

Park District Supports:

# PREVENTATIVE MAINTENANCE

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Reducing Risk Factors with  
Pro-Active Facilities Management



**Seattle**  
**Parks & Recreation**

healthy people healthy environment strong communities



A photograph of two workers installing a modern playground structure. The structure features large, grey, arched frames and green circular platforms. The ground is covered in reddish-brown wood mulch. In the background, there are residential houses, trees, and a white pickup truck. One worker is wearing a blue jumpsuit and a purple beanie, while the other is wearing a grey jacket, blue pants, and a yellow safety vest. They are both holding tools and appear to be adjusting the structure. The text "Park District Funding Enables us to make the shift" is overlaid in large white letters across the center of the image.

# Park District Funding Enables us to make the shift







And we are  
making  
the shift







A high-angle, top-down photograph of a person skateboarding in a park. The person is wearing a white helmet, a light grey long-sleeved shirt, dark pants, and black protective gear on their elbows and knees. They are crouched on a skateboard with a reddish-brown deck and bright green wheels. The skateboarder is positioned on a light-colored, paved surface, possibly a ramp or a flat area. The background shows a curved concrete structure, likely part of a skate park. The text "To healthier and safer parks" is overlaid in large, white, sans-serif font across the center of the image.

**To healthier  
and safer parks**

A man wearing a dark cap and work clothes is kneeling in a trench, working on a pipe. The scene is overlaid with a green tint. The text "PREVENTATIVE MAINTENANCE" is written in large, white, bold, sans-serif capital letters across the center of the image.

# PREVENTATIVE MAINTENANCE



# Definition

Preventative maintenance is about keeping materials and components maintained at optimal level of performance to maximize the use and life of all facilities.

## Benefits

- ✓ Insures best practices to protect health and safety of public
- ✓ Extends life of facilities
- ✓ Decreases interruptions to operating hours/programming
- ✓ Decreases emergency and breakdown work orders
- ✓ Insures continuous compliance w/ current codes and standards
- ✓ Achieves reductions in energy consumption

