

The New Sketchpad - AS227113

Mike Engel – Associate AIA - Designer / Design Technologist

ESG Architecture and Design - Minneapolis MN

E – mike.engel@esgarch.com

T - @mengelmn





About the speaker

Mike Engel – Associate AIA / Designer

ESG Architecture

In addition to collaborating with large institutions, developers and national brands on the master planning and design of hospitality, multifamily residential, workplace and education projects, Mike is an early adopter of new technologies in design. He incorporates these technologies into his work to increase process efficiencies, streamline design and production's integration, and elevate ESG's abilities and design solutions to levels that exceed best practices.

Utilizing such software as Sketchbook, Revit and BIM—as well as hand sketching—Mike quickly and efficiently designs unique, high-quality projects. With these digital efficiencies, he also shares iterations and information with design team members, clients, contractors and fabricators to ensure critical aspects of a design remain in place. Leveraging technologies to design innovative canopies of faceted panels for hotels, insert modern amenities into historic renovations and adaptive reuse projects, and present rapid iterations of building facades to find the right solution.

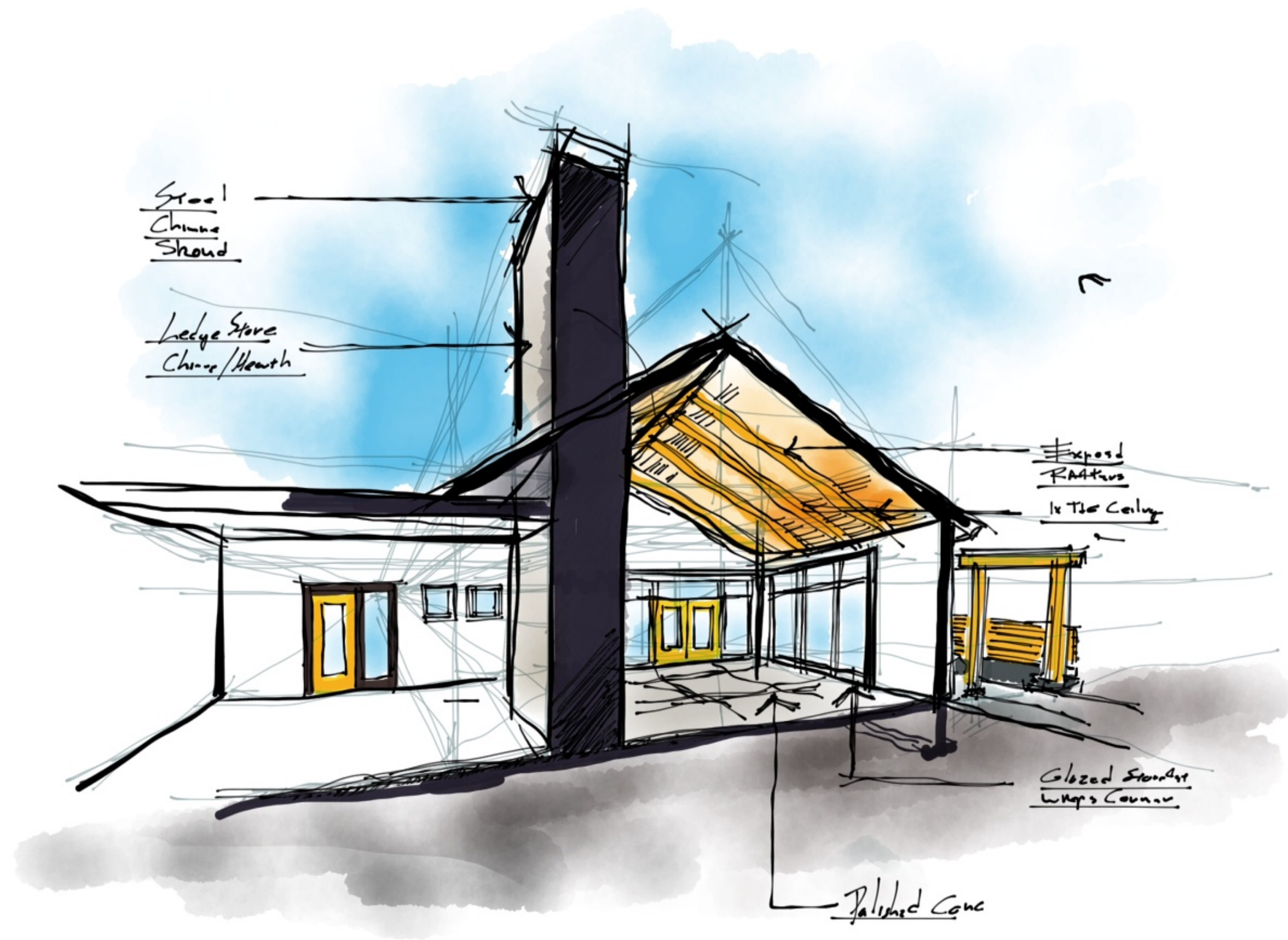
It's about what's considered undoable and finding the technological tools to bring inventive design solutions to fruition.

Description

Today's design process and project timelines get shorter with each project. Design teams are expected to do more, with less, while providing rapid feedback to team members. Explore how today a simple Ipad / tablet device can take you from "Initial Concept" to Design Package and become a mobile design studio. What once took a room of tools and desktop computers, can be completed on a device that fits in your pocket. This Class will look at the use of Autodesk SketchBook to work through sketch studies.

Learning Objectives

- Capture initial concepts quickly in Sketchbook Pro
- Leverage model and background underlays to augment the sketching process
- Understand the nuances and difference of digital vs traditional media
- Leverage Cloud Services to setup future in-depth design studies in an in-depth collaborative environment.



The Sketch

“a rough or unfinished drawing or painting, often made to assist in making a more finished picture.”

Elements

SKETCH

PUTTING STYLUS TO SCREEN

The most import part of any process is the first step. In sketching it is the first the making of the first mark.

ITERATE

WORKING BETWEEN PLATFORMS AND METHODS

One tool is not enough. Each process must involve looking for solutions through different lenses and methods. This process of continuously looking allows the rapid growth and iteration of ideas

CAPTURE

SOLIDIFY WHAT IS IN THE MIND

Ideas in the mind are nothing more than thoughts. Once ideas are solidified through form into models and images they can the compared and understood

