

# STATE OF OHIO

## DEPARTMENT OF HIGHWAYS

### COL-30-(19.17-20.35)

### COLUMBIANA COUNTY

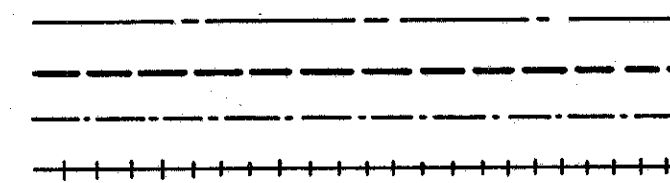
### ELK RUN AND CENTER TOWNSHIPS

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	STATE	

COL-30-(19.17-20.35)

#### CONVENTIONAL SIGNS

CENTER LINE  
TOWNSHIP LINE  
CORPORATION LINE  
RAILROAD LINE



#### INDEX OF SHEETS

TITLE PAGE  
TYPICAL SECTIONS  
TYPICAL DETAILS AND GENERAL NOTES  
SUMMARY OF QUANTITIES

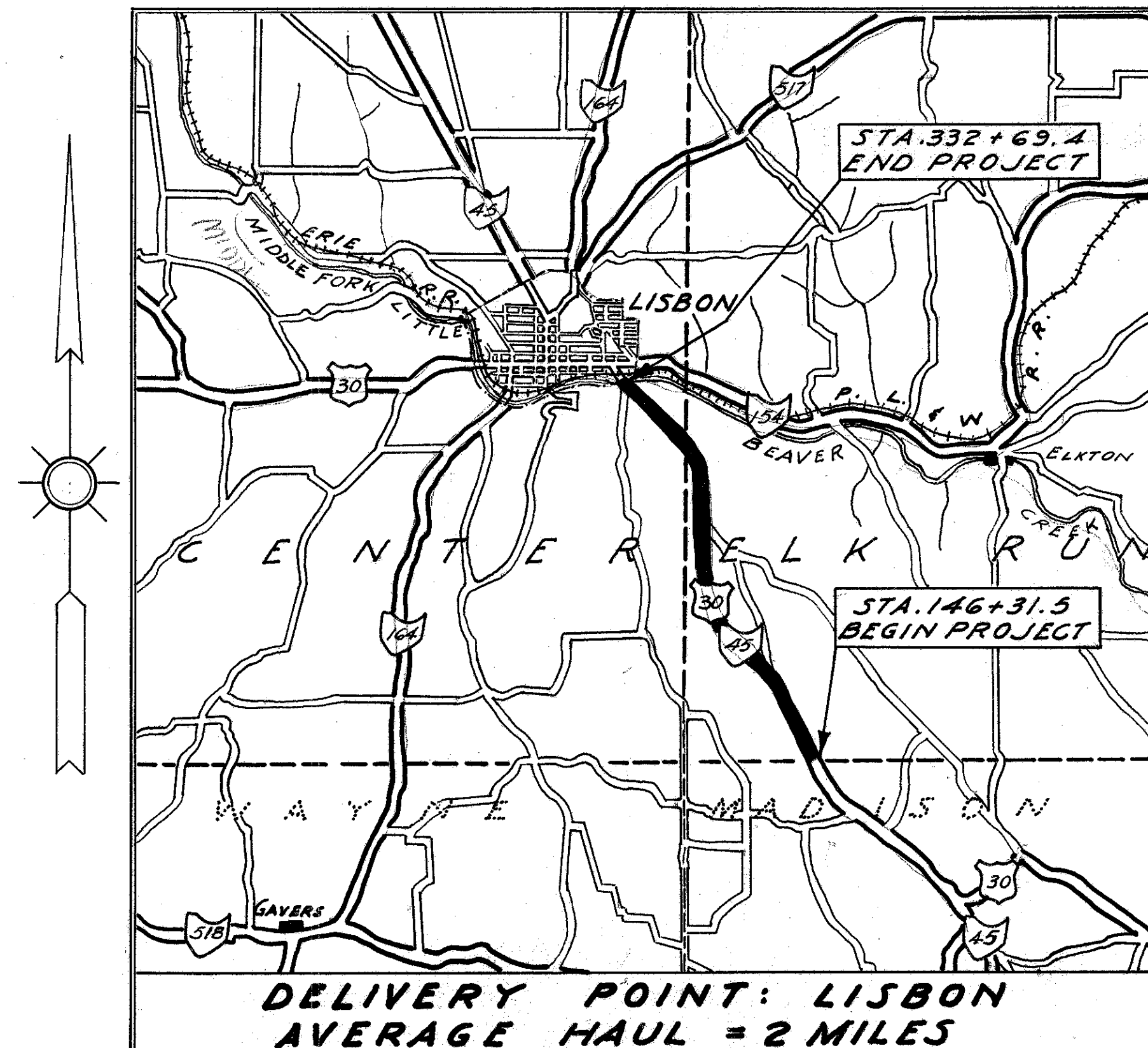
1  
2-3  
4  
5-6

#### LINE DATA

BEGIN PROJECT STA. 146+31.5  
END PROJECT STA. 332+69.4

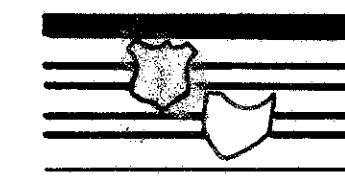
NO ADDITIONS OR DEDUCTIONS

NET LENGTH OF PROJECT AND WORK = 18,637.9 LIN. FT. OR 3.529 MILES



#### LOCATION PLAN

SCALE 1"=1 MILE  
PORTION TO BE IMPROVED  
FEDERAL HIGHWAYS  
STATE HIGHWAYS  
OTHER ROADS



