



THRASHER

FEEDBACK

A Look Into the Thoughts of Our Clients

Thoughts

- › Our perspective
- › Is no news good news? You'd think...
- › Do you know what your clients are doing with your data?

What I Did

- › A simple, quick survey of how our clients are using our data, and general feedback.
- › 9 Responses, which was enough to get an idea of usage

An aerial photograph of an industrial or construction site, overlaid with a semi-transparent red filter. The image shows various structures, roads, and open areas. The text is overlaid in white, bold font.

1 Powerline Designer

4 Surveyors

Midstream

Well Pad Engineer

Landscape Architect

Civil Engineer

The Questions (Why)

- › What is good about it, what is bad about it? What do you like or hate about using it? What do you wish it had done to it when it is delivered? Do you have to manipulate it to start using it? Is this something we can do for you on the front end?
- › How important are the planimetrics compared to the topo?
- › Do you make a surface using the breaklines and .las file or do you use the contours, or a combination?
- › Do you use our contours, or do you delete ours and regenerate your own? If so, why?
- › Do you like the orthos we provide? Are you able to open them and have them fall into place with ease? They should come in on coordinates. Do you use them?
- › How does our data check with your field data?
- › Do you have any comments at all about the mapping or orthos?
- › Do you use drone data? How do you like it? How does it check with field data? Do you prefer drones or aerial mapping? Why?
- › Do you use publicly available data like PASDA lidar and Ohio statewide data? How well does it work for final designs?

What is good about it, what is bad about it? What do you like or hate about using it? What do you wish it had done to it when it is delivered? Do you have to manipulate it to start using it? Is this something we can do for you on the front end?

- › The Dropbox delivery is great. Only comment: maybe include Coordinate System and units in the delivery email. Yeah, it's probably in the metadata if I look around some.
- › From a site/civil perspective, ideally we would get a Civil 3d drawing that already has a surface created. We can create a surface from contours but it isn't as accurate as one that is derived from points. Sometimes when I have received data (especially from drones) it has **too much data** for our software to easily work with it. For example, it might be so detailed that the contours are jagged because they picked up rocks on the ground. **There is a balance between accurate and overkill for what is required for our construction drawings.**
- › All good. I can't think of anything bad.
- › I can use the data straight away with no problems.
- › I typically download from the site, bring in the images and go to work. First I check my target points to see that they match the targets in the images and the mapping. Other than that, I start designing from it.
- › Treelines having a million vertices to approximate a linetype does lead to more work after receiving the data. I normally trace the treelines with straight polylines to cut out the vertices and then apply the standard linetype which is scalable. Fencelines being made of broken lines and Xs rather than a linetype leads to more of the same.
- › Good: Consistent layer names for CAD files provided. Bad: Duplicate layer names. Example "Tank_Or_Silo" and "Silo_Or_Tank". **Hate when contour lines at edges of different CAD files do not match. Seen them off by 10 feet in past.** This causes me to question the accuracy of the information. I have to change the Layer names in the provided CAD file to be what is required for use in my PLS-CADD power line design program.

How important are the planimetrics compared to the topo?

- › I only use the TOPO CAD files.
- › **The topo is of primary importance – usually we have features surveyed in for the final plans and do not show your planimetrics.**
- › Planimetrics save us a lot of effort, if it's in an area that isn't covered with vegetation. It's a great supplement to plan development if we are picking up utilities mostly, over a large area.
- › Typically, planimetrics are only helpful to me on large scale planning projects where we haven't utilized a field survey crew. Much of what we do requires more exact accuracy so planimetrics won't cut it. **They are however very helpful for large scale planning projects or context to areas surrounding where we might have more detailed field survey completed.**
- › Extremely!
- › Equally important
- › Important for perspective.
- › I think the planimetrics are very important. The level of importance varies some per type of job, but is extremely critical in all types. I think they are most important in road upgrades when you need precise edges of road and other features so that you know what you may be impacting with widening. Likewise, it's also very important for pads as you want to make sure there's not an existing gas well or barn or something that your proposing a pad on top of without knowing.
- › Both are equal in level of importance. You can't make adequate use of the surface without knowing what is in the area.

Do you make a surface using the breaklines and .las file or do you use the contours, or a combination?

- › After modifying the layer names, I save the file in DXF format and import into PLS-CADD. PLS-CADD converts the lines into a point map then I create a surface map within PLS-CADD.
- › I use the contours and breaklines.
- › We do not use the las files, only because the breaklines are already developed and I am more familiar with their use.
- › Depends on what information has been provided to me. I use RECAP to import .las files into Civil 3D and Autodesk Infraworks
- › **Most of the time we use the contours to create our surfaces.**
- › I use your breakline and points to make surface, but I do not re-create contours. I typically use grd files that I make from the topo. I sometimes use a dtm file.
- › I create my surface by adding the contours, then pasting the breaklines, and then adding the boundary.
- › Typically, only the contours are used, but it is nice to have the other data in case anything goes wrong.

Do you use our contours, or do you delete ours and regenerate your own? If so, why?

- › I use provided contours.
- › I turn off your contours and show the surface – easier to label that way.
- › If you have developed contours, we use them to build a surface only if we want a specific look. This is normally the case.
- › **We use yours.**
- › I use your contour styles.
- › I use yours.
- › I use the contours provided

Do you like the orthos we provide? Are you able to open them and have them fall into place with ease? They should come in on coordinates. Do you use them?