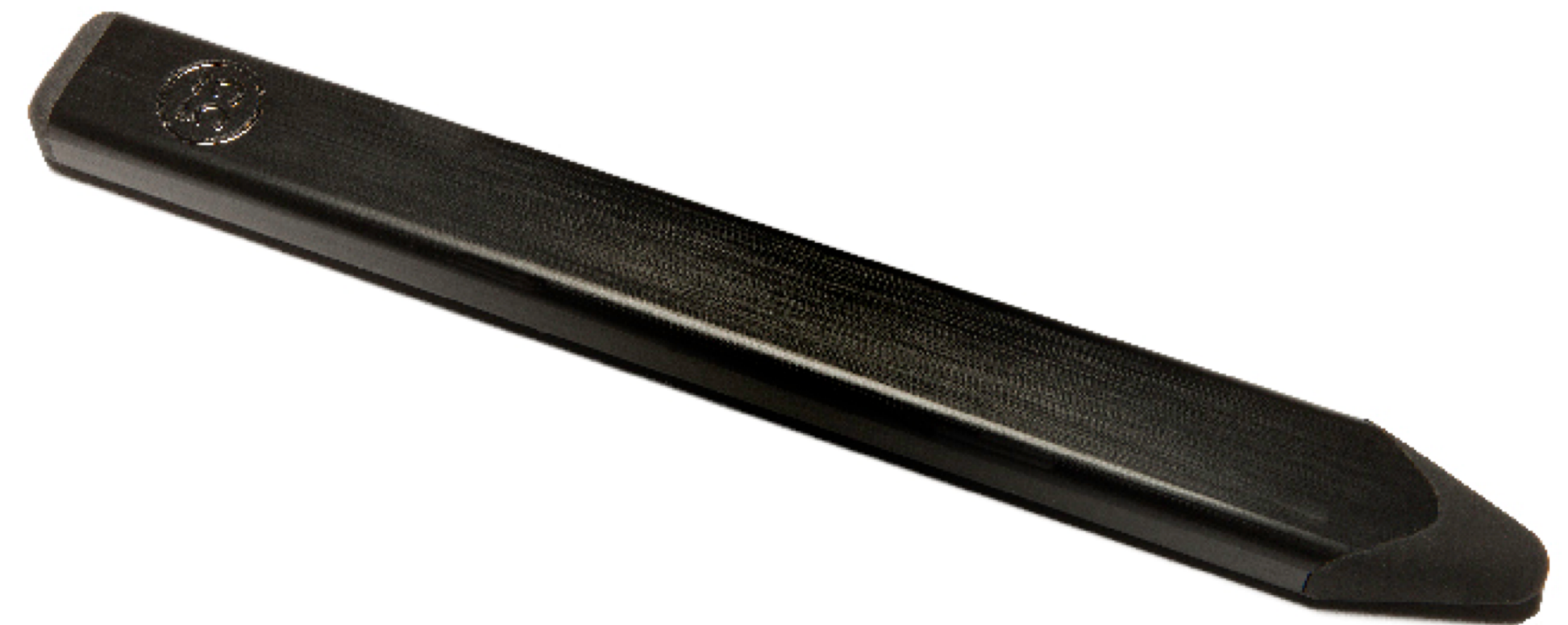
COLLABORATE

SHARE SOLUTIONS & IDEAS

Getting Ideas and Solutions to the Team is critical. Bringing the ideas out to allow the fostering and creation of the collaborative process

HARDWARE

- Ipad :
 - Pro / Air / Mini
- Stylus:
 - Apple Pencil
 - Pencil by 53
 - Wacom Sketch
- Windows Tablet:
 - Wacom Mobile Studio
 - Microsoft Surface

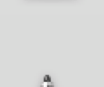
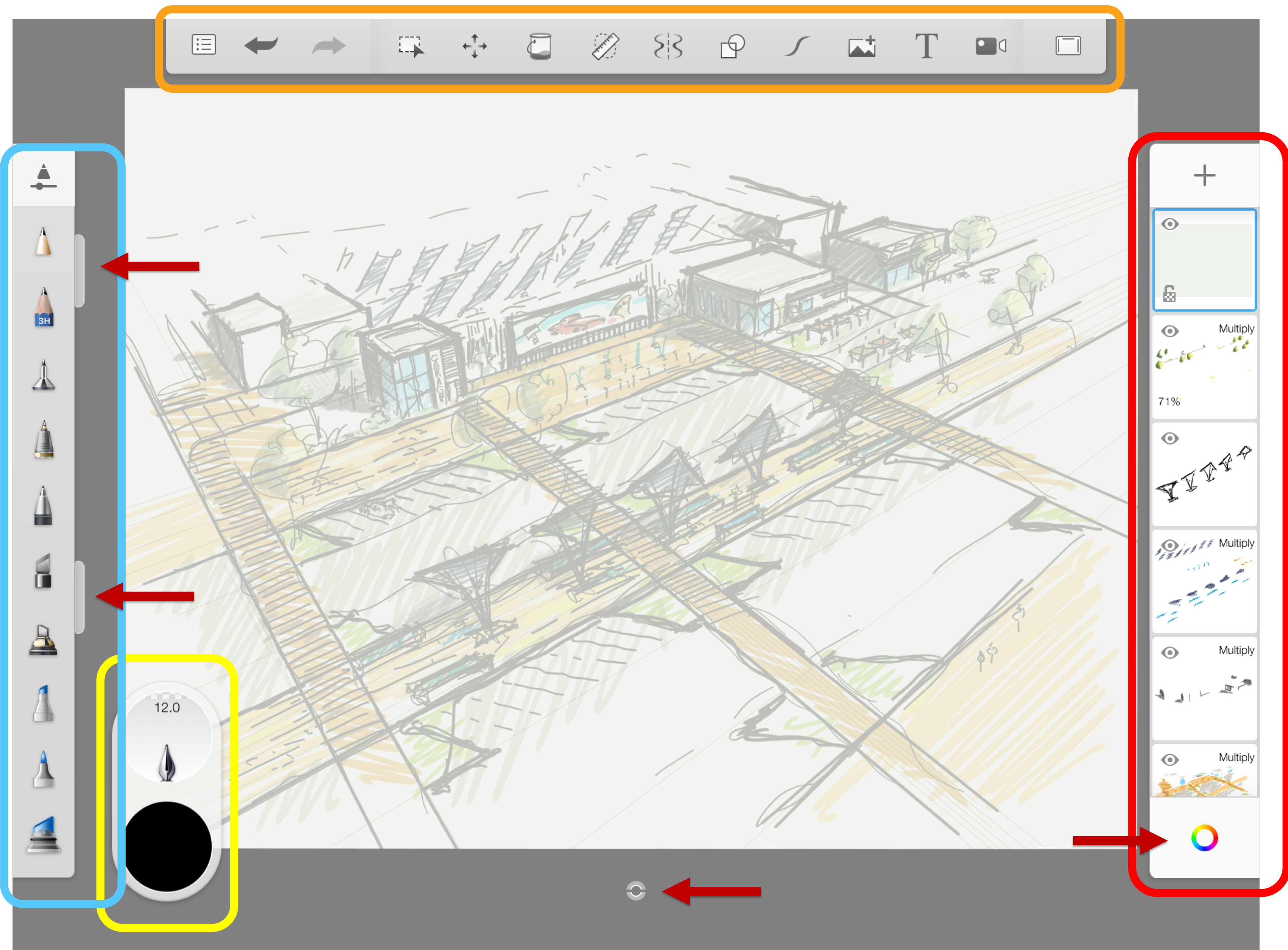


Software / Apps

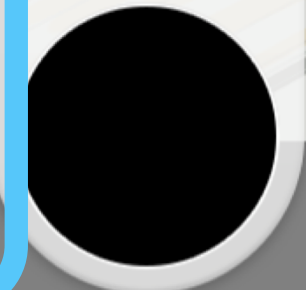
- The Basic Software (Apps)
 - Autodesk Sketchbook - Sketching / Drawing
 - Autodesk Formit – Modeling / Form Studies
 - Keynote / PowerPoint - Presentation
- Additional Software
 - Bear – Notes / Text
 - Number / Excel – Data / Spreadsheets / Calculations
 - Pixlr – Image Adjustment / Photo Editing.



