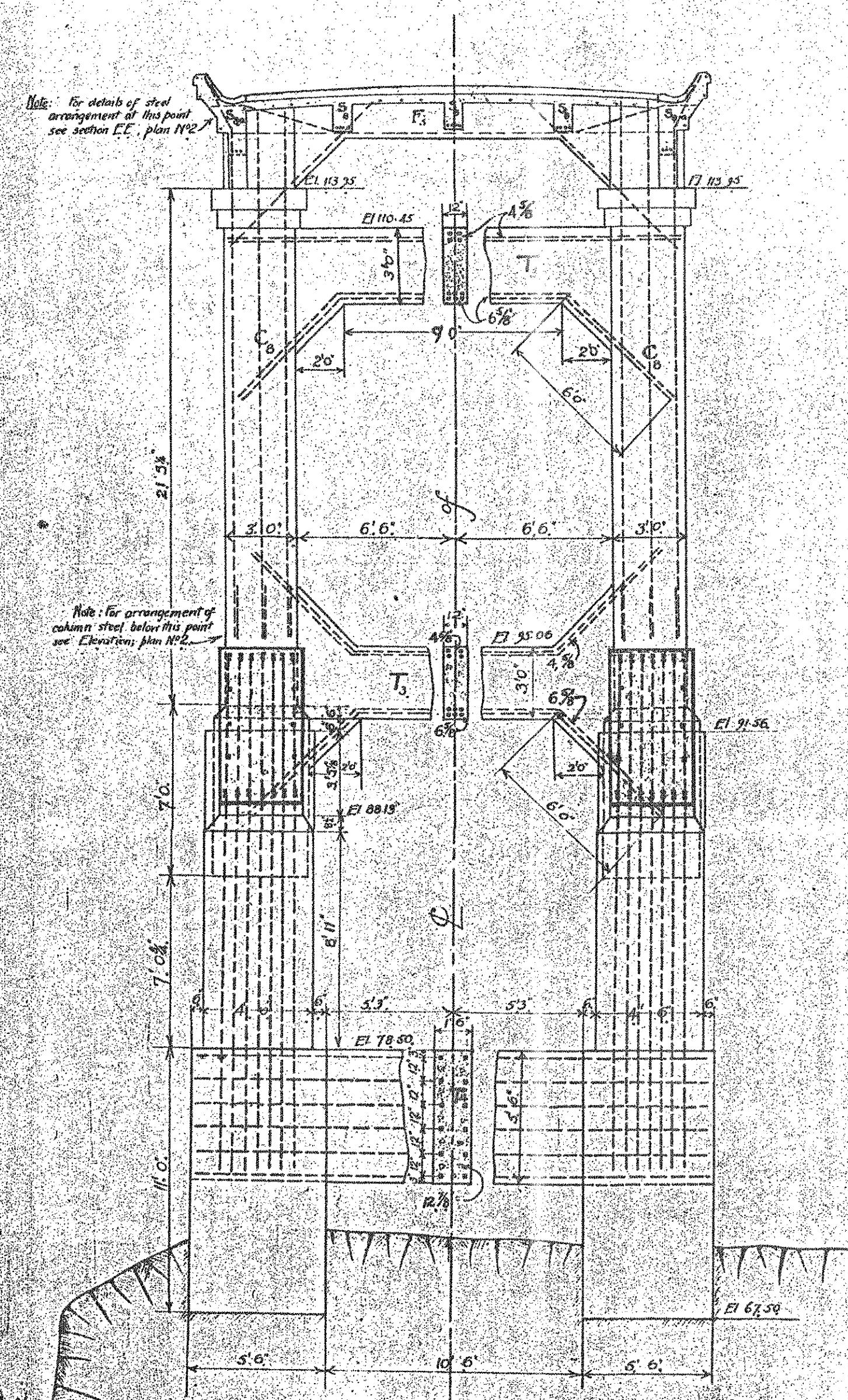
