



Town of Parker Community Development Department
Development Review Division
Attention: **Stacey Nerger**

Application Type: **Site Plan**
Status: **First Referral**
Application Name: Lincoln Professional Park L1 - Maverik
Case/AP#: **SP21-133**
Referral Received: November 24, 2021
Comments Due: December 27, 2021

Application Location: Southwest corner of Dransfeldt Road and Lincoln Avenue
Maverik response: Acknowledged.

Review date: **December 2, 2021**
Plan reviewer: **Randall L. Capra**, rcapra@parkeronline.org
Phone: 303.805.3169

Narrative: The applicant, Maverik, Inc, is proposing a Site Plan for a 4,425 sq. ft. gas and convenience store. The site is located at southeast corner of Dransfeldt Road and Lincoln Avenue.

Code Reference: 2021 International Fire Code, 2021 International Building Code, 2020 NEC

TOWN OF PARKER - FIRE/LIFE SAFETY:	R REVIEWED FOR CODE COMPLIANCE; REVISIONS REQUIRED
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- 1st Submittal – Reviewed December 3, 2021
- 2nd Submittal – Reviewed March 25, 2022 (*Comments in red, italicized font*)
- 3rd Submittal – Reviewed June 21, 2022 (*Comments in bold, red, italicized font*)

UNRESOLVED ISSUES/COMMENTS

The applicant has yet to provide a written response to either of the first two submittals; the third submittal application did not provide a written response, either. When submitting for the fourth time, provide a written response to all comments not indicated as “satisfied”.

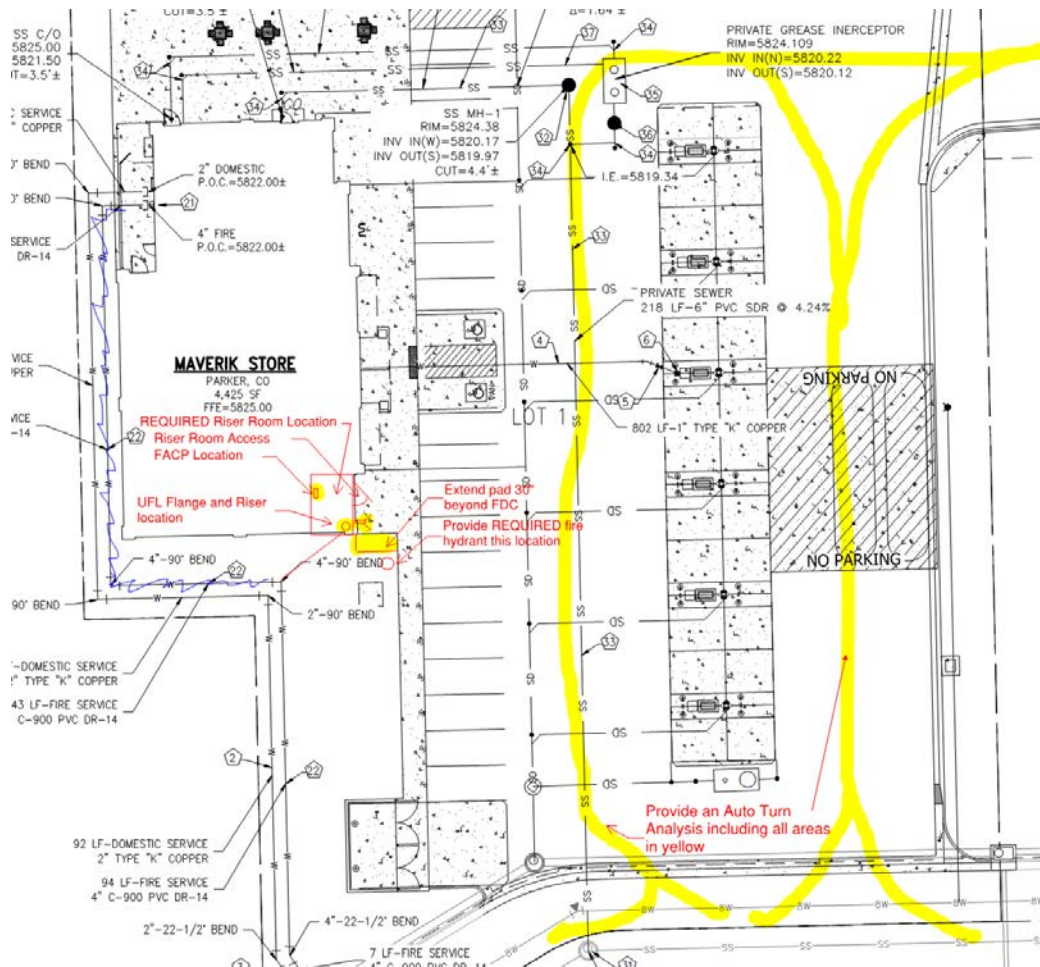
1. The applicant shall be aware that no vertical construction on this site will be allowed until such time that curb gutter and first lift of asphalt are installed; a site inspection will be required to ensure that this requirement is made prior to allowing vertical construction to commence. *Not satisfied; applicant has not acknowledged with second submittal. Applicant shall address when resubmitting. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*
Maverik response: Acknowledged.
2. 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/e 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: *Partially satisfied; applicant has not acknowledged this issue with the required response to this letter though the utility plan set addresses this issue. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.* **Maverik response: Acknowledged. Plans have been updated.**
3. The utility documents are incomplete, the required overall utility plan did not include the Fire Life Safety signature blocks in the *required two locations*; these locations are on the cover page and on the overall utility page. This signature block can be found at the end of this document. Address this issue when resubmitting. *Not satisfied; applicant has not addressed with second submittal. Applicant shall address this issue when resubmitting. Note – there is an incorrect signature block on the cover page; ensure that the correct signature block is used when resubmitting. Further, the applicant has provided the “correct signature block on the “civil/landscape” CD; this signature block shall be removed from this document. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*

