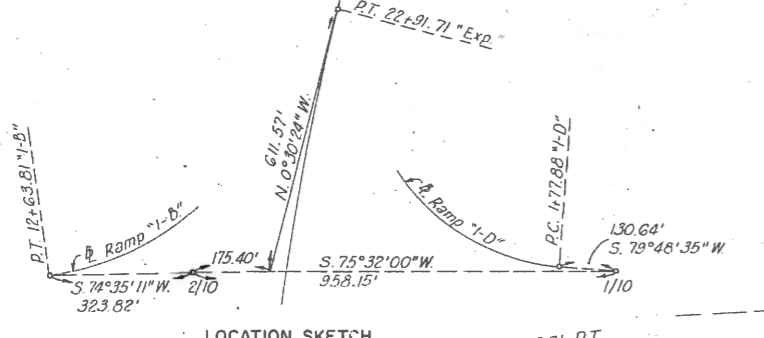
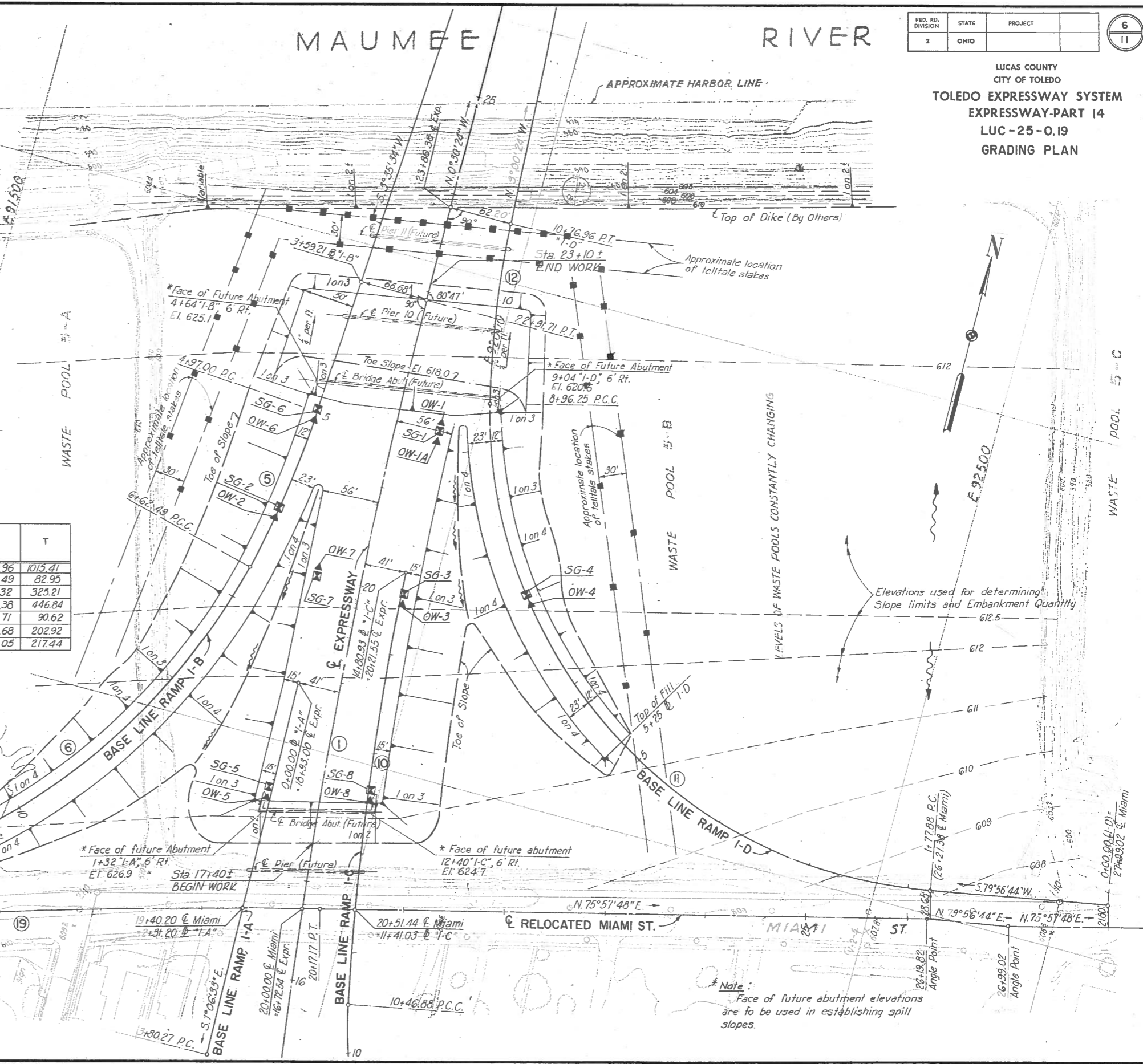


TYPICAL DETAILS
TELLTALE OBSERVATION STAKE

SETTLEMENT GAGE & OBSERVATION WELL DATA

Number	Location		Bottom Elevation
	Station	Offset	
SG-1	21+68 Exp.	44' Rt.	—
SG-2	6+00 "I-B"	1' Rt.	—
SG-3	20+00 Exp.	44' Rt.	—
SG-4	7+00 "I-D"	1' Rt.	—
SG-5	1+08 "I-A"	3' Rt.	—
SG-6	4+95 "I-B"	1' Rt.	—
SG-7	20+00 Exp.	44' Lt.	—
SG-8	12+64 "I-C"	3' Rt.	—
OW-1	21+70 Exp.	44' Rt.	560
OW-1A	21+66 Exp.	44' Rt.	580
OW-2	6+02 "I-B"	1' Rt.	580
OW-3	19+98 Exp.	44' Rt.	580
OW-4	6+98 "I-D"	1' Rt.	580
OW-5	1+10 "I-A"	3' Rt.	580
OW-6	4+97 "I-B"	1' Rt.	580
OW-7	20+02 Exp.	44' Lt.	580
OW-8	12+62 "I-C"	3' Rt.	580

CURVE NO.	LOCATION	STATION	P.I. OR CURVE CENTER COORDINATES		Δ	LEFT OR RIGHT	D	R	L	T
			NORTH	EAST						
1	Exp.	PI: 12+97.17	75,446.50	91,926.62	20°05'58"	Rt.	1°00'00"	5729.58	2009.96	1015.41
5	"I-B"	PI: 5+79.95	76,240.97	91,837.13	9°55'46"	Rt.	6°00'00"	954.93	165.49	82.95
6	"I-B"	PI: 9+87.70	75,844.12	91,741.69	54°07'08"	Rt.	9°00'00"	636.62	601.32	325.21
11	"I-D"	PI: 6+24.72	75,944.74	92,112.41	86°12'18"	Rt.	12°00'00"	477.46	718.38	446.84
12	"I-D"	PI: 9+86.88	76,466.58	91,983.76	10°50'33"	Rt.	6°00'00"	954.93	180.71	90.62
19	Miami	PI: 18+14.42	75,799.19	91,776.31	4°03'24"	Rt.	1°00'00"	5729.58	405.68	202.92
10	"I-C"	PI: 12+64.32	75,977.07	91,979.50	8°40'52"	Rt.	2°00'00"	2864.79	434.05	217.44



LOCATION SKETCH

*Note:
Face of future abutment elevations are to be used in establishing spill slopes.

#3135

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC - 25 - 0.91
LUCAS COUNTY
CITY OF TOLEDO

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	TYPE FUNDS
2	OHIO	1-75-6 (1512 01)	

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
LUC. 25-0.91

1-75-6(15) 201
LIMITED ACCESS

PART 1
FOR PART 2
SEE PLANS FOR LUC-2-18.08

TOLEDO EXPRESSWAY SYSTEM - PART 18
NORTH APPROACH TO SOUTH END RIVER BRIDGE
SOUTH AVENUE TO ERIE STREET
GRADE SEPARATION WITH THE NYCRR CO.

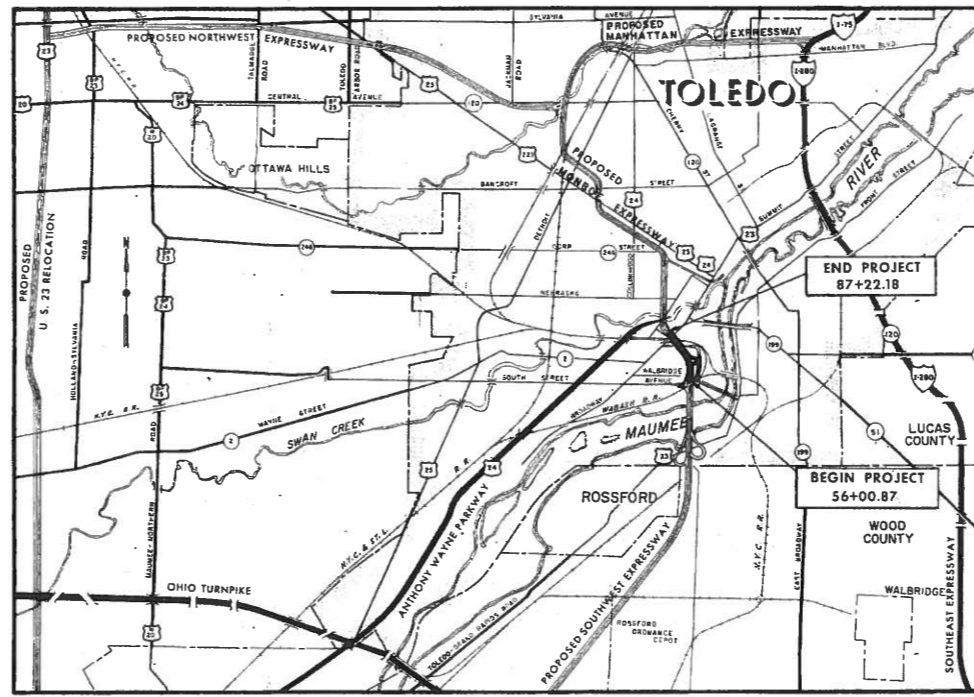
INDEX OF SHEETS

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12-13	TURNAROUND DETAILS
14-16	QUANTITY CALCULATIONS
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24,24A	DRAINAGE TABLES
25-28, 28A, 28B	SEWER PROFILES
29	UNDER DRAIN DETAILS
30, 30A, 31-35, 35A	HIGHWAY LIGHTING
36-54	CROSS SECTIONS
55, 55A, 55B, 56-59	RIGHT OF WAY
60-63	FENCING PLANS
64	SIGN BRIDGE AT STA. 57+25
65	SIGN BRIDGE AT STA. 69+50
66, 66A	SIGN BRIDGE AT STA. 79+25; OVERHEAD SIGN SUPPORT, I-129 NO. 12.24
67-68	GENERAL NOTES AND ESTIMATED QUANTITIES-BRIDGES
69-81	BRIDGE LUC 25-0151 (EXP. OVER SEGUR)
82-91, 91A, 92-99	BRIDGE LUC 25-0160 (EXP. OVER NYCRR)
100-103	DRAINAGE, HANDRAIL, AND LIGHTING DETAILS-BRIDGES
104-106	PEDESTRIAN UNDERPASS AT STA. 71+09.08
99A	RAILROAD FORCE ACCOUNT

Sheet 83 revised 3-30-62.
Sheets 69, 70, 71, 73, 74, 75, 79, 81, 86, 87, 90, 90.
89 and 104 revised 11-9-61.
Sheet 85A substituted for sheet 85, 1-13-62.
Sheet 83 revised 1-18-62.
Sheets 82 & 83 revised 1-19-62.
Sheet 101 revised 2-13-62.

LINE DATA

BEGIN PROJECT	STA. 56+00.87	EXPRESSWAY
END PROJECT	STA. 87+22.18	EXPRESSWAY
NET LENGTH OF PROJECT	3121.31 FEET OR 0.591 MILES	
BEGIN WORK	STA. 53+50	EXPRESSWAY
END WORK	STA. 100+70	EXPRESSWAY
ADD FOR: RELOC. SOUTH AVE.	15' .3	FEET
NET LENGTH OF WORK	6243.35 FEET OR 1.182 MILES	



DELIVERY POINT - CENTRAL UNION TERMINAL

AVERAGE HAUL 0.5 MILES

LOCATION MAP



PORTION TO BE IMPROVED

H.G. SOURS
ASSOCIATE
COLUMBUS

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

R. Bergendoff

SUPPLEMENTAL SPECIFICATIONS

NUMBER	DATE	NUMBER	DATE
18	R6-15-59	S-207.10	4-25-61
1-129	R-4-5-61	B-112	5-21-61
S-307	8-23-60	T-212	R 6-23-61
M-206.14	7-15-49		
L-120	7-17-61		

STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
R1-1	7-15-58	I-12	7-1-54
F-1	9-1-59	I-8CB 2362-4	1-26-59
F-3	9-1-59	I-15 No. 1	11-15-60
B-T-71 R	3-2-53	I-15 No. 2-A	8-17-60
L. J. No. 1	7-1-55	I-21-23	8-1-56
T. J.	9-12-60	G-7.07	6-1-56
B-T-70-71	11-15-60	L-1	4-1-50
DR-1	1-3-55	L-3	4-1-50
HW-E	11-15-60	L-3-A	4-1-50
I-1	11-15-60	I-129 No. 1.06	9-6-60
I-8.C.B. 2-2-A & B	3-2-59	T-35	1-2-56
I-8.C.B. No. 3	1-26-59	AS-1-54	12-1-54
I-8.C.B. No. 3-A	1-26-59	RB-1-55	2-2-59
I-8.C.B. No. 6	1-26-59	AR-1-57	12-12-60
I-8.M.H. No. 1	1-26-59	CSB-2-56 (SH. 2, 3, & 5)	2-2-59
I-8.M.H. No. 1-A	2-1-61		
I-8.M.H. No. 2	1-26-59		
I-129 No. 8, 4	9-6-60	I-129 No. 2, 1-A	9-6-60

SEP 22 1965
BROWN PHOTOLAB

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____

DIVISION ENGINEER

DATE

FILE NO.	LUCAS COUNTY
SEC. LUC. 25-0.91	PART 18
DATE OF LETTING	196
CONTRACT NO.	

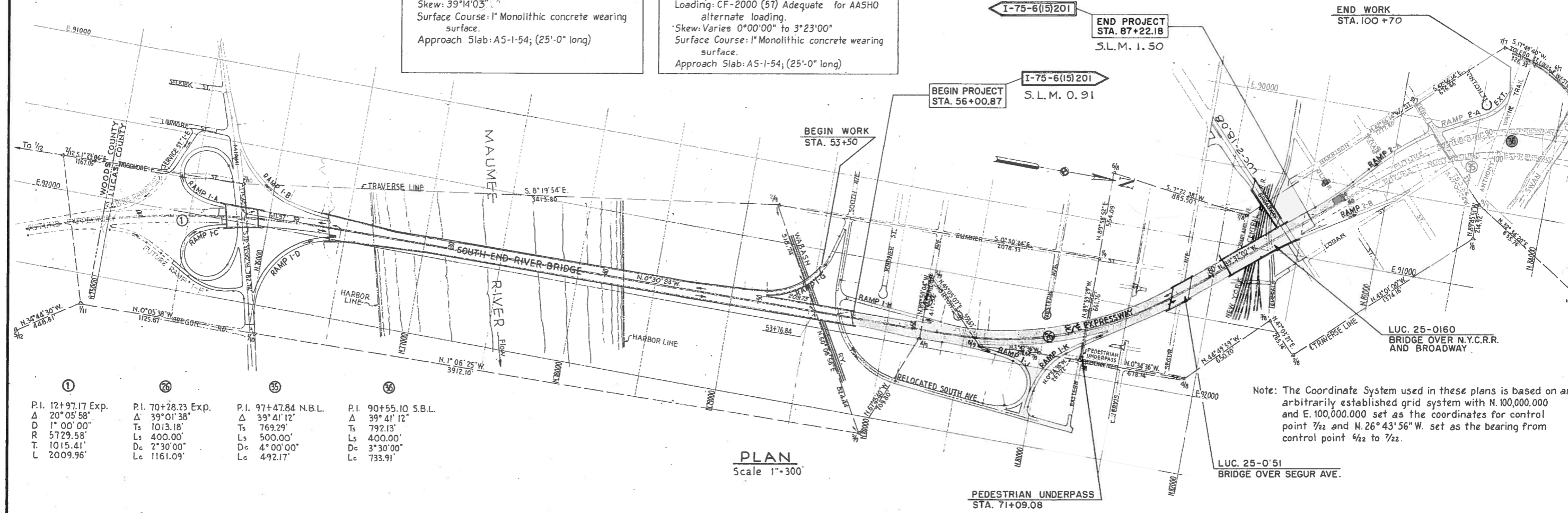
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	TYPE FUNDS	2
2	OHIO			106

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 18
LUC. 25-0.91
SCHEMATIC PLAN AND PROFILE

LUC. 25-0151
BRIDGE OVER SEGUR AVENUE
Type: Three span continuous rolled beam with reinforced concrete deck and substructure.
Spans: 41'-0", 58'-0" and 41'-0" = 140'-0" ctr. to ctr. end bearings.
Roadway: 2-54'-0" with 2-2'-3" safety curbs and 1-4'-0" median.
Loading: CF-2000 (57) Adequate for AASHO alternate loading
Skew: 39°14'03"
Surface Course: 1" Monolithic concrete wearing surface.
Approach Slab: AS-1-54; (25'-0" long)

LUC. 25-0160
BRIDGE OVER N.Y.C.R.R. AND BROADWAY
Type: Four span continuous welded girder with reinforced concrete deck and substructure.
Spans: East Bridge-98'-0", 142'-3", 140'-9" and 93'-9" = 474'-9" ctr. to ctr. end bearings.
West Bridge-128'-0", 155'-0", 110'-6" and 81'-3" = 474'-9" ctr. to ctr. end bearings.
Roadway: 2-54'-0" with 2-2'-3" safety curbs and 1-4'-0" median.
Loading: CF-2000 (57) Adequate for AASHO alternate loading.
Skew: Varies 0°00'00" to 3°23'00"
Surface Course: 1" Monolithic concrete wearing surface.
Approach Slab: AS-1-54; (25'-0" long)

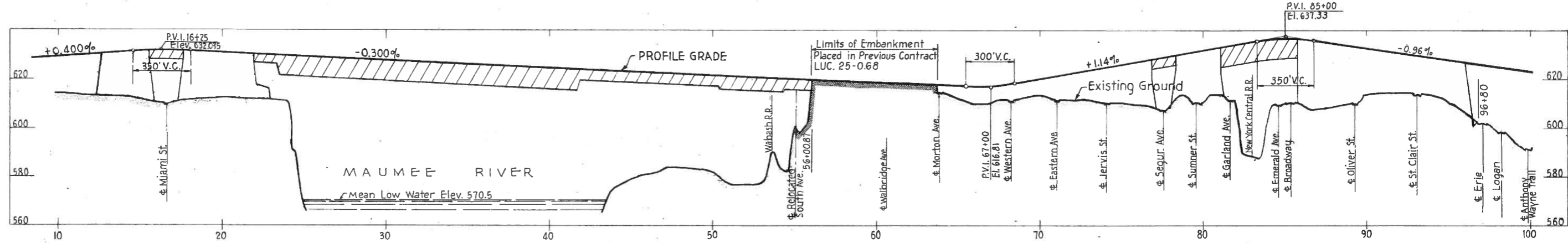
Note:
Markers will be furnished and erected on the right at the beginning and on the left at the end of Project I-75-6(15) 201 by the State before acceptance of this improvement. Typical Section of Existing Pavement adjacent to Beginning and End of Project is the same as shown on Sheet 6 for Expressway.



Station	Point	Delta	Delta	Delta	Delta
12+97.17 Exp.	70+28.23 Exp.	97+47.84 N.B.L.	90+55.10 S.B.L.		
Δ 20°05'58"	Δ 39°01'38"	Δ 39°41'12"	Δ 39°41'12"		
D 1°00'00"	Ts 1013.18'	Ts 769.29'	Ts 792.13'		
R 5729.58'	Ls 400.00'	Ls 500.00'	Ls 400.00'		
T 1015.41'	Dc 2°30'00"	Dc 4°00'00"	Dc 3°30'00"		
L 2009.96'	Lc 1161.09'	Lc 492.17'	Lc 733.91'		

PLAN
Scale 1"=300'

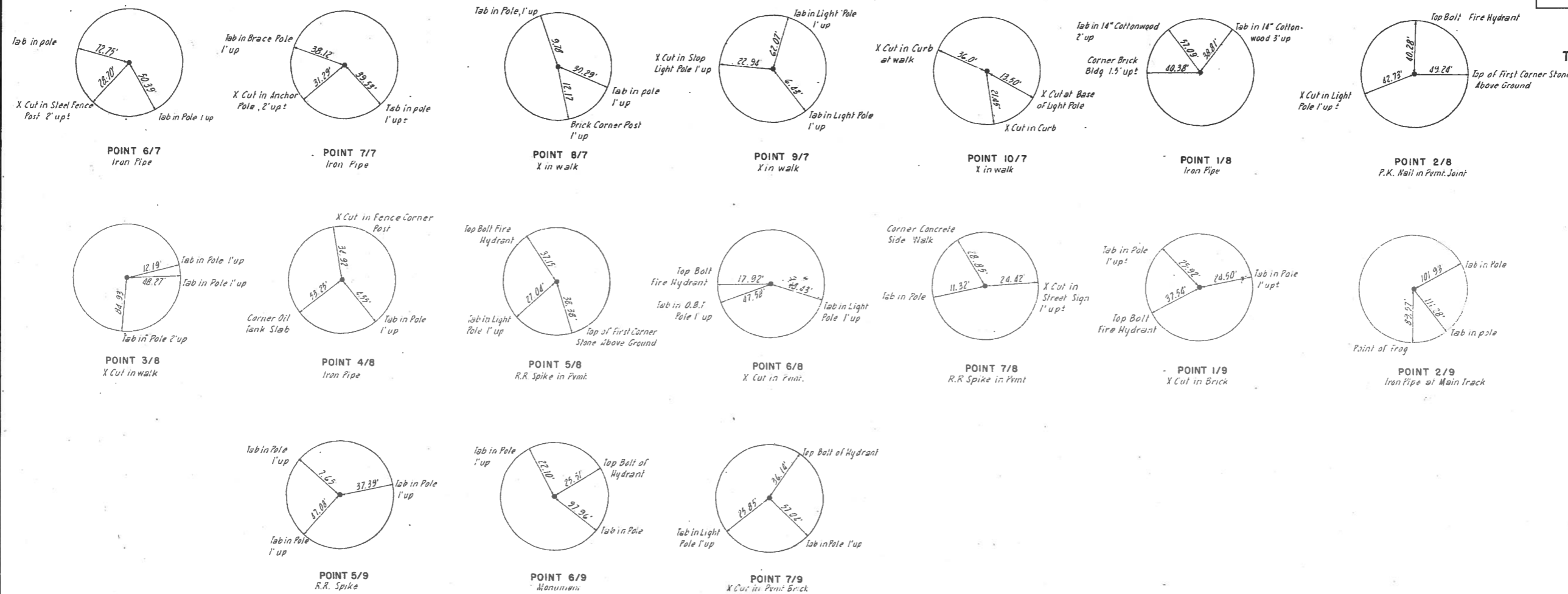
Note: The Coordinate System used in these plans is based on an arbitrarily established grid system with N. 100,000,000 and E. 100,000,000 set as the coordinates for control point 7/2 and N. 26°43'56" W. set as the bearing from control point 7/2 to 7/2.



PROFILE
Scale: Vert. 1"=20'
Hor. 1"=300'

SCALE: As shown
MADE Y.E.D. DATE: 2-24-59
CITY: D.H. DATE: 11-21-59
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK
1068 SHEET: 18.02

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 18
LUC. 25-0.91
TRAVERSE DATA



BENCH MARKS

NO.	DESCRIPTION	ELEVATION
96	Spike in Power Pole S.W. Corner Anthony Wayne Trail & Vinton	590.59
97	S. Bolt of Fire Hydrant Logan & Erie	603.57
98	Arrow Head on Fire Hydrant Erie & Anthony Wayne Trail	595.88
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109	N.W. Bolt of Fire Hydrant Jervis & Sumner	613.00
110	S. Bolt of Fire Hydrant Wade & Newton	609.59
115	Shiner, & Logan & Oliver	611.09
116	N.W. Bolt of Fire Hydrant Sumner & Western	615.45
117	E. Bolt of Fire Hydrant Sumner & Walbridge	612.43
119	X Cut E. Sumner & South	608.12
120	Arrow Head on Fire Hydrant E. End Knower St.	614.35
122	S. Bolt of Fire Hydrant Morton & Bloomfield	615.19
123	Arrow Head on Fire Hydrant Bloomfield & Jervis	614.16
124	Top Stone Monument E. Segur & Sumner	608.92

TRAVERSE POINT COORDINATES

POINT	NORTH	EAST
6/7	83,881.89	89,568.44
7/7	83,571.25	89,468.53
8/7	82,076.00	89,923.33
9/7	83,587.87	90,478.38
10/7	84,292.78	90,928.32
1/8	83,584.99	90,693.30
2/8	82,582.26	91,630.76
3/8	82,401.63	91,436.68
4/8	81,940.53	91,895.10
5/8	81,262.13	91,901.92
6/8	81,262.34	92,636.06
7/8	82,140.52	90,799.76
1/9	81,262.53	91,240.16
2/9	79,184.28	91,258.54
3/9		
4/9		
5/9	80,225.98	91,537.06
6/9	80,616.88	91,929.12
7/9	80,994.72	91,904.61

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 18
LUC. 25-0.91
PAVEMENT PLAN

CURVE DATA

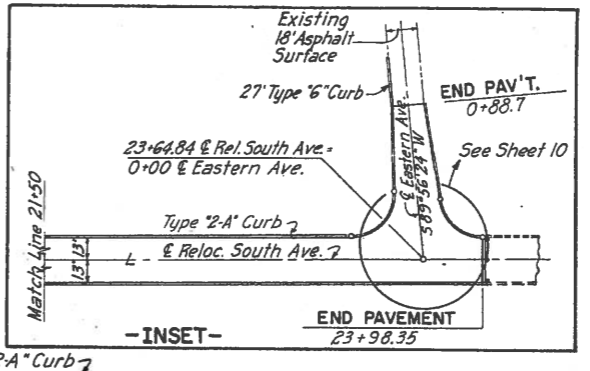
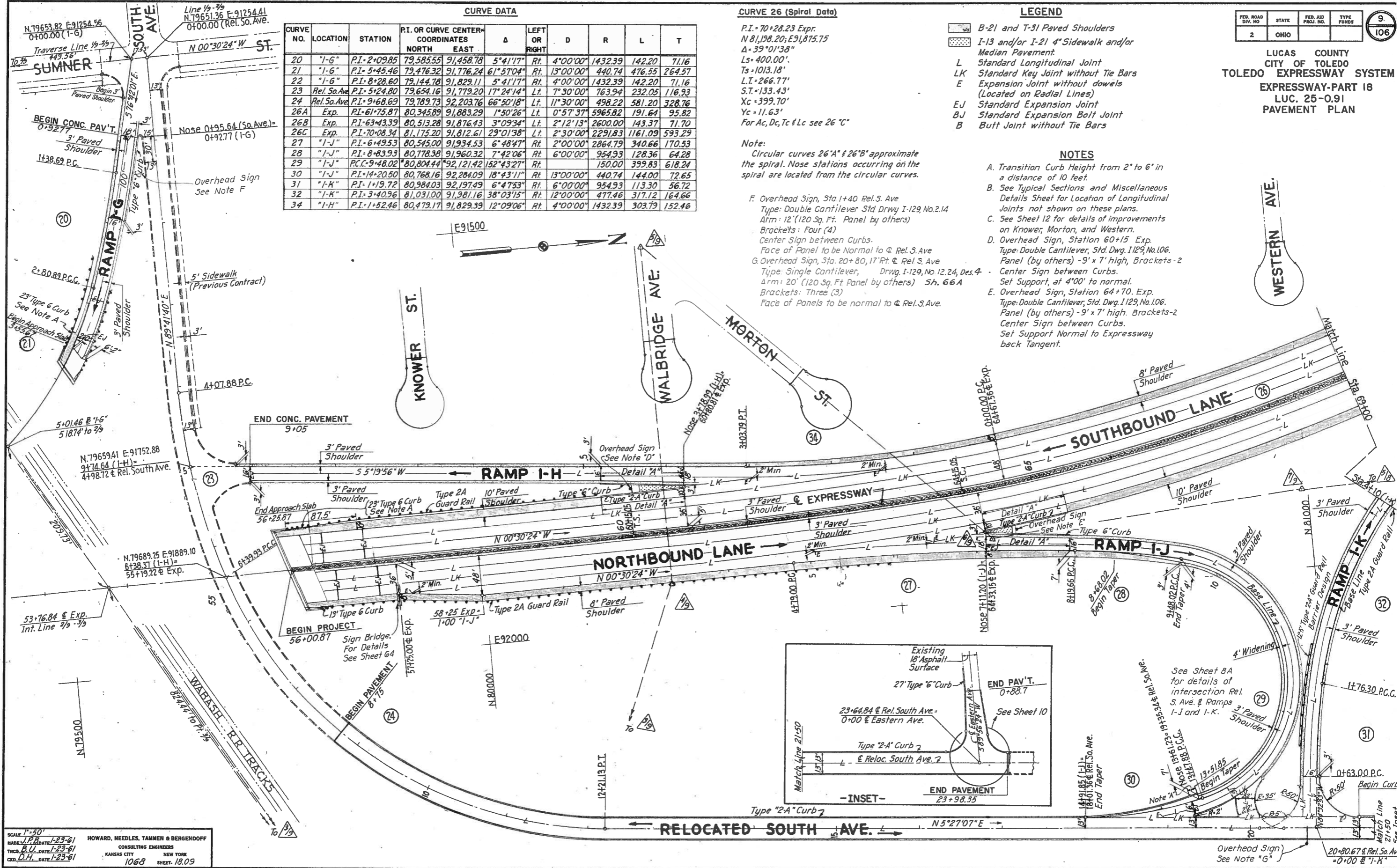
CURVE NO.	LOCATION	STATION	P.I. OR CURVE CENTER COORDINATES		Δ	LEFT OR RIGHT	D	R	L	T
			NORTH	EAST						
20	"I-G"	P.I. 2+09.85	79,585.55	91,458.78	5°41'17"	Rt.	4°00'00"	1432.39	142.20	71.16
21	"I-G"	P.I. 5+45.46	79,476.32	91,776.24	61°37'04"	Rt.	13°00'00"	440.74	476.55	264.57
22	"I-G"	P.I. 8+28.60	79,144.78	91,829.11	5°41'17"	Rt.	4°00'00"	1432.39	142.20	71.16
23	Rel. So. Ave.	P.I. 5+24.80	79,654.16	91,779.20	17°24'14"	Lt.	7°30'00"	763.94	232.05	116.93
24	Rel. So. Ave.	P.I. 9+68.69	79,789.73	92,203.76	66°50'18"	Lt.	11°30'00"	498.22	581.20	328.76
26A	Exp.	P.I. 61+75.87	80,345.89	91,883.29	1°50'26"	Lt.	0°57'37"	5965.82	191.64	95.82
26B	Exp.	P.I. 63+43.39	80,513.28	91,876.43	3°09'34"	Lt.	2°12'13"	2600.00	143.37	71.70
26C	Exp.	P.I. 70+08.34	81,175.20	91,812.61	29°01'38"	Lt.	2°30'00"	2291.83	1161.09	593.29
27	"I-J"	P.I. 6+49.53	80,545.00	91,934.53	6°48'47"	Rt.	2°00'00"	2864.79	340.66	170.53
28	"I-J"	P.I. 8+83.93	80,778.38	91,960.32	7°42'06"	Rt.	6°00'00"	954.93	128.36	64.28
29	"I-J"	P.C.C. 9+48.02	80,804.44	92,121.42	152°43'27"	Rt.		150.00	399.83	618.24
30	"I-J"	P.I. 14+20.50	80,768.16	92,284.09	18°43'11"	Rt.	13°00'00"	440.74	144.00	72.65
31	"I-K"	P.I. 1+19.72	80,984.03	92,197.49	6°47'53"	Rt.	6°00'00"	954.93	113.30	56.72
32	"I-K"	P.I. 3+40.96	81,031.00	91,981.16	38°03'15"	Rt.	12°00'00"	477.46	317.12	164.66
34	"I-H"	P.I. 1+52.46	80,479.17	91,829.39	12°09'06"	Rt.	4°00'00"	1432.39	303.79	152.46

CURVE 26 (Spiral Data)
P.I. = 70+28.23 Expr.
N 81,198.20; E 91,875.75
Δ = 39°01'38"
Ls = 400.00'
Ts = 1013.18'
Lt = 266.77'
St = 133.43'
Xc = 399.70'
Yc = 11.63'
For Ac, Dc, Tc & Lc see 26 "C"

- LEGEND**
- B-21 and T-31 Paved Shoulders
 - I-13 and/or I-21 4' Sidewalk and/or Median Pavement
 - L Standard Longitudinal Joint
 - LK Standard Key Joint without Tie Bars
 - E Expansion Joint without dowels (Located on Radial Lines)
 - EJ Standard Expansion Joint
 - BJ Standard Expansion Bolt Joint
 - B Butt Joint without Tie Bars

- NOTES**
- A. Transition Curb Height from 2" to 6" in a distance of 10 feet.
 - B. See Typical Sections and Miscellaneous Details Sheet for Location of Longitudinal Joints not shown on these plans.
 - C. See Sheet 12 for details of improvements on Knover, Morton, and Western.
 - D. Overhead Sign, Station 60+15 Exp. Type: Double Cantilever, Std. Dwg. I129, No. 106. Panel (by others) - 9' x 7' high, Brackets - 2 Center Sign between Curbs. Set Support, at 4'00' to normal.
 - E. Overhead Sign, Station 64+70. Exp. Type: Double Cantilever, Std. Dwg. I129, No. 106. Panel (by others) - 9' x 7' high, Brackets - 2 Center Sign between Curbs. Set Support Normal to Expressway back Tangent.

F. Overhead Sign, Sta 1+40 Rel. S. Ave
Type: Double Cantilever Std Drwy I-129, No. 2.14
Arm: 12' (120 Sq. Ft. Panel by others)
Brackets: Four (4)
Center Sign between Curbs.
Face of Panel to be Normal to R. S. Ave
G. Overhead Sign, Sta. 20+80, 17' Rt. E. Rel. S. Ave
Type: Single Cantilever, Drwg. I-129, No. 12.24, Des. 4
Arm: 20' (120 Sq. Ft. Panel by others) Sh. 66 A
Brackets: Three (3)
Face of Panels to be normal to R. S. Ave.

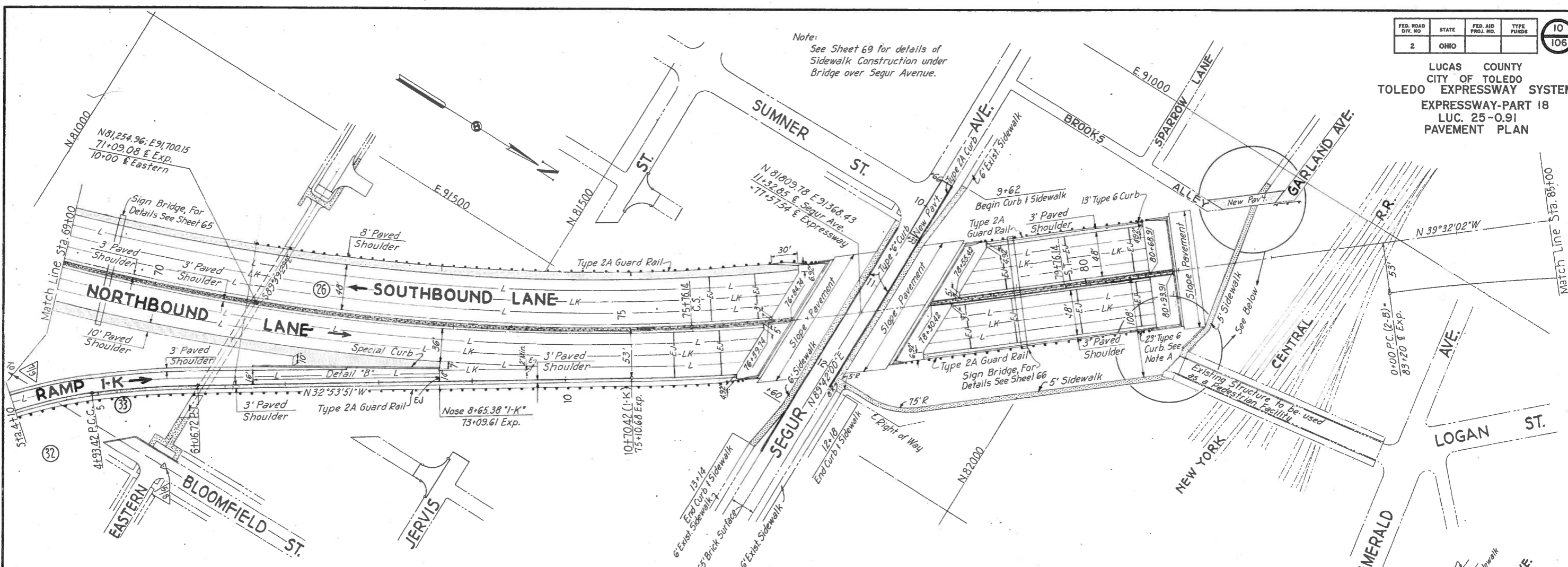


SCALE 1"=50'
MADE I.P. DATE 1-23-61
TRCD. B.U. DATE 1-23-61
CHK. D.H. DATE 1-23-61

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY NEW YORK
1068 SHEET 18.09

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 18
LUC. 25-091
PAVEMENT PLAN

Note:
See Sheet 69 for details of
Sidewalk Construction under
Bridge over Segur Avenue.



CURVE 26 (Spiral Data)

P.I. 70+28.23 Expr
 N 81,198.20; E 91,875.75
 $\Delta = 39^\circ 01' 38''$
 Ls = 400.00'
 Ts = 1013.18'
 L.T. = 266.77'
 S.T. = 133.43'
 Xc = 399.70'
 Yc = 11.63'
 For $\Delta c, Dc, Tc$ & Lc see 26 "C"

Note:
Circular curves 26 "A", 26 "B", 26 "D" & 26 "E" approximate the spirals. All intersections and nose stations occurring on the spirals are located from the circular curves.

LEGEND

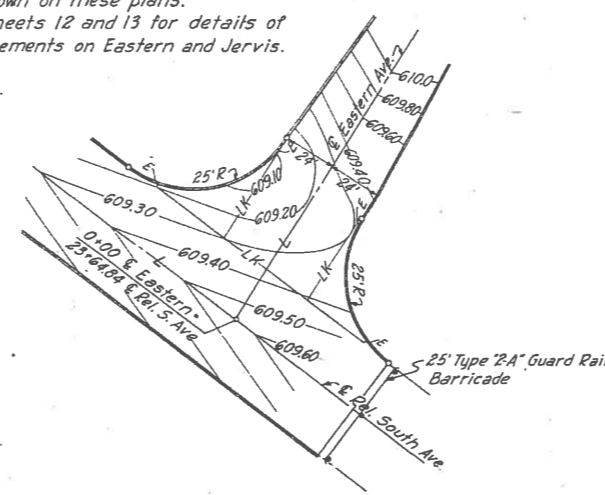
- B-21 and T-31 Paved Shoulders
- I-13 and/or I-21 4' Sidewalk and/or Median Pavement
- L Standard Longitudinal Joint
- LK Standard Key Joint without Tie Bars
- E Expansion Joint without dowels (Located on Radial Lines)
- EJ Standard Expansion Joint
- BJ Standard Expansion Bolt Joint
- B Butt Joint without Tie Bars

NOTES

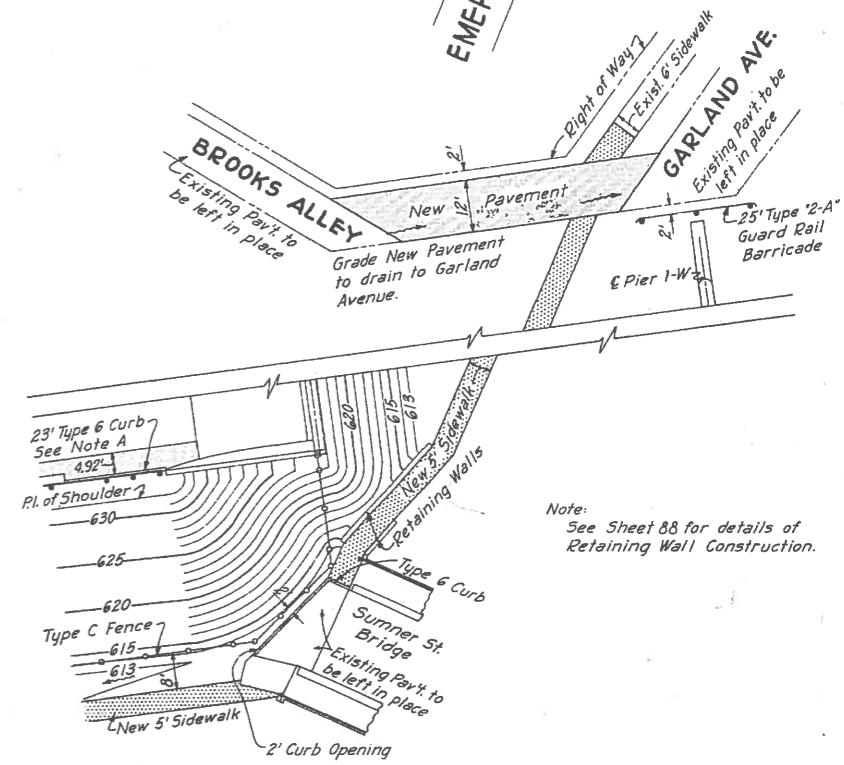
- A Transition Curb Height from 2" to 6" in a distance of 10 feet.
- B See Typical Sections and Miscellaneous Details Sheet for Location of Longitudinal Joints not shown on these plans.
- C See Sheets 12 and 13 for details of improvements on Eastern and Jervis.

CURVE DATA

CURVE NO.	LOCATION	STATION	P.I. COORDINATES	Δ	LEFT OR RIGHT	D	R	L	T
26 D	Expr.	P.I. 76+47.85	81,723.01 91,435.63	3°09'34"	Lt.	2°12'13"	2600.00	143.38	71.70
26 E	Expr.	P.I. 78+15.34	81,855.58 91,333.20	1°50'26"	Lt.	0°57'37"	5965.82	191.63	95.82
33	"I-K"	P.I. 5+50.14	81,201.33 91,839.77	6°47'53"	Rt.	6°00'00"	954.93	113.30	56.72



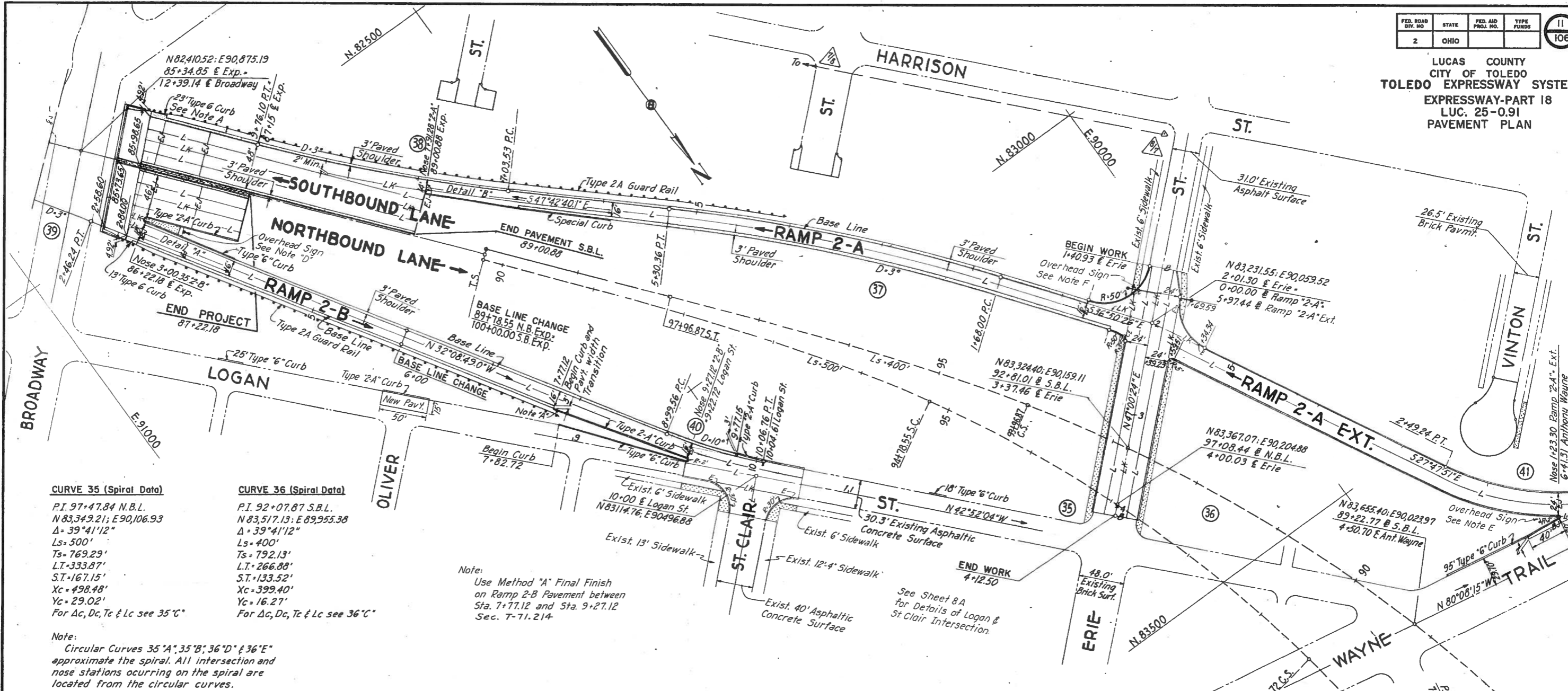
EASTERN AVE. AT REL. SOUTH AVE.
Scale 1"=20'



GARLAND AT SUMNER & BROOKS ALLEY RELOCATION
Scale 1"=20'

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	TYPE FUNDS	11
2	OHIO			106

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 18
LUC. 25-0.91
PAVEMENT PLAN



CURVE 35 (Spiral Data)
 P.I. 97+47.84 N.B.L.
 N 83,349.21; E 90,106.93
 Δ = 39°41'12"
 Ls = 500'
 Ts = 769.29'
 L.T. = 333.87'
 S.T. = 167.15'
 Xc = 498.48'
 Yc = 29.02'
 For Δc, Dc, Tc & Lc see 35° C'

CURVE 36 (Spiral Data)
 P.I. 92+07.87 S.B.L.
 N 83,517.13; E 89,955.38
 Δ = 39°41'12"
 Ls = 400'
 Ts = 792.13'
 L.T. = 266.88'
 S.T. = 133.52'
 Xc = 399.40'
 Yc = 16.27'
 For Δc, Dc, Tc & Lc see 36° C'

Note:
 Use Method "A" Final Finish
 on Ramp 2-B Pavement between
 Sta. 7+77.12 and Sta. 9+27.12
 Sec. 7-71.214

Note:
 Circular Curves 35° A', 35° B', 36° D' & 36° E'
 approximate the spiral. All intersection and
 nose stations occurring on the spiral are
 located from the circular curves.

CURVE DATA

CURVE NO.	LOCATION	STATION	P.I. COORDINATES		Δ	LEFT OR RIGHT	D	R	L	T
			NORTH	EAST						
35A	N.B.Lane	P.I. 91+80.26	82911.47	90,468.22	3°41'59"	Rt.	1°32'45"	3706.28	239.32	119.70
35B	N.B.Lane	P.I. 93+89.31	83,081.02	90,345.78	6°18'01"	Rt.	3°31'33"	1625.00	178.69	89.43
35C	N.B.Lane	P.I. 97+27.09	83,375.07	90,179.18	19°41'12"	Rt.	4°00'00"	1432.39	492.17	248.54
36C	S.B.Lane	P.I. 90+36.19	83,539.25	90,017.20	25°41'12"	Lt.	3°30'00"	1637.02	733.91	373.23
36D	S.B.Lane	P.I. 94+68.96	83,106.23	90,300.04	4°26'21"	Lt.	3°04'50"	1860.00	144.11	72.09
36E	S.B.Lane	P.I. 96+36.44	83,029.96	90,357.46	2°33'39"	Lt.	1°20'29"	4271.03	190.90	95.46
37	"2-A"	P.I. 3+49.72	82,951.66	90,269.21	10°52'15"	Lt.	3°00'00"	1909.86	362.36	181.72
38	"2-A"	P.I. 8+40.05	82,621.01	90,632.74	8°10'38"	Rt.	3°00'00"	1909.86	272.57	136.52
39	"2-B"	P.I. 1+23.29	82,373.64	90,974.35	7°23'13"	Rt.	3°00'00"	1909.86	246.24	123.29
40	"2-B"	P.I. 9+53.32	83,068.19	90,518.96	10°43'15"	Lt.	10°00'00"	572.96	107.21	53.76
41	Ramp 2-A Ext.	P.I. 1+34.08	83,658.18	89,834.61	52°20'24"	Rt.	21°00'00"	272.84	249.24	134.08

LEGEND

- B-21 and T-31 Paved Shoulders
- I-13 and/or I-21 4' Sidewalk and/or Median Pavement
- Standard Longitudinal Joint
- Standard Key Joint without Tie Bars
- Expansion Joint without dowels (Located on Radial Lines)
- Standard Expansion Joint
- Standard Expansion Bolt Joint
- Butt Joint without Tie Bars

NOTES

- A. Transition Curb Height from 2' to 6' in a distance of 10 feet.
- B. See Typical Sections and Miscellaneous Details Sheet for Location of Longitudinal Joints not shown on these plans.
- C. See Sheet 13 for details of improvements on Oliver, St. Clair, and Vinton.
- D. Overhead Sign, Station 86+60 Exp. Type: Double Cantilever, Std. Dwg. I-129, No. 106. Panel (by others) - 9' x 7' high. Brackets - 2 Center Sign between Curbs. Set Support Normal to Expressway.
- E. Overhead Sign, Station 6+20, 38 Lt & Anthony Wayne Trail Type: Double Cantilever, Std. Dwg. I-129, No. 214 Arm: 12' (120 Sq. Ft. Panel by others) Brackets: Four (4) Face of Panel to be Normal to Anthony Wayne Trail
- F. Overhead Sign, Station 1+70 Erie St. Type: Bridge, Std. Dwg. I-129, No. B. 4, Design 1 Span: 70' 360 Sq. Ft. Panels by others) Brackets: Nine (9).

