Tale of Two Fields

Analysis of City of Glendale selection of athletic surfaces
The Vision
Compromise is needed no matter the type of surface selected.

• One vision for Infinity Park in 2006
  – Pleasant View Soccer Fields, City of Boulder, Open, Natural, great views, youth and club sports.

• Another Vision
A Deal is Struck...
The Second Phase of Infinity Park

• The City of Glendale is issued GOCO Grant to create an athletic field, filed by the Director of Rugby.
  – Who also happens to be the head coach.
  – GOCO grant acts as an effective “time-bomb” with a use it or lose it stipulation.
  – The gentleman’s agreement is called into play.
  – The design team decides to go with a synthetic surface...
The City Council
The Issue of installing a synthetic turf brings out the best in everyone.
Issues faced by the City Council

• From Glendale City Council meeting in February 2008
  – Will I get sick from playing on the surface?
  – How much will it cost?

  – Are there intangibles that need to be addressed?
    • Green house gas (GHG) emissions?
    • Environmental impacts?
    • Construction?

• Human resources – aka Maintenance?
Will I get sick?

• Over the past several years, a number of public concerns have been raised over the use of tire crumb materials in turf fields and playgrounds.
  – For example, parents in Colorado were concerned about children carrying home small particles of tire crumbs on their clothing. (2008)
  – About this time, high levels of lead were detected on some artificial turf fields in New Jersey.
  – Summer, 2010 the Center for Disease Control issued an advisory about potential exposure to lead in artificial turf. (EPA, 2009)
  – The latest research has shown while artificial turf contains elements that could be toxic to humans, ordinary use does not expose players to levels considered dangerous. (Bookwalter, 2010)
How much will it cost?

• With the prices for synthetic field projects ranging from $500,000 to $3,000,000+, the synthetic turf industry has become a major segment of the $435 billion dollar a year sports industry.

• Josh Bertrand is a minor segment in the industry, his salary represents 0.00000003% of the $19.6 billion dollar a year sports industry.

• Payton Manning’s salary represents 0.0001% of the yearly sport industry.
How much will it cost?

10 year cost comparison of Synthetic vs. Natural for the expansion of Infinity Park.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SYNTHETIC</th>
<th>NATURAL</th>
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</thead>
<tbody>
<tr>
<td>Installation Cost- drainage, sub-base, materials, etc.</td>
<td>$934,000</td>
<td>$412,000</td>
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<tr>
<td>Yearly maintenance costs X 10 years</td>
<td>$92,340</td>
<td>$524,680</td>
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<tr>
<td>Removal/Disposal</td>
<td>$212,000</td>
<td>$50,000</td>
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<tr>
<td>Re-Install surface year 10</td>
<td>$333,000</td>
<td>$98,000</td>
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<tr>
<td>TOTAL</td>
<td>$1,571,340</td>
<td>$1,084,680</td>
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In the news....

• Closure of Casey Middle School's soccer field, sledding hill angers Boulder neighbors
• Neighbors of Casey Middle School are upset that the school's soccer field now is off-limits, as is a hill long used for sledding.
• The soccer field was upgraded to artificial turf when the school was rebuilt. Artificial turf was chosen because it's a "greener" option and easier to maintain, Boulder Valley School District officials said. But they limit public access to the district's synthetic fields, so they locked the gate that provides access to Casey's fenced-in soccer field.
In the news...

- **Redskins to address 'horrible' playing surface; Seahawks' Carroll critical of stadium surface**
- **ASHBURN, Va. (AP) -** Pete Carroll says the "field" in FedEx Field is "horrible."
- Mike Shanahan doesn't go that far, but he agrees the grass isn't always greener at the Washington Redskins stadium.
- The playing surface was a mess when the Redskins hosted the Seattle Seahawks in the NFC wild card playoffs. There were plenty of bare spots, and dirt was flying with many of the steps taken between the hash marks. Washington quarterback Robert Griffin III and Seattle defensive end Chris Clemons left the game with knee injuries.
- Seahawks coach Carroll told 710 ESPN Seattle on Monday that it was "as bad as a field can get" considering the weather was dry.
- Redskins coach Shanahan says he'll address the issue before next season. He says he'd consider a switch to an artificial surface.
One of the Great Advantage of a Synthetic Surfaces is....

