



PLANNING AND DEVELOPMENT SERVICES

MAYOR: David H. Bieter | DIRECTOR: Derick O'Neill

Building Permit Fire Code Review

Name:	Adare Manor Apartments	Building Permit #:	BLD17-02261 & 02262
Address:	2419 Fairview	Project Type:	New
Review Code:	IFC 2012		
Occupancy Group:	A-2, M, R-2 (166 units)		
Construction Type:	III-B		
Area:	~37651 per floor (5 floors) 187,574 Sq.Ft.		
Fire Flow Required:	2,500 gpm (w/sprinklers)		
Fire Flow Available:	2,500 gpm (Suez 1/17)		
Fire Sprinklers:	Yes		
Alarms:	Yes		
Architect:	Douglas Gibson	douglasg@tpchousing.com	
Architect's Phone:	208-283-1946		
Plan Reviewer:	Katie Marron	kmarron@cityofboise.org	
Plan Reviewer's Phone:	208-608-7111		
Date:	7/14/17		

Scheduling Inspections:

Direct all inspection requests to the Building Division Fire Inspectors at 608-7070 or; schedule through our PDS Online system at <http://pds.cityofboise.org/building>; or via mobile app at [pdsmobile.net](http://pds.cityofboise.org/building).

Note: The code items listed in this report are not intended to be a complete listing of all possible code requirements in the 2012 Fire Code. It is a guide to selected sections of referenced codes. Any omission in this review does not constitute a waiver and shall not relieve the applicant of the responsibility of compliance with this Code (IFC 105.4.4).

The Fire Inspector shall perform a final inspection before occupancy is approved. The plan review fee shall provide for the cost of two (2) Fire Department inspections of each required inspection category. A fee of Forty-Six Dollars and Thirty One Cents, (\$46.31) shall be charged for each additional inspection performed because of noncompliance by the owner or the owner's agent (BMC 7-01-14).

Scope of Work:

(ADARE MANOR APARTMENTS) There are two building permits under this Eplan. Buildings A and B are separated with a three hour fire wall. Buildings are not considered separate fire flow calculation areas as there are openings in the fire wall (doors).

Building A: 146 units of a 166-unit multi-family housing

Building B: 20 units of a 166-Unit multi-family housing and accessory retail project.

This building to be fully fire sprinklered with an NFPA 13 system.

Resubmittal required for the following information:

Resubmittal instructions:

- A. Provide a written response to each of the following items.
- B. All revisions must be made by full size submittal drawings, not by addendum sheets.
- C. All changes must be clouded and referenced by a revision number.
- D. Only revised sheets need to be submitted.
- E. When submitting, make reference to the BLD number at the top of this review.
- F. For electronic plans, revise plan sheets within electronic plan review for distribution.
- G. All resubmittal items shall be routed through the IBC plan reviewer.

1. **Fire Hydrant Supply Connections.** It shall be prohibited for underground water supply lines with a single connection from a municipal main to supply both fire hydrants and fire suppression systems. Looped supply lines that are supplied from two points of connection shall be allowed for hydrants and fire suppression system supplies. (BMC 7-01-43)

NOTE: Plan sheet C4.00 indicates a 6in branch line supplying an existing fire hydrant along 24 street and being used to supply the new 6" fire service supply. The line then reduces to 2in and stops. Revise and resubmit indicating line is part of a looped supply or provide a separate connection to the main water supply.

2. Fire sprinkler system control valves shall be installed in *one* of the following configurations, listed in order of preference:
 - A. PIV's located 40 feet from the building, and the top of the post shall be installed a minimum of 36" above finished grade, or
 - B. Wall PIV's, or
 - C. A valve(s) installed on the riser itself provided the sprinkler riser room is separated from the building on all sides by a one-hour Occupancy Separation assembly, including opening and penetration protection, as defined by the Building Code. In addition to any other access doors, direct access into the riser room from the outside shall be provided. Signs identifying doors leading to the sprinkler system control assembly shall be permanently affixed to all doors so as to clearly identify the path to the riser assembly. (BMC 7-01-51)

NOTE: A fire riser room with direct access to the exterior is provided but room is not one-hour rated (only ½ hour rated. Clarify room rating or annotate on utility drawing C4.00 that a wall PIV or remote PIV shall be installed by the Fire Sprinkler contractor.



