

CURVE JUNCTION OF COLLINS STREET

WITH SPRING ST

LINE 2.

LINE 2.

PLAN A.4.

DESCRIPTION A.4.

CURVE at JUNCTION of COLLINS ST. with SPRING STREET.

1. The Checks of Special Check-rails of Nos. 2 and 4 rails are worn to varying amounts. The centre of Curve of No. 2 rail, the check is badly worn for a length of about 30 feet. The Checks to Nos. 2 and 4 rails are in places loose and ineffective. Sides of Heads of opposite rails (Nos. 1 and 3) are grooved to varying degrees, and in the centre of each curve are badly grooved, and on No. 3 rail is worn $1/2"$ at side, as a result of above check-wear.
2. No. 1 Rail is bottoming for about 2 yards, near centre of curve. No. 3 Rail is bottoming for about 12 yds., near (Collins St.) end of curve.
3. A length of No. 3 rail (about 40 ft.) is pumping and fishplates are presumably loose. A short length of straight rail adjoining No. 4 Curved rail, on West side, is pumping, and fishplates are presumably loose.
4. Paving Blocks on each side of pumping rails are loose.
5. The Joint between end of curved No. 4 rail and straight rail is $1/4"$ wide, and hammered.

CLEARANCE between flange and bottom of groove.

The sets of Tests on Curved Rails taken opposite second window of No. 2 Collins Street, are as follows :-

<u>Clearance</u>		<u>Super-Elevation</u>	
No. 1 Rail	.186	No. 1 Rail $2\frac{1}{2}"$	(Rolling Place)
No. 2 "	.233	" 3 "	(Rolling Place)
No. 3 "	0	" 3 $\frac{3}{4}"$	
No. 4 "	.171		

DATES OF CURVE RAIL RENEWALS :-

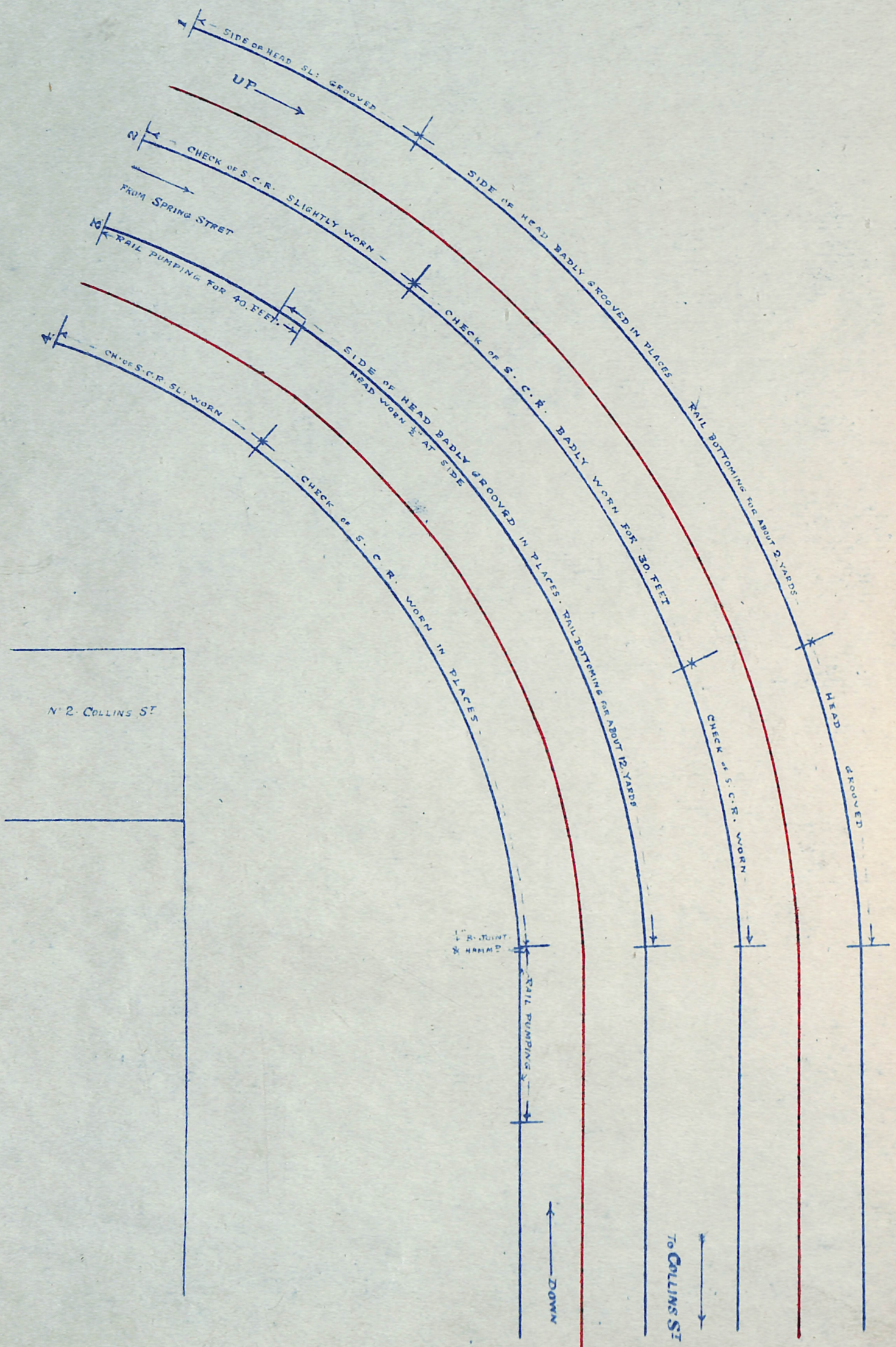
Full Renewal both Tracks (Nos. 1, 2, 3 and 4) - March 31st. 1912
24' 0" Check-Rail in No. 4 rail - March 31st. 1915
Length of Curve - 69 feet 5 inches
Radius " " 90 feet.

