

BLOCK C46 LOT 41 QUALIFICATION CODE _____ ADDRESS (SITE) _____ PERMIT NO. 15-0341



CONSTRUCTION PERMIT APPLICATION

C15-000150

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

I. IDENTIFICATION

1. Proposed Work Site at: Osbornville E.S., 218 Drum Point Rd, 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 ☒ 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 <u>1</u>	
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)

- ☐ Building
- ☐ Electrical
- ☐ Plumbing
- ☐ Fire Protection
- ☐ Elevator

FOR OFFICE USE ONLY (Optional)

Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates	Re-viewer
	<u>9/15/15</u>	<u>1/15/15</u>		<u>2/6/15</u>	<u>TS</u>		
				<u>1/24/15</u>	<u>MTU</u>		

TOTAL COST \$0

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

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 Present: Select Group

C. MIXED USE -List secondary use(s):

- D. Construct. Classification: Present _____ Proposed _____



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 12/15/2015
Control Number C-15-000150
Permit Number 15-0341
Permit Issue Date 2/9/2015
Certificate Number 15-0341

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 216 DRUM POINT RD. Brick Township, NJ Block: 646 Lot: 41 Qual: _____
Owner in Fee: BRICK TOWNSHIP BOARD OF EDUCATION
Owner Address: CHAMBERS BRIDGE RD 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:

Construction Official

Date Printed: 12/15/2015

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

Fee: \$0.00

Check Number: _____

Collected By: _____

Page 1

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(f)1.ix:

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, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

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. 5:23-2.15(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, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

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.

Telephone 609-476-0822

Signature [Signature]

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:23-2.15(b)4.

- IV. ☐ HOME ELEVATION: Include Home Elevation Contractor Certification as per N.J.S.A. 52:27D-123.16.



FIRE PROTECTION SUBCODE TECHNICAL SECTION



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

Block C4C Lot 41 Qualification Code _____

Work Site Location Oshonville Elementary School

218 Down Point Road, Brick, NJ 08723

Owner in Fee: Brick Township Public Schools

Tel. 732 921 9554 e-mail tlmings@brickschools.org

Address 346 Chambers Bridge Road, Brick, NJ 08723

Contractor: Electric Tech Inc Tel. 609 476 0822

Address 82 Tuckahoe Rd, Denville, NJ e-mail bllystone@electrictechinc.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. 23-3245424 FAX: 609 476-0822

B. FIRE PROTECTION CHARACTERISTICS

Use Group: Present _____ Proposed _____ Fuel Storage Tank: _____

Constr. Class: Present _____ Proposed _____ Fuel Type: [] Flammable or [] Combustible

Heating System: [] New or [] Modification to Existing Fire Alarm System: [] New or [] Existing

OR [] Conversion or [] Replacement Location of Panel: Main Office

Fuel Type: [] Gas [] Oil [] Electric [] Solar Fire Suppression/Standpipe System: _____

[] Other _____ Location of Main Control Valve: _____

Location: _____

Total Cost of Fire Protection Work \$ 120,000.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW INSPECTIONS

[] No Plans Required Type: _____ Failure _____ Approval _____ Initial _____

[] Partial -Underslab Utilities Approved Alarm System _____

Date: _____ Approved by: _____ Suppression Sys. _____

[] Fire Protection Plans Approved Standpipe _____

Date: _____ Approved by: _____ Fire Pump _____

Joint Plan Review Required: _____ Pre-Eng. System _____

[] Bldg. [] Elec. [] Plumb. [] Elev. Mechanical _____

SUBCODE APPROVAL for PERMIT Smoke Control _____

Date: _____ TCO _____

Approved by: _____ Flammable/Combust Tanks _____

SUBCODE APPROVAL for CERTIFICATE Fireplace Venting _____

[] CO [] CCO _____ Final _____

Date: _____ Other _____

Approved by: _____

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: _____

Print name here: _____

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

Water Supply Source _____

Method of Alarm/Suppression System Supervision _____

Date Received Control #

Date Issued Permit #

15-0341

2/9/15

NUMBER FEE (Office Use Only)

