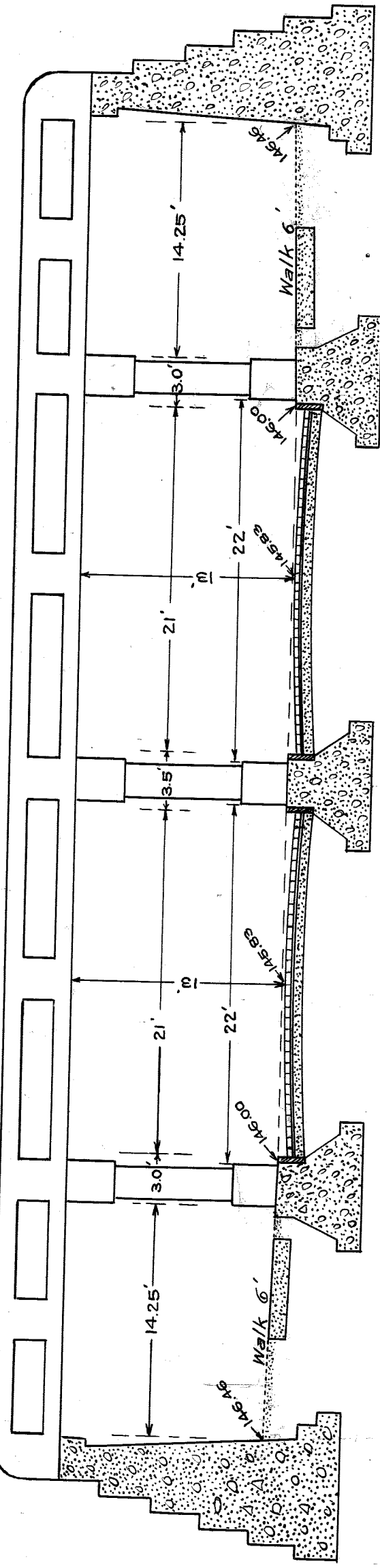
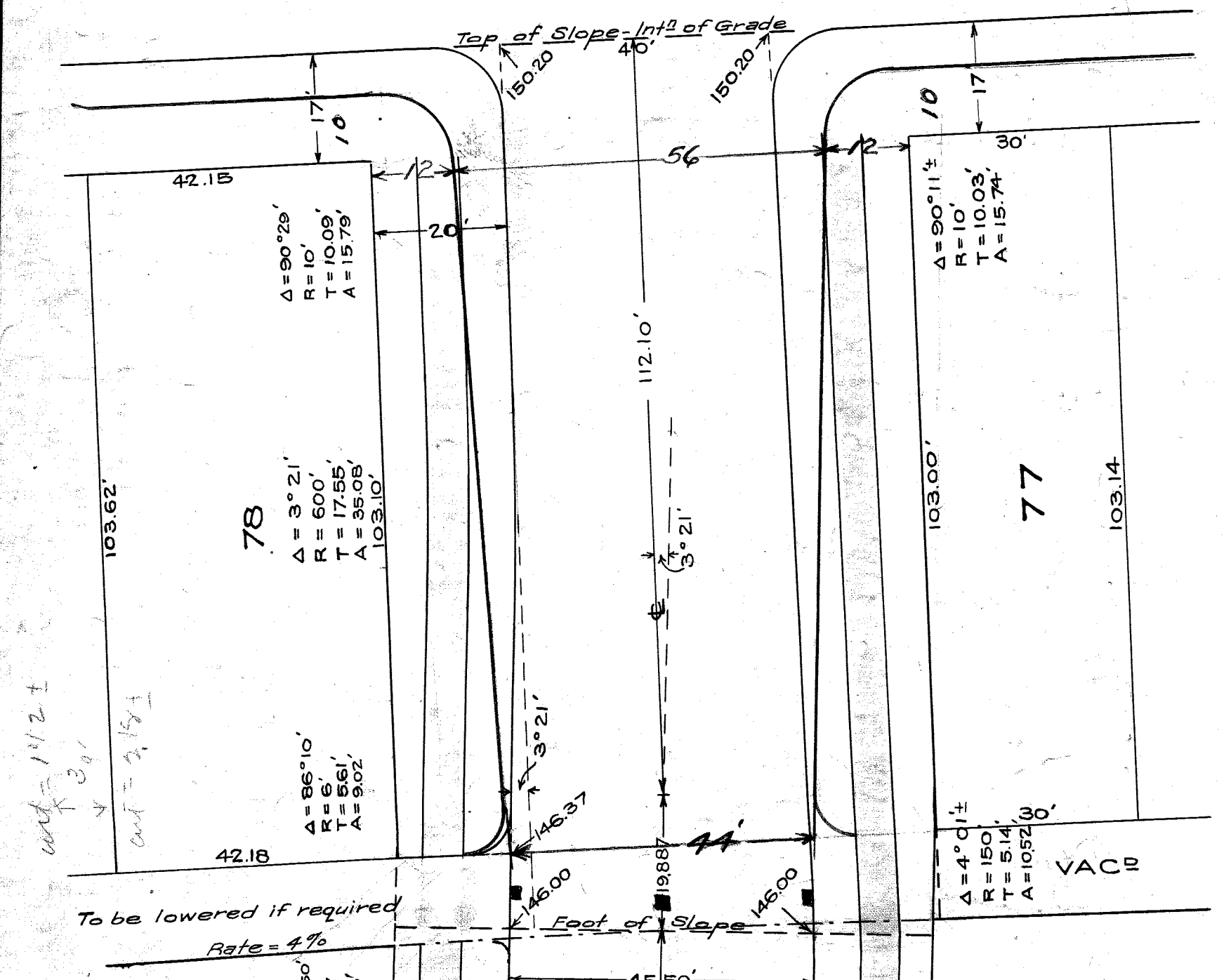


