



Clark County Building Department

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Division:	Building Department	Policy & Procedure:	TG-90-2023
Subject:	Electrical Testing Services	Effective Date:	June 1, 2007
Code:	22.02.500 Other Inspections	Revised Date:	July 25, 2023

1.0 PURPOSE: 22.02.500 Other Inspections. In addition to the required electrical inspections listed in (BAC 22.02.475), the Building Official may require other inspections of any work to ascertain compliance with this Chapter and the technical codes. These inspections and tests are required in the National Electrical Code and the National Fire Protection Association Standards and Guidelines.

2.0 SCOPE: This guideline provides information for the listing of the Approved Agencies and Approved Personnel. This guideline also provides information for the testing, reporting, submittal, review and acceptance of certain electrical testing services performed by the Approved Agency.

3.0 ABBREVIATIONS & ACRONYMS:

- BAC:** Building Administrative Code of Clark County
- CCBD:** Clark County Building Department
- NEC:** National Electrical Code
- NETA** International Electrical Testing Association
- NFPA:** National Fire Protection Agency
- TG:** Technical Guideline

DEFINITIONS: For the purposes of this technical guideline, certain terms, phrases, words and their derivatives shall be construed as specified in this section and the Building Administrative Code of Clark County.

Approved Agency: An agency that is approved by the Building Official who is engaged in the testing of electrical equipment and systems and the reporting of test results.

Approved Personnel: Certified Electrical testing technicians that are employed by the approved agency.

Quality Systems Manual: A quality systems manual is composed of a series of documents that contain policy statements, procedures, reporting requirements and personnel qualifications. The quality systems manual defines the procedural responsibilities to ensure the operations are completed, reviewed and documented.

Electrical Testing Services: Is a collection of tests performed by an approved agency of certain electrical components and systems to verify compliance to Clark County codes.

4.0 REFERENCES:

- National Electrical Code
- Building Administrative Code of Clark County
- Southern Nevada Building Code Amendments

5.0 RESPONSIBILITIES:

5.1 Permit Holder:

- 5.1.1 The permit holder shall engage a CCBD approved agency that is approved to perform electrical testing to perform all required electrical testing services.
- 5.1.2 The permit holder shall ensure the Approved Agency provides certain required reports for the following electrical testing services:
 - High Potential Insulation Testing (HPIT)
 - MEG-Ohm Testing (MEGT)
 - Ground Fault Protection Testing (GFPT)
 - Emergency Power Testing (EPT)
 - Ground Resistivity Testing (GRT)
 - Selective Coordination Study
- 5.1.3 The permit holder shall coordinate electrical testing services with the approved agency.

Electrical Testing Services

5.1.4 The permit holder shall coordinate electrical testing services and schedule required inspections with CCBD.

5.2 Electrical Registered Design Professional

5.2.1 The Engineer of Record shall provide on the Electrical cover sheet, a complete list of electrical testing that is required for the project and stipulate special inspection requirements.

5.3 Electrical Testing Agency:

5.3.1 The agency designated to perform electrical testing services shall be approved by CCBD.

5.3.2 An agency seeking approval status shall apply for approval online.

5.3.2.1 Agency shall apply online to request a new agency listing, on the Clark County Citizen Access Portal.

- The agency shall create an account.
- The agency account shall utilize agency email address.
 - The email shall not contain an individual's name.
- The name of the Approved Agency shall be the name as listed on the incorporation documents and Clark County Business License.

5.3.2.2 Fees are listed in the Building Administrative Code.

5.3.2.3 A Clark County Citizen Access Portal How-To-Guide is in Appendix E.

5.3.3 In order to obtain approval, an agency must submit to CCBD for review and approval a Quality Systems Manual other information as required in this guideline and the listing fees.

5.3.4 Agencies that are approved for only electrical testing are not required to have an engineering manager.

5.3.5 The quality control manager shall perform audits of all approved personnel per the NETA certification requirements.

5.3.6 The Approved personnel employed by the approved agency shall perform all required testing and other services as required in the BAC, NEC, NFPA and this guideline.

5.3.7 The approved agency shall submit all required reports to CCBD.

5.4 Clark County Building Department

5.4.1 Plans Examination will enter the EOR's testing requirements in the Third-party tab.

5.4.2 Plans Examination, upon plan review and prior to permit issuance may determine additional electrical testing will be required and enter the information in the Third Party Tab.

