



Electronic Plan Review

with Bluebeam Studio

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Electronic Plan Review

- Overview of Bluebeam Revu and Bluebeam Studio
 - Tips and Tricks
- Question and Answer

It looks like you're trying to use Bluebeam Revu! I'll provide tips and tricks throughout this presentation!

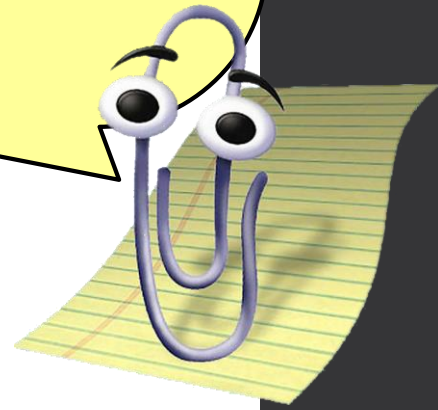
You will see Hyperlinks on some of my text that will link to Gifs (short 'Videos') that show how to do what I'm talking about.

These links cannot be played in Internet Explorer! Chrome is the best option, but Edge also works.

You can slow them down by hitting the arrows next to play/pause.

Click in the GIF to pause.

They are SD by default. Hit the SD gear icon to show in HD.



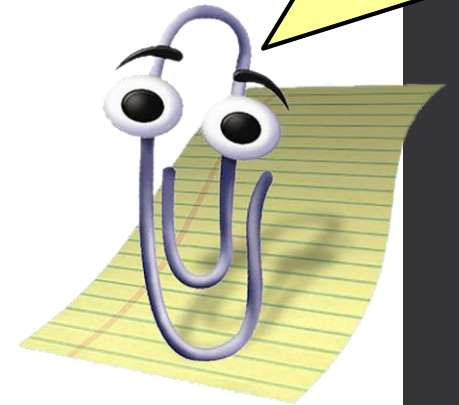
Introduction

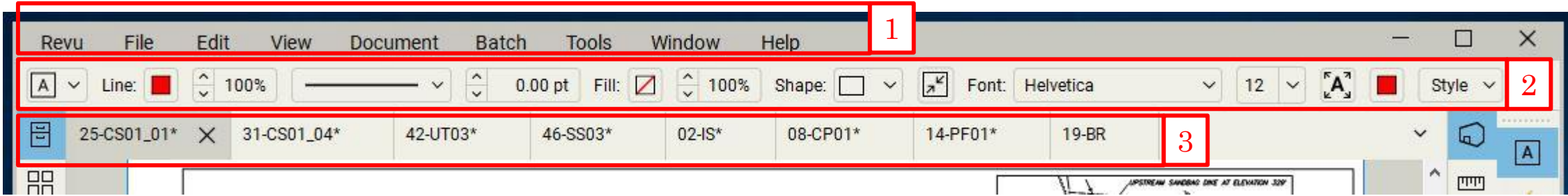
- PDF format
 - PDF = Portable Document Format. Adobe created in 1990. Standardized in 2008.
 - Multiple programs can open PDFs.
 - .txt example: You can open a .txt in Notepad++, WordPad, Word, Excel, etc...
 - .pdf is no different. It is a file format and no longer has anything to do with Adobe.
- Bluebeam Revu
 - If Adobe Acrobat is for Teachers, Lawyers, Doctors; Bluebeam is for Engineers.
 - Much closer to CADD.
 - Markups / Commenting is significantly easier.
 - Free version of software is basically a PDF viewer and removes features like Markup, measure, etc...
 - Free version (2018) allows access to Studio to markup plans.
 - Standard version is enough to replace Adobe Acrobat Pro in most cases.
 - Extreme version allows form creation. Handful of people have Extreme version.
- Bluebeam Studio
 - Cloud based real-time collaborative review.
 - Location independent.
 - Logging into Studio session upgrades your free account and unlocks the Markup tools.

Are you only reviewing and marking up plans? Then you should have the Free version.

Are you signing and sealing Plans? Then you should have the Standard Version.

Are you responsible for creating documents with forms? Then you may need the Extreme Version.





User Interface: Top

1. Standard Windows Program menu system

2. Properties

- This is context sensitive, it is currently showing options for the Text Box tool.

