

# The New Sketchpad - AS323760

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# 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

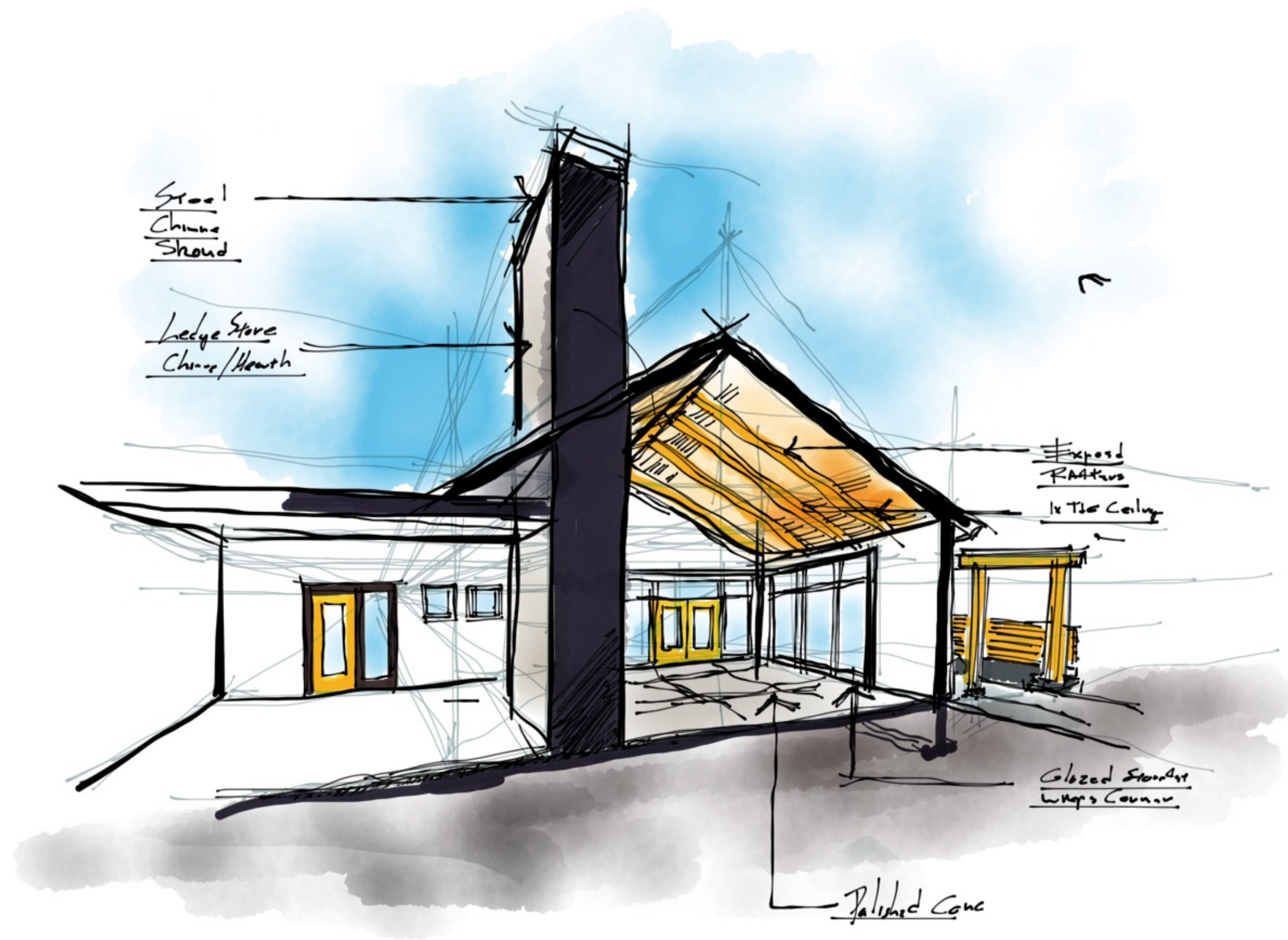
Today's design process and project timelines get shorter with each project. Design teams are expected to do more, with less, while providing rapid feedback to team members. Explore how today a simple Ipad / tablet device can take you from "Initial Concept" to Design Package and become a mobile design 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

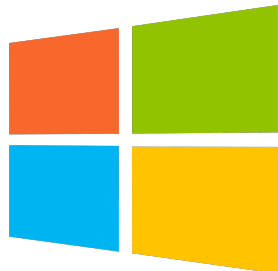
SOLIDIFY WHAT IS IN THE  
MIND  
Ideas in the mind are nothing  
more than thoughts. Once  
ideas are solidified through  
form into models and images  
they can the compared and  
understood

## COLLABORATE

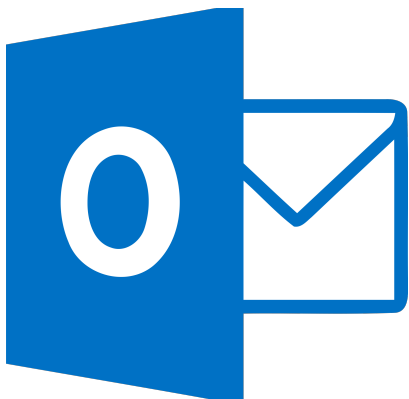
SHARE SOLUTIONS &  
IDEAS  
Getting Ideas and Solutions to  
the Team is critical. Bringing  
the ideas out to allow the  
fostering and creation of the  
collaborative process



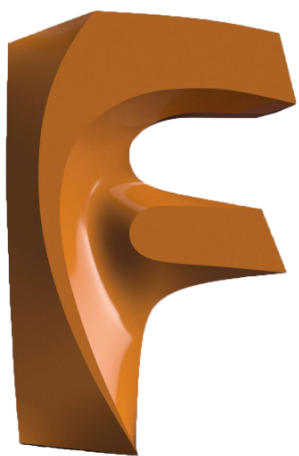
Google



AUTODESK®  
INSIGHT 360™



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# HARDWARE

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





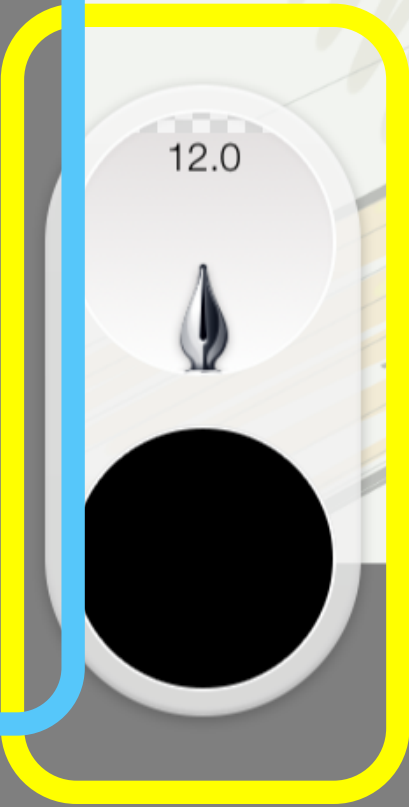
# Software / Apps

- 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.