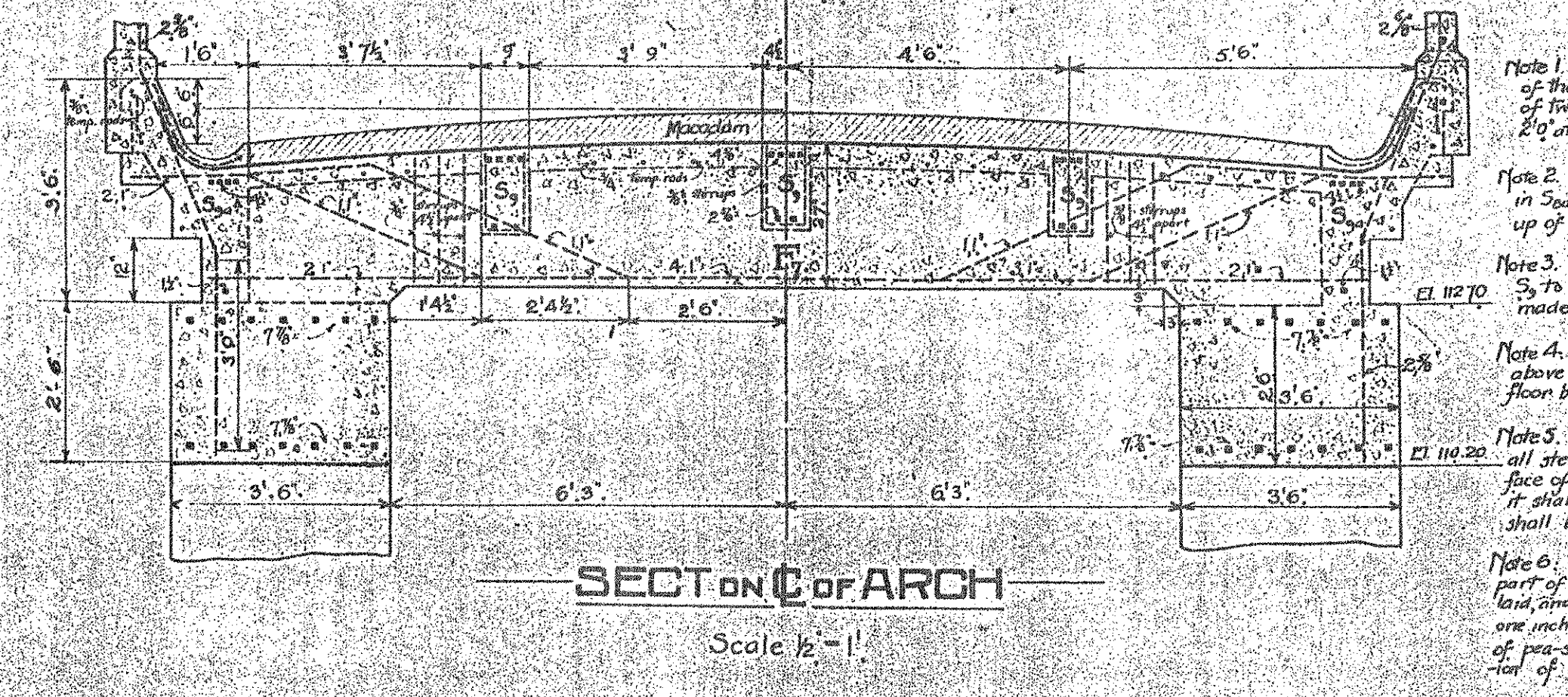
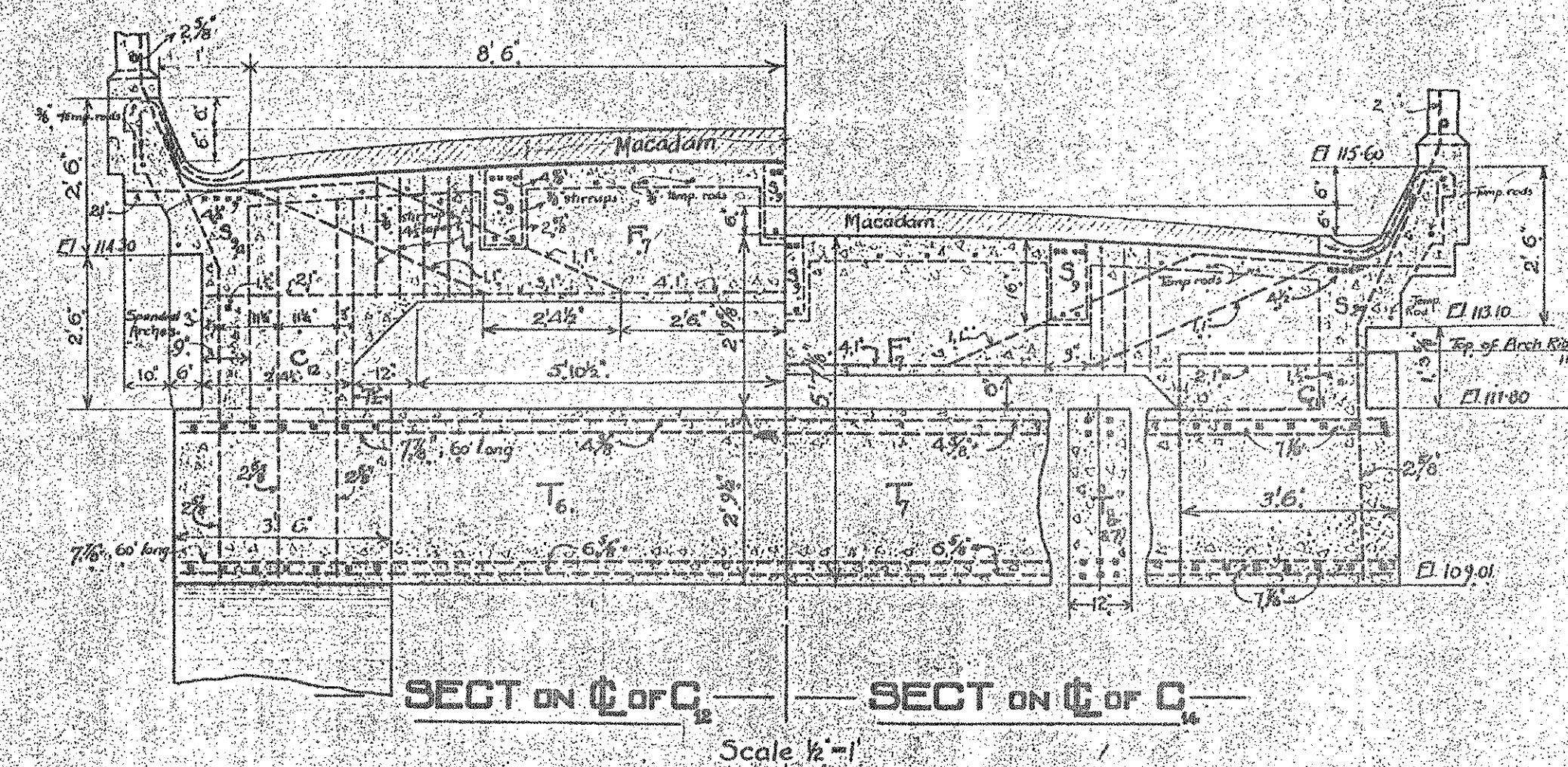
