



**CITY COUNCIL MEETING AGENDA
JANUARY 28, 2020 - 6:00 PM
505 EAST 2600 NORTH
NORTH OGDEN, UT 84414**

Welcome: Mayor Berube

Meditation & Pledge of Allegiance: Council Member Ekstrom

CONSENT AGENDA

1. Discussion and/or action to consider the December 17, 2019 City Council meeting minutes

ACTIVE AGENDA

2. Public Comments*
3. Discussion and/or action to accept the Fiscal Year 2019 Financial Audit
Presenter: Evan Nelson, Finance Director
4. Discussion on the North Ogden City recycling program
Presenter: Evan Nelson, Finance Director
5. Discussion and/or action to consider appointments to the Planning Commission
Presenter: Mayor S. Neal Berube
6. Discussion and/or action to consider an Ordinance amending the personnel policy to add further clarification in the Drug & Alcohol Policy
Presenter: Jon Call, City Manager/Attorney
7. Discussion and/or action to consider a Resolution honoring the 100th Anniversary of the League of Women Voters
Presenter: Jon Call, City Manager/Attorney
8. Discussion and/or action to consider a Utah Department of Transportation construction money request from North Ogden City in the amount of \$850,000 for the 2600 North widening project
Presenter: Jon Call, City Manager/Attorney
9. Public Comments*
10. Council/Mayor/Staff Comments
11. Adjournment

****Please see notes regarding Public Comments rules and procedure***

The Council at its discretion may rearrange the order of any item(s) on the agenda. Final action may be taken on any item on the agenda. In compliance with the American with Disabilities Act, needing special accommodation (including auxiliary communicative aids and service) during the meeting should notify Annette Spendlove, City Recorder at 782-7211 at least 48 hours prior to the meeting. In accordance with State Statute, City Ordinance, and Council Policy, one or more Council Members may be connected via speakerphone or may by two-thirds vote to go into a closed meeting

CERTIFICATE OF POSTING

The undersigned, duly appointed City Recorder, does hereby certify that the above notice and agenda was posted within the North Ogden City limits on this 23rd day of January, 2020 at North Ogden City Hall, on the City Hall Notice Board, on the Utah State Public Notice Website, at <http://www.northogdencity.com>, and faxed to the Standard Examiner. The 2020 meeting schedule was also provided to the Standard Examiner on December 22, 2019. S. Annette Spendlove, MMC, City Recorder

Public Comments/Questions

- a. Time is made available for anyone in the audience to address the Council and/or Mayor concerning matters pertaining to City business.
- b. When a member of the audience addresses the Mayor and/or Council, he or she will come to the podium and state his or her name and address.
- c. Citizens will be asked to limit their remarks/questions to five (5) minutes each.
- d. The Mayor shall have discretion as to who will respond to a comment/question.
- e. In all cases the criteria for response will be that comments/questions must be pertinent to City business, that there are no argumentative questions and no personal attacks.
- f. Some comments/questions may have to wait for a response until the next Regular Council Meeting.
- g. The Mayor will inform a citizen when he or she has used the allotted time.

**NORTH OGDEN CITY COUNCIL
MEETING MINUTES**

December 17, 2019

The North Ogden City Council convened in an open meeting on December 17, 2019 at 6:01 pm at the North Ogden City Office at 505 East 2600 North. Notice of time, place, and agenda of the meeting was posted on the bulletin board at the municipal office and posted to the Utah State Website on December 13, 2019. Notice of the annual meeting schedule was published in the Standard-Examiner on December 28, 2018.

PRESENT: M. Brent Chugg Mayor
Ryan Barker Council Member
Blake Cevering Council Member
Cheryl Stoker Council Member arrived at 6:23 pm
Phillip Swanson Council Member
Carl Turner Council Member

STAFF PRESENT: Jon Call City Manager/Attorney
Annette Spendlove City Recorder/HR Director
Rob Scott Planning Director
Evan Nelson Finance Director

VISITORS: Monalisa Wald Joel Grasmeyer Dennis Duce
Suzy Krinski Tiffany Godfrey Ryan Godfrey
Sue Looney Neal Berube Leonard Looney
Brad Mortensen Genie Blanline Linda Shaffer
Susan Clements Orluff Opheikens Spencer Alexander
Jeana Frederick Kent Frederick Bob Buswell
Kathryn Warren Scarlett Solomon Brian Solomon
Meg Sanders Michelle Lee Kevin Lee
Porter Lee Justin Orme Cody Grasmeyer
Debbie Pilkey Greg Timothy Charlotte Ekstrom
Jaymee Owen Mary Owen Wade Owen
Suzie Long Glendon Manwaring LaNay Manwaring
Brenda Ashdown Joel Harris Stefanie Casey
Julie Sanders

Mayor Chugg called the meeting to order. Council Member Swanson offered the invocation and led the audience in the Pledge of Allegiance.

PRESENTATIONS

1. SWEARING IN OF OFFICER CONNOR LEE

City Recorder Spendlove administered the Oath of Office for new Police Officer, Connor Lee.

2. PRESENTATION BY WEBER STATE UNIVERSITY PRESIDENT MORTENSEN

President Mortensen thanked the Mayor and Council for the opportunity to address them tonight and indicated he is joined by Director of Strategic Initiatives, Steven Richardson, and Weber State University Presidential Leadership Fellow student, Jamie Elmer, who is also a local North Ogden resident. He then distributed information packets to each Council Member regarding his #LouderandProuder Tour. He reported on enrollment statistics; of the 29,644 students, 752 reside in North Ogden. He noted 500 of those students are 'degree-seeking' students and 252 are concurrent enrollment students as they are still in high school. There are 3,867 alumni living in North Ogden and he named a few. Additionally, 56 WSU faculty members live in North Ogden. He then noted WSU Administration enjoys working with local school administration and City leadership to become an integrated part of the community. He reported on programs intended to prepare the workforce to help the local economy thrive and be successful. The University's Center for Community Engaged Learning is very focused on giving back to the community; school employees and students are engaged in programs that can create a positive service impact to the community. The University also pursues grants that can be used to help underprivileged individuals gain access to higher education. In a recent State-wide public relations competition, WSU Senior Karen Valdez earned first place as the Utah Public Relations Student of the Year and as part of that competition she is charged with raising awareness of the Major Brent Taylor Foundation; he is proud of Ms. Valdez for using her skills to give back to her community. He then invited Ms. Elmer to provide the Council with information about her WSU experience. Ms. Elmer stated that the summer after her junior year in high school, she participated in girls state and also secured a full-ride scholarship to WSU. This set her on her track for her major in political science. In her second semester of college, she enrolled in a class providing an introduction to political theory and her professor recommended she pursue an internship with Walker Institute. She started her internship in the fall of 2017 in Washington, D.C. In the two years since then, she has pursued other opportunities that have led her to secure employment with the University. Her brother and mother both work at the school as well. She is very happy to have earned her degree from WSU and to now be employed with such a great organization.

President Mortensen then concluded by encouraging Councilmembers and the Mayor to reach out to him about any opportunity for the school to further engage in the community. The Council thanked President Mortensen for the information provided and communicated their personal and civic support for the school. President Mortensen thanked the Council for their attention this evening and stated that the materials he

provided include a brochure of the degree programs and scholarships offered by WSU; he invited them to be part of the University in any way that makes sense for them.

3. PRESENTATION BY NORTH OGDEN'S LEGO LEAGUE ON ROAD DURABILITY

Members of the League provided a presentation about a challenge issued to them: to identify a problem with a building or public space in their community. They ultimately determined to consider road durability in the community and they met with Public Works Director Espinoza to research their issue; they learned that North Ogden is getting new roads and so they decided to research materials that could be used in road construction to make the roads more durable. They suggested the use of old and discarded plastic, high density polyethylene (HDPE), could provide better resistance to rain and improved strength. This would result in no potholes or tire damage. Using discarded plastic could remove it from the waste stream and help to improve the environment. HDPE plastic has a melting point of 266 degrees Fahrenheit so it would be necessary to determine that it can withstand heat and cars in North Ogden; to do this, the Lego League performed testing of durability, strength, and heat resistance of different HDPE samples. They concluded that the plastic is strong and requires extremely high temperatures to melt; North Ogden is considering new road construction projects and it may be appropriate to consider the use of HDPE. The most important reason to consider the use of HDPE is to 'save the turtles'.

Mayor Chugg thanked the League for the information presented.

ACTIVE AGENDA

4. PUBLIC COMMENTS

Meg Sanders, 2950 N. 575 E., addressed the upcoming 'Clone of the North Pole' special event at Barker Park. She supports special events in North Ogden, but questioned the inclusivity of this event; she knows she lives in a community of a predominant faith, but there are portions of the community who do not believe in Jesus, herself included as she is an atheist, and it is difficult for her to learn that the City is promoting a live nativity activity on City property. She has heard over and over that the community does not support 'us versus them' mentality, but she is concerned when the City sponsors events that do not celebrate all types of people and their beliefs.

Neal Berube, 1532 E. 2525 N., addressed the Patriot Pointe development agreement; as he read through the document, he has a concern about the assignment provision under which the developer is charged with notifying the City of certain issues. He believes that because the zoning for the project is Master Planned Community (MPC), the assignment ought to be one of the City granting approval that will not be unreasonably withheld. He referenced past difficulties the City has encountered in regard to the other MPC projects

in the community and he asked the Council to consider amending the agreement to require Council approval of modifications to the agreement and that approval will not be unreasonably withheld.

5. **DISCUSSION AND/OR ACTION TO CONSIDER A RESOLUTION ADOPTING A DEVELOPMENT AGREEMENT FOR PATRIOT POINTE**

A staff memo from Planning Director Scott explained when the City is considering a legislative matter, the Planning Commission is acting as a recommending body to the City Council. The City has wide discretion in taking legislative action. Examples of legislative actions are general plan, zoning map, and land use text amendments. Legislative actions require that the Planning Commission give a recommendation to the City Council. Typically, the criteria for making a decision, related to a legislative matter, require compatibility with the general plan and existing codes.

The Planning Commission conducted a public hearing on October 2, 2019. There were a number of individuals who appeared at the public hearing who asked questions and gave their opinions.

The applicant has submitted an application to rezone the property at approximately 200 East 2550 North from Suburban Residential (RE-20) to Master Planned Community Zone (MPC/PP). A development agreement is also attached as part of the rezone consideration. In addition, a subdivision application and site plan application will be considered for approval subsequent to the rezone.

A joint work session with the Planning Commission and City Council was held on June 5, 2018. The following summary of discussion conclusions is listed below:

- Quality Building materials / no stucco
- Property to be managed by the owner through a management company
- Amenities to be determined with trails, community center, etc. to be included in the site design.
- Parking is a key issue with meeting city parking standards.
- Approximately 389 dwelling units; density of approximately 11.82 units per acre.
- Future phases to be shown as future development; separate development agreement to be processed for future phases.
- Commercial will be done in the phases that front onto 2550 North; 5% of the project.
- 150 East cross section to be reviewed and designed as a boulevard.

A concept plan was reviewed at the April 17, 2019 Planning Commission meeting. The Planning Commission conducted a field trip to examine similar style developments on August 21, 2019.

ANALYSIS

The purpose of the MPC zone is stated in 11-7K-1 Purpose:

The purpose of the Master Planned Community Zone is to provide opportunities for creative and unique developments within North Ogden City. This ordinance includes guidelines for creating neighborhood-oriented village projects that may include a mix of residential, commercial, recreational and/or public uses.

An integral part of this Zone is a multistep review process to assure compatibility of proposed land uses with existing and proposed adjacent neighborhoods, as well as the vision of the General Plan. The desired goal is to move toward vibrant, sustainable, and walkable neighborhood centers, with integrated streets.

Proposed plans for development must follow or exceed design standards found within this ordinance. Specific plans shall be a reflection of a required development agreement.

The Patriot Pointe / Double OTT Ranch proposal is for a mixed-use project (residential and commercial) that will be built in multiple phases. A Technical Review Committee meeting was held on May 15, 2019.

The applicant has prepared a conceptual site plan, a project narrative, and building elevations that shows the Patriot Pointe project surrounding the future city park / detention pond. The residential component has three housing types, i.e. townhomes, twin homes, and apartments. The commercial development will be two buildings on a little over 2 acres. There will be 6 phases to the project. The initial 3 phases are townhomes, phase 4 twin homes, Phase 5 will be apartments, and phase 6 will be commercial.

Project Summary

Residential

Apartments	144 (6 buildings) 319 parking stalls
Town Homes	197 units (39 buildings) 469 stalls
Twin Homes	24 units (12 buildings) 48 stalls
Total Units	365 units on 32.92/11.1 units per acre

Commercial

Commercial has approximately 14,000 square feet in two buildings

Density

The Master Planned Community zone has a density range of 6 to 18 units per acre for medium density projects. The overall density is 11.1 units per acre.

Park and Detention

North Ogden City is working jointly with the applicant and property owner to relocate the detention basin from 2600 North to this property. That design will be forthcoming to the Planning Commission as a site plan review. The park and detention property will remain

in the RE-20 zone. Staff will be presenting an institutional zone in the future for all City parks and facilities.

Amenities

The project narrative describes the amenities for the project. The applicant is also the owner for the adjoining Ranches project. The clubhouse for The Ranches project is to be shared by the residents of the Patriot Pointe project. Documentation needs to memorialize this commitment. The applicant has provided a clubhouse plan. The required landscape plan will need to show the described dog park and playground amenities.

11-7K-5 DEVELOPMENT STANDARDS

Staff has reviewed each of the design standards and provided an analysis.

A. Building Placement and Massing

1. Setbacks

Building facades should comprise at least 50% of all other public street edges. Buildings setbacks for major streets are to be 0 to 10 feet while all other streets may have setbacks with a minimum of 15 feet.

Building setbacks – minimum of 15 feet on minor streets.

Analysis: There are no minor streets in the project.

In order to meet the 50% frontage requirement two apartment buildings were relocated along 150 East. The 50% frontage for the apartment buildings has been met, at 51%, which was 272 feet of building elevation divided by 532 feet of street frontage.

The setbacks for the apartment buildings from the edge of the right of way are 10.9 feet (at the closest point) for one apartment building and 15.0 for the next.

The front setbacks for buildings 106, 105, and 104, and the side setbacks for buildings 102, and 101, which are the buildings that border on the Ranches Project to the east, do not meet the required 20' setback. The Planning Commission determined the location of these buildings to be acceptable. A provision has been written into the development agreement for these buildings along the east property line; if the City Council determines this is unacceptable, a redesign for these buildings will need to show the required setback.

Most buildings about the private streets, the development agreement reflects that the setback requirements do not apply to the private streets. The applicant has submitted a plan showing that the driveways in the project for the townhomes meet the 20' required standard.

2. Zero Lot Lines: None requested

3. Building Orientation

Entrances shall front onto major streets. Minor streets may be altered with appropriate landscape buffer yards.

Analysis: The layout of the project includes building entrances that front adjoining properties. This item is addressed in the Land Use and Buffering subsection.

B. Building Heights

The building heights are specified below in the ordinance. The applicant is proposing a building height of 26-28 feet for the townhomes.

Land Use	Commercial, Office & Vertical Mixed-Use or residential flats	Condos, Townhomes, single purpose apartments	Single Family, Twin Homes, & 4-unit buildings	Civic Uses & other stand-alone uses
Minimum Building Height	Two Stories or 24'	Two Stories or 24'	One Story or 14'	One Story or 14'
Maximum Building Height	Four Stories or 50'	Three Stories or 36'	Two Stories or 24'	Three Stories or 36'

Analysis: A variety of building heights are allowed depending on the building type/land use type, shown in the above table. The proposed height for these building types/land use types is within the allowed maximum height with the exception of a 25' maximum height for the twin homes. Information regarding the building height for each building type has been included in the development agreement. The proposed maximum building heights identified by the applicant, in the 'Notes' document (see Exhibit F) are: townhomes at 28 feet and apartment buildings at 34 feet (see Exhibit F). The heights listed on plat need to be consistent with those listed in the development agreement.

C. Land Use Impact and Buffering

Landscape buffers and any fencing must be shown on the landscape plan. Building setbacks to adjoining zones reflect a setback of 20' for buildings up to 24' in height (measured to the peak of the roof). Additional height may be allowed with an additional foot of setback for every one additional foot of height.

Analysis: The applicant has indicated that they will submit a detailed landscape plan as part of site plan approval, which is a requirement. The concept landscape plan is contained in the colored rendered site plan.

The townhomes are 4' over the 24' height limit currently needed to qualify for the 20' setback at property boundaries. However, The Planning Commission indicated that they were fine with the additional 4' in height, without additional setback at the property boundary. A modification has been made on this topic to the development agreement.

Other townhomes do not meet the 20' setback on the east side of the project, which are adjacent to the Ranches project (which is a similar project with a compatible land use). The Planning Commission recommends the setbacks as shown for the townhomes in this area. A provision has been made in the development agreement to accommodate for the location of these homes.

D. Architectural Design and Materials

Repetitive designs for projects over 5 buildings are not acceptable. The exterior brick and colors will be varied, e.g., no more than 4 color schemes per housing type, in addition to the roof color, is allowed per project. Building materials will need to be provided for each building type along with a color palette.

Analysis: A revised Color board will be presented at the City Council meeting. (See Exhibit J). The applicant needs to provide colors for the other buildings, when later phases are approved. The proposed building materials for the townhomes and clubhouse are brick and fiber-cement board. One desire worth noting specified by the City Council and the Planning Commission in earlier meetings was the desire for no stucco in the project.

The applicant has provided updated elevations for the twin homes, eliminating stucco and providing brick and fiber-cement board as an alternative. The applicant has also provided updated elevations on the apartment buildings, which does not include any stucco used as an external building surface material.

E. Signage

Analysis: No sign plan has been provided. The development agreement provides for 3 entrance signs for the residential project with a maximum size of 32 square feet per sign. The commercial area will have one sign that will be reviewed as part of the commercial site plan review.

F. Open Space (A minimum of 20% is required)

Analysis: There is a common greenspace along the west side of 150 East. The applicant has provided the percentage of open space, for all but one phase. The total percentage of open space among the phase specified is 32.5 %. The phase for the twin homes is at 19% and the phase for the commercial specifies that it will have 20% minimum but does not provide a total acreage. The acreage for public roadways in the project is 4.63 acres. The private streets are 3.63 acres. On a related note, there is a trail through the park area, and a 6' sidewalk, which has been deemed sufficient to meet the trail requirements for this area.

G. Landscaping

A detailed landscaping plan is required with a minimum of 20% onsite landscaping for the project.

Analysis: : A conceptual landscaping plan has been submitted (See Exhibit C); however, a detailed plan is required; this should include species and variety/cultivar of plants, quantity of each plant type, location, and some indication of the size that will be planted. The development agreement specifies the open space percentage for each phase. A final landscape plan will be submitted at the time of site plan review.

H. Outdoor Lighting

Analysis: Street lighting details have not been submitted. Building lighting is required to be directed downward, and shielded to mitigate light pollution. Staff can be delegated the duty of verifying lighting compliance with dark sky goals at the time of building permit review.

I. Streets and Pedestrian Ways

Analysis: 150 East is a collector street and has a 66 foot right of way. This roadway cross section has been designed as a boulevard with a bike lane and parking adjacent to the pond and detention basin. A street cross section design was presented at the Planning Commission meeting. (See Exhibit L) There are two other public streets, 2300 North and 2225 North.

The streets in the project are comprised of private lanes and private drives. The private lanes directly access the garages for the townhomes. The sidewalk design and walkways should be included with the site plan when considered for site plan approval.

The site plan shows basic roadway access and sidewalks for pedestrian ways. The trail design was reviewed by the Parks and Recreation Department and deemed to satisfy this requirement.

J. Other Forms of Transportation

Analysis: The project site lends itself mainly to connecting to adjacent roadways. Coordination on alternative transit opportunities should be explored.

K. Parking Areas. Vehicle Parking, Typical Required Vehicle Parking Spaces, Bicycle Parking.

Analysis: The plan identifies specific parking layout with specific dimensions and parking numbers.

Parking Summary

Residential Parking (2 stalls per dwelling unit)

Townhouse Garages (2 per unit) with some surface parking – 197 units, 469 stalls.

Twin Homes (2 Car Garages) – 24 units, 48 stalls.

Apartments – Surface Parking (Required 288 stalls) – 144 units, 389 stalls provided.

Clubhouse – To be determined at time of Site Plan review.

Total 829 / 2 stalls per unit.

Commercial Parking

Requirement: 1 stall per 200 square feet or 5 stalls per 1,000 square feet of commercial = 70 stalls – 104 provided.

L. Environmental

This standard relates to building, landscape, and solar design. The ordinance suggests a design that emphasizes extensive landscaping, building recesses, porches, and parking that uses concrete that absorbs sunlight. This reflects the need for observing best design practices in the project layout.

Analysis: The City Council should identify any items they would like the applicant to address.

M. Requirements Unique to Residential Uses

The following shall apply to residential uses:

Multi-family residential use shall comprise a variety of types of housing, fulfilling housing needs with a wide assortment of housing choices.

Analysis: Patriot Pointe has 3 housing types: apartments, townhomes, and twin homes. The final design for the building elevations should take these standards into account.

1. The following standards shall be required for multi-family residential:

1. Properly designed off-street surface parking hidden from streets, parking terraces, or underground parking. Attached or detached garage units associated with multi-family development should be rear loaded. Where only front-loaded garages are possible, they shall be subservient and setback 5 feet from the front façade and at least 20' from the front property line.
2. Flat roofs with a parapet and pitched roofs with a 4/12 pitch or greater, unless otherwise approved by the Land Use Authority.
3. Extensive windows facing streets, alleys and pedestrian connections.
4. Covered porch entrances.
5. Entry sidewalks that connect directly to public sidewalks.
6. Livable balconies of 50 square feet or larger with a minimum of 5' in depth
7. Material variety
8. Building relief

Analysis: The Planning Commission indicated they were satisfied with the building garages loading onto the private lanes. The proposed development agreement specifies the setbacks for the buildings. The pitch on the twin homes meet the requirement. The applicant has stated that the pitch for the town homes and apartments is 4:12 or greater.

DESIGN CONSIDERATIONS

Staff has concerns about the garages for many of the townhomes fronting onto the road listed as a 'private lane.' The current design will cause these lanes to function as a very long alley, with little to no interruption and only two intersections with cross streets in the entire townhome area of the project.

A related design concern is that other townhomes have garages and driveways facing onto public streets (see Exhibits C and D). This presents a concern with the number of driveways and vehicles fronting onto the streets, as well as the aesthetic impact on these public streets. The Planning Commission found both of these above aspects of the design to be acceptable.

Another consequence of loading the garages onto the private lanes with the front facades facing the edge of the project, is that many of the buildings face onto the adjoining property. This will affect the primary view for many of the residents of this development. There is vacant land to the south, and to the west, part of the property is vacant and part is occupied with townhomes. The backs of the townhomes to the west adjoin the project property. The applicant does not control the surrounding property, and there is a recognition that this places limitations on the design. This however, leaves the possibility of the primary view for many of the townhomes consisting of a dissimilar or incompatible land use, or the back of another property or a fence. The Planning Commission found this design to be acceptable.

11-7K-9 MASTER PLANNED COMMUNITY ZONE CONFLICTS WITH OTHER REQUIREMENTS IN THE CITY CODE

When the requirements of this chapter are found to be in conflict with other provisions of the City Code, the standards, requirements, and processes of this chapter shall take precedence, especially where a development agreement has been approved.

The Master Planned Community zone provides ultimate flexibility in applying design options for an applicant and the City. Where provisions conflict with existing code they may be modified in the required development agreement.

The Planning Commission found the current design acceptable. The City Council should clarify if they have any concerns with the design. The conflicts with the zone that are addressed in the development agreement relate to building heights and setbacks.

GENERAL PLAN

The proposal is located in the Southtown neighborhood. The General Plan map calls for this property to be developed as Medium Density Residential; the MPC zone is consistent with this designation.

The memo offered the following summary of potential City Council considerations:

- Does the application meet the purpose / intent of the MPC zone?

- Does the proposal meet the North Ogden Zoning ordinance standards?
- Is the overall layout acceptable?
- Are the building elevations, building materials, and colors acceptable?
- Does the City Council agree to leave the RE-20 zone in place for the park detention property?
- Are the proposed amenities for the project acceptable?
- Is the 150 East streetscape acceptable?
- Are there any modifications that should be included in the development agreement?
- Does the City Council have any other items they want the applicant to address?

The Planning Commission gave the following direction in their recommendation for approval:

1. Front the apartment buildings onto 150 East. (Completed)
2. Provide the missing setbacks distances to exterior property line for buildings 101, 102, 104, 106, 203, 204, 309, 310, and 311 to the property line, and the setback distance to all public and private streets. (Completed)
3. Provide an exhibit showing setbacks for all buildings to property lines, between buildings, and to any streets or private drives.(Completed)
4. Townhomes that are adjacent to other zones must have a 24-foot setback or obtain a modification. (Completed)
5. Show the required 20-foot garage setbacks on the plan.(Completed)
6. Specify the building heights for the townhomes. (Completed)
7. Submit a detailed landscape plan with the site plan application. (Completed)
8. Submit a subdivision application.
9. Leave the park / detention property RE-20 zone in place. (Address in rezone ordinance)
10. Remove the fence along the west side of the Ranches project to enable the Patriot Pointe residents to access the clubhouse. Provide documentation that the Ranches clubhouse is accessible to the Patriot Pointe residents.
11. Include in the landscape plan the details for the playground and dog park.
12. Coordinate with UTA regarding public transportation amenities.
13. Determinations – The City Council should make a determination for the following:
 - a. What should the townhouse setbacks be at the property boundaries?
 - b. Is the design configuration with the townhomes facing onto the exterior of the property acceptable?
 - c. Is the cross section for 150 East acceptable?
 - d. Are the garages loading onto the private lane acceptable?

The memo concluded the Planning Commission, on a six to zero votes, recommends that the property be rezoned from RE-20 to MPC-PP, excluding the detention pond area as noted in the recommendations above. The recommendations are included in the

development agreement. The Planning Commission found that the application is consistent with the General Plan.

Mr. Scott reviewed his staff memo and focused on the changes that have been made to various project exhibits since the Council's review and action on the zoning for the project that took place during the November 19 meeting. He stated that staff is recommending the Council consider the Planning Commission's recommendation for adoption of the zone change and the development agreement with the updated exhibits to the project. This includes consideration of the requested height change for apartment buildings in the project.

City Manager/Attorney Call then referenced the comments made by Mr. Berube during the public comment portion of the meeting. He noted that if the City is required to sign something to affect a real estate closing transaction, there is a risk of someone including language in a closing document that would unwind some portions of this agreement or add more obligations to the City. That is the reason he does not want to include language in the development agreement requiring Council permission of certain matters. However, he would be comfortable including an exhibit to the development agreement that is essentially a release form that would indicate the City's comfort relating to the transfer of rights from one party to another.