SCALE: 1" = 50'
 MADE BY: P.B. DATE: 1-24-61
 TRCS: B.W. DATE: 1-24-61
 CDD: D.H. DATE: 1-24-61
 HOWARD, NEEDLES, TAMMEN & BERGENOFF
 CONSULTING ENGINEERS
 KANSAS CITY, MISSOURI
 1068 SHEET 18.11

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC. 25-1.50
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM - PART 22

FED. RD. DIVISION	STATE	FED. AID PROJ. NO.	180
2	OHIO	1-75-6(19)201	

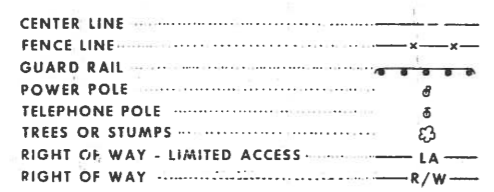
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
LUC. 25-1.50

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MAY 14 1968
GROUND PHOTO LAB

MAY 14 1968

GROUND PHOTO LAB

CONVENTIONAL SIGNS



MICROFILMED
SEP 19 1965

INDEX OF SHEETS

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2	SCHEMATIC PLAN AND PROFILE	57	HORIZONTAL ALIGNMENT
3-4	GENERAL NOTES		BRIDGE NO. 9A
5	SUMMARY OF QUANTITIES	58	SITE PLAN
6	TYPICAL SECTIONS	59-63	ABUTMENTS
7	PAVED SHOULDER DETAILS	64-84	PIERS
8-10	GEOMETRICS	85-105	SUPERSTRUCTURE
11	TRAVERSE TIES	106-112	REINFORCEMENT SCHEDULES
12-13	PAVEMENT PLAN		COMMON DETAILS
13A-13B	APPROACH SLAB DETAILS	113	SUPERSTRUCTURE DETAILS
14-15	QUANTITY CALCULATIONS	114-116	INTERMEDIATE EXPANSION JOINTS
16-17	PROFILES	117	GIRDER SPLICES
18-19	GRADING, DRAINAGE AND FENCING	118-119	BRIDGE DRAINAGE DETAILS
20-21	SLOPE TREATMENT		BRIDGE NO. 9B
22-23	SEWER PROFILES	120	SITE PLAN
24-25	MISCELLANEOUS DETAILS	121-127	ABUTMENTS
26	UNDERDRAIN DETAILS	128-146	PIERS
27-29	EXISTING UTILITIES	147-167	SUPERSTRUCTURE
30-32	CROSS SECTIONS	168-173	REINFORCEMENT SCHEDULE
33-39	RIGHT OF WAY		BRIDGE NO. 9C
40-47	LIGHTING	174	SITE PLAN
48, 48A, 49-51	SIGNING	175-176	ABUTMENTS
	BRIDGE NOS. 9A, 9B, & 9C	177	PIERS
52	GENERAL NOTES	178-179	SUPERSTRUCTURE
	AND ESTIMATED QUANTITIES	180	REINFORCEMENT SCHEDULE

BRIDGE NO. 9A = STATE BRIDGE NO. LUC. 25-0107L *
BRIDGE NO. 9B = STATE BRIDGE NO. LUC. 25-0107R *
BRIDGE NO. 9C = RAMP 2-F OVER WESTBOUND LANE ANTHONY WAYNE TRAIL EXTENSION

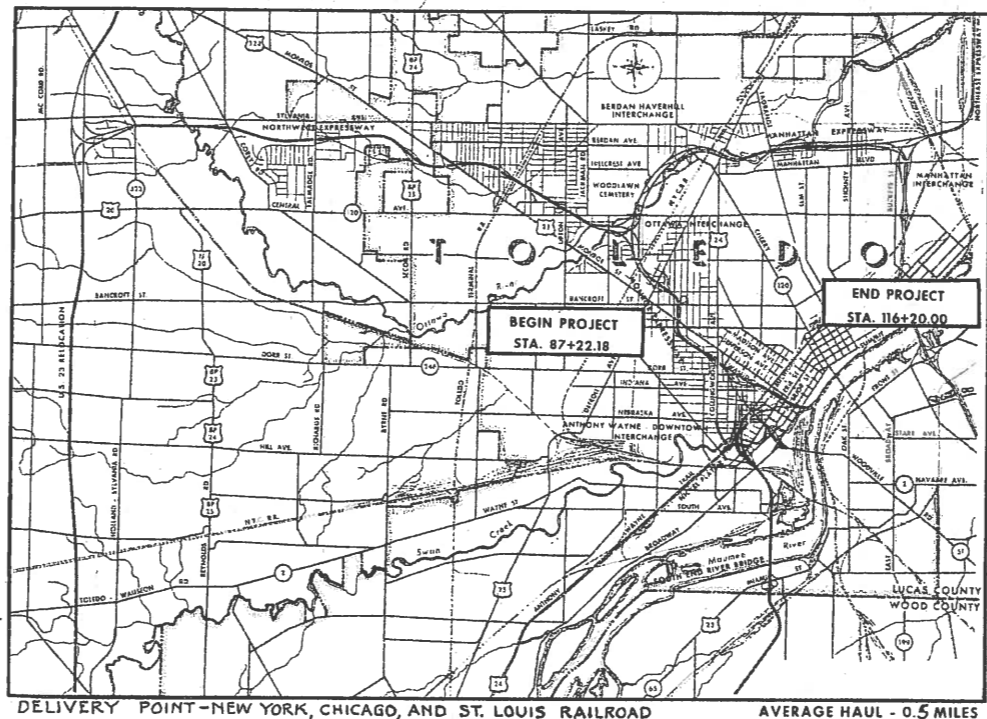
* The number for Bridges 9A and 9B will become 0167 R&L, however 0107 has been retained in this plan for clarity.

LINE DATA

BEGIN PROJECT	STA 87+22.18	⊕ NORTHBOUND LANE
END PROJECT	STA 116+20.00	⊕ NORTHBOUND LANE
NET LENGTH OF PROJECT	2897.82 FEET OR 0.548 MILES	
BEGIN WORK	STA. 87+13.37	⊕ NORTHBOUND LANE
END WORK	STA. 116+67.00	⊕ NORTHBOUND LANE
NET LENGTH OF WORK	2953.63 FEET OR 0.559 MILES	

ERIE TO NEBRASKA AVENUE
GRADE SEPARATION
WITH THE
NEW YORK, CHICAGO, AND ST. LOUIS RAILROAD CO.

I-75-6 (19) 201
LIMITED ACCESS



THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, 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 NO REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATE.

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

APPROVED DATE Nov. 13 1963
COUNTY ENGINEER, LUCAS COUNTY
Frank H. Beckler
CITY MANAGER, CITY OF TOLEDO

APPROVED DATE 11/13/63
DIRECTOR OF PUBLIC SERVICE, CITY OF TOLEDO
W. J. Dillard

APPROVED DATE Nov. 12, 1963
DIVISION DEPUTY DIRECTOR
Thomas M. Major

APPROVED DATE 12-17-63
ENGINEER OF BRIDGES
W. J. Dillard

APPROVED DATE 12-17-63
ENGINEER OF LOCATION AND DESIGN
R. D. Reister

APPROVED DATE 12-17-63
DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
W. J. Dillard

APPROVED DATE 12-4-63
DEPUTY DIRECTOR OF RIGHT OF WAY
W. J. Dillard

APPROVED DATE 12-15-63
DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
W. J. Dillard

APPROVED DATE 12/12/63
FIRST ASSISTANT DIRECTOR
W. J. Dillard

APPROVED DATE 12/19/63
DIRECTOR OF HIGHWAYS
W. J. Dillard

APPROVED DATE _____
CHIEF ENGINEER, NEW YORK, CHICAGO, AND ST. LOUIS RAILROAD

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

H.G. SOURS
ASSOCIATE
COLUMBUS

SUPPLEMENTAL SPECIFICATIONS

NUMBER	DATE	NUMBER	DATE
I-129	R4-5-61	B-112	8-21-61
CE-101.04	5-22-56	I-212	R6-23-61
		S-307	8-23-60
		S-101	7-12-62
L-120	R1-2-62		

LOCATION MAP



PORTION TO BE IMPROVED _____

OTHER SCALES
PLAN 1"=50'
PROFILE HOR. 1"=100'
VERT. 1"=10'
CROSS SECTIONS 1"=10'

STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
B-T-70-71	11-15-60	L-1	4-1-50
B-T-71R	3-2-53	L-3	4-1-50
F-1	2-1-63	L-3-A	4-1-50
F-3	2-1-63	L.J. No. 1	7-1-55
G-7.07	6-1-56	R.I.-1	7-15-58
HW-E	2-1-63	T.J.	9-12-60
I-1	11-15-60	AR-1-57	4-2-62
I-8 C.B. No. 3-A	2-1-63	AS-1-54	7-5-62
I-8 M.H. No. 1	2-1-63	CSB-2-56, Sh. 2 & 3	2-2-59
I-8 M.H. No. 2	2-1-63	FSB-1-62	1-15-63
I-12	2-1-63	I-8 M.H. No. 1-A	2-1-63
I-15 No. 1	11-15-60	I-8 I. No. 2-A	2-1-63
I-15 No. 2-A	8-17-60		
I-15 No. 6	2-1-63		
I-21-23	8-1-56		
FACI-1	3-8-63		
FACI-2	3-8-63		

MICROFILMED
MAY 14 1968
GROUND PHOTO LAB

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____

DIVISION ENGINEER _____ DATE _____

MICROFILMED
MAY 14 1968
GROUND PHOTO LAB

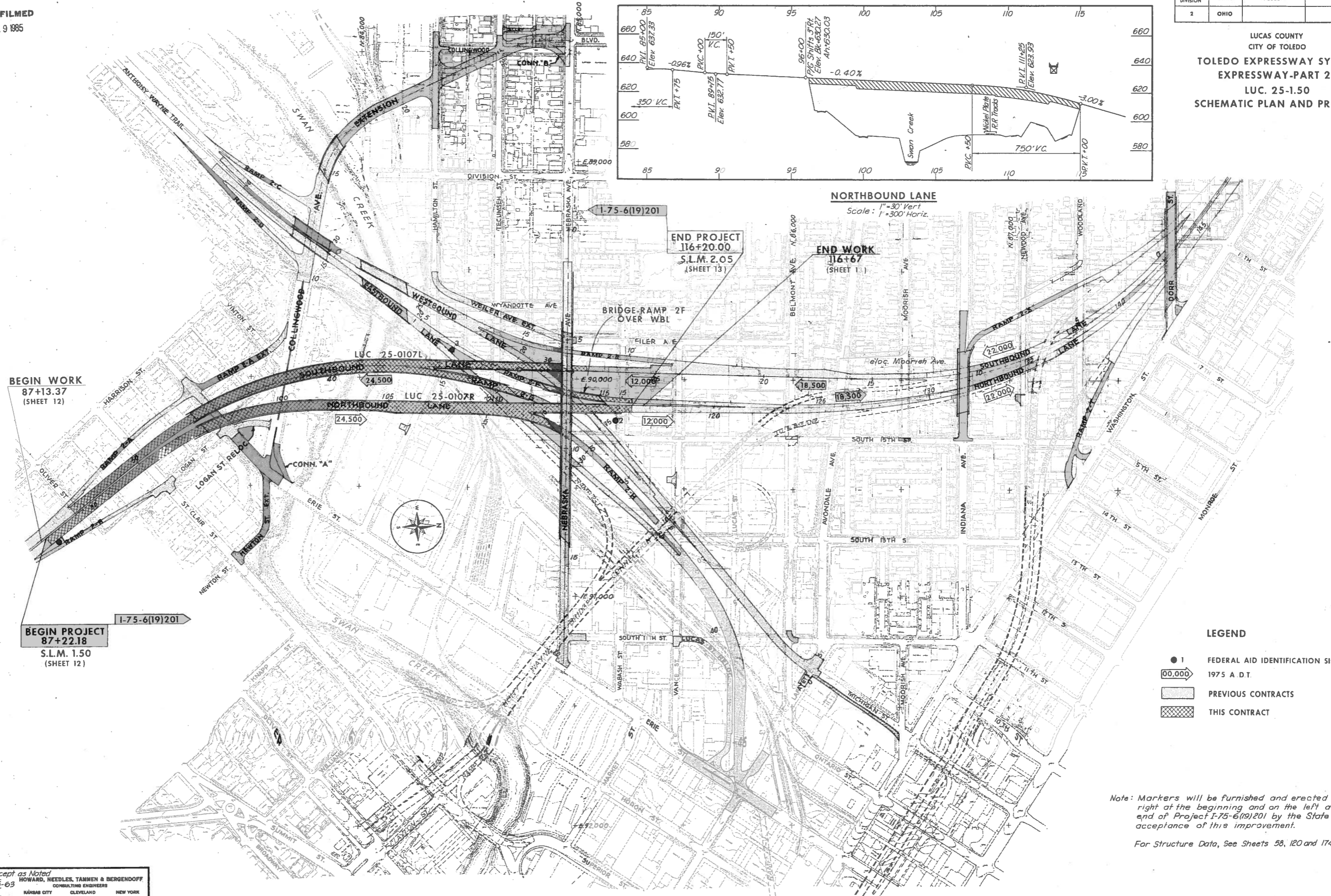
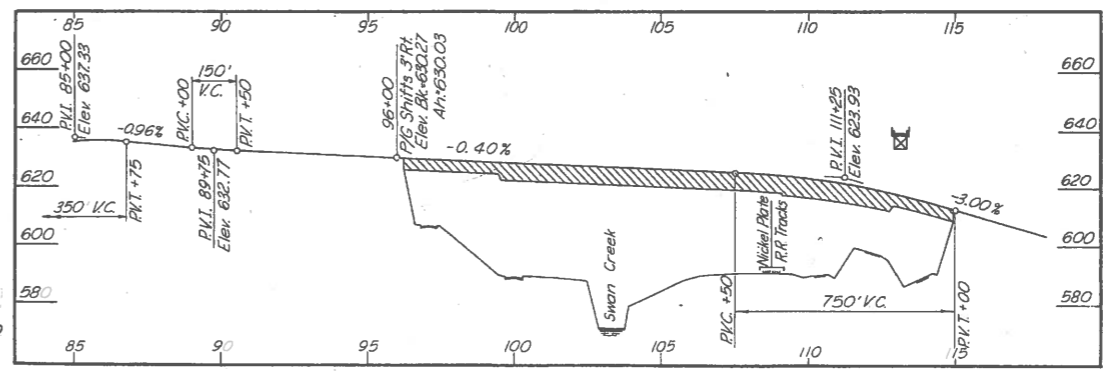
FILE NO.	LUCAS COUNTY
	SEC. LUC. 25-1.50 PART 22
	DATE OF LETTING _____ 196
	CONTRACT NO. _____

Sheet No. 115 revised 2-18-64

MICROFILMED
SEP 19 1985

FED. RD DIVISION	STATE	PROJECT	2
2	OHIO		180

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 22
LUC. 25-1.50
SCHEMATIC PLAN AND PROFILE



BEGIN WORK
87+13.37
(SHEET 12)

BEGIN PROJECT
87+22.18
S.L.M. 1.50
(SHEET 12)

END PROJECT
116+20.00
S.L.M. 2.05
(SHEET 13)

END WORK
116+67
(SHEET 1)

- LEGEND**
- 1 FEDERAL AID IDENTIFICATION SIGNS
 - 00.000 1975 A.D.T.
 - [Hatched Box] PREVIOUS CONTRACTS
 - [Cross-hatched Box] THIS CONTRACT

Note: Markers will be furnished and erected on the right at the beginning and on the left at the end of Project I-75-6(19)201 by the State before acceptance of this improvement.

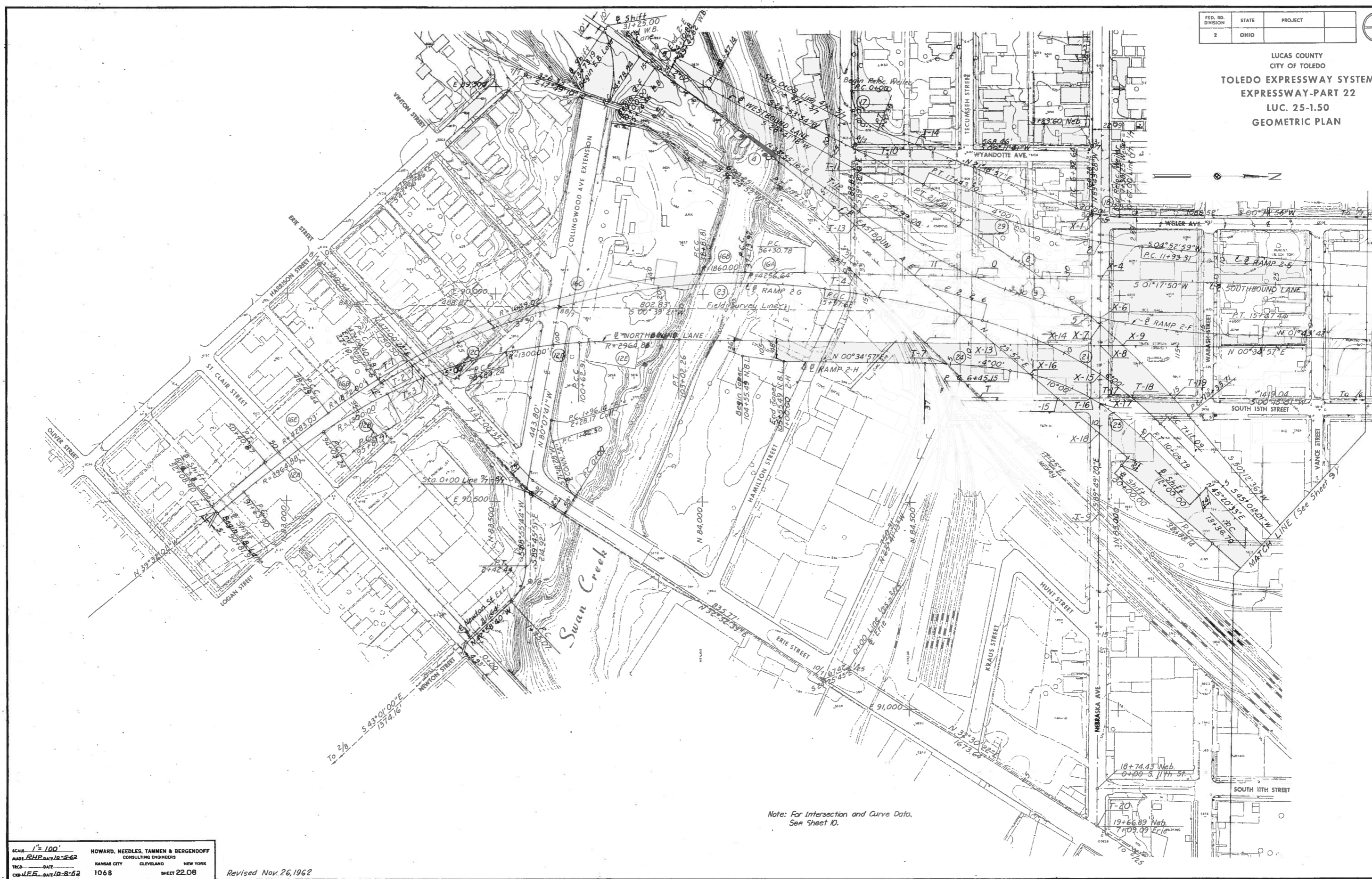
For Structure Data, See Sheets 58, 120 and 174.

SCALE: 1" = 200' - Except as Noted
DATE: 3-15-63
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
TRCS DATE: 10-14-63
JOB NO. 1068 SHEET 22.02

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

8
10E

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 22
LUC. 25-1.50
GEOMETRIC PLAN



Note: For Intersection and Curve Data,
See Sheet 10.

SCALE: 1" = 100'
MADE: RHP, DATE: 10-25-62
TRCD: _____ DATE: _____
CDB: J.E.E., DATE: 10-8-62

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

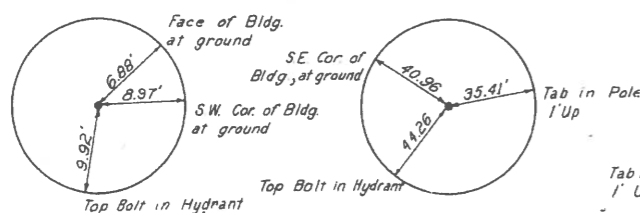
1068 SHEET 22.08

Revised Nov. 26, 1962

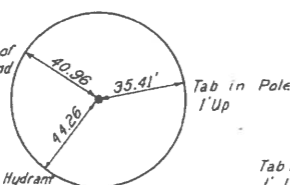
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

11
180

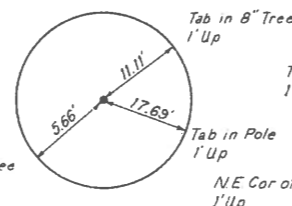
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 22
LUC. 25-1.50
TRAVERSE TIES



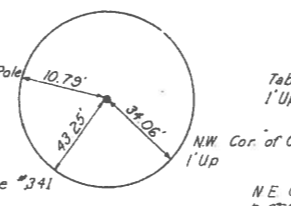
POINT 1/6
(X in Walk)



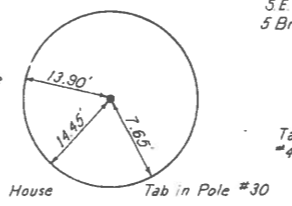
POINT 2/6
(X in Walk)



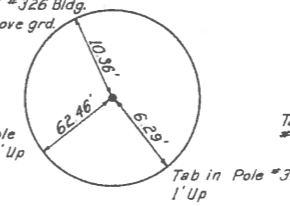
POINT 1/7
(X in Walk)



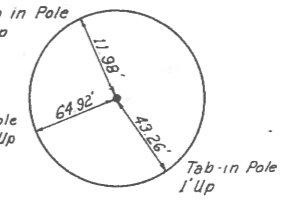
POINT 2/7
(X in Walk)



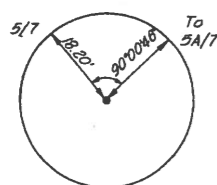
POINT 3/7
(X in Walk)



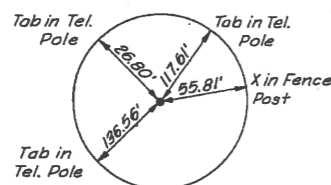
POINT 4/7
(X in Walk)



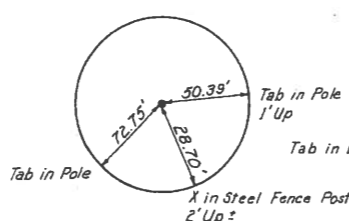
POINT 5/7
(Iron Pipe)



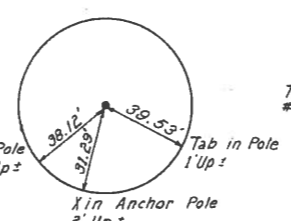
POINT 5A/7
(Mark on Rail)



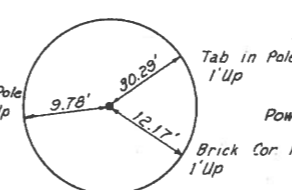
POINT 5B/7
(Punched Hole in Rail)



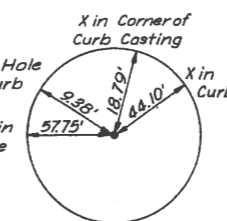
POINT 6/7
(Iron Pipe)



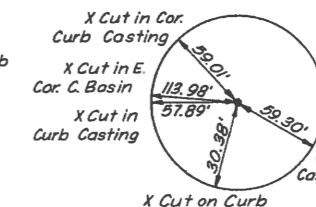
POINT 7/7
(Iron Pipe)



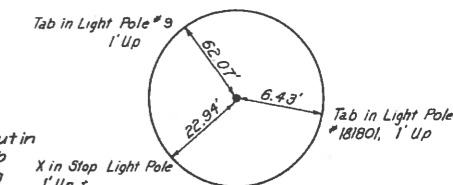
POINT 8/7
(X in Walk)



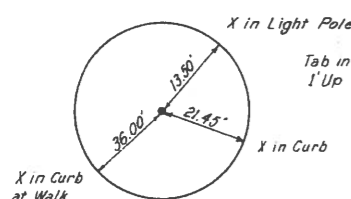
POINT 8A/7
(Drilled Hole in Walk)



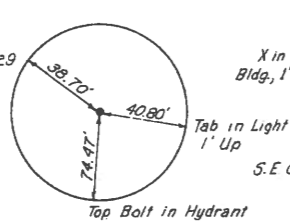
POINT 8B/7
(Small R.R. Spike)



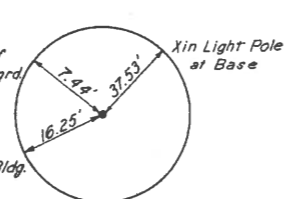
POINT 9/7
(X in Walk)



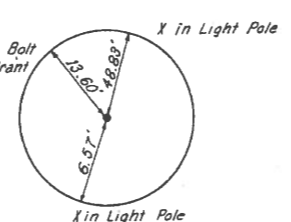
POINT 10/7
(X in Walk)
(Opposite Intersection Tecumseh with Erie St)



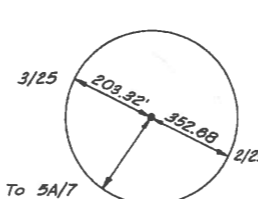
POINT 11/7
(R.R. Nail in R.R. Tie)



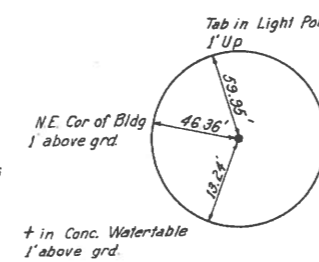
POINT 1/25
(Drilled Hole in Walk)



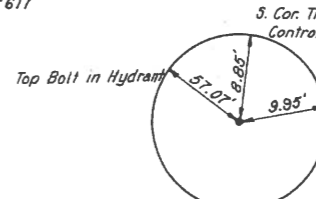
POINT 2/25
(Drilled Hole in Walk)



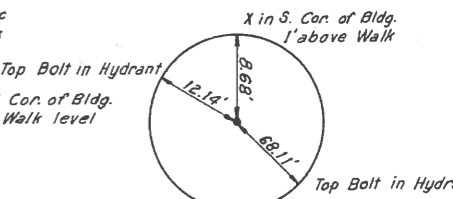
POINT 2A/25



POINT 3/25
(Drilled Hole in Walk)



POINT 4/25
(Drilled Hole in Walk)



POINT 5/25
(Drilled Hole in Walk)

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

APR 18 1963

INDEX OF SHEETS

1	TITLE SHEET
2	SCHEMATIC PLAN AND PROFILE
3&4	GENERAL NOTES
5&6	SUMMARY OF QUANTITIES
7	TYPICAL SECTIONS
8	TYPICAL GRADING DETAILS
9-11, 11-A	GEOMETRICS
12	TRAVERSE TIES
13	PAVEMENT PLAN
14	INTERSECTION DETAILS
15&16	QUANTITY CALCULATIONS
17	PROFILES
18&19	GRADING PLANS
20&21	DRAINAGE PLANS
22	TRUNK SEWER DETAILS
23-31, 31A	SEWER PROFILES
32-35	MISCELLANEOUS DETAILS
36	WATERSHED AREAS
37&38	JUNCTION CHAMBER
39-41	REGULATOR CHAMBER
42	EXISTING DRAINAGE STRUCTURES
43&43A	EXISTING SEWERS AND PROPOSED UNDERDRAIN LAYOUT
44	UNDERDRAIN DETAILS
45-47	EXISTING UTILITIES
48	CROSS SECTION LAYOUT
49-61	CROSS SECTIONS
62-68	RIGHT OF WAY
69-100	BR. NO. LUC. 25-0200 NEBRASKA AVE. OVER EXPRESSWAY
101	PILE LOCATIONS FOR OTHER STRUCTURES
102&102A	PIER 19, BR. NO. LUC. 25-0107R
103, 104&104A	WALL ALONG RAMP 2G
105&106	WALL ALONG NEBRASKA AVE., WEST OF S. 11TH ST.
107, 108, 108A, 109&114	LIGHTING

Sheets 101 & 103 Revised 1-10-63
 Sheets 102 & 102A substituted for sheets 102 & 102A respectively 7-8-63

Revised Railroad Name
 Sheet No. R.E.C. 3-4-63
 Revised Sheets Nos. 1, 11 and 11-A.
 R.E.C. 1-30-63.

LINE DATA

BEGIN PROJECT	STA. 113+15.05 @ NORTHBOUND LANE
END PROJECT	STA. 113+15.05 @ NORTHBOUND LANE
NET LENGTH OF PROJECT	0.00 FEET OR 0.00 MILES
BEGIN WORK	STA. 105+00 @ NORTHBOUND LANE
END WORK	STA. 117+25 @ NORTHBOUND LANE
LENGTH OF WORK - NORTHBOUND LANE	1225 FEET
ADD FOR: NEBRASKA AVENUE	1855 FEET
WEILER AVENUE EXTENSION	762 FEET
SEWER - ERIE TO SWAN CREEK	375 FEET
NET LENGTH OF WORK	4217 FEET OR 0.798 MILES

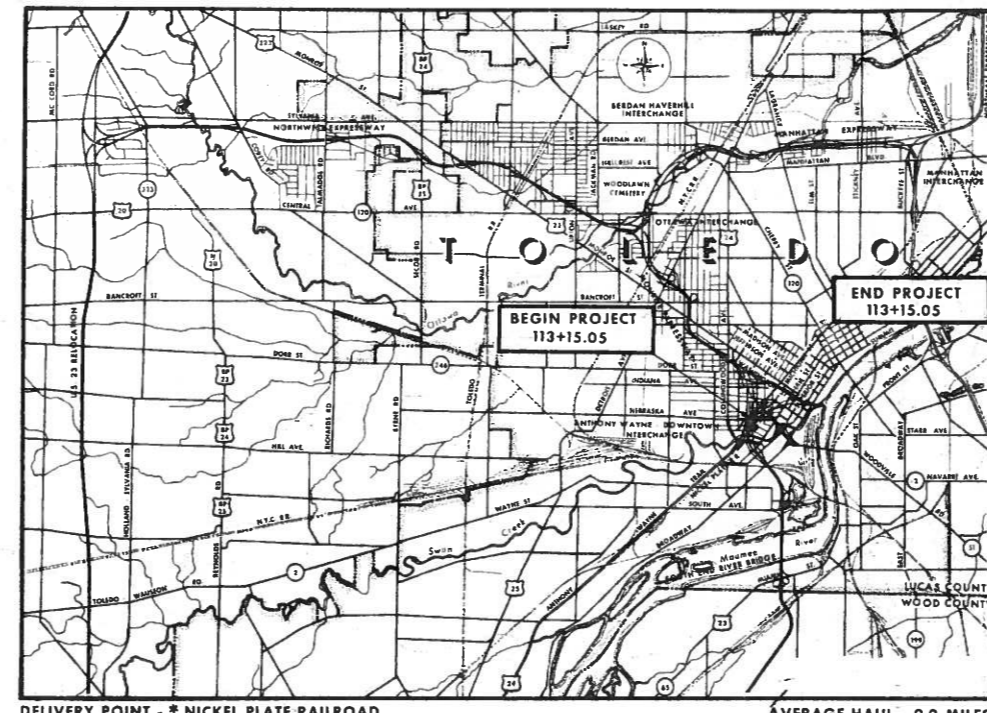
STATE OF OHIO
 DEPARTMENT OF HIGHWAYS
LUC-25 2.00
LUCAS COUNTY
 CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM - PART 20
NEBRASKA AVENUE
 GRADE CROSSING ELIMINATION
 CHICAGO WITH THE ST. LOUIS
 NEW YORK, ST. LOUIS, AND CHICAGO RAILROAD

FED. NO. DIVISION	STATE	FED. AID PROJ. NO.	1
2	OHIO	1-75-6(17)202	114

SEP 20 1965
 GROUND PHOTO LAB

LUCAS COUNTY
 CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
 LUC. 25-2.00

1-75-6(17)202
LIMITED ACCESS



THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, 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 IN THE PLANS AND ESTIMATE.
 THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO.

- APPROVED DATE 10-30-62 *Bernard J. Keating*
 COUNTY ENGINEER, LUCAS COUNTY
- APPROVED DATE 10-31-62 *Frank W. Vaccaro*
 CITY MANAGER, CITY OF TOLEDO
- APPROVED DATE 10-31-62 *W. H. Keating*
 DIRECTOR OF PUBLIC SERVICE, CITY OF TOLEDO
- APPROVED DATE 11-11-62 *W. H. Keating*
 DIVISION DEPUTY DIRECTOR
- APPROVED DATE 11-6-62 *R. H. Roseman*
 ENGINEER OF BRIDGES
- APPROVED DATE 11-2-62 *W. H. Keating*
 ENGINEER OF LOCATION AND DESIGN
- APPROVED DATE 11-2-62 *W. H. Keating*
 DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
- APPROVED DATE 11-7-62 *W. H. Keating*
 DEPUTY DIRECTOR OF RIGHT OF WAY
- APPROVED DATE 11-7-62 *W. H. Keating*
 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
- APPROVED DATE 11-7-62 *W. H. Keating*
 FIRST ASSISTANT DIRECTOR
- APPROVED DATE 11-7-62 *E. S. Friction*
 DIRECTOR OF HIGHWAYS

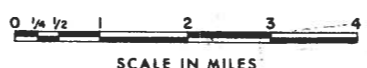
PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK

H.G. SOURS
 ASSOCIATE
 COLUMBUS

SUPPLEMENTAL SPECIFICATIONS

NUMBER	DATE	NUMBER	DATE
L-128	7-31-59	S-207, 10	4-25-61
L-129	8-4-61	M-106.6(c)	2-17-59
CE-101.04	5-22-56	M-107.18	R. 4-3-61
M-206-14	7-15-49	M-109.28	R. 8-12-59
S-307	8-3-60	I-212	R. 6-23-61

LOCATION MAP



PORTION TO BE IMPROVED
 OTHER SCALES
 PLAN 1"=50'
 PROFILE HOR. 1"=100'
 VERT. 1"=10'
 CROSS SECTIONS 1"=10'

STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
RI-1	7-15-58	I-15 No. 2A	8-17-60
B-T-70-71	11-15-60	G-7-07	6-1-56
B-T-71R	3-2-53	L-1	4-1-50
L-1, No. 1	7-1-55	L-3	4-1-50
T-1	9-12-60	L-3A	4-1-50
DR-1	1-3-55	FACI-1	12-27-61
HW-F	11-15-60	FACI-2	12-27-61
L-1	11-15-60	T-35	1-2-56
I-R.C.B. No. 3	1-26-59	AS-154	7-5-62
I-R.C.B. No. 3A	1-26-59	AR-1-57	4-2-62
I-R.C.B. No. 5	7-1-58	CSB 2-36 (2,3&5)	2-2-59
I-R.C.B. No. 6	1-26-59	FSB-1-62	4-19-62
I-R.M.H. No. 1	1-26-59	I-14G	1-22-52
I-R.M.H. No. 1A	10-2-61		
I-R.M.H. No. 2	1-26-59		
L-12	7-1-54		
I-15 No. 1	11-15-60		

SEP 20 1965
 GROUND PHOTO LAB

Revised R.E.C. 3-4-63
 Revised R.E.C. 1-30-63

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

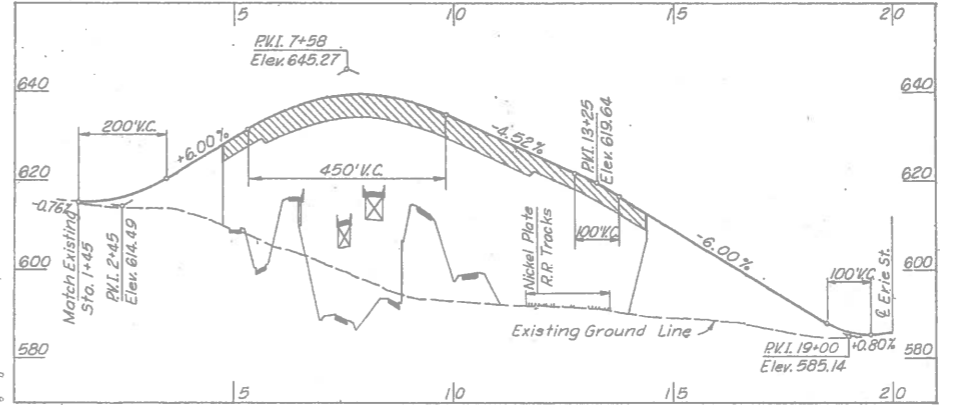
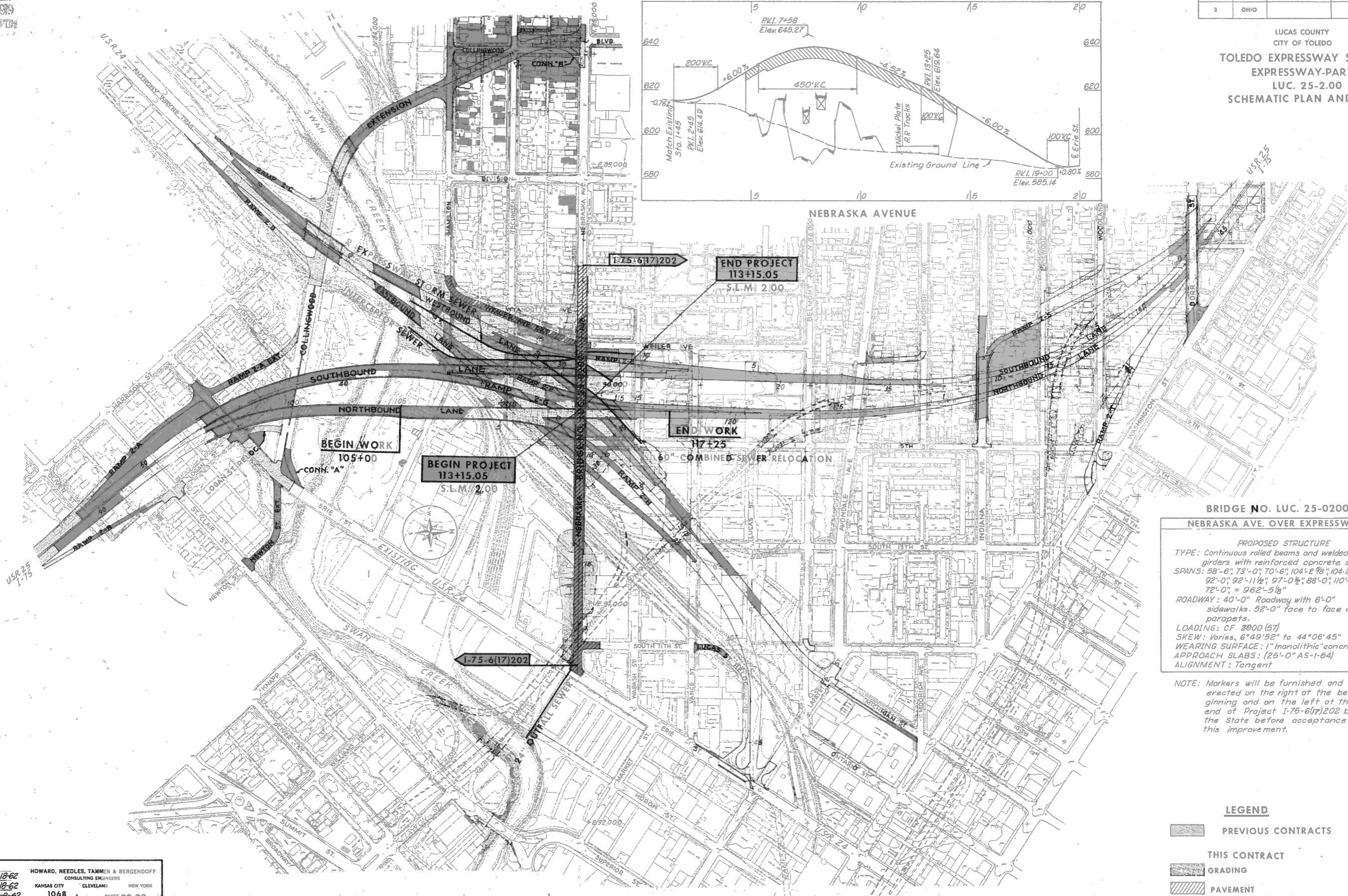
APPROVED: _____
 DIVISION ENGINEER DATE _____

FILE NO. _____ LUCAS COUNTY
 SEC. LUC. 25-2.00 PART 20
 DATE OF LETTING _____ 196
 CONTRACT NO. _____

APR 18 1962

FED. RD. DIVISION	STATE	PROJECT	2 114
2	OHIO		

LUCAS COUNTY
CITY OF TOLEDO
**TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 20
LUC. 25-2.00
SCHEMATIC PLAN AND PROFILE**



BEGIN WORK
105+00
CONN. "A"

BEGIN PROJECT
113+15.05
S.L.M. 2.00

END PROJECT
113+15.05
S.L.M. 2.00

END WORK
117+25
60" COMBINED SEWER RELOCATION

**BRIDGE NO. LUC. 25-0200
NEBRASKA AVE. OVER EXPRESSWAY**

PROPOSED STRUCTURE
TYPE: Continuous rolled beams and welded girders with reinforced concrete slab.
SPANS: 58'-6", 73'-0", 70'-6", 104'-2 3/8", 104'-2 1/2", 92'-0", 92'-11 1/2", 97'-0 1/2", 88'-0", 110'-0", 72'-0" = 962'-5 1/8"
ROADWAY: 40'-0" Roadway with 6'-0" sidewalks. 52'-0" face to face of parapets.
LOADING: CF 2000 (57)
SKEW: Varies, 6°49'52" to 44°06'45"
WEARING SURFACE: 1" monolithic concrete.
APPROACH SLABS: (25'-0" AS-1-64)
ALIGNMENT: Tangent

NOTE: Markers will be furnished and erected on the right at the beginning and on the left at the end of Project I-75-6(17)202 by the State before acceptance of this improvement.

LEGEND

- PREVIOUS CONTRACTS
- THIS CONTRACT
- GRADING
- PAVEMENT

SCALE: 1"=200'
MADE: J.P.B. DATE: 9-18-62
TRACED: W.M.B. DATE: 9-18-62
CHECKED: J.P.B. DATE: 10-2-62

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
1068 SHEET 20.02

FED. RD. DIVISION	STATE	PROJECT	9 114
2	OHIO		

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 20
LUC. 25-2.00
GEOMETRIC PLAN



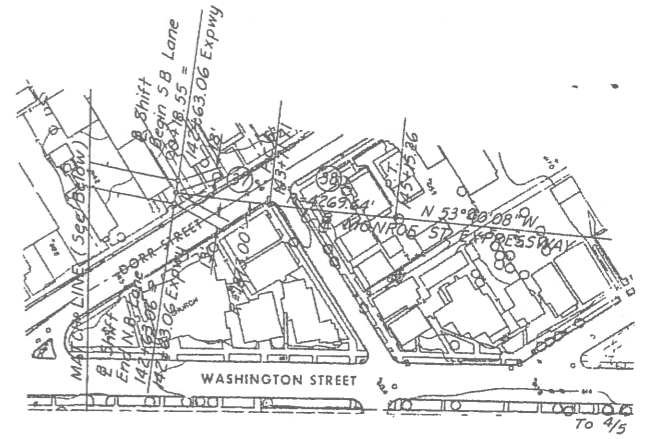
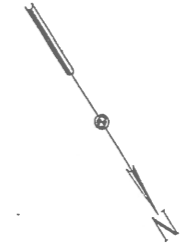
SCALE 1"=100'
 MADE R.H.P. DATE 9-21-62
 TRCD DATE
 CEN J.E.E. DATE 10-8-62

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK
 1068 SHEET 20.09

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

10
114

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 20
LUC. 25-2.00
GEOMETRIC PLAN



SCALE 1" = 100'
 MADE BY R.H.P. DATE 10-5-62
 TRCD DATE
 CHECKED BY J.E.E. DATE 10-8-62
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK
 1068 SHEET 20.10

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 20
LUC. 25-2.00
GEOMETRIC DATA

TRAVERSE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATE	
			NORTH	EAST
T-1	S.B. Lane Line 9/7 - 8/7	46+19.39 4+32.28	83,293.09	90,162.19
T-2	Ramp 2-G Line 9/7 - 8/7	26+23.05 4+18.56	83,302.45	90,172.23
T-3	N.B. Lane Line 9/7 - 8/7	96+78.30 3+78.05	83,330.07	90,201.86
T-4	S.B. Lane R.R. Survey	35+09.82 0+18.18	84,365.39	89,950.45
T-5	Ramp 2-G R.R. Survey	14+68.64 0+96.51	84,421.36	90,005.15
T-6	N.B. Lane R.R. Survey	108+94.13 2+54.56	84,534.49	90,115.51
T-7	Ramp 2-H R.R. Survey	4+89.85 3+25.40	84,585.20	90,164.98
T-8	Line 11/7 - 2/6 R.R. Survey	0+65.41 4+39.30	84,666.73	90,244.52
T-9	Nebraska R.R. Survey	12+10.62 8+40.81	84,954.14	90,524.89
T-10	Ramp 2-E Line 4/7 - 5/7	19+27.21 0+13.78	84,365.60	89,649.66
T-11	W.B. Lane Line 4/7 - 5/7	24+36.14 0+60.51	84,365.50	89,696.39
T-12	Ramp 2-F Line 4/7 - 5/7	5+89.53 1+57.07	84,365.28	89,792.94
T-13	E.B. Lane Line 4/7 - 5/7	21+37.64 1+96.53	84,365.19	89,832.41
T-14	Reloc. Weiler Line 4/7 - 3/7	2+16.38 1+43.70	84,509.34	89,636.37
T-15	E.B. Lane Line 11/7 - 2/6	27+74.83 2+49.13	84,850.45	90,245.36
T-16	Ramp 2-H Line 11/7 - 2/6	8+46.71 3+27.96	84,929.28	90,245.73
T-17	Nebraska Line 11/7 - 2/6	9+31.57 3+53.68	84,955.00	90,245.85
T-18	Ramp 2-G Line 11/7 - 2/6	8+03.54 4+30.84	85,032.16	90,246.20
T-19	W.B. Lane Line 11/7 - 2/6	14+85.98 5+30.94	85,132.25	90,246.66
T-20	Nebraska Line 1/25 - 2/25	19+66.89 7+09.10	84,951.79	91,281.16
T-21	Ramp 2-E Line 2/6 - 1/7	2+24.59 2+98.82	86,021.33	89,951.94
T-22	S.B. Lane Line 2/6 - 1/7	18+53.47 2+62.81	86,021.22	89,987.95
T-23	N.B. Lane Line 2/6 - 1/7	123+80.46 1+20.13	86,020.75	90,130.63
T-24	E.B. Lane R.R. Survey	41+59.03 19+33.03	85,735.95	91,287.58
T-25	Ramp 2-H R.R. Survey	22+59.23 3+96.66	85,781.49	91,332.00
T-26	E.B. Lane Line 1/25 - 2/25	46+53.00 16+36.93	85,734.26	91,779.77

CURVE DATA

NO.	LOCATION	STATION	COORDINATES		Δ	D	R	L	T
			NORTH	EAST					
4	E.B. Lane	17+75.80	84,089.22	89,597.56	5°55'55"	1°00'00"	5729.58	593.20	296.87
5A	E.B. Lane	35+34.19	85,413.20	90,755.78	12°15'20"	2°30'00"	2291.83	490.22	246.05
5B	E.B. Lane	39+24.17	85,650.91	91,067.29	14°30'11"	5°00'00"	1145.92	290.06	145.81
6	E.B. Lane	42+00.19	85,707.52	91,201.67	25°54'14"	10°00'00"	572.96	259.04	131.77
7	W.B. Lane	1+71.16	85,966.18	91,265.56	17°42'46"	8°00'00"	716.20	221.41	111.60
8	W.B. Lane	17+96.69	84,933.96	90,007.46	21°31'18"	3°00'00"	1909.86	717.39	362.97
9	W.B. Lane	29+81.19	83,887.35	89,434.74	5°46'39"	2°00'00"	2864.79	287.86	144.05
12A	N.B. Lane	92+83.63	82,991.20	90,402.41	4°37'31"	1°55'57"	2964.88	239.34	119.73
12B	N.B. Lane	94+92.71	83,162.77	90,282.68	7°52'29"	4°24'26"	1300.00	178.67	89.48
12C	N.B. Lane	97+33.96	83,377.91	90,172.90	15°07'00"	5°00'00"	1145.92	302.33	152.05
12D	N.B. Lane	99+73.72	83,614.23	90,123.03	7°52'29"	4°24'26"	1300.00	178.67	89.48
12E	N.B. Lane	101+82.65	83,822.92	90,108.28	4°37'31"	1°55'57"	2964.88	239.34	119.73
13	N.B. Lane	126+30.52	86,270.80	90,133.17	9°57'24"	1°30'00"	3819.72	663.79	332.73
14	N.B. Lane	136+38.73	87,267.19	89,968.68	39°02'40"	3°00'00"	1909.86	1301.48	677.15
15A	S.B. Lane	6+87.70	87,253.05	89,945.44	44°27'58"	3°30'00"	1637.02	1270.46	669.16
15B	S.B. Lane	13+42.97	86,531.64	89,995.29	3°19'26"	3°04'50"	1860.00	107.88	53.97
15C	S.B. Lane	14+68.46	86,406.13	89,996.67	1°55'34"	1°20'46"	4256.64	143.10	71.55
16A	S.B. Lane	37+02.36	84,172.80	89,946.09	1°55'36"	1°20'46"	4256.64	143.14	71.58
16B	S.B. Lane	38+27.88	84,047.27	89,947.47	3°19'24"	3°04'50"	1860.00	107.88	53.96
16C	S.B. Lane	43+01.85	83,574.40	89,980.14	28°34'53"	3°28'28"	1649.02	822.60	420.04
16D	S.B. Lane	47+76.95	83,159.10	90,245.06	4°26'21"	3°03'38"	1872.00	145.04	72.55
16E	S.B. Lane	49+45.17	83,024.66	90,346.28	2°33'39"	1°20'16"	4283.03	191.44	95.73
17	Weiler	0+68.64	84,355.89	89,576.49	68°55'40"	57°17'45"	100.00	120.30	68.64
18	Weiler	6+86.05	84,946.87	89,807.10	21°07'15"	20°00'00"	286.48	105.60	53.41
20	Ramp 2-G	1+29.92	85,511.46	90,719.60	5°11'35"	2°00'00"	2864.79	259.65	129.92
21	Ramp 2-G	9+68.05	84,918.86	90,126.65	30°00'36"	6°00'00"	954.93	500.16	255.96
22	Ramp 2-G	14+05.23	84,485.24	90,010.40	7°42'26"	2°00'00"	2864.79	385.36	192.97
23	Ramp 2-G	21+76.59	83,719.56	89,912.32	38°57'16"	3°30'00"	1637.02	1112.98	578.97
24	Ramp 2-H	5+41.64	84,637.00	90,164.56	8°17'43"	4°00'00"	1432.39	207.38	103.87
25	Ramp 2-H	8+33.88	84,926.10	90,209.72	36°27'52"	10°00'00"	572.96	364.64	188.74
26	Ramp 2-H	16+00.42	85,490.97	90,747.23	10°30'56"	2°00'00"	2864.79	525.78	263.63
27	Ramp 2-H	20+70.48	85,755.61	91,137.49	26°32'33"	6°30'00"	881.47	408.35	207.90
28	Ramp 2-E	4+32.26	85,813.72	89,947.24	3°35'08"	2°00'00"	2864.79	179.28	89.67
29	Ramp 2-E	14+71.94	84,777.76	89,858.74	22°00'55"	4°00'00"	1432.39	550.38	278.63
31	Ramp 2-F	10+86.98	84,773.16	90,077.71	33°11'34"	3°30'00"	1637.02	948.36	487.90
34	Rel. Lucas	1+13.94	85,710.34	91,640.35	55°28'07"	114°35'30"	50.00	48.41	26.29
35	Rel. Lucas	4+24.80	85,711.65	91,325.31	46°35'53"	76°23'40"	75.00	61.00	32.30
36	Rel. Lucas	6+04.90	85,578.70	91,198.54	43°26'44"	81°51'04"	70.00	53.08	27.89
37	Exp.	143+17.40	87,742.94	89,412.88	3°19'25"	3°03'32"	1873.00	108.65	54.34
38	Exp.	144+43.49	87,821.04	89,313.85	1°55'35"	1°20'31"	4269.64	143.55	71.78

TRAVERSE POINT DATA

POINT	COORDINATE	
	NORTH	EAST
1/6	87,479.11	90,257.48
2/6	86,020.35	90,250.76
1/7	86,021.81	89,808.82
2/7	84,933.30	89,804.09
3/7	84,934.10	89,637.81
4/7	84,365.63	89,635.88
5/7	84,364.98	89,924.73
5A/7	84,352.27	89,937.76
5B/7	84,456.79	90,039.72
6/7	83,881.94	89,568.41
7/7	83,571.27	89,468.55
8/7	83,076.09	89,929.44
8A/7	83,165.17	90,024.93
8B/7	83,654.02	90,030.53
9/7	83,587.87	90,478.38
10/7	84,292.41	90,927.98
11/7	84,601.32	90,244.22
1/25	84,353.79	90,900.10
2/25	85,765.23	91,799.50
2A/25	85,957.92	91,504.12
3/25	86,069.02	91,333.83
4/25	86,580.60	91,661.58
5/25	86,282.84	92,129.41

BASELINE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATE	
			NORTH	EAST
X-1	Nebraska Reloc. Weiler	4+89.46 6+94.15	84,956.37	89,803.74
X-2	Nebraska Ramp 2-E	5+56.21 12+93.26	84,956.17	89,870.48
X-3	S.B. Lane W.B. Lane	30+57.59 19+12.21	84,817.40	89,960.69
X-4	Nebraska S.B. Lane	6+49.55 29+19.08	84,955.88	89,963.82
X-5	W.B. Lane Ramp 2-F	17+69.83 12+12.67	84,929.58	90,048.30
X-6	Nebraska Ramp 2-F	7+40.03 12+39.36	84,955.60	90,054.30
X-7	Nebraska W.B. Lane	7+56.31 17+35.62	84,955.54	90,070.59
X-8	Nebraska N.B. Lane	8+05.52 113+15.05	84,955.39	90,119.79
X-9	N.B. Lane W.B. Lane	113+69.97 16+61.62	85,010.31	90,120.35
X-10	S.B. Lane Ramp 2-F	32+18.38 9+24.52	84,656.66	89,957.05
X-11	S.B. Lane E.B. Lane	33+67.38 23+24.75	84,507.69	89,953.68
X-12	E.B. Lane Ramp 2-G	24+67.42 12+69.35	84,616.34	90,046.14
X-13	N.B. Lane E.B. Lane	110+59.48 25+77.06	84,699.84	90,117.20
X-14	N.B. Lane Ramp 2-G	111+90.26 10+42.75	84,830.61	90,118.52
X-15	Nebraska Ramp 2-G	8+74.65 8+99.53	84,955.18	90,188.93
X-16	E.B. Lane Ramp 2-H	26+88.67 6+91.24	84,784.84	90,189.53
X-17	Nebraska Ramp 2-H	9+46.59 8+76.52	84,954.95	90,260.87
X-18	Nebraska E.B. Lane	10+19.83 29+11.75	84,954.73	90,334.10
X-19	S.B. Lane Indiana	10+79.74 6+89.55	86,792.76	89,963.86
X-20	N.B. Lane Indiana	131+59.74 7+62.31	86,792.58	90,036.62
X-21	Expressway Dorr			

This sheet is VOID and it is superseded by Sheet No. 11-A.