PLAN
SCALE, ONE INCH = 20'



CROSS SECTION
SCALE, ONE INCH = 5 FT.

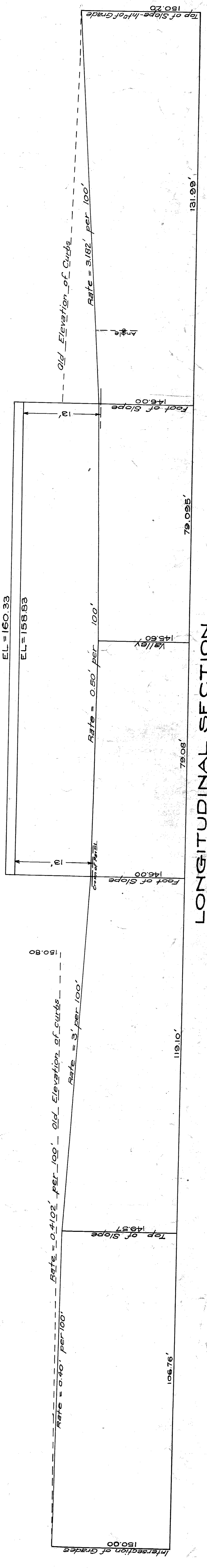


Note: Fill space outside of Cement Walk across right way, with 1/2" broken stone or gravel.

