

LOGAN COUNTY
SH.130, Sec's A-1,A-2,B,C(Pt)&
Huntsville.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
LIMA - BELLEFONTAINE ROAD
LOGAN COUNTY

S.H. 130 SEC A-1,A-2,B,C(Pt)& HUNTSVILLE
HARRISON & McARTHUR TOWNSHIPS
& VILLAGE OF HUNTSVILLE
NET LENGTH OF PROJECT-34,326.6-LIN. FT. OR-6.501-MILES

LINE DATA

Begin Project Sta. 0+00
End Project Sta. 343+26.6
No Additions or Deductions
Net Length of Project 34,326.6 Lin. Ft.
or 6.501 miles.

CONVENTIONAL SIGNS

Township Line. _____
Section Line. _____
City or Village Line. _____
Railroads. _____
Center Line. _____
County Line. _____

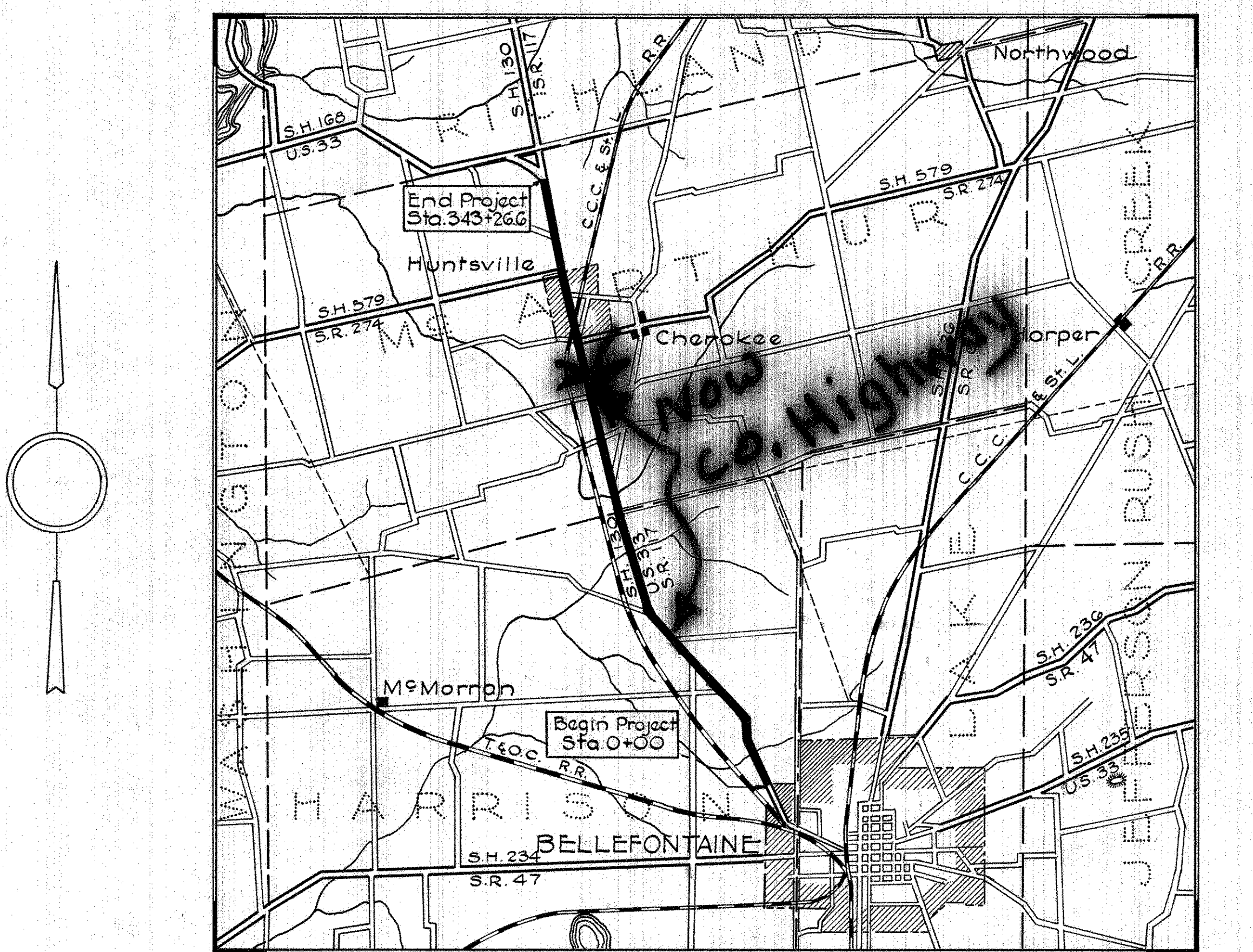
STANDARD CONSTRUCTION DRAWINGS

Drawing No.	Date Revised
G-7.07	10-1933
I-8 I No.1	3-1-39
I-15 No.1	10-1-39
I-15 No.2	10-1-39
S-27 P.C.3	3-1-39

INDEX OF SHEETS

Title Sheet	Sheet No. 1
Typical Section and General Notes	" " 2
Alignment	" " 3
Profile	" " 4
Summaries	" " 5

SUPPLEMENTAL SPECIFICATIONS
NONE



LOCATION PLAN

Portion To Be Improved _____
State Highways _____
Other Roads _____

SCALES

Plan 1" = 300'
Profile 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 of the Highway to Traffic.

The Right-of-Way necessary for this improvement will be provided by the State of Ohio.

Approved: N. H. Zenas
Date: 4-18-40 Resident Division Deputy Director.

Approved: _____
Date: _____ Chief Engineer, Bureau of Maintenance.

Approved: W. H. P. 25
Date: 6-4-40 Chief Engineer Bureau of Location & Right-of-Way.

Approved: W. B. P. 25
Date: 6-8-40 First Asst. Director & Chief Engineer.

Approved: W. B. P. 25
Date: 6-8-40 Director of Highways.

