BLOCK 701-39 LOT 12 QUALIFICATION CODE _____ ADDRESS (SITE) _____ PERMIT NO. 15-0344

# CONSTRUCTION PERMIT APPLICATION

C15-000152

**Applicant Completes: Sections I, II, III (optional), IV, VI, and VII**

**I. IDENTIFICATION**

1. Proposed Work Site at: Brick Twp High Schl 346 Chambers Bridge Road, Brick, NJ 08723
2. Name of Owner in Fee: Brick Township Public Schools
   Tel. (732) 921-9594 e-mail tliming@brickschools.org
   Address 346 Chambers Bridge Road, Brick, NJ
   (street) (municipality) (zip code)
3. Ownership in Fee: Public X Private _____
4. Principal Contractor: Electri-Tech Inc. Tel. (609) 476-0822
   Address 82 Tuckahoe Road, Dorothy, NJ 08317 e-mail _____
   bblystone@electritechinc.net
   License No. OR, if new home, Builder Reg. No. 34EB01233500 Exp. Date 03/31/2015
   Home Improvement Contractor Registration No. or Exemption Reason _____
   Federal Emp. ID No. 22-324542 FAX: (609) 476-0662
5. Architect or Engineer Di Cara/ Rubino Architects Contact Robert M. Lamello
   Address 30 Galesi Drive, Wayne, NJ 07470 e-mail biamello@dicararubino.co
   Tel. (973) 256-0202 FAX: (973) 256-0227
6. Responsible Person in Charge once Work has Begun MIchael Bootie (Field Foreman)
   Tel. (609) 667-8222 FAX: (609) 476-0662

**V. FEE SUMMARY (for office use only)**

| | | Update | Update |
|---|---|---|---|
| 1. Building | $ | | |
| 2. Electrical | | | |
| 3. Plumbing | | | |
| 4. Fire Protection | | | |
| 5. Elevator Devices | | | |
| 6. Subtotal | | | |
| 7. Less 20% for State Plan Review | $ | | |
| 8. Subtotal | $ | | |
| 9. State Permit Surcharge Fee | | | |
| 10. Subtotal | $ | | |
| 11. Cert. of Occupancy | | | |
| 12. Other | | | |
| 13. TOTAL | $ | | |

**VI. BUILDING/SITE CHARACTERISTICS** (office use only)

1. Number of Stories 2
2. Height of Structure _____ ft.
3. Area — Largest Floor _____ sq. ft.
4. New Building Area _____ sq. ft.
5. Volume of New Structure _____ cu. ft.
6. Max. Live Load _____
7. Max. Occupancy Load _____
8. If Industrialized Building: State Approved ____ HUD ____
9. Total Land Area Disturbed _____ sq. ft.
10. Flood Hazard Zone _____
11. Base Flood Elevation _____ ft.
12. Wetlands yes ____ no ____

**IIa. PROPOSED WORK**

☐ Minor Work ☐ New Building ☐ Addition ☐ Demolition
☐ Repair ☐ Alteration ☐ Renovation ☐ Reconstruction
☐ Asbestos Abat. -Subch. 8 ☐ Lead Hazard Abatement ☐ Radon Remediation ☐ Annual Permit

**IIb. SUBCODES** (Check all that apply)

FOR OFFICE USE ONLY (Optional)

| | Est. Cost | Plans Rec'd by | Date Rec'd | Rejection Date | Approval Date | Re-viewer | Resubmission Dates Approval | Resubmission Dates Rejection | Re-viewer |
|---|---|---|---|---|---|---|---|---|---|
| ☐ Building | | | 1/15/15 | | | | | | |
| ☐ Electrical | | | | | 2/6/15 | | | | |
| ☐ Plumbing | | | | | | | | | |
| ☐ Fire Protection | | | | | | | | | |
| ☐ Elevator | | | | | | | | | |
| TOTAL COST | $0 | | | | | | | | |

**VII. DESCRIPTION OF BUILDING USE**

A. RESIDENTIAL *(primary use)*
1. State Specific Use: _____
2. Use Group, Proposed: Select Group
3. Change in Use Group, Indicate Present: Select Group
4. No. of dwelling units: *Total Units* *Income-restricted*
   Gained, Sale _____ _____
   Gained, Rental _____ _____
   Lost, Sale _____ _____
   Lost, Rental _____ _____

B. NON-RESIDENTIAL *(primary use)*
1. State Specific Use: Public School
2. Use Group, Proposed: Select Group
3. Change in Use Group, Indicate Presen Select Group

C. MIXED USE -List secondary use(s): _____
D. Construct. Classification: Present _____
Proposed _____

**III. PLAN REVIEW** (optional)

DO YOU WANT:
1. ☐ Partial Releases
2. ☐ Prototype Processing

**IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?**

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks
2. ☐ High Pressure Boilers
3. ☐ Pressure Vessels
4. ☐ Refrigeration Systems
5. ☐ Cross-Connections/Backflow Preventers
6. ☐ Hazardous Uses/Places of Assembly
7. ☐ Sprinklers/Standpipes
8. ☐ Smoke Control Systems in Open Wells
9. ☐ Underground Storage Tanks
10. ☐ Swimming Pools, Spas and Hot Tubs
11. ☐ LPGas Tanks
12. ☐ Fire Alarm

Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 12/17/2015
Control Number C-15-000152
Permit Number 15-0344
Permit Issue Date 2/9/2015
Certificate Number 15-0344

# Certificate

Construction Code Division

(Certificate of Approval)

## Identification

Work Site Location: 346 CHAMBERS BRIDGE RD. Brick Township, NJ Block: 701.39 Lot: 12 Qual:

Owner in Fee: BRICK TOWNSHIP EDUCATION

Owner Address: 101 HENDRICKSON AVE. BRICK NJ 08723

Telephone: (732) 921-9594

Contractor Electri-Tech Inc.

Address 82 Tuckahoe Road Dorothy NJ 08317

Telephone: (609) 476-0822 Fax: (609) 476-0662

License Number or Builders Registration Number: 12335 Federal Emp. Number: 22-324542

Home Warranty Number:

Type of Warranty Plan: ☐ State ☐ Private

Use Group: E Construction Classification:

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: ALARM SYSTEM (BURGLAR OR FIRE)

Certificate Comments:

☐ **Certificate of Occupancy**
This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☑ **Certificate of Approval**
This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**
This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**
The following conditions must be met no later than
or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:
**Conditions to be met:**

☐ **Certificate of Clearance - Lead Abatement 5:17**
This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period ( years); see file

☐ **Certificate of Clearance - Asbestos Abatement**
This serves notice that based on written certification, asbestos abatement was performed to the following extent.

☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period ( years); see file

☐ **Certificate of Compliance**
This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**
The following conditions must be met no later than:
or the owner will be subject to fine or order to vacate:
This certificate has an expiration date of:
**Conditions to be met:**

David J. Newman Jr

Construction Official

Fee: $0.00
Check Number:
Collected By:

*Date Printed: 12/17/2015*

U.C.C. F260 (rev. 08/05)

# FIRE PROTECTION SUBCODE
## TECHNICAL SECTION

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Received 2/9/15
Control #

Date Issued
Permit # 15-0344

**A. IDENTIFICATION—APPLICANT:** COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 701.39 Lot 12 Qualification Code

Work Site Location Brick Township High School
346 Chambers Bridge Road, Brick, NJ 08723

Owner in Fee: Brick Township Public Schools

Tel. 732 921 9594 e-mail tliming@brickschools.org

Address 346 Chambers Bridge Road Brick, NJ 08723
street municipality zip code

Contractor: Electri-Tech Inc. Tel. 609 476-0822

Address 82 Tuckahoe Rd, Dorothy, NJ e-mail bblystone@electritechinc.net

Fire Protection Equipment, NJ Div of Fire Safety Permit No.

Fire Protection Equipment, NJ Div of Fire Safety Installer No.

Fire Alarm Contractor No. Exp. Date

Home Improvement Contractor Registration No. or Exemption Reason

Federal Emp. ID No. 22-3245424 FAX: 609 476-0662

**B. FIRE PROTECTION CHARACTERISTICS**

**Use Group:** Present Proposed

**Constr. Class:** Present Proposed

**Heating System:** [ ] New OR [ ] Modification to Existing OR [ ] Conversion OR [ ] Replacement

Fuel Type: [ ] Gas [ ] Oil [ ] Electric [ ] Solar [ ] Other

Location:

**Fuel Storage Tank:**
Fuel Type: [ ] Flammable OR [ ] Combustible
Capacity

**Fire Alarm System:** [✓] New OR [ ] Existing
Location of Panel: Main OFFICE

**Fire Suppression/Standpipe System:**
[ ] New OR [ ] Existing
Location of Main Control Valve:

**Total Cost of Fire Protection Work $** 395,000.00

**JOB SUMMARY (Office Use Only)**

PLAN REVIEW
[ ] No Plans Required
[ ] Partial -Underslab Utilities Approved
Date: Approved by:
[✓] Fire Protection Plans Approved
Date: 2/10/15 Approved by: NTL
Joint Plan Review Required:
[ ] Bldg. [ ] Elec. [ ] Plumb. [ ] Elev.

SUBCODE APPROVAL for PERMIT
Date: 2-27-15
Approved by: CER

SUBCODE APPROVAL for CERTIFICATE
[ ] CO [ ] CCO [ ] CA
Date: 12-1-15
Approved by:

INSPECTIONS

| Type: | Failure | Failure | Approval | Initial |
|---|---|---|---|---|
| Alarm System | | | | |
| Suppression Sys. | | | | |
| Standpipe | | | | |
| Fire Pump | | | | |
| Pre-Eng. System | | | | |
| Mechanical | | | | |
| Smoke Control | | | | |
| TCO 3rd Floor | | | 3/6/15 | NTL |
| Flam/Combust Tanks | | | | |
| Fireplace Venting | | | | |
| Final | 2/6/15 | | 12/11/15 | CER |
| Other | | | | |

**C. CERTIFICATION IN LIEU OF OATH**

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Applicant/Contractor sign here: Bill Blystone

Print name here: Bill Blystone

[ ] Certified Contractor [ ] Exempt Applicant

**D. TECHNICAL SITE DATA**

DESCRIPTION OF WORK:

**Water Supply Source**

**Method of Alarm/Suppression System Supervision**

| | NUMBER | FEE (Office Use Only) |
|---|---|---|
| Flammable/Combustible Tanks | | $ |
| **Alarm Systems** | | |
| [ ] System | | |
| [ ] 110v Interconnected | | |
| [ ] CO Detectors/110v | | |
| Alarm Devices (i.e., smoke, heat, pulls, water/flow) | 815 | |
| Supervisory Devices (i.e., tampers, low/high air) | 5 | |
| Signaling Devices (i.e., horn/strobes, bells) | 221 | |
| Other Devices | | |
| TOTAL | 0 | |
| **Suppression Systems** | | |
| Fire Pump GPM Type | | |
| Dry Pipe/Alarm Valves | | |
| Pre-action Valves | | |
| Sprinkler Heads (Dry and Wet) | | |
| Standpipes | | |
| **Pre-engineered Systems** | | |
| Wet Chemical | | |
| Dry Chemical | | |
| $CO_2$ Suppression | | |
| Foam Suppression | | |
| FM200 Suppression | | |
| Other | | |
| **Other Systems** | | |
| Kitchen Hood Exhaust System | | |
| Smoke Control System | | |
| Fuel-Fired Appliances [ ] Gas [ ] Oil [ ] Solid | | |
| Fireplace Venting/Metal Chimney | | |
| Other | | |

Administrative Surcharge $
Minimum Fee $
State Permit Surcharge Fee $
TOTAL FEE $



Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.

# ELECTRICAL SUBCODE
## TECHNICAL SECTION

Date Received 2/9/15
Control #
Date Issued
Permit # 15-0344

**A. IDENTIFICATION—APPLICANT:** COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 701-39 Lot 12 Qualification Code

Work Site Location Brick Township High School, 346 Chambers Bridge Road, Brick, NJ 08723

Owner in Fee: Brick Township Public Schoold Mike 609-667-8222

Tel. 921-9594 e-mail tliming@brickshcools.org

Address 346 Chambers Bridge Road (street) Brick, NJ (municipality) 08723 (zip code)

Contractor: Electri-Tech Inc. Tel. 609 476-0822

Address 82 Tuckahoe Road e-mail

Dorothy, NJ 08317-9703 bblystone@electritechinc.net

Contractor License No. 34EB01233500 Exp. Date 03/31/2015

Home Improvement Contractor Registration No. or Exemption Reason

Federal Emp. ID No. 22-324542 FAX: 609 476-0662

**B. ELECTRICAL CHARACTERISTICS**

Use Group Present Proposed

[ ] Pole/Pad # [ ] Temporary [ ] Other

Building Occupied as Utility Co.

Est. Cost of Elec. Work $ 395,000

**JOB SUMMARY (Office Use Only)**

PLAN REVIEW

[ ] No Plans Required

[ ] Partial -Underslab Utilities Approved

Date: Approved by:

[ ] Electric Plans Approved

Date 2/6/15 Approved by:

Joint Plan Review Required:

[ ] Bldg. [ ] Plumb. [ ] Fire. [ ] Elev.