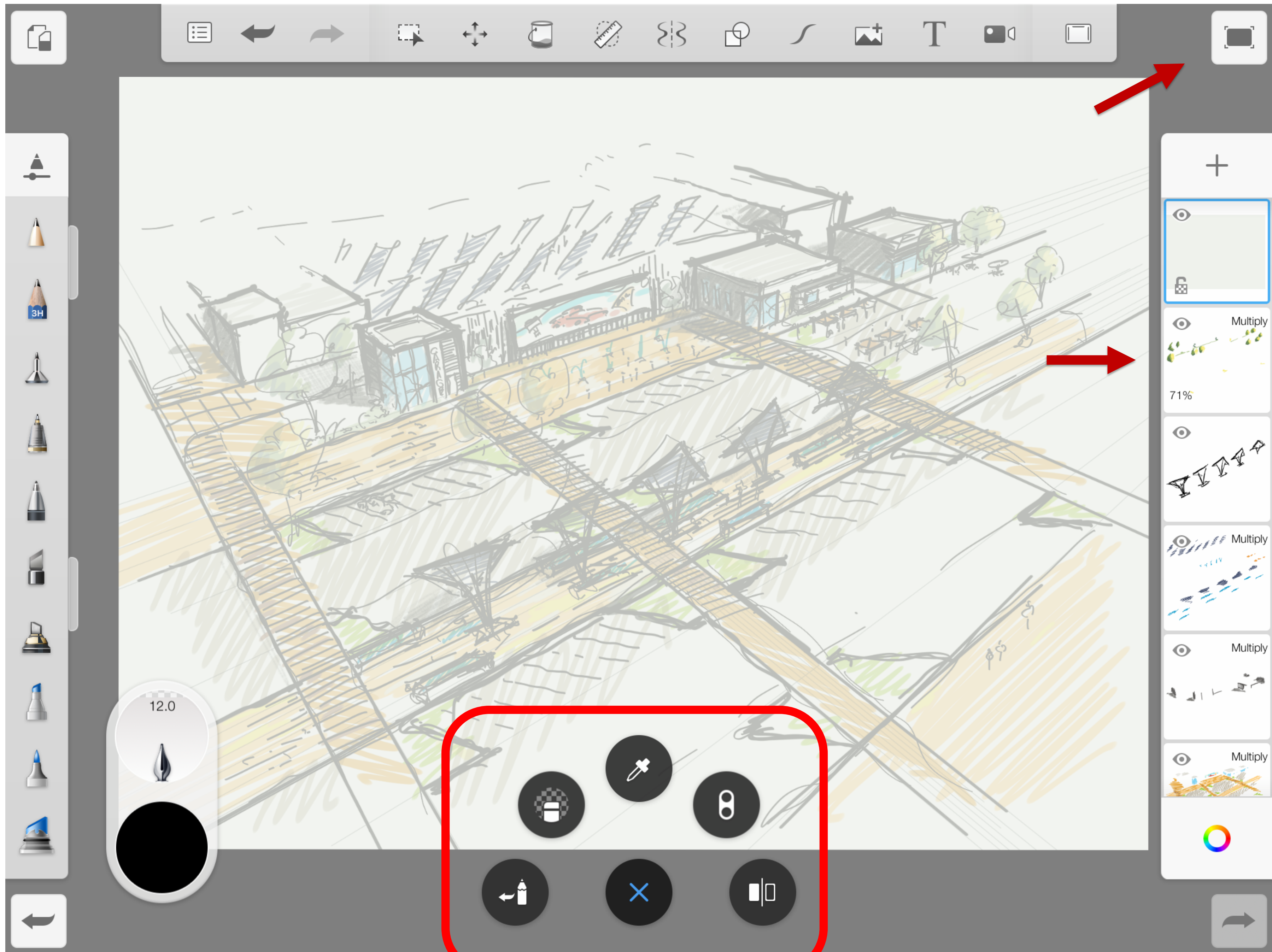


# UI - Interface

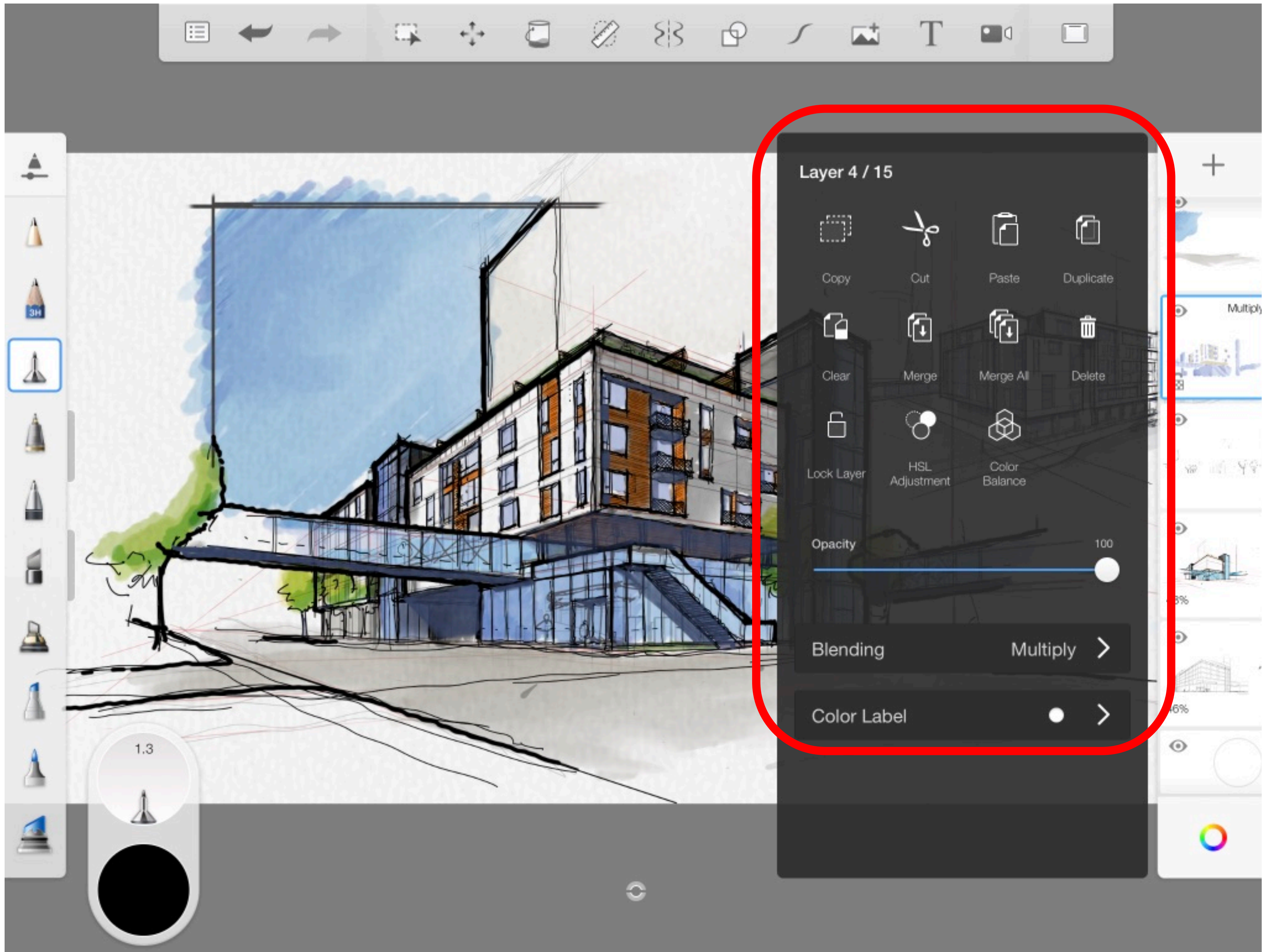








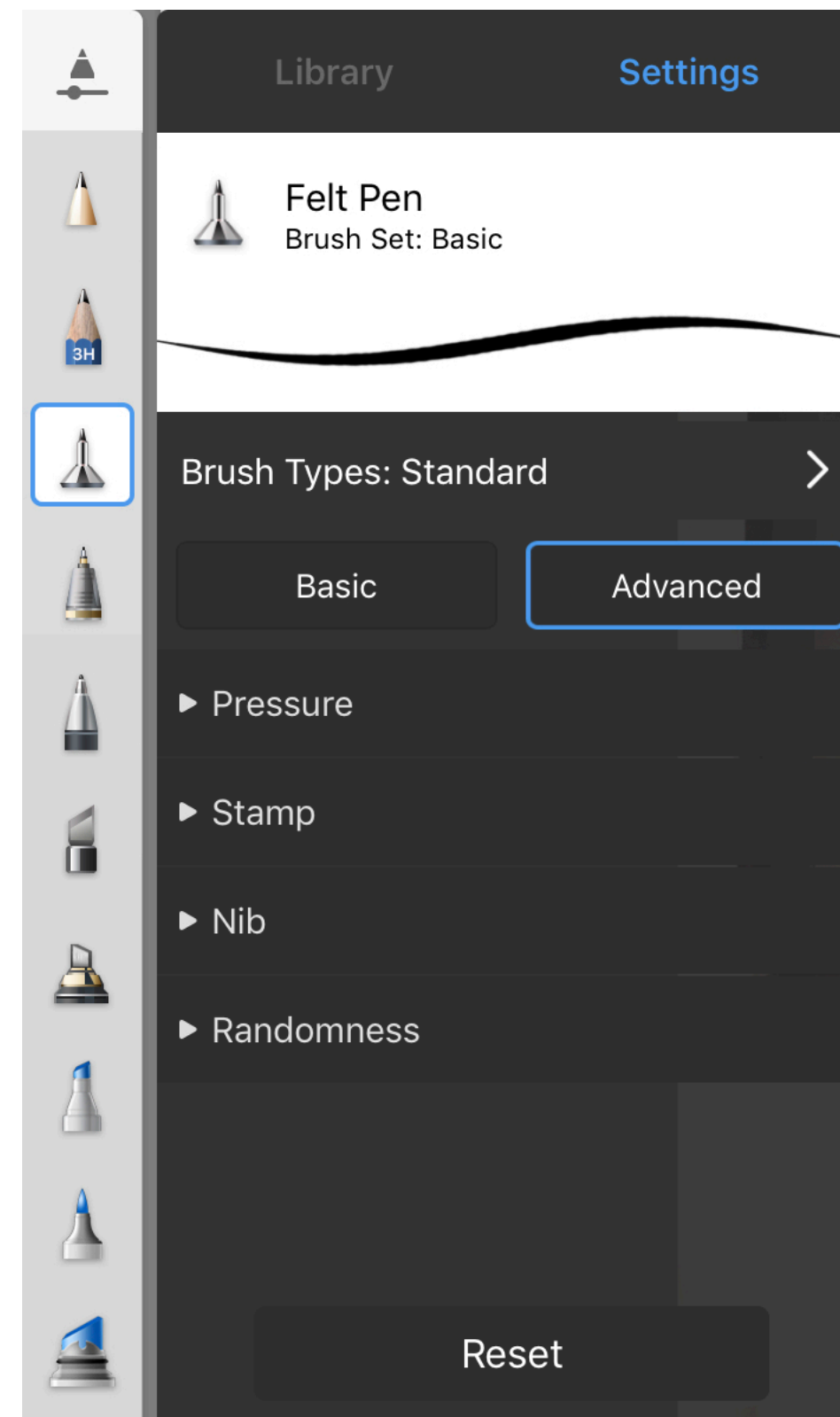
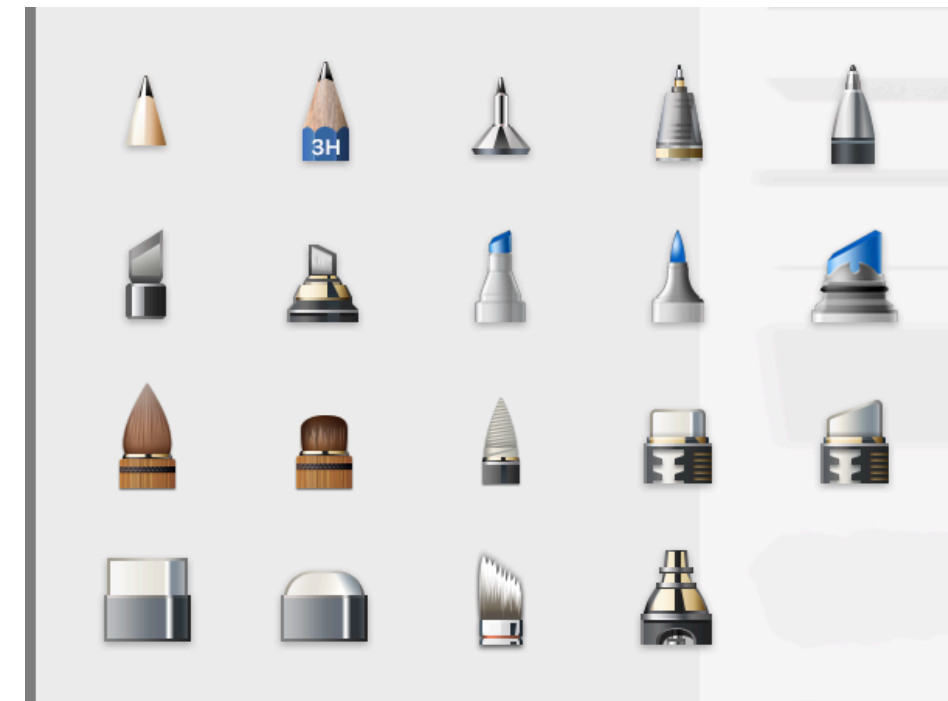






# Tools

- 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

Brush Edits / Settings

Ruler / Straightedge

Guides

Predictive Stroke

## Underlays

Model Images

Layouts (Composit Images)

Overlays

Texture

"Color" (Multiply)