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 maintenance and safety of traffic will be as set forth in these plans and estimates.

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

Approved W. E. Quicksall  
Date 6/14/57 Division Deputy Director.

Approved W. H. Mahoney  
Date 6/24/57 Deputy Director of Planning and Programming

Approved \_\_\_\_\_  
Date \_\_\_\_\_ Engineer of Bridges

Approved R. E. Shultz  
Date 6/24/57 Engineer of Location and Design

Approved P. E. Masheter  
Date 6/24/57 Deputy Director of Design and Construction

Approved \_\_\_\_\_  
Date \_\_\_\_\_ First Assistant Director

Approved W. J. Therman  
Date 6/24/57 Acting Director of Highways

#### STANDARD DRAWINGS

T-35	1-2-56				
RT-1	1-3-55				
I-15 No. 1	8-1-55				
I-15 No. 2	12-1-54				

#### SUPPLEMENTAL SPECIFICATIONS

E-101	1-1-57				

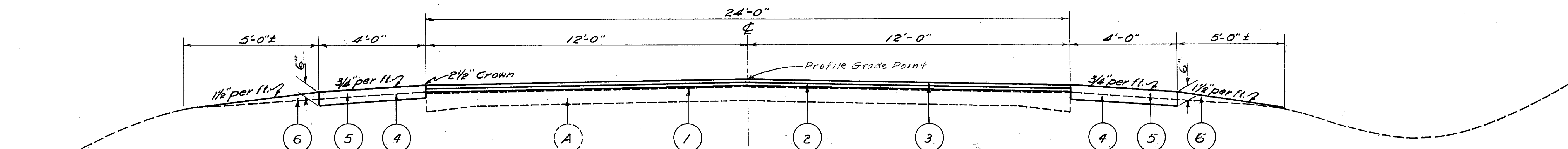
FILE COL-30-(19.17-20.35)  
DATE OF LETTING  
CONTRACT NO.

