

AMERICAN FORK CITY
COUNCIL MEETING MINUTES
DECEMBER 4, 2014

WORK SESSION

ATTACHMENTS (4)

The purpose of City Work Sessions is to prepare the City Council for upcoming agenda items on future City Council Meetings. The Work Session is not an action item meeting. No one attending the meeting should rely on any discussion or any perceived consensus as action or authorization. These come only from the City Council Meeting.

The American Fork City Council met in a work session on Thursday, December 4, 2014, in the American Fork City Offices, 51 East Main Street, commencing at 3:30 p.m. Those present included Mayor James H. Hadfield and Councilmembers Carlton Bowen, Brad Frost, Jeff Shorter, and Clark Taylor. Councilman Rob Shelton was excused.

Staff present: Associate Planner Wendelin Knobloch
City Administrator Craig Whitehead
City Attorney Kasey Wright
City Engineer Andy Spencer
City Planner Adam Olsen
City Recorder Richard Colborn
Finance Director Cathy Jensen
Fire Marshal Doug Bateman
Parks & Recreation Director Derric Rykert
Public Relations/Economic Development Director Audra Sorensen
Public Works Director Dale Goodman
Streets Superintendent T.J. Warnick

Also present: Tienielle Tingey, Matt Millis, Barbara Christiansen, and Preston Kirk

PRESENTATION REGARDING THE IMPLEMENTATION OF BICYCLE AND PEDESTRIAN MASTER PLANS IN THE MOUNTAINLAND ASSOCIATION OF GOVERNMENTS' SERVICE AREA – Jim Price

This item removed from the agenda at the request of Jim Price.

DISCUSSION OF THE REFUNDING OF RDA BONDS – Preston Kirk

Preston Kirk, Vice President George K. Baum & Company, reported that about seven months ago they talked about ways to save the City money. They continue to track outstanding bonds. The City's Series 2005 RDA Bonds, actually issued as sales tax revenue bonds, on March 1, 2015, the City had the opportunity to prepay those bonds. They were looking at refunding those bonds with a private placement. He presented a fact sheet that is included in these minutes as **ATTACHMENT 1**. The red numbers represented bonds that the City had the option to prepay as of March 1, 2015. Those red numbers would be replaced with the green numbers. Savings realized would be around \$16,500 per year, contingent upon the interest rate. There would not be an Official Statement produced. A Parameters Resolution would be on the agenda for action at next Tuesday's Council meeting. It would provide parameters that as long as the placement fit

Councilman Frost suggested that this map be given a prominent place on the City's website.

Mr. Warnick responded that the map and the Snow Removal Policy were on the City's website.

With regard to snow packed roads, salt brine was a good alternative. (See Salt Brine Fact Sheet that is included in these minutes as **ATTACHMENT 3.**) They have the capability of adding salt brine to the rock salt. The benefit of doing it that way was the liquid made a chemical reaction with the salt the moment it was treated and it made the rock salt more effective when it hit the ground. If they get the ability to create their own brine they could start looking into some pretreatments.

Mayor Hadfield reported that UDOT has had great success using brine over Parley's Summit on I-80 and on I-15 through Salt Lake City before a snow event.

Mr. Warnick explained that the UDOT trucks pulling trailers were all outfitted with the brine solution treatment. It looked as though that was going to be a game changing operation in snow removal.

Councilman Frost asked how the brine added to the cost of snow removal.

Mr. Warnick responded that he had heard that it would save up to 30 percent on salt purchases per year.

Councilman Frost added that it was not known how many people it might save. There were other intangibles.

Mr. Warnick continued that brine dropped the melting temperature from 18 degrees down to about negative 6 degrees.

Mayor Hadfield noted that it became important after many days of freezing temperatures and the frost was being driven down deeper. He asked if there were any questions.

Councilman Bowen asked about the cost of the brine.

Mr. Warnick answered that there would be a startup cost to purchase a brine making machine. The 30 percent savings was on the cost of the salt itself.

Mayor Hadfield thought that in the long term it would pay for itself.

Councilman Frost asked if the City had a storage tank for the brine.

