# Arvada Fire Protection District

**Fire Marshal's Office**
**7903 Allison Way - Arvada, CO 80005**
**Main 303-424-3012 - Fax 303-432-7995**
**www.arvadafireco.gov**

| | | | |
|---|---|---|---|
| **Occupant Name:** | Olde Town Residences | **Contractor:** | Tina Lashbrook<br>HS Arvada Olde Town LLC<br>303-478-6667 *c*<br>303-478-6667 *(AH)* |
| **Address:** | 7295 West 56th Avenue<br>Arvada, CO 80002 | **Inspection Date:** | 2/9/2022 |
| **Suite:** | | **InspectionType:** | Plan Review - New Building |
| **Job Number:** | 211005003-SP | **Inspected By:** | Scott Plumer<br>303-424-3012<br>scott.plumer@arvadafireco.gov |
| **Job Description:** | Olde Town Resdiences is a Multifamily 4-level wood framed structure on a 2-level concretepodium project. The project includes 252 for-rent units and 372 parking spaces. | | |
| **Plan Type** | Original | | |

**Pass Fail N/A**

**Plan Review**

**Floor 1**

**Comments**

☒ ☐ ☐ 1001 Project Specific Comments

*-The following comments are specific to the plans submitted on 1/28/22, provide a written response to the AFPD regarding the following items:*
*1. The following deferred submittals are required: fire sprinkler, fire pump, standpipe, fire alarm, kitchen suppression system, ERCES (BDA), signage, access control, and fire/smoke damper signs.*
*2. Provide two Knox boxes (one at front door, one at fire pump room). They are to be installed 5'6" to center off finished grade.*
*3. Provide a 10' wide sidewalk in the NW corner leading from the west courtyard.*
*4. Signage required includes, but is not limited to: building address numbers, occupant loads in assembly areas/spaces, electrical rooms, roof access, stairs per chapter 10, pool NFPA 704 placard, elevator star of life, fire doors, unit numbers, fire riser room, and FACP.*
*5. Provide a fire extinguisher near the pool equipment room.*
*6. Provide emergency lighting in the garage per the 2-28-22 garage lighting plans.*
*7. Update the exit signs per the stamped plans.*
*8. Get rid of interior exit signs on 3rd floor, show the conference room and fitness occupants using stair 2.*
*9. Provide labeled keys for each Knox box per the AFPD building construction guide found on our website.*
*10. Ensure smoke alarms in each apartment are 10 feet from cooking appliances and 3 feet from bathroom doors. This is based on an ionization smoke alarm with silence feature per product submittals on 3/3/2022.*
*11. Fire line open trench, fire line flush, building final inspections required under this permit. Additional inspections required under deferred submittals.*
*12. Door hardware for marked exit doors shall comply with IFC section 1010.*
*13. Fire pits throughout the project shall have an emergency shutoff switch located in the vicinity and shall be equipped with a timer to limit the run time to no more than one hour. This is in accordance with the AFPD administrative interpretation on fire pits at commercial buildings available on our website.*
*14. The construction fire safety plan shall be followed at all times. Random, unscheduled inspections will be conducted by the AFPD during normal business hours to verify compliance. As a reminder, the fire sprinklers shall be put into service as soon as practicable. This is defined as having sufficient heat in the building (either atmospheric*

*heat or building mechanical heat) and having painting completed in the area of the sprinklers. The sprinklers shall be put into service as the building progresses by floor and zone. Also, the fire wall shall be completed as soon as practicable, including the installation of opening protectives (fire doors). Temporary rated fire doors are permitted to avoid damage to the permanent finish.*
*15. Final inspection required prior to occupancy.*

☒ ☐ ☐ 1002 General Comments

*-These plans have been reviewed to the 2018 International Fire Code and referenced standards as adopted.*

*-These comments, approved plans and permit must be on-site to receive any Fire District inspections. Deviation to the approved plans may require re-submittal for review and approval in order for any further inspections to be performed. NO inspections will occur without Fire District approved plans, comments and permit card available on-site.*

*-Fire sprinkler installation personnel shall be qualified or shall be supervised by persons who are qualified in the installation, inspection, and testing of fire sprinkler systems as required by the Colorado Division of Fire Prevention and Control - Fire Suppression System Program. Evidence of qualifications as specified in the Fire Suppression System Program Rules and Regulations shall be provided when requested by the fire district.*

*-Provide fire sprinkler plans to AFPD for review. This can be a delayed submittal to AFPD by a registered fire protection engineer or NICET Level III or higher and be a state registered fire suppression system contractor. NFPA 13, 2022 Edition is the adopted standard for AFPD.*

*-Provide fire alarm plans to AFPD for review. This can be a delayed submittal to AFPD by a fire alarm contractor who is NICET III minimum certified, registered fire protection engineer and/or factory authorized by the fire alarm panel manufacturer for the system present in the building. NFPA 72, 2022 Edition is the adopted standard for AFPD.*

*-To schedule inspections please log-on to the Mobile Eyes Contractor Permit Portal at http://www.mobile-eyes.com/PA_index.asp. All attempts will be made to schedule an inspection for the date and time requested. Inspections will be scheduled based on inspector availability, and will be scheduled within 24-48 hours of the intended request.*

*-Inspections may reveal corrections necessary to bring all work into compliance with applicable codes and standards.*

**Status:** Approved With Conditions

**Plans submitted to AFPD are reviewed for compliance per the fire code as adopted and/or amended and any applicable State Of Colorado Requirements. The submitted plans are not reviewed to specific individual project specifications. This report is intended to provide the submitter with the status of plan approval, and any comments that may require further information,verification or action for approval of plans. All plans may be subject to field inspection and/or testing for final approval prior to sign off on a Certificate Of Occupancy or Certificate of Inspection.**

**The approval of plans constitutes a permit to commence workwhere required by the fire code, and is subject to the conditions as may be noted in the comment section in the attached plan review report. Response to this review report as necessary along with the permit fee payment will be required prior to any field inspections.**

# FIRE PREVENTION PLAN

## Olde Town Residences
## 5002108

# FIRE PREVENTION PLAN

## Revision Log

| Date | Revised By | Section | Description |
|---|---|---|---|
| | | | |
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## 1 Introduction

The Olde Town Residence project has developed this Fire Prevention Plan in an effort to provide workers with essential guidelines to eliminate the causes of fire, prevent the loss of life and property by fire, and to comply with the Denver Occupational Health and Safety Act and Regulations.

