



LUDEK LTD
O&M MANUALS &
HOMEOWNER'S GUIDES FOR
RESIDENTIAL & COMMERCIAL PROJECTS

Assessment of O&M Manuals

99 London Street,
London, W1 5BP

Prepared for
Ludek Tucny

Site Visits Date	N/A
Visited by	N/A
Report created by	Ludek Tucny
Our Reference No.	99LS
Rev	1
Date	26 th March 2023



General Notes

1. The below notes should be read in connection with the Ludek Ltd O&M Manuals received from Ludek Tucny on 22.3.2023.
2. The exact copy was created in our system to enable us to generate Folder Structure and Document Index, showing all documents in one place (both documents attached to this assessment)
3. Comments were made mainly to the documents themselves.
4. All comments are made to the best possible knowledge and upon the received documentation.
5. Ludek Ltd is happy to assist Ludek Ltd or the client in completing the O&Ms to everyone's satisfaction. Still, assistance and cooperation from all parties will be required.

Ludek Ltd O&M Manuals – Comments

1. Key Safety Information

1. Should / could be called Commissioning Certificates, as it only includes them
2. Missing Certificates
 - i. Sump Pumps Commissioning Certificate
 - ii. Intruder Alarm
 - iii. MVHR – depending on the type installed
 - iv. Electrical Certificate for DB 3 (Plant Room) – it shows only “spare”, which can't be right
 - v. Electrical Certificate for Rear Garden DB
 - vi. Chlorination Certificate (if applicable)
 - vii. Further missing certificates mentioned within the reports, for items, which aren't included but should be
3. Missing Tests (not sure what was agreed as part of the Tender but the below are usually provided as part of such projects)
 - i. Domestic H&CW Pressure Test
 - ii. LTHW Pressure Test
 - iii. Underground drainage, if new (usually provided)
 - iv. Grilles / Louvres Pressure Test for A/C and Extraction

2. Drawings

1. Missing Drawings
 - i. Architectural Drawings
 - ii. Structural Drawings (if applicable)
 - iii. Mechanical



- iv. Ventilation (A/C, MVHR, Extraction)
- v. Landscaping / Garden
- vi. Rest of the Joinery Drawings
 - 1. Main Kitchen / Dining
 - 2. Utility
 - 3. Yoga Studio
 - 4. Bedrooms 3, 4, 5
 - 5. Lower Entrance
 - 6. Living Room
 - 7. Reception?
 - 8. Mezzanine

2. Joinery – missing

- i. cleaning and aftercare instructions for all supplied material, especially for the specialised finishes
- ii. Cinema drawings still refer to TBC on melamine interior

3. Plumbing & Heating

1. M&E O&M

- i. The Word Document is from the Ludek Ltd and is only pointing to electrical installation related to the Mechanical equipment. The document also mentions that a specialised contractor was chosen to carry out the mechanical works
- ii. Therefore, missing O&Ms from Mechanical Contractor

2. Boiler

- i. Did the contractor offer the client Extended Warranty?
- ii. Has the boiler been actually registered with Official Website?

3. Cylinder

- i. No comments

4. Heating Thermostat

- i. The NeoStat V2 corresponds only to the wet UFH, but this isn't mentioned anywhere
- ii. But Ludek Ltd is mentioning in their O&M only electric UFH in bathrooms, so there should also be manuals for Neostat-e V2

5. Underfloor Heating

- i. Joinery or Ludek Ltd drawings showing manifolds on them. So we assume that wet UFH has been installed on the property. Event though Ludek Ltd only mentioned in their O&Ms electric UFH and only in the bathrooms.
- ii. So, if this is correct and wet UFH has been installed through the property, we need the following spec/brand/datasheets of



