Building Survey for Fire Protection System Analysis

March 18, 2026

Advance Auto Parts #8056

7615 Lindbergh Blvd.
Philadelphia, PA 19153
Telgian Project # 34691

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EXECUTIVE SUMMARY

Based on Telgian's analysis of the referenced property, the building's fire alarm should be replaced due to the overall age and necessary changes due to the remodel. There is an existing sprinkler system that will need to continue to be maintained with modifications due to the remodel. Water flow test information has not yet been provided as of the issuance of this report, once received an updated report will be provided.

Details of the building's existing protection and recommendations to improve the existing conditions are detailed within the body of the report.

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1. SUMMARY

On February 24th, 2026 Telgian Engineering and Consulting (Telgian) conducted a site survey at the above referenced facility. The purpose of the Building Survey is to gain an understanding of the fire protection systems and provide information on their capability relative to the proposed renovation. If appropriate, this report will provide general recommendations on fire protection system upgrades in order to gain compliance with the Pennsylvania Building Code.

2. BACKGROUND OF CURRENT FACILITY

2.1 Occupancy Classification

Sales Floor: M
Stockroom: S1

The applicable codes:

- Building Code: Pennsylvania Building Code (2018 IBC Amended)
- Fire Prevention Code: Pennsylvania Fire Code (2018 IFC Amended)
- NFPA 13: 2016 Edition
- NFPA 72: 2016 Edition
- NFPA 70: 2017 Edition

Local codes will be updated in July, 2026 to the 2021 I-Codes
Local Permitting Office: https://www.phila.gov/departments/department-of-licenses-and-inspections/

2.2 The Building

Advanced Auto is looking at taking over a space of approximately 9,874 sq.ft. in a larger building. The building appears to be classified as type IIB construction in accordance with the IBC. The deck height was measured to be 20 ft. along the front of the building and 18 ft. 5 in. at the rear with a mechanical space at the rear with an 11 ft. 8 in. ceiling height.

3. SITE FIRE PROTECTION – Existing Conditions

3.1 Site access and fire lanes exist on all sides of the overall building and are assumed to continue to remain acceptable to the Authority Having Jurisdiction (AHJ) in their current configuration.

3.2 There is a private hydrant off of the northwest corner of the building and public hydrants along the public roads nearby. Hydrants are within 600 ft. of all parts of the building. This should continue to be acceptable to the AHJ.

3.3 The incoming fire line for the sprinkler system located off of the northwestern side of the building is 6-in.

3.4 Two 2.5 in. Siamese connections are located off of the riser room. This should continue to remain acceptable.

4. SITE FIRE PROTECTION – POTENTIAL CONCERNS

4.1 None.

5. WATER SUPPLY – EXISTING CONDITIONS

5.1 Awaiting results from the AHJ. This report will be updated once flow test results are received.

6. WATER SUPPLY – POTENTIAL CONCERNS

6.1 None at this time and will be updated once water supply information is received and evaluated.

7. FIRE SPRINKLER SYSTEMS – Existing Conditions

7.1 There is currently one (1) existing sprinkler system for this building. The riser is located in the northwestern corner of the building within a mechanical space within the proposed Advance Auto space. There were no placards on the riser, given the age, spacing and sizing of the system, this appears to be a pipe schedule ordinary hazard system.

8. FIRE SPRINKLER SYSTEMS – Potential Concerns

8.1 The existing sprinkler system may need reworking of the location of piping during the installation.

8.2 The system appears to be pipe schedule ordinary hazard; this design would need to be increased. A design verification may be able to provide options for providing adequate protection.

In order to protect up to 12 ft. of Class I-IV and 5 ft. of Group A plastics in a palletized or shelving arrangement with a minimum of 3 ft. aisles, at least an OH2 design is necessary within this space.

While the drop ceiling throughout is less than 18 ft., prototypical designs remove the drop ceilings and the ceiling is expected to go to the deck. With a ceiling height exceeding 18 ft, a sprinkler system with an OH2 system design with accurate placard information would allow the Maximum Allowable Quantities (MAQ) amounts to be 30 gallons of Class IA, 1,600 gallons of Class IB, IC, II and IIIA and 13,200 gallons of IIIB for uncartoned commodities per Table 5704.3.4.1 of the 2018 IFC. An OH2 sprinkler system design would define the building as a nonsprinklered area for the protection of combustible and flammable liquids and would allow Class IA, IB and IC to be stored 4 ft or less and IIIA and IIB commodities to be stored 8-ft or less per Table 5704.3.6.3(1) of the 2018 IFC. If the drop ceiling were to remain, these amounts would go up significantly and allow for storage uncartoned on shelves up to 6 ft. in height. This report can be updated if the drop ceiling is to remain.

9. FIRE ALARM SYSTEMS – Existing Conditions

9.1 The fire alarm for the proposed building is through a combination burglary and fire alarm panel, a Bosch 7412GV2 located at the rear of the space. This system monitors this space with a single pull station, a smoke detector above the panel, waterflow alarm, valve tamper, 3 duct detectors and the burglary system points.

