WEST PALM BEACH
SUSTAINABILITY ADVISORY COMMITTEE MEETING
April 4, 2017
Approved Minutes

Members Present:
Lew Crampton
Stewart Bosley
Chanda Fuller
Jack Rice
Mark Stempler

Staff and Commissioners Present:
Mayor Muoio
Commissioner Ryan
Commissioner Neering
Rick Green
Scott Kelly
Penni Redford
Lauren Thead
Elaine Christian
Michael Rittenhouse
Suzanne Schluter

Call to Order/Sign In/Changes to Agenda

- Meeting was called to order at 4:05 PM.
- *Chanda Fuller made motion to approve the meeting minutes from the December 6, 2016 and the February 7, 2017 meetings. Mark Stempler seconded the motion. All were in favor.*

Opening Remarks

- We have invited speakers to allow the Advisory Committee to get information and ask questions about artificial turf. Public comments will be allowed after the presentations.

Old Business

- Artificial Turf
  - Current City Code - Ray Caranci, City Landscape Planner
    - Much of the current code exists as a result of changes made in 2012.
    - Currently artificial turf use is limited to non-city owned athletic fields and non-residential developments. A special permit is required. It should not be part of any landscape buffer, visible from the public thoroughfare, and should not be installed in drainage areas.
    - There are minimum material standards, must be for recreational use, minimum permeability requirements, minimum of an 8 year warranty and disposable under normal conditions at a US landfill. Artificial turf must be installed according to the specifications, taking into account the effect of wind and hurricane conditions. It must resemble a natural look, must not be adjacent to a seawall and proper drainage must be installed to avoid pooling and excess runoff. It must be maintained in good condition and replaced with like materials if it falls into disrepair and a duly authorized permit must be obtained.

- The single family dwelling landscape code currently does not allow artificial turf. For information, code requires: a minimum number of trees and shrubs for the lot calculated by the open space. Parking code requires that 75% or 1,000 square feet (whichever is less) of front yard area be landscape area. Regarding pervious or impervious area, there are no code requirements for single family dwelling backyards.

- Florida Friendly Landscape - Laurie Albrecht, UF/IFAS Extension
  - Information was given for the record and is available at: http://wpb.org/sustainability/climate-advisory-committee/
  - The University of Florida uses science based information to make decisions and is the official landscaping program by statute for Florida. They do not promote the use of artificial turf and rubber mulch. Some of the reasons are:
    - Higher surface temperatures and radiated heat.
    - Some artificial turf is installed with crumb rubber from recycled tires. This material has been shown to have hydrocarbons and zinc contents that exceed allowed levels and there is potential for a risk to surface waters due to runoff.
    - Artificial turf still requires some water use to clean and reduce the temperature at times, so it is not a no-water solution.
    - There is a heat transfer issue to surrounding living plants; plants and their root structures can be affected and may need more water.
    - There is no biological activity underneath the artificial turf and this may affect surrounding trees or plants as they require the microbes to survive.
    - There will be no biological activity as there would be with living ground cover. UF recommends other ground covers or turf grass instead of artificial turf. There is information available on using other Florida friendly ground covers and information on how to manage turf grass with fewer inputs.
    - The official stance of UF is to recommend Florida Friendly landscaping. Artificial turf is not considered Florida Friendly. There is no habitat with artificial turf.
- Paradelo Burgess Design Studio – Jonathan Burgess, Landscape Architect
  - Documents were given ahead of the meeting and are available at: http://wpb.org/sustainability/climate-advisory-committee/.
  - As a landscape designer, multiple materials are considered for each application and the multitude of attributes for each material are important to consider. In the comparison chart synthetic turf, live turf, and native plants are represented.
  - It is important to consider toxicity and by products through the supply chain and the whole life cycle impacts. Potential risks on the property and neighboring properties, where the material goes, climate impacts, carbon footprint, heat island impacts are also important to take into account.
  - Artificial turf tends to be significantly hotter than living turf as it absorbs rather than reflects. It will perform better in full shade. There is still some upkeep and maintenance and sometimes sanitation issues with artificial turf. Request a health product declaration if considering artificial turf. It is also not usually easily recycled and there are also greenhouse gas emissions during production and there is not ongoing carbon sequestration as there is with living turf.

