THE STATE OF ARIZONA

INDEPENDENT REDISTRICTING COMMISSION

REPORTER'S TRANSCRIPT OF VIDEOCONFERENCE

MAPPING SOFTWARE TRAINING

Via GoogleMeets

September 13, 2021

10:03 a.m.

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1 MAPPING SOFTWARE TRAINING, BEFORE THE INDEPENDENT
2 REDISTRICTING COMMISSION, convened at 10:03 a.m. on
3 September 13, 2021, via GoogleMeets, Arizona, in the
4 presence of the following Commissioners:
5 Mr. Derrick Watchman, Vice Chairman
Ms. Shereen Lerner
6
OTHERS PRESENT:
7
Mr. Brian Schmitt, Executive Director
8 Ms. Loriandra Van Haren, Deputy Director
Ms. Valerie Neumann, Executive Assistant
9 Ms. Michele Crank, Public Information Officer
Ms. Marie Chapple Camacho, Outreach Coordinator
10 Mr. Alex Pena, Outreach Coordinator
Mr. Roy Herrera, Ballard Spahr
11 Mr. Daniel Arellano, Ballard Spahr
Mr. Eric Spencer, Snell & Wilmer
12 Mr. Brett Johnson, Snell & Wilmer
Mr. Mark Flahan, Timmons Group
13 Mr. Douglas Johnson, National Demographics Corp.
Ms. Ivy Beller Sakansky, National Demographics,
14 Corp.
Mr. Brian Kingery, Timmons Group
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P R O C E E D I N G

VICE CHAIR WATCHMAN: This is -- I guess for all practical purposes, this is not a regular Commission meeting, and so -- but let me get -- let me get the meeting going here.

I'm Derrick Watchman, Vice Chairman of the Independent Redistricting Commission.

And so since it's not a public meeting, do we need to do call to call to order and roll call or -- can I get some feedback on that?

MR. B. JOHNSON: You -- you do not need to do roll call, but I think that there was a statement that Lori may need -- may want to state that.

VICE CHAIR WATCHMAN: Okay. I did get that. So I will read that in the interest of maintaining our record.

And so today the Independent Redistricting Commission is calling its second formal training for the use of the mapping software. And the purpose of this training is for the general public to learn how to best able to provide comments and maps for the new voting districts that should be created.

Under the Arizona Revised Statute Section 38-431.01(A), all meetings of any public body shall be public meetings and all persons so desired shall be

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1 permitted to attend and listen to deliberations and
2 proceedings.
3 Public meetings are defined as gatherings in
4 person, through technological devices for a formal public
5 body at which they discuss, propose or take legal action,
6 including deliberations.
7 The training that the IRC is holding today is not a
8 public meeting as defined by the Arizona Revised Statutes;
9 we will not be discussing, proposing, or taking any legal
10 action. Similarly, no deliberations will be taking place.
11 Accordingly, there is no need for a quorum or the
12 IRC Commissioners to attend; this is simply a public
13 training. And so, nevertheless, I would like to thank
14 everybody for joining us.
15 I believe I see Commissioner Lerner online; I know
16 that our Chairwoman is unable to join us today; I do not see
17 Commissioner York or Commissioner Mehl.
18 So, with that, let's move to our very brief agenda,
19 and that is mapping training by our consultants Timmons and
20 NDC. And so I'll turn it over to Mark if that's
21 appropriate.
22 So, Mark, the floor is yours.
23 MR. FLAHAN: Thank you very much.
24 Good morning and --
25 VICE CHAIR WATCHMAN: Good morning.

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MR. FLAHAN: -- welcome to the public training for redistricting mapping system.

I want to introduce you to a new face that I brought, Brian Kingery, he is a senior consultant here with Timmons, and he's going to lead us through our training seminar.

So without further ado, I would like to turn the floor over to Brian.

MR. KINGERY: Thanks, Mark.

Let me go ahead and share my screen.

All right. Can everyone see the intro slide?

VICE CHAIR WATCHMAN: Yes, we can.

MR. KINGERY: Awesome.

VICE CHAIR WATCHMAN: Go ahead.

MR. KINGERY: All right. Well, thanks for having us. Good morning. My name is Brian Kingery based out of Richmond, Virginia, with Timmons Group.

The purpose of this presentation is to introduce the public on how to use the redistricting system, the mapping solution, to have their input submitted to the Commission for -- for review.

So the way that --

MR. FLAHAN: Just --

MR. KINGERY: Oop. Go ahead.

MR. FLAHAN: Before we get started, Just -- just

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1 want to lay it out. We're going to start with a PowerPoint
2 presentation, but we will do live demo in the system after
3 the PowerPoint is complete.
4 VICE CHAIR WATCHMAN: Okay. Sounds good.
5 Begin.
6 MR. KINGERY: All right. So with the agenda, I
7 wanted to provide a general system overview and basic
8 fundamentals on how to use the system before jumping into
9 the system with the demo and actually showing you how to use
10 the -- the features that are available to you.
11 So we'll go over to fundamentals and then I'll talk
12 about getting started and how to create your first plan, how
13 to edit, and then how to submit it.
14 Before I go into the redistricting system, there
15 are three links of interest. One is to the Commission's
16 home page, I would defer you, the public, to -- to go there
17 for any authoritative needs. Go to the redistricting hub,
18 which is map specific, that's where you'll find a link to
19 the redistricting system among other things. We have an
20 assortment of maps and apps stood up as well as the proposed
21 grid map and just over relevant GIS-specific links.
22 And then you have a direct link to the
23 redistricting system there, that third bullet item.
24 So what is the redistricting system?
25 It's a free tool; it's browser based. You don't

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have to download anything, and this is the tool that you're going to use to create legislative and congressional plans.

It has the latest census data loaded into it, so you'll be able to see variables on the fly as you pan around the map, as you assign different geographies, level of geographies to districts, you'll be able to see how that changes.