3. File Tabs

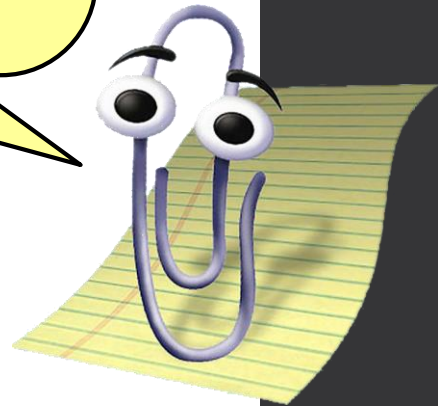
- These are all open documents.
- Right clicking on a tab will give you additional options.
 - You can split a tab horizontally or vertically
 - You can detach a tab and move it to another screen.
- You can synchronize multiple view at two levels, Document and Page
 - Synchronize Document will sync pages by number (page 1 of Doc. A will be synced to page 1 of Doc. B)
 - Synchronize Page will sync currently open pages.

You can split a view up to 16 times!

You can drag tabs to undock them and then drop them on another screen or in another window!

You can drag tabs to reorder them!

Hover over a tab to display its Path!



User Interface: Left

1. File Access Panel

- By default, this will show recently opened files with the most recent at the top.
- You can switch to an Explorer view by clicking on the File Access drop down.

2. Thumbnails Panel

- This shows the page index for the currently selected File Tab.
- Right clicking on a thumbnail will give you many different options.

You can Hide / Expand panels by clicking the icon.

Easily show and hide panels by clicking on its icon!

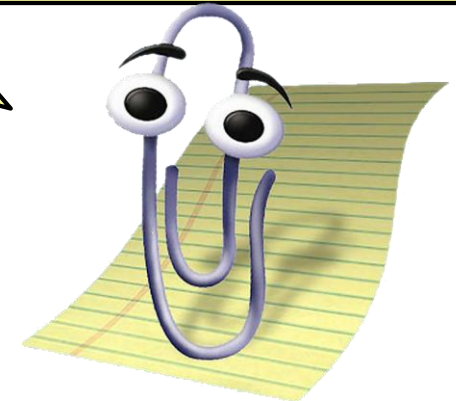
You can pin your most used files in the File Access panel!

You can create categories and pin files to those categories!

Clicking the icon next to Recents will give sorting options!

All panels can be undocked, just click and drag! Try undocking the Thumbnails Panel and moving to another screen! You can also split panels within themselves!

Double click a Thumbnail to zoom extents!



User Interface: Left

1. Search Panel

- This is where you can search for content within a document.

2. Bookmarks Panel

- This shows any Bookmarks currently in the document.

3. Tool Chest Panel

- This holds tools you create under My Tools.
- This holds recently created tools.
- In the future this will hold any DelDOT specific tool sets.
- Tools can be placed in two different modes:
- **Drawing Mode** creates an exact copy of the tool you created.
- **Properties Mode** creates a new markup with the same properties of the tool.

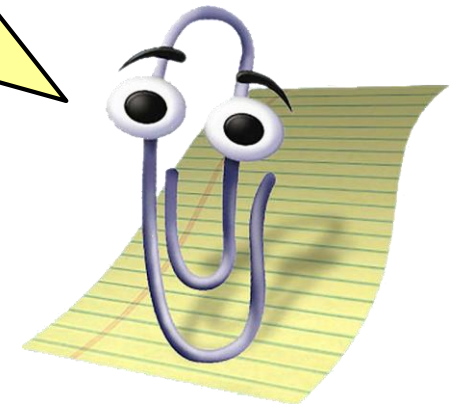
4. Layers Panel

- If a document has layers, they will be visible here.
- By default, Studio Sessions will not have Layers.

Did you know you can do a visual search for content within a document? Want to see how many tree symbols there are? Try the visual search located at top of the search panel.

[You know you can double click a tool to switch between Drawing and Properties Mode?](#)

Want to count a bunch of stuff with a custom markup? Try creating a tool then right click and Create Count.



User Interface: Bottom

1. Markups Panel

- All markups for a document will be show here.
- More on this next slide.

2. Page split / navigation tools

- Page split tools are also available here.
- The Navigation tools will change how you navigate a document.
- 'One Full Page' will allow you to zoom in and out with the mouse wheel.
- 'Scrolling Pages' will all you to scroll up and down with the mouse wheel.