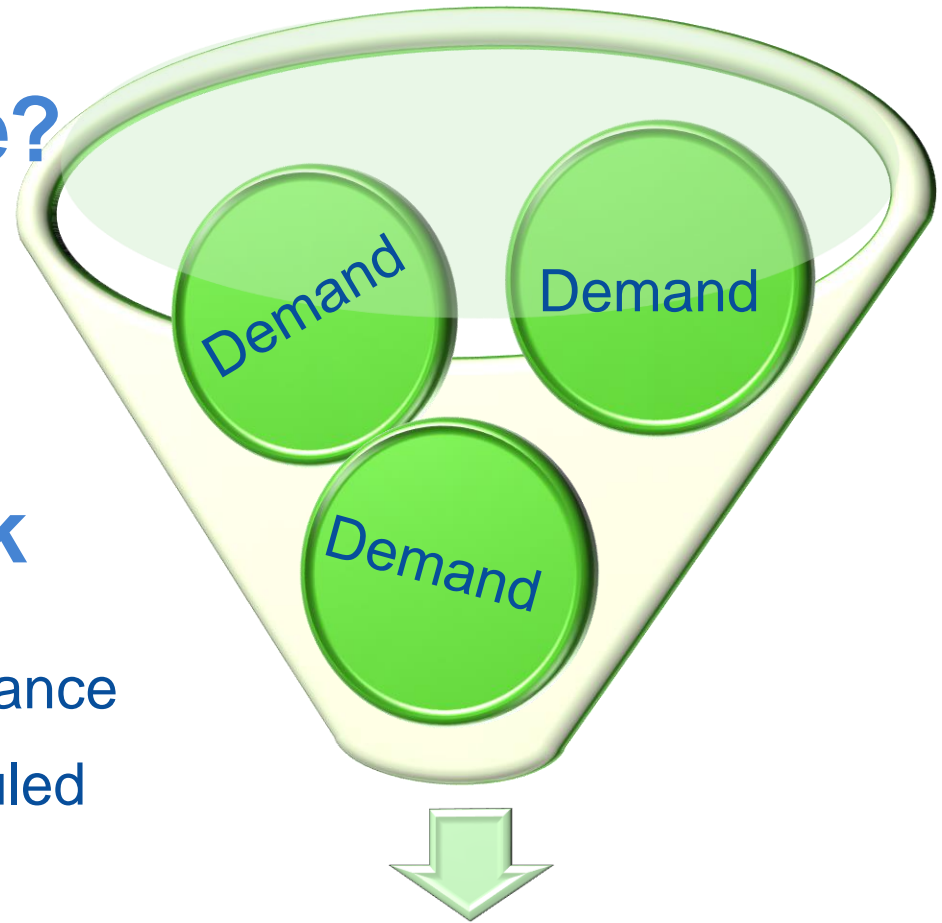




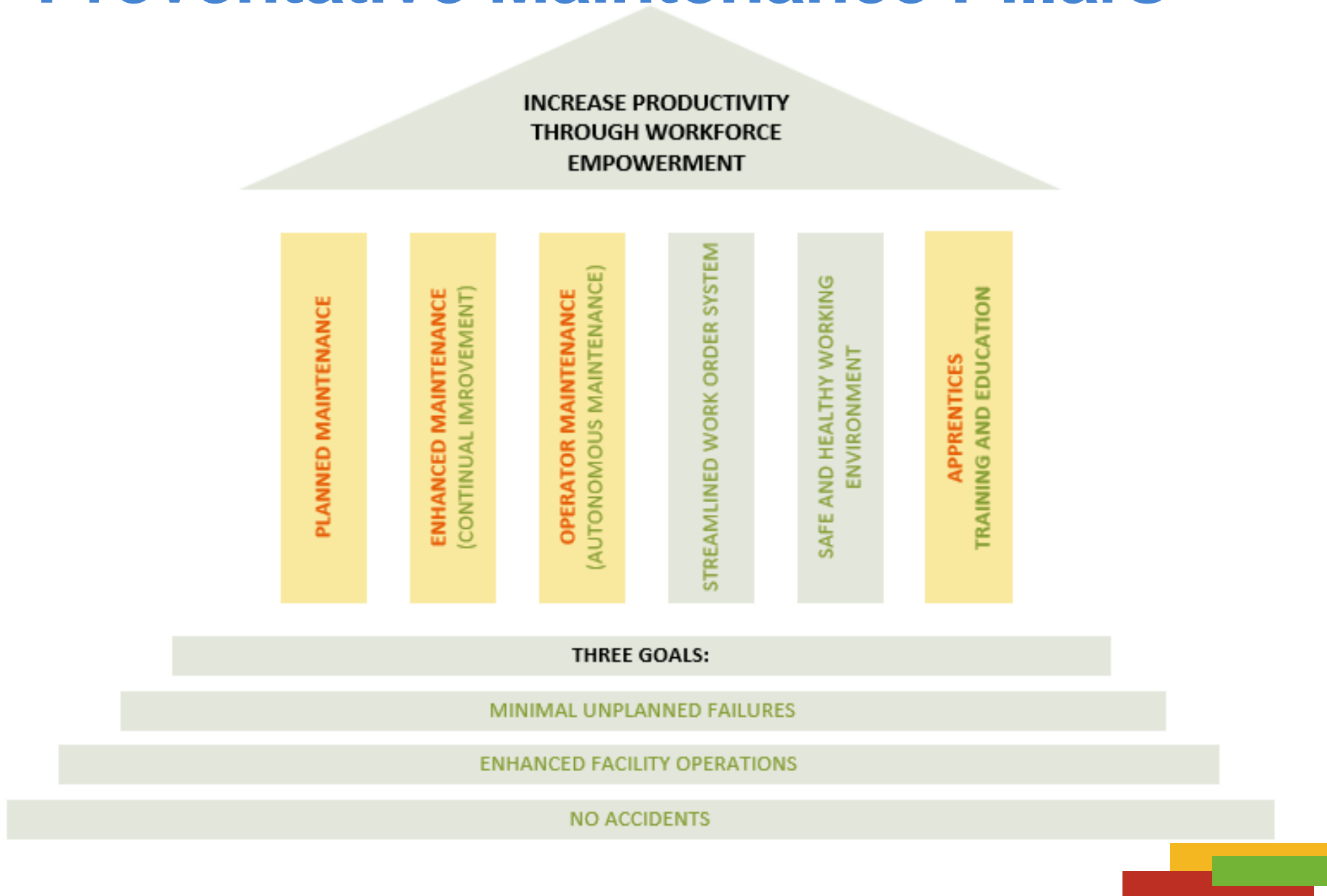
# How do we get there?