It's intuitive; you don't have to have any GIS experience. So if you are a GIS professional, there definitely are some power features that you can take advantage of. If, you know, your only GIS experience only goes to using Google maps on your phone, you'll still be able to use this system with no issues.

And, like I said earlier, the purpose of this is to really provide transparency and connect you to the redistricting process.

So links at the bottom are on the hub site.

We have a specific page for the redistricting system set up. We're going to continue adding content to that page, such as training videos, this presentation. Really, anything to help you, the citizen, learn how to use it and get access to it.

And then we have some general Esri documentation, Esri is the software provider for this system; and then there's the product page there.

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1 So here are just some screenshots just to, you
2 know, get everyone interested and show just a little bit of
3 what you can do.
4 You can see graphs of the proposed districts as
5 you're making them, you can change base maps, you can do
6 thematic mapping of different variable, you can work within
7 a specific region of the state before combining that with
8 other regional plans; and then two-stage assignment, which
9 I'll talk about here in a little bit, and all that really
10 is, is you're able to make changes and see those changes
11 before you actually commit it within the plan. And that
12 will make a -- that will make sense a little bit later once
13 I get to that point.
14 These next few slides are going to go over the
15 different tabs that are available within, say, see the
16 "file," "learn," "view," and so on. Those each are tabs,
17 and on those tabs there are certain buttons that will serve
18 a function in your workflow.
19 So the "file" tab allows you to save and open plans
20 as well as import and expert.
21 And a couple of things that I want to call out here
22 are save early and saved often. This is a general rule of
23 thumb whenever working through Web GIS, when it's browser
24 based, there is no autosave function. There is a recovery
25 function if your Internet goes out and come back a little

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bit later, it will ask if you want to recover the last plan that you worked on; but just as a general rule of thumb: Save early and save often.

And then as you get into your plan, you're able to import files to start new plans such as a fixed text format and shape files. As well as the plan you're currently working, you're able to export it, images, KMLs, fixed text format or shape files. This is a good method to use if you want to work with your plan outside of the system for those power users, and then reimport it to check it and successfully submit your plan.

The next tab along the top is the "learn" plan. And that's just the default basic learning resources that Esri provides. So I'm not going to go over that, but that is available to you and you can get access to general training sessions and documentation links.

The next tab is the "view" tab. This is allows you to change how districts are displayed on the map, how they appear, as well as how you can modify them.

First thing -- excuse me. First thing I want to call out here is the number of districts, how it says "four" and it's grayed out. For this demo I set up a grid map template with four districts, four arbitrary districts; but when the approved grid maps for the nine congressional districts and the thirty legislative districts are approved

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1 and loaded into the system, you will be able to select which
2 plan you want to work on and then you're restricted to
3 either working on a nine-district plan or thirty-district
4 plan. So there you will have the target, variables, the
5 target means display, and then you'll have nine or thirty
6 displayed.
7 Next are the district line fills and district
8 display portions of the tab.
9 I think this is self-explanatory. You can change
10 how the names look, if there's fill within the district,
11 basically shading the polygon a certain color.
12 And then deviation coloring. All the districts are
13 based primarily on target population, so we're restricting a
14 5 percent over and 5 percent under target deviation. And
15 all that really means with the deviation coloring button is
16 that you can pick the color for above or -- and pick the
17 color for below that target so you can easily see which
18 districts you're working on, if it has too much population
19 or too little.
20 Next is "regions." Regions allows you to work
21 within a subset geographies for a given plan.
22 So whether you want to start your plan in the
23 northwest quadrant of -- of the state and work down, and
24 someone else on your team is working on a plan on the
25 opposite side of the state, you guys can work independently

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on your plans and then merge them together.

The last important button -- I think the most important button on here -- is the "district window."

The district window is where you're going to see all the numbers change as you assign different geographies, all the way from at the county level to down to the census bloc level and everything in between.

So once you're either using one-stage or two-stage selection, which I haven't talked about yet, you'll be able to apply those geographies to the district of your choice; and using the district window, which by default is docked at the bottom, you'll be able to see the total population count among other things. So I'll talk about it here in a second. The demographic variables, you can pick and choose what -- which variables you want to have displayed at the bottom.

The color blocks, that allows you to change what colors the polygons are shown on the map. If you want to hide or lock them, you also can.

By default, along the right-hand side, you have districts proposed, assigned, and so on and those are just different views of the table.

So the next one is the "proposed" tab. If you're using two-stage selection -- which, again, I haven't primarily talked about, but that just allows you to see what changes, if you were to commit those changes, how they look.

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1 So for this example, the yellow which is shown as
2 District 3 and the green which is displayed as District 2,
3 and then the blue which is District 1 for this specific demo
4 plan, if I were to take all of those blue highlighted census
5 tracts and commit them to say, "I want those to be committed
6 in District 2, how would that look?"
7 So on the bottom you can see that the total
8 population for District 1 would decrease 173,000, District 3
9 would decrease 66,000, District 2 would gain -- gain those
10 amounts.
11 Next up for the assigned tab along the right --
12 bottom right-hand side for the district window, that shows
13 you similar information just without actually seeing the
14 change.
15 So if I were to go back you can see it gains
16 240,000, and that's what it would be. That number, instead
17 of seeing the red or green plus or minus additions to the
18 table, it just shows you outright if you were to assign it,
19 what would it be.
20 And then the comparison tab and attributes tab I'll
21 show a little bit later on. But the comparison tab, you
22 have the ability to open up two plans within one session and
23 see what changes are -- exist between the two.
24 The next up is the "create" tab, where there are
25 different tools that will allow you to assign geographies

