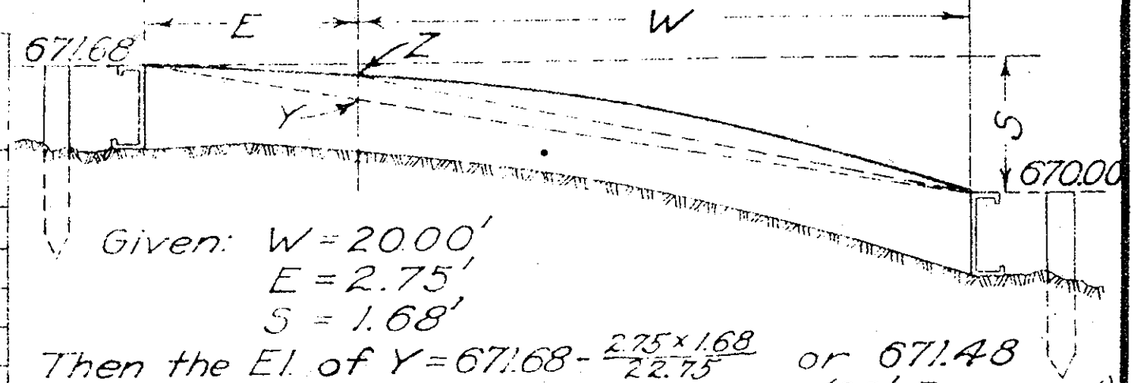
FOR ALL TYPES OF PAV. EXCEPT CONCRETE SURFACE

SCHEDULE

EXTRA WIDTH IN FEET	EXTRA ELEVATION IN INCHES			EXTRA WIDTH IN FEET	EXTRA ELEVATION IN FEET		
	16'	18'	20'		16'	18'	20'
0.25	3/32	3/32	3/32	0.25	0.01	0.01	0.01
0.50	3/16	3/16	3/16	0.50	0.02	0.02	0.02
0.75	9/32	9/32	9/32	0.75	0.02	0.02	0.02
1.00	11/32	3/8	3/8	1.00	0.03	0.03	0.03
1.25	7/16	15/32	15/32	1.25	0.04	0.04	0.04
1.50	1/2	17/32	9/16	1.50	0.04	0.04	0.05
1.75	19/32	5/8	21/32	1.75	0.05	0.05	0.05
2.00	21/32	11/16	23/32	2.00	0.06	0.06	0.06
2.25	3/4	25/32	13/16	2.25	0.06	0.06	0.07
2.50	13/16	27/32	7/8	2.50	0.07	0.07	0.07
2.75	7/8	15/16	31/32	2.75	0.07	0.08	0.08
3.00	15/16	1	1 1/32	3.00	0.08	0.08	0.09
3.25	1	1 1/16	1 1/8	3.25	0.08	0.09	0.09
3.50	1 1/16	1 1/8	1 3/16	3.50	0.09	0.10	0.10
3.75	1 1/8	1 7/32	1 1/4	3.75	0.09	0.10	0.11
4.00	1 3/16	1 9/32	1 11/32	4.00	0.10	0.11	0.12
4.25	1 1/4	1 11/32		4.25	0.10	0.11	
4.50	1 5/16	1 13/32		4.50	0.11	0.12	
4.75	1 3/8	1 15/32		4.75	0.11	0.12	
5.00	1 7/16	1 17/32		5.00	0.12	0.13	
5.25	1 15/32	1 19/32		5.25	0.12	0.13	
5.50	1 17/32	1 5/8		5.50	0.13	0.14	
5.75	1 19/32	1 11/16		5.75	0.13	0.14	
6.00	1 5/8	1 6/8		6.00	0.14	0.15	
6.25	1 11/16			6.25	0.14		
6.50	1 23/32			6.50	0.14		
6.75	1 25/32			6.75	0.15		
7.00	1 13/16			7.00	0.15		
7.25	1 7/8			7.25	0.16		
7.50	1 29/32			7.50	0.16		
7.75	1 31/32			7.75	0.16		
8.00	2			8.00	0.17		

