The Paddock Information Collection – The most comprehensive source of information about Paddock

Discover Paddock special tour guide (Bill Ridgeway)

Introduction
For convenience for each location there is a series of instructions in the form '**Go to**', '**Look**' and '**Notice**'. This special tour includes in effect most of the information gathered over many years about the design, construction and use of Paddock. Full information (documents, images, maps and plans, publications, recollections) is included in *The Paddock Information Collection* (www.bunkers.org.uk/paddock.htm). There are many questions outstanding the answer to some of which is lost in the mists of time. Gathering information is ongoing. Please let me know of any additional information (bill@bunkers.org.uk).

Each area (e.g. room, corridor etc.) has been allocated a Location Reference (LR) for easy identification. (Some vertical contiguous spaces are, for convenience, grouped together.) Please see floor plans
- LR0nn Sub Basement (Appendix 2)
- LR1nn Basement (Appendix 1)
- LR2nn Surface (no floor plan)
- LRSnn Stairwell (Appendix 1 and Appendix 2)
- LRXnn External (no floor plan)

Wherever possible a reference (over 330) to a representative image is included. These and other images showing views at various times are available in *The Paddock Information Collection* – Part C - Images by location (subject order). Where an image is not available is indicated by C/na.

Here are a few do's and don'ts for those on a physical tour
- access to the Estate (beyond the main gate) and Paddock is by permission of Network Homes and is out of bounds
- warning tape (indicating an area is out of bounds) should be respected at all times
- visitors must wear a hard hat (available at the entrance) at all times whilst in Paddock as there are several places (not only the low entrance / exit door) where a head injury may be sustained
- please wear stout shoes as there are several places which may have about 1 inch (3 centimetres) of standing water
- a good torch is advisable – some rooms are only partially lit or unlit
- please feel free to take as many photos as you want
- please feel free to ask questions as we go along and I will do my best to answer them.

It is strongly suggested the following information be downloaded and read (for background information) before starting this tour
- Part A – Index, Collection guidelines, Contributors, Copyright statement
  Object 001 Index of objects
- Part B - Documents (date order)
- Part C - Images by location (subject order)
- Part D – Maps and plans (date order)
- Part E - Publications (subject order)
  Object 110 Paddock in the 20th Century
  Object 111 Identifying the true location of the Cabinet Room and the Map Room - a discussion paper
  Object 112 Timeline, Miscellaneous information and Myths
  Object 142 Physical features and usage
  Object 192 Understanding the water ingress problem - a discussion paper
  Object 342 Paddock in the 21st Century
- Part F – Recollections (subject order)

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Background

Guides have a limited amount of time on tours of Paddock to tell of its history, design, construction, equipping and various uses over time whilst interpreting what is to be seen. Indeed some features and artefacts go unnoticed (not least because they are 'hidden'). It would be nice to be able to have a much longer and detailed tour. The *Discover Paddock Special Tour* (which includes over 264 points of possible interest) fills these shortcomings. This Guide is intended to complement a physical tour, an armchair tour using images or a 'virtual image tour' (hopefully to be available soon from the Internet).

Part 1 – Outside

We will meet outside the present-day entrance to Paddock (LR251) (C/2007). Let's try to imagine the scene here on 3 September 1939 (over 80 years ago). The transition to war period has ended and World War Two has started. The bunker (codenamed Paddock) is fully operational and available for use when required.

The Dollis Hill Estate is enclosed by a high boundary brick wall. Behind the boundary wall stands the surface level building of Paddock. This is approximately 192 feet (58.72 metres), Width 58 feet (17.68 metres). (This is between the electricity sub-station at the north end to a gap between two houses today.)

The original entrance to Paddock is from within a single storey building immediately on the other side of the boundary wall. Opposite (where there is now a covered reservoir) are allotments beyond which is St Andrews Hospital. Looking northward (towards the North Circular Road) houses extended up to the boundary wall on this side and to approximately the same extent on the opposite side. Now lets return to the present day.

Look across the road. **Notice** the mound across the road (C/2202). This is a covered underground reservoir operated by Thames Water. The reservoir became operational on 28 January 2002 (about 9 months after the first visit of Paddock by Subterranea Britannica on 19 April 2001). **Go along Brook Road (towards the North Circular Road) to a service road to the Dollis Hill Estate** (C/358). **Notice** a high building to the right (C/358) which (except for an extension at the far end) was built in 1951. **Notice** an electricity sub-station (C/358). This was built at the development of and to supply the Dollis Hill Estate. The northern extent of Paddock (surface and underground) is approximately half-way between the present day gate to the Dollis Hill Estate and the electricity sub-station. An emergency exit from Paddock was also near the boundary wall here. The Paddock surface building was truncated (possibly in 1978) to the near side of the service road to the Dollis Hill Estate. **Go along Brook Road (towards the North Circular Road)** to where the boundary wall turns away from the road. **Look** through the grill in the boundary wall and the gate onto the road. **Notice** a gun loop (gun embrasure) (LRX03) (C/1353, C/1355). It is presumed the gun loop (gun embrasure) was constructed in 1939 at the time of the construction of Paddock to give a means of protecting the power supply against attack. **Notice** (again) the electricity sub station (C/na). **Notice** it seems to have been built in two stages – suggested by slightly different designs although the bricks seem to be from the same source. **Notice** the side wall (C/na) has been incorporated into the boundary wall presumably built at the same time.

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Turn around and go along Brook Road (away from the North Circular Road) and stop just before the service road to the Dollis Hill Estate (LRX03). **Look down**. Notice in the pavement a BT manhole cover (C/1768). This gives access to a deep cable chamber which it is presumed to be the point at which a connection was made between Paddock and the GPO network. Paddock was connected to both Colindale telephone exchange and Willesden telephone exchange to give resilience.

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Go along Brooke Road (away for the North Circular Road), pass our start point, cross Flowers Close to the entrance gates to the Dollis Hill Estate. **Look** at the gate. **Notice** the gates (LRX05) (C/249) which was the original entrance to the Post Office Research Station estate. **Look** left. **Notice** the guard house (C/250). We would have to show our security pass here to gain entry (B/295). **Look** ahead. **Notice** the large building (C/249). Paddock together with the main building (Building No. 1 but now known as Chartwell Court) the main gates and the guardhouse are the only surviving structures from the Post Office Research Station. The area beyond these gates is private property and visitors should have permission from Network Homes to proceed.

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Go through the gate and follow the driveway (out of bounds)**. L**ook left. **Notice** the boundary wall (C/2149).

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Go to the end of the roadway (out of bounds)**. Look** right. **Notice** the pond (LRX05) (C/260). This is one of two ponds which formed part of the farm which occupied the area before being developed for the Post Office Research Station.

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Turn back and go to the portico of the main building (LRX05) (out of bounds) (C/254**). Look** up. **Notice** on the faces of the portico the inscriptions 'TO STRIVE TO SEEK TO FIND' (C/254), 'POST OFFICE RESEARCH STATION' (C/255) and 'RESEARCH IS THE DOOR TO TOMORROW' (C/256). **Look** at the wall to the right of the door. **Notice a** plaque identifying this as being 'Building 1' (C/257) on the estate. **Notice** also a plaque recognising the proximity of 'Churchill's bunker' (C/1835).

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Go into the entrance lobby of Chartwell Court (LRX05) (out of bounds)**. Notice** a number of images of the Post Office Research Station in construction and use.

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Go to the main gate and turn left and go down the hill. **Turn left and go along Flowers Close** (LRX05) (C/369). This road is dedicated to Tommy Flowers – the main instigator of the Colossus computer.

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Go to the end and turn right (LRX05). **Look** over the wall. **Notice** part of he boundary wall of the Post Office Research Station (C/2240). **Notice** the ground level of the Estate is now level with the top of the wall.

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Turn around. Return to where the road turns left (LRX05). **Look over the fence beside Chartwell Court.** This will give another view of the main building and a now decorative pond which is the remains of two ponds (C/1867) which formed part of the farm which occupied the area before being developed by the Post Office. The other pond was situated in what is now the covered reservoir opposite the main gates (C/na). **Notice** the new houses which replace what was part of the Post Office Research Station estate (C/na).

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Go towards Brook Road until (near the junction) there is a parking area (on the left) (LR252)**. Look** over the fence. **Notice** the rear of the Paddock emergency exit. This is set in a modern brick cladding of the original wall of Paddock. I have (with permission) seen the other side and can confirm the modern brick cladding continues to the other side (C/0502).