## Break the Bottleneck

- ✓ Practice preventative maintenance
- ✓ Defer demand WOs to scheduled maintenance window
- ✓ Pre-empt demand WOs w/ eyes in the field -> facility operators
- ✓ Custodial care to extend life of surfaces

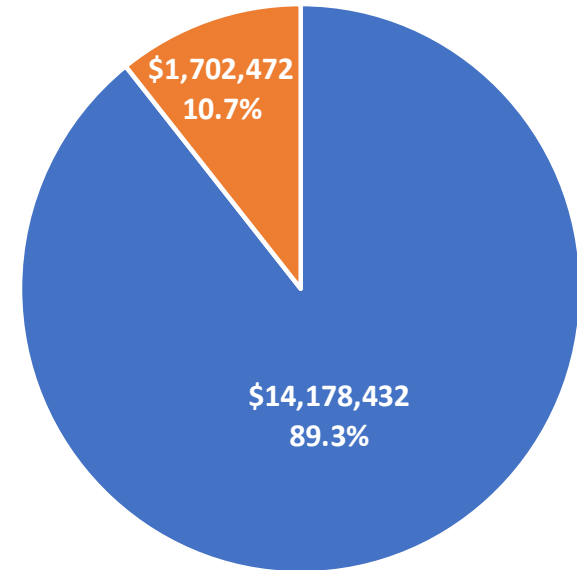
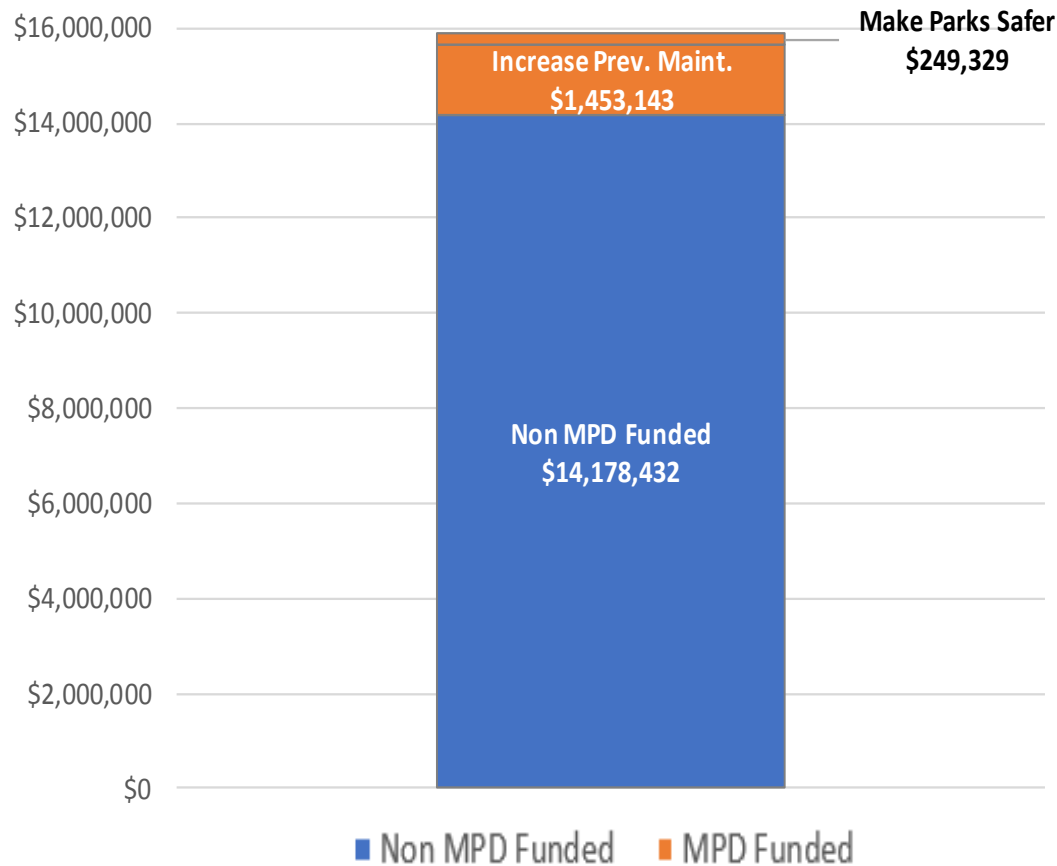