3. Fire extinguishers shall carry a minimum 2-A:10-B:C rating and be provided on each floor level, and spaced on the basis of one 2-A rating for each 6,000 sq.ft. of floor area, with a maximum 75 ft. travel distance to an extinguisher. Extinguishers shall be mounted on hangers or brackets, or in cabinets. If cabinet housing is provided, the cabinets shall not be locked. Mount handle at 48" AFF. Extinguishers shall be conspicuously located along normal paths of travel, where they will be readily accessible and immediately available in the event of fire. The fire extinguishers shall be current with inspection/testing and provided with a qualified and approved inspection tag. (Refer to IFC 906, NFPA 10 for details).

NOTE: No fire extinguishers are indicated on the plans; at a minimum seven are required per floor. Revise and resubmit either the floor plans or exiting plans to show locations of all required fire extinguishers.

4. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign. See exceptions. (Ref. 1011.1).

NOTE: Exit sign placement is not consistent among floors, particularly at the 3hour wall dividing the buildings (one on floors 1&2, two on floor 3&5 and none on floor 4). Please revise and resubmit plans with uniform placement or provide justification.

DEFERRED SUBMITTAL ITEMS - Submittal of the following is required prior to installation:

All paper submittals must be submitted in duplicate (triplicate for fire sprinklers) to the plans review customer counter for distribution.

5. A Fire Sprinkler Permit is required prior to beginning any site work on fire sprinkler systems, including new installations, modification of existing systems, and any temporary or permanent demolition work. Submit a Fire Sprinkler Permit Application and fire sprinkler plans/documentation, meeting the requirements of IFC 105.4, 901.2. Applications may be obtained at Planning & Development Services (150 North Capitol Blvd on the 2nd floor) or on the Internet at <http://www.cityofboise.org/pds/apps.shtml#Fire>. A copy of the Fire Sprinkler permit and approved plans/documentations shall be on site, before any sprinkler work is started and at all times, until the project has been inspected and approved by the Boise City PDS Fire Inspector.

NOTE: A fire sprinkler permit will be required. See **Automatic Fire Sprinkler System Requirements:** below.

6. A Fire Alarm Permit is required prior to beginning any site work on fire alarm systems, including new installations, modification of existing systems, and any temporary or permanent demolition work. Submit a Fire Alarm Permit Application and fire alarm plans/documentation, meeting the requirements of IFC 105.4, 907.1. Applications



may be obtained at Planning & Development Services (150 North Capitol Blvd on the 2nd floor) or on the Internet at <http://www.cityofboise.org/pds/apps.shtml#Fire>. A copy of the Fire Alarm permit and approved plans/documentations shall be on site, before any alarm work is started and at all times, until the project has been inspected and approved by the Boise City PDS Fire Inspector.

NOTE: The building plan set includes engineered fire alarm drawings, stamped by **Jonathan A. Goranson**. These plan sheets have not been plan reviewed and are **NOT** approved for design or installation. A fire Alarm permit will be required. See Fire Alarm System Requirements: below.

7. **Standpipes.** Standpipe systems shall be provided in *new* buildings and structures in accordance with IFC 905.1 when the highest floor level is MORE THAN 30' above lowest level of FD vehicle access. A Fire Sprinkler Permit is required prior to beginning any site work on fire sprinkler systems; in stages (see below).
8. **Building Fire safety and evacuation plans.** Group R-2 occupancies shall comply with the requirements of IFC sections 408.9.1 through 408.9.4 which include, but not limited to, a fire emergency guide, evacuation diagrams, maintenance, and distribution of fire safety and evacuation plans. These documents shall be made available to the Fire Department upon request.
9. A "**Knox Box**" (brand) key entry system is required for this building. Obtain authorization and [order forms](#) from Boise Fire Department, telephone (208) 570-6500. Or via the internet at www.knoxbox.com. Contact the responding FD station officer, to determine the specific location of the key box. The Box shall include information acceptable by the responding fire station to locate required panels, equipment and systems pertinent to fire fighting operations during fire fighting and emergency response operations. (IFC 506; BMC 7-01-39)

NOTE: Knox box is indicated on plan sheet E7.11

Conditions of Approval

No response required on the following (to be field verified)

The following items plus any notations on the approved set of drawings must be completed prior to final

Inspection and approval of a Certificate of Occupancy:

General Building Requirements:

10. Approved Fire Department vehicle access roads shall be provided to within 150'-0" of all exterior portions of this building. All bridges, gates, public or private streets, individual or common driveways, or dedicated emergency vehicle access lanes, etc., which are considered "fire department vehicle access roads" shall have a minimum of 20'-0" width, 48'-0" outside turning radius and 28'-0" inside radius, 13' 6" overhead clearance, and no dead-ends over 150 feet unless an approved turnaround is provided. Facilities, buildings or portions of buildings hereafter



constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds. (Ref. IFC 503 and Appendix "D102").

