FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION REQUIREMENTS

SCOPE:

1. These requirements shall apply to all building construction, alteration, and demolition projects within the City of Chula Vista, ensuring minimum safeguards to provide reasonable safety from fire during such projects. The codes and standards listed herein provide the minimum requirements for fire safety during construction, alteration, and demolition in the City of Chula Vista:
    a. City of Chula Vista Fire Prevention Details
    b. California Fire Code, 2022 Edition
    c. California Building Code, 2022 Edition
    d. NFPA 241, 2019 Edition

OWNER'S RESPONSIBILITY FOR FIRE PROTECTION:

2. The owner, owner's authorized agent, or responsible licensed builder shall be responsible for the development, implementation, and maintenance of an approved, written site safety plan establishing a fire prevention program at the project site applicable through all phases of the construction, repair, alteration, or demolition work, as well as the duties of staff and training requirements.

3. The required written site safety plan, establishing a fire prevention program at the project site, shall be located at the project site upon construction commencement. Said site safety plan shall be maintained on site and made available for review upon request.

SITE SAFETY PLAN AND SITE SAFETY DIRECTOR AFFIDAVIT:

4. Prior to building permit issuance, the owner, owner's authorized agent, or responsible licensed builder shall complete and submit the Chula Vista Fire Department's *Site Safety Plan and Site Safety Director Affidavit*. The completed / signed affidavit shall be uploaded, via Citizen Access, as part of building permit package.

SITE SAFETY PLANS:

5. Site safety plans must include the following information:
    a. Name and contact information of the site safety director.
    b. Documentation of the training of the site safety director and fire watch personnel.
    c. Procedures for reporting emergencies.
    d. Fire department vehicle access routes.
    e. Location of fire protection equipment, including portable fire extinguishers, standpipes, fire department connections, and fire hydrants.
    f. Smoking and cooking policies, designated areas to be used where approved, and signage locations.
    g. Location and safety considerations for temporary heating equipment.
    h. Hot work permit plan.
    i. Plans for control of combustible waste material.
    j. Locations and methods for storage and use of flammable and combustible liquids and other hazardous materials.
    k. Provisions for site security.
    l. Changes that affect this plan.
    m. Other site-specific information required by the fire code official.

SITE SAFETY DIRECTOR:

6. The owner shall designate a person to be the site safety director. The site safety director shall be responsible for ensuring compliance with the site safety plan. The site safety director shall have the authority to enforce the provisions of this chapter and other provisions as necessary to secure the intent of these requirements.

7. The owner shall be responsible for security fences and the security of entrances to the project site. The site safety director shall also be responsible for any guard service. Where guard service is provided, guards shall be trained in the following:

a. Notification procedures that include calling the fire department and management personnel.
b. Function and operation of fire protection equipment.
c. Familiarization with fire hazards.
d. Use of construction elevators, where provided.

8. The site safety director shall be responsible for completion of a daily fire safety inspection at the project site. Each day, all building and outdoor areas shall be inspected to ensure compliance with the following inspection items:

a. Any contractors entering the site to perform hot work each day have been instructed in the hot work safety requirements found in Chapter 35 of the *California Fire Code*, and hot work is performed in areas approved by the site safety director.
b. Temporary heating equipment is maintained away from combustible materials in accordance with the equipment manufacturer's instructions.
c. Combustible debris, rubbish, and waste material is removed from the building in areas where work is not being performed.
d. Temporary wiring does not have exposed conductors.
e. Flammable liquids and other hazardous materials are stored in locations that have been approved by the site safety director when not involved in work that is being performed.
Fire apparatus access roads are maintained clear of obstructions that reduce the width of the usable roadway to less than 20 feet.
f. Fire hydrants are clearly visible from access roads and are not obstructed.
g. The location of fire department connections to standpipe and in-service sprinkler systems are clearly identifiable from the access road and such connections are not obstructed.
h. Standpipe systems are in service are contiguous to the highest work floor.
i. Where the sprinkler protection is being regularly turned off and on to facilitate connection of newly completed segments, the sprinkler control valves shall be checked at the end of each work period to ensure that protection is in service.
j. Portable fire extinguishers are available in the following locations:
    i. At each stairway on all floor levels where combustible materials have accumulated.
    ii. In every storage and construction shed.
    iii. Additional portable fire extinguishers shall be provided where special hazards exist including, but not limited to, the storage and use of flammable and combustible liquids.
    iv. When roofs are being covered or repaired, not less than one multiple-purpose portable fire extinguisher with a minimum 3-A 40-B:C rating on the roof being cover or repaired