UI - Interface



12.0



Multiply



71%



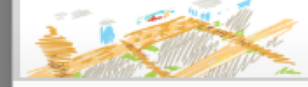
Multiply

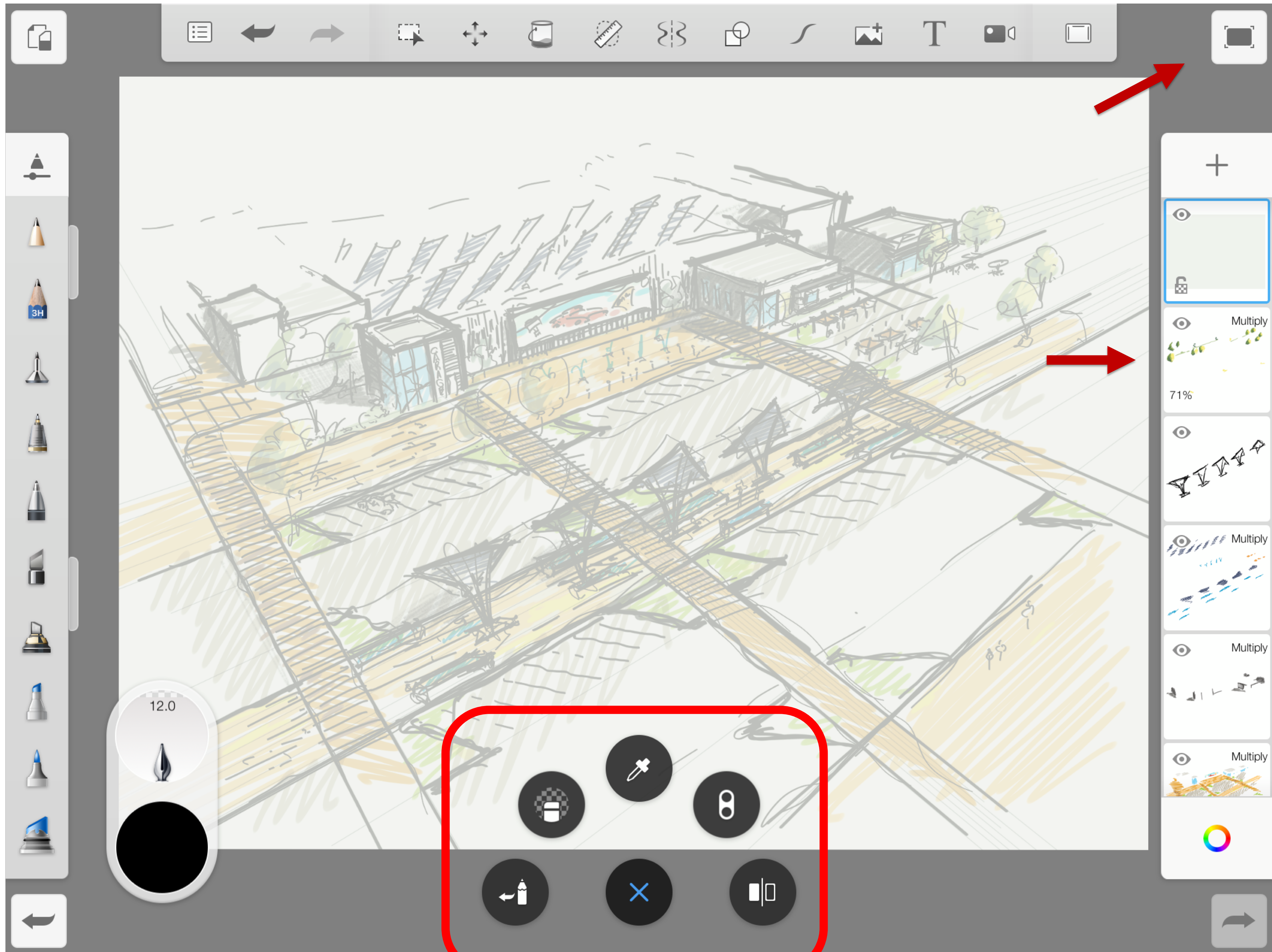


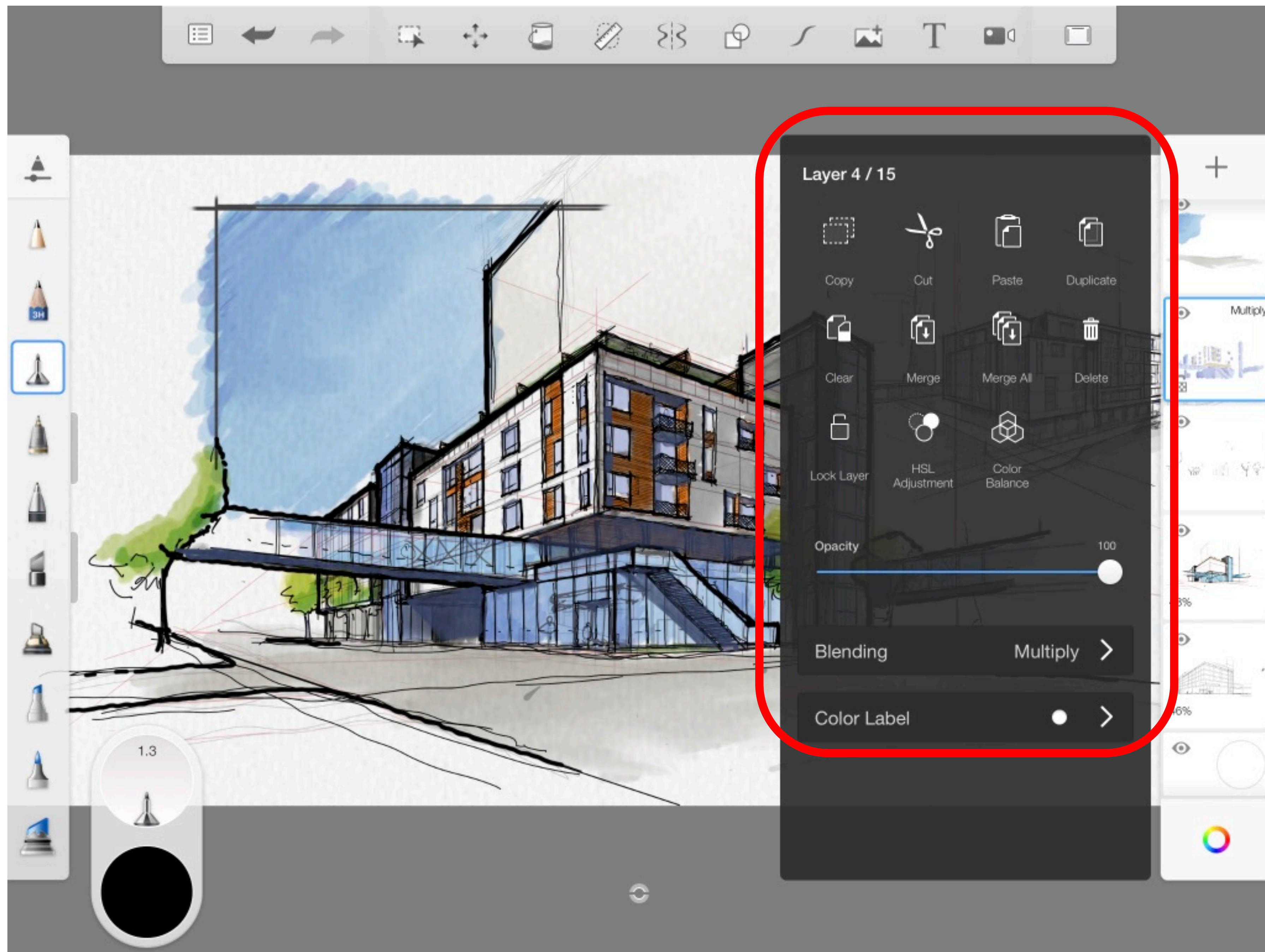
Multiply



Multiply

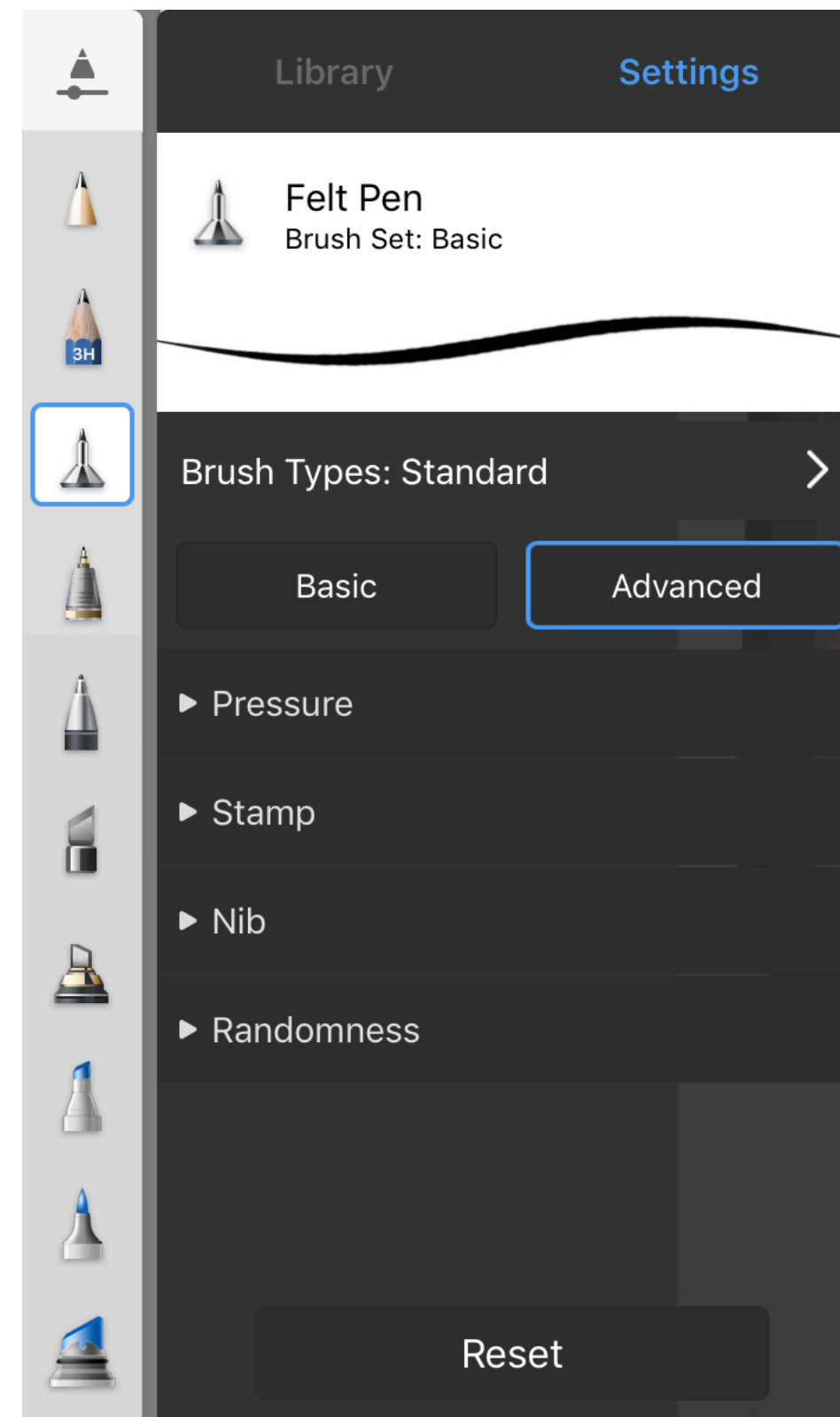
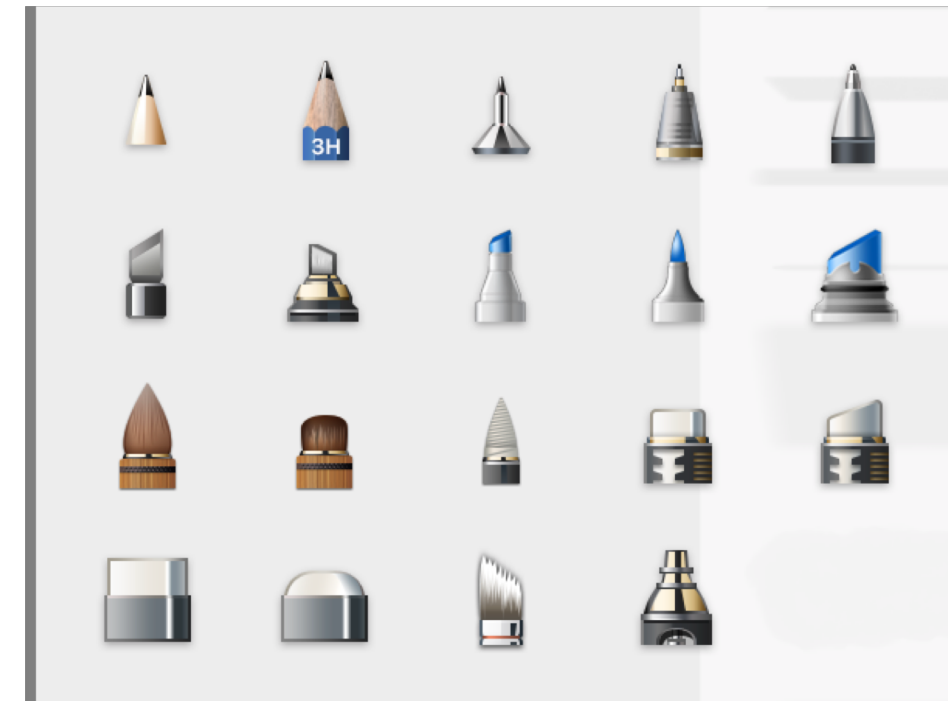






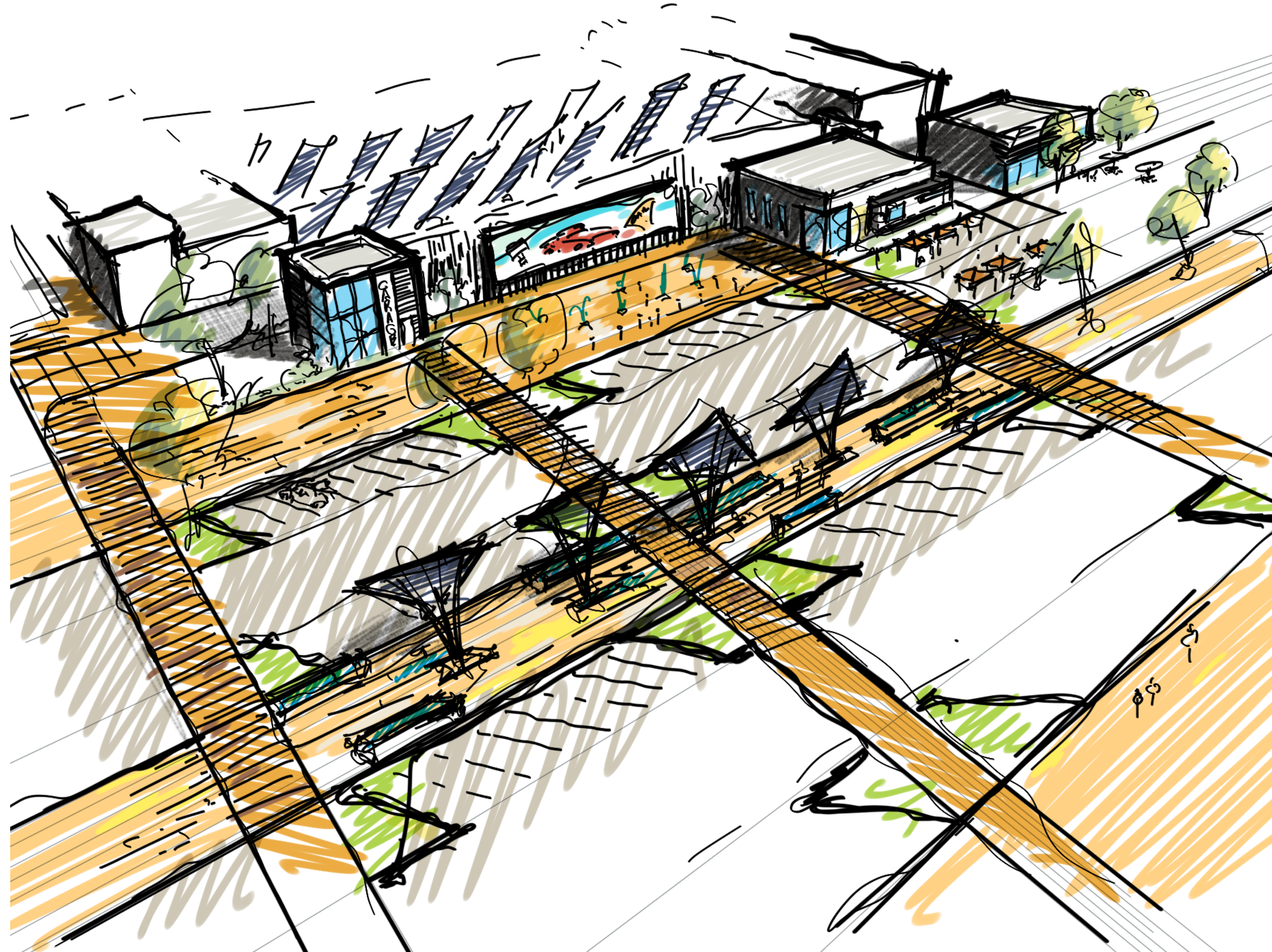
Tools

- Pens
 - Sketching
 - Basic Pencil
 - 3h Pencil
 - Basic Felt Pen
 - Copic Felt Pen
 - Ball Point Pen
 - Coloring
 - Chisel Marker
 - Copic Marker
 - Watercolor Brush
 - Glaze
 - Other
 - Blender
 - Erasers
 - Smudge
 - Air Brush







METHODS

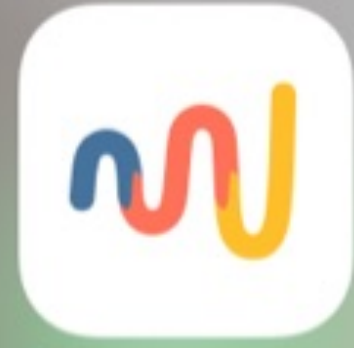
- **Scale (or lack thereof)**
 - Define Drawing Size
- **Tools**
 - Ruler / Straightedge
 - Guides
 - Perspective (Desktop only)
- **Underlays**
 - Model Images
 - Layouts
- **Overlays**
 - Screens
 - Texture
 - Color
- **Present**
 - Title block Overlay
 - Export for External Layout
- **Collaborate**
 - Cross platform