- ProGreen – Rob Dant
  - Presentation available at: http://wpb.org/sustainability/climate-advisory-committee/.
  - The ProGreen product is 100% made in USA.
  - There is a big distinction to be made between sports fields and smaller applications. Crumb rubber is not used at all in applications at homes.
  - This is a very rapidly evolving industry and there are several misconceptions. The permeability rates vary from 150-400 gallons per hour. It can solve many challenges in landscapes.
  - The heat issue is being addressed by some products such as hydrochill. The proflow product increases the permeability.
  - Water savings per single family are approximately 55 gallons annually.
  - The installation process is very important and involves gravel, geotextile and sand.
  - Some of the benefits of artificial turf are: water use reduction, chemical use reduction, it is almost 100% recyclable and is very durable, generally lasting 15 years.
- Palm Beach Soil & Water Conservation District – David DeMaio
  - The biggest concern is runoff and recharge. Although most of studies have looked at athletic fields, there still could be problems if a large percentage of yards in the City were allowed to install artificial turf.
  - Soil building is another important issue. The soil relies on organics and microorganisms and it can be ruined in a short time.
  - There are still many unknowns about the possible impacts of the sand base and possible chemicals running off and for things like the new cooling infills that are being proposed.
- Palm Beach County Chapter of the Florida Native Plant Society – Susan Lerner
  - The mission of the Sustainability Office is to "Enhance the viability of West Palm Beach as a modern model of healthy, environmentally progressive, ecologically sustainable and resilient urban living."
  - Artificial turf is a plastics, oil based product. Unknown chemicals could be going into the soil, water, and our bodies. They are not ecologically sustainable. The industry has been largely unregulated so far.
  - Tree roots need space to grow.
  - Allowing artificial turf may bring in jobs in this industry, but will also cut back on landscaping jobs and turf grass growers' jobs.
- Discussion including public comments
  - In a University of Florida DEP funded study, on live turf grass, even with a very high rate of fertilizer application, runoff is minimal. The possibility of zinc leaching is still an issue with artificial turf and sandy soils allow more leaching.
  - The amount of space that would be needed around trees was brought up as roots need soils with microorganisms and artificial turf placed too close around trees could also bring too much heat to the roots. Others mentioned that the landscape architects are guaranteeing that the surrounding trees will survive when they install the artificial turf.
  - Lew Crampton mentioned that he did not feel artificial turf and native plants are not mutually exclusive.

- Jonathan Burgess mentioned that as a landscape planer, he is not for or against artificial turf. Sometimes small installations of artificial turf in conjunction with plants can be a viable option.
- For some grass allergies was an issue and they thought artificial turf should be an option. Hilary Musser, a WPB resident, followed the rules and is asking for a variance for medical reasons.
- Angela Falise, a resident, mentioned that she had replaced her sod four times before installing artificial turf. She did not need a permit to install the sod, so did not imagine that a permit would be required to install artificial turf.
- John Velina, a local artificial turf installer, mentioned that many of the studies are out of date, that the product has evolved and permeability is no longer an issue and crumb rubber is not used in residential applications.
- John Velina also stated that due to the high heat on artificial turf, bacteria are not usually an issue.
- Rob Dant did not think that the negative effects on the soil would go down very far and that when sod is installed typically infill of 1-1 ½ inches (of soil) is put in anyway, so he did not think it would be detrimental. He thought the effects would be similar to having pavers removed and installing grass.
- Chris Leavitt, another resident, stated that he has installed artificial turf alongside his driveway since he had trouble growing grass there and was cited by City Code Enforcement for "side yard".
- Ray Caranci read input from Wayne Villavaso, of Wayne Villavaso Landscape Architecture, Inc., who was unable to attend:
    - Use Drought tolerant native grasses for sustainable, pervious areas that reduce storm water run-off
    - Use artificial turf in smaller, high traffic areas or for paver/turf small pattern designs
    - Use limited artificial turf in deep shade areas where grass won't grow in combinations w/ shade tolerant plant materials
    - Recognize evolving research concerning "alternate" chemical issues associated with artificial turf
- Ray clarified that currently code does not allow artificial turf at all on residential lots. Currently artificial turf is considered an impervious surface. Current code limits impervious surface in the front and side yards.
- Rob Dant recommended always working with a qualified, reputable installer.
- Commissioner Paula Ryan mentioned that the reason we are here is that the current code does not account for some situations that have come before the City Administration and there are constant changes in technology. There have been a number of different scenarios that have come to light and the fact that code allows for the backyard and side yard, if not visible from the right of way, to be paved but still not allow artificial turf, people wanted to learn more and perhaps get some direction from the Advisory Committee on possible changes or exceptions to the code.

        - Jonathan Burgess mentioned that manufacturers should have health product declarations and/or environmental product declarations which may include life cycle information and material ingredients, and there may be a way to integrate that into the regulations to make sure the best products are being used with the least negative environmental impact.
        - The Synthetic Turf Council may have answers to many of these questions.
        - Clarification that the role of the Sustainability Advisory Committee is to provide recommendations to the Mayor.
        - Rick Green, Development Services Director, explained that the process includes final approval by the City Commission. If the Mayor or the City Commission then chooses to they will direct staff to look at changes to the code. City staff would work up a plan that would be presented to the Planning Board at a public meeting. The Planning Board could direct staff to do further research, rework the recommendation, conduct public workshops, etc. Then proposed changes would be brought to the City Commission and there would be two readings before changes were approved.
    - *Chanda Fuller made a motion to continue the discussion at the next meeting, asking staff to present some potential options in regard to specific recommendations that could be made. Mark Stempler seconded the motion. All members were in favor.*

- Sustainability Office Updates – Penni Redford
    - April is Water Conservation Month. We are participating in the Wyland National Mayor's Challenge for Water Conservation. Please go to mywaterpledge.com from April 1-30 and pledge to save water.
    - The Sustainability Office has a new staff member: Michael Rittenhouse. He will mainly be in charge of Green Infrastructure.
    - Sustainable West Palm Beach workshop will be held April 11. This workshop is being presented by National League of Cities and STAR Communities partially through a grant from the NLC – Leadership in Community Resilience. The Committee is invited to attend.
    - List of other events will be emailed.

Future Meetings

- Tuesday, June 6, 2017, 4-5:30 PM, Mayor's Board Room

Adjourn

- The meeting was adjourned at 6:10 PM.