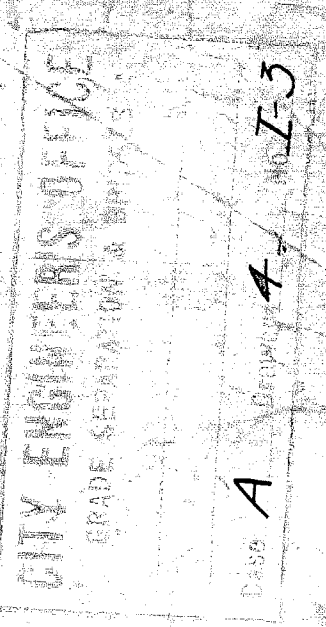
NOTE: LINES SHOWN IN RED INDICATE PRESENT CURB BOOK S-467

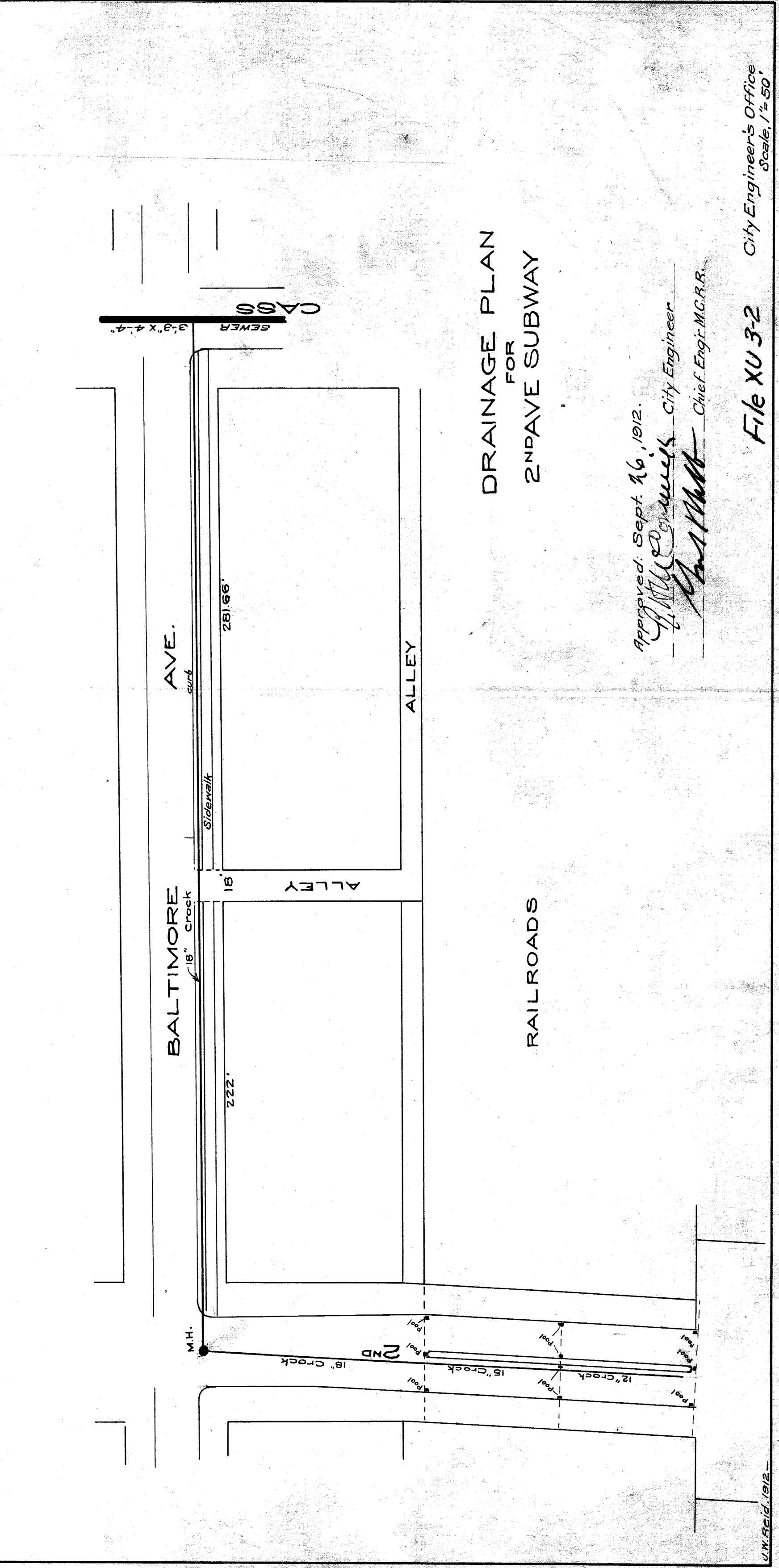