1. Manifolds
 2. Actuators
 3. Wiring boxes
 4. Pipes
 5. Thimble sensors (if applicable)
- iii. Also, we should receive a Commissioning Certificate, or at least a balancing sheet, to confirm that the UFH has been tested.
 - iv. Ludek Ltd should also mention in their O&Ms how the wet UFH is powered, if a spur or isolator switch is by each manifold or if there is one main spur for all manifolds
 - v. The Electric UFH has ten years warranty period from the date of installation. This should also be mentioned somewhere within this section.
 - vi. Also, Ludek Ltd should mention in the O&Ms if the heating is interlinked with the Control4 or not, or how it can be controlled, otherwise locations of all thermostats
6. Air Conditioning
- i. Missing at least an A/C Schedule pointing to which rooms are equipped with the A/C. Even though this information can be read from the Certificate, a simple list would be great here
 - ii. Are there any grilles/louvres installed? If yes, we need some specifications, paint colour
 - iii. From the Certificate, it says that two of the units are pumped, so there should be at least a spec (datasheet) of the pumps used
 - iv. Are there any traps installed? If yes, are they easily accessible for annual/bi-annual maintenance?
 - v. Missing maintenance proposal
 - vi. Missing Drawing, unless this will be part of the Mechanical package
7. Pump System
- i. Missing Commissioning Certificate
 - ii. Has the Service Agreement been put in place? We can see it was dated 7.3.2022, but no details have been filled in yet. The sump pumps must be regularly checked/serviced
 - iii. There should be at least some information mentioning which pump station serves the foul, which the rain/surface water, and which the cavity
 - iv. Information about access, type of manhole keys, should they get lost or damaged
 - v. Missing drawings indicating routes of all drain pipes, unless shown on the drainage drawings (currently missing)



4. **Electrical & Lighting**

1. Distribution Schedules

- i. Missing Schedule for DB3 (Plant Room), but according to the electrical Certificate, the DB3 in the Plant Room doesn't have anything connected to it.
- ii. According to Ludek Ltd O&Ms, it says that this board serves heating systems, immersion, sump pumps, water booster sets and local lighting/power.
- iii. Also missing Schedule for DB for Rear Garden, same as the electrical Certificate (Ludek Ltd also call it DB External Kitchen). Is it really a Kitchen? Or just a BBQ area?

2. Distribution Board Equipment

- i. Missing Datasheets for
 1. All used RCBO breakers, as only 32A was uploaded to the O&M
 2. Shouldn't there also be any rotary isolator switches?

5. **Lighting**

1. Lighting Schedules – if all is up to date, no comments. But from the All Square datasheets, they, for instance, provided data for Curve Mini Origin Downlight, but the Schedule is pointing to Cero Origin. So, what is correct, then? Aren't there any chandeliers or pendant lights?
2. Lighting – All Square
 - i. Who supplied the rest of the lights from the schedules? As nearly half of the data sheets are missing, especially for garden lights

6. **Kitchen – Main Kitchen**

- i. Missing Drawings, Appliance Schedule, and the material used.
 1. Kitchen Care Guides – we can't check if this includes all the instructions as there aren't any drawings or specifications. Was the Quartz also used as a splashback?
 2. Kitchen Appliances – we can't check if all manuals are provided, as there isn't any schedule. But would we also assume that there will be at least Extractor Hood and sink? Perhaps a wine fridge?

7. **Basement Kitchen & Utility**

- i. We could establish from the Drawing the Utility, but not another kitchen, unless this refers to the bar in the Cinema Room.
- ii. But, one of the drawings from Ludek Ltd shows that in the Utility is also a Fridge / Freezer, but the manual isn't included. Unless this is clarified, we can't check what's missing
- iii. Still, there should be at least some drawings, cleaning and Aftercare instructions, spec of worktop and splashbacks, sink



- iv. Missing manuals and specs for Cinema Bar
 - 1. Stone worktop (spec and cleaning and Aftercare)
 - 2. Fridge
 - 3. Freezer
 - 4. Tap
 - 5. Sink
- 4. Kitchen Tap – three is only one page from Ludek Ltd referring to Aerator. But not the actual tap.

8. Sanitaryware

- i. Missing Sanitaryware Schedule, so we can't check the included data sheets against the Schedules.
 - ii. But just a quick run through the supplied manufacturers instructions, we are missing
 - 1. WCs (frame, toilet, flushing plate, fixing frame)
 - 2. The spec of demister, even Ludek Ltd is mentioning that it is included in their O&Ms, but it isn't
 - 3. Also, for instance, some rooms mentioned in the sanitaryware include a loo brush, and some not
 - 4. There aren't any cleaning and aftercare instructions for used finishes
 - iii. Missing Shower Screens Drawings, Cleaning & Aftercare instructions for all Bathrooms / Shower Rooms
 - iv. Who supplied all the vanity units & basin
- 1. Master Bathroom – missing bath spec
 - 2. Basement Cloakroom – It looks like it also includes the sanitary from the B5. Ensuite 1?
 - 4. S4 - two documents are called Lo Roo Holders, but one of them is Loo Brush

9. Finishes

- 1. Finishing Schedule
 - i. In all sections, it is highlighted as Preliminary Schedule. Is there a final schedule?
 - ii. As it still shows some lines in red P4 & P5, or TBC P15, 21, 23?
 - iii. Are the suppliers just suggestions or where they used, as it is not clear



2. Timber Flooring

- i. There should be at least a note of what was supplied – such as Wide Plans with Microbevel – TR0467 (taken from the Finishing Schedule)
- ii. Same as which adhesive was used (if glued)
- iii. Did the planks arrive finished? Or unfinished. What finish was applied to them? As the documents only mention Aftercare but not what was applied. What if the whole floor in one room needs to be replaced? The manual should include this

3. Stone & Tiles

- i. According to the Finishing Schedule, there should be many more suppliers of stone and tiles.
- ii. It should be clear which supplier supplied which stone/tile, which should be then provided with cleaning and aftercare instructions for all supplied material
- iii. Perhaps, it should then be split into suppliers as done with the paint
- iv. Missing information on used grouting and sealants in all areas

4. Stucco Plaster

- i. No comments

5. Paint – Ludek Ltd

- i. No comments

6. Paint – Ludek Ltd

- i. No comments.
- ii. Perhaps only the product advice sheets should be named to what is inside them, as from “gbeeg”, it isn't clear to which type of paint it refers. In this case, it was Estate Eggshell. But this is a small detail.

7. Ironmongery Schedule

- i. Is this a final schedule? As it dates to 18.2.2019
- ii. Still, we are missing any cleaning and aftercare instructions
- iii. Did Ludek Ltd supply all the ironmongery, as stated in the Schedule?
- iv. The Schedule still has a few TBC items, mainly for exterior doors



10. **Specialist Items**

1. Alarm – Fire

- i. There should be at least a note about where to find as-installed drawings (in this case, it is under Ludek Ltd – Drawings. Still, the drawings are called AV& Security, but there isn't a legend related to Fire Alarm; only smoke detectors are shown there. Are there any other drawings?
- ii. Maintenance Proposal missing, unless this company won't be carrying the annual/bi-annual services

2. AV System

- i. This folder is a bit confusing folder, as inside is also Intruder Alarm, CCTV, Door Entry etc. Unless it is called Ludek Ltd, which will indicate what was installed by them
- ii. Also, some documents are also outside the main folder and are duplicated
- iii. The AV system manual is also saved under Mechanical Section
- iv. The Ludek Ltd Schedule issued 4.1.2022 still has some "TBC" and "Omitted?" items.
- v. I would also expect some Home User Guide explaining how to use the system. Attached is a sample of what we usually receive from AV Contractors
- vi. The Electrical / AV O&M Manuals are a bit confusing, as the legend doesn't correspond to the points below, under AV/Lighting section 7 (Gmail is missing).
- vii. Drawings from Ludek Ltd aren't marked As Installed / As-Built – to be moved to another section
- viii. Missing Small Power Drawings, but noticed that small power (sockets/spurs etc.) are mentioned in the AV & Security Drawings. Perhaps, only the legend is missing?

3. Handrail

- i. Shouldn't there be any drawings?
- ii. Have they also polished the rest of the handrail? As it is unclear who actually carried out this work, it looks like some of the handrails exist from the Finishing Schedule.
- iii. What finish was applied to the handrail? (at least the spec should be mentioned in the O&M issued by Ludek Ltd

4. Joinery

- i. Missing drawings, but this is already mentioned in the Drawings section



5. Windows & Doors Schedules

- i. Window Schedule - still includes a lot of TBC items and is from 2020
- ii. Missing Window Ironmongery Schedule
 1. New Windows - missing
 - a. Manufacturers / Installers Details
 - b. Drawings
 2. Rooflights (Ludek Ltd?) – missing
 - a. Drawings
 - b. Warranties
 - c. Maintenance and Aftercare (check if any of the installed openings should be annually reviewed by the manufacturers)
 - d. Commissioning of motorised rooflights (if applicable)
 - e. Check with manufacturers if
- iii. Door Schedule - still includes TBC items and is listed as Proposed Doors, missing details of hinges, bolts and other locking mechanisms
 1. New Internal Doors – missing
 - a. Manufacturers / Installers Details
 - b. Drawings
 - c. Specification of the sliding mechanism
 - d. If custom-made, proof of Fire Rating, otherwise standard FD30 Certificate should be provided
 2. New Entrance Doors (3No) - missing
 - a. Manufacturers / Installers Details
 - b. Drawings
 - c. If custom-made, proof of Fire Rating, otherwise standard FD30 Certificate should be provided
 - d. List of Ironmongery used
 3. New Terrace / French Doors
 - a. Manufacturers / Installers Details
 - b. Drawings
 - c. If custom-made, proof of Fire Rating, otherwise standard FD30 Certificate should be provided
 - d. List of Ironmongery used
 - e. Cleaning & Aftercare Instructions
 - f. Warranties



Other Comments to Missing Items

Mechanical

1. Utilities – Gas, Water, Electrical, Landline

- If any of the above utilities were upgraded, information about the upgrade must be included in the O&Ms, including any other relevant correspondence, drawings etc

2. Heating equipment

- There isn't any information about the main source of heating (we assume it is the Wet UFH)
- How is it interlined with A/C, or how can this be controlled
- This is not even clear whether heating, the same as A/C, could be controlled from Control4
- Missing specification and data sheets of
 - Primary Pump(s) (heating and HW Water)
 - Secondary Pump (HW Water)
 - Zone Valves
 - Timers (if installed)
 - Pressure Vessels
 - Low Loss Header (if installed)
 - Pressurisation Unit (if installed)
 - Dosing Point (if installed)
 - Water Softener (if installed)

3. Booster Set – according to notes from Ludek Ltd, it should be installed. If correct, we are missing

- Spec and Data Sheet
- Commissioning Certificate, or a note, that it was installed according to the manufacturer's recommendations

4. Mechanical – Other

- Valve Chart – has this been created for the Plant Room
- Schematic of Plant Room?
- Are there any emergency procedures of what to shut off / close in case of a water leak?
- Are there any garden taps? (the location should be mentioned in the O&Ms, including where to isolate them, unless clear from the drawings)
- Is there garden irrigation? If yes, the specification sheet or how to operate it should be included within the O&Ms



5. Ventilation

- Missing datasheets of
 - MVHR
 - Extract fans
- It isn't clear, from the Ludek Ltd specification, if the extraction is connected to movement sensors or light switches
- Missing drawings of MVHR supply and extract nozzles, same as the termination of exhaust or fresh air supply
- Missing drawings of all extract fans termination

6. Steam Generator

- Missing datasheets of
 - Steam Generator
 - Touch Panel
 - Nozzle
- Commissioning Certificate or at least a note that it was installed according to the manufacturer's recommendations

7. Isolation Valves

- there should be clear instructions for finding all isolation valves within the house (WCs, Basins, Sinks, Shower Mixers, Bath Tubes etc. It should be marked up on the drawings.

Finishes

8. Fireplaces – missing

- If gas is connected, then the gas safety certificate
- If chimneys were re-lined, then the new lining certificate
- Chimney swept test
- Fire Surrounds, Hearts
 - Drawings
 - Specification of any type of fire placed installed (if applicable)
 - Cleaning & Aftercare

9. Mirrors

- Who supplied all mirrors for the bathrooms?
- Who supplied the mirror for Joinery? As their Drawing mentioned, that mirror to be supplied by others

10. Wallpaper

- If confirmed that all laid wallpaper is as per the Finishing Schedule, we should receive at least
 - Aftercare Instructions



- Specification of used adhesive for each wallpaper (this was specified only for the Cinema Room)
- Confirmation if lining paper was used and which grade
- Ideally, Datasheets for each wallpaper, same as batch
- The information on which wallpaper was hand-trimmed just for future reference (not necessary, but helpful information)

11. Skirting & Architraves

- There is no specification or drawings of who supplied them or which type

12. Covings & Cornices

- There is no specification on which types were fitted or who supplied them
- There should also be some basic aftercare instructions

13. Cinema Room

- Was any specific acoustic material used for this room? If yes, the O&Ms must include such information, including the supplier's source, unless standard Builders Merchant