## Present

Title block Overlay

Save to Gallery

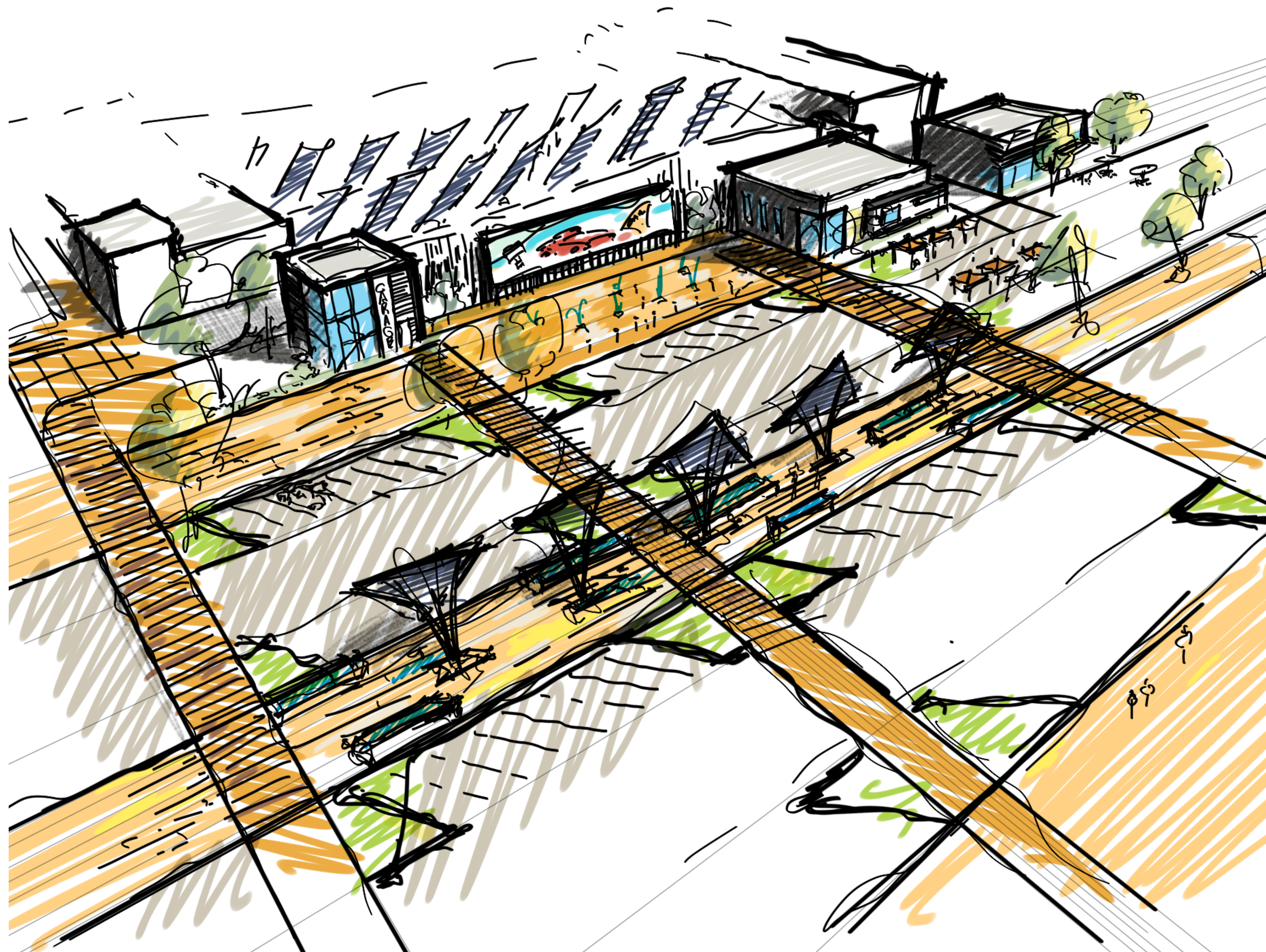
Export for External Layout

## Collaborate

Cross platform - Icloud / Gallery

Collaborative design workflows.




Perspective (Desktop only)












# Collaborate

- **General File Sharing –**
  - Box.net
    - Resources <- -> Ipad
- **Image File Sharing During Process**
  - iCloud + Sketchbook
    - Ipad <- -> Desktop <- -> Laptop
- **Model File Sharing During Process –**
  - BIM360
    - Formit360\* Ipad <- -> Desktop <- -> Laptop
    - Formit360\* <- -> Dynamo <- -> Revit

			
General File Sharing	●	○	○
Reference Images	●	●	●
Model Sharing	○	○	○
Desktop Access	●	●	○
Interoperability	●	●	○



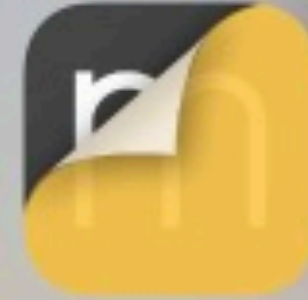
Apps Compared

							
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 checked="" 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 checked="" 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"/>

