



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: JULY 11, 2017

FROM: PUBLIC UTILITIES DEPARTMENT WARDS: ALL
PUBLIC WORKS DEPARTMENT

SUBJECT: PUBLIC UTILITIES AND PUBLIC WORKS INFRASTRUCTURE DISCUSSION

ISSUE:

Receive a report from Public Utilities and Public Works, in advance of the next fiscal year 2019/20 two-year budget and 5-year plan, on infrastructure investment and planning needed to maintain satisfactory service levels.

RECOMMENDATIONS:

That the City Council receive and file the Public Utilities and Public Works infrastructure report.

BACKGROUND:

Since 1998, the American Society of Civil Engineers (ASCE) has issued the Infrastructure Report Card, and beginning in 2001, the Report Card has been released every four years. ASCE and its members have long advocated for the care of the nation's infrastructure, and sustainable infrastructure remains one of the Society's strategic initiatives. Using a simple A to F school report card format, the 2017 Infrastructure Report Card examines current infrastructure conditions and needs, assigns grades, and makes recommendations for how to improve in 16 categories of infrastructure.

City Council has adopted a five-year planning and two-year budget cycle, along with establishing the Riverside 2.0 strategic plan. The Board of Public Utilities and City Council have reviewed and developed Utility 2.0, the utility's long-term infrastructure renewal and utility modernization plan. These policies set the financial and strategic priorities for the City of Riverside. Infrastructure is embedded in these policies and represents the backbone of community services to maintain the City of Riverside's prosperity and quality of life.

DISCUSSION:

The ASCE Committee on America's Infrastructure is made up of 28 dedicated civil engineers from across the country with decades of expertise in all categories and volunteers their time to work

with ASCE Infrastructure Initiatives staff to prepare the Infrastructure Report Card. The Committee assesses all relevant data and reports, consults with technical and industry experts, and assigns grades from A to F shown below using the following key criteria: Capacity, Condition, Funding, Future Need, Operations and Maintenance, Public Safety, Future Need and Innovation.

- A = Exceptional – Fit for the Future
- B = Good – Adequate for Now
- C = Mediocre – Requires Attention
- D = Poor – At Risk
- F = Failing/Critical – Unfit for Purpose

The ASCE 2017 Infrastructure Report Card rated the nation's infrastructure a "D+" overall. Attached is a summary of the ASCE Infrastructure findings Nationwide (Attachment 1). As stated by the ASCE, the deteriorating infrastructure impedes the nation's ability to compete in an increasingly global marketplace. Success in a 21st century economy requires serious, sustained leadership on infrastructure investment at all levels of government. Delaying these investments only escalates the cost and risks of an aging infrastructure system, an option that the country, California, and families can no longer afford.

According to the ASCE report, California faces infrastructure challenges of its own (Attachment 2). For example, driving on roads in need of repair in California costs each driver \$844 per year, and 5.5% of bridges are rated structurally deficient. Drinking water needs in California are an estimated \$44.5 billion and wastewater needs total \$26.2 billion.

City of Riverside's Infrastructure

Public Utilities and the Public Works Department used the ASCE infrastructure report format as a basis to assess City infrastructure. The table below provides a summary of the results.

Infrastructure Category	Grade	Outlook	Comments
Wastewater Treatment	B	Positive	\$192M Phase 1 improvements complete, \$288M on-going investment required
Wastewater Collection Pipelines	C-	Negative	\$205M investment required for on-going pipeline repair and replacement, sewer spill risk
Wastewater Pump Stations	C	Negative	\$30M investment for rehabilitation or replacement , sewer spill risk
City Roads	C-	Positive	\$11-13M Gas tax, measure A along with Measure Z and SB-1 funding, on-going investment required
Storm Water and Urban Runoff	C	Negative	CIP Funding required, new storm drain trash removal regulations
Water Supply and Treatment	B	Positive	\$9.5 M for Phase I of Jackson St. Recycled Water pipeline and \$1M to maintain JW North WTP. Need \$16M for recycled water, \$14M for Treatment Plant and \$74M for storm water capture.

Water Transmission Pipelines	C	Stable	\$5M investment for pipeline replacement when required by work done by others. Another \$31M needed to replace Techite pipeline and \$25M to replace three other pipelines.
Water Distribution Pipelines	C	Stable	\$31M to respond to projects done by others. Another \$99M is needed to replace 75 miles of pipeline.
Water Facilities	B-	Positive	\$19M to maintain gains.
Electrical Grid Reliability	F	Negative	RTRP Project required – second transmission source
Electric Substations	C	Stable	\$42M on-going replacement, rebuild and modernization in progress
Electric Overhead	C	Stable	\$72M on-going replacement, rebuild and modernization in progress
Electric Underground	C+	Stable	\$95M on-going replacement, rebuild and modernization in progress
Street Lights	D	Negative	\$15M LED conversion project required
Advanced Technology	D	Negative	Need investment in new technology and wholesale replacement of streetlight system in other areas

As the table shows, overall the infrastructure condition varies from a grade of B (good or adequate for now) to F (failing/critical). The infrastructure category grades, in general, reflect the overall age and condition of the infrastructure, recent investment made in repair and rehabilitation and investment required in the future. It is important to note that within each investment category there may be individual facilities that are in better or worse condition. For example, the overall infrastructure grade for Water transmission pipelines is a C. However, there may be individual pipelines that are rated above or below a C level. The table also includes an infrastructure outlook rating for each category to provide an indication if the infrastructure overall is heading in a positive, stable or negative direction. Lastly, the table includes comments for each category that identifies the main factors driving the outlook ratings.

In summary, infrastructure represents the facilities and systems that allow the City of Riverside to provide critical and essential services to the community. Continued investment in infrastructure is necessary to maintain service levels and the community quality of life. Investment in infrastructure should also be strategic and include innovation and technology that make infrastructure more resilient and economical when possible.

Considering these factors, the objective of the Public Utilities and Public Works financial and strategic goals is to raise infrastructure grades to a B level across the board. Achieving this infrastructure goal will spur economic development, support high customer service levels, ensure public safety, maintain or enhance property values and sustain the community's quality of life.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

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Attachments:

1. 2017 ASCE Infrastructure Report Card Summary Results
2. ASCE Key Facts About California's Infrastructure
3. Presentation