10. FIRE ALARM SYSTEMS – Potential Concerns

10.1 The panel was discontinued in 2019 and appeared to be in poor condition. Due to the age of the system, discontinued fire alarm panel and changes from Advanced Auto Parts occupying this space, a new fire alarm system is recommended.

11. GENERAL FIRE PROTECTION – Recommendations

11.1 The existing fire alarm system is recommended to be replaced due to the age and discontinued fire alarm panel.

11.2 The sprinkler system will need to remain and design verification should be completed for this building to determine if the necessary design density can be provided.

11.2.1 If the existing system when calculated can provide at least an Ordinary Hazard Group II (OH2), 0.20 gpm/sq. ft. over the most remote 1,500 gpm, design, new placards should be generated and installed. Alternatively, if the system is not capable of providing at least an OH2 design, a design verification can provide additional options for upgrading the system to this design.

12. COMMODITY CLASSIFICATION INFORMATION

Advance Auto Parts, Inc. is an automotive aftermarket parts provider serving North America. The back portion of the store will be utilized as a stockroom for storage of parts and products. The product line spans a full line assortment of auto parts and vehicle accessories within various categories. The commodities range from Class I-IV and Group A Plastics.

A sampling of the products found in an Advance Auto Parts is shown below, listed by commodity classification per NFPA 13 Table A.5.6.3.

Class I-III
Air filters
Batteries and battery accessories
Brakes and brake pads
Chassis parts
Climate control parts
Clutches and drive shafts
Electronics
Engines and engine parts
Exhaust systems and parts

Fuel filters
Hand and specialty tools
Hub assemblies
Oil filters
Radiators and cooling parts
Starters and alternators
Steering and alignment parts
Vent shades, mirrors, and exterior accessories

Class IV
AC chemicals and accessories
Air fresheners
Performance parts
Tire repair accessories

Group A Plastics
Belts and hoses (Non-Expanded)
Electrical wire and fuses (Non-Expanded)
Floor mats, seat covers, and interior accessories (Non-Expanded)
Lighting (Non-Expanded)
Wiper blades

Flammable and Combustible Liquids
Antifreeze and washer fluid
Fuel and oil additives
Grease and lubricants
Motor oil
Part cleaners and treatments
Sealants, adhesives, and compounds
Transmission fluid
Washes, waxes, and cleaning supplies

13. PERMITTED STORAGE CONFIGURATION

If, based on a design verification and/or upgrade of the system, the sprinkler system can provide at least an OH2 design, the below prototypical storage configuration would be permitted.

Shelf Fixtures

- Shelving fixtures have a typical nominal footprint of 36 in. to 48 in. wide x 144 in. tall with varying depths from 12 in. to 24 in. The maximum storage height of Class I-IV commodities is 12 feet and 5 feet for Group A plastics.
- Shelf Storage: each level on shelving fixtures is at varying heights throughout the auto parts area and includes the installation of solid particle board shelving.
- These fixtures are classified as shelf storage in accordance with the NFPA 13.
- A minimum 44-inch aisle will be required at shelf storage.

Rack Storage

- Rack Storage fixtures have typical nominal dimensions of 96 in. wide x 144 in. tall, with varying depths from 30 in. to 72 in.
- Rack Storage: each level on rack fixtures is at varying heights throughout the auto parts area and includes the installation of open wire mesh shelving (at least 50% open).
- The maximum storage height of Class I-IV commodities is 10 ft and 5 ft for Group A plastics. These fixtures are classified as single-row rack storage per the State Fire Code.
- A minimum 44-inch aisle will be required at single-row rack storage.
- No longitudinal flue spaces are required on single-row racks. Maximum depth of a single row rack will not exceed 72 inches.
- Six-inch transverse flue spaces every 4-5 ft. will be maintained on all single-row racks regardless of the types of shelves used.

Gondola Style Shelf Fixtures

- The gondola style shelf fixtures utilized within the existing store have a 22 in. base depth with heights at 5 ft.
- 22 in. deep by 5 ft. tall gondola fixtures are situated in a back-to-back configuration within the interior sales floor area and include varying number of gondola shelves for product support above the base that have a shelf depth on each side approximately equal to the depth of the base. The combined depth of the back-to-back shelves is approximately 48 in.
- These gondola fixtures typically include a top shelf at an elevation of 48 in. with product display/stockpiling atop to an overall height of approximately 6 ft.
- These fixtures are classified as shelf storage and back-to-back shelf storage per the State Fire Code.
- A minimum 48-inch aisle will be required at gondola style shelves.

