



# PLAYGROUND SURFACING

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CITY COUNCIL

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MANAGER

DEPARTMENT OF NEIGHBORHOOD SERVICES & PUBLIC  
SAFETY

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# HISTORY OF PLAYGROUND SAFETY

- ❖ 1981 - First Consumer Product Safety Commission Handbook for Public Playground Safety
- ❖ 1991 - Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment
- ❖ 1993 - Standard Consumer Safety Performance Specification for Playground Equipment for Public Use (revisions every 3 to 4 years)
- ❖ 2008 - Most recent updates to handbook





# IMPORTANCE OF PLAYGROUND SURFACING MATERIALS

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- ❖ Safety: A fall onto a shock absorbing surfaces is less likely to cause a serious head injury than a fall onto a hard surface
- ❖ Accessibility: Access from path to equipment for participants with disabilities
- ❖ Maintenance: How often and how much?



# RESOURCES FOR PUBLIC AGENCIES

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- ❖ U.S. Consumer Product Safety Commission's Public Playground Safety Handbook
- ❖ Professional Peers/Vendors
- ❖ Studies conducted by multi-agency (EPA, ASTDR, CDC and Department of Health & Human Services and CPSC), and/or California Office of Environmental Health Hazard Assessment. Draft report will be sent for peer review Spring of 2018, release of final report expected later 2018
- ❖ Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds



# FALL HEIGHT REQUIREMENTS FOR LOOSE FILL PRODUCTS

Handbook for Public Playground Safety

**Table 2. Minimum compressed loose-fill surfacing depths**

Inches	Of	(Loose-Fill Material)	Protects to	Fall Height (feet)
6*		Shredded/recycled rubber		10
9		Sand		4
9		Pea Gravel		5
9		Wood mulch (non-CCA)		7
9		Wood chips		10
* Shredded/recycled rubber loose-fill surfacing does not compress in the same manner as other loose-fill materials. However, care should be taken to maintain a constant depth as displacement may still occur.				

# UNITARY SURFACING

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- ❖ Rubber surfacing that is a combination of energy-absorbing materials held in place by a binding agent and cured to create a unitary shock absorbing surface.
- ❖ Common forms: Poured in place and cured, or tiles that are premanufactured and assembled/locked in place.







# ENGINEERED WOOD FIBER SURFACING

- ❖ A natural safety surfacing product created from the inside of trees, not the bark.
- ❖ Certified for impact attenuation, ADA accessible for wheelchairs and strollers, slip resistant and it is free of chemicals, hazards, etc.



# PROS & CONS UNITARY SURFACE

- ❖ Can have creative designs, fun colors
- ❖ Debris is easily visible, cleaned easily by blowing off or hosing down
- ❖ Maintains attenuation rates for at least five years



- ❖ Can be three to four times more expensive to install than EWF
- ❖ Health related studies have not identified conclusive results
- ❖ Can be costly to repair and/or replace



# PROS & CONS ENGINEERED WOOD FIBER

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- ❖ Costs for installation are typically three to four times lower than a rubberized surface
- ❖ The product is clean and natural
- ❖ The product meets all accessibility and safety criteria



- ❖ Requires ongoing maintenance to ensure compliance with safety criteria
- ❖ Requires annual replenishment of materials
- ❖ Debris can be difficult to see during visual inspections



# WHAT ARE OUR NEIGHBORS DOING?

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## CITY OF SANTA BARBARA

7 sites – All Unitary (PIP)

16 sites – Some PIP w/other product

- 13 sites – Some engineered wood fiber
- 6 sites – Some sand

## CITY OF LOMPOC

2 sites - All Unitary

6 sites – Engineered wood fiber

3 sites - Sand

## CITY OF BUELLTON

3 sites – Wood Chips currently, looking to change to engineered wood fiber

## CITY OF SANTA MARIA

5 Sites – All Unitary

1 Site – Some PIP w/other product

16 sites – Engineered wood fiber

4 Sites – Artificial Turf



# OPTIONS TO CONSIDER

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1. Move forward with a unitary surface for the current playground renovations and continue to monitor ongoing studies
2. Move forward with an Engineered Wood Fiber for the current playground renovations, understanding the financial and risk management obligations
3. Move forward with a unitary surface below the high traffic areas (slides, swings) and utilize engineered wood fiber for the majority of the play area

# OPTION #3 BOTH UNITARY & EWF

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Places rubber surfaces in high traffic areas, utilizing chips for the remainder of the play surface area