Date of First Inspection - May 12th. 1916.

Date of Last Inspection - July 4th. 1916.

WITH SPRING S^{FF}

LINE 2.
PLAN A. 4.



SHUNTS SPRING S^T

NEAR
R.C. CATHEDRAL

LINE 2 PLAN A. 5.

LINE 2. DESCRIPTION A. 5.

E Points Badly Hammered
F Hammered
G Hammered
H Hammered
I Hammered
J Hammered
K Hammered
L Hammered
M Hammered
N Hammered
O Hammered
P Hammered
Q Hammered
R Hammered
S Hammered
T Hammered
U Hammered
V Hammered
W Hammered
X Hammered
Y Hammered
Z Hammered

DOUBLE SHUNTS - GISBORNE STREET (Near Roman Catholic Cathedral)

- On two of the four Inner Curves of the Dummy and Trailer-Shunts the checks of Special Check-rails are worn. On one of the Inner Curves of Trailer-Shunt, the Special check is loose and ineffective in places.
- The sides of heads of the four Outer Curves are grooved, as a result of the above check-wear.
- Seven of the heels of the eight Points are of loose fit and rocking, resulting in excessive hammering. Tongues are worn to varying degrees, and in two cases are below level of Point-Casting.
- A length of No. 3 Rail (Down Track) adjacent to Point of Trailer-Shunt for about 10 feet is pumping and fishplates are presumably loose.
- The adjacent paving-blocks are loose at several places on each side of Nos. 3 and 4 Rails, and tarred surface is shattered.
- Fine corrugations are apparent, on No. 4 Rail (Down-Track) North of Point of Trailer-Shunt, for a distance of about 30 feet, and on No. 3 Rail, North of intersection of Trailer-Shunt rail, for a length of about 25 feet.
- At the crossing intersections, also at intersections of slot-rails with Tram-rails, there is hammering to varying degrees.
- Two of the Joints of Tram-rails, adjacent to Points are wide ($3/8"$ and $7/8"$) and these joints are hammered. There is also hammering of some of the other joints, and want of lineability of Tread-surfaces.

Date of First Inspection - April 25th. 1916.

Date of Last Inspection - July 4th. 1916.

SHUNTS SPRING S^T

NEAR
R.C. CATHEDRAL

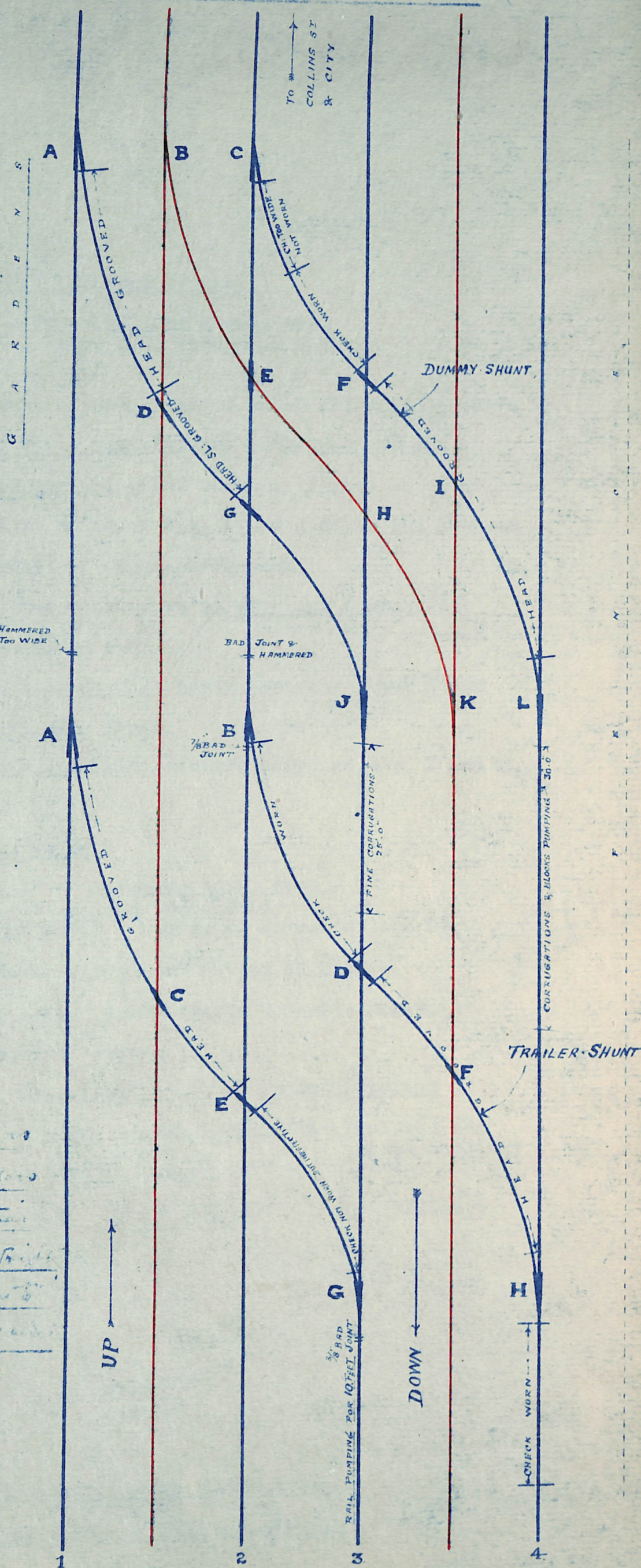
LINE 2 PLAN A. 5.

- A Heel Rocking
- B Nil.
- C Heel Rocking
- D Points Hammered.
- E Points Badly Hammered
- F D: Hammered.
- G D: Hammered.
- H D: Slightly Hammered
- I D: Hammered.
- J Heel Rocking
- K Nil.
- L Heel Rocking Badly.