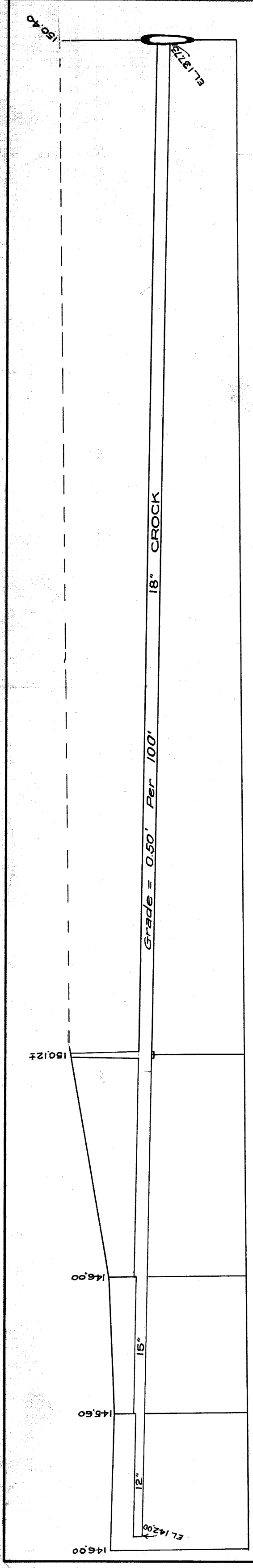
PLAN OF PROPOSED SUBWAY IN SECOND AVE UNDER TRACKS OF G. T., L. S. & M. S. & M. C. RAILROADS

