

Wall Analysis Report

Generated on 2025-07-02 19:13



CommercialBuildingInternalWallTypesGroundFloorLevel01FloorPlans-13488280890

Step 1: Identify and List All Unique Wall Types

From the OCR and the plan legend, the following unique wall types are identified (with their colour codes for cross-reference):

- SW.401
- WL.401
- WL.402
- WL.404
- WL.405
- WL.406
- WL.407
- WL.408
- WL.409
- DW.451
- DW.452
- DW.453
- DW.454
- SH.451
- SH.452
- SH.453
- CC.401

Step 2: Count Occurrences and Estimate Linear Lengths

Methodology

- **Count:** Each wall type is counted based on the number of labelled segments on both Ground and Level 01 plans.
- **Length:** Using the scale (1:125), measure the length of each wall segment. For this summary, lengths are estimated based on typical room sizes and the number of segments, as precise digital measurement is not possible here.

Table of Wall Types

Wall Type	Count	Total Length (m)	Description
SW.401	22	180	Blockwork wall
WL.401	18	90	Wall lining
WL.402	4	18	Wall lining (variant)
WL.404	14	60	Wall lining (variant)
WL.405	3	12	Thermally insulated wall lining
WL.406	7	28	Acoustic wall lining
WL.407	3	10	Thermally insulated wall lining
WL.408	2	8	Independent wall lining
WL.409	2	8	Independent wall lining
DW.451	7	28	Drywall partition
DW.452	13	52	Drywall partition (variant)
DW.453	16	64	Drywall partition (variant)

Wall Type	Count	Total Length (m)	Description
DW.454	2	8	Drywall partition (variant)
SH.451	10	40	Shaft wall
SH.452	7	28	Shaft wall (variant)
SH.453	2	8	Shaft wall (variant)
CC.401	2	8	Column casing

Note: Lengths are estimated based on visual scaling and typical room dimensions. Actual measurement with CAD tools would yield more precise results.

Step 3: Match Wall Types to Technical Descriptions

Descriptions are matched using the plan legend and typical UK construction terminology:

- **SW.401:** Blockwork wall (solid masonry, typically for structural or fire compartmentation)
- **WL.401, WL.402, WL.404, WL.405, WL.406, WL.407, WL.408, WL.409:** Wall lining systems (generally plasterboard on metal frame, with variants for thermal/acoustic/independent linings)
- **DW.451, DW.452, DW.453, DW.454:** Drywall partitions (metal stud partitions with plasterboard, with variants for fire/acoustic performance)
- **SH.451, SH.452, SH.453:** Shaft walls (specialist partitions for risers/shafts, often with enhanced fire/acoustic performance)
- **CC.401:** Column casing (encasement of structural columns, typically with fire-rated board)

Step 4: Summary Table

Wall Type	Count	Total Length (m)	Description
SW.401	22	180	Blockwork wall
WL.401	18	90	Wall lining
WL.402	4	18	Wall lining (variant)
WL.404	14	60	Wall lining (variant)
WL.405	3	12	Thermally insulated wall lining
WL.406	7	28	Acoustic wall lining
WL.407	3	10	Thermally insulated wall lining
WL.408	2	8	Independent wall lining
WL.409	2	8	Independent wall lining
DW.451	7	28	Drywall partition
DW.452	13	52	Drywall partition (variant)
DW.453	16	64	Drywall partition (variant)
DW.454	2	8	Drywall partition (variant)
SH.451	10	40	Shaft wall
SH.452	7	28	Shaft wall (variant)
SH.453	2	8	Shaft wall (variant)
CC.401	2	8	Column casing

Step 5: Bill of Quantities (BoQ)

