

GENERAL

The main noise source affecting the proposed development is road traffic. This sound source cannot be moved, removed or have their noise levels reduced easily and as such, good acoustic design will be delivered using the other methods listed. –

ii) Constructing the sound path between source and receiver

iv) Using agreements to manage noise.

The proposed dwelling is set back from the site boundary adjacent to London Road (A24) in addition, every effort has been made to strategically locate the majority of the most noise-sensitive rooms (bedrooms and living room) so that they do not directly overlook London Road.

Where as the majority of the least sensitive rooms (Kitchen, bathroom, dressing room and ground floor study) are located on the elevations subjected to the highest noise levels.

PROPOSED EXTERNAL WALL CONSTRUCTION

- Brick / Block Cavity Wall Construction to comprise: –
- 103mm Brick outer leaf
 - 50mm Clear cavity
 - 100mm Celotex partially fill cavity construction
 - 100mm Mineral wool cavity blockwork
 - 15mm Plaster internal finish

- First Floor Timber Frame Construction to comprise: –
- Vertical clay plain tile hanging on timber-tiling battens
 - Breathable membrane on 9mm Ex. Grade plywood cladding
 - 47x122mm timber stud partition with 90mm Celotex insulation
 - 40mm Celotex lining to internal face of studwork
 - 26mm timber battens
 - 2No. Layers of Gyproc SoundBloc Plasterboard

EXTERNAL GLAZING

The proposed double glazing will comprise differing pane thicknesses< –

South-West Elevation – To comprise a 4mm outer pane, a 12mm cavity & a 6mm inner pane, totalling 22mm in thickness.

All other Elevations – To comprise a 10mm outer pane, a 12mm cavity & a mm inner pane, totalling 26mm in thickness.

This asymmetrical, "thick-thin" configuration enhances both acoustic insulation and thermal efficiency

ROOF CONSTRUCTION

The proposed roof construction will comprise clay plain tile on timber-tiling battens over breathable roofing felt/ underlay on top of a 100mm Celotex insulation.

In addition to the required polyurethane insulation required to meet the standards of thermal insulation for the proposed property, an additional min. of 50mm of mineral wool insulation is to be provided to the ceilings of the proposed dwelling to provide additional acoustic insulation.

VENTILATION

Ventilation strategy for the proposed development to be continuous mechanical supply & extract with heat recovery systems (MHR) in all rooms of the proposed dwelling. As a result it is assumed that no noise break-in through the selected ventilation system is negligible in all rooms.

Note – No trickle vents are to be provided.

OVERHEATING

The most exposed elevations (Front North-East & Side South-East Elevations) Exceed the noise limits stipulated in Approved Document O Therefore, alternative ventilative solutions for the proposed dwelling will be provided, to control overheating & noise.

To include cooling strategies to mitigate the overheating condition for this development in bedrooms. MHRs are proposed with boost & cooling modules.

A overheating consultant will be appointed during the detailed design stage to confirm & finalise the overheating strategy for Building Control Approval.

Where MHR units are set to operate in cooling mode, the cumulative noise level generated by these systems & the level of external noise break-in will be designed to not exceed the noise limits stipulated in Approved Document O.

In order to ensure the cumulative noise levels in bedrooms during the night-time overheating condition do not exceed the limits stipulated in Approved Document O noise breakout from the mechanical systems should be designed such that the reverberation sound pressure level in the bedrooms does not exceed 30 (45) dB(A), when the equipment is operating at its intended design duty. Therefore, in-duct attenuators & the suitably quiet units should be provided.

EXTERNAL BOUNDARIES (REAR GARDEN)