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1 within a district, with the goal being to create a balanced
2 population between all districts.
3 The "demographics" button there allows you to
4 access an assortment of authoritative variables. So there
5 are election data in there, there's standard demographic
6 data as African American, Hispanic, non-Hispanic, what
7 language do people speak, and you can add those to the
8 district window along the bottom as well as map them.
9 So, it's a pretty powerful tool.
10 Next up you can do "select by attribute" or "select
11 by location."
12 For the advanced GIS user, this is an advanced
13 thing that has -- that you have avail- -- access to. Where
14 if you're trying to fine tune your plan and maybe you have
15 the workflow in mind of show me all the census blocs with a
16 target -- with the total population of X, you can put in
17 that query and have -- have those highlighted on the map.
18 Same with "select by location." If you're trying
19 to find a certain thing in a certain area, you can put in a
20 query, a sequel query, and the tool will return the results
21 of what you're asking of it.
22 The redistricting window of the "create" tab. This
23 is what you're going to be interacting with probably the
24 most.
25 Where it says "unassigned" in the drop down which

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I'll show during the demo, you're going to have the districts that are within the plan. So for the demo plan, you'll have 1 through 4, but if you're working on congressional, you'll have the "unassigned" and then District 1 all the way to District 9, if you have legislative, you'll all have all the way from assigned District 1 to District 30.

And then basically whichever one is in -- is toggled on, when you highlight or select a geography such as the census tract, you're telling the system I want this census tract to be assigned to this district. So that's a quick way to swap.

The next up is the basic map navigation. So that little hand icon -- excuse me. That little hand icon, if that's selected, that's just an easy way to pan around -- around the map.

You have the plus and minus, zoom in and zoom out.

I'm going to -- when I get into the demo, I'll talk about how you can easily navigate using a standard mouse. So standard mouse you have left click, right click and a scroll wheel. So I'll talk about the different things that you can do to interact with the map extent.

Next up in the "block, the block group and county" window, you have control of what geography is selectable at a specific scale.

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1 So automatically you're going to be able to select
2 the geography that the yellow tick is at. So that means if
3 I were to select a geography right now as it's set, it's
4 going to select the entire county 'cause it's at a scale of
5 none to 9.2 million.
6 If I were to zoom in to be able to see houses
7 and -- individual houses and streets, then that yellow tick
8 is most likely going to go all the way to the left where I
9 will able to, when I make a selection of a geography, then
10 blocs, those census blocs will be individually selected.
11 This is an important thing that you're going to
12 need to do and feel out as you interact with this system,
13 because there might come a time when you -- at the end of
14 your plan when you need to fine tune it. This is a good way
15 to be able to select the right geography at the right scale
16 level.
17 And then next up you have the ability to change
18 base maps, do thematic mapping. So in that demographics
19 button that I'm going to talk about here more in depth
20 shortly, there's a wide array of variables, and you can
21 thematically map them; you can pick the classes and the
22 colors to be able to get that quick context on the map as
23 you're assigning districts.
24 And then if you're working with external data sets,
25 you can bring those in with the "add content." So you can

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search for an address, search ArcGIS Online specifically, if you're a member of the ArcGIS Online organization, you can sign in and then search for your da- -- within your data to add to this map, or if you have a Rest Service, a map service or feature service for power users that have that external data.

So demographic variables. When you click that icon, you're going to be presented with a window that's similar to the screenshot here.

This is what is going to allow you to turn on those different variables that's going to show up in the district window on the bottom. So you have the ability to create custom variables if you wanted to add one -- or two together or do division, multiplication, however you want to set up your custom variables, you can do so.

Key terms that you want to know in using at this key chart is "universe," that's what gives you access to total population; as well as "voting age population," so 18 and over; OMB, Federal Office of Management and Budget; and VAP, that voting age population.

Within each of these groups, there's quite a bit of authoritative variables that you can add to your district window, map thematically, and so on.

"Basic selection" you have the drop down, like I had said earlier, to indicate what district you want to add

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1 the geographies to.
2 You have four drawing selection tools. So if you
3 wanted to just click a geography, that's what that first
4 point selection tool would be best for; if you wanted to
5 draw a bounding box, the rectangular or polygon ones will be
6 useful; Polyline is useful if you're zoomed in and want to
7 maybe trace the outline of a road network and grab
8 geographies that maybe intersect that road network.
9 Then with anything in the one-stage and two-stage
10 selection process, you -- you can undo and redo. So if you
11 thought it was right or preferred what you wanted to submit
12 and it wasn't, you could easily undo that and go back to
13 what it was before.
14 And then you can zoom and lock to specific
15 districts.
16 So I know I've said the terms "one stage" and "two
17 stage" quite often in this presentation. And by default,
18 one stage is always on. This is -- this means it's going to
19 automatically assign to the district that you haven't --
20 that you intended to go into. As soon as you select a
21 geography, it's going to go into automatically.
22 Two stage, if you click the light bulb to toggle
23 that on, you're going to get presented with a couple of
24 additional tools that will help you assign selected
25 geographies to a district and then -- or delete them. So if

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1 you wanted to clear your -- the blue highlighted on the map
2 and say "That doesn't really achieve my desired result," you
3 can -- you can cancel that and exit from two stage.
4 It also allows you to easily locate any geographies
5 that are unassigned.
6 So to -- I'll go into this in a little bit for the
7 plan submission process, but to successfully submit a plan,
8 it has to pass certain criteria within the system; and one
9 of the criteria that it needs to -- to pass is that
10 everything must be assigned to a district. If you have any
11 census blocs or census bloc groups or tracts or even
12 counties that aren't assigned within the plan, the plan
13 isn't valid.
14 Here is the thematic mapping element. So in this
15 screenshot I have gone to the data set of "universe" and
16 chosen the "total" field which means show me the total
17 population.
18 I am zoomed in at a level over Phoenix, I believe,
19 where all of the census blocs are rendering; but during the
20 demo I'll show you how easily it can be if you want to zoom
21 out statewide, it will automatically change to display at
22 the county level.
23 Next up is the "review" tab. This is a pretty
24 powerful list of functions here where you can quickly see as
25 you make changes on the fly. You have charts available to