Approved for the Village of Huntsville

R. C. Hamilton Mayor

Date: 6-15-40 1940

CONSTRUCTION
BUREAU
JUN 11 1940
GROUND PHOTOLAB

301

LOG-117

4.82-6.73

File No. 1301
Logan Co. S.H.130, Sec's A-1,A-2,B,C(Pt)&Huntsville
Date of Letting _____
Contract No. _____

Plan view of bridge deck showing limiting stations and dimensions. The diagram includes a cross-section of the bridge deck with various dimensions and callouts. The total length of the bridge deck is 22'-0". The dimensions are as follows:

- From the left end to the first vertical curve: 6'-0" min.
- From the first vertical curve to the centerline: 2'-0" ±
- From the centerline to the second vertical curve: 8'-0" ±
- From the second vertical curve to the right end: 4'-0" ±
- From the right end to the second vertical curve: 6'-0" min.

The bridge deck is shown with a 2 1/4" Av. Crown. The limiting stations are indicated by callouts 1 through 14. The bridge deck is shown with a 2:1 slope on the right side. The bridge deck is shown with a 2:1 slope on the left side. The bridge deck is shown with a 2:1 slope on the right side. The bridge deck is shown with a 2:1 slope on the left side.

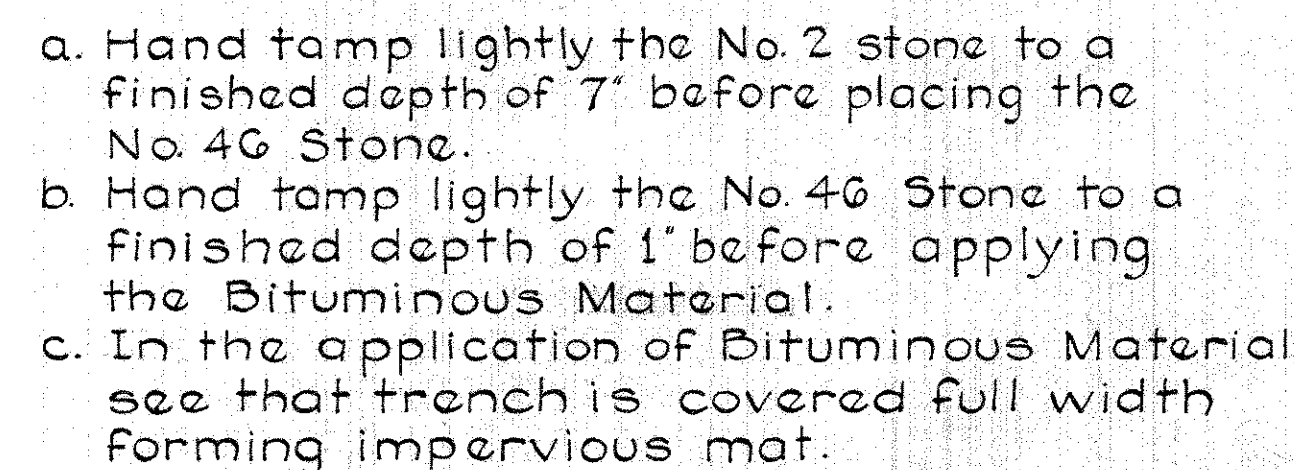
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LIMITING STATIONS

From	To	Length (Lin. Ft.)
Sta. 0+00	Sta. 9+54	954.0
Sta. 9+97.5	Sta. 53+16.5	4319.0
Sta. 53+39.5	Sta. 142+73.2	8933.7
Sta. 143+08	Sta. 173+42	3034.0
Sta. 174+12.5	Sta. 269+97	9584.5
Sta. 283+85	Sta. 343+266	5941.6



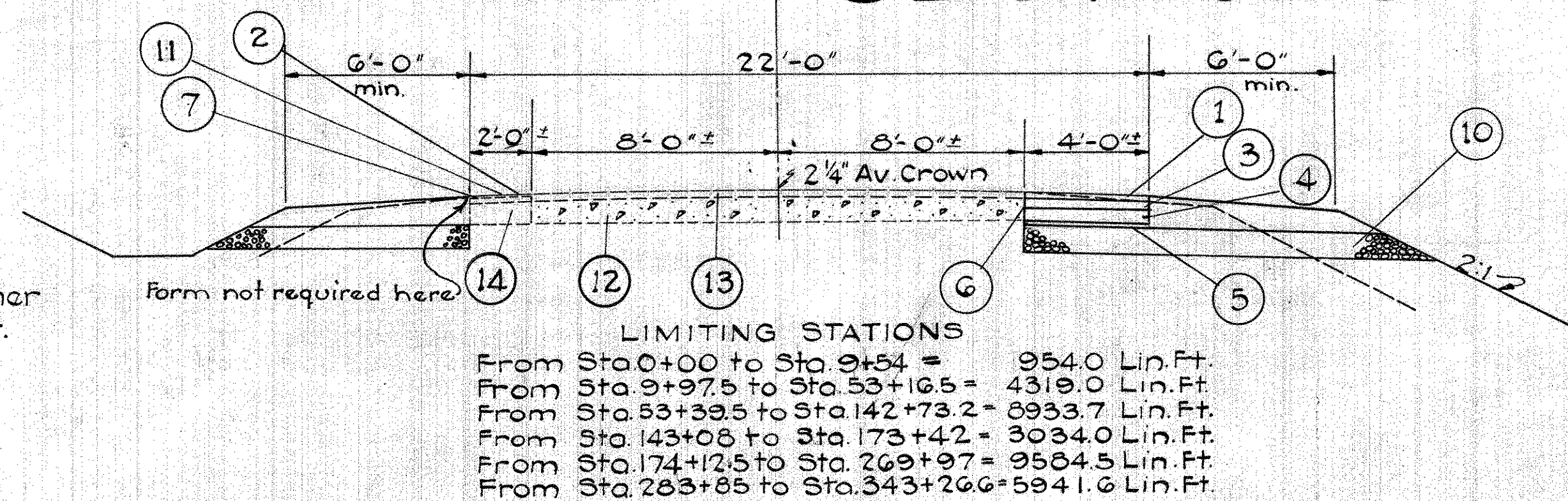
DETAIL OF STONE UNDERDRAIN



- (12) 6"-8"-6" Portland Cement Concrete Pavement
- (13) 1½" Bituminous Macadam-Special Road Mix Item T-132 with Processed Sandstone Rock Asphalt Seal.
- (14) Asphaltic Concrete widening Item T-60 with Rock Asphalt Seal Item T-40 & Spec.
- (15) 9"-7"-7"-9" Portland Cement Concrete Pavement with 12" Concrete Curb.
- (16) 9" Uniform Portland Cement Concrete Pavement with 6" Concrete Curb.