5.4.3 Electrical testing that becomes necessary during the course of construction shall be identified by the electrical inspector. The electrical inspector shall require the owner or owner's representative to return to Plans Examination to obtain an inspection agency agreement.

5.4.4 Engineering will review the Agency's initial application package for compliance to this guideline and referenced codes and standards.

5.4.5 Review the agency's annual renewal package for compliance to this guideline and referenced codes and standards.

5.4.6 Create project specific Building Inspection Agency Permits for the agency that are related to the primary permit at the time of permit issuance.

5.4.7 Plans Examination or Building Inspections will review electrical testing reports in accordance with Section 6.0.

6.0 PROCEDURES:

6.1 Initial and Annual Approval Requirements

An agency seeking approval to perform electrical testing services shall comply with Technical Guideline 17. The following must be uploaded.

6.1.1 Incorporation documents

6.1.2 List of current corporate directors.

6.1.3 Current Clark County business license.

6.1.4 Completed Form 862 - Technical Services Acknowledgment

6.1.5 Completed Form 863 - Calibration Program & Testing Methods Acknowledgment

6.1.6 Completed Form 872-Declaration of Quality Control Manager.

6.1.7 Current NETA certification letter.

Electrical Testing Services

- 6.1.8 Lists of inspection personnel.
- 6.1.9 The Approved Agency shall add approved personnel through the Clark County Citizen Access Portal when directed.
 - Inspectors shall comply with the requirements of Technical Guideline 17.
 - Inspector certification records shall be uploaded to each inspector's record.
 - For each inspector a Training Verification Form is required for initial approval and annually. A sample form is provided in Appendix B.
 - Inspectors shall be updated per the Technical Guidelines 17.

6.2 Electrical Testing Procedures

- 6.2.1 All electrical testing procedures shall comply with requirements and guidelines in the NEC, BAC and NFPA.
- 6.2.2 The approved personnel shall monitor that the testing has been performed and reported as approved at the appropriate time(s) during the construction and inspection processes.

6.3 Reporting of Electrical Testing Results

- 6.3.1 All reporting of electrical testing results shall comply with requirements and guidelines in the NEC, BAC and NFPA.
- 6.3.2 Upon completion of field testing, a field inspection/testing report shall be left at the job site indicating the testing performed, test date, inspector's name, and results of the inspection. A field report indicating approval of the required inspection/testing will allow the electrical inspector to proceed with routine requested inspections.

6.4 Review and Acceptance of Electrical Testing Results

- 6.4.1 Each Electrical Testing result shall be submitted as a separate revision to be reviewed by the electrical plans examiner.
- 6.4.2 Upon review and acceptance, the plan reviewer will release the condition and route the reviewed electrical testing results to records.

6.5 Review and Acceptance of Selective Coordination Study

- 6.5.1 Results of the Selective Coordination Study shall be submitted to the Electrical Engineer of Record.
- 6.5.2 The Electrical Engineer of Record shall provide a letter (signed, sealed) confirming acceptance of the selective coordination study that states substantially the following:
 - 6.5.2.1 The selective coordination study is accepted by the Electrical Engineer of record.
 - 6.5.2.2 The design of the emergency system meets the requirements of the currently adopted National Electrical Code, as clearly shown in the study.
 - 6.5.2.3 The system design as shown on the approved construction documents is the same design shown on the selective coordination study.
- 6.5.3 The Selective Coordination Study and the Electrical Engineer letter shall be submitted together as a revision to be reviewed by the electrical plans examiner.
- 6.5.4 Upon review and acceptance, the plan reviewer will release the condition and route the approved Selective Coordination Studies to records.

7.0 RECORDS:

All report forms that are planned for use in performing Electrical Testing shall be submitted with the Quality Systems Manual for review and approval. Sample report forms are provided in appendix A.