3. Status Bar

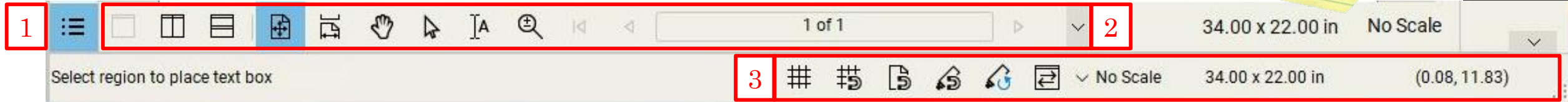
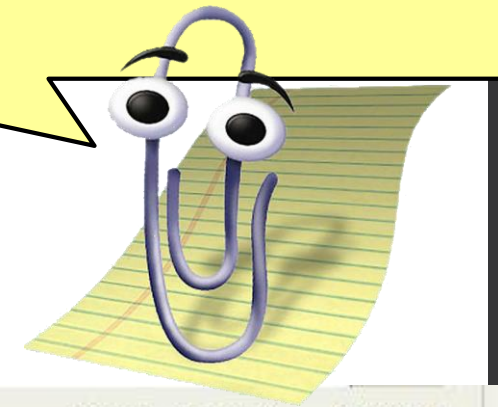
- This is displayed in the latest version of the DelDOT profile.
- To turn this on, go to Tools > Toolbars > Status Bar (F8)
- You can turn on/off snaps, grid, synchronization, etc...
- This also shows the coordinates of your document, top left is 0,0.

In 'Scrolling Pages' mode? Hold Ctrl to zoom in and out!

In 'One Full Page' mode? Hold Ctrl to scroll up and down!

Click and drag to move around the document!

Want to go to a specific page? Click in the area where it says '# of #' and type in a number!



User Interface: Markups

1. Markups Panel

- This replaces the Excel Comment form!
- All markups (comments) will go here and are saved as soon as you make them.
- Be aware that this is Live. As soon as you make a markup anyone can see it.
- Only the user who made the comment can change or delete it.
- Click on Markups List for more options.

2. Filter, Search and Hide Markups

- With Filters enabled, you can filter different columns.
- You can turn off all markups.
- You can search markups.

3. Sort

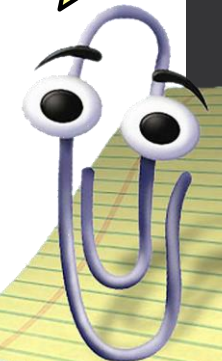
- You can sort any column by clicking it. Subject is currently sorted.

Have a comment on someone's comment? Try replying! (Note, if the original is deleted, all replies are also deleted)

Want to inform someone else of a comment? Right click and try Alert Attendee!

Clicking on a comment will take you to its plan location.

Got a bunch of comments that should be one? Select them all and Group them*



Markups List		Search			
Subject	Page Label	Comments	Author	Date	Status
Area Measurement (2)					
Area Measurement	12	This is Text	David Kleinot	10/11/2019 10:48:10 AM	Completed set by Dav...
Re: Area Measureme...	12	Good comment Dave!	David Kleinot	10/11/2019 10:47:12 AM	Noted set by David KI...
Re: Re: Area Mea...	12	Thanks other Dave!	David Kleinot	10/11/2019 10:47:21 AM	
Area Measurement	12	500 sf	David Kleinot	10/11/2019 7:08:42 AM	
Arrow (1)					
Callout (14)					
Cloud+ (2)					
Cloud+	1	NEED TRAINING	Shehnaz	10/9/2019 10:41:38 AM	
Cloud+	1		Josephus van Bo...	10/9/2019 5:48:16 PM	
Highlight (17)					
Highlight	1		Shehnaz	10/9/2019 10:36:34 AM	

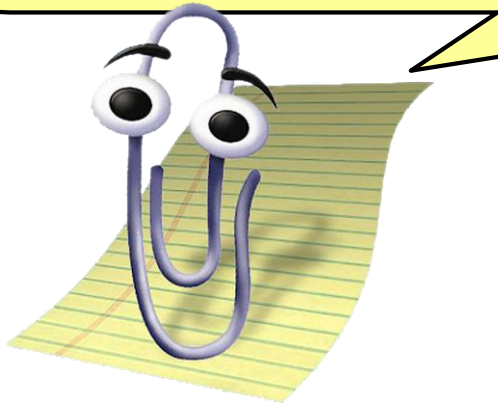
Did you know you can go to View > Snap to Content and more accurately measure items by snapping onto them?