APPROVAL OF EQUIPMENT
Equipment for placing and finishing Base Course, Leveling Course, and Surface Course, shall not be used unless approved by the Chief Engineer of Construction or his duly appointed representative.

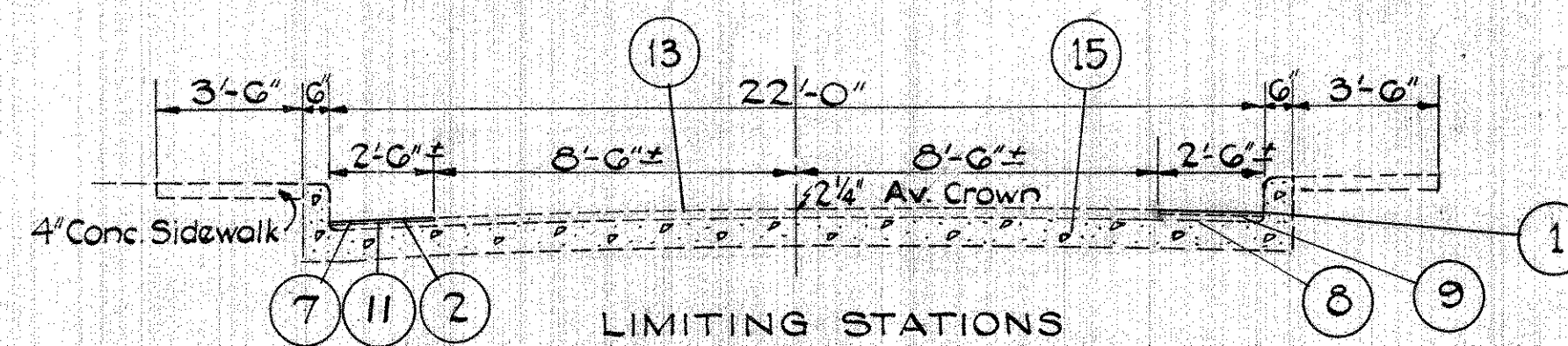
BITUMINOUS PRIME COAT, ITEM T-30
Bituminous Prime Coat, Item T-30, of Bituminous Material, Sec. M-5.12 A-E-3, to be applied by distributor and brooms is estimated at the rate of 0.15 gallons and 0.05 gallons per square yard (including sand cover of 4 to 7 Lb. per Sq. Yd.)
The project will be inspected, immediately after award of the contract, by the Chief Engineer of Construction, (or his duly appointed representative), who will determine the amount of bituminous material per square yard to be used for prime coat.
After the bituminous material is applied, all material not required to give a uniform coating shall be swept into all cracks and open joints before the sand cover is placed. Payment for sand cover is included in price bid per gallon for Bituminous Material.



Form not required here

LIMITING STATIONS

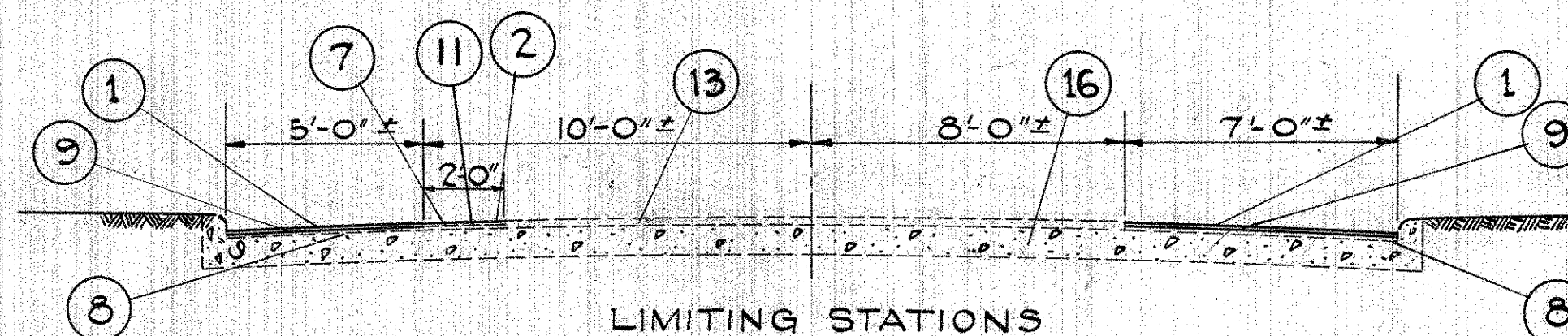
From Sta.0+00 to Sta.9+54 = 954.0 Lin.Ft.
From Sta.9+97.5 to Sta.53+16.5 = 4319.0 Lin.Ft.
From Sta.53+33.5 to Sta.142+73.2 = 8933.7 Lin.Ft.
From Sta.143+08 to Sta.173+42 = 3034.0 Lin.Ft.
From Sta.174+12.5 to Sta.269+97 = 9584.5 Lin.Ft.
From Sta.283+85 to Sta.343+266 = 5941.0 Lin.Ft.



LIMITING STATIONS

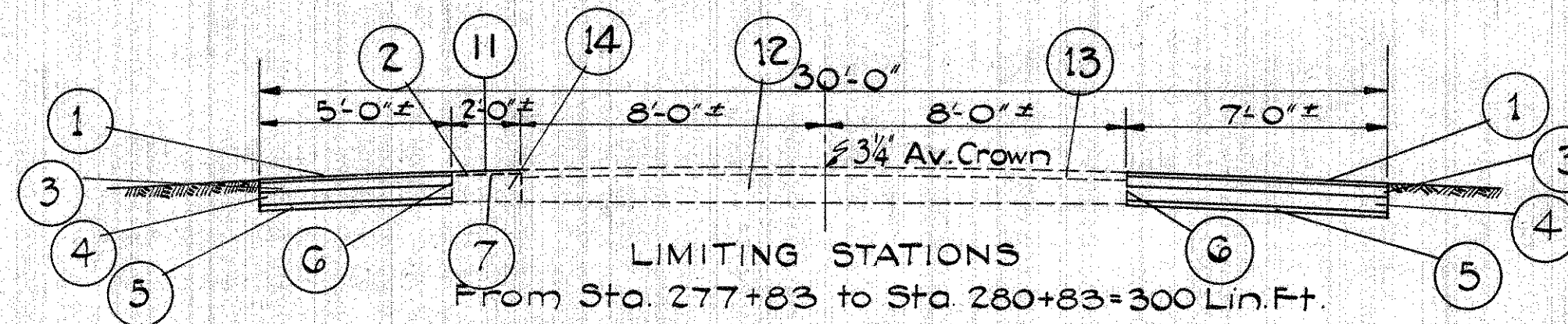
From Sta. 269+97 to Sta. 277+83 = 786 Lin. Ft.
Note: Curbs only from Sta. 270+60 to
Sta. 276+70.