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Go to Brook Road and turn left towards the starting point until there is a gap between two newly constructed houses (LR252). Look into this gap. **Notice** a metal door. This is approximately the southern extent of Paddock and of the surface building and the site of our emergency exit (C/094, C/2168).

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Go to the entrance of Paddock (LR251) (C/281). This is not the original entrance. Standing here when Paddock was built you would be facing a high brick security wall. Paddock was accessed from within the Surface building. This single level building originally extended from the northern to the southern extremity of Paddock. The northern part was truncated (in about 1978) on a line approximately along the northern edge of the present Paddock main entrance to provide a second access to the estate. The remainder of the Surface building (except for the present two access points) was demolished in about 1997.

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Part 2 – From the entrance to the Basement

Go down the steps into Paddock (LR251) (C/385). **Beware** of the steps, the metal bar across the low doorway and the final step into Paddock. **Notice** the 'bunker aroma'. The original outer brick wall was clad with modern brick when the estate was developed (C/2007). **Look** at the doorway. **Notice** the thickness of the steel rod reinforced concrete (C/2206). It is presumed the walls would be thicker at the lower levels. **Look** to the left. **Notice** the equipment (C/2010) which was originally installed after Network Homes acquired ownership Paddock in 1997. Of the bank of five switches the left four are always in the opposite position to the fifth one. The main switch is permanently on to provide power for the pumps. Some of the equipment was replaced in April 2016 and the switch at the extreme right is permanently on to provide power for a 250 watt he heater designed to prevent condensation forming on the electrical equipment (C/2010, C/2011). **Look forward**. **Notice** the cabinet in front of the now blocked original doorway which was located within the Surface building (C/2005). **Look** to the right. **Notice** two water tanks (labelled 'A' and 'B') (C/2008). The capacity of the water tanks is unknown but I would guess it is grossly more than sufficient to supply two taps in the kitchen (a lot of cups of tea) and top up the water cooled generator – especially as a lock-down would be for only a short period.. There were no showers, toilets or decontamination provision below ground level. **Look** through the small hole in the wall **(**C/1871). **Notice** a stop-cock (C/1871). Surprisingly especially after all the years of non use the stop-cock turns perfectly. Whether this was on the feed to isolate the water tank from the supply or the outflow to isolate the tank from Paddock is unknown. **Look** to the left-hand side wall of the staircase. **Notice** a ledge (C/1887).

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Go down the steps to the intermediate landing (LRS79). **Look** at the left-hand wall. **Notice** part of the 'fault line' (between two stages of construction) through which water ingresses (C/1325). **Look** up. **Notice** the support for the water tanks (C/1877)

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Go to the bottom of the staircase (LR160). **Look** up. **Notice** a continuation of the 'fault line' (C/2067). Water flows into this area and as far as may ascertained from there into the kitchen and then into the Sub Basement – about which more later.

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Go to the room to the side of the steps (LR131) (out of bounds). **Look** at the right-hand side wall. **Notice** two missing bricks (C/2066). These give a very limited view of the void under the staircase (LR159) (C/1681, C/1682, C/1685). It is unknown why this area was not utilised.

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Go to the next area (LR162). **Beware** of the final step. This is an air-lock which originally had two gas-tight doors. **Look** to your front. **Notice** the remains of a gas-tight door (C/1387). **Notice** the door includes a spy hole. An image (C/215) shows a gas-tight door with a spy hole was hung on the inner side of this air-lock and it is assumed this is the door which hung in this position. **Look** at the wall to your front. **Notice** a sign 'FLOOR 27' (C/1914). **Look** at the doorway behind you**. Notice** a gas-tight door frame (C/1385). **Look** at the door frame. **Notice** also the remains of pintles (hinges) of the gas-tight door and recess for dogs (pawls) to ensure closure along the length of the door (C/na).

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Go to the doorway (LR161). **Look** at the wall on the left. **Notice** on the wall a sign pointing to 'FLOOR 28' (C/1554). **Notice** the remains of an asbestos fire blanket holder (C/1554). The dangers of asbestos were unknown at the time. **Notice** also electrical conduit, fuse boxes and fuse links (C/2284). Electrical wiring was more substantial than it is today. **Look** up. **Notice** beads of condensation on the air conditioning ducting.

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Go to the main corridor (LR163). **Beware** of the final step. Here we normally go through the 'health and safety' briefing. **Look** in both directions along the main corridor. **Notice** the full length (192 feet, 58.72 metres) and through the doorway (nearly) opposite to see the full width (58 feet, 17.68 metres) of Paddock at this level (C/na, C/na). **Notice** the walls are partly painted red C/2247). The reason for this is unknown.

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Go to the first doorway on the left (LR132) (out of bounds). **Look** up. **Notice** the stalactites (calcite straws) (C/1776) – an especially interesting display when illuminated by a powerful torch. **Look down. Notice** the stalagmites (C/na).

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Go to the next room on the left (LR133) (out of bounds)**. Look** to the corner at the far right-hand side. **Notice** the air conditioning ducting descending from the Surface and goes into the next room (C/1579). There are two anomalies with this ducting. Firstly we do not know with what it was connected at the Surface and secondly water (from an unknown source) now ingresses Paddock through this ducting. Water ingresses the ducting and flows into the air conditioning plant room next door. Look at the corridor wall. **Notice** a GPO distribution point (DP) (C/2036).

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Go to the room on the other side of the corridor (LR116) (out of bounds)**. Look** at the wall to the left. **Notice** a thermocouple sensor linked to the adjacent room (LR117) (C/2034). **Look** at the door frame. **Notice** a bell push button (C/na). The purpose of this is unknown. The door here was at one time a 'cottage type' half-door.

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Go to and enter the next room on the left (LR134). This is the Air Conditioning Plant Room (air chilling and dehumidifying). With a complement of about 200 people there would have been no need for heating in Paddock but there would have been a need to remove heat and humidity produced by all those bodies. Most (not all) of the plant and equipment and their use can be identified. **Look** left. **Notice** a gas-tight door (C/1916). The original location of this gas-tight door is unknown. **Look** to the right of the conditioning unit. **Notice** a control unit (C/1303). There is no further information as to the manufacture or function of the control unit. **Look** to the right of the control unit. **Notice** an air conditioning unit (manufactured by Carrier Engineering Co Ltd) (C/1303). This is basically a heat exchange unit. Air conditioning ducting comes through the wall from the next room, into the air conditioning unit and there is further air ducting to the roof slab. It is unknown either to where the ducting goes at the Surface or how warm air is vented to atmosphere. There is no apparent physical connection between the heat exchange and the air conditioning ducting at this level. It is presumed cooled air went into the Surface. Water ingressing through the air conditioning ducting falls into the heat exchange unit (but would not be part of the process of the removal of heat) and puddles on the floor. **Look** inside the air conditioning unit (C/1299). **Notice** the heat exchange coils (but ignore the water). **Look** at the rear wall. **Notice** three compressors (manufactured by J & E Hall Ltd of Dartford, Kent) (C/2072, C/2076, C/2078). **Notice** a compressor control box (C/2082). **Look** to the rear wall. **Notice** a flexible joint between two air conditioning ducts (C/2084). **Look** at the wall parallel with the corridor. **Notice** a gas-tight door (C/1916). **Notice** five conduits to LR055 (C/2090).

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Go to the room to the rear of the Air Conditioning Plant Room (LR136). **Notice** a ground dewatering well-point and a ground dewatering well pump (C/1903). **Look** left. **Notice** shelves (C/2075). **Look** up. **Notice** a hoisting eye (C/2074).

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Go to the main corridor (LR164) **and on to the next room** (LR135) (out of bounds). **Look** at the left-hand wall. **Notice** a metal bracket (C/2085). The purpose of this is unknown.

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Go to the main corridor (LR164). **Look** left. **Notice** a sign on the wall (C/1900)**.** This was a direction to the adjacent 'emergency exit'. **Look** at the wall to the left of the door opposite**. Notice** a grill covering a vent duct (C/1901). This is an exception as vent ducts are normally incorporated as part of a gas-tight door. **Look** down. **Notice** the duck boards (C/2032). These cover water ingressing from the Air Conditioning Plant Room (LR136) and the main electrical intake room ((LR121).

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Go to the small room beyond the doorway opposite (LR165). This is an air-lock which originally had two gas-tight doors. **Look** at the other side of the wall. **Notice** a vent duct (C/1902). This is an exception as vent ducts are normally incorporated as part of a gas-tight door. . **Look** at the door frame. **Notice** also the remains of pintles (hinges) of the gas-tight door and recess for dogs (pawls) to ensure closure along the length of the door (C/2218).

