

# LAKEWOOD STORAGE FIRE ALARM DRAWINGS

PROJECT

LAKEWOOD STORAGE  
4101 NE PORT DRIVE  
LEE’S SUMMIT, MO 64064

FIRE ALARM CONTRACTOR

FIRE & SECURITY SOLUTIONS GROUP, INC.  
11240 STRANG LINE ROAD  
LENEXA, KS 66215  
PH (913) 789-7160  
FX (913) 789-7169

ELECTRICAL/GENERAL CONTRACTOR

DG ELECTRIC  
6205 NW KELLY DR. STE. 1  
PARKVILLE, MO 64152  
PH (816) 584-2878

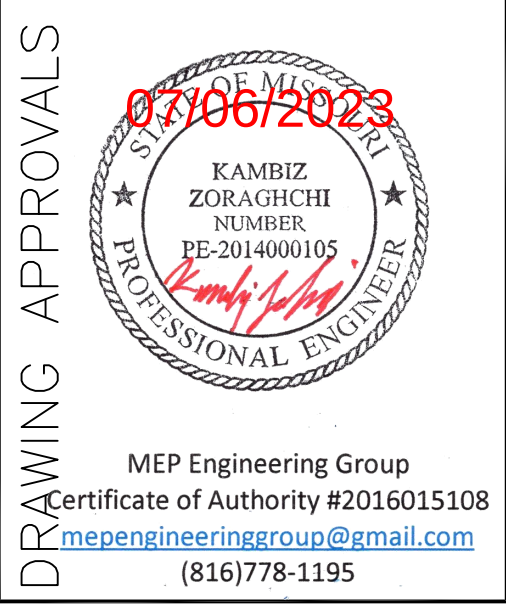
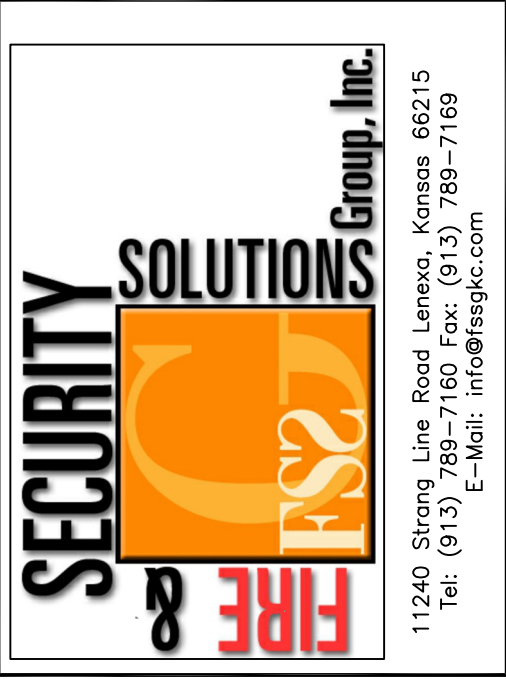


11240 STRANG LINE ROAD  
LENEXA, KS 66215

SALES: 913-789-7160 EXT.100  
SERVICE: 913-789-7160 EXT.102  
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| DRAWING INDEX |                                                                    |
|---------------|--------------------------------------------------------------------|
| SHEET #       | SHEET TITLE                                                        |
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| FA-102        | FIRE ALARM SECOND FLOOR PLAN                                       |
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|           |                                                                              |
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| PROJECT NO.               | REVISIONS |    |         |  | NOTE: |
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| SCALE: AS NOTED           |           |    |         |  |       |
| DRAWN BY:                 |           | AP | 6/25/23 |  |       |
| ENGINEER:                 |           |    |         |  |       |
| CHECK BY:                 |           | CF | 6/25/23 |  |       |
| DATE: 6/25/23             |           |    |         |  |       |
| CAD FILE:                 |           |    |         |  |       |
| DRAWING TITLE:            |           |    |         |  |       |
| FIRE ALARM<br>COVER SHEET |           |    |         |  |       |

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| DRAWING SHEET NO.<br><b>FA-COVER</b> |
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*Function of the FACP must be confirmed with the AHJ prior to programming FACP*

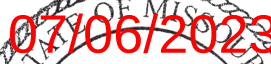
CUSTOMER:

PROJECT:  
LAKEWOOD STORAGE  
4101 NE PORT DRIVE  
LEE'S SUMMIT, MO 64064



## FIRST FLOOR FIRE ALARM PLAN

SCALE:  $3/32" = 1'-0"$



MEP Engineering Group  
 State of Authority #2016015108  
[engineeringgroup@gmail.com](mailto:engineeringgroup@gmail.com)  
 (816)778-1195

REVISIONS

SCALE: AS NOTED

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| DRAWN BY: | AP | 6/25/23 |
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| CHECK BY: | CE | 6/25/20 |

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| CHECK BT:     | CF | 6/25/23 |
| DATE: 6/25/23 |    |         |

DATE: 6/25/23

CAD FILE:

DRAWING TITLE:

FIRE ALARM

FIRST FLOOR PLAN,

SEQ. OF OPER., MTG. HTS. DTL

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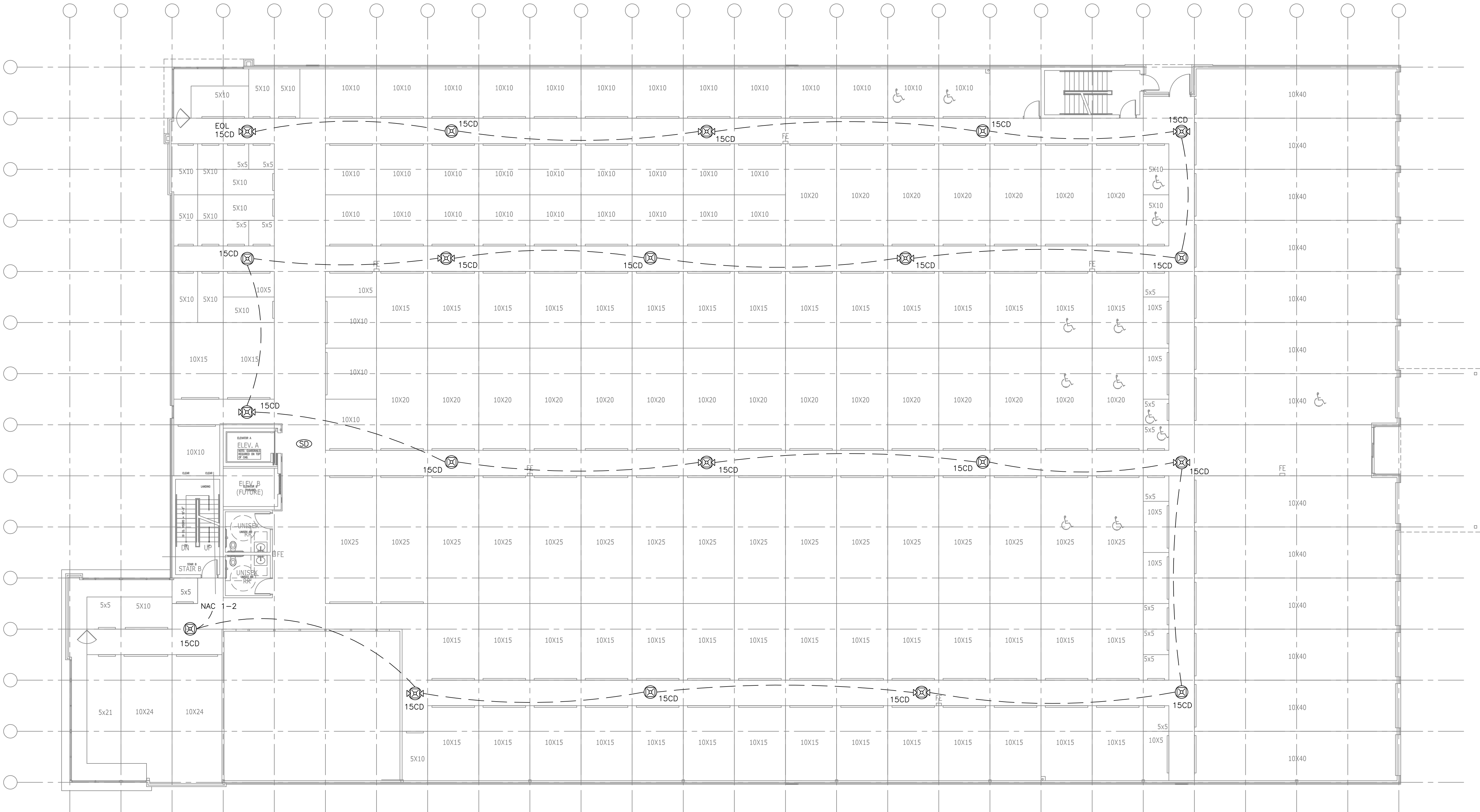
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DRAWING SHEET NO.

EA-101

PA-101





| FIRE ALARM SYMBOLS LEGEND |                                        |
|---------------------------|----------------------------------------|
|                           | FIRE ALARM/SECURITY CONTROL PANEL      |
|                           | FIRE ALARM STROBE                      |
|                           | FIRE ALARM HORN/STROBE                 |
|                           | MANUAL FIRE ALARM PULL STATION         |
|                           | AREA TYPE PHOTOELECTRIC SMOKE DETECTOR |
|                           | AREA TYPE PHOTOELECTRIC HEAT DETECTOR  |
|                           | TAMPER SWITCH                          |
|                           | FLOW SWITCH                            |

|           |                                                                             |
|-----------|-----------------------------------------------------------------------------|
| CUSTOMER: | PROJECT:<br>LAKEWOOD STORAGE<br>401 NE PORT DRIVE<br>LEE'S SUMMIT, MO 64084 |
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**SECURITY SOLUTIONS Group, Inc.**  
**FIRE & E2**