Collaborate

- **General File Sharing –**
 - Box.net
 - Resources <- -> Ipad
- **Image File Sharing During Process**
 - iCloud + Sketchbook
 - Ipad <- -> Desktop <- -> Laptop
- **Model File Sharing During Process –**
 - A360 Drive
 - Formit360* Ipad <- -> Desktop <- -> Laptop
 - Formit360* <- -> Dynamo <- -> Revit

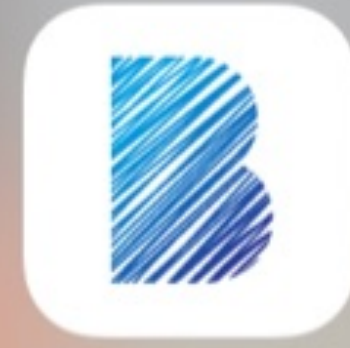
				
General File Sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reference Images	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Model Sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desktop Access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interoperability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



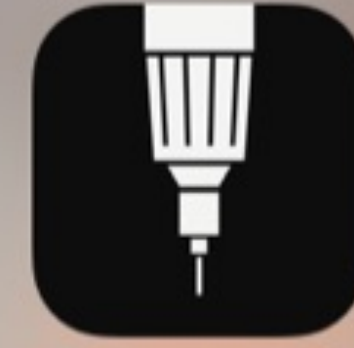
Paper



Trace



Bamboo Paper



Sketches Pro



Adobe Sketch



Pixlr



Procreate



Adobe Line



Graphic



INKredible



Notes Plus



PlainText



SketchBook



SketchBookEDU










XMind



Artstudio Pro

Apps Compared

							
Raster	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Layers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Brushes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ruler / Guides	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perspective	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cross Platform	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
“Simplicity”	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Getting Started

CHALLENGES

- Weather
- Tradition
- Habit
- Battery
- "Hand"

BENEFITS

- Interop
- Flexibility
- Apps
- Location
- “Limitless”