You can calibrate a PDF by selecting Calibrate and use the Drawing Scale located in the Sheet Border.

[Did you know you can calibrate the Horizontal and Vertical of a PDF separately?](#) Super useful for Profiles!

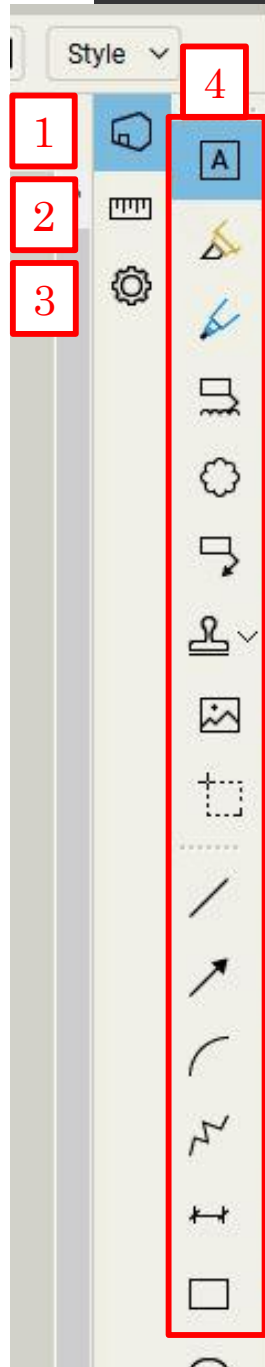
Do you work in Bridge and think you're special? [Check out viewports in the Measurements Panel.](#) [You can define areas of a PDF at a different scale!](#)

Highlight tool got you down? Try holding **Ctrl!**



User Interface: Right

1. Studio Panel
 - This is how you access everything related to the Studio Session.
 - More on this next slide.
2. Measurements Panel
 - This houses all measurement tools.
 - You can measure length, area, volume, etc...
3. Properties Panel
 - This allows you to see all of the properties at once for whatever you have selected.
4. Text and Shapes toolbars
 - By default these toolbars are on and docked here.
 - You can move the toolbars to whichever side you like.
 - To add more toolbars, go to Tools > Toolbars



Want to see a specific users comments?
Right click on their name and **Filter Markups**.

Said something inappropriate in the Chat feature and want to delete it? Too bad, you cant! Be more careful.

Studio Sessions can hold multiple files, you must click on one of the files in the session to open it.