Mr. Warnick responded that the City did not. A storage tank was part of the brine making system. American Fork had arrangements with Lehi City to obtain brine at cost as they would be making brine this year.

Mayor Hadfield reported that the new truck the City just received was set up for brine distribution.

Councilman Bowen asked the cost of the brine making system.

Mr. Warnick answered that they were between \$70,000 and \$90,000. There were none on the State contract at the present time.

Mayor Hadfield thanked Mr. Warnick for his presentation.

DISCUSSION REGARDING MODIFICATIONS TO THE TRANSPORTATION IMPACT FEE AND THE ADDITION OF A STORM WATER IMPACT FEE – *Andy Spencer*

Matt Millis from Zions Bank provided a power point presentation that is included in these minutes as **ATTACHMENT 4**.

Mayor Hadfield noted that when they looked at this before there were many categories. The Council wanted to have fewer, broader categories.

Mr. Millis explained that back in August they had a developer informational meeting regarding these impact fees. Very few developers showed up. The proper noticing had been done and copies made available at the City Offices and at the American Fork Library.

Slide 3 showed the recommended Transportation and Storm Drain fees. Slide 6 showed the categories presented last August. Slide 7 was what was now being recommended.

With regard to new single family home impact fees for Transportation, Mr. Millis explained that they were looking at a \$714 increase. For Storm Drain the fee established would be about \$544.

Councilman Bowen asked why it was necessary to change the impact fees.

Mr. Millis responded that the law required the City to update its impact fees regularly to keep them current with current planning. There have been some changes to the State Law regarding impact fees that required looking at a shorter horizon than before. Cost inflation was also a driver. There was a need to have the impact fees well documented. The last time they were done was in 2007.

Kasey Wright expressed that they ought to be reviewed every three to four years.

Councilman Bowen asked if State Law required impact fees to be at a certain level.

Kasey Wright answered that it did not. Impact fees were designed so that current residents were not paying for future growth. A balance needed to be found and they needed to get it right.

Mr. Millis explained that plans used to go to build-out. Now it was a six to ten year horizon.

Mr. Spencer noted that individual businesses had the opportunity to do their own impact studies.

Mr. Millis added that previously there was a lot less effort put forth in calculating the buy-in value. This study was very extensive in that area.

Councilman Frost asked what if something did not fit in the box. He liked the appeal process. With regard to the public hearing on the 9th, he asked if they would solicit persons to come and participate in the process and go a step beyond just publishing notice and send special invitations.

Ms. Tingey reported that for the August 5th meeting individual invites were sent to homebuilders and big and small developers.

Mr. Millis reported that two persons turned out. They would send out another invitation.

Ms. Tingey addressed Storm Drain. Back in August the buy in was not really figured in. They went back and looked into that. They were able to find documented data and historic costs. With all that the cost went up to 17¢ per square foot. The Equivalent Residential Unit (ERU) was 3400 square feet.

Mayor Hadfield pointed out that the Ordinance was written in such a way that if someone felt that they had a difficulty they could go through a review and provide information to the City Engineer for his review.

Councilman Taylor stated that they were bringing the Storm Drain Impact Fee as a result of state mandates. He asked if the state was little heavy handed and were they asking more than they should.

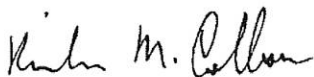
Mayor Hadfield explained that the state was complying with federal law. The EPA has said that this was the standard. It was an unfunded requirement by the federal government and the State had the responsibility of enforcement. The City had an inspection this past year and the City was working to meet those guidelines. He asked if there were any questions.

Councilman Frost asked about assessing a developer the storm drain impact fee and then requiring that they contain the water on their own property.

Mr. Spencer explained that storm water facilities were a requirement. Also every citizen benefitted from the City's storm water system. They were able to get to their homes on public roads. They benefitted whether they connected directly to the system or not.

ADJOURNMENT

The work session adjourned at 4:34 p.m.