# Sketching



Paper



Trace



Bamboo Paper



Sketches Pro



Pixlr



Procreate



Adobe Line



Graphic



INKredible



Notes Plus



SketchBook



Artstudio Pro



Concepts



FormIt



AutoCAD



Inkflow



# 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

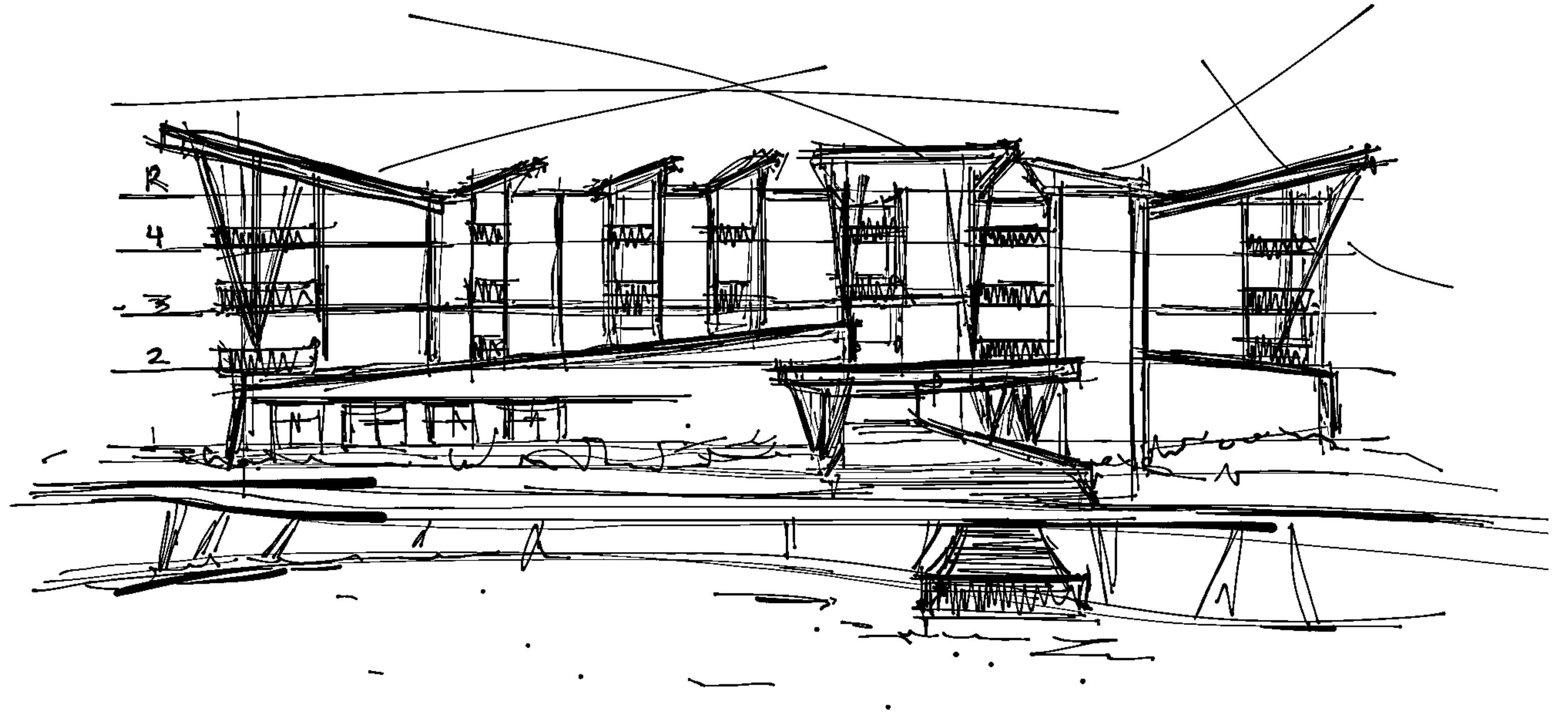
