



IPA-60
Battery & Voltage Drop
Calculations

Project Name: Lakewood Business Center
Standby Hours: 24
Alarm Mins: 5
Efficiency Factor: 20%
SIC Type: Class B

Model #: IPA-60
Panel ID: _____
Location: Sprinkler Room
Max Panel Current (amps): 1

Your assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submit.

Table with 5 columns: Qty, Addressable Fire Panel Part #, Description, Standby (amps) Each, Total, Alarm (amps) Each, Total. Row 1: 1 IPA-60 Analog Addressable FACP, Standby: 0.130, Alarm: 0.220.

Table with 5 columns: P-LINK (IS-485) Part #, Description, Standby (amps) Each, Total, Alarm (amps) Each, Total. Lists various components like DACT Card, LCD Annunciator, etc.

** REQUIRED IF USING NOSHMI PHOTOCELL SLC DEVICES
P-LINK Standby: 0.016 P-LINK Alarm: 0.023

*Only enter quantity if P-LINK power is being used to power devices

Table with 5 columns: SLC Devices Part #, Description, Standby (amps) Each, Total, Alarm (amps) Each, Total. Lists various SLC devices like Analog Photo Smoke, Analog Fixed Temp Heat, etc.

* Requires Aux Power (Configure below)
** See the installation manual for special considerations when installing IM, IB, AIB, SCI devices on Class B loops.

** Requires Aux Standby Base Power (Configure below)

Table with 4 columns: NAC Circuits (See NAC Configuration below) Ckt, Use, Description, Standby (amps) Total, Alarm (amps) Total. Lists NAC circuits for Notification.

Table with 4 columns: I/O Circuits (See I/O Configuration below) Ckt, Use, Description, Standby (amps) Total, Alarm (amps) Total. Lists I/O circuits.

Battery Calculation Summary table with columns for Standby (amps) and Alarm (amps) for Panel, P-Link, SLC Device, NAC Circuit, and I/O Circuit currents.

NAC Circuit Configuration & Voltage Drop

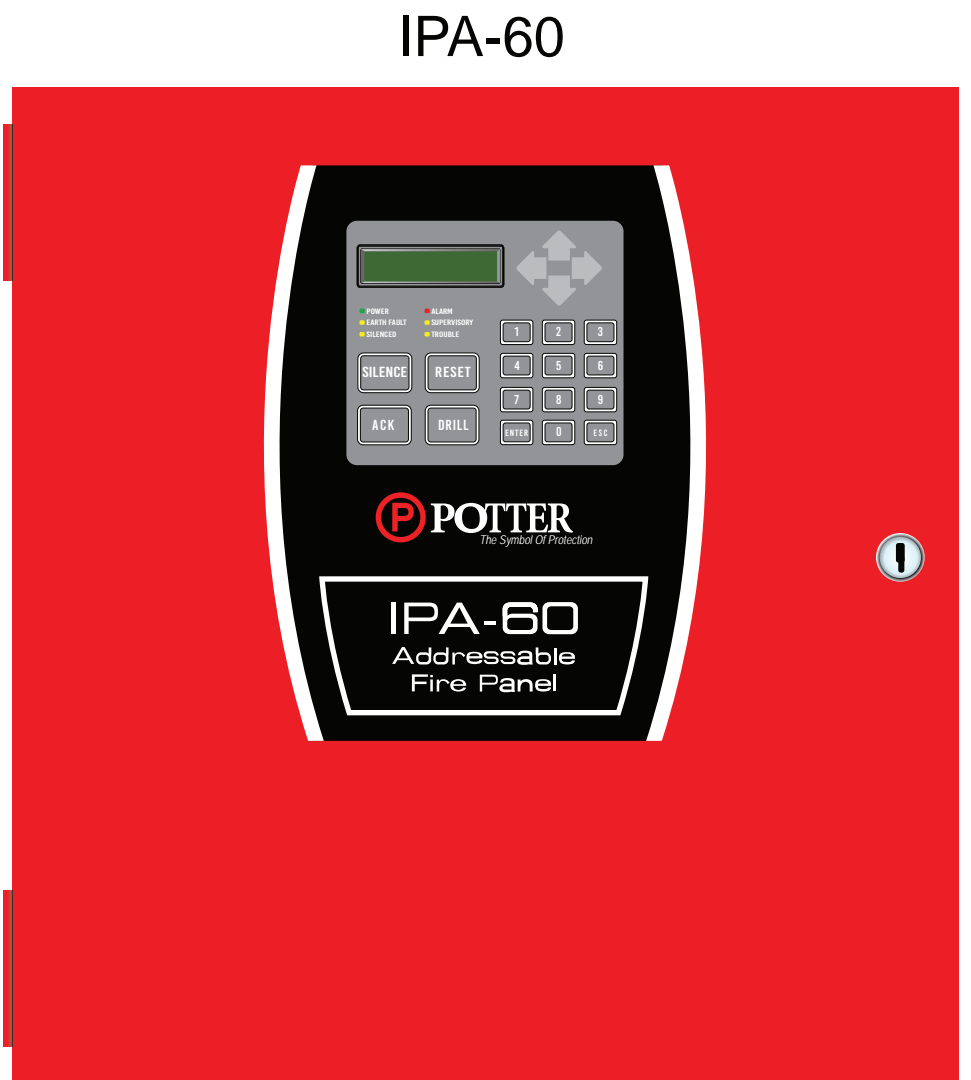
Table with 4 columns: Wire Type, Ohms/1000ft, Length 1-Way, Actual Ohms, Max Load (amps), Volts @ FDL, Min. Volts Req'd.