Council Member Turner asked if the Council can consider approval of the development agreement tonight subject to Mr. Call's drafting of the exhibit referenced above. Mr. Call answered yes and he expounded on the language that would be included in such a document; the development agreement currently includes language indicating that if the present owner sells a portion of the property, they must provide a written notice to the City informing of that transaction, so that the City can work with the new owner. If the language recommended by Mr. Berube were included in the agreement, the City would have the right to consider the party that the land is being transferred (or sold) to and if the City has a reasonable objection to the transfer, the City could object and stop the sale. This led to discussion regarding the manner in which this type of provision would have impacted the transfer of portions of property in the City's other MPC project, Village at Prominence Point. Mr. Call clarified that the provision would not have allowed for the Council's consideration of the land use that would result from the transfer, only the individual or entity that the land was being transferred to. Change in land use would spur consideration of an amendment to the actual development agreement language that specifies allowed land uses in the project.

Council Member Swanson asked if the language included in the proposed development agreement would provide for any assignment to be subject to all obligations agreed to within the development agreement, to which Mr. Call answered yes. Council Member Swanson stated he is hesitant to take action that would provide for the City to become involved in any private real estate transaction. Council Member Barker stated he shares that same concern. Mr. Call stated it is ultimately a policy decision; the City will be

heavily involved in design aspects of the project as the City will own 6.6 acres of property in the development.

Council Member Swanson asked that Mr. Berube, as Mayor-Elect of the City, be allowed to address the Council regarding the issue he raised during public comments. Mr. Berube stated he does not feel that what he is suggesting is unreasonable. In his private employment he deals with leases of property and it is not uncommon for him to consider lease reassignments as a present occupant may desire to sub-lease or assign their lease to another entity. He stated the City is putting a lot of reliance into this MPC project and while he trusts the current developer and owner of the property, there is much that can change in 25 years and it is important to consider the potential for those changes in the future. He noted that he is not recommending that approval of any transfer be unreasonably withheld, but his fear is that there may be the sale of property to a developer that is not as qualified as the current owner and developer, and this will result in the City battling with the future property owner to comply with the terms of the development agreement. He stated the citizens of the City are relying upon the governing body to ensure quality development in the City and he does not believe what he is recommending is uncommon or unreasonable.

Mayor Chugg invited input from the applicant.

John Hansen stated that he understands Mr. Berube's concern, but it would be more applicable if North Ogden actually owned the property; in this case, North Ogden does not own any of the property for which Mr. Berube is recommended oversight of transfer. He stated that he and Mr. Opheikins have already 'jumped through all the hoops' required to get approval of a zone assignment and development agreement for the project. He is concerned that any proposal to sell any part of the property or improvement to another body could potentially require City Council oversight. He wondered if this would give the City control over the sales price, who may be living in a unit that is cold, or other matters. He stated that he does not believe a private transaction is any of the City's business. He added that anyone who buys a portion of the property in the future will examine the agreements in place and abide by them. He concluded he understands Mr. Berube's concerns due to issues that have arisen in the past in the City's other MPC project, but the City already has some level of control over the project in regard to design approval and approval of the site plan for any portion of the project.

Council Member Stoker stated she appreciates Mr. Hansen's position, but noted that in the past when an owner of an MPC zoned property has sold it to another entity, the new entity has approached the City and asked for adjustments to the development agreement that was in place when they purchased the property. She stated that Mr. Berube is simply asking for Council consideration of a major transaction that could result in a significant change to the project that has been approved. She concluded she feels the development that has been proposed by Mr. Opheikins and Mr. Hansen will be wonderful.

Council Member Swanson asked if there is any legal precedent for a government entity getting involved in a private real estate transaction. Mr. Call stated that he is not aware of legal precedence, but it is not uncommon for government entities to be involved as has been suggested by Mr. Berube tonight.

Council Member Stoker stated she understands the arguments on both sides of the issue; given the City's experience with the Village at Prominence Point project, it may be appropriate to be more involved as Mr. Berube is suggesting, but based on the strife associated with the Barker Park project and the City's involvement in that project, it may be appropriate for the City to stay out of development projects.

The Council then engaged in philosophical discussion and debate regarding whether the City should amend the development agreement to include the language recommended by Mr. Berube. Mr. Hansen re-approached and stated that if property is sold to someone and conditions that have been imposed upon that property by the City are not disclosed to the buyer, the buyer will have legal recourse.

Orluff Opheikens stated that it seems some people in the City jump right to the worst-case scenario that could happen with this type of project; this is because they are upset about something. Some of the people who were upset about the Barker Park Amphitheater project also became upset when discussions began regarding his project and the potential to create a public pond nearby. He is concerned that any proposed transaction that could result in the sale of a portion of his property could become politically charged if the Council has oversight. He noted that allowing Council oversight of a private legal transaction is a slippery slope and it is impossible to know what the makeup of future Councils will be and whether they will be reasonable in considering a real estate transaction; if they are not, the City could find themselves in legal trouble. He stated he is tired of this project; he has tried to work closely with the City to create a project that will benefit the community.

Council Member Barker stated he respects Mr. Berube's opinion, but he does not like the idea of getting involved in property rights issues.

Council Member Cevering stated that Mr. Opheikens and Mr. Hansen's names will be tied to this project forever and he trusts that they will not do something that will harm the City and, in turn, harm their reputation.

Council Member Turner asked if the City has oversight of any type of transaction in the other MPC project in the City. Mr. Call answered no, but the agreement for that project did require that the seller notify the City of any type of real estate transaction in the project area.

Council Member Barker motioned to approve Resolution 11-2019 adopting a Development Agreement A22-2019, with the adjustment to allow building heights up to 40 feet for apartment buildings in the project; and adopt Ordinance 2019-27,

the rezone of property included at the Patriot Pointe project. Council Member Turner seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously.

6. DISCUSSION AND/OR ACTION TO CONSIDER AN ORDINANCE AMENDING THE MONUMENT SIGN ORDINANCE

A staff memo from Planning Director Scott explained when the City is considering a legislative matter, the Planning Commission is acting as a recommending body to the City Council. The City has wide discretion in taking legislative action. Examples of legislative actions are general plan, zoning map, and land use text amendments. Legislative actions require that the Planning Commission give a recommendation to the City Council. Typically, the criteria for making a decision, related to a legislative matter, require compatibility with the general plan and existing codes.

On October 22, 2019 the North Ogden City Council received a request from Alan Kerbs to consider making an amendment to the monument sign height standard.

The Planning Commission discussed this potential amendment on November 6, 2019. They gave direction to allow for an additional 2 feet in height for existing monument signs.

On November 20, 2019 the Planning Commission conducted a public hearing on this amendment. The Planning Commission decided to eliminate the word faux in describing the roof.

See below and Exhibit A.

11-22-7: Signs Permitted For Nonresidential Uses In Specific Districts

C. CP-2, C-2 And MP-1 Zoning Districts

(7) Permitted Signs:

A. Monument Sign:

(b) Monument signs shall have a maximum height of ten feet (10').

For existing signs, an additional 2 feet in height may be added for a decorative feature, e.g., a faux roof that does not include any additional sign lettering

The memo discussed the application’s conformance with the General Plan.

Economic Development

Goal #2 -Diversify the entertainment, restaurant, and retail offerings within the City.

Goal #3 –Assure a quality commercial shopping environment.

Strategies:

- Promote improvement in City appearance through ordinance changes that require enhanced streetscapes, well designed and located buildings, and interesting, environmentally appropriate, landscaping.

The memo offered the following summary of Land Use Authority considerations:

- Should the height for monument signs allow for existing signs to have a decorative feature with additional height?
- Is the amendment consistent with the General Plan?

The memo concluded the Planning Commission, on a six to zero vote, recommends adoption of the monument sign amendment. The Planning Commission found that the amendment is consistent with the General Plan.

Mr. Scott reviewed his staff memo.

Council Member Turner inquired as to the manner in which the total sign height will be measured, to which Mr. Scott answered from the base of the sign.

Council Member Swanson motioned to approve Ordinance 2019-28 amending the monument sign Ordinance. Council Member Stoker seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Covering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously.

7. FISCAL YEAR 2020 BUDGET AMENDMENTS CITY COUNCIL AND RDA BOARD

A staff memo from Finance Director Nelson explained staff would like to propose several amendments to the City Budget and Redevelopment Agency Budget for Fiscal Year

2020. This report provides a summary of the proposed changes. The attached spreadsheet outlines the specific changes by general ledger account. The City Council and RDA Board must hold public hearings to allow comment on the proposed amendments. The amendments may be approved using the attached ordinances.

Proposed Amendments:

- Capital Improvement Fund Correction. When the budget amendment was approved in November, there was an error in the calculated use of fund balance which inadvertently eliminated approved revenues for the amphitheater project. This amendment restores that revenue.
- City Engineer to Full-time Status. The City has been sharing the City Engineer position with Pleasant View. The two cities recently voted to terminate the contract at the end of December 2019. This budget amendment, in the amount of \$22,410, allows the City Engineer to be fully funded by North Ogden City. The increased budgeted expenditure is proposed in the Public Works Department in the General Fund. Offsetting reductions are proposed in Sidewalk Repairs, Streets Engineering, and Snow Removal, supplemented by a reduction in budgeted surplus.
- Elections. Elections expenses this year were more than anticipated in the original budget. A \$4,660 increase is proposed with an equal reduction in budgeted surplus.
- Donation. This amendment is for a proposed donation for the Gold Star Monument in the amount of \$6,472.

Mr. Nelson reviewed his staff memo.

Council Member Barker stated that in the past when the City Engineer was part-time and costs were being shared with Pleasant View City, the City also still contracted with Jones and Associates for engineering support. He asked if the City will continue to contract with Jones and Associates when the City Engineer becomes full-time. City Manager/Attorney Call answered yes and noted that the contract will be for detailed design work and review. Council Member Barker asked if the amount that the City will save in reduced work being performed by Jones and Associates could be used to offset the increase associated with moving the City Engineer position to full-time. Mr. Nelson noted that a large amount of the work performed by Jones and Associates relates to capital improvement projects, which are charged to different funds in the City; he would be concerned about using capital or enterprise funds to pay salaries of City employees, such as the City Engineer.

Council Member Barker then referenced the Gold Star Monument budget amendment and indicated that when this was initially presented to the Council, they were told that the City would not be providing any financial support. Council Member Swanson stated that is still the case; this amendment is the result of an elected official graciously donating their salary for the past year to the fundraising efforts for the monument.

Council Member Stoker asked if the City pays Jones and Associates a set fee per month or only an hourly rate for services provided. Mr. Call stated that they are only paid for work performed.

a. Public Hearing

Mayor Chugg opened the public hearing at 7:21 p.m. There were no persons appearing to be heard.

Council Member Swanson motioned to close the Public Hearing for the Fiscal Year 2020 budget amendments. Council Member Stoker seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously

The public hearing was closed at 7:21 p.m.

b. DISCUSSION AND/OR ACTION TO CONSIDER AN ORDINANCE

Council Member Barker motioned to adopt Ordinance 2019-29 amending the 2020 Fiscal Year Budget. Council Member Swanson seconded the motion.

Council Member Barker then asked that the Council consider reopening the public hearing to allow for a question from the audience. The Council agreed to reopen the public hearing.

Kathy Warren, 720 E. 2550 N., stated she is concerned about the electronic message board budget amendment. Council Member Barker stated that budget amendment will be considered in the special Redevelopment Agency (RDA) meeting, which will be convened shortly.

Neal Berube, 1532 E. 2525 N., stated that he is also concerned about the budget amendment for the electronic message board budget amendment. He suggested that further research be conducted, which will yield the results that this type of sign is not a good method of communication. Additionally, safety should be considered. He asked the Council to consider whether this is how the residents want them to spend their money when there are so many other priorities in the City.

There were no additional persons appearing to be heard.

Council Member Barker motioned to close the Public Hearing to consider an Ordinance amending the Fiscal Year 2020 budget. Council Member Cevering seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously

The public hearing was again closed at 7:26 p.m.

Mayor Chugg called for a vote on the motion to adopt Ordinance 2019-29.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously

c. RECESS CURRENT MEETING TO CONVENE IN THE REDEVELOPMENT AGENCY (RDA)

Council Member Turner motioned to recess regular meeting and convene as the Redevelopment Agency (RDA). Council Member Stoker seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye

Council Member Stoker **aye**
Council Member Swanson **aye**
Council Member Turner **aye**

The motion passed unanimously.

The City Council meeting recessed at 7:28 p.m.

Finance Director Nelson then explained the Redevelopment Agency budget amendment is to approve a \$100,000 expenditure for two electronic signs. One is to be located at Bicentennial Park. The other is to be located on 2600 North in front of City Hall. He referenced information included in the packet relating to the design of the signs. The RDA has set aside funding for this type of project in the past, but it is up to the Board to determine the best use of the funds. This led to a discussion about other projects that could be completed if the funds assigned to electronic sign boards were reassigned.

d. Public Hearing

Mayor Chugg opened the public hearing at 7:34 p.m.

Kathy Warren, 720 E. 2550 N., stated that she feels these types of signs are a waste of money; she has heard about the design of the signs and that they will be of the marquis type and she does not believe someone will have time to read them without slowing traffic or causing an accident. She feels the money would be better spent elsewhere. She is opposed to the signs and would rather see the money allocated other projects.

Brenda Ashdown, 193 E. Pleasant View Drive, agreed with Ms. Warren's opinion that signs are not the best use of the City's money. Almost any of the other projects that are eligible for RDA funds would be a better option. She feels there must be a better way to let people know what is going on in the City without installing an electronic sign board. She asked about the cost of ongoing maintenance of the signs and who will be responsible to maintain them in the future. She feels the money could be spent in another way that will provide a greater benefit to all residents; she would rather see the money spent to reimplement a paper newsletter that could be sent to all residents each month. She added that the City recently completed a walkway project in front of her home on Pleasant View Drive and she has emailed the City's Parks and Recreation Director very regularly about the small lights that were installed along the walkway because they do not work most of the time. Many of them have been broken and have not been repaired. The fact that these lights are not being maintained makes her question how the electronic sign boards would be maintained in the future.

Mona Lisa Wald, 2457 N. 750 E., stated she has a degree in public relations and advertising and the best thing the City can do is invest in advertising. She supports the proposed budget amendment to facilitate the installation of electronic sign boards. She

cannot read the smaller yard signs that are located in front of City Hall advertising a special event or activity in the City. If the City cannot properly advertise community activities, they should not be bothered with. The City will have greater success as far as attendance at special events if they are properly advertised.

Susan Clements, 668 E. 3125 N., stated that when she initially read about this proposal she was excited because when the Barker Park Amphitheater project was being discussed, there was reference to the difficulty in getting the word out to everyone in the community about such a large project. She thinks this is a great idea for that purpose. She recalled when the City approved the electronic sign for North Ogden Elementary School because she thinks such signs are helpful in getting information out to people. The only thing she is concerned about is the height of the sign and suggested it may be appropriate for the City to consider an adjustment to the maximum height in the current ordinance.

Spencer Alexander, 1740 N. 150 E., stated that he would is not supportive of the idea of electronic signs, especially the sign proposed for Bicentennial Park because that area is already very busy and a new sign may get lost in the clutter.

There were no additional persons appearing to be heard.

Board Member Barker motioned to close the Public Hearing for the Fiscal Year 2020 budget amendments. Board Member Turner seconded the motion.

Voting on the motion:

Board Member Barker	aye
Board Member Cevering	aye
Board Member Stoker	aye
Board Member Swanson	aye
Board Member Turner	aye

The motion passed unanimously

The public hearing was closed at 7:40 p.m.

e. DISCUSSION AND ACTION TO CONSIDER ELECTRONIC SIGN BOARDS

Board Member Cevering stated that one of his goals for 2020 is to increase transparency and communication in the City. Initially, he was very excited about the idea of at least one electronic sign on 2600 North so he called other cities to learn of their experience with electronic signs. Pleasant View has had a good experience aside from receiving complaints from citizens about the length of a message and their inability to read the entire message during a drive by the sign. Harrisville City indicated they did not feel they were getting a return on the investment they made in the sign. He stated his opinion

regarding electronic signs has now shifted and he feels there may be less expensive ways of communicating with citizens about things that may be occurring in the City and he discussed options such as doorhangers or subscriptions to certain notification methods via the City's website. He stated he would prefer to dedicate the \$100,000 to other areas that are eligible for the use of RDA funds.

Board Member Swanson agrees that the City needs to continue to try to increase transparency and communication with residents; however, the website is not the best tool to use that because there is a portion of the residency of the City that do not use the internet. He is interested in the idea of going back to a printed newsletter in utility bills, but in years past the City has learned that most people do not read that material and some residents continue to make the claim that they do not know what is happening in the City. He is struggling to determine the best way to effectively communicate with residents and he feels that electronic signs are one option. No matter what the City decides to do in regard to communication tools and strategies, there will still be residents that claim they were unaware of something happening in the City. He is comfortable proceeding with the signs, but acknowledged they will not be the solution to all communication problems in the City.

Board Member Stoker stated she agrees with the points made by both Board Member Cevering and Swanson; she believes signs may be a viable form of communication, but it may not be appropriate to fund them at this time. She is concerned about the proposed locations of the signs as well as the fact that there are other needs in the City that could be satisfied using RDA funds. She suggested that electronic signs are more of a 'want' than a 'need' at this time.

Board Member Turner stated he is in favor of proceeding with the proposal to install two signs at this time.

Board Member Barker stated he is not in favor of the sign at this time; he also talked with Pleasant View about their sign and they expressed concern about the cost of paying for someone to be trained to operate the sign and he has that same concern for North Ogden. He also has experienced driving by a sign too fast to read an entire message and this can lead to traffic congestion or accidents if motorists are slowing or stopping to read a sign. He agreed that electronic signs are a 'want' rather than a 'need'.

Board Member Swanson disagreed that electronic signs are a 'want'; instead, consideration of the signs is an attempt by the City to address a need that has been established. This is a need to increase communication with the City. However, he agreed that electronic signs are likely not the most effective way of communicating.

Board Member Swanson motioned not to approve the budget amendment to facilitate an electronic sign board project at this time. Board Member Stoker seconded the motion.

Voting on the motion:

Board Member Barker	aye
Board Member Cevering	aye
Board Member Stoker	aye
Board Member Swanson	aye
Board Member Turner	nay

The motion passed 4-1

f. DISCUSSION AND/OR ACTION TO CONSIDER AN ORDINANCE AMENDING THE 2020 FISCAL YEAR BUDGET

City Manager/Attorney Call indicated there is no need to discuss or consider this item given the Board's action on the previous agenda item.

g. ADJOURN AND RECONVENE IN THE REGULAR MEETING

Board Member Swanson motioned to close the Redevelopment Agency (RDA) meeting and reconvene in the regular meeting. Board Member Cevering seconded the motion.

Voting on the motion:

Board Member Barker	aye
Board Member Cevering	aye
Board Member Stoker	aye
Board Member Swanson	aye
Board Member Turner	aye

The motion passed unanimously

The RDA meeting adjourned at 7:50 p.m.

The Regular City Council meeting reconvened at 7:50 p.m.

8. DISCUSSION AND/OR ACTION TO CONSIDER AN ORDINANCE AMENDING THE PERSONNEL POLICY

A staff memo from City Recorder/HR Director Spendlove reported City Administration has been working on updating the personnel policy to reflect changes required by the

URS that weren't completed in the August 2019 amendments and clarify some discussions on the items listed below.

1. There are a few changes to definitions to comply with URS rules related to Part-time and URS-Retired.
2. The State Code requires that we let Public Safety Employee Records be reviewed by another Public Safety Agency considering that employee for employment Utah State Code 53-14-101 Peace Office Candidate Background Investigation (page 46 E1 of our policy).

The memo concluded staff recommends adoption of these changes.

Ms. Spendlove reviewed her staff memo and identified the sections of the Personnel Policy Manual that will be adjusted in accordance with the proposed amendments.

Council Member Cevering motioned to adopt Ordinance 2019-30 approving amendments to the Personnel Policy. Council Member Barker seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously

9. WALKER ANNEXATION FOR PROPERTY LOCATED AT 1825 NORTH FRUITLAND DRIVE, NORTH OGDEN, UT

A staff memo from City Recorder Spendlove explained North Ogden City submitted an application (Exhibit A) on October 16, 2019 petitioning for annexation of approximately 1.02 acres located at 1825 North Fruitland Drive in North Ogden, Utah. The annexation process requires the City Council to accept the petition for annexation so that the annexation process can begin, which was done on October 22, 2019. The Weber County Surveyor has reviewed the annexation plat map and approved it on October 15, 2019 (Exhibit B). This property is within North Ogden City Annexation Declaration Policy (Exhibit C). The petitioner is requesting the zoning to stay as R-1-8, which the Planning Commission has recommended on November 6, 2019 (Exhibit D). The Utah State Code requires that the City give notice of an annexation for (3) consecutive weeks in a newspaper of local circulation (Exhibit E) no later than 10 days after the City Council receives notice of certification which was certified by the City Recorder on November 4, 2019 (Exhibit F). A Public Hearing is required and was noticed on December 8 and 15, 2019 (Exhibit G). Written protests to this annexation were to be filed no later than

December 13, 2019. No written protests have been submitted as of the date of this staff report. This annexation meets all the requirements to be annexed and before the City Council is an Ordinance for your consideration annexing this property into North Ogden City.

a. Public Hearing to receive comments

Mayor Chugg opened the public hearing at 7:59 p.m. There were no persons appearing to be heard.

Council Member Swanson motioned to close the Public Hearing for the Fiscal Year 2020 budget amendments. Council Member Stoker seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously

The public hearing was closed at 7:59 p.m.

b. DISCUSSION AND/OR ACTION TO CONSIDER AN ORDINANCE ANNEXING PROPERTY AT THIS LOCATION THAT IS APPROXIMATELY 1.02 ACRES

Council Member Stoker motioned to approve Ordinance 2019-31 annexing property located at 1825 North Fruitland Drive that is approximately 1.02 acres. Council Member Swanson seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously.

10. DISCUSSION AND/OR ACTION TO CONSIDER THE VOTER PARTICIPATION AREAS

A staff memo from City Manager/Attorney Call explained the State of Utah has established a requirement that for purposes of referendum (repealing city law, zone change, etc.) and initiative (enacting city law, zone change, etc.) we are required to divide the City into four voter participation areas. There are a few requirements to be met in establishing the voter participation areas.

1. They must be contiguous, meaning you can draw a line around each voter area, without picking up your pencil.
2. They must be compact, meaning it shouldn't be difficult for anybody to walk, or canvas each individual voter participation area
3. They must be substantially equal in population.

The County has helped the City identify a way to group the various voter precincts to achieve the state requirements. These areas do not have anything to do with how or where people will vote during an election. They only establish the areas where signatures must be gathered to have an initiative or referenda put on the ballot for voters to decide. Here is the recommended configuration by precincts.

VPA A	VPA B	VPA C	VPA D
NOG001 – 888	NOG005 – 1543	NOG008 – 1572	NOG011 – 1581
NOG002 – 1816	NOG006 – 1550	NOG009 – 1549	NOG012 – 1532
NOG003 – 1451	NOG007 – 1447	NOG010 – 1728	NOG013 - 1466
NOG004 – 892			

The state statute also requires the City to adopt these new areas by Jan. 1, 2020 and to review how the areas were established by Jan. 1, 2022 to make sure the population hasn't become lopsided.

The memo referenced maps of the precincts as well as four maps of the voter participation areas. Staff will create a packet of information to be provided to any individual or group who wishes to pursue a referenda or initiative. Staff recommends the Council approve the proposed voter participation areas.

Mr. Call reviewed his staff memo.

Council Member Barker motioned to approve Resolution 12-2019 approving the voter participation areas. Council Member Stoker seconded the motion.

Voting on the motion:

Council Member Barker aye
Council Member Ceveering aye

Council Member Stoker aye
Council Member Swanson aye
Council Member Turner aye

The motion passed unanimously.

11. **DISCUSSION AND/OR ACTION TO CONSIDER MEETING SCHEDULES FOR 2020**

A staff memo from City Recorder/HR Director Spendlove explained the Council is required to take action each year to set their meeting schedule for the year. She reviewed the public notice that will be published in the Standard-Examiner to advertise the annual schedule of the City Council, Planning Commission, General Plan Steering Committee, Economic Development Committee, and Public Safety Committee.

Council Member Cevering motioned to adopt Ordinance 2019-32 approving meeting schedules for 2020. Council Member Swanson seconded the motion.

Voting on the motion:

Council Member Barker aye
Council Member Cevering aye
Council Member Stoker aye
Council Member Swanson aye
Council Member Turner aye

The motion passed unanimously.

12. **PUBLIC COMMENTS**

Spencer Alexander, 1740 N. 150 E., addressed the action taken by the Council earlier in the meeting in regard to building heights for apartment buildings in the Patriot Pointe project; the conversation was interesting as it seemed that five-feet is not a significant increase to the Council. However, he lives near the Village at Prominence Point project and the building heights in that project seem excessive and the assisted living facility seems so large. He stated that these matters should be considered from the perspective of residents that will live near them.

13. **COUNCIL/MAYOR/STAFF COMMENTS**

Council Member Swanson thanked Council Member Turner for his service to the City and wished him well in his future endeavors.

City Recorder/HR Director Spendlove reported the first meeting of 2020 will be held January 7, 2020; prior to that meeting, the newly elected or re-elected officials will be sworn into office and an open house will be held to bid farewell to Council Member Turner and welcome newly elected members of the Governing Body.

Police Chief Quinney presented Council Member Turner with a token of appreciation on behalf of the Police Department. He stated that he and his officers appreciate his support, friendship, and service. He noted that the gift from the Department to Mayor Chugg is forthcoming.

Mayor Chugg stated that since this is his last meeting as the Mayor, he wished to thank the Council for their support and devotion to their work. He also thanked the citizens for their support, friendship, and concern for the City.

14. ADJOURNMENT

Council Member Turner motioned to adjourn the meeting. Council Member Swanson seconded the motion.

Voting on the motion:

Council Member Barker	aye
Council Member Cevering	aye
Council Member Stoker	aye
Council Member Swanson	aye
Council Member Turner	aye

The motion passed unanimously.

The meeting adjourned at 8:14 p.m.

M. Brent Chugg, Mayor

S. Annette Spendlove, MMC
City Recorder

Date Approved

NORTH OGDEN CITY STAFF REPORT

TO: North Ogden City Council
FROM: Evan Nelson, Finance Director
SUBJECT: Audited Financial Statements – FY 2019

DATE: 1/28/2020

Each year the City is required to undergo a financial audit in accordance with State guidelines. The auditor's role is to review the financial records of the City and to issue an opinion whether the financial statements are fairly presented in accordance with generally accepted accounting principles. The auditor also evaluates accounting practices, internal controls, and compliance with regulations. As appropriate the auditor may issue findings and recommendations and highlight areas for improvement. The City retained the services of Davis and Bott Certified Public Accountants to perform the audit for Fiscal Year 2019. A copy of the audited financial statements, including the audit report, has been provided as part of the January 28, 2020 Council packet. City staff will present the financial statements and David Rogers, will discuss the audit report.

Highlights

Here are a few highlights for Fiscal Year 2019:

- Total net position is \$88,283,056, an increase of \$8,725,377
- Governmental Funds ending balance is \$7,631,147, an increase of \$1,900,964
- Combined cash in the Enterprise Funds increased by \$210,536
- The debt on the Aquatic Center at year-end was \$1,526,000
- The snowplow lease had a principal balance of \$152,336 at year-end
- Outstanding debt on water impact fee reimbursement agreements is \$1,650,757

A more detailed analysis is provided in the Management Discussion and Analysis section of the financial statement report.