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Go to the room beyond (LR121). This is the main electrical intake. **Look** along the left-hand wall. **Notice** two round boxes (C/2086). These are nearly full with an oil substance. It is not known what type of oil this is or why there should be so much of it here. **Look** at the far wall. **Notice** the electricity supply switchgear (C/1402). **Notice** the fuse boxes (C/1402). **Notice** the three electricity meters (C/1402). **Notice** the orange covered Pyrotenax (fire resistant) cable (C/1402) connected to the 'non essential' fuse box - the other end of which is in LR127 and LR103. **Notice** a piece of equipment (C/0799) – the purpose of which has not yet been determined. **Look** right. **Notice** the identification of the various air ducts (left to right) 'SUB B INLET', 'SUB B FAN INLET', 'EXTRACT', EN- EXTRACT', B FAN INLET' and 'B INLET' (C/2023, C/2024, C/2025). These would have taken fresh air to the air filtration plant and foul air to ventilation shaft. **Look** to the immediate right. **Notice** the helical (spiral) staircase (C/na). We use this as an emergency exit.

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Go to the stairwell (LRS83, LRS84). **Go up the helical (spiral) staircase**. **Look** to the outside of the helical (spiral) staircase. **Notice** a ledge (C/2020). **Look** at the door at the top of the helical (spiral) staircase. **Notice** a door frame for an armoured door (C/2406, C/2408). This is the only example of an original doorway to the outside. This now gives out to a garden of a house.

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Return to the main corridor (LR164). **Turn left. Look** down on the left-hand side. **Notice** a conduit leading to the Sub Basement (C/2366). The conduit is 12 feet 4 inches (3.75 meters) away from the end wall of the corridor. Please make a note of the position of this conduit relative to the wall beside it and the wall marking the end of the corridor (fire-fighting equipment). We will return to this later. It is unknown whether this was part of the original design or inserted as part of the Post Office Research Station. **Look** at the floor slab. The water comes from an ingress through the air conditioning ducting in the room beyond the helical (spiral) staircase (LR121) mixed with an ingress in the Air Conditioning Plant Room (LR134). The water is (largely) cleared away before open days.

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Go to the next doorway on the left (LR119) (out of bounds). **Look** towards the rear of the room. **Notice** the remains of a door. **Notice** a sign '5 (black on white)' (C/na). **Notice** also a sign '5 (white on black)' (C/1915). It is presumed one is of CWR occupation origin and one of GPO occupation origin. **Look** at the left-hand wall. **Notice** a coat hook (C/na).

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Go forward and turn left and to the room opposite (LR117). This is the Air Filtration Plant Room. **Look to the far wall. Notice** two air filtration units made by Carrier Engineering Co Ltd (London) (C/1194, C/1896). The purpose of these units was to take out any pollutants (including gas) from the air before it entered the air conditioning and circulation system. It is presumed only one unit would be in service at a time to provide a spare to cover a breakdown or servicing such as replacing filters. **Look** up. **Notice** a baffle in the air conditioning trunking (C/1898). **Look** to the right-hand wall. **Notice** open bladed circuit breaker switches (C/1174). These would be unacceptable today. **Look** further to the right. **Notice** a thermometer linked to via thermocouple to the adjacent room (LR116) (C/1173).

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Go to the man corridor (LR164). **Look** at the wall to the left. **Notice** an interesting mould patter (C/1589). **Notice** a door frame for an armoured door (C/2029, C/2030).

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Part 3 – To the Sub Basement

Go to the stairwell (LRS81, LRS82)**. Go to the helical (spiral) staircase. Look** at the staircase. **Notice** this is the only anti-clockwise staircase in Paddock**. Look** at the wall. **Notice** the four cables (C/1544). The purpose of this cabling is unknown.

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Go down the helical (spiral) staircase and into LR027 / LR118. (This location has been allocated a Location Reference in both the Sub Basement and Basement as it is a vertical contiguous space.) **Look** at the wall. **Notice** the air conditioning trunking (C/1558). There is a point of water ingress from between the wall and the air conditioning trunking (C/2227). **Notice** a ledge (C/2088). **Beware** of the final two steps.

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Go approximately half way along this small corridor (LR056). This corridor (as with all of the Sub Basement) would have been lined. **Look** at the roof slab. **Notice** a small pipe (with a drip tray) going across the corridor (C/1937). This pipe would have taken diesel oil from a storage tank on the Surface to the fuel day tank in the generator room. **Look** at the roof slab. **Notice** the conduit (C/1937). This leads to the Basement (LR164). At the Basement this conduit was 12 feet 4 inches (3.75 meters) from the end (south) wall of Paddock. This demonstrates the difference in the horizontal dimensions of the two levels of Paddock. The Basement extends further than the Sub Basement and the corridors are off-set.

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Go to where the corridor turns left (LR055). Above here used to be a sign 'EMERGENCY EXIT' (C/279). **Look** to the right. **Notice** a sump (LR028) (C/1570). All subterranean structures are prone to water ingressing so there is a need to collect this water and pump it to the outside world. The original pumps would have pumped water along a metal pipe (high up on the wall) to a point near to this side of the main staircase from whence the flow has not been traced. The flow is now in the black plastic pipe along the wall to the other (north) sump. This is a little concerning because if the north pump fails water would flow along the floor slab and around again and eventually this pump may overheat and also fail. **Look at the corner. Notice** a water tap (C/1570). It is not known why this would have been necessary. **Look** at the wall outside LR026. **Notice** an alarm bell (C/2059). **Look** to the left. **Notice** a 'tide mark' at about 16 inches (61cm) (C/na). This marks the depth of the water at the time of the first visit by members of SubBrit on 19 April 2001. Progress was slow. There was no lighting except by torches – and they were not as powerful or bright as the LCD torches we have today. It was unknown if there may be sharp obstacles in the water or voids in the floor. The water certainly contained diesel fuel oil. The procedure in these circumstances is to probe and step forward. There is an apocryphal story of one member taking off his trousers and wading through the water in his underpants. [If you are reading this you – and others on that visit – know who you are!] **Look up**. **Notice** five conduits to LR134 (Air Conditioning Plant Room) (C/2127). **Look** up. **Notice** the original conduits through which water flowed from the sump (C/1652).

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Go to and enter the room to the left (LR026). This is the standby generator room. **Notice** a feint smell of diesel fuel after the many years of being out of use. A standby generator was available should the electricity from the electricity supplier fail. **Look** left at the corner of the wall. **Notice** a battery charger (C/1045). It is presumed this was to charge a battery needed to start the generator. **Look** along the left-hand wall. **Notice** an AC controller (Dewhurst & Partner, Hounslow) (C/1046, C/1921). The purpose of this equipment is not known. **Look** to the right. **Notice** the electrical control equipment cabinet (Pawer Equipment Company, London NW9) (C/1044, C/1593, C/1917). This monitored and controlled the outputs from the generator set. **Look** at the front of the electrical control cabinet. **Notice** the start stop switch (C/2136). **Notice** the test selector switch (C/2135). **Look** at the rear of the electrical control equipment. **Notice** the electrical control cabinet is more-or-less empty (C/2056, C/2057, C/2058). **Look** high on the wall behind the cabinet. **Notice** a day fuel tank (holding sufficient fuel for a day) (C/2087). This held a supply of diesel fuel should the storage tank on the Surface become unavailable. **Look** to the centre of the room. **Notice** the generator set (C/2126). This comprises of two pieces of equipment; an engine (C/2094) (furthest from the door) and an alternator set (C/2126) (nearest the door). The generator (Tangye Ricardo model VCR6, Birmingham) produced a rotary force (at 1,000 rpm) to the alternator which produces electricity. It is unknown if this would have started automatically on the main supply failing. **Look** at the end (nearest) of the alternator. **Notice** sign regarding replacement of brushes (C/2125). **Notice** the revolution counter (C/2429. **Look** above the generator. **Notice** the pipe (C/2126) taking exhaust gases away from the generator eventually to the ventilation tower. **Look** at the wall to the left-hand side of the generator. **Notice** electrical cable connection to the battery (C/1043). **Look** at the wall to the rear of the generator. **Notice** the other end of the electrical cable which would have connected the battery (in the far corner) to the starter motor (C/2427). **Look** at the right-hand side of the generator**. Notice** a starting handle on the generator (C/2098). **Notice** a spare starting handle on top of the generator (C/2097). **Notice** the alternator set (Crompton Parkinson Ltd) (C/1043). The manufacturer's plate shows its specification; Phase 3, Power factor 3, DC volts 230, AC volts 416, KVA 37.6, cycles 50 (C/1924). **Look** inside the alternator. **Notice** the internal workings (C/1030, C/1033, C/1037). **Look** at the far-right-hand corner. **Notice** a water tank (C/2055). **Notice** a water tap (C/2055). This was needed to provide water for the water cooled generator. **Look** at the right-hand wall. **Notice** two air filtration equipment units labelled 'NO. 1.' (C/1593) And 'NO. 2' (C/2053) (Carrier Engineering Co, London). **Notice** the manufacturer's plate (C/1593). **Notice** each of the two air filtration units has two baffles (C/2052, C/na, C/na, C/na) to isolate the unit. **Notice** a flexible joint between two air conditioning ducts (C/1593). **Look** at an alcove in the wall to the right of the air filtration equipment. **Notice** a thermometer linked via thermocouple to the adjacent room (LR024) (C/1590). **Notice** a sturdy door (C/0766) which may be the original door to this room. The wall between this room and the adjacent rooms (LR024 and LR025) is double the normal thickness and is presumed to have an air gap. The reason for this is unknown but is presumed to be to deaden the sound of the generator in the adjacent rooms.