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 20
LUC. 25-2.00
GEOMETRIC DATA

TRAVERSE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATE	
			NORTH	EAST
T-1	S.B. Lane Line 9/7 - 8/7	46+19.39 4+32.28	83,293.09	90,162.19
T-2	Ramp 2-G Line 9/7 - 8/7	26+23.05 4+18.56	83,302.45	90,172.23
T-3	N.B. Lane Line 9/7 - 8/7	96+78.30 3+78.05	83,330.07	90,201.86
T-4	S.B. Lane R.R. Survey	35+09.82 0+18.18	84,365.39	89,950.45
T-5	Ramp 2-G R.R. Survey	14+68.64 0+96.51	84,421.36	90,005.15
T-6	N.B. Lane R.R. Survey	108+94.13 2+54.56	84,534.49	90,115.51
T-7	Ramp 2-H R.R. Survey	4+89.85 3+25.40	84,585.20	90,164.98
T-8	Line 11/7 - 2/6 R.R. Survey	0+65.41 4+39.30	84,666.73	90,244.52
T-9	Nebraska R.R. Survey	12+10.62 8+40.81	84,954.14	90,524.89
T-10	Ramp 2-E Line 4/7 - 5/7	19+27.21 0+13.78	84,365.60	89,649.66
T-11	W.B. Lane Line 4/7 - 5/7	24+36.14 0+60.51	84,365.50	89,696.39
T-12	Ramp 2-F Line 4/7 - 5/7	5+89.53 1+57.07	84,365.28	89,792.94
T-13	E.B. Lane Line 4/7 - 5/7	21+37.64 1+96.53	84,365.19	89,832.41
T-14	Reloc. Weiler Line 4/7 - 3/7	2+16.38 1+43.70	84,509.34	89,636.37
T-15	E.B. Lane Line 11/7 - 2/6	27+74.83 2+49.13	84,850.45	90,245.36
T-16	Ramp 2-H Line 11/7 - 2/6	8+46.71 3+27.96	84,929.28	90,245.73
T-17	Nebraska Line 11/7 - 2/6	9+31.57 3+53.68	84,955.00	90,245.85
T-18	Ramp 2-G Line 11/7 - 2/6	8+03.54 4+30.84	85,032.16	90,246.20
T-19	W.B. Lane Line 11/7 - 2/6	14+85.98 5+30.94	85,132.25	90,246.66
T-20	Nebraska Line 1/25 - 2/25	19+66.89 7+09.10	84,951.79	91,281.16
T-21	Ramp 2-E Line 2/6 - 1/7	2+24.59 2+98.82	86,021.33	89,951.94
T-22	S.B. Lane Line 2/6 - 1/7	18+53.47 2+62.81	86,021.22	89,987.95
T-23	N.B. Lane Line 2/6 - 1/7	123+80.46 1+20.13	86,020.75	90,130.63
T-24	E.B. Lane R.R. Survey	41+59.03 19+33.03	85,735.95	91,287.58
T-25	Ramp 2-H R.R. Survey	22+59.23 3+96.66	85,781.49	91,332.00
T-26	E.B. Lane Lane 1/25 - 2/25	46+53.00 16+36.93	85,734.26	91,779.77

CURVE DATA

NO.	LOCATION	STATION	COORDINATES		Δ	D	R	L	T
			NORTH	EAST					
4	E.B. Lane	17+75.80	84,089.22	89,597.56	5°55'55"	1°00'00"	5729.58	593.20	296.87
5A	E.B. Lane	35+34.19	85,413.20	90,755.78	12°15'20"	2°30'00"	2291.83	490.22	246.05
5B	E.B. Lane	39+24.17	85,650.91	91,067.29	14°30'11"	5°00'00"	1145.92	290.06	145.81
6	E.B. Lane	42+00.19	85,707.52	91,201.67	25°54'14"	10°00'00"	572.96	259.04	131.77
7	W.B. Lane	1+71.16	85,966.18	91,265.56	17°42'46"	8°00'00"	716.20	221.41	111.60
8	W.B. Lane	17+96.69	84,933.96	90,007.46	21°31'18"	3°00'00"	1909.86	717.39	362.97
9	W.B. Lane	29+81.19	83,887.35	89,434.74	5°46'39"	2°00'00"	2864.79	287.86	144.05
12A	N.B. Lane	92+83.63	82,991.20	90,402.41	4°37'31"	1°55'57"	2964.88	239.34	119.73
12B	N.B. Lane	94+92.71	83,162.77	90,282.68	7°52'29"	4°24'26"	1300.00	178.67	89.48
12C	N.B. Lane	97+33.96	83,377.91	90,172.90	15°07'00"	5°00'00"	1145.92	302.33	152.05
12D	N.B. Lane	99+73.72	83,614.23	90,123.03	7°52'29"	4°24'26"	1300.00	178.67	89.48
12E	N.B. Lane	101+82.65	83,822.92	90,108.28	4°37'31"	1°55'57"	2964.88	239.34	119.73
13	N.B. Lane	126+30.52	86,270.80	90,133.17	9°57'24"	1°30'00"	3819.72	663.79	332.73
14	N.B. Lane	136+38.73	87,267.19	89,968.68	39°02'40"	3°00'00"	1909.86	1301.48	677.15
15A	S.B. Lane	6+87.70	87,253.05	89,945.44	44°27'58"	3°30'00"	1637.02	1270.46	669.16
15B	S.B. Lane	13+42.97	86,531.64	89,995.29	3°19'26"	3°04'50"	1860.00	107.90	53.97
15C	S.B. Lane	14+68.46	86,406.13	89,996.67	1°55'34"	1°20'46"	4256.64	143.10	71.55
16A	S.B. Lane	37+02.36	84,172.80	89,946.09	1°55'36"	1°20'46"	4256.64	143.14	71.58
16B	S.B. Lane	38+27.88	84,047.27	89,947.47	3°19'24"	3°04'50"	1860.00	107.88	53.96
16C	S.B. Lane	43+01.85	83,574.40	89,980.14	28°34'53"	3°28'28"	1649.02	822.60	420.04
16D	S.B. Lane	47+76.95	83,159.10	90,245.06	4°26'21"	3°03'38"	1872.00	145.04	72.55
16E	S.B. Lane	49+45.17	83,024.66	90,346.28	2°33'39"	1°20'16"	4283.03	191.44	95.73
17	Weiler	0+68.64	84,355.89	89,576.49	68°55'40"	57°17'45"	100.00	120.30	68.64
18	Weiler	6+86.05	84,946.87	89,807.10	21°07'15"	20°00'00"	286.48	105.60	53.41
20	Ramp 2-G	1+29.92	85,511.46	90,719.60	5°11'35"	2°00'00"	2864.79	259.65	129.92
21	Ramp 2-G	9+68.05	84,918.86	90,126.65	30°00'36"	6°00'00"	954.93	500.16	255.96
22	Ramp 2-G	14+05.23	84,485.24	90,010.40	7°42'26"	2°00'00"	2864.79	385.36	192.97
23	Ramp 2-G	21+76.59	83,719.56	89,912.32	38°57'16"	3°30'00"	1637.02	1112.98	578.97
24	Ramp 2-H	5+41.64	84,637.00	90,164.56	8°17'43"	4°00'00"	1432.39	207.38	103.87
25	Ramp 2-H	8+33.88	84,926.10	90,209.72	36°27'52"	10°00'00"	572.96	364.64	188.74
26	Ramp 2-H	16+00.42	85,490.97	90,747.23	10°30'56"	2°00'00"	2864.79	525.78	263.63
27	Ramp 2-H	20+70.48	85,755.61	91,137.49	26°32'33"	6°30'00"	881.47	408.35	207.90
28	Ramp 2-E	4+32.26	85,813.72	89,947.24	3°35'08"	2°00'00"	2864.79	179.28	89.67
29	Ramp 2-E	14+71.94	84,777.76	89,858.74	22°00'55"	4°00'00"	1432.39	550.38	278.63
31	Ramp 2-F	10+86.98	84,773.16	90,077.71	33°11'34"	3°30'00"	1637.02	948.36	487.90
34	Rel. Lucas	1+13.94	85,710.34	91,640.35	55°28'07"	114°35'30"	50.00	48.41	26.29
35	Rel. Lucas	4+24.80	85,711.65	91,325.31	46°35'53"	76°23'40"	75.00	61.00	32.30
36	Rel. Lucas	6+04.90	85,578.70	91,198.54	43°26'44"	81°51'04"	70.00	53.08	27.89
37	Exp.	143+17.40	87,742.94	89,412.88	3°19'25"	3°03'32"	1873.00	108.65	54.34
38	Exp.	144+43.49	87,821.04	89,313.85	1°55'35"	1°20'13"	4269.64	143.55	71.78

Note: Curves 12A & 12B, 12D & 12E, 15B & 15C, 16A & 16B, and 16D & 16E simulate spiral curves.

BASELINE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATE	
			NORTH	EAST
X-1	Nebraska Reloc. Weiler	4+89.46 6+94.15	84,956.37	89,803.74
X-2	Nebraska Ramp 2-E	5+56.21 12+93.26	84,956.17	89,870.48
X-3	S.B. Lane W.B. Lane	30+57.59 19+12.21	84,817.40	89,960.69
X-4	Nebraska S.B. Lane	6+49.55 29+19.08	84,955.88	89,963.82
X-5	W.B. Lane Ramp 2-F	17+69.83 7+56.31	84,929.58	90,048.30
X-6	Nebraska Ramp 2-F	7+40.03 12+39.36	84,955.60	90,054.30
X-7	Nebraska W.B. Lane	7+56.31 17+35.62	84,955.54	90,070.59
X-8	Nebraska N.B. Lane	8+05.52 113+15.05	84,955.39	90,119.79
X-9	N.B. Lane W.B. Lane	113+69.97 16+61.62	85,010.31	90,120.35
X-10	S.B. Lane Ramp 2-F	32+18.38 9+24.52	84,656.66	89,957.05
X-11	S.B. Lane E.B. Lane	33+67.38 23+24.75	84,507.69	89,953.68
X-12	E.B. Lane Ramp 2-G	24+67.42 12+69.35	84,616.34	90,046.14
X-13	N.B. Lane E.B. Lane	110+59.48 25+77.06	84,699.84	90,117.20
X-14	N.B. Lane Ramp 2-G	111+90.26 10+42.75	84,830.61	90,118.52
X-15	Nebraska Ramp 2-G	8+74.65 8+99.53	84,955.18	90,188.93
X-16	E.B. Lane Ramp 2-H	26+88.67 6+91.24	84,784.84	90,189.53
X-17	Nebraska Ramp 2-H	9+46.59 8+76.52	84,954.95	90,260.87
X-18	Nebraska E.B. Lane	10+19.83 29+11.75	84,954.73	90,334.10
X-19	S.B. Lane Indiana	10+79.74 6+89.55	86,792.76	89,963.86
X-20	N.B. Lane Indiana	131+59.74 7+62.31	86,792.58	90,036.62
X-21	Expressway Dorr			

TRAVERSE POINT DATA

POINT	COORDINATE	
	NORTH	EAST
1/6	87,479.11	90,257.48
2/6	86,020.35	90,250.76
1/7	86,021.81	89,808.82
2/7	84,933.30	89,804.09
3/7	84,934.10	89,637.81
4/7	84,365.63	89,635.88
5/7	84,364.98	89,924.73
5A/7	84,352.27	89,937.76
5B/7	84,456.79	90,039.72
6/7	83,881.94	89,568.41
7/7	83,571.27	89,468.55
8/7	83,076.09	89,929.44
8A/7	83,165.17	90,024.93
8B/7	83,654.02	90,030.53
9/7	83,587.87	90,478.38
10/7	84,292.41	90,927.98
11/7	84,601.32	90,244.22
1/25	84,353.79	90,900.10
2/25	85,765.23	91,799.50
2A/25	85,957.92	91,504.12
3/25	86,069.02	91,333.83
4/25	86,580.60	91,661.58
5/25	86,282.84	92,129.41

BENCH MARK DATA

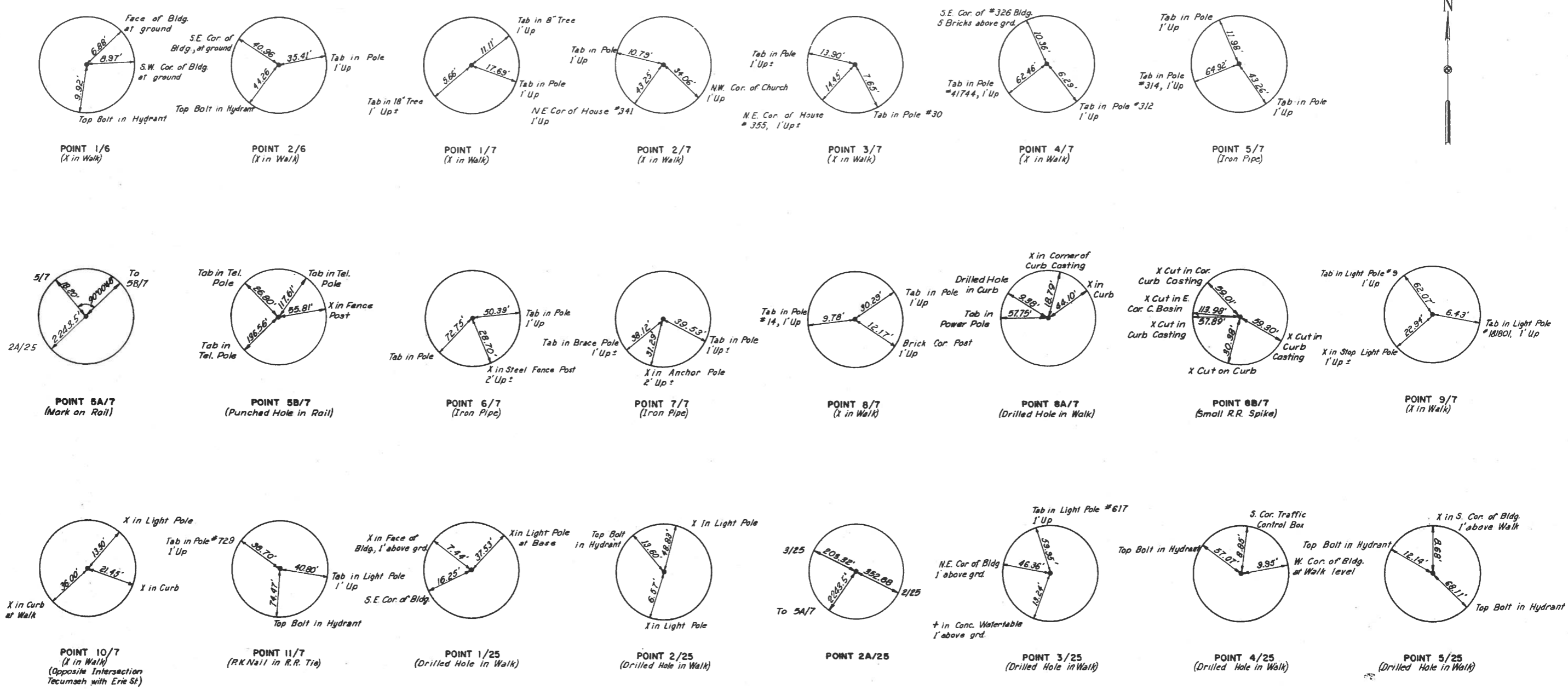
B.M. NO.	DESCRIPTION	ELEVATION
83	Arrowhead on Hydrant, 14th St. and Washington	609.02
84	S.E. Bolt on Hydrant, 13th St. and Indiana	608.56
85	Arrowhead on Hydrant, 13th St. and Avondale	611.62
86	N.E. Bolt on Hydrant, 150' W. of Weiler and Belmont	607.12
93	S. Bolt on Hydrant, Weiler and Wabash	609.57
94	N.E. Bolt on Hydrant, Nebraska and Wyandotte	616.59
95	N.E. Bolt on Hydrant, Wyandotte and Tecumseh	612.55
95A	N. Bolt on Hydrant, Wyandotte and Hamilton	602.69
96	Spike in P. Pole, S.W. corner Coll. Ave. Ext. and Vinton	590.61
97	S. Bolt on Hydrant, Logan and Erie	603.59
98	Arrowhead on Hydrant, Erie and Coll. Ave. Ext.	595.91
99	Arrowhead on Hydrant, Erie and Hamilton	586.58
100	N. Bolt on Hydrant, Erie and Tecumseh	587.10
100A	On curb at W. Corner of Civic Auditorium, Erie and Nebraska	585.82
100B	On foundation at W. Cor. of Brick Bldg. (Ohio Butcher Supply Co.) Lafayette and Erie	595.00
100C	N. Bolt on Hydrant, E. Corner of Erie and Washington	596.64
101	S.E. Bolt on Hydrant, S. W. of 1st Track on Tecumseh	593.02
102	N.W. Bolt on Hydrant, 15th St. and Nebraska	596.05
103	N.W. Bolt on Hydrant, 15th St. and Vance	594.68
104	N.E. Bolt on Hydrant, Vance and Weiler	601.98

This Sheet supersedes Sheet No. 11.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 20
LUC. 25-2.00
TRAVERSE TIES



#3138

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC. 24-24.88
LUC. 25-2.05
LUCAS COUNTY
CITY OF TOLEDO

FED. RD. DIVISION	STATE	FED. AID PROJ. NO.	
2	OHIO	U-1120(4) 1-75-6(18)202	147

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
LUC. 24-24.88
LUC. 25-2.05

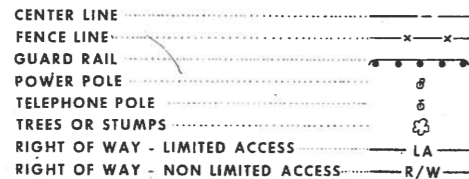
SEP 17 1965
GROUND PHOTOLAB

U-1120(4)
1-75-6(18)202
LIMITED ACCESS

1963 SPECIFICATIONS

TOLEDO EXPRESSWAY SYSTEM - PART 21
ANTHONY WAYNE
DOWNTOWN INTERCHANGE

CONVENTIONAL SIGNS



INDEX OF SHEETS

1	TITLE SHEET	46-54	SEWER PROFILES
2	SCHEMATIC PLAN	55	CRADLE AND TIE BOLT DETAILS
3, 4, & 4A	GENERAL NOTES	56-59	MISCELLANEOUS DETAILS
5, 6, & 6A	SUMMARY OF QUANTITIES	60	WATERSHED AREAS
7-9	TYPICAL SECTIONS	61	EXISTING DRAINAGE STRUCTURES
10	PAVED SHOULDER DETAILS	62-64	EXISTING SEWERS AND PROPOSED UNDERDRAIN LAYOUT
11-13	GEOMETRICS		UNDERDRAIN DETAILS
14	TRAVERSE TIES	65&66	EXISTING UTILITIES
14A&15-17	PAVEMENT PLANS	67-71	AND PAVEMENT REMOVAL
18-21	INTERSECTION DETAILS		CROSS SECTIONS
22-28, 28A	QUANTITY CALCULATIONS	72-95	RIGHT OF WAY
29-36	PROFILES	96-106	LIGHTING
37-39	GRADING AND FENCING	107-115	SIGNING DETAILS
40-42	SLOPE TREATMENT	116-120	STRUCTURES
43-45	DRAINAGE PLANS	121-147	

LINE DATA

LUC. 24-24.88(ANTHONY WAYNE TRAIL EXTENSION) U-1120(4)

BEGIN PROJECT	STA. 19+30.57	EASTBOUND LANE
END PROJECT	STA. 46+50	EASTBOUND LANE
NET LENGTH OF PROJECT	2719.43 FEET OR 0.515 MILES	
BEGIN WORK	7+88	ANTHONY WAYNE TRAIL
END WORK	STA. 48+18	EASTBOUND LANE
LENGTH OF WORK - EASTBOUND LANE	4030 FEET	
ADD FOR: MICHIGAN STREET	485 FEET	
RELOCATED LUCAS STREET	723 FEET	
NET LENGTH OF WORK	5298 FEET OR 0.992 MILES	

LUC. 25-2.05(MONROE EXPRESSWAY) 1-75-6(18)202

BEGIN PROJECT	STA. 116+20.00	NORTHBOUND LANE
END PROJECT	STA. 130+00.00	NORTHBOUND LANE
NET LENGTH OF PROJECT	1380.00 FEET OR 0.261 MILES	
BEGIN WORK	STA. 105+70	NORTHBOUND LANE
END WORK	STA. 131+50	NORTHBOUND LANE
NET LENGTH OF WORK	2580 FEET OR 0.488 MILES	

TOTAL LENGTH OF PROJECTS	4099.43 FEET OR 0.776 MILES	
TOTAL LENGTH OF WORK	7818 FEET OR 1.481 MILES	

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

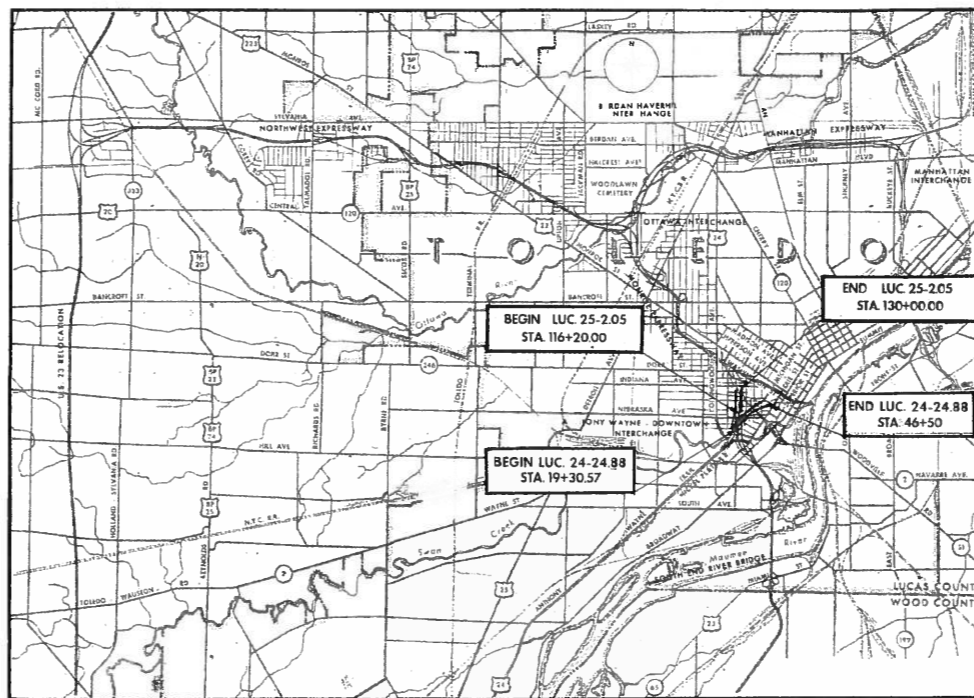
KANSAS CITY CLEVELAND NEW YORK

R. A. Bergendoff

H.G. SOURS
ASSOCIATE
COLUMBUS

SUPPLEMENTAL SPECIFICATIONS

NUMBER	DATE	NUMBER	DATE
L-129	R4-5-61	L-120	R1-2-62
CE-101.04	5-22-56	B-112	8-21-61
M-206.14	7-15-49	I-212	R6-23-61
M-106-6(c)	2-17-59		



LOCATION MAP



PORTION TO BE IMPROVED

OTHER SCALES
PLAN 1"=50'
PROFILE HOR. 1"=100'
VERT. 1"=10'
CROSS SECTIONS 1"=10'

STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
R-1	7-15-58	I-15 No. 1	11-15-60
B-T-70-71	11-15-60	I-15 No. 2-A	8-17-60
B-T-71R	3-2-53	G-7.07	6-1-56
L-1, No. 1	7-1-55	L-1	4-1-50
T-1	9-12-60	L-3	4-1-50
DR-1	1-3-55	L-3-A	4-1-50
I-1	11-15-60	FAC I-1	3-8-63
I-8 C.B. 2-2-A & B	2-1-63	FAC I-2	3-8-63
I-8 C.B. No. 3	2-1-63	T-35	1-2-56
I-8 C.B. No. 3A	2-1-63	F-1	2-1-63
I-8 C.B. No. 5	2-1-63	F-3	2-1-63
I-8 C.B. No. 6	2-1-63	I-21-23	8-1-56
I-8 M.H. No. 1	2-1-63	I-15 No. 6	2-1-63
I-8 M.H. No. 1A	2-1-63	AS-1-54	7-5-62
I-8 M.H. No. 2	2-1-63	I-15 No. 4	12-1-54
I-12	2-1-63		
I-14G	1-22-52		

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, 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 IN THE PLANS AND ESTIMATE.

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

APPROVED DATE 2-20-63
APPROVED DATE 3-1-63
APPROVED DATE 2-1-63
APPROVED DATE MARCH 4, 1963
APPROVED DATE 4-18-63
APPROVED DATE 4-22-63
APPROVED DATE 4-23-63
APPROVED DATE 4-22-63
APPROVED DATE 5-6-63
APPROVED DATE
APPROVED DATE 5-16-63
APPROVED DATE

Bernard H. Keating
COUNTY ENGINEER, LUCAS COUNTY
Frederick W. ...
CITY MANAGER, CITY OF TOLEDO
W.P. ...
DIRECTOR OF PUBLIC SERVICE, CITY OF TOLEDO
Thomas M. ...
DIVISION DEPUTY DIRECTOR
W. ...
ENGINEER OF BRIDGES
B.N. ...
ENGINEER OF LOCATION AND DESIGN
R.E. ...
DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
H. ...
DEPUTY DIRECTOR OF RIGHT OF WAY
J. ...
DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
...
FIRST ASSISTANT DIRECTOR
...
DIRECTOR OF HIGHWAYS
...
CHIEF ENGINEER, NEW YORK, ST. LOUIS, AND CHICAGO RAILROAD

Sheets 5, 28 and 38 Revised 7-12-63 C.E.H.

SEP 17 1965
GROUND PHOTOLAB

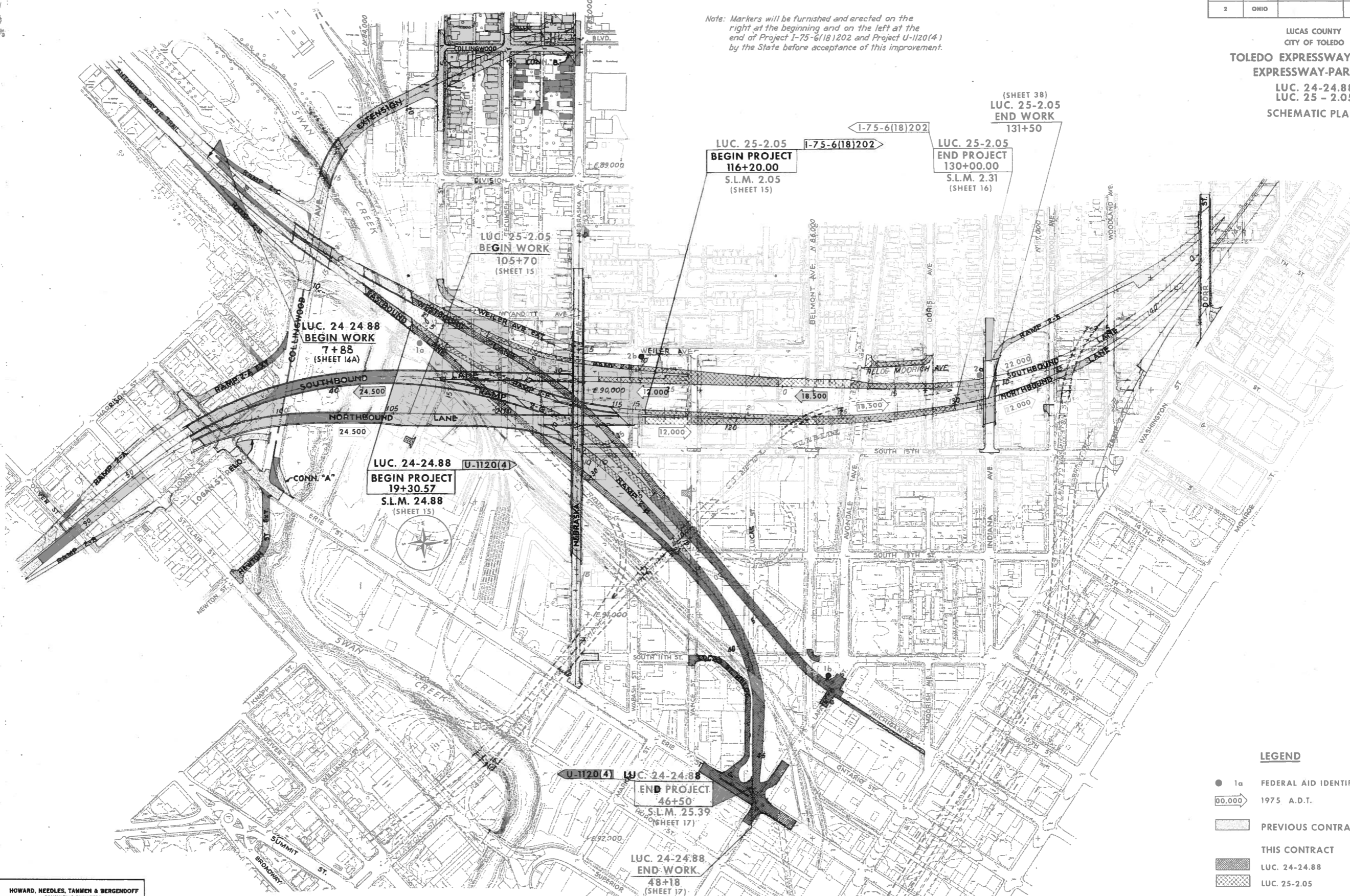
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER DATE _____

FILE NO.	LUCAS COUNTY
SEC.	LUC. 24-24.88 LUC. 25-2.05 PART 21
DATE OF LETTING	196
CONTRACT NO.	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

LUCAS COUNTY
CITY OF TOLEDO
**TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 21**
LUC. 24-24.88
LUC. 25-2.05
SCHEMATIC PLAN

Note: Markers will be furnished and erected on the right at the beginning and on the left at the end of Project I-75-6(18)202 and Project U-1120(4) by the State before acceptance of this improvement.



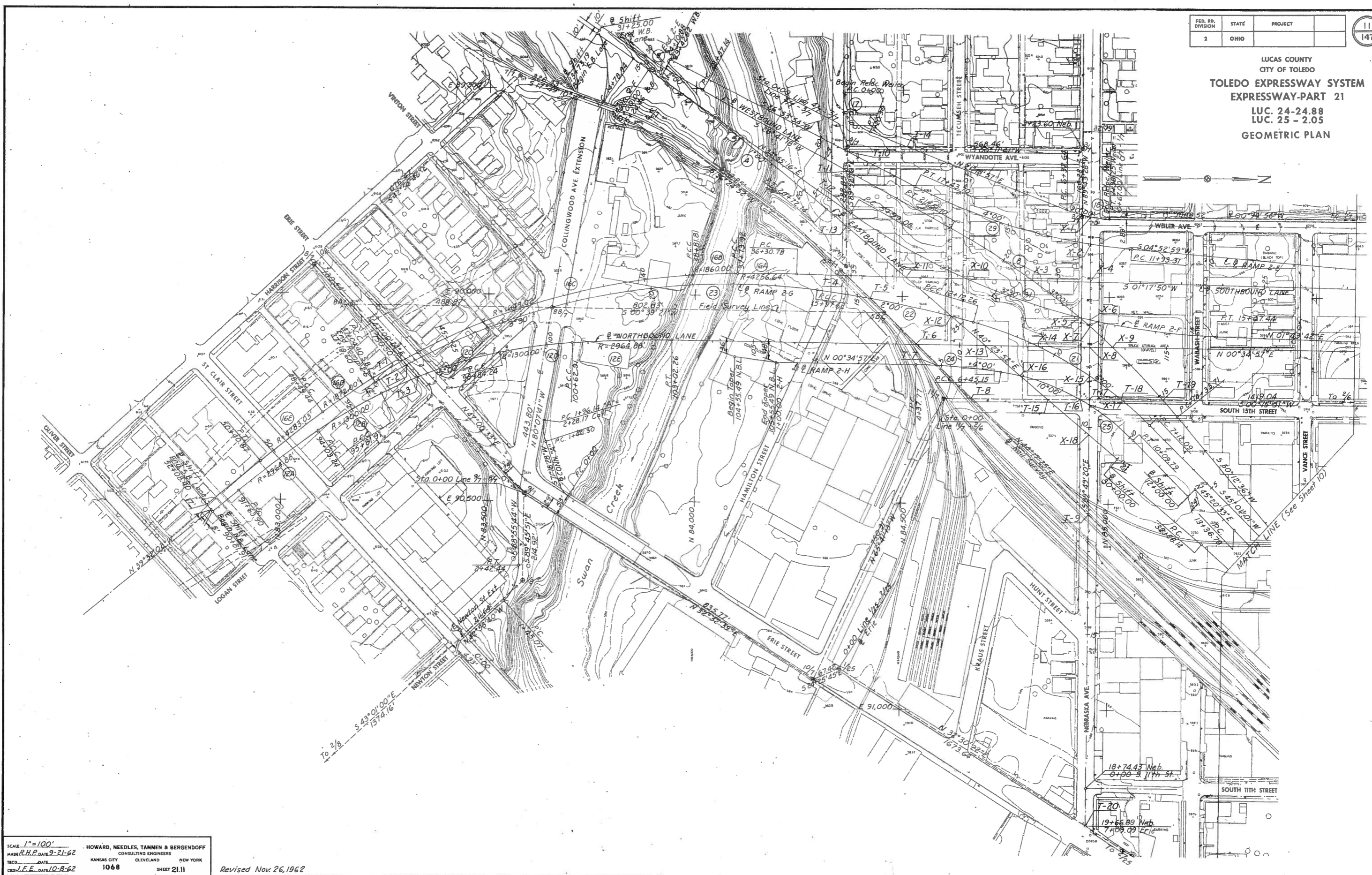
LEGEND

- 1a FEDERAL AID IDENTIFICATION SIGNS
- 00,000 1975 A.D.T.
- PREVIOUS CONTRACTS
- THIS CONTRACT
- LUC. 24-24.88
- LUC. 25-2.05

SCALE 1"=200'
MADE JPB DATE 12-17-62
TCD: DATE
CWB: DATE

HOWARD, NEEDLES, TAMMEN & BERGENOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
1068 SHEET 21.02

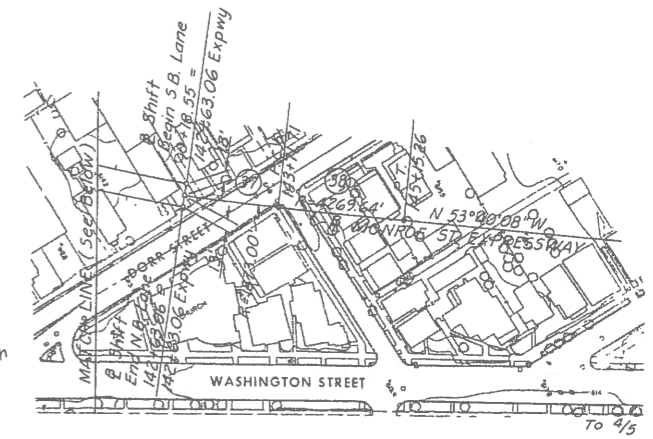
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 21
LUC. 24-24.88
LUC. 25-2.05
GEOMETRIC PLAN



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

12
147

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 21
LUC. 24-24.88
LUC. 25-2.05
GEOMETRIC PLAN



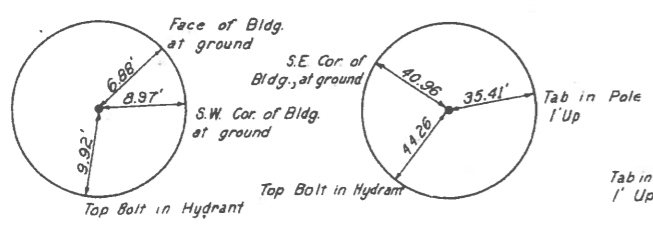
SCALE: 1" = 100'
MADE R.H.P. DATE 10-5-62
TRC DATE 10-8-62
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
1068 SHEET 21.12

Revised Nov. 26, 1962

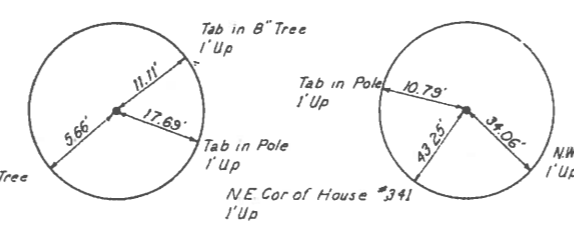
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

14
147

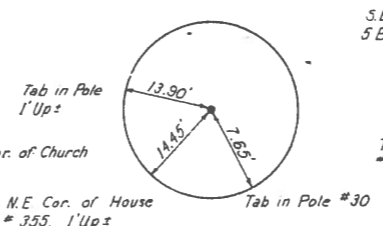
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY-PART 21
LUC. 24-24.88
LUC. 25 - 2.05
TRAVERSE TIES



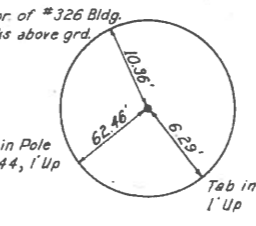
POINT 1/6
(X in Walk)



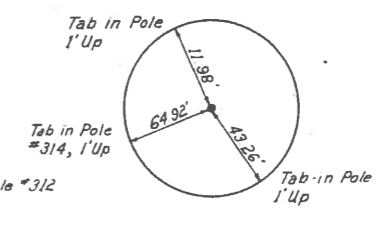
POINT 1/7
(X in Walk)



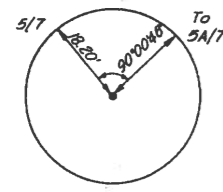
POINT 3/7
(X in Walk)



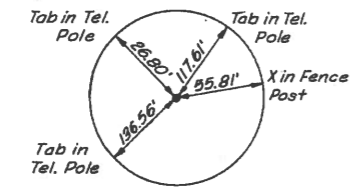
POINT 4/7
(X in Walk)



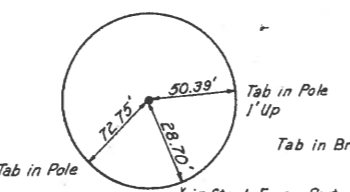
POINT 5/7
(Iron Pipe)



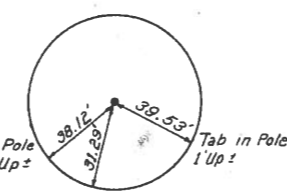
POINT 5A/7
(Mark on Rail)



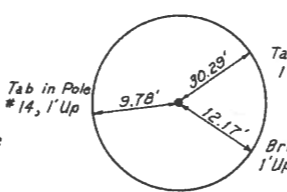
POINT 5B/7
(Punched Hole in Rail)



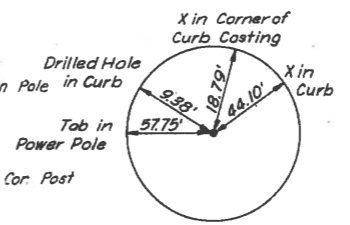
POINT 6/7
(Iron Pipe)



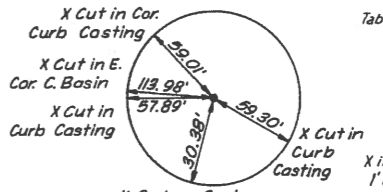
POINT 7/7
(Iron Pipe)



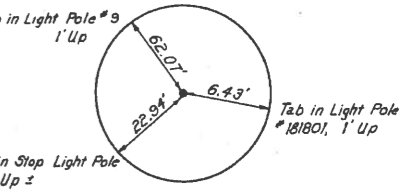
POINT 8/7
(X in Walk)



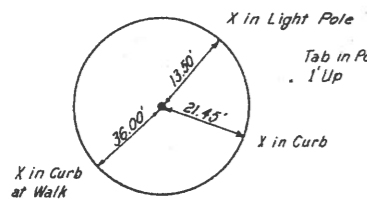
POINT 8A/7
(Drilled Hole in Walk)



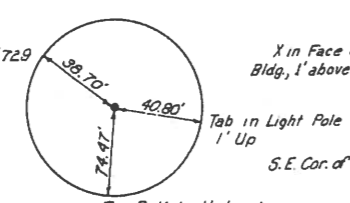
POINT 8B/7
(Small R.R. Spike)



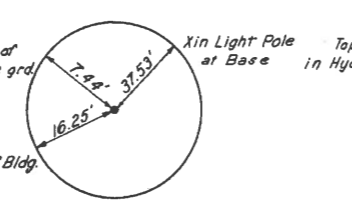
POINT 9/7
(X in Walk)



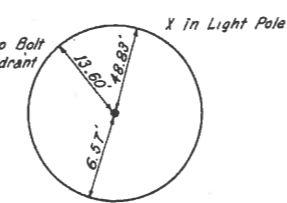
POINT 10/7
(X in Walk)
(Opposite Intersection Tecumseh with Erie St.)



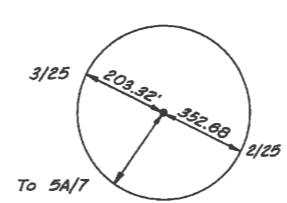
POINT 11/7
(R.K. Nail in R.R. Tie)



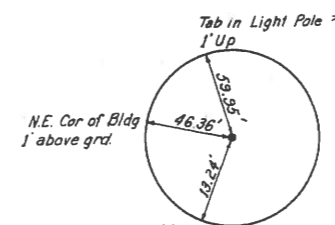
POINT 1/25
(Drilled Hole in Walk)



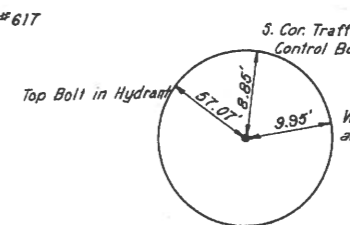
POINT 2/25
(Drilled Hole in Walk)



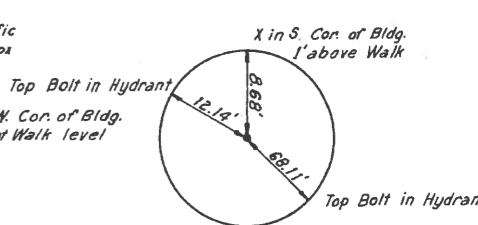
POINT 2A/25



POINT 3/25
(Drilled Hole in Walk)



POINT 4/25
(Drilled Hole in Walk)



POINT 5/25
(Drilled Hole in Walk)

3139

SHEETS
213, 215-218, 221, 224-229, 231, 232,
234, 236-239, 242, 243, 246-250, 252,
253, 255, 258, 262, 263, 265, 266

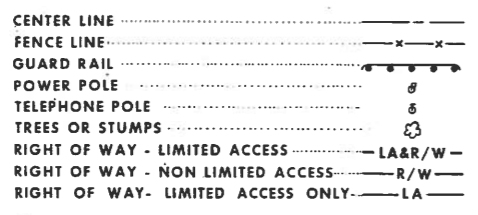
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC. 75-2.31
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM - PART 25
MONROE EXPRESSWAY
INDIANA TO LINCOLN

FED. RD. DIVISION	STATE	FED. AID PROJ. NO.	1
2	OHIO	1-75-6(20)202	268

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
LUC. 75-2.31

I-75-6(20)202
LIMITED ACCESS

CONVENTIONAL SIGNS



Revised 10-5-66
Sheet No. 213, 215, 216, 217, 218
221 and 222 revised 3-10-67, 8-22-67
Sheet No. 214 revised 12-4-67 Ed.

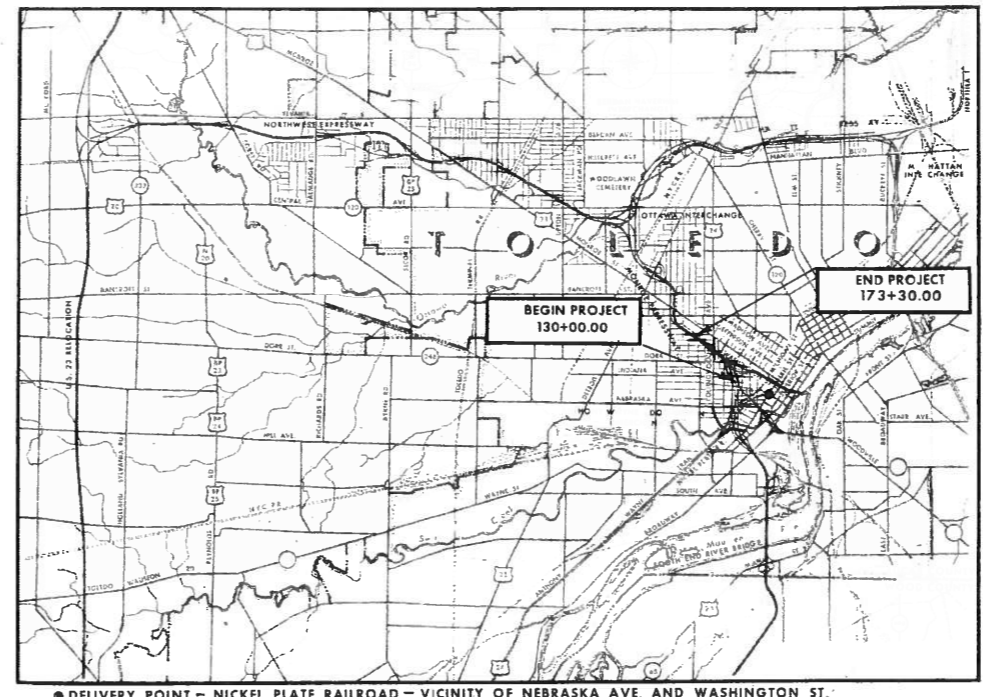
INDEX OF SHEETS

1 COVER SHEET	98-99 EXISTING DRAINAGE STRUCTURES
2 SCHEMATIC PLAN & DESIGN DESIGNATION	100-102 MISCELLANEOUS DETAILS
3-5 GENERAL NOTES	103 WATERSHED AREAS
6-10 SUMMARY OF QUANTITIES	104-108A EXISTING UTILITIES
11-23 QUANTITY CALCULATIONS	109-122 LIGHTING
24-28 TYPICAL SECTIONS	123-138 TRAFFIC CONTROL PLANS
29 ENTRANCE & EXIT DETAILS	* 139-140 DELINEATOR AND PAVEMENT MARKING STANDARDS
30-32 GEOMETRICS	141-153A RIGHT OF WAY
33 TRAVERSE TIES	154-188 CROSS SECTIONS
34-38 PAVEMENT PLANS	189 BRIDGES - GENERAL NOTES
39-44 INTERSECTION DETAILS	
45 ALLEY AND TURNAROUND DETAILS	
46-48 APPROACH SLAB DETAILS	190-201 BRIDGE NO. LUC. 75-0233
49-52 DRIVEWAY AND STEP DETAILS	202-212 BRIDGE NO. LUC. 75-0257
53-59 PROFILES	213-227 BRIDGE NO. LUC. 75-0280
60-64 GRADING AND FENCING	228-248 BRIDGE NO. LUC. 75-0300
65-76 DRAINAGE PLANS	249-266 BRIDGE NO. LUC. 75-0315
77-95 SEWER PROFILES	267-268 RETAINING WALL
96-97 UNDERDRAINS	

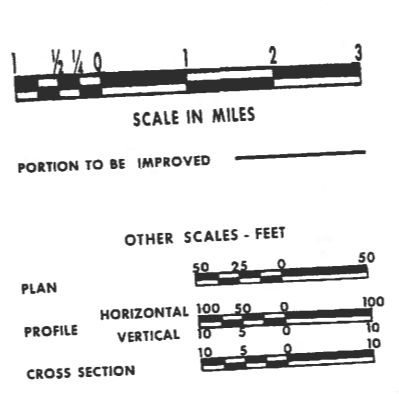
PAVEMENT REMOVAL SHOWN ON GRADING PLANS
* SEE QUANTITY CALCULATIONS FOR TABULATIONS

LINE DATA

BEGIN PROJECT	STA. 130+00.00
END PROJECT	STA. 173+30.00
NET LENGTH OF PROJECT	4330 FEET OR 0.820 MILES
BEGIN WORK	STA. 129+90
END WORK	STA. 179+77
LENGTH OF WORK-EXPRESSWAY	4987 FEET
ADD FOR: INDIANA AVENUE	709 FEET
DORR STREET	806 FEET
COLLINGWOOD AVENUE	1748 FEET
OAKWOOD AVENUE	875 FEET
LINCOLN AVENUE	825 FEET
22ND ST. AND WASHINGTON ST.	972 FEET
NET LENGTH OF WORK	10,922 FEET OR 2.068 MILES



LOCATION MAP

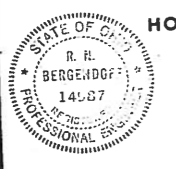


STANDARD DRAWINGS			
NUMBER	DATE	NUMBER	DATE
BP-1	6-1-65	CB-6	6-1-65
BP-2	6-1-65	I-2	6-1-65
BP-3	6-1-65	I-2A	6-1-65
BP-4	6-1-65	MH-1	6-1-65
BP-5	6-1-65	MH-1A	8-1-66
BP-6	6-1-65	MH-2	6-1-65
BP-7	1-7-66	GR-1	6-1-65
F-1	6-1-65	GR-2A	9-1-65
F-3	6-1-65	GR-6	6-1-65
FACI-1	6-1-65	L-1	6-1-65
FACI-2	6-1-65	BR-1-65	11-28-65
MC-1	6-1-65	AS-1-54	8-10-65
MC-2	6-1-65	FSB-1-62	1-15-63
MC-3	5-1-66	AR-1-57	4-2-62
MC-4	6-1-65	RB-1-55	2-2-59
CB-2-2AEB	6-1-65	SD-1-65	11-8-65
MC-6	6-1-65	HL-1	11-1-65
CB-3	6-1-65	HL-2	11-1-65
CB-3A	6-1-65	HL-3	11-1-65
CB-5	6-1-65	HL-4	1-1-66

NOTE:
PROJECT DESIGNATION LUC 25-2.31 APPEARING THROUGHOUT THESE PLANS SHALL BE CONSIDERED TO READ LUC. 75-2.31

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER
DATE _____

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
R. H. Bergendoff



Sheet Nos 2, 6, 7, 8, 9, 11, 14, 15, 16, 17, 18 & 93 revised 10-13-66 C.E.H.
Sheet Nos. 111, 112, 113 & 114 revised 11-17-66 C.E.H.
Sheets 209, 229 to 239 inclusive, 250 to 259 inclusive revised 12-12-66.
Sheet No. 213 revised 1-13-67
Sheet No. 243 revised 2-3-67

SUPPLEMENTAL SPECIFICATIONS			
NUMBER	DATE	NUMBER	DATE
808	2-7-66		
811	3-29-65		
825	4-22-65		
828	3-21-66		
1001	3-21-66		
806	3-3-66		
815	8-6-65		
816	8-6-65		

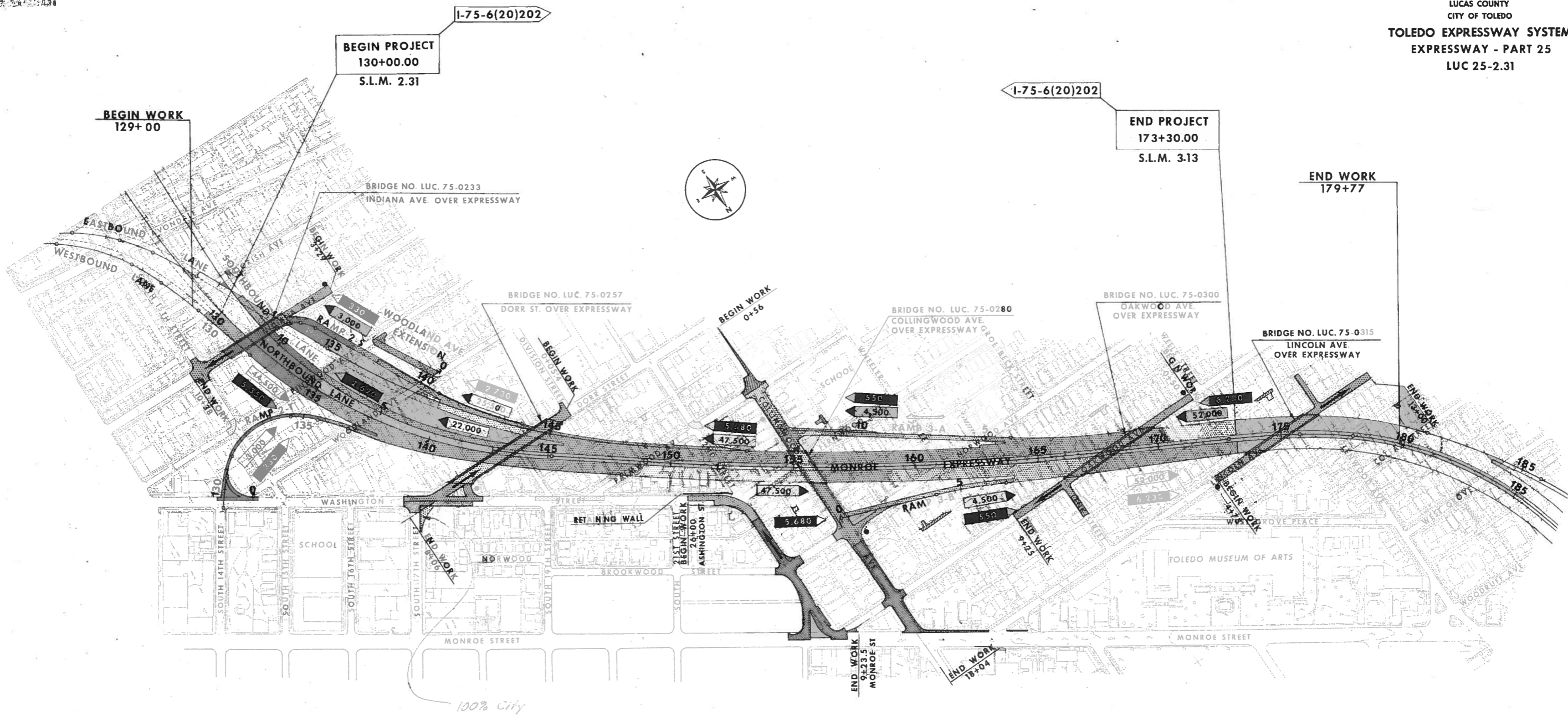
FILE NO.	LUCAS COUNTY
	SEC. LUC. 75-2.31 PART 25
DATE OF LETTING	196
CONTRACT NO.	