Table with 6 columns: Qty, Lookup Type, Circuit Devices, Description, Standby (amps) Each, Total, Alarm (amps) Each, Total. Lists System Sensor P2RL (500d).

NAC2

Table with 4 columns: Wire Type, Ohms/1000ft, Length 1-Way, Actual Ohms, Max Load (amps), Volts @ FDL, Min. Volts Req'd.

Table with 6 columns: Qty, Lookup Type, Circuit Devices, Description, Standby (amps) Each, Total, Alarm (amps) Each, Total. Lists System Sensor P2RK (150d).



Fire Alarm General Notes

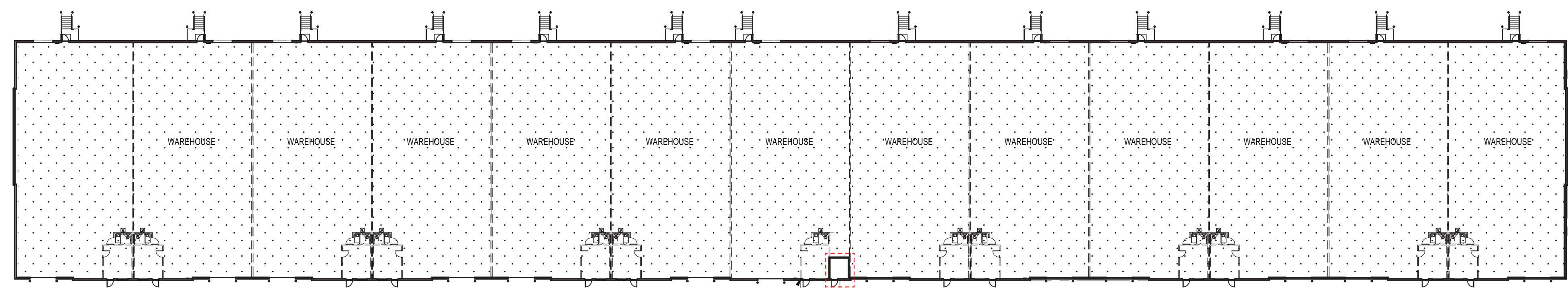
- 1. Wall mounted visual notification devices will be mounted so that the entire lens is not less than 80" and not greater than 96" AFF.
- 2. Wall signal devices can be mounted on 4"x4"x2" with or without mud ring, 4"x4"x1.5" with or without mud ring, or 1-Gang box or a low voltage ring.
- 3. Strobes shall be synchronized by floor and area.
- 4. All horns and horn strobes will be 15dba above ambient noise.
- 5. Pull stations will be mounted within 5' of the exit on each floor.
- 6. The operable lever will not be less than 42" and not more than 48" AFF.
- 7. Pull stations can be mounted on 4"x4"x2" box with or without mud ring, 4"x4"x1.5" with or without mud ring, or 1-Gang box.
- 8. DO NOT USE LOW VOLTAGE RING TO MOUNT PULL STATIONS.
- 9. All modules will be mounted in 4"x4"x2" boxes.
- 10. All wiring shall be run according to code and if not in conduit it will be held high above finished ceiling and properly secured and supported.
- 11. All fire alarm wiring below 7 feet will be in conduit.
- 12. All devices will be clearly labeled.
- 13. All junction boxes related to fire alarm require a RED cover.
- 14. Open ceiling wiring shall be run in conduit if support is not available.
- 15. Smoke detectors will be mounted no less than 36 inches from any air diffuser.
- 16. General Alarm will sound when any device is in alarm.
- 17. Ceiling mounted detectors can be mounted on 3-1/2 in. Octagon box, 4"x4"x2" with or without mud ring, 4"x4"x1.5" with or without mud ring, or 1-Gang box. IF it is a hard ceiling a low voltage ring can be used.
- 18. The SLC devices will be wired together and wired back to the Fire Alarm Control Panel.
- 19. ALL CONDUIT STUBS WILL HAVE INSULATORS AND KNOCK OUTS WILL HAVE BUSHINGS INCLUDING WIREMOLD.