All supervisors and workers who will directly oversee or perform tasks that could involve potential ignition sources shall take the time to familiarize themselves with this plan.

## 2 Arvada Fire Department Sign-off Sheet

The construction site fire safety plan for Olde Town Residences, 7195 W. 56th Ave, Arvada CO has been reviewed and fulfills the Arvada Fire Protection District requirements per NFPA 241 and The International Fire Code as adopted.

Signed:

Arvada Fire Protection District

## 3 Contact List

**Project Owner**: Trammell Crow Company
Primary point of contact: Tine Lashbrock
Day telephone: 303.478.6667 Night telephone: 303.478.6667
Email: tlasbrook@trammellcrow.com

**General Contractor**
General Contractor: PCL Construction Services, Inc.
Primary point of contact: Pete Grubesic
Day telephone: 303-918-7245 Night telephone: 303-918-7245
Email: pmgrubesic@pcl.com

**Fire Prevention Program Superintendent**
Name: Pete Grubesic
Day telephone: 303-918-7245 Night telephone: 303-918-7245
Email: pmgrubesic@pcl.com

**Alternate or Back-up Fire Prevention Program Superintendents**
Name: Brian Harley
Day telephone: 719-200-9679 Night telephone: 719-200-9679
Email: bharley@pcl.com

Name: Nate Hentges
Day telephone: 720-525-9650 Night telephone: 720-525-9650
Email: nhentges@pcl.com

**Emergency Services Off-Site Contact Numbers**
For all emergencies: 9-1-1
Fire (Non-Emergency): 720-502-0262
Environmental Clean-up (leaks, spills): 9-1-1

## 4 Project Description

Project Structure Construction Dates:

- Deep Foundations – 11/18/21
- Level 1 Slab – 1/17/22
- Level 1 Columns – 2/21/22
- Level 2 Suspended Slab – 4/25/22
- Level 3 Suspended Slabs – 5/20/22
- Level 4 Topping Slabs – 10/7/22
- Level 5 Topping Slabs – 10/17/22
- Level 6 Topping Slabs – 10/28/22
- Roof Topping Slabs – 11/7/22
- Level 3 to Level 4 Framing and Sheathing – 8/4/22
- Level 4 to Level 5 Framing and Sheathing – 8/25/22
- Level 5 to Level 6 Framing and Sheathing – 9/16/22
- Level 6 to Roof Framing and Sheathing – 10/7/22

Upon completion, the building will be a six-story 252 unit apartment building, 4 level type 5 over 2 level podium, with related parking, landscaping and other site improvements. The building will be protection by a wet and dry pipe sprinkler system combination and smoke/detection/alerting system. The total floor area will be 419,960 sq. ft. and that building will be 64 feet tall.

- Combustible building materials expected to arrive on site about 10/2021.
- A construction shack/trailer will be located on the Southwest corner of 56$^{th}$ and Vance St.
- See **Exhibit A** for site layout and logistics plan

### 4.1 Subcontractors Log

- Refer to **Exhibit B**

### 4.2 Site Security

- Site will have 24-hour security patrol. It has yet to be determined if this will be performed by a security guard or CCTV monitoring. PCL to provide an update revision once with is confirmed.

## 5 Personnel Safety and Accountability

A copy of this fire prevention and control plan will in the jobsite trailer located at the Southwest corner of 56th and Vance St. Copies of all documentation will be kept in the jobsite trailer. All subcontractors working on the jobsite will be provided a copy of the plan and are required to verify they have received it.

## 6 Fire Protection Features

- The required fire flow for the building is TBD at this time because this is a Design Build System. This is a deferred submittal that will be provided by the fire sprinkler contractor once calcs are completed and shop drawings are generated and submittal for City and Fire Department review/approval.

- Portable fire extinguishers having a minimum 2:A:10B:C rating will be located in the following locations on a hanger, bracket, or in a cabinet:
  1. At every stairway on all floor levels where combustible materials have accumulated.
  2. In every storage and construction shed or trailer.
  3. Throughout the building on each floor so that the travel distance is not greater than 75 feet.
  4. At all locations where hot work operations are taking place per the hot work permit.

- Standpipe(s) required? Yes
  - If Yes, the standpipe shall be provided once the 4th floor deck has been installed and shall be extended every floor level thereafter.
- Fire sprinklers provided? Yes
  - If Yes, the fire sprinkler system must be place in service as soon as practicable. This will be defined as the building having sufficient heat and painting operations completed in the areas as isolated by the sprinkler system zone control valves.
- Fire walls and exit stairways will be given priority for completion.
- Fire doors with closing devices will be installed as soon as practicable.
  - This will be defined as once drywall has been installed in the area surrounding the fire door(s).
- Stairwell identification will be provided to include the floor level, stair designation, and exit path direction as required to provide safe egress.

## 7 Leadership and Administration

Throughout this project specific Fire Prevention Plan, there will be several references made towards the general responsibilities of PCL, Subcontractors and Workers on this project.

It is the responsibility of PCL Project Management, PCL Supervision and Subcontractor Supervision to ensure that all workers in their respected areas have been oriented to this plan.

## 8 Material Handling and Storage

One of the most important aspects of Fire Prevention in any environment, is the planning and execution of safe material handling and storage procedures. The wide variety of construction related materials used on this project, mixed with construction activities that could result in a potential ignition source make it imperative that all workers understand the following general guidelines for material handling and storage on this project.

As outlined within the Construction Regulations:

**"**Material or equipment at a project shall be stored and moved in a manner that does not endanger a worker".

All workers on this project must consider how this regulation applies to their daily work activities and in the event of a fire on this project in which workers would have to respond/evacuate.

### 8.1 General Requirements: Material Safety Data Sheets (MSDS) / Safety Data Sheets (SDS)

To ensure that construction materials are stored safely on this project, and in accordance with the manufacturers guidelines, all workers are to refer to the product specific MSDS or SDS. Within these documents, you will find general precautions necessary for the safe handling of the material, including any equipment that may be required. All possible hazards (fire, reactivity, health and environmental) need to be considered when developing safe handling procedures.