CONSTRUCTION  
PLANS  
MAY 1959  
GROUT PHOTOGRAPH

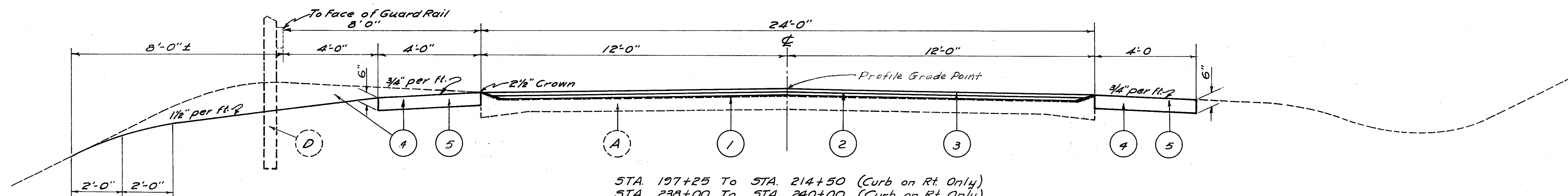
# TYPICAL SECTIONS

## TYPE — T-35

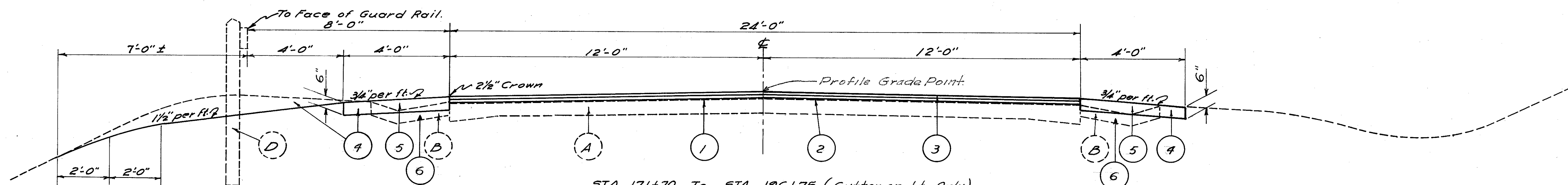
SCALE — 1" = 2'-0"



STA. 146+31.5 To STA. 171+70  
 STA. 196+75 To STA. 197+25  
 STA. 249+60 To STA. 262+25  
 STA. 276+05 To STA. 276+70  
 STA. 296+10 To STA. 312+50



STA. 197+25 To STA. 214+50 (Curb on Rt. Only)  
 STA. 238+00 To STA. 240+00 (Curb on Rt. Only)  
 STA. 240+00 To STA. 249+60  
 STA. 262+25 To STA. 270+00  
 STA. 276+70 To STA. 296+10 (Curb on Lt. Only)  
 STA. 320+00 To STA. 329+45

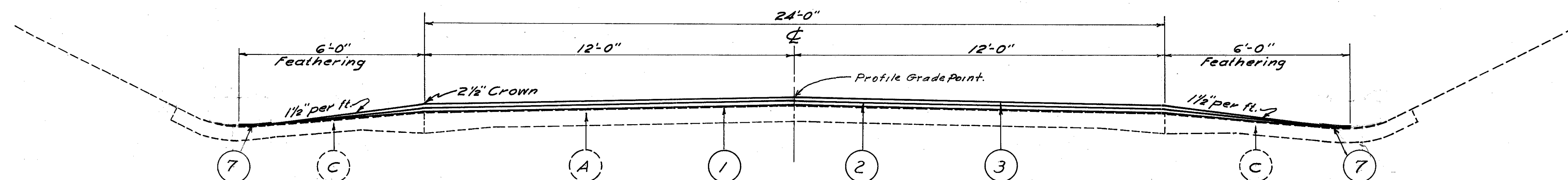


STA. 171+70 To STA. 196+75 (Gutter on Lt. Only)  
 STA. 214+50 To STA. 238+00 (Gutter on Rt. Only)