Recommendations

As outlined in the *Communication with Those Charged with Governance*, the auditors have made four recommendations to improve the City's internal controls and accounting system.

Recommendation #1 – *We recommend conducting an inventory of fixed assets annually to determine whether or not certain assets need to be removed from the depreciation schedule.*

Staff Response – We accept this recommendation. We will perform an asset inventory and remove any assets from the list that should not be included.

Recommendation #2 – *We recommend maintaining a file for all fixed assets to include the invoices supporting the cost, documentation of purchase approval, depreciation method and life, and other pertinent information supporting the existence and value of the asset.*

Staff Response – We accept this recommendation. Maintaining a fixed asset file will consolidate records into one place and improve efficiency during the audit process.

Recommendation #3 – *We suggest controls over the approval of journal entries be reviewed. Journal entries should be reviewed and approved on a regular basis to prevent misstatement of the financial statements. We recommend a review of the journal entries on a monthly basis.*

Staff Response – We agree with this recommendation. We have implemented a process as part of the monthly closing that requires two employees to review and approve journal entries.

Recommendation #4 – *We recommend expediting the year end close process so there is time to prepare and audit the financial statements before the State mandated deadline of December 31 to submit audited financial statements to the State Auditor's Office.*

Staff Response – We agree with this recommendation and will prepare to meet the State's deadline in 2020.



NORTH OGDEN CITY

— SETTLED 1851 —

Financial Statements

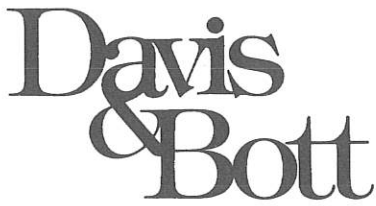
WITH AUDITOR'S REPORT

JUNE 30, 2019

NORTH OGDEN CITY

Table of Contents

	<u>Page</u>
Independent Auditor's Report	1-3
Management's Discussion and Analysis	4-16
Basic Financial Statements	
Government-wide Financial Statements	
Statement of Net Position	17
Statement of Activities	18
Governmental Funds Statements	
Balance Sheet	19
Reconciliation of the Balance Sheet - Governmental Funds to the Statement of Net Position	20
Statement of Revenue, Expenditures, and Changes in Fund Balances	21
Reconciliation of the Statement of Revenue, Expenditures, and Changes in Fund Balances - Governmental Funds to the Statement of Activities	22
Proprietary Funds Statements	
Statement of Net Position	23
Statement of Revenue, Expenses, and Changes in Fund Net Position	24
Statement of Cash Flows	25-26
Notes to Financial Statements	27-46
Required Supplemental Information	
Notes to Required Supplementary Information	47
Budgetary Comparisons - Major Governmental Funds	
General Fund	48-50
Redevelopment Agency	51
Aquatic Center	52
Schedule for Proportionate Share of Net Pension Liability	53
Schedule for Contributions	54
Other Information	
Statement of Revenue, Expenditures, and Changes in Fund Balance - Budget and Actual	
Capital Projects Funds	55
Transportation Projects Funds	56
Internal Service Funds	
Combining Statement of Net Position	57
Combining Statement of Revenue, Expenses, and Changes in Net Position	58
Combining Statement of Cash Flows	59



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INDEPENDENT AUDITORS' REPORT

The Honorable Mayor and City Council
North Ogden City
North Ogden, Utah

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of North Ogden City (City) as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the city's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the city's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

INDEPENDENT AUDITOR'S REPORT

Continued

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City as of June 30, 2019, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 4-16 and 47-54 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The introductory section, combining and individual nonmajor fund financial statements, budgetary comparison schedules, and capital asset schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements.

INDEPENDENT AUDITOR'S REPORT

Continued

The combining and individual nonmajor fund financial statements, budgetary comparison schedules and capital asset schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual nonmajor fund financial statements, budgetary comparison schedules and capital asset schedules are fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory section has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated January 15, 2020, on our consideration of North Ogden City, Utah's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the City's internal control over financial reporting and compliance.

Davis & Bott

Davis & Bott
Certified Public Accountants, L.C.

Brigham City, Utah
January 15, 2020

Management's Discussion and Analysis

This section of North Ogden City's annual financial report presents our discussion and analysis of the City's financial performance and activities for the fiscal year ended June 30, 2019. The management's discussion and analysis is not specifically audited. The information is provided to help readers understand the impact of financial activities during the fiscal year, how the City performed compared to prior years, and to provide information on important issues concerning the City's future.

Financial Highlights

- North Ogden City's total net position increased during the fiscal year by \$8,725,377. Net position of governmental activities increased by \$3,997,545 or 9.5%. Net position of business-type activities increased by \$4,727,832 or 12.1%.
- Assets and deferred outflows of North Ogden City exceed its liabilities and deferred inflows by \$89,933,813. Of this amount, \$9,022,449 represents unrestricted net assets and may be used to meet the government's ongoing obligations.
- North Ogden City's governmental funds reported combined ending fund balances of \$7,631,147 at June 30, 2019, an increase of \$1,900,964 in comparison to the previous year. Of the ending fund balance, \$3,086,774 was unassigned and available for spending at the City's discretion.
- As of June 30, 2019, the enterprise funds of North Ogden City had a net position of \$43,775,934. Of this amount \$36,981,981 is the net amount invested in capital assets. Combined cash from Business-Type Activities in the Enterprise Funds increased \$210,536.
- The principal balance of the Sales Tax Revenue Refunding Bonds, Series 2014 was \$1,791,000 at the beginning of Fiscal Year 2019. \$265,000 was paid off during the fiscal year, leaving a principal balance of \$1,526,000 as of June 30, 2019.
- The City entered into a lease purchase contract for the purchase of two snow plow trucks in Fiscal Year 2018. The principal balance at the beginning of Fiscal Year 2019 was \$188,616. \$36,280 was paid off during the year, leaving a balance of \$152,336 as of June 30, 2019.
- The City has 2 separate reimbursement agreements with a developer for construction of water reservoirs, distribution lines, and a pump station. The reimbursements are paid back through culinary water impact fees collected from homes that benefit from the infrastructure. The total amount owed for both agreements is \$1,650,757. The amount of principal paid for Fiscal Year 2019 was \$139,116.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the City's basic financial statements. North Ogden City's basic financial statements comprise three components: 1) government-wide financial statements, 2) fund financial statements, and 3) notes to the financial statements. This report also contains other supplementary information, in addition to the basic financial statements, that will help the reader to gain a more in-depth understanding of the City.

Government-wide Financial Statements

The government-wide financial statements are designed to provide a broad overview of North Ogden's financial position, similar to consolidated financial statements in a private-sector business.

The statement of net position presents information on all of North Ogden's assets, deferred outflows, liabilities and deferred inflows, with the difference between assets and deferred outflows less liabilities and deferred inflows reported as net position. Over time, increases and decreases in net position may serve as an indicator of changes in the financial position of the City.

The statement of activities presents information showing how the City's net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods.

The government-wide financial statements distinguish functions of the City that are principally supported by taxes and intergovernmental revenues (governmental activities) from other functions that are intended to recover all or a significant portion of their costs through user fees and charges (business-type activities). The governmental activities of North Ogden City include general government, public safety, economic development, streets and roads, and parks and recreation. The business-type activities of North Ogden City include services for water, sewer, storm water, solid waste, and motor pool.

Fund Financial Statements

The fund financial statements provide detailed information about individual funds. A fund is a group of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise of its assets, liabilities, fund equity and revenues and expenses. In this report all of the funds can be divided into two classes; governmental funds and proprietary funds.

Governmental Funds

Most of the City's basic services are reported in governmental funds, which use an accounting method called modified accrual accounting. Modified accrual accounting measures cash and all other financial assets that can readily be converted to cash and focus on near-term inflows and outflows of spendable resources. The City maintains a general fund, capital projects fund, transportation projects fund, and redevelopment agency fund as governmental funds.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for the governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the City's near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures and changes in fund balances provide a reconciliation to facilitate this comparison between governmental funds and governmental activities.

Proprietary Funds

North Ogden City uses two types of proprietary funds. *Enterprise funds* are used to report the same functions presented as business-type activities in the government-wide financial statements. North Ogden City has four enterprise funds-water, sewer, storm water and solid waste. *Internal Service funds* are an accounting device used to accumulate and allocate costs internally among the City's various functions. The City maintains two internal service funds to account for its fleet activities. Because these services predominantly benefit government rather than business-type activities, they are included with *governmental activities* in the government-wide statements.

Differences between Government-Wide and Fund Statements

- Capital assets and long term debt are included on the government-wide statements but are not reported on the governmental fund statements
- Capital outlays result in capital assets on the government-wide statements but are expenditures on the governmental fund statements.

Notes to the Financial Statements

The notes provide additional information that is essential to the full understanding of the data provided in the government-wide and fund financial statements. The notes to the financial statements can be found immediately after the statements for major funds.

Other Information

In addition to the basic financial statements and accompanying notes, this report also presents the combining statements referred to earlier in connection with non-major Governmental Funds. Combining and individual fund statements and schedules can be found after the notes in the financial section.

Government-wide Financial Analysis

Change in net position offers a measuring tool of the overall financial condition of the City. The change in Fiscal Year 2019 indicates that the City's overall financial condition has improved compared to the prior year. The City's net position increased during the fiscal year by \$8,725,377, or 10.7%. Net position of governmental activities increased by \$3,997,545 or 9.5%. Net position of business-type activities increased by \$4,727,832 or 12.1%.

The largest component of the City's net assets is capital assets (land, buildings, machinery and equipment, and improvements and other infrastructure) less the outstanding related debt obligated by the City and used to purchase or build those assets. The City uses these assets to provide services to its citizens. Consequently, these resources are not available for future spending, nor can they all be readily liquidated to pay off related liabilities. Resources needed to repay debt must be provided by other sources.

Restricted net assets are subject to external restrictions on how they may be used. The City has \$2,745,855 in restricted assets for impact fee uses. Unrestricted net assets however may be used at the City's discretion to meet its ongoing obligations to citizens and creditors. Unrestricted net assets equal \$10,673,206, which is 12% of total net position.

Statement of Net Position
June 30, 2019

	Governmental Activities		Business Type Activities		Total	
	2018	2019	2018	2019	2018	2019
Assets						
Current & Other Assets	9,273,454	11,546,995	6,089,047	7,148,776	15,362,501	18,695,771
Capital Assets (net)	39,327,707	41,211,107	35,182,154	38,632,738	74,509,861	79,843,845
Total Assets	48,601,161	52,758,102	41,271,201	45,781,514	89,872,362	98,539,616
Deferred Outflows	1,072,978	1,072,406	245,264	257,479	1,318,242	1,329,885
Liabilities	3,228,885	4,396,244	488,048	592,981	3,716,933	4,989,225
Long Term Debt Outstanding	1,678,336	1,377,056	1,819,617	1,650,757	3,497,953	3,027,813
Total Liabilities	4,907,221	5,773,300	2,307,665	2,243,738	7,214,886	8,017,038
Deferred inflow of resources	2,606,584	1,899,329	160,696	19,321	2,767,280	1,918,650
Net Position:						
Invested in capital assets, net of related debt	37,348,091	39,532,771	35,052,021	36,981,981	72,400,112	76,514,752
Restricted	735,469	1,193,799	1,218,206	1,552,056	1,953,675	2,745,855
Unrestricted	4,076,774	5,431,309	2,777,877	3,591,140	6,854,651	9,022,449
Total Net Position	42,160,334	46,157,879	39,048,104	42,125,177	81,208,438	88,283,056

Changes in Net Position							
		Governmental Activities		Business-type Activities		Total	
		2018	2019	2018	2019	2018	2019
Revenues							
General Revenues							
Property Tax		1,983,582	2,075,040			1,983,582	2,075,040
Sales Tax		2,925,213	3,086,826			2,925,213	3,086,826
Other Taxes		1,070,634	1,013,993			1,070,634	1,013,993
Interest & Investment		80,983	172,885	90,062	139,035	171,045	311,920
Grants & Contributions		4,427,996	3,860,467	2,115,803	4,268,983	6,543,799	8,129,450
Charges for Services		2,201,807	2,262,360	5,525,447	6,167,339	7,727,254	8,429,699
Sale of Assets		30,369	54,114	35,170	125,126	65,539	179,240
Other		23,515	14,294	89,421	68,690	112,936	82,984
Total Revenues		12,744,099	12,539,979	7,855,903	10,769,173	20,600,002	23,309,152
Expenses							
General Government							
Public Safety		1,498,166	1,747,040			1,498,166	1,747,040
Economic Development		2,791,371	3,054,788			2,791,371	3,054,788
Streets & public improvements		1,448,703	162,887			1,448,703	162,887
Parks & Recreation		1,770,185	1,454,099			1,770,185	1,454,099
Interest on Long Term Debt		226,832	2,086,162			226,832	2,086,162
Water		43,560	37,458			43,560	37,458
Sewer				1,723,119	1,902,967	1,723,119	1,902,967
Storm Water				1,836,916	1,956,657	1,836,916	1,956,657
Solid Waste				931,695	1,073,987	931,695	1,073,987
				988,736	1,107,730	988,736	1,107,730
Total Expenses		7,778,817	8,542,434	5,480,466	6,041,341	13,259,283	14,583,775
Increase (decrease) in net position		4,965,282	3,997,545	2,375,437	4,727,832	7,340,719	8,725,377
Net Position—Beginning of Fiscal Year		37,195,052	42,160,334	36,672,667	39,048,102	73,867,719	81,208,436
Net Position-Ending of Fiscal Year		42,160,334	46,157,879	39,048,104	43,775,934	81,208,438	89,933,813

Changes in Net Position

Total revenue for governmental activities decreased by \$204,120. Grants & Contributions decreased by \$567,529 over last year. Sales tax revenues increased \$161,613 or 5.5%. Taxes are a major source of revenue for Governmental Activities, and account for \$6,175,859 or 49% of revenues overall. Expenses for Governmental Activities increased during the year by \$763,617.

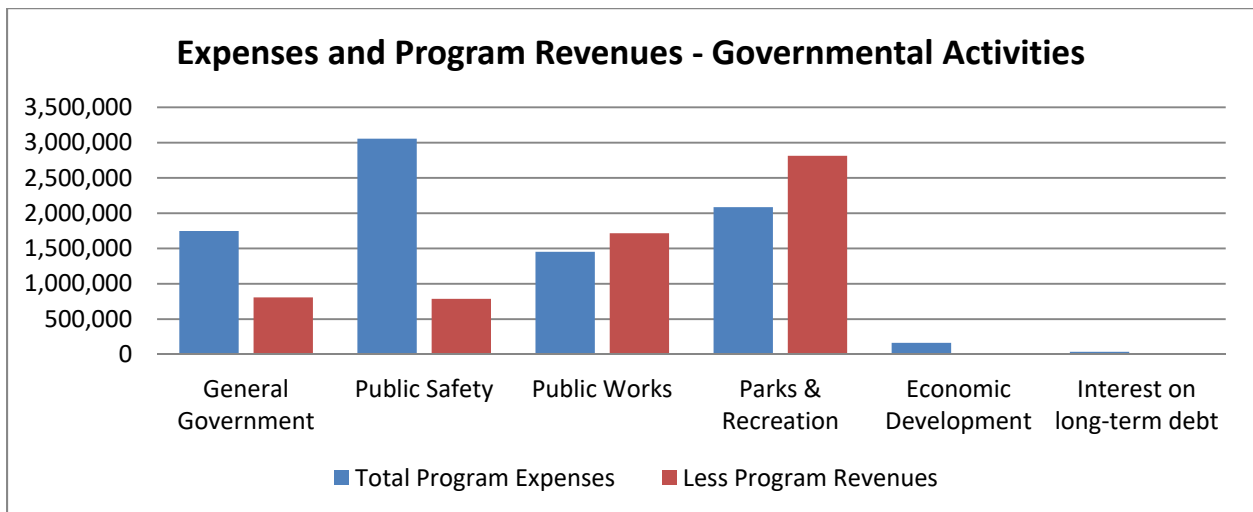
Total revenues for business-type activities increased by \$2,913,270 or 37%. This year, charges for services made up 57.3% of the total revenues for business-type activities. Program revenues include utility fees, connection fees and special fees to builders while other fees include impact fees, gains from the sale of assets and miscellaneous revenue.

Governmental Activities

Governmental activities are reflected in the government-wide Statement of Activities. The activities in the governmental funds resulted in an increase in net position of \$3,997,545 or 9.5%. The following table and chart show the relative net uses (expenses less any revenue directly attributed to that particular function) for governmental activities for each of the functions shown on the Statement of Activities.

Program-generated revenues, (charges for services, operating grants and contributions, and capital grants and contributions), covered \$6,122,827 or 72% of the costs of the City’s governmental activities.

<i>Activities</i>	<i>Total Program Expenses</i>	<i>Less Program Revenues</i>	<i>Net Program Profits/(Costs)</i>	<i>Program Revenues as a Percentage of Total Expenses</i>
General Government	1,747,040	807,939	-939,101	46%
Public Safety	3,054,788	786,705	-2,268,083	26%
Public Works	1,454,099	1,715,768	261,669	118%
Parks & Recreation	2,086,162	2,812,415	726,253	135%
Economic Development	162,887	0	-162,887	0%
Interest on long-term debt	37,458	0	-37,458	0%
Totals	8,542,434	6,122,827	-2,419,607	71.68%



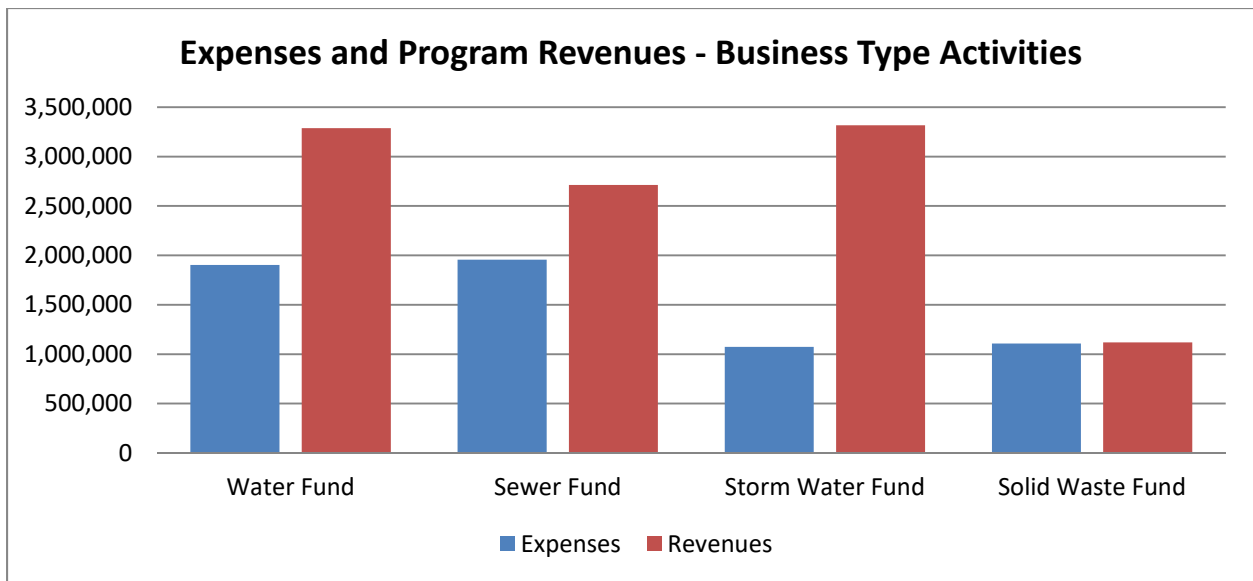
Business-Type Activities

Business-Type activities are also shown in the government-wide Statement of Activities. Activities in the enterprise funds increased the City’s net position by \$4,727,832.

Revenues exceeded expenditures in each of the four enterprise funds. The fees received for these activities make up 59% of program revenues. 41% of program revenues came from Capital Grants and Contributions.

The following chart shows the relative net uses (expenses minus any revenue directly attributed to that particular enterprise fund) for the business type activities shown on the Statement of Activities.

<i>Activities</i>	<i>Expenses</i>	<i>Revenues</i>	<i>Net Program Profits/(Costs)</i>	<i>Program Revenues as a Percentage of Total Expenses</i>
Water Fund	1,902,967	3,288,141	1,385,174	173%
Sewer Fund	1,956,657	2,712,804	756,147	139%
Storm Water Fund	1,073,987	3,316,957	2,242,970	309%
Solid Waste Fund	1,107,730	1,118,420	10,690	101%
<i>Totals</i>	6,041,341	10,436,322	4,394,981	173%



Long Term Debt

In February 2014 the City issued advanced refunding (refinancing) bonds in the amount of \$2,550,000 at an interest rate of 2.32%. In November 2014 the original 2004 Sales Tax Bonds were paid off with the refunding bond proceeds. \$265,000 was paid off during the 2019 Fiscal Year leaving a principal balance of \$1,526,000 as of June 30, 2019.

In Fiscal Year 2018, the City entered into a new lease purchase contract for the purchase of two snow plow trucks. The total principal associated with the lease was \$228,574.84. In Fiscal Year 2019, a payment was made in the amount of \$36,280, leaving a principal balance of \$152,336 at June 30, 2019. The annual interest rate is 1.95%.

The City’s Water Fund has entered into two agreements with developers to construct improvements to the water system as part of development of various areas within the City. These agreements have no required repayment terms by date and no interest but rather require the developer to be reimbursed for the cost of these improvements from impact fees charged in the areas covered by the agreements. The total amount owed for both agreements is \$1,650,757. The amount paid on principal for the agreements for Fiscal Year 2019 was \$139,116.

A similar agreement was entered into in which North Ogden City agreed to pay Harrisville City Storm Water impact fee revenues associated with development that utilizes the Rice Creek detention basin. This debt, in the amount of \$29,744, was paid in full in Fiscal Year 2019.

**Long Term Debt Activity
June 30, 2019**

<u>Long Term Debt</u>	Governmental Activities			Business Type Activities		
	<u>Beginning Balance</u>	<u>Issued/ (Retired)</u>	<u>Ending Balance</u>	<u>Beginning Balance</u>	<u>Issued/ (Retired)</u>	<u>Ending Balance</u>
Bonds Payable	1,791,000	(265,000)	1,526,000			
Snow Plow Trucks (2)	188,616	(36,280)	152,336			
System Reimbursements	29,744	(29,744)		1,789,873	-139,116	1,650,757
Total	2,009,360	-331,024	1,678,336	1,789,873	-139,116	1,650,757

Analysis of Funds

Governmental Funds

The City's Governmental Funds are accounted for using the modified accrual basis of accounting. The governmental funds provide information on the short-term resource inflows and outflows and account balances at the end of the fiscal year. Such information is useful in assessing the City's financing requirements.

At the end of the fiscal year, the City's governmental funds reported combined fund balance of \$7,631,147, an increase of \$1,900,964. \$3,086,774 of the total amount constitutes unassigned funds, which are available for spending at the government's discretion. The remaining fund balance can be categorized in one of four components; nonspendable, restricted, assigned and committed. The city had an assigned fund balance of \$3,348,674 which has been assigned to the Capital Projects Fund for future capital projects. Nonspendable fund balance at year end was \$1,900 which was for prepaid expenses. Restricted fund balance at year-end was \$1,193,799, which was restricted for impact fee use. No part of the net position was committed.

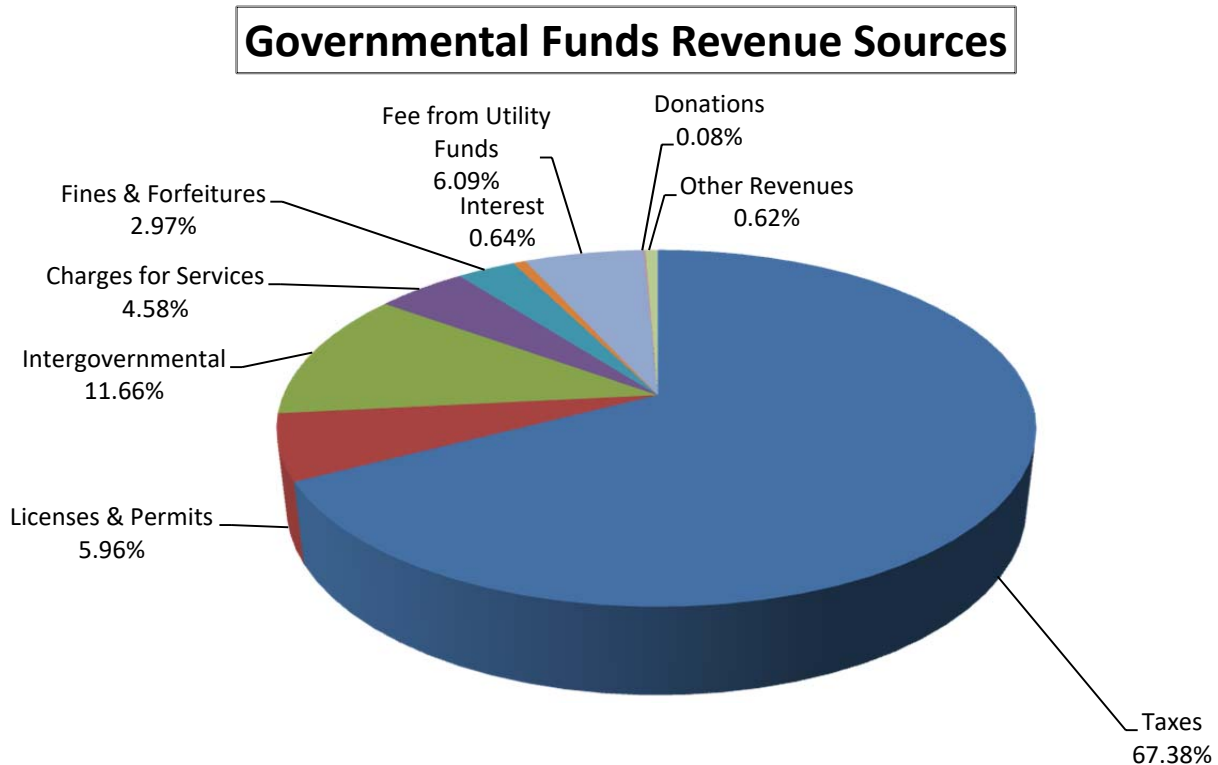
General Fund

The General Fund is the chief operating fund of North Ogden City and accounts for all of the general services provided. At June 30, 2019 the unassigned fund balance of the General Fund was \$1,765,912.

The following tables and charts compare general fund revenues and expenditures by function between fiscal years 2018 and 2019.