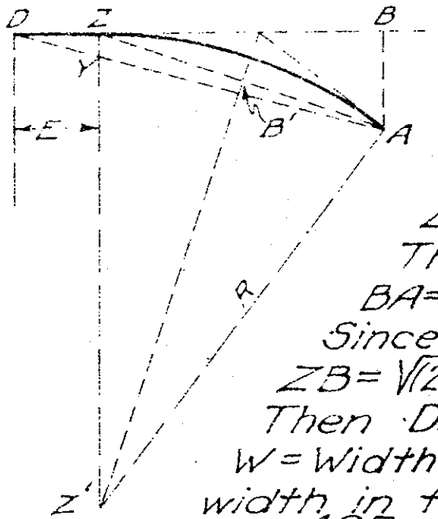
APPLICATION OF SCHEDULE



Given: W = 20.00'
E = 2.75'
S = 1.68'

Then the El. of $Y = 671.68 - \frac{2.75 \times 1.68}{22.75}$ or 671.48
From schedule for 2.75 widening (20' Pavement)
YZ = 0.08. 671.48 + 0.08 = 671.56 = El. of point Z or top of supplemental form.

DERIVATION OF SCHEDULE (20' PAV. AS BASIS)



Given:- ZA = 200' or 240".
Crown = 2"
To develop Radius.
$R^2 - (R-2)^2 = 120^2$
R = 3601
Δs ZBA and Z'B'A are similar.
Then 3601 : 240 :: 120 : BA
$BA = \frac{240 \times 120}{3601}$ or 7.998". Use 8.00"
Since Crown = 2" BA = 4 x Crown.
$ZB = \sqrt{(240)^2 - (8)^2} = 239.87$" Use 240.00"
Then D.B. : DZ. :: BA. : YZ.
W = Width of Pav. in feet. E = Extra width in feet. C = Crown in inches.
$YZ = \frac{4CE}{W+E}$ = Extra elevation in inches.