14. Carpets

- The O&Ms should include at least a list of all supplied carpets, rugs or runners, the same as aftercare instructions or recommendations to a specialist contractor

15. Exterior Decorating

- There isn't any information about exterior decoration, which must include specifications and data sheets of
 - Used undercoats
 - Top coats
 - Any other specialist material

16. External Render

- Unless general render was used, there is no need to include any information in the O&Ms. However, if yes, the O&Ms must include specifications and data sheets of
 - All used materials, including ratios
 - List of suppliers or at least contact details of the subcontract

Electrical

17. Emergency Lighting

- Is there any emergency lighting? If yes, either Commissioning Certificate should be provided or a specification of the type of



emergency lighting kit, the same as the information where it will be due for replacement.

18. Blinds

- Ludek Ltd drawings indicate blinds on skylights or other areas. We assume that some might also be electric. If this is correct, the O&Ms should include
 - Information about locations of blinds motors, connections or spurs (if applicable)
 - Supplier's/installer's details
 - Specification and aftercare information

19. Solar Panels – it is unclear if these were installed or not, but if yes, the O&Ms should include

- Datasheets of all supplied equipment
- System Electrical Schematic
- Homeowner's pack
- DC Test Result
- MCS Certificate
- Warranties (Modules, Inverter or Battery)

20. Locations of Drivers

- the O&Ms should also include drawings showing the locations of all drivers, as this is not clear from the Lighting Control drawings

Metalworks

21. Front Gate & Railing around Lightwell, Balustrades or Grilles – if any of the specified was supplied, the O&Ms should include at least

- drawings
- supplier's/installer's details
- applied finish

22. Lightwell Grille – not clear from the Ludek Ltd drawings if the lightwell grille is acting as a means of escape, but a ladder can also be seen on the wall, indicating an escape route. If this is correct, the O&Ms should include at least

- Basic notes about the access and how to use it during the emergency
- Drawings
- Supplier's/installer's details
- Applied finish
- If the escape ladder is new, also provide at least some specification



Construction

23. Basement Construction – according to the Planning, the basement was created as part of the works. We assume that Ludek Ltd followed SE drawings, but the O&Ms must also include

- Drawings indicating waterproofing areas
- Waterproofing Specification and related DataSheets
- Waterproofing Warranty (Delta or similar)
- Insurance Backed Guarantee
- Cube test records (if applicable)
- Underground Drainage Drawings

24. Roofing – we believe that significant alterations to the roof were carried, and the O&Ms should include specifications of

- Used roof tiles/slates (data sheets) and supplier's details if reclaimed tiles used
- Leadwork (codes)
- Guttering / Downpipes (if applicable)
- Insurance Backed Guarantee

25. Stairs – from the Planning Drawings, it is evident that some stairs exist and some are new. The O&Ms should include

- Drawings
- Manufacturer's/installer's details
- Applied finishes, as the Finishing Schedule only indicates that stair treads and handrails should match the floor

26. Bathroom Waterproofing – was Schluter or similar used in the bathrooms/shower rooms as the means of waterproofing? If yes, a specification and data sheets should be included within the O&Ms

27. Garden works

- We assume that soft and hard landscaping was carried in the back garden, the same as some at the front. All material used, same as datasheets where applicable, must be included within the O&Ms
- Same as the list of all used suppliers
- A maintenance Proposal should also be included

28. Brickwork

- Suppose any area of the property required new/reclaimed bricks (matching existing). In that case, specifications, including supplier, must be mentioned in the O&Ms, the same as information about pointing (mainly type/brand of sand used).



29. Side Entrance to Back Garden

- From Google Street View, a builder's access to the rear garden was created. If this will be closed after the completion or is already closed, no information is required. However, if a side entrance was created, details of the opening, Drawing or ironmongery used must be included in the O&Ms.

The O&Ms should also include

30. Planning section with all relevant documentation

31. Residual Hazard & Risk Register

32. Fire Risk Assessment

33. Fire Strategy Report

34. Fire Prevention Method

35. Brief Description of Works

36. Asbestos Survey report (assume it was carried out prior to the works)

37. Full Project Directory of all involved Subcontractors, Suppliers and Manufacturers

38. Brief information about access to the roof

39. Annual Maintenance Schedule – listing all equipment or areas that require regular or irregular maintenance, including responsible companies