



City of Saint Paul

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March 25, 2016

Saint Paul Sustainable Building Policy
SPPD, Communication Services & Maintenance Unit
New Garage/Shop Facility, Pre-engineered Structure

STAFF REPORT

The SPPD Support Services Division and the Office of Financial Services/Real Estate Design Group ("Proposer") are seeking a partial waiver from the Saint Paul Sustainable Building Policy ("Policy") for a new Garage/Shop structure ("Project") to be constructed at the Energy Park Drive Public Safety Garage and Training Site campus. The Proposer is also seeking a partial deferral for portions of the Storm Water Management requirements in the Overlay portion of the Policy.

The Policy applies to all "municipal or HRA owned facilities financed by the City of Saint Paul or HRA and those buildings utilized by the City's Executive Departments, the Saint Paul Public Library, or the Saint Paul Parks and Recreation Department." The Policy requires that such projects comply with a rating system (e.g., MN B3 or LEED) and the Saint Paul Overlay.

This proposed project is to be constructed on the Energy Park Drive, Public Safety Garage and Training Site campus, which is a 9.6 acre industrial property acquired by the City in 1970-72 located on the north side of Energy Park Drive and west of Snelling Avenue. Currently, the north half of the site/campus is occupied by the Fire Training Office and Classrooms Structures (1930's renovated temp/portable classrooms moved to the site in the mid 1970's and renovated in the 1990's), the Training Tower (1972), the Burn Building (1988), multiple training prop structures, and a single story masonry structure used for training and logistics storage and for reserve apparatus storage (1977). The middle/eastern area of the site is occupied by the existing Public Safety Garage (1974).

The RE/Design staff has been working with the Fire and Police staff to complete a proposed Master Plan for the site. The current version of the Master Plan indicates a phased replacement of the current outdated facilities with the exception of the Training Tower. As part of that master planning process, due to the timing of the relocation of the SPPD units from the Public Safety Annex (100 E 10th St), it was determined that the first phase of the redevelopment of the site would be the construction of a Garage/Shop structure for the SPPD/Communication Services and Maintenance Unit (Radio Shop) including a small parking area to be located in the southeast corner of the site. The Project includes a garage/shop facility for the SPPD, Communications Services and Maintenance Unit (Radio Shop) consisting of 5,700 SF of garage and services bays with 6 large overhead doors, and a 2,700 SF shop/office space for a total building size of 8,400 SF. As discussed above, the Policy requires the facility to comply with and be certified through a green building rating standard such as B3 or LEED. This Project is quite small in comparison to other projects that have been constructed under the full Policy. Because there are certain fixed costs associated with constructing a project utilizing one of the aforementioned rating systems, such as

design certification, tracking and commissioning, small projects, like this one, bear a disproportionately high cost to administer the rating system compared to the overall cost of the project. This "overhead" imparts an undue cost burden compared to the value provided.

Therefore, the Proposer is requesting a partial waiver from the full Policy to not require certification under one of the green rating standards. The OFS/RE Design staff recommends that the project comply with relevant items of the Overlay portion of the Policy (with the exception of the partial Storm Water deferral outlined below). Compliance with the Overlay ensures that the building will conserve energy, reduce use of potable water, and divert construction waste from landfills. All of this will be achieved with relatively lower cost and administrative effort than if the Policy was applied in its entirety.

The Saint Paul Overlay to the Policy requires that projects achieve minimum levels of attainment in several environmental areas. The Project will meet the relevant requirements of the Overlay as follows:

1. Predicted energy use shall meet Minnesota Sustainable Building 2030 "Energy Standards" for new buildings.
 - a. *The building will be submitted for review through the Sustainable Building 2030 Energy Standard for Small Buildings.*
 - i. *The facility will meet the Part 1 Mandatory Equipment Requirements section for Small Buildings.*
 - ii. *The facility will meet all applicable Mandatory and Prescriptive requirements in each section of the requirements under the ANSI/ASHRAE/IES 90.1-2013, Energy Standard for Buildings.*
 - b. *All building lights are LED fixtures and are up to 90% more efficient than incandescent lighting.*
 - c. *The building has windows and skylights to reduce the need for artificial light during the day.*
 - d. *The Building will be constructed to accommodate adding solar panels on the south roof face. And an Add Alternate for a solar panel installation will be included in the project bid to identify the cost of the installation.*
2. Predicted use of potable water in the building must be at least 30% below EPA Policy act of 1990.
 - a. *All plumbing fixtures will be low consumption units with low water consumption valves. Water closets will use 1.28 gpf, urinals will use 0.5 gpf, and bathroom faucets will use 0.5 gpm of water.*
3. Predicted water use for landscaping must be at least 50% less than traditionally irrigated site using typical water consumption for underground irrigation systems standards.
 - a. *N/A. There is no irrigation for landscaping included in the scope of this project.*
4. Actual solid waste of construction materials, excluding demolition waste, must be at least 75% recycled or otherwise diverted from landfills.
 - a. *At least 75% of construction waste will be diverted from landfills as documented in the Construction Waste Calculator*
 - b. *The diversion of the uncompacted fill and rubble from the area below the structures will result in approximately 6,500 CY of poor soils being diverted from going to a landfill.*
5. Indoor Environmental Quality (IEQ) must be addressed through the following strategies:
 - a. *Ventilation based on ASHRAE 62.1-2004 or meet the minimum requirements of Sections 4 through 7 of ASHRAE standard 62.1-2007. The Ventilation system will meet the requirements of ASHRAE 62.1-2007 and will be controlled by a Building Automation system.*

- b. Construction IEQ management plan: *This requirement will be met as required by implementing the Prescriptive Building Design Options of the SB2030 Energy Standards for Small Buildings .*
 - c. Low-emitting materials: This requirement will be met and documented in the Project Materials Log and facility project/operations manual.
 - d. Thermal comfort: The ASHRAE 90.1-2013-5.5 Prescriptive Building Envelope Option requirements will be followed as required by the SB 2030 Energy Standards for Small Buildings Requirements.
6. Storm Water Management Requirements:
- a. Site Eligibility: sites with 0.25-acre or more of total land disturbance. *This project will create several small vegetated swales for downspout runoff and will use rain barrels at the rear of the building to catch rain water to be used to irrigate nearby trees and planting beds.*
 - b. Rate Control: *The storm water management will be reviewed by City staff and will comply with requirements for rate control as set forth by the Public Works Sewer Utility.*
 - c. Water Quality Management: *Requesting deferral, see below.*
 - d. Volume Control/Infiltration: *Requesting deferral, see below.*
 - e. Operation and Maintenance plan: *Requesting deferral, see below.*
7. Predicted greenhouse gas emissions must be reported to the Minnesota Sustainable Building 2030 database.
- a. *Predicted greenhouse gas emissions for the facility will be reported to the SB 2030 data base.*
8. Annual submittals of energy usage data to the Minnesota Sustainable Building 2030 database.
- a. *The annual energy usage records for the facility will be reported to the SB 2030 data base and monitored by City staff.*

As generally described above, the Proposer is requesting a deferral for a portion of the Policy Overlay for the Storm Water Management requirements. The execution of this first phase of the master plan disturbs about one-half acre of a 9.6-acre site or about 5%. Storm water management practices for quality and volume control are most efficient and best managed when they are implemented for an entire site. Further, if the Proposer were to design and implement quality and rate control practices for this 5% of the site, it is possible, if not likely, that the area chosen for installation of that system would be disrupted by the next phase of construction.

Therefore, the Proposer is requesting that the Water Quality, Volume Control and consequently, the Operation and Maintenance plan for the 15,000 SF of new impervious associated with this first phase be deferred and added to the requirements for new impervious surfaces in phase two of the project, which is expected in a three to six year window.

The site and building(s) of phase two will be subject to the Sustainability Policy that is effective at the time of design and construction. Likewise, the Policy that is effective at the time phase two is designed and constructed will apply to the Water Quality and Volume Control measures deferred from phase one.