11240 Strong Line Road Lenexa, Kansas 66215  
Tel: (913) 526-7600  
E-Mail: info@ssgkc.com

DRAWING APPROVALS

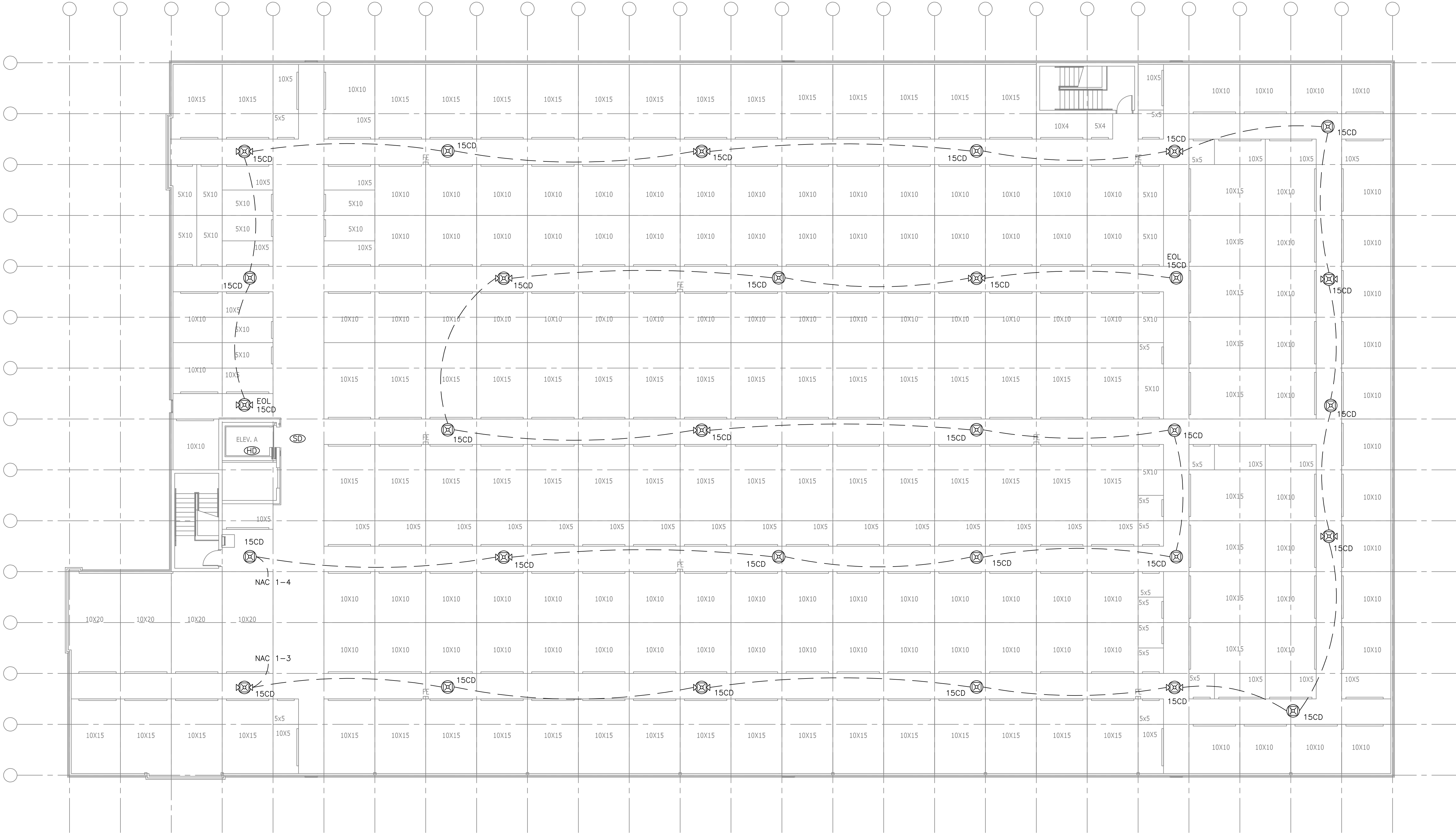
07/06/2023

KAMBIZ ZORAGHCHI  
NUMBER PE-2014000105  
PROFESSIONAL ENGINEER

MEP Engineering Group  
Certificate of Authority #2016015108  
mepengineeringgroup@gmail.com  
(816)778-1195

|                                 |           |    |         |  |       |
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| PROJECT NO.                     | REVISIONS |    |         |  | NOTE: |
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| ENGINEER:                       |           |    |         |  |       |
| CHECK BY:                       |           | CF | 6/25/23 |  |       |
| DATE: 6/25/23                   |           |    |         |  |       |
| CAD FILE:                       |           |    |         |  |       |
| DRAWING TITLE:                  |           |    |         |  |       |
| FIRE ALARM<br>SECOND FLOOR PLAN |           |    |         |  |       |





| FIRE ALARM SYMBOLS LEGEND |                                        |
|---------------------------|----------------------------------------|
|                           | FIRE ALARM/SECURITY CONTROL PANEL      |
|                           | FIRE ALARM STROBE                      |
|                           | FIRE ALARM HORN/STROBE                 |
|                           | MANUAL FIRE ALARM PULL STATION         |
|                           | AREA TYPE PHOTOELECTRIC SMOKE DETECTOR |
|                           | AREA TYPE PHOTOELECTRIC HEAT DETECTOR  |
|                           | TAMPER SWITCH                          |
|                           | FLOW SWITCH                            |