- A Heel Rocking. Wide Joint.
- B Heel Rocking. Bad Joint
Tongue too low.
- C Points Slightly Hammered.
- D D: Slightly D:
- E D: Slightly D:
- F D: Slightly D:
- G Heel Rocking.
- H Heel Rocking.

Nil.

Line 2. The Track is
first inspected, 3 times
later, the Point-Center
and slip length of 15 ft.
Rail is 11 ft. 6 in. from
To the Street. (See plan)



CURVE. SPRING STREET. OPP: GREY ST

LINE 2.

PLAN A.6.

LINE 2.

DESCRIPTION A 6.

GREY ST W.

CURVE - GISBORNE STREET.

(Opposite Grey Street West
Near R.C. Cathedral Gates)

1. The ordinary rail-checks of Nos. 2 and 4 Rails are worn to varying amounts. The check of No. 4 rail is very badly worn in the centre of curve, and rail is bottoming for about 15 yards. The sides of heads of Ordinary Rails of Nos. 1 and 3 Rails are grooved to varying amounts, as a result of above check-wear. The head of No. 3 rail in centre of curve is very badly grooved, and rail is bottoming for about 20 yards.
2. The Tread of No. 3 rail is 60 Mils lower than the wheel Gauge and Tread of No. 4 rail is 45 Mils lower.
3. There is a slight down- gradient (towards City) on Nos. 1 and 2 Rails.

DATES OF CURVE RAIL RENEWALS -

Nos. 3 and 4 Rails - November 26th., 1905.
Nos. 1 and 2 Rails - June 30th., 1914.
Length of Curve - 82 feet. Radius of Curve - 264 ft.

CLEARANCES taken between flange and bottom of groove.

The Sets of Tests on Curved Rails (taken nearly opposite Roman Catholic Cathedral Gates) are as follows :-

	<u>Clearance</u>		<u>Super-Elevation</u>
No. 1 Rail	.250	No. 1 Rail	1" (Rolling and Light Braking)
No. 2 "	.279"	No. 2 "	
No. 3 "	0	" 3 "	1 1/8" (Rolling)
No. 4 "	0	" 4 "	

Date of First Inspection - May 11th., 1916.

Date of Last Inspection - July 4th., 1916.

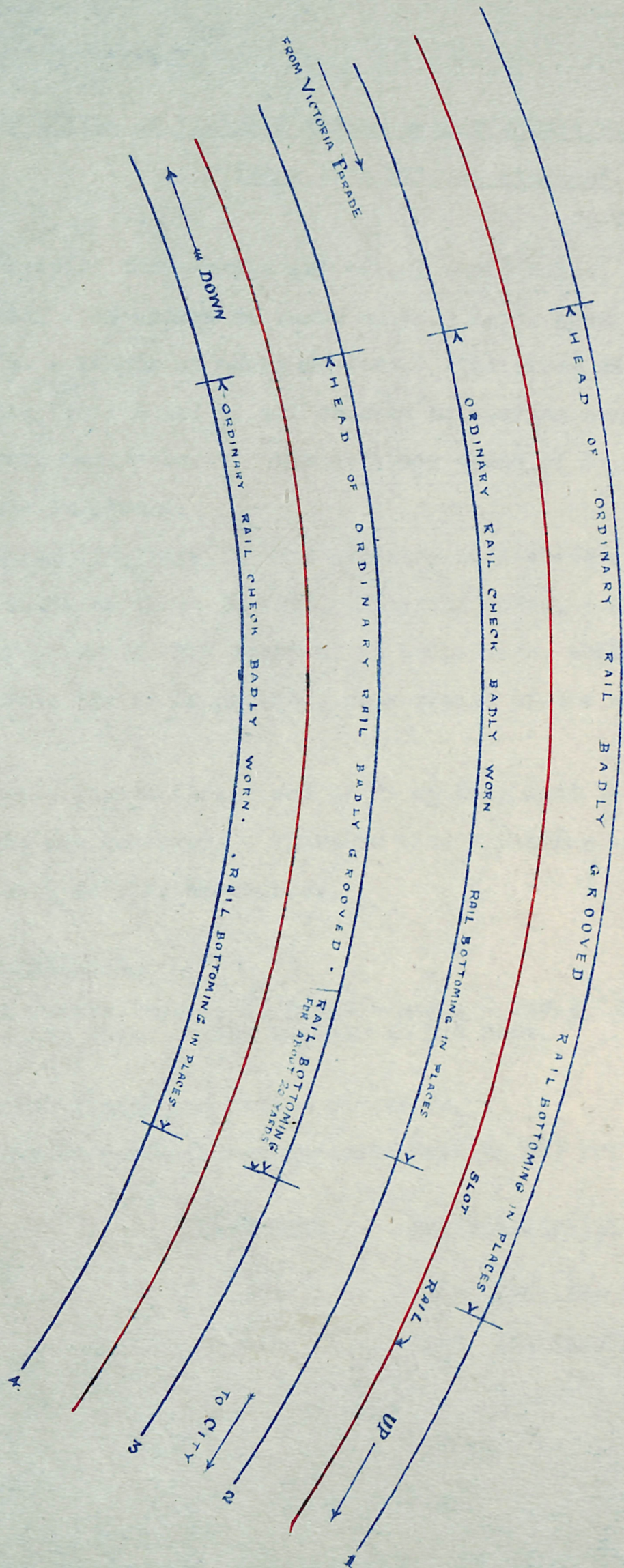
CURVE SPRING STREET. OPP: GREY ST

LINE 2. PLAN A.6.

GREY ST W.

GROUND OF PARLIAMENT HOUSE

GARDENS



CURVE · JUNCTION OF GISBORNE ST WITH VICTORIA PARADE.

LINE 2.

LINE 2.

DESCRIPTION A 7.

CURVE - JUNCTION of GISBORNE STREET with VICTORIA PARADE
(near Fire Brigade Station).

