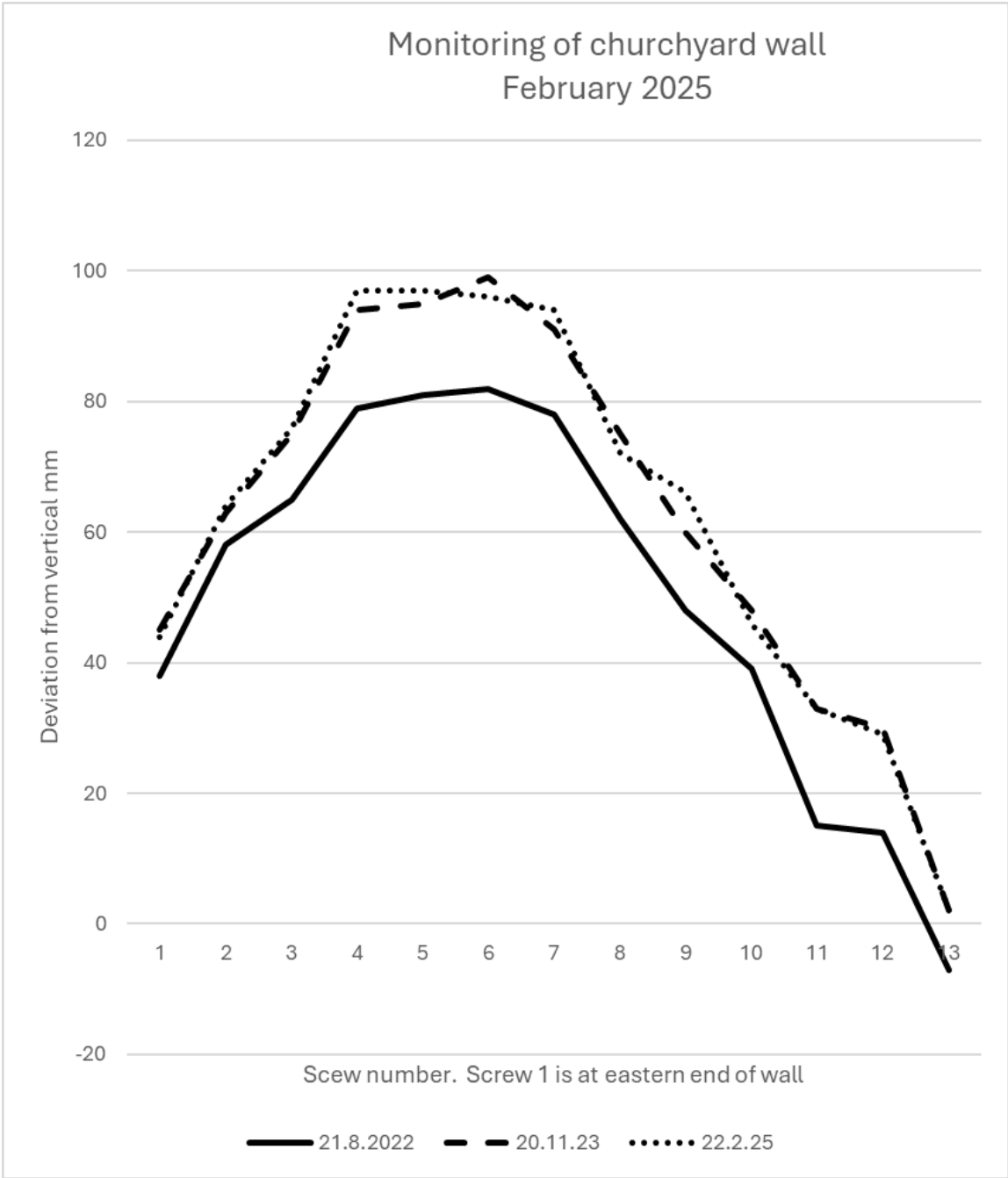


Monitoring of churchyard wall August 2018 to February 2025

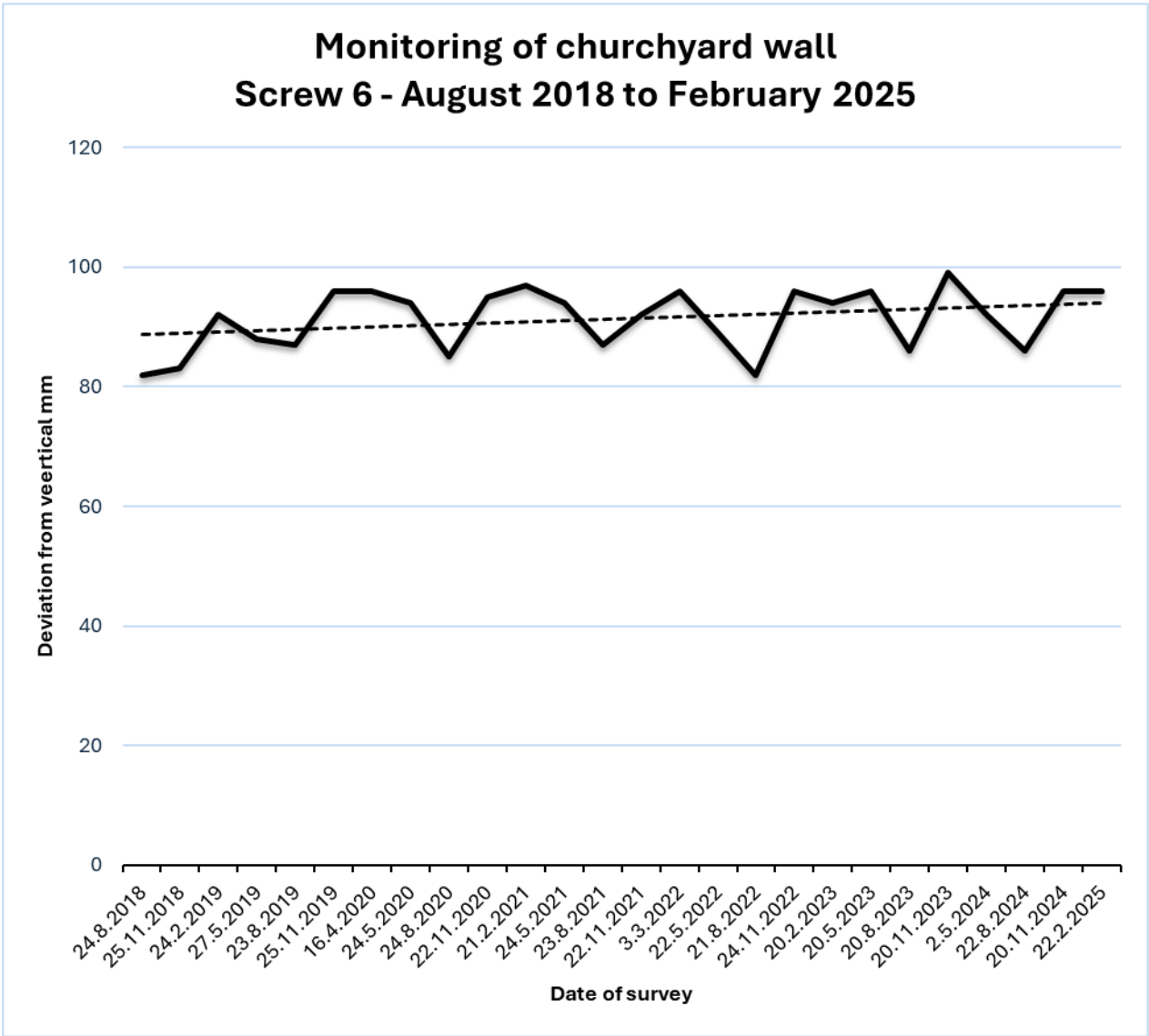
The eastern half of the churchyard wall has a noticeable bulge, and leans over towards the road. The amount of the overhang has been measured quarterly since August 2018. Thirteen screws have been inserted into bricks near the top of the wall at one metre intervals, and the amount of overhang measured using a plumb bob and ruler.

