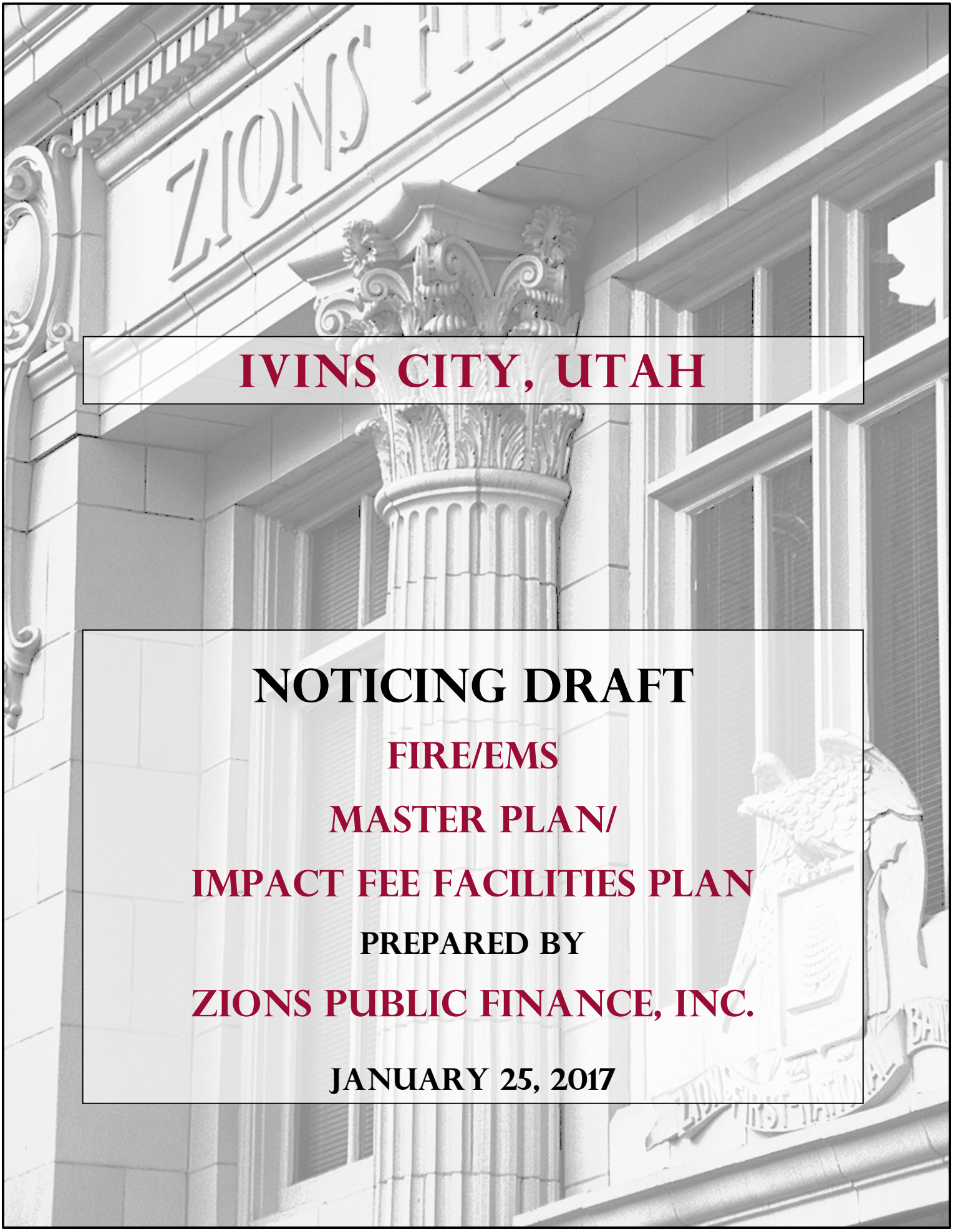


IVINS CITY, UTAH

NOTICING DRAFT

FIRE/EMS

MASTER PLAN/

IMPACT FEE FACILITIES PLAN

PREPARED BY

ZIONS PUBLIC FINANCE, INC.

JANUARY 25, 2017

Contents

Executive Summary 2
Purpose of the Master Plan/Impact Fee Facilities Plan 2
Fire Capital Facilities 2
Chapter 1: Existing & Future Fire Facilities 4
Overview of Ivins City 4
Ivins Fire Department 4
Existing Fire & EMS Coverage 4
Existing Fire Stations 4
Future Fire / EMS Infrastructure 5
Outstanding Debt and Future Debt 5
Chapter 2: Financing Element 7
Manner of Financing 7
General Fund Revenues 7
Federal and State Grants and Donations 7
Impact Fees 7
Developer Dedications and Exactions 7
Summary of Time Price Differential 8
Equity of Impact Fees 8
Chapter 3: Level of Service Analysis 9
Level of Service Definition 9
Current Five Minute Response Time 9
Square Feet per Call 9
Chapter 4: Future Apparatuses 10
Impact Fee Certification 11

EXECUTIVE SUMMARY

PURPOSE OF THE MASTER PLAN/IMPACT FEE FACILITIES PLAN

The purpose of the fire Master Plan/Impact Fee Facilities Plan (IFFP) is to provide Ivins City (the City) with substantive planning for future fire/EMS capital infrastructure including facility sizes, costs, funding, and allocation to growth. The IFFP also identifies the increasing demands placed upon the City's existing and future fire facilities by future development and evaluates how these demands will be met by the City. This document will address the future fire facilities needed to serve the City through a projected buildout scenario with regard to current land use planning and the City's current fire service area.

The need for future capital projects will be based upon the target level of service standards for fire/ EMS as well as service response times. The existing and future capital projects documented in this IFFP will ensure that the current level of service standard is maintained for all existing and future residents within the service area. The IFFP will also fulfill all financial requirements as established under Title 11, Chapter 36a of the Utah code (the Impact Fee Act). It should also be noted that this analysis does not directly consider fire services which are provided for areas outside of the City. These services are provided based on mutual aid agreements or are funded through service agreements where the entity receiving the benefit pays a service charge.

FIRE CAPITAL FACILITIES

The Impact Fees Act defines public safety facilities as "a building constructed or leased to house police, fire, or other public safety entities; or a fire suppression vehicle costing in excess of $500,000." The facilities must have a life expectancy of ten or more years and must be "owned or operated by or on behalf of a local political subdivision or private entity." The follow tables list the City's current facilities, future facilities, and apparatus inventory.

TABLE 1: EXISTING FACILITIES INVENTORY

Existing Fire / EMS Facilities	Acres	SF of Space	Qualifying Cost
Land Associated with the Existing Center St Fire/Police Facility	0.62		$ -
Existing Fire / Police Facility		8,806	-
Land Associated with the Existing Kayenta	-		-
Existing Kayenta Station		1,900	-
Total	**0.62**	**10,706**	**$ -**

TABLE 2: FUTURE FACILITIES INVENTORY

Project	Year	Floorspace (SF)	Cost per SF/Acre	Land (Acres)	PV Project Expense $	Construction Year Expense*
Future Fire / EMS Facilities Within 10 Years						
Land Associated with the Future Fire/Police Facility	2017			-	$0	$0
Site Improvements (per Acre)	2017			1.47	$176,400	$182,574
Future Fire/Police Facility (per SF)	2017	10,600	$ 109.38	-	$1,159,428	$1,200,008
Within 10 Years		10,600			**$1,335,828**	**$1,382,582**
Future Fire / EMS Facilities Beyond 10						
Total Future Fire / EMS Facilities		**10,600**		**1.47**	**$1,335,828**	**$1,382,582**

TABLE 3: APPARATUS INVENTORY

Apparatus Inventory						
Apparatus	Description	Year Acquired	Apparatus Cost	Equipment	Total	New Apparatus (Fully Equipped)
Brush 121	2004 Ford F550 Super Duty	2004	$ 40,325	$ 11,000	$ 51,325	
Command 121	2008 Dodge Ram 2500	2007	25,453	3,200	28,653	
Engine 121	1998 Pierce Pumper Truck Heavy	1997	171,862	38,000	209,862	540,000
Squad 121	2000 4700 LP 4x2 International	2008	38,000	9,800	47,800	
Truck 121	2001 Pierce-Pacific Mfg Inc. Ladder Truck	2006	225,000	43,000	268,000	
Brush 122	2000 Chevy GK3 GM4	1999	27,163	7,800	34,963	
Engine 122	1989 Ford Fire Truck	1990	85,554	14,500	100,054	
Brush 123	2000 Frht Med Conv FL70 Truck (Heavy Truck)	2011	22,000	6,000	28,000	
			$ 635,357	$ 133,300	$ 768,657	$ 540,000

CHAPTER 1: EXISTING & FUTURE FIRE FACILITIES

OVERVIEW OF IVINS CITY

Ivins City is located in Washington County, Utah. In 2015, the population was estimated to be 8,187. Ivins is a bedroom community for the St George area and is experiencing growth including commercial and other non-residential units.

IVINS FIRE DEPARTMENT

Fire/Rescue personnel provide fire services to the residents and businesses of Ivins City, as well as a 495 square mile response area which includes Gunlock, Snow Canyon State Park, Motoqua, Shivwits Indian Reservation, and Old Highway 91 to the Arizona border. They respond to fire calls (brush, residential, vehicle, etc.), accidents, and other incidents requiring immediate action to reduce the loss of life and property. They conduct public education programs, pre-fire planning, fire hydrant inspections, fire prevention inspections, pre-business licensing fire inspections, in addition to maintaining firefighting equipment and apparatus.

Ivins City currently has two fire stations. One is located on Center Street and the second one is in the Coyote Gulch business area in Kayenta. Ivins EMS provides high quality care for the cities of Ivins, Santa Clara, and Gunlock, as well as the Shivwits Reservation, Snow Canyon State Park, and as far as the Arizona border on Highway 91. Ivins EMS is staffed with Paramedics and Advanced Emergency Medical Technicians.

EXISTING FIRE & EMS COVERAGE

As more homes, businesses, and other types of development are built, the number of emergency calls increase. This increase in call volume affects the fire/EMS services in two major ways. First, much of the newer development comes from undeveloped land that is located farther away from a city's center. This increases response times—taking it longer for fire fighters or EMS personnel to reach emergency situations.

Also, as the call volume increases, so does the likelihood that multiple calls will occur at the same moment and compete for emergency resources. This also increases the average response time. When response times increase the risk of property damage and loss of life also increases. New infrastructure must be built to maintain both adequate response times and also to provide adequate space for the additional equipment and emergency vehicles needed to serve a greater volume of emergency calls.

EXISTING FIRE STATIONS

The fire/EMS department currently maintains 10,806 SF of fire facilities. This includes approximately 8,806 SF at the Center Street station and 2,000 SF at the Coyote Gulch location. Although the City maintains two fire stations, only costs associated with the future Center Street station rebuild have been included in the impact fee analysis. The existing Center Street station is aging and will not be adequate to meet the future calls that growth will require. The existing station will be completely replaced by the Center Street rebuild. Credits will be provided for a portion of the capacity that the new station provides that benefits existing users.

The Coyote Gulch station located within Kayenta has been built by the developer with no capital cost to the City. The City only incurs operation & maintenance costs for the Kayenta station including a nominal lease fee for use of the facility. These operation & maintenance costs are not impact fee qualifying expenses. However, the square footage of the Kayenta facility must be included in the impact fee calculation when accounting for the current level of service and call volume. This facility will be included in the impact fee at no cost.

TABLE 4: SUMMARY OF EXISTING FIRE / EMS FACILITIES

Existing Fire / EMS Facilities	Acres	SF of Space	Qualifying Cost
Land Associated with the Existing Center St Fire/Police Facility	0.62		$ -
Existing Fire / Police Facility		8,806	-
Land Associated with the Existing Kayenta	-		-
Existing Kayenta Station		1,900	-
Total	**0.62**	**10,706**	$ -

FUTURE FIRE / EMS INFRASTRUCTURE

As the land area within the City continues to develop, it is anticipated that the existing Center Street station will need to be rebuilt and expanded in order to provide adequate response times according to NFPA 1710, the ISO standards and the City's goal for coverage. Additional bays will be required to allow for more crews to respond simultaneously. New quarters will allow firefighters to remain at the station and respond more quickly. Some elements such as expanded quarters may reflect an increase in level of service and cannot be funded using impact fees.

TABLE 5: SUMMARY OF FUTURE FIRE / EMS INFRASTRUCTURE

Project	Year	Floorspace (SF)	Cost per SF/Acre	Land (Acres)	PV Project Expense $	Construction Year Expense*	% to Growth	Expansionary Cost
Future Fire / EMS Facilities Within 10 Years								
Land Associated with the Future Fire/Police Facility	2017			-	$0	$0	100%	$0
Site Improvements (per Acre)	2017			1.47	$176,400	$182,574	100%	$182,574
Future Fire/Police Facility (per SF)	2017	10,600	$ 109.38	-	$1,159,428	$1,200,008	100%	$1,200,008
Within 10 Years		10,600			**$1,335,828**	**$1,382,582**		**$1,382,582**
Future Fire / EMS Facilities Beyond 10								
Total Future Fire / EMS Facilities		**10,600**		**1.47**	**$1,335,828**	**$1,382,582**		**$1,382,582**

It should be noted that the future plans for the station may change as Ivins City officials judge how the City as a whole would be best served with additional fire facilities. This analysis should be updated periodically to ensure that the most accurate and current plans and cost information are used to calculate fair and equitable impact fees.

OUTSTANDING DEBT AND FUTURE DEBT

The City has no debt outstanding related to fire facilities. It is the intention of the City to pursue debt financing in order to fund the Center Street station rebuild. To accurately estimate the future costs, Zions worked closely with City staff and industry contacts in order to make accurate estimates on land and construction costs. Based on the anticipated construction year, these costs were then inflated at 3.5% annually to account for the increasing cost of construction with time. This amount was then used to calculate the total amount of debt to be issued and shown in Table 6.

TABLE 6: FUTURE SERIES DEBT SERVICE SCHEDULE

Date	Principal	Coupon	Interest	Total P&I
1	43,869	3.50%	42,552	86,421
2	45,404	3.50%	41,048	86,451
3	46,993	3.50%	39,490	86,483
4	48,638	3.50%	37,878	86,516
5	50,340	3.50%	36,210	86,550
6	52,102	3.50%	34,483	86,585
7	53,926	3.50%	32,696	86,622
8	55,813	3.50%	30,847	86,660
9	57,767	3.50%	28,932	86,699
10	59,788	3.50%	26,951	86,739
11	61,881	3.50%	24,900	86,781
12	64,047	3.50%	22,778	86,824
13	66,288	3.50%	20,581	86,869
14	68,609	3.50%	18,307	86,916
15	71,010	3.50%	15,954	86,964
16	73,495	3.50%	13,518	87,013
17	76,067	3.50%	10,997	87,065
18	78,730	3.50%	8,388	87,118
19	81,485	3.50%	5,688	87,173
20	84,337	3.50%	2,893	87,230
Total	**$1,240,589**		**$495,091**	**$1,735,680**

Note: Total principal amount is equal to the construction cost + 2% cost of issuance

CHAPTER 2: FINANCING ELEMENT

MANNER OF FINANCING

The City has funded the capital facilities through a combination of different revenue sources. Impact fees cannot reimburse costs funded through grants and other funds that the City has received for capital improvements without an obligation to repay. Fire departments often receive grants for equipment and training but rarely for the construction of fire stations or purchase of apparatus. The station construction costs included in this calculation are those that will be funded by residents and businesses through impact fees and taxes.

Additionally, the Impact Fee Act requires the proportionate share analysis included in the impact fee analysis to demonstrate that impact fees paid by new development are an equitable method for funding growth-related facilities. The need for future station expansion is primarily necessitated by future growth and those costs will be fairly passed on to new development through impact fees. However, the Impact Fee Act requires the IFFP to identify all possible methods of funding new facilities which are listed below.

GENERAL FUND REVENUES

Tax revenues—property and sales—are the primary source of revenue for the City. The City has authority to collect a portion of the property and sales taxes within its boundaries. The revenues collected can cover the operational expenses, non-impact fee qualifying capital expenses and other general needs of the fire / EMS department.

FEDERAL AND STATE GRANTS AND DONATIONS

Grants and donations are not currently contemplated in this analysis. If grants are available for constructing stations, they will be used. Grants or other funds that do not require repayment (not including developer exactions in-lieu of impact fee payments) must be credited against the cost of facilities included in the impact fee analysis. An impact fee should not be collected for a project or expense otherwise covered through a grant without an appropriate credit.

IMPACT FEES

It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain an adequate level of service and prevent existing users from subsidizing the capital needs for new growth. Impact fees have become an ideal mechanism for funding growth-related facilities. Impact fees are charged to ensure new growth pays its proportionate share of the costs for the development of public infrastructure.

Impact fee revenues can also be attributed to the future expansion of public facilities if the revenues are used to maintain an existing level of service. Increases to an existing level of service cannot be funded with impact fee revenues without a way to pass the costs of an increased level of service back to new growth. This typically results in a credit against the impact fee for the level of service cost that will be collected through non-impact fee revenues.

DEVELOPER DEDICATIONS AND EXACTIONS

Developer exactions are not the same as grants (which should be credited from the impact fee). If a developer constructs a fire station or dedicates land for fire facilities to the City, the value of the dedication is credited against that particular developer's impact fee liability. It is rare for developers to construct an entire fire station for a credit but land dedications for fire stations are not uncommon. All fire stations are considered to be system improvements, not project improvements. Thus, an impact fee credit would be due to the developer and the dedication/exaction would be classified in the inventory as if it had been funded directly by the City through impact fees collected.

If the value of the dedication/exaction is less than the development's impact fee liability, the developer owes the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City must reimburse the difference to the developer from impact fee revenues collected from other developments. However, the City already owns the land where the new station will be built so no developer exactions are anticipated at this time.

SUMMARY OF TIME PRICE DIFFERENTIAL

The Impact Fee Act allows for the inclusion of a time price differential to ensure that the costs incurred at a later date are accurately calculated. As discussed previously, the cost estimates for future projects are inflated at 3.5% annually to a future value cost based on the year of anticipated construction.

EQUITY OF IMPACT FEES

Impact fees are intended to recover the costs of capital infrastructure that relate to future growth. This method results in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents. This method also addresses current deficiencies by assuming that facilities are sized optimally to cover the City without deficiencies or excesses at buildout.

The impact fee calculations are structured for impact fees to fund 100% of the growth-related portion of facilities identified in the proportionate share analysis. Even so, there may be years that impact fee revenues cannot cover the annual growth-related expenses. Other revenues will be used to make up any annual deficits. Any borrowed funds are to be repaid in their entirety through impact fees once sufficient impact fee revenues have been collected.

CHAPTER 3: LEVEL OF SERVICE ANALYSIS

LEVEL OF SERVICE DEFINITION

According to State statute, impact fees cannot be used to correct deficiencies in the system or increase the level of service (LOS) over what currently exists without charging new growth for their share of costs. One way to determine if the level of service has been exceeded is to measure the current square footage of facilities per emergency call and compare it to what is planned for the future. The second approach is based on the five-minute response time.

CURRENT FIVE MINUTE RESPONSE TIME

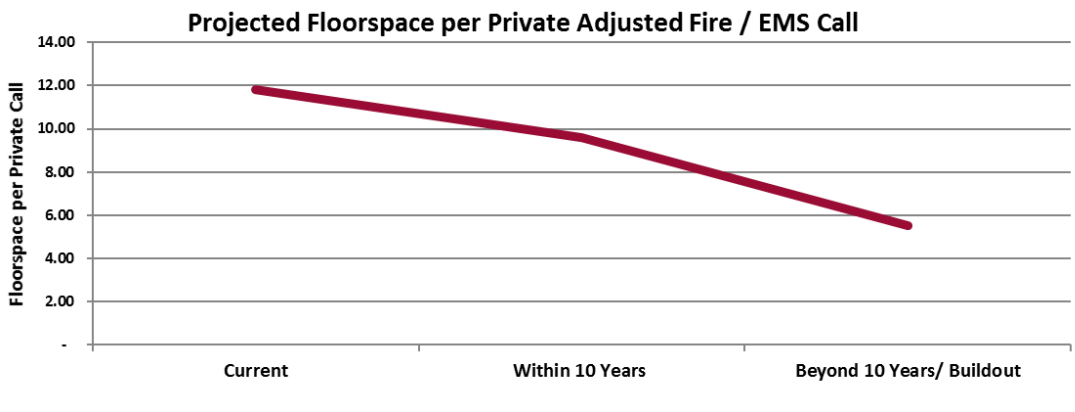
When it comes to protecting property and especially life, zero loss would be the ideal goal. However, constraints of resources make it impossible to locate a fire station on every corner. Therefore, decisions must be made to enable the best protection possible under the circumstances. It is the goal of the City to respond to at least 90% of fire and EMS calls within five minutes.

SQUARE FEET PER CALL

The City will construct stations to meet the guidelines from the NFPA and ISO. The future Center Street rebuild will be constructed at a size that will meet today's demands as well as the future buildout call demands. The level or service is currently at its highest. The square foot per call at buildout is the true level of service calculation. Any square foot per call calculations that exceed the buildout amount include unused excess capacity.

TABLE 7: CURRENT AND PROJECTED FACILITY FLOOR SPACE LEVEL OF SERVICE FOR FIRE / EMS

Time Frame	Floorspace	Current / Projected Calls	SF per Call
Current	10,706	906	11.82
Within 10 Years	12,500	1,304	9.59
Beyond 10 Years/ Buildout	12,500	2,277	5.49



CHAPTER 4: FUTURE APPARATUSES

An apparatus costing over $500,000 when purchased and equipped can be assessed an impact fee to non-residential development on a square foot basis. The City has one future apparatus expected to be added within ten years which qualifies according to that definition. The apparatus inventory and impact fee qualifying costs are shown below.

TABLE 8: INVENTORY OF EXISTING AND FUTURE IMPACT FEE QUALIFYING FIRE SUPPRESSION APPARATUSES

Apparatus Inventory							
Apparatus	Description	Year Acquired	Apparatus Cost	Equipment	Total	New Apparatus (Fully Equipped)	Impact Fee Qualifying Apparatus
Brush 121	2004 Ford F550 Super Duty	2004	$ 40,325	$ 11,000	$ 51,325		$ -
Command 121	2008 Dodge Ram 2500	2007	25,453	3,200	28,653		-
Engine 121	1998 Pierce Pumper Truck Heavy	1997	171,862	38,000	209,862	540,000	540,000
Squad 121	2000 4700 LP 4x2 International	2008	38,000	9,800	47,800		-
Truck 121	2001 Pierce-Pacific Mfg Inc. Ladder Truck	2006	225,000	43,000	268,000		-
Brush 122	2000 Chevy GK3 GM4	1999	27,163	7,800	34,963		-
Engine 122	1989 Ford Fire Truck	1990	85,554	14,500	100,054		-
Brush 123	2000 Frht Med Conv FL70 Truck (Heavy Truck)	2011	22,000	6,000	28,000		-
			$ 635,357	$ 133,300	$ 768,657	$ 540,000	$ 540,000

Using this information, an apparatus fee will be calculated as part of the impact fee analysis which is only applicable to private non-residential development. This is consistent with the protocol determined by the Utah Impact Fee Act, where it states that only residential land uses may be exempt from an impact fee for fire suppression vehicles (Utah Code 11-36a-202(2)(a)(i)) and that these vehicles must be over $500,000 to be considered in the calculation (11-36a-102(16)(a)(ii)).

IMPACT FEE CERTIFICATION

Zions Public Finance, Inc. has prepared this report in accordance with Utah Code Title 11 Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to Utah municipal capital facilities plans and impact fee analyses. The accuracy of this report relies upon the planning, engineering, and other source data which was provided by the City and their designees.

In accordance with Utah Code Annotated, 11-36a-306(2), Zions Public Finance, Inc., makes the following certification:

Zions Public Finance, Inc. certifies that the attached impact fee analysis:

1. Includes only the cost of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each
    d. impact fee is paid;
2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. cost of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology
        i. that is consistent with generally accepted cost accounting practices and the methodological
        ii. standards set forth by the federal Office of Management and Budget for federal grant
        iii. reimbursement;
3. Offset costs with grants or other alternate sources of payment; and
4. Complies in each and every relevant respect with the Impact Fees Act.

Zions Public Finance, Inc. makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (IFFP) made in the IFFP or in the impact fee analysis are followed in their entirety by Ivins City.
2. If all or a portion of the IFFP or impact fee analysis are modified or amended, this certification is no longer valid.
3. All information provided to Zions Public Finance, Inc., its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Ivins City and outside sources.

Dated: January 25, 2017

ZIONS PUBLIC FINANCE, INC.

APPENDIX A: GROWTH FORECAST

Historic and Future Population Growth

Historic and Future Population Estimates				
Year	**Ivins Population**	**Total Calls**	**Calls per Capita**	**% Call Growth**
2012	7,326			
2013	7,613	677	0.08892	
2014	7,900	847	0.10722	25.1%
2015	8,187	**906**	0.11067	**7.0%**
2016	8,473	950	0.11214	4.9%
2017	8,760	994	0.11352	4.7%
2018	9,047	1,039	0.11481	4.4%
2019	9,334	1,083	0.11602	4.3%
2020	9,620	1,127	0.11716	4.1%
2021	10,030	1,171	0.11679	3.9%
2022	10,440	1,216	0.11644	3.8%
2023	10,850	1,260	0.11612	3.6%
2024	11,259	**1,304**	0.11582	**3.5%**
2025	11,669	1,348	0.11555	3.4%
2030	13,718	1,570	0.11442	16.4%
2040	18,176	2,012	0.11069	28.2%
2046	19,100	2,277	0.11923	13.2%

APPENDIX B: DEMOGRAPHICS

Historic, Estimated, and Projected Population in Ivins City and Washington County

	Census	ACS	Estimate *	Projections				
Location	2010	2014	2016	2020	2030	2040	2050	2060
Ivins	6,753	7,184	7,400	9,620	13,718	18,176	23,106	28,443
Unincorporated County Served by City **	349	366	358	498	710	940	1,196	1,472
Ivins City Total	7,102	7,550	7,757	10,118	14,428	19,116	24,302	29,915
Unincorporated Washington County	6,988	7,328	7,485	9,955	14,195	18,809	23,910	29,433
Washington County Total	138,115	144,844	148,209	196,762	280,558	371,743	472,567	581,731

** 2016 estimates are based on the trend from 2010 to 2014*

*** Based on county assessor's data and aerial review, it is assumed that 5% of the population of the Unicorporated County Population is served by the City*

Source: US Census, American Community Survey 2013 5 year data, Utah GOPB subcounty projections 2013

Single Family Housing Units

	Units	Residential Building Permits						Units
Location	2010	2010	2011	2012	2013	2014	2015	2016
	2010 Cen	BEBR	BEBR	BEBR	BEBR	BEBR	BEBR	
Ivins	2,713	49	73	96	115	93	78	3,217
Unincorporated County Served by City **	0	0	0	0	0	0	0	0
Ivins City Total	2,713	49	73	96	115	93	78	3,217
Unincorporated Washington County	2,997	23	19	18	28	32	58	3,175
Washington County Total	42,723	753	736	994	1,475	1,159	1,478	49,318

Source: US Census, American Community Survey 2013 5 year data

Multi Family Housing Units

	Units	Residential Building Permits						Units
Location	2010	2010	2011	2012	2013	2014	2015	2016
	2010 Cen	BEBR	BEBR	BEBR	BEBR	BEBR	BEBR	
Ivins	0	13	30	8	4	27	39	82
Unincorporated County Served by City **	0	0	0	0	0	0	0	0
Ivins City Total	0	13	30	8	4	27	39	82
Unincorporated Washington County	614	4	0	4	1	12	0	635
Washington County Total	15,011	118	110	71	185	316	161	15,811

Source: US Census, American Community Survey 2013 5 year data

APPENDIX C: EMERGENCY FIRE CALL DETAILS

Ivins City Fire Calls Responded to From 2013 to 2015

Category	2013	2014	2015	3 yr Total	Average	% of Total
Single Family Residential	375	414	440	1,229	410	50.6%
Multifamily Residential	2	1	2	5	2	0.2%
Assisted Living	15	73	110	198	66	8.1%
Commercial	17	15	17	49	16	2.0%
Institutional *	2	8	5	15	5	0.6%
Public Buildings and Land	19	32	22	73	24	3.0%
Traffic	24	20	25	69	23	2.8%
Interlocal Agreement (Santa Clara EMS)	125	181	181	487	162	20.0%
Special Service District	0	0	0	0	0	0.0%
Mutual Aid	44	55	40	139	46	5.7%
Undefined **	54	48	64	166	55	6.8%
All Calls	**677**	**847**	**906**	**2,430**	**810**	**100.0%**

** Includes churches*

*** Undefined includes all other calls not able to be assigned to a private land use within the service area*

APPENDIX D: FORECAST OF DEVELOPMENT UNITS

Existing and Future Population, Residential Units, and Private Non Residential Floor Space

	2015 Development			Future Development to be Added		Existing + Future		
Residential Units	**Population**	**Current PPH**	**Total Units**	**Population**	**Units**	**Population**	**Buildout PPH**	**Adjusted Units**
Residential Units	7,835	2.34	3,342	21,036	5,211	19,100	2.23	8,553
Total	**7,835**	2.34	**3,342**	**21,036**	**5,211**	**19,100**	2.23	**8,553**
Non-Residential Units	**SF per capita**		**Estimated kSF**	**SF per capita**	**Estimated kSF**	**SF per capita**		**Estimated kSF**
Commercial	17.59		136.71	17.6	370	26.5	100%	507
Institutional	10.29		80.00	10.3	216	15.5	100%	296
Total	**26.47**		**217**	**71.63**	**586**	**98.10**		**803**

Source: Washington County Assessor's Office, US Census, American Community Survey, and Snideman Consulting GIS Analysis

Future units are based on a 2046 buildout estimate provided by Ivins City

It is estimated that non residential development will increase at a rate proportionate to the rate of increase seen in population growth

APPENDIX E: ALLOCATION OF CALLS TO PUBLIC/PRIVATE LAND USES

	Total Calls	% of Total Calls	Direct Calls Allocated to Land Use	Indirect Public Areas	Roads	Non-Resident	Summary of Total Calls
Direct Calls Allocated to Land Use	574	63%	574	-	-	-	**574**
Public Buildings and Land	22	2%	14	-	-	8	**22**
Traffic	25	3%	-	-	13	13	**25**
Interlocal Agreement (Santa Clara EMS)	181	20%	-	-	-	181	**181**
Special Service District	-	0%	-	-	-	-	**-**
Mutual Aid	40	4%	-	-	-	40	**40**
Undefined	64	7%	44	1	1	18	**64**
Total	**906**	**100%**	**632**	**1**	**13**	259	**906**

Undefined Calls Allocated to Land Use by Direct Calls

Land Use Type	Calls To Direct Land Use	% to Direct Land Use	Undefined Calls to Land Uses	Adjusted
Residential				
Residential	552	66%	42	594
Non-Residential				
Commercial	17	2%	1.29	18
Institutional	5	1%	0.38	5
Public Land Uses				
Public Buildings and Land	22	3%	2	24
Traffic	25	3%	2	27
Interlocal Agreement (Santa Clara EMS)	181	21%	14	195
Special Service District	-	0%	-	-
Mutual Aid	40	5%	3	43
Total	**842**	100%	**64**	**906**

Traffic Calls Allocated to Land Use

Land Use Type	Units of Land Use Type	ITE Code	ITE Trip Generation Rate per Unit ADT (Divided by 2)	Total ADT Peak Day Trips	% of Trips Generated	Annual Traffic Related Fire Incidents per Unit of Development (Percentage X Total Calls)
Residential						
Residential (per unit)	3,342	210	4.76	15,906	83%	11.15
Non-Residential						
Commercial	137	820	21.35	2,919	15%	2.05
Institutional	80	560	4.56	364	2%	0.26
Total				**19,189**	**100%**	**13**

APPENDIX F: AVERAGE CALLS PER UNIT

Average Historic Calls per Unit to Development Types

Land Use Type	2015 Calls To Direct Land Use*	Undefined Calls to LU	Calls to Public Areas	Calls to Roads	2015 Total Calls	2015 Land Use Unit	Calls per Unit
Residential							
Residential	552	42	15	13	**622**	3,342	**0.186**
Non-Residential							
Commercial	17	1	0	0	**19**	137	**0.14010**
Institutional	5	0	0	0	**6**	80	**0.07042**
Non-Qualifying Calls							
Calls Allocated to Outside City Residents	221	17	8	13	**260**		
Total	795	60	24	27	**906**		

Projected Future Calls

Projected Future Fire / EMS Calls - 10 Year			
Development Type	**Future Units**	**Calls per Unit**	**Future Calls***
Residential			
Residential (Units)	5,211	0.186	970
Non-Residential			
Commercial	370	0.140	52
Institutional	216	0.070	15
Non-Resident Calls			
Development Type	**Future City Population**	**Calls per Capita**	**Future Calls***
Calls Allocated to Outside City Residents	10,913	0.031	334
Total Undeveloped Future Private Calls			**1,371**

**Projected Future Calls are based on future units in addition to existing calls from existing units*

APPENDIX G: EXISTING AND FUTURE STATIONS

Summary of Existing Fire Facilities

Existing Fire / EMS Facilities	Acres	SF of Space	Qualifying Cost
Land Associated with the Existing Center St Fire/Police Facility	0.62		$ -
Existing Fire / Police Facility		8,806	-
Station	-		-
Existing Kayenta Station		1,900	-
Total	**0.62**	**10,706**	**$ -**

	Fire	Police	Totals
Floorspace (Sq. Ft.)	10,600	400	11,000.00
% to Each Department	96%	4%	100%
Building Price	**$1,159,428**	**$ 56,349**	**$1,215,777**
Bond Interest	**477,087**	**18,003**	**495,091**
Existing Resident - Credit	28%		
Future Resident	46%		
Non-Resident - No Credit	26%		
Total Percentage	100%		
Fire Credit Value	**$ 329,270**		

Projection of Future Fire Facilities

Project	Year	Floorspace (SF)	Cost per SF/Acre	Land (Acres)	PV Project Expense $	Construction Year Expense*	% to Growth	Expansionary Cost
Future Fire / EMS Facilities Within 10 Years								
Land Associated with the Future Fire/Police Facility	2017			-	$0	$0	100%	$0
Site Improvements (per Acre)	2017			1.47	$176,400	$182,574	100%	$182,574
Future Fire/Police Facility (per SF)	2017	10,600	$ 109.38	-	$1,159,428	$1,200,008	100%	$1,200,008
Within 10 Years		10,600			**$1,335,828**	**$1,382,582**		**$1,382,582**
Future Fire / EMS Facilities Beyond 10								
Total Future Fire / EMS Facilities		**10,600**		**1.47**	**$1,335,828**	**$1,382,582**		**$1,382,582**
		Total SF	**12,500**					

Current Year 2016 Inflation Rate 3.50%

APPENDIX H: OUTSTANDING AND FUTURE DEBT

Future Debt

Date	Principal	Coupon	Interest	Total P&I
1	43,869	3.50%	42,552	86,421
2	45,404	3.50%	41,048	86,451
3	46,993	3.50%	39,490	86,483
4	48,638	3.50%	37,878	86,516
5	50,340	3.50%	36,210	86,550
6	52,102	3.50%	34,483	86,585
7	53,926	3.50%	32,696	86,622
8	55,813	3.50%	30,847	86,660
9	57,767	3.50%	28,932	86,699
10	59,788	3.50%	26,951	86,739
11	61,881	3.50%	24,900	86,781
12	64,047	3.50%	22,778	86,824
13	66,288	3.50%	20,581	86,869
14	68,609	3.50%	18,307	86,916
15	71,010	3.50%	15,954	86,964
16	73,495	3.50%	13,518	87,013
17	76,067	3.50%	10,997	87,065
18	78,730	3.50%	8,388	87,118
19	81,485	3.50%	5,688	87,173
20	84,337	3.50%	2,893	87,230
Total	**$1,240,589**		**$495,091**	**$1,735,680**

Note: Total principal amount is equal to the construction cost + 2% cost of issuance

APPENDIX I: APPARATUS PLAN AND IMPACT FEE

Inventory of Qualifying Apparatus

Inventory of Qualifying Apparatus							
Asset Description	**Equipment**	**Purchase Year**	**PV Cost**	**FV Cost**	**Apparatus Financing Costs**	**Impact Fee Non-Qualifying Cost**	**Impact Fee Qualifying Cost**
Future Apparatus	Fully Equipped	2018	$ 540,000	$ 581,820	$59,617.91	$ 255,194	$ 386,244
Total:			**$540,000**	**$581,820**	**$59,618**	**$255,194**	**$386,244**

Apparatus Fee Calculation

Apparatus Impact Fee Calculation for Private Non Residential Development	
Total Existing and Future Apparatus > $500,000	$386,244
Current Average Private Fire / EMS Calls*	906
Apparatus Cost per Call	$426.32
Fire / EMS Calls per kSF of General Commercial	0.140
Apparatus Cost per kSF of Private Non Residential Development	**$59.73**

**Apparatus costs are divided by current average calls due to shorter life span than fire stations*

Apparatus costing over $500,000 when purchased and equipped can be assessed to non-residential development on a square foot basis. Residential development cannot be assessed an apparatus fee. The costs of the apparatus are divided by the total calls within the service area, including residential, and industrial to calculate a fair average cost per call.

This average cost per call is then multiplied by the calls per 1,000 square feet of floorspace for non-residential land uses. The result is the fee that only non-residential land uses can pay per 1,000 Sf of floorspace.

Apparatus Deployment

Apparatus Inventory							
Apparatus	**Description**	**Year Acquired**	**Apparatus Cost**	**Equipment**	**Total**	**New Apparatus (Fully Equipped)**	**Impact Fee Qualifying Apparatus**
Brush 121	2004 Ford F550 Super Duty	2004	$ 40,325	$ 11,000	$ 51,325		$ -
Command 121	2008 Dodge Ram 2500	2007	25,453	3,200	28,653		-
Engine 121	1998 Pierce Pumper Truck Heavy	1997	171,862	38,000	209,862	540,000	540,000
Squad 121	2000 4700 LP 4x2 International	2008	38,000	9,800	47,800		-
Truck 121	2001 Pierce-Pacific Mfg Inc. Ladder Truck	2006	225,000	43,000	268,000		-
Brush 122	2000 Chevy GK3 GM4	1999	27,163	7,800	34,963		-
Engine 122	1989 Ford Fire Truck	1990	85,554	14,500	100,054		-
Brush 123	2000 Frht Med Conv FL70 Truck (Heavy Truck)	2011	22,000	6,000	28,000		-
			$ 635,357	$ 133,300	$ 768,657	$ 540,000	$ 540,000

APPENDIX J: LEVEL OF SERVICE

Fire / EMS

Time Frame	Floorspace	Current / Projected Calls	SF per Call
Current	10,706	906	11.82
Within 10 Years	12,500	1,304	9.59
Beyond 10 Years/ Buildout	12,500	2,277	5.49

Time Frame	Floorspace	Population	SF per Population
Current	10,706	8,187	1.31
Within 10 Years	12,500	11,259	1.11
Beyond 10 Years/ Buildout	**12,500**	**19,100**	**0.65**

Floor Space Level of Service

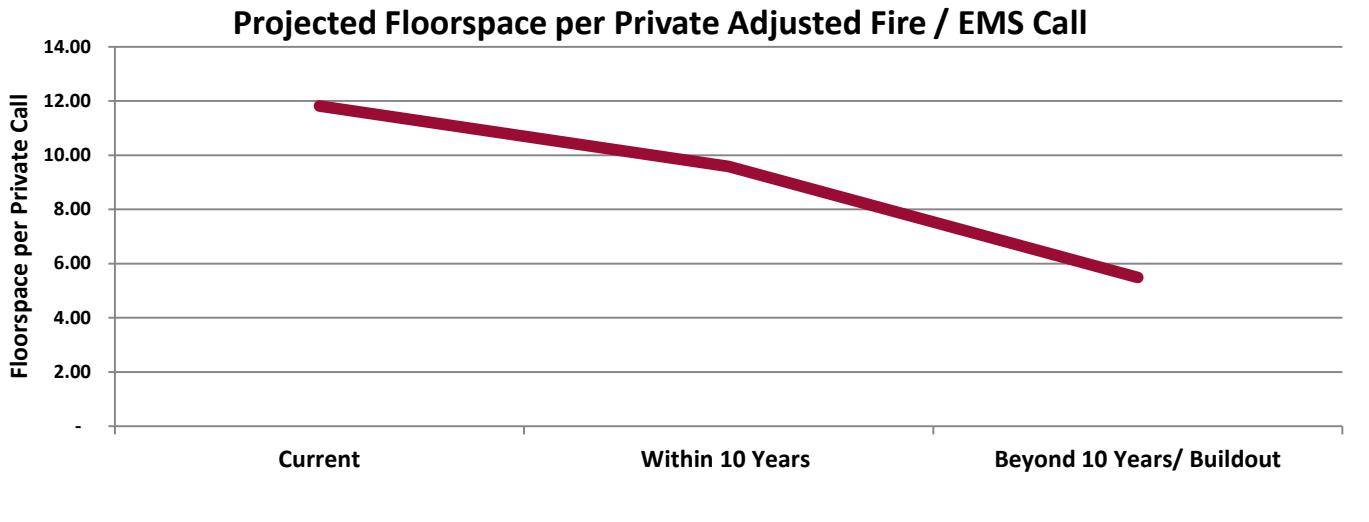
The City's level of service ("LOS") is based primarily on floorspace. The City currently provides 11.93 SF of floorspace per private fire / EMS call. The future projects to be built within the next ten years and through buildout will provide a buildout level of service of 7.94 SF per private fire / EMS call. Because impact fees cannot be used to increase a level of service and because the level of service drops slightly over time, the data demonstrates compliance

Response Time Level of Service

The City's level of service ("LOS") is based partially on response time. The City's goal is to provide first responder services to 90% of its territory within four minutes. This is the NFPA 1710 national standard for emergency call response times--four minutes being a critical turning point in the size of a fire and also in effectiveness of medical response.

Factors affecting response time include the number of calls for service and the location of the incidents relative to a fire station. As development occurs, the number of calls for service will increase, creating pressure on the existing response system. Also, new development of residential and business areas tend to occur in areas farther removed from an existing station.

The City intends to build its fire stations so that they are strategically located to provide a four minute response time.



APPENDIX K: PROPORTIONATE SHARE ANALYSIS

Summary of Fire / EMS Facilities

Time Frame	Station Floorspace	% of Buildout Floor Space	Station Capacities (Call)	2015 Calls to Stations	Future Calls to Stations	% to Serve Existing Users	% to Serve Future Growth
Existing	1,900	15.2%	346	346	-	100.0%	0.0%
Within 10 Years	10,600	84.8%	1,931	560	1,371	29.0%	71.0%
Beyond 10 Years	-	0.0%	-	-	-	0.0%	0.0%
At Buildout	**12,500**	**100.0%**	**2,277**	**906**	**1,371**	**39.8%**	**60.2%**
Existing	1,900	15.2%	346	346	-	0.0%	0.0%
Within 10 Years	10,600	84.8%	1,931	560	1,371	29.0%	71.0%
Existing and Within 10 Years	**12,500**	**100.0%**	**2,277**	**906**	**1,371**	**39.8%**	**60.2%**

Proportionate Share of Fire / EMS Facilities

Timeframe	Impact Fee Qualifying Cost of Facilities	% of Allocated to Future Development	Amount to be Paid by Future Growth
Existing	$ -	0.00%	$ -
Within 10 Years	1,382,582	28.99%	400,829
Total	**$ 1,382,582**	**14.50%**	**$ 400,829**

APPENDIX L: DEBT SERVICE CREDIT

CALCULATION OF PROJECT CREDITS

Year	Adjusted Calls	Existing Debt	Total Debt Service to Existing	Credit per Adjusted Call
2015	906		$ -	-
2016	950		-	-
2017	994	24,143	**24,143**	24
2018	1,039	24,152	**24,152**	23
2019	1,083	24,161	**24,161**	22
2020	1,127	24,170	**24,170**	21
2021	1,171	24,180	**24,180**	21
2022	1,216	24,189	**24,189**	20
2023	1,260	24,200	**24,200**	19
2024	1,304	24,210	**24,210**	19
2025	1,348	24,221	**24,221**	18
2026	1,393	24,232	**24,232**	17
2027	1,437	24,244	**24,244**	17
2028	1,481	24,256	**24,256**	16
2029	1,525	24,269	**24,269**	16
2030	1,570	24,282	**24,282**	15
2031	1,614	24,295	**24,295**	15
2032	1,658	24,309	**24,309**	15
2033	1,702	24,323	**24,323**	14
2034	1,746	24,338	**24,338**	14
2035	1,791	24,354	**24,354**	14
2036	1,835	24,370	**24,370**	13
2037	1,879	-	-	-
2038	1,923	-	-	-
2039	1,968	-	-	-
2040	2,012	-	-	-
2041	2,056	-	-	-
2042	2,100	-	-	-
2043	2,145	-	-	-
2044	2,189	-	-	-
2045	2,233	-	-	-
2046	2,277	-	-	-
		$ 484,899	**$ 484,899**	**$ 354**

APPENDIX M: COST PER FIRE CALL

Fire / EMS Impact Fee Cost per Call

Expense	Impact Fee Qualifying Cost	% to Growth to Buildout	Impact Fee Qualifying Cost Assigned to New Growth	Calls from Existing + 10 year Project Growth	Cost per Call
Fire Stations					
Existing Facilities	$ -	0.00%	$ -	1,371	$ -
Existing Debt Service (Interest)	-	0.00%	-	1,371	-
Future Facilities within 10 Years	1,159,428	71.01%	823,294	1,371	600
Future Debt Service (Interest)	477,087	71.01%	338,773	1,371	247
Total	**$1,636,515**		**$1,162,068**		**847**
Miscellaneous					
Credits					$ (354)
Impact Fee Fund Balance	-	-	-	-	-
Total Credits	**$ -**		**$ -**		**$ (354)**
Grand Total	**$1,636,515**		**$1,162,068**		**$493**

APPENDIX N: FINAL IMPACT FEE CALCULATION

Impact Fee Per Development Type

FIRE / EMS	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Residential Unit	$ 493	0.186	$ 91.76
Non Residential			
Commercial	493	0.140	69.07
Institutional	493	0.070	34.72
Commercial Apparatus Fee (kSF Floor Space)*	426	0.140	$ 59.73

**Apparatus Fee is charged to non-residential only*

Non Standard Development Impact Fee Calculation FIRE

FIRE / EMS Cost Per Call		Non Standard Development		Impact Fee Assessed
$493	x	# of Annual Calls Projected to be Created	=	Non-Standard Impact Fee