MAR 06 1975

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

2
268

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 25
LUC 25-2.31



DESIGN DESIGNATION
CURRENT A.D.T. NEW FACILITY 1966 ~ 32,700
DESIGN YEAR A.D.T. 1975
D.V.H. 1975 47,500
D. (DIRECTIONAL DISTRIBUTION) 60%-40%
T. (PERCENT B AND C TRUCKS) 5%
V. (DESIGN SPEED) 60M.P.H. EXPRESSWAY

NOTE: 100% City appearing throughout these plans shall be considered to read 100% County.

- LEGEND**
- PROJECT LUC. 25-2.31
 - 100% CITY PARTICIPATION
 - FEDERAL AID IDENTIFICATION SIGNS
 - 1975 A.D.T.
 - 1975 D.H.V.

SCALE 1"=200'
MADE BY NMB DATE 10-19-64
TECH DAT DATE 7-22-65
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

REV 10-13-66 CEH
REV 8-8-66

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	30
2	OHIO		266

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 25
LUC 25-2.31



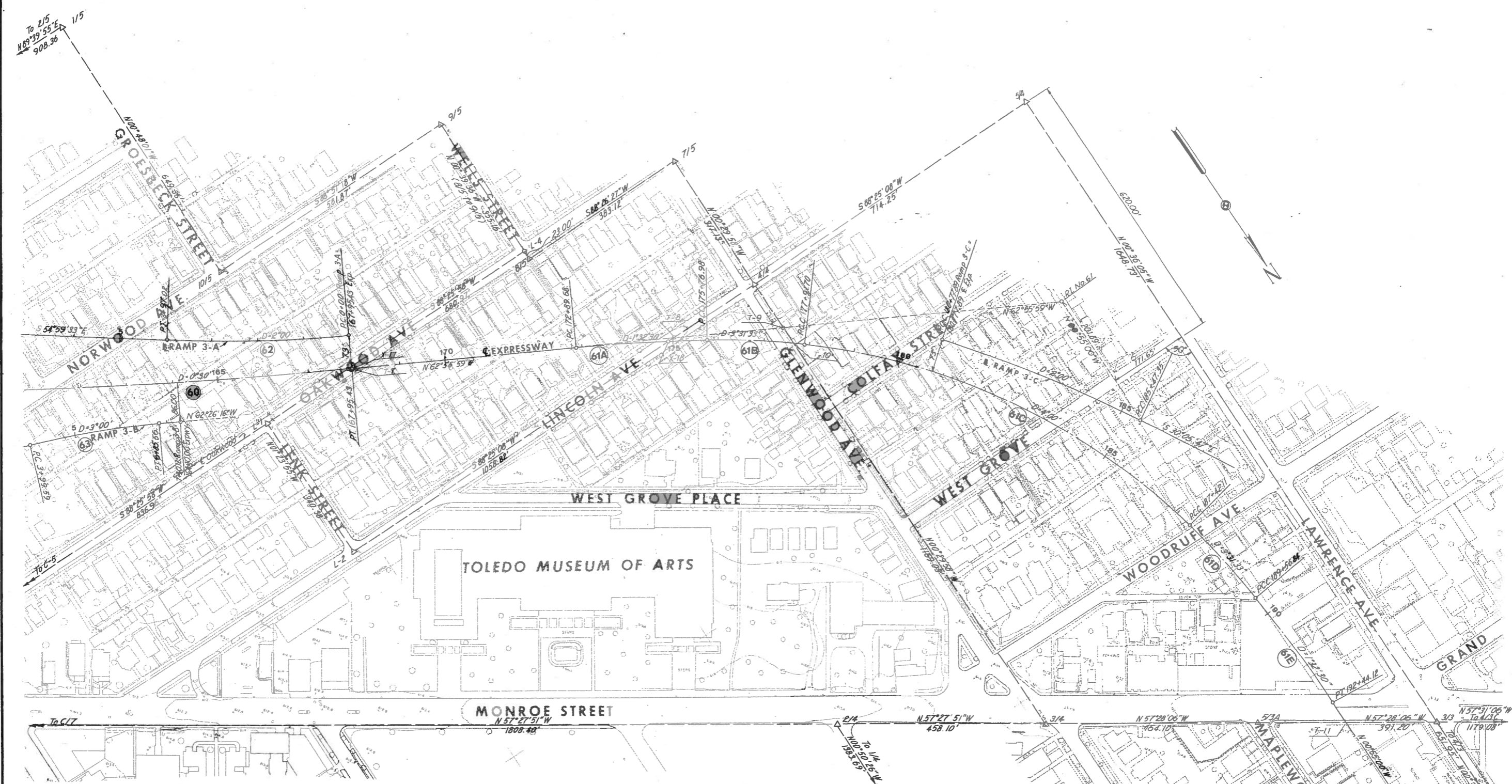
SCALE 1"=100'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE P.M. DATE 12-1-64 CONSULTING ENGINEERS
TRCD. DATE 1-1-65
CKD. JLS DATE 8-14-65 KANSAS CITY CLEVELAND NEW YORK

GEOMETRIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

31
268

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 25
LUC 25-2.31



SCALE 1" = 100'
MADE PER DATE 12-17-64
TECD. DATE 8-15-65
CKD. DATE 8-15-65
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

GEOMETRIC PLAN

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 25
LUC 25-2.31

CURVE DATA

NO.	LOCATION	P.C. STATION	P.T. STATION	P.I. STATION		Δ	D	R	L	T	
				COORDINATES							
				NORTH	EAST						
14	N.B.L.	129+61.58	142+63.06	136+38.73	87,267.19	89,968.68	39°02'40"	3°00'00"	1909.86	1301.48	677.15
15A	S.B.L.	0+18.55	12+89.01	6+87.70	87,253.05	89,945.44	44°27'58"	3°30'00"	1637.02	1270.46	669.16
37	Mon. Exp.	142+63.06	143+71.71	143+17.40	87,742.94	89,412.88	3°19'25"	3°03'32"	1873.00	108.65	54.34
38	Mon. Exp.	143+71.71	145+15.26	144+43.49	87,821.04	89,313.85	1°55'35"	1°20'31"	4269.64	143.55	71.78
50	E.B.L.	135+03.91	148+88.12	142+09.80	87,617.12	89,488.17	27°41'03"	2°00'00"	2864.80	1384.21	705.89
54	Ramp 2-S	139+48.16	144+03.77	141+77.67	87,543.35	89,434.39	17°05'08"	3°45'00"	1527.89	455.61	229.51
55A	Ramp 2-S	132+23.71	133+39.37	132+82.27	86,812.87	89,922.55	22°05'21"	19°05'55"	300.00	115.66	58.56
55B	Ramp 2-S	133+39.37	133+88.55	133+64.18	86,844.41	89,845.38	18°47'00"	38°11'50"	150.00	49.18	24.81
55C	Ramp 2-S	133+88.55	135+04.20	134+47.10	86,899.12	89,782.48	22°05'21"	19°05'55"	300.00	115.66	58.56
57	2-T Conn.	0+00.00	1+91.35	1+41.86	87,266.89	90,489.53	109°38'16"	57°17'45"	100.00	191.35	141.86
58A	Ramp 2-T	129+30.93	130+50.66	129+90.93	87,262.15	90,462.16	9°15'27"	7°43'54"	741.05	119.73	60.00
58B	Ramp 2-T	130+50.66	131+39.96	130+95.60	87,183.98	90,392.17	15°44'33"	17°37'46"	325.00	89.30	44.93
58C	Ramp 2-T	131+39.96	134+47.26	133+10.26	87,068.59	90,210.48	61°27'36"	20°00'00"	286.48	307.30	170.30
58D	Ramp 2-T	134+47.26	135+36.56	134+92.19	87,173.07	90,022.31	15°44'32"	17°37'46"	325.00	89.30	44.93
58E	Ramp 2-T	135+36.56	136+56.29	135+96.56	87,246.98	89,947.84	9°15'28"	7°43'54"	741.05	119.74	60.00
60	Mon. Exp.	149+42.58	167+95.43	158+71.02	88,666.79	88,163.81	9°15'51"	0°30'00"	11459.16	1852.85	928.45
61A	Mon. Exp.	172+89.68	175+76.98	174+33.40	89,379.57	86,768.95	4°25'45"	1°32'30"	3716.52	287.30	143.72
61B	Mon. Exp.	175+76.98	177+91.70	176+84.50	89,510.82	86,554.72	7°34'15"	3°31'33"	1625.00	214.72	107.52
61C	Mon. Exp.	177+91.70	187+42.11	182+85.14	89,889.57	86,088.13	38°00'59"	4°00'00"	1432.39	950.41	493.44
61D	Mon. Exp.	187+42.11	189+56.84	188+49.63	90,475.32	85,953.80	7°34'15"	3°31'33"	1625.00	214.72	107.52
61E	Mon. Exp.	189+56.84	192+44.12	191+00.55	90,725.46	85,930.39	4°25'45"	1°32'30"	3716.52	287.29	143.71
62	Ramp 3-A	0+00.00	3+97.02	1+98.83	88,933.79	87,480.88	7°56'125"	2°00'00"	2864.79	397.02	198.83
63	Ramp 3-B	3+99.59	6+85.56	5+42.84	88,896.42	87,885.42	8°34'44"	3°00'00"	1909.86	285.96	143.25
63A	3-B Conn.	1+28.45	2+26.70	1+78.06	88,781.33	88,219.97	19°39'01"	20°00'00"	286.48	98.25	49.61
64	Line B	1+82.46	3+01.81	2+42.19	88,890.11	88,673.68	5°58'02"	5°00'00"	1145.92	119.34	59.72
65	Line B	0+00.00	1+09.50	0+60.97	89,082.94	88,691.50	62°44'29"	57°17'45"	100.00	109.50	60.97
66	Line A	0+67.94	2+51.15	1+62.21	88,914.70	88,709.39	33°18'02"	18°10'31"	315.24	183.22	94.28
67	Wash. & 22nd	*27+39.82	*5+77.09	*28+20.88	88,446.89	88,715.02	56°46'14"	38°11'50"	150.00	148.62	81.06
68	Wash. & 22nd	*27+36.94	*5+71.83	*28+37.45	88,421.74	88,679.32	56°46'14"	30°48'15"	186.00	184.30	100.51

* Washington Street Stations
** 22nd Street Stations

TRAVERSE INTERSECTION DATA

NO.	TRAVERSE TIE		BASE LINE		COORDINATES	
	LINE	DISTANCE FROM	LOCATION	STATION	NORTH	EAST
T-1	1/6 - 4/25	289.30'-1/6	Ramp 2-T	129+18.52	87,323.17	90,501.16
T-2	1/6 - 2/6	687.07'-1/6	Indiana Ave.	9+80.00	86,792.04	90,254.31
T-3	1/6 - 2/6	358.51'-1/6	Ramp 2-T	132+46.54	87,120.60	90,255.83
T-4	1/6 - 2/6	40.21'-1/6	Washington	9+78.53	87,438.89	90,257.30
T-5	4/5 - 3/5	37.70'-4/5	22nd St.	5+00.00	88,450.64	88,696.98
T-6	C/1 - C/7	773.46'-C/1	Curve No. 60 Bk. Tangent	155+76.12	88,492.08	88,401.40
T-7	C/5 - L/4	471.66'-L/4	Curve No. 60 Fwd. Tangent	915.81 From P.I.	89,083.52	87,348.30
T-8	L/2 - 4/4	225.46'-4/4	Curve No. 61 Bk. Tangent	174+92.65	89,406.53	86,716.19
T-9	3/4 - 4/4	121.94'-4/4	Curve No. 61 Bk. Tangent	177+46.94	89,522.24	86,489.75
T-10	3/4 - 4/4	163.78'-4/4	Monroe Expwy.	177+68.48	89,564.08	86,489.38
T-11	3/4 - 3/3	198.94' 3/3	Monroe Expwy.	192+97.24	90,922.26	85,927.24
T-12	1/6 - 2/6	416.76'-1/6	Pinewood	0+00.00	87,062.35	90,255.56
T-13	3/6 - 4/6	655.64'-4/6	Pinewood	11+85.92	87,064.81	89,069.65
T-14	1/6 - 2/6	155.31'-1/6	Woodland	0+00.00	87,323.80	90,256.76
T-15	3/6 - 4/6	394.06'-4/6	Woodland	11+85.71	87,326.39	89,071.05
T-16	T/12 - T/13	650.00'-T/12	Rel. Woodland	2+99.69	87,063.70	89,605.56
T-17	T/14 - T/15	797.00'-T/14	Rel. Woodland	0+00.00	87,325.54	89,459.77

BENCH-MARK DATA

No.	Description	Elevation
57	Top Iron Pin & Monroe and Lawrence	613.21
63	Top Iron Pin & Monroe and Glenwood	611.99
64	Top Iron Pin & Monroe and Scottwood	616.37
65	Top Iron Pin & Monroe and Parkwood	613.12
66	Top Iron Pin & Monroe and Collingwood	611.37
67	S.W. Bolt on Hyd. Glenwood and Lincoln	616.42
68	N. Bolt on Hyd. Lawrence and Prospect	613.99
69	N. Bolt on Hyd. Lawrence and Woodruff	613.62
71	E. Bolt on Hyd. Norwood and Wells	615.06
72	Arrowhead on Hyd. Wells and Fernwood	617.04
73	Arrowhead on Hyd. Palmwood and Groesbeck	618.36
74	N.W. Bolt on Hyd. Dorr and City Park	616.59
75	Arrowhead on Hyd. City Park and Indiana	618.68
76	N.E. Bolt on Hyd. Indiana and Collingwood	615.35
77	Arrowhead on Hyd. Collingwood and Woodland	617.21
78	N.W. Bolt on Hyd. Collingwood and Norwood	614.23
79	Arrowhead on Hyd. Monroe and 21st	616.81
80	E. Bolt on Hyd. 21st and Jefferson	616.79
81	Arrowhead on Hyd. Jefferson and 17th	613.84
82	Arrowhead on Hyd. 15th and Monroe	610.69
83	Arrowhead on Hyd. 14th and Washington	609.02
84	S.E. Bolt on Hyd. 13th and Indiana	608.56
85	Arrowhead on Hyd. 13th and Avondale	611.62
88	S.E. Corner Monument Box & Division and Indiana	607.77
89	S.E. Bolt on Hyd. Division and Woodland	613.34
90	S.E. Bolt on Hyd. Division and Dorr	614.92

BASELINE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-1	Ramp 2-T Washington	129+52.12 7+11.03	87,295.02	90,482.81
X-2	N.B. Lane Indiana	131+59.74 7+62.30	86,792.58	90,036.62
X-3	S.B. Lane Indiana	10+79.74 6+89.54	86,792.76	89,963.86
X-4	Washington 17th St.	14+91.64 0+00.00	87,714.90	89,824.72
X-5	Dorr Washington	7+03.94 15+48.20	87,745.31	89,777.05
X-6	W.B. Lane Indiana	131+45.02 8+13.07	86,792.46	90,087.38
X-7	Monroe Expressway Dorr	143+20.50 3+36.88	87,744.34	89,409.99
X-8	E.B. Lane Dorr	144+41.67 1+84.03	87,743.93	89,257.14
X-9	Ramp 3-A Collingwood	13+24.94 5+68.76	88,287.39	88,403.78
X-10	Monroe Expressway Collingwood	155+63.74 7+52.38	88,471.01	88,401.64
X-11	Ramp 3-B Collingwood	0+00.00 10+01.22	88,719.83	88,398.74
X-12	Ramp 3-B Conn. Collingwood	0+00.00 10+64.80	88,783.40	88,398.00
X-13	Line A Monroe St.	0+00.00 6+97.42	89,051.34	88,796.81
X-14	22nd St. Monroe St.	11+69.59 8+25.41	89,120.18	88,688.92
X-15	Oakwood Collingwood	15+18.02 13+93.55	89,112.13	88,394.17
X-16	Collingwood Monroe	15+91.10 11+77.75	89,309.68	88,391.87
X-17	Monroe Expressway Oakwood	167+82.78 4+71.67	89,083.52	87,348.31
X-18	Monroe Expressway Lincoln St.	174+83.49 8+22.82	89,406.82	86,726.72
X-19	E.B. Lane S.B. Lane	130+60.62 12+90.39	86,584.10	89,991.66
X-20	E.B. Lane Ramp 2-S	133+39.17 133+38.00	86,834.50	89,869.62
X-21	S.B. Lane Ramp 2-S	10+58.52 132+45.27	86,813.55	89,959.57

TRAVERSE POINT DATA

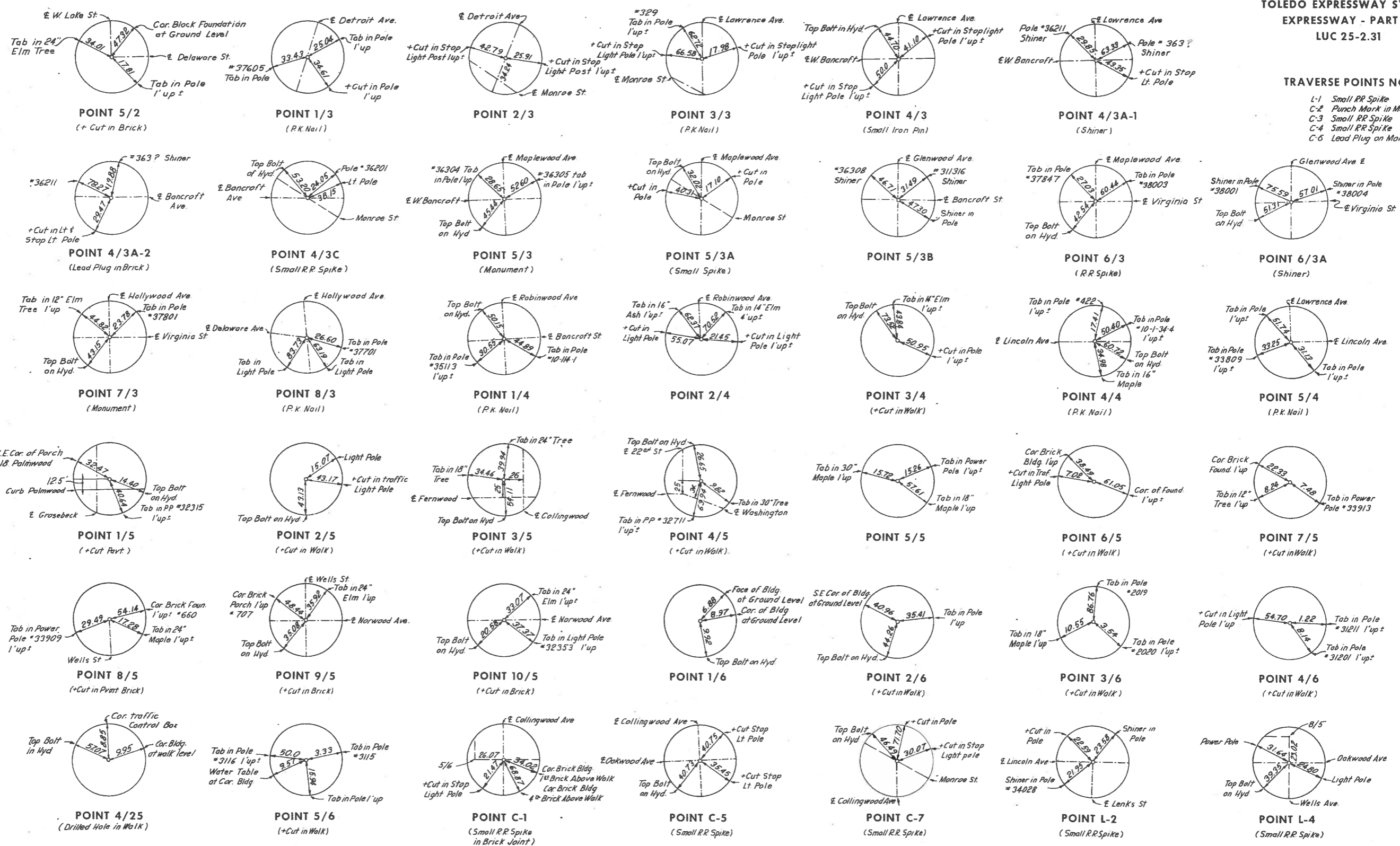
POINT	COORDINATES	
	NORTH	EAST
3/3	91,029.24	85,759.52
4/3	91,681.15	85,752.68
4/3C	91,662.44	84,764.89
5/3A	90,819.14	86,088.91
1/4	91,706.45	86,846.52
2/4	90,322.91	86,866.82
3/4	90,569.29	86,480.62
4/4	89,400.31	86,490.81
5/4	89,380.60	85,776.83
1/5	88,100.81	87,471.47
2/5	88,106.12	88,379.81
3/5	88,449.91	88,375.80
4/5	88,450.72	88,734.68
5/5	88,331.62	88,921.33
6/5	88,815.44	89,229.81
7/5	89,083.19	86,493.57
8/5	89,093.62	86,876.55
9/5	88,738.48	86,880.64
10/5	88,750.10	87,462.40
1/6	87,479.10	90,257.48
2/6	86,020.35	90,250.76
3/6	86,024.25	89,064.05
4/6	87,720.44	89,073.17
5/6	87,718.61	88,384.33
C-1	87,718.68	88,410.40
C-5	89,112.13	88,394.17
C-7	89,350.31	88,391.40
L-1	89,089.24	87,557.53
L-2	89,429.52	87,549.22
L-4	89,070.62	86,876.82
4/25	86,580.60	91,661.58
C-6	89,309.68	88,393.87

SCALE: None HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE P.R.M. DATE 9/1/65 CONSULTING ENGINEERS
TECH. DATE 9/1/65 KANSAS CITY CLEVELAND NEW YORK
CHK DAT DATE 9/1/65

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 25
LUC 25-2.31

TRAVERSE POINTS NOT TIED

- L-1 Small RR Spike
- C-2 Punch Mark in M.H.
- C-3 Small RR Spike
- C-4 Small RR Spike
- C-5 Lead Plug on Monument



SCALE None
MADE P.R.M. DATE 7-11-64
TECD. DATE 8-10-65
KANSAS CITY CLEVELAND NEW YORK

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

3140

Sheet No. 228, 27 & 27A revised 1-1-67 EOL

FED. RD. DIVISION	STATE	FED. AID PROJ. NO.	1
2	OHIO	1-75-6(21)203	271

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
LUC 75-3.13
EXPRESSWAY-PART 27

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC. 75-3.13
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM - PART 27
MONROE EXPRESSWAY
LINCOLN TO LAWTON
DETROIT AVENUE INTERCHANGE

1-75-6(21)203
LIMITED ACCESS

1967 SPECIFICATIONS

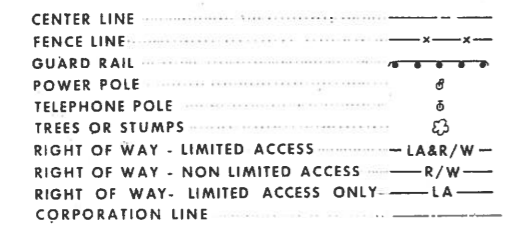
THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

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.

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 THE TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATE.

CONVENTIONAL SIGNS

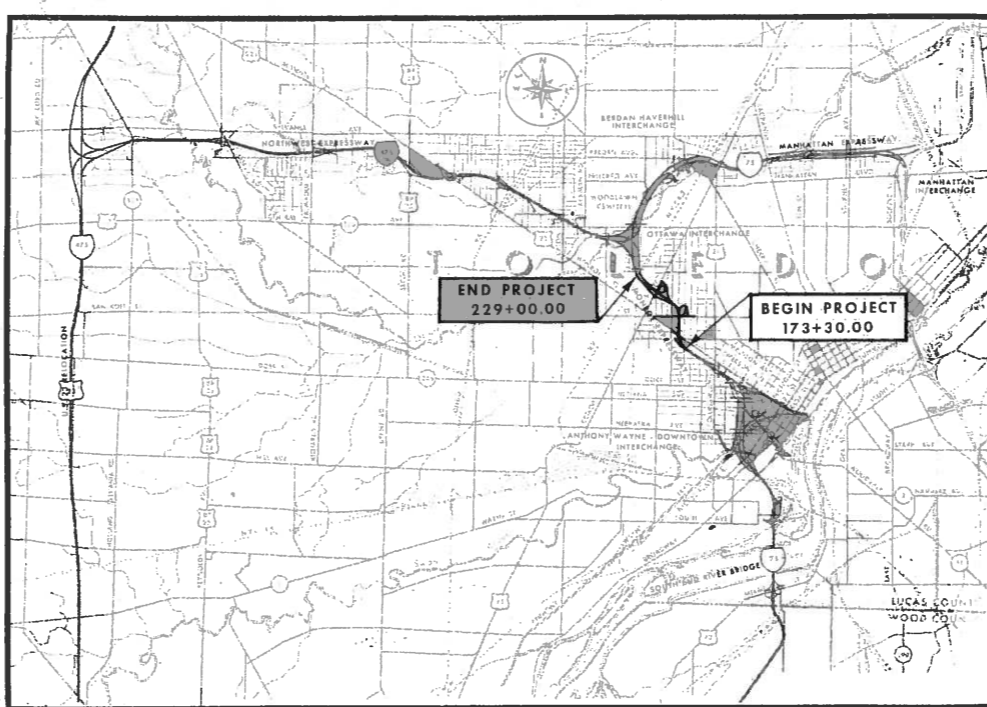


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1 TITLE SHEET	73-87 DRAINAGE PLANS
2 SCHEMATIC PLAN & DESIGN DESIGNATION	88-112 SEWER PROFILES
3-5 GENERAL NOTES	113-114 UNDERDRAINS
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24-34 TYPICAL SECTIONS	122 WATERSHED AREAS
35 ENTRANCE AND EXIT DETAILS	123-126 EXISTING UTILITIES AND PAVT. REMOVAL
36-37 GEOMETRIC PLAN	127 DELINEATOR STANDARD DRAWING
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60A-60 MISCELLANEOUS DETAILS	238-251, 251A BRIDGE NO. LUC-75-0365
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68-72 GRADING-FENCING AND SLOPE PROTECTION	265-267 MISC. BRIDGE DETAILS
	268-271 RETAINING WALL

LINE DATA

BEGIN PROJECT	STA. 173+30.00 MONROE EXPRESSWAY
END PROJECT	STA. 229+00.00 MONROE EXPRESSWAY
NET LENGTH OF PROJECT	5,570.00 FEET OR 1.054 MILES
BEGIN WORK	STA. 172 + 75
END WORK	STA. 229+10.00
LENGTH OF WORK - EXPRESSWAY	5,635.00 FT.
ADD FOR MONROE STREET 2+30 to 10+60	770.00 FT.
BANCROFT AVENUE 18+57 to 1+00	1,757.00 FT.
DETROIT AVENUE 2+31 to 2+96.35	1,965.35 FT.
NET LENGTH OF WORK	10,127.35 FT. OR 1.918 MILES



* DELIVERY POINT - N.Y.C.R.R. VICINITY OF DELAWARE AVE. AND ALBION STREET CITY OF TOLEDO, OHIO
AVERAGE HAUL - 0.60 MILES

- APPROVED DATE 12-21-66 COUNTY ENGINEER, LUCAS COUNTY
- APPROVED DATE 12-23-66 CITY MANAGER, CITY OF TOLEDO
- APPROVED DATE 12-23-66 DIRECTOR OF PUBLIC SERVICE, CITY OF TOLEDO
- APPROVED DATE 12-29-66 DIVISION DEPUTY DIRECTOR
- APPROVED DATE 1-19-67 ENGINEER OF BRIDGES
- APPROVED DATE 6-29-67 ENGINEER OF LOCATION AND DESIGN
- APPROVED DATE 6-29-67 DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
- APPROVED DATE 7-18-67 DEPUTY DIRECTOR OF RIGHT OF WAY
- APPROVED DATE 7-23-67 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
- APPROVED DATE 7-13-67 FIRST ASSISTANT DIRECTOR
- APPROVED DATE 7-13-67 DIRECTOR OF HIGHWAYS

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

R. H. Bergendoff



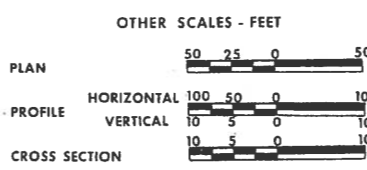
FILE NO.	LUCAS COUNTY
	SEC. LUC. 75-3.13 PART 27
	DATE OF LETTING 196
	CONTRACT NO.

SUPPLEMENTAL SPECIFICATIONS			
NUMBER	DATE	NUMBER	DATE
806	1-1-67	828	1-1-67
815	1-1-67		
816	8-6-65		
1001	3-21-66		
804	3-28-67		
808	1-13-67		
811	1-1-67		
825	1-1-67		

LOCATION MAP



PORTION TO BE IMPROVED



STANDARD DRAWINGS			
NUMBER	DATE	F-G	10-1-66
MC-1	6-1-65	F-4	6-1-65
MC-2	6-1-65	I-2	6-1-65
MC-3	5-1-66	I-2A	6-1-65
MC-4	6-1-65	CB 2-2-A & B	6-1-65
MC-5	6-1-65	CB-3	6-1-65
MC-6	6-1-65	CB-3A	6-1-65
BP-1	6-1-65	CB-5	6-1-65
BP-2	1-10-67	CB-6	6-1-65
BP-3	1-10-67	MH-1	6-1-65
BP-4	1-10-67	MH-1A	8-1-66
BP-5	6-1-65	MH-2	6-1-65
BP-6	6-1-65	RB-1-55	2-2-59
BP-7	1-1-66	L-1	6-1-65
GR-1	1-1-67	*BR-1-65	11-24-65
GR-2A	1-1-67	**SD-1-65	11-8-65
GR-6	6-1-65	AS-1-54	8-10-65
F-1	6-1-65	HL-1	11-1-65
F-3	10-1-66	HL-2	11-1-65
FACI-1	6-1-65	HL-3	11-1-65
FACI-2	6-1-65	HL-4	1-1-66

* SHEET 2 OF 2 ** SHEET 1, 2 AND 3 OF 3

DEPARTMENT OF TRANSPORTATION
BUREAU OF PUBLIC ROADS

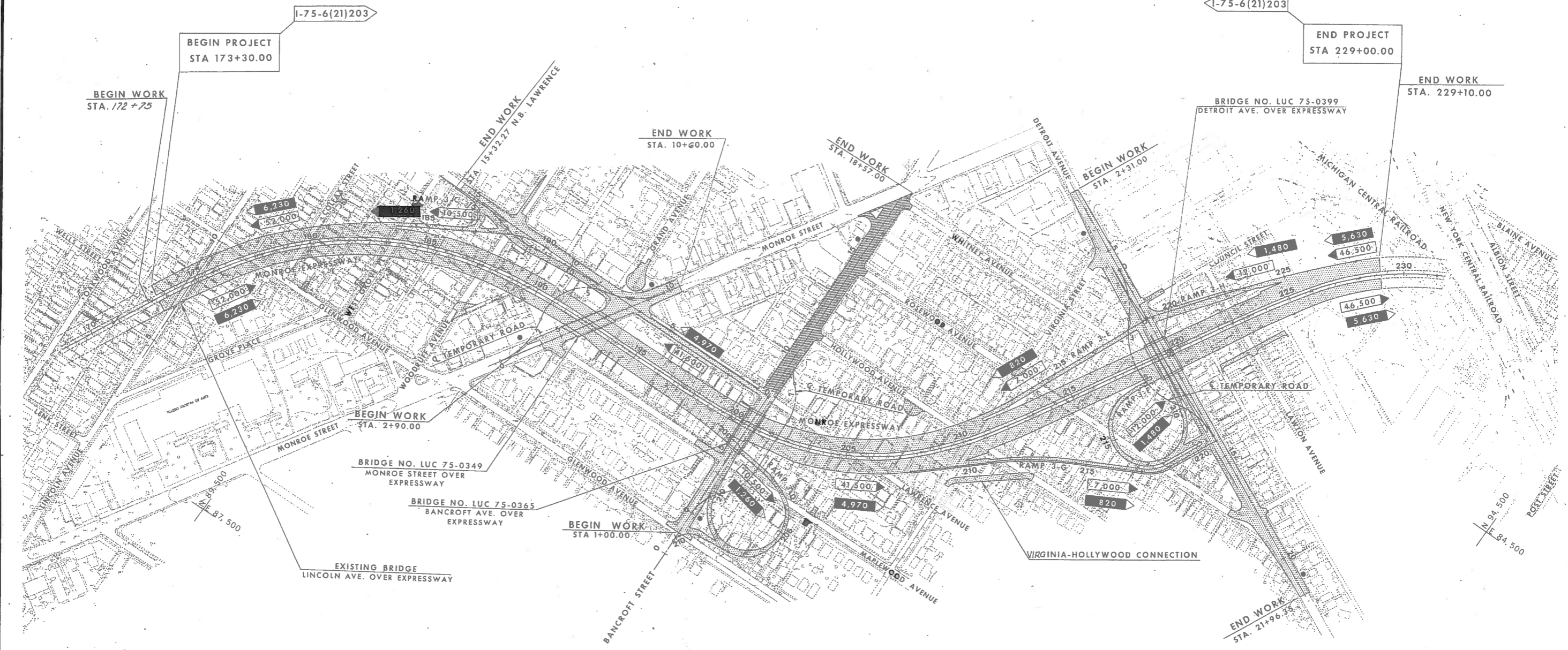
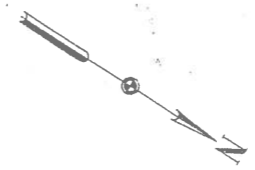
APPROVED: _____

DIVISION ENGINEER _____ DATE _____

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

2
271

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 27
LUC 75-3.13



DESIGN DESIGNATION
CURRENT A.D.T. NEW FACILITY 1969 - 29,050
DESIGN YEAR A.D.T.: 1975
D.V.H. 1975
D. (DIRECTIONAL DISTRIBUTION) 60%
T. (PERCENT B AND C TRUCKS) 5%
V. (DESIGN SPEED) 60M.P.H. EXPRESSWAY

LEGEND

	PROJECT LUC 75-3.13
	100% County PARTICIPATION
	FEDERAL-AID CONSTRUCTION IDENTIFICATION SIGN
	1975 A.D.T.
	1975 D.H.V.

SCALE 1"=200'
HOWARD, NEEDLES, TAMMEN & BERGENOFF
MADE KBB DATE 8-6-65 CONSULTING ENGINEERS
TRCD KBB DATE 8-7-65
CRD DAT DATE 8-8-65 KANSAS CITY CLEVELAND NEW YORK

**DESIGN DESIGNATION
SCHEMATIC PLAN**

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

36
271

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 27
LUC 75-3.13



SCALE 1" = 100'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE R.H.P. DATE 7-6-65 CONSULTING ENGINEERS
TRCD. DATE 7-11-65 KANSAS CITY CLEVELAND NEW YORK
CKD JLS

GEOMETRIC PLAN

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

37
271

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 27
LUC 75-3.13



SCALE: 1" = 100'
 HOWARD, NEEDLES, TAMMEN & BERGENOFF
 MADE: RHP DATE: 7-1-65 CONSULTING ENGINEERS
 TRCD: DATE: 7-13-65 KANSAS CITY CLEVELAND NEW YORK
 CVD: DATE: 7-13-65

GEOMETRIC PLAN

CURVE DATA

NO.	LOCATION	P.C. STATION	P.T. STATION	P.I. STATION		COORDINATES		Δ	D	R	L	T
				STATION	STATION	NORTH	EAST					
13A	Mon. Exp.	223+11.12	225+98.45	224+54.89	93,228.48	84,193.84	05°32'16"	01°55'38"	2972.88	287.34	143.78	
13B	Mon. Exp.	225+98.45	228+13.14	227+06.04	93,376.44	83,990.62	09°27'44"	04°24'36"	1300.00	214.69	107.59	
13C	Mon. Exp.	228+13.14	231+38.81	229+77.08	93,570.17	83,800.38	16°17'00"	05°00'00"	1145.92	325.66	163.94	
14A	Mon. Exp.	197+42.74	200+30.08	198+86.52	91,511.52	85,917.82	05°32'16"	01°55'38"	2972.88	287.33	143.78	
14B	Mon. Exp.	200+30.08	202+44.77	201+37.67	91,761.29	85,889.56	09°27'44"	04°24'26"	1300.00	214.69	107.59	
14C	Mon. Exp.	202+44.77	208+16.05	205+36.48	92,145.28	85,780.06	28°33'50"	05°00'00"	1145.92	571.28	291.71	
14D	Mon. Exp.	208+16.05	210+30.74	209+23.64	92,430.17	85,500.28	09°27'44"	04°24'26"	1300.00	214.69	107.59	
14E	Mon. Exp.	210+30.74	213+18.08	211+74.52	92,578.13	85,297.07	05°32'16"	01°55'38"	2972.88	287.34	143.78	
61A	Mon. Exp.	172+89.68	175+76.98	174+33.40	89,379.57	86,768.95	04°25'45"	01°32'30"	3716.52	287.30	143.72	
61B	Mon. Exp.	175+76.98	177+91.70	176+84.50	89,510.82	86,554.72	07°34'15"	03°31'33"	1625.00	214.72	107.52	
61C	Mon. Exp.	177+91.70	187+42.11	182+85.14	89,889.57	86,088.13	38°00'59"	04°00'00"	1432.39	950.41	493.44	
61D	Mon. Exp.	187+42.11	189+56.84	188+49.63	90,475.32	85,953.80	07°34'15"	03°31'33"	1625.00	214.72	107.52	
61E	Mon. Exp.	189+56.84	192+44.12	191+00.55	90,725.46	85,930.39	04°25'45"	01°32'30"	3716.52	287.29	143.71	
67	Ramp 3-C	188+41.85	190+26.20	189+36.12	90,462.94	85,763.47	29°29'42"	16°00'00"	358.10	184.34	94.26	
68	Ramp 3-C	180+77.89	185+47.35	183+13.15	89,915.02	86,062.55	09°23'21"	02°00'00"	2864.79	469.46	235.26	
69	N.B. Lawr.	13+58.26	15+42.92	14+56.03	93,231.35	85,758.30	13°58'22"	08°00'00"	716.20	174.66	87.77	
70	N.B. Lawr.	11+90.28	13+18.58	12+55.13	90,428.16	85,805.08	20°21'45"	16°00'00"	358.10	128.31	64.85	
71	N.B. Lawr.	8+64.58	10+28.48	9+46.62	90,734.44	85,766.62	06°33'23"	04°00'00"	1432.39	163.91	82.04	
72	Ramp 3-D	196+40.00	201+96.00	199+18.49	91,544.65	85,990.30	08°20'24"	01°30'00"	3219.72	556.00	278.49	
74	Ramp 3-D	203+96.00	208+36.87	214+31.18	92,726.00	86,839.02	16°25'06"	36°57'54"	155.00	440.87	1035.18	
75	Ramp 3-D	208+36.87	209+83.48	209+14.78	91,751.12	86,301.82	47°59'56"	32°44'26"	175.00	146.60	77.91	
76	Ramp 3-D	209+83.48	210+64.88	210+24.32	91,724.12	86,186.17	11°48'12"	14°30'00"	395.14	81.40	40.84	
77	Rp 3-D Con	206+46.00	207+56.87	207+03.22	91,972.52	86,377.62	34°54'12"	31°28'52"	182.00	110.87	57.22	
78	Ramp 3-F	211+00.00	212+46.19	211+73.24	92,503.12	85,246.64	08°46'16"	06°00'00"	954.93	146.19	73.24	
79A	Ramp 3-F	209+40.67	210+36.72	209+88.94	93,128.97	84,793.24	14°15'59"	14°51'10"	385.76	96.05	48.28	
79B	Ramp 3-F	210+36.72	211+07.72	210+77.75	93,193.64	84,847.32	23°55'51"	33°42'12"	170.00	71.00	36.03	
79C	Ramp 3-F	211+07.72	216+23.60	216+59.63	92,921.07	84,933.97	23°55'51"	33°42'12"	170.00	71.00	36.03	
79D	Ramp 3-F	216+23.60	216+94.60	216+59.63	92,921.07	84,933.97	23°55'51"	33°42'12"	170.00	71.00	36.03	
79E	Ramp 3-F	216+94.60	217+90.66	217+42.88	92,942.64	84,852.47	14°15'59"	14°51'10"	385.76	96.05	48.28	
80	Ramp 3-G	210+98.00	214+54.46	212+77.16	92,749.82	85,328.42	14°15'31"	04°00'00"	1432.39	356.46	179.16	
81	Ramp 3-G	217+38.39	218+54.69	217+98.70	93,209.25	85,077.20	37°26'14"	32°11'19"	178.00	116.30	60.31	
82	Ramp 3-H	223+21.41	228+13.14	225+67.62	93,226.38	84,035.66	07°27'34"	01°30'00"	3819.72	491.74	246.21	
83	Rp 3-D Con	208+95.42	209+83.78	209+42.72	91,731.16	86,406.38	50°37'54"	57°17'45"	100.00	88.37	47.30	
84	Rp 3-D Con	209+83.78	210+13.37	209+99.02	91,697.49	86,459.09	33°53'52"	114°35'30"	50.00	29.58	15.24	
73	Ramp 3-D	201+96.00	203+96.00	203+31.36	91,955.03	86,043.76	08°38'27'54"	08°38'27'54"	200.00	135.36	135.36	
85	Rp 3-C Con	184+93.88	185+61.87	185+28.47	90,188.74	85,766.95	25°58'01"	39°11'50"	150.00	67.92	34.53	
86	Rp 3-C Con	185+61.87	186+70.55	186+56.98	90,305.93	85,832.51	124°32'17"	114°35'30"	50.00	108.68	95.11	

* Curve 74 Ramp 3-D Center of Curve Coordinates N91,894.17 E86,203.67
 ** Curve 79C Ramp 3-F Center of Curve Coordinates N93,074.88 E84,945.79
 # Spiral Curve

BASELINE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-1	N. B. Lawrence S. B. Lawrence	14+25.53 14+20.49	90,260.55	85,767.59
X-2	N. B. Lawrence Ramp 3-C	12+76.34 188+70.42	90,406.65	85,797.41
X-3	Monroe Exp. Monroe St.	192+56.48 6+33.90	90,881.52	85,927.90
X-4	Monroe St. S. B. Lawrence	8+33.11 6+92.36	90,988.64	85,759.95
X-5	S. B. Lawrence Bancroft St.	0+00.00 7+85.54	91,680.96	85,752.68
X-6	Monroe Exp. Bancroft St.	200+60.29 6+40.27	91,684.36	85,897.91
X-7	Ramp 3-D Bancroft St.	200+61.36 5+26.91	91,687.02	86,011.24
X-8	Ramp 3-H Detroit Ave.	218+88.40 8+27.59	92,806.88	84,569.84
X-9	Ramp 3-E Detroit Ave.	219+14.68 8+32.09	92,810.94	84,571.79
X-10	Monroe Exp. Detroit Ave.	219+31.63 10+00.46	92,962.72	84,644.66
X-11	Ramp 3-G Detroit Ave.	220+77.63 14+09.89	93,331.83	84,821.85
X-12	N. Y. C. R. R. Southbound Lane	138+41.62 233+22.08	93,861.73	83,647.97
X-13	N. Y. C. R. R. Northbound Lane	138+43.92 233+23.49	93,883.73	83,649.11
X-14	Maplewood Ave. Monroe St.	0+89.85 4+42.35	90,778.51	86,089.39
X-15	Maplewood Ave. Bancroft St.	10+00.00 4+59.62	91,688.59	86,078.51

LUCAS COUNTY
 CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
 EXPRESSWAY - PART 27
 LUC 75-3.13

TRAVERSE POINT DATA

POINT	COORDINATES	
	NORTH	EAST
5/2	94,294.01	84,606.28
6/2	93,947.49	84,395.79
7/2	93,807.26	84,683.16
8/2	92,896.15	84,251.04
9/2	93,011.66	84,010.61
10/2	93,545.83	83,318.92
1/3	92,754.97	84,544.92
2/3	92,025.48	84,194.63
3/3	91,029.24	85,759.52
4/3	91,681.15	85,752.68
4/3 A-1	91,680.96	85,752.68
4/3 C	91,662.44	84,764.89
5/3	91,688.69	86,078.51
5/3 A	90,819.14	86,088.91
5/3 B	91,697.00	86,438.03
6/3	92,526.10	86,059.47
7/3	92,511.94	85,401.22
1/4	91,706.45	86,846.52
2/4	90,322.91	86,866.82
3/4	90,569.29	86,480.62
4/4	89,400.31	86,490.81
5/4	89,380.60	85,776.83
6/4	89,083.19	86,493.57
8/5	89,093.62	86,876.55
L-1	89,089.24	87,557.53
L-2	89,429.52	87,549.22
L-4	89,070.62	86,876.82
2/2	93,679.97	83,395.37

BENCH MARK DATA

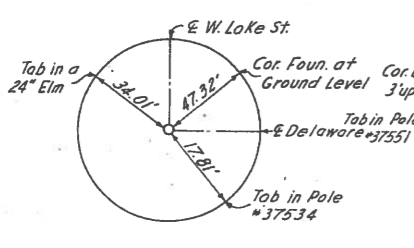
No.	Description	Elevation
46	E. Bolt on Hyd. S. Side Albion and Blaine	614.12
47	S. Bolt on Hyd. at 2816 Albion St.	612.66
48	Arrowhead on Hyd. Albion and Bishop	616.86
49	Arrowhead on Hyd. Monroe and Smead	616.37
50	Top of Pipe at Monroe and Detroit	611.32
51	Arrowhead on Hyd. Detroit and Council	613.42
52	S. W. Bolt on Hyd. La. Jan and Lamson	612.46
53	Arrowhead on Hyd. Detroit and Rosewood	614.87
54	Arrowhead on Hyd. Rosewood and Virginia	614.66
55	Arrowhead on Hyd. Virginia and Lawrence	616.42
56	Arrowhead on Hyd. Lawrence and Bancroft St.	618.09
57	Top Iron Pin at Monroe and Lawrence	613.21
58	S. E. Bolt on Hyd. Grand and Waite	616.35
59	N. W. Bolt on Hyd. Monroe and Horace	615.24
60	Arrowhead on Hyd. No. 2259 Whitney	613.86
61	Arrowhead on Hyd. Whitney and Detroit	614.36
62	Base of Street Sign Lamson and Detroit	612.76
63	Top Iron Pin at Monroe and Glenwood	611.99
64	Top Iron Pin at Monroe and Scottwood	616.37
67	S. W. Bolt on Hyd. Glenwood and Lincoln	616.42
68	N. Bolt on Hyd. Lawrence and Prospect	613.99
69	N. Bolt on Hyd. Lawrence and Woodruff	613.62

TRAVERSE INTERSECTION DATA

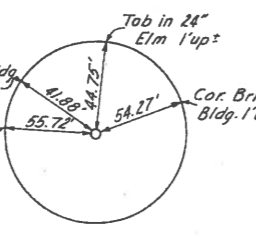
NO.	TRAVERSE TIE		BASE LINE		COORDINATES	
	LINE	DISTANCE FROM	LOCATION	STATION	NORTH	EAST
T-1	L-2 - 4/4	236.00' - 4/4	Monroe Exp.	174+83.49	89,406.82	86,726.72
T-2	3/4 - 4/4	163.78' - 4/4	Monroe Exp.	177+68.48	89,564.08	86,489.38
T-3	3/4 - 3/3	198.94' - 3/3	Monroe Exp.	192+97.24	90,922.26	85,927.24
T-4	S 01°18'37"E From 7/3	9.85' - 7/3	Monroe Exp.	210+45.38	92,502.09	85,401.45
T-5	6/3 - 7/3	132.82' - 7/3	Ramp 3-G	209+64.90	92,514.79	85,534.01
T-6	7/2 - 8/2	129.78' - 8/2	Ramp 3-H	215+54.42	93,013.16	84,307.18
T-7	7/2 - 8/2	258.18' - 8/2	Monroe Exp.	222+58.85	93,128.93	84,362.72

SCALE None HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 MADE KBB DATE 8-1-65 CONSULTING ENGINEERS
 TRCD KB DATE 6-1-65 KANSAS CITY CLEVELAND NEW YORK
 CKD PDM DATE 5-17-65

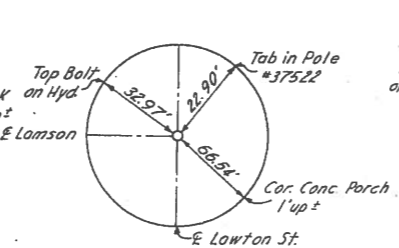
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 27
LUC 75-3.13



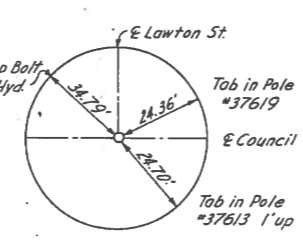
POINT 5/2
+Cut in Brick



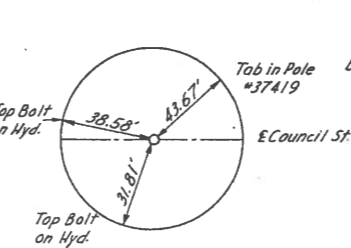
POINT 6/2
R.R. Spike



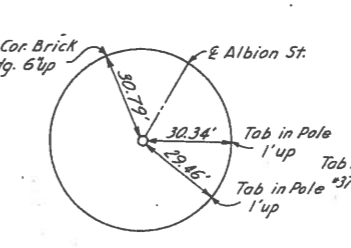
POINT 7/2
+Cut in Bent Spike



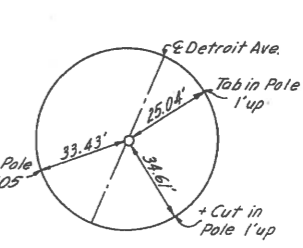
POINT 8/2
Small Pin in Brick Crack, Cuts in Adjoining Brick



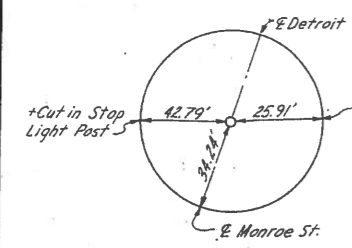
POINT 9/2
+Cut in Brick Pavement



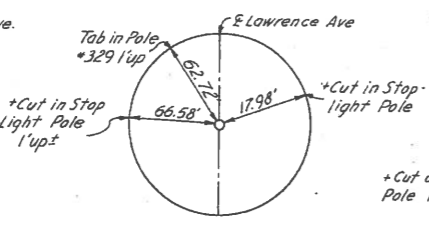
POINT 10/2
R.K. Nail



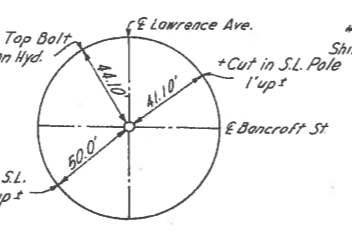
POINT 1/3
R.K. Nail



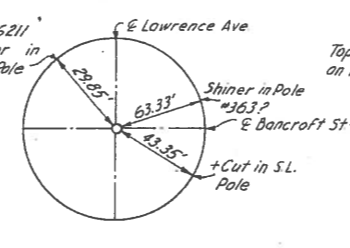
POINT 2/3
R.K. Nail



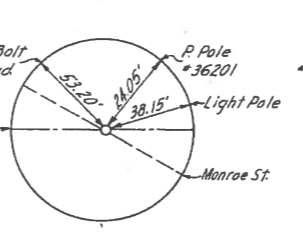
POINT 3/3
R.K. Nail



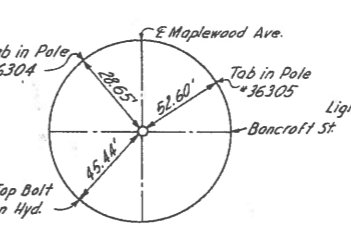
POINT 4/3
Small Iron Pin



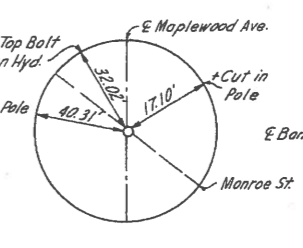
POINT 4/3A-1
Shiner



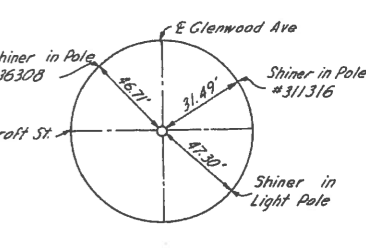
POINT 4/3C
Small R.R. Spike



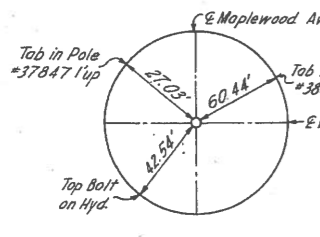
POINT 5/3
Monument



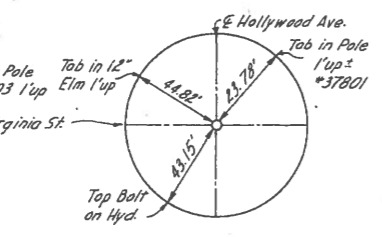
POINT 5/3A
Small Spike



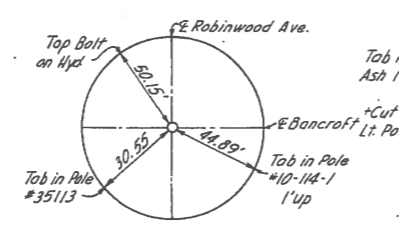
POINT 5/3B
Shiner



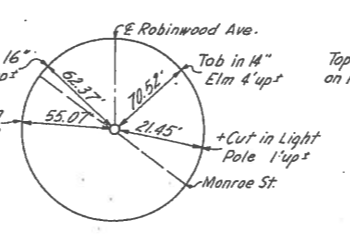
POINT 6/3
R.R. Spike



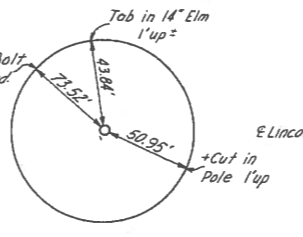
POINT 7/3
Monument



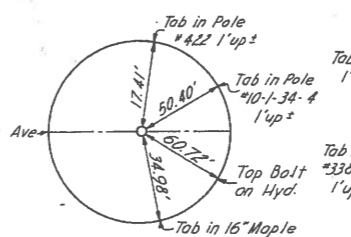
POINT 1/4
R.K. Nail



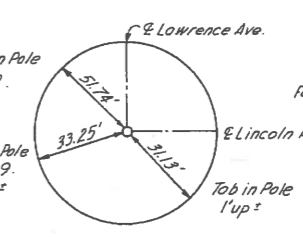
POINT 2/4
R.K. Nail



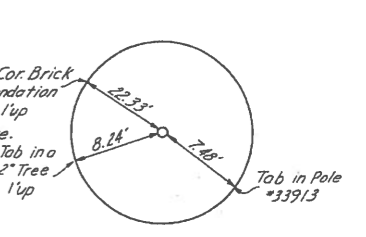
POINT 3/4
+Cut in Walk



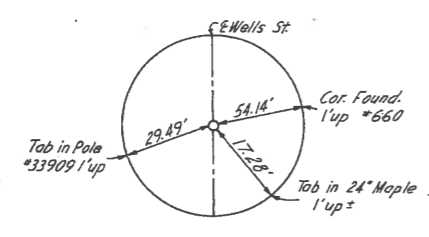
POINT 4/4
R.K. Nail



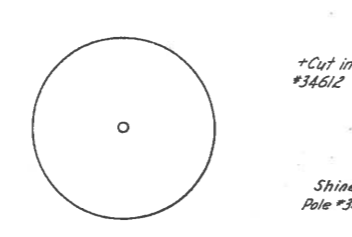
POINT 5/4
R.K. Nail



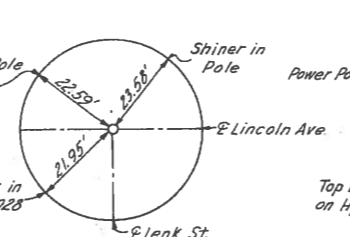
POINT 7/5
+Cut in Walk



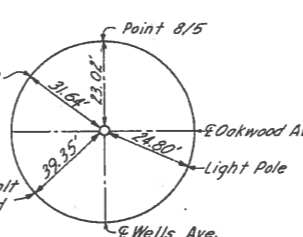
POINT 8/5
+Cut in Brick Pmt.



