TEICNIUIL-PRIORY CONSULTING ENGINEERS Ltd

Photographic Schedule

Location: Whispering Pines, Coolick, Killarney. Co. Kerry, V93 E9P5

Client: Julie Rogers

Dates of inspection: 4/9 /2024

ENGINEER: Matt Clarke Bsc(hons) MSc C. Build E FCABE MIEI

Chartered Building Engineer

Teicniuil-Priory Consulting Engineers Ltd

Priory Grove
Muckross Rd

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Co. Kerry

Photo 1 – Rotten timber joists (within flat roof) - incorrect and inadequate bearing – signs of wet rot (cuboidal cracking) and fungal growth – joists visibily wet. Irreparable Structural damage to joists.

Photo 2 – flat roof over hall. Rotten / wet timber joists – inadequate fixing of joists to trimmer joist.

Photo 3 – 'White rot' visible on joists. Incorrect fixing to trimmer joist – Structural cracking noted and joists now structurally defective.

Photo 4 – Rotten and failed flat roof joist. Timber 'split' and degraded throughout. Wet rot visible

Photo 5 – Visible damp on underside of roof deck – general overall fail of flat roof.

Photo 6 – Rotten flat roof joists – cubiodal fractures present – visible 'white rot' and severe timber degradation noted. Severe damp penetrating through structural roof deck.

Photo 7 – Depth of flat roof joists measures 150mm – undersized for flat roof loads given required span. Structural inadequate.

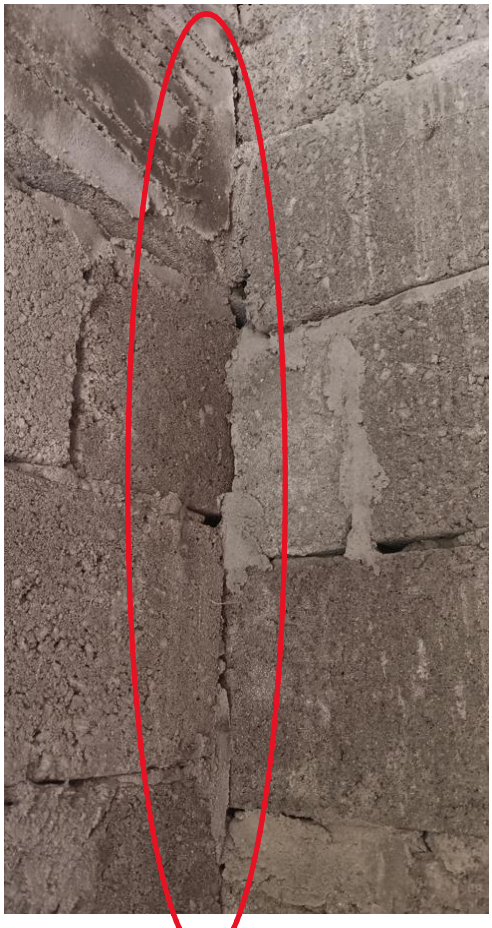

Photo 8 – inadequate 'tying-in' of blockwork – no 'keying in' of blocks, and no ties at wall junction. Poor bed and perpend mortar joints.

Photo 9 – Skirting board reading as 'damp' (MC – 22.5%) due to damp wall / floor

Photo 10 – Hall floor reading as 'wet' (MC index = 605) – lack of correct damp proofing.

Photo 11 – Ceiling Joist (in pitched roof) lounge 2 , measures 110mm. Undersized given span. Substantial damp and timber damage at wall junction, on wall plate. Wet rot / timber damage visible

Photo 12 – Ceiling Joists (in pitched roof) lounge 2 , presents fungal growth. Ends of timber (joist and rafter) are rotten / severely damp.

Photo 14 – Timber rafters rotten – MC = 21.3% (damp) white rot present. Timbers irreparable.

Photo 15– Wall under wall plate – 'saturated' (MC index = 999)

Photo 16– Severe degradation of timber joists and rafter – easily 'crumbled' by hand on timber surface– fungal growth clearly present.

Photo 17– Moisture Content (MC) of timber joist = 54.5% - severely wet.

Photo 18– Moisture Content (MC) of timber cladding adjacent wall = 22.4% - damp. Indactes damp wall structure behind cladding.

Photo 19– Moisture Content index (MC) of floor (lounge 2) = 999 (ie 'saturated'.)

Photo 20– No damp proof membrane within floor (lounge 2) . Floor easily 'broken out' - Weak concrete, not suitable as structural slab.

Photo 21– No damp proof membrane within floor (lounge 2) . Weak concrete presents

Photo 22– Faulty electrical wiring

Photo 23– Structurally inadequate purlin fixing to gable wall. No 'birdsmouth' joint in raft-purlin connection.

Photo 24 -severe mould growth on ceiling , due to defective roof. Severly damp walls present

Photo 25 -severe mould growth on ceiling – due to defective roof. Severly damp walls present - black mould on ceiling due to damp.

Photo 26– Struts provided to support roof (structs measure 50mm x 50mm and 100mm x 50) totally structurally inadequate to support roof. Bowing observed on rafters. Overall sagging noted externally on this roof (see photo no 30) due to inadequate structural support. No 'holding down' straps present. Overall roof is structurally weak.

Photo 27– 2no purlins (measuring 75x255 and 63x225 respectively) spaning over entire length of pitched roof with 1No central support (total purlin span = c12m ie approx 6m span per purlin) this is wholly structurally inadequate. Purlin supports to be max 2.4m spacing. Central strut support is inadequate, no fixing of purlins to each other exists (ie splice joint not present). White rot noted on rafters due to damp / lack of attic ventilation. Structural design of roof is required – roof to be replaced

Photo 28 Thickness of ceiling joist = 100mm. inadequate for any pulin loading.