NOTE :- The Engineer may require the Contractor to construct ditches at the toe of slopes and grade same to drain. This excavation will be used to reduce borrow and will be paid for as part of the borrow quantities.



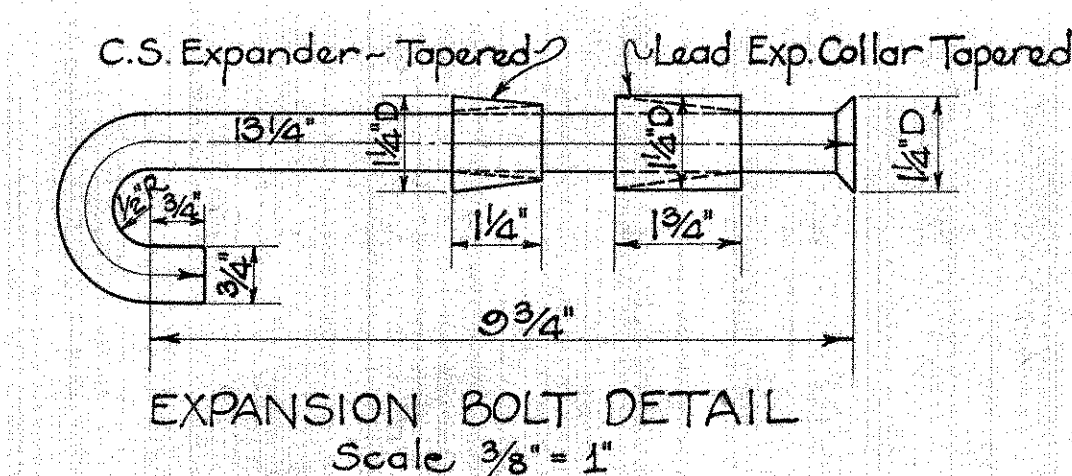
LIMITING STATIONS

From Sta. 280+83 to Sta. 283+85 = 302 Lin. Ft.



PROPOSED PAVEMENT

- ① Item T-40 Rock Asphalt applied at the rate of 50 lbs. per sq. yd.
- ② Item T-40 Rock Asphalt applied at an average rate of 50 lbs. per sq. yd. See General Notes.
- ③ Item B-35 3" Asphaltic Concrete Second Base Course, using Composition according to Sec. B-35.07.
- ④ Item B-35 4" Asphaltic Concrete First Base Course.
- ⑤ Item I-19 1 $\frac{3}{4}$ " Insulation Course.
- ⑥ Item E-10 Sealing (only) edge of existing pavement using Bituminous Material Sec. M-5.12 AE-3 applied at the rate of .15 gal. per sq. yd.
- ⑦ Item T-30 Bituminous Prime Coat using Bituminous Material Sec. M-5.12 AE-3 applied by hand at the rate of .05 gal. per sq. yd.
- ⑧ Item T-30 Bituminous Prime Coat using Bituminous Material Sec. M-5.12 AE-3 applied at the rate of .15 gal. per sq. yd. and sand cover 4 to 7 lbs. per sq. yd.
- ⑨ Item B-35 1 $\frac{1}{2}$ " Average thickness Asphaltic Concrete Leveling Course
- ⑩ Item I-9 8"x10" Stone Underdrains (French Drains) No. 2 as per plan.
- ⑪ Item B-35 3 $\frac{1}{4}$ " Average thickness Asphaltic Concrete Leveling Course See General Notes.



FED. RD. DIST. NO.	STATE	PROJECT	FISCAL YEAR
10	OHIO		1940

LOGAN COUNTY
S.H. 130 SECS. A-1, A-2, B, C (Pt)
& Huntsville

GENERAL NOTES

LEVELING COURSE: On left side to be spread by hand where needed at direction of Engineer.

TRAFFIC: Traffic shall be maintained at all times to the satisfaction of the Division Engineer. The item of maintaining traffic shall include furnishing lights, signs, barricades, and watchmen necessary to secure the unimpeded flow of traffic twenty-four hours daily.

EMBANKMENT: Watering embankment, benching & density requirements as referred to in Paragraph E-1.05 of the General Specifications, will not be required on this project.

SHOULDERS AND SLOPES: Item E-1, Roadway Excavation (Unclassified) and Item E-4 Borrow, shall include the thorough compaction of Earthwork and the final operation of grading necessary to finish the Shoulders and Slopes to approximately the lines indicated on the Typical Sections. The use of a template and fine hand grading will not be required.

EARTHWORK: All suitable material resulting from Roadway Excavation (Unclassified) together with the necessary Borrow, shall be used to construct the Roadway Shoulders as indicated on the Typical Section or as directed by the Engineer.

FORMS: Side forms set to line and grade established by the Engineer will be required for widened section.

PAVEMENT: The designated depths of the Bituminous Concrete courses shown on the plans are subject to adjustment according to the ratio of volume to weight as indicated in the specification for the item.

