

AGENDA
HIGHLAND CITY COUNCIL MEETING
January 5, 2016

6:00 p.m. City Council Pictures
6:30 p.m. Oath of Office Ceremony
7:00 p.m. Regular City Council Session
Highland City Council Chambers, 5400 West Civic Center Drive, Highland Utah 84003

6:00 P.M. 2016 City Council Pictures
6:30 p.m. City Council Oath of Office

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

CALL TO ORDER – Mayor Mark Thompson

INVOCATION – Dennis LeBaron

PLEDGE OF ALLEGIANCE – Tim Irwin

APPEARANCES

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

PRESENTATIONS

- 1. Council Thank You – Nathan Crane**
- 2. 2014 - 2015 Audit Report – Keddington & Christensen Auditors**
- 3. 3rd Party Insurance Information – Tim Merrill, City Attorney**

CONSENT

- 4. MOTION: Approval of Meeting Minutes for the City Council Regular Session – November 17, 2015**
- 5. MOTION: Approval of Meeting Minutes for the City Council Work Session – December 1, 2015**
- 6. MOTION: Approval of Meeting Minutes for the City Council Regular Session – December 1, 2015**
- 7. MOTION: Ratifying the Mayors Appointment to the Planning Commission – Kurt Ostler**
- 8. MOTION: Ratifying the Mayors Appointment to the Water Advisory Board – Jim Horrocks and Drew Sparks**

9. **RESOLUTION: Appointment of the City Treasurer and Re-Appointment of the City Recorder –** Stephanie Cottle, City Treasurer and JoD’Ann Bates, City Recorder
10. **MOTION: Approval of Reimbursement and Authorizing the Mayor to sign an Agreement with Millhaven Homes for Installation of Curb, Gutter, Replacement and Relocation of a Culinary Water Line –** 9600 North, Flats at Fox Hollow Subdivision
11. **RESOLUTION: Adjusting City Fee Schedule –** City Facility Rentals

ACTION ITEMS

12. **MOTION: Speed and Warrant Study -** Highland Blvd. and 11800 North
13. **MOTION: Authorization to Select Zions Bank Public Finance Group -** Utility Rate Study
14. **NOMINATION / VOTE: Mayor Pro-Tempore -** City Council

MAYOR/ CITY COUNCIL & STAFF COMMUNICATION ITEMS

15. Parks Storage Building Update – Justin Parduhn, Public Works O & M Director
16. Highland City Website Update – Erin Wells, Assistant to the City Administrator

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		Continued Discussion
Determine Park Use for Recreation	City Council Parks Staff	2016	Staff to make Recommendations
HW Bldg. – PW Storage Status	City Council Mayor/PW	End of 2015	In Progress
Moratorium for the Town Center Overlay	City Council	January 2016	
Urban Deer Control Plan	Council City Recorder	January 2016	Scheduled for January 19 th

CERTIFICATE OF POSTING

The undersigned duly appointed City Recorder does hereby certify that on this **30th day of December, 2015**, the above agenda was posted in three public places within Highland City limits. Agenda also posted on State (<http://pnn.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, November 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: Nathan Crane, City Administrator/Community Development Dir.
Erin Wells, Assistant to the City Administrator
Gary LeCheminant, Finance Director
Justin Parduhn, Public Works O&M Director
Brian Gwilliam, Chief of Police
Tim Merrill, City Attorney
Todd Trane, Contract Engineer
Brad Freeman, Fire Chief

EXCUSED: JoD’Ann Bates, City Recorder

OTHERS: Autumn Doyle, Brenna Doyle, McKenzie Swallberg, McKinley Cordner, Laura Mabey, Curtis Bassett, Michelle DeKorver, Mike Privett, Stacey Privett, Carter Bullington, Jacob Jensen, Justin Pflueger, Chuck Owen, Aaron Dayley, Ben Sidwell, Michael Berg, Scott Airmet, Cris Sidwell, Dustin Garrity, Cali Garrity, Davis Roberts, John Armstrong, Mitchell Lord, Luke Fairbanks, Lalith Suresh, Bowman Kap Davis Kearl, Ed Dennis, Rick Horsley, Devirl Barfuss, Ethen Horsley, Dustin Daniel, Jake Newman, Jacob Hoyal, Grayson Davis, Austin Pence, Hyrum Thomas Eli Teeples, Lar Johns.

The meeting was called to order by Mayor Mark S. Thompson as a regular session at 7:00 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 Dave Roberts.

APPEARANCES:

There were no appearances.

CONSENT ITEMS:

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1 **MOTION: Approval of Minutes for the City Council Regular Session – September 1, 2015**

2
3 **MOTION: Approval of Minutes for the City Council Regular Session – October 20, 2015**

4
5 **MOTION: Approval of Formally Certifying the Election Canvass for the 2015 General**
6 **Municipal Election – Including Additional Votes from Provisional and Timely Absentee Ballots**
7 *Pulled by Rod Mann*

8
9 **MOTION: Brian Braithwaite moved that the City Council approve the consent items for**
10 **the meeting minutes of September 1, 2015 and October 20, 2015.**

11
12 **Tim Irwin seconded the motion.**
13 **Unanimous vote. Motion carried.**

14
15
16 **MOTION: Approval of Formally Certifying the Election Canvass for the 2015 General**
17 **Municipal Election – Including Additional Votes from Provisional and Timely Absentee Ballots**
18 *Pulled by Rod Mann*

19
20 Rod Mann likes the numbers that have been finalized. He requested that staff conduct future
21 elections in a way so as to gather data on each individual precinct rather than a combination.
22 Rod also suggested that the Council hold a meeting to discuss what worked and which areas need
23 to be improved. Brian Braithwaite explained that in speaking with Jody, there had been a
24 miscommunication with the requesting of the precinct and the County delivered differently. Rod
25 was not sure that this was accurate.

26
27 Nathan Crane explained that he had spoken with the County. He was told that precinct data is
28 collected by the individual ballot rather than what is produced by the County. He indicated that
29 during this election we were responsible for our own ballot and that by being responsible for our
30 own ballot, we can set it up to collect each precinct.

31
32 Brian Braithwaite asked if ballots could be shipped with precinct numbers. Nathan Crane
33 answered that ballot numbers could be included when the ballot is designed. Brian stated that the
34 issue is with the design of the ballot and seeing the distinction between collected ballots. Nathan
35 Crane stated that may be true for County ballots, but if the City is doing the ballot and wants it
36 by precinct then it would depend upon how the ballot is ordered to be printed. Mayor Thompson
37 asked if the ballots could be corrected, and Nathan Crane answered affirmatively.

38
39 **MOTION: Rod Mann moved that the City Council approve the Formally Certifying the**
40 **Election Canvass for the 2015 General Municipal Election.**

41
42 **Dennis LeBaron seconded the motion.**

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1 **Unanimous vote. Motion carried.**
2
3

4 **ACTION ITEMS:**
5

6 **ORDINANCE: Amending Chapter 13.48 City Cemetery Policies and Regulations –**
7 **Addressing Cemeteries on Private Property**
8

9 ***Background:** At the October 20 City Council meeting, Council directed staff to edit the*
10 *Municipal Code to allow burials on private property. This request originated from a citizen’s*
11 *petition to City Council.*

12 *In researching the issue, it has become apparent that State Code currently sets the policies and*
13 *provisions related to the regulation of cemeteries and handling of a deceased person. Utah State*
14 *Code Title 8 (Cemeteries) dictates the requirements for platting a cemetery with the County and*
15 *regulatory requirements of cemeteries including those cemeteries owned by any private*
16 *individual. The Utah Administrative Code Rule R436 (Authorization for Final Disposition of*
17 *Deceased Persons) sets the rules for the handling of any deceased person’s remains prior to*
18 *burial.*

19 *If the City Code were amended to allow cemeteries on private property, any individual wishing*
20 *to create a cemetery would need to plat the land as a cemetery with Utah County. The State*
21 *Code then would dictate the requirements of that cemetery and the disposition of a deceased*
22 *person.*
23

24 Erin Wells stated that through all the presented research it became apparent that the State
25 regulates both the disposition of a body and the platting of cemeteries. As per State regulations,
26 cemeteries must be platted through the County. She explained that the proposed ordinance
27 amendment was created pursuant to State code, and as long as individuals follow the code
28 cemeteries will be allowed on private property.
29

30 Rod Mann questioned whether it would be correct to end up with two pieces of land when
31 platting a section of a two acre parcel. Erin indicated that this is correct because it would have
32 been platted with the County. Rod inquired if the two created properties could be sold
33 independently of each other, and Nathan answered affirmatively. Rod wanted to know if there is
34 a requirement in place for ensuring that the cemetery plat is accessible, or if it will be an isolated
35 piece of property with no access. Nathan stated that the ordinance would require that the
36 property owner setting up the plot address accessibility issues; however, the matter would not be
37 investigated through his office under the proposal. Rod explained that he's concerned about an
38 isolated, inaccessible property being created and sold, and that subsequently having the main
39 property be sold independently of the isolated property. He's concerned that the property would
40 become an inaccessible island that would not be well maintained. Nathan agreed that this is a
41 possibility.
42

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1 Tim Merrill stated that it became evident that there were three different directions the City could
2 go with this issue. First, the City could decide this was not a good policy and allow private
3 property owners to deal directly with the County and State. This would also allow the City to
4 not assume any further responsibility. The third option is to heavily regulate based on guidelines
5 defined by the City. Rod asked if it was technically possible for someone to create a plat for a
6 cemetery on their own property. He explained that there would be at least a 20x20 size
7 requirement for the grave. Tim Merrill indicated that it would be as big as is required to dig a
8 hole and comply with the County regulations.

9
10 Erin Wells indicated that the State requires platted cemeteries to develop their own rules and
11 regulations. It is up to each individual cemetery for how deep the grave needs to be, whether
12 there needs to be a coffin or a vault. The County has no requirements on the water table or depth
13 of burial, and there is no approval process for cemeteries.

14
15 Brian Braithwaite stated that he had several concerns. First, there is nothing to prevent someone
16 from converting their entire acre of property into a private cemetery and then selling plots. As a
17 City Council they are required to protect property rights but should also look at those unintended
18 consequences for those property rights that might be impacted by this ordinance amendment. He
19 stated that in researching other cities and states, the main issue is the maintenance of the
20 cemetery. Brian asked the Council to also consider whether or not to allow the cemetery as
21 simply a section of dirt in someone's backyard, or if it should be marked as a designated burial
22 location.

23
24 Brian Braithwaite argued that there needs to be a substantial way of showing that the cemetery
25 exists; otherwise, the grave could become unintentionally desecrated. There are a lot of
26 unintended consequences that are of concern, especially with regards to liability. One such
27 example is that if up to 20 or more people were buried on the property it could become a
28 nuisance piece of property. No one would want to move the graves because it would cost
29 money, thereby rendering the property useless. Furthermore, the property would go into
30 foreclosure and no one would want to purchase it. Brian also stated that there would need to be a
31 restriction on how far away the cemetery would need to be from neighboring property lines.

32
33 There was discussion as to whether or not the cemetery would have to be a 10 foot easement.
34 Brian Braithwaite stated that he has not noticed any regulating verbiage, and that the average plot
35 would not be able to fit a 10 foot easement. He explained that while some cemeteries may be
36 well-maintained, others may not, thereby creating several other problems. He suggested
37 changing the cemetery from private to family, and restrictions such as plots per acre and acreage
38 size be included in the ordinance. Brian commented that in a community like Highland, burying
39 someone on a quarter acre parcel where a home exists is not logical.

40
41 Brian Braithwaite stated that if the cemetery is going to be a commercial entity, then it needs to
42 be regulated as a commercial entity inside of a residential area. He explained that having a
43 cemetery inside a residential area would not be bad; however, as a City they need to determine

DRAFT

1 whether or not a cemetery inside a residential area should allowed. He stated that the way this
2 ordinance is currently written, people could come in and start a business without even asking.
3 Rod Mann stated that there are rules in place for businesses, and provided an example of setting
4 up a home-based business. He stated that according to the rules, a person would have to canvass
5 the neighborhood to receive permission from the neighbors within 100 or 200 feet. There was
6 continued discussion on the matter.

7
8 Nathan Crane stated that business licenses function as a taxing document and are not designed to
9 regulate. Permitted uses are based on zone. The Council considered having a work session to
10 further discuss some of the issues that Brian has raised. Rod Mann stated that he doesn't see a
11 detrimental impact of burying people in the backyard. He inquired that this issue could
12 potentially incur added costs upon the City and wondered why the Council was considering the
13 ordinance.

14
15 Jessie Schoenfeld stated that she and Dennis had recently visited a private burial plot from the
16 turn of the 20th century. The Historical Society wanted to make the plot with five burials to be
17 made public and have public access. She stated that she found this to be interesting because it
18 was once private and now the Historical Society wants it public; therefore, it needs to be
19 accessible. She explained that the site has been maintained by the owners but there is no
20 guarantee that would happen in the future with other properties. Dennis LeBaron commented
21 that he is still in favor of trying to work out an ordinance, but he can agree with many of Brian's
22 points.

23
24 Brian Braithwaite stated in trying to create changes to the ordinance, he thought about what
25 regulations needed to be contained in the ordinance. He suggested continuing this item in order
26 to further discuss all options. Tim Irwin expressed concerns with implementing too much
27 regulation and the added responsibility to would be imposed on staff. The Council continued to
28 deliberate on points that were previously discussed.

29
30 **MOTION: Brian Braithwaite moved the City Council to table an Ordinance Amending**
31 **Chapter 13.48 City Cemetery Policies and Regulations to a future date.**

32
33 **Dennis LeBaron seconded the motion.**

34
35 **Those voting "Aye": Rod Mann, Jessie Schoenfeld, Tim Irwin, Dennis LeBaron, Brian**
36 **Braithwaite.**

37 **Motion carried.**

38
39
40 **MOTION: Authorization to Proceed with New City Logo – Web & Social Media Committee.**
41 *Background: As a part of the new website creation, the Web & Social Media Committee*
42 *recommended that a new logo be updated and revamped as an entire rebranding process. Brian*
43 *Parrish who specializes in design volunteered to create a new logo and style guide at no cost to*

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1 *the City. After vetting many different designs with the social media committee and staff, the*
2 *committee settled on the attached logo. It is not dramatically different than the current logo but*
3 *gives an updated but professional use to the idea of Highland City being the “Gateway to*
4 *American Fork Canyon”.*

5 *If the Council approves this logo for city-wide use, staff will create a style guide that will fully*
6 *explain the proper uses of the logo. This will be brought before Council for approval and then*
7 *the new logo will begin to be implemented.*

8 *Rather than do a drastic and expensive overhaul of every city item that has the logo on it, items*
9 *will be replaced over-time as they reach their lifespan. As such, there will be no additional cost*
10 *outside of our normal replacement costs.*

11
12 Erin Wells stated that as the Communications Committee is working on a new website and
13 branding they felt the Highland City logo could be updated. The Communications Committee
14 came up with a new logo, which includes the mountain range and user friendly font. Provided
15 that this motion carries, they plan to come back at the December meeting and present a branding
16 document which outlines a policy for logo use. Rod Mann added that this in being done in
17 conjunction with the new website. Dennis LeBaron commented that the logo looks great, and
18 asked how much it will cost to have it changed.

19
20 Erin Wells stated that they would not burden the City all at once with the changing of a new
21 logo. The plan is to implement the new logo based upon a replacement schedule, so as to save
22 money. The committee is moving towards placing magnets on trucks as needed instead of logos.
23 Brian Braithwaite commented that this is the fourth time the logo has changed in the past seven
24 years, and asked that this be the last change. Erin Wells stated that this exact variation will not
25 be able to be used for all things. While they will be uniformly branded, there will be some
26 variations for different types of uses.

27
28 **MOTION: Tim Irwin moved the Council to approve the use of the new logo for City use**
29 **and directing staff to use a style guide for Council approval.**

30
31 **Jessie Schoenfeld seconded the motion.**

32 **Unanimous vote. Motion carried.**

33
34
35 **MOTION: Agreement for Temporary Gravel Parking Lot – Alpine School District for Lone**
36 **Peak High School.**

37
38 ***Background:*** *The Alpine School District (ASD) has approached city staff with a request to*
39 *acquire additional land. The land will be used for additional parking for Lone Peak High*
40 *School. ASD is requesting the property to the west of the baseball and football fields and to the*
41 *west of the seminary building. The exact total acreage is unknown but will range between 6-7*
42 *acres. The ASD has provided design alternatives for the area west of the seminary building.*
43 *This was first discussed by the Council on March 17, 2015 and on August 4, 2015.*

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1 *Baseball/Football Fields*

2 *There is land area between Knight Avenue and the baseball fields. The width of this area varies.*
3 *However, there is enough area to build a parking lot between the football and baseball fields.*
4 *Staff supports the use of this area for additional parking spaces.*

5 *Seminary Building*

6 *This area would accommodate 100 to 183 parking spaces. This area was planned for a soccer*
7 *field. In addition, the Lone Peak High School Marching Band uses a football field sized area for*
8 *marching band rehearsals.*

9 *With the Council's action to remove organized sports activities from all but three of the city*
10 *parks, field space is at a premium. Staff is concerned with loosing additional land that is owned*
11 *by the City that could be used for fields.*

12 *Updated Discussions*

13 *The Mayor and Staff recently met with School District Officials. The results of the meeting were*
14 *the preparation of an agreement that would allow the School District to use the land behind the*
15 *seminary building as a gravel parking lot. The City Attorney prepared the agreement. The*
16 *agreement would end on August 1, 2016 and would allow the School District to use*
17 *approximately 65,000 square feet for a gravel parking lot. The property is currently undeveloped*
18 *but has been planned for the expansion of the soccer fields. A metes and bounds legal*
19 *description will be prepared prior to execution of the agreement.*

20

21 Nathan Crane explained that they would like to use the property located next to the seminary
22 building additional parking for the high school. An agreement with the City and the school
23 district would allow the school district to building a gravel parking lot which would be
24 approximately 65,000 square feet. The gravel lot would be shared parking to be used for a
25 variety of purposes.

26

27 Brian Braithwaite stated that he is in favor of the motion as long as the plan continues with what
28 has been previously discussed. The original plan was to take that land and turn it into a field. It
29 would be an additional cost to the City if something were to happen and the gravel would have to
30 be removed for the land to be turned into a field. Staff noted that the plan is to have additional
31 parking as the proposal indicated. The school district is currently working on acquiring
32 additional property from the City but this would suffice for now and solve the parking issue.
33 Brian was of the opinion that a land swap between the City and school district would be the best
34 option.

35

36 Mayor Thompson acknowledged that there is an immediate parking need at the high school, and
37 that this proposal would help resolve that short-term problem. Brian Braithwaite asked if there
38 are any potential issues with the neighboring land and property owners, and Nathan was not
39 aware of any. Mayor Thompson stated there is a current struggle for parking at the new bike
40 facility, and he would like to see a temporary parking solution. It would be unreasonable for cars
41 to park on the south side of the road when this parking lot is open because it would open up more
42 traffic. The Council further deliberated the matter.

43

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1 **MOTION:** Tim Irwin moved that the Council approve the agreement for temporary
2 parking between Highland City and the Alpine School District for gravel parking with the
3 addition that gravel parking be removed should it be returned to the City for use.

4
5 **Jessie Schoenfeld seconded the motion.**
6 **Unanimous vote. Motion carried.**

7
8
9 **MOTION: Discussion and Approval – Storm Drain Maintenance Plan**

10
11 ***Background:** Staff is currently preparing maintenance plans for all of the City owned*
12 *infrastructure. These maintenance plans are designed to prolong the life of existing*
13 *infrastructure by ensuring proper maintenance is scheduled and completed. The maintenance*
14 *plans are based on manufacturer recommendations as well as staff experience. Staff believes it*
15 *is fiscally responsible to plan and fund maintenance of critical infrastructure. This planning will*
16 *allow the City to better understand and save for these future expenditures. Hansen, Allen and*
17 *Luce is assisting City staff in preparation of the maintenance plans.*

18 *Master plans and capital improvement plans have been previously completed. Once the*
19 *maintenance plans are finalized the rate analysis for each utility can be completed. The rate*
20 *analysis will ensure that the enterprise funds are properly funded to address current and long*
21 *term projects and maintenance.*

22 *The purpose of the Storm Drain Maintenance Plan (Plan) is to prolong the life of the system*
23 *infrastructure and efficiently convey, detain or infiltrate storm water. The storm drain system*
24 *mitigates flooding within the City. Due to the Environmental Protection Agency's (EPA)*
25 *mandated National Pollution Discharge Elimination System (NPDES) regulations are also in*
26 *place to improve the water quality discharged to the environment. This Plan identifies annual*
27 *maintenance required for sumps, catch basins, and detention facilities along with estimated costs*
28 *for planning purposes.*

29 *Highland City established in their 2011 Storm Water Management Plan (SWMP) a maintenance*
30 *outline for the storm drain system. The outline was prepared with the objective to 'Maintain and*
31 *operate the storm water drain system in a manner that reduces the discharge of pollutants'.*
32 *Appropriate maintenance also ensures that the system can adequately convey or detain storm*
33 *water to reduce flooding in streets and private property. The City's maintenance program*
34 *ensures that the environment, property and safety of the public are protected at a reasonable*
35 *cost for the Citizens of Highland.*

36
37 Justin Parduhn explained that staff has been working with Tavis Timothy for the past several
38 months on a Storm Drain Maintenance Plan. The Sewer Maintenance Plan has already been
39 presented, and in addition to Storm Drain Maintenance Plan, they will also be presenting the
40 Irrigation Plan. The Storm Drain Maintenance Plan provides an overview of the system, as well
41 as maintenance costs to plan for the future incidents. It was noted that the sweeper is old but
42 running; it requires a lot of attention and is frequently in the repair shop. Staff is currently
43 working on other options for sweeping the streets such as contracting out that service or leasing

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1 out a new sweeper. The purchase of the back truck would be used for water, sewer and storm
2 drains; there aren't very many contracting options available for this service. There are, however,
3 possible leasing options for the equipment.
4

5 Tavis Timothy explained that the goal of the plans is to identify needs, and he requested Council
6 approval for moving forward with some of these options. Justin Parduhn added that the streets
7 are getting done once a year, but staff would like to have it done bi-annually. Staff would also
8 like to change out sumps once or twice a year depending on the budget. The cost would double
9 for the maintenance on the sweeper with the City's current sweeper. Tavis noted that sweeping
10 twice a year is beneficial for removing dead leaves and other debris, which is helpful for
11 construction sites. Justin Parduhn explained that the maintenance plans provides estimates for
12 cleaning out sumps; therefore, they are not asking for money for a sweeper or back truck. He
13 briefly reviewed budgeting, and stressed that the plans only contain estimates.
14

15 Tim Irwin stated that he needs to review all of the numbers prior to approving a plan. Justin
16 Parduhn replied that these plans primarily address issues and suggest best practices to be
17 implemented by the City; funding for future expenditures is a separate issue. After further
18 discussion, Brian Braithwaite requested that the inflation rate be adjusted on the maintenance
19 plan from 3% to 4%, and requested that cash flow graphs be included within the maintenance
20 plan for Council review.
21

22 **MOTION: Tim Irwin moved the City Council to approve the Storm Maintenance plan as**
23 **was presented; however, change the inflation rate from 3% to 4% and include graphs.**
24

25 **Rod Mann seconded the motion.**
26 **Unanimous vote. Motion carried.**
27

28 **MOTION: Discussion and Approval – Pressurized Irrigation Maintenance Plan**
29

30 ***Background:** Staff is currently preparing maintenance plans for all of the City owned*
31 *infrastructure. These maintenance plans are designed to prolong the life of existing*
32 *infrastructure by ensuring proper maintenance is scheduled and completed. The maintenance*
33 *plans are based on manufacturer recommendations as well as staff experience. Actual system*
34 *components may have longer life spans and some may have shorter life spans than provided in*
35 *the plan. However, staff believes it is fiscally responsible to plan and fund maintenance of*
36 *critical infrastructure. This planning will allow the City to better understand and save for these*
37 *future expenditures. Hansen, Allen and Luce is assisting City staff in preparation of the*
38 *maintenance plans.*

39 *Master plans and capital improvement plans have been previously completed. Once the*
40 *maintenance plans are finalized the rate analysis for each utility can be completed. The rate*
41 *analysis will ensure that the enterprise funds are properly funded to address current and long*
42 *term projects and maintenance.*

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1 *The purpose of the Pressurized Irrigation Maintenance Plan (Plan) is to prolong the life of the*
2 *existing infrastructure and provide reliable irrigation water to residents of Highland City.*
3 *Construction of the pressurized irrigation system was begun in 1997 and has been expanded to*
4 *include new areas as development has occurred within the City. The system utilizes both*
5 *groundwater and surface water sources for irrigation purposes.*
6

7 Justin Parduhn stated that this is the same information as was discussed with the Strom Drain
8 Maintenance Plan. Brian Braithwaite remarked that there was a major problem with a leak in the
9 lining of the reservoir in North Ogden, and asked if the plan would help protect Highland City
10 from something of that nature. Justin explained that there are test tubes around the ponds that go
11 down 30 feet, which help verify that no water is leaking. Brian suggested that the City set aside
12 money for the event of an emergency. Staff will also prepare an annual reports for all of the
13 City's enterprise funds, so as to present all necessary data to the Council.
14

15 **MOTION: Brian Braithwaite moved the City Council to Approve the Pressurized**
16 **Irrigation Maintenance Plan as presented with changes to Table A to include the 4% and**
17 **provide a description of an annual review and adjustment.**
18

19 **Jessie Schoenfeld seconded the motion.**
20 **Unanimous vote. Motion carried.**
21
22

23 **RESOLUTION: Consideration of a Resolution for Bond Refinance – 2007 Park Bonds**
24

25 Gary LeCheminant stated that Zion's Bank approached him in October indicating that it might be
26 possible to refund the 2007 park bond. The old debt had an average coupon rate of 4.17%, and
27 Gary explained that the rate changed to 2.25% in the last three weeks. The old bond that was not
28 refinanced has a current interest and principle amount of \$6.18 million. If the new bond is
29 refinanced with the 2.25% rate, the new principle and interest amount would be \$5.877 million,
30 for a gross saving of \$304,000 dollars. The new bond would expire or mature on September 1,
31 2027. Gary noted that there are two bond payments due on September 1, 2016, as well as in
32 September of 2017. If the City refinances, they would need to borrow \$5 million, as well as an
33 extra \$404,000 in principle. If the City does not refinance, the total interest paid will be around
34 \$1.6 million dollars, whereas under a refinance bond they will only pay \$873,000 in interest, for
35 a total savings of \$708,000.
36

37 The proposed resolution indicates that the Mayor, along with staff, will meet with a municipal
38 advisor and approve a deal, provided that there isn't an interest rate that exceeds 5% on any bond,
39 and as long as the new principle amount does not exceed \$5.1 million. The maturity date will be
40 September 1, 2027. In response to a question from Brian Braithwaite, Gary LeCheminant
41 explained that the average bond of the coupon is 4.17%. It is unknown currently if the bond can
42 be paid off early until they have a bid. At this point, Zion's bank is ready to send out bids if the
43 resolution is approved. If the interest stay at 2.25%, they will need to lock in a bid.

DRAFT

1 **MOTION: Jessie Schoenfeld moved the City Council to consider the Resolution of Re-**
2 **financing the bond.**

3
4 **Rod Mann seconded the motion with the stipulation that the Council adhere to the**
5 **restrictions that were discussed.**

6
7 **Unanimous vote. Motion carried.**

8
9
10 **MOTION: Approval of a Bid for the Construction of a Fence – Around the Splash Pad**

11
12 ***Background:** The City Council has asked staff to bid the cost of a fence around the splash pad.*
13 *Staff has solicited bids from four companies as follows. All fencing is a three foot powder coated*
14 *wrought iron fence unless otherwise noted.*

15 *Northwest Fencing: \$37,950.00*

16 *Freeway Fencing: \$29,883.55*

17 *Fence Specialist: \$20,943-\$23,570 (depending on options) – four foot fence*

18 *CFC Fence: \$24,570*

19
20 Nathan Crane stated that he was asked by the Council to look for bids for the placing of a three
21 foot fence around the splash pad. Cost ranges between \$20,000 and \$38,000, which was not
22 included in this year's budget. If the Council wants to proceed with this project, the money will
23 need to be taken out of other funds or included in next year's budget. Rod Mann suggested that
24 the money could potentially come from tax collections. Nathan indicated that he has the bids if
25 the Council wants to proceed; otherwise, he could include it in next year's budget. The bids are
26 good for 30 days. Brian Braithwaite stated that the City does not have the money for this project,
27 and was not in favor of moving forward. Nathan explained that there are other, less expensive
28 options that could also be considered.

29
30 **MOTION: Dennis LeBaron moved that the City Council continue this matter until the**
31 **first meeting in February.**

32
33 **Tim Irwin seconded the motion.**

34 **Unanimous vote. Motion to continue carried.**

35
36
37 **MOTION: Authorization to Purchase Work Order Software – Mobile 311 with Facility**
38 **Dude**

39
40 ***Background:** The Public Works Department is seeking a way to better track the happenings of*
41 *their department in regards to work orders, equipment usage, materials, time, etc. and to have a*
42 *better way to gather data and compile reports.*

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1 *In addition, when the City rolls over to a new website, the Report a Concern feature will no*
2 *longer exist. While this current system was not ideal, it was what staff was using to solicit*
3 *information from residents relating to city issues and track those issues to resolution.*
4 *Originally when staff looked into purchasing a work order system, \$60,000 was budgeted for this*
5 *fiscal year for the purchase of a particular product. Administration conducted additional*
6 *research into other companies to see if there were other more affordable yet as good of products*
7 *on the market. In October, Justin Parduhn, Kelsey Bradshaw, Nathan Crane, and Erin Wells*
8 *conducted webinar demonstrations with four different work order companies. Below is a list of*
9 *the companies and their respective annual costs:*

10 *SeeClickFix - \$7,500 (\$9,500 set-up)*

11 *FacilityDude - \$11,820 (\$10,050 set-up)*

12 *Public Service Request - \$4,800 (\$5,500 set-up)*

13 *GovQA - \$6,000 (\$8,500 set-up)*

14 *After doing research, seeing the demonstrations, conducting follow-up interviews, and doing*
15 *reference checks, the evaluation team is confident that FacilityDude has the best work order*
16 *product system and that it will meet all of our city's needs in that realm. The FacilityDude*
17 *Mobile 311 solution will enable citizens and staff alike to create and track work requests. In*
18 *addition, staff will be able to update information regarding work orders while in the field; easily*
19 *track things like cost, time, and equipment; create informative and helpful reports relating to*
20 *activities.*

21
22 Mayor Thompson asked if staff has researched what software is available through the State, and
23 it was noted that Salt Lake City uses Facility Dude as their system because it is so user friendly.
24 Staff interviewed four different companies and felt that Facility Dude was the best, most
25 extensive option for meeting the City's goals. Facility Dude allows for an unlimited number of
26 users and an unlimited number of service requests. Facility Dude is also mobile-based. Justin
27 Parduhn added that Facility Dude presented the options available for inputting or tracking, GPS
28 locations, etc. All of the superintendents have Smart Phones, and could be upgraded with
29 Facility Dude capabilities.

30
31 Brian Braithwaite asked for clarification on the licensing and set-up fees. Erin Wells stated that
32 the agreement is very basic and that some of the wording needs to be changed. Cost is based on
33 the population, and will be included with next year's budget.

34
35 **MOTION: Rod Mann moved the City Council to approve the Mayor and staff to negotiate**
36 **a contract with Facility Dude once all terms are clear.**

37
38 **Brian Braithwaite seconded the motion**
39 **Unanimous vote. Motion carried.**

40
41
42 **MAYOR, CITY COUNCIL & STAFF COMMUNICATION ITEMS**

DRAFT

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

3
4 **Park Maintenance Update** – Justin Parduhn, Public Works O&M Director

5
6 Justin Parduhn reported that the majority of the equipment has been moved in the garage. The
7 lean tooth is built; however a door and light fixture need to be installed. He stated that some
8 sprinkler parts and fittings are the only things that remain in the old building but will be moved
9 in the month of December. The sprinklers will be blown out and fertilizer down by the end of
10 next week.

11
12 **Road Maintenance Repair Plan** – Justin Parduhn, Public Works O&M Director

13
14 Justin reported that he received bids for surface treatment, and will prepare a report for Council
15 review. Additionally, 1040 North will be re-built. Justin noted that he is waiting for a bid on the
16 new sewer line and anticipates that this information will be available at the start of the New
17 Year.

18
19 **ADJOURN TO A CLOSED EXECUTIVE SESSION**

20
21 The City Council will recess into a closed executive session for the purpose of discussing the
22 character, professional competence, or physical or mental health of an individual. Pursuant to
23 Section 52-4-205(1) of the Utah State Code Annotated.

24
25 **MOTION: Rodd Mann moved to adjourn into closed executive session.**

26
27 **Dennis LeBaron seconded the motion.**

28 **Unanimous vote. Motion carried.**

29
30
31 **RECONVENE CITY COUNCIL MEETING**

32
33 **MOTION: Tim Irwin moved to adjourn.**

34
35 **Rod Mann seconded the motion.**

36 **Unanimous vote. Motion carried.**

37
38 **Meeting adjourned at 10:41 p.m.**

39
40 _____
41 JoD'Ann Bates, City Recorder

42 Date Approved: January 5, 2016

**MINUTES
HIGHLAND CITY COUNCIL WORK SESSION**

Tuesday, December 1, 2015

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

PRESENT: Mayor Mark S. Thompson, conducting
Council Member Dennis LeBaron
Council Member Tim Irwin
Council Member Jessie Schoenfeld

STAFF PRESENT: Nathan Crane, City Administrator, Community Dev. Director
Erin Wells, Assistant to the City Administrator
JoD’Ann Bates, City Recorder
Tim Merrill, City Attorney

6:00 P.M. WORK SESSION – CITY COUNCIL CHAMBERS

Discussion regarding Family Cemeteries on Private Property

OTHERS: DeVirl Barfuss.

Mayor Thompson called the meeting to order at 6:06 p.m., and stated that Council Members Brian Braithwaite and Rod Mann would not be present.

Erin Wells, introduced the item for discussion regarding private family cemeteries. Staff had drafted an ordinance for this and wanted feedback from the City Council. Ms. Wells stated that there was a slight change from the draft that was given to the Council which altered the definition of a plot. The two points staff specifically wanted to address were a limit to the number of plots, and the general issue of ownership and maintenance.

To begin the discussion, Mayor Thompson asked City Attorney, Tim Merrill, if there were any legal inconsistencies in the ordinance, to which he responded that he was not aware of any. Tim Merrill added that this ordinance should accomplish the intent of the City Council, and it could be revisited and amended if issues arose.

Mayor Thompson informed the Council and staff that he had discussed this issue with Brian Braithwaite, and he expressed a concern regarding enforcing the maintenance of the cemeteries. Ms. Wells responded that staff had tried to address this in two ways. The first was a deed provision requiring the maintenance of the plot, and the other is to require an endowment care fund.

In reference to the endowment care fund, Dennis LeBaron asked if part of those funds could be used to cover some of the burial costs. Ms. Wells stated that the endowment fund does not

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1 designate how those fund are to be used, so this was a possibility. She also confirmed that the
2 City does not have an endowment fund for City cemeteries, but the sale of the burial plot acts as
3 a fund. Tim Irwin asked why the City would require an endowment fund of the residents if this
4 was not something the City was required to do. He suggested that the existing nuisance
5 ordinance would be enough to ensure that the cemeteries are properly maintained.
6

7 Tim Merrill stated that the language of the ordinance does not prohibit the sale of the private
8 plots for commercial gain, and asked if this was something the Council wanted to address. There
9 was a discussion regarding limiting the use of the plots of family members, and current versus
10 future ownership. Ms. Wells stated that a deed provision would require the owner of the main
11 property to continue to maintain the cemetery parcel.
12

13 After some discussion, Tim Merrill presented the following language, “Family cemetery does not
14 mean a private or commercial cemetery where plots are made available for sale to the public”.
15 There was a concern that this language did not restrict the use of the plots to family members, to
16 which Attorney Merrill responded that there may be situations where the owner wants to reserve
17 a plot for a close family friend.
18

19 Erin Wells brought the discussion back to the deed provision, and asked how they could address
20 future maintenance with a change in ownership. The Council felt that an endowment fund may
21 be too difficult to enforce, and that the responsibility for maintenance needed to be tied to the
22 property that originally instituted the cemetery. Tim Merrill was asked to create language that
23 would require the owner of the property surrounding the cemetery be responsible for its
24 maintenance. The following language was proposed, “the owner of the surrounding property is
25 to maintain the cemetery plat in an attractive manner, complying with all City ordinances. Plots
26 that are unkempt shall be deemed a nuisance and subject to civil abatement and enforcement of
27 the City’s nuisance ordinance”.
28

29 Prior to adjournment, Ms. Wells summarized the discussions and decisions made during the
30 meeting, and confirmed that the changes would be implemented.
31

32 **Work Session adjourned at 6:58 p.m.**
33
34

35 JoD’Ann Bates, City Recorder
36

37 Date Approved: January 5, 2016
38

MINUTES
HIGHLAND CITY COUNCIL MEETING
Tuesday, December 1, 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

STAFF PRESENT: Nathan Crane, City Administrator/Community Dev. Director
Erin Wells, Assistant to the City Administrator
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
Tavis Timothy, Contract Engineer
Todd Trane, Contract Engineer

OTHERS: Devirl Barfuss, Michelle DeKorver, Hal Hodges, Jeanne Hodges, Matt Robinson, Brian Balls, Tate Modersitzki, Brett Johnson, Jessie Spencer, Briggs Gregory, Talmage Bennett, Seth Barrus, Spencer Vick, Rick Aaron, Rob Beard, Marci Modersitzki, Scott Hart, Lauryn Bollard, Hillari Bollard, Rebekah Cutler, McKenzie Bybee, Ellie Bybee, David Parrzi, Michelle Swenson, Brandon Wilson, Kenney McEwan, Patti McEwan, Anne-Marie Hancock, Dyanne Law, Jay Olpin, Linda Olpin.

The meeting was called to order by Mayor Mark S. Thompson as a regular session at 7:02 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 Chief of Police Brian Gwilliam and those assembled were led in the Pledge of Allegiance by Briggs Gregory, a scout.

APPEARANCES:

There were no appearances.

PRESENTATION

Highland City Social Media – Erin Wells, Assistant to the City Administrator

Assistant to the City Administrator, Erin Wells, stated that Highland City has had Facebook and Twitter accounts since September 2014 and presented statics regarding the increase in followers and activity. Staff intends to focus on increasing social media interaction by doing daily posts,

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1 sharing things that relate to City interests and events, and creating an atmosphere where citizens
2 feel comfortable responding to the City. Ms. Wells also stated that staff would be developing a
3 media policy which would increase the privacy of the accounts.
4

5 6 **CONSENT ITEMS:**

7
8 **Approval of City Council meeting dates – 2016 Meeting Schedule**
9

10 **Ratifying the Mayors Appointment to the History Committee – Kent Day**
11

12 **MOTION: Dennis LeBaron moved the City Council approve the Consent Items on the**
13 **agenda.**

14
15 **Tim Irwin seconded the motion.**

16 **Unanimous vote, motion carried.**
17
18

19 **ACTION ITEMS:**

20
21 **Speed and Warrant Study – Highland Blvd. and 11800 North**
22

23 Mayor Thompson indicated this item was being pulled off the agenda and would not be
24 discussed. This item will be continued and placed on the first agenda in January.
25

26 Mayor Thompson also stated they would be addressing Item 7 regarding the Family Cemeteries
27 prior to the other items on the agenda. The meeting discussion would then proceed as scheduled.
28
29

30 **Amending Municipal Code Chapter 13.48, Adding Chapter 13.49 City Cemetery Policies** 31 **and Regulations – Family Cemeteries on Private Property** 32

33 ***Background:** At the October 20 City Council meeting, Council directed staff to edit the*
34 *Municipal Code to allow burials on private property. This request originated from a citizen's*
35 *petition to City Council. At the November 17 Council Meeting, staff presented a proposed code*
36 *modification that relied heavily on state regulations for private cemeteries. Council asked staff to*
37 *revise the modification to include more regulations so that some concerns such as access,*
38 *setbacks, square footage, etc. were addressed. This code modification attempts to address*
39 *councils concerns while still keeping the regulations simple, limited, and easily enforceable.*
40

41 Erin Wells stated that a few changes were made during the work session, and gave copies of the
42 updated draft to the members of Council. She reviewed the updated language regarding the
43 prevention of individual plots for commercial gain, size requirements, and maintenance.
44

45 Brian Braithwaite expressed his concerns regarding the ordinance, feeling that any burdens
46 created by private cemeteries should not fall onto the City or the neighbors. Both the State and

DRAFT

1 County require that the main lot and the cemetery be separate properties, and Mr. Braithwaite
2 wanted to be sure that the language in the ordinance created a strong enough tie between the two
3 properties. Erin Wells responded that the only tie between the two in the ordinance comes from
4 the creation of a deed requiring the maintenance of the plot. Mr. Braithwaite did not feel that
5 this language was sufficient enough to be enforceable.

6
7 **Dennis LeBaron moved the City Council approve an amendment to the Highland City
8 Municipal Code Chapter 13.48, Adding Chapter 13.49 City Cemetery Policies and
9 Regulations as discussed during the earlier work session.**

10
11 **Tim Irwin seconded the motion.**

12
13 **Those voting "Aye": Dennis LeBaron and Tim Irwin.**

14 **Those voting "Nay": Brian Braithwaite, Jessie Schoenfeld and Mayor Thompson.**

15 **Motion denied.**

16 17 18 **Approval of Preliminary Plat for a 86 Unit Townhomes Subdivision - Blackstone**

19
20 ***Background:** Matt Robinson from Handcrafted Homes is requesting a preliminary plat approval
21 for an 86 unit multi-family development located at the northeast corner of Town Square East and
22 Parkway East. The site is 7.76 acres in size and is owned by Frank and Maria Carlone. The site
23 is designated as Mixed Use Development on the General Plan Land Use Map. The site is zoned
24 Town Center Flex-Use District. Multi-family residential developments are permitted in this
25 district subject to review and approval of a conditional use permit. The City Council approved
26 the Conditional Use Permit, Site Plan and Architectural plans on September 15, 2015 subject to
27 twenty-two stipulations (Attachments 2 and 4). Section 10-9a-509.5.38 of the Utah State Code
28 allows the applicant to request a decision within 45 days. The 45 days expires on December 27,
29 2015. Subdivision review and approval is an administrative process*

30
31 Nathan Crane identified the changes made to the site design since the last time it came before the
32 City Council, particularly the increase in parking stalls and decrease in landscaping. Staff and
33 the applicant were in a disagreement regarding of the stipulations of the conditional use permit
34 which required the addition of 19 parking stalls in the north phase of the development and 11 in
35 the south. Mr. Crane stated that the plan meets the stipulation for the north, but only nine stalls
36 were added to the south.

37
38 Matt Robinson, the property owner, explained why they felt their plan was sufficient for parking.
39 He argued that there are no ordinances that required the number of parking stalls to be
40 proportionate to the number of units in each phase. He also stated that this was not a concern
41 when the first site design was approved by the City Council.

42
43 The City Council determined that the parking should follow the stipulation of the conditional use
44 permit.

DRAFT

1 **MOTION: Brian Braithwaite moved the City Council approve the Preliminary Plat for an**
2 **86 Unit Townhome Subdivision to include the 14 stipulations with the amendment of**
3 **stipulation #12 to include “2 additional parking spaces shall be required to be added to the**
4 **south parcel which may be deducted from the north parcel” and stipulation #13 to add “the**
5 **southeast corner of the south parcel be revised to be consistent with the landscape plan and**
6 **site plan dated October 14, 2015 which includes the tot lot”.**

7
8 **Tim Irwin seconded the motion.**
9 **Unanimous vote, motion carried.**

10 11 12 **Support of the Harvey Blvd. Alignment – Murdoch Connector**

13
14 ***Background:** Councilmember Robert Shelton from American Fork is requesting that the City*
15 *Council adopt a resolution supporting the Harvey Boulevard Alignment for the Murdoch*
16 *Connector. Mr. Shelton is also requesting a similar resolution from Utah County Cedar Hills,*
17 *American Fork, and Pleasant Grove.*

18
19 Nathan Crane presented a map of Highland City and showed the connection area within the City
20 limits.

21
22 Brian Braithwaite indicated his approval of this resolution and commented he is thrilled to see
23 that other communities are seeing the importance of this alignment and are willing to help get the
24 process moving forward.

25
26 **MOTION: Tim Irwin moved the City Council approve the Resolution of support for the**
27 **Harvey Blvd. alignment (Murdoch Connector).**

28
29 **Jessie Schoenfeld seconded the motion.**
30 **Unanimous vote, motion carried.**

31 32 33 **Approval of Contract/Franchise Agreement – Syringa**

34
35 ***Background:** Syringa Networks approached the City regarding implementing a franchise*
36 *agreement governing its telecommunications services. Syringa has entered into similar*
37 *agreements with a number of neighboring cities in view of expanding its business operations to*
38 *our community in the future. The City Attorney has worked with the legal department of Syringa*
39 *to ensure the agreement conforms to applicable state law and city ordinances. The Agreement*
40 *grants Syringa a 10-year non-exclusive license to install telecommunications infrastructure in*
41 *the City. Syringa is required to obtain a permit for any work done and will coordinate with the*
42 *City to ensure it complies with all city ordinances and state standards regarding rights-of-way,*
43 *easements, construction/repairs, insurance, taxes, etc.*

44
45 Brandon Wilson, a Plant Manager with Syringa Networks, gave a brief background of the
46 company and confirmed that the drafted agreement protects both the company and Highland

DRAFT

1 City. Nathan Crane confirmed that Syringa would be treated as any other utility provider in the
2 City and will be responsible for obtaining permits and repairing any roads damaged during
3 installation.

4
5 **MOTION: Brian Braithwaite moved the City Council approve the Franchise Agreement as**
6 **presented with Syringa for telecommunication services and authorize the Mayor to sign the**
7 **Franchise Agreement.**

8
9 **Dennis LeBaron seconded the motion.**

10 **Unanimous vote, motion carried.**

11
12 **Approval for a budget Adjustment to the Pressurized Irrigation Fund – Transfer from the**
13 **General Fund**

14
15 Finance Director Gary LeCheminant, presented the information provided by the auditors and
16 stated that the Pressurized Irrigation System unrestricted net position was in the negative. To
17 avoid a state audit compliance issue, the proposed budget amendment must be approved. He
18 confirmed that these funds would be taken from the General Fund.

19
20 **MOTION: Brian Braithwaite moved the City Council approve the budget adjustment to**
21 **the Pressurized Irrigation Fund transfer from the General Fund.**

22
23 **Tim Irwin seconded the motion.**

24 **Unanimous vote, motion carried.**

25
26
27 **MAYOR, CITY COUNCIL & STAFF COMMUNICATION ITEMS**

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

29
30 **Building Use Fee – Erin Wells, Assistant to the City Administrator**

31
32 Erin Wells informed the Council that a lot of research had been conducted by staff and Devirl
33 Barfuss in preparation for updating the policy regarding the renting of City spaces. She then
34 presented statistics regarding the number of reservations, the specific rooms reserved, and the
35 percentage of Highland residents making reservations. Ms. Wells noted that three organizations
36 were using the Community Center without paying a rental fee. Based on the information
37 gathered, staff is proposing to increase the hourly rental fee and the refundable deposit, and
38 revise the rental policy document.

39
40 The City Council discussed the hourly fee and decided that it was appropriate to charge \$15 per
41 hour for Highland residents and \$30 per hour for non-residents. Ms. Wells stated that other fees
42 were being charged, including a fee for food, the use of the piano, and the use of the projector.
43 These fees were also discussed and staff was asked to consult with the Arts Council to determine
44 a suitable piano fee. It was suggested that the initial deposit be \$150 rather than the \$200
45 currently required.

DRAFT

1 The City Council requested that staff look into another room in the building that is not currently
2 available for rent, as they have had requests for this room in the past.

3

4 **Bond Report** – Gary LeCheminant, Finance Director

5

6 Gary LeCheminant stated that a resolution was passed a few weeks previous authorizing the City
7 to refinance the 2007 Park Bond, and bids were due just the day before. They received three
8 bids, and these were discussed with the Council Members.

9

10 At the conclusion of the meeting, Brian Braithwaite thanked Jessie Schoenfeld for her service on
11 the City Council.

12

13 **ADJOURNMENT**

14

15 **MOTION: Tim Irwin moved the City Council adjourn.**

16

17 **Jessie Schoenfeld seconded the motion.**

18 **Unanimous vote. Motion carried.**

19

20 **Meeting adjourned at 9:44 p.m.**

21

22

23

JoD'Ann Bates, City Recorder

24

25

26

Date Approved: January 5, 2016



CITY COUNCIL AGENDA REPORT

DATE: Tuesday, January 20, 2015

Item #7

TO: Members of the City Council

FROM: Mayor Mark S. Thompson

BY: JoD'Ann Bates, City Recorder

SUBJECT: Ratifying the Appointment of Kurt Ostler to the Highland City Planning Commission.

STAFF RECOMMENDATION:

Mayor Mark S. Thompson is recommending that the Highland City Council ratify the Appointment of Kurt Ostler to the Highland City Planning Commission.

BACKGROUND:

Kurt Ostler and his wife have been a Highland residents for over 20 years. They both have been actively involved in past Highland Fling celebrations along with various other Highland City events. Kurt is a businessman, has experience and been previously involved with planning issue in other cities. Mayor Thompson feels the experience and background Kurt has will be an asset to the Planning Commission.

This appointment will enable the Planning Commission to continue with meetings and recommendations to the City Council.

FISCAL IMPACT:

Planning Commissioners are paid \$56 per meeting attended and is budgeted from GL 10-52-15.

ATTACHMENTS:



CITY COUNCIL AGENDA REPORT

DATE: Tuesday, January 5, 2015

Item # 8

TO: Honorable Mayor and Members of the City Council

FROM: Mayor Mark S. Thompson

SUBJECT: RATIFYING THE MAYOR'S RE- APPOINTMENT OF JIM HORROCKS AND DREW SPARKS AS BOARD MEMBERS TO THE HIGHLAND CITY WATER ADVISORY BOARD

BACKGROUND:

Ordinance 2004-20 created the Water Policy Advisory Board (A Special Committee) and established terms. The City Council also passed Ordinance 2011-07 which outlines Board Members shall be appointed for a term of four (4) years with the terms expiring at the end of alternating years.

Mayor Thompson with the advice and consent of the City Council recommends the re-appointment of the following members to the Water Policy Advisory Board with their terms expiring on December 31st of the year that follows:

Re-Appointment of -	JimHorrocks	2019
	Drew Sparks	2019

FISCAL IMPACT:

N/A

ATTACHMENTS:

N/A



CITY COUNCIL AGENDA REPORT

Item # 9

DATE: Tuesday, January 5, 2016

TO: Honorable Mayor and Members of the City Council

FROM: Nathan Crane
City Administrator, Community Development Director

SUBJECT: RESOLUTION: APPOINTMENT OF THE CITY TREASURER AND RE-APPOINTMENT OF THE CITY RECORDER

BACKGROUND:

Pursuant to UCA 10-3-916, in each city, the Mayor, with the advice and consent of the City Council, shall appoint a qualified person to each of the offices of the City Recorder and Treasurer. This is typically done on or before the first Monday in February following a municipal election for a period of two years.

Highland City Administration interviewed several applicants and feels Stephannie Cottle's experience and knowledge will be an asset to the Highland City Staff. Stephannie had worked for the last 12 years in various positions with American Fork City. During her previous position her responsibilities included maintaining a budget, auditing and ensuring accuracy of utility accounts, handling a variety of customer service issues and was responsible for all aspects of business licensing.

It is recommended that Stephannie Cottle be appointed to the position of City Treasurer and JoD'Ann Bates be Re-Appointed to the position of City Recorder. Pursuant to the code these appointments will be for a period of two years before re-appointment is necessary.

FISCAL IMPACT:

ATTACHMENTS:

- Proposed Resolution

RESOLUTION NO. R-2016-**

**A RESOLUTION OF HIGHLAND CITY, UTAH
APPOINTING THE CITY TREASURER AND
RE-APPOINTING THE CITY RECORDER**

WHEREAS, the Highland City Council deem it appropriate to appoint the following city personnel for a period of two years beginning February 1, 2016 in accordance with Section 10-3-916, Utah Code Annotated:

- Highland City Treasurer, Stephannie Cottle
- Highland City Recorder, JoD'Ann Bates

This resolution shall take effect immediately upon passage.

ADOPTED by the City Council of Highland City, Utah, this 5th day of January, 2015.

HIGHLAND CITY, UTAH

Mark S. Thompson, Mayor

ATTEST:

JoD'Ann Bates, City Recorder



CITY COUNCIL AGENDA REPORT

Item #10

DATE: January 5, 2016

TO: Honorable Mayor and Members of the City Council

FROM: Nathan Crane, AICP
City Administrator/Community Development Director

SUBJECT: APPROVAL OF REIMBURSEMENT AND AUTHORIZING THE MAYOR TO SIGN AN AGREEMENT WITH MILLHAVEN HOMES FOR THE INSTALLATION OF CURB AND GUTTER ON 9600 NORTH AND REPLACEMENT AND RELOCATION OF A CULINARY WATER LINE.

STAFF RECOMMENDATION:

The City Council reviews the reimbursement agreement with Millhaven Homes for the construction of curb and gutter along 9600 North and the replacement and relocation of a culinary water line.

BACKGROUND:

During the review of the construction plans, it was determined that curb and gutter are needed along 9600 North in front on an existing home. In addition, there is a section of water line that needs to be relocated since it's on private property. This is an old shotcoat pipe. In a shotcoat pipe the concrete is on the outside of the pipe. In all new lines the concrete lines the inside of the pipe. There is also a small section of shotcoat pipe within the right of way. A reimbursement agreement is needed for the City to reimburse the developer for these costs. The agreement has also been reviewed by the City Attorney.

The cost for the curb and gutter is \$6,249.50. The cost for the relocation of the water line is \$12,343.25. The City will reimbursement will not exceed these costs. This will protect the City from any cost overruns. The developer will provide line item accounting showing the actual costs of construction.

FISCAL IMPACT:

Monies for the curb and gutter will be taken from account 10-60-37 which has \$7,641.96. Monies for the culinary water line will be taken from the culinary water fund reserves. A budget adjustment will be needed.

ATTACHMENTS:

1. Reimbursement Agreement

REIMBURSEMENT AGREEMENT

This Reimbursement Agreement, dated January 5, 2014 ("Agreement"), is by and between Millhaven Construction, LLC, a Utah limited liability company ("Company"), located at 272 West 200 North, Suite 100, Lindon, Utah 84042, and Highland City ("City"), located at 5400 W. Civic Center Dr., Highland City, Utah 84003.

RECITALS

WHEREAS, Company is developing and improving real estate ("Property") located within the City boundaries for the purpose of building and selling residential homes, and

WHEREAS, the Property is currently without any regional facilities, and

WHEREAS, the City desires that Company install the regional facilities as part of the development of the Property,

NOW THEREFORE, in consideration of the premises and the agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Installation of Regional Facilities. As part of the development of the Property, Company shall install the following facilities improvements which are not required to serve the Property:
 - a. Curb and Gutter along the North side of 9600 North in front of an existing home \$6,249.50.
 - b. Shotcoat Culinary Water Line. Relocation and replacement of a shotcoat culinary water line \$12,343.25.
2. Installation Costs. Company shall be responsible for any and all upfront costs and expenses of the installation of the Regional Facilities.
3. Reimbursement by City. Subsequent to the installation of the Regional Facilities, including the inspection and approval by City, Company shall provide the City with a line item description of the costs and expenses necessary for the installation of the Regional Facilities. The total of the costs and expenses initially covered by Company shall be reimbursed by the City in full within thirty (30) days of the City's receipt of the line item description, but in no event shall the amount of reimbursement exceed eighteen thousand five hundred ninety-two dollars and seventy five cents (\$18,592.75).
4. Counterparts. This Reimbursement Agreement may be executed in any number of counterparts and by different parties hereto on separate counterparts, each complete set of which, when so executed and delivered by all parties, shall be an original, but all such counterparts shall together constitute one and the same instrument.
5. Headings. The section headings in this Reimbursement Agreement are for convenience of reference only, and shall not be deemed to alter or affect the meaning or interpretation of any provision hereof.
6. Amendments. No amendment, modification, or supplement to this Reimbursement Agreement, or wavier of any provision or right hereunder by any party hereto, shall be effective unless in writing and executed by the parties hereto. This Reimbursement Agreement shall be binding upon the parties hereto and their respective successors and permitted assigns.

7. Governing Law. This Reimbursement Agreement shall be governed by and construed exclusively in accordance with the laws of the State of Utah, without regard to the conflicts of laws principles thereof.

8. Severability. In the event that any provision of this Agreement, or the application of such provision to any Person or set of circumstances, shall be determined to be invalid, unlawful, void or unenforceable to any extent, the remainder of this Agreement, and the application of such provision to Persons or circumstances other than those as to which it is determined to be invalid, unlawful, void or unenforceable, shall not be affected and shall continue to be valid and enforceable to the fullest extent permitted by law.

9. Entire Agreement. This Agreement constitutes the entire agreement and understanding of the Parties with respect to its subject matter, supersedes all prior negotiations, understandings and agreements concerning the subject matter thereof. Any headings in this Agreement are for convenience only and not intended to influence its construction.

10. Attorney's Fees. If any action is brought because of any breach of or to enforce or interpret any of the provisions of this Agreement, the party prevailing in such action shall be entitled to recover from the other party reasonable attorney's fees and court costs incurred in connection therewith, the amount of which shall be fixed by the Court and made a part of any judgment rendered thereby.

IN WITNESS WHEREOF, the parties hereto have caused this Reimbursement Agreement to be executed on the date first written above.

Millhaven Construction, LLC

HIGHLAND CITY

By:
Title:

By:
Title:



CITY COUNCIL AGENDA REPORT

Item #11

DATE: Tuesday, January 5, 2016

TO: Honorable Mayor and Members of the City Council

FROM: Erin Wells
Assistant to the City Administrator

SUBJECT: RESOLUTION ADJUSTING CITY FEE SCHEDULE RELATED TO CITY FACILITY RENTALS

STAFF RECOMMENDATION:

City Council authorize the adjustment of the fee schedule related to facility rentals.

BACKGROUND:

At the December 1, 2015 Council meeting, staff and council had a discussion regarding the building use policy and the changes that need to be made to that document including a rate adjustment to better compensate for costs to the City and to simplify the rental process. At an upcoming council meeting, the policy document will be brought back to council for considerations, but currently staff is asking council to adjust the fees as discussed.

FISCAL IMPACT:

In 2015 approximately \$3,000 was brought in. Assuming rentals stayed at the same level, approximately \$6,000 will be brought in.

ATTACHMENTS:

1. Updated fee schedule & policy document
2. Proposed Resolution

HIGHLAND CITY BUILDING RENTAL FEE SCHEDULE & POLICIES

RENTAL FEES

1. Resident rate - \$15 per hour
2. Non-resident rate - \$30 per hour
3. Food fee - \$50
 - a. food can only be served in Community Center and Multi-purpose room
4. Piano use fee - \$10
 - a. available at Community Center only
5. Audio visual equipment (projector) fee - \$10
 - a. available at Multi-purpose room and Council Chambers only
- ~~1.6.~~ No fee shall be charged for Priority One classifications; Highland City and other Government meetings.
- ~~2.~~ Use of Center not involving food—\$10.00 an hour per room. Fees may be waived for use by other governmental agencies by the City Administrator or Mayor. Additional deposits will be required if food is included.
- ~~3.7.~~ Rental of the Center Piano—is an additional \$5.00 an hour.
- ~~4.8.~~ All rental fees are required to be paid before notice of confirmed reservation within five (5) business days following approval. If fees are not received the approval is withdrawn and the reserving party loses their confirmed reservation.
- ~~5.9.~~ Fees are set by the City Council and are subject to change without advance notice.

DEPOSITS

- ~~1.~~ Refundable Deposit - \$150 Use of the Center involving food—\$100.00, of which \$25.00 is non-refundable for cleaning.
- ~~2.~~ Meetings not involving food will require a \$50.00 refundable deposit subject to verification by the city that no damage has occurred.

~~3.1.~~ Deposits are required to be paid within five (5) business days following approval. If deposits are not received the approval is withdrawn and the reserving party loses their confirmed reservation. ~~Deposit checks will be held.~~

~~4.~~ ~~Reservations may be made up to one hundred twenty (120) days or four (4) months in advance, the deposit can be paid at the time of the first reservation and held for a period of six (6) months at the request of the applicant.~~

~~5.2.~~ Deposit checks are held and not cashed unless there is damage or added cleaning costs as a result of the rental. If cleaning costs or repair of damage to the City facilities or its contents exceeds the deposit, the party renting the facility at the time damage was incurred must pay the total costs of such cleaning or repairs.

~~6.3.~~ The ~~refundable portion of the~~ deposit, if any remains, shall ~~be mailed to the applicant or shredded~~ or mailed to the applicant if a self-addressed and stamped envelope is provided within 14 days of the Facility Supervisor's approval of the post event condition of the property, ~~at the address shown on the application.~~

~~7.4.~~ Deposit amounts are set by the City Council and are subject to change without advance notice.

RESOLUTION NO. 2016-**

**A RESOLUTION OF HIGHLAND CITY, UTAH FOR ADMENDMENTS TO THE
HIGHLAND CITY FEE SCHEDULE RELATED TO CITY FACILITY RENTAL**

WHEREAS, that the fees related to the rental of City facilities should be increased to better compensate for the costs of the maintenance of the facilities and equipment.

NOW, THEREFORE, Be it resolved by the City Council of Highland City, Utah:

SECTION 1. The Highland City Fee Schedule is hereby amended as follows:

- Resident hourly rate - \$15
- Non-resident hourly rate - \$30
- Non-refundable food fee - \$50
- Community Center piano fee - \$10
- Council Chambers and Multi-Purpose Room audio visual/ projector fee - \$10
- Refundable deposit - \$150

SECTION 2. This Resolution shall take effect immediately upon its first posting or publication.

PASSED AND ADOPTED by the Highland City Council, January 5, 2016.

HIGHLAND CITY, UTAH

Mark Thompson, Mayor

ATTEST:

JoD'Ann Bates, City Recorder

COUNCILMEMBER	YES	NO
Brian Braithwaite	<input type="checkbox"/>	<input type="checkbox"/>
Ed Dennis	<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"/>



CITY COUNCIL AGENDA REPORT

DATE: January 5, 2016

Item #12

TO: Honorable Mayor and Members of the City Council

FROM: Nathan Crane, City Administrator/Community Development Director.

SUBJECT: SPEED AND SIGNAL WARRANT STUDIES FOR HIGHLAND BOULEVARD AND 11800 NORTH

STAFF RECOMMENDATION:

Discussion regarding the results of the speed and warrant study for Highland Boulevard and 11800 North.

BACKGROUND:

With the recent accident at the intersection of Highland Boulevard and 11800 North, a concern has been raised relation to the safety and operation of this intersection. In June 2015, the Council authorized the hiring of two firms to complete an Operation Safety Report (OSR). An OSR report reviews the intersection design, traffic speeds, sight issues, crash history, etc. and provides a report with recommendations. Two firms were hired to complete this work; Project Engineering Consultants (PEC) and InterPlan. Both studies were also reviewed by the City Engineer.

The following improvements to the intersection have been completed:

- Landscaping in the median has been removed.
- Replaced the paint stop line with thermoplastic for better visibility and longevity with a pavement message marking STOP prior to the stop line.
- Installed side road warning signs on Highland Boulevard for both the northbound and southbound approaches.
- Installed flashing speed limit sign, flashing stop sign, and three advanced warning signs.

In September 2015, the City Council directed staff to conduct traffic speed and signal warrant studies for this intersection. The studies were completed by InterPlan.

A summary of the findings of the report is as follows:

Signal Warrant Study Conclusions

- The study intersection does not warrant a traffic signal as none of the nine Manual on Uniform Traffic Control Devices (MUTCD) signal warrants are met.
- Anticipated growth from a set of known approved developments near the intersection is not expected to result in the intersection reaching warrant volume thresholds.

Speed Study Conclusions

- The 85th percentile operating speeds are much faster than the posted speed limit.
- Traffic calming measures are not likely to be effective or appropriate at this location.
- Restriping the lane configuration to one lane in each direction plus a center turn lane and shoulders on Highland Boulevard may encourage lower operating speeds. This option requires coordination with outside agencies and an evaluation as to whether fewer lanes meet future traffic demand.

Staff has met with the Lone Peak Public Safety Police Department to discuss traffic enforcement. The City will be constructing a pull-out pad on the west side of Highland Boulevard. In addition, they have increased patrols and enforcement of posted speed limits.

FISCAL IMPACT:

Unknown

ATTACHMENTS:

1. Traffic Signal and Speed Warrant Study

MEMORANDUM

To: Nathan Crane, City Administrator, Highland City

From: Charles Allen, P.E., PTOE, InterPlan
Tim Peterson, InterPlan

Date: October 14, 2015

Subject: 11800 North/Highland Boulevard Signal Warrant & Speed Analysis

Figure 1 – Study Location



Summary of Conclusions

InterPlan was hired by Highland City to conduct a signal warrant analysis for the Highland Boulevard/11800 North intersection and a speed study on Highland Boulevard in the vicinity of said intersection. The following is a brief summary of our conclusions from both analyses:

Signal Warrant Study Conclusions

- The study intersection does not warrant a traffic signal as none of the nine Manual on Uniform Traffic Control Devices (MUTCD) signal warrants are met.
- Anticipated growth from a set of known approved developments near the intersection is not expected to result in the intersection reaching warrant volume thresholds.

Speed Study Conclusions

- The 85th percentile operating speeds are much faster than the posted speed limit.
- Increasing the speed limit would bring operating and posted speeds into uniformity.
- Traffic calming measures are not likely to be effective or appropriate at this location.
- Restriping the lane configuration to one lane in each direction plus a center turn lane and shoulders on Highland Boulevard may encourage lower operating speeds. This option requires coordination with outside agencies and an evaluation as to whether fewer lanes meet future traffic demand.

Signal Warrant Analysis

Intersection Description

The study intersection is located in Highland, Utah where Highland Boulevard and 11800 North intersect to form a "T" intersection. The traffic movement from 11800 North is stop-controlled while the traffic movements on Highland Boulevard are free-flow approaches. Highland Boulevard runs north-south and has one travel lane in each direction south of the intersection and two lanes in each direction north of the intersection with 11800 North. The southbound lanes on Highland Boulevard merge to one through lane before the intersection. This allows room for a southbound left-turn pocket at the intersection with 11800 North. The speed limit on Highland Boulevard is 40 miles per hour (mph). 11800 North runs east-west and has one travel lane in each direction. Observation shows that travel lanes and shoulders on 11800 North are wide enough at Highland Boulevard for drivers to queue side-by-side, essentially operating as if there were westbound painted right and left-turn lanes at the stop sign. The speed limit on 11800 North is 35 mph.

Analysis

The MUTCD is the national standard for all traffic control devices on all public roads open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). The MUTCD states that the need for a traffic control signal shall include an analysis of the applicability of any of nine standard warrants

based on a study of the existing operation and safety. However, even when one of the warrants is met, it does not in itself require the installation of a traffic signal. The MUTCD states that "an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location." A signal warrant analysis is just one part of the engineering study.

A signal warrant analysis was performed at the study intersection using the 2009 MUTCD requirements as outlined in Chapter 4C. Turn movement and pedestrian counts were performed at the study intersection on Tuesday, September 22, 2015 from 7:00 AM to 7:00 PM. All turning movement data is included in the appendix.

Based on criteria outlined in the MUTCD, the study intersection is evaluated as a "one lane & one lane" intersection, meaning major street and minor approaches each approach a single primary through lane. Additionally, the MUTCD states that right-turn traffic should not be included in the minor-street (11800 North) volume if the movement enters the major street (Highland Boulevard) with minimal conflict. Using engineering judgment with respect to the site specific characteristics of the study intersection, right-turn volumes on 11800 North were reduced by 50 percent for this analysis.

Results

From the results of the signal warrant analysis at the intersection of Highland Boulevard and 11800 North, none of the warrants are met. The hourly volumes on the major street and the minor street do not meet the minimum volume thresholds needed for the volume-based warrants to be met. Also, the crash analysis warrant is not met because there have not been five or more crashes within a 12 month span that could have been mitigated by a traffic signal. All other warrants are either not met, or not applicable to the site specific characteristics of the study intersection.

Short-term Development Considerations

While none of the traffic volume warrants are met under existing conditions, much of the immediate vicinity has ongoing or pending development. Highland City provided InterPlan information regarding approved development near the intersection to generate context for how short-term growth may influence signal warrant evaluations. Table 1 summarizes the number of remaining lots yet to be built at four nearby residential developments.

InterPlan estimated the number of AM peak hour, PM peak hour, and daily trips that might be generated by the remaining lots using the *Trip Generation Manual, 9th Edition*, published by the Institute of Transportation Engineers (ITE). These trip totals are also summarized in Table 1.

Applying future traffic growth to signal warrant evaluations is difficult. Trip generation rates are available for peak hours and daily totals but most signal warrants require evaluation of several hours outside the AM and PM peaks. However, from a very broad perspective, assuming all predicted development trips were to pass through the intersection, pending new development would result in an estimated volume increase of about 15 percent during AM and PM peak hours. In comparison, key hours of the day currently not meeting signal warrants are generally 20 percent below warrant thresholds. Thus, even if all trips from short-term development were to use the Highland Boulevard/11800 North intersection, the intersection volumes may approach, but still fall below, warrant thresholds.

Table 1 – Short-term Anticipated Residential Development

Subdivision	Residential Lots			Trip Generation		
	Total Planned	Lots Built	Vacant/ In progress	AM Peak Hour	PM Peak Hour	Daily Total
Dry Creek	58	39	19	14	19	181
Skye Estates	86	23	63	47	63	600
Stirling Pointe	56	43	13	10	13	124
Highland Oaks	61	0	61	46	61	580
Total	261	105	156	117	156	1,485

Sources: Highland City; Trip Generation Handbook 9th Edition, Institute of Transportation Engineers

Signal Warrant Summary

Major Street Approaches

Northbound Highland Boulevard

Number of Lanes: 1

Southbound Highland Boulevard

Number of Lanes: 1

Minor Street Approaches

11800 North

Number of Lanes: 1

Warrant Summary

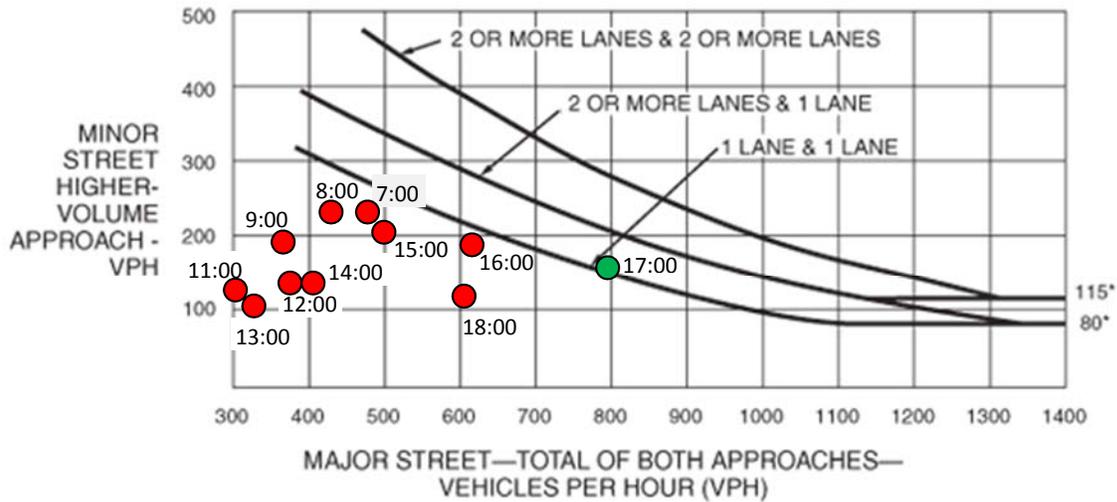
Warrant 1 – Eight Hour Vehicular Volumes	Not Satisfied
Warrant 1A – Minimum Vehicular Volume	Not Satisfied
Required volumes reached for 3 hours, 8 required	
Warrant 1B – Interruption of Continuous Traffic	Not Satisfied
Required volumes reached for 1 hours, 8 required	
Warrant 1A&B – Combination of Warrants	Not Satisfied
Required volumes reached for 3 hours, 8 required	
Warrant 2 – Four Hour Volumes	Not Satisfied
Number of hours (1) volumes exceed minimum \geq minimum required (4)	
Warrant 3 – Peak Hour	Not Satisfied
Warrant 3A – Peak Hour Delay	Not Satisfied
Number of hours (0) volumes exceed minimum \geq minimum required (1)	
Peak Hour delay (1.3 vehicle-hours) does not meet minimum of (4) vehicle-hours	
Warrant 3B – Peak Hour Volumes	Not Satisfied
Volumes exceed minimum for at least one hour	
Warrant 4 – Pedestrian Volumes	Not Satisfied
Required four hour pedestrian volume reached for 0 hours, 4 required	
Required one hour pedestrian volume reached for 0 hours, 1 required	
Warrant 5 – School Crossing	Not Satisfied
Warrant 6 – Coordinated Signal System	Not Satisfied
Warrant 7 – Crash Experience	Not Satisfied
Number of correctable accidents in 2013 (1) is equal to minimum (5)	
Warrant 8 – Roadway Network	Not Satisfied
Warrant 9 – Intersection near a Grade Crossing	Not Evaluated

Warrant 1 – Analysis of 8-Hour Volume Warrants

Hour	Major Vol	Minor Vol	1 A		1 B		1 A&B	
			Major	Minor	Major	Minor	Major	Minor
			>500	>150	>750	>75	>600	>120
7:00	484	225	No	Yes	No	Yes	No	Yes
8:00	419	230	No	Yes	No	Yes	No	Yes
9:00	375	186	No	Yes	No	Yes	No	Yes
10:00	254	108	No	No	No	Yes	No	No
11:00	310	128	No	No	No	Yes	No	Yes
12:00	377	122	No	No	No	Yes	No	Yes
13:00	320	98	No	No	No	Yes	No	No
14:00	409	123	No	No	No	Yes	No	Yes
15:00	501	214	Yes	Yes	No	Yes	No	Yes
16:00	617	180	Yes	Yes	No	Yes	Yes	Yes
17:00	790	166	Yes	Yes	Yes	Yes	Yes	Yes
18:00	609	114	Yes	No	No	Yes	Yes	No

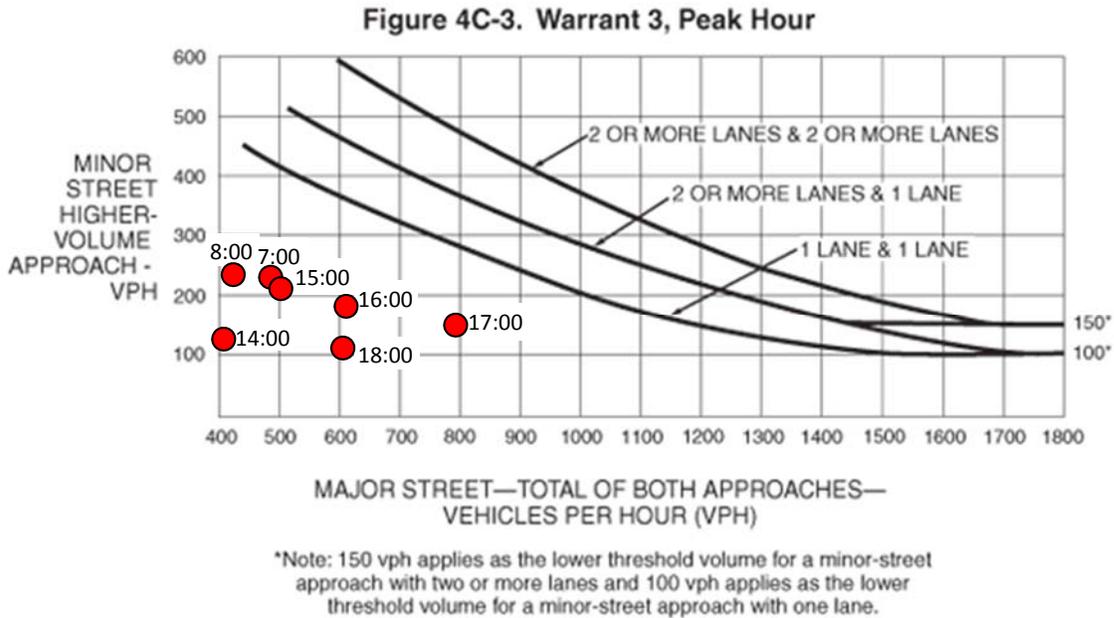
Warrant 2 – Four Hour Volume Warrant

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

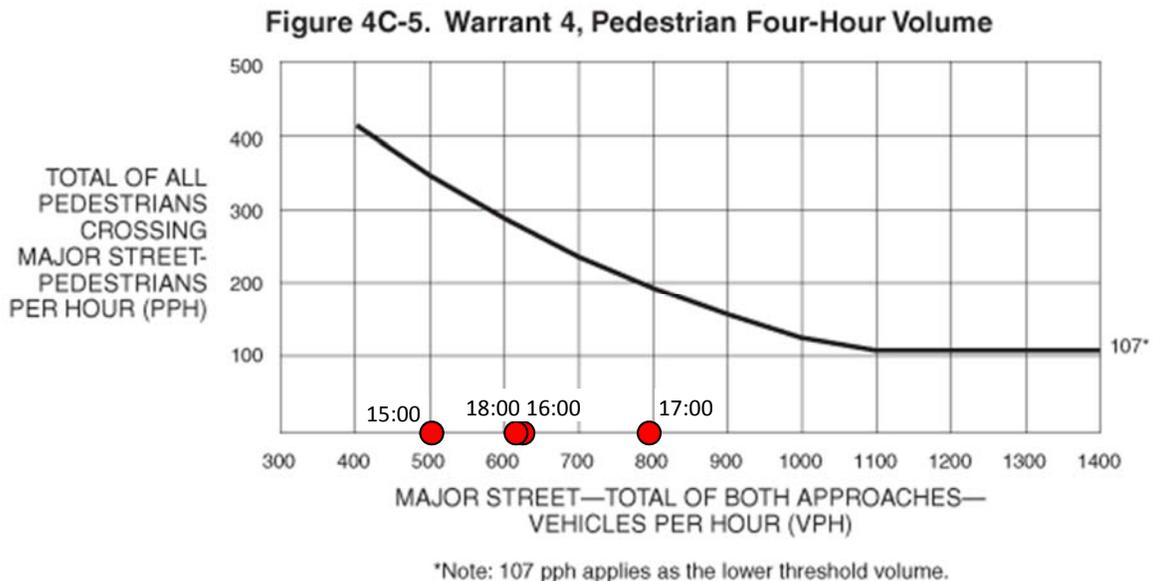
Warrant 3 – Peak Hour Volumes



Peak hour delay is calculated by multiplying the seconds of delay per vehicle by the total number of vehicles at the minor approach during the peak hour. The total peak hour delay for the 11800 North westbound approach is 1.3 vehicle-hours, which falls well below the four hours of delay required to satisfy Warrant 3A.

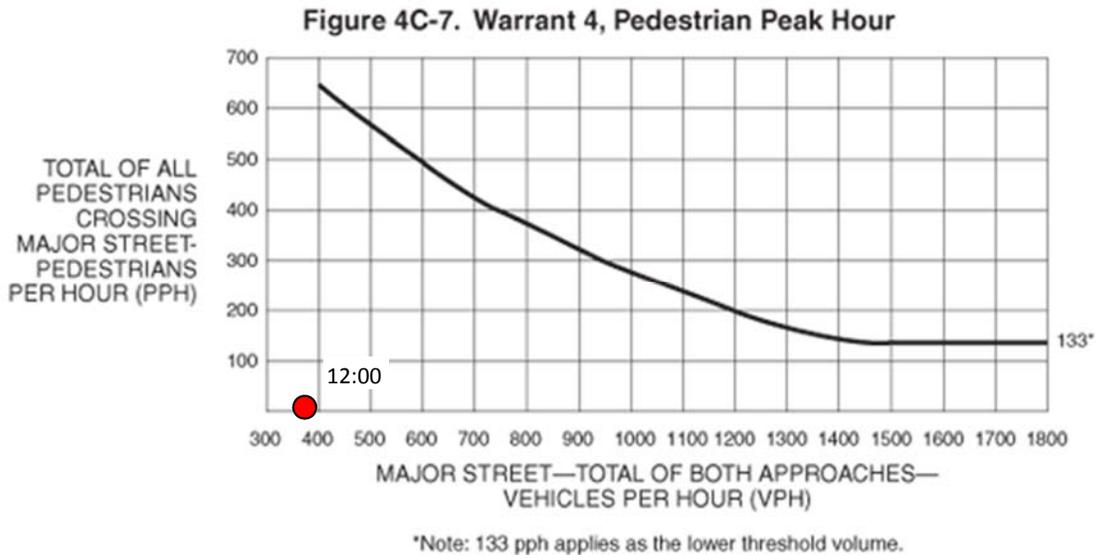
Warrant 3B requires any hour of the day to fall above the "1 Lane & 1 Lane" curve in the chart above. None of the hours of the day lie above the curve, therefore Warrant 3B is not satisfied.

Warrant 4A – Pedestrian Four-Hour Volume



Warrant 4B – Pedestrian Peak Hour Volume

There are very few pedestrians crossing the major street (Highland Boulevard) during any of the peak volume hours during the day (less than ten per hour). The pedestrian peak hour begins at 12:00 PM and there are 6 pedestrian crossings that cross the major street (Highland Boulevard) during this hour. The pedestrian peak hour falls well below the threshold for this warrant to be satisfied.



Warrant 5 – School Crossing

The intersection does not meet the minimum requirement for number of school children crossing during the highest crossing hour (20), as the total number of pedestrians crossing does not exceed six in an hour for any hour of the day. Therefore, Warrant 5 is not satisfied.

Warrant 6 – Coordinated Signal System

Placement of a signal using this warrant is necessary when an intermediate intersection should be signalized to coordinate adjacent signals and/or to maintain a platoon of vehicles. The nearest signalized intersection to the study intersection is one mile to the south at Highland Boulevard/SR-92 and there are no signals to the north of the study intersection, thus Warrant 6 is not applicable.

Warrant 7 – Crash Experience

To satisfy the requirements of Warrant 7, five or more crashes that can be corrected by a signal need to occur within a twelve month period. Additionally, the MUTCD states that an adequate trial of alternatives to reduce such crashes needs to have failed to reduce the crash frequency. Finally, Warrant 7 requires that the study intersection meet certain volume requirements. This requirement states that for each of any eight hours of the day, vehicular volumes must meet either Warrant 1A or Warrant 1B at the 80 percent level. As documented under the Warrant 1 analysis, the study intersection does not meet Warrant 1A or Warrant 1B at the 80 percent level.

Certain types of crashes can be corrected by signalization. Generally, right-angle crashes, turning vehicle crashes and pedestrian crossing events can be addressed by a signal. Table 2 details the crash data at the Highland Boulevard/11800 North intersection for the years 2010 to July 2015. Examining the last several years of crash data, there is not more than five crashes that occurred during a 12 month period that could have been corrected by signalization. Therefore Warrant 7 is not satisfied under either the crash requirements or the traffic volume requirements.

Table 2 – Crash Data at Study Intersection (2010-2014)

Date	Crash Description	Correctable by Signal?
12/9/2010	Drowsy driver traveled westbound through intersection into ditch.	No
3/3/2012	Left-turning vehicle ran stop sign and was struck by northbound vehicle.	Yes, signal would assign right-of-way
10/18/2012	Southbound vehicle hit a wild animal.	No
3/31/2013	Westbound vehicle slid through intersection into ditch. Vehicle brake problem.	No
5/15/2013	Southbound left-turning bicycle struck by a left-turning vehicle from 11800 North.	Yes, signal would assign right-of-way
5/25/2015	Left-turning vehicle struck by northbound vehicle.	Yes, signal would assign right-of-way
7/31/2015	Left-turning vehicle struck by northbound vehicle.	Yes, signal would assign right-of-way

Source: UDOT

Confidential: These data, as well as all UDOT safety program information, are protected under 23 USC 409.

Warrant 8 – Roadway Network

11800 North is not considered a major route so Warrant 8 is not satisfied.

Warrant 9 – Intersection near a Grade Crossing

There is not an at-grade railroad crossing within 140 feet of the stop line or yield line on the approach to the intersection. Therefore this warrant is not applicable to this location.

Speed Analysis

InterPlan conducted a speed analysis for Highland Boulevard in the vicinity of the 11800 North intersection. Vehicle speeds were recorded for both the northbound and southbound directions on either side of the intersection. Monitoring equipment was placed approximately 1,200 feet north of and 150 feet south of the 11800 North intersection and the equipment measured vehicle speeds 24 hours a day for a full seven-day period. Speeds south of the intersection were recorded from September 18 - 25, 2015 while speeds north of the intersection were recorded September 25 - October 2, 2015. Figure 2 illustrates the locations of data collection points.

Posted speed limits on Highland Boulevard in the vicinity of the 11800 North intersection are 40 miles per hour (mph). In the northbound direction of travel, the nearest upstream 40 mph speed limit sign is approximately 3/4 of a mile to the south, near Normandy Way. For the southbound direction, the closest posted 40 mph sign is over two miles to the north. This sign is located near Viscaya Drive, a significant distance up the hill into the Suncrest development. As Highland Boulevard approaches SR-92, the speed limit reduces to 25 mph with a sign posted near Sunflower Drive. Figure 3 documents the locations of existing posted speed limit signs.

Definitions

The following are common parameters used for speed analysis:

Average Speed: The average measured speed of all vehicles passing the data collection point.

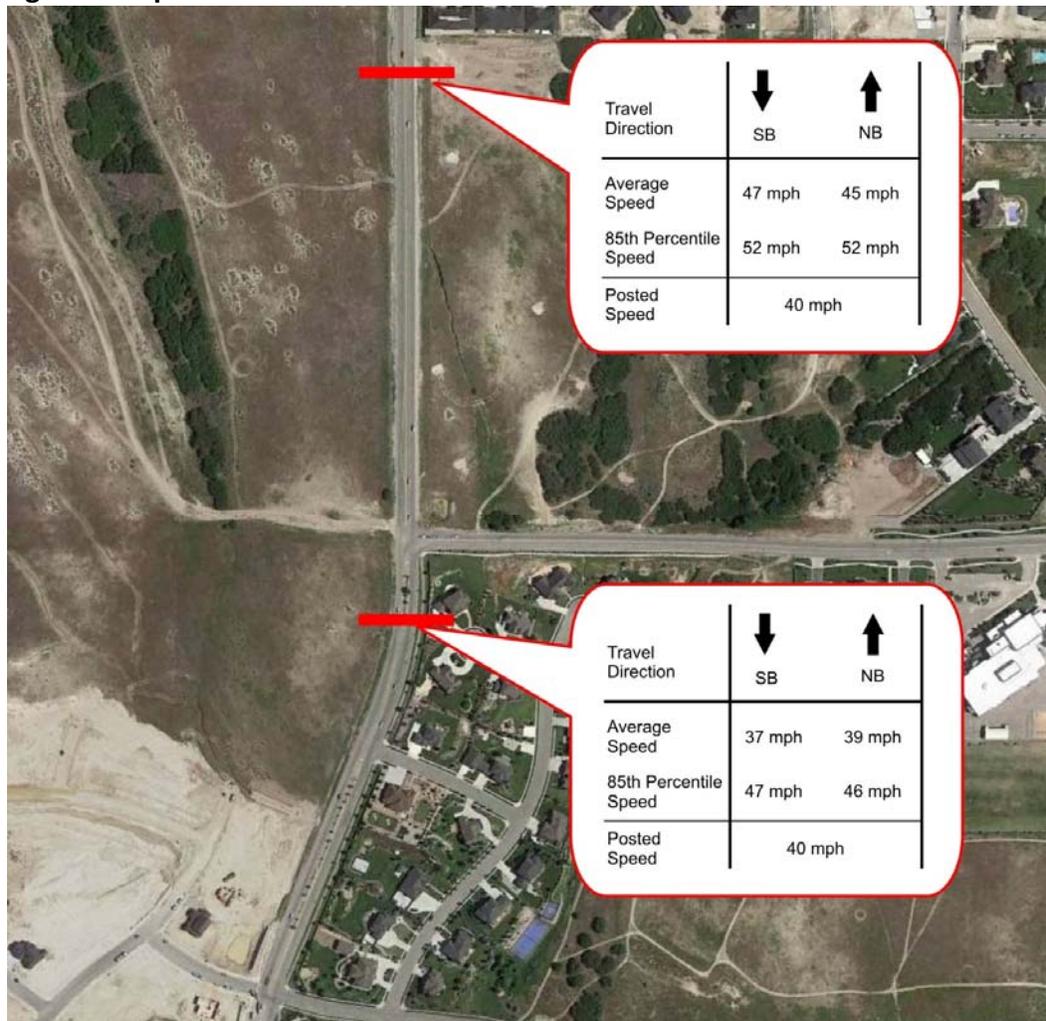
85th Percentile Speed: The speed below which 85 percent of the vehicles are traveling. Common practice is to post speeds within 5 mph of the 85th percentile speed.

Analysis

Operating speeds on Highland Boulevard south of the 11800 North intersection are generally lower than speeds north of the intersection. Much of this is likely due to roadway factors that encourage slower travel, such as the curvature of the roadway, the reduced number of lanes, and the raised median. In contrast, north of 11800 North, Highland Boulevard features a straight alignment for one half mile, has no median, and opens up to two lanes in each direction.

Speed measurements south of 11800 North are also influenced by the vehicles turning to and from 11800 North. Since the data collection point was placed only 150 feet south of the intersection, the data captures the effects of vehicles slowing to turn onto 11800 South and vehicles still accelerating to normal operating speeds after turning from 11800 North. This pattern is manifest in the graphs in Figures 4 and 5 where there are two clear clusters of speed measurements. While this occurrence may result in a lower average speed calculation, it probably has little effect on the 85th percentile measurement.

Figure 2 – Speed Measurement Locations



Relation to Posted Speeds

At both data collection points and for both directions of travel, operating speeds are well above the posted speed limit of 40 mph. As mentioned previously, it is common practice to set speed limits within five mph of the 85th percentile operating speed. Consistent with this practice, speed limits would be more suitably posted at 45 or 50 mph.

If it is desired to encourage lower operating speeds on Highland Boulevard, potential measures might include increased enforcement and/or measures to change the roadway environment. As evidenced at this location (and many others), simply posting speed limit signs is not an effective way of reducing operating speeds. Additionally, given the regional nature of the roadway and the higher functional classification, speed humps or other traffic calming measures would not be appropriate, or effective, and may even cause safety hazards. Finally, traffic signals and stop signs are control devices for the assignment of right-of-way and are not to be used for speed control.

One potential option to encourage lower operating speeds on Highland Boulevard is to narrow the cross-section of Highland Boulevard from two travel lanes in each direction, with no median

or shoulders, to one travel lane in each direction plus a center turn lane and shoulders. This narrowing could extend from 11800 North to just past the Skye Estates development driveways.

Besides potentially influencing speeds, several other factors suggest the cross-section of a single lane in each direction may be more appropriate for Highland Boulevard. First, with recent and expected development along Highland Boulevard (such as Skye Estates), a center turn lane will better accommodate access and safety by allowing vehicles to turn left from Highland Boulevard without stopping in a travel lane. Second, use of a climbing lane on Highland Boulevard does not appear to offer significant benefit until north of Skye Estates when grades start to increase. Third, the cross-section would have the added benefit of providing a shoulder for bicyclists which frequently use Highland Boulevard. Currently there is no shoulder and bicyclists are forced to ride in the travel lane.

Because Highland Boulevard is outside of Highland City's jurisdiction north of 11800 North, changes to its cross-section would require coordination with outside agencies. Additionally, a change in cross-section should not be implemented without consideration of the long-term function and travel demand on Highland Boulevard to ensure actions do not encroach on future capacity needs.

Figure 3 – Existing Posted Speed Limit Signs

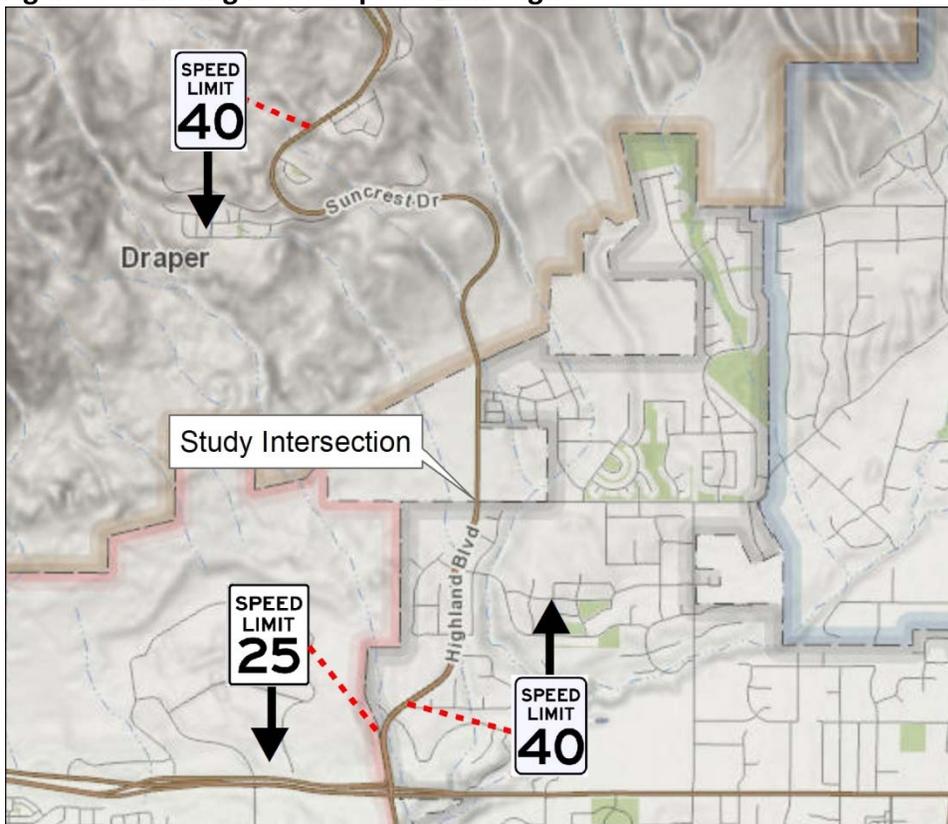


Figure 4 – Northbound Speed Distributions: South of 11800 South

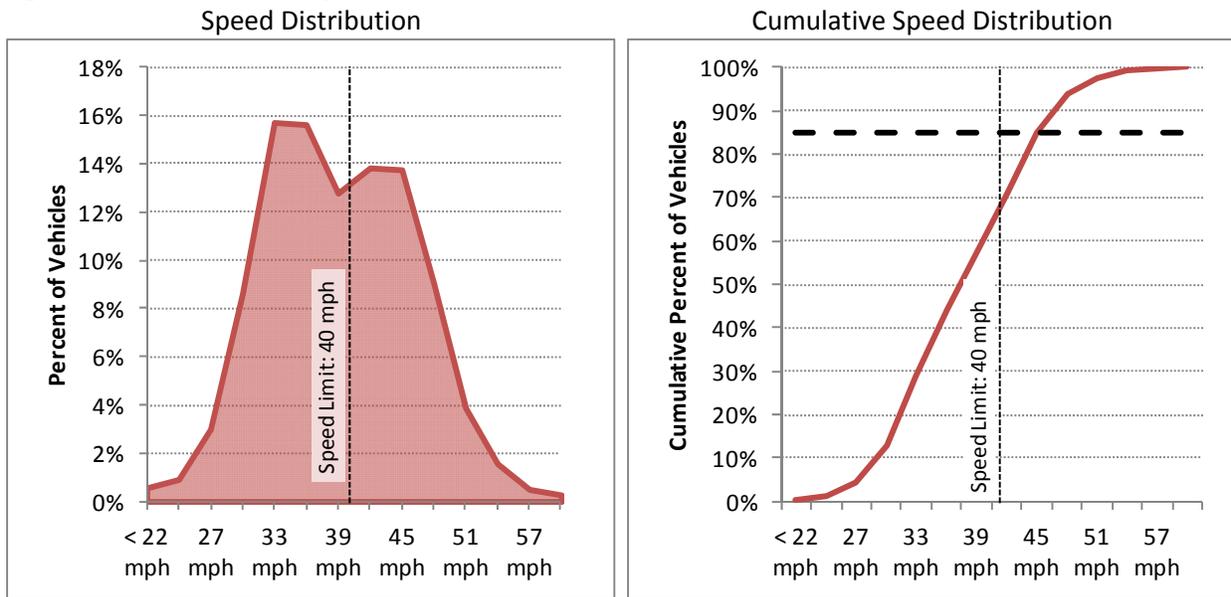


Figure 5 – Southbound Speed Distributions: South of 11800 South

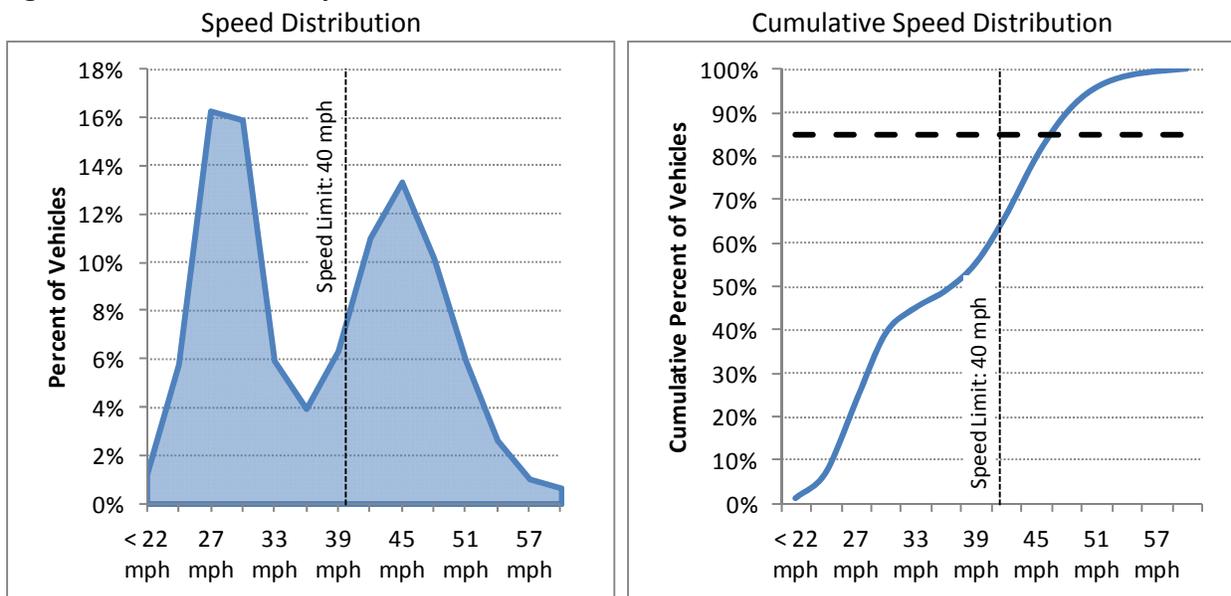


Table 3 – Speed Summary: South of 11800 South

Travel Direction	Measured Speeds		Posted Speed Limit
	Average	85th Percentile	
Northbound	39 mph	46 mph	40 mph
Southbound	37 mph	47 mph	

Figure 6 – Northbound Speed Distributions: North of 11800 South

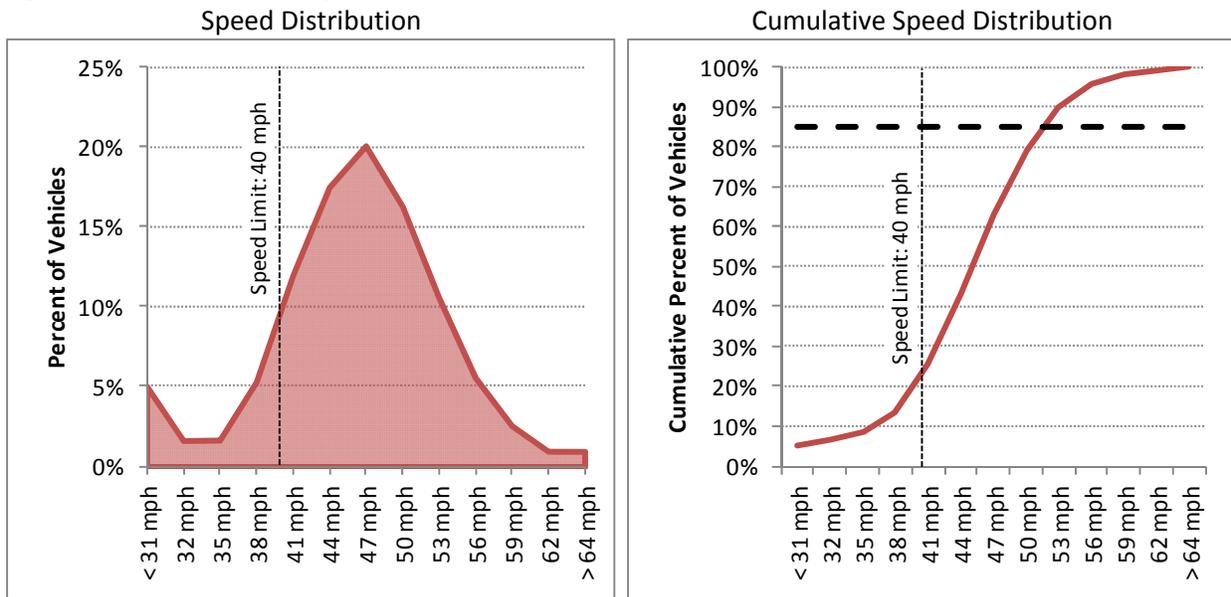


Figure 7 – Southbound Speed Distributions: North of 11800 South

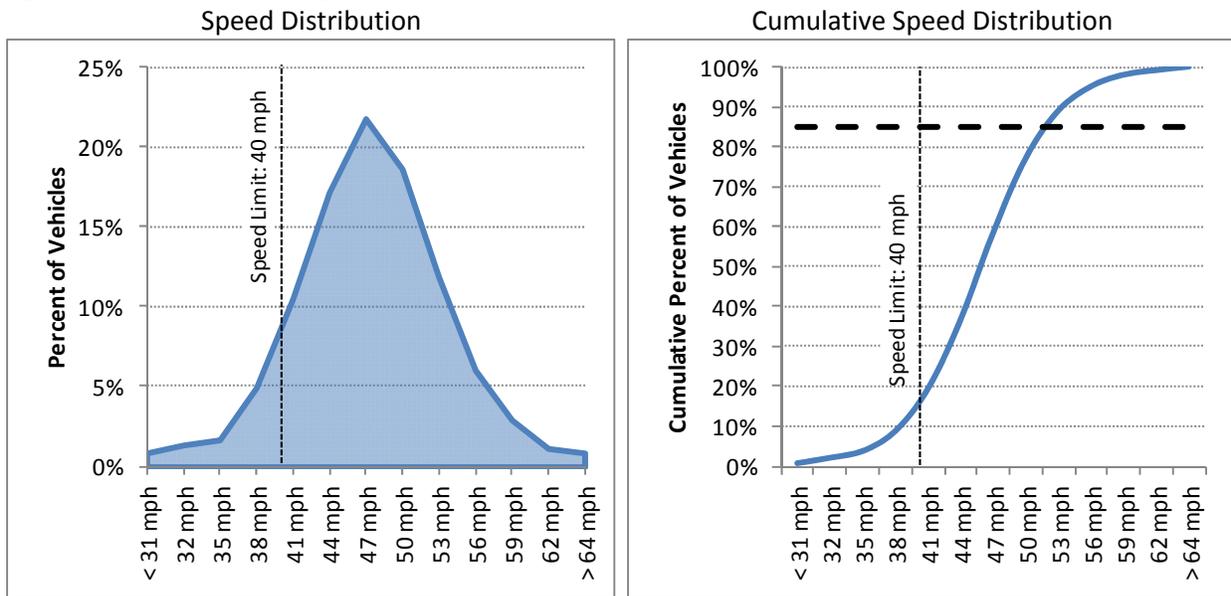


Table 4 – Speed Summary: North of 11800 South

Travel Direction	Measured Speeds		Posted Speed Limit
	Average	85th Percentile	
Northbound	45 mph	52 mph	40 mph
Southbound	47 mph	52 mph	

Appendix

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
 Intersection: Highland Blvd / 11800 N.
 City, State: Highland, Utah
 Control: Stop Sign

File Name : Highland Blvd & 11800 North
 Site Code :
 Start Date : 1/6/2015
 Page No : 1

Groups Printed- General Traffic

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	
07:00 AM	20	11	1	32	24	33	0	57	12	28	1	41	2	2	132
07:15 AM	52	16	1	69	28	24	0	52	15	29	0	44	1	1	166
07:30 AM	36	16	0	52	42	46	2	90	21	42	0	63	1	1	206
07:45 AM	41	50	1	92	58	46	0	104	45	50	0	95	0	0	291
Total	149	93	3	245	152	149	2	303	93	149	1	243	4	4	795
08:00 AM	34	14	0	48	55	43	0	98	19	47	2	68	3	3	217
08:15 AM	35	17	0	52	40	53	0	93	18	42	0	60	1	1	206
08:30 AM	30	8	0	38	37	24	0	61	9	44	0	53	0	0	152
08:45 AM	30	25	1	56	21	33	0	54	17	30	0	47	1	1	158
Total	129	64	1	194	153	153	0	306	63	163	2	228	5	5	733
09:00 AM	46	36	1	83	34	53	2	89	40	21	1	62	2	2	236
09:15 AM	26	10	0	36	22	46	0	68	19	38	0	57	0	0	161
09:30 AM	27	7	0	34	19	27	0	46	13	24	1	38	1	1	119
09:45 AM	29	9	0	38	11	17	0	28	5	25	1	31	1	1	98
Total	128	62	1	191	86	143	2	231	77	108	3	188	4	4	614
10:00 AM	31	8	0	39	8	19	0	27	10	15	1	26	1	1	93
10:15 AM	20	12	0	32	17	15	0	32	13	18	1	32	1	1	97
10:30 AM	24	5	0	29	9	21	1	31	16	14	0	30	0	0	90
10:45 AM	30	6	0	36	21	25	0	46	15	17	0	32	0	0	114
Total	105	31	0	136	55	80	1	136	54	64	2	120	2	2	394
11:00 AM	21	4	0	25	6	18	1	25	11	27	2	40	6	6	96
11:15 AM	26	6	0	32	10	30	0	40	12	20	0	32	0	0	104
11:30 AM	34	11	0	45	13	20	1	34	21	29	0	50	0	0	129
11:45 AM	25	12	0	37	13	37	0	50	28	23	1	52	4	4	143
Total	106	33	0	139	42	105	2	149	72	99	3	174	10	10	472
12:00 PM	30	16	0	46	21	36	0	57	23	43	4	70	5	5	178
12:15 PM	27	14	0	41	7	23	0	30	19	32	0	51	0	0	122
12:30 PM	33	14	0	47	10	21	4	35	22	27	2	51	1	1	134
12:45 PM	25	9	0	34	12	16	0	28	11	32	0	43	1	1	106
Total	115	53	0	168	50	96	4	150	75	134	6	215	7	7	540
01:00 PM	21	7	0	28	6	21	0	27	19	26	1	46	1	1	102
01:15 PM	35	9	0	44	12	17	1	30	14	21	0	35	2	2	111
01:30 PM	32	12	0	44	6	26	0	32	20	22	0	42	0	0	118
01:45 PM	18	13	2	33	8	18	0	26	17	34	0	51	2	2	112
Total	106	41	2	149	32	82	1	115	70	103	1	174	5	5	443
02:00 PM	34	14	0	48	9	18	0	27	31	31	0	62	0	0	137
02:15 PM	21	7	0	28	17	36	0	53	28	30	0	58	0	0	139
02:30 PM	28	17	0	45	11	21	1	33	28	43	0	71	0	0	149
02:45 PM	34	22	0	56	21	19	0	40	13	28	0	41	0	0	137
Total	117	60	0	177	58	94	1	153	100	132	0	232	0	0	562
03:00 PM	32	19	0	51	19	39	0	58	29	27	1	57	2	2	168
03:15 PM	32	30	0	62	20	27	0	47	56	32	0	88	0	0	197
03:30 PM	31	17	0	48	32	58	0	90	33	31	2	66	3	3	207
03:45 PM	38	31	0	69	28	40	0	68	24	39	1	64	1	1	202
Total	133	97	0	230	99	164	0	263	142	129	4	275	6	6	774
04:00 PM	57	27	0	84	31	42	0	73	26	45	0	71	1	1	229
04:15 PM	38	22	2	62	25	33	0	58	23	48	0	71	2	2	193
04:30 PM	53	29	0	82	23	31	0	54	18	38	0	56	0	0	192
04:45 PM	59	48	0	107	26	21	0	47	44	42	0	86	0	0	240
Total	207	126	2	335	105	127	0	232	111	173	0	284	3	3	854

L2 Data Collection

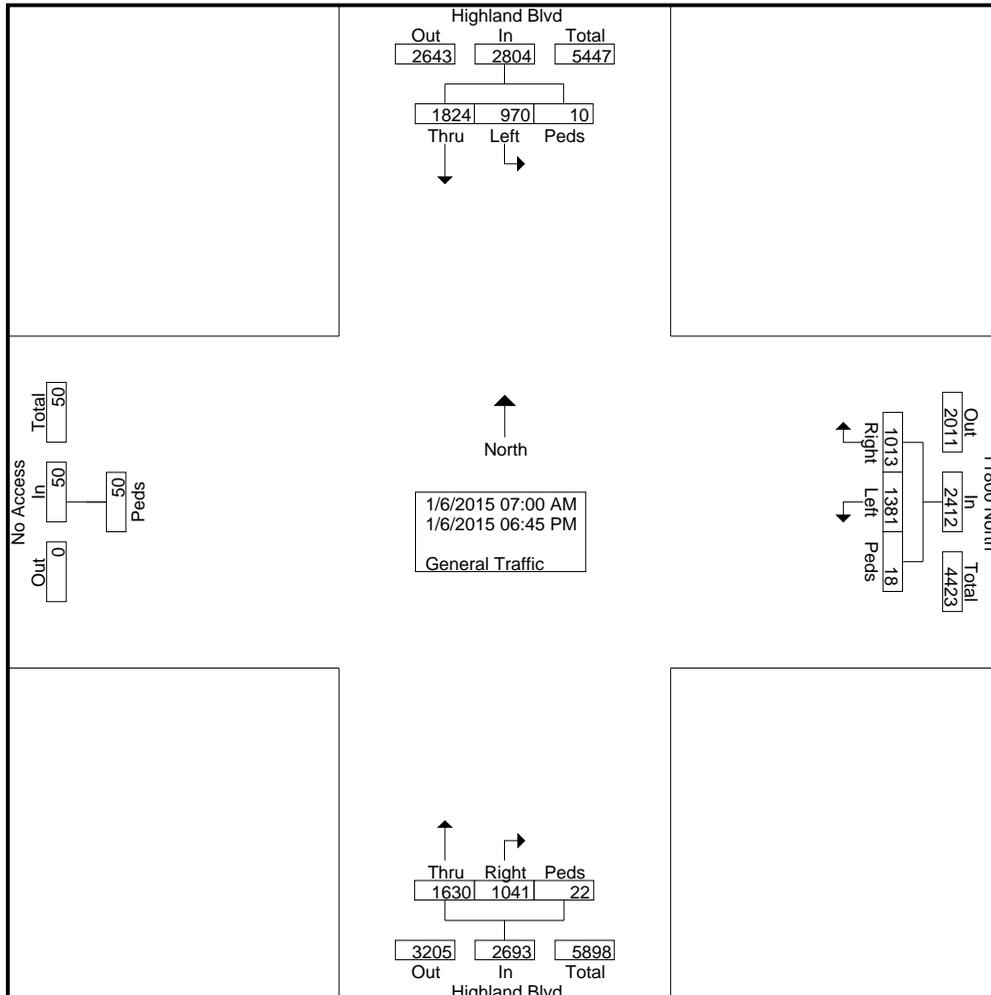
L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
Intersection: Highland Blvd / 11800 N.
City, State: Highland, Utah
Control: Stop Sign

File Name : Highland Blvd & 11800 North
Site Code :
Start Date : 1/6/2015
Page No : 2

Groups Printed- General Traffic

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	
05:00 PM	73	47	0	120	33	40	1	74	29	49	0	78	0	0	272
05:15 PM	64	48	0	112	33	23	0	56	23	56	0	79	1	1	248
05:30 PM	68	50	0	118	27	21	0	48	31	56	0	87	0	0	253
05:45 PM	72	44	0	116	18	25	2	45	23	57	0	80	0	0	241
Total	277	189	0	466	111	109	3	223	106	218	0	324	1	1	1014
06:00 PM	66	32	0	98	20	22	0	42	19	52	0	71	0	0	211
06:15 PM	67	41	1	109	17	18	0	35	20	43	0	63	2	2	209
06:30 PM	70	21	0	91	18	23	2	43	21	37	0	58	0	0	192
06:45 PM	49	27	0	76	15	16	0	31	18	26	0	44	1	1	152
Total	252	121	1	374	70	79	2	151	78	158	0	236	3	3	764
Grand Total	1824	970	10	2804	1013	1381	18	2412	1041	1630	22	2693	50	50	7959
Apprch %	65	34.6	0.4		42	57.3	0.7		38.7	60.5	0.8		100		
Total %	22.9	12.2	0.1	35.2	12.7	17.4	0.2	30.3	13.1	20.5	0.3	33.8	0.6	0.6	



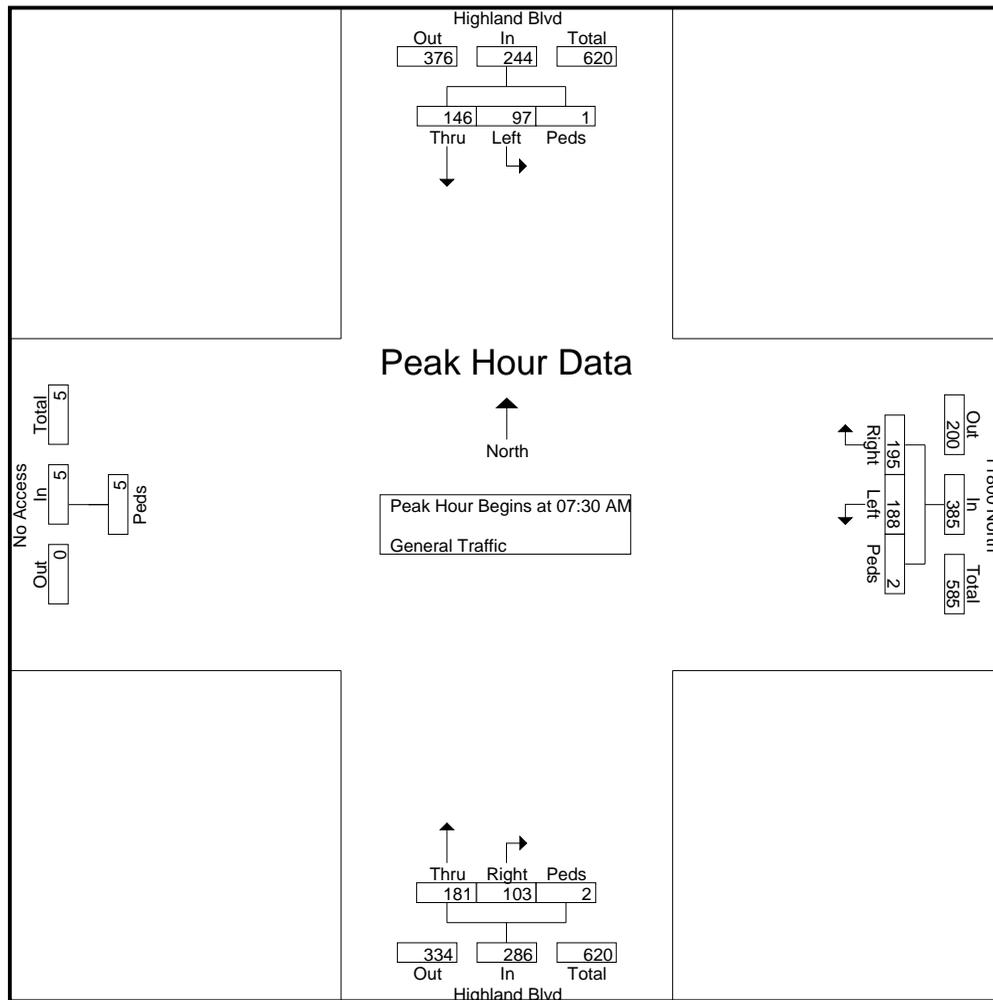
L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
 Intersection: Highland Blvd / 11800 N.
 City, State: Highland, Utah
 Control: Stop Sign

File Name : Highland Blvd & 11800 North
 Site Code :
 Start Date : 1/6/2015
 Page No : 3

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total	
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total		
Peak Hour Analysis From 07:00 AM to 10:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 07:30 AM																
07:30 AM	36	16	0	52	42	46	2	90	21	42	0	63	1	1	206	
07:45 AM	41	50	1	92	58	46	0	104	45	50	0	95	0	0	291	
08:00 AM	34	14	0	48	55	43	0	98	19	47	2	68	3	3	217	
08:15 AM	35	17	0	52	40	53	0	93	18	42	0	60	1	1	206	
Total Volume	146	97	1	244	195	188	2	385	103	181	2	286	5	5	920	
% App. Total	59.8	39.8	0.4		50.6	48.8	0.5		36	63.3	0.7		100			
PHF	.890	.485	.250	.663	.841	.887	.250	.925	.572	.905	.250	.753	.417	.417	.790	



L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
 Intersection: Highland Blvd / 11800 N.
 City, State: Highland, Utah
 Control: Stop Sign

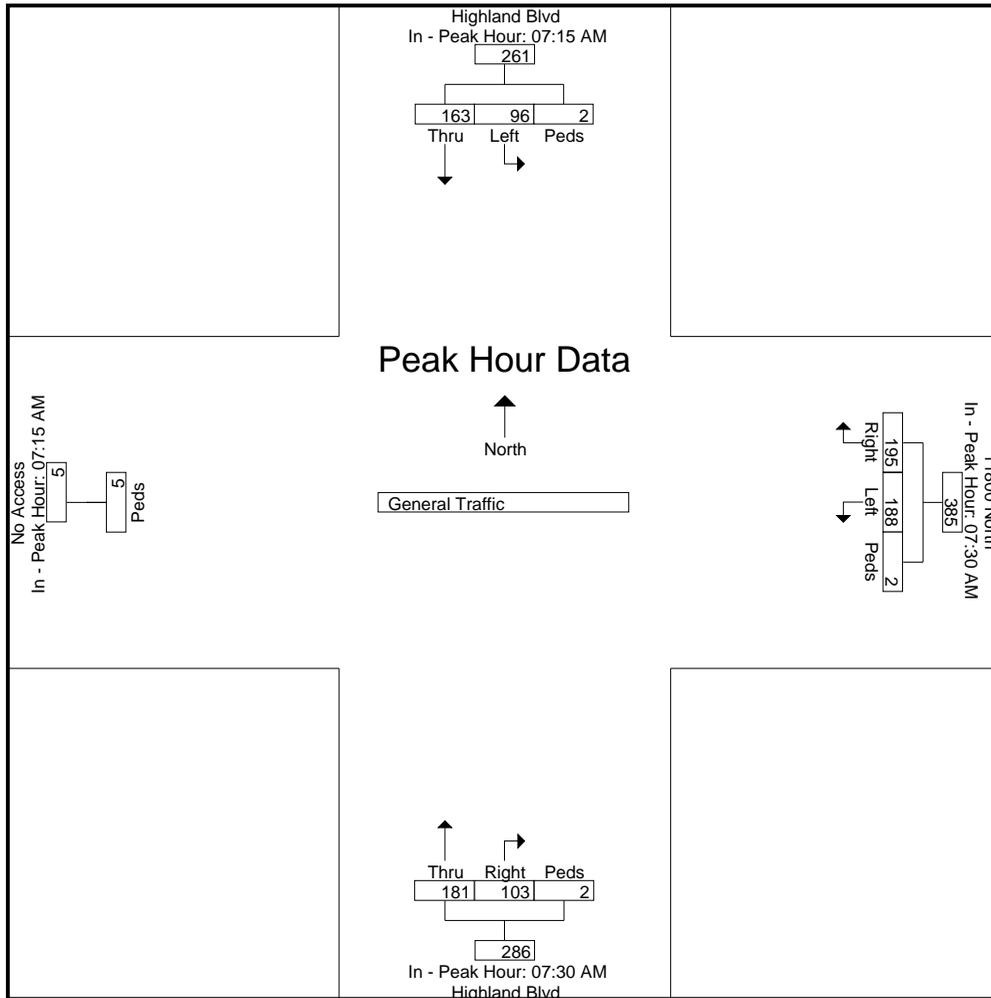
File Name : Highland Blvd & 11800 North
 Site Code :
 Start Date : 1/6/2015
 Page No : 4

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 10:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:30 AM				07:15 AM	
+0 mins.	52	16	1	69	42	46	2	90	21	42	0	63	1	1
+15 mins.	36	16	0	52	58	46	0	104	45	50	0	95	1	1
+30 mins.	41	50	1	92	55	43	0	98	19	47	2	68	0	0
+45 mins.	34	14	0	48	40	53	0	93	18	42	0	60	3	3
Total Volume	163	96	2	261	195	188	2	385	103	181	2	286	5	5
% App. Total	62.5	36.8	0.8		50.6	48.8	0.5		36	63.3	0.7		100	
PHF	.784	.480	.500	.709	.841	.887	.250	.925	.572	.905	.250	.753	.417	.417



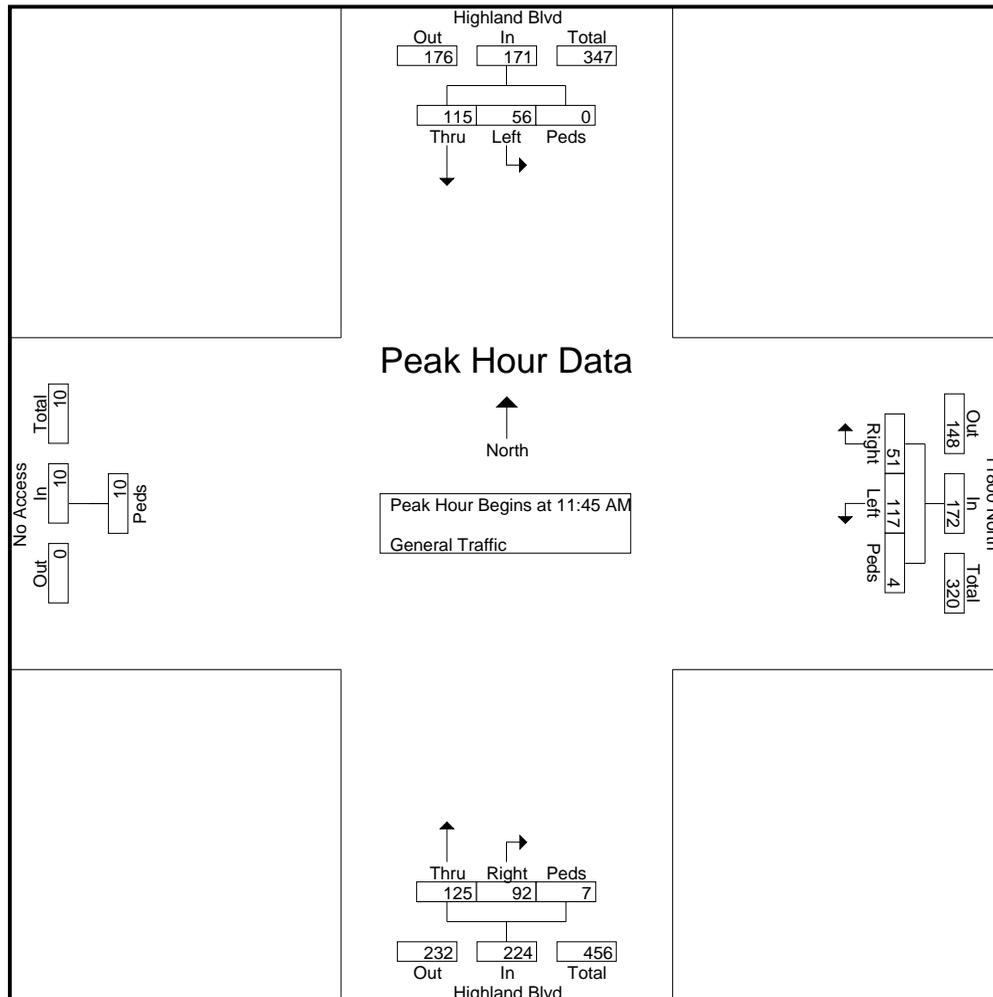
L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
Intersection: Highland Blvd / 11800 N.
City, State: Highland, Utah
Control: Stop Sign

File Name : Highland Blvd & 11800 North
Site Code :
Start Date : 1/6/2015
Page No : 5

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	
Peak Hour Analysis From 11:00 AM to 02:45 PM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 11:45 AM															
11:45 AM	25	12	0	37	13	37	0	50	28	23	1	52	4	4	143
12:00 PM	30	16	0	46	21	36	0	57	23	43	4	70	5	5	178
12:15 PM	27	14	0	41	7	23	0	30	19	32	0	51	0	0	122
12:30 PM	33	14	0	47	10	21	4	35	22	27	2	51	1	1	134
Total Volume	115	56	0	171	51	117	4	172	92	125	7	224	10	10	577
% App. Total	67.3	32.7	0		29.7	68	2.3		41.1	55.8	3.1		100		
PHF	.871	.875	.000	.910	.607	.791	.250	.754	.821	.727	.438	.800	.500	.500	.810



L2 Data Collection

L2DataCollection.com
Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
Intersection: Highland Blvd / 11800 N.
City, State: Highland, Utah
Control: Stop Sign

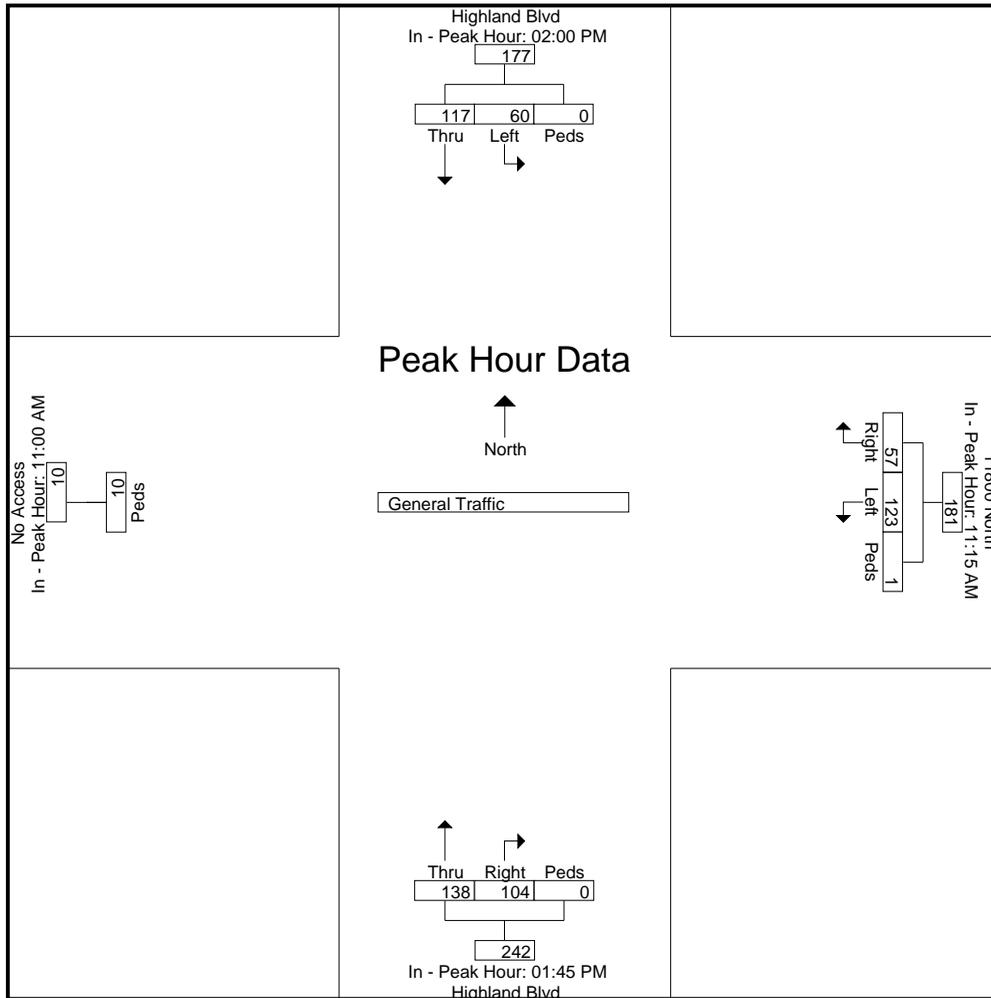
File Name : Highland Blvd & 11800 North
Site Code :
Start Date : 1/6/2015
Page No : 6

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	

Peak Hour Analysis From 11:00 AM to 02:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	02:00 PM				11:15 AM				01:45 PM				11:00 AM	
+0 mins.	34	14	0	48	10	30	0	40	17	34	0	51	6	6
+15 mins.	21	7	0	28	13	20	1	34	31	31	0	62	0	0
+30 mins.	28	17	0	45	13	37	0	50	28	30	0	58	0	0
+45 mins.	34	22	0	56	21	36	0	57	28	43	0	71	4	4
Total Volume	117	60	0	177	57	123	1	181	104	138	0	242	10	10
% App. Total	66.1	33.9	0		31.5	68	0.6		43	57	0		100	
PHF	.860	.682	.000	.790	.679	.831	.250	.794	.839	.802	.000	.852	.417	.417



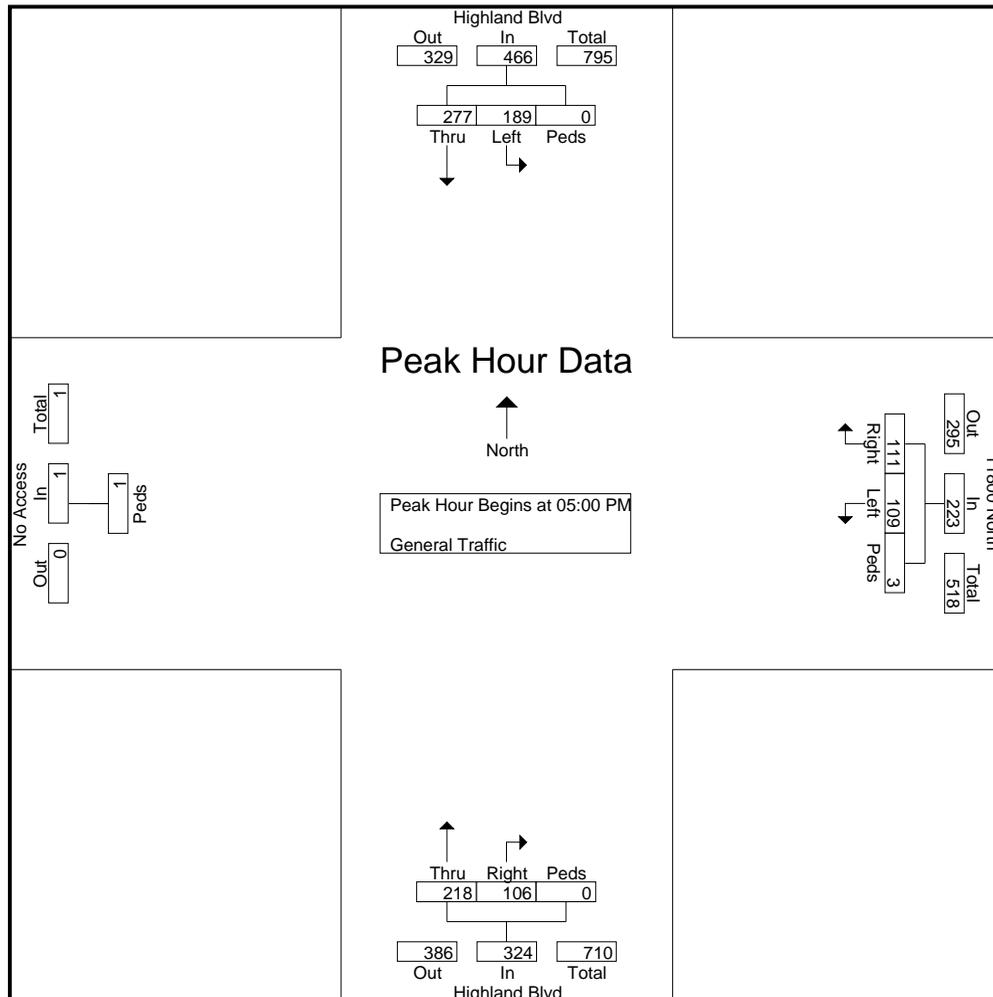
L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
 Intersection: Highland Blvd / 11800 N.
 City, State: Highland, Utah
 Control: Stop Sign

File Name : Highland Blvd & 11800 North
 Site Code :
 Start Date : 1/6/2015
 Page No : 7

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1															
Peak Hour for Entire Intersection Begins at 05:00 PM															
05:00 PM	73	47	0	120	33	40	1	74	29	49	0	78	0	0	272
05:15 PM	64	48	0	112	33	23	0	56	23	56	0	79	1	1	248
05:30 PM	68	50	0	118	27	21	0	48	31	56	0	87	0	0	253
05:45 PM	72	44	0	116	18	25	2	45	23	57	0	80	0	0	241
Total Volume	277	189	0	466	111	109	3	223	106	218	0	324	1	1	1014
% App. Total	59.4	40.6	0		49.8	48.9	1.3		32.7	67.3	0		100		
PHF	.949	.945	.000	.971	.841	.681	.375	.753	.855	.956	.000	.931	.250	.250	.932



L2 Data Collection

L2DataCollection.com
 Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
 Intersection: Highland Blvd / 11800 N.
 City, State: Highland, Utah
 Control: Stop Sign

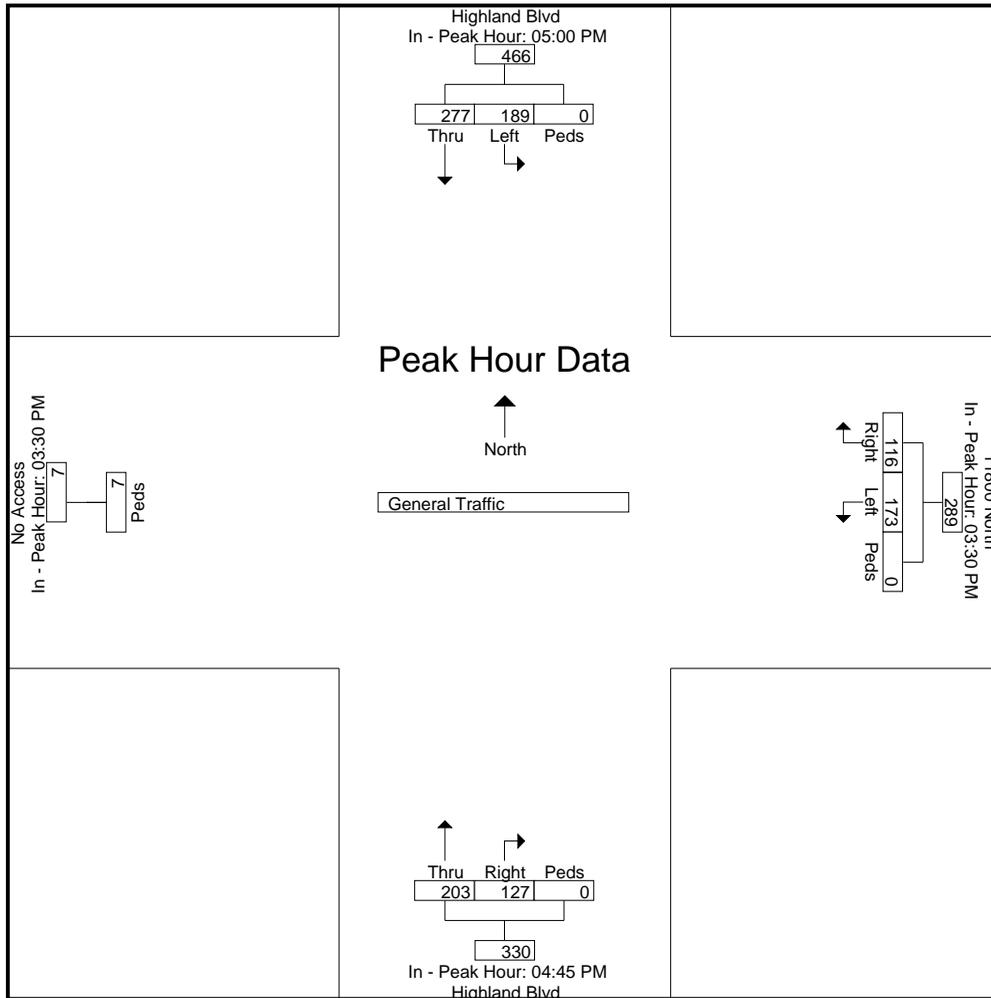
File Name : Highland Blvd & 11800 North
 Site Code :
 Start Date : 1/6/2015
 Page No : 8

Start Time	Highland Blvd From North				11800 North From East				Highland Blvd From South				No Access From West		Int. Total
	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Peds	App. Total	

Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM				03:30 PM				04:45 PM				03:30 PM	
+0 mins.	73	47	0	120	32	58	0	90	44	42	0	86	3	3
+15 mins.	64	48	0	112	28	40	0	68	29	49	0	78	1	1
+30 mins.	68	50	0	118	31	42	0	73	23	56	0	79	1	1
+45 mins.	72	44	0	116	25	33	0	58	31	56	0	87	2	2
Total Volume	277	189	0	466	116	173	0	289	127	203	0	330	7	7
% App. Total	59.4	40.6	0		40.1	59.9	0		38.5	61.5	0		100	
PHF	.949	.945	.000	.971	.906	.746	.000	.803	.722	.906	.000	.948	.583	.583



L2 Data Collection

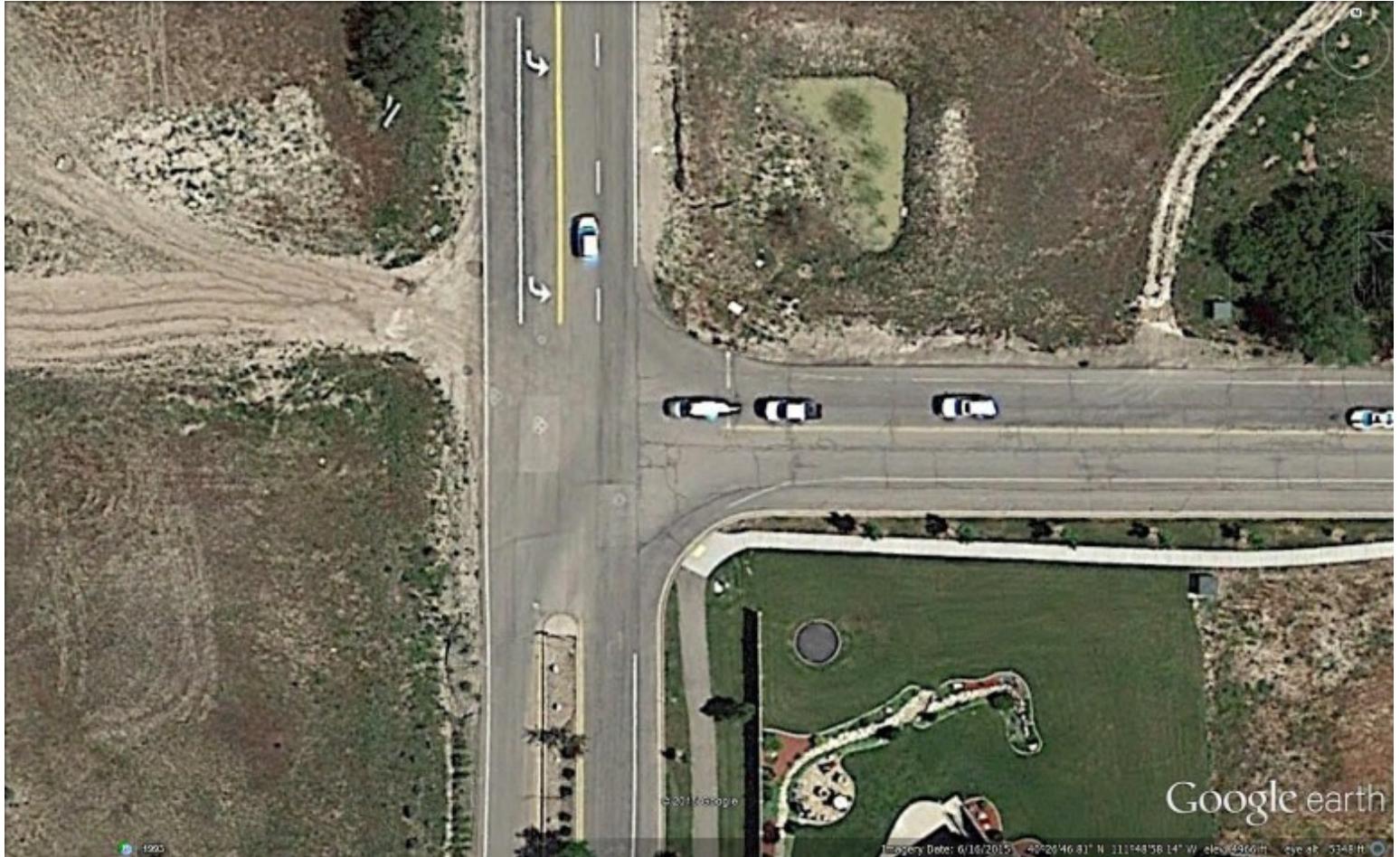
L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 413-2993

Study: INTE0027
Intersection: Highland Blvd / 11800 N.
City, State: Highland, Utah
Control: Stop Sign

File Name : Highland Blvd & 11800 North
Site Code :
Start Date : 1/6/2015
Page No : 9

Image 1



L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland north of 11800 N SPEED W2

Date Start: 25-Sep-15

Date End: 02-Oct-15

Highland Blvd north of 11800 North

Highland, Utah

Southbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/25/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	0	0	4	9	34	44	57	52	21	16	10	3	2	252	52	57
08:00	1	1	1	8	23	37	59	42	29	16	10	2	5	234	53	57
09:00	2	3	4	26	35	54	72	64	32	21	14	3	2	332	52	57
10:00	14	21	12	20	27	35	38	30	22	7	2	1	0	229	50	53
11:00	0	7	15	23	27	43	45	40	26	19	7	2	1	255	52	56
12 PM	1	15	13	18	22	37	35	39	28	13	2	1	3	227	52	55
13:00	1	8	7	11	28	25	34	33	24	15	2	1	1	190	52	55
14:00	3	5	3	8	19	33	50	39	37	17	8	1	1	224	53	56
15:00	1	4	4	12	30	59	79	71	36	23	8	2	2	331	52	56
16:00	0	4	1	11	26	55	79	111	69	27	17	5	6	411	53	57
17:00	1	0	2	6	21	87	117	109	87	50	16	10	3	509	54	57
18:00	0	0	1	8	26	56	88	92	73	50	14	9	1	418	54	57
19:00	1	1	2	11	44	65	75	48	28	13	6	3	1	298	51	55
20:00	0	3	1	10	22	17	31	16	8	2	1	1	2	114	50	53
21:00	0	1	0	6	19	23	30	11	6	5	0	0	0	101	49	53
22:00	0	0	3	5	16	20	17	5	5	2	2	0	1	76	49	54
23:00	0	1	2	4	4	11	11	11	5	2	0	1	0	52	51	54
Total	25	74	75	196	423	701	917	813	536	298	119	45	31	4253		
Percent	0.6%	1.7%	1.8%	4.6%	9.9%	16.5%	21.6%	19.1%	12.6%	7.0%	2.8%	1.1%	0.7%			
AM Peak	10:00	10:00	11:00	09:00	09:00	09:00	09:00	09:00	09:00	09:00	09:00	07:00	08:00	09:00		
Vol.	14	21	15	26	35	54	72	64	32	21	14	3	5	332		
PM Peak	14:00	12:00	12:00	12:00	19:00	17:00	17:00	16:00	17:00	17:00	16:00	17:00	16:00	17:00		
Vol.	3	15	13	18	44	87	117	111	87	50	17	10	6	509		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/26/15	0	0	0	3	5	7	9	6	4	2	0	1	1	38	52	55
01:00	1	0	0	1	0	5	0	3	2	1	1	0	0	14	53	57
02:00	0	0	0	0	1	1	0	1	1	0	0	0	0	4	52	53
03:00	0	1	0	0	1	1	1	1	0	0	0	0	0	5	48	50
04:00	0	0	0	0	2	2	3	0	0	1	0	0	0	8	47	55
05:00	0	1	0	0	1	2	3	2	0	0	2	0	0	11	57	59
06:00	0	0	0	1	3	3	5	6	3	1	0	0	0	22	51	53
07:00	1	1	2	2	8	13	17	12	4	3	6	0	0	69	52	58
08:00	0	4	1	3	12	20	25	18	12	10	4	0	2	111	53	56
09:00	4	4	2	7	19	35	37	26	13	11	4	2	1	165	52	56
10:00	8	2	3	8	28	33	22	28	13	15	5	0	3	168	52	56
11:00	0	2	3	8	24	30	42	33	15	10	4	2	2	175	52	56
12 PM	1	1	3	4	10	28	42	52	13	7	6	5	2	174	52	58
13:00	1	2	0	7	13	34	38	31	16	11	7	3	0	163	53	57
14:00	3	3	2	5	16	32	45	37	23	4	9	3	1	183	52	57
15:00	4	3	5	4	21	33	55	48	26	20	4	1	0	224	53	56
16:00	3	1	1	9	24	26	34	36	28	12	4	2	0	180	53	56
17:00	3	2	6	17	24	42	47	27	22	8	5	1	1	205	51	55
18:00	1	3	6	5	14	38	33	23	12	7	2	4	1	149	51	56
19:00	1	1	2	14	21	43	27	24	8	5	4	1	0	151	50	55
20:00	0	2	2	14	17	29	24	18	10	7	3	0	1	127	51	55
21:00	0	2	5	6	17	14	26	10	8	5	1	0	0	94	50	54
22:00	0	1	0	4	22	18	29	13	5	3	0	1	0	96	49	53
23:00	1	1	0	4	6	9	10	9	8	2	0	0	0	50	51	53
Total	32	37	43	126	309	498	574	464	246	145	71	26	15	2586		
Percent	1.2%	1.4%	1.7%	4.9%	11.9%	19.3%	22.2%	17.9%	9.5%	5.6%	2.7%	1.0%	0.6%			
AM Peak	10:00	08:00	10:00	10:00	10:00	09:00	11:00	11:00	11:00	10:00	07:00	09:00	10:00	11:00		
Vol.	8	4	3	8	28	35	42	33	15	15	6	2	3	175		
PM Peak	15:00	14:00	17:00	17:00	16:00	19:00	15:00	12:00	16:00	15:00	14:00	12:00	12:00	15:00		
Vol.	4	3	6	17	24	43	55	52	28	20	9	5	2	224		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland north of 11800 N SPEED W2

Date Start: 25-Sep-15

Date End: 02-Oct-15

Highland Blvd north of 11800 North

Highland, Utah

Southbound

Start Time	1 31	32 34	35 36	37 39	40 42	43 45	46 48	49 51	52 54	55 57	58 60	61 63	64 9999	Total	85th Percent	95th Percent
09/27/15	0	0	1	3	4	6	4	3	1	2	0	0	2	26	50	55
01:00	0	0	0	0	1	2	2	3	1	1	0	0	0	10	52	55
02:00	0	1	0	1	1	1	1	0	0	0	0	0	0	5	45	47
03:00	0	0	0	0	0	0	2	0	0	0	0	0	1	3	47	47
04:00	0	0	0	0	1	2	0	0	0	1	0	0	0	4	55	56
05:00	0	0	0	1	2	0	0	2	0	2	0	0	0	7	55	56
06:00	0	0	1	2	2	3	2	2	0	0	0	0	0	12	48	50
07:00	0	0	1	4	0	4	4	2	2	0	1	0	1	19	51	57
08:00	2	3	1	7	5	11	12	17	8	5	0	0	0	71	51	54
09:00	1	0	0	2	6	8	7	15	9	3	0	1	0	52	52	55
10:00	2	0	1	3	9	22	27	11	12	5	6	1	0	99	53	58
11:00	1	0	1	5	11	18	21	26	14	5	3	2	0	107	52	56
12 PM	2	1	7	10	25	25	48	29	9	5	1	0	0	162	50	53
13:00	0	1	1	3	13	16	32	15	12	5	1	0	0	99	51	54
14:00	0	2	1	5	10	30	29	20	11	3	0	1	1	113	50	53
15:00	0	0	1	8	19	23	25	9	17	0	3	2	0	107	52	53
16:00	2	1	1	6	15	39	35	21	16	5	2	0	0	143	51	53
17:00	3	2	1	6	16	17	34	35	18	11	6	0	1	150	53	56
18:00	0	1	1	7	17	26	24	24	15	6	3	0	1	125	52	55
19:00	1	8	3	5	19	29	21	18	7	0	2	0	3	116	49	52
20:00	4	2	10	15	43	37	47	20	4	2	1	0	0	185	47	50
21:00	0	3	4	12	19	20	25	20	14	3	1	3	2	126	51	54
22:00	0	2	0	6	7	10	10	8	2	0	1	0	0	46	49	52
23:00	0	0	0	0	4	5	3	2	0	0	1	0	0	15	49	57
Total	18	27	36	111	249	354	415	302	172	64	32	10	12	1802		
Percent	1.0%	1.5%	2.0%	6.2%	13.8%	19.6%	23.0%	16.8%	9.5%	3.6%	1.8%	0.6%	0.7%			
AM Peak	08:00	08:00	00:00	08:00	11:00	10:00	10:00	11:00	11:00	08:00	10:00	11:00	00:00	11:00		
Vol.	2	3	1	7	11	22	27	26	14	5	6	2	2	107		
PM Peak	20:00	19:00	20:00	20:00	20:00	16:00	12:00	17:00	17:00	17:00	17:00	21:00	19:00	20:00		
Vol.	4	8	10	15	43	39	48	35	18	11	6	3	3	185		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/28/15	0	0	0	0	2	2	4	3	0	0	0	0	0	11	49	50
01:00	1	0	0	0	0	0	0	2	1	1	0	0	0	5	54	56
02:00	0	0	0	1	0	3	1	0	1	1	0	0	0	7	53	55
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	3	3	1	1	0	0	0	0	0	8	47	49
05:00	0	0	2	1	2	5	4	2	1	1	1	0	1	20	51	57
06:00	0	0	1	5	8	18	13	11	5	0	1	0	1	63	50	52
07:00	0	4	1	6	33	40	53	45	24	5	8	4	2	225	51	57
08:00	1	4	4	5	19	41	39	39	17	14	11	3	1	198	53	58
09:00	3	6	4	7	17	28	29	27	17	10	5	3	1	157	53	57
10:00	4	7	1	8	21	17	23	21	15	10	2	1	1	131	52	55
11:00	2	6	5	18	20	31	19	17	18	8	3	2	4	153	52	56
12 PM	9	2	3	8	20	42	31	27	23	11	5	1	2	184	52	56
13:00	4	3	3	12	10	26	27	20	13	7	2	0	1	128	51	55
14:00	1	2	9	19	14	32	42	36	8	8	7	2	1	181	50	57
15:00	1	4	3	9	18	33	37	38	22	12	11	4	4	196	53	58
16:00	0	1	5	12	12	35	47	66	44	28	17	7	5	279	55	58
17:00	0	1	2	3	27	46	92	90	66	45	22	8	7	409	54	58
18:00	0	0	4	8	23	34	63	69	59	26	13	5	4	308	53	57
19:00	2	0	1	5	11	29	36	18	13	9	3	0	0	127	52	55
20:00	0	0	4	6	13	13	20	18	6	2	0	1	1	84	50	53
21:00	0	1	0	5	4	6	10	12	8	0	2	0	2	50	52	53
22:00	1	0	0	1	2	5	8	2	4	2	1	0	0	26	53	56
23:00	0	3	1	0	2	4	3	2	0	1	0	0	1	17	48	54
Total	29	44	53	139	281	493	602	566	365	201	114	41	39	2967		
Percent	1.0%	1.5%	1.8%	4.7%	9.5%	16.6%	20.3%	19.1%	12.3%	6.8%	3.8%	1.4%	1.3%			
AM Peak	10:00	10:00	11:00	11:00	07:00	08:00	07:00	07:00	07:00	08:00	08:00	07:00	11:00	07:00		
Vol.	4	7	5	18	33	41	53	45	24	14	11	4	4	225		
PM Peak	12:00	15:00	14:00	14:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00		
Vol.	9	4	9	19	27	46	92	90	66	45	22	8	7	409		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/29/15	0	1	0	1	0	0	2	5	2	1	0	0	0	12	52	55
01:00	0	0	0	0	1	0	1	1	1	0	0	0	0	4	52	53
02:00	0	0	0	1	0	1	0	0	1	0	0	0	0	3	52	53
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	2	0	1	3	2	0	1	0	1	0	11	55	61
05:00	0	1	0	1	2	6	7	6	2	2	1	1	0	29	53	58
06:00	0	3	0	2	6	16	7	10	5	2	1	1	2	55	51	56
07:00	0	1	1	7	18	49	67	37	28	16	4	7	2	237	53	56
08:00	1	0	2	9	11	27	37	34	29	10	7	4	1	172	53	58
09:00	1	3	3	10	14	21	49	22	21	11	4	2	3	164	52	56
10:00	1	2	4	12	20	22	22	16	9	5	5	1	1	120	51	57
11:00	2	7	2	6	17	22	27	25	16	11	6	1	2	144	53	56
12 PM	2	2	3	8	20	29	32	32	15	7	7	0	1	158	52	56
13:00	6	3	6	14	9	32	27	19	15	4	1	1	3	140	51	53
14:00	8	4	3	19	25	31	41	20	23	12	1	2	0	189	52	55
15:00	2	5	6	16	20	37	44	42	26	13	6	3	4	224	52	56
16:00	0	2	4	12	31	32	68	64	37	25	6	2	1	284	53	56
17:00	0	0	3	14	29	59	101	100	56	38	16	8	2	426	53	57
18:00	1	3	4	9	31	46	63	56	53	23	10	5	1	305	53	56
19:00	0	2	1	4	23	37	24	26	20	7	3	0	0	147	52	55
20:00	0	1	1	1	8	26	26	20	8	2	2	0	1	96	50	53
21:00	0	1	1	3	6	23	13	11	8	6	3	0	0	75	53	56
22:00	1	0	1	1	4	5	6	6	4	2	2	0	1	33	53	57
23:00	0	0	0	1	3	7	1	3	2	0	1	0	0	18	51	57
Total	26	41	45	153	298	529	668	557	381	198	86	39	25	3046		
Percent	0.9%	1.3%	1.5%	5.0%	9.8%	17.4%	21.9%	18.3%	12.5%	6.5%	2.8%	1.3%	0.8%			
AM Peak	11:00	11:00	10:00	10:00	10:00	07:00	07:00	07:00	08:00	07:00	08:00	07:00	09:00	07:00		
Vol.	2	7	4	12	20	49	67	37	29	16	7	7	3	237		
PM Peak	14:00	15:00	13:00	14:00	16:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	15:00	17:00		
Vol.	8	5	6	19	31	59	101	100	56	38	16	8	4	426		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/30/15	0	1	0	1	1	2	0	1	0	0	0	0	0	6	48	50
01:00	0	0	0	0	1	1	1	0	1	1	0	0	0	5	54	56
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	1	0	0	2	0	0	0	0	3	53	53
04:00	1	0	0	0	0	1	2	0	0	0	0	0	0	4	47	47
05:00	1	0	1	1	6	6	7	1	1	1	2	0	0	27	50	57
06:00	0	0	1	7	7	15	14	11	8	0	0	0	0	63	50	52
07:00	0	2	2	20	36	45	53	46	26	12	8	2	2	254	52	56
08:00	2	2	5	9	18	23	41	27	16	18	8	2	3	174	54	57
09:00	3	5	8	14	25	37	52	37	16	5	4	4	2	212	50	55
10:00	3	3	7	10	18	24	24	30	17	5	3	1	1	146	51	55
11:00	5	5	8	11	17	24	32	26	13	4	2	2	2	151	50	54
12 PM	3	4	6	9	14	23	34	22	14	10	1	1	0	141	52	55
13:00	3	4	4	14	12	20	26	17	16	4	3	3	1	127	52	56
14:00	4	5	1	7	12	26	34	22	21	12	2	2	1	149	53	56
15:00	0	5	4	14	29	32	48	23	28	11	5	1	3	203	52	55
16:00	2	2	3	9	20	52	73	65	45	20	13	5	4	313	53	57
17:00	0	1	4	9	31	56	85	80	81	37	26	11	4	425	54	58
18:00	0	1	5	8	22	51	77	57	64	17	9	5	3	319	53	56
19:00	1	2	4	11	19	38	36	32	18	7	0	0	2	170	50	53
20:00	1	0	2	8	16	12	20	16	4	5	1	0	0	85	50	55
21:00	0	0	2	5	9	17	21	16	7	1	1	0	1	80	50	53
22:00	0	0	2	0	7	7	10	4	5	2	1	1	0	39	52	57
23:00	0	1	1	1	1	2	2	3	1	1	0	1	0	14	53	60
Total	29	43	70	168	321	515	692	536	404	173	89	41	29	3110		
Percent	0.9%	1.4%	2.3%	5.4%	10.3%	16.6%	22.3%	17.2%	13.0%	5.6%	2.9%	1.3%	0.9%			
AM Peak	11:00	09:00	09:00	07:00	07:00	07:00	07:00	07:00	07:00	08:00	07:00	09:00	08:00	07:00		
Vol.	5	5	8	20	36	45	53	46	26	18	8	4	3	254		
PM Peak	14:00	14:00	12:00	13:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	16:00	17:00		
Vol.	4	5	6	14	31	56	85	80	81	37	26	11	4	425		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
10/01/15	0	0	0	1	3	0	0	2	1	0	0	0	0	7	50	52
01:00	0	0	0	1	1	0	2	0	0	0	0	0	2	6	47	47
02:00	0	0	1	0	0	0	1	0	0	0	1	0	0	3	58	59
03:00	0	0	0	0	2	0	1	1	0	0	0	0	0	4	49	50
04:00	1	0	0	0	1	2	1	1	0	0	0	0	0	6	48	50
05:00	0	1	1	1	1	6	12	5	2	1	0	0	0	30	50	53
06:00	0	0	1	7	7	15	8	6	7	3	3	0	0	57	52	57
07:00	0	1	3	11	29	47	60	47	25	11	7	5	3	249	52	56
08:00	0	3	2	7	23	29	41	39	22	12	12	1	2	193	53	57
09:00	3	2	3	16	23	44	45	35	24	7	1	0	0	203	51	53
10:00	4	2	4	9	14	12	26	22	20	7	4	1	0	125	52	56
11:00	1	3	6	12	19	24	31	27	16	8	2	2	0	151	52	55
12 PM	7	4	4	14	28	22	34	28	8	10	5	1	2	167	50	56
13:00	0	4	4	15	15	25	28	22	12	1	3	0	2	131	50	53
14:00	2	2	5	12	21	35	30	21	12	7	5	2	0	154	51	56
15:00	3	1	3	11	33	42	60	48	34	12	6	0	2	255	52	55
16:00	2	1	1	13	33	55	97	88	39	27	15	5	3	379	53	57
17:00	1	1	0	10	36	81	108	136	104	45	19	11	9	561	53	57
18:00	2	1	0	9	24	70	106	138	81	50	27	10	7	525	54	58
19:00	1	1	4	13	34	62	99	84	40	24	12	4	3	381	52	56
20:00	0	1	0	8	18	25	25	29	11	3	3	1	0	124	50	54
21:00	0	0	0	2	14	21	22	13	9	4	1	3	0	89	52	56
22:00	0	0	0	1	7	7	10	9	6	3	1	0	0	44	52	55
23:00	0	0	0	5	4	1	4	3	2	2	0	0	0	21	52	55
Total	27	28	42	178	390	625	851	804	475	237	127	46	35	3865		
Percent	0.7%	0.7%	1.1%	4.6%	10.1%	16.2%	22.0%	20.8%	12.3%	6.1%	3.3%	1.2%	0.9%			
AM Peak	10:00	08:00	11:00	09:00	07:00	07:00	07:00	07:00	07:00	08:00	08:00	07:00	07:00	07:00	07:00	07:00
Vol.	4	3	6	16	29	47	60	47	25	12	12	5	3	249		
PM Peak	12:00	12:00	14:00	13:00	17:00	17:00	17:00	18:00	17:00	18:00	18:00	17:00	17:00	17:00	17:00	17:00
Vol.	7	4	5	15	36	81	108	138	104	50	27	11	9	561		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound

Start Time	1 31	32 34	35 36	37 39	40 42	43 45	46 48	49 51	52 54	55 57	58 60	61 63	64 9999	Total	85th Percent	95th Percent
10/02/15	0	0	1	0	3	1	2	2	0	0	0	0	0	9	48	50
01:00	1	0	1	0	0	1	0	1	0	0	1	1	2	8	60	62
02:00	0	0	0	0	0	2	3	0	1	1	0	0	0	7	53	55
03:00	0	0	0	0	1	0	2	0	0	0	0	0	0	3	47	47
04:00	0	0	0	0	2	3	0	0	0	0	0	0	0	5	44	44
05:00	1	1	0	1	4	1	6	4	1	0	0	0	0	19	49	51
06:00	0	0	0	5	8	15	9	6	4	2	0	0	0	49	50	53
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	2	1	2	6	18	23	22	13	6	3	1	1	2	100		
Percent	2.0%	1.0%	2.0%	6.0%	18.0%	23.0%	22.0%	13.0%	6.0%	3.0%	1.0%	1.0%	2.0%			
AM Peak	01:00	05:00	00:00	06:00	01:00	01:00	01:00	06:00								
Vol.	1	1	1	5	8	15	9	6	4	2	1	1	2	49		
PM Peak																
Vol.																
Grand Total	188	295	366	1077	2289	3738	4741	4055	2585	1319	639	249	188	21729		
Percent	0.9%	1.4%	1.7%	5.0%	10.5%	17.2%	21.8%	18.7%	11.9%	6.1%	2.9%	1.1%	0.9%			

15th Percentile : 40 MPH
 50th Percentile : 46 MPH
 85th Percentile : 52 MPH
 95th Percentile : 56 MPH

Stats
 10 MPH Pace Speed : 43-52 MPH
 Number in Pace : 13396
 Percent in Pace : 62.2%
 Number of Vehicles > 40 MPH : 19040
 Percent of Vehicles > 40 MPH : 88.4%
 Mean Speed(Average) : 47 MPH

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/25/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	9	2	2	7	25	29	47	34	21	9	9	1	1	196	52	57
08:00	12	5	4	7	30	36	51	48	32	17	8	0	3	253	52	56
09:00	19	3	2	14	21	35	29	26	13	6	3	2	2	175	50	55
10:00	11	9	10	31	53	68	45	32	12	5	4	1	2	283	49	52
11:00	10	1	2	14	20	35	44	28	16	8	1	1	0	180	50	54
12 PM	14	4	2	12	24	29	39	26	21	13	3	2	0	189	52	55
13:00	14	2	3	17	23	27	35	14	17	13	6	1	0	172	52	56
14:00	10	9	2	11	24	36	24	34	15	8	8	2	4	187	52	57
15:00	13	5	4	14	32	39	48	48	20	20	11	5	1	260	53	57
16:00	8	1	3	6	37	51	63	63	40	24	15	2	2	315	53	57
17:00	5	0	0	6	20	55	87	78	72	33	15	2	5	378	53	56
18:00	7	0	1	2	15	45	59	66	46	21	11	2	3	278	53	56
19:00	7	2	2	12	16	33	38	33	11	6	1	2	1	164	50	54
20:00	3	3	1	3	14	19	25	13	17	11	3	1	1	114	53	56
21:00	2	2	1	6	14	29	27	14	10	5	2	2	1	115	51	55
22:00	3	1	2	7	7	13	22	21	16	5	1	0	1	99	52	54
23:00	0	0	0	4	10	10	14	10	5	2	2	2	3	62	52	58
Total	147	49	41	173	385	589	697	588	384	206	103	28	30	3420		
Percent	4.3%	1.4%	1.2%	5.1%	11.3%	17.2%	20.4%	17.2%	11.2%	6.0%	3.0%	0.8%	0.9%			
AM Peak	09:00	10:00	10:00	10:00	10:00	10:00	08:00	08:00	08:00	08:00	07:00	09:00	08:00	10:00		
Vol.	19	9	10	31	53	68	51	48	32	17	9	2	3	283		
PM Peak	12:00	14:00	15:00	13:00	16:00	17:00	17:00	17:00	17:00	17:00	16:00	15:00	17:00	17:00		
Vol.	14	9	4	17	37	55	87	78	72	33	15	5	5	378		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland north of 11800 N SPEED W2

Date Start: 25-Sep-15

Date End: 02-Oct-15

Highland Blvd north of 11800 North

Highland, Utah

Northbound

Start Time	1 31	32 34	35 36	37 39	40 42	43 45	46 48	49 51	52 54	55 57	58 60	61 63	64 9999	Total	85th Percent	95th Percent
09/26/15	0	1	2	2	6	6	4	6	4	3	0	1	1	36	53	56
01:00	0	0	1	3	2	1	1	3	1	2	0	0	0	14	53	55
02:00	0	1	0	0	0	5	2	1	0	1	0	0	0	10	49	55
03:00	0	0	0	0	1	3	1	0	0	0	0	0	0	5	45	47
04:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2	47	47
05:00	0	0	0	1	0	2	2	1	0	0	0	0	0	9	48	50
06:00	0	0	0	1	4	2	5	0	1	2	0	0	0	15	53	55
07:00	1	3	2	5	2	11	14	7	2	2	1	0	0	50	49	54
08:00	1	1	1	2	15	15	14	15	12	2	1	0	0	79	51	53
09:00	4	3	2	3	16	23	23	18	7	3	3	1	0	106	50	55
10:00	6	3	1	12	18	18	41	20	14	6	2	2	1	144	51	55
11:00	2	3	2	13	26	36	25	18	12	10	5	2	3	157	52	56
12 PM	6	1	0	6	16	36	37	33	18	18	2	1	3	177	53	56
13:00	5	0	0	2	19	32	28	27	16	8	5	2	4	148	52	56
14:00	8	1	1	6	18	26	45	40	28	10	11	5	3	202	53	58
15:00	5	0	0	5	17	36	39	54	30	21	4	7	2	220	53	57
16:00	7	0	1	4	26	32	55	51	39	15	14	5	5	254	53	58
17:00	9	2	4	22	29	37	44	29	27	17	8	0	4	232	52	56
18:00	8	2	0	9	18	28	34	40	24	11	5	3	4	186	52	56
19:00	4	3	4	13	26	27	32	23	11	7	2	1	3	156	50	55
20:00	4	2	3	10	18	27	27	19	11	7	2	2	1	133	51	55
21:00	2	4	1	6	12	25	21	16	10	1	2	0	1	101	50	53
22:00	3	2	1	11	8	14	24	11	8	7	1	0	0	90	51	55
23:00	1	0	1	5	13	7	10	7	3	2	1	0	1	51	50	54
Total	76	32	27	141	310	450	529	439	278	155	69	32	39	2577		
Percent	2.9%	1.2%	1.0%	5.5%	12.0%	17.5%	20.5%	17.0%	10.8%	6.0%	2.7%	1.2%	1.5%			
AM Peak	10:00	07:00	00:00	11:00	11:00	11:00	10:00	10:00	10:00	11:00	11:00	10:00	05:00	11:00		
Vol.	6	3	2	13	26	36	41	20	14	10	5	2	3	157		
PM Peak	17:00	21:00	17:00	17:00	17:00	17:00	16:00	15:00	16:00	15:00	16:00	15:00	16:00	16:00		
Vol.	9	4	4	22	29	37	55	54	39	21	14	7	5	254		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Northbound

Start Time	1 31	32 34	35 36	37 39	40 42	43 45	46 48	49 51	52 54	55 57	58 60	61 63	64 9999	Total	85th Percent	95th Percent
09/27/15	0	0	2	1	1	4	6	5	1	1	0	0	0	21	50	53
01:00	0	0	0	1	1	0	4	1	2	2	0	0	0	11	54	56
02:00	0	0	0	0	1	1	2	0	0	0	0	0	0	4	47	47
03:00	0	0	0	0	1	0	1	0	0	2	0	0	1	5	56	56
04:00	0	0	0	1	0	1	1	0	0	0	0	0	0	3	46	47
05:00	0	0	0	1	0	0	0	1	0	1	0	0	0	3	55	56
06:00	1	0	0	1	0	0	1	3	1	0	1	0	0	8	53	58
07:00	1	0	0	1	5	0	5	1	0	0	0	1	0	14	47	60
08:00	1	0	0	3	3	8	12	11	4	4	1	0	1	48	52	55
09:00	2	0	0	0	2	4	13	6	4	1	3	2	1	38	55	60
10:00	4	1	0	3	9	21	13	11	12	5	5	0	0	84	53	57
11:00	1	2	0	3	6	15	19	8	9	6	3	0	0	72	53	56
12 PM	4	1	2	4	12	11	24	23	7	12	3	1	0	104	54	56
13:00	3	2	0	3	12	15	14	19	11	10	5	0	0	94	54	57
14:00	1	1	4	5	8	21	19	19	22	12	5	1	0	118	54	57
15:00	7	2	2	6	11	27	21	22	7	7	4	1	2	119	51	56
16:00	12	1	2	11	15	26	30	30	25	9	6	0	3	170	52	56
17:00	6	0	3	10	14	25	24	22	14	8	3	3	3	135	52	56
18:00	6	2	2	17	26	23	30	27	12	5	3	1	4	158	50	54
19:00	15	3	3	14	16	34	38	20	10	5	3	3	2	166	50	55
20:00	11	1	6	14	37	32	37	22	8	3	5	1	0	177	49	54
21:00	1	2	0	8	14	14	21	15	7	2	0	1	0	85	50	53
22:00	1	1	0	2	8	3	6	4	1	4	1	0	1	32	54	56
23:00	1	0	0	1	2	2	4	0	0	3	0	0	0	13	55	56
Total	78	19	26	110	204	287	345	270	157	102	51	15	18	1682		
Percent	4.6%	1.1%	1.5%	6.5%	12.1%	17.1%	20.5%	16.1%	9.3%	6.1%	3.0%	0.9%	1.1%			
AM Peak	10:00	11:00	00:00	08:00	10:00	10:00	11:00	08:00	10:00	11:00	10:00	09:00	03:00	10:00		
Vol.	4	2	2	3	9	21	19	11	12	6	5	2	1	84		
PM Peak	19:00	19:00	20:00	18:00	20:00	19:00	19:00	16:00	16:00	12:00	16:00	17:00	18:00	20:00		
Vol.	15	3	6	17	37	34	38	30	25	12	6	3	4	177		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland north of 11800 N SPEED W2

Date Start: 25-Sep-15

Date End: 02-Oct-15

Highland Blvd north of 11800 North
Highland, Utah

Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/28/15	0	0	0	1	0	3	3	1	1	0	0	0	0	9	49	52
01:00	0	0	1	0	0	0	0	1	0	0	0	0	0	2	50	50
02:00	0	0	0	0	0	0	2	0	0	1	0	0	0	3	55	56
03:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1	50	50
04:00	0	0	0	0	0	1	1	0	0	1	1	0	0	4	58	59
05:00	0	2	0	0	3	3	1	1	0	0	1	0	0	11	49	58
06:00	3	2	1	6	9	15	11	13	6	7	1	0	1	75	52	55
07:00	8	3	4	18	36	49	50	32	30	18	6	1	1	256	52	56
08:00	31	3	7	8	34	58	61	48	30	15	8	4	1	308	52	56
09:00	8	3	6	15	18	24	24	25	16	7	1	0	1	148	51	54
10:00	16	4	3	8	13	14	22	21	9	8	1	3	0	122	51	56
11:00	22	4	3	4	17	17	26	20	17	11	1	0	0	142	52	55
12 PM	15	7	4	3	24	19	29	17	14	8	1	2	1	144	51	55
13:00	10	3	4	15	32	30	21	26	21	8	4	2	1	177	52	55
14:00	16	3	5	11	23	30	39	21	14	4	5	0	1	172	50	54
15:00	11	3	4	7	19	37	43	30	18	14	8	2	2	198	53	57
16:00	8	3	2	9	23	42	46	47	19	6	6	3	1	215	51	56
17:00	4	1	4	7	28	50	61	63	43	21	6	4	5	297	53	56
18:00	13	5	4	8	27	40	44	31	30	7	4	2	4	219	52	54
19:00	8	3	1	11	25	25	35	28	11	9	5	2	5	168	51	56
20:00	8	2	3	6	17	29	25	19	13	3	6	1	1	133	51	57
21:00	2	1	1	6	13	10	8	14	7	1	1	1	0	65	51	53
22:00	1	1	0	1	4	5	12	7	0	4	1	1	0	37	54	57
23:00	0	0	0	0	4	2	2	2	2	3	0	0	0	15	54	56
Total	184	53	57	144	369	503	566	468	301	156	67	28	25	2921		
Percent	6.3%	1.8%	2.0%	4.9%	12.6%	17.2%	19.4%	16.0%	10.3%	5.3%	2.3%	1.0%	0.9%			
AM Peak	08:00	10:00	08:00	07:00	07:00	08:00	08:00	08:00	07:00	07:00	08:00	08:00	06:00	08:00		
Vol.	31	4	7	18	36	58	61	48	30	18	8	4	1	308		
PM Peak	14:00	12:00	14:00	13:00	13:00	17:00	17:00	17:00	17:00	17:00	15:00	17:00	17:00	17:00		
Vol.	16	7	5	15	32	50	61	63	43	21	8	4	5	297		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/29/15	0	1	0	0	0	0	1	0	2	0	1	0	0	5	57	59
01:00	0	0	0	1	0	0	1	0	0	2	0	0	1	5	56	56
02:00	0	0	0	1	0	0	1	0	1	0	0	1	0	4	61	62
03:00	0	0	0	0	0	1	1	0	1	0	0	0	0	3	52	53
04:00	0	0	0	1	0	0	1	0	1	0	0	0	0	3	52	53
05:00	1	0	1	0	3	0	3	2	0	1	2	0	0	13	57	59
06:00	7	1	3	3	15	13	9	13	5	1	1	2	0	73	50	55
07:00	4	4	3	12	24	61	49	49	42	15	10	2	1	276	52	56
08:00	12	8	9	15	40	65	71	51	32	17	12	2	0	334	52	56
09:00	24	4	2	7	24	20	40	20	15	6	6	1	0	169	51	56
10:00	14	4	2	9	21	16	24	13	11	6	3	2	2	127	51	56
11:00	15	6	2	10	12	21	28	14	12	4	4	1	3	132	51	55
12 PM	14	6	3	4	23	32	28	20	11	7	1	0	2	151	50	54
13:00	9	4	4	6	17	19	34	19	13	4	2	0	0	131	50	53
14:00	11	5	4	15	20	27	31	26	19	8	3	2	1	172	52	55
15:00	23	4	4	13	37	42	36	32	27	11	3	2	2	236	51	55
16:00	13	3	1	8	27	37	39	52	28	20	2	0	5	235	52	55
17:00	6	2	0	14	30	47	67	68	42	17	4	1	1	299	52	55
18:00	7	1	2	9	27	37	44	47	31	19	6	4	2	236	53	56
19:00	8	0	5	16	23	40	45	22	12	3	3	0	0	177	49	53
20:00	4	4	1	8	14	13	30	14	6	8	0	0	4	106	50	55
21:00	3	0	0	4	13	18	23	13	15	2	2	1	1	95	52	54
22:00	0	1	0	2	4	4	6	7	7	2	1	0	0	34	53	55
23:00	0	0	0	1	4	2	5	1	4	1	1	1	0	20	54	60
Total	175	58	46	159	378	515	617	483	337	154	67	22	25	3036		
Percent	5.8%	1.9%	1.5%	5.2%	12.5%	17.0%	20.3%	15.9%	11.1%	5.1%	2.2%	0.7%	0.8%			
AM Peak	09:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	07:00	08:00	08:00	06:00	11:00	08:00		
Vol.	24	8	9	15	40	65	71	51	42	17	12	2	3	334		
PM Peak	15:00	12:00	19:00	19:00	15:00	17:00	17:00	17:00	17:00	16:00	18:00	18:00	16:00	17:00		
Vol.	23	6	5	16	37	47	67	68	42	20	6	4	5	299		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	9999	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999				
09/30/15	0	0	1	0	0	1	1	5	3	1	0	0	1		13	53	55
01:00	0	0	1	0	0	0	1	1	1	0	0	0	1		5	52	53
02:00	0	0	0	0	0	0	1	0	1	1	0	0	0		3	55	56
03:00	0	0	0	1	1	0	0	0	0	0	0	0	0		2	41	41
04:00	0	0	0	0	0	0	0	0	0	0	0	1	0		1	62	62
05:00	0	1	1	1	0	1	2	2	2	0	0	0	0		10	51	53
06:00	2	0	2	5	14	20	13	8	5	3	1	0	0		73	50	54
07:00	16	5	3	14	42	58	53	43	21	17	4	5	0		281	51	56
08:00	16	6	13	21	35	70	62	69	37	14	4	3	3		353	51	54
09:00	12	10	5	9	27	33	36	20	10	5	5	1	0		173	50	55
10:00	17	10	4	13	19	20	19	15	9	3	0	0	1		130	49	52
11:00	8	4	2	3	15	19	29	21	13	9	2	0	0		125	52	55
12 PM	11	3	6	11	22	23	27	19	13	4	4	1	0		144	51	55
13:00	14	6	5	4	11	12	26	18	17	4	4	0	1		122	52	55
14:00	15	9	3	11	25	21	38	32	26	4	7	1	1		193	52	55
15:00	18	6	11	9	34	35	45	31	23	8	5	3	3		231	51	55
16:00	15	2	3	8	25	50	63	37	22	17	5	2	2		251	52	56
17:00	6	0	3	7	27	61	53	52	32	25	7	5	2		280	53	56
18:00	10	0	2	7	20	42	64	35	28	15	2	1	2		228	52	55
19:00	4	2	3	9	25	32	33	27	11	9	3	0	0		158	50	55
20:00	5	3	1	8	14	19	22	19	18	6	0	1	3		119	52	54
21:00	3	1	2	12	7	19	19	15	7	3	3	1	3		95	51	56
22:00	1	0	0	3	7	5	10	5	3	2	2	3	0		41	55	60
23:00	0	0	0	2	3	1	2	4	2	1	2	0	0		17	55	58
Total	173	68	71	158	373	542	619	478	304	151	60	28	23		3048		
Percent	5.7%	2.2%	2.3%	5.2%	12.2%	17.8%	20.3%	15.7%	10.0%	5.0%	2.0%	0.9%	0.8%				
AM Peak	10:00	09:00	08:00	08:00	07:00	08:00	08:00	08:00	08:00	07:00	09:00	07:00	08:00		08:00		
Vol.	17	10	13	21	42	70	62	69	37	17	5	5	3		353		
PM Peak	15:00	14:00	15:00	21:00	15:00	17:00	18:00	17:00	17:00	17:00	14:00	17:00	15:00		17:00		
Vol.	18	9	11	12	34	61	64	52	32	25	7	5	3		280		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
10/01/15	0	0	0	0	1	2	2	0	2	0	0	0	1	8	52	53
01:00	0	0	0	0	1	1	1	0	0	0	0	0	0	3	46	47
02:00	0	0	0	0	1	1	0	0	0	0	0	0	0	2	44	44
03:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2	44	44
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1	35	35
05:00	0	0	0	0	1	1	3	1	1	1	1	0	0	9	55	58
06:00	2	1	1	9	9	15	19	13	8	6	0	1	1	85	51	55
07:00	12	2	4	10	28	58	53	41	22	19	12	2	3	266	53	57
08:00	14	3	7	6	38	67	67	78	59	22	14	3	2	380	53	56
09:00	19	3	4	15	28	43	40	30	12	4	4	2	0	204	50	53
10:00	15	7	3	13	20	26	19	13	7	3	3	1	0	130	49	54
11:00	13	3	4	5	15	25	34	17	9	3	4	1	0	133	50	55
12 PM	19	4	6	13	27	29	31	20	11	9	0	0	2	171	50	54
13:00	10	4	11	14	18	26	26	20	7	9	2	0	1	148	50	55
14:00	17	3	2	12	23	32	20	32	19	5	3	3	2	173	51	55
15:00	11	7	8	20	27	50	37	26	27	10	5	2	2	232	52	55
16:00	8	2	2	13	24	41	55	47	24	18	10	5	3	252	53	57
17:00	10	1	2	4	35	46	78	64	53	41	13	9	4	360	54	57
18:00	4	2	2	4	11	42	49	54	41	19	14	5	5	252	54	58
19:00	3	0	1	7	20	45	41	37	26	10	2	2	0	194	52	55
20:00	6	1	2	8	18	23	35	20	9	5	2	2	0	131	50	55
21:00	5	1	0	9	16	21	18	12	7	3	4	0	1	97	50	56
22:00	2	3	1	6	5	8	12	6	8	3	1	0	1	56	52	55
23:00	0	0	0	2	4	5	7	2	3	1	0	0	0	24	51	53
Total	170	47	61	171	370	608	647	533	355	191	94	38	28	3313		
Percent	5.1%	1.4%	1.8%	5.2%	11.2%	18.4%	19.5%	16.1%	10.7%	5.8%	2.8%	1.1%	0.8%			
AM Peak	09:00	10:00	08:00	09:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	07:00	08:00		
Vol.	19	7	7	15	38	67	67	78	59	22	14	3	3	380		
PM Peak	12:00	15:00	13:00	15:00	17:00	15:00	17:00	17:00	17:00	17:00	18:00	17:00	18:00	17:00		
Vol.	19	7	11	20	35	50	78	64	53	41	14	9	5	360		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Northbound

Start Time	1 31	32 34	35 36	37 39	40 42	43 45	46 48	49 51	52 54	55 57	58 60	61 63	64 9999	Total	85th Percent	95th Percent
10/02/15	2	0	1	0	1	2	0	1	2	0	0	0	0	9	51	53
01:00	1	0	0	0	1	1	1	1	0	2	0	0	0	7	55	56
02:00	0	0	0	0	0	0	0	0	1	0	1	0	1	3	59	59
03:00	0	0	0	0	1	0	0	0	0	1	0	0	0	2	56	56
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1	44	44
05:00	0	0	0	3	1	3	2	3	0	0	0	0	1	13	49	50
06:00	1	0	2	4	8	7	6	8	4	0	1	0	0	41	50	53
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	0	3	7	12	14	9	13	7	3	2	0	2	76		
Percent	5.3%	0.0%	3.9%	9.2%	15.8%	18.4%	11.8%	17.1%	9.2%	3.9%	2.6%	0.0%	2.6%			
AM Peak	00:00		06:00	01:00	02:00		02:00	06:00								
Vol.	2		2	4	8	7	6	8	4	2	1		1	41		
PM Peak																
Vol.																
Grand Total	1007	326	332	1063	2401	3508	4029	3272	2123	1118	513	191	190	20073		
Percent	5.0%	1.6%	1.7%	5.3%	12.0%	17.5%	20.1%	16.3%	10.6%	5.6%	2.6%	1.0%	0.9%			

15th Percentile : 39 MPH
 50th Percentile : 45 MPH
 85th Percentile : 52 MPH
 95th Percentile : 56 MPH

Stats

10 MPH Pace Speed : 42-51 MPH
 Number in Pace : 11609
 Percent in Pace : 58.4%
 Number of Vehicles > 40 MPH : 16545
 Percent of Vehicles > 40 MPH : 83.2%
 Mean Speed(Average) : 45 MPH

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/25/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	9	2	6	16	59	73	104	86	42	25	19	4	3	448	52	57
08:00	13	6	5	15	53	73	110	90	61	33	18	2	8	487	53	56
09:00	21	6	6	40	56	89	101	90	45	27	17	5	4	507	52	56
10:00	25	30	22	51	80	103	83	62	34	12	6	2	2	512	49	53
11:00	10	8	17	37	47	78	89	68	42	27	8	3	1	435	52	55
12 PM	15	19	15	30	46	66	74	65	49	26	5	3	3	416	52	55
13:00	15	10	10	28	51	52	69	47	41	28	8	2	1	362	52	56
14:00	13	14	5	19	43	69	74	73	52	25	16	3	5	411	53	56
15:00	14	9	8	26	62	98	127	119	56	43	19	7	3	591	52	56
16:00	8	5	4	17	63	106	142	174	109	51	32	7	8	726	53	57
17:00	6	0	2	12	41	142	204	187	159	83	31	12	8	887	53	56
18:00	7	0	2	10	41	101	147	158	119	71	25	11	4	696	54	57
19:00	8	3	4	23	60	98	113	81	39	19	7	5	2	462	51	55
20:00	3	6	2	13	36	36	56	29	25	13	4	2	3	228	52	55
21:00	2	3	1	12	33	52	57	25	16	10	2	2	1	216	50	54
22:00	3	1	5	12	23	33	39	26	21	7	3	0	2	175	51	54
23:00	0	1	2	8	14	21	25	21	10	4	2	3	3	114	51	56
Total	172	123	116	369	808	1290	1614	1401	920	504	222	73	61	7673		
Percent	2.2%	1.6%	1.5%	4.8%	10.5%	16.8%	21.0%	18.3%	12.0%	6.6%	2.9%	1.0%	0.8%			
AM Peak	10:00	10:00	10:00	10:00	10:00	10:00	08:00	08:00	08:00	08:00	07:00	09:00	08:00	10:00		
Vol.	25	30	22	51	80	103	110	90	61	33	19	5	8	512		
PM Peak	12:00	12:00	12:00	12:00	16:00	17:00	17:00	17:00	17:00	17:00	16:00	17:00	16:00	17:00		
Vol.	15	19	15	30	63	142	204	187	159	83	32	12	8	887		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/26/15	0	1	2	5	11	13	13	12	8	5	0	2	2	74	52	56
01:00	1	0	1	4	2	6	1	6	3	3	1	0	0	28	53	56
02:00	0	1	0	0	1	6	2	2	1	1	0	0	0	14	50	54
03:00	0	1	0	0	2	4	2	1	0	0	0	0	0	10	47	49
04:00	0	0	0	0	2	3	4	0	0	1	0	0	0	10	47	55
05:00	0	1	0	1	1	4	5	3	0	0	2	0	3	20	50	58
06:00	0	0	0	2	7	5	10	6	4	3	0	0	0	37	52	55
07:00	2	4	4	7	10	24	31	19	6	5	7	0	0	119	51	57
08:00	1	5	2	5	27	35	39	33	24	12	5	0	2	190	52	55
09:00	8	7	4	10	35	58	60	44	20	14	7	3	1	271	51	56
10:00	14	5	4	20	46	51	63	48	27	21	7	2	4	312	52	56
11:00	2	5	5	21	50	66	67	51	27	20	9	4	5	332	52	56
12 PM	7	2	3	10	26	64	79	85	31	25	8	6	5	351	52	56
13:00	6	2	0	9	32	66	66	58	32	19	12	5	4	311	53	57
14:00	11	4	3	11	34	58	90	77	51	14	20	8	4	385	53	58
15:00	9	3	5	9	38	69	94	102	56	41	8	8	2	444	53	56
16:00	10	1	2	13	50	58	89	87	67	27	18	7	5	434	53	57
17:00	12	4	10	39	53	79	91	56	49	25	13	1	5	437	52	56
18:00	9	5	6	14	32	66	67	63	36	18	7	7	5	335	52	56
19:00	5	4	6	27	47	70	59	47	19	12	6	2	3	307	50	55
20:00	4	4	5	24	35	56	51	37	21	14	5	2	2	260	51	55
21:00	2	6	6	12	29	39	47	26	18	6	3	0	1	195	50	53
22:00	3	3	1	15	30	32	53	24	13	10	1	1	0	186	50	54
23:00	2	1	1	9	19	16	20	16	11	4	1	0	1	101	51	54
Total	108	69	70	267	619	948	1103	903	524	300	140	58	54	5163		
Percent	2.1%	1.3%	1.4%	5.2%	12.0%	18.4%	21.4%	17.5%	10.1%	5.8%	2.7%	1.1%	1.0%			
AM Peak	10:00	09:00	11:00	11:00	11:00	11:00	11:00	11:00	10:00	10:00	11:00	11:00	11:00	11:00		
Vol.	14	7	5	21	50	66	67	51	27	21	9	4	5	332		
PM Peak	17:00	21:00	17:00	17:00	17:00	17:00	15:00	15:00	16:00	15:00	14:00	14:00	12:00	15:00		
Vol.	12	6	10	39	53	79	94	102	67	41	20	8	5	444		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/27/15	0	0	3	4	5	10	10	8	2	3	0	0	2	47	50	54
01:00	0	0	0	1	2	2	6	4	3	3	0	0	0	21	53	55
02:00	0	1	0	1	2	2	3	0	0	0	0	0	0	9	46	47
03:00	0	0	0	0	1	0	3	0	0	2	0	0	2	8	55	56
04:00	0	0	0	1	1	3	1	0	0	1	0	0	0	7	47	55
05:00	0	0	0	2	2	0	0	3	0	3	0	0	0	10	55	56
06:00	1	0	1	3	2	3	3	5	1	0	1	0	0	20	50	57
07:00	1	0	1	5	5	4	9	3	2	0	1	1	1	33	50	58
08:00	3	3	1	10	8	19	24	28	12	9	1	0	1	119	52	55
09:00	3	0	0	2	8	12	20	21	13	4	3	3	1	90	53	58
10:00	6	1	1	6	18	43	40	22	24	10	11	1	0	183	53	57
11:00	2	2	1	8	17	33	40	34	23	11	6	2	0	179	52	56
12 PM	6	2	9	14	37	36	72	52	16	17	4	1	0	266	50	55
13:00	3	3	1	6	25	31	46	34	23	15	6	0	0	193	52	56
14:00	1	3	5	10	18	51	48	39	33	15	5	2	1	231	52	56
15:00	7	2	3	14	30	50	46	31	24	7	7	3	2	226	51	56
16:00	14	2	3	17	30	65	65	51	41	14	8	0	3	313	52	55
17:00	9	2	4	16	30	42	58	57	32	19	9	3	4	285	52	56
18:00	6	3	3	24	43	49	54	51	27	11	6	1	5	283	51	55
19:00	16	11	6	19	35	63	59	38	17	5	5	3	5	282	50	53
20:00	15	3	16	29	80	69	84	42	12	5	6	1	0	362	48	52
21:00	1	5	4	20	33	34	46	35	21	5	1	4	2	211	50	53
22:00	1	3	0	8	15	13	16	12	3	4	2	0	1	78	50	55
23:00	1	0	0	1	6	7	7	2	0	3	1	0	0	28	50	56
Total	96	46	62	221	453	641	760	572	329	166	83	25	30	3484		
Percent	2.8%	1.3%	1.8%	6.3%	13.0%	18.4%	21.8%	16.4%	9.4%	4.8%	2.4%	0.7%	0.9%			
AM Peak	10:00	08:00	00:00	08:00	10:00	10:00	10:00	11:00	10:00	11:00	10:00	09:00	00:00	10:00		
Vol.	6	3	3	10	18	43	40	34	24	11	11	3	2	183		
PM Peak	19:00	19:00	20:00	20:00	20:00	20:00	20:00	17:00	16:00	17:00	17:00	21:00	18:00	20:00		
Vol.	16	11	16	29	80	69	84	57	41	19	9	4	5	362		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/28/15	0	0	0	1	2	5	7	4	1	0	0	0	0	20	49	51
01:00	1	0	1	0	0	0	0	3	1	1	0	0	0	7	53	55
02:00	0	0	0	1	0	3	3	0	1	2	0	0	0	10	54	56
03:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1	50	50
04:00	0	0	0	0	3	4	2	1	0	1	1	0	0	12	54	58
05:00	0	2	2	1	5	8	5	3	1	1	2	0	1	31	50	57
06:00	3	2	2	11	17	33	24	24	11	7	2	0	2	138	50	54
07:00	8	7	5	24	69	89	103	77	54	23	14	5	3	481	52	56
08:00	32	7	11	13	53	99	100	87	47	29	19	7	2	506	52	57
09:00	11	9	10	22	35	52	53	52	33	17	6	3	2	305	52	55
10:00	20	11	4	16	34	31	45	42	24	18	3	4	1	253	52	56
11:00	24	10	8	22	37	48	45	37	35	19	4	2	4	295	52	55
12 PM	24	9	7	11	44	61	60	44	37	19	6	3	3	328	52	55
13:00	14	6	7	27	42	56	48	46	34	15	6	2	2	305	52	55
14:00	17	5	14	30	37	62	81	57	22	12	12	2	2	353	50	56
15:00	12	7	7	16	37	70	80	68	40	26	19	6	6	394	53	57
16:00	8	4	7	21	35	77	93	113	63	34	23	10	6	494	53	58
17:00	4	2	6	10	55	96	153	153	109	66	28	12	12	706	54	57
18:00	13	5	8	16	50	74	107	100	89	33	17	7	8	527	53	56
19:00	10	3	2	16	36	54	71	46	24	18	8	2	5	295	52	56
20:00	8	2	7	12	30	42	45	37	19	5	6	2	2	217	50	55
21:00	2	2	1	11	17	16	18	26	15	1	3	1	2	115	51	53
22:00	2	1	0	2	6	10	20	9	4	6	2	1	0	63	53	56
23:00	0	3	1	0	6	6	5	4	2	4	0	0	1	32	53	55
Total	213	97	110	283	650	996	1168	1034	666	357	181	69	64	5888		
Percent	3.6%	1.6%	1.9%	4.8%	11.0%	16.9%	19.8%	17.6%	11.3%	6.1%	3.1%	1.2%	1.1%			
AM Peak	08:00	10:00	08:00	07:00	07:00	08:00	07:00	08:00	07:00	08:00	08:00	08:00	11:00	08:00		
Vol.	32	11	11	24	69	99	103	87	54	29	19	7	4	506		
PM Peak	12:00	12:00	14:00	14:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00		
Vol.	24	9	14	30	55	96	153	153	109	66	28	12	12	706		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland north of 11800 N SPEED W2

Date Start: 25-Sep-15

Date End: 02-Oct-15

Highland Blvd north of 11800 North

Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
09/29/15	0	2	0	1	0	0	3	5	4	1	1	0	0	17	53	57
01:00	0	0	0	1	1	0	2	1	1	2	0	0	1	9	55	56
02:00	0	0	0	2	0	1	1	0	2	0	0	1	0	7	53	61
03:00	0	0	0	0	0	1	1	0	1	0	0	0	0	3	52	53
04:00	1	0	0	3	0	1	4	2	1	1	0	1	0	14	53	60
05:00	1	1	1	1	5	6	10	8	2	3	3	1	0	42	54	58
06:00	7	4	3	5	21	29	16	23	10	3	2	3	2	128	50	55
07:00	4	5	4	19	42	110	116	86	70	31	14	9	3	513	53	56
08:00	13	8	11	24	51	92	108	85	61	27	19	6	1	506	52	56
09:00	25	7	5	17	38	41	89	42	36	17	10	3	3	333	52	56
10:00	15	6	6	21	41	38	46	29	20	11	8	3	3	247	51	56
11:00	17	13	4	16	29	43	55	39	28	15	10	2	5	276	52	56
12 PM	16	8	6	12	43	61	60	52	26	14	8	0	3	309	51	55
13:00	15	7	10	20	26	51	61	38	28	8	3	1	3	271	50	53
14:00	19	9	7	34	45	58	72	46	42	20	4	4	1	361	52	55
15:00	25	9	10	29	57	79	80	74	53	24	9	5	6	460	52	55
16:00	13	5	5	20	58	69	107	116	65	45	8	2	6	519	52	55
17:00	6	2	3	28	59	106	168	168	98	55	20	9	3	725	53	56
18:00	8	4	6	18	58	83	107	103	84	42	16	9	3	541	53	56
19:00	8	2	6	20	46	77	69	48	32	10	6	0	0	324	50	53
20:00	4	5	2	9	22	39	56	34	14	10	2	0	5	202	50	54
21:00	3	1	1	7	19	41	36	24	23	8	5	1	1	170	52	56
22:00	1	1	1	3	8	9	12	13	11	4	3	0	1	67	53	56
23:00	0	0	0	2	7	9	6	4	6	1	2	1	0	38	53	58
Total	201	99	91	312	676	1044	1285	1040	718	352	153	61	50	6082		
Percent	3.3%	1.6%	1.5%	5.1%	11.1%	17.2%	21.1%	17.1%	11.8%	5.8%	2.5%	1.0%	0.8%			
AM Peak	09:00	11:00	08:00	08:00	08:00	07:00	07:00	07:00	07:00	07:00	08:00	07:00	11:00	07:00		
Vol.	25	13	11	24	51	110	116	86	70	31	19	9	5	513		
PM Peak	15:00	14:00	13:00	14:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	15:00	17:00		
Vol.	25	9	10	34	59	106	168	168	98	55	20	9	6	725		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland north of 11800 N SPEED W2

Date Start: 25-Sep-15

Date End: 02-Oct-15

Highland Blvd north of 11800 North

Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	9999	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999				
09/30/15	0	1	1	1	1	3	1	6	3	1	0	0	1	19	52	54	
01:00	0	0	1	0	1	1	2	1	2	1	0	0	1	10	53	55	
02:00	0	0	0	0	0	0	1	0	1	1	0	0	0	3	55	56	
03:00	0	0	0	1	1	1	0	0	2	0	0	0	0	5	52	53	
04:00	1	0	0	0	0	1	2	0	0	0	0	1	0	5	60	62	
05:00	1	1	2	2	6	7	9	3	3	1	2	0	0	37	51	57	
06:00	2	0	3	12	21	35	27	19	13	3	1	0	0	136	50	53	
07:00	16	7	5	34	78	103	106	89	47	29	12	7	2	535	51	56	
08:00	18	8	18	30	53	93	103	96	53	32	12	5	6	527	52	56	
09:00	15	15	13	23	52	70	88	57	26	10	9	5	2	385	50	55	
10:00	20	13	11	23	37	44	43	45	26	8	3	1	2	276	50	53	
11:00	13	9	10	14	32	43	61	47	26	13	4	2	2	276	51	55	
12 PM	14	7	12	20	36	46	61	41	27	14	5	2	0	285	51	55	
13:00	17	10	9	18	23	32	52	35	33	8	7	3	2	249	52	56	
14:00	19	14	4	18	37	47	72	54	47	16	9	3	2	342	52	56	
15:00	18	11	15	23	63	67	93	54	51	19	10	4	6	434	52	55	
16:00	17	4	6	17	45	102	136	102	67	37	18	7	6	564	53	56	
17:00	6	1	7	16	58	117	138	132	113	62	33	16	6	705	54	58	
18:00	10	1	7	15	42	93	141	92	92	32	11	6	5	547	52	56	
19:00	5	4	7	20	44	70	69	59	29	16	3	0	2	328	50	54	
20:00	6	3	3	16	30	31	42	35	22	11	1	1	3	204	51	54	
21:00	3	1	4	17	16	36	40	31	14	4	4	1	4	175	50	54	
22:00	1	0	2	3	14	12	20	9	8	4	3	4	0	80	53	60	
23:00	0	1	1	3	4	3	4	7	3	2	2	1	0	31	54	59	
Total	202	111	141	326	694	1057	1311	1014	708	324	149	69	52	6158			
Percent	3.3%	1.8%	2.3%	5.3%	11.3%	17.2%	21.3%	16.5%	11.5%	5.3%	2.4%	1.1%	0.8%				
AM Peak	10:00	09:00	08:00	07:00	07:00	07:00	07:00	08:00	08:00	08:00	07:00	07:00	08:00	07:00	07:00		
Vol.	20	15	18	34	78	103	106	96	53	32	12	7	6	535			
PM Peak	14:00	14:00	15:00	15:00	15:00	17:00	18:00	17:00	17:00	17:00	17:00	17:00	15:00	17:00	17:00		
Vol.	19	14	15	23	63	117	141	132	113	62	33	16	6	705			

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	32	35	37	40	43	46	49	52	55	58	61	64	Total	85th Percent	95th Percent
	31	34	36	39	42	45	48	51	54	57	60	63	9999			
10/01/15	0	0	0	1	4	2	2	2	3	0	0	0	1	15	51	53
01:00	0	0	0	1	2	1	3	0	0	0	0	0	2	9	46	47
02:00	0	0	1	0	1	1	1	0	0	0	1	0	0	5	57	59
03:00	0	0	0	1	2	1	1	1	0	0	0	0	0	6	48	50
04:00	1	0	1	0	1	2	1	1	0	0	0	0	0	7	47	49
05:00	0	1	1	1	2	7	15	6	3	2	1	0	0	39	51	55
06:00	2	1	2	16	16	30	27	19	15	9	3	1	1	142	52	55
07:00	12	3	7	21	57	105	113	88	47	30	19	7	6	515	52	57
08:00	14	6	9	13	61	96	108	117	81	34	26	4	4	573	53	57
09:00	22	5	7	31	51	87	85	65	36	11	5	2	0	407	50	53
10:00	19	9	7	22	34	38	45	35	27	10	7	2	0	255	51	55
11:00	14	6	10	17	34	49	65	44	25	11	6	3	0	284	51	55
12 PM	26	8	10	27	55	51	65	48	19	19	5	1	4	338	50	55
13:00	10	8	15	29	33	51	54	42	19	10	5	0	3	279	50	54
14:00	19	5	7	24	44	67	50	53	31	12	8	5	2	327	51	56
15:00	14	8	11	31	60	92	97	74	61	22	11	2	4	487	52	55
16:00	10	3	3	26	57	96	152	135	63	45	25	10	6	631	53	57
17:00	11	2	2	14	71	127	186	200	157	86	32	20	13	921	54	57
18:00	6	3	2	13	35	112	155	192	122	69	41	15	12	777	54	58
19:00	4	1	5	20	54	107	140	121	66	34	14	6	3	575	52	56
20:00	6	2	2	16	36	48	60	49	20	8	5	3	0	255	50	55
21:00	5	1	0	11	30	42	40	25	16	7	5	3	1	186	51	56
22:00	2	3	1	7	12	15	22	15	14	6	2	0	1	100	52	55
23:00	0	0	0	7	8	6	11	5	5	3	0	0	0	45	51	54
Total	197	75	103	349	760	1233	1498	1337	830	428	221	84	63	7178		
Percent	2.7%	1.0%	1.4%	4.9%	10.6%	17.2%	20.9%	18.6%	11.6%	6.0%	3.1%	1.2%	0.9%			
AM Peak	09:00	10:00	11:00	09:00	08:00	07:00	07:00	08:00	08:00	08:00	08:00	07:00	07:00	08:00		
Vol.	22	9	10	31	61	105	113	117	81	34	26	7	6	573		
PM Peak	12:00	12:00	13:00	15:00	17:00	17:00	17:00	17:00	17:00	17:00	18:00	17:00	17:00	17:00		
Vol.	26	8	15	31	71	127	186	200	157	86	41	20	13	921		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland north of 11800 N SPEED W2
 Date Start: 25-Sep-15
 Date End: 02-Oct-15
 Highland Blvd north of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1 31	32 34	35 36	37 39	40 42	43 45	46 48	49 51	52 54	55 57	58 60	61 63	64 9999	Total	85th Percent	95th Percent
10/02/15	2	0	2	0	4	3	2	3	2	0	0	0	0	18	50	52
01:00	2	0	1	0	1	2	1	2	0	2	1	1	2	15	57	61
02:00	0	0	0	0	0	2	3	0	2	1	1	0	1	10	55	58
03:00	0	0	0	0	2	0	2	0	0	1	0	0	0	5	54	56
04:00	0	0	0	0	2	4	0	0	0	0	0	0	0	6	44	44
05:00	1	1	0	4	5	4	8	7	1	0	0	0	1	32	49	50
06:00	1	0	2	9	16	22	15	14	8	2	1	0	0	90	50	53
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	6	1	5	13	30	37	31	26	13	6	3	1	4	176		
Percent	3.4%	0.6%	2.8%	7.4%	17.0%	21.0%	17.6%	14.8%	7.4%	3.4%	1.7%	0.6%	2.3%			
AM Peak	00:00	05:00	00:00	06:00	06:00	06:00	06:00	06:00	06:00	01:00	01:00	01:00	01:00	06:00		
Vol.	2	1	2	9	16	22	15	14	8	2	1	1	2	90		
PM Peak																
Vol.																
Grand Total	1195	621	698	2140	4690	7246	8770	7327	4708	2437	1152	440	378	41802		
Percent	2.9%	1.5%	1.7%	5.1%	11.2%	17.3%	21.0%	17.5%	11.3%	5.8%	2.8%	1.1%	0.9%			

15th Percentile : 39 MPH
 50th Percentile : 46 MPH
 85th Percentile : 52 MPH
 95th Percentile : 56 MPH

Stats
 10 MPH Pace Speed : 43-52 MPH
 Number in Pace : 24912
 Percent in Pace : 60.1%
 Number of Vehicles > 40 MPH : 35585
 Percent of Vehicles > 40 MPH : 85.9%
 Mean Speed(Average) : 46 MPH

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/18/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	0	9	16	24	4	0	10	5	17	10	5	1	0	1	102	46	49
07:00	6	13	62	59	15	5	13	23	48	35	22	7	5	1	314	47	51
08:00	0	16	49	51	22	9	8	13	32	23	21	8	2	5	259	48	51
09:00	3	18	48	65	10	10	10	21	31	21	10	6	0	0	253	45	50
10:00	6	10	36	27	13	8	14	20	17	17	6	3	1	2	180	46	49
11:00	3	13	37	34	9	14	19	35	32	14	10	6	2	0	228	45	50
12 PM	5	19	44	39	17	13	19	31	28	14	12	5	0	2	248	45	50
13:00	4	20	40	32	9	5	24	29	35	17	9	2	2	0	228	45	49
14:00	5	23	49	32	14	8	13	36	33	20	11	4	1	2	251	45	49
15:00	3	17	56	60	20	19	19	34	44	32	20	8	2	3	337	47	50
16:00	3	11	37	52	26	15	22	63	72	47	36	15	1	1	401	48	51
17:00	2	6	35	40	10	7	14	41	80	82	44	20	8	12	401	49	53
18:00	1	5	24	47	28	11	21	39	65	60	44	19	7	2	373	49	53
19:00	4	18	35	34	16	10	29	42	46	30	7	4	2	1	278	46	48
20:00	2	7	27	14	10	5	15	26	19	10	5	4	1	0	145	45	50
21:00	3	12	19	14	4	11	19	22	7	7	2	4	0	0	124	43	48
22:00	3	5	12	10	3	4	13	7	21	6	2	1	1	0	88	45	48
23:00	0	8	5	4	3	3	2	5	7	2	4	0	1	0	44	46	51
Total	53	230	631	638	233	157	284	492	634	447	270	117	36	32	4254		
Percent	1.2%	5.4%	14.8%	15.0%	5.5%	3.7%	6.7%	11.6%	14.9%	10.5%	6.3%	2.8%	0.8%	0.8%			
AM Peak	07:00	09:00	07:00	09:00	08:00	11:00	11:00	11:00	07:00	07:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00
Vol.	6	18	62	65	22	14	19	35	48	35	22	8	5	5	314		
PM Peak	12:00	14:00	15:00	15:00	18:00	15:00	19:00	16:00	17:00	17:00	17:00	17:00	17:00	17:00	16:00		
Vol.	5	23	56	60	28	19	29	63	80	82	44	20	8	12	401		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	Percent
09/19/15	0	1	4	5	2	3	7	7	5	1	1	0	0	0	36	43	46
01:00	0	2	2	2	0	0	1	1	2	0	0	0	0	0	10	43	45
02:00	1	1	0	0	2	0	1	0	0	1	1	0	0	0	7	48	50
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	27	27
04:00	1	1	0	1	1	0	1	2	0	1	1	0	0	0	9	47	50
05:00	0	1	3	2	2	1	2	1	4	2	0	0	0	0	18	45	47
06:00	2	6	9	8	2	3	3	8	7	3	2	1	1	0	55	45	50
07:00	0	5	16	14	2	1	8	8	9	11	7	2	0	0	83	48	51
08:00	3	6	26	34	14	1	13	15	15	16	16	5	2	0	166	48	51
09:00	4	11	29	33	11	9	8	19	36	19	8	5	1	0	193	46	50
10:00	4	10	41	41	19	9	12	40	22	19	14	9	5	4	249	47	52
11:00	2	16	41	41	22	15	25	25	41	28	11	7	2	1	277	46	50
12 PM	3	12	77	50	18	10	16	20	34	21	13	4	4	2	284	45	50
13:00	8	11	45	30	24	10	14	39	43	39	16	6	3	3	291	47	50
14:00	2	14	52	38	14	11	13	27	35	30	9	8	1	1	255	46	50
15:00	4	14	40	47	13	8	20	29	33	27	12	7	4	1	259	47	51
16:00	1	11	47	53	16	6	14	30	34	30	16	9	3	1	271	47	51
17:00	2	6	42	40	20	6	14	36	40	25	10	4	4	4	253	46	50
18:00	3	16	47	35	17	15	22	35	28	20	8	1	1	0	248	45	48
19:00	3	24	39	38	16	18	26	37	27	16	0	4	0	0	248	44	47
20:00	1	19	31	29	11	6	17	18	24	12	6	6	1	0	181	45	50
21:00	1	8	16	15	6	5	12	12	10	10	6	2	1	0	104	47	50
22:00	1	8	12	14	6	1	12	15	8	6	3	2	0	0	88	45	49
23:00	1	4	24	19	7	5	7	7	7	5	3	1	0	1	91	44	48
Total	47	207	644	589	245	143	268	431	464	342	163	83	33	18	3677		
Percent	1.3%	5.6%	17.5%	16.0%	6.7%	3.9%	7.3%	11.7%	12.6%	9.3%	4.4%	2.3%	0.9%	0.5%			
AM Peak	09:00	11:00	10:00	10:00	11:00	11:00	11:00	10:00	11:00	11:00	08:00	10:00	10:00	10:00	11:00		
Vol.	4	16	41	41	22	15	25	40	41	28	16	9	5	4	277		
PM Peak	13:00	19:00	12:00	16:00	13:00	19:00	19:00	13:00	13:00	13:00	13:00	16:00	12:00	17:00	13:00		
Vol.	8	24	77	53	24	18	26	39	43	39	16	9	4	4	291		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	Percent
09/20/15	0	6	10	4	2	3	8	4	5	4	5	2	1	0	54	48	52
01:00	3	1	0	2	1	1	1	1	0	1	1	1	0	0	13	49	53
02:00	0	4	2	2	1	0	1	1	1	0	0	1	0	0	13	43	53
03:00	0	0	1	0	0	0	1	0	1	0	0	0	0	0	3	44	45
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	27	27
05:00	1	2	0	1	0	0	0	0	1	0	0	1	0	0	6	52	54
06:00	0	4	3	2	1	1	1	1	3	2	1	1	1	0	21	48	54
07:00	0	4	11	0	1	0	1	3	6	2	1	1	0	0	30	45	50
08:00	2	6	12	10	3	3	5	1	8	5	6	2	0	1	64	48	51
09:00	2	5	16	9	2	3	5	9	10	8	6	2	1	0	78	47	51
10:00	1	8	31	17	8	10	5	13	19	11	4	1	2	2	132	45	49
11:00	0	10	21	9	2	6	3	13	21	9	6	2	3	0	105	47	51
12 PM	4	11	31	29	9	6	17	21	26	16	11	6	0	2	189	46	51
13:00	4	6	21	13	8	15	14	15	11	16	6	2	3	0	134	47	51
14:00	2	10	35	14	5	5	20	18	20	19	11	3	1	2	165	47	50
15:00	4	13	12	17	4	7	7	14	28	26	11	3	0	4	150	48	50
16:00	2	15	36	36	9	7	12	28	27	26	14	6	4	1	223	47	51
17:00	0	5	24	25	7	8	13	27	29	33	12	5	3	2	193	48	51
18:00	0	13	25	21	2	3	7	18	17	13	14	7	3	1	144	49	53
19:00	2	16	26	18	10	11	16	15	20	8	6	2	0	2	152	45	49
20:00	2	24	31	16	12	13	7	16	16	8	3	1	1	0	150	44	48
21:00	1	3	8	11	5	3	8	8	10	7	5	1	1	0	71	47	51
22:00	0	2	7	3	0	3	5	8	3	4	1	0	0	2	38	45	48
23:00	1	2	0	2	0	2	3	0	2	0	0	1	1	0	14	45	55
Total	31	171	364	261	92	110	160	234	284	218	124	51	25	19	2144		
Percent	1.4%	8.0%	17.0%	12.2%	4.3%	5.1%	7.5%	10.9%	13.2%	10.2%	5.8%	2.4%	1.2%	0.9%			
AM Peak	01:00	11:00	10:00	10:00	10:00	10:00	00:00	10:00	11:00	10:00	08:00	00:00	11:00	10:00	10:00		
Vol.	3	10	31	17	8	10	8	13	21	11	6	2	3	2	132		
PM Peak	12:00	20:00	16:00	16:00	20:00	13:00	14:00	16:00	17:00	17:00	16:00	18:00	16:00	15:00	16:00		
Vol.	4	24	36	36	12	15	20	28	29	33	14	7	4	4	223		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/21/15	0	0	0	2	0	1	1	2	1	0	2	1	0	1	11	51	53
01:00	0	0	0	1	1	0	0	0	1	0	0	0	0	0	3	44	45
02:00	0	0	2	0	0	0	1	0	0	1	0	0	0	0	4	47	48
03:00	0	0	1	1	0	0	1	0	0	0	0	1	0	0	4	53	54
04:00	0	1	4	3	1	1	1	1	1	1	0	1	0	0	15	45	52
05:00	7	5	9	4	2	2	3	8	2	1	2	3	0	0	48	44	52
06:00	0	9	25	23	8	1	5	10	15	4	4	0	1	0	105	44	48
07:00	3	18	40	71	20	7	16	40	56	36	17	6	2	3	335	46	50
08:00	3	12	43	53	27	9	12	17	30	28	22	16	6	0	278	49	53
09:00	0	13	53	40	14	6	7	24	14	13	13	5	1	2	205	46	51
10:00	5	9	28	33	7	9	12	16	20	10	11	2	2	2	166	46	50
11:00	5	12	43	33	15	12	11	21	27	19	10	7	1	2	218	46	51
12 PM	0	15	45	31	18	9	14	20	19	16	11	3	1	1	203	46	50
13:00	11	33	51	36	10	5	9	5	12	13	4	0	2	0	191	43	48
14:00	1	15	45	52	10	5	15	28	31	18	9	3	2	1	235	45	49
15:00	0	14	42	42	12	15	14	21	29	26	17	7	3	2	244	47	51
16:00	0	9	35	40	24	12	22	31	41	53	24	10	4	4	309	48	51
17:00	2	6	34	47	13	14	10	31	51	64	31	20	10	3	336	50	54
18:00	0	7	30	39	15	9	6	30	28	53	27	11	5	4	264	49	52
19:00	4	14	33	38	7	7	11	25	31	13	8	0	2	0	193	45	49
20:00	1	11	23	19	7	7	9	15	27	14	0	1	0	0	134	45	47
21:00	1	6	14	10	2	2	6	7	11	11	1	1	0	0	72	46	48
22:00	1	2	3	1	1	1	3	3	3	0	1	0	0	0	19	44	49
23:00	0	1	0	0	0	0	2	1	1	1	0	0	0	0	6	46	48
Total	44	212	603	619	214	134	191	356	451	395	214	98	42	25	3598		
Percent	1.2%	5.9%	16.8%	17.2%	5.9%	3.7%	5.3%	9.9%	12.5%	11.0%	5.9%	2.7%	1.2%	0.7%			
AM Peak	05:00	07:00	09:00	07:00	08:00	11:00	07:00	07:00	07:00	07:00	08:00	08:00	08:00	07:00	07:00		
Vol.	7	18	53	71	27	12	16	40	56	36	22	16	6	3	335		
PM Peak	13:00	13:00	13:00	14:00	16:00	15:00	16:00	16:00	17:00	17:00	17:00	17:00	17:00	16:00	17:00		
Vol.	11	33	51	52	24	15	22	31	51	64	31	20	10	4	336		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	
09/22/15	0	1	3	0	0	0	1	1	0	0	0	0	0	0	6	40	42
01:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	42	42
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	45	45
03:00	0	0	1	0	0	0	1	1	0	0	1	0	0	0	4	50	51
04:00	0	0	2	2	1	1	1	2	2	1	0	0	0	0	12	44	47
05:00	0	7	12	2	2	1	3	6	1	4	1	1	0	1	41	45	48
06:00	4	9	19	25	7	2	9	9	13	6	4	1	1	1	110	44	49
07:00	3	15	48	59	23	8	11	26	40	31	20	11	1	2	298	47	51
08:00	1	12	52	67	18	4	14	16	38	25	17	10	5	5	284	47	52
09:00	3	13	60	54	18	14	17	30	25	20	9	4	1	2	270	45	49
10:00	4	9	23	35	12	8	9	15	30	17	15	4	3	2	186	48	51
11:00	1	14	41	34	13	9	13	16	28	23	10	5	1	1	209	47	50
12 PM	4	10	53	28	8	9	15	22	25	22	9	2	0	0	207	46	49
13:00	1	9	33	30	12	9	10	27	26	15	10	4	3	2	191	46	51
14:00	3	11	31	39	8	9	17	32	23	11	17	5	1	0	207	46	51
15:00	5	24	64	54	18	20	17	29	25	19	11	6	2	1	295	45	50
16:00	5	14	40	49	27	9	26	38	48	35	29	10	4	1	335	48	51
17:00	2	9	38	41	18	7	9	46	89	64	37	20	5	5	390	49	52
18:00	1	6	34	41	17	10	11	37	63	54	34	13	7	2	330	49	52
19:00	2	17	37	31	8	6	13	25	37	29	4	4	2	2	217	46	48
20:00	1	16	22	14	11	7	10	14	19	5	3	3	1	0	126	44	49
21:00	1	7	17	10	7	4	5	7	13	6	4	2	0	0	83	45	50
22:00	0	4	5	4	6	3	2	5	7	5	2	1	1	0	45	47	51
23:00	0	1	2	2	0	2	1	0	2	3	0	1	1	0	15	48	55
Total	41	208	637	621	234	142	215	405	555	395	237	107	39	27	3863		
Percent	1.1%	5.4%	16.5%	16.1%	6.1%	3.7%	5.6%	10.5%	14.4%	10.2%	6.1%	2.8%	1.0%	0.7%			
AM Peak	06:00	07:00	09:00	08:00	07:00	09:00	09:00	09:00	07:00	07:00	07:00	07:00	08:00	08:00	07:00		
Vol.	4	15	60	67	23	14	17	30	40	31	20	11	5	5	298		
PM Peak	15:00	15:00	15:00	15:00	16:00	15:00	16:00	17:00	17:00	17:00	17:00	17:00	18:00	17:00	17:00		
Vol.	5	24	64	54	27	20	26	46	89	64	37	20	7	5	390		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/23/15	0	2	0	2	1	1	1	1	1	0	0	1	0	0	10	44	53
01:00	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	54	54
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	2	0	0	0	0	0	0	1	0	0	0	0	3	47	48
04:00	0	1	1	2	0	1	0	2	1	0	1	0	0	0	9	44	50
05:00	1	6	6	11	1	1	1	10	3	5	1	2	0	0	48	46	50
06:00	2	13	31	22	8	6	6	17	9	14	6	2	0	1	137	46	49
07:00	1	14	59	63	12	13	18	34	35	29	17	9	4	3	311	47	51
08:00	0	12	43	49	19	9	11	24	20	24	17	10	5	2	245	48	52
09:00	2	13	52	62	31	9	14	26	24	14	8	3	3	1	262	44	49
10:00	1	11	25	25	13	14	17	18	16	15	11	1	1	1	169	46	50
11:00	5	15	37	46	12	13	21	26	27	12	10	4	1	0	229	45	50
12 PM	8	17	48	41	11	11	10	24	21	11	5	8	1	0	216	44	50
13:00	3	12	31	20	9	14	10	22	25	21	11	2	0	2	182	47	50
14:00	1	23	38	41	18	7	14	22	20	16	12	1	2	1	216	45	50
15:00	0	15	69	59	15	5	12	22	29	19	17	5	0	2	269	46	50
16:00	2	14	41	56	24	12	22	33	44	56	38	12	8	1	363	49	52
17:00	1	13	29	42	24	9	13	42	60	69	29	29	14	3	377	50	54
18:00	0	11	18	44	18	13	14	52	52	36	24	6	5	4	297	48	51
19:00	5	19	41	33	9	4	13	11	27	17	6	4	1	2	192	45	49
20:00	2	12	24	23	5	6	11	18	18	7	4	1	1	0	132	44	48
21:00	0	7	17	13	4	3	6	18	13	5	2	0	0	0	88	44	47
22:00	0	3	9	5	2	1	3	1	5	3	4	0	0	0	36	47	50
23:00	1	0	3	3	1	0	2	2	3	3	0	0	0	0	18	46	48
Total	35	233	624	662	238	152	219	425	453	377	223	101	46	23	3811		
Percent	0.9%	6.1%	16.4%	17.4%	6.2%	4.0%	5.7%	11.2%	11.9%	9.9%	5.9%	2.7%	1.2%	0.6%			
AM Peak	11:00	11:00	07:00	07:00	09:00	10:00	11:00	07:00	07:00	07:00	07:00	08:00	08:00	07:00	07:00		
Vol.	5	15	59	63	31	14	21	34	35	29	17	10	5	3	311		
PM Peak	12:00	14:00	15:00	15:00	16:00	13:00	16:00	18:00	17:00	17:00	16:00	17:00	17:00	18:00	17:00		
Vol.	8	23	69	59	24	14	22	52	60	69	38	29	14	4	377		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	Percent
09/24/15	0	0	0	0	1	0	1	0	2	0	0	0	1	0	5	55	57
01:00	1	0	3	1	0	0	0	2	0	0	0	1	0	1	9	42	53
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	33	33
03:00	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	42	42
04:00	0	2	2	2	0	1	1	1	1	2	0	0	0	0	12	46	48
05:00	2	4	12	4	2	1	6	7	3	2	2	1	0	0	46	44	50
06:00	0	14	24	21	9	3	5	9	6	9	7	5	0	0	112	47	51
07:00	3	16	38	45	20	7	16	38	50	32	16	16	3	2	302	48	52
08:00	0	2	50	55	17	5	15	23	23	39	21	8	2	3	263	48	51
09:00	2	12	57	63	21	6	12	16	27	17	16	4	2	2	257	46	50
10:00	3	4	32	24	16	11	11	35	17	13	10	3	3	1	183	46	51
11:00	0	17	34	42	20	13	17	24	17	20	6	5	1	0	216	45	49
12 PM	5	21	30	39	17	16	18	25	30	11	7	4	1	1	225	44	49
13:00	2	7	22	30	10	10	19	10	35	27	10	4	0	1	187	47	50
14:00	9	13	35	42	13	12	15	33	30	24	11	3	1	1	242	46	49
15:00	4	17	58	53	17	12	7	32	45	23	15	3	5	0	291	46	50
16:00	7	16	44	52	14	14	12	31	36	36	39	16	3	1	321	49	52
17:00	0	4	38	49	26	12	16	47	96	74	45	19	7	4	437	49	52
18:00	5	12	43	40	14	12	27	48	47	34	31	5	5	2	325	48	51
19:00	9	20	40	30	9	10	33	21	17	17	9	3	1	0	219	45	49
20:00	0	13	25	19	8	10	13	10	19	6	8	1	1	0	133	45	50
21:00	1	5	18	10	7	2	11	7	15	8	4	3	2	0	93	47	52
22:00	1	2	5	6	2	0	8	14	14	6	9	0	0	0	67	48	50
23:00	1	1	2	4	1	2	4	8	2	4	0	0	0	0	29	45	47
Total	55	203	612	631	245	159	267	442	532	404	266	104	38	19	3977		
Percent	1.4%	5.1%	15.4%	15.9%	6.2%	4.0%	6.7%	11.1%	13.4%	10.2%	6.7%	2.6%	1.0%	0.5%			
AM Peak	07:00	11:00	09:00	09:00	09:00	11:00	11:00	07:00	07:00	08:00	08:00	07:00	07:00	08:00	07:00		
Vol.	3	17	57	63	21	13	17	38	50	39	21	16	3	3	302		
PM Peak	14:00	12:00	15:00	15:00	17:00	12:00	19:00	18:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00		
Vol.	9	21	58	53	26	16	33	48	96	74	45	19	7	4	437		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound

Start Time	1 22	23 25	26 28	29 31	32 34	35 37	38 40	41 43	44 46	47 49	50 52	53 55	56 58	59 9999	Total	85th Percent	95th Percent
09/25/15	0	2	3	1	0	1	2	1	1	0	3	0	0	0	14	49	51
01:00	0	0	1	0	0	0	0	0	3	1	0	0	0	0	5	46	48
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	42	42
04:00	0	0	2	5	1	0	0	2	2	0	0	0	0	0	12	43	45
05:00	0	3	6	6	0	0	0	4	2	2	2	1	0	0	26	47	51
06:00	3	3	4	4	1	1	2	0	3	0	0	0	0	0	21	39	44
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	3	8	16	16	2	2	4	8	11	3	5	1	0	0	79		
Percent	3.8%	10.1%	20.3%	20.3%	2.5%	2.5%	5.1%	10.1%	13.9%	3.8%	6.3%	1.3%	0.0%	0.0%			
AM Peak	06:00	05:00	05:00	05:00	04:00	00:00	00:00	05:00	01:00	05:00	00:00	05:00			05:00		
Vol.	3	3	6	6	1	1	2	4	3	2	3	1			26		
PM Peak																	
Vol.																	
Grand Total	309	1472	4131	4037	1503	999	1608	2793	3384	2581	1502	662	259	163	25403		
Percent	1.2%	5.8%	16.3%	15.9%	5.9%	3.9%	6.3%	11.0%	13.3%	10.2%	5.9%	2.6%	1.0%	0.6%			

15th Percentile : 26 MPH
 50th Percentile : 37 MPH
 85th Percentile : 47 MPH
 95th Percentile : 51 MPH

Statistics 10 MPH Pace Speed : 25-34 MPH
 Number in Pace : 10162
 Percent in Pace : 40.3%
 Number of Vehicles > 40 MPH : 11344
 Percent of Vehicles > 40 MPH : 44.9%
 Mean Speed(Average) : 37 MPH

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/18/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	0	3	2	4	8	8	4	6	6	3	2	4	0	0	50	47	53
07:00	2	4	4	32	47	26	28	21	21	16	11	3	2	0	217	45	50
08:00	0	4	4	23	25	27	19	25	18	22	4	2	0	1	174	46	48
09:00	7	3	4	23	35	27	21	29	25	4	3	1	0	0	182	43	45
10:00	0	1	4	3	12	27	18	30	18	16	5	1	2	0	137	46	49
11:00	0	3	6	14	20	13	18	20	21	14	5	4	0	0	138	46	50
12 PM	2	6	5	23	42	26	36	24	29	9	8	4	1	1	216	44	49
13:00	0	1	7	16	25	36	41	24	27	11	9	1	1	0	199	45	49
14:00	2	4	8	13	38	47	25	32	30	11	13	2	0	1	226	45	49
15:00	10	1	4	22	56	51	41	32	45	10	6	2	1	0	281	44	47
16:00	1	2	6	20	47	58	36	49	50	35	23	6	2	0	335	47	50
17:00	0	2	2	23	49	44	43	56	76	50	27	6	4	0	382	47	50
18:00	0	0	2	13	37	43	52	52	48	34	11	8	0	0	300	46	50
19:00	0	1	8	19	32	27	24	27	20	20	6	3	1	1	189	46	49
20:00	0	1	8	26	32	24	16	29	35	12	2	2	3	1	191	45	48
21:00	2	3	6	14	18	32	24	18	31	13	7	4	0	0	172	45	50
22:00	0	2	4	13	29	11	16	13	9	10	7	1	0	0	115	46	49
23:00	1	1	3	4	9	7	7	11	15	10	5	1	0	0	74	47	50
Total	27	42	87	305	561	534	469	498	524	300	154	55	17	5	3578		
Percent	0.8%	1.2%	2.4%	8.5%	15.7%	14.9%	13.1%	13.9%	14.6%	8.4%	4.3%	1.5%	0.5%	0.1%			
AM Peak	09:00	07:00	11:00	07:00	07:00	08:00	07:00	10:00	09:00	08:00	07:00	06:00	07:00	08:00	07:00		
Vol.	7	4	6	32	47	27	28	30	25	22	11	4	2	1	217		
PM Peak	15:00	12:00	14:00	20:00	15:00	16:00	18:00	17:00	17:00	17:00	17:00	18:00	17:00	12:00	17:00		
Vol.	10	6	8	26	56	58	52	56	76	50	27	8	4	1	382		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	9999	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58					
09/19/15	1	0	0	1	9	6	6	2	2	6	5	1	2	0	0	41	50	54
01:00	0	0	0	0	2	2	0	3	1	4	0	0	0	1	13	47	48	
02:00	0	0	0	2	1	0	1	1	2	0	0	0	0	0	7	44	45	
03:00	0	0	0	0	1	0	0	0	0	1	0	1	0	0	3	53	54	
04:00	0	0	0	0	0	0	0	0	2	1	1	0	0	0	4	50	51	
05:00	0	0	0	0	0	2	2	1	0	1	1	1	0	0	8	51	53	
06:00	0	0	1	0	5	3	1	3	2	1	2	0	0	0	18	46	50	
07:00	3	0	3	3	11	8	9	14	8	4	5	1	0	0	69	45	50	
08:00	3	3	1	8	12	9	6	11	11	6	5	2	0	0	77	46	50	
09:00	2	0	3	13	23	22	17	16	15	14	3	0	0	1	129	45	48	
10:00	2	5	10	23	21	28	22	28	25	17	6	4	0	0	191	45	49	
11:00	2	2	7	13	36	34	20	34	21	12	4	1	3	0	189	44	48	
12 PM	1	1	7	21	34	42	21	24	32	21	4	0	0	0	208	45	48	
13:00	1	3	10	23	39	40	25	29	25	29	8	5	0	1	238	46	49	
14:00	2	1	6	17	23	37	26	22	30	19	17	2	1	1	204	47	50	
15:00	0	3	7	13	37	35	24	35	34	19	11	2	0	0	220	45	49	
16:00	1	0	2	11	41	44	34	40	36	21	9	3	1	1	244	45	49	
17:00	3	2	4	23	47	36	33	54	43	35	16	5	2	0	303	47	50	
18:00	3	2	9	22	40	35	28	32	46	32	14	5	1	1	270	47	50	
19:00	0	0	9	24	38	29	23	37	33	19	7	0	0	1	220	45	48	
20:00	0	3	2	26	35	35	29	31	21	16	8	0	0	0	206	45	48	
21:00	2	1	7	8	25	26	23	17	18	14	5	4	3	6	159	46	51	
22:00	0	0	2	13	12	17	12	12	10	9	6	2	1	1	97	47	51	
23:00	1	0	6	4	12	15	9	10	6	4	3	2	1	0	73	45	51	
Total	27	26	96	268	504	505	371	456	423	305	140	41	15	14	3191			
Percent	0.8%	0.8%	3.0%	8.4%	15.8%	15.8%	11.6%	14.3%	13.3%	9.6%	4.4%	1.3%	0.5%	0.4%				
AM Peak	07:00	10:00	10:00	10:00	11:00	11:00	10:00	11:00	10:00	10:00	10:00	10:00	11:00	01:00	10:00			
Vol.	3	5	10	23	36	34	22	34	25	17	6	4	3	1	191			
PM Peak	17:00	13:00	13:00	20:00	17:00	16:00	16:00	17:00	18:00	17:00	14:00	13:00	21:00	21:00	17:00			
Vol.	3	3	10	26	47	44	34	54	46	35	17	5	3	6	303			

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1 22	23 25	26 28	29 31	32 34	35 37	38 40	41 43	44 46	47 49	50 52	53 55	56 58	59 9999	Total	85th Percent	95th Percent
09/20/15	0	0	2	5	7	11	5	5	5	4	2	1	0	0	47	45	49
01:00	1	0	0	2	1	5	4	5	5	0	0	1	0	0	24	44	45
02:00	1	0	0	1	2	0	0	1	3	1	0	0	1	0	10	47	56
03:00	0	0	0	1	0	0	1	2	3	0	0	0	2	0	9	55	57
04:00	0	0	0	0	0	0	0	0	1	1	0	1	1	1	5	56	57
05:00	0	0	0	0	4	1	0	0	0	0	0	0	0	0	5	34	36
06:00	0	0	0	3	0	2	0	1	0	2	0	1	0	0	9	48	53
07:00	1	0	0	4	3	1	1	3	0	2	2	0	1	0	18	49	55
08:00	0	0	3	20	27	10	5	10	2	3	1	0	0	2	83	41	45
09:00	0	0	4	7	16	15	2	13	4	5	1	3	0	0	70	44	50
10:00	0	1	3	10	14	18	5	7	9	6	5	4	1	0	83	47	52
11:00	1	2	2	9	12	4	12	11	19	9	4	2	1	3	91	46	50
12 PM	0	2	17	18	20	20	11	10	21	16	5	5	2	0	147	47	51
13:00	0	4	2	6	8	17	14	14	13	11	6	3	4	1	103	48	53
14:00	2	0	2	14	13	23	19	19	18	28	8	3	2	0	151	47	51
15:00	0	2	6	6	17	28	20	29	26	17	9	7	0	0	167	47	51
16:00	0	0	4	16	35	33	18	31	25	25	10	6	0	0	203	47	50
17:00	1	0	5	13	34	29	23	18	34	37	10	5	5	2	216	48	51
18:00	0	0	0	6	17	26	19	25	32	20	11	4	3	2	165	48	51
19:00	0	0	5	9	19	15	11	27	27	20	3	4	0	0	140	46	48
20:00	0	2	3	9	12	18	11	19	15	14	5	4	1	3	116	47	51
21:00	0	0	1	4	8	9	15	7	15	6	2	1	0	3	71	45	48
22:00	0	0	2	3	7	4	1	1	7	1	0	2	1	0	29	45	54
23:00	0	0	0	1	0	1	2	0	3	3	3	1	0	0	14	50	52
Total	7	13	61	167	276	290	199	258	287	231	87	58	25	17	1976		
Percent	0.4%	0.7%	3.1%	8.5%	14.0%	14.7%	10.1%	13.1%	14.5%	11.7%	4.4%	2.9%	1.3%	0.9%			
AM Peak	01:00	11:00	09:00	08:00	08:00	10:00	11:00	09:00	11:00	11:00	10:00	10:00	03:00	11:00	11:00		
Vol.	1	2	4	20	27	18	12	13	19	9	5	4	2	3	91		
PM Peak	14:00	13:00	12:00	12:00	16:00	16:00	17:00	16:00	17:00	17:00	18:00	15:00	17:00	20:00	17:00		
Vol.	2	4	17	18	35	33	23	31	34	37	11	7	5	3	216		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	9999	Total	85th Percent	95th Percent
09/21/15	0	0	0	0	2	0	3	0	1	4	0	2	0	0	0	12	52	54
01:00	0	0	1	0	1	1	0	2	1	0	1	0	0	1	0	8	45	50
02:00	0	0	1	0	0	1	0	1	0	1	1	0	0	0	0	5	49	51
03:00	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	3	45	45
04:00	0	1	0	0	1	1	0	0	0	0	1	0	0	0	0	4	50	51
05:00	6	1	0	0	3	1	1	0	0	1	0	1	0	0	0	14	39	52
06:00	0	0	3	2	3	3	7	13	7	5	1	2	0	0	0	46	46	51
07:00	1	7	9	33	35	38	29	27	34	12	8	3	0	0	0	236	44	48
08:00	1	3	16	15	16	17	25	35	38	29	12	4	4	0	0	215	47	51
09:00	0	0	7	24	31	16	16	13	21	13	7	2	0	0	0	150	45	49
10:00	1	0	1	13	23	21	10	26	15	18	4	2	0	0	0	134	46	48
11:00	1	2	3	6	18	20	22	15	20	10	4	2	1	0	0	124	45	49
12 PM	3	4	15	14	33	32	33	24	28	15	7	4	2	0	0	214	45	49
13:00	4	3	14	27	51	26	23	29	18	11	2	2	0	0	0	210	43	47
14:00	3	5	12	17	36	47	31	25	20	13	6	2	1	0	0	218	44	48
15:00	3	0	1	15	43	46	38	39	29	14	9	6	0	1	0	244	45	49
16:00	1	2	3	16	33	44	40	30	45	25	10	6	0	0	0	255	46	49
17:00	2	4	2	21	38	58	46	48	58	53	14	5	3	0	0	352	47	49
18:00	1	0	2	15	37	50	35	39	57	30	10	5	2	0	0	283	46	49
19:00	0	3	8	18	38	25	21	25	19	16	8	1	1	0	0	183	45	49
20:00	0	3	7	24	37	29	17	14	25	14	8	2	1	0	0	181	45	49
21:00	0	1	3	6	9	11	8	11	14	12	9	2	0	1	0	87	48	51
22:00	0	0	1	2	7	3	4	4	4	2	1	2	1	0	0	31	48	54
23:00	0	0	0	1	3	2	2	3	3	4	6	0	1	0	0	25	50	51
Total	27	39	109	269	498	492	412	423	458	302	129	55	17	4	3234			
Percent	0.8%	1.2%	3.4%	8.3%	15.4%	15.2%	12.7%	13.1%	14.2%	9.3%	4.0%	1.7%	0.5%	0.1%				
AM Peak	05:00	07:00	08:00	07:00	07:00	07:00	07:00	08:00	08:00	08:00	08:00	08:00	08:00	08:00	01:00	07:00		
Vol.	6	7	16	33	35	38	29	35	38	29	12	4	4	1	236			
PM Peak	13:00	14:00	12:00	13:00	13:00	17:00	17:00	17:00	17:00	17:00	17:00	15:00	17:00	15:00	17:00			
Vol.	4	5	15	27	51	58	46	48	58	53	14	6	3	1	352			

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027

Type: Volume / Direction / Speed

Tech: Judd / Mosdell / Anderson

Count: Vehicle Speeds

Highland south of 11800 N SPEED

Date Start: 18-Sep-15

Date End: 25-Sep-15

Highland Blvd south of 11800 North

Highland, Utah

Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	
09/22/15	0	0	0	0	1	0	1	3	2	3	0	0	0	1	11	47	48
01:00	0	0	0	0	0	1	1	0	1	2	1	0	0	0	6	49	51
02:00	0	0	0	0	0	1	0	0	2	0	0	1	0	0	4	53	54
03:00	0	0	0	1	0	1	1	0	0	0	0	0	0	0	3	38	39
04:00	0	0	1	0	0	0	0	0	1	0	1	0	0	0	3	50	51
05:00	0	0	1	1	0	2	0	0	1	1	1	0	0	0	7	48	50
06:00	1	1	4	3	12	3	8	6	3	8	1	1	0	0	51	46	48
07:00	0	4	5	34	35	47	25	27	30	22	11	2	1	0	243	45	49
08:00	0	4	8	15	27	34	22	44	41	26	6	4	0	0	231	46	48
09:00	1	2	9	33	28	31	21	19	18	14	7	4	0	1	188	45	49
10:00	0	1	2	10	29	13	16	15	14	7	4	2	1	1	115	45	49
11:00	1	1	3	13	20	29	28	25	15	14	4	3	1	1	158	45	49
12 PM	1	1	3	21	34	31	37	32	23	16	5	4	3	0	211	45	49
13:00	1	0	1	15	33	34	30	23	19	10	4	1	2	1	174	44	48
14:00	3	2	5	23	39	41	41	34	26	14	4	1	1	0	234	44	47
15:00	7	1	11	27	75	50	26	29	27	12	5	1	0	0	271	43	47
16:00	3	0	6	18	34	52	58	48	35	17	12	1	1	0	285	44	48
17:00	1	2	6	20	43	38	43	59	66	40	9	5	2	1	335	46	48
18:00	0	0	5	15	25	44	28	37	34	38	9	2	1	1	239	47	49
19:00	0	3	6	14	27	40	34	23	29	23	6	2	0	0	207	45	48
20:00	0	1	0	24	28	23	28	29	15	13	5	1	0	0	167	44	48
21:00	1	0	4	12	13	14	13	14	9	7	6	1	0	0	94	45	50
22:00	0	0	1	2	8	6	6	7	8	11	3	0	1	0	53	47	50
23:00	0	1	2	1	5	4	3	1	3	5	1	1	0	0	27	47	50
Total	20	24	83	302	516	539	470	475	422	303	105	37	14	7	3317		
Percent	0.6%	0.7%	2.5%	9.1%	15.6%	16.2%	14.2%	14.3%	12.7%	9.1%	3.2%	1.1%	0.4%	0.2%			
AM Peak	06:00	07:00	09:00	07:00	07:00	07:00	11:00	08:00	08:00	08:00	07:00	08:00	07:00	00:00	07:00		
Vol.	1	4	9	34	35	47	28	44	41	26	11	4	1	1	243		
PM Peak	15:00	19:00	15:00	15:00	15:00	16:00	16:00	17:00	17:00	17:00	16:00	17:00	12:00	13:00	17:00		
Vol.	7	3	11	27	75	52	58	59	66	40	12	5	3	1	335		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	Percent
09/23/15	0	0	0	2	2	0	1	1	1	4	0	0	0	0	11	47	48
01:00	0	0	0	1	1	0	1	1	0	2	1	0	0	0	7	48	50
02:00	0	0	0	0	1	0	0	0	1	1	1	1	1	0	6	55	57
03:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	48	48
04:00	0	0	1	0	0	0	0	0	0	2	0	0	0	0	3	48	48
05:00	0	0	0	1	0	1	3	2	4	0	2	0	0	0	13	49	51
06:00	2	1	2	4	6	8	9	9	11	12	3	3	0	0	70	47	51
07:00	2	4	13	28	46	25	27	23	28	16	5	5	1	0	223	45	48
08:00	0	2	10	21	32	26	17	35	32	22	10	5	1	0	213	46	50
09:00	0	2	11	23	44	28	23	23	22	13	3	4	0	1	197	44	48
10:00	1	1	4	11	22	13	19	27	18	7	2	2	0	0	127	44	47
11:00	1	0	10	19	26	20	26	24	22	16	3	3	0	0	170	45	48
12 PM	1	3	4	20	37	38	18	19	15	8	7	1	1	0	172	44	49
13:00	0	0	6	16	25	34	24	26	25	15	7	4	0	1	183	45	49
14:00	0	0	9	25	47	31	28	21	34	16	8	1	1	0	221	45	48
15:00	0	2	3	24	54	70	40	34	34	26	10	1	0	0	298	45	48
16:00	0	0	11	34	43	57	33	44	55	27	10	1	2	0	317	45	48
17:00	0	2	7	13	30	55	56	48	42	36	10	9	1	0	309	46	50
18:00	0	0	11	25	52	53	37	40	45	23	8	7	0	0	301	45	48
19:00	0	1	9	14	38	28	30	31	25	18	7	5	0	0	206	45	49
20:00	0	5	11	20	28	27	18	23	13	6	4	1	0	0	156	43	47
21:00	0	0	3	10	21	17	20	22	7	13	1	2	0	1	117	45	48
22:00	0	0	0	4	7	10	8	4	9	11	1	0	1	2	57	47	48
23:00	0	0	4	0	1	2	2	1	1	1	2	0	1	0	15	50	55
Total	7	23	129	315	563	543	440	458	444	296	105	55	10	5	3393		
Percent	0.2%	0.7%	3.8%	9.3%	16.6%	16.0%	13.0%	13.5%	13.1%	8.7%	3.1%	1.6%	0.3%	0.1%			
AM Peak	06:00	07:00	07:00	07:00	07:00	09:00	07:00	08:00	08:00	08:00	08:00	07:00	02:00	09:00	07:00		
Vol.	2	4	13	28	46	28	27	35	32	22	10	5	1	1	223		
PM Peak	12:00	20:00	16:00	16:00	15:00	15:00	17:00	17:00	16:00	17:00	15:00	17:00	16:00	22:00	16:00		
Vol.	1	5	11	34	54	70	56	48	55	36	10	9	2	2	317		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	Percent
09/24/15	0	0	0	0	0	2	2	3	0	0	1	0	1	0	9	50	56
01:00	0	0	0	1	0	0	0	0	0	2	2	0	0	0	5	50	51
02:00	0	0	0	1	0	0	1	1	0	0	0	0	0	0	3	41	42
03:00	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	48	48
04:00	0	0	1	0	0	0	0	0	1	0	0	1	0	0	3	53	54
05:00	0	2	0	2	1	1	1	2	0	0	1	0	0	0	10	42	50
06:00	0	3	4	3	8	1	4	6	4	3	2	3	0	0	41	47	52
07:00	2	3	16	34	37	34	31	24	16	14	19	3	1	0	234	46	50
08:00	0	1	6	9	24	27	41	37	45	22	10	3	0	1	226	46	49
09:00	1	3	0	17	28	27	20	24	20	13	7	3	0	0	163	45	49
10:00	0	0	1	8	9	13	14	19	18	6	3	4	0	0	95	45	51
11:00	0	1	8	20	28	32	26	24	23	18	1	3	0	0	184	45	48
12 PM	4	0	6	10	31	45	29	27	29	17	8	1	0	0	207	45	48
13:00	0	0	1	11	37	39	22	25	23	14	8	3	0	0	183	45	49
14:00	0	7	10	20	60	35	42	44	28	14	7	5	2	0	274	44	49
15:00	0	5	8	19	55	52	34	45	42	18	10	4	1	1	294	45	49
16:00	1	2	10	14	33	42	39	52	56	38	20	5	3	1	316	47	50
17:00	1	3	6	34	49	63	42	41	64	26	8	2	1	1	341	45	48
18:00	0	1	5	30	61	44	48	44	49	20	7	0	0	0	309	44	47
19:00	0	3	8	22	31	28	26	37	35	11	9	0	1	1	212	45	48
20:00	0	0	3	13	33	43	28	27	15	10	0	2	1	1	176	43	47
21:00	0	0	2	10	22	23	10	6	13	11	5	2	1	1	106	46	50
22:00	0	0	4	4	16	9	9	9	9	6	4	1	0	0	71	46	50
23:00	0	1	1	5	7	5	5	4	6	3	3	0	0	0	40	46	50
Total	9	35	100	287	570	565	474	501	496	268	135	45	12	7	3504		
Percent	0.3%	1.0%	2.9%	8.2%	16.3%	16.1%	13.5%	14.3%	14.2%	7.6%	3.9%	1.3%	0.3%	0.2%			
AM Peak	07:00	06:00	07:00	07:00	07:00	07:00	08:00	08:00	08:00	08:00	07:00	10:00	00:00	08:00	07:00		
Vol.	2	3	16	34	37	34	41	37	45	22	19	4	1	1	234		
PM Peak	12:00	14:00	14:00	17:00	18:00	17:00	18:00	16:00	17:00	16:00	16:00	14:00	16:00	15:00	17:00		
Vol.	4	7	10	34	61	63	48	52	64	38	20	5	3	1	341		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Northbound

Start Time	1 22	23 25	26 28	29 31	32 34	35 37	38 40	41 43	44 46	47 49	50 52	53 55	56 58	59 9999	Total	85th Percent	95th Percent
09/25/15	0	0	0	0	2	2	2	1	0	1	3	1	0	0	12	51	53
01:00	0	1	1	0	1	0	0	1	2	3	1	0	0	0	10	48	50
02:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	42	42
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	57	57
05:00	0	0	1	2	2	1	2	1	0	2	2	0	0	1	14	49	51
06:00	1	0	0	0	0	1	2	0	1	0	0	0	0	0	5	43	45
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	1	2	2	5	5	6	5	3	6	6	1	1	1	45		
Percent	2.2%	2.2%	4.4%	4.4%	11.1%	11.1%	13.3%	11.1%	6.7%	13.3%	13.3%	2.2%	2.2%	2.2%			
AM Peak	06:00	01:00	01:00	05:00	00:00	00:00	00:00	00:00	01:00	01:00	00:00	00:00	04:00	05:00	05:00		
Vol.	1	1	1	2	2	2	2	1	2	3	3	1	1	1	14		
PM Peak																	
Vol.																	
Grand Total	125	203	667	1915	3493	3473	2841	3074	3057	2011	861	347	111	60	22238		
Percent	0.6%	0.9%	3.0%	8.6%	15.7%	15.6%	12.8%	13.8%	13.7%	9.0%	3.9%	1.6%	0.5%	0.3%			

15th Percentile : 31 MPH
 50th Percentile : 38 MPH
 85th Percentile : 46 MPH
 95th Percentile : 49 MPH

Statistics 10 MPH Pace Speed : 32-41 MPH
 Number in Pace : 10832
 Percent in Pace : 48.8%
 Number of Vehicles > 40 MPH : 9521
 Percent of Vehicles > 40 MPH : 42.9%
 Mean Speed(Average) : 39 MPH

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/18/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	0	12	18	28	12	8	14	11	23	13	7	5	0	1	152	46	50
07:00	8	17	66	91	62	31	41	44	69	51	33	10	7	1	531	47	51
08:00	0	20	53	74	47	36	27	38	50	45	25	10	2	6	433	47	50
09:00	10	21	52	88	45	37	31	50	56	25	13	7	0	0	435	44	48
10:00	6	11	40	30	25	35	32	50	35	33	11	4	3	2	317	46	49
11:00	3	16	43	48	29	27	37	55	53	28	15	10	2	0	366	46	50
12 PM	7	25	49	62	59	39	55	55	57	23	20	9	1	3	464	45	50
13:00	4	21	47	48	34	41	65	53	62	28	18	3	3	0	427	45	49
14:00	7	27	57	45	52	55	38	68	63	31	24	6	1	3	477	45	49
15:00	13	18	60	82	76	70	60	66	89	42	26	10	3	3	618	45	49
16:00	4	13	43	72	73	73	58	112	122	82	59	21	3	1	736	48	51
17:00	2	8	37	63	59	51	57	97	156	132	71	26	12	12	783	48	51
18:00	1	5	26	60	65	54	73	91	113	94	55	27	7	2	673	48	52
19:00	4	19	43	53	48	37	53	69	66	50	13	7	3	2	467	46	48
20:00	2	8	35	40	42	29	31	55	54	22	7	6	4	1	336	45	49
21:00	5	15	25	28	22	43	43	40	38	20	9	8	0	0	296	45	49
22:00	3	7	16	23	32	15	29	20	30	16	9	2	1	0	203	45	49
23:00	1	9	8	8	12	10	9	16	22	12	9	1	1	0	118	47	50
Total	80	272	718	943	794	691	753	990	1158	747	424	172	53	37	7832		
Percent	1.0%	3.5%	9.2%	12.0%	10.1%	8.8%	9.6%	12.6%	14.8%	9.5%	5.4%	2.2%	0.7%	0.5%			
AM Peak	09:00	09:00	07:00	07:00	07:00	09:00	07:00	11:00	07:00	07:00	07:00	07:00	07:00	08:00	07:00		
Vol.	10	21	66	91	62	37	41	55	69	51	33	10	7	6	531		
PM Peak	15:00	14:00	15:00	15:00	15:00	16:00	18:00	16:00	17:00	17:00	17:00	18:00	17:00	17:00	17:00		
Vol.	13	27	60	82	76	73	73	112	156	132	71	27	12	12	783		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	9999	Total	85th Percent	95th Percent
09/19/15	1	1	4	6	11	9	13	9	7	7	6	1	2	0	0	77	47	51
01:00	0	2	2	2	2	2	1	4	3	4	0	0	0	1	0	23	46	48
02:00	1	1	0	2	3	0	2	1	2	1	1	0	0	0	0	14	45	49
03:00	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	4	53	54
04:00	1	1	0	1	1	0	1	2	2	2	2	0	0	0	0	13	49	51
05:00	0	1	3	2	2	3	4	2	4	3	1	1	0	0	0	26	47	51
06:00	2	6	10	8	7	6	4	11	9	4	4	1	1	0	0	73	45	50
07:00	3	5	19	17	13	9	17	22	17	15	12	3	0	0	0	152	47	50
08:00	6	9	27	42	26	10	19	26	26	22	21	7	2	0	0	243	48	51
09:00	6	11	32	46	34	31	25	35	51	33	11	5	1	1	0	322	46	49
10:00	6	15	51	64	40	37	34	68	47	36	20	13	5	4	0	440	46	51
11:00	4	18	48	54	58	49	45	59	62	40	15	8	5	1	0	466	45	49
12 PM	4	13	84	71	52	52	37	44	66	42	17	4	4	2	0	492	45	49
13:00	9	14	55	53	63	50	39	68	68	68	24	11	3	4	0	529	47	50
14:00	4	15	58	55	37	48	39	49	65	49	26	10	2	2	0	459	47	50
15:00	4	17	47	60	50	43	44	64	67	46	23	9	4	1	0	479	46	50
16:00	2	11	49	64	57	50	48	70	70	51	25	12	4	2	0	515	46	50
17:00	5	8	46	63	67	42	47	90	83	60	26	9	6	4	0	556	46	50
18:00	6	18	56	57	57	50	50	67	74	52	22	6	2	1	0	518	46	49
19:00	3	24	48	62	54	47	49	74	60	35	7	4	0	1	0	468	44	47
20:00	1	22	33	55	46	41	46	49	45	28	14	6	1	0	0	387	45	49
21:00	3	9	23	23	31	31	35	29	28	24	11	6	4	6	0	263	46	51
22:00	1	8	14	27	18	18	24	27	18	15	9	4	1	1	0	185	46	50
23:00	2	4	30	23	19	20	16	17	13	9	6	3	1	1	0	164	44	49
Total	74	233	740	857	749	648	639	887	887	647	303	124	48	32	0	6868		
Percent	1.1%	3.4%	10.8%	12.5%	10.9%	9.4%	9.3%	12.9%	12.9%	9.4%	4.4%	1.8%	0.7%	0.5%				
AM Peak	08:00	11:00	10:00	10:00	11:00	11:00	11:00	10:00	11:00	11:00	08:00	10:00	10:00	10:00	10:00	11:00		
Vol.	6	18	51	64	58	49	45	68	62	40	21	13	5	4	0	466		
PM Peak	13:00	19:00	12:00	12:00	17:00	12:00	18:00	17:00	17:00	13:00	14:00	16:00	17:00	21:00	17:00	17:00		
Vol.	9	24	84	71	67	52	50	90	83	68	26	12	6	6	0	556		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	9999	Total	85th Percent	95th Percent
09/20/15	0	6	12	9	9	14	13	9	10	8	7	3	1	0	0	101	47	51
01:00	4	1	0	4	2	6	5	6	5	1	1	2	0	0	0	37	45	52
02:00	1	4	2	3	3	0	1	2	4	1	0	1	1	0	0	23	45	54
03:00	0	0	1	1	0	0	2	2	4	0	0	0	2	0	0	12	55	57
04:00	0	1	1	0	0	0	0	0	1	1	0	1	1	1	1	7	55	57
05:00	1	2	0	1	4	1	0	0	1	0	0	1	0	0	0	11	44	53
06:00	0	4	3	5	1	3	1	2	3	4	1	2	1	0	0	30	48	54
07:00	1	4	11	4	4	1	2	6	6	4	3	1	1	0	0	48	47	51
08:00	2	6	15	30	30	13	10	11	10	8	7	2	0	3	3	147	44	49
09:00	2	5	20	16	18	18	7	22	14	13	7	5	1	0	0	148	46	51
10:00	1	9	34	27	22	28	10	20	28	17	9	5	3	2	2	215	46	51
11:00	1	12	23	18	14	10	15	24	40	18	10	4	4	3	3	196	47	51
12 PM	4	13	48	47	29	26	28	31	47	32	16	11	2	2	2	336	47	51
13:00	4	10	23	19	16	32	28	29	24	27	12	5	7	1	1	237	47	52
14:00	4	10	37	28	18	28	39	37	38	47	19	6	3	2	2	316	47	50
15:00	4	15	18	23	21	35	27	43	54	43	20	10	0	4	4	317	47	51
16:00	2	15	40	52	44	40	30	59	52	51	24	12	4	1	1	426	47	51
17:00	1	5	29	38	41	37	36	45	63	70	22	10	8	4	4	409	48	51
18:00	0	13	25	27	19	29	26	43	49	33	25	11	6	3	3	309	48	52
19:00	2	16	31	27	29	26	27	42	47	28	9	6	0	2	2	292	45	49
20:00	2	26	34	25	24	31	18	35	31	22	8	5	2	3	3	266	45	49
21:00	1	3	9	15	13	12	23	15	25	13	7	2	1	3	3	142	46	50
22:00	0	2	9	6	7	7	6	9	10	5	1	2	1	2	2	67	45	51
23:00	1	2	0	3	0	3	5	0	5	3	3	2	1	0	0	28	50	54
Total	38	184	425	428	368	400	359	492	571	449	211	109	50	36		4120		
Percent	0.9%	4.5%	10.3%	10.4%	8.9%	9.7%	8.7%	11.9%	13.9%	10.9%	5.1%	2.6%	1.2%	0.9%				
AM Peak	01:00	11:00	10:00	08:00	08:00	10:00	11:00	11:00	11:00	11:00	11:00	09:00	11:00	08:00		10:00		
Vol.	4	12	34	30	30	28	15	24	40	18	10	5	4	3		215		
PM Peak	12:00	20:00	12:00	16:00	16:00	16:00	14:00	16:00	17:00	17:00	18:00	16:00	17:00	15:00		16:00		
Vol.	4	26	48	52	44	40	39	59	63	70	25	12	8	4		426		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/21/15	0	0	0	2	2	1	4	2	2	4	2	3	0	1	23	51	53
01:00	0	0	1	1	2	1	0	2	2	0	1	0	0	1	11	45	50
02:00	0	0	3	0	0	1	1	1	0	2	1	0	0	0	9	48	50
03:00	0	0	1	1	0	0	2	0	1	0	0	1	0	1	7	52	54
04:00	0	2	4	3	2	2	1	1	1	1	1	1	0	0	19	46	52
05:00	13	6	9	4	5	3	4	8	2	2	2	4	0	0	62	44	52
06:00	0	9	28	25	11	4	12	23	22	9	5	2	1	0	151	45	49
07:00	4	25	49	104	55	45	45	67	90	48	25	9	2	3	571	45	49
08:00	4	15	59	68	43	26	37	52	68	57	34	20	10	0	493	48	52
09:00	0	13	60	64	45	22	23	37	35	26	20	7	1	2	355	46	50
10:00	6	9	29	46	30	30	22	42	35	28	15	4	2	2	300	46	50
11:00	6	14	46	39	33	32	33	36	47	29	14	9	2	2	342	46	50
12 PM	3	19	60	45	51	41	47	44	47	31	18	7	3	1	417	45	50
13:00	15	36	65	63	61	31	32	34	30	24	6	2	2	0	401	43	47
14:00	4	20	57	69	46	52	46	53	51	31	15	5	3	1	453	45	49
15:00	3	14	43	57	55	61	52	60	58	40	26	13	3	3	488	46	51
16:00	1	11	38	56	57	56	62	61	86	78	34	16	4	4	564	47	51
17:00	4	10	36	68	51	72	56	79	109	117	45	25	13	3	688	48	52
18:00	1	7	32	54	52	59	41	69	85	83	37	16	7	4	547	48	51
19:00	4	17	41	56	45	32	32	50	50	29	16	1	3	0	376	45	49
20:00	1	14	30	43	44	36	26	29	52	28	8	3	1	0	315	45	48
21:00	1	7	17	16	11	13	14	18	25	23	10	3	0	1	159	47	50
22:00	1	2	4	3	8	4	7	7	7	2	2	2	1	0	50	45	52
23:00	0	1	0	1	3	2	4	4	4	5	6	0	1	0	31	50	51
Total	71	251	712	888	712	626	603	779	909	697	343	153	59	29	6832		
Percent	1.0%	3.7%	10.4%	13.0%	10.4%	9.2%	8.8%	11.4%	13.3%	10.2%	5.0%	2.2%	0.9%	0.4%			
AM Peak	05:00	07:00	09:00	07:00	07:00	07:00	07:00	07:00	07:00	08:00	08:00	08:00	08:00	07:00	07:00		
Vol.	13	25	60	104	55	45	45	67	90	57	34	20	10	3	571		
PM Peak	13:00	13:00	13:00	14:00	13:00	17:00	16:00	17:00	17:00	17:00	17:00	17:00	17:00	16:00	17:00		
Vol.	15	36	65	69	61	72	62	79	109	117	45	25	13	4	688		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/22/15	0	1	3	0	1	0	2	4	2	3	0	0	0	1	17	46	48
01:00	0	0	0	0	0	1	1	1	1	2	1	0	0	0	7	48	50
02:00	0	0	0	0	0	1	0	0	3	0	0	1	0	0	5	52	54
03:00	0	0	1	1	0	1	2	1	0	0	1	0	0	0	7	42	50
04:00	0	0	3	2	1	1	1	2	3	1	1	0	0	0	15	45	49
05:00	0	7	13	3	2	3	3	6	2	5	2	1	0	1	48	46	49
06:00	5	10	23	28	19	5	17	15	16	14	5	2	1	1	161	45	49
07:00	3	19	53	93	58	55	36	53	70	53	31	13	2	2	541	47	50
08:00	1	16	60	82	45	38	36	60	79	51	23	14	5	5	515	46	51
09:00	4	15	69	87	46	45	38	49	43	34	16	8	1	3	458	45	49
10:00	4	10	25	45	41	21	25	30	44	24	19	6	4	3	301	47	51
11:00	2	15	44	47	33	38	41	41	43	37	14	8	2	2	367	46	50
12 PM	5	11	56	49	42	40	52	54	48	38	14	6	3	0	418	45	49
13:00	2	9	34	45	45	43	40	50	45	25	14	5	5	3	365	45	50
14:00	6	13	36	62	47	50	58	66	49	25	21	6	2	0	441	45	49
15:00	12	25	75	81	93	70	43	58	52	31	16	7	2	1	566	44	48
16:00	8	14	46	67	61	61	84	86	83	52	41	11	5	1	620	46	50
17:00	3	11	44	61	61	45	52	105	155	104	46	25	7	6	725	48	51
18:00	1	6	39	56	42	54	39	74	97	92	43	15	8	3	569	48	51
19:00	2	20	43	45	35	46	47	48	66	52	10	6	2	2	424	46	48
20:00	1	17	22	38	39	30	38	43	34	18	8	4	1	0	293	44	48
21:00	2	7	21	22	20	18	18	21	22	13	10	3	0	0	177	45	50
22:00	0	4	6	6	14	9	8	12	15	16	5	1	2	0	98	47	50
23:00	0	2	4	3	5	6	4	1	5	8	1	2	1	0	42	48	53
Total	61	232	720	923	750	681	685	880	977	698	342	144	53	34	7180		
Percent	0.8%	3.2%	10.0%	12.9%	10.4%	9.5%	9.5%	12.3%	13.6%	9.7%	4.8%	2.0%	0.7%	0.5%			
AM Peak	06:00	07:00	09:00	07:00	07:00	07:00	11:00	08:00	08:00	07:00	07:00	08:00	08:00	08:00	07:00		
Vol.	5	19	69	93	58	55	41	60	79	53	31	14	5	5	541		
PM Peak	15:00	15:00	15:00	15:00	15:00	15:00	16:00	17:00	17:00	17:00	17:00	17:00	18:00	17:00	17:00		
Vol.	12	25	75	81	93	70	84	105	155	104	46	25	8	6	725		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	Total	85th Percent	95th Percent
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999			
09/23/15	0	2	0	4	3	1	2	2	2	4	0	1	0	0	21	47	48
01:00	0	0	0	1	2	0	1	1	0	2	1	1	0	0	9	50	53
02:00	0	0	0	0	1	0	0	0	1	1	1	1	1	0	6	55	57
03:00	0	0	2	0	0	0	0	0	0	2	0	0	0	0	4	48	48
04:00	0	1	2	2	0	1	0	2	1	2	1	0	0	0	12	47	50
05:00	1	6	6	12	1	2	4	12	7	5	3	2	0	0	61	46	50
06:00	4	14	33	26	14	14	15	26	20	26	9	5	0	1	207	47	50
07:00	3	18	72	91	58	38	45	57	63	45	22	14	5	3	534	46	50
08:00	0	14	53	70	51	35	28	59	52	46	27	15	6	2	458	47	51
09:00	2	15	63	85	75	37	37	49	46	27	11	7	3	2	459	44	48
10:00	2	12	29	36	35	27	36	45	34	22	13	3	1	1	296	45	49
11:00	6	15	47	65	38	33	47	50	49	28	13	7	1	0	399	45	49
12 PM	9	20	52	61	48	49	28	43	36	19	12	9	2	0	388	44	49
13:00	3	12	37	36	34	48	34	48	50	36	18	6	0	3	365	46	49
14:00	1	23	47	66	65	38	42	43	54	32	20	2	3	1	437	45	49
15:00	0	17	72	83	69	75	52	56	63	45	27	6	0	2	567	45	49
16:00	2	14	52	90	67	69	55	77	99	83	48	13	10	1	680	47	51
17:00	1	15	36	55	54	64	69	90	102	105	39	38	15	3	686	48	53
18:00	0	11	29	69	70	66	51	92	97	59	32	13	5	4	598	47	50
19:00	5	20	50	47	47	32	43	42	52	35	13	9	1	2	398	45	49
20:00	2	17	35	43	33	33	29	41	31	13	8	2	1	0	288	44	48
21:00	0	7	20	23	25	20	26	40	20	18	3	2	0	1	205	44	48
22:00	0	3	9	9	9	11	11	5	14	14	5	0	1	2	93	47	49
23:00	1	0	7	3	2	2	4	3	4	4	2	0	1	0	33	47	51
Total	42	256	753	977	801	695	659	883	897	673	328	156	56	28	7204		
Percent	0.6%	3.6%	10.5%	13.6%	11.1%	9.6%	9.1%	12.3%	12.5%	9.3%	4.6%	2.2%	0.8%	0.4%			
AM Peak	11:00	07:00	07:00	07:00	09:00	07:00	11:00	08:00	07:00	08:00	08:00	08:00	08:00	07:00	07:00		
Vol.	6	18	72	91	75	38	47	59	63	46	27	15	6	3	534		
PM Peak	12:00	14:00	15:00	16:00	18:00	15:00	17:00	18:00	17:00	17:00	16:00	17:00	17:00	18:00	17:00		
Vol.	9	23	72	90	70	75	69	92	102	105	48	38	15	4	686		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1	23	26	29	32	35	38	41	44	47	50	53	56	59	85th	95th	
	22	25	28	31	34	37	40	43	46	49	52	55	58	9999	Total	Percent	
09/24/15	0	0	0	0	1	2	3	3	2	0	1	0	2	0	14	51	56
01:00	1	0	3	2	0	0	0	2	0	2	2	1	0	1	14	50	53
02:00	0	0	0	1	1	0	1	1	0	0	0	0	0	0	4	41	42
03:00	0	1	0	0	0	0	0	1	0	2	0	0	0	0	4	48	48
04:00	0	2	3	2	0	1	1	1	2	2	0	1	0	0	15	47	52
05:00	2	6	12	6	3	2	7	9	3	2	3	1	0	0	56	43	50
06:00	0	17	28	24	17	4	9	15	10	12	9	8	0	0	153	47	52
07:00	5	19	54	79	57	41	47	62	66	46	35	19	4	2	536	47	51
08:00	0	3	56	64	41	32	56	60	68	61	31	11	2	4	489	47	50
09:00	3	15	57	80	49	33	32	40	47	30	23	7	2	2	420	45	50
10:00	3	4	33	32	25	24	25	54	35	19	13	7	3	1	278	46	51
11:00	0	18	42	62	48	45	43	48	40	38	7	8	1	0	400	45	48
12 PM	9	21	36	49	48	61	47	52	59	28	15	5	1	1	432	45	48
13:00	2	7	23	41	47	49	41	35	58	41	18	7	0	1	370	46	50
14:00	9	20	45	62	73	47	57	77	58	38	18	8	3	1	516	45	49
15:00	4	22	66	72	72	64	41	77	87	41	25	7	6	1	585	45	50
16:00	8	18	54	66	47	56	51	83	92	74	59	21	6	2	637	48	51
17:00	1	7	44	83	75	75	58	88	160	100	53	21	8	5	778	47	51
18:00	5	13	48	70	75	56	75	92	96	54	38	5	5	2	634	46	50
19:00	9	23	48	52	40	38	59	58	52	28	18	3	2	1	431	45	49
20:00	0	13	28	32	41	53	41	37	34	16	8	3	2	1	309	44	48
21:00	1	5	20	20	29	25	21	13	28	19	9	5	3	1	199	46	51
22:00	1	2	9	10	18	9	17	23	23	12	13	1	0	0	138	47	50
23:00	1	2	3	9	8	7	9	12	8	7	3	0	0	0	69	45	48
Total	64	238	712	918	815	724	741	943	1028	672	401	149	50	26	7481		
Percent	0.9%	3.2%	9.5%	12.3%	10.9%	9.7%	9.9%	12.6%	13.7%	9.0%	5.4%	2.0%	0.7%	0.3%			
AM Peak	07:00	07:00	09:00	09:00	07:00	11:00	08:00	09:00	08:00	08:00	07:00	07:00	07:00	08:00	07:00		
Vol.	5	19	57	80	57	45	56	62	68	61	35	19	4	4	536		
PM Peak	12:00	19:00	15:00	17:00	17:00	17:00	18:00	18:00	17:00	17:00	16:00	16:00	17:00	17:00	17:00		
Vol.	9	23	66	83	75	75	75	92	160	100	59	21	8	5	778		

L2 Data Collection

L2DataCollection.com

Idaho (208) 860-7554 Utah (801) 431-2993

Study: INTE0027
 Type: Volume / Direction / Speed
 Tech: Judd / Mosdell / Anderson
 Count: Vehicle Speeds

Highland south of 11800 N SPEED
 Date Start: 18-Sep-15
 Date End: 25-Sep-15
 Highland Blvd south of 11800 North
 Highland, Utah

Southbound, Northbound

Start Time	1 22	23 25	26 28	29 31	32 34	35 37	38 40	41 43	44 46	47 49	50 52	53 55	56 58	59 9999	Total	85th Percent	95th Percent
09/25/15	0	2	3	1	2	3	4	2	1	1	6	1	0	0	26	50	51
01:00	0	1	2	0	1	0	0	1	5	4	1	0	0	0	15	48	49
02:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	42	42
03:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	42	42
04:00	0	0	2	5	1	0	0	3	2	0	0	0	1	0	14	44	55
05:00	0	3	7	8	2	1	2	5	2	4	4	1	0	1	40	48	51
06:00	4	3	4	4	1	2	4	0	4	0	0	0	0	0	26	43	45
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	9	18	18	7	7	10	13	14	9	11	2	1	1	124		
Percent	3.2%	7.3%	14.5%	14.5%	5.6%	5.6%	8.1%	10.5%	11.3%	7.3%	8.9%	1.6%	0.8%	0.8%			
AM Peak	06:00	05:00	05:00	05:00	00:00	00:00	00:00	05:00	01:00	01:00	00:00	00:00	04:00	05:00	05:00		
Vol.	4	3	7	8	2	3	4	5	5	4	6	1	1	1	40		
PM Peak																	
Vol.																	
Grand Total	434	1675	4798	5952	4996	4472	4449	5867	6441	4592	2363	1009	370	223	47641		
Percent	0.9%	3.5%	10.1%	12.5%	10.5%	9.4%	9.3%	12.3%	13.5%	9.6%	5.0%	2.1%	0.8%	0.5%			

15th Percentile : 28 MPH
 50th Percentile : 37 MPH
 85th Percentile : 46 MPH
 95th Percentile : 50 MPH

Statistics 10 MPH Pace Speed : 40-49 MPH
 Number in Pace : 18383
 Percent in Pace : 38.8%
 Number of Vehicles > 40 MPH : 20865
 Percent of Vehicles > 40 MPH : 44.0%
 Mean Speed(Average) : 38 MPH



CITY COUNCIL AGENDA REPORT

DATE: Tuesday, January 5, 2016

Item # 13

TO: Honorable Mayor and Members of the City Council

FROM: Erin Wells
Assistant to the City Administrator

SUBJECT: AUTHORIZE THE MAYOR TO SIGN THE CONTRACT FOR THE SELECTION OF ZION'S BANK PUBLIC FINANCE GROUP AS FIRM FOR UTILITY RATE STUDY

STAFF RECOMMENDATION:

City Council authorize the selection of Zions Bank to perform City's Utility Rate Study.

BACKGROUND:

In previous conversations, City Council directed staff to conduct a Utility Rate Study so that the true cost of the city utilities would be better understood and to ensure appropriate billing was taking place.

For FY2015, staff budgeted for the completion of the study out of the enterprise funds (Sewer 52-40-32, Pressurized Irrigation 53-40-31, Storm Sewer 54-40-32, and Culinary Water 55-40-31). In November, a Request for Proposal was sent out for the study and six firms submitted proposals. Nathan Crane, Gary LeCheminant, Tavis Timothy, and I all reviewed the submitted proposals and came up with two finalists. We conducted interviews with those finalists and came to a unanimous decision that Zions Bank would be the best selection for this study.

Below is a list of the companies who submitted proposals and their respective estimated costs:

- AE2S Nexus (\$72,203)
- Bowen, Collins, & Associates (\$25,890)
- JUB Engineering (\$21,500)
- Lewis, Young, Roberts, & Burningham (\$34,145)
- North Pointe Consulting Group (\$79,900)
- Zions Bank (\$39,365)

While Zions Bank is not the lowest cost, the selection team felt like they were the best choice for the following reasons:

- They have worked with Highland City in the past (bond refinances, impact fee analysis, etc.) and as such understand our city and have a base understanding of our current utility situation. Further, they have proven to be responsive, knowledgeable, and all around good partners in these projects.
- While they are more expensive than some, they actually had the lowest hourly rate so we are actually getting significantly more time, work, and analysis from them than other firms.

- They are able to bring in the engineering side as well as the financial side of this project. Matt Millis, the project lead is both a registered Municipal Advisor as well as a member of a number of American Water Works Association committees.
- They are willing to help with the public outreach part of this project should the project show that a rate increase is needed.
- Their finished product timeline (assuming an accepted contract tonight) is March 31. This will give us time to incorporate any changes into our next budget year as well as educate residents at our annual open house event in May.
- Their scope is very in depth and goes into usage, demand, revenue requirements, tier structures, capital budgeting, and more. This will not be an analysis prepared in a vacuum solely based on past numbers.
- Their team has a great deal of experience with other area governments doing utility rate studies and other financial planning studies including: Park City, Herriman, Saratoga Springs, American Fork, and Taylorsville-Bennion Improvement District. In total, Matt has completed 51 different user rate studies.

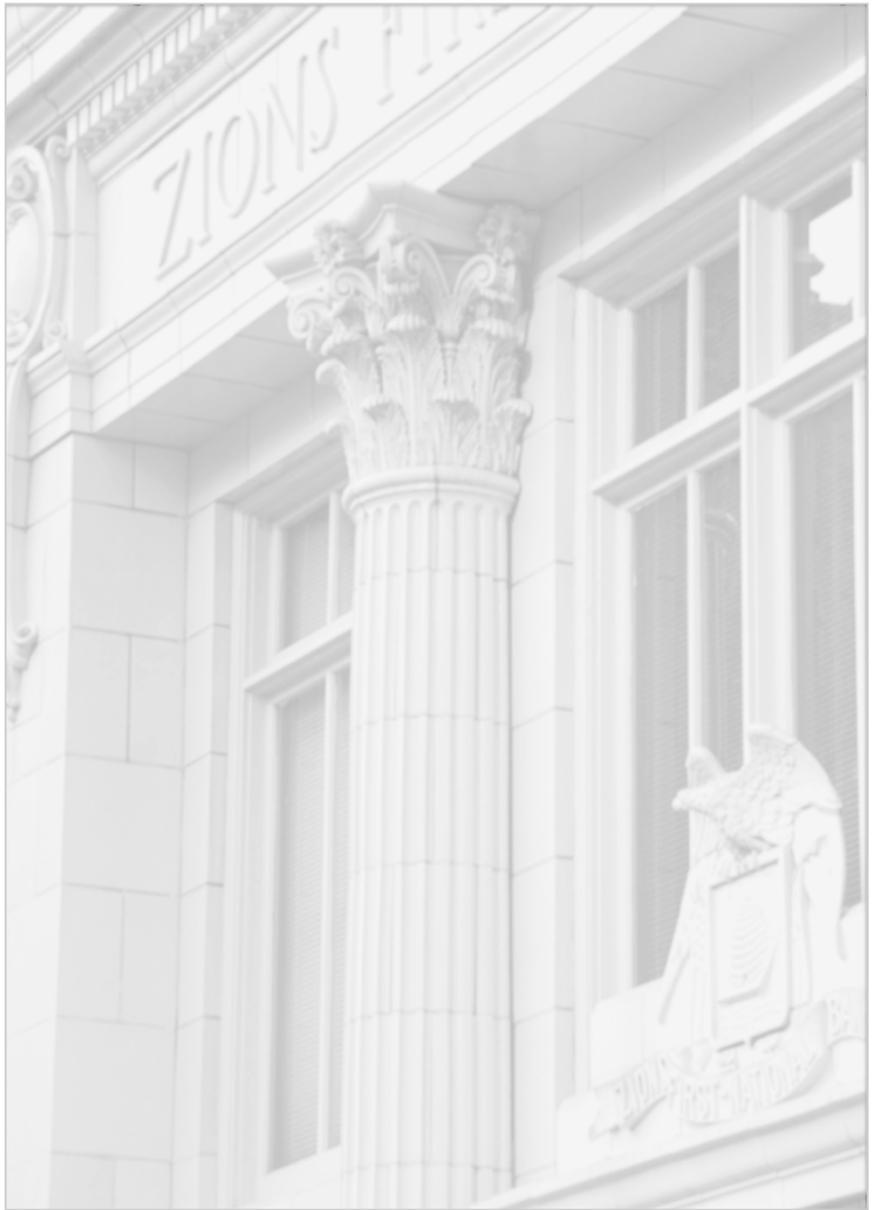
FISCAL IMPACT:

\$39,365 estimation with progress billings throughout the project.

This was budgeted in line items 52-40-32, 53-40-31, 54-40-32, and 55-40-31.

ATTACHMENTS:

1. Proposal
2. Contract



Highland City

**Water, Pressurized Irrigation, Sanitary
Sewer and Storm Drain Rate Study
Update**

ZIONS  PUBLIC FINANCE, INC.

November 18, 2015

November 18, 2015

Nathan Crane
Highland City Manager
5400 West Civic Center Drive Ste 1
Highland, UT 84003
Re: Utility User Rate Study Update

Dear Mr. Crane:

Zions Public Finance, Inc. (Zions) enthusiastically submits this proposal to provide consulting services to Highland City (the City) for the preparation of a utility user rate study for the City's water, pressurized irrigation, sewer, and storm utilities. Our team of professionals has extensive consulting and real-life experience in user rates, utility financial planning, impact fees, and other services for cities and districts across Utah and Idaho.

We have just completed the impact fee analysis for the City's services, including the systems to be studied in the rate analysis. We have enjoyed working with you, your Mayor and Council, your staff, and Hansen Allen and Luce. We hope to continue our successful partnership with this utility user rate study.

This proposed scope reflects what we have heard you and the Council describe in terms of your utility rate needs. Our proposed fee of \$39,365 may be slightly more in cost than others, but it is because we have listened to you and have proposed accordingly. This is not a basic scope that simply applies a needed percentage increase in rate revenue to the current rate structure. Rather, it is a complete evaluation of usage patterns, user classes, tier structures, maintenance and capital budgeting, pumping charges if requested, and other factors to realign yesterday's rate structures with today's reality of cost and user class profiles. All this will be done with the welfare of the City's users in mind to achieve the greatest benefit from the rate adjustment while creating the most minimal impact on your residents' bills.

The following are some highlights of our proposal and qualifications:

- Zions has been the lead consultants on many major user rate studies throughout Utah and Idaho;
- As licensed Municipal Advisors, we can legally make recommendations on financing future capital projects;
- Our analysis will be based on defensible rate methodologies from the American Water Works Association, Water Environment Federation, and American Public Works Association, which are the national authorities for water, sewer, and storm water management and ratemaking;
- We can complete the project and deliver the analyses by March 31, 2016 to assist in the City's FY 2017 budgeting; and
- We have also worked for your neighboring cities and districts and understand the politics in northern Utah County.

We look forward to the opportunity of working with Highland City on this important project.

Best Regards,

Matt Millis, Vice President
Zions Public Finance, Inc.
801-935-0337

HIGHLIGHTS OF THE PROPOSAL

TIMELINE AND WORK APPROACH

- We estimate that the work will be completed within 120 days assuming no significant delays in information gathering, policy decisions, decisions to delay rate adoption, or delays due to other factors beyond our control.
- All four utility rate studies will be prepared concurrently.
- We will have ongoing involvement with the City and stakeholders through organizing timely meetings, constant coordination on methodology and data collection to ensure that the project stays on schedule and produces a thorough final report.
- We will provide a clear, simple message for the public outreach explaining where the City is currently at from a financial perspective, key financial and level of service policies, long-term objectives, future system requirements, and how the rate analyses help users, as system owners, prepare for the future.

TEAM AND EXPERIENCE

- Zions Public Finance, Inc. (Zions) offers the work of highly-experienced personnel who have experience with the City and are familiar with the City's unique needs. We will work with Hansen Allen & Luce to ensure accuracy on issues such as water peaks, wastewater strengths, system functionalization, etc.
- We have worked on many projects for retail systems that receive water and sewer treatment from wholesale providers and therefore understand the related complexities and issues related to entities like TSSD.
- Zions staff has worked with TSSD and CUWCD and we are also familiar with PRWUA.
- Zions has worked with many of Highland's neighbors, including Pleasant Grove, Lehi and American Fork and understand regional issues affecting northern Utah County.
- Matt Millis and Johnathan Ward are Registered Representatives (Series 7) with FINRA and meet the definition of a Municipal Advisor allowing them to recommend structures, sizing, and timings of bonds.

PROJECT FEE AND BILLING

- User rate analyses are not a one-size-fits-all commodity; the quality of the final product depends upon the experience of the consultant and the matching of the scope to the City's needs.
- The proposed scope is planned as a complete and thorough analysis of each utility that reviews user classes in-depth rather than an analysis that simply inflates the current rate structure by the increase in annual revenue needs.
- The scope included results in a proposed fee of \$39,365.
- Progress billings will be made throughout the project.

OUTCOMES AND DELIVERABLES

- Upon project completion we will provide bound copies of the completed reports and an electronic PDF copy.
- We will attend planning and coordination meetings with Staff, Council meetings, and public outreach meetings as required.

FIRM QUALIFICATIONS, BACKGROUND AND EXPERIENCE

Zions Public Finance's combination of top-ranked bankers and the most experienced municipal consultants creates a base of knowledge, experience, and solutions that is hard to find elsewhere. This same team has recently completed an extensive impact fee analysis for the City providing us with an in-depth understanding of the City's utilities and capital project needs. Additionally, Zions has completed numerous user rates and impact fee studies with the City's consulting engineers, Hansen Allen & Luce and has a strong working relationship with HAL. Together we can efficiently produce the high quality analyses the City requires within the City's timeline.

KEY PERSONNEL FOR THE PROJECT AND THEIR AVAILABILITY

The user rate analyses for Highland will be led by Matt Millis, Vice President of the Zions Public Finance Municipal Consulting Group, given Matt's fifteen years of utility finance and user rate experience. The City will also have the assistance of Johnathan Ward, Vice President of Zions Public Finance and financial advisor for Highland to review financial projections and ensure that recommended funding plans will help the City maintain or improve bond ratings. Megan Weber, also included in the team, has worked in user rates for over seven years. Each of the Zions employees that will assist in the City's rate analysis team is located in Salt Lake City and will be readily available to the City.

MATT MILLIS – VICE PRESIDENT, PROJECT MANAGER



Matt will be tasked with the development of our team's philosophical approach for the appointed studies and will oversee the day-to-day process of developing the analyses. He will supervise the work of Megan Weber and will establish the team meetings to review the work product at each stage. He will also be the primary contact for this project.

JOHNATHAN WARD – VICE PRESIDENT, FINANCIAL REVIEW AND BONDING ANALYSIS



Johnathan Ward will provide a financial review of each analysis by looking at capital project needs, suggesting bond structuring, timing and sizing for any proposed future bonds and ensuring that rating metrics such as coverage ratios are adequate.

MEGAN WEBER – FINANCIAL ANALYST, REPORT WRITER



Megan will assemble the final written report for each study. She will be responsible for creating an appealing presentation that is both clear and concise. Megan will also attend each team review meeting to provide input regarding the strengths and weaknesses of the approach, identify any errors and/or omissions, and review the written report for accuracy, completeness, and readability.

LICENSED MUNICIPAL ADVISOR

Municipal Securities Rulemaking Board (MSRB) has started to change the definitions of a Municipal Financial Advisor to require that anyone providing bond structuring advice, which is a key component of a good rate analysis, to be a Registered Representative with FINRA. Matt Millis holds the Series 7 license and meet this requirement. This scope of work will require multiple financing scenario options to ensure the most cost effective combination of financing options is identified. Under current securities laws, only a registered Municipal Advisor can make financing recommendations.

PROJECT SCHEDULE AND APPROACH TO THE WORK

PROJECT SCHEDULE

Zions has demonstrated through the impact fee work that has been recently completed that we have the ability to develop a schedule and then deliver a product on time. We confidently stand by our record in both the areas of impact fee and utility rate studies as well as our history in municipal finance.

Assuming that all information is readily available for the rate analyses, we can deliver the analyses within 120 days of receiving the approval to begin the project and receipt of all necessary information to start work. If there are any delays in gathering key pieces of information, shifts in project focus, or additional time required for political decisions then Zions will create a revised project timeline. Our focus is preparing a document that will be helpful to the City as the FY 2017 budget is prepared. Our target date for delivery of the analysis will be March 31st, 2016 assuming an approval date on December 1, 2015.

Our project team will hold an initial meeting with the City to review the project details, including contracts, timeline and final work product expectations and desires. There are always risks of delays due to politics and the decision process and timing of the City Council. Regardless of the delays and situation we will be responsive and attentive. If one area of the analysis were to be slowed then we would look for opportunities to make progress in other areas.

PROPOSED PROJECT TIMELINE AND MILESTONES

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PROJECT COMMENCEMENT																	
Data Gathering with the City																	
Meetings with the City and Presentations to the City Council																	
FEE CALCULATION AND ANALYSIS (ALL RATE ANALYSES PREPARED CONCURRENTLY)																	
Identify and Evaluate User Rate Alternatives with City Input																	
Capital Requirements and Pay-As-You-Go Analysis																	
Revenue Requirement Analysis																	
Cost Allocation and Conservation Analysis																	
Rate Design and Bill Impact																	
FINAL REPORT PREPARATION																	
Written Report																	
Dashboards for Ease of Understanding																	
Public Outreach Information																	

FIRMS' PAST RECORD OF PERFORMANCE

Zions is a highly reputable firm with great track records in financial services. Matt Millis has extensive experience acting as Project Manager on comparable studies for cities and districts throughout the State of Utah.

Customer service is a high priority for us. It is our vision to be a team that is known for taking care of our clients. It is our goal to consistently deliver projects that meet individual client needs on-schedule and within budget. The most direct benefit of this goal is high client satisfaction.

Our team worked very hard throughout the recent impact fee and development fee projects to be highly accessible at any time to discuss staffs' concerns or feedback.

Listed below are a number of clients for whom Matt Millis has prepared Utility Rate Studies, Capital Facilities Finance Plans, Impact Fee Analyses, and completed other financial planning in Utah. Each reference is able to comment on his professional credentials, experience, performance, efficiency, and coordination.

CLIENT REFERENCES			
Tavis Timothy Sr. Project Engineer Hansen Allen & Luce, Inc. (801) 216-8890	Keith Lord District Manager Taylorsville-Bennion Improvement District (801) 968-9081	Clint McAfee Water Department Manager Park City Municipal Corporation (435) 615-5339	Voneene Jorgensen District Manager Bear River Water Conservancy District (435) 723-7034
Justun Edwards Water Manager Herriman City (801) 446-5323	Jeremy Lapin City Engineer City of Saratoga Springs (801) 766-6506	Andy Spencer City Engineer American Fork City (801) 763-3050	

PROPOSAL QUALITY AND CONSULTANTS' UNDERSTANDING OF THE WORK AND PROPOSED PROJECT TASKS

PROPOSAL QUALITY

Zions is pleased to present the following scope of services for a water, pressurized irrigation, sanitary sewer and storm drain rate study update for Highland City. We are highly skilled and experienced in the areas of rate setting and will bring great insight and enthusiasm to the work.

We feel that we have included in this proposal all aspects required to do a thorough, yet cost effective update for Highland City's current rates using defensible and comprehensive methodologies from the American Water Works Association, Water Environment Federation, and American Public Works Association, as well as best practices and other state and industry standards. We encourage any questions about the proposed scope of work, deliverables, cost estimates, etc. to ensure that our intended scope and its benefits are clear.

APPROACH TO THE WORK

Our goal is to provide a utility user rate study that is tailored to Highland and matches the City's key guiding principles and philosophy, and financial realities of each system. Each city's utilities and customer bases are very unique and there is not a "one-size-fits-all" approach to rates. The balancing of many moving parts, conflicting objectives, and optimization makes rate setting a much more complicated endeavor than most would think.

Our understanding of the City's utilities previously gleaned from the recent impact fee studies will help us to work through some of the complexities of each utility more efficiently. For example, it is our understanding that the pressurized irrigation system's rates appear to be less than necessary and as a result capital maintenance projects are not adequately funded. We will spend the time necessary to ensure that recommended pressurized irrigation rates are structured to generate the necessary revenues to fully fund is operations and upkeep. Another key consideration for the pressurized irrigation utility is the recent canal enclosure project completed by Provo River Water Users Association. The City has a financial responsibility to fund approximately \$200,000 of that project cost and we know there has been discussion as to whether or not that should be funded through the pressurized irrigation enterprise fund or the City's General Fund. Our analysis will look at each funding alternative and help the City determine which approach will best suit the City's needs.

On the sewer side, we are familiar with pricing and financial plans for Timpanogos Special Service District and understand the impact that the Board's changes to rates at TSSD will have on the City's sewer bills. We carefully consider the potential changes in TSSD's rates and plan accordingly with tailored cash reserve recommendations and other policies created to counter rate volatility from TSSD.

KNOWING CITY STAFF WILL RESULT IN MORE EFFICIENT AND PRODUCTIVE COORDINATION

We will need to have many in-depth conversations regarding the data needs, policy, and feedback on options when structuring rates. A rate study should not be prepared in vacuum with the consultant preparing numbers alone without frequent feedback and course correction from staff and City Council. Our job will be to narrow feasible rate options down to a couple key alternatives that would be suitable for the Council to review and provide direction. Clear and frequent communication between us and the City will be crucial in developing meaningful, useful, and accurate studies.

Our familiarity with the City will help to expedite the process of gathering data, scrutinizing our analysis and preliminary findings, and receiving feedback on how utilities in Highland work. We have worked closely with staff in the past impact fee and development fee work and know who the appropriate staff contacts are for the information that we need. For example, if we have technical questions on how the utilities work then we will likely call Justin Parduhn or Tavis Timothy of Hansen Allen & Luce, both of whom we know well, to get detailed system specifications. Conceptually, major policy direction and feedback will be sought from Nathan Crane or Erin Wells and certain administrative data gathering can be requested from Kelsey Bradshaw.

Gary LeCheminant has helped us extensively with bond and financial information in the past and would be our resource for future financial questions. Gary has also discussed with us his concerns regarding the matching of impact fee or rate revenues with future bonds payments according to our impact fee study. Because we know Gary's concerns we will specifically tailor financial discussions in the rate study to provide Gary with the documentation that he needs for his accounting work. These are a couple of examples of how our familiarity with staff can help us prepare more tailored and helpful analyses and receive better information and feedback.

DATA GATHERING AND PERIODIC MEETINGS WITH CITY STAFF

Information is critical in a user rate analysis and as mentioned above, we know how to get your data efficiently. A detailed list of required information will be prepared and delivered to City staff at the start of work which will include capital plans, master plans, and other pieces of information that cannot be easily extracted from your database. Our team members will work closely with the City's billing, financial, and administrative staff to assist in the gathering and sharing of information.

REVENUE REQUIREMENT ANALYSIS

The revenue requirement analysis will project the annual revenues that the water user rates must generate over a five to ten year period. Revenue requirement analysis components include appropriate cash reserves, coverage ratios, rate stability and adequacy, reinvestment into the system and other factors that are important to rating agencies will be analyzed in depth. Another important revenue requirement consideration is an accurate split of costs shared between systems to determine whether one system is subsidizing another.

In regards to the forecasting of debt and capital projects, our model will seek to minimize the overall Weighted Average Cost of Capital (WACC) combining inflationary costs, standard and state-agency debt, grants, pay-as-you-go financing, exactions, impact fees, and other capital funding resources.

We will rely on past financial statements, budgets, trend data, and interviews with staff and Hansen Allen & Luce to make reasonable financial projections. The capital maintenance plans prepared by Hansen Allen & Luce will be extremely helpful in setting the right revenue requirement to meet operational and capital needs.

UTILITY COST ALLOCATION

The cost allocation analysis will include two major elements. The first is the division of all system costs into functional system components which we call functionalization. Functional components can include water production costs, pumping, distribution, storage, fire protection capacity, billing, administration, etc. We will determine which functional components make greatest sense for the City. Next, the resulting costs per each functional component, i.e. storage, will be matched to the type of demand that each component meets. Demand types include average day, peak day, peak hour, billing and fire flow.

The second step will be to divide the cost related to each type of demand across Highland's existing or future customers. Categories could include costs to be divided uniformly across all customers, specific customer classes inside City boundaries, any customers that might exist now or in the future outside of City boundaries, reserve capacity currently incurring cost but held for future growth, or any individual customer that is large or unique enough to have a special set of costs allocated to it.

USER RATE DESIGN AND BILL IMPACT

Utility rate design is as much art as it is science. Objectives that must be met are revenue sufficiency regardless of a wet year or conservation, conservation success, etc. Once we have defined a clear proposed rate structure, we can test the new bills against the old bills paid by each user class to identify any problems or inequities with the proposed rates. If there are problems we will revise the proposed structure until it is right. We will stress the proposed rates in several different ways to find any possible issues that might arise in a very wet or dry year, drops in sales due to greater conservation, high and low elasticity, and across the entire spectrum of water usage to make sure that there are no unforeseen quirks in the new rate structure that would produce anything other than what we had originally envisioned.

The result will be a very useful revenue distribution curve that identifies the range of possible outcomes and the probability of each. This will help to identify the variables that could potentially hurt your ability to collect adequate revenues, such as a very wet year, and give you insights on how to mitigate those risks by increasing cash reserve targets or more cost recovered through the base fee.

Culinary water rates tend to be the most volatile as sewer, storm, and pressurized irrigation rates often have flat monthly fees. We will also analyze the volatility and revenue risks that will be inherent to the other utilities but culinary water is often times more complicated.

MEETINGS WITH CITY COUNCIL AND PUBLIC OUTREACH

Public Outreach can be as simple as a bill stuffer describing some of the basics of the user rate analysis or as complicated as a series of open houses at different stages of the process and inviting a public advisory committee to participate in the process. Representatives could include residential, multi-family residential, commercial, or institutional users as well as any other key demographic or group. Certainly we will rely upon your judgment on how much effort is appropriate for this endeavor. In our proposal fee, we have assumed a minimal public outreach component and a targeted written summary of the need for rate adjustments. Minimal time has been included in the proposed fee but can be expanded if the City would like to pursue more outreach. Similar to the impact fee process we will involve the Council in educational discussions as we conclude our initial findings and seek their understanding and input.

FINAL WRITTEN RATE ANALYSIS

The rate analysis for each utility will cover the following points in a very detailed discussion that your typical users will likely not understand. Included in the scope of work will be a basic summary of the same key issues discussed in the final report but simplified to gain the understanding and support of the public for the rate changes.

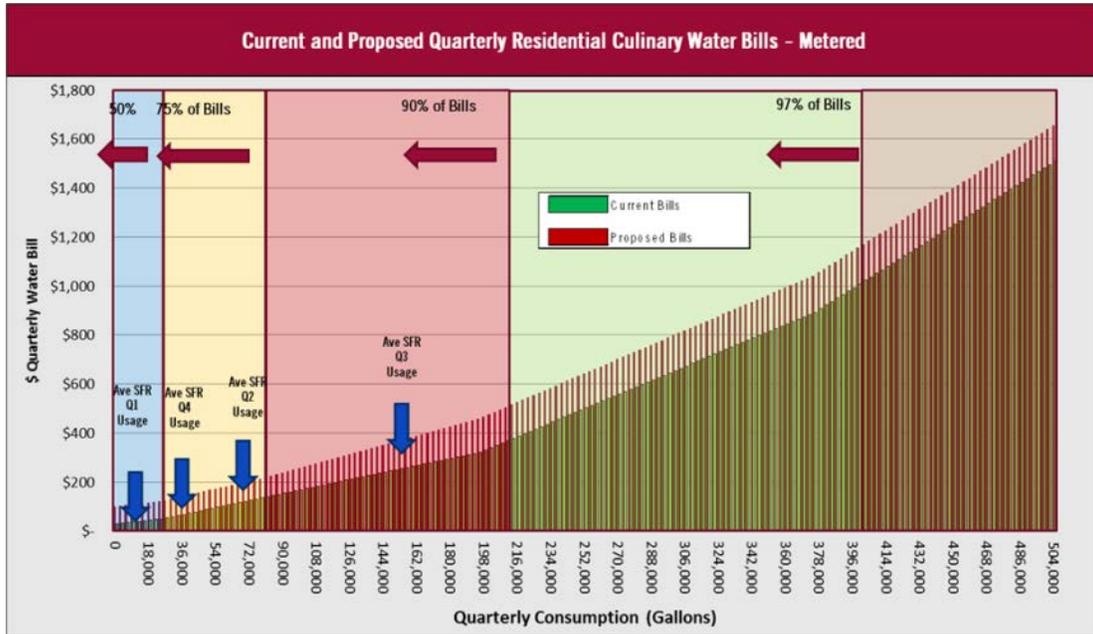
- Communicate the ownership and equity that the public has in their system;
- Current funding situation, affordability indices, key operating and coverage ratios, bonding, etc;
- Future costs for repair and replacement and other capital needs;
- General rate methodology and assumptions;
- Changes in pricing structures;
- Impact upon each user class' bills given historic demands; and
- Ways that users can adjust their demand patterns to lower their bills

PROJECT DELIVERABLES

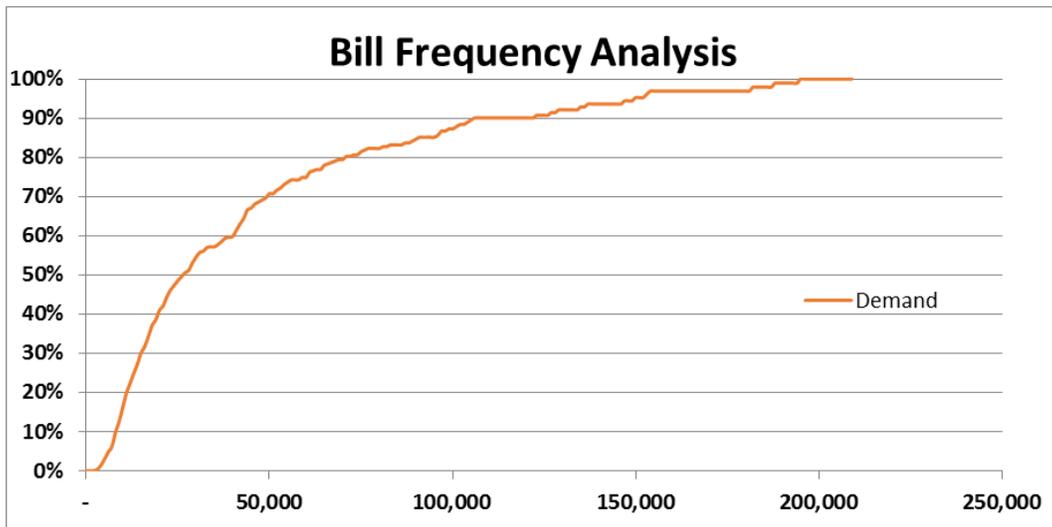
Our goal is to provide a report that quickly identifies the key facts, and policies driving the decisions. The written analysis should be a decision making tool that considers a range of possible situations and realities, evaluates the risks, and provides the financial tools to mitigate the risks. The deliverables are as follows:

1. Written rate analysis with appendices describing calculations (hard copies and a PDF copy)
2. Dashboards for easy explanation of findings and process
3. Summary of key issues for the billing clerks to answer rate related questions
4. Presentations, as needed, to the City Council leading to and including the final rate hearing.

The following tables illustrate some of our technical capabilities and our included for demonstrative purposes. The table below combines a billing frequency analysis that shows the percentiles of bills by water used with the proposed change in bills according to level of consumption. A lot of data is presented in the graph but it fundamentally answers the question of how many users will be impacted by changes in utility bills at different levels of water consumption.



The graph below is an illustration of a bill frequency analysis which takes the City's billing database to determine how many bills fall below a certain level of consumption. This graph is also helpful in determining how many users will be impacted under rate change scenarios.



HOURLY RATES FOR ASSIGNED PERSONNEL, EXPENSE COSTS, AND ESTIMATED TOTAL COST OF THE PROJECT

We will always work to provide our clients with the greatest value for the consulting fee. The table below shows the hourly billing rates for the user rate analyses by participant. Although this proposal defines a project budget there is still the chance that the City requests additional work. The time for any additional analyses outside the current scope would be based upon the hourly rates showed below.

ZIONS HOURLY RATES		
Vice President	Analyst	Clerical
\$ 125	\$ 90	\$ 60

Based on the hourly billing rates and project scope the table below summarizes the proposed fee for the project. As mentioned in the cover letter, this fee represents a large comprehensive scope required to update all aspects of the user rates.

SCOPE OF SERVICE SUMMARY	
PROJECT COMMENCEMENT	\$ 625
MEETINGS WITH CITY AND PRESENTATIONS TO THE CITY COUNCIL	890
WATER	8,855
SECONDARY WATER	8,855
SEWER	8,455
STORM	8,365
FINAL REPORT PREPARATION	3,320
USER RATE ANALYSES TOTAL	\$ 39,365

APPENDIX

RESUMES OF KEY STAFF



Matt Millis,
Vice President
801-935-0337
matthew.millis@zionsbank.com
*B.B.A. of Economics, University of Iowa,
2000*

Matt Millis offers over fifteen years of experience in municipal consulting including rate analyses, impact fees, financial feasibility analyses; capital facilities finance plans, and many other types of financial analyses for public utilities. Mr. Millis has provided service to the largest water districts in the state and many large communities.

Mr. Millis has a bachelor's degree in finance. He has expertise in financial modeling including: forecasting, cash flow analysis, and risk analysis. Mr. Millis has a great deal of analytical and consulting experience. Mr. Millis is a licensed municipal securities representative and is also a member of the American Water Works Association (AWWA) National Rates and Charges Committee and the National Growth & Infrastructure Consortium (formerly the Impact Fee Roundtable). Locally Mr. Millis volunteers in the AWWA Intermountain Section as a Section Chair of the Water For People committee and serves as a member of the AWWA Management and Development Committee.

Mr. Millis is a registered municipal securities representative in the investment banking industry and holds both the Series 7 and Series 63 licenses.



Johnathan Ward,
Vice President
801-844-7379
johnathan.ward@zionsbank.com
MPA, Brigham Young University, 2001

Johnathan is a licensed municipal securities representative and has nearly 15 years of municipal finance experience covering a wide variety of municipal needs including water, sewer, power, storm water, roads, municipal facilities, schools, hospitals, development and more.

Over the last five years, he has successfully completed 115 municipal financings and been the lead financial advisor on over \$1.12 billion in par value. Mr. Ward is the lead financial advisor to a wide variety of issuers including Davis and Weber Counties; Davis, Provo, Iron and Beaver School Districts; the Metropolitan Water District of Salt Lake & Sandy, the Snyderville Basin Water Reclamation District; South Ogden, Washington Terrace, Clearfield, Herriman, Pleasant Grove, Spanish Fork, and a host of other cities.

Since joining Zions Bank Public Finance, Mr. Ward has been involved in 338 transactions totaling \$1.92 billion in par amount.

Mr. Ward is an MPA graduate from the Marriott School of Management at Brigham Young University, where he works at times as an Adjunct Professor of public finance, instructing graduate students from both the public and business administration programs.



**Megan Weber,
Financial Analyst**

801-844-8369

megan.weber@zionsbank.com

BSW, BYU-Idaho, 2007

Megan joined Zions Public Finance Municipal Consulting Group in 2011. Ms. Weber has experience with Impact Fee and User Rate Analyses for water, secondary water, sewer, electric public safety, parks & recreation, and storm systems as well as Impact Fee Facilities Plans (IFFPs) for public safety and parks & recreation. Ms. Weber's primary focus is report writing, presentation preparation, and familiarity with the Utah Impact Fee Act in order to ensure all Impact Fee Analyses and IFFPs completed by our team are done so in accordance with the Act.

In her free time Ms. Weber volunteers with the American Water Works Association Intermountain Section Water For People committee.

SCOPE OF SERVICES				
HOURS PER TASK	Vice President \$ 125	Analyst \$ 90	Clerical \$ 60	Fee Per Phase
PROJECT COMMENCEMENT				
Data Gathering With the City	5	5	5	\$ 625
MEETINGS WITH CITY AND PRESENTATIONS TO THE CITY COUNCIL				
	4	3	2	890
WATER				
Identify and Evaluate User Rate Alternatives with City Input	10	6	4	\$ 2,030
Capital Requirements and Pay-As-You-Go Analysis	2	4	2	730
Revenue Requirement Analysis	9	4	2	1,605
Cost Allocation and Conservation Analysis	8	6	2	1,660
Rate Design and Bill Impact	14	8	6	2,830
SECONDARY WATER				
Identify and Evaluate User Rate Alternatives with City Input	10	6	4	\$ 2,030
Capital Requirements and Pay-As-You-Go Analysis	2	4	2	730
Revenue Requirement Analysis	9	4	2	1,605
Cost Allocation and Conservation Analysis	8	6	2	1,660
Rate Design and Bill Impact	14	8	6	2,830
SEWER				
Identify and Evaluate User Rate Alternatives with City Input	8	5	4	\$ 1,690
Capital Requirements and Pay-As-You-Go Analysis	2	4	2	730
Revenue Requirement Analysis	9	4	2	1,605
Cost Allocation and Conservation Analysis	8	6	2	1,660
Rate Design and Bill Impact	14	8	5	2,770
STORM				
Identify and Evaluate User Rate Alternatives with City Input	8	4	4	\$ 1,600
Capital Requirements and Pay-As-You-Go Analysis	2	4	2	730
Revenue Requirement Analysis	9	4	2	1,605
Cost Allocation and Conservation Analysis	8	6	2	1,660
Rate Design and Bill Impact	14	8	5	2,770
FINAL REPORT PREPARATION				
Written Report	8	4	8	\$ 1,840
Dashboards for Ease of Understanding	5	1	1	775
Public Outreach Information	3	3	1	705
USER RATE ANALYSES TOTAL	193	125	79	\$ 39,365

SCOPE OF SERVICE SUMMARY	
PROJECT COMMENCEMENT	\$ 625
MEETINGS WITH CITY AND PRESENTATIONS TO THE CITY COUNCIL	890
WATER	8,855
SECONDARY WATER	8,855
SEWER	8,455
STORM	8,365
FINAL REPORT PREPARATION	3,320
USER RATE ANALYSES TOTAL	\$ 39,365

**AGREEMENT
BETWEEN
ZIONS PUBLIC FINANCE, INC.,
a wholly-owned subsidiary of ZB, N.A. AND
HIGHLAND CITY
FOR
PROFESSIONAL SERVICES**

**FOR PROFESSIONAL CONSULTING SERVICES
CULINARY WATER, PRESSURIZED IRRIGATION, SANITARY SEWER AND
STORM DRAIN RATE STUDY**

THIS AGREEMENT, made and entered into as of the _____ day of _____, 20__, by and between HIGHLAND CITY (CITY), a body corporate and politic of the State of Utah, and ZIONS PUBLIC FINANCE, INC., a wholly-owned subsidiary of ZB, N.A. (CONSULTANT), One South Main Street, 18th Floor, Salt Lake City, Utah 84133, a/an Utah corporation authorized to do business in Utah, Taxpayer Identification No. 87-0512988.

W I T N E S S E T H:

WHEREAS, CITY desires to obtain consulting services for development of user rate analyses for culinary water, pressurized irrigation, sanitary sewer, and storm drain utilities; and

WHEREAS, CONSULTANT has submitted a proposal to provide consulting and related services for such plans and specifications; and has been chosen, through a competitive process, to contract with CITY; and

WHEREAS, CITY desires to accept said proposal and to receive the services of CONSULTANT as set forth in said proposal;

NOW, THEREFORE, in consideration of the mutual covenants set forth herein, the parties agree as follows:

ARTICLE I

SERVICES OF THE CONSULTANT

A. CONSULTANT shall perform such services as are specified by this contract and as are specified by the scope of services set forth in Appendix A to this contract, attached hereto and incorporated herein. In performing said services, CONSULTANT shall follow practices consistent with acceptable professional and technical standards for work of this nature.

B. CONSULTANT hereby agrees to furnish those services necessary to complete the scope of services specified in this contract. All said services shall be performed by CONSULTANT or by CONSULTANT's associates, employees, or subconsultants under the personal supervision of the Project Manager, designated in Article I, Section C, or such other qualified person as shall be designated by CONSULTANT and approved in writing by CITY.

C. Matt Millis will perform or supervise the project on behalf of CONSULTANT as Project Manager. Should he be unable to complete said responsibility for any reason, CITY reserves the right to terminate this contract in the event he is not replaced by a person which CITY finds satisfactory.

D. CONSULTANT has, or will secure at its own expense, the qualified personnel required to perform the services specified by this contract.

E. Except as may be delineated in Appendix A, or except as allowed by CITY's Representative in writing, none of the services specified by this contract shall be subcontracted.

F. During the contract period, CONSULTANT shall attend such meetings and public hearings and shall provide such advice as may be required as described in Appendix A.

G. All materials developed, prepared, completed, or acquired by CONSULTANT during the performance of the services specified by this contract, including all finished or unfinished documents, data, surveys, drawings, maps, photographs, and reports, shall become the property of CITY and shall be delivered to CITY during the contract period. All such materials shall not be released by CONSULTANT at any time without the prior written approval of CITY's Representative. It is understood and agreed that such materials are to be prepared exclusively for work required under this agreement, and that use of information or findings prepared under this agreement may not be appropriate or applicable to other CITY projects. Therefore, CITY agrees that its use of said materials on other projects shall be at its own risk.

H. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the project, CONSULTANT will use the best known current prices which are subject to change with inflation. CONSULTANT has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by third parties; quality, type, management, or direction or operating personnel; and other economic and operational factors that may materially affect the ultimate project cost or schedule. Therefore, CONSULTANT makes no warranty that CITY's actual project costs, financial aspects, economic feasibility or schedules will not vary from CONSULTANT's opinions, analyses, projections, or estimates. Such variations will be resolved by negotiation between the parties and amendment to this agreement, if needed.

I. CONSULTANT shall not at any time supervise, direct, control, or have authority over any contractor work, nor shall CONSULTANT have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any

contractor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of a contractor to comply with Laws and Regulations applicable to such contractor's furnishing and performing of its work.

ARTICLE II

MANAGEMENT AND COORDINATION

In order that CITY may maintain coordination with the content of the studies completed and the services performed as specified by this contract, it is hereby agreed that the services performed by CONSULTANT hereunder shall be coordinated with CITY's Representative, Nathan Crane, City Administrator, or his designee.

ARTICLE III

SERVICES OF THE CITY

A. The representative designated above shall serve as the sole intermediary between CITY and CONSULTANT. Said Representative shall receive and examine documents submitted by CONSULTANT and shall render any needed decisions on CITY policies or procedures in a prompt manner so as to prevent unreasonable delay in the progress of work to be performed by CONSULTANT under this agreement.

B. CITY shall without charge furnish to or make available for examination or use by CONSULTANT, as it may request, all available pertinent information and documents related to the project which CITY has available and may legally disclose.

C. CITY shall not be responsible for discovering deficiencies in the technical accuracy of CONSULTANT's services. CONSULTANT shall correct deficiencies in technical accuracy without additional compensation, unless such corrective action is directly attributable to deficiencies in CITY-furnished information.

ARTICLE IV

TIME SCHEDULE

A. CONSULTANT shall commence its services as specified by this contract upon receipt from CITY of written notice to proceed. CONSULTANT shall complete its work hereunder within the time limit set forth in Appendix A, except where written notification of variance is received from CITY's Representative or except in the event of the occurrence of unforeseeable circumstances beyond the reasonable control of CONSULTANT.

B. It is hereby agreed that CONSULTANT is not required to provide full-time service throughout said period. However, during the entire contract period, CONSULTANT commit necessary resources as deemed necessary, within reason, to keep to said schedule.

ARTICLE V

COMPENSATION

A. Payment to CONSULTANT for its services provided under this contract shall become due upon completion of the same. At the end of each 30-day period during CONSULTANT's performance hereunder, CONSULTANT may request a progress payment based upon work performed and services rendered within that 30-day period. CITY shall pay to CONSULTANT the requested payment, if approved, or the undisputed portion thereof within sixty (60) days of the progress payment request. Final payment shall be made when CONSULTANT has submitted the final work product to CITY in a manner consistent with the contract. If CITY fails to make a payment within the time specified above, there shall be added to such payment, interest at a rate equal to the percentage rate earned by PTIF on such funds, compounded monthly, commencing on the first day after said payment is due and continuing

until payment is made. Interest shall be deemed to be additional to any compensation due CONSULTANT for services provided pursuant to this contract.

B. The payment process described above shall begin only upon submission by CONSULTANT, to CITY's Representative, of an original copy of billings or vouchers, including any support documents. Any request for a progress payment shall be denominated as such and shall include the billing or voucher, with support documents, detailing the bill and giving a brief statement of accomplishments and status.

C. The parties agree that the compensation CITY shall pay CONSULTANT for performance of the services described in Appendix A shall be made as follows:

CITY shall pay CONSULTANT for services provided in accordance with the User Rate Proposal found in Appendix A. The "Cost Estimate" of Appendix A is approximate and payment shall be made for actual work completed with the total payment not to exceed \$39,365 unless this agreement is amended as specified in Article X, Section E.

ARTICLE VI

INSURANCE

A. CONSULTANT shall accept full responsibility for the payment of unemployment insurance premiums for Workmen's Compensation and social security, as well as income tax deductions and any other taxes or payroll deductions required by law for its employees who are performing services by this contract.

B. CONSULTANT shall procure and maintain the insurance policies required in this section from an insurance company authorized to write casualty insurance in the State of Utah as will protect itself and CITY from all claims including, but not limited to, bodily injury, death, or property damage which may arise from performance under the contract. All insurance policies

must be approved and accepted by CITY, and excepting the professional liability and workman's compensation policies, will name Highland City as additional insured, and will be issued by a surety authorized to do business in the State of Utah and be rated with an A- or better rating in the most current edition of *Best's Key Rating Guide*.

C. The parties agree that for purposes of this agreement, CONSULTANT, its officers, agents, and employees are not to be regarded as CITY employees, and that CONSULTANT is an independent contractor in all respects.

ARTICLE VII

REMEDIES

A. Time for Completion. The date of beginning and the time for completion of the specified work are essential conditions of this contract. If CONSULTANT shall fail to complete the work within the contract time as set forth in Article IV and Appendix A or extension of time granted by CITY, then CONSULTANT shall be in default after the time stipulated in the contract. If CONSULTANT fails, through its own fault, to complete the performance required in this Agreement within the time set forth, as duly adjusted, then CITY shall be entitled, as its sole remedy, to the recovery of direct damages, if any, resulting from such failure.

B. Correction of Work. CONSULTANT shall promptly replace and/or re-execute work rejected by CITY for failure to comply with this contract, without expense to CITY. However, CITY shall give expeditious and thorough consideration to all reports and sketches, estimates, drawings and specifications, proposals and other documents submitted by CONSULTANT and shall inform CONSULTANT of any decisions concerning adequacy of the work within a reasonable time.

C. Disputes. If any disputes upon any matter pertaining to this contract arise between the parties hereto, any claim upon such dispute shall be presented in writing to CITY by CONSULTANT within ten (10) days of the commencement of the dispute or the same shall be deemed waived by CONSULTANT. Notice of such claim need not be specific in detail but shall be sufficient to identify the character and scope of the claim. CITY shall consider said claim and render its decision thereon in writing not later than ten (10) days following the date notice of said claim was received by CITY. In the meantime, CONSULTANT shall proceed with the work as directed by CITY. If CONSULTANT is aggrieved by the decision of CITY upon its claim, CONSULTANT shall nevertheless comply therewith and complete the work required thereunder, and under this agreement. By giving timely notice of its claim according to this paragraph, CONSULTANT shall preserve its claim for future proceedings or litigation, if necessary. However, the existence of any dispute shall not serve as reason to terminate or delay the work required under this agreement.

ARTICLE VIII

CHANGES

CITY may, at any time by written order, and without notice to the sureties, if any, make changes in the concept of the project of this contract, if within its general scope. If such changes cause an increase or decrease in CONSULTANT's cost of, or time required for performance of the contract, an equitable adjustment in price or time will be made and the contract modified in writing accordingly. The equitable adjustment shall be based upon a negotiated price for the change required. All changes shall be set forth in writing, signed by all parties prior to the performance thereof and any changes in price shall be added to or subtracted from the price hereof and billed to CITY in accordance with the provisions of Article V hereof. Except as

provided in this contract, no charge for any extra work or materials will be allowed or paid. In determining the equitable adjustment to be paid, the books and records of CONSULTANT pertaining to this agreement shall be made available to CITY.

ARTICLE IX

TERMINATION

A. CITY shall have the right to terminate this agreement in whole, or from time to time, in part, for CITY's convenience or because of CONSULTANT's failure to fulfill the contract obligations. CITY shall terminate by delivering to CONSULTANT a Notice of Termination specifying the extent to which performance of services under this contract is terminated, and the date upon which such termination becomes effective. In the event the agreement is terminated by CITY prior to full performance by CONSULTANT, CONSULTANT shall be paid for services rendered to the date of termination based upon a percentage of completion of the full performance of this agreement.

B. After receipt of a written Notice of Termination for convenience, CONSULTANT shall:

1. Stop work under the contract upon the date and to the extent specified in the Notice of Termination;
2. Place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the contract as is not specifically terminated;
3. Transfer to CITY, and deliver to CITY, work in process, completed work, completed or partially completed plans, drawings, information and other property which would be required to be furnished to CITY if the contract had been completed;

4. Terminate all orders and subcontracts to the extent that they relate to performance of work terminated by the Notice of Termination;

5. Settle all outstanding liabilities and all claims arising out of such termination and others and subcontracts, with the approval and ratification of CITY to the extent CONSULTANT may require, which approval or ratification shall be final for all purposes of this clause.

C. After receipt of a written Notice of Termination, CONSULTANT shall submit to CITY its termination claim no later than sixty (60) days after the termination of this contract, unless extensions in writing are granted by CITY. Upon failure of CONSULTANT to submit its termination claim within the time allowed, CITY may determine, on the basis of information available, the amount, if any, due to CONSULTANT by reason of the termination and shall thereupon pay to CONSULTANT the amount so determined.

D. In the event of termination for convenience, the amounts due CONSULTANT from CITY shall be determined as follows:

1 There shall be included all costs and expenses reimbursable in accordance with this contract, not previously paid to CONSULTANT for the performance of this contract prior to the effective date of the Notice of Termination, and such of these costs as may continue for a reasonable time thereafter with the approval of, or as directed by, CITY; and

2 There shall be included so far as not included under (1) above, the cost of settling and paying claims arising out of the termination of work under subcontracts or orders, which are properly chargeable to the terminated portion of the contract.

E. In no event shall all termination claims and payments described herein exceed the face amount of this contract less all amounts theretofore paid to CONSULTANT less the price of any work not terminated.

ARTICLE X

MISCELLANEOUS

A. Assignability. CONSULTANT shall not assign any interest in this contract, and shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of CITY.

B. Interest of CONSULTANT. CONSULTANT covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed as specified in this contract. CONSULTANT further covenants that in the performance of said services no person having any interest shall be employed.

C. Equal Employment Opportunity. CONSULTANT, by entering into this agreement, or any person acting in its behalf, agrees that it shall not, because of race, color, sex, religion, age, disability, marital status, sexual orientation, ancestry, or national origin, discriminate in the engagement or employment of any professional person or any other person qualified to perform the services required under this agreement or any subagreement executed in the furtherance thereof.

D. Contingent Fees. CONSULTANT warrants that no person or company has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees; nor has CONSULTANT paid or agreed to pay any person, company, corporation, or firm, other than a

bona fide employee, any fee, commission upon, or resulting from award of this contract. For any breach or violation of this provision, CITY shall have the right to terminate this agreement without liability and, at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration and any other damages and shall be responsible for reporting the details of such breach or violation to the proper legal authorities where and when appropriate.

E. Amendments. Unless otherwise provided for in this agreement or in the appendices attached hereto, all changes, including any increase or decrease in the amount of CONSULTANT's compensation or scope of services, which are mutually agreed upon by and between CITY and CONSULTANT, shall be incorporated in written amendments to this contract and signed by the parties hereto. No alteration or variation in the terms of this agreement shall be valid unless made in writing as required herein.

F. Default. If either party defaults in the performance of the agreement or any of its covenants, terms, conditions, or provision, the defaulting party shall pay all costs and expenses, including a reasonable attorney's fee, which may arise or accrue from enforcing the agreement or from pursuing any remedy provided thereunder.

G. In any interpretation of this agreement, the terms of this contract shall prevail over the terms set forth in any of the appendices hereto.

ARTICLE XI

EXHIBITS AND SPECIAL PROVISIONS

- A. Exhibit A, User Rate Proposal

IN WITNESS WHEREOF, the parties have signed and subscribed their names hereon and have caused this agreement to be duly executed as of the day and year first set forth above.

HIGHLAND CITY

By _____
Title _____

ATTEST:

By _____
Title _____

CONSULTANT:

ZIONS PUBLIC FINANCE, INC., a wholly-owned subsidiary of ZB, N.A.

By _____
Title _____

ATTEST:

By _____
Title _____



CITY COUNCIL AGENDA REPORT

ITEM #14

DATE: January 5, 2015

TO: Members of the City Council

FROM: JoD'Ann Bates, City Recorder

BY:

SUBJECT: Nomination and Selection of Mayor Pro-Tempore for 2015

STAFF RECOMMENDATION:

City Council nominates and votes a Mayor Pro-Tempore to preside over meeting in the Mayors absence during 2016.

BACKGROUND:

In all municipalities, the Mayor shall be the chairman and reside at the meetings for the governing body. In the absence of the Mayor or because of his inability or refusal to act, the governing body may elect a member of the governing body to reside over the meetings as Mayor Pro Tempore.

Councilmember Tim Irwin had been serving as Mayor Pro Tempore during 2015. Traditionally, the City Council selects a Mayor Pro Tempore at the beginning of each year.

This action is done pursuant to Utah Code, Annotated 10-3b-302(2)

FISCAL IMPACT:

N/A

ATTACHMENTS:

N/A