

Plans on Water, Drains, Pipes etc by William Williamson

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Explanation

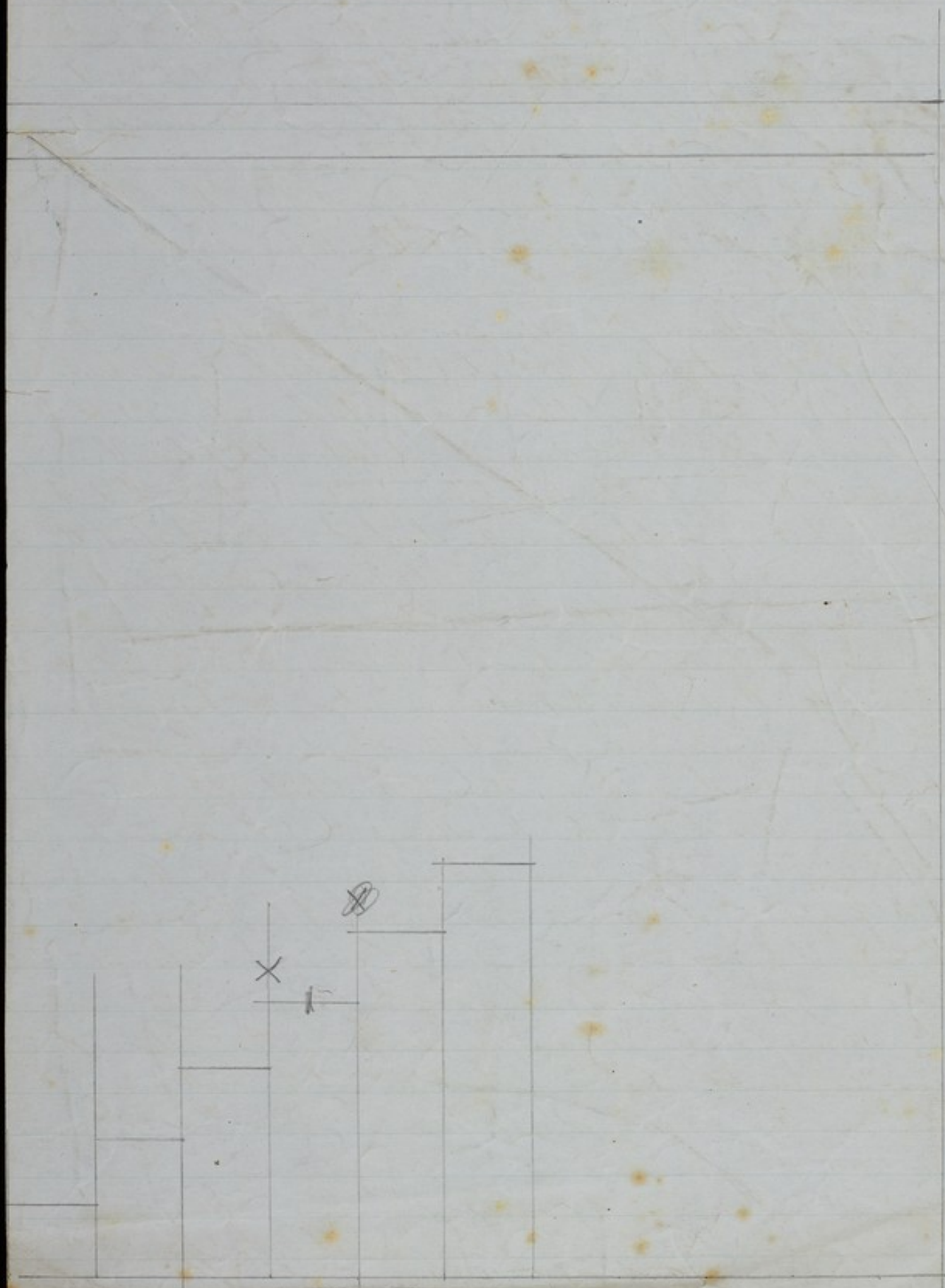
To remove the 2 sinks from the water closets in the South Eastern Wing and place them in the closets in the same Wing marked N^o 1 and N^o 2 in the Section *A* because the sinks as at present situated would be a long way to have to convey the circulating pipes and it would be very convenient to supply them with hot water if placed as proposed. Besides I think the sinks as at present situated are inconvenient ~~to~~^{they} interfere so with each water closet.