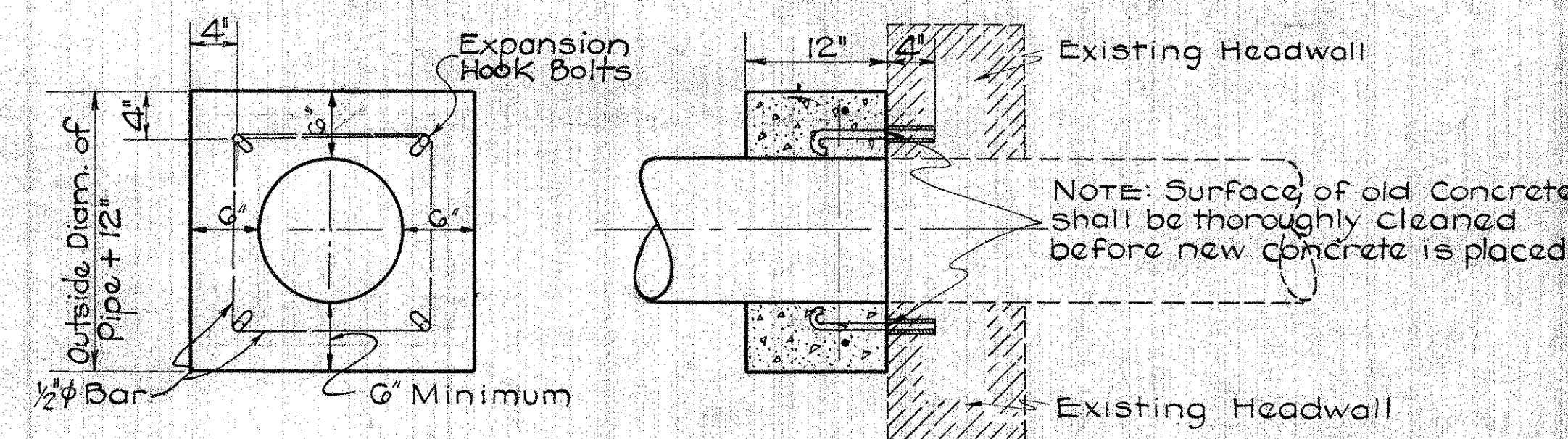
GUARD RAIL: Any necessary Guard Rail removal to be performed by State Maintenance Forces.

ROAD APPROACHES: County and Township road approaches not to be surfaced beyond R/W Line.

COMPACTION OF SUBGRADE: Loosening and watering of subgrade in cuts according to Sec. E-1.11 will not be required, if density requirements can be met by additional rolling.

PRIME COAT: for widening on left shall be brushed on the cleaned pavement by hand at the rate of .05 gal. per Sq. Yd. or as directed by the Engineer.

SURFACE COURSE: Rock Asphalt surface course on left shall be spread by hand so that finished surface shall conform to crown of existing pavement as directed by the Engineer. No edge form will be required.



NOTE: Cost of Reinforcing Steel to be included
in unit price bid per Cu.Yd. of Concrete

DETAIL OF CONCRETE COLLARS FOR PIPE EXTENSION

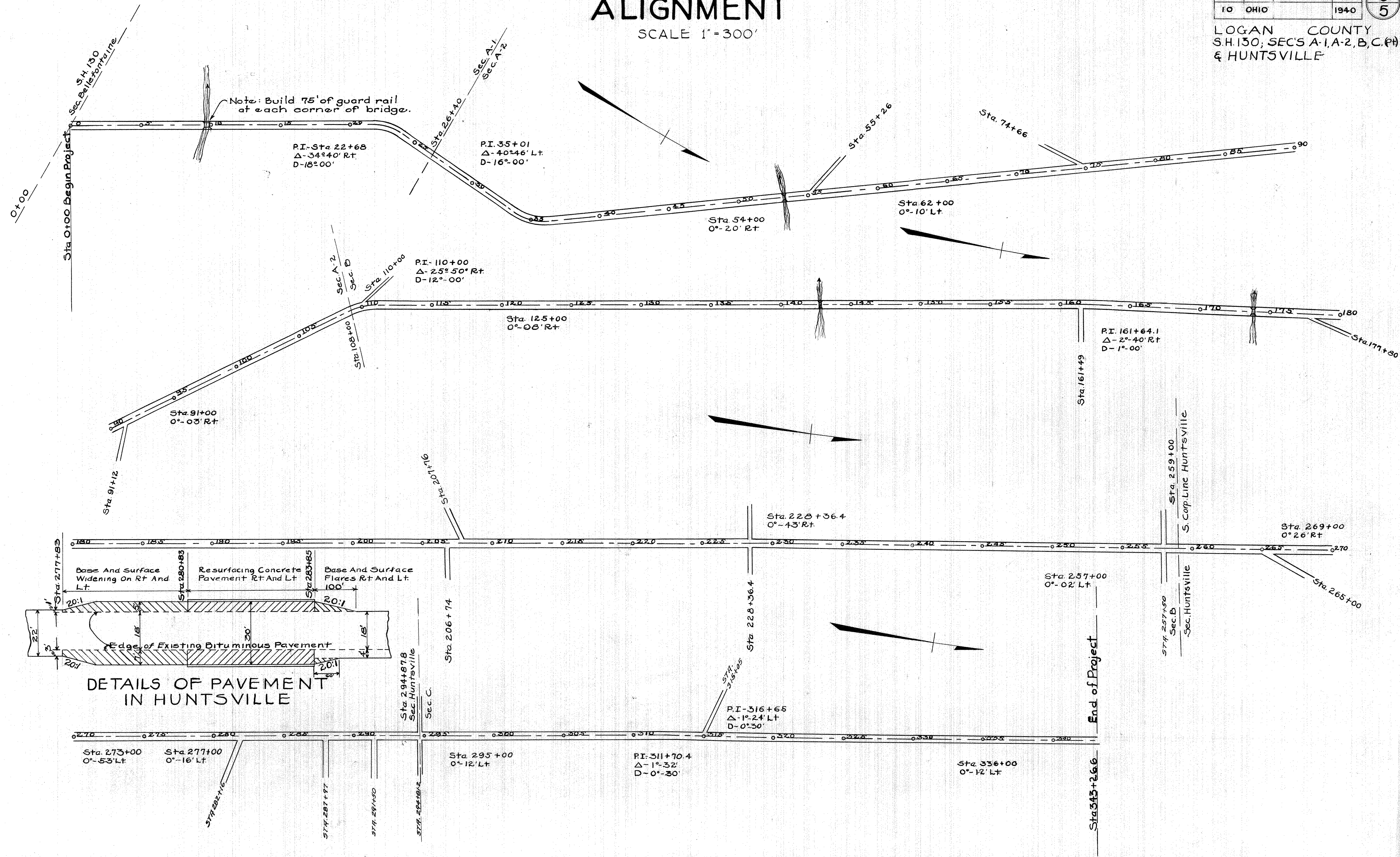
ALIGNMENT

SCALE 1"=300'