# Preventative Maintenance Pillars

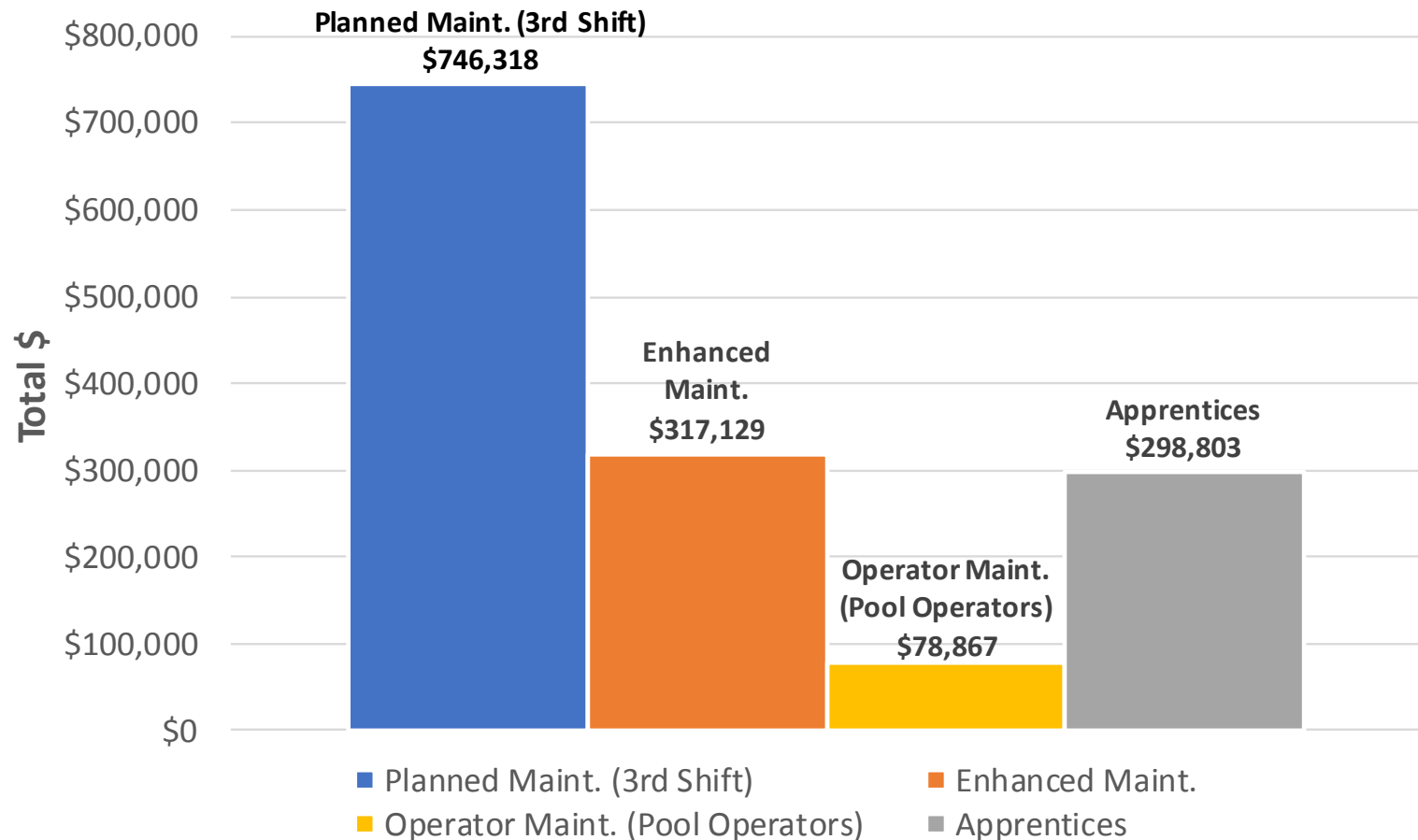




# 2017 Facilities Division Budget \$15.9M Breakout



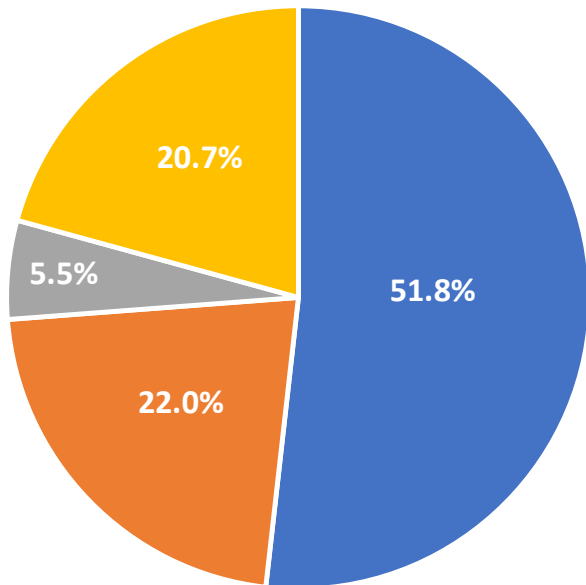
# Preventative Maintenance \$1.4M Breakout





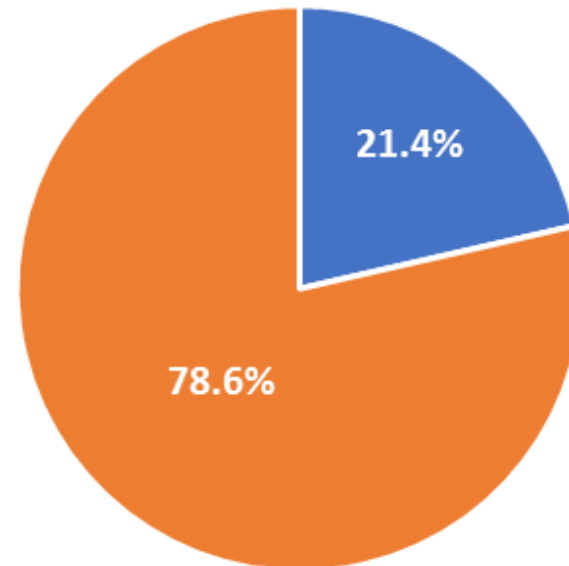