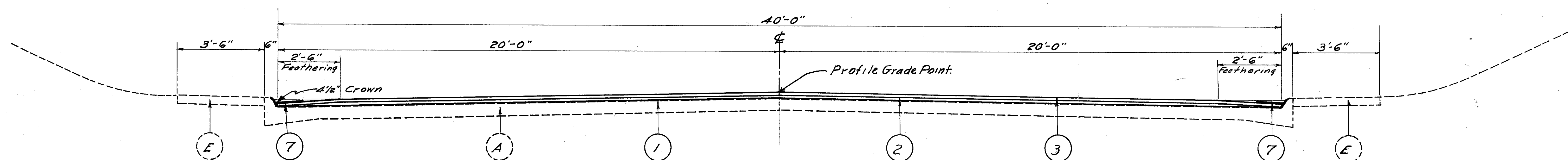
# TYPICAL SECTIONS

## TYPE — T-35

SCALE — 1" = 2'-0"



STA. 270+00 To STA. 276+05 (Gutter on Lt. Only)  
STA. 312+50 To STA. 320+00



STA. 329+45 To STA. 332+69.4

### ~ KEY ~

- |     |   |
|-----|---|
| (A) | Existing 9"-7"-7"-9" Reinforced Concrete Pavement.  |
| (B) | Existing Concrete Gutter (To be removed).   |
| (C) | Existing Concrete Gutter (To remain in place).  |
| (D) | Existing Guard Rail (To be removed and reset).  |
| (E) | Existing Sidewalk.  |
| (1) | T-30 Bituminous Tack Coat, Sec. M-5.5 MS-2 or RS-1 or Sec. M-5.2 RC-1 or RC-2 applied at the rate of 0.1 gal. per sq. yd. |
| (2) | B-35 1 1/2" Minimum Asphaltic Concrete Leveling Course. (70-85)   |
| (3) | T-35 1 1/2" Asphaltic Concrete Surface Course, Type "A". (70-85)  |
| (4) | E-101 Roadway Excavation.   |
| (5) | I-18 Stabilized Crushed Aggregate Shoulders and Approaches  |
| (6) | Embankment (To be made from Roadway Excavation).  |
| (7) | Gutter Seal.  |

