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Monitoring Report

325 Deansgate

Baseline Survey

Prepared For

Assured-CMS

3 August 2023

	Name	Signature	Date
Created by:	C Tebb		03/08/23
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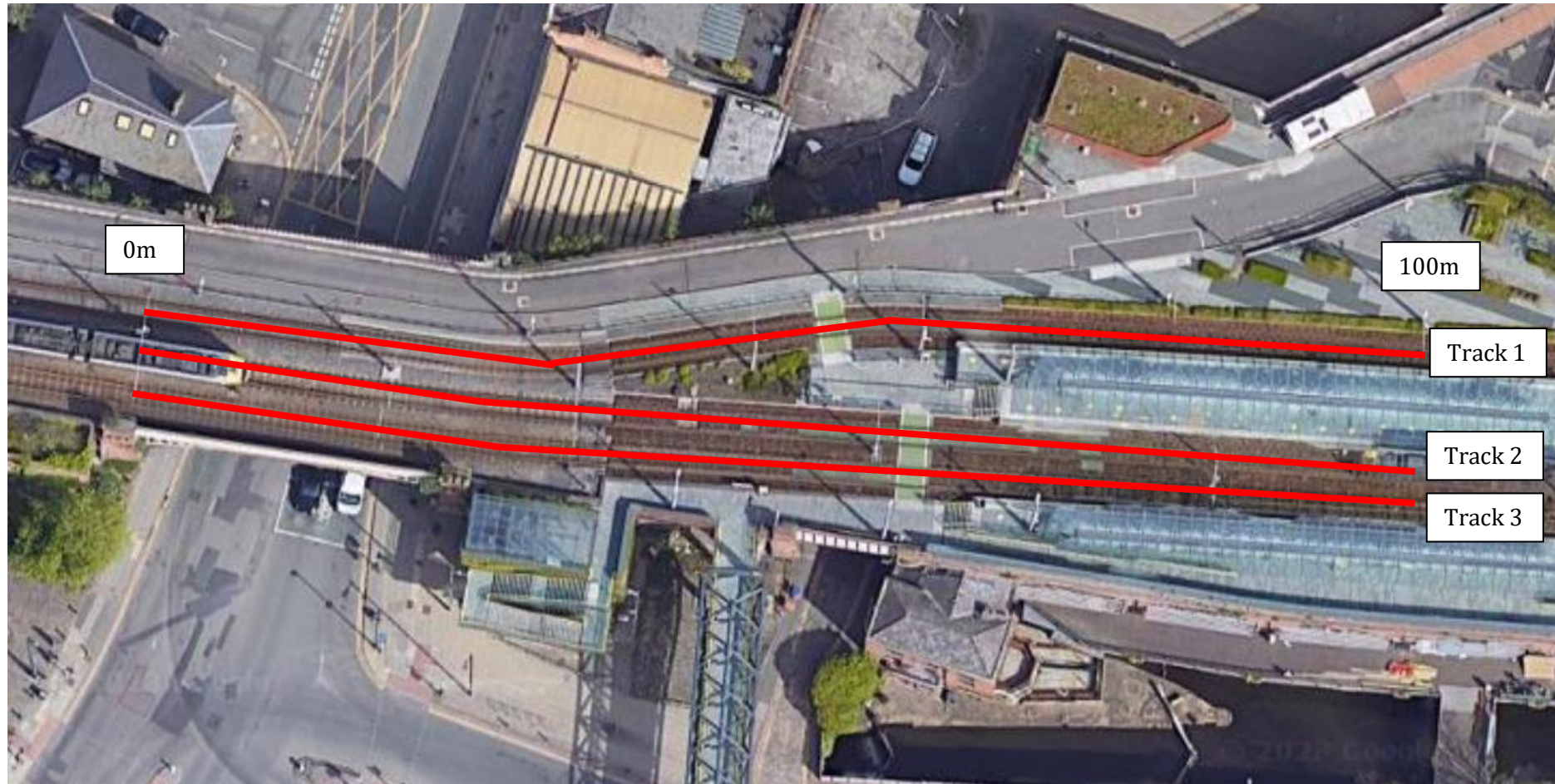
Revision Table

Revision	Details	Date
0	Issued	03/08/23

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1 Site Plan



2 Survey Data

Baseline data was recorded on 1st August 2023, below is a summary of that data. Following any subsequent surveys, changes in datapoints (deltas) will be shown instead.

