

STATE OF OHIO DEPARTMENT OF HIGHWAYS

STA - 30 - (7.56 - 8.78 - 11.85) STARK COUNTY

CITY OF MASSILLON, PERRY TWP. & CITY OF CANTON

CONVENTIONAL SIGNS

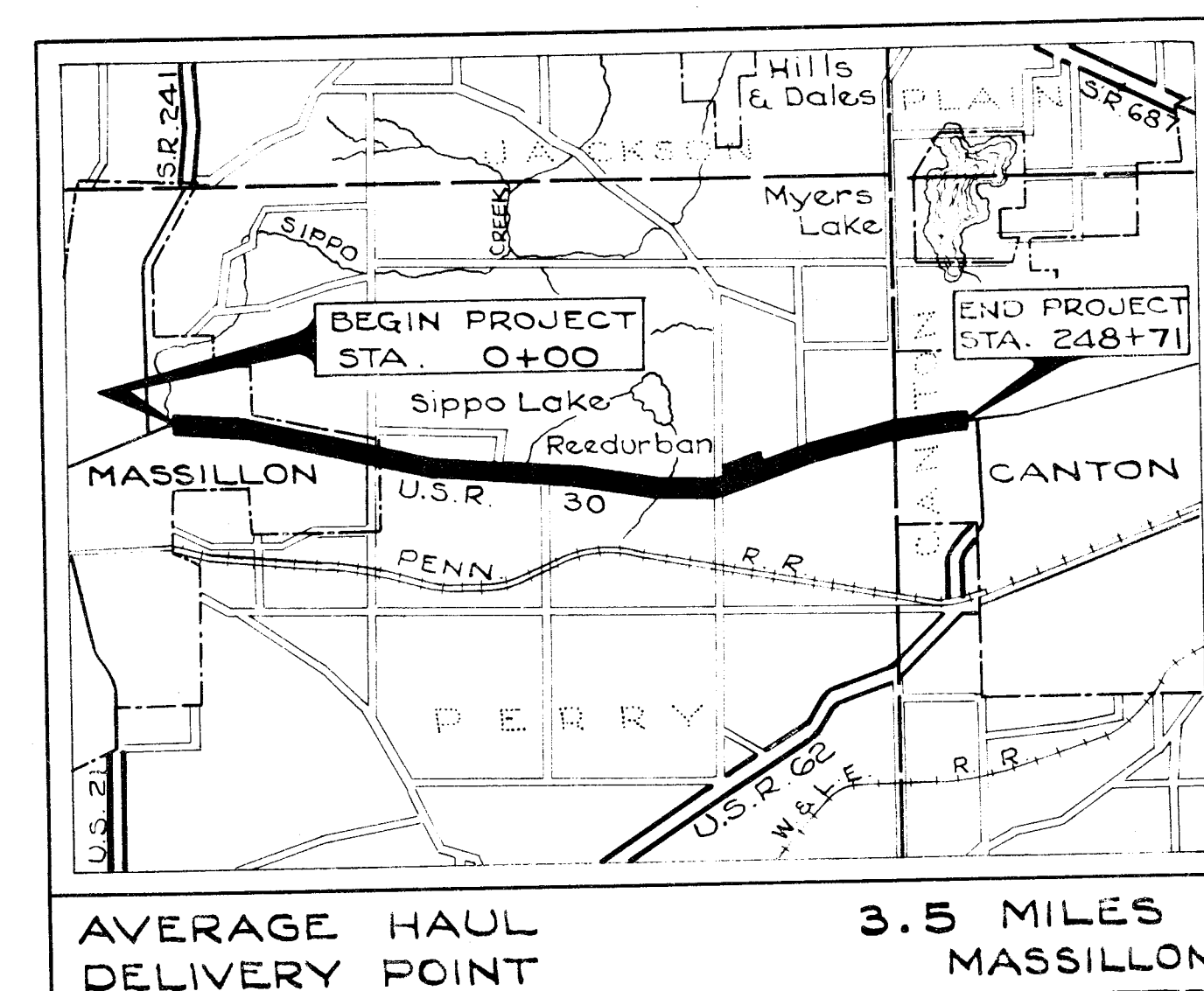
TOWNSHIP LINE _____

CORPORATION LINE _____

RAILROADS _____

INDEX OF SHEETS	
TITLE SHEET	1
TYPICAL SECTION	2-3
NOTES & DETAILS	3
SUMMARY	4
PLAN & PROFILE	5-8

LINE DATA	
MASSILLON (PT.)	
BEGIN PROJECT	STA. 0+00
END MASSILLON (PT.)	STA. 63+35
GROSS & NET LENGTH = 6335 L.F. = 1.199 MILES	
RURAL	
BEGIN RURAL	STA. 63+35
END RURAL	STA. 226+27
GROSS & NET LENGTH = 16,292 L.F. = 3.085 MILES	
CANTON (PT.)	
BEGIN CANTON (PT.)	STA. 226+27
END PROJECT	STA. 248+71
GROSS & NET LENGTH = 2,244 L.F. = 0.425 MILES	
NET LENGTH OF PROJECT = 24,871 L.F. = 4.710 MILES	



LOCATION PLAN
Scale 1" = 1 Mile

PORTION TO BE IMPROVED _____

STATE HIGHWAYS _____

OTHER ROADS _____

SCALES

PLAN 1" = 300'

PROFILE HORIZ. 1" = 300'

PROFILE VERT. 1" = 30'

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 on the plans and estimates. See Traffic Note - Sheet No. 3

The right of way for this improvement will be provided by the State of Ohio.

Approved W. H. Moore
Date 7-2-47 Division Deputy Director

Approved _____
Date _____ Chief Engineer, Bureau of Maintenance

Approved _____
Date _____ Chief Engineer, Bureau of Bridges & R.R. Crossings

Approved George J. Thormeyer
Date 7/21/47 Chief Engineer, Bureau of Location & Design

Approved _____
Date _____ First Asst. Director and Chief Engineer

Approved Marion D. Stapp
Date _____ Director of Highways

FILE NO. _____

STARK COUNTY
STA-30-(7.56-8.78-10.78-11.85-12.28)
DATE OF LETTING _____ 194____
CONTRACT NO. _____

STANDARD DRAWINGS	
DRAWING NO.	DATE
G-8.07	2-1-47

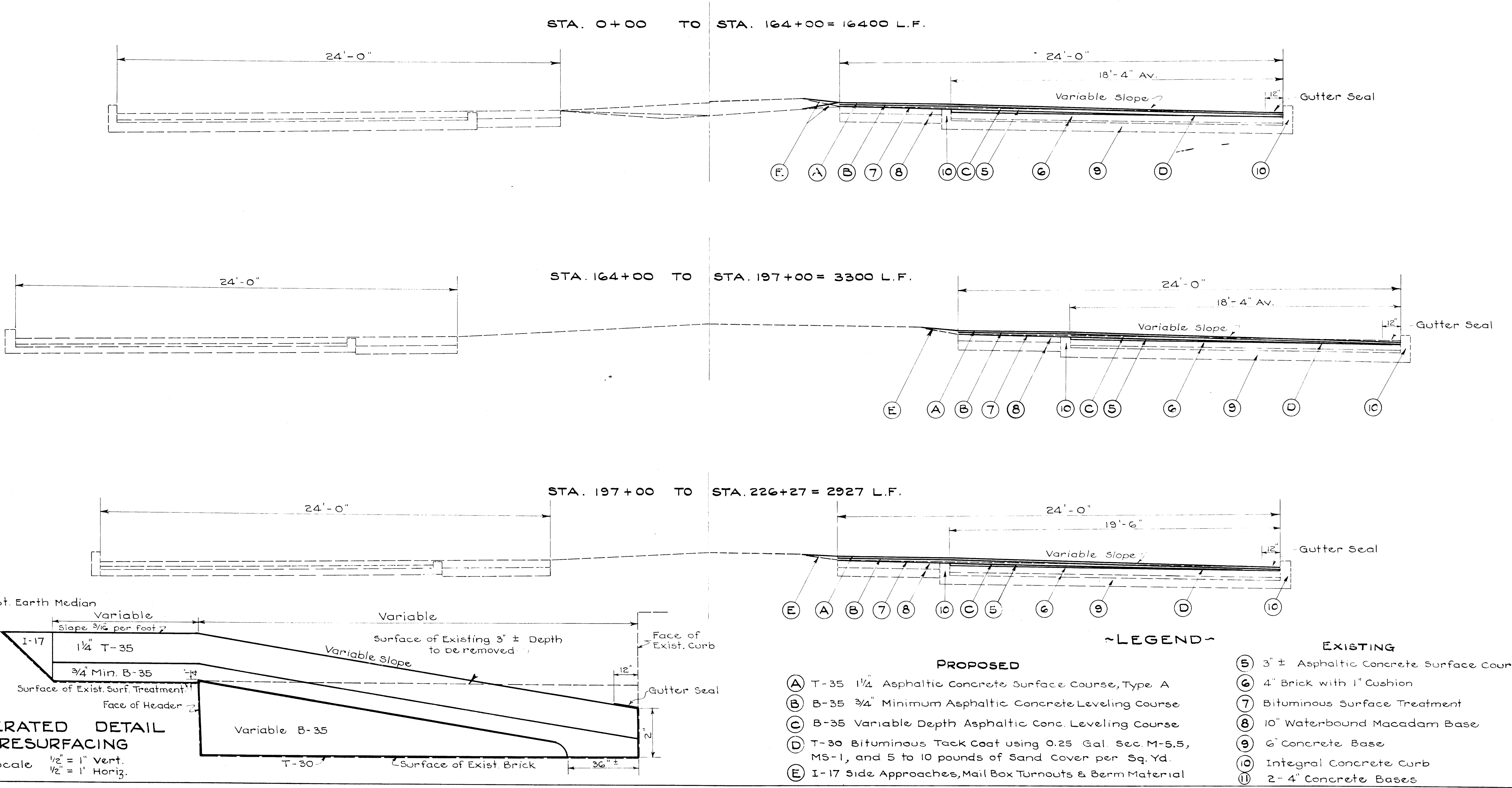
SUPPLEMENTAL SPECIFICATIONS	
SPECIFICATION NO.	DATE
M-205.1	3-19-46

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TYPICAL SECTIONS

TYPE T-35

SCALE 3/8" = 1'-0"



TYPICAL SECTION TYPE T-35

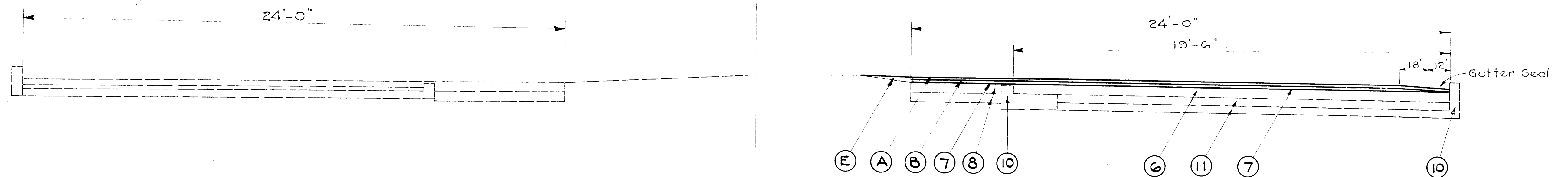
SCALE $\frac{3}{8}" = 1'-0"$

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		1947

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3
8

STA. 226 + 27 TO STA. 248 + 71 = 2244 L.F.



LEGEND
See Sheet No. 2

GENERAL NOTES

TRAFFIC :-

The South pavement lanes to be resurfaced shall be closed to traffic and two way traffic shall be maintained on the north pavement lanes for the duration of work on this project.

The item of maintaining traffic shall include furnishing lights and all signs, barricades and watchmen, according to the requirements of G-8.07 barricades, danger and warning signs to secure the flow of traffic twenty-four (24) hours daily.

PROFILE :-

The profile of the proposed surface course shall be approximately 2 inches above that of the existing pavement.

FILLING MAJOR DEPRESSIONS :-

Major depressions in existing pavement shall be filled and compacted with bituminous concrete leveling material in advance of placing the regular leveling course. These depressions shall be filled in layers not to exceed 3 inches in depth when compacted.

RESETTING CASTINGS :-

This item shall be performed after completion of the leveling course and prior to placing the surface course. Compaction of the material around castings inaccessible to rollers shall be in accordance with the requirements of Section T-50.21.

PRESERVATION OF EXISTING CURBS :-

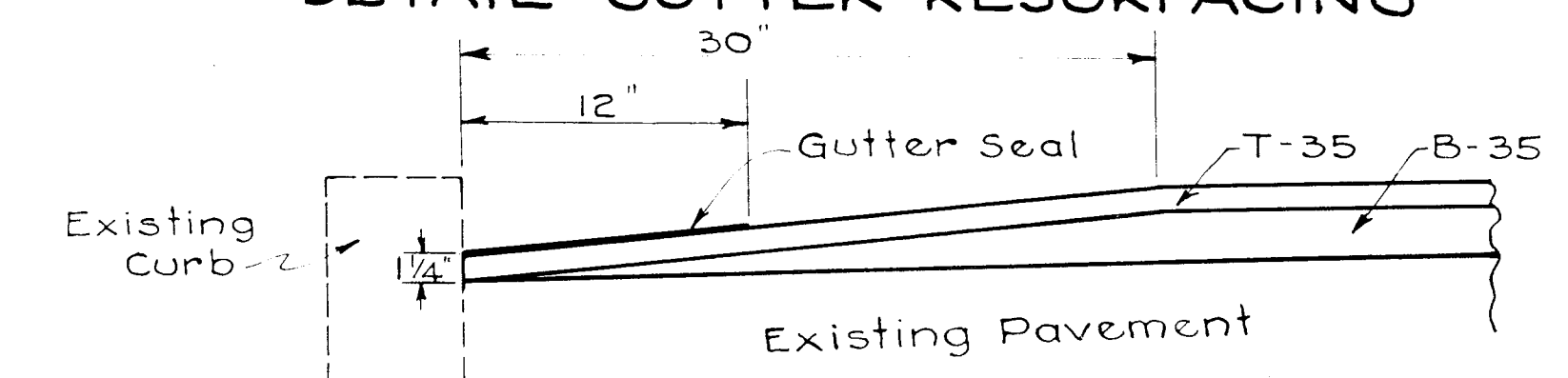
The Contractor shall be required to use special care in removing the bituminous wearing course abutting the existing concrete curb in order to preserve the curb.

Damages to the existing curb resulting from careless workmanship shall result in the contractor being required to construct new curb in the damaged sections, as directed by the Engineer, and at no cost to the State.

ASPHALT CEMENT :-

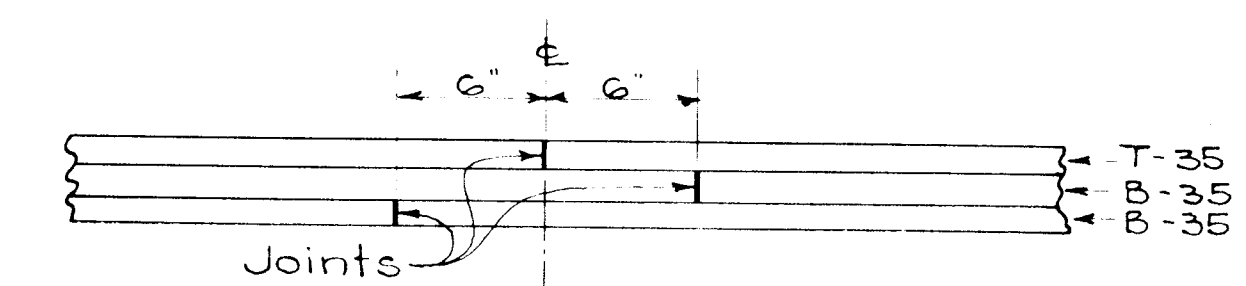
In lieu of asphalt cement meeting the requirements of specifications M-5.1, asphalt cement shall meet the requirements of supplemental specifications M-205.1, 70-80 penetration dated March 19, 1946.

CANTON (PT.) DETAIL-GUTTER RESURFACING



NOTE: Special care shall be exercised during construction to obtain maximum compaction of bituminous concrete in all gutters.

JOINT LAPPING DETAIL



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CALCULATIONS
RURAL

MASSILLON (PT.)

T-35 ASPHALTIC CONCRETE SURFACE COURSE, TYPE A :-
 $6335 \times 24 \div 9 = 16893.33$ S.Y.
 $16893.33 \times 1.25 \div 36 = 586.57$ C.Y.
Median Cross-Over Resurfacing (Sheet No. 5)
 $738.7 \times 1" (Av.) \div 36 = 20.52$ C.Y.
Total = 607.09 C.Y.

B-35 ASPHALTIC CONCRETE LEVELING COURSE :-
 $16893.33 \times 0.75 \div 36 = 351.94$ C.Y.
Extra Leveling (Variable Depth)
 $6335 \times 18.33 \div 9 = 12902.28$ S.Y.
 12902.28×1.50 (Average Depth) $\div 36 = 537.60$ C.Y.
Extra Leveling over Existing W.B. Widening
 $6335 \times 60 \div 5280 = 72.00$ C.Y.
Total = 961.54 C.Y.

T-30 BITUMINOUS TACK COAT :-
 $12902.28 \times 0.25 = 3225.57$ Gal.

I-17 SIDE APPROACHES MAILBOX TURNOUTS & BERM MATERIAL :-
 $6335 \times 2 \times 0.15$ (Av. Depth) $\div 27 = 70.39$ C.Y.
 70.39×1.20 (Shrinkage) = Total 84.47 C.Y.

E-8 REMOVAL & DISPOSAL OF EXIST. BIT. WEARING COURSE :-
 $6335 \times 18.33 \div 9 = 12902.28$ S.Y.

E-8 REMOVAL & DISPOSAL OF EXISTING CONCRETE PAVEMENT
Pavement Replacement Table (Sheet No. 5) = 112 S.Y.

B-70 9" PORTLAND CEMENT CONCRETE BASE :-
Pavement Replacement Table (Sheet No. 5) = 112 S.Y.

I-8 CATCH BASINS ADJUSTED TO GRADE :-
Castings Table Sheet No. 5 = 20 Each

T-35 ASPHALTIC CONCRETE SURFACE COURSE, TYPE A :-
 $16292 \times 24 \div 9 = 43445.33$ S.Y.
 $43445.33 \times 1.25 \div 36 = 1508.52$ C.Y.
Median Cross-Over Resurfacing Table (Sheets 5, 6, 7 & 8)
 $115.5 + 862.4 + 792.0 + 76.1 = 1846.00$ S.Y.
 $1846.00 \times 1" (Av.) \div 36 = 51.28$ C.Y.
Total = 1559.80 C.Y.

B-35 ASPHALTIC CONCRETE LEVELING COURSE :-
 $43445.33 \times 0.75 \div 36 = 905.11$ C.Y.
Extra Leveling (Variable Depth)
Sta. 63+35 to Sta. 197+00 = 13365 Lin. Ft.
 $13365 \times 18.33 \div 9 = 27220.05$ S.Y.
 27220.05×1.50 (Av.) $\div 36 = 1134.17$ C.Y.
Sta. 197+00 to Sta. 226+27 = 2927 Lin. Ft.
 $2927 \times 19.50 \div 9 = 6341.83$ S.Y.
 6341.83×1.50 (Av.) $\div 36 = 264.24$ C.Y.
Extra Leveling over Existing W.B. Widening
 $13365 \times 60 \div 5280 = 151.88$ C.Y.
 $2927 \times 45 \div 5280 = 24.95$ C.Y.
Total = 2480.35 C.Y.

T-30 BITUMINOUS TACK COAT :-
 $27220.05 + 6341.83 = 33561.88$ S.Y.
 $33561.88 \times 0.25 = 8390.47$ Gal.

I-17 SIDE APPROACHES, MAILBOX TURNOUTS AND BERM MATERIAL :-
 $16292 \times 2 \times 0.15$ (Av.) $\div 27 = 181.02$ C.Y.
 181.02×1.20 (Shrinkage) Total = 217.22 C.Y.

E-8 REMOVAL & DISPOSAL OF EXIST. BIT. WEARING COURSE :-
 $13365 \times 18.33 \div 9 = 27220.05$ S.Y.
 $2927 \times 19.50 \div 9 = 6341.83$ S.Y.
Total = 33561.88 S.Y.

E-8 REMOVAL & DISPOSAL OF EXISTING CONC. PAVEMENT :-
Pavement Replacement Table (Sheet No. 5) = 12 S.Y.

B-70 9" PORTLAND CEMENT CONCRETE BASE :-
Pavement Replacement Table (Sheet No. 5) = 12 S.Y.

I-8 CATCH BASINS ADJUSTED TO GRADE :-
Castings Table Sheets 5, 6, 7 & 8
 $1 + 6 + 12 + 1 = 20$ Each

CANTON (PT.)

T-35 ASPHALTIC CONCRETE SURFACE COURSE, TYPE A :-
 $2244 \times 24 \div 9 = 5984$ S.Y.
 $5984 \times 1.25 \div 36 = 207.78$ C.Y.
Median Cross-Over Resurfacing (Sheet No. 8)
 $228.1 \times 1" (Av.) \div 36 = 6.34$ C.Y.
Total = 214.12 C.Y.

B-35 ASPHALTIC CONCRETE LEVELING COURSE :-
 $2244 \times 22.75 \div 9 = 5672.33$ S.Y.
 $5672.33 \times 0.75 \div 36 = 118.17$ C.Y.
Extra Leveling = $2244 \times 200 \div 5280 = 85.00$ C.Y.
Total = 203.17 C.Y.

I-17 SIDE APPROACHES, MAILBOX TURNOUTS & BERM
 $2244 \times 2 \times 0.15 \div 27 = 24.93$ C.Y.
 24.93×1.20 (Shrinkage) = Total 29.92 C.Y.

E-8 REMOVAL & DISPOSAL OF EXIST. BIT. WEARING COURSE :-
Sheet No. 8 = 67 S.Y.

I-8 CATCH BASINS ADJUSTED TO GRADE :-
Sheet No. 8 = 4 Each

GENERAL SUMMARY

ITEM NO.	QUANTITIES				UNIT	DESCRIPTION
	MASSILLON (PT.)	RURAL		CANTON (PT.)		
T-35	607	1560		214	Cu. Yds.	Asphaltic Concrete Surface Course, Type A, As Per Plan
B-35	962	2480		203	Cu. Yds.	Asphaltic Concrete Leveling Course, As Per Plan
T-30	3226	8390			Gallons	Bituminous Tack Coat, Sec M-5.5, MS-1, as per plan
I-17	84	217		30	Cu. Yds.	Side Approaches, Mailbox Turnouts and Berm Material
E-8	12902	33562		67	Sq. Yds.	Removal and Disposal of Existing Bituminous Wearing Course
E-8	112	12			Sq. Yds.	Removal and Disposal of Existing Concrete Pavement
B-70	112	12			Sq. Yds.	9" Portland Cement Concrete Base Course
I-8	20	20		4	Each	Catch Basins Adjusted to Grade

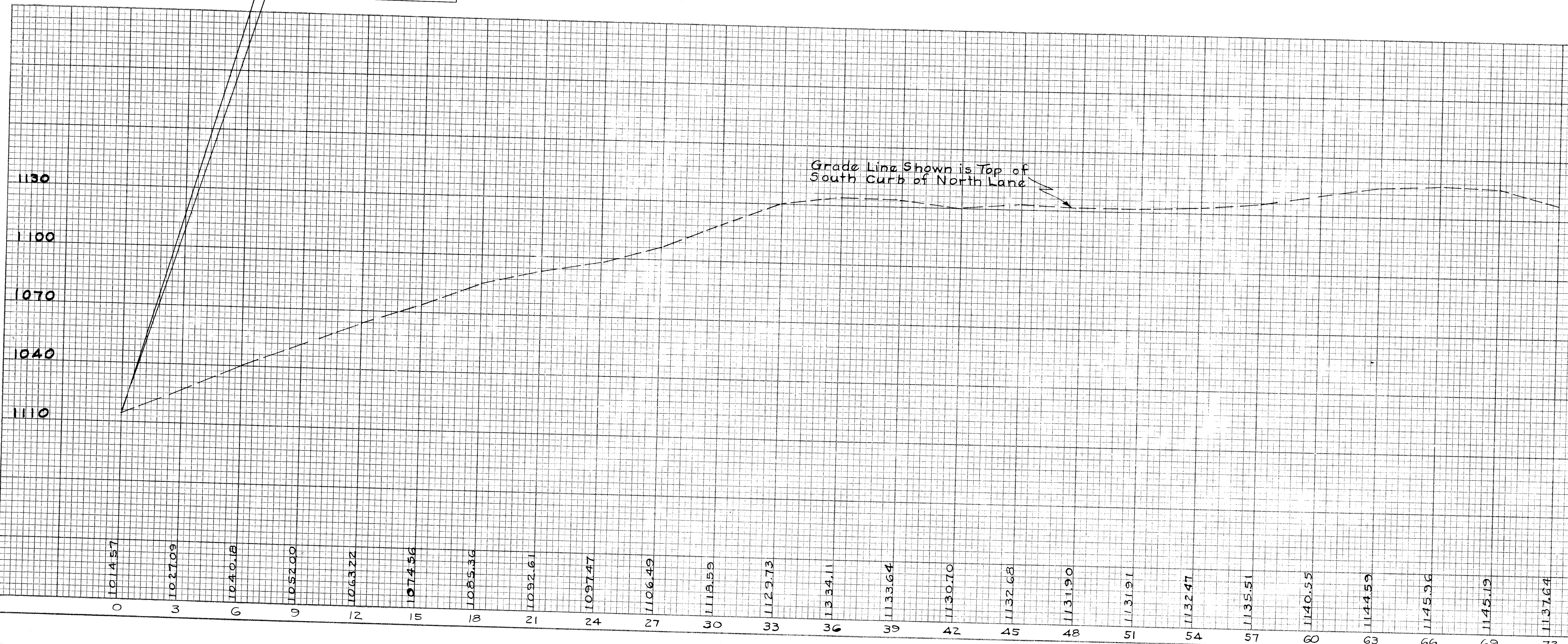
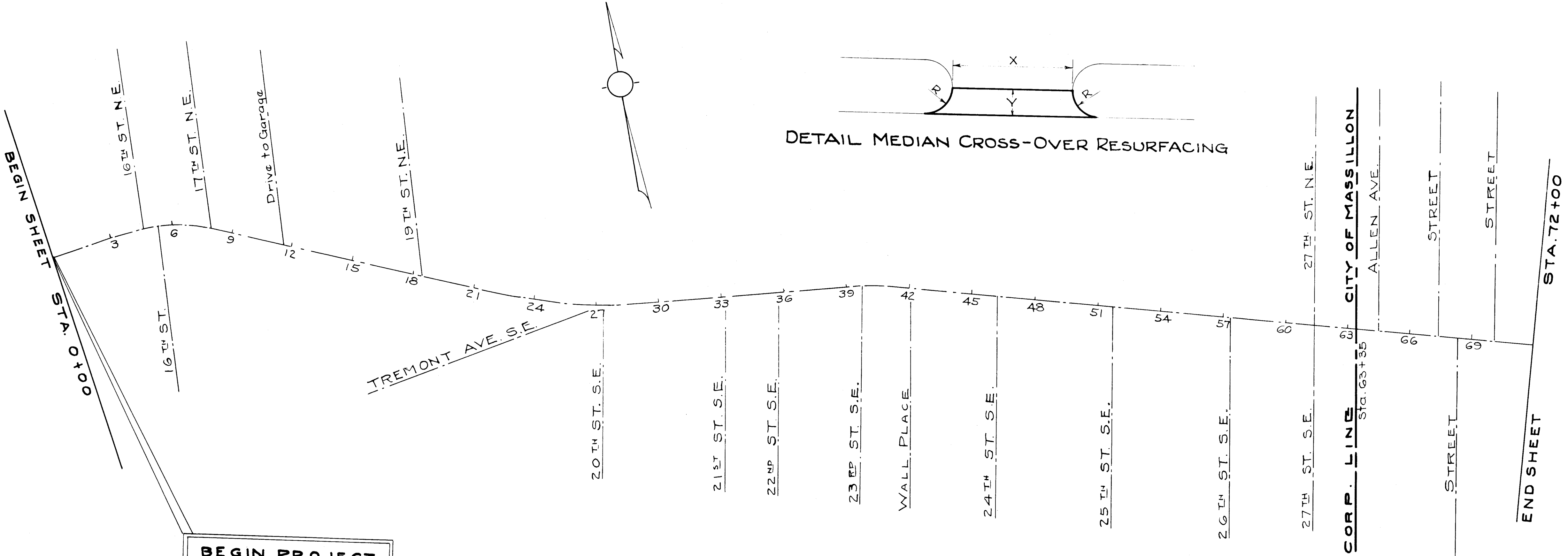
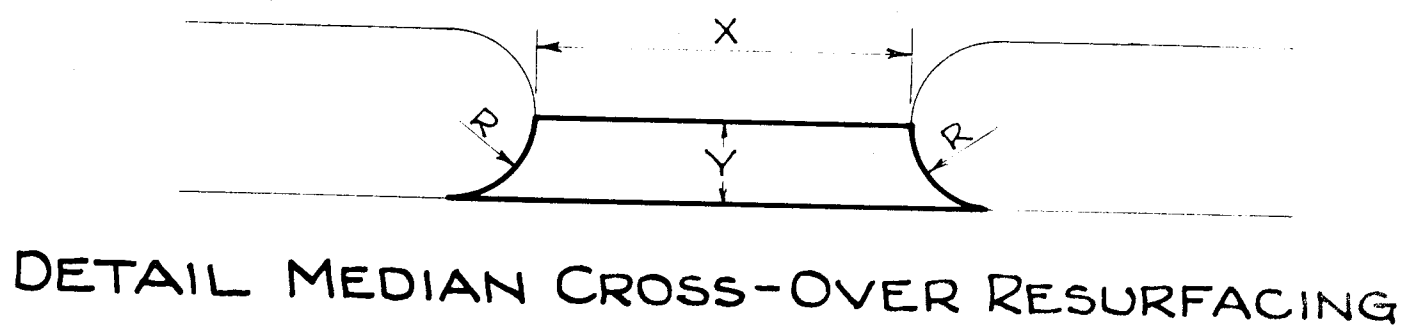
STARK COUNTY
STA-30 - (1.56-8.78- 11.85)

MEDIAN CROSS-OVER RESURFACING					
STATION	SECTION	X LIN. FT.	Y LIN. FT.	R LIN. FT.	T-35 AVERAGE SQ. YDS.
4 + 61.5	Massillon (pt.)	54	8	7.5	50.7
5 + 62		29			28.4
7 + 79		53			49.8
8 + 81		32			31.1
14 + 79		22			22.2
17 + 88		32			31.1
20 + 11		52			48.9
25 + 23		26			25.8
27 + 28		61			56.9
33 + 24		54			50.7
35 + 63		51			48.0
39 + 68		48			45.3
42 + 04		28			27.6
46 + 06		46			43.6
51 + 69		50			47.1
53 + 50		39			37.3
57 + 27		52			48.9
61 + 35		48			45.3
64 + 37	Rural	56			52.4
68 + 28		30			29.3
71 + 09		35			33.8
TOTAL MASSILLON (PT.)					738.7
TOTAL RURAL					115.5

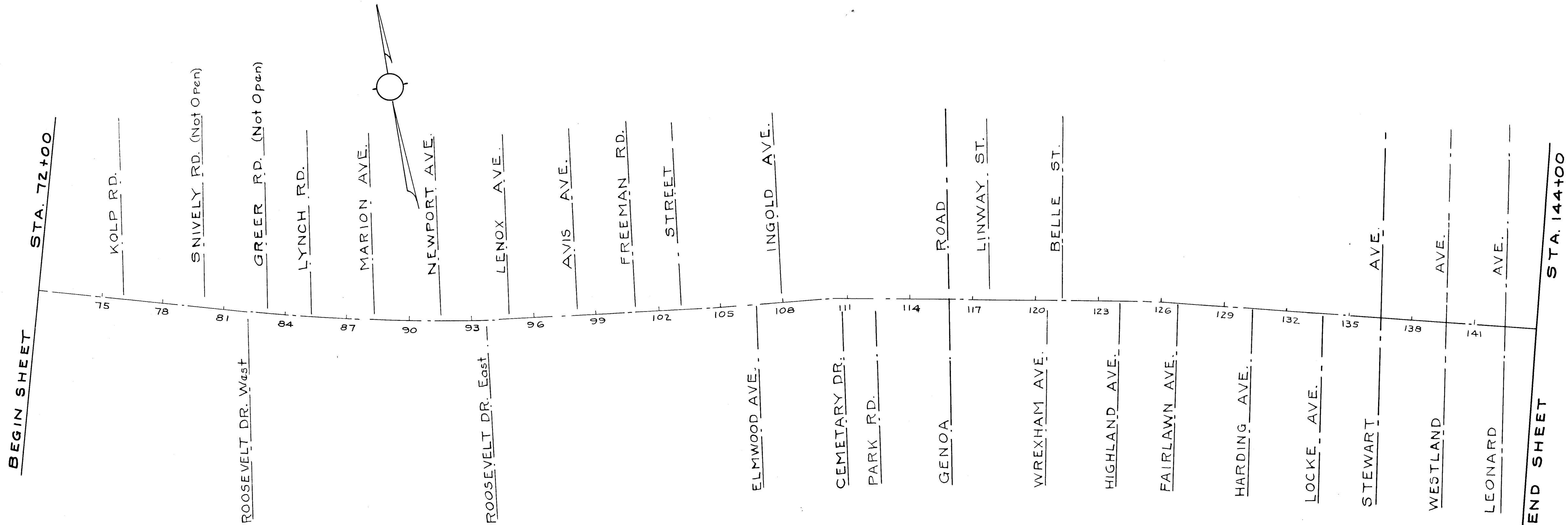
CASTINGS			
STATION	I-8 ADJ. C.B. EA.	STATION	I-8 ADJ. C.B. EA.
1+95	1	46+57	1
3+55	1	51+44	1
5+34	1	51+59	1
9+74	1	52+05	1
24+25	1	54+80	1
26+80	1	57+80	1
37+50	1	61+17	1
39+50	1	61+80	1
40+75	1	64+49	1
42+09	1		
45+70	1	TOTAL MASS	20
46+48	1	TOTAL RURAL	1

PAVEMENT REPLACEMENT		
STATION	E-8 REMOVAL CONC. PAVEMENT SQ. YDS.	B-70 SQ. YDS.
37+60	12	12
39+30	12	12
40+75	12	12
45+90	12	12
49+10	12	12
51+80	12	12
54+75	12	12
56+60	12	12
61+40	4	4
61+75	12	12
64+50	12	12
Total Mass.(Pt.)	112	112
Total Rural	12	12

The above item E-8 is for removing existing pavement where sewer laterals have been installed, which do not fit the new surface course.



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MEDIAN CROSS-OVER RESURFACING				
STATION	SECTION	X LIN. FT.	Y LIN. FT.	R LIN. FT.
73+24	RURAL	34	8	7.5
76+13		32		
80+13		48		
85+23		30		
88+39		46		
91+48		28		
93+61		52		
94+81		50		
98+13		36		
100+85		30		
106+71		25		
107+28		28		
110+76		46		
112+28		28		
115+83		46		
117+76		32		
121+62		34		
121+30		34		
124+08		32		
126+75		30		
130+35		30		
133+78		28		
136+53		50		
139+62		32		
142+51		28		
TOTAL RURAL				862.4

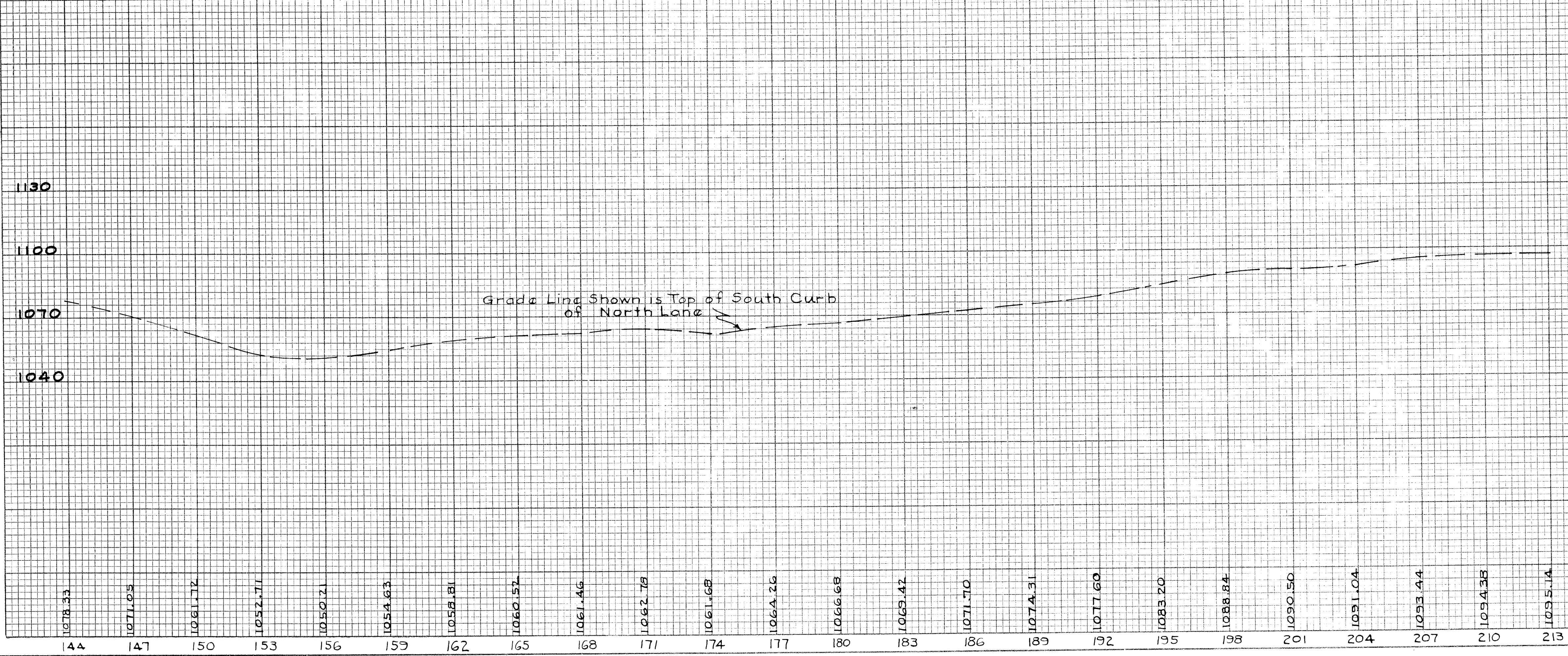
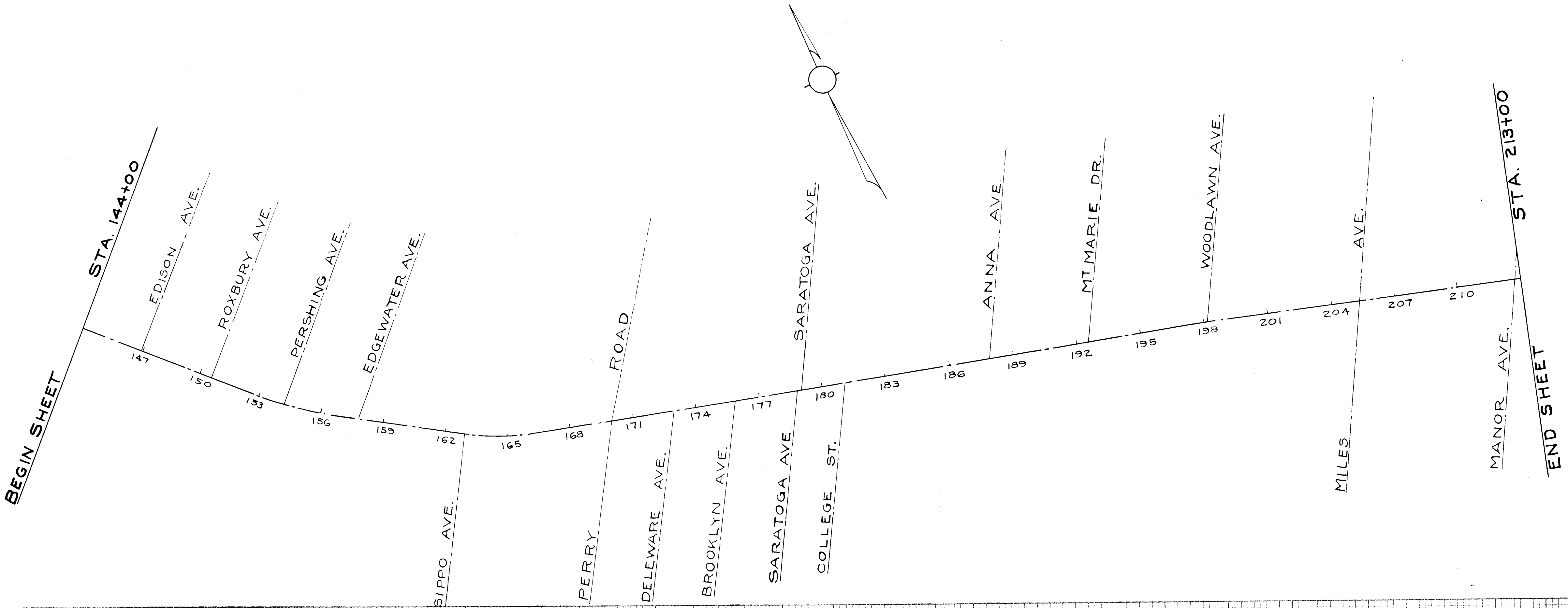
CASTINGS	
STATION	I-8 ADJ. C.B. EA.
73+22	1
87+80	1
108+10	1
109+80	1
115+50	1
134+00	1
TOTAL RURAL	6



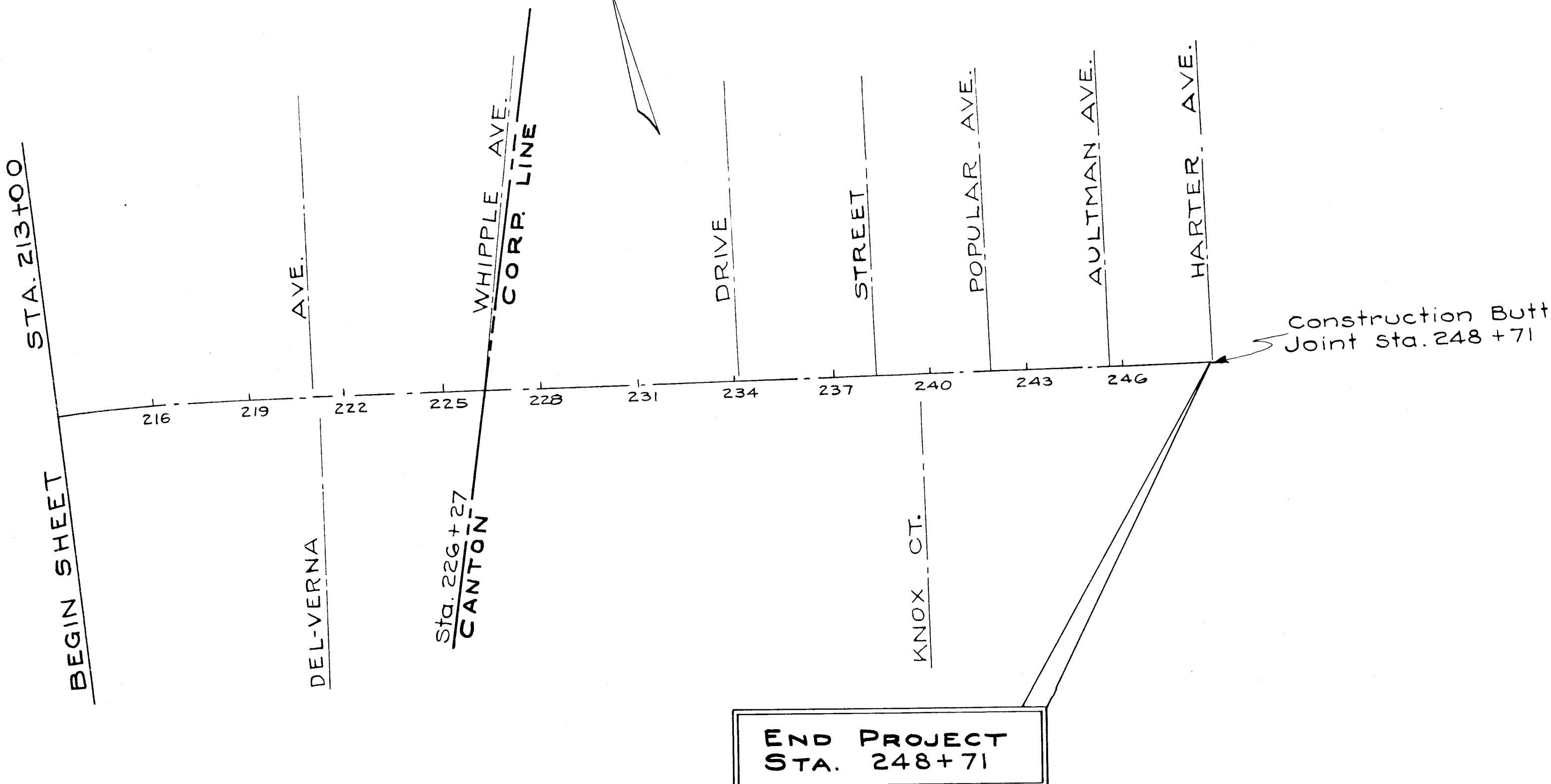
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MEDIAN CROSS-OVER RESURFACING					
STATION	SECTION	X LIN. FT.	Y LIN. FT.	R LIN. FT.	T-35 1" AVERAGE SQ. YDS.
145+19	RURAL	32	8	7.5	31.1
146+94		32	"	"	31.1
150+58		32	"	"	31.1
154+26		30	"	"	29.3
157+86		28	"	"	27.6
162+95		33	"	"	32.0
170+06		54	13.5	13.5	89.7
172+97		22	"	"	41.7
175+90		24	"	"	44.7
178+91		63	"	"	103.2
181+58		32	"	"	56.7
188+00		28	"	"	50.7
192+72		44	"	"	74.7
198+29		58	8	7.5	54.2
205+46		48	"	"	45.3
212+80		52	"	"	48.9
TOTAL		RURAL			

CASTINGS	
STATION	I-8 ADJ. C.B. EA.
152+50	
155+00	
155+75	
161+50	
164+80	
173+25	
173+75	
174+25	
179+80	
187+80	
202+25	
202+75	
TOTAL RURAL 12	



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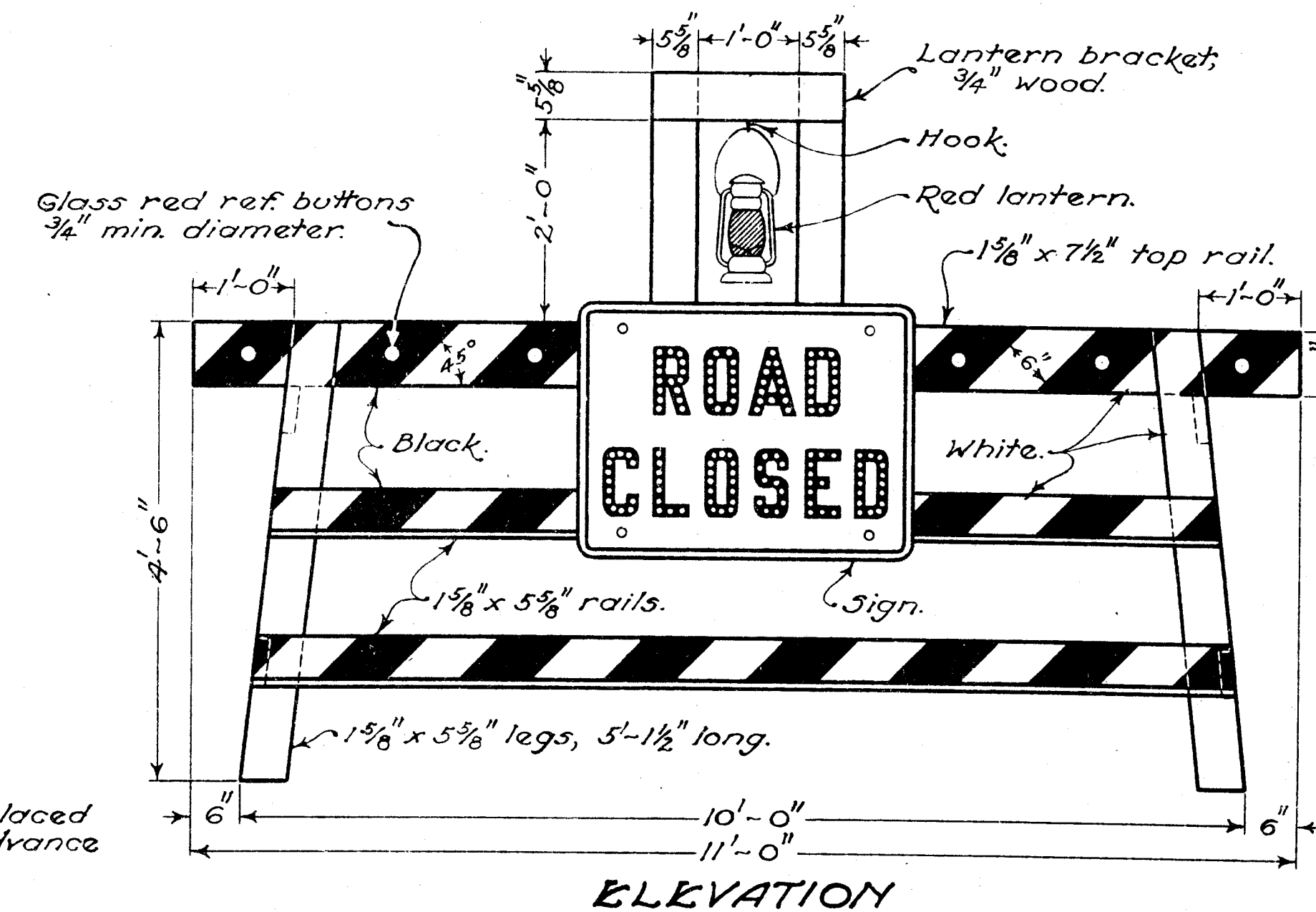
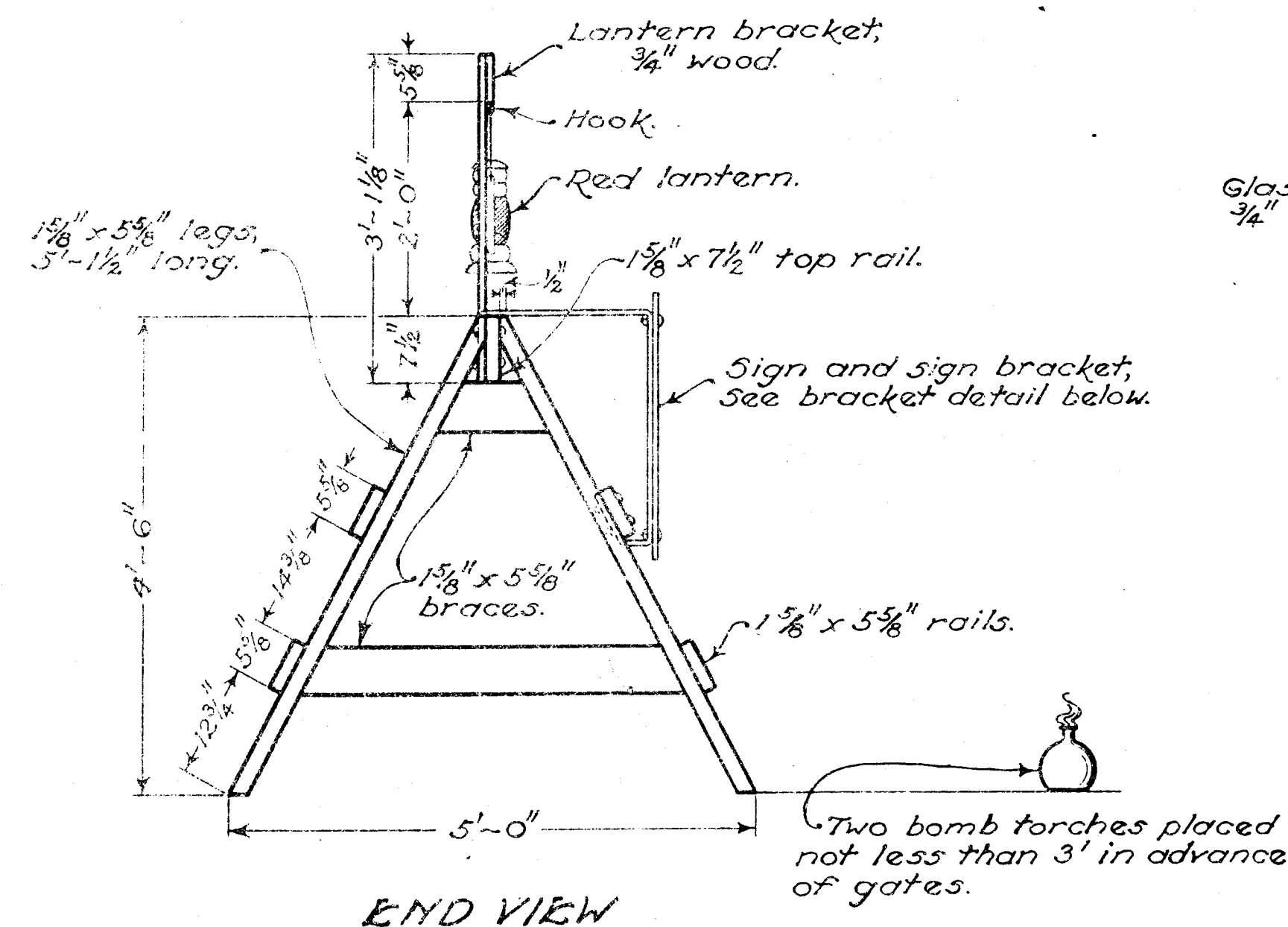
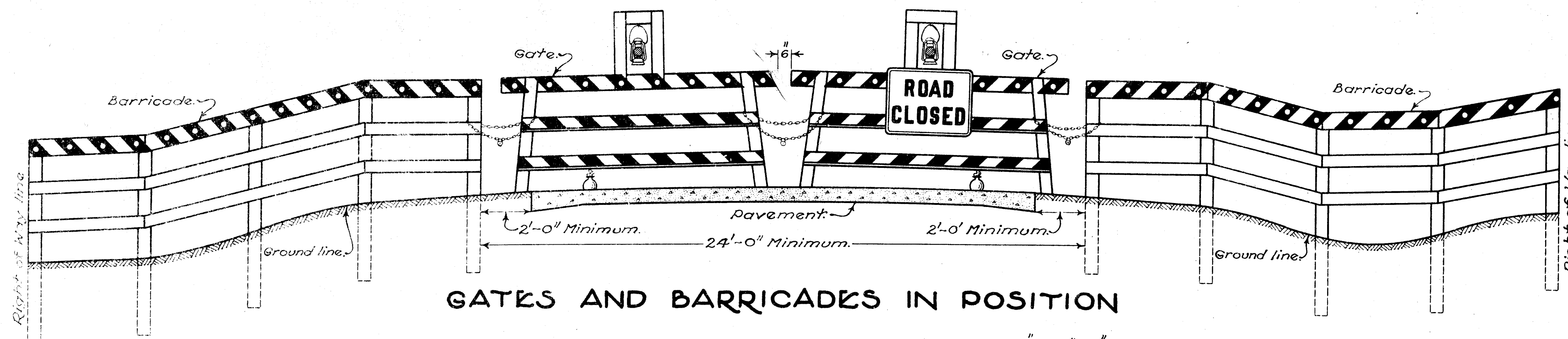
MEDIAN CROSS-OVER RESURFACING					
STATION	SECTION	X LIN. FT.	Y LIN. FT.	R LIN. FT.	T-35 "AVERAGE SQ YDS.
221+04	RURAL	54	8	7.5	50.7
226+27		1/2 (54)	"	"	25.4
226+27	Z O T F Z (P) Z (P) U	1/2 (54)	8	7.5	25.4
234+23		54	"	"	50.7
239+73		60	"	"	56.0
242+06		52	"	"	48.9
245+68		50	"	"	47.1
TOTAL RURAL					76.1
TOTAL CANTON (PT)					228.1

PAVEMENT REMOVAL		
STATION		E-8 REM. BIT. WEAR CO. SQ. YDS.
FROM	TO	
248+46	248+71	67
TOTAL CANTON (PT.)		67

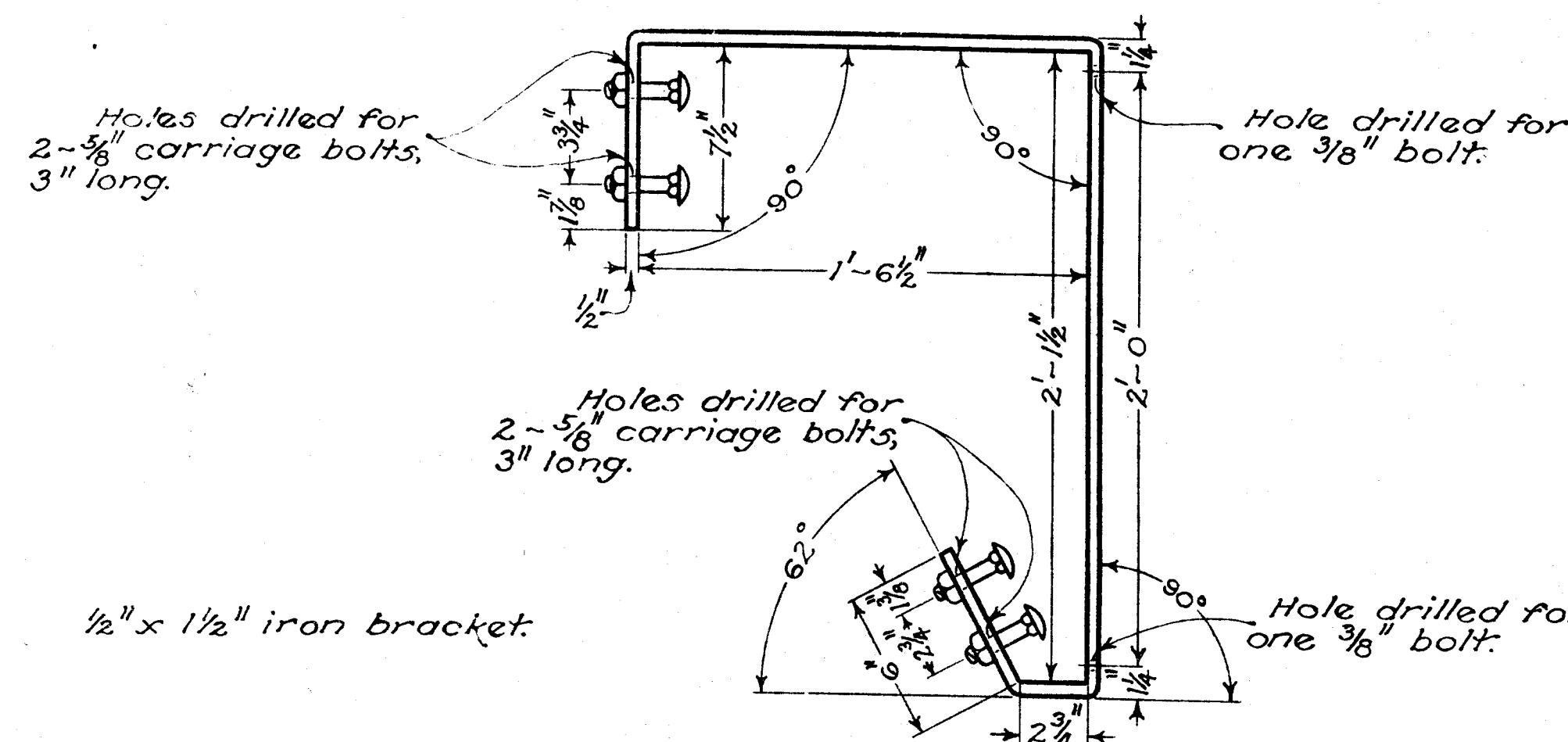
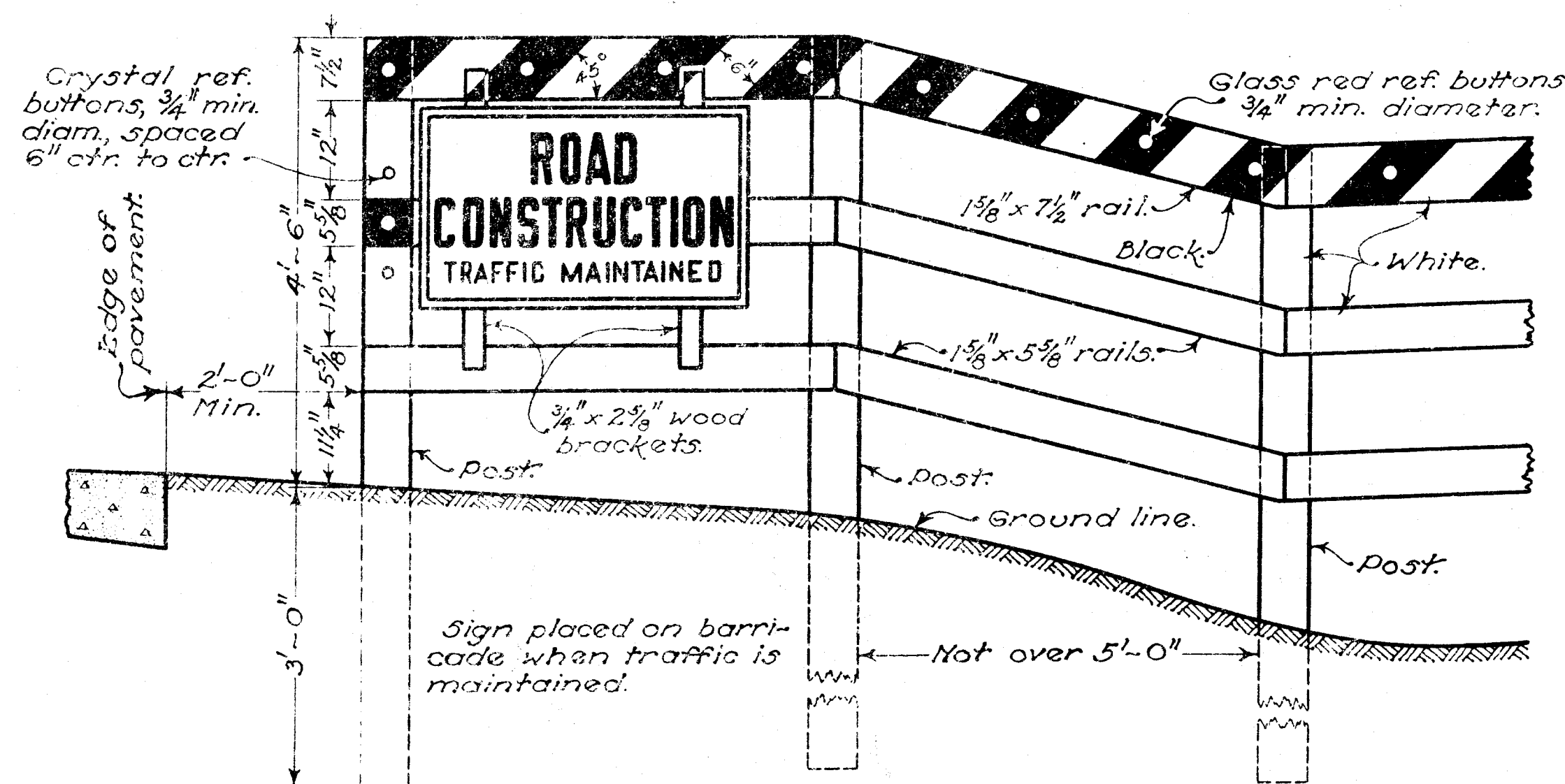
CASTINGS	
STATION	I-8 ADJ. C.B. EA.
218 + 50	1
231 + 15	1
235 + 25	1
244 + 25	1
248 + 25	1
TOTAL RURAL	1
TOTAL CANTON (PT)	4



STANDARD BARRICADES AND GATES



GATE



NOTES

LUMBER used in the construction of the gates and barricades shall be No. 1 common yellow pine or No. 1 common Douglas Fir, surfaced on four sides standard, in accordance with the requirements of the Specifications.

GATES—The movable gates shall be constructed according to the details shown and shall be painted with alternate 6" black and white stripes on a 45° angle. One gate shall be erected for each traffic lane. The gates shall be well spiked, using spikes long enough to clinch.

BARRICADES shall be constructed according to the details shown. The top rail shall be painted on both sides with alternate 6" black and white stripes on a 45° angle, sloping toward the roadway. The two lower rails and posts shall be painted white on both sides.

The barricades shall have an opening of a minimum width of 24 feet. For pavement widths greater than 20 feet, the minimum widths of the barricade openings shall be the pavement width plus 4 feet. The barricades shall remain in place following the re-opening of the road if berm or other work is not completed.

POSTS shall be 6" x 6" sawed or round posts and shall conform to the Specifications for Guard Rail Posts.

RAILS of the barricade shall be bolted to the posts with $\frac{3}{8}$ " bolts.

CHAINS—Gates shall be chained and padlocked to one another and to adjacent posts of the barricades. Chains shall be of $\frac{3}{8}$ " stock with welded links.

REFLECTORS—The top rail of the barricades and movable gates shall be reflectorized with red reflector buttons $\frac{3}{4}$ " minimum diameter, placed in the black stripes. When traffic is maintained, the top rails of the barricades shall be reflectorized on both sides. To install the buttons, drill holes into the top rail slightly less in diameter than that of the reflector housing. The button may be driven into the rail by placing a pipe over the reflector in such a manner that it will rest on the housing.

When traffic is maintained through the construction section, three glass crystal buttons $\frac{3}{4}$ " in diameter shall be mounted as shown on each side of the two posts adjacent to the traveled roadway.

SIGNS—Upon the erection of the gates and barricades according to the above standards, the Division Traffic Engineer shall furnish ROAD CLOSED sign, size 40" x 30", which shall be mounted on the gate as shown. When three gates are used for closing 3-lane roads, the sign shall be mounted on the middle gate facing traffic approaching the closed section.

Where traffic is maintained a ROAD CONSTRUCTION TRAFFIC MAINTAINED sign, size 40" x 24", will be furnished for mounting on the barricade at the right-hand side of the roadway adjacent to the roadway facing traffic approaching the construction section. An END OF CONSTRUCTION sign, size 40" x 20", shall be mounted on the back of the barricade at the right-hand side of the road facing traffic leaving the construction section.

BUREAU OF LOCATION AND DESIGN
OHIO DEPARTMENT OF HIGHWAYS

**BARRICADES
AND GATES**

STANDARD
CONSTRUCTION
DRAWING
APPROVED *g.g.j.* CHIEF ENGINEER

DATE:
10-1933
6-1-42
2-1-47

G-8.07

P-198-ACC. 1757