NOTES/ SPECIFICATIONS:

1. Foundation

- Raft Foundation
- See accompanying Foundation steel Schedule for steel sizes and numbers
- Radon barrier must be laid with a radon sump, max 11m to outside of raft
- 35N concrete to be used.
- Pyrite free certificate for hardcore to be issued to the engineer before concrete is poured.
- Slump test to be carried out on each load of concrete and results recorded and provided for Engineers inspection. Slump to be max 75mm.
- Cube test to be carried out on each load (28 day test) and result submitted to Engineer.
- Engineer to inspect steel before concrete is poured.

2. Walls

External walls

- 350mm cavity walls
- See DETAIL 1for external wall detail
- External wall is conc. block cavity wall construction with 150mm cavity
- No conc. block cavity closer. Insulation to run all the way to meet eaves insulation.
- Wall ties to be stainless steel wire ties, 5 ties/m² minimum.
- Wall ties around opes to be at every course as per building regulations Part A

Internal walls

- 100mm Concrete block walls & 215mm where shown
- Timber stud walls where shown with min. 75x50 studs @ 400ctrs finished in 12.5mm plasterboard to be skimmed

3. Floors:

- See **DETAIL 1** ground floor construction detail.
  75mm concrete screed on 150mm kingspan floor insulation.
- 1st floor to be made up of 200mm hollowcore & 75mm screed on top

4. Stairs

- Timber stairs to be designed and constructed as per plans. Stairs must be designed and installed in compliance with Part K of the Building Regulations

5. Roof

SEE detail on ALL sections
3 roof section, spec does vary, so see all sections for spec + method
Cut roofs - Natural slate (or natural effect) finish
N.B. Cross battens required on the roof
175x50 Rafters on main rood
175x50 Collar Ties
150 x 38 Struts
150 x 38 runners
225 x 50 Joists
225 x 75 purlins

6. Structural Steel

- See all drawings for details on the steel for this build
- See schedule for sizes of steel beams required.
- All Steel (beams) to be treated with Intumescent paint.
- Where RSJ is resting on wall (as shown on plans) a pad is cast in-situ to spread the load underneath

7. Finishes

- Exterior to be finished in 200mm Natural stone where indicated on plan
- Remainder of external wall to be finished in wet dash render
- Interior as per drawings - wet plaster finish. All joints taped and sealed.

8. Electrics

- All electrical works and fittings to be strictly installed in accordance with the latest regulations. Mains supply - the contractor shall arrange with the Electricity supplier for supply and provide underground ducting and meter chamber
- Wired Smoke alarms to be fitted in all habitable rooms as per Part B of Regulations
- Carbon Monoxide alarms to - Where a new or replacement open-flued or flueless combustion appliance, not designed solely for cooking purposes, is installed in a dwelling, a carbon monoxide (CO) alarm should be provided:
  (a) in the room where the appliance is located, and
  (b) either inside each bedroom or, within 5 m (16 ft.) of the bedroom door, measured along the path of the corridor.

9 Air tightness

- Air tightness result expected: 1m³/(h.m²)@50Pa. for the extension.
  Air tightness, continuity of thermal insulation and very careful installation of same will be an essential element of this build. Cold bridging must be eliminated in the building.

10. Heating -

- Refer to Building Energy Assessment (BER)
- Air to water Heat pump system
- Ventilation to be Heat recovery

11. Window & Doors

- Windows and door to be decided by client, U value to be minimum 0.8W/m²K
  Front External door to be of timber construction.

12. Insulation

- **Floor -** Kooltherm (or equivalent) 150mm with 30mm vertical strip of K3 around wall edges
- **Cavity walls -** 110mm kooltherm (or equivalent) rigid insulation
- Cavity Closers - Koolthern cavity closers to be used to close off cavities at reveals and sills to prevent cold bridging.