BUILDING IS 100% SPRINKLED

This system designed and installed according to NFPA 72 2018-IBC 2018 & IFC 2016 SECTION 907

CONSTRUCTION TYPE: II-B
OCCUPANCY TYPE: S1
LEVELS: 1
TOTAL SQUARE FOOTAGE: 78,345

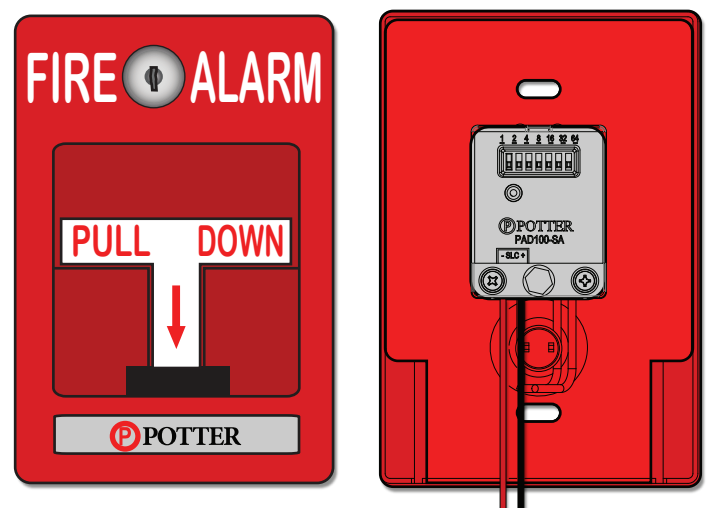
RELEASED FOR CONSTRUCTION
As Noted on Plan Review
Lee's Summit Fire Department
Lee's Summit, Missouri
03/17/2025