SUBCODE APPROVAL for PERMIT

Date: 2/6/15

Approved by:

SUBCODE APPROVAL for CERTIFICATE

[ ] CO [ ] CCO [ ] CA

Date: 3/6/15

Approved by:

INSPECTIONS

| Type: | Failure | Failure | Approval | Initial |
|---|---|---|---|---|
| Rough PARTIAL | | | 4/7/15 | PJS |
| Barrier-Free | | | | |
| Trench | | | | |
| Temp. Serv. | | | | |
| Constr. Serv. | | | | |
| TCO | | | | |
| Other | | | | |
| Service | | | | |
| Final | | | 8/3/15 | |
| Barrier-Free | | | | |

Temp. Cut-in-Card Date Issued

Final Cut-in-Card Date Issued

Annual Pool Inspection

Date of Grounding and Bonding Certification

**C. CERTIFICATION IN LIEU OF OATH**

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here:

Print name here: Bill Blystone

[X] Licensed Elec. Contractor [ ] Certif'd Landscape Irrigation Cont'r [ ] Exempt Applicant

**D. TECHNICAL SITE DATA**

DESCRIPTION OF WORK:
Fire Alarm Replacement

| QTY. | SIZE | ITEMS | FEE (Office Use Only) |
|---|---|---|---|
| | | Lighting Fixtures | |
| | | Receptacles | |
| | | Switches | |
| | | Detectors | |
| | | Light Poles | |
| | | Motors—Fract. HP | |
| | | Emergency & Exit Lights | |
| | | Communications Points | |
| 1107 | | Alarm Devices/F.A.C. Panel | |
| | | | |
| 1107 | | TOTAL NUMBERS | $ |
| | | Pool Permit/with UW Lights | |
| | | Storable Pool/Spa/Hot Tub | |
| | | KW Elec. Range/Receptacle | |
| | | KW Oven/Surface Unit | |
| | | KW Elec. Water Heater | |
| | | KW Elec. Dryer/Receptacle | |
| | | KW Dishwasher | |
| | | HP Garbage Disposal | |
| | | KW Central A/C Unit | |
| | | HP/KW Space Heater/Air Handler | |
| | | KW Baseboard Heat | |
| | | HP Motors 1/+ HP | |
| | | KW Transformer/Generator | |
| | | AMP Service | |
| | | AMP Subpanels | |
| | | AMP Motor Control Center | |
| | | KW Elec. Sign/Outline Light | |
| | | | |

Administrative Surcharge $

Minimum Fee $

State Permit Surcharge Fee $

TOTAL FEE $

OVER

U.C.C. F120 (rev. 11/09)
Internet version

Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.

3/16/15

61 mech. 9 trunks
Duct det to rooms that
feeding
1 rtd
rooms for supply

- NW bathroom 222 panic hardware

Mike Bootie
609-667-8222

Mike
Allied

4/7/15

- Old system removal
- workshop - tamper

6/17/15

Prog not ready
Coil test

6/22/15

Still prog issues
System up

8/31/15

prog issues
Elevators

9/1/15

All testing complete
need 4 balls
2
fired testing report

(F) tech

3-16-15 WALK THROUGH WITH CONTRACTORS WITH FIRE INSPECTOR PART R/W —

4/7/15 — ~~FAIL~~ PASS PARTIAL ROUGH

~~PASS PARTIAL ROUGH~~

FA WIRING + PENETRATIONS / ~~FIRE-CAULKED~~

DEVICES MOUNTED. — 2ND FLOOR.

e tech

# CONSTRUCTION PERMIT

Date Issued 2/9/2015
Control # C-15-000152
Permit # 15-0344

IDENTIFICATION Block: 701.39 Lot: 12 Qualifier

Work Site Location: 346 CHAMBERS BRIDGE RD. Brick Township, NJ

Owner in Fee: BRICK TOWNSHIP EDUCATION
101 HENDRICKSON AVE. BRICK NJ 08723

Telephone: (732) 921-9594

Contractor: Electri-Tech Inc.
Address: 82 Tuckahoe Road Dorothy NJ 08317

Telephone: (609) 476-0822
Lic. No. or Bldrs. Reg. No. 12335
Federal Employee. No. 22-324542

**Is hereby granted permission to perform the following work:**

- ☐ BUILDING
- ☐ PLUMBING
- ☐ LEAD HAZARD ABATEMENT
- ☑ ELECTRICAL
- ☑ FIRE PROTECTION
- ☐ DEMOLITION
- ☐ ELEVATOR DEVICES
- ☐ ASBESTOS ABATEMENT (Subchapter 8 only)
- ☐ OTHER

DESCRIPTION OF WORK:
ALARM SYSTEM (BURGLAR OR FIRE)

**Note: If constuction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.**

**Estimated Cost of Work** $790,000

Construction Official

Date 2/9/15

**PAYMENTS (Office Use Only)**

| | |
|---|---|
| Building | $0 |
| Electrical | $0 |
| Plumbing | $0 |
| Fire Protection | $0 |
| Elevator Devices | $0 |
| Other | $0.00 |
| DCA Training Fee | $0 |
| CO Fee | |
| Other | $0 |
| Total | $0 |
| Check No. | |
| Cash | $0 |
| Credit | $0 |
| Collected By | |

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR 2 CANARY - OFFICE 3 PINK - TAX ASSESSOR 4 GOLD - APPLICANT

## REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

# ELECTRICAL SUBCODE
## TECHNICAL SECTION

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Received 2/9/15
Control #
Date Issued
Permit # 15-0344

**A. IDENTIFICATION—APPLICANT:** COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 701-39 Lot 12 Qualification Code

Work Site Location Brick Township High School, 346 Chambers Bridge Road, Brick, NJ 08723

Owner in Fee: Brick Township Public Schoold

Tel. 921-9594 e-mail tliming@brickshcools.org

Address 346 Chambers Bridge Road (street) Brick, NJ (municipality) 08723 (zip code)

Contractor: Electri-Tech Inc. Tel. 609 476-0822

Address 82 Tuckahoe Road e-mail

Dorothy, NJ 08317-9703 bblystone@electritechinc.net

Contractor License No. 34EB01233500 Exp. Date 03/31/2015

Home Improvement Contractor Registration No. or Exemption Reason

Federal Emp. ID No. 22-324542 FAX: 609 476-0662

**B. ELECTRICAL CHARACTERISTICS**

Use Group Present Proposed

[ ] Pole/Pad # [ ] Temporary [ ] Other

Building Occupied as Utility Co.

Est. Cost of Elec. Work $ 395,000

**JOB SUMMARY (Office Use Only)**

PLAN REVIEW

[ ] No Plans Required

[ ] Partial -Underslab Utilities Approved

Date: Approved by:

[ ] Electric Plans Approved

Date 2/6/15 Approved by: CO

Joint Plan Review Required:

[ ] Bldg. [ ] Plumb. [ ] Fire. [ ] Elev.

