Listing Of Lead Engineer Faux Pas:

Project Management Issues:

Using drawings generated by customer or customers consultant.

Allowing customer's consultant to get into control position between SI and customer.

Engineering Management:

Key engineers not assigned to project from start to finish. Key engineers pulled off of project before it is completed.

Not insuring that lead engineers receive ample training on supervising others, conflict resolution and other soft management skills.

Lead Engineers:

Not changing drawing guidelines for project and not notifying drafting, or othe project team members of change to drawing guidelines.

Not understanding that they are the supervisor for the engineering team for the duration of the project.

Make sure that the engineers always follow the standard header and footer format for all documents. Header should have from left to right, project name, document title, document owner's name. Footer should have from left to right, full path and filename, page of total, date & time.

Senior staff should always delegate where possible. Lead engineers on big projects often get too bogged down in minute details and miss the big decisions that need to be made. Penny wise and pound foolish.

Sending drawings to installation before the drawings are finished and checked. Sending a partial set downstairs, such as a 90% complete set, before the entire set is complete is asking for wirelisting changes because when you do the additional 10% of the drawings you are sure to find cables that need to be added to the 90% that have already been wirelisted.

Ignoring project assigned drafter, not inviting project drafter to important project review meetings, not including project assigned drafter on email threads, etc.

Be aware of the milestone dates that the Project Manager has set for the project. If the dates that big drawing sets are to be shipped to client or sent to wirelisting change then please give Drafting and Implementation as much advanced warning as possible.

The lead engineer on the project does not inspect the work of the engineers working on their project. The lead engineer takes the words "I've done it" as truth without inspecting to see if it is actually done. Lead engineer does not notice that engineer assigned to a task is in way over their head before it is too late.

Lead engineers do not periodically put drawing set into numerical order as a D size set and compare the drawings to the drawing list. This assembling the drawing set is a very important tool for visualizing the completed drawing set and for ascertaining the current condition and completeness of the drawings.

Big projects should always set up a LAN on the job site with a wide band (ADSL, ISDN) internet connection.

Using I/O panels on all racks and running all cables through a demarc panel to cut down on site installation costs. This idea increases the cost and complexity of the project much more than on site labor costs ever amount to without these devices.

Finish mult connector details early in project. These mult connector details can be easily delegated.

Leave extra patch bay space, rack space, DA frame slots, etc. for future expansion where possible.

Engineers should not pass drawings directly from wirelisting to drafting unless the only thing added was the wire numbers. Drafting should not accept drawings directly from wirelisting to drafting unless the only thing added was the wire numbers. Any changes other than adding wire numbers, no matter how minute, must be approved by a project engineer first.

Finish cable mult details early in the project. These mult connector details can easily be delegated.

Not fighting hard for all the patch bays required to provide ample patch circuits for patching around critical signal devices and for monitoring signal path. Try to bring spare monitor inputs and at least one spare output per peripheral out to patch.

Always ask how you can get back on the air quickly when any critical piece of equipment fails.

Assigning mnemonics:

Naming devices so they don't sort into functional groups. For example, Naming a Charater Generator CG 1, Keyboard 1 and Display 1 will not sort as well as CG 1, CG 1 Keyboard and CG 1 Display. Also, the preferred method encodes more information about the devices function into the mnemonic itself.

Assigning mnemonics to devices based on their location rather than assigning mnemonics based on what will work in the router and other programmable devices. The device location goes on the bottom outside of the synoptic block and the mnemonic at the top inside of the block.

Assigning double mnemonics when they are not necessary. For example, VT 3 and VT 112C being two mnemonics for the same device.

Naming everything by the rack location. For example, CAM 1 feeds CCU 23B which is controlled by RCU 456D.

Generating Synoptic Drawings:

Organizing equipment on synoptic drawings by the physical location of the equipment rather than the position of the equipment in the signal path. IE, show equipment on synoptic by function and not by form.

Blindly creating drawings because the drawing list has a title and number reserved for the drawing, even if drawing will have very little information on it and much empty space. Always combine drawings when possible, for example instead of having a separate floorplan drawing for each small edit suite you could combine four edit suites on a page. This faux pas also creates too many conceptual drawings. Only do conceptual for systems that can't be put on a single synoptic.

Use same drawing logic in conceptual as are used in the synoptic. Use conceptual as a way to acclimate the customer to getting used to reading the detailed synoptic.

Trying to have the physical inputs of the video router and other router levels such as audio and control levels match can become a big and unnecessary time drain. It is far better so simply program the router to switch the diffent levels appropriately.

Work fast, draw on velum if it is faster than using AutoCAD. Work as smart a possible. Use vellum when needed. Some engineers who are not AutoCAD fluent can actually work faster on vellum.

Finishing a drawing in AutoCAD. Please let drafting finish the drawing when possible. It may be cheaper for the engineer to lay out the drawing and then have a drafter finish the drawing.

Inter drawing cable joiners should never be just a patch designation, they should always be a piece of equipment. EX. "VTR 5 VID IN VIA PATCH" is a good cable joiner, and "VJF 14 C1" is a bad cable joiner.

Mnemonics list needs to list the entire frame mnemonic in the frame column so the mnemonics list can be sorted by rack, frame and slot to see how DA's and peripherals are assigned to frame slots.

Leave extra patch bay space, rack space, DA frame space, etc. for future expansion where possible.

Mounting devices under console as a close to bottom of racks as possible and not right under the console shelf.

Not taking time to learn SI drawing guidelines and/or not following established SI Drawing Guidelines when generating drawings.

Generating Conceptual Drawings:

Creating too many conceptuals. Conceptuals should be generated only for systems that are so complex that they need clarification. Do not create conceptuals for systems that can be easily understood by reading a single synoptic.

Drafting Issues:

Engineers not coming in on weekends or late at night to answer questions for drafters they've asked to work overtime on their drawings.

Going to drafting for information on the drawing content and data encoded into the drawings instead of engineering. The drafters provide information on the AudoCAD structure of the drawing and Engineering management provides guidance on drawing content and data encoded into the drawings.

Do not let drawings go directly from wirelisting to drafting unless the only thing added was the wire numbers. Any other changes, now matter how minute, must be approved by engineer first.

Drafters not informing engineers of major drawing revisions. If a drafter needs to redo large portions of a drawing then please ask the engineer first.

Checking Drawings:

Use "SI mnemonics list method" to check data encoded into drawings before sending drawings to wirelisting. Remember to call each device by the same mnemonic in each instance the mnemonic appears in the system.

Check inter drawing cable joiners (fly ons and fly offs) on all drawings before sending drawings to wirelisting.

Installation Phase:

Not asking that the patch bay designation strips be printed, cut and installed in the patch bays very early in the project.

Using convoluted cable numbering schemes and cable color schemes.

Custom Fab Equipment:

Using 90 pin Elco connectors and DB-50, 37 and 25 connectors on SI custom equipment where a multiconductor cable is not being used. It is very time consuming to add individual cables and test them when there are several cables leaving a mul;tipin connector and fanning out to several other devices. It is much better to put barrier strips on the back of custom fabricated equipment. Use multipin conectors only when a single multiconductor cable will leave the connector and go to another multipin connector on a single other device.