A black and white photograph of the Zions Bank building facade. The image shows classical architectural elements including a large column with a Corinthian capital, a pediment with the word 'ZIONS' carved into it, and a stone relief sculpture of a figure holding a scroll. The building is made of light-colored stone or concrete.

**HIGHLAND, UTAH**

*NOTICING DRAFT*  
**TRANSPORTATION IMPACT FEE  
ANALYSIS**

**PREPARED BY**  
**ZIONS BANK PUBLIC FINANCE**

**APRIL 14, 2015**



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## EXECUTIVE SUMMARY

Highland City, Utah (the City) recently commissioned InterPlan to prepare the *Highland City Transportation Impact Fee Facilities Plan* (IFFP) dated April 2015. The City has also retained Zions Public Finance, Inc. (Zions) to calculate the City’s transportation impact fees in accordance with the IFFP and Utah State Law. An impact fee is a one-time charge to new development to reimburse the City for the cost of developing roadway infrastructure that will serve future development. The impact fee will be assessed to a single, city-wide service area (Service Area). Traffic from areas outside of the City, referred to as pass through traffic, is considered non-impact fee qualifying demand.

Much of Highland City’s roadways have been built by Utah County, However, the City did contribute engineering and planning to the projects expending approximately \$8,278,410 overall to construct City roadway facilities however only \$234,903 of the total investment is impact fee qualifying. The majority of existing roadways have significant capacity to serve new growth for the next ten years or beyond but the City will need to build another \$9,464,235 (FV) of new or expansionary roadway projects in the next ten years. The City has no debt outstanding related to the construction of roadways but anticipates issuing debt in approximately 2020 to help fund future improvements. The total impact fee qualifying cost of ten year improvements is estimated to be \$7,422,687, or about 37% of the anticipated cost of qualifying improvements.

FIGURE ES.1: COST PER TRIP CALCULATION

Component	Total Cost	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Trips)	Cost per Trip End
<b>Roadway Impact Fee</b>					
Future 10 Year Capital Projects	\$ 9,464,235	61.32%	\$ 5,803,302	17,008	\$ 341
Future Growth Related Debt to be Issued - Interest Only	2,192,631	61.32%	1,344,483	17,008	79
Existing Infrastructure	8,278,410	2.84%	234,903	17,008	14
Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
<b>Roadway Impact Fee Subtotal</b>	<b>\$ 19,935,276</b>		<b>\$ 7,382,687</b>		<b>\$ 434.06</b>
<b>Professional Services / Credits</b>					
Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
Professional Services / Credits	40,000	100%	40,000	17,008	2
<b>Professional Services / Credits Subtotal</b>	<b>40,000</b>		<b>40,000</b>		<b>\$ 2</b>
<b>Total Impact Fee Per Trip</b>	<b>\$ 19,975,276</b>		<b>\$ 7,422,687</b>		<b>\$ 436.42</b>

### Recommended Transportation Impact Fees

As shown in Figure ES.1, the cost per trip has been calculated as \$436.42. Demand equivalencies have been determined for residential and non-residential demand based on the International Transportation Engineers (ITE) Trip Generation manuals. Figure ES.2 shows the maximum transportation impact fee for various types of residential and non-residential development.



FIGURE ES.2: MAXIMUM TRANSPORTATION IMPACT FEE SCHEDULE

Land Use	Code	Unit	ITE Trip Generation Rate	Daily Trip Rate (1/2 ITE Rate)	Primary Trips	Daily REU	Total Transportation Impact Fee (Per Unit)
<b>Residential</b>							
Single-Family	210	Dwelling Unit	9.55	4.78	100%	1.0	\$ 2,084
Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	0.6	1,268
Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	0.7	1,451
<b>Retail / Commercial</b>							
General Retail Small (<90,000 sq ft)	820	1000 sq	111.14	55.57	43%	5.0	\$ 10,428
General Retail Large (>90,000 sq ft)	820	1000 sq	46.7	23.35	43%	2.1	4,382
Convenience Store w/ Gas Pumps	853	1000 sq	845.6	422.80	16%	14.2	29,523
Drive-In Bank	912	1000 sq	148.15	74.08	27%	4.2	8,728
Fast Food Restaurant w/ Drive-Thru	934	1000 sq	496.12	248.06	30%	15.6	32,477
Sit-Down Restaurant	932	1000 sq	127.15	63.58	37%	4.9	10,266
Multiplex Movie Theater	445	1000 sq	63.0935	31.55	75%	5.0	10,326
Hotel / Motel	603	Rooms	8.17	4.09	100%	0.9	1,783
<b>Office / Institutional</b>							
General Office	710	1000 sq	11.03	5.52	100%	1.2	\$ 2,407
Medical Office	720	1000 sq	36.13	18.07	100%	3.8	7,884
Hospital	610	1000 sq	13.22	6.61	100%	1.4	2,885
Nursing Home	620	1000 sq	7.6	3.80	100%	0.8	1,658
Assisted Living	254	Occupied Bed	2.74	1.37	100%	0.3	598
Church / Synagogue	560	1000 sq	9.11	4.56	100%	1.0	1,988
Day Care Center	565	1000 sq	74.06	37.03	10%	0.8	1,616
Elementary School	520	1000 sq	15.43	7.72	50%	0.8	1,683
High School	530	1000 sq	12.89	6.45	50%	0.7	1,406
<b>Industrial</b>							
General Light Industrial	110	1000 sq	6.97	3.49	100%	0.7	\$ 1,521
Business Park	770	Employees	4.04	2.02	100%	0.4	882
Warehouse	150	1000 sq	3.56	1.78	100%	0.4	777
Mini-Warehouse	151	1000 sq	2.5	1.25	100%	0.3	546

Source: ITE Trip Generation 9th Edition; Note: Pass by trip adjustments are based on ITE sample data where available

Figure ES.3 provides a calculation of the impact fee for a non-standard user that may not fit the schedule found in ES.2. It is at the Council’s discretion if the non-standard calculation will be used. Otherwise the fees shown in ES.3 will be charged.

