**Atmospheric
Measurement
Techniques**
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Discussions

Interactive comment on "Infrared and millimetre-wave scintillometry in the suburban environment – Part 2: Large-area sensible and latent heat fluxes" *by* H. C. Ward et al.

Anonymous Referee #3

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Single review of both of the companion papers:

————————————- Overall comments / thoughts: —————————————-

* A positive contribution to land-surface interactions, micro-meteorology, and scintillometry. This paper will certainly move science forward.

* Excellent quality figures (science and presentation).

* A very thorough work.

* In particular, Fig1 in the second paper is very important and nicely laid out.

* Language is almost flawless.

* It is a rare pleasure to review work of both high quality science and presentation.

——— Suggestions for improvements in general throughout the manuscripts: ———
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* Can the uniqueness (a world first) of this work be more upfront, e.g. in the Highlights?

Some specific comments:

PAPER-A: ———

11172/6 » "derive" sounds exact/precise, maybe "estimate" is better.

11172/3 » Blending height and roughness sublayer are not well used in our field. Often there are two issues being combined. Can you make it clearer? (a) Blending height - we are thinking about averaging out horizontal heterogeneities (even for different surfaces of similar height). (b) Roughness sublayer is about considering differences in obstacle height (even for the same surface type). (See also other places in text)

Table 1 » Do you need a column for z_H also?

Figure 5 » Is a log scale needed here?

Figure 6 » The figure would be easier to interpret if something else like Q_H or Q^* was plotted (or their sign), so one can see the transitions better.

PAPER-B: ———

Figure 1 » Commendably excellent in terms of content and presentation.

11229/10 » More info needed? e.g. WXT-510...

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Interactive comment on Atmos. Meas. Tech. Discuss., 7, 11221, 2014.