

# Managing COMPLEXITY

## WHY?

Projects have many components each with its own level of complexity.

The most common categories that determine the complexity of a project are:

- Project team
- Owner type
- Construction Assemblies and materials
- Program
- Codes and regulations
- Deliverables
- Schedule
- Sustainability requirements (LEED and WELL)
- Availability and type of information.
- Contract administration requirements.

You can use the levels of complexity of each category to find a strategy to manage the quality of your project.

## HOW TO DETERMINE THE AREAS OF COMPLEXITY IN YOUR PROJECT

A very easy way of doing this is by using your experience and criteria to measure each component using a schedule of 1 to 5. Following are examples of things you might consider when grading your project complexity under each category.

- **Project Design Team:** The RMW team is in the same studio? Have they worked together? Are they experienced in the type of project? Large project team that needs our coordination? Do we know the contractor?
- **Owner Type:** Have we worked with this Owner before? Public agency? Is there a Construction Manager and who is it?
- **Construction Assemblies and Materials:** Are they mostly systems we are familiar with? Are they used in a conventional way? How much information about these do we have? Are they few or a lot?
- **Program:** Is this a program we are familiar with? Any special requirements we are not familiar with (like bullet proof areas)? Uses OR requirements that we have never addressed (for example, non-typical acoustical conditions)?
- **Codes and Regulations:** Is the project in California? Do the type of the project or the program include requirements that we are not familiar with? Are we familiar with the local jurisdiction special requirements? Is the permitting process typical, or it is not due to either the jurisdiction or the type of project?
- **Deliverables:** Are we required to document using formats or templates provided by the Owner? Are we familiar with the deliverable types?
- **Schedule:** Fast track or rush schedules for design or construction? Too many parties to coordinate?
- **Sustainability Requirements:** Are we designing, documenting, and processing? Or just designing and coordinating with a sustainability consultant? Is the team familiar with the requirements?
- **Information Flow:** Is the project information complex or easy? How easy it is to get information from the team and the Owner? Are the channels of information clear (who, how, what)? Are they protocols for how to transmit and store the information?

The level of complexity for each component, can determine what tools do you need, how to work with the team, schedule the activities, type of resources, etc., and where, when, and what pay special attention.

## RISK METRICS

You can get the template from the Tech-Checking web.

This is a silly tool designed to help you visualize the complexity of your project using numbers. It is a template, so, if you want, edit it as applicable to your project. You can delete the columns you do not want or add things like “I am new in RMW”, or anything else you want to consider.

- **The first row shows the categories of complexity.**
- **The second row shows their assigned values - from 1 to 5.**

## HOW TO USE

Let's assume you have a new project. Assign a value of complexity to each category, for example:

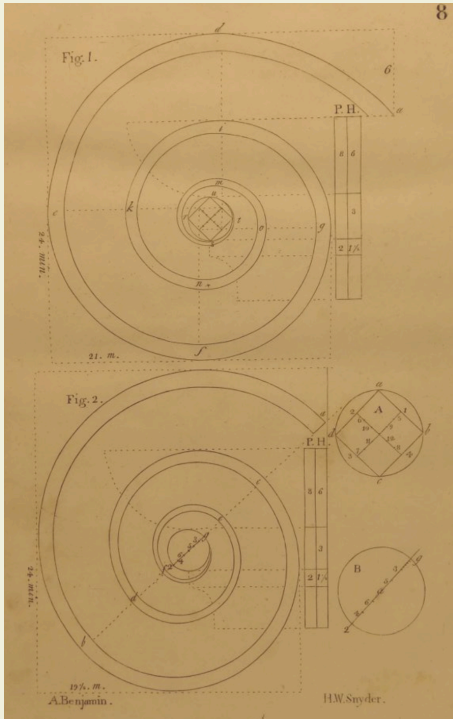
- **Project Team:** You have never seen these guys, so you give it a 5.
- **Owner Type:** Developer, you have work with the company but not with this guy, so you give it a 3.
- **Construction Assemblies:** Most of them you are very familiar with, so you give it a 1.

And so forth.

When you are done, you add your numbers. Using the categories in the template above, you have a maximum of 55 points and a minimum of 7 points,; Your project will be somewhere between this two values.

So, by using this silly tool, now you can see where probably most of the risk is, find ways to manage it, recognize where will you be more comfortable, find with what you need extra help from the rest of the RMW team, and all sort of other things.

We are visual people, we work better if our information is organized.



Project Team	Owner Type	Construction Assemblies	Program	Codes and Regulations	Deliverables	Execution Time	Complexity Level
Choose level 1 to 5	Choose level 1 to 5	Choose level 1 to 5	Choose level 1 to 5	Choose level 1 to 5	Choose level 1 to 5	Choose level 1 to 5	Add cells in this row and get your Total Level of Complexity