General Fund Revenues (prior year comparison)

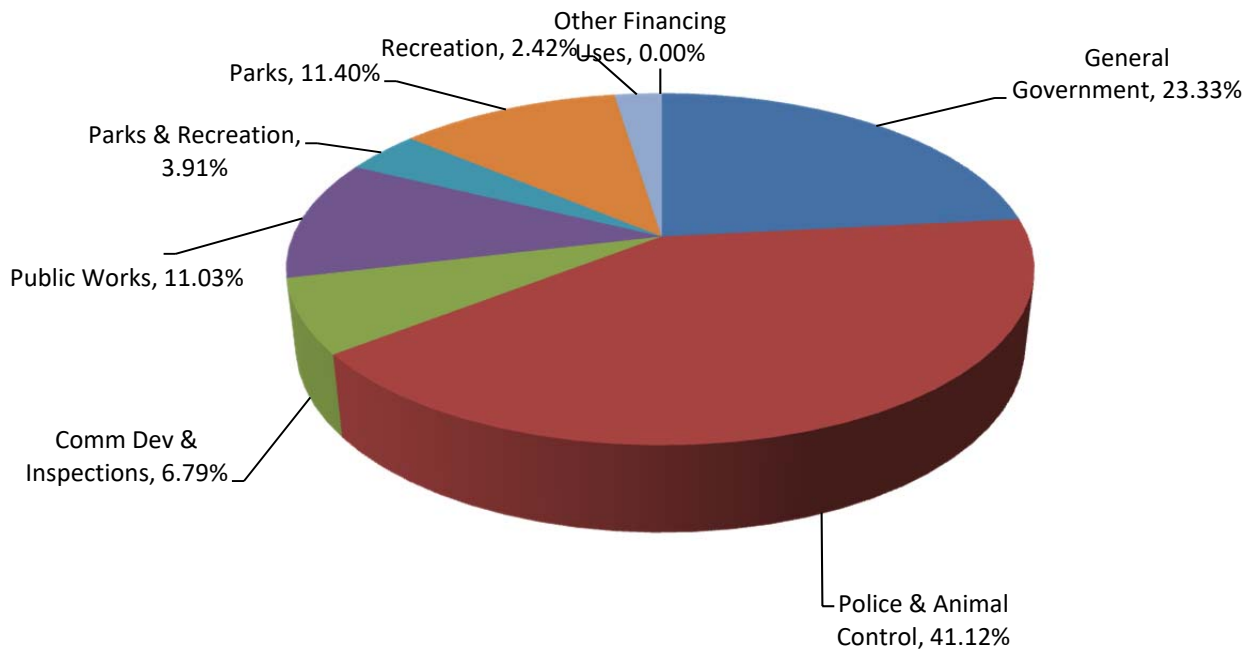
Revenues	<u>2018</u>	<u>2019</u>	<u>\$ Increase/ (Decrease)</u>	<u>% Increase/ (Decrease)</u>	<u>Percent of Total</u>
Taxes	\$5,148,416	\$5,285,537	\$137,121	2.66%	67.38%
Licenses & Permits	\$472,790	\$467,839	-\$4,951	-1.05%	5.96%
Intergovernmental	\$811,749	\$914,532	\$102,783	12.66%	11.66%
Charges for Services	\$353,251	\$359,633	\$6,382	1.81%	4.58%
Fines & Forfeitures	\$196,661	\$232,731	\$36,070	18.34%	2.97%
Interest	\$28,564	\$50,555	\$21,991	76.99%	0.64%
Fee from Utility Funds	\$448,375	\$477,515	\$29,140	0.00%	6.09%
Donations	\$18,016	\$6,451	-\$11,565	-64.19%	0.08%
Other Revenues	\$86,812	\$49,002	-\$37,810	-43.55%	0.62%
Total Revenue	<u>\$7,564,634</u>	<u>\$7,843,795</u>	<u>\$279,161</u>	<u>3.69%</u>	



General Fund Expenditures (prior year comparison)

Expenditures	<u>2018</u>	<u>2019</u>	<u>\$ Increase/ (Decrease)</u>	<u>% Increase/ (Decrease)</u>	<u>Percent of Total</u>
General Government	\$1,454,462	\$1,517,200	\$62,738	4.31%	23.33%
Police & Animal Control	\$2,442,889	\$2,673,618	\$230,729	9.44%	41.12%
Comm Dev & Inspections	\$442,932	\$441,611	-\$1,321	-0.30%	6.79%
Public Works	\$649,811	\$717,466	\$67,655	10.41%	11.03%
Parks & Recreation	\$198,028	\$254,180	\$56,152	28.36%	3.91%
Parks	\$636,854	\$741,131	\$104,277	16.37%	11.40%
Recreation	\$170,643	\$157,388	-\$13,255	-7.77%	2.42%
Other Financing Uses	\$0	\$0	\$0 -		0.00%
Total Expenditures	\$5,995,619	\$6,502,594	\$506,975	8.46%	

Governmental Funds Expenditures



Other Governmental Funds

The fund balance in the Redevelopment Agency fund increased by \$235,265 during the year. This brought the fund balance from \$995,471 in 2018 to \$1,230,736 in 2019. The Capital Projects fund balance increased by \$538,487 bringing the fund balance to \$1,717,460 at the end of the Fiscal Year. The Aquatic Center Fund balance increased by \$34,534 bringing the fund balance to \$90,126 at the end of the Fiscal Year. The Transportation Projects Fund balance increased by \$953,533 bringing the fund balance to \$2,825,013 at the end of the Fiscal Year.

Enterprise Funds

The Enterprise Funds consist of the Water, Sewer, Storm Drain and Solid Waste funds. The Statement of Revenue, Expenses, and Changes in Fund Net Position include the Internal Service Fund as an Enterprise Fund even though it is a Government Activity in the government-wide financial statements.

This year the Water Fund had an operating income of \$122,883. The Sewer Fund had an operating income of \$90,604. The Storm Water Fund had an operating loss of \$46,652. The Solid Waste Fund had an operating income of \$27,853. Depreciation expense is factored into these amounts.

The Internal Service Fund, which is responsible for the repair, maintenance, and purchase of the City's vehicles and equipment, had an operating loss of \$4,008. Funding for the internal service fund comes from the departments throughout the City that are serviced by the fund.

For reporting purposes, the Sewer and Storm Water Impact Fee Funds were combined with their respective utility funds.

General Fund Budgetary Highlights

During the Fiscal Year, the General Fund's original budget for expenditures and transfers was amended from \$6,888,860 to a final budget of \$6,978,565, an increase of \$89,705. Actual expenditures were \$6,502,594 and were \$475,971 less than the final budget.

Economic Factors

Fiscal Year 2019 continued the trend of a strong local economy as indicated by two of the leading economic-based revenues. Sales tax revenues were up 5.4% and revenues related to new housing permits held steady. We did not see the same revenue growth experienced last fiscal year, however, the trends remain strong. While the state and national economies continue to show signs of strength, some economists have predicted a tempering of the economy in the near future.

Request for Information

This financial report is designed to provide a general overview of North Ogden City's finances for all who are interested. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to: North Ogden City, Finance Director, 505 East 2600 North, North Ogden, UT 84414.

NORTH OGDEN CITY

Statement of Net Position

June 30, 2019

	Primary Government		
	Governmental Activities	Business-Type Activities	Total
Assets:			
Current Assets:			
Cash and investments	\$ 8,793,337	5,542,718	14,336,055
Accounts receivable	2,746,113	595,090	3,341,203
Accounts receivable grants and donations	-	876,902	876,902
Accrued interest receivable	-	2,521	2,521
Prepays	7,545	3,512	11,057
Noncurrent assets:			
Amount due within one year	-	63,048	63,048
Due in more than one year	-	64,985	64,985
Capital Assets:			
Land and related non-depreciable assets	8,364,634	241,008	8,605,642
Construction in process	371,818	1,770,144	2,141,962
Total non-depreciable assets	<u>8,736,452</u>	<u>2,011,152</u>	<u>10,747,604</u>
Buildings	16,101,053	418,425	16,519,478
Depreciable infrastructure and improvements	21,285,479	51,892,628	73,178,107
Park improvements	3,627,309	-	3,627,309
Equipment	5,423,530	4,869,284	10,292,814
Less accumulated depreciation	(13,962,716)	(20,558,751)	(34,521,467)
Net depreciable capital assets	<u>32,474,655</u>	<u>36,621,586</u>	<u>69,096,241</u>
Total capital assets	<u>41,211,107</u>	<u>38,632,738</u>	<u>79,843,845</u>
Total assets	<u>52,758,102</u>	<u>45,781,514</u>	<u>98,539,616</u>
Deferred Outflows of Resources	<u>1,072,406</u>	<u>257,479</u>	<u>1,329,885</u>
Liabilities:			
Accounts payable	1,391,022	117	1,391,139
Accrued liabilities	7,848	16,216	24,064
Compensated absences	233,512	57,593	291,105
Performance bonds and deposits	329,991	8,230	338,221
Net pension liability	2,127,595	510,825	2,638,420
Unearned rental income	4,996	-	4,996
Non-current liabilities:			
Amount due within year	287,988	-	287,988
Due in more than one year	<u>1,390,348</u>	<u>1,650,757</u>	<u>3,041,105</u>
Total liabilities	<u>5,773,300</u>	<u>2,243,738</u>	<u>8,017,038</u>
Deferred Inflows of Resources			
Unearned property taxes	1,818,856	-	1,818,856
Pension related	<u>80,473</u>	<u>19,321</u>	<u>99,794</u>
Total deferred inflows of resources	<u>1,899,329</u>	<u>19,321</u>	<u>1,918,650</u>
Net position:			
Net investment in capital assets	39,532,771	36,981,981	76,514,752
Restricted for:			
Impact fees	1,193,799	1,552,056	2,745,855
Unrestricted	<u>5,431,309</u>	<u>5,241,897</u>	<u>10,673,206</u>
Total net position	<u>\$ 46,157,879</u>	<u>43,775,934</u>	<u>89,933,813</u>

NORTH OGDEN CITY
 Statement of Activities
 Year Ended June 30, 2019

	Net (Expense) Revenue and Changes in Net Position						
	Program Revenue			Primary Government			
	Expenses	Charges for Services	Operating Grants and Contributions	Capital and Grants and Contributions	Governmental Activities	Business-type Activities	Total
Primary Government:							
Governmental:							
General government	\$ 1,747,040	786,000	21,939	-	(939,101)	-	(939,101)
Public safety	3,054,788	693,497	93,208	-	(2,268,083)	-	(2,268,083)
Streets and roads	1,454,099	340,755	797,384	577,629	261,669	-	261,669
Parks and recreation	2,086,162	442,108	2,000	2,368,307	726,253	-	726,253
Economic development	162,887	-	-	-	(162,887)	-	(162,887)
Interest on long-term debt	37,458	-	-	-	(37,458)	-	(37,458)
Intergovernmental	-	-	-	-	-	-	-
Total governmental activities:	8,542,434	2,262,360	914,531	2,945,936	(2,419,607)	-	(2,419,607)
Business-type:							
Water	1,902,967	1,974,333	-	1,313,808	-	1,385,174	1,385,174
Sewer	1,956,657	2,047,261	-	665,543	-	756,147	756,147
Storm water	1,073,987	1,027,325	-	2,289,632	-	2,242,970	2,242,970
Solid waste	1,107,730	1,118,420	-	-	-	10,690	10,690
Total business-type activities	6,041,341	6,167,339	-	4,268,983	-	4,394,981	4,394,981
Total primary government	\$ 14,583,775	8,429,699	914,531	7,214,919	(2,419,607)	4,394,981	1,973,374
General revenue:							
Property tax					2,075,040	-	2,075,040
Sales Tax					3,086,826	-	3,086,826
Franchise and energy tax					1,013,993	-	1,013,993
Total taxes					6,175,859	-	6,175,859
Interest earned					172,885	139,035	311,920
Other general revenue					54,114	125,126	179,240
Disposition of assets and easements					14,294	68,690	82,984
Miscellaneous					-	-	-
Transfers - internal activities					6,417,152	332,851	6,750,003
Total general revenue					3,997,545	4,727,832	8,725,377
Change in net position					42,160,334	39,048,102	81,208,436
Net position-beginning of year					\$ 46,157,879	43,775,934	89,933,813
Net position-end of year							

See independent auditors' report and notes to financial statements.

NORTH OGDEN CITY

Balance Sheet
Governmental Funds

June 30, 2019

	General Fund	RDA / CDA Fund	Aquatic Center	Capital Projects	Transportation Projects	Total Governmental Fund
Assets:						
Equity in pooled cash and investments	\$ 2,673,886	1,291,269	68,400	1,667,465	2,746,070	8,447,090
Accounts Receivable	2,010,364	539,467	49,910	49,995	96,377	2,746,113
Prepaid items	1,900	-	-	-	-	1,900
Total assets	4,686,150	1,830,736	118,310	1,717,460	2,842,447	11,195,103
Deferred outflows of resources	-	-	-	-	-	-
Total assets and deferred outflows of resources	4,686,150	1,830,736	118,310	1,717,460	2,842,447	11,195,103
Liabilities:						
Accounts Payable	1,359,662	-	28,184	-	-	1,387,846
Compensated absences payable	22,267	-	-	-	-	22,267
Performance bonds and deposits	316,427	-	-	-	13,564	329,991
Unearned revenue	1,126	-	-	-	3,870	4,996
Total liabilities	1,699,482	-	28,184	-	17,434	1,745,100
Deferred inflows of resources:						
Unearned property tax revenue	1,218,856	600,000	-	-	-	1,818,856
Fund Balances:						
Nonspendable:						
Prepays	1,900	-	-	-	-	1,900
Restricted - impact fees	-	-	-	-	1,193,799	1,193,799
Assigned	-	-	-	1,717,460	1,631,214	3,348,674
Unassigned	1,765,912	1,230,736	90,126	-	-	3,086,774
Total Fund balance	1,767,812	1,230,736	90,126	1,717,460	2,825,013	7,631,147
Total liabilities, deferred inflows of resources, and fund balances.	\$ 4,686,150	1,830,736	118,310	1,717,460	2,842,447	11,195,103

NORTH OGDEN CITY

Reconciliation of the Balance Sheet-
Governmental Funds to the Statement of Net Position

June 30, 2019

Total fund balance - governmental funds \$ 7,631,147

Amount reported for governmental activities in the statement of activities
are different because:

Capital assets used in governmental activities are not reported as assets in
governmental funds.

Land and related non-depreciable assets	8,364,634	
Construction in process	371,818	
Buildings	15,763,488	
Depreciable infrastructure and improvements	24,912,788	
Vehicles and equipment	1,549,271	
Accumulated depreciation	<u>(11,733,583)</u>	
Total capital assets		39,228,416

The pension asset is not an available resource and, therefore, is not reported in
government funds. -

Internal service funds are used by management to charge the costs of certain activities
to individual funds. The assets and liabilities of those internal service funds that primarily
benefit governmental entities are included with governmental activities in the statement
of net position. 2,117,880

Some liabilities are not due and payable in the current period and therefore are not
reported in funds.

Those funds consist of:		
Bonds payable	(1,526,000)	
Interest payable	(5,868)	
Compensated absences and benefits	(199,480)	
Net pension liability	<u>(2,038,707)</u>	
Total long-term debt		(3,770,055)

Deferred inflows for pension (credits), -77,111 and deferred outflows for pension
outflows for pension (charges) 1,027,602 are not reflected in the funds statements
but are reported as part of the entity-wide statement of activities. 950,491

Total net position - governmental activities \$ 46,157,879

NORTH OGDEN CITY

Statement of Revenue, Expenses, and Changes in Fund Balances
Governmental Funds

	Year Ended June 30, 2019					Total Government Funds
	General Fund	CDA/RDA Funds	Aquatic Center	Capital Projects	Transportation Projects	
Revenues:						
Taxes	\$ 5,285,537	685,504	-	-	204,818	6,175,859
License and permits	467,839	-	-	-	-	467,839
Intergovernmental	914,532	-	-	161,521	-	1,076,053
Charges for services	359,633	-	357,784	-	224,447	941,864
Fines and forfeitures	232,731	-	-	-	-	232,731
Interest	50,555	33,824	-	26,162	56,404	166,945
Rents	12,318	-	2,655	-	130,308	145,281
Donations from private sources	6,451	-	-	500	-	6,951
Traffic School	34,169	-	-	-	-	34,169
Impact fees	-	-	-	430,893	434,899	865,792
Administrative fee from utility fund	477,515	-	-	-	-	477,515
Other revenue	2,515	1,828	9,915	30	-	14,288
Total revenue	<u>7,843,795</u>	<u>721,156</u>	<u>370,354</u>	<u>619,106</u>	<u>1,050,876</u>	<u>10,605,287</u>
Expenditures:						
General Government	1,517,200	-	-	136,116	70	1,653,386
Public Safety	3,115,229	-	-	15,040	-	3,130,269
Streets and Highways	717,466	-	-	796,352	-	1,513,818
Parks and recreation	1,152,699	-	-	-	-	1,152,699
Aquatic Center	-	-	475,403	-	-	475,403
Economic development	-	162,887	-	-	-	162,887
Parks and improvements	-	-	-	268,394	-	268,394
Rental properties	-	-	-	-	43,990	43,990
Bond retirement	-	-	265,000	-	-	265,000
Interest on bonds	-	-	38,477	-	-	38,477
Total expenditures	<u>6,502,594</u>	<u>162,887</u>	<u>778,880</u>	<u>1,215,902</u>	<u>44,060</u>	<u>8,704,323</u>
Excess (deficiency) of revenues over (under) expenditures before other financing services (uses)	<u>1,341,201</u>	<u>558,269</u>	<u>(408,526)</u>	<u>(596,796)</u>	<u>1,006,816</u>	<u>1,900,964</u>
Other financing sources (uses):						
Transfers from (to) other funds	(1,202,056)	(323,004)	443,060	1,135,283	(53,283)	-
Total other financing sources (uses)	<u>(1,202,056)</u>	<u>(323,004)</u>	<u>443,060</u>	<u>1,135,283</u>	<u>(53,283)</u>	<u>-</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures and other uses.	<u>139,145</u>	<u>235,265</u>	<u>34,534</u>	<u>538,487</u>	<u>953,533</u>	<u>1,900,964</u>
Fund balance - beginning of year	<u>1,628,667</u>	<u>995,471</u>	<u>55,592</u>	<u>1,178,973</u>	<u>1,871,480</u>	<u>5,730,183</u>
Fund balance - end of year	<u>\$ 1,767,812</u>	<u>1,230,736</u>	<u>90,126</u>	<u>1,717,460</u>	<u>2,825,013</u>	<u>7,631,147</u>

NORTH OGDEN CITY

Reconciliation of Revenue, Expenditures, and Changes in Fund Balances-
Governmental Funds to the Statement of Activities

Year Ended June 30, 2019

Net change in fund balance - total governmental funds	\$ 1,900,964
Amount reported for governmental activities in the statement of activities are different because:	
Government funds report capital outlays as expenditures of \$4,033,513. However, in the statement of Activities the cost of these assets is allocated over their estimated useful lives and reported as depreciation expense of \$1,083,612. Capital outlays exceeded depreciation for the period.	(22,161)
The payment of long-term debt uses current financial resources to governmental funds. These payments are treated as payments of liabilities in the Statement of Activities.	265,000
Contributions of infrastructure to governmental funds do not provide current financial resources but are reported in the Statement of Activities.	1,918,628
Internal service funds are used by management to charge the cost of certain activities to individual funds. The net revenue (expense) of internal service funds is reported with governmental activities in the Statement of Activities	56,046
Changes in compensated absences payable are treated as expenditures in governmental funds statements, but are reductions or increases in liabilities in the Statement of Activities.	(26,245)
Changes in accrued interest expense used in government activities are not payable from current resources and are therefore not reported in governmental funds.	1,019
Some additions of expense reported in the Statement of Activities do not use current financial resources and therefore are not in the governmental funds.	<u>(95,706)</u>
Changes in net position of governmental activities	<u>\$ 3,997,545</u>

NORTH OGDEN CITY

Statement of Net Position
Proprietary Funds

June 30, 2019

Business-Type Activities - Enterprise Funds

	Water Fund	Sewer Fund	Storm Water Fund	Solid Waste Fund	Total Enterprise Funds	Governmental Activities- Internal Service Funds
Current assets:						
Cash and cash equivalents	\$ 2,660,718	1,270,673	1,285,796	325,531	5,542,718	346,247
Accounts receivable - utilities	146,131	222,919	107,918	118,122	595,090	-
Grants receivable	-	-	664,142	-	664,142	-
Other amounts receivable	-	-	212,760	-	212,760	-
Current amount of note receivable	63,048	-	-	-	63,048	-
Accrued interest receivable	2,521	-	-	-	2,521	-
Prepaid items	3,512	-	-	-	3,512	5,645
Total current assets	2,875,930	1,493,592	2,270,616	443,653	7,083,791	351,892
Capital assets:						
Land, rights and water stock	142,025	-	98,983	-	241,008	-
Buildings and structures	345,949	-	-	72,476	418,425	337,565
Construction in process	21,499	-	1,748,645	-	1,770,144	-
Systems	28,826,408	11,115,346	11,950,874	-	51,892,628	-
Vehicles and equipment	1,832,086	656,332	1,144,385	1,236,481	4,869,284	3,874,259
Total Capital Assets	31,167,967	11,771,678	14,942,887	1,308,957	59,191,489	4,211,824
Accumulated depreciation	11,330,191	3,588,007	4,597,214	1,043,339	20,558,751	2,229,133
Net Capital Assets	19,837,776	8,183,671	10,345,673	265,618	38,632,738	1,982,691
Note receivable less current portion	64,985	-	-	-	64,985	-
Total noncurrent items	19,902,761	8,183,671	10,345,673	265,618	38,697,723	1,982,691
Total assets	22,778,691	9,677,263	12,616,289	709,271	45,781,514	2,334,583
Deferred outflows of resources						
Pension related	106,378	51,706	69,433	29,962	257,479	44,804
	106,378	51,706	69,433	29,962	257,479	44,804
Current liabilities:						
Current portion of lease obligation payable	-	-	-	-	-	36,988
Accounts payable	117	-	-	-	117	-
Wages and benefits payable	7,441	2,726	4,295	1,754	16,216	3,176
Compensated absences payable	22,509	11,568	15,092	8,424	57,593	11,765
Accrued interest payable	-	-	-	-	-	1,980
Deposits	8,230	-	-	-	8,230	-
Total current liabilities	38,297	14,294	19,387	10,178	82,156	53,909
Non-current liabilities:						
Net pension liability	211,047	102,582	137,752	59,444	510,825	88,888
System reimbursement agreements payable	1,650,757	-	-	-	1,650,757	-
Lease obligation payable	-	-	-	-	-	152,336
Current portion of lease obligation payable	-	-	-	-	-	(36,988)
Total non-current liabilities	1,861,804	102,582	137,752	59,444	2,161,582	204,236
Total liabilities	1,900,101	116,876	157,139	69,622	2,243,738	258,145
Deferred inflows of resources						
Pension related	7,983	3,880	5,210	2,248	19,321	3,362
	7,983	3,880	5,210	2,248	19,321	3,362
Net position:						
Net investment in capital assets	18,187,019	8,183,671	10,345,673	265,618	36,981,981	1,830,355
Restricted - impact fees	-	308,735	1,243,321	-	1,552,056	-
Unrestricted						
Designated for capital asset repair and replacement	425,520	123,440	242,846	123,440	915,246	-
Undesignated	2,364,446	992,367	691,533	278,305	4,326,651	287,525
Total net position	\$ 20,976,985	9,608,213	12,523,373	667,363	43,775,934	2,117,880

NORTH OGDEN CITY

Statement of Revenue, Expenses and Changes in Fund Net Position
Proprietary Funds

Year Ended June 30, 2019

	Business Type- Enterprise Funds					Governmental Activities- Internal Service Funds
	Water Fund	Sewer Fund	Storm Water Fund	Solid Waste Fund	Total Enterprise Funds	
Operating revenue:						
Charges for services	1,638,547	1,957,384	843,081	1,022,218	5,461,230	777,960
Charges for services - asset repair and replacement	247,994	80,245	184,244	62,402	574,885	-
Connection fees	87,792	9,632	-	-	97,424	-
Special fees to builders	-	-	-	33,800	33,800	-
Sale of materials and supplies	-	-	-	-	-	10,798
Miscellaneous	51,517	-	10	17,163	68,690	2,172
Total operating revenue	2,025,850	2,047,261	1,027,335	1,135,583	6,236,029	790,930
Operating expenses:						
Salaries and benefits	517,556	266,152	383,854	147,227	1,314,789	209,606
Sewer fees	-	1,158,285	3,942	-	1,162,227	-
Transfer station fees - Weber County	-	-	-	297,294	297,294	-
Contract service - Waste Management	-	-	-	436,098	436,098	-
Materials, supplies and services	363,181	70,114	112,188	73,910	619,393	286,040
Motor pool rents	86,601	62,886	122,172	23,714	295,373	-
Interest expence - capital leases	-	-	-	-	-	3,104
Depreciation	794,733	277,634	324,245	42,040	1,438,652	296,188
Administrative services fee	140,896	121,586	127,586	87,447	477,515	-
Total operating expenses	1,902,967	1,956,657	1,073,987	1,107,730	6,041,341	794,938
Operating income (loss)	122,883	90,604	(46,652)	27,853	194,688	(4,008)
Non-operating revenue:						
Impact fees	586,606	96,151	287,165	-	969,922	-
Gain (loss) from sale of assets	51,091	41,101	29,280	3,654	125,126	54,114
Grant revenue for capital projects	-	-	786,836	-	786,836	-
Donations received for capital projects	-	-	262,279	-	262,279	-
Interest received	55,365	32,602	42,163	8,905	139,035	5,940
Total non-operating revenue (expen)	693,062	169,854	1,407,723	12,559	2,283,198	60,054
Capital contribution-builders and developers	727,202	569,392	953,352	-	2,249,946	-
Changes in net position	1,543,147	829,850	2,314,423	40,412	4,727,832	56,046
Net position - beginning of year	19,433,838	8,778,363	10,208,950	626,951	39,048,102	2,061,834
Net position - end of year	\$ 20,976,985	9,608,213	12,523,373	667,363	43,775,934	2,117,880