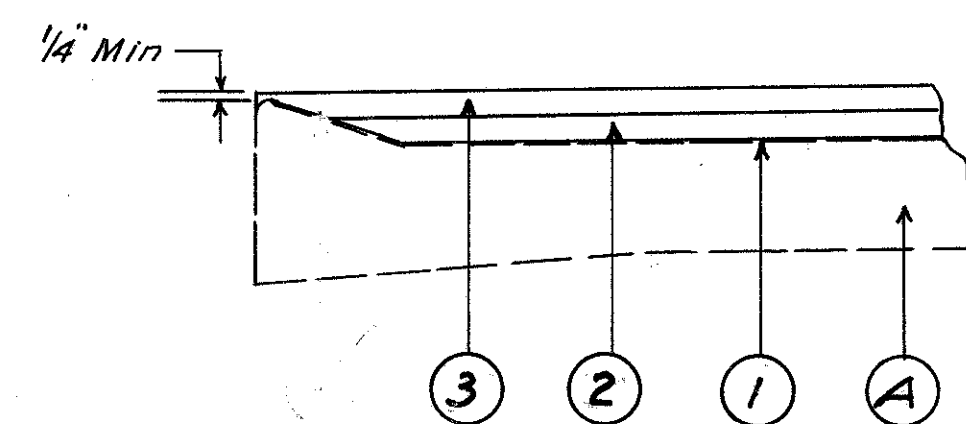


# TYPICAL DETAILS AND GENERAL NOTES

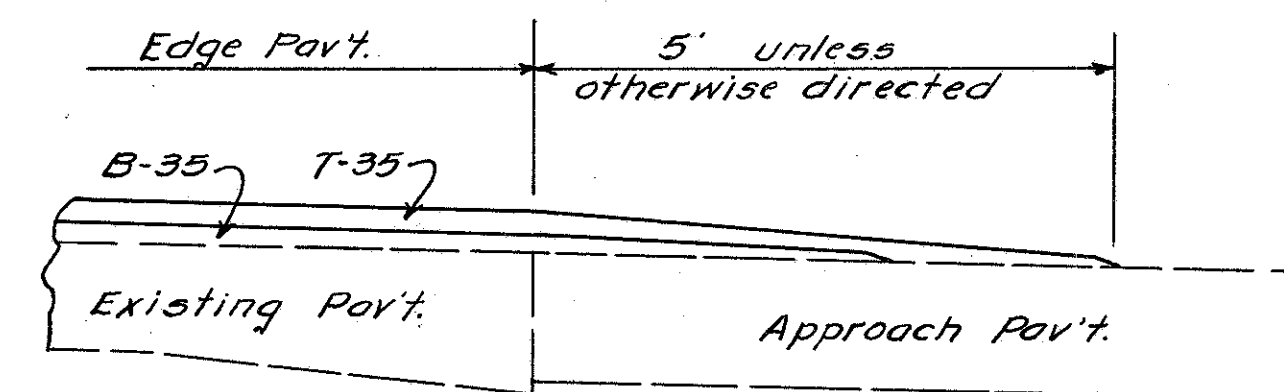
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

COL-30-(12.17-20.35)

