

AGENDA
HIGHLAND CITY COUNCIL MEETING
April 21, 2015

7:00 p.m. Regular City Council Session
Highland City Council Chambers, 5400 West Civic Center Drive, Highland Utah 84003

7:00 P.M. REGULAR SESSION – CITY COUNCIL CHAMBERS

CALL TO ORDER – Mayor Mark Thompson
INVOCATION – Brian Braithwaite
PLEDGE OF ALLEGIANCE – Dennis LeBaron

APPEARANCES

- 1. Time has been set aside for the public to express their ideas, concerns, and comments.**
(Please limit your comments to three minutes each.)

CONSENT

- 2. MOTION: Approval of Meeting Minutes for City Council Regular Session – March 17, 2015**
- 3. RESOLUTION: Approval of the Municipal 2014 Wastewater Planning Program – Self-Assessment Report**

ACTION ITEMS

- 4. MOTION: Selection of Consultant – Park Maintenance Building**
- 5. ORDINANCE: Adopting Impact Fee Facilities Plan - Transportation, Culinary, PI, Parks, Sewer, Public Safety Fees**

MAYOR/ CITY COUNCIL & STAFF COMMUNICATION ITEMS

- 6. Review of road repair costs for D & F Roads: Nathan Crane, Community Development Director**

ADJOURN TO A CLOSED EXECUTIVE SESSION

- The sale of real property
Pursuant to Section 52-4-205(1)(e) of the Utah State Code Annotated.
- The character, professional competence, or physical or mental health of an individual.
Pursuant to Section 52-4-205(1)(a) of the Utah State Code Annotated.

RECONVENE CITY COUNCIL MEETING

ADJOURNMENT

(These items are for information purposes only.)

Description	Requested/Owner	Due Date	Status
Road Capital Improvement Plan for FY 15-16 <i>Prioritize and Communicate to Residents</i>	City Council	Ongoing	Contracted with King Eng.
HW Bldg. – PW Storage Status	City Council Mayor/PW	April 21 st	In Progress
Determine Park Use for Recreation	City Council Parks Staff	3 rd quarter of 2015	Staff to make recommendations
SR74 Median at Pebble Lane Subdivision	Staff		Waiting to hear from County
Building Use Policy Fees	Rod Mann Emily	3 rd quarter of 2015	Gathering Information

CERTIFICATE OF POSTING

The undersigned duly appointed City Recorder does hereby certify that on this **16th day of April, 2015**, the above agenda was posted in three public places within Highland City limits. Agenda also posted on State (<http://pmn.utah.gov>) and City websites (www.highlandcity.org).

JOD'ANN BATES, City Recorder

- In accordance with the Americans with Disabilities Act, Highland City will make reasonable accommodations to participate in the meeting. Requests for assistance can be made by contacting the City Recorder at 801-772-4505, at least 3 days in advance to the meeting.
- The order of agenda items may change to accommodate the needs of the City Council, the staff and the public.
- This meeting may be held electronically via telephone to permit one or more of the council members to participate.

THE PUBLIC IS INVITED TO PARTICIPATE IN ALL CITY COUNCIL MEETINGS.

MINUTES
HIGHLAND CITY COUNCIL MEETING
Tuesday, March 17, 2015

Highland City Council Chambers, 5400 West Civic Center Drive, Highland, Utah 84003

PRESENT: Mayor Mark S. Thompson, conducting
Councilmember Brian Braithwaite
Councilmember Dennis LeBaron
Councilmember Tim Irwin
Councilmember Jessie Schoenfeld
Councilmember Rod Mann

STAFF PRESENT: Aaron Palmer, City Administrator
Nathan Crane, Community Development Director
Gary LeCheminant, Finance Director
JoD’Ann Bates, City Recorder
Justin Parduhn, Public Works O&M Director
Brian Gwilliam, Chief of Police
Tim Merrill, City Attorney

OTHERS: Sean McAleavy, Zack Blackhurst, Jake McAleavy, Luke Corbett, Tyler Rippy, Alex Aagard, Dresden Melendez, Everett Saunders, Luke Sorensen, Todd Saunders, Lanten Hult, John Frickson, Rees Berrett, Hunter Allphin, Camden Euloe, Jake Tilletson, Shane Davenport, Bryan Berrett, Katherine Siggard, Kipley Siggard, Rob Gulbrandson, Jeff Beer, Mike Privett.

The meeting was called to order by Mayor Mark S. Thompson as a regular session at 7:01 p.m. The meeting agenda was posted on the *Utah State Public Meeting Website* at least 24 hours prior to the meeting. The prayer was offered by Rod Mann and those assembled were led in the Pledge of Allegiance by Alex Aagard, a scout.

APPEARANCES:

No appearances.

PRESENTATION: Mike Kennedy – Legislative Update

Mike Kennedy stated he is the State Representative for this area and he appreciated the opportunity to address the Council. He had the opportunity to visit with a few of the Council and

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1 appreciated them contacting him and giving him their inputs and opinions. Mike explained the
2 legislature faced some interesting issues this past session some of which were:

- 3 • Gas Tax: The bill that was approved was a very complex bill and approved at the last
4 minute. The bill did pass with a .5 cent increase on the gas tax – a portion of that will be
5 allocated to the local municipalities. He did not vote in favor of the bill due to the
6 finalized bill being proposed at the last minute.
- 7 • Property Tax increase: This will go to the school districts and local citizens in the Alpine
8 Districts will probably pay a small increased amount. It will affect Park City and Summit
9 school districts the most. The bill passed, he did not vote for this bill.
- 10 • There were issues regarding LGBT protection and religious freedoms. The bill passed, he
11 did not vote for that bill.
- 12 • Balance budget amendments for the State.
- 13 • They raised public education funding over 200 million dollars.

14 Mike commented these were just a few of the bills that were discussed and he would be open to
15 any questions the council may have.

16
17 Brian Braithwaite inquired how they get the state to not drop bills and changes at the last minute
18 like what happened with the transportation bill.

19
20 Mike Kennedy stated that one of the interesting dynamics is the Senate likes certain things and
21 the House likes certain things. A bill going back and forth takes time and debates to come up
22 with something both can agree on. They have a lot of young, new individuals in the House and
23 with a first year speaker it was a little less organized.

24
25 Tim Irwin inquired as to the final result of the referendum timeline bill.

26
27 Mike Kennedy indicated they passed 528 bills and he is not aware of the exact results of that bill.
28 He would be more than happy to look into it and get back with him.

29
30 Mayor Thompson thanked Mike Kennedy and his willingness to take the time to address the
31 council, they appreciated his comments.

32 33 **CONSENT ITEMS:**

34
35
36 MOTION: Minutes for the March 3, 2015 Regular City Council Meeting

37
38 RESOLUTION: Approval of Surplus Public Property

39
40 MOTION: Ratification of Appointment of Chairman to the Highland Fling Committee

41
42 MOTION: **Tim Irwin moved the City Council approve the consent items on the agenda**

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1 **Rod Mann seconded the motion.**
2 **Unanimous vote, motion carried.**

3
4
5 **PUBLIC HERARING:** Annexation of 37.18 acres of Real Property – Northeast corner of
6 Highland Boulevard and 11800 North.
7

8 **BACKGROUND:** *On February 3, 2015 the City Council adopted a resolution declaring an*
9 *intent to annex the above referenced property. The resolution allowed staff to complete the*
10 *noticing requirements to hold a public hearing at tonight’s meeting. Typically, the Council*
11 *would make a decision regarding the annexation at this time. However, the applicant is*
12 *requesting that the Council only hold the public hearing at this time and consider formal action*
13 *on the annexation at a later date. The property owner has submitted an application for a*
14 *Planned Development (PD) District which is currently under review by staff. It was anticipated*
15 *that the annexation and PD District would be considered concurrently. However, the proposed*
16 *PD District is being revised by the application. A neighborhood meeting and public hearing*
17 *before the Planning Commission will also be held prior to Council consideration.*

18 Mayor Thompson opened the Public Hearing.

19
20 Hearing no comments Mayor Thompson closed the Public Hearing and turned the item back to
21 the Council for any further discussion.
22

23 Tim Irwin inquired if the city can accommodate the annexation in terms of city services and
24 infrastructure.
25

26 Nathan Crane responded in 2002 this area was included in an adopted annexation policy plan
27 which designates the areas the city is planning to serve. It has been included in the capital plans
28 for infrastructure.
29

30 Rob Gulbrandsen, co-applicant of the project stated they met with the Planning Commission
31 and they picked up on some items that were mentioned by them. They have gone back and done
32 some re-design and are ready to re-submit a newer design. They are working to get back on the
33 schedule for the annexation as soon as possible.
34

35
36 **ACTION ITEMS:**

37
38 MOTION– Request for two PI Connections outside of city limits
39

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1 BACKGROUND: *Tom Williams owns 3.81 acres of property at 9541 North 6800 West. He also*
2 *leases an additional approximately 15 acres as an alfalfa farm which is owned by RLP*
3 *Enterprises. Culinary water service to the home was provided by the Highland Water Company*
4 *prior to acquisition by the City. Mr. Williams is requesting two connections to the pressurized*
5 *system. One connection will provide water for the alfalfa field (through a sprinkler system) and*
6 *the other will provide water to the home site. Mr. Williams is willing to lease the water shares to*
7 *Highland at no charge to accommodate the demands on the system. He is also willing to modify*
8 *his watering schedule to accommodate the demands on the system. Irrigation water is currently*
9 *provided through the Harmon ditch (Lehi Irrigation Company) and the Mitchell Hollow ditch*
10 *(American Fork Irrigation Company). The property is currently in Utah County. The*
11 *Highland/Lehi city boundary agreement identifies that this property will be in Lehi upon*
12 *annexation. There is an existing Lehi City pressurized irrigation line that runs north and south*
13 *through the RLP Enterprises property. Mr. Williams indicated that Lehi City would not allow a*
14 *connection to this line. Staff contacted Lehi City, Lehi will not provide a connection unless the*
15 *property is annexed into Lehi and water is dedicated to the City. Staff has analyzed and is*
16 *recommending a full three acre feet water share per acre, including discounts due to the current*
17 *drought conditions. Water shares for the home site should be dedicated as required by City*
18 *Code.*

19 Tim Irwin inquired if our pressurized irrigation system was designed for this type of agricultural
20 use or primarily for residential use. He also has a concern with setting a precedence, especially
21 where at some point they will be annexed into Lehi City boundaries.

22 Justin Parduhn indicated in order to facilitate this request they would need him to water during
23 the day. The demand at night would hurt the system. Mr. Williams has agreed to water
24 whenever the city designates. He would also have to bring in water shares pursuant to our code.

25 Nathan Crane indicated that based on their prior conversations with Mr. William's, there are no
26 plans to annex into either city at this time. Mr. Williams is only leasing the hay fields, they have
27 not had conversations with the actual property owners regarding this issue.

28 Brian Braithwaite stated he feels there is no value to Highland City to accommodate this request
29 unless the infrastructure is built upon them coming into the city limits at some point. It would
30 put pressure on the system and affect the current residents that are in the city and that's not fair
31 to them.

32
33 Tim Irwin stated that by us not taking any action does not prevent them from getting water to
34 their property due to them already having access to an irrigation ditch.

35
36 Mayor Thompson commented there was a note on the approved plan for the subdivision to the
37 east that the ditch would be piped in that area and he feels the city needs to adhere to that note.

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1 Discussion continued regarding the use of water, times of days they would need to water in order
2 to not effect they system and current residents and the type of water he would be putting into the
3 system.
4

5 Justin Parduhn indicated the Council would need to discuss and decide the amount if any the city
6 would be charging for the use of the water. They currently do not service pressurized irrigation
7 to anyone outside of the city limits. Along with providing water shares to go in the system,
8 would they charge a monthly fee for the use like regular residents are charged or allow him to
9 use the amount he gave through water shares. They could also require him to purchase a meter
10 and go that direction.
11

12 Brian Braithwaite stated this request would put pressure on our system to pull water out during
13 the day. It has been commented that most of the water is pulled out of the system at night. If
14 their use overlaps the current residents it could cause a conflict. They are not residents of
15 Highland and he feels they need to take care of the residents in that area. Brian inquired why we
16 would want to assume a potential problem. Brain feels there are unintended consequences by
17 approving this request. Mr. William's currently has everything he needs without Highlands
18 water system. This request is not taking anything away it would just make it more convenient.
19

20 Pam Smith a resident, feels there is value in supporting and encouraging farmers. Allowing this
21 request may make it more convenient to farm and without it he may not have the ability to
22 continue to farm.
23

24 **MOTION: Brian Braithwaite moved the City Council table the request for two (2)**
25 **pressurized irrigation connection outside the city limits for Tom Williams until such time**
26 **as the candidate has additional interest and discussions with Highland City.**
27

28 **Tim Irwin seconded the motion.**
29

30 **Unanimous vote.**

31 **Motion carried.**
32
33

34 MOTION– A request to expand the parking lot for Lone Peak High School by acquiring city
35 owned land.
36

37 BACKGROUND: The Alpine School District (ASD) has approached city staff with a request to
38 acquire additional land. The land will be used for additional parking for Lone Peak High
39 School. ASD is requesting the property to the west of the baseball and football fields and to the
40 west of the seminary building. The exact total acreage is unknown but will range between 6-7
41 acres. The ASD has provided design alternatives for the area west of the seminary building.
42 Baseball/Football Fields: There is land area between Knight Avenue and the baseball fields.
43 The width of this area varies. However, there is enough area to build a parking lot between the

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1 *football and baseball fields. Staff supports the use of this area for additional parking spaces.*
2 *Seminary Building: This area would accommodate 100 to 183 parking spaces. This area was*
3 *planned for a soccer field. In addition, the Lone Peak High School Marching Band uses a*
4 *football field sized area for marching band rehearsals. With the Council's action to remove*
5 *organized sports activities from all but three of the city parks, field space is at a premium. Staff*
6 *is concerned with loosing additional land that is owned by the City that could be used for fields.*

7 Rod Mann commented that when he spoke with one of the school district representatives they
8 indicated they did not want to purchase the land they just wanted to pave it for parking. Rod also
9 inquired regarding the size of the soccer field and how much would be left if they allowed this to
10 happen.

11
12 Tim Merrill City Attorney, stated if they are going to pave it and use it as a parking lot, he feels
13 there would need to be some type of agreement that protects the city from liability.

14
15 Josh Castleberry Park Superintendent, stated he personally feels it should be a soccer field.
16 Currently they have room for three full fields and this proposal would reduce the use to two full
17 fields.

18
19 Discussion continued regarding the use of the soccer fields, potential growth and the difference it
20 would make in the current and future fields use. Discussion also included an issue with the High
21 School Band and the need for the larger area for their use which reduces the use of the full size
22 soccer fields.

23
24 Pam Smith a resident, stated one of the great needs of the community is clean air. She feels it
25 would be to our advantage to encourage the students to take buses. Highland should be a green
26 community and be thoughtful of the environment. She feels a soccer fields would be a greater
27 value than a parking lot.

28
29 Mike Privett representative of Alpine School District, commented he is in favor of encouraging
30 the students to use the bus system more, but not sure how to work with parents in that regard.
31 After looking and listening to the discussion he is wondering about using the left over pie shape
32 piece for parking still allowing for 3 full fields. They would hire an engineer and work with the
33 city to maximize the use of the area for both parties.

34
35 Josh Castleberry commented he measured that area Mike commented about and indicated there
36 would be room for a decent amount of parking and feels it is good solution.

37
38 Tim Irwin stated Mike has heard the suggestions and concerns of the council and would like him
39 to take that back to the District to see how they could accommodate those issues and possibly
40 address carpooling.

41

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1 Jessie Schoenfeld indicated there is an area to the west of the fields across the road in the
2 Highland Glen Park that could possibly be used as a parking area. That would allow more
3 parking for both the school and still maintain three fields. There would need to be some work
4 done in order to have stairs to take them to the road and a crossing to get to the school but it is
5 still closer than other options.

6
7 Discussion continued regarding other possible parking options, future build out accommodations
8 and the issue of minimizing those driving and requiring parking spaces.

9
10 Tim Merrill stated he feels the school district should bring back some plans and a possible
11 property lease. He does not understand why they are not purchasing property for this issue and is
12 not comfortable with the school district not acquiring that property.

13
14 **MOTION: Brian Braithwaite moved the City Council to continue this issue for a months’**
15 **time and direct staff and Alpine School District to work together with the information and**
16 **discussion provided and return with plans that are more specific. Discuss the lease with**
17 **legal staff and have a preliminary arrangement regarding a lease for the property.**

18
19 **Tim Irwin seconded the motion.**

20
21 **Unanimous vote.**

22 **Motion carried.**

23
24
25 **MOTION– HA5 Surface Treatment Road Maintenance Projects.**

26
27 *BACKGROUND: In September 2014, the Council approved two contracts totaling \$177,960.70*
28 *for surface treatments. These projects will be completed this spring and represent the*
29 *recommended maintenance for year one in road maintenance plan. At the February 24, 2015*
30 *the Council directed staff to identify additional projects for surface treatments. Staff has*
31 *identified \$91,539 worth of surface treatment projects. This will allow for approximately 2 miles*
32 *of road to be cracked sealed and treated with HA5. The projects were identified by using the*
33 *Road Maintenance Plan prepared by JUB and staff inspection/knowledge of the roads.*
34 *Emphasis was placed on newer streets where surface treatments are the best form of*
35 *maintenance. Streets that need major patching or repair were not included. It also completes the*
36 *majority of the surface treatment projects identified in year two of the plan.*

37 Brian Braithwaite inquired if the 10% contingency on the 10150 North road could be put aside if
38 it is not needed to be used for something else.

39 Justin Parduhn responded they would come back to council in a timely manner and ask to either
40 go back to Stevens Lane that was taken off previously or possibly roll that into next year and add

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1 to next year's budget. He indicated John King is working on getting 10150 North going and
2 hopefully they would be able to get that done quickly.

3
4 Dennis LeBaron inquired how the cost of 1.67 per square foot was calculated.

5
6 Justin Pharduhn indicated it was arrived by the bid process. They would be able to get all the
7 roads in year one and 70% of year two surface treatments done.

8
9 **MOTION: Brian Braithwaite moved the City Council authorize staff to bid HA5 Surface**
10 **Treatment Road Maintenance Projects not to exceed \$91,539.**

11
12 **Dennis LeBaron seconded the motion.**

13
14 **Unanimous vote.**

15 **Motion carried.**

16
17
18 **ORDINANCE – Amending Supplemental Vehicle Regulations of the Municipal Code**

19
20 *BACKGROUND: Council member Braithwaite has expressed a concern with the parking of*
21 *inoperable vehicles and trailers on City owned parking spaces within the Town Center. Staff*
22 *researched the Municipal Code regarding parking regulations and met with the Police Chief. As*
23 *a result, staff is proposing an ordinance that would prohibit the parking of inoperable vehicles*
24 *and all trailers on city owned parking spaces.*

25 Tim Irwin inquired regarding a possible time period the residents would have to remove the
26 trailer or vehicle and the legal process for the enforcement.

27
28 Nathan Crane indicated if they wanted to put in specific parameters that would be at the
29 discretion of the Council.

30
31 Brian Gwilliam Chief of Police, indicated 48 hours is the typical time frame the police use when
32 citing vehicle for parking illegally, abandoned vehicles and parking during snow times and they
33 use a tag that indicates that time frame. He would like to tighten up this ordinance a little more
34 and have a concern regarding language in the last paragraph stating the vehicle would be
35 removed by the city, he feels it would be better to add language like "or its designee's" due to the
36 fact the police work for the Public Safety District not the city.

37
38 Tim Merrill City Attorney, stated that it would make sense to place that language in there to help
39 clarify who is allowed to remove those vehicles. He stated adding "or its designee" would work.

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1 Discussion continued regarding the time frames in which the police department receives
2 complaints and tags the vehicles for removal. Suggestions were made regarding possible signage
3 to notify residents to aid in the enforcement.
4

5 **MOTION: Dennis LeBaron moved the City Council Amend Chapter 10.08 Supplemental**
6 **Vehicle Regulations of the Highland City Municipal Code, prohibiting parking of all trailer**
7 **and inoperable vehicles in city owned parking spaces with the addition of language to the**
8 **end of the first paragraph “or its designee”.**
9

10 **Tim Irwin seconded the motion.**

11
12 **Those voting aye: Rod Mann, Jessie Schoenfeld, Tim Irwin, Dennis LeBaron and Brian**
13 **Braithwaite.**

14 **Those voting nye: none**

15 **Motion carried.**
16
17

MAYOR, CITY COUNCIL & STAFF COMMUNICATION ITEMS

18
19 *(These items are for information purposes only and do not require action or discussion by the City Council)*
20

- 21 • Salt Building
22

23 Justin Parduhn Public Works Operation and Maintenance Director stated due to the lack of snow
24 this year they have funds left over in the main salt budget. He would like to propose using those
25 funds to build a salt storage to comply with EPA regulations. The storage will be a 40’ x 40’
26 three sided shed with 10’ high concrete walls and a 12’ steel frame top allowing for large trucks
27 to back in and dump the salt. This would keep the salt in good condition all year long in order to
28 have it usable at any time. They currently have approximately \$39,500 left and another potential
29 5-10 thousand dollars in other salt budgets and the bid they have for the storage is \$43,675.
30 which includes everything except a gate to go across the building but he feels that could be
31 added easily. He also feels there is not much excavation that would need to be done. This would
32 be proposed to be located across the street in the parking lot to the west of the current Public
33 Works building. Justin stated what he is asking for is some type of approval to move forward
34 with some drawings and the overall feel of the council regarding the use of those funds and the
35 location of the building.
36

37 General consensus of the council was to allow staff to proceed with the process and bring the site
38 plan and expenditure back to the council in the future.
39

- 40 • Tim Irwin commented there had been an update to the piano the Arts Council was able to
41 purchase for the Community Center. They were fortunate to receive additional funding from an
42 anonymous donor that in conjunction with what was already raised allowed them to purchase a
43 full size brand new Yamaha grand piano worth close to \$30,000. He feels this shows that there
44 are those in the community willing to support those projects. He commended Shauna Larsen of

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1 the Arts Council and Emily Gillingwater from the City for their hard work and dedication to this
2 project.

- 3
- 4 • Rod Mann commented the need to update some of the dates on the action chart and
5 possibly set some recommended dates for action on some of the items.
- 6
- 7 • Brian Braithwaite inquired regarding the status of the park maintenance building.
- 8

9 Justin Parduhn responded that it has been passed onto an engineering company for the design,
10 there has been some surveying done on site and they are working on bids for plans in order to
11 take before the Planning Commission.

12
13 Mayor Thompson indicated the Jordan Valley Water District is reviewing the request for the
14 possible purchase but he has does not have an answer.

- 15
- 16 • Dennis LeBaron inquired as to the status of the library survey.
- 17

18 Mayor Thompson indicated he had met with the co-chair of the Library Board and provided
19 them with three questions which are 1) Prefer to keep the funding the way it is, 2) have the
20 funding generally taxed with a budget each year, or 3) place a fee on the utility bill. Those
21 questions will be written up by the survey company and provided back to the council for review.

22 23 24 **ADJOURNMENT TO A CLOSED EXECUTIVE SESSION**

- 25
- 26 • The Sale of Real Property
- 27

28 **MOTION: Tim Irwin moved to adjourn to a closed Executive Session to discuss the sale of**
29 **real property.**

30
31 **Rod Mann seconded the motion.**
32 **Unanimous vote. Motion carried.**

33
34
35 City Council Reconvened to the Regular Public Meeting

36
37 • Tim Irwin indicated he talked with Senator Margaret Dayton who is on the
38 Developmental Center Board. He indicated the city needed help in getting the East West
39 corridor through. She responded that she is the reason why the road is not going through. He
40 would like to suggest and recommend getting a meeting together with Senator Dayton and
41 Senator Jackson. There is some concern on Senator Dayton's part of ongoing income for the
42 Developmental Center, she does not understand that is what the city would like for them too and
43 the road can help provide that income.

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1 Mayor Thompson indicated the road is going to move forward across the top of the hill. The
2 County is on board with that and they have a meeting scheduled with the County to further
3 discuss that issue this next week.

4
5 Brain Braithwaite indicated due to a personal relationship with Senator Dayton, he would like to
6 have the opportunity to sit down with her first and discuss the issue then follow-up with any
7 larger meeting at a later date.

8
9 • Nathan Crane indicated he had met with Mountainland Association of Government
10 (MAG) and the County Engineer to talk about the concern raised of bicycle traffic up and down
11 SR74. MAG and UDOT has met and is looking at options to this issue. In the mean time the
12 city is going to address some signage in various locations, they have cleared some brush for
13 pedestrians to maintain travel on the left side of the road and there will be some striping done on
14 the trail.

15 16 **ADJOURNMENT OF REGULAR CITY COUNCIL PUBLIC MEETING**

17
18
19 **MOTION: Tim Irwin moved the City Council to adjourn the regular public meeting.**

20
21 **Rod Mann seconded the motion.**

22 **Unanimous vote. Motion carried.**

23
24 **Meeting adjourned at 9:52 p.m.**

25
26
27
28 _____
29 JoD'Ann Bates, City Recorder

30
31 Date Approved: April 21, 2015



CITY COUNCIL AGENDA REPORT

Item # 3

DATE: Tuesday, April 21, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Justin Parduhn
Public Works Operations & Maintenance Director

SUBJECT: RESOLUTION – APPROVING THE MUNICIPAL WSTEWATER PLANNING PROGRAM REPORT FOR 2014

STAFF RECOMMENDATION:

The Planning Program Report has been reviewed and completed and is required to be approved by the City Council by Resolution prior to submitting the report.

BACKGROUND:

The Department of Environmental Quality under the new Utah Sanitary Sewer Management Program requires cities to complete the Municipal Wastewater Planning Program Report on a yearly basis. This is a self-assessment report and helps the state to identify and solve potential problems before they become serious and costly. This report allows the state to be informed of the current condition of our wastewater facility.

Benefits in returning the forms are:

- 1) Meets the REQUIRED report under Utah Sanitary Sewer Management Program
- 2) Give Highland additional points on the project priority list that is used to allocate funds for grants and loan programs, and
- 3) Operators completing the forms are given CEU's

FISCAL IMPACT:

N/A

ATTACHMENTS:

- Proposed Resolution
- Municipal Wastewater Planning Program Reports (Collection & Financial)

RESOLUTION NO. R-2015- **

**A RESOLUTION OF HIGHLAND CITY, UTAH
APPROVING THE STATE OF UTAH
MUNICIPAL WASTEWATER PLANNING
PROGRAM REPORT FOR 2014**

WHEREAS, the Highland City Council acknowledges that Highland City meets the required reporting under Utah Sanitary Sewer Management Program, and

WHEREAS, by Highland City meeting those requirements is on a priority list used to allocate funds under the wastewater grant and loan programs, and

WHEREAS, Operator(s) completing the reports will be given operational continuing educations units (CEU's) for forms returned.

NOW, THEREFORE be it resolved by the City Council has reviewed the Municipal Wastewater Planning Programs Report 2014 and has taken all appropriate actions necessary to maintain effluent requirements contained in the UPDES permit .

This resolution shall take effect immediately upon passage.

ADOPTED by the City Council of Highland City, Utah, this 21st day of April, 2015.

HIGHLAND CITY, UTAH

Mark S. Thompson, Mayor

ATTEST:

JoD'Ann Bates, Executive Secretary

COUNCILMEMBER	YES	NO
Brian Braithwaite	<input type="checkbox"/>	<input type="checkbox"/>
Tim Irwin	<input type="checkbox"/>	<input type="checkbox"/>
Dennis LeBaron	<input type="checkbox"/>	<input type="checkbox"/>
Rod Mann	<input type="checkbox"/>	<input type="checkbox"/>
Jessie Schoenfeld	<input type="checkbox"/>	<input type="checkbox"/>

EXHIBIT "A"

Municipal Wastewater Planning Program (MWPP) Collection System Section

Owner Name: HIGHLAND

Name and Title of Contact Person:

Steven Mower

Phone:

(801) 420-5708

E-mail:

Smower@highlandcity.org

PLEASE SUBMIT TO STATE BY: May 1, 2015

Mail to: MWPP - Department of Environmental Quality
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Phone : (801) 536-4300

Form completed by

Steven Mower

Part I: SYSTEM AGE

A. What year was your collection system first constructed (approximately)?

Year 1978

B. What is the oldest part of your present system?

Oldest part 37 years

Part II: BYPASSES

A. Please complete the following table:

Question	Number	Points Earned	Total Points
How many days last year was there a bypass, overflow or basement flooding by untreated wastewater in the system due to rain or snowmelt?		0 times = 0 points 1 time = 5 points 2 times = 10 points 3 times = 15 points 4 times = 20 points 5 or more = 25 points	0
How many days last year was there a bypass, overflow or basement flooding by untreated wastewater due to equipment failure? (except plugged laterals)		0 times = 0 points 1 time = 5 points 2 times = 10 points 3 times = 15 points 4 times = 20 points 5 or more = 25 points	0
TOTAL PART II =			0

B. The Utah Sewer Management Program defines sanitary sewer overflows into two classes. Below include the number of SSOs that occurred in 2014:

Number of Class 1 SSOs in Calendar year 2014 0

Number of Class 2 SSOs in Calendar year 2014 0

Class 1- a Significant SSO means a SSO or backup that is not caused by a private lateral obstruction or problem that:

- (a) effects more than five private structures;
- (b) affects one or more public, commercial or industrial structure(s);
- (c) may result in a public health risk to the general public;
- (d) has a spill volume that exceeds 5,000 gallons, excluding those in single private structures; or
- (e) discharges to Waters of the state.

Class 2 – a Non-Significant SSO means a SSO or backup that is not caused by a private lateral obstruction or problem that does not meet the Class 1 SSO criteria.

Part II: BYPASSES (cont.)

C. Please specify whether the SSOs were caused a contract or tributary community, etc.

N/A

Part III: NEW DEVELOPMENT

A. Please complete the following table:

Question	Points Earned	Total Points
Has an industry (or other development) moved into the community or expanded production in the past two years, such that either flow or wastewater loadings to the sewerage system were significantly increased (10-20%)?	No = 0 points Yes = 10 points	0
Are there any major new developments (industrial, commercial, or residential) anticipated in the next 2-3 years, such that either flow or BOD ₅ loadings to the sewerage system could significantly increase (25%)?	No = 0 points Yes = 10 points	0
TOTAL PART III =		0

B. Approximate number of new residential sewer connections in the last year

137 new residential connections

C. Approximate number of new commercial/industrial connections in the last year

1 new commercial/industrial connections

D. Approximate number of new population serviced in the last year

616 new people served

Part IV: OPERATOR CERTIFICATION

A. How many collection system operators are currently employed by your facility?

4 collection system operators employed

B. What is/are the name(s) of your DRC operator(s)?

Steven Mowier
Justin Parduhn

C. You are required to have the collection DRC operator(s) certified at **Grade III**

What is the current grade of the DRC operator(s)? IV

D. State of Utah Administrative Rules requires all operators considered to be in DRC to be appropriately certified. List all the operators in your system by their certification class.

Not Certified _____
 Small Lagoons _____
 Collection I _____
 Collection II _____
 Collection III _____
 Collection IV 4

E. Please complete the following table:

Question	Points Earned	Total Points
Is/are your DRC operator(s) currently certified at the appropriate grade for this facility? (see C)	Yes = 0 points No = 50 points	0
How many continuing education units has each of the DRC operator(s) completed over the last 3 years?	3 or more = 0 points less than 3 = 10 points	0
TOTAL PART IV =		0

Part V: FACILITY MAINTENANCE

A. Please complete the following table:

Question	Points Earned	Total Points
Do you follow an annual preventative maintenance program?	Yes = 0 points No = 30 points	0
Is it written?	Yes = 0 points No = 20 points	0
Do you have a written emergency response plan?	Yes = 0 points No = 20 points	0
Do you have an updated operations and maintenance manual	Yes = 0 points No = 20 points	0
Do you have a written safety plan?	Yes = 0 points No = 20 points	0
TOTAL PART V =		0

Part VI: SSMP EVALUATION

- A. Has your system completed its Sewer System Management Plan (SSMP)?
 Yes X NO _____
- B. If the SSMP has been completed then has the SSMP been public noticed?
 No _____ Yes, included date of public notice Aug. 19, 2014
- C. Has the SSMP been approved by the permittee's governing body at a public meeting?
 Yes X NO _____
- D. During the annual assessment of the operation and maintenance plan were any adjustments needed based on the performance of the plan?
 No X If yes, what components of the plan were changed (i.e. line cleaning, CCTV inspections and manhole inspections and/or SSO events)

Part VI: SSMP EVALUATION (cont.)

E. During 2014 was any part of the SSMP audited as part of the five year audit?

No X

If yes, what part of the SSMP was audited and were changed made to the SSMP as a result of the audit? _____

F. Has your system completed its *System Evaluation and Capacity Assurance Plan* (SECAP) as defined by the Utah Sewer Management Program?

Yes X NO _____

The following are required completion dates that the SSMP and SECAP based on population. The SSMP and SECAP must be public noticed and approved by the permittee's governing body in order to be considered complete.

Program	Population				
	< 2,000	2,000 - 3,500	3,501 – 15,000	15,001 – 50,000	> 50,000
SSMP	3-31-16	3-31-16	9-30-15	3-31-15	9-30-14
SECAP	Optional	9-30-17	9-30-16	3-31-16	9-30-15

SSMP Signatory Requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Caron Palmer
Signature of Signatory Official

4/15/15
Date

Caron Palmer
Print Name of Signatory Official

City Administrator
Title

The signatory official is the person authorized to sign permit documents, per R317-8-3.4.

Part VII: SUBJECTIVE EVALUATION

This section should be with the system operators.

- A. Describe the physical condition of the sewer collection system: (lift stations, etc. included)

Highland has 5 Sewer lift Stations
Small areas of older pipe (Concrete)
The majority of system is PVC

- B. What sewerage system improvements does the community have under consideration for the next 10 years?

Pipe up-sizing have already been completed, more have been planned / Infiltration repair have been done and more planned for future. / Root treatment have been done and re-treats planned.

- C. Explain what problems, other than plugging have you experienced over the last year

Small areas of roots / Some infiltration that have been identified and repaired

- D. Is your community presently involved in formal planning for system expansion/upgrading? If so explain.

Yes - In conjunction with ~~the~~ Hansen Allen & Luce are identifying areas of up-grade and improvement.

- E. Does the municipality/district pay for the continuing education expenses of operators?

ALWAYS _____ SOMETIMES _____ NO _____

If they do, what percentage is paid?

approximately 100 %

Municipal Wastewater Planning Program (MWPP) Financial Evaluation Section

Owner Name: *HIGHLAND*

Name and Title of Financial Contact Person:

Gary LeCheminant

Phone: _____

E-mail: *Gary L @ highland city*

PLEASE SUBMIT TO STATE BY: May 1, 2015

Mail to: MWPP - Department of Environmental Quality
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870
Phone : (801) 536-4300

NOTE: This questionnaire has been compiled for your benefit by a state sponsored task force comprised of representatives of local government and service districts. It is designed to assist you in making an evaluation of your wastewater system and financial planning. Please answer questions as accurately as possible to give you the best evaluation of your facility. If you need assistance please call, Emily Cantón. Utah Division of Water Quality: (801) 536-4342.

I. Definitions: The following terms and definitions may help you complete the worksheets and questionnaire:

User Charge (UC) - A fee established for one or more class(es) of users of the wastewater treatment facilities that generate revenues to pay for costs of the system.

Operation and Maintenance Expense - Expenditures incurred for materials, labor, utilities, and other items necessary for managing and maintaining the facility to achieve or maintain the capacity and performance for which it was designed and constructed.

Repair and Replacement Cost - Expenditures incurred during the useful life of the treatment works for obtaining and installing equipment, accessories, and/or appurtenances necessary to maintain the existing capacity and the performance for which the facility was designed and constructed.

Capital Needs - Cost to construct, upgrade or improve the facility.

Capital Improvement Reserve Account - A reserve established to accumulate funds for construction and/or replacement of treatment facilities, collection lines or other capital improvement needs.

Reserve for Debt Service - A reserve for bond repayment as may be defined in accordance with terms of a bond indenture.

Current Debt Service - Interest and principal costs for debt payable this year.

Repair and Replacement Sinking Fund - A fund to accumulate funds for repairs and maintenance to fixed assets not normally included in operation expenses and for replacement costs (defined above).

Part I: OPERATION AND MAINTENANCE

Complete the following table:

Question	Points Earned	Total
Are revenues sufficient to cover operation, maintenance, and repair & replacement (OM&R) costs <u>at this time?</u>	YES = 0 points NO = 25 points	0
Are the projected revenues sufficient to cover operation, maintenance, and repair & replacement (OM&R) costs for <u>the next five years?</u>	YES = 0 points NO = 25 points	0
Does the facility have sufficient staff to ensure proper O&M?	YES = 0 points NO = 25 points	0
Has a dedicated sinking fund been established to provide for repair & replacement costs?	YES = 0 points NO = 25 points	0
Is the repair & replacement sinking fund adequate to meet anticipated needs?	YES = 0 points NO = 25 points	0
TOTAL PART I =		0

Part II: CAPITAL IMPROVEMENTS

Complete the following table:

Question	Points Earned	Total
Are present revenues collected sufficient to cover all costs and provide funding for capital improvements?	YES = 0 points NO = 25 points	0
Are projected funding sources sufficient to cover all projected capital improvement costs for the <u>next five years?</u>	YES = 0 points NO = 25 points	0
Are projected funding sources sufficient to cover all projected capital improvement costs for the <u>next ten years?</u>	YES = 0 points NO = 25 points	0
Are projected funding sources sufficient to cover all projected capital improvement costs for the <u>next twenty years?</u>	YES = 0 points NO = 25 points	25
Has a dedicated sinking fund been established to provide for future capital improvements?	YES = 0 points NO = 25 points	0
TOTAL PART II =		25

Part III: GENERAL QUESTIONS

Complete the following table:

Question	Points Earned	Total
Is the wastewater treatment fund a separate enterprise fund/account or <u>district</u> ?	YES = 0 points NO = 25 points	0
Are you collecting 95% or more of your sewer billings?	YES = 0 points NO = 25 points	0
Is there a review, at least annually, of user fees?	YES = 0 points NO = 25 points	25
Are bond reserve requirements being met if applicable?	YES = 0 points NO = 25 points	0
TOTAL PART III =		25

Part IV: PROJECTED NEEDS

Estimate as best you can the following:

Cost of projected capital improvements (in thousands)	2015	2016	2017	2018	2019
	745,000 605,000	740,000	0	0	600,000

Point Summation

Fill in the values from Parts I through III in the blanks provided in column 1. Add the numbers to determine the MWPP point total that reflects your present financial position for meeting your wastewater needs.

Part	Points
I	0
II	0
III	25
Total	25



CITY COUNCIL AGENDA REPORT

Item #4

DATE: April 21, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Nathan Crane, AICP
Community Development Director

SUBJECT: MOTION – SELECTION OF CONSULTANT FOR PARK MAINTENANCE BUILDING

STAFF RECOMMENDATION:

Select a consultant for the preparation of the site and construction plans for the Park Maintenance Building.

BACKGROUND:

The Council has selected a site for the future park maintenance building. The next step in the process is to prepare the documents needed for the conditional use permit and the permit and construction documents. Staff requested bids from three different engineering firms. All bids included the following services:

- Building Elevations
- Site Plan
- Landscape Plan
- Structural Engineering
- Mechanical and Plumbing Design
- Electrical Engineering

The bids are as follows:

Firm	Fee
Epic Engineering	\$23,700
Forsgren Associates, Inc.	\$23,300
JUB Engineers	\$30,329.15

RECOMMENDATION AND PROPOSED MOTION:

Staff recommends the City Council authorize the Mayor to sign a contract with Forsgren Associates, Inc. to complete site plan and construction drawings for the park maintenance facility.

I move that the City Council authorize the Mayor to sign a contract with Forsgren Associates, Inc. to complete site plan and construction drawings for the park maintenance facility for a not to exceed sum of \$23,300.

FISCAL IMPACT:

Total Cost is \$23,300 from account 42-40-67 which current has \$150,000.

ATTACHMENTS:

- Forsgren Associates Proposal
- Epic Engineering Proposal
- JUB Engineering Proposal

April 13, 2014

Nathan Crane
Community Development Director
5400 West Civic Center Drive
Highland, Utah 84003

RE: Proposal to provide engineering service for the Park Maintenance Shop Project

Dear Nathan:

Thank you for taking some time to visit with us to discuss the above referenced project. Based on our discussion, we have prepared the following scope of work to describe our understanding of the project and the services necessary to complete the project.

Scope of Work:

- Kick off Meeting
- Finalized Site Selection
- Design Meeting(s) – With City to Discuss:
 - Building Uses & Layout
 - Office Space Requirements
 - Lighting (indoor & outdoor), electrical, heating, cooling, plumbing requirements
 - Indoor Storage Areas
 - Outdoor Storage Areas
 - Hazardous Material Storage Area
 - Maintenance Areas
 - Building Types
 - Parking Areas
 - Storm Drainage
 - Fencing
 - Landscaping
 - Utility connections
- Topographic Survey of property for Site Plan
- Evaluate Building Types and Costs and recommend building supplier
- Prepare Site Plan Concept
- Prepare Building Renderings and Elevations Concept
- Apply for Conditional Use Permit (Attend meetings as necessary)
- Prepare Construction Drawings
- Prepare Construction Specifications
- Prepare Bidding Documents
- Assist with Bidding and Contractor Selection

The following are additional services that we could provide to the City if the need arises:

- Construction Inspection
- Coordinate Geotechnical Report

- Boundary Survey
- Utility Service Coordination, Gas, Phone, Electric

Per our discussion, we understand that the project will be somewhat fluid in nature, i.e. the site may change and based on the budget the city may be willing to provide some of the necessary services. As the project develops we are happy to work with Highland City to allow city staff to play as significant a role as they would like. We are also happy to take the project and run with it.

We anticipate the following meetings with Highland City:

- Kick off Meeting (1)
- Planning/Design meetings (2)
- Planning Commission Meeting for Conditional Use Permit (1)
- Design Review Meeting (1)
- Additional Meetings as needed.(2)

Schedule

In the event we are able to provide these services, we will schedule the kick off meeting and planning/design meetings with the staff and begin working immediately on the concept drawings for the site plan and the building elevations as well as prepare the application for the May 26th Planning Commission meeting.

We anticipate that once the Conditional Use Permit is completed, we will complete the project within 30 to 45 days and be ready to go to bid.

Compensation

We have attached a detailed cost break down of the project. We propose to provide the included service for a lump sum amount of \$23,300. If additional services are requested we can negotiate those at such time. If the project budget dictates that the City provide some of the services we can use the attached cost estimate to assist in those discussions.

We appreciate the invitation to offer this proposal for the park maintenance building project. If you have any questions please do not hesitate to call me (801) 440-7907 or Bruce Ward at (801) 360-6297.

Sincerely,



Alan Taylor, P.E.
Senior Project Engineer

STAFFING PLAN AND LABOR COST ESTIMATE

CLIENT:	Highland City	Personnel Assigned			
PROJECT:	Park Maintenance Building	<u>Category</u>	<u>Description</u>	<u>Rate</u>	
DATE:	9-Apr-15	1	Managing Engineer	\$ 160.00	HR
DESCRIPTION:	Maintenance Bldg Construction Project	2	Project Engineer	\$ 145.00	HR
		3	Staff Engineer	\$ 110.00	HR
		4	Senior Designer	\$ 90.00	HR

Task Description		Hours By Personnel Category				Total Hours	Total Labor Charges	Other Direct Costs	Other Sub-Consultants Costs	Total Other Direct Charges	Total Fee (Labor + TODC)
		1	2	3	4						
	Scope of Work										
1	Kick Off Meeting	1	2			3	\$ 450.00			\$ -	\$ 450.00
2	Site Selection		4			4	\$ 580.00			\$ -	\$ 580.00
3	Design Meetings	1	8			9	\$ 1,320.00			\$ -	\$ 1,320.00
4	Topographic Survey		2		2	4	\$ 470.00		\$ 1,750.00	\$ 1,750.00	\$ 2,220.00
5	Building Evaluation	1	4	4		9	\$ 1,180.00			\$ -	\$ 1,180.00
6	Building Selection	1	4	4		9	\$ 1,180.00			\$ -	\$ 1,180.00
7	Prepare Site Plan & Grading		4	8	8	20	\$ 2,180.00			\$ -	\$ 2,180.00
8	Landscaping		2	8			\$ 1,170.00			\$ -	\$ 1,170.00
9	Prepare Building and Site Concept for CUP		4	8	8	20	\$ 2,180.00			\$ -	\$ 2,180.00
10	Design Work	1	4	12	16	33	\$ 3,500.00			\$ -	\$ 3,500.00
11	Electrical		4	2	2		\$ 980.00			\$ -	\$ 980.00
12	Construction Plan Set	1	4	8	24	37	\$ 3,780.00			\$ -	\$ 3,780.00
13	Prepare Specs / Contract Docs / Bidding Docs	1	4	8		13	\$ 1,620.00			\$ -	\$ 1,620.00
14	Assist with Bidding & Selection	1	4	2		7	\$ 960.00			\$ -	\$ 960.00
15											
Subtotal Phase II		8	54	64	60	186	\$ 21,550.00	\$ -	\$ 1,750.00	\$ 1,750.00	\$ 23,300.00



March 25, 2015

Highland City
Attn: Nathan Crane
5400 W. Civic Center Dr.
Highland, UT 84003

Re: MAINTENANCE BUILDING - TOWN CENTER PARK LOCATION: PROPOSAL FOR ARCHITECTURAL/ENGINEERING SERVICES (TASK B)

Mr. Crane,

Epic Engineering, P.C. is pleased to submit this proposal for architectural and engineering services relating to the construction of a proposed Highland City maintenance building. It is our understanding that Highland City desires to relocate a maintenance building, parking lot, and storage area to a new location near 5400 West and 10700 North. Based upon the attached conceptual plan, correspondence, and a review of the proposed project, a breakdown of the estimated costs and scope of services are as follows:

Architecture Design and Drafting – Architecture services include: management of the entire design process including organizing and distributing work to the various engineering and design disciplines from schematic design through design development, and construction documents. Review drawings will be provided periodically. Final documents will include a permit and construction plan set and specifications. The proposed cost for these services is \$13,500.

Structural Engineering – Structural engineering work includes footing and foundation design for a prefabricated metal building designed in compliance with local design standards and professional care. Process and final plans and specifications will be provided. The proposed cost for these services is \$5,100.

Mechanical and Plumbing Engineering – This service is to include heating, ventilation, and air conditioning calculations along with system sizing, system layout, and mechanical plan sets and specifications. Also included will be necessary plumbing calculations, system sizing, system layout, and plumbing plan sets and specifications. The proposed cost for these services is \$2,100.

Electrical Engineering – Electrical engineering includes the design and specification of the electrical, fire alarm, and communication/data wiring system. This service includes calculation, drawings, and specifications as required for a building permit. The proposed cost for these services is \$2,100.

Energy Compliance – Energy calculations and documents demonstrating compliance with energy codes will be provided. The proposed cost for these services is \$900.

Epic Engineering proposes to perform the above scopes of work for \$23,700. Unless otherwise stated, the above scopes of work do not include permitting, city submittals, items outside of designer control, and redesign after concept and scope have been fixed.

Epic Engineering is a full service firm able to provide licensed Civil, Structural, Geotechnical, and Electrical Engineering services. In addition, Epic Engineering is also licensed and certified to perform Architectural, Surveying, M.E.P., Material Testing, Inspection, Environmental, and Urban Planning Services. Upon request, Epic Engineering is available to provide any number of additional services which may be required to complete this project.



With our experienced team of professionals, our knowledge of industry standards and specifications, as well as our successful working relationships, we can provide you with a full spectrum of professional services needed for this project. We appreciate the opportunity and look forward to being part of your project.

Please contact me with any questions or concerns at (435) 654-6600 or kwalker@epiceng.net.

Respectfully,

A handwritten signature in blue ink, appearing to read "Corey Walker".

Corey Walker
President



Project Work Plan - HIGHLAND CITY PARKS BUILDING

Engineering/Design Services Phase		
TASK NO.	DESCRIPTION - SCOPE OF SERVICES	TOTAL BUDGET
1	Site Plan design	\$2,234.30
2	Utility Design (Storm Drain, water, etc.)	\$3,034.80
3	Site Grading Plan (parking lot and drainage)	\$3,030.60
4	Structural/Building Design and Calculations	\$8,834.55
5	Project coordination (team meetings, site visits, etc.)	\$1,212.70
6	Project coordination (client meetings)	\$510.00
7	Construction coordination	\$255.00
Total Estimate		\$19,111.95

Survey and Construction Staking Services Phase		
TASK NO.	DESCRIPTION - SCOPE OF SERVICES	TOTAL BUDGET
1	Research and locate controlling land survey monumentation	\$400.00
2	Research and plot deeds of record	\$380.00
3	Field survey - topographic and boundary	\$880.00
4	Download and review field survey data - create line work and CAD base maps	\$800.00
5	Construction staking	\$2,500.00
Total Estimate		\$4,960.00

Electrical and Plumbing Design Services		
TASK NO.	DESCRIPTION - SCOPE OF SERVICES	TOTAL BUDGET
1	Electrical Design	\$2,000.00
2	Plumbing Design	\$1,500.00
Total Estimate		\$3,500.00

Landscape Architecture Services Phase		
TASK NO.	DESCRIPTION - SCOPE OF SERVICES	TOTAL BUDGET
1	Adjust and Finalize Conceptual Design	\$750.00
2	Final Irrigation/Planting Plan & Construction Documents	\$1,500.00
Total Estimate		\$2,250.00

	Subtotal	\$27,571.95
	Contingency - 10%	\$2,757.20
	Project Work Plan Total	\$30,329.15



CITY COUNCIL AGENDA REPORT

Item #5

DATE: April 21, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Nathan Crane, AICP
Community Development Director

SUBJECT: ORDINANCE – ADOPTION OF NEW IMPACT FEES

STAFF RECOMMENDATION:

Adopt new impact fees. The new fees will be effective 90 days from adoption.

BACKGROUND:

In 2011 State Law regarding impact fees was revised. The revisions focused on a level of service. Future capital projects are limited to a six to ten year horizon. Capital projects are also limited to projects or portions of projects needed to accommodate new growth which are funded by the City using historical costs. Impact fees are required to be encumbered within six years.

Through the budgetary process the Council has authorized the hiring of a consultant to complete the Highland City Impact Fee Study. The impact fee study included transportation, parks/trails, pressurized irrigation, sewer, culinary water and public safety. The impact fee study also includes impact fee facility plans for parks/trails, transportation, and public safety. The impact fee study does not include impact fee facility plans for storm drain. The culinary water fee applies to the southeast area of the city only.

Zion's Bank – Public Finance was hired in the fall of 2014 to prepare the revised impact fees. Zion's Bank is responsible for all aspects of the project from initiation to adoption as required by State Law. The Council discussed the impact fees at the January 20, 2015 work session. Individual meeting with the Council were also held during the project.

PREPARATION OF THE IMPACT FEE PROCES:

The following process was used to prepare each fee:

- Analysis of Infrastructure Master Plans
- Analysis of Growth Projections
- Defining the Level of Service
- Analysis of Existing Capital Projects
- Identification of Future Capital Projects to Serve New Growth
- Proportionate Share Analysis

- Calculation of the Impact Fee

PROPOSED FEES:

The following chart shows compares the proposed fees with existing fees:

<i>Impact Fee Comparison</i>			
<i>Fee</i>	<i>Existing</i>	<i>Proposed</i>	<i>Change</i>
Culinary Water (Southeast Area Only)*	\$0	\$1,653	\$1,653
Pressurized Irrigation	\$1,350	\$886	(\$464)
Transportation	\$1,210	\$2,084	\$874
Sanitary Sewer (Central Area)**	\$2,296	\$2,126	(\$170)
Sanitary Sewer (Southeast Area)**	\$2,296	\$2,175	(\$121)
Parks and Recreation	\$6,834	\$4,378	(\$2,456)
Public Safety	\$997	\$1,116	\$119

<i>Impact Fee Example based on a ¼ Acre Lot</i>			
	<i>Current</i>	<i>Proposed</i>	<i>Change</i>
Southeast Area*	\$12,687	\$12,292	(\$395)
Central Area	\$12,687	\$10,590	(\$2,097)

*The southeast area for culinary water only includes the property south of Lone Peak High School. The central area is the remainder of the City.

**The southeast area for sanitary sewer includes the property south of Lone Peak High School and area around the Greens on the Highlands and Wild Rose subdivisions. The Central Area is the remainder of the City.

PUBLIC NOTICE:

All required public notice has been provided as follows:

Notice of its intention to prepare impact fee facilities plans and impact fee analyses for Transportation, Pressurized Irrigation, Parks and Recreation, Sanitary Sewer, and Public Safety on February 12, 2014 and September 11, 2014 and Culinary Water on March 13, 2015 and invited all interested parties to participate in the impact fee preparation process, consistent with UCA Section 11-36a-501

On April 5, 2015, the City posted notice of a public hearing in the local paper, the Daily Herald, Utah’s Public Notice Website and on the City website to consider the assumptions and conclusions of the Impact Fee Facilities Plans, the Impact Fee Analyses, and the Impact Fee Ordinance

On April 9, 2015, a copy of the Impact Fee Analyses and Impact Fee Facilities Plans and the proposed Impact Fee Ordinance, along with a summary of the analyses that was designated to be understood by a lay person, were made available to the public and deposited at Highland City Hall, Highland Public Library, and the Highland Lone Peak Fire District Station and on the public notice website.

RECOMMENDATION AND PROPOSED MOTION:

Staff recommends the City Council adopt the ordinance amending the impact fees.

FISCAL IMPACT:

Reduction in Impact Fee Revenues of approximately

ATTACHMENTS:

- Propsed Ordinance
- Impact Fee Facility Plans and Impact Fee Analysis

IMPACT FEE ORDINANCE

Highland City, Utah

ORDINANCE NO. 2015-**

ORDINANCE ADOPTING AN IMPACT FEE FACILITIES PLAN AND IMPACT FEE ANALYSES AND IMPOSING IMPACT FEES FOR TRANSPORTATION, CULINARY WATER, PRESSURIZED IRRIGATION, PARKS AND RECREATION, SANITARY SEWER, AND PUBLIC SAFETY; PROVIDING FOR THE CALCULATION AND COLLECTION OF SUCH FEES; PROVIDING FOR APPEAL, ACCOUNTING AND SEVERABILITY OF THE SAME, AND OTHER RELATED MATTERS

WHEREAS, Highland City, Utah (the “City”) posted notice of its intention to prepare impact fee facilities plans (“Impact Fee Facilities Plans”) and impact fee analyses (“Impact Fee Analyses”) for Transportation, Pressurized Irrigation, Parks and Recreation, Sanitary Sewer, and Public Safety on February 12, 2014 and September 11, 2014 and Culinary Water on March 13, 2015 and invited all interested parties to participate in the impact fee preparation process, consistent with UCA Section 11-36a-501;

WHEREAS, Highland City is a municipality in the State of Utah, authorized and organized under the provisions of Utah law and is authorized pursuant to the Impact Fees Act, Utah Code Ann. 11-36a-101 et seq. to adopt impact fees; and

WHEREAS, on April 5, 2015, the City posted notice of a public hearing in the local paper, the Daily Herald, Utah’s Public Notice Website and on the City website to consider the assumptions and conclusions of the Impact Fee Facilities Plans, the Impact Fee Analyses, and the Impact Fee Ordinance;

WHEREAS, on April 9, 2015 the Impact Fee Facilities Plan Consultants have certified their work under UCA section 11-36a-306(1);

WHEREAS, on April 9, 2015, the Impact Fee Analysis Consultant certifies its work under UCA Section 11-36a-306(2);

WHEREAS, on April 9, 2015, a copy of the Impact Fee Analyses and Impact Fee Facilities Plans and the proposed Impact Fee Ordinance, along with a summary of the analyses that was designated to be understood by a lay person, were made available to the public and deposited at Highland City Hall, Highland Public Library, and the Highland Lone Peak Fire District Station and on the public notice website; and

WHEREAS, the Highland City Council (the “Council”) met in regular session on April 21, 2015, to convene a public hearing and to consider adopting the Impact Fee Facilities Plans, the Impact Fee Analyses, and the Impact Fee Ordinance, imposing updated Transportation,

Culinary Water, Pressurized Irrigation, Parks and Recreation, Sanitary Sewer, and Public Safety impact fees, providing for the calculation and collection of such fees, and providing for an appeal process, accounting and reporting method and other related matters; and

WHEREAS, on April 21, 2015 considering the input of the public and stakeholders and relying on the professional advice and certification of the Impact Fee Facilities Plan Consultants, Highland City adopted the findings, conclusions, and recommendations of the Impact Fee Analyses prepared by Zions Bank Public Finance (“Consultant”), a copy of which is attached hereto; and

WHEREAS, after careful consideration and review of the comments at the public hearing, the Council has determined that it is in the best interest of the health, safety and welfare of the inhabitants of Highland City to adopt the findings and recommendations of the Impact Fee Facilities Plans and Impact Fee Analyses to address the impacts of development upon the fire, police, transportation, culinary water, pressurized irrigation, parks and recreation, and sanitary sewer utilities, to adopt the Impact Fee Facilities Plans as proposed, to approve the Impact Fee Analyses as proposed, to adopt Transportation, Culinary Water, Pressurized Irrigation, Parks and Recreation, Sanitary Sewer, and Public Safety impact fees, to provide for the calculation and collection of such fees, and to provide for an appeal process, and an accounting and reporting method of the same.

NOW, THEREFORE, BE IT ORDAINED by the Highland City Council as follows:

Section 1. Findings. The Council finds and determines as follows:

1.1. All required notices have been given and made and public hearings conducted as requested by the Impact Fees Act with respect to the Impact Fee Facilities Plans, the Impact Fee Analyses, and this Impact Fee Ordinance (this “Ordinance”).

1.2. Growth and development activities in Highland City will create additional demands on its infrastructure. The facility improvement requirements which are analyzed in the Impact Fee Facilities Plans and the Impact Fee Analyses are the direct result of the additional facility needs caused by future development activities. The persons responsible for growth and development activities should pay a proportionate share of the costs of the facilities needed to serve the growth and development activity.

1.3. Impact fees are necessary to achieve an equitable allocation to the costs borne in the past and to be borne in the future, in comparison with the benefits already received and yet to be received.

1.4. In enacting and approving the Impact Fee Analyses and this Ordinance, the Council has taken into consideration, and in certain situations will consider on a case-by-case basis in the future, the future capital facilities and needs of Highland City, the capital financial

needs of Highland City which are the result of Highland City's future facilities' needs, the distribution of the burden of costs to different properties within Highland City based on the use of water, secondary, sewer, police/fire and park facilities of Highland City by such properties, the financial contribution of those properties and other properties similarly situated in Highland City at the time of computation of the required fee and prior to the enactment of this Ordinance, all revenue sources available to Highland City, and the impact on future facilities that will be required by growth and new development activities in Highland City.

1.5. The provisions of this Ordinance shall be liberally construed in order to carry out the purpose and intent of the Council in establishing the impact fee program.

Section 2. Definitions.

2.1. Except as provided below, words and phrases that are defined in the Impact Fees Act shall have the same meaning in this Ordinance.

2.2. "Service Area" shall mean geographic areas designated within the City's boundaries as exhibited in the appendix of the Impact Fee Analyses.

2.3. "Project Improvement" does not mean system improvement and includes, but is not limited to, those projects identified in the plans for the benefit of growth.

2.4. "Utah State Impact Fees Act" shall mean Title 11, Chapter 36a, Utah Code Annotated or its successor state statute if that title and chapter is renumbered, recodified, or amended.

Section 3. Adoption.

The Council hereby approves and adopts the Impact Fee Analyses, the Impact Fee Facilities Plans, corresponding fee schedules and the analyses reflected therein. The Impact Fee Facilities Plans and the Impact Fee Analyses are incorporated herein by reference and adopted as though fully set forth herein.

Section 4. Impact Fee Calculations.

4.1. Impact Fees. The impact fees imposed by this Ordinance shall have two components; a future facilities impact fee as well as a buy in fee for excess capacity in existing facilities. The Impact Fee shall be calculated as set forth below.

4.2. Developer Credits/Developer Reimbursements. A developer, including a school district or charter school, may be allowed a credit against or proportionate reimbursement of impact fees if the developer dedicates land for a system improvement, builds and dedicates some or all of a system improvement, or dedicates a public facility that Highland City and the developer agree will reduce the need for a system improvement. A credit against impact fees shall be granted for any dedication of land for,

improvement to, or new construction of, any system improvements provided by the developer if the facilities are system improvements to the respective utilities, or are dedicated to the public and offset the need for an identified future improvement.

4.3. Adjustment of Fees. The Council may adjust either up (but not above the maximum allowable fee) or down the standard impact fees at the time the fee is charged in order to respond to an unusual circumstance in specific cases and to ensure that the fees are imposed fairly. The Council may adjust the amount of the fees to be imposed if the fee payer submits studies and data clearly showing that the payment of an adjusted impact fee is more consistent with the true impact being placed on the system.

4.4. Impact Fee Accounting. Highland City shall establish a separate interest-bearing ledger account for the cash impact fees collected pursuant to this Ordinance. Interest earned on such account shall be allocated to that account.

(a) Reporting. At the end of each fiscal year, Highland City shall prepare a report generally showing the source and amount of all monies collected, earned and received by the fund or account and of each expenditure from the fund or account. The report shall also identify impact fee revenues by the year in which they were received, the project from which the funds were collected, the capital projects from which the funds were budgeted, and the projected schedule for expenditure and be provided to the State Auditor on the appropriate form found on the State Auditor's Website.

(b) Impact Fee Expenditures. Funds collected pursuant to the impact fees shall be deposited in such account and only be used by the City to construct and upgrade the respective facilities to adequately service development activity or used as otherwise approved by law.

4.5. Refunds. The City shall refund any impact fee paid when:

(a) the fee payer has not proceeded with the development activity and has filed a written request with the Council for a refund within one year after the impact fee was paid;

(b) the fees have not been spent or encumbered within six years of the payment date; and

(c) no impact has resulted.

Section 5. Applicability to Fees Paid Prior to Enactment.

5.1. Any person who paid an impact fee prior to the enactment of this ordinance shall owe the fee in the amount that was then existing at the time of payment, and such fee shall not be affected by this ordinance. The City shall not refund any

difference between the fee paid prior to the enactment of this ordinance in cases where the fee has decreased hereunder; neither shall the City charge the difference in the event the fee has increased hereunder.

Section 6. Appeal.

6.1. Any person required to pay an impact fee who believes the fee does not meet the requirements of the law may file a written request for information with the City Council.

6.2. Within two weeks of the receipt of the request for information the City shall provide the person or entity with a copy of the reports and with any other relevant information relating to the impact fee.

6.3. Any person or entity required to pay an impact fee imposed under this article, who believes the fee does not meet the requirements of law may request and be granted a full administrative appeal of that grievance. An appeal shall be made to the Council within thirty (30) calendar days of the date of the action complained of, or the date when the complaining person reasonably should have become aware of the action.

6.4 The notice of the administrative appeal to the Council shall be filed and shall contain the following information:

1. The person's name, mailing address, and daytime telephone number;
2. A copy of the written request for information and a brief summary of the grounds for appeal;
3. The relief sought.

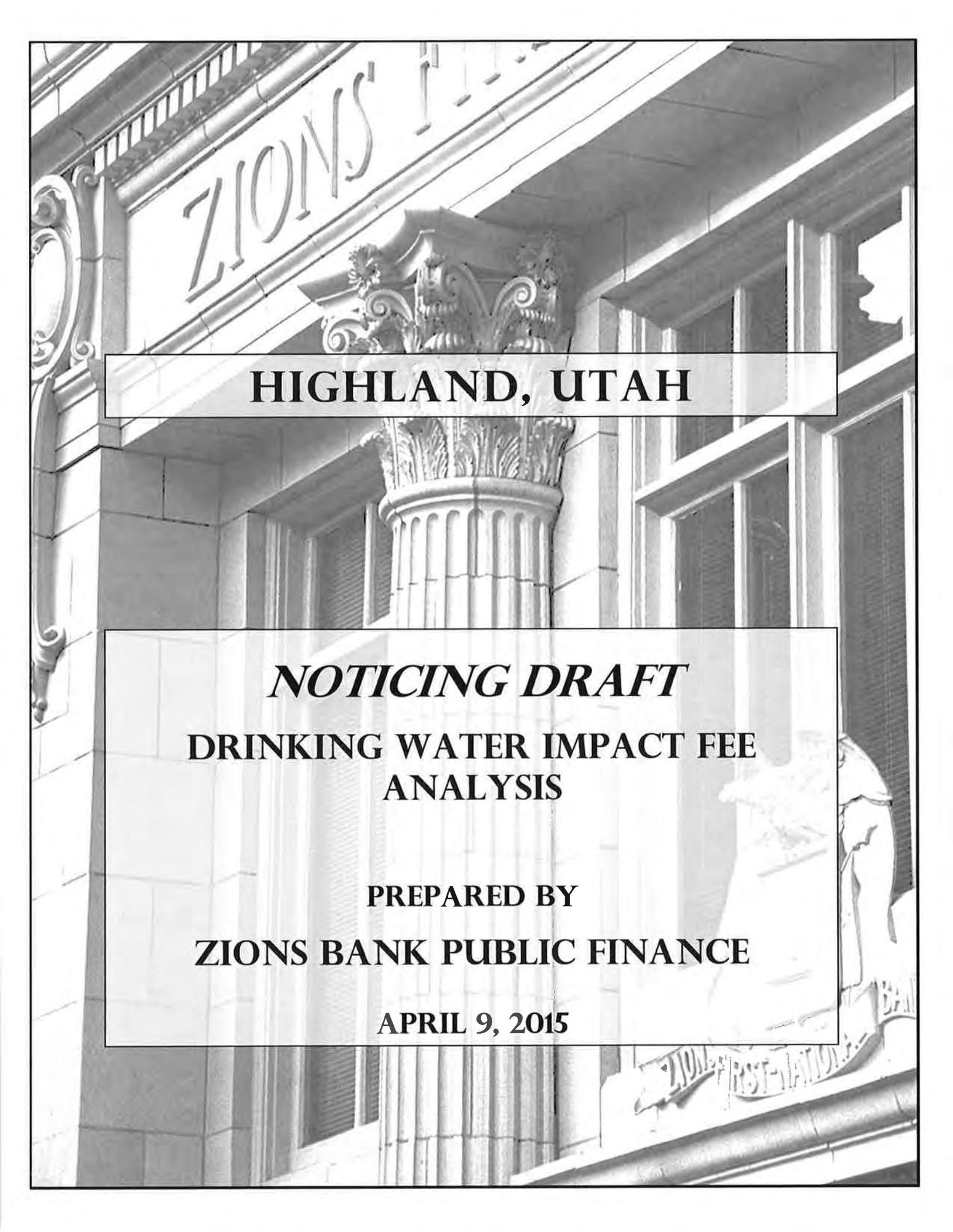
6.5 The City shall schedule the appeal before the Council no sooner than five (5) days and no later than fifteen (15) days from the date of the filing of the appeal. The written decision of the Council shall be made no later than thirty (30) days after the date the challenge to the fee is filed with the City and shall, when necessary, be forwarded to the appropriate officials for action.