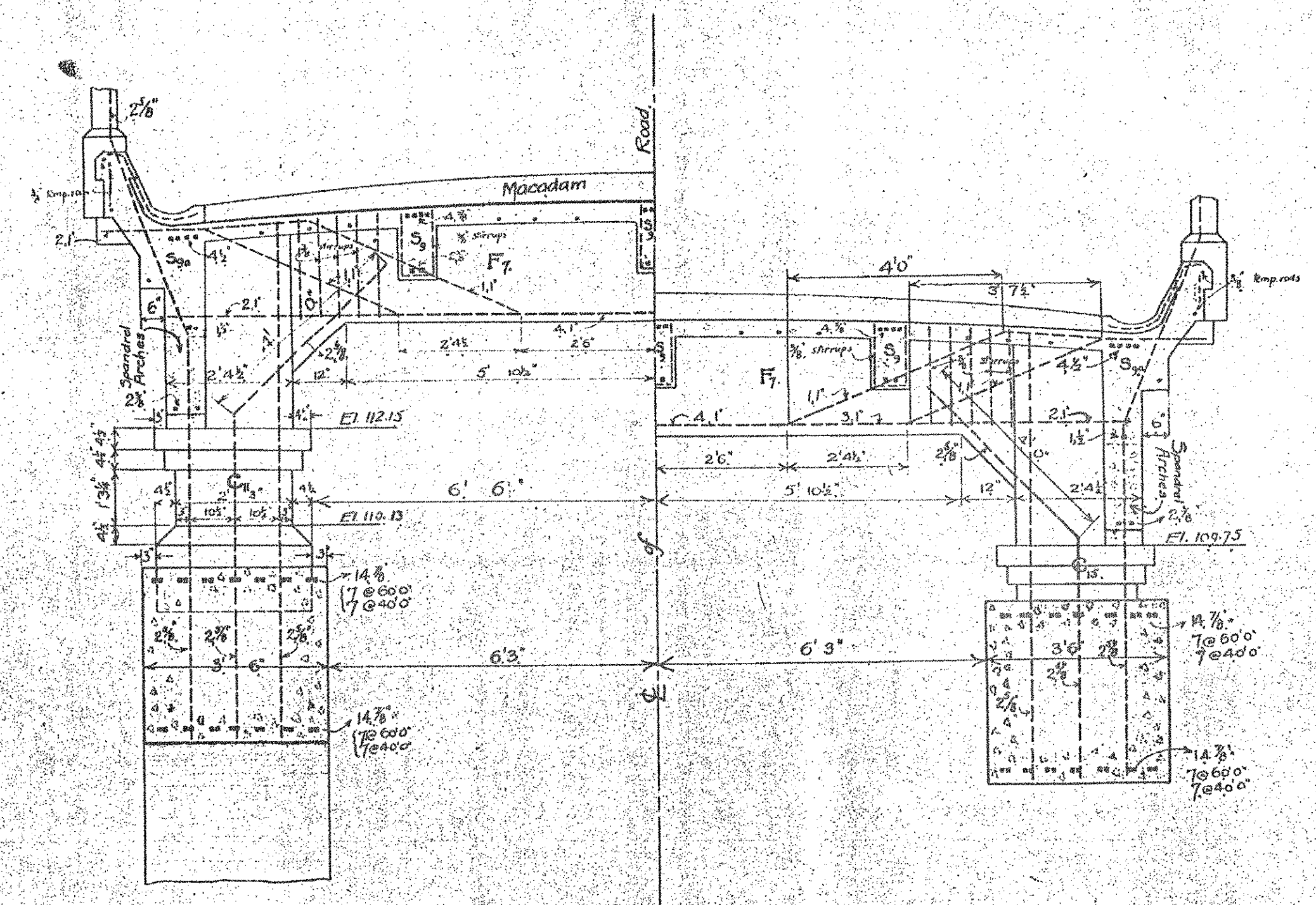