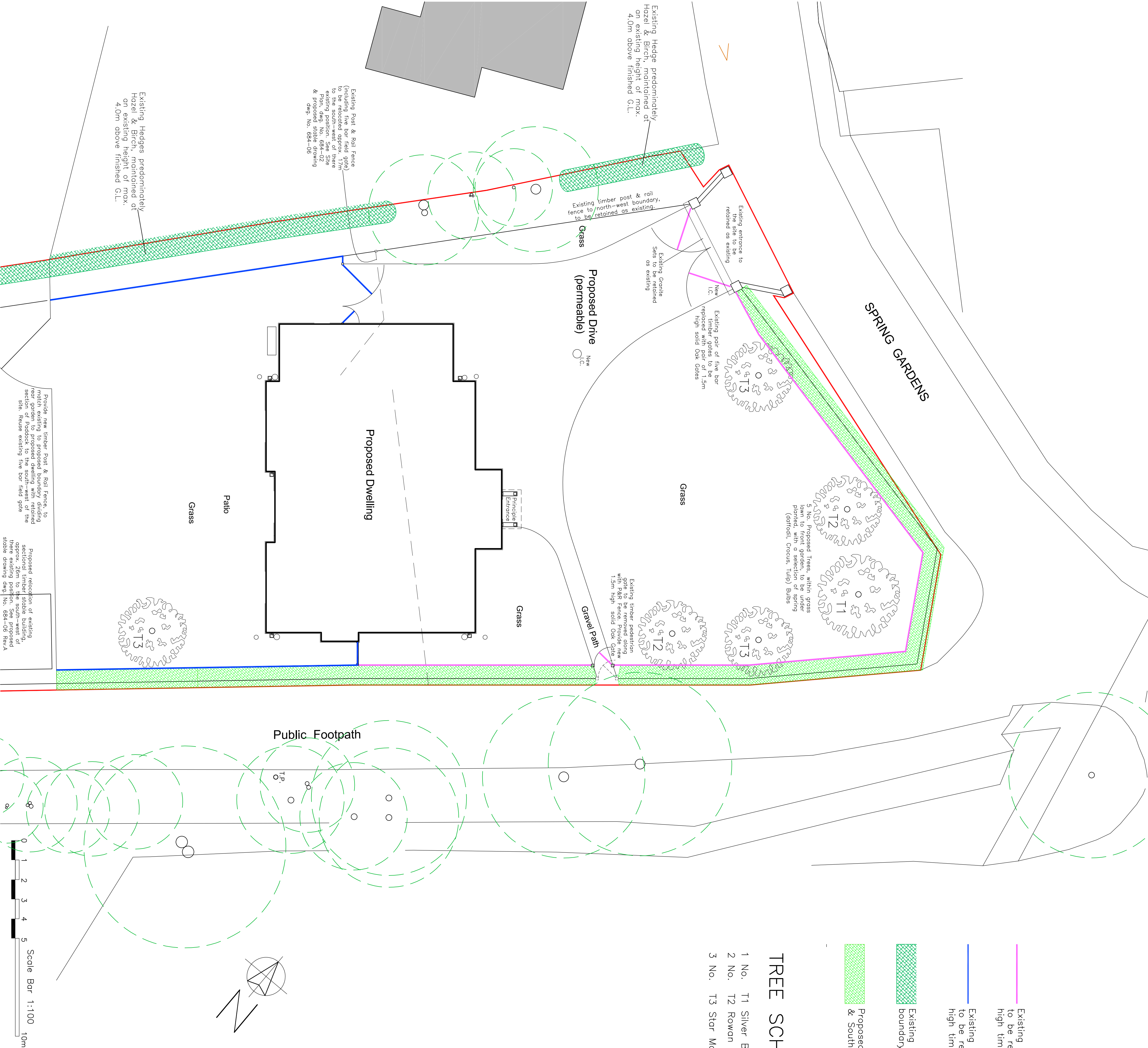
It is proposed that the south-east & north west boundaries of the proposed rear garden, along with the rear returns, are to be provided with a 1.5m high close boarded acoustic fence/ gates (to north-west side of proposed property) with a superficial mass of 15 kgm² with minimal perforations. In addition to this a beech hedge will be planted to the outer face of the proposed acoustic fence.

In addition to this a beech hedge will be planted to the outer face of the proposed acoustic fencing on the south-east boundary, along the existing footpath.

EXTERNAL BOUNDARIES (FRONT GARDEN)

The remaining section of the south-east boundary (along the existing footpath) enclosing the front garden, along with the north-east front boundary, upto the existing entrance to the site, is to be enclosed with a 1.5m high acoustic, with a superficial mass of 15 kgm² with minimal perforations. In addition to this a beech hedge will be planted to the outer face of the proposed acoustic fence.

In addition to this a beech hedge will be planted to the outer face of the proposed acoustic fencing on the north-east boundary, onto Spring Gardens. In addition the existing pair of timber five bar gates to the main entrance onto the site are to be replaced with a pair of 1.5m high solid oak gates, with a superficial mass of 15 kgm² with minimal perforations.



TREE SCHEDULE

- 1 No. T1 Silver Birch (Betula pendula)
- 2 No. T2 Rowan (Sorbus aucuparia)
- 3 No. T3 Stor Magnolia (Magnolia stellata)

- Existing post & Rail Fence to be replaced with 1.8m high timber acoustic fence
- Existing Hedge to North-East boundary to be retained as existing
- Proposed Beech Hedge to North-East & South-East Boundary

This Drawing is to be read in conjunction with dwg. No. 684-01 to 11 Inclusive At all times

Rev.	Description	Date

The Client is entitled to recreation and comply with the statute under the CDM Regs 2015 and the obligations under the Party Wall etc. Act 1996 and Contractors must verify all dimensions on site before commencing any work.

The drawings and drawings notes do not purport to constitute any legal contract. It is advised to verify the full extent of the works with the client. The drawings are not to be copied, reproduced, or otherwise used without the written consent of the Architectural Consultant.

Project

Land East of Spring Gardens

Washington,

W. Sx.

RH20 3BP

ACOUSTIC PLAN

Client

Mr. & Mrs Ripley

Drawing no.

684-12 (A1)

Scale

1 : 100

Date

Mar. 2026

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