SUBCODE APPROVAL for PERMIT

Date: 2/6/15

Approved by:

SUBCODE APPROVAL for CERTIFICATE

[ ] CO [ ] CCO [ ] CA

Date:

Approved by:

| INSPECTIONS Type: | Dates (Month/Day) Failure | Failure | Approval | Initial |
|---|---|---|---|---|
| Rough | | | | |
| Barrier-Free | | | | |
| Trench | | | | |
| Temp. Serv. | | | | |
| Constr. Serv. | | | | |
| TCO | | | | |
| Other | | | | |
| Service | | | | |
| Final | | | | |
| Barrier-Free | | | | |

Temp. Cut-in-Card Date Issued

Final Cut-in-Card Date Issued

Annual Pool Inspection

Date of Grounding and Bonding Certification

**C. CERTIFICATION IN LIEU OF OATH**

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here:

Print name here: Bill Blystone

[X] Licensed Elec. Contractor [ ] Certif'd Landscape Irrigation Cont'r [ ] Exempt Applicant

**D. TECHNICAL SITE DATA**

DESCRIPTION OF WORK:
Fire Alarm Replacement

| QTY. | SIZE | ITEMS | FEE (Office Use Only) |
|---|---|---|---|
| | | Lighting Fixtures | |
| | | Receptacles | |
| | | Switches | |
| | | Detectors | |
| | | Light Poles | |
| | | Motors—Fract. HP | |
| | | Emergency & Exit Lights | |
| | | Communications Points | |
| 1107 | | Alarm Devices/F.A.C. Panel | |
| 1107 | | TOTAL NUMBERS | $ |
| | | Pool Permit/with UW Lights | |
| | | Storable Pool/Spa/Hot Tub | |
| | | KW Elec. Range/Receptacle | |
| | | KW Oven/Surface Unit | |
| | | KW Elec. Water Heater | |
| | | KW Elec. Dryer/Receptacle | |
| | | KW Dishwasher | |
| | | HP Garbage Disposal | |
| | | KW Central A/C Unit | |
| | | HP/KW Space Heater/Air Handler | |
| | | KW Baseboard Heat | |
| | | HP Motors 1/+ HP | |
| | | KW Transformer/Generator | |
| | | AMP Service | |
| | | AMP Subpanels | |
| | | AMP Motor Control Center | |
| | | KW Elec. Sign/Outline Light | |

Administrative Surcharge $

Minimum Fee $

State Permit Surcharge Fee $

TOTAL FEE $

U.C.C. F120 (rev. 11/09)
Internet version

Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.

# FIRE PROTECTION SUBCODE
## TECHNICAL SECTION

NEW JERSEY UNIFORM CONSTRUCTION CODE

Date Received 2/9/15
Control #

Date Issued
Permit # 15-0344

**A. IDENTIFICATION—APPLICANT:** COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 701.39 Lot 12 Qualification Code _____

Work Site Location Brick Township High School
346 Chambers Bridge Road, Brick, NJ 08723

Owner in Fee: Brick Township Public Schools

Tel. 732 921 9594 e-mail tliming@brickschools.org

Address 346 Chambers Bridge Road Brick NJ 08723
(street) (municipality) (zip code)

Contractor: Electri-Tech Inc. Tel. 609 476-0822

Address 82 Tuckahoe Rd. Dorothy, NJ e-mail bblystone@electritechinc.net

Fire Protection Equipment, NJ Div of Fire Safety Permit No. _____

Fire Protection Equipment, NJ Div of Fire Safety Installer No. _____

Fire Alarm Contractor No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 22-3245424 FAX: 609 476-0662

**B. FIRE PROTECTION CHARACTERISTICS**

**Use Group:** Present _____ Proposed _____

**Constr. Class:** Present _____ Proposed _____

**Heating System:** [ ] New OR [ ] Modification to Existing OR [ ] Conversion OR [ ] Replacement

Fuel Type: [ ] Gas [ ] Oil [ ] Electric [ ] Solar [ ] Other _____

Location: _____

**Total Cost of Fire Protection Work $** 395,000.00

**Fuel Storage Tank:**
Fuel Type: [ ] Flammable OR [ ] Combustible
Capacity _____

**Fire Alarm System:** [✓] New OR [ ] Existing
Location of Panel: Main OFFICE

**Fire Suppression/Standpipe System:**
[ ] New OR [ ] Existing
Location of Main Control Valve: _____

**JOB SUMMARY (Office Use Only)**

PLAN REVIEW
[ ] No Plans Required
[ ] Partial -Underslab Utilities Approved
Date: _____ Approved by: _____
[✓] Fire Protection Plans Approved
Date: 2/15 Approved by: MTL
Joint Plan Review Required:
[ ] Bldg. [ ] Elec. [ ] Plumb. [ ] Elev.

SUBCODE APPROVAL for PERMIT
Date: 2-21-15
Approved by: CER

SUBCODE APPROVAL for CERTIFICATE
[ ] CO [ ] CCO [ ] CA
Date: _____
Approved by: _____

| INSPECTIONS Type: | Dates (Month/Day) Failure | Failure | Approval | Initial |
|---|---|---|---|---|
| Alarm System | | | | |
| Suppression Sys. | | | | |
| Standpipe | | | | |
| Fire Pump | | | | |
| Pre-Eng. System | | | | |
| Mechanical | | | | |
| Smoke Control | | | | |
| TCO | | | | |
| Flam/Combust Tanks | | | | |
| Fireplace Venting | | | | |
| Final | | | | |
| Other _____ | | | | |

**C. CERTIFICATION IN LIEU OF OATH**

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Applicant/Contractor sign here: B.H Blystone

Print name here: B.H Blystone

[ ] Certified Contractor [ ] Exempt Applicant

**D. TECHNICAL SITE DATA**

DESCRIPTION OF WORK:

**Water Supply Source**

**Method of Alarm/Suppression System Supervision** _____

| | NUMBER | FEE (Office Use Only) $ |
|---|---|---|
| Flammable/Combustible Tanks | | |
| **Alarm Systems** | | |
| [ ] System | | |
| [ ] 110v Interconnected | | |
| [ ] CO Detectors/110v | | |
| Alarm Devices (i.e., smoke, heat, pulls, water/flow) | 815 | |
| Supervisory Devices (i.e., tampers, low/high air) | 5 | |
| Signaling Devices (i.e., horn/strobes, bells) | 221 | |
| Other Devices _____ | | |
| TOTAL | 0 | |
| **Suppression Systems** | | |
| Fire Pump ____ GPM Type ____ | | |
| Dry Pipe/Alarm Valves | | |
| Pre-action Valves | | |
| Sprinkler Heads (Dry and Wet) | | |
| Standpipes | | |
| **Pre-engineered Systems** | | |
| Wet Chemical | | |
| Dry Chemical | | |
| $CO_2$ Suppression | | |
| Foam Suppression | | |
| FM200 Suppression | | |
| Other _____ | | |
| **Other Systems** | | |
| Kitchen Hood Exhaust System | | |
| Smoke Control System | | |
| Fuel-Fired Appliances [ ] Gas [ ] Oil [ ] Solid | | |
| Fireplace Venting/Metal Chimney | | |
| Other _____ | | |

