

NW Pavement Management Association

Steve Townsend, PE
City of Portland
City Engineer

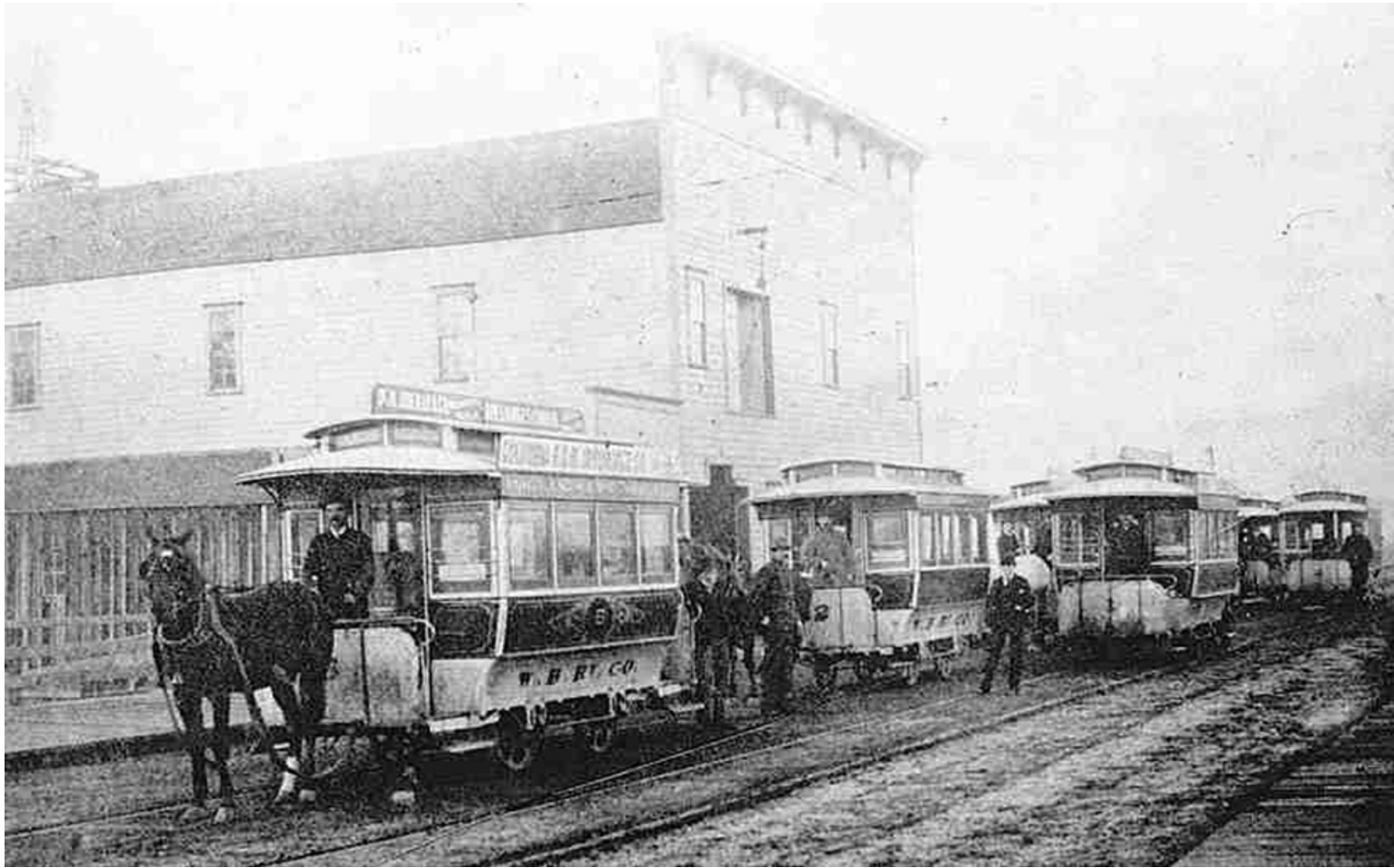
When was Portland Established?

- Portland was established in 1843, but 1st election was in 1851.
- Oregon became a state in 1859.