Maverik response: Acknowledged. Plans have been updated.

- Per the requirements of [21 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 1.1 of this section... "The building is equipped throughout with an approved automatic sprinkler suppression system installed in accordance with section 903.1.1, 903.1.2, or 903.3.1.3.

This submittal does indicate that the building will be sprinklered and thus meets this requirement.

Note – Items 5, 6, 7, and 8 below will reference the following snapshot of the site:



- While the following issue was not addressed (though required in the prior pre-application meeting) the applicant is REQUIRED to locate the fire sprinkler control valve room in the southeast corner of the building. See snapshot above for additional information. ***Partially satisfied; applicant has not acknowledged this issue with the required response to this letter though the riser room has been relocated to a mutually acceptable location and the utility drawings modified. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.***
Maverik response: Acknowledged. Riser room has been moved to an acceptable location.
- While the following issue was not addressed (though required in the prior pre-application meeting) the applicant is REQUIRED to provide a room layout ensuring that the fire sprinkler control valve room is sized to accommodate the following:

- Exterior access is required into the riser room with access into the building provided either adjacent to the riser room or through the riser room.
- The FACP will be required to be located in the fire sprinkler control valve room; ensure that the riser room is sized to accommodate the FACP and the riser. A three-foot clearance is required in front of the FACP as well as the sprinkler riser (as well as the three foot 18" to center of FACP/riser... each side.
- The underground fire line shall enter the building and turn up no further than 24 inches from foundation wall; three feet of clearance is required in front of the fire riser.
- The FACP shall be located on an interior wall.
- A 5'x5' pad is required in front of the FDC.
- A sidewalk is required to both the FDC location and the riser room

The riser room layout shall be provided in advance to assure that all requirements are met. See snapshot above for additional information. *Partially satisfied; applicant has not acknowledged this issue with the required response to this letter though the applicant has provided a Fire Riser Exhibit. The exhibit does not address the domestic that is shown to enter the room adjacent to the riser. When resubmitting, address this issue to ensure that there will not be conflicts with the domestic and the fire riser down the road. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*

Maverik response: These have all been addressed and acknowledged.

