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# Bluebeam Training - Electrical Essentials and Bluebeam Workshop

Course details: https://www.electricityforum.com/electrical-training/bluebeam-training

This 3-day, 18-hour live online instructor-led course combines both our 12-Hour Bluebeam Training - Revu and Studio Electrical Essentials training course AND our 6-Hour Bluebeam Electrical Drawing Management Workshop.

View Our Complete Course Details:

12-Hour Bluebeam Training - Revu and Studio Electrical Essentials

6-Hour Bluebeam Electrical Drawing Management Workshop

Our 2-Day, 12-Hour Bluebeam Training - Revu and Studio Electrical Essentials training course introduces students to Bluebeam Revu software and teaches them how to rapidly solve electrical construction problems by finding and comparing information across multiple drawings and specifications. With that information, students will learn how to add value to those documents through updating completion visually and adding as-builts details at site. Our course focuses students on how to use the data imbedded in these document annotations to better manage resources such as time and budget.

Our One Day, 6-Hour Bluebeam Electrical Drawing Management Workshop builds on the fundamentals developed in our 12-Hour Bluebeam Electrical Essentials training course. This workshop teaches students who are working as an electrical project leadership team advanced Bluebeam methods and tools to better allow them to focus in on pivot points in the project such as quality control and document management.

#### What is Bluebeam?

Bluebeam Revu, a PDF markup and collaboration software tool that is used by architects, electrical engineers, electrical project managers and electrical estimators and journeymen electricians throughout the lifecycle of a building project. Bluebeam Revu software allows teams to compare documents, do estimations, submit RFIs and plans for approval, and many other important software functions.

#### Who Uses It?

Lots of electrical professionals in the electrical engineering and construction industries use Bluebeam. More than 90 per cent of the top construction organizations and more than 80 per cent of the top North American electrical design firms use Bluebeam because it saves time, boosts efficiency and allows team members to simultaneously work together. Essentially, Bluebeam is a powerful collaboration tool, allowing teams of electrical professionals in different locations and across vairous time zones to view and mark up a document at the same time, as if they were sitting in one room.

# What Are The Benefits Of Electricity Forum Bluebeam Electrical Training?

With 35 years experience instructing more than 60,000 electrical professionals, Electricity Forum Training Institute Bluebeam training courses present real-world electrical exercises and case study examples.

#### **Interactive Bluebeam Demonstration**

?The course will include a one hour interactive session through Bluebeam studio session. Students will participate in a hands-on experience doing electrical mark ups on a shared set of drawings.

#### Who is this Course Designed For?

This Bluebeam Electrical Essentials training course demonstrates real-world examples of actual electrical work performed by Electrical Engineers, Electrical Project Managers, Electrical Estimators, Electrical Foreman/Supervirors, Electrical Contractors/Service Professionals and Plant Electricians, using exact Bluebeam content.

# **Electrical Engineers - Responsible for Designing Electrical Systems**

This course teaches how to:

- Follow All Revisions And Clash Detection Reviews With Assurance:
- Document Management Through Bluebeam Studio Sessions Ensures That No Comments Or Directions Are Missed
- Cut Through The Clutter While Drawings Go From Conceptual To RFP To RFT To RFC, Missing Nothing But Presenting What's Most Relevant
- Seamlessly Translate Annotations From Field People Though The Office Back Into The Design Without Confusing Email Attachments And Partial Drawing Releases.

#### **Electrical Project Managers - Responsible for Managing Electrical Projects**

This course teaches how to:

- Manage All Document Changes With Confidence:
- Rigorous Audit Trail Through All Document Annotations (By Using Bluebeam Sessions, Up To 500 Clients Can Share Your Documents Without Their Having To Buy Licensing!)
- Updating All Drawing Changes Through Multiple CCN's And Revisions From The Office To The Foreman Seamlessly
- Update Punch List And Project Progress Visually, Exporting Powerful Hyperlinked Reports With Site Pics To All Shareholders

#### **Electrical Estimators - Responsible for Electrical Estimating**

This course teaches how to:

- Complete Take-Offs In Record Time, With Confidence, Finding Any Scaling Discrepancies Quickly (Use Bluebeam Custom Columns To Calculate All Electrical Risers Automatically)
- Generate Custom BOM's From Your Marked Up Drawings
- Execute CCN And Post Tender Take-Off's With Confidence, Especially When Drawings Changes Are Obscure Or Congested, Getting Accurate Data For Cost Adders And Subtracts

# Electrical Foreman/Supervisors - Responsible for designating Bluebeam electrical work assignments:

This course teaches how to:

- Mark Out Floor, Roof And Wall Penetrations With Confidence.
- Dimension Rooms, Showing Any Trades Conflicts (Ie Ductwork, Plumbing) With Electrical Scope.
- Get Quick Counts For All Quantities Work, Such As The Number Of Trapeze Assemblies Or Total Lengths Of Pipe In A Rack.
- Red-Line The Job As You Go Along. We Teach How To Share Up-To-Date Progress Through Drawings And How To Improve Progress Billing.
- Access The Same Master Drawings To View All Up-To-Date Changes That Are Synced In Real Time Through The Cloud With Your Office.

# **Electrical Contractors/Service Professionals – Responsible for delivering electrical field services.**

This course teaches how to:

• Learn How To Markup Site Notes Through The Cloud And Share Those Notes With Client/Office.

- Learn How To Calculate Testing And Maintenance Jobs On Site, And How To Share Details With The Office In Real Time Through The Cloud.
- Learn How To Send Site Photos Right To The Client, Showing Job Issues, Linked To Client's Blueprints.

Plant Electricians - Responsible for industrial, commercial, institutional electrical construction and maintenance.

This course teaches how to:

- Produce Submittals And Changes.
- Handle And Share In Real Time QA/QC Documents On The Cloud Through Digital Forms, Annotated With Site Photos.
- Share Project Documents With Plant And/Or Project Management Site. Learn How The Electrical Team Can Become A More Efficient Resource. Using Bluebeam Studio, Avoiding Endless Emails.
- Scan For Any Information On All Documents, No Matter How Old (OCR Offered In Bluebeam Revu Extre me Version Only).

#### WHO SHOULD ATTEND

- Electrical Engineers
- Electrical Project Managers
- Electrical Estimators
- Electrical Foremen/Supervisors
- Electrical Contractor/Service Professionals
- Industrial, Commercial And Institutional Electrical Construction And Maintenance Personnel

STUDENTS RECEIVE

#### **Revu Essentials and Studio**

Our 2-Day, 12-Hour Bluebeam Electrical Essentials training course will give you the foundational skills needed to organize, markup, edit and track comments in a PDF drawing set. You'll also learn how to easily collaborate in real time with project partners anywhere in the world using Studio. Recommended for all users, even for those with some experience in Revu.

This Bluebeam Training, Electrical Essentials course will give you the foundational skills needed to organize, markup, edit and track comments in a PDF drawing set.

Recommended for all users, even for those with some experience in Revu.

You'll learn how to:

- Create A Custom Profile To Efficiently Navigate The Revu Interface
- Use Navigation Tools To Easily Move Within Documents
- Use The Thumbnails Panel To Adjust Pages And Documents
- Place The Most Frequently Used Markup Tools In Revu
- Customize Toolsets And Share With Project Partners
- View And Export A Report Of Relevant Markup Data
- Create A Custom Stamp Using Dynamic Text
- Learn How To Collaborate In Real Time Using Bluebeam Studio
- And More!

# **Quantity Takeoffs**

Discover how to take quick, accurate measurements and build better bids with Revu through hands-on exercises and Q&A.

You'll learn how to...

• Calibrate Your Drawings For Scale

- Take Basic Measurements Quickly And Accurately
- Import Measurement Tools For Reuse And Sharing
- Calculate And Organize Measurement Totals With Custom Columns
- Use Keyboard Shortcuts For Faster Takeoffs

# **Drawing Management**

Our One Day, 6-Hour Bluebeam Electrical Workflow Methods and Tools Workshop will introduce you to key features in Revu for navigating drawings, detecting changes and managing revisions.

You'll learn how to...