1. The Checks of Special Check-rails (of Nos. 1 and 3 Rails) are worn to varying amounts. In centre of Curve on No. 3 Rail, special check is badly worn for a length of about 54 feet. The sides of heads of opposite rails (Nos. 2 and 4) are grooved to varying amounts, as a result of the above check-wear. The ordinary check of No. 4 Rail is also badly worn in places.
2. Nos. 1 and 2 Rails (Up-Track). The ordinary rail-check of No. 1 straight rail for a length of about 30 feet, adjoining curve, (on South side, and nearly opposite Fire station) is badly worn, whilst the head of opposite rail (No. 2) is grooved, as a result of the above check-wear.
3. There are two wide joints ($3/16"$ and $3/4"$) on Nos. 1 and 2 rails, and these joints are hammered. There is also hammering of some of the other joints, to varying degrees.

DATES of CURVE RAIL RENEWALS.

Full Renewal both Tracks, Nos. 1, 2, 3 and 4 Rails - Mar. 31, 1913
Length of Curve - 123 feet Long Radius - 100 feet.

CLEARANCES taken between flange and bottom of groove.

The sets of Tests on Curved rails (taken opposite Pole No. 28) are as follows :-

	<u>Clearance</u>	<u>Super-Elevation</u>
No. 1 Rail	.250	
No. 2 "	.233	$3\frac{1}{2}"$ (Rolling Place)
No. 3 "	.345	
No. 4 "	.270	$1\frac{1}{2}"$ (Rolling Place)

Date of First Inspection - May 11th. 1916.

Date of Last Inspection - July 4th. 1916.

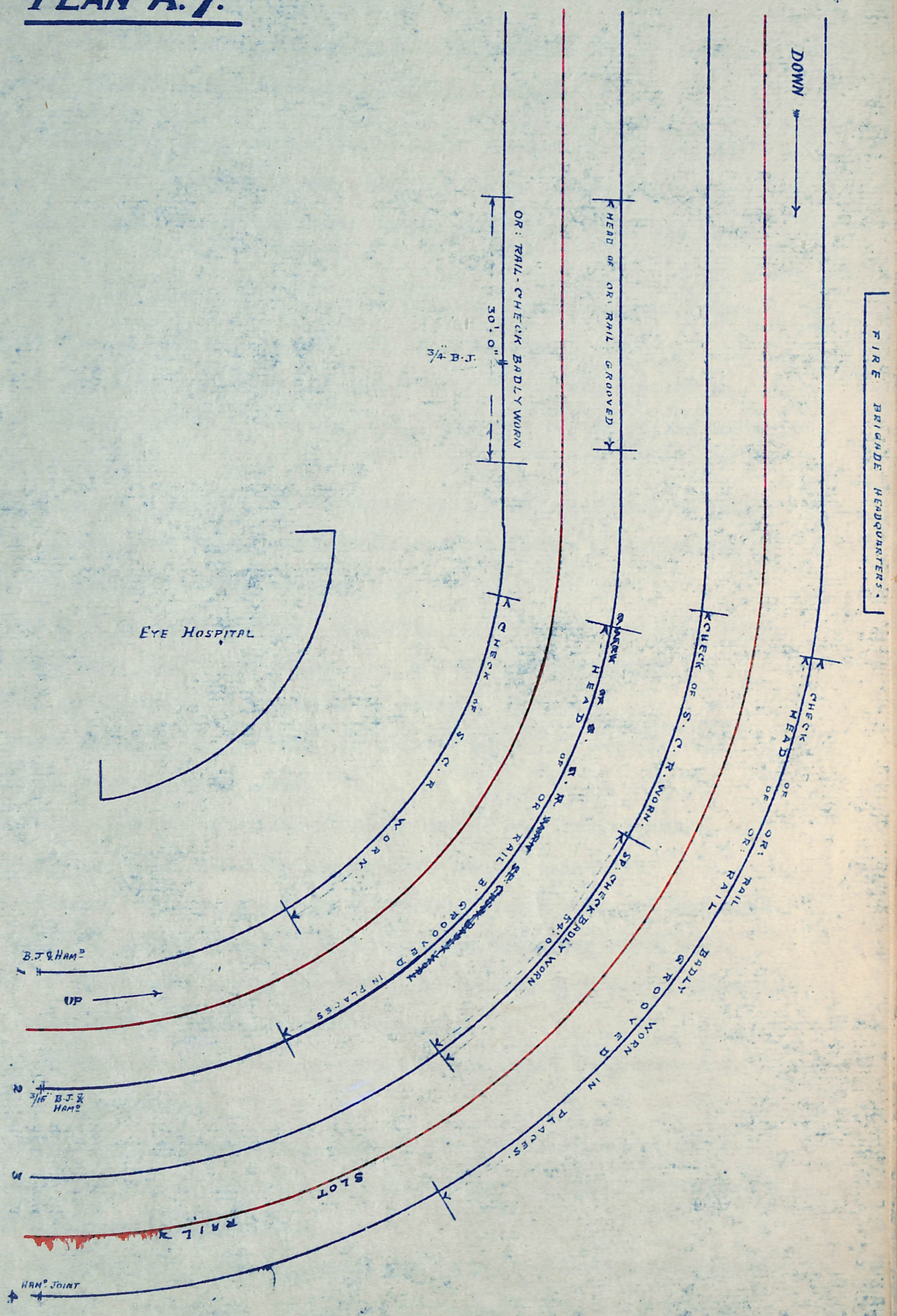
DOWN

FIRE BRIGADE HEADQUARTERS.

CURVE · JUNCTION OF GISBORNE ST WITH VICTORIA PARADE.

LINE 2.

PLAN A.7.



LINE 2 · PLAN B1.

SHUNTS (2) AT TERMINUS · VICTORIA PARADE

LINE 2.

DESCRIPTION B 1.