Item No.	Description of Work	Unit	Quantity	Rate (£)	Total (£)
1.1	SW.401: Blockwork wall	m	180	85.00	15,300.00
1.2	WL.401: Wall lining	m	90	38.00	3,420.00
1.3	WL.402: Wall lining (variant)	m	18	40.00	720.00
1.4	WL.404: Wall lining (variant)	m	60	40.00	2,400.00
1.5	WL.405: Thermally insulated wall lining	m	12	48.00	576.00
1.6	WL.406: Acoustic wall lining	m	28	52.00	1,456.00
1.7	WL.407: Thermally insulated wall lining	m	10	48.00	480.00
1.8	WL.408: Independent wall lining	m	8	55.00	440.00
1.9	WL.409: Independent wall lining	m	8	55.00	440.00
1.10	DW.451: Drywall partition	m	28	46.00	1,288.00
1.11	DW.452: Drywall partition (variant)	m	52	48.00	2,496.00
1.12	DW.453: Drywall partition (variant)	m	64	50.00	3,200.00
1.13	DW.454: Drywall partition (variant)	m	8	52.00	416.00
1.14	SH.451: Shaft wall	m	40	65.00	2,600.00
1.15	SH.452: Shaft wall (variant)	m	28	68.00	1,904.00
1.16	SH.453: Shaft wall (variant)	m	8	70.00	560.00
1.17	CC.401: Column casing	m	8	90.00	720.00

Summary of Assumptions

- **Rates:** Unit rates are estimated based on UK 2024 market averages for supply and install, including typical preliminaries and overheads.
- **Measurement Accuracy:** Wall lengths are estimated visually using the 1:125 scale and typical room dimensions. Actual site/CAD measurement may vary.
- **Description Match Confidence:** Wall types are matched to descriptions using the plan legend and standard UK construction terminology. If technical detail sheets are provided, matches can be confirmed or refined.
- **Units:** All quantities are measured in linear metres, as is standard for wall partitions and



CommercialBuildingInternalWallTypesTypicalDetails1of3-1348828089063799268_ma

Step 1: Identify and List All Unique Wall Types

From the OCR and the technical detail sheet image, the following internal wall types are identified:

- DW.451
- DW.452
- DW.453
- DW.454
- SH.451
- SH.452
- SH.453

Step 2: Count Occurrences and Estimate Linear Lengths

Note: As the floor plan image is not provided here, I will demonstrate the process with **sample counts** and **estimated lengths**. Please adjust these values based on actual plan measurements and tag counts.

Wall Type	Count	Total Length (m)	Description
DW.451	8	32	Gypwall Single Frame. Core, reception, shower rooms. 60min fire, Rw 49dB, 122mm thick.
DW.452	6	24	Gypwall Single Frame Enhanced. Core, ground floor circulation, reception, office. 90min fire, Rw 57dB, 154mm thick.
DW.453	5	20	Gypwall Single Frame. Basement circulation, FF lobby. 120min fire, Rw 50dB, 144mm thick.
DW.454	3	12	Gypwall Single Frame. Shower cubicles (pocket doors). N/A fire, Rw 44dB, 124mm thick.
SH.451	4	16	Shaftwall. Risers above ground, between risers. 90min fire, Rw 45dB, 139mm thick.
SH.452	2	8	Shaftwall. Risers all levels except B2, incl. between risers. 120min fire, Rw 45dB, 139mm thick.
SH.453	2	8	Shaftwall. Between adjacent risers, 120min fire, Rw 45dB, 280mm thick.

Assumptions:

- Each wall type's count is based on a hypothetical tag frequency.
- Each wall segment is assumed to be 4m long on average (for demonstration).
- The scale is 1:125; actual lengths should be measured from the plan.

Step 3: Match Wall Types to Technical Descriptions

Descriptions are matched directly from the detail sheet image:

- **DW.451:** Gypwall Single Frame. Core, reception, shower rooms. 60min fire, Rw 49dB, 122mm thick.
- **DW.452:** Gypwall Single Frame Enhanced. Core, ground floor circulation, reception, office. 90min fire, Rw 57dB, 154mm thick.
- **DW.453:** Gypwall Single Frame. Basement circulation, FF lobby. 120min fire, Rw 50dB, 144mm thick.
- **DW.454:** Gypwall Single Frame. Shower cubicles (pocket doors). N/A fire, Rw 44dB, 124mm thick.
- **SH.451:** Shaftwall. Risers above ground, between risers. 90min fire, Rw 45dB, 139mm thick.
- **SH.452:** Shaftwall. Risers all levels except B2, incl. between risers. 120min fire, Rw 45dB, 139mm thick.
- **SH.453:** Shaftwall. Between adjacent risers, 120min fire, Rw 45dB, 280mm thick.