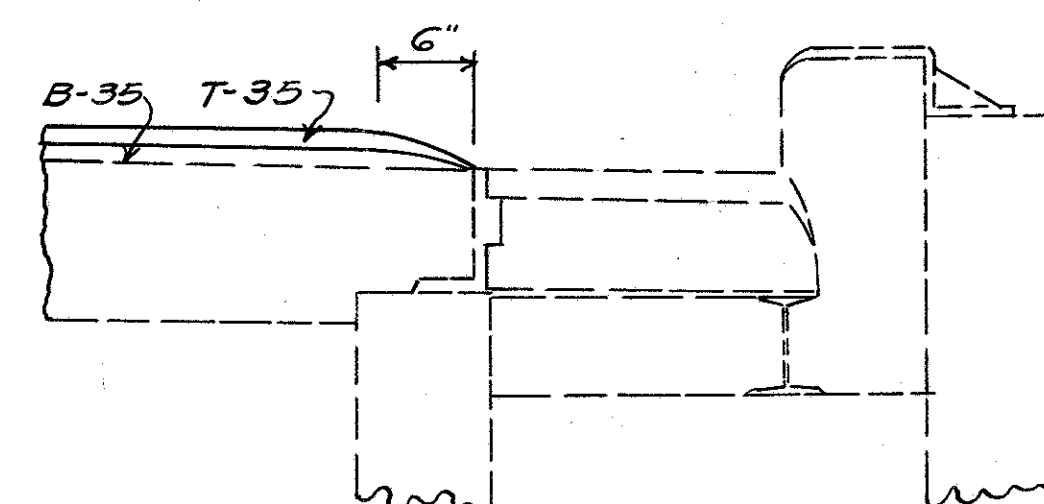
4  
6



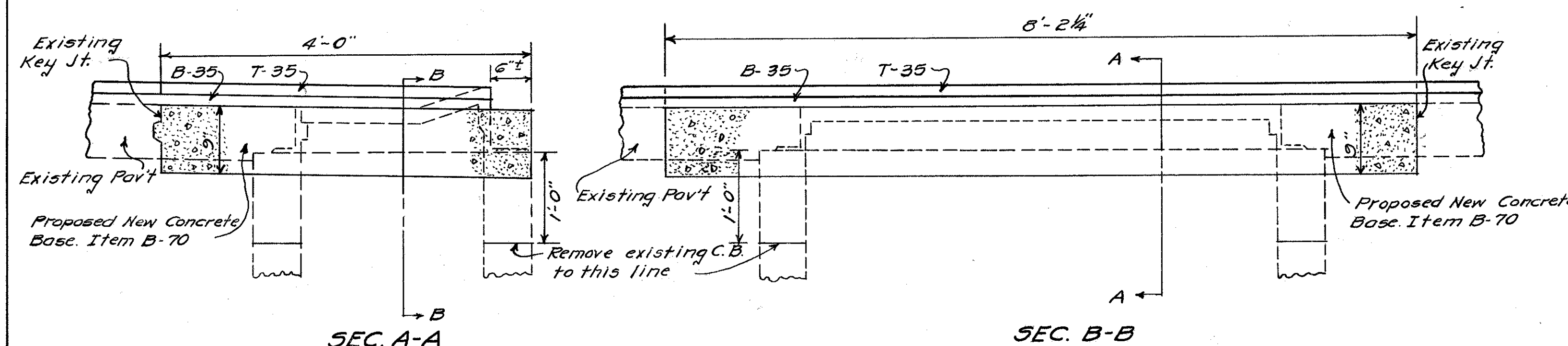
DETAIL OF RESURFACING OVER EDGE CURB



FEATHERING DETAIL AT APPROACHES



FEATHERING DETAIL AT NO. 3 CATCH BASINS



DETAILS OF PAVING OVER EXISTING 9-A CATCH BASINS

## NOTE:

9-A C.B.s. in existing pavement shall be abandoned in accordance with Item I-16, except that the walls shall be removed to the depth shown hereon, and that portion of the pavement blocked out around the basin (8'-2 1/4" x 3'-6 1/2") shall be removed and disposed of. Cost of this pavement removal shall be included in the price bid for "Catch Basins Abandoned." All precautions shall be taken to prevent damage to adjacent pavement. Concrete Base Course, Item B-70, shall be placed as shown. Any excavation necessary to complete the base shall be included in the price bid for "Concrete Base Course."

**TRAFFIC:**—Traffic shall be maintained at all times. The length of one way traffic zones shall be kept to a minimum consistent with the requirements of Sec. T-35.23 and Sec. B-35.25.

**EXCAVATION:**—Quantities for excavation have been estimated and are approximate only. The actual quantity of Item E-10, "Roadway Excavation," shall be determined by cross sectioning the project by the Engineer, prior to beginning the operation, and after the work is completed. Payment for excavation will be based on these cross sections.

**CONCRETE BASE:**—Concrete base may be hand finished in accordance with Sec. T-71.211.

**PROFILE:**—The profile of the proposed surface shall be approximately 3 inches above that of the existing pavement.

**EXTRA LEVELING MATERIAL:**—The asphaltic concrete leveling course thickness shall be maintained by the use of extra leveling material where necessary.

**GUARD RAIL REMOVED AND REBUILT:**—The price bid per linear foot shall also include payment for careful removal of existing posts and storage of all such posts which, in the opinion of the Engineer, are salvageable. Storage shall be along the right-of-way at places designated by the Engineer.

**ALIGNMENT AND GRADE:**—The existing alignment and grade shall be maintained on this project as indicated on the plans on file in the office of the State of Ohio, Department of Highways, New Philadelphia, Ohio. The above mentioned plans are recorded as Columbiana County, S.H. 12-Section R#5, F.A.P. 280-A(2) & 576-D(1), dated 1941.

**STATIONING:**—The stationing increases from south to north on the project. Sta. 146+31.5 is the beginning of the project and is located approximately 3.53 miles south of the Lisbon south corporation line. Sta. 332+63.4 is the end of the project and is located on the south corporation line of Lisbon.

**GUTTER REMOVAL:**—After removal of existing gutter the area shall be backfilled with material excavated from the berms as shown on the typical section. Cost of the backfill shall be included in the price bid for Excavation. Special care shall be exercised to obtain satisfactory compaction of this material before placing the I-18 Stabilized Crushed Aggregate Shoulder material.