SHUNTS (2) AT TERMINUS - VICTORIA STREET

also DEVIATION near TERMINUS - VICTORIA STREET.

1. On the four (4) Inner Curves of the Dummy and Trailer Shunts, the Checks of Special Check Rails are worn, and in some cases badly so. The sides of heads of the two Inner Curves of Trailer Shunt are badly grooved.
An 8" length of check is broken and missing from Casting of Intersection of No. 3 Rail with curved rail of Dummy Shunt.
2. The sides of heads of three of the 4 Outer Curves are grooved to varying amounts, and in places very badly so, as a result of the above check wear.
3. NOS. 1, 2 and 3 RAILS. The ordinary Rail checks of straight rails, between Shunts, also Nos. 1 and 3 ordinary Rail Checks of Deviation, in places are worn to varying degrees.
A length of No. 1 rail (about 2½ yards) is bottoming, and rail tread is 60 Mils lower than wheel gauge. A length of No. 3 rail is bottoming in places for a length of 12 yards.
4. A short length of No. 3 rail, for about 4 yards, is pumping, and Fishplates are presumably loose.
5. The rails adjacent to Points of Dummy Shunt, and Trailer Shunt, on No. 4 Rail, are 3/16" and 1/8" respectively out of alignment.
6. The sides of heads of Nos. 2 and 4 slightly curved rails of Deviation are grooved to varying amounts, as a result of the above check wear.
7. 7 Four of the 6 heels are of loose fit and rocking, and one of these is higher than level of tread of Point-Casting.
There is also diagonal wear on Treads in two cases. Tongues are worn to varying amounts.
8. At the Crossing intersections, also at the intersections of slot-rails with tram rails, hammering is taking place to varying degrees, and in some cases it is considerable.
9. 9 of the Joints of Tram-rails, adjacent to rail-crossings and Points are wide, (varying from 1/4" to 3/8"), and in several cases are badly hammered. There is also hammering of some of the other joints, and

LINE 2 · PLAN B.1.

SHUNTS (2) AT TERMINUS · VICTORIA PARADE

LINE 2

DESCRIPTION B 1 (Cont.)

-2-

want of lineability of the tread surface.

10. GAUGE of Nos. 1 and 2 Rails is $1/4"$ too wide, and No. 2 Rail Check is worn.

11. PAVING BLOCKS on each side of pumping rails are loose, and Tarred surface is shattered.

CLEARANCES, between flange and bottom of groove, also SUPER-ELEVATIONS, taken May 10th. 1916.

The sets of tests are as follows :-

	On Curved Rails of Dummy Shunt.	On straight rails between Dummy Shunt & Trailer Shunt	On Slight Curve of Deviation.
	<u>Clearances</u>	<u>Clearances</u>	<u>Super-elevations</u>
No. 1 Rail (Inner)	.085"		.186"
No. 2 "	.015"	$3/8"$ (R)	.209"
No. 3 "	.250 (Inner)	.202"	.217"
No. 4 "	.295 (Outer)	.163" $1/4"$ (R)	.047"

	On Straight Rails 3 feet West of Points.	On Curved Rails of Trailer Shunt.
	<u>Clearances</u>	<u>Super-Elevations</u>
No. 1 Rail	0	.217 (Outer)
No. 2 "	.279	.155 (Inner)
No. 3 "	.015	0 (R)
No. 4 "	.250	

DATE First Inspected - May 2nd. 1916.

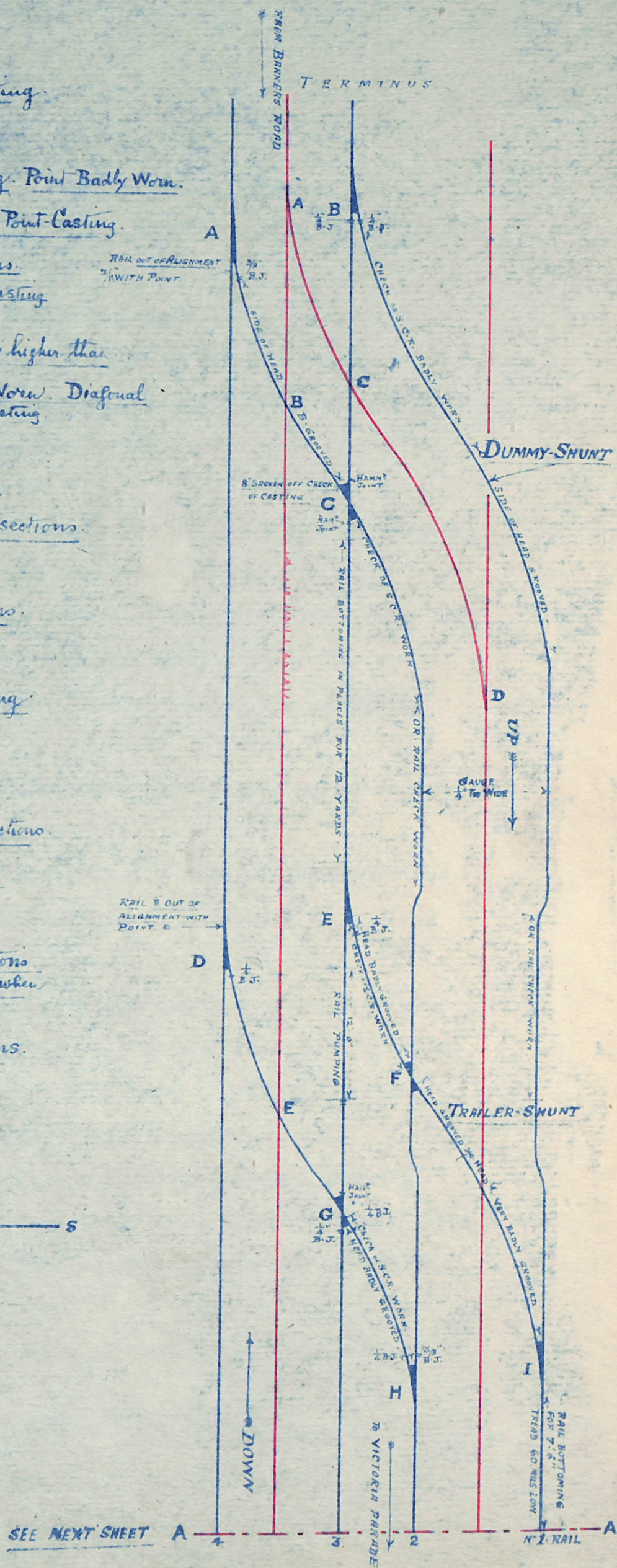
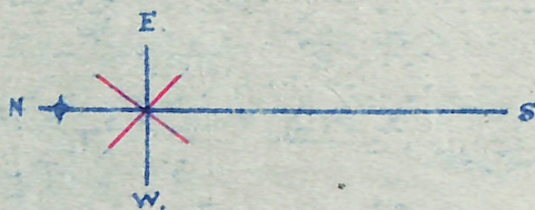
DATE Last Inspected - July 4th. 1916.