- Organize And Manage Your Drawings Over The Course Of A Project
- Use The AutoMark Feature To Generate Bookmarks And Page Labels
- Determine If Your PDFs Are Raster- Or Vector-Based
- Search For Text And Apply Actions To The Results
- Add, Change And Manage Hyperlinks
- Identify Differences Between Drawings
- And More!

#### **COURSE OUTLINE**

Bluebeam Training - Revu and Studio Electrical Essentials - 12-Hour Course Outline

**DAY ONE** 

Session 1 – Introduction To Document Management using Bluebeam Revu

a) What is a PDF?

#### Electrical examples we Revu and study for projects

- Single line
- Equipment Schedules (ie Lighting)
- Power symbols legend
- Site plans
- Floorplans

## b) Document navigation, Multiple screen workspace management

# Compare documents displayed simultaneously

- Electrical vs mechanical
- Issued for Tender (IFT) vs Issued for Construction (IFC) drawings
- c) How do we work with AutoCad? BIM? 3D PDFs
- d) Review of a typical Plans & Specs using Bluebeam

#### Review and auto label drawings

#### Check for clash detection between trades

- Compare electrical conduit layout vs HVAC duct layout
- Do electrical penetrations through floors and walls conflict with other trades

# **Highlight & annotate specifications**

• Link references in specifications to exact locations they apply to on drawings, saving time during construction

#### Session 2 – Introduction To Bluebeam Studio Cloud Service

#### a) Bluebeam Projects versus Bluebeam Studio

- Bluebeam Studio Session gives your foreman a realtime link with the project manager when coordinating work shown on the same drawing
- Allowing up to 500 clients to use Bluebeam Session without needing client Bluebeam license
- Bluebeam Project will back up any file the team uses, including AutoCAD and MS Excel files
- Bluebeam Project keeping all earlier work easily accessible
- Pulling and pushing documents in and out of Projects & Sessions

# b) Coordinating documents from Bluebeam Studio with other platforms

- OneDrive, Google Drive, Drop Box
- Sharing documents like panel schedules to your journeypeople & apprentices smart phones

## Session 3 – Toolbox Basics

# a) Saving & changing toolboxes

# b) Example toolboxes for device counts and conduit measurement for systems such as

• Lighting fixtures,

- Circuit breakers
- Data drops
- Security devices

## c) Markup versus design symbols

Markups count the devices the Engineers have put in their design. We show how markups count and manage installation information of every system the engineer calls for in their design. We share best trade practices for:

- Use of symbol choices,
- Standardized colour choices
- Using Line weights intelligently for direct conduit systems, buried or concealed piping.

Show custom design symbols when using Bluebeam as a preliminary design tool. When there has not bee a detailed AuoCAD drawing defined yet, use Bluebeam Revu to mark initial locations onb existing blueprints for:

- Power devices
- Lighting Fixture and estimated T-bar grid counts
- Fire alarm devices, quickly annotating any building codes that call for specific locations

#### **Session 4 – Quantity Takeoffs Basics**

- a) Use of tool boxes from previous chapter on actual drawings
- b) Show techniques that quickly help fast take-offs, using

# c) Layers

- Lighting
- Power
- Security

# d) Custom columns, such as:

- Original drawings (IFT's) vs new drawings (IFC's)
- Building owner work (base bldg) vs tenant improvements (TI work)

# e) Using measures for:

- Conduit runs
- Trenching runs

## **DAY TWO**

# Session 5 – Quantity Takeoffs and the Markup list

# a) Advanced Filtering

# Tracking details, based on:

Author

- Annotated by day shift vs night shift?
- Annotated by client vs contractor?

# **Specifications such as:**

- Voltage
- Manufacturer, or
- Scope of project

# b) Using Custom columns

Use and create riser columns to add vertical lengths to conduit runs

#### **Use different model numbers**

- One type of standard receptacle for public area
- Another type of receptacle in hotel suite, hospital room, etc

# c) CSV Exports

# **BOMs (Bills of Materials)**

• Push out BOM's for different scopes

# Distribution, including details for:

- Voltage, amperage, phase
- Breaker count
- List all breaker totals for each panel

## Base building items on one list versus tenant building items

- d) Live Excel updates
  - Share Excel in real time, seeing actual counts
- e) Introduction to Hyperlinks