NOTE: Acceptable FD access is provided around the building from Fairview Ave, 24th st, 25th and an 22' service drive. See plan sheet C2.00.

11. **Aerial Fire Apparatus Access.** Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet, approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater. Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof. At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. (Ref. IFC appendix D105)

NOTE: Building is 60' to highest parapet; aerial apparatus access is required. In order to reach 50% of the rooms access is required off of Fairview Ave and 25th St. (24th St. is not applicable due to overhead power lines). Access from Fairview is within the 15 to 30 ft. range, access from 25th St ranges from 40-50 ft. No parking is allowed along the west side of 25th St, **signage is required along this side.**

12. For streets and fire access roadways having a width less than 36 feet back of curb to back of curb, parking shall be prohibited on one (1) side. For streets and fire access roads having a width less than 29 feet from back of curb to back of curb parking shall be prohibited on both sides of the street.

Areas where parking is prohibited shall be so designated by curb markings or No Parking signs by one of the following methods:

A. "No Parking Fire Lane" (or approved or standardized equal) signs shall be placed at all points of entry to properties or subdivisions and at 75 foot intervals on all sides of a vehicle pathway on which parking is prohibited. Signs shall face oncoming traffic.

B. "Notice All Roads Are Fire Lanes Park Only in Designated Parking Areas" (or approved or standardized equal) signs shall be placed at all points of entry to properties or subdivisions with marked parking stalls and shall face traffic entering the property.

C. All curbs along roads or lanes where parking is prohibited shall be painted red, contain 3 inch high by 3/4 inch stroke white letters reading Fire Lane-No Parking (or approved equal), with the lettering spaced every 50 feet on center. (IFC 503.3, BMC 7-01-32)

13. **Address numbers.** New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. Where required by the fire code official, address numbers shall be provided in additional approved



locations to facilitate emergency response. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inch. (IFC 505.1)

14. Multi-Family Dwelling Addressing (BMC 7-01-38)

A. When individual apartment, condominium, or town house structures within a common complex are designated with separate addresses, individual unit numbers shall be assigned so there is no duplication of unit designations within a building. First floor shall be 100 series, second floor 200 series and so on for each successive floor. Basements shall be 10 series if the next higher floor is designated the first floor; or basements shall be designated 100 series if the next level is called the second floor.

15. **Bolt locks.** Manually operated flush bolts or surface bolts are not permitted. (IFC 1008.1.9.4)

NOTE: Exceptions apply. Doors from individual dwelling units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

16. Except as specifically permitted by this section egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort. (IFC 1008.1.9)

17. **Panic hardware.** Each door in a means of egress from occupancy of Group A having an occupant load of 50 or shall not be provided with a lock unless it is *panic hardware or fire exit hardware*. (IFC 1008.1.10)

18. **Stairway access to roof.** New buildings four or more stories in height, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3 percent slope), shall be provided with a stairway to the roof. Stairway access to the roof shall be in accordance with Section 1009.12. Such stairway shall be marked at street and floor levels with a sign indicating that the stairway continues to the roof. Where roofs are used for roof gardens or for other purposes, stairways shall be provided as required for such occupancy classification. (Ref. IFC 504.3)

NOTE: Stairway access to roof is provided from stairways 2 and 3 with alternating tread device.

19. **Fire Protection Identification.** Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location, shall be constructed of durable materials, permanently installed and readily visible. (Ref. IFC 509.1 & BMC 7-01-47)



20. Access-controlled egress doors. The entrance doors in a means of egress in buildings with an occupancy in Groups A, , M, or R-2, and entrance doors to tenant spaces in occupancies in Groups A, M, or R-2, are permitted to be equipped with an approved entrance and egress access control system, listed in accordance with UL 294, which shall be installed in accordance with all of the following criteria: (Ref. IFC 1008.1.9.8)

1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches vertically above the floor and within 5 feet of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. Entrance doors in buildings with an occupancy in Group A or M shall not be secured from the egress side during periods that the building is open to the general public.

