

City of Northfield

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Legislation Text

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To: Members of the Planning Commission

From: Scott Tempel, City Planner

Consideration of Floodplain Conditional Use Permit - Northfield Safety Center

Action Requested:

The Planning Commission is requested to hold a public hearing on a Conditional Use Permit (CUP) in the Floodplain Overlay District for the Northfield Fire Station. A CUP is required for building designs where the lowest floor elevation will be lower than the predicted base flood elevation (BFE). Staff recommends the Planning Commission review the conditions for approval and pass a motion to recommend approval of the CUP by the City Council.

Summary Report:

Planning and design continues on the Northfield Area Fire and Rescue Services (NAFRS) expansion of the Northfield Safety Center. After multiple reviews, the path forward for the project is to dry flood-proof the basement of the Safety Center, which is allowed through a Conditional Use Permit. Staff is confident the structure will be protected from flooding and is recommending approval of the Conditional Use Permit.

Background:

The base zoning for the property is Public and Institutional (PI). The applicants have received tentative approval from the Development Review Committee to proceed with the CUP prior to formal site plan approval so as to minimize planning and design costs.

Regulations:

8.5.4 Flood Plain Permit

- (5) In passing upon conditional use permit applications, the city council shall consider all relevant factors specified in other subsections of this section, the standards of Section 2.5.1, Floodplain Overlay District (FP-O), and:
 - (a) The danger to life and property due to increased flood heights or velocities caused by encroachments.
 - (b) The danger that materials may be swept onto other lands or downstream to the injury of others or they may block bridges, culverts or other hydraulic structures.
 - (c) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination, and unsanitary conditions.
 - (d) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - (e) The importance of the services provided by the proposed facility to the city.
 - (f) The requirements of the facility for a waterfront location.
 - (g) The availability of alternative locations not subject to flooding for the proposed

use.

- (h) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- (i) The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.
- (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
- (k) Such other factors that are relevant to the purposes of this LDC.
- (6) Upon consideration of the factors listed above and the purpose of this section, the city council shall attach such conditions to the granting of conditional use permits as it deems necessary to fulfill the purposes of this section. Such conditions may include, but are not limited to, the following:
 - (a) Modification of waste treatment and water supply facilities.
 - (b) Limitations on period of use, occupancy, and operation.
 - (c) Imposition of operational controls, sureties, and deed restrictions.
 - (d) Requirements for construction of channel modifications, compensatory storage, dikes, levees, and other protective measures.
 - (e) Flood proofing measures, in accordance with the state building code and this section. The applicant shall submit a plan or document certified by a registered professional engineer or architect that the flood proofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.

CUP Analysis:

1) Explain how the proposed use will minimize danger to life and property as a result of increased flood height or water velocity.

The Wenck staff, in consulting with the DNR, has modeled a flood situation with a rise of less than ½". The detention pond planned will be flooded with a holding capability greater than what is displaced. No changes to the floodway are proposed that would create increased flood height or water velocity.

2) Explain what measures will be taken to prevent materials from being transferred to other lands, blocking downstream bridges, congesting culverts, or impacting other structures.

The elevated areas will be paved as currently, and green areas sodded or covered with water tolerant plantings. There are no improvements as a part of this development that are constructed of materials that have the ability to be transferred to other lands.

3) Explain how water supply systems and sanitary sewer systems serving the proposed use are designed to prevent disease, contamination, and other unsanitary conditions.

The water supply and sanitary sewer systems are designed to tie into the City's infrastructure and to meet all applicable codes. No contaminants will be able to escape the property and pollute the river. The systems for sewer and water are existing and located below frost depth.

4) Explain how susceptible the proposed use and its contents are to damage due to flooding; describe the potential impact of flood damage on the property owner.

The basement to be flood proofed is part of the existing building. The building has experienced minimal flood damage in the past. New building codes require structures with a Base Flood Elevation below the floodplain to be flood proofed to FP1-2 standards. Any of the lower level floors will be of masonry or concrete construction and all utilities mounted above flood level.

