PART 1, AN IMPLEMENTATION OVERVIEW

Implementing a BIM solution to the office is not unlike designing a new prototype for an existing building type. As Architects, We are daring when it comes to projecting forward a new behavioral model such as New towns or pod based educational design. We are champions of master planning. We are experts at complex spatial, symbolic and behavioral pattern recognition. However when it comes time to change our own processes we are guilty of letting our hubris get the best of us. As Architects we must practice what we preach. This document follows this analogy through the Revit Implementation process.

PROGRAM

Develop the functional and procedural requirements and goals of the implementation
Review the existing functions and processes entrenched in the office.
What types of projects does the office do?
What information is needed in which phase of the project
What is the flow of information over the life of a project

Review the software's potential impact on those processes.
Create a timeline with milestones that can be quantitatively and qualitatively measured
CAD LEAD Core team selection and training
Office Standards and library development
Pilot project selection
Pilot project team selection and training

Before the sketch pad comes out architectural program is written to define scope and requirements for the final design. This is no different in a successful implementation.
Programming for BIM implementation: Define the end product. What exactly are you trying to accomplish with implementing BIM? Start by listing the current sore points and bottlenecks in your existing process.
Record the existing process flows through the office.
Implementing BIM can and WILL change the process of the office.
While architecturally the program will speak of costing, adjacencies, space and equipment requirements, the BIM implementation program will address timeline, milestones, sequenced training, office standards/procedures and libraries.

RFP and BIM implementation

The RFP and short list in the traditional building process serves to select the best team for the design at hand. This is no different in the BIM implementation. Select a core team of your staff who will ultimately be responsible for the success of the implementation.
The size of this group will be determined by the size of the office doing the implementation. Unless the office itself is less than 20 people, the size of this group should be no less than 5 people. This is a group will be responsible for finalizing the office standards and implementation. They will also be the go-to people for any questions that arise in the day to day use of the software. I suggest that this group is as close to a clear cross section of the office as possible. By this I suggest this group containing an associate principle, a project architect, and a few drafting technicians. Having an deeper understanding of the software allows the officers to have informed decision making represented at all levels. Additionally this arrangement provides a continuity of skills and knowledge over time.
Create the master plan. In BIM this is the roadmap the overall schedule to which your goals and progress can be registered. Review projects currently in the office and projects coming down the line.
Map the functions of the software over several projects. These then become the milestones for the roadmap or foundation blocks for the master plan. Does the entire team access Revit or just the building designers?

DESIGN

- CAD LEADS selection and Training (standards training as opposed to production training)
- Office standards, templates and Library development
- Select test project (Different from pilot project)
- Select pilot project, along with pilot alternate scope and schedule
- Limited Product setup and configuration

Core staff product training and standards development.

There is no analogy here to the building process.
Train the CAD leads first. BIM is unlike CAD. Most of us "happened" into CAD. We took jobs in an office that was using CAD and learned it in an environment where much of our learning was from peers. Yes, perhaps we had a little bit of formal training, but for the most part HOW CAD was used was left up to on the job training. When an office changes to BIM there is no peer network to learn from.
Much of the success of a BIM implementation depends on having some office standards and library in place. Depending on the software a good template(s) can make or break an implementation.

MODEL

- CAD LEADS produce test project
- Review and revise Office standards, templates and Library
- Production training for Pilot project team
- Pilot project production
- Review and revise Office standards, templates and Library
- Review and revise current state of implementation roadmap

Create the test project.

This is no different than creating a 1:10 or 1:20 scale model of the building. Take 1 set of your typical drawings. Recreate a small portion (5-10%) of the building. Include an area that has both interior and exterior walls, stairs, restrooms and roof area. Recreate in the software each sheet that at appears in the final set of drawings.
This will be unbillable time but pay for itself many times over. This process will get the majority of the bugs out of the template and standard library parts before they are put into production. Often this step is skipped and instead a pilot project is substituted. I disagree with this method.

Pilot project

Establish a backup project as an alternate. Too often I have seen pilot projects go back on the shelf and take the implementation with it.
Again choose a team for the pilot project. This may be a combination of the CAD LEADS group with additional members.
Train the team. This training is a basic training on your office template with your office parts and pieces.
Establish time line, quantitative and qualitative goals.
Debrief the team often. Allot a certain amount of time to learn from the experience gained by the pilot project team. Incorporate them into office box lunches, what is working / not working with the office templates and libraries.

BUILD

- Install all users
- Tech training for all users
- Follow up and in house training, mentoring
- Office library continued development

Deploy:

- Train the rest of the staff
- Treat each project for each team as a pilot projects their first time through.