Then after lowering the expansion cistern just underneath where it is at present situated (though by the bye I should have liked to have had it placed over the closet marked N^o 1 if it is possible to place it but I am afraid it could not be placed there without taking it entirely to pieces and I am not sure that it can be, if it can be placed over the closet it would not spoil the appearance of the stair case which I am afraid it will if it is lowered only;) but however suppose we say it is lowered just underneath its present situation it will be seen that the pipe first proceeds from the boiler to the expansion cistern then proceeds from the expansion cistern down through the Closet N^o 1 after ~~passing~~ branching upon the sink and through the Closet N^o 2 after again branching upon that sink; then through the bath room and branch into the bath then under the ground floor passing at the back and underneath the steps as so pass under and branch up to the 2^d sinks then to the next bath room and pass along the arch in the Superintendent's cellar and pass under the 1st gallery corridor branching to the various baths, sinks, & basins as far as the Surgery - then return the same way until we arrive at the basins at the North side of the Men's new Wing galleries supply them and then return to the boiler -

N.B. Since making the sketch I see there will require a little variation from it in carrying out the detail but I thought it can perhaps be understood sufficiently to understand the manner of working

26th of 1st mo 1859

W W



2/1/10/50

Explanation

First to lower the expansion cistern immediately underneath where it is at present though I am afraid that it will spoil the appearance of the staircase there is a closet next to the staircase which would have been a good place for an expansion cistern without spoiling the appearance of any thing but unless the present cistern can be taken to pieces it could not be refixed in that situation though it would be an excellent situation.

Then the ^{circulating} pipe will rise from the boiler to the expansion cistern see Section A then down through the 2 closets marked 1 and 2 then into the bath room feed the bath. Then go into the basement just under and keep just at the back of the steps go along the basement ceiling feed the 2 sinks as it passes to the next bath room then to go along ^{under} the arch in the passage leading to the Superintendent's washhouse. Then pass under the 1st gallery across the centre and go as far as the surgery supplying the shoe room sink as it passes then supply the 4th gallery and the surgery so return and feed 1st gallery kitchen & bath room and the centre kitchen and bath room returning along the cellar passage arch and then into the men's basement gallery cross over as it passes to feed the basins in the mens galleries so pass into the boiler, the supply pipe entering just before it so returns to the boiler.

The wash basin in the Superintendent's room could be supplied with both hot & cold water as also the basin in the Secretary's room.

I propose that the 2 sinks in the waterclosets in the South Eastern Wing be removed into the closets marked 1 and 2 on Section A.

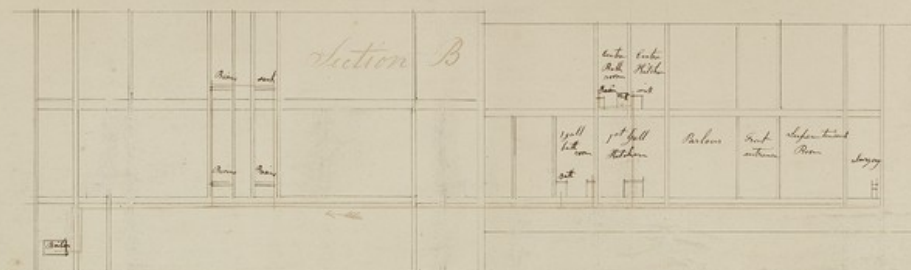
It is probable that the carrying out will require some little variation from the plan proposed but the sketches shew sufficiently what is intended

28th of 1st mo 1859.

