

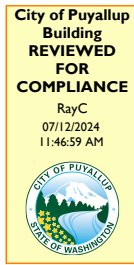
PRCTI20241098

See floor plan



June 24, 2024

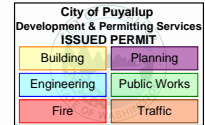
Cliff Rapp
Logistics Maintenance, Manager
Puyallup Fred Meyer DC
2200 N Meridian
Puyallup, WA 98371
(via email cliff.rapp@kroger.com)



Approval of submitted plans is not an approval of omissions or oversight by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable building codes and regulations of the local government.

THE APPROVED CONSTRUCTION PLANS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION. PRINT in COLOR and to SCALE.

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RE: Fire Protection Engineer (FPE) Analysis of Exit Tunnel in Dry Grocery

Dear Cliff,

As requested, I conducted a site visit on June 24, 2024, to review and evaluate the existing exit tunnel in the dry grocery warehouse at the facility. The purpose of this analysis is to determine if the exit tunnel is required to meet fire/life safety code requirements as adopted by the City of Puyallup.

The exit tunnel is considered an exit corridor and is 200 feet in length and 44" inches wide. It is of 1-hour fire rated construction with an illuminated exit sign at its south end in the main aisle in the center of the warehouse. The north end of the exit corridor does not discharge directly to the exterior but leads to the warehouse's north aisle before reaching the exterior exit door. There are rolling steel fire doors that operate on fusible link that are intended to extend the fire rating into this area.

The 2021 International Building Code (IBC) is the currently adopted building code in the City of Puyallup. IBC Chapter 10, Means of Egress, Section 1017.2.2 allows a maximum exit access travel distance of 400 feet in a Group S-1 warehouse that is 1 story in height, a minimum of 24 feet ceiling height, and provided with a sprinkler system:

1017.2.2 Groups F-1 and S-1 increase. The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following conditions are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height.
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm).
3. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

The dry grocery warehouse is 1 story in height, has a ceiling height of 35 feet, and is fully sprinklered. The maximum exit access travel distance measured without use of the exit corridor is 300 feet (see diagram attached). This is less than the 400 feet allowed per IBC Section 1017.2.2.

Conclusion

The maximum travel distance in the warehouse to an exterior exit door is 300 feet, which is only 75% of the maximum 400 feet travel distance allowed by IBC Section 1017.2.2.

APPROVED PLAN
CITY OF PUYALLUP
PLANNING DIVISION

APPROVED BY: ARamirez
DATE: 07/15/2024
CASE NO.: PRCTI20241098
CONDITIONS: See floor plan

The existing exit corridor has an ineffective design as occupants must re-enter the warehouse at the north aisle before discharging to the exterior of the building. While there are two (2) rolling fire doors intended to separate the warehouse's north aisle from the exit corridor, these doors are not smoke rated and operate only on fusible link, therefore smoke and heat are allowed to enter the exit corridor prior to fusible link activation.

In conclusion, the existing exit corridor arrangement is ineffective and creates a potentially unsafe exiting condition; and the maximum exit access travel distance meets current 2021 IBC requirements without the use of the exit corridor. As such, the existing exit corridor is not considered to provide a fire/life safety benefit and can be disregarded as a means of egress component.

It is recommended that the exit corridor be decommissioned by removing the illuminated exit sign at its south end. Consideration should also be given to removing or disabling the two (2) rolling fire doors at the north end of the corridor since, when closed, these doors limit secondary exit paths and firefighter access to all parts of the warehouse from the exterior.

Please contact me with any questions regarding this report.

Respectfully,

TUAZON ENGINEERING, PLLC



Frederick (Eric) P. Tuazon, PE
Fire Protection Engineer
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6/24/2024