The data is formatted as follows:

- X,Y,Z axis are the baseline points for the monitoring prism on top of the survey trolley, these values are arbitrary until a repeat survey is completed upon which a delta value can be associated to each.
- Gauge is the change from the nominal 1.435m gauge of the track in each location.
- Cant is the change in angle of the track in each location, measured in mm
- Dist is the reading from the odometer, and is the distance of each monitoring location from the zero point

2.1 Track 1

X	Y	Z	Gauge (mm)	Cant (mm)	Dist (m)
9.872	26.9756	-0.5791	0.0013	0.0311307	0.00
9.8937	24.981	-0.595	0.00097	0.0260377	2.00
9.9161	22.9797	-0.6052	0.00232	-0.0166158	4.01
9.9399	20.984	-0.6106	0.00234	-0.0529031	6.01
9.9629	18.9854	-0.6196	0.0014	0.0082124	8.01
9.9851	16.9864	-0.627	0.00242	0.0470462	10.01
10.0077	14.9853	-0.6335	0.00013	0.0387701	12.02
10.0283	12.989	-0.6405	-0.00096	-0.0000637	14.02
10.0474	10.9938	-0.6464	0.00024	-0.0369876	16.02
10.0722	8.9904	-0.6531	0.00168	-0.0115228	18.02
10.0974	6.9949	-0.6612	0.0008	0.0234913	20.02
10.1204	4.9997	-0.6694	0.00049	0.0037561	22.02
10.1407	3.0042	-0.6768	0.00161	-0.0930101	24.02
10.1682	0.9996	-0.6871	0.00115	-0.0503566	26.02
10.2243	-1.0151	-0.696	0.00326	0.072511	28.02
10.3467	-3.0344	-0.7017	0.00679	0.1196209	30.02
10.5015	-4.5973	-0.7057	0.01029	0.0954293	31.57
10.8643	-7.1081	-0.7129	0.01131	0.1298068	34.08
11.249	-9.0999	-0.7184	0.00999	0.1240772	36.08
11.7164	-11.077	-0.7242	0.00684	0.1017955	38.08
12.2574	-13.0176	-0.7307	0.00344	0.0744209	40.08
12.8496	-14.9409	-0.7347	0.004	0.0756941	42.08
13.4546	-16.8446	-0.7394	0.00402	0.0438631	44.08
14.0634	-18.7476	-0.7434	0.00148	0.0604152	46.08
14.6713	-20.6571	-0.746	0.00008	0.0438631	48.09
15.2736	-22.5533	-0.7497	-0.00045	0.0521392	50.08
15.8765	-24.4577	-0.754	-0.00073	0.0534124	52.09
16.4757	-26.3655	-0.7577	0.00059	-0.0223454	54.09
17.0479	-28.2674	-0.7614	0.00344	-0.0726383	56.09
17.5574	-30.1816	-0.7634	0.00971	-0.0070665	58.10
17.9831	-32.103	-0.766	0.00679	0.0031194	60.09
18.3304	-34.0431	-0.7678	0.00648	-0.0649989	62.10
18.6045	-36.002	-0.7689	0.00679	-0.1095623	64.09
18.8242	-37.9689	-0.7692	0.00486	-0.0987397	66.09
19.0272	-39.9578	-0.77	0.00364	-0.0465369	68.09
19.2307	-41.9403	-0.7719	0.00191	-0.00452	70.09
19.4313	-43.9274	-0.7726	0.00102	0.0183983	72.09
19.626	-45.9122	-0.7727	0.00057	-0.0108862	74.09
19.8164	-47.9008	-0.7724	0.00031	-0.1095623	76.09
20.0094	-49.892	-0.7775	-0.00068	-0.0032468	78.09
20.1995	-51.8837	-0.7806	-0.0003	0.013942	80.09
20.3873	-53.8742	-0.782	0.00021	0.0642349	82.10
20.573	-55.8608	-0.7821	-0.00007	0.099249	84.10
20.7569	-57.8519	-0.7834	-0.00002	0.0470462	86.10
20.9389	-59.8447	-0.7863	-0.00063	0.0050293	88.10
21.1192	-61.8385	-0.7886	-0.00063	0.0298575	90.11
21.2992	-63.8328	-0.79	-0.00063	0.0604152	92.11
21.4752	-65.8259	-0.7897	-0.00042	0.0215814	94.12
21.6513	-67.8236	-0.7929	-0.00014	-0.0000637	96.12
21.8214	-69.8121	-0.7953	0.0008	-0.0541763	98.12
21.9901	-71.8	-0.7972	0.00082	-0.0891904	100.12

