



# **MEMORANDUM**

## **FLEET & FACILITIES MANAGEMENT**

To: Tina Firgens, Director of Planning  
From: Kevin Muenchow, Director of Fleet and Facilities  
Date: April 22, 2019  
Subject: Sustainability Disclosure – Keenan Service Center Project

On Monday, April 8, 2019, the Planning and Zoning Commission approved the Keenan Service Center site plan with one condition:

*“Motion to recommend approval of the Detailed Site Plan with the following modifications require disclosure to council the cost and benefits of using sustainable features in the design and construction of the site to include but not be limited to permeable pavement.”*

This document includes the sustainable features incorporated in the project, as well as items that were considered as a disclosure to City Council.

### Background on Project:

- The original project was a \$10 million plus budget for two sites and three new buildings and constructions costs mandated significant changes in scope at \$17 million.
- The focus changed to what can we get done with a \$7 million budget which evolved to our current design and site plan with required changes to the building.
- Due to the budget being tight with rising construction costs at an estimated 1% per month, staff had to remove the following from the project in hopes it will stay under \$7 million when bid.
  - Removal of overhead crane and lowering of the roof
  - Removal of the backup generator, but prewire to be added in the future
  - Removal of welding shop area for all departments to use
  - Removal of furniture for offices and breakroom
  - Removal of additional equipment and benches for shop
  - Reduced Fleet Building from 20,160 sq. ft. to 16,800 sq. ft.
  - Reduced the amount of concrete paving when we went from (39) P.O.V. parking spaces to the current (20)
  - Deleted the concrete ramp and infrastructure for the VAC Discharge
  - Deleted the Interim Parks Storage – which was a 2,470 sq. ft. pre-engineered metal building
  - Deleted the Road Base in the Lay-Down Yard
  - Existing trees, conc. walls, & ramps in Lay-Down Yard to remain in lieu of being demo’ed to build the Interim Parks Storage & Vac Discharge Areas.
  - Deleted Ice-Machine Enclosure and infrastructure (water and sanitary sewer lines) that was adjacent to the Dumpster Enclosure

- Deleted the scheduled 8' concrete screen walls on the south, east, and north sides of the Lay-Down Yard
  - Deleted site lighting at Lay-Down Yard
- Due to budget constraints direction to the architect was not to design the project considering LID (Low Impact Development) and/or LEED (Leadership in Energy and Environmental Design).
- The direction provided the architect was to design sustainable features that have a ROI and will not have significant impact on the budget.

The architect provided the following list of sustainable features incorporated in the project design:

1. Storm Water Management quality: We have provided the rock drainage swale features to address the first flush of a rain event because it was a cost effective means and we had the land area available on site.
2. Additional insulation throughout the building in order to save energy on Heating and cooling, and to reduce the size of the units.
3. Water saving features throughout the building in order to reduce the water consumption.
4. All LED lighting in order to reduce energy consumption and to reduce bulb replacements throughout the life of the building.
5. Tubular Daylighting Devices (Solatubes) – provide natural daylighting through much of the building contributing toward employee health and well-being and to reduce the amount of artificial lighting required for normal operations.
6. Construction Waste Management – The Documents require the Contractor to recycle as much construction waste as reasonable in an effort to divert as much construction waste as possible away from the landfill.
7. Solar reflectance roof material for the Modified Bitumen roof – We have called out a “Cool roof granules” (White roof) in order to avoid heat absorption. The specifications require a minimum Solar Reflectance Index of 76 for this.
8. Reflecting Metal roof panels to avoid heat absorption: Documents require an Energy Star compliant, high reflective and high emissivity roof with a minimum initial solar reflectance of 0.65.
9. High performance glass and glazing: We have used low-e glass with a Solar Heat Gain coefficient of 0.23
10. We have specified insulated OH Sectional doors to reduce the amount of heat needed in the bay areas.
11. All paints are specified as zero VOC for improved indoor air quality.

The architect provide the following items considered, but not included in the project:

1. Permeable Pavers in the front public parking with drainage piping to the storm drain. This would add an estimated \$50,000 to the cost of the project. The project is designed as a sheet drain off the site and does not have a storm drain system so the remainder of the site was not considered due to the ineffectiveness without drainage piping below the pavers.
2. We considered solar panels and rainwater harvesting but having recently done this on a couple other projects, the initial investment may be difficult at best if even possible to recoup. We had one client that spent over \$240,000 on solar panels for a small building. The solar panels would not serve the daily needs and would have a very long period for a ROI.
3. We briefly considered incorporating Bio Swales for water retention and quality, but since we recently had this priced out on a service center site for another municipality

and the cost exceeded \$200,000 we knew that it would not fit within the City's budget for this project.