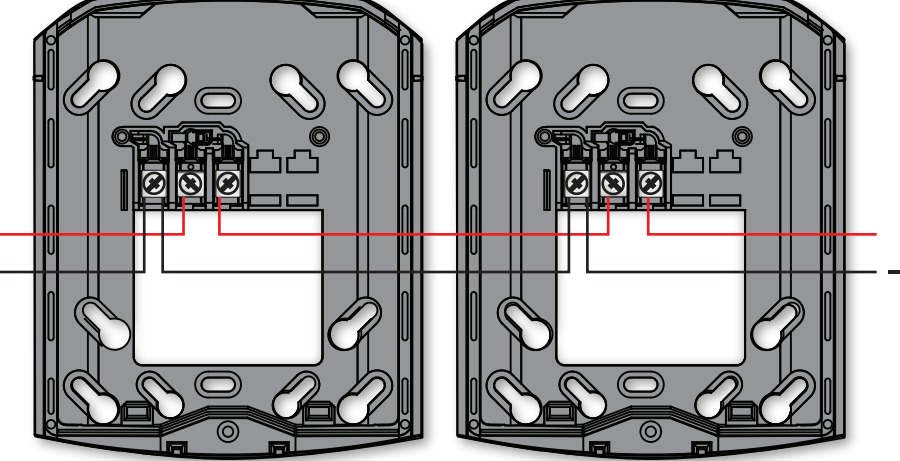
PAD 300-PD



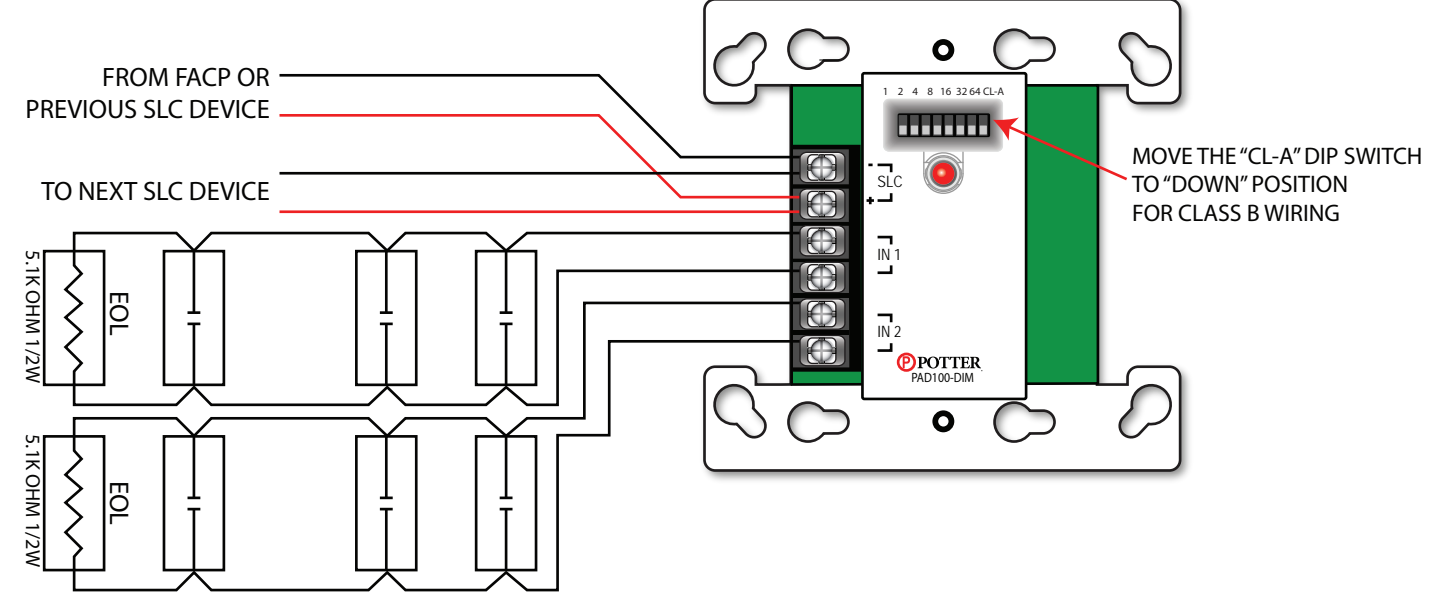
PAD 100-PSDA



SYSTEM SENSOR P2RL/SRL



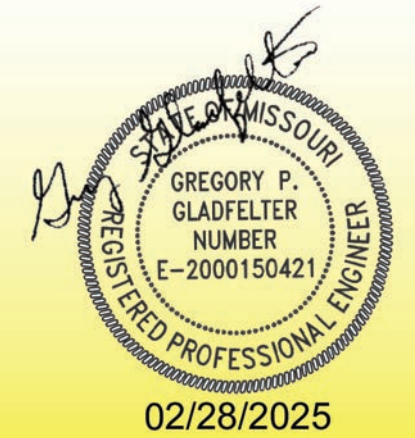
PAD 100-DIM



Fire Alarm Solutions
3150 MERCIER SUITE 520
KANSAS CITY, MO 64111
816-753-4660
Description:
New fire alarm system
These drawings are the intellectual property and actual property of Fire Alarm Solutions and or Kenyco Industries, Inc. It is submitted in confidence and is not to be disclosed or used without our expressed written consent.

Table with 2 columns: Field, Value. Date: 3/03/2025, Job: LAKEWOOD BUSINESS CENTER, Drawing: 1.0, Sheet: 1 of 2, Scale: 1/8inch = 1foot