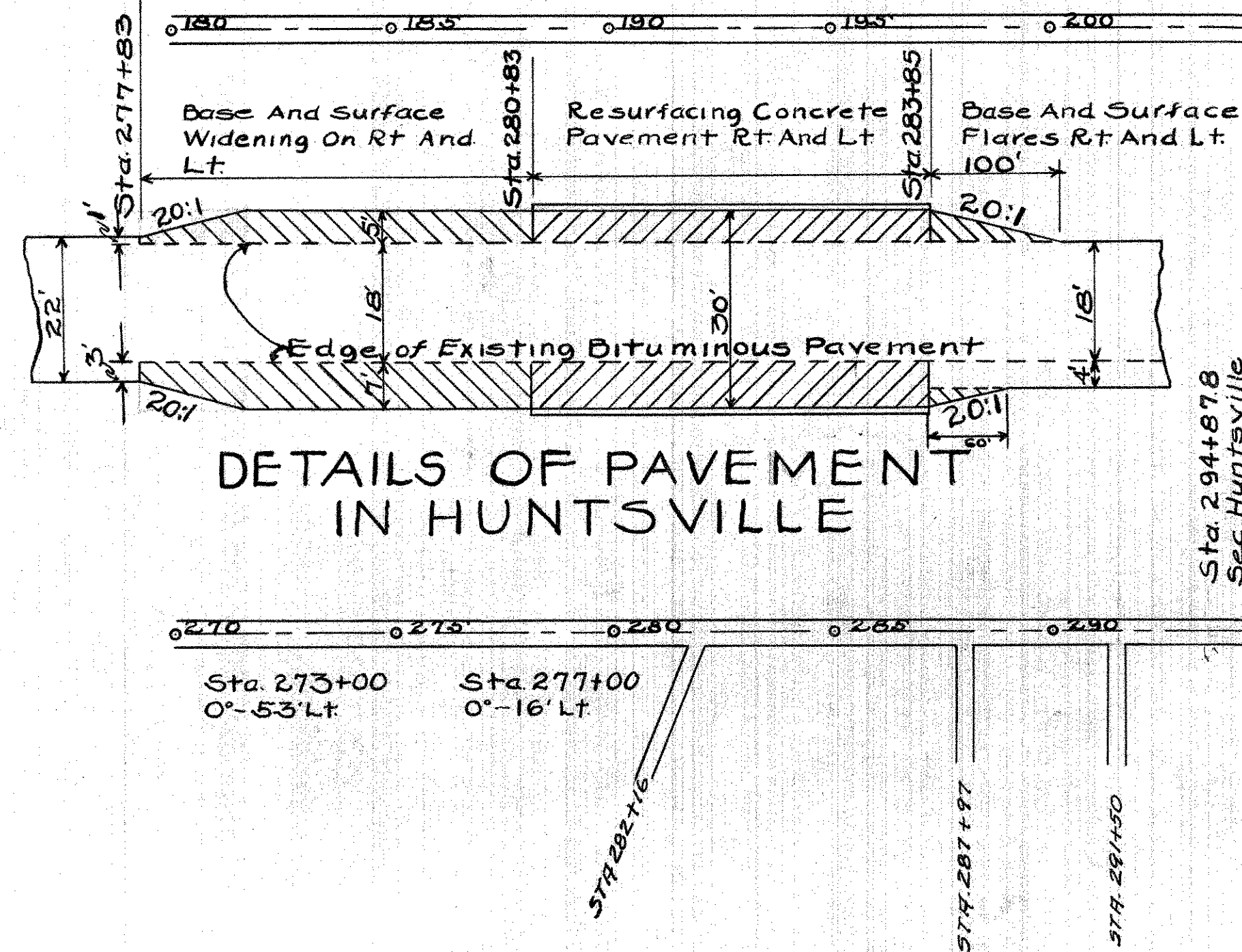
FED. RD. DIST. NO.	STATE	PROJECT	FISCAL YEAR
10	OHIO		1940

3
5

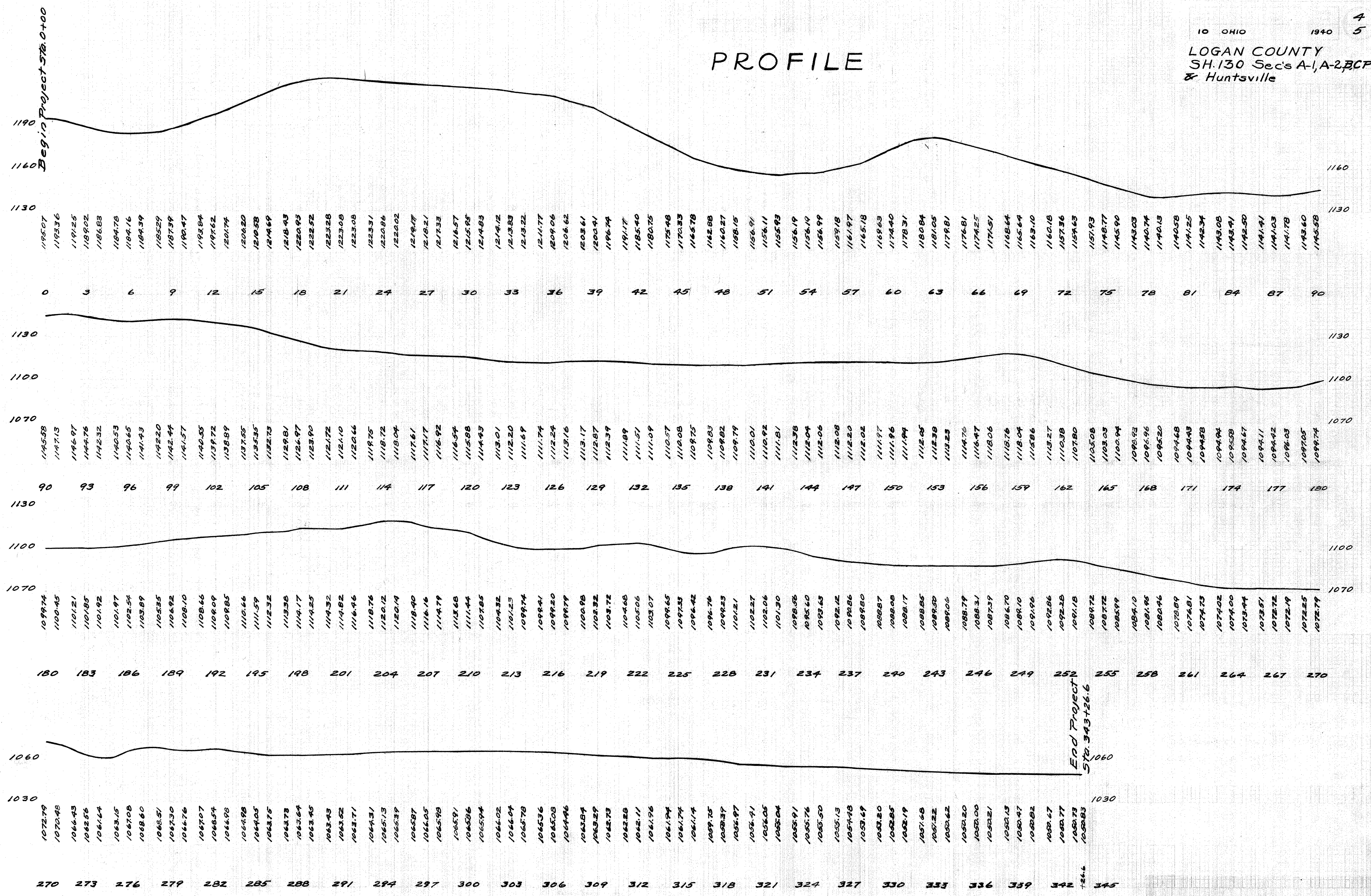
LOGAN COUNTY
S.H. 130, SEC'S A-1, A-2, B, C, (P)
& HUNTSVILLE



DETAILS OF PAVEMENT IN HUNTSVILLE



PROFILE



SUMMARY OF QUANTITIES

FED. RD. DIST. NO.	STATE	PROJECT	FISCAL YEAR
10	OHIO		1940

5
5

LOGAN COUNTY
SH. 130, SECS. A-1, A-2, B, C, (Pt) &
Huntsville

PAVEMENT QUANTITIES

Station		Net Length	T-40 Rock Asphalt 50#				T-40 Rock Asphalt Average 50# Per Sq. Yd. Left Side 2'± Uniform Width				B-35 Base Course Asphaltic Concrete				I-19 1 3/4" Insulation Course	T-30 Prime Coat .05 Gal. Per Sq. Yd. Lt. Side 2'± Uniform Width		B-35 1/2" Leveling Course		B-35 3/4" Av. Leveling Course		Remarks
From	To		Per Sq. Yd.	Sq. Yds	Tons	Sq. Yds	Tons	4' Min. Thick.	Cu. Yds	B-35.07 Composition 3' Min. Thick.	Width	Cu. Yds	Sq. Yds.	Gal.		Gal.	Width	Cu. Yds	Cu. Yds.	(2' Width on Lt.)		
		Lin. Ft.	Width	Sq. Yds	Tons	Sq. Yds	Tons	Width	Cu. Yds	Width	Cu. Yds	Sq. Yds.	Gal.	Gal.	Width	Cu. Yds	Cu. Yds.					
0+00	9+540	954.0	4'	424.0	10.6	212.0	5.3	4'	47.1	4'	35.3	424.0	10.6									
9+540	9+97.5	43.5	3 3/4' Lt.	19.3	0.5	9.7	.2	3 3/4' Lt.	2.1	3 3/4' Lt.	1.6	19.3	0.5						Bridge			
9+97.5	53+165	4319.0	4'	1919.6	48.0	959.8	24.0	4'	213.3	4'	160.0	1919.6	48.0									
53+165	53+395	23.0	7 1/2' Lt.	30.7	0.8									4.6	7 1/2' Lt.	1.3			Bridge			
53+395	142+732	8933.7	4'	3970.5	99.3	1985.3	49.6	4'	441.2	4'	330.9	3970.5	99.3									
142+732	143+080	348	3'	11.6	0.3									1.7		0.5			Bridge			
143+080	173+42	3034.0	4'	1348.4	33.7	674.2	16.9	4'	149.8	4'	112.4	1348.4	33.7									
173+42	174+125	70.5	4'	31.3	0.8	15.7	.4							4.7		1.3			Bridge			