POINT L-1
Small R.R. Spike



POINT L-2
Small R.R. Spike



POINT L-4
Small R.R. Spike

SCALE None
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE P.M. DATE 5-24-65 CONSULTING ENGINEERS
TRCD DATE 5-30-65 KANSAS CITY CLEVELAND NEW YORK
CKD DAT DATE 5-30-65

3141

MICROFILMED

CONVENTIONAL SIGNS

Table listing various signs and their symbols: CENTER LINE, FENCE LINE, GUARD RAIL, POWER POLE, TELEPHONE POLE, TREES OR STUMPS, RIGHT OF WAY - LIMITED ACCESS, RIGHT OF WAY - NON LIMITED ACCESS, RIGHT OF WAY - LIMITED ACCESS ONLY, CORPORATION LINE, RAILROAD.

INDEX OF SHEETS

Index of sheets listing sheet numbers and titles: 1 TITLE SHEET, 2 SCHEMATIC PLAN & DESIGN DESIGNATION, 3-5 GENERAL NOTES, 6 AUBURN AVENUE TEMPORARY ROAD, 7-11 SUMMARY OF QUANTITIES, 12-20 QUANTITY CALCULATIONS, 21-26 TYPICAL SECTIONS, 27-28 GEOMETRIC PLAN, 29 GEOMETRIC DATA, 30 TRAVERSE TIES, 31-35 PAVEMENT PLANS, 36-37 INTERSECTION DETAILS, 38-40 APPROACH SLAB AND GUARD RAIL DETAILS, 41 MISCELLANEOUS DETAILS, 42-46 RAILROAD RUNAROUND, 47-55 PROFILES, 56-60 GRADING-FENCING AND SLOPE PROTECTION, 61-67 DRAINAGE PLANS, 68-82 SEWER PROFILES, 83-86 JUNCTION CHAMBERS, 87-90 JUNCTION-REGULATOR CHAMBER.

*INCLUDES SHEETS 146A, 146B AND 146C

LINE DATA

Line data table with columns for project/work details and stationing: BEGIN PROJECT LUC 75-4.19, END PROJECT LUC 75-4.19, NET LENGTH OF PROJECT LUC 75-4.19, BEGIN WORK LUC 75-4.19, END WORK LUC 75-4.19, LENGTH OF WORK LUC 75-4.19, ADD FOR: AUBURN AVENUE, DELAWARE AVENUE, NYCRR RUNAROUND, NET LENGTH OF WORK.

Sheet Nos. 195 & 196 REVISED 8-11-67 E.H.
Sheet No. 132 revised 9-8-67 C.E.H.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC. 75-4.19
LUCAS COUNTY
CITY OF TOLEDO

TOLEDO EXPRESSWAY SYSTEM - PART 24
OTTAWA INTERCHANGE
LAWTON TO JERMAIN TO CENTRAL
GRADE SEPARATION WITH THE NEW YORK CENTRAL RAILROAD CO.

FED. RD. DIVISION, STATE, FED. AID PROJ. NO. table with values: 2, OHIO, 1-75-6(33)204

1/272

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
LUC 75-4.19
EXPRESSWAY PART 24

I-75-6 (33)204
LIMITED ACCESS

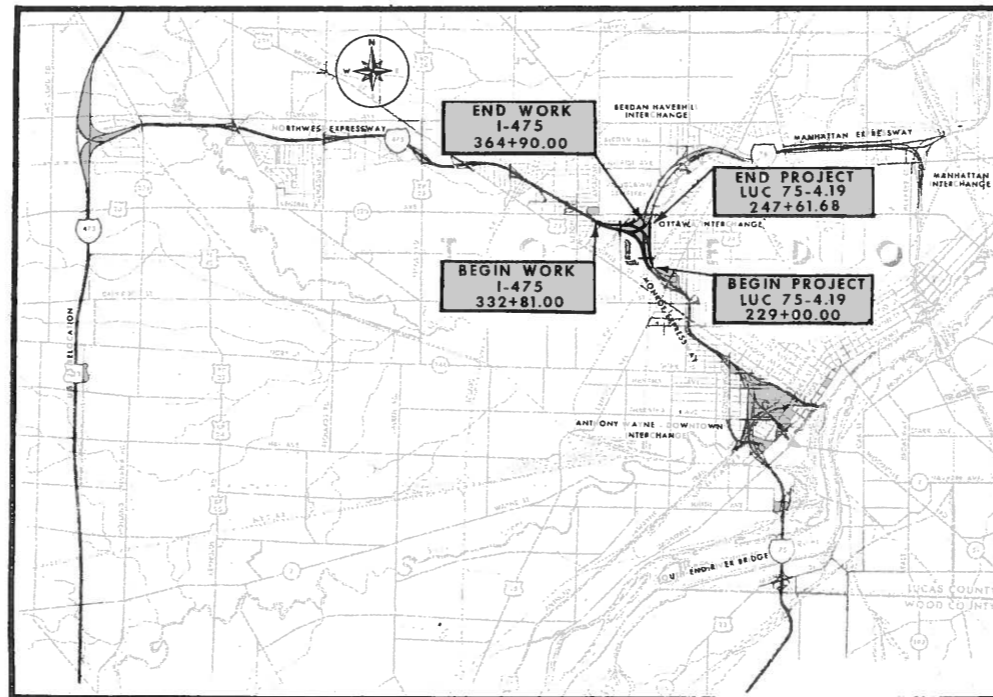
1967 SPECIFICATIONS

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

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

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 THE TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATES



* DELIVERY POINT N.Y.C.R.R. VICINITY OF DELAWARE AVE. AND ALBION STREET CITY OF TOLEDO, OHIO
AVERAGE HAUL 0.38 MILE

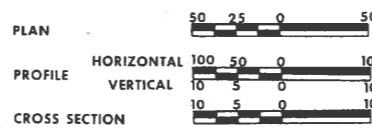
Approval table with columns for APPROVED DATE and names of officials: COUNTY ENGINEER, CITY MANAGER, DIRECTOR OF PUBLIC SERVICE, DIVISION DEPUTY DIRECTOR, ENGINEER OF BRIDGES, ENGINEER OF LOCATION AND DESIGN, DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION, DEPUTY DIRECTOR OF RIGHT OF WAY, DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING, FIRST ASSISTANT DIRECTOR, DIRECTOR OF HIGHWAYS.

LOCATION MAP



PORTION TO BE IMPROVED

OTHER SCALES - FEET



STANDARD DRAWINGS table with columns for NUMBER, DATE, and drawing codes: MC-1, MC-2, MC-3, MC-4, HL-2, MC-6, BP-1, BP-2, BP-3, BP-4, BP-5, BP-6, BP-7, GR-1, GR-2A, GR-6, F-1, F-3, FACI-1, FACI-2, HL-4, HW-E, I-2, I-2A, CB 2-2-A & B, HL-1, CB-3A, CB-5, CB-6, MH-1, MH-1A, MH-2, RB-1-55, MC-7, *BR-1-65, **SD-1-65, AS-1-54, CB 2-5 & 2-6, HW-3, F-5, L-1.

NOTE: THE DESIGNATION LUC. 475-15.83 AND THE RELATED BRIDGE NUMBERS OCCURRING THROUGHOUT THESE PLANS SHALL BE DISREGARDED.

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

KANSAS CITY CLEVELAND NEW YORK

Signature of R. Bergendoff



SUPPLEMENTAL SPECIFICATIONS table with columns for NUMBER, DATE, NUMBER, DATE: 804, 808, 809, 810, 811, 825, 828, 806, 815, 816, 1001.

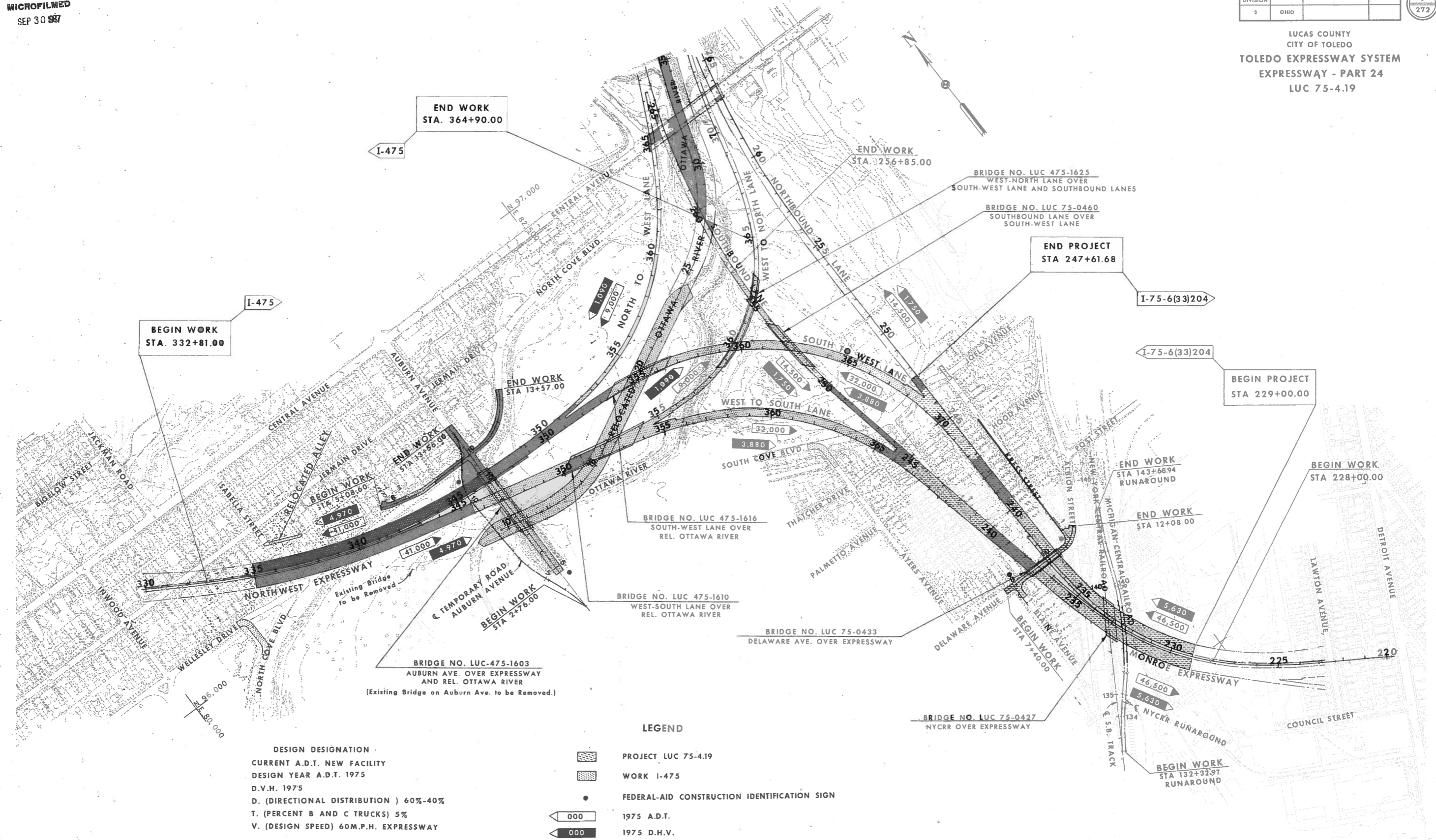
FILE NO., LUCAS COUNTY, SEC. LUC 75-4.19, PART 24, DATE OF LETTING, CONTRACT NO. table.

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER DATE
Rev. 3-14-67 Rev. 3-22-67 Rev. 6-1-67
Rev. 12-29-66 Rev. 1-17-67 Rev. 2-17-67

MICROFILMED
SEP 30 1987

FED. RD. DIVISION	STATE	PROJECT	2
2	OHIO		272

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 24
LUC 75-4.19



DESIGN DESIGNATION
CURRENT A.D.T. NEW FACILITY
DESIGN YEAR A.D.T. 1975
D.V.H. 1975
D. (DIRECTIONAL DISTRIBUTION) 60%-40%
T. (PERCENT B AND C TRUCKS) 5%
V. (DESIGN SPEED) 60M.P.H. EXPRESSWAY

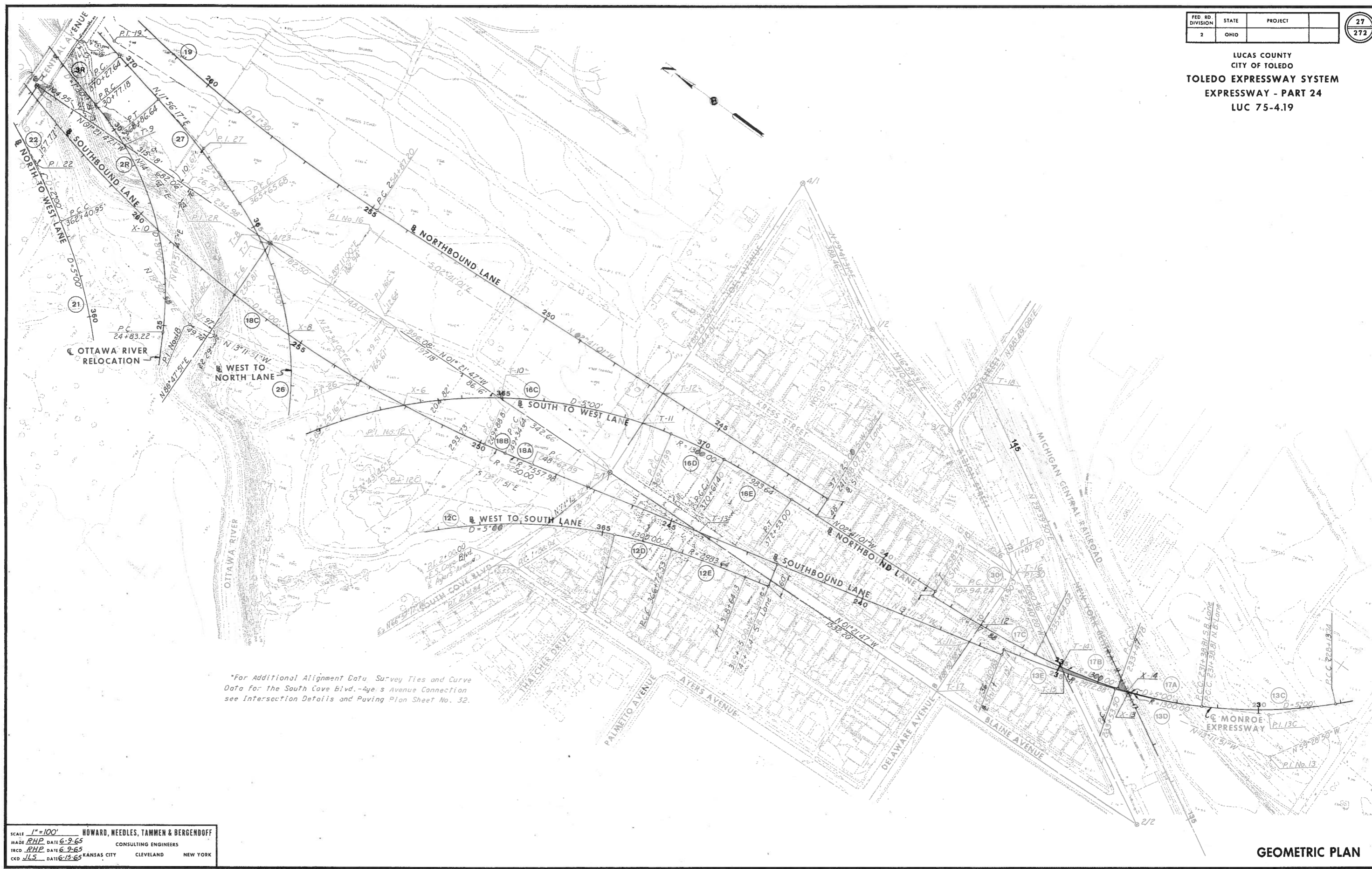
- LEGEND
- PROJECT LUC 75-4.19
 - WORK I-475
 - FEDERAL-AID CONSTRUCTION IDENTIFICATION SIGN
 - 1975 A.D.T.
 - 1975 D.H.V.

SCALE 1" = 200'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE RBB DATE 7-7-65 CONSULTING ENGINEERS
TRCD RBB DATE 7-7-65
CKD DAT DATE 7-12-65 KANSAS CITY CLEVELAND NEW YORK

DESIGN DESIGNATION
SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	27
2	OHIO		272

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 24
LUC 75-4.19



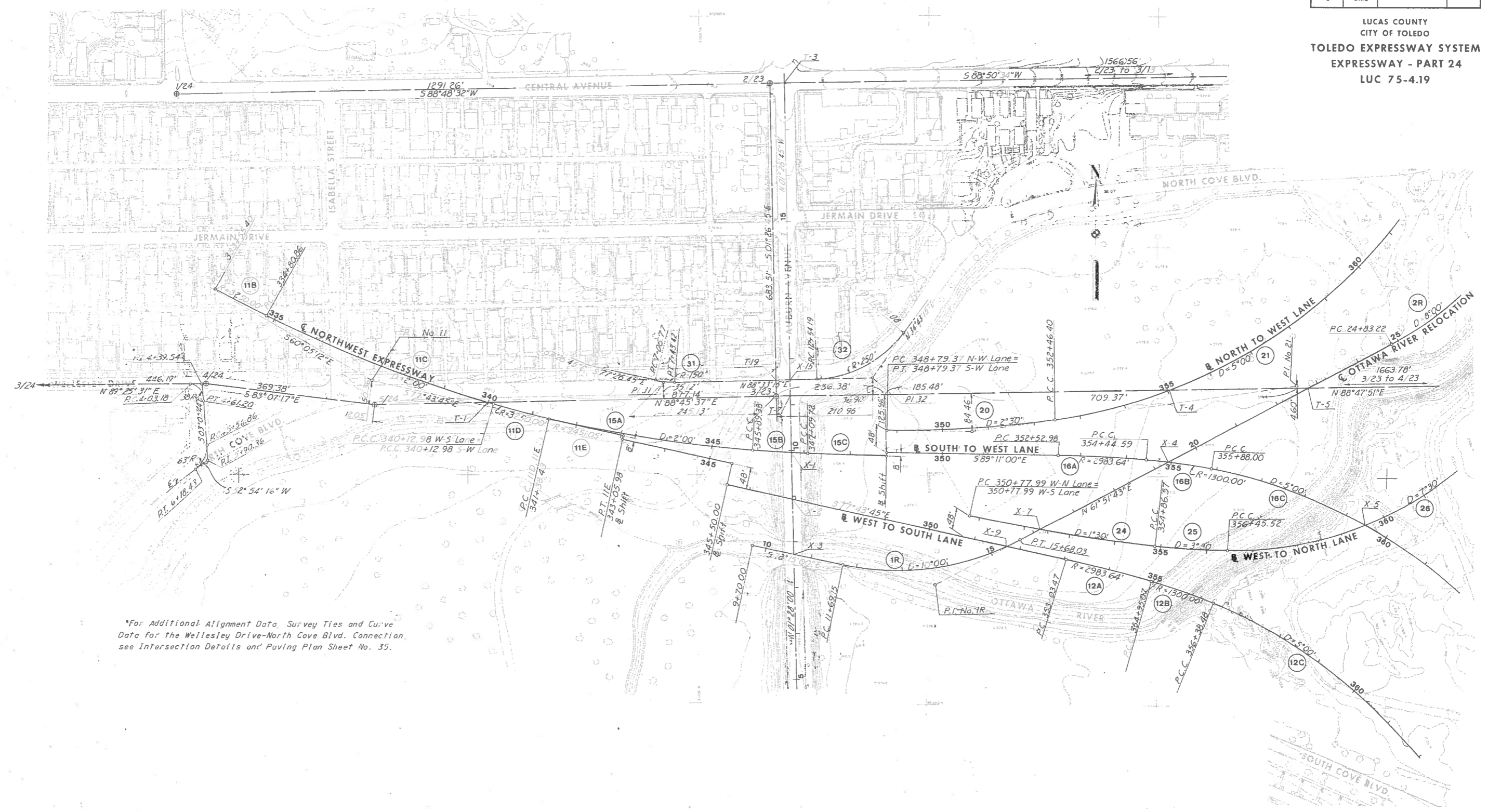
*For Additional Alignment Data, Survey Ties and Curve Data for the South Cove Blvd. - Ayers Avenue Connection see Intersection Details and Paving Plan Sheet No. 32.

SCALE 1"=100'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE RHP DATE 6-2-65 CONSULTING ENGINEERS
TRCD RHP DATE 6-2-65
CDD JLS DATE 6-15-65 KANSAS CITY CLEVELAND NEW YORK

GEOMETRIC PLAN

FED. RD. DIVISION	STATE	PROJECT	28
2	OHIO		272

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 24
LUC 75-4.19



*For Additional Alignment Data, Survey Ties and Curve Data for the Wellesley Drive-North Cove Blvd. Connection, see Intersection Details and Paving Plan Sheet No. 35.

SCALE: 1" = 100'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
MADE RHP, DATE 6-11-65
TRACED RHP, DATE 6-11-65
CKD JLS, DATE 6-15-65
KANSAS CITY CLEVELAND NEW YORK

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 24
LUC 75-4.19

CURVE DATA

NO.	LOCATION	P.C. STATION	P.T. STATION	P.I.		Δ	D	R	L	T	
				COORDINATES							
				STATION							
11A	N.W. Exp.	331+87.86	333+55.40	332+71.64	96,443.99	80,373.72	01°17'18"	00°46'08"	7451.05	167.54	83.77
11B	N.W. Exp.	333+55.40	334+80.86	334+18.14	96,373.80	80,502.31	02°12'42"	01°45'47"	3250.00	125.45	62.73
11C	N.W. Exp.	334+80.86	340+12.98	337+47.69	96,227.20	80,797.48	10°38'33"	02°00'00"	2864.79	532.13	266.83
11D	W-S Lane	340+12.98	341+38.43	340+75.72	96,137.63	81,114.64	02°12'42"	01°45'47"	3250.00	125.45	62.73
11E	W-S Lane	341+38.43	343+05.98	342+22.21	96,103.28	81,257.06	01°17'18"	00°46'08"	7451.05	167.55	83.78
12A	W-S Lane	353+03.47	354+95.07	353+99.30	95,798.39	82,395.37	03°40'46"	01°55'13"	2983.64	191.60	95.83
12B	W-S Lane	354+95.07	356+38.48	355+66.85	95,752.33	82,556.52	06°19'14"	04°24'26"	1300.00	143.41	71.78
12C	W-S Lane	356+38.48	365+29.12	361+07.66	95,547.31	83,057.12	44°31'55"	05°00'00"	1145.92	890.64	469.18
12D	W-S Lane	365+29.12	366+72.53	366+00.90	95,050.09	83,270.21	06°19'15"	04°24'26"	1300.00	143.41	71.78
12E	W-S Lane	366+72.53	368+64.13	367+68.36	94,889.70	83,318.86	03°40'45"	01°55'13"	2983.64	191.60	95.83
13A	Mon. Exp.	223+11.12	225+98.45	224+54.89	93,228.48	84,193.84	05°32'16"	01°55'38"	2972.88	287.34	143.78
13B	Mon. Exp.	225+98.45	228+13.14	227+06.04	93,376.44	83,990.62	09°27'44"	04°24'26"	1300.00	214.69	107.59
13C	Mon. Exp.	228+13.14	231+38.81	229+77.08	93,570.17	83,800.38	16°17'00"	05°00'00"	1145.92	325.66	163.94
13D	S.B. Lane	231+38.81	233+53.50	232+46.40	93,809.48	83,672.07	09°27'45"	04°24'26"	1300.00	214.70	107.59
13E	S.B. Lane	233+53.50	236+40.83	234+97.28	94,047.52	83,591.34	05°32'15"	01°55'38"	2972.88	287.33	143.78
15A	S-W Lane	340+12.98	345+89.38	343+02.16	96,076.08	81,332.55	11°31'40"	02°00'00"	2864.79	576.40	289.17
15B	S-W Lane	345+89.38	347+09.72	346+49.56	96,050.24	81,680.95	02°07'18"	01°45'47"	3250.00	120.34	60.18
15C	S-W Lane	347+09.72	348+79.37	347+94.55	96,044.87	81,825.86	01°18'16"	00°46'08"	7451.05	169.66	84.83
16A	S-W Lane	352+52.98	354+44.59	353+48.82	96,044.96	82,380.20	03°40'46"	01°55'13"	2983.64	191.60	95.83
16B	S-W Lane	354+44.59	355+88.00	355+16.36	96,031.83	82,547.29	06°19'14"	04°24'26"	1300.00	143.41	71.78
16C	S-W Lane	355+88.00	369+17.99	363+39.29	95,877.36	83,355.73	66°29'59"	05°00'00"	1145.92	1329.99	751.29
16D	S-W Lane	369+17.99	370+61.40	369+89.77	95,074.38	83,536.44	06°19'15"	04°24'26"	1300.00	143.41	71.78
16E	S-W Lane	370+61.40	372+53.00	371+57.23	94,907.80	83,555.02	03°40'45"	01°55'13"	2983.64	191.59	95.83
17A	N.B. Lane	231+38.81	233+47.78	232+43.58	93,806.99	83,673.40	10°26'55"	05°00'00"	1145.92	208.97	104.78
17B	N.B. Lane	233+47.78	235+64.02	234+56.15	94,010.00	83,608.43	09°31'51"	04°24'26"	1300.00	216.25	108.37
17C	N.B. Lane	235+64.02	238+51.19	237+07.72	94,259.48	83,572.40	05°39'04"	01°55'38"	2972.88	287.16	143.69
18A	S.B. Lane	248+62.89	249+34.64	248+98.77	95,409.30	83,258.65	00°32'38"	00°45'29"	7557.98	71.76	35.88
18B	S.B. Lane	249+34.64	249+88.87	249+61.76	95,470.76	83,244.85	00°57'22"	01°45'47"	3250.00	54.23	27.12
18C	S.B. Lane	249+88.87	264+91.22	257+57.76	96,250.24	83,083.46	30°02'49"	02°00'00"	2864.79	1502.35	768.88
18D	S.B. Lane	264+91.22	265+45.44	265+18.33	97,005.74	83,334.05	00°57'21"	01°45'47"	3250.00	54.22	27.11
18E	S.B. Lane	265+45.44	266+17.22	265+81.33	97,065.20	83,354.88	00°32'39"	00°45'29"	7557.98	71.79	35.89
19	N.B. Lane	254+87.20	269+89.42	262+48.14	96,800.20	83,514.37	22°32'00"	01°30'00"	3819.72	1502.22	760.94
20	N-W Lane	348+79.37	352+46.40	350+63.28	96,097.03	82,095.37	09°10'33"	00°30'00"	2291.83	367.03	183.91
21	N-W Lane	352+46.40	362+40.95	357+77.43	96,200.97	82,802.71	49°43'38"	05°00'00"	1145.92	994.54	531.03
22	N-W Lane	362+40.95	365+44.61	363+92.92	96,780.73	83,163.78	06°04'24"	02°00'00"	2864.79	303.66	151.97
23	N-W Lane	365+44.61	371+43.71	368+44.43	97,187.35	83,360.70	05°59'28"	01°00'00"	5729.58	599.10	299.82
24	W-N Lane	350+77.99	354+86.57	352+82.48	95,870.12	82,291.41	06°07'44"	01°30'00"	3819.72	408.58	204.49
25	W-N Lane	354+86.57	356+45.52	355+66.11	95,839.73	82,573.80	05°33'49"	03°30'00"	1637.02	158.95	79.54
26	W-N Lane	356+45.52	365+65.68	361+70.68	95,833.62	83,178.47	69°00'42"	07°30'00"	763.94	920.16	525.16
27	W-N Lane	365+65.68	368+86.64	367+26.54	96,471.61	83,430.64	09°37'44"	03°00'00"	1909.86	320.97	160.86
28	W-N Lane	370+27.64	374+23.22	372+25.74	96,960.76	83,534.06	07°54'41"	02°00'00"	2864.79	395.57	198.10
1R	Rel. River	11+69.15	15+68.03	13+77.06	95,763.11	82,018.53	39°53'17"	10°00'00"	572.96	398.88	207.91
2R	Rel. River	24+83.22	30+77.18	27+98.48	96,441.43	83,286.89	47°31'01"	08°00'00"	716.20	593.96	315.26
3R	Rel. River	30+77.18	34+44.15	32+60.81	96,924.76	83,410.50	05°30'16"	01°30'00"	3819.72	366.97	183.62
30	Delaware	10+94.24	11+87.20	11+45.34	94,270.39	83,731.76	59°10'38"	63°39'43"	90.00	92.96	51.10
31	North Cove	7+06.77	7+43.42	7+25.18	96,202.43	81,425.99	14°00'00"	38°11'50"	150.00	36.65	18.42
32	North Cove	10+54.19	12+89.08	11+81.11	96,213.94	81,881.95	53°50'00"	22°55'06"	250.00	234.89	126.92

TRAVERSE INTERSECTION DATA

NO.	TRAVERSE TIE LINE	DISTANCE FROM	BASE LINE		COORDINATES	
			LOCATION	STATION	NORTH	EAST
T-1	5/24 - 3/23	244.50 - 5/24	N.W. Exp.	339+97.44	96,158.94	81,039.32
T-2	3/23 - 4/23	30.00 - 3/23	Auburn Ave.	11+18.87	96,173.25	81,701.81
T-3	2/23 - 3/13	30.00 - 2/23	Auburn Ave.	18+02.36	96,856.52	81,684.57
T-4	3/23 - 4/23	857.26 - 3/23	N-W Lane	355+07.27	96,190.61	82,528.89
T-5	3/23 - 4/23	505.63 - 4/23	Rel. River	22+80.02	96,196.93	82,829.71
T-6	3/23 - 4/23	152.63 - 4/23	Southbound Lane	256+99.98	96,204.34	83,182.63
T-7	3/23 - 4/23	20.72 - 4/23	W-N Lane	364+37.26	96,207.10	83,314.51
T-8	6/1 - 4/23	34.47 - 4/23	W-N Lane	364+77.43	96,242.00	83,334.41
T-9	6/1 - 4/23	257.12 - 6/1	Rel. River	29+55.78	96,632.35	83,325.12
T-10	4/23 - 5/1	671.88 - 4/23	S-W Lane	364+88.93	95,535.85	83,351.21
T-11	5/1 - 4/1	143.33 - 5/1	S-W Lane	368+44.25	95,215.78	83,502.19
T-12	5/1 - 4/1	229.69 - 5/1	N.B. Lane	246+64.42	95,218.21	83,588.52
T-13	5/1 - 2/2	256.11 - 2/2	S.B. Lane	244+32.87	94,955.71	83,365.01
T-14	3/2 - 2/2	637.09 - 3/2	N.B. Lane	234+93.48	94,047.74	83,604.91
T-15	3/2 - 2/2	650.52 - 3/2	S.B. Lane	234+84.25	94,036.07	83,598.26
T-16	3/2 - 2/2	380.84 - 3/2	Delaware Ave	PI 11+45.34	94,270.39	83,731.76
T-17	5/1 - 2/2	948.65 - 5/1	Delaware Ave	7+95.00	94,263.36	83,381.49
T-18	3/2 - 4/2	139.17 - 3/2	N.Y.C.R.R.	146+73.00	94,604.16	84,059.43
T-19	3/23 - 2/23	36.00 - 3/23	N. Cove Blvd.	9+70.00	96,208.61	81,670.91

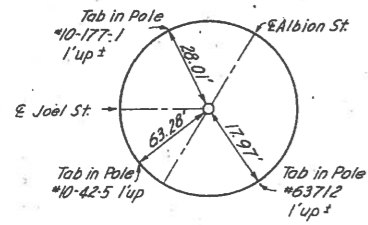
TRAVERSE POINT DATA

POINT	COORDINATES	
	NORTH	EAST
4/1	95,235.54	84,203.40
5/1	95,211.74	83,358.92
6/1	96,889.40	83,319.00
1/2	94,898.09	84,010.98
2/2	93,679.97	83,395.79
3/2	94,601.29	83,920.29
4/2	94,615.30	84,599.92
5/2	94,294.01	84,606.28
6/2	93,947.49	84,395.79
7/2	93,807.26	84,688.16
8/2	92,896.15	84,251.04
9/2	93,011.66	84,010.61
10/2	93,545.82	83,318.92
3/13	96,887.55	83,220.92
2/23	96,855.92	81,654.57
3/23	96,172.62	81,671.82
4/23	96,207.54	83,335.23
1/24	96,829.08	80,363.59
4/24	96,197.89	80,428.17
5/24	96,153.65	80,794.88
3/24	96,193.41	79,982.00

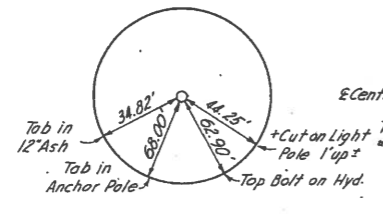
BASELINE INTERSECTION CHART

NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-1	Auburn Avenue	9+95.12	96,049.54	81,704.98
	South-West Lane	346+73.58		
X-2	Auburn Avenue	8+93.52	95,947.98	81,707.58
	West-South Lane	346+95.44		
X-3	Auburn Avenue	7+72.64	95,827.14	81,710.67
	Rel. Ottawa River	10+62.61		
X-4	South-West Lane	354+92.03	96,032.87	82,522.95
	Rel. Ottawa River	19+32.15		
X-5	South-West Lane	359+46.91	95,897.34	82,954.12
	West-North Lane	359+54.02		
X-6	South-West Lane	362+57.93	95,712.74	83,203.25
	Southbound Lane	252+07.34		
X-7	Rel. Ottawa River	16+15.77	95,883.66	82,243.96
	West-North Lane	352+33.28		
X-8	West-N			

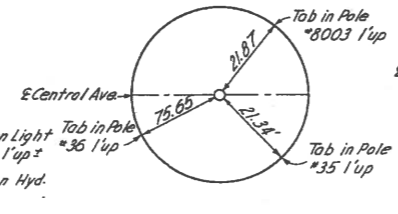
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 24
LUC 75-4.19



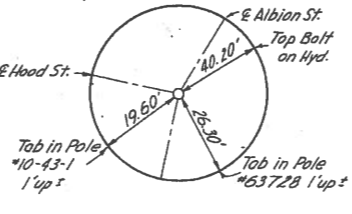
POINT 4/1
+Cut in Brick Pymt.



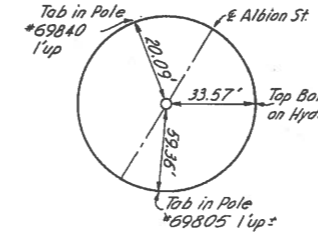
POINT 5/1
High Point on Bent Bolt



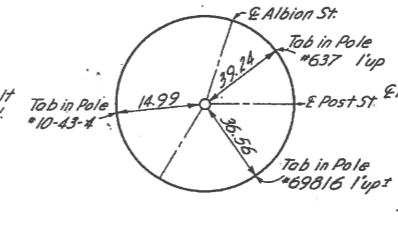
POINT 6/1
P.K. Nail



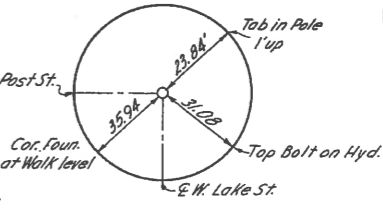
POINT 1/2
R.K. Nail



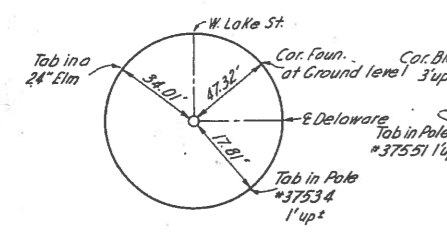
POINT 2/2
+Cut in Brick



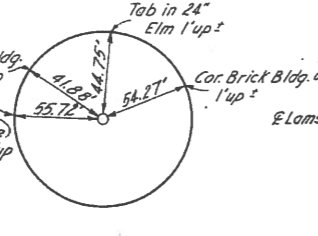
POINT 3/2
+Cut on M.H.
Cuts on Rim



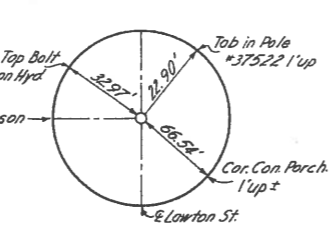
POINT 4/2
R.K. Nail



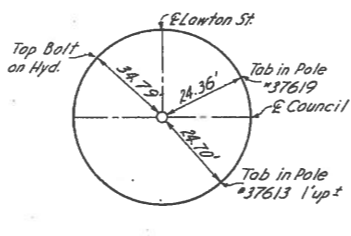
POINT 5/2
+Cut in Brick



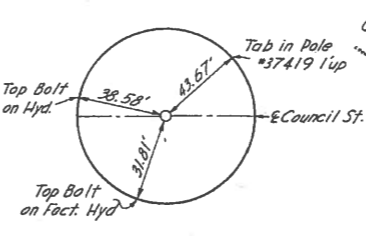
POINT 6/2
R.R. Spike



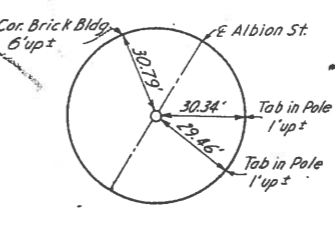
POINT 7/2
+Cut in Bent Spike



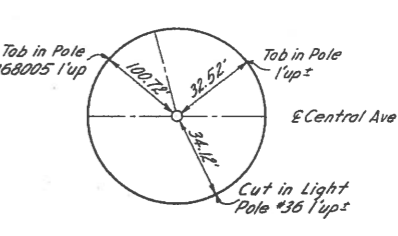
POINT 8/2
Small Pin in Brick Crack cuts
in adjoining Brick



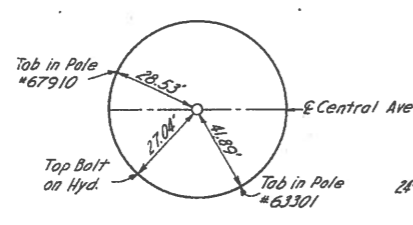
POINT 9/2
+Cut in Brick Pavement



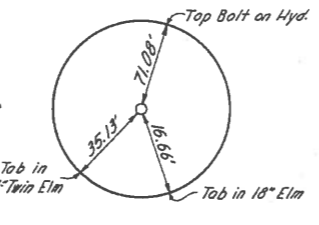
POINT 10/2
R.K. Nail



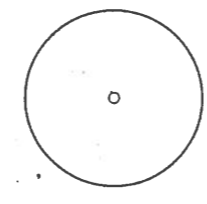
Same as 1/23
POINT 3/13
R.K. Nail



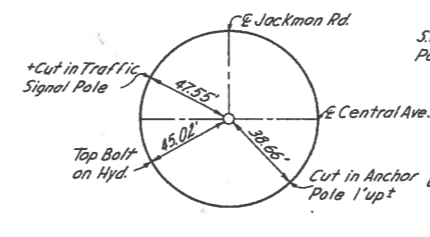
POINT 2/23
R.K. Nail



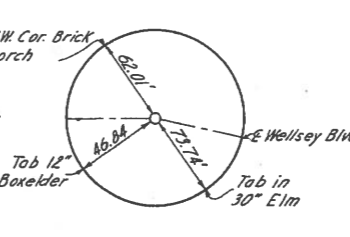
POINT 3/23
+Cut in Walk



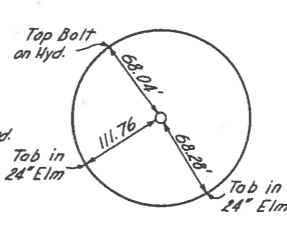
No Physical Points to Reference to
POINT 4/23
Iron Pipe



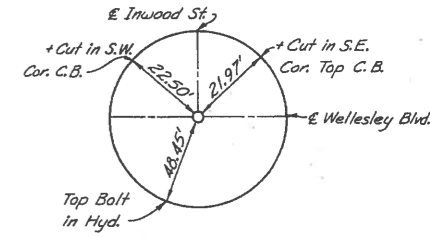
POINT 1/24
Monument



POINT 4/24
+Cut in Pymt.



POINT 5/24
Pipe

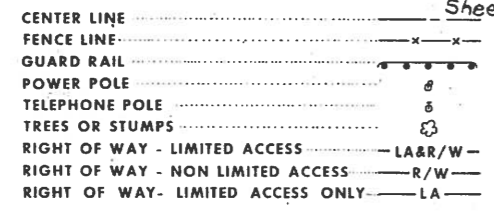


POINT 3/24
+Cut in Pymt.

3142

MICROFILMED
OCT 24 1986
15

CONVENTIONAL SIGNS



INDEX OF SHEETS

Table listing sheet numbers and titles, including Title Sheet, Schematic Plan & Design Designation, General Notes, Summary of Quantities, Quantity Calculations, Typical Sections, Geometric Plan, Geometric Data, Traverse Ties, Reference Ties, Sequence of Construction, Pavement Plans, Approach Slab and Guard Rail Details, Intersection Details, Driveway Details, Grading and Slope Protection, Profiles, Existing Utilities, Pavement Removal, Drainage Plans, and 109A-109H Water Main Relocation.

Sheet No 247 not used

LINE DATA

Table providing line data for normal participation and special state-city participation, including begin/end project stations, net length of project, and total length of work.

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

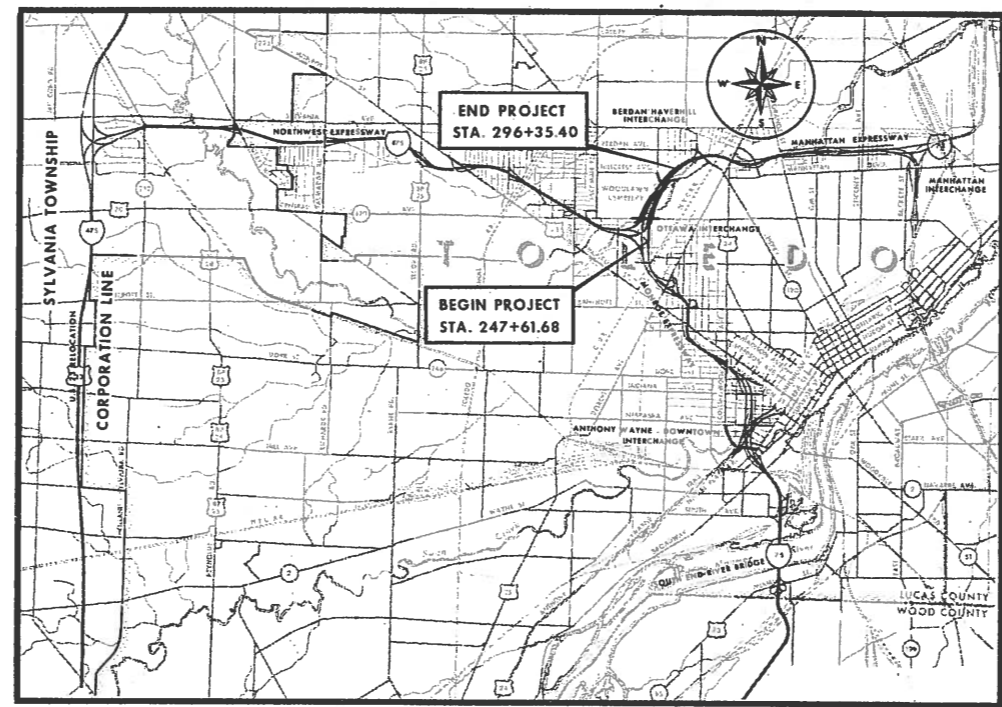
Carl E. Erb



SUPPLEMENTAL SPECIFICATIONS table with columns for Number, Date, Number, and Date, listing various specification numbers and their effective dates.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC 75-4.54
LUCAS COUNTY
CITY OF TOLEDO

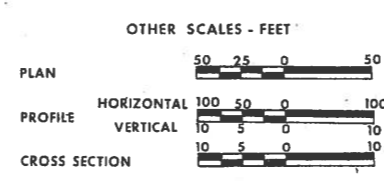
TOLEDO EXPRESSWAY SYSTEM - PART 33
MANHATTAN EXPRESSWAY
OTTAWA INTERCHANGE TO DREXEL DRIVE



LOCATION MAP



PORTION TO BE IMPROVED



STANDARD DRAWINGS table with columns for Number, Date, Number, and Date, listing drawing numbers and their dates.

FED. RD. DIVISION, STATE, FED. AID PROJ. NO. table with values 2, OHIO, 1-75-6(42)204.

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 33
LUC 75-4.54

1-75-6(42)204
LIMITED ACCESS

1969 SPECIFICATIONS

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.
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 TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF THE TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATE.