|           |                                                                              |
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| DRAWN BY:                      |           | AP | 6/25/23 |  |       |
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| CHECK BY:                      |           | CF | 6/25/23 |  |       |
| DATE: 6/25/23                  |           |    |         |  |       |
| CAD FILE:                      |           |    |         |  |       |
| DRAWING TITLE:                 |           |    |         |  |       |
| FIRE ALARM<br>THIRD FLOOR PLAN |           |    |         |  |       |

|                                    |
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| DRAWING SHEET NO.<br><b>FA-103</b> |
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POWER SOURCE

|              |              |       |              |              |              |                        |            |
|--------------|--------------|-------|--------------|--------------|--------------|------------------------|------------|
| Power Source | S3 - CLASS B | Brand | Gamewell-FCI | Model Number | S3 - CLASS B | Nominal System Voltage | 20.4 VOLTS |
|--------------|--------------|-------|--------------|--------------|--------------|------------------------|------------|

CIRCUIT 1

|              |            |         |     |            |                 |                   |
|--------------|------------|---------|-----|------------|-----------------|-------------------|
| NAC Circuit1 | 1,094 AMPS | CLASS B | AWG | 23 Devices | 1,094 AMPS USED | 3,64 VOLTAGE DROP |
|--------------|------------|---------|-----|------------|-----------------|-------------------|

| #  | Device Model | Candela | Pattern  | Volume | Tone              | CURRENT (AMPS) | Dist from prev device | Volt  |
|----|--------------|---------|----------|--------|-------------------|----------------|-----------------------|-------|
| 1  | PC2WL        | 30      | Temporal | Low    | Electromechanical | 0.071          | 25                    | 20.12 |
| 2  | SWL          | 15      |          |        |                   | 0.043          | 15                    | 19.97 |
| 3  | SWL          | 15      |          |        |                   | 0.043          | 10                    | 19.87 |
| 4  | SCWL         | 15      |          |        |                   | 0.041          | 10                    | 19.77 |
| 5  | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 10                    | 19.68 |
| 6  | SCWL         | 15      |          |        |                   | 0.041          | 15                    | 19.55 |
| 7  | SCWL         | 15      |          |        |                   | 0.041          | 15                    | 19.43 |
| 8  | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 50                    | 19.04 |
| 9  | SCWL         | 15      |          |        |                   | 0.041          | 50                    | 18.69 |
| 10 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 40                    | 18.42 |
| 11 | SCWL         | 15      |          |        |                   | 0.041          | 20                    | 18.29 |
| 12 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 50                    | 18    |
| 13 | SCWL         | 15      |          |        |                   | 0.041          | 40                    | 17.79 |
| 14 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 50                    | 17.55 |
| 15 | SCWL         | 15      |          |        |                   | 0.041          | 40                    | 17.38 |
| 16 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 50                    | 17.19 |
| 17 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 25                    | 17.1  |
| 18 | SCWL         | 15      |          |        |                   | 0.041          | 20                    | 17.05 |
| 19 | SCWL         | 15      |          |        |                   | 0.041          | 30                    | 16.98 |
| 20 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 50                    | 16.88 |
| 21 | SCWL         | 15      |          |        |                   | 0.041          | 50                    | 16.81 |
| 22 | PC2WL        | 15      | Temporal | Low    | Electromechanical | 0.054          | 40                    | 16.77 |
| 23 | SCWL         | 15      |          |        |                   | 0.041          | 30                    | 16.7  |

| Circuit 2     |              |            |          |        |                   |                 |                       |       |
|---------------|--------------|------------|----------|--------|-------------------|-----------------|-----------------------|-------|
| NAC Circuit 2 |              | 0.941 AMPs | CLASS B  | AWG    | 20 Devices        | 0.941 AMPs USED | 4.37 VOLTAGE DROP     |       |
| #             | Device Model | Candela    | Pattern  | Volume | Tone              | CURRENT (AMPS)  | Dist from prev device | Volts |
| 1             | SCWL         | 15         |          |        |                   | 0.041           | 45                    | 19.97 |
| 2             | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 40                    | 19.6  |
| 3             | SCWL         | 15         |          |        |                   | 0.041           | 45                    | 19.22 |
| 4             | SCWL         | 15         |          |        |                   | 0.041           | 45                    | 18.85 |
| 5             | SCWL         | 15         |          |        |                   | 0.041           | 40                    | 18.54 |
| 6             | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 45                    | 18.21 |
| 7             | SCWL         | 15         |          |        |                   | 0.041           | 40                    | 17.94 |
| 8             | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 45                    | 17.65 |
| 9             | SCWL         | 15         |          |        |                   | 0.041           | 50                    | 17.36 |
| 10            | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 45                    | 17.11 |
| 11            | SCWL         | 15         |          |        |                   | 0.041           | 45                    | 16.89 |
| 12            | PC2WL        | 15         | Temporal | High   | Electromechanical | 0.071           | 35                    | 16.74 |
| 13            | SCWL         | 15         |          |        |                   | 0.041           | 35                    | 16.61 |
| 14            | SCWL         | 15         |          |        |                   | 0.041           | 50                    | 16.44 |
| 15            | SCWL         | 15         |          |        |                   | 0.041           | 50                    | 16.3  |
| 16            | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 25                    | 16.24 |
| 17            | SCWL         | 15         |          |        |                   | 0.041           | 40                    | 16.16 |
| 18            | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 50                    | 16.08 |
| 19            | PC2WL        | 15         | Temporal | Low    | Electromechanical | 0.054           | 45                    | 16.04 |
| 20            | SCWL         | 15         |          |        |                   | 0.041           | 35                    | 16.03 |