174+125	269+97	9584.5	4'	4259.8	106.5	2129.9	53.2	4'	473.3	4'	355.0	4259.8	106.5									
269+97	277+83	786.0	2.5'	218.3	5.5	218.3	5.5						10.9	32.7		9.1			2.5' on left			
277+83	280+83	300.0	7 1/2' Lt.	364.4	9.1	66.7	1.7	7 1/2' Lt.	40.5	7 1/2' Lt.	30.4	364.4	3.3						See Widening Detail			
280+83	283+85	302.0	7 1/2' Lt.	402.7	10.1	67.1	1.7						3.4	60.4	7 1/2' Lt.	16.8						
283+85	343+266	5941.6	4'	2678.5	67.0	1320.4	33.0	4'	297.6	4'	223.2	2678.5	66.0						See Widening Detail			
0+00	343+266																95		Estimated for entire length			
Road Approaches																						
Sta. Side																						
55+26	Left					96.0	2.4		10.7			96.0										
74+66	Left					79.0	2.0		0.9			8.0		10.7		3.0						
91+12	Right					120.0	3.0		13.3			120.0										
110+00	Left					83.0	2.1		9.2			83.0										
161+49	Right					60.0	1.5		6.7			60.0										
177+80	Right					175.0	4.4		3.3			30.0		21.8		6.0						
206+74	Right					33.0	0.8		3.7			33.0										
207+76	Left					75.0	1.9		8.3			75.0										
228+36	Left					108.0	2.7		12.0			108.0										
228+36	Right					55.0	1.4		6.1			55.0										
257+50	Left					45.0	1.1		5.0			45.0										
257+50	Right					54.0	1.4							8.1		2.3						
265+00	Right					173.0	4.3		10.3			93.0		12.0		3.3						
282+16	Right					52.0	1.3		5.8			52.0										
287+97	Right					45.0	1.1							6.8		1.9						
291+50	Right					45.0	1.1		5.0			45.0										
294+81.2	Right					45.0	1.1							6.8		1.9						
294+81.2	Left					70.0	1.8							10.5		2.9						
315+05	Left					88.0	2.2		9.8			88.0										
Totals		34326.6		15679.1	392.2	9160.1	229.1		1775.0		1248.8	15975.5	382.2	180.8		503	95					

