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CITY COUNCIL AGENDA

MEETING DATE: SEPTEMBER 18, 2012

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TO: CITY COUNCIL/CITY MANAGER

FROM: ENGINEERING/MAINTENANCE SERVICES DEPARTMENTS

SUBJECT: INFRASTRUCTURE STATUS UPDATE

Approved for Agenda:

City Manager's Office

SUMMARY

A detailed overview of the City's key infrastructure deficiencies, current funding levels, and future needs.

RECOMMENDATION

Pleasure of the Council

FISCAL IMPACT

N/A

DISCUSSION

The purpose of this agenda letter is to provide details as to the extent of the issues facing Fullerton, and on a moving forward basis, inform the community of both short- and long-range plans to fund infrastructure needs. It is anticipated that long-range plans will be presented in coordination with the fiscal year 2013-2014 budget, specifically the CIP budget.

Like most cities, Fullerton has faced a growing problem properly repairing and replacing vital elements of its infrastructure, from streets and water mains to parks and streetlights. Although funding the City's long-range infrastructure needs has been a challenge for many years, the recession exacerbated the problem by reducing revenues for capital repairs at federal, state and local levels.

In the past, funding for many infrastructure needs was available from the Redevelopment Agency (most recently proceeds from the 2005 bond issuance were planned for street infrastructure projects). Since this funding source is no longer available, staff has been working to identify alternative funding strategies from the public and private sectors.

The following report deals with all the major segments of the City's infrastructure. The report includes the following: streets; water system; alleys; sewer system; parks and community buildings; curbs, gutters and sidewalks.

The major infrastructure elements are discussed in terms of current condition, existing funding, future funding needs, and, where possible, funding options.

STREETS

According to the most recent Pavement Management Plan (PMP), Fullerton has 290.7 miles of streets: 66.3 arterials and 224.4 residential miles. The Engineering Department uses a consultant to survey the City's streets and calculate an average Pavement Condition Index (PCI) score as part of the bi-annual PMP. The results are shown in Table One:

Table One: Existing Pavement Rating

Condition Category	PCI Range	Percent of Road Surfaces
Very Good	86-100	24.3%
Good	75-85	11.8%
Fair	60-74	16.9%
Poor	41-59	18.1%
Very Poor	0-40	28.2%

Arterial streets scored an average PCI of 62; residential streets scored a PCI of 61. The overall average for all streets was 62, in the lower range of the "Fair" category.

According to the consultant's report, Fullerton's PCI rating has steadily declined since 2000, as shown in Table Two:

Table Two: Street Condition 2000-2012

Year	2000*	2002*	2004*	2006*	2008*	2010*	2011	2012
Average PCI	75	71	73	68	64	65	63	62

*Years 2000 through 2010 include arterial streets only

In the latest report, the consultant estimated the City's cost of street repair deficiencies at approximately $100 million for arterial streets and $59 million for residential streets. Over the past seven fiscal years, the budget for capital street repairs has ranged from $2.5 million to $4 million per year, ($19.5 million over the past seven years). The current fiscal year 2012-2013 capital budget for street repairs is $4 million; $3 million is budgeted for arterial street repairs, with $1 million budgeted for residential street reconstruction. According to the results of the PMP, the City would need to spend an average of $8 million per year for the next seven years to maintain the current PCI. Based on current expenditures and expected lifespan, the average PCI is projected to decrease to 53 over the next seven years.

The current OCTA policy includes a required seven-year C.I.P. Using this time frame (seven years), the projected funding necessary to complete the improvements is $23 million per year, or about five times the current level. This $23 million annual figure does not include on-going maintenance of the streets that continue to deteriorate over the ensuing seven years.

Financing Options

Although Gas Tax funds can be used for capital projects, a significant portion of Fullerton's Gas Tax revenue is used in the Street Maintenance budget for maintenance and repairs. Measure M-2 provides the major balance of CIP funding for street rehabilitation. There are few other funding options available however staff was able to obtain a federal grant two years ago for Harbor Blvd from Chapman to Berkeley, and state grants this year for Magnolia from Orangethorpe to Ash and Berkeley from Harbor to Lemon.