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Go to the next room on the left (LR024) (out of bounds)**. Look** at the wall to the left. **Notice** a thermocouple sensor linked to the adjacent room (LR026) (C/2263). **Look** up. **Notice** the stalactites (calcite straws) (C/2396). **Look** down. **Notice** the stalagmites (C/na). **Look** at the right-hand wall. **Notice** an asbestos fire blanket holder (C/2102). The wall between this room and the adjacent rooms (LR026) is double the normal thickness and is presumed to have an air gap.

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Go to the room beyond (LR021, LR025) (out of bounds). They appear to be one room but witness marks (C/1931) on the roof slab and walls show these were two separate rooms. The cladding from both the roof slab and the walls has succumbed to gravity and walking in this (these) room is difficult. **Look** at the doors. **Notice** both have double locks indicating a need for increased security (C/na). **Look to the right. Notice** an open doorway (C/2264). This contained a message passing hatch and gave way into the Map Room (LR015) which we will visit later. **Look** at the wall to the right. **Notice** this intrudes into this space and annexes an area to an adjoining room. **Look** at the right-hand wall. **Notice** the bricks are of a different stock to that used in nearby walls and are not painted (C/1169). It is highly probable it was not part of the original build. It is believed the room to the left (LR025) may have been the 'Chief of Staffs Committee Room' and the room to the right (LR021) was the 'Cabinet War Room'. The wall between this room (LR025) and the adjacent rooms (LR026) is double the normal thickness and is presumed to have an air gap.

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Go to the next room (LR022, LR023) (out of bounds). **Look** at the doorway. **Notice** the wall between these rooms and the corridor is double the normal thickness (C/2399). The reason for this is unknown. **Look** along the middle of this room. **Notice** this room has been divided longitudinally (C/1175). **Notice** a large window into the Map Room (C/2103)**.** It is believed this may have been designated as Churchill's bedroom / study. **Look** at the wall to the right of the door. **Notice** a coat rack (C/2266).

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Go to the next room (LR020) (out of bounds). **Look** at the doorway. **Notice** the thickness of the wall (C/2398). **Look** at the far wall**. Notice** a window to another room (C/1177). **Look** at the wall to the left of the door**. Notice** a coat rack (C/2267). The reason for this is unknown. **Look** up. **Notice** the stalactites (calcite straws) (C/1776). **Look down. Notice** the stalagmites (C/1776) – an especially interesting display when illuminated by a powerful torch.

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Go to the next room (LR019) (out of bounds). **Look** at the far wall**. Notice** a window into the Map Room (LR015) (C/1176). **Look** above the window. **Notice** a fluorescent light fitting with a deflector (C/2142). This would have deflected light into the room beyond. The purpose of this is unknown. **Look** at the wall to the right of the door. **Notice** a coat rack (C/2269). The wall between this room and the main corridor is double the normal thickness (C/na). The reason for this is unknown.

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Go to the next room (LR018). This is an ante room**. Notice** the wall between this room and the main corridor is double the normal thickness (C/2105). The reason for this is unknown. **Look above the doorway. Notice** an emergency lamp (C/0987). There are a number of emergency lamps (or just lamp holders) in this corridor just inside rooms and on the Basement. The wall between this room and the main corridor is double the normal thickness (C/na). The reason for this is unknown.

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Go through the doorway beyond (LR015). This is the Map Room. This would have been the nerve centre of the operation of Paddock. **Look** at the wall to the left of the doorway. **Notice** two windows which give way to two separate rooms we have just passed (C/1796). **Look** at the wall to the right of the entrance door. **Notice** a blocked window (C/1936). These three windows give way to separate rooms and served as a sound barrier between the Map Room and Heads of military services (not confirmed). There is no evidence to support this. **Look** at the wall on the right. **Look** at the far right corner. **Notice** a blocked doorway (C/1935). It is interesting that on the other side of the wall is cladding indicating the wall was blocked after the construction of Paddock. **Notice** a coiled cable (C/2048). It is assumed this is a remainder from the GPO. **Look** at the doorway to the right of the large window. This used to have a door with a message passing hatch to the adjacent room (LR021) (C/1967). **Look** up. **Notice** fluorescent light fittings with reflectors set at an angle to deflect light towards information on the wall (C/1346). **Look** down. **Notice** a trough in the floor slab (C/1672). Taking as an example the Cabinet War Room in London in which there were many telephones this trough would have accommodated the many cables from the subsidiary MDF (LR016) to the telephones on desks in the middle of the room. **Look** up. **Notice** the stalactites (calcite straws) (C/1776). **Look** down. **Notice** the stalagmites (C/1776).

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Go to the main corridor (LR055). **Look** at the roof slab opposite and slightly to the right**. Notice** water falling from a conduit in the roof slab (C/2047). This is the outflow of the water ingress we saw on the staircase earlier. The conduit used to take a pipe taking water away from the south sump.

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Go to the next room (LR017) (out of bounds). **Look** at the far wall. **Notice** the blocked window we saw previously (C/2107). Look at the wall next to the corridor. **Notice** a coat rack (C/2271). The wall between this room and the main corridor is double the normal thickness. The reason for this is unknown.

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Go to the next room (LR016) (out of bounds). Look to the left of the doorway. **Notice** a subsidiary Main distribution Frame (MDF) (C/1180). This connected telephones in the Map Room (LR015) with the Main Distribution Frame (MDF) which we will see later in the Basement (LR102). **Look** up. **Notice** a telephone cable support (C/1180).

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Go to the corridor to the right (LR053). There used to be a **Notice** 'UP (with an arrow)' hanging over the corridor. **Look** right. **Notice** the main steps (LRS75, LRS76, LRS77) to the Basement (C/2045). **Notice** a sign 'FLOOR 26' (C/2273). **Look** up. **Notice** a conduit which used to take water away from the north sump (C/na).

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Go to the end of this corridor (LR055) **and then to the room to the right** (LR014). To the right is a sealed void (LR054) – the only room into which we cannot enter (quite literally).

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Go to the main corridor (LR055). **Look** at the main corridor wall as it turns the corner to the small corridor. At this point there was a fire annunciator (C/219) (not now extant) – a form of fire alarm. **Look** at the roof slab. **Notice** conduits through which water from the South sump flowed (C/2042, C/2060, C/2393). Ingressing water now flows through the (south) conduit.

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Go to the next room (LR013) (out of bounds). **Look** at the far end of the room. **Notice** a message passing hatch (C/1789). **Look** up. **Notice** an air conditioning pump on the roof slab (C/2394).

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Go to the corridor on the left (LR052). Look left. **Notice** a coat rack (C/2272).

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Go to the room on the left (LR009) (out of bounds). **Notice** this gives way to two rooms (C/2109).

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Go to the room on the left (LR012) (out of bounds). **Look** to the left-hand wall. **Notice** a message passing hatch we saw earlier (C/1790).

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Go to the other room of the pair (LR011) (out of bounds). **Look** toward the far wall. **Notice** the far wall is clad (C/2110). It is presumed the cladding was installed after or at the same time the doorway to the Map Room was blocked.