1860's - Front Avenue

1870's





1896 Great Plank Road (Canyon Road)

1917 – Interstate Bridge





Burnside widening 1930's



I-5 Construction through Portland in late 1950's

Portland History

- **1853 - 1st Ferry over Willamette (Stark St)**
- **1864 – 1st wooden sewer line constructed**
- **1872 - 1st Horse drawn trolley/streetcar**
- **1887 - 1st Bridge over Willamette (Morrison)**
- **1890 - 1st Electric streetcar system**
- **1895 - 1st Bull Run water flows to Portland**
- **1912 - Peak of streetcar system**
- **1913 - 1st Traffic Signal**
- **1917 - Interstate Bridge opens**
- **1950 - Last streetcar goes out of service**

Portland History

- **1952 – 1st Sewer Treatment Plant opens**
- **1960 – 2nd Interstate Bridge opens**
- **1977 – Downtown Transit Mall opens**
- **1982 – Glen Jackson Bridge opens (I-205)**
- **1986 – Eastside (MAX) opens to Gresham**
- **2001 – Streetcar & Airport MAX opens**
- **2007 – Portland Aerial Tram opens**
- **2007 – Streetcar extends to the Tram**
- **2009 - Downtown & Clackamas LRT opens**

What was the toll on **cars** on the original Morrison Bridge?

