BATMAN

20140109 – John Parker – Usability Study

Geoff Mitchell – Midsouth Roofing

**How do you measure roofs now?**

We have a couple (3) guys- inspectors who do assessments

Commercial and low slope only all over US

A lot of travel and a lot of lead time to work in to schedule

Guys uses technology to prep before they go to get rough feel of building, but still doing it with sketches it and refining it

**What do you do with sketches?** Scan in as pdfs then put into estimation sheet.

We specialize in large industrial buildings

Could use current takeoff technology but need to be more accurate than 5-10% - Precise measurements down to inches then use estimation. Custom excel file.

By the time you set up takeoff tool, but it is time consuming. Estimates go through estimate sheets.

This would be hyper production if you could do take off remotely or to give someone with no roofing experience. Would like to ship someone technology/drone to do it themselves.

**Geoff**

Could this be done on foot?

RTUs, Skylights

Are you guys using drones to fly point to point?

We have someone in CO – We want to ship them a drone. We want to have 6 points above the structure to program the drone. Fly out of box, take video, then fly back into box”

We want to use the same thing in new constructions.

We would own 10-15 drones if they were capable and legal

Using the point cloud? – We would be more inclined to use results on a computer.

What would we do with results in a sense of point cloud?

**What kind of format do you want to output?** Doesn’t matter as long as it produces dimensions. Walls, curbs, skylights, hvac

We don’t care about slopes. We will still look at video to check out edges such as gutter edges, gravel stop, various conditions. Just need something to assist inspector to get takeoff done.

We get sent a set of pdf that is scalable. Adobe scales it.

If you had a 3d pdf available then you could use it to check something. Confirm what was going on there.

We need measurements. Or we need ability to get measurements. We could scale ourselves.

Most buildings are 4-12 measurements.

I would pitch you guys: Low slope is #1 place for you to start

Low slope is magnitude easier

Degree of accuracy leaves much more leeway with low slope commercial roofing. Don’t need the highest precision

I’ve been working with NRCA for years. If there is someway I can assist you.

Spending money to do something like this is something we’d understand

We have a building that we are looking at in Atlanta. We’ve been looking at getting a drone.

I think you are targeting residential with the app. I imagine we would upload this through the computer.

At the end of the day – It would allow us to use an inspector with a much less experience person and use inspectors to trouble shoot problems instead. $150-$200 per measurement. We do 200 per year.

**Action Item –**

**Bill talk to Geoff about flying over the building with drone and gopro**

**John send Drone and Go-pro suggestions**

**Ricky – Robotics companies in Atlanta**

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Mark Moffett – Mueller Roofing

Bryan and Rayone

We go out to 150-200 jobs a month. We have a group of retired contractors – 6-8 contractors.

Physically walk on roof and physically measure a roof. We need to be ½

We have a home-grown program to estimator. Inch will be too big for metal. If you get ¼ or less for this industry.

If you could get that kind of accuracy. It would replace guy from spending time on roof and falling off roof and submitting

Cut angle in factory. Cut to angle in factory.

Step 1. Reduce time and guys on roof. Higher degree of accuracy

Step 2. Cut panels in factory.

Fast and easy. Needs to tie directly into database. Needs to get set into standards. Manually enter points then program does everything else.

We are trying to – NOT PUT PEOPLE ON ROOFS OR CARRY LADDER

Don’t put plates on roofs

EagleView is terrible – Accuracy is horrible and cant define enough things (trims, fasteners, types of trim. Can’t get anything usable from eagle view

We just need a model that we can download into our Myra system.

Art is the guy in charge of the contractors.

Action Item:

**Critical question: What is the file output format? I would want to get a group of guys to talk about the file format.**

**Who owns the measurements? Is there a guarantee? If its not right, who’s fault is it? We would like to know up front.**

**When you have something functional. Lets measure a roof and manually measure a roof. Then we will take next step to take your data into Myra applications.**