

S F Johnson Consulting



Plan Reading - 10 Class Syllabus

Class 1 – Basics & Coversheet

Basics:

What is a set of construction documents?

Construction documents vs Specifications

Plan View, Section View, Detail View, Elevation View – Describe in your own words

Construction Divisions (What trade is in what division?)

Scale – How to interpret

Page Numbers – How to Interpret

Symbols

Lines

Door schedule

Window Schedule

Finish Schedule

Cover Sheet & Construction Schedule

Define:

Responsibility Schedule

Index vs Schedule

Legal requirements on your cover sheet

Permit date – Which to use

Sheet Index – Describe what is comprised in each set in your own words

Construction Schedule – How to interpret it

Class 2 – MEP Site Plan

Define:

Contour lines

Existing vs Proposed elevations – How to determine

What's on a site plan?

Who needs the site plan?

Underground utilities – How are they represented?

Class 3 – Floor Plan

What do we find on our floor plan?

“A” plan framing vs “S” plan framing.

How to use dimensioned plans to measure wall lengths.

Door, wall, window tags

Wall framing – wood members vs metal

What type of wall framing goes where

Find a systematic way of reviewing your plans

Following the views – Plan to section to detail

Determine number of studs needed

Determining heights of studs needed.

Determine number of sheets of drywall

Class 4 – Reflected Ceiling Plan (RCP)

What is reflected here?

Who needs this plan?

Identify all ceiling components

Ceiling section views

Ceiling tags – how to read them

Class 5 – Interior/Exterior Elevation Views/Finish Plans

Who needs this?

4 walls/4 views

Interpreting views

Matching views with finishes

Interpreting floor and wall finish plans

Class 6 – Roof Plan

Define:

Pitch

Cricket

Gable

Ridge

Hip

Eave

Scupper

Downspout

Parapet

Flashing & where does it go

Identify parts of a roof

Types of roofing material

Section Views – ID only what the roofer needs

Sq. vs SF

Class 7 – The Structural Set

What makes up the structural set?

Parts of a foundation

Footers, stem walls, column pads, slabs

Determining CY of concrete

Determining rebar totals

What are shear walls?

Shear wall take -offs, including nails

Types of nails

Rough carpentry vs finish carpentry

Wall, floor, ceiling, roof structural framing

Headers – What are they? Why we need them.

Columns, posts, beams

LVL Beams vs GLULAM Beams vs 2Xs

Class 8 – Mechanical Plan

Parts of the estimate

Mechanical equipment types (AHU, EF, CU)

Ductwork – rectangular vs spiral

Reducers, 45 and 90-degree ductwork

Supply & Return grills

CFM

Balancing the system

Mechanical exclusions

Class 9 – Plumbing Plan

2 Plans – What is the difference

Plumbing symbols

Parts of an estimate

Rough Ins

Plumbing Equipment – Formal terms

Water pipe vs DWV piping

PVC vs Copper

Horizontal pipe measures

Vertical pipe measures

How to read a riser diagram

Interpreting equipment schedules

Class 10 – Electrical Plan

2 Plans – What is the difference

Electrical symbols (switches, receptacles, GFCI, home runs etc.)

Parts of an estimate

High voltage vs low voltage work

Plumbing Equipment – Formal terms

Types of Conduit

Power Panels

Lighting control panels

Panel Schedules

How to read a 1- line diagram

Interpreting lighting schedules

Determining conduit amounts

Determining feeder wire cost

Determining power & lighting wire cost

Connecting equipment