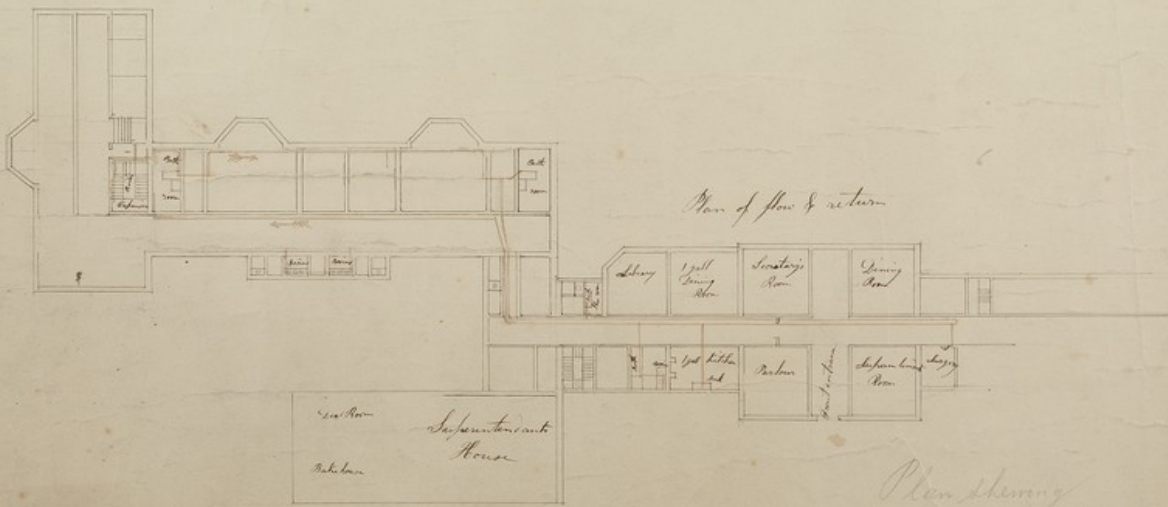
W W



Section A showing the flow on the South side



Section B showing the return on the North side



Plan showing hot water circulation Main side



A Plan of the Drains at the Retreat.

Drain A. is the drainage of the Retreat, and runs from the
 B. B. Trench, and is a
 C. C. Trench, and is a
 Drain from the Retreat, and is a
 Drain from the Retreat, and is a



The drainage having been altered at various times, several of the drains have been altered, some of them broken up, some of them are still shown on the existing plans, and thought it best to arrange a complete plan, as a record of the drains at present in use, partly from the old plans, partly from memory and partly from measurements.

A. B. is a brick canal, running from the corner of the Hospital, and is a drain, passing through the main canal, under the bridge, and through the garden, down to the sea.

C. B. is a brick canal, running from the large cistern, and passes with a curve, under the drain, A, and joins them at the large padlock.

D. B. is a brick canal, which used to come from the cistern, but when the new cistern was built, the upper part was broken up, so now it only takes in the surface drains from the cistern. It joins them at the large padlock, but is not shown as to the exact place, as shown from memory.

E. B. are flat brick drains, all the rest are fine clay pipe drains, except some are pipes, which are part of the main drain, which is shown with the plan.

The square shown, is where the new fields can be got at, to show them, and there are little hills or mounds, opposite each, with the numbers marked thereon.

N. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

N. 9. is the drainage bath, which empties as shown into the large cistern drain. It is fed from a well. The location of the surface drains on the main road has just been laid down, as a plan, it is unknown. The new plan shows as shown with green.

