

2 Myreton Cottages,
Insch,
Aberdeenshire,
AB52 6LS

For the attention of Mr Simon Watt,
By e-mail only

Date: 20th June 2016

Dear Simon,

**TOWN AND COUNTRY PLANNING (SCOTLAND) ACTS - PLANNING APPLICATION:
2015/0305/DET. ERRECTION OF OFFICE ACCOMODATION SAWMILL
BALLIEMEANOCH, STRACHUR, ARGYLL AND BUTE, PA27 8DW.**

Following receipt of the SEPA response (PCS/145953) dated 6th April 2016 and their maintained objection with respect to the above project we are pleased to provide the following comments and additional information.

Under Section 1.1 of the letter (PCS/145953) SEPA has requested further information to address the following key points:

- 1. If it is not possible to locate development out-with the floodplain, we will require the provision of adequate flood mitigation measures. This may include compensatory storage. We are not supportive of stilts as a flood mitigation measure;*
- 2. Provision of appropriate site emergency access and egress measures; and*
- 3. Provision of velocity information in a tabular format and amendment of cross section 5 such that no "glass-walling" is present.*

As per our previous correspondence on this matter, we set out below our responses to address the points raise above.

Key Point 1: The provision of adequate flood mitigation measures.

As has been previously been stated in earlier correspondence, the location of the proposed office within the site cannot be located out-with the floodplain due to operational, logistical, aesthetic and health and safety requirements.

With respect to adequate flood mitigation measures, we propose that proposed office development will be altered to allow the under floor building to inundate. This will be achieved by the use of a suspended floor slab and both high level and low level air venting. The high level air vents will provide air movement throughout any flood event and the low level vents will allow water ingress and egress through the building. The solumn of the building will be profiled to allow any flood water to both enter and leave the building in a controlled manner as well as to remove any risk of under floor ponding. The final floor levels will be maintained at the agreed level to avoid risk of flooding.

The use of the air vents in the building will allow the free movement of water through the building at a similar or faster rate than the potential water movement through the existing ground conditions and will remove the need for compensatory storage within the site. The proposed development will not utilise stilts.

This approach has been previously approved for use in the West of Scotland arena by SEPA and the local planning authority.

Key Point 2: Provision of appropriate site emergency access and egress measures.

Within the SEPA response, in sub-section 1.7, SEPA make reference to concerns over the provision of safe (i.e. dry) pedestrian access/egress from the proposed development.

Following discussions with the client and the architect for the project, we propose that dry pedestrian access/egress can be provided at the site via the provision of an elevated walkway. A revised site plan has been enclosed with this letter report, showing the proposed elevated walkway linking the main entrance to the office with the road embankment of the A815. The A815 is out-with the functional flood plain of the River Cur and is dry throughout the design storm event. The local topography north of the site, between the site and Strachur is noted to climb significantly with an approximate height gain of around 10m. This route would provide safe (dry) pedestrian access and egress throughout the peak storm event.

It is again worth noting that, as part of the proposed mitigation measures, the site will have an early warning system installed to monitor the water level within the River Cur. This will provide real time flood warning to any site users. This will provide ample warning to evacuate the site if the design storm event were to occur. The telemetered flood warning system can be set up to notify via e-mail, which can be distributed to all site users. The risk to site users is minimised by the commercial nature of the proposed office and occupation being limited to normal business hours.

Key Point 3: Provision of velocity information in a tabular format and amendment of cross section 5 such that no "glass-walling" is present.

In light of the glass-walling identified by SEPA at cross section 5, the model was amended and re-run with cross section 5 extended to eliminate the glass-walling. Cross section 5 was extended an additional 50m on the right hand bank and taken to the approximate road level of the A815. Table 1 below provides the results of the original peak flood water levels against the revised peak flood water levels following the amendment of cross section 5. In addition to this the table also shows the difference in peak water level resulting from the change in cross section 5.