FIGURE ES.3: CALCULATION OF NON-STANDARD TRANSPORTATION IMPACT FEE

<b>Steps in Calculating a Non-Standard Fee</b>
Step 1: Determine the expected Average Daily Trips (ADT) for the development
Step 2: Determine the percentage of ADT that are primary trips (1- % pass-by traffic)
Step 3: Multiple ADT by the Percent Primary Trips by \$436.42

The recommended impact fee structure presented in this analysis has been prepared to satisfy the Impact Fees Act, Utah Code Ann. § 11-36-101 et. Seq. (the “Act”), and represents the maximum transportation impact fees that the City may assess within the Service Area. The City will be required to use other revenue



sources to fund projects identified in the IFFP that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service of “D” for current users.

## Canal Boulevard Project

It is possible that the City will receive funding from Utah County/UDOT to construct a portion of the Canal Blvd improvements. If a project is funded by another entity at no cost to the City then that portion of the project is not impact fee eligible. The impact fee will be adjusted for grant funding to the extent it is received.

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# CHAPTER 1: OVERVIEW OF THE TRANSPORTATION IMPACT FEES

## Why Assess an Impact Fee?

An impact fee is a one-time fee, not a tax, charged to new development to recover the City's cost of constructing roadways with capacity that new growth will utilize. The fee is assessed at the time of building permit issuance as a condition of development approval. The calculation of the impact fee must strictly follow the Impact Fees Act to ensure that the fee is equitable and fair. This analysis shows that there is a fair comparison between the impact fee charged to new development and the impact the new development will have upon the system in terms of taking available capacity. An impact fee cannot include any cost related to existing user demand, such as repair and replacement costs.

This analysis provides documentation that there is a fair comparison, or rational nexus, between the impact fee charged to new development and the impact on the capacity of the system. Impact fees are charged to different types of development and the impact fee is scaled according to different levels of demand.

## Costs Included in the Impact Fee

The primary roadway facilities considered in this analysis are the acquisition of right of way, construction of roadways, intersection improvements, signaling and other associated costs such as engineering, planning and legal fees. Other roadway improvements not listed may be qualifying if they are required to expand roadway capacity for new growth and are funded by the City.

The impact fees proposed in the Transportation Impact Fee Analysis are calculated based upon the costs of constructing:

- New facilities required to maintain (but not exceed) the proposed level of service of "D" identified in the IFFP; projects to be built within ten years are considered in the final calculations of the impact fee
- Interest costs related to existing and future debt associated with facilities that will serve new development
- Historic costs of existing facilities directly funded by the City or built through reimbursement agreements that will serve new development
- Cost of professional services for engineering, planning, and preparation of the impact fee facilities plan and impact fee analysis

## Costs Not Included in the Impact Fee

- Operational and maintenance costs including sealing, overlays, etc.
- Cost of facilities constructed beyond 10 years
- Costs of UDOT or county roads that have not been funded by the City
- Cost of facilities funded by grants or other sources which the City is not required to repay
- Cost of renovating or reconstructing facilities which do not provide new capacity or needed enhancement of services to serve future development
- Project level roadway improvements constructed by developers



## How Are the Impact Fees Calculated?

A fair roadway impact fee is calculated by dividing the cost of unused capacity in the existing and future roadway facilities by the number of new trip ends that will benefit from the unused capacity. Only the City's cost of capacity that is needed to serve the projected growth that will occur in the next ten years is included in the fee. The proposed impact fees are comprised of the costs of future and existing capital projects that benefit additional development within the Service Area, interest expense of bonds that have been issued to fund growth-related projects, and professional expenses pertaining to the regular update of the IFFP and Impact Fee Analysis.

## Description of the Service Area

The impact fee has been calculated for one service area which is comprised of the incorporated boundaries of Highland City. The impact fees exclude the costs of capacity related to pass-through traffic that originates and ends outside of the City boundaries.

## Cost per Trip End

The unit of measurement used for transportation is the cost per trip end. A trip end is a single or one-directional vehicle movement to or from a particular site or development or the end point or destination of a trip. This analysis uses average daily trips that are attracted to a particular land use. They consider only trips that are entering and that are primary trips. Primary trips are the trip ends to a place that is considered to be the intended destination of the trip. Stops along the way to the primary destination are called pass-by trips. An example of a primary trip might be a car that leaves home to head to a grocery store. If the car stops at a gas station along the way on the primary route then the visit to the gas station is a pass by trip. If the car leaves the primary route to the grocery store and drives along an adjacent route then this is a diverted trip and is equivalent to a pass-by trip and not a primary trip.

Pass by trips, including diverted trips (trips that are diverted from nearby roadways onto adjacent streets), are not included as they are an intermediate stop on the way to a primary destination. Trip end analysis in this impact fee analysis focuses on primary trips.

The general impact fee methodology divides the available capacity of existing and future capital projects between the number of existing and future trips the projects can serve. The impact fee is then calculated based on a cost per trip end. According to ITE trip generation rates, a single family residential unit generates 9.55 trip ends per day.

## Project Costs and Financing

The City plans a number of transportation projects to meet future demand. A portion of the improvements have been allocated to ten year growth and included in the impact fee. It is anticipated that the City will issue debt in 2020 for approximately \$6.8M to fund projects.