Dated, Aug 5th 1912.
Approved: [Signature] City Engineer.
Chief Engr., M. C. R. R.

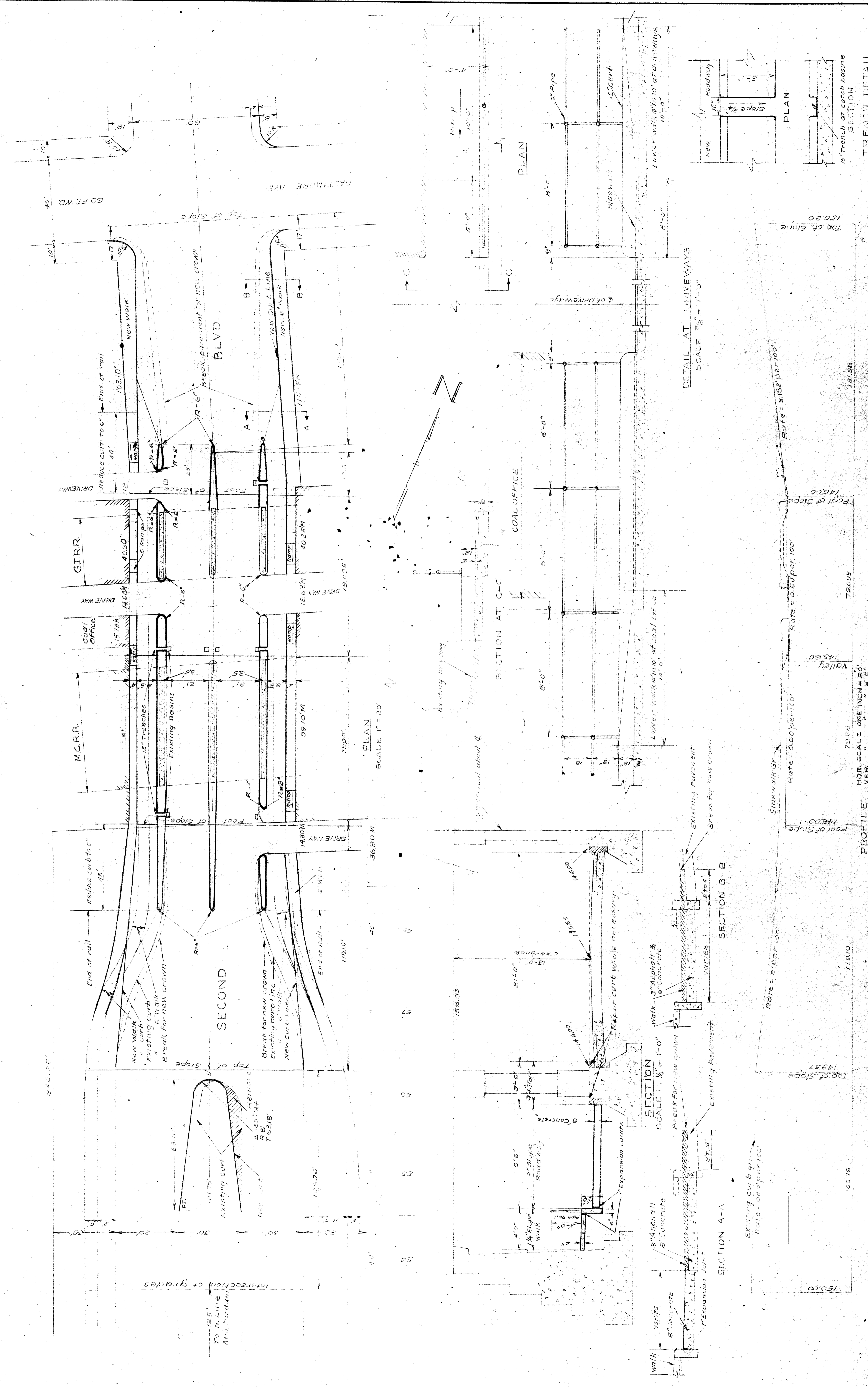


LONGITUDINAL SECTION
HOR. SCALE, ONE INCH = 20 FEET.
VER. SCALE, ONE INCH = 10'