This Ordinance shall be effective April 22, 2015.

Mark Thompson, Mayor

ATTEST:

Jody Bates, City Recorder



HIGHLAND, UTAH

NOTICING DRAFT
**DRINKING WATER IMPACT FEE
ANALYSIS**

PREPARED BY
ZIONS BANK PUBLIC FINANCE

APRIL 9, 2015



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EXECUTIVE SUMMARY

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the drinking water impact fees. The following pages summarize the document and tables included. The intent is to provide a concise discussion of the calculation and identification of the maximum legal impact fee.

Growth and ERC Projections

The area of the City that the drinking water impact fee will be assessed is currently undeveloped. The South East area of the City is expected to develop rapidly and most likely develop within the next ten years. It is projected that the Service Area will develop to 1,160 equivalent residential connections (ERCs). The following table identifies the current and future ERCs in the South East Service Area. The analysis considers growth over the next six to ten years. The full growth table can be found in Appendix 1 of the document. The remainder of the City has been previously served by the Highland Water Company.

Figure ES1: Drinking Water ERCs Served by Highland City

Drinking Water		
	Current	Buildout
Current ERCs ¹	-	1,160

¹ HAL 2015 IFFP

Level of Service Definitions

Hansen Allen & Luce defined the City's level of service in the Impact Fee Facilities Plan. The plan states the following:

Level of Service Summary	
ERCs	1
Peak Day Source Flow Rate (gpd)	800
Distribution Minimum Operating Pressure	50 psi
Fire Suppression Residual Pressure	20 psi

PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped and the costs of impacts on system improvements that are reasonably related to the new development activity.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. A City typically funds drinking water infrastructure through several different funding sources including:

- User Fees (rate revenues)
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

All of these funding sources (with exception of developer contributions/donations) are impact fee qualifying expenses to be considered for buy-in purposes. However, this area is currently undeveloped and there is no infrastructure, therefore, there is no buy-in for this service area.

Highland City: Water Impact Fee Analysis NOTICING DRAFT

In consideration of future capital improvements, the City will continue using similar funding sources; no grants are being considered or are available at this time. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users.¹

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

There is no existing infrastructure in this area. Therefore, there will be no buy-in component.

Future Capital Improvements

Hansen Allen & Luce provided a list of capital projects to be constructed in the next ten years and the corresponding percentage of the projects that will benefit growth through the next ten years. The 2014 fiscal year total of capital improvements is \$1,918,050. The IFFP defines approximately 100% of the cost will be included into the impact fee.

Outstanding and Future Debt

There is no outstanding drinking water related debt in Highland. It is currently not anticipated that the City will bond for drinking water in the next ten years.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for the South East Service Area. The fee is calculated per ERC. For non-residential land uses, new connections will pay the fee based on the equivalent residential connections each land use generates. The Highland City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fee calculated. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This adjusted impact fee calculation will be based on the calculation found in Figure ES3.

Figure ES2: Maximum Legal Fee per ERC

Meter Size	Operating Flow	Equivalency Ratios	Proposed Impact Fee
Displacement Meters			
Single Family Residential Equivalent 0.75"	25	1.00	\$ 1,653
0.75"	25	1.00	1,653
1"	40	1.60	2,646
1.5"	50	2.00	3,307
2"	100	4.00	6,614
Class II Turbine Meters - High Velocity			
1.5"	100	4.00	\$ 6,614
2"	160	6.40	10,582
3"	350	14.00	23,149
4"	630	25.20	41,668
6"	1,400	56.00	92,596
8"	2,400	96.00	158,735
10"	3,800	152.00	251,331
12"	5,000	200.00	330,698
Compound Meters			
2"	160	6.40	\$ 10,582
3"	320	12.80	21,165
4"	500	20.00	33,070
6"	1,000	40.00	66,140
8"	1,600	64.00	105,823
10"	2,300	92.00	152,121

¹ Utah Impact Fees Act, 11-36a-304(2) (c) (d)



Highland City: Water Impact Fee Analysis NOTICING DRAFT

Figure ES3: Non-Standard Calculation

Drinking Water Non-Standard Impact Fee Formula
Step 1: Identify Peak Day Demand of Proposed Development
Step 2: Multiply Peak Day Demand (Gallons) by Price per Gallon of \$2.07

DRAFT

CHAPTER 1: IMPACT FEE OVERVIEW

PROJECT OVERVIEW

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the drinking water impact fees. Highland realizes that due to the age of its current analysis, as well as changes to the Impact Fees Act, required updates and review of its impact fees as well as its facility planning are needed. The City is still growing rapidly and has many capital needs. The update to the analysis is an intensive, collaborative effort that meets the needs of City stakeholders and the City. The information used to create this fee analysis was provided by City staff, Zions Bank Public Finance and Hansen Allen & Luce.

The goal of the impact fee analysis is to calculate the maximum impact fee that may be assessed to new development and ensure the fee meets the requirements of the Impact Fees Act, Utah Code 11-36a-101 *et seq.* The sections and subsections of the Impact Fee Analysis will directly address the following items, required by the code:

- Impact Fee Analysis requirements (Utah Code 11-36a-304)
 - Identify existing capacity to serve growth
 - Proportionate share analysis
 - Identify the level of service
 - Identify the impact of future development on existing and future improvements
- Calculated fee (Utah Code 11-36a-305)
- Certification (Utah Code 11-36a-306)

WHY IS THE CITY UPDATING THE EXISTING ANALYSIS?

The City has commissioned this Drinking Water Impact Fee Analysis amendment to accomplish the following:

- Determine the maximum impact fee that may be assessed to new development;
- Update capital need projections and account for historic costs of facilities;
- Put the analysis in compliance with the changes to the Impact Fees Act effective May 2011;
- Include an Impact Fee Facilities Plan (IFFP) with a ten year capital planning horizon; and
- More clearly define the current level of service and the future level of service that the City will provide.

WHAT IS 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 water collection facilities with capacity to serve new growth. 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. Impact fees are charged to development according to a number of ERCs generated, which is a realistic measure of the potential water demands that each user will add to the system.

HOW WILL NEW GROWTH AFFECT THE CITY?

According to the current Impact Fee Facilities Plan, the Service Area does not have any existing ERCs and the plan estimates that over the next ten years the City will add approximately 1,160 ERCs.

Population growth is important in Impact Fee Facilities Planning as population, in addition to non-residential demands, drive project needs and timing. However, this drinking water impact fee analysis is not population dependent as the system is sized for commercial, industrial, institutional, churches, schools, etc. The primary measurement of capacity and demand in a drinking water system is an ERC. The fee is based on capacity available in

Highland City: Water Impact Fee Analysis NOTICING DRAFT

the existing system and in future projects and is not directly dependent upon population or upon the growth rate, as non-residential demands have a great impact upon the drinking water system.

Figure 1: Projected Growth Drinking Water ERCs

Drinking Water		
	Current	Buildout
Current ERCs ¹	-	1,160

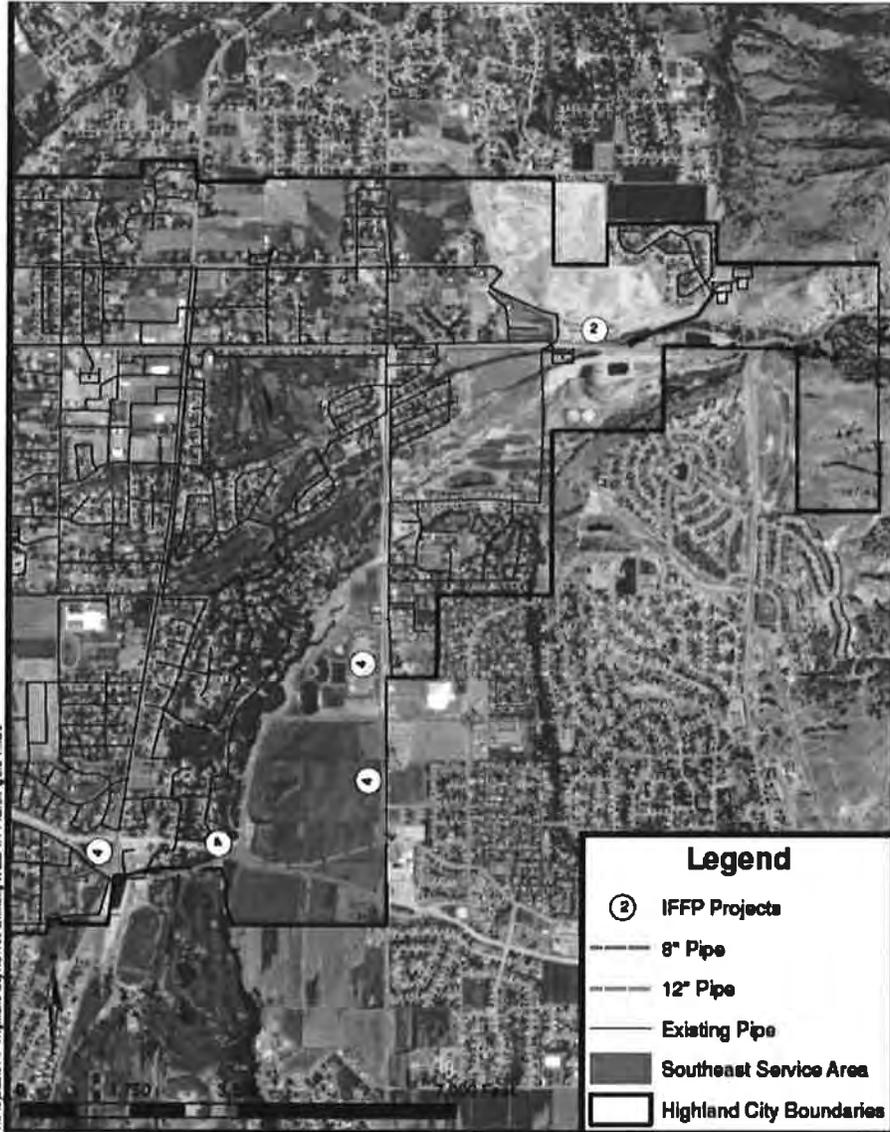
WHY ARE IMPACT FEES NECESSARY?

Impact fees are necessary to allocate the costs of unused drinking water system capacity that is reserved for new growth to the developments that will benefit from it. Impact fees help to shield existing users from shouldering the burden of paying not only for the capacity that they use but also from funding the cost of capacity needed for new development to occur.

WHERE WILL THE IMPACT FEES BE ASSESSED?

The impact fees will be assessed within the City's Drinking Water South East Service Area, which undeveloped areas to which the City will provide drinking water service. A detailed map of the area included in the attached appendix shows the Service Area served by the City. In short, if a developer is requesting a building permit and will be served by the City's drinking water system then that property is included in the South East Service Area.

Figure 2: Service Area Map



WHAT COSTS ARE INCLUDED IN THE IMPACT FEE?

Impact fee revenues may not be spent on capital projects or associated costs, such as financing interest expense that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service for current users. Impact fees cannot fund operational expenses. The proposed impact fees will be assessed throughout the entire Impact Fee Service Area.

The impact fees proposed in this analysis are calculated based upon:

- Costs of replacement facilities that are needed to perpetuate unused capacity in the system that growth will require;
- New capital infrastructure that provides new capacity for growth;
- Historic costs of existing improvements that maintain capacity that will serve new development; and

Highland City: Water Impact Fee Analysis NOTICING DRAFT

- Cost of professional services for engineering, planning services and preparation of the impact fee facilities plan and impact fee analysis.

WHAT COSTS ARE NOT INCLUDED IN THE IMPACT FEE?

The costs, both direct capital and financing, that cannot be included in the impact fee are as follows:

- Projects that cure deficiencies for existing users;
- Projects that increase the level of service above that which is currently provided;
- Operations and maintenance costs;
- Costs of facilities funded by grants or other funds that the City does not have to repay; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

HOW ARE IMPACT FEES CALCULATED?

To calculate a fair impact fee we determine a growth related cost of existing and future facilities and divide that by the number of new units that will benefit from the unused capacity. A cost per unit is calculated by dividing impact fee qualifying cost by the amount of capacity to derive the cost per capacity unit. This cost per unit of capacity is then multiplied by the amount of demand that a typical residential home or ERC would utilize.

The general impact fee methodology splits the capacity in existing facilities and future capital projects between that which already benefits existing users and capacity that is available to benefit new growth. A cost is assigned to the capacity that is available for new growth based upon the historic cost of water and secondary water facilities and the future costs of water infrastructure. A final fee per residential or non-residential land use is calculated by multiplying the cost per ERC by the number of ERCs that each new unit of development will generate.

WHAT IS THE CURRENT LEVEL OF SERVICE?

The IFFP has defined the current level of service as:

- Water: 800 gallons per Equivalent Residential Connection at peak day demand.²

However, it must be considered that although this is the average day ERC, the system will be sized to meet peak. The peak day flow calculation and consideration is in the table below.

Level of Service Summary	
ERCs	1
Peak Day Source Flow Rate (gpd)	800
Distribution Minimum Operating Pressure	50 psi
Fire Suppression Residual Pressure	20 psi

HOW ARE SCHOOLS CONSIDERED IN THIS ANALYSIS?

The Impact Fees Act exempts schools from paying a parks and recreation impact fee but with proper documentation of the impact that a school could place on the drinking water system, the City can assess an impact fee for schools. The Drinking Water Impact Fee Analysis quantifies the cost per ERC and also defines the number of ERCs that can be served by each size of culinary water meter that a school could install. The impact that a school will have upon the water system is clearly defined by water usage/ERCs.

² HAL Impact Fee Facilities Plan

CHAPTER 2: FUTURE CAPITAL PROJECTS AND LEVEL OF SERVICE

IMPACT FEE ANALYSIS REQUIREMENTS

Growth and ERC Projections

According to the 2010 Census the population at that time was 15,523³. Population is important in the Capital Facilities and Impact Fee Facilities planning as population, and other factors, drive project need and timing. However, this impact fee analysis is not population dependent. The driving force is the Equivalent Residential Connection (ERC). The Impact Fee Facilities Plan defines an ERC as 800 gallons per peak day usage⁴. Currently the City has no equivalent residential connections. In the next six to ten years it is anticipated that the City will grow to 1,160 ERCs.

There will be significant growth expected within the City's boundaries and increased demand on the City's collection facilities which will require new projects to meet further demand. The area is growing at a very rapid pace. The growth projections in ERCs are found in the appendix of this document.

Level of Service Definitions

The Impact Fee Facilities Plan has defined the current level of service in Highland as:

- Drinking Water Peak Day Demand: 800 gallons per day per indoor ERC
- Distribution Minimum Operating Pressure 50 psi
- Fire Suppression Residual Pressure 20 psi

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

The South East Service Area is currently undeveloped and has no existing infrastructure. There is no buy-in component calculated in this impact fee analysis.

Impact Fee Facilities Plan – Future Capital Projects

The Impact Fee Facilities Plan developed the following capital projects, helped determine the timing and identified what was growth related, and of that amount, how much of the total capacity will be realized in the next ten years (percentage Impact Fee Qualifying & Impact Fee Qualifying Cost).

Figure 3: Capital Projects by Service Area

Project Name	Year to be Constructed	FY 2015 Cost	Construction Cost	% to 10 Year Growth	Impact Fee Qualifying Cost	Non/Beyond 10 Year Growth Related
South East Service Area						
11000 N 12' Transmission Line	2015	\$ 164,000	\$164,000.00	100%	\$ 164,000	\$ -
Southeast Area and Lone Peak High School	2015	1,741,000	1,741,000	100%	1,741,000	-
Impact Fee Facilities Plan	2015	9,300	9,300	100%	9,300	-
Impact Fee Analysis	2015	3,750	3,750	100%	3,750	-
Total IFFP Cost		\$1,918,050	\$ 1,918,050		\$ 1,918,050	\$ -

³ 2010 Census Data

⁴ HAL IFFP

CHAPTER 3: PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped; and the costs of impacts on system improvements that are reasonably related to the new development activity.

Highland continues to grow and there is still expansion in the area. The Impact Fee Facilities Plan clearly defines what projects are growth related, repair and replacement, or pipe upsizing (the upsizing may include some element of growth).

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. The City may fund existing infrastructure through several different funding sources including:

- User Rates (rate revenues)
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

In order to ensure fairness to existing users, impact fees are an appropriate means of funding future capital infrastructure. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2)(c)(d))

Just as existing infrastructure has been funded through different means; it is required by the Impact Fees Act to evaluate all means of funding future capital. There are positives and negative aspects to the various forms of funding. It is important to evaluate each.

User Rates

User rates have both been funded in one form or another by existing users. It would be an additional burden to existing users to use this revenue source to fund future capital to meet the needs of future users. This is not an equitable policy and can place too much stress on the tight budgets of the drinking water operating fund and other user rate funds. The water rates in Highland are dedicated to payments on the public works building, operation and maintenance, repair and replacement and ensuring a stable reserve for maintaining a good credit rating. If rate revenues are required to supplement the capital required by growth, the City will reimburse the user rate fund with impact fees as they are collected and act as a loan to the impact fee fund to be repaid.

Property Taxes

It is true that property taxes may be a stable source of income. However, property taxes are not typically used to fund drinking water infrastructure. Property taxes are based upon property valuation. Using property taxes to fund future capital again places too much burden on existing users and subsidizes growth. The financial audits for the City do not show a line item for property taxes as a revenue stream for drinking water, thus any property taxes collected on the property being developed is not being used to fund infrastructure or operation and maintenance of the water system.

Impact Fees

Impact fees are a fair and equitable means of providing infrastructure for future development. They provide a rational nexus between the costs borne in the past and the costs required in the future. The Impact Fees Act ensures that future development is not paying any more than what future growth will demand. Existing users and future users receive equal treatment; therefore, impact fees are the optimal funding mechanism for future growth relate

Highland City: Water Impact Fee Analysis NOTICING DRAFT

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 that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2)(f))

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. 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.

Other

In this particular analysis, there is also a credit for unspent impact fee revenues collected in the past. The current impact fee fund balance for water was credited against the fee.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for the Central and South East Service Areas. The fee is calculated per a single ERC. The fees per ERC can be found in Figure 5. These tables can also be found in Appendix 3. The Highland City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fee calculated. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This adjusted impact fee calculation will be based on the calculation found in Figure 5.

Figure 4: Base Fee per ERC

Meter Size	Operating Flow	Equivalency Ratios	Proposed Impact Fee
Displacement Meters			
Single Family Residential Equivalent 0.75"	25	1.00	\$ 1,653
0.75"	25	1.00	1,653
1"	40	1.60	2,646
1.5"	50	2.00	3,307
2"	100	4.00	6,614
Class II Turbine Meters - High Velocity			
1.5"	100	4.00	\$ 6,614
2"	160	6.40	10,582
3"	350	14.00	23,149
4"	630	25.20	41,668
6"	1,400	56.00	92,596
8"	2,400	96.00	158,735
10"	3,800	152.00	251,331
12"	5,000	200.00	330,698
Compound Meters			
2"	160	6.40	\$ 10,582
3"	320	12.80	21,165
4"	500	20.00	33,070
6"	1,000	40.00	66,140
8"	1,600	64.00	105,823
10"	2,300	92.00	152,121

The City will assess the impact fee on a per ERC basis for residential and nonresidential land uses.



Figure 5: Non-Standard Impact Fee Calculation

Drinking Water Non-Standard Impact Fee Formula
Step 1: Identify Peak Day Demand of Proposed Development
Step 2: Multiply Peak Day Demand (Gallons) by Price per Gallon of \$2.07

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CHAPTER 4: CERTIFICATION AND APPENDICES

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

I certify 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 Bank Public Finance makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plans ("IFFPs") made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland staff and elected officials.
2. If all or a portion of the IFFPs or impact fee analyses are modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance, 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 IFFPs and the impact fee analysis.

Dated: April 9, 2015

ZIONS BANK PUBLIC FINANCE

By Zions Bank Public Finance

APPENDICES

Notice Date & Time: March 13, 2015 | 12:00 AM

Description/Agenda:

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 culinary water for the south east service area. 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.

Notice of Special Accommodations:

FOR SPECIAL ACCOMMODATIONS Any individual with a qualified disability may request a reasonable accommodation by contacting the City Recorder at (801) 772-4505 at least 48 hours prior to the Commission meeting.



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**Appendix 1:
CURRENT AND FUTURE ERCs**

Culinary Water	
Current	Buildout
Current ERCs ¹	1,160

¹ HAL 2015 IFFP



Appendix 2:
 CAPITAL PROJECTS - IMPACT FEE FACILITIES PLAN
 Inflation Rate* 4%

Culinary Water

Project Name	Year to be Constructed	FY 2015 Cost	Construction Cost	% to 10 Year Growth	Impact Fee Qualifying Cost	Non/Beyond 10 Year Growth Related
South East Service Area						
11000 N. 12" Transmission Line	2015	\$ 164,000	\$164,000.00	100%	\$ 164,000	\$ -
Southeast Area and Lone Peak High School	2015	1,741,000	1,741,000	100%	1,741,000	-
Impact Fee Facilities Plan	2015	9,300	9,300	100%	9,300	-
Impact Fee Analysis	2015	3,750	3,750	100%	3,750	-
Total IFFP Cost		\$ 1,918,050	\$ 1,918,050		\$ 1,918,050	\$ -



Appendix 3:
 BASE FEE PER ERC
 Highland Impact Fee

South East Service Area	Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Drinking Water Impact Fee					
IFFP Projects	\$ 1,918,050	100%	\$ 1,918,050	1,160	\$ 1,653
Buy In - Existing Assets	-	0%	-	1,160	-
Subtotal	1,918,050	100%	1,918,050		1,653
Total Impact Fee per ERC					\$ 1,653

Meter Size	Operating Flow	Equivalency Ratios	Proposed Impact Fee
Displacement Meters			
Single Family Residential Equivalent 0.75"	25	1.00	\$ 1,653
0.75"	25	1.00	1,653
1"	40	1.60	2,646
1.5"	50	2.00	3,307
2"	100	4.00	6,614
Class II Turbine Meters - High Velocity			
1.5"	100	4.00	\$ 6,614
2"	160	6.40	10,582
3"	350	14.00	23,149
4"	630	25.20	41,668
6"	1,400	56.00	92,596
8"	2,400	96.00	158,735
10"	3,800	152.00	251,331
12"	5,000	200.00	330,698
Compound Meters			
2"	160	6.40	\$ 10,582
3"	320	12.80	21,165
4"	500	20.00	33,070
6"	1,000	40.00	66,140
8"	1,600	64.00	105,823
10"	2,300	92.00	152,121

Drinking Water Non-Standard Impact Fee Formula

Step 1: Identify Peak Day Demand of Proposed Development
 Step 2: Multiply Peak Day Demand (Gallons) by Price per Gallon of \$2.07

DRINKING WATER IMPACT FEE FACILITY PLAN SUMMARY

The purpose of the Drinking Water Impact Fee Facilities Plan (“IFFP”), with supporting Impact Fee Analysis (“IFA”), is to fulfill the requirements established in Utah Code Title 11 Chapter 36a, the “Impact Fees Act,” and assist Highland City (the “City”) to plan necessary capital improvements for future growth. The IFFP addresses only the future drinking water infrastructure needed to serve the Utah State Developmental Center (USDC) properties located in the southeast corner of the City.

The Plan summarizes the following:

- The Level of Service (LOS) for the existing drinking water system
- Demands placed upon the existing drinking water facilities by new development
- The proposed facilities by which the City will meet these demands

The following summarizes the plan:

Existing System and Level of Service

The existing Drinking Water System is comprised of a pipe network, water storage tanks and water supply sources. The existing system provides drinking water and fire suppression to all residents of Highland City. The City’s existing system does not currently service the undeveloped properties.

The existing system has excess capacity within its sources, storage and distribution facilities to service the area with drinking water. However, costs incurred to create the existing system cannot be factored into the impact fees because the Water Company, not the City, funded the cost to construct the facilities. Therefore, only costs for future projects are included in the impact fees.

The LOS provided by the Drinking Water System has been established by the City to be the Standards required by the State of Utah Division of Drinking Water for indoor water use and found in the Utah State Administrative Code R309-510.

Demands placed on the Existing System by New Development

In 2012 a Drinking Water Master Plan was produced by the City. The Master Plan identified necessary transmission lines needed to convey drinking water to the proposed USDC development.

The IFFP included only projects that are required for the new development over the next 10 years. Those projects are listed below and include only new transmission lines. The total amount for drinking water impact fee facilities listed in Table S-1 is \$1,914,300 in 2015 dollars.

TABLE S-1: IMPACT FEE FACILITIES FOR UPCOMING 10-YEARS

TYPE	RECOMMENDED PROJECT	Cost Estimate
Distribution – Growth Project	Master Plan #2 Project – Install 1,200 feet of 12-inch transmission line in 11000 North from Well #2 to Park Drive (near the City’s Operations Building). The line is required to provide fire suppression flows to the southeast area.	\$164,000
Distribution – Growth Project	Master Plan #14 Project – Install 14,000 feet of 12-inch transmission line for new development. Also included connection to 4800 West and the existing Lone Peak School loop and canal crossing.	\$1,741,000
IFFP – Growth Project	Impact Fee Facility Plan	\$9,300
	TOTAL	\$1,914,300



DRINKING WATER IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.100)

April 2015

HIGHLAND CITY

DRINKING WATER IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.100)

DRAFT

**Tavis B. Timothy, P.E.
Project Engineer**

**HANSEN
ALLEN
& LUCE^{inc}**
ENGINEERS

April 2015

CERTIFICATION OF IMPACT FEE FACILITY PLAN

I certify that, to the best of my knowledge, the attached impact fee facilities plan:

1. includes only the costs 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. costs for 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; and
3. complies in each and every relevant respect with the Impact Fees Act.

Prepared by: _____

Tavis B. Timothy, P.E.

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IMPACT FEE FACILITY PLAN

EXECUTIVE SUMMARY

The purpose of this Impact Fee Facility Plan (IFFP) is to provide direction to Highland City regarding facilities required for future drinking water connections for the Utah State Developmental Center (USDC) properties located in the southeast corner of the City. The City owns, operates and maintains the drinking water system that would service the property.

Previous to 2005 the drinking water system in Highland was owned and operated by the Highland Water Company. During the fall of 2004 the Highland Water Company voted to dissolve the Company and transfer all assets and obligations to the City of Highland. As the City of Highland did not pay to construct any of the existing water facilities, none of the costs incurred to create the existing system will be factored into the impact fee. This IFFP only addresses projects for the distribution of drinking water and fire suppression to the southeast area (USDC properties).

Data from the 2012 Drinking Water Master Plan and additional data provided by the City is the basis for this IFFP. The IFFP considers growth over the next ten years to 2024. It is anticipated that the USDC property will have developed completely by 2024.

During the preparation of the IFFP, existing and proposed levels of service were determined for distribution, and fire suppression components of the drinking water system (see Table 1) for a single equivalent residential connection (ERC). In each case, it was determined that the proposed level of service should be the same as the Drinking Water Systems existing level of service.

Table 1
Level of Service Per ERC

Distribution	Peak Day Source Flow Rate (gpm)	0.55
Distribution	Distribution Minimum Operating Pressure	50 psi
Distribution	Fire Suppression Residual Pressure	20 psi
Fire Suppression	Fire Suppression Flow and Volume	International Fire Code

Impact Fees for the drinking water system will be uniform per ERC across the impact fee area. The IFFP projects require a total cost of \$1,914,300.

PURPOSE AND BACKGROUND

The purpose of this IFFP is to provide direction to Highland City regarding facilities required for future drinking water connections within the next ten years for the undeveloped USDC property located in the southeast corner of the City.

Highland City is located on a bench near American Fork, Lehi, and Alpine in northern Utah County. According to City information the drinking water system provides service to approximately 17,090 residents.

EXISTING SYSTEM DESCRIPTION

Since 2005 the City of Highland has owned, operated, and maintained the drinking water system. The drinking water system provides primarily indoor water use, with certain exceptions. These exceptions are for a small amount of residents still utilizing outdoor irrigation and industrial use at the gravel pits during the winter months. The city's secondary system provides for outdoor water use.

Several landowners formed the Highland Water Company in 1958 to provide drinking water via a central system versus utilizing individual wells. Soon after, the first well was drilled and a storage tank was constructed in 1958. Other tanks, wells, pump stations, and water lines have since been installed to form the present drinking water system.

During the fall of 2004 the membership of the Water Company voted to dissolve the Company and transfer all assets and obligations to the City of Highland.

Drinking water pipe diameters range from 2-inches to 18-inches, with the majority being 6 or 8 inches within the individual subdivision developments. Highland's current standard is the exclusive use of ductile iron pipe.

Hansen, Allen, & Luce Inc. completed a Drinking Water Master Plan Update for Highland City in 2012. Information from the master plan was used in conjunction with data from Highland City to determine the level of service, facilities requirements, and system growth which was used to create this IFFP.

GROWTH

Growth for the subject property was derived from the Properties Master Plan completed by DesigWorkshop in June of 2013. The plan presented 1,160 ERCs for the proposed fully developed property. It is assumed that the property would become fully developed within the next ten years.

LEVEL OF SERVICE

The level of service is the "defined performance standard or unit of demand for each capital component of a public facility within a service area" according to the Utah Impact Fees Act (Utah Division of Administrative Rules, 2011). The service area for the level of service in this plan is the Southeast Service Area (Utah State Developmental Center).

The existing and proposed level of service for the distribution portion of the drinking water system was examined. The City will provide the same level of service for the future development as it provides now for its existing system. Impact fees may not be used to pay for any services above the existing level of service.

Distribution

The level of service of the distribution system is based on minimum allowable pressures of operation during peak day demands and during fire demands. The level of service for Peak Day Demand is based on the Utah State Division of Drinking Water (DDW) minimum sizing requirements for source supply of 800 gpd (0.56 gpm) per ERC. It is proposed that the level of service for future connections be equal to the existing level of service.

Highland City maintains minimum pressures of 50 psi at all service connections in the system under normal operating conditions. The minimum pressure of 50 psi is the proposed and existing level of service for the distribution system under normal operating conditions.

Per DDW requirements water systems with fire hydrants must maintain a 20 psi residual pressure, in the system, during a peak day plus fire flow event. Fire suppression flow and volume are provided per the International Fire Code. The City currently complies with the level of service.

Summary

Table 2 is a summary of the existing and proposed level of service (LOS) for existing and future predicted ERCs.

**Table 2
Level of Service Summary**

	LOS per ERC
ERCs	1
Peak Day Source Flow Rate (gpd)	800
Distribution Minimum Operating Pressure	50 psi
Fire Suppression Residual Pressure	20 psi

EXCESS CAPACITY

The existing system has excess capacity within its sources, storage and distribution facilities to service area with drinking water. However, costs incurred to create the existing system cannot be factored into the impact fees because the Water Company, not the City, funded the cost to construct the facilities. Therefore, only costs for future projects are included in the impact fees.

FUTURE FACILITIES

Data for the proposed distribution projects and their associated costs were provided within the 2012 Master Plan. The projects were estimated to be completed in the next ten years. The distribution projects are those required to increase the capacity of the distribution system in order to serve the future area.

IMPACT FEE FACILITY PLAN

Impact Fees for the City drinking water system will be uniform per ERC across the service area. Table 3 contains the City’s 2015-2024 Impact Fee Facility Plan. Each project is listed with the estimated 2015 cost. All of the projects are planned only for the ERCs in the service area. The IFFP projects total \$1,914,300 of which 100% of the cost is attributable to growth.

**Table 3
Impact Fee Facility Plan**

TYPE	RECOMMENDED PROJECT	Cost Estimate
Distribution – Growth Project	Master Plan #2 Project – Install 1,200 feet of 12-inch transmission line in 11000 North from Well #2 to Park Drive (near the City’s Operations Building). The line is required to provide fire suppression flows to the southeast area.	\$164,000
Distribution – Growth Project	Master Plan #14 Project – Install 14,000 feet of 12-inch transmission line for new development. Also included connection to 4800 West and the existing Lone Peak School loop and canal crossing.	\$1,741,000
IFFP – Growth Project	Impact Fee Facility Plan	\$9,300
	TOTAL	\$1,914,300

REVENUE OPTIONS

Revenue options for the recommended projects, in addition to use fees, could include the following options: general obligation bonds, revenue bonds, State/Federal grants and loans, and impact fees. In reality, the City may need to consider a combination of these funding options. The following discussion describes each of these options.

General Obligation Bonds through Property Taxes

This form of debt enables the City to issue general obligation bonds for capital improvements and replacement. General Obligation (G.O.) Bonds would be used for items not typically financed through the Water Revenue Bonds (for example, the purchase of water source to ensure a sufficient water supply for the City in the future). G.O. bonds are debt instruments backed by the full faith and credit of the City which would be secured by an unconditional pledge of the City to levy assessments, charges or ad valorem taxes necessary to retire the bonds. G.O. bonds are the lowest-cost form of debt financing available to local governments and can be combined with other revenue sources such as specific fees, or special assessment charges to form a dual security through the City’s revenue generating authority. These bonds are supported by the City as a whole, so the amount of debt issued for the water system is limited to a fixed percentage of the real market value for taxable property within the City. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

Revenue Bonds

This form of debt financing is also available to the City for utility related capital improvements. Unlike G.O. bonds, revenue bonds are not backed by the City as a whole, but constitute a lien against the water service charge revenues of a Water Utility. Revenue bonds present a greater risk to the investor than do G.O. bonds, since repayment of debt depends on an adequate revenue stream, legally defensible rate structure /and sound fiscal management by the issuing jurisdiction. Due to this increased risk, revenue bonds generally require a higher interest rate than G.O. bonds, although currently interest rates are at historic lows. This type of debt also has very specific coverage requirements in the form of a reserve fund specifying an amount, usually expressed in terms of average or maximum debt service due in any future year. This debt service is required to be held as a cash reserve for annual debt service payment to the benefit of bondholders. Typically, voter approval is not required when issuing revenue bonds. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

State/Federal Grants and Loans

Historically, both local and county governments have experienced significant infrastructure funding support from state and federal government agencies in the form of block grants, direct grants in aid, interagency loans, and general revenue sharing. Federal expenditure pressures and virtual elimination of federal revenue sharing dollars are clear indicators that local government may be left to its own devices regarding infrastructure finance in general. However, state/federal grants and loans should be further investigated as a possible funding source for needed water system improvements.

It is also important to assess likely trends regarding federal / state assistance in infrastructure financing. Future trends indicate that grants will be replaced by loans through a public works revolving fund. Local governments can expect to access these revolving funds or public works trust funds by demonstrating both the need for and the ability to repay the borrowed monies, with interest. As with the revenue bonds discussed earlier, the ability of infrastructure programs to wisely manage their own finances will be a key element in evaluating whether many secondary funding sources, such as federal/state loans, will be available to the City.

Impact Fees

An impact fee is a one-time charge to a new development for the purpose of raising funds for the construction of improvements required by the new growth and to maintain the current level of service. Impact fees in Utah are regulated by the Impact Fee Statute and substantial case law. Impact fees are a form of a development exaction that requires a fee to offset the burdens created by the development on existing municipal services. Funding the future improvements required by growth through impact fees does not place the burden on existing residents to provide funding of these new improvements.

User Fees

Similar to property taxes on existing residents, User Fees to pay for improvements related to new growth related projects places an unfair burden on existing residents as they had previously paid for their level of service.

REFERENCES

Utah State Developmental Center (USDC). 2013. *Properties Master Plan in Utah County*. American Fork, UT: Utah State Developmental Center.

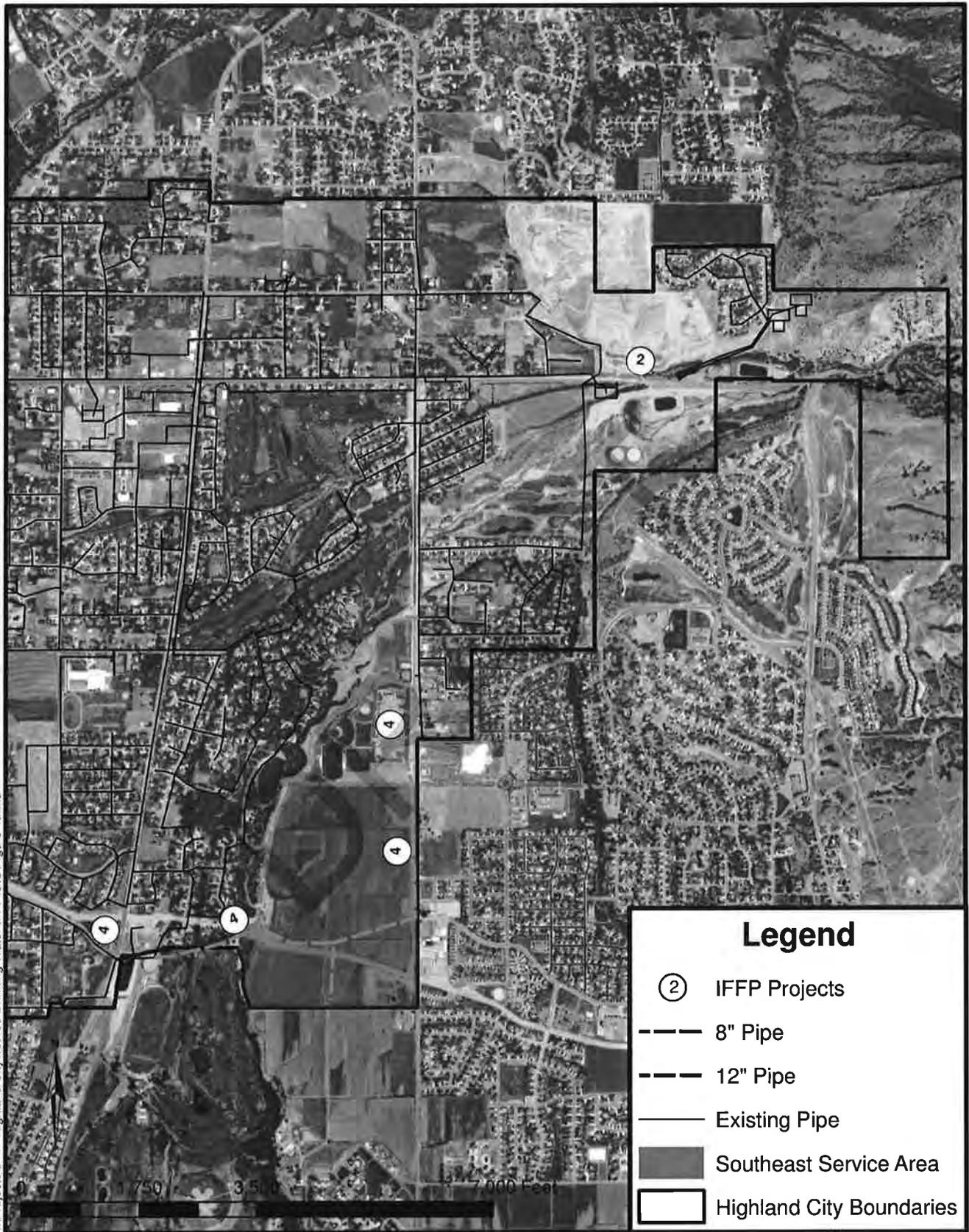
Hansen, Allen, & Luce, Inc. 2012. *Highland City Drinking Water System Master Plan*. Midvale, UT: Hansen, Allen, & Luce, Inc.

Utah Division of Administrative Rules. 2011. *Utah Administrative Code, Title 11 36a Impact Fees Act*. The Department of Administrative Services.

Utah Division of Administrative Rules. 2014. *Utah Administrative Code, R309*. The Department of Administrative Services.

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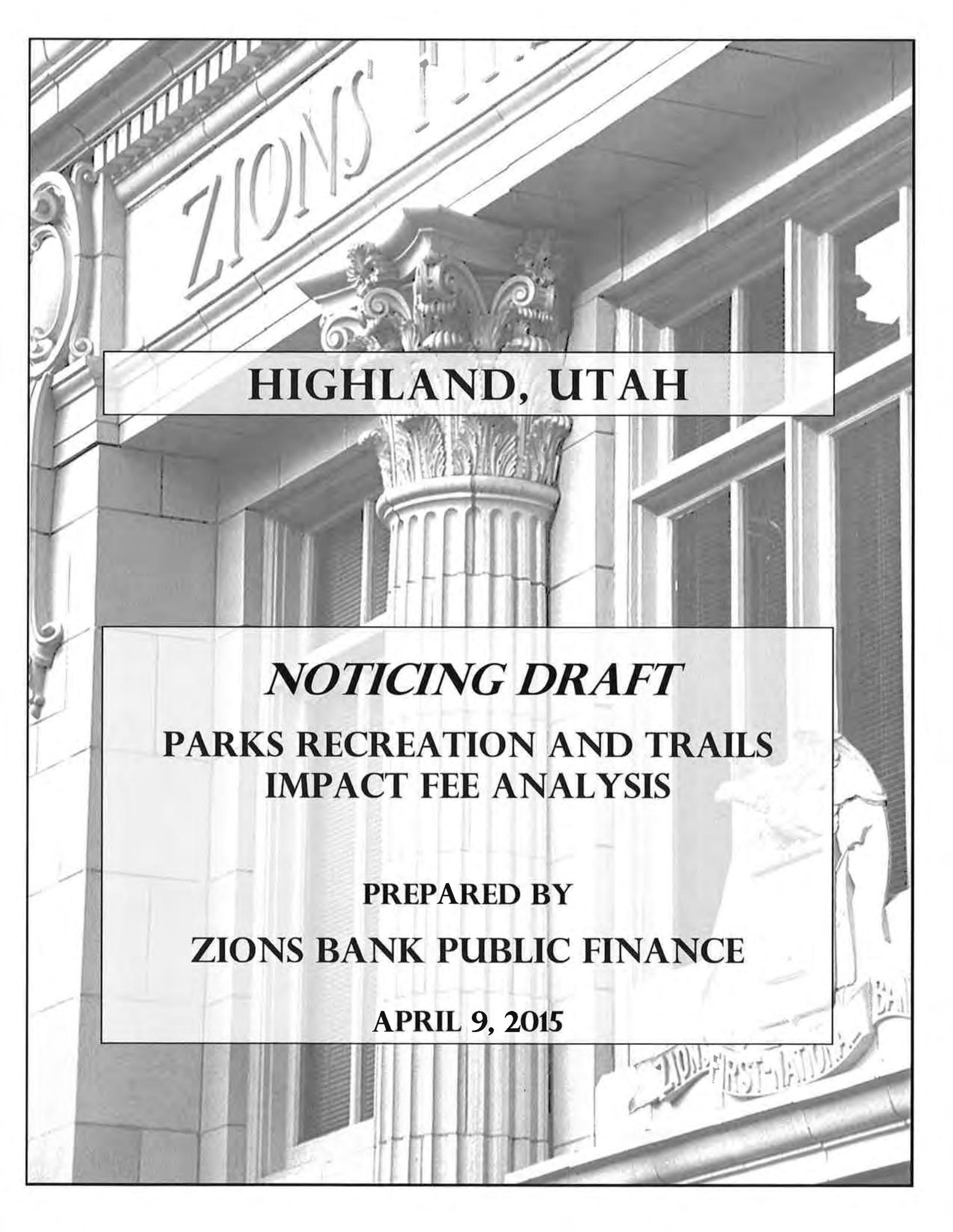
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**HANSEN
ALLEN
& LUCE**
ENGINEERS inc

HIGHLAND CITY DRINKING WATER IFFP SERVICE AREA & IFFP PROJECTS

**FIGURE
1**



ZIONS

HIGHLAND, UTAH

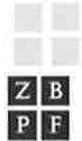
NOTICING DRAFT

**PARKS RECREATION AND TRAILS
IMPACT FEE ANALYSIS**

PREPARED BY

ZIONS BANK PUBLIC FINANCE

APRIL 9, 2015



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EXECUTIVE SUMMARY OF IMPACT FEE ANALYSIS

Section 11-36a-304 of the Utah Code outlines the requirements of an Impact Fee Facilities Plan which is required to identify the following:

- (a) The anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;
- (b) The anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
- (c) Costs for existing capacity that will be recouped; and
- (d) Costs of impacts on system improvements that are reasonably related to the new development activity.

Highland residents enjoy the benefits from: 1) parks and recreation facility improvements that they have purchased; and 2) those that have been gifted to the community. The City will define the level of service based on dollar investment into the parks, recreation and trail facilities. Gifted, donated or grant related items are not included in the analysis. Therefore, assuming a 2014 population of 17,093¹, the current level of service (dollars invested) is \$540.39 per capita. This is made up of a park land, and trail land and associated improvements for each. This is combined for an overall park LOS to be perpetuated into the future.

Therefore, in order to achieve an equitable allocation of costs and benefits, new development needs only pay to maintain the level of service (LOS) that has been purchased by existing development.

Impact on Consumption of Existing Capacity

UTAH CODE 11-36A-304(1)(A)

The City has determined that it would not like to see an increase, nor a decrease in its current level of service. Therefore, there is no excess capacity in the system. The City will continue to invest the same dollar per capita as it has historically.

Impact on System Improvements by Anticipated New Development

UTAH CODE 11-36A-304(1)(B)

The City has incurred a historic cost per capita for parks, recreation and trails. The parks level of service is defined by dollars invested, or \$853.24 per capita. If the City does not construct future park facilities, the LOS would decline from \$853.24 to \$739.83 dollars invested by the year 2024.²

¹ Calculated using the Census 2010 Data and Hansen Allen & Luce projections

² \$14,584,357 dollars invested divided by population



TABLE ES.1 POPULATION PROJECTIONS AND PARK LEVEL OF INVESTMENT – IMPACT FROM DEVELOPMENT³

Year	Population	Level of Investment	Percent Decrease
2014	17,093	\$ 853.24	
2015	17,355	840.35	1.51%
2016	17,617	827.86	1.49%
2017	17,879	815.73	1.47%
2018	18,141	803.94	1.44%
2019	18,403	792.50	1.42%
2020	18,665	781.37	1.40%
2021	18,927	770.56	1.38%
2022	19,189	760.04	1.37%
2023	19,451	749.80	1.35%
2024	19,713	739.83	1.33%

Relation of Anticipated Development Activity to Impacts on Existing Capacity and System Improvements

UTAH CODE 11-36A-304(1)(C)

The demand placed on existing public park facilities by new development activity is attributed to population growth. Highland City has a 2014 population of 17,093 persons and, as a result of anticipated development activity, will grow to a projected 19,713 persons by 2024 – an increase of 2,620 persons. Highland City’s population is expected to grow to approximately 27,849 and slow as it approaches buildout. As growth occurs, more parks and trails spending is needed to maintain existing standards.

Proportionate Share Analysis and Impact Fee Calculation

UTAH CODE 11-36A-304(1)(D)(E) AND (2)(A)(B)

COSTS OF EXISTING FACILITIES

In order to achieve “an equitable allocation to the costs borne in the past and to be borne in the future, in comparison to the benefits already received and yet to be received,”⁴ The total historical cost for parks, trails, land and recreation facility improvements paid for by the City is \$14,584,357. Table ES.2 shows the *historic* cost and cost per capita.

TABLE ES.2 PER CAPITA HISTORIC INVESTMENT (PARKS)

Parks, Recreation and Trails		
Year	Improvements	Original Cost
Total Improvements		\$ 14,584,357
LOS Improvements per Capita		\$ 853.24

³ Full growth projection and details found in Appendix 1 of this document

⁴ Utah Code 11-36a-302(3)

COSTS OF SYSTEM IMPROVEMENTS RELATED TO NEW DEVELOPMENT ACTIVITY

The City intends to at least maintain its existing level of service in the parks system. Based on the per capita park acreage and recreation facility improvement spending required to maintain the existing level of park services, Table ES.3 shows the total park spending requirement of \$2,235,477.45 required to maintain the established level of purchased park and recreation facility services over the next ten years (through 2024).

TABLE ES.3 PER CAPITA COST FOR SYSTEM IMPROVEMENTS RELATED TO NEW DEVELOPMENT – PARKS

Per Capita Cost	Growth In Population	Total Cost of Future Park System Spending Requirements
\$ 853.24	2,620	\$ 2,235,477

OUTSTANDING DEBT

The City has a 2007 Sales Tax Revenue Bond that funded recreation facilities that will serve all users in Highland, and therefore will be spread across the buildout population. The bond financed the two large parks intended to serve all of the Highland population. Principal amount totals \$7.315M and total proceeds equal \$11.223M. The full debt service schedule can be found in the appendix of this document.

IMPACT FEE CALCULATION

Based on the per capita cost for buy-in to existing capacity and the per capita cost of impacts on system improvements related to new development to maintain the established parks LOS, Figure ES.4 shows the impact fee per household. With an average household size of 4.39⁵ persons, the fee per residential single family household equals \$4,378.

TABLE ES.4 PARKS IMPACT FEE CALCULATION

Parks & Recreation Impact Fee Assessment	
Impact Fee per Single Family Residential Unit	\$ 4,378
Impact Fee per Multi-Family Residential Unit	4,239

The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This adjusted impact fee calculation is detailed below.

TABLE ES.5 NON-STANDARD IMPACT FEE CALCULATION

Parks & Recreation Non-Standard Impact Fee Formula
Multiply Number of Persons per Household by Impact Fee per Capita of \$997.34

**Parks & Recreation fee is assessed to residential land uses only*

Manner of Financing for Public Facilities

UTAH CODE 11-36A-304(2)(C)(D)(E)

Impact fees will be used to fund the established purchased level of park services, but will not fully fund the level of park services currently enjoyed by Highland City residents due to donated park land and donated improved recreation facilities. Therefore, additional system-wide park land and recreation facility improvements beyond those funded through impact fees that are desired to maintain this “higher” level of service will be paid for by the community through other funding mechanisms such as GO bonds, special assessments, user charges, general taxes, etc.

⁵ 2010 Census



Credits Against Impact Fees

UTAH CODE 11-36A-304(2)(F)

The Impact Fees Act requires credits to be paid back to development for future fees that may be paid to fund system improvements found in the IFFP so that new development is not charged twice. Credits may also be paid back to developers who have constructed or directly funded items that are included in the IFFP or donated to the City in lieu of impact fees, including the dedication of land for system improvements. This situation does not apply to developer exactions or improvements required to offset density or as a condition for development. Any item that a developer funds must be included in the IFFP if a credit is to be issued and must be agreed upon with the City before the improvements are constructed.

In the situation that a developer chooses to construct facilities found in the IFFP in lieu of impact fees, the arrangement must be made through the developer and the City.

The standard impact fee can also be decreased to respond to unusual circumstances in specific cases in order to ensure that impact fees are imposed fairly. In certain cases, a developer may submit studies and data that clearly show a need for adjustment.

At the discretion of the City, impact fees may be modified for low-income housing, although alternate sources of funding must be identified.

CHAPTER 1: IMPACT FEE OVERVIEW

WHY IS THE CITY UPDATING THE PREVIOUS ANALYSIS?

The City has commissioned this Parks, Recreation and Trails Impact Fee Analysis amendment to accomplish the following:

- Determine the maximum impact fee that may be assessed to new development;
- Update capital need projections and account for historic costs of facilities;
- Put the analysis in compliance with the changes to the Impact Fees Act effective May 2011;
- Include an Impact Fee Facilities Plan (IFFP) with a ten year capital planning horizon; and
- More clearly define the current level of service and the future level of service that the City will provide.

The primary goal of the Impact Fee Analysis is to ensure the fee meets the requirements of the Impact Fees Act, Utah Code 11-36a-101 *et seq.* The sections and subsections of the Impact Fee Analysis will directly address the following items, required by the code:

- Impact Fee Analysis Requirements (Utah Code 11-36a-304)
 - Identify existing capacity to serve growth
 - Proportionate Share Analysis
 - Identify the level of service
 - Identify the impact of future development on existing and future improvements
- Calculated fee (Utah Code 11-36a-305)
- Certification (Utah Code 11-36a-306)

WHAT IS 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 park facilities 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. Impact fees are charged to development according to single family or multi-family land use classifications.

HOW WILL NEW GROWTH AFFECT THE CITY?

Growth in Demand

Based on the most recent Census, Highland City had a 2010 population of 15,523 and currently has an estimated population of 17,093. The City projects a population of approximately 27,849 by 2053 and slows in growth as it approaches buildout. This growth in residential population will generate demand for additional parks and improved recreation facilities. Figure 1 shows the projected growth in Highland City through 2024. It is anticipated that future commercial growth will not place any additional demand on park facilities. Therefore, this demand analysis considers only future population growth.

FIGURE 1: POPULATION PROJECTION⁶

Year	Population	% Increase
2014	17,093	
2015	17,355	1.53%
2016	17,617	1.51%
2017	17,879	1.49%
2018	18,141	1.47%
2019	18,403	1.44%
2020	18,665	1.42%
2021	18,927	1.40%
2022	19,189	1.38%
2023	19,451	1.37%
2024	19,713	1.35%

WHY ARE IMPACT FEES NECESSARY?

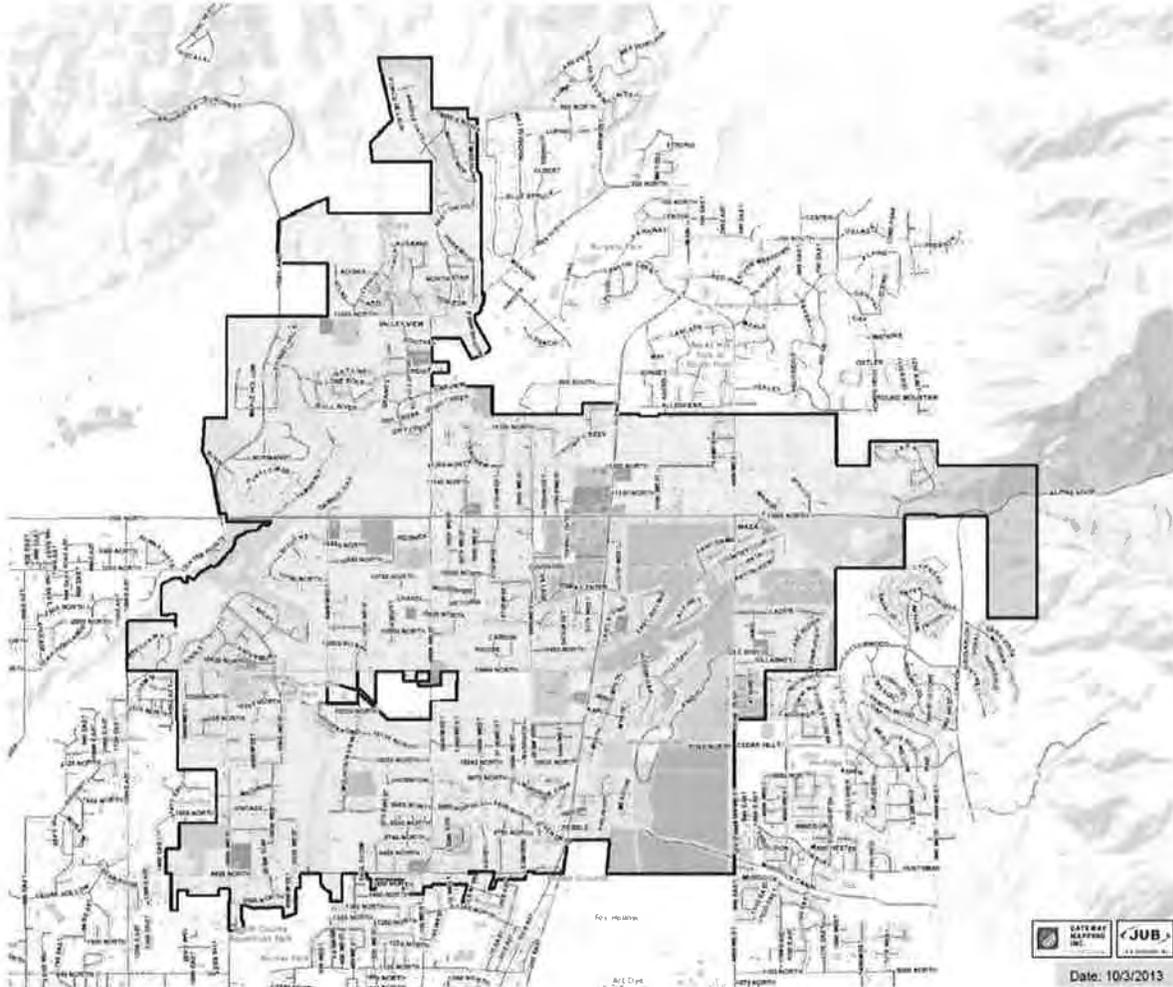
Impact fees are necessary to allocate the costs of maintaining the existing level of service to the new growth that will benefit from it. Impact fees help to shield existing users from shouldering the burden of paying not only for the capacity that they use but also from funding the cost of capacity needed for new development to occur.

WHERE WILL THE IMPACT FEES BE ASSESSED?

The impact fees will be assessed within the City’s current service area which includes the current City boundaries and future annexation areas to which the City will provide park land and improvements. A detailed map of the service area is included in the attached Appendix and in the figure below.

⁶ Source: Hansen Allen & Luce Growth Projections

FIGURE 2: SERVICE AREA MAP



WHAT COSTS ARE INCLUDED IN THE IMPACT FEE?

Impact fee revenues may not be spent on capital projects or associated costs, such as financing interest expense, that constitute repair and replacement, cure any existing deficiencies, or raise the existing level of service for current users. Impact fees cannot fund operational expenses. The proposed impact fees will be assessed throughout the entire Impact Fee Service Area.

The impact fees proposed in this analysis are calculated based upon:

- The investment in park land (dollars) per capita
- The historic cost investment for park improvements per capita;
- The investment in trail land (dollars) per capita;
- The historic cost investment for trail improvements per capita;
- Growth projections over the next ten years
- Average household size (from 2010 Census) for the Single Family and Multi-Family land uses.



WHAT COSTS ARE NOT INCLUDED IN THE IMPACT FEE?

The costs, both direct capital and financing, that cannot be included in the impact fee are as follows:

- Projects that increase the level of service above that which is currently provided;
- Operations and maintenance costs;
- Costs of facilities funded by grants or other funds that the City does not have to repay; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

HOW ARE THE IMPACT FEES CALCULATED?

To calculate a fair impact fee we determine the existing level of investment for parks, recreation and trails per capita. The level of service is perpetuated into the future. As the City grows over the next ten years, it will continue to provide new growth with the same investment per capita. The historic cost for land and improvements for parks and trails per capita are added together with any future/existing bond finance expenses. This is multiplied by future growth and that becomes the impact fee qualifying costs. The impact fee qualifying cost per capita is then multiplied by the Census provided persons per household for single family residential and multi-family residential land uses respectively.

WHAT IS THE CURRENT LEVEL OF SERVICE?

Utah Code allows cities to include only system-wide parks for the purpose of calculating impact fees. Project-wide parks cannot be used to establish levels of service eligible to be maintained through impact fees. Based on input from Highland City, a system-wide park is defined as a park that serves more than one local development area, therefore only , Regional (City Funded), Community and Neighborhood Parks are included into the “core” park level of service.

Highland City’s system-wide park lands consist of land that was purchased by the City. The City funded \$14.5M in park lands, improvements and trails. The total detailed inventory is found in Appendix C of this document. The total investment per capita is detailed in the table below.

FIGURE 3: ESTABLISHED LEVEL OF SERVICE

Parks, Recreation and Trails		
Year	Improvements	Original Cost
Total Improvements		\$ 14,584,357
LOS Improvements per Capita		\$ 853.24

HOW ARE SCHOOLS CONSIDERED IN THIS ANALYSIS?

Schools are not assessed a park impact fee. The Utah State Code 11-36a-202(2)(a)(ii) prohibits the imposition of an impact fee on a school district or charter school for a park, recreation facility, open space or trail. The park impact fees are assessed to single family and multi-family residential homes.

CHAPTER 2: CAPITAL PROJECTS AND LEVEL OF SERVICE DEFINITION

IMPACT FEE ANALYSIS REQUIREMENTS

Consumption of existing capacity, impact on system improvements and how impacts are related to anticipated development activity Utah Code 11-36a-304(1)(a)(b)(c)

Growth in Demand

Based on the most recent Census, Highland City had a 2010 population of 15,523 and currently has an estimated population of 17,093. This growth in residential population will generate demand for additional parks and improved recreation facilities and increased park spending. Figure 5 shows the projected growth in Highland City through 2024 as well as the decrease in the LOS if no future park land is added. It is anticipated that future commercial growth will not place any additional demand on parks facilities. Therefore, this demand analysis considers only future population growth.

FIGURE 4: PROJECTED POPULATION GROWTH

Year	Population	% Increase
2014	17,093	
2015	17,355	1.53%
2016	17,617	1.51%
2017	17,879	1.49%
2018	18,141	1.47%
2019	18,403	1.44%
2020	18,665	1.42%
2021	18,927	1.40%
2022	19,189	1.38%
2023	19,451	1.37%
2024	19,713	1.35%

Park and Trail Lands

CONSUMPTION OF EXISTING CAPACITY BY ANTICIPATED NEW DEVELOPMENT

The City has determined that it desires to maintain its current level of park, recreation and trails services and there is no excess capacity in the system.

IMPACT ON SYSTEM IMPROVEMENTS BY ANTICIPATED NEW DEVELOPMENT

Because the City has determined that it desires to maintain its current level of park services and does not have excess capacity at any system-wide park, the City will need to purchase additional park lands to maintain the established purchased park land LOS. As shown in Figure 6, the existing established level of service of \$853.24 per capita drops to \$739.83 acres per capita over the next ten years (through 2024) and continues to drop if *no* additional park improvements are developed or no additional park system money is spent to serve future anticipated development.

FIGURE 5: IMPACT ON ESTABLISHED PARK LOS BY ANTICIPATED DEVELOPMENT ACTIVITY (WITH NO FUTURE PARK/TRAIL EXPENDITURES)

Year	Population	Level of Investment	Percent Decrease
2014	17,093	\$ 853.24	
2015	17,355	840.35	1.51%
2016	17,617	827.86	1.49%
2017	17,879	815.73	1.47%
2018	18,141	803.94	1.44%
2019	18,403	792.50	1.42%
2020	18,665	781.37	1.40%
2021	18,927	770.56	1.38%
2022	19,189	760.04	1.37%
2023	19,451	749.80	1.35%
2024	19,713	739.83	1.33%

Figure 6 shows the annual park expenditures that the City will need to be purchased by the City through 2024 to maintain the established level of service.

FIGURE 6: ADDITIONAL PARK AND TRAIL EXPENDITURES REQUIRED TO MEET DEMANDS PLACED ON EXISTING PARK BY NEW DEVELOPMENT ACTIVITY

Year	Population	Spending Per Year
2014	17,093	
2015	17,355	223,547.74
2016	17,617	223,547.74
2017	17,879	223,547.74
2018	18,141	223,547.74
2019	18,403	223,547.74
2020	18,665	223,547.74
2021	18,927	223,547.74
2022	19,189	223,547.74
2023	19,451	223,547.74
2024	19,713	223,547.74
Total		\$ 2,235,477.45

Recreation/Trails Facility Improvements

Highland City's system-wide parks include a wide variety of recreation facility improvements that were purchased by the City and recreation facility improvements that were donated to the City. However, in order to assure an equitable allocation of costs borne in the past to costs borne in the future,⁷ only recreation facility improvements that were purchased by the City will be used in determining impact fees. Recreation facility improvements that were donated to the City are assumed to have been donated to the City's system of parks through build-out. Future residents will not be expected to pay for a level of park service that current residents have not purchased through impact fees or other means.

⁷ Utah Code 11-36a-302(3)

CHAPTER 3: PROPORTIONATE SHARE ANALYSIS

Costs for Existing Capacity and System Improvements Related to New Development Activity

UTAH CODE 11-36A-304(1)(D)(I)(II)

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped; and the costs of impacts on system improvements that are reasonably related to the new development activity.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. Historically the City has funded existing infrastructure through several different funding sources including:

- General Fund Revenues
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees
- RAP Tax

In calculating the value and any potential buy-in component (for existing infrastructure capacity) of this analysis, no grant funded infrastructure has been included. A good deal of the park infrastructure included in the analysis was all bond funded projects. Bond funded projects are impact fee eligible expenses. In order to ensure fairness to existing users, impact fees are an appropriate means of funding future capital infrastructure because using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2) (c) (d))

Just as the existing infrastructure was funded through different means it is required by the Impact Fees Act to evaluate all means of funding future capital. There are positive and negative aspects to the various forms of funding. It is important to evaluate each.

General Fund

The general fund has been funded in one form or another by existing users. It would be an additional burden to existing users to use this revenue source to fund future capital to meet the needs of future users. This is not an equitable policy and can place too much stress on the tight budgets of the general fund.

Property Taxes

It is true that property taxes may be a stable source of income. However, property taxes are not based on the tax payer's impact upon a system. Property taxes are based upon property valuation. Using property taxes to fund future capital again places too much burden on existing users and subsidizes growth.

Impact Fees

Impact fees are a fair and equitable means of providing infrastructure for future development. They provide a rational nexus between the costs borne in the past and the costs required in the future. The Impact Fees Act ensures that future development is not paying any more than what future growth will demand. Existing users and future users receive equal treatment; therefore impact fees are the optimal funding mechanism for future growth related capital needs.



Developer Credits

If projects 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) are constructed by developers, that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2) (f)).

RAP Tax

A RAP Tax fund is a collection of money accrued through sales taxes on purchases made within the limits of the city or county that has voted to adopt the program. Since this funding source is subject to popular vote, this is not a guaranteed, stable revenue stream.

Time-Price Differential

It is not anticipated that there will be any extraordinary costs in servicing newly developed park properties. To account for the time-price differential inherent in fair comparisons of amounts paid at different times, historical costs have been used to compute buy-in costs to public facilities with excess capacity and current costs have been used to compute impacts on system improvements required by anticipated development activity to maintain the established level of service for each public facility.