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Go to the room at the end of the small corridor (LR006). This was the Teleprinter Room. **Look** to the left and right of the room. **Notice** the remains of wooden tables (C/2111) on which stood teleprinters. – possibly Creed 7P manufactured by Creed and Company (Croydon).

Outgoing messages may have been punched onto paper tape with a Creed 7B (C/2480). Punched tape would then be fed into a transmitting (Tx) teleprinter. This was done because teleprinter time (and usage of circuits) was reduced as they could run faster than an operator could type. An outgoing message to multiple recipients would be fed through the teleprinter multiple times. Incoming messages would go to a receiving (Rx) teleprinter and onto either paper or to punched tape (if the message was to be retransmitted). Transmitting (Tx) teleprinters and receiving (Rx) teleprinters were sometimes dedicated to that function whilst others could do both functions. Outgoing (Tx) and incoming (Rx) messages would have been (mostly) in coded form and it is assumed that adjacent rooms would have been used for encoding and decoding messages. **Look** at the end wall. **Notice** a message passing hatch to the Cabinet Room (LR001) (C/2111).

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Go to the main corridor (LR051) **and turn left. Look** at the walls and roof slab. **Notice** witness marks of a partition (C/na). **Look** at the area above the doorway. **Notice** there is a differently designed grill on either side (C/na, C/na).

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Go to the (north) sump (LR051). **Look** at the roof slab. **Notice** six conduits which go to the Basement (LR125) (C/1941). Please make a note of the position of this conduit relative to the wall beside it and the sump (fire-fighting equipment). We will return to this later. **Look** at the wall. **Notice** the black plastic pipe (C/2130). This takes water from the south sump to the north sump. It has not been determined to where this water is pumped. **Look** at the roof slab. **Notice** the original pipe from the sump (C/na). **Look** at the wall next to the sump. **Notice** the coat hooks (C/2114). Why coat hooks should be in a corridor has not been determined. **Look** along the corridor and to the BBC radio studio and to the Cabinet Room. **Notice** the full length (173 feet, 61.57 metres) and through the doorway (nearly) opposite to see the full width (36 feet, 10.97 metres) of Paddock at this level (C/na).

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Go to the sump room (LR005). **Look** at the top of the sump room**. Notice** a conduit leading to the Basement (LR124) (C/na). Please make a note of the position of this conduit relative to the walls beside it. We will return to this later. **Look** up. **Notice** the original conduits through which water flowed from the sump(C/2042, C/2060, C/2393).

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Go to the room in front of you (LR004). **Look** down. **Notice** a submersible pump (C/1972).

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Go to the room in front of you (LR001). This is the Cabinet Room (not confirmed)**. Look** left. **Notice** a large hole in the wall which was a small message passing hatch to the teleprinter room (LR006) (C/1367). **Look** at the walls. **Notice** the conduit at approximately waist height and the mercury relay switch next to the door frame (C/0775). These were installed by the Post Office Research station. **Look** up. **Notice** the fluorescent light fittings with reflectors (C/1367). These are set at an angle to deflect light towards information on the wall. **Look** at the wall diagonally opposite the door. **Notice** a gap between the wall and the floor slab in which there is gravel and a metal tube conduit (C/2232). The reason for this gap and the conduit is unknown. **Look** at the wall opposite the door**. Notice** a metal box. This is an AEI (Associated Electrical Industries Ltd) Sunvic energy regulator (originally on middle of wall opposite door) (C/0778, C/0780, C/1942. This was installed as part of a GPO project.

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Go to the small room to your left (LR002) (out of bounds). This is the BBC radio studio. **Look at the far wall. Notice** the remains of sound proofing material (C/2234). **Look** at the far wall. **Notice** two electric heaters (C/2274, C/2275). These were provided to reduce condensation which would affect broadcasting equipment (making this the only room in Paddock which was heated. Look up to the far-right corner. **Notice** a conduit leading to the Basement (LR154) (C/1947). Please make a note of the position of this conduit relative to the wall beside it and the end wall. We will return to this later. It is assumed there was a connection by 'private wire' (PW) to Broadcasting House (BH).

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Go to the room to the right (LR003) **(out of bounds). Look** down. **Notice** submersible pumps (C/2389). **Notice** two capacitor one of which is labelled TCC Viscanol 32uf subd) (C/2389, C/2239 in another location). **Look** at the wall to the left of the door. **Notice** a coat hook (C/2276). **Look** up. **Notice** a conduit to the Basement (LR152) (C/na).

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Part 4 – Return to the Basement

Go to the stairwell (LRS71, LRS72). **Go up the helical (spiral) staircase. Notice** a ledge on the outside of the helical (spiral) staircase (C/2277). At the top of the helical (spiral) staircase you are in LR152. **Beware** of the final step down.

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Go to the door diagonally to the right (LR123). **Look** up. **Notice** six conduits (C/1257). These carried GPO cables from the GPO / BT deep cable chamber which we saw earlier. **Look** down. **Notice** a ground dewatering well-point and a ground dewatering well pump (C/1907).

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Go to LR152 and to the room opposite (LR153). This is an air-lock which originally had two gas-tight doors. **Notice** a gas-tight door frame. It originally had two gas-tight doors (not extant). **Look** at the opposite wall. **Notice** a blocked wall (C/2001). This gave access to the helical (spiral) staircase which was the north emergency exit.

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Go to LR 152. **Look** at the doorway to the helical (spiral) stairwell. **Notice** a door frame for an armoured door (C/1380). **Look** down. **Notice** a plinth (C/1037). It is formed of two concrete layers between which there is a layer of wood. It is thought this may have been a vibration isolation platform for Post Office Research Station experiment. **Look** down the side of the plinth. **Notice** a conduit to the Sub Basement (LR003). **Look** above the plinth to a conduit which comes from LR122 and turns to go through the roof slab (C/2423). This took fumes from the battery room (LR101) to the surface. **Look** at the wall. **Notice** a sign 'Emergency exit' (C/2213).

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Go through the doorway to the right of the doorway at the top of the helical (spiral) staircase and stop immediately the other side of the door (LR151). **Look** at the wall on the left. **Notice** a sign 'Emergency exit' (C/2214). **Look** at the roof slab. **Notice** 20 holes in the roof slab. They are at present 3 feet 3 inches (0.99 metres) long although as they are topped with polystyrene may have been longer (C/1662). The purpose of these holes is unknown. **Look** along the corridor. **Notice** the walls are partly painted red (C/2247). **Notice** a witness mark of a partition (C/2280).

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Go up to a void (LR154) (steps are required). **Notice** air conditioning trunking (C/1299). **Notice** a piece of the original shuttering (C/0296). **Look** up. The purpose of this void is unknown although there is air conditioning trunking here.

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Turn 180 degrees and go to LR122. Look at the wall to the right. **Notice** the remains of the now capped GPO cables (C/1564). **Notice** a flexible joint between two air conditioning ducts (C/1564). **Look** at the far wall. **Notice** five cable bearers which would have supported GPO cables (C/1975). These would have supported the cables into the telephone equipment room (LR102). The cables were connected to two exchanges Cricklewood and Willesden (accommodated in separate buildings) giving resilience to telephone communications. **Look** at the door (C/1944)**. Notice** this is a strong door said to have been brought here from another part of Paddock by a film production company. Unfortunately the original location was not noted. This door had a resounding cell door sound when closed (required as part of the story line) but now does not even swing on its hinges.

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Go through the door and stop at the fire-fighting equipment (LR151). **Look** down. **Notice** the conduit in the floor slab (C/1943). This goes to the Sub Basement BBC radio studio (LR002). You will recall this marked the end wall of the Sub Basement. The conduit which was at the extent of LR002 is 12 feet 4 inches (3.75 meters) away from the end wall of LR122.