# SUMMARY OF QUANTITIES

ABANDON CATCH BASINS AND REPLACE BASE						
Station		Side	Catch Basins - Each			Conc. Base Sq. Yds.
From	To		Std. No. 9-A	No. 9-A Mod.	Std. No. 2-2	
171+75		Lt.		1		
175+50		Lt.		1		
179+00		Lt.		1		
182+25		Lt.		1		
185+25		Lt.		1		
188+25		Lt.		1		
191+25		Lt.		1		
194+90		Lt.		1		
197+29		Rt.	1			4
202+00		Rt.	1			4
204+50		Rt.	1			4
206+50		Rt.	1			4
208+50		Rt.	1			4
210+50		Rt.	1			4
213+00		Rt.	1			4
214+60		Rt.		1		
217+50		Rt.		1		
220+50		Rt.		1		
223+50		Rt.		1		
226+75		Rt.		1		
230+00		Rt.		1		
233+00		Rt.		1		
236+00		Rt.		1		
238+15		Rt.	1			4
240+00		R. & L.	2			8
243+00		R. & L.	2			8
246+50		R. & L.	2			8
265+00		R. & L.	2			8
267+50		R. & L.	2			8
269+96		Lt.	1			4
271+00		Rt.	1			4
273+50		Rt.	1			4
276+00		Rt.	1			4
278+50		Lt.	1			4
280+25		Lt.	1			4
282+50		Lt.	1			4
284+50		Lt.	1			4
286+50		Lt.	1		1	4
288+75		Lt.	1			4
291+00		Lt.	1			4
293+50		Lt.	1			4
296+00		Lt.	1			4
322+00		R. & L.	2			8
324+00		R. & L.	2		1	8
326+00		R. & L.	2			8
328+00		R. & L.	2			8
329+20		Rt.	1			4
329+41		Lt.	1			4
Totals			41	16	2	164
			18			

EXTRA PAVEMENT					
Station		Side	Feather at Apprs.	Feather at Gutter	
From	To		Sq. Yds.	Sq. Yds.	
153+06		Lt.	12		
153+58		Rt.	12		
156+00		Lt.	25		
163+73		Rt.	12		
165+00		Lt.	12		
181+00		Lt.	22		
183+00		Rt.	31		
194+65		Lt.	17		
206+75		Rt.	12		
224+45		Lt.	12		
260+25		Rt.	25		
261+00		Lt.	22		
270+00	275+60	Lt.		373	
276+00		Lt.	53		
276+80		Lt.	12		
278+27		Lt.	12		
280+00		Rt.	12		
293+00		Rt.	12		
298+00		Rt.	12		
312+50	320+00	Lt.		500	
312+50	320+00	Rt.		500	
323+60		Rt.	17		
326+30		Lt.	12		
326+95		Lt.	12		
327+65		Rt.	12		
328+32		Lt.	12		
329+70		Rt.	17		
330+00		Lt.	17		
330+70		Rt.	10		
331+90		Rt.	10		
332+35		Lt.	13		
332+50		Rt.	13		
Total			1845		

GUTTER REMOVAL				
Station		Side	Lin. Ft.	
From	To			
171+70	180+90	Lt.	920	
182+15	194+50	Lt.	1235	
194+85	196+75	Lt.	190	
214+50	238+00	Rt.	2350	
Total			4695	

BERM MATERIAL							
Station		Side	Total Length	Deduct for Apprs.	Net Length	6"x4' I-18 Cu. Yds.	Est. Excavation Cu. Yds.
From	To		Lin. Ft.	Lin. Ft.	Lin. Ft.		
146+31.5	270+00	Lt.	12,368.5	220	12,148.5	900	800
146+31.5	312+50	Rt.	16,618.5	237	16,381.5	1213	1080
276+60	312+50	Lt.	3590	44	3546	263	234
320+00	329+45	Lt.	945	66	879	65	58
320+00	329+25	Rt.	925	44	881	65	58
Totals						2506	*2230

(Quantity carried to pavement calculations)