## CHAPTER 2: IMPACT FROM GROWTH UPON THE CITY’S FACILITIES AND LEVEL OF SERVICE

### Future Demand within the Service Area

Transportation demand within the City will increase as development activity rebounds and homes and businesses are built. Currently the City has 85,264 daily trip ends which are expected to grow by 17,008 to a total of 102,272 daily trip ends by 2024. The trip end calculation is net of the pass by trips that are not generated by Highland City residents. Only the increased demand from new Highland City growth will be included in impact fee calculations.

FIGURE 2.1: PROJECTED GROWTH IN TRIP ENDS

Year	Population	Annualized Growth	Total Daily Trip Ends	Annualized Growth
2015	17,355		85,264	
2016	17,617	0.15%	87,153	0.22%
2017	17,879	0.15%	89,043	0.21%
2018	18,141	0.15%	90,933	0.21%
2019	18,403	0.14%	92,823	0.21%
2020	18,665	0.14%	94,713	0.20%
2021	18,927	0.14%	96,603	0.20%
2022	19,189	0.14%	98,492	0.19%
2023	19,451	0.14%	100,382	0.19%
2024	19,713	0.13%	102,272	0.19%
Ten Year Growth	2,358	0.14%	17,008	0.20%

Source: 2015 Transportation Impact Fee Analysis Prepared by InterPlan

Assumes Total Daily Trip Ends

### Level of Service Analysis

The Utah State Impact Fees Act makes it clear that impact fees cannot be used to increase the quality of public services and infrastructure for existing property owners at the expense of incoming property owners. Impact fees can only be used to perpetuate the same quality of infrastructure and services that are currently offered. In order to demonstrate that this is the case, it has become a common practice for entities assessing an impact fee to identify a Level of Service (LOS) which cannot be exceeded. The LOS is, simply stated, the demand placed upon existing public services and infrastructure by existing property owners.

Transportation level of service is identified in the IFFP as ranging from LOS “A” (free-flow traffic operations) to LOS “F” (where conditions are such that demand exceeds capacity). According to Highland City policy, all City roads are required to maintain at least a LOS “D”. Impact fees are calculated according to LOS “D”.



### Pass Through Traffic

It is important to note that some of the roadway infrastructure usage in the City is due to pass through traffic, or traffic that has a destination beyond the impact fee service area. Demand associated with pass through is not associated with existing or current Highland City residents and was excluded from the impact fee calculation.

### Pass By Traffic

Pass by traffic are the stops along the way to a primary destination. An example would be a stop at a convenience store on the way to another destination. For the purpose of this analysis only trips to primary destinations are measured in order to classify trips according to which type of land use generated the trip.

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## CHAPTER 3: FUTURE AND HISTORIC CAPITAL PROJECTS COSTS

The Impact Fees Act allows for the inclusion of various cost components in the calculation of the impact fees. These cost components are the construction costs of growth-driven improvements and appropriate professional services inflated from current dollars to construction year costs. Impact fees can only fund system improvements which are defined as facilities or lines that contribute to the entire system’s capacity rather than just to a small, localized area. The City does not have any debt outstanding related to the Transportation system but does anticipate issuing a bond in 2020 and a portion of the interest related to that bond will be included in the impact fee calculation.

### Existing Capacities Available for Growth

Existing roadway capacity and 10 year capacity estimates were provided by InterPlan. The City has expended approximately \$8,278,410 to construct existing roadway infrastructure. Based on data provided by InterPlan, 2.84% of existing infrastructure cost is attributable to ten year growth; therefore, \$234,903 was included in the impact fee calculation.

Figure 3.1: Existing Capacity

Description	Cost	2015 Volume	2015 Capacity	2025 Volume	Beyond 10 Year	Utilized	2025	Beyond 10 Year	Cost to 10 Year Growth
11800 North (Highland Blvd to 6000 West)	\$ -	4,485	11,200	9,420	1,780	40%	44%	16%	\$ -
11800 North (6000 West to East City Boundary)	-	4,485	11,200	9,520	1,680	40%	45%	15%	-
11200 North (6000 West to 5710 West)	-	750	11,200	890	10,310	7%	1%	92%	-
11200 North (5850 West to SR-74)	-	2,610	11,200	920	10,280	23%	-15%	92%	-
11200 North (SR-74 to 4800 West)	-	2,900	11,200	3,000	8,200	26%	1%	73%	-
10400 North (1200 East to 6000 West)	-	1,840	11,200	3,380	7,820	16%	14%	70%	-
10400 North (6000 West to SR-74)	-	1,840	11,200	4,820	6,380	16%	27%	57%	-
9860 North (6800 West to 6630 West)	-	1,000	11,200	1,870	9,330	9%	8%	83%	-
9860 North (Mountain View Drive to 6000 West)	-	1,000	11,200	990	10,210	9%	0%	91%	-
9860 North (6000 West to SR-74)	768,135	1,910	11,200	3,240	7,960	17%	12%	71%	91,216
9600 North (West City Boundary to 6000 West)	-	2,255	11,200	3,680	7,520	20%	13%	67%	-
9600 North (6000 West to SR-74)	-	2,255	11,200	2,280	8,920	20%	0%	80%	-
Highland Blvd (North City Boundary to SR-92)	-	3,810	17,500	9,830	7,670	22%	34%	44%	-
6800 West (10400 North to 9600 North)	-	4,260	11,200	4,620	6,580	38%	3%	59%	-
6800 West (9600 North to South City Boundary)	-	4,760	11,200	4,500	6,700	43%	-2%	60%	-
6400 West (SR-92 to 10400 North)	-	1,420	11,200	2,050	9,150	13%	6%	82%	-
6000 West (11800 North to SR-92)	-	4,485	11,200	4,560	6,640	40%	1%	59%	-
6000 West (SR-92 to 10400 North)	-	3,545	11,200	7,370	3,830	32%	34%	34%	-
6000 West (10400 North to 9600 North)	-	3,545	11,200	4,290	6,910	32%	7%	62%	-
6000 West (9600 North to South City Boundary)	-	3,865	11,200	6,080	5,120	35%	20%	46%	-
5600 West (11200 North to SR-92)	-	2,840	11,200	5,260	5,940	25%	22%	53%	-
5600 West (SR-92 to 10400 North)	396,995	3,110	11,200	4,020	7,180	28%	8%	64%	32,256
4800 West (North City Boundary to SR-92)	-	12,725	17,500	15,870	1,630	73%	18%	9%	-
4800 West (SR-92 to Cedar Hills Drive)	573,232	12,400	41,000	20,370	20,630	30%	19%	50%	111,431
4800 West (Cedar Hills Drive to South City Boundary)	-	9,025	41,000	26,620	14,380	22%	43%	35%	-
<b>Total</b>	<b>\$ 1,738,362</b>								<b>\$ 234,903</b>