For example, for dispensing a flammable liquid, the MSDS / SDS may suggest electrical grounding and bonding of containers. The storage recommendations provided in this section provide a good starting point for deciding where and how materials should be stored.

### 8.2 Hazard Assessment / Pre-Job Safety Instruction (PSI)

As outlined in section 5.6 of the *Project HSE Plan* for the Olde Town Residences project, all workers are required to participate/complete a daily PSI at the start of their work day and as tasks and conditions change.

All workers must be aware of how their daily activities can impact the accumulation of waste materials, coordination of new materials arriving to the project and ongoing monitoring of material handling/storage.

Special considerations to be given to the interior of any structure with respects to access/egress areas, potential floor loading and other hazards that may exist in the area as a result of nearby construction activities (ie. hot work).

## 8.3 Access and Egress

Place and store materials so they do not interfere with designated access/egress ways, doorways, electrical panels, fire extinguishers or hoist ways. Do not obstruct doorways, hallways or stairwells with construction materials, tools or waste debris.

As outlined within the Construction Regulations:

"Adequate means of egress shall be provided from a work area to permit the evacuation of workers during an emergency".

## 8.4 Material Separation

When handling and storing construction materials and supplies, it is important to consider their fire characteristics (i.e. is it flammable, will it react negatively to the nearby environment). Store non-compatible materials that may create a fire hazard at least 25 feet apart.

Whenever possible, avoid stockpiling large quantities of flammable or combustible materials to reduce the amount of "fuel" for the fire.

## 9 Hot Work

As outlined within the PCL HSE Operating Procedure *Hot Work* section 5.8, the term *Hot Work* is defined as:

*Work involving burning, welding, or a similar operation that is capable of initiating fires or explosions. Operations that could generate sparks, slag or heat sufficient to ignite combustible materials include, but are not limited to:*

- Welding;
- Cutting metal;
- Drilling on metal or concrete;
- Grinding on metal or concrete;
- Sawing on metal or concrete;
- Use of a torch to heat pipes;
- Heat treating; and
- Powder driven fasteners.

### 9.1 PCL Responsibilities

As outlined within PCL HSEOP-10 Hot Work, PCL will be responsible for, but not limited to:

- Ensure compliance with applicable jurisdictional requirements, PCL HSEOP-10 Hot Work, and the Olde Town Residences Project HSE Plan;
- If hot work is to be done, designate a *Permit Authorizing Individual (PAI)* to review/approve Hot Work Permits for Subcontractors on this project;
- If appropriate, identify a designated safe area where hot work can consistently be conducted without permitting *or* use of fire watch;
- Advise all Subcontractors who may be performing hot work about flammable materials, hazardous processes or conditions and the potential for fire hazards; and
- Verify that Subcontractors have been trained and comply with hot work permitting requirements (*Hot Work Permit – Procedure HSEOP-10-02).*

### 9.2 Subcontractor Supervision Responsibilities

As outlined within PCL HSEOP-10 *Hot Work*, Subcontractor supervision will be responsible for, but not limited to:

- Ensuring that a copy of the PCL HSEOP-10 *Hot Work* procedure is readily available to workers (a copy of this procedure can be obtained at the PCL project office);
- Workers understand and are following:
  - PCL HSEOP-10 *Hot Work* procedure; and
  - Company and site specific requirements.
- Applicable legislation has been made available to the worker;

- Only competent workers are assigned duties that require little or no supervision;
- Submit a copy of the Hot Work Permit to the PCL Permit Authorizing Individual *(PAI)* which will most likely be the PCL area Superintendent or Field Engineer ***prior*** to commencing hot work activities; and
- Determining the need for, and coordinating fire watch personnel if required.

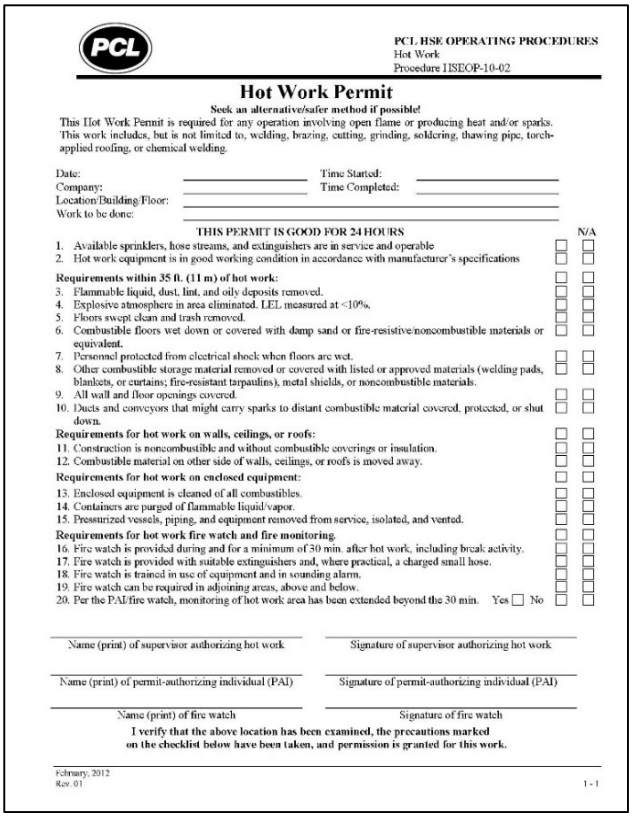
## 9.3 Worker Responsibilities

As outlined within PCL HSEOP-10 *Hot Work*, Workers on this project will be responsible for, but not limited to:

- Complying with the requirements set forth in the PCL HSEOP-10 *Hot Work* procedure;
- Complying with company and site specific requirements; and
- Complying with applicable legislation and regulatory requirements.

## 9.4 Hot Work Permit – HSEOP-10-02

The following hot work permit is required for any operation involving open flame or producing heat and/or sparks. This work includes, but is not limited to, welding, brazing, cutting, grinding, soldering, thawing pipe, torch-applied roofing, or chemical welding.



PCL HSE OPERATING PROCEDURES
Hot Work
Procedure HSEOP-10-02

**Hot Work Permit**

**Seek an alternative/safer method if possible!**

This Hot Work Permit is required for any operation involving open flame or producing heat and/or sparks. This work includes, but is not limited to, welding, brazing, cutting, grinding, soldering, thawing pipe, torch-applied roofing, or chemical welding.