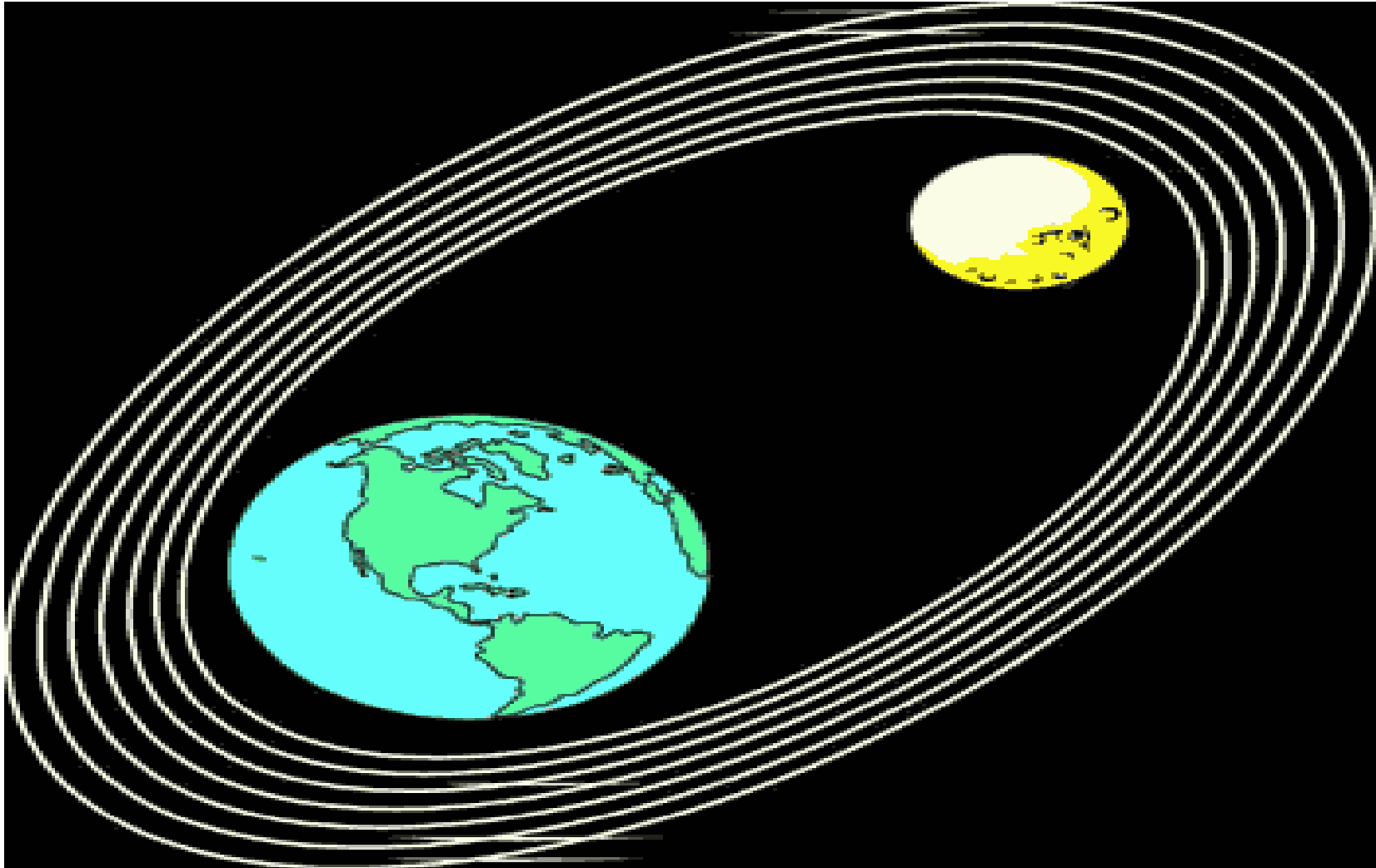
1887 - Tolls on Morrison Bridge

- 2 horses & driver – 20 cents
- 1 horse & driver – 15 cents
- 1 horse & rider – 10 cents
- Footmen – 5 cents
- Loose horse & cattle – 10 cents each
- Loose sheep & hogs – 5 cents each

The City of Portland Facts

- Population – 580,000 – 29th largest US City
- 4931 lane miles of road
- 2491 miles of sidewalks
- 220+ miles of bikeways/lanes
- 156 bridges, but none over the Willamette
- 1040 traffic signals
- Over 2000 miles of sewer & water lines.

In the **Portland Metropolitan Area** vehicles travel an average of 27 million miles everyday. That is the equivalent of 56 round trips to the moon everyday!



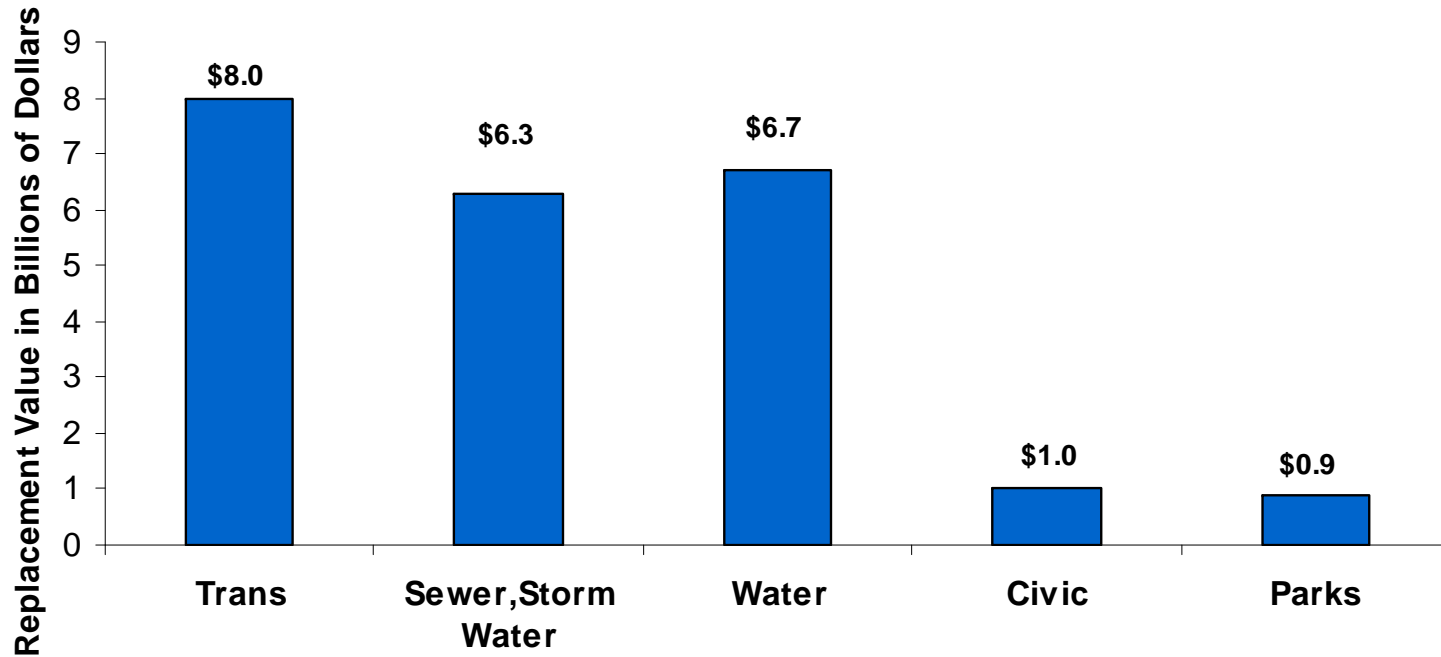
Improved Streets Arterial/collector Local	4,931 lane miles* 1,951 lane miles 2,980 lane miles
Unimproved Streets	58.7 centerline miles
Replacement Value**	\$5.1 billion



We could build a 28 lane freeway between Portland & Seattle & it would be 112 yards wide! (Wider than a football field is long).