Richard M. Colborn
City Recorder

Estimated Results

AMERICAN FORK CITY, UTAH
\$1,684,000 SALES TAX REVENUE REFUNDING BONDS
 SERIES JANUARY 29, 2015

Comparison of Bond Payments

Date	Outstanding 2005 Bonds				\$1,684,000 Sales Tax Refunding Bonds, 2015				Difference	Fiscal Total
	Principal	Coupon	Interest	Total P+I	Principal	Coupon	Interest	Total P+I		
01/29/2015	-	-	-	465,706.25	-	-	-	16,500.00	(16,500.00)	-
3/1/2015	420,000.00	5.000%	45,706.25	35,206.25	420,000.00	5.000%	12,745.33	432,745.33	32,960.92	16,460.92
9/1/2015	-	-	35,206.25	35,206.25	-	-	12,630.00	12,630.00	22,576.25	-
3/1/2016	430,000.00	4.125%	26,337.50	26,337.50	458,000.00	1.500%	9,195.00	470,630.00	(5,423.75)	17,152.50
9/1/2016	-	-	26,337.50	26,337.50	-	-	9,195.00	9,195.00	17,142.50	-
3/1/2017	400,000.00	4.250%	17,837.50	17,837.50	418,000.00	1.500%	6,060.00	427,195.00	(857.50)	16,285.00
9/1/2017	-	-	17,837.50	17,837.50	-	-	6,060.00	6,060.00	11,777.50	-
3/1/2018	415,000.00	4.250%	9,018.75	9,018.75	422,000.00	1.500%	2,895.00	428,060.00	4,777.50	16,555.00
9/1/2018	-	-	9,018.75	9,018.75	-	-	2,895.00	2,895.00	6,123.75	-
3/1/2019	390,000.00	4.625%	9,018.75	9,018.75	386,000.00	1.500%	2,895.00	388,895.00	10,123.75	16,247.50
Total	\$2,055,000.00	-	\$222,506.25	\$2,277,506.25	\$1,684,000.00	-	\$74,305.33	\$2,194,805.33	\$82,700.92	-

Yield Statistics

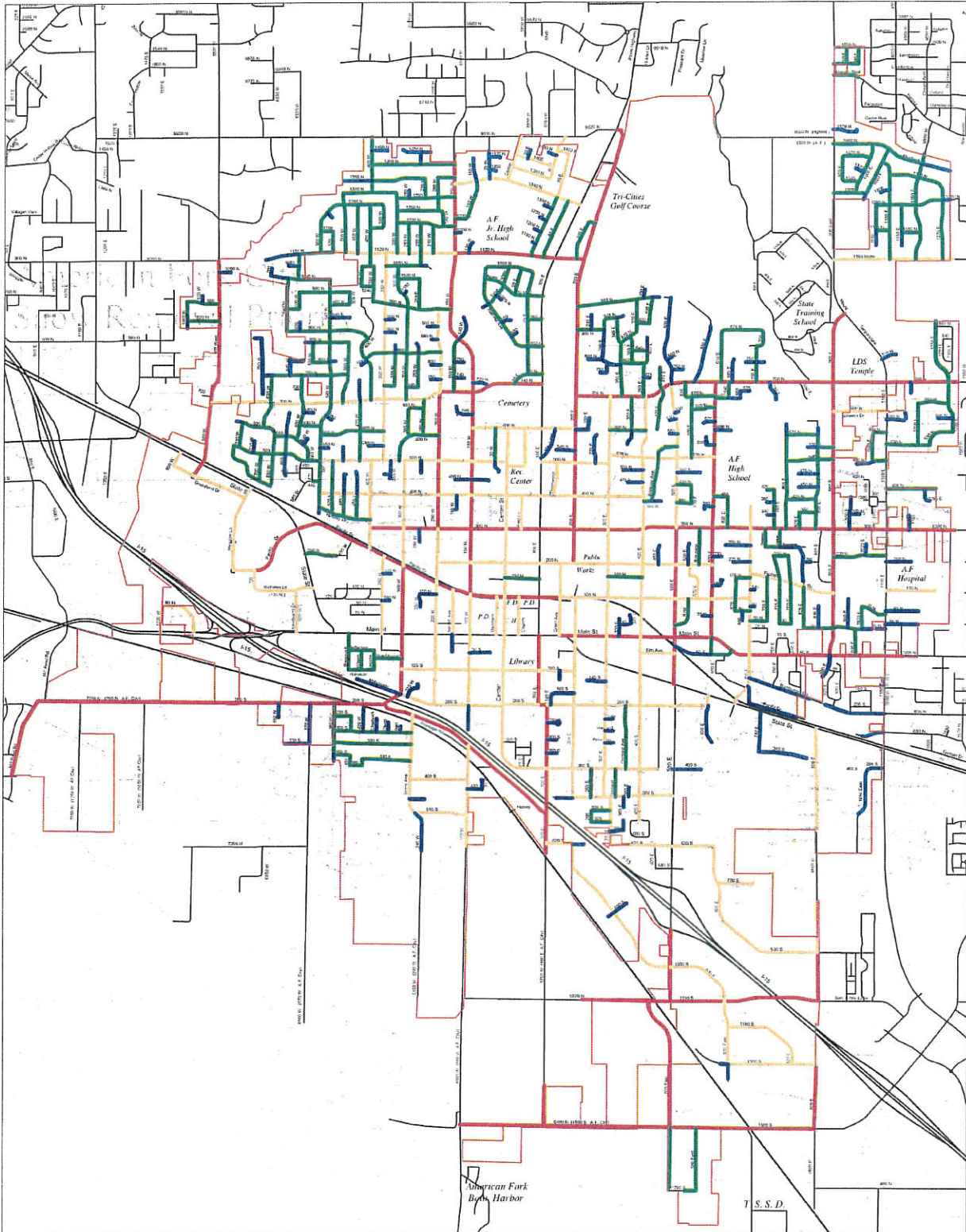
Closing Date.....	1/29/2015	Closing Date.....	1/29/2015
Average Life.....	2.052 Years	Average Life.....	1.987 Years
Average Coupon.....	4.3845465%	Average Coupon.....	1.5000000%