NORTH OGDEN CITY

Statement of Cash Flows
Proprietary Funds

Year Ended June 30, 2019

	Business-Type Activities - Enterprise Funds					Governmental Activities- Internal Service Funds
	Water Fund	Sewer Fund	Storm Water Fund	Solid Waste Fund	Total Enterprise Funds	
Cash flows from operating activities:						
Cash received from customers	\$1,884,733	2,021,061	1,003,471	1,078,545	5,987,810	777,960
Cash received from other activities	143,823	14,015	4,191	51,036	213,065	13,150
Cash payments for payroll and benefits	(493,688)	(249,943)	(342,282)	(131,587)	(1,217,500)	(204,523)
Cash payments for goods and services	(598,368)	(1,412,871)	(365,888)	(918,463)	(3,295,590)	(291,637)
Net receipts (payments) for service deposits	2,531	-	-	-	2,531	-
Net payments of impact fees collected by another government	-	(170,309)	-	-	(170,309)	-
Net cash provided (used) by operating activities	<u>939,031</u>	<u>201,953</u>	<u>299,492</u>	<u>79,531</u>	<u>1,520,007</u>	<u>294,950</u>
Cash flows from capital and related financing activities:						
Cash payments for property and equipment	(687,744)	(389,163)	(1,611,494)	(114,825)	(2,803,226)	(391,660)
Proceeds from capital assets sales	134,047	91,217	57,500	6,300	289,064	162,648
Collection on contract sale of easement	61,239	-	-	-	61,239	-
Impact fee collections for capital projects	586,606	96,151	287,165	-	969,922	-
Grants received for capital projects	-	-	122,694	-	122,694	-
Donations for capital projects	-	-	49,731	-	49,731	-
Payments on capital leases	-	-	-	-	-	(36,280)
Payments on system reimbursement agreements	(139,116)	-	-	-	(139,116)	-
Net cash provided (used) by capital and related financing activities	<u>(44,968)</u>	<u>(201,795)</u>	<u>(1,094,404)</u>	<u>(108,525)</u>	<u>(1,449,692)</u>	<u>(265,292)</u>
Cash flows from non-capital financing activities:						
Transfer from (to) other funds	-	-	-	-	-	-
Pension related items	-	-	-	-	-	-
Net cash used by from non-capital financing activities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Cash flows from investing activities:						
Interest received	56,551	32,602	42,163	8,905	140,221	5,940
Net cash provided by investing activities	<u>56,551</u>	<u>32,602</u>	<u>42,163</u>	<u>8,905</u>	<u>140,221</u>	<u>5,940</u>
Net increase (decrease) in cash and cash equivalents	950,614	32,760	(752,749)	(20,089)	210,536	35,598
Cash and cash equivalents - beginning of year	<u>1,710,104</u>	<u>1,237,913</u>	<u>2,038,545</u>	<u>345,620</u>	<u>5,332,182</u>	<u>310,649</u>
Cash and cash equivalents - end of year	<u>\$ 2,660,718</u>	<u>1,270,673</u>	<u>1,285,796</u>	<u>325,531</u>	<u>5,542,718</u>	<u>346,247</u>

NORTH OGDEN CITY

Statement of Cash Flows - Continued
Proprietary Funds

Year Ended June 30, 2019

	Business-Type Activities - Enterprise Funds				Total Enterprise Funds	Governmental Activities- Internal Service Funds
	Water Fund	Sewer Fund	Storm Water Fund	Solid Waste Fund		
Reconciliation of operating income (loss) to net cash provided by operation activities:						
Operating income (loss)	\$ 122,883	90,604	(46,652)	27,853	194,688	(4,008)
Adjustments to reconcile operating income to net cash provided by operating activities:						
Depreciation	794,733	277,634	324,245	42,040	1,438,652	296,188
Decrease (increase) in receivables	2,706	(12,185)	(19,673)	(6,002)	(35,154)	180
Decrease (increase) in prepaid items	(69)	-	-	-	(69)	(1,919)
Pension related items	23,868	16,022	40,016	12,745	92,651	1,882
Decrease (increase in impact fees for other governments (Decrease) increase in compensated absences or accounts payable	-	(170,309)	-	-	(170,309)	-
	(7,621)	187	1,556	2,895	(2,983)	3,201
Increase (decrease) in interest payable on leases	-	-	-	-	-	(574)
Decrease in total deposits for services	2,531	-	-	-	2,531	-
Total operating revenue	<u>816,148</u>	<u>111,349</u>	<u>346,144</u>	<u>51,678</u>	<u>1,325,319</u>	<u>298,958</u>
Net cash provided (used) by operating activities	<u>939,031</u>	<u>201,953</u>	<u>299,492</u>	<u>79,531</u>	<u>1,520,007</u>	<u>294,950</u>
Non-cash investing, capital and financing activities:						
Capital assets from Grants and Donations receivable	-	-	876,902	-	876,902	-
Capital contributions by developers	<u>727,202</u>	<u>569,392</u>	<u>953,352</u>	-	<u>2,249,946</u>	-
Total non-cash investing, capital and financing activities	<u>\$ 727,202</u>	<u>569,392</u>	<u>1,830,254</u>	<u>-</u>	<u>3,126,848</u>	<u>-</u>

NORTH OGDEN CITY

Notes to Financial Statements

June 30, 2019

(1) Summary of Significant Accounting Policies

This summary of significant accounting policies of North Ogden City (the City) is presented to assist in understanding the City's financial statements. The financial statements and notes are the representation of the City's management, which is responsible for their integrity and objectivity. These accounting policies conform to generally accepted accounting principles, as applicable to governmental organizations. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing accounting and financial reporting principles.

A. Organization

North Ogden City was incorporated in 1934. The City (a municipal corporation) operates under a traditional council/mayor form of government and provides the following services as authorized by its charter: public safety, public utilities, highways and streets, sanitation, social services, culture-recreation, public improvements, planning and zoning, and general administrative services.

B. Reporting Entity

As required by generally accepted accounting principles, these financial statements present North Ogden City (the primary government) and its component units. The component units discussed below are included in the City's reporting entity because of the significance of their operational or financial relationships with the City.

Blended Component Units:

North Ogden Redevelopment Agency - The North Ogden Redevelopment Agency (RDA) is governed by the Mayor and City Council. Although it is legally separate from the City, the RDA is reported as if it were part of the primary government because its sole purpose is to redevelop areas within the City thereby generating additional property tax and sales tax. The RDA does not prepare separately issued financial statements. Financial information for the RDA may be obtained at the City Administrative Offices.

C. Government-Wide and Fund Financial Statements

The City's basic financial statements consist of both government-wide statements and fund statements. The government-wide statements focus on the City as a whole, while the fund statements focus on individual funds.

Government-Wide Financial Statements

The government-wide statements present information on all non-fiduciary activities of the primary government and its component units. Primary government activities are distinguished between governmental and business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenue, and other non-exchange revenue. Business-type activities are financed in whole or in part by fees charged to external parties for goods or services. The effects of interfund activity have been eliminated from the government-wide statements except for the residual amounts due between governmental and business-type activities.

The Statement of Net Position presents the City's non-fiduciary assets and liabilities, with the difference reported as net position. Net position is restricted when constraints placed upon them are either externally imposed or are imposed by constitutional provisions or enabling legislation. The Statement of Activities demonstrates the degree to which the direct expenses of a given function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable within a specific function. The City does not allocate general government (indirect) expenses to other functions. Program revenues include: 1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function; and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function. Taxes and other revenues not meeting the definition of program revenues are reported as general revenue.

Fund Financial Statements

The accounts of the City are organized on the basis of funds and account groups, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts. Government resources are allocated to and accounted for in individual funds based upon the purposes for which they are to be spent and statutory mandate. The various funds are grouped, in the financial statements in this report, into fund types and categories as follows:

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(1) Summary of Significant Accounting Policies - Continued

Governmental Fund Types:

The City reports the following major governmental funds:

General fund - The general fund is the general operating fund of the City. It is used to account for all financial resources except those that are required to be accounted for in other funds. It also includes the financial activities related to most federal and state funds.

Special revenue funds - These funds are used to account for the proceeds of specific revenue sources (other than major capital projects) that are legally restricted to expenditures for specified purposes.

Capital projects funds - These funds are used to account for financial resources to be used for the acquisition or construction of general major capital facilities.

Proprietary Fund Types:

Enterprise funds - Enterprise funds are used to account for operations (a) that are financed and operated in a manner similar to private business enterprises - where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenue earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes. The City operates its water, sewer, storm drainage, and solid waste fund as enterprise funds. Each is considered a major proprietary fund.

Internal service funds - The internal service funds are used to provide financing of goods and services provided by one department or agency to other departments or agencies of the government, or other governments on a cost-reimbursements basis. The City maintained internal service funds for motor vehicle fleet operations. Internal service funds are reported as a single column on the enterprise fund statements and are combined with governmental activities on the government-wide statements.

D. Measurement Focus and Basis of Accounting

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting, as are the proprietary fund financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

All governmental funds are reported using a current financial resources measurement focus. With this measurement focus, only current assets and current liabilities generally are included on the balance sheet. Operating statements of these funds present increases and decreases in net current assets.

All governmental funds are accounted for using the modified accrual basis of accounting. That is, revenues are recognized when they become measurable and available as net current assets. "Measurable" means the amount of the transaction can be determined and "available" means collectible within the current period or soon enough thereafter (within sixty days) to be used to pay liabilities of the current period.

Expenditures are generally recognized under the modified accrual basis of accounting when the related fund liability is incurred. Exceptions to this general rule include: (1) accumulated unpaid vacation, sick pay, and other employee amounts which are not accrued in the individual funds because the current portion of these items cannot be reasonably estimated and (2) principal and interest on general long-term debt which is recognized when due.

All proprietary funds are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operation of these funds are included on the balance sheet. Fund equity is segregated into contributed capital and retained earnings components. Proprietary fund-type operating statements present increases and decreases in net total assets.

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(1) Summary of Significant Accounting Policies - Continued

All proprietary funds are accounted for using the accrual basis of accounting. Their revenues are recognized when they are earned, and their expenses are recognized when they are incurred.

Sales and use taxes, franchise taxes, and earned but un-reimbursed state and federal grants associated with the current fiscal period are considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal year. Property taxes are measurable as of the date levied (assessed) and are recognized as revenues when they become available. All other revenues are considered to be measurable and available only when cash is received by the government.

As a general rule the effect of inter-fund activity has been eliminated from the government-wide financial statements. Exceptions to this general rule are payments to the general fund by various enterprise funds for the providing of administrative services for such funds. Elimination of these charges would distort the total costs and program revenues reported for the various functions concerned.

Amounts reported as program revenues include (1) charges to customers or applicants for goods, services, or privileges provided, (2) operating grants and contributions, and (3) capital grants and contributions. General revenue include all taxes and fees in lieu.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of all proprietary funds are charges to customers for sales and services. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

E. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position/Fund Balance

Cash, Deposits, and Investments

Cash includes cash on hand, demand deposits with banks, and deposits in cash management pools that have the general characteristics of demand deposit accounts. City policy allows for the investment of funds in time certificates of deposit with federally insured depositories, investment in the Utah Public Treasurer's Investment Fund (the Fund) and other investments allowed by the State of Utah's Money Management Act.

The Utah Public Treasurer's Investment Fund operates in accordance with state laws and regulations. The reported value of the Fund is the same as the fair value of the Fund shares.

Receivables and Payables

Activities between funds that are representative of lending/borrowing arrangements outstanding at the end of the fiscal year are referred to as "interactivity receivable or interactivity payable". Any residual balances outstanding between governmental activities and business-type activities are reported in the government-wide financial statements as "interactivity balances".

Advances between funds, as reported in fund financial statements, are offset by a fund balance reserve account in applicable governmental funds to indicate that they are not available for appropriation and are not expendable available resources.

Accounts receivable for services related to government activities and trade accounts receivable for business-type activities are shown net of allowance for doubtful accounts. The allowance is calculated using a percentage of total accounts receivable in conjunction with an evaluation of items over 180 days.

Inventories and Prepaid Items

All inventories are valued at cost and accounted for on the first-in, first-out method (FIFO). Inventories of governmental funds are recorded as expenditures when consumed rather than when purchased. No material inventories were on hand at June 30, 2019.

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items in both the government-wide and fund financial statements.

Restricted Assets

Certain assets are classified as restricted because their use is restricted by laws and regulations.

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(1) Summary of Significant Accounting Policies - Continued

Capital Assets

Capital assets, which include property, plant, equipment, and infrastructure assets (e.g., roads, bridges, sidewalks, and similar items) are reported in the applicable governmental or business-type activities columns in the government-wide financial statements. Capital assets are defined by the government as assets with an initial, individual cost of more than \$5,000 (amount not rounded) and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at estimated fair value at the date of donation.

The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend assets lives are not capitalized.

Depreciation has been provided over the estimated useful lives using the straight-line method. The estimated useful lives are as follows:

Buildings	50 years
Water distribution system	50 years
Sewer collection system	50 years
Equipment and machinery	3-10 years
Infrastructure and other improvements	10-30 years
Wells and related structures	5-10 years
Trucks	4-10 years

Water Rights and Stock

The City does not place a limitation on the life of the water rights, an intangible capital asset, and does not expect to cease utilizing the water rights in the foreseeable future. The water rights are recorded at historical cost and are considered to have an indefinite useful life. The total book value for water rights for the Water Utility Fund is \$6,250 at June 30, 2019.

Compensated Absences

It is the City's policy to allow employees to accumulate earned but unused vacation, compensatory time, and sick leave benefits. Compensated absences are reported in governmental funds only if an employee has resigned or retired and the accrued leave has not been paid out. The accumulated vacation and compensatory time that is not expected to be liquidated with expendable available financial resources are reported as liabilities in the government-wide statement of net position and as expenses in the government-wide statement of activities. Accumulated vacation and compensatory time of proprietary funds is recorded as an expense and a liability of those funds as the benefits accrue to the employees and are thus recorded in both the government-wide financial statements and the individual fund financial statements. Year-end liabilities for compensated absences are accrued at the employees' current hourly rate for the maximum possible separation benefit.

Sick leave amounts are charged to expenditures when incurred. Employees may accumulate sick leave to a total of nine hundred sixty hours. Regular employees accumulated sick leave benefits at the rate of twelve days per year. The City has implemented an unused sick leave incentive to increase productivity and encourage longevity within the City. The incentive allows for converting a portion of unused sick leave to either annual leave or cash. The incentive is elected annually in December and requires employees to meet strict criteria to be eligible. Employees who retire or separate under favorable conditions are paid a portion of unused sick leave based on years of service and accumulated sick leave hours.

NORTH OGDEN CITY

Notes to Financial Statements - Continued
June 30, 2019

(1) Summary of Significant Accounting Policies - Continued

Long-Term Obligations

In the government-wide financial statements and proprietary fund types in the fund financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities, business-type activities, or proprietary fund type statement of net position. Bond discounts and premiums are deferred and amortized over the life of the applicable debt.

In the fund financial statements, governmental fund types recognize bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums received on debt issuances are reported as other financing sources while discounts on debt issuances are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position and balance sheet reports a separate section for deferred outflows of resources. This separate financial statement element, Deferred Outflows of Resources, represents a separate consumption of net position, fund balance that applies to a future period and so will not be recognized as an outflow of resources (expense/expenditures) until then. The City is reporting deferred outflows of resources relating to pension in the government-wide financial statement and a deferred outflow relating to impact fee payments.

In addition to liabilities, the statement of net position and balance sheet reports a separate section for deferred inflows of resources. This separate financial statement element, Deferred Inflows of Resources, represents an acquisition of net position, fund balance that applies to a future period and so will not be recognized as an inflow (revenue) until that time. The City reports unearned property taxes as deferred inflows of resources since they are recognized as receivables before the period for which they are levied. These amounts are reported in the government-wide and funds financial statements. The City also reports deferred inflows of resources relating to its employee pensions in the government-wide financial statements.

Net Position/Fund Balances

The difference between assets plus deferred outflows of resources and liabilities plus deferred inflows of resources is *net position* on the government-wide statements and *fund balance* on the governmental fund statements. Net position is divided into invested in capital assets, restricted and unrestricted. Net position is reported as restricted when constraints are placed upon them by external parties or are imposed by constitutional provisions or enabling legislation.

In the fund financial statements, fund balance is reported in classifications that comprise a hierarchy based on the extent to which the City is bound to honor constraints on the specific purposes for which amounts in those funds can be spent. The classifications of fund balance are Nonspendable, Restricted, Committed, Assigned, and Unassigned. Nonspendable and Restricted fund balances represent the restricted classifications and Committed, Assigned, and Unassigned represent the unrestricted classifications.

Nonspendable fund balance includes amounts that cannot be spent because either 1) it is not in a spendable form, such as inventory or prepaid items or 2) legally or contractually required to be maintained intact. Restricted fund balance is externally (outside the City) enforceable limitations imposed by creditors, grantors, contributors, laws and regulations of other governments, or laws through constitutional provisions or enabling legislation. Committed fund balance is self-imposed limitations imposed at the highest level of decision making authority, namely, the Council. The Council approval is required to commit resources or to rescind the commitment.

NORTH OGDEN CITY

Notes to Financial Statements – Continued

June 30, 2019

(1) Summary of Significant Accounting Policies - Continued

Assigned fund balance represents limitations imposed by management. Assigned fund balance requests are submitted to the Finance Director for approval/non-approval. Unassigned fund balance represents the residual net resources in excess of the other classifications.

When both restricted and unrestricted resources are available for specific expenditures, restricted resources are considered spent before unrestricted resources. Within unrestricted resources, committed and assigned are considered spent (if available) before unassigned amounts.

F. Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension expense, information about the fiduciary net position of the Utah Retirement Systems Pension Plan (URS) and additions to/deductions from URS's fiduciary net position have been determined on the same basis as they are reported by URS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

G. Budgets

Annual budgets are prepared and adopted in accordance with the "Uniform Fiscal Procedures Act of Utah Cities" by North Ogden City Municipal Council on or before June 22nd for the following fiscal year which begins on July 1. Budgets may be increased by resolution of the City Council at any time during the year, following a public hearing. Budgets are prepared in line-item detail; however, budget amendments by resolution are generally required only if the fund desires to exceed its total budget appropriation. The City follows Uniform Fiscal Procedures for Cities as adopted by the State Legislature for policies concerning its budgetary accounting. Annual budgets are adopted for all governmental fund types. All annual appropriations lapse at fiscal year-end.

During the year, two supplemental amendments were made to the City's General Fund budget increasing total revenue \$37,285 and total expenditures \$1,072,545, including transfers. The Aquatic Center was not amended. The combined RDA – CDA was amended to increase expenditures and transfers \$17,190. The Capital project was amended to increase revenue including transfers in \$1,659,149 and increase expenditures \$795,915. Transportation projects was amended by increasing revenue and expenditures \$12,000.

H. Non-spendable Fund Balance/Retained Earnings

Non-spendable fund balance at June 30, 2019 is comprised of prepaids of \$1,900 in the general fund.

I. Restricted of Fund Balance

The City has \$2,745,855 balance designated as restricted. This represents impact fees that are restricted as to their use.

J. Assignment of Fund Balance

Assignment of fund balance is comprised of \$3,348,674 in the capital projects fund and transportation projects and for planned projects including streets and roads.

NORTH OGDEN CITY

Notes to Financial Statements – Continued

June 30, 2019

(1) Summary of Significant Accounting Policies - Continued

- K. Designation of Fund Balance**
Designation of fund balance is \$915,246 in the Enterprise funds coming from an increment of the utility changes designated for capital type asset replacement or repair.
- L. Cash and Cash Equivalents**
For purposes of the statement of cash flows, the proprietary fund types consider all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.
- M. Use of Estimates**
The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates

(2) Deposits and Investment

Deposits and investments for North Ogden City are governed by the Utah Money Management Act and by rules of the Utah Money Management Council. Following are discussions of the City’s exposure to various risks related to its cash management activities.

A. Credit

Deposits. Custodial credit risk for deposits is the risk that in the event of a bank failure, the City’s deposits may not be recovered. The City’s policy for managing custodial credit risk is to adhere to the Money Management Act. The Act requires all deposits of City funds to be in a *qualified depository*, defined as any financial institution whose deposits are insured by an agency of the federal government and which has been certified by the commissioner of Financial Institutions as meeting the requirement of the Act and adhering to the rules of the Utah Money Management Council. The City’s deposits in banks in excess of the insured amount are uninsured and are not collateralized, nor do state statutes require them to be. The City’s deposits at the banks and credit unions at June 30, 2019 were \$1,524,732, of which \$787,862 was uninsured and uncollateralized.

B. Credit Risk

Credit risk is the risk that the counterparty to an investment transaction will not fulfill its obligations. The City’s policy for limiting the credit risk of investments is to comply with the Money Management Act. The Act requires investment transactions to be conducted only through qualified depositories, certified dealers, or directly with issuers of the investment securities. Permitted investments include deposits of qualified depositories; repurchase agreements; commercial paper that is classified as “first-tier” by two nationally recognized statistical rating organizations, one of which must be Moody’s Investor Services or Standard & Poors; bankers acceptances; obligations of the U.S. Treasury and U.S. government sponsored enterprises; bonds and notes of political subdivisions of the State of Utah; fixed rate corporate obligations and variable rate securities rated “A” or higher by two nationally recognized statistical rating organizations; and shares in a money market fund as defined in the Act.

The City is also authorized to invest in the Utah Public Treasurer’s Investment Fund (PTIF), an external pooled investment fund managed by the Utah State Treasurer and subject to the Act and Council requirements. The PTIF is not registered with the SEC as an investment company, and deposits in the PTIF are not insured or otherwise guaranteed by the State of Utah. The PTIF operates and reports to participants on an amortized costs basis. The income, gains, and losses, net of administration fees, of the PTIF are allocated based upon the participants’ average daily balances. The fair value of the PTIF investment pool is approximately equal to the value of the pool shares. Following are the City’s investments at June 30, 2019:

<u>Investment Type</u>	<u>Fair Value</u>	<u>Maturity</u>	<u>Quality Ratings</u>
PTIF Investments	\$ 12,869,626	47.7 days*	not rated

*Weighted-average maturity

NORTH OGDEN CITY

Notes to Financial Statements – Continued

June 30, 2019

(2) Deposits and Investments - Continued

A. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment. The City manages its exposure to declines in fair value by investing solely in the PTIF and by adhering to the Money Management Act. The Act requires that the remaining term to maturity of investments may not exceed the period of availability of the funds to be invested. The Act further limits the remaining term to maturity of commercial paper to 270 days or less and fixed rate negotiable deposits and corporate obligations to 365 days or less. Maturities of the City's investments are noted in the previous table.

B. Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The City's policy to limit this risk is to adhere to the rules of the Money Management Council and to invest most of its available funds in the PTIF. The Council rules do not limit the amount of investments a government may make in any one issuer except for Rule 2 regarding certain endowments and funds with a long-term perspective, and Rule 17 which limits investments in a single issuer of commercial paper and corporate obligations to between 5 and 10 percent depending upon the total dollar amount held in the government's portfolio at the time of purchase.

Components of cash including interest bearing deposits at June 30, 2019 are as follows:

Cash on hand and deposit:	
Cash on hand	\$ 5,000
Cash on deposit	963,866
Money market deposits	497,563
PTIF deposit	<u>12,869,626</u>
	<u>\$ 14,336,055</u>

(3) Accounts Receivable

Receivables as of year-end for the City's individual major funds and non-major funds in the aggregate, including the applicable allowances for uncollectible accounts, are as follows:

	General Fund	Special Revenue RDA	Special Revenue Aquatic Center	Capital Projects	Transportation Projects	Total Governmental Funds
Taxes	\$ 1,237,782	539,467	-	-	-	1,777,249
Utilities	-	-	-	-	34,490	34,490
Intergovernmental	721,245	-	49,910	49,995	38,427	859,577
Other	51,337	-	-	-	23,460	74,797
	<u>2,010,364</u>	<u>539,467</u>	<u>49,910</u>	<u>49,995</u>	<u>96,377</u>	<u>2,746,113</u>
Less: Allowance for uncollectible accounts	-	-	-	-	-	-
	<u>\$ 2,010,364</u>	<u>539,467</u>	<u>49,910</u>	<u>49,995</u>	<u>96,377</u>	<u>2,746,113</u>

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(3) Accounts Receivable continued

	Water Utility Enterprise Fund	Utility Enterprise Fund	Utility Enterprise Fund	Utility Enterprise Fund	Total Enterprise Funds	Total all Funds
Taxes	\$ -	-	-	-	-	1,777,249
Utilities	146,131	222,919	107,918	118,122	595,090	629,580
Intergovernmental	-	-	664,142	-	664,142	1,523,719
Other	-	-	212,760	-	212,760	287,557
	<u>146,131</u>	<u>222,919</u>	<u>984,820</u>	<u>118,122</u>	<u>1,471,992</u>	<u>4,218,105</u>
Less: Allowance for uncollectible accounts	-	-	-	-	-	-
	<u>\$ 146,131</u>	<u>222,919</u>	<u>984,820</u>	<u>118,122</u>	<u>1,471,992</u>	<u>4,218,105</u>

The City considers its utility fund accounts receivable to be substantially collectable and has therefore not recorded an allowance for doubtful accounts.

Governmental funds report *unearned revenue* in connection with receivables for revenues that are not considered to be available to liquidate liabilities of the current period. Governmental funds also defer revenue recognition in connection with resources that have been received, but not yet earned. At the end of the current fiscal year, the various components of *unearned revenue* reported in the governmental funds for property taxes were as follows:

	Unavailable	Unearned
Property taxes levied not yet due	\$ 1,663,643	1,663,643
Property taxes received not yet due	-	155,213
	<u>\$ 1,663,643</u>	<u>1,818,856</u>

(4) Capital Assets

Capital asset activity for the year ended June 30, 2019 was as follows:

	Beginning Balance	Additions	Deletions	Ending Balance
Governmental activities:				
Capital assets not being depreciated				
Construction in process	\$ 2,140,416	327,207	2,095,805	371,818
Land and land improvements	8,271,532	93,102	-	8,364,634
Total	<u>10,411,948</u>	<u>420,309</u>	<u>2,095,805</u>	<u>8,736,452</u>
Capital assets being depreciated:				
Buildings and improvements	13,836,367	2,292,463	27,777	16,101,053
Infrastructure	18,824,966	2,460,513	-	21,285,479
Park improvements	3,627,309	-	-	3,627,309
Machinery and equipment	5,348,945	397,625	323,040	5,423,530
Total	<u>41,637,587</u>	<u>5,150,601</u>	<u>350,817</u>	<u>46,437,371</u>
Less accumulated depreciation for:				
Buildings and improvements	(4,763,292)	(384,103)	(27,777)	(5,119,618)
Infrastructure	(4,425,070)	(665,185)	-	(5,090,255)
Park improvements	(814,824)	(97,220)	-	(912,044)
Machinery and equipment	(2,718,640)	(336,665)	(214,506)	(2,840,799)
Total	<u>(12,721,826)</u>	<u>(1,483,173)</u>	<u>(242,283)</u>	<u>(13,962,716)</u>
Capital assets being depreciated, net	28,915,761	3,667,428	108,534	32,474,655
Business-type activities capital assets, net	\$ 39,327,709	4,087,737	2,204,339	

NORTH OGDEN CITY

Notes to Financial Statements – Continued

June 30, 2019

(4) Capital Assets continued

Capital assets in the statement of net position also includes the equipment and other depreciable assets, net of accumulated depreciation, for the internal service fund of \$2,334,583.