REBUILD GUARD RAIL & GRADE BERM				
Station		Side	Guard Rail	Est. Excavation
From	To		Lin. Ft.	Cu. Yds.
175+00	180+70	Lt.		100
175+50	180+62	Lt.	512	
181+60	190+00	Lt.		150
181+60	189+44	Lt.	784	
198+00	204+50	Rt.		150
198+65	199+93	Rt.	128	
232+00	240+00	Rt.		150
232+10	237+54	Rt.	544	
239+00	250+00	Lt.		300
239+00	242+20	Lt.	320	
260+50	270+00	Rt.		250
260+50	268+98	Rt.	848	
261+75	267+50	Lt.		150
261+75	267+03	Lt.	528	
278+50	286+75	Lt.		200
278+75	286+43	Lt.	768	
294+70	296+15	Lt.		40
294+77	296+05	Lt.	128	
320+50	323+30	Rt.		60
320+80	323+20	Rt.	240	
321+25	326+00	Lt.		120
321+50	325+98	Lt.	448	
323+65	327+50	Rt.		100
323+60	326+32	Rt.	272	
Totals			5520	*1770

NOTE: Items marked thus \* are combined in General Summary.

SEALING EDGE CURB			
Station	Side	Lin. Ft.	
From To			
197+25	214+50	Rt.	1725
238+00	249+60	Rt.	1160
240+00	249+60	Lt.	960
262+25	270+00	Lt.	775
262+25	296+05	Rt.	1380
276+70	298+10	Lt.	1940
320+00	329+25	Rt.	925
320+00	329+45	Lt.	945
Deduct for C.B.s	R. & L.		335
Total			9475



# SUMMARY OF QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

COL - 30 - (19.17 - 20.35)

6  
6

## PAVEMENT CALCULATIONS

Begin 24' Pavement Sta. 146+31.5  
End 24' Pavement Sta. 329+45  
Net Length of 24' Pavement = 18,313.5 Lin. Ft.

Begin 40' Pavement Sta. 329+45  
End 40' Pavement Sta. 332+69.4  
Net Length of 40' Pavement = 324.4 Lin. Ft.

Area of 24' Pavement =  $18,313.5 \times 24 \div 9$  = 48,836 Sq. Yds.  
Area of 40' Pavement =  $324.4 \times 40 \div 9$  = 1,442 Sq. Yds.  
Extra Pavement (See Sheet 5) = 1,845 Sq. Yds.  
Total Area of Pavement = 52,123 Sq. Yds.

Item T-30  $52,123 \times 0.1$  = 5,212 Gals.

Item B-35  $52,123 \times 1\frac{1}{2} \div 36$  = 2,172 Cu. Yds.  
Extra Leveling =  $3,529 \times 100$  Cu. Yds. per Mile = 353 Cu. Yds.  
Deduct for feathering at curbs and gutters = 50 Cu. Yds.  
Total Leveling = 2,475 Cu. Yds.

Item T-35  $52,123 \times 1\frac{1}{2} \div 36$  = 2,172 Cu. Yds.

Item I-18  
Estimated for Drives, Roads and Mail Box Approaches = 250 Cu. Yds.  
For Berms (from Sheet 5) = 2506 Cu. Yds.  
Total I-18 = 2756 Cu. Yds.

## GENERAL SUMMARY

ITEM	QUANTITY	UNIT	DESCRIPTION
E-101	4,000	Cu. Yds.	Roadway Excavation.
E-8	4,695	Lin. Ft.	Removal and Disposal of Existing Concrete Gutter.
E-11	18	M-Gals.	Water
I-15	5,520	Lin. Ft.	Guard Rail Removed and Rebuilt, as per Plan.
I-16	41	Each	Std. No. 9-A Catch Basins Abandoned, as per Plan.
I-16	18	Each	Catch Basins Abandoned.
I-18	2756	Cu. Yds.	Stabilized Crushed Aggregate Shoulders and Approaches
B-70	164	Sq. Yds.	9" Portland Cement Concrete Base Course, as per Plan.
T-30	5,212	Gals.	Bituminous Tack Coat Sec. M-5.5, MS-2 or RS-1, or Sec. M-5.2, RC-1 or RC-2, as per Section T-30.02.
B-35	2,475	Cu. Yds.	Asphaltic Concrete Leveling Course, (70-85).
T-35	2,172	Cu. Yds.	Asphaltic Concrete Surface Course, Type "A", (70-85).
Lump			Maintaining Traffic, including Lights, Signs, Barricades and Watchmen Twenty four (24) Hour Service.