Green numbers are Series 2015 Refunding Bonds.
 Black numbers are unrefunded Series 2005 Bonds.





\$80,588.45 NPV Savings



American Fork City Snow Removal Priority



Legend

- Priority 1 
- Priority 2 
- Priority 3 
- Priority 4 

** All other roads are either private or are the responsibility of another entity



1 inch = 6 miles



Salt Brine Facts - Did You Know?

- Salt brine used as an anti-ice treatment hinders frozen precipitation's ability to bond with a road's surface.
- Salt brine used as an anti-ice treatment has proven to reduce annual rock salt consumption by as much as 30%. It reduces the number of deicing applications needed to achieve clear roads.
- Salt brine used in deicing efforts activates rock salt faster and reduces scatter.
- Salt brine that is 23.3% salt concentration by weight is the perfect (eutectic) brine. This precise concentration allows the brine to work in outside temperatures down to -6° F (-21° C).
- Salt brine can be produced for a little as \$0.10 per gallon.
- You can alter the characteristics of salt brine by blending it with different additives (CaCl, MgCl, KCl, beet juice, etc...).
- Roughly 5% of material loaded into a brine maker's salt hopper is material other than salt (non-dissolving).

IMPACT FEES UPDATE 2014

STORM AND ROADWAYS

AMERICAN FORK
DECEMBER 9, 2014

CURRENT/ PROPOSED IMPACT FEES

	Transportation	Storm Drain*
American Fork Current (Residential Dwellings)	\$ 1,348.39	N/A
American Fork Proposed (Residential Dwellings)	2,076.68	\$ 544

*Based on \$0.16 Per Impervious Square Foot for 3,400 Sf

STAKEHOLDER PARTICIPATION

- August 5th– Developer Informational Meeting
- Commenced Public Hearing Noticing Period
 - Drafts of the IFFP, IFA, and proposed ordinance placed in City offices and library
 - Electronic copies to be placed on the City's website
- December 9 – Public Hearing and possible adoption of the roadway and storm impact fee ordinance

ROADWAY IMPACT FEES

CHANGES TO THE ROADWAY FEES

- We met in August with the Council to address the best way to assess a roadway impact fee to non-residential users
- We created a list of very detailed occupancies and created a large disparity in the fee charged between the low and high impact users
- High impact users' impact fees were higher than what the Council felt comfortable with and alternate approaches were requested
- The proposed fees for discussion this afternoon have been developed to blend occupancies into three broad non-residential categories and reduce the high peak costs of high impact users.
- The following two tables are for reference. Please refer to handouts.

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ROAD IMPACT FEE – August 2014

Building Type / ITE Category	Cost per Trip	Peak Hr. PM	Unit of Measurement	Impact Fee per Unit
130 Industrial Park	\$3,405.98	0.16	1000 Sq. Feet Gross Floor Area	\$26.67
140 General Manufacturing *	\$3,405.98	0.30	1000 Sq. Feet Gross Floor Area	\$1,713.05
145 Warehouse / Distribution Center	\$3,405.98	0.30	1000 Sq. Feet Gross Floor Area	\$209.51
152 Warehouse / Distribution Center	\$3,405.98	0.08	1000 Sq. Feet Gross Floor Area	\$2,143.26
210 Single-Family / Detached Housing	\$3,405.98	0.62	Dwelling Unit	\$1,341.84
230 Multi-Family / High Density (Greater than 4 Units)	\$3,405.98	0.35	Dwelling Unit	\$1,201.64
240 Mobile Home / RV Park	\$3,405.98	0.30	Dwelling Unit	\$511.66
254 Assisted Living Center	\$3,405.98	0.15	Bed	\$7,504.45
444 Movie Theater / 10 Screens	\$3,405.98	2.19	1000 Sq. Feet Gross Floor Area	\$1,569.63
445 Movie Theater / 10 or More Screens	\$3,405.98	2.74	1000 Sq. Feet Gross Floor Area	\$2,544.26
450 Theater / 10 or More Screens	\$3,405.98	0.88	1000 Sq. Feet Gross Floor Area	\$1,135.64
520 Elementary School	\$3,405.98	0.57	1000 Sq. Feet Gross Floor Area	\$6,666.86
522 Middle School / Junior High School	\$3,405.98	0.25	1000 Sq. Feet Gross Floor Area	\$9,777.13
560 Church	\$3,405.98	0.42	1000 Sq. Feet Gross Floor Area	\$1,433.27
610 Hospital	\$3,405.98	0.20	1000 Sq. Feet Gross Floor Area	\$1,700.32
770 Business Park	\$3,405.98	0.26	1000 Sq. Feet Gross Floor Area	\$6,905.74
812 Building Materials and Lumber Store	\$3,405.98	1.01	1000 Sq. Feet Gross Floor Area	\$6,500.63
820 Warehouse / Distribution Center	\$3,405.98	1.79	1000 Sq. Feet Gross Floor Area	\$6,160.60
830 Specialty Retail Center	\$3,405.98	0.89	1000 Sq. Feet Gross Floor Area	\$5,034.90
848 Tire Store	\$3,405.98	1.22	1000 Sq. Feet Gross Floor Area	\$5,678.34
850 Supermarket	\$3,405.98	1.70	1000 Sq. Feet Gross Floor Area	\$5,192.55
854 Discount Groceries / Supercenter	\$3,405.98	2.14	1000 Sq. Feet Gross Floor Area	\$3,946.54
912 Bank / Financial Institution	\$3,405.98	3.66	1000 Sq. Feet Gross Floor Area	\$12,701.47
918 Hair / Nails / Massage / Beauty Store / Day Spa	\$3,405.98	0.51	1000 Sq. Feet Gross Floor Area	\$1,774.23
932 Restaurant, Sit-Down (High-Turnover)	\$3,405.98	4.01	1000 Sq. Feet Gross Floor Area	\$13,981.30
934 Restaurant with Drive-Through Window	\$3,405.98	10.03	1000 Sq. Feet Gross Floor Area	\$24,666.66
944 Convenience Store	\$3,405.98	2.74	1000 Sq. Feet Gross Floor Area	\$6,605.07
945 Convenience Store with Convenience Store	\$3,405.98	5.96	1000 Sq. Feet Gross Floor Area	\$20,666.77
946 Automobile Detail Shop	\$3,405.98	2.74	1000 Sq. Feet Gross Floor Area	\$6,605.07
948 Automobile Detail Shop	\$3,405.98	2.12	1000 Sq. Feet Gross Floor Area	\$7,219.27