Date: _____ Time Started: _____
Company: _____ Time Completed: _____
Location/Building/Floor: _____
Work to be done: _____

| THIS PERMIT IS GOOD FOR 24 HOURS | | N/A |
|---|---|---|
| 1. | Available sprinklers, hose streams, and extinguishers are in service and operable | ☐ ☐ |
| 2. | Hot work equipment is in good working condition in accordance with manufacturer's specifications | ☐ ☐ |
| **Requirements within 35 ft. (11 m) of hot work:** | | ☐ ☐ |
| 3. | Flammable liquid, dust, lint, and oily deposits removed. | ☐ ☐ |
| 4. | Explosive atmosphere in area eliminated. LEL measured at <10%. | ☐ ☐ |
| 5. | Floors swept clean and trash removed. | ☐ ☐ |
| 6. | Combustible floors wet down or covered with damp sand or fire-resistive/noncombustible materials or equivalent. | ☐ ☐ |
| 7. | Personnel protected from electrical shock when floors are wet. | ☐ ☐ |
| 8. | Other combustible storage material removed or covered with listed or approved materials (welding pads, blankets, or curtains; fire-resistant tarpaulins), metal shields, or noncombustible materials. | ☐ ☐ |
| 9. | All wall and floor openings covered. | ☐ ☐ |
| 10. | Ducts and conveyors that might carry sparks to distant combustible material covered, protected, or shut down. | ☐ ☐ |
| **Requirements for hot work on walls, ceilings, or roofs:** | | ☐ ☐ |
| 11. | Construction is noncombustible and without combustible coverings or insulation. | ☐ ☐ |
| 12. | Combustible material on other side of walls, ceilings, or roofs is moved away. | ☐ ☐ |
| **Requirements for hot work on enclosed equipment:** | | ☐ ☐ |
| 13. | Enclosed equipment is cleaned of all combustibles. | ☐ ☐ |
| 14. | Containers are purged of flammable liquid/vapor. | ☐ ☐ |
| 15. | Pressurized vessels, piping, and equipment removed from service, isolated, and vented. | ☐ ☐ |
| **Requirements for hot work fire watch and fire monitoring.** | | ☐ ☐ |
| 16. | Fire watch is provided during and for a minimum of 30 min. after hot work, including break activity. | ☐ ☐ |
| 17. | Fire watch is provided with suitable extinguishers and, where practical, a charged small hose. | ☐ ☐ |
| 18. | Fire watch is trained in use of equipment and in sounding alarm. | ☐ ☐ |
| 19. | Fire watch can be required in adjoining areas, above and below. | ☐ ☐ |
| 20. | Per the PAI/fire watch, monitoring of hot work area has been extended beyond the 30 min. Yes ☐ No | ☐ ☐ |

Name (print) of supervisor authorizing hot work — Signature of supervisor authorizing hot work

Name (print) of permit-authorizing individual (PAI) — Signature of permit-authorizing individual (PAI)

Name (print) of fire watch — Signature of fire watch

**I verify that the above location has been examined, the precautions marked on the checklist below have been taken, and permission is granted for this work.**

February, 2012
Rev. 01
1 - 1

Attachment 18.7

Subcontractors are to complete a Hot Work Permit and submit to the PCL area Superintendent (or designate) for approval ***prior*** to commencing with any Hot Work. Copies of PCL HSEOP-10 *Hot Work are available in the PCL project office.*

## 10 Fire Extinguishers

Portable fire extinguishers are designed to put out or control small fires before they have the opportunity to spread and engulf larger areas. Therefore, it is important that measures are taken to both properly equip areas of this project and properly train all workers in their use.

For a fire extinguisher to be effective, the following guidelines must be met:

- The extinguisher must be the right type for the potential fire (consider "fuel" for the fire);
- The extinguisher must be located in an area that is easily reached by first responder;
- The extinguisher must be in good working order;
- The first responder must be properly trained in the proper selection and use of the extinguisher; and
- The fire itself must be discovered while it is still in the early stages of possible containment.

As outlined within the Construction Regulations:

"Fire extinguishing equipment shall be provided at readily accessible and adequately marked locations at a project".

"Every worker who may be required to use fire extinguishing equipment shall be trained in its use".

"Without limiting subsection (1), at least one fire extinguisher shall be provided,

(a) where flammable liquids or combustible materials are stored, handled or used;
(b) where oil-fired or gas-fired equipment, other than permanent furnace equipment in a building, is used;
(c) where welding or open-flame operations are carried on; and
(d) on each storey of an enclosed building being constructed or altered".

"At least one fire extinguisher shall be provided in a workshop for each 300 or fewer square metres of floor area".

"Clause (2)(d) and subsection (3) do not apply to a building,

(a) that is to be used as a detached or semi-detached single-family dwelling;
(b) that has two storeys or less and is to be used as a multiple family dwelling; or
(c) that has one storey with no basement or cellar.

"Fire extinguishing equipment shall be of a suitable type and size to permit the evacuation of workers during a fire.

"Every fire extinguisher,
(a) shall be a type whose contents are discharged under pressure; and
(b) shall have an Underwriters' Laboratories of Canada rating of at least 4A40BC".
"Fire extinguishing equipment shall be protected from physical damage and from freezing".

"After a fire extinguisher is used, it shall be refilled or replaced immediately".

"Every fire extinguisher shall be inspected for defects or deterioration at least once a month by a competent worker who shall record the date of the inspection on a tag attached to it".

## 10.1 Fire Extinguisher Type(s)

To help in selecting the appropriate classification of extinguisher for the environment you are working, fires are classed **A**, **B**, **C**, or **D** according to the type of fuel that could be involved (ie. wood, paper, grease, oils, fuels etc.). The same process is used to classify the *type* of fire extinguisher you should equip your work area with.

In some circumstances, certain types of extinguishers can be used to fight multiple classes of fires and others are only suitable for one specific type.