CONSIDERATION

- Platform
- Location
- Drawing Type
- Style
- Stylus



New School

Tablet

Layers

Blend

Capture

Publish

Sketch



Old School

Sketchpad

Trace / Bum Wad

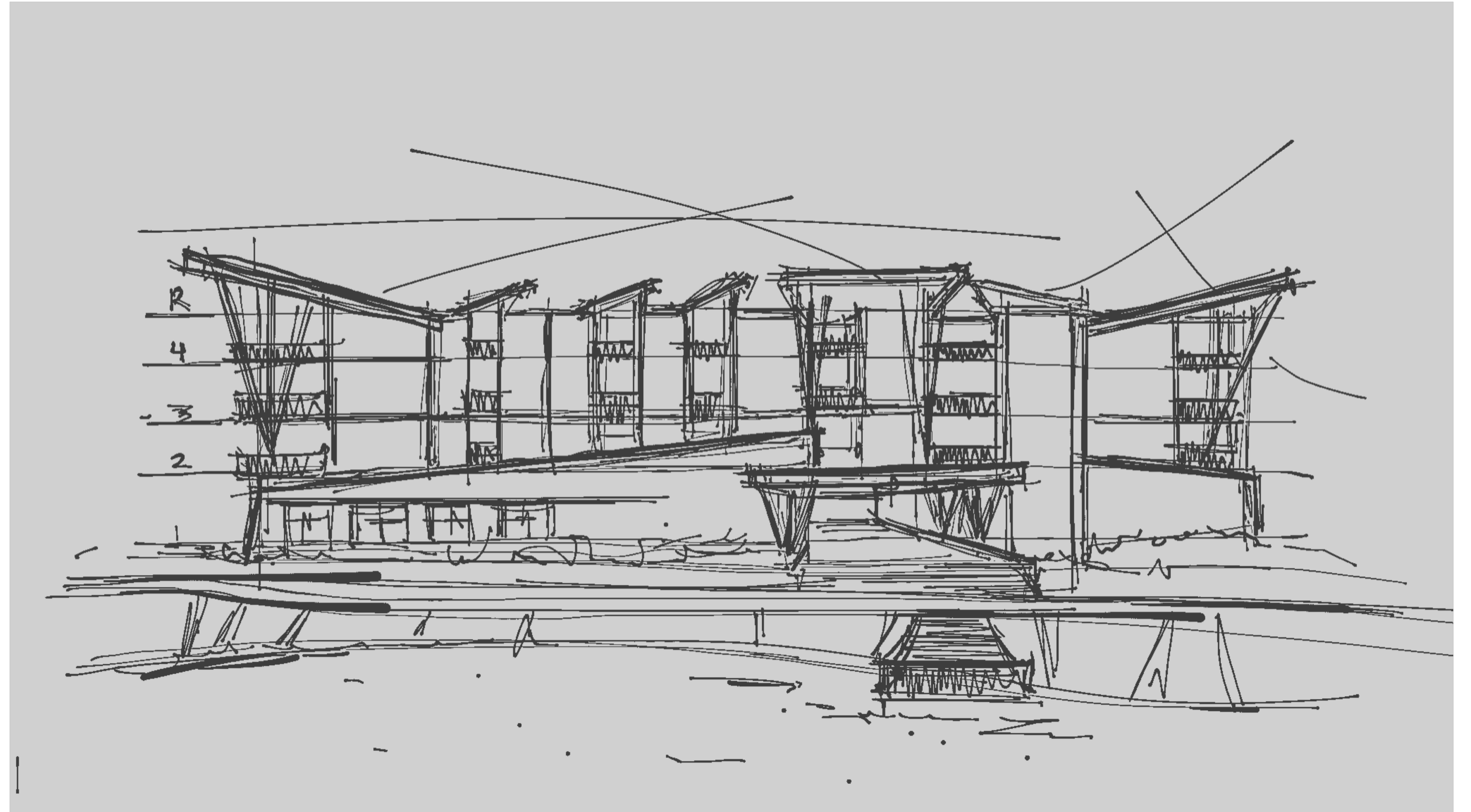
Blend

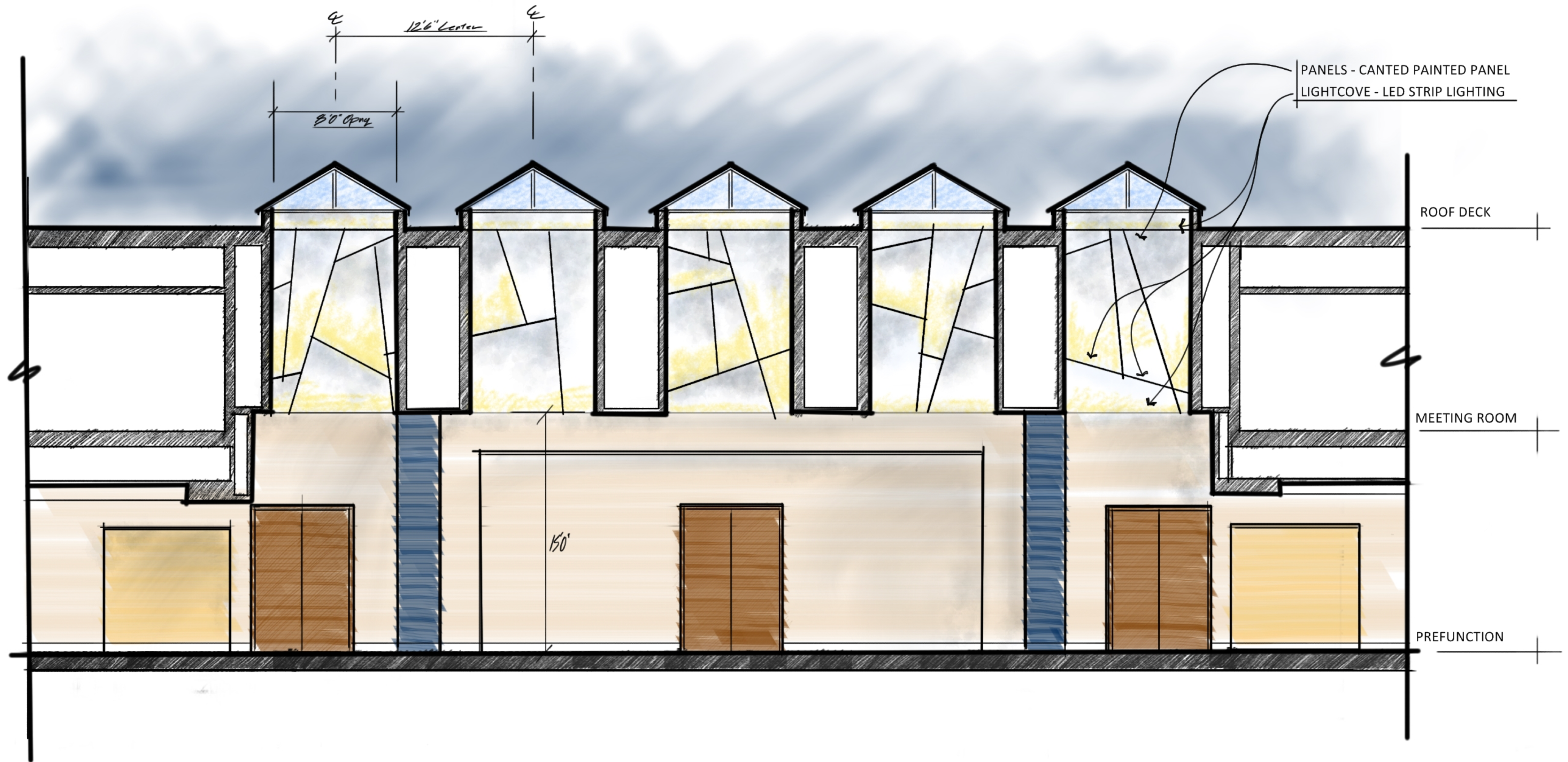
Scan

Plot

Sketch

Examples





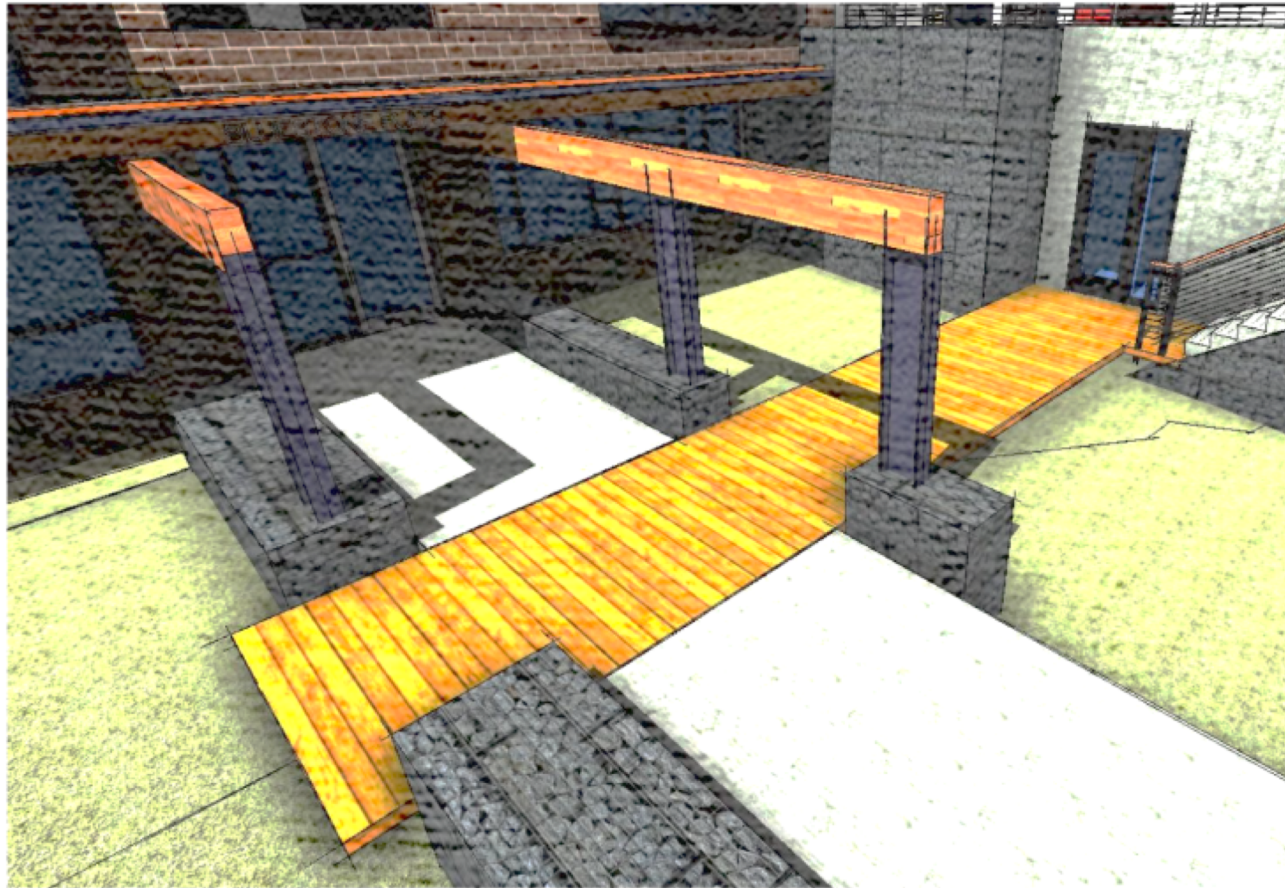
2/6/2014

ESG

CONRAD HOTEL
Minneapolis Minnesota