# Preventative Maintenance \$1.4M Breakout

% by Group



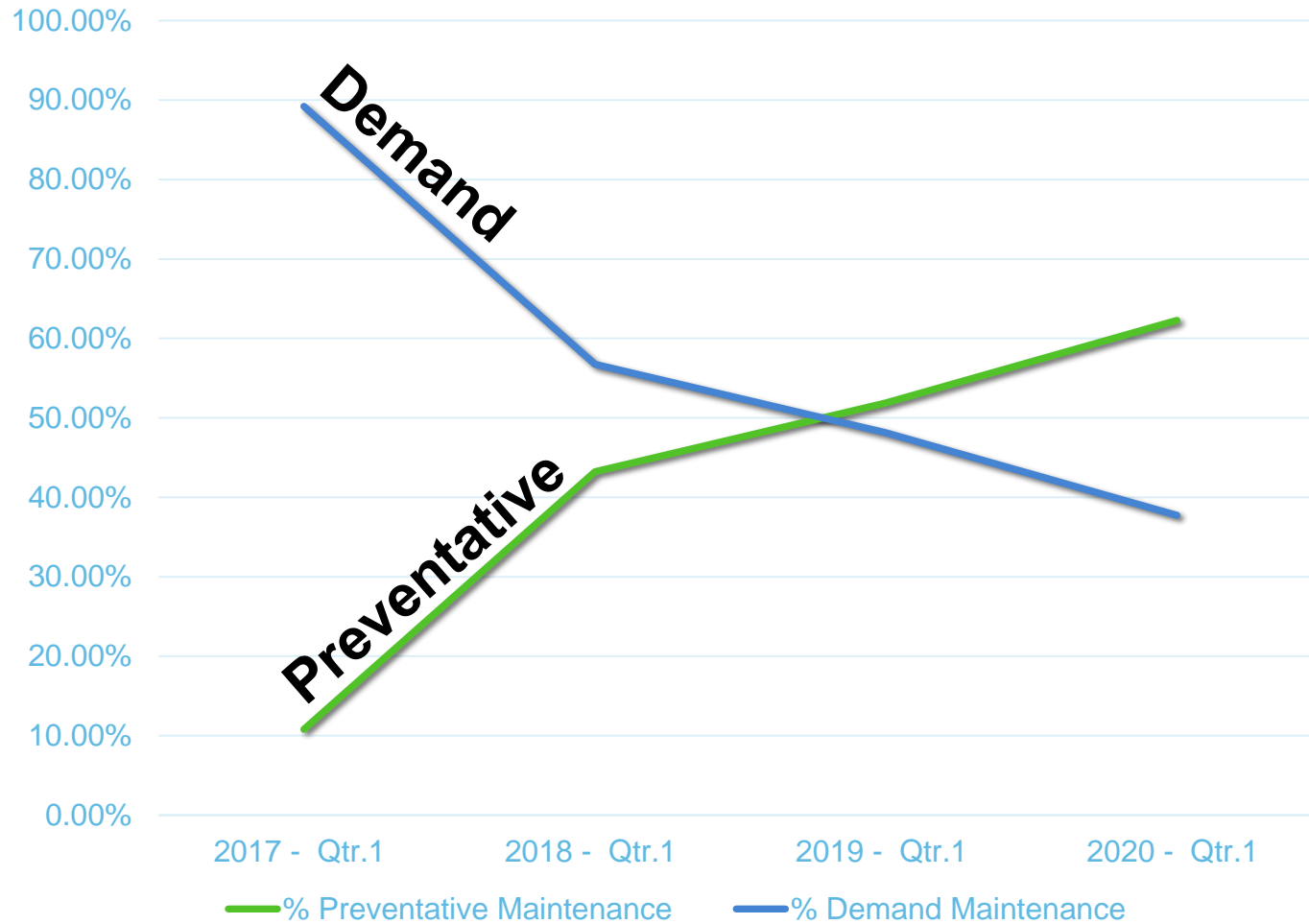
- Planned Maint. (3rd Shift)
- Enhanced Maint.
- Operator Maint. (Pool Operators)
- Apprentices