	Section number	Chainage (m)	Peak Water Level (m)		Difference (m)
			Original 1 in 200 year at Manning's n of 0.04 with slope of 0.002	Cross Section 5 Amended 1 in 200 year at Manning's n of 0.04 with slope of 0.002	
River Cur	1	0	38.35	38.35	0
	2	58	37.99	37.98	-0.01
	3	125	37.52	37.51	-0.01
	4	230	37.46	37.43	-0.03
	5	360	37.18	37.07	-0.11
	6	420	36.95	36.95	0
	7	470	36.84	36.84	0

Table 1 – Comparative view of the impact of cross section 5 amendment.

The original glass-walling of the model was conservative in nature as it provided less storage upstream of the A815 road bridge, which forms the main constraint in flow within the modelled reach of the River Cur. The extension of cross section 5 results in a minor drop in overall peak flood water levels upstream of the A815 road bridge and within the site.

The SEPA response also requested that velocity information for the model be provided, as per their technical guidance. Table 2 below provides the requested velocity information in a tabular format.

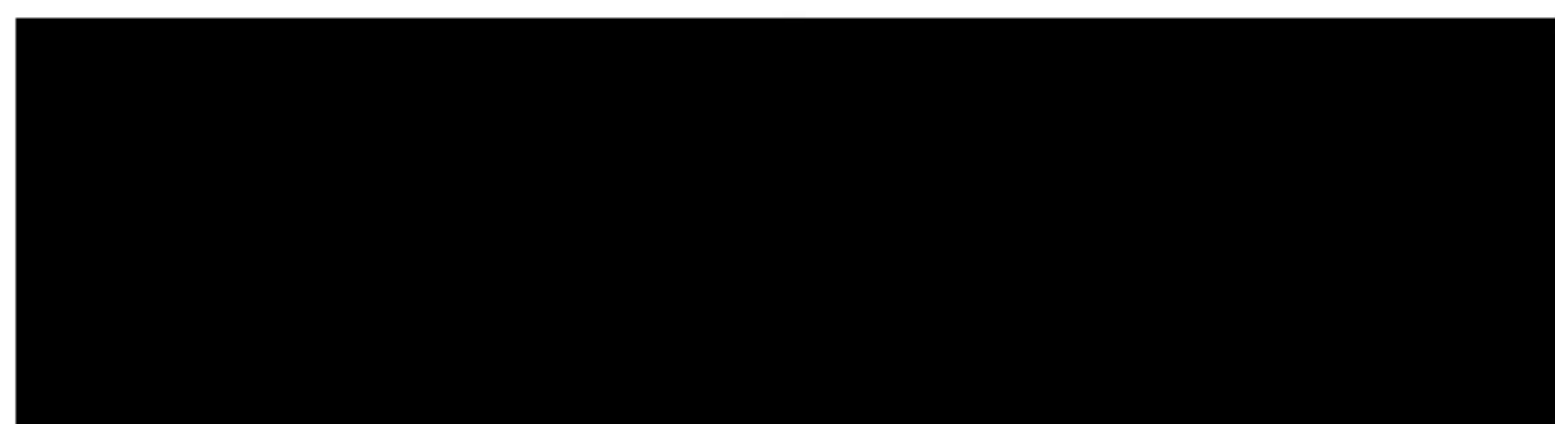
		Velocity (m/s)	
		Section number	Chainage (m)
		1 in 200 year at Manning's n of 0.04 with slope of 0.002	
River Cur	1	0	3.43
	2	58	3.01
	3	125	3.33
	4	230	1.31
	5	360	2.18
	6	420	1.86
	7	470	1.71

Table 2 – Velocity Information for design event.

