Report on Deferred Maintenance and Infrastructure Backlog

February 4, 2019
Transportation & Environment Committee
Item d (1)



Workplan to Address Backlog Needs

- This is a continuous, on-going process
- Building on previous reports
- Quantifying the assets
- Documenting the unfunded needs
- Refining, clarifying for accuracy
- Developing a strategy for each asset class
- Increased focus on Building/Park Facilities



Impacts of Measure T

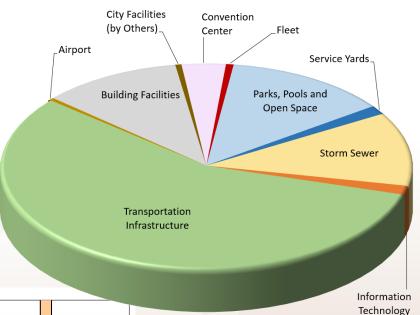
- Reduces future (2028) Pavement backlog by \$500M from the \$1.1B previously reported
- Reduces Storm backlog by \$35M
- Provides \$20M funding to repair or replace vulnerable bridges
- Reduces backlogs in streetlights and outdoor lights by \$20M
- Addresses other infrastructure backlogs



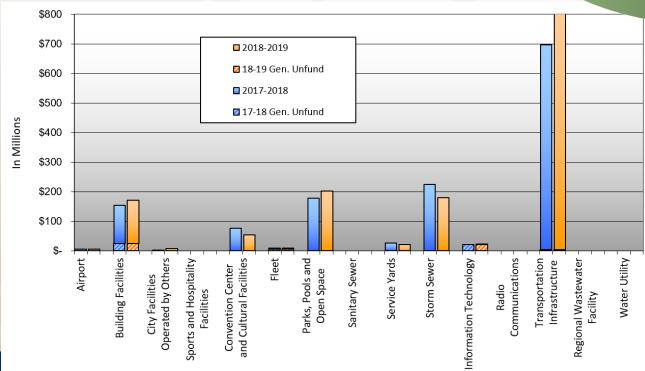
Program	Current Backlog of Deferred Needs	Annual Ongoing Unfunded Needs		
Airport	\$5,900,000	NONE		
Building Facilities	\$171,491,000 A	\$18,912,000		
City Facilities Operated by Others (OCA)	\$7,550,000 •	\$1,510,000 🔺		
Sports and Hospitality Facilities	TBD	TBD		
Convention Center and Cultural Facilities (TSJ)	\$54,100,000 ▼	TBD		
Fleet	\$9,300,000 🔺	\$1,300,000 ▼		
Parks, Pools and Open Space	\$201,410,000 •	\$33,431,000 🔺		
Sanitary Sewer	TBD	\$3,600,000 ▲		
Service Yards	\$21,600,000 ▼	\$3,835,000 ▼		
Storm Sewer	\$180,000,000 ▼	TBD		
Information Technology	\$21,600,000 •	\$381,000		
Radio Communications	NONE	NONE		
Transportation Infrastructure	\$876,070,000 🔺	\$23,850,000 ▼		
Regional Wastewater Facility	NONE	NONE		
Water Utility	NONE	NONE		
Total	\$1,549,041	\$86,819,000		



Infrastructure Backlog



One-Time Unfunded Needs





Building Facilities - \$256M



Over 400 Buildings – 5M SF

- PRNS \$131M
- TSJ \$54M
- Service Yard \$22M
- Police \$16M
- City Hall \$8M
- Fire \$8M
- Cultural Facilities \$8M
- Library \$7M
- Misc Fac. \$2M



