Replacement of Artificial Turf Fields in North America Allen Waterman, APW Enterprises, LLC INTERNATIONAL ASSOCIATION FOR SPORTS SURFACE SCIENCES TECHNICAL MEETING, SAN FRANCISCO 2014

#### Market

1999- Less than 150 Field 2003- More than 350 2005- More than 700 2007- More than 1,000

There were more than 350 artificial turf fields replaced in the United States in 2014. Three years from now there will be more than 1,000.



Typical Quantities Turf-Carpet 81,000 sq. feet (7,525 sq. meters)

> Fieldturf 365 tons sand/rubber infill 17- truck loads

> Others 203 tons sand/rubber infill 9- truck loads

### Top Down Removal Processes





## Top Down

- Takes 3-5 passes to remove less than 70% of the infill
- Inconsistent ratio of rubber and sand in each bag
- Further degrades fiber with brushing process leaving more dead fiber within the infill
- Requires at least 4 trucks for the removal of the carpet

### Roll Extraction Process





## Roll Extraction

- Removes more than 95% of the infill in one process
- If field is swept or vacuumed prior to removal, leaves very little debris within the reclaimed infill.
- Requires two trucks to haul away carpet.

## Cut and Roll



## Requires 9 -17 Truckloads to Ship Off Site

#### Material is "Repurposed"

#### Awaiting Repurposing





## Challenges

- On site cleaning and screening of infill for reuse in new field, if necessary
- Directly reusing infill onsite
- Carpet Processing- polyethylene, polypropylene, polyurethane, nylon.

# Thank you!