Flammable/Combustible Tanks _____ \$ _____

Alarm Systems _____

[] System _____

[] 110v Interconnected _____

[] CO Detectors/110v _____

Alarm Devices (i.e., smoke, heat, pulls, waterflow) _____

Supervisory Devices (i.e., tampers, low/high air) _____

Signaling Devices (i.e., horn/strobes, bells) _____

Other Devices Door Holder _____

TOTAL _____

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 _____

CO₂ 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 \$



ELECTRICAL SUBCODE



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

Block 646 Lot 41 Qualification Code _____
Work Site Location Osbornville Elementary School
218 Drum Point Road, Brick, NJ 08723

Owner in Fee: Brick Township Public School

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

Address 346 Chambers Bridge Road Brick, NJ 08723

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

Address 82 Tuckahoe Road e-mail bbastore@electritechinc.net

Dorothy, NJ 08317-9703 Exp. Date 03/31/2015

Contractor License No. 34EB01233500

Home Improvement Contractor Registration No. or Exemption Reason

Federal Emp. ID No. 22-324542 FAX: 609 476 0822

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____

☐ Pole/Pad # _____ ☐ Temporary ☐ Other _____

Building Occupied as _____ Utility Co. _____

Est. Cost of Elec. Work \$ 120,000

JOB SUMMARY (Office Use Only)

PLAN REVIEW	INSPECTIONS	Dates (Month/Day)
☐ No Plans Required	Type:	Failure Failure Approval Initial
☐ Partial-Under-slab Utilities Approved	Rough	
Date: _____ Approved by: _____	Barrier-Free	
☒ Electric Plans Approved	Trench	
Date: <u>2/26/15</u> Approved by: <u>[Signature]</u>	Temp. Serv.	
Joint Plan Review Required:	Const. Serv.	
☐ Bldg. ☐ Plumb. ☐ Fire. ☐ Elev.	TCO	
SUBCODE APPROVAL FOR PERMIT	Other	
Date: <u>2/26/15</u>	Service	
Approved by: <u>[Signature]</u>	Barrier-Free	
SUBCODE APPROVAL FOR CERTIFICATE	Temp. Cut-In-Card Date Issued	
☐ CO ☐ CCO ☐ CA	Final Cut-In-Card Date Issued	
Date: <u>2/26/15</u>	Annual Pool Inspection	
Approved by: <u>[Signature]</u>	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: [Signature]

Print name here: Bill Blystone

☒ Licensed Elec. Contractor ☐ Certifd Landscape Irrigation Contr ☐ Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:	QTY.	SIZE	ITEMS	FEE (Office Use Only)
Fire Alarm Replacement			Lighting Fixtures	
			Receptacles	
			Switches	
			Detectors	
			Light Poles	
			Motors—Fract. HP	
			Emergency & Exit Lights	
			Communications Points	
			Alarm Devices/F.A.C. Panel	
			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 \$	_____

- ① doors - ^{Hardware remove} (4) - 2 annunciators
- 2 blue
- 2 library
- ② stickers - 2 sheets for release
- ③ additional smoke
mid level basement
- ④ (2) cages in gym
- ⑤ keys for Knox
- ⑥ fire report / AS builds
- ⑦ Strobe only capable
- ⑧ program centered station

↑ (F) tech



CONSTRUCTION PERMIT

Date Issued 2/9/2015
Control # C-15-000150
Permit # 15-0341

IDENTIFICATION Block: 646 Lot: 41 Qualifier _____
Work Site Location: 216 DRUM POINT RD. Brick Township, NJ Contractor: Electri-Tech Inc.
Address: 82 Tuckahoe Road Dorothy NJ 08317
Owner in Fee: BRICK TOWNSHIP BOARD OF EDUCATION
CHAMBERS BRIDGE RD BRICK NJ 08723 Telephone: (609) 476-0822
Telephone: (732) 921-9594 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 construction 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 \$240,000

Construction Official _____

Date _____

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

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

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	\$0
Other	\$0
Total	\$0
Check No.	
Cash	\$0
Credit	\$0
Collected By	

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.