Skyway / Prefunction
Skylight Study Sketches

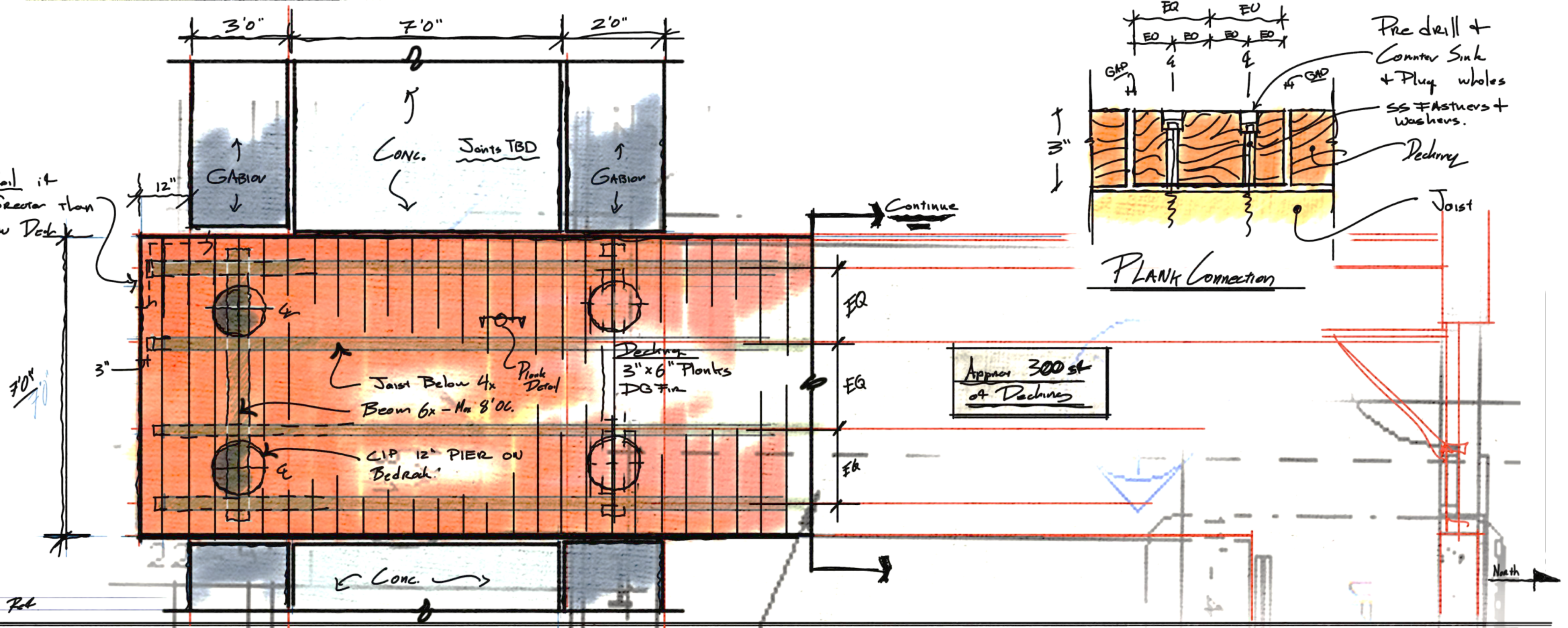
Photo Credit
Mike Engel - Associate AIA



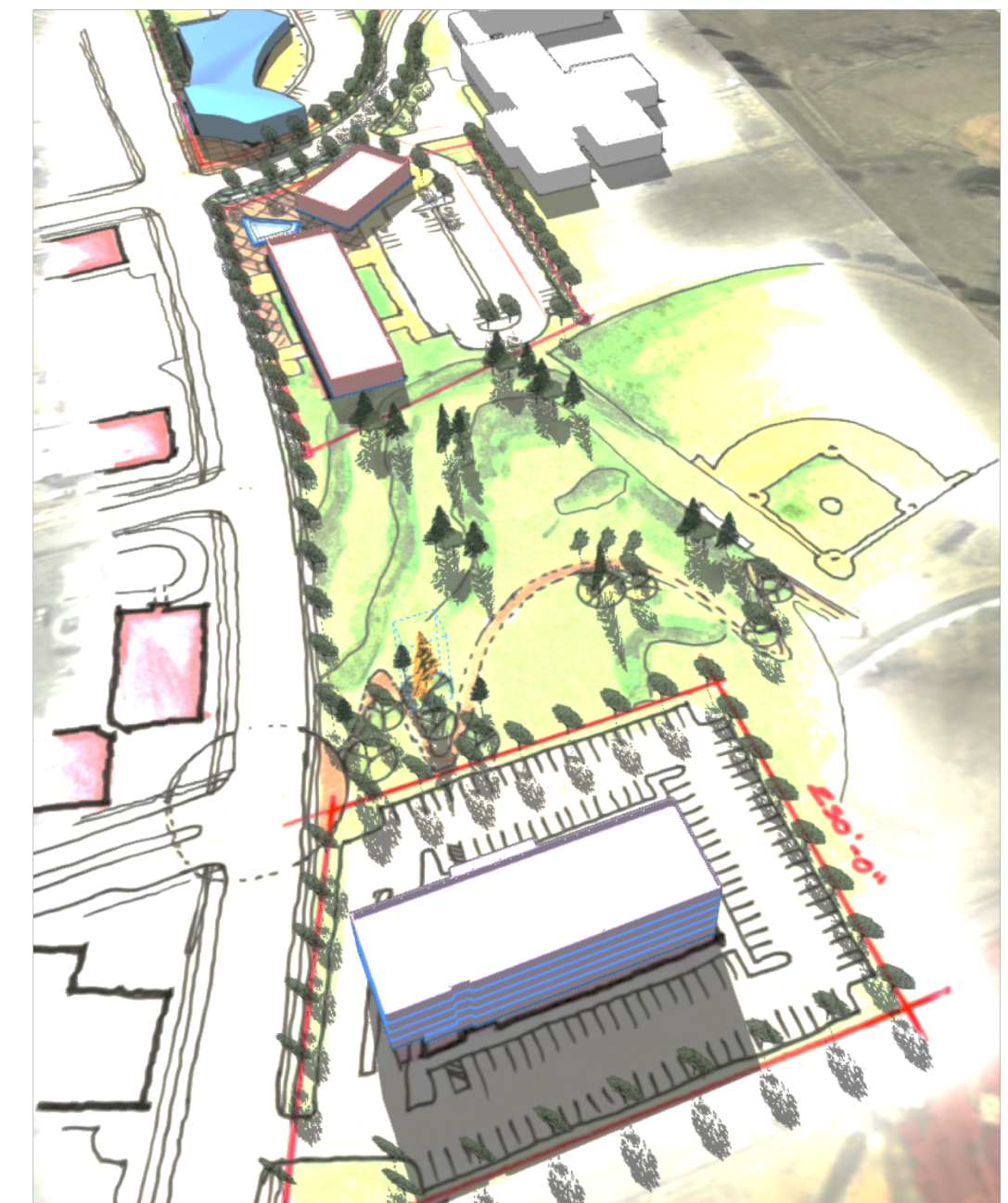
Notes

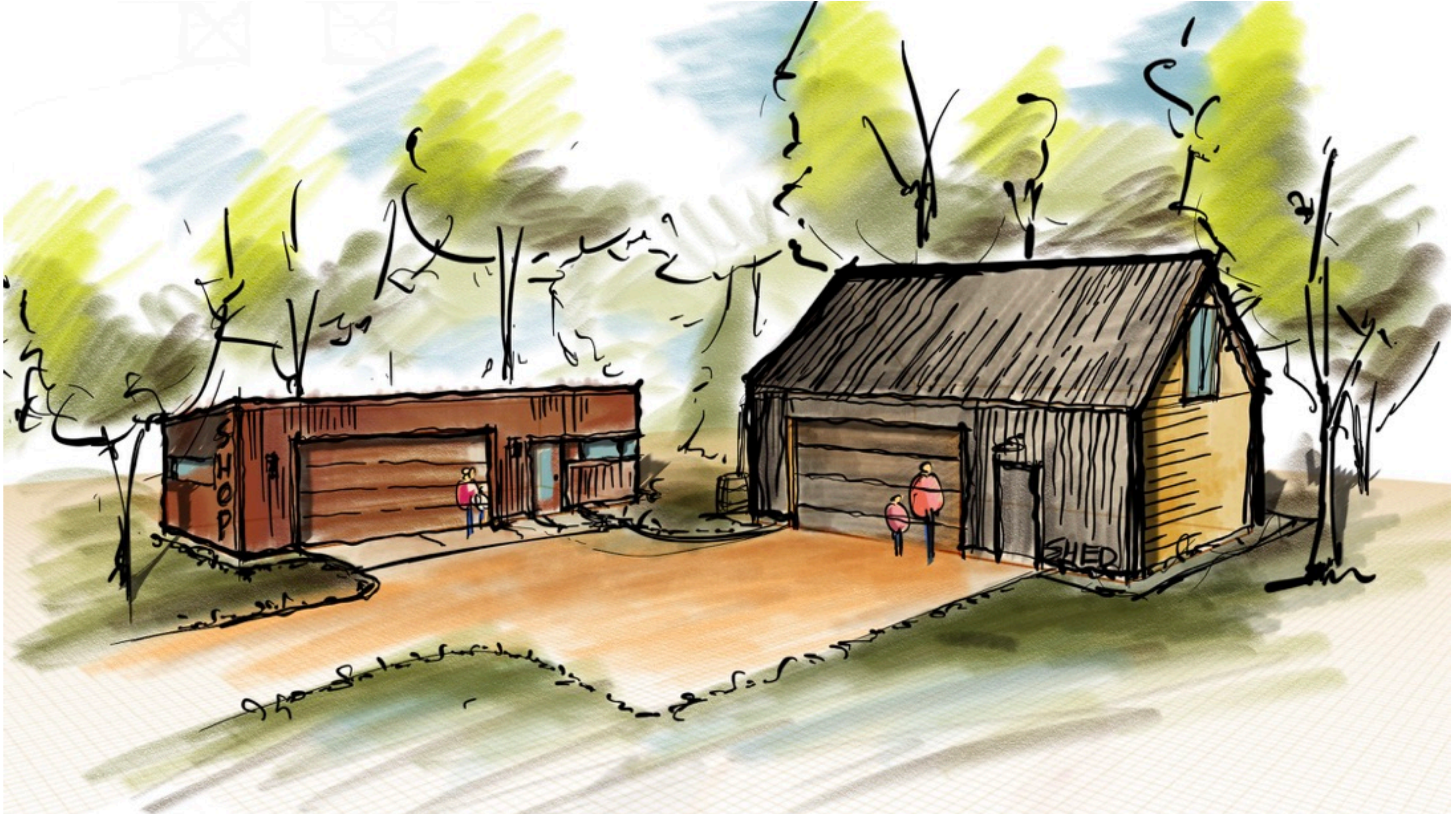
- Beams + Joist to Be SPF Treated "Cedar tone"
- Planks to Be Douglas Fir or - Ipe or - Approved (Not Cedar)
- Finish Deck Planks on all 6 sides
- Conc Piers Set Directly on Solid Bedrock.