2.2 Track 2

X	Y	Z	Gauge (mm)	Cant (mm)	Dist (m)
6.1035	27.1271	-0.5843	-0.00588	0.1124589	0.00
6.0946	25.1262	-0.5947	-0.00583	0.1194617	2.01
6.0844	23.1222	-0.6009	-0.00698	0.0074166	4.01
6.077	21.1191	-0.6076	-0.00672	-0.0053158	6.02
6.0701	19.1132	-0.6132	-0.00555	-0.1224538	8.02
6.0666	17.1109	-0.6201	-0.00439	-0.1530116	10.02
6.0716	15.1049	-0.6291	-0.00383	0.0010504	12.03
6.0831	13.1068	-0.6393	-0.00373	0.0538899	14.02
6.1065	11.1029	-0.6503	-0.00324	0.0239687	16.03
6.1424	9.0999	-0.6565	-0.00395	0.0176025	18.03
6.1867	7.0989	-0.661	-0.00543	0.0545265	20.03
6.2418	5.0934	-0.6689	-0.00464	0.1391969	22.04
6.3089	3.0887	-0.677	-0.0023	0.1614786	24.04
6.3909	1.0912	-0.6858	-0.00058	0.2308702	26.04
6.4867	-0.916	-0.692	-0.00068	0.2493321	28.04
6.5909	-2.9157	-0.694	-0.00185	0.1487462	30.04
6.7111	-4.9274	-0.7043	-0.00022	0.2225941	32.05
6.8518	-6.9183	-0.7121	0.00102	0.1990392	34.04
7.0028	-8.9188	-0.7186	-0.00182	0.2276871	36.05
7.1575	-10.9134	-0.726	-0.00337	0.2028589	38.06
7.3162	-12.9127	-0.7353	-0.0036	0.1455631	40.06
7.7168	-17.6835	-0.7552	-0.00505	0.0908138	42.06
7.8908	-19.7082	-0.7636	-0.00677	0.1799406	44.07
8.0333	-21.4043	-0.7702	-0.00682	0.1837603	46.07
8.1975	-23.3922	-0.7834	-0.007	0.1258279	48.07
8.3634	-25.3829	-0.7928	-0.00741	0.1379237	50.08
8.5279	-27.3714	-0.7914	-0.00685	0.0698054	52.08
8.6959	-29.3738	-0.7897	-0.00583	0.0449772	54.08
8.8644	-31.3619	-0.7895	-0.00583	0.0449772	56.09
9.0331	-33.3558	-0.7881	-0.00761	0.078718	58.09
9.2001	-35.347	-0.7853	-0.00576	0.1073659	60.09
9.3665	-37.3407	-0.7845	-0.00555	0.1035462	62.09
9.5308	-39.3252	-0.7831	-0.00111	0.1194617	64.09
9.6977	-41.3281	-0.7823	0.00107	0.1767575	66.09
9.8636	-43.318	-0.782	-0.00164	0.200949	68.09
10.0295	-45.3098	-0.7853	0.00148	0.2576082	70.09
10.1958	-47.2997	-0.7869	0.00397	0.341642	72.09
10.3594	-49.2963	-0.7886	0.00471	0.3664702	74.09
10.5202	-51.2795	-0.7901	0.00511	0.3448251	76.08
10.6797	-53.272	-0.7886	0.0041	0.2703406	78.08
10.8386	-55.2662	-0.7855	0.00303	0.1996758	80.09
10.9981	-57.2573	-0.7847	0.00407	0.2079518	82.08
11.1607	-59.2533	-0.7847	0.00379	0.1863068	84.08
11.3256	-61.2537	-0.7845	0.00001	0.123918	86.09
11.4911	-63.2422	-0.7868	-0.00147	0.1888533	88.09
11.6556	-65.2413	-0.7904	0.00034	0.2875293	90.09
11.8178	-67.2251	-0.7946	0.00156	0.3422786	92.08
12.1268	-71.0944	-0.7995	0.00128	0.3129941	94.08
12.2895	-73.126	-0.8002	0.0046	0.2665209	96.08
12.4513	-75.1245	-0.8005	0.00384	0.2792533	98.08
12.6148	-77.1139	-0.8033	0.00242	0.3651969	100.08