User Interface: Studio

1. Top

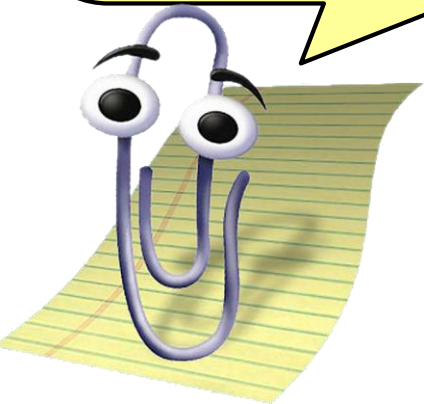
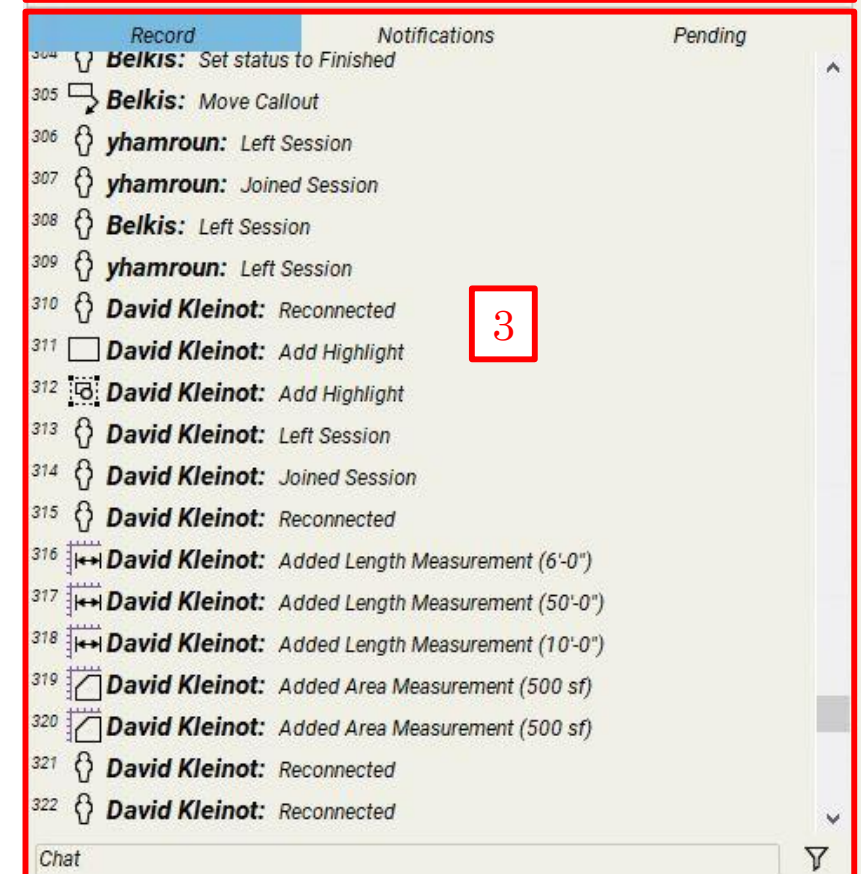
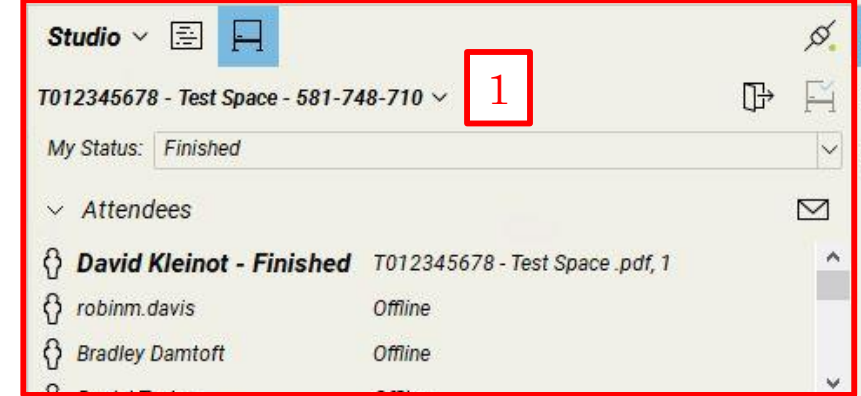
- This is how you access everything related to the Studio Session.
- The Studio Dropdown will allow you to sign out.
- The icon at the top right will allow you to work offline. Note, this is for your account. Any markups made, will be moved into the Pending tab and added when you're back online.
- When you're finished your review, set **My Status** to *Finished*.

2. Middle

- This houses all documents available for review.
- Click on a file to open it.

3. Bottom

- The Record Tab keeps a *unchangeable* running list of what has happened in a session.
- The Notifications Tab alerts you if you've been notified.
- The Pending Tab is used if you're working offline.
- You can enter text at the bottom where it says Chat



Best Practices / Lessons Learned

- Do's and Don'ts
 - Attaching pictures. Do attach to a comment, Don't place an Image.
 - To do this, make a comment, right click on the comment (in the plan, not the markup list) and choose Capture...
 - Are you reviewing on a device that has a camera? You may see another options like From Camera, or From File...
 - Creating large or filled areas for comments.
 - You can block comments underneath and there is no good way around this.
 - If you do need to do this, select the comment after you have created it, and look at the properties along top or in the Properties Panel and make sure "Highlight" is on. This will allow content to pass through.
 - Note, this is not currently available for images, so attach to a comment.
- Group your Comments
 - Using the Pen tool or creating a bunch of comments that should be one single comment?
 - In the Markup Panel, select all your markups that should be together and make them one by right clicking and selecting Group, or hit Ctrl+G.
 - Grouping note: Be aware that the top of the group stack is what is shown for the Group. So if you draw a line and a text box, right clicking on the text box will use those properties and text for the group.
- Writing comments with the Pen tool.
 - Are you writing comments with the Pen tool and your handwriting is terrible?
 - Bluebeam has pretty good character recognition, and it will try to decipher your chicken scratch and put it in the Comments column by default. Writing carefully really helps.
 - Please review what it filled in and edit if necessary.
 - Editing the text in the Comment field will not change what was drawn on the plan.

