**ESRI Presentation – April 6, 2023: Imagining and Imaging New Workflow**

**SLIDE #1 – MB**

Good Morning, Everyone. Welcome to our presentation.

My name is Mary Beth O’Quinn and I am here with my colleague Jay Mukherjee. We are part of the ITI Division at the Montgomery County MD Planning Department, the Is-GIS Section and the ArcGIS Urban Group. I am an architect and urban planner and Jay is our principal GIS Specialist.

Today we will be showing you *Imagining and Imaging New Workflows* for our regulatory review and master plan work here at the Planning Department.

**SLIDE #2 MB**

This slide shows the process for 1. Finding a Project and 2. Sharing Project Info by Geography or Development Type

As you can imagine, there is an enormous amount of detailed information that is catalogued and available for a given project which you will see on the next slide:

* Multiple types (4 types) of regulatory applications (site, prelim, sketch , FCP)
* Multiple ways to retrieve info: DAIC, EMCEE Atlas

Typically, this entails a multitude of “look-ups” to isolate the pertinent 2D image!

**What we need is a u**nified web page to coalesce summaries of multiple approvals into **one view**

And we will show you how URBAN meets those needs for us as professionals and our constituents.

**SLIDE #3 MB**

* + - The challenge is for the public and constituents to parse many drawings and **quickly visualize** what a proposed building will look like.
		- Our implementation of Urban provides a solution for this challenge, while offering a medium of transparency, clarity and context – these are essential for working in the public sector.

Here is a view of ALL types of different information – drawings and documents for one particular project as an example. The Battery Lane Project:

* Four tiers of regulatory review: Sketch, Site, Preliminary and Forest Conservation.
* There are 125 drawings – challenging to pick “the one or two” that best show an overall view of the project for the site features and building form.
* Again, note the 2D b/w site plan drawing = the “one” to pick from 125 choices!

We needed something that would provide a usable tool for the general community and our wide range of stakeholders, from developers to our civic representatives to quickly visualize the proposed developments within their context. And that is where Urban comes in.

**SLIDE #4 MB and JM**

This slide shows the steps in transforming from 2D plans and drawing to 3D Urban, that is, going from a locational map, identified parcel or tract, to the placement of the 3D overlay lot design and, finally to imaging of the future development in 3D.

**Now, here is Jay**.

Thank you, Marybeth. Now that Maribeth explained the overall "why" we are trying to improve our workflows by moving towards Urban, I want to go over the "how" we are trying to accomplish this transition.

The goal is to bring these projects to life, to take them from many various compiled 2D files and documents to 3D. The first step in this process is to georeference site plans. Once we have accomplished that, we create various contextual layers, such as building footprints, property lines, zoning parameters and proposed trees for the scenario. Then, based on the parameters found in the various documents, the building models are created. Once the models have been created, our goal is to share these projects to the public in a simplified and visually appealing manner.

**SLIDE #5 – VIDEO Preston Place JM**

So what does going from 2D to 3D actually look like in Urban? First, we add contextual layers like our zoning layer, various site plans and existing buildings to our project site.

**(wait until Scenario 3 is pressed)**

Next, we develop the building models based on the specifics of the site plan, which can be found on site maps, but also by sifting through various documents.

**(wait until right window is pressed)**

After creating the models, not only can one visualize important parameters such as building types and square footages, but urban also calculates FAR's (floor area ratios) and the building conformance with existing zoning rules **such as height limits, ground coverage, open space, setbacks.**

**SLIDE 6 VIDEO GHOST and Shadow/Aerial Battery Lane JM**

Once we have created the basic framework for an individual model we can visualize multiple models at the same time.

This helps show the relationship between space and massing and the overall context that is created by adjoining developments.

**(wait until shadow button is pressed)**

They will be able to do comparative shadow analysis,

**(wait until the aerial button is pressed)**

see the context of the model to its physical environment by using aerials,

**(wait until the comment button is pressed)**

and even have the ability to comment, if one choses to.