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1 you where you can see sum- -- your data being summarized.
2 The "check integrity" button, that's going to be
3 vital to being able to submit a plan successfully.
4 And then once you either throughout the life cycle
5 of your plan creation or at the end before you submit it,
6 you can generate reports and there's a number of reports
7 that I'll go into that are available to you that can
8 summarize your data as well.
9 And then I spoke earlier about being able to
10 compare two plans within one session. If you have plans
11 already, you can open them, and then you'll have those lists
12 of -- of operations available to you.
13 Here are just some of the charts that you have
14 access to. You get to choose your different variables and
15 be able to, you know, see a chart of the data being
16 summarized.
17 So in the demo that I've set up with the four
18 districts, you can see that the -- the total population
19 difference and how everything is laid out looking at the
20 plan histogram and the plan distribution. You can even say
21 only show me, of all the districts, District 3, and you can
22 see a breakdown of that as well.
23 So I just want to say once again that the
24 District 1 through 4 plan that I'm going to go over in this
25 demo is purely arbitrary. Just for demo purposes. But all

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1 the data behind it is the 2020 census data, so all the data
2 powering the system is authoritative.
3 As you're making your plan and when you're ready to
4 submit, you can -- you need to check your plan's integrity.
5 So there's a list of six integrity tests that are going to
6 pop up, and all of them must be valid for you to submit your
7 plan.
8 So a couple of the common ones that you're going to
9 see fail potentially is the "null assignment," which
10 basically means if there's any unassigned geographies, every
11 geography needs to be assigned before a plan can be
12 submitted; A "connectivity check" at the bottom of this
13 list, that means if you're drawing District 1 in the
14 southern part of the state but you have a census bloc that
15 is assigned to Census -- to District 1 in the northern part
16 of the state and they're not connected, their -- then you're
17 going to have to go back and -- and fix your plan.
18 Another one that is common is the "maximum
19 deviation check." This is going to look at your total
20 population for each district, and it needs to be within that
21 5 percent plus or min- -- excuse me, that 5 percent plus or
22 minus to be able to successfully submit your plan.
23 Here are some of the reports that you have
24 available to you. Reports can be exported to PDF, Excel, or
25 various HTML formats; and they display the census

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1 demographic information that you select in the report
2 definition.
3 So you can see the list of reports in the top
4 middle of this screenshot or this slide, excuse me. The
5 report definition is how you're going to generate the
6 report, and I will do this during the demo. You can see
7 that in this specific sample report, I've chosen the voting
8 age population summary with those report fields listed; and
9 then once it does that, you'll get a report -- or, a line
10 item for each district which shows you the count and then
11 the percentage.
12 Comparison maps, you're able to open two plans at
13 once. So once you do have a plan open, along the top right
14 you'll have those additional function -- those toolsets
15 available to you so that you can adjust the transparency of
16 both the active plan, the one that you're working on, the
17 compared plan, which is the one you're bringing in, and then
18 being able to see the difference.
19 So for this demo, the compared plan that I set up,
20 the only difference -- and you can see on the right side of
21 the slide, is I assigned an entire county along the
22 northwest of the state from District 3 -- or, excuse me,
23 from District 4, and I've added it to District 3.
24 So that's why you see that hatched symbology
25 because that's what's different between the two plans.

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1 And then lastly the "share" tab. This is what's
2 going to allow you to edit the metadata of your plan. It's
3 going to provide an access log, so it's an audit trail of
4 common things. If -- if you're working with other people on
5 this same plan, you can see when the plan was opened, last
6 opened, who last opened the plan, if they made changes or
7 not, and when the plan was closed or checked back in.
8 Along the right-hand side you have "groups." I'll
9 talk about this in a second, but it's essentially you're
10 able to create a group, search through the directory and add
11 users that are a part -- a part of your team to this group;
12 and then if you were to share plans, they would -- depending
13 on how you share them, they would be able to edit the plan
14 so you guys can collaborate together, or be able to simply
15 view it so that maybe offline you can get input from them
16 and then adjust your -- your plan before final submission.
17 So here is a screenshot of creating and managing
18 groups. It's a good way to -- to, you know, control access
19 to who has your plan as you're working on it. So along the
20 top you can create a new group, you can create an unlimited
21 amount of new groups; you can modify the group properties,
22 if you have too many groups or create it by mistake, you can
23 delete them; and then you have the ability to add or remove
24 users.
25 The only thing that you would need to have a

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1 user -- a person that you want to collaborate with before --
2 the only thing you would need them to do before you
3 shared -- you add them to this group, excuse me, is they
4 would need to go and create an account so that they show up
5 in this list of users able to be added.
6 So that -- those are the fundamentals of the
7 system. All of those tabs and all those buttons on the tabs
8 for general use of the system, you now know everything you
9 need to -- to get started.
10 But before you actually do, you have to create an
11 account. So when you go to the -- this address, you'll see
12 in the bottom of the screen a button to sign into the system
13 or a button to create an account.
14 So once you do, click "create a redistricting
15 account." You'll need to provide that information; you can
16 pick your username and password; and then once you do that,
17 you're able to sign in.
18 The first time you sign in, you're going to need to
19 set a security question. There's a list of predefined
20 questions and then provide an answer so that, you know, if
21 you forget your password, before resetting it, you can check
22 in and -- and get your password.
23 And then you're going to want to press "allow" for
24 request for permission.
25 So once you create an account, you need to create