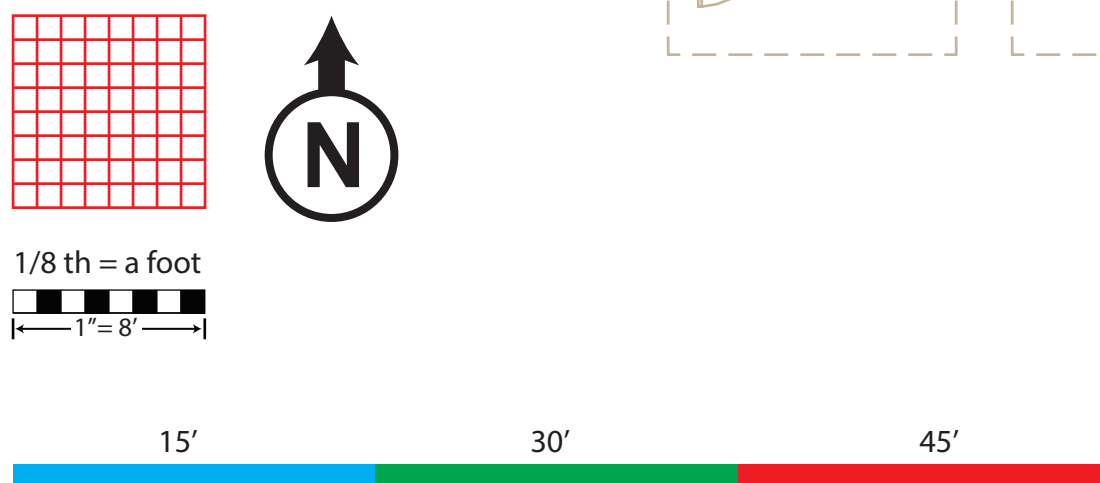
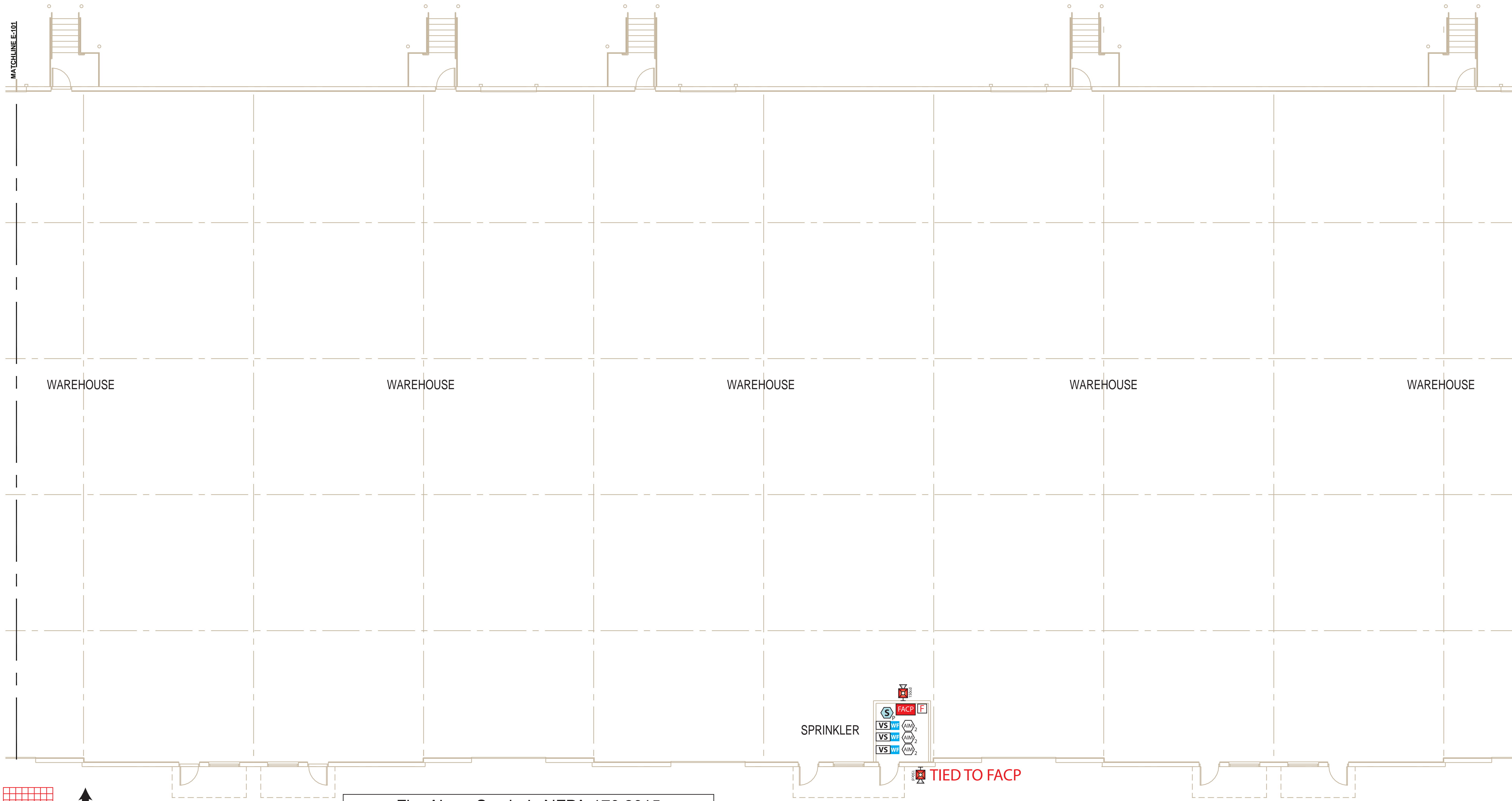
GREGORY P. GLADFELTER PE
10233 MILLSTONE DRIVE, #4112
LENEXA, KS 66220