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Go to the main corridor and go through the double doorway to the right (LR102)**.** This is the telephone equipment room. **Look** at the right-most wall. **Notice** five cable bearers which would have supported GPO cables (C/1894)**. Look** to the right. **Notice** the equipment (C/1189). This is a 'Main Distribution Frame' (MDF) to where individual wires (circuits or pairs) from GPO cables are connected. **Look** at the rear of the MDF. **Notice** the labels on the terminal blocks '100 PRS TO MDF SUB-BASEMENT' (C/0658), '100 PRS TO MDF SUB-BASEMENT' and 'TIE CABLE TO PMBX1A' (C/0659), 'REFER TO RT DIVISION' which is padlocked (C/0893), '54 PRS TO MDF SUB-BASEMENT' (C/0657), '100 PRS TO MDF SUB-BASEMENT (C/0657). **Notice** also other termination blocks with labels 'EXTENDED ALARM / [*indistinct]* TO CWR2 / TIE CABLES TO FOR RADIO LINKS TO I.D.F.' (C/1677), 'CWR ARW' (C/1678), 'RESEARCH' (C/1679). 'Extended alarm' extends an alarm in this equipment to another place when this room is unmanned. The meaning of the other labels is unknown except Z designates it as 'secret'. **Look** at the wall to the right. **Notice** five cable bearers (C/1189) which would have supported GPO cables from the adjacent room. **Look** up. **Notice** the remains of the suspended ceiling (C/1188). This was installed for use by the Post Office Social Club which used this room as a social club / bar. **Look** at the floor. **Notice** black marks (C/1188). Images (C/307, C/308, C/309, C/310, C/311, C/312, C/313, C/314).from the BT Digital Archives suggest that Defence Telegraph Network / Defence Telephone Network (DTN) equipment was located here. However, study of the plan drawing of both the Basement and Sub Basement of Paddock shows this configuration does not exist at Paddock. **Look** to the other end of the room. **Notice** the hole in the wall (C/1188). There are various suggested reasons (none substantiated) as to when the hole was created and for what it was used. One explanation is the room beyond (LR103) was a bar when these two rooms were used by the Post Office Research Laboratories Sports and Social Club (RLSSC) later known as the Research Social Club (RSC) as a meeting facility. Another explanation is it was incorporated a window and the room beyond was a control room when these two rooms were used as a sound recording studio.

Paddock was connected to both Colindale telephone exchange and Willesden telephone exchange (to give resilience). Although there may have been connections to the public system communication was mainly by 'Private wire' (PW). Cables ran from the two exchanges to a GPO manhole (the cover to which we can see in the pavement) (C/1768). Six cables enter Paddock – although the number of circuits (pairs) has not been determined. We can see where the cables entered Paddock in metal conduits and where the cables have been truncated. From here the cables ran into the telephone equipment room where the individual pairs were broken out onto termination blocks on the Main Distribution Frame (MDF). Labels on the termination block covers (e.g. '150 PAIRS TO CWR' (Storey's Gate) indicate the distant points of some of the pairs. The labels '54 PAIRS TO MDF SUB BASEMENT', '150 PAIRS TO MDF SUB BASEMENT' and 'TIE CABLE TO PMBX 1A' (Private manual branch exchange in Paddock) indicate the internal connections.

Paddock although asymmetric when comparing the plan of the Basement and the Sub Basement was however largely regular in the spacing of the load-bearing columns. This may be illustrated in an image of the Air Ministry bunker (codenamed 'Station Z') at Harrow – a bunker of similar design (C/103). It has already been demonstrated this end of the Basement 'overhangs' the Sub Basement. **Notice** the distance between load bearing columns around the Main Distribution Frame (MDF) is shorter than elsewhere (C/2278).

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Go through the room to the right of the hole in the wall (LR101). This is the battery room. There would have been two sets of lead-acid batteries on wooden tables. One set of batteries would have been on trickle charge whilst the other set would have been used to power the telephone circuits within Paddock. The two sets would have been changed over at regular intervals. **Look** down. **Notice** the floor covering of Darlington tiles (not confirmed) (C/1888). These tiles said to be resistant to corrosion by sulphuric acid. The reason for the slight rise in the middle of the floor (C/1888) is unknown. **Look** up. **Notice** the panel near the roof slab (C/1560) which it is assumed trapped ingressing water: **Notice** a pipe running parallel with the roof slab conducted water away to the next room (LR103) (C/1560). **Look** to the far wall**. Notice** a sink resting in the right-hand corner (C/1190). It is assumed a battery room would have a sink to flush away accidentally spilled sulphuric acid. However there is no evidence of either a water supply or a means to dispose of water so it would seem unlikely. (The nearest source of water is in the kitchen – LR130). I queried this with a member with experience in telephone exchanges who replied *"In a battery rooms there is not necessarily a sink and a running water supply so long as there is a first aid cabinet with bottled distilled water to wash acid splashes from eyes, anything else is not so urgent. Sinks are usually provided in main exchanges as the installations are fairly large."* Of the sink which is leaning up against a wall at the end of the battery room (C/1190) I do not know either where it came from or why it was put there. **Look** at the right-hand wall. **Notice** two holes. The one nearest the door supplied air from the air conditioning system. The hole at the other end (C/2416) extracted toxic fumes. The conduit goes through the telephone equipment room (LR102), into the adjacent room (LR122) where it turned right, into the adjacent room (LR152) where it goes vertically upward and presumably vented to atmosphere outside the surface building of Paddock.

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Go to the room at the end of the battery room (LR103) (out of bounds). It is said the manual exchange for Paddock was located here (not confirmed). It is also said this was the bar when Paddock was used by the Post Office Social Club (not confirmed). It is also said this was the control room when this room and the adjacent room was used as a recording studio (not confirmed). **Look** up. **Notice** the spalling (flaking) roof slab (C/2145). **Notice** a pipe running parallel with the roof slab (C/1561). This conducted water away to the next room (LR104). **Look** at the wall opposite the door to the battery room. **Notice** an electric fan controller (C/2279). **Look** at the wall to the right of the main door. **Notice** an orange covered Pyrotenax (fire resistant) cable (C/2285) the other end of which is connected to the 'non essential' power main switch in LR121. It has been suggested that a fire panel may have been situated either in LR103 or LR127 – but, if so it would, presumably, be connected to the 'essential' power main switch in LR121.

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Go back to a doorway to the telephone equipment room (LR155). **Look** at the surrounding remains of walls. **Notice** the remains of a small lobby (C/2211). It appears to be an air-lock but for what purpose is unknown. This is the smallest 'room' in Paddock.

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Go to the main corridor (LR151) and then to the second room on the right (LR104) (out of bounds). **Look** up. **Notice** a pipe running parallel with the roof slab (C/1416, C/1655). This conducted water away to the next room (LR107). **Look** at the left-hand wall. **Notice** two telephone distribution points (C/2012). **Notice** the stalagmite and stalactites (C/2016).

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Go to the main corridor and then to the second room on the right (LR158) (out of bounds) and into the room ahead (LR107) (out of bounds). **Look** up. **Notice** the pipe running parallel with the roof slab (C/1348, C/1413, C/1414). This conducted water away through LR158 (C/na) to the corridor (LR151). **Look** at the far wall. **Notice** four holes in the wall (C/1348). It is assumed this allowed water to seep into the pipe. It is not known if this was part of the original design or a later addition.

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Go through LR158 and into the main corridor (LR151). **Look** up. **Notice** a pipe crossing the corridor, turning left and going into LR 127 (C/2414). This conducted water away to room LR127.

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Go along the corridor and to the next room on the left (LR129) (out of bounds). **Look** at the wall adjacent to the corridor. **Notice** an orange covered Pyrotenax (fire resistant) cable (C/0801) the other end of which is connected to the 'non essential' power main switch in LR121.

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Go to the main corridor and to the first room on the left (LR127) (out of bounds). **Look** up. **Notice** the air conditioning conduit (C/1950) which took air from the kitchen to the surface. **Notice** a baffle (C/1950) (C/1950). **Notice** a flexible joint between two air conditioning ducts (C/1887). **Notice** a conduit which enters through the corridor wall and exits in the floor slab (C/1951). This takes water from LR101, LR103, LR104 and LR107 – although the destination is unknown. The fire panel may have been situated either in LR103 or LR127).

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Go to the room to the right of the void (LR124) (out of bounds). **Look** up. **Notice** a ventilation conduit to the surface building (C/1999). **Look** down. **Notice** a conduit to Sub Basement (LR005) (C/1999). **Look** to the wall diagonally across from the door. **Notice** a single conduit (C/1963) which goes to the sump room in the Sub Basement (LR005).

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Go to the room to the right (LR125). **Notice** a group of six conduits (C/1905) in the floor slab which go to the corridor in the Sub Basement (LR051) which we saw earlier. This is a further demonstration of asymmetric design of Paddock. It is possible to peer down the right-most conduit to the Sub Basement.

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Go to the corridor on the left (LR156). There used to be a **Notice** 'DOWN (and a down arrow)' hanging over the corridor. **Turn left**. **Look** at the left-hand side wall. **Notice** an original GPO distribution point (DP) the case of which is made of wood (C/1038). **Look** to the far wall. **Notice** patterns from the wood used as shuttering (C/2404).