2.3 Track 3

X	Y	Z	Gauge (mm)	Cant (mm)	Dist (m)
2.6946	27.1056	-0.5825	-0.00675	0.0376242	0.00
2.6875	25.107	-0.5862	-0.00477	0.1159285	2.01
2.6797	23.1053	-0.5899	-0.00096	0.2317933	4.01
2.6755	21.103	-0.5985	-0.00009	0.3998609	6.01
2.6743	19.1079	-0.6029	-0.00073	0.5551961	8.00
2.6757	17.1145	-0.605	0.00118	0.7315398	10.00
2.6819	15.1075	-0.6085	0.00529	0.9378046	12.00
2.6994	13.1035	-0.6116	0.00438	1.2465652	14.01
2.7264	11.1086	-0.6136	0.00504	1.4636525	16.00
2.7637	9.1085	-0.6164	0.00265	1.6037089	18.00
2.8136	7.1071	-0.6179	0.00087	1.7896018	20.00
2.8738	5.1079	-0.6195	0.00135	2.0035061	22.00
2.9436	3.1021	-0.6231	0.00196	2.1970385	24.00
3.0241	1.101	-0.6283	0.00029	2.0786272	26.00
3.1172	-0.9076	-0.6369	-0.00078	1.8634497	28.00
3.2227	-2.9017	-0.6438	0.00011	1.6871061	30.00
3.3416	-4.9031	-0.6535	-0.00055	1.5655117	32.00
3.4721	-6.8994	-0.6648	-0.00464	1.3465145	34.00
3.6111	-8.8997	-0.6805	-0.00606	1.0899567	36.00
3.756	-10.8911	-0.6965	-0.00484	0.7531849	38.00
3.9081	-12.8884	-0.7103	-0.00342	0.4692524	40.00
4.0656	-14.876	-0.7258	-0.00307	0.2744468	42.00
4.2326	-16.8912	-0.741	-0.00555	0.2375228	44.00
4.399	-18.8734	-0.7519	-0.00601	0.1738609	45.99
4.5683	-20.8729	-0.7611	-0.0053	0.0745482	48.00
4.7358	-22.8608	-0.7696	-0.00507	0.0560862	50.00
4.9	-24.8463	-0.7715	-0.00576	0.0159792	52.00
5.065	-26.847	-0.7727	-0.00601	-0.0304941	54.00
5.2312	-28.8398	-0.7765	-0.00693	-0.0133054	56.00
5.3951	-30.8276	-0.7772	-0.00695	0.0051566	58.00
5.5586	-32.8182	-0.7741	-0.00576	0.036351	60.00
5.7207	-34.8133	-0.7745	-0.00616	0.0605425	62.00
5.8813	-36.8084	-0.7782	-0.00629	-0.0947927	64.00
6.0419	-38.8054	-0.7808	-0.00172	-0.0896997	66.01
6.1991	-40.7989	-0.7806	0.00199	-0.1673673	68.02
6.3567	-42.7983	-0.7826	0.00382	-0.2660434	70.02
6.5199	-44.7929	-0.7855	-0.00098	-0.3048772	72.02
6.6831	-46.7858	-0.7852	-0.00182	-0.2832321	74.03
6.847	-48.7766	-0.7833	-0.00276	-0.2157504	76.02
7.0091	-50.7629	-0.7828	-0.00121	-0.0884265	78.02
7.1711	-52.7599	-0.7814	-0.00147	-0.0521392	80.02
7.3338	-54.7486	-0.7795	-0.00261	-0.0801504	82.02
7.4955	-56.7413	-0.7799	-0.00197	-0.1100716	84.02
7.6571	-58.7379	-0.782	-0.00126	-0.1049786	86.03
7.819	-60.7353	-0.7853	-0.00134	-0.1024321	88.03
7.9814	-62.7222	-0.7909	0.0008	-0.045773	90.03
8.1444	-64.714	-0.795	-0.00047	-0.0489561	92.03
8.3125	-66.7976	-0.7997	-0.0008	-0.0795138	94.03
8.4727	-68.7855	-0.8059	-0.00068	-0.1138913	96.03
8.6353	-70.7748	-0.8102	-0.00075	-0.1724603	98.03
8.7998	-72.7714	-0.8157	-0.00055	-0.2418519	100.03