Non-Personnel vs Personnel \$



- Non-Personnel \$
- Personnel \$

## Demand vs. Preventative Maintenance





A person wearing a white lab coat is working on a piece of equipment. The image is overlaid with a semi-transparent green filter. In the foreground, there are two orange traffic cones. The text "PLANNED MAINTENANCE (Pillar I)" is written in large, white, bold letters across the center of the image.

# **PLANNED MAINTENANCE (Pillar I)**

# Planned Maintenance “3<sup>rd</sup> Shift!”

The “3<sup>rd</sup> shift”, otherwise known as the “night shift”

- ↓ failures by replacing worn parts
- “Freshen up” facilities w/ new paint, glazing, and trim work
- ✓ Completion of 18 facility enhancement projects per year, 45 projects total, since its inception in 2015
- ✓ Efficiency in taking full reign of the facility in the absence of the public and staff in the middle of the night
- ✓ Team = 9 = carpenter(1), electrician(1), plumber(1), painters(3), laborers(2), and a crew chief (1)
- ✓ Response to emergencies through-out the city via PDO
- ✓ Recipient of Seattle Mgt. Award – Hidden Gem/Unsung Hero



Area	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
THIRD Shift	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs	1000-1400 hrs
Aggregates Material													
Concrete Material													
Reinforcement Bars													
Formwork & Scaffolding													
Excavation & Backfilling													
Foundation													
Structure													
Roofing													
Wall													
Concrete & Flyash													
Supply Material													
Drainage & Waterways													
Sewer Lines													
Manholes													
THIRD Shift	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs	1400-1800 hrs
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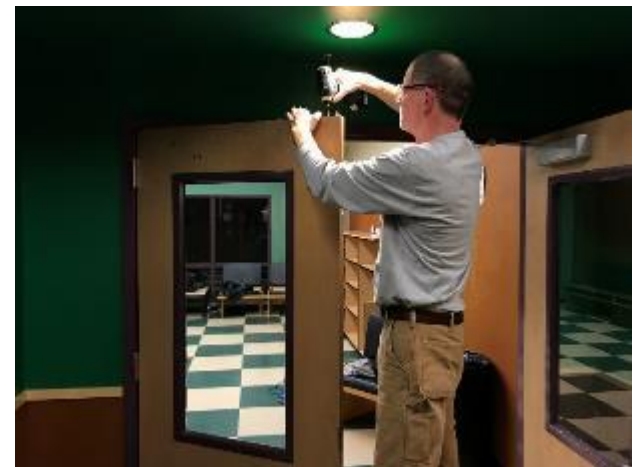
# Planned Maintenance 2017





2018\_Shops\_Calendar\_Poster\_(Landscape).jpg

3rd Shift!





3rd Shift!





3rd Shift!