Some major street repair projects either recently completed or in progress include:

- Reconstruction of Orangethorpe Avenue from Citrus to Basque - $1,090,000 (complete)
- Reconstruction of Commonwealth Avenue from Magnolia to the west city limits - $600,000 (complete) – Prior phase was joint project with Buena Park.
- Reconstruction of Commonwealth from Highland to Short - $1,200,000 (complete)
- Residential street reconstruction at various locations - $700,000 (began April 2012)
- Euclid reconstruction from the 91 Freeway north to Orangethorpe Avenue - $700,000 (in progress)

- State College north of Rolling Hills a joint project with the City of Brea (complete)

- Lemon from 91 Freeway to Orangethorpe a joint project with Anaheim (complete)

Historically, the City has been able to secure an average of $1 million/year, but nothing of the magnitude necessary to complete the repairs identified above. Realistically, funding of even a ten-year replacement schedule is available from either a parcel tax (assessment districts) or a local sales tax. While a bond issue may appear as an alternative, the most realistic revenue source would be either Gas Tax or M-2. The use of either of these funds for debt service will impact the City's ability to pay for on-going routine maintenance.

As a short-term measure, the City has instituted an improved street repair process, using a source of State funds that pays for eligible recycled materials (such as recycled asphalt). This technique is an interim measure to improve the roadway surfaces, and extend the life of the existing streets.

In addition, fiscal year 2012-2013 included $300,000 of funding for slurry sealing as a medium-term solution for areas with the most significant paving deterioration.

WATER SYSTEM

Fullerton's water system includes 400 miles of supply and distribution lines. A water main line will theoretically last approximately 70 years. The current Capital Improvement Projects budget dedicates $1.5 million to water main upgrades and replacement each fiscal year through 2015-2016. Current funding levels provide for replacing approximately one mile of main line per year; at this funding level, it would take 400 years to replace the entire system once. Conversely, approximately six miles of pipeline would need to be replaced each year to coincide with the useful life span. The initial annual funding would be $8 million in fiscal year 2012-2013 and increasing up to approximately $19 million by 2020-2021, based on inflation.

The current estimated repair backlog is $60 million. The "practical" spending plan included in the report from Municipal Financial Services Group envisions a budget sufficient to replace approximately six miles per year.

Financing Options

Staff has been working with the Water Rate Ad Hoc Committee and the City Council on establishing a rate structure that supports maintenance, operations, and necessary capital projects. Simply put, repairs and a more realistic replacement schedule are dependent on the combination of a rate increase and bond financing to smooth out the monetary outlay. On July 19, 2011, staff presented the City Council with the independent consultant's recommendation for a multi-year rate increase to fund water

system repairs. The original water rate study and report indicated that the City could use water revenue bonds to "smooth' out the CIP costs. With the recently completed City Council decisions on water rates, staff is working to conclude the planning and financing options for the water system's infrastructure needs. These final steps will be presented to the Water Ad Hoc Committee within the next month or two and then tentatively scheduled to be presented to the City Council January 2013. Any approved increases allocated for the water infrastructure will be incorporated into the 2013-2014 CIP budget.

ALLEYS

Most of Fullerton's alleys are a public dedicated right-of-way. A 1999 Engineering report stated there are 342 one-block alley segments throughout the City. The report estimated the repair deficiency at $4.5 million. Alley maintenance and repairs are not eligible for Gas Tax funds so in the past, most of the funding has come from the Redevelopment Agency and CDBG Block Grants; neither source is currently available. Staff estimates the current repair deficit at $5.5 million.

Financing Options

Absent the historical funding sources of Redevelopment and CDBG, obtaining eligible replacement funding is currently under study. The alley system is a unique asset in that alleys are primarily used by the residents of a particular block, both for access to garages and homes, (as well as the location for trash can pick-up for some of the alleys in the City). Financing of the repair and rehabilitation of alleys could include an assessment district option; bond financing, general fund allocations, impact fees, or a combination of several sources.