**Class A** extinguishers are for ordinary combustible materials such as paper, wood, cardboard, and most plastics. The numerical rating on these types of extinguishers indicates the amount of water it holds and the amount of fire it can extinguish. Geometric symbol (green triangle)

**Class B** fires involve flammable or combustible liquids such as gasoline, kerosene, grease and oil. The numerical rating for class B extinguishers indicates the approximate number of square feet of fire it can extinguish. Geometric symbol (red square).

**Class C** fires involve electrical equipment, such as appliances, wiring, circuit breakers and outlets. Never use water to extinguish class C fires - the risk of electrical shock is far too great! Class C extinguishers do not have a numerical rating. The C classification means the extinguishing agent is non-conductive. Geometric symbol (blue circle).

**Class D** fire extinguishers are commonly found in a chemical laboratory. They are for fires that involve combustible metals, such as magnesium, titanium, potassium and sodium. These types of extinguishers also have no numerical rating, nor are they given a multi-purpose rating - they are designed for class D fires only. Geometric symbol (Yellow Decagon).

**Class K** fire extinguishers are for fires that involve cooking oils, trans-fats, or fats in cooking appliances and are typically found in restaurant and cafeteria kitchens. Geometric symbol (black hexagon).

## 10.2 Fire Extinguisher Use

To use a fire extinguisher correctly, workers are reminded to remember the acronym **P.A.S.S.**

**P**ull the pin (the pin is in place to prevent an accidental discharge);
**A**im at the base of the fire (utilize your dominant hand while controlling the nozzle);
**S**queeze the trigger;
**S**weep side to side (covering the entire base of the fire).

If the fire is successfully extinguished, it is important to remember the following:

- remain in the area (permitting it is safe to do so) to ensure contents of the fire do not re-ignite;
- if possible, remove any flammable materials (fuel) that could be ignited by radiant heat or sparks/embers from the original fire;
- if possible, call for additional support and resources (additional fire extinguishers) to have on standby in the event that the fire re-ignites;
- follow the direction of the PCL ERT Lead or designate until the appropriate authorities arrive to assume control of the scene.

# 11 Winter Heating & General Protection Plan

Any workers who may be involved with the setup, maintenance, operation and disconnection of temporary heaters must be properly trained. In addition, a fire watch plan must be implemented on all PCL projects that will utilize the following:

- Open flame heaters (24 hour monitoring by a trained worker);
- Heaters where flames are enclosed and heat is forced through a ducting system (interior applications only, exterior ducting N/A); and
- Heaters that require a fuel storage tank / secondary fuel supply line.

Fire prevention during winter heat season is achieved through planning, preventative maintenance of equipment, and operating equipment within the manufacturer's guidelines.

As outlined within the Construction Regulations:

"A fuel-fired heating device shall be located, protected and used in such a way that there is no risk of igniting a tarpaulin or similar temporary enclosure or combustible materials adjacent to it".

"No fuel-fired heating device shall be used in a confined or enclosed space unless there is an adequate supply of air for combustion and adequate general ventilation".

"A fuel-fired heating device shall be protected from damage and from overturning".

"No fuel-fired heating device shall be located so as to restrict any means of egress".

"A fuel-fired heating device that generates noxious products of combustion shall discharge the products of combustion outside the building or structure in which it is located".

Refer to **Exhibit C** for Temp Heating Plan.

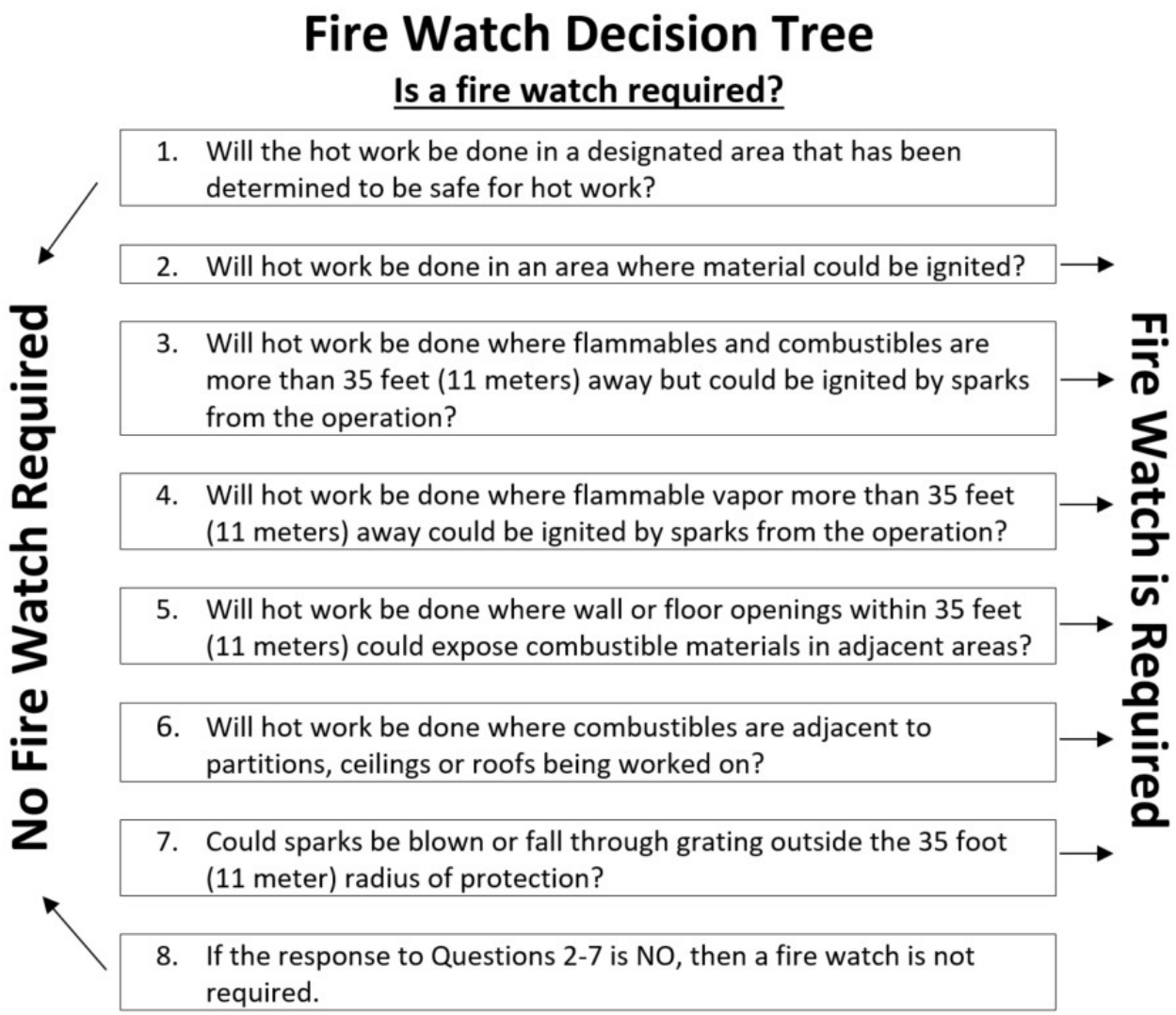
## 12 Fire Watch

The primary objective of implementing a fire watch plan is:

- To prevent an uncontrolled fire incident on a project;
- To limit the severity and effects of a fire or explosion;
- To notify emergency responders in a timely manner should there be a fire or explosion; and
- To notify any personnel on the project of an emergency situation requiring immediate attention, evacuation or assistance to emergency services.

### 12.1 Fire Watch Decision Tree

As outlined within PCL HSEOP-10 *Hot Work*, the following flow-chart has been developed to aid PCL project team members and Subcontractors in determining if fire watch is required.




**Note: Remember that the Permit Authorizing Individual (PAI) determines if a Hot Work Permit is required.**

## 12.2 Frequency of Inspections

When determining the appropriate frequency in which fire watch patrols should occur, the following should be considered:

- Is the area heavily populated by either workers or members of the general public?
- What exposure risks are there should there be an explosion or fire (ie. nearby structures, utilities, stockpiles of materials etc)?
- What type of heating source is being utilized?
- What type of fuel source is being utilized?

- Are there adequate means / materials readily available to respond to an explosion/fire incident should one occur?
- How many personnel will be responsible for conducting fire watch inspections?

## 13 Designated Smoking Areas

There will be no designated smoking areas on-site. Workers will be required to follow city and state smoking laws off-site

## 14 Designated Parking Areas

There will be no designated craft parking areas on-site. Workers will be required to follow city parking rules and regulations for parking surrounding the site.

# FIRE PREVENTION PLAN

EXHIBIT A – SITE LAYOUT AND LOGISTICS PLAN

# Site Logistics Plan

## GENERAL NOTES

1. REFER TO GENERAL NOTES FOR ADDITIONAL NOTES, LEGENDS AND SCHEDULES.
2. ALL SETBACKS SHOWN TO COMPLY WITH DCOZ ZONING REGULATIONS.
3. ALL HEIGHT SETBACKS SHOWN TO COMPLY WITH DCOZ ZONING REGULATIONS.
4. REFER TO PLANS FOR DIMENSIONS.
5. REFER TO PLANS FOR VERTICAL WALLCONSTRUCTION AND FIRE RATINGS.
6. ELEVATED SLABS ARE 2-HR RATED, U.N.O.
7. FLOOR AND CEILING ASSEMBLY IS 1-HR RATED, U.N.O
8. REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR SITE WORK.
9. REFER TO CIVIL DRAWINGS FOR SPOT GRADES.

## SITE PLAN KEY

- EXISTING STRUCTURE TO REMAIN
- NEW CONSTRUCTION
- PROPERTY LINE
- SETBACK LINE
- PROPERTY LINE OF NEIGHBORING PROPERTY
- REAR AND SIDE YARD REQUIREMENT RELIEF PER BZA SPECIAL EXCEPTION CASE #19371
- BUILDING ENTRY
- ACCESSIBLE BUILDING ENTRY

PCL CONSTRUCTION

- Construction Access
- 6' Site Fence
- Gate 1, 2 & 3
- Tower Crane
- Man & Material Hoist
- Spill Kit
- FDC Connection
- Mustering Area
- PCL Site Office
- First Aid Kit
- Toilets
- Dumpster
- Conex
- Concrete Pump & Mixer Truck Zone
- Delivery Zone
- Temporary Dirt Stock Pile
- East Scaffolding
- West Scaffolding

GRANDVIEW AVENUE

RTD FASTRACKS - GOLD LINE

VANCE STREET

WALK-UP APARTMENTS

MULTI-FAMILY

COURTYARD I

COURTYARD II

MULTI-FAMILY

W. 56TH AVENUE

WADSWORTH BYPASS

260'-6 1/2"

215'-2 3/4"

1 ARCHITECTURAL SITE PLAN
3/64" = 1'-0"

NOTES:
1. FIRE LANE AND EMERGENCY ACCESS ROAD SIGNAGE SHALL BE INSTALLED DURING AND AFTER CONSTRUCTION, AS DIRECTED BY AFPD.
2. ALL TREES ALONG ROUTE SHALL HAVE 13'-6" MIN. VERTICAL CLEARANCE.
3. REVIEW FIRE HYDRANT LOCATIONS PER APPROVED CIVIL PLANS. MAINTAIN 3 FT CLEAR DURING CONSTRUCTION.

Plan North / True North

A-100

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# FIRE PREVENTION PLAN

EXHIBIT B – SUBCONTRACTOR CONTACT LIST

| Trade | Name | Company | Email address |
|---|---|---|---|
| Framer | TBD | AJM Framers | TBD |
| Mason | Todd Cardinel | Barnes Construction CO | todd@barnesconstruction.co |
| Electrician | Jason Willis | Barnes Electrical Contracting, Inc | jasonw@barneselectrical.com |
| Utilities | Josh Velasquez | Diamond Excavating, Inc | josh@diamondexcavating.com |
| Roofer | TBD | Douglas Colony | TBD |
| Mechanical/Plumbing | Fred Taylor | Freund Plumbing & Heating | fred@freundph.com |
| Fire Sprinkler | Robert Seidel | Frontier Fire Protection, LLC | rseidel@frontierfireprotection.com |
| Structural Concrete | Brian Harley | PCL Construction | bharley@pcl.com |
| Elevator | Jay Ferguson | Schindler Elevator | jay.ferguson@schindler.com |
| Shoring | Cody Pump | Schnabel Foundation Company | cody.pump@schnabel.com |
| Fire Alarm | TBD | SMG/Hiller | TBD |
| Caisson Drilling | Frank Brandse | Snow's Specialty Drilling, Inc. | frank@snowsdrilling.com |