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Go to the second room on the left (LR126) (out of bounds). **Look** at the walls. **Notice** the remains of a wire mesh on frames (C/1551). This is either a Faraday cage or a high voltage safety cage. It is not clear which type of cage this is. A Faraday cage provides electro-magnetic shielding (i.e. it stop the transmission of radio waves). It is suggested this was to stop in particular radio frequency (RF) waves – although what was being investigated is unknown. There used to be a sign 'ONLY THE AUTHORISED ATTENDANT IS PERMITTED TO ENTER' (C/319) but this cannot now be found amongst the debris.

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Turn around (LR156). **Look** at the wall to the left. **Notice** witness marks of wooden shuttering (C/2404**). Look** at the doorway opposite. **Notice** the door frame for an armoured door (C/1382). **Look** at the room to the right of the staircase (LR128). **Notice** wooden storage shelving (C/2064).

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Go through the armoured door doorway (LR157) **and Go down the staircase to the intermediate landing** (LRS76). **Look** up. **Notice** one of two water tanks standing over the intermediate landing (LRS76) (C/1910). **Notice** the underside of the two water tanks (C/1911). These water tanks supplied the water tap in the Sub Basement corridor and the Generator Room.

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Go to the main corridor (LR151). **Look** at the walls and roof slab. **Notice** a witness mark of a partition (C/2280).

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Go to the third room on the right (LR112). **Notice** a GPO distribution point (DP) (C/1530).

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Go to the room opposite (LR130). This was the kitchen which provided only light refreshments (i.e. hot drinks, sandwiches and cakes) (not confirmed). **Look** at the far wall. **Notice** a work surface under which there was a refrigerator (not confirmed) (C/1962). **Look** up. **Notice** a hole which the remains of the conduit taking air away from the kitchen (C/1962). **Look** at the wall alongside the corridor. **Notice** a serving hatch (C/1979). **Look** at the other end wall. **Look** right. **Notice** two sinks (C/1559). **Notice** the waste water pipe (C/1960) which took water to the Sub Basement and to the north end sump. It is interesting to note although undoubtedly there was a toilet in the Surface building a toilet was not available in either the Basement or Sub Basement for use when Paddock was locked down against a bomb blast or toxic gas attack. It is assumed a chemical toilet similar to one provided at CWR1 (C/2191) may have been provided for the use of Churchill and junior staff alike.

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Part 5 – Return to the Surface

Go to the Surface. Please remember to keep your hard hat on until you are on the pavement. The *Discover Paddock special tour* is now complete. I hope you found it interesting and educational.

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Glossary of terms used

Armoured door / blast resistant door (see also gas-tight door): Armoured doors are designed to resist physical attack and prevent the passage of unwanted people whereas blast resistant doors are designed to prevent the passage of a pressure wave from a nearby bomb burst. An armoured door frame is to be found at the lower level of stairwells between the Surface and the Basement and it is possible an armoured door was also installed at the top of the main stairwell (inside the surface building) and at the Surface of the North emergency exit although gas-tight door frames are not extant. The armoured doors in Paddock (4 known and probably a further 2) were secured by three locking levers which operate dogs (pawls) into three semi-triangular cut-aways in the door frame. There was also a rectangular cut away to accommodate a keyed lock bolt. Each door is hung by a two pintles (hinges) which are bolted to near the top and near the bottom of the frame – marked by three holes in a triangular formation. The door frames were anchored into the surrounding brickwork by four metal plates. Door frames for armoured doors are to be found on all three stairwells between the Basement and the Sub Basement. One is also to be found at the Surface of the South emergency exit. There are several instances of ducts passing through the roof slab of the Basement into either the Surface building or to the outside environment. These would have seriously compromised the effect of any blast protection.

It is presumed armoured doors were installed to provide last-ditch physical protection to the critical personnel within.

Baffle: Baffles in air conditioning trunking prevent the passage of toxic gases (e.g. nerve gas) entering Paddock. They would have been closed when an air raid was expected. They would have been ineffective as protection from pressure from a bomb blast.

Flexible joint: These are installed between two air conditioning ducts. Compressors and pumps generate a vibration which can shake apart the ducting and also transmit a noise into the system and into occupied spaces. A flexible joint dampens the vibration.

Floor number sign: The General Post Office floor numbering nomenclature was to start numbering in the lowest level of the main building incrementing to the top level of the building and continuing the number sequence in another building and so on. It would certainly have aided the easy identification of floors in an estate with so many buildings. Paddock being the last building to be constructed on the estate was allocated floor numbers 26 (Sub Basement), 27 (Basement) and 28 (Surface building).

Floor slab: Floor

Gas-tight door (see also armoured door / blast resistant door): Gas-tight doors prevent the passage of toxic gases (e.g. nerve gas). Two pairs of gas-tight door frames (to form an air-lock) are to be found in Paddock – at the lower level of both the main stairwell and the helical (spiral) stairwell (South) between the Surface and the Basement. It is likely a further pair of gas-tight doors was also installed at the lower level of the helical (spiral) stairwell (North) between the Surface and the Basement. Gas-tight doors in Paddock incorporate a vent duct (either in the gas-tight door or an adjacent wall). This is effectively a sprung flap which is moved according to the difference in air pressure. They would have been open in normal conditions when the inside air pressure was maintained slightly higher then the outside air pressured but would have closed automatically when the outside air pressure increased.

Examples of gas-tight doors are to be found – although not in situ. The gas-tight doors in Paddock are secured by two levers which move bolts into cut-aways in the door frame. Each door is hung on two pintles (hinges).

GPO: The General Post Office was a Department of State (part of Government) responsible for post, radio telegraph, telephone and telex communications before being split into British Telecommunications (BT) and the Royal Mail.

Ground dewatering well-point and ground dewatering pump: Water will under the influence of gravity find its own level and collect in a hole in the ground. A box in a hole in the ground will displace water. A hole in the box will admit water into the box until the water level inside and outside the box are equalised. A bunker is constructed by digging a big hole in the ground. This creates a void between the earth and the floor slab and wall which will naturally fill with water. This water needs to be extracted to prevent it from permeating and weakening the concrete and cause a dampness problem within a bunker. A flow of water will abrade concrete and exploit weaknesses. Water was extracted through dewatering well-points which went to just below the lowest level of Paddock. There are two anomalies with the well-points. Using the analogy of a box in a hole why is water ingressing Paddock from just below the Surface and why is there not water gushing up the well-points? It is presumed both dewatering well points have been sealed at the lowest level. The dewatering well-points in Paddock are 22 feet 6 inches (6.86 metres) deep with water level at 7 feet 6 inches (2.29 metres) from the top.

Helical (spiral) staircase: The key difference between a helical staircase and a spiral staircase is a spiral staircase has a centre column supporting the treads whereas a helical staircase has a void in the middle – it has no central column.
www.completestairsystems.co.uk/spiral-stairs-and-helical-stairs-make-sure-you-know-these-differences-between-the-two

Ledge: A ledge (which looks like a step-back in a wall) occurs in a structure where a wall sits on a wider wall. This marks a theoretical boundary between levels.

Main distribution frame (MDF): Wires from telephone cables are separated (into their pairs) and connected to the incoming side of the frame. A jumper connects to the other (outgoing) side from where wires connect to various distribution points (DP) and onto individual telephones and teleprinters.

Private Wire (PW): This is a permanent connection between two points which may be obtained by connecting distant points through a series of exchanges.

Roof slab: Ceiling

Shuttering: a former made of wood into which concrete is poured to make (layer-by-layer) a wall. All the external walls of Paddock are constructed in this way.

Stairwells, staircases and stairs
Stairwell – a vertical shaft (concrete or brick) in which there is a staircase
Staircase – a case (concrete, metal or wood) on which there are steps
Stairs (steps) – individual steps (horizontal) and risers (vertical)

Stalactite and stalagmite: Technically the stalactites in Paddock are calcite straws. They are formed by the precipitation of calcium from the concrete in the roof slab. They are hollow and very brittle and will break with even the slightest of touch. Only a selection of sites is included in the Tour.

Wooden shuttering: This is a common way of constructing walls in which concrete is poured between wooden planks which when the concrete is set are removed and replaced elsewhere.