PUBLIC FACILITIES AND AMENITIES (PARKS / LIBRARY)

It is difficult to estimate the repair backlog for public facilities without an extensive detailed assessment. The last comprehensive review of all parks was performed in 1995. At that time, the report indicated an existing deficiency of $24 million. However, over the course of the past several years, significant work has taken place in the park system, and many parks and trails have been completely renovated, while others have received minor upgrades and repairs. The major improvements over the past several years include the following:

Lions Field
- Full rehabilitation

Community Center
- New construction

Main Library
- Full rehabilitation
- New construction

Independence Park
- Pool rehabilitation
- Parking and public area improvements

Lemon Park / Maple Center
- Full rehabilitation
- Spray Ground
- Playground, recreation building, and parking lots
- Sports fields

Valencia Park
- Full rehabilitation (grant)
- Spray ground

Olive Park
- Full rehabilitation / New playground (Kaboom grant)

Truslow Park
- Full rehabilitation / New playground (Kaboom grant)

Richman Park
- Full rehabilitation (grant)
- Full field renovation

Adlena Park
- Full rehabilitation (grant)

Tennis Center
- Full rehabilitation

Golf Course
- Full replacement of irrigation and drainage systems

Laguna Lake
- Lake restoration (grant)
- Trail renovations

Gilbert Park
- Construction of Neighborhood Center

Citywide Sports Fields
- Renovation of backstops and fencing (grant)

Hillcrest Park

- Red Cross Building and playground equipment renovation

Financing Options

The fiscal year 2012-2013 CIP budget for park improvements is $2 million, which includes repairs, replacement, and improvements to facilities, hardscape, trails and general renovation. Staff also continues to seek state and regional grants. As development in the City returns, the Park Dwelling Fund reserves are being carefully distributed among the remaining priorities. As there has been a significant investment in the park and public facility infrastructure, most of the funds needed in the coming years will be on maintenance of these facilities.

It should be noted that the most significant infrastructure funding need for the park system impact (in terms of dollar amount) is the restoration of Hillcrest Park (40 acres). While Redevelopment Agency funding was originally identified as the primary source for Phase I renovations ($6 - $8 million), this source is no longer available. Staff is currently in the process of developing a phased renovation and funding plan to implement this project. The estimate to complete the Hillcrest Park Master Plan renovations is estimated at $20-$25 million.

Parks and Community Service facilities traditionally have much greater opportunities for grant funding. Historically, Fullerton has been successful in obtaining grant funding to support infrastructure needs.

Parks and Recreation facilities also lend themselves to funding partnerships with both private and non-profit organizations. Recently, changes to the Golf Course's management have created a financing mechanism that increases access to bond funding while increasing the revenue available for maintenance. This led to the renovation of the irrigation and drainage systems at the course ($2 million).

As an example of public/private partnership, the City and St. Jude Hospital recently entered into a partnership which brought about the construction and renovation of the parking and landscape for the Brea Dam facilities, the Fullerton YMCA, the Tennis Center, and Fullerton Day Care (This project was funded by St. Jude ($2.5 million) and includes both capital costs and the establishment of a maintenance fund for the property.

In summary, the park system is nearing the end of a significant cycle of planned renovation and rehabilitation. The long-range plans for public parks are in the final stages of development. The funding will likely come from a variety of sources: park dwelling; Brea Dam facility funds; public/private partnerships, and grant funding.

PUBLIC FACILITIES

In the late 1990's, the City developed a Facility Capital Repair Program (through allocations by each department) to fund repairs and replacement of major building systems such as HVAC, flooring, exterior painting, and automatic doors, estimated to be $8.5 million. A separate repair schedule and allocation plan was developed for public parking lots. The program's intent was to create a rolling 20-year schedule for capital building systems and parking lot repairs. However, due to budget constraints, the allocations for buildings were temporarily frozen in 2005 at approximately $480,000. Since then, it has been adjusted and in fiscal year 2012-2013 the allocation is $512,000.

As a result of these frozen allocations, several repair projects have been delayed or cancelled altogether. In addition, absent other funding sources, Facility Capital Repair funds have been used to pay for unforeseen major facility repairs such as mold remediation, roof repair and lead abatement. The current Facility Capital Repair fund balance is approximately $1 million.

