

## FAQ 7 - Frequently Asked Questions FESI- Acoustic Commission

### Question:

Is it important to have absorbent material in a screen?

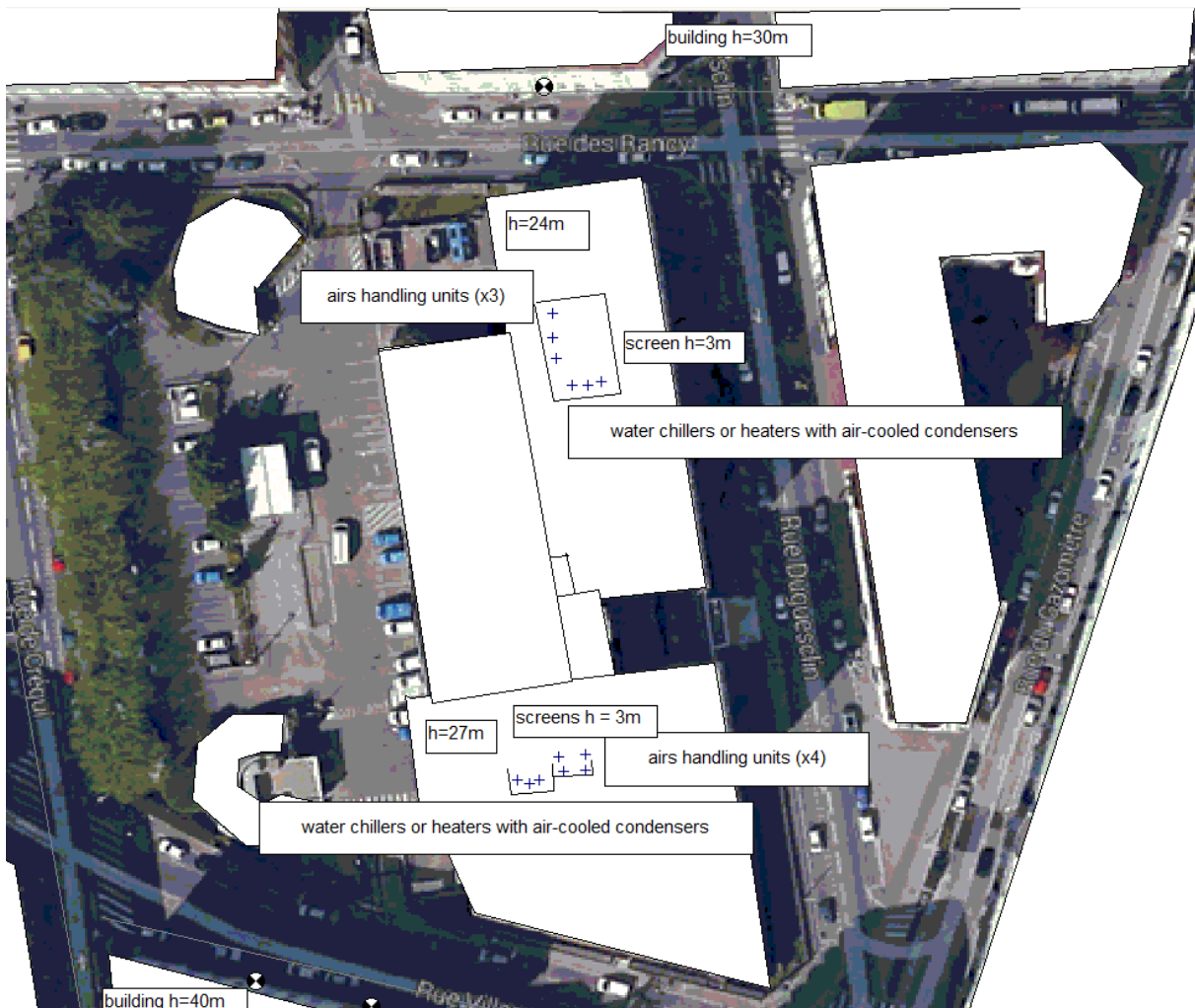
### Answer:

See an example:

It's a new building in Lyon, for offices.