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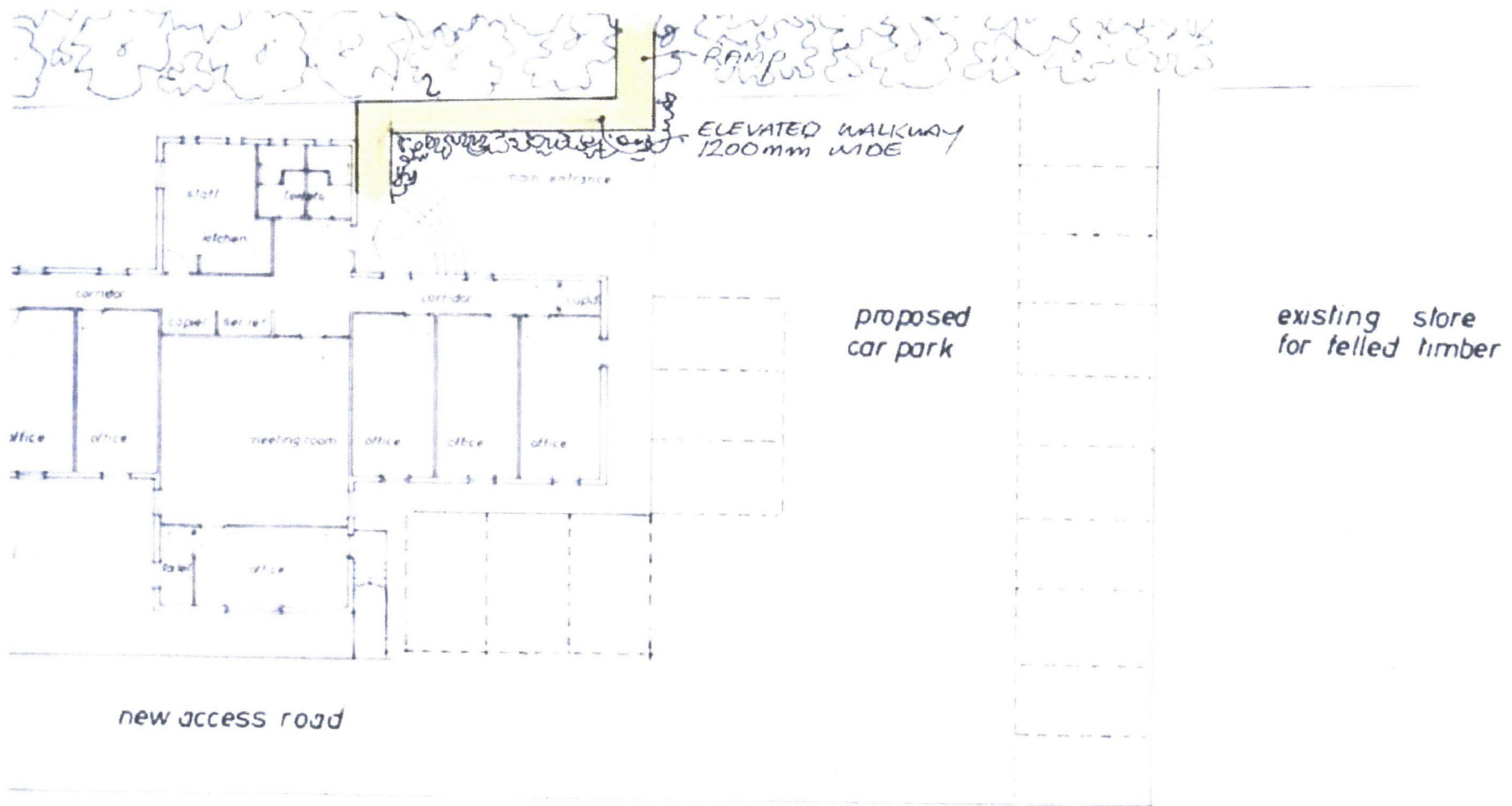
I trust that the above is in order, however, should you any queries regarding the above, or wish to discuss any other matters arising, then please do not hesitate to contact me.

Yours faithfully,



Douglas Aitken
Associate Director
Terrenus Land & Water Ltd

CC Mr Jack Thomson



existing lorry park

PROVISION OF NEW/REPLACEMENT OFFICE ACCOMODATION	at --	P MCKERRAL & CO CAMPELLTOWN
OLD STRACHUR SAWMILL STRACHUR ARGYLL	for --	
PROPOSED SITE PLAN		
SCALE: 1/200		AUGUST 2015