Monitoring was carried out on 22nd February 2025, and the measurements are summarised on the chart below.



The smallest overhang was measured on 21st August 2022 after a very dry summer; the largest overhang was measured on 20th November 2023 after a very wet Autumn. The overhang measured on 22nd February after a very wet autumn and winter was very similar to the previous maximum.

Screw number six is at the centre of the bulge, and has shown the largest deflection (99mm on 20th November 2023). The chart below shows all measurements of the deflection at screw six.



This chart shows the deflection increasing each winter and decreasing each summer. The trendline on the chart above has a positive gradient, from 88.5mm in 2018 to 94mm in 2025, which suggests that the wall is being pushed over by about 1mm each year.

There is a tall Austrian pine tree growing in the churchyard near the bulge in the wall and is probably contributing to the pressure on the wall. This tree shows no signs of disease and appears to be windfirm and should be retained. Some soil was removed from behind the wall in November 2023, and no significant roots were found behind the wall at that time.

The movement in the wall is resulting in mortar spalling out from the joints in the brickwork: this is most apparent in the area of the bulge, and will be weakening the wall.

The wall does not appear to be at risk of collapse in the near future, but will need to be rebuilt at some point. It is recommended that monitoring be continued.

All measurements to date are tabulated below.

Screw number	24.8.2018	25.11.2018	24.2.2019	27.5.2019	23.8.2019
1	39	44	40	42	44
2	55	54	62	52	59
3	64	65	72	68	68
4	78	82	88	85	85
5	79	80	89	84	86
6	82	83	92	88	87
7	75	77	83	79	84
8	67	62	67	67	65
9	50	44	56	53	53
10	33	28	39	36	37
11	17	15	25	27	23
12	17	13	25	25	20
13	-3	-2	0	0	-1

Screw number	25.11.2019	16.4.2020	24.5.2020	24.8.2020	22.11.2020
1	48	47	45	40	44
2	65	64	63	54	61
3	72	71	73	65	71
4	92	90	88	80	91
5	94	91	88	83	92
6	96	96	94	85	95
7	91	90	89	80	84
8	77	72	78	66	70
9	61	61	60	57	54
10	47	45	43	36	41
11	30	30	30	21	27
12	26	27	26	19	24
13	3	3	-2	-4	0

Screw number	21.2.2021	24.5.2021	23.8.2021	22.11.2021	3.3.2022
1	42	44	38	43	43
2	65	61	57	61	63
3	77	74	69	71	73
4	90	91	85	90	91
5	95	92	85	93	92
6	97	94	87	92	96
7	93	88	83	87	92
8	74	78	70	69	76
9	60	62	53	56	62
10	44	46	37	41	41
11	30	31	23	24	29
12	30	26	20	22	28
13	4	2	-2	1	3

Screw number	22.5.2022	21.8.2022	24.11.2022	20.2.2023	20.5.2023
1	41	38	47	45	42
2	60	58	57	63	63
3	69	65	67	72	74
4	86	79	91	91	91
5	88	81	93	91	93
6	89	82	96	94	96
7	84	78	82	92	90
8	67	62	69	73	74
9	55	48	57	61	60
10	39	39	42	45	48
11	25	15	27	31	33
12	23	14	20	25	32
13	1	-7	0	2	3

Screw number	20.8.2023	20.11.2023	2.5.2024	22.8.2024	20.11.2024
1	42	45	43	40	43
2	60	63	62	58	63
3	67	75	75	67	75
4	85	94	91	85	92
5	86	95	89	86	94
6	86	99	92	86	96
7	82	91	88	80	89
8	67	75	76	69	75
9	53	60	67	49	63
10	38	48	49	37	46
11	20	33	34	24	30
12	18	30	31	20	27
13	-4	2	5	-5	0

Screw number	22.2.2025
1	44
2	64
3	76
4	97
5	97
6	96
7	94
8	72
9	66
10	46
11	33
12	29
13	2