

KETS Building and Wiring Checklist Version 4.0 – 2018 Instruction Guide

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This instructional guide will review each page and section of the KETS Building and Wiring Project Checklist Form. The guide is designed to explain the form, how the sections should be completed and how the form can be transferred for signatures and approvals. Additional information regarding resources (i.e. Kentucky Building Codes, IEEE references) will be included in the appendix with current links to those resources.

Purpose: the KETS Building and Wiring Project Form (BWP) collects information for the approval process for technology wiring used in K-12 facilities/campuses. The BWP is managed and reviewed by the Office of Education Technology (OET) as part of their initiatives to ensure best technology practices are being followed in regard to foundational technology components in K-12 construction, renovation and expansion projects. This form must be completed, approved by OET and filed with KDE Facilities Management prior to implementation of the technology wiring or components proposed within the form.. Items listed

as a “Required Field” must be filled out to complete the form. A zero (0) or N/A (Not Applicable) may be used in required fields as they apply.

The Building and Wiring Project Checklist Form:

General Information

This section of the form collects the following information:

Date Requested: The date the BWP form is filled out. (Required Field)

School or Project Name: The name of the School, Campus or structure addressed by this project. (Required Field)

District Name: The name of the school district the project will take place. (Required Field)

School Size (ADA): The size of the school based on the Average Daily Attendance (ADA) or number of students served by that facility listed in the project. (Required Field)

Number of Classrooms: The total number of classrooms in the facility listed in the project. (Required Field)

Funding Resource

Using Local Funds Only? Yes/No: Does project rely only on Local funding sources? (Required Field)

If NO, What Amount of EDTECH Funds Requested: List the estimated amount of KETS/EDTECH funds requested in this project.

Estimated Cost for Technology Wiring for This Project: List the estimated cost for all wiring and wiring related costs for this project. (Required Field)

Does this Project reduce Unmet Need? Yes/No: Does this project address reducing the Unmet Need for this district? (Required Field)

Are KETS Contracts being used for Procurement? Yes/No: Select is KETS Contracts are used or not. (Required Field)

If NO, please include explanation: List why KETS contract options were not used.

List items that do NOT meet full KETS Standards: List any items that do not meet KETS Standards. Links to the KETS Standards are listed in the Appendix at the end of this guide.

Type of Project

Check One Below (Required Field)

New Construction: A completely new structure, no pre-existing building or structure.

Replacement: The complete replacement of an existing infrastructure

Additional Building (Permanent or Mobile): The addition of a new building, mobile structure or temporary structure.

Renovation: The reconstruction or alteration of existing infrastructure, building or campus structure.

Update Existing: The update of existing infrastructure, not requiring a “forklift” upgrade or reconstruction of infrastructure. Minor Changes.

Additional Wiring (to Existing LAN/WAN): Minor additions to existing LAN/WAN/Campus network, not requiring infrastructure changes.

Classroom Technology Wiring

Note: *All Ethernet Cabling must be Category 6 or better for all Data, Voice or Video connections.*

Student Ethernet Drops

Number of Student Ethernet Data Drops: List the number of Student Ethernet Data drops per classroom. (Required Field)

Teacher Ethernet Drops

Number of Teacher Ethernet Data Drops: List the number of Teacher Ethernet Data Drops per classroom (Required Field)

Number of Teacher Ethernet Voice Drops: List the number of Teacher Voice drops per classroom. (Required Field)

Classroom Resource Ethernet Drops

Number of Wireless Access Point (WAPs) Ethernet Drops: List the number of Ethernet drops used for WAPs per classroom. (Required Field)

Number of Video Ethernet Drops: List the number of Ethernet video drops per classroom. (Required Field)

Number of Video R6/11 Cable Drops: List the number of R6/11 video cable drops per classroom. (Required Field)

Number of Projector Ethernet Drops: List the number of Ethernet projector drops per classroom. (Required Field)

Number of Ethernet Printer Drops: List the number of Ethernet printer drops per classroom. (Required Field)

Number of Smart Board Ethernet Drops: List the number of Ethernet Smart Board drops per classroom. (Required Field)

School Facility Technology Wiring (Outside of Classrooms)

Note: All Ethernet Cabling must be Category 6 or better for all Data, Voice or Video connections.