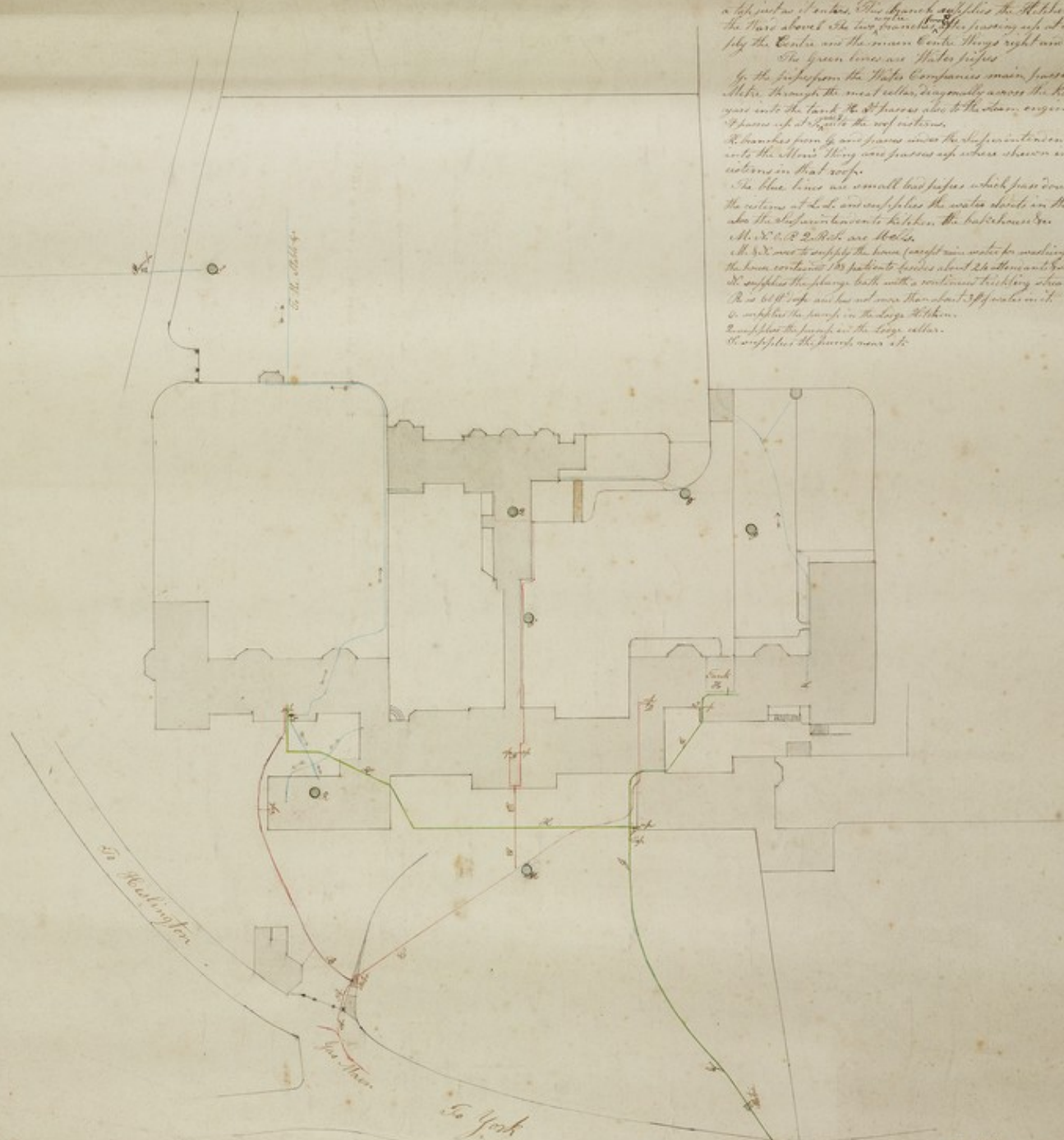
W. Williams

21st Nov 1865

EST-2/1/10/5(2)

A Plan of the Gas and Water Pipes at the Retreat.

also showing the Position of the Wells which are near the Builders sign



The red lines are Gas pipes
 A. the pipe from the Gas Company runs from the Mill
 to the main line to the East. There is a large
 joint under the Mill. The pipe runs to the
 main line. There is a branch from B. to the
 main line. Another branch from B. passes into
 the bathhouse and supplies both the bathhouse and the
 the main line. There is a large joint under
 the bathhouse. Another branch from the main line
 or rather composition pipes pass up and supply the whole
 of the Eastern wing.
 C. passes from the Mill to the South Western corner of the
 to D. where there are 3 pipes, one for the Bathhouse, one for the
 house, and one for the main line. The bathhouse pipe
 runs to the front entrance and again branches with a tap at
 each place, under the pipe. The right hand branch passes down
 to the large water tank at the corner of the large yard.
 There is another branch from C. passes into the waiting room with
 a tap just as it enters. This branch supplies the kitchen and
 the three above the two branches of the passing up at D. supply
 the Centre and the main Centre things right and left.

The green lines are Water pipes
 G. the pipe from the Water Company runs from the
 Mill through the main cellar diagonally across the kitchen
 yard into the tank. H. passes also to the main entrance.
 I. passes up at right angles to the roof entrance.
 K. branches from G. and passes under the shop into the house
 into the main thing and passes up where shown into the
 entrance in that roof.
 The blue lines are small branch pipes which pass down from
 the entrance at each end and supply the water closets in the main
 also the shop and the bathhouse. The bathhouse has
 M. & N. & O. & P. are Wells.
 M. & N. are to supply the house (except rain water for washing) until
 the house contains 100 patients besides about 20 attendants & servants.
 O. supplies the large bath with a continuous trickling stream.
 P. is 60 ft deep and has not more than about 3 ft of water in it.
 Q. supplies the pump in the large cellar.
 R. supplies the pump near the

Wm. H. H. H.
 5th of 12th mo 1865.

RET 2/10/55

REV. 2/1/01/6 (4)

[Faint handwritten notes at the bottom of the page]

A Plan of the Drains at the Retreat
on the Men's side of the house
Scale $\frac{1}{12}$ of an inch to a foot

Wm Williamson
17th of 6th mo 1868