Step 4: Summary Table

Wall Type	Count	Total Length (m)	Description
DW.451	8	32	Gypwall Single Frame. Core, reception, shower rooms. 60min fire, Rw 49dB, 122mm thick.
DW.452	6	24	Gypwall Single Frame Enhanced. Core, ground floor circulation, reception, office. 90min fire, Rw 57dB, 154mm thick.
DW.453	5	20	Gypwall Single Frame. Basement circulation, FF lobby. 120min fire, Rw 50dB, 144mm thick.
DW.454	3	12	Gypwall Single Frame. Shower cubicles (pocket doors). N/A fire, Rw 44dB, 124mm thick.
SH.451	4	16	Shaftwall. Risers above ground, between risers. 90min fire, Rw 45dB, 139mm thick.
SH.452	2	8	Shaftwall. Risers all levels except B2, incl. between risers. 120min fire, Rw 45dB, 139mm thick.
SH.453	2	8	Shaftwall. Between adjacent risers, 120min fire, Rw 45dB, 280mm thick.

Step 5: Bill of Quantities (BoQ)

Item No.	Description of Work	Unit	Quantity	Rate (£)	Total (£)
1.1	DW.451: Gypwall Single Frame (60min fire, Rw 49dB)	m	32	48.00	1,536.00
1.2	DW.452: Gypwall Single Frame Enhanced (90min, Rw 57dB)	m	24	56.00	1,344.00
1.3	DW.453: Gypwall Single Frame (120min, Rw 50dB)	m	20	62.00	1,240.00
1.4	DW.454: Gypwall Single Frame (Pocket doors, Rw 44dB)	m	12	52.00	624.00
1.5	SH.451: Shaftwall (90min fire, Rw 45dB)	m	16	65.00	1,040.00
1.6	SH.452: Shaftwall (120min fire, Rw 45dB)	m	8	72.00	576.00
1.7	SH.453: Shaftwall (120min fire, Rw 45dB, 280mm thick)	m	8	85.00	680.00

Summary of Assumptions

- **Rates:** Unit rates (£/m) are estimated based on typical UK drylining and partition costs (2024) and adjusted for fire/acoustic performance and wall thickness. Actual rates may vary by location, specification, and market conditions.
- **Measurement Accuracy:** Wall counts and lengths are estimated for demonstration. Actual quantities should be measured from the scaled floor plan using the 1:125 scale.
- **Description Match Confidence:** Wall types are matched directly from the provided technical detail sheet. Confidence is high as the codes and descriptions align clearly.
- **Units:** All quantities are in linear metres, as per UK BoQ convention for partitions.
- **Exclusions:** No allowance for doors, glazing, or special interfaces; only straight wall runs are included.
- **Unmatched Types:** All wall types listed in the OCR and detail sheet have been matched; none are unmatched.

If you provide the actual floor plan image and tag counts, I can refine the quantities and costs further.



CommercialBuildingInternalWallTypesTypicalDetails1of3-1348828089063799268_ma

Let's break down the required outputs step by step, using the OCR text and the provided wall type detail sheet image.

1. Identify and List All Unique Wall Types

From the OCR and the detail sheet, the following unique wall types are present:

- DW.451
- DW.452
- DW.453
- DW.454
- SH.451
- SH.452
- SH.453

2. Count How Many Times Each Appears

Note: The OCR text does not provide explicit counts or a floor plan image to measure. In a real scenario, you would count each wall type tag on the plan. For this exercise, let's assume the following sample counts (to be replaced with actuals from the plan):

Wall Type	Sample Count
DW.451	12
DW.452	8

Wall Type	Sample Count
DW.453	6
DW.454	4
SH.451	3
SH.452	2
SH.453	1

3. Estimate the Total Linear Length for Each (using scale 1:125)

Assumption:

- Average wall segment per tag = 3.5m (typical for UK office/commercial layouts; adjust as per actual measurement from plan). - Total Length = Count × Average Segment Length

Wall Type	Count	Total Length (m)
DW.451	12	42.0
DW.452	8	28.0
DW.453	6	21.0
DW.454	4	14.0
SH.451	3	10.5
SH.452	2	7.0
SH.453	1	3.5

4. Match Each Wall Type to Its Technical Description

Descriptions are summarised from the detail sheet:

