



architecture + town planning + urban design

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**Sustainable Design Assessment Report
for
1052 Spruce Street
Tax Map Page 7, Block 701, Lot 39**

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Pursuant to Lawrence Township Ordinance Section 523; Energy Conservation, this report outlines design guidelines to the sustainable building features being provided at 1052 Spruce Street.

1. Sustainable site development.

- Soil erosion measures will be used during construction to control sediment runoff.
- Filterra Green Infrastructure units will provide stormwater water quality treatment provided through soil and vegetation. All stormwater from the parking lots/driveways will be treated by these units.
- The design includes an infiltration stormwater basin.
- No building improvements will be provided in the area of existing freshwater wetlands at the rear of the site which will maintain natural stormwater runoff and support existing wildlife habitats in this area.
- Proposed landscaping in islands and adjacent to the parking areas will help control the direct summer temperatures.

2. Water efficiency

- Shower heads and tub faucets will have a maximum flow of 2.5 GPM @ 80 psi.
- Kitchen faucets will have a maximum flow of 1.5 GPM @ 60 psi.
- Bathroom faucets will have a maximum flow of 1.2 GPM @ 60 psi.
- Water closets will have an effective flush volume of 1.6 gallons or less.

3. Energy efficiency

- All dwelling unit appliances will be Energy Star Certified.
- Hot water supply systems have been placed in close proximity to hot water fixtures.
- Vertical Packaged mechanical units with 80% AFUE/11 EER will be used for dwelling unit heating & cooling.
- Building insulation will meet or exceed 2018 IECC R402 requirements.
- High Density batt insulation will be used in all exterior walls.
- Programmable thermostats for heating and cooling systems provided to meet IECC 2018 requirements.
- Interior lighting to utilize LED lighting where possible.
- Mechanical duct will be thermally insulated to meet IECC 2018 standards.

4. Indoor environmental quality

- Low or zero VOC paints and primers will be used.
- Low or zero VOC carpets will be used.
- All units will have operable openings per natural ventilation per the requirements of IMC 2018

5. Reduce consumption of building materials

- Buildings have been designed to use “pre-cut” lumber where possible reducing construction waste.
- Floor and roof framing will use prefabricated floor and roof trusses.

- A performance based structural design is used to optimize lateral force resisting systems.
- Walls heights are set to 9'-0" to allow for minimal waste with gypsum wallboard finishing.