GENERAL SUMMARY

ITEM	QUANTITY	UNIT	DESCRIPTION
ROADWAY			
E-1	3949	CU.YDS.	EXCAVATION (UNCLASSIFIED)
E-4	5000	CU.YDS.	BORROW (CONTRACTOR TO FURNISH) ESTIMATED
E-10	33538.6	LIN. FT.	SEALING (ONLY) EDGE OF EXISTING PAVEMENT
I-9	1400	LIN. FT.	8"x10" STONE UNDERDRAINS (FRENCH DRAINS NO 2)
Spec.			LUMP MAINTAINING TRAFFIC (See Note on Sheet No 2)
I-15	300	LIN. FT.	STEEL BEAM TYPE GUARD RAIL WITHOUT BRACKETS, SEC. F-15.05
PAVEMENT			
I-19	15975.5	SO.YDS.	1 3/4" INSULATION COURSE
B-35	1775.0	CU.YDS.	4" ASPHALTIC CONCRETE BASE COURSE FOR PAVEMENT WIDENING
			8 ROAD APPROACHES
B-35	1248.8	CU.YDS.	3" ASPHALTIC CONCRETE BASE COURSE FOR PAVEMENT WIDENING
			USING COMPOSITION ACCORDING TO SEC. B-35.07
B-35	503	CU.YDS.	ASPHALTIC CONCRETE LEVELING COURSE (1 1/2" AVERAGE THICKNESS)
B-35	95	CU.YDS.	3/4" AVERAGE THICKNESS ASPHALTIC CONCRETE LEVELING
			COURSE SPREAD BY HAND
T-30	180.8	GAL.	BITUMINOUS PRIME COAT SEC. M-5.12 AE 3, INCL. SAND COVER
T-30	382.2	GAL.	BITUMINOUS PRIME COAT APPLIED BY HAND SEC. M-5.12 AE-3, INCL. SAND COVER
T-40	392.2	TONS	ROCK ASPHALT WEARING COURSE
T-40	229.1	TONS	ROCK ASPHALT WEARING COURSE SPREAD BY HAND
STRUCTURES 20' SPAN UNDER			
E-2	42	CU.YDS.	EXCAVATION (STRUCTURAL)
S-1	36	CU.YDS.	CONCRETE CLASS "C" FOR PIPE COLLARS
S-27	8	LIN. FT.	8" CORR. M. PIPE FOR ROADWAY CULVERTS - PAVED INVERT (SEC. M-6.4 (a)) OR EQUIVALENT
S-27	10	LIN. FT.	10" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
S-27	6	LIN. FT.	12" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
S-27	30	LIN. FT.	15" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
S-27	36	LIN. FT.	18" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
S-27	70	LIN. FT.	21" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
S-27	18	LIN. FT.	30" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
S-27	22	LIN. FT.	36" CORR. M. PIPE FOR ROADWAY CULVERTS - " " " "
I-8	1	EACH	STD. NO. 1 SIDE DITCH INLETS
S-23	72	EACH	1 3/8"x4" DOWEL HOLES
Spec.	72	EACH	EXPANSION HOOK BOLTS (as per Detail or Equivalent)

ROADWAY QUANTITIES

Station		Net Length	Excavation (Unclassified)	Borrow Estimated	Sealing (Only) Edge of existing Pavement	8"x10" Stone Under Drains French Drains #2
From	To	Lin. Ft.	Cu. Yds.	Cu. Yds.	Lin. Ft.	Lin. Ft.
0+00	53+165	5316.5	590			
53+395	142+732	8933.7	993			
143+08	173+42	3034.0	337			
174+125	269+97	9584.5	1065			
277+83	280+83	300.0	100			
283+85	343+266	5941.6	660			
0+00	343+266				33538.6	1400
Road Approaches			204			
0+00	259+00			2000		
294+87.8	343+266			3000		
Totals			3949	5000	33538.6	1400

STRUCTURES 20' SPAN AND UNDER

Station	Structure No.	Present Structure Type	Present Structure Size	Proposed Structure Length	Excavation Structural Cu. Yds.	Concrete Class "C" for Roadway Culverts Cu. Yds.	Corr. M. Pipe Paved Invert- Roadway Culverts								Std No. 1 Inlets Each	1 3/8"x4" Dowel Holes Each	Expansion Hook Bolt Each
78+50	LO 33-160	V.S.P.	18" 42'-8" C.M.P.	18' 8' 8'	4	.4										8	8
95+52.8	LO 33-157	C.I.P.	15" 36'-2" C.M.P.	15' 10' 10'	4	.3						20'				8	8
124+64.6	LO 33-151	C.I.P.	18" 36'-1" C.M.P.	18' 10' 10'	4	.4										8	8
178+34	LO 33-141	V.S.P.	20" 44'-3" C.M.P.	21' 48' 10'	10	.4										8	8
181+39	LO 33-140	V.S.P.	12" 38'-0" C.M.P.	12' 6' -	2	.1			6							4	4
240+27.7	LO 33-129	V.S.P.	36" 40'-9" C.M.P.	36' 10' -	2	.4								10		4	4
255+42	LO 33-126A	C.I.P.	10" 48'-8" C.M.P.	10' 6' 4'	4	.2			10							8	8
263+00	LO 33-126	Tile		Same													
297+38	LO 33-117	C.I.P.	36" 35'-0" C.M.P.	36' 12' -	2	.4								12		4	4
308+14.2	LO 33-116A	C.I.P.	15" 36'-0" C.M.P.	15' 10' -	2	.2				10						4	4
312+58	LO 33-116	C.I.P.	8" 34'-0" C.M.P.	8' 8' -	2	.1	8									4	4
336+80.9	LO 33-111A	C.I.P.	20" 48'-6" C.M.P.	21' 4' 8	4	.4						12				8	8
337+04.4	LO 33-111	C.I.P.	30" 38'-0" C.M.P.	30' 18' -	2	.3							18			4	4
Totals					42	3.6	8	10	6	30	36	70	18	22	1	72	72