Guard Rail if Grade Greater than 30' Below Deck (Cable)

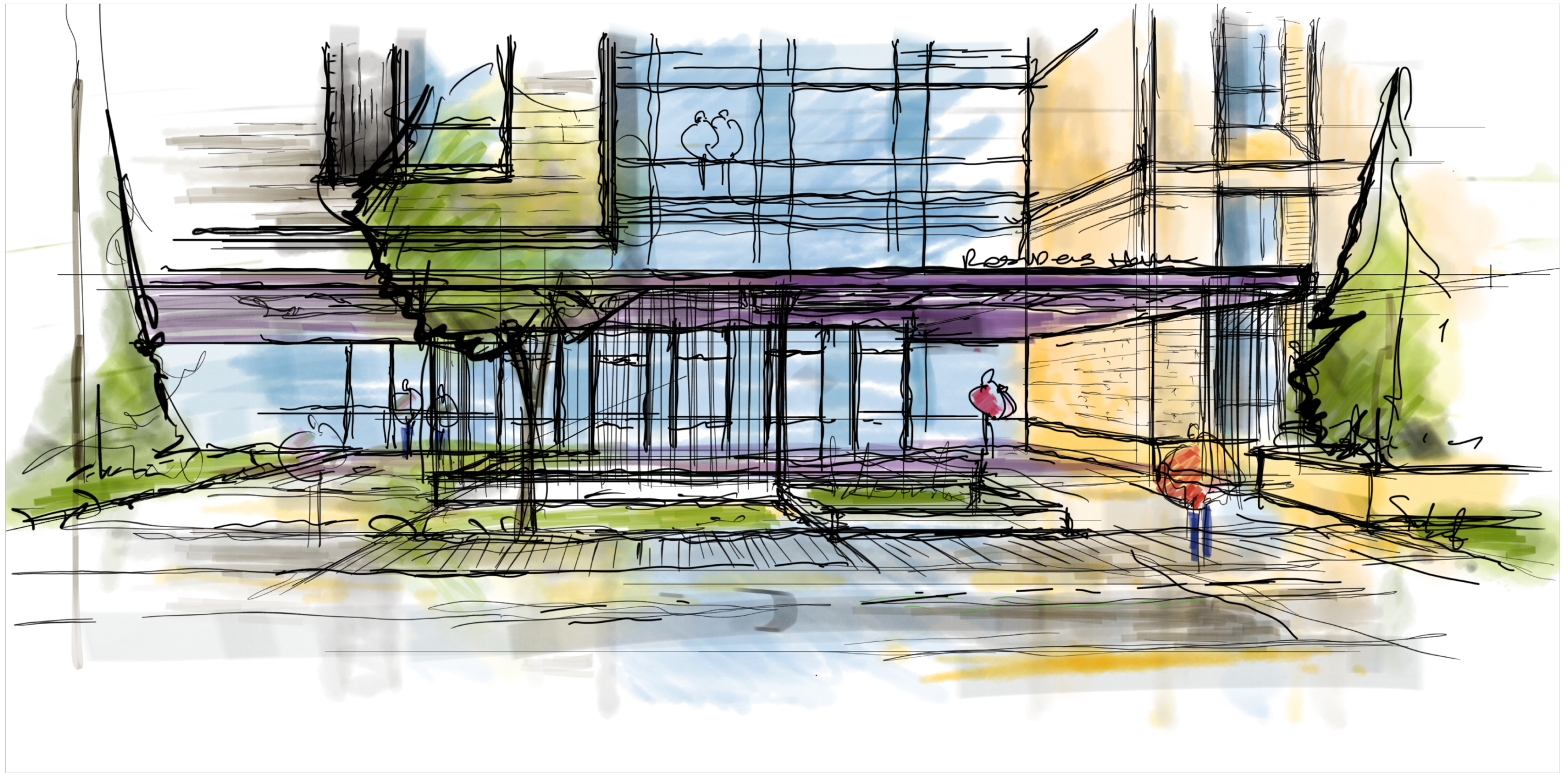
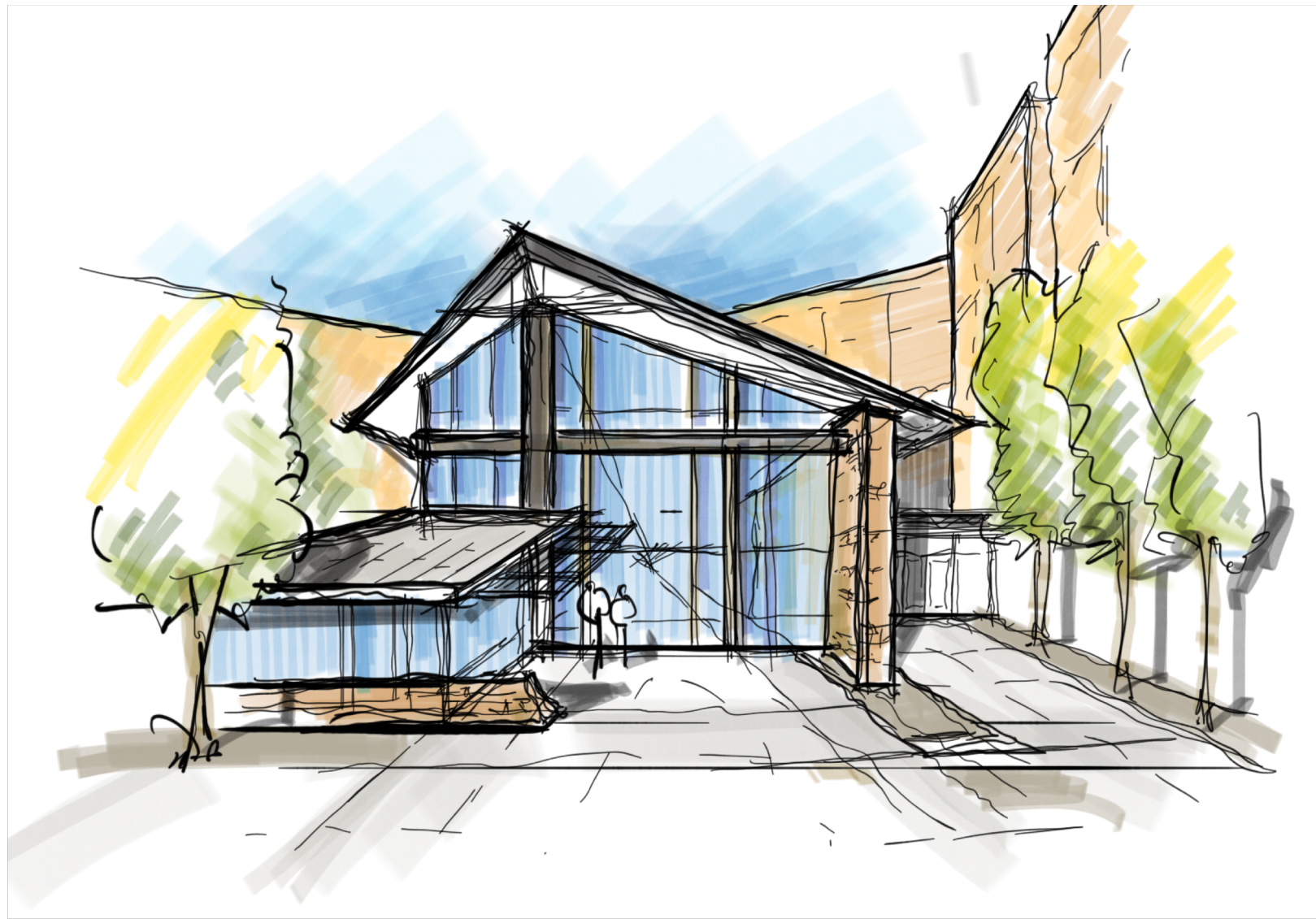


1/8/2015 RL











"front"

"side"



Mike Engel 4/4/2018

The Pencil and the Computer are both equally dumb
and only as good as the person driving them –

Norman Foster

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Thank you!

Questions?



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