Other

The standard impact fee can also be decreased to respond to unusual circumstances in specific cases in order to ensure that impact fees are imposed fairly. In certain cases, a developer may submit studies and data that clearly show a need for adjustment.

At the discretion of the City, impact fees may be modified for low-income housing, although alternate sources of funding for the recreation facilities must be identified.

COSTS FOR EXISTING FACILITIES

The existing improvements were funded by the general fund. Only the historic cost of improvements is used in this analysis.

OUTSTANDING DEBT

The City has a 2007 Sales Tax Revenue Bond that funded recreation facilities that will serve all users in Highland, and therefore will be spread across the buildout population. The bond financed the two large parks intended to serve the Highland population. Principal amount totals \$7.315M and total proceeds equal \$11.223M. The debt service schedule is found in the following table.

FIGURE 7: DEBT SERVICE SCHEDULE

Date	Principal	Interest Rate	Interest Payment	FY Payment
3/1/2008	-	-	220,531	220,531
3/1/2009	225,000	4.50%	309,981	534,981
3/1/2010	230,000	4.50%	299,744	529,744
3/1/2011	240,000	4.50%	289,169	529,169
3/1/2012	250,000	4.50%	278,144	528,144
3/1/2013	260,000	4.50%	266,669	526,669
3/1/2014	275,000	4.50%	254,631	529,631
3/1/2015	285,000	4.50%	242,031	527,031
3/1/2016	300,000	4.50%	228,869	528,869
3/1/2017	320,000	4.50%	214,919	534,919
3/1/2018	330,000	5.25%	199,056	529,056
3/1/2019	350,000	4.00%	183,394	533,394
3/1/2020	360,000	4.00%	169,194	529,194
3/1/2021	375,000	4.05%	154,400	529,400
3/1/2022	385,000	4.05%	139,010	524,010
3/1/2023	395,000	4.13%	123,067	518,067
3/1/2024	425,000	4.15%	106,101	531,101
3/1/2025	430,000	4.15%	88,360	518,360
3/1/2026	445,000	4.20%	70,093	515,093
3/1/2027	480,000	4.20%	50,668	530,668
3/1/2028	955,000	4.25%	20,294	975,294
	7,315,000		3,908,323	11,223,323

COSTS OF SYSTEM IMPROVEMENTS RELATED TO NEW DEVELOPMENT ACTIVITY

The City intends to at least maintain its existing level of service through construction of additional parks and recreational facility improvements or continued annual spending on the park system through bond payments. For the purpose of quantifying the need for *additional* park, recreation and trails land and recreational facilities, this study uses the City’s established purchased park land and recreational facilities cost per capita for parks without excess capacity. As growth occurs as a result of increased development activity, more parks and recreational spending is needed to maintain existing standards.

Based on the investment per capita required to maintain the existing level of park, recreation and trail services, Figure 8 shows the total additional park expenses and associated costs for park lands and recreation facility improvements required to maintain the current level of park and recreation services each year through 2025. The “*Per Capita Cost*” is the “*LOS*” multiplied by growth in population. The result is the “*Total Cost for Future Park System Spending Requirements*”.

FIGURE 8: ADDITIONAL COST TO MAINTAIN LOS - PARKS

Per Capita Cost	Growth In Population	Total Cost of Future Park System Spending Requirements
\$ 853.24	2,620	\$ 2,235,477

Based on the per capita cost of impacts on system improvements, related to new development to maintain the established parks LOS, and consideration of interest on the outstanding bond, Figure 9 shows the impact fee per household. With an average single family household size of 4.39^a persons, the fee per household equals \$4,378. Multi-family households are typically smaller, and Highland is no exception at 4.25 persons per household. Therefore, the fee for multi-family is \$4,239

FIGURE 9: RECOMMENDED LEGAL PARKS IMPACT FEE

Parks & Recreation Impact Fee Assessment	
Impact Fee per Single Family Residential Unit	\$ 4,378
Impact Fee per Multi-Family Residential Unit	4,239

The Highland City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fee calculated. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This adjusted impact fee calculation will be based on the cost per unit defined above, multiplied by the number of units created by the applicable development type.

FIGURE 10: NON-STANDARD CALCULATION

Parks & Recreation Non-Standard Impact Fee Formula
Multiply Number of Persons per Household by Impact Fee per Capita of \$997.34

**Parks & Recreation fee is assessed to residential land uses only*

^a 2010 Census

CHAPTER 4: CERTIFICATION AND APPENDICES

CERTIFICATION

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

Zions certify 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 makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plans ("IFFPs") made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland City staff and elected officials.
2. If all or a portion of the IFFPs or impact fee analyses are modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance, 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 IFFPs and the impact fee analysis.

Dated: April 9, 2015

ZIONS BANK PUBLIC FINANCE

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: POPULATION PROJECTIONS

	A	B	C	
1	Year	Population	% Increase	1
2	2014	17,093		2
3	2015	17,355	1.53%	3
4	2016	17,617	1.51%	4
5	2017	17,879	1.49%	5
6	2018	18,141	1.47%	6
7	2019	18,403	1.44%	7
8	2020	18,665	1.42%	8
9	2021	18,927	1.40%	9
10	2022	19,189	1.38%	10
11	2023	19,451	1.37%	11
12	2024	19,713	1.35%	12
	A	B	C	

APPENDIX B: PARK ACRES

	A	B	
	Park Name	Acres	
1			1
2	Canterbury North Park	4.12	2
3	Canterbury Park Circle	2.68	3
4	Dry Creek Bench West	3.5	4
5	Heritage Park	6.3	5
6	Highland Glen Park	76	6
7	Merlin B. Larson Park	1.89	7
8	Mitchell Hollow Park	11.6	8
9	Wimbleton Park	4.2	9
10	Windsor Meadows Park	5	10
11	Town Center Splash Pad		11
12	Town Center Plaza	3.5	12
13	Dry Creek Hollow Park	44	13
14	Beacon Hills	10	14
15	Spring Creek	12	15
16	Mountain Ridge	17.6	16
18	Dry Creek North East	2.75	18
19	Apple Blossom	1.7	19
20	Totals	206.84	20
21			21

A

B

APPENDIX C: PARK INVENTORY AND LEVEL OF SERVICE

Year	4800 W Soccer Fields/Park Road	Aspen and Land Purchase	Bacon Hills Park	Canterbury Park	Highland Glen Park Loop	Highland Hills Open Space	Highland Water Bldg & El Park	Hillside Land Purchase	Park Construction	Professional & Tech Services	Spring Creek Park Construction	Town Center Park	Trails	View Point Hillside Replanting	Grand Total
FY 1992	10,515.07							32,335.93	6,039.54		9,100.00				58,790.54
FY 1993								479.73	11,705.44		50,897.07				475.75
FY 1994								3,150.07	9,544.71		5,000.00				65,847.46
FY 1995								1,000.00	11,885.01		(0.00)				2,844.71
FY 1996								1,452.76	31,284.93						12,761.77
FY 1997									30,179.00						21,384.63
FY 1998		200,780.00													30,715.00
FY 1999		200,000.00			1,118.69										2,852.22
FY 2000		200,000.00			202,118.92										10,042.99
FY 2001		200,000.00			4,486.41										11,167.19
FY 2002		50,000.00			5,270.44				131,239.00	12,917.53	8,350.00				23,607.77
FY 2003	15,877.33	57,500.00			14,650.11				250,032.87	2,174.87					32,958.92
FY 2004		57,500.00			14,650.11				545,705.25	2,174.87					31,764.13
FY 2005		80,000.00			32,208.66				133,493.01	63,826.67					80,372.31
FY 2006		514,111.00			32,208.66				224,412.58	5,134.33					42,869.23
FY 2007	59,335.35	88,837.14	15,600.76	67,300.35	2,498.02	34,827.26	8,438.79		51,026.92	85,935.13					1,459,518.45
FY 2008	140,144.20	3,007,555.25	1,800.00	43,917.98	5,792.05	5,800.00			145,540.43	23,879.59	1,000.00				1,457,033.24
FY 2009	104,580.43	2,563,500.00		11,855.28	5,792.05	175,619.93			127,448.97	102,753.58	104,521.20				4,441,553.20
FY 2010	12,877.50			204.22		12,280.00			47,472.56		887.50				37,452.20
FY 2011			69,517.50			29,740.00			14,850.00						11,620.33
FY 2012	331.50				34,009.50				2,861.00						44,948.11
FY 2013															17,429.33
FY 2014															8,325.71
FY 2015															171,453.40
Grand Total	346,542.41	7,023,401.95	966,292.81	323,118.33	159,242.60	363,371.69	13,647.32	475,651.56	1,403,991.50	363,646.97	178,520.70	1,930,116.34	863,442.23	24,118.75	14,594,337.27

APPENDIX D: ASSETS

	A	B	C	
	Parks, Recreation and Trails			
1	Year	Improvements	Original Cost	1
2	Total Improvements		\$ 14,584,357	2
3				3
4	LOS Improvements per Capita		\$ 853.24	4
	A	B	C	

APPENDIX E: DEBT SUMMARY

A B C D E
2007 Sales Tax Revenue Bond

1	Date	Principal	Interest Rate	Interest Payment	FY Payment	1
2	3/1/2008	\$ -	-	\$ 220,531	\$ 220,531	2
3	3/1/2009	225,000	4.50%	309,981	534,981	3
4	3/1/2010	230,000	4.50%	299,744	529,744	4
5	3/1/2011	240,000	4.50%	289,169	529,169	5
6	3/1/2012	250,000	4.50%	278,144	528,144	6
7	3/1/2013	260,000	4.50%	266,669	526,669	7
8	3/1/2014	275,000	4.50%	254,631	529,631	8
9	3/1/2015	285,000	4.50%	242,031	527,031	9
10	3/1/2016	300,000	4.50%	228,869	528,869	10
11	3/1/2017	320,000	4.50%	214,919	534,919	11
12	3/1/2018	330,000	5.25%	199,056	529,056	12
13	3/1/2019	350,000	4.00%	183,394	533,394	13
14	3/1/2020	360,000	4.00%	169,194	529,194	14
15	3/1/2021	375,000	4.05%	154,400	529,400	15
16	3/1/2022	385,000	4.05%	139,010	524,010	16
17	3/1/2023	395,000	4.13%	123,067	518,067	17
18	3/1/2024	425,000	4.15%	106,101	531,101	18
19	3/1/2025	430,000	4.15%	88,360	518,360	19
20	3/1/2026	445,000	4.20%	70,093	515,093	20
21	3/1/2027	480,000	4.20%	50,668	530,668	21
22	3/1/2028	955,000	4.25%	20,294	975,294	22
23		\$ 7,315,000		\$ 3,908,323	\$ 11,223,323	23
24	A	B	C	D	E	24

APPENDIX G: IMPACT FEE CALCULATION

	A	B	C	D	
	Facility	Cost	Population Served	Fee Per Capita	
1					1
2	Park Land and Improvement Expense	2,235,477	2,620	853	2
4	2007 Sales Tax Debt Service	11,223,323	27,849	403	4
5	2007 Sales Tax Debt Proceeds	(7,315,000)	27,849	(263)	5
6	Professional Expenses	9,869	2,620	4	6
7	Total			997	7
8	Average Household Size/Owner Occupied*			4.39	8
9	Impact Fee per Household Unit			\$ 4,378	9
10					10
11	Average Household Size/Multi Family*			4.25	11
12	Impact Fee per Household/Multi Family			\$ 4,239	12

13 **Source: 2010 Census*

Parks & Recreation Impact Fee Assessment	
16	Impact Fee per Single Family Residential Unit \$ 4,378
17	Impact Fee per Multi-Family Residential Unit 4,239

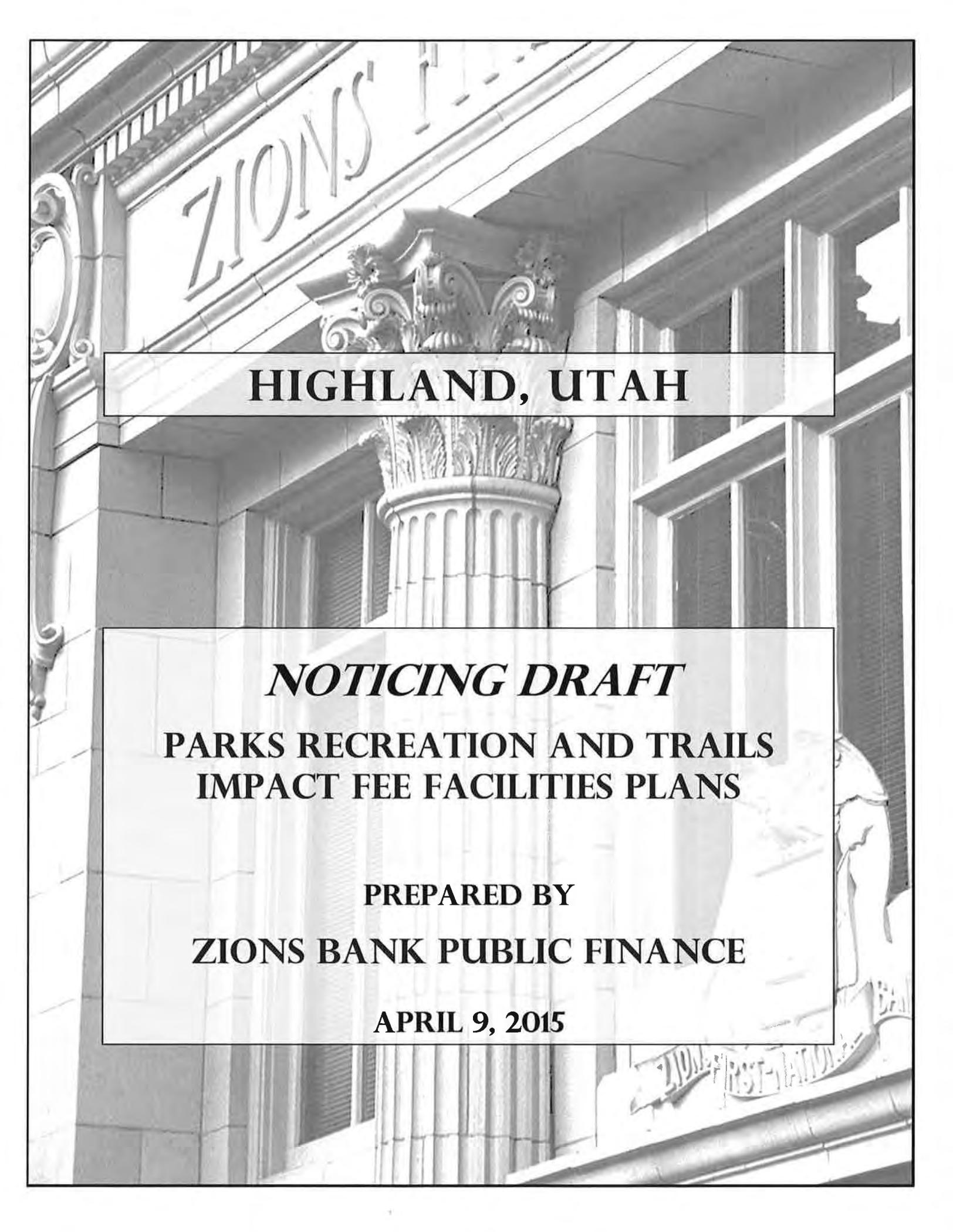
Parks & Recreation Non-Standard Impact Fee Formula	
21	Multiply Number of Persons per Household by Impact Fee per Capita of \$997.34

22 **Parks & Recreation fee is assessed to residential land uses only*

A B C D

APPENDIX H: PROJECTED ANNUAL EXPENSES

1	A	B	C
Year	Population	Spending Per Year	
2014	17,093		
2015	17,355		223,547.74
2016	17,617		223,547.74
2017	17,879		223,547.74
2018	18,141		223,547.74
2019	18,403		223,547.74
2020	18,665		223,547.74
2021	18,927		223,547.74
2022	19,189		223,547.74
2023	19,451		223,547.74
2024	19,713		223,547.74
11	Total	\$	2,235,477.45
	A	B	C



HIGHLAND, UTAH

NOTICING DRAFT
**PARKS RECREATION AND TRAILS
IMPACT FEE FACILITIES PLANS**

**PREPARED BY
ZIONS BANK PUBLIC FINANCE**

APRIL 9, 2015



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EXECUTIVE SUMMARY

HIGHLAND PARKS & RECREATION IMPACT FEE FACILITIES PLAN

Highland City (“City”) shall calculate and impose impact fees for their service area, which is comprised of all the areas within the City’s boundaries. Highland is a city in Utah County, Utah, United States. It is approximately 30 miles south of Salt Lake City and is part of the Provo–Orem Metropolitan Statistical Area.

SUMMARY OF IMPACT FEE FACILITIES PLAN

Section 11-36a-302 of the Utah Code outlines the requirements of an impact fee facilities plan which is required to identify the following:

- (a) Demands placed upon existing public facilities by new development activity; and
- (b) The proposed means by which the local political subdivision will meet those demands.

Demand Placed on Existing Facilities

The demand placed on existing public park facilities by new development activity is attributed to population growth. Highland City has a 2014 population of 17,093 persons and will grow to a projected 19,713 persons by 2024 – an increase of 2,620 persons. The population is expected to exceed approximately 27,000 persons and grow very slowly toward buildout.

Highland currently has invested \$14,584,357.27 in parks, recreation and trails. Therefore, assuming a 2014 population of 17,093, the current level of service is \$853.24 per capita. It is estimated the City will add future parks, recreation and trails and also add improvements to existing park land owned by the City. The City will perpetuate the level of service per capita over the next ten years.

Highland residents enjoy the benefits from parks that they have purchased; therefore, in order to achieve an equitable allocation of costs and benefits, new development needs only pay to maintain the level of service (LOS) that has been purchased by existing development. The City has incurred a historic cost per capita for parks, recreation and trails. The parks level of service is defined by dollars invested, or \$853.24 per capita. If the City does not construct future park facilities, the LOS would decline from \$853.24 to \$739.83 dollars invested by the year 2024.¹

Proposed Means by Which Local Subdivision Will Meet Demands

In order to maintain the current level of service of \$853.24 per capita for park and amenities purchased by Highland City, new residents will need to purchase an additional \$2,235,477 for parks and trails over the next ten years.

Impact fees are a fair and equitable means of requiring new development to pay its fair share of facilities and to achieve an “equitable allocation to the costs borne in the past and to be borne in the future, in comparison to the benefits already received and yet to be received.” Therefore the future residents will receive the same level of service per capita as the existing residents of Highland. If the level of service is increased, other funding sources, outside of impact fees, would need to be used.

¹ \$14,584,357dollars invested divided by population

Evaluation of Other Funding Sources

If the City desired a higher level of service than what is being assessed per capita via the impact fee, as mentioned above, another funding source should be considered for that higher level of service. The City will need to evaluate other funding mechanisms, such as GO bonds, special assessments, etc., in order to maintain the higher level of park service.

UTAH CODE LEGAL REQUIREMENTS

Utah law requires that communities² prepare an Impact Fee Facilities Plan (IFFP) before preparing an impact fee analysis and enacting an impact fee. Utah law also requires that communities give notice of their intent to prepare an IFFP. This IFFP follows all legal requirements as outlined below. Highland City has retained Zions Bank Public Finance to prepare this Impact Fee Facilities Plan in accordance with legal requirements.

Notice of Intent to Prepare Impact Fee Facilities Plan. A local political subdivision must provide written notice of its intent to prepare an IFFP before preparing the Plan (Utah Code 11-36a-501(1)). The required notice must:

- (a) Indicate that the local political subdivision intends to prepare an impact fee facilities plan; and
- (b) Describe or provide a map of the geographic area where the proposed impact fee facilities will be located.

This notice must be posted on the Utah Public Notice website. Highland has complied with this noticing requirement for the IFFP by posting notice on May 20, 2013. A copy of the notice is included in Appendix A.

Preparation of Impact Fee Facilities Plan. Utah Code requires that “before imposing an impact fee, each local political subdivision or private entity shall . . . prepare an impact fee facilities plan to determine the public facilities required to serve development resulting from new development activity” (Utah Code 11-36a-301(1)).

Section 11-36a-302 of the Utah Code outlines the requirements of an impact fee facilities plan which is required to identify the following:

- a) Demands placed upon existing public facilities by new development activity; and
- b) The proposed means by which the local political subdivision will meet those demands.

Further, in preparing an IFFP, the law requires that each local political subdivision shall “generally consider all revenue sources, including impact fees and anticipated dedication of system improvements, to finance the impacts on system improvements.”

This IFFP first evaluates projected population growth in Highland. Growth in parks and recreation demand will be driven by residential growth rather than commercial growth. Next, the IFFP identifies Highland City's current system-wide³ parks & recreation public facilities. The analysis then evaluates the demands placed on these facilities by new development activity and considers how Highland City will meet those demands. Finally, this analysis includes a discussion of all potential revenue sources that could be used to finance the impacts from growth on recreation system improvements.

² Local political subdivisions with populations of less than 5,000 as of the last federal census need not prepare an impact fee facilities plan, but their impact fees must be based on a reasonable plan. This provision does not apply to Highland with a population of 17,093 as of the last federal census (2010) and which must prepare an impact fee facilities plan [Utah Code 11-36a-301(3)(a)].

³ Project-wide parks cannot be used to establish the current level of service that the City desires to maintain through impact fees.

CHAPTER 1: DEMANDS PLACED UPON EXISTING PUBLIC FACILITIES BY NEW DEVELOPMENT ACTIVITY

UTAH CODE 11-36A-302(1)(A)

Growth in Demand

Based on the most recent Census, Highland City had a 2010 population of 15,523 and currently has an estimated population of 17,093. The City projects a population of 20,712 by 2030. This growth in residential population will generate demand for additional parks and improved recreation facilities. Figure 1 shows the projected growth in Highland City through 2024. It is anticipated that future commercial growth will not place any additional demand on parks facilities. Therefore, this demand analysis considers only future population growth.

FIGURE 1: PROJECTED POPULATION GROWTH

Year	Population	% Increase
2014	17,093	
2015	17,355	1.53%
2016	17,617	1.51%
2017	17,879	1.49%
2018	18,141	1.47%
2019	18,403	1.44%
2020	18,665	1.42%
2021	18,927	1.40%
2022	19,189	1.38%
2023	19,451	1.37%
2024	19,713	1.35%

Park Lands

Utah Code allows cities to include only system-wide parks for the purpose of calculating impact fees. Project-wide parks cannot be used to establish levels of service eligible to be maintained through impact fees.

Highland City’s system-wide park lands consist of land that was purchased by the City and land that was donated to the City. Park lands that were donated to the City are assumed to have been donated to the City’s system of parks through build-out. Donated land and improvements was not included in this analysis. In order to assure an equitable allocation of costs borne in the past to costs borne in the future,⁴ future residents will not be expected to pay for a level of park service that has been “gifted” to them, and that current residents have not purchased through impact fees or other means. Figure 2 lists the total acres for all parks in Highland City.

⁴ Utah Code 11-36a-302(3)

FIGURE 2: HIGHLAND CITY PARKS

Park Name	Acres
Canterbury North Park	4.12
Canterbury Park Circle	2.68
Dry Creek Bench West	3.5
Heritage Park	6.3
Highland Glen Park	76
Merlin B. Larson Park	1.89
Mitchell Hollow Park	11.6
Wimbledon Park	4.2
Windsor Meadows Park	5
Town Center Splash Pad	
Town Center Plaza	3.5
Dry Creek Hollow Park	44
Beacon Hills	10
Spring Creek	12
Mountain Ridge	17.6
Dry Creek North East	2.75
Apple Blossom	1.7
Totals	206.84

The City has determined that it desires to maintain its current level of park and trail services and does not wish to decrease its current level of service per capita. Therefore, there is no excess capacity in the City parks, trails and recreation system. The City will spend a total of \$997.34 (\$853.24, plus interest on 2007 Sales Tax Bond) per person as development occurs.

Parks, Trails and Recreation Facility Improvements

Highland City’s system-wide parks and trails also include a wide variety of recreation facility improvements that were purchased by the City and recreation facility improvements that were donated, grant or City funded. However, in order to assure an equitable allocation of costs borne in the past to costs borne in the future,⁵ only parks, trails and recreation facility improvements that were purchased by the City will be used in determining impact fees. Recreation facility improvements that were donated to the City are assumed to have been donated to the City’s system of parks through build-out. Future residents will not be expected to pay for a level of park service that current residents have not purchased through impact fees or other means.

The City has determined there is no excess capacity in the City’s system-wide park and recreation facilities.

Figure 3 shows the historic investment in park, recreation and trails per capita, or \$853.24. The detail supporting the total investment is found in the appendix of this document.

⁵ Utah Code 11-36a-302(3)

FIGURE 3: HISTORIC INVESTMENT IN PARK IMPROVEMENTS⁶

Parks, Recreation and Trails		
Year	Improvements	Original Cost
Total Improvements		\$ 14,584,357
LOS Improvements per Capita		\$ 853.24

Figure 3 shows the *historic costs*⁷ for system-wide recreation facility improvements for Highland City parks without excess capacity. A detailed listing of the current costs for each of the City’s system-wide parks is included in the Appendix of the document.

The City will need to purchase additional recreational facility improvements to meet the increased demands on the existing level of park services as a result of increased development activity. Figure 4 shows the parks, trails and recreation facility improvement cost per capita required to maintain the existing level of recreation facility improvements.

FIGURE 4: PARKS, TRAILS AND RECREATIONAL FACILITIES EXISTING LEVEL OF SERVICE PER CAPITA COST – PARKS WITH NO EXCESS CAPACITY

Per Capita Cost for Future Land and Improvements	Growth In Population	Total Cost of Future Park System Improvements
\$ 853.24	2,620	\$ 2,235,477

Figure 5 shows the annual spending on the parks system by the City through 2024 to maintain the existing LOS for parks, recreation and trails facility improvements. The cost for the recreation facility improvements that will need to be spent over the next ten years to maintain the existing level of service is \$2,235,477.45.

FIGURE 5: ANNUAL SPENDING REQUIRED TO MEET DEMAND BY NEW DEVELOPMENT ACTIVITY

Year	Population	Spending Per Year
2014	17,093	
2015	17,355	223,547.74
2016	17,617	223,547.74
2017	17,879	223,547.74
2018	18,141	223,547.74
2019	18,403	223,547.74
2020	18,665	223,547.74
2021	18,927	223,547.74
2022	19,189	223,547.74
2023	19,451	223,547.74
2024	19,713	223,547.74
Total		\$ 2,235,477.45

⁶ See Appendix C for the complete list of improvements and historic costs
⁷ Sources of information for current recreation facilities’ costs include: Highland City



PROPOSED MEANS FOR MEETING THE DEMANDS PLACED UPON EXISTING PUBLIC FACILITIES BY NEW DEVELOPMENT

UTAH CODE 11-36A-302(1)(B)

The City intends to at least maintain its existing level of service through spending the same amount going forward per capita on the parks system as it has for existing residents. For the purpose of quantifying the need for *additional* park land and recreational facilities or per capita spending, this study uses the City's existing park land and recreational facilities cost per capita for parks. The City would like to maintain its current per capita spending level of service.

The City has plans to make potential improvements to several parks. The City may adjust their plans, but will continue to perpetuate the same level of service (spending \$853.24 in parks and trails land and improvements per capita). The City will develop its parks to best serve development and is not tied to a specific plan at this time, but will perpetuate a high level of service to future development.

In order to achieve "an equitable allocation to the costs borne in the past and to be borne in the future, in comparison to the benefits already received and yet to be received,"⁸ impact fees will be used to maintain the current level of park services paid for by Highland City. However, additional system-wide park land and recreation facility improvements beyond those funded through impact fees that are desired to maintain a "higher" level of service than what has been provided historically will be paid for by the community through other revenue sources.

⁸ Utah Code 11-36a-302 (3)

CHAPTER 2: CONSIDERATION OF ALL REVENUE SOURCES

UTAH CODE 11-36A-302(2)

As required by Utah law, the Impact Fee Facilities Plan “shall generally consider all revenue sources, including impact fees and anticipated dedication of system improvements, to finance the impacts on system improvements.” This section discusses the variety of revenue sources that may be used to finance park system improvements.

General Fund Revenues

While general fund revenues could be used to develop parks, trails and recreation capital facilities, general funds are usually used for the operating and maintenance costs associated with parks. Most cities do not have sufficient revenues to cover the capital costs of parks and recreation development through their general funds. Highland has examined its general fund and does not believe it will have excess revenues in the next six to ten years to fund park capital improvements in this manner.

General Obligation Bonds

Generally, this revenue approach is used for facilities that are widely desired across the community and that benefit all property owners. GO bonds are backed by a City’s taxing power. If GO bonds were issued to pay for the demands placed on purchased parks and recreation facilities by new growth, existing property owners would be paying for the impacts of growth. Therefore, GO bonds are not viewed as an equitable means of financing the future parks and recreation facilities related to new growth.

Special Assessment Areas (“SAA”) Bonds

SAA bonds place an assessment on real property. Generally these assessments are levied for specific infrastructure improvements in specific geographic areas and are tied to demand – i.e., lot size, frontage, etc. Because new development will take place throughout Highland, special assessment areas are not seen as a preferred means of financing new park facilities.

RAP Tax

A RAP Tax fund is a collection of money accrued through sales taxes on purchases made within the limits of the city or county that has voted to adopt the program. Since this type of tax is subject to an election, it is not always a stable plan for future revenues.

Grants

Grant monies are an ideal means for the City to fund future parks and recreation growth. However, the availability of grant funds has been greatly reduced over the past few years and it is not likely that the City would be able to fund its future demand based on this revenue source.

Impact Fees

Impact fees are a reasonable means of funding growth-related infrastructure. An Impact Fee Analysis is required to accurately assess the true impact of a particular user upon the City’s infrastructure and to preclude existing users from subsidizing new growth.

Impact fees are calculated based upon the portion of the cost of capital infrastructure that relates to growth. This method also takes into account current deficiencies and does not place a burden on future development to solve those deficiencies.

IMPACT FEE FACILITIES PLAN CERTIFICATION

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

I certify that the attached impact fee facilities plan ("IFFP"):

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. costs for 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; and
 3. complies in each and every relevant respect with the Impact Fees Act.

Zions Bank Public Finance makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland City staff and elected officials.
2. If all or a portion of the IFFP or impact fee analysis is modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance 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: April 9, 2015

ZIONS BANK PUBLIC FINANCE



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

Description/Agenda:

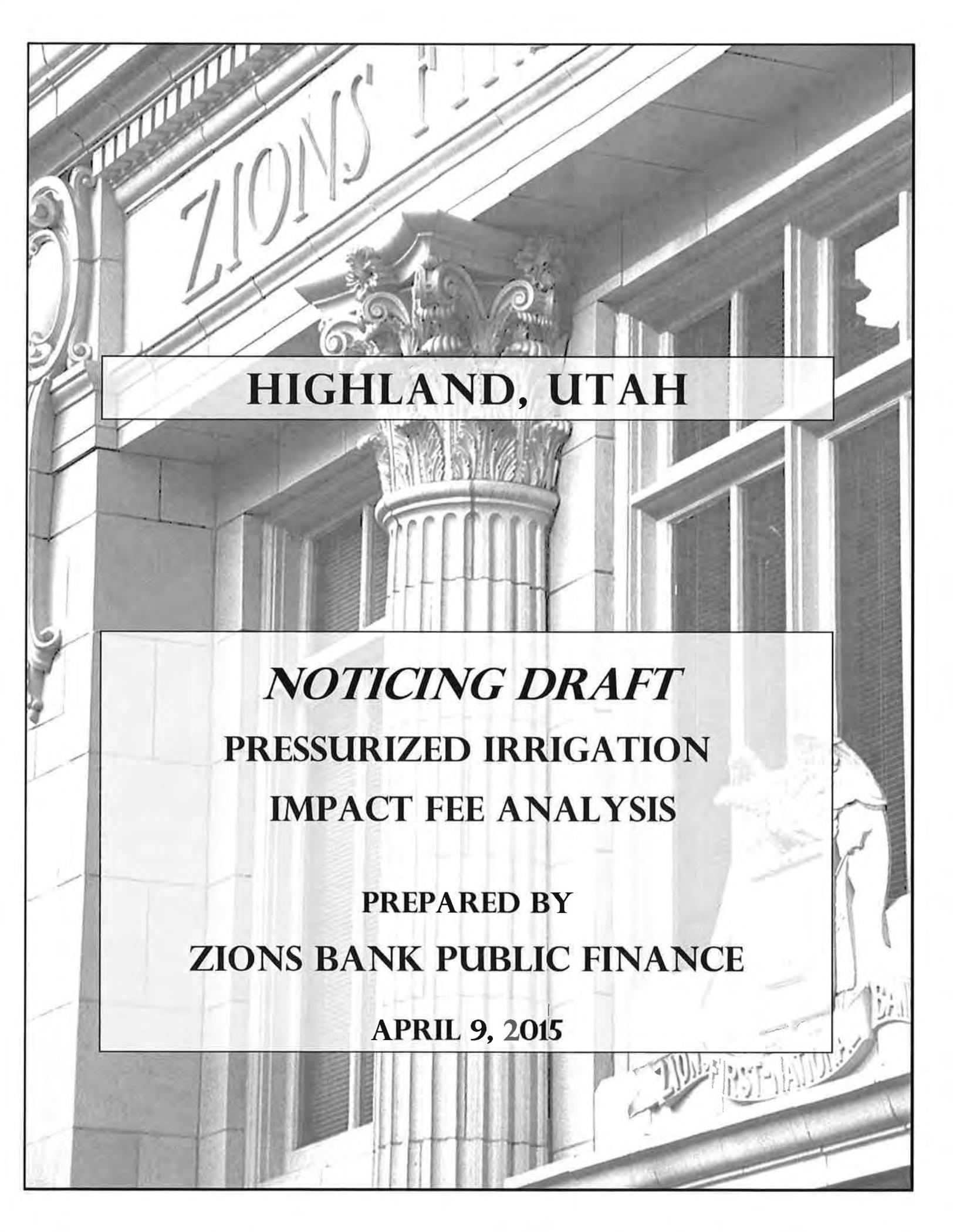
Notice Title: Notice of Intent to Create Impact Fee Facilities Plans and Amended Impact Fee Written Analyses

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>



HIGHLAND, UTAH

NOTICING DRAFT
PRESSURIZED IRRIGATION
IMPACT FEE ANALYSIS

PREPARED BY
ZIONS BANK PUBLIC FINANCE

APRIL 9, 2015



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HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT



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EXECUTIVE SUMMARY

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the pressurized irrigation system (PI) impact fee. The following pages summarize the document and tables included. The intent is to provide a concise discussion of the calculation and identification of the maximum legal impact fee.

Growth Projections of Irrigated Acres

Population is important to impact fee and facility planning as population, and other factors, drive project needs and timings however, the City's increases in irrigated acres determines the sizing and future expansions of the pressurized irrigation system. The primary measurements of demand in this analysis are irrigated acres which are found by multiplying the total acres served by an average 38% percent of the total lot irrigated. Currently, the City had 4,198 total acres served and by 2024 it is anticipated that the City will grow to 4,841 total acres served. This results in 1,594 irrigated acres in the City today which will grow to 1,838 irrigated acres in the years.

Level of Service Definitions

The pressurized irrigation level of service per irrigated acre is defined as:

- Peak Day Demand (gpm) per Irrigated Acre: 5.29
- Instantaneous Demand (gpm) per Irrigated Acre: 12.74
- Storage per Irrigated Acre: 8,500

CALCULATED FEE

The impact fee is calculated by multiplying the impact fee per irrigated acre of \$9,328.06 as found in Figure ES.1 by the irrigable acreage associated with different lot sizes found within Highland City. The final impact fees according to lot size are shown in Figure ES.2.

HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT



FIGURE ES.1: PRESSURIZED IRRIGATION FEE BY IRRIGATED ACRE

Component	Total Cost to Component	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Acres)	Cost per Acre
Storage Impact Fee					
Future 10 Year Capital Projects	\$ 2,624,076	33%	\$ 858,789	244	\$ 3,520
Future Storage Related Debt to be Issued - INTEREST ONLY	346,019	33%	113,243	244	464
Existing Storage Projects	9,877,766	8.54%	844,026	244	3,459
Existing Storage Related Debt - INTEREST ONLY	1,037,588	8.54%	88,659	244	363
Storage Subtotal	\$ 13,885,449		\$ 1,904,716		\$ 7,806.21
Distribution Impact Fee					
Future 10 Year Capital Projects	\$ 664,769	24.80%	\$ 164,830	244	\$ 676
Future Distribution Related Debt to be Issued - INTEREST ONLY	190,621	24.80%	47,265	244	194
Existing Distribution Projects	1,770,947	5.59%	98,995	244	406
Existing Distribution Related Debt - INTEREST ONLY	215,398	5.59%	12,041	244	49
Distribution Subtotal	\$ 2,841,735		\$ 323,131		\$ 1,324.31
Other Impact Fee					
Future 10 Year Capital Projects	\$ 48,200	100%	\$ 48,200	244	\$ 198
Future Other Related Debt to be Issued - INTEREST ONLY	-	100%	-	244	-
Existing Other Projects	-	0.00%	-	244	-
Existing Other Related Debt - INTEREST ONLY	-	0.00%	-	244	-
Other Subtotal	\$ 48,200		\$ 48,200		\$ 197.54
Professional Services/ Credits					
Unspent Impact Fee Funds	-	0.00%	\$ -	244	\$ -
Professional Services/ Credits	-	0%	-	244	-
Professional Services/Credits Subtotal	-		-		-
Total Impact Fee Per Acre	\$ 16,775,384		\$ 2,276,047		\$ 9,328.06

FIGURE ES.2: HIGHLAND PRESSURIZED IRRIGATION FEE BY LOT SIZE

Lot Size	Acreage	% Irrigable	Proposed Fee
1/4 Acres	0.25	0.38	\$ 886
1/2 Acres	0.5	0.38	1,772
3/4 Acres	0.75	0.38	2,658
1 Acres	1	0.38	3,545
1 1/2 Acres	1.5	0.38	5,317

FIGURE ES.3: NON-STANDARD FEE CALCULATION

Non-Standard Users Impact Fee Formula
Step 1: Identify Estimated Total Acreage of Proposed Development
Step 2: Multiply Total Acreage by the Percentage to be Irrigated
Step 3: Multiply Irrigated Acreage by Impact Fee per Acre of \$9,328.06



HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT



An example of a non-standard impact fee calculation would be a multi-family complex that has a common area that includes 3,000 irrigable square feet. To calculate the fee, divide 3,000 by 43,560 to calculate the percent of an irrigable acre ($3000/43560 = 6.8\%$ of an irrigable acre). Then multiply the 6.8% by the cost per irrigable acre (\$9,328.06) which will result in the impact fee of \$642.43 for that particular development ($6.8\% \times \$9,328.06 = \642.43).

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CHAPTER 1 PROJECT OVERVIEW

Highland City realizes that its rapid growth as well as changes to the Impact Fees Act require updates and review of its impact fees as well as its facility planning. A Pressurized Irrigation Impact Fee Facilities Plan was developed by Hansen Allen & Luce Engineers (Engineers) and will be adopted with this document. The following analysis has been created using the Highland City Water Impact Fee Facilities Plan, Zions Bank Public Finance and City staff provided information.

The goal of the Impact Fee Analysis is to calculate the maximum impact fee that may be assessed to new development and ensure the fee meets the requirements of the Impact Fees Act, Utah Code 11-36a-101 *et seq.* The sections and subsections of the Impact Fee Analysis will directly address the following items, required by the code:

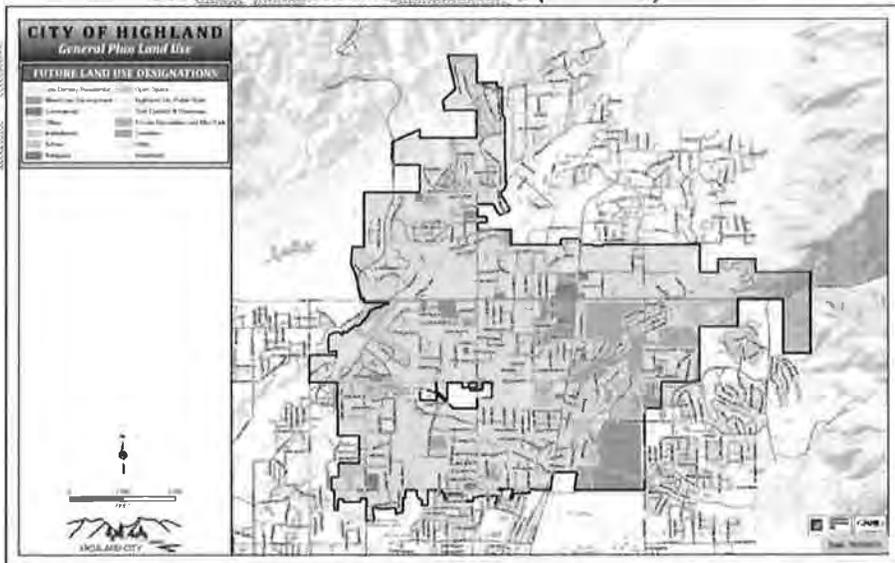
- Impact Fee Analysis Requirements (Utah Code 11-36a-304)
 - Identify Existing Capacity to serve growth
 - Proportionate Share Analysis
 - Identify the level of service
 - Identify the impact of future development on existing and future improvements
- Calculated Fee (Utah Code 11-36a-305)
- Certification (Utah Code 11-36a-306)

SERVICE AREA

Highland City is located on a bench near American Fork, Lehi and Alpine cities in northern Utah County. The City's pressurized irrigation system provides service to approximately 17,093 residents and relies on eight different sources for its water. Construction on the City's PI system began in 1997.

This Impact Fee Analysis calculates the base impact fees for one City-wide Service Area for pressurized irrigation. A map of the service area is included below.

FIGURE 1: MAP OF SERVICE AREA – PRESSURIZED IRRIGATION (CITY WIDE)





Growth Projections

Population is important to impact fee and facility planning as population, and other factors, drive project needs and timings however, the City's increases in irrigated acres determines the sizing and future expansions of the pressurized irrigation system. The primary measurements of demand in this analysis are irrigated acres which are found by multiplying the total acres served by an average 38% percent of the total lot irrigated. Currently, the City had 4,198 total acres served and by 2024 it is anticipated that the City will grow to 4,841 total acres served. This results in 1,594 irrigated acres in the City today which will grow to 1,838 irrigated acres in the years.

FIGURE 2: POPULATION GROWTH

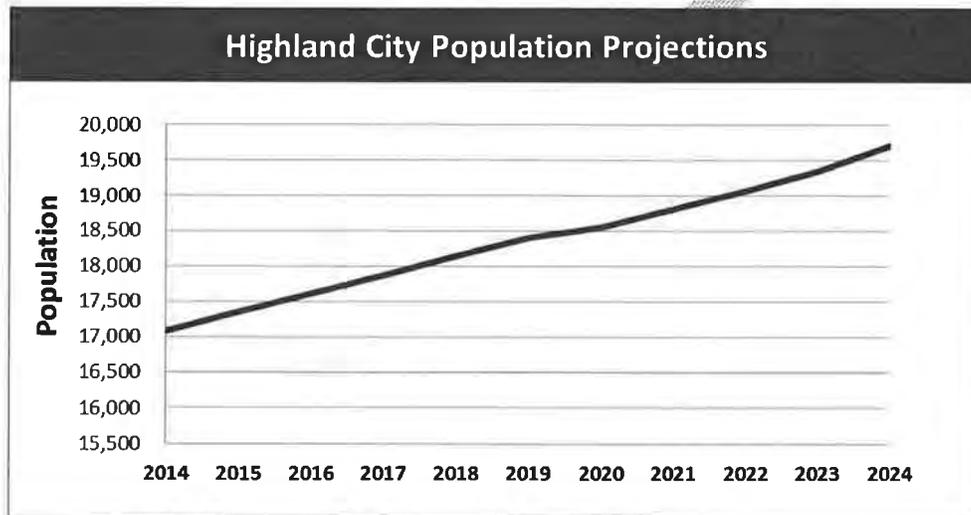


FIGURE 3: GROWTH IN TOTAL ACRES SERVED AND IRRIGATED ACRES

Year	Population	Growth in Total Acres	Irrigated Acres
2014	17,093	4,198	1,594
2015	17,355	4,258	1,618
2016	17,617	4,317	1,641
2017	17,879	4,377	1,663
2018	18,141	4,437	1,686
2019	18,403	4,496	1,709
2020	18,551	4,556	1,730
2021	18,813	4,627	1,758
2022	19,075	4,699	1,785
2023	19,337	4,770	1,813
2024	19,713	4,841	1,838
Buildout	30,547	6,840	2,564

There is modest growth still expected in Highland. Growth in population and in acreage to be irrigated will place increasing demand on the pressurized irrigation system. The Impact Fee Facilities Plan defines the improvements



HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT



that are required to maintain the current system and meet the needs of future growth. As the table above shows, growth in irrigated acreage is still occurring and the City must keep up with demand.

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HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT



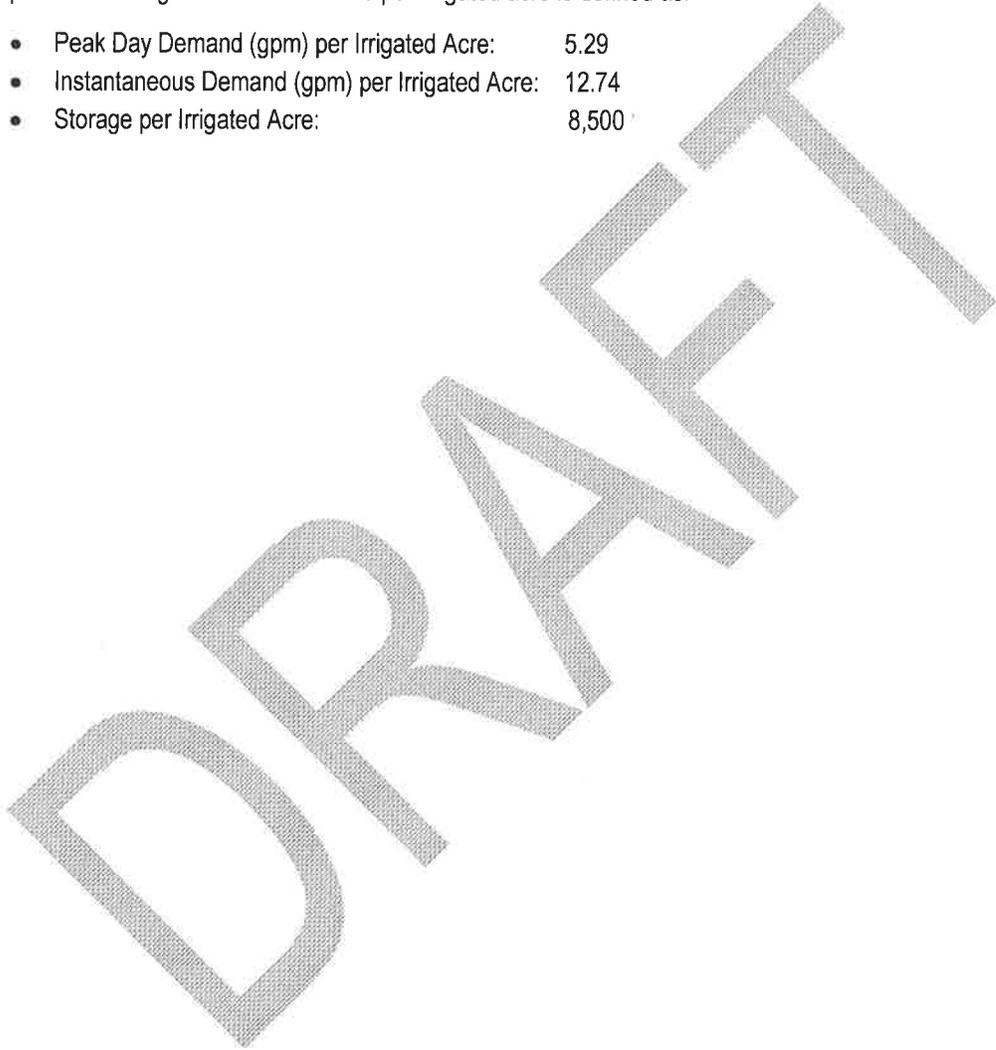
The Impact Fee Facilities Plan clearly shows the impact and consumption of current and future users of the pressurized irrigation system. The plan details the existing volumes of the components of the system, as well as the difference between what is used by existing and future users.

LEVEL OF SERVICE DEFINITIONS

The Impact Fee Facilities Plan has defined the current level of service in Highland City as:

The pressurized irrigation level of service per irrigated acre is defined as:

- Peak Day Demand (gpm) per Irrigated Acre: 5.29
- Instantaneous Demand (gpm) per Irrigated Acre: 12.74
- Storage per Irrigated Acre: 8,500





CHAPTER 2 EXISTING AND FUTURE CAPITAL PROJECTS

EXISTING INFRASTRUCTURE AND CAPACITY TO SERVE NEW GROWTH (BUY-IN COMPONENT)

As mentioned, much of the pressurized irrigation system has been constructed with bonds. The City provided a list of the projects funded. Hansen Allen & Luce completed an analysis to identify the capacity of the bond funded projects by functional component that will serve new growth. The components of the system (storage and distribution) have been analyzed separately and have their own levels of service and future capacities. Actual water rights and shares are provided to the City at the time of development so there are no source related impact fee qualifying projects to consider at this time.

Storage

The total PI storage capacity is 50.4 Acre Feet. All ponds were constructed since 1997 and are in good condition. The Upper/Lower ponds do not have excess capacity and, given that the City has planned some pond expansion projects, the Northwest pond will have sufficient excess capacity to serve the City through buildout. During the impact fee horizon projects to increase the capacity of the Upper and Lower ponds to serve future growth have been included in the impact fee calculation.

Distribution

The City's pressurized irrigation system consists of pipes ranging from 4" to 30". The majority of the pipes are 8" pipes. All pipes within the system have been constructed since 1997 and are in good condition with capacity to serve growth through buildout.

IMPACT FEE FACILITIES PLAN – FUTURE CAPITAL PROJECTS

Hansen Allen & Luce has carefully reviewed the City's existing PI system and has identified several projects that need to be constructed within the 10 year planning horizon. These projects will ensure the pressurized irrigation system has the capacity to meet growth needs and were adapted by HAL from the City's 2009 Master Plan. The table below summarizes the cost for each project and identifies the portion that can be attributable to 10 year growth.

Project Name	Year to be Constructed	2014 Cost	Construction Cost with Inflation	% to Existing / Project Level	% Impact Fee Qualifying - 10 Year	% Impact Fee Qualifying - Beyond 10 Year	10 Year Impact Fee Qualifying Cost	Impact Fee Qualifying Beyond 10 Years	Non Impact Fee Qualifying
Storage									
End Expansion (5 AC-ft)	2020	\$ 437,500	\$ 1,828,901	0%	39%	61%	\$ 715,657	\$ 1,113,244	\$ -
Lower Pond Expansion (5 AC-ft)	2020	625,000	795,175	82%	18%	0%	143,131	-	652,043
Storage Subtotal		\$ 2,062,500	\$ 2,624,076				\$ 858,789	\$ 1,113,244	\$ 652,043
Distribution									
MP #13 Connection	2020	\$ 249,953	\$ 318,009	0.0%	24.8%	75.2%	\$ 78,851	\$ 239,158	\$ -
MP #12 PRV and WL	2020	272,550	346,760	0.0%	24.8%	75.2%	85,980	260,780	-
Distribution Subtotal		\$ 522,503	\$ 664,769				\$ 164,830	\$ 499,939	\$ -
Other- Professional Services									
Impact Fee Facilities Plan	2015	\$ 9,995	\$ 10,707	0.0%	100.0%	0.0%	\$ 10,707	\$ -	\$ -
Master Plan	2015	30,000	32,137	0.0%	100.0%	0.0%	32,137	-	-
Impact Fee Analysis	2015	5,000	5,356	0.0%	100.0%	0.0%	5,356	-	-
Other Subtotal		\$ 44,995	\$ 48,200				\$ 48,200	\$ -	\$ -
Ten Year Total		\$ 2,629,998	\$ 3,337,045				\$ 1,071,819	\$ 1,613,183	\$ 652,043



FINANCE MECHANISMS

Outstanding Debt

The Utah Impact Fees Act does allow for the inclusion of outstanding principal and interest costs of existing improvements funding by bond proceeds that still have capacity to serve new growth. Currently, the City has one outstanding debt issue related to the PI system, the 2009 Revenue Refunding Bonds. The 2009 bonds refunded the 1998 revenue refunding bonds which had been issued to refund the original 1996 debt issue. The 1996 debt issue was used to fund the construction of the City's pressurized irrigation system. Approximately 9% of the 2009 bond bend relates to the storage system and 6% to distribution. Those portions of the cost have been included in the impact fee calculation.

It should be noted that the City had a note to Provo River Water Users Association and an assessment to the Highland Water Conservancy District outstanding both related to the Provo river water canal enclosure project. Both the note and the assessment are paid for by the City's General Fund and are not funded with pressurized irrigation user rates or impact fees. Therefore, at this time, it is not necessary to consider this outstanding debt when calculating the pressurized irrigation impact fee.

Future Debt

In order to fund the future projects needed in the 10 year horizon, a future bond issue is anticipated in approximately 2020. The bond is expected to be issued for approximately \$1.5M as shown in Figure 5. Approximately 31% of this bond will serve ten year growth in demand and has been included in the impact fee calculation.

FIGURE 5: 2020 PRESSURIZED IRRIGATION REVENUE BOND

	Principal	Interest	Total D/S	
2021	\$77,000	\$ 61,480	\$ 138,480	2021
2022	80,000	58,400	138,400	2022
2023	83,000	55,200	138,200	2023
2024	86,000	51,880	137,880	2024
2025	90,000	48,440	138,440	2025
2026	93,000	44,840	137,840	2026
2027	97,000	41,120	138,120	2027
2028	101,000	37,240	138,240	2028
2029	105,000	33,200	138,200	2029
2030	109,000	29,000	138,000	2030
2031	114,000	24,640	138,640	2031
2032	118,000	20,080	138,080	2032
2033	123,000	15,360	138,360	2033
2034	128,000	10,440	138,440	2034
2035	133,000	5,320	138,320	2035
Total	\$ 1,537,000	\$ 536,640	\$ 2,073,640	



CHAPTER 3 PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that an impact fee analysis estimate the proportionate share of the costs for existing capacity that will be recouped; and the costs of impacts on system improvements that are reasonably related to the new development activity.

Highland must keep up with growing demand and must begin building infrastructure in order to support growth and economic development in the area. The IFFP clearly defines what projects are growth related, repair and replacement, or pipe upsizing (the upsizing may include some element of growth). The projects are detailed later in the Future Capital Projects section.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. Historically the City has funded existing infrastructure through several different funding sources including:

- General Fund Revenues
- User Fees
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

In calculating the buy-in (for existing infrastructure capacity) component of this analysis no grant funded infrastructure has been included. The infrastructure included in the analysis was all bond funded projects. Bond funded projects are impact fee eligible expenses. In order to ensure fairness to existing users, impact fees are an appropriate means of funding future capital infrastructure because using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2) (c) (d))

Just as the existing infrastructure was funded through different means it is required by the Impact Fees Act to evaluate all means of funding future capital. There are positive and negative aspects to the various forms of funding. It is important to evaluate each.

General Fund/User Rates

The general fund and user rates have both been funded in one form or another by existing users. It would be an additional burden to existing users to use this revenue source to fund future capital to meet the needs of future users. This is not an equitable policy and can place too much stress on the tight budgets of the general fund and other user rate funds.

Bond Proceeds

Based on lack of impact fee reserves and cash funding available for the projects needed for the future, the City anticipates issuing debt for capital projects. It is important to note that it is anticipated the impact fees will fund the eligible portions of the proposed debt.

Impact Fees

Impact fees are a fair and equitable means of providing infrastructure for future development. They provide a rational nexus between the costs borne in the past and the costs required in the future. The Impact Fees Act ensures that

HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT

future development is not paying any more than what future growth will demand. Existing users and future users receive equal treatment; therefore impact fees are the optimal funding mechanism for future growth related capital needs.

Developer Credits

If projects 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) are constructed by developers, that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2) (f)).

Other

In this particular analysis, there is also a credit for unspent impact fee revenues collected in the past. The current impact fee fund balance will be credited against the impact fee, if applicable.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for a City-Wide PI Service Area. The fee per irrigated acre is \$9,328. The table below calculates the impact fee according to various lot sizes given the fee per irrigated acre and an average irrigable area of 38% of the total lot size.

FIGURE 6: HIGHLAND PRESSURIZED IRRIGATION IMPACT FEE BY LOT SIZE

Lot Size	Acreage	% Irrigable	Proposed Fee
1/4 Acres	0.25	0.38	\$ 886
1/2 Acres	0.5	0.38	1,772
3/4 Acres	0.75	0.38	2,658
1 Acres	1	0.38	3,545
1 1/2 Acres	1.5	0.38	5,317

At the City's discretion a non-standard impact fee may be calculated for a particular development that does not fit the typical calculation of lot size and irrigable area shown above. The steps to calculate a non-standard impact fee are included in the table below and an example of how to use the non-standard formula is described in the following paragraph.

FIGURE 7: NON-STANDARD FEE CALCULATION

Non-Standard Users Impact Fee Formula
Step 1: Identify Estimated Total Acreage of Proposed Development
Step 2: Multiply Total Acreage by the Percentage to be Irrigated
Step 3: Multiply Irrigated Acreage by Impact Fee per Acre of \$9,328.06

An example of a non-standard impact fee calculation would be a multi-family complex that has a common area that includes 3,000 irrigable square feet. To calculate the fee, divide 3,000 by 43,560 to calculate the percent of an irrigable acre ($3000/43560 = 6.8\%$ of an irrigable acre). Then multiply the 6.8% by the cost per irrigable acre (\$9,328.06) which will result in the impact fee of \$642.43 for that particular development ($6.8\% \times \$9,328.06 = \642.43).

HIGHLAND CITY PRESSURIZED IRRIGATION IMPACT FEE ANALYSIS NOTICING DRAFT



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

ZPFI 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 Plans (IFFPs) made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland City staff and elected officials.
2. If all or a portion of the IFFPs or impact fee analyses 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 IFFPs and the impact fee analysis.

Dated: April 9, 2015

ZIONS PUBLIC FINANCE, INC.



APPENDICES

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.