Scan

Plot

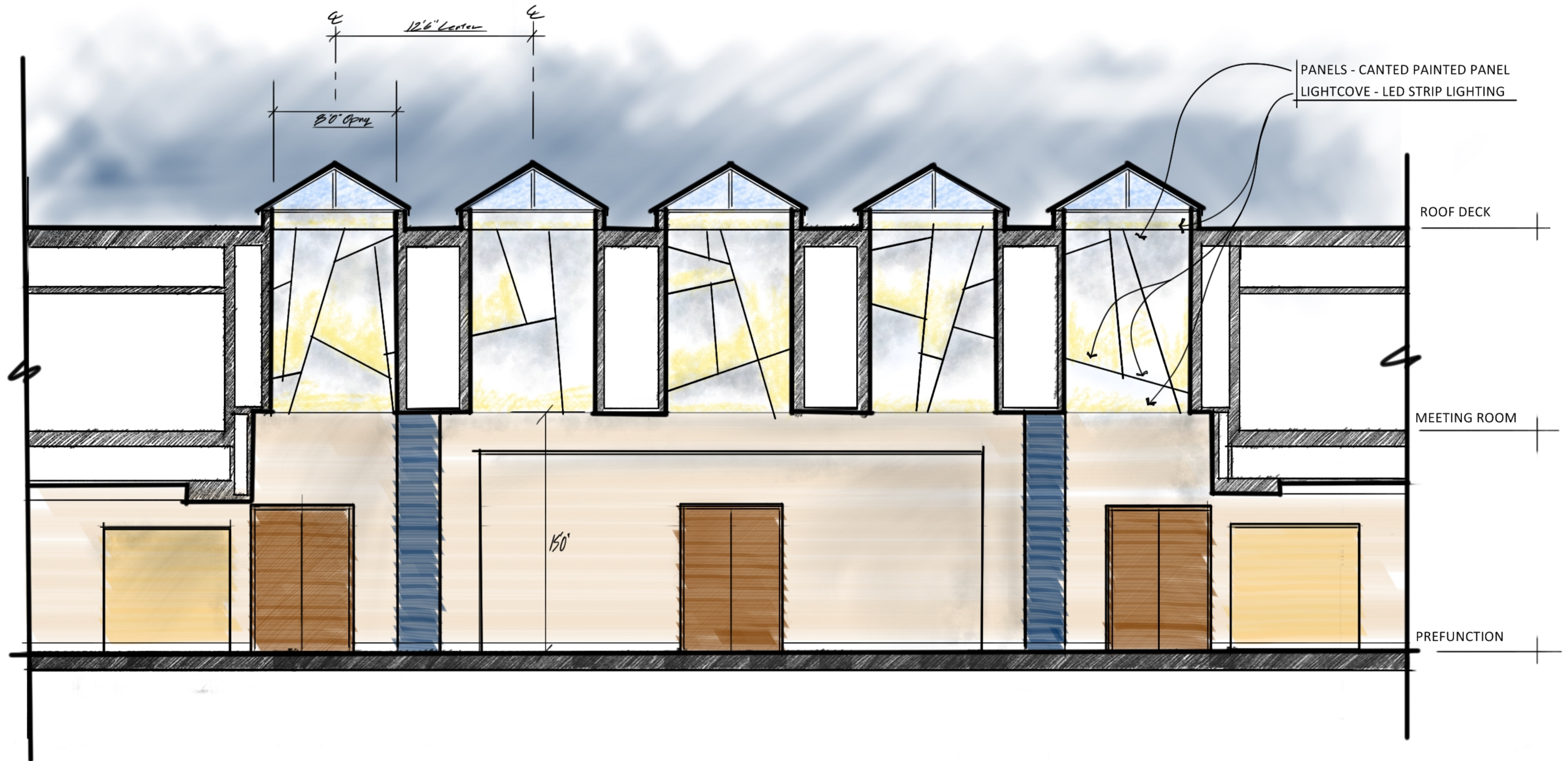
Sketch



# Examples







2/6/2014

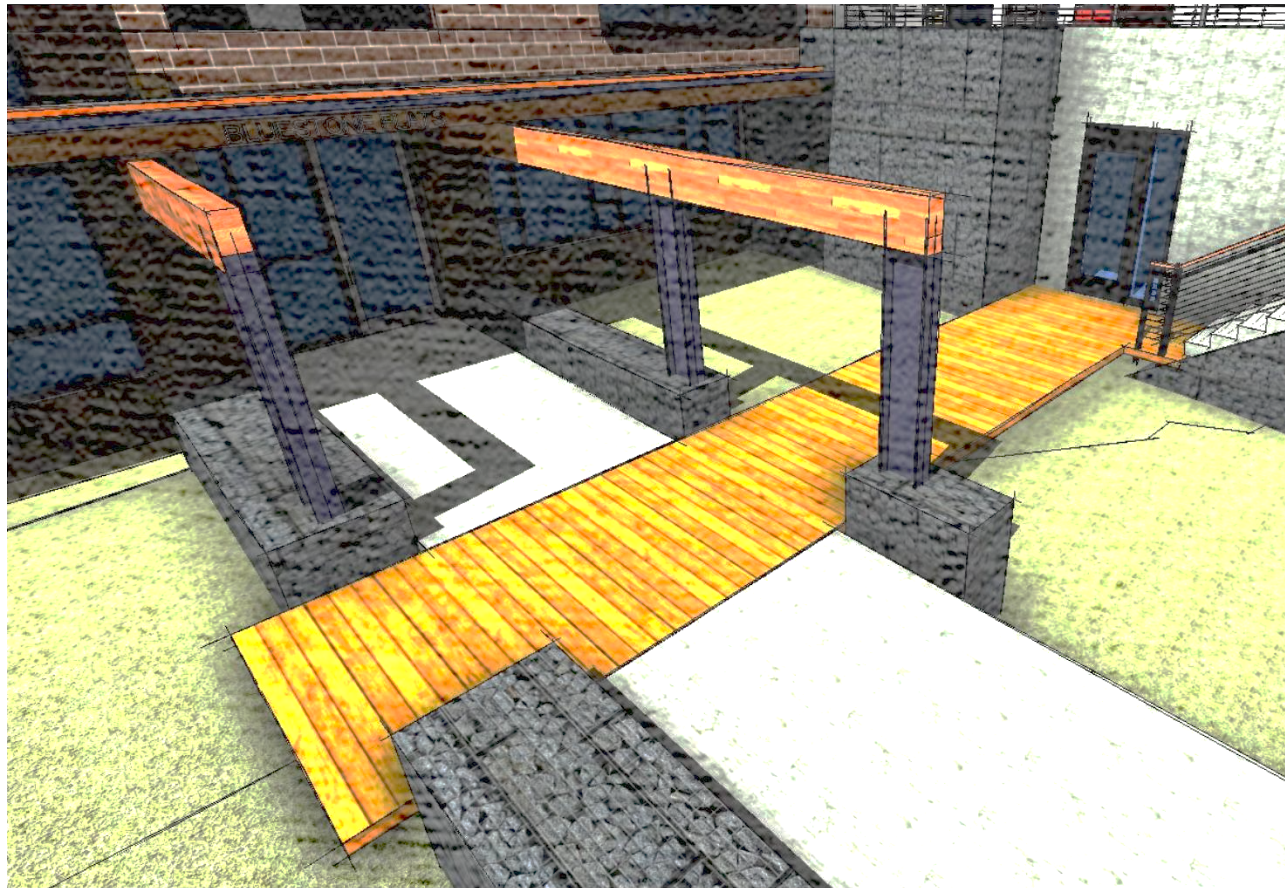
esc

CONRAD HOTEL  
Minneapolis Minnesota

Skyway / Prefunction  
Skylight Study Sketches

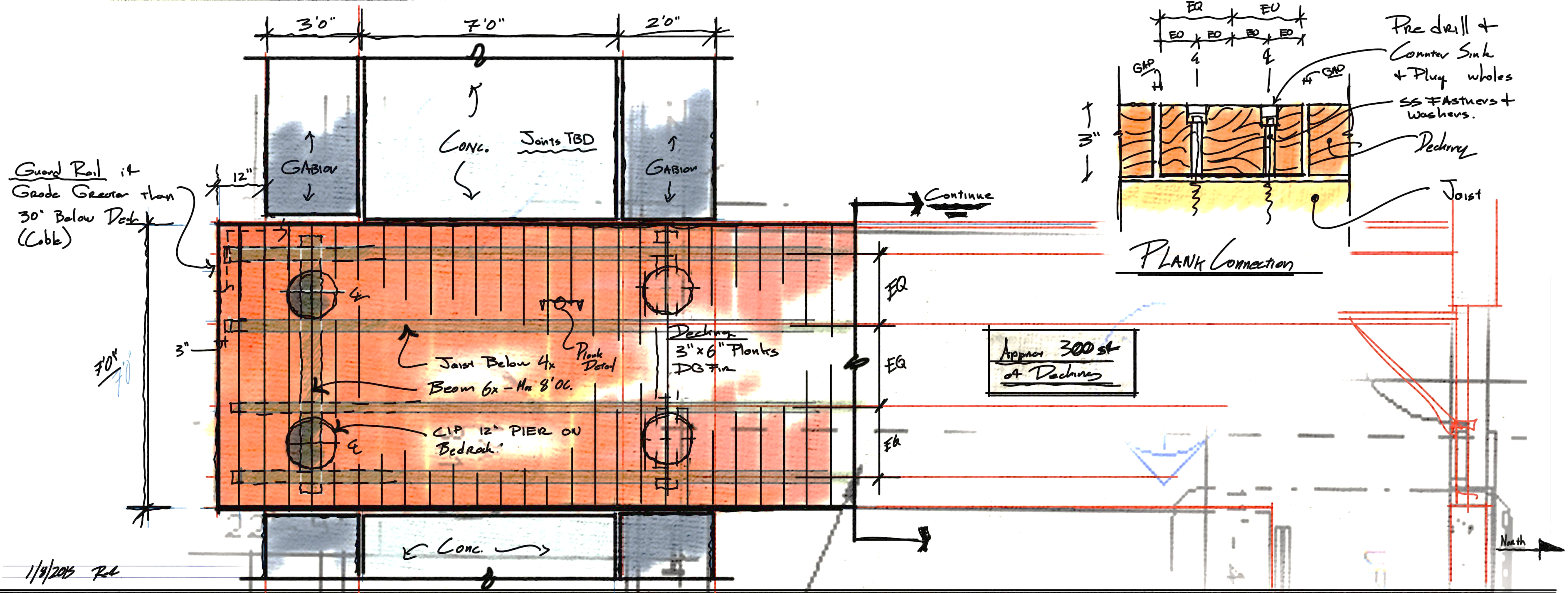
Photo Credit  
Mike Engel - Associate AIA