NOTE: Access controlled, electrically locked doors are located on the main level leading from outside into the residential corridors. Exit devices are indicated to allow exit at all times and will unlock upon fire alarm and loss of power.

21. **Means of egress illumination** shall comply with IFC 1006. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied. The means of egress illumination level shall not be less than 1 foot-candle at the walking surface. Means of egress illumination within the permit area and associated paths of exit travel shall be verified by the PDS Fire Inspector, for locations and intensity of illumination. (Ref. IFC 1006.1-2)

NOTE: The PDS Fire inspector will verify the emergency lighting includes the exterior area between each exit door and the public way (i.e. the exit discharge).

22. **Egress illumination emergency power** shall be provided by the premise's electrical system for the duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with IFC 604. The PDS Fire inspector will verify the locations of emergency illumination are in accordance with IFC 1006.3.

NOTE: Plans indicate a generator to be provided onsite.



Storage Issues:

23. Storage heights shall be maintained at least 18" below sprinkler head deflectors in sprinklered areas. (IFC 315.3.1)

Elevators:

24. New elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1. (IFC 607.1; Ref ASME A17.1 Rule 211.3)

25. Emergency signs. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall read: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS. The emergency sign shall not be required for elevators that are part of an accessible means of egress complying with Section 1007.4. (IFC 607.2)

26. Keys for the elevator car doors and fire-fighter service keys shall be kept in an approved location for immediate use by the fire department. (Ref. IFC 607.3)

27. Alarm systems for elevator recall and shutdown functions shall be designed and installed in accordance with NFPA 72. (Ref. NFPA 72, ANSI A17.1, 211.3b).

Automatic Fire Sprinkler System Requirements:

28. This facility requires complete fire sprinkler protection coverage per NFPA 13. A permit is required for this work, as noted above.

NOTE: The generator room is indicated to be separated from the rest of the building by 2 hour walls and lid. (Exempt locations per IFC 903.3.1.1.1)

29. Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Dwelling units and sleeping units in Group R occupancies.
2. Light-hazard occupancies as defined in NFPA 13. (Ref. IFC 903.3.2)

30. The Fire Department Connection (FDC) and associated outside alarm for a sprinkler system shall be installed within 100 feet of an approved fire department vehicle access lane and within 300 feet of fire department vehicle access distance of a fire hydrant. In areas subject to freezing, a listed automatic drip valve that is arranged to allow drainage without causing water damage shall be installed in the piping between the check valve and the fire department connection. Fire department connections shall be located not less than 18" nor more than 48" above the level of the adjoining ground, sidewalk, or grade surface. (IFC 912, BMC 7-01-58, NFPA 14-6.4.4, 6.4.6)



31. **Floor Control Assemblies.** Unless approved otherwise by the code official, sprinkler systems in any building 2 or more levels in height shall be separated by floor control assemblies in addition to main control and alarm features. Floor control assembly components shall include, but not be limited to, properly placed and installed control valve, alarming device, test and drain assembly, and pressure gage. Exception: Systems installed in one and two family dwellings. (BMC 7-01-52)

Fire Alarm System Requirements:

32. FIRE ALARM CONTROL PANEL LOCATION AND SIGNS. When a fire alarm control panel (FACP) is mounted in such a location or room so as to not be in obvious view from the front entry of the building, a remote annunciator shall be provided at the main entrance of the building, and approved signs shall be posted for the purpose of leading emergency personnel to the room or location of the FACP. (Ref. BMC 7-01-47)

NOTE: Annunciator panels are indicated at both main entries.