## Future Project Capacities Available for Growth

The costs of future capital projects are defined in the corresponding Impact Fees Facilities Plan prepared by InterPlan and are summarized in Figure 3.2. Some of the projects the City has planned will not be built to full planned width and number of lanes within the impact fee planning horizon. Only the improvements that will be constructed within the planning window are included in the impact fee calculation. Planned projects include: road widening, construction of traffic signals and other growth-related system improvements.

FIGURE 3.2: CAPITAL PROJECT COSTS TO BE FUNDED THROUGH IMPACT FEES

Project Name	Project ID	Year to be Constructed	2015 Cost	Construction Costs	Cost to Existing/ Non-Qualifying	Cost to 10 Year Growth	Cost to Growth Beyond 10 Years
11200 N 2 Lane Collector	A1	2020	\$ 324,850	\$ 381,698	\$ 5,837	\$ 354,492	\$ 21,369
Madison Ave/9860 N 2 Lane Collector	B1	2020	1,129,819	1,327,537	20,299	1,232,916	74,321
Canal Boulevard 2 Lane Collector	C1	2020	6,000,000	7,050,000	3,108,717	3,717,205	224,077
Canal Boulevard and SR 74 Intersection	1	2020	300,000	352,500	176,250	166,230	10,020
Canal Boulevard and 4800 West Intersection	2	2020	300,000	352,500	-	332,459	20,041
<b>Ten Year Total</b>			<b>\$ 8,054,668</b>	<b>\$ 9,464,235</b>	<b>\$ 3,311,104</b>	<b>\$ 5,803,302</b>	<b>\$ 349,829</b>

### Impact Fee Analysis Updates

As development occurs and capital project planning is periodically revised, the future lists of capital projects and their costs may be different than the information utilized in this analysis. For this reason, it is assumed that the City will perform updates to the analysis every three years. The cost of preparing this analysis, the impact fee facilities plan and the future costs of updating both documents has been included in the impact fee calculations. The 2014 cost of updating the impact fee facilities plan and impact fee analysis was approximately \$40,000 and included in the impact fee calculation.

### Bond Debt Service

The City does not currently have any outstanding transportation related debt. In the future, the City intends to issue a bond in 2020 and an impact fee qualifying portion of the interest of the new bonds will be included in the impact fee calculation. Only the interest of the bond will be calculated into the impact fee and apportioned to 10-year growth or non-qualifying categories in the same manner that capital projects were allocated.



FIGURE 3.3: FUTURE TRANSPORTATION DEBT ISSUE SERIES 2020

PmtNo.	Principal	Interest	Total Principal and Interest
1	\$156,000	\$ 185,960	\$ 341,960
2	162,000	179,715	341,715
3	169,000	173,220	342,220
4	176,000	166,466	342,466
5	183,000	159,441	342,441
6	190,000	152,136	342,136
7	198,000	144,538	342,538
8	205,000	136,636	341,636
9	214,000	128,418	342,418
10	222,000	119,872	341,872
11	231,000	110,984	341,984
12	240,000	101,740	341,740
13	250,000	92,126	342,126
14	260,000	82,128	342,128
15	270,000	71,730	341,730
16	281,000	60,915	341,915
17	292,000	49,669	341,669
18	304,000	37,972	341,972
19	316,000	25,808	341,808
20	329,000	13,157	342,157
	\$ 4,648,000	\$ 2,192,631	\$ 6,840,631

Source: Zions Public Finance, Inc.

## Grant Funds

It is anticipated that the City will receive funding from Utah County/UDOT to construct a portion of the Canal Blvd improvements. To the extent grant funding is received, the impact fee will be adjusted to consider impact fee qualifying project costs that the City will not be required to repay. Mountainland Association of Governments (MAG) funding is possible for projects identified in later phases of the City’s transportation plan but does not need to be considered in the impact fee at this time.



## CHAPTER 4: PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires the impact fee analysis to estimate the proportionate share of the cost for existing capacity that will be recouped as shown in Figure 3.1. The impact fee must be based on the historic costs and reasonable future costs of the system. This chapter will show in Figure 4.1 that the proposed impact fee for system improvements is reasonably related to the impact on the transportation system from new development activity.

The proportionate share analysis considers the manner of funding utilized for existing public facilities. Historically the City has funded existing infrastructure with sources including the following:

- Property Tax Revenues
- Impact Fees
- Bond Proceeds

In the future, the City will primarily rely upon property tax revenues to fund the operations and maintenance of the system. Some General Fund revenues may be used to pay the debt service of the bonds in years when impact fee revenues are insufficient to cover the annual payment to principal and interest. However, if rate revenues are used to pay what should be funded through impact fees (due to a shortfall in impact fee revenues) then the general fund will be repaid with impact fees for what the impact fee fund needed to borrow.