Web links
Carrier Engineering Co Ltd, London
https://en.wikipedia.org/wiki/Carrier_Corporation
Creed and Company (Croydon)
https://en.wikipedia.org/wiki/Creed_%26_Company
www.vmarsmanuals.co.uk/newsletter_articles/creed7b.pdf
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Crompton Parkinson
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www.dewhurst.co.uk/about
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Hall Ltd, Dartford, Kent
www.dartfordarchive.org.uk/technology/engineering.shtml
Tangye
https://en.wikipedia.org/wiki/Richard_Tangye

Notes
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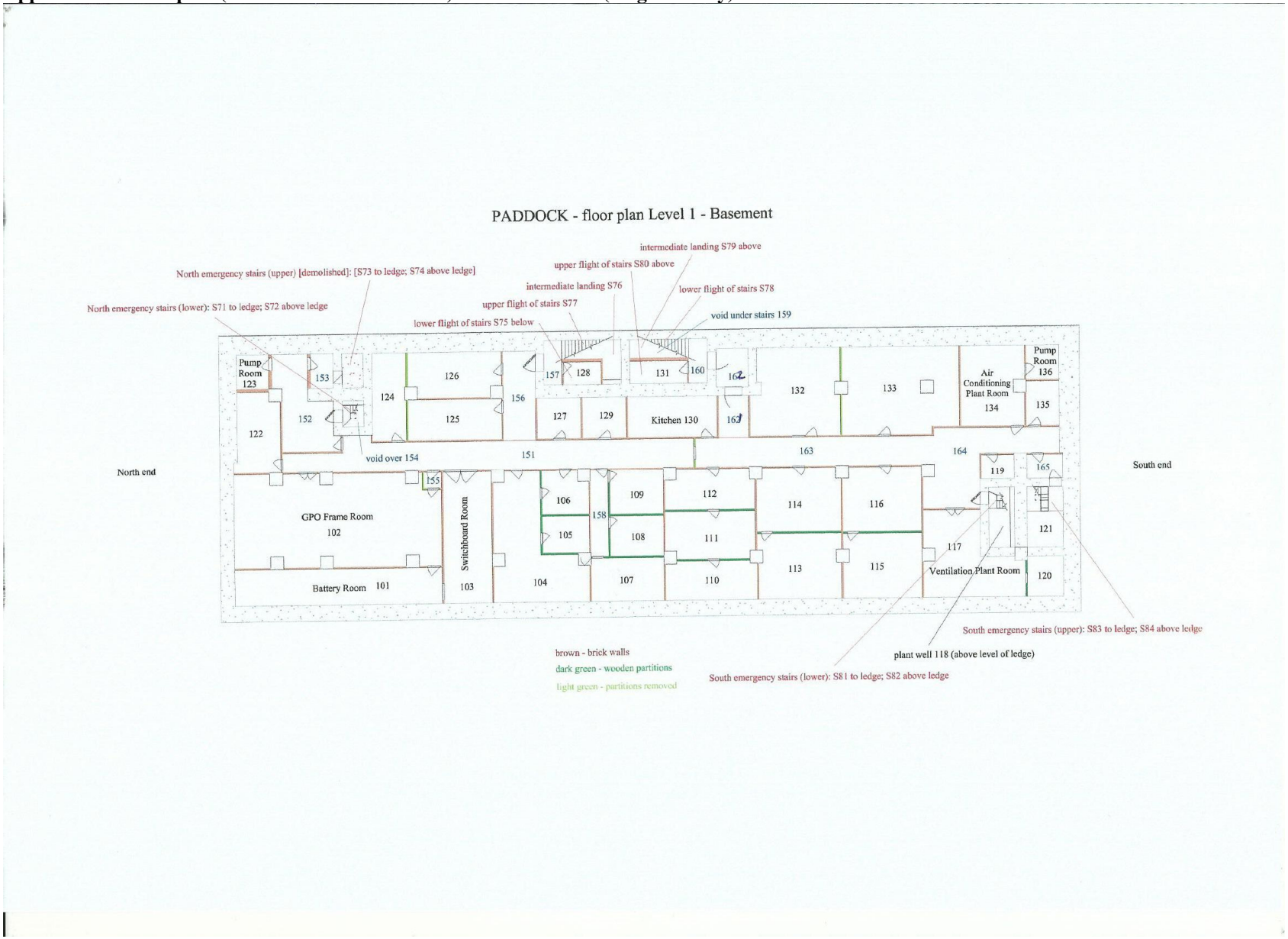
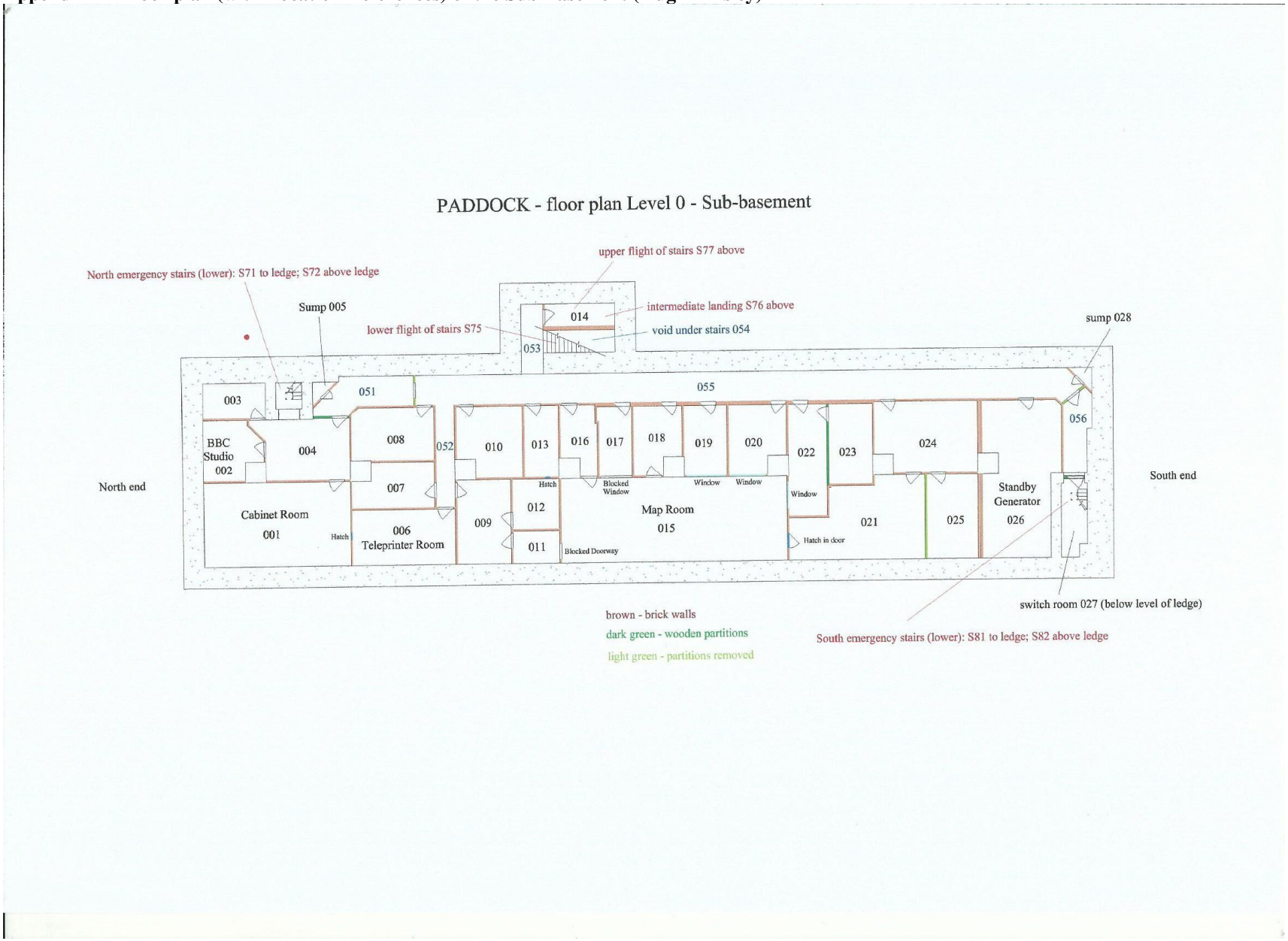
Appendix 1 – Floor plan (with Location References) of the Basement (Hugh Ainsley)



Appendix 2 – Floor plan (with Location References) of the Sub Basement (Hugh Ainsley)



More information from *The Paddock Information Collection* is available at www.bunkers.org.uk/paddock.htm