Date 11/24/14

Project # 2014-102

Project Name: Fire Alarm Replacement at
Brick Township High School
Drum Point Elementary School
Emma Havens Young Elem. School
Herbertsville Elementary School
Osbornville Elementary School
Veterans Memorial Elem. School

Contract Amount: \$ 1,029,000.00

Owner: Brick Township Board of Education
101 Hendrickson Avenue
Brick, New Jersey 08724-2599

Phone 732-785-3000

Facilities Manager Thomas C. Liming, CEFM
346 Chamber Bridge Road
Brick, NJ 08723

E-mail tliming@brickschools.org

Phone 732-921-9594

Fax 732-477-8228

Assistant Fac. Manage Roger Readel

346 Chamber Bridge Road
Brick, NJ 08723

E-mail rreadel@brickschools.org

Phone 732-773-0248

Fax 732-477-8228

Architect: Di Cara | Rubino Architects
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

OSBORNVILLE					ADD DEVICES
TOTALS				COUNTS	NOTE 6
PULL STATION				19	5
WP PULL STATION				0	
SPEAKER/STROBE				47	5
WP SPEAKER/STROBE				3	
SPEAKER				0	
STROBE				13	5
STI STOPPER II				13	
WP STI STOPPER II				0	
COMB. SMOKE/HEAT				0	
SMOKE DETECTOR				35	5
HEAT DETECTOR				79	5
HEAT RATE OF RISE				0	
HEAT RATE OF RISE ABOVE CEIL				50	
HEAT FIXED HIGH TEMP				4	5
DUCT DETECTOR				0	2
REMOTE TEST SWITCH W/LED				0	2
INTERPOSING RELAY				0	2
ANNUNCIATOR PANEL				2	
DOOR HOLDER				10	
NAC PANELS				0	
FACP				1	
ADDRESS MODULE				0	
ADDRESS CONTROL MODULE				0	6
TAMPER SWITCH (ADDRESS MODULE)				0	3
FLOW SWITCH (ADDRESS MODULE)				0	
TOTALS				276	45



System Power Requirements

Notifier NFS2-3030 Fire Alarm Control Panel

Protected Premises:	Osbornville School	Date:	1/7/2015
Address:	218 Drum Point Road		
City:	Brick	State:	New Jersey
		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:	New Jersey
		Zip:	07754

AC Branch Current Requirements

4.50 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load

0.55 Amps

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

Primary Alarm Load

1.09 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements

16.01 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load	x	Required Standby Time	
0.552 A		24 hours	13.25
Secondary Alarm Load	x	Required Alarm Time	
1.087 A		0.084 hours	0.09
Total Secondary Load			13.34
Derating factor			x 1.2
Secondary Load Requirements			16.01

AH

Battery Selection

18 Amp Hours

Select batteries from the list below.

18 AH BAT-12180 Battery (12 volt)

☒ Two

☐ Four (two 12VDC sets in parallel)



Device Current Draw

NFS2-3030 Fire Alarm Control Panel

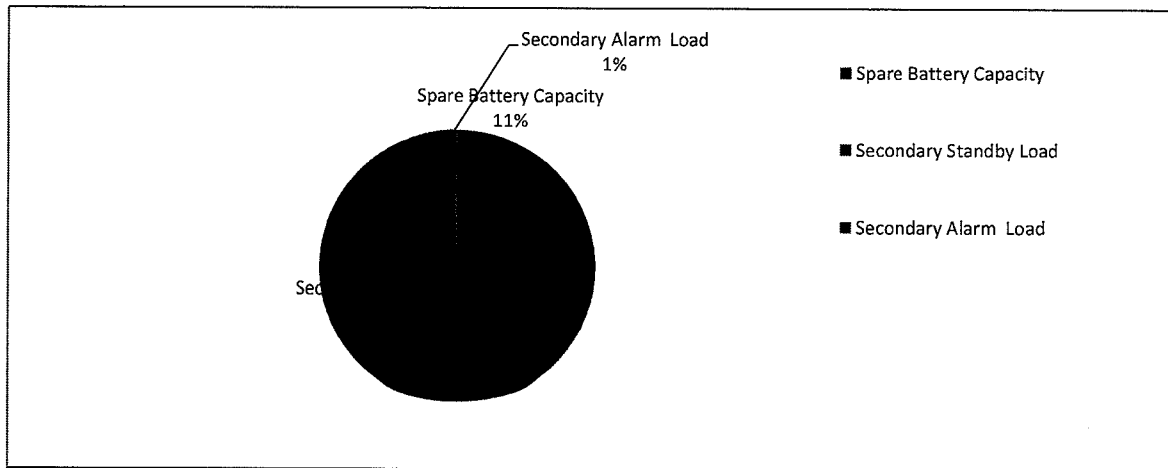
Quantity x [device current draw] = total current draw per device (in amperes)