8.0 ATTACHMENTS:

Appendix A: Sample Electrical Testing Report Form

Appendix B: Training Verification Form

Appendix C: Form 862 - Technical Services Acknowledgment

Form 863 - Calibration Program & Testing Methods Acknowledgment

Form 872 - Declaration of Quality Control Manager

Appendix D: Clark County Citizen Access Portal How-To-Guide

Prepared By: Terry Kozlowski

Date Prepared: June 26, 2023

Revision History:

Title	Revision/Approved Date	Effective Date
TG-90-2023	July 25, 2023	July 31, 2023
TG-90-2013	November 20, 2013	November 26, 2013
TG-90-2007	February 28, 2007	June 1, 2007

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Appendix A:
Sample Electrical Testing Report Form

Part A
Report Title

Sample Report Form

ELECTRICAL TESTING SERVICE (HPIT, MEGT, GFPT, EPT or GRT) RESULTS

Part B
Project
Information

**Project Information: Project Name, Project Address, Permit Number, Technician
Name & Signature, Company Officer Name & Signature**

Part C
Testing
Elements

**Electrical Testing Elements/Tasks
As Required in the NEC and NFPA**

Part D
Reserve for
CCDBFP

CCBD Approval and Comments Area

Appendix B: **Training Verification Form**

TRAINING VERIFICATION RECORD

Electrical Testing Agency

Employee Name _____

Date of Hire _____

NETA Certification No. _____ Expiration Date _____

Electrical Service Test	Initial Training Date	Follow-up Training Date
HPIT		
MEGT		
GFPT		
EPT		
GRT		

Training Provided By _____
(Company Officer) Print Name Signature

Training Provided By _____
(Manufacturer) Print Name/Manufacturer

() I acknowledge the above training and a current copy of TG-90.

Employee Signature _____ Date _____

Appendix C:

Form 862 - Technical Services Acknowledgment

Form 863 - Calibration Program & Testing Methods Acknowledgment

Form 872 - Declaration of Quality Control Manager

QA Agency Logo

**COMPANY LETTERHEAD
ADDRESS, TELEPHONE, EMAIL**

TECHNICAL SERVICES ACKNOWLEDGMENT

DATE

COMPANY NAME will perform the inspection and testing services for the following inspection categories as listed below:

Electrical Testing

We acknowledge that inspection and testing services for all projects shall be performed per the Clark County Building Administrative Code, International Building Code, technical guidelines, technical codes, and any applicable referenced standards for the code year in which projects were approved. The quality assurance agency shall perform its services in compliance with codes, policies, and guidelines adopted by Clark County and the jurisdictions that utilize the Clark County approved listings.

QUALITY CONTROL MANAGER
SIGNATURE

Electrical Testing Services

QA Agency Logo

**COMPANY LETTERHEAD
ADDRESS, TELEPHONE, EMAIL**

**CALIBRATION PROGRAM & TESTING METHODS
ACKNOWLEDGMENT**

DATE

COMPANY NAME acknowledges that all testing services shall be performed using the current applicable referenced standards, for all projects governed by Clark County and the municipalities that utilize the Clark County approved listings.

COMPANY NAME acknowledges that all of the equipment used in the performance of inspection activities and testing services; shall be calibrated to the applicable referenced standards for all projects governed by Clark County and the municipalities that utilize the Clark County approved listings. The calibration of the equipment have been performed and documented by an outside party or staff using traceable methods as defined within ISO 9000, ISO 17025, and ASTM standards.

QUALITY CONTROL MANAGER
SIGNATURE

ENGINEERING MANAGER
SIGNATURE

QA Agency Logo

**COMPANY LETTERHEAD
ADDRESS, TELEPHONE, EMAIL**

DECLARATION OF QUALITY CONTROL MANAGER

DATE

I, _____, hereby declare the following:

1. I am the Quality Control Manager of **QUALITY AGENCY**.
2. As Quality Control Manager I am responsible to the *Building Official* for:
 - (1) Hiring and training of qualified inspectors and testing technicians;
 - (2) Supervision of inspectors;
 - (3) The filing of accurate and complete reports based upon actual inspection and testing results;
 - (4) In-house distribution and application of technical guidelines;
 - (5) Supervising and documenting the internal audit and in-house training program.