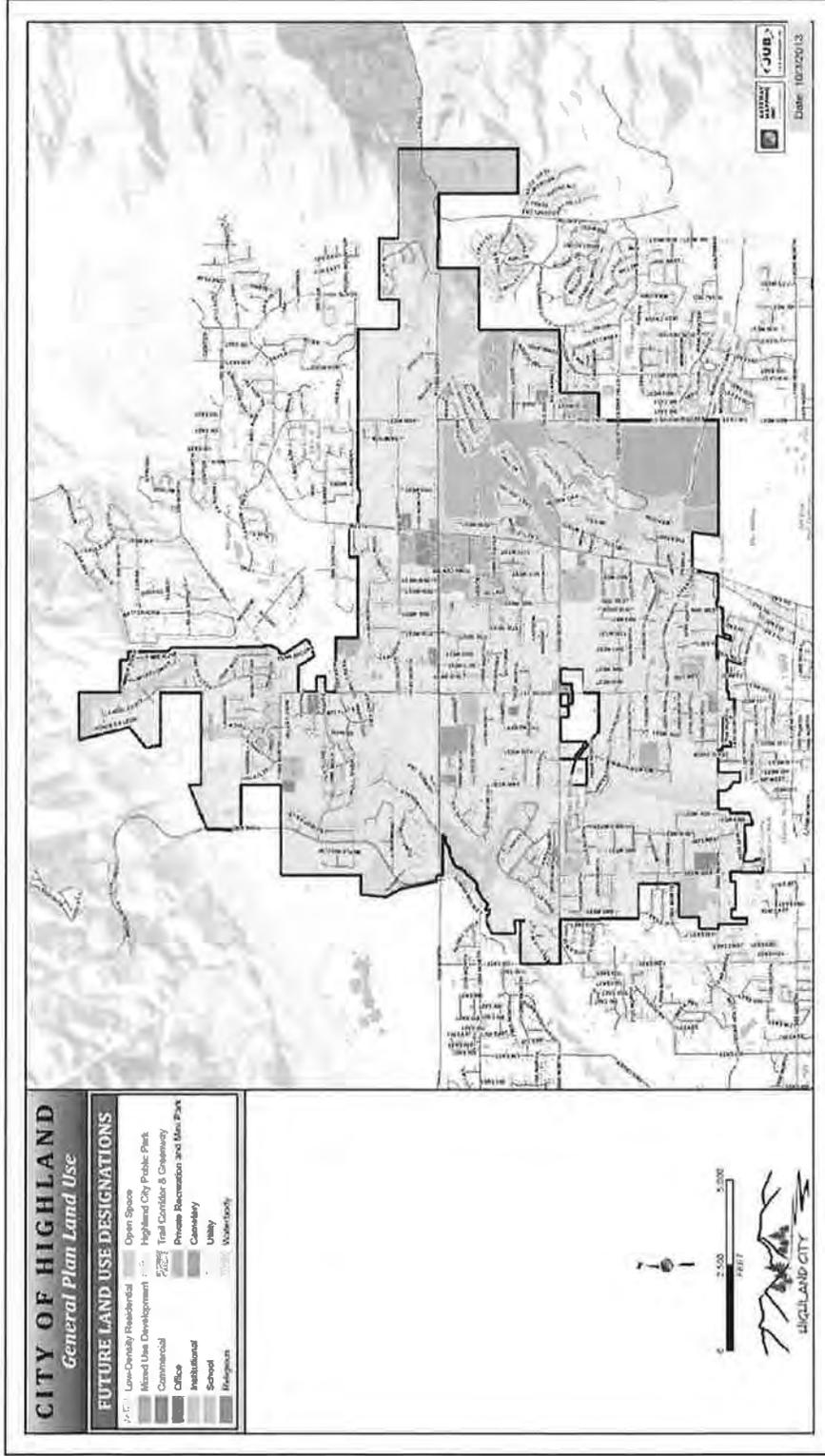
BY ORDER OF THE CITY COUNCIL OF HIGHLAND CITY

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

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APPENDIX A: MAP OF IMPACT FEE SERVICE AREA





Appendix B: Peak Day Demand Projections for Secondary Water

CURRENT AND FUTURE ACRES FOR THE SECONDARY WATER SERVICE AREA

TABLE B.1: CURRENT AND FUTURE SECONDARY WATER ACRES

A	B	C	D	E
Year	Population	Growth in Total Acres	Irrigated Acres	
2014	17,093	4,198	1,594	
2015	17,355	4,258	1,618	
2016	17,617	4,317	1,641	
2017	17,879	4,377	1,663	
2018	18,141	4,437	1,686	
2019	18,403	4,496	1,709	
2020	18,551	4,556	1,730	
2021	18,813	4,627	1,758	
2022	19,075	4,699	1,785	
2023	19,337	4,770	1,813	
2024	19,713	4,841	1,838	
Buildout	30,547	6,840	2,564	

TABLE B.2: SECONDARY WATER DEMAND

F	G
Secondary Water Acres	
Current Irrigated Acres	1,594
Buildout Irrigated Acres	2,564
Total Undeveloped Irrigated Acres	970
% Undeveloped	38%
10 Year Additional Irrigated Acres	244

A R C D E F G H I J K L

19 Table C-2: Total Capital Projects by Year

20 Project	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
21 Storage											
22 Upper Pond Expansion (11.5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,828,901	\$ -	\$ -	\$ -
23 Lower Pond Expansion (5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 795,175	\$ -	\$ -	\$ -
24 Storage Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 795,175	\$ -	\$ -	\$ -
25 Distribution											
26 MP #13 Connection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 318,009	\$ -	\$ -	\$ -
27 MP #12 PRV and WL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 346,760	\$ -	\$ -	\$ -
28 Distribution Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 664,769	\$ -	\$ -	\$ -
29 Other- Professional Services											
30 Impact Fee Facilities Plan	\$ -	\$ -	\$ 10,707	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31 Master Plan	\$ -	\$ -	\$ 32,137	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
32 Impact Fee Analysis	\$ -	\$ -	\$ 5,356	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33 Other Subtotal	\$ -	\$ -	\$ 48,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34 Total Capital Projects	\$ -	\$ -	\$ 48,200	\$ -	\$ -	\$ -	\$ -	\$ 1,459,944	\$ -	\$ -	\$ -

36 Table C-3: Impact Fee Qualifying Capital Projects WITHIN TEN YEARS by Year

37 Project	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
38 Storage											
39 Upper Pond Expansion (11.5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 715,657	\$ -	\$ -	\$ -
40 Lower Pond Expansion (5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 143,131	\$ -	\$ -	\$ -
41 Storage Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 143,131	\$ -	\$ -	\$ -
42 Treatment											
43 MP #13 Connection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78,851	\$ -	\$ -	\$ -
44 MP #12 PRV and WL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85,980	\$ -	\$ -	\$ -
45 Distribution Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78,851	\$ -	\$ -	\$ -
46 Other- Professional Services											
47 Impact Fee Facilities Plan	\$ -	\$ -	\$ 10,707	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48 Master Plan	\$ -	\$ -	\$ 32,137	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
49 Impact Fee Analysis	\$ -	\$ -	\$ 5,356	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
50 Other Subtotal	\$ -	\$ -	\$ 48,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
51 Impact Fee Qualifying - 10 Year Grov.	\$ -	\$ -	\$ 48,200	\$ -	\$ -	\$ -	\$ -	\$ 221,982	\$ -	\$ -	\$ -

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

53	Table C.4: Impact Fee Qualifying Capital Projects BEYOND TEN YEARS by Year											
54	A	B	C	D	E	F	G	H	I	J	K	L
55	Project	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
55	Storage											
56	Upper Pond Expansion (11.5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,113,244	\$ -	\$ -	\$ -
57	Lower Pond Expansion (5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
58	Storage Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,113,244	\$ -	\$ -	\$ -
59	Distribution											
60	MP #13 Connection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 239,158	\$ -	\$ -	\$ -
61	MP #12 PRV and WL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 260,780	\$ -	\$ -	\$ -
62	Distribution Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 239,158	\$ -	\$ -	\$ -
63	Other- Professional Services											
64	Impact Fee Facilities Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65	Master Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
66	Impact Fee Analysis	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67	Other Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
68	Impact Fee Qualifying - Beyond Ten	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,352,403	\$ -	\$ -	\$ -
69	Table C.5: Non Impact Fee Qualifying Capital Projects by Year											
70	A	B	C	D	E	F	G	H	I	J	K	L
71	Project	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
71	Storage											
72	Upper Pond Expansion (11.5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
73	Lower Pond Expansion (5 AC-ft)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 652,043	\$ -	\$ -	\$ -
74	Storage Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 652,043	\$ -	\$ -	\$ -
75	Distribution											
76	MP #13 Connection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
77	MP #12 PRV and WL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
78	Distribution Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
79	Other- Professional Services											
80	Impact Fee Facilities Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
81	Master Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
82	Impact Fee Analysis	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
83	Other Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 652,043	\$ -	\$ -	\$ -
84	Non Impact Fee Qualifying	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 652,043	\$ -	\$ -	\$ -

Appendix D: Historic Asset Data

A	B	C	D	E	F	G	H
Table D.1: Historic Asset Data Summary							
System	Storage	Distribution	Other	Total Cost			
NW Pond	\$ 587,468			\$ 587,468			
11800 PS & Well		1,427,049		1,427,049			
Lower PS		206,336		206,336			
Hogs Hollow PS	231,556			231,556			
System Less Upper Pond	8,460,271			8,460,271			
Upper Pond (No Capacity)	598,471			598,471			
18" Transmission Line		137,562		137,562			
Totals	\$ 9,877,766	\$ 1,770,947	\$ -	\$ 11,648,713			

Table D.2: Storage Historic Asset Data Summary							
System	% to Existing / Project Level	% Impact Fee Qualifying - 10 Year	% Impact Fee Qualifying - Beyond 10 Year	Total Cost	Existing / Non-Qualifying Cost	10 Year Impact Fee Qualifying Cost	Impact Fee Qualifying Beyond 10 Years
NW Pond	32%	5%	63%	\$ 587,468	\$ 190,281	\$ 29,173	\$ 368,014
System Less Upper Pond	62%	9%	29%	8,460,271	5,253,724	795,068	2,411,479
Upper Pond (No Capacity)	100%	0%	0%	598,471	598,471	-	-
Totals				\$ 9,646,210	\$ 6,042,476	\$ 824,241	\$ 2,779,494

Table D.3: Distribution Historic Asset Data Summary							
System	% to Existing / Project Level	% Impact Fee Qualifying - 10 Year	% Impact Fee Qualifying - Beyond 10 Year	Total Cost	Existing / Non-Qualifying Cost	10 Year Impact Fee Qualifying Cost	Impact Fee Qualifying Beyond 10 Years
11800 PS & Well	32%	5%	63%	\$ 1,427,049	\$ 462,221	\$ 70,865	\$ 893,963
Lower PS	62%	9%	29%	206,336	128,132	19,391	58,813
Hogs Hollow PS	42%	6%	52%	231,556	96,877	14,853	119,826
18" Transmission Line	32%	5%	63%	137,562	44,556.36	6,831	86,175
Totals				\$ 2,002,503	\$ 731,787	\$ 111,939	\$ 1,158,777

Table D.4: Qualifying and Non-Qualifying Asset Summary				
	Storage	Distribution	Other	Total Cost
Ten Year	9%	6%	0%	0%
Non-Qualifying	91%	94%	100%	0%
Totals	100%	100%	100%	0%

Appendix E: Historic City Asset Data

Table E.1: Detailed Asset List

A	B	C	D	E	F	G	H	I	J
1	Description	Owner/System	Use	Source/Unit	In-Service	Expiring	Qualifying	Expects	Original Cost
2	PRESSURE IRRIGATION LAND	PI	System	30.00	Yes	City	Qualifying	Land	\$226,000
3	PLAND - NORTHWEST	PI	System	30.00	Yes	City	Qualifying	Land	\$51,450
4	PI PUMP STATION	PI	System	30.00	Yes	City	Qualifying	Building	\$521,081
5	DRY CREEK PUMPHOUSE & WELL	PI	System	30.00	Yes	City	Qualifying	Building	\$332,111
6	HOC HOLLOW #1 BOOSTERSTATION	PI	System	30.00	Yes	City	Qualifying	Building	\$28,660
7	P.1 WELL & POND	PI	System	30.00	Yes	City	Qualifying	Storage	\$587,468
8	HW - PI POND	PI	System	30.00	Yes	City	Qualifying	Storage	\$211,020
9	WINDOWS UPGRADE	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$9,270
10	WHEELER POWER SYSTEM	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$22,760
11	VERMEER CHIPPER	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$5,610
12	SCADA SYSTEM	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$7,620
13	HW TEE TANKER (Partial Amount)	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$1,200
14	07 FORD PICKUP (Partial Amount)	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$7,240
15	BOOSTER PUMPS LIBOD NORTH	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$6,330
16	ELEMENTS WORK ORDER SYSTEM	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$5,238
17	SCADA UPGRADE	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$62,046
18	SCADA SYSTEM UPGRADE	PI	Equipment	10.00	Yes	City	Non-Qualifying	Equipment	\$15,325
19	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$600
20	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$9,760
21	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$3,000
22	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$1,999,992
23	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$196,500
24	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$201,000
25	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$222,400
26	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$9,054,424
27	WATER STOCK	PI	System	30.00	Yes	City	Qualifying	Source	\$37,140
28	WATER STOCK CONTRIBUTED	PI	System	30.00	Yes	City	Qualifying	Source	\$1,386,000
29	DC - WATER CONTRIBUTED	PI	System	30.00	Yes	Davenport	Non-Qualifying	Source	\$1,670,900
30	WATER PURCHASED BY CITY	PI	System	30.00	Yes	City	Qualifying	Source	\$29,337
31	DC - WATER CONTRIBUTED	PI	System	30.00	Yes	Davenport	Non-Qualifying	Source	\$4,535,040
32	DEVELOPER CONT - WATER	PI	System	30.00	Yes	Davenport	Non-Qualifying	Source	\$226,000
33	WATER PURCHASED	PI	System	30.00	Yes	City	Qualifying	Source	\$86,600
34	WATER PURCHASES	PI	System	30.00	Yes	City	Qualifying	Source	\$483,270
35	WATER SHARE PURCHASES	PI	System	30.00	Yes	City	Qualifying	Source	\$76,600
36	CONTAINED WATER SHARES 102.97 FULL	PI	System	30.00	Yes	City	Qualifying	Source	\$322,691
37	CONTAINED WATER SHARES 194.35 LATE	PI	System	30.00	Yes	City	Qualifying	Source	\$299,142
38	HIGHLAND CONVI. 1956.1 SAVED & 4 CONTRIBUTED	PI	System	30.00	Yes	City	Qualifying	Source	\$1,566,230
39	WATER SHARE PURCHASE	PI	System	30.00	Yes	City	Qualifying	Source	\$8,980
40	B THOMPSON WATER SHARE PURCHASE	PI	System	30.00	Yes	City	Qualifying	Source	\$37,740
41	PLANNING COSTS	PI	System	30.00	Yes	City	Qualifying	Distribution	\$31,000
42	DESIGN COSTS	PI	System	30.00	Yes	City	Qualifying	Distribution	\$550,809
43	CONSTRUCTION ENGINEERING AND MANAGEMENT COSTS	PI	System	30.00	Yes	City	Qualifying	Distribution	\$212,145
44	CONSTRUCTION COSTS	PI	System	30.00	Yes	City	Qualifying	Distribution	\$8,141,493
45	LEGAL COSTS	PI	System	30.00	Yes	City	Qualifying	Distribution	\$16,720
46	FINANCING COSTS	PI	System	30.00	Yes	City	Qualifying	Distribution	\$100,371
47									
48									
49									
50									
51									
52									
53									
54									
55									

\$32,665,360.06

\$32,665,360.06

APPENDIX G: FUTURE WATER DEBT

	A	B	C	D	E
	Table G.1: Series 2020 Projected Future Annual Debt Payments				
	Principal		Interest	Total D/S	
1					
2					
3	2021	\$ 77,000	\$ 61,480	\$ 138,480	2021
4	2022	80,000	58,400	138,400	2022
5	2023	83,000	55,200	138,200	2023
6	2024	86,000	51,880	137,880	2024
7	2025	90,000	48,440	138,440	2025
8	2026	93,000	44,840	137,840	2026
9	2027	97,000	41,120	138,120	2027
10	2028	101,000	37,240	138,240	2028
11	2029	105,000	33,200	138,200	2029
12	2030	109,000	29,000	138,000	2030
13	2031	114,000	24,640	138,640	2031
14	2032	118,000	20,080	138,080	2032
15	2033	123,000	15,360	138,360	2033
16	2034	128,000	10,440	138,440	2034
17	2035	133,000	5,320	138,320	2035
31	Total	\$ 1,537,000	\$ 536,640	\$ 2,073,640	

A B C D E

APPENDIX H: CALCULATION OF THE IMPACT FEE PER ACRE

	A	B	C	D	E	F
TABLE H.1: IMPACT FEE CALCULATION						
1	Component	Total Cost to Component	% That will Serve Ten Year Demand	Dollar Amount that will Serve Ten Year Demand	Ten Year Demand (Irrigated Acres)	Cost per Irrigated Acre
2	Storage Impact Fee					
3	Future 10 Year Capital Projects	\$ 2,624,076	33%	\$ 858,789	244	\$ 3,520
4	Future Storage Related Debt to be Issued - INTEREST ONLY	346,019	33%	113,243	244	464
5	Existing Storage Projects	9,877,766	8.54%	844,026	244	3,459
6	Existing Storage Related Debt - INTEREST ONLY	1,037,588	8.54%	88,659	244	363
7	Storage Subtotal	\$ 13,885,449		\$ 1,904,716		\$ 7,806.21
8						
9	Distribution Impact Fee					
10	Future 10 Year Capital Projects	\$ 664,769	24.80%	\$ 164,830	244	\$ 676
11	Future Distribution Related Debt to be Issued - INTEREST ONLY	190,621	24.80%	47,265	244	194
12	Existing Distribution Projects	1,770,947	5.59%	98,995	244	406
13	Existing Distribution Related Debt - INTEREST ONLY	215,398	5.59%	12,041	244	49
14						
15	Distribution Subtotal	\$ 2,841,735		\$ 323,131		\$ 1,324.31
16						
17	Other Impact Fee					
18	Future 10 Year Capital Projects	\$ 48,200	100%	\$ 48,200	244	\$ 198
19	Future Other Related Debt to be Issued - INTEREST ONLY	-	100%	-	244	-
20	Existing Other Projects	-	0.00%	-	244	-
21	Existing Other Related Debt - INTEREST ONLY	-	0.00%	-	244	-
22						
23	Other Subtotal	\$ 48,200		\$ 48,200		\$ 197.54
24						
25	Professional Services/ Credits					
26	Unspent Impact Fee Funds	-	0.00%	\$ -	244	\$ -
27	Professional Services/ Credits	-	0%	-	244	-
28	Professional Services/Credits Subtotal	-		-		-
29						
30	Total Impact Fee Per Acre	\$ 16,775,384		\$ 2,276,047		\$ 9,328.06
	A	B	C	D	E	F



Appendix I: Pressurized Irrigation Impact Fees

	A	B	C	D	E	F																												
1																																		
2	Table I.1: Pressurized Irrigation Impact Fee																																	
3																																		
4	<table border="1"> <thead> <tr> <th>Lot Size</th> <th>Acreage</th> <th>% Irrigable</th> <th>Proposed Fee</th> </tr> </thead> <tbody> <tr> <td>1/4 Acres</td> <td>0.25</td> <td>0.38</td> <td>\$ 886</td> </tr> <tr> <td>1/2 Acres</td> <td>0.5</td> <td>0.38</td> <td>1,772</td> </tr> <tr> <td>3/4 Acres</td> <td>0.75</td> <td>0.38</td> <td>2,658</td> </tr> <tr> <td>1 Acres</td> <td>1</td> <td>0.38</td> <td>3,545</td> </tr> <tr> <td>1 1/2 Acres</td> <td>1.5</td> <td>0.38</td> <td>5,317</td> </tr> <tr> <td colspan="3"></td> <td>Fee per Acre \$ 9,328.06</td> </tr> </tbody> </table>						Lot Size	Acreage	% Irrigable	Proposed Fee	1/4 Acres	0.25	0.38	\$ 886	1/2 Acres	0.5	0.38	1,772	3/4 Acres	0.75	0.38	2,658	1 Acres	1	0.38	3,545	1 1/2 Acres	1.5	0.38	5,317				Fee per Acre \$ 9,328.06
Lot Size	Acreage	% Irrigable	Proposed Fee																															
1/4 Acres	0.25	0.38	\$ 886																															
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7																																		
8																																		
9																																		
10																																		
11																																		

	A	B	C	D	E	F
12	TABLE I.2: NON-STANDARD IMPACT FEE CALCULATION					
13	Non-Standard Users Impact Fee Formula					
14	Step 1: Identify Estimated Total Acreage of Proposed Development					
15	Step 2: Multiply Total Acreage by the Percentage to be Irrigated					
16	Step 3: Multiply Irrigated Acreage by Impact Fee per Acre of \$9,328.06					

PRESSURIZED IRRIGATION IMPACT FEE FACILITY PLAN SUMMARY

The purpose of the Pressurized Irrigation Impact Fee Facilities Plan (“IFFP”) –, with supporting Impact Fee Analysis (“IFA”), is to fulfill the requirements established in Utah Code Title 11 Chapter 36a, the “Impact Fees Act,” and assist the Highland City (the “City”) plan necessary capital improvements for future growth. The IFFP addresses only the future Pressurized Irrigation infrastructure needed to serve the City through the next ten years, and to maintain the existing level of service (“LOS”) with the added demands of new development.

The Plans summarize the following:

- Identify the LOS for the Pressurized Irrigation system
- Demands placed upon the existing Pressurized Irrigation facilities by new development
- The proposed facilities by which the City will meet these demands

The following summarizes the plan:

Existing System and Level of Service

The existing Pressurized Irrigation System is comprised of a pipe network, water storage ponds and water supply sources. The system is independent from the Drinking Water System.

The existing LOS for the Pressurized Irrigation system was determined during the Master Planning process developed in 2009. The LOS for an irrigated acre is shown in Table S-1.

Table S-1: Level of Service Comparison (Per Irrigated Acre)

Attribute	LOS
Peak Day Demand	5.29 gpm/irrigated acre
Peak Instantaneous Demand	12.74 gpm/irrigated acre
Minimum Storage	8,500 gallons/irrigated acre
Water Connection Pressure Range	50 psi – 120 psi
Maximum Connection Pressure Change	30 psi

An existing system analysis was performed using the LOS demands to identify remaining capacity in the system. The distribution system, pump stations and northwest pond were found to have additional capacity for future growth.

Facilities Required For New Growth

Future demands on the system were based on the growth projections. A new secondary source of water and transmission lines were identified for the undeveloped State Developmental Center properties. New storage pond expansions were identified to provide for new development over the next 10 years.

The IFFP included only projects that are required for new development over the next 10 years. Those projects are listed below. The total amount for secondary impact fee facilities listed in Table S-2 is \$2,624,997 in 2015 dollars.

TABLE S-2: IMPACT FEE FACILITIES FOR UPCOMING 10-YEARS

TYPE	PROJECTED YEAR	RECOMMENDED PROJECT	TOTAL COST EST.
Distribution – Growth Project	YEAR 6-10	Portion of Master Plan #12 Project – Provide a new connection to the CUP pipeline at 4800 West. The connection will provide water to new growth in the lower zone without pumping. (The Master Plan project included a new pump station which was not included in the IFFP).	\$272,550
Distribution – Growth Project	YEAR 6-10	Master Plan #13 Project – Provide a new PRV Station at 10100 North and extend a new 10-inch pipeline to growth area in the southeast corner of the City.	\$249,952
Storage – Growth Project	YEAR 6-10	Upper Pond Storage Expansion – Expand the Upper Pond by adding 11.5 acre*feet of capacity to meet future growth at LOS.	\$1,437,500
Storage – Existing Deficiency & Growth Project	YEAR 3-5	Lower Pond Storage Expansion – Expand the Lower Pond by adding 5.0 acre*feet of capacity to meet future growth at LOS and existing storage deficiency.	\$625,000
		TOTAL	\$2,624,997



PRESSURIZED IRRIGATION IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.200)

April 2015

HIGHLAND CITY

PRESSURIZED IRRIGATION IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.200)

DRAFT

**Tavis B. Timothy, P.E.
Project Engineer**



April 2015

CERTIFICATION OF IMPACT FEE FACILITY PLAN

I certify that, to the best of my knowledge, the attached impact fee facilities plan:

1. includes only the costs 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. costs for 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; and
3. complies in each and every relevant respect with the Impact Fees Act.

Prepared by: _____

Tavis B. Timothy, P.E.

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IMPACT FEE FACILITY PLAN

EXECUTIVE SUMMARY

The purpose of this Impact Fee Facility Plan (IFFP) is to provide direction to Highland City regarding pressurized irrigation facilities required for future growth within the next ten years.

Highland City provides irrigation water to its residents through a city-wide pressurized irrigation system. Construction of the system began in 1997. Improvements to the system have been constructed to accommodate growth over the past seventeen years.

Data from the 2009 Pressurized Irrigation System Master Plan and additional data, provided by the City, is the basis for the IFFP. The IFFP considers growth over the next ten years (2015-2024) and does not include the facilities required for growth beyond 2024.

During the preparation of the IFFP, existing and proposed levels of service were determined for distribution, storage and source of the Pressurized Irrigation system (see Table 2) for a single irrigated acre. In each case, it was determined that the proposed level of service should be the same as the existing level of service.

Impact Fees for the Pressurized Irrigation system will be uniform per irrigated acre across the impact fee area. The impact fee facility plan projected costs totaling \$2,624,997.50.

PURPOSE AND BACKGROUND

The purpose of this Impact Fee Facility Plan (IFFP) is to provide direction to Highland City regarding pressurized irrigation facilities required for growth within the next ten years.

Highland City is located on a bench near American Fork, Lehi, and Alpine in northern Utah County. According to City information the Pressurized Irrigation System provides service to a population of approximately 17,090 residents.

EXISTING SYSTEM DESCRIPTION

Highland City owns, operates, and maintains the Pressurized Irrigation system. The Pressurized Irrigation system provides outdoor water for irrigating landscaped areas and gardens.

Highland City provides pressurized irrigation water to residents within the City Limits of Highland. Construction on the Highland Pressurized Irrigation (PI) System began in 1997. The PI system contains over 80 miles of pipe ranging between 2 and 30 inches in diameter. The Highland City Secondary Water System relies on 8 different sources for its water.

HAL completed a Pressurized Irrigation System Master Plan for Highland City in 2009 (HAL 2009). Information from the master plan was used in conjunction with data from Highland City to create this impact fee facility plan.

GROWTH

The 2009 Pressurized Irrigation System Master Plan estimated the build out irrigated acres based on zoning for anticipated developed areas. For the purpose of this IFFP it was assumed that the growth in irrigated acres will match the growth in population projections. This assumption allows irrigated acres per ERC to be calculated. 2014 population was estimated using data provided by Highland City. Population and ERC projections were estimated using the Governor's Office of Management and Budget Projections (GOMB 2013). A review of typical R-1-40 developments and the 2009 Master Plan provided an average irrigated acreage per lot equal to 0.38 acres. It is recommended for non-R-1-40 developments that actual irrigated acreage be calculated during the Plat Approval Process.

**Table 1
Growth Projections**

Characteristic	2009	2015	2020	2024	2053 Build-out
Irrigated Acres	1,489	1,594	1,730	1,838	2,564

LEVEL OF SERVICE

The level of service is the "defined performance standard or unit of demand for each capital component of a public facility within a service area" according to the Utah Impact Fees Act (Utah Division of Administrative Rules 2011). The service area for the level of service in this plan is the City Boundary including areas expected to be annexed into the City.

There are three components to Highland City's secondary water system that were analyzed: source, distribution, and storage. The existing and proposed levels of service for each component of the secondary system were determined. Generally, the existing level of service matches the proposed level of service. Impact fees may not be used to pay for any services above the existing level of service.

The level of service was based on the Pressurized Irrigation System Master Plan (HAL 2009). Although the master plan was completed in 2009, the level of service is not expected to have significantly changed since the master plan was completed.

Source and Pumping

The existing level of service for the system's sources and pump stations (that pump into a pond) was based on the findings in the Consumptive Use of Irrigated Crops in Utah report (Hill 1998) and a review of source records during the Master Plan development. The peak day demand is used to determine the source requirement for a system. The 2009 Master Plan determined that the level of service for peak day demands is 5.29 gpm per irrigated acre.

Distribution

The level of service for a distribution system is limited by the peak instantaneous demand. The required peak instantaneous demand determined in the Master Plan is 12.74 gpm per irrigated acre. The peak instantaneous demand is also utilized in the capacity determination for pump stations that do not pump into a pond.

As part of the Mater Planning effort in 2009, a hydraulic model was created to determine the effect the demands have on the distribution system. The level of service determined for operations was to maintain pressures between 50 psi and 120 psi.

Storage

The level of service for storage has been developed to provide the average day use for the system. This level of service for storage also matches the most recently constructed northwest pond's capacity for the buildout projection. The storage requirement is 8,500 gallons per irrigated acre for the entire service area.

Summary

Table 2 shows the determined level of service for existing and future irrigated acres.

Table 0
Level of Service Summary

Attribute	LOS
Peak Day Demand	5.29 gpm/irrigated acre
Peak Instantaneous Demand	12.74 gpm/irrigated acre
Minimum Storage	8,500 gallons/irrigated acre
Water Connection Pressure Range	50 psi – 120 psi
Maximum Connection Pressure Change	30 psi

EXCESS CAPACITY

The existing system has excess capacity within its storage, sources and distribution facilities to provide new growth with pressurized Irrigation. The only storage component that has excess capacity is the northwest pond. Only costs incurred to create the existing system, which was paid for by the City, can be included in impact fees. Actual water rights or shares are provided to the City during the development process and are not included in the impact fees.

Storage

Saratoga Springs currently operates three water storage ponds serving the City. Storage requirements are determined on a per irrigable acre basis. The total storage capacity is 50.4 acre-feet. All ponds were constructed since 1997 and are in good condition.

The capacity of each pond was analyzed in respect to the zone it serves. The storage was analyzed as requiring 8,500 gallons per irrigable acre. Table 3 summarizes the storage facility information and Table 4 summarizes the excess storage capacity by Zone. The Upper/Lower storage ponds do not have existing capacity, but the northwest pond has sufficient excess capacity to build out conditions.

**Table 3
Existing Storage Pond Summary**

Service Zone	Pond ID	Volume (Ac-ft)
Upper/Lower	Upper Pond	26
Upper/Lower	Lower Pond	5.4
Northwest	Northwest Pond	19
Total		44.7

**Table 4
Excess Storage Summary**

Service Zone	Existing Volume (Ac-ft)	Existing Storage Demand (Ac-ft)	Existing Excess Capacity (Ac-ft)	2024 Storage Demand (Ac-ft)	Buildout Storage Demand (Ac-ft)
Upper/Lower	31.4	35.5	-4.1	40.9	48.6
Northwest	19.0	6.0	13.0	6.9	18.2
Total	50.4	41.5	N/A	47.8	66.8

Source and Pump Stations

The system's secondary water sources are provided by groundwater wells and irrigation shares. An extensive list is described in the 2009 Master Plan. The City sources and pump stations have excess capacity for growth projected in the next ten years. A table of the pump station capacities is shown in Table 5.

**Table 5
Pump Station Capacity Summary**

Pump Station	Pressure Zones Served	Capacity (gpm)	Critical Demand	
			Existing gpm	Future gpm
Upper	Upper Pressure Zone	6,000	Peak Instantaneous	
			3,577	6,014
11800 North	Northwest Area	2,800	Peak Day	
			1,125	3,700
Hog Hollow	Hog Hollow above Northwest Zone	690	Peak Instantaneous	
			217	556

Distribution System

Pipe diameters range from 4-inches to 30-inches, with the majority being 8 inches within the individual subdivision developments. The larger pipes in the system were provided as transmission lines to deliver water from storage ponds during peak scenarios and to deliver water from sources. All pipes are in good condition as they have been constructed since 1997. The Master Plan provided that there is excess capacity in the Distribution System for new growth through build out conditions.

FUTURE FACILITIES

Data for the proposed distribution projects and their associated costs were provided within the 2009 Master Plan and recent storage planning efforts. Storage projects were determined by the City to meet the LOS. The projects were estimated to be completed in the next ten years. The distribution projects are those required to increase the capacity of the distribution system in order to serve the future growth. Table 3 provides a summary of the recommended facilities.

**Table 6
Recommended Future Facilities**

TYPE	PROJECTED YEAR	RECOMMENDED PROJECT	TOTAL COST EST.
Distribution – Growth Project	YEAR 6-10	Portion of Master Plan #12 Project – Provide a new connection to the CUP pipeline at 4800 West. The connection will provide water to new growth in the lower zone without pumping. (The Master Plan project included a new pump station which was not included in the IFFP).	\$272,550
Distribution – Growth Project	YEAR 6-10	Master Plan #13 Project – Provide a new PRV Station at 10100 North and extend a new 10-inch pipeline to growth area in the southeast corner of the City.	\$249,952
Storage – Growth Project	YEAR 6-10	Upper Pond Storage Expansion – Expand the Upper Pond by adding 11.5 acre*feet of capacity to meet future growth at LOS.	\$1,437,500
Storage – Existing Deficiency & Growth Project	YEAR 3-5	Lower Pond Storage Expansion – Expand the Lower Pond by adding 5.0 acre*feet of capacity to meet future growth at LOS and existing storage deficiency.	\$625,000
		TOTAL	\$2,624,997

IMPACT FEE FACILITY PLAN

Impact Fees for the City Pressurized Irrigation system will be uniform per each irrigable acre across the service area. Table 4 contains the City's 2015-2024 Impact Fee Facility Plan. Each project is listed with the estimated cost in 2015 dollars. All of the projects are planned only for the ERCs in the service area. The impact fee facility plan projects total \$2,624,997.

**Table 7
Impact Fee Facility Plan**

Project	Cost Attributed to System Deficiencies	Cost Attributed to Growth for Next 10 Yrs	Cost Attributed to Buildout Growth
Master Plan Project #12	\$0	\$67,579.18	\$204,970.82
Master Plan Project #13	\$0	\$61,946.09	\$187,976.41
Upper Pond Expansion of 11.5 Acre*Feet	\$0	\$562,500.00	\$875,000.00
Lower Pond Expansion of 5 Acre*Feet	\$512,500.00	\$112,500.00	\$0
Master Plan and IFFP	\$0	\$39,995.00	\$0
Overall Total	\$512,500.00	\$844,550.27	\$1,267,947.23

REVENUE OPTIONS

Revenue options for the recommended projects, in addition to use fees, could include the following options: general obligation bonds, revenue bonds, State/Federal grants and loans, and impact fees. In reality, the City may need to consider a combination of these funding options. The following discussion describes each of these options.

General Obligation Bonds through Property Taxes

This form of debt enables the City to issue general obligation bonds for capital improvements and replacement. General Obligation (G.O.) Bonds would be used for items not typically financed through the Water Revenue Bonds (for example, the purchase of water source to ensure a sufficient water supply for the City in the future). G.O. bonds are debt instruments backed by the full faith and credit of the City which would be secured by an unconditional pledge of the City to levy assessments, charges or ad valorem taxes necessary to retire the bonds. G.O. bonds are the lowest-cost form of debt financing available to local governments and can be combined with other revenue sources such as specific fees, or special assessment charges to form a dual security through the City's revenue generating authority. These bonds are supported by the City as a whole, so the amount of debt issued for the water system is limited to a fixed percentage of the real market value for taxable property within the City. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

Revenue Bonds

This form of debt financing is also available to the City for utility related capital improvements. Unlike G.O. bonds, revenue bonds are not backed by the City as a whole, but constitute a lien against the water service charge revenues of a Water Utility. Revenue bonds present a greater risk to the investor than do G.O. bonds, since repayment of debt depends on an adequate revenue stream, legally defensible rate structure /and sound fiscal management by the issuing

jurisdiction. Due to this increased risk, revenue bonds generally require a higher interest rate than G.O. bonds, although currently interest rates are at historic lows. This type of debt also has very specific coverage requirements in the form of a reserve fund specifying an amount, usually expressed in terms of average or maximum debt service due in any future year. This debt service is required to be held as a cash reserve for annual debt service payment to the benefit of bondholders. Typically, voter approval is not required when issuing revenue bonds. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

State/Federal Grants and Loans

Historically, both local and county governments have experienced significant infrastructure funding support from state and federal government agencies in the form of block grants, direct grants in aid, interagency loans, and general revenue sharing. Federal expenditure pressures and virtual elimination of federal revenue sharing dollars are clear indicators that local government may be left to its own devices regarding infrastructure finance in general. However, state/federal grants and loans should be further investigated as a possible funding source for needed water system improvements.

It is also important to assess likely trends regarding federal / state assistance in infrastructure financing. Future trends indicate that grants will be replaced by loans through a public works revolving fund. Local governments can expect to access these revolving funds or public works trust funds by demonstrating both the need for and the ability to repay the borrowed monies, with interest. As with the revenue bonds discussed earlier, the ability of infrastructure programs to wisely manage their own finances will be a key element in evaluating whether many secondary funding sources, such as federal/state loans, will be available to the City.

Impact Fees

An impact fee is a one-time charge to a new development for the purpose of raising funds for the construction of improvements required by the new growth and to maintain the current level of service. Impact fees in Utah are regulated by the Impact Fee Statute and substantial case law. Impact fees are a form of a development exaction that requires a fee to offset the burdens created by the development on existing municipal services. Funding the future improvements required by growth through impact fees does not place the burden on existing residents to provide funding of these new improvements.

User Fees

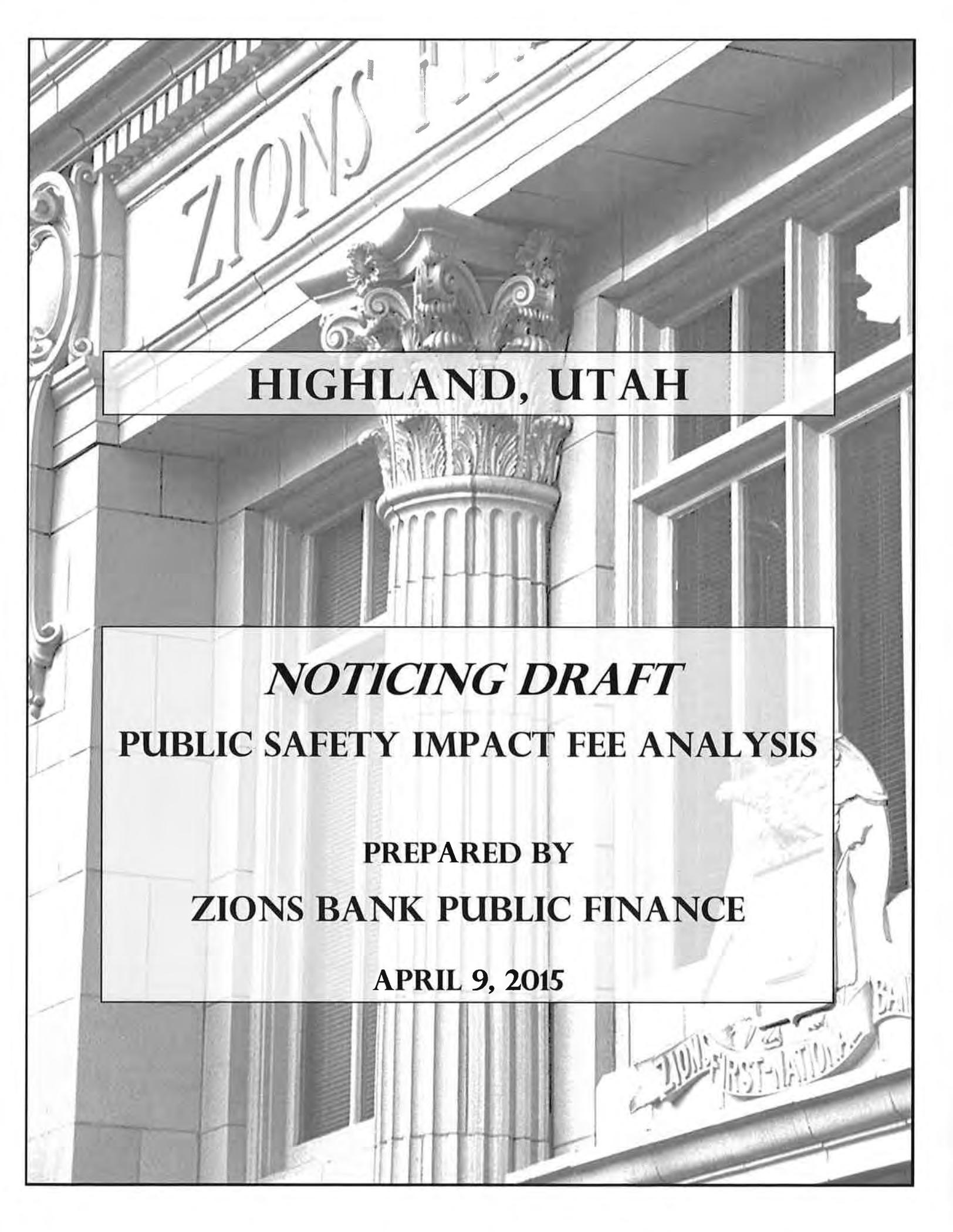
Similar to property taxes on existing residents, User Fees to pay for improvements related to new growth related projects places an unfair burden on existing residents as they had previously paid for their level of service.

REFERENCES

Hansen, Allen, & Luce, Inc. 2012. *Highland City Pressurized Irrigation System Master Plan*. Midvale, UT: Hansen, Allen, & Luce, Inc.

Utah Division of Administrative Rules. 2011. *Utah Administrative Code, Title 11 36a Impact Fees Act*. The Department of Administrative Services.

DRAFT



HIGHLAND, UTAH

NOTICING DRAFT
PUBLIC SAFETY IMPACT FEE ANALYSIS

PREPARED BY
ZIONS BANK PUBLIC FINANCE

APRIL 9, 2015



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EXECUTIVE SUMMARY

WHAT IS AN IMPACT FEE?

An impact fee is a development fee, not a tax, charged by a local government to new development to recover all or a portion of the costs of providing services to new development. Impact fees collected for police, fire and EMS services provide funding for essential public safety infrastructure needed by Highland City (the City) to handle the increase in calls that new growth will create.

Impact fees are a common and equitable way to share the costs of infrastructure between existing and future residents. According to a survey completed in 2012, 28 states actively employ impact fees as a method of funding.¹ Utah adopted its first impact fee legislation into the Utah Code in 1995, with its most recent update in 2011 with the Recodified Impact Fees Act.

WHY ARE IMPACT FEES NECESSARY?

Without impact fees, new development may not pay its fair share of the infrastructure built to support its existence. This would arguably require existing residents to pay for facilities and services that may only be needed by new development. Utilizing impact fees to pay a portion of the costs associated with future infrastructure puts future users on an equal footing with existing users—who have been paying property taxes, sales taxes, user fees and/or other revenue sources in order to generate the revenue required to provide needed services.

The recommended impact fee structure presented in this analysis has been prepared to satisfy Utah State Code Title 11, Chapter 36, Sections 1-5 (the Impact Fee Act). To ensure sufficient and proper funding, the City has retained Zions Bank Public Finance (ZBPF, Zions) to evaluate and calculate the maximum equitable impact fee the City may assess in compliance with the Impact Fee Act.

WHY IS HIGHLAND UPDATING THE PREVIOUS ANALYSIS?

Highland City has commissioned this *Public Safety Impact Fee Analysis (IFA)* to accomplish the following:

- Ensure that the police, fire and the emergency medical service (EMS) facilities within Highland's Impact Fee Service Area (Service Area) are appropriately funded by existing and future recipients of public safety services
- Update financial projections and the cost of facilities to reflect the most up to date information available
- Put the analysis in compliance with the latest changes to the Impact Fees Act effective May 2011
 - Base impact fees upon an Impact Fee Facilities Plan (IFFP) with a six to ten year capital planning horizon and address the historic cost of facilities where applicable
- More clearly define the current and future level of service that the City will provide, ensuring that the current level of service is not exceeded with funds collected from impact fees

HOW WILL NEW GROWTH AFFECT THE CITY?

A network of fire and police protection is required to ensure that the majority of development within the service area receives a first responder response time which adequately protects life and property. New growth adds pressure to the fire and police departments by increasing the call volume as the amount and density of development increases—particularly in areas further and further away from the center. This increases the amount of crews and apparatus needed which in turn requires additional and/or expanded facilities.

¹"National Impact Fee Survey: 2012" completed by Duncan Associates: http://impactfees.com/publications%20pdf/2012_survey.pdf

A new fire or police station is often built well ahead of the growth it will ultimately serve to ensure response times are met even when the current development within the service area is sparse. As growth occurs within the service area and development becomes denser, the new station with latent or reserved capacity will respond to more and more calls until either development reaches its full potential or an additional station is needed.

Until development reaches its maximum density there is a reserve capacity in the network of stations that can still be used to serve new growth. The general impact fee methodology designates a percentage of a station as benefitting existing development and another percentage to serve new growth. The cost of the percentage of stations that can serve new growth is calculated based upon the historic cost of existing stations and the future cost of building new stations—which is then divided by the number of additional calls which new development will add. A final fee based on specific land use categories is then calculated by multiplying the cost per call by the number of calls that each type of development typically generates (according to local dispatch records).

WHAT COSTS ARE INCLUDED IN THE IMPACT FEE?

The public safety services considered in this analysis are: 1) police protection, 2) fire protection and EMS services, and 3) apparatus and ladder truck services provided to commercial development.

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

- New facilities required to maintain (but not exceed) the existing level of service; only those expected to be built within ten years are considered in the final calculations of the impact fee
- Interest costs related to existing and future debt; including apparatuses in the inventory and expected to be added within ten years
- Historic costs of existing facilities that will serve new development
- Cost of professional services for engineering, planning, and preparation of the impact fee facilities plan and impact fee analysis

WHAT COSTS ARE NOT INCLUDED IN THE IMPACT FEE?

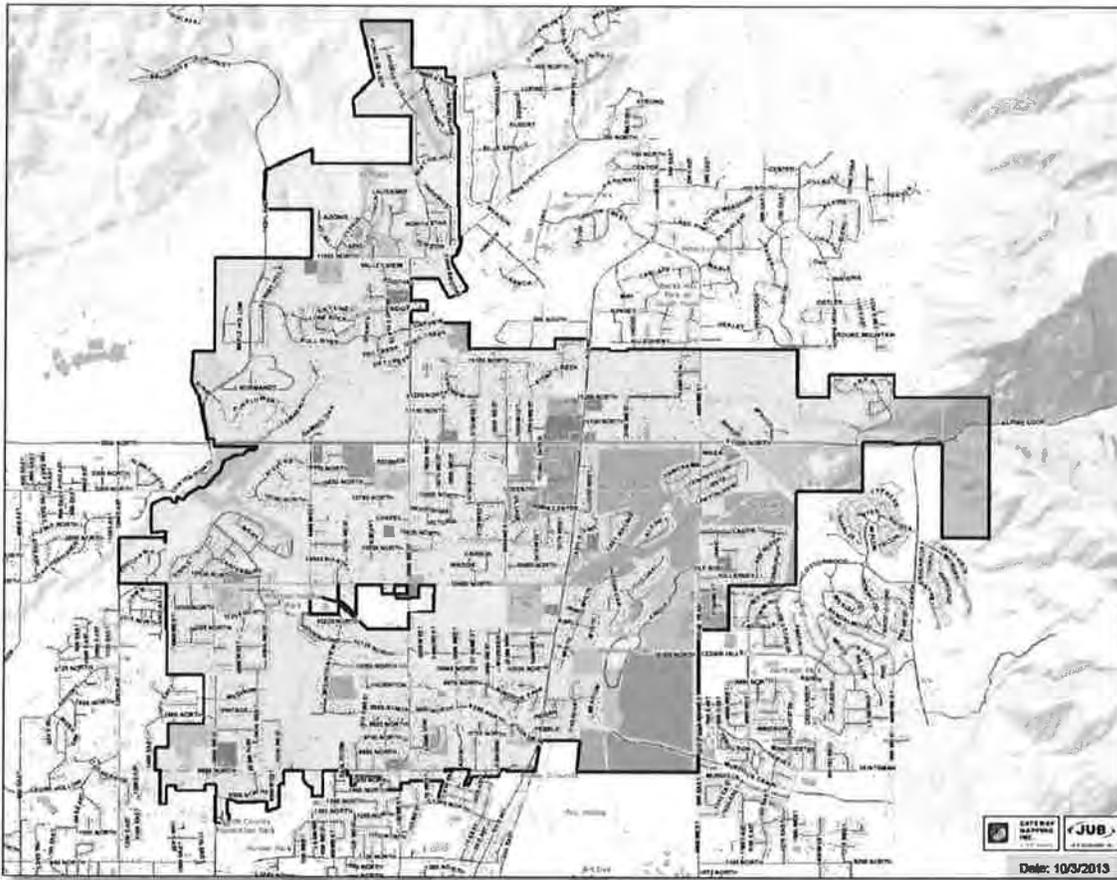
- Operational and maintenance costs
- Cost of facilities constructed beyond 10 years
- Cost of facilities funded by grants or other funds which the City is not required to repay
- Cost of renovating or reconstructing facilities which do not provide new capacity or needed enhancement of services to future development

It should also be noted that this analysis does not directly consider public safety 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. Therefore, the extra cost associated with this service is defrayed and does not need to be included in the impact fee analysis.

WHERE WILL THE IMPACT FEES APPLY?

The proposed impact fees will be assessed throughout the entire Service Area. The established Service Area includes all areas within the current Highland City limits.

FIGURE 1: HIGHLAND CITY BOUNDARY AND PUBLIC SAFETY IMPACT FEE SERVICE AREA



WHAT IS THE NEW CALCULATED FEE?

The impact fees have been calculated with all the above considerations. The following tables contain the current impact fee assessment; the first table presents the fire / EMS impact fee and the second table presents the police impact fee. The fees proposed in these tables represent the maximum impact fee that the City may assess new development. The City will impose and oversee all aspects of the impact fees. The impact fees will be paid directly to Highland City.

TABLE 1: RECOMMENDED FIRE / EMS IMPACT FEE ASSESSMENT

FIRE	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Single Family Residential	\$9,176.25	0.063	\$581.88
Multi-Family Residential	\$9,176.25	0.010	\$90.01
Commercial			
Private Non Residential (kSF Floor space)	\$9,176.25	0.040	\$365.94



TABLE 2: RECOMMENDED POLICE IMPACT FEE ASSESSMENT

POLICE	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Single Family Residential	\$903.38	0.591	\$533.79
Multi-Family Residential	\$903.38	0.083	\$75.32
Commercial			
Private Non Residential (kSF Floor space)	\$903.38	0.372	\$336.24

The following definitions and policies apply:

- “Single Family Residential Units” have been categorized as only those single family housing structures which are entirely detached. One structure is equal to one unit regardless of the size. The “Single Family” fee per unit is the final fee for each single family detached structure.
- “Multiple Family Residential Units” are defined as any other residential structure other than single family detached housing. This includes attached condos and any other separately sold units which are physically attached to other units (duplexes, townhomes, etc.). One dwelling is equal to one unit. The fee for a two unit, ten unit, or hundred unit multi family structure (or any number of units) is to be calculated the same way. The number of units is multiplied by the “Multiple Family” fee per unit to arrive at the final fee.
- The “Private Non Residential” category includes all building square footage associated with all private nonresidential activity excluding schools only. This includes all commercial and industrial activity, as well as churches, medical facilities, assisted living facilities, and other private institutions. The final fee is based on the total square footage of the structure. Each 1,000 square foot (kSF) increment of building space is equal to one unit. The total amount of square feet should be divided by 1,000 square foot increments to arrive at the total number of units. For example, a 10,300 square foot building is equal to 10.3 units. The number of units is then multiplied by the “Private Non Residential” fee per unit to arrive at the final fee.

Occasionally a private project is constructed which has a unique impact on the community and does not easily fit into any of the major land use categories used in the previous tables to assess impact fees. In addition, a private project may fit into one of the land use categories listed above but may have an unusually high or low number of anticipated calls.

Highland City reserves the right under the Impact Fees Act to assess an adjusted fee that more closely matches the true impact that a unique project may have upon fire / EMS and police services. As well, those individuals and/or organizations subject to an impact fee also have the ability to request the City to review an exception. Whichever party initiates the review for an exception has the burden of proof to justify the higher or lower fee based on the formulas explained below.

To determine the impact fee for a non-standard use, the formulas presented below should be utilized. The variable in these formulas is the number of annual calls (emergency calls to the police and/or fire department) projected to be created by the non-standard use in question. The number of annual calls projected for a non-standard use should be well documented using specific and timely data from Highland City or other cities which closely resemble Highland City in population size and overall character.

TABLE 3: NON-STANDARD USER IMPACT FEE FORMULA FOR FIRE / EMS

FIRE Cost Per Call	Non Standard Development		Impact Fee Assessed
\$9,176.25	x	# of Annual Calls Projected to be Created	= Non-Standard Impact Fee



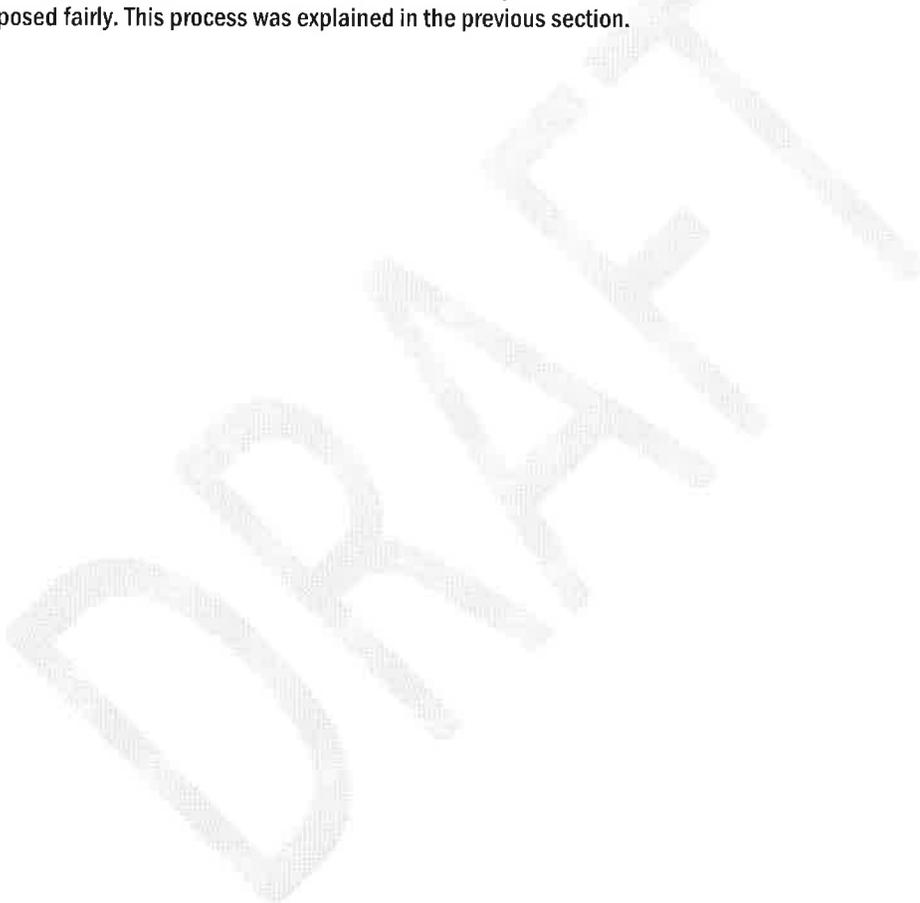


TABLE 4: NON-STANDARD USER IMPACT FEE FORMULA FOR POLICE

POLICE Cost Per Call	Non Standard Development		Impact Fee Assessed
\$903.38	x	# of Annual Calls Projected to be Created	= Non-Standard Impact Fee

MAXIMUM LEGAL IMPACT FEE

The City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fee calculated in this impact fee analysis. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This process was explained in the previous section.

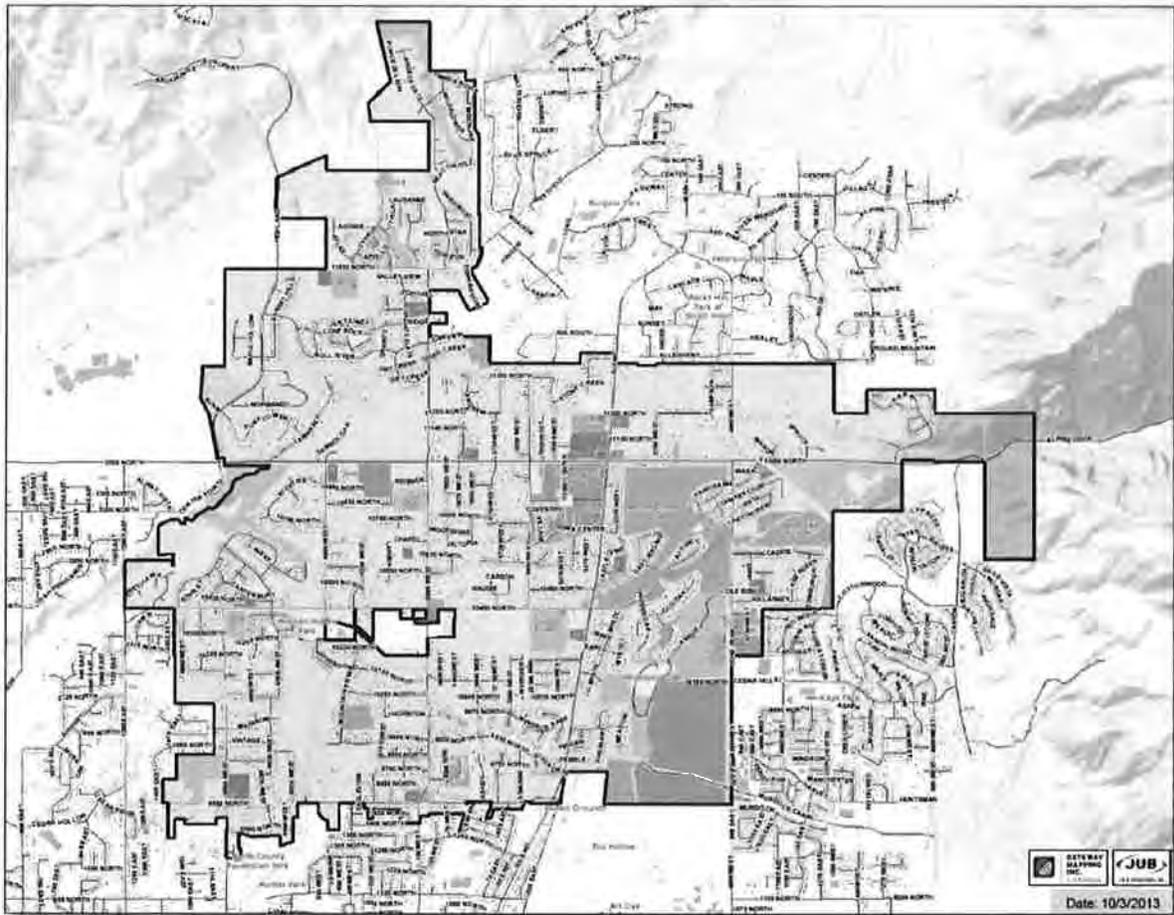


CHAPTER 1: INTRODUCTION AND PROJECT OVERVIEW

HIGHLAND CITY PUBLIC SAFETY SERVICE AREA

Highland is a city in Utah County, Utah, United States. It is approximately 30 miles south of Salt Lake City and is part of the Provo–Orem Metropolitan Statistical Area. According to the 2010 census the population was 15,523. The map below presents the current municipal boundaries of Highland City. As previously mentioned, the current City boundaries are also the boundaries of the impact fee service area. While the City does provide public safety services outside of the impact fee service area, only activity within the service area (or future development that is anticipated within the planned annexation areas) will be considered in the calculation of the updated impact fee. For a full accounting of all police, fire and EMS calls handled by Highland City, see the appendix.

FIGURE 2: HIGHLAND CITY



LAND USE AND SERVICE CALLS

Determining the existing and future land use of Highland City is an essential part of calculating an impact fee. Details on existing and future residential and non-residential development are contained in chapter 2.

In this study, non-residential development will only be listed as private nonresidential.

SERVICE CALLS

Currently the City has a three year average of 269 total private fire / EMS calls per year, and 2,505 total private police calls. In the future, it is anticipated that 269 total private fire / EMS calls will be added along with 2,501 total private police calls. Greater detail on the number of calls to specific land uses is contained in chapter 2. Details on calls to areas outside the service area are contained in the appendix.

Private calls are those which are made to private land uses, such as residences, businesses, and churches. Public calls are those which are made to public land uses such as public land, parks or roads. Traffic calls have also been excluded as the land use is difficult to assign and may be generated by outside of City residents. Generally, impact fees are calculated by separating private calls from public calls and assessing impact fees to private development based on the historic calls per unit each private land use generates.

Although schools may be considered public, the Utah Impact Fee Act does allow certain municipal utilities and services to levy and impact fee on both private and public schools.

EXISTING AND FUTURE PUBLIC SAFETY FACILITIES

The number and type of existing and future facilities needed for fire / EMS and police service coverage in Highland has been catalogued. Currently, Highland maintains one central fire station and one police station (which is combined with the City courthouse). The City does not expect to add any facilities for fire and police services.

EXISTING AND FUTURE INFRASTRUCTURE COSTS

The costs associated with the existing public safety facilities have been calculated. Details on the existing facility costs of infrastructure are contained in chapter 3 and 4. There are no future facility costs to be included in this analysis.

LEVEL OF SERVICE

The Impact Fee Act specifically prohibits the use of impact fees to cure existing deficiencies in infrastructure or to construct infrastructure that provides a level of service per user that is higher than the existing level of service. Furthermore, impact fees cannot be used to maintain a level of service for current system users by funding the repair and/or replacement of existing facilities. The historic and projected level of service for public safety services in the City is based upon floor space already constructed within the City. This floor space is tied to the number of calls in each land use category. This provides a level of service which can be used in evaluating whether or not future, planned infrastructure in the City is in compliance with the Impact Fee Act.

It should be noted that this level of service calculation is separate from the service standard goals which the City is aiming to reach—especially in regards to fire and EMS coverage. 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 or police 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 four minutes. This four minute response time standard has been adopted from NFPA 1710. Details on the coverage and service goals of Highland can be found in greater detail in the Impact Fee Facilities Plan.

SUMMARY OF PROPORTIONATE SHARE ANALYSIS

As part of this analysis, the Utah Impact Fees Act requires that the calculated impact fee be roughly proportionate and reasonably related to the impact caused by the development activity. Ideally, implementing an impact fee to pay for needed infrastructure places a burden on future users that is equal to the burden that was borne in the past by

existing users (Utah Impact Fees Act, 11-36a-304(2) (c) (d)). Chapter 6 lays out the methodology and calculation of the proportionate share analysis. Highlights of the analysis are contained below:

When completing a Proportionate Share Analysis the following points should be considered:

1. The cost of existing and future public facilities;
2. The type of financing for existing and future public facilities;
3. Current and future levels of service; and
4. Determination that impact fees are justifiable.

As stated above, part of the proportionate share analysis is a consideration of the manner of funding for existing public facilities. The City has had the ability to fund infrastructure in the past through the following sources:

- Property Tax Revenues;
- Bond Proceeds;
- Developer Exactions; and
- Impact Fees.

EXISTING INFRASTRUCTURE AND CAPACITY TO SERVE NEW GROWTH

The City provided Zions with a list of all City owned assets. An analysis has been completed to identify the existing capacity able to serve new growth and any impact fee qualifying apparatus (i.e. apparatus with a purchase price of \$500,000 or greater). There aren't any impact fee qualifying apparatus at this time.

OUTSTANDING AND FUTURE DEBT

The City has an outstanding bond which relates to public safety in Highland—for the cost of the fire building and for the cost of the combined police / courthouse. Details on this existing debt related to public safety can be found in chapter 4.

IMPACT FEE CALCULATION

The impact fee calculations have been formulated to allow impact fees to fund 100% of the growth-related portion of facilities identified in the proportionate share analysis as presented in this analysis. These calculations are contained in chapter 8.

CHAPTER 2: LAND USE AND SERVICE CALLS

CURRENT AND FUTURE DEVELOPMENT

The estimates of current and future development in Highland were determined by using ESRI's GIS (geographic information systems) software, data from the Utah County Assessor's Office parcel database, data from the US Census American Factfinder, population projections from the Utah Governor's Office of Planning and Budget (GOPB) and input and data from the Highland Planning Department.

The first part of this analysis involved determining how much land in Highland City is currently developed. Combining City and County data resulted in the developed parcels within Highland's current City boundaries. The table below summarizes the developed and developed units to be added in both the current Highland boundaries.

TABLE 5: CURRENT MEASUREMENT OF DEVELOPED FUTURE UNITS IN HIGHLAND

Residential Units	Existing Development		Future Development to be Added		Existing + Future	
	Population (2013 Estimate)	Units	Population	Units*	Population	Units
Single Family	16,128	3,832	11,882	3,924	28,010	7,756
Multi-Family	858	204	632	209	1,490	413
Total	16,986	4,036	12,514	4,133	29,500	8,169
Private Non Residential Units	Estimated Acres	Estimated kSF	Estimated Acres	Estimated kSF**	Estimated Acres	Estimated kSF
Private Non Residential^	85	602	63	443	148	1,045

Residential land uses are measured in dwelling units and non-residential land uses are measured in units of thousand square feet increments (kSF). Future residential units are based on population projections from the GOPB and Highland planning department estimates. Current and future non-residential units are based on estimates of floor area ratios (FAR) provided by the Highland planning department.

LAND USE AND FUTURE CALLS

CURRENT CALL VOLUME

Summaries of the current private call volumes for fire / EMS and police are contained in the following two tables. For more information regarding non private and total call volumes, see the appendix.

TABLE 6: TOTAL PRIVATE FIRE CALLS PER UNIT BY DEVELOPMENT TYPE

Total Private Calls Per Unit by Development Type	
Development Type	Average 2011-2013
Single Family Residential	
Fire Calls	243
Units	3,832
Single Family Calls per Unit FIRE	0.063
Multi-Family Residential	
Fire Calls	2
Units	204
Single Family Calls per Unit FIRE	0.010
Private Non Residential	
Police Calls	24
Units (kSF)	602
Private Non Residential Calls per Unit FIRE	0.040

TABLE 7: TOTAL PRIVATE POLICE CALLS PER UNIT BY DEVELOPMENT TYPE

Total Private Calls Per Unit by Development Type	
Development Type	Average 2011-2013
Single Family Residential	
Police Calls	2,264
Units	3,832
Single Family Calls per Unit POLICE	0.591
Multi-Family Residential	
Police Calls	17
Units	204
Single Family Calls per Unit POLICE	0.083
Private Non Residential	
Police Calls	224
Units (kSF)	602
Private Non Residential Calls per Unit POLICE	0.372

The current average call volume is divided by the total number of current units in each land use category (as determined in the previous land use analysis) to calculate the calls per unit. The calls per unit figure is then multiplied by the number of future units anticipated in each land use category. This results in the number of future service calls to be anticipated by future development.

The following tables detail this calculation by showing the existing average number of calls that went to each land use category, the calls per unit of each land use category, the number of projected future calls, and the number of total calls (existing + future) that are estimated to take place when Highland City is built out.



TABLE 8: EXISTING AND FUTURE PRIVATE FIRE / EMS CALLS

Existing and Future Private Fire Calls			
Development Type	Existing (3 yr Avg)	Future	Existing + Future
Single Family Residential	243	249	492
Multi-Family Residential	2	2	4
Private Non Residential	24	18	42
Total	269	269	538

TABLE 9: EXISTING AND FUTURE PRIVATE POLICE CALLS

Existing and Future Private Police Calls			
Development Type	Existing (3 yr Avg)	Future	Existing + Future
Single Family Residential	2,264	2,319	4,583
Multi-Family Residential	17	17	34
Private Non Residential	224	165	389
Total	2,505	2,501	5,007

To clarify, where the term "Future" is used, this refers to the number of units and calls that will be added in addition to the units and calls that already exist. Thus, there are three groups of calls being discussed: existing calls—those which existing development are responsible for, future calls—those which future added development will be responsible for, and existing plus future calls—this is the grand total of all calls projected to occur when all of Highland's land is built out.

CHAPTER 3: EXISTING & FUTURE PUBLIC SAFETY FACILITIES

EXISTING PUBLIC SAFETY BUILDING

A summary of the existing fire / EMS and police facilities are contained in the following tables. Currently the City maintains one fire station, and one police station (which is combined with the City courthouse). In addition, the police department is currently constructing a storage facility which will be located on land being used by the public works department.

TABLE 10: SUMMARY OF EXISTING FIRE / EMS AND POLICE FACILITIES

Existing Police Facilities			
	Acres	SF of Space	Cost
Portion of existing Police Building / Courthouse: 5400 Civic Center Dr. Suite 3	-	13,710	\$3,647,366.34
Land Associated with Police Building	1.90	-	
Total	1.90	13,710	\$3,647,366

Existing Fire Facilities			
	Acres	SF of Space	Cost
5582 Parkway West Drive	-	16,998	\$3,849,854.00
Land Associated with Fire Building	0.86	-	
Total	0.86	16,998	\$3,849,854

EXISTING POLICE INFRASTRUCTURE

The police department currently maintains 13,710 SF of infrastructure. With new development and growth the police department will need to expand. The optimal size of the force, the amount of equipment, and the building space needed for this growth is much more difficult to assess than fire department needs. Where the fire department needs can be linked to response time standards, the goals of the police department translate less easily into infrastructure requirements. One reason for this difference is the fact that the police units are not stationary apparatus stored at one location, but instead smaller vehicles that are constantly moving within the city.

While infrastructure needs for police services are generally smaller than that required for fire & EMS services, as a City grows and becomes more urbanized, commercial and dense (with higher populations)—police services generally become more complex and thus require more infrastructure for activities such as investigations, criminal processing, evidence storage, and various other police services.

According to the Impact Fee Act, increases to an existing level of service cannot be funded with impact fee revenues. While the police department does have plans to expand beyond the existing infrastructure, it will be demonstrated later in this report that the current level of service (in terms of SF per call) is at its highest and will not be exceeded by future projects funded by impact fees.

EXISTING FIRE & EMS COVERAGE

The fire / EMS department in Highland currently maintains 16,998 SF of infrastructure. Generally 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 further away from Highland’s center, where the public safety building is located. 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 services. This also increases the average response time. However it is anticipated that all existing and future calls will be handled by the existing station.

FUTURE FIRE / EMS INFRASTRUCTURE

There aren't plans for a future station for Fire/EMS in Highland City.

FUTURE POLICE INFRASTRUCTURE

There aren't plans for a future station for police services in Highland City.

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CHAPTER 4: EXISTING & FUTURE INFRASTRUCTURE COSTS

OUTSTANDING DEBT

The City has two outstanding bonds which relate to public safety in Highland—one for the cost of the fire building and one for the cost of the combined police / courthouse. Both were refunded and restructured subsequent to their initial issuance. These outstanding bonds were used in the calculation of costs associated with the existing facilities found at the beginning of chapter 3.

DEBT RELATED TO THE EXISTING FIRE AND POLICE STATION

The following two tables are both related to the debt that was issues to pay for the construction of the existing fire station and police station and courthouse. The set of tables shows the allocation of the debt services based on square footage. The calculation considers portions of the building that houses the courthouse and holding cells and takes those out of the calculation

TABLE 11: DEBT SERVICE ALLOCATION

Police		Fire	
City Reported Cost	\$ 4,336,402.00	City Reported Cost	\$ 3,849,854.00
Square Footage - Total	16,300	Square Footage - Total	16,998
Holding Cells/Other Non- Impact Fee Eligible	2,590		
Impact Fee Eligible Square Feet	13,710		16,998
Impact Fee Eligible Cost	\$ 3,647,366.34		\$ 3,849,854.00

Bond Debt Service	Bond Proceeds	%
\$7,972,552.88	\$ 5,870,000.00	
Cost Per Square Foot	\$ 176.29	
Fire @ 16,998 sq ft	\$ 2,996,524.12	51%
Police @ 16,300 sq ft	\$ 2,873,475.88	49%
Police Impact Fee Eligible @ 13,710 sq ft	\$ 2,416,892.91	41%

TABLE 12: TOTAL DEBT SERVICE FOR POLICE AND FIRE STATION²

Debt Service Paid (2006)	2,663,622.50
Original Debt Service to be Paid - Not refunded	\$585,275.00
Future Debt Service	\$4,723,655.38
Total	\$7,972,552.88

TEN YEAR HORIZON

There are no future capital expenses or bond issues anticipated in the future.

² Full Debt Service Schedules in the Appendix

CHAPTER 5: 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. One way to determine if the level of service has been exceeded is to measure the current square footage of public safety infrastructure per emergency call and compare it to what is planned for the future. This analysis has been completed and is contained in this chapter.

THE CHALLENGE WITH PLANNING PUBLIC SAFETY INFRASTRUCTURE

The challenge with public safety infrastructure is that it cannot be added piece by piece but must be added station by station. In other words, if call volume increases by five percent, the infrastructure cannot simply be increased by 5%. When new infrastructure is needed to serve a new area of the city—even if the overall call volume of that area is low—the City is justified in building infrastructure to serve areas of need. When that infrastructure is constructed the level of service must therefore be viewed not in terms of the call volume it currently serves, but the total call volume it was built to serve.

The current and future LOS goal to be maintained by the fire / EMS and police departments is displayed in the following tables. The current and future floor space of the fire / EMS and police departments is based on the existing and future infrastructure described in chapter 3 and the emergency call volumes presented in chapter 2.