Grant funding for impact fee qualifying transportation projects is not anticipated. However, if they are received, future impact fees will be discounted according to the size of grant and what it will be intended to fund.

### *Developer Credits*

If a project included in the Impact Fee Facilities Plan (or a project that will offset the demand for a system improvement that is listed in the IFFP) is constructed by a developer then that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2)(f)). There are currently no situations anticipated in this analysis that would entitle a developer to a credit.

### *Time-Price Differential*

Utah Code 11-36a-301(2)(h) allows for the inclusion of a time-price differential in order to create fairness for amounts paid at different times. To address the time-price differential, this analysis includes an inflationary component to account for construction inflation for future projects. Projects constructed after the year 2014 will be calculated at a future value as shown in Appendix E. All users who pay an impact fee today or within the next six to ten years will benefit from projects to be constructed and included in the fee.



FIGURE 4.1: TRANSPORTATION IMPACT FEE CALCULATION

Component	Total Cost	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Trips)	Cost per Trip End
<b>Roadway Impact Fee</b>					
Future 10 Year Capital Projects	\$ 9,464,235	61.32%	\$ 5,803,302	17,008	\$ 341
Future Growth Related Debt to be Issued - Interest Only	2,192,631	61.32%	1,344,483	17,008	79
Existing Infrastructure	8,278,410	2.84%	234,903	17,008	14
Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
<b>Roadway Impact Fee Subtotal</b>	<b>\$ 19,935,276</b>		<b>\$ 7,382,687</b>		<b>\$ 434.06</b>
<b>Professional Services / Credits</b>					
Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
Professional Services / Credits	40,000	100%	40,000	17,008	2
<b>Professional Services / Credits Subtotal</b>	<b>40,000</b>		<b>40,000</b>		<b>\$ 2</b>
<b>Total Impact Fee Per Trip</b>	<b>\$ 19,975,276</b>		<b>\$ 7,422,687</b>		<b>\$ 436.42</b>

## Maximum Legal Transportation Impact Fees per Trip

As shown in Figure 4.1, the maximum legal impact fee per trip is calculated to be \$436.42. An impact fee is then calculated based on development type and the net adjusted trips that the development type generates. This fee is the combination of individual fees for the buy in to existing facilities, future facilities, future bond interest and professional fees. Each fee for individual components is based upon the historic and future costs divided by the total available capacities. This results in a very precise impact fee per trip and complies with the Impact Fees Act.

### Determination of Transportation Impact Fee

The impact fees to be paid by different residential and non-residential users are assessed according to trips. The impact fee calculated per trip is multiplied by the number of trips a development type generates. A single family home generates 9.55 trips. The impact fee is assessed by land use according to the table below.



FIGURE 4.2: MAXIMUM IMPACT FEE SCHEDULE

Land Use	Code	Unit	ITE Trip Generation Rate	Daily Trip Rate (1/2 ITE Rate)	Primary Trips	Daily REU	Total Transportation Impact Fee (Per Unit)
<b>Residential</b>							
Single-Family	210	Dwelling Unit	9.55	4.78	100%	1.0	\$ 2,084
Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	0.6	1,268
Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	0.7	1,451
<b>Retail / Commercial</b>							
General Retail Small (<90,000 sq ft )	820	1000 sq	111.14	55.57	43%	5.0	\$ 10,428
General Retail Large (>90,000 sq ft)	820	1000 sq	46.7	23.35	43%	2.1	4,382
Convenience Store w/ Gas Pumps	853	1000 sq	845.6	422.80	16%	14.2	29,523
Drive-In Bank	912	1000 sq	148.15	74.08	27%	4.2	8,728
Fast Food Restaurant w/ Drive-Thru	934	1000 sq	496.12	248.06	30%	15.6	32,477
Sit-Down Restaurant	932	1000 sq	127.15	63.58	37%	4.9	10,266
Multiplex Movie Theater	445	1000 sq	63.0935	31.55	75%	5.0	10,326
Hotel / Motel	603	Rooms	8.17	4.09	100%	0.9	1,783
<b>Office / Institutional</b>							
General Office	710	1000 sq	11.03	5.52	100%	1.2	\$ 2,407
Medical Office	720	1000 sq	36.13	18.07	100%	3.8	7,884
Hospital	610	1000 sq	13.22	6.61	100%	1.4	2,885
Nursing Home	620	1000 sq	7.6	3.80	100%	0.8	1,658
Assisted Living	254	Occupied Bed	2.74	1.37	100%	0.3	598
Church / Synagogue	560	1000 sq	9.11	4.56	100%	1.0	1,988
Day Care Center	565	1000 sq	74.06	37.03	10%	0.8	1,616
Elementary School	520	1000 sq	15.43	7.72	50%	0.8	1,683
High School	530	1000 sq	12.89	6.45	50%	0.7	1,406
<b>Industrial</b>							
General Light Industrial	110	1000 sq	6.97	3.49	100%	0.7	\$ 1,521
Business Park	770	Employees	4.04	2.02	100%	0.4	882
Warehouse	150	1000 sq	3.56	1.78	100%	0.4	777
Mini-Warehouse	151	1000 sq	2.5	1.25	100%	0.3	546

Source: ITE Trip Generation 9th Edition; Note: Pass by trip adjustments are based on ITE sample data where available

### Non-Standard Demand Adjustments

The City reserves the right under the Impact Fees Act (Utah Code 11-36-402(1)(c,d)) to assess an adjusted fee to respond to unusual circumstances and to ensure that the impact fees are assessed fairly. The impact fee ordinance must include a provision that permits adjustment of the fee for a particular development based upon studies and data submitted by the developer that indicate a more realistic and accurate impact upon the City’s infrastructure.



The impact fee formula shown below in Figure 4.3 for a non-standard user is shown below.

FIGURE 4.3: CALCULATION OF NON-STANDARD IMPACT FEE

<b>Steps in Calculating a Non-Standard Fee</b>
Step 1: Determine the expected Average Daily Trips (ADT) for the development
Step 2: Determine the percentage of ADT that are primary trips (1- % pass-by traffic)
Step 3: Multiple ADT by the Percent Primary Trips by \$436.42

DRAFT



**APPENDICES: CERTIFICATION, SERVICE AREA  
MAP, IMPACT FEE CALCULATIONS**

DRAFT



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

Zions 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 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 that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant 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 City staff and Council in accordance to the specific policies established for the Service Area.
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 Highland City and outside sources. Copies of letters requesting data are included as appendices to the IFFP and the impact fee analysis.

Dated: 4/14/2015

ZIONS PUBLIC FINANCE, INC.



**Notice Date & Time:** September 11, 2014 | 7:00 AM - 11:59 PM

**Description/Agenda:** Notice Title: Notice of Intent to Create Impact Fee Facilities Plans and Amended Impact Fee Written Analyses

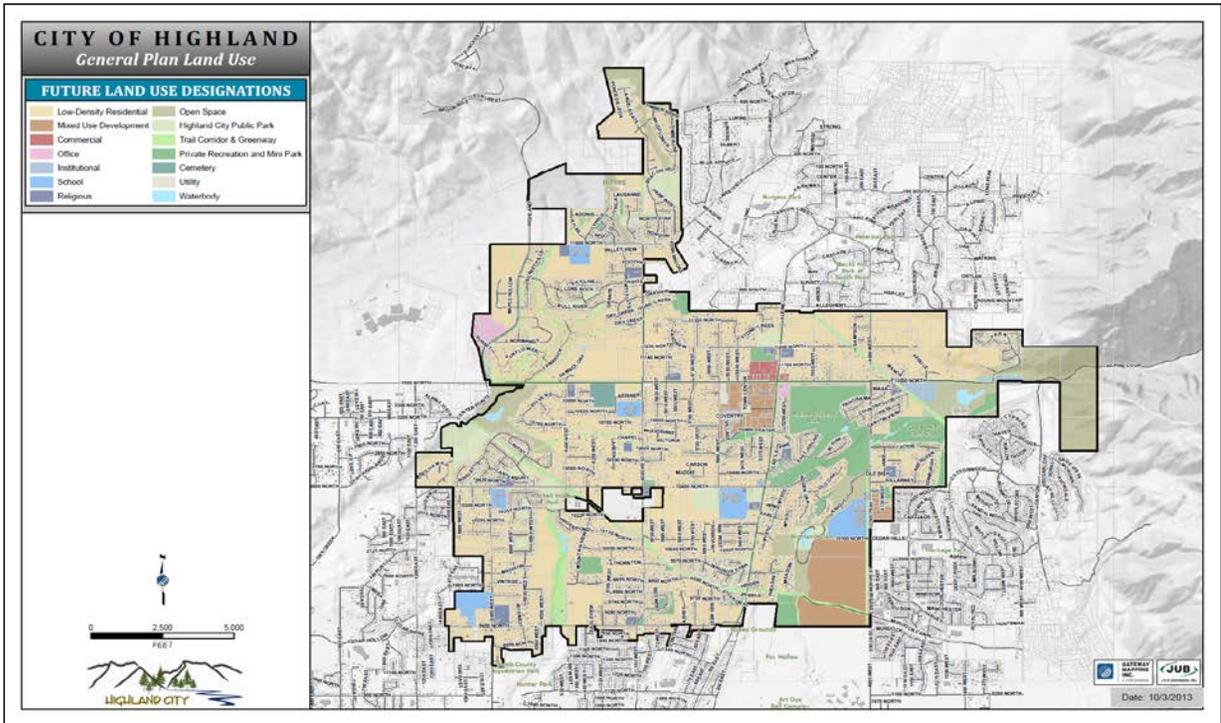
NOTICE OF INTENT TO CREATE IMPACT FEE FACILITIES PLANS AND AMENDED IMPACT FEE WRITTEN ANALYSES

Highland City, a municipality of the State of Utah, located in Utah County, Utah intends to commence the preparation of independent and comprehensive Impact Fee Facilities Plans and Written Impact Fee Analyses for the services of secondary water, sanitary sewer, parks, recreation and trails, roads and public safety. Therefore, pursuant to the provisions of 11-36a-501 and 503 of the Utah Code, as amended 2011, notice is hereby provided to you of the intent of Highland City to create an Impact Fee Facilities Plans and amend Highland City's Impact Fee Written Analyses. The location(s) that will be included in the Impact Fee Facilities Plans and Impact Fee Analyses are all areas within the legal Highland City limits and the declared annexation areas of Highland City.

BY ORDER OF THE CITY COUNCIL OF HIGHLAND CITY

Public Notice Website <http://www.utah.gov/pmn/sitemap/notice/231435.html>

# APPENDIX A: SERVICE AREA MAP



## APPENDIX B: GROWTH IN DEMAND

	A	B	C	D	E	
1	<b>Projected Traffic Demands - Population, Average Daily Trips</b>					1
2	<b>Year</b>	<b>Population</b>	<b>Annualized Growth</b>	<b>Total Daily Trip Ends</b>	<b>Annualized Growth</b>	2
3	2015	17,355		85,264		3
4	2016	17,617	0.15%	87,153	0.22%	4
5	2017	17,879	0.15%	89,043	0.21%	5
6	2018	18,141	0.15%	90,933	0.21%	6
7	2019	18,403	0.14%	92,823	0.21%	7
8	2020	18,665	0.14%	94,713	0.20%	8
9	2021	18,927	0.14%	96,603	0.20%	9
10	2022	19,189	0.14%	98,492	0.19%	10
11	2023	19,451	0.14%	100,382	0.19%	11
12	2024	19,713	0.13%	102,272	0.19%	12
13	<b>Ten Year Growth</b>	<b>2,358</b>	<b>0.14%</b>	<b>17,008</b>	<b>0.20%</b>	13
14	<i>Source: 2015 Transportation Impact Fee Analysis Prepared by InterPlan</i>					14
15	<i>Assumes Total Daily Trip Ends</i>					15
16						16

A                      B                      C                      D                      E

# APPENDIX C: LEVEL OF SERVICE

	A	B	C	D	
1	<b>Level of Service Standards for Historical and Future Roadway Infrastructure</b>				1
2	<b>Roadway Infrastructure Category</b>	<b>Historical LOS/ City Code</b>	<b>2025 LOS</b>	<b>Full Development LOS</b>	2
3	Arterial Streets	D	D	D	3
4	Major Collector	D	D	D	4
5	Mnor Collector	D	D	D	5
6	Local Streets	D	D	D	6
7	<i>Source: 2015 Transportation Impact Fee Facilities Plan Prepared by InterPlan</i>				7
	A	B	C	D	

# APPENDIX D: BUY IN COSTS

	A	B	C	D	E	F	G	H	I	J	K	L	
1	Description	Cost	2015 Lanes	2015 Functional Classification	2015 Volume	2015 Capacity	2025 Volume	Beyond 10 Year	Utilized	2025	Beyond 10 Year	Cost to 10 Year Growth	1
2	11800 North (Highland Blvd to 6000 West)	\$ -	2	Major Collector	4,485	11,200	9,420	1,780	40%	44%	16%	\$ -	2
3	11800 North (6000 West to East City Boundary)	-	2	Major Collector	4,485	11,200	9,520	1,680	40%	45%	15%	-	3
4	11200 North (6000 West to 5710 West)	-	2	Minor Collector	750	11,200	890	10,310	7%	1%	92%	-	4
5	11200 North (5850 West to SR-74)	-	2	Minor Collector	2,610	11,200	920	10,280	23%	-15%	92%	-	5
6	11200 North (SR-74 to 4800 West)	-	2	Minor Collector	2,900	11,200	3,000	8,200	26%	1%	73%	-	6
7	10400 North (1200 East to 6000 West)	-	2	Major Collector	1,840	11,200	3,380	7,820	16%	14%	70%	-	7
8	10400 North (6000 West to SR-74)	-	2	Major Collector	1,840	11,200	4,820	6,380	16%	27%	57%	-	8
9	9860 North (6800 West to 6630 West)	-	2	Minor Collector	1,000	11,200	1,870	9,330	9%	8%	83%	-	9
10	9860 North (Mountain View Drive to 6000 West)	-	2	Minor Collector	1,000	11,200	990	10,210	9%	0%	91%	-	10
11	9860 North (6000 West to SR-74)	768,135	2	Minor Collector	1,910	11,200	3,240	7,960	17%	12%	71%	91,216	11
12	9600 North (West City Boundary to 6000 West)	-	2	Major Collector	2,255	11,200	3,680	7,520	20%	13%	67%	-	12
13	9600 North (6000 West to SR-74)	-	2	Major Collector	2,255	11,200	2,280	8,920	20%	0%	80%	-	13
14	Highland Blvd (North City Boundary to SR-92)	-	3	Major Collector	3,810	17,500	9,830	7,670	22%	34%	44%	-	14
15	6800 West (10400 North to 9600 North)	-	2	Minor Collector	4,260	11,200	4,620	6,580	38%	3%	59%	-	15
16	6800 West (9600 North to South City Boundary)	-	2	Minor Collector	4,760	11,200	4,500	6,700	43%	-2%	60%	-	16
17	6400 West (SR-92 to 10400 North)	-	2	Minor Collector	1,420	11,200	2,050	9,150	13%	6%	82%	-	17
18	6000 West (11800 North to SR-92)	-	2	Major Collector	4,485	11,200	4,560	6,640	40%	1%	59%	-	18
19	6000 West (SR-92 to 10400 North)	-	2	Major Collector	3,545	11,200	7,370	3,830	32%	34%	34%	-	19
20	6000 West (10400 North to 9600 North)	-	2	Major Collector	3,545	11,200	4,290	6,910	32%	7%	62%	-	20
21	6000 West (9600 North to South City Boundary)	-	2	Major Collector	3,865	11,200	6,080	5,120	35%	20%	46%	-	21
22	5600 West (11200 North to SR-92)	-	2	Minor Collector	2,840	11,200	5,260	5,940	25%	22%	53%	-	22
23	5600 West (SR-92 to 10400 North)	396,995	2	Minor Collector	3,110	11,200	4,020	7,180	28%	8%	64%	32,256	23
24	4800 West (North City Boundary to SR-92)	-	3	Minor Arterial	12,725	17,500	15,870	1,630	73%	18%	9%	-	24
25	4800 West (SR-92 to Cedar Hills Drive)	573,232	5	Minor Arterial	12,400	41,000	20,370	20,630	30%	19%	50%	111,431	25
26	4800 West (Cedar Hills Drive to South City Boundary)	-	5	Minor Arterial	9,025	41,000	26,620	14,380	22%	43%	35%	-	26
27	<b>Total</b>	<b>\$ 1,738,362</b>										<b>\$ 234,903</b>	27

## APPENDIX E: FUTURE TRANSPORTATION PROJECTS TO 2025 FROM IFFP

A B C D E F G H I J K L M

1 **Future Project Construction Year Costs**

2

3 **Table E.1: Capital Project Overview**

Project Name	Project ID	Year to be Constructed	2015 Cost	Construction Costs	% to Existing/ Non-Qualifying	% to 10 Year Growth	% to Growth Beyond 10 Years	Cost to Existing/ Non-Qualifying	Cost to 10 Year Growth	Cost to Growth Beyond 10 Years
11200 N 2 Lane Collector	A1	2020	\$ 324,850	\$ 381,698	0.0%	94.3%	5.7%	\$ 5,837	\$ 354,492	\$ 21,369
Madison Ave/9860 N 2 Lane Collector	B1	2020	1,129,819	1,327,537	0.0%	94.3%	5.7%	20,299	1,232,916	74,321
Canal Boulevard 2 Lane Collector	C1	2020	6,000,000	7,050,000	0.0%	94.3%	5.7%	3,108,717	3,717,205	224,077
Canal Boulevard and SR 74 Intersection	1	2020	300,000	352,500	0.0%	94.3%	5.7%	176,250	166,230	10,020
Canal Boulevard and 4800 West Intersection	2	2020	300,000	352,500	0.0%	94.3%	5.7%	-	332,459	20,041
<b>Ten Year Total</b>			<b>\$ 8,054,668</b>	<b>\$ 9,464,235</b>				<b>\$ 3,311,104</b>	<b>\$ 5,803,302</b>	<b>\$ 349,829</b>

14 **Table E.2: Total Capital Projects by Year**

Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals
11200 N 2 Lane Collector	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 381,698	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 381,698
Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	1,327,537	-	-	-	-	-	1,327,537
Canal Boulevard 2 Lane Collector	-	-	-	-	-	7,050,000	-	-	-	-	-	7,050,000
Canal Boulevard and SR 74 Intersection	-	-	-	-	-	352,500	-	-	-	-	-	352,500
Canal Boulevard and 4800 West Intersection	-	-	-	-	-	352,500	-	-	-	-	-	352,500
<b>Total Capital Projects</b>	<b>\$ -</b>	<b>\$ 9,464,235</b>	<b>\$ -</b>	<b>\$ 9,464,235</b>								

25 A B C D E F G H I J K L M



## APPENDIX F: EXISTING AND FUTURE BONDS

	A	B	C	D	E
1	<b>Summary of Future Bond</b>				1
2	<b>Inputs</b>				2
3	Proceeds		\$4,470,033		3
4	Annual Interest Rate		4.00%		4
5	Cost of Issuance		4.00%		5
6	Number of Years		20		6
7	<b>Par Amount</b>		<b>\$4,649,000</b>		7
8					8
9	<b>Future Bond #1</b>				9
10	<b>PmtNo.</b>	<b>Principal</b>	<b>Interest</b>	<b>Total Principal and Interest</b>	10
11	1	\$156,000	\$ 185,960	\$ 341,960	11
12	2	162,000	179,715	341,715	12
13	3	169,000	173,220	342,220	13
14	4	176,000	166,466	342,466	14
15	5	183,000	159,441	342,441	15
16	6	190,000	152,136	342,136	16
17	7	198,000	144,538	342,538	17
18	8	205,000	136,636	341,636	18
19	9	214,000	128,418	342,418	19
20	10	222,000	119,872	341,872	20
21	11	231,000	110,984	341,984	21
22	12	240,000	101,740	341,740	22
23	13	250,000	92,126	342,126	23
24	14	260,000	82,128	342,128	24
25	15	270,000	71,730	341,730	25
26	16	281,000	60,915	341,915	26
27	17	292,000	49,669	341,669	27
28	18	304,000	37,972	341,972	28
29	19	316,000	25,808	341,808	29
30	20	329,000	13,157	342,157	30
31		\$ 4,648,000	\$ 2,192,631	\$ 6,840,631	31

Source: Zions Public Finance, Inc.

A	B	C	D	E
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# APPENDIX G: COST PER TRIP CALCULATION

	A	B	C	D	E	F
1	<b>Summary of Existing Capacity of Roadway Infrastructure for which Ten Year Growth is Responsible</b>					
2	<b>Component</b>	<b>Total Cost</b>	<b>% That will Serve Ten Year Demand</b>	<b>Dollar Amount that will Serve Ten Year Demand</b>	<b>Ten Year Demand (Trips)</b>	<b>Cost per Trip End</b>
3	<b>Roadway Impact Fee</b>					
4	Future 10 Year Capital Projects	\$ 9,464,235	61.32%	\$ 5,803,302	17,008	\$ 341
5	Future Growth Related Debt to be Issued - Interest Only	2,192,631	61.32%	1,344,483	17,008	79
6	Existing Infrastructure	8,278,410	2.84%	234,903	17,008	14
7	Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
8						
9	<b>Roadway Impact Fee Subtotal</b>	<b>\$ 19,935,276</b>		<b>\$ 7,382,687</b>		<b>\$ 434.06</b>
10						
11	<b>Professional Services / Credits</b>					
12	Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
13	Professional Services / Credits	40,000	100%	40,000	17,008	2
14	<b>Professional Services / Credits Subtotal</b>	<b>40,000</b>		<b>40,000</b>		<b>\$ 2</b>
15						
16	<b>Total Impact Fee Per Trip</b>	<b>\$ 19,975,276</b>		<b>\$ 7,422,687</b>		<b>\$ 436.42</b>

A B C D E F