| CIRCUIT 3    |              |            |          |         |                   |                |  |                       |  |                 |  |                   |  |
|--------------|--------------|------------|----------|---------|-------------------|----------------|--|-----------------------|--|-----------------|--|-------------------|--|
| NAC Circuit3 |              | 0.814 AMPS |          | CLASS B |                   | AWG            |  | 17 Devices            |  | 0.814 AMPS USED |  | 3.06 VOLTAGE DROP |  |
| #            | Device Model | Candela    | Pattern  | Volume  | Tone              | CURRENT (AMPS) |  | Dist from prev device |  | Volts           |  |                   |  |
| 1            | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 50                    |  | 19.99           |  |                   |  |
| 2            | SCWL         | 15         |          |         |                   | 0.041          |  | 40                    |  | 19.68           |  |                   |  |
| 3            | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 50                    |  | 19.31           |  |                   |  |
| 4            | SCWL         | 15         |          |         |                   | 0.041          |  | 50                    |  | 18.97           |  |                   |  |
| 5            | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 40                    |  | 18.72           |  |                   |  |
| 6            | SCWL         | 15         |          |         |                   | 0.041          |  | 30                    |  | 18.55           |  |                   |  |
| 7            | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 35                    |  | 18.36           |  |                   |  |
| 8            | SCWL         | 15         |          |         |                   | 0.041          |  | 40                    |  | 18.17           |  |                   |  |
| 9            | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 30                    |  | 18.03           |  |                   |  |
| 10           | SCWL         | 15         |          |         |                   | 0.041          |  | 30                    |  | 17.92           |  |                   |  |
| 11           | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 30                    |  | 17.81           |  |                   |  |
| 12           | SCWL         | 15         |          |         |                   | 0.041          |  | 40                    |  | 17.7            |  |                   |  |
| 13           | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 50                    |  | 17.57           |  |                   |  |
| 14           | SCWL         | 15         |          |         |                   | 0.041          |  | 50                    |  | 17.48           |  |                   |  |
| 15           | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 40                    |  | 17.42           |  |                   |  |
| 16           | SCWL         | 15         |          |         |                   | 0.041          |  | 50                    |  | 17.37           |  |                   |  |
| 17           | PCZWL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  | 50                    |  | 17.34           |  |                   |  |

| NAC Circuits |              | 0.598 AMPS |          | CLASS B |                   | AWG            |  | 13 Devices |                       | 0.598 AMPS USED |       | 1.96 VOLTAGE DROP |  |
|--------------|--------------|------------|----------|---------|-------------------|----------------|--|------------|-----------------------|-----------------|-------|-------------------|--|
| #            | Device Model | Candela    | Pattern  | Volume  | Tone              | CURRENT (AMPS) |  |            | Dist from prev device |                 | Volts |                   |  |
| 1            | SCWL         | 15         |          |         |                   | 0.041          |  |            | 50                    |                 | 20.1  |                   |  |
| 2            | PC2WL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  |            | 50                    |                 | 19.81 |                   |  |
| 3            | SCWL         | 15         |          |         |                   | 0.041          |  |            | 50                    |                 | 19.96 |                   |  |
| 4            | SCWL         | 15         |          |         |                   | 0.041          |  |            | 40                    |                 | 19.37 |                   |  |
| 5            | SCWL         | 15         |          |         |                   | 0.041          |  |            | 40                    |                 | 19.2  |                   |  |
| 6            | PC2WL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  |            | 30                    |                 | 19.08 |                   |  |
| 7            | SCWL         | 15         |          |         |                   | 0.041          |  |            | 35                    |                 | 16.97 |                   |  |
| 8            | PC2WL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  |            | 50                    |                 | 18.82 |                   |  |
| 9            | SCWL         | 15         |          |         |                   | 0.041          |  |            | 50                    |                 | 18.7  |                   |  |
| 10           | PC2WL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  |            | 75                    |                 | 18.56 |                   |  |
| 11           | SCWL         | 15         |          |         |                   | 0.041          |  |            | 50                    |                 | 18.49 |                   |  |
| 12           | PC2WL        | 15         | Temporal | Low     | Electromechanical | 0.054          |  |            | 40                    |                 | 18.45 |                   |  |
| 13           | SCWL         | 15         |          |         |                   | 0.041          |  |            | 40                    |                 | 18.45 |                   |  |