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1 your first plan. So after you log in to the system, you're
2 going to be presented with two template options: One for
3 the legislative plan and one for the congressional plan.
4 These grid maps are not approved yet, that's why if
5 you were to go into the system right now as I'm giving this
6 presentation, you're going to see those four district plans
7 that I've been discussing in this PowerPoint through --
8 like, throughout this PowerPoint.
9 Those are arbitrary plans. There's a meeting on
10 the books to present the grid map, and once it is approved
11 for both the congressional and legislative, they'll be
12 loaded into the system, and you'll be ready to actually
13 start -- start the process of providing your input on the
14 redistricting system.
15 So this screenshot, I have selected one of those
16 templates. This is going to be necessary to get into the
17 system.
18 You'll notice in the top right that specifically
19 highlighted that it is "read only," and I selected the "grid
20 map 4 districts - congressional."
21 So you -- you will need to do this every single
22 time that you want to start a new plan. Essentially, once
23 you're at this point, you'll then do a "save as," and then
24 it's your plan, and you can continue editing.
25 I do want to note that the -- however the approved

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1 grid maps show up for both the congressional and
2 legislative, that is only meant to serve as a starting point
3 to have either nine balanced districts for congressional or
4 thirty population-balanced districts for legislative.
5 That is entirely no means of saying that this is
6 how it needs to be; this is just to serve as a starting
7 point.
8 So you have the ability to indicate to the system
9 you want to unassign all of the -- the census blocs so then
10 you'll start fresh, the reason why the grid maps are set up
11 this way, is within the system, it constrains you to either
12 submitting plans that have nine districts or thirty
13 districts.
14 So when you go to create your first plan, like I
15 said earlier, you're going to need to select "save as" so
16 that you're working on your own plan. You're going to see
17 in the bottom right of this slide a save plan where you'll
18 be able to give your plan a name and a description.
19 And then you start the process, you close
20 everything and come back the next day to continue working on
21 your -- on your in-progress plan, So what are you going to
22 need to do?
23 You're going to need to log in to the system,
24 select one of the grid templates -- it can be the nine or
25 the thirty -- and then once you're in the system, you go to

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1 "open," and that's where you'll be able to select your plan
2 you have in progress.
3 And then once you make your plan, you need to go
4 through the submission process. So you need to check
5 integrity, do those integrity checks to make sure your plan
6 is valid. Once it passes all the six, then you'll be able
7 to submit your plan and confirm plan submission.
8 So this is important -- important piece to note,
9 because once you submit the plan, it's final. It's in the
10 system; we will publish it so that it can be publicly found
11 and explored on the redistricting hub. But it is final, you
12 are unable to make edits.
13 One thing to note is that if you do want to make
14 edits, you can open it and do a "save as," and then it's
15 essentially like you're starting at a new plan from where
16 you left off.
17 So if you want to make a version one of your plan
18 and then submit it in the process and then maybe do a
19 version two, you can save as version one and continue
20 editing.
21 And then finally, once you do submit a valid plan,
22 what do you -- what to expect after.
23 You'll receive an automated e-mail with the e-mail
24 address that you used to create your account from the
25 system; and then you can expect your plan to be made

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publicly available on the redistricting hub within one to two business days.

The plan that is published to the hub will be the plan that you submit with no changes.

The only change -- or, excuse me. There will be one change, the plan name. So you give it the name, you submit it, and then we are going to assign an IRC name to it so that you'll be able to -- to cross reference to find the specific one.

So the naming convention with will have a "C" or an "L" whether it's congressional -- congressional plan or legislative plan and then given an ID. So all that information on how to find your plan will be available on the hub.

All right. So that -- those are the fundamentals and the overall submission process.

So now we're going to jump into the system.

All right. Here is the home page. You can see the IRC's logo, the sign-in feature, create a redistricting account or if you forgot your password, you can do that.

I'm going to sign in. There is a screen that pops up on my other screen -- or a window rather. I'm going to sign in and we are good.

All right. So the first thing I'm presented with are the two template plans.

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1 Again, these are the arbitrary, four district plans
2 for both legislative and congressional. So I'm going to
3 open one of them; it doesn't matter which one you open if
4 you already have a plan in progress.
5 And so -- you are successfully in the system now.
6 What I'm going to do instead of save as, I'm going
7 to open up a plan that I have already started.
8 And so here you can see that the redistricting
9 admin owner, the profile owns the two templates; and then
10 once the approved templates go live, that that -- that
11 account will own those two plans.
12 So I'm going to open a demo plan where I
13 essentially just did a "save as."
14 All right. So in here I'm just going to go across
15 the top of certain functionality that you can do.
16 If I wanted to import other data here's where I can
17 import shape files or fixed text formats. If I wanted to do
18 export the plan I'm working on right now, I can certainly do
19 so.
20 Here is the "learn" tab where I spoke about, where
21 if you wanted a quick tour of how to create a plan or any
22 FAQs this will -- excuse me, this will take you outside of
23 the redistricting system to Esri's website.
24 Now, if we wanted to view, here's where it's
25 locked. When you're in the real deal, it will say nine or

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thirty, but for this demo it says four because this is how the plan has been set up.

You can see the target mean, which that is essentially the -- the total population divided by four districts.

Here is where you can choose to -- to fill districts. So turn it on, fill, display the lines.

If you had other external data sources added, you can certainly do so and differentiate how -- how it appears.

You can shorten the names so that it's D1 instead of District 1.

You can do deviation coloring where you have the -- the maximum deviation allowed and then how it would appear.

So if I wanted to press "okay," you're not going to see anything right now because this grid map is already balanced. But let's just say if I wanted to assign District 1 -- let's say District 4 geographies, I can certainly do that here. And basically what this is saying is, you know, take this county that's included in District 3 and assign it to District 4, and I can continue to -- to do that.

And then if I go back over to the deviation coloring, I can see the labels. So the red is over. I can fill the geography, so I can see the District 3 is -- oh, excuse me, under the allowed deviation.