-A

LINE 2 · PLAN B.1.

SHUNTS (2) AT TERMINUS · VICTORIA PARADE

- A Heel loose Fit and Rocking.
Tongue Worn
- B Heel loose Fit and Rocking. Point Badly Worn.
Diagonal Grooving on Tread of Point-Casting.
- C Bad Hammering at Intersections.
8" length of Check of Point-Casting Broken and Missing.
- D Heel loose fit, and slightly higher than adjacent Tread. Tongue Worn. Diagonal Wear on Tread of Point-Casting.
- E Tongue Slightly Worn.
- F Bad Hammering at Intersections.
- G Hammering at Intersections.
- H Tongue Worn (slightly.)
- I Heel loose fit and Rocking.
Tongue Worn
- A
- B Bad Hammering at Intersections.
- C Hammering at Intersections.
- D
- E Bad Hammering at Intersections.
Slot-Rail loose and Moving when Cars pass over.
- F Hammering at Intersections.



TURN-IN & TURN-OUT TO

A. Tongue Slightly

Line 2.

Description B2.

DESCRIPTION B2.

VICTORIA STREET

"TURN-IN" and "TURN-OUT" to

the lengths of straight rails (Nos. 1 & 2) of Main Track for a length of about 11 yards, between "TURN-IN" and "TURN-OUT"

have their ordinary rail-checks worn to varying amounts.

1. The ordinary and Special Checks to the rails of "Turn-In" and "Turn-out" to Car Depot are worn to varying amounts, and the sides of Heads of opposite rail grooved, as a result of the above check wear. The check-rail to Turn-Out is ineffective in places.
2. Three of the four heels of Points are of loose fit and rocking Tongues are worn, to varying degrees.
3. A length of No. 1 Up-rail (adjacent to Point of "Turn-In") also a length of curved rail of "Turn-In" (adjacent to the same Point) are both pumping, and the fish-plates are presumably loose.
4. aving blocks adjacent to the abovenamed rails, are loose and parrd surface is shattered.
5. At the intersections of the Tram-rails also at intersections of slot-rails with Tram-rails there is hammering to varying degrees.
6. Five of the joints of Tram-rails, adjacent to the rail-crossings and Points, are wide, varying from $1/4"$ to $3/8"$ and, in several cases, are hammered. There is also hammering of some of the other joints, to varying degrees.
7. Nos. 1 & 2 Rails West of Points of Turn-Out from Tramcar Depot are bottoming for 2 feet and 2 feet 6 inches respectively CLEARANCES taken May 10th 1916 between flange and bottom of groove.

The Tests taken on Curved rails of Turn-In to Depot are as follows :-

	Clearance	Super-Elevation
No. 1 (inner)	.031	$1/4"$ (Rolling Place)
No. 2 (Outer)	.147	-

Date first Inspected - May 2nd 1916

Date last Inspected - July 4th 1916

T
R
A
M
C
A
R
D
E
P
O
T

LINE 2 · PLAN B.2 ·

TURN-IN & TURN-OUT TO

TRAMCAR DEPÔT · VICTORIA S.E.

LINE 2.

(continued)

DESCRIPTION B2.

The lengths of straight rails (Nos. 1, 2 & 4) of Main Track for a length of about 11 yards, between "Turn-In" and "Turn-Out" have their ordinary rail-checks worn to varying amounts.

Gauge between Nos. 1 and 2 Rails is $1/8"$ too wide.

Clearances taken May 10th 1916 at Grip-Match opposite Car-House are between flange and bottom of groove.

The Tests taken on straight rails are as follows :-

	<u>Clearance</u>	<u>Super-Elevation</u>
No.1 Rail	.217"	
No.2 Rail	.171"	$3/8"$ (Braking)
No.3 Rail	.132"	$3/4"$ (Rolling and Light Braking)
No.4 Rail	.031"	

Date First Inspected - May 2nd 1916

Date last Inspected - July 4th 1916.

TURN-IN & TURN-OUT TO
TRAMCAR DEPÔT - VICTORIA ST.



A. Tongue slightly worn.

B. Heel loose Fit, and Rocking.
Tongue Worn.

21

D. Hammering at Intersection

← ORDINARY RAIL CHECK WORN IN PLACES

ORDINARY RAIL (CHECK WORN IN PLACES)

GAUGE
1/8" TOO WIDE

ORDINARY RAIL CHECK WORN IN PLACES

E Nil

F. Heel loose Fit
and Rocking.
Tongue Worn.

G. Slight Hammering
at Intersections.

H Hammering of Intersections.

SLOT - RAIL

Down

TO VICTORIA PARADE
AND CITY

E

F

Lower 2a.
West Page

CURVE. VICTORIA STREET.

BETWEEN CAR DEPÔT & BURNLEY ST.