It should be noted the intent of the Facility Capital Repair program is to provide funding for major building systems, not the buildings themselves. Since some City buildings have been improved or modernized over the past several years (Basque Yard, Maple Center, Main Library, the Police Department Facility, and City Hall), the capital repair funding needs for major building systems are currently being reassessed to ensure adequate funding will be available as needs arise.

Financing Options

When buildings need major modifications or expansion, the City has looked to funding sources such as Redevelopment, Park Dwelling, or state and federal grants. A portion of the monetary funding source, Redevelopment, is no longer available. Supplemental external funding is not anticipated to be a viable option for some time to come. It is anticipated that beginning in fiscal year 2013-2014, General Fund allocations will increase in order to sustain a more viable facility capital repair program.

SEWER SYSTEM

The City's sewer system consists of 320 miles of main line pipes. In 2004, the Santa Ana Regional Water Quality Control Board (SARWQCB) issued a Waste Discharge Requirement (WDR) which, among many other mandates, required the City to establish a consistent funding source for maintenance and capital repair needs. In 2005, the Sewer Enterprise fee was created in compliance with State requirements. At the time the fee was approved, the estimated deficiencies were $132 million.

Beginning in FY 2005-2006, capital repairs have been allocated through the C.I.P. process. There are two types of capital sewer repairs: replacement and relining. Replacement is used where the sewer line is structurally unsound and in danger of

leaking, or settlement of the pipe prevents proper flow. Relining can be used to correct small cracks and open joints and will last almost as long as replacement, without large-scale excavation. Because of improvements in fabrication and technology, pipeline manufacturer's estimate new sewer pipes can last several hundred years.

According to Maintenance Services' Sewer Division Superintendent, current funding is sufficient to address the City's needs. The Maintenance Services and Engineering Departments work together to identify the sewer mains most in need of replacement or relining, and then scheduling the work into the capital improvement budget.

SIDEWALKS, CURBS AND GUTTERS

The majority of damage to the City's sidewalks, curbs, and gutters is caused by trees. Whether the source is City-owned street trees or trees on private property, roots seeking a water source often grow beneath sidewalks. The results are cracked and uplifted sidewalks, curbs, and gutters. Some of the species planted in greenbelts 30 or more years ago have proven to be problematic in terms of long-term root growth patterns. The City's tree management staff continues to strive to make better tree choices for each location. Aesthetic and historical considerations often play a part in the decisions to remove and replace street trees. In many parts of the City, the street trees are viewed as an important part of the neighborhood's character. As such, a majority of the residents may request that the offending tree(s) remain in place.

In fiscal year 1999-2000, the Engineering Department did a comprehensive study and analysis of the City's infrastructure deficiencies, including curbs, gutters, and sidewalks. At that time, the repair backlog was estimated at $14 million. Since then, the C.I.P. allocation for these repairs is based on work completed, ensuing damage and inflation; the estimated deficiency in today's dollars remains approximately the same.

Financing Options

Current funding for sidewalk, curb, and gutter replacement comes from Measure M Turnback and Sewer and Drainage funds. Other priority repairs and deficiencies limit adding additional funding at this time. In summary, current financing enables the City to maintain the current conditions.

STREETLIGHTS

There are approximately 7,200 streetlights in Fullerton; 6,600 are owned by the City and another 600 are owned and operated by Southern California Edison. Similar to the City itself, the streetlight system has developed over many years. The City's various stages of development are reflected in the different types of streetlights in its neighborhoods. The type of streetlight may depend on location (e.g. decorative lighting in the historic city center), or the era it was installed, (high pressure sodium, mercury vapor, or induction).

Fullerton's irregular pattern of development has created a streetlight system consisting of a complicated, irregular and overlapping series of power grids and lamp types. This makes it difficult to determine the exact costs and potential savings of standardizing the system on a specific lamp/pole type without a relatively expensive, in-depth analysis. An overview of issues is as follows:

- High-voltage series lighting and antiquated transformers
- Southern California Edison bills the City at two different rate levels: LS-2: City-owned street and highway un-metered flat-rate lamps; and LS-3: City-owned metered lamps.
- Within each of these schedules, the specific charges for a given lamp may vary depending on the type of fixture, the rate schedule, service hours, and wiring arrangement.
- To be able to use newer low-energy lamps, a streetlight must utilize either 120 or 240 power on a multiple circuit.