	Beginning Balance	Additions	Deletions	Ending Balance
Business-type activities:				
Capital assets not being depreciated				
Construction in process	\$ 427,668	1,385,431	42,955	1,770,144
Land, land improvements and water stock and rights	<u>241,008</u>	<u>-</u>	<u>-</u>	<u>241,008</u>
Total	<u>668,676</u>	<u>1,385,431</u>	<u>42,955</u>	<u>2,011,152</u>
Capital assets being depreciated:				
Buildings and improvements	345,949	72,476	-	418,425
Infrastructure	48,949,532	2,975,510	32,414	51,892,628
Machinery and equipment	<u>4,607,881</u>	<u>662,710</u>	<u>401,307</u>	<u>4,869,284</u>
Total	<u>53,903,362</u>	<u>3,710,696</u>	<u>433,721</u>	<u>57,180,337</u>
Less accumulated depreciation for:				
Buildings and improvements	(289,626)	(10,780)	-	(300,406)
Infrastructure	(16,643,181)	(1,088,465)	(27,552)	(17,704,094)
Machinery and equipment	<u>(2,457,074)</u>	<u>(339,407)</u>	<u>(242,230)</u>	<u>(2,554,251)</u>
Total	<u>(19,389,881)</u>	<u>(1,438,652)</u>	<u>(269,782)</u>	<u>(20,558,751)</u>
Capital assets being depreciated, net	<u>34,513,481</u>	<u>2,272,044</u>	<u>163,939</u>	<u>36,621,586</u>
Business-type activities capital assets, net	<u>\$ 35,182,157</u>	<u>3,657,475</u>	<u>206,894</u>	<u>38,632,738</u>

Depreciation expense was charged to functions/programs of the primary government as follows:

Government activities:	
General government	\$ 72,914
Public safety	136,524
Public works, including depreciation of general infrastructure	895,501
Parks and recreation	<u>378,234</u>
Total governmental activities:	<u>1,483,173</u>
Business activities:	
Water	794,733
Sewer	277,634
Storm water	324,245
Solid waste	<u>42,040</u>
Total business activities:	<u>1,438,652</u>
Total all activities	<u>\$ 2,921,825</u>

NORTH OGDEN CITY

Notes to Financial Statements – Continued

June 30, 2019

(5) Changes in Capital Leases and Long-Term Liabilities

Activity with long-term liabilities including capital leases for the year ending June 30, 2019 is as follows:

	Beginning Balance	Issued	Retired	Ending Balance	Amount Due within One Year
<i>Governmental activities:</i>					
Sales Tax Revenue Refunding Bond	\$ 1,791,000	-	265,000	1,526,000	251,000
2 Snow plow truck lease	188,616	-	36,280	152,336	36,988
	<u>\$ 1,979,616</u>	<u>-</u>	<u>301,280</u>	<u>1,678,336</u>	<u>287,988</u>
<i>Business-type activities:</i>					
System reimbursement agreements	\$ 1,819,617	-	168,860	1,650,757	-
Total	<u>\$ 1,819,617</u>	<u>-</u>	<u>168,860</u>	<u>1,650,757</u>	<u>-</u>

For the current year ended June 30, 2019, interest of \$41,587 was charged to expenses by Governmental Activities and \$- by business-type activities. No interest was capitalized during the year by either type of activity.

(6) Long-Term Debt

On November 9, 2004 the City issued \$4,040,000 in sales tax revenue bonds. The proceeds of the bonds were used to construct the City's new aquatic center. The bonds carry interest rates ranging from 2.00% to 5.00% and fully mature in the year 2025. These bonds were paid in November of 2014 with the proceeds of \$2,550,000 Sales Tax Revenue Bond.

The Refunding Sales Tax Bonds were issued in 2014 have an interest rate of 2.32% and will fully mature in fiscal year 2025.

The debt maturities are as follows:

Year Ended June 30,	Principal	Interest	Total Debt Service
2020	\$ 251,000	32,492	283,492
2021	256,000	26,610	282,610
2022	265,000	20,567	285,567
2023	274,000	14,314	288,314
2024	283,000	7,853	290,853
2025	197,000	2,285	199,285
	<u>\$ 1,526,000</u>	<u>104,121</u>	<u>1,630,121</u>

The City's water fund has entered into two agreements with developers to construct various improvements to the water system as part of development of various areas within the City. These agreements have no required repayment terms by date or no interest but rather require the developer to be reimbursed for the cost of these improvements from impact fees charged in the area covered by the agreement.

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(6) Long-Term Debt continued

The debt on these agreements is as follows:

Agreement 1	\$ 1,462,947
Agreement 2	<u>187,810</u>
	<u>\$ 1,650,757</u>

The City's Storm Water Fund has entered into an agreement with Harrisville City to develop a Storm Water Detention basin known as the Rice Creek Regional detention basin. Under the agreement, North Ogden City will reimburse Harrisville City for a portion from storm water impact fees collected within the drainage area contributing to the basin. During the year the City elected to pay this obligation.

(7) Capital Leases

The City has one outstanding lease purchase contract. This contract is treated as capital lease for accounting purposes and has been recorded at the present value of the future minimum lease payments. All amortization expense for this lease has been included in depreciation expense.

On October 23, 2017, the City entered into a lease purchase contract to acquire two snow plow trucks and related attachments and accessories. These trucks are to be used for snow plowing. A payment of \$39,959 was made at the time of signing with the balance due in six payments of \$39,958 on October of each year with the final payment due in October of 2022. The lease has an interest rate of 1.950%.

Future minimum lease payments together with the present value of the net minimum lease payments under this capital lease obligation at June 30, 2019 is as follows:

Year Ended June 30	Governmental Activities	
	Motor Pool	
	Two Snow Plow Trucks	Total
2020	39,958	39,958
2021	39,959	39,959
2022	39,958	39,958
2023	39,959	39,959
	<u>-</u>	<u>-</u>
	159,834	159,834
Less amounts representing interest	<u>7,498</u>	<u>7,498</u>
Present value of minimum lease payments	152,336	152,336
Less current portion	<u>36,988</u>	<u>36,988</u>
Portion of obligations under capital lease due after one year	<u>115,348</u>	<u>115,348</u>

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(8) Interfund Receivables and Payables

Activity between funds that represents lending/borrowing arrangements outstanding at the end of the fiscal year are referred to as "due to/from other funds." All other outstanding balances between funds are also reported as "due to/from other funds." Any residual balances outstanding between the governmental activities and business-type activities are reported in the government-wide financial statements as "internal balances."

At June 30, 2019, there was an interfund receivable and payable of \$550,000 between the RDA and CDA funds. During the year the CDA borrowed \$150,000 from the RDA for economic development.

(9) Retirement Plans

General Information about the Pension Plan

Pensions: For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Utah Retirement Systems Pension Plan (URS) and additions to/deductions from URS's fiduciary net position have been determined on the same basis as they are report by URS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Plan description: Eligible plan participants are provided with pensions through the Utah Retirement Systems. The Utah Retirement Systems are comprised of the following pension trust funds:

Defined Benefit Plans

- Public Employees Noncontributory Retirement System (Noncontributory System) is a multiple employer, cost sharing , public employee retirement system;
- The Public Safety Retirement System (Public Safety System) is a mixed agent and cost-sharing, multiple-employer retirement system;
- Tier 2 Public Employees Contributory Retirement System (Tier 2 Public Employees System); is a multiple employer cost sharing public employee retirement system;
- Tier 2 Public Safety and Firefighter Contributory Retirement System (Tier 2 Public Safety and Firefighter Contributory Retirement System) is a multiple employer cost sharing, public employee retirement system.

The Tier 2 Public Employees System became effective July 1, 2011. All eligible employees beginning on or after July 1, 2011, who have no previous service credit with any of the Utah Retirement Systems, are members Retirement System.

The Utah Retirement Systems (Systems) are established and governed by the respective sections of the Title 49 of the Utah Code Annotated 1953, as amended. The Systems' defined benefit plans are amended statutorily by the State Legislature. The Utah State Retirement Office Act in Title 49 provides for the administration of the Systems under the direction of the Utah State Retirement Board, whose members are appointed by the Governor. The Systems are fiduciary funds defined as pension (and other employee benefit) trust funds. URS is a component of the unit of the State of Utah. Title 49 of the Utah Code grants the authority to establish and amend the benefit terms.

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(9) Retirement Plans continued

URS issues a publicly available financial report that can be obtained by writing Utah Retirement Systems, 560 E. 200 S., Salt Lake City Utah, 84102, or visiting the website; www.urs.org.

Benefits provided: URS provides retirement, disability, and death benefits. Retirement benefits are as follows:

Summary of Benefits by System

<u>System</u>	<u>Final Average Salary</u>	<u>Years of Service Required and/or Age Eligible for Benefit</u>	<u>Benefit Percent Per Year Service</u>	<u>COLA**</u>
Noncontributory System	Highest 3 years	30 years any age 25 years any age* 20 years age 60* 10 years age 62* 4 years age 65	2.0% per year all years	Up to 4%
Public Safety System	Highest 3 years	20 years any age 10 years age 60 4 years age 65	2.5% per year up to 20 years; 2.0% per year over 20 years	Up to 2.5% 4% depending on the
Employer				
Tier 2 Public Employees Systems	Highest 5 years	35 years any age 20 years age 60* 10 years age 62* 4 years age 65	1.5% per year all years	Up to 2.5%
Tier 2 Public Safety and Firefighter System	Highest 5 years	25 years any age 20 years age 60* 10 years age 62* 4 years age 65	1.5% per year all years	Up to 2.5%

*With actuarial reductions.

**All post-retirement cost-of-living adjustments are non-compounding and are based on the original benefit except for Judges, which is a compounding benefit. The cost-of-living adjustments are also limited to the actual Consumer Price Index (CPI) increase for the year, although unused CPI increases not met may be carried forward to subsequent years.

Contributions: As a condition of participation in the Systems, employers and/or employees are required to contribute certain percentages of salary and wages as authorized by statute and specified by the URS Board. Contributions are actuarially determined as an amount that, when combined with employee contributions (where applicable) is expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded actuarial accrued liability. Contribution rates as of June 30, 2019, are as follows:

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(9) Retirement Plans continued

Utah Retirement Systems

	<u>Employee</u>	<u>Employer</u>	<u>Employer 401(k)</u>
Contributory Systems			
11 Local Government Div - Tier 1	6.00	14.46	N/A
111 Local Government Div - Tier 2	N/A	15.54	1.15
Noncontributory System			
15 Local Government Div - Tier 1	N/A	18.47	N/A
Public Safety System Contributory			
122 Tier 2 DB Hybrid Public Safety	N/A	24.25	0.74
Noncontributory			
75 Other Div A with 4% COLA	N/A	35.71	N/A
Tier 2 DC Only			
211 Local Government	N/A	6.69	10.00
222 Public Safety	N/A	12.99	12.00

**Tier 2 rates include a statutory required contribution to finance the unfunded actuarial accrued liability of Tier 1 plans.

For fiscal year ended June 30, 2019, the employer and employee contributions to the Systems were are follows:

<u>System</u>	<u>Employer Contributions</u>	<u>Employee Contributions</u>
Noncontributory System	\$ 262,866	N/A
Public Safety Program	225,924	-
Tier 2 Public Employees System	137,724	-
Tier 2 Public Employees and Firefighter	84,912	-
Tier 2 DC Only System	16,429	N/A
	<u>\$ 727,856</u>	<u>\$ -</u>

Contributions reported are the URS Board approved required contributions by the System. Contributions in the Tier 2 Systems are used to finance the unfunded liabilities in the Tier 1 Systems.

Pension Assets, Liabilities, Expense, and Deferred Outflow of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2019, we reported a net pension asset of \$0 and a net pension liability of \$2,638,420.

	<u>Net Pension Asset</u>	<u>Net Pension Liability</u>	<u>Proportionate Share</u>	<u>Proportionate Share December 31, 2017</u>	<u>Change (Decrease)</u>
Noncontributory System	\$ -	\$ 1,312,105	0.1781850%	0.1664153%	0.0117697%
Contributory System	\$ -	\$ -	-%	-%	-%
Public Safety System	\$ -	\$ 1,291,604	0.5020646%	0.4979807%	0.0040845%
Firefighters System	\$ -	\$ -	-%	-%	-%
Judges Retirement System	\$ -	\$ -	-%	-%	-%
Governors & Legislators Plan	\$ -	\$ -	-%	-%	-%
Tier 2 Public Employees System	\$ -	\$ 29,403	0.0686548%	0.0656528%	0.0030020%
Tier 2 Public Safety and Firefighter	\$ -	\$ 5,308	0.2211418%	0.2211418%	-(0.0092978)%
	<u>\$ -</u>	<u>\$ 2,638,420</u>			

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(9) Retirement Plans continued

The net pension asset and liability was measured as of December 31, 2018, and the total pension liability used to calculate the net pension asset and liability was determined by an actuarial valuation as of January 1, 2018 and rolled-forward using generally accepted actuarial procedures. The proportion of the net pension asset and liability is equal to the ratio of the employer's actual contributions to the Systems during the plan year over the total of all employer contributions to the System during the plan year.

For the year ended June 30, 2019, we recognized pension expense of \$917,979.

At June 30, 2019, we reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 19,521	\$ 92,024
Changes in assumptions	\$ 336,656	\$ 723
Net difference between projected and actual earnings on pension plan investments	\$ 509,237	\$ -
Changes in proportion and difference between contributions and proportionate share of contributions	\$ 96,611	\$ 7,046
Contributions subsequent to the measurement date	\$ 367,860	\$ -
	<u>\$ 1,329,885</u>	<u>\$ 99,793</u>

\$367,860 was reported as deferred outflows of resources related to pensions results from contributions made by us prior to our fiscal year end, but subsequent to the measurement date of December 31, 2018.

These contributions will be recognized as a reduction of the net pension liability in the upcoming fiscal year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended December 31,	Net Deferred Outflows(Inflows) of Resources
2019	\$ 395,507
2020	\$ 133,417
2021	\$ 75,174
2022	\$ 242,121
2023	\$ 1,681
Thereafter	\$ 14,331

Actuarial assumptions: The total pension liability in the December 31, 2018, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50 Percent
Salary increases	3.25 - 9.75 percent, average, including inflation
Investment rate of return	6.95 percent, net of pension plan investment expense, including inflation

Mortality rates were developed from actual experience and mortality tables, based on gender, occupation and age, as appropriate, with adjustments for future improvement in mortality based on Scale AA, a model developed by the Society of Actuaries.

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of an actuarial experience study for the five year period ending December 31, 2016.

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(9) Retirement Plans - Continued

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Real Return <u>Asset Class</u>	<u>Expected Return Arithmetic Basis</u>		
	<u>Expected Target Asset Allocation</u>	<u>Arithmetic Basis</u>	<u>Long-Term Portfolio Real Rate of</u>
Equity securities	40%	6.15%	2.46%
Debt securities	20%	0.40%	0.08%
Real assets	15%	5.75%	0.86%
Private equity	9%	9.95%	0.89%
Absolute return	16%	2.85%	0.46%
Cash and cash equivalents	<u>0%</u>	0.00%	<u>0.00%</u>
Totals	<u>100%</u>		<u>4.75%</u>
Inflation			<u>2.50%</u>
Expected arithmetic nominal return			<u>7.25%</u>

The 6.95% assumed investment rate of return is comprised of an inflation rate of 2.50%, a real return of 4.45% that is net of investment expense.

Discount rate: The discount rate used to measure the total pension liability was 6.95%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from all participating employers will be made at contractually required rates that are actuarially determined and certified by the URS Board. Based on those assumptions, the pension plan's fiduciary net position was projected to available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The discount rate does not use the Municipal Bond Index Rate. The discount rate remained unchanged at 6.95%.

Sensitivity of the proportionate share of the net pension asset and liability to changes in the discount rate: The following presents the proportionate share of the net pension liability calculated using the discount rate of 6.95%, as well as what the proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.95%) or 1-percentage-point higher (7.95%) than the current rate:

<u>System</u>	<u>1% Decrease (5.95%)</u>	<u>Discount Rate (6.95%)</u>	<u>1% Increase (7.95%)</u>
Noncontributory System	\$ 2,689,107	\$ 1,312,105	\$ 165,426
Public Safety System	2,531,772	1,291,604	284,860
Tier 2 Public Employees System	117,796	29,403	(38,813)
Tier 2 Public Safety and Firefighters	<u>40,035</u>	<u>5,308</u>	<u>(21,267)</u>
	\$ 5,378,710	\$ 2,638,420	\$ 390,206

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(9) Retirement Plans - Continued

Pension plan fiduciary net position: Detailed information about the plan's fiduciary net position is available in the separately issued URS financial report.

Defined Contribution Plan

The Defined Contribution Savings Plans are administered by the Utah Retirement Systems Board and are generally supplemental plans to the basic retirement benefits of the Retirement Systems, but may also be used as a primary retirement plan. These plans are voluntary tax-advantaged retirement savings programs authorized under sections 401(k), 457(b), and 408 of the Internal Revenue code. Detailed information regarding plan provisions is available in the separately issues URS financial report.

North Ogden City participates in the following Defined Benefits Contributions Savings Plans with Utah Retirement Systems:
401(k)

Employee and employer contributions to the Utah Retirement Defined Contributions Savings Plan for fiscal year ended June 30 were as follows:

<u>System</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
401(k)			
Employer Contributions	\$ 37,545	\$ 30,146	\$ 26,343
Employee Contributions	\$ 4,736	\$ 4,577	\$ 4,568

(10) Deferred Outflows of Resources and Deferred Inflows of Resources

The City has Deferred Outflows of Resources relating to its pension activities of governmental activities of \$1,072,406 and business-type activities of \$257,479.

The City has Deferred Inflows of Resources relating to its pension activities of governmental activities of 80,473 and business-type activities of \$19,321. The City also has Unearned revenue from property taxes received in the fiscal year which will be used to finance 2019 - 2020 fiscal year expenditures of \$1,818,856.

Deferred inflows relating to property tax:

2019 property taxes received in the fiscal year which will be used to finance the 2019-2020 fiscal year expenditures		
General fund		\$ 1,218,856
RDA fund		<u>600,000</u>
		<u>\$ 1,818,856</u>
Unearned rents of:		
General fund		\$ 1,126
Transportation projects fund		<u>3,870</u>
		<u>\$ 4,996</u>

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(11) North Ogden Redevelopment Agency and Community Development Area

The combined redevelopment agency (RDA) and Community Development Area (CDA) collected tax increments of \$685,504, interest of \$33,824 and other revenue of \$1,828 for the year ended June 30, 2019, and paid \$-0- to other taxing agencies. The RDA has issued \$2,550,000 to finance costs associated with its project areas. The proceeds were used to advance refund the 2004 Sales Tax Revenue Bonds used for the City's Aquatic Center. The RDA paid \$-0- to the City's general fund and \$-0- to utility funds on debt. Total debt to utility funds was \$-0- at June 30, 2019. The RDA has borrowed \$-0- from the general fund. The RDA received \$79,632 from the general funds as a transfer for the City's property tax increment and transferred \$303,477 to the Aquatic Center, \$82,000 to the Capital Project Fund and \$17,159 to the General Fund.

Offsite improvements	\$ 12,887
Transfer to other economic development	150,000
Transfer to Aquatic Center for interest on debt service	303,477
Transfer to Capital projects	82,000
Transfer to General Fund	17,159
Total expenditures	<u>\$ 565,523</u>

During the year the RDA incurred the following expenditures:

(12) Interfund Transfers

Transfers during the year end June 30, 2019 were as follows:

Transfer from General fund	\$ (1,202,056)
Transfer from RDA	(323,004)
Transfer to Aquatic Center	443,060
Transfer to Capital Projects	1,135,283
Transfer from Transportation projects	(53,283)
Total expenditures	<u>\$ -</u>

(13) Deficit Fund Balances and Budgetary Compliance

The City's CDA fund has a deficit balance of \$550,000.

(14) Property Taxes

Property taxes are recognized when they are measurable and available. Property taxes attach as an enforceable lien on property as of January 1. Taxes are levied on September 1 and are due on November 30, City property tax revenues are not recognized when levied because they are not expected to be collected within 60 days after the end of the current year. This policy meets the criteria of the Governmental Accounting Standards Board Codification, Section P70.

No revenue is recognized for delinquent taxes as corresponding entries are made to takes receivable and deferred revenue. Due to the collection process, which is a County function, delinquent property taxes are reported as revenue when received. The County handles the accounting for property tax collections and the collection of delinquencies can take up to five years, at which time property is sold at tax auctions to collect on property tax liens.

NORTH OGDEN CITY

Notes to Financial Statements - Continued

June 30, 2019

(15) Contingencies

Amounts received or receivable from grant agencies are subject to audit and adjustment by grantor agencies, principally the federal government. Any disallowed claims, including amounts already collected, may constitute a liability of applicable funds. The amount, if any, of expenditures which may be disallowed by the grantor cannot be determined at this time although the government expects such amounts, if any, to be immaterial.

(16) Risk Management

North Ogden City is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; error and omissions; and natural disaster for which the government carries commercial insurance. Deductibles on claims are paid for out of the department experiencing the damage or loss.

Liabilities are reported when it is probable that a loss has occurred and the amount for the loss can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported (IBNRs). At June 30, 2019, there were no outstanding claims or judgements against the City. Settlements did not exceed insurance coverage for each of the past three years.

(17) Subsequent Events

Management has evaluated subsequent events through January 15, 2020, the date the financial statements were available to be issued.

REQUIRED SUPPLEMENTAL INFORMATION

NORTH OGDEN CITY

Notes to Required Supplementary Information

June 30, 2019

Budgeting and Budgetary Control

As more fully explained in Note 1 of the Notes to Financial Statements, annual budgets are prepared and adopted before June 22 for the fiscal year commencing the following July 1 in accordance with the Uniform Fiscal Procedures Act for Utah Cities. State law requires budgeted revenues to equal budgeted expenditures, and legal control is exercised at the department level. Once a budget has been adopted, it remains in effect until it has been formally revised. Budgets for the general fund, special revenue, and capital projects funds are legally required and are prepared and adopted on the modified accrual basis of accounting. Therefore, no reconciliation between budgetary schedules and the GAAP statements is required.

The Budgetary Comparison schedules presented in this section of the report are for the City's general fund and major special revenue funds. Original budgets represent the revenue estimates and spending authority authorized by the City Council prior to July 1. Final budgets represent the original budget amounts plus any amendments made to the budget during the year by the City Council through formal resolution. Final budgets do not include unexpected balances from the prior year because such balances automatically lapse to unreserved fund balance at the end of each year.

Pension Plan

As explained in Note 9 of the Financial Statements, the City implemented GASB statement 68 during the year which requires the City to provide a 10-year history for certain pension related amounts. The schedule of Proportionate Share of the Net Pension Liability shows the City's share of various assets and liabilities related to the net pension liability. The Schedule of Contributions shows the City's contractually required contributions, actual amounts contributed and contributions as a percentage of covered payroll. Both schedules show information only for the current year since this is the first year of this required information.

Changes in Assumptions

The assumptions and methods used to calculate the total pension liability remain unchanged from the prior year.

Schedule of Revenue, Expenditures, and Changes in Fund Balances - Budget and Actual
General Fund

Year Ended June 30, 2019

	Original	Final	Actual	Variance from Final Budget
Revenues:				
Taxes:				
General property tax	\$ 1,259,195	1,259,195	1,251,127	(8,068)
Delinquent property taxes	20,000	20,000	26,498	6,498
Motor vehicle tax	110,000	110,000	111,911	1,911
General sales and use tax	2,840,272	2,857,757	2,882,008	24,251
Utility revenue sales tax	1,070,000	1,070,000	1,013,993	(56,007)
Total taxes	<u>5,299,467</u>	<u>5,316,952</u>	<u>5,285,537</u>	<u>(31,415)</u>
Licenses and permits:				
Business licenses	26,400	26,400	30,311	3,911
Building permits	330,000	337,500	429,420	91,920
Animal licenses	12,100	12,100	8,108	(3,992)
Total licenses and permits	<u>368,500</u>	<u>376,000</u>	<u>467,839</u>	<u>91,839</u>
Intergovernmental:				
Class C roads	716,880	716,880	797,384	80,504
State Liquor allotment	16,000	16,000	21,448	5,448
Weber County	46,875	46,875	46,875	-
Grants	63,156	73,756	48,825	(24,931)
Total intergovernmental	<u>842,911</u>	<u>853,511</u>	<u>914,532</u>	<u>61,021</u>
Charges for services:				
Recreation fees	85,000	85,000	78,540	(6,460)
Building plan/development fees	192,400	192,400	213,997	21,597
Zoning and subdivision fees	11,000	11,000	7,803	(3,197)
Cherry Days	28,000	28,000	28,504	504
Police reports and copies	-	-	7,002	7,002
Amphitheater fees	10,000	10,000	17,219	7,219
Other charges and fees	11,500	11,500	6,568	(4,932)
Total charges for services	<u>337,900</u>	<u>337,900</u>	<u>359,633</u>	<u>21,733</u>
Fines and forfeitures	<u>204,500</u>	<u>204,500</u>	<u>232,731</u>	<u>28,231</u>
Other revenue:				
Interest	20,000	20,000	50,555	30,555
Rents	4,000	4,000	12,318	8,318
Traffic School	35,000	35,000	34,169	(831)
Donations	5,000	6,700	6,451	(249)
Administrative service fee to utility funds	477,515	477,515	477,515	-
Miscellaneous	18,900	18,900	2,515	(16,385)
Total other revenue	<u>560,415</u>	<u>562,115</u>	<u>583,523</u>	<u>21,408</u>
Total revenue	<u>\$ 7,613,693</u>	<u>7,650,978</u>	<u>7,843,795</u>	<u>192,817</u>

Schedule of Revenue, Expenditures, and Changes in Fund Balances - Budget and Actual - Continued
General Fund

Year Ended June 30, 2019

	Budgeted Amounts			Variance from Final Budget
	Original	Final	Actual	
Expenditures - Continued:				
General Government:				
Legislative:				
Salaries and benefits	\$ 113,049	113,049	95,627	17,422
Materials, supplies, and services	42,975	42,975	38,387	4,588
Capital	-	-	-	-
	<u>156,024</u>	<u>156,024</u>	<u>134,014</u>	<u>22,010</u>
Judicial:				
Salaries and benefits	160,997	163,154	160,370	2,784
Materials, supplies, and services	40,105	52,105	45,226	6,879
Capital	-	-	-	-
	<u>201,102</u>	<u>215,259</u>	<u>205,596</u>	<u>9,663</u>
Finance:				
Salaries and benefits	282,764	282,764	280,533	2,231
Materials, supplies, and services	63,680	63,680	58,033	5,647
Capital	-	-	-	-
	<u>346,444</u>	<u>346,444</u>	<u>338,566</u>	<u>7,878</u>
Administrative:				
Salaries and benefits	366,876	366,876	349,700	17,176
Materials, supplies, and services	94,650	94,650	65,903	28,747
Capital	2,100	2,100	-	2,100
	<u>463,626</u>	<u>463,626</u>	<u>415,603</u>	<u>48,023</u>
Non-Departmental:				
Salaries and benefits	5,500	5,500	184	5,316
Materials, supplies, and services	311,230	322,730	308,340	14,390
Capital	-	-	-	-
	<u>316,730</u>	<u>328,230</u>	<u>308,524</u>	<u>19,706</u>
General Government buildings:				
Salaries and benefits	25,000	25,000	25,735	(735)
Materials, supplies, and services	106,452	108,288	89,162	19,126
Capital	-	-	-	-
	<u>131,452</u>	<u>133,288</u>	<u>114,897</u>	<u>18,391</u>
Total general government	<u>1,615,378</u>	<u>1,642,871</u>	<u>1,517,200</u>	<u>125,671</u>
Public Safety:				
Police Service:				
Salaries and benefits	2,222,484	2,222,484	2,078,644	143,840
Materials, supplies, and services	469,721	505,241	490,714	14,527
Capital	-	6,000	5,965	35
	<u>2,692,205</u>	<u>2,733,725</u>	<u>2,575,323</u>	<u>158,402</u>
Planning:				
Salaries and benefits	201,441	201,441	185,393	16,048
Materials, supplies, and services	31,900	31,900	21,143	10,757
Capital	-	-	-	-
	<u>233,341</u>	<u>233,341</u>	<u>206,536</u>	<u>26,805</u>
Inspection:				
Salaries and benefits	238,681	238,681	204,569	34,112
Materials, supplies, and services	17,060	24,560	30,506	(5,946)
Capital	-	-	-	-
	<u>255,741</u>	<u>263,241</u>	<u>235,075</u>	<u>28,166</u>
Animal Control:				
Salaries and benefits	62,560	62,560	61,713	847
Materials, supplies, and services	39,978	39,978	35,253	4,725
Capital	-	-	1,329	(1,329)
	<u>102,538</u>	<u>102,538</u>	<u>98,295</u>	<u>4,243</u>
Total Public Safety	<u>\$ 3,283,825</u>	<u>3,332,845</u>	<u>3,115,229</u>	<u>217,616</u>