Wall Type	Description
DW.451	Gypwall Single Frame. Location: Core, reception, shower rooms, and between back-to-back risers. Fire rating: 60min. Acoustic rating: Rw 49dB. Thickness: 122mm.
DW.452	Gypwall Single Frame Enhanced. Location: Core, ground floor circulation, reception, office areas where acoustic performance is required. Fire rating: 90min. Acoustic rating: Rw 57dB. Thickness: 154mm.
DW.453	Gypwall Single Frame. Location: Basement levels circulation, FF lobby and between back-to-back risers. Fire rating: 120min. Acoustic rating: N/A. Thickness: 144mm.
DW.454	Gypwall Single Frame. Location: Shower cubicles where pocket doors are required. Fire rating: N/A. Acoustic rating: Rw 44dB. Thickness: 124mm.
SH.451	Shaftwall. Location: Risers at all above ground levels including office areas where acoustic performance is required. Fire rating: 90min. Acoustic rating: Rw 45dB. Thickness: 139mm.
SH.452	Shaftwall. Location: Risers at all levels except B2 and including between adjacent risers where 120min fire separation is required and height does not exceed 4500mm. Fire rating: 120min. Acoustic rating: Rw 50dB. Thickness: 107mm.
SH.453	Shaftwall. Location: Between adjacent risers where 120min fire separation is required and height does not exceed 4500mm. Fire rating: 120min. Acoustic rating: Rw 45dB. Thickness: 280mm.

5. Summary Table

Wall Type	Count	Total Length (m)	Description
DW.451	12	42.0	Gypwall Single Frame. Core, reception, shower rooms, back-to-back risers. 60min fire, Rw 49dB, 122mm thick.
DW.452	8	28.0	Gypwall Single Frame Enhanced. Core, circulation, reception, offices. 90min fire, Rw 57dB, 154mm thick.
DW.453	6	21.0	Gypwall Single Frame. Basement, FF lobby, back-to-back risers. 120min fire, 144mm thick.
DW.454	4	14.0	Gypwall Single Frame. Shower cubicles with pocket doors. Rw 44dB, 124mm thick.
SH.451	3	10.5	Shaftwall. Risers above ground, offices, 90min fire, Rw 45dB, 139mm thick.
SH.452	2	7.0	Shaftwall. Risers all levels except B2, 120min fire, Rw 50dB, 107mm thick.
SH.453	1	3.5	Shaftwall. Adjacent risers, 120min fire, Rw 45dB, 280mm thick.

Bill of Quantities (BoQ)

Sample rates (for illustration; actual rates to be confirmed with market pricing):

- Standard Gypwall: £40/m
- Enhanced Gypwall: £48/m
- High fire/acoustic Shaftwall: £55/m

Item No.	Description of Work	Unit	Quantity	Rate (£)	Total (£)
1.1	DW.451: Gypwall Single Frame (60min fire, Rw 49dB)	m	42.0	40.00	1,680.00
1.2	DW.452: Gypwall Single Frame Enhanced (90min, Rw 57dB)	m	28.0	48.00	1,344.00
1.3	DW.453: Gypwall Single Frame (120min fire)	m	21.0	48.00	1,008.00
1.4	DW.454: Gypwall Single Frame (pocket doors, Rw 44dB)	m	14.0	40.00	560.00
1.5	SH.451: Shaftwall (90min fire, Rw 45dB)	m	10.5	55.00	577.50
1.6	SH.452: Shaftwall (120min fire, Rw 50dB)	m	7.0	55.00	385.00
1.7	SH.453: Shaftwall (120min fire, Rw 45dB, 280mm thick)	m	3.5	60.00	210.00

Total: £5,764.50

Summary of Assumptions

- **Rates:** Sample rates are estimated based on typical UK market values for commercial drylining and shaftwall systems. Actual rates may vary by location, specification, and procurement.
- **Measurement Accuracy:** Wall counts and lengths are estimated based on assumed average wall segment length (3.5m per tag). Actual measurements should be taken from the scaled floor plan.
- **Description Match Confidence:** Wall type-to-description matching is high confidence, as the detail sheet directly lists each wall type and its specification.
- **Unmatched Wall Types:** All wall types from the OCR and detail sheet have been matched. If additional types are found on the plan, they should be added accordingly.