**Gardall**  
S3 Series Addressable Control Panel  
© Protected

# System Current Draw

## S3 Series Addressable Control Panel

| Device                                        | Total Standby |      |         |         | 0.142 A |         |         |         | Total Alarm |      |         |         | 5.871 A |         |         |         |
|-----------------------------------------------|---------------|------|---------|---------|---------|---------|---------|---------|-------------|------|---------|---------|---------|---------|---------|---------|
|                                               | Standby       |      | Current |         | Standby |         | Current |         | Standby     |      | Current |         | Standby |         | Current |         |
|                                               | Qty           | Draw | Standby | Qty     | Draw    | Standby | Qty     | Draw    | Standby     | Draw | Standby | Qty     | Draw    | Standby | Qty     | Draw    |
| <b>1. System Device</b>                       |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| S3 S3 Smart Log Panel Main Board              | 1             | x    | 0.10000 | 0.10000 | 1       | x       | 0.18000 | 0.18000 | 1           | x    | 0.18000 | 0.18000 | 1       | x       | 0.18000 | 0.18000 |
| FLPS-7 - Power Supply                         | 1             | x    | 0.00000 | 0.00000 | 1       | x       | 0.00000 | 0.00000 | 1           | x    | 0.00000 | 0.00000 | 1       | x       | 0.00000 | 0.00000 |
| SLC-PM - SLC Expander (System Sensor)         | 1             | x    | 0.01400 | 0.01400 | 1       | x       | 0.01400 | 0.01400 | 1           | x    | 0.01400 | 0.01400 | 1       | x       | 0.01400 | 0.01400 |
| SLC-PM - SLC Expander (Apollo)                | 0             | x    | 0.01600 | 0.01600 | 0       | x       | 0.01600 | 0.01600 | 0           | x    | 0.01600 | 0.01600 | 0       | x       | 0.01600 | 0.01600 |
| <b>2. SLP-E3 Outputs</b>                      |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| Resettable 24V Power                          | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| Non-resettable 24V Power                      | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| Municipal / Polarity Reversal                 | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| <b>3. S3 Optional Modules</b>                 |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| RPT-E3-E3 - Digital Communicator              | 1             | x    | 0.01800 | 0.01800 | 1       | x       | 0.01800 | 0.01800 | 1           | x    | 0.01800 | 0.01800 | 1       | x       | 0.01800 | 0.01800 |
| RPT-E3-UTP - ARCNET Repeater                  | 0             | x    | 0.01600 | 0.01600 | 0       | x       | 0.01700 | 0.01700 | 0           | x    | 0.01700 | 0.01700 | 0       | x       | 0.01700 | 0.01700 |
| FML-E3 - Fiber-Optic Multi-Mode Board         | 0             | x    | 0.05300 | 0.05300 | 0       | x       | 0.05300 | 0.05300 | 0           | x    | 0.05300 | 0.05300 | 0       | x       | 0.05300 | 0.05300 |
| FSL-E3 - Fiber-Optic Single Mode Board        | 0             | x    | 0.07900 | 0.07900 | 0       | x       | 0.07900 | 0.07900 | 0           | x    | 0.07900 | 0.07900 | 0       | x       | 0.07900 | 0.07900 |
| LED-S3 - Remote LCD Annunciator               | 0             | x    | 0.03000 | 0.03000 | 0       | x       | 0.03000 | 0.03000 | 0           | x    | 0.03000 | 0.03000 | 0       | x       | 0.03000 | 0.03000 |
| LED-E3 - LCD Display & Switch Control         | 1             | x    | 0.02400 | 0.02400 | 1       | x       | 0.02800 | 0.02800 | 1           | x    | 0.02800 | 0.02800 | 1       | x       | 0.02800 | 0.02800 |
| LED-7100/RAN-7100 - Remote Serial Annunciator | 0             | x    | 0.01200 | 0.01200 | 0       | x       | 0.02300 | 0.02300 | 0           | x    | 0.02300 | 0.02300 | 0       | x       | 0.02300 | 0.02300 |
| ASM-16 - Auxiliary Switch Sub-Assembly        | 0             | x    | 0.01100 | 0.01100 | 0       | x       | 0.01100 | 0.01100 | 0           | x    | 0.01100 | 0.01100 | 0       | x       | 0.01100 | 0.01100 |
| LED'S On for ASM-16 (max 48)                  | 0             | x    | 0.03000 | 0.03000 | 0       | x       | 0.03000 | 0.03000 | 0           | x    | 0.03000 | 0.03000 | 0       | x       | 0.03000 | 0.03000 |
| ANU-48 - Remote LED Driver Module             | 0             | x    | 0.01100 | 0.01100 | 0       | x       | 0.01100 | 0.01100 | 0           | x    | 0.01100 | 0.01100 | 0       | x       | 0.01100 | 0.01100 |
| LED'S On for ANU-48 (max 48)                  | 0             | x    | 0.03000 | 0.03000 | 0       | x       | 0.03000 | 0.03000 | 0           | x    | 0.03000 | 0.03000 | 0       | x       | 0.03000 | 0.03000 |
| <b>4. Smoke Detectors/Modules</b>             |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| Addressable Smoke Detector                    | 5             | x    | 0.00030 | 0.00150 | 5       | x       | 0.00650 | 0.03250 | 5           | x    | 0.00650 | 0.03250 | 5       | x       | 0.00650 | 0.03250 |
| Addressable Heat Detector                     | 5             | x    | 0.00020 | 0.00100 | 5       | x       | 0.00590 | 0.02950 | 5           | x    | 0.00590 | 0.02950 | 5       | x       | 0.00590 | 0.02950 |
| Addressable CO Detector                       | 0             | x    | 0.00030 | 0.00150 | 0       | x       | 0.00720 | 0.03600 | 0           | x    | 0.00720 | 0.03600 | 0       | x       | 0.00720 | 0.03600 |
| Addressable Pull Station                      | 1             | x    | 0.00030 | 0.00030 | 1       | x       | 0.00030 | 0.00030 | 1           | x    | 0.00030 | 0.00030 | 1       | x       | 0.00030 | 0.00030 |
| Addressable Monitor Module                    | 3             | x    | 0.00038 | 0.00114 | 3       | x       | 0.00060 | 0.00180 | 3           | x    | 0.00060 | 0.00180 | 3       | x       | 0.00060 | 0.00180 |
| Addressable Output Module                     | 1             | x    | 0.00038 | 0.00038 | 1       | x       | 0.00060 | 0.00060 | 1           | x    | 0.00060 | 0.00060 | 1       | x       | 0.00060 | 0.00060 |
| Addressable Duct Detector                     | 0             | x    | 0.00030 | 0.00030 | 0       | x       | 0.00060 | 0.00060 | 0           | x    | 0.00060 | 0.00060 | 0       | x       | 0.00060 | 0.00060 |
| Smoke Detector Module 0                       | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| Smoke Detector Module 9                       | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| Smoke Detector Module 10                      | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| <b>5. Notification Appliances</b>             |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| PCW15                                         | 36            | x    | 0.00000 | 0.00000 | 36      | x       | 0.09100 | 3.19500 | 36          | x    | 0.09100 | 3.19500 | 36      | x       | 0.09100 | 3.19500 |
| SCW15                                         | 36            | x    | 0.00000 | 0.00000 | 36      | x       | 0.06600 | 2.37600 | 36          | x    | 0.06600 | 2.37600 | 36      | x       | 0.06600 | 2.37600 |
| P2R75                                         | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.17600 | 0.00000 | 0           | x    | 0.17600 | 0.00000 | 0       | x       | 0.17600 | 0.00000 |
| SW15                                          | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.06600 | 0.00000 | 0           | x    | 0.06600 | 0.00000 | 0       | x       | 0.06600 | 0.00000 |
| SW30                                          | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.09400 | 0.00000 | 0           | x    | 0.09400 | 0.00000 | 0       | x       | 0.09400 | 0.00000 |
| SW75                                          | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.15600 | 0.00000 | 0           | x    | 0.15600 | 0.00000 | 0       | x       | 0.15600 | 0.00000 |
| SW150                                         | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| SW300                                         | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| SW750                                         | 0             | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 | 0           | x    | 0.00000 | 0.00000 | 0       | x       | 0.00000 | 0.00000 |
| <b>Total Standby Load</b>                     |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| <b>0.142 A</b>                                |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| <b>Total Alarm Load</b>                       |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |
| <b>5.871 A</b>                                |               |      |         |         |         |         |         |         |             |      |         |         |         |         |         |         |