LINE 2. PLAN B.3.

LINE 2.

DESCRIPTION B 3.

VICTORIA STREET (EAST CURVE)

(Between Tramcar Depot and Corner of Burnley Street)

1. The Ordinary rail-checks of Nos. 1 and 3 Rails are worn to varying amounts. In the centres of curves checks are badly worn.
2. The sides of heads of ordinary rails are badly grooved in places, as a result of the above check-wear.
3. No. 4 rail (Down-Track) is bottoming in places.

DATES of CURVE RAIL RENEWALS.

Full Renewal both Tracks, Nos. 1, 2, 3 and 4 - February 3rd.1907.

Length of Curve - 79 feet.

Radius - 264 feet.

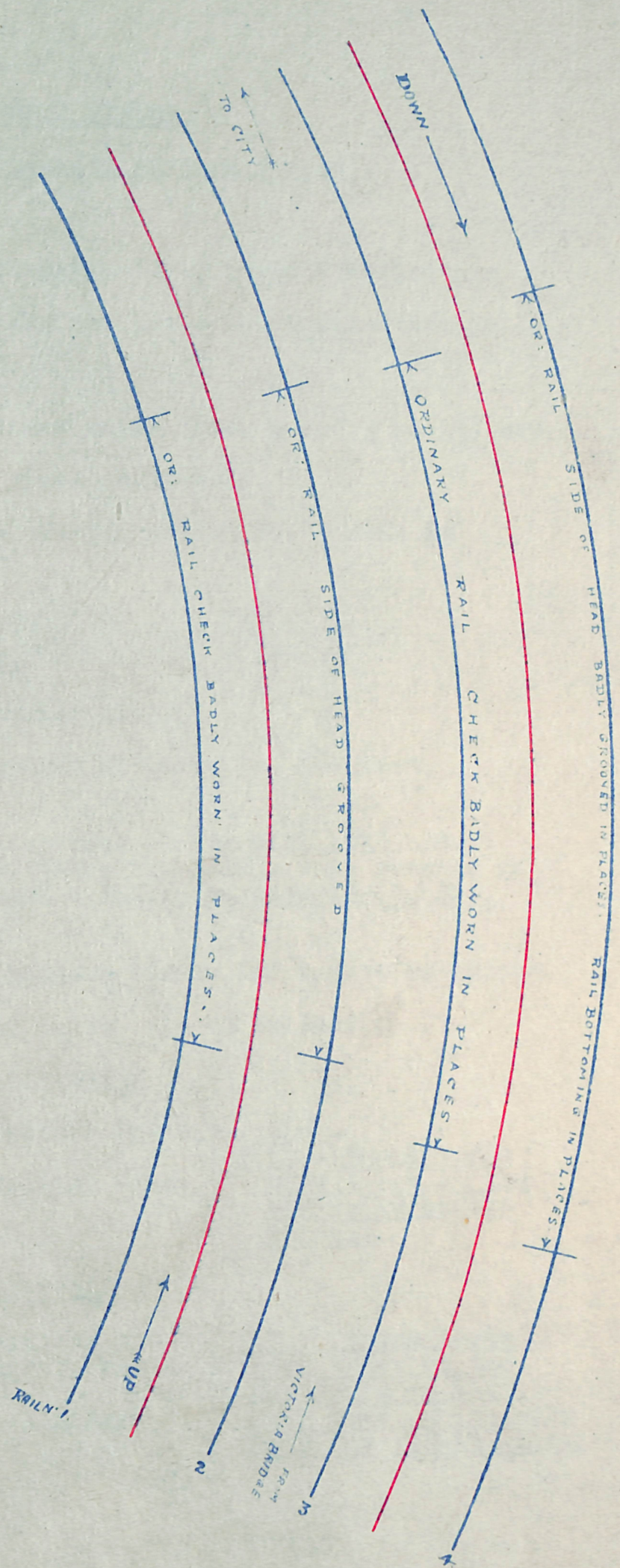
Date of First Inspection - May 2nd.1916.

Date of Last Inspection - July 4th.1916.

CURVE. VICTORIA STREET.

BETWEEN CAR DEPÔT & BURNLEY ST.

LINE 2.
PLAN B.3.



CURVE · VICTORIA STREET ·

OPPOSITE BURNLEY STREET ·

LINE 2.

DESCRIPTION B 4.

WEST CURVE in VICTORIA STREET.

(Opposite Burnley Street).

1. The Checks of Special Check-Rails (Nos. 2 and 4 Rails) are badly worn in places. These Checks are loose and ineffective in places.
2. The sides of heads of Ordinary rails (Nos. 1 and 3 rails) are badly grooved as a result of the above check-wear.
3. No. 1 Rail is bottoming in places, whilst No. 3 rail is almost bottoming.

DATES OF RENEWALS OF CURVED RAILS.

Nos. 1, 2, 3 and 4 Rails - November 1902.

Length of Curve - 80 feet. Radius of Curve - 264 feet.

NOTE. - Since Track was first inspected on May 11th. 1916, and above particulars noted, there has been a full renewal of both tracks (Nos. 1, 2, 3 and 4 rails) on June 18-19, 1916.

CLEARANCES taken 3rd. April 1916 between flange and bottom of groove.

The Sets of Tests, taken on curved rails, are as follows :-

	<u>Clearance</u>	<u>Super-Elevation</u>	
No. 1 Rail	0	$1\frac{3}{8}$ "	Rolling Place
No. 2 Rail	.225"	$\frac{1}{8}$ "	Rolling Place
No. 3 Rail	.062"	$1\frac{1}{4}$ "	Rolling Place
No. 4 Rail	.171"		
H.B. These tests were taken on the old Rails before Renewal.			
	<u>Clearance</u>	<u>Super-Elevation</u>	
No. 1 Rail	.326"	$1\frac{1}{8}$ "	Rolling and Light Braking
No. 2 Rail	.380"	$\frac{1}{8}$ "	(Rolling)
No. 3 Rail	.372"		
No. 4 Rail	.310"		
H.B. These tests were taken on the New Rails on 19th. July 1916, which were laid June 18-19, 1916.			