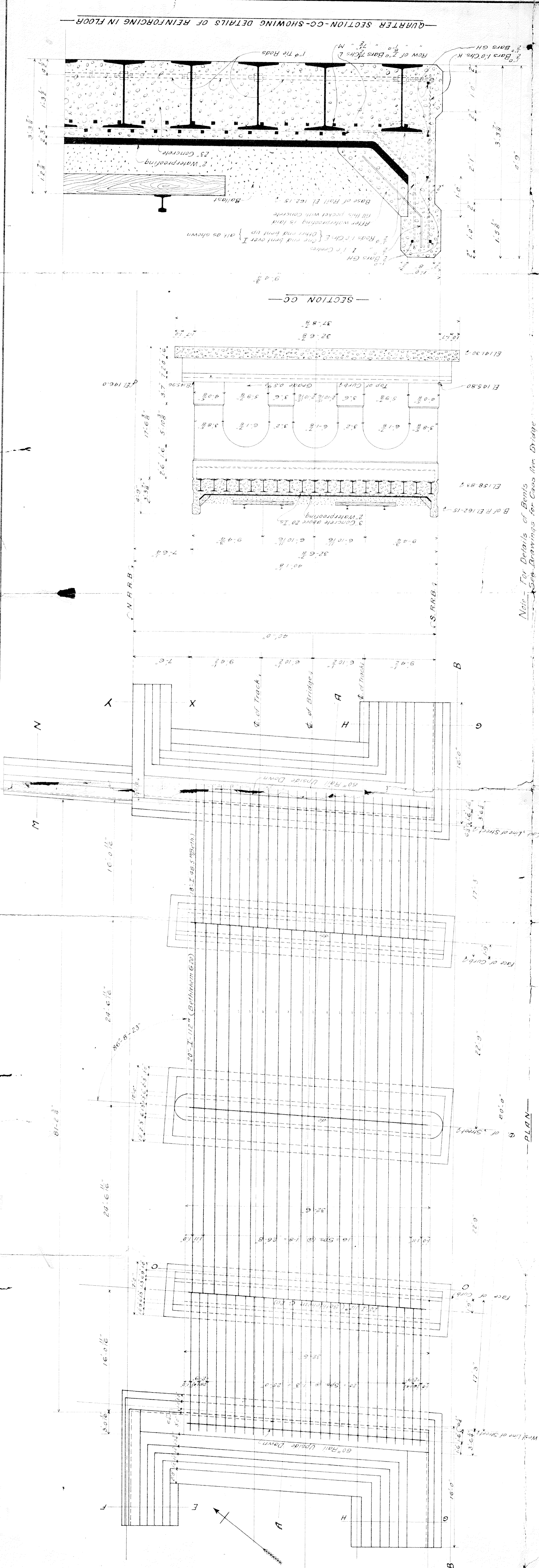




Approved: Sept. 16, 1912.
G. W. Cummings City Engineer
W. A. [Signature] Chief Engr. M.C.R.R.



CITY OF DETROIT DEPARTMENT OF PUBLIC WORKS CITY ENGINEERS OFFICE BUREAU OF STREETS		ROADWAY ADDITIONS UNDER PASS AT SECOND & MC-GT R.R.		SHEET 1 OF 1 SHEETS	
APPROVED		DESIGNED BY <i>B. Mattena</i>		CONTRACT	
DRAWN BY		CHECKED BY		DRWG NO.	
TRADED BY		REVISIONS			
CHECKED BY		DATE			
DESCRIPTION		REV.		DATE	



Estimated weight of Steel
 Reinforced concrete in girders 20,670 lbs.
 Areas & nuts, bolts 5,270
 I. Beams 108,850
 Rails 17,750
 Total Weight 152,540 lbs.

Estimated volume of concrete
 Floor & girders 261 cu yd
 Bents 220
 Total volume 481 cu yd