TABLE 13: CURRENT AND PROJECTED FACILITY FLOOR SPACE LEVEL OF SERVICE FOR FIRE / EMS

Time Frame	Floorspace	Calls*	SF per Call
Current	16,998	269	63.19
Buildout	16,998	538	31.62

Projected Floorspace per Private Fire Call

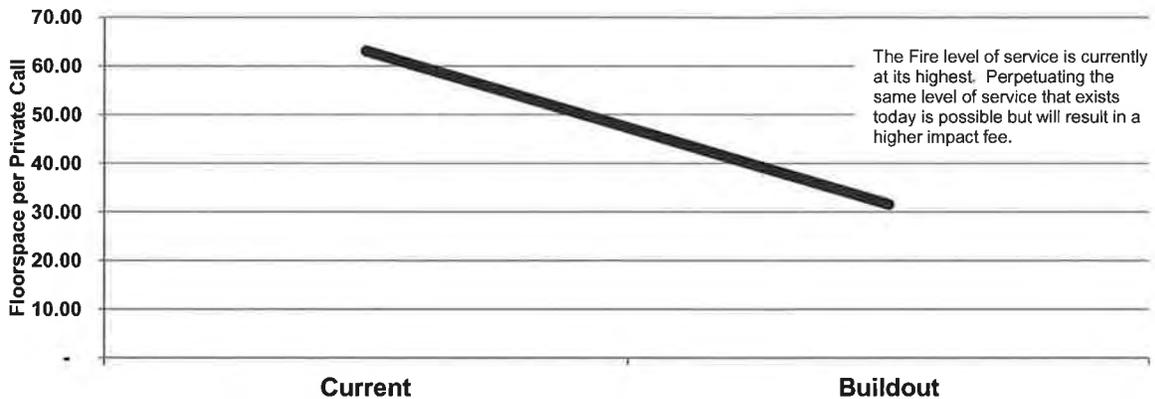
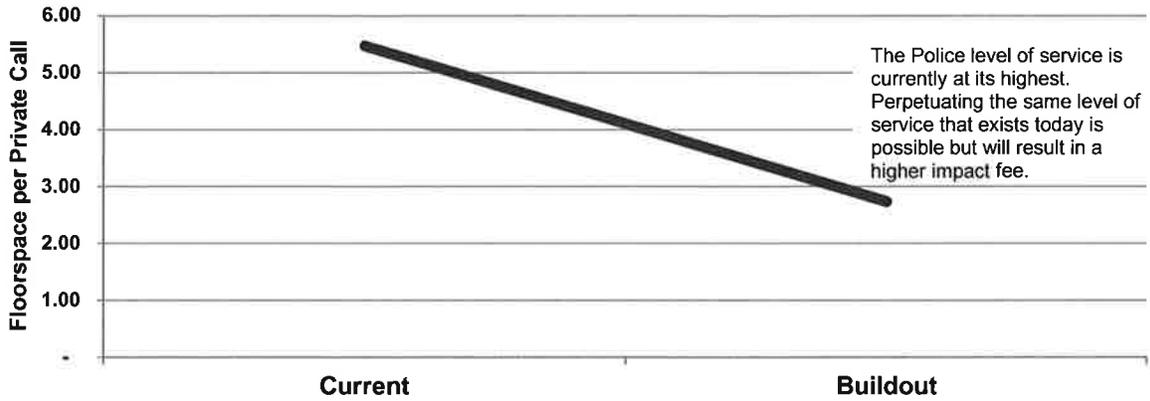


TABLE 14: CURRENT AND PROJECTED FACILITY FLOOR SPACE LEVEL OF SERVICE FOR POLICE

Time Frame	Floorspace	Calls*	SF per Call
Current	13,710	2,505	5.47
Buildout	13,710	5,006	2.74

Projected Floorspace per Private Adjusted Police Call



CHAPTER 6: PROPORTIONATE SHARE ANALYSIS

As part of this analysis, the Utah Impact Fee Act requires that the calculated impact fee be roughly proportionate and reasonably related to the impact caused by the development activity. Ideally, implementing an impact fee to pay for needed infrastructure places a burden on future users that is equal to the burden that was borne in the past by existing users (Utah Impact Fees Act, 11-36a-304(2) (c) (d)).

CALCULATION OF PROPORTIONATE SHARE

An equity buy-in can be calculated to recover the value of existing capital projects that still have significant capacity to serve new growth. The following tables display the current and future facility floor space and the calls that each will serve. With this information it is possible to calculate the percentage that will serve new growth, and thus the portion that future growth will be expected to fund. Realistically, all stations will serve existing and future growth once completed. However, the following tables are meant to show the overall capacity that future stations add and how that capacity will be apportioned.

TABLE 15: CALCULATION OF PROPORTIONATE FOR FIRE / EMS

Time Frame	Added Station Floorspace	% of Buildout Floor Space	Calls Served by this Infrastructure	Current Avg. Calls Served by this Infrastructure	Future Calls to be Added	% to Serve Future Growth
Existing	13,710	100.0%	5,007	2,505	0	0.0%
Future	13,710	100.0%	5,007	5,007	2,501	50.0%

	Impact Fee Qualifying Cost of Facilities	% of Allocated to Future Development	Amount to be Paid by Future Growth
Total	\$3,647,366	50.0%	\$1,822,198

TABLE 16: CALCULATION OF PROPORTIONATE SHARE FOR POLICE

Time Frame	Added Station Floorspace	% of Buildout Floor Space	Calls Served by this Infrastructure	Current Avg. Calls Served by this Infrastructure	Future Calls to be Added	% to Serve Future Growth
Existing	16,998	100.0%	538	269	0	0.0%
Future	16,998	100.0%	538	538	269	50.0%

	Impact Fee Qualifying Cost of Facilities	% of Allocated to Future Development	Amount to be Paid by Future Growth
Total	\$3,849,854	50.0%	\$1,923,411

MANNER OF FINANCING

The City has funded the capital infrastructure for public safety through a combination of different revenue sources. Impact fees cannot reimburse costs funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. The amounts included in this calculation are those that have been funded by the existing residents and businesses through fees and taxes.

Additionally, the Impact Fee Act requires the Proportionate Share Analysis to demonstrate that impact fees paid by new development are an equitable method for funding growth-related infrastructure. Existing users have funded and will continue to fund the share of costs proportionate to the number of existing calls relative to the buildout number of calls. In other words, existing users will always be responsible for their share of the system. The remaining portion of existing excess capacity costs and future facility costs will be fairly passed on to new growth.

TAX 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 Highland City fire / EMS and police departments.

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 toward impact fee payment) must be considered in the analysis as an impact fee should not be collected for a project or expense otherwise covered through a grant or other revenue source 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. This Impact Fee Analysis calculates a fair and reasonable fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Impact fees have become an ideal mechanism for funding growth-related infrastructure. 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 infrastructure 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. Analysis is required to accurately assess the true impact of a particular user upon the City infrastructure and to prevent existing users from subsidizing new growth.

DEVELOPER DEDICATIONS AND EXACTIONS

Developer exactions are not the same as grants (which should be credited from the impact fee). Developer exactions may be considered in the inventory of current and future public safety infrastructure. If a developer constructs a fire station or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

All fire and police stations are considered to be system improvements, not project improvements. Thus, an impact fee credit will be due to the developer and the dedication / exaction will 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 will owe 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.

PROPOSED CREDITS OWED TO DEVELOPMENT

The Impact Fee Act requires that credits be granted to development for future fees that will pay for growth-driven projects included in the Impact Fee Facilities Plan that would otherwise be paid for through user fees. Credits may



also be granted to developers who have constructed and donated facilities to the City in-lieu of impact fees. This situation does not apply to developer exactions or improvements required to offset density or as a condition of development. Any project that a developer funds must be included in the Impact Fee Facilities Plan if a credit is to be issued.

If the situation arises that a developer chooses to construct facilities found in the Impact Fee Facilities Plan in-lieu of impact fees, appropriate arrangements must be made through negotiation between the developer and the City on a case by case basis.

SUMMARY OF TIME PRICE DIFFERENTIAL

The Impact Fees Act allows for the inclusion of a time price differential to ensure that the costs incurred at a later date are accurately calculated. This is not applicable in this analysis as the projects considered are already constructed.

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 as presented in the impact fee 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.

CHAPTER 7: IMPACT FEE CALCULATION

In order to determine the fair amount of the impact fee for each land use category, the cost per call must be determined. This amount is what each fire / EMS and police call will cost at buildout based on the cost of current and future infrastructure. The two tables below present the cost per call calculations.

The first column of each table carries the title for every grouping. The second column in each table details the major grouping of expenses or credits. The first group represents those expenses associated with existing facilities, the second group represents those expenses associated with facilities to be built within the next ten years (as discussed previously, only projects within this time frame are considered), and finally the third group represents the current public safety impact fee fund balance. This amount should be credited in this impact fee calculation since these funds have been allocated to fund future public safety infrastructure which is not yet built. Consequently, there is currently no money in the Highland City impact fee fund which has come from impact fees. According to the City, the impact fee fund has carried a negative balance in recent years and other city revenues have had to pay the outstanding debt obligations.

TABLE 17: FIRE / EMS IMPACT COST PER CALL CALCULATION

Expense	Impact Fee Qualifying Cost	Impact Fee Qualifying Cost Assigned to New Growth	Calls from Future Growth	Cost per Call
Existing Improvements				
Existing Facilities	\$3,849,854	\$1,923,411	269	\$7,161
Total	\$3,849,854	\$1,923,411	269	\$7,161
Other Improvements/Components				
Impact Fee Fund Balance	-	-	-	-
2006 Debt Service	4,069,838	2,033,317	269	7,571
2006 Proceeds	(2,996,524)	(1,497,082)	269	(5,574)
Professional Expenses	4,883	4,883	269	18
Total	\$1,073,314	\$536,234		2,015
Grand Total	\$4,923,168	\$2,459,646		9,176

TABLE 18: POLICE IMPACT COST PER CALL CALCULATION

Expense	Impact Fee Qualifying Cost	Impact Fee Qualifying Cost Assigned to New Growth	Calls from Future Growth	Cost per Call
Existing Improvements				
Existing Facilities	\$3,647,366	\$1,822,198	2,501	\$729
Total	\$3,647,366	\$1,822,198	2,501	\$729
Other Improvements/Components				
Impact Fee Fund Balance	-	-	-	-
2006 Debt Service	3,282,591	1,639,958	2,501	656
2006 Proceeds	(2,416,893)	(1,207,462)	2,501	(483)
Professional Expenses	4,883	4,883	2,501	2
Total	\$865,698	\$432,496		\$175
Grand Total	\$4,513,064	\$2,254,694		\$903

The result of dividing the third column by the fourth column is the fifth column, or cost per call. The cost per call is then allocated to each group of private development which the City has designated to be analyzed. The impact fees for each land use category for fire / EMS and police are contained in the following two tables.

TABLE 19: RECOMMENDED FIRE / EMS IMPACT FEE ASSESSMENT

FIRE	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Single Family Residential	\$9,176.25	0.063	\$581.88
Multi-Family Residential	\$9,176.25	0.010	\$90.01
Commercial			
Private Non Residential (kSF Floor space)	\$9,176.25	0.040	\$365.94

TABLE 20: RECOMMENDED POLICE IMPACT FEE ASSESSMENT

POLICE	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Single Family Residential	\$903.38	0.591	\$533.79
Multi-Family Residential	\$903.38	0.083	\$75.32
Commercial			
Private Non Residential (kSF Floor space)	\$903.38	0.372	\$336.24

The following definitions and policies apply:

- “Single Family Residential Units” have been categorized as only those single family housing structures which are entirely detached. One structure is equal to one unit regardless of the size. The “Single Family” fee per unit is the final fee for each single family detached structure.
- “Multiple Family Residential Units” are defined as any other residential structure other than single family detached housing. This includes attached condos and any other separately sold units which are physically attached to other units (duplexes, townhomes, etc.). One dwelling is equal to one unit. The fee for a two unit, ten unit, or hundred unit multi family structure (or any number of units) is to be calculated the same way. The number of units is multiplied by the “Multiple Family” fee per unit to arrive at the final fee.
- The “Private Non Residential” category includes all building square footage associated with all private nonresidential activity excluding schools only. This includes all commercial and industrial activity, as well as churches, medical facilities, assisted living facilities, and other private institutions. The final fee is based on the total square footage of the structure. Each 1,000 square foot (kSF) increment of building space is equal to one unit. The total amount of square feet should be divided by 1,000 square foot increments to arrive at the total number of units. For example, a 10,300 square foot building is equal to 10.3 units. The number of units is then multiplied by the “Private Non Residential” fee per unit to arrive at the final fee.

Occasionally a private project is constructed which has a unique impact on the community and does not easily fit into any of the major land use categories used in the previous tables to assess impact fees. In addition, a private project may fit into one of the land use categories listed above but may have an unusually high or low number of anticipated calls.



Highland City reserves the right under the Impact Fees Act to assess an adjusted fee that more closely matches the true impact that a unique project may have upon fire / EMS and police services. As well, those individuals and/or organizations subject to an impact fee also have the ability to request the City to review an exception. Whichever party initiates the review for an exception has the burden of proof to justify the higher or lower fee based on the formulas explained below.

To determine the impact fee for a non-standard use, the formulas presented below should be utilized. The variable in these formulas is the number of annual calls (emergency calls to the police and/or fire department) projected to be created by the non-standard use in question. The number of annual calls projected for a non-standard use should be well documented using specific and timely data from Highland City or other cities which closely resemble Highland City in population size and overall character.

TABLE 21: NON-STANDARD USER IMPACT FEE FORMULA FOR FIRE / EMS

FIRE Cost Per Call		Non Standard Development		Impact Fee Assessed
\$9,176.25	x	# of Annual Calls Projected to be Created	=	Non-Standard Impact Fee

TABLE 22: NON-STANDARD USER IMPACT FEE FORMULA FOR POLICE

POLICE Cost Per Call		Non Standard Development		Impact Fee Assessed
\$903.38	x	# of Annual Calls Projected to be Created	=	Non-Standard Impact Fee

MAXIMUM LEGAL IMPACT FEE

The City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fee calculated in this impact fee analysis. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This process was explained in the previous section.

IMPACT FEE CERTIFICATION

Zions 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, makes the following certification:

I certify 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 Bank Public Finance 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 Highland 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 Bank Public Finance, its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Highland City and outside sources.

Dated: April 9, 2015

ZIONS BANK PUBLIC FINANCE



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Recommended Police Impact Fees Per Unit

POLICE	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Single Family Residential	\$903.38	0.591	\$533.79
Multi-Family Residential	\$903.38	0.083	\$75.32
Commercial			
Private Non Residential (kSF Floor space)	\$903.38	0.372	\$336.24

Non Standard Development Impact Fee Calculation POLICE

POLICE Cost Per Call	x	# of Annual Calls Projected to be Created	=	Non-Standard Development	=	Impact Fee Assessed
\$903.38						

Recommended Fire Impact Fees Per Unit

FIRE	Cost per Call	Calls per Unit	Fee per Unit
Residential			
Single Family Residential	\$9,176.25	0.063	\$581.88
Multi-Family Residential	\$9,176.25	0.010	\$90.01
Commercial			
Private Non Residential (kSF Floor space)	\$9,176.25	0.040	\$365.94

Non Standard Development Impact Fee Calculation FIRE

FIRE Cost Per Call	x	# of Annual Calls Projected to be Created	=	Non-Standard Development	=	Impact Fee Assessed
\$9,176.25						

Police Impact Fee Cost per Call

Expense	Impact Fee Qualifying Cost	Impact Fee Qualifying Cost Assigned to New Growth	Calls from Future Growth	Cost per Call
Existing Improvements				
Existing Facilities	\$3,647,366	\$1,822,198	2,501	\$729
Total	\$3,647,366	\$1,822,198	2,501	\$729
Other Improvements/Components				
Impact Fee Fund Balance	-	-	-	-
2006 Debt Service	3,282,591	1,639,958	2,501	656
2006 Proceeds	(2,416,893)	(1,207,462)	2,501	(483)
Professional Expenses	4,883	4,883	2,501	2
Total	\$865,698	\$432,496		\$175
Grand Total	\$4,513,064	\$2,254,694		\$903

Fire Impact Fee Cost per Call

Expense	Impact Fee Qualifying Cost	Impact Fee Qualifying Cost Assigned to New Growth	Calls from Future Growth	Cost per Call
Existing Improvements				
Existing Facilities	\$3,849,854	\$1,923,411	269	\$7,161
Total	\$3,849,854	\$1,923,411	269	\$7,161
Other Improvements/Components				
Impact Fee Fund Balance	-	-	-	-
2006 Debt Service	4,069,838	2,033,317	269	7,571
2006 Proceeds	(2,996,524)	(1,497,082)	269	(5,574)
Professional Expenses	4,883	4,883	269	18
Total	\$1,073,314	\$536,234		2,015
Grand Total	\$4,923,168	\$2,459,646		9,176

EMERGENCY CALL DETAILS

Police Calls responded to from 2011 to 2013

Category	2011	2012	2013	3 yr Total	Average	% of Total
Residential	2,137	2,239	2,417	6,793	2,264	24.4%
Multi-Family Residential	10	22	18	50	17	0.2%
Private Non Residential	232	233	207	672	224	2.4%
Traffic	3,805	4,536	4,620	12,961	4,320	46.5%
Public Land Uses *	2,242	2,462	2,698	7,402	2,467	26.6%
All Calls	8,426	9,492	9,960	27,878	9,293	100.0%

* These include all police calls that did not respond to a specific land use and are therefore shared by the City as a whole

Fire Calls responded to from 2011 to 2013

Category	2011	2012	2013	3 yr Total	Average	% of Total
Residential	216	263	250	729	243	57.2%
Multi-Family Residential	2	0	5	7	2	0.5%
Private Non Residential	19	17	36	72	24	5.6%
Traffic	57	68	67	192	64	15.1%
Public Land Uses *	81	86	115	282	94	22.1%
All Calls	373	434	468	1,275	425	100.0%

* These include all fire calls that did not respond to a specific land use and are therefore shared by the City as a whole

Summary of Police Facilities

Time Frame	Added Station Floorspace	% of Buildout Floor Space	Calls Served by this Infrastructure	Current Avg. Calls Served by this Infrastructure	Future Calls to be Added	% to Serve Future Growth
Existing	13,710	100.0%	5,007	2,505	0	0.0%
Future	13,710	100.0%	5,007	5,007	2,501	50.0%

Proportionate Share of Police Facilities

Impact Fee Qualifying Cost of Facilities	% of Allocated to Future Development	Amount to be Paid by Future Growth
Total	50.0%	\$1,822,198

Summary of Fire Facilities

Time Frame	Added Station Floorspace	% of Buildout Floor Space	Calls Served by this Infrastructure	Current Avg. Calls Served by this Infrastructure	Future Calls to be Added	% to Serve Future Growth
Existing	16,998	100.0%	538	269	0	0.0%
Future	16,998	100.0%	538	538	269	50.0%

Proportionate Share of Fire Facilities

Impact Fee Qualifying Cost of Facilities	% of Allocated to Future Development	Amount to be Paid by Future Growth
Total	50.0%	\$1,923,411

Police

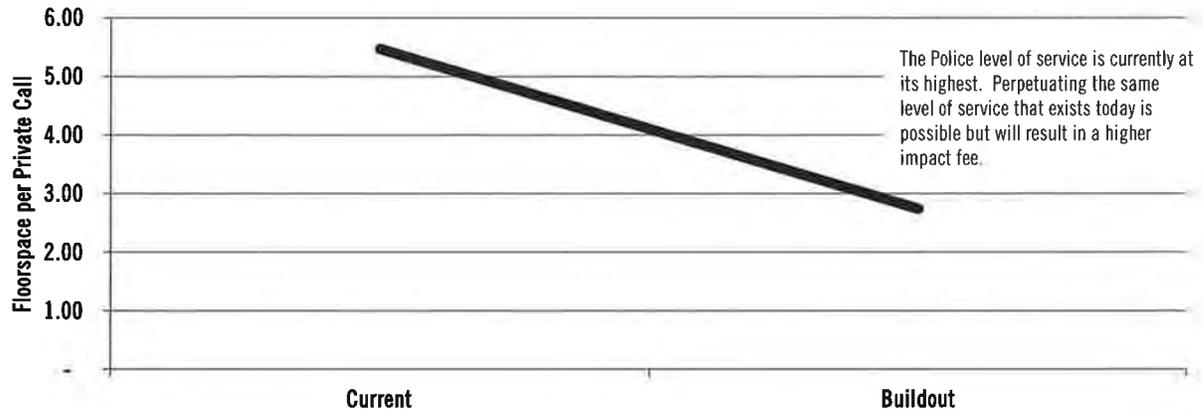
Time Frame	Floorspace	Calls*	SF per Call
Current	13,710	2,505	5.47
Buildout	13,710	5,007	2.74

Fire

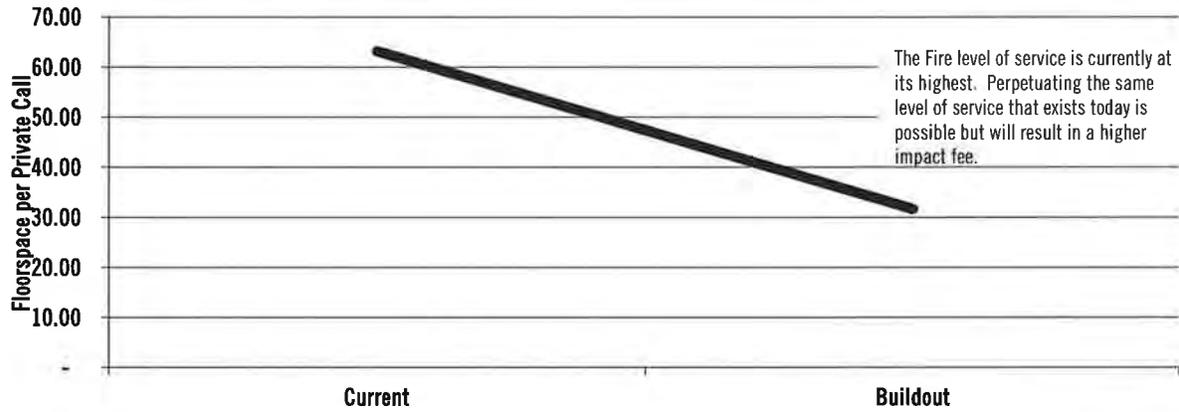
Time Frame	Floorspace	Calls*	SF per Call
Current	16,998	269	63.19
Buildout	16,998	538	31.62

capacity that will be served

Projected Floorspace per Private Adjusted Police Call



Projected Floorspace per Private Fire Call



Average Historic Calls per Unit to Private Development Types - Police

Total Private Calls Per Unit by Development Type		Average 2011-2013
Development Type		
Single Family Residential	Police Calls	2,264
	Units	3,832
Single Family Calls per Unit POLICE		0.591
Multi-Family Residential	Police Calls	17
	Units	204
Single Family Calls per Unit POLICE		0.083
Private Non Residential	Police Calls	224
	Units (NSF)	602
Private Non Residential Calls per Unit POLICE		0.372

Source: Utah County Assessors, RIR, GIS, and GIS Analysts

Projected Private Calls Created between 2011 and Buildout - POLICE

Projected Future Private Police Calls			
Development Type	Future Units	Calls per Unit	Projected Future Calls*
Single Family Residential	3,924	0.591	2,319
Multi-Family Residential	209	0.083	17
Private Non Residential	443	0.372	165
Total Undeveloped Future Private Calls 2			2,501

*Based on 2011-2013 Average Historic Calls per Unit by Development Type

Total Private Development Police Calls at Buildout - POLICE

Existing and Future Private Police Calls			
Development Type	Existing (3 yr Avg)	Future	Existing + Future
Single Family Residential	2,264	2,319	4,583
Multi-Family Residential	17	17	34
Private Non Residential	224	165	389
Total	2,505	2,501	5,007

Average Historic Calls per Unit to Private Development Types - Fire

Total Private Calls Per Unit by Development Type		Average 2011-2013
Development Type		
Single Family Residential	Fire Calls	243
	Units	3,832
Single Family Calls per Unit FIRE		0.063
Multi-Family Residential	Fire Calls	2
	Units	204
Single Family Calls per Unit FIRE		0.010
Private Non Residential	Police Calls	24
	Units (NSF)	602
Private Non Residential Calls per Unit FIRE		0.040

Source: Utah County Assessors, RIR, GIS, and GIS Analysts

Projected Private Calls Created between 2011 and Buildout - FIRE

Projected Future Private Police Calls			
Development Type	Future Units	Calls per Unit	Projected Future Calls*
Single Family Residential	3,924	0.063	249
Multi-Family Residential	209	0.010	2
Private Non Residential	443	0.040	18
Total Undeveloped Future Private Calls 2			269

*Based on 2011-2013 Average Historic Calls per Unit by Development Type

Total Private Development Police Calls at Buildout - FIRE

Existing and Future Private Fire Calls			
Development Type	Existing (3 yr Avg)	Future	Existing + Future
Single Family Residential	243	249	492
Multi-Family Residential	2	2	4
Private Non Residential	24	18	42
Total	269	269	538

Summary of Existing Police Facilities

Existing Police Facilities			
	Acres	SF of Space	Cost
Portion of existing Police Building / Courthouse: 5400 Civic Center Dr. Suite	-	13,710	\$3,647,366.34
Land Associated with Police Building	1.90	-	
Total	1.90	13,710	\$3,647,366

*The total building is estimated at 32,136 SF, with a total building cost of \$4,336,402 space used by the Courthouse and the holding cells have been excluded.

Summary of Existing Fire Facilities

Existing Fire Facilities			
	Acres	SF of Space	Cost
5582 Parkway West Drive	-	16,998	\$3,849,854.00
Land Associated with Fire Building	0.86	-	
Total	0.86	16,998	\$3,849,854

*The total building is estimated at 32,136 SF, with a total building cost of \$9,062,894, space used by the Courthouse and the holding cells have been excluded.

Historic and Future Population Growth

Future Population Estimates		
Year	Highland	% Annual Growth
2014	17,093	
2015	17,336	1.4%
2016	17,579	1.4%
2017	17,822	1.4%
2018	18,065	1.4%
2019	18,308	1.3%
2020	18,551	1.3%
2021	18,842	1.6%
2022	19,132	1.5%
2023	19,423	1.5%
2024	19,713	1.5%
Buildout*	30,547	-

*HAL

Historic and Future Residential Police Call Projections

Pop Based Call Projections - Police				
Year	Calls	Police SF	Police SF / Call	Police SF / Call
2011	2,137	13,710	6.42	
2012	2,239	13,710	6.12	
2013	2,417	13,710	5.67	
2014	2,264	13,710	6.05	
2015	2,297	13,710	5.97	
2016	2,329	13,710	5.89	
2017	2,361	13,710	5.81	
2018	2,393	13,710	5.73	
2019	2,425	13,710	5.65	
2020	2,457	13,710	5.58	
2021	2,496	13,710	5.49	
2022	2,534	13,710	5.41	
2023	2,573	13,710	5.33	
2024	2,611	13,710	5.25	
Buildout	4,583	13,710	2.99	

The 2014 figure is an average of the three previous years

This table applies the projected growth in population to call volume growth

Historic and Future Residential Fire Call Projections

Pop Based Call Projections - Fire				
Year	Calls	Fire SF	Fire SF / Call	Fire SF / Call
2011	216	16,998	78.69	
2012	263	16,998	64.63	
2013	250	16,998	67.99	
2014	243	16,998	69.95	
2015	246	16,998	68.97	
2016	250	16,998	68.02	
2017	253	16,998	67.09	
2018	257	16,998	66.19	
2019	260	16,998	65.31	
2020	264	16,998	64.45	
2021	268	16,998	63.46	
2022	272	16,998	62.50	
2023	276	16,998	61.56	
2024	280	16,998	60.65	
Buildout	492	16,998	34.56	

The 2014 figure is an average of the three previous years

This table applies the projected growth in population to call volume growth

Highland City, Utah
\$6,000,000 Sales and Franchise Tax Revenue Bonds
 Series 2006

Original Debt Service Paid - Historic
 Debt Service Schedule

03/01/2009	200,000.00	4.250%	242,135.00	442,135.00
03/01/2010	210,000.00	4.250%	233,422.50	443,422.50
03/01/2011	220,000.00	4.250%	224,285.00	444,285.00
03/01/2012	230,000.00	4.250%	214,722.50	444,722.50
03/01/2013	240,000.00	4.250%	204,735.00	444,735.00
03/01/2014	250,000.00	4.250%	194,322.50	444,322.50
Total	1,350,000.00		1,313,622.50	2,663,622.50

\$6,000,000 Sales and Franchise Tax Revenue Bonds
 Series 2006

Original Debt Service - Amount to be paid, not refunded
 Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
09/01/2014	-	-	11,687.50	11,687.50
03/01/2015	-	-	11,687.50	23,375.00
09/01/2015	270,000.00	4.250%	5,950.00	281,687.50
03/01/2016	-	-	5,950.00	5,950.00
09/01/2016	280,000.00	4.250%	5,950.00	285,950.00
03/01/2017	-	-	-	-
Total	\$550,000.00		\$35,275.00	\$585,275.00

Highland City, Utah
\$3,970,000 Sales Tax Revenue Refunding Bonds
 Series 2015
 (Final Numbers)

Debt Service Schedule

	Principal	Coupon	Interest	Total P+I	Fiscal Year Total
09/01/2015	-	-	45,888.50	45,888.50	-
03/01/2016	-	-	45,888.50	45,888.50	91,777.00
09/01/2016	45,000.00	1.000%	45,888.50	90,888.50	-
03/01/2017	-	-	45,663.50	45,663.50	136,552.00
09/01/2017	354,000.00	1.200%	45,663.50	399,663.50	-
03/01/2018	-	-	43,539.50	43,539.50	443,203.00
09/01/2018	356,000.00	1.300%	43,539.50	399,539.50	-
03/01/2019	-	-	41,225.50	41,225.50	440,765.00
09/01/2020	371,000.00	1.850%	38,495.50	409,495.50	-
09/01/2021	384,000.00	2.150%	35,063.75	419,063.75	-
03/01/2022	-	-	30,935.75	30,935.75	449,999.50
09/01/2022	398,000.00	2.500%	30,935.75	428,935.75	-
03/01/2023	-	-	25,960.75	25,960.75	454,896.50
09/01/2023	397,000.00	2.750%	25,960.75	422,960.75	-
03/01/2024	-	-	20,502.00	20,502.00	443,462.75
09/01/2024	422,000.00	3.000%	20,502.00	442,502.00	-
03/01/2025	-	-	14,172.00	14,172.00	456,674.00
09/01/2025	442,000.00	3.150%	14,172.00	456,172.00	-
03/01/2026	-	-	7,210.50	7,210.50	463,382.50
09/01/2026	437,000.00	3.300%	7,210.50	444,210.50	-
03/01/2027	-	-	-	-	444,210.50
Total	\$3,970,000.00		\$753,655.38	\$4,723,655.38	-

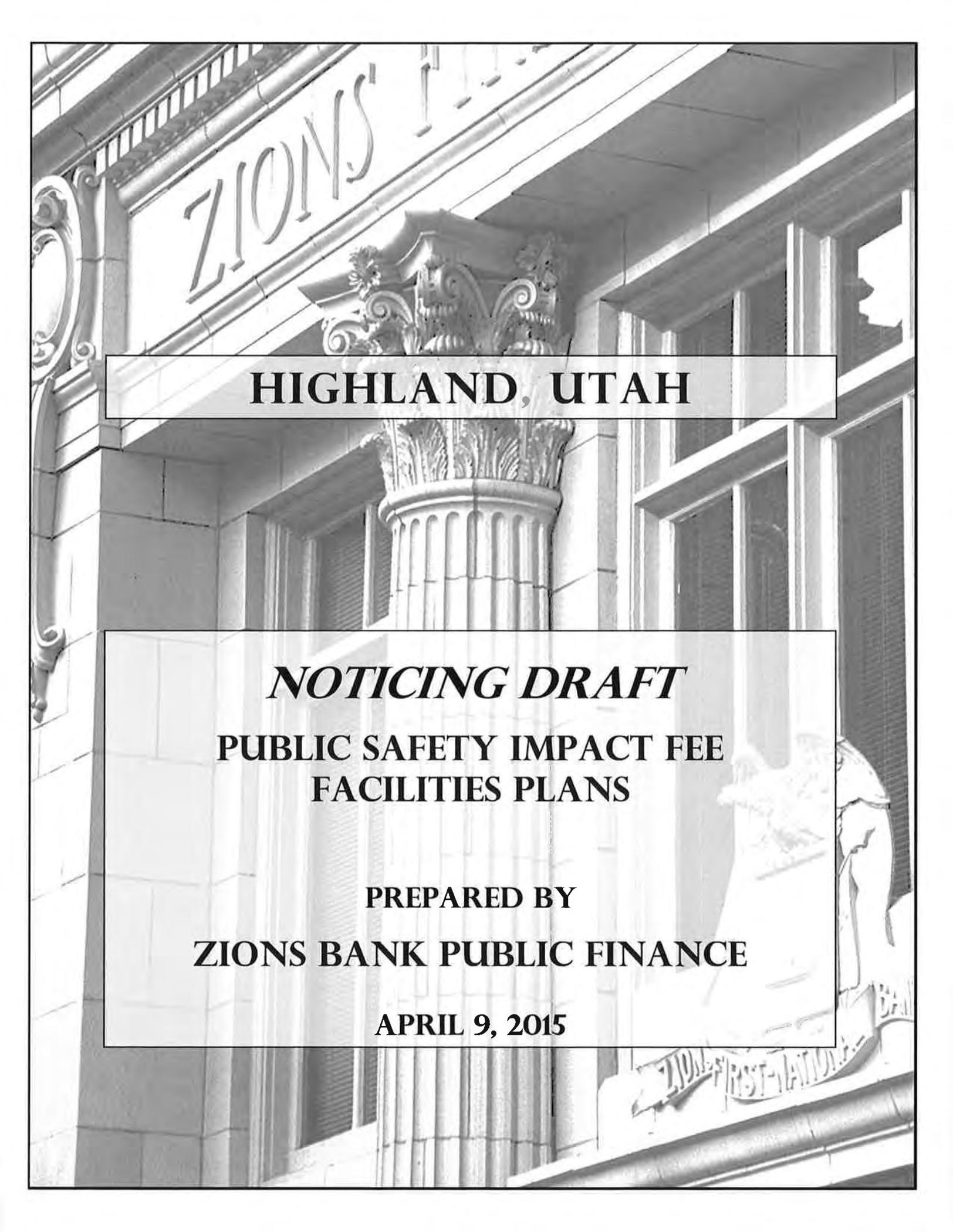
Grand Total Debt Service \$5,876,000.00

\$7,972,552.88

Debt Service Allocation

Police		Fire	
City Reported Cost	\$ 4,336,402.00	City Reported Cost	\$ 3,849,854.00
Square Footage - Total	16,300	Square Footage - Total	16,998
Holding Cells/Other Non Impact Fee Eligible	2,590		
Impact Fee Eligible Square Feet	13,710		16,998
Impact Fee Eligible Cost	\$ 3,647,366.34		\$ 3,849,854.00

Bond Debt Service		Bond Proceeds		%	
	\$ 7,972,552.88	\$ 5,870,000.00			
Cost Per Square Foot		\$ 176.29			
Fire @ 16,998 sq ft		\$ 2,996,524.12		51%	
Police @ 16,300 sq ft		\$ 2,873,475.88		49%	
Police Impact Fee Eligible @ 13,710 sq ft		\$ 2,416,892.91		41%	



HIGHLAND, UTAH

NOTICING DRAFT

**PUBLIC SAFETY IMPACT FEE
FACILITIES PLANS**

**PREPARED BY
ZIONS BANK PUBLIC FINANCE**

APRIL 9, 2015



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EXECUTIVE SUMMARY

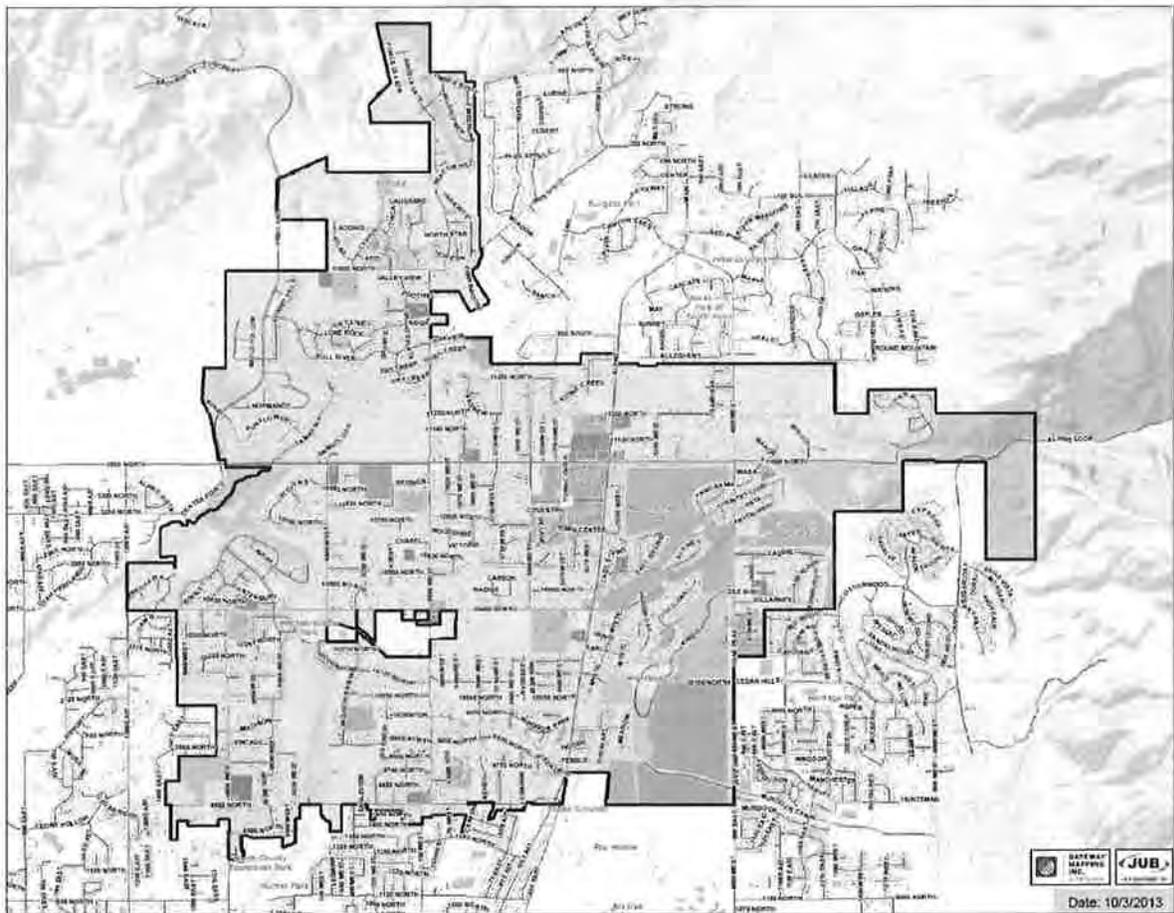
WHY IS AN IFFP NEEDED?

The purpose of the public safety *Impact Fee Facilities Plan* (IFFP) is a tool to provide Highland City (the City) with planning for any potential future fire / EMS and police capital infrastructure. The IFFP also provides a technical basis for assessing updated impact fees for public safety services throughout the City.

This document will address the existing public safety infrastructure constructed and intended to serve the City through a projected buildout scenario with regard to current land use planning. The existing facility for both fire and EMS services were constructed through a bond in 2006 and refunded this year (2015).

The existing infrastructure documented in this IFFP will ensure that the current level of service is not exceeding through impact fees for all existing and future residents who reside within the service area. The IFFP will also fulfill all financial requirements as promulgated under Title 11, Chapter 36 of the Utah code (the Impact Fees Act). It should also be noted that this analysis does not directly consider public safety 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.

FIGURE 1: HIGHLAND CITY BOUNDARY AND PUBLIC SAFETY IMPACT FEE SERVICE AREA



PURPOSE OF AN IMPACT FEE FACILITIES PLAN

The purpose of the Impact Fee Facilities Plan (IFFP) is to identify the increased demands placed upon the City's existing public safety facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements (existing or future) which may be funded through impact fees.

PUBLIC SAFETY 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.”

REQUIRED ELEMENTS FOR AN IMPACT FEE FACILITIES PLAN

According to the Impact Fees Act, local political subdivisions with populations (or serving populations) of more than 5,000 as of the last federal census must prepare a Capital Facilities Plan. With 15,523 residents at the 2010 Census, the population of Highland meets this guideline and must prepare this comprehensive Impact Fee Facilities Plan for Fire/EMS infrastructure to ensure adequate planning for the future growth.

Local governments must pay strict attention to the required elements of the Impact Fee Facilities Plan which are enumerated in the Impact Fees Act. The following elements must be discussed in the IFFP before a local political subdivision can legally commence public notice and adopt the IFFP.

DEMAND ANALYSIS

The IFFP must consider the level of service which is provided to a community's existing residents and impact fees do not raise this level of service. The unit of measurement varies depending on which public facility is discussed. The demand on public safety improvements may be measured in terms of calls received. The IFFP is also required to include a clear nexus between estimated future demand and the proposed capital facilities required to be constructed or acquired to meet the future demand, or in this case, bought into.

FINANCING OPTIONS

The IFFP must also include a consideration of all revenue sources, including impact fees, which may be used to finance system improvements. In conjunction with this revenue analysis, there must be a determination that impact fees are necessary to achieve an equitable allocation of the costs of the new facilities between the new and existing users.

NOTICING AND ADOPTION REQUIREMENTS

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available to the public during the 10 day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places. These places may include the City offices and the public library within the City's jurisdiction.

Following the 10-day noticing period, a public hearing will be held, after which the City Council may adopt, amend and adopt, or reject the proposed IFFP. Following the adoption, Utah Code Section 10-3-711 and 712 requires that a summary of the enactment be published in order for the enactment to become effective.



CHAPTER 1: EXISTING & FUTURE PUBLIC SAFETY FACILITIES

EXISTING PUBLIC SAFETY BUILDING

A summary of the existing fire / EMS and police facilities are contained in the following tables. Currently the City maintains one fire station, and one police station (which is combined with the City courthouse). The fire station is operated by Lone Peak Fire District and police by Lone Peak Police department.

TABLE 1: SUMMARY OF EXISTING FIRE / EMS AND POLICE FACILITIES

Summary of Existing Police Facilities

Existing Police Facilities			
	Acres	SF of Space	Cost
Portion of existing Police Building / Courthouse: 5400 Civic Center Dr. Suite 3	-	13,710	\$3,647,366.34
Land Associated with Police Building	1.90	-	
Total	1.90	13,710	\$3,647,366

**The total building is estimated at 32,136 SF, with a total building cost of \$4,336,402 space used by the Courthouse and the holding cells have been excluded.*

Summary of Existing Fire Facilities

Existing Fire Facilities			
	Acres	SF of Space	Cost
5582 Parkway West Drive	-	16,998	\$3,849,854.00
Land Associated with Fire Building	0.86	-	
Total	0.86	16,998	\$3,849,854

EXISTING POLICE INFRASTRUCTURE

The police department currently maintains 13,710 SF of infrastructure. The Lone Peak Police Department is headquartered in Highland City. The Police Department and the Justice Court share one building on 1.9 acres of land. However, the square footage of the Court and holding cells in the police department are not included in the square footage used in the table above.

According to the Impact Fees Act, increases to an existing level of service cannot be funded with impact fee revenues. While the police and fire departments do not have plans to expand beyond the existing infrastructure, it will be demonstrated later in this report that the current level of service (in terms of SF per call) is at its highest and will not be exceeded.

EXISTING FIRE & EMS COVERAGE

The fire / EMS department in Highland currently maintains 16,998 SF of infrastructure. Generally 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 further away from Highland's center, where the public safety building is located. This increases response times—taking it longer for fire fighters or EMS personnel to reach emergency situations.





HIGHLAND PUBLIC SAFETY IMPACT FEE FACILITIES PLAN

FUTURE FIRE / EMS INFRASTRUCTURE

When the land area currently included within the City is entirely built out, it is not anticipated that any additional stations will be needed. The current station is intended to serve through buildout.

FUTURE POLICE INFRASTRUCTURE

When the land area currently included within the City and the boundaries of the annexation declaration are entirely built out, it is not anticipated that any additional stations will be needed to provide adequate police service.

DRAFT



CHAPTER 2: EXISTING & FUTURE INFRASTRUCTURE COSTS

OUTSTANDING DEBT

The City has an outstanding bond which relate to public safety in Highland—the 2006 Bond funded the cost of the fire building and the cost of the combined police / courthouse. The bond was refunded in 2015. The outstanding bond and details provided by the City and internal sources, was the information used in the calculation of costs associated with the existing facilities found at the beginning of the previous chapter. It should be noted however that in the calculation of the fee, only the costs directly relating to the police and fire station are included and not the courthouse and any holding cells.

DEBT RELATED TO THE EXISTING FIRE/POLICE STATIONS

The following table relates to the debt that was originally issued to pay for the construction of the existing fire and police stations. The full debt service schedule can be found in the appendix of this document.

TABLE 2: DEBT SERVICE TOTAL

Debt Service Paid (2006)	2,663,622.50
Original Debt Service to be Paid – Not refunded	\$585,275.00
Future Debt Service	\$4,723,655.38
Total	\$7,972,552.88

TEN YEAR HORIZON

Only infrastructure to be constructed within a ten year horizon is considered in the calculation of Highland public safety impact fees. It can be argued that projects beyond this horizon are too far away to be calculated accurately, owing to the large uncertainty surrounding events that far into the future. In addition, an analysis has been performed to determine if any non-impact fee qualifying sources of funding will be obtained and also excluded from the calculation.

In the ten year horizon there are no additional police or fire infrastructure needed.



CHAPTER 3: FINANCING ELEMENT

MANNER OF FINANCING

Cities may fund the capital infrastructure for public safety through a combination of different revenue sources. Impact fees cannot reimburse costs funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. The amounts included in this calculation are those that have been funded by the existing residents and businesses through fees and taxes.

Additionally, the Impact Fees Act requires the Proportionate Share Analysis to demonstrate that impact fees paid by new development are an equitable method for funding growth-related infrastructure. Existing users have funded and will continue to fund the share of costs proportionate to the number of existing calls relative to the buildout number of calls. In other words, existing users will always be responsible for their share of the system. The remaining portion of existing excess capacity costs and future facility costs will be fairly passed on to new growth.

TAX 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 Highland City fire / EMS and police departments.

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 toward impact fee payment) must be considered in the analysis as an impact fee should not be collected for a project or expense otherwise covered through a grant or other revenue source 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. This Impact Fee Analysis calculates a fair and reasonable fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Impact fees have become an ideal mechanism for funding growth-related infrastructure. 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 infrastructure 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. Analysis is required to accurately assess the true impact of a particular user upon the City infrastructure and to prevent existing users from subsidizing new growth.

DEVELOPER DEDICATIONS AND EXACTIONS

Developer exactions are not the same as grants (which should be credited from the impact fee). Developer exactions may be considered in the inventory of current and future public safety infrastructure. If a developer constructs a fire station or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.





HIGHLAND PUBLIC SAFETY IMPACT FEE FACILITIES PLAN

All fire and police stations are considered to be system improvements, not project improvements. Thus, an impact fee credit will be due to the developer and the dedication / exaction will 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 will owe 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.

PROPOSED CREDITS OWED TO DEVELOPMENT

The Impact Fees Act requires that credits be granted to development for future fees that will pay for growth-driven projects included in the Impact Fee Facilities Plan that would otherwise be paid for through user fees. Credits may also be granted to developers who have constructed and donated facilities to the City in-lieu of impact fees. This situation does not apply to developer exactions or improvements required to offset density or as a condition of development. Any project that a developer funds must be included in the Impact Fee Facilities Plan if a credit is to be issued.

If the situation arises that a developer chooses to construct facilities found in the Impact Fee Facilities Plan in-lieu of impact fees, appropriate arrangements must be made through negotiation between the developer and the City on a case by case basis.

SUMMARY OF TIME PRICE DIFFERENTIAL

The Impact Fees Act allows for the inclusion of a time price differential to ensure that the costs incurred at a later date are accurately calculated. This is not applicable in this analysis as the projects considered are already constructed.

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 as presented in the impact fee 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.



CHAPTER 4: 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. One way to determine if the level of service has been exceeded is to measure the current square footage of public safety infrastructure per emergency call and compare it to what is planned for the future. This analysis has been completed and is contained in this chapter.

THE CHALLENGE WITH PLANNING PUBLIC SAFETY INFRASTRUCTURE

The challenge with public safety infrastructure is that it cannot be added piece by piece but must be added station by station. In other words, if call volume increases by five percent, the infrastructure cannot simply be increased by 5%. When new infrastructure is needed to serve a new area of the city—even if the overall call volume of that area is low—the City is justified in building infrastructure to serve areas of need. When that infrastructure is constructed the level of service must therefore be viewed not in terms of the call volume it currently serves, but the total call volume it was built to serve.

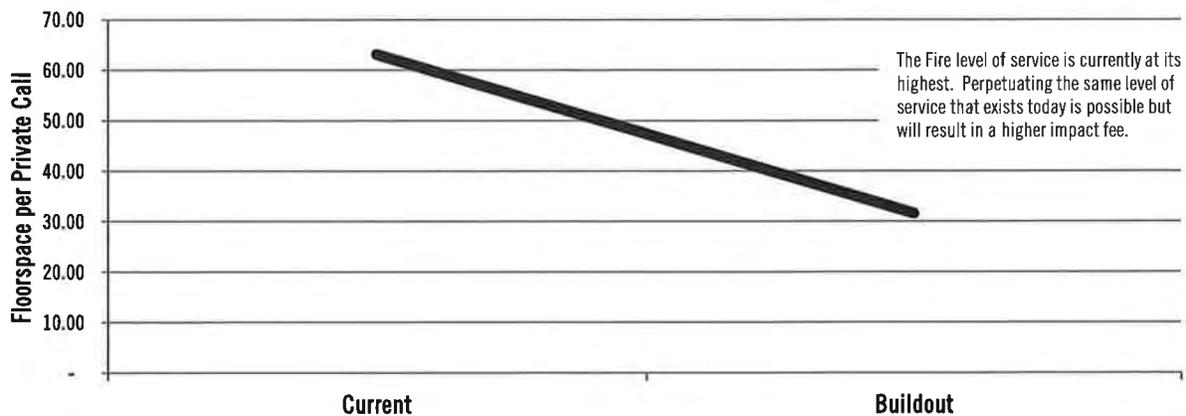
The City may decide to enhance the future planned level of service (beyond what is planned in this impact fee analysis) to better meet the guidelines from the NFPA and ISO. If the City exceeds the current level of service, then it will need to fund that enhancement with revenue sources other than impact fees.

The current and future LOS goal to be maintained by the fire / EMS and police departments is displayed in the following tables. The current and future floor space of the fire / EMS and police departments is based on the existing and future infrastructure described in an earlier chapter.

TABLE 3: CURRENT AND PROJECTED FACILITY FLOOR SPACE LEVEL OF SERVICE FOR FIRE / EMS

Time Frame	Floorspace	Calls*	SF per Call
Current	16,998	269	63.19
Buildout	16,998	538	31.62

Projected Floorspace per Private Fire Call

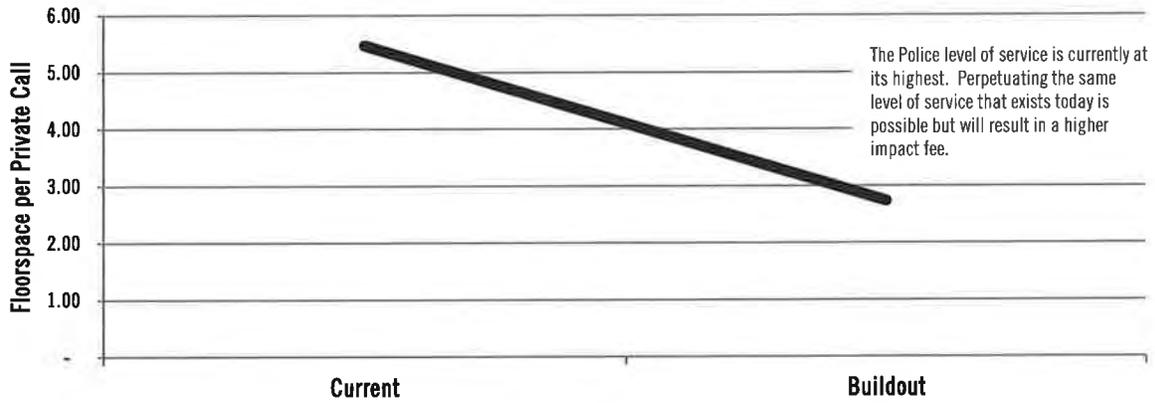


HIGHLAND PUBLIC SAFETY IMPACT FEE FACILITIES PLAN

TABLE 4: CURRENT AND PROJECTED FACILITY FLOOR SPACE LEVEL OF SERVICE FOR POLICE

Time Frame	Floorspace	Calls*	SF per Call
Current	13,710	2,505	5.47
Buildout	13,710	5,006	2.74

Projected Floorspace per Private Adjusted Police Call



IMPACT FEE FACILITIES PLAN CERTIFICATION

Zions 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.

I certify that the attached impact fee facilities plan ("IFFP"):

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. costs for 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; and
3. 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 made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland City staff and elected officials.
2. If all or a portion of the IFFP or impact fee analysis is modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance 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: April 9, 2015

ZIONS PUBLIC FINANCE, INC.





HIGHLAND PUBLIC SAFETY IMPACT FEE FACILITIES PLAN

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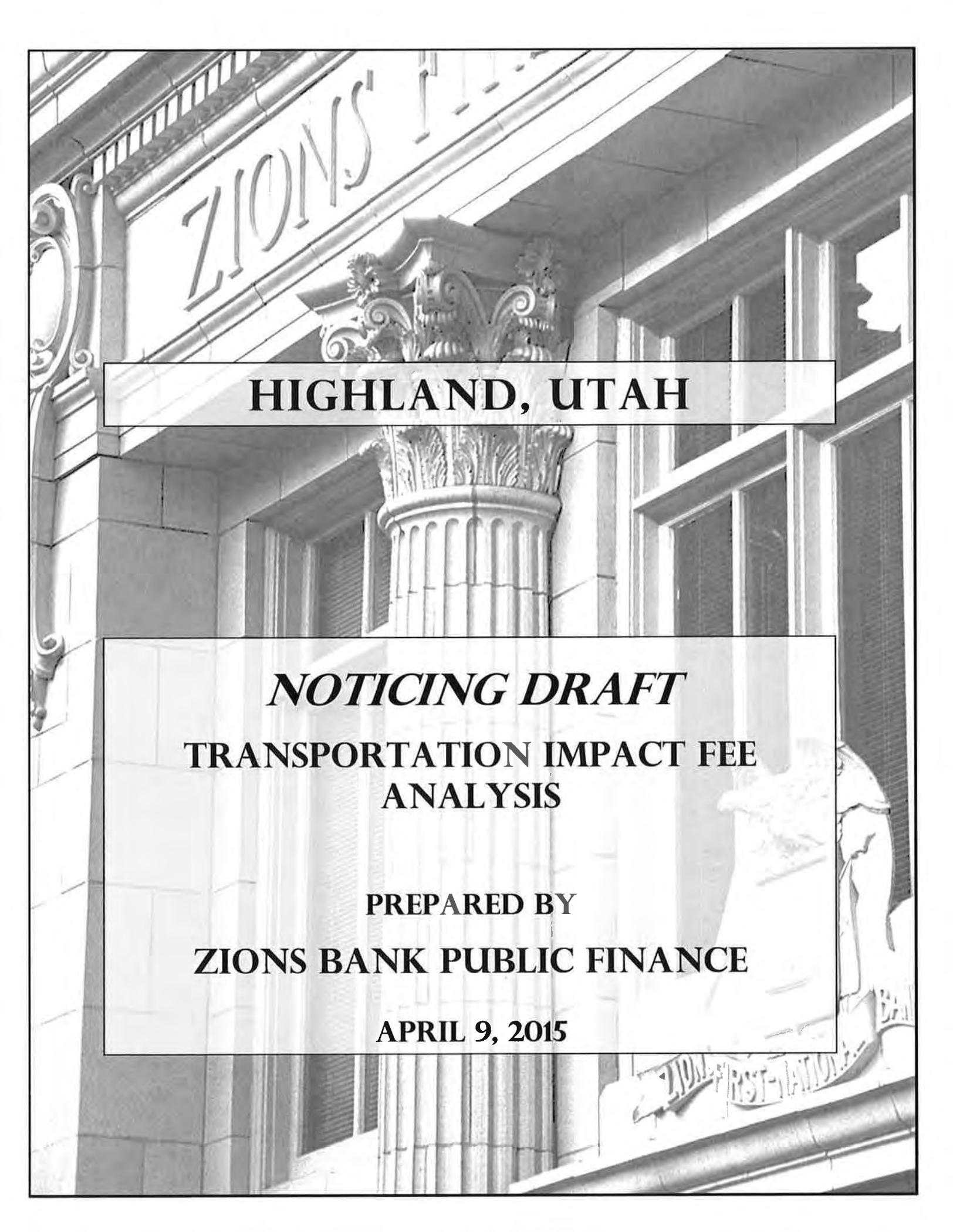




APPENDIX

DRAFT





ZIONS

HIGHLAND, UTAH

NOTICING DRAFT

**TRANSPORTATION IMPACT FEE
ANALYSIS**

PREPARED BY

ZIONS BANK PUBLIC FINANCE

APRIL 9, 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 \$11,814,235 (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 \$7,687,236, or about 65% 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
Roadway Impact Fee					
Future 10 Year Capital Projects	\$ 11,814,235	65.07%	\$ 7,687,236	17,008	\$ 452
Future Growth Related Debt to be Issued - Interest Only	3,172,689	65.07%	2,064,392	17,008	121
Existing Infrastructure	8,278,410	2.84%	234,903	17,008	14
Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
Roadway Impact Fee Subtotal	\$ 23,265,334		\$ 9,986,531		\$ 587.16
Professional Services / Credits					
Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
Professional Services / Credits	40,000	100%	40,000	17,008	2
Professional Services / Credits Subtotal	40,000		40,000		\$ 2
Total Impact Fee Per Trip	\$ 23,305,334		\$ 10,026,531		\$ 589.51

Recommended Transportation Impact Fees

As shown in Figure ES.1, the cost per trip has been calculated as \$589.51. 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)
Residential							
Single-Family	210	Dwelling Unit	9.55	4.78	100%	1.0	\$ 2,815
Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	0.6	1,713
Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	0.7	1,960
Retail / Commercial							
General Retail Small (<90,000 sq ft)	820	1000 sq	111.14	55.57	43%	5.0	\$ 14,086
General Retail Large (>90,000 sq ft)	820	1000 sq	46.7	23.35	43%	2.1	5,919
Convenience Store w/ Gas Pumps	853	1000 sq	845.6	422.80	16%	14.2	39,879
Drive-In Bank	912	1000 sq	148.15	74.08	27%	4.2	11,790
Fast Food Restaurant w/ Drive-Thru	934	1000 sq	496.12	248.06	30%	15.6	43,870
Sit-Down Restaurant	932	1000 sq	127.15	63.58	37%	4.9	13,867
Multiplex Movie Theater	445	1000 sq	63.0935	31.55	75%	5.0	13,948
Hotel / Motel	603	Rooms	8.17	4.09	100%	0.9	2,408
Office / Institutional							
General Office	710	1000 sq	11.03	5.52	100%	1.2	\$ 3,251
Medical Office	720	1000 sq	36.13	18.07	100%	3.8	10,649
Hospital	610	1000 sq	13.22	6.61	100%	1.4	3,897
Nursing Home	620	1000 sq	7.6	3.80	100%	0.8	2,240
Assisted Living	254	Occupied Bed	2.74	1.37	100%	0.3	808
Church / Synagogue	560	1000 sq	9.11	4.56	100%	1.0	2,685
Day Care Center	565	1000 sq	74.06	37.03	10%	0.8	2,183
Elementary School	520	1000 sq	15.43	7.72	50%	0.8	2,274
High School	530	1000 sq	12.89	6.45	50%	0.7	1,900
Industrial							
General Light Industrial	110	1000 sq	6.97	3.49	100%	0.7	\$ 2,054
Business Park	770	Employees	4.04	2.02	100%	0.4	1,191
Warehouse	150	1000 sq	3.56	1.78	100%	0.4	1,049
Mini-Warehouse	151	1000 sq	2.5	1.25	100%	0.3	737

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

Steps in Calculating a Non-Standard Fee
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 \$589.51

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

The funding source of the future projects located on Canal Boulevard is currently undetermined. It is possible, though unlikely, that the City will receive funding from Utah County/UDOT to construct the Canal Blvd improvements. If a project is funded by another entity at no cost to the City then the project is not impact fee eligible but because this project is very expensive, the City cannot afford to reduce the impact fee until the final method of funding is determined.

Until funding is finalized, the portion of the impact fee relating to the Canal Blvd project will be set aside and pro rata shares would be reimbursed to developers if a source other than the City ultimately funds this project. The full recommended impact fee per single family dwelling is \$2,815 including the Canal Blvd project. Without the Canal Blvd project, the impact fee is \$523 per single family dwelling. The difference between the two fees will be deposited into an escrow and refunded to developers if the County funds the Canal Blvd project.



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 \$6.7M to fund projects. The funding source of the future projects located on Canal Boulevard is currently undetermined. Until funding is finalized, the portion of the impact fee relating to the Canal Blvd project will be set aside and pro rata shares would be reimbursed to developers if a source other than the City funds this project.



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.



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%	-
Total	\$ 1,738,362								\$ 234,903



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	8,000,000	9,400,000	3,461,217	5,601,140	337,643
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
Ten Year Total			\$ 10,054,668	\$ 11,814,235	\$ 3,663,604	\$ 7,687,236	\$ 463,395

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	\$226,000.00	\$ 269,080	\$ 495,080
2	235,000	260,044	495,044
3	244,000	250,646	494,646
4	254,000	240,873	494,873
5	264,000	230,708	494,708
6	275,000	220,137	495,137
7	286,000	209,143	495,143
8	297,000	197,710	494,710
9	309,000	185,819	494,819
10	322,000	173,452	495,452
11	334,000	160,591	494,591
12	348,000	147,215	495,215
13	362,000	133,304	495,304
14	376,000	118,837	494,837
15	391,000	103,791	494,791
16	407,000	88,143	495,143
17	423,000	71,870	494,870
18	440,000	54,945	494,945
19	458,000	37,344	495,344
20	476,000	19,038	495,038
	\$ 6,727,000	\$ 3,172,689	\$ 9,899,689

Source: Zions Public Finance, Inc.

Grant Funds

Mountainland Association of Governments (MAG) funds many transportation projects in the Utah County region. MAG funding is possible for projects identified in later phases of the City’s transportation plan but the City does not anticipate receiving grant funding for any of the projects identified in Phase I. As mentioned earlier, the funding source of the future projects located on Canal Boulevard is currently undetermined. It is possible, though unlikely, that the City will receive funding from Utah County/UDOT to construct the Canal Blvd improvements. Until funding is finalized, the portion of the impact fee relating to the Canal Blvd project will be set aside and pro rata shares would be reimbursed to developers if a source other than the City funds this project.