Number of Wireless Access Point (WAPs) Ethernet Drops: List the number of Ethernet drops used for WAPs per area listed (Hallways, Cafeteria, Conference Rooms, Gymnasium, Offices, Bus Garage, Athletic Fields, Residential Facilities and Other). (Required Fields)

Number of Data Drops (not WAPs): List the number of Ethernet drops used for WAPs per area listed (Hallways, Cafeteria, Conference Rooms, Gymnasium, Offices, Bus Garage, Athletic Fields, Residential Facilities, HVAC Systems and Other). (Required Fields)

Number of Security Camera Drops

Security Camera Ethernet Drops: List the number of Ethernet drops for security cameras (Required Field)

Security Camera R6/11 Cable Drops: List the number of R6/11 Cable drops for security cameras. (Required Field)

School Facility Technology Wiring (Outside of Classrooms)

Note: *All Ethernet Cabling must be Category 6 or better for all Data, Voice or Video connections.*

Data Centers and Wiring Closets

Data Center Ethernet Drops

Number of Data Center Ethernet Drops: List the number of Ethernet data drops in the Data Center. (Required Field)

Number of Data Center Voice Drops: List the number of Ethernet voice drops in the Data Center. (Required Filed)

Number of Data Center Ethernet Wireless Access Point (WAPs) Drops: List the number of Ethernet drops for WAPs in the Data Center. (Required Field)

Wiring Closets

Number of Campus Distribution Frames (CDF): List the number of Campus wide distribution frames/closets. (Required Field)

Number of Main Distribution Frames (MDF): List the number of Main Distribution Frames/Closets. (Required Field)

Number of Intermediate Distribution Frames (IDF): List the number of Intermediate Distribution Frames/Closets. (Required Filed)

Historical Information (Previous Design and Wiring Infrastructure)

Note: *Include all structures and facilities referenced in this project, including any school campus facilities connected to, or effected by this project.*

Existing Technology Wiring

Existing Data and Voice Cable Types (Check All That Apply)

Copper Base: Category 3, Category 5 and 5e, Category 6 and 6A

Fiber Base Multi-Mode: Fiber 62.5/125 OM1, Fiber 50.0/125 OM2, Fiber 50.0/125 OM3

Fiber Base Single Mode: Fiber 9/125 OS2

Existing Distribution Infrastructure (Check All That Apply):

Air Ducts, Conduit (Plastic/PVC), Conduit (Metal), O-Rings, J-Hooks, and Ladder Racks

Are Diagrams Available for the Following (Check All That Apply):

Distribution Systems, Voice Systems/Intercoms, Mechanical Systems, Security Systems, Campus Wiring Topology, Data Wiring (Copper), Data Wiring (Fiber), Video Systems, and Single Building Wiring Topology.

Technology Wiring Construction Checklist

It is expected that all proposals and scope of work listed in this form will meet or exceed the Building and Electrical Codes of the Commonwealth of KY and the United States as referenced in the link below:

Kentucky Department of Housing, Building and Construction

Kentucky Building Codes (Based on ICC)

<http://dhbc.ky.gov/bce/bc/Pages/default.aspx>

This would reference Horizontal and Vertical Distribution of Data, Voice and Video Cabling, Ceiling and Under Floor Distribution, Riser Access, Main Feeders, Conduit Size, Access Through Wall and Support Structures, Power Considerations, EMI Considerations, Distribution Frame (DF) Characteristics, Mounting Panels and Equipment, and Block Alignment and Connection.

By selecting "I Agree" the parties are accepting the requirements to meet the codes listed above.

Select the I Agree or I Do Not Accept the Requirements.

Is Plenum Cable Required? Yes//No: Identify if Plenum Cable is required for this project.

If Yes, please include a brief explanation for the requirement: List a brief explanation for requiring Plenum Cable for the project.

What are the Maximum Cat6 Cable Lengths for this Project: List the Maximum lengths of Category 6 cabling used in the project.

Backbone Distribution:

Data: List the type and plan for the distribution of the data backbone cabling.

Voice: List the type and plan for the distribution of the voice backbone cabling.

Video: List the type and plan for the distribution of the Video backbone cabling.

Describe the Labeling/Identification Processes for Installed Cables (Data/Voice/Video): List the labeling practice and the methods used for identifying and matching the data, voice, and video cabling from end to end of runs.