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1 And because I don't want to commit those changes
2 quite yet, I'm going to undo what I just did.
3 So this is how you can quickly change.
4 Using a standard mouse with the "hand" selected to
5 pan the map, you can click and drag; you can zoom in and
6 zoom out quite easily with your scroll wheel depending on
7 how you have your mouse settings set up; if you're on a
8 standard keyboard, you can hold the "shift" button and click
9 and drag and that will zoom to the extent that you just
10 drew.
11 Let's see. Here is the selection level. So if I
12 were to make a selection and say I wanted to toggle
13 two-stage selection at the tract level, I can assign all --
14 or, I can unassign everything that is in here. I can go
15 down to "propose" and see those changes. That basically
16 says if were to commit this, I would take 5,000 population
17 count from District 3 and 3,000 district -- from District 4
18 and add them to the unassigned variables; and you can see
19 how that would flow through all the demographic variables
20 that I have turned on currently.
21 If I wanted to clear, I can -- also identify. And
22 then if I wanted to clear that, there is a "clear" button
23 that once this "identify" feature comes up.
24 Let's see. Here is the selection level. So if I
25 wanted to have select at the bloc level and also change so

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that blocs appear, you can see I have the sliders that I can also slide over to say: At this extent, the 1 to 1.2 million, I want you to draw all of these census blocs.

And then if I were to go in with two stage turned on and select all of these -- let's see. If I were to zoom in to Maricopa County and pick, I can certainly do all of the blocs within that selection, and you can see how that would change.

I can change the base map. We have a couple different options. I believe by default the topographic base map is turned on, but if you wanted -- if that were too noisy for some reason, you can go to light gray canvas which is another option, or streets, or if you wanted to see imagery behind -- or as the base map, you can do that as well.

Here let's go to clear that two-stage selection.

If I wanted to add themes. So here I want to see total voting age and show that theme, here is where I can go to the "contents," maybe turn the districts off, and then I can see, you know, everything rendered on that thematic map.

So it's still drawing the blocs, but if I wanted it to draw bloc groups at this extent, I can do that as well; or if I wanted it to show tracts, I can do that.

Under the "advanced" section of this, this is where you can see how many class breaks do you want to have. So

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1 if you just wanted to show low, medium, high and then maybe
2 pick the natural break within the data, and you can do that
3 and see how it changes.
4 So anything with this color scheme that's in green,
5 it's a highly populated area of the "18 and over" crowd.
6 And then to remove, you can just clear the theme
7 and keep going with your district assignments.
8 Here is adding content. So in this left-hand --
9 left side window, you can search for an address in the
10 place. You can search ArcGIS Online. If you have an ArcGIS
11 Online organization that you're a member of, you can sign
12 into that organization and get access to your secured data.
13 If you have a Rest Service that you have in mind, a map
14 service or feature service, you can add that here as well.
15 Moving on to the "review." I'm going to turn on
16 the plan histogram and you can see that the demographic
17 variables that I've turned on in the district window also
18 show here.
19 So if I were interested in seeing the competitive
20 score to see the percent of the population that voted
21 Democrat, I can do that; if I wanted to see Republican, I
22 can do that as well; or Hispanic, I see that.
23 And the cool thing about these charts is that they
24 will update on the fly as you make district assignments.
25 So I'm going to go in and I'm going to say I want

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1 to take orange district 4 and along this boundary, you know,
2 take some of District 1 and assign.
3 So I'm going to go ahead and say I want to include
4 these census blocs in District 4. On the "proposed" you can
5 see what that would do. If I were to commit those changes
6 and actually assign them, you'll see that. That was such a
7 small selection, but the chart will update.
8 So to show you that on a grander scale, let's go
9 ahead and, at the county level, basically assign all of
10 Maricopa to District 4.
11 Let's see. There we go.
12 So it took a while because Maricopa has a ton of
13 census blocs in there. So I'm going to go ahead and you can
14 see down here what actually would change if I were to commit
15 all of the blue highlighted ones. That District 4 would
16 gain 3.3 million people. You can see that, you know, of
17 those 1.1 million the total Hispanic population count, you
18 can see how that would be adjusted, the African American
19 community; any variable that you add on here.
20 And then let's say I do want to assign those
21 selections. And then obviously because that was such a
22 large change, it would obviously show different on this plan
23 histogram.
24 So I committed that change, but let's say I don't
25 want to; I didn't want to do that. So I'm going to undo

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that change and the -- the original change that I made as well.

Because I have made this grid map to -- to so close of the deviation, when I go to check the integrity, once you click that button it's off and running and it's going to pass.

But I'm going to show you what you could expect if you were dealing with a plan in progress and it didn't match something.

So I'm going to go in here and I'm going to create. I'm going to assign a geography to District 4, and at this scale I'm going to take these entire counties and assign them to District 4. So you can see the proposed change.

And I'm going to commit those.

So what I just did is I created a -- I have District 4 but on separate sides of the state, so it's indicating that it's not connected. And I believe with that change it's going to take me over the target deviation that's allowed.

So if I wanted to check the integrity again, I'm going to start to get some errors.

And then there is feedback. So if you click "details," it will say that exactly what -- what is allowed. So the 5 percent plus or minus of four districts, so total population divided by 49, that's 89- -- I have to get it

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within 89,000.

You can see that District 4 is -- is over now by a hundred and -- or, 152,000 is the total, but it's over by that much; and then District 2 is under by 113,000.

So I would need to change that before I successfully commit this plan.

Next is the connectivity check. This is really useful on catching maybe census blocs really close, zoomed in level to the map. It would appear to be connected, but you might have a sliver of a road network that would actually separate.

So here I have essentially two parts indicated for District 2 and District 4.

This is again going to be useful on finding those discontiguous parts at more of a closer level.

So what I can do now to demonstrate that is I'm going to undo those assignments and I'm going to zoom on in to -- oh, let's see -- to this census -- to this group of census blocs.

And I am going to say I want to assign District 1, these geographies to District 1; and I am going to turn off two-stage selection and turn on -- and by default one stage would be enabled; and I'm going to grab all of these -- oh.