7. While the following issue was not addressed (though required in the prior pre-application meeting) the applicant is required to provide a fire hydrant interior to this site; the applicant shall provide a fire hydrant in the island at the southeast corner of the building... as required per NFPA 24, Section 7.2.3 (this section states that a fire hydrant shall be located not less than 40' from the building to be protected. See snapshot above for additional information. Note – Fire hydrants are required at each entry to the side; off Dransfeldt and off of Lincoln with spacing provided as directed at previous meetings. *Partially satisfied; applicant has not acknowledged this issue with the required response to this letter though the utility plan set addresses this issue. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*
Maverik response: Acknowledged.
8. The applicant shall provide an auto turn analysis indicating that apparatus can navigate all portions of this site (both sides of the gas canopy); NO PARKING – FIRE LANE signage is required for any portion of the access where the 20-foot clear width requirement cannot be met. This is applicable for the loop around the canopy as well as for each entry. The access on each side of the canopy shall meet his requirement with no portion of the canopy encroaching into the required fire lane access road. See snapshot above for additional information. *Not satisfied; applicant has not addressed/noted/acknowledged with second submittal. Applicant shall address when resubmitting... providing the auto turn analysis in the process. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*
Maverik response: Acknowledged. Turning template provided. See fire access Exhibit
9. The applicant shall, ensure that the UFL is correctly labeled/identified on the overall utility plan. The UFL shall be clearly labeled as UFL as well as the size of the line and the length of line, as measured from the "T" in the street to the flange in the building. This can be included in the plans though the required information shall be called out on the UFL itself. The UFL is **NOT ALLOWED** to share the same line as either the domestic or the required fire hydrant. Address this issue when resubmitting. *Not satisfied; applicant has not addressed/noted/acknowledged with second submittal. Applicant shall address when resubmitting. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*
Maverik response: Acknowledged. Plans updated.
10. 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 20 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. Not satisfied; applicant has not addressed/noted/acknowledged with second submittal. Applicant shall address when resubmitting. Not satisfied; applicant has not acknowledged with third submittal. Applicant shall address when resubmitting.*
Maverik response: Acknowledged. See Fire Access Exhibit
11. *The site plan is shown to have a "fire code review block" the fire code review block is only required on the cover sheet of the utility set and on the overall utility plan. Address this issue, removing the block from the site plan and providing the correct block in the utility set when resubmitting.*

Maverik response: Acknowledged. Plans have been updated .

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.

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.

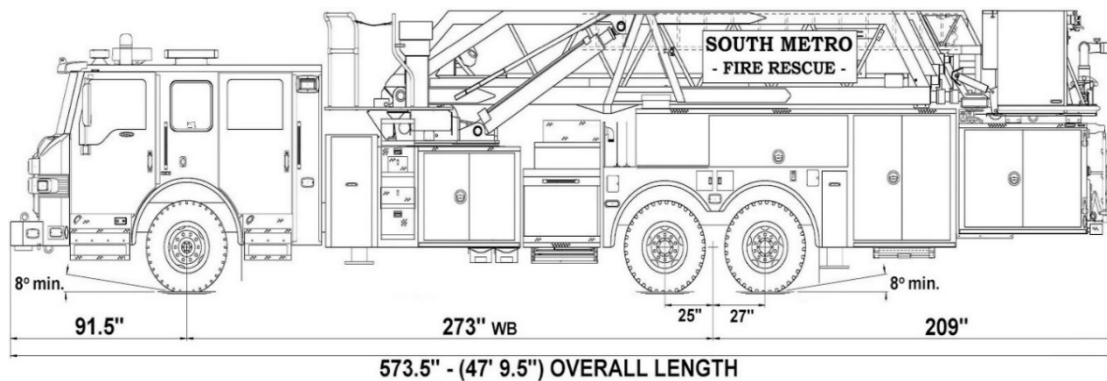
Fire Code Official or Designated Representative

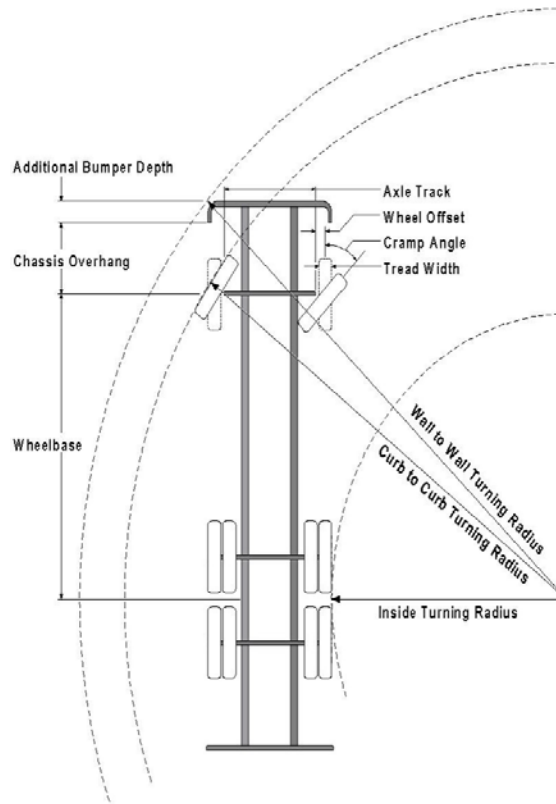
Date

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

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.

Underground Fire Line - Submittal Requirements

Reference: 2019 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:
[21 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)

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 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 may be 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