- **SEEMINGLY UNLIMITED PLAY ABILITY**
- From the ASTROTURF/BASF study, AstroTurf synthetic fields can support over 2,000 hours of use per year! That is over 5 hours a day, every day!
BASF/Astroturf study - scope

- The base case Customer Benefit is defined to be the Production, Installation, Use and Disposal of a multi-purpose recreational sport field of 75,000 ft² with the ability to support 600 hours/year of event activity in an average residential town over a 20 year time frame.

- Twenty years was a significant enough time period to fully capture the durability and replacement impacts related to the synthetic turf field as well as to allow an effective evaluation of the long-term financial commitment communities make with regards to their recreational fields.
BASF/Astroturf study

• Summary of results: In order to have an equivalent overall environmental impact as the synthetic field fields, the natural turf field would need to achieve an availability of 420 hours/year or greater.
Primary Energy Consumption. PureGrass® nylon synthetic turf (using no crumb) had the lowest energy consumption of the synthetic turf fields mostly because it had the highest durability of any of the synthetic turf fields and did not require infill. A natural turf grass field would need to support over 400 hours of events/year in order to achieve a lower energy consumption than PureGrass® turf. However, average maintained natural grass field supporting 300 hours of events or more uses less energy per event than the average synthetic surface with crumb rubber infill.
Primary energy consumption.
BASF/Astroturf study

- *Water Emissions*. Natural turf grass fields supporting a range of 300 to 600 hours of activity per year had the lowest water emissions impact. All the synthetic alternatives performed better than turf grass which supported less than 200 hours of event activity/year. **Overall, water emissions (water use) contributed less than 2% to the total environmental impact.**
Overall Emissions.
Recommended Practices

• Natural Grass
  – Have a long term maintenance program funded.
  – Use knowledgeable and skilled employees – in turf management.
  – Focus on the “prime time” of growing grass.
  – Overseed, Aerate, Overseed, Aerate, Overseed...
Recommend Practices

- Synthetic Turf – MAXIMIZE USE!
  - LIGHTS !!! Install them, use them...but have residents support prior to this recommendation!
  - Plow snow – but not with regular equipment.
  - Keep clean- sweep/brush once per week.
  - Have a replacement fund in place when buying/installing new surface.
Force of snow while plowing.
Next time...

• What will Glendale do when it comes time to replace?
  – Spend 18-24 months prior to estimated replacement, researching synthetic turf types.
    • Synthetic turf is constantly developing new products.
    • Attend National STMA conference (most bang for your buck).
    • Visit sites of installed surfaces (do you really want the latest and greatest?)
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Metro Denver Sports Commission (corporate member)
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Mountain Media (corporate member)
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Moye White LLP
National Ski Patrol/Professional Ski Instructors of America
National Sports Services
Northglenn Judo Club
One Up Tournaments and Travel
Onit Marketing, LLC
Peeples Ink
Pepsi Center (corporate member)
Professional Bull Riders, Inc.
Professional Rodeo Cowboys Association
ProStar Sports Agency
Radisson Stapleton Plaza Hotel
RecFit Consulting
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Response Technologies
RF - Sports Marketing and Communications
Rich Clarkson and Associates, LLC
RMAC
Rocky Mountain News
Saturday Series Pro-Ams
Schenkein
Skyhawks Sports Academy
Sponsorship Research & Strategy
Sport Dimensions, Inc.
Sports Education Enterprises
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SportsHD Productions, Inc (corporate member)
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Sports Trust
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