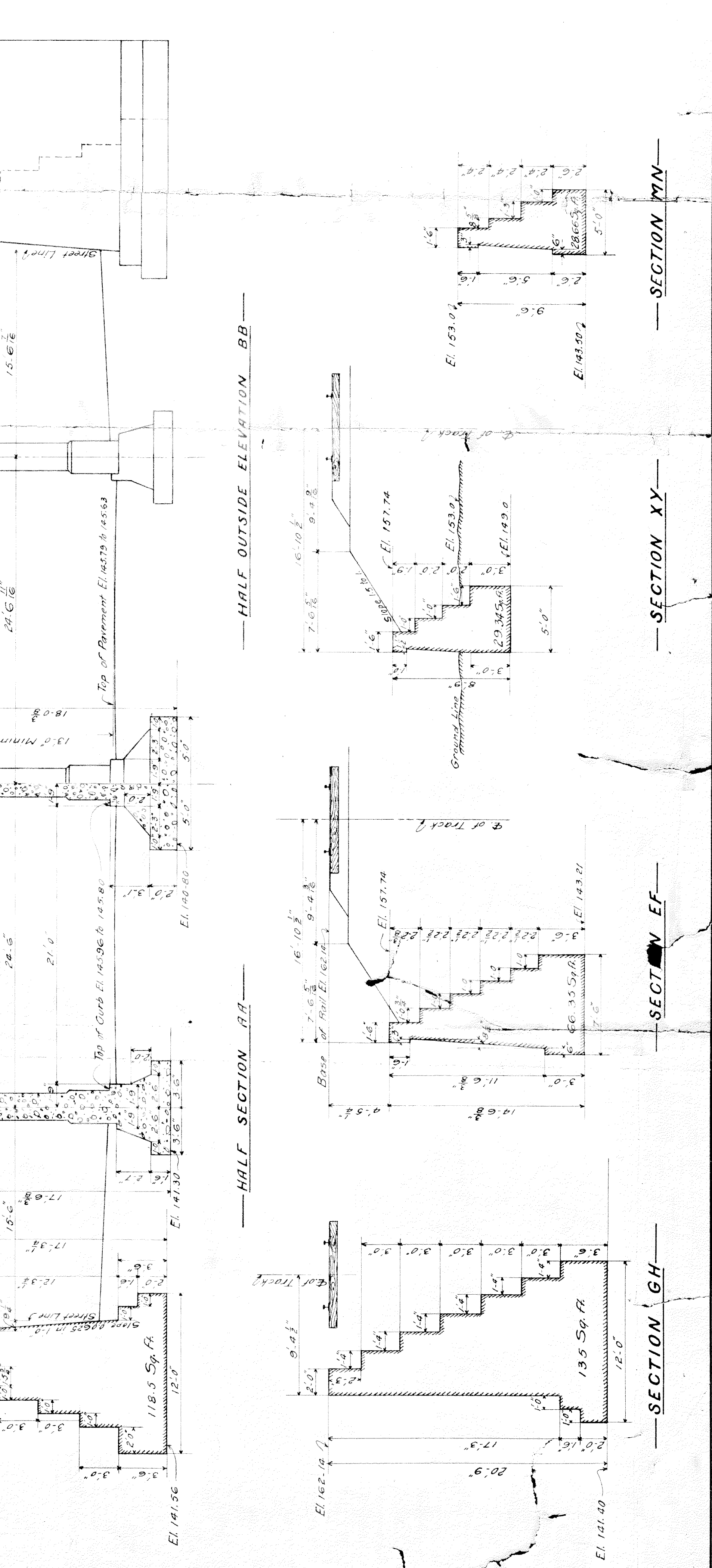
Estimated weight of steel
 Reinforced concrete in girders 20,670 lbs.
 Areas & nuts, bolts 5,270
 I. Beams 108,850
 Rails 17,750
 Total Weight 152,540 lbs.

Square corrugated steel bars

Location	Bar No.	Size	Length	Area	No. of Bars	Weight
Stringers in Beam	1	3/4"	8.0	5.7	64	364.8
Columns brackets	2	3/4"	7.6	5.2	64	332.8
Horizontal in Beam	3	1"	12.0	7.85	80	628.0
in top of slab	4	1"	32.0	7.85	18	141.3
Transverse in Deck	5	1"	37.0	7.85	14	110.0
Dowels	6	3/4"	9.6	5.2	50	260.0
Shear Bars in Base	7	1"	3.0	7.85	84	659.6
Horizontal in Beam	8	1"	11.0	7.85	36	282.6
Dowels	9	3/4"	3.0	5.2	36	187.2

Steel Bars in Floor

No.	Kind	Length	Mark	Location
174	1/2" corrugated bars	2'-9"	I	Inclined in side girders
174	"	4'-3"	K	Vert along top of side girders
20	"	32'-0"	G	Long in side girders
10	"	27'-0"	H	"
135	7/8"	7'-0"	L	Parallel to beams over all bents
90	1"	7'-0"	M	over bents
84	1/2" plain rods	34'-0"	E	over beams parallel to & of steel
80	1"	4'-2"	D	Access to outside 20 Is
60	1"	3'-3"	C	Access to outside 18 Is



Examined: *H. B. Stewart*, Structural Engineer
 Approved: *H. B. Stewart*, Chief Engineer
 1913

Cost complete including Masonry, masonry, & steel, etc.
 \$1,433,000.00

G. T. R.
 WESTERN DIVISION 29th DISTRICT
 BRIDGE No. OVER
 SECOND AVE. DETROIT MICH.
 GENERAL PLAN

Office of Chief Engineer Montreal
 May 15th 1913
 Scale 3/4" = 1' Ft.
 Drawn by: *A. C.*
 Checked by: *A. C.*