Schedule of Revenues, Expenditures, and Changes in Fund Balances - Budget and Actual - Continued
General Fund

Year Ended June 30, 2019

	Budgeted Amounts			Variance from Final Budget
	Original	Final	Actual	
Expenditures - Continued:				
Streets and Highways:				
Salaries and benefits	\$ 358,827	358,827	326,954	31,873
Materials, supplies, and services	380,486	381,038	390,512	(9,474)
Capital	-	-	-	-
	<u>739,313</u>	<u>739,865</u>	<u>717,466</u>	<u>22,399</u>
Total Streets and Highways	<u>739,313</u>	<u>739,865</u>	<u>717,466</u>	<u>22,399</u>
Parks and Recreation:				
Administration:				
Salaries and benefits	136,716	136,716	136,997	(281)
Materials, supplies, and services	117,100	117,740	117,183	557
Capital	-	-	-	-
	<u>253,816</u>	<u>254,456</u>	<u>254,180</u>	<u>276</u>
Parks department:				
Salaries and benefits	542,875	542,875	483,780	59,095
Materials, supplies, and services	252,111	264,111	257,351	6,760
Capital	4,500	4,500	-	4,500
	<u>799,486</u>	<u>811,486</u>	<u>741,131</u>	<u>70,355</u>
Recreation department:				
Salaries and benefits	120,317	120,317	98,372	21,945
Materials, supplies, and services	76,725	76,725	59,016	17,709
Capital	-	-	-	-
	<u>197,042</u>	<u>197,042</u>	<u>157,388</u>	<u>39,654</u>
Total Community services	<u>1,250,344</u>	<u>1,262,984</u>	<u>1,152,699</u>	<u>110,285</u>
Total expenditures	<u>6,888,860</u>	<u>6,978,565</u>	<u>6,502,594</u>	<u>475,971</u>
Excess (deficiency) of revenue over (under) expenditures before other financing sources (uses).	<u>724,833</u>	<u>672,413</u>	<u>1,341,201</u>	<u>668,788</u>
Other financing sources (uses):				
Operating transfers (out)	<u>(726,833)</u>	<u>(1,709,673)</u>	<u>(1,202,056)</u>	<u>507,617</u>
Total other financing sources (uses)	<u>(726,833)</u>	<u>(1,709,673)</u>	<u>(1,202,056)</u>	<u>507,617</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures and other (uses).	<u>(2,000)</u>	<u>(1,037,260)</u>	<u>139,145</u>	<u>1,176,405</u>
Fund balance - beginning of year	<u>1,628,667</u>	<u>1,628,667</u>	<u>1,628,667</u>	<u>-</u>
Fund balance - end of year	<u>\$ 1,626,667</u>	<u>591,407</u>	<u>1,767,812</u>	<u>1,176,405</u>

NORTH OGDEN CITY

Schedule of Revenue, Expenditures, and Changes in Fund Balances - Budget and Actual
Redevelopment Agency and Community Development Area

Year Ended June30, 2019

	Budgeted Amount			Variance from Final Budget
	Original	Final	Actual	
Revenue:				
Property taxes	\$ 600,000	600,000	685,504	85,504
Interest income	10,000	10,000	33,824	23,824
Other income	-	-	1,828	1,828
Total revenue	<u>610,000</u>	<u>610,000</u>	<u>721,156</u>	<u>111,156</u>
Expenditures:				
Professional Services	-	-	-	-
Engineering servies	-	-	-	-
Offsite improvements	40,000	40,000	12,887	27,113
Other economic development	200,000	150,000	150,000	-
Total expenditures	<u>240,000</u>	<u>190,000</u>	<u>162,887</u>	<u>27,113</u>
Other financing sources (uses):				
Transfers in (out) - net	<u>(300,477)</u>	<u>(317,637)</u>	<u>(323,004)</u>	<u>(5,367)</u>
Total other financing sources(uses)	<u>(300,477)</u>	<u>(317,637)</u>	<u>(323,004)</u>	<u>(5,367)</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures and other uses	69,523	102,363	235,265	132,902
Fund balance - beginning of year	<u>995,471</u>	<u>995,471</u>	<u>995,471</u>	<u>-</u>
Fund balance - end of year	<u>\$ 1,064,994</u>	<u>1,097,834</u>	<u>1,230,736</u>	<u>132,902</u>

3. See independent auditors' report and notes to financial statements.

NORTH OGDEN CITY

Statement of Revenue, Expenses and Changes in Fund Balances
Aquatic Center

Year Ended June 30, 2019

	Budgeted Amount		Actual	Variance from Final Budget
	Original	Final		
Revenue:				
Admissions, reservations and lessons	\$ 352,000	352,000	343,694	(8,306)
Concessions and merchandise sales	11,500	11,500	14,090	2,590
Bowery rentals	2,400	2,400	2,655	255
Miscellaneous revenue	9,000	9,000	9,915	915
Total revenue	<u>374,900</u>	<u>374,900</u>	<u>370,354</u>	<u>(4,546)</u>
Expenditures:				
Salaries and benefits	326,175	326,175	322,988	3,187
Materials, supplies and services	47,958	47,958	38,194	9,764
Maintenance and repairs	33,500	33,500	31,309	2,191
Utilities and telephone	67,350	67,350	50,362	16,988
Chemicals	36,000	36,000	32,550	3,450
Capital equipment	3,500	3,500	-	3,500
Bond Principle	265,000	265,000	265,000	-
Bond Interest	38,477	38,477	38,477	-
Total expenditures	<u>817,960</u>	<u>817,960</u>	<u>778,880</u>	<u>39,080</u>
Other financing sources (uses):				
Transfers in (out) - net	443,060	443,060	443,060	-
Total other financing sources(uses)	<u>443,060</u>	<u>443,060</u>	<u>443,060</u>	<u>-</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures and other uses	-	-	34,534	34,534
Fund balance (deficit) - beginning of year	<u>55,592</u>	<u>55,592</u>	<u>55,592</u>	<u>-</u>
Fund balance (deficit) - end of year	<u>\$ 55,592</u>	<u>55,592</u>	<u>90,126</u>	<u>34,534</u>

SCHEDULE OF THE PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
 NORTH OGDEN CITY
 Utah Retirement Systems
 As of June 2018
 Last 10 Fiscal Years

	Noncontributory System		Public Safety System		Tier 2 Public Employees System		Tier 2 Public Safety and Firefighter System	
	2018	2017	2018	2017	2018	2017	2018	2017
Proportion of the net pension liability (asset)	0.1781850%	0.1664153%	0.5020646%	0.4979801%	0.0686548%	0.06556528%	0.2118440%	0.2211418%
	0.1602462%	0.1631476%	0.4669401%	0.4473629%	0.0632419%	0.0485772%	0.2481679%	0.3053124%
	0.1663092%	0.1663092%	0.4268607%	0.4268607%	0.0380994%	0.0380994%	0.3480897%	0.3480897%
Proportionate share of the net pension liability (asset)	\$1,312,105	\$729,115	\$1,291,604	\$781,161	\$29,403	\$5,788	(\$5,308)	(\$2,559)
	\$1,028,977	\$947,550	\$947,550	\$7,055	\$7,055	(\$2,154)	(\$4,461)	(\$5,149)
	\$923,168	\$801,339	\$801,339	(\$106)	(\$1,155)			
	\$722,154		\$536,813					
Covered employee payroll	\$1,412,103	\$1,323,128	\$686,924	\$731,633	\$800,443	\$642,222	\$283,520	\$233,449
	\$1,315,547	\$688,814	\$688,814		\$518,631		\$205,040	
	\$1,367,806	\$656,851	\$656,851		\$313,867		\$181,652	
	\$1,419,455	\$622,523	\$622,523		\$186,997		\$143,783	
Proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	92.92%	55.11%	188.03%	106.77%	3.67%	0.90%	1.80%	-1.10%
	78.22%	67.49%	137.56%	122.00%	1.36%	-0.03%	-1.05%	-2.46%
	50.9%	50.9%	86.2%	86.2%	-0.6%	-0.6%	-3.6%	
Plan fiduciary net position as a percentage of the total pension liability	87.0%	91.9%	84.7%	90.2%	90.8%	97.4%	95.6%	103.0%
	87.3%	87.8%	86.5%	87.1%	95.1%	100.2%	103.6%	110.7%
	87.8%	90.2%	87.1%	90.5%	100.2%	103.5%	110.7%	120.5%

*In accordance with paragraph 81.a of GASB 68, the City will need to disclose a 10-year history of its proportionate share of the Net Pension Liability (asset) in their RSI. This schedule will need to be built prospectively. This schedule is only for the last 5 years. Prior numbers are not available.

SCHEDULE OF CONTRIBUTIONS NORTH OGDEN CITY
Utah Retirement Systems
As of June 2019
Last 10 Fiscal Years

	As of fiscal year ended June 30	Actuarial Determined Contributions	Contributions in relation to the contractually required contribution	Contribution deficiency (excess)	Covered Employee payroll	Contributions as a percentage of covered employee payroll
Noncontributory System	2014	\$ 235,539	\$ 235,539	\$ -	\$ 1,414,290	16.65%
	2015	\$ 245,610	\$ 245,610	\$ -	\$ 1,391,385	17.65%
	2016	\$ 233,522	\$ 233,522	\$ -	\$ 1,330,911	17.55%
	2017	\$ 235,424	\$ 235,424	\$ -	\$ 1,330,504	17.69%
	2018	\$ 230,882	\$ 230,882	\$ -	\$ 1,333,107	17.32%
	2019	\$ 262,866	\$ 262,866	\$ -	\$ 1,511,185	17.39%
Public Safety System	2014	\$ 184,402	\$ 184,402	\$ -	\$ 603,659	30.55%
	2015	\$ 204,537	\$ 204,537	\$ -	\$ 644,757	31.72%
	2016	\$ 206,900	\$ 206,900	\$ -	\$ 655,343	31.50%
	2017	\$ 226,756	\$ 226,756	\$ -	\$ 715,974	31.67%
	2018	\$ 237,534	\$ 237,534	\$ -	\$ 728,521	32.60%
	2019	\$ 225,924	\$ 225,924	\$ -	\$ 641,979	35.11%
Tier 2 Public Safety Employees System*	2014	\$ 27,326	\$ 27,326	\$ -	\$ 195,322	13.99%
	2015	\$ 36,188	\$ 36,188	\$ -	\$ 242,222	14.94%
	2016	\$ 57,781	\$ 57,781	\$ -	\$ 388,167	14.89%
	2017	\$ 88,842	\$ 88,842	\$ -	\$ 596,662	14.89%
	2018	\$ 107,562	\$ 107,562	\$ -	\$ 711,861	15.11%
	2019	\$ 137,724	\$ 137,724	\$ -	\$ 887,129	15.52%
Tier 2 Public Safety and Firefighter System	2014	\$ 33,152	\$ 33,152	\$ -	\$ 148,198	22.37%
	2015	\$ 38,270	\$ 38,270	\$ -	\$ 161,406	23.71%
	2016	\$ 42,978	\$ 42,978	\$ -	\$ 181,644	23.66%
	2017	\$ 54,393	\$ 54,393	\$ -	\$ 229,895	23.66%
	2018	\$ 60,905	\$ 60,905	\$ -	\$ 256,659	23.73%
	2019	\$ 84,912	\$ 84,912	\$ -	\$ 350,390	24.23%
Tier 2 Public Employees DC Only System*	2014	\$ 2,942	\$ 2,942	\$ -	\$ 52,727	5.58%
	2015	\$ 6,563	\$ 6,563	\$ -	\$ 97,671	6.72%
	2016	\$ 8,242	\$ 8,242	\$ -	\$ 123,199	6.69%
	2017	\$ 8,482	\$ 8,482	\$ -	\$ 126,787	6.69%
	2018	\$ 10,480	\$ 10,480	\$ -	\$ 156,650	6.69%
	2019	\$ 16,429	\$ 16,429	\$ -	\$ 245,574	6.69%

*Contributions in Tier 2 include an amortization rate to help fund the unfunded liabilities in the Tier 1 systems.

Paragraph 81.b of GASB 68 requires employers to disclose a 10-year history of contributions in RSI. Contributions as a percentage of covered-payroll may be different than the board certified rate due to rounding and other administrative issues.

NORTH OGDEN CITY

Schedule of Revenue, Expenses and Changes in Fund Balances - Budget and Actual
Capital Projects

Year Ended June 30, 2019

	Budgeted Amount			Variance from Final Budget
	Original	Final	Actual	
Revenue:				
Grant revenue	\$ 3,978,800	4,298,800	161,521	(4,137,279)
Park impact fees	-	436,414	430,893	(5,521)
Interest	1,000	1,000	26,162	25,162
Donations	-	-	500	500
Miscellaneous revenue	-	-	30	30
Total revenue	<u>3,979,800</u>	<u>4,736,214</u>	<u>619,106</u>	<u>(4,117,108)</u>
Expenditures:				
Monroe Boulevard	917,800	917,800	93,102	824,698
2600 N Intersection project	2,090,000	2,090,000	30,133	2,059,867
400/450 intersection project	1,383,000	1,383,000	65,035	1,317,965
2550 N intersection project	54,000	54,000	53,283	717
Street and road improvements	500,000	500,000	554,799	(54,799)
Barker park- Amphitheater project	-	756,414	188,071	568,343
North Ogden park improvements	80,000	80,000	80,245	(245)
Skate park construction	-	6,000	78	5,922
Building improvements and construction	-	19,522	10,237	9,285
Animal shelter	-	13,979	15,040	(1,061)
City lighting project	278,000	278,000	123,629	154,371
Equipment	9,000	9,000	2,250	6,750
	-	-	-	-
Total expenditures	<u>5,311,800</u>	<u>6,107,715</u>	<u>1,215,902</u>	<u>4,891,813</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures before other uses	<u>(1,332,000)</u>	<u>(1,371,501)</u>	<u>(596,796)</u>	<u>774,705</u>
Other financing sources (uses):				
Transfers in (out)	1,282,000	2,184,735	1,135,283	(1,049,452)
Sale of assets	-	-	-	-
Total other financing sources(uses)	<u>1,282,000</u>	<u>2,184,735</u>	<u>1,135,283</u>	<u>(1,049,452)</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures and other uses	<u>(50,000)</u>	<u>813,234</u>	<u>538,487</u>	<u>(274,747)</u>
Fund balance - beginning of year	<u>1,178,973</u>	<u>1,178,973</u>	<u>1,178,973</u>	<u>-</u>
Fund balance - end of year	<u>\$ 1,128,973</u>	<u>1,992,207</u>	<u>1,717,460</u>	<u>(274,747)</u>

NORTH OGDEN CITY

Schedule of Revenue, Expenses and Changes in Fund Balances - Budget and Actual
Transportation Projects

Year Ended June 30, 2019

	Budgeted Amount			Variance from Final Budget
	Original	Final	Actual	
Revenue:				
Transportation fees	\$ 223,000	223,000	224,447	1,447
Transportation impact fees	325,737	325,737	434,899	109,162
Transportation sales tax	196,000	196,000	204,818	8,818
Rental income	106,000	106,000	130,308	24,308
Interest	9,000	9,000	56,404	47,404
Total revenue	<u>859,737</u>	<u>859,737</u>	<u>1,050,876</u>	<u>191,139</u>
Expenditures:				
Rental property expenses	30,000	42,000	43,990	(1,990)
Miscellaneous expenses	-	-	70	(70)
Total expenditures	<u>30,000</u>	<u>42,000</u>	<u>44,060</u>	<u>(2,060)</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures before other uses	<u>829,737</u>	<u>817,737</u>	<u>1,006,816</u>	<u>189,079</u>
Other financing sources (uses):				
Transfers in (out)	(554,000)	(554,000)	(53,283)	500,717
Sale of assets	-	-	-	-
Total other financing sources(uses)	<u>(554,000)</u>	<u>(554,000)</u>	<u>(53,283)</u>	<u>500,717</u>
Excess (deficiency) of revenue and other financing sources over (under) expenditures and other uses	<u>275,737</u>	<u>263,737</u>	<u>953,533</u>	<u>689,796</u>
Fund balance - beginning of year	<u>1,871,480</u>	<u>1,871,480</u>	<u>1,871,480</u>	<u>-</u>
Fund balance - end of year	<u>\$ 2,147,217</u>	<u>2,135,217</u>	<u>2,825,013</u>	<u>689,796</u>

NORTH OGDEN CITY

Combining Statement of Net Position
Internal Service Funds

Year Ended June 30, 2019

	Motor Pool	Police Motor Pool	Total
Current assets:			
Cash and cash equivalents	\$ 225,419	120,828	346,247
Accounts receivable	-	-	-
Prepaid expenses	5,645	-	5,645
Total current revenue	<u>231,064</u>	<u>120,828</u>	<u>351,892</u>
Expenditures:			
Buildings and structures	337,565	-	337,565
Vehicles and equipment	2,981,789	892,470	3,874,259
Total capital assets	3,319,354	892,470	4,211,824
Accumulated depreciation	1,641,958	587,175	2,229,133
Net capital assets	<u>1,677,396</u>	<u>305,295</u>	<u>1,982,691</u>
Pension asset	-	-	-
Total non-current assets	<u>1,677,396</u>	<u>305,295</u>	<u>1,982,691</u>
Total assets	<u>1,908,460</u>	<u>426,123</u>	<u>2,334,583</u>
Deferred outflows of resources			
Pension related	44,804	-	44,804
Total assets and derred outflows of resources	<u>1,953,264</u>	<u>426,123</u>	<u>2,379,387</u>
Current liabilities:			
Current portion of lease obligations payable	36,988	-	36,988
Accounts payable	-	-	-
Accrued interest payable	1,980	-	1,980
Compensated absences payable	11,765	-	11,765
Wages and benefits payable	3,176	-	3,176
Total current liabilities	<u>53,909</u>	<u>-</u>	<u>53,909</u>
Non-current liabilities:			
Net pension liability	88,888	-	88,888
Lease obligations payable	152,336	-	152,336
Lease obligations payable - current portion	(36,988)	-	(36,988)
Total non-current liabilities	<u>204,236</u>	<u>-</u>	<u>204,236</u>
Total liabilities	<u>258,145</u>	<u>-</u>	<u>258,145</u>
Deferred inflows of resources:			
Pension related	3,362	-	3,362
Total liabilities and derred inflows of resources	<u>261,507</u>	<u>-</u>	<u>261,507</u>
Net position:			
Net investment in capital assets	1,525,060	305,295	1,830,355
Unrestricted	166,697	120,828	287,525
Total net position	<u>\$ 1,691,757</u>	<u>426,123</u>	<u>2,117,880</u>

NORTH OGDEN CITY

Combining Statement of Revenue, Expenses, and Changes in Net Position
Internal Service Funds

Year Ended June 30, 2019

	Motor Pool	Police Motor Pool	Total
Revenue:			
General Fund	\$ 186,589	295,998	482,587
Utility Fund	295,373	-	295,373
Total rentals	<u>481,962</u>	<u>295,998</u>	<u>777,960</u>
Operating charge - police motorpool	177,858	(177,858)	-
Sale of materials and supplies	5,993	4,805	10,798
Miscellaneous income	2,172	-	2,172
Total revenue	<u>667,985</u>	<u>122,945</u>	<u>790,930</u>
Expenses:			
Salaries and benefits	209,606	-	209,606
Materials, supplies and services	126,903	29,120	156,023
Fuel	130,017	-	130,017
Interest on capital leases	3,104	-	3,104
Depreciation	<u>182,904</u>	<u>113,284</u>	<u>296,188</u>
Net capital assets	<u>652,534</u>	<u>142,404</u>	<u>794,938</u>
Income (loss) from operations:	<u>15,451</u>	<u>(19,459)</u>	<u>(4,008)</u>
Other non-operating revenue (expense):			
Gain from sale of assets	42,310	11,804	54,114
Interest earned	3,849	2,091	5,940
Transfers from (to) other funds	-	-	-
Total other non-operating revenue (expenses)	<u>46,159</u>	<u>13,895</u>	<u>60,054</u>
Capital asset contributions - General Fund	-	-	-
Change in net position	61,610	(5,564)	56,046
Net position - beginning of year	<u>1,630,147</u>	<u>431,687</u>	<u>2,061,834</u>
Net position - end of year	<u>\$ 1,691,757</u>	<u>426,123</u>	<u>2,117,880</u>

NORTH OGDEN CITY

Combining Statement of Cash Flows
Internal Service Funds

Year Ended June 30, 2019

	Motor Pool	Police Motor Pool	Total
Cash flows from operating activities:			
Cash received from vehicle rent from:			
General Fund	\$ 186,589	295,998	482,587
Utility Fund	295,373	-	295,373
Operating charge - police motorpool	177,858	(177,858)	-
Sale of material, supplies, and services	5,993	4,805	10,798
Other operating income	2,352	-	2,352
Payments for payroll and related benefits	(204,523)	-	(204,523)
Payments for goods and services	(262,517)	(29,120)	(291,637)
Net cash provided (used) by operating activities	<u>201,125</u>	<u>93,825</u>	<u>294,950</u>
Cash flows from capital and related financing activities:			
Payments to purchase vehicles and equipment	(298,766)	(92,894)	(391,660)
Proceeds from the sale of capital assets	125,448	37,200	162,648
Principle payments on lease financing	(36,280)	-	(36,280)
Net cash used by capital and related financing activities	<u>(209,598)</u>	<u>(55,694)</u>	<u>(265,292)</u>
Cash flows from non-capital financing activities:			
Net cash provided (used) by non-capital financing activities	<u>-</u>	<u>-</u>	<u>-</u>
Cash flows from investing activities:			
Interest received	<u>3,849</u>	<u>2,091</u>	<u>5,940</u>
Net cash provided (used) by investing activities	<u>3,849</u>	<u>2,091</u>	<u>5,940</u>
Net increase (decrease) in cash and equivalents	(4,624)	40,222	35,598
Cash and cash equivalents - beginning of year	<u>230,043</u>	<u>80,606</u>	<u>310,649</u>
Cash and cash equivalents - end of year	<u>225,419</u>	<u>120,828</u>	<u>346,247</u>
Reconciliation of operating income (loss) to net cash provided (used) by operating activities:			
Operating income	15,451	(19,459)	(4,008)
Adjustments to reconcile operating income to net cash provided (used) by operating activities:			
Depreciation	182,904	113,284	296,188
Decrease (increase) in receivables	180	-	180
Decrease (increase) in prepaid expenses	(1,919)	-	(1,919)
Decrease (increase) in interest payable	(574)	-	(574)
Increase (decrease) in compensated absences and wages and benefits payable	3,201	-	3,201
Pension related items	1,882	-	1,882
Total adjustments	<u>185,674</u>	<u>113,284</u>	<u>298,958</u>
Net cash provided (used) by operating activities	<u>201,125</u>	<u>93,825</u>	<u>294,950</u>
Non-cash investing, capital and financing activities:	<u>\$ -</u>	<u>-</u>	<u>-</u>

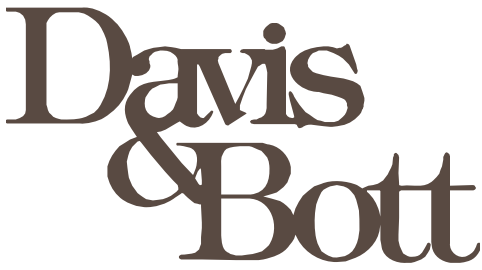
**NORTH OGDEN CITY
MANAGEMENT REPORT
FOR THE YEAR ENDED JUNE 30, 2019**

**NORTH OGDEN CITY
MANAGEMENT REPORT
FOR THE YEAR ENDED JUNE 30, 2019**

Table of Contents

Page

Independent Auditors’ Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With <i>Government Auditing Standards</i>	1 - 2
Independent Auditors’ Report in Accordance With the <i>State Compliance Audit Guide</i>	3 - 5
State of Utah – Schedule of Expenditures of State Grants, Contracts, and Loan Funds	6



Certified Public Accountants, L.C.

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(435) 723-5224

**INDEPENDENT AUDITORS' REPORT ON
INTERNAL CONTROL OVER FINANCIAL
REPORTING AND ON COMPLIANCE AND
OTHER MATTERS BASED ON AN AUDIT OF
FINANCIAL STATEMENTS PERFORMED IN
ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

The Honorable Mayor and City Council
North Ogden City

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of North Ogden City (City) as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the City's basic financial statements, and have issued our report thereon dated January 15, 2020.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect and correct misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN
ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Continued

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the City's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

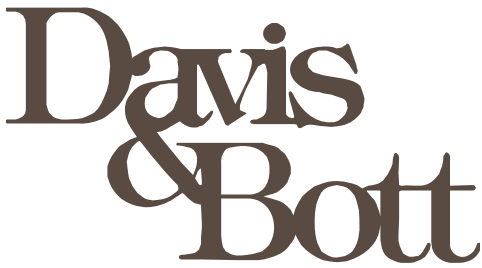
Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Davis & Bott

Davis & Bott
Certified Public Accountants, L.C.

Brigham City, Utah
January 15, 2020



Certified Public Accountants, L.C.

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**INDEPENDENT AUDITOR'S REPORT IN
ACCORDANCE WITH THE STATE COMPLIANCE
AUDIT GUIDE ON:**

**COMPLIANCE WITH GENERAL STATE
COMPLIANCE REQUIREMENTS, COMPLIANCE
FOR EACH MAJOR STATE PROGRAM AND
INTERNAL CONTROL OVER STATE COMPLIANCE**

The Honorable Mayor and City Council
North Ogden City, Utah

**Report on Compliance with General State Compliance Requirements
and for Each Major State Program**

We have audited North Ogden City's compliance with the general and major state program compliance requirements described in the *State Compliance Audit Guide* issued by the Office of the Utah State Auditor that could have a direct and material effect on the City or each of its major state programs for the year ended June 30, 2019.

The general compliance requirements applicable to North Ogden City are identified as follows:

- Budgetary Compliance
- Fund Balance
- Justice Courts
- Utah Retirement Systems Compliance
- Restricted Taxes and Other Related Restricted Revenue
- Open and Public Meetings Act
- Public Treasurer's Bond
- Cash Management
- Enterprise Fund Transfers, Reimbursement, Loans and Services
- Tax Levy Revenue Recognition
- Impact Fees

North Ogden City received the following major assistance programs from the State of Utah:

- B&C Road Funds

Management's Responsibility

Management is responsible for compliance with the general state requirements referred to above and the requirements of laws, regulations, contracts, and grants applicable to its state programs.

**INDEPENDENT AUDITOR'S REPORT IN ACCORDANCE WITH THE
STATE COMPLIANCE AUDIT GUIDE ON: COMPLIANCE WITH GENERAL
STATE COMPLIANCE REQUIREMENTS, COMPLIANCE FOR EACH MAJOR
STATE PROGRAM AND INTERNAL CONTROL OVER STATE COMPLIANCE**

(Continued)

Auditor's Responsibility

Our responsibility is to express an opinion on the City's compliance based on our audit of the compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and the *State Compliance Audit Guide*. Those standards and the *State Compliance Audit Guide* require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the compliance requirements referred to above that could have a material effect on North Ogden City or its major programs occurred. An audit includes examining, on a test basis, evidence about the City's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance with general state compliance requirements and for each major state program. However, our audit does not provide a legal determination of the City's compliance.

Opinion on General State Compliance Requirements and Each Major State Program

In our opinion, North Ogden City, complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on the City or on each of its major state programs for the year ended June 30, 2019.

REPORT ON INTERNAL CONTROL OVER COMPLIANCE

Management of the City is responsible for establishing and maintaining effective internal control over compliance with the compliance requirements referred to above. In planning and performing our audit of compliance, we considered the City's internal control over compliance with the compliance requirements that could have a direct and material effect on the City or on each major state program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance with general state compliance requirements and for each major state program and to test and report on internal control over compliance in accordance with the *State Compliance Audit Guide*, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the City's internal control over compliance.

**INDEPENDENT AUDITOR'S REPORT IN ACCORDANCE WITH THE
STATE COMPLIANCE AUDIT GUIDE ON: COMPLIANCE WITH GENERAL
STATE COMPLIANCE REQUIREMENTS, COMPLIANCE FOR EACH MAJOR
STATE PROGRAM AND INTERNAL CONTROL OVER STATE COMPLIANCE**

(Continued)

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a general state or major state program compliance requirement on a timely basis. A material weakness in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a general state or major state program compliance requirement will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a general state or major state program compliance requirement that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be deficiencies, significant deficiencies, or material weaknesses in internal control over compliance. There were no material weaknesses or significant deficiencies for the year ended June 30, 2019.

City's Response to Findings

The City's responses to the findings identified in our audit are described in the accompanying schedule of findings, recommendations and responses. The City's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Purpose of Report

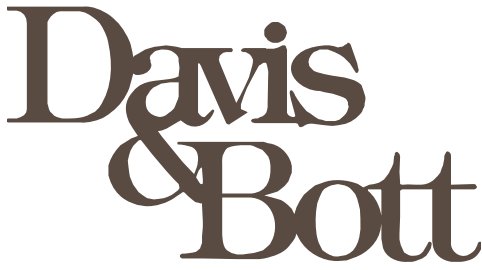
The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control and compliance and the results of that testing based on the requirements of the *State Compliance Audit Guide*. Accordingly, this report is not suitable for any other purpose.

Davis & Bott

Davis & Bott
Certified Public Accountants, L.C.

Brigham City, Utah
January 15, 2020

State of Utah	
Schedule of Expenditures of State Grants, Contracts, and Loan Funds	
For the Year Ended June 30, 2019	
Grant Name/Department	Revenue
State of Utah	
DUI Overtime Grant QUARTERLY/UHP - Public Safety	\$ 7,086.43
Alcohol & Drug Free/UHP - Public Safety	\$ 7,491.00
Justice Assistance Grant/Commission on Criminal & Juvenile Justice	\$ 3,150.00
Class C Road Funds/UDOT	\$ 797,384.09
State Liquor Grant (Beer Tax)/Utah Substance Abuse Advisory Council (FY2018 Rollover)	\$ 8,420.08
State Liquor Grant (Beer Tax)/Utah Substance Abuse Advisory Council (FY2019)	\$ 14,153.94
Exp accounts 10-54-120, 10-54-701, 10-54-380, 10-54-385 - \$15 Victim Advocate = \$22,501.30	
	\$ 837,685.54
Weber County Grants	
RAMP - Easy Grant (<\$2,000) (Community Band)	\$ 2,000.00
RAMP - Municipalities Grant (annual disbursement)	\$ 18,791.00
RAMP - Regular (\$2,001-\$200,000)	\$ -
RAMP - Major (\$200,000+)	\$ -
Prescription Take Back	\$ 480.36
Tobacco Compliance	\$ 352.75
Monroe Boulevard Corridor Preservation Grant	\$ 93,102.00
400/450 E Widening Grant	\$ 47,737.77
2600 N. Intersection & Widening	\$ 1,890.00
School Resource Officer	\$ 46,875.00
Subtotal – Weber County	\$ 211,228.88
TOTAL GRANT, CONTRACT, AND LOAN FUND EXPENDITURES	
	\$ 1,864,116.32



**COMMUNICATION WITH THOSE
CHARGED WITH GOVERNANCE**

Certified Public Accountants, L.C.

50 West Forest, Suite 101
P.O. Box 369
Brigham City, UT 84302
(435) 723-5224

The Honorable Mayor and City Council
North Ogden City
North Ogden City, Utah

We have audited the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of North Ogden City (City) for the year ended June 30, 2019. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated September 7, 2017. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the City are described in Note 1 to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the year. We noted no transactions entered into by the governmental unit during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management’s knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the City’s financial statements were:

Depreciation

The financial statements are prepared in accordance with generally accepted accounting principles (GAAP). As such, assets are depreciated using the straight-line method.

Compensated Absences

Vested or accumulated vacation leave and sick pay benefits that are expected to be liquidated with expendable available financial resources are reported as an expenditure and a fund liability of the fund. These amounts are reported as required by GASB Interpretation #6.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated January 15, 2020.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the governmental unit's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the governmental unit's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

As a result of observations made during our audit, we make the following recommendations which we believe will result in improvements to the City's internal controls and accounting system.

1. We recommend conducting an inventory of fixed assets annually to determine whether or not certain assets need to be removed from the depreciation schedule.
2. We recommend maintaining a file for all fixed assets to include the invoices supporting the cost, documentation of purchase approval, depreciation method and life, and other pertinent information supporting the existence and value of the asset.
3. We suggest controls over the approval of journal entries be reviewed. Journal entries should be reviewed and approved on a regular basis to prevent misstatement of the financial statements. We recommend a review of the journal entries on a monthly basis.
4. We recommend expediting the year end close process so there is time to prepare and audit the financial statements before the State mandated deadline of December 31 to submit audited financial statements to the State Auditor's Office.

These comments are made as suggestions for enhancing the City's systems and procedures and are not criticisms of your current procedures.

Other Matters

With respect to the supplementary information accompanying the financial statements, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements.

North Ogden City
January 15, 2020
Page Four

We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

This information is intended solely for the use of the City and management of North Ogden City, and is not intended to be and should not be used by anyone other than these specified parties.

Sincerely,

Davis & Bott

Davis & Bott
Certified Public Accountants, L.C.

Brigham City, Utah
January 15, 2020

NORTH OGDEN CITY
505 E. 2600 N. NORTH OGDEN, UT 84414
801-782-7211

From: Amy Rawson [<mailto:amy@recycleearth.com>]
Sent: Saturday, November 30, 2019 1:21 PM
To: Evan Nelson
Subject: North Ogden Recycling Report

Hello Evan,

I have attached the recycling report from our scale system for North Ogden from January to current. It was a little more complicated than I anticipated because the loads come in initially with Republic as the customer and I had to separate the other cities that they haul for. The last general audit report was at 25.2 percent residue, which is the debris that has to be removed from the stream. You can see the total audit report in the recycling rate email. That is not specifically North Ogden, but the average. Typically that number is between 25-35%, which is pretty consistent with the weight of garbage removed from the Mrf during sorting vs the tons coming in.

I hope you had a nice Thanksgiving. If you have further questions please let me know.
Thank you,
Amy Rawson
Recycled Earth LLC

NORTH OGDEN CITY STAFF REPORT

TO: North Ogden City Council
FROM: Evan Nelson, Finance Director
SUBJECT: Recycling Costs

DATE: 1/28/2020

In November we received notice of a significant increase to our recycling fees. The City takes recycled waste to a company called Recycled Earth for processing. The market for recyclable waste has changed a lot in the last few years which has made recycling significantly more costly. In March 2019, the cost per ton for disposing of recyclable waste increased from \$36.80/ton to \$53.94/ton. In November the cost went up to \$84.14/ton, a 56% increase. This last increase is estimated to have a budget impact of \$15,000 in the current fiscal year and approximately \$26,000 in Fiscal Year 2021. The current year budget for recycled waste tipping fees is \$45,900. A question was raised about how much of our recycled waste is actually recycled, according to Recycled Earth, the amount is approximately 75%.

The City's regular garbage is currently being processed by Weber County at a cost of \$40.49/ton. The current year budget for regular garbage tipping fees is \$311,596.

Recycled Earth has offered to process our recycled waste as regular garbage at a rate of \$39.00/ton. This would allow the City to put the program on hold, without limiting the option of starting the program again in the future. Several Weber County cities have elected to use this option. Recycled Earth is of the opinion that the market for recyclable waste will be improving in the near future.

Possible options for discussion...

1. Continue the Recycling Program as it currently stands and continue to pay current rates. This would likely require a budget amendment and possibly an increase to the garbage rate paid by residents.
2. Eliminate the Recycling Program. This would reduce the cost of waste disposal. The City's contract with Republic expires in July 2020. The City would need to determine what to do with existing recycle cans and garbage rates would need to be evaluated.
3. Process recycled waste as general garbage on a temporary basis until the market improves. This would reduce the current cost of recyclable waste disposal.

ORDINANCE 2019-

AN ORDINANCE OF THE NORTH OGDEN CITY COUNCIL TO ADOPT PERSONNEL POLICY AMENDMENTS

WHEREAS; North Ogden City has maintained a personnel policy for several years and routinely updates the policy; and

WHEREAS; the City Council believes it is necessary to review and revise the entire policy to ensure compliance with any recent changes in state and federal laws as well as to accommodate best practices to provide a quality working environment for the city employees; and

WHEREAS; the City Council has reviewed the proposed changes to the personnel policy; and

WHEREAS; the City Council wishes to stay maintain a positive work environment and to continue to attract quality employees for vacant positions with the City; and

WHEREAS; the City Council has determined that the changes suggested by the personnel policy committee are in the best interest of the City, though they may be revised from time to time in the future as seen fit by the City.

NOW THEREFORE BE IT ORDAINED by the Council of North Ogden City, Utah that PERSONNEL POLICY 2.3 SUBSTANCE ABUSE AND DRUG FREE WORKPLACE be amended to read, and the Personnel Policy be updated accordingly.

Policy 2.3 SUBSTANCE ABUSE AND DRUG FREE WORKPLACE

The City believes in the importance of a healthy and productive work force, safe-working conditions free from the effects of drugs and alcohol, and maintenance of the quality of services rendered. The abuse of drugs and alcohol creates a variety of workplace problems, including increased injuries on the job, increased absenteeism, increased workplace theft, decreased employee morale, decreased productivity, and a decline in the quality of products and services.

Therefore, the City hereby adopts this Policy for testing employees and prospective employees as related to drugs and alcohol in the workplace. All employees are to sign that they acknowledge, understand, and agree to abide by the “Drug and Alcohol Testing Policy” attached as “Exhibit M”.

A. DRUG AND ALCOHOL TESTING POLICY DEFINITIONS

For the purposes of this policy, the following definitions shall apply:

1. **Accident** - an incident involving physical injury in which any person involved is required to obtain medical care, or an incident involving a city vehicle in which property damage occurs whether on a city vehicle or other personal property.
2. **Alcohol** - alcoholic beverages and any other intoxicating substance.
3. **Drug(s)** - refers to and includes all drugs, paraphernalia, controlled substances, and mood or mind altering inhalants, any of which were not prescribed by a licensed physician/dentist in the United States for the person taking or in possession of the drug or substance, or which have not been used as prescribed or directed.
4. **Over-the-Counter Drug** – includes only medications, drugs, controlled substances or other Drugs, as defined above, which are legally available for purchase without a prescription in Utah. Any substance which requires a prescription under Utah Law does not qualify as an Over-the-Counter Drug regardless of where purchased or used.
5. **Drug paraphernalia** - objects used to manufacture, compound, convert, produce, process, prepare, test, analyze, pack, store, contain, and/or inject, ingest, inhale, or otherwise introduce a drug into the human body.
6. **Employee** - any person, excluding elected officials, in the service of the City whether for compensation or as a volunteer.
7. **Prospective employee** - any person who has made application for employment with the City and to whom the City has offered employment, conditional upon the results of a drug and alcohol test.
8. **Conviction** - a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the federal or state criminal statutes.
9. **Criminal Drug Statute** - a federal or state criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.
10. **MRO (Medical Review Office)** - charged with reviewing and interpreting test results and determining any alternate medical explanation.
11. **Drug Policy Coordinator** - The Human Resource Director, who will administer the Drug and Alcohol Testing Policy and through whom any procedures or disciplinary or rehabilitative action regarding this policy must be reviewed and approved. The Drug Policy Coordinator is the

Human Resource Director or other person designated by the City Administrator/Manager.

12. **CDL (Commercial Driver's License)** - the license required to operate a commercial vehicle.
13. **Positive Drug Test** – The presence of controlled substances, metabolites, or other indicators which are scientifically accepted across the industry as markers of drug use, including any levels which may satisfy the level of criminal statutes.

B. TESTING POLICY

1. It is the policy of the City to test employees and prospective employees for the presence of drugs or alcohol, according to the provisions set forth below, as a condition of hire or continued employment. Any employee or prospective employee failing or refusing to take the test will not be eligible for employment, or if employed, shall be subject to termination. The City shall consider as negative all confirmed positive drug and alcohol test results with a medically sufficient explanation.
2. The City shall require the testing of employees and prospective employees, including management, on a periodic basis under the following circumstances and purposes:
 - a. **Pre-employment testing** - offers of employment shall be made conditional upon submission to a drug and alcohol test. All prospective employees shall be tested for drug and alcohol usage prior to employment. All job applicants shall be informed of this policy at the pre-employment interviews. A copy of this policy shall be available for review by all job applicants. All prospective employees shall be required, prior to being hired by the City, to sign the acknowledgement form, agreeing to abide by the terms of this policy. The City will exclude from employment any job applicant or prospective employee who refuses to abide by the terms of this policy. Any prospective employee whose pre-employment drug and alcohol test results in a confirmed positive and who does not have a medically sufficient explanation (as determined in the sole, but reasonable, discretion of the MRO,) may reapply for employment with the City after six months from the date of such test. If the City hires a prospective employee, the person must have first successfully passed the above-referenced pre-employment drug and alcohol test, and thereafter the person will be subject to all the procedures and requirements for the drug and alcohol testing as set forth in this policy.

In addition, any employee who has taken an extended leave of absence of six months or longer must be retested under this section before returning to work.

- b. **Reasonable suspicion (for cause) testing** - certain supervisors shall be trained to look for behaviors which may indicate drug or alcohol usage. These behaviors include, but are not limited to, direct observation of drug or alcohol used; drug paraphernalia; abnormal or erratic behaviors such as accidents, stealing, or repeated errors on the job; or unsatisfactory time and attendance patterns, any of which are coupled with specific contemporaneous events that indicate probable drug or alcohol use. An employee will be required to submit to a drug screen testing, as outlined below, when such reasonable suspicion arises and at least one supervisor or manager, and the designated Drug Policy Coordinator, concur that a reasonable suspicion of drug or alcohol use exists. The decision to test for drug or alcohol use by an employee is based on specific contemporaneous, physical behavior, and/or performance indicators. Once the authorized supervisor has determined that a reasonable suspicion exists, and after consent of City Administrator/Manager, testing is to be done immediately.
 - c. **Return to duty testing** - if the City returns an employee to duty after the employee has voluntarily sought rehabilitation for drug or alcohol abuse and has successfully completed rehabilitation, such employee shall be entered into a program of unannounced drug and alcohol tests for a predetermined period of time at the sole discretion of the City.
 - d. **Post-accident testing** - Post-accident testing will be conducted on employees, officers, officials, and volunteers involved whenever a workplace injury or damage to municipal property occurs. For traffic accidents testing shall be completed even if the accident appears to be the fault of a third party. Such testing will occur as soon as possible, but not later than twelve hours after an accident has occurred.
 - e. **Random testing** - For public safety reasons all employees who routinely operate vehicles, heavy machinery, or carry firearms as part of their job description must inquire to the prescribing physician whether any work restrictions should be imposed during use of the prescribed drug. The City will make reasonable accommodations for such work restrictions. Any employee failing to inquire about work restrictions or to disclose any restrictions to the Human Resource Director may be subject to discipline.
3. Employees who are required to hold a Commercial Driver's License (CDL) and drive commercial vehicles as a condition of employment may be

tested as a condition of employment and may be tested as required by federal and/or state law.

4. Any drug or alcohol testing shall occur during or immediately after the regular work period of current employees and shall be deemed work time for the purposes of compensation and benefits for current employees.
5. Individuals will be tested on City premises or sent to an outside clinic or testing facility licensed to perform such tests. If an employee is sent to an outside clinic for a "Reasonable Suspicion" test, the employee must be driven to the facility by the supervisor or designee. The employee must then be put on administrative leave until the results of the test are available. The supervisor must make arrangements or help the employee make arrangements to get home without driving.
6. The City shall pay all costs of testing and transportation associated with a test required by the City.
7. All sample collection and testing shall be performed under the following conditions:
 - a. The collection of samples shall be performed under reasonable and sanitary conditions.
 - b. Samples shall be collected and tested with due regard to the privacy of the individual being tested, and in a manner reasonably calculated to prevent substitutions or interference with the collection or testing of reliable samples.
 - c. The collection of samples shall be documented, and the documentation procedures shall include labeling of samples, to reasonably preclude the probability of erroneous identification of test results. An opportunity shall be provided for the employee or prospective employee to provide notification of any information that the person considers to be relevant to the test, including identification of currently or recently used prescriptions or non-prescription drugs or other relevant medical information.
 - d. Sample collection, storage and transportation to the place of testing shall be performed in a manner that reasonably precludes the probability of a sample misidentification, contamination or adulteration.
 - e. Sample testing shall conform to scientifically accepted analytical methods and procedures.

- f. Testing shall include verification or confirmation of any positive initial screening test by gas chromatography, gas chromatography-mass spectroscopy, or other comparably reliable method.
 - g. In the case of urine testing, an employee or prospective employee will submit a split urine sample. A split urine sample shall consist of at least 45 ml of urine. The urine shall be divided into two specimen bottles, with at least 30 ml of urine in one bottle and at least 15 ml of urine in the other. If the test results of the of drugs, the donor of the test shall have 72 hours from the time the person is so notified to request, at the person's option that the 15 ml urine sample be tested for the indicated drugs, the expense of which shall be divided equally between the donor and the City. The test results of both samples may be considered at any subsequent disciplinary hearing.
8. Drug and alcohol testing will be conducted in compliance with federal, state, and local laws, including but not limited to Utah Code Ann. §34-41-104 et seq.
- a. **City action** - Upon receipt of a verified or confirmed positive drug or alcohol test result, which indicates a violation of this policy (and in the case of urine testing after providing the employee or prospective employee notice of the result of the initial test and the option to have the 15 ml urine sample tested), or upon the refusal of any employee or prospective employee to provide a sample, the City may use that test result or refusal as the basis for disciplinary or rehabilitative actions, which may include, but not be limited to, the following as determined by the Human Resource Director and the City Administrator/Manager or Mayor (See Policy 3.1):
 - 1. Termination of employment
 - 2. Refusal to hire a prospective employee.
 - 3. Any other disciplinary measures in conformance with the City's practices, policies, or procedures.
 - 4. Rehabilitation
 - b. **Confidentiality** - The information received from the drug testing results shall be the property of the City. Test results information may be released to the person who has been tested upon written request.
 - c. **Work place rules**

1. Employees, who possess, dispense, manufacture, or distribute alcohol, drugs, or drug paraphernalia on City premises or on City time will be subject to disciplinary action, including termination.
2. Employees undergoing prescribed medical treatment with a drug that may alter physical or mental abilities must report that to the Human Resource Director.
3. Any employee convicted of violating a criminal drug statute must notify the City Administrator/Manager within five (5) days of conviction. The City may take appropriate disciplinary or rehabilitative actions as a consequence.
4. No employee may use or be under the influence of drugs or alcohol on the City's premises, in the City's vehicles, or any time the employee is representing the City on City business, except in cases involving a current prescription prescribed in the United States, or over-the-counter drug, taken as prescribed or directed.
5. Employees may continue to work while taking prescription drugs needed for the treatment of an illness, providing the medications prescribed do not affect the employee's ability to perform work safely, as determined by the City. The employee is required to notify North Ogden City any time they are placed on prescription medications that could affect their ability to perform their job functions. A valid prescription does not mean the medication is safe to use in the workplace, and a safety sensitive evaluation may be required if the medication(s) could affect the employee's ability to safely perform their job functions. The employee is responsible for awareness of all cautions associated with the use of prescription drugs.
6. Employees may continue to work while taking non-prescription or over-the-counter drugs needed for the treatment of an illness providing the medications do not affect the employee's ability to perform work safely as determined by the City. Employees must notify North Ogden City when they are taking a non-prescription or over-the-counter drugs. Non-prescription or over-the counter drugs must be taken in accordance with the manufacturer's dosage recommendations and usage cautions. The employee is responsible for awareness of all cautions associated with the use of these types of medications.

d. Miscellaneous.

1. A copy of the City's Drug and Alcohol Testing Policy shall be distributed to and posted for all employees, and all employees shall be required to acknowledge receiving, reading, and acknowledging the policy. Copies shall be made available to prospective employees.
 2. This policy applies to all employees as well as management, City Council, and volunteers. Though no Elected Official may be removed from office for violating this policy, restricting access to city vehicles and equipment shall be implemented
 3. Employees wishing assistance with overcoming drug or alcohol abuse may contact their supervisor or the Human Resource Director for information about counseling and rehabilitation programs including, but not limited to the North Ogden City Employee Assistance Program.
- e. **Acknowledgement of policy** - The City shall require each employee to read this policy and sign a form, acknowledging that they have received and read a copy of this policy and agree to abide by its terms as a condition of continued employment. The signed acknowledgment shall be kept in each employee's personnel file.
- f. **Drug and alcohol policy not a contract** - This Drug and Alcohol Testing Policy is the unilateral action of the City and does not constitute an expressed or implied contract with any person affected by or subject to the policy. Neither this policy nor any action taken pursuant to this policy assures or guarantees employment or any terms of employment to any person for any period of time. The City may alter, terminate or make exceptions to this policy at any time, at the City's sole discretion.

PASSED and ADOPTED this 28th day of January 2020.

North Ogden City:

**S. Neal Berube
North Ogden City Mayor**

CITY COUNCIL VOTE AS RECORDED:

	Aye	Nay
Council Member Barker:	—	—
Council Member Cevering:	—	—
Council Member Ekstrom:	—	—
Council Member Stoker:	—	—
Council Member Swanson:	—	—
(In event of a tie vote of the Council):		
Mayor Berube	—	—

ATTEST:

S. Annette Spendlove, MMC
City Recorder

NORTH OGDEN CITY STAFF REPORT

TO: City Council
FROM: Jonathan Call, North Ogden City Manager/Attorney
DATE: 1/22/2020
RE: **Personnel Policy 2.3 SUBSTANCE ABUSE AND DRUG FREE WORKPLACE**

There have been some questions raised over the effectiveness of the Substance Abuse Policy for North Ogden City. Some of these concerns center around the availability of substances which are considered controlled in Utah but not some of the neighboring states. This policy has been written to help clarify the City's approach to non-prescription drug usage and testing.

Staff is suggesting the Council adopt the policy changes identified below in red.

Policy 2.3 SUBSTANCE ABUSE AND DRUG FREE WORKPLACE

The City believes in the importance of a healthy and productive work force, safe-working conditions free from the effects of drugs and alcohol, and maintenance of the quality of services rendered. The abuse of drugs and alcohol creates a variety of workplace problems, including increased injuries on the job, increased absenteeism, increased workplace theft, decreased employee morale, decreased productivity, and a decline in the quality of products and services.

Therefore, the City hereby adopts this Policy for testing employees and prospective employees as related to drugs and alcohol in the workplace. All employees are to sign that they acknowledge, understand, and agree to abide by the "Drug and Alcohol Testing Policy" attached as "Exhibit M".

A. DRUG AND ALCOHOL TESTING POLICY DEFINITIONS

For the purposes of this policy, the following definitions shall apply:

1. **Accident** - an incident involving physical injury in which any person involved is required to obtain medical care, or an incident involving a city vehicle in which property damage occurs whether on a city vehicle or other personal property.
2. **Alcohol** - alcoholic beverages and any other intoxicating substance.
3. **Drug(s)** - refers to and includes all drugs, paraphernalia, controlled substances, and mood or mind altering inhalants, any of which were not prescribed by a licensed physician/dentist in the United States for the person taking or in possession of the drug or substance, or which have not been used as prescribed or directed.
- ~~3.4.~~ **Over-the-Counter Drug** – includes only medications, drugs, controlled substances or other Drugs, as defined above, which are legally available for purchase without a

prescription in Utah. Any substance which requires a prescription under Utah Law does not qualify as an Over-the-Counter Drug regardless of where purchased or used.

- ~~4.5.~~ **Drug paraphernalia** - objects used to manufacture, compound, convert, produce, process, prepare, test, analyze, pack, store, contain, and/or inject, ingest, inhale, or otherwise introduce a drug into the human body.
- ~~5.6.~~ **Employee** - any person, excluding elected officials, in the service of the City whether for compensation or as a volunteer.
- ~~6.7.~~ **Prospective employee** - any person who has made application for employment with the City and to whom the City has offered employment, conditional upon the results of a drug and alcohol test.
- ~~7.8.~~ **Conviction** - a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the federal or state criminal statutes.
- ~~8.9.~~ **Criminal Drug Statute** - a federal or state criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.
- ~~9.10.~~ **MRO (Medical Review Office)** - charged with reviewing and interpreting test results and determining any alternate medical explanation.
- ~~10.11.~~ **Drug Policy Coordinator** - The Human Resource Director, who will administer the Drug and Alcohol Testing Policy and through whom any procedures or disciplinary or rehabilitative action regarding this policy must be reviewed and approved. The Drug Policy Coordinator is the Human Resource Director or other person designated by the City Administrator/Manager.
12. CDL (Commercial Driver's License) - the license required to operate a commercial vehicle.
13. Positive Drug Test – The presence of controlled substances, metabolites, or other indicators which are scientifically accepted across the industry as markers of drug use, including any levels which may satisfy the level of criminal statutes.

B. TESTING POLICY

1. It is the policy of the City to test employees and prospective employees for the presence of drugs or alcohol, according to the provisions set forth below, as a condition of hire or continued employment. Any employee or prospective employee failing or refusing to take the test will not be eligible for employment, or if employed, shall be subject to termination. The City shall consider as negative all confirmed positive drug and alcohol test results with a medically sufficient explanation.
2. The City shall require the testing of employees and prospective employees, including management, on a periodic basis under the following circumstances and purposes:

- a. **Pre-employment testing** - offers of employment shall be made conditional upon submission to a drug and alcohol test. All prospