



# CITY OF LOMPOC

## ENTERPRISE REIMBURSEMENT STUDY



February 19, 2016



HF&H Consultants, LLC



# **CITY OF LOMPOC**

100 Civic Center Plaza  
Lompoc, CA 93436

## **ENTERPRISE REIMBURSEMENT STUDY**

*February 19, 2016*

### **HF&H CONSULTANTS, LLC**

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Walnut Creek, CA 94596



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February 19, 2016

Mr. Brad Wilkie  
Management Services Director  
City of Lompoc  
100 Civic Center Plaza  
Lompoc, CA 93436

**Subject: Draft Enterprise Reimbursement Study**

Dear Mr. Wilkie:

HF&H is pleased to submit this Enterprise Reimbursement Study for your review and comment. The report summarizes the analysis that was conducted to develop the recommended fund reimbursements from the Water, Electric, Wastewater, Solid Waste, Communications, Airport, and Transit Enterprises to the General Fund to reimburse the General Fund for providing services related to public safety, the use of City facilities, and for right-of-way maintenance.

Very truly yours,

HF&H CONSULTANTS, LLC

John W. Farnkopf, P.E., Senior Vice President  
Richard J. Simonson, C.M.C., Vice President



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## **LIMITATIONS**

This document was prepared solely for the City of Lompoc in accordance with the contract between the City and HF&H and is not intended for use by any other party for any other purpose.

In preparing this study, we relied on information and instructions from the City, which we consider accurate and reliable and did not independently verify.

Rounding differences caused by stored values in electronic models may exist.

This document addresses relevant laws, regulations, and court decisions but should not be relied upon as legal advice. Questions concerning the interpretation of legal authorities referenced in this document should be referred to a qualified attorney.



**CITY OF LOMPOC**

**ENTERPRISE REIMBURSEMENT STUDY**



## I. EXECUTIVE SUMMARY

The City historically provided funding from its enterprises to the General Fund based on a 1998 study, which justified a transfer of 5% of operating revenues. The purpose of this study is to develop a cost allocation framework for determining the cost-based reimbursement to the General Fund from the City's enterprises for governmental overhead costs incurred by the General Fund on behalf of the Water, Wastewater, Solid Waste, Electric, Communications, Airport, and Transit enterprises (collectively, "Enterprises"). The amounts of the reimbursements derived in this report are intended to replace the City's historical percentage transfers with cost-based reimbursements.

This study focused on three cost allocation areas: public safety, governmental facilities, and right-of-way maintenance. Each of these areas represents a service provided for the benefit of the Enterprises by the General Fund and for which the Enterprises should provide reimbursement. This report documents the allocation of the Enterprises' shares of these costs.

There are other governmental overhead costs that are incurred by the General Fund on behalf of the Enterprises that have historically been reimbursed through the City's overhead cost allocation plan. The allocation of these governmental overhead costs are not within the scope of this enterprise reimbursement study.

The analysis documented in this report establishes a cost allocation framework for determining the proper funding from each of the Enterprises to the General Fund for the services provided.

### FINDINGS

The allocations of public safety, governmental facilities, and right-of-way maintenance costs to the Enterprises are summarized in **Figure I-1**. These allocations represent the amount that each Enterprise should reimburse the General Fund in return for its proportionate share of these services.

**Figure I-1. Cost Allocation Summary**

Allocation Type	Water Enterprise	Electric Enterprise	Wastewater Enterprise	Solid Waste Enterprise	Communications Enterprise	Airport Enterprise	Transit Enterprise	Total
<b>Public Safety</b>	\$ 161,101	\$ 157,066	\$ 687,196	\$ 9,244	\$ 2,495	\$ 49,240	\$ 10,808	\$ 1,077,151
<b>Government Facility</b>	\$ 105,282	\$ 350,679	\$ 54,722	\$ 61,395	\$ 11,061	\$ 2,780	\$ 103,404	\$ 689,323
<b>Right-of-Way Maintenance</b>	\$ 708,883	\$ 520,355	\$ 644,007	\$ 828,853	\$ 10,506	\$ 22,076	\$ 580,367	\$ 3,315,047
<b>Total</b>	<b>\$ 975,266</b>	<b>\$ 1,028,100</b>	<b>\$ 1,385,925</b>	<b>\$ 899,492</b>	<b>\$ 24,062</b>	<b>\$ 74,096</b>	<b>\$ 694,580</b>	<b>\$ 5,081,521</b>

The public safety allocation represents the Enterprises' share of police and fire services. The allocation is in proportion to the value of each of the Enterprises' capital assets

compared with the value of all public and private property in the City.

The governmental facilities allocation represents the Enterprises' shares of the costs of City Hall, the V Street Purchasing Storage Facility, and the Corporation Yard, which were constructed by the General Fund, are used by the Enterprises, and for which the Enterprises have heretofore shared none of the cost. The cost is based on the Enterprises repaying the General Fund in the form of depreciation and a return on the remaining cost of these facilities. Depreciation represents capital recovery by the General Fund. The return covers the carrying cost by the General Fund on the unrecovered capital cost. Each Enterprise's share is proportionate to reasonable criteria such as City employees or departmental budgets, as the case may be.

The right-of-way maintenance allocation is the Enterprises' shares of the cost of street construction and maintenance including City staff and construction costs. The Enterprises' shares are proportionate to their structural impacts on the surface and subsurface components of the rights of way.

**Figure I-1** shows the reimbursements, which vary from enterprise to enterprise but are commensurate with the services provided by the General Fund. For example, the \$687,196 of public safety costs allocated to the Wastewater Enterprise represents 4.86% (i.e.,  $\$687,196 \div \$14,131,046$ ) of the Public Safety budget, while the other enterprises' allocated costs are 1.1% or less of the Public Safety budget. This is not disproportionate considering the Wastewater Enterprise's extensive, high-value infrastructure, which includes a wastewater treatment plant. If the Wastewater Enterprise had to provide its own police officers and fire fighters to protect its facilities, the cost would be substantially higher.

## RECOMMENDATION

The reimbursements shown in **Figure I-1** indicate the amount that each Enterprise could provide to the General Fund based on the current information used in the analysis. Certain Enterprises are capable of increasing their rates to cover the reimbursement; however, this may not be possible for any Enterprise that is not supported by rate revenue.

These reimbursements depend on the proportionate shares of the costs related to public safety, governmental facilities, and right-of-way maintenance. For purposes of implementation in future years, there are various approaches some of which are less onerous. We recommend that the City periodically update the cost allocations to reflect significant changes in either the allocation factors that apportion costs among the Enterprises or the costs to which the allocation factors are applied.

The allocation factors should be relatively stable because they are related to relatively stable conditions such as assessed value, the number of governmental facilities, and infrastructure value. The costs allocations will gradually change as budgets increase. We recommend that the City make a determination no more than every five years to confirm whether the analyses should be updated to reflect material changes.

## II. LEGAL REQUIREMENTS

The purpose of this study is to provide a basis for determining the Enterprise reimbursement in compliance with relevant legal requirements. Guidance for establishing the method came from two sources: Proposition 218<sup>1</sup> and the *Roseville* decision.<sup>2</sup>

Article XIII D of the California Constitution contains certain substantive provisions required of property-related fees and charges, one of which states that “The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.”<sup>3</sup> Based on this requirement, the fees or charges for services provided by the City’s enterprises must not exceed the cost of providing their respective services. This means that the enterprises’ rates must exclude costs that are not associated with providing the service associated with each enterprise. To satisfy this requirement, it is necessary to demonstrate that all costs included in the enterprises’ rates are related to providing service, including the subject enterprise reimbursements.

Establishing that the cost of public safety services, right-of-way maintenance, and government facilities paid for using General Fund revenue is associated with the cost of providing the enterprises’ services is presumably not at issue: enterprises can require police and fire services, enterprises operate in rights-of-way, and enterprises may make use of government facilities.

It is also not an issue of whether the reimbursement *per se* is valid. The *Roseville* decision was looked to for further guidance because this court case was concerned with a right-of-way maintenance reimbursement made by the City of Roseville from its utilities to the General Fund. The court noted:

Roseville may place in its general fund the revenues derived from a *cost-based* in-lieu franchise fee to pay for the street, alley and right-of-way costs attributed to the water, sewer and refuse utilities [emphasis added].

*Roseville* validates reimbursements from enterprises to the General Fund as long as the amount of the reimbursement is based on cost.

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<sup>1</sup> Proposition 218 was passed by California voters in 1996, creating Article XIII D of the California Constitution.

<sup>2</sup> *Howard Jarvis Taxpayers Association v. City of Roseville*, April 2002.

<sup>3</sup> Article XIII D, Section 6b(3).

The court found that Roseville violated Proposition 218 because there was no showing that the reimbursement “reasonably represented” the associated costs (i.e., right-of-way maintenance). The court noted:

Roseville sets the in-lieu fee at a flat 4 percent of each of the three utilities' annual budgets. On its face, this fee does not represent costs. It is a flat fee. It is imposed on the utilities' budgets, presumably after their total costs have been accounted for in the budget process. If the budget of a utility increases because of a cost increase unrelated to the in-lieu fee, the in-lieu revenues, as a flat percentage of that increased budget, increase as well. The in-lieu fee is the same percentage applied to each budget, regardless of varying uses of streets, alleys and rights-of-way by the individual utilities. It cannot be said that this flat fee on budgets coincides with these costs.

Between Article XIID and *Roseville*, what is at issue is determining the *proportional* cost of public safety services, governmental facilities, and right-of-way maintenance costs that are associated with the enterprises' services.

Cost-based reimbursements as stipulated in *Roseville* are consistent with similar cost allocations for city-wide overhead costs for which there is a long historical practice by cities throughout the country. Following the general guidelines and principles established in the federal Office of Management and Budget Circular A-87, the costs of central services can be distributed to the departments that received the support based on the relative benefits received using reasonable allocations. Numerous allocation formulae are used. For example, human resources costs can be allocated based on head count among the operating departments. Accounting functions can be allocated based on transactions. Financial planning and budgeting can be allocated based on operating budgets. Square footage and use of vehicles and equipment are used for allocating buildings, corporation yards, and information technology costs. All of these are simple, intuitive formulae that yield *proportionate* cost allocations.

By extension from this long-established, federally instituted cost allocation process, this report has developed methods for allocating the costs of other similar services in proportion to the benefits received.

## III. PUBLIC SAFETY

### COST ALLOCATION METHODOLOGY

The City provides public safety services to safeguard property and lives located within the City. Police and fire services are provided by City employees. Private residents and businesses as well as the public infrastructure and employees benefit from these public safety services.

The Enterprises benefit from public safety services in a variety of ways. For example, in the case of the Water Enterprise, police presence helps deter (1) tampering with water facilities, valves, instrumentation, and other controls; (2) vandalism and theft of salvageable materials; (3) theft of water; and (4) introduction of contaminants into source water and other acts of terrorism. Public safety personnel are available to investigate acts of tampering, vandalism, theft, and terrorism. Public safety personnel are also available to respond to emergencies such as main breaks, hydrant damage, and natural disasters that could interrupt operations. These public safety services are in addition to the security services that may already be present in the Enterprise's budgets and that should also be funded by rates.

Funding for public safety services is derived from a variety of sources, of which tax revenue is the primary source. Taxes paid by owners of private property constitute their share of reimbursement for public safety services. Absent from these funding sources is reimbursement from the Enterprises for their share of public safety services. The Enterprises' share of the cost of public safety services should be commensurate with the services received. These services are proportionate to the value of the public and private property protected within the City.

To establish each enterprise's proportionate share of the public safety budget, the following steps were followed:

1. The cost of each Enterprise's property was determined based on the City's capital asset records.
2. The average acquisition date for each Enterprise's assets was estimated based on the City's capital asset records and discussions with City Staff.
3. The historical cost minus depreciation was escalated to current fair market value using the change in the ENR CCI between the average acquisition date and today.



4. The current fair market value of all private property in the City was estimated based on the County's assessed valuation, increased to its fair market value using the 4R adjustment ratio<sup>4</sup>.
5. Each Enterprise's proportionate share of market value was determined by dividing its value by the total of all property value in the City.
6. The public safety budget was reduced to eliminate any programs that are unrelated to protecting property.
7. Each Enterprise's share of the adjusted public safety budget was derived by multiplying the proportionate share of the enterprise's market value in Step 5 by the adjusted public safety budget in Step 6.

These steps were applied consistently to each of the Enterprises to maintain proportionality in compliance with the provisions of Article XIID of the California Constitution. The result is a set of cost allocations that are comparable to the overhead cost allocations that are commonly used by cities to proportionately allocate the costs of general overhead among all benefiting funds.

The following describes how public and private property was valued and used for proportioning the cost of public safety.

### **VALUE OF PUBLIC PROPERTY**

Because public property is tax exempt, it has no assessed value for comparison with taxable private property. For lack of assessed value, another form of value was calculated based on the City's capital asset records. The City's capital asset records indicate the original cost of its assets (book value), the accrued depreciation, and the net book value (original cost minus depreciation).

It is noted that there are certain conditions that result in undervaluing the City's enterprise assets for which no adjustment could be made. First, the City's inventory of its infrastructure may not be complete. Municipalities were not required to maintain accurate capital assets records the way private enterprises are required to until the 1986 Tax Reform Act. Prior to that time, many public agencies had incomplete capital asset records; the problem persists today in some cases.

In addition to missing assets in the capital asset records, the original costs of the City's infrastructure may be low because some assets were donated or dedicated to the City at nominal value. Land values may also be undervalued. By comparison, the County's

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<sup>4</sup> The 4R Ratio stems from the Railroad Revitalization and Reform Act of 1976. The 4R Ratio is used to reduce the value of railroad property to approximate assessed value so that railroad property can be taxed on par with the assessed value of other commercial and industrial property.

tax rolls are considered to include all private property. The result of omissions and low values in the City's capital assets is an undervaluation of the City's assets, which results in a lower allocation of the public safety budget to the Enterprises.

The approach used to value the City's public property relies on a valuation procedure commonly used to estimate fair market value of utilities. This approach determines the fair market value based on "replacement cost new less depreciation" (or RCNLD as it is referred to by appraisers). RCNLD represents the value in today's construction cost minus wear and tear. RCNLD represents the cost as though the assets were constructed today, minus the accrued depreciation. The RCNLD value is commonly recognized by the courts for purposes of estimating fair market value.

In order to establish today's fair market value, the cost is estimated in today's dollars by escalating the depreciated original cost (i.e., net book value) in the City's capital asset records using the *Engineering News Record's* Construction Cost Index. By averaging the acquisition dates of the City's capital assets, it was determined that the average acquisition dates for its existing infrastructures are as follows:

- Water Enterprise = 1994
- Electric Enterprise = 1993
- Wastewater Enterprise = 1992
- Solid Waste Enterprise = 2002
- Communications Enterprise = 2014
- Airport Enterprise = 1996
- Transit Enterprise = 2002
- Other Enterprises = 1988
- Other Municipal Assets = 1976

The depreciated original cost on the City's fixed asset records was escalated from the average acquisition dates for each enterprise to 2014 to derive the current RCNLD. **Figure III-1** indicates that the estimated fair market value of the City's public property is \$663.5 million.

**Figure III-1. Calculation of Public Property Fair Market Value**

	A. Net Book Value [1]	B. Net Book Value Escalated to 2014 Value [2]				
	Capital Assets, net depreciation	Average Asset Acquisition Date [3] [4]	ENR CCI Base Year - Acquisition Date [5]	ENR CCI December 2014 [5]	Construction Cost Inflation Factor	2014 Value [4]
Water Enterprise	\$ 27,881,982	1994	6,533	10,748	1.65	\$ 45,870,031
Electric Enterprise	26,954,365	1993	6,478	10,748	1.66	44,721,217
Wastewater Enterprise	115,576,820	1992	6,349	10,748	1.69	195,663,998
Solid Waste Enterprise	1,812,895	2002	7,403	10,748	1.45	2,632,051
Communications Enterprise	678,815	2014	10,271	10,748	1.05	710,324
Airport Enterprise	8,555,285	1996	6,558	10,748	1.64	14,020,021
Transit Enterprise	2,119,686	2002	7,403	10,748	1.45	3,077,465
Other Enterprise Funds	408,244	1988	5,771	10,748	1.86	760,318
Governmental Activities	97,621,673	1976	2,947	10,748	3.65	356,005,766
<b>Total Municipal</b>	<b>\$ 281,609,765</b>					<b>\$ 663,461,193</b>

1. City of Lompoc 2014 Basic Financial Statements, Statement of Net Assets, Proprietary Funds (June 30, 2014)
2. Escalated book value of the municipal assets is used as a proxy for assessed value
3. HF&H analysis based on City of Lompoc Property Accounting Ledger
4. Reflects a composite of the enterprises' and governmental activities' escalated values
5. ENR Cost Construction Index, Base 1913=100

## VALUE OF PRIVATE PROPERTY

Private property can be valued using assessed value. Assessed value represents the market value at the time of sale plus subsequent annual increases by the tax assessor, which have been limited to 2% per year since the passage of Proposition 13 in 1978. As such, the total assessed value in the City is the composite of all taxable and tax-exempt property at the time of the most recent sale plus any subsequent increases and reassessments. The amount by which assessed value differs from current fair market value will depend on (1) how long ago it was last sold, (2) the lag in assessed value since that the last sale caused by restrictions imposed by Proposition 13.

Assessed value is typically less than RCNLD value. The construction cost index increased nearly 275% since 1976 (the average acquisition date for all non-enterprise City assets). However, Proposition 13 limits assessed value to 2% increases per year, which equates to as much as 108% over the same period. Because construction cost has escalated at a greater rate than assessed values, the value of the City's infrastructure increased greater than the assessed value of private property. Therefore, a factor was applied to the assessed value to adjust for the lag between assessed value and market value. In this way, the difference between assessed value in private property and the RCNLD for public property was substantially eliminated. The adjustment factor was based on data provided by the State Board of Equalization, which has developed what is known as the "4R Ratio" for commercial/industrial property.<sup>4</sup> above The Board has maintained annual records since 1990 comparing the assessed value of commercial/industrial property with its value at the time of sale.

The numerator of the 4R Ratio is assessed value and the denominator is sales value.<sup>5</sup> Whereas assessed value generally increases gradually over time, sales value can fluctuate considerably from year to year depending on the real estate market. Year-to-year fluctuations in the real estate market should not have an undue influence on the allocation of public safety costs. There is also considerable difference among counties. To stabilize the allocation, the State-wide average of the 4R Ratio from 1990 to 2015 was used. The resulting market value adjustment ratio (4R Ratio) is 137.2%. In other words, the fair market value of private property is estimated to be 137.2% of its assessed value.

**Figure III-2** shows the assessed value in the City of taxable and tax-exempt (e.g., County, State, and Federal property) private property at \$2.45 billion and, with the 4R Ratio adjustment, it becomes \$3.36 billion in fair market value, which is then added to the value of municipal property (from **Figure III-1**), to yield a total fair market value of public and private property in the City of \$4.02 billion.

**Figure III-2. Calculation of Total Value of Property in City**

<b>Non-Municipal Property Assessed Value</b>	
Taxable property [1]	\$ 2,324,908,261
Tax exempt property	\$ 123,890,665
<b>Total Assessed Value</b>	<b>\$ 2,448,798,926</b>
Market Value Adjustment Factor	1.372
Assessed Value Factored up to Market	\$ 3,360,045,657
Municipal City property (from III-1)	\$ 663,461,193
<b>Total Value in City</b>	<b>\$ 4,023,506,850</b>

1. County of Santa Barbara Property Tax Revenues Reporting System, City of Lompoc Assessed Taxable Value (FY 2014/15)

**PUBLIC SAFETY BUDGET**

**Figure III-3** derives the annual public safety operating and capital costs (based on the City’s FY 2014-15 budget) to protect the private and public property within the City. The costs include the budgeted operating costs for both fire and police services. Capital costs comprise estimated capital recovery over the remaining life of the capital assets. A deduction is made for police officers whose functions are unrelated to the Enterprises’ services.

<sup>5</sup> The “market value adjustment ratio” used in this report is the mathematical inverse of the 4R Ratio.

**Figure III-3. Public Safety Budget**

<b>A. Public Safety Budget</b>		
<b>(i) Fire Operating Budget FY2014-15 [3]</b>	\$	<b>4,216,854</b>
<b>(ii) Fire Stations</b>	\$	-
Year of Appraised Value		2011
ENR CCI at Date of Appraised Value		10,089
ENR CCI at December 2014		10,748
Construction Cost Inflation Factor		1.07
2011 Appraised Value [2]	\$	2,232,550
2014 Facilities Value [Factor x Cost]	\$	2,378,306
÷ Median Remaining Useful Life [3]		18
<b>Annual Fire Station Cost to be Allocated</b>	\$	<b>132,128</b>
<b>(iii) Police Operating Budget FY2014-15 [1]</b>	\$	<b>9,822,606</b>
<b>(iv) Police Department</b>	\$	-
Year of Appraised Value		2011
ENR CCI at Date of Appraised Value		10,089
ENR CCI at December 2014		10,748
Construction Cost Inflation Factor		1.07
2011 Appraised Value [2]	\$	4,219,100
2014 Facilities Value [Factor x Cost]	\$	4,494,552
÷ Remaining Useful Life [3]		23
<b>Annual Police Department Cost to be Allocated</b>	\$	<b>195,415</b>
<b>(v) Deductions for Unrelated Services</b>	\$	-
Police Co-Op (AB109)	\$	(121,264)
School Resource Officer	\$	(114,693)
<b>Adjustment to Police Budget to be Allocated</b>	\$	<b>(235,957)</b>
<b>Total Public Safety Budget to be Allocated</b>	\$	<b>14,131,046</b>

1 City of Lompoc Adopted Budget 2013-2015, budget for FY 2014-15 only

2 City of Lompoc 2011 Building Appraisal - Replacement Cost New less Exclusions (does not include contents value)

3 HF&H analysis based on City of Lompoc Property Accounting Ledger

The sum of the operating and capital costs net of unrelated services is the amount to be allocated in proportion to property value.

### ENTERPRISE ALLOCATION FACTOR

Section A ("Enterprise Allocation Factor") of **Figure III-4** determines how much each Enterprise's value is as a percent of the total value of all private and public property in the City. For example, the market value of Water Enterprise property represents 1.14% of the total property value in the City, whereas the Solid Waste Enterprise property

value represents 0.07%. The Enterprise allocations differ in proportion to the values of their infrastructures. The Communications enterprise has comparatively low capital asset value, less than \$1 million, while the Wastewater Enterprise value of over \$195 million includes the recently renovated regional wastewater treatment plant.

As shown in Section B (“Enterprise Allocation”) of **Figure III-4**, each Enterprises’ share of the adjusted public safety budget of \$14.13 million from **Figure III-3** is derived based on the relative fair market value of the Enterprise compared with the total value in the City (as calculated in Section A).

**Figure III-4. Calculation of Each Enterprises’ Proportionate Share of Total City Value**

<b>A. Enterprise Allocation Factor</b>	<b>Water</b>	<b>Electric</b>	<b>Wastewater</b>	<b>Solid Waste</b>
Enterprise 2014 Value (from III-1)	\$ 45,870,031	\$ 44,721,217	\$ 195,663,998	\$ 2,632,051
Total Value in City (from III-2)	\$ 4,023,506,850	\$ 4,023,506,850	\$ 4,023,506,850	\$ 4,023,506,850
<b>Enterprise Value as a Percent of Total Value in City</b>	1.14%	1.11%	4.86%	0.07%
<b>B. Enterprise Allocation</b>				
Allocation to Enterprise (from A)	1.14%	1.11%	4.86%	0.07%
Public Safety Budget	\$ 14,131,046	\$ 14,131,046	\$ 14,131,046	\$ 14,131,046
<b>Enterprise Proportional Share of Public Safety Expenditures</b>	<b>\$ 161,101</b>	<b>\$ 157,066</b>	<b>\$ 687,196</b>	<b>\$ 9,244</b>

(Figure III-4 continued)

<b>A. Enterprise Allocation Factor</b>	<b>Communications</b>	<b>Airport</b>	<b>Transit</b>	
Enterprise 2014 Value (from III-1)	\$ 710,324	\$ 14,020,021	\$ 3,077,465	
Total Value in City (from III-2)	\$4,023,506,850	\$ 4,023,506,850	\$ 4,023,506,850	
<b>Enterprise Value as a Percent of Total Value in City</b>	0.02%	0.35%	0.08%	
<b>B. Enterprise Allocation</b>				
Allocation to Enterprise (from A)	0.02%	0.35%	0.08%	
Public Safety Budget	\$ 14,131,046	\$ 14,131,046	\$ 14,131,046	<u>Total</u>
<b>Enterprise Proportional Share of Public Safety Expenditures</b>	<b>\$ 2,495</b>	<b>\$ 49,240</b>	<b>\$ 10,808</b>	<b>\$1,077,151</b>

In total, the Enterprises’ are responsible for reimbursing the City’s general fund \$1,077,151 (7% of the total public safety budget including services unrelated to the Enterprises) for the public safety services provided. The reimbursements are proportionate to the value of each Enterprise’s property protected within the City compared to the value of all public and private property within the City.

## IV. GOVERNMENTAL FACILITIES

### COST ALLOCATION METHODOLOGY

Certain facilities that benefit the Enterprises were paid for by the General Fund at no cost to the Enterprises. City Hall and the Corporation Yard are two primary examples. These assets represent public investments for which repayment should be made for their proportionate share. The form of repayment is patterned after the methodology approved by regulatory commissions such as the California Public Utilities Commission by which investor owned utilities are allowed to recover the cost of their investment in the facilities that are required to provide service. Under this method, investors are entitled to earn a return on investment and to recover depreciation.

The return on investment is the composite of the cost of debt plus interest earnings on investor equity. Regulatory commissions allow investors to earn a return that covers the cost of any debt financing based on their actual cost of financing. Regulatory commissions also allow investors to earn interest on their equity as a means of rewarding investments in providing utility services as opposed to other investment opportunities. The interest rates granted by commissions are based on the investor's cost of capital, which reflects returns on equivalent levels of risk as well as borrowing rates.

In the City's case, money provided by the General Fund was invested in facilities necessary to provide the Enterprises' services. In exchange, the General Fund is entitled to receive a return on its investment. For purposes of this study, it is assumed that the governmental facilities were debt financed and that it is appropriate for the return on investment to include only the cost of debt. The cost of debt is based on recent debt financing costs incurred by Class A water utilities regulated by the California PUC.<sup>6</sup>

The depreciation method used in this report is straight-line depreciation. Depreciation represents capital recovery. Investors are allowed to recover their investment through depreciation over the service life of the asset. Again, commissions allow investors to recover their capital to encourage investment in utility services as opposed to other investment opportunities. As depreciation is recovered, the value of the investment is decreased. As the investment value decreases, the return on investment decreases because the return is the product of the depreciated investment value times the rate of return. As a result, a fully depreciated asset (with no salvage value) generates no return on investment.

With this methodology, the General Fund's cost of providing governmental facilities for the Enterprises is effectively treated as a loan to the Enterprises to be reimbursed at a

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<sup>6</sup> See [www.dra.ca.gov/general.aspx?id=1885](http://www.dra.ca.gov/general.aspx?id=1885).

reasonable cost of municipal debt. This financing cost gradually diminishes as the capital is recovered through depreciation.

## VALUE OF GOVERNMENTAL FACILITIES

**Figure IV-1** identifies the major governmental facilities for which the Enterprises should provide their proportionate share of reimbursement. Since the construction of City Hall, the V Street Purchasing Storage Facility, and the Corporation Yard, the Enterprises have received free use of these facilities. The Enterprises should provide compensation not only for the original construction cost but for the foregone reimbursement that the public did not receive. In other words, by having not heretofore paid its proportionate share of these facilities, the Enterprises have in effect received an interest-free loan from the General Fund. The Enterprises must now provide reimbursement during the remaining lives of these three facilities.

**Figure IV-1. Original and 2015 Value of Governmental Facilities**

	Appraised Cost [1]	Appraisal Date	ENR CCI Index at Appraisal	ENR CCI Index in 2014	Const. Cost Inflation Factor	2014 Value
City Hall	\$ 5,572,100	2011	10,089	10,748	1.07	\$ 5,936,003
V St. Purchasing Storage	\$ 44,200	2011	10,089	10,748	1.07	\$ 47,087
Corporation Yard	\$ 7,838,150	2011	10,089	10,748	1.07	\$ 8,350,044
	\$ 13,454,450					\$ 14,333,134

1. City of Lompoc 2011 Building Appraisal - Replacement Cost New less Exclusions (does not include contents value)

The original cost is escalated to today's cost based on the ENR Construction Cost Index (CCI). The annual return on investment is based on the escalated 2014 value. Annual depreciation is subtracted over the remaining life of the facilities. In cases such as the Corporation Yard, a minimum 10-year capital recovery period was used. The annual accelerated depreciation is summarized in **Figure IV-2**.

**Figure IV-2. Accelerated Annual Depreciation**

	2014 Value [1]	Year Built	Service Life (Years)	Remaining Life (Years) [2]	Annual Cost Recovery
City Hall	\$ 5,936,003	1979	50	15	\$ 395,734
V St. Purchasing Storage	\$ 47,087	1990	35	11	\$ 4,281
Corporation Yard	\$ 8,350,044	1970	50	10	\$ 835,004
	\$ 14,333,134				\$ 1,235,019

1. Source: See Table 1.A

2. The greater of either the calculated remaining life or 10 years

## ALLOCATION OF FACILITY COSTS TO ENTERPRISES

The Enterprises' share of City Hall, the V Street Purchasing Storage Facility, and the Corporation Yard is based on the square footage used by each Enterprise in the facilities



relative to the total square footage of the facilities. Physical footprint (i.e. square footage used) is a reasonable measure of the size of the Enterprises’ activities compared to other activities occurring in these shared spaces.

**Figure IV-3. Government Facility Allocation Factors**

	Total City	Water Enterprise Fund	Electric Enterprise Fund	Wastewater Enterprise Fund	Solid Waste Enterprise Fund	Communications Enterprise Fund	Airport Enterprise Fund	Transit Enterprise Fund
<u>City Hall Allocation Factor</u>								
Square Footage [1]	13,635	1,201	1,913	913	862	191	48	160
Share of Total	100.00%	8.81%	14.03%	6.70%	6.32%	1.40%	0.35%	1.18%
<u>V St. Purchasing Storage Factor</u>								
Square Footage[2]	174,240	-	130,680	43,560	-	-	-	-
Share of Total	100.00%	0.00%	75.00%	25.00%	0.00%	0.00%	0.00%	0.00%
<u>Corporation Yard Factor</u>								
Square Footage [3]	77,698	2,000	13,110	-	643	-	-	5,265
Share of Total	100.00%	2.57%	16.87%	0.00%	0.83%	0.00%	0.00%	6.78%

1. City of Lompoc Civic Center Square Footage and Allocation 2015 DRAFT; Broadband and Airport allocations from FY2013-2015 Full Cost Plan, pg. 57

2. City of Lompoc staff

3. City of Lompoc FY2013-2015 Full Cost Plan; square footage from June 2011 Corp Yard Blueprint

**SHARE OF RETURN ON INVESTMENT AND CAPITAL COST RECOVERY**

The Enterprises’ share of the return on investment is shown in **Figure IV-4**. The current value of the governmental facilities (calculated in **Figure IV-1**) is allocated to each Enterprise using the allocation factors calculated in **Figure IV-3**). The resulting value (i.e., investment) that is attributable to each Enterprise is then multiplied by the rate of return on equity to derive the return on investment.

**Figure IV-4. Enterprise Return on Investment**

	2014 Value [1]	Water		Electric		Wastewater		Solid Waste	
		Allocation [2]	Share	Allocation [2]	Share	Allocation [2]	Share	Allocation [2]	Share
City Hall	\$ 5,936,003	8.81%	\$ 522,695	14.03%	\$ 832,634	6.70%	\$ 397,475	6.32%	\$ 375,141
V St. Purchasing Storage	\$ 47,087	0.00%	\$ -	75.00%	\$ 35,315	25.00%	\$ 11,772	0.00%	\$ -
Corporation Yard	\$ 8,350,044	2.57%	\$ 214,936	16.87%	\$1,408,905	0.00%	\$ -	0.83%	\$ 69,102
<b>Total</b>	<b>\$ 14,333,134</b>		<b>\$ 737,631</b>		<b>\$2,276,854</b>		<b>\$ 409,247</b>		<b>\$ 444,243</b>
Rate of Return [3]			6.64%		6.64%		6.64%		6.64%
<b>Return on Investment</b>			<b>\$ 48,942</b>		<b>\$ 151,069</b>		<b>\$ 27,154</b>		<b>\$ 29,476</b>

(Figure IV-4 continued)

	2014	Communications		Airport		Transit		Total	
	Value [1]	Allocation [2]	Share	Allocation [2]	Share	Allocation [2]	Share	Allocation	Share
City Hall	\$ 5,936,003	1.40%	\$ 83,152	0.35%	\$ 20,897	1.18%	\$ 69,769	38.78%	\$ 2,301,763
V St. Purchasing Storage	\$ 47,087	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	100.00%	\$ 47,087
Corporation Yard	\$ 8,350,044	0.00%	\$ -	0.00%	\$ -	6.78%	\$ 565,819	27.05%	\$ 2,258,761
<b>Total</b>	<b>\$14,333,134</b>		<b>\$ 83,152</b>		<b>\$ 20,897</b>		<b>\$ 635,588</b>		<b>\$ 4,607,611</b>
Rate of Return [3]			6.64%		6.64%		6.64%		6.64%
Return on Investment			\$ 5,517		\$ 1,387		\$ 42,171		\$ 305,715

[1] Source: Figure IV-2

[2] Source: Figure IV-3

[3] Based on California Public Utilities Commission average Class A water company Cost of Debt used in allowable Rate of Return calculation

The Enterprises' share of the governmental facilities' capital cost recovery is derived in Figure IV-5, using the allocation percentages derived in Figure IV-3.

Figure IV-5. Annual Capital Cost Recovery

	Annual	Water		Electric		Wastewater		Solid Waste	
	Cost Recovery [1]	Allocation [2]	Share	Allocation [2]	Share	Allocation [2]	Share	Allocation [2]	Share
City Hall	\$ 395,734	8.81%	\$ 34,846	14.03%	\$ 55,509	6.70%	\$ 26,498	6.32%	\$ 25,009
V St. Purchasing Storage	\$ 4,281	0.00%	\$ -	75.00%	\$ 3,210	25.00%	\$ 1,070	0.00%	\$ -
Corporation Yard	\$ 835,004	2.57%	\$ 21,494	16.87%	\$ 140,890	0.00%	\$ -	0.83%	\$ 6,910
<b>Annual Cost Recovery</b>	<b>\$ 1,235,019</b>		<b>\$ 56,340</b>		<b>\$ 199,610</b>		<b>\$ 27,568</b>		<b>\$ 31,920</b>

(Figure IV-5 continued)

	Annual	Communications		Airport		Transit		Total	
	Cost Recovery [1]	Allocation [2]	Share	Allocation [2]	Share	Allocation [2]	Share	Allocation	Share
City Hall	\$ 395,734	1.40%	\$ 5,543	0.35%	\$ 1,393	1.18%	\$ 4,651	38.78%	\$ 153,451
V St. Purchasing Storage	\$ 4,281	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	100.00%	\$ 4,281
Corporation Yard	\$ 835,004	0.00%	\$ -	0.00%	\$ -	6.78%	\$ 56,582	27.05%	\$ 225,876
<b>Annual Cost Recovery</b>	<b>\$ 1,235,019</b>		<b>\$ 5,543</b>		<b>\$ 1,393</b>		<b>\$ 61,233</b>		<b>\$ 383,608</b>

[1] Source: Figure IV-2

[2] Source: Figure IV-3

The sum of the return on investment and annual capital cost recovery is summarized in Figure IV-6.

Figure IV-6. Combined Return on Investment and Capital Cost Recovery

	Water Share	Electric Share	Wastewater Share	Solid Waste Share	Communications Share	Airport Share	Transit Share	Total
Return on Investment (Figure IV-4)	\$ 48,942	\$ 151,069	\$ 27,154	\$ 29,476	\$ 5,517	\$ 1,387	\$ 42,171	\$ 305,715
Annual Cost Recovery (Figure IV-5)	\$ 56,340	\$ 199,610	\$ 27,568	\$ 31,920	\$ 5,543	\$ 1,393	\$ 61,233	\$ 383,608
<b>Total Return and Capital Recovery</b>	<b>\$ 105,282</b>	<b>\$ 350,679</b>	<b>\$ 54,722</b>	<b>\$ 61,395</b>	<b>\$ 11,061</b>	<b>\$ 2,780</b>	<b>\$ 103,404</b>	<b>\$ 689,323</b>

Each year, the asset value of these facilities decreases by the amount of annual depreciation. As a result, the return on investment may decrease assuming no change in the rate of return. Annual depreciation will also decrease as facilities reach the end of their service lives. The City should update the value of these facilities for any future improvements or new facilities that are constructed by the General Fund on behalf of the Enterprises. The City should also periodically update the rate of return.

## V. RIGHT-OF-WAY MAINTENANCE

### COST ALLOCATION METHODOLOGY

Right-of-way maintenance encompasses a variety of activities ranging from pavement management and repair to mapping, fencing, and real estate management. The majority of the budget involves pavement management. Any service such as water and wastewater with buried infrastructure located within the City's right-of-way benefits from well-constructed and maintained pavement, which protects against vehicle and environmental impacts such as erosion and subsidence. Services such as solid waste collection and the City's COLT Transit System also benefit from sound pavement that is needed by vehicles. Services such as stormwater benefit from well-maintained pavement to protect buried storm drainage infrastructure and also rely on sound, well-graded streets that promote runoff drainage from surround property as well as from the pavement itself.

When buried infrastructure is constructed, the costs of excavation and pavement repair are included in the construction cost. Hence, when a water main is installed, the cost of the installation is covered by water rates. After the construction, the City incurs ongoing pavement construction and maintenance expenses that are partially related to the presence of buried infrastructure. For example, trench excavations disturb the soil. Backfill and compaction are never perfect. As a result, subsidence and differential settlement can occur, particularly where vehicle loads are greatest. When excessive settlement occurs, pavements are weakened, allowing water to intrude, which shortens the pavement service life.

Regarding activity occurring on the surface of the rights-of-way, nearly all of the damage may be attributed to the presence of vehicles. The damage caused by vehicles increases exponentially with size and weight; hence maintenance costs are greater for trips made by heavy vehicles. A single, large truck or transit bus can cause as much damage as thousands of automobiles. Refuse vehicles and transit buses are generally some of the heaviest vehicles regularly operating on the City's residential streets. Accordingly, these vehicles contribute significantly more to the cost of maintaining those streets.

The cost of routine right-of-way maintenance expense is borne by the Department of Public Works, which does not seek direct reimbursement from its enterprises. This cost is in addition to the cost of pavement repair that occurs when water, wastewater, or stormwater mains are installed or repaired. In those cases, the cost of pavement repair is included in the cost of the main installation, which is a capital cost that is directly funded within the Enterprise's budget.

The methodology for determining the proportionate shares of reimbursement from the Enterprises follows a series of steps that allocates appropriate costs to surface and subsurface functions. The Solid Waste, Transit, Communications and Airport Enterprises receive their allocations in proportion to other surface functions and the Water, Wastewater, and Electric Enterprises are allocated their shares in proportion to other subsurface functions.

## **ALLOCATION FACTORS**

The assumptions reflected in the cost allocation factors follow in succession beginning with the allocation between surface and subsurface factors. The surface allocation factors are first allocated between vehicles and drainage of which the majority is allocated to vehicles. However, a portion is allocated to drainage, which is a significant function that pavement performs. Pavement needs to be constructed and maintained to allow adjoining property to drain properly across sidewalks into gutters and eventually to storm drains. Because rights of way are virtually all impervious surfaces, they produce significant runoff as well, which must also drain properly.

Vehicles are further allocated between refuse and other vehicles. As previously mentioned, refuse vehicles produce an exponentially high amount of pavement wear and tear. The subsurface allocation factors are related to pipelines and other utilities with facilities located underground. The factors are based on how much of the space that each utility occupies within the subsurface right-of-way.

### **Surface/Subsurface Allocations**

Streets are designed to withstand vehicle loads, to drain runoff, and to cover and protect buried infrastructure. Moisture is a critical element affecting pavement life cycles:

Premature distress in both flexible and rigid pavements is generally caused by exposure to heavy truck traffic when the pavement structural section is in a saturated condition. Saturation of the structural section or underlying foundation materials or both generally results in a decrease in strength or ability to support heavy truck axle loads.<sup>7</sup>

At the pavement surface, drainage is important in protecting roadways from saturation, as further discussed below. The presence of buried infrastructure can also lead to saturation because it often entails pavement cuts, excavation, backfilling, compaction, and pavement repair, which in turn can lead to a reduction in pavement service life because of uneven settling, percolation of runoff into cuts, and trench saturation from pipeline leaks. Studies<sup>8,9</sup> indicate that the installation and repair of buried infrastructure

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<sup>7</sup> *Highway Design Manual*. California Department of Transportation. July 1, 1995. Page 600-14.

<sup>8</sup> *Impact of Utility Cuts on Seattle Streets*. Nichols-Vallerga & Associates. January 2000.

can result in a reduction in pavement service life from 30% to 35% or approximately one-third. Pavement cuts for utility patches alone can reduce pavement life by 25%.<sup>10</sup> For that reason, one-third (33%) of the costs of right-of-way maintenance was allocated to subsurface functions and 67% to surface functions.

### *Surface Allocations*

Surface functions consist of supporting vehicles and providing drainage of runoff. To provide proper drainage, streets must be sloped to allow drainage to occur into gutters, to avoid ponding and flooding, and to allow flow to enter storm sewers. Poorly designed streets that do not effectively convey runoff away from streets can lead to saturation of the roadway substrate, which will shorten pavement service lives.

Streets can be designed to drain properly consistent with providing for vehicles. Although street design for vehicle transit and drainage are integral, vehicle loads typically result in significantly greater impacts than the impacts associated with poor drainage. In our judgment, most of the cost of surface functions performed by streets should be allocated to vehicles, which we estimate to be 85%, with the remaining 15% associated with storm drains. In other words, 57% and 10% of the overall 67% allocation to surface activities are attributed to vehicles and drainage, respectively.

For the purposes of this report, we distinguish refuse and transit vehicles from other vehicles. The basis for allocating by vehicle type is made by calculating the Equivalent Single Axle Load (ESAL) of each type of vehicle traveling on the City's streets. The analysis is based on the fact that the City's streets are designed to handle a certain amount of vehicle traffic (loading) over their design lives. The loading is a function of both the number and weight of vehicles.

The lifetime vehicle loading that a street can accommodate can be expressed as the total number of ESALs. Through our analysis, each vehicle type was modeled based on weight, vehicle specifications, axle profile, and average payload. This modeling produced an average ESAL for each vehicle type, which was then used to assess the direct impact of vehicle trips by each vehicle type. The results of our analysis indicate that refuse vehicles are responsible for 14.5% of the total impact on the rights-of-way attributable to vehicles, transit vehicles are responsible for 10.2%, the City's vector and aerial boom trucks are responsible for 0.6%, each, and other vehicles account for 31.0%, for a total of 57.0% attributed to vehicles.

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<sup>9</sup> "Accordingly, the reduction in pavement lifecycle due to utility trenching, when proportioned back based on the contributing trenched areas, is calculated to be 32.4 percent." *Impact of Utility Trenching and Appurtenances on Pavement Performance in Ottawa-Carleton*. Steven Lee, Katherine Lauter, prepared for the Environment and Transportation Department, Ottawa, Ontario. July 1999. Page 16.

<sup>10</sup> *Analysis of the Impact of Utility Cuts on Rehabilitation Costs in Santa Cruz County, CA*. Shahin & Associates, prepared for Santa Cruz County. November 2002. Page 3.

Other City Vehicles includes all other vehicles including private cars and trucks as well as the City's municipal vehicles that are not related to the Enterprises (e.g., police and fire vehicles).

### *Subsurface Allocations*

Buried infrastructure consists of "dry" and "wet" utilities. Dry utilities such as telecommunication conduits, gas pipelines, and electrical conduits pose less risk to roadways because they are typically smaller in diameter, not buried as deeply, and do not convey liquids. Moreover, many of these "dry" utilities are privately owned by companies that pay franchise fees for the use of the public rights-of-way; revenue from franchise fees can be used to help offset the costs associated with pavement repair.

By comparison, "wet" utilities such as water, sewer, and storm drain pipelines are larger, buried deeper, and convey liquids. They are also often publicly owned and do not pay franchise fees that could help defray costs. All water pipelines and some sewer pipelines are under pressure. Leaks from these pipelines weaken soils, which can lead to subsidence and accelerate vehicle wear when pavement substrate is saturated.

Both "dry" and "wet" utilities have service connections that branch off transmission facilities to individual customers. The impact of "wet" service connections is proportionately greater than "dry" service connections because of the greater relative size, depth, and fluid content of "wet" utilities. Studies<sup>11,12</sup> conducted in other cities have attributed significantly more impact to "wet" utilities than "dry" utilities. For similar reasons in the present study, pipelines are attributed the majority of the subsurface costs based on the increased damage that is inherent with "wet" compared to "dry" buried infrastructure.

**Figure V-1** shows the apportionment of right-of-way maintenance costs of the buried infrastructure. The apportionment is based on the proportionate use of subsurface right-of-way space. Use is proportionate to the volume of space occupied within the subsurface right-of-way. Infrastructure that occupies a greater amount of subsurface space has a greater impact on the right-of-way. **Figure V-1** shows that large, deep fluid bearing pipeline infrastructure imposes the greatest impact within the right-of-way. By comparison, infrastructure comprising cables or smaller, shallower pipelines causes much less impact on the right-of-way.

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<sup>11</sup> "Unlike "dry" utilities, the presence of "wet" utility trenching has a significant impact on the performance and life cycle of a street and as a result has a pronounced impact on the expenditures related to street maintenance." *Water Fund to General Fund Transfer Study*. City of Fullerton. March 2012. Page 13.

<sup>12</sup> "Dry utilities require a smaller trench compared to wet utilities, are located at the edge of the roadbed, and do not carry water that can leak into the ground." *Utility Operations Impacts on Street Maintenance*. City of Roseville. September 5, 2003. Page 8.

**Figure V-1. Subsurface Infrastructure Allocation Factors**

	Count	Units	Trench Width (feet)	Length (feet)	Diameter (feet)	Surface Area (Sq ft)	Depth (feet)	Volume (cubic ft)	Share of Subsurface Volume	Share of Subsurface's 33% Allocation of ROW Maint. Costs
	a		b	c	d	e=a*b*c	f	g=e*f	h	i=h*33%
<b>Water Enterprise</b>										
Mains [1]										
Distribution	537,229	lin. ft	5			2,686,145	6	16,116,870		
Transmission	155,617	lin. ft	6			933,702	8	7,469,616		
Services [2]	15,704	each	3	28.7	[c]	1,352,023	4	5,408,093		
Hydrants [4]	1,223	each	4	28.7	[c]	140,394	4	561,574		
Valves [4] [11]	4,826	each			3	34,117	7	238,822		
								29,794,975	38%	12.4%
<b>Wastewater Enterprise</b>										
collection lines [1]	450,371	lin. ft	5			2,251,855	7	15,762,985		
Laterals [2]	15,704	each	4	28.7	[c]	1,802,698	4	7,210,791		
Manholes in ROW [3] [11]	3,300	each			10	259,215	10	2,592,150		
								25,565,926	32%	10.7%
<b>Stormwater Enterprise</b>										
Drains [1]	83,564	lin. ft	6			501,384	8	4,011,072	5%	1.7%
<b>Electric Enterprise</b>										
Primary underground	316,800	lin. ft	6			1,900,800	4	7,603,200		
Empty conduit	22,112	lin. ft	6			132,672	4	530,688		
Services - underground [5]	7,852	each	3	5.0	[f]	117,778	4	471,111		
Poles [11]	2,255	each			4	28,341	8	226,727		
								8,831,726	11%	3.7%
<b>Communications Enterprise [7]</b>										
								441,586	1%	0.2%
<b>Telecom/Cable [8]</b>										
								2,207,931	3%	0.9%
<b>Natural Gas [9]</b>										
								7,448,744	9%	3.1%
<b>Streetlights, Traffic Signals [10]</b>										
								883,173	1%	0.4%
<b>Total</b>								79,185,133	100%	33.0%

[1] Source - City of Lompoc spreadsheet *Utilities in City ROW 2/1/2015.xls*.

[2] Source - City of Lompoc.

[3] Derived from City of Lompoc streets and alley inventories.

[4] Source: Assumed 300-foot spacing on distribution and transmission mains.

[5] Half of the total services.

[6] Half the width of a 10-foot sidewalk.

[7] 5% of Electric Enterprise.

[8] 25% of Electric Enterprise.

[9] 25% of Water Enterprise.

[10] 10% of Electric Enterprise.

[11] = a\*3.142\*(d/2)^2\*f

Trench width and diameters include adjacent disturbed soil.

Excavation depths allow for disturbed soil at bottom.

Only facilities in the ROW are included; any located in easements are excluded.



Figure V-2 summarizes the allocation factors for surface and subsurface functions.

**Figure V-2. Summary of Functional Allocation Factors**

<u>Surface activities</u>			
Vehicles			
Refuse Vehicles [1]		14.5%	
Transit Vehicles [1]		10.2%	
Vactor Trucks - Wastewater Ent. [1]		0.6%	
Aerial Trucks - Electric Ent. [1]		0.6%	
Other Vehicles [1]		31.0%	
			57.0%
Storm Drain [2]			10.0%
	Surface subtotal [3]		67.0%
<u>Subsurface activities [4]</u>			
"Wet" Pipelines			
Water		12.4%	
Wastewater		10.7%	
Storm Drain		1.7%	
	"Wet" pipeline subtotal		24.7%
"Dry" utilities (telecom, gas, electric)			
Electric		3.7%	
Communications		0.2%	
Telecom/Cable		0.9%	
Natural Gas		3.1%	
Streetlights, Traffic Signals		0.4%	
	"Dry" utilities subtotal		8.3%
	Subsurface subtotal [3]		33.0%
	Total		100.0%

1. HF&H analysis of loading damage by vehicle type

2. HF&H estimate of drainage impact

3. [Water Fund to General Fund Transfer Study](#), The City of Fullerton, CA, March 2012

4. Allocated share of "Wet" and "Dry" utilities from Figure IV-1.

## RIGHT-OF-WAY MAINTENANCE COSTS

The City's budgeted right-of-way maintenance activities and associated costs are shown in **Figure V-3** below. The budgeted amounts are constrained by the currently available funding sources and are less than the level of expenditures required to maintain the desired Pavement Management Index (PMI). Without these funding constraints, the City would budget at the desired level of expenditures. It would be appropriate to

increase the allocation base to the desired level of expenditures thereby alleviating the funding constraint.

Some of the budgeted right-of-way maintenance expenses (e.g., tree trimming around overhead lines and road maintenance for George Miller Drive, which provides access to the Airport) are deducted from the total and directly attributed to the respective enterprises (i.e., Electric and Airport) because these two expenses are exclusively related to just these two enterprises and should not be allocated to the other enterprises. The remaining expenses are allocated among the all of the Enterprises based on the allocation factors in **Figure V-2**.

**Figure V-3. Right-of-Way Maintenance Expenses**

Street Maintenance Expenses [1]	
16000 - Street Maintenance	\$ 1,883,334
16130 - St Maint: Signs and Striping	46,394
16170 - St Maint: Traffic Signal	34,394
16550 - Parks: Urban Forestry - Rdwy Main	1,198,925
13036 - Fed Road Funds: Streets Sidewalk	171,736
13044 - Fed Road Funds: SRTS	346,500
22100 - Gas Tax - Street Maintenance	287,608
22200 - Gas Tax - Street Tree Trimming	66,650
30016 - S-2 CA Sidewalk & CRO	160,000
30019 - Maint Rehab Street Pavement	727,827
30020 - Maint Rehab Street Pavement	800,000
30150 - Meas A - Sidewalk & Concrete	281,365
<b>Subtotal</b>	<b>\$ 6,004,733</b>
Less: Direct Allocations	
Electric Enterprise - Tree Trimming	\$ (273,638)
Airport Enterprise - George Miller Dr. [2]	(22,076)
<b>Net ROW Expenses to be Allocated</b>	<b>\$ 5,709,019</b>

1. Represents total of all street and sidewalk-related expenses budgeted for FY2014-15.

Source: City of Lompoc Adopted FY2014-15 Budget

2. Allocation based on ratio of length of road in proportion to the 136 miles of City streets (0.5/136)

**COST ALLOCATIONS**

**Figure V-4** shows how costs are allocated among the various functions when the percentages shown in **Figure V-2** are applied to the total right-of-way maintenance budget of \$5,709,019 shown in **Figure V-3**.

**Figure V-4. Right-of-Way Cost Allocations**

<u>Surface activities</u>			
Vehicles			
Refuse Vehicles	\$	828,853	
Transit Vehicles	\$	580,367	
Vactor Trucks - Wastewater Ent.	\$	35,741	
Aerial Trucks - Electric Ent.	\$	36,592	
Other Vehicles	\$	1,772,588	
		Vehicles subtotal	\$ 3,254,141
Storm Drain			\$ 570,902
		Surface subtotal	\$ 3,825,043
<u>Subsurface activities</u>			
"Wet" Pipelines			
Water	\$	708,883	
Sewers	\$	608,266	
Storm Drain	\$	95,432	
		"Wet" pipeline subtotal	\$ 1,412,581
"Dry" utilities (telecom, gas, electric)			
Electric	\$	210,125	
Communications	\$	10,506	
Other "Dry" Utilities (telecom, gas)	\$	250,765	
		"Dry" utilities subtotal	\$ 471,396
		Subsurface subtotal	\$ 1,883,976
		Total	\$ 5,709,019

**Figure V-5** summarizes the right-of-way allocations from **Figure V-4** by Enterprise. The direct allocations to the Electric and Airport Enterprises from **Figure V-3** are also included. In total, the Enterprises are responsible for reimbursing the City's Public Works Department \$3,251,704 for the right-of-way maintenance services provided, which is 54.2% of the City's right-of-way budget. The other half of the right-of-way costs is attributable to other vehicles for the most part, with some attributable to storm drainage.

The reimbursements are proportionate to the surface and subsurface impacts of each Enterprise's activities on the City's streets. Solid Waste's share is the single largest allocation and is about one-quarter of the costs associated with surface activities. Water and Wastewater account for about 70% of the subsurface costs. Transit is somewhat less than Solid Waste. The remaining allocations are comparatively small.

**Figure V-5. Right-of-Way Cost Allocation Summary**

<b>Total Right of Way Allocation (by Enterprise)</b>	<b>Direct Allocation</b>	<b>Surface Allocation</b>	<b>Subsurface Allocation</b>	<b>% of Total ROW Budget</b>	
	(from Fig. V-3)	(from Fig. V-4)	(from Fig. V-4)	<b>Total</b>	
Water Enterprise	\$ -	\$ -	\$ 708,883	\$ 708,883	11.8%
Electric Enterprise	\$ 273,638	\$ 36,592	\$ 210,125	\$ 520,355	8.7%
Wastewater Enterprise	\$ -	\$ 35,741	\$ 608,266	\$ 644,007	10.7%
Solid Waste Enterprise	\$ -	\$ 828,853	\$ -	\$ 828,853	13.8%
Transit Enterprise	\$ -	\$ 580,367	\$ -	\$ 580,367	9.7%
Airport Enterprise	\$ 22,076			\$ 22,076	0.4%
Communications Enterprise	\$ -	\$ -	\$ 10,506	\$ 10,506	0.2%
<b>Total ROW Allocated to Enterprises</b>	<b>\$ 295,714</b>	<b>\$ 1,481,553</b>	<b>\$ 1,537,780</b>	<b>\$ 3,315,047</b>	<b>55.2%</b>
<b>Other Vehicles, Storm Drain, and Other "Dry" Utilities (from Fig. V-4)</b>				<b>\$ 2,689,686</b>	<b>44.8%</b>
<b>Total ROW budget (ties with Fig. V-3)</b>				<b>\$ 6,004,733</b>	<b>100.0%</b>





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