AHU SEAL

LAKEWOOD BUSINESS CENTER
LOT 1- SHELL
N.E. Maguire Blvd.
Lee's Summit, MO
64064

FIRE ALARM PLAN
SPRINKLER MONITORING
FA 1.0



Fire Alarm Symbols NFPA-170 2015			
Item	Description	Item	Description
	Fire Alarm Control Panel		Pull Station
	Photoelectric Smoke Detector		Valve Supervisory Switch (Tamper)
	Alarm Horn/Strobe Wall Mount		Flow Detector/switch
	Dual Addressable Input Monitor Module		

Fire Alarm Solutions
 3150 MERCIER SUITE 520
 KANSAS CITY, MO 64111
 816-753-4660

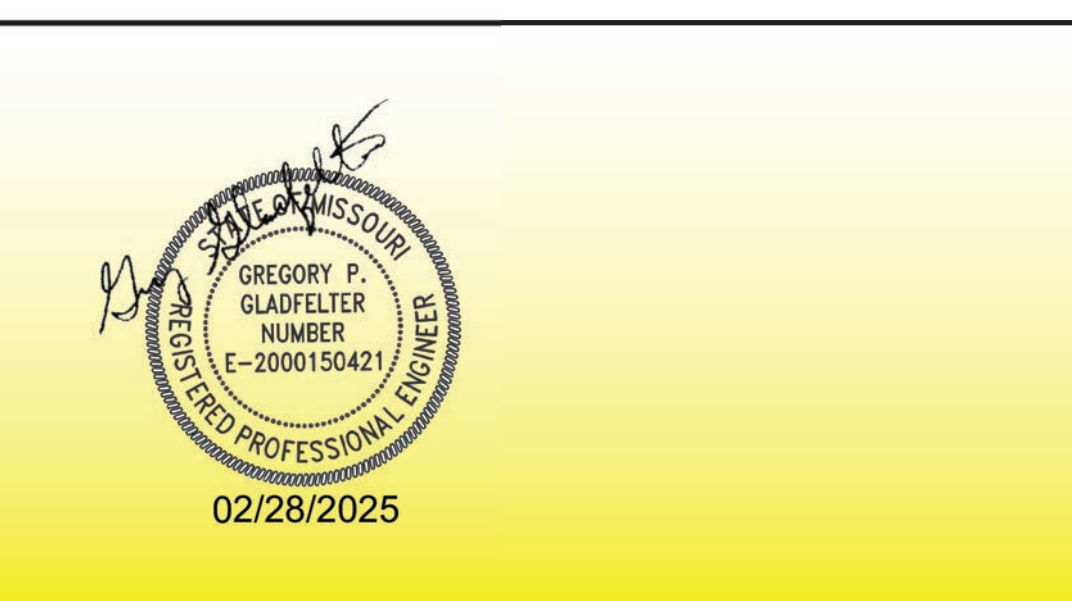
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Date:	3/03/2025		
Job:	LAKEWOOD BUSINESS CENTER		
Drawing:	1.1	Sheet	2 of 2
Scale:	1/8inch = 1foot		

GREGORY P. GLADFELTER PE
 10233 MILLSTONE DRIVE, #4112
 LENEXA, KS 66220

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↑ AHJ SEAL ↓

LAKEWOOD
 BUSINESS CENTER
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 Lee's Summit, MO
 64064

FIRE ALARM PLAN
 SPRINKLER
 MONITORING

FA 1.1