14. HAZARDOUS MATERIALS

14.1 Hazardous Materials are stocked at this facility.

14.1.1 If the sprinkler system were an OH2 system design with accurate placard information as is required for the storage configuration above, this would allow the Maximum Allowable Quantities (MAQ) amounts for a Mercantile Occupancy to be 30 gallons of Class IA, 1,600 gallons of Class IB, IC, II and IIIA and 13,200 gallons of IIIB for uncartoned commodities on shelves to 4 ft. or less in height per Table 5704.3.4.1 of the 2018 IFC. Classification of materials stocked include: Corrosives, Flammable and Combustible Liquids and Toxics.

14.1.2 If the sprinkler system were an OH2 system design with accurate placard information as is required for the storage configuration above, this would allow the Maximum Quantities of uncartoned Level 2 and 3 aerosol products in a retail display area to be 10,000 lbs limited to not exceed 1,000 lbs net weight in any 100-sqft retail display area (per 25,000 sq.ft. retail display area) per Table 5106.2.1 and footnotes (a and c) of the 2018 IFC. Storage height is to be 6-ft or less in height or 8-ft or less in height where retail displayed on shelves per Section 5106.2.3 of the 2018 IFC.

15. HIGH-PILED STORAGE

15.1 The Class I-IV commodities cannot be stored above 12 ft and the High Hazard commodities cannot be stored above 6 ft. per the Fire Code without being considered High-Piled combustible storage with additional design and building requirements.

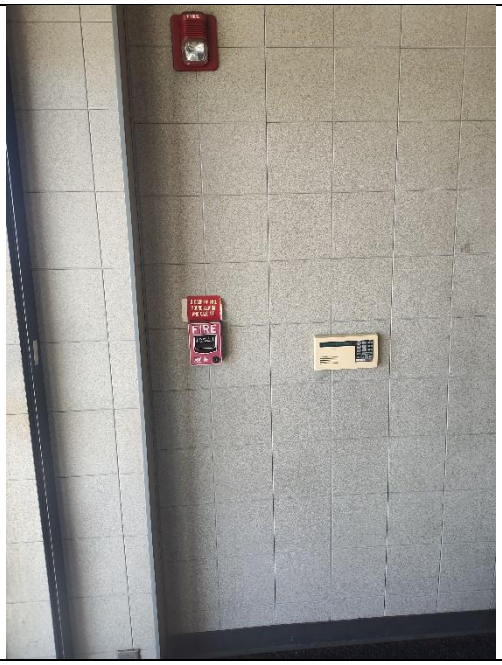
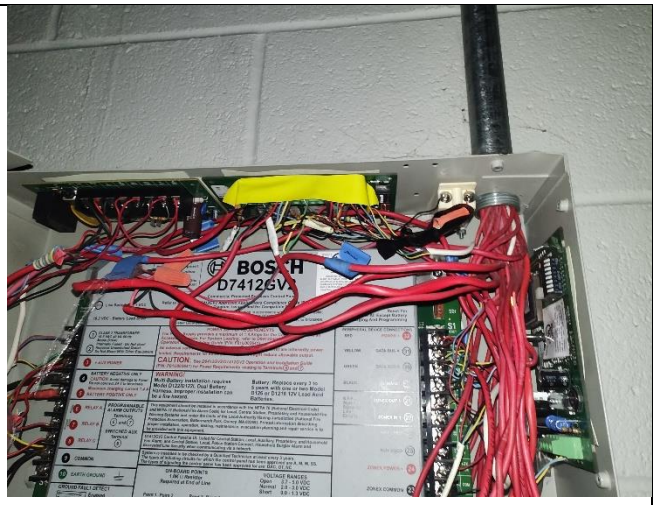
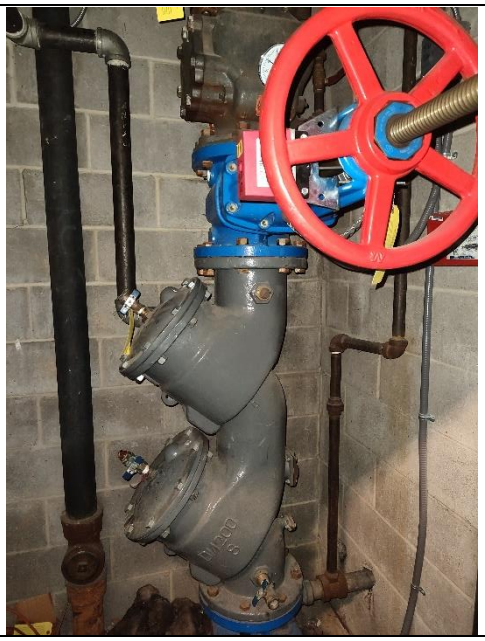
We appreciate the opportunity to be of service in this matter. If you have any questions or comments, please contact us at your convenience.

Sincerely,
Telgian Engineering and Consulting

Christa Fox, CFPS
Senior Fire Protection Consultant

Appendix A – Photographs

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<tr><td>Existing Pull Station and Remote Annunciator</td><td>Existing Fire Alarm Panel</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Existing Power Supply</td><td>Existing Fire Sprinkler Riser</td></tr>
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