Administrative Surcharge $ _____
Minimum Fee $ _____
State Permit Surcharge Fee $ _____
TOTAL FEE $ _____

U.C.C. F140 (rev. 02/11)
Internet version

Applicant: When submitting this form to your Local Construction Code Enforcement Office, please provide one original plus three photocopies.

| | |
|---|---|
| Date | 11/24/14 |
| Project # | 2014-102 |
| Project Name: | Fire Alarm Replacement at<br>Brick Township High School<br>Drum Point Elementary School<br>Emma Havens Young Elem. School<br>Herbertsville Elementary School<br>Osbornville Elementary School<br>Veterans Memorial Elem. School |
| Contract Amount: | $ 1,029,000.00 |
| Owner: | Brick Township Board of Education<br>101 Hendrickson Avenue<br>Brick, New Jersey 08724-2599 |
| Phone | 732-785-3000 |
| Facilities Manager | Thomas C. Liming, CEFM<br>346 Chamber Bridge Road<br>Brick, NJ 08723 |
| E-mail | tliming@brickschools.org |
| Phone | 732-921-9594 |
| Fax | 732-477-8228 |
| Assistant Fac. Manage | Roger Readel<br>346 Chamber Bridge Road<br>Brick, NJ 08723 |
| E-mail | rreadel@brickschools.org |
| Phone | 732-773-0248 |
| Fax | 732-477-8228 |
| Architect: | Di Cara \| Rubino Architects<br>30 Galesi Drive |

| | |
|---|---|
| | Wayne, NJ 07470 |
| | Robert M. Lamello, AIA |
| E-mail | biamello@dicararubino.com |
| Phone | 973-256-0202 |
| Fax | 973-256-0227 |
| Cell | 732-245-5404 |
| | |
| DRA Project # | 2707 |
| | |
| Engineer: | Johnson & Urban, LLC |
| | Consulting Engineers |
| | 295 State Route 34 |
| | Colts Neck, NJ 07722 |
| | David J. Waldron, PE |
| E-mail | dwaldron@johnsonurban.com |
| Phone | 732-772-1500 |
| Fax | 732-772-1515 |
| Cell | 732-856-0031 |
| | |
| Contractor | Electri-Tech Inc. |
| | 82 Tuckahoe Road |
| | Dorothy, NJ 08317 |
| Phone | 609-476-0822 |
| Fax | 609-476-0663 |
| | |
| Project Manager | Bill Blystone |
| Phone | 609-476-0822 |
| E-mail | bblystone@electritechinc.net |
| | |
| Field Foreman | Michael Bootie |
| Cell Phone | 609-667-8222 |
| E-mail | mbootie@electritechinc.net |

## BRICK TOWNSHIP SCHOOL DISTRICT FIRE ALARM

| HIGH SCHOOL | | | | | ADD DEVICES |
|---|---|---|---|---|---|
| **TOTALS** | | | | COUNTS | NOTE 6 |
| PULL STATION | | | | 69 | 5 |
| WP PULL STATION | | | | 6 | |
| SPEAKER/STROBE | | | | 161 | 5 |
| WP SPEAKER/STROBE | | | | 20 | |
| SPEAKER | | | | 0 | |
| STROBE | | | | 40 | 5 |
| STI STOPPER II | | | | 52 | |
| WP STI STOPPER II | | | | 6 | |
| COMB. SMOKE/HEAT | | | | 0 | |
| SMOKE DETECTOR | | | | 111 | 5 |
| HEAT DETECTOR | | | | 335 | 5 |
| HEAT RATE OF RISE | | | | 0 | |
| HEAT RATE OF RISE ABOVE CEIL | | | | 275 | |
| HEAT FIXED HIGH TEMP | | | | 19 | 5 |
| DUCT DETECTOR | | | | 0 | 2 |
| REMOTE TEST SWITCH W/LED | | | | 0 | 2 |
| INTERPOSING RELAY | | | | 0 | 2 |
| ANNUNCIATOR PANEL | | | | 1 | |
| DOOR HOLDER | | | | 0 | |
| NAC PANELS | | | | 5 | |
| FACP | | | | 1 | |
| ADDRESS MODULE | | | | 1 | |
| ADDRESS CONTROL MODULE | | | | 0 | 6 |
| TAMPER SWITCH (ADDRESS MODULE) | | | | 5 | 3 |
| FLOW SWITCH (ADDRESS MODULE) | | | | | |
| **TOTALS** | | | | **1107** | 45 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

NOTIFIER by Honeywell

# System Power Requirements

**Notifier NFS2-3030 Fire Alarm Control Panel**

| | | | | | |
|---|---|---|---|---|---|
| Protected Premises: | Brick Township High School | | | Date: | 1/6/2015 |
| Address: | 346 Chambers Bridge Road | | | | |
| City: | Brick | State: | NJ | Zip: | 08723 |
| Prepared By: | Allied Fire & Safety Equipment Co., Inc. | | | Phone: | (732) 922-3399 |
| Address: | 517 Green Grove Road | | | Email: | info@alliedfiresafety.com |
| City: | Neptune | State: | NJ | Zip: | 07754 |

## AC Branch Current Requirements

**4.50** AMPS @ 120 VAC

Current required by source to power the fire alarm system.

## Primary Standby Load

**0.84** Amps

Current load on the primary power supply during **non-alarm** conditions.

## Primary Alarm Load

**1.12** Amps

Current load on the primary power supply during **alarm** conditions.

## Secondary Load Requirements

**24.22** Amp Hours

Total Secondary Load from the calculation table below.

| Current Draw | | Time (hours) | Total (AH) |
|---|---|---|---|
| **Secondary Standby Load** 0.837 A | x | Required Standby Time 24 hours | 20.09 |
| **Secondary Alarm Load** 1.122 A | x | Required Alarm Time 0.084 hours | 0.09 |
| | | Total Secondary Load | 20.18 |
| | | Derating factor | x 1.2 |
| | | **Secondary Load Requirements** | **24.22** |

## Battery Selection

**26** Amp Hours

Select batteries from the list below.