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ROAD IMPACT FEE – Proposed

Category	Cost per Trip	Hr. Average Trips	Unit of Measurement	Impact Fee per Unit
Residential Category				
Single-Family, Detached Housing	\$3,348.62	0.62	Dwelling Unit	\$ 2,076.88
Multi-Family, High Density	\$3,348.62	0.35	Dwelling Unit	1,174.35
General Non-Residential Category				
Hotel	\$3,348.62	0.32	Room	\$ 1,069.27
School - In-charge of ITE Categories 520-522	\$3,348.62	0.53	1000 Sq. Feet Gross Floor Area	1,759.26
Non-Residential Category - Less than 1 Trip per 1000 Square Feet	\$3,348.62	0.50	1000 Sq. Feet Gross Floor Area	1,674.31
Non-Residential Category - 1 to 2 Trips per 1000 Square Feet	\$3,348.62	1.56	1000 Sq. Feet Gross Floor Area	5,122.93
Non-Residential Category - 3 or More than 2 Trips per 1,000 Square Feet	\$3,348.62	3.50	1000 Sq. Feet Gross Floor Area	11,220.18

Category 1 may include occupancies such as: Warehouse, Distribution Center, Storage Units, Industrial Park, General Office Building, Church, Business Park, General Manufacturing, Hotel, Motel, Massage, Beauty Salon, Day Spa, Shopping Center, Retail Store, Automobile Detail Shop, Automobile Detail Shop, Tire Store, Car Wash.

Category 2 may include occupancies such as: Day Care Center, Medical Clinic, Office Building, Supermarket, Sports and Recreation Center, Bar/Club, Car Wash.

Category 3 may include occupancies such as: Health Fairs Club, Billiards, Barber and Beauty Shop, Automobile Detail Shop, Discount Store, Supercenter, Motel, Theater, 10 Screens, Movie, Theater, 10 or More Screens, Nuts and Bolts Center, Restaurant Sit-Down, Low Turnover, 10 or More Tables, Bar - Fast Casual, High-Turnover, Restaurant Sit-Down, High-Turnover, Casino Service Station, Restaurant Drive-Through Window, Con-Entertainment.

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ROAD FEE COMPS

Residential Impact Fees	Non Residential
Saratoga Springs	2,500
American Fork Current	1,348
American Fork Proposed	2,077
Lehi	1,435
Pleasant Grove	1,564
Syracuse	1,131
Provo	986
West Jordan	3,577
Riverbton	764
Draper	1,447
Draper - Traverse Mtn	2,050
Average	1,716

*Roads based on Sit-Down Restaurant Category

Spanish Fork no fee assessed

Mapleblon no fee assessed

Spanish Fork no fee assessed

Mapleblon no fee assessed

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CHANGES TO THE STORM DRAIN FEES

- The City Engineer and Zions Bank Public Finance reevaluated existing infrastructure and capacity to serve future development.
- It is required that historic cost data be used in calculating the buy in. We were able to gather 5 projects with good data.

Date Acquired	Description	Historic Cost	Ag % Current Capacity Available
2013/36	Storm Drain to 200 East	65,000	50%
1966/700	North Storm Drain	-	20%
2014/	South - North Park	12,000	50%
	300 West 24" Pipe @ I-15 Crossing	94,000	80%
	Silt Storage Facility	900,000	50%
2014/	Star Mill Area Storm Drain	50,000	20%
Impact Fee Qualifying			\$ 1,121,003 \$ 573,700

*SOURCE: ARIZONA/CITY

- \$573,700 buy in was included in the impact fee analysis.