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
Roadway Impact Fee					
Future 10 Year Capital Projects	\$ 11,814,235	65.07%	\$ 7,687,236	17,008	\$ 452
Future Growth Related Debt to be Issued - Interest Only	3,172,689	65.07%	2,064,392	17,008	121
Existing Infrastructure	8,278,410	2.84%	234,903	17,008	14
Existing Roads Related Debt - INTEREST ONLY	-	0.00%	-	17,008	-
Roadway Impact Fee Subtotal	\$ 23,265,334		\$ 9,986,531		\$ 587.16
Professional Services / Credits					
Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
Professional Services / Credits	40,000	100%	40,000	17,008	2
Professional Services / Credits Subtotal	40,000		40,000		\$ 2
Total Impact Fee Per Trip	\$ 23,305,334		\$ 10,026,531		\$ 589.51

Maximum Legal Transportation Impact Fees per Trip

As shown in Figure 4.1, the maximum legal impact fee per trip is calculated to be \$589.51. 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)
Residential							
Single-Family	210	Dwelling Unit	9.55	4.78	100%	1.0	\$ 2,815
Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	0.6	1,713
Multi-Family >8 Units	220	Dwelling Unit	6.65	3.33	100%	0.7	1,960
Retail / Commercial							
General Retail Small (<90,000 sq ft)	820	1000 sq	111.14	55.57	43%	5.0	\$ 14,086
General Retail Large (>90,000 sq ft)	820	1000 sq	46.7	23.35	43%	2.1	5,919
Convenience Store w/ Gas Pumps	853	1000 sq	845.6	422.80	16%	14.2	39,879
Drive-In Bank	912	1000 sq	148.15	74.08	27%	4.2	11,790
Fast Food Restaurant w/ Drive-Thru	934	1000 sq	496.12	248.06	30%	15.6	43,870
Sit-Down Restaurant	932	1000 sq	127.15	63.58	37%	4.9	13,867
Multiplex Movie Theater	445	1000 sq	63.0935	31.55	75%	5.0	13,948
Hotel / Motel	603	Rooms	8.17	4.09	100%	0.9	2,408
Office / Institutional							
General Office	710	1000 sq	11.03	5.52	100%	1.2	\$ 3,251
Medical Office	720	1000 sq	36.13	18.07	100%	3.8	10,649
Hospital	610	1000 sq	13.22	6.61	100%	1.4	3,897
Nursing Home	620	1000 sq	7.6	3.80	100%	0.8	2,240
Assisted Living	254	Occupied Bed	2.74	1.37	100%	0.3	808
Church / Synagogue	560	1000 sq	9.11	4.56	100%	1.0	2,685
Day Care Center	565	1000 sq	74.06	37.03	10%	0.8	2,183
Elementary School	520	1000 sq	15.43	7.72	50%	0.8	2,274
High School	530	1000 sq	12.89	6.45	50%	0.7	1,900
Industrial							
General Light Industrial	110	1000 sq	6.97	3.49	100%	0.7	\$ 2,054
Business Park	770	Employees	4.04	2.02	100%	0.4	1,191
Warehouse	150	1000 sq	3.56	1.78	100%	0.4	1,049
Mini-Warehouse	151	1000 sq	2.5	1.25	100%	0.3	737

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

Steps in Calculating a Non-Standard Fee
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 \$589.51



**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: 4/1/2015

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

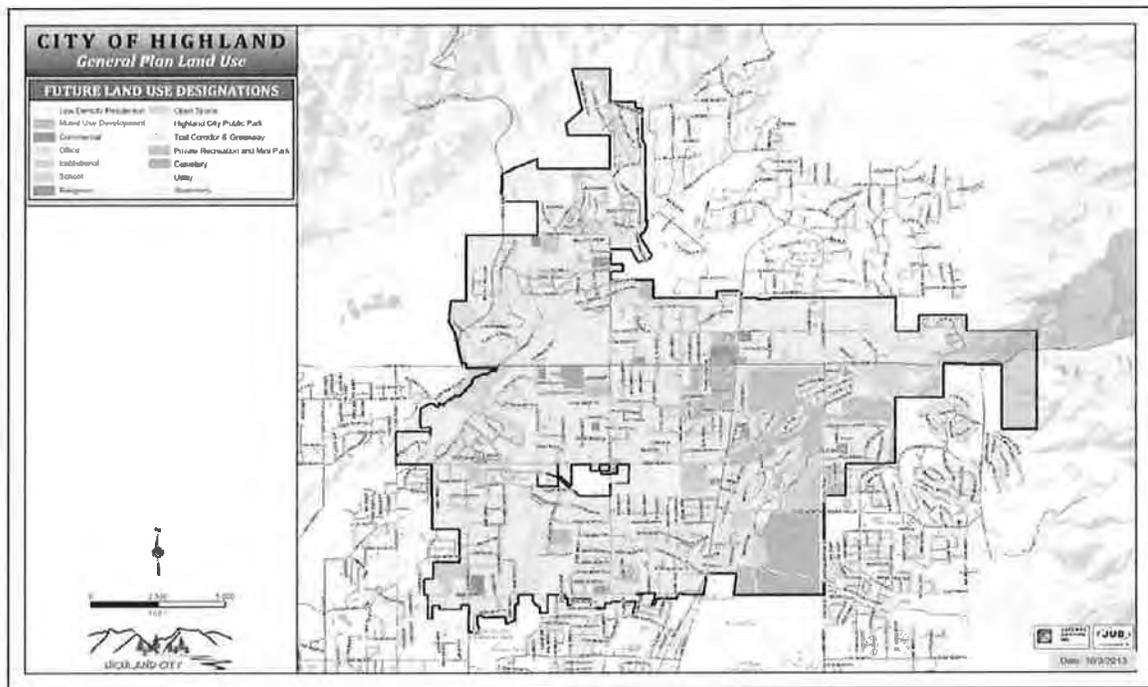
NOTICE OF INTENT TO CREATE IMPACT FEE FACILITIES PLANS AND AMENDED IMPACT FEE WRITTEN ANALYSES

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

APPENDIX C: LEVEL OF SERVICE

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

APPENDIX D: BUY IN COSTS

	A	B	C	D	E	F	G	H	I	J	K	L
	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
2	11800 North (Highland Blvd to 6000 West)	\$ -	2	Major Collector	4,485	11,200	9,420	1,760	40%	44%	15%	\$ -
3	11800 North (6000 West to East City Boundary)	-	2	Major Collector	4,485	11,200	9,520	1,680	40%	45%	15%	-
4	11200 North (6000 West to 5710 West)	-	2	Minor Collector	750	11,200	880	10,310	7%	1%	92%	-
5	11200 North (5850 West to SR-74)	-	2	Minor Collector	2,610	11,200	920	10,280	23%	-15%	92%	-
6	11200 North (SR-74 to 4800 West)	-	2	Minor Collector	2,900	11,200	3,000	8,200	26%	1%	73%	-
7	10400 North (1200 East to 6000 West)	-	2	Major Collector	1,840	11,200	3,360	7,820	16%	14%	70%	-
8	10400 North (6000 West to SR-74)	-	2	Major Collector	1,840	11,200	4,820	6,360	16%	27%	57%	-
9	9860 North (6800 West to 6630 West)	-	2	Minor Collector	1,000	11,200	1,870	9,330	9%	8%	83%	-
10	9860 North (Mountain View Drive to 6000 West)	-	2	Minor Collector	1,000	11,200	990	10,210	9%	0%	91%	-
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
12	9600 North (West City Boundary to 6000 West)	-	2	Major Collector	2,255	11,200	3,690	7,520	20%	13%	67%	-
13	9600 North (6000 West to SR-74)	-	2	Major Collector	2,255	11,200	2,280	8,920	20%	0%	80%	-
14	Highland Blvd (North City Boundary to SR-92)	-	3	Major Collector	3,810	17,500	9,830	7,670	22%	34%	44%	-
15	6800 West (10400 North to 9600 North)	-	2	Minor Collector	4,260	11,200	4,620	6,580	38%	3%	59%	-
16	6800 West (9600 North to South City Boundary)	-	2	Minor Collector	4,760	11,200	4,500	6,700	43%	-2%	60%	-
17	6400 West (SR-82 to 10400 North)	-	2	Minor Collector	1,420	11,200	2,050	9,150	13%	6%	82%	-
18	6000 West (11800 North to SR-92)	-	2	Major Collector	4,485	11,200	4,560	6,640	40%	1%	59%	-
19	6000 West (SR-92 to 10400 North)	-	2	Major Collector	3,545	11,200	7,370	3,830	32%	34%	34%	-
20	6000 West (10400 North to 9600 North)	-	2	Major Collector	3,545	11,200	4,290	6,910	32%	7%	52%	-
21	6000 West (9600 North to South City Boundary)	-	2	Major Collector	3,865	11,200	6,080	5,120	35%	20%	46%	-
22	5600 West (11200 North to SR-92)	-	2	Minor Collector	2,840	11,200	5,260	5,940	25%	22%	53%	-
23	5600 West (SR-92 to 10400 North)	396,985	2	Minor Collector	3,110	11,200	4,020	7,180	28%	8%	64%	32,256
24	4800 West (North City Boundary to SR-92)	-	3	Minor Arterial	12,725	17,500	15,870	1,630	73%	16%	6%	-
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
26	4800 West (Cedar Hills Drive to South City Boundary)	-	5	Minor Arterial	9,025	41,000	26,620	14,380	22%	43%	36%	-
27	Total	\$ 1,739,362										\$ 234,903

Table E.3: Existing / Project Level

Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals
11200 N 2 Lane Collector	-	-	-	-	-	-	-	-	-	-	-	-
Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	-	-	-	-	-	-	-
Canal Boulevard 2 Lane Collector	-	-	-	-	-	-	-	-	-	-	-	-
Canal Boulevard and SR 74 Intersection	-	-	-	-	-	-	-	-	-	-	-	-
Canal Boulevard and 4800 West Intersection	-	-	-	-	-	-	-	-	-	-	-	-
\$	-											

Table E.4: 10 Year Growth

Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals
11200 N 2 Lane Collector	-	-	-	-	-	359,997	-	-	-	-	-	359,997
Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	1,252,061	-	-	-	-	-	1,252,061
Canal Boulevard 2 Lane Collector	-	-	-	-	-	8,865,574	-	-	-	-	-	8,865,574
Canal Boulevard and SR 74 Intersection	-	-	-	-	-	332,459	-	-	-	-	-	332,459
Canal Boulevard and 4800 West Intersection	-	-	-	-	-	332,459	-	-	-	-	-	332,459
\$	-	-	-	-	-	\$11,142,551	\$	-	-	-	-	\$11,142,551

Table E.5: Beyond 10 Year Growth

Project	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals
11200 N 2 Lane Collector	-	-	-	-	-	21,701	-	-	-	-	-	21,701
Madison Ave/9860 N 2 Lane Collector	-	-	-	-	-	75,476	-	-	-	-	-	75,476
Canal Boulevard 2 Lane Collector	-	-	-	-	-	534,426	-	-	-	-	-	534,426
Canal Boulevard and SR 74 Intersection	-	-	-	-	-	20,041	-	-	-	-	-	20,041
Canal Boulevard and 4800 West Intersection	-	-	-	-	-	20,041	-	-	-	-	-	20,041
\$	-	-	-	-	-	\$671,685	\$	-	-	-	-	\$671,685

APPENDIX F: EXISTING AND FUTURE BONDS

	A	B	C	D	E
1	Summary of Future Bond				1
2	Inputs				2
3	Proceeds		\$6,467,533		3
4	Annual Interest Rate		4.00%		4
5	Cost of Issuance		4.00%		5
6	Number of Years		20		6
7	Par Amount		\$6,727,000		7
8					8
9	Future Bond #1				9
10	PmtNo.	Principal	Interest	Total Principal and Interest	10
11	1	\$226,000.00	\$ 269,080	\$ 495,080	11
12	2	235,000	260,044	495,044	12
13	3	244,000	250,646	494,646	13
14	4	254,000	240,873	494,873	14
15	5	264,000	230,708	494,708	15
16	6	275,000	220,137	495,137	16
17	7	286,000	209,143	495,143	17
18	8	297,000	197,710	494,710	18
19	9	309,000	185,819	494,819	19
20	10	322,000	173,452	495,452	20
21	11	334,000	160,591	494,591	21
22	12	348,000	147,215	495,215	22
23	13	362,000	133,304	495,304	23
24	14	376,000	118,837	494,837	24
25	15	391,000	103,791	494,791	25
26	16	407,000	88,143	495,143	26
27	17	423,000	71,870	494,870	27
28	18	440,000	54,945	494,945	28
29	19	458,000	37,344	495,344	29
30	20	476,000	19,038	495,038	30
31		\$ 6,727,000	\$ 3,172,689	\$ 9,899,689	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	Summary of Existing Capacity of Roadway Infrastructure for which Ten Year Growth is Responsible					
2	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
3	Roadway Impact Fee					
4	Future 10 Year Capital Projects	\$ 11,814,235	65.07%	\$ 7,687,236	17,008	\$ 452
5	Future Growth Related Debt to be Issued - Interest Only	3,172,689	65.07%	2,064,392	17,008	121
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8						
9	Roadway Impact Fee Subtotal	\$ 23,265,334		\$ 9,986,531		\$ 587.16
10						
11	Professional Services / Credits					
12	Unspent Impact Fee Funds	-	0.00%	\$ -	17,008	\$ -
13	Professional Services / Credits	40,000	100%	40,000	17,008	2
14	Professional Services / Credits Subtotal	40,000		40,000		\$ 2
15						
16	Total Impact Fee Per Trip	\$ 23,305,334		\$ 10,026,531		\$ 589.51

A B C D E F

APPENDIX I: ITE TRIP GENERATION DATA

	A	B	C	D	E	F	G	H
1	Institute of Transportation Engineers (ITE) Data Showing Trips Per Type of Land Use Per Unit							
2	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)
3	Residential							
4	Single-Family	210	Dwelling Unit	9.55	4.78	100%	1.0	\$ 2,815
5	Attached 6-8 Units per Acre	230	Dwelling Unit	5.81	2.91	100%	0.6	1,713
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23	Day Care Center	565	1000 sq	74.06	37.03	10%	0.8	2,183
24	Elementary School	520	1000 sq	15.43	7.72	50%	0.8	2,274
25	High School	530	1000 sq	12.89	6.45	50%	0.7	1,900
26	Industrial							
27	General Light Industrial	110	1000 sq	6.97	3.49	100%	0.7	\$ 2,054
28	Business Park	770	Employees	4.04	2.02	100%	0.4	1,191
29	Warehouse	150	1000 sq	3.56	1.78	100%	0.4	1,049
30	Mini-Warehouse	151	1000 sq	2.5	1.25	100%	0.3	737

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

32 Non Standard Demand Adjustment

33 Steps in Calculating a Non-Standard Fee			
34	Step 1: Determine the expected Average Daily Trips (ADT) for the development		
35	Step 2: Determine the percentage of ADT that are primary trips (1- % pass-by traffic)		
36	Step 3: Multiple ADT by the Percent Primary Trips by \$589.51		
37			
38			

A B C D E F G H

HIGHLAND CITY IMPACT FEE FACILITIES PLAN



Project Number 140378

March, 2015

InterPlan



Transportation Planning

7719 South Main Street
Midvale, Utah 84047
801-307-3400

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Introduction

The purpose of an Impact Fee Facilities Plan (IFFP) is to use projected system demands to identify public facilities that are needed to serve growth associated with new development activity within the service area. The service area for this IFFP is the Highland City Boundary (see Figure 2). An IFFP should also identify capital facilities projects, which may be funded through impact fees. An IFFP generally serves as the basis of performing an Impact Fee Analysis (IFA) where impact fees are calculated. The Highland City Transportation Impact Fee Analysis will be performed by Zions Bank Public Finance and is presented in a separate document.

The IFFP and IFA documents should be updated on a regular basis, as needed, depending on how actual development and population growth occurs and to stay consistent with any updates to the city's Transportation Master Plan.

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36 of the Utah Code (Impact Fees Act). Under these requirements, an IFFP shall accomplish the following:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth at the proposed level of service
4. Identify demands placed upon existing public facilities by new development activity at the proposed level of service
5. Identify the means by which city or developer will meet those growth demands
6. Consider the following additional issues:
 - a. Revenue sources to finance required system improvements
 - b. Necessity of improvements to maintain the proposed level of service
 - c. Need for facilities relative to planned locations of schools

The following sections of this report have been organized to address each of these requirements.

Section 1: Existing Level of Service (11-36A-302.1.A.I)

Level of service (LOS) is defined in the Impact Fees Act as “the defined performance standard or unit of demand for each capital component of a public facility within a service area.” Level of service standards for transportation are defined in the American Association of State Highway and Transportation Officials (AASHTO), A Policy on Geometric Design of Highways and Streets, 2011 (6th Edition). Highland City presently maintains a road system which is currently below capacity at a level of service (LOS) D threshold. According the AASHTO standards, LOS D is defined as "approaching unstable flow." A LOS D threshold is commonly used as a standard within urban areas. This level can be measured by methods included in the Transportation Research Board (TRB), Highway Capacity Manual (HCM), 2010.

LOS calculations can be complex and data intensive but simplified planning methods are reasonably accurate. LOS calculations according to the HCM2010 depend on the following factors:

1. Number of travel lanes
2. Number of turn lanes
3. Number of trucks in the travel flow
4. The level of "platooning" of vehicles approaching each intersection
5. The timing of traffic signals and the coordination of multiple traffic signals
6. The number of turning vehicles
7. The vertical grade of the roadway and other horizontal alignment factors
8. The familiarity of drivers to local conditions
9. The availability of shoulders and lateral clearances
10. Various natural environmental conditions

To simplify the analysis, the IFFP in Highland City relied on the use of the Mountainland Association of Governments (MAG) travel demand model 7.0. The MAG travel model is maintained at a regional level and was modified and calibrated for use in Highland City as part of the IFFP. The travel models use a link-based capacity (even though much of the actual delay is manifested at intersections). Algorithms exist in the travel model to estimate the delay associated with increased traffic volume, with the primary input being the travel link number of lanes, functional classification of the road, and area type (urban, suburban, rural, etc.). These simplifications are necessary since detailed data may not be available for forecasting future conditions and the travel model is developed at a regional (metropolitan area) scale.

Traffic capacities are defined in the regional travel models for the hourly level. For application in Highland City, capacities were adjusted to daily maximums based on various factors consistent with the Highway Capacity Manual. Table 1 summarizes the daily maximum

capacities used in Highland City at the acceptable LOS.

Table 1: Daily Level of Service D Capacity in Highland City

Maximum Daily Traffic Capacity Estimates		
Number of Lanes	Arterial	Collector
2	12,500	11,200
3	19,100	17,500
4	38,300	30,900
5	41,000	37,200
6	52,800	
7	57,000	

Source: InterPlan

Intersection Standards

Delays at intersections are a major determinant in the LOS provided on the roadway system. Intersection LOS is determined by the type of intersection control including no control, stop signs, roundabouts, traffic signals, or other control (interchanges, etc.). Intersection improvements are difficult to predict even a few years into the future, since they depend on specific turn movements at each intersection. While the specific timing or phasing of traffic signals, for example, cannot be forecast, the need for capital improvements such as traffic signals can reasonably be estimated. The cost of intersection improvements can be mitigated with advanced planning such that signal foundations, signal wiring conduit, and other improvements can be implemented concurrent with roadway construction in advance of the actual placement of signal mast arms, signal controllers, and traffic signals. The cost of intersection improvements are included in the estimated cost of each roadway, although the full installation of all intersection improvements may be deferred as needed, based on on-going intersection specific traffic counts.

Unit of Demand

The impact of new development is driven by "trip generation" associated with various land use types. The more trips that are associated with a particular land use or development, the greater its impact on the street system. The number of trips can be estimated based on national guidelines developed by the Institute of Transportation Engineers (ITE) documented in their Trip Generation Manual. ITE trip rates are based on national research in the transportation industry.

The use of ITE trip rates allows for consistency of analysis across different areas and market segments, but has also been the source of confusion due to the definition of a "trip." Road capacity analyses in Highland City are based on a trip defined by a count on a road during a pre-defined period (daily). ITE trips are defined by extensive national studies of driveway counts. Therefore a typical trip from a home to a job should be counted as a single trip in the Highland

City IFFP and is counted once based on the travel model estimate of average daily traffic. However, ITE trip rates for the same home to work travel path count a "trip" crossing the residential driveway and a second "trip" crossing the workplace driveway. To correct for this semantic inconsistency, ITE trip rates have been divided by two in all cases.

In addition, many developments claim that their source of trips is drawn from traffic already on the road so that they do not generate new trips. To account for this issue, ITE trips have been reduced further in various non-residential cases by a "primary trip factor," which accounts for opportunistic driveway counts of drivers already on the road. The ITE Trip Generation Manual provides insight for estimating the primary trip factor. Trip generation by land use in Highland City is based on the Ninth Edition ITE Trip Generation Manual, 2012.

System Improvements and Project Improvements

For the purposes of this study, roadway functional classifications include arterials, collectors, and local streets. Local streets are considered "project improvements" as defined in Utah Impact Fee Law, and are not included in this IFFP nor are they eligible to be paid for using impact fees. Arterial and collector streets generally serve occupants or users from multiple developments and are considered "system improvements" as defined in Utah Impact Fee Law. The capital facility projects discussed in Section 4 of this report are system improvements and are eligible to be partially funded with transportation impact fees.

Proposed Level of Service (11-36A-302.1.A.II)

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. diminish or equal the existing level of service; or
2. exceed the existing level of service if, independent of the use of impact fees, the city implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

In the case of this IFFP, no changes are proposed to the existing level of service standard. Future growth will be evaluated based on LOS D, the same level of service as identified above.

Section 2: Excess Capacity to Accommodate Future Growth (11-36A-302.1.A.III)

In an effort to assist in the development of the IFA, the percentage of the excess capacity of the existing transportation system that is eligible for reimbursement through impact fees was identified. In this report, the term “excess” capacity will be used interchangeably with “available” capacity. Available capacity, or excess capacity, is defined as the capacity in an existing transportation system that is available for additional trips from anticipated future development.

Figure 1: Existing Roads with Excess Capacity Available for Future Development

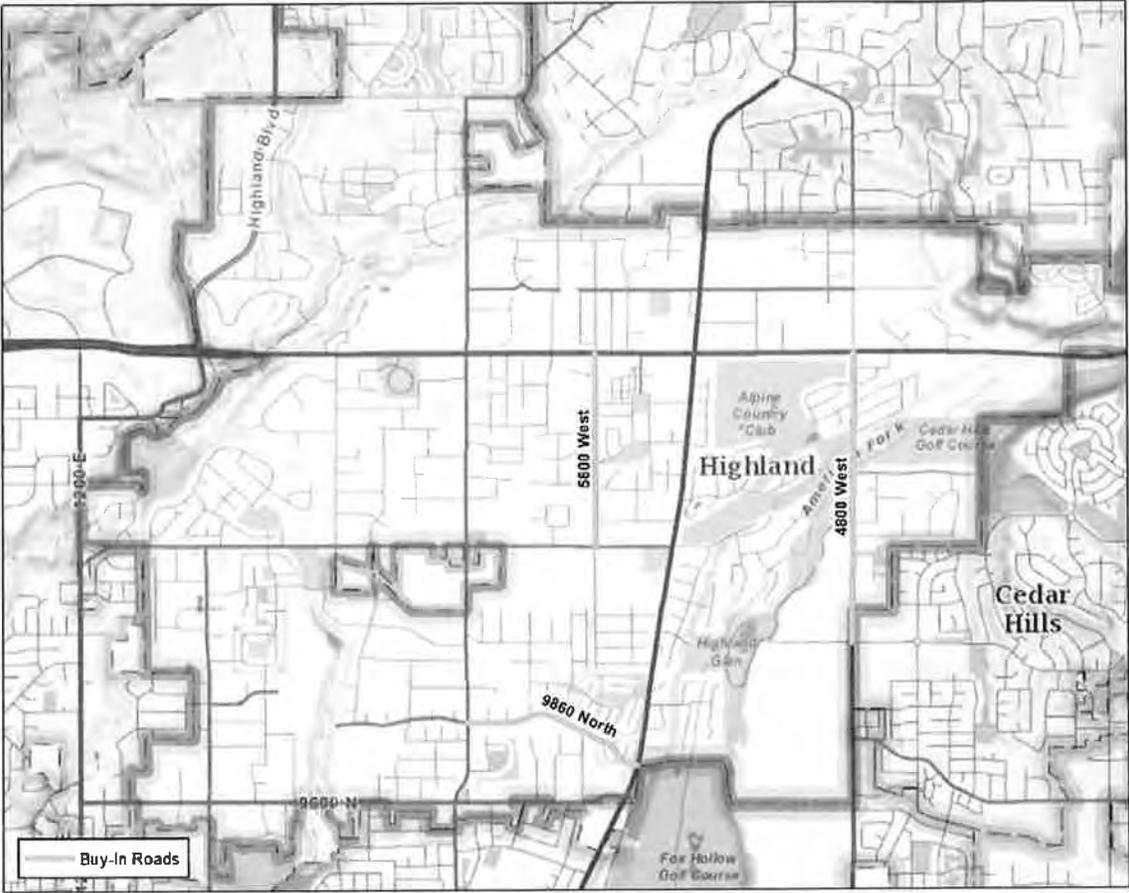


Figure 1 shows the roads in Highland City with existing available capacity that is eligible for new development to buy into through impact fees, referred to as “buy-in” roads. Roads with unknown construction costs or that were not constructed with any city funds cannot be included in the excess capacity inventory. The steps to estimate the excess capacity and the buy-in eligible cost are summarized below:

1. Estimate Capacities of Existing Roads – The capacities of the existing system roads shown in Figure 1 were estimated based on the LOS D.
2. Estimate Existing and 2025 Traffic Volumes – The traffic volumes for each road in Figure 1 were estimated using the travel demand model (See Sections 2 and 3) for existing and 2025 development conditions. Because the proposed impact fee will only address growth over the next ten years, the difference between the existing traffic volume and the estimated 2025 traffic volume was used in the calculation.
3. Calculate the percent of capacity consumed by the ten year growth – The percent of existing excess capacity that will be used by development over the next ten years was calculated by dividing the projected ten year trip growth, due to anticipated development, by the total capacity of the road, , then multiplying by one hundred to convert to a percentage.
4. Calculate the buy-in eligible cost – Multiply the percent of capacity consumed by the ten year growth by the portion of the total cost contributed by the city. This buy-in cost represents the amount of funds which are eligible to be recouped by the city from new development through impact fees.

Table 2 summarizes the calculations associated with the percent of excess capacity that can be used by future development over the next ten years.

Table 2: Existing Excess Capacity Buy-In

Street	From	To	Capacity	Existing Volume	2025 Volume	Growth in Utilization	Total Cost (City Contribution)	Buy-In Eligible Cost
9860 North	6000 West	S.R. 74	11,200	1,910	3,240	12%	\$768,135	\$91,216
5600 West	S.R. 92	10400 North	11,200	3,110	4,020	8%	\$396,995	\$32,256
4800 West	S.R. 92	Cedar Hills Dr.	41,00	9,025	26,620	19%	\$573,232	\$111,431
Total Road Costs							\$1,165,130	\$234,903

Section 3: Demands Placed on Facilities by New Development (11-36A-302.1.A.IV)

To satisfy the requirements of state law, demand placed upon existing system facilities by future development was projected using the process outlined below.

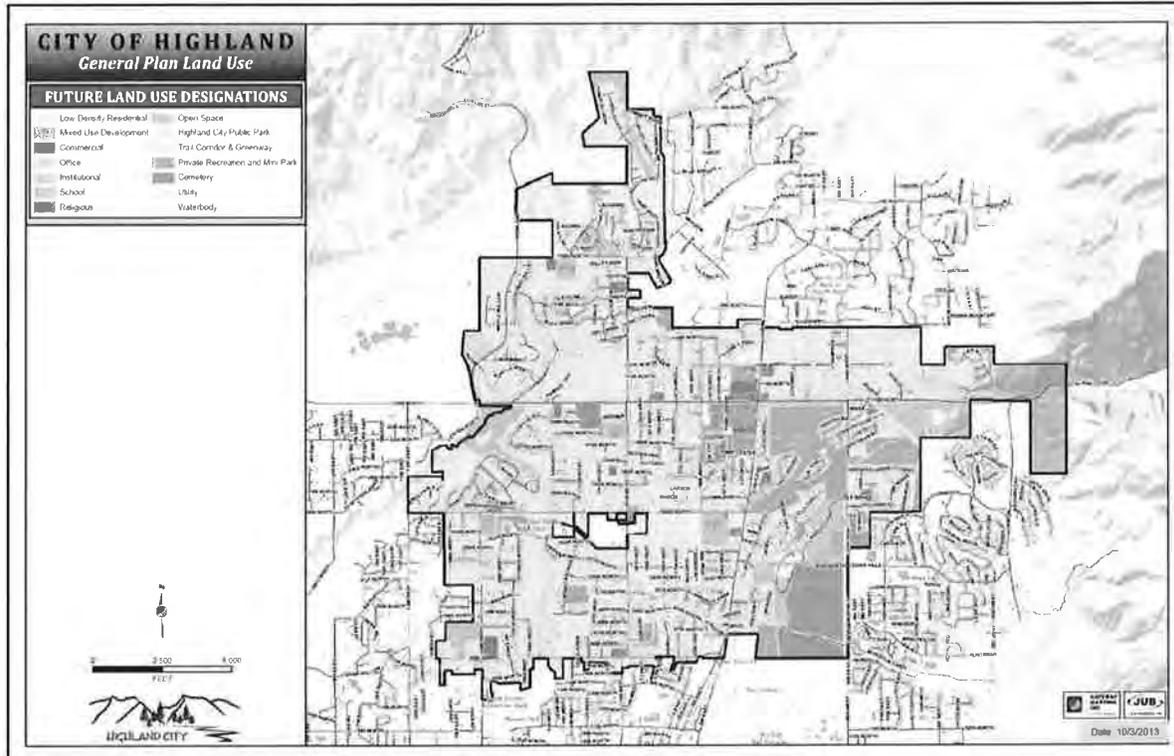
1. Existing Demand – The traffic demand associated with existing development on the city’s system roadways was estimated using traffic counts and population estimates.
2. Existing Capacity – The capacities of existing system facilities were estimated using LOS.
3. Existing Deficiencies – Existing deficiencies in the system were identified by comparing defined LOS against calculated capacities. No existing capacity deficiencies were identified in this study.
4. Future Demand – The demand future development will place on the system was estimated based on development projections for both 2025 and 2040.
5. Future Deficiencies – Future deficiencies in the transportation system were identified using defined level of service and results from the travel demand model for the years 2025 and 2040.
6. Recommended Improvements – Needed system improvements were identified to meet demands associated with future development.

The steps listed above describe the “demands placed upon existing public facilities by new development activity at the proposed level of service; and... the means by which the political subdivision or private entity will meet those growth demands” (Section 11-36a-302-1.a of the Utah Code).

Conversion of Growth and Development Projections to Trip Generations

Future traffic conditions were forecasted using the MAG travel demand model version 7.0. The model forecasts trips to and from destinations along an established network, based on smaller regions known as traffic analysis zones (TAZs). The TAZs are geographically smaller than a municipality and are similar in size to census block groups. Socioeconomic estimates of future households, population, and employment by TAZ were created by MAG as inputs to the model to generate future trip forecasts for Highland City.

Figure 2: Highland City Future Land Use



Source: Highland City

Growth

If Highland City “builds out” by 2040, based on the land use plan in Figure 2, the city will have a population of approximately 24,769 people living in 6,943 households. New resident population is expected to occur primarily on currently vacant or agricultural land. This 18 percent increase in population and 26 percent increase in households will require some additional road infrastructure to serve the new development. This anticipated growth in households and resident population would be accompanied by an increase in commercial and industrial development.

For purposes of calculating an impact fee in the state of Utah a ten year growth horizon is used to ensure that the projects identified and the fee imposed will be encumbered within the statutorily required six year period. Table 3 provides actual change in population and households between the 2000 and 2010 census, current estimates and projections for the IFFP ten year window (2025) and 2040 based on the general plan land use map.

Table 3: Growth 2000 to 2040

	U.S. Census		Projections		
	2000	2010	2015	2025	2040
Population	8,175	15,523	19,223	22,618	24,769
Households	1,804	3,547	4,429	5,597	6,943
Persons per Household	4.53	4.38	4.34	4.04	3.57
Employment	NA			4,420	5,065

Source; U.S. Bureau of the Census, Governor’s Office of Management and Budget, and MAG

Within this ten-year horizon, Highland City is projected to grow by 3,395 people and 1,168 households between 2015 and 2025. This residential growth represents an 18 percent increase in population and a 26 percent increase in households. At the same time, employment is projected to grow by nine percent. The majority of population and household growth is anticipated in two areas of Highland City; along the western boundary, and in the area bordered by S.R. 92, S.R. 74 and 4800 West (see Figures 3 and 4). The highest growth in employment occurs in the center of the city, south of S.R. 92 (see Figure 5).

Figure 3: Projected Population Growth through 2025

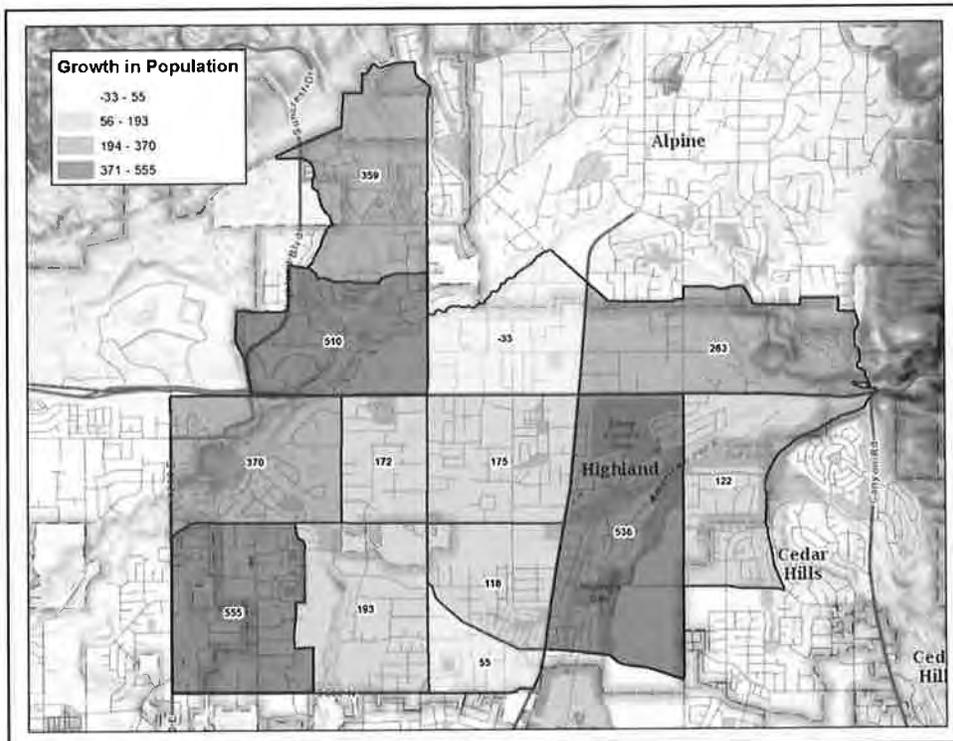


Figure 4: Projected Household Growth through 2025

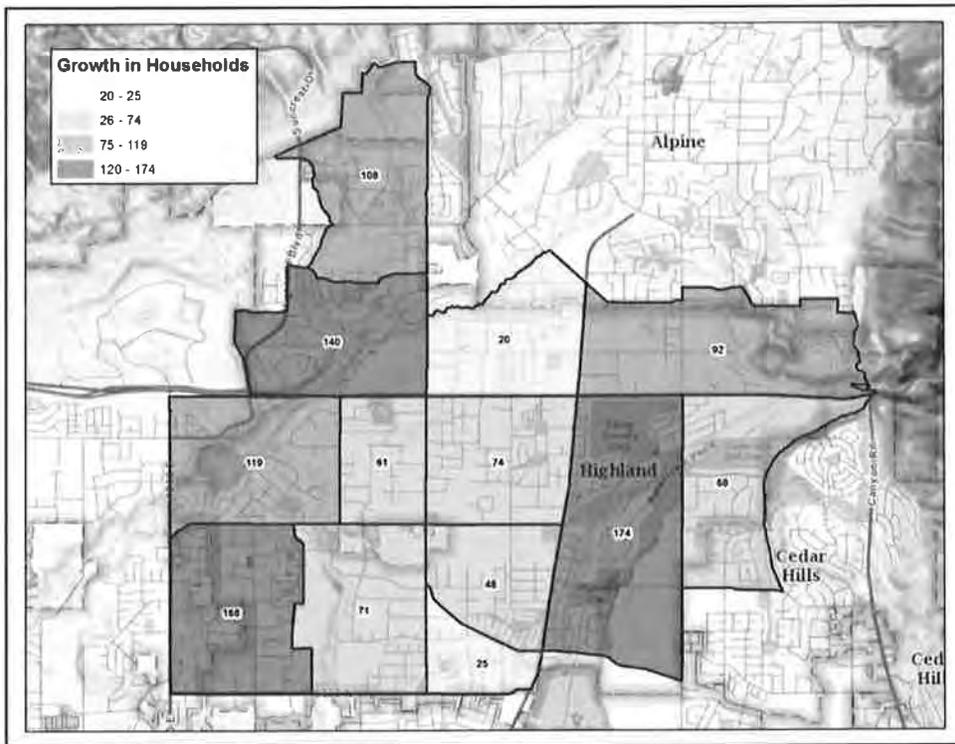
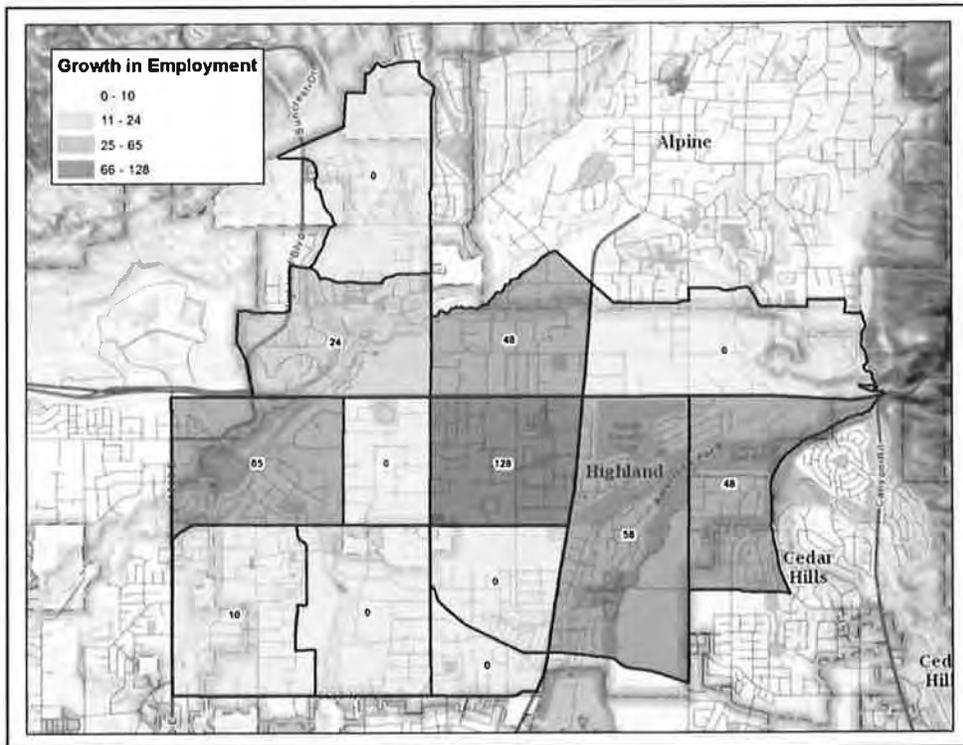


Figure 5: Projected Employment Growth through 2025



Impact of Growth

The travel demand model was also used to estimate the impact of the anticipated 3,395 new residents and 381 new jobs in 2025. InterPlan worked with Highland City staff to develop a capital improvement program represented by a first phase that would encompass the period from 2015 to 2025 and subsequent phases beyond the year 2025, as needed. Traffic volume estimates were developed by road segment. Traffic volumes were estimated based on the existing conditions, modeled conditions in the year 2025 based on planned improvements to be completed by 2025, and modeled conditions in the year 2040 based on planned improvements. The results show a growth of 18,839 total trips between 2015 and 2025 within the TAZs which comprise Highland City. Because the TAZ boundaries do not exactly match the city boundary and covers a slightly larger geographic extent, the 18,839 was reduced to 17,008 for the purposes of calculating the impact fee. This reduction was based on the difference between the TAZ population and the projected GOMB population for Highland City, as well as looking to the development intensity of the areas that were within the TAZ boundaries but outside the city.

Although improvements to the State Highway System are not eligible for impact fees, improvements included in the Mountainland Association of Government's Regional Transportation Plan (2011-2040) were assumed in the modeling, allowing the most accurate representation of future conditions possible with the available information.

- InterPlan and Highland City staff worked to develop capital improvement projects on the road segments that reflect the priorities of the city,
- Will directly benefit expected new development, and
- Relieve capacity deficiencies in the year 2025.

Since it is difficult to balance the IFFP to the precise capacity needed to serve new development in Highland City, a "capacity utilization factor" was estimated based on the net new capacity planned in the IFFP. This capacity utilization factor reflects the equivalent lane miles of needed capacity of the IFFP to balance the capacity needed by new development. This factor is based on forecasted system-wide vehicle miles traveled (VMT), and planned vehicle miles of capacity (VMC).

Table 4: Capacity Utilization Factor Formula

$$\frac{2025 \text{ Total system VMT} / 2025 \text{ Total System VMC}}{2040 \text{ Total system VMT} / 2040 \text{ Total System VMC}} = \text{Capacity Utilization Factor (0.943)}$$

The capacity utilization factor of the IFFP is 0.943, indicating that only 94 percent of the capacity shown in the IFFP may actually be constructed. Since it is cost effective to build complete road segments, as opposed to partial road construction, it is impossible to determine which six percent of road capacity of the IFFP may be deferred until beyond the year 2025, depending on the exact location and magnitude of new growth.

The capacity utilization factor has been proposed by InterPlan in response to the 2011 (and 2013) General Legislative session modifications of the Utah Impact Fees Act. Specifically, the act calls for impact fees to be expended within six years after collection and requires that each IFFP does not raise the level of service of existing residents through impact fees. Since the Act implies that IFFPs and IFAs will be updated every three to six years, the capacity utilization factor allows for an approximate balance of capacity added against the development need. The capacity utilization factor of 0.943 in Highland City indicates that 94 percent of the capacity identified in the IFFP is needed by new development in Highland City and will be fully funded based on anticipated development. The remaining six percent of the capacity proposed in the IFFP will either be built and included in future Impact Fees as Existing Excess Capacity (discussed later in this report) or deferred until future IFFPs. The use of this capacity utilization factor results in a lower impact fee since new development is paying for a fraction, in this case 94 percent, of the development attributable cost of the IFFP.

Section 4: Infrastructure Required to Meet Demands of New Development (11-36A-302.1.A.V)

Ten-Year Improvement Plan

Only infrastructure to be constructed within ten years will be considered in the calculation of impact fees to avoid uncertainty surrounding improvements further into the future. Figure 6 shows the projects that the city plans to construct over the next ten years and are included in the IFFP. Table 5 provides a brief description and the estimated construction cost for the projects shown in Figure 6.

Figure 6: Ten-Year Improvement Plan Map

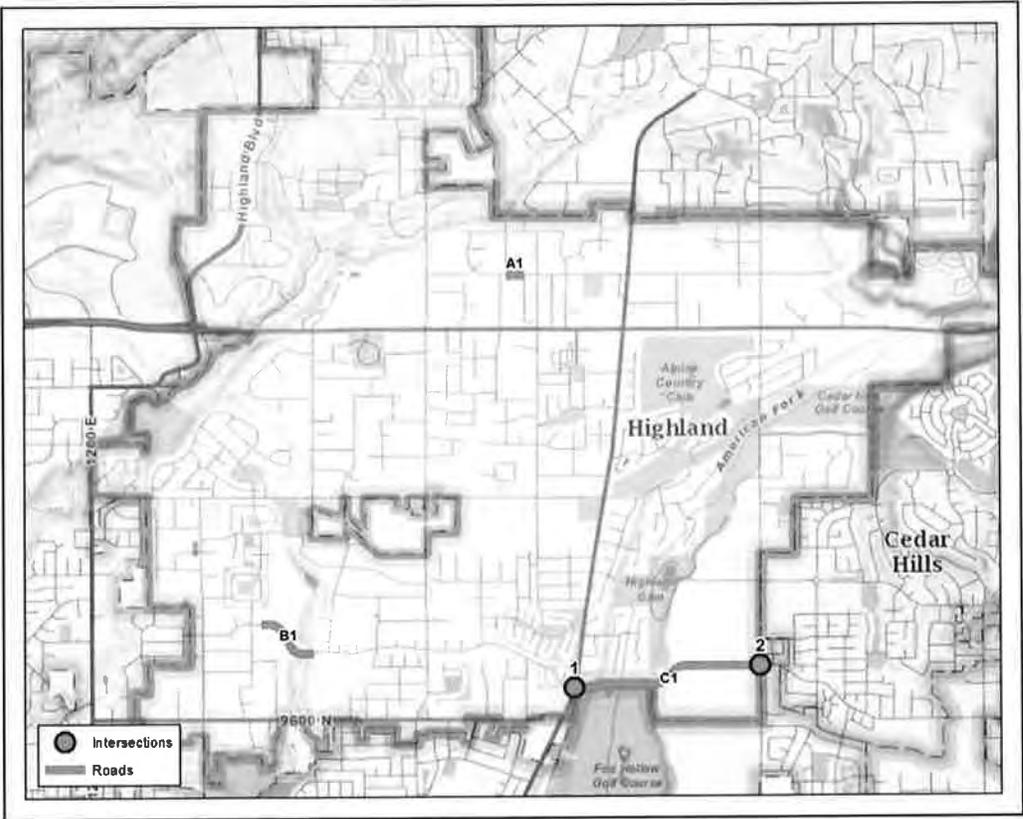


Table 5: Transportation Impact Fee Facilities Plan

Roads					
ID	Street	From	To	Cost Estimate	IFFP Cost
A1	11200 North	5710 West	5650 West	\$324,850	\$319,882
B1	Madison Avenue/9860 North	6600 West	Mountain View Drive	\$1,129,819	\$1,112,543
C1	Murdock Connector	S.R. 74	4800 West	\$8,000,000	\$5,054,283
Total Road Costs				\$9,507,816	\$6,486,708
Intersections					
1	Murdock Connector and S.R. 74			\$300,000	\$150,000
2	Murdock Connector and 4800 West			\$300,000	\$300,000
Total Intersection Costs				\$600,000	\$450,000

Source: InterPlan. See Appendix A for cost estimates

Project Cost Attributable to Future Growth

For all capacity related transportation system improvements, the costs were apportioned based on the relative share of traffic growth amongst the cost to serve through traffic and the cost to serve traffic generated by new development in Highland City directly. In Highland City, there are no existing, major transportation deficiencies. The future 2025 rate of through traffic was estimated for each project based upon traffic model outputs, functional type, and geographic location. The project cost attributable to future growth has been reflected in the total cost available to be recovered through impact fees.

Project Cost Attributable to Ten-Year Growth

The projects that will be constructed within the next ten years will serve development through the year 2040. To estimate the percent of the capital facility projects that future development will use over the next ten years, the "capacity utilization factor" was developed. The capacity utilization factor is based on a comparison of the system-wide use of capacity including the capital improvement projects for road capacity, against the use of capacity in the IFFP. In other words, the capacity utilization factor has the effect of lowering the transportation impact fee to ensure that growth in the next ten years is not disproportionately paying for capacity that future growth may use. At the same time, this factor allows the city to identify a slightly larger subset of capital improvement projects in the IFFP than what would be represented by their full cost estimates.

Section 5: Additional Considerations

Manner of Financing (11-36A-302.2)

The city may fund the infrastructure identified in this IFFP through a combination of different revenue sources.

Federal and State Grants and Donations

Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the city has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given.

Bonds

Construction cost estimates contained in this IFFP do not include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFFP may be added to the calculation of the impact fee. This should be considered in the impact fee analysis.

Interfund Loans

Because infrastructure must generally be built ahead of growth, there often arise situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be borrowing. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Consideration of potential interfund loans will be included in the IFA and should be considered in subsequent accounting of impact fee expenditures.

Impact Fees

It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed LOS and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an IFA will be able to calculate a fair and reasonable fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions

Developer exactions are not the same as grants (which should be credited from the impact fee). Developer exactions may be considered in the inventory of current and future public safety infrastructure. If a developer constructs facility improvements or dedicates land within the development, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication/exaction is less than the development's impact fee liability, the developer will owe 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.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. projects not identified in the IFFP), developers will be responsible for the construction of the improvements without credit against the impact fee.

Necessity of Improvements to Maintain Level of Service (11-36A-302.3)

According to Utah Code, impact fees cannot be used to correct deficiencies in the system and must be necessary to maintain the proposed level of service established for all users. Only those projects or portions of projects that are required to maintain the proposed LOS for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the projects that will benefit existing residents.

Noticing and Adoption Requirements (11-36A-502)

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP, rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least ten days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the city during the ten-day noticing period for public review and inspection. Utah Code requires that the city must post a copy of the ordinance in at least three public places. These places may include the city offices and the public libraries within the city's jurisdiction. Following the ten-day noticing period, a public hearing will be held, after which the city may adopt, amend and adopt, or reject the proposed IFFP.

Section 6: Impact Fee Certification (11-36A-306.1)

This report has been prepared 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(1), InterPlan, certifies that this Impact Fee Facilities Plan (IFFP):

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; and
3. Complies in each and every relevant respect with the Impact Fees Act.

This certification is made with the following caveats:

1. All of the recommendations for implementations of the IFFP made in the IFFP or in the impact fee analysis are followed in their entirety by the city.
2. If all or a portion of the IFFP or impact fee analysis is modified or amended, this certification is no longer valid.
3. All information provided in the preparation of this IFFP is assumed correct, complete, and accurate. This includes information provided by the city and outside sources.

(Vern Keeslar, InterPlan)

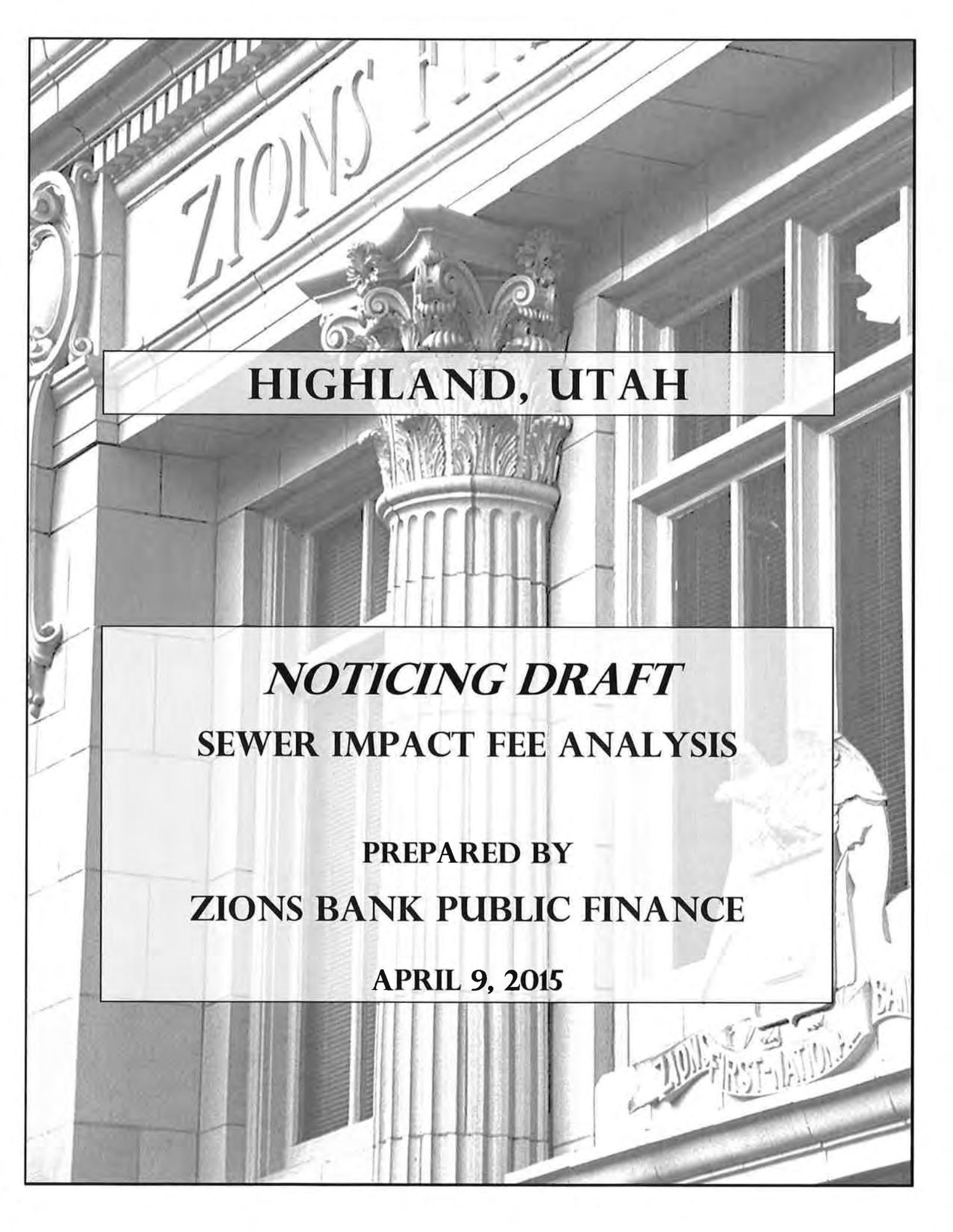


Appendix A: Cost Estimates

66' Minor Collector				
ITEM	COST	UNIT	Quantity	COST
Roadway Excavation (18" depth)	\$0.34	ft ³	42 x 1 x 1.5 = 63 ft ³	\$21.42
Clearing and Grubbing	\$1,036.00	Acres	(66 x 1)/43,560 = 0.0015 ft ²	\$1.55
Subgrade Finishing	\$0.18	ft ²	42 x 1 = 42 ft ²	\$7.56
Untreated Base Course (10" thick)	\$0.79	ft ³	42 x 1 x 0.83 = 34.86 ft ³	\$27.67
Bituminous Surface Course (8" thick)*	\$4.72	ft ³	42 x 1 x 0.67 = 28.14 ft ³	\$132.77
Concrete Curb and Gutter Type B1	\$6.23	ft	2.5 ft	\$15.58
Pavement Marking Paint	\$1.83	ft	2 ft	\$3.66
Parkstrip	\$6.00	ft ²	10 ft	\$60.00
Clearing and Grubbing for Sidewalk	\$0.22	ft ²	10 ft	\$2.20
Excavation	\$0.29	ft ³	10 x 1 x 0.67 = 6.7 ft ³	\$1.92
Concrete Base Course, 4" inch thick.	\$2.06	ft ²	10 ft	\$20.57
8' Concrete Sidewalk, 4" Thick	\$4.47	ft ²	10 ft	\$44.70
			Subtotal	\$339.59
Signage	calculated @ 5% of subtotal			\$16.98
Drainage (Inc. Structures)	calculated @ 15% of subtotal			\$50.94
Environmental & Design	calculated @ 20% of subtotal			\$67.92
			Subtotal	\$475.43
Mobilization and Traffic Control	calculated @ 10% of subtotal			\$47.54
Contingency	calculated @ 20% of subtotal			\$95.09
			Subtotal	\$618.06
Contingency for Price Increases	calculated @ 20% of subtotal			\$123.61
TOTAL COST / FOOT				\$741.67
* Assumes UDOT Bid of \$69.90 per ton and in place density of 135 lbs per ft ³				

Appendix B: Land Use Trip Generation Categories

Land Use	Code	Unit	ITE Trip Generation Rate	Daily Trip Rate (1/2 ITE Rate)	Primary Trips	Daily REU
Residential						
Single-Family	210	Dwelling Unit	9.52	4.76	100%	1.0
Multi-Family	220	Dwelling Unit	6.65	3.33	100%	0.7
Mobile Home	240	Dwelling Unit	4.99	2.50	100%	0.5
Retail / Commercial						
Small Shopping Center (<90,00 sq ft)	820	1000 sq	111.14	55.57	43%	0.3
Large Shopping Center (>90,000 sq ft)	820	1001 sq	46.7	23.35	43%	2.1
Discount Superstore	813	1000 sq	50.75	25.38	48%	2.6
Home Improvement Superstore	862	1000 sq	30.74	15.37	52%	1.7
Convenience Store	851	1000 sq	737.99	369.00	24%	18.6
Convenience Store w/ Gas Pumps	853	1000 sq	845.6	422.80	16%	14.2
Discount Club	857	1000 sq	41.8	20.90	75%	3.3
Drive-In Bank	912	1000 sq	148.15	74.08	27%	4.2
Fast Food Restaurant w/ Drive-Thru	934	1000 sq	496.12	248.06	30%	15.6
Sit-Down Restaurant	932	1000 sq	127.15	63.58	37%	4.9
Multiplex Movie Theater	445	1000 sq	63.0935	31.55	75%	5.0
New Car Sales	841	1000 sq	32.3	16.15	75%	2.5
Hotel / Motel	603	Rooms	8.17	4.09	100%	0.9
Office / Institutional						
General Office	710	1000 sq	11.03	5.52	100%	1.2
Medical Office	720	1000 sq	36.13	18.07	100%	3.8
Hospital	610	1000 sq	13.22	6.61	100%	1.4
Nursing Home	620	1000 sq	7.6	3.80	100%	0.8
Church / Synagogue	560	1000 sq	9.11	4.56	100%	1.0
Day Care Center	565	1000 sq	74.06	37.03	10%	0.8
Elementary School	520	1000 sq	15.43	7.72	50%	0.8
High School	530	1000 sq	12.89	6.45	50%	0.7
Industrial						
General Light Industrial	110	1000 sq	6.97	3.49	100%	0.7
Warehouse	150	1000 sq	3.56	1.78	100%	0.4
Mini-Warehouse	151	1000 sq	2.5	1.25	100%	0.3



HIGHLAND, UTAH

NOTICING DRAFT
SEWER IMPACT FEE ANALYSIS

PREPARED BY
ZIONS BANK PUBLIC FINANCE

APRIL 9, 2015



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EXECUTIVE SUMMARY

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the wastewater collection impact fee. The following pages summarize the document and tables included. The intent is to provide a concise discussion of the calculation and identification of the maximum legal impact fee.

Growth and ERC Projections

Currently the City has a total of 4,198 equivalent residential connections (ERCs). The following table identifies the current and future ERCs in the City. The analysis considers growth over the next ten years. Between now and 2024, ERCs will increase by 1,307 to reach 5,505. The wastewater IFA is separated into two service areas, the Central Service Area and the South East Service Area. The Central Service Area will add 421 ERCs and the South East Service Area is expected to grow by 885 ERCs in the next ten years. The full growth table can be found in Appendix 1 of the document.

FIGURE ES1: ERCs

Wastewater		
	Current	Buildout
Current ERCs ¹	4,198	7,504

¹ HAL 2015 IFFP

Level of Service Definitions

Hansen Allen & Luce defined the City’s level of service in the Impact Fee Facilities Plan. The plans state the following:

	LOS	2014	2024	Build Out 2064
Average Daily Flow	350 gpd/ERC	1.47 MGD	1.93 MGD	2.6 MGD
Peak day Flow	Ave. Day Flow x 2.1517 x ERCs ^{-0.156}			
Maximum Depth Ratio	70% for 15" Pipes, 50% for Pipes smaller than 15"			
Minimum Velocity	2 fps			

PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped and the costs of impacts on system improvements that are reasonably related to the new development activity.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. A City typically funds existing infrastructure through several different funding sources including:

- General Fund Revenues
- User Fees
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

Historically the City has funded its existing wastewater infrastructure through user fees (rate revenues), impact fees and developer exactions and donations. All of these funding sources (with exception of developer contributions/donations) are impact fee qualifying expenses to be considered for buy-in purposes.



Highland City: Wastewater Impact Fee Analysis NOTICING DRAFT

In consideration of future capital improvements, the City will continue using similar funding sources; no grants are being considered or are available at this time. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users.¹

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

The City provided Zions with a list of all City owned assets for the collection system. The historic value of the facilities is \$1,781,444². The assets in the Central Service Area totals \$1,550,206. The South East Service Area assets total \$236,233. Only the original costs of the improvements have been considered. See Appendix 2 for the detailed list of assets for the collection system. An analysis has been completed to identify the capacity to serve new growth. Approximately 29% of the value of the existing assets shall be included as a buy-in component of the impact fee for the Central Service Area and 64% is included in the South East Service Area. This will be discussed in greater detail later in this document and can be found in Appendix 3 of this document.

Future Capital Improvements

Hansen Allen & Luce provided a list of capital projects to be constructed in the next six to ten years. The engineers defined the percent of the project that will benefit growth through the next ten years. The 2014 fiscal year total of capital improvements is \$5,876,176. The Central Service Area projects make up \$3,703,743 of that total and the South East Service Area capital projects total \$2,172,433. The IFFP defines approximately 13% of the cost Central Service Area and 69% of the South East Service Area will be included into the impact fee calculation.

Outstanding and Future Debt

There is no outstanding wastewater related debt in Highland. It is not anticipated that the City will bond for wastewater within the next ten years.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for the Central and South East Service Areas. The fee is calculated per ERC. For non-residential land uses, new connections will pay the fee based on the equivalent residential connections each land use generates.

The treatment component of Highland's wastewater utility is provided by Timpanogos Special Service District (TSSD). The District also assesses an impact fee. The City will collect the fee and remit the District's portion back to TSSD. The District's fee may change and thus, the total has not been identified in this analysis but can be found in the ordinance of the analysis. That way, if TSSD adopts a new fee, the City may update their fee schedule and not be required to update the entire impact fee analysis.

¹ Utah Impact Fees Act, 11-36a-304(2) (c) (d)

² HAL and Highland City

Highland City: Wastewater Impact Fee Analysis NOTICING DRAFT

FIGURE ES2: MAXIMUM LEGAL FEE PER ERC³

CENTRAL SERVICE AREA

Units of Measure	Central Service Area Impact Fee
Per Equivalent Residential Connection	\$ 2,125.98
Per Fixture Units (26 Units per ERC)	81.77
Per Gallon	\$ 6.07

SOUTH EAST SERVICE AREA

Units of Measure	SE Service Area Impact Fee
Per Equivalent Residential Connection	\$ 2,175.14
Per Fixture Units (26 Units per ERC)	83.66
Per Gallon	\$ 6,214.68

FIGURE ES3: NON-STANDARD IMPACT FEE CALCULATION

Wastewater Non-Standard Impact Fee Formula	
Central Service Area	
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of \$6.07	
Southeast Service Area	
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of \$6.21	

³ Plus the TSSD treatment component fee added.

CHAPTER 1: IMPACT FEE OVERVIEW

PROJECT OVERVIEW

Zions Bank Public Finance (Zions) is pleased to provide Highland City (the City) with an update to the wastewater impact fees. Highland realizes that due to the age of its current analysis, as well as changes to the Impact Fees Act, required updates and review of its impact fees as well as its facility planning are needed. The City is still growing rapidly and has many capital needs. The update to the analysis is an intensive collaborative effort that meets the needs of City stakeholders and the City. The information used to create this fee analysis was provided by City staff, Zions Bank Public Finance and Hansen Allen & Luce.

The goal of the impact fee analysis is to calculate the maximum impact fee that may be assessed to new development and ensure the fee meets the requirements of the Impact Fees Act, Utah Code 11-36a-101 *et seq.* The sections and subsections of the Impact Fee Analysis will directly address the following items, required by the code:

- Impact Fee Analysis Requirements (Utah Code 11-36a-304)
 - Identify Existing Capacity to serve growth
 - Proportionate Share Analysis
 - Identify the level of service
 - Identify the impact of future development on existing and future improvements
- Calculated fee (Utah Code 11-36a-305)
- Certification (Utah Code 11-36a-306)

WHY IS THE CITY UPDATING THE EXISTING ANALYSIS?

The City has commissioned this Wastewater Impact Fee Analysis amendment to accomplish the following:

- Determine the maximum impact fee that may be assessed to new development;
- Update capital need projections and account for historic costs of facilities;
- Put the analysis in compliance with the changes to the Impact Fees Act effective May 2011;
- Include an Impact Fee Facilities Plan (IFFP) with a ten year capital planning horizon; and
- More clearly define the current level of service and the future level of service that the City will provide.

WHAT IS 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 wastewater collection facilities with capacity to serve new growth. 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. Impact fees are charged to development according to a number of ERCs generated, which is a realistic measure of the potential wastewater demands that each user will add to the system.

HOW WILL NEW GROWTH AFFECT THE CITY?

According to the current Impact Fee Facilities Plan, the City's existing ERCs total 4,198 and the plan estimates that over the next six to ten years the City will add approximately 1,307 ERCs. When the City is built out, it is anticipated that there will be 7,504 ERCs.

This new growth and increased flows will generally increase wastewater demands as the density of development increases, and extending pipe networks and other facilities as development stretches farther away. In the case of the City, the capacity needed for new growth is found in both existing facilities that the City has built ahead of the growth

Highland City: Wastewater Impact Fee Analysis NOTICING DRAFT

and in the future capital projects that will be constructed in the next ten years. The recommended impact fee will balance the cost of capacity that is already “in the ground” and new projects that are needed to serve the additional anticipated growth.

Population growth is important to Impact Fee Facilities Planning as population, in addition to non-residential demands, drive project needs and timing. However, this analysis is not population dependent as the system is sized for commercial, industrial, institutional, churches, schools, etc. The primary measurement of capacity and demand in a wastewater system is an ERC. The fee is based on capacity available in the existing system and in future projects and is not directly dependent upon population, as non-residential demands have a great impact upon the wastewater system, or upon the growth rate.

FIGURE 1: PROJECTED GROWTH IN POPULATION AND WASTEWATER ERCs

ERC Projections	
2015	4,198
2016	4,329
2017	4,459
2018	4,590
2019	4,721
2020	4,852
2021	4,982
2022	5,113
2023	5,244
2024	5,374
2025	5,505

ERC's Added in Central Service Area	
	421

ERC's Added in South East Service Area	
	885

WHY ARE IMPACT FEES NECESSARY?

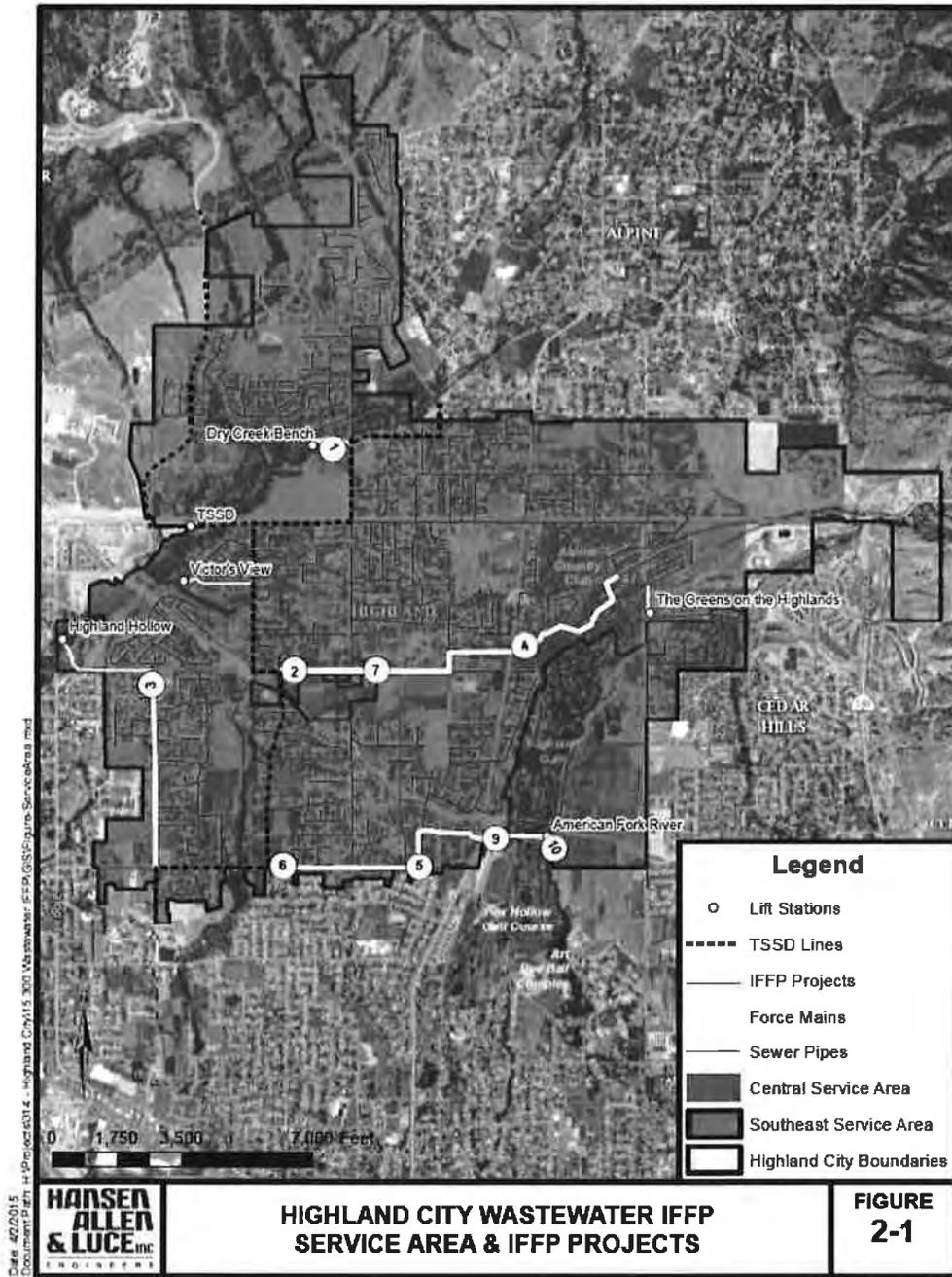
Impact fees are necessary to allocate the costs of unused wastewater system capacity that is reserved for new growth to the developments that will benefit from it. Impact fees help to shield existing users from shouldering the burden of paying not only for the capacity that they use but also from funding the cost of capacity needed for new development to occur.

WHERE WILL THE IMPACT FEES BE ASSESSED?

The impact fees will be assessed within the City's Central and South East Service Areas.. A detailed map of the Service Area included below.

Highland City: Wastewater Impact Fee Analysis NOTICING DRAFT

FIGURE 2: SERVICE AREA MAP



WHAT COSTS ARE INCLUDED IN THE IMPACT FEE?

Impact fee revenues may not be spent on capital projects or associated costs, such as financing interest expenses that constitute repair and replacement, cure any existing deficiencies, or maintain the existing level of service for current users. Impact fees cannot fund operational expenses. The proposed impact fees will be assessed throughout each specific service area, Central and South East.

Highland City: Wastewater Impact Fee Analysis NOTICING DRAFT

The impact fees proposed in this analysis are calculated based upon:

- Costs of replacement facilities that are needed to perpetuate unused capacity in the system that growth will require;
- New capital infrastructure that provides new capacity for growth;
- Historic costs of existing improvements that maintain capacity that will serve new development; and
- Cost of professional services for engineering, planning services and preparation of the Impact Fee Facilities Plan and Impact Fee Analysis.

WHAT COSTS ARE NOT INCLUDED IN THE IMPACT FEE?

The costs, both direct capital and financing, that cannot be included in the impact fee are as follows:

- Projects that cure deficiencies for existing users;
- Projects that increase the level of service above that which is currently provided;
- Operations and maintenance costs;
- Costs of facilities funded by grants or other funds that the City does not have to repay; and
- Costs of reconstruction of facilities that do not have capacity to serve new growth.

HOW ARE IMPACT FEES CALCULATED?

The general impact fee methodology splits the capacity in existing facilities and future capital projects between that which already benefits existing users and capacity that is available to benefit new growth. A cost is assigned to the capacity that is available for new growth based upon the historic cost of water and secondary water facilities and the future costs of wastewater infrastructure. A final fee per residential or non-residential land use is calculated by multiplying the cost per ERC by the number of ERCs that each new unit of development will generate.

WHAT IS THE CURRENT LEVEL OF SERVICE?

The IFFP has defined the current level of service as:

- Wastewater: 350 gallons per Equivalent Residential Connection per day.⁴

However, it must be considered that although this is the average day ERC, the system will be sized to meet peak. The peak day flow calculation and consideration is in the table below.

	LOS	2014	2024	Build Out 2064
Average Daily Flow	350 gpd/ERC	1.47 MGD	1.93 MGD	2.6 MGD
Peak day Flow	Ave. Day Flow x 2.1517 x ERCs ^{-0.156}			
Maximum Depth Ratio	70% for 15" Pipes, 50% for Pipes smaller than 15"			
Minimum Velocity	2 fps			

HOW ARE SCHOOLS CONSIDERED IN THIS ANALYSIS?

The Impact Fees Act exempts schools from paying a parks and recreation impact fee but with proper documentation of the impact that a school could place on the wastewater system, the City can assess an impact fee for schools. The wastewater impact fee analysis quantifies the cost per ERC and also defines the number of ERCs that can be served by each size of wastewater meter that a school could install. The impact that a school will have upon the wastewater system is clearly defined by the size and number of wastewater meters that will be installed.

⁴ HAL Impact Fee Facilities Plan

CHAPTER 2: FUTURE CAPITAL PROJECTS AND LEVEL OF SERVICE

IMPACT FEE ANALYSIS REQUIREMENTS

Growth and ERC Projections

According to the 2010 Census the population at that time was 15,523⁵. Population is important in the Capital Facilities and Impact Fee Facilities planning as population, and other factors, drive project need and timing. However, this Impact Fee Analysis is not population dependent. The driving force is the Equivalent Residential Connection (ERC). The Impact Fee Facilities Plan defines an ERC as 350 gallons per day usage⁶. Currently the City has 4,198 equivalent residential connections. There will be significant growth expected within the City's boundaries and increased demand on the City's collection facilities which will require new projects to meet further demand. The area is growing at a very rapid pace. In the next ten years it is anticipated that the City will grow to 5,505 ERCs (an increase of 1,307 ERCs). The ERCs are displayed below. The ERC growth in the Central Service Area is approximately 422 ERCs and the South East Service Area will grow by 885 ERCs.

FIGURE 3: ERCs

ERCs Added Per Year	
2015	-
2016	131
2017	131
2018	131
2019	131
2020	131
2021	131
2022	131
2023	131
2024	131
2025	131
Total	1,307

Level of Service Definitions

The Impact Fee Facilities Plan has defined the current level of service in Highland as:

- Collection: 350 gallons per day per indoor ERC

Existing Infrastructure and Capacity to Serve New Growth (Buy-In Component)

Appendix 3 provides an expense report for the assets owned and operated by Highland for collection/outfall lines. Included with the assets are the original dates of construction or acquisition and the original cost of the collection component of the wastewater system. An analysis has been completed to identify the capacity to serve new growth.

HAL and the City provided data for the existing system in each service area. The total historic value of the facilities is \$1,781,444⁷. The assets in the Central Service Area totals \$1,545,211. The Southeast Service Area assets total \$236,233. Only the original costs of the improvements have been considered. See Appendix 2 for the detailed list of assets for the collection system. An analysis has been completed to identify the capacity to serve new growth.

⁵ 2010 Census Data

⁶ HAL IFFP

⁷ HAL and Highland City

Highland City: Wastewater Impact Fee Analysis NOTICING DRAFT

Approximately 29% of the value of the existing assets shall be included as a buy-in component of the impact fee for the Central Service Area and 64% is included in the South East Service Area.

Treatment

Timpanogos Special Service District provides the City treatment for the wastewater utility. The District assesses an impact fee for the treatment component of the utility. This fee is collected by Highland and remitted to the District. The current amount charged by TSSD can be found in the impact fee ordinance.

Impact Fee Facilities Plan – Future Capital Projects

The Impact Fee Facilities Plan developed the following capital projects, helped determine the timing and identified what was growth related, and of that amount, how much of the total capacity will be realized in the next ten years (percentage Impact Fee Qualifying & Impact Fee Qualifying Cost).

FIGURE 4: CAPITAL PROJECTS BY SERVICE AREA

Project Name	Year to be Constructed	FY 2015 Cost	Construction Cost	% to 10 Year Growth	Impact Fee Qualifying Cost	Non/Beyond 10 Year Growth Related
Central Service Area						
1 Pipe Replacement	2015	\$ 300,000	\$ 300,000	25%	\$ 75,000	\$ 225,000
2 Pipe Replacement	2015	605,000	605,000	11%	66,550	538,450
3 Pipe Replacement	2016	738,000	763,830	12%	91,660	672,170
4 Pipe Replacement	2020	962,000	1,142,554	11%	125,681	1,016,873
7 Pipe Replacement	2020	1,089,000	1,293,390	12%	155,207	1,138,184
8 Impact Fee Facility Plan and Master Plan Update	2020	9,743	11,572	100%	11,572	-
Central Service Area Cost		3,703,743	4,116,346		525,669	3,590,677
Southeast Service Area						
5 Pipe Replacement	2020	535,000	635,412	69%	438,434	196,978
6 Pipe Replacement	2020	638,000	757,744	58%	439,491	318,252
8 Impact Fee Facility Plan and Master Plan Update	2020	20,433	24,268	100%	24,268	-
9 American Fork Forcemain	2020	224,000	266,042	75%	199,531	66,510
10 American Fork Lift Station	2020	755,000	896,703	75%	672,527	224,176
Southeast Service Area Cost		\$2,172,433	\$ 2,580,169		\$ 1,774,253	\$ 805,916
Highland Total Cost		\$5,876,176	\$ 6,696,515		\$ 2,299,922	\$ 4,396,594

CHAPTER 3: PROPORTIONATE SHARE ANALYSIS

The Impact Fees Act requires that the Impact Fee Analysis estimate the proportionate share of the costs for existing capacity that will be recouped; and the costs of impacts on system improvements that are reasonably related to the new development activity.

Highland continues to grow and there is still expansion in the area. The capital improvement plan clearly defines what projects are growth related, repair and replacement, or pipe upsizing (the upsizing may include some element of growth). The projects are detailed later in the Future Capital Projects section.

Part of the proportionate share analysis is a consideration of the manner of funding existing public facilities. Historically the City has funded existing infrastructure through several different funding sources including:

- User Rates (rate revenues)
- Grants
- Bond Proceeds
- Developer Exactions
- Impact Fees

In order to ensure fairness to existing users, impact fees are an appropriate means of funding future capital infrastructure. Using impact fees places a burden on future users that is equal to the burden that was borne in the past by existing users. (Utah Impact Fees Act, 11-36a-304(2)(c)(d))

Just as existing infrastructure has been funded through different means; it is required by the Impact Fees Act to evaluate all means of funding future capital. There are positives and negative aspects to the various forms of funding. It is important to evaluate each.

User Rates

User rates have both been funded in one form or another by existing users. It would be an additional burden to existing users to use this revenue source to fund future capital to meet the needs of future users. This is not an equitable policy and can place too much stress on the tight budgets of the wastewater operating fund and other user rate funds. The wastewater rates in Highland are dedicated to payments on the public works building, operation and maintenance, repair and replacement and ensuring a stable reserve for maintaining a good credit rating. If rate revenues are required to supplement the capital required by growth, the City will reimburse the user rate fund with impact fees as they are collected and act as a loan to the impact fee fund to be repaid.

Property Taxes

It is true that property taxes may be a stable source of income. However, property taxes are not typically used to fund wastewater infrastructure. Using property taxes to fund future capital again places too much burden on existing users and subsidizes growth. The financial audits for the City do not show a line item for property taxes as a revenue stream for wastewater, thus any property taxes collected on the property being developed is not being used to fund infrastructure or operation and maintenance of the wastewater system.

Impact Fees

Impact fees are a fair and equitable means of providing infrastructure for future development. They provide a rational nexus between the costs borne in the past and the costs required in the future. The Impact Fees Act ensures that future development is not paying any more than what future growth will demand. Existing users and future users receive equal treatment; therefore, impact fees are the optimal funding mechanism for future growth related capital needs.

Highland City: Wastewater Collection Impact Fee Analysis

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 that developer is entitled to a credit against impact fees owed. (Utah Impact Fees Act, 11-36a-304(2)(f))

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 2013 will be calculated at a future value with a 2.43% inflation rate. 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.

Other

In this particular analysis, there is also a credit for unspent impact fee revenues collected in the past. The current impact fee fund balance for wastewater was credited against the fee.

CALCULATED FEE

The impact fees have been calculated with all the above considerations for the Central and South East Service Areas. The fee is calculated per a single ERC. The fees per ERC can be found in Figure 6. These tables can also be found in Appendix 4.

FIGURE 5: BASE FEE PER ERC

CENTRAL SERVICE AREA	
Units of Measure	Central Service Area Impact Fee
Per Equivalent Residential Connection	\$ 2,125.98
Per Fixture Units (26 Units per ERC)	81.77
Per Gallon	\$ 6.07

SOUTH EAST SERVICE AREA	
Units of Measure	SE Service Area Impact Fee
Per Equivalent Residential Connection	\$ 2,175.14
Per Fixture Units (26 Units per ERC)	83.66
Per Gallon	\$ 6,214.68

The Highland City Council has the discretion to set the actual impact fees to be assessed, but they may not exceed the maximum allowable fees calculated. The City may, on a case by case basis, work directly with a developer to adjust the standard impact fee to respond to unusual circumstances and ensure that impact fees are imposed fairly. This adjusted impact fee calculation will be based on the cost per unit defined above, multiplied by the number of units created by the applicable development type.



Highland City: Wastewater Collection Impact Fee Analysis

FIGURE 6: NON-STANDARD IMPACT FEE CALCULATION

Wastewater Non-Standard Impact Fee Formula	
Central Service Area	
	Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of \$6.07
Southeast Service Area	
	Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of \$6.21



CHAPTER 4: CERTIFICATION AND APPENDICES

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

I certify 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 Bank Public Finance makes this certification with the following caveats:

1. All of the recommendations for implementations of the Impact Fee Facilities Plans ("IFFPs") made in the IFFP documents or in the impact fee analysis documents are followed in their entirety by Highland staff and elected officials.
2. If all or a portion of the IFFPs or impact fee analyses are modified or amended, this certification is no longer valid.
3. All information provided to Zions Bank Public Finance, its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by Highland and outside sources. Copies of letters requesting data are included as appendices to the IFFPs and the impact fee analysis.

Dated: April 9, 2015

ZIONS BANK PUBLIC FINANCE

By Zions Bank Public Finance



APPENDICES

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

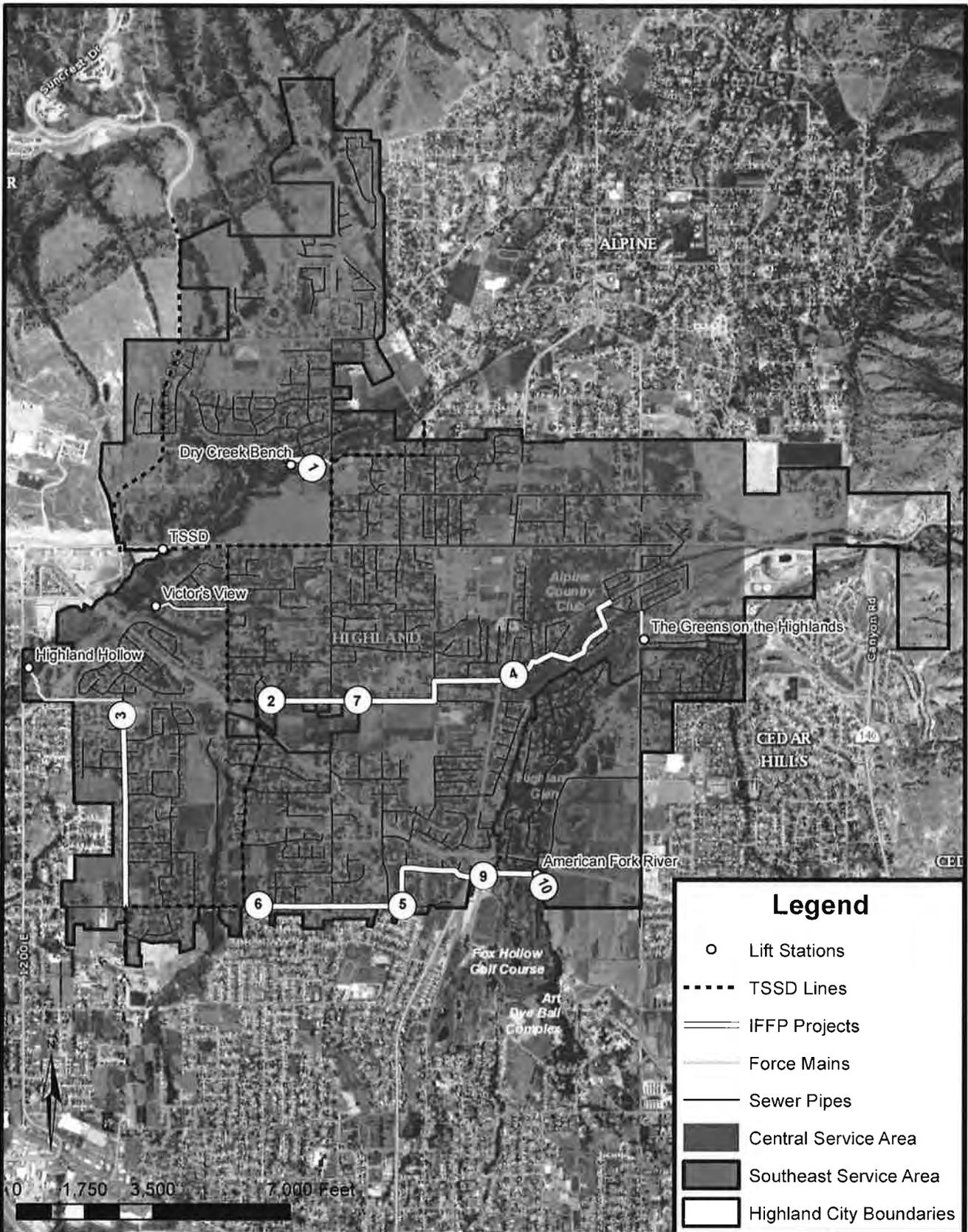
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Highland City: Wastewater Collection Impact Fee Analysis

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HIGHLAND CITY WASTEWATER IFFP SERVICE AREA & IFFP PROJECTS

**FIGURE
2-1**

Appendix 1:
CURRENT AND FUTURE ERCs

Wastewater	
Current	Buildout
Current ERCs ¹	7,504

¹ HAL 2015 IFFP

ERC Projections	
2015	4,198
2016	4,329
2017	4,459
2018	4,590
2019	4,721
2020	4,852
2021	4,982
2022	5,113
2023	5,244
2024	5,374
2025	5,505

ERCs Added in Central Service Area	422
ERCs Added in South East Service Area	885



Appendix 2:
 CAPITAL PROJECTS - IMPACT FEE FACILITIES PLAN
 Inflation Rate*
 3.5%
 Collection

Project Name	Year to be Constructed	FY 2015 Cost	Construction Cost	% to 10 Year Growth	Impact Fee Qualifying Cost	Non/Beyond 10 Year Growth Related
Central Service Area						
1 Pipe Replacement	2015	\$ 300,000	\$ 300,000	25%	\$ 75,000	\$ 225,000
2 Pipe Replacement	2015	605,000	605,000	11%	66,550	538,450
3 Pipe Replacement	2016	738,000	763,830	12%	91,660	672,170
4 Pipe Replacement	2020	962,000	1,142,554	11%	125,681	1,016,873
7 Pipe Replacement	2020	1,089,000	1,293,390	12%	155,207	1,138,184
8 Impact Fee Facility Plan and Master Plan Update	2020	9,743	11,572	100%	11,572	-
Central Service Area Cost		\$ 3,703,743	\$ 4,116,346		\$ 525,669	\$ 3,590,677
South East Service Area						
5 Pipe Replacement	2020	\$ 535,000	\$ 635,412	69%	\$ 438,434	\$ 196,978
6 Pipe Replacement	2020	638,000	757,744	58%	439,491	318,252
8 Impact Fee Facility Plan and Master Plan Update	2020	20,433	24,268	100%	24,268	-
9 American Fork Foremain	2020	224,000	266,042	75%	199,531	66,510
10 American Fork Lift Station	2020	755,000	896,703	75%	672,527	224,176
South East Service Area Cost		\$ 2,172,433	\$ 2,580,169		\$ 1,774,253	\$ 805,916
Highland Total Cost		\$ 5,876,176	\$ 6,696,515		\$ 2,299,922	\$ 4,396,594



Appendix 3:
ASSETS
Collector Lines

Date Acquired	Description	Original Cost	% 10 yr Growth	Impact Fee Qualifying
Central Service Area				
1987	Project 9	4,995	16%	774
1997	L-11 Area	56,236	21%	11,891
1997	L-13 Area	52,570	20%	10,646
1997	L-13 Area	79,029	20%	16,004
1997	L-13 Area	11,744	20%	2,378
1997	L-13 Area	60,291	20%	12,209
1989	L-16 Area	104,312	13%	13,740
1997	L-16 Area	47,188	13%	6,216
1997	L-16 Area	21,603	13%	2,846
1997	L-16 Area	62,741	13%	8,264
1997	L-16 Area	10,778	13%	1,420
1997	L-19 Area	91,750	8%	6,931
1997	L-19 Area	31,263	8%	2,362
1997	L-19 Area	87,472	8%	6,608
1997	L-19 Area	30,875	8%	2,332
1997	L-19 Area	17,413	8%	1,315
1997	L-6 Area	53,951	17%	9,215
1997	L-6 Area	34,445	17%	5,883
1997	L-6 Area	4,704	17%	803
1997	Project 6	106,024	66%	69,574
1997	Project 6	41,626	66%	27,315
1997	Project 6	3,913	66%	2,568
1997	Project 6	15,609	66%	10,243
1997	Project 6	16,840	66%	11,050
1997	Project 6	10,128	66%	6,646
1997	Project 6	114,055	66%	74,845
1996	Project 6	45,108	66%	29,600
1997	Project 6	69,849	66%	45,836
1997	Project 6	12,167	66%	7,984
1987	Project 9	111,330	16%	17,261
1987	Project 9	32,320	16%	5,011
1987	Project 9	13,454	16%	2,086
1987	Project 9	32,913	16%	5,103
1987	Project 9	22,215	16%	3,444
1987	Project 9	39,295	16%	6,093
Central Service Area Subtotal		\$ 1,550,206		\$ 446,496
South East Service Area				
2007	American Fork River	220,214	67%	147,403
1997	American Fork River	16,019	21%	3,341
South East Service Area Subtotal		\$ 236,233		\$ 150,744
Total		\$ 1,786,439		\$ 597,240



Appendix 4:
 BASE FEE PER ERC
 Highland Impact Fee

Central Service Area	Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Collection Impact Fee					
IFFP Projects	\$ 4,116,346	13%	\$ 525,669	422	\$ 1,246
Buy In - Existing Assets	1,550,206	29%	446,496	422	1,058
Impact Fee Fund Balance*	(300,000)	25%	(75,000)	422	(178)
Subtotal	5,366,552	17%	897,165		2,126
Total Impact Fee Per ERC					\$ 2,126

*Funds already in balance to pay for Project 1 Pipe Replacement

Units of Measure	Central Service Area Impact Fee
Per Equivalent Residential Connection	\$ 2,125.98
Per Fixture Units (26 Units per ERC)	81.77
Per Gallon	\$ 6.07

South East Service Area	Cost	% Impact Fee Qualifying	Impact Fee Qualifying Cost	ERCs to be Served	Cost per ERC
Collection Impact Fee					
IFFP Projects	\$ 2,580,169	69%	\$ 1,774,253	885	\$ 2,005
Buy In - Existing Assets	236,233	64%	150,744	885	170
Subtotal	2,816,402	68%	1,924,997		2,175
Total Impact Fee Per ERC					\$ 2,175

Units of Measure	SE Service Area Impact Fee
Per Equivalent Residential Connection	\$ 2,175.14
Per Fixture Units (26 Units per ERC)	83.66
Per Gallon	\$ 6,214.68

Wastewater Non-Standard Impact Fee Formula
Central Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of \$6.07
South East Service Area
Multiply Average Day Flow (Gallons) by Impact Fee per Gallon of \$6.21

WASTEWATER IMPACT FEE FACILITY PLAN SUMMARY

The purpose of the Wastewater Impact Fee Facilities Plan (“IFFP”) –, with supporting Impact Fee Analysis (“IFA”), is to fulfill the requirements established in Utah Code Title 11 Chapter 36a, the “Impact Fees Act,” and assist Highland City (the “City”) to plan necessary capital improvements for future growth. The IFFP addresses only the future Wastewater infrastructure needed to serve the City through the next ten years, and to maintain the existing level of service (“LOS”) with the added demands of new development.

The Plans summarize the following:

- Identify the LOS for the Wastewater system
- Demands placed upon the existing Wastewater facilities by new development
- The proposed facilities by which the City will meet these demands

The following summarizes the plan:

Existing System and Level of Service

The existing Wastewater System is comprised of a pipe network and lift stations. Timpanogos Special Service District (TSSD) provides for treatment of the wastewater and also implements their own treatment impact fees separate from the City.

The existing LOS for the Wastewater system was determined during the Master Planning process developed in 2007. The LOS was established as 350 gallons per day per equivalent residential connection (ERC).

An existing system analysis was performed using the LOS demands to identify remaining capacity in the system. A number of the pipes in the system and lift stations were found to have additional capacity for future growth.

Facilities Required For New Growth

Future demands on the system were based on the growth projections. A new lift station and pipelines were identified for the undeveloped State Developmental Center properties. Other pipe replacement projects were identified to meet new growth throughout the City.

The City was divided into two service zones as shown in Figure 2-1 of the IFFP. The Central area provides for the majority of the City. The Southeast area provides for the undeveloped Utah State Developmental Center properties along with other eastern portions of the City that would utilize the American Fork River lift station.

The IFFP included only projects that are required for new development over the next 10 years. Those projects are listed below. The total amount for wastewater impact fee facilities listed in Table S-1 is \$5,876,176 in 2015 dollars.

TABLE S-1: IMPACT FEE FACILITIES FOR UPCOMING 10-YEARS

ID	Project Description	Service Area	2015 ERCs	2024 ERCs	Build Out 2064 ERCs
1	12" Pipe Replacement (MP#1)	Central	471	784	1,262
2	12" Pipe Replacement (MP#2)	Central	1023	1,173	1,402
3	12" Pipe Replacement (MP#3)	Central	541	630	765
4	12" Pipe Replacement (MP#4)	Central	614	711	859
5	15" Pipe Replacement	Southeast	368	1,276	1,311
6	15" Pipe Replacement	Southeast	570	1,535	1,658
7	12" Pipe Replacement (MP#7)	Central	844	988	1,209
8	Impact Fee Facility Plan and Master Plan Update	Central and Southeast	4,198	5,505	7,504
9	12" Forcemain Replacement	Southeast	295	1,180	1,180
10	New American Fork Lift Station with 1,200 gpm capacity	Southeast	295	1,180	1,180



WASTEWATER IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.300)

April 2015

HIGHLAND CITY
WASTEWATER
IMPACT FEE FACILITY PLAN

(HAL Project No.: 314.15.300)

DRAFT

Tavis B. Timothy, P.E.
Project Engineer

HANSEN
ALLEN
& LUCE^{inc}
ENGINEERS

January 2015

CERTIFICATION OF IMPACT FEE FACILITY PLAN

I certify that, to the best of my knowledge, the attached impact fee facilities plan:

1. includes only the costs 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. costs for 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; and
3. complies in each and every relevant respect with the Impact Fees Act.

Prepared by: _____

Tavis B. Timothy, P.E.

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CHAPTER 1 – EXECUTIVE SUMMARY

PURPOSE AND BACKGROUND

The purpose of this Impact Fee Facility Plan (IFFP) is to provide direction to Highland City regarding the impact of future growth on the wastewater system within the next ten years.

Highland City was incorporated in 1977 with one of the purposes of incorporation being “To provide for and assure adequate sewage disposal is available for future use” (LeBaron & Luntz, 2007). Highland City provides wastewater collection services for the residents of the City. Wastewater collected by the City is conveyed to pipes owned and managed by the Timpanogos Special Service District (TSSD). TSSD also implements impact fees to pay for future facilities separate from those fees collected by the City.

EXECUTIVE SUMMARY

Data from the City’s 2007 Wastewater Collection System Master Plan and additional data provided by the City provide the basis for the IFFP. Growth projections were taken from the Governor’s Office of Management and Budget (GOPB, 2012). The IFFP considers growth over the next ten years (2024) and does not include the facilities required for growth beyond 2024.

During the preparation of the IFFP, existing and proposed levels of service were evaluated for collection of the waste water collection system. In each case, it was determined that the proposed level of service should be the same as existing level of service. The average flow level of service was 350 gpd/ERC.

Existing excess capacity was also reviewed so that costs incurred to create the existing system could be factored into the impact fees. The computer model was utilized to assess the capacity of the pipelines and pump stations. Costs for remaining capacity in existing pipelines and pump stations constructed by the City were utilized in the Impact Fee Analysis.

The impact fee facilities projects were grouped into collection system and pump station facility classifications. The capacity of each project was provided in ERCs.

Impact Fees for the wastewater system will be split between the Central Service area of Highland and the Southeast Service area. The identified projects for the collection system and pumping facilities provide a total cost of \$5,684,752. The ten year growth component total cost for the projects is \$1,949,280.

CHAPTER 2 – IMPACT FEE FACILITY PLAN

EXISTING SYSTEM DESCRIPTION

Highland City provides wastewater collection services to approximately 8.6 square miles and approximately 17,090 residents in northeastern Utah County, Utah. The wastewater collection system contains over 60 miles of wastewater pipe ranging between 8 and 12 inches in diameter, and over 1,500 manholes. Highland City has 5 wastewater pumping stations that help convey all the wastewater collected by the system to the Timpanogos Special Service District (TSSD) trunk lines and to the TSSD treatment plant.

Hansen, Allen, & Luce Inc. completed a Wastewater Collection System Master Plan for Highland City in 2007. Information from the master plan was used in conjunction with data from Highland City to create this impact fee facility plan.

GROWTH

Growth rates were taken from the Governor's Office of Management and Budget (GOPB, 2012) for Highland City. The current population, of approximately 17,090, was estimated using 2014 building permit information, the vacancy rate, and the average household size as provided by Highland City. Growth projections were developed using the 2014 population estimate from the City, growth projections from the Utah State Developmental Center Properties Master Plan (USDC, 2013), and the growth rates from the Governor's Office of Management and Budget. It was assumed that the Equivalent Residential Connections (ERCs) for the Central service area will grow at the same rate as the general population. Non-residential connections were included in the estimate using non-residential square footage provided by the City, with 10,000 square feet of non-residential building being equal to one ERC. Table 2-1 shows the growth projections for Highland City. This IFFP accounts for growth over the next ten years (2024). Growth beyond 2024 is considered part of the build-out growth. Growth for the Central Service Area is anticipated to grow by 422 ERCs by 2024. It is estimated that for the Southeast Service Area (Utah State Developmental Center) buildout will be by 2024 with anticipated growth equaling 885 ERCs.

**Table 2-1
Growth Projection**

Year	ERCs
2010	3,812
2015	4,198
2024	5,505
2064 (Build-out)	7,504

LEVEL OF SERVICE

The level of service is the “defined performance standard or unit of demand for each capital component of a public facility within a service area” according to the Utah Impact Fees Act (Utah Division of Administrative Rules, 2011). The Highland City Wastewater Collection System was split into two service areas to reflect growth expected over the majority of the City (Central Service Area) and to account for an area in the southeast part of the City expected to see

significant development (Southeast Service Area). The two service areas can be seen on Figure 2-1.

Most individual features of a wastewater collection system only have a direct effect on a limited area. For example a pump station generally benefits connections that flow to the pump station. However, it is assumed that the overall system benefits the entire City to collect and convey wastewater.

Highland City's wastewater system is comprised of only the collection of wastewater flows. The existing and proposed levels of service for the wastewater system were determined. Generally, the existing level of service matches the proposed level of service. Impact fees may not be used to pay for any services above the existing level of service.

The level of service was based on the Wastewater Collection System Master Plan (Hansen, Allen, & Luce, Inc., 2007). Although the master plan was completed in 2007, the existing level of service does not appear to have changed significantly since the master plan was completed.

Collection

The collection system relies on pump stations and sewer piping to convey all the wastewater generated in the system to TSSD facilities. The level of service based on the actual average flow data, as reported in the Master Plan, is 350 gallons per day (gpd) per ERC (Equivalent Residential Connection). It is proposed that the level of service for future connections be equal to the existing **average flow level of service of 350 gpd per ERC**.

Flows were metered at 6 different locations for the Master Plan. The metered flow was used to determine the peaking factor at each location and to create an equation to estimate the peaking factor based on the number of ERCs tributary to the location. The equation to estimate peaking in the system is:

$$Peaking\ Factor = 2.1517 * \left(ERCs * \frac{350}{1,000,000} \right)^{-0.156}$$

For comparison, the State of Utah Administrative Code requires new sewer systems be designed on the basis of an annual average daily rate of flow of 100 gallons per capita per day unless other data are available. The per capita flow rate includes infiltration and inflow. Using 4.37 persons per household, would have required an average day flow of 437 gpd/ERC if reliable data had not been available from the City. The State of Utah Administrative Code requires a design flow of 400 gallons per capita per day for lateral and collector sewers or a peaking factor of 4. A design flow of 250 gallons per capita per day is required for interceptor and outfall sewers or a peaking factor of 2.5. This would have required a peak flow of 1,748 gpd per ERC for collector sewers and 1092 gpd per ERC for the interceptor sewer.

The capacity of a wastewater pipe network is determined by the depth ratio in each pipe (depth of flow divided by diameter of pipe). Because pressurized gravity flow in wastewater systems is highly undesirable, Highland City determined that a depth ratio of 70% for their sewers 15 inches in diameter and larger is acceptable and a depth ratio of 50% for all pipes less than 15 inches in diameter is acceptable. These depth ratios are considered the level of service for the pipe network.

In order to prevent settling of solids, Highland City has also determined that in accordance with state law no pipe should be designed to carry loads with velocities less than 2 feet per second.

Summary

Table 2-2 provides a summary of the proposed level of service for existing and future ERCs.

**Table 2-2
Level of Service Summary**

	LOS	2014	2024	Build Out (2064)
Average Day Flow	350 gpd/ERC	1.47 MGD	1.93 MGD	2.6 MGD
Peak Day Flow	$\text{Ave. Day Flow} \times 2.1517 \times (\text{ERCs} \times 350 / 1,000,000)^{-0.156}$			
Maximum Depth Ratio	70% for 15+” pipes, 50% for pipes smaller than 15”			
Minimum Velocity	2 fps			

EXCESS CAPACITY

The 2007 Wastewater Collection System Master Plan evaluated the capacity of the existing wastewater collection system using SewerCAD software. The model utilized criteria identical to the level of service listed in Table 2-1. Individual capacities of pipes and pump stations were determined and projects were recommended based on build-out loading. Two areas were recently modeled to reflect recent growth projections in the northwest and southeast areas of the City. The individual capacities were updated with growth projections collected for this IFFP.

The capacity of the existing system was compared to the loading of the existing system based on the level of service summarized above. In cases where the existing system’s capacity is capable of handling future connections, costs incurred to create the existing system can be factored into the impact fees. In cases where the existing system does not have excess capacity, only costs for the future projects can be included in the impact fees.

Specific projects recommended in the Master Plan and planned for the next ten years were analyzed to determine how much of the future project will be utilized by existing connections versus future connections. The existing vs future utilization was determined by the loading of existing and build-out conditions in the model.

The majority of the pump stations in the system were determined to have excess capacity. The Master Plan analyzed average flow rates to each pump station and compared the flows to the peak flow rates. The build out peak flow rate was then compared to the pump station capacity. Table 2-3 shows the pump station capacities, excess capacity, and the contributions of flow from existing ERCs, future ERCs over the next 10 years, and ERCs beyond 2024. However, only the American Fork River and Dry Creek Bench Pump Stations were constructed by the City.

**Table 2-3
Pump Station Capacity**

Pump Station	Capacity	Build Out Peak Flow	Existing 2015		10-yr Growth		Growth Beyond 2024	
			ERC	%	ERC	%	ERC	%
Highland Hollow	225 gpm	175 gpm	235	66%	29	8%	91	26%
American Fork River	300 gpm	1,200 gpm	295	25%	885	75%	0	0%
The Greens on the Highlands	205 gpm	35 gpm	39	47%	11	13%	34	40%
Dry Creek Bench	850 gpm	850 gpm	578	46%	167	13%	517	41%
Victor's View	200 gpm	100 gpm	68	65%	9	8%	27	26%

FUTURE FACILITIES

Data for the proposed wastewater system projects and their associated costs were provided in the 2007 Master Plan. Highland City determined which projects they anticipate completing or starting before 2024. Additional projects were added based on altered growth projections in the southeast area due to the Utah State Developmental Center properties.

Many future projects will benefit existing residents. Therefore costs for each project were split into the ratio between existing and future ERCs. This method avoids burdening future connections with the entire cost of projects that will also benefit existing connections.

The projects required for future growth are listed in Table 2-4, with the Master Plan ID in parenthesis.

**Table 2-4
Future Facility Projects**

ID	Project Description	Service Area	2015 ERCs	2024 ERCs	Build Out 2064 ERCs
1	12" Pipe Replacement (MP#1)	Central	471	784	1,262
2	12" Pipe Replacement (MP#2)	Central	1023	1,173	1,402
3	12" Pipe Replacement (MP#3)	Central	541	630	765
4	12" Pipe Replacement (MP#4)	Central	614	711	859
5	15" Pipe Replacement	Southeast	368	1,276	1,311
6	15" Pipe Replacement	Southeast	570	1,535	1,658
7	12" Pipe Replacement (MP#7)	Central	844	988	1,209
8	Impact Fee Facility Plan and Master Plan Update	Central and Southeast	4,198	5,505	7,504
9	12" Forcemain Replacement	Southeast	295	1,180	1,180
10	New American Fork Lift Station with 1,200 gpm capacity	Southeast	295	1,180	1,180

IMPACT FEE FACILITY PLAN

Impact Fees for the Highland Wastewater Collection System will be split into the two service areas mentioned earlier. Table 2-5 contains the Highland Impact Fee Facility Plan for each service area. The projects in the IFFP can also be seen on Figure 2-1.

**Table 2-5
Impact Fee Facility Plan**

ID	Anticipated Year	Project Cost	ERC Utilization			Cost due to 10 yr Growth
			Existing	2015 - 2024	2024 - 2064	
<i>Central Service Area</i>						
1	Year 1	\$300,000	37%	25%	38%	\$74,389
2	Year 2	\$605,000	73%	11%	16%	\$64,718
3	Year 3	\$738,000 ¹	71%	12%	18%	\$85,446
4	Year 6-10	\$962,000	71%	11%	17%	\$108,660
7	Year 6-10	\$1,089,000	70%	12%	18%	\$130,155
8	Year 1-5	\$9,743 ²	0%	100%	0%	\$9,743
Central Area Cost		\$3,703,743	Central Area 10 yr Growth Cost			\$473,112
<i>Southeast Service Area</i>						
5	Year 6-10	\$535,000	28%	69%	3%	\$370,434
6	Year 6-10	\$638,000	34%	58%	7%	\$371,345
8	Year 1-5	\$20,433 ²	0%	100%	0%	\$20,433
9	Year 6-10	\$224,000	25%	75%	0%	\$167,933
10	Year 6-10	\$755,000	25%	75%	0%	\$566,024
Southeast Area Cost		\$2,172,433	Southeast Area 10 yr Growth Cost			\$1,496,168
Highland Total Cost		\$5,876,176	Highland Total 10 yr Growth Cost			\$1,969,280

¹Project 3 is expected to only be 50% completed over the next 10 years. Displayed cost is 50% of the projects total.

²Project 8 is proportional for each Area based on ERCs.

REVENUE OPTIONS

Revenue options for the recommended projects, in addition to use fees, could include the following options: general obligation bonds, revenue bonds, State/Federal grants and loans, and impact fees. In reality, the City may need to consider a combination of these funding options. The following discussion describes each of these options.

General Obligation Bonds through Property Taxes

This form of debt enables the City to issue general obligation bonds for capital improvements and replacement. General Obligation (G.O.) Bonds would be used for items not typically financed through the Water Revenue Bonds (for example, the purchase of water source to ensure a sufficient water supply for the City in the future). G.O. bonds are debt instruments backed by the full faith and credit of the City which would be secured by an unconditional pledge of the City to levy assessments, charges or ad valorem taxes necessary to retire the bonds. G.O. bonds are the lowest-cost form of debt financing available to local governments and can be combined with other revenue sources such as specific fees, or special assessment charges to form a dual security through the City's revenue generating authority. These bonds are supported by the City as a whole, so the amount of debt issued for the water system is limited to

a fixed percentage of the real market value for taxable property within the City. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

Revenue Bonds

This form of debt financing is also available to the City for utility related capital improvements. Unlike G.O. bonds, revenue bonds are not backed by the City as a whole, but constitute a lien against the water service charge revenues of a Water Utility. Revenue bonds present a greater risk to the investor than do G.O. bonds, since repayment of debt depends on an adequate revenue stream, legally defensible rate structure /and sound fiscal management by the issuing jurisdiction. Due to this increased risk, revenue bonds generally require a higher interest rate than G.O. bonds, although currently interest rates are at historic lows. This type of debt also has very specific coverage requirements in the form of a reserve fund specifying an amount, usually expressed in terms of average or maximum debt service due in any future year. This debt service is required to be held as a cash reserve for annual debt service payment to the benefit of bondholders. Typically, voter approval is not required when issuing revenue bonds. For growth related projects this type of revenue places an unfair burden on existing residents as they had previously paid for their level of service.

State/Federal Grants and Loans

Historically, both local and county governments have experienced significant infrastructure funding support from state and federal government agencies in the form of block grants, direct grants in aid, interagency loans, and general revenue sharing. Federal expenditure pressures and virtual elimination of federal revenue sharing dollars are clear indicators that local government may be left to its own devices regarding infrastructure finance in general. However, state/federal grants and loans should be further investigated as a possible funding source for needed water system improvements.

It is also important to assess likely trends regarding federal / state assistance in infrastructure financing. Future trends indicate that grants will be replaced by loans through a public works revolving fund. Local governments can expect to access these revolving funds or public works trust funds by demonstrating both the need for and the ability to repay the borrowed monies, with interest. As with the revenue bonds discussed earlier, the ability of infrastructure programs to wisely manage their own finances will be a key element in evaluating whether many secondary funding sources, such as federal/state loans, will be available to the City.

Impact Fees

An impact fee is a one-time charge to a new development for the purpose of raising funds for the construction of improvements required by the new growth and to maintain the current level of service. Impact fees in Utah are regulated by the Impact Fee Statute and substantial case law. Impact fees are a form of a development exaction that requires a fee to offset the burdens created by the development on existing municipal services. Funding the future improvements required by growth through impact fees does not place the burden on existing residents to provide funding of these new improvements.

User Fees

Similar to property taxes on existing residents, User Fees to pay for improvements related to new growth related projects places an unfair burden on existing residents as they had previously paid for their level of service.

DRAFT

REFERENCES

- Governor's Office of Management & Budget (GOMB). 2012. *2012 Baseline Projections – Sub County Population Projections*. 17 July 2014 <<http://gomb.utah.gov/budget-policy/demographic-economic-analysis/>>.
- Highland City. 2014. *Highland City*. 17 June 2014. <<http://www.highlandcity.org>>
- Hansen, Allen, & Luce, Inc. 2006. *Highland City Wastewater Collection System Master Plan*. Midvale, UT: Hansen, Allen, & Luce, Inc.
- Lebaron, Donald and Elisabeth Luntz. 2007. *Incorporation of the Town of Highland*. 9 July 2014 <<http://www.highlandcity.org/documentcenter/view/1079>>.
- Timpanogos Special Service District (TSSD). 2014. *Public Notice*. 9 July 2014 <<http://timpanogosspecialservicedistrict.com/>>.
- Utah Division of Administrative Rules. 2011. *Utah Administrative Code, Title 11 36a Impact Fees Act*. The Department of Administrative Services.
- Utah State Developmental Center (USDC). 2013. *Properties Master Plan in Utah County*. American Fork, UT: Utah State Developmental Center.



CITY COUNCIL AGENDA REPORT

Item #6

DATE: April 21, 2015

TO: Honorable Mayor and Members of the City Council

FROM: Nathan Crane, AICP
Community Development Director

SUBJECT: REVIEW THE ROAD REPAIR COST PROJECTION FOR ROADS WITH PCI VALUE OF D AND F

STAFF RECOMMENDATION:

Review the road repair cost projections for roads with a PCI Value of D and F prepared by King Engineering.

BACKGROUND:

In the fall of 2014, J-U-B Engineers prepared a road maintenance plan. As part of this plan Pavement Condition Index (PCI) values were established for all roads in Highland. However, the maintenance plan only addressed roads with a PCI value of A-C. The Mayor and Council have requested a road plan addressing roads with a PCI values D and F be addressed. There are 15.16 miles with a PCI value of D and 18.04 miles with a PCI value of F.

In September 2016, the City Council hired King Engineering to serve as a consultant to provide general consulting services relating to road maintenance projects. The not to exceed contract was for \$7,500.

On February 3, 2015 the Council hired King Engineering to prepare road repair cost projections for roads with PCI values of D and F. To complete this project King Engineering completed the following:

- Visually assessed all of the J-U-B Engineers D and F rated Highland roadways
- Develop individual recommended rehabilitation or reconstruction strategies and a corresponding opinion of probable construction cost for each road to redress the specific distresses and deterioration issues involved.
- The probable cost will be based upon typical industry standard costs King Engineering has gathered during the past construction season (2014) along the Wasatch Front.
- Submit to Highland City a list of each roadway, its corresponding J-U-B Engineers developed PCI value, the recommended rehabilitation or reconstruction strategy, and an opinion of probable construction cost.
- Discuss the cost over time of delaying road repairs

The estimated cost of repairing D roads is: \$6,216,000

The estimated cost of repairing F roads is: \$10,030,500

Total Cost: \$16,246,500

FISCAL IMPACT:

\$16,246,500 in 2015 dollars.

ATTACHMENTS:

- D and F Road Repair Report



Road Study: D and F Rated Roads

3/30/2015

Highland City Public Works Department

A Study to develop Opinion of Probable Costs to repair and reconstruct all Highland City roadways rated D or F in the Highland City Five Year Road Maintenance Management Plan 2014

HIGHLAND CITY PUBLIC WORKS DEPARTMENT

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Spreadsheet: Highland City D and F Road Study: Opinion of Probable Costs Highland City Roads

INTRODUCTION

The Highland City Public Works Department retained J-U-B Engineers, Inc. to conduct a study of the pavement condition of all Highland City roadways. The result of this work was the Five Year Road Maintenance Management Plan of 2014.

This plan assigned Pavement Condition Index (PCI) values and corresponding ratings (A-F) to each roadway in Highland City's pavement system. It also suggested appropriate surface treatments, maintenance, and rehabilitation for the entire group of pavements rated A through C. It did not specify, however, approaches to reconstruction or costs for the repair of pavements rated D and F.

This Study is based upon the J-U-B Engineers, Inc. data and is an addenda or extension to their work. It specifically offers recommended or assumed scope of reconstruction of the D and F rated roadways and opinion of probable costs for each segment of D and F rated city pavement J-U-B Engineers analyzed.

COSTS

All costs used in this study were based upon bid values collected by King Engineering, Inc. during the 2014 summer construction season. Costs for specific work items (i.e. removing existing asphalt surface course, furnishing and installing new asphalt surface course, etc.) can and do vary according to quantity bid, seasonality, and price of the underlying commodity (i.e. oil).

Costs are also sensitive to underlying economic conditions such as inflation and/or deflation.

The Opinion of Probable costs presented in this study represent the latest and best costs available using average bid quantities bid during a typical construction season (April through October). They can and will change with time. Costs generally go down with increased quantity and when work is bid before the construction season begins. Costs increase when quantities decrease and when work is bid at the height of the construction season when contractors are more likely to be busy and have to pay their employees overtime to complete the work.

PAVEMENT DECAY AND BASE FAILURE

All pavements in this study are rated D and F and will require some form of reconstruction. All reconstructed asphalt pavements require that the asphalt surface course be removed or stripped and replaced. Those pavements with a lower PCI rating require more of the base course to be replaced or enhanced with blended, new, base material.

The following are the definitions of the various types of reconstruction recommended in this study and shown on the spreadsheets.

Surface – Minor Reconstruction. This refers to a complete replacement of the asphalt surface course with a replacement of approximately 15 to 29% of the underlying base course.

Surface –Moderate Reconstruction. This refers to a complete replacement of the asphalt surface course with a replacement of approximately 30 to 49% of the underlying base course.

Surface – Extensive Reconstruction. This refers to a complete replacement of the asphalt surface course with a replacement of approximately 50 to 79% of the underlying base course.

Surface – Full Reconstruction. This refers to a complete replacement of the asphalt surface course with a replacement of approximately 80 to 100% of the underlying base course.

It is important to understand that as the year's pass and failed pavements continue to deteriorate, more of each pavement's underlying base course will become corrupted and will require replacement resulting in increased costs.

SUBGRADE STABILIZATION

All pavements in this study will require some form of full depth (surface and base course) reconstruction. All reconstructed asphalt pavements usually require some percentage of the subgrade be stabilized such that the new base and asphalt surface courses can be compacted to required tolerances for a full pavement service life. The exact percentages of required subgrade stabilization are unknowable until the pavement is opened and proof rolled. We have assumed as part of this study that a small 10 to 20% of the pavement to be fully reconstructed (surface and base replacement) will also require subgrade stabilization. The percentage of subgrade requiring stabilization and therefore the cost may increase significantly on any given project if the subgrade is found to be soft and yielding.

WORK ITEMS

The following are specific work items included in the individual roadway segments Opinion of Probable reconstruction costs:

- Mobilization
- Construction Survey
- Traffic Control
- Remove Asphalt Surface Course and Dispose of Off Site
- Replace failed base or subgrade: Over-excavate and replace soft and yielding base and subgrade (Varies with PCI and percent estimated base failure)
- Re-grading to re-establish crowns and improve cross drainage
- Adjust Water valve and Manhole covers to grade and provide concrete collars
- New Asphalt Surface Course
- Re-striping

The following are work items not included in the Opinion of Probable cost:

- Removal and/or replacement of adjacent concrete curb and gutter
- Removal and/or replacement of concrete waterway
- Improvements and/or replacement of storm water collection boxes or mains
- Improvements and/or replacement of adjoining driveways, curb cuts, accesses, or landscaped or improved city right of ways

SPREADSHEET - OPINION OF PROBABLE COSTS ALL ROADS

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS ALL ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternat e Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10800	10879	N 5870 WEST ST		Highland	54.97	D	\$13,100	Surface-Minor
10760	10769	N 5920 WEST ST		Highland	54.97	D	\$11,400	Surface-Minor
10770	10799	N 5920 WEST ST		Highland	54.97	D	\$7,600	Surface-Minor
10800	10899	N 5920 WEST ST		Highland	54.97	D	\$13,200	Surface-Minor
10690	10799	N STONESHIRE	5800 WE	Highland	54.97	D	\$19,900	Surface-Minor
5800	5869	W 10800 NORTH ST		Highland	54.97	D	\$23,500	Surface-Minor
5870	5919	W 10800 NORTH ST		Highland	54.97	D	\$23,900	Surface-Minor
5920	5999	W 10800 NORTH ST		Highland	54.97	D	\$37,500	Surface-Minor
11500	11519	N BULL RIVER CIR	6030 WE	Highland	54.34	D	\$9,200	Surface-Minor
11520	11529	N BULL RIVER CIR	6030 WE	Highland	54.34	D	\$11,400	Surface-Minor
11506	11509	N GRANITE CIR	6180 WE	Highland	54.34	D	\$24,200	Surface-Minor
11510	11539	N GRANITE CIR	6180 WE	Highland	54.34	D	\$11,400	Surface-Minor
11500	11599	N GRANITE FLATS RD	6090 WE	Highland	54.34	D	\$46,700	Surface-Minor
11600	11629	N GRANITE FLATS RD	6090 WE	Highland	54.34	D	\$13,300	Surface-Minor
6130	6179	W BULL RIVER RD	11450 N	Highland	54.34	D	\$24,600	Surface-Minor
6000	6029	W BULL RIVER RD	11500 N	Highland	54.34	D	\$16,600	Surface-Minor
6090	6129	W BULL RIVER RD	11500 N	Highland	54.34	D	\$22,600	Surface-Minor
6030	6089	W BULL RIVER RD	11500 N	Highland	54.34	D	\$25,700	Surface-Minor
6180	6309	W BULL RIVER RD		Highland	54.34	D	\$14,700	Surface-Minor
6090	6199	W RIDGE RD	11580 N	Highland	54.34	D	\$54,100	Surface-Minor
6000	6089	W RIDGE RD		Highland	54.34	D	\$45,100	Surface-Minor
10850	10919	N HIGHLAND CIR	4850 WE	Highland	53.75	D	\$22,400	Surface-Minor
10806	10849	N HIGHLAND CIR	4850 WE	Highland	53.75	D	\$11,400	Surface-Minor
10800	10873	N WEST PANORAMA DR		Highland	53.75	D	\$22,600	Surface-Minor
10876	10909	N WEST PANORAMA DR		Highland	53.75	D	\$15,900	Surface-Minor
4850	4913	W COUNTRY CLUB DR		Highland	53.75	D	\$35,700	Surface-Minor
4800	4849	W COUNTRY CLUB DR		Highland	53.75	D	\$27,300	Surface-Minor
4830	4923	W MOUNTAIN VIEW CIR		Highland	53.75	D	\$63,500	Surface-Minor
4830	4949	W PANORAMA DR		Highland	53.75	D	\$58,300	Surface-Minor
4800	4829	W PANORAMA DR		Highland	53.75	D	\$19,500	Surface-Minor
6040	6149	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$50,300	Surface-Minor
6150	6219	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$35,900	Surface-Minor
6220	6249	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$29,200	Surface-Minor
6250	6299	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$15,700	Surface-Minor
6300	6349	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$43,500	Surface-Minor
10500	10569	N 6250 WEST ST		Highland	53.00	D	\$32,300	Surface-Minor
10570	10679	N 6250 WEST ST		Highland	53.00	D	\$62,300	Surface-Minor
6250	6399	W 10570 NORTH ST		Highland	53.00	D	\$70,700	Surface-Minor
12060	12219	N BEACON HILL BLVD	5930 WE	Highland	52.69	D	\$87,000	Surface-Minor
10100	10199	N 5950 WEST ST		Highland	52.60	D	\$47,500	Surface-Minor
5950	5999	W 10100 NORTH ST		Highland	52.60	D	\$24,900	Surface-Minor
11990	12059	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$19,800	Surface-Minor
11950	11989	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$24,600	Surface-Minor
11850	11949	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$46,800	Surface-Minor
11800	11849	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$22,400	Surface-Minor

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS ALL ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10006	10049	N 6160 WEST ST		Highland	51.27	D	\$20,800	Surface-Minor
10050	10149	N MOUNTAIN VIEW DR	6300 WE	Highland	51.27	D	\$27,200	Surface-Minor
9960	10049	N MOUNTAIN VIEW DR	6300 WE	Highland	51.27	D	\$25,800	Surface-Minor
6000	6149	W 10050 NORTH ST		Highland	51.27	D	\$81,000	Surface-Minor
6150	6299	W 10050 NORTH ST		Highland	51.27	D	\$77,600	Surface-Minor
10850		N TOWN CENTER BLVD		Highland	50.47	D	\$30,900	Surface-Minor
	10999	N TOWN CENTER BLVD		Highland	50.47	D	\$30,800	Surface-Minor
5250	5399	W PARKWAY EAST ST	10850 N	Highland	50.47	D	\$60,800	Surface-Minor
5490	5599	W PARKWAY WEST	10850 N	Highland	50.47	D	\$54,300	Surface-Minor
11600		N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$40,300	Surface-Minor
	11799	N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$40,300	Surface-Minor
11600		N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$13,700	Surface-Minor
11600		N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$28,800	Surface-Minor
	11799	N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$29,800	Surface-Minor
9800	9849	N 6800 WEST ST		Highland	50.32	D	\$15,400	Surface-Minor
9770	9799	N 6800 WEST ST		Highland	50.32	D	\$19,500	Surface-Minor
9850	9899	N 6800 WEST ST		Highland	50.32	D	\$37,500	Surface-Minor
9600	9769	N 6800 WEST ST		Highland	50.32	D	\$9,900	Surface-Minor
9770	9799	N 6800 WEST ST		Highland	50.32	D	\$7,800	Surface-Minor
10240	10273	N MOUNTAIN VIEW DR	6280 WE	Highland	50.19	D	\$11,400	Surface-Minor
10230	10239	N MOUNTAIN VIEW DR	6280 WE	Highland	50.19	D	\$15,300	Surface-Minor
10150	10219	N MOUNTAIN VIEW DR	6280 WE	Highland	50.19	D	\$16,000	Surface-Minor
6300	6359	W 10220 NORTH ST		Highland	50.19	D	\$39,600	Surface-Minor
6240	6299	W 10220 NORTH ST		Highland	50.19	D	\$27,200	Surface-Minor
6216	6239	W 10220 NORTH ST		Highland	50.19	D	\$11,400	Surface-Minor
6360	6369	W 10220 NORTH ST		Highland	50.19	D	\$11,400	Surface-Minor
10150	10205	N 6800 WEST ST		Highland	49.69	D	\$47,200	Surface-Minor
10206	10249	N 6800 WEST ST		Highland	49.69	D	\$34,200	Surface-Minor
10250	10299	N 6800 WEST ST		Highland	49.69	D	\$29,300	Surface-Minor
10300	10399	N 6800 WEST ST		Highland	49.69	D	\$79,600	Surface-Minor
11400	11459	N RIVER BEND RD	6130 WE	Highland	49.19	D	\$33,500	Surface-Minor
11360	11399	N RIVER BEND RD	6130 WE	Highland	49.19	D	\$22,500	Surface-Minor
6180	6199	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$11,400	Surface-Minor
6050	6129	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$41,800	Surface-Minor
6150	6179	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$32,900	Surface-Minor
6030	6049	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$11,400	Surface-Minor
6160	6225	W DRY CREEK RD	11360 N	Highland	49.19	D	\$11,400	Surface-Minor
6106	6159	W DRY CREEK RD	11360 N	Highland	49.19	D	\$25,500	Surface-Minor
6000	6103	W DRY CREEK RD	11360 N	Highland	49.19	D	\$56,900	Surface-Minor
9850	9959	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$35,700	Surface-Minor
10050	10089	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$17,000	Surface-Minor
9960	10049	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$14,400	Surface-Minor
9800	9849	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$37,400	Surface-Minor
9960	10049	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$19,700	Surface-Minor
9850	9959	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$20,500	Surface-Minor

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
11510	11549	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$20,600	Surface-Minor
11550	11589	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$22,700	Surface-Minor
11500	11509	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$11,800	Surface-Minor
11450	11499	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$18,200	Surface-Minor
11590	11599	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$11,300	Surface-Minor
11510	11549	N SKY LINE DR W	6390 WE	Highland	48.44	D	\$20,500	Surface-Minor
11550	11589	N SKY LINE DR W	6390 WE	Highland	48.44	D	\$19,700	Surface-Minor
6310	6439	W BULL RIVER RD	11450 N	Highland	48.44	D	\$53,300	Surface-Minor
6180	6309	W BULL RIVER RD		Highland	48.44	D	\$47,800	Surface-Minor
6210	6309	W LONE ROCK RD	11550 N	Highland	48.44	D	\$46,500	Surface-Minor
6310	6389	W LONE ROCK RD	11550 N	Highland	48.44	D	\$29,800	Surface-Minor
6390	6439	W LONE ROCK RD	11550 N	Highland	48.44	D	\$10,200	Surface-Minor
6200	6209	W RIDGE RD	11500 N	Highland	48.44	D	\$11,300	Surface-Minor
6210	6289	W RIDGE RD	15000 N	Highland	48.44	D	\$52,800	Surface-Minor
6090	6199	W RIDGE RD	11580 N	Highland	48.44	D	\$6,600	Surface-Minor
6310	6389	W SKY LINE DR	11510 N	Highland	48.44	D	\$33,900	Surface-Minor
6200	6309	W SKY LINE DR N	11590 N	Highland	48.44	D	\$53,200	Surface-Minor
6310	6389	W SKY LINE DR N	11590 N	Highland	48.44	D	\$33,800	Surface-Minor
10680	10769	N 5720 WEST ST		Highland	47.77	D	\$24,400	Surface-Minor
10620	10679	N 5720 WEST ST		Highland	47.77	D	\$15,600	Surface-Minor
5720	5739	W 10680 NORTH ST		Highland	47.77	D	\$19,000	Surface-Minor
5600	5719	W 10680 NORTH ST		Highland	47.77	D	\$57,300	Surface-Minor
5740	5765	W 10680 NORTH ST		Highland	47.77	D	\$11,400	Surface-Minor
10836	10849	N CANYON LINKS VISTA		Highland	45.91	D	\$11,400	Surface-Minor
10850	10969	N CANYON LINKS VISTA		Highland	45.91	D	\$32,900	Surface-Minor
10800	10885	N CANYON VIEW DR	4645 WE	Highland	45.91	D	\$20,600	Surface-Minor
10740	10799	N CANYON VIEW DR	4645 WE	Highland	45.91	D	\$22,600	Surface-Minor
10920	10947	N EAST PANORAMA DR		Highland	45.91	D	\$15,000	Surface-Minor
10950	10999	N WASATCH DR		Highland	45.91	D	\$21,000	Surface-Minor
4650	4799	W CANYON VIEW DR		Highland	45.91	D	\$81,400	Surface-Minor
4600	4649	W COUNTRY CLUB DR		Highland	45.91	D	\$23,700	Surface-Minor
4650	4799	W COUNTRY CLUB DR		Highland	45.91	D	\$79,600	Surface-Minor
4728	4799	W EAST PANORAMA DR		Highland	45.91	D	\$36,200	Surface-Minor
4650	4799	W VISTA DR		Highland	45.91	D	\$80,400	Surface-Minor
4676	4729	W WASATCH DR	10950 N	Highland	45.91	D	\$20,400	Surface-Minor
4730	4799	W WASATCH DR	10950 N	Highland	45.91	D	\$35,500	Surface-Minor
10200	10249	N WESTWOOD LN	6650 WE	Highland	45.56	D	\$48,700	Surface-Moderate
10136	10199	N WESTWOOD LN	6650 WE	Highland	45.56	D	\$13,400	Surface-Moderate
6700	6799	W 10250 NORTH ST		Highland	45.56	D	\$48,200	Surface-Moderate
6680	6699	W 10250 NORTH ST		Highland	45.56	D	\$17,000	Surface-Moderate
6650	6679	W 10250 NORTH ST		Highland	45.56	D	\$8,800	Surface-Moderate
9680	9739	N 6100 WEST ST		Highland	44.98	D	\$17,500	Surface-Moderate
9740	9753	N 6100 WEST ST		Highland	44.98	D	\$19,500	Surface-Moderate
6000	6099	W 9740 NORTH ST		Highland	44.98	D	\$54,900	Surface-Moderate
6100	6211	W 9740 NORTH ST		Highland	44.98	D	\$66,800	Surface-Moderate

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS ALL ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
11760	11799	N 6150 WEST ST		Highland	44.81	D	\$23,000	Surface-Moderate
11690	11759	N GRANITE FLATS RD	6090 WE	Highland	44.81	D	\$38,100	Surface-Moderate
11600	11629	N GRANITE FLATS RD	6090 WE	Highland	44.81	D	\$18,100	Surface-Moderate
11630	11689	N GRANITE FLATS RD	6090 WE	Highland	44.81	D	\$30,100	Surface-Moderate
11690	11719	N SUNRISE CIR	6160 WE	Highland	44.81	D	\$13,400	Surface-Moderate
11630	11689	N SUNRISE CIR	6160 WE	Highland	44.81	D	\$32,800	Surface-Moderate
6000	6099	W FOOTHILL DR	11700 N	Highland	44.81	D	\$48,100	Surface-Moderate
6100	6159	W SUNRISE DR	11630 N	Highland	44.81	D	\$37,600	Surface-Moderate
6160	6199	W SUNRISE DR	11630 N	Highland	44.81	D	\$21,900	Surface-Moderate
6100	6149	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$24,600	Surface-Moderate
6150	6199	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$27,300	Surface-Moderate
6040	6099	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$42,100	Surface-Moderate
6016	6039	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$13,400	Surface-Moderate
11580	11699	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$61,600	Surface-Moderate
11500	11579	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$46,300	Surface-Moderate
11700	11799	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$64,700	Surface-Moderate
11430	11499	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$46,100	Surface-Moderate
11360	11429	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$46,500	Surface-Moderate
11360	11389	N WOODLAND DR	5370 WE	Highland	42.49	D	\$15,900	Surface-Moderate
11300	11309	N WOODLAND DR	5370 WE	Highland	42.49	D	\$20,500	Surface-Moderate
11390	11429	N WOODLAND DR	5370 WE	Highland	42.49	D	\$21,900	Surface-Moderate
11310	11359	N WOODLAND DR	5370 WE	Highland	42.49	D	\$23,800	Surface-Moderate
5350	5359	W EVERGREEN CIR	11360 N	Highland	42.49	D	\$13,400	Surface-Moderate
5360	5369	W EVERGREEN CIR	11360 N	Highland	42.49	D	\$30,200	Surface-Moderate
5370	5379	W EVERGREEN WAY	11390 N	Highland	42.49	D	\$18,100	Surface-Moderate
5326	5329	W STONE CREEK CIR	11310 N	Highland	42.49	D	\$13,400	Surface-Moderate
5330	5369	W STONE CREEK CIR	11310 N	Highland	42.49	D	\$32,600	Surface-Moderate
5344	5379	W WOODLAND DR	11430 N	Highland	42.49	D	\$59,000	Surface-Moderate
10100	10191	N 5890 WEST ST		Highland	41.47	D	\$55,000	Surface-Moderate
5890	5949	W 10100 NORTH ST		Highland	41.47	D	\$27,400	Surface-Moderate
9900	9973	N 6800 WEST ST		Highland	40.81	D	\$53,200	Surface-Moderate
10126	10149	N 6800 WEST ST		Highland	40.81	D	\$18,800	Surface-Moderate
9976	10125	N 6800 WEST ST		Highland	40.81	D	\$64,600	Surface-Moderate
9976	10125	N 6800 WEST ST		Highland	40.81	D	\$17,300	Surface-Moderate
9976	10125	N 6800 WEST ST		Highland	40.81	D	\$17,500	Surface-Moderate
1370	1499	N 70 WEST ST		Highland	40.72	D	\$80,100	Surface-Moderate
11950	11999	N APOLLO WAY		Highland	40.66	D	\$22,200	Surface-Moderate
11990	12099	N CYPRUS DR		Highland	40.66	D	\$73,600	Surface-Moderate
11960	12089	N ITHICA DR		Highland	40.66	D	\$78,200	Surface-Moderate
6050	6149	W LAUSANNE ST	12070 N	Highland	40.66	D	\$9,900	Surface-Moderate
9500	9599	N 6560 WEST ST		Highland	40.58	D	\$59,800	Surface-Moderate
9460	9499	N 6560 WEST ST		Highland	40.58	D	\$14,600	Surface-Moderate
9446	9459	N 6560 WEST ST		Highland	40.58	D	\$13,400	Surface-Moderate
6560	6619	W 9500 NORTH ST		Highland	40.58	D	\$19,900	Surface-Moderate
6500	6559	W 9500 NORTH ST		Highland	40.58	D	\$18,000	Surface-Moderate

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternat e Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10510	10549	N 6150 WEST ST		Highland	40.16	D	\$27,000	Surface-Moderate
10550	10619	N LARSEN AVE	6150 WE	Highland	40.16	D	\$29,400	Surface-Moderate
6000	6149	W 10550 NORTH ST		Highland	40.16	D	\$87,000	Surface-Moderate
6150	6193	W 10550 NORTH ST		Highland	40.16	D	\$26,100	Surface-Moderate
5600	5729	W 10400 NORTH ST	FAE 2932	Highland	40.12	D	\$114,200	Surface-Moderate
5300	5599	W 10400 NORTH ST	FAE 2932	Highland	40.12	D	\$176,700	Surface-Moderate
5730	5999	W 10400 NORTH ST	FAE 2932	Highland	40.12	D	\$94,400	Surface-Moderate
11130	11199	N 5300 WEST ST		Highland	39.61	F	\$32,900	Surface-Moderate
5276	5299	W 11130 NORTH ST		Highland	39.61	F	\$11,100	Surface-Moderate
5520	5579	W 9700 NORTH ST		Highland	39.34	F	\$60,200	Surface-Moderate
5450	5519	W 9700 NORTH ST		Highland	39.34	F	\$48,800	Surface-Moderate
5580	5649	W 9800 NORTH ST		Highland	39.34	F	\$69,600	Surface-Moderate
5650	5799	W 9800 NORTH ST		Highland	39.34	F	\$146,700	Surface-Moderate
5876	5933	W 9850 NORTH ST		Highland	39.34	F	\$49,700	Surface-Moderate
5936	5999	W 9850 NORTH ST		Highland	39.34	F	\$58,200	Surface-Moderate
5800	5873	W 9850 NORTH ST		Highland	39.34	F	\$67,500	Surface-Moderate
9650	9659	N 6100 WEST ST		Highland	39.04	F	\$13,400	Surface-Moderate
9660	9679	N 6100 WEST ST		Highland	39.04	F	\$12,600	Surface-Moderate
9680	9739	N 6100 WEST ST		Highland	39.04	F	\$15,500	Surface-Moderate
9600	9679	N 6150 WEST ST		Highland	39.04	F	\$43,000	Surface-Moderate
9680	9725	N 6220 WEST ST		Highland	39.04	F	\$24,800	Surface-Moderate
9600	9679	N DIAMOND LN	6220 WE	Highland	39.04	F	\$42,900	Surface-Moderate
6040	6099	W 9680 NORTH ST		Highland	39.04	F	\$30,800	Surface-Moderate
6150	6219	W 9680 NORTH ST		Highland	39.04	F	\$42,400	Surface-Moderate
6100	6149	W 9680 NORTH ST		Highland	39.04	F	\$27,200	Surface-Moderate
6020	6039	W 9680 NORTH ST		Highland	39.04	F	\$13,400	Surface-Moderate
6250	6259	W DIAMOND CIR	9680 NO	Highland	39.04	F	\$13,400	Surface-Moderate
6240	6249	W DIAMOND CIR	9680 NO	Highland	39.04	F	\$13,600	Surface-Moderate
10724	10759	N JOSEPH LN	6510 WE	Highland	37.79	F	\$24,500	Surface-Moderate
6510	6599	W 10760 NORTH ST		Highland	37.79	F	\$66,200	Surface-Moderate
6400	6509	W 10760 NORTH ST		Highland	37.79	F	\$66,300	Surface-Moderate
6650	6675	W KAITLYNS LN	10850 N	Highland	37.79	F	\$13,400	Surface-Moderate
6646	6649	W KAITLYNS LN	10850 N	Highland	37.79	F	\$21,600	Surface-Moderate
6400	6529	W STEVENS LN		Highland	37.79	F	\$92,000	Surface-Moderate
6530	6629	W STEVENS LN		Highland	37.79	F	\$82,100	Surface-Moderate
	10611	N CANTERBURY DR		Highland	37.66	F	\$21,900	Surface-Moderate
	10653	N CANTERBURY DR		Highland	37.66	F	\$24,600	Surface-Moderate
10646		N CANTERBURY DR		Highland	37.66	F	\$7,500	Surface-Moderate
10400	10429	N CANTERBURY LN	6580 WE	Highland	37.66	F	\$17,100	Surface-Moderate
6674	6699	N CANTERBURY LN		Highland	37.66	F	\$42,900	Surface-Moderate
10430	10563	N CANTERBURY LN		Highland	37.66	F	\$63,400	Surface-Moderate
10540	10565	N CANTERBURY PL		Highland	37.66	F	\$25,800	Surface-Moderate
10500	10539	N CANTERBURY PL		Highland	37.66	F	\$31,300	Surface-Moderate
10520	10599	N CANTERBURY WAY		Highland	37.66	F	\$42,400	Surface-Moderate
6690	6709	W CANTERBURY CT		Highland	37.66	F	\$13,400	Surface-Moderate

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
6770	6779	W CANTERBURY CT		Highland	37.66	F	\$13,400	Surface-Moderate
6710	6743	W CANTERBURY CT		Highland	37.66	F	\$26,700	Surface-Moderate
6746	6769	W CANTERBURY CT		Highland	37.66	F	\$12,600	Surface-Moderate
6700	6799	W CANTERBURY LN		Highland	37.66	F	\$66,500	Surface-Moderate
6580	6589	W CANTERBURY WAY		Highland	37.66	F	\$13,400	Surface-Moderate
6780	6799	W CANTERBURY WAY		Highland	37.66	F	\$12,900	Surface-Moderate
6750	6779	W CANTERBURY WAY		Highland	37.66	F	\$26,300	Surface-Moderate
6590	6599	W CANTERBURY WAY		Highland	37.66	F	\$7,900	Surface-Moderate
6600	6749	W CANTERBURY WAY		Highland	37.66	F	\$82,000	Surface-Moderate
6790	6799	W MARIE JOHNSON CIR		Highland	37.66	F	\$13,400	Surface-Moderate
6800	6815	W MARIE JOHNSON CIR		Highland	37.66	F	\$13,800	Surface-Moderate
10430	10469	N 6750 WEST ST		Highland	37.41	F	\$27,900	Surface-Moderate
10400	10429	N 6750 WEST ST		Highland	37.41	F	\$18,200	Surface-Moderate
10460	10469	N 6790 WEST ST		Highland	37.41	F	\$13,400	Surface-Moderate
10440	10459	N 6790 WEST ST		Highland	37.41	F	\$15,100	Surface-Moderate
10430	10499	N AINSLEY WAY		Highland	37.41	F	\$65,400	Surface-Moderate
10500	10509	N AINSLEY WAY		Highland	37.41	F	\$12,900	Surface-Moderate
10430	10509	N CANTERBURY DR		Highland	37.41	F	\$77,200	Surface-Moderate
10510	10529	N CANTERBURY DR		Highland	37.41	F	\$22,200	Surface-Moderate
10400	10429	N CANTERBURY DR		Highland	37.41	F	\$17,600	Surface-Moderate
	10547	N CANTERBURY DR		Highland	37.41	F	\$23,300	Surface-Moderate
10430	10499	N CANTERBURY PL		Highland	37.41	F	\$51,900	Surface-Moderate
6790	6859	W 10430 NORTH ST		Highland	37.41	F	\$35,600	Surface-Moderate
6750	6789	W 10430 NORTH ST		Highland	37.41	F	\$24,000	Surface-Moderate
6876	6889	W AINSLEY CIR		Highland	37.41	F	\$13,400	Surface-Moderate
6890	6899	W AINSLEY CIR		Highland	37.41	F	\$6,300	Surface-Moderate
6850	6869	W AVERY CIR		Highland	37.41	F	\$9,700	Surface-Moderate
6846	6849	W AVERY CIR		Highland	37.41	F	\$13,400	Surface-Moderate
6890	6893	W CANTERBURY CIR		Highland	37.41	F	\$13,400	Surface-Moderate
6856	6889	W CANTERBURY CIR		Highland	37.41	F	\$15,000	Surface-Moderate
11140	11249	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$29,000	Surface-Moderate
11000	11139	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$86,600	Surface-Moderate
11250	11359	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$60,100	Surface-Moderate
11250	11359	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$22,700	Surface-Moderate
11140	11249	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$8,100	Surface-Moderate
11290	11349	N ANDREW DR	5830 WE	Highland	36.46	F	\$32,400	Surface-Moderate
11240	11289	N ANDREW DR	5830 WE	Highland	36.46	F	\$47,600	Surface-Moderate
5710	5829	W 11350 NORTH ST		Highland	36.46	F	\$22,400	Surface-Moderate
5790	5829	W CONNOR CT	11290 N	Highland	36.46	F	\$29,300	Surface-Moderate
5776	5789	W CONNOR CT	11290 N	Highland	36.46	F	\$13,400	Surface-Moderate
5790	5829	W KAITLYN CIR	11250 N	Highland	36.46	F	\$21,000	Surface-Moderate
5776	5789	W KAITLYN CIR	11250 N	Highland	36.46	F	\$13,400	Surface-Moderate
10300	10379	N 6530 WEST ST		Highland	35.97	F	\$44,400	Surface-Extensive
10300	10379	N 6580 WEST ST		Highland	35.97	F	\$42,500	Surface-Extensive
10380	10399	N 6580 WEST ST		Highland	35.97	F	\$17,800	Surface-Extensive

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10250	10299	N 6580 WEST ST		Highland	35.97	F	\$25,800	Surface-Extensive
10250	10299	N 6630 WEST ST		Highland	35.97	F	\$36,200	Surface-Extensive
10300	10329	N 6630 WEST ST		Highland	35.97	F	\$15,700	Surface-Extensive
10256	10379	N 6680 WEST ST		Highland	35.97	F	\$70,400	Surface-Extensive
6580	6629	W 10250 NORTH ST		Highland	35.97	F	\$44,300	Surface-Extensive
6630	6649	W 10250 NORTH ST		Highland	35.97	F	\$15,600	Surface-Extensive
6530	6579	W 10300 NORTH ST		Highland	35.97	F	\$42,100	Surface-Extensive
6530	6579	W 10380 NORTH ST		Highland	35.97	F	\$34,800	Surface-Extensive
6580	6679	W 10380 NORTH ST		Highland	35.97	F	\$53,400	Surface-Extensive
9720	9769	N 6630 WEST ST		Highland	34.12	F	\$18,800	Surface-Extensive
9600	9679	N 6670 WEST ST		Highland	34.12	F	\$41,500	Surface-Extensive
9680	9719	N 6670 WEST ST		Highland	34.12	F	\$40,000	Surface-Extensive
6630	6669	W 9680 NORTH ST		Highland	34.12	F	\$22,100	Surface-Extensive
6620	6629	W 9680 NORTH ST		Highland	34.12	F	\$15,700	Surface-Extensive
6630	6669	W 9720 NORTH ST		Highland	34.12	F	\$29,400	Surface-Extensive
5830	5999	W 11250 NORTH ST		Highland	33.51	F	\$51,400	Surface-Extensive
5730	5829	W ANDREW DR	11200 N	Highland	33.51	F	\$65,600	Surface-Extensive
5730	5829	W ANDREW DR	11200 N	Highland	33.51	F	\$12,700	Surface-Extensive
10510	10539	N WINDSOR LN		Highland	33.18	F	\$20,300	Surface-Extensive
5190	5249	W COUNTRY CLUB DR		Highland	33.18	F	\$54,700	Surface-Extensive
5250	5269	W COUNTRY CLUB DR		Highland	33.18	F	\$21,300	Surface-Extensive
5210	5223	W HAMPTON CT	10540 N	Highland	33.18	F	\$11,600	Surface-Extensive
5190	5209	W HAMPTON CT	10540 N	Highland	33.18	F	\$16,800	Surface-Extensive
5256	5269	W WINDSOR LN		Highland	33.18	F	\$11,600	Surface-Extensive
5270	5279	W WINDSOR LN		Highland	33.18	F	\$22,200	Surface-Extensive
4548	4799	W 11200 NORTH ST		Highland	32.79	F	\$55,400	Surface-Extensive
4548	4799	W 11200 NORTH ST		Highland	32.79	F	\$53,000	Surface-Extensive
10500	10569	N 6250 WEST ST		Highland	32.62	F	\$19,600	Surface-Extensive
10400	10499	N 6300 WEST ST		Highland	32.62	F	\$59,000	Surface-Extensive
6220	6249	W 10480 NORTH ST		Highland	32.62	F	\$15,700	Surface-Extensive
6250	6273	W 10480 NORTH ST		Highland	32.62	F	\$22,900	Surface-Extensive
6276	6399	W 10500 NORTH ST		Highland	32.62	F	\$89,200	Surface-Extensive
11270	11349	N 5600 WEST ST		Highland	32.54	F	\$47,300	Surface-Extensive
11200	11269	N 5600 WEST ST		Highland	32.54	F	\$56,200	Surface-Extensive
11370	11399	N 5630 WEST ST		Highland	32.54	F	\$15,700	Surface-Extensive
11350	11369	N 5630 WEST ST		Highland	32.54	F	\$19,700	Surface-Extensive
11200	11349	N 5710 WEST ST		Highland	32.54	F	\$100,800	Surface-Extensive
11380	11389	N 5710 WEST ST		Highland	32.54	F	\$15,700	Surface-Extensive
11350	11379	N 5710 WEST ST		Highland	32.54	F	\$18,900	Surface-Extensive
5650	5653	W 11200 NORTH ST		Highland	32.54	F	\$5,200	Surface-Extensive
5656	5665	W 11200 NORTH ST		Highland	32.54	F	\$15,700	Surface-Extensive
5620	5623	W 11270 NORTH ST		Highland	32.54	F	\$20,300	Surface-Extensive
5626	5649	W 11270 NORTH ST		Highland	32.54	F	\$15,700	Surface-Extensive
5710	5829	W 11350 NORTH ST		Highland	32.54	F	\$56,300	Surface-Extensive
5650	5709	W 11350 NORTH ST		Highland	32.54	F	\$46,400	Surface-Extensive

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
5600	5649	W 11350 NORTH ST		Highland	32.54	F	\$30,200	Surface-Extensive
20	99	E 1500 NORTH ST	FAE 2924	American Fork	31.98	F	\$21,100	Surface-Extensive
2	19	E 1500 NORTH ST	FAE 2924	American Fork	31.98	F	\$25,400	Surface-Extensive
2	19	W 1500 NORTH ST	FAE 2924	American Fork	31.98	F	\$2,900	Surface-Extensive
5900	5999	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$31,600	Surface-Extensive
5856	5859	W 9600 NORTH ST	FAE 2924	Utah County	31.98	F	\$11,300	Surface-Extensive
5600	5649	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$8,500	Surface-Extensive
5740	5759	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$17,000	Surface-Extensive
6000	6039	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$26,500	Surface-Extensive
5860	5899	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$29,400	Surface-Extensive
5700	5739	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$31,100	Surface-Extensive
5650	5699	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$28,500	Surface-Extensive
5856	5859	W 9600 NORTH ST	FAE 2924	Utah County	31.98	F	\$6,600	Surface-Extensive
10400	10549	N 6000 WEST ST	FAE 2918	Highland	31.49	F	\$75,000	Surface-Extensive
10550	10619	N 6000 WEST ST	FAE 2918	Highland	31.49	F	\$58,800	Surface-Extensive
10620	10679	N 6000 WEST ST	FAE 2918	Highland	31.49	F	\$54,200	Surface-Extensive
6400	6599	W 11800 NORTH ST		Highland	31.07	F	\$139,800	Surface-Extensive
6300	6399	W 11800 NORTH ST		Highland	31.07	F	\$101,800	Surface-Extensive
6400	6599	W 11800 NORTH ST		Highland	31.07	F	\$34,300	Surface-Extensive
11350	0	N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$28,000	Surface-Extensive
11440	0	N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$77,200	Surface-Extensive
	11599	N HIGHLAND BLVD	FAE 292C	Highland	30.90	F	\$77,500	Surface-Extensive
	11439	N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$35,400	Surface-Extensive
	11599	N HIGHLAND BLVD	FAE 292C	Highland	30.90	F	\$13,200	Surface-Extensive
11440		N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$10,300	Surface-Extensive
10730	10759	N 6120 WEST ST		Highland	30.50	F	\$25,100	Surface-Extensive
10830	10929	N 6150 WEST ST		Highland	30.50	F	\$58,400	Surface-Extensive
10760	10829	N 6200 WEST ST		Highland	30.50	F	\$42,800	Surface-Extensive
6120	6199	W 10760 NORTH ST		Highland	30.50	F	\$52,100	Surface-Extensive
6090	6099	W 10760 NORTH ST		Highland	30.50	F	\$15,700	Surface-Extensive
6100	6119	W 10760 NORTH ST		Highland	30.50	F	\$10,600	Surface-Extensive
6200	6399	W 10830 NORTH ST		Highland	30.50	F	\$136,800	Surface-Extensive
6150	6199	W 10830 NORTH ST		Highland	30.50	F	\$33,400	Surface-Extensive
10800	10929	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$120,100	Surface-Extensive
10680	10689	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$37,600	Surface-Extensive
10930	10999	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$63,200	Surface-Extensive
10690	10799	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$50,500	Surface-Extensive
12220	12339	N TIMBERLINE DR	5830 WE	Highland	28.48	F	\$71,900	Surface-Extensive
5830	5959	W BEACON HILL BLVD		Highland	28.48	F	\$76,900	Surface-Extensive
9600	9643	N HANCOCK PL		Highland	26.68	F	\$18,800	Surface-Full
9646	9649	N HANCOCK PL		Highland	26.68	F	\$17,700	Surface-Full
10150	10249	N HIDDEN POND DR	6450 WE	Highland	26.66	F	\$98,700	Surface-Full
6400	6449	W 10250 NORTH ST		Highland	26.66	F	\$30,600	Surface-Full
6300	6399	W HIDDEN POND DR	10150 N	Highland	26.66	F	\$92,700	Surface-Full
11800	11869	N 6150 WEST ST		Highland	26.54	F	\$56,500	Surface-Full

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS ALL ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternat e Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
11830	11839	N 6190 WEST ST		Highland	26.54	F	\$6,900	Surface-Full
11820	11829	N 6190 WEST ST		Highland	26.54	F	\$20,100	Surface-Full
11820	11829	N 6260 WEST ST		Highland	26.54	F	\$20,100	Surface-Full
11830	11839	N 6260 WEST ST		Highland	26.54	F	\$10,200	Surface-Full
11860	11879	N APOLLO WAY		Highland	26.54	F	\$20,600	Surface-Full
11880	11949	N APOLLO WAY		Highland	26.54	F	\$59,300	Surface-Full
11940	11949	N CYPRUS DR		Highland	26.54	F	\$21,500	Surface-Full
11836	11869	N CYPRUS DR		Highland	26.54	F	\$28,400	Surface-Full
11800	11833	N CYPRUS DR		Highland	26.54	F	\$28,200	Surface-Full
11900	11939	N CYPRUS DR		Highland	26.54	F	\$35,400	Surface-Full
11870	11889	N CYPRUS DR		Highland	26.54	F	\$18,500	Surface-Full
11890	11899	N CYPRUS DR		Highland	26.54	F	\$21,200	Surface-Full
11950	11989	N CYPRUS DR		Highland	26.54	F	\$18,300	Surface-Full
11840	11889	N JUPITER CIR		Highland	26.54	F	\$54,000	Surface-Full
11820	11839	N JUPITER CIR		Highland	26.54	F	\$20,100	Surface-Full
6190	6259	W APOLLO WAY		Highland	26.54	F	\$62,500	Surface-Full
6150	6189	W APOLLO WAY		Highland	26.54	F	\$24,700	Surface-Full
6260	6279	W APOLLO WAY		Highland	26.54	F	\$24,900	Surface-Full
6150	6249	W ARGO CIR		Highland	26.54	F	\$100,900	Surface-Full
10926	10999	N 5870 WEST ST		Highland	24.52	F	\$68,400	Surface-Full
10800	10879	N 5870 WEST ST		Highland	24.52	F	\$61,800	Surface-Full
10880	10899	N 5870 WEST ST		Highland	24.52	F	\$19,800	Surface-Full
10900	10923	N 5870 WEST ST		Highland	24.52	F	\$19,600	Surface-Full
10920	10999	N 5920 WEST ST		Highland	24.52	F	\$68,300	Surface-Full
10800	10899	N 5920 WEST ST		Highland	24.52	F	\$61,800	Surface-Full
5870	5929	W 10880 NORTH ST		Highland	24.52	F	\$41,900	Surface-Full
5800	5869	W 10900 NORTH ST		Highland	24.52	F	\$21,500	Surface-Full
5870	5929	W 10925 NORTH ST		Highland	24.52	F	\$41,600	Surface-Full
5892	5999	W 9960 NORTH ST		Highland	23.23	F	\$112,700	Surface-Full
6620	6669	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$23,100	Surface-Full
6530	6559	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$26,000	Surface-Full
6560	6599	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$27,000	Surface-Full
6670	6799	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$141,600	Surface-Full
6600	6619	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$43,400	Surface-Full
6400	6569	W 10400 NORTH ST	FAE 2932	Highland	22.02	F	\$132,300	Surface-Full
9600	9639	N 6000 WEST ST		Highland	20.95	F	\$39,400	Surface-Full
9640	9683	N 6000 WEST ST		Highland	20.95	F	\$20,100	Surface-Full
6300	6399	W 10400 NORTH ST	FAE 2932	Highland	17.50	F	\$81,700	Surface-Full
6000	6299	W 10400 NORTH ST	FAE 2932	Highland	17.50	F	\$248,300	Surface-Full
10400	10499	N 6400 WEST ST		Highland	17.13	F	\$120,700	Surface-Full
10500	10569	N 6400 WEST ST		Highland	17.13	F	\$32,100	Surface-Full
10570	10629	N 6400 WEST ST		Highland	17.13	F	\$46,400	Surface-Full
10500	10569	N 6400 WEST ST		Highland	17.13	F	\$35,700	Surface-Full
10150	10219	N MOUNTAIN VIEW DR	6280 WE	Highland	16.41	F	\$47,500	Surface-Full
10050	10149	N MOUNTAIN VIEW DR	6300 WE	Highland	16.41	F	\$44,800	Surface-Full

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS ALL ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternat e Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
6000	6299	W 10150 NORTH ST		Highland	16.41	F	\$289,600	Surface-Full
10760	10829	N 6400 WEST ST		Highland	16.36	F	\$65,500	Surface-Full
10830	10889	N 6400 WEST ST		Highland	16.36	F	\$57,600	Surface-Full
10630	10669	N 6400 WEST ST		Highland	16.36	F	\$29,800	Surface-Full
10670	10759	N 6400 WEST ST		Highland	16.36	F	\$35,100	Surface-Full
10890	10899	N 6400 WEST ST		Highland	16.36	F	\$30,400	Surface-Full
10900	10999	N 6400 WEST ST		Highland	16.36	F	\$102,500	Surface-Full
10670	10759	N 6400 WEST ST		Highland	16.36	F	\$26,400	Surface-Full
5600	5649	W 9600 NORTH ST	FAE 2924	Utah County	15.17	F	\$20,500	Surface-Full
5500	5599	W 9620 NORTH ST	FAE 2924	Highland	15.17	F	\$65,100	Surface-Full
6350	6529	W 9600 NORTH ST	FAE 2924	Highland	13.30	F	\$90,100	Surface-Full
6350	6529	W 9600 NORTH ST	FAE 2924	Highland	13.30	F	\$46,600	Surface-Full
9500	9569	N 6800 WEST ST	FAE 2888	Utah County	12.89	F	\$38,100	Surface-Full
9600	9769	N 6800 WEST ST		Highland	12.89	F	\$65,100	Surface-Full
9570	9599	N 6800 WEST ST	FAE 2888	Highland	12.89	F	\$36,600	Surface-Full
9400	9499	N 6800 WEST ST	FAE 2888	Utah County	12.89	F	\$64,000	Surface-Full
9600	9769	N 6800 WEST ST		Highland	12.89	F	\$73,500	Surface-Full
9570	9599	N 6800 WEST ST	FAE 2888	Highland	12.89	F	\$20,100	Surface-Full
9740	9799	N 6000 WEST ST	FAE 2918	Highland	11.98	F	\$71,100	Surface-Full
9700	9739	N 6000 WEST ST	FAE 2918	Highland	11.98	F	\$43,100	Surface-Full
9600	9699	N 6050 WEST ST	FAE 2918	Highland	11.98	F	\$128,200	Surface-Full
10100	10109	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$10,800	Surface-Full
10110	10269	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$97,400	Surface-Full
10270	10345	N 6000 WEST ST	FAE 2918	Utah County	8.85	F	\$39,400	Surface-Full
10346	10399	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$39,900	Surface-Full
10090	10099	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$10,800	Surface-Full
10110	10269	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$33,600	Surface-Full
10680	10769	N 5720 WEST ST		Highland	8.20	F	\$27,600	Surface-Full
TOTAL							\$16,475,800	

SPREADSHEET - OPINION OF PROBABLE COSTS HIGHLAND CITY ROADS

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS HIGHLAND CITY ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10800	10879	N 5870 WEST ST		Highland	54.97	D	\$13,100	Surface-Minor
10760	10769	N 5920 WEST ST		Highland	54.97	D	\$11,400	Surface-Minor
10770	10799	N 5920 WEST ST		Highland	54.97	D	\$7,600	Surface-Minor
10800	10899	N 5920 WEST ST		Highland	54.97	D	\$13,200	Surface-Minor
10690	10799	N STONESHIRE	5800 WE	Highland	54.97	D	\$19,900	Surface-Minor
5800	5869	W 10800 NORTH ST		Highland	54.97	D	\$23,500	Surface-Minor
5870	5919	W 10800 NORTH ST		Highland	54.97	D	\$23,900	Surface-Minor
5920	5999	W 10800 NORTH ST		Highland	54.97	D	\$37,500	Surface-Minor
11500	11519	N BULL RIVER CIR	6030 WE	Highland	54.34	D	\$9,200	Surface-Minor
11520	11529	N BULL RIVER CIR	6030 WE	Highland	54.34	D	\$11,400	Surface-Minor
11506	11509	N GRANITE CIR	6180 WE	Highland	54.34	D	\$24,200	Surface-Minor
11510	11539	N GRANITE CIR	6180 WE	Highland	54.34	D	\$11,400	Surface-Minor
11500	11599	N GRANITE FLATS RD	6090 WE	Highland	54.34	D	\$46,700	Surface-Minor
11600	11629	N GRANITE FLATS RD	6090 WE	Highland	54.34	D	\$13,300	Surface-Minor
6130	6179	W BULL RIVER RD	11450 N	Highland	54.34	D	\$24,600	Surface-Minor
6000	6029	W BULL RIVER RD	11500 N	Highland	54.34	D	\$16,600	Surface-Minor
6090	6129	W BULL RIVER RD	11500 N	Highland	54.34	D	\$22,600	Surface-Minor
6030	6089	W BULL RIVER RD	11500 N	Highland	54.34	D	\$25,700	Surface-Minor
6180	6309	W BULL RIVER RD		Highland	54.34	D	\$14,700	Surface-Minor
6090	6199	W RIDGE RD	11580 N	Highland	54.34	D	\$54,100	Surface-Minor
6000	6089	W RIDGE RD		Highland	54.34	D	\$45,100	Surface-Minor
10850	10919	N HIGHLAND CIR	4850 WE	Highland	53.75	D	\$22,400	Surface-Minor
10806	10849	N HIGHLAND CIR	4850 WE	Highland	53.75	D	\$11,400	Surface-Minor
10800	10873	N WEST PANORAMA DR		Highland	53.75	D	\$22,600	Surface-Minor
10876	10909	N WEST PANORAMA DR		Highland	53.75	D	\$15,900	Surface-Minor
4850	4913	W COUNTRY CLUB DR		Highland	53.75	D	\$35,700	Surface-Minor
4800	4849	W COUNTRY CLUB DR		Highland	53.75	D	\$27,300	Surface-Minor
4830	4923	W MOUNTAIN VIEW CIR		Highland	53.75	D	\$63,500	Surface-Minor
4830	4949	W PANORAMA DR		Highland	53.75	D	\$58,300	Surface-Minor
4800	4829	W PANORAMA DR		Highland	53.75	D	\$19,500	Surface-Minor
6040	6149	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$50,300	Surface-Minor
6150	6219	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$35,900	Surface-Minor
6220	6249	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$29,200	Surface-Minor
6250	6299	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$15,700	Surface-Minor
6300	6349	W 9600 NORTH ST	FAE 2924	Highland	53.05	D	\$43,500	Surface-Minor
10500	10569	N 6250 WEST ST		Highland	53.00	D	\$32,300	Surface-Minor
10570	10679	N 6250 WEST ST		Highland	53.00	D	\$62,300	Surface-Minor
6250	6399	W 10570 NORTH ST		Highland	53.00	D	\$70,700	Surface-Minor
12060	12219	N BEACON HILL BLVD	5930 WE	Highland	52.69	D	\$87,000	Surface-Minor
10100	10199	N 5950 WEST ST		Highland	52.60	D	\$47,500	Surface-Minor
5950	5999	W 10100 NORTH ST		Highland	52.60	D	\$24,900	Surface-Minor
11990	12059	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$19,800	Surface-Minor
11950	11989	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$24,600	Surface-Minor
11850	11949	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$46,800	Surface-Minor
11800	11849	N BEACON HILL BLVD	5930 WE	Highland	52.00	D	\$22,400	Surface-Minor

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS HIGHLAND CITY ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10006	10049	N 6160 WEST ST		Highland	51.27	D	\$20,800	Surface-Minor
10050	10149	N MOUNTAIN VIEW DR	6300 WE	Highland	51.27	D	\$27,200	Surface-Minor
9960	10049	N MOUNTAIN VIEW DR	6300 WE	Highland	51.27	D	\$25,800	Surface-Minor
6000	6149	W 10050 NORTH ST		Highland	51.27	D	\$81,000	Surface-Minor
6150	6299	W 10050 NORTH ST		Highland	51.27	D	\$77,600	Surface-Minor
10850		N TOWN CENTER BLVD		Highland	50.47	D	\$30,900	Surface-Minor
	10999	N TOWN CENTER BLVD		Highland	50.47	D	\$30,800	Surface-Minor
5250	5399	W PARKWAY EAST ST	10850 N	Highland	50.47	D	\$60,800	Surface-Minor
5490	5599	W PARKWAY WEST	10850 N	Highland	50.47	D	\$54,300	Surface-Minor
11600		N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$40,300	Surface-Minor
	11799	N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$40,300	Surface-Minor
11600		N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$13,700	Surface-Minor
11600		N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$28,800	Surface-Minor
	11799	N HIGHLAND BLVD	FAE 292C	Highland	50.34	D	\$29,800	Surface-Minor
9800	9849	N 6800 WEST ST		Highland	50.32	D	\$15,400	Surface-Minor
9770	9799	N 6800 WEST ST		Highland	50.32	D	\$19,500	Surface-Minor
9850	9899	N 6800 WEST ST		Highland	50.32	D	\$37,500	Surface-Minor
9600	9769	N 6800 WEST ST		Highland	50.32	D	\$9,900	Surface-Minor
9770	9799	N 6800 WEST ST		Highland	50.32	D	\$7,800	Surface-Minor
10240	10273	N MOUNTAIN VIEW DR	6280 WE	Highland	50.19	D	\$11,400	Surface-Minor
10230	10239	N MOUNTAIN VIEW DR	6280 WE	Highland	50.19	D	\$15,300	Surface-Minor
10150	10219	N MOUNTAIN VIEW DR	6280 WE	Highland	50.19	D	\$16,000	Surface-Minor
6300	6359	W 10220 NORTH ST		Highland	50.19	D	\$39,600	Surface-Minor
6240	6299	W 10220 NORTH ST		Highland	50.19	D	\$27,200	Surface-Minor
6216	6239	W 10220 NORTH ST		Highland	50.19	D	\$11,400	Surface-Minor
6360	6369	W 10220 NORTH ST		Highland	50.19	D	\$11,400	Surface-Minor
10150	10205	N 6800 WEST ST		Highland	49.69	D	\$47,200	Surface-Minor
10206	10249	N 6800 WEST ST		Highland	49.69	D	\$34,200	Surface-Minor
10250	10299	N 6800 WEST ST		Highland	49.69	D	\$29,300	Surface-Minor
10300	10399	N 6800 WEST ST		Highland	49.69	D	\$79,600	Surface-Minor
11400	11459	N RIVER BEND RD	6130 WE	Highland	49.19	D	\$33,500	Surface-Minor
11360	11399	N RIVER BEND RD	6130 WE	Highland	49.19	D	\$22,500	Surface-Minor
6180	6199	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$11,400	Surface-Minor
6050	6129	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$41,800	Surface-Minor
6150	6179	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$32,900	Surface-Minor
6030	6049	W DRY CREEK CIR	11400 N	Highland	49.19	D	\$11,400	Surface-Minor
6160	6225	W DRY CREEK RD	11360 N	Highland	49.19	D	\$11,400	Surface-Minor
6106	6159	W DRY CREEK RD	11360 N	Highland	49.19	D	\$25,500	Surface-Minor
6000	6103	W DRY CREEK RD	11360 N	Highland	49.19	D	\$56,900	Surface-Minor
9850	9959	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$35,700	Surface-Minor
10050	10089	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$17,000	Surface-Minor
9960	10049	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$14,400	Surface-Minor
9800	9849	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$37,400	Surface-Minor
9960	10049	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$19,700	Surface-Minor
9850	9959	N 6000 WEST ST	FAE 291E	Highland	48.58	D	\$20,500	Surface-Minor

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
11510	11549	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$20,600	Surface-Minor
11550	11589	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$22,700	Surface-Minor
11500	11509	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$11,800	Surface-Minor
11450	11499	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$18,200	Surface-Minor
11590	11599	N MERCER HOLLOW RD	6310 WE	Highland	48.44	D	\$11,300	Surface-Minor
11510	11549	N SKY LINE DR W	6390 WE	Highland	48.44	D	\$20,500	Surface-Minor
11550	11589	N SKY LINE DR W	6390 WE	Highland	48.44	D	\$19,700	Surface-Minor
6310	6439	W BULL RIVER RD	11450 N	Highland	48.44	D	\$53,300	Surface-Minor
6180	6309	W BULL RIVER RD		Highland	48.44	D	\$47,800	Surface-Minor
6210	6309	W LONE ROCK RD	11550 N	Highland	48.44	D	\$46,500	Surface-Minor
6310	6389	W LONE ROCK RD	11550 N	Highland	48.44	D	\$29,800	Surface-Minor
6390	6439	W LONE ROCK RD	11550 N	Highland	48.44	D	\$10,200	Surface-Minor
6200	6209	W RIDGE RD	11500 N	Highland	48.44	D	\$11,300	Surface-Minor
6210	6289	W RIDGE RD	15000 N	Highland	48.44	D	\$52,800	Surface-Minor
6090	6199	W RIDGE RD	11580 N	Highland	48.44	D	\$6,600	Surface-Minor
6310	6389	W SKY LINE DR	11510 N	Highland	48.44	D	\$33,900	Surface-Minor
6200	6309	W SKY LINE DR N	11590 N	Highland	48.44	D	\$53,200	Surface-Minor
6310	6389	W SKY LINE DR N	11590 N	Highland	48.44	D	\$33,800	Surface-Minor
10680	10769	N 5720 WEST ST		Highland	47.77	D	\$24,400	Surface-Minor
10620	10679	N 5720 WEST ST		Highland	47.77	D	\$15,600	Surface-Minor
5720	5739	W 10680 NORTH ST		Highland	47.77	D	\$19,000	Surface-Minor
5600	5719	W 10680 NORTH ST		Highland	47.77	D	\$57,300	Surface-Minor
5740	5765	W 10680 NORTH ST		Highland	47.77	D	\$11,400	Surface-Minor
10836	10849	N CANYON LINKS VISTA		Highland	45.91	D	\$11,400	Surface-Minor
10850	10969	N CANYON LINKS VISTA		Highland	45.91	D	\$32,900	Surface-Minor
10800	10885	N CANYON VIEW DR	4645 WE	Highland	45.91	D	\$20,600	Surface-Minor
10740	10799	N CANYON VIEW DR	4645 WE	Highland	45.91	D	\$22,600	Surface-Minor
10920	10947	N EAST PANORAMA DR		Highland	45.91	D	\$15,000	Surface-Minor
10950	10999	N WASATCH DR		Highland	45.91	D	\$21,000	Surface-Minor
4650	4799	W CANYON VIEW DR		Highland	45.91	D	\$81,400	Surface-Minor
4600	4649	W COUNTRY CLUB DR		Highland	45.91	D	\$23,700	Surface-Minor
4650	4799	W COUNTRY CLUB DR		Highland	45.91	D	\$79,600	Surface-Minor
4728	4799	W EAST PANORAMA DR		Highland	45.91	D	\$36,200	Surface-Minor
4650	4799	W VISTA DR		Highland	45.91	D	\$80,400	Surface-Minor
4676	4729	W WASATCH DR	10950 N	Highland	45.91	D	\$20,400	Surface-Minor
4730	4799	W WASATCH DR	10950 N	Highland	45.91	D	\$35,500	Surface-Minor
10200	10249	N WESTWOOD LN	6650 WE	Highland	45.56	D	\$48,700	Surface-Moderate
10136	10199	N WESTWOOD LN	6650 WE	Highland	45.56	D	\$13,400	Surface-Moderate
6700	6799	W 10250 NORTH ST		Highland	45.56	D	\$48,200	Surface-Moderate
6680	6699	W 10250 NORTH ST		Highland	45.56	D	\$17,000	Surface-Moderate
6650	6679	W 10250 NORTH ST		Highland	45.56	D	\$8,800	Surface-Moderate
9680	9739	N 6100 WEST ST		Highland	44.98	D	\$17,500	Surface-Moderate
9740	9753	N 6100 WEST ST		Highland	44.98	D	\$19,500	Surface-Moderate
6000	6099	W 9740 NORTH ST		Highland	44.98	D	\$54,900	Surface-Moderate
6100	6211	W 9740 NORTH ST		Highland	44.98	D	\$66,800	Surface-Moderate

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS HIGHLAND CITY ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
11760	11799	N 6150 WEST ST		Highland	44.81	D	\$23,000	Surface-Moderate
11690	11759	N GRANITE FLATS RD	6090 WE	Highland	44.81	D	\$38,100	Surface-Moderate
11600	11629	N GRANITE FLATS RD	6090 WE	Highland	44.81	D	\$18,100	Surface-Moderate
11630	11689	N GRANITE FLATS RD	6090 WE	Highland	44.81	D	\$30,100	Surface-Moderate
11690	11719	N SUNRISE CIR	6160 WE	Highland	44.81	D	\$13,400	Surface-Moderate
11630	11689	N SUNRISE CIR	6160 WE	Highland	44.81	D	\$32,800	Surface-Moderate
6000	6099	W FOOTHILL DR	11700 N	Highland	44.81	D	\$48,100	Surface-Moderate
6100	6159	W SUNRISE DR	11630 N	Highland	44.81	D	\$37,600	Surface-Moderate
6160	6199	W SUNRISE DR	11630 N	Highland	44.81	D	\$21,900	Surface-Moderate
6100	6149	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$24,600	Surface-Moderate
6150	6199	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$27,300	Surface-Moderate
6040	6099	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$42,100	Surface-Moderate
6016	6039	W VALLEY VIEW DR	11760 N	Highland	44.81	D	\$13,400	Surface-Moderate
11580	11699	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$61,600	Surface-Moderate
11500	11579	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$46,300	Surface-Moderate
11700	11799	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$64,700	Surface-Moderate
11430	11499	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$46,100	Surface-Moderate
11360	11429	N 6000 WEST ST	FAE 291E	Highland	43.83	D	\$46,500	Surface-Moderate
11360	11389	N WOODLAND DR	5370 WE	Highland	42.49	D	\$15,900	Surface-Moderate
11300	11309	N WOODLAND DR	5370 WE	Highland	42.49	D	\$20,500	Surface-Moderate
11390	11429	N WOODLAND DR	5370 WE	Highland	42.49	D	\$21,900	Surface-Moderate
11310	11359	N WOODLAND DR	5370 WE	Highland	42.49	D	\$23,800	Surface-Moderate
5350	5359	W EVERGREEN CIR	11360 N	Highland	42.49	D	\$13,400	Surface-Moderate
5360	5369	W EVERGREEN CIR	11360 N	Highland	42.49	D	\$30,200	Surface-Moderate
5370	5379	W EVERGREEN WAY	11390 N	Highland	42.49	D	\$18,100	Surface-Moderate
5326	5329	W STONE CREEK CIR	11310 N	Highland	42.49	D	\$13,400	Surface-Moderate
5330	5369	W STONE CREEK CIR	11310 N	Highland	42.49	D	\$32,600	Surface-Moderate
5344	5379	W WOODLAND DR	11430 N	Highland	42.49	D	\$59,000	Surface-Moderate
10100	10191	N 5890 WEST ST		Highland	41.47	D	\$55,000	Surface-Moderate
5890	5949	W 10100 NORTH ST		Highland	41.47	D	\$27,400	Surface-Moderate
9900	9973	N 6800 WEST ST		Highland	40.81	D	\$53,200	Surface-Moderate
10126	10149	N 6800 WEST ST		Highland	40.81	D	\$18,800	Surface-Moderate
9976	10125	N 6800 WEST ST		Highland	40.81	D	\$64,600	Surface-Moderate
9976	10125	N 6800 WEST ST		Highland	40.81	D	\$17,300	Surface-Moderate
9976	10125	N 6800 WEST ST		Highland	40.81	D	\$17,500	Surface-Moderate
1370	1499	N 70 WEST ST		Highland	40.72	D	\$80,100	Surface-Moderate
11950	11999	N APOLLO WAY		Highland	40.66	D	\$22,200	Surface-Moderate
11990	12099	N CYPRUS DR		Highland	40.66	D	\$73,600	Surface-Moderate
11960	12089	N ITHICA DR		Highland	40.66	D	\$78,200	Surface-Moderate
6050	6149	W LAUSANNE ST	12070 N	Highland	40.66	D	\$9,900	Surface-Moderate
9500	9599	N 6560 WEST ST		Highland	40.58	D	\$59,800	Surface-Moderate
9460	9499	N 6560 WEST ST		Highland	40.58	D	\$14,600	Surface-Moderate
9446	9459	N 6560 WEST ST		Highland	40.58	D	\$13,400	Surface-Moderate
6560	6619	W 9500 NORTH ST		Highland	40.58	D	\$19,900	Surface-Moderate
6500	6559	W 9500 NORTH ST		Highland	40.58	D	\$18,000	Surface-Moderate

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternat e Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10510	10549	N 6150 WEST ST		Highland	40.16	D	\$27,000	Surface-Moderate
10550	10619	N LARSEN AVE	6150 WE	Highland	40.16	D	\$29,400	Surface-Moderate
6000	6149	W 10550 NORTH ST		Highland	40.16	D	\$87,000	Surface-Moderate
6150	6193	W 10550 NORTH ST		Highland	40.16	D	\$26,100	Surface-Moderate
5600	5729	W 10400 NORTH ST	FAE 2932	Highland	40.12	D	\$114,200	Surface-Moderate
5300	5599	W 10400 NORTH ST	FAE 2932	Highland	40.12	D	\$176,700	Surface-Moderate
5730	5999	W 10400 NORTH ST	FAE 2932	Highland	40.12	D	\$94,400	Surface-Moderate
11130	11199	N 5300 WEST ST		Highland	39.61	F	\$32,900	Surface-Moderate
5276	5299	W 11130 NORTH ST		Highland	39.61	F	\$11,100	Surface-Moderate
5520	5579	W 9700 NORTH ST		Highland	39.34	F	\$60,200	Surface-Moderate
5450	5519	W 9700 NORTH ST		Highland	39.34	F	\$48,800	Surface-Moderate
5580	5649	W 9800 NORTH ST		Highland	39.34	F	\$69,600	Surface-Moderate
5650	5799	W 9800 NORTH ST		Highland	39.34	F	\$146,700	Surface-Moderate
5876	5933	W 9850 NORTH ST		Highland	39.34	F	\$49,700	Surface-Moderate
5936	5999	W 9850 NORTH ST		Highland	39.34	F	\$58,200	Surface-Moderate
5800	5873	W 9850 NORTH ST		Highland	39.34	F	\$67,500	Surface-Moderate
9650	9659	N 6100 WEST ST		Highland	39.04	F	\$13,400	Surface-Moderate
9660	9679	N 6100 WEST ST		Highland	39.04	F	\$12,600	Surface-Moderate
9680	9739	N 6100 WEST ST		Highland	39.04	F	\$15,500	Surface-Moderate
9600	9679	N 6150 WEST ST		Highland	39.04	F	\$43,000	Surface-Moderate
9680	9725	N 6220 WEST ST		Highland	39.04	F	\$24,800	Surface-Moderate
9600	9679	N DIAMOND LN	6220 WE	Highland	39.04	F	\$42,900	Surface-Moderate
6040	6099	W 9680 NORTH ST		Highland	39.04	F	\$30,800	Surface-Moderate
6150	6219	W 9680 NORTH ST		Highland	39.04	F	\$42,400	Surface-Moderate
6100	6149	W 9680 NORTH ST		Highland	39.04	F	\$27,200	Surface-Moderate
6020	6039	W 9680 NORTH ST		Highland	39.04	F	\$13,400	Surface-Moderate
6250	6259	W DIAMOND CIR	9680 NO	Highland	39.04	F	\$13,400	Surface-Moderate
6240	6249	W DIAMOND CIR	9680 NO	Highland	39.04	F	\$13,600	Surface-Moderate
10724	10759	N JOSEPH LN	6510 WE	Highland	37.79	F	\$24,500	Surface-Moderate
6510	6599	W 10760 NORTH ST		Highland	37.79	F	\$66,200	Surface-Moderate
6400	6509	W 10760 NORTH ST		Highland	37.79	F	\$66,300	Surface-Moderate
6650	6675	W KAITLYNS LN	10850 N	Highland	37.79	F	\$13,400	Surface-Moderate
6646	6649	W KAITLYNS LN	10850 N	Highland	37.79	F	\$21,600	Surface-Moderate
6400	6529	W STEVENS LN		Highland	37.79	F	\$92,000	Surface-Moderate
6530	6629	W STEVENS LN		Highland	37.79	F	\$82,100	Surface-Moderate
	10611	N CANTERBURY DR		Highland	37.66	F	\$21,900	Surface-Moderate
	10653	N CANTERBURY DR		Highland	37.66	F	\$24,600	Surface-Moderate
10646		N CANTERBURY DR		Highland	37.66	F	\$7,500	Surface-Moderate
10400	10429	N CANTERBURY LN	6580 WE	Highland	37.66	F	\$17,100	Surface-Moderate
6674	6699	N CANTERBURY LN		Highland	37.66	F	\$42,900	Surface-Moderate
10430	10563	N CANTERBURY LN		Highland	37.66	F	\$63,400	Surface-Moderate
10540	10565	N CANTERBURY PL		Highland	37.66	F	\$25,800	Surface-Moderate
10500	10539	N CANTERBURY PL		Highland	37.66	F	\$31,300	Surface-Moderate
10520	10599	N CANTERBURY WAY		Highland	37.66	F	\$42,400	Surface-Moderate
6690	6709	W CANTERBURY CT		Highland	37.66	F	\$13,400	Surface-Moderate

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
6770	6779	W CANTERBURY CT		Highland	37.66	F	\$13,400	Surface-Moderate
6710	6743	W CANTERBURY CT		Highland	37.66	F	\$26,700	Surface-Moderate
6746	6769	W CANTERBURY CT		Highland	37.66	F	\$12,600	Surface-Moderate
6700	6799	W CANTERBURY LN		Highland	37.66	F	\$66,500	Surface-Moderate
6580	6589	W CANTERBURY WAY		Highland	37.66	F	\$13,400	Surface-Moderate
6780	6799	W CANTERBURY WAY		Highland	37.66	F	\$12,900	Surface-Moderate
6750	6779	W CANTERBURY WAY		Highland	37.66	F	\$26,300	Surface-Moderate
6590	6599	W CANTERBURY WAY		Highland	37.66	F	\$7,900	Surface-Moderate
6600	6749	W CANTERBURY WAY		Highland	37.66	F	\$82,000	Surface-Moderate
6790	6799	W MARIE JOHNSON CIR		Highland	37.66	F	\$13,400	Surface-Moderate
6800	6815	W MARIE JOHNSON CIR		Highland	37.66	F	\$13,800	Surface-Moderate
10430	10469	N 6750 WEST ST		Highland	37.41	F	\$27,900	Surface-Moderate
10400	10429	N 6750 WEST ST		Highland	37.41	F	\$18,200	Surface-Moderate
10460	10469	N 6790 WEST ST		Highland	37.41	F	\$13,400	Surface-Moderate
10440	10459	N 6790 WEST ST		Highland	37.41	F	\$15,100	Surface-Moderate
10430	10499	N AINSLEY WAY		Highland	37.41	F	\$65,400	Surface-Moderate
10500	10509	N AINSLEY WAY		Highland	37.41	F	\$12,900	Surface-Moderate
10430	10509	N CANTERBURY DR		Highland	37.41	F	\$77,200	Surface-Moderate
10510	10529	N CANTERBURY DR		Highland	37.41	F	\$22,200	Surface-Moderate
10400	10429	N CANTERBURY DR		Highland	37.41	F	\$17,600	Surface-Moderate
	10547	N CANTERBURY DR		Highland	37.41	F	\$23,300	Surface-Moderate
10430	10499	N CANTERBURY PL		Highland	37.41	F	\$51,900	Surface-Moderate
6790	6859	W 10430 NORTH ST		Highland	37.41	F	\$35,600	Surface-Moderate
6750	6789	W 10430 NORTH ST		Highland	37.41	F	\$24,000	Surface-Moderate
6876	6889	W AINSLEY CIR		Highland	37.41	F	\$13,400	Surface-Moderate
6890	6899	W AINSLEY CIR		Highland	37.41	F	\$6,300	Surface-Moderate
6850	6869	W AVERY CIR		Highland	37.41	F	\$9,700	Surface-Moderate
6846	6849	W AVERY CIR		Highland	37.41	F	\$13,400	Surface-Moderate
6890	6893	W CANTERBURY CIR		Highland	37.41	F	\$13,400	Surface-Moderate
6856	6889	W CANTERBURY CIR		Highland	37.41	F	\$15,000	Surface-Moderate
11140	11249	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$29,000	Surface-Moderate
11000	11139	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$86,600	Surface-Moderate
11250	11359	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$60,100	Surface-Moderate
11250	11359	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$22,700	Surface-Moderate
11140	11249	N 6000 WEST ST	FAE 291E	Highland	37.21	F	\$8,100	Surface-Moderate
11290	11349	N ANDREW DR	5830 WE	Highland	36.46	F	\$32,400	Surface-Moderate
11240	11289	N ANDREW DR	5830 WE	Highland	36.46	F	\$47,600	Surface-Moderate
5710	5829	W 11350 NORTH ST		Highland	36.46	F	\$22,400	Surface-Moderate
5790	5829	W CONNOR CT	11290 N	Highland	36.46	F	\$29,300	Surface-Moderate
5776	5789	W CONNOR CT	11290 N	Highland	36.46	F	\$13,400	Surface-Moderate
5790	5829	W KAITLYN CIR	11250 N	Highland	36.46	F	\$21,000	Surface-Moderate
5776	5789	W KAITLYN CIR	11250 N	Highland	36.46	F	\$13,400	Surface-Moderate
10300	10379	N 6530 WEST ST		Highland	35.97	F	\$44,400	Surface-Extensive
10300	10379	N 6580 WEST ST		Highland	35.97	F	\$42,500	Surface-Extensive
10380	10399	N 6580 WEST ST		Highland	35.97	F	\$17,800	Surface-Extensive

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10250	10299	N 6580 WEST ST		Highland	35.97	F	\$25,800	Surface-Extensive
10250	10299	N 6630 WEST ST		Highland	35.97	F	\$36,200	Surface-Extensive
10300	10329	N 6630 WEST ST		Highland	35.97	F	\$15,700	Surface-Extensive
10256	10379	N 6680 WEST ST		Highland	35.97	F	\$70,400	Surface-Extensive
6580	6629	W 10250 NORTH ST		Highland	35.97	F	\$44,300	Surface-Extensive
6630	6649	W 10250 NORTH ST		Highland	35.97	F	\$15,600	Surface-Extensive
6530	6579	W 10300 NORTH ST		Highland	35.97	F	\$42,100	Surface-Extensive
6530	6579	W 10380 NORTH ST		Highland	35.97	F	\$34,800	Surface-Extensive
6580	6679	W 10380 NORTH ST		Highland	35.97	F	\$53,400	Surface-Extensive
9720	9769	N 6630 WEST ST		Highland	34.12	F	\$18,800	Surface-Extensive
9600	9679	N 6670 WEST ST		Highland	34.12	F	\$41,500	Surface-Extensive
9680	9719	N 6670 WEST ST		Highland	34.12	F	\$40,000	Surface-Extensive
6630	6669	W 9680 NORTH ST		Highland	34.12	F	\$22,100	Surface-Extensive
6620	6629	W 9680 NORTH ST		Highland	34.12	F	\$15,700	Surface-Extensive
6630	6669	W 9720 NORTH ST		Highland	34.12	F	\$29,400	Surface-Extensive
5830	5999	W 11250 NORTH ST		Highland	33.51	F	\$51,400	Surface-Extensive
5730	5829	W ANDREW DR	11200 N	Highland	33.51	F	\$65,600	Surface-Extensive
5730	5829	W ANDREW DR	11200 N	Highland	33.51	F	\$12,700	Surface-Extensive
10510	10539	N WINDSOR LN		Highland	33.18	F	\$20,300	Surface-Extensive
5190	5249	W COUNTRY CLUB DR		Highland	33.18	F	\$54,700	Surface-Extensive
5250	5269	W COUNTRY CLUB DR		Highland	33.18	F	\$21,300	Surface-Extensive
5210	5223	W HAMPTON CT	10540 N	Highland	33.18	F	\$11,600	Surface-Extensive
5190	5209	W HAMPTON CT	10540 N	Highland	33.18	F	\$16,800	Surface-Extensive
5256	5269	W WINDSOR LN		Highland	33.18	F	\$11,600	Surface-Extensive
5270	5279	W WINDSOR LN		Highland	33.18	F	\$22,200	Surface-Extensive
4548	4799	W 11200 NORTH ST		Highland	32.79	F	\$55,400	Surface-Extensive
4548	4799	W 11200 NORTH ST		Highland	32.79	F	\$53,000	Surface-Extensive
10500	10569	N 6250 WEST ST		Highland	32.62	F	\$19,600	Surface-Extensive
10400	10499	N 6300 WEST ST		Highland	32.62	F	\$59,000	Surface-Extensive
6220	6249	W 10480 NORTH ST		Highland	32.62	F	\$15,700	Surface-Extensive
6250	6273	W 10480 NORTH ST		Highland	32.62	F	\$22,900	Surface-Extensive
6276	6399	W 10500 NORTH ST		Highland	32.62	F	\$89,200	Surface-Extensive
11270	11349	N 5600 WEST ST		Highland	32.54	F	\$47,300	Surface-Extensive
11200	11269	N 5600 WEST ST		Highland	32.54	F	\$56,200	Surface-Extensive
11370	11399	N 5630 WEST ST		Highland	32.54	F	\$15,700	Surface-Extensive
11350	11369	N 5630 WEST ST		Highland	32.54	F	\$19,700	Surface-Extensive
11200	11349	N 5710 WEST ST		Highland	32.54	F	\$100,800	Surface-Extensive
11380	11389	N 5710 WEST ST		Highland	32.54	F	\$15,700	Surface-Extensive
11350	11379	N 5710 WEST ST		Highland	32.54	F	\$18,900	Surface-Extensive
5650	5653	W 11200 NORTH ST		Highland	32.54	F	\$5,200	Surface-Extensive
5656	5665	W 11200 NORTH ST		Highland	32.54	F	\$15,700	Surface-Extensive
5620	5623	W 11270 NORTH ST		Highland	32.54	F	\$20,300	Surface-Extensive
5626	5649	W 11270 NORTH ST		Highland	32.54	F	\$15,700	Surface-Extensive
5710	5829	W 11350 NORTH ST		Highland	32.54	F	\$56,300	Surface-Extensive
5650	5709	W 11350 NORTH ST		Highland	32.54	F	\$46,400	Surface-Extensive

HIGHLAND CITY D AND F ROAD STUDY: OPINION OF PROBABLE COSTS HIGHLAND CITY ROADS

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
5600	5649	W 11350 NORTH ST		Highland	32.54	F	\$30,200	Surface-Extensive
5900	5999	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$31,600	Surface-Extensive
5600	5649	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$8,500	Surface-Extensive
5740	5759	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$17,000	Surface-Extensive
6000	6039	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$26,500	Surface-Extensive
5860	5899	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$29,400	Surface-Extensive
5700	5739	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$31,100	Surface-Extensive
5650	5699	W 9600 NORTH ST	FAE 2924	Highland	31.98	F	\$28,500	Surface-Extensive
10400	10549	N 6000 WEST ST	FAE 2918	Highland	31.49	F	\$75,000	Surface-Extensive
10550	10619	N 6000 WEST ST	FAE 2918	Highland	31.49	F	\$58,800	Surface-Extensive
10620	10679	N 6000 WEST ST	FAE 2918	Highland	31.49	F	\$54,200	Surface-Extensive
6400	6599	W 11800 NORTH ST		Highland	31.07	F	\$139,800	Surface-Extensive
6300	6399	W 11800 NORTH ST		Highland	31.07	F	\$101,800	Surface-Extensive
6400	6599	W 11800 NORTH ST		Highland	31.07	F	\$34,300	Surface-Extensive
11350	0	N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$28,000	Surface-Extensive
11440	0	N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$77,200	Surface-Extensive
	11599	N HIGHLAND BLVD	FAE 292C	Highland	30.90	F	\$77,500	Surface-Extensive
	11439	N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$35,400	Surface-Extensive
	11599	N HIGHLAND BLVD	FAE 292C	Highland	30.90	F	\$13,200	Surface-Extensive
11440		N HIGHLAND BLVD	6650 WE	Highland	30.90	F	\$10,300	Surface-Extensive
10730	10759	N 6120 WEST ST		Highland	30.50	F	\$25,100	Surface-Extensive
10830	10929	N 6150 WEST ST		Highland	30.50	F	\$58,400	Surface-Extensive
10760	10829	N 6200 WEST ST		Highland	30.50	F	\$42,800	Surface-Extensive
6120	6199	W 10760 NORTH ST		Highland	30.50	F	\$52,100	Surface-Extensive
6090	6099	W 10760 NORTH ST		Highland	30.50	F	\$15,700	Surface-Extensive
6100	6119	W 10760 NORTH ST		Highland	30.50	F	\$10,600	Surface-Extensive
6200	6399	W 10830 NORTH ST		Highland	30.50	F	\$136,800	Surface-Extensive
6150	6199	W 10830 NORTH ST		Highland	30.50	F	\$33,400	Surface-Extensive
10800	10929	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$120,100	Surface-Extensive
10680	10689	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$37,600	Surface-Extensive
10930	10999	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$63,200	Surface-Extensive
10690	10799	N 6000 WEST ST	FAE 2918	Highland	29.70	F	\$50,500	Surface-Extensive
12220	12339	N TIMBERLINE DR	5830 WE	Highland	28.48	F	\$71,900	Surface-Extensive
5830	5959	W BEACON HILL BLVD		Highland	28.48	F	\$76,900	Surface-Extensive
9600	9643	N HANCOCK PL		Highland	26.68	F	\$18,800	Surface-Full
9646	9649	N HANCOCK PL		Highland	26.68	F	\$17,700	Surface-Full
10150	10249	N HIDDEN POND DR	6450 WE	Highland	26.66	F	\$98,700	Surface-Full
6400	6449	W 10250 NORTH ST		Highland	26.66	F	\$30,600	Surface-Full
6300	6399	W HIDDEN POND DR	10150 NC	Highland	26.66	F	\$92,700	Surface-Full
11800	11869	N 6150 WEST ST		Highland	26.54	F	\$56,500	Surface-Full
11830	11839	N 6190 WEST ST		Highland	26.54	F	\$6,900	Surface-Full
11820	11829	N 6190 WEST ST		Highland	26.54	F	\$20,100	Surface-Full
11820	11829	N 6260 WEST ST		Highland	26.54	F	\$20,100	Surface-Full
11830	11839	N 6260 WEST ST		Highland	26.54	F	\$10,200	Surface-Full
11860	11879	N APOLLO WAY		Highland	26.54	F	\$20,600	Surface-Full

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House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternat e Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
11880	11949	N APOLLO WAY		Highland	26.54	F	\$59,300	Surface-Full
11940	11949	N CYPRUS DR		Highland	26.54	F	\$21,500	Surface-Full
11836	11869	N CYPRUS DR		Highland	26.54	F	\$28,400	Surface-Full
11800	11833	N CYPRUS DR		Highland	26.54	F	\$28,200	Surface-Full
11900	11939	N CYPRUS DR		Highland	26.54	F	\$35,400	Surface-Full
11870	11889	N CYPRUS DR		Highland	26.54	F	\$18,500	Surface-Full
11890	11899	N CYPRUS DR		Highland	26.54	F	\$21,200	Surface-Full
11950	11989	N CYPRUS DR		Highland	26.54	F	\$18,300	Surface-Full
11840	11889	N JUPITER CIR		Highland	26.54	F	\$54,000	Surface-Full
11820	11839	N JUPITER CIR		Highland	26.54	F	\$20,100	Surface-Full
6190	6259	W APOLLO WAY		Highland	26.54	F	\$62,500	Surface-Full
6150	6189	W APOLLO WAY		Highland	26.54	F	\$24,700	Surface-Full
6260	6279	W APOLLO WAY		Highland	26.54	F	\$24,900	Surface-Full
6150	6249	W ARGO CIR		Highland	26.54	F	\$100,900	Surface-Full
10926	10999	N 5870 WEST ST		Highland	24.52	F	\$68,400	Surface-Full
10800	10879	N 5870 WEST ST		Highland	24.52	F	\$61,800	Surface-Full
10880	10899	N 5870 WEST ST		Highland	24.52	F	\$19,800	Surface-Full
10900	10923	N 5870 WEST ST		Highland	24.52	F	\$19,600	Surface-Full
10920	10999	N 5920 WEST ST		Highland	24.52	F	\$68,300	Surface-Full
10800	10899	N 5920 WEST ST		Highland	24.52	F	\$61,800	Surface-Full
5870	5929	W 10880 NORTH ST		Highland	24.52	F	\$41,900	Surface-Full
5800	5869	W 10900 NORTH ST		Highland	24.52	F	\$21,500	Surface-Full
5870	5929	W 10925 NORTH ST		Highland	24.52	F	\$41,600	Surface-Full
5892	5999	W 9960 NORTH ST		Highland	23.23	F	\$112,700	Surface-Full
6620	6669	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$23,100	Surface-Full
6530	6559	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$26,000	Surface-Full
6560	6599	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$27,000	Surface-Full
6670	6799	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$141,600	Surface-Full
6600	6619	W 9600 NORTH ST	FAE 2924	Highland	22.77	F	\$43,400	Surface-Full
6400	6569	W 10400 NORTH ST	FAE 2932	Highland	22.02	F	\$132,300	Surface-Full
9600	9639	N 6000 WEST ST		Highland	20.95	F	\$39,400	Surface-Full
9640	9683	N 6000 WEST ST		Highland	20.95	F	\$20,100	Surface-Full
6300	6399	W 10400 NORTH ST	FAE 2932	Highland	17.50	F	\$81,700	Surface-Full
6000	6299	W 10400 NORTH ST	FAE 2932	Highland	17.50	F	\$248,300	Surface-Full
10400	10499	N 6400 WEST ST		Highland	17.13	F	\$120,700	Surface-Full
10500	10569	N 6400 WEST ST		Highland	17.13	F	\$32,100	Surface-Full
10570	10629	N 6400 WEST ST		Highland	17.13	F	\$46,400	Surface-Full
10500	10569	N 6400 WEST ST		Highland	17.13	F	\$35,700	Surface-Full
10150	10219	N MOUNTAIN VIEW DR	6280 WE	Highland	16.41	F	\$47,500	Surface-Full
10050	10149	N MOUNTAIN VIEW DR	6300 WE	Highland	16.41	F	\$44,800	Surface-Full
6000	6299	W 10150 NORTH ST		Highland	16.41	F	\$289,600	Surface-Full
10760	10829	N 6400 WEST ST		Highland	16.36	F	\$65,500	Surface-Full
10830	10889	N 6400 WEST ST		Highland	16.36	F	\$57,600	Surface-Full
10630	10669	N 6400 WEST ST		Highland	16.36	F	\$29,800	Surface-Full
10670	10759	N 6400 WEST ST		Highland	16.36	F	\$35,100	Surface-Full

House Address on the Right Side of the Street to	House Address on the Left Side of the Street	Street Name	Alternate Street Name	Jurisdiction	J-U-B Highland Road Study 2014 PCI	J-U-B Condition Category	Opinion of Probable Cost to Reconstruct*	Type of Reconstruct
10890	10899	N 6400 WEST ST		Highland	16.36	F	\$30,400	Surface-Full
10900	10999	N 6400 WEST ST		Highland	16.36	F	\$102,500	Surface-Full
10670	10759	N 6400 WEST ST		Highland	16.36	F	\$26,400	Surface-Full
5500	5599	W 9620 NORTH ST	FAE 2924	Highland	15.17	F	\$65,100	Surface-Full
6350	6529	W 9600 NORTH ST	FAE 2924	Highland	13.30	F	\$90,100	Surface-Full
6350	6529	W 9600 NORTH ST	FAE 2924	Highland	13.30	F	\$46,600	Surface-Full
9600	9769	N 6800 WEST ST		Highland	12.89	F	\$65,100	Surface-Full
9570	9599	N 6800 WEST ST	FAE 2888	Highland	12.89	F	\$36,600	Surface-Full
9600	9769	N 6800 WEST ST		Highland	12.89	F	\$73,500	Surface-Full
9570	9599	N 6800 WEST ST	FAE 2888	Highland	12.89	F	\$20,100	Surface-Full
9740	9799	N 6000 WEST ST	FAE 2918	Highland	11.98	F	\$71,100	Surface-Full
9700	9739	N 6000 WEST ST	FAE 2918	Highland	11.98	F	\$43,100	Surface-Full
9600	9699	N 6050 WEST ST	FAE 2918	Highland	11.98	F	\$128,200	Surface-Full
10100	10109	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$10,800	Surface-Full
10110	10269	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$97,400	Surface-Full
10346	10399	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$39,900	Surface-Full
10090	10099	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$10,800	Surface-Full
10110	10269	N 6000 WEST ST	FAE 2918	Highland	8.85	F	\$33,600	Surface-Full
10680	10769	N 5720 WEST ST		Highland	8.20	F	\$27,600	Surface-Full
TOTAL							\$16,246,500	