APPROVED DATE 12-18-69 COUNTY ENGINEER LUCAS COUNTY
APPROVED DATE 12-18-69 CITY MANAGER, CITY OF TOLEDO
APPROVED DATE 12-19-69 DIVISION DEPUTY DIRECTOR
APPROVED DATE 1-13-70 ENGINEER OF BRIDGES
APPROVED DATE 1-13-70 ENGINEER OF LOCATION AND DESIGN
APPROVED DATE 1-13-70 DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
APPROVED DATE 7-15-70 DEPUTY DIRECTOR OF RIGHT OF WAY
APPROVED DATE 4-19-70 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
APPROVED DATE 4-19-70 FIRST ASSISTANT DIRECTOR
APPROVED DATE 4-19-70 DIRECTOR OF HIGHWAYS

Sheet Nos. 6, 7, 8, 13, 21 & 134
revised 11-9-70 AWG

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER DATE _____

FILE NO. LUCAS COUNTY
SEC. LUC 75-4.54 PART 33
DATE OF LETTING 19 _____
CONTRACT NO. _____

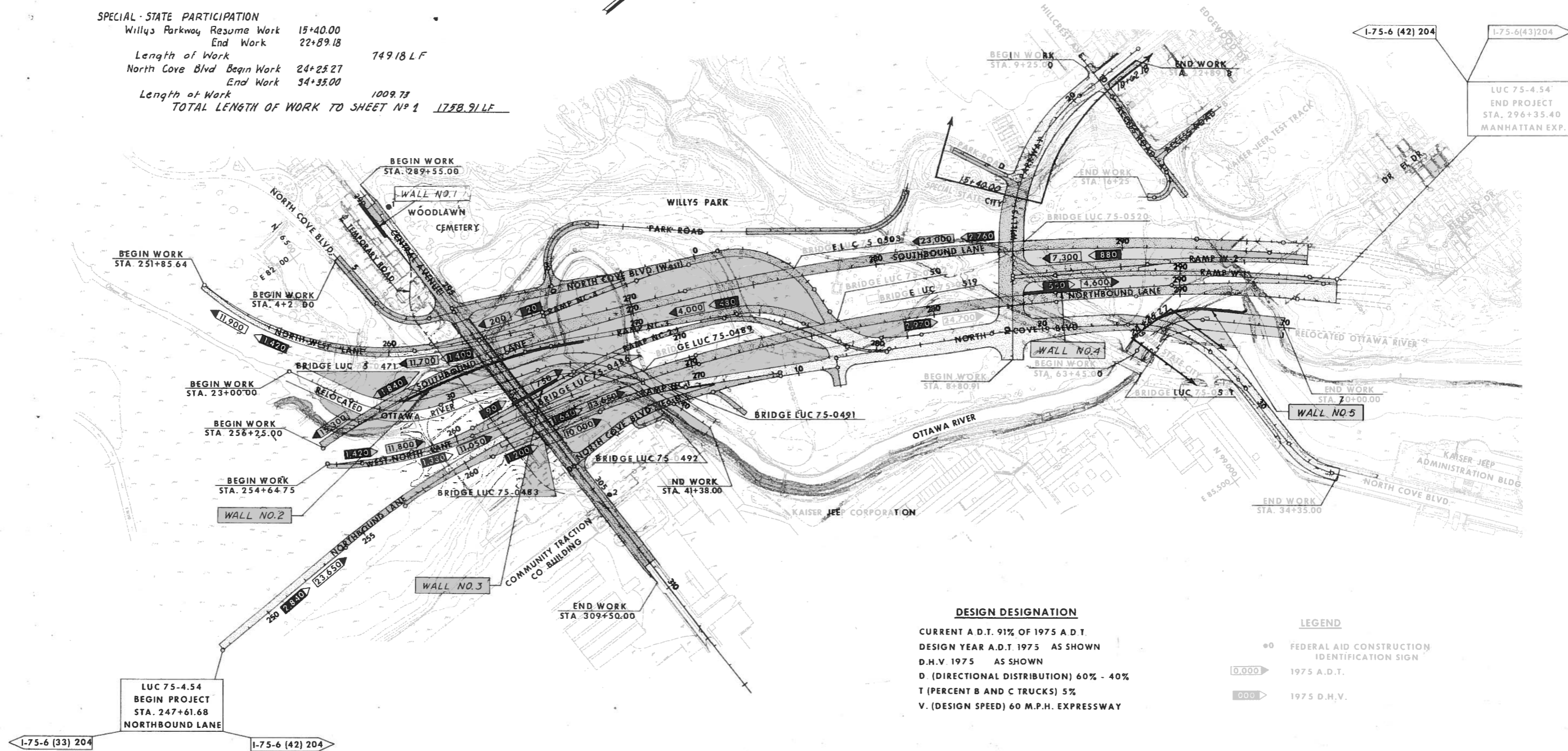
MICROFILMED
OCT 15 1986

PARTIAL LINE DATA
NORMAL PARTICIPATION
 Central Ave Begin Work 289+55.00
 End Work 309+50.00
 Length of Work 1995.00 LF
 Willys Parkway Begin Work 8+80.91
 Suspend Work 15+40.00
 Length of Work 659.09 LF
 Access Road A Begin Work 10+62.18
 End Work 15+85.00
 Length of Work 522.82 LF
TOTAL LENGTH OF WORK TO SHEET No 1 3176.91 LF

SPECIAL STATE PARTICIPATION
 Willys Parkway Resume Work 15+40.00
 End Work 22+89.18
 Length of Work 749.18 LF
 North Cove Blvd Begin Work 24+25.27
 End Work 34+35.00
 Length of Work 1009.73
TOTAL LENGTH OF WORK TO SHEET No 1 1758.91 LF

FED RD DIVISION	STATE	PROJECT	2
2	OHIO		478

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 33
LUC 75-4.54

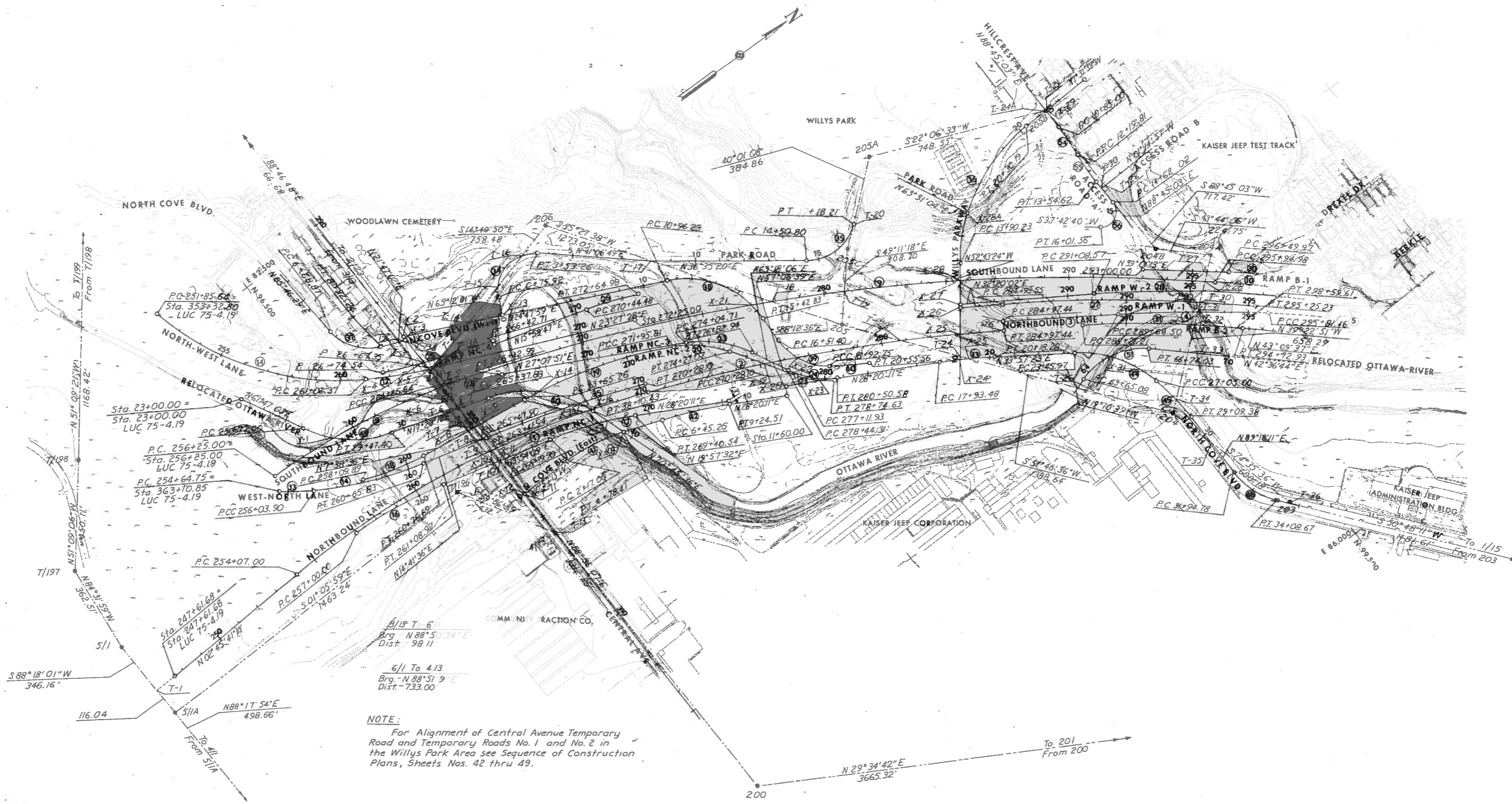


SCALE 1" = 200'
 MADE JLS DATE 1-69
 TRCD RHP DATE 1-69
 CKD RHP DATE 1-69
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK

SCHEMATIC PLAN AND DESIGN DESIGNATIONS

FED. RD. DIVISION	STATE	PROJECT	35 478
2	OHIO		

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 33
LUC 75-4.54



NOTE:
For Alignment of Central Avenue Temporary Road and Temporary Roads No. 1 and No. 2 in the Willys Park Area see Sequence of Construction Plans, Sheets Nos. 42 thru 49.

SCALE 1" = 200'
MADE GLO DATE 12-58
TRCD GLO DATE 1-69
CRD RHL DATE 1-69
HOWARD, NEEDLES, TAMMEN & BERGENOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

GEOMETRIC PLAN

CURVE DATA

NO.	LOCATION	P.C. STATION	P.T. STATION	P. I.		DELTA ANGLE	DEGREE CURVE	RADIUS	TANGENT	LENGTH	E	
				COORDINATES								
				NORTH	EAST							
1	N.B. Lane	254+07.00	270+28.10	262+29.94	96,784.78	83,515.06	24°18'59"	1°30'00"	3819.72	822.94	1621.10	87.64
2	N.B. Lane	270+28.10	284+97.44	277+65.04	98,235.56	84,088.15	11°01'12"	0°45'00"	7639.44	736.94	1469.34	35.46
3	N.B. Lane	284+97.44	289+68.50	287+32.98	99,074.45	84,581.40	1°10'40"	0°15'00"	22918.31	235.54	471.07	1.21
4	N.B. Lane	289+68.50	295+81.46	292+75.27	99,525.35	84,882.71	6°07'46"	1°00'00"	5729.58	306.77	612.95	8.21
5	N.B. Lane	295+81.46	304+63.22	300+24.31	100,100.58	85,363.38	13°13'35"	1°30'00"	3819.72	442.85	881.76	25.59
8	S.B. Lane	256+25.00	264+65.84	260+48.47	96,555.10	83,188.03	16°49'01"	2°00'00"	2864.79	423.47	840.84	31.13
9	S.B. Lane	264+65.84	295+94.98	280+52.66	98,469.54	83,801.36	23°28'07"	0°45'00"	7639.44	1586.82	3129.14	163.06
10	S.B. Lane	295+94.98	309+72.67	302+91.39	100,186.62	85,306.27	20°39'55"	1°30'00"	3819.72	696.41	1377.68	62.96
11	N-W Lane	251+85.64	261+02.37	256+70.13	96,247.72	82,835.47	45°50'10"	5°00'00"	1145.92	484.48	916.73	98.21
12	N-W Lane	261+02.37	263+67.35	262+35.07	96,774.48	83,157.10	7°56'58"	3°00'00"	1909.86	132.70	264.98	4.60
13	W-N Lane	254+64.75	256+03.90	255+34.50	96,160.22	83,286.54	9°44'26"	7°00'00"	818.51	69.74	139.15	2.97
14	W-N Lane	256+03.90	260+65.83	258+36.41	96,419.68	83,441.58	16°10'03"	3°30'00"	1637.02	232.51	461.93	16.43
15	W-N Lane	263+41.94	270+28.10	266+85.43	97,243.92	83,657.72	6°51'42"	1°00'00"	5729.58	343.49	686.16	10.29
16	Ramp NG1	257+00.00	261+08.97	259+05.27	96,460.55	83,589.66	12°16'08"	3°00'00"	1909.86	205.27	408.97	11.00
17	Ramp NG1	265+79.70	269+40.54	267+61.08	97,292.82	83,775.67	14°26'02"	4°00'00"	1432.39	181.38	360.84	11.44
18	Ramp NG2	258+09.89	260+76.69	259+44.17	96,530.90	83,459.47	16°00'28"	6°00'00"	954.93	134.27	266.80	9.39
19	Ramp NG2	265+47.90	271+95.81	268+75.00	97,455.19	83,583.51	19°26'14"	3°00'00"	1909.86	327.10	647.91	27.81
20	Ramp NG2	271+95.81	274+27.07	273+14.17	97,851.81	83,786.30	30°03'49"	13°00'00"	440.74	118.36	231.26	15.62
21	Ramp NG2	277+11.93	278+74.63	277+94.82	98,117.22	84,193.56	26°56'31"	16°33'34"	346.00	82.88	162.70	9.79
22	Ramp NG3	265+37.88	266+42.99	265+90.48	97,069.18	83,377.01	6°18'24"	6°00'00"	954.93	52.61	105.11	1.45
23	Ramp NG3	274+04.71	276+82.94	275+48.64	97,922.00	83,814.00	36°10'15"	13°00'00"	440.74	143.93	278.24	22.91
24	Ramp NG3	278+44.31	280+50.58	279+50.77	98,107.00	84,181.85	34°57'55"	16°57'05"	338.00	106.46	206.21	16.37
25	Ramp NG4	261+74.54	266+42.71	264+09.14	96,944.46	83,206.91	9°21'48"	2°00'00"	2864.79	234.61	468.17	9.59
26	Ramp NG4	270+44.48	272+64.98	271+54.95	97,658.04	83,427.90	8°49'12"	4°00'00"	1432.39	110.47	220.50	4.25
27	Ramp W-1	284+93.55	295+25.23	290+10.79	99,353.84	84,674.37	10°19'00"	1°00'00"	5729.58	517.24	1031.68	23.30
28	Ramp W-2	291+08.57	298+59.61	294+85.31	99,560.32	84,788.50	11°15'56"	1°30'00"	3819.72	376.74	751.04	18.53
30	Ramp B-1	296+49.97	303+57.38	300+05.48	100,008.12	85,073.36	14°08'53"	2°00'00"	2864.79	355.51	707.40	21.98
31	Ramp B-2	288+21.21	294+72.93	291+47.87	99,400.51	84,840.63	9°46'33"	1°30'00"	3819.72	326.65	651.72	13.94
34	Willis Pky.	0+75.92	3+53.26	2+74.74	97,378.02	82,965.02	105°56'04"	38°11'50"	150.00	198.82	277.34	99.06
35	Willis Pky.	14+50.80	17+18.21	16+08.77	98,514.46	83,870.88	76°36'28"	28°38'52"	200.00	157.97	267.41	54.86
36	Willis Pky.	13+90.23	20+30.19	17+33.35	99,089.18	83,889.54	51°11'46"	8°00'00"	716.20	343.12	639.95	77.95
37	N. Cove Blvd.	6+68.87	8+92.24	7+93.82	96,672.03	82,970.50	63°59'28"	28°38'52"	200.00	124.95	223.37	35.82
38	N. Cove West	10+96.23	15+42.83	13+49.01	98,112.46	83,607.03	66°59'24"	15°00'00"	381.97	252.77	446.60	76.06
39	N. Cove West	16+51.40	18+92.75	17+82.41	98,097.08	84,099.14	55°18'46"	22°55'06"	250.00	131.01	241.35	32.25
40	N. Cove West	18+92.75	20+55.56	19+74.29	98,268.00	84,225.50	8°08'27"	5°00'00"	1145.92	81.54	162.82	2.90
41	N. Cove East	2+17.00	4+78.41	3+49.17	97,250.39	83,840.28	20°54'45"	8°00'00"	716.20	132.17	261.41	12.09
42	N. Cove East	6+45.26	9+24.51	7+85.13	97,662.93	83,990.10	8°22'39"	3°00'00"	1909.86	139.88	279.25	5.12
43	N. Cove Blvd.	17+93.48	20+18.28	19+05.97	98,668.89	84,487.13	5°37'12"	2°30'00"	2291.83	112.49	224.80	2.76
44	N. Cove Blvd.	23+45.97	27+05.00	25+34.45	99,190.34	84,838.28	43°05'02"	12°00'00"	477.46	188.48	359.03	35.86
45	N. Cove Blvd.	27+05.00	29+09.38	28+07.58	99,255.62	85,121.93	12°15'46"	6°00'00"	954.93	102.58	204.38	5.49
46	N. Cove Blvd.	31+94.78	34+08.67	33+05.94	99,261.69	85,621.03	38°30'00"	18°00'00"	318.31	111.16	213.89	18.85
49	Rel. Ottawa R.	25+77.00	29+47.40	27+72.08	96,431.40	83,263.92	44°26'15"	12°00'00"	477.46	195.08	370.40	38.32
50	Rel. Ottawa R.	33+65.24	38+10.43	36+05.50	97,245.83	83,518.16	53°25'24"	12°00'00"	477.46	240.26	445.20	57.04
51	Rel. Ottawa R.	63+65.08	66+74.02	65+36.50	99,160.84	84,782.94	61°47'23"	20°00'00"	286.48	171.42	308.95	47.37
54	Access Rd. W	10+85.00	12+19.81	11+52.52	99,537.76	84,030.15	8°05'19"	6°00'00"	954.93	67.52	134.81	2.38
55	Access Rd. W	12+19.81	13+54.62	12+87.33	99,521.68	84,164.23	8°05'19"	6°00'00"	954.93	67.52	134.81	2.38
56	Access Rd. W	14+62.02	16+01.56	15+91.89	99,528.33	84,468.94	128°57'37"	92°24'45"	62.00	129.87	139.55	81.91

BASELINE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-1	Southbound Lane Rel. Ottawa Riv.	259+12.70 27+11.68	95,418.63	83,200.21
X-2	Central Avenue N. Cove Blvd. W.	295+74.98 0+00.00	96,887.86	83,041.19
X-3	Central Avenue N. Cove Blvd.	295+90.75 10+00.00	96,888.13	83,056.96
X-4	Central Avenue Ramp NC-4	297+09.26 263+46.65	96,890.10	83,175.45
X-5	Central Avenue N-W Lane	297+41.31 263+61.26	96,890.63	83,207.49
X-6	Central Avenue Southbound Lane	298+30.71 263+96.53	96,892.12	83,296.88
X-7	Central Avenue Rel. Ottawa Riv.	299+42.16 32+36.90	96,893.98	83,408.32
X-8	Central Avenue Ramp NC-2	300+42.27 263+14.16	96,895.64	83,508.42
X-9	Central Avenue W-N Lane	301+00.51 263+26.38	96,896.61	83,566.65
X-10	Central Avenue Northbound Lane	301+58.65 263+46.78	96,897.58	83,624.77
X-11	Central Avenue Ramp NC-1	302+11.94 263+54.83	96,898.47	83,678.06
X-12	Central Avenue N. Cove Blvd. E.	303+80.00 0+00.00	96,901.26	83,846.10
X-13	N. Cove Blvd. W. Willis Pky. Conn.	4+13.00 0+00.00	97,262.78	83,214.42
X-14	Ramp NC-2 Rel. Ottawa Riv.	266+14.00 35+74.36	97,196.35	83,549.92
X-15	W-N Lane Rel. Ottawa Riv.	267+48.12 37+47.88	97,300.58	83,687.46
X-16	Northbound Lane Rel. Ottawa Riv.	267+85.16 38+00.21	97,321.53	83,735.39
X-17	Ramp NC-1 Rel. Ottawa Riv.	268+24.22 38+80.09	97,347.95	83,810.77
X-18	N. Cove Blvd. E. Rel. Ottawa Riv.	4+77.66 39+58.86	97,373.91	83,885.14
X-19	Northbound Lane Ramp NC-2	275+18.24 275+78.65	97,999.94	84,011.97
X-20	Northbound Lane Ramp NC-3	275+49.65 277+75.66	98,028.32	84,025.42
X-21	Southbound Lane N. Cove Blvd. W.	277+02.00 14+70.67	98,100.02	83,787.76
X-22	Northbound Lane N. Cove Blvd. W.	276+50.59 17+54.95	98,119.16	84,069.42
X-23	Ramp NC-2 N. Cove Blvd.	278+19.58 13+09.25	98,143.67	84,203.90
X-24	Willis Pky. Ext. N. Cove Blvd.	9+97.38 18+77.91	98,643.43	84,475.17
X-25	Willis Pky. Ext. Northbound Lane	11+02.24 283+21.15	98,706.94	84,391.73
X-26	Willis Pky. Ext. Ramp W-1	12+09.82 283+22.30	98,772.10	84,306.12
X-27	Willis Pky. Ext. Ramp W-2	12+23.88 285+62.52	98,780.62	84,294.94
X-28	Willis Pky. Ext. Southbound Lane	13+19.94 285+57.62	98,838.80	84,218.50

BASELINE INTERSECTION DATA

NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-28A	Willis Pky. Ext. Willis Pky. Conn.	15+95.16 23+58.89	99,026.97	84,019.36
X-29	Willis Pky. Ext. Access Road A	21+32.48 10+00.00	99,534.44	83,877.67
X-30	Access Road A Access Road B	13+88.47 0+00.00	99,523.89	84,265.57
X-31	North Cove Blvd. Rel. Ottawa River	24+85.64 65+04.97	99,136.88	84,826.73

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 33
LUC 75 - 4.54

TRAVERSE INTERSECTION DATA

NO.	TRAVERSE TIE		BASELINE		COORDINATES	
	LINE	DISTANCE FROM	LOCATION	STATION	NORTH	EAST
T-1	5/1 - 5/1A	116.04 - 5/1A	N. bound Lane	246+64.62	95,221.28	83,590.47
T-2	2/23- 3/13	164.36 - 3/13	N. Cove Blvd.	9+98.16	96,886.42	83,056.28
T-3	2/23- 3/13	45.63 - 3/13	Ramp NC-4	263+45.41	96,888.95	83,174.99
T-4	2/23- 3/13	13.55 - 3/13	N-W Lane	263+60.17	96,889.63	83,207.05
T-5	3/13- 6/1	22.01 - 6/1	S. bound Lane	263+95.84	96,891.46	83,296.68
T-6	6/1 - 4/13	89.56 - 6/1	Rel. Ottawa Riv	32+36.60	96,893.69	83,408.23
T-7	6/1 - 4/13	189.77 - 6/1	Ramp NC-2	263+10.48	96,895.69	83,508.42
T-8	6/1 - 4/13	248.07 - 6/1	W-N Lane	263+26.63	96,896.86	83,566.71
T-9	6/1 - 4/13	306.23 - 6/1	N. bound Lane	263+47.22	96,898.02	83,624.86
T-10	6/1 - 4/13	359.60 - 6/1	Ramp NC-1	263+55.47	96,899.08	83,678.21
T-11	6/1 - 4/13	527.49 - 6/1	N. Cove East	0+01.18	96,902.44	83,846.08
T-12	6/1 - 4/13	174.71 - 6/1	Central Ave.	300+27.22	96,895.39	83,493.36
T-13	196 - 4/13	3.58 - 4/13	Central Ave.	305+82.40	96,904.74	84,048.46
T-13 ^A	3/13 - 206	19.92 - 3/13	N-W Lane	263+81.50	96,909.19	83,215.56
T-13 ^B	3/13 - 206	72.04 - 3/13	Ramp NC-4	264+21.18	96,959.60	83,202.35
T-14	3/13 - 206	254.81 - 3/13	N. Cove West	2+73.79	97,136.41	83,156.03
T-15	3/13 - 206	314.67 - 206	Willlys Pky. Cor.	1+20.84	97,319.24	83,108.13
T-16	3/13 - 206	149.69 - 206	Willlys Pky. Cor.	2+95.52	97,478.83	83,066.32
T-17	205 - 206	449.77 - 206	Willlys Pky. Cor.	8+16.91	97,878.64	83,398.87
T-18	205 - 206	306.06 - 205	S. bound Lane	277+82.91	98,171.90	83,824.92
T-19	205-205C	140.53 - 205	So. bound Lane	280+85.70	98,437.27	83,970.68
T-20	205A-205C	115.23 - 205C	Willlys Pky. Cor.	17+18.21	98,635.44	83,769.30

TRAVERSE INTERSECTION DATA

NO.	TRAVERSE TIE		BASELINE		COORDINATES	
	LINE	DISTANCE FROM	LOCATION	STATION	NORTH	EAST
T-21	205A-205B	0.00 - 205B	Willlys Pky. Ext	21+33.48	99,535.44	83,877.65
T-21 ^A	205A-205B	1.09 - 205B	Hillcrest Ave.	9+99.56	99,534.43	83,877.24
T-22	204B-205B	387.58 - 205B	Access Rd. B	0+20.00	99,543.89	84,265.13
T-23	204-205	243.50 - 205	N. bound Lane	280+76.82	98,496.08	84,268.33
T-24	204-205	494.00 - 205	Willlys Pky. Ext	10+10.00	98,651.08	84,465.13
T-25	204-205	859.48 - 204	N. Cove Blvd.	19+12.17	98,672.83	84,492.75
T-26	204-205	399.93 - 204	Rel. Ottawa Riv.	63+20.86	98,957.17	84,853.78
T-27	204-204A	66.83 - 204A	Ramp B-1	295+59.70	99,661.79	84,792.70
T-28	204-204A	107.81 - 204A	So. bound Lane	295+51.51	99,630.12	84,818.70
T-29	204-204A	146.98 - 204A	Ramp W-2	295+49.12	99,599.84	84,843.55
T-30	204-204A	194.22 - 204A	Ramp W-1	292+96.94	99,563.33	84,873.52
T-31	204-204A	233.70 - 204A	N. bound Lane	292+90.45	99,532.81	84,898.57
T-32	204-204A	370.79 - 204	Ramp B-2	292+75.35	99,491.22	84,932.70
T-33	204-204A	256.22 - 204	Rel. Ottawa Riv.	68+31.18	99,402.66	85,005.40
T-34	204-204A	60.01 - 204	N. Cove Blvd.	28+14.55	99,251.01	85,129.89
T-35	203-204	203.02 - 204	N. Cove Blvd.	30+48.58	99,258.56	85,363.69
T-36	203-204	0.00 - 203	N. Cove Blvd.	34+59.51	99,364.07	85,746.58

BENCH MARK DATA

NO.	DESCRIPTION	ELEVATION
25A	N. End of Angle Iron on Long Conc. Parking Bumper, Located 50'± S. of Road To Test Track	584.47
25B	"a" on Top of Left Wall of Bar-B-Q Pit, 200' West of N. Cove Blvd. and Willlys Parkway	587.88
25C	NW Corner of Big Concrete Slab on the NW Corner of Central and N. Cove Blvd.	589.27
25D	SE Bolt on Hydrant in Front of Ansberg West Funeral Directors, on N. Cove Blvd. So. of Central	588.68
27	Arrowhead on Hydrant at Berdan and Drexel	604.94
28	SE Bolt on Hydrant at Berdan and Willlys Parkway	611.19
30	SE Bolt on Hydrant at Willlys Parkway and Hillcrest	610.53
39	SE Bolt on Hydrant at Hillcrest and Hoiles	610.71
41	SW Bolt on Hydrant at 1189 Central and Driveway of Obsolete Site of Dallas-Mavis Enterprise. Just East of Ottawa River on So. Side of Central	600.30

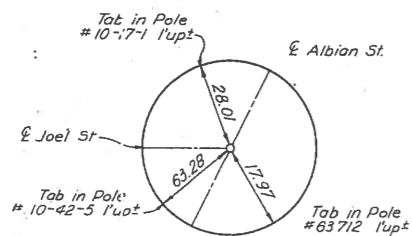
TRAVERSE POINT DATA

POINT	COORDINATES	
	NORTH	EAST
4/1	95,239.53	84,204.89
5/1	95,214.45	83,360.45
5/1A	95,224.72	83,706.46
6/1	96,891.90	83,318.69
3/13	96,889.92	83,220.60
4/13	96,906.54	84,051.55
1/15	100,300.43	86,894.80
2/23	96,856.56	81,654.28
196	96,687.70	83,678.37
197	95,248.99	82,999.59
198	95,531.33	82,649.04
199	96,253.00	81,730.12
200	96,938.56	85,363.40
203	99,364.07	85,746.58
204	99,204.62	85,167.96
204A	99,713.44	84,750.29
204B	99,551.08	84,594.90
205	98,345.42	84,077.04
205A	98,841.93	83,595.91
205B	99,535.44	83,877.65
205C	98,547.19	83,843.40
206	97,623.64	83,028.38

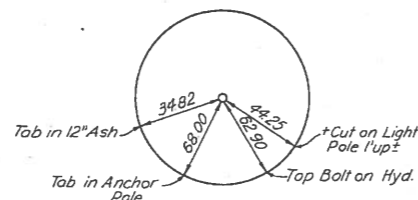
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

38
478

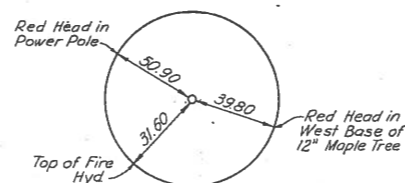
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 33
LUC 75-4.54



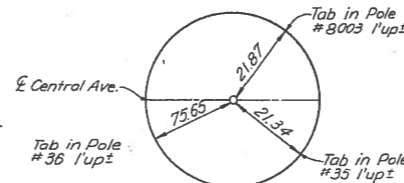
POINT 4/1
+ Cut in Brick Pvm't.



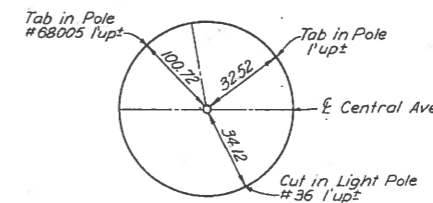
POINT 5/1
High Point on Bent Bolt



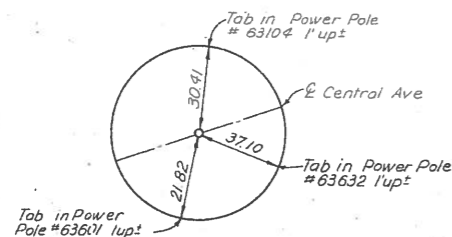
POINT 5/1A
P.K. Nail



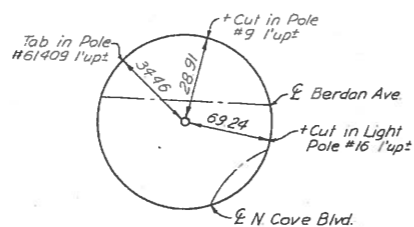
POINT 6/1
P.K. Nail



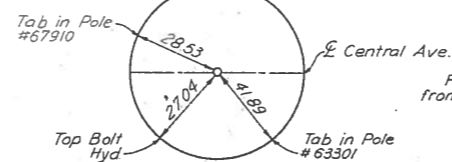
POINT 3/13
P.K. Nail



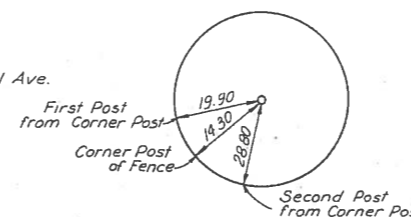
POINT 4/13
P.K. Nail



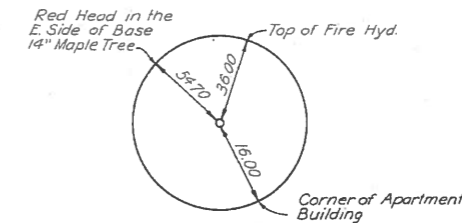
POINT 1/15
3/4" Iron Pin



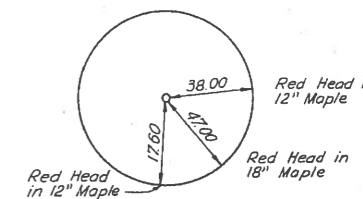
POINT 2/23
P.K. Nail



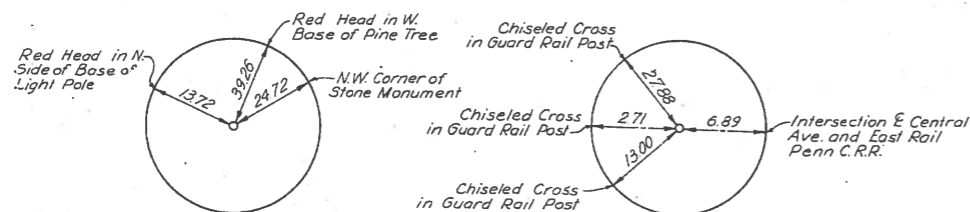
POINT 196
3/4" Iron Pin



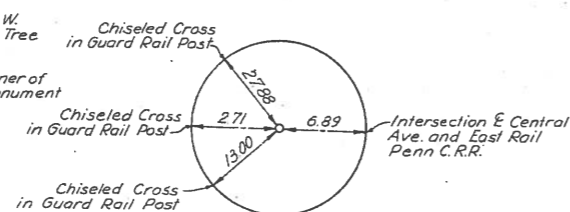
POINT 197
3/4" Iron Pin



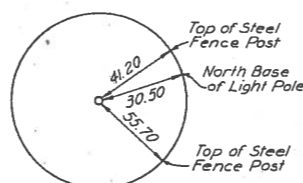
POINT 198
3/4" Iron Pin



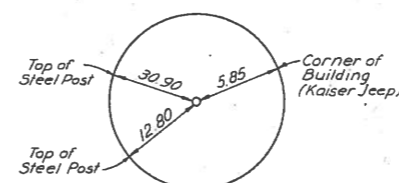
POINT 199
Leaded Tack



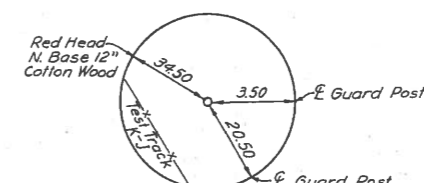
POINT 200
Chiseled Cross



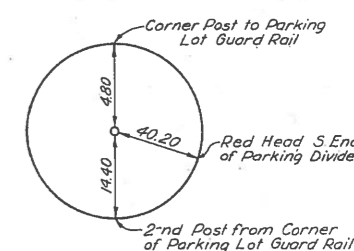
POINT 203
R.R. Spike



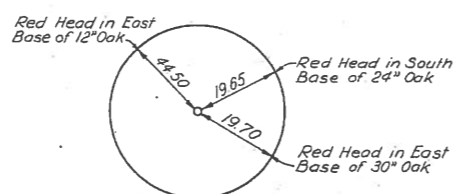
POINT 204
3/4" Iron Pin



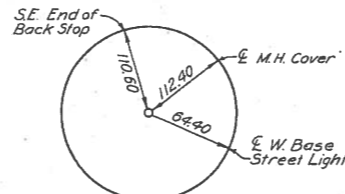
POINT 204A
1" Iron Pin



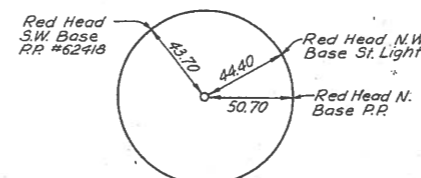
POINT 204B
1" Iron Pin



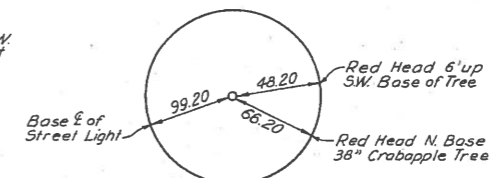
POINT 205
3/4" Iron Pin



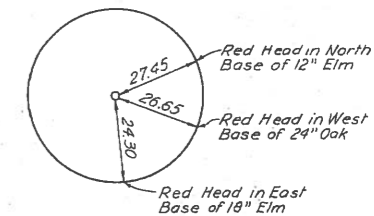
POINT 205A
1" Iron Pin



POINT 205B
R.R. Spike



POINT 205C
R.R. Spike



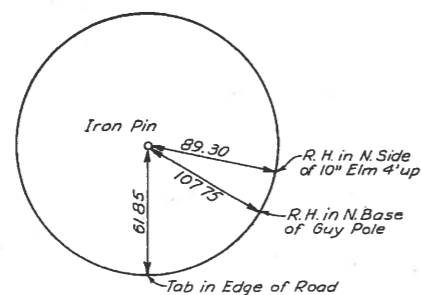
POINT 206
3/4" Iron Pin

SCALE None HOWARD, NEIDLES, TAMMEN & BERGENDOFF
MADE LFS DATE 12-68 CONSULTING ENGINEERS
TRCD FZ DATE 1-69 KANSAS CITY CLEVELAND NEW YORK
CKD FZ DATE 1-69

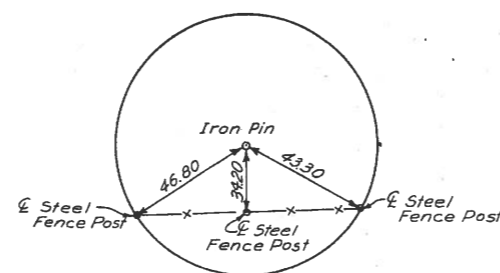
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

39
478

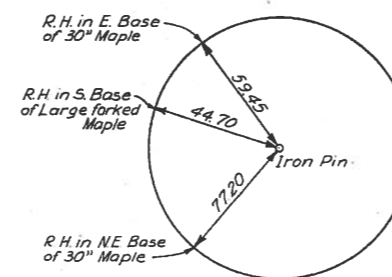
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 33
LUC 75 - 4.54



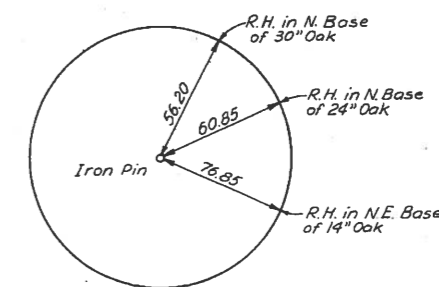
BEGINNING OF PROJECT
STA. 247+61.68 N.B. LANE



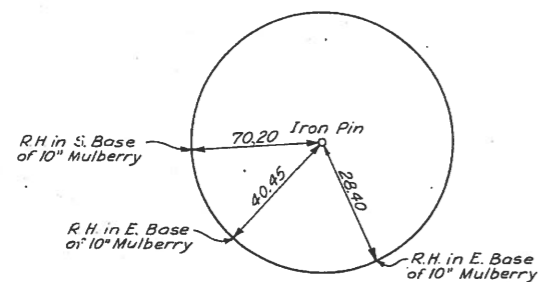
P.I. #1 STA. 262+29.94



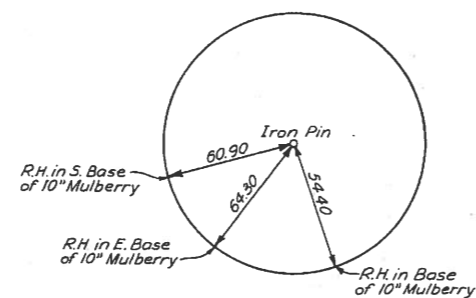
P.C.C. CURVES 1&2
STA. 270+28.10



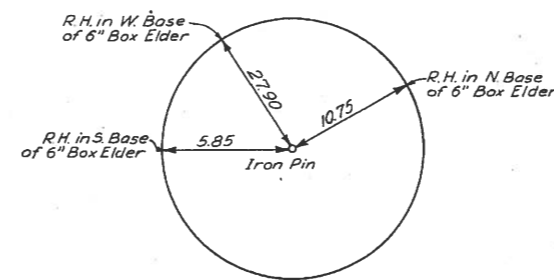
P.I. #2 STA. 277+65.04



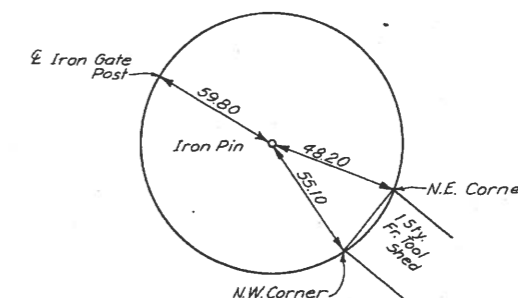
P.T. CURVE 2
STA. 284+97.44



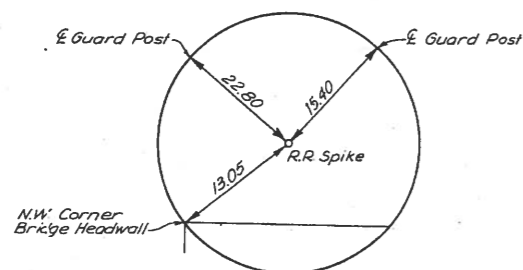
P.C. #3 STA. 284+97.44



P.C.C. CURVES 3&4
STA. 289+68.50



P.C.C. CURVES 4&5
STA. 295+81.46



P.O.T. STA. 298+70.94

SCALE None
MADE L.E.S. DATE 12-68
TRCD F.Z. DATE 1-69
CKD F.Z. DATE 1-69
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

NORTHBOUND LANE
REFERENCE TIES

3143

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

LUC 75-5.46
LUCAS COUNTY

CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM - PART 30
MANHATTAN EXPRESSWAY
DREXEL DRIVE TO DETROIT AVENUE
GRADE SEPARATION WITH THE PENN CENTRAL COMPANY

Sheets 30, 33, 33A, 220, 222, 224, 225, 226, 231, 232, 233, 244, 248, 251, 253, 257, 260, 262, 276, 281, 282, 283, 284, 289 and 291 superseded by respective sheets with a subscript Z. 1-10-72 CW

*Sheets 258A and 262A added 1-10-72. CW
Sheets 252, 254 and 255 revised 4-7-72 EBL*

FED. NO. DIVISION	STATE	FED. AID PROJ. NO.	1
2	OHIO	1-75-6(43)204	296

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 30
LUC 75-5.46

I-75-6(43) 204
LIMITED ACCESS

1969 SPECIFICATIONS

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

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 TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF THE TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATE.

APPROVED
DATE Nov. 6, 1969
APPROVED
DATE 11-10-69
APPROVED
DATE 11-12-69
APPROVED
DATE 11-25-69
APPROVED
DATE 12-3-69
APPROVED
DATE 12-8-69
APPROVED
DATE 12-30-69
APPROVED
DATE 12-30-69
APPROVED
DATE 12-30-69

B. Heston
COUNTY ENGINEER, LUCAS COUNTY
W. J. Tom
CITY MANAGER, CITY OF TOLEDO
P. H. Rice
DIVISION DEPUTY DIRECTOR
C. H. Adolante
ENGINEER OF BRIDGES
R. E. Gathin
ENGINEER OF LOCATION AND DESIGN
George J. Thompson
DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
J. H. Boverman
DEPUTY DIRECTOR OF RIGHT OF WAY
Thomas M. Major
DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
W. S. ...
FIRST ASSISTANT DIRECTOR
P. S. ...
DIRECTOR OF HIGHWAYS

Sheet No. 280 revised 3-28-70 EBL
Sheet Nos. 6, 7, 8, 16 & 90 revised 11-10-70 AWG
Sheet Nos. 237 & 238 revised 3-5-71 EBL
Sheet No. 234, 235, 237, 238, 239, 240, 246, 247, 249, 248, 249, 270 & 271 revised 4-7-71 EBL
Sheet No. 219, 235, 241, 243, 247, 256, 257, & 271 revised 4-14-71 EBL
Sheet No. 280 thru 290 and 292 thru 295 revised 7-27-71 EBL
Sheet No. 219, 261, 263, 271, 272 revised 10-8-71 EBL
Sheet No. 275A & 273B added 11-3-71 EBL

CONVENTIONAL SIGNS

CENTER LINE
FENCE LINEx-x
GUARD RAIL
POWER POLEo
TELEPHONE POLEs
TREES OR STUMPS
RIGHT OF WAY - LIMITED ACCESS	LA&R/W
RIGHT OF WAY - NON LIMITED ACCESS	R/W
RIGHT OF WAY - LIMITED ACCESS ONLY	LA

INDEX OF SHEETS

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2	SCHEMATIC PLAN & DESIGN DESIGNATION	61-63	PAVEMENT REMOVAL
3-5	GENERAL NOTES	64-7	WATER LINE ADJUSTMENTS
6-8 & 8A	SUMMARY OF QUANTITIES	74-77	DRAINAGE PLANS
9-18	QUANTITY CALCULATIONS	78-91	SEWER PROFILES
19-22	TYPICAL SECTIONS	92	UNDERDRAINS
23	GEOMETRIC PLAN	93	EXISTING DRAINAGE STRUCTURES
24	GEOMETRIC DATA	94-96	DRAINAGE DETAILS
25	TRAVERSE TIES	97	WATERSHED AREAS
	REFERENCE TIES	116 A, 122A, 98-147	TRAFFIC CONTROL PLANS
26-28	TEMPORARY ROADS	148-165	LIGHTING PLANS
29-31	PAVEMENT PLANS	182A, 168-182	RIGHT OF WAY AND FENCING
32, 32A, 33, 33A	APPROACH SLAB AND GUARD RAIL DETAILS	183	CROSS SECTION LAYOUT
34-38	INTERSECTION DETAILS	184-218	CROSS SECTIONS
39-42	DRIVEWAY AND STEP DETAILS	219	BRIDGES - GENERAL NOTES
43-46	GRADING AND SLOPE PROTECTION	220-279	BRIDGE NO. LUC 75-0575
47-57	PROFILES	280-296, 296A-296D	BRIDGE NO. LUC 75-0578
			NOTE SHTS NO. 72, 73, NOT USED

LINE DATA

Begin Project Sta 256+35.40 NB End Project Sta 331+87.00 Manhattan Expressway
Equation Sta 307+13.11 Back = Sta 306+54.09 Ahead
Total Length of Project 3610.62 LF or 0.683 Miles

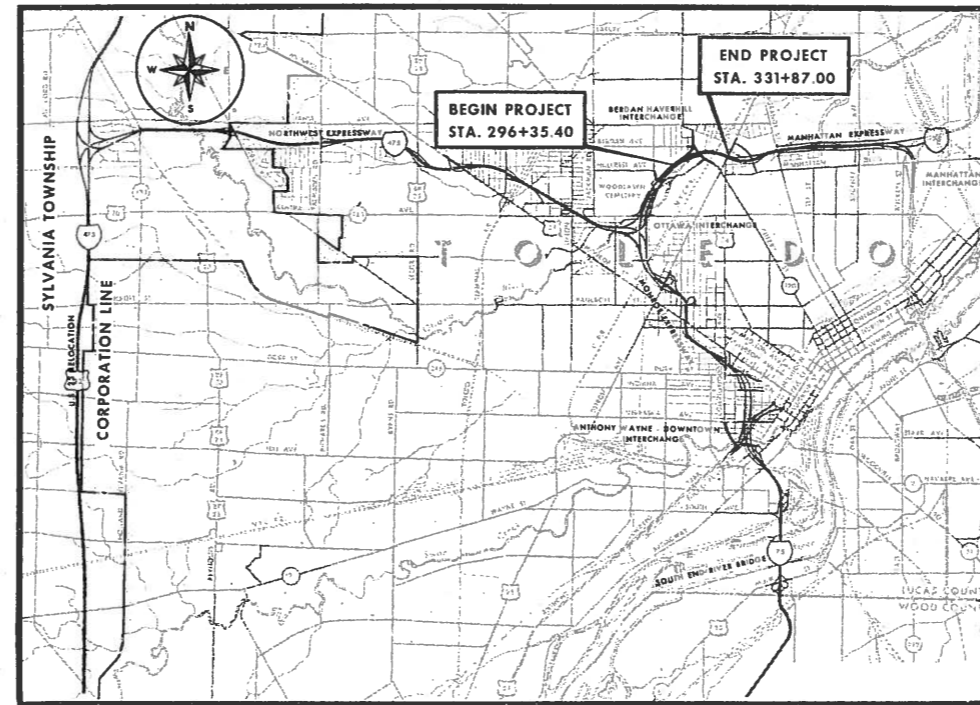
Work - Interstate Part

I-75	Begin Work Sta 293+00.00 NB - End Work Sta 331+94.00 Manhattan Expressway	3953.02'
	Equation Sta 307+13.11 Back = Sta 306+54.09 Ahead	
Berdan Ave	Begin Work Sta 1+69.78 - End Work Sta 34+45.14	1075.39'
Haverhill Dr	Begin Work Sta 0+00.00 - End Work Sta 4+84.78	484.78'
	Length of Work - Interstate Part = 5313.19 LF	

Work - State - City Part

North Cove Blvd	Begin Work Sta 41+75.00 - End Work Sta 49+41.12	766.12'
Berdan Ave	Begin Work Sta 11+75.00 - End Work Sta 23+69.78	1194.75'
Haverhill Rd	Begin Work Sta 4+84.78 - End Work Sta 10+27.67	542.89'
Phillips Ave	Begin Work Sta 1+87.40 - End Work Sta 5+83.91	396.51'
	Length of Work - State - City Part = 2900.27 LF	

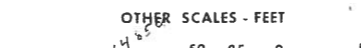
Total length of Work = 8413.46 LF or 1.593 Miles



LOCATION MAP



PORTION TO BE IMPROVED



STANDARD DRAWINGS

NUMBER	DATE	NUMBER	DATE
AS-1-67	6-12-69	HL-1	11-1-65
MC-1	6-13-69	HL-2	11-1-65
MC-2	6-1-65	HL-3	11-1-65
MC-3	6-20-69	HL-4	1-1-66
MC-4	6-13-69	HW-E	6-1-65
MC-6	6-1-65	BP-5	6-1-65
MC-7	10-1-68	CB-3	6-1-65
BP-1	6-1-65	CB-5	9-1-69
BP-2	12-1-68	CB-6	6-1-65
BP-3	12-1-68		
BP-4	12-1-68	I-2A	6-6-69
BP-7	1-1-66	MH-1	10-1-68
F-1	3-10-69	CB2-2A & B	6-1-65
F-3	3-10-69	RB-1 & 5	2-2-59
FACI-1	9-15-67	CB-3A	6-1-65
FACI-2	6-1-65		
GR-5	1-15-68	SD-1-69	6-12-69
MC-5	6-1-65	SP-53	6-30-61
GR-2B	2-15-68	BR-2-67	9-17-69
GR-6	7-15-68		
MH-1A	10-1-68	L-1	6-1-65

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

H.G. SOURS
ASSOCIATE
COLUMBUS

SUPPLEMENTAL SPECIFICATIONS

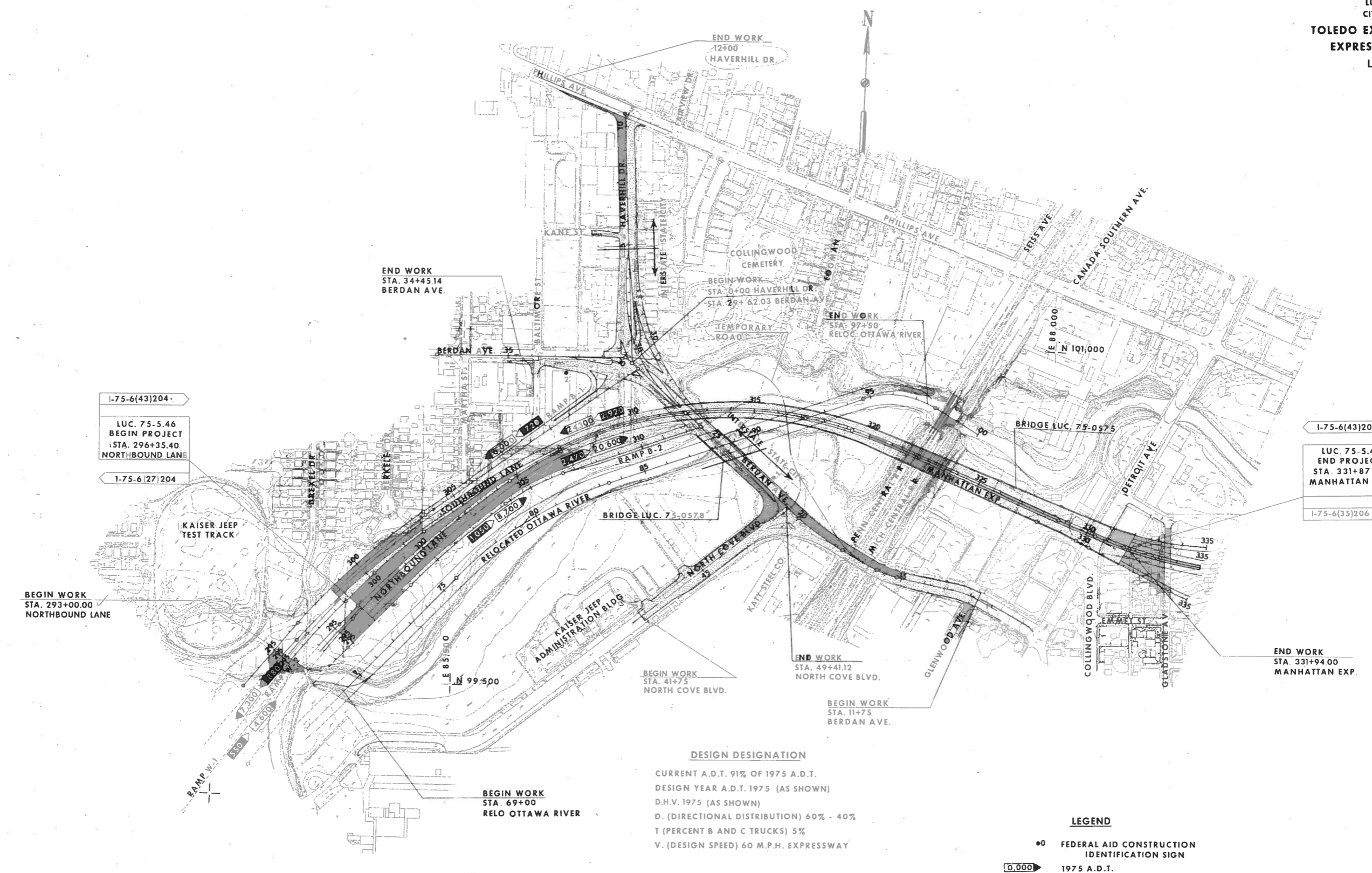
NUMBER	DATE	NUMBER	DATE
806	1-1-69	927	1-1-69
808	1-1-69	938	1-1-69
811	1-1-69	814	1-1-69
815	1-1-69		
816	1-1-69		
801	1-1-69		
1001	1-1-69		
825	1-1-69		



FILE NO.	LUCAS COUNTY	PART 30
	SEC. LUC 75-5.46	
DATE OF LETTING	19__	
CONTRACT NO.		