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STORM DRAIN FEE

IFFP Projects	Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERUs to be Saved	Cost per Acre
Buy In - Existing Assets	33,129,606	19%	6,298,630	897	6,956
Subtotal	1,121,003	51%	573,700	897	640
Total Impact Fee Per Acre (49,560 Sq Feet)	34,250,609	20%	6,812,550		7,566
Fee per Impervious Square foot					\$ 0.17

Change due to added buy in component.

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STORM DRAIN FEE COMPS

Residential Impact Fees		Non Residential	
Saratoga Springs (Per Unit)	\$	Saratoga Springs*	\$
American Fork Current		NA	NA
American Fork Proposed**		578	7,595
Lehi*		325	1,300
Pleasant Grove**		212	2,713
Provo (Per Unit)		890	12,197
West Jordan**		474	19,128
Riverton**		938	12,015
Drapeer (Corner Canyon Basin, Per Unit)	1,215	Drapeer (Corner Canyon Basin)**	3,312

*Per Acre (25 Acre minimum)

**Based on 3,400 Sq Ft Impervious

*Per ERU

**Per Acre

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INPUT & DISCUSSION

Contact us at:

Matt Millis 801.935.0337 matthew.millis@zionsbank.com
 Tenille Tingey 801.844.8368 tenille.tingey@zionsbank.com

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CAPITAL PROJECTS - FEE

Component	Ten Year Growth in PM/Peak Hour Trips	Cost	Cost Per Trip
Existing Roadway System Improvements (Buyin Component)	20,273	\$7,753,090	\$382.43
Ten Year Roadway System Improvements	20,273	\$47,965,495	\$2,367.46
Ten Year Growth's Share of the Cost of Anticipated Debt Financing*	20,273	\$14,314,523	\$706.09
Total		\$70,063,108	\$3,455.98

* This is the cost of insurance plus interest payments multiplied by the % to Ten Year Growth

- Single Family Home: \$2,143 per Unit
- Multi-Family, 4 Units or less: \$1,092 per Unit
- Multi-Family, > 4 Units: \$1,341
- Non-Residential impact fees determined based upon occupancy and ITE trip generation data

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REFERENCE

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IMPACT FEES ANALYSIS

- Review of Demand
- Review of Capital Facilities needed to Meet Demand within 10 Year Timeframe
- Proportionate Share Analysis
 - Buy-In Capacity and Cost
 - Uses Historic Cost Basis
 - New Construction
 - Uses Current Costs
 - An inflationary component is included for future projects based on a 10 year Bureau of Labor Statistics average.

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APPROACH

- STAKEHOLDER PARTICIPATION PROCESS
- CURRENT AF IMPACT FEE COMPARED WITH PROPOSED FEES
- IMPACT FEE ANALYSIS (IFA) – 10 YR
 - FINANCING ANALYSIS
- CHANGES TO IMPACT FEE METHODOLOGY
 - DEMAND
- LEVEL OF SERVICE
- INPUT AND DISCUSSION

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IMPACT FEE METHODOLOGY

- Impact fee calculation based on future capital projects – limited to a six to ten year horizon
 - As done in the past, no repair and replacement projects included – only growth related projects or portions of projects are included.
- Careful review of assets:
 - Historic costs included for buy-in capacity
 - As before, no project improvements considered
- Only City funded or exacted system improvements may be included
 - Example: park land acquired through density credits is not included

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LEVEL OF SERVICE - ROADS

- Levels of Service:
- Traffic levels of service are based upon the level of congestion and delay in the movement of traffic at peak PM periods
 - A standard of "C" or "D" is considered acceptable for an urban area such as American Fork
 - City currently maintains a level of service C
 - IFFP projects plan for a level of service D
 - Impact fees reflect a reduction in level of service rather than the continuation of the current standard

Roadway/Infrastructure Category	Historical LOS	2023 LOS	2040 LOS
System Streets	C	D	D
Local Streets	C	C	C

Source: American Fork, Grand Plan, Transportation Bureau 2013, American Fork, Public Works Department, Horvath Engineers