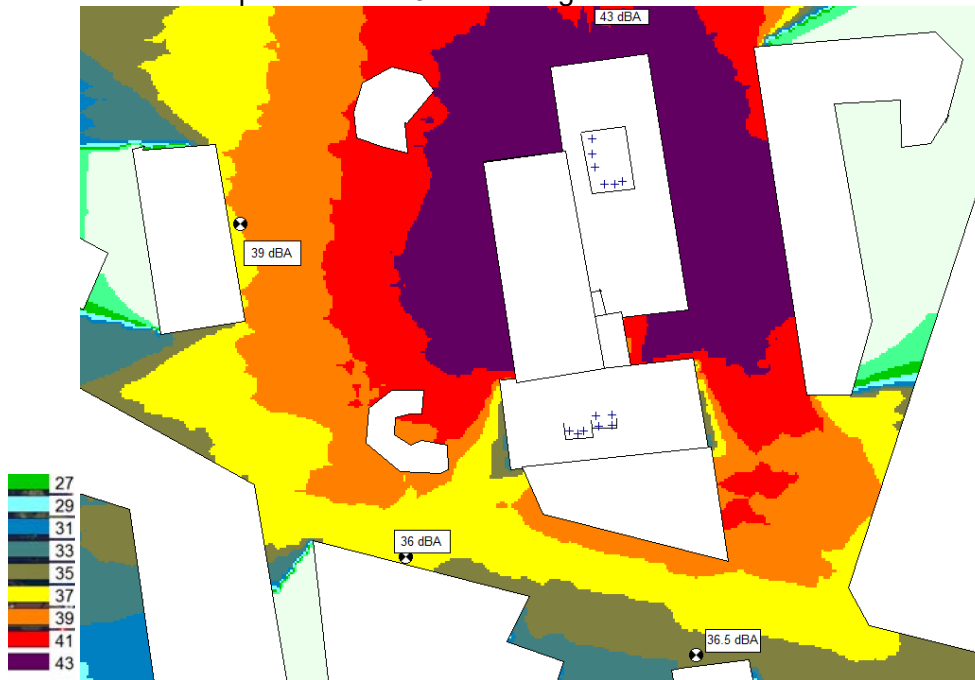
On the roof of the constructions there are two water chillers or heaters with air-cooled condensers and seven air handling units.

The screens are simulated with semi absorbent material inside, they are 3m heights.

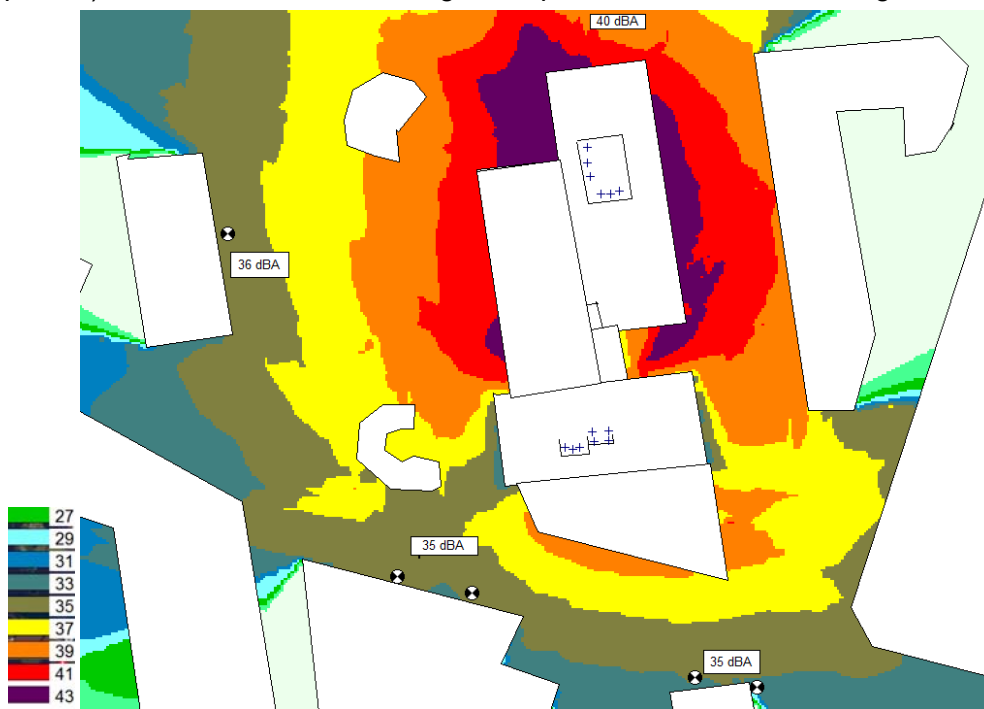


In the calculations all levels are in dBA.

**First case:** calculation without sound absorbing material in the screen, the screen is reverberant. Receptors are at 25 meter height.



**Second Case:** calculation with the screens made of sound absorbing material (“plasteurop” panels): the screens are absorbing. Receptors are at 25 meters height



$\alpha_s$	125	250	500	1000	2000	4000	$\alpha_w$
Panneau plasteurop	0,39	0,81	0,9	0,86	0,74	0,71	0,75

$R_w$  more than 20 dB

**Conclusion:**

The level are lower (3 dBA) in the second case, for screen it is strongly recommended using screens made of sound absorbing material.

The sound absorbing material has to be installed on the side facing the source.