If you provide the actual floor plan image with visible wall tags, I can refine counts and lengths for greater accuracy.



CommercialBuildingInternalWallTypesTypicalDetails2of3-1348828089063799265_ma

Step 1: Identify and List All Unique Wall Types

From the OCR text and the detail sheet image, the following unique internal wall types are identified:

- WL.401
- WL.402
- WL.403
- WL.404
- WL.405
- WL.406
- WL.407

Step 2: Count Occurrences and Estimate Total Linear Length

Note: As the floor plan image is not provided here, I cannot count the exact number of occurrences or measure the total linear length for each wall type. For demonstration, I will use sample counts and lengths. Please replace these with actual measured values from your plan.

Wall Type	Count	Total Length (m)	Description
WL.401	8	32	GypLyner IWL Independent wall lining. All levels including reception, circulation, office areas, staircases. 100mm + 26mm finishes. No fire/acoustic rating.
WL.402	4	14	GypLyner IWL Independent wall lining. Shower rooms, reception, circulation corridors. 124mm thick. No fire/acoustic rating.
WL.403	3	11	GypLyner IWL Acoustic wall lining. Walls between plantrooms on levels 04/05 and office areas. 165mm thick. 90min fire rating, RW 61dB acoustic rating.
WL.404	2	8	Thermally insulated independent wall lining. B2-01 levels where thermal separation required, including walls to retail unit. 300mm thick. U-value: 0.22 W/m²K.
WL.405	5	18	Thermally insulated wall lining. Basement and ground floor levels. 102mm thick. U-value: 0.24 W/m²K.
WL.406	2	7	Independent wall lining. Between adjacent risers that do not require fire separation (all levels except B2). 181-206mm thick. No fire/acoustic rating.
WL.407	1	4	GypLyner IWL Independent wall lining. Superloos. 150mm thick. No fire/acoustic rating.

Step 3: Match Wall Types to Technical Descriptions

Descriptions are matched directly from the detail sheet (see below table).

Step 4: Summary Table

Wall Type	Count	Total Length (m)	Description
WL.401	8	32	GypLyner IWL Independent wall lining. All levels including reception, circulation, office areas, staircases. 100mm + 26mm finishes. No fire/acoustic rating.
WL.402	4	14	GypLyner IWL Independent wall lining. Shower rooms, reception, circulation corridors. 124mm thick. No fire/acoustic rating.
WL.403	3	11	GypLyner IWL Acoustic wall lining. Walls between plantrooms on levels 04/05 and office areas. 165mm thick. 90min fire rating, RW 61dB acoustic rating.
WL.404	2	8	Thermally insulated independent wall lining. B2-01 levels where thermal separation required, including walls to retail unit. 300mm thick. U-value: 0.22 W/m²K.

Wall Type	Count	Total Length (m)	Description
WL.405	5	18	Thermally insulated wall lining. Basement and ground floor levels. 102mm thick. U-value: 0.24 W/m²K.
WL.406	2	7	Independent wall lining. Between adjacent risers that do not require fire separation (all levels except B2). 181-206mm thick. No fire/acoustic rating.
WL.407	1	4	GypLyner IWL Independent wall lining. Superloos. 150mm thick. No fire/acoustic rating.

Step 5: Sample Bill of Quantities (BoQ)

Item No.	Description of Work	Unit	Quantity	Rate (£)	Total (£)
1.1	WL.401: GypLyner IWL Independent wall lining	m	32	38.00	1,216.00
1.2	WL.402: GypLyner IWL Independent wall lining	m	14	40.00	560.00
1.3	WL.403: GypLyner IWL Acoustic wall lining (90min FR)	m	11	55.00	605.00
1.4	WL.404: Thermally insulated independent wall lining	m	8	60.00	480.00
1.5	WL.405: Thermally insulated wall lining	m	18	42.00	756.00
1.6	WL.406: Independent wall lining (risers, no FR)	m	7	45.00	315.00
1.7	WL.407: GypLyner IWL Independent wall lining (superloos)	m	4	40.00	160.00

Summary of Assumptions

- **Rates:** Unit rates are estimated based on typical UK drylining and partitioning rates (2024). Actual rates may vary by location, specification, and contractor pricing.
- **Measurement Accuracy:** Counts and lengths are illustrative. Actual quantities should be measured from the scaled floor plan using the 1:125 scale.
- **Description Match Confidence:** Wall types are matched with high confidence to the technical descriptions provided on the detail sheet. If any wall types are present on the plan but not on the detail sheet, they should be flagged for clarification.
- **Units:** All quantities are in linear metres, as per standard UK BoQ practice for wall linings/partitions unless area-based measurement is specified.
- **Scope:** Only internal wall linings/partitions are included; no external walls or other elements.

If you provide the actual floor plan image, I can count and measure the wall types precisely.



CommercialBuildingInternalWallTypesTypicalDetails3of3-1348828089063799267_ma

Step 1: Identify and List Unique Wall Types

From the OCR and the detail sheet image, the following wall types are identified: - SW.401 - SW.402 - WL.408 - WL.409

Step 2: Count Occurrences

The OCR text does not provide a count of each wall type's occurrence. Normally, this would be done by visually inspecting the floor plan and counting each wall type label. Since only the detail sheet is provided (not the full floor plan), I will **assume** each wall type appears **twice** as a placeholder for demonstration. Please update with actual counts if available.

Step 3: Estimate Total Linear Length

Without the actual floor plan, I will **assume** each wall type runs for approximately **10m per occurrence** (typical for internal partitions in a commercial building). This is a placeholder—please update with actual measurements if available.

Step 4: Match Wall Types to Descriptions

From the detail sheet, the descriptions are as follows:

SW.401 (Medium density paint quality blockwork)

- 140mm thick
- Medium density paint quality blockwork
- Fire rating: 120min
- Acoustic rating: Rw 45dB
- For use where fire and acoustic performance required

SW.402 (215mm thick, fully bonded brickwork wall)

- 215mm thick, fully bonded brickwork wall, frogged flettons, English bond
- Fire rating: 240min
- Acoustic rating: Rw 59dB
- For use where high fire and acoustic performance required

WL.408 (GypLyner IWL Independent wall lining)

- 97mm thick
- GypLyner IWL Independent wall lining
- Fire rating: N/A
- Acoustic rating: Rw 45dB
- For internal lining to East Party Wall

WL.409 (Gypsum DriLyner Dab lining system)

- 25mm thick
- Gypsum DriLyner Dab lining system
- Fire rating: 120min
- Acoustic rating: Rw 45dB
- For internal lining to Firefighting Lobby

Wall Type Summary Table

Wall Type	Count	Total Length (m)	Description
SW.401	2	20	140mm medium density paint quality blockwork, fire rating 120min, acoustic Rw 45dB
SW.402	2	20	215mm fully bonded brickwork, fire rating 240min, acoustic Rw 59dB
WL.408	2	20	97mm GypLyner IWL independent wall lining, fire rating N/A, acoustic Rw 45dB
WL.409	2	20	25mm Gypsum DriLyner Dab lining, fire rating 120min, acoustic Rw 45dB

Bill of Quantities (BoQ)

Item No.	Description of Work	Unit	Quantity	Rate (£)	Total (£)
1.1	SW.401: 140mm blockwork partition, fire/acoustic rated	m	20	65.00	1,300.00
1.2	SW.402: 215mm brickwork partition, high fire/acoustic rated	m	20	85.00	1,700.00
1.3	WL.408: 97mm GypLyner IWL wall lining	m	20	40.00	800.00
1.4	WL.409: 25mm Gypsum DriLyner Dab lining	m	20	32.00	640.00

Summary of Assumptions

- **Rates:** Sample rates are based on typical UK commercial fit-out rates (2024) and include supply and install. Actual rates may vary by location, specification, and market conditions.
- **Measurement:** Counts and lengths are placeholders (2 occurrences per wall type, 10m each). Actual quantities should be measured from the floor plan using the 1:125 scale.
- **Description Match:** Wall types and descriptions are matched with high confidence from the detail sheet provided.
- **Units:** All quantities are in linear metres, as is standard for wall partitions unless otherwise specified.
- **Exclusions:** No allowance for doors, windows, or special finishes. No area-based linings included.

Note: Please update the count and length columns with actual measurements from the floor plan for a precise BoQ. If you provide the floor plan image, I can extract and measure the wall types accurately.