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CAPITAL PROJECTS - ROADS

- Using projects within the ten year construction horizon
- All existing assets prices discounted to 1993 dollars and separated by project and system improvements
- Cost of first 60' of roadway removed as it is assumed to be developer funded
- Cost of two future financings are considered (4.5% coupon)
- Excluding UDOT projects and grant funding

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CAPITAL PROJECTS - ROADS

Project	Ranking or Location	Total Project Costs	Average Construction Year Cost**	% to Ten Year Growth**	Amount to Ten Year Growth**
Upgrades to Major Collector (2 to 3 Lanes)	1120 North	\$12,253,000	\$14,785,633	8%	\$1,320,688.76
Intersection Improvement	500 West & Cassland Dr	\$2,345,000	\$2,762,897	70%	\$1,666,547.94
New Major Collector (3 Lanes)	700 North	\$1,172,000	\$2,671,910	99%	\$2,569,300.32
When to Retail (5 Lanes)	500 West	\$3,950,000	\$4,048,071	59%	\$2,382,008.97
When to Retail (5 Lanes)	500 East	\$3,020,000	\$3,726,766	39%	\$1,348,741.49
Extension of Major Collector (2 Lanes) with new Railroad Crossing	500 West	\$2,020,000	\$2,491,168	99%	\$2,347,119.06
Intersection Improvement	700 North & 500 East	\$765,000	\$965,728	49%	\$475,659.66
Upgrades to Major Collector (2 to 3 Lanes)	700 North	\$7,480,000	\$9,077,245	52%	\$4,759,696.38
New Major Collector (2 Lanes)	1100 North	\$2,890,000	\$3,034,301	31%	\$939,826.86
When to Retail (5 Lanes)	1100 East	\$920,000	\$981,726	49%	\$475,659.66
Intersection Improvement	200 East & Main St/State St	\$3,420,000	\$11,258,107	69%	\$8,336,967.11
When to Retail (5 Lanes)	620 South	\$1,380,000	\$1,653,419	76%	\$1,420,041.94
New Major Collector (3 Lanes)	Pacific Dr	\$2,920,000	\$10,339,220	69%	\$7,515,392.25
Total Overall		\$6,063,000	\$6,033,220	60%	\$7,281,460

Source: Zions Bank Public Finance Department / Street Engineers
 **When to Retail projects are based on the 10-year construction period for each project
 ***% to 10 Year Growth is based on total cost of \$250 million. 20% is assumed for retention/retention of the roadway infrastructure.

- Approximately 60% of the total ten year capital projects are included in the impact fee (\$48M of \$80.3M)

LEVEL OF SERVICE - STORM

- Levels of Service:
 - Storm Drain: Fee assessed per impervious surface square feet
 - Projects based on the following criteria:
 - Storm Drain Pipelines – Storm drain pipelines are not allowed to surcharge to within two feet from the ground surface during the 4 percent annual chance (25-year) design Storm drain pipes (other than laterals) are also not to be smaller than 18 inches in diameter. Storm drain laterals may be 15-inches. To qualify as a lateral, a storm drain pipe must be connected to inlet box, be generally perpendicular to the overall direction of storm drain flow, and be less than 100 feet.
 - Open Channels – In general, large open channels (such as Mitchell's Hollow, the Meadow's Wetland, Spring Creek, or the American Fork River) should have at least two feet of freeboard during the 100-year storm event. Open channels should also have protective lining. If velocities are less than 4 ft per second (ft/s), the channel may be grass lined.
 - Detention/Retention Basins – Detention/retention facilities need to have capacity for the 100-year storm, with at least one foot of freeboard, and have an emergency overflow that directs water away from private property. Retention is only allowed in areas outside the City's designated sensitive lands area.

CAPITAL PROJECTS - STORM

Projects	Construction Year Cost	% to 10 Year Growth	Cost to Ten Year Growth
45,375 Feet of Pipe	15,450,634	59%	846,804
62,021 Feet of Pipe	17,678,972	31%	5,392,086
Total	\$ 33,129,606	19%	\$ 6,238,890