**SLIDE #7 Urban HUB Page– JM**

Now that we have created the content, we are currently working on the ability to share this content with the public. We are using ArcGIS HUB, which is a community engagement software that organizes people, data, and tools. The plan is to offer 3 ways to get to our content. One would be through a 2D webmap showing current project locations where you would click on a point that links you to our individual project summary cards and model. This gives the public an easy-to-read, cliff notes type summary of the project, and an ability to move around the 3D model.

The second way to access our project would be by project status. By going through one of the buttons on the main page, a project pick list comes up. By clicking on one of those, the individual project and summary card is accessed. The final way to access our projects will be through our existing Development Application Information Center website, where we will place links to the existing urban project pages.

In addition to accessing our regulatory Urban models through our Urban HUB page, we are also starting to use HUB for our individual master plans**.**

**SLIDE #8 – VIDEO Master Plan HUB Page - JM**

  (**Scroll down main page)**

Hubs allow us to share details about areas in the county that are in the process of redevelopment.

This opening page introduces the audience to the boundary of a master plan, describes what a master plan is, and the overall process of implementing master plans.

Our initial goal with these Hubs is for the community and decision makers to show the "Facts on the ground".

**(Hover over Tabs with mouse)**

The site consists of various tabs that categorize our information.

**(Click Developments)**

Developments showcase commercial and residential developments that are currently within the master plan boundary. This tab also contains a map **(scroll to map)** with important community amenities and points of interest within the plan boundary.

**(Click Land Use + Zoning)**

The Land Use and Zoning page showcases the designation of parcels for particular use cases within the community. The Land Use web map incorporates the use of map viewer blend modes to emphasize parcels within the plan boundary. Below, is a pie chart breaking down the total acreage of this plan boundary by use type. Also on this page is a map showing zoning and a link that further explains Montgomery County’s zoning ordinance.

**(Scroll up to survey)**

As you probably noticed in these tabs, we've incorporated the use of Survey 123 to gather feedback from community members related to all of these topics.

**(Click Interactive Community Map)**

click on a link **(CLICK)** to access a survey specific to pedestrian connectivity.

The result of these surveys looks something like this: <https://takoma-park-minor-master-plan-amendment-mcplanning.hub.arcgis.com/pages/parks-and-open-space>

With these items I've shown you all, again, we are showing what's happened in the plan area and the current status by various categories. The plan is to also create a tab for Urban in HUB to envision the future of the master plan area using 3D scenario planning.

**Now, here is Mary Beth**

**SLIDE #9 Clarksburg MP - MB**

Thus far we have concentrated on showing you some of our regulatory development review work. In contrast to development review which shows the end result of planning at build out, we are also in the process of using Urban for some of our master planning work. Master planning is the first step or “front end” that includes visioning and broad, long term goals, including land use, zoning changes, transportation and road sufficiency, environmental requirements, schools and adequate public facilities.

Here is an example of one such project for a future master plan. It depicts a suburban setting within the Rural part of the County and highlights the range of planning for which MoCo is responsible. The tract area features a landmarked laboratory-industrial building built in 1969 designed by Argentinian **architect** César Pelli. The tract is under consideration for extensive further development, as mixed use laboratories – office and moderately dense residential uses. The site contained the routing for the CCT Corridor Cities Transit (light rail), with a station serving the existing and future uses.

Urban’s flexibility, along with its accuracy in tracking density, site coverage, building placements, and zoning conformance provides effective, useful guidance in navigating the goals and objectives of Master Planning. [This sentence can go at the end: Thus, our planning agency is using Urban for both the “front end visioning” and for its ultimate product: the proposed actual buildout of development sites across the county.]

**ANOTHER SLIDE?**

The ultimate goal of this improved workflow from our current system is to provide Better Information and Intuitive Retrieval in an efficiently organized manner for the public and other planners. We feel like that with these new tools, such as Urban and HUB, we will be able to offer the public a much better system to understand developments occurring around our County. Thank you for your time.