| Secondary Load Requirements                            |   | 4.69                        | Amp Hours  |
|--------------------------------------------------------|---|-----------------------------|------------|
| Total Secondary Load from the calculation table below. |   |                             |            |
| Current Draw                                           |   | Time (hours)                | Total (AH) |
| Secondary Standby Load                                 | x | Required Standby Time       |            |
| 0.142 A                                                |   | 24 hours                    | 3.42       |
| Secondary Alarm Load                                   | x | Required Alarm Time (hours) |            |
| 5.871 A                                                |   | 0.084 hours                 | 0.49       |
|                                                        |   | Total Secondary Load        | 3.91       |
|                                                        |   | Derating factor             | x 1.20     |
| Secondary Load Requirements                            |   |                             | 4.69 AH    |

### Battery Selection

Select batteries from list

12 AH Battery (12 volt)

12.00

Amp Hours

### Battery Distribution Chart

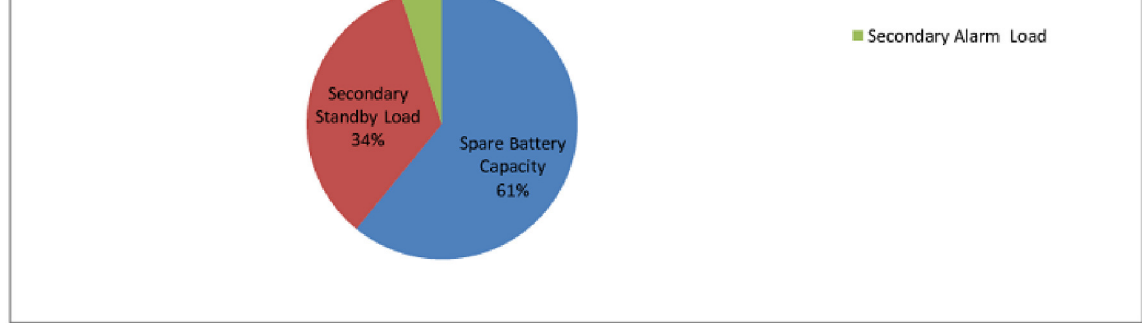
Shows amp-hour distribution of your selections.