5) Explain the importance of the proposed use to the City.

The building and proposed addition house the fire and rescue facilities for the City of Northfield in the recommended central location.

6) The requirements of the facility for a waterfront location.

The central location is at the epicenter of most of the calls received by NAFRS and tracks the fastest response times. The 1972 facility has historically not been inundated by flooding.

7) Explain why there are no alternative locations available that are not subject to flooding.

The traffic studies done indicate this is the central prime location for fire services and has been the location of the existing facility since 1972. Only a portion of the building and the parking lot are located in the flood plain. The addition has been designed to utilize the existing expansion space while minimizing floodplain impacts.

8) Explain how the proposed use is compatible with existing and anticipated development in the specified area.

The property is bounded by the Cannon River, 5th Street, and Highway 3, so no further development is possible on or near the site. The site is at the gateway to downtown and gateway landscaping improvements are proposed with the project.

9) Explain the relationship of the proposed development to the Northfield Comprehensive Plan and floodplain management program.

The Comprehensive Plan says 'the ability to influence the community identity with the redevelopment or expansion of a Public Safety Center is an opportunity that must be recognized by the City'. The project is consistent with Objective 2 of the Community Facilities chapter: For those community facilities considering expansion or relocation, ensure that new facilities have a positive impact on surrounding neighborhoods.

- CF 2.1 Expansion of such facilities should be closely monitored so that facilities do not negatively impact (with excessive parking, traffic, and noise) the character of a neighborhood. New facilities should reflect, whenever possible, the character of the existing neighborhood.
- CF 2.2 Locate and retain community facilities within the downtown area where appropriate and possible.
- CF 2.3 Construction or renovation of publicly-owned buildings should be environmentally-responsible and energy efficient.

10) Explain how safe access to and from the site during a flood event is provided for emergency vehicles. The site is currently used for emergency services during flood events. The drives and parking for the expansion will be one foot above flood level.

11) Document expected water heights, water velocity, flood duration, rate of rise, and sedimentation. Being on the slow side of the river, sediment is expected and further aggravated by much plant growth, a good

portion of which will be removed during the project.

Crest elevations in a 500 year flood event can be expected to reach 909.25.

Crest elevations in a 100 year flood event can be expected to be around 908.

Water velocity = 4 feet per second.

Rate of Rise = 3 to 4 days

Sedimentation rate = 10 inches per year

12) Such other factors that are relevant to the purposes of this LDC.

The Public Institutional (PI-S) district is intended to establish and protect sites for city, state, federal, and school district uses while also ensuring compatibility with the surrounding neighborhoods. The PI-S zone implements and is consistent with the land use designations of the comprehensive plan.

CUP Conditions: Flood proofing measures, in accordance with the state building code and this section. The applicant shall submit a plan or document certified by a registered professional engineer or certified architect that the flood proofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.

The lowest floor of the Safety Center will be flood proofed according to the allowance in 4.1.5 (3) Development Standards for the Flood Fringe Subdistrict; All areas of nonresidential structures including basements to be placed below the regulatory flood protection elevation shall be flood proofed in accordance with the structurally dry flood proofing classifications in the state building code. Structurally dry flood proofing must meet the FP-1 or FP-2 flood proofing classification in the state building code and this shall require making the structure watertight with the walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads due to groundwater saturation at the 100 year flood level.

Alternative Options:

Conditional Use are uses that are permitted if certain criteria are met. The CUP analysis shows that the criteria for a conditional flood plain permit are met. If the Planning Commission or City Council believe there is some risk that is unaddressed, conditions addressing that risk should be put in place rather than denying the permit.

Financial Impacts:

There are no direct financial impacts to the City resulting from this permit.

Tentative Timelines:

The CUP will be brought forward for approval by City Council in October. NAFRS would like to construct this project in 2018.