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	1	x [0.13000] = 0.13000	x [0.13000] = 0.13000	x [0.13000] = 0.13000
LEM-320	1	x [0.10000] = 0.10000	x [0.10000] = 0.10000	x [0.10000] = 0.10000
LCD-160	2	x [0.07500] = 0.15000	x [0.32500] = 0.65000	x [0.07500] = 0.15000
UDACT-2 Communicator	1	x [0.05200] = 0.05200	x [0.08700] = 0.08700	x [0.05200] = 0.05200
SLC Loop Device Activation Current	2	x [0.00000] = 0.00000	x [0.20000] = 0.40000	x [0.00000] = 0.00000
Total (Amperes):		0.5520 A	1.0870 A	0.5520 A

Part Number	Qty	Secondary Alarm
Total Primary Alarm Load - C2	1	x [1.08700] = 1.08700
Total (Amperes):		1.0870 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 (18AH) are within the charger range of this power supply (12-60AH).

Spare Battery Capacity	1.99	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	15.90	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.11	Secondary Alarm Load (AH) * Derating Factor



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		Required Standby Time	
0.065 A	x	24 hours	1.56
Secondary Alarm Load		Required Alarm Time (hours)	
7.258 A	x	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)



Device Current Draw

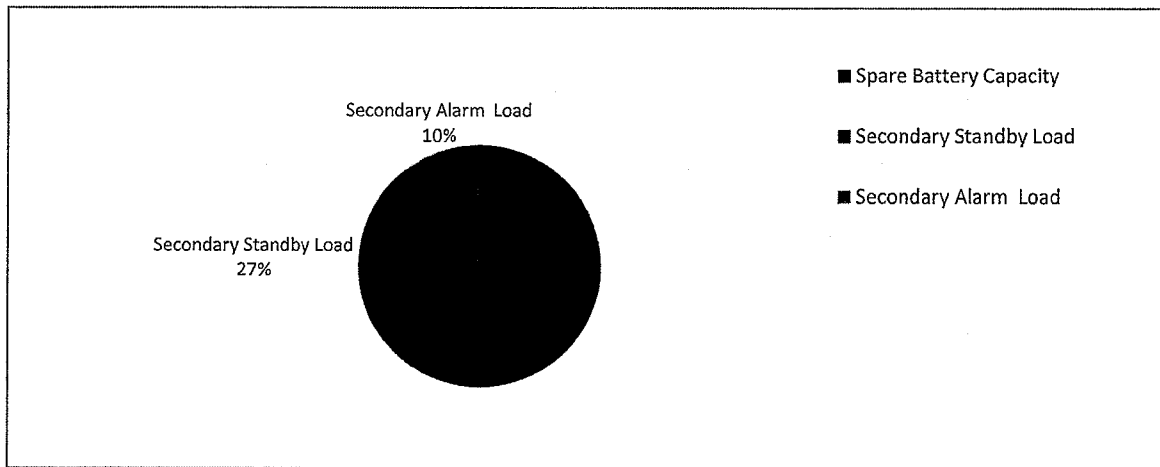
FCPS-24s8 Power Supply

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

Notification Appliances - NAC #1

FCPS-24S8 Notification Appliance Circuit

Source Voltage: 20.40 VDC Low Battery

Protected Premises: <u>Brick Township Schools Typical NAC Power Supply</u>					Date: <u>1-7-2015</u>				
Address: <u>101 Hendrickson Avenue</u>					City: <u>Brick</u>				
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>					Phone: <u>(732) 922-3399</u>				
Address: <u>517 Green Grove Road</u>					City: <u>Neptune</u>				
State: <u>NJ</u>			Zip: <u>07754</u>						

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: <u>Brick Township Schools - Typical NAC Power Supply</u>					Date: <u>1-7-2015</u>				
Address: <u>101 Hendrickson Avenue</u>					City: <u>Brick</u>				
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>					Phone: <u>(732) 922-3399</u>				
Address: <u>517 Green Grove Road</u>					City: <u>Neptune</u>				
State: <u>NJ</u>			Zip: <u>07754</u>						

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 #3

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: <u>Brick Township Schools Typical NAC Power Supply</u>					Date: <u>1-7-2015</u>				
Address: <u>101 Hendrickson Avenue</u>					City: <u>Brick</u>				
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>					Phone: <u>(732) 922-3399</u>				
Address: <u>517 Green Grove Road</u>					City: <u>Neptune</u>				
State: <u>NJ</u>			Zip: <u>07754</u>						

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.