Hyperlink in a closed document vs across multiple documents

Hyperlink editing and hyperlink management

- Hyperlink in a closed document vs across multiple documents
- Hyperlink editing and hyperlink management

# **Session 6 – Accurate Scaling**

- a) Scaled areas with Viewports
- b) Keep track of details in special areas with different scales such as electrical rooms
- c) Make sure measurements in areas that show the same equipment are not counted twice
  - Finding reference points when the reference lines are different from floor to floor

#### d) Quality check with reference to architectural & site drawings

#### e) Doing an accuracy check, based on:

- Architectural details
- Known dimensions on floorplan

# f) Demonstrate real world examples, such as:

- Coring locations from the main floor to the parkade or basement
- Demonstrate Adding Scale bars & grids for drawing hardcopy

#### g) Custom columns for math

- Riser up & down
- Additional wiring to allow for terminations and wiring count
- Calculations for conduit wire fill
- Use custom labour rates to calculate preliminary labour to assemblies

# **Session 7 – Updating Red Lines**

#### a) Updating red lines

- Real time online with electrical foreman
- Show accurate progress billing by keeping red lines up to date,
- Update all construction changes so that the office and field are always in sync

# b) Generate Punch Lists

• Use Bluebeam functionality while checking these critical stages

- Rough in complete, linked to site photos
- All wiring pulled in and terminated (useful to progress bill panel scope)
- Substantial completion, with audit trail showing all functional checks completed

# Session 8 – Creation of submittal packages

# a) Building submittal package in Bluebeam Combine or convert from Windows File Explorer

- Building all shop drawings packages effortlessly
- Coordinating all chapters such as lighting, power, data individually
- Make changes faster, having submittal package completed before demobilization

#### b) Coordinate documents from letter size to Arch D sized plans

Generate better drawings for the foreman, regardless of paper size

## Put annotations on drawings that help the most:

- Device elevations
- Penetration markers
- Overlay other disciplines in different colours

# c) Intro to 3D PDF's

- Basics of source software
- BIM, Revit
- Imbedding 3D models into 2D submittals

#### **DAY THREE**

## 6-Hour Course Outline: Bluebeam Electrical Drawing Management Workshop

#### **Session 1 – Document Coordination**

- a) Problems sharing documents
  - File size, parsing and concatenating files
  - Revision control, protection of confidential documents, digital signatures
- b) Document revision checks
- c) Compare vs overlay for
  - IFP vs IFT vs IFC

# d) Integration with MS Excel

- Generate real time BOM's linked to Excel worksheets
- Generate on drawing BOM's for Foreman
- Export documents such as Electrical panel schedules to MS Excel, MS Word, MS PowerPoint

#### Session 2 – Use of Spaces and Square Footage Models

- a) Use of Spaces and Square Footage Models
  - Lumens/ft2 via custom columns
  - Compare existing versus new construction lighting models

## b) Design checks of devices based on code rules

• Fire alarm square footage and distances for devices

# c) Custom profile management

- Manage and coordinate custom settings
- Foreman vs Project manager

#### **Session 3 – Collaboration & Audit Controls**

#### a) Collaboration & Audit controls

- Manage multiple Sessions & Projects,
- Coordinate Bluebeam Studio with cloud tools such as Zoom & MS Teams

# b) Sets & slip sheeting

• Coordinate Document changes

# c) Final review of final submittal scope to engineer through sets

- O&M's & Red lines and QA/QC checklists completed
- Forms such as Statutory Declarations, punch list, demobilization completed

## Session 4 – Hyperlinks to 3rd Party Sources

# a) Hyperlinks to 3rd Party Sources

- Hyperlink in a closed document vs across multiple documents
- Sharepoint vs Bluebeam Studio in deploying hyperlinked documents

# b) Dashboards

## Concepts and goals

- Submittal to GC vs to client
- Sales tool vs construction management tool

# Libraries of samples and good design practices

## **COURSE SCHEDULE**

Start: 10 a.m. Eastern Time Finish: 4:30 p.m. Eastern Time

Contact us Today for a FREE quotation to deliver this course at your company's location.

https://www.electricityforum.com/onsite-training-rfq