We could build a single lane road from Portland to Orlando and back to Denver

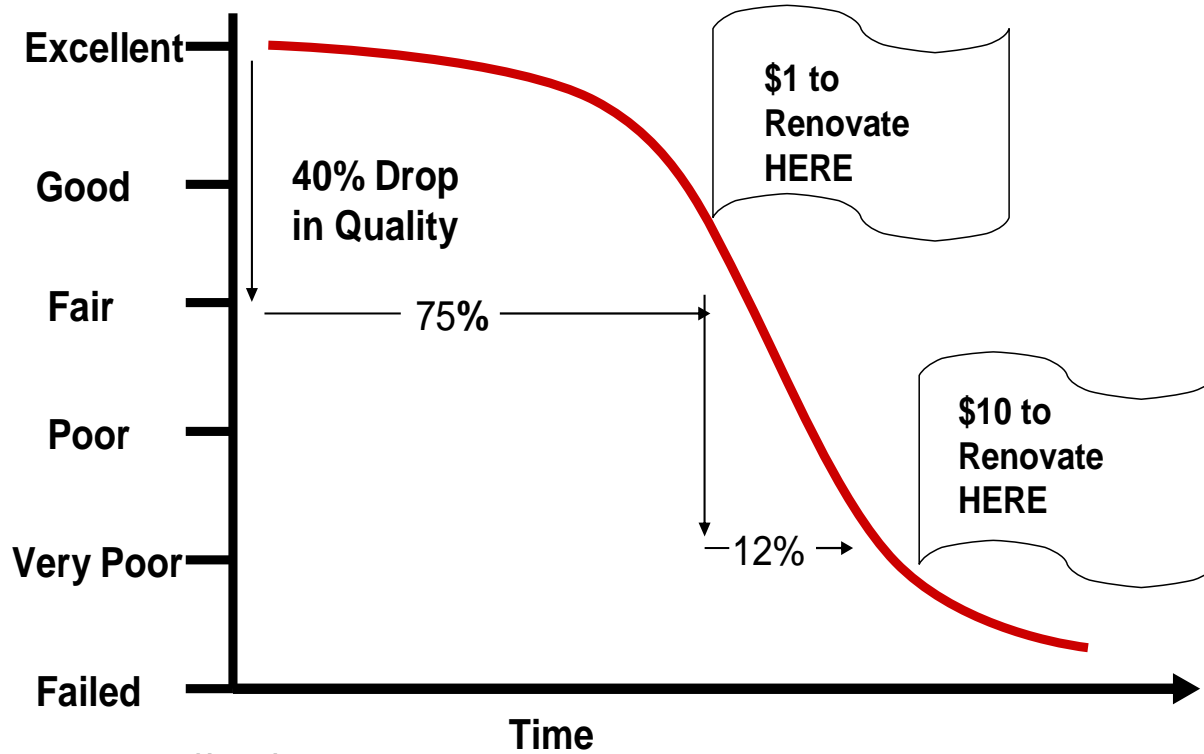
Replacement Value of the City's Assets--\$23 billion



Citywide Status and Conditions Report 2010

The Cost of Deferred Street Maintenance

Pavement Life Cycle



Source: American Public Works Association

Improved Streets Arterial/collector Local	4,931 lane miles* 1,951 lane miles 2,980 lane miles
Unimproved Streets	58.7 centerline miles
Replacement Value**	\$5.1 billion



“For heaven’s sake! The city really needs to take care of these potholes!”





Importance of Pavement Mgmt

- Everything moves on the roads!!
- Need to maximize our available \$\$ to minimize future costs
- “Pay now or pay a lot more later”
- Info to tell our story/needs to the public and elected officials
 - Use data to gather support

Future without Pavement Mgmt!