I'm going to undo that because "county" was still selected. I'm going to change it "automatic," so it now

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it's going to be wherever the yellow tick is at, so now I am selecting at the census bloc level.

So I am going to grab these blocs, make them District 1.

You can visually see right now there is a difference; it's not connected. If I even zoom in here, you're going to see that it didn't grab this -- this census bloc in my connection. So I can even, you know, click that, make sure it does go within that assignment for District 1; and then I can rerun the check, and it's going to show that the connectivity check is going to fail.

And when I explore the details of that failure, I can go to -- it will zoom directly in to the area that needs -- needs review.

So if I were to then go back and say undo those changes, those assignment changes and refresh, it's going to have a blank because it will pass again.

So it's going to check by default again once you exit the detail or zooming into any of these issue spots, and you're ready to submit.

Before I do that, though, I guess one last thing I want to show you is the reporting function.

So here are all those reports that you have available to you by default.

So if I wanted to look at the voting age population

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1 summary, I have these fields that are stored by default for
2 this report template; but if I wanted to, like, click and
3 remove some of these variables and go into "key election
4 data" and turn on those competitive analysis voting, I can
5 add those. I could choose to e-mail it to myself or in this
6 case I'm just going to generate the PDF of those four
7 districts.
8 Give it a second to render. Some reports take
9 longer to generate than others.
10 It looks like this one is done, and you're going to
11 see using the PDF option for the voting age population
12 report, a breakdown of the district number, you have the
13 total population count and percentage, the -- the voting age
14 population, all of the default ones; and then you can see
15 these last two columns here are the competitive analysis
16 variables that I manually indicated I wanted to be included
17 in the report.
18 So you can see a breakdown of how I drew
19 District 1, you know, it's -- it's fairly balanced on -- for
20 competitiveness.
21 Here -- let's see.
22 If I wanted to open up a plan, and then this is the
23 one I had used in the screenshots of the presentation where
24 I took District 3 and extended it north. I can look at
25 here's the plan that I'm working on; here's the compared

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1 plan that I just brought in, and then show me all the
2 differences. So I can zoom in directly to see those
3 differences.
4 Currently in the selected district. So one thing
5 to take into account, I'm glad in this demo all the little
6 things are coming up so I can point them out, is I have
7 District 1 in here, and they're saying I have no differences
8 in District 1.
9 So if I wanted to choose District 3 and go over to
10 show me the differences within District 3, it's going to
11 zoom in and basically say this entire county is different in
12 the compared plan that you brought in than in the active
13 plan that you're currently working on.
14 And then when I want to bring in another plan to
15 compare to the active plan or just remove this, I can go to
16 "close plan" and you're back and running with your original.
17 If I wanted to share the plan, I have the ability
18 to share with everyone. And then you can choose "read only"
19 or "read and write" as far as access level. I would advise
20 to not share with everyone with read and write privileges,
21 because then it's not truly your submission and your input
22 into the redistricting process.
23 Everyone has the chance to create their own account
24 and continue working.
25 If you have a read-only version of the plan that

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1 you want to be discoverable in this tool, you can certainly
2 share it with everyone; but my recommendation is if you're
3 working with potential constituents or you're -- you're
4 selected, you know, work group, that you create a group, add
5 those users after they've created an account to that group,
6 and then share appropriately just to that group of users so
7 that they can either see what you're doing or help you in
8 collaboration and edit the current plan.
9 And then once you're ready, you'll go through the
10 submission process.
11 So I'm going to go with, sure, I would like to save
12 the plan. I note that plan was saved, okay to submit.
13 It's going to run through the integrity check one
14 last time just to see if it made any changes, if that would
15 make it an invalid plan; and then once you're ready to go,
16 you'll be taken to the plan metadata, so the properties of
17 the plan where you can fill out your name, the organization,
18 an e-mail address, the plan name.
19 This is just what I mentioned earlier, that we're
20 going to -- the only thing we're going to modify is we're
21 going to keep the original plan name, but when it's
22 published to the hub it's going to have that IRC ID, and
23 there will be a way for you to cross reference so you can
24 see the plan that you submitted and then what the ID is.
25 And then you can also give it an explanation of

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plan objective if you'd like; and then once you are ready, you can go ahead and submit the plan. And then it's going to verify that you -- you are actually ready to submit because it's going to be final once you press "okay."

So then it's going to go through, submit the plan, I would then expect to get an e-mail and see my plan within one to two days on the hub.

And with that, that concludes my demo.

Let me switch over back to the presentation.

Just one thing that I want to leave you with are some additional learning resources.

So here are links to a link that's coming soon, and we found on the hub when it's ready is we are creating training -- short training videos that are Arizona IRC Redistricting System specific; but in that YouTube playlist on the second bullet, those are Esri demos that are more general.

So you may find some additional functionality or different functionality that are shown in those videos. But those are good references to -- to watch if you just want to see quickly how to generally do something.

Then we have links to the Esri documentation, a couple of blogs that will help you as -- if you're interested in seeing what's new with the software, and then a learn lesson down at the bottom where it's guided

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1 step-by-step that is really helpful on getting you trained
2 and comfortable within the system.
3 And with that, I'll hand it back over to Mark.
4 MR. FLAHAN: All right, Brian. Appreciate all your
5 work on the training today.
6 Mr. Vice Chairman, that's all we -- we have for the
7 training for you. I'd pitch it back over to you unless you
8 have anything for us.
9 VICE CHAIR WATCHMAN: Well, let me ask
10 Commissioner Lerner if you have any questions.
11 I think if no, I'll move on.
12 So any questions, Commissioner Lerner?
13 COMMISSIONER LERNER: Thank you for the training.
14 I do have a couple of quick questions for you just as a
15 follow-up. The links that you had on your slide, obviously,
16 we can't -- I assume the slides will be posted so people can
17 actually access those links because obviously we couldn't do
18 that.
19 MR. KINGERY: Right.
20 COMMISSIONER LERNER: Okay. So we'll have those
21 links posted later today, the ones that were on that last
22 slide?
23 MR. KINGERY: Yep. So I can get with Mark and he
24 can send over so that they can be posted as I guess on the
25 YouTube live in the description or found also on the