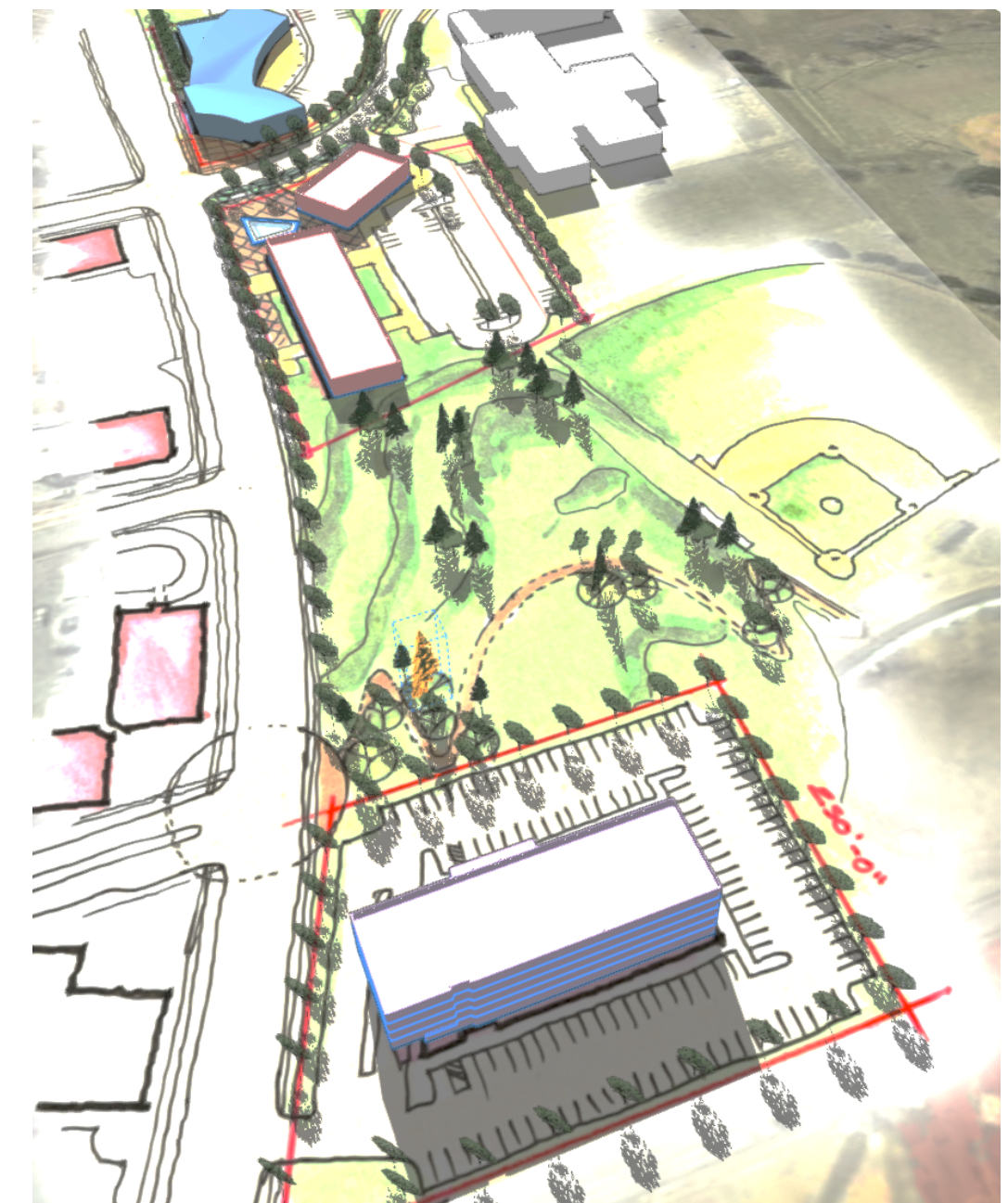


### Notes

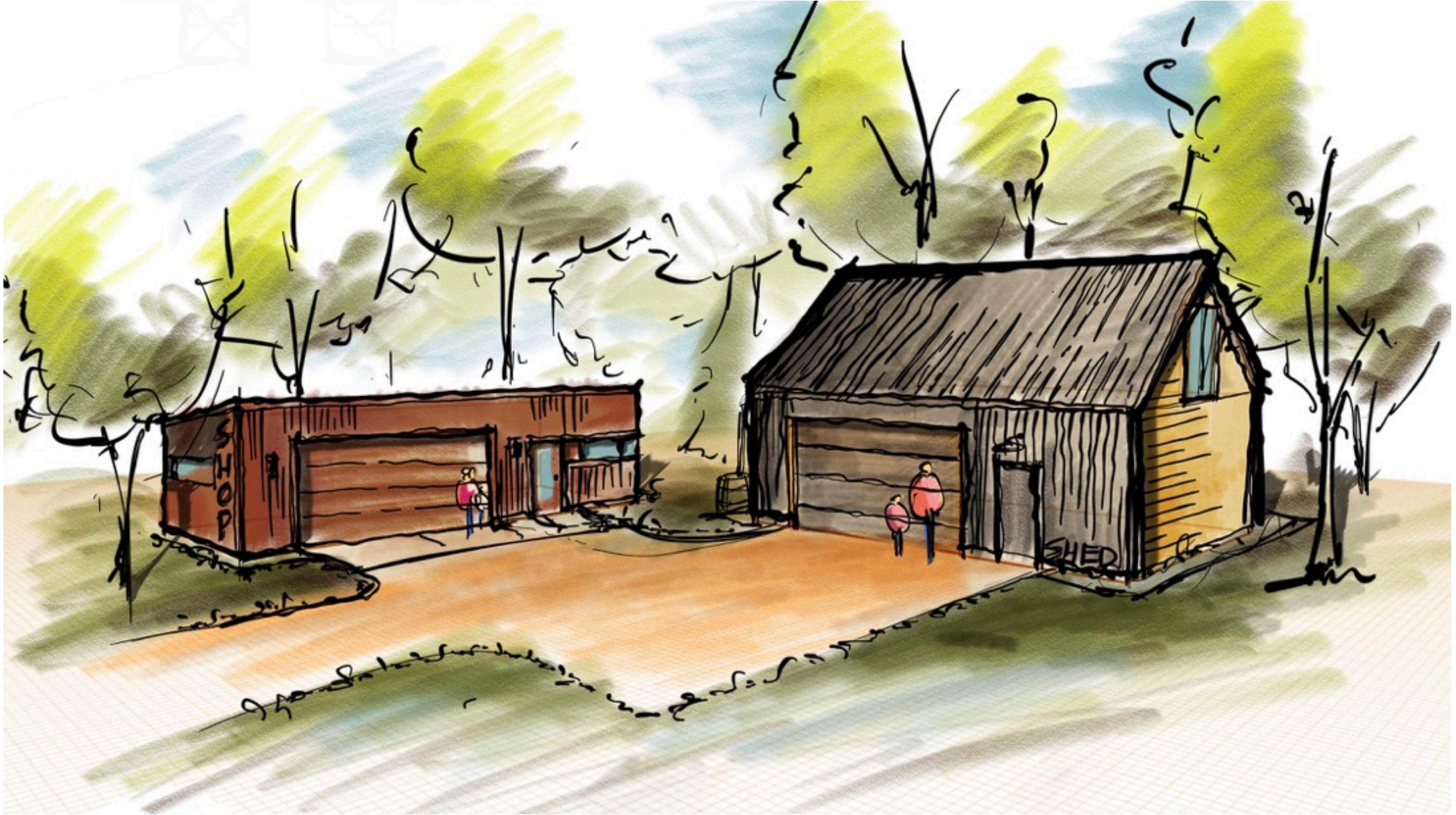
- Beams + Joist to Be SPF Treated "Cedar tone"
- Planks to Be Douglas Fir or - Ipe or - Approved (Not Cedar)
- Finish Deck Planks on all 6 sides
- Conc Piers Set Directly on Solid Bedrock.



