9. Failure to properly conduct, document, and maintain documentation required by this section shall constitute an unlawful act and shall result in the issuance of a notice of violation to the site safety director. Upon the third offense, the fire code official is authorized to issue a stop work order, and work shall not resume until satisfactory assurances of future compliance have been presented to and approved by the fire code official.

10. Site safety directors shall acquire training (*i.e., NFPA: Fire Prevention Program Manager Series*) specific to their roles and responsibilities. Upon request, the training and qualifications of the site safety director shall be submitted to the fire code official for approval.

11. Training of fire watch and other responsible personnel in the use of fire protection equipment shall be the responsibility of the site safety director. Records of training shall be kept and made a part of the written plan for the site safety plan.

12. The site safety director shall ensure that all fire protection equipment is maintained and serviced in accordance with Chapter 9 of the *California Fire Code*. Fire protection equipment shall be inspected in accordance with the fire protection plan. Smoke detectors and smoke alarms located in an area where airborne construction dust is expected shall be covered to prevent exposure to dust or shall be temporarily removed. Smoke detectors and alarms that were removed shall be replaced upon conclusion of dust-producing work. Smoke detectors and smoke alarms that were covered shall be inspected and cleaned, as necessary, upon conclusion of dust-

producing work. Coverings placed on or over fire protection devices to prevent them from damage during the construction process shall be immediately removed upon the completion of construction processes in the room or area in which the devices are installed.

FIRE REPORTING:

13. Emergency telephone facilities with ready access shall be provided in an approved location at the construction site, or an approved equivalent means of communication shall be provided. The street address of the construction site and the emergency telephone number of the fire department shall be posted adjacent to the telephone. Alternatively, where an equivalent means of communication has been approved, the site address and fire department emergency telephone number shall be posted at the main entrance to the site, in guard shacks and in the construction office.

FIRE WATCH:

14. Where required by the fire code official or the site safety plan, a fire watch shall be provided for building construction and building demolition. A fire watch shall also be provided during nonworking hours for new construction that exceeds 40 feet in height above the lowest adjacent grade at any point along the building perimeter and for new multistory construction with an aggregate area exceeding 50,000 square feet per story.

15. The primary duty of fire watch personnel shall be to perform constant patrols and watch for the occurrence of fire. The combination of fire watch duties and site security duties is acceptable.

16. Personnel shall be trained to serve as an on-site fire watch. Training shall include the use of portable fire extinguishers.

17. Fire watch personnel shall be provided with not fewer than one approved means for notifying the fire department.

18. The fire watch shall include areas specified by the site safety plan established.

19. Fire watch personnel shall keep a record of all time periods of duty, including the log entry for each time the site was patrolled and each time a structure was entered and inspected. Records shall be made available for review by the fire code official upon request.

ACCESS FOR FIREFIGHTING:

20. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be capable of supporting 75,000GVWR under all weather conditions and maintained at all times.

21. Vehicle access shall be in accordance with Chula Vista Fire Department's: *Access and Water Supply Agreement*, *Access and Water Supply Requirements for the New Construction of Homes*, and *Temporary Fire Department Apparatus Access Roadway Requirements*.

22. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections.

23. Unobstructed access to fire hydrants and to outsides connections for standpipes, sprinklers, or other fire protection equipment, whether permanent or temporary, shall be provided and maintained at all times.