Best Practices / Lessons Learned

- Markups: Plan vs List
 - [Two basic ways to markup: 'Plan' based vs 'List' based.](#)
 - Plan based is good for zooming in and out of a Page but can get cluttered quick
 - List based saves space but you have to know there is meta data associated with comment.
 - Best Practice is to use List based when possible, especially on highly reviewed sheets.

EDULE	
NORTHING	EASTING
23300.4172	594036.1827
23426.0766	594024.2356
23427.7933	594074.2277
23312.7096	594084.7944

Should be 594036.1234

.0766	594024.2356
.7933	594074.2277
.7096	594084.7944

Markups List

Search

Subject	Comments
1 (1) Pen	Should be 594.074.1234

Wacom (“wah come”) Displays

- The Wacom displays are simply tools to aid in the transition for going paperless and are in no way related to Bluebeam Revu.
- There are Common Review Areas setup around the State.
- You can rest your hand on the screen and write with the pen as normal.
- You can customize the buttons on both the pen and the side of the screen.
 - Search for *Wacom Tablet Properties* in the Start Menu.
 - In the *Tool* section select the first option *Functions*.
 - The top most button defaults to *Zoom Out*. Click the drop down to see what options you have.
- The ‘eraser’ on the pen works in Revu.
- The Pen came with extra points incase they wear out.

iPad and Bluebeam Revu

- There is a free app for the iPad that works with Bluebeam Studio.
- iPads with a cellular or Wi-Fi connection will allow live commenting on plans in a Studio session.
- Without cellular or Wi-Fi connection, you can work offline and when you reconnect it will push comments into the session.
- Selecting a file in the Studio session will automatically download it to your device.
- Apple Pencil works well with handwriting comments.
 - Requires iPad Pro or 6th Generation iPad
- Can take an image and attach it to a comment.
- Many in construction already have iPads.

Miscellaneous Tips and Tricks

- Need to compare two documents to see if they are the same or if they are different?
 - Bluebeam can compare two documents and cloud where they are different.
- You can follow an online user by right-clicking on them and selecting Follow Attendee.
- Markup tips:
 - [You can add pointer arrows / leaders to a callout by right clicking on it selecting Add Leader.](#)
 - The Highlight tool will automatically detect text and change to a text selection mode. You can override this by holding the ctrl button down.
 - If in text selection mode, the text you select will be put into the comments for the markup.
 - When using the Pen Tool, hold down Shift to draw a straight line.
 - Your tools you add into “My Tools” are assigned a number by default. Press that number on your keyboard to immediately activate that tool.
 - Holding the Shift key when placing a Callout or Cloud+ tool will allow you to lock to a cardinal direction.
 - Rotating something in Revu will snap to 15 degree increments by default. Hold shift to disable.
 - When using many rectangular based tool (ie cloud), clicking and dragging will draw a rectangle. Clicking once will allow you to create a custom shape.
 - You can convert straight lines of some objects (ie cloud) to a curve by right clicking and Convert to Arc. This also works for vertices and will allow you to make an S curve.
 - You can add or remove vertices by right clicking on points or line segments.
 - You can change the Default options for a tool. I would suggest creating a tool instead.

Where next?

- How can I improve this process?
 - Tool sets, linestyles, etc..
- Currently working on obtaining more licenses of Bluebeam Revu Standard and Extreme. Will eventually replace Acrobat.
- Working on a way to push standards to everyone.
- I have an iPad for testing am sending it around to different sections for testing.
- Am considering having a Train-the-Trainer course for a small number of people in computer lab.
 - This would cover the basics of this training in a hands-on environment.
 - It would go more in depth into advanced tools as well as creating resources for that users section.
- Will meet with different sections after the Electronic Plan Review process is off the ground and working smoothly to see how else we can use the software.
 - As-builts
 - Quantity Calculations
 - Utility company responses
 - Misc. Document reviews
 - Concurrent Signing / Sealing of plans.

Question and Answers

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