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1 redistricting hub.
2 COMMISSIONER LERNER: Great.
3 And then -- and as a follow-up, it's great that
4 you're going to be doing these short clips, do you know when
5 those will be available? Because I think people are
6 probably going to be anxious to get started.
7 And your training was great but, you know, to be
8 able to review a particular piece should -- will that be up
9 in the next couple of days, those?
10 MR. FLAHAN: Yeah, our plan is to -- we have a
11 couple already made, our plan is to finish the rest. We're
12 going to use some of the view that we shot to today to build
13 those small videos. So, yeah, in the next couple days, they
14 should be good to go.
15 COMMISSIONER LERNER: Okay. So before the end of
16 the week, then, I would assume, right?
17 MR. FLAHAN: Yeah. Yep.
18 COMMISSIONER LERNER: Perfect. Great.
19 And then, just as a last question, and this may
20 be -- so -- so if I'm wanting to draw a map but I only want
21 to deal with my area, like, my community of interest, we
22 just did that community of interest section, but now we'd be
23 drawing on these which would be a whole different thing, are
24 people are going to have to submit an entire map based on
25 this system or are they going to be able to submit portions

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of maps?

MR. KINGERY: Entire maps.

COMMISSIONER LERNER: Entire maps.

There's no way for the average people to be able to submit just: I want to talk about Mesa and what I think should happen with Mesa, for example?

MR. D. JOHNSON: Right. Brian, let me take this. This is Doug Johnson.

We did talk about that, and because we want them to start from the grid templates, so they can take -- all that -- all we need to alter is Mesa, put a note and they just add or include a note saying: "All I redrew is Mesa, ignore the rest of it."

But we do want them to start from the grid so we can trace everything back to the grid.

COMMISSIONER LERNER: Perfect. So they can actually just do their own area but just identify it. Keep the rest of the grid the way it is, and then say "I'm just doing this one," and send a note that says that. That's perfect.

MR. D. JOHNSON: Exactly.

COMMISSIONER LERNER: Okay. Great.

Yeah, that's -- that's all I had. It's a lot to take in I'm sure for those watching. Practice makes perfect, right?

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1 VICE CHAIR WATCHMAN: That's -- that's really true.
2 I know the Commission, you know, we took our training last
3 week and it was overwhelming; needed a little more time.
4 It's overwhelming, but I appreciate Brian and Mark and
5 others to refine the training.
6 Brian, is there anything else that we need to go
7 through today?
8 I don't have any questions myself, my apologies.
9 Brian, anything else?
10 MR. KINGERY: No, I think that rounds out, you
11 know, what I think the fundamentals are and how to interact
12 with the system.
13 Like Mark said, we'll have the targeted training
14 Arizona-specific videos up shortly, and when -- once the
15 grid map is approved, that will be loaded into the system
16 and then that's when, you know, users can start to go in and
17 pull in real templates and start to submit real plans.
18 VICE CHAIR WATCHMAN: I still have a question. If
19 someone is going through and they have a technical question
20 that can't be answered on the system or through the videos,
21 is there an e-mail address or chat -- I'm not too sure, but
22 maybe a technical question comes up to, be able to access
23 that question if they can't get it answered online.
24 Mark?
25 MR. FLAHAN: Yeah, the -- the first hope would be

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1 that the videos and everything would answer their question
2 to be able to get there; but, yes, we could provide an
3 e-mail address for people to -- to e-mail in.
4 VICE CHAIR WATCHMAN: Yeah, you know, just in case
5 because some of us need the -- need the hands-on learning.
6 And I have a hard time just going through YouTube videos in
7 public session.
8 Okay. So if we can do that, I think it's very
9 helpful.
10 Okay. I think -- is there a question?
11 No? Okay. Well, today -- today was basically a
12 training on our mapping system, and what we want to do from
13 the Commission is to try to get as much information out to
14 have our system as transparent as possible. Everything is
15 on our website, you know, for getting in tomorrow. We as a
16 Commission will resume in our regular Tuesday meeting; will
17 start at 8 o'clock and the agenda is posted.
18 I'll ask again, any more questions or any more
19 thoughts before we adjourn here?
20 Okay. Well, this was short and sweet.
21 And, again, the public, you know, thank you for
22 joining us. We're hoping that, you know, all your questions
23 can be answered on our website and all the information that
24 was discussed earlier. A lot -- a lot to take in, but, you
25 know, as we move through this, it's going to be, you know,

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1 quick because we have to get done by the end of December.
2 So, again, look through it. Any questions; feel
3 free to e-mail us, and we'll go from there.
4 So, with that, I'll call for adjournment, and I
5 appreciate everybody joining us and have a great day. And I
6 will see the staff and fellow Commissioners tomorrow bright
7 and early at 8 o'clock.
8 So sign off, everybody, and thank you very much.
9 Have a good day.
10 (Whereupon the videoconference concludes
11 11:12 a.m.)
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1 C E R T I F I C A T E

2

3 STATE OF ARIZONA)

4) ss.

5 COUNTY OF MARICOPA)

6

7 BE IT KNOWN that the foregoing proceedings were taken before me, Angela Furniss Miller, Certified Reporter
8 No. 50127, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and
9 thereafter reduced to print under my direction.

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12 I FURTHER CERTIFY that I have complied with the requirements set forth in ACJA 7-206. Dated at Litchfield
13 Park, Arizona, this 27th of September, 2021.

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Angela Furniss Miller, RPR, CR
CERTIFIED REPORTER (AZ50127)

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