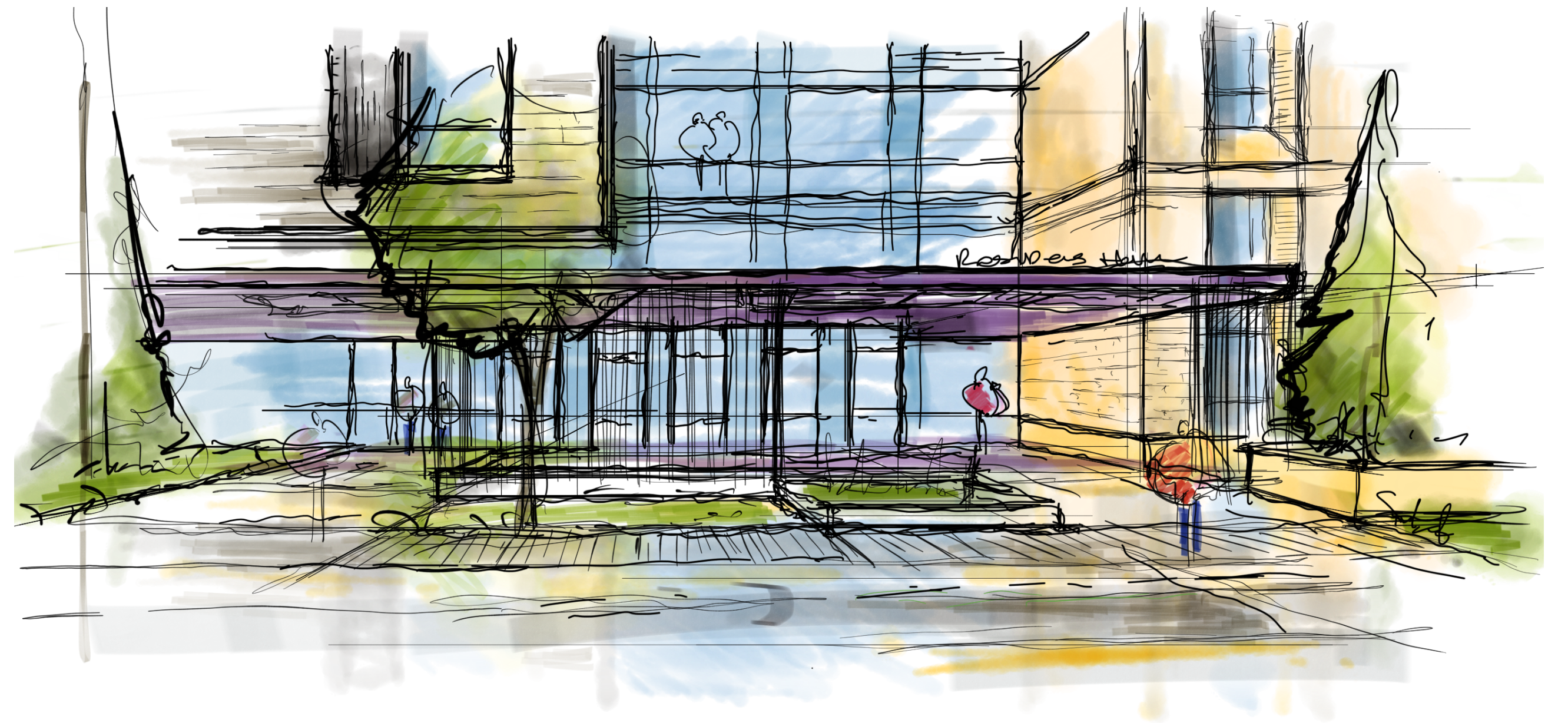
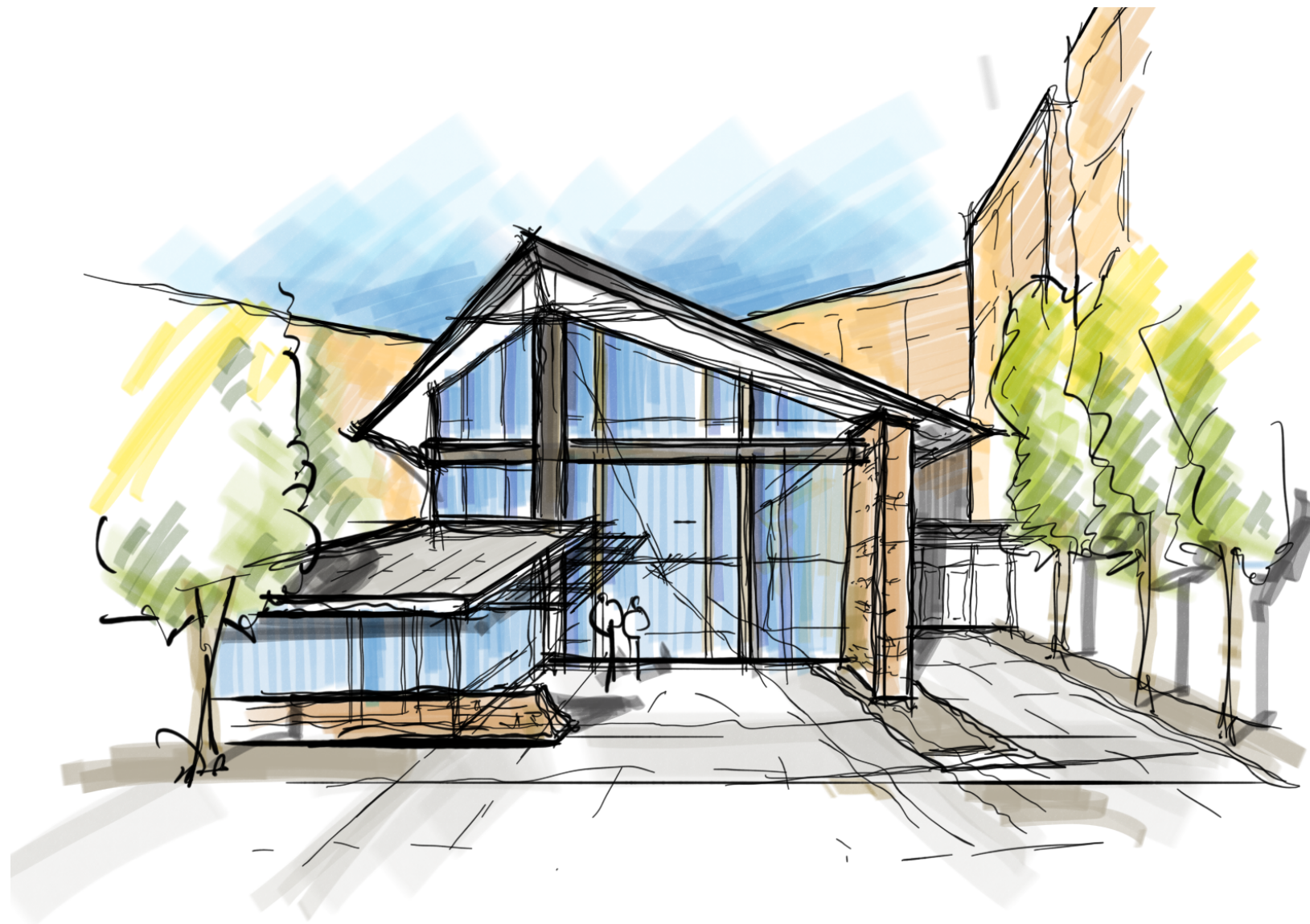
"Front"

"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*



Thank you!

Questions?





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