ARCH



Section	Total Length	Total Weight
3/8"	82.85 feet	3960 lbs.
1/2"	1200.0'	1072
5/8"	4361	5792
3/4"	369	706
7/8"	743	1329.6
1"	754	2564



Member	No	Concrete (dimensions)	Reinforcement							
			Tension			Shear				
			No	Size	Length	No	Size	Length		
Floor (2' x 2')	1	4 1/2" thick 4" crown	38	3/8"	210 @ 23.6" = 4938'					
Stringer S <sub>8a</sub>	4	26" x 9"	3	1/2"	4 - 34.0 (2' x 2')	194'				
S <sub>8b</sub>	16	26" x 9"	3	1/2"	4 - 16.9 (2' x 2')	135'				
S <sub>8c</sub>	6	16" x 9"	4	3/8"	12 - 13.3 (2' x 2')	159'	8	3/8"	40 @ 3.3" = 136'	
S <sub>8d</sub>	24	16" x 9"	4	3/8"	48 - 16.9 (2' x 2')	210'	6	3/8"	14 @ 3.6" = 432'	
Floor Beam F <sub>6</sub>	2	24" x 12"	4	1/2"	4 - 18.0 (2' x 2')	72'	0	3/8"	16 @ 4.1" = 72'	
F <sub>6</sub>	2	27" x 12"	3	1/2"	6 - 21.6 (2' x 2')	129'	10	3/8"	20 @ 5.4" = 108'	
F <sub>7</sub>	7	27" x 12"	4	1/2"	14 - 21.6 (2' x 2')	301'	10	3/8"	5 @ 10 - 30 @ 3.6" = 234'	
Spanrel Arches	16	9" thick	2	3/8"	32 - 10.6 (2' x 2')	336'				
Column C <sub>8</sub>	2	60" x 36"	12	1/2"	10 - 23.0 (2' x 2')	230'	4	3/8"	4 @ 9.0" = 36'	
Footing C <sub>8</sub>	2		12	3/8"	24 - 13.0 (2' x 2')	312'				
Column C <sub>9</sub>	2	15" x 27"	6	3/8"	4 - 22.5 (2' x 2')	89'				
Footing C <sub>9</sub>	2		6	3/8"	12 - 10.0 (2' x 2')	120'				
Column C <sub>10</sub>	2	15" x 27"	6	3/8"	4 - 15.0 (2' x 2')	63'				
Footing C <sub>10</sub>	2		6	3/8"	12 - 8.6 (2' x 2')	102'				
Column C <sub>11</sub>	2	15" x 27"	6	3/8"	4 - 13.0 (2' x 2')	60'				
C <sub>12</sub>	2	15" x 27"	6	3/8"	4 - 11.0 (2' x 2')	46'				
C <sub>13</sub>	2		2	3/8"	4 - 9.9 (2' x 2')	39'				
C <sub>14</sub>	2		2	3/8"	4 - 10.6 (2' x 2')	42'				
C <sub>15</sub>	2	15" x 27"	6	3/8"	4 - 14.0 (2' x 2')	56'				
C <sub>16</sub>	2	15" x 27"	6	3/8"	4 - 17.9 (2' x 2')	71'				
Footing C <sub>16</sub>	2		3	1/2" long	6 - 19.0 (2' x 2')	100'				
Column C <sub>17</sub>	2	15" x 27"	6	3/8"	4 - 18.3 (2' x 2')	73'				
Footing C <sub>17</sub>	2		6	3/8"	12 - 10.0 (2' x 2')	120'				
Column C <sub>18</sub>	2	60" x 36"	12	1/2"	8 - 15.6 (2' x 2')	124'	4	3/8"	4 @ 9.0" = 36'	
Footing C <sub>18</sub>	2		12	3/8"	24 - 13.0 (2' x 2')	312'				
Tie T <sub>8</sub>	8	3 1/2" x 12"	10	3/8"	2 - 18.6 (2' x 2')	148' and 22 @ 21" = 462'				