MEANS OF EGRESS:

24. Where building construction exceeds 40 feet in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be provided. As construction progresses, such a stairway shall be extended to within one floor of the highest point of construction having secured decking or flooring.

25. Required means of egress and required accessible means of egress shall be maintained during construction, demolition, remodeling, alterations, and additions to any building. An alternate, temporary means of egress and accessible means of egress may be provided for with approval from the fire code official.

26. Combustible materials associated with construction, demolition, remodeling, or alterations to an occupied structure shall not be stored in exits, enclosures for stairways and ramps, or exit access corridors serving an occupant load of 30 or more. This requirement

may be excused if the only occupants are construction workers or when combustible materials are temporarily accumulated to support the work being performed.

PRECAUTIONS AGAINST FIRE:

27. Smoking shall be prohibited except in approved areas.

28. Combustible debris, rubbish and waste material shall not accumulate within buildings and shall be removed from buildings at the end of each shift of work.

29. Where rubbish containers of more than 40 gallons capacity are used, containers shall have tight-fitting or self-closing lids and be constructed of non-combustible materials.

30. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

31. Combustible debris, rubbish, and waste material shall not be disposed of by burning on the site unless approved.

32. Welding, cutting, open torches and other hot work operations and equipment shall comply with Chapter 35.

33. Temporary wiring for electrical power and lighting installations used in connection with the construction, alteration, or demolition of buildings, structures, equipment, or similar activities shall comply with the California Electrical Code.

34. Cooking shall be prohibited except in approved designated cooking area separated from combustible materials by a minimum of 10 feet. Signs with a minimum letter height of 3 inches and a minimum brushstroke of ½ inch shall be posted in conspicuous locations in designated cooking areas and state:

DESIGNATED COOKING AREA
COOKING OUTSIDE OF A DESIGNATED
COOKING AREA IS PROHIBITED

35 Separations used in Type I and Type II construction to separate construction areas from occupied portions of the building shall be constructed of materials that comply with one of the following:

a. Noncombustible materials.
b. Materials that exhibit a flame spread index not exceeding 25 when tested in accordance with ASTM E84 or UL 723.
c. Materials exhibiting a peak heat release rate not exceeding 300 kW/m^2 when tested in accordance with ASTM E1354 at an incident heat flux of 50 kW/m^2 in the horizontal orientation on specimens at the thickness intended for use.

36. Portable generators used at construction and demolition sites shall comply with Section 1204 of the *California Fire Code*

37. Asphalt and tar kettles used for roofing operations shall be operated in accordance with Section 303 of the *California Fire Code*.

MOTORIZED CONSTRUCTION EQUIPMENT

38. Internal-combustion-powered construction equipment shall be used in accordance with all of the following conditions:

a. Equipment shall be located so that exhausts do not discharge against combustible material.
b. Exhausts shall be piped to the outside of the building.
c. Equipment shall not be refueled while in operation.
d. Fuel for equipment shall be stored in an approved area outside of the building.

TEMPORARY HEATING:

39. Temporary heating devices shall be listed and labeled. The installation, maintenance, and use of temporary heating devices shall be in accordance with the listing and the manufacturer's instructions.

40. Oil-fired heaters shall comply with Section 605 of the *California Fire Code*. Fuel supplies for liquified-petroleum gas-fired heaters shall comply with Chapter 61 of the *California Fire Code* and *California Mechanical Code*.

41. Refueling operations for liquid-fueled equipment or appliances shall be conducted in accordance with Section 5705 of the *California Fire Code*. The equipment or appliance shall be allowed to cool prior to refueling.

42. Temporary heating devices shall maintain clearance from combustibles 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 manufacturer's instructions.

43. The use of temporary heating devices shall be supervised and maintained only by competent personnel.

WATER SUPPLY FOR FIRE PROTECTION:

44. An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible building materials arrive on the site, on commencement of vertical combustible construction, and on installation of a standpipe system in buildings under construction.