# 3<sup>rd</sup> Shift – Challenges/Lessons



Hard-to-find staff to rotate into positions



Work at staying connected to division



Limited to work in well-lit areas



Need supplies on hand



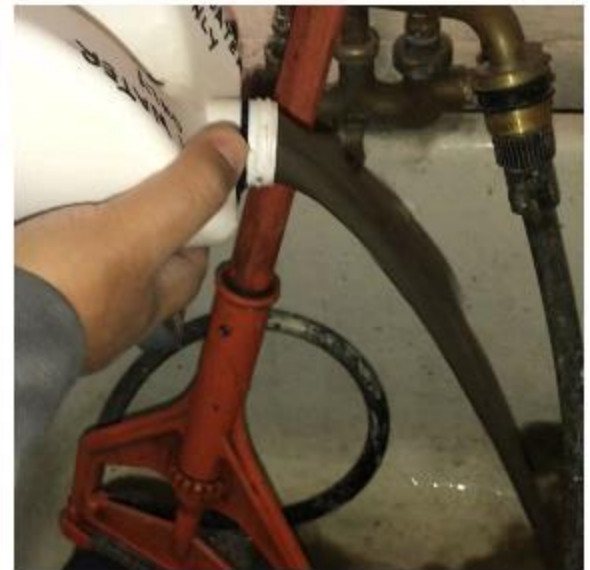
A photograph of two construction workers on a roof, overlaid with a semi-transparent green filter. One worker on the left stands observing, while the other on the right is bent over working on a flat surface. Various tools and equipment are scattered on the roof. The text 'ENHANCED MAINTENANCE (Pillar II)' is centered in large white letters.

# ENHANCED MAINTENANCE (Pillar II)



# Enhanced Maintenance

Lake City CC



**(T.E.A.M.) Together Everyone Accomplishes More...**



# Enhanced Maintenance

Special Operations



**(T.E.A.M.) Together Everyone Accomplishes More...**



# Enhanced Maintenance

Pressure Washed Shower  
Room, Locker Room,  
Bathroom Walls and Floor,  
& Outside Stairs.



**(T.E.A.M.) Together Everyone Accomplishes More...**

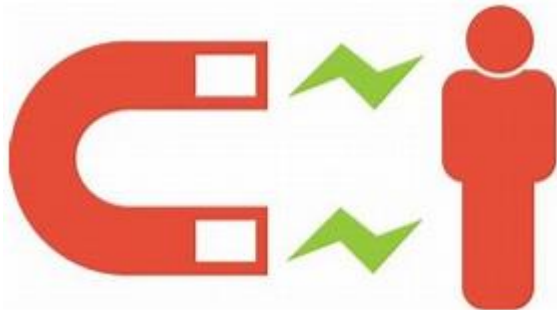




# Enhanced Maintenance – Challenges/Lessons



Need to find two consecutive time slots for floors (weekends would be ideal)



Hard to retain pro-active staff



Does not replace frequent custodial care



A yellow caution sign stands on a light-colored tiled floor. The sign has a red 'X' drawn over it. In the background, a red bucket is visible. The entire image has a greenish-yellow tint.

# **OPERATOR MAINTENANCE (Pillar III)**

# Operator Maintenance (Aquatics)

- ✓ Preventative maintenance -> facility management
  - ✓ All Operators are Certified by National Swimming Pool Assoc.
  - ✓ Sanitize facility
  - ✓ Maintain water quality
  - ✓ Provide proper disinfection as well as water balance
  - ✓ Update signage
  - ✓ Ensure safety equipment is in place, functional, and visible
  - ✓ Identify and evaluate risks and communicate and strategize to reduce risk
- ✓ Eyes on the ground
  - ✓ Understanding of mechanical operation allows for minor repairs
  - ✓ Call in work orders before they are a hazard before they are noticed by the public
  - ✓ Cleaning preempts all other work





# Operator Maintenance



# Operator Maintenance (Aquatics) – Challenges/Lessons



Schedule work around programming



Maintain 24/7 on-call service



Maintaining aging infrastructure



The background of the slide is a photograph of a construction site. It shows the interior of a building under construction, with wooden framing, beams, and workers. One worker in the foreground is wearing an orange safety vest and a hard hat. The entire image is covered with a semi-transparent green filter. Overlaid on this background is the text 'TRAINING AND EDUCATION APPRENTICES (PILLAR VI)' in a large, bold, white, sans-serif font, centered horizontally and vertically.