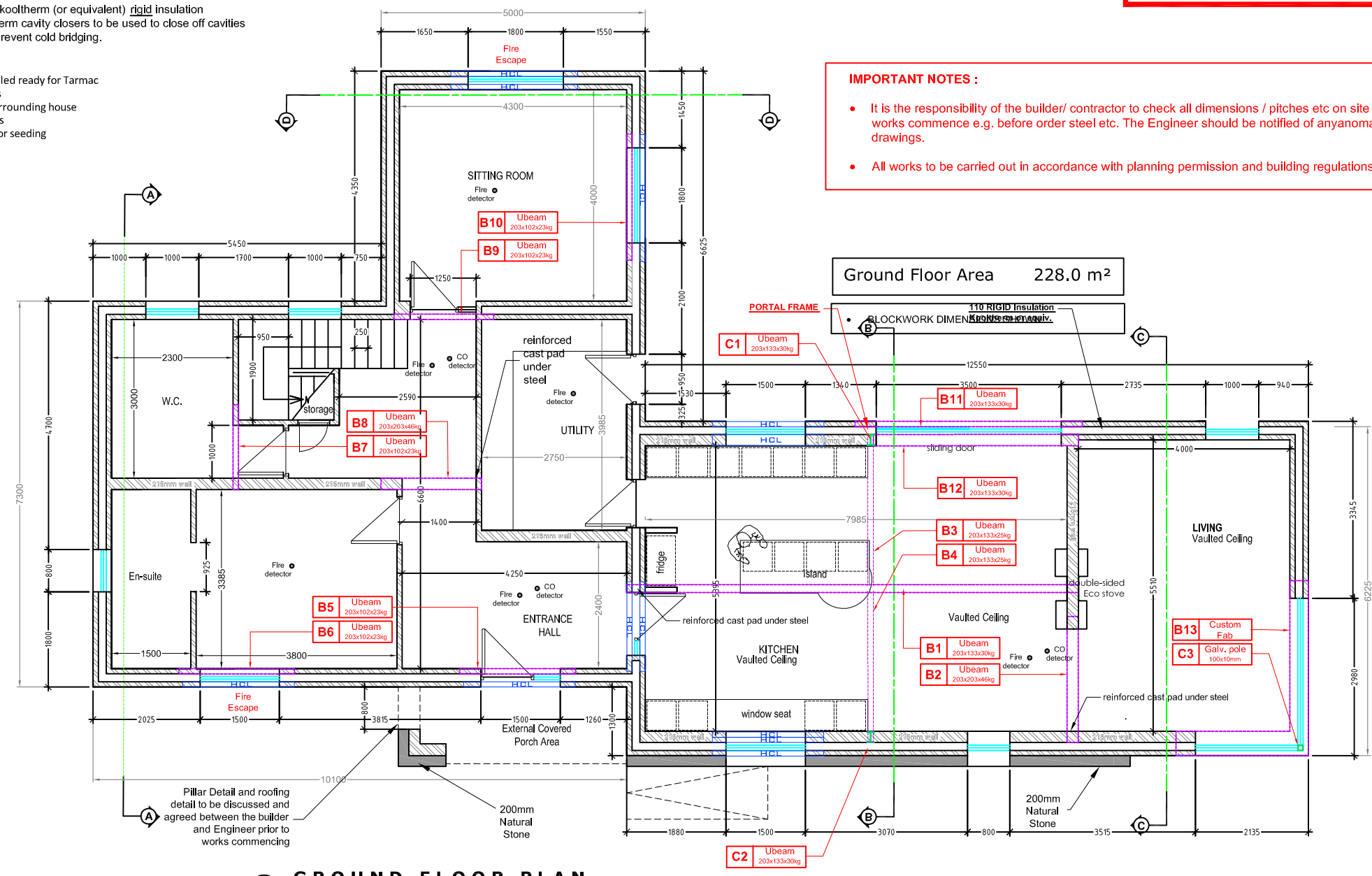
13. External Works

1. New driveway - levelled ready for Tarmac
2. Kerbing 150mm kerbs
3. 1000mm footpath surrounding house
4. connection to services
5. Level out site ready for seeding

T E N D E R

IMPORTANT NOTES :

- It is the responsibility of the builder/ contractor to check all dimensions / pitches etc on site before works commence e.g. before order steel etc. The Engineer should be notified of anyanomalies in the drawings.
- All works to be carried out in accordance with planning permission and building regulations



GROUND FLOOR PLAN
Scale 1:100 @A3, 1:50 @A1

STEEL SCHEDULE **Must be read in conjunction with plans and sections supplied**
*Please note, all dimensions must be checked on site by the contractor prior to ordering of steel

ITEM		DRG. REF.	SIZE/CODE	LENGTH	Total No.	NOTE
B1	UNIVERSAL BEAM		254 X 146 X 31KG	8550	2	
B2	UNIVERSAL BEAM		203 X 203 X 46KG	2450	1	Can be replaced with 2 no. 203 x 102
B3 - B4	UNIVERSAL BEAM		203 X 133 X 30KG	4400	2	
B5 - B6	UNIVERSAL BEAM		203 X 102 X 23KG	2400	2	
B8	UNIVERSAL BEAM		203 X 203 X 46KG	1900	1	
B9	UNIVERSAL BEAM		203 X 102 X 23KG	2050	1	Can be replaced with 2 no. 203 x 102
B10	UNIVERSAL BEAM		203 X 102 X 23KG	2600	1	
B11	UNIVERSAL BEAM		203 X 133X 25KG	4300	1	
B12	UNIVERSAL BEAM		203 X 203 X 46KG	3900	1	Can be replaced with 2 no. 203 x 102
B13	CUSTOM FAB CORNER		TBC	TBC	1	Thermal Corner Lintel STEELITE or SIMILAR To be approved by Engineer
C1 - C2			203 X 133X 30KG	2750*	1	*Length TBC on site
C1	STEEL POLE		100mm x 10mm	2750*	1	GALVANIZED Plate welded top and bottom *Length TBC

LEGEND

concrete blockwork
Insulation
steel beam
HCL Heavy Conc. lintel

- All conditions of Pl. Ref. no. 21/17 are to be complied with.
- Any proposed variations from the details in these drawings must be first agreed with the Engineer.

PORTAL FRAME

Portal frame with steel ridge shown here for vaulted area. If a truss system by others is to be installed, it must be first agreed with the Engineer.

CYRIL J KELLY & ASSOC.
CONSULTING ENGINEERS
Unit 29, Kilkerrin Park, Liosbán,
Tuam road, Galway
Tel: (091)-758530 (086)-8578708
E-Mail: info@cyrilkellyengineers.com

Client: **Pamela Crowe + Jason O'Neill**
Project: **Dwelling House**
Drawing: **Structural Plans**

REVISION **P1**
DRAWING NO. **PJ21-CS-102**
Date: **April 2021**
Drawn By: **CMT**
Checked By: **CJK**
Drawing Status: **BCMS ISSUE**

Rev.	Date	Description	By	Checked
P1		BCMS ISSUE	CMT	CJK