# FIRE PREVENTION PLAN

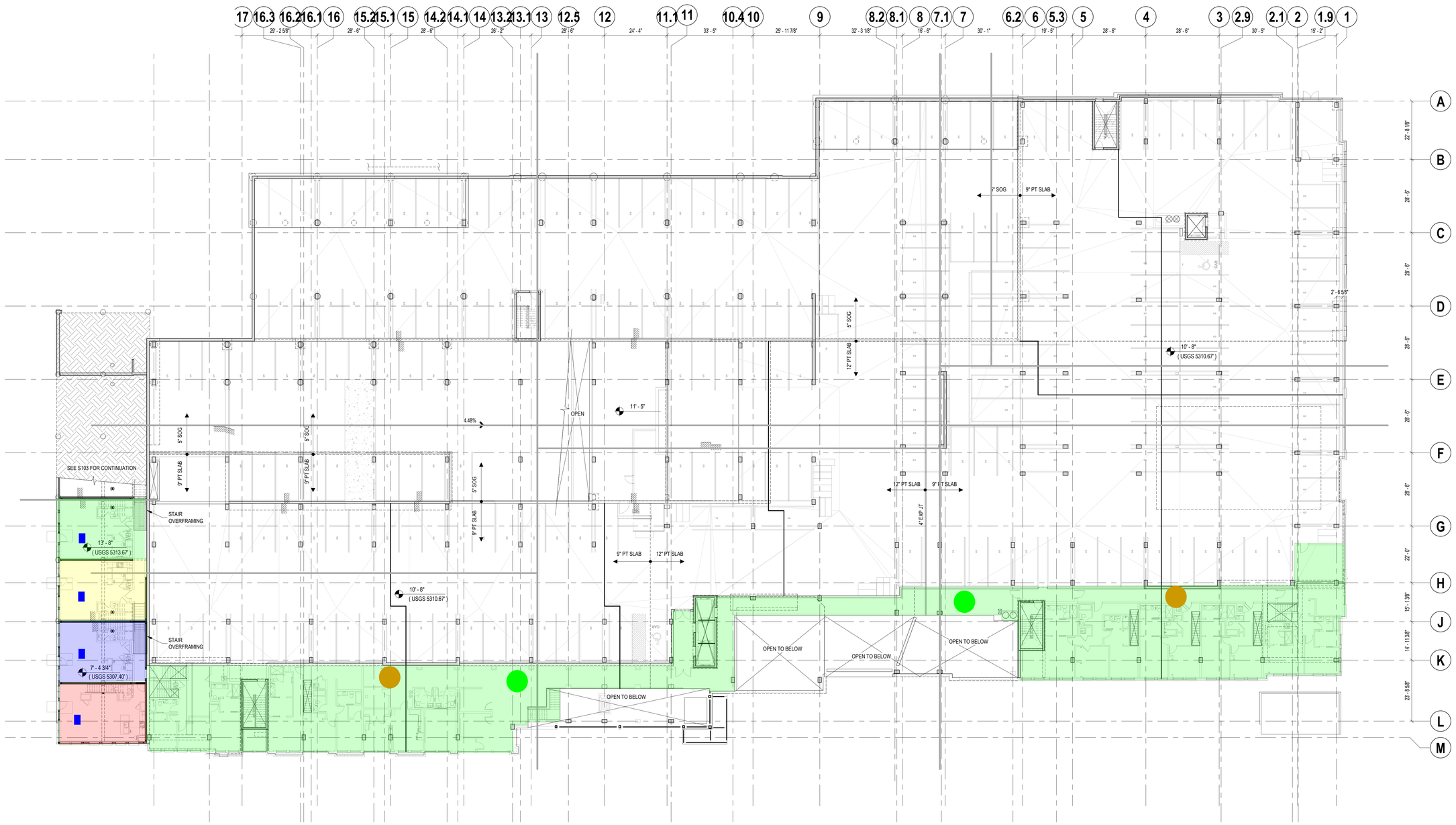
EXHIBIT C – TEMP HEATING PLAN

400k BTU Open Flame

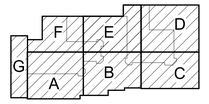
48" Fan

170,000 BTU Unit per townhome

# CONCRETE STRUCTURE




1 LEVEL 2 - OVERALL FLOOR FRAMING PLAN
1/16" = 1'-0"




KEYPLAN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E: STHOMAS@COLORADOCODE.NET


OLDE TOWN RESIDENCES

W 56 PL & WADSWORTH BYPASS
ARVADA, CO 80002

| DATE | REVISION |
|---|---|

Professional Seal

**ISSUE FOR CONSTRUCTION**

| | |
|---|---|
| Project No: | 16-102 |
| Date: | 06/11/2021 |
| Scale: | AS NOTED |