SCHEDULE OF ELEVATION OF SUPPLEMENTAL FORM FOR CURVE WIDENING

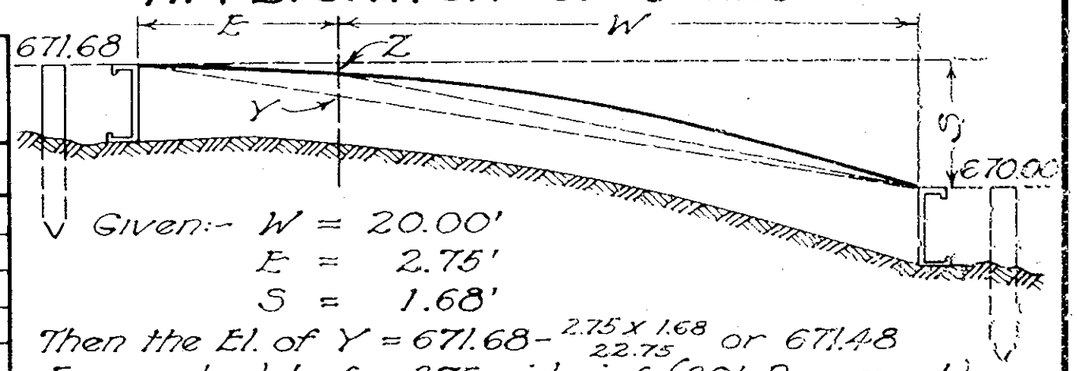
DIVISION OF HIGHWAYS
OHIO

CONST. DRAWING NO. 114 FEB. 1927

SCHEDULE

EXTRA WIDTH IN FEET	EXTRA ELEVATION IN INCHES			EXTRA WIDTH IN FEET	EXTRA ELEVATION IN FEET		
	16'	18'	20'		16'	18'	20'
0.25	3/32	3/32	3/32	0.25	0.01	0.01	0.01
0.50	3/16	3/16	3/16	0.50	0.02	0.02	0.02
0.75	9/32	9/32	9/32	0.75	0.02	0.02	0.02
1.00	11/32	3/8	3/8	1.00	0.03	0.03	0.03
1.25	7/16	15/32	15/32	1.25	0.04	0.04	0.04
1.50	1/2	17/32	9/16	1.50	0.04	0.04	0.05
1.75	19/32	5/8	21/32	1.75	0.05	0.05	0.05
2.00	21/32	11/16	23/32	2.00	0.06	0.06	0.06
2.25	3/4	25/32	13/16	2.25	0.06	0.06	0.07
2.50	13/16	27/32	7/8	2.50	0.07	0.07	0.07
2.75	7/8	15/16	31/32	2.75	0.07	0.08	0.08
3.00	15/16	1	1 1/32	3.00	0.08	0.08	0.09
3.25	1	1 1/16	1 1/8	3.25	0.08	0.09	0.09
3.50	1 1/16	1 1/8	1 3/16	3.50	0.09	0.10	0.10
3.75	1 1/8	1 7/32	1 1/4	3.75	0.09	0.10	0.11
4.00	1 3/16	1 9/32	1 11/32	4.00	0.10	0.11	0.12
4.25	1 1/4	1 11/32		4.25	0.10	0.11	
4.50	1 5/16	1 13/32		4.50	0.11	0.12	
4.75	1 3/8	1 15/32		4.75	0.11	0.12	
5.00	1 7/16	1 17/32		5.00	0.12	0.13	
5.25	1 15/32	1 19/32		5.25	0.12	0.13	
5.50	1 17/32	1 5/8		5.50	0.13	0.14	
5.75	1 19/32	1 11/16		5.75	0.13	0.14	
6.00	1 5/8	1 6/8		6.00	0.14	0.15	
6.25	1 11/16			6.25	0.14		
6.50	1 23/32			6.50	0.14		
6.75	1 25/32			6.75	0.15		
7.00	1 13/16			7.00	0.15		
7.25	1 7/8			7.25	0.16		
7.50	1 29/32			7.50	0.16		
7.75	1 31/32			7.75	0.16		
8.00	2			8.00	0.17		

APPLICATION OF SCHEDULE



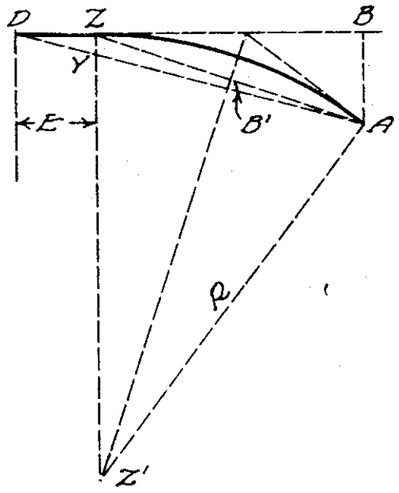
Given:- $W = 20.00'$
$E = 2.75'$
$S = 1.68'$

Then the El. of $Y = 671.68 - \frac{2.75 \times 1.68}{2.2.75}$ or 671.48
From schedule for 2.75 widening (20' Pavement)
$YZ = 0.08$ $671.48 + 0.08 = 671.56$ = El. of point Z or top of supplemental form.

DERIVATION OF SCHEDULE

(20' Pavement as basis)

Given:- $ZA = 20.0'$ or $240''$ Crown $= 2''$
To develop Radius. $R^2-(R-2)^2 = \overline{120}^2$ $R = 3601$
Δs ZBA and Z'B'A are similar.
Then $3601 : 240 :: 120 : BA$ $BA = \frac{240 \times 120}{3601}$ or $7.998''$ Use $8.00''$
Since Crown $= 2''$ $BA = 4 \times$ Crown. $ZB = \sqrt{(240)^2-(8)^2} = 239.87''$
Use $240.00''$ Then $DB : DZ :: BA : YZ$
W = Width of Pave. in feet. E = Extra width in feet.
C = Crown in inches. $YZ = \frac{4CE}{W+E}$ = Extra elevation in inches.



BUREAU OF CONSTRUCTION
OHIO
DEPARTMENT OF HIGHWAYS

SCHEDULE OF ELEVATION OF SUPPLEMENTAL FORM FOR CURVE WIDENING

FOR ALL TYPE PAVE. EXCEPT CONCRETE

STANDARD CONSTRUCTION DRAWING 114
FEB. 1927

REDRAWN 12-24-32