T <sub>8</sub>	2	60" x 18"	12	3/8"	12 - 21.0 (2' x 2')	252'				
T <sub>9</sub>	2	50" x 12"	10	3/8"	20 - 19.0 (2' x 2')	380'				
T <sub>10</sub>	2	33 1/2" x 12"	10	3/8"	20 - 19.0 (2' x 2')	380'				
T <sub>11</sub>	1	36" x 18"	12	3/8"	12 - 19.0 (2' x 2')	228'				
Arch Ribs	2	Max 5'0" x 3'6"	14	3/8"	28 - 60.0 (2' x 2')	1680'				
			14	3/8"	28 - 40.0 (2' x 2')	1120'				
			14	3/8"	28 - 40.0 (2' x 2')	1120'				
			7	3/8"	14 - 28.0 (2' x 2')	592'				
			7	3/8"	14 - 20.0 (2' x 2')	280'				
			7	3/8"	14 - 12.0 (2' x 2')	168'				
			7	3/8"	14 - 16.0 (2' x 2')	224'				

Note: All steel to be square, cold-twisted rods, having an elastic limit of at least 55,000 lbs per sq. inch

Examined *R. Curran*  
Approved *A. K. [Signature]*

Note 1. Each temp rod in the Arch portion of the floor and parapet to be made up of two 3/4" lengths, giving an overlap of 2'0" at the centre.  
Note 2. The 1/2" rod which remains down in S<sub>8a</sub> and S<sub>8b</sub> to be continuous and made up of two lengths of 54' giving 2'0" overlap.  
Note 3. The 2 3/8" rods which remain down in S<sub>8c</sub> to be continuous for floor beams and made up of two 41'0" lengths.  
Note 4. Sizes of beams and stringers given above include floor slab and depth of floor beams to be measured at centre of span.  
Note 5. Unless otherwise indicated on plan, all steel is to be laid with centres E<sub>1</sub> from face of forms, except in floor slab where it shall be E<sub>2</sub> and in stringers where it shall be not less than 1/2".  
Note 6. The Road Metal or Macadam is not part of this contract. It will be provided and rolled by the Municipality; the lower one inch (1") in thickness consisting of a mat of pea-stone and coal-tar pitch for the protection of the waterproofing.

CENTRAL VERMONT RAILWAY  
WINDSKI VIADUCT  
ARCH DETAILS

SCALES 1/2" = 1'  
1/4" = 1'

Office of Chief Engineer, G.T.R. Montreal, Apr

THIS SHEET HAS BEEN REPRODUCED FROM ORIGINAL PLANS DATED JUNE 1913, ALL DETAILS HAVE BEEN SCALED DOWN FROM THE ORIGINAL SHEET SIZE AND ARE NO LONGER TO SCALE. THESE PLANS DO NOT INCLUDE THE STEEL SHORING COMPONENTS THAT HAVE BEEN ADDED TO THE STRUCTURE SINCE THE ORIGINAL CONSTRUCTION.