LEVEL 2
OVERALL
FRAMING PLAN

S-102

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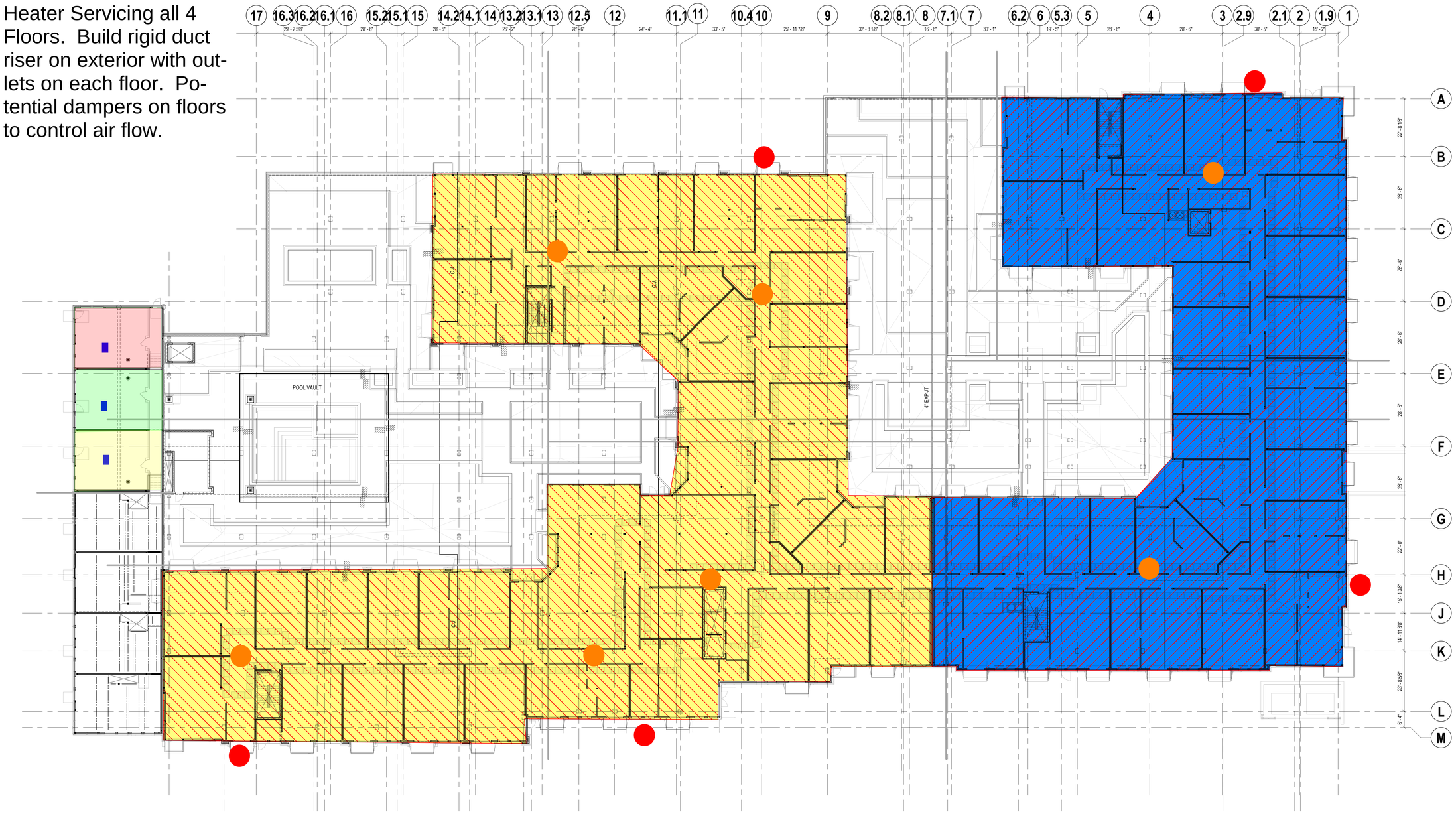
400K BTU Open Flame

48" Fan

170,000 BTU

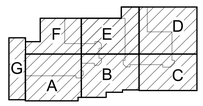
Ducted 2.3 mil BTU Heater Servicing all 4 Floors. Build rigid duct riser on exterior with outlets on each floor. Potential dampers on floors to control air flow.

# WOOD STRUCTURE




## Level 3 through Level 6

1 LEVEL 3 OVERALL FRAMING PLAN
1/16" = 1'-0"




KEYPLAN NORTH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OLDE TOWN RESIDENCES
W 56 PL & WADSWORTH BYPASS
ARVADA, CO 80002

| DATE | REVISION |
|---|---|
| 2.21.20 | FOUNDATION PERMIT |

Professional Seal

**ISSUE FOR CONSTRUCTION**

| | |
|---|---|
| Project No: | 16-102 |
| Date: | 06/11/2021 |
| Scale: | AS NOTED |

LEVEL 3 OVERALL FRAMING PLAN

S-103

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# Arvada Fire Protection District

**Fire Marshal's Office**
**7903 Allison Way - Arvada, CO 80005**
**Main 303-424-3012 - Fax 303-432-7995**
**www.arvadafireco.gov**

| | | | |
|---|---|---|---|
| **Address:** | 7295 West 56th Avenue<br>Arvada, CO 80002 | **Job Number:** | 211005003-SP |
| **Suite:** | | **Permit Number:** | 211005003-SP |
| **Occupant Name:** | Olde Town Residences | **Permit Issued On:** | 3/10/2022 |
| **Contractor:** | Peter Grubesic<br>PCL Construction Services, Inc.<br>13039187245<br>13039187245 *c* | **Permit Expires On:** | 3/10/2023 |
| **Inspections Required:** | Fire Line Flush, Fire Line Open Trench, New Building | **Permit Contacts:** | Tina Lashbrook<br>Trammell Crow Company<br>303.478.6667<br>303.478.6667<br>tlashbrook@trammellcrow.com |
| **Job Description:** | Olde Town Resdiences is a Multifamily 4-level wood framed structure on a 2-level concretepodium project. The project includes 252 for-rent units and 372 parking spaces. | | |

# ARVADA FIRE PERMIT - NEW BUILDING

TO REQUEST INSPECTIONS, LOG ON TO THE CONTRACTOR PERMIT PORTAL AND REQUEST THE INSPECTION FOR THIS PERMIT. YOU CAN ACCESS THE CONTRACTOR PERMIT PORTAL AT https://www.mobile-eyes.com/PA_index.asp

**PERMIT COMPLETE (AFPD INSPECTOR SIGNATURE):**
**DATE:**

| Inspection Description | Date | PASS | FAIL |
|---|---|---|---|
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NOTICE TO CONTRACTORS

- Inspection requests must be requested through Mobile Eyes 24-48 hours before the desired inspection date. The request does not guarantee that date/time is available. Inspections will be scheduled based on individual inspector availability. You will receive a confirmation email with the actual date/time of the inspection.
- NO inspections will occur without Fire District approved plans or comments available on-site.
- Additional requirements not indicated on this card may be necessary-refer to approved plans and comment letter.
- Work shall be in compliance with approved plans. Work not in compliance or that does not meet minimum standards may require additional inspections.
- Failed inspections may require additional fees for re-inspection.
- Failed inspections will result in a 24 hour waiting period until a re-inspection can be requested.
- Inspections may reveal corrections necessary to bring work into compliance with applicable codes and standards.
- Building FINAL inspection and approval is necessary prior to occupancy.
- Post this record in a conspicuous place.
- Loss or destruction of this card will require replacement and may require additional fees.