26 AH BAT-12260 Battery (12 volt)

☑ Two ☐ Four (two 12VDC sets in parallel)

NOTIFIER by Honeywell

# Device Current Draw

## NFS2-3030 Fire Alarm Control Panel

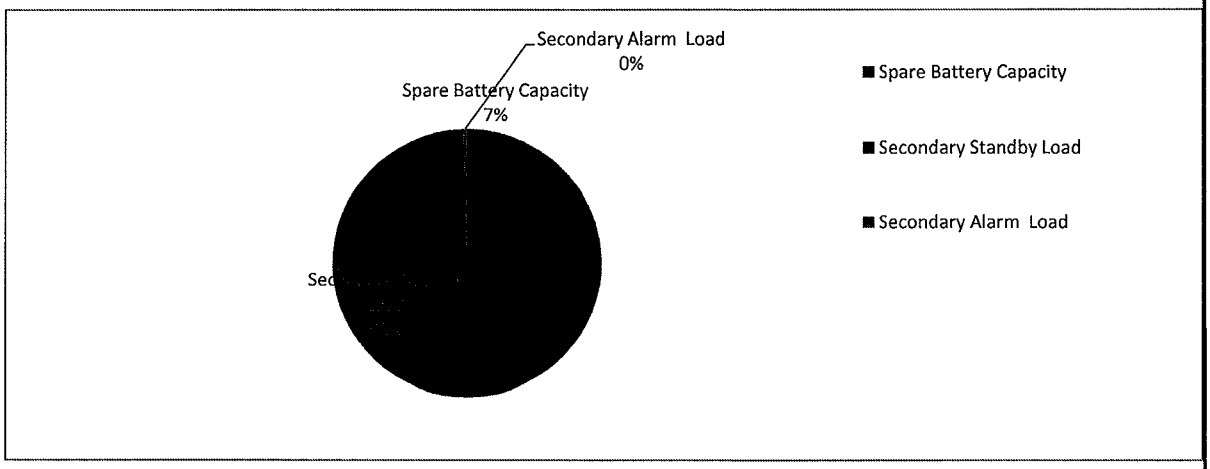
Quantity x [device current draw] = total current draw per device (in amps)

| Part Number | Qty | Primary Non-Alarm | Primary Alarm | Secondary Non-Alarm |
|---|---|---|---|---|
| CPU2-3030 | 1 | x [0.12000] = 0.12000 | x [0.12000] = 0.12000 | x [0.12000] = 0.12000 |
| LCM-320 | 3 | x [0.13000] = 0.39000 | x [0.13000] = 0.39000 | x [0.13000] = 0.39000 |
| LEM-320 | 2 | x [0.10000] = 0.20000 | x [0.10000] = 0.20000 | x [0.10000] = 0.20000 |
| LCD-160 | 1 | x [0.07500] = 0.07500 | x [0.32500] = 0.32500 | x [0.07500] = 0.07500 |
| UDACT-2 Communicator | 1 | x [0.05200] = 0.05200 | x [0.08700] = 0.08700 | x [0.05200] = 0.05200 |
| SLC Loop Device Activation Current | 5 | x [0.00000] = 0.00000 | x [0.20000] = 1.00000 | x [0.00000] = 0.00000 |
| | | | | |
| **Total (Amperes):** | | **0.8370 A** | **1.1220 A** | **0.8370 A** |

| Part Number | Qty | Secondary Alarm |
|---|---|---|
| Total Primary Alarm Load - C2 | 1 | x [1.12200] = 1.12200 |
| | | |
| **Total (Amperes):** | | **1.1220 A** |

## Battery Distribution Chart

Shows amp-hour distribution of your selections.




## Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (26AH) are within the charger range of this power supply (7-26AH).

| | | |
|---|---|---|
| Spare Battery Capacity | 1.78 | Battery Selection (AH) - Secondary Load Requirements (AH) |
| Secondary Standby Load | 24.11 | Secondary Standby Load (AH) * Derating Factor |
| Secondary Alarm Load | 0.11 | Secondary Alarm Load (AH) * Derating Factor |

NOTIFIER by Honeywell

# System Power Requirements

**FCPS-24s8 Power Supply**

| | | | |
|---|---|---|---|
| Protected Premises: | Brick Schools - Typical NAC Remote Panel | | Date: 1/7/2015 |
| Address: | | | |
| City: | Brick | State: New Jersey | Zip: 08723 |

| | | | |
|---|---|---|---|
| Prepared By: | Allied Fire & Safety Equipment Co., Inc. | | Phone: |
| Address: | 517 Green Grove Road | Email: | info@alliedfiresafety.com |
| City: | Neptune | State: New Jersey | Zip: 07754 |

## AC Branch Current Requirements

3.20 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

## Primary Standby Load

0.09 Amps

Current load on the primary power supply during **non-alarm** conditions.

## Primary Alarm Load

7.26 Amps

Current load on the primary power supply during **alarm** conditions.

## Secondary Load Requirements

2.60 Amp Hours

Total Secondary Load from the calculation table below.

| Current Draw | | Time (hours) | Total (AH) |
|---|---|---|---|
| **Secondary Standby Load** 0.065 A | x | Required Standby Time 24 hours | 1.56 |
| **Secondary Alarm Load** 7.258 A | x | Required Alarm Time (hours) 0.084 hours | 0.61 |
| | | Total Secondary Load | 2.17 |
| | | Derating factor | x 1.2 |
| | | **Secondary Load Requirements** | **2.60** AH |

## Battery Selection

7 Amp Hours

Select batteries from the list below.

7 AH BAT-1270 Battery (12 volt)

☑ Two ☐ Four (two 12VDC sets in parallel)