45. When combustible materials of the building under construction are delivered to a site, a minimum fire flow of 1,500 gallons per minute shall be provided. The fire hydrant used to provide this fire-flow supply shall be within 500 feet of the combustible building materials, as measured along an approved fire apparatus access lane. Where the site configuration is such that one fire hydrant cannot be located within 500 feet of all combustible building materials, additional fire hydrants shall be required to provide coverage.

46. Regardless of the presence of combustible building materials, the construction type, or the fire separation distance, where a standpipe is required, a water supply providing a minimum flow of 1,500 gallons per minute shall be provided. The fire hydrant used for this water supply shall be located within 100 feet of the fire department connection supplying the standpipe.

STANDPIPES:

47. In buildings required to have standpipes, not less than one standpipe shall be provided for use during construction. Such standpipes shall be installed prior to construction exceeding 40 feet in height above the lowest level of fire department vehicle access. Such standpipes shall be provided with fire department hose connections at locations adjacent to stairways. As construction progresses, such standpipes shall be extended to within one floor of the highest point of construction having secured decking or flooring.

48. Where a building is being demolished and a standpipe is existing within such a building, such standpipe shall be maintained in an operable condition so as to be available for use by the fire department. Such standpipe shall be demolished with the building but shall not be demolished more than one floor below the floor being demolished.

49. Standpipes shall be installed in accordance with the provisions of Section 905 of the *California Fire Code*.

AUTOMATIC SPRINKLER SYSTEM:

50. In buildings where an automatic sprinkler system is required, it shall be unlawful to occupy any portion of a building or structure until the automatic sprinkler system installation has been tested and approved. Where permits are required and on the request of a permit applicant, the fire code official is authorized to issue a conditional permit to occupy the premises or portion thereof before the entire work or operations on the premises is completed, provided that such portion or portions will be occupied safely prior to full completion or installation of equipment and operations without endangering life or public welfare.

51. Operation of sprinkler control valves shall be allowed only by properly authorized personnel and shall be accompanied by notification of duly designated parties. Where the sprinkler protection is being regularly turned off and on to facilitate connection of newly completed segments, the sprinkler control valves shall be checked at the end of each work period to ensure that protection is in service.

52. The site safety director shall ensure impairments to any fire protection system are in accordance with Section 901 of the *California Fire Code*.

FLAMMABLE AND COMBUSTIBLE LIQUIDS:
53. Storage of flammable and combustible liquids shall be in accordance with Section 5704 of the *California Fire Code*.

54. The storage, use, and handling of flammable and combustible liquids at construction sites shall be in accordance with Section 5706.2 of the *California Fire Code*. Ventilation shall be provided for operations involving the application of materials containing flammable solvents.

55. Flammable and combustible liquid storage areas shall be maintained clear of combustible vegetation and waste materials. Such storage areas shall not be used for the storage of combustible materials.

56. Sources of ignition and smoking shall be prohibited in flammable and combustible liquid storage areas.

57. Class I and II liquids shall be kept in approved safety containers.

58. Leaking vessels shall be immediately repaired or taken out of service. Spills shall be cleaned up and disposed of properly.

FLAMMABLE GASES:
59. The storage, use, and handling of flammable gases shall comply with Chapter 58 of the *California Fire Code*.

60. Flammable gases shall not be used to clean or remove debris from piping open to the atmosphere.

61. The cleaning and purging of flammable gas piping systems, including cleaning new or existing piping systems, purging piping systems into service, and purging piping systems out of service, shall comply with NFPA 56.

EXPLOSIVE MATERIALS:
62. Explosive materials shall be stored, used, and handled in accordance with Chapter 56 of the *California Fire Code*.

63. Blasting operations shall be conducted in accordance with Chapter 56 of the *California Fire Code*.

64. Approved fire hoses for use by demolition personnel shall be maintained at the demolition site wherever explosives are used for demolition. Such fire hoses shall be connected to an approved water supply and shall be capable of being brought to bear on post-detonation fires anywhere on the site of the demolition operation.