Date of First Inspection - May 11th., 1916.

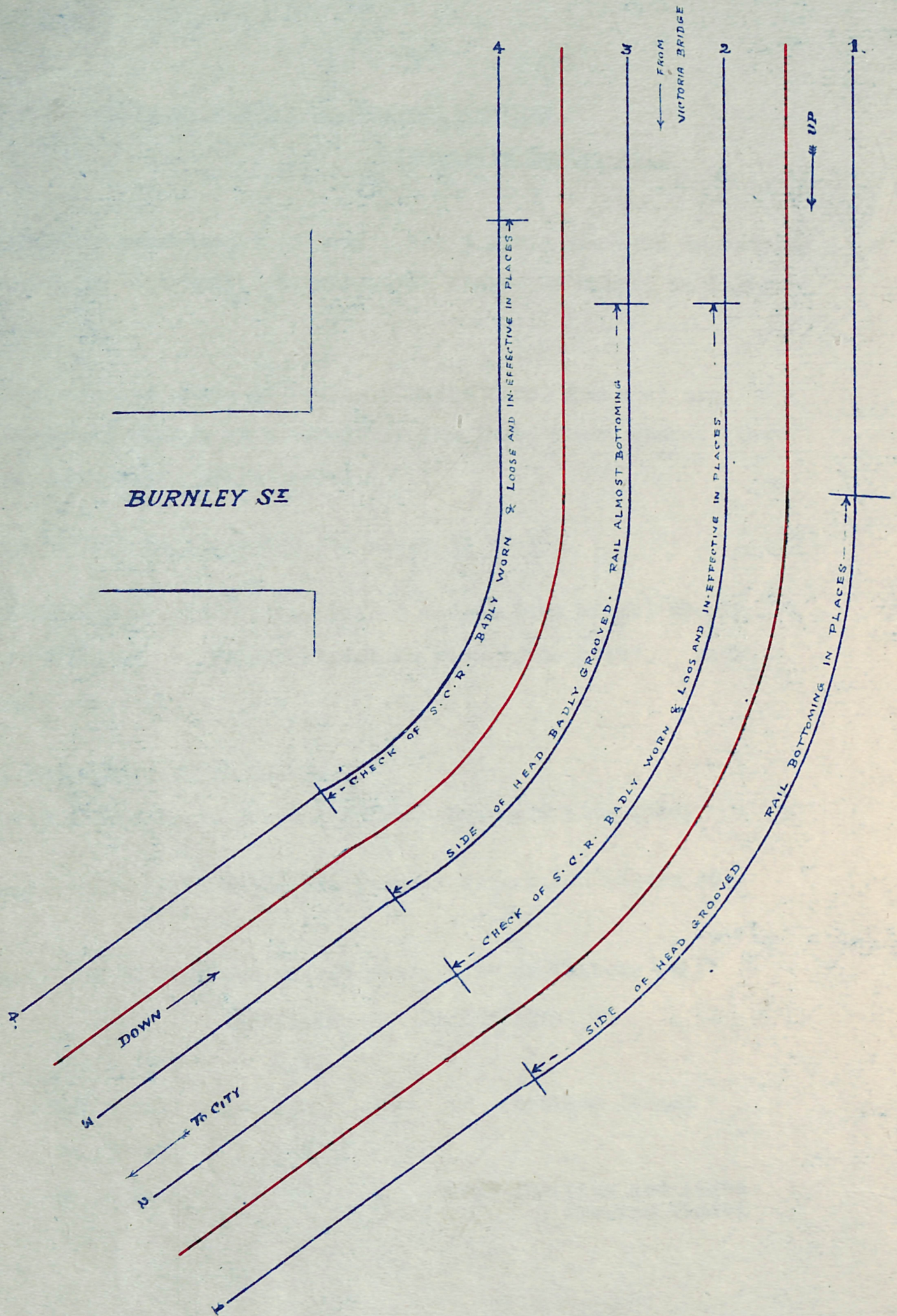
Date of Last Inspection - July 4th., 1916.

CURVE · VICTORIA STREET ·

OPPOSITE BURNLEY STREET ·

LINE 2.

PLAN B.4.



CURVE VICTORIA STREET

OPPOSITE HODDLE ST

LINE 2.

DESCRIPTION B5.

SLIGHT CURVE in VICTORIA STREET

(Opposite Hoddle St.)

1. Ordinary rail-checks of Nos. 1 and 3 Rails are worn to varying amounts, and on No.1 Rail, the check, in centre of curve, is badly worn.
2. The sides of Heads of Ordinary Rails (Nos. 2 and 4) are grooved badly in places as a result of the above check wear. The Treads of these rails are hammered.
3. No. 4 rail is bottoming for about 31 feet.
4. The gauge of Tram-rails, Nos. 3 and 4 (Down Track) nearly opposite N.W. Corner of Hoddle Street is wide up to $\frac{3}{16}$ ". Both rail-checks are worn.

DATES of RENEWAL OF CURVE RAILS.

Full Renewal, Nos. 1, 2, 3 and 4 Rails - December 12th.1906.

CLEARANCES taken April 14th.1916 between flange and bottom of Groove.

The Sets of Tests, taken on Curved rails, are as follows :-

	<u>Clearance</u>	<u>Super-Elevation</u>
No. 1 Rail	.031	
No. 2 Rail	.138	1" (Rolling Place)
No. 3 Rail	.171	
No. 4 Rail	0	$\frac{7}{8}$ " (Rolling and Light Braking Place)

Date First inspected - May 11th.1916.

Date Last Inspected - July 4th.1916.

CURVE VICTORIA STREET

LINE 2.
PLAN B.5.

OPPOSITE HODDLE ST