# **TRAINING AND EDUCATION APPRENTICES (PILLAR VI)**



# Apprentices

- ✓ Encourage growth of trade professions
- ✓ Mentorship and on-the-job training
- ✓ Transfer skills from one generation to the next
- ✓ Succession planning
- ✓ Facilities Division Apprentices
  - ✓ Carpentry Shop
  - ✓ Electric Shop
  - ✓ Plumbing Shop



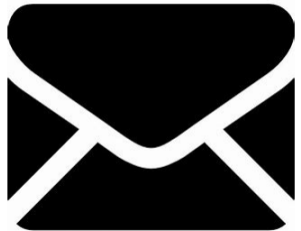
# Apprentices



# Apprentices– Challenges/Lessons



Need for greater gender diversity



Additional funded apprentice positions



Repetition for learning specific skillset



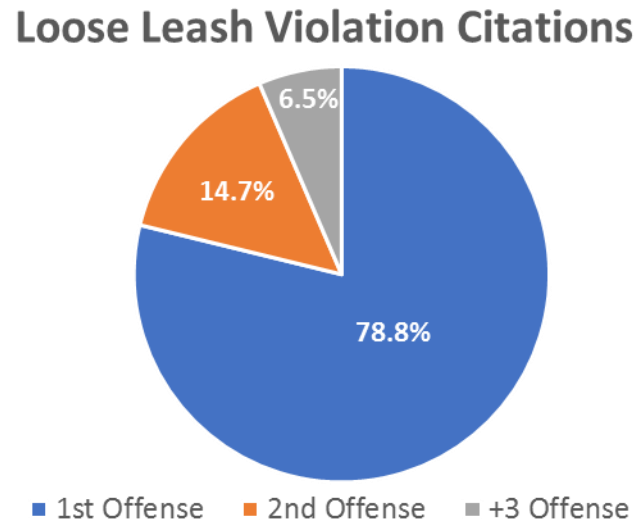
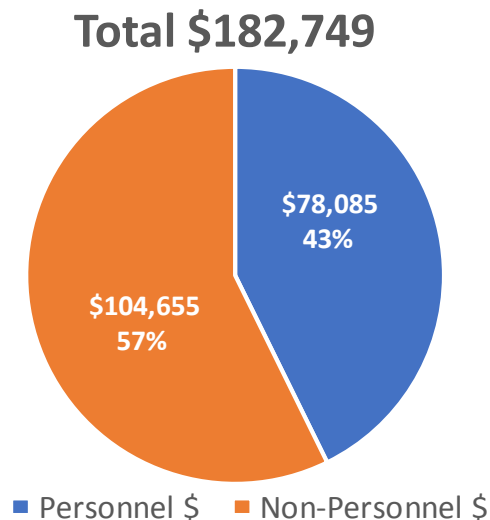


The background image shows a construction site with workers on a wooden framework. Two workers in the foreground are wearing orange safety vests and white hard hats. The scene is overlaid with a semi-transparent green filter. The text "MAKE PARKS SAFER" is centered in white, bold, sans-serif font.

# MAKE PARKS SAFER

# Make Parks Safer

- ✓ Educate community on leash and scoop laws
- ✓ Respond to complaints across parks (ballfields, play areas)
- ✓ Enforce park code policies
  - ✓ ~700 Citations issued for Loose Leash Violations



# Make Parks Safer— Challenges/Lessons



Additional enforcement for 3 main geographical divisions of city



Additional off-leash areas w/ water access  
Currently only one off-leash area w/ water



Expand initiative beyond control and citations – Need for better off-leash areas

**OFF LEASH  
AREA**





# Preventative Maintenance

*Increased productivity through  
workforce empowerment*



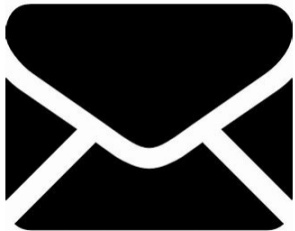
# Challenges create opportunities

## *Need 7 day a week Coverage*



Additional 3<sup>rd</sup> Shift crew for enhanced maintenance

Additional weekend shift for enhanced custodial maintenance



Additional apprentice pockets to create more consistent and regular onboarding of skilled trades people



Apply success of “enhancement crew” to a “play area crew”. Increase safety of play areas and decrease claims



# Thank You!



**Seattle**  
Parks & Recreation  
healthy people healthy environment strong communities