- › **I do not use.**
- › Yes – easy to use, high quality, and file size is manageable.
- › Imagery we receive is excellent. We use the imagery “out of the box.” Unless it’s in a different coordinate system than we expect, especially imagery you collect for WV but we want to use it on the other side of the Ohio River.
- › Orthos are tremendously helpful for the work that we do because they paint a realistic picture of existing conditions. Many times, we might have an old survey for a project and if we compare it to a recent ortho we can see that something might have changed we weren’t aware of.
- › Orthos are wonderful and come into the file in the correct location.
- › I like the orthos, and don’t have any problems with them.
- › I like them and have used them to prove that a landowner started building a house after we submitted a permit. They are also handy for exhibit maps showing detail that the landowner recognizes.
- › **Always do and yes.**
- › I think the orthos are very helpful and a great tool to be provided. I typically use them on all projects, whether it be on the actual plans or for secondary checks during design. I have no issue bringing them in correctly.
- › The orthos are extremely helpful in certain cases. The level of detail with the images is high enough that they can be used to discern certain field conditions without having to visit the site physically. I have never had an issue with them not coming in where they need to.

How does our data check with your field data?

- › Very well.
- › **Usually very close to surveyed features, some features understandably missed.**
- › Is better than public data, seems great.
- › I have had no issues.
- › Usually the field checks verify the data at the 0.1 or less range.
- › **We've had vertical issues.**
- › We usually run OPUS control and have never had issues with the topo checking to our control.
- › In general horizontal is within a 0.1' and vertical is within 0.5'.
- › For the most part, the mapping checks pretty well with field data. Typically the field data will be more accurate which is to be expected, but it is still very accurate.

Do you have any comments at all about the mapping or orthos?

- › It might be helpful to have the surface built prior to delivery – however I understand there is a balance to strike with file size. I very much appreciate the “mapping limit” line you include – makes building the surface much easier (don’t need to worry about rogue triangles, just slap the limit in as a boundary and it cleans up nice).
- › For some of our large scale regional planning projects (sometimes county wide) it would be great to stream (or only download the necessary information) the orthos instead of having one large file imported in ArcMap or Civil 3D. Not sure how this would be possible but I know ArcMap can utilize map services.

Do you use drone data? How do you like it? How does it check with field data? Do you prefer drones or aerial mapping? Why?

- › We have used drones for ROW inspection and construction progress photos but not much for pre-development since drone photography wouldn't really integrate with CAD basemapping.
- › **As long as the data meets the specs, it does not matter how it was obtained.**
- › **Drones seem to be more realistic for capturing data on a smaller scale at a more reasonable cost. Obviously aerial mapping is great for large scale / regional projects.**
- › We have our own drones and really like the data. However; we wish we could create planimetric data with it. Topo and imagery on its own is not sufficient enough to work with. We don't prefer one over the other. Each has its application.
- › I prefer aerial mapping versus drones. If I need more accurate info, we'll get it surveyed.
- › We have our own drone that we use for smaller areas. BMAM(Thrasher) is preferred for larger areas due to cost and turn around time. The planimetrics are better with aerial mapping in my opinion.
- › **I like area mapping for large areas. It provides more consistent data. My experience with Drone is hit and miss. It depends on the operator and the post-processing. Some is good. Some is not so good.**
- › More responses in favor of aerial.

Do you use publicly available data like PASDA lidar and Ohio statewide data? How well does it work for final designs?

- › **No, 10 foot Interm contours are too coarse for my design work.**
- › Yes – have used PASDA lidar for final designs with relative confidence. West Virginia – only in the very preliminary stages of the project.
- › I do not use public data for design, only for initial reviews and estimating jobs. The PlexEarth module in Civil 3D is my go-to for free imagery, which brings in Google Earth data. You can also bring in surface data from Google Earth this way, but it's very rough. I also use topo maps from this link, in both KMZ and JPEG (with world file) format.
- › I often use publicly available data when we don't have budgets for mapping in the planning work that we do. I would never use this data for final design, but it works well for preliminary purposes. I download lidar data from WV Lidar GIS tool quite often.
- › We use it for preliminary design while we are waiting on aerial mapping to arrive. For the most part it works well. We don't prefer one over the other. Each has its application.
- › I use PASDA lidar all the time, and think it's real good info for the type of balance large scale grading that we do. We're not building curb and gutter roads. **I don't trust lidar for stream crossings.**
- › We do not use it.
- › No because it does not work well for detail work.
- › I've used GIS contours for concepts, but never final design. The only contours I've used for final designs is TTG mapping.
- › Publicly available data is only good for conceptual designs. Typically, it is not up to date enough, accurate enough, or detailed enough to be able to do a final design off of.

Some Additional Feedback

Pro

- › It's beneficial having it on-hand and ready from the beginning of the job.
- › It's a useful resource for field recon and preliminary work.
- › *When applicable*, it can reduce the amount of resources spent for certain sets of data (topo, cross sections, etc.)
- › When referenced properly, orthos are great tools for the PM, CAD tech and field crew

Con

- › It can be difficult to get accurate pricing for proposals/estimates for INTERNAL mapping use
- › Orthos can sometimes be difficult to import into CAD

What Did We Learn?

- › We should be talking to our clients a little more.
- › People are generally pleased, but its not all rainbows and unicorns.
- › People use our data very differently.
- › Such a wide variety of opinions on planimetrics.
- › Less ortho issues and contour regeneration than suspected.
- › Some aspects of the work need to be covered in detail in the contract or proposal
- › Usage of drones has improved and clients have more realistic idea of appropriate drone usage. It should still be handled by a professional.

The background of the page is a dark, high-contrast aerial topographic map. The map features intricate contour lines in shades of green and purple, indicating elevation changes across a landscape. A prominent road or path runs diagonally from the upper right towards the lower left. The word "THRASHER" is centered in the middle of the map in a white, stylized, outlined font.

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