According to the City's most recent inventory, the most common lighting configuration is high pressure sodium light on a multiple circuit. Approximately 3,160 lights, (44 percent of the total), use this configuration. The Engineering Department recently requested a proposal to audit the streetlight system and determine the exact number of each type of lamp and power source. The audit's objective is to create a profile of Fullerton's streetlight system to determine the efficacy of reducing energy costs by converting some of the system to inductive power.

Financing Options

Finding funding sources for the series streetlight replacement is challenging and complex. There are few grants for streetlight modifications, and the complex nature of the system makes it difficult to accurately estimate the project's costs and benefits without studies and a system-wide audit.

Staff has begun exploring funding options made available by new "green" energy initiatives. In addition, staff is looking at utilizing loans (bonds) to replace multi-circuit lighting with more cost efficient LED or Induction lighting, then using cost saving from the new fixtures to fund the debt service.

Financing for a portion of the costs to upgrade the City's streetlight systems comes from energy savings. Within the streetlight industry, manufacturing and financing partnerships have created a financing mechanism that essentially uses the annual savings in energy costs to fund streetlight renovation projects. Staff is currently analyzing these options for inclusion in the fiscal year 2013-2014 CIP budget.

UTILITY PROJECT COORDINATION

One of the most important ways of ensuring the City receives the most value from its infrastructure expenditures is the proper coordination of replacement projects among the City's utilities. In order to maximize efficiencies and ensure the infrastructure's expected lifespan, repairs are coordinated to avoid cutting into recently-resurfaced streets or making a repair to one utility that exacerbates a problem with another.

To be sure infrastructure repairs are coordinated, staff from Maintenance and Engineering meets near the beginning of each fiscal year to review repair and project schedules, making changes as needed to avoid conflicts. Coordination is especially important as it relates to street repairs. Cutting into recently resurfaced streets is especially problematic because it shortens the pavement's life and devalues the City's investment in street reconstruction. By coordinating infrastructure repairs, the City reduces the risk of cutting into recently resurfaced streets, preserving their structural integrity as long as possible. Fullerton has a two-year street cut moratorium on newly paved streets. The Engineering Department sends copies of street-related capital project plans to local utilities so they can schedule planned work at the same time, eliminating the need to cut the street in the near future. All cuts for utility work within the two-year moratorium must be approved by the Director of Engineering.

Conclusion

To achieve its maximum useful life, the City's infrastructure must be properly maintained. There is clearly no single solution to eliminating the infrastructure repair backlog. Because of the unique nature of each infrastructure element and the size of the backlog, each element will require a unique funding plan.

Moving forward, staff is proposing the following items:

Continue to coordinate street, sewer, utility, and water projects to most efficiently use available funds and increase the number of street rehabilitation projects by making appropriate repairs as part of sewer and water system projects.

- Institute second year of street rehabilitation using recycling funds and slurry sealing funds as short and medium solutions to extend pavement life until permanent repairs can be made.

- Continue efforts with other north Orange County cities for cooperative CIP projects along shared city limits

- Continue sewer replacement programs funded by the enterprise fee

- Develop long-term maintenance strategies to ensure recent infrastructure improvements and investments achieve maximum life expectancy

- Restore the capital repair budget as funding is available. Seek preliminary cost estimates for street light replacement using energy savings as a financing mechanism for the replacement of antiquated street lights and power systems.

- Conclude the water system study and include recommendations for funding in the fiscal year 2013-2014 budget addressed in late 2012 as part of the final water fee update and analysis.

- Develop long-range plans and options for financing of street infrastructure rehabilitation projects.

- Present the Citizens Infrastructure Review Committee and key stakeholders with a request to review funding options for the various elements of infrastructure rehabilitation projects. It is anticipated that coordinated funding alternatives will be presented to Council in early 2013 and incorporated in the FY 2013-2014 CIP budget.

For Donald K. Hoppe
Director of Engineering