Building Facilities - \$256M

Roofing

Outdoor Lighting

Elevators

Plumbing

Electrical Systems

Emergency Generator



Exterior Shell

HVAC Systems

Fire Alarm

Solar Systems

Pavement/ Hardscape

> Interior Shell

Over 400 Buildings, comprising over 5 Million Square Feet



Parks, Trails & Community Facilities
Infrastructure





PRNS Backlog Estimates

Park Component	Estimated Backlog 2018\$			
Park Grounds	\$ 89,836,000			
Playgrounds	TBD			
Sport Courts / Fields	TBD			
Pools	TBD			
Bridges	TBD			
Park Yards	TBD			
Trails	\$ 12,571,000			
Regional Facilities	\$ 99,003,000			
Park Component SubTotal	\$ 201,410,000			
Community Buildings	\$ 57,632,000			
Other Buildings	\$ 70,793,000			
Restrooms	\$ 2,566,000			
Building Component SubTotal	\$ 130,991,000			
TOTAL PRNS BACKLOG	\$ 341,401,000			



Ongoing Playground Evaluation

Forestdale Tot Lot





											Total
Playgrounds	CD 1	CD 2	CD 3	CD 4	CD 5	CD 6	CD 7	CD 8	CD 9	CD 10	Citywide
≤ 10 Years	2	11	12	12	8	7	22	6	6	3	89
11 - 14 Years	0	1	6	1	3	4	2	6	1	9	33
15 - 19 Years*	13	17	13	15	14	12	11	4	15	19	133
≥ 20 Years*	4	5	6	0	2	0	0	7	2	2	28
Total	19	34	37	28	27	23	35	23	24	33	283

^{*} Meets or exceeds the target lifespan of playground equipment



Storm Sewer Infrastructure

- High Priority Projects: \$180M
- System Improvements
 - Alviso PS Construction
 - Charcot PS Funded by Measure T
- Master Planning
 - Capacity Assessment City-wide
 - Condition Assessments
- System Rehabilitations
 - Outfalls
 - Pump Stations





Scope of Transportation Infrastructure

29,907

Street Name Signs

242 Acres

Street Landscaping

65,029

Street Lights

90,495

Traffic Signs

256

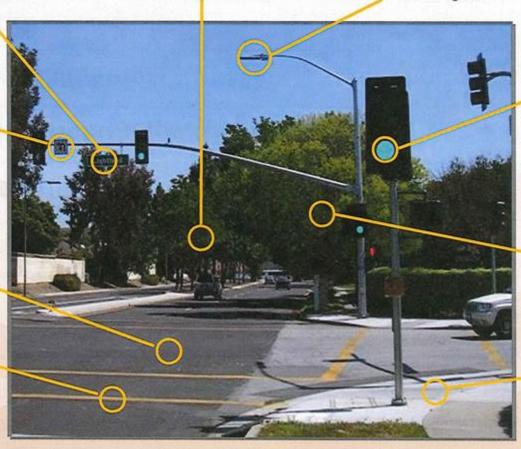
Bridges

2,434 Miles

Paved Streets

5,700,000 Square Ft.

Roadway Markings



956

Traffic Signals

232 Miles

Traffic Signal
Communication Cable

252,564

Street Trees

4,800 Miles

Sidewalks, Curbs & Gutters



Existing System Condition Needs

Deferred Maintenance and Infrastructure Backlog

Item	Backlog (\$ M)			
Pavement	539.1			
ADA Curb Ramps	162.0			
Signals/Signs/Markings/Streetlights	44.2			
Bridge Rehabilitation	111.0			
Trees/Landscaping	19.8			
Total	876.1			

Note: Doesn't include property owner responsibilities for street trees, curb, gutter, and sidewalk



Pavement Maintenance

- Overall condition rating is fair (66 PCI)
- Pavement backlog has increased,
 - Was \$250M in 2010; \$453.4M in 2017; \$539M in 2018
- 10-year funding level is \$872M
 - \$300 Million from Measure T
 - Exceeds \$767M need to "get no worse"(66 PCI)
 - Does not meet \$1.02B to "improve to good" (70 PCI)
- Projected backlog will decrease
 - \$1.1B in 2027 projected in 2017 report
 - \$598M in 2028 projected in updated report (46% reduction)





City Streets – PCI Examples



Good (PCI 100 to 70) - Santa Clara St. PCI 91



Poor (49 to 25) - Vista Av. PCI 37



Fair (PCI 69 to 50) - Lava Dr. PCI 67



Failed (Below PCI 25) - Pacific Ave PCI 23



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