Photo 29 Black mould growth on ceiling due to structurally defective and leaking roof.

Photo 30 'bow' in roof, due to inadequate structural roof support (see photo no 26).

Photo 31 – roof tiles at 'end of life' Note: the probability of asbestos containing material, within the tile is high. Loose /missing tiles exist, and overall defective roof covering. Structurally damaged vertical flue pipe (probably storm damage), water ingress at flat roof within ensuite, due to failed flashing construction. Damp wall behind boiler enclosure penetrating to internal rooms. Note: aesbestos flue sleeve around stainless steel flue.

Photo 32 Slight cracking in wall (vertical and horizontal)

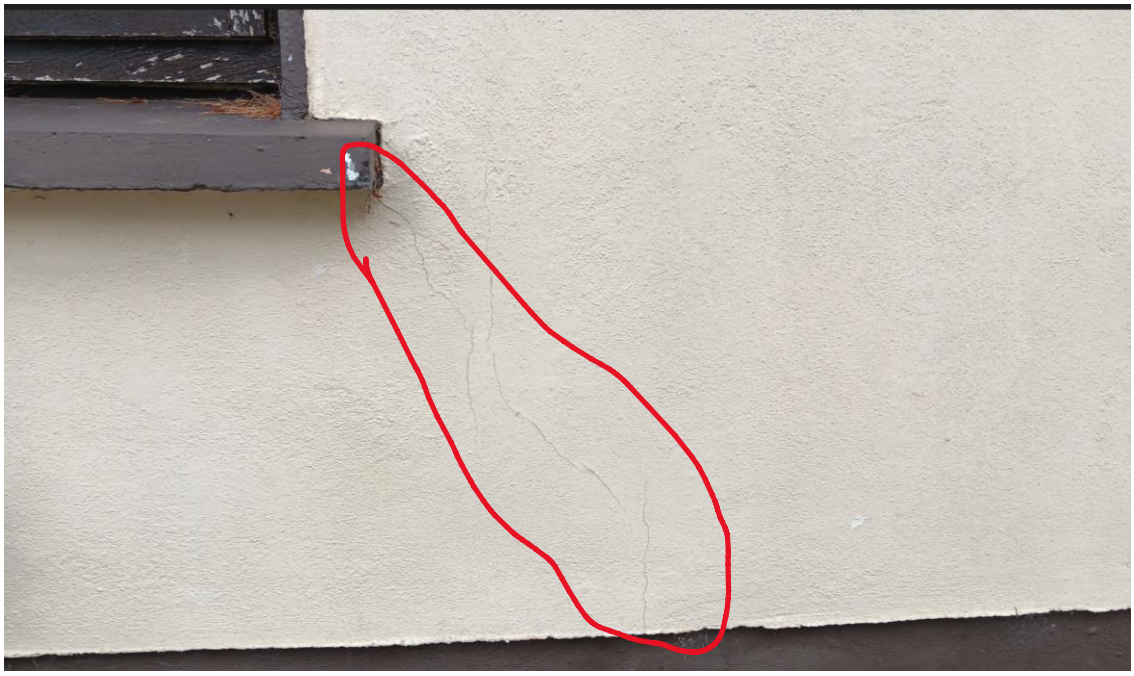

Photo 33 Slight diagonal cracking in wall

Photo 34 damage to window cill spalling / cracking – to be rectified.

Photo 35 – rotten timber cladding over porch, due to defective roof, at front door.

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Photo 36 – timber cladding rotten – rafters visible through hole in cladding – rafters also rotten and structurally defective.

Photo 37 – off-set rainwater outlet pipe from gully – may cause foundation subsidence over time – to be rectified.

Photo 38 – aesbestos sleeve from bolier – specialist removal. Note: boiler considered perished.

Photo 39 – severe structural damage to drainage cover and frame. Cover completely disintegrated. Substantial health hazard presents.

Photo 40 – Severe structural damage to concrete inspection drainage manhole

Photo 41 – signs of corrosion at copper pipe. House approx 50 years old – typical age for copper radiator pipes to leak (pitting corrosion)

Photo 42 Drainage manhole inadequate - too shallow, structural integrity fail, very poor construction detail and presents health hazard.

Photo 43 Drainage manhole inadequate - Very poor Construction detail. Block drains, requires replacement.

Photo 44 Drainage manhole inadequate - Very poor Construction detail. Cover and frame structurally failed.

Photo 45 Drainage manhole inadequate - Stuctural fail of sides of manhole, cover and fame. Very poor Construction detail – requires replacement.

Photo 46 Drainage gulley inadequate - Very poor construction detail, and arrangement contrary to Building Regulations

Photo 47 Structural failure of retaining wall – Structural crack presents (c.20mm wide) wall not vertical and is 'leaning', no 'weep' holes in wall. Land drainage absent.

Photo 48 Structural failure of retaining wall – wall severely 'leaning' (approx 100mm displacment from vertical)

Photo 49 Structural inadequacy of garage roof; Purlins undersized, insufficient rafters, rot presenting at wall plate, no 'holding down' straps present – Entire garage roof to be replaced. (note: all electrical wiring, sockets etc are not IP rated, for semi- exposed /damp area, and should be replaced – all wiring to current IEE standards).

Photo 50 Structural inadequacy of garage roof; Purlins undersized, insufficient rafters, rot presenting at wall plate, no 'holding down' straps present – Entire garage roof to be replaced.

Photo 51 Overview of rear of garage – roof structurally inadequate. rear gable wall potentially acting as a retaining wall – current wall not adequate as a retaining wall. (see photo 52)

Photo 52 – Garage wall is not designed as a retaining wall - possiblity of potential collapse of ground – which would compromise the wall structure.

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