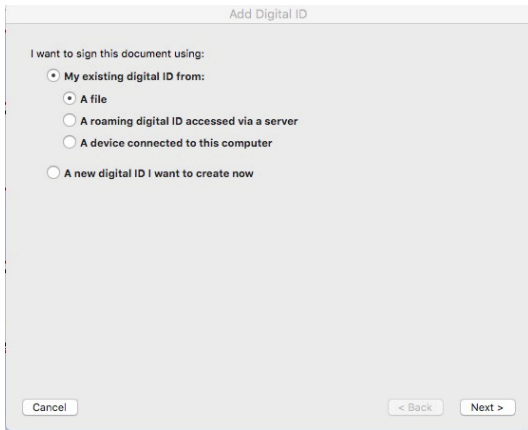
Describe the Test Verification Processes for Installed Cables (Data/Voice/Video): List the methods used for testing and verification of cabling from end to end of runs, connections and endpoints.

Signatures

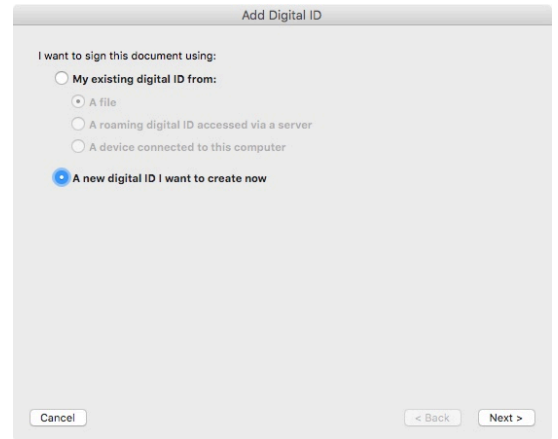
The signing and approval process has been changed to a digital signature, saving of the document and emailing to the next person in the approval chain.

The digital signatures are required by each person; the Design Contractor, District CIO, KETS Regional Engineer and the OET Review Staff. If you do not have a digital signature saved within your computer system, the PDF file will prompt you to create a signature file to sign with. The signature file will then be

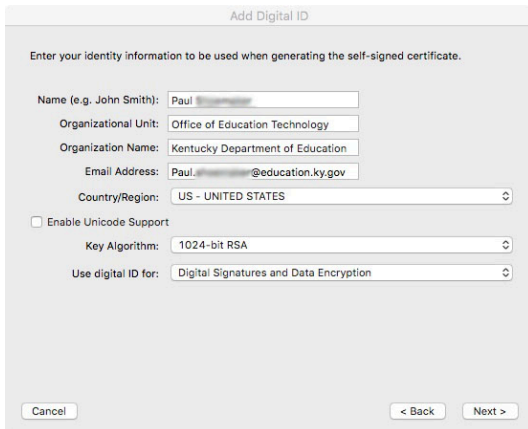
stored with that user account for future use. Below are the window prompts for creating a digital signature within Adobe Acrobat.



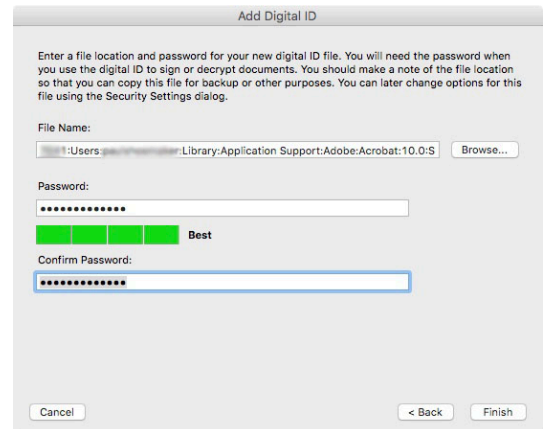
This is the prompt that appears when clicking on the digital signature box. If you already have a digital signature, click “use existing”. If you do not have a digital signature click on “Create New”.



After selecting, click “Next” to continue creating a new digital signature.



Fill out the form completely, including your full name, department, organization and email address. Select 1024-bit RSA encryption and select to use with digital signatures and encryption. Click “Next” to continue.



Use the default location to store your digital signature. Next, create a password to associate your digital signature. Make it a secure combination of upper-lower case letters, numbers and symbols. Once complete click “Finish”.

After signing the form, save it your computer. Use the naming convention: "District/County Name – School or Building Name – BWC DD/MM/YYYY". You will then email it to the next person to sign their approval. The process order will go from the Design Contractor/Architect, who will sign, save and email the form to the District CIO, who will sign, save and email the form to the KETS Regional Engineer, who will sign, save and email the form to the OET Review Staff, who will sign, save and email the form to KDE Facilities Management to include in their project records for this building project. This new process will eliminate the need for printing and physically signing the document, scanning and emailing the final signed forms.