NOTIFIER by Honeywell

# Device Current Draw

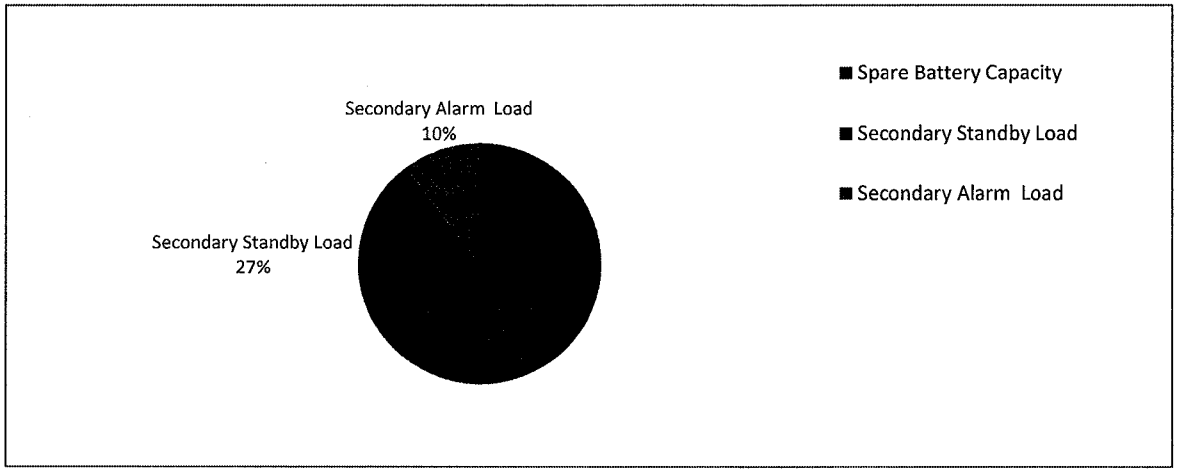
## FCPS-24s8 Power Supply

Quantity x [device current draw] = total current draw per device (in amps

| Part Number | Qty | Primary Non-Alarm | Primary Alarm | Secondary Non-Alarm |
|---|---|---|---|---|
| FCPS-24S8 Main Circuit Board | 1 | x [0.09100] = 0.09100 | x [0.14500] = 0.14500 | x [0.06500] = 0.06500 |
| P2R75 | 9 | x [0.00000] = 0.00000 | x [0.17600] = 1.58400 | x [0.00000] = 0.00000 |
| P2R30 | 40 | x [0.00000] = 0.00000 | x [0.11600] = 4.64000 | x [0.00000] = 0.00000 |
| SR15 | 10 | x [0.00000] = 0.00000 | x [0.06600] = 0.66000 | x [0.00000] = 0.00000 |
| P2RK115 | 1 | x [0.00000] = 0.00000 | x [0.22900] = 0.22900 | x [0.00000] = 0.00000 |
| | | | | |
| **Total (Amperes):** | | **0.0910 A** | **7.2580 A** | **0.0650 A** |

## Battery Distribution Chart

Shows amp-hour distribution of your selections.




## Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (7AH) are within the charger range of this power supply (7-18AH).

| | | |
|---|---|---|
| Spare Battery Capacity | 4.40 | Battery Selection (AH) - Secondary Load Requirements (AH) |
| Secondary Standby Load | 1.87 | Secondary Standby Load (AH) * Derating Factor |
| Secondary Alarm Load | 0.73 | Secondary Alarm Load (AH) * Derating Factor |

# Voltage Drop Analysis



**FCPS-24S8 Notification Appliance Circuit**

**Source Voltage: 20.40 VDC Low Battery**

**Protected Premises:** Brick Township Schools Typical NAC Power Supply **Date:** 1-7-2015

**Address:** 101 Hendrickson Avenue **City:** Brick

**State:** New Jersey **Zip:** 08724 **Note:** Remote NAC Power Supply Voltage Drop

**Prepared By:** Allied Fire and Safety Equipment Co., Inc **Phone:** (732) 922-3399

**Address:** 517 Green Grove Road **City:** Neptune

**State:** NJ **Zip:** 07754

| Device # | PartNumber | Current (amps) | Distance (Feet) | | Circuit Voltage @ Each Device | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Between | Total | | | 14 AWG | | |
| 1 | P2R1575 | 0.1000 | 50 | 50 | | | 19.94 | | |
| 2 | P2R1575 | 0.1000 | 50 | 100 | | | 19.51 | | |
| 3 | P2R1575 | 0.1000 | 50 | 150 | | | 19.11 | | |
| 4 | P2R1575 | 0.1000 | 50 | 200 | | | 18.74 | | |
| 5 | P2R1575 | 0.1000 | 50 | 250 | | | 18.40 | | |
| 6 | P2R1575 | 0.1000 | 50 | 300 | | | 18.10 | | |
| 7 | P2R1575 | 0.1000 | 50 | 350 | | | 17.82 | | |
| 8 | P2R1575 | 0.1000 | 50 | 400 | | | 17.58 | | |
| 9 | P2R1575 | 0.1000 | 50 | 450 | | | 17.36 | | |
| 10 | P2R1575 | 0.1000 | 50 | 500 | | | 17.18 | | |
| 11 | P2R1575 | 0.1000 | 50 | 550 | | | 17.02 | | |
| 12 | P2R1575 | 0.1000 | 50 | 600 | | | 16.90 | | |
| 13 | P2R1575 | 0.1000 | 50 | 650 | | | 16.81 | | |
| 14 | P2R1575 | 0.1000 | 50 | 700 | | | 16.75 | | |
| 15 | P2R1575 | 0.1000 | 50 | 750 | | | 16.72 | | |
| | **Total Current:** | **1.5000** | **% Voltage Drop:** | | | | **18.06** | | |
| | | | | | | | **Go** | | |

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

**These calculations assume a worst-case source voltage as measured by UL with the batteries depleted to 20.4 volts. Under AC power and for most of the drain cycle of the batteries, the circuit voltages will be substantially higher and thus, would support a greater number of devices. A device's minimum operating voltage is derived from the UL-requirement that it operate within a Regulated Voltage Range (16VDC - 33VDC).**

# Voltage Drop Analysis

**Notification Appliances - NAC #2**

**FCPS-24S8 Notification Appliance Circuit**

**Source Voltage: 20.40 VDC Low Battery**

**Protected Premises:** Brick Township Schools - Typical NAC Power Supply **Date:** 1-7-2015

**Address:** 101 Hendrickson Avenue **City:** Brick

**State:** New Jersey **Zip:** 08724 **Note:** Remote NAC Power Supply Voltage Drop

**Prepared By:** Allied Fire and Safety Equipment Co., Inc **Phone:** (732) 922-3399

**Address:** 517 Green Grove Road **City:** Neptune

**State:** NJ **Zip:** 07754

| Device # | PartNumber | Current (amps) | Distance (Feet) | | Circuit Voltage @ Each Device | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Between | Total | | | 14 AWG | | |
| 1 | P2R1575 | 0.1000 | 50 | 50 | | | 19.94 | | |
| 2 | P2R1575 | 0.1000 | 50 | 100 | | | 19.51 | | |
| 3 | P2R1575 | 0.1000 | 50 | 150 | | | 19.11 | | |
| 4 | P2R1575 | 0.1000 | 50 | 200 | | | 18.74 | | |
| 5 | P2R1575 | 0.1000 | 50 | 250 | | | 18.40 | | |
| 6 | P2R1575 | 0.1000 | 50 | 300 | | | 18.10 | | |
| 7 | P2R1575 | 0.1000 | 50 | 350 | | | 17.82 | | |
| 8 | P2R1575 | 0.1000 | 50 | 400 | | | 17.58 | | |
| 9 | P2R1575 | 0.1000 | 50 | 450 | | | 17.36 | | |
| 10 | P2R1575 | 0.1000 | 50 | 500 | | | 17.18 | | |
| 11 | P2R1575 | 0.1000 | 50 | 550 | | | 17.02 | | |
| 12 | P2R1575 | 0.1000 | 50 | 600 | | | 16.90 | | |
| 13 | P2R1575 | 0.1000 | 50 | 650 | | | 16.81 | | |
| 14 | P2R1575 | 0.1000 | 50 | 700 | | | 16.75 | | |
| 15 | P2R1575 | 0.1000 | 50 | 750 | | | 16.72 | | |
| | **Total Current:** | **1.5000** | **% Voltage Drop:** | | | | **18.06** | | |
| | | | | | | | **Go** | | |