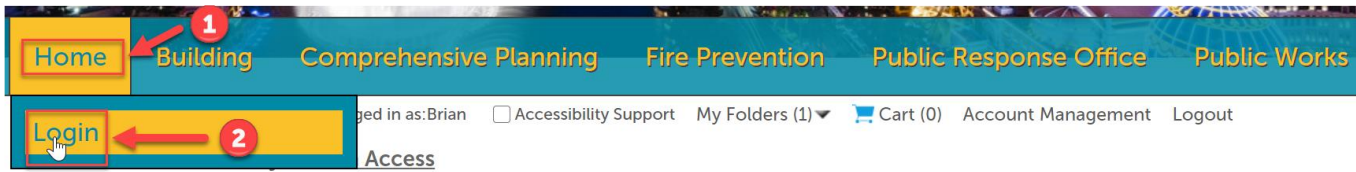
QUALITY CONTROL MANAGER
SIGNATURE

Appendix C:
Clark County Citizen Access Portal
How-To-Guide

Register, and create an Account

<https://citizenaccess.clarkcountynv.gov/CitizenAccess/Splash.html>

When creating your agency account, comply with Section 7.1.1.1, The agency account shall utilize agency email address. The email shall not contain an individual's name.



Need help? Click on the Citizen Access Knowledge Base for the latest process and department updates as well as many helpful guides for using our online functions.

Search...

User Name or E-mail: Password:

Remember me on this computer [New Users: Register for an Account](#)

Please Login

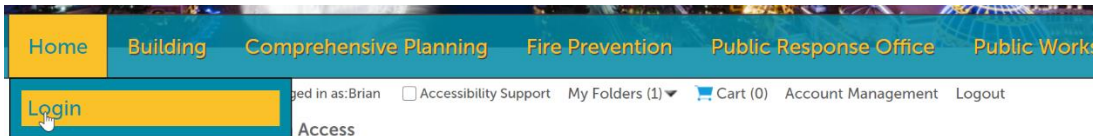
Many online services offered by the County require login for security reasons. If you are an existing user, please enter your user name and password in the box on the right.

New Users

If you are a new user you may register for a free Citizen Access account. It only takes a few simple steps and you'll have the added benefits of seeing a complete history of applications, access to invoices and receipts, checking on the status of pending activities, and more.



Logging into the system



Need help? Click on the Citizen Access Knowledge Base for the latest process and department updates as well as many helpful guides for using our online functions.

Search...

User Name or E-mail: Password:

Remember me on this computer [New Users: Register for an Account](#)

Please Login

Many online services offered by the County require login for security reasons. If you are an existing user, please enter your user name and password in the box on the right.

New Users

If you are a new user you may register for a free Citizen Access account. It only takes a few simple steps and you'll have the added benefits of seeing a complete history of applications, access to invoices and receipts, checking on the status of pending activities, and more.



Log into the Clark County Citizen Access Portal, and search for your agency.

<https://citizenaccess.clarkcountynv.gov/CitizenAccess/Splash.html>

The screenshot shows the top navigation bar with links: Home, Building, Comprehensive Planning, Fire Prevention, Public Response Office, and Public Works. A red circle with the number 1 points to the 'Building' link. Below the navigation bar is a 'Login' button, with a red circle and the number 2 pointing to it. To the right of the 'Login' button is a search bar with the text 'Search...'. Below the search bar is a login form with fields for 'User Name or E-mail:' and 'Password:', and a 'Login »' button. A red circle with the number 3 points to the 'Login »' button. Below the login form are links for 'Remember me on this computer', 'I've forgotten my password', and 'New Users: Register for an Account'.

Need help? Click on the Citizen Access Knowledge Base for the latest process and department updates as well as many helpful guides for using our online functions.

Please Login
Many online services offered by the County require login for security reasons. If you are an existing user, please enter your user name and password in the box on the right.

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If you are a new user you may register for a free Citizen Access account. It only takes a few simple steps and you'll have the added benefits of seeing a complete history of applications, access to invoices and receipts, checking on the status of pending activities, and more.

[Register Now »](#)

Press **Building** and then **Search Permits**, to access all the records linked to your account. Records will include your inspection agency (IA), inspectors (IA), and building/fire permits (BD).

The screenshot shows the 'Building' menu expanded. A red circle with the number 4 points to the 'Building' link in the top navigation bar. A red circle with the number 5 points to the 'Search Permits' link in the expanded menu. The menu also includes links for 'Apply for Permits', 'Estimate Fees', 'Schedule an Inspection', and 'Need Help?'. The background shows the 'Welcome' message and the 'Building Development and Enforcement Citizen Access Portal' title.

Electrical Testing Services