33. Where a Fire Alarm system is required by this chapter, an approved supervising station in accordance with NFPA 72 shall monitor the fire alarm systems. (IFC 907.6.5).
34. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems shall be electrically supervised by a listed fire alarm control unit. (IFC 903.4)
35. Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11. (IFC 907.2.9.2)

Fire Safety During Construction:

36. Temporary wiring for electrical power and lighting used in connection with construction, alteration of buildings, structures, equipment or similar activities shall comply with the NEC. (IFC 3304.7)
37. Open junction boxes and open wiring splices shall be prohibited. Approved covers shall be provided for all switch and electrical outlet boxes provided with power. (IFC 605.6)
38. Combustible debris shall not be accumulated within the building. Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work. Combustible debris, rubbish, waste material and trash shall not be disposed of by burning on site unless approved by the Fire Chief. When approved by the Chief, it shall comply with IFC 307. (IFC 3304.2)
39. Smoking shall be prohibited except in approved areas. Signs shall be posted in accordance with IFC 310. Approved ashtrays shall be provided in accordance with IFC 310 in the approved smoking area. (IFC Section 3304.1)
40. Provide 2-A:10-B:C rated fire extinguishers during construction. This includes one for



each construction shack and at each stairway on all floor levels where combustible materials have accumulated. (IFC 3315.1)

41. Clearance of temporary heating devices to combustibles shall be maintained in accordance with the labeled equipment. When in operation, temporary heating devices shall be fixed in place and protected from damage, dislodgement or overturning in accordance with the manufactures instructions. (IFC 3303.5)

Construction and Mechanical:

42. Rubbish chutes, laundry chutes, and incinerators shall be installed and maintained in accordance with NFPA 82, Standard on Incinerators and Waste and Linen Handling Systems and Equipment.

NOTE: Rubbish chutes are located on each floor and in each wing of the building.

43. Fire Resistive-Doors on hold-opens shall display a permanent sign near or on each required fire door, with letters not less than one (1) inch high, to read as follows: (IFC 703.2)

FIRE DOOR DO NOT OBSTRUCT

NOTE: Corridor doors are on hold opens.

44. Door operation. Swinging fire doors shall close from the full-open position and latch automatically. The door closer shall exert enough force to close and latch the door from any partially open position. (IFC 703.2.3)
45. Automatic fire detectors utilized for the purpose of performing fire safety functions, (e.g. release of fire/smoke dampers and fire/smoke doors) shall be connected to the building's fire alarm control panel where a fire alarm system is required by IFC 907.2. Detectors shall upon actuation, perform the intended function and activate the alarm notification appliances or activate a visible and audible supervisory signal at a constantly attended location. Design and installation of detectors shall be in accordance with NFPA 72. *These detectors and function shall be reflected in the fire alarm plans.* (Ref. IFC 907.4 & 907.1.1)

NOTE: Fire Smoke Dampers are indicated throughout the building at mechanical shafts leading to the floors.

46. Access shall be provided to each detector for periodic inspection, maintenance and testing. Fire and smoke dampers shall be provided with an approved means of access, large enough to permit inspection and maintenance of the damper and its operating parts. Access points shall be permanently identified on the exterior by a label having letters not less than 0.5 inch in height reading: SMOKE DAMPER or FIRE DAMPER. Access doors in ducts shall be tight fitting and suitable for the required duct construction. (Ref. IFC 907.6.4, IMC 607.4)

47. Smoke detection shall be installed in return *air systems* with a design capacity greater



than 2,000 cfm, in the return air duct or plenum upstream of any filters, exhaust air connections, outdoor air connections or decontamination equipment and appliances. *Upon activation, the smoke detectors shall shut down the air distribution system. The smoke detectors shall be connected to a fire alarm control panel and shall activate a visible and audible supervisory signal at a constantly attended location.* (Exceptions apply. Refer to IMC 606 and IFC 907.3).

NOTE: Smoke detectors are indicated in all five RTUs.

48. This project must conform to all applicable related fire code requirements, standards and ordinances in effect, unless specifically noted otherwise in writing by the Boise City Fire Department. (Refer to IFC 105.3.6)
49. One set of approved construction documents shall be kept on the site of the work at all times until the project has been approved by final inspection. (Refer to IFC 105.4.6)
50. The permit Sign-Off card must be posted at all times on the project until completed. (Refer to IFC 105.3.5)
51. The building or structure shall not be occupied prior to the fire code official issuing a permit that indicates that applicable provisions of this code have been met. No Certificate of Occupancy, Temporary Certificate of Occupancy, or any other documentation indicating or implying that the requirements of this code have been satisfied or allowing occupancy shall be issued or renewed until the Fire Department has approved issuing said documentation. (Refer to IFC 105.3.3 & BMC 7-01-11)