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

**These calculations assume a worst-case source voltage as measured by UL with the batteries depleted to 20.4 volts. Under AC power and for most of the drain cycle of the batteries, the circuit voltages will be substantially higher and thus, would support a greater number of devices. A device's minimum operating voltage is derived from the UL-requirement that it operate within a Regulated Voltage Range (16VDC - 33VDC).**

# Voltage Drop Analysis



**FCPS-24S8 Notification Appliance Circuit**

**Source Voltage: 20.40 VDC Low Battery**

**Protected Premises:** Brick Township Schools Typical NAC Power Supply **Date:** 1-7-2015

**Address:** 101 Hendrickson Avenue **City:** Brick

**State:** New Jersey **Zip:** 08724 **Note:** Remote NAC Power Supply Voltage Drop

**Prepared By:** Allied Fire and Safety Equipment Co., Inc **Phone:** (732) 922-3399

**Address:** 517 Green Grove Road **City:** Neptune

**State:** NJ **Zip:** 07754

| Device # | PartNumber | Current (amps) | Distance (Feet) | | Circuit Voltage @ Each Device | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Between | Total | | | 14 AWG | | |
| 1 | P2R1575 | 0.1000 | 50 | 50 | | | 19.94 | | |
| 2 | P2R1575 | 0.1000 | 50 | 100 | | | 19.51 | | |
| 3 | P2R1575 | 0.1000 | 50 | 150 | | | 19.11 | | |
| 4 | P2R1575 | 0.1000 | 50 | 200 | | | 18.74 | | |
| 5 | P2R1575 | 0.1000 | 50 | 250 | | | 18.40 | | |
| 6 | P2R1575 | 0.1000 | 50 | 300 | | | 18.10 | | |
| 7 | P2R1575 | 0.1000 | 50 | 350 | | | 17.82 | | |
| 8 | P2R1575 | 0.1000 | 50 | 400 | | | 17.58 | | |
| 9 | P2R1575 | 0.1000 | 50 | 450 | | | 17.36 | | |
| 10 | P2R1575 | 0.1000 | 50 | 500 | | | 17.18 | | |
| 11 | P2R1575 | 0.1000 | 50 | 550 | | | 17.02 | | |
| 12 | P2R1575 | 0.1000 | 50 | 600 | | | 16.90 | | |
| 13 | P2R1575 | 0.1000 | 50 | 650 | | | 16.81 | | |
| 14 | P2R1575 | 0.1000 | 50 | 700 | | | 16.75 | | |
| 15 | P2R1575 | 0.1000 | 50 | 750 | | | 16.72 | | |
| | **Total Current:** | **1.5000** | **% Voltage Drop:** | | | | **18.06** | | |
| | | | | | | | **Go** | | |

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

**These calculations assume a worst-case source voltage as measured by UL with the batteries depleted to 20.4 volts. Under AC power and for most of the drain cycle of the batteries, the circuit voltages will be substantially higher and thus, would support a greater number of devices. A device's minimum operating voltage is derived from the UL-requirement that it operate within a Regulated Voltage Range (16VDC - 33VDC).**

# Voltage Drop Analysis

**Notification Appliances - NAC #4**

**FCPS-24S8 Notification Appliance Circuit**

**Source Voltage: 24 VDC Nominal**

**Protected Premises:** Brick Township Schools Typical NAC Power Supply **Date:** 1-7-2015

**Address:** 101 Hendrickson Avenue **City:** Brick

**State:** New Jersey **Zip:** 08724 **Note:** Remote NAC Power Supply Voltage Drop

**Prepared By:** Allied Fire and Safety Equipment Co., Inc **Phone:** (732) 922-3399

**Address:** 517 Green Grove Road **City:** Neptune

**State:** NJ **Zip:** 07754

| Device # | PartNumber | Current (amps) | Distance (Feet) | | Circuit Voltage @ Each Device | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Between | Total | | | 14 AWG | | |
| 1 | P2R1575 | 0.1000 | 50 | 50 | | | 23.54 | | |
| 2 | P2R1575 | 0.1000 | 50 | 100 | | | 23.11 | | |
| 3 | P2R1575 | 0.1000 | 50 | 150 | | | 22.71 | | |
| 4 | P2R1575 | 0.1000 | 50 | 200 | | | 22.34 | | |
| 5 | P2R1575 | 0.1000 | 50 | 250 | | | 22.00 | | |
| 6 | P2R1575 | 0.1000 | 50 | 300 | | | 21.70 | | |
| 7 | P2R1575 | 0.1000 | 50 | 350 | | | 21.42 | | |
| 8 | P2R1575 | 0.1000 | 50 | 400 | | | 21.18 | | |
| 9 | P2R1575 | 0.1000 | 50 | 450 | | | 20.96 | | |
| 10 | P2R1575 | 0.1000 | 50 | 500 | | | 20.78 | | |
| 11 | P2R1575 | 0.1000 | 50 | 550 | | | 20.62 | | |
| 12 | P2R1575 | 0.1000 | 50 | 600 | | | 20.50 | | |
| 13 | P2R1575 | 0.1000 | 50 | 650 | | | 20.41 | | |
| 14 | P2R1575 | 0.1000 | 50 | 700 | | | 20.35 | | |
| 15 | P2R1575 | 0.1000 | 50 | 750 | | | 20.32 | | |
| | **Total Current:** | **1.5000** | **% Voltage Drop:** | | | | **15.35** | | |
| | | | | | | | **Go** | | |

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

## CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

A. ( ) I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

B. ( ) I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)1.vii:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

C. ( ) I further certify that I will perform or supervise the following work:
C.1. ( ) Building C.2. ( ) Fire Protection

I further certify that I will perform the following work:
C.3. ( ) Electrical C.4. ( ) Plumbing

D. ( ) I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:32-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

( ) Check if contractor.

Agent Name Electri-Tech Inc.

Address 82 Tuckahoe Road

Dorothy, N.J 08317

Telephone (609) 476-0822

Signature _____

III. ( ) LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:17.