Secondary Alarm Load

5%

Spare Battery Capacity

Secondary Standby Load



|                        |                |
|------------------------|----------------|
| Spare Battery Capacity | 7.31 Amp Hours |
| Secondary Standby Load | 4.10 Amp Hours |
| Secondary Alarm Load   | 0.59 Amp Hours |

## FIRE ALARM SYMBOLS LEGEND

|                                                                                     |                                        |
|-------------------------------------------------------------------------------------|----------------------------------------|
|  | FIRE ALARM/SECURITY CONTROL PANEL      |
|  | FIRE ALARM STROBE                      |
|  | FIRE ALARM HORN/STROBE                 |
|  | MANUAL FIRE ALARM PULL STATION         |
|  | AREA TYPE PHOTOELECTRIC SMOKE DETECTOR |
|  | AREA TYPE PHOTOELECTRIC HEAT DETECTOR  |
|  | TAMPER SWITCH                          |
|  | FLOW SWITCH                            |

CUSTOMER:

PROJECT:  
LAKEWOOD STORAGE  
4101 NE PORT DRIVE  
LEE'S SUMMIT, MO 64064

**SECURITY**  
**FIRE** & **SOLUTIONS**  
**Group, Inc.**

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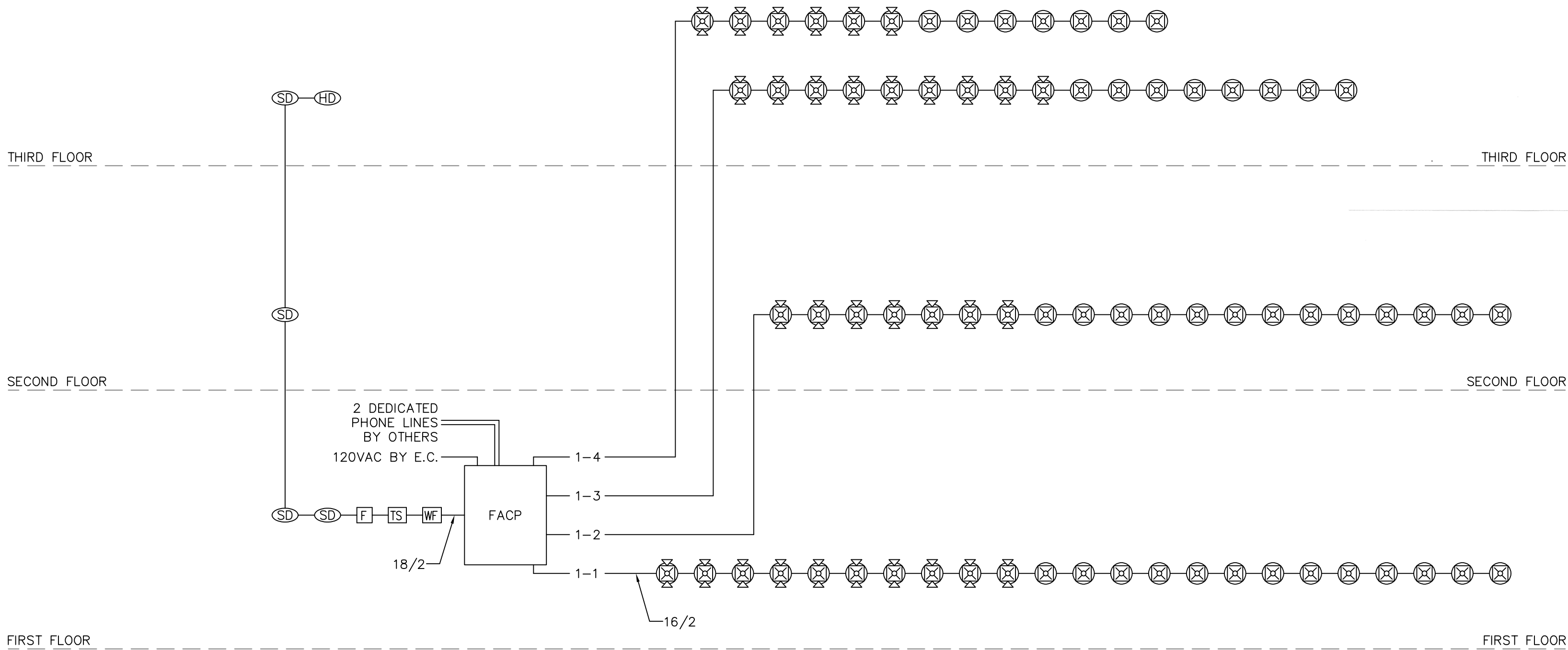
**DRAWING APPROVALS**

07/06/2023

KAMBIZ  
ZORAGHCHI  
NUMBER  
PE-2014000105

PROFESSIONAL ENGINEER

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## FIRE ALARM RISER DIAGRAM