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER DATE

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 30
LUC 75-5.46



1-75-6(43)204
LUC. 75-5.46
BEGIN PROJECT
STA. 296+35.40
NORTHBOUND LANE
1-75-6(27)204

1-75-6(43)204
LUC. 75-5.46
END PROJECT
STA. 331+87.00
MANHATTAN EXP.
1-75-6(35)206

BEGIN WORK
STA. 293+00.00
NORTHBOUND LANE

END WORK
STA. 34+45.14
BERDAN AVE.

BEGIN WORK
STA. 41+75
NORTH COVE BLVD.

END WORK
STA. 49+41.12
NORTH COVE BLVD.

BEGIN WORK
STA. 11+75
BERDAN AVE.

END WORK
STA. 331+94.00
MANHATTAN EXP.

BEGIN WORK
STA. 69+00
RELO OTTAWA RIVER

DESIGN DESIGNATION

CURRENT A.D.T. 91% OF 1975 A.D.T.
DESIGN YEAR A.D.T. 1975 (AS SHOWN)
D.H.V. 1975 (AS SHOWN)
D. (DIRECTIONAL DISTRIBUTION) 60% - 40%
T (PERCENT B AND C TRUCKS) 5%
V. (DESIGN SPEED) 60 M.P.H. EXPRESSWAY

LEGEND

- FEDERAL AID CONSTRUCTION IDENTIFICATION SIGN
- 0.000 1975 A.D.T.
- 000 1975 D.H.V.

SCALE 1" = 200'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
MADE G.L.O. DATE 12-68
TRCD G.L.O. DATE 1-69
CED R.H.L. DATE 1-69

SCHEMATIC PLAN AND DESIGN DESIGNATIONS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

23
296

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 30
LUC.75-5.46



SCALE 1" = 200'
 MADE G.L.O. DATE 12-68 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 RECD G.L.O. DATE 1-69 CONSULTING ENGINEERS
 CRO R.H.L. DATE 1-69 KANSAS CITY CLEVELAND NEW YORK

GEOMETRIC PLAN

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 30
LUC 75 - 5.46

CURVE DATA

NO.	LOCATION	P.C. STATION	P.T. STATION	P. I. STATION		COORDINATES		DELTA ANGLE	DEGREE CURVE	RADIUS	TANGENT	LENGTH	E
				NORTH	EAST	NORTH	EAST						
4	NB Lane	289+68.50	295+81.46	292+75.27	99,525.35	84,882.71	6°07'46"	1°00'00"	5729.58	306.77	612.95	8.21	
5	NB Lane	295+81.46	304.63.22	300+24.31	100,100.58	85,363.38	13°13'35"	1°30'00"	3819.72	442.85	881.76	25.59	
6	NB Lane	304+63.22	307+13.11	305+88.41	100,441.57	85,817.68	8°47'21"	3°31'02"	1629.02	125.19	249.89	4.80	
7A	Man. Exp.	306+54.09	319+21.68	313+21.57	100,822.02	86,513.14	44°21'56"	3°30'00"	1637.02	667.48	1267.59	130.85	
7D	Man. Exp.	331+72.14	342+80.62	337+42.48	100,025.62	88,868.47	33°15'16"	3°00'00"	1909.86	570.34	1108.48	83.34	
7E	Ramp P-1	331+00.00	336+36.46	333+72.27	100,186.86	88,532.64	24°08'27"	4°30'00"	1273.24	272.27	536.46	28.79	
7F	Ramp P-2	327+90.00	329+77.78	328+83.92	100,249.89	88,036.11	3°45'20"	2°00'00"	2864.79	93.92	187.78	1.54	
9	SB Lane	264+65.84	295+94.98	280+52.66	98,469.54	83,801.36	23°28'07"	0°45'00"	7639.44	1586.82	3129.14	163.06	
10	SB Lane	295+94.98	309+72.67	302+91.39	100,186.62	85,306.27	20°39'55"	1°30'00"	3819.72	696.41	1377.68	62.96	
27	Ramp W-1	284+93.55	295+25.23	290+10.79	99,353.84	84,674.37	10°19'00"	1°00'00"	5729.58	517.24	1031.68	23.30	
28	Ramp W-2	291+08.57	298+59.61	294+85.31	99,560.32	84,788.50	11°15'56"	1°30'00"	3819.72	376.74	751.04	18.53	
29	Ramp W-2	300+26.39	303+00.00	301+63.43	100,053.16	85,257.82	8°12'30"	3°00'00"	1909.86	137.04	273.61	4.91	
30	Ramp B-1	296+49.97	303+57.38	300+05.48	100,008.12	85,073.36	14°08'53"	2°00'00"	2864.79	355.51	707.40	21.98	
32	Ramp B-2	298+45.52	303+73.45	301+09.91	100,103.42	85,499.79	7°55'08"	1°30'00"	3819.72	264.39	527.93	9.14	
33	Ramp B-2	303+73.45	306+48.75	305+12.23	100,356.71	85,813.46	17°53'40"	6°30'00"	881.47	138.78	275.30	10.86	
47	Berdan Ave.	15+13.59	16+04.78	15+59.57	100,028.07	87,323.45	18°14'15"	20°00'00"	286.48	45.98	91.19	3.67	
48	Berdan Ave.	17+76.66	20+05.46	18+91.53	100,184.55	87,029.81	12°35'02"	5°30'00"	1041.74	114.86	228.80	6.31	
52	Reloc. River	75+73.54	83+40.77	79+64.33	100,236.60	85,772.58	26°51'11"	3°30'00"	1637.02	390.79	767.23	46.00	
53	Reloc. River	94+69.16	97+85.00	96+38.18	100,828.79	87,353.52	50°32'06"	16°00'00"	358.10	169.02	315.84	37.89	
57	Kane St.	1+28.94	1+57.71	1+43.37	101,426.57	86,037.62	10°18'09"	35°48'36"	160.00	14.42	28.77	0.65	
Simulation of Curves 7B and 7C (See Spiral Data Below)													
7B-1	Man. Exp.	319+21.68	320+29.56	319+75.63	100,619.98	87,205.71	3°19'23"	3°04'50"	1860.00	53.96	107.88	0.78	
7B-2	Man. Exp.	320+29.56	321+72.68	321+01.12	100,577.90	87,323.97	1°55'37"	1°20'47"	4255.81	71.57	143.12	0.60	
7C-1	Man. Exp.	329+21.14	330+64.26	329+92.70	100,250.93	88,153.44	1°39'06"	1°09'14"	4965.14	71.56	143.12	0.52	
7C-2	Man. Exp.	330+64.26	331+72.14	331+18.21	100,208.29	88,271.49	2°50'54"	2°38'25"	2170.00	53.95	107.88	0.67	
48A	Havr.-Ber.	27+44.95	32+37.63	30+07.68	100,911.32	86,181.48	49°16'05"	10°00'00"	572.96	262.73	492.68	57.37	
48B	Ber.-Havr.	25+52.45	33+10.02	29+52.44	100,908.73	86,252.05	45°27'14"	6°00'00"	958.93	399.98	757.56	80.38	

SPIRAL CURVE DATA

NO.	LOCATION	STATION	POINT COORDINATES		ANGLE	LENGTH	LONG TANGENT	SHORT TANGENT	X	Y
			NORTH	EAST						
7B	Man. Exp	S.T. 322+21.68	100,533.68	87,436.14	5°15'00"	300.00	200.09	100.08	299.75	9.16
7C	Man. Exp	T.S. 328+72.14	100,295.15	88,041.28	4°30'00"	300.00	200.06	100.06	299.82	7.85

BENCH MARK DATA

NO.	DESCRIPTION	ELEVATION
17	T.P. NE Corner Doorstep Jordan Motor Sales	590.47
21	Arrowhead on Hydrant NE Corner Phillips & Peru	607.87
22	Arrow on Hydrant SE Corner Phillips and Parking Lot Driveway to Medical Arts Bldg.	607.83
23	North Bolt on Hydrant NW Corner Berdan and Haverhill	600.18
24	"0" Chisled In Conc. Walk on SW End of Berdan Bridge over Ottawa River.	590.24
25	Arrowhead on Hydrant SE Corner of Berdan and N. Cove Blvd.	586.36
25A	N. End of Angle Iron on Long Conc. Parking Bumper, Located 50'+ S. of Road To Test Track.	587.47
26	SE Bolt on Hydrant at Berdan and Martha	600.45
27	Arrowhead on Hydrant at Berdan and Drexel	604.94

TRAVERSE POINT DATA

POINT	COORDINATES	
	NORTH	EAST
1/15	100,300.43	86,894.80
2/16	101,049.29	88,635.82
7/16	99,810.17	87,978.12
200	96,938.56	85,363.40
201	100,126.22	87,172.65
202	101,322.49	87,853.12
203	99,364.07	85,746.58
204	99,204.62	85,167.96
204A	99,713.44	84,750.29
204B	99,551.08	84,594.90
207	100,934.30	86,215.95
208	101,877.00	86,189.75

BASELINE INTERSECTION DATA

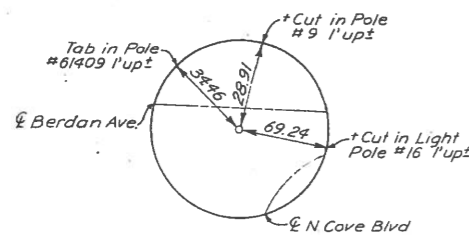
NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-32	Berdan Avenue Baltimore Ave. So.	33+83.29 6+25.00	100,898.40	85,804.76
X-33	Berdan Avenue Haverhill Exist.	30+00.00 0+00.00	100,907.08	86,187.95
X-34	Berdan Avenue Haverhill (New)	29+62.03 0+00.00	100,882.35	86,216.77
X-35	Haverhill (New) Kane Street	5+32.96 0+00.00	101,414.07	86,180.44
X-36	Haverhill (New) Phillips Avenue	10+53.97 4+84.91	101,933.87	86,144.93
X-37	Berdan Avenue Ramp B-1	29+31.00 314+47.85	100,862.14	86,240.31
X-38	Berdan Avenue Manhattan Expwy.	26+54.56 312+10.71	100,682.10	86,450.09
X-39	Berdan Avenue Ramp B-2	25+69.00 312+61.57	100,626.38	86,515.01
X-40	Berdan Avenue Rel. Ottawa Riv.	24+49.63 88+39.31	100,548.64	86,605.60
X-41	Manhattan Expwy. Rel. Ottawa Riv.	317+18.35 92+13.35	100,679.77	86,955.69
X-42	Manhattan Expwy. Penn Central R.R.	322+12.36 214+87.81	100,537.10	87,427.47
X-43	Manhattan Expwy. Mich. Central R.R.	322+85.08 2659+56.27	100,510.43	87,495.12
X-44	Berdan Avenue Penn Central R.R.	17+19.90 209+89.49	100,103.84	87,181.27
X-45	Berdan Avenue Mich. Central R.R.	16+48.85 2664+62.91	100,070.42	87,243.97
X-46	Berdan Avenue Martha Street	36+85.00 0+00.00	100,891.56	85,503.13
X-47	Berdan Avenue North Cove Blvd.	20+68.52 49+41.12	100,300.43	86,894.80

TRAVERSE INTERSECTION DATA

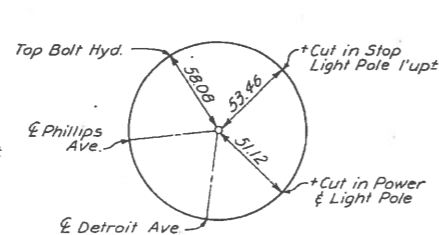
NO.	TRAVERSE TIE		BASELINE		COORDINATES	
	LINE	DISTANCE FROM	LOCATION	STATION	NORTH	EAST
T-1	201 - 7/16	0.00 - 7/16	Detroit Ave.	0+97.15	99,810.17	87,978.12
T-38	207 - 1/15	372.84 - 1/15	Rel. Ottawa River	88+57.34	100,554.89	86,622.29
T-39	207 - 1/15	363.06 - 207	Manhattan Exp.	312+42.25	100,686.52	86,481.31
T-40	200 - 201	15.71 - 201	Berdan Ave.	17+38.45	100,112.56	87,164.90
T-41	201 - 202	480.51 - 201	Manhattan Exp.	321+93.84	100,543.89	87,410.23
T-42	201 - 202	698.89 - 201	Rel. Ottawa Riv.	98+06.14	100,733.71	87,518.21
T-43	201 - 7/16	352.91 - 201	Berdan Ave.	13+79.20	99,997.32	87,501.18
T-44	2/16 - 7/16	478.92 - 7/16	Manhattan Exp.	330+45.00	100,233.20	88,202.66
T-45	2/16 - 7/16	422.86 - 7/16	Ramp P-2	330+38.96	100,183.68	88,176.37
T-46	201 - 7/16	18.74 - 201	Penn Central R.R.	210+07.36	100,119.38	87,190.10
T-47	201 - 7/16	90.54 - 201	Mich. Central R.R.	2,664+36.74	100,093.15	87,256.94
T-27	204 - 204A	66.83 - 204A	Ramp B-1	295+59.70	99,661.79	84,792.70
T-28	204 - 204A	107.81 - 204A	S.B. Lane	295+51.51	99,630.12	84,818.70
T-29	204 - 204A	146.98 - 204A	Ramp W-2	295+49.12	99,599.84	84,843.55
T-33	204 - 204A	256.22 - 204	Rel. Ottawa Riv.	68+31.18	99,402.66	85,005.40

GEOMETRIC DATA
BENCH MARK ELEVATIONS

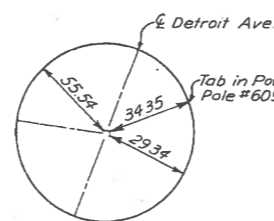
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 30
LUC 75 - 5.46



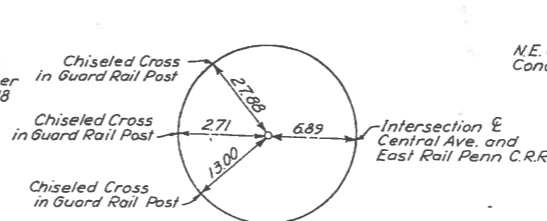
POINT 1/15
3/4" Iron Pin



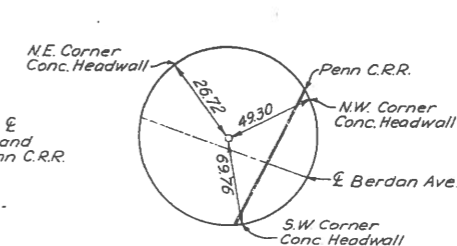
POINT 2/16
P.k. Nail in Black Top Man. Box
0.4' Under Surface



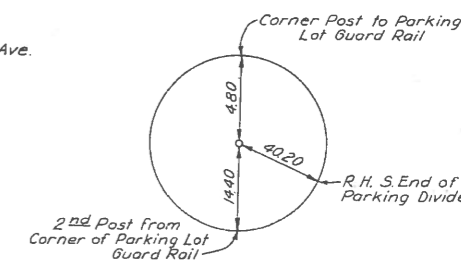
POINT 7/16
Brass Plate Mon.



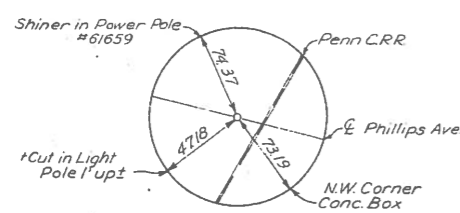
POINT 200
Chiseled Cross



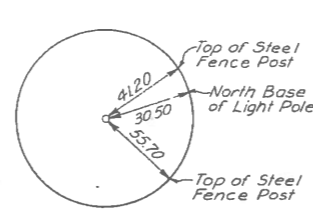
POINT 201
Chiseled Cross



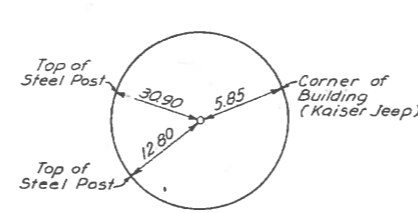
POINT 204B
Iron Pin



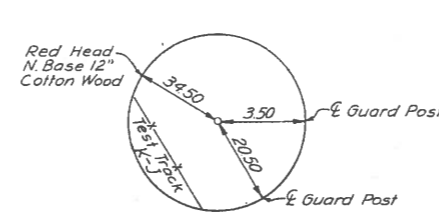
POINT 202
R.R. Spike



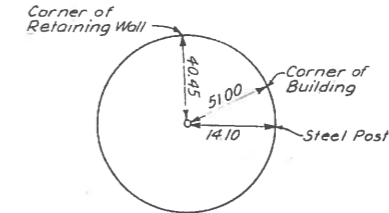
POINT 203
R.R. Spike



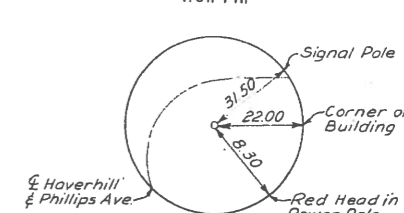
POINT 204
3/4" Iron Pin



POINT 204A
1" Iron Pin

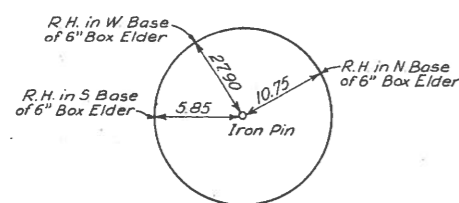


POINT 207
Leaded Tack

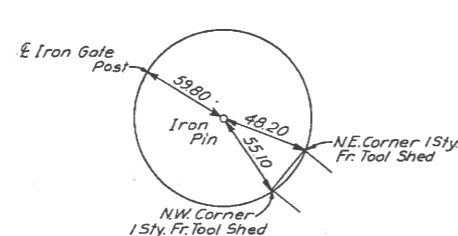


POINT 208
Leaded Tack

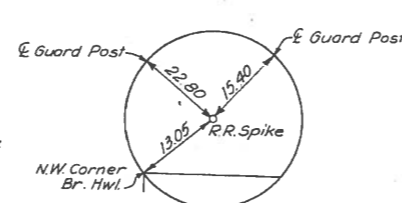
TRAVERSE TIES



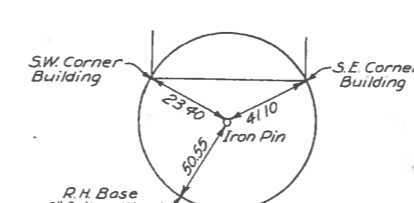
P.C.C. CURVES 3&4
STA. 289+68.50



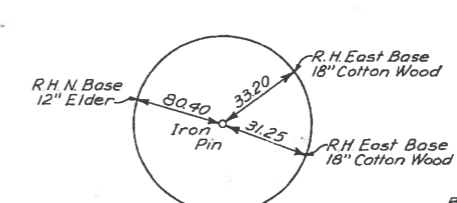
P.C.C. CURVES 4&5
STA. 295+81.46



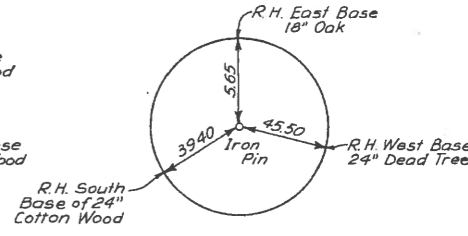
P.O.T. STA. 298+70.94



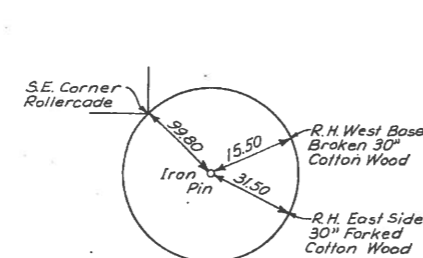
P.I. CURVE 5
STA. 300+24.31



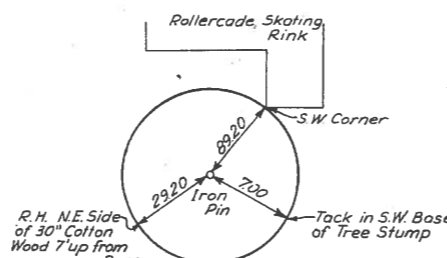
P.C.C. CURVES 5&6
STA. 304+63.22



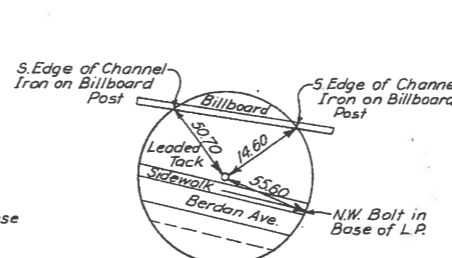
P.I. CURVE 6
STA. 305+88.41



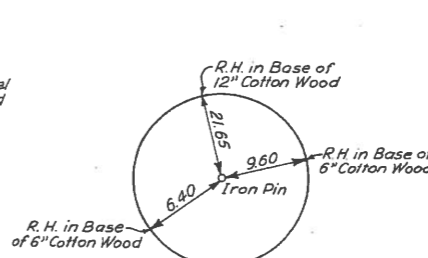
P.T. CURVE 6
STA. 307+13.11



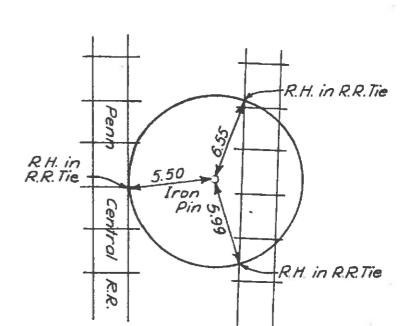
P.C. STA. 306+54.09



P.O.C. STA. 312+42.25



C.S. STA. 319+21.68



S.T. STA. 322+21.68

NORTHBOUND LANE & MANHATTAN EXPRESSWAY
REFERENCE TIES

3144

FED. RD. DIVISION	STATE	FED. AID PROJ. NO.	1 288
	OHIO	1-75-6(35)206	

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 26
LUC 75-6.14

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC 75-6.14
LUCAS COUNTY
CITY OF TOLEDO

1-75-6(35)206
LIMITED ACCESS

TOLEDO EXPRESSWAY SYSTEM - PART 26
MANHATTAN EXPRESSWAY
DETROIT AVE. TO STICKNEY AVE.

CONVENTIONAL SIGNS

CENTER LINE	— — — — —
FENCE LINE	— x — x —
GUARD RAIL	— — — — —
POWER POLE	⊕
TELEPHONE POLE	⊕
TREES OR STUMPS	⊕
RIGHT OF WAY - LIMITED ACCESS	— LA&R/W —
RIGHT OF WAY - NON LIMITED ACCESS	— R/W —
RIGHT OF WAY - LIMITED ACCESS ONLY	— LA —

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NOTE: Sheet numbers 75, 76, & 77 were not used.

LINE DATA

BEGIN PROJECT	STA. 331+87.00	MANHATTAN EXPRESSWAY
END PROJECT	STA. 400+00.82	MANHATTAN EXPRESSWAY
NET LENGTH OF PROJECT	6,813.82 FT. OR 1.290 MILES	
BEGIN WORK	STA. 323+50.00	MANHATTAN EXPRESSWAY
SUSPEND WORK (Sh. 117)	STA. 411+00.00	MANHATTAN EXPRESSWAY
LENGTH OF WORK - EXPRESSWAY	8750.00 FT.	
ADD FOR: DETROIT AVE.	1,970.78 FT.	
PHILLIPS AVE.	3,003.64 FT.	
SIGNING MODIFICATIONS *	520.00 FT.	
NET LENGTH OF WORK	14,244.42 FT. OR 2.697 MILES	

* 13 Locations (Sh. 112) @ 40 ft = 520 L.F.
Sheet Nos. 235A, 244A, 249A, 250A, 260A, 261A and 265A
supersede 236, 249, 249, 250, 260, 261 and 265 respectively
1-5-70 EBL
Sheet No. 282 revised 2-20-70 EBL
Sheet 288, supersedes 288 1-20-71 EBL

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

H.G. SOURS
ASSOCIATE
COLUMBUS

SUPPLEMENTAL SPECIFICATIONS

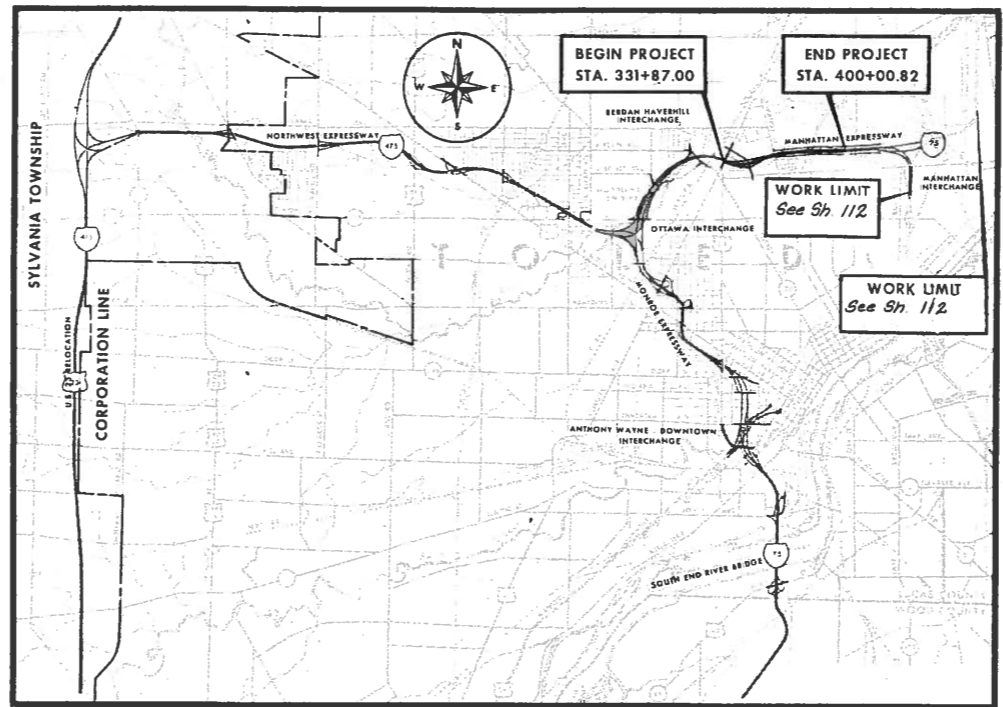
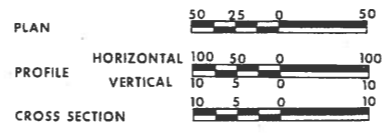
NUMBER	DATE	NUMBER	DATE
806	1-1-69	938	8-12-69
808	1-1-69	814	1-1-69
811	1-1-69		
815	1-1-69		
816	1-1-69		
801	1-1-69		
1001	1-1-69		
825	1-1-69		

LOCATION MAP



PORTION TO BE IMPROVED

OTHER SCALES - FEET



1969 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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO.

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 TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF THE TRAFFIC WILL BE AS SET FORTH IN THE PLANS AND ESTIMATE

APPROVED	<i>[Signature]</i>	COUNTY ENGINEER, LUCAS COUNTY
DATE 8-22-69		
APPROVED	<i>[Signature]</i>	CITY MANAGER, CITY OF TOLEDO
DATE 8-22-69		
APPROVED	<i>[Signature]</i>	DIVISION DEPUTY DIRECTOR
DATE 8-27-69		
APPROVED	<i>[Signature]</i>	ENGINEER OF BRIDGES
DATE 9-24-69		
APPROVED	<i>[Signature]</i>	ENGINEER OF LOCATION AND DESIGN
DATE 9-24-69		
APPROVED	<i>[Signature]</i>	DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
DATE 9-24-69		
APPROVED	<i>[Signature]</i>	DEPUTY DIRECTOR OF RIGHT OF WAY
DATE 9-24-69		
APPROVED	<i>[Signature]</i>	DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
DATE 9-24-69		
APPROVED	<i>[Signature]</i>	FIRST ASSISTANT DIRECTOR
DATE 9-24-69		
APPROVED	<i>[Signature]</i>	DIRECTOR OF HIGHWAYS
DATE 9-24-69		

STANDARD DRAWINGS

NUMBER	DATE	MH-2A	10-1-68
A 5-1-67	6-12-69	HL-1	11-1-65
MC-1	6-13-69	HL-2	11-1-65
MC-2	6-1-65	HL-3	11-1-65
MC-3	6-20-69	HL-4	1-1-66
MC-4	6-13-69	HW-E	6-1-65
MC-6	6-1-65	CB 2-2-A & B	6-1-65
MC-7	10-1-68	CB-3A	6-1-65
BP-1	6-1-65	CB-5	9-1-69
BP-2	12-1-68	CB-6	6-1-65
BP-3	12-1-68	1-2	6-6-69
BP-4	12-1-68	1-2A	6-6-69
BP-7	1-1-66	M.H.-1	10-1-68
F-1	9-10-69	M.H.-2	10-1-68
F-3	9-10-69	RB-1-55	R2-2-59
FACI-1	9-15-67	SD-2-64	11-25-64
FACI-2	6-1-65	BR-2-67	11-6-67
		SD-1-65	11-8-65
GR-2A	1-1-67	SP-53	6-30-61
GR-2B	2-15-68	L-1	6-1-65
GR-6	7-15-68	CB-3	6-1-65
MH 1-A	10-1-68	BP-5	6-1-65

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

APPROVED: _____
DATE _____

DIVISION ENGINEER _____

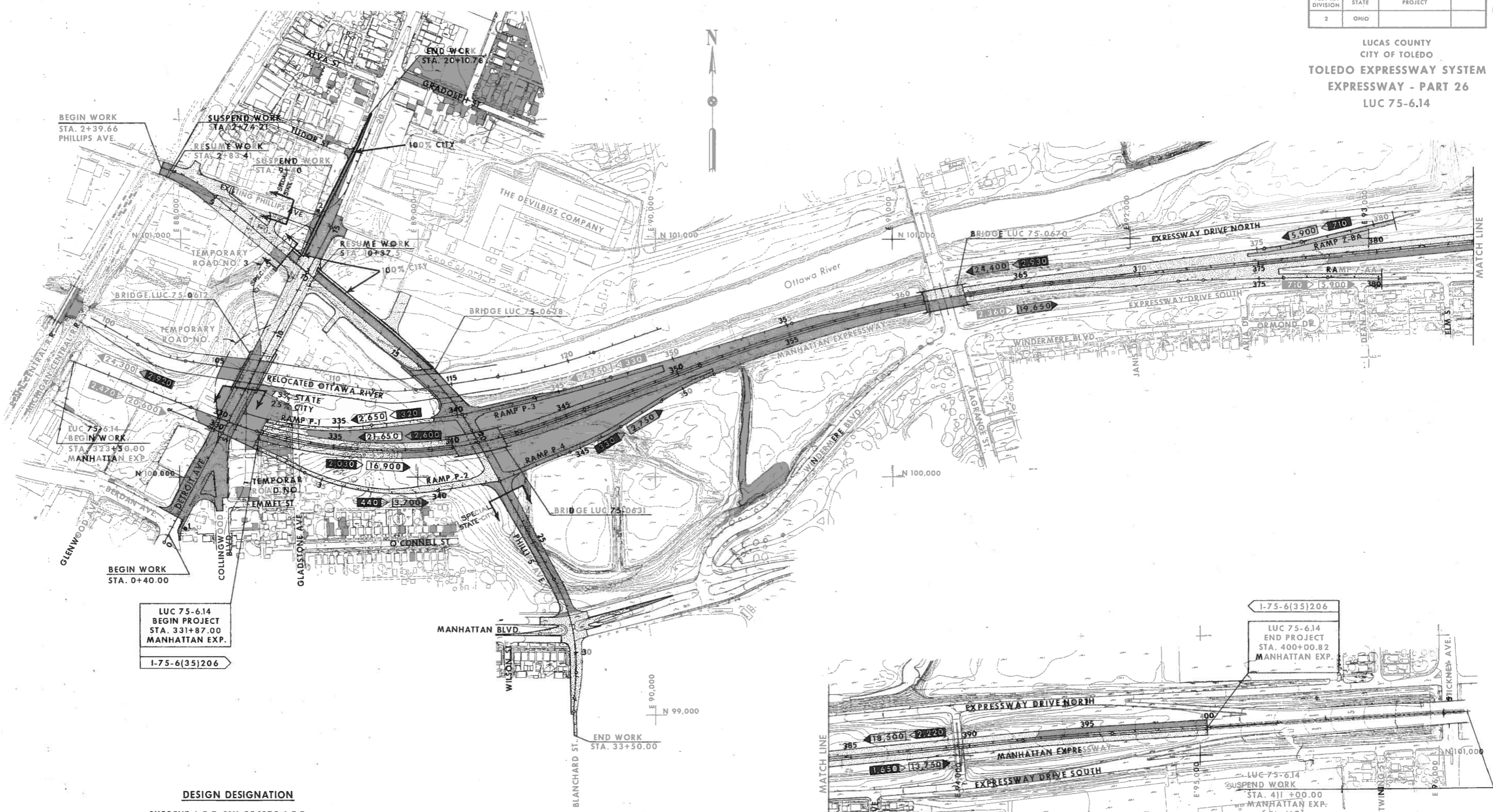
FILE NO.	LUCAS COUNTY
	SEC. LUC 75-6.14 PART 26
DATE OF LETTING	_____ 196__
CONTRACT NO.	_____



FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

2
288

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 26
LUC 75-6.14



LUC 75-6.14
BEGIN PROJECT
STA. 331+87.00
MANHATTAN EXP.
I-75-6(35)206

I-75-6(35)206
LUC 75-6.14
END PROJECT
STA. 400+00.82
MANHATTAN EXP.

DESIGN DESIGNATION
CURRENT A.D.T. 91% OF 1975 A.D.T.
DESIGN YEAR A.D.T. 1975
D.H.V. 1975
D. (DIRECTIONAL DISTRIBUTION) 60%-40%
T. (PERCENT B AND C TRUCKS) 5%
V. (DESIGN SPEED) 60 M.P.H. EXPRESSWAY

LEGEND
● FEDERAL AID CONSTRUCTION IDENTIFICATION SIGN
0.000 1975 A.D.T.
000 1975 D.H.V.

NOTE: THE WORK LIMIT EXTENDS TO STA. 332 + 00 LANE A AND STA. 408 + 00 NORTHEAST EXPRESSWAY FOR SIGNING MODIFICATIONS ONLY.

EQUATION : $4.55 + 70.79$ (Manhattan Expressway)
 $= 364 + 19.79$ (N.E. Expressway)

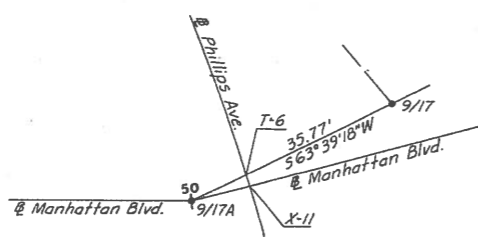
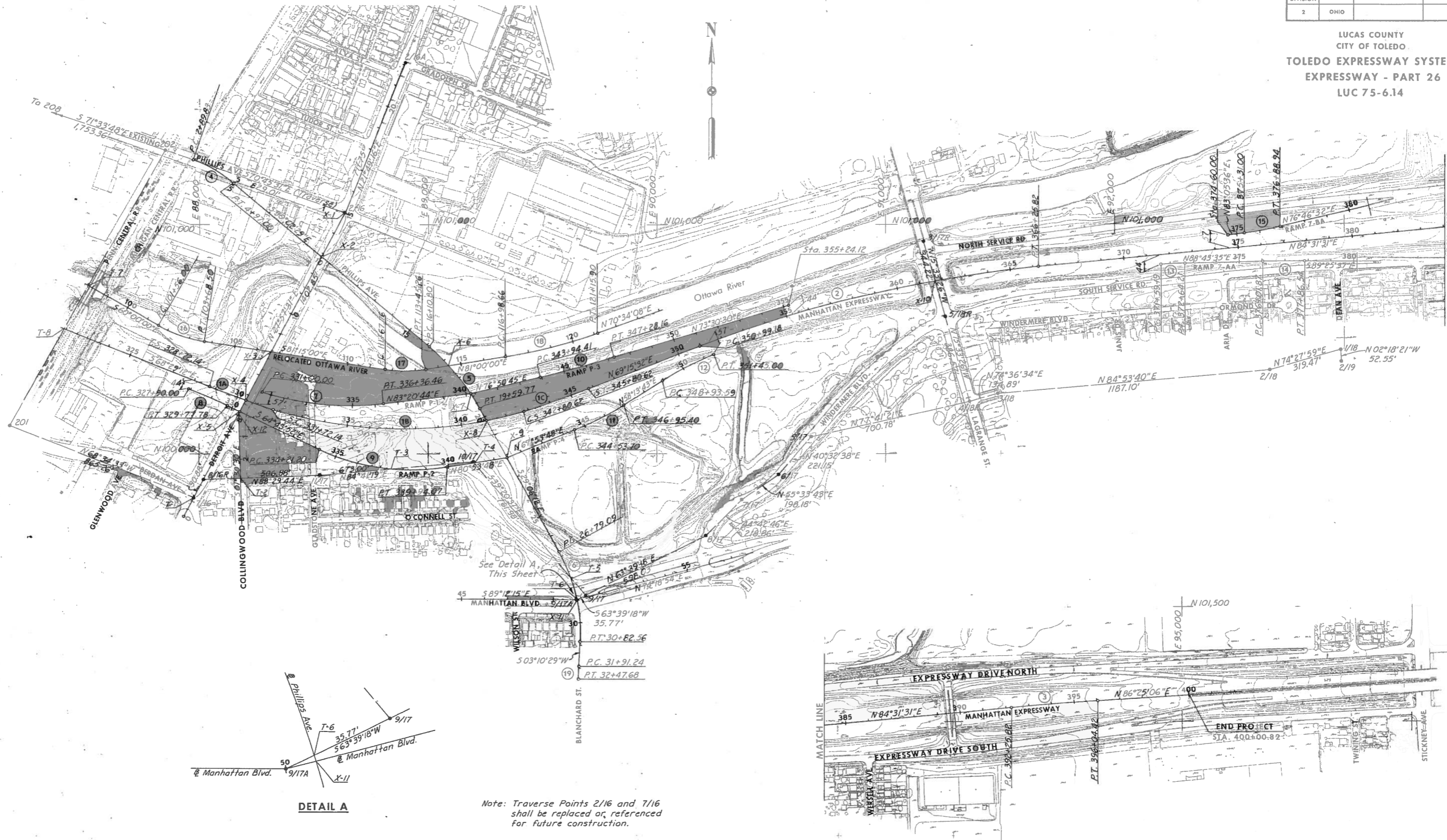
SCALE 1"=200'
HOWARD, NEEDLES, TAMMEN & BERGENOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK
MADE RHP DATE 8-68
TRCD RHP DATE 8-68
CRD RHL DATE 9-68

SCHEMATIC PLAN AND DESIGN DESIGNATIONS

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

26
288

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 26
LUC 75-6.14



DETAIL A

Note: Traverse Points 2/16 and 7/16 shall be replaced or referenced for future construction.

SCALE 1" = 200'
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE RHP, DATE 8-68 CONSULTING ENGINEERS
TRCD RHP, DATE 9-68 KANSAS CITY CLEVELAND NEW YORK
CKD RHL, DATE 9-68

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 26
LUC 75-6.14

CURVE DATA

NO.	LOCATION	P.C. STATION	P.T. STATION	P.I. COORDINATES		DELTA ANGLE	DEGREE CURVE	RADIUS	TANGENT	LENGTH	E	
				STATION	STATION							NORTH
1B	Expwy.	331+72.14	342+80.62	337+42.48	100,025.62	88,868.47	33°15'16"	3°00'00"	1909.86	570.34	1108.48	83.34
2	Expwy.	350+99.18	366+25.82	358+67.05	100,739.56	90,902.27	15°15'59"	1°00'00"	5729.58	767.87	1526.64	51.22
3	Expwy.	392+25.82	396+04.42	394+15.14	101,078.93	94,443.23	1°53'35"	0°30'00"	11459.16	189.31	378.59	1.56
4	Phillips Av.	2+89.83	4+97.00	3+94.56	101,247.48	88,068.02	20°43'02"	10°00'00"	572.96	104.73	207.17	9.49
5	Phillips Av.	16+10.80	19+59.77	17+87.25	100,351.58	89,137.29	20°56'18"	6°00'00"	954.93	176.45	348.97	16.17
6	Phillips Av.	26+79.09	30+82.56	28+86.33	99,387.82	89,673.78	32°16'40"	8°00'00"	716.20	207.25	403.47	29.38
7	Ramp P-1	331+00.00	336+36.46	333+72.27	100,186.86	88,532.64	24°08'27"	4°30'00"	1273.24	272.27	536.46	28.79
8	Ramp P-2	327+90.00	329+77.78	328+83.92	100,249.89	88,036.11	3°45'20"	2°00'00"	2864.79	93.92	187.78	1.54
9	Ramp P-2	334+21.20	339+94.07	337+16.55	99,894.44	88,789.12	34°22'20"	6°00'00"	954.93	295.35	572.87	44.63
10	Ramp P-3	343+94.41	347+28.16	345+61.33	100,372.09	89,651.02	3°20'15"	1°00'00"	5729.58	166.92	333.75	2.43
11	Ramp P-4	344+53.70	346+95.40	345+74.84	100,149.08	89,751.13	9°40'05"	4°00'00"	1432.39	121.14	241.70	5.11
12	Ramp P-4	348+93.59	351+45.00	350+19.62	100,383.58	90,129.76	10°03'23"	4°00'00"	1432.39	126.03	251.41	5.53
13	Ramp 7-AA	371+59.19	372+64.21	372+11.72	100,824.91	92,254.06	4°12'03"	4°00'00"	1432.39	52.54	105.02	0.96
14	Ramp 7-AA	376+01.87	372+86.54	376+94.21	100,835.64	92,736.48	1°50'48"	1°00'00"	5729.58	92.35	184.68	0.74
15	Ramp 7-BA	375+31.00	376+88.94	376+10.05	100,967.15	92,640.19	6°19'04"	4°00'00"	1432.39	79.05	157.94	2.18
16	Rel. River	101+56.00	103+68.50	102+63.49	100,505.04	87,914.28	21°15'00"	10°00'00"	572.96	107.48	212.50	10.00
17	Rel. River	111+67.76	113+45.26	112+57.23	100,353.49	88,898.90	17°45'00"	10°00'00"	572.96	89.47	177.50	6.94
18	Rel. River	116+98.66	121+15.90	119+07.86	100,455.50	89,542.94	10°25'52"	2°30'00"	2291.83	209.20	417.24	9.53
19	Phillips Av.	31+91.24	32+47.68	32+19.47	99,044.19	89,654.72	4°30'54"	8°00'00"	716.20	28.23	56.44	0.56
SIMULATION OF SPIRAL CURVES IA AND IC - SEE SPIRAL DATA BELOW												
IA-1	Expwy.	329+21.14	350+64.26	329+92.70	100,250.93	88,153.44	1°39'06"	1°09'14"	4965.14	71.56	143.12	0.52
IA-2	Expwy.	330+64.26	331+72.14	331+18.21	100,208.29	88,271.49	2°50'54"	2°38'25"	2170.00	53.95	107.88	0.67
IC-1	Expwy.	342+80.62	343+88.50	343+34.57	100,200.22	89,467.85	2°50'54"	2°38'25"	2170.00	53.95	107.88	0.67
IC-2	Expwy.	343+88.50	345+31.62	344+60.06	100,241.28	89,586.46	1°39'08"	1°09'14"	4965.14	71.56	143.12	0.52

BENCH MARK DATA

NO.	DESCRIPTION	ELEVATION
3	Arrowhead on Hydrant, Wersell and Windermere	599.72
4	Arrowhead on Hydrant, Berwin and Twining	598.64
4A	N.W. Anchorbolt of Center Support of End Guardrail, Sta. 400+15±	599.28
7	Arrowhead on Hydrant, Windermere, Ormond and Arta	598.32
8	Arrowhead on Hydrant, Montroyal and Lagrange	590.78
9	Arrowhead on Hydrant, Lagrange and Windermere	586.38
12	Arrowhead on Hydrant, Dean and Windermere	600.50
14	Arrowhead on Hydrant, Lagrange and Gradolph	592.36
15	Arrowhead on Hydrant, Gradolph and Concord	599.64
16	Arrowhead on Hydrant, Detroit and Alva	603.06
18	Arrowhead on Hydrant, Detroit and Collingwood	591.61
20	Arrowhead on Hydrant, Phillips and Canada Southern	606.53
21	Arrowhead on Hydrant, Phillips and Peru	607.87

BASELINE INTERSECTION DATA

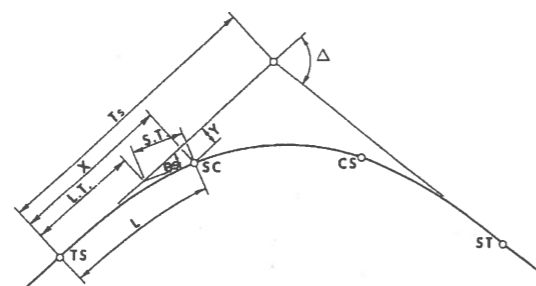
NO.	LOCATION	STATION	COORDINATES	
			NORTH	EAST
X-1	Detroit Ave.	15+00.00	101,049.29	88,635.82
	Phillips Ave.	0+00.00		
X-2	Detroit Ave.	12+82.50	100,857.18	88,533.85
	Phillips Ave. Ext.	10+00.00		
X-3	Detroit Ave.	8+14.13	100,443.47	88,314.27
	Rel. Ottawa River	106+65.72		
	Expressway	330+45.00		
X-4	Detroit Ave.	5+76.07	100,233.20	88,202.66
X-5	Detroit Ave.	5+20.01	100,183.68	88,176.37
	Ramp P-2	330+38.96		
X-6	Phillips Ave. Ext.	17+29.22	100,383.42	89,087.87
	Rel. Ottawa River	114+46.86		
X-7	Phillips Ave. Ext.	18+83.17	100,262.76	89,183.21
	Ramp P-1	340+19.18		
	Ramp P-2	340+80.92		
	Expressway	341+11.90		
X-8	Phillips Ave. Ext.	20+19.56	100,145.16	89,252.19
X-9	Phillips Ave. Ext.	22+05.04	99,983.09	89,342.41
	Ramp P-2	342+59.07		
	Ramp P-4	341+33.70		
X-10	Expressway	361+71.33	100,751.56	91,216.41
	Lagrange St.	5+44.27		
X-11	Phillips Ave.	29+01.36	99,361.15	89,649.47
	Manhattan Blvd.	50+00.94		
X-12	Detroit Ave.	5+08.63	100,173.62	88,171.04
	Collingwood Blvd.	0+00.00		

TRAVERSE POINT DATA

POINT	COORDINATES	
	NORTH	EAST
201	100,126.22	87,172.65
202	101,322.49	87,853.12
2/16	101,049.29	88,635.82
2/16A	101,710.04	88,900.39
7/16	99,810.17	87,978.12
8/16R	99,890.44	88,020.73
3/17R	100,931.25	91,166.38
5/17	100,077.82	90,677.71
6/17	99,909.77	90,533.96
7/17	99,797.69	90,370.51
8/17	99,642.16	90,216.53
9/17	99,376.77	89,680.62
9/17A	99,360.90	89,648.56
10/17	99,966.05	89,197.55
11/17	99,903.75	88,527.44
1/18	100,454.24	92,982.62
2/18	100,368.68	92,674.83
3/18	100,263.04	91,492.44
4/18R	100,227.24	91,362.38
5/18R	100,599.64	91,258.70
2/19	100,401.73	92,984.74

SPIRAL CURVE DATA

NO.	LOCATION	STATION	POINT COORDINATES		ANGLE θ_s	LENGTH L	LONG TANGENT L.T.	SHORT TANGENT S.T.	X	Y	TANGENT T_s	DELTA ANGLE Δ
			NORTH	EAST								
IA	Expwy.	T.S. 329+72.14	100,295.15	88,041.28	4°30'00"	300.00	200.06	100.06	299.82	7.85	888.72	42°15'16"
IC	Expwy.	S.T. 345+80.62	100,283.97	89,699.21	4°30'00"	300.00	200.06	100.06	299.82	7.85	888.72	

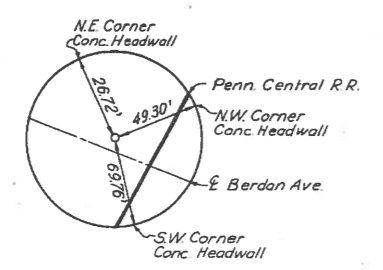


SPIRAL CURVE DIAGRAM

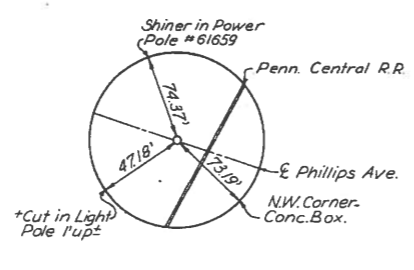
TRAVERSE INTERSECTION DATA

NO.	TRAVERSE TIE		BASELINE		COORDINATES		
	LINE	DISTANCE FROM	LOCATION	STATION	NORTH	EAST	
T-1	201 - 7/16	0.00'	7/16	Detroit Ave.	0+97.15	99,810.17	87,978.12
T-2	8/16R - 11/17	157.71'	8/16R	Collingwood	2+79.14	99,894.58	88,178.38
T-3	11/17 - 10/17	316.87'	11/17	Ramp P-2	337+55.51	99,933.08	88,842.95
T-4	10/17 - 9/17	7.05'	10/17	Ramp P-2	341+16.89	99,960.60	89,202.02
T-5	10/17 - 9/17	81.32'	9/17	Phillips Ave.	28+20.20	99,439.66	89,629.06
T-6	9/17A - 9/17	0.97'	9/17A	Phillips Ave.	29+01.18	99,361.33	89,649.43
T-7	201 - 202	677.37'	202	Reloc. River	98+06.14	100,733.71	87,518.20
T-8	201 - 202	895.75'	202	Expressway Tan. Extended	321+93.84	100,543.89	87,410.23

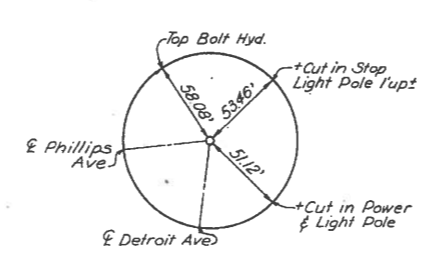
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 26
LUC 75-6.14



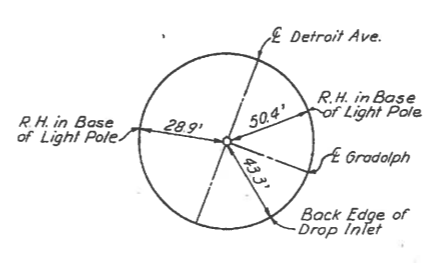
POINT 201
Chiseled Cross



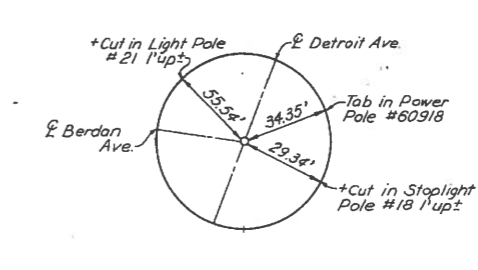
POINT 202
R.R. Spike



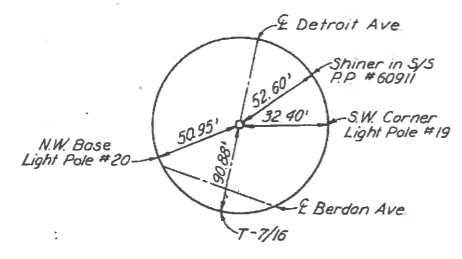
POINT 2/16
P.K. Nail in Black Top Mon. Box 0.4' Under Surface



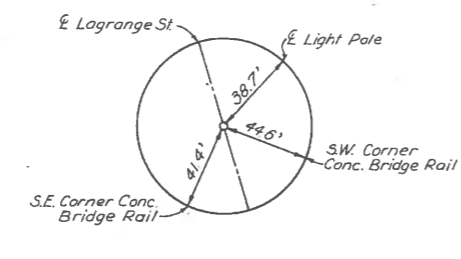
POINT 2/16A
Railroad Spike



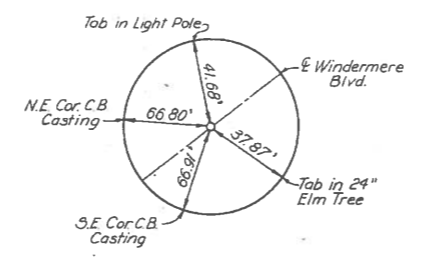
POINT 7/16
Brass Plate Mon.



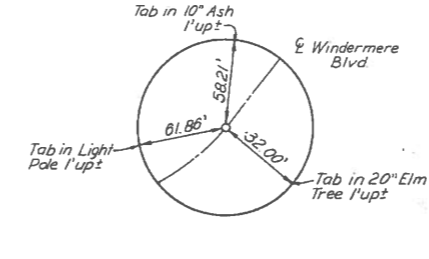
POINT 8/16 (RESET)
R.R. Spike Flush C.P.



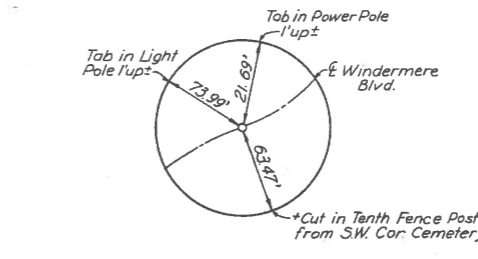
POINT 3/17 (RESET)
Leaded Tack



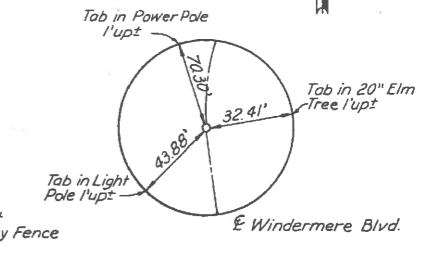
POINT 5/17
Spike



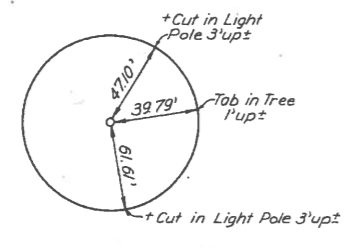
POINT 6/17
Mon. in Box P.C. of Curve



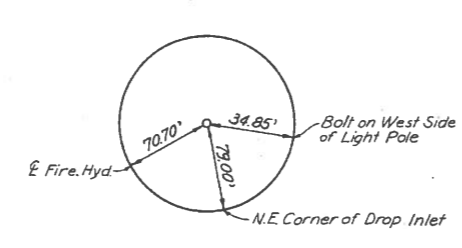
POINT 7/17
Mon. in Box P.R.C. of Curve



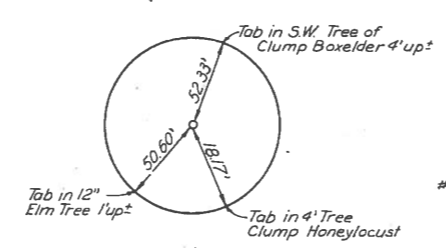
POINT 8/17
Mon. in Box P.T. of Curve



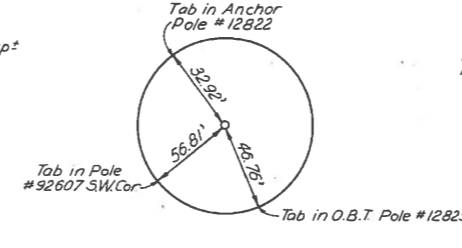
POINT 9/17
Pipe



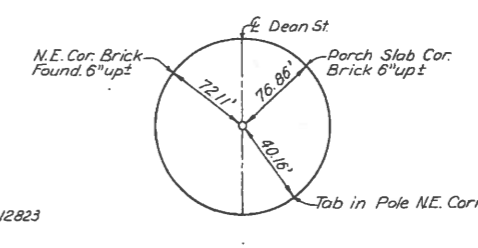
POINT 9/17 A
R.R. Spike



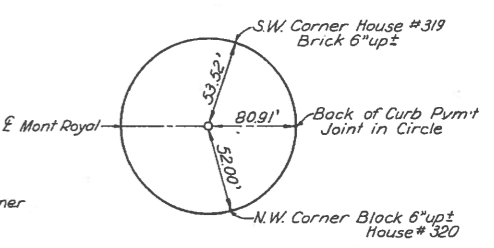
POINT 10/17
Pipe



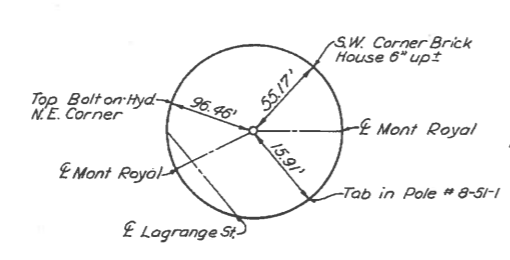
POINT 11/17
S.E. Corner C.B. at Face of Curb
N.W. Corner Emmet & Gladstone Intersection



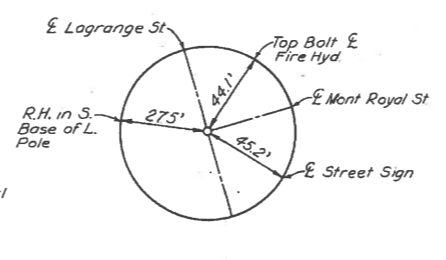
POINT 1/18
Spike



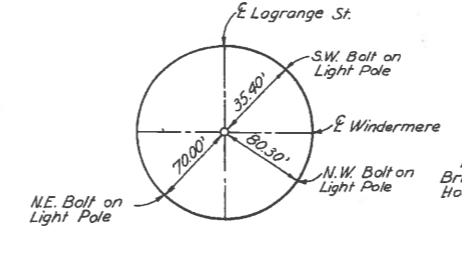
POINT 2/18
P.K. Nail in Pvm't Joint



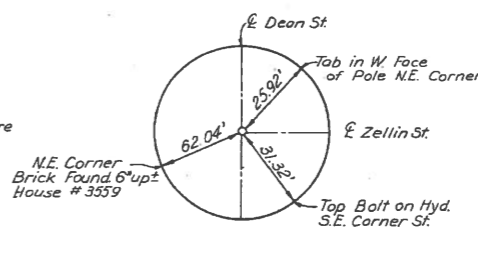
POINT 3/18
+Cut in Pvm't



POINT 4/18 (RESET)
Conc. Nail



POINT 5/18 (RESET)
Conc. Nail



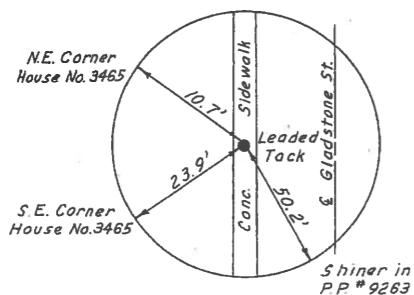
POINT 2/19
Spike

SCALE None
MADE FZ DATE 7-3-68
TRCD. FZ DATE 7-3-68
CRD. DD DATE 7-10-68
HOWARD, NEEDLES, TAMMEN & BERGENOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

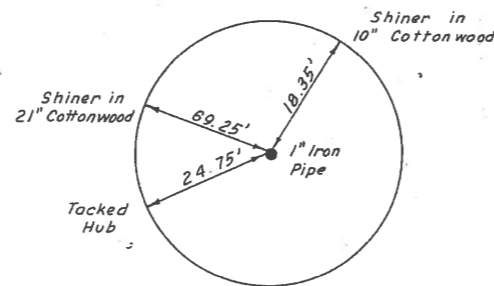
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

29
288

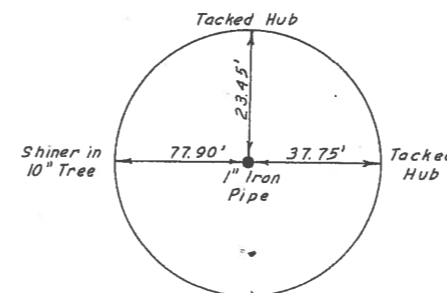
LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 26
LUC 75-6.14



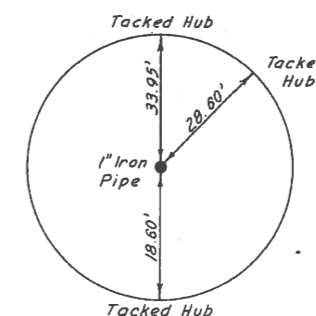
P.O.T. BACK TANGENT CURVE IB
STA. 333+23.72
MANHATTAN EXPRESSWAY



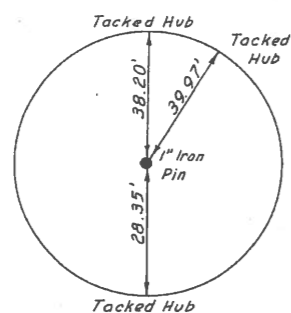
P.O.T. BACK TANGENT CURVE IB
STA. 336+08.96
MANHATTAN EXPRESSWAY



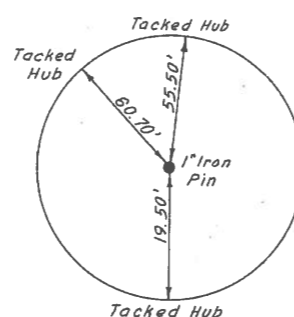
P.I. CURVE IB
STA. 337+42.48 BK.
MANHATTAN EXPRESSWAY



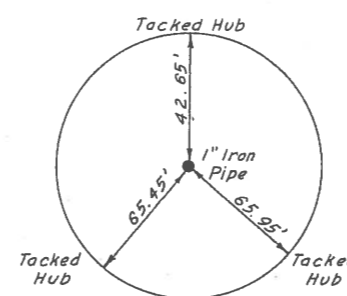
C.S. CURVE IB, IC
STA. 342+80.62
MANHATTAN EXPRESSWAY



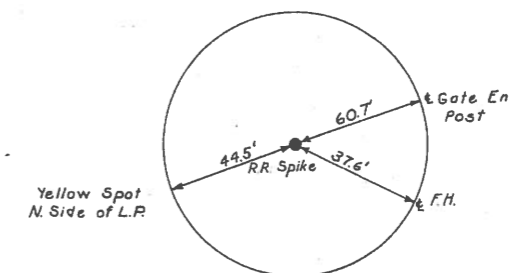
S.T. CURVE IC
STA. 345+80.62
MANHATTAN EXPRESSWAY



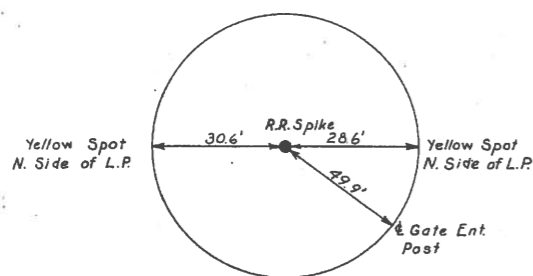
P.C. CURVE 2
STA. 350+99.18
MANHATTAN EXPRESSWAY



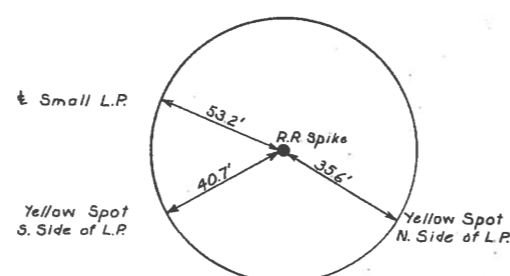
P.T. CURVE 2
STA. 366+25.82
MANHATTAN EXPRESSWAY



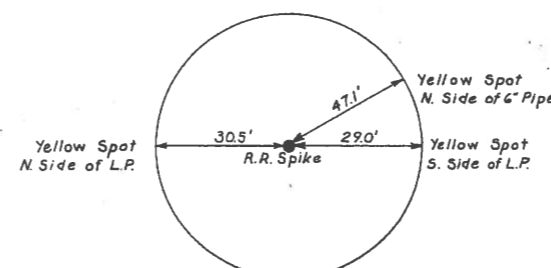
DETROIT AVE.
STA. 5+00



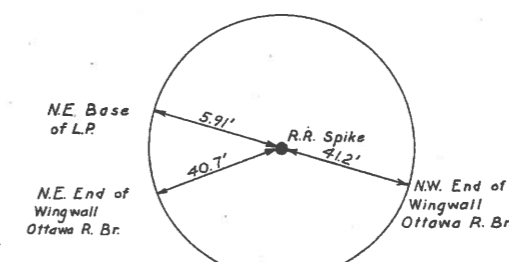
DETROIT AVE. STA. 5+76.07
MANHATTAN EXP. STA. 330+45.00



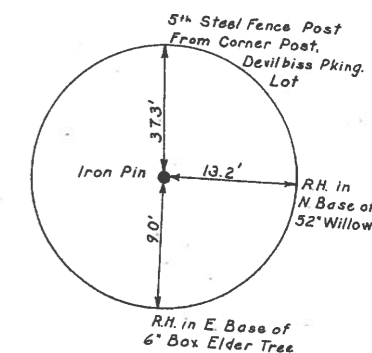
DETROIT AVE. STA. 8+14.13
STA. 106+65.72 OTTAWA RIVER



DETROIT AVE. STA. 10+00.00



DETROIT AVE. STA. 12+82.50
10+00.00 PHILLIPS AVE.



PHILLIPS AVE.
P.C. STA. 16+10.80

SCALE None HOWARD, NEEDLES, TAMMEN & BERGENOFF
MADE DED DATE 8-22-68 CONSULTING ENGINEERS
TRCD. DED DATE 8-22-68
CKD. RHL DATE 9-68 KANSAS CITY CLEVELAND NEW YORK

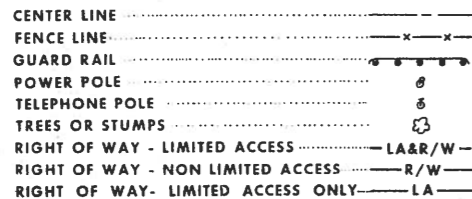
CENTER LINE REFERENCES

#3145

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 THE PROVISIONS OF SECTION 5511.02 OF THE REVISED CODE OF OHIO

MICROFILMED
FEB 2 1967

CONVENTIONAL SIGNS



INDEX OF SHEETS

Table with 3 columns: Sheet Number, Description, and Stationing. Lists sheets 1 through 111-114 covering various project details like cover sheet, schematic plan, general notes, quantities, calculations, sections, details, and profiles.

LINE DATA

PAVEMENT REMOVAL SHOWN ON GRADING PLANS
BEGIN PROJECT STA. 340+00.00
END PROJECT STA. 455+70.79
NET LENGTH OF PROJECT 11,570.79 FEET OR 2.191 MILES
BEGIN WORK STA. 339+60
EQUATION: 455+70.79 BACK=364+19.79 AHEAD
END WORK STA. 374+65
LENGTH OF WORK - EXPRESSWAY 12,656 FEET
ADD FOR: LANE C 3,334 FEET
LAGRANGE STREET 1,207 FEET
STICKNEY AVENUE 1,189 FEET
NET LENGTH OF WORK 16,386 FEET OR 3.482 MILES

PREPARED AND RECOMMENDED BY
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

R. Z. Bergendoff

LUCAS COUNTY
SEC. LUC. 120-18.48 PART 23
DATE OF LETTING 196
CONTRACT NO. 156

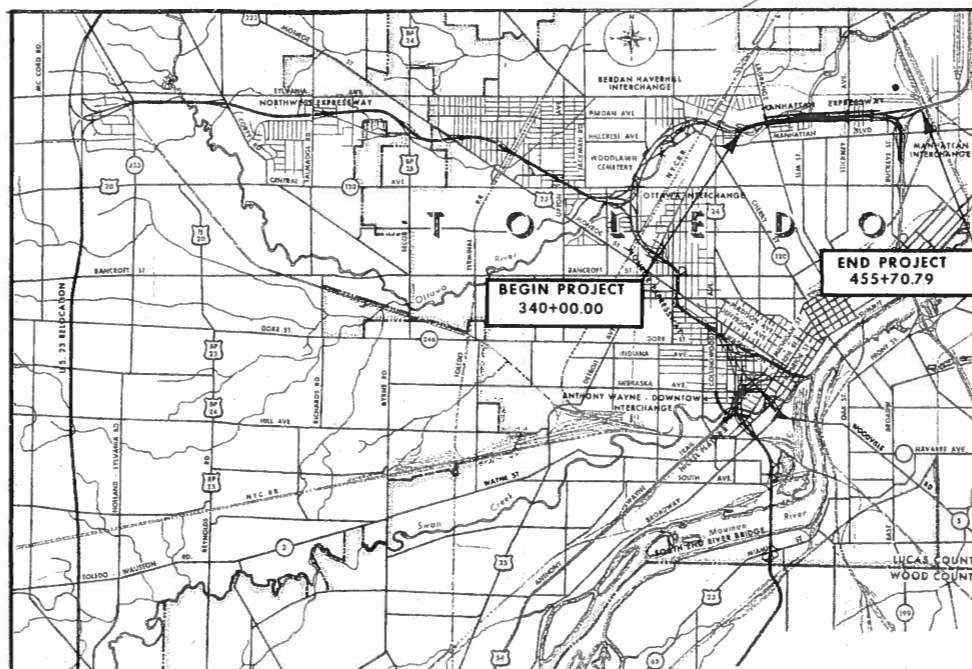
SUPPLEMENTAL SPECIFICATIONS table with columns: NUMBER, DATE, NUMBER, DATE. Lists specific drawing numbers and their revision dates.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LUC. 120-18.48
LUCAS COUNTY

CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM - PART 23

MANHATTAN EXPRESSWAY
DETROIT AVENUE TO MANHATTAN INTERCHANGE

GRADE SEPARATION WITH THE ANN ARBOR RAILROAD CO. AND
THE PENNSYLVANIA RAILROAD CO.



LOCATION MAP



PORTION TO BE IMPROVED

OTHER SCALES
PLAN 1"=50'
PROFILE HOR. 1"=100'
VERT. 1"=10'
CROSS SECTIONS 1"=10'

STANDARD DRAWINGS table with columns: NUMBER, DATE, NUMBER, DATE. Lists various drawing numbers and their dates, including R-T, DR, F, FACI, HW, HWE, I, J, RI, T, I, I-C.B., and SP drawings.

I-75-6 (5) 207
LIMITED ACCESS

1963 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF HIGHWAYS, 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 IN THE PLANS AND ESTIMATE THE RIGHT OF WAY FOR THIS IMPROVEMENT WILL BE PROVIDED BY THE STATE OF OHIO

APPROVED DATE 9-28-64 COUNTY ENGINEER LUCAS COUNTY
APPROVED DATE 9-28-64 CITY MANAGER, CITY OF TOLEDO
APPROVED DATE 10-1-64 DIRECTOR OF PUBLIC SERVICE, CITY OF TOLEDO
APPROVED DATE Oct. 2, 1964 DIVISION DEPUTY DIRECTOR
APPROVED DATE 10-26-64 ENGINEER OF BRIDGES
APPROVED DATE 11-2-64 ENGINEER OF LOCATION AND DESIGN
APPROVED DATE 11-2-64 DEPUTY DIRECTOR OF DESIGN AND CONSTRUCTION
APPROVED DATE 12-6-64 DEPUTY DIRECTOR OF RIGHT OF WAY
APPROVED DATE 11-5-64 DEPUTY DIRECTOR OF PLANNING AND PROGRAMMING
APPROVED DATE FIRST ASSISTANT DIRECTOR
APPROVED DATE 11/16/64 DIRECTOR OF HIGHWAYS

Sheets Nos 135 & 146 re used 2-23-65 C.E.H.
Sheet Nos 2 6 and 282 revised 3-4-65
Sheet No. 3 9 revised 6-29-65
8-13-65

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED: _____
DIVISION ENGINEER DATE

FED. RD. DIVISION	STATE	PROJECT	2 351
2	OHIO		

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 23
LUC 120-18.48

MICROFILMED
FEB 2 1987

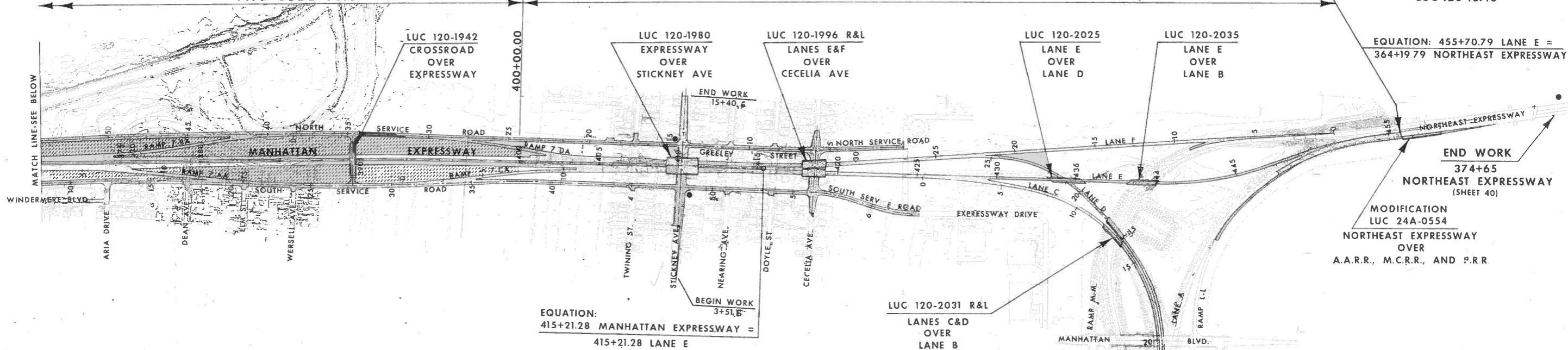
I-75-6(5)207

END PROJECT
455+70.79 LANE E
S.L.M. 20.67
(SHEET 40)

TYPE CODE 0010

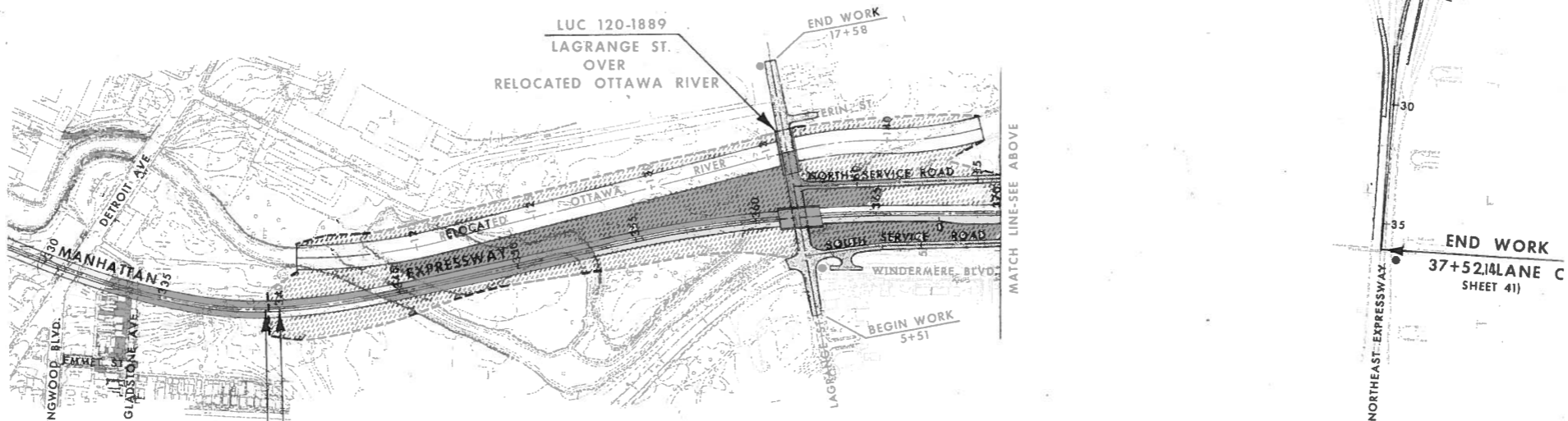
TYPE CODE 7221

EQUATION: 455+70.79 LANE E =
364+19.79 NORTHEAST EXPRESSWAY



EQUATION:
415+21.28 MANHATTAN EXPRESSWAY =
415+21.28 LANE E

END WORK
374+65
NORTHEAST EXPRESSWAY
(SHEET 40)
MODIFICATION
LUC 24A-0554
NORTHEAST EXPRESSWAY
OVER
A.A.R.R., M.C.R.R., AND P.R.R.



TYPE CODE 0010

I-75-6(5)207

BEGIN PROJECT
340+00.00
S.L.M. 18.48
(SHEET 66)

BEGIN WORK
339+60
(SHEET 66)

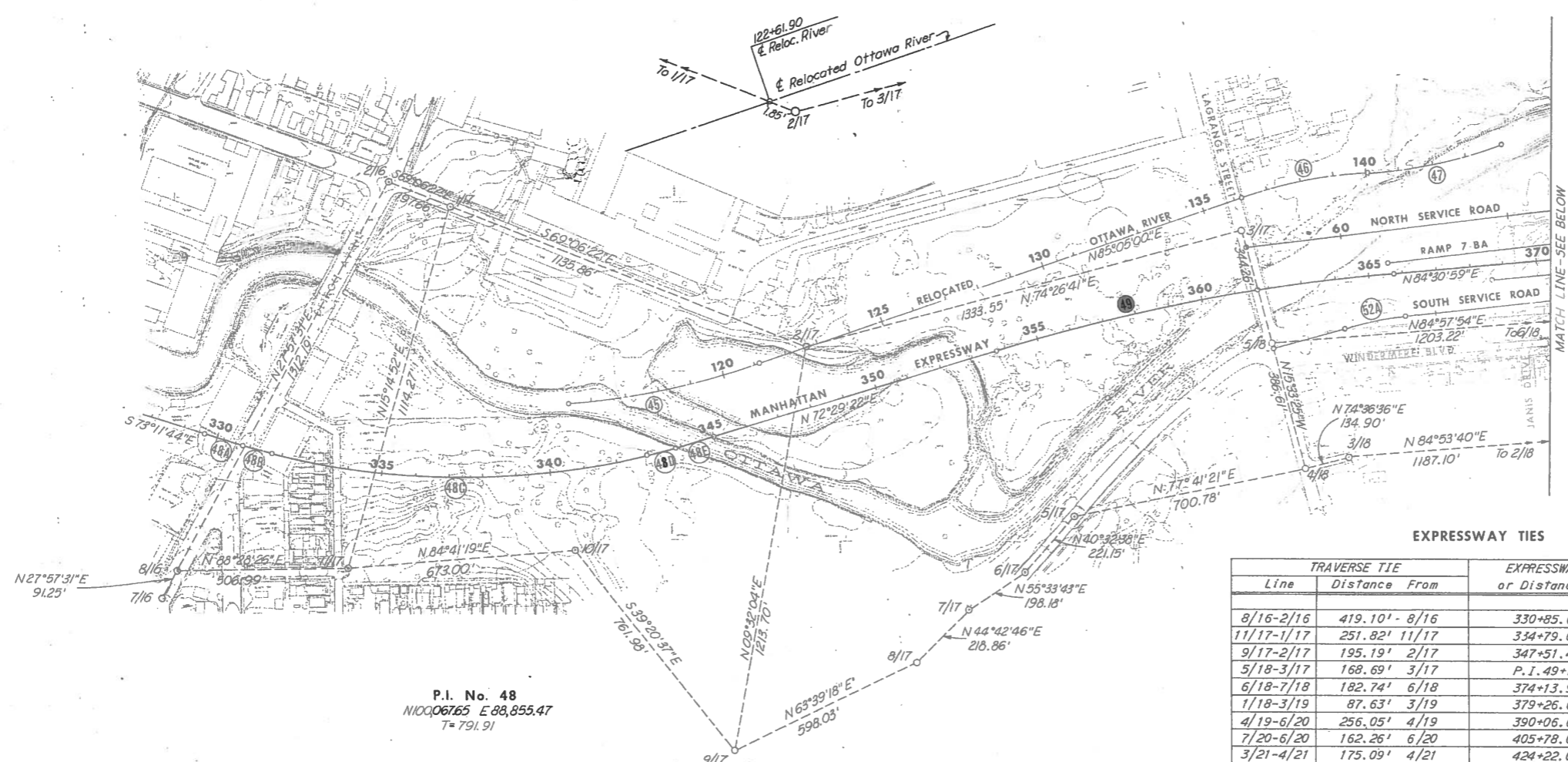
STRUCTURES
FOR STRUCTURE DATA SEE SHEET NO.'S 266,
276, 282, 296, 312, 322, 334, AND 347.

- LEGEND**
- PAVEMENT (CODE 7221)
 - GRADING (CODE 0010)
 - FEDERAL AID IDENTIFICATION SIGNS

SCALE 1"=300'
MADE JPB DATE 8-15-64
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

SCHEMATIC PLAN

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 23
LUC 120-18.48



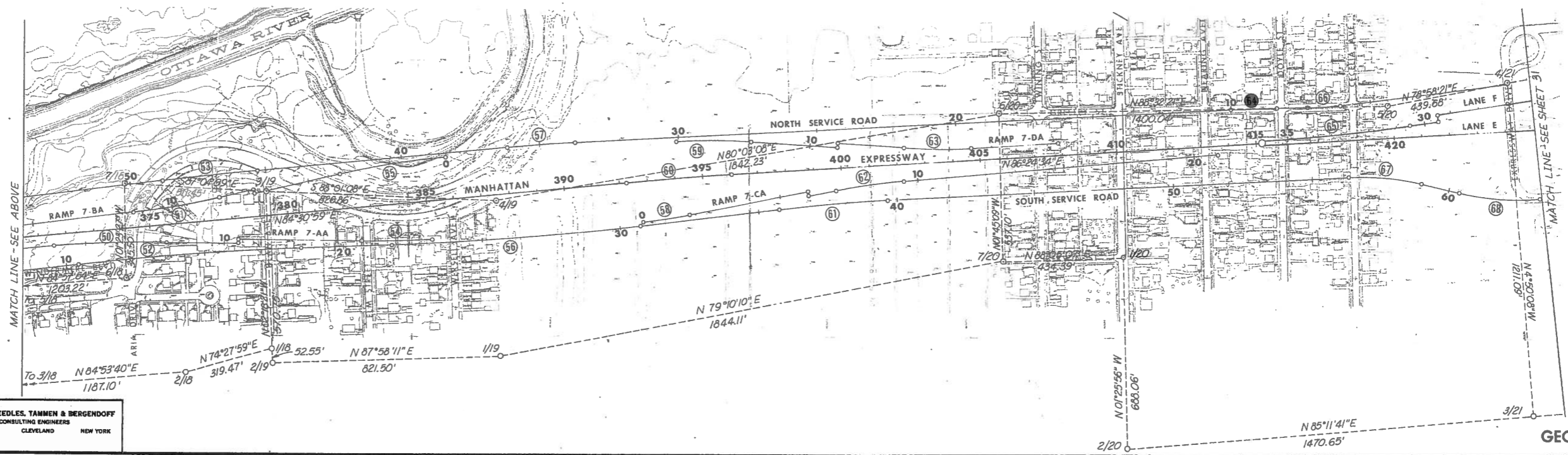
P.I. No. 48
N100°06'15" E 88,855.47
7 = 791.91

EXPRESSWAY TIES

TRAVERSE TIE	EXPRESSWAY STATION or Distance from P.I.
Line	Distance From
8/16-2/16	419.10' - 8/16
11/17-1/17	251.82' 11/17
9/17-2/17	195.19' 2/17
5/18-3/17	168.69' 3/17
6/18-7/18	182.74' 6/18
1/18-3/19	87.63' 3/19
4/19-6/20	256.05' 4/19
7/20-6/20	162.26' 6/20
3/21-4/21	175.09' 4/21
3/21-4/21	75.59' 4/21
	330+85.65
	334+79.00
	347+51.40
	P.I. 49+193.12'
	374+13.90
	379+26.61
	390+06.60
	405+78.01
	424+22.08 @ Lane E
	26+90.50 @ Lane F

SERVICE ROADS AND RELOCATED OTTAWA RIVER TIES
(Normal to Expressway)

P.I. No.	STATION	DISTANCE
Reloc. Ottawa River		
45	P.I. 48+689.71'	160.26' LT.
46	363+30.24	308.08' LT.
47	367+25.37	299.98' LT.
North Service Road		
53	377+32.44	165.12' LT.
57	389+31.55	165.71' LT.
64	414+99.11	125.96' LT.
66	417+52.20 "E"	124.16' LT.
South Service Road		
52A	365+07.64	132.22' RT.
52	376+35.83	111.58' RT.
56	388+11.76	172.47' RT.
61	399+63.53	123.77' RT.
67	419+61.09 "E"	133.19' RT.
68	423+66.24 "E"	252.52' RT.



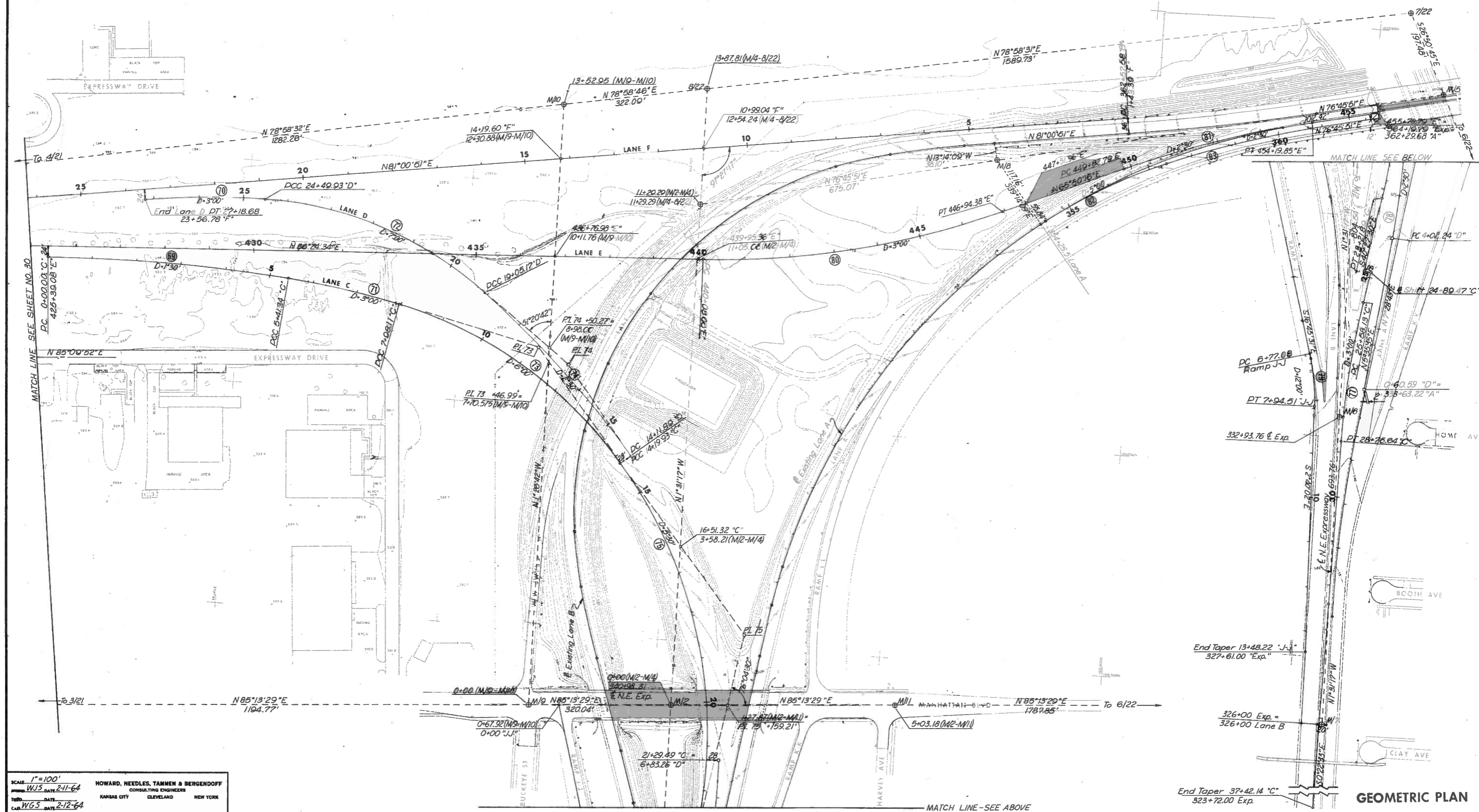
SCALE 1" = 100'
MADE BY HJS DATE 2-10-64
TRACED BY WMB DATE 3-18-64
CHECKED BY W63 DATE 3-20-64
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

GEOMETRIC PLAN

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

31
351

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 23
LUC 120-18.48



SCALE: 1"=100'
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CONSULTING ENGINEERS
 KANSAS CITY CLEVELAND NEW YORK
 DATE: 2-11-64
 DATE: 2-12-64

GEOMETRIC PLAN

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 23
LUC 120-18.48

CURVE DATA

NO.	LOCATION	R.C. STATION	P.T. STATION	P.I.		STATION	COORDINATES		Δ	D	R	L	T
				NORTH	EAST								
				NORTH	EAST								
45	River	115+33.19	121+13.76	118+25.04	100,428.00	89,465.00	14°30'52"	2°30'00"	2291.83	580.58	291.85		
46	River	136+25.00	140+03.04	138+15.12	101,091.08	91,344.68	15°07'18"	4°00'00"	1432.39	378.04	190.12		
47	River	140+03.04	144+10.46	142+08.13	101,120.78	91,738.78	16°17'48"	4°00'00"	1432.39	407.42	205.09		
48A	Man. Exp.	329+60.57	330+80.21	330+20.38	100,279.30	88,154.64	1°09'21"	0°57'58"	5930.66	119.64	59.82		
48B	Man. Exp.	330+80.21	331+69.57	331+24.89	100,251.11	88,255.27	1°58'09"	2°12'13"	2600.00	89.36	44.68		
48C	Man. Exp.	331+69.57	342+92.16	337+42.36	100,105.08	88,855.24	28°03'53"	2°30'00"	2291.83	1122.59	572.80		
48D	Man. Exp.	342+92.16	343+81.51	343+36.84	100,258.49	89,453.35	1°58'09"	2°12'13"	2600.00	89.35	44.68		
48E	Man. Exp.	343+81.51	345+01.16	344+41.34	100,287.92	89,553.62	1°09'21"	0°57'58"	5930.66	119.65	59.82		
49	Man. Exp.	353+74.72	365+77.42	359+78.29	100,750.36	91,019.36	12°01'37"	1°00'00"	5729.58	1202.69	603.56		
50	Ramp 7-AA	3+87.66	7+91.43	5+89.73	100,838.52	92,398.12	6°03'24"	1°30'00"	3819.72	403.77	202.07		
51	Ramp 7-BA	8+26.57	11+42.02	9+84.46	100,966.51	92,636.49	6°18'32"	2°00'00"	2864.79	315.44	157.88		
52	So. Ser. Rd.	10+43.16	18+45.67	14+44.58	100,798.11	92,684.40	4°00'45"	0°30'00"	11459.16	802.51	401.42		
52A	So. Ser. Rd.	2+26.14	4+06.64	3+16.57	100,669.76	91,563.34	9°01'30"	5°00'00"	1145.92	180.50	90.44		
53	No. Ser. Rd.	45+20.22	48+65.38	46+92.81	101,082.77	92,754.12	1°43'33"	0°30'00"	11459.16	345.17	172.60		
54	Ramp 7-AA	14+92.99	17+47.75	16+20.41	100,844.21	93,429.32	3°49'17"	1°30'00"	3819.72	254.76	127.42		
55	Ramp 7-BA	0+00.00	3+85.63	1+93.11	101,132.10	93,411.08	7°42'45"	2°00'00"	2864.79	385.63	193.11		
56	So. Ser. Rd.	21+72.24	30+70.80	26+21.75	100,849.87	93,860.76	4°29'34"	0°30'00"	11459.16	898.56	449.51		
57	No. Ser. Rd.	33+71.24	36+16.20	34+93.74	101,197.95	93,947.70	2°26'58"	1°00'00"	5729.58	244.96	122.50		
58	Ramp 7-CA	0+00.00	1+67.50	0+83.79	100,930.48	94,401.41	4°11'15"	2°30'00"	2291.83	167.50	83.79		
59	Ramp 7-DA	12+13.27	14+82.24	13+47.91	101,217.13	94,568.26	6°43'28"	2°30'00"	2291.83	268.97	134.64		
60	Man. Exp.	392+25.00	396+03.60	394+14.32	101,079.13	94,444.08	1°53'35"	0°30'00"	11459.16	379.60	189.32		
61	So. Ser. Rd.	35+72.98	39+65.10	37+69.11	100,990.00	95,000.00	3°55'16"	1°00'00"	5729.58	392.12	196.14		
62	Ramp 7-CA	7+00.23	9+47.31	8+23.89	101,058.55	95,130.61	6°10'37"	2°30'00"	2291.83	247.08	123.66		
63	Ramp 7-DA	4+20.62	6+62.37	5+41.66	101,181.58	95,374.21	7°15'09"	3°00'00"	1909.86	241.75	121.04		
64	No. Ser. Rd.	8+36.46	10+05.21	9+20.84	101,335.41	96,516.93	1°41'15"	1°00'00"	5729.58	168.76	84.38		
65	Lane F	30+54.28	35+93.79	33+24.24	101,235.98	96,815.87	5°23'42"	1°00'00"	5729.58	539.51	269.96		
66	No. Ser. Rd.	6+07.58	7+27.66	6+67.67	101,341.48	96,770.14	6°00'14"	5°00'00"	1145.92	120.08	60.09		
67	So. Ser. Rd.	56+33.14	58+98.34	57+66.60	101,097.72	96,994.74	15°54'42"	6°00'00"	954.93	265.20	133.46		
68	So. Ser. Rd.	60+38.92	63+33.20	61+87.24	101,004.00	97,406.56	17°39'23"	6°00'00"	954.93	294.27	148.31		
69	Lane C	0+00.00	5+41.34	2+71.12	101,259.87	97,835.34	8°07'12"	1°30'00"	3819.72	541.34	271.12		
70	Lane D	24+49.93	27+18.68	25+84.52	101,408.10	97,904.40	8°03'45"	3°00'00"	1909.86	268.75	134.60		
71	Lane C	5+41.34	7+98.11	6+69.92	101,228.31	98,233.79	7°42'11"	3°00'00"	1909.86	256.77	128.58		
72	Lane D	19+05.17	24+49.93	21+88.07	101,414.83	98,321.84	38°08'00"	7°00'00"	818.51	544.76	282.90		
73	Lane C	7+98.11	14+19.93	11+20.49	101,132.76	98,674.51	37°18'33"	6°00'00"	954.93	621.82	322.38		
74	Lane D	14+11.89	19+05.17	16+59.49	101,094.02	98,744.34	12°19'55"	2°30'00"	2291.83	493.28	247.59		
75	Lane C	14+19.93	23+21.89	19+01.37	100,521.15	99,196.10	49°36'29"	5°30'00"	1041.74	901.96	481.44		
77	Lane C	25+58.13	28+75.64	27+17.25	99,652.96	99,072.47	9°31'32"	3°00'00"	1909.86	317.51	159.12		
78	Lane D	4+02.24	6+83.26	5+42.93	100,097.59	99,163.98	7°01'31"	2°30'00"	2291.83	281.01	140.68		
79	Ramp JJ	6+77.08	7+94.51	7+35.50	99,627.50	99,004.36	14°05'29"	12°00'00"	477.46	117.43	59.01		
80	Lane E	440+08.66	446+94.38	443+55.25	101,380.58	99,375.85	20°34'18"	3°00'00"	1909.86	685.72	346.59		
81	Lane E	449+82.79	454+19.85	452+01.99	101,730.23	100,155.22	10°55'35"	2°30'00"	2291.83	437.06	219.19		
82	Lane A	354+37.69	357+38.25	355+88.84	101,602.49	99,909.26	15°01'41"	5°00'00"	1145.92	300.56	151.15		
83	Lane A	357+38.25	361+16.74	359+27.92	101,734.00	100,223.69	9°27'44"	2°30'00"	2291.83	378.49	189.67		
84	Ramp LL	5+50.00	6+71.25	6+10.75	100,982.50	99,426.72	9°04'32"	7°28'06"	765.47	121.25	60.75		
85	Ramp LL	6+71.25	7+54.19	7+12.73	101,074.01	99,472.30	3°19'04"	4°00'00"	1432.39	82.94	41.48		

TRAVERSE POINT DATA

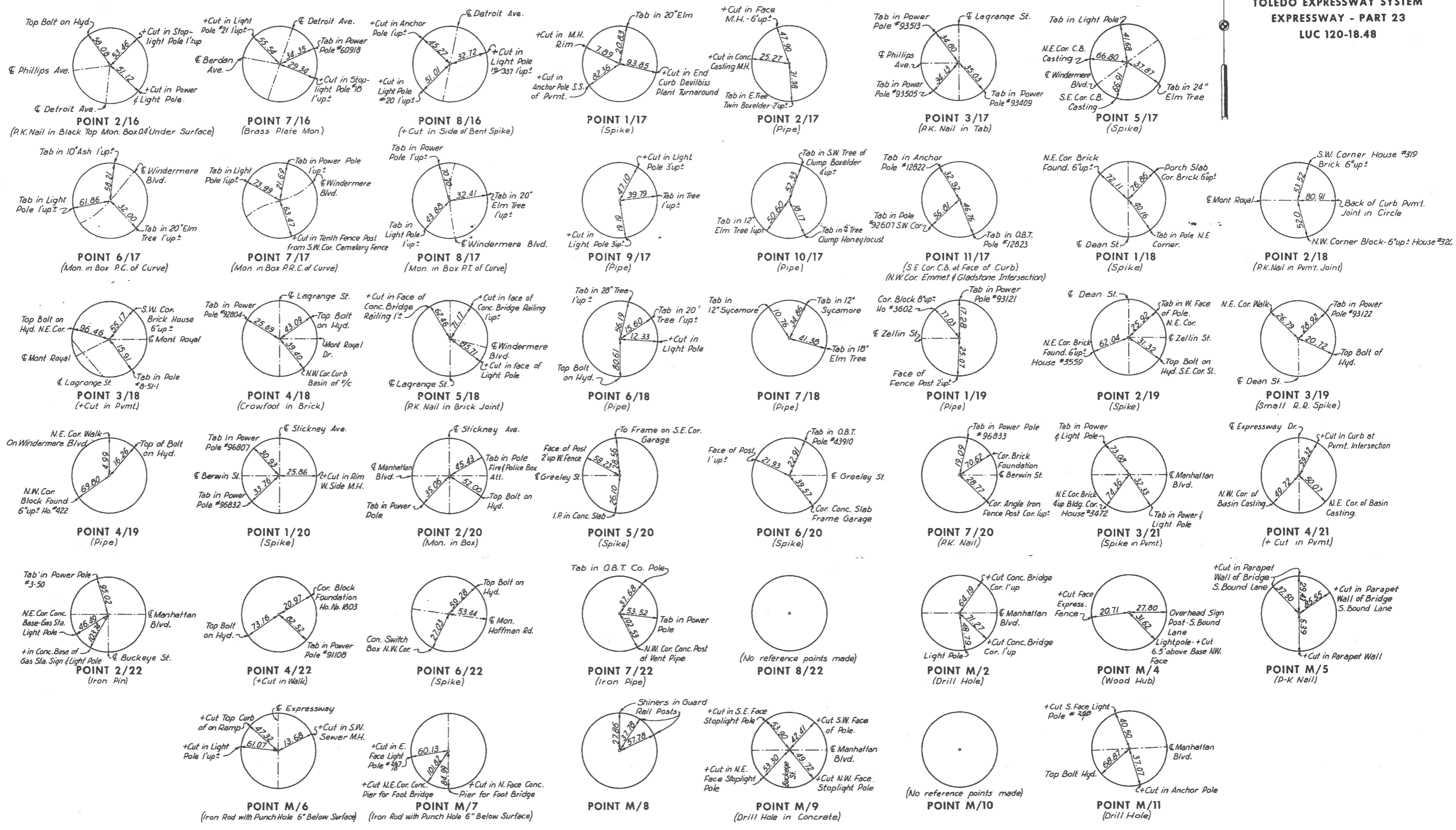
POINT	COORDINATES	
	NORTH	EAST
2/16	101,049.29	88,635.82
7/16	99,809.65	87,977.85
8/16	99,890.25	88,020.63
1/17	100,978.80	88,820.48
2/17	100,573.71	89,881.66
3/17	100,931.32	91,166.36
5/17	100,077.82	90,677.71
6/17	99,909.77	90,533.96
7/17	99,797.69	90,370.51
8/17	99,642.16	90,216.53
9/17	99,376.77	89,680.62
10/17	99,966.05	89,197.55
11/17	99,903.75	88,527.44
1/18	100,454.24	92,982.62
2/18	100,368.68	92,674.83
3/18	100,263.04	91,492.44
4/18	100,227.24	91,362.38
5/18	100,599.68	91,258.69
6/18	100,705.28	92,457.26
7/18	101,050.68	92,448.88
1/19	100,430.83	93,805.72
2/19	100,401.73	92,984.74
3/19	101,024.53	92,959.66
4/19	100,995.94	93,786.03
1/20	100,791.86	96,051.13
2/20	100,104.01	96,068.33
5/20	101,349.88	97,000.15
6/20	101,314.19	95,600.56
7/20	100,777.35	95,616.99
3/21	100,227.21	97,533.81
4/21	101,433.99	97,431.71
6/22	100,544.05	101,326.43
7/22	102,044.77	100,566.86
8/22	101,740.76	99,006.46
M/2	100,353.32	99,043.36
M/4	101,482.20	99,013.37
M/5	101,868.57	100,656.04
M/6	99,549.09	99,064.74
M/7	98,855.54	99,083.14
M/8	101,636.77	99,670.51
M/9	100,326.67	98,724.43
M/10	101,679.19	98,690.31
M/11	100,395.21	99,544.79

BENCH MARKS

B.M. NO.	DESCRIPTION	ELEVATION
1	Arrowhead on Hydrant, Greeley and Cecelia	596.56
2	Arrowhead on Hydrant, Twining and Dayton	595.97
3	Arrowhead on Hydrant, Wersell and Windermere	599.81
4	Arrowhead on Hydrant, Berwin and Twining	598.64
5	Arrowhead on Hydrant, Greeley and Stickney	597.69
6	Arrowhead on Hydrant at 332 Windermere	592.36
7	Arrowhead on Hydrant, Windermere, Ormond and Aria	598.32
8	Arrowhead on Hydrant, Monfroyal and Lagrange	590.74
9	Arrowhead on Hydrant, Lagrange and Windermere	586.35
10	Arrowhead on Hydrant, Lagrange and Erin	584.03
11	Arrowhead on Hydrant, N.E. End of Mabel St.	588.27
12	Arrowhead on Hydrant, Dean and Windermere	597.63
13	Based on "A Tech" Sign on Lagrange	585.68
14	Arrowhead on Hydrant, Lagrange and Gradolph	592.27
15	Arrowhead on Hydrant, Gradolph and Concord	599.55
16	Arrowhead on Hydrant, Detroit and Alva	603.00
17	N.E. Corner Door Step, Jordan Motor Sales	590.47
18	Arrowhead on Hydrant, Detroit and Collingwood	591.60
19	N.W. Corner Marleau Building, S.E. Corner Detroit and McGrath	588.34

SCALE None HOWARD, NEEDLES, TAMMEN & BERGENDOFF
MADE WGS DATE 8-23-63 CONSULTING ENGINEERS
TRCD. DATE
CKD. D.H. DATE 1-7-64 KANSAS CITY CLEVELAND NEW YORK

LUCAS COUNTY
CITY OF TOLEDO
TOLEDO EXPRESSWAY SYSTEM
EXPRESSWAY - PART 23
LUC 120-18.48



SCALE None
MADE LDP DATE 9-17-63
HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
TRCD. DATE
CRO. JEE DATE 9-25-63 KANSAS CITY CLEVELAND NEW YORK