



Town of Parker Community Development Department  
Development Review Division  
Attention: **Krista Flynt**

Application Type: **Site Plan**  
Status: **First Referral**  
Application Name: **Parker and Pine F1 L6 – Everbrook Daycare**  
Case/AP#: **SP20-058**  
Referral Received: January 29, 2021  
Comments Due: February 23, 2021

Application Location: Generally located at the southeast corner of Twenty Mile and Pine Lane

Review date: **February 16, 2021**  
Plan reviewer: **Randall L. Capra, [rcapra@parkeronline.org](mailto:rcapra@parkeronline.org)**  
Phone: 303.805.3169

**Narrative:** The applicant, Allison Morgan, is requesting a Site Plan for a 12,723 sq. ft. day care building. The site is located on the southeast corner of Twenty Mile Road and Pine Lane.

**Code Reference:** 2018 International Fire Code, 2018 International Building Code, 2017 NEC (until Dec 31, 2021)

**TOWN OF PARKER FIRE/LIFE SAFETY:**

**R REVIEWED FOR CODE COMPLIANCE; REVISIONS REQUIRED**

- 1<sup>st</sup> Submittal – Reviewed February 16, 2021
- 2<sup>nd</sup> Submittal – Reviewed (*comments in red, italicized font*)

#### UNRESOLVED ISSUES/COMMENTS

1. The contact information provided on the site plan, utility drawings, and the construction documents indicate that South Metro Fire as the contact for fire response on this project; please note. SMFRA is the response agency while the Town of Parker Building – Fire Life Safety Division is the agency that will address all site and building review. This information should be corrected to reveal the correct agencies responsible for this review.
2. The applicant shall be aware that the Town of Parker will officially have adopted the 2021 ICC codes and the 2020 NEC standard on January 1, 2022; any submittal documents made after December 31, 2021 shall comply with the 2021 ICC codes and the 2020 NEC standard.
3. The applicant shall be aware that no vertical construction on this site will be allowed until such time that curb gutter and first lift of asphalt are installed; a site inspection will be required to ensure that this requirement is made prior to allowing vertical construction to commence.
4. The applicant shall be aware that the access road hydrant distribution was not planned to address the suppression needs for all commercial properties within this subdivision; this site requires the addition of one hydrant (to be located at the s/w corner island of the building... as required per NFPA 24 Section 7.2.3... see the snap shot of the red-lined fire hydrant location shown under item 4 below:
5. Per the requirements of [18 IFC Section 503.1.1 Buildings and Facilities] approved fire apparatus access roads shall be provided for every facility, building, portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility (the building is a 155+ feet long and 50.56 feet wide and cannot meet the requirement as measured from the center line of the fire apparatus as measured by an approved route from any point that a fire engine might park when responding to a call at this building). This submittal does not provide for this requirement of the code. Per the requirements of the code, the fire code official is allowed to increase the dimension of the 150 feet provided that the applicant meets Exception



12. The Town of Parker requires that fire apparatus access roads meet the clear-width and weight-bearing standards of the jurisdiction in which the project is located. Roadways shall be designed to support the imposed weight of fire apparatus, 30 two axle and 40 ton three axle vehicles. An unimpeded clear width of 24-feet shall be maintained at all times. As such, any location where parked vehicles would obstruct this clear width requirement will require "NO PARKING – FIRE LANE" signage. *This signage shall be red on white. Update design criteria has been provided at the end of this document; ensure compliance when resubmitting.*

#### **GENERAL COMMENTS (as applicable)**

All engineering documents submitted to the Town of Parker shall bear the wet signature and seal of the engineer or architect in responsible charge of the design.

Water distribution and site access components shall be installed and in service prior to the construction of any portion of the structure, except by special permit issued by the Fire District.

#### **Underground fire lines**

When thrust blocks are used as part of the pipe restraint system, submitted plans for permit shall provide detailed documentation that the thrust blocks satisfy all requirements of 13 NFPA 24: 10.8.2, including specific thrust block dimensions and mathematical calculations for block dimensions per guidelines provided in Annex A.10.8.2.

## **Underground Fire Line - Submittal Requirements**

Reference: 2016 NFPA 24 [Installation of Private Fire Service Mains and Their Appurtenances](#)

A separate permit is required and will be issued pending review of a detailed submittal which must include the following: [18 IFC 901.2]

4.1.1 Working plans shall be submitted for approval to the authority having jurisdiction before any equipment is installed or replaced.

4.1.2 Deviation from approved plans shall require permission of the authority having jurisdiction.

4.1.3 Working plans shall be drawn to an indicated scale on sheets of uniform size, with a plan of each floor as applicable, and shall include the following items that pertain to the design of the system:

- (1) Name of owner
- (2) Location, including street address
- (3) Point of compass
- (4) A graphic representation of the scale used on all plans
- (5) Name and address of contractor
- (6) Size and location of all water supplies
- (7) The following items that pertain to private fire service mains:
  - (a) Size
  - (b) Length
  - (c) Location
  - (d) Material (ductile iron, PVC, etc.)
  - (e) Point of connection to city main
  - (f) Sizes, types, and locations of valves, depth at which the top of the pipe is laid below grade
  - (g) Method of restraint (Meg-a-Lug or similar)
  - (h) Stamped and signed thrust block calculations specific to the soils conditions for the site
  - (i) Copy of the installer's state license

4.1.4 The working plan submittal shall include the manufacturer's installation instructions for any specially listed equipment, including descriptions, applications, and limitations for any devices, piping, or fittings. Submittals must include installation specifications for thrust blocks, corrosion protection, restraint system, bedding, detail of pipe under the building up to, and including, the flange. When it is intended that a different contractor will extend the fire line from a stopping point outside the building, to the inside flange, a second submittal and permit is required.

All plans shall be combined into a single pdf prior to uploading to the Town of Parker website.

**All tees, plugs, reducers, valves, and hydrant branches shall be restrained against movement by thrust blocks [10.8.2] or restrained joint systems [10.8.3]. When thrust blocks are used as part of the pipe restraint system,**

submitted plans shall provide detailed documentation that the thrust blocks satisfy all requirements of Section 10.8.2, including specific thrust block dimensions and mathematical calculations for block dimensions per guidelines provided in Annex A.10.8.2.

Any individual or company who physically works on or installs any part of a fire suppression system, including underground supply lines, from public water lines to system risers and backflow preventers, **must** be registered with the Colorado Division of Fire Safety. [Dept. of Public Safety, Division of Fire Safety, Fire Suppression Program 8 CCR 1507-11:3.1.2] Documentation of valid annual registration is required with plan submittal.

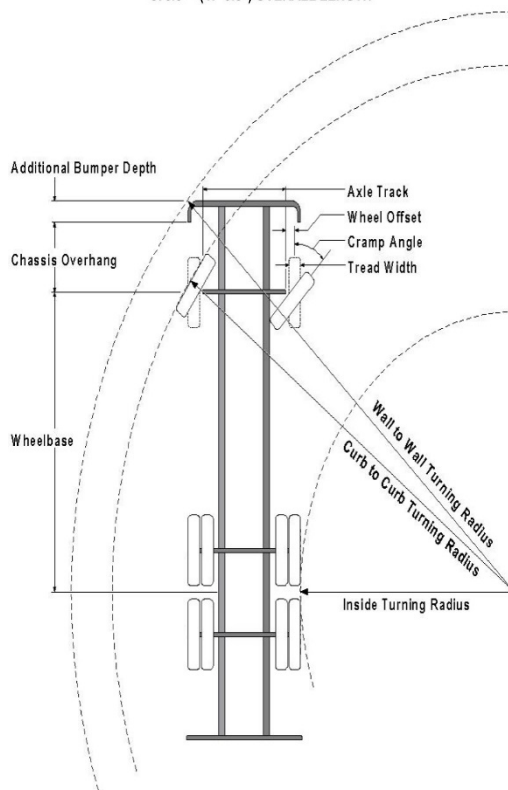
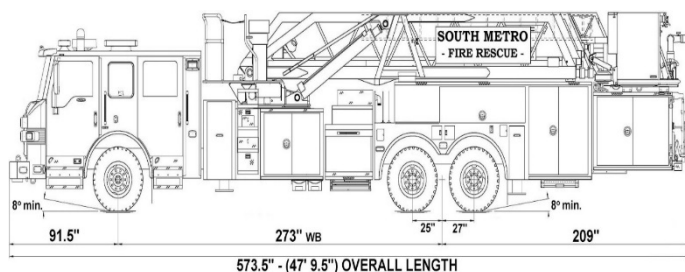
The following website for the Colorado Division of Fire Safety will provide registration instructions.

<http://dfs.state.co.us/SuppAppsProclnsp.htm>

All submittals must display a wet stamp and original signature by a Colorado licensed professional engineer or NICET III, or higher, in fire suppression systems. [Dept. of Public Safety, Division of Fire Safety, Fire Suppression Program 8 CCR 1507

## FIRE ACCESS ROAD DESIGN CRITERIA

**VEHICLE SPECIFICATIONS** are provided for the largest apparatus in use by South Metro Fire Rescue. Fire Apparatus Access Roads shall be capable of accommodating this apparatus.



**Vehicle Specifications**

Length: 47' 9.5"

Width: 8' 5" - (10' 1" mirror to mirror)

Height: 10' 9"

Wheelbase: 273 in.

Design load: 80,000 pounds

Inside Cramp Angle: 40°

Axle Track: 83"

Wheel Offset: 5.3"

Tread Width: 13.5"

**Turning Radii:**

Inside Turn: 26 ft. 1 in.

Curb to curb: 41 ft. 11 in.

Wall to wall: 46 ft. 8 in.

**Where objects are present adjacent to the fire apparatus access road, particularly on turns and turn arounds which require backing, a reasonable safety margin shall be provided to prevent potential damage to the property and to the fire apparatus.**

PRIVATE ROADS that provide access to more than two dwellings or one or more commercial buildings shall be constructed to meet the roadway standards approved by the South Metro Fire Rescue Authority for fire apparatus access. Private roads that do not meet the roadway standard may be accepted provided that alternative methods and materials are incorporated into the subdivision that addresses the fire and life safety of the citizens.

**FIRE CODE REVIEW BLOCK**

All fire hydrants shall be installed according to water utility standards. The number and locations of the fire hydrants as shown on the Overall Utility Plan are correct as specified by the Town of Parker, Community Development Department.

\_\_\_\_\_  
Fire Code Official or Designated Representative

\_\_\_\_\_  
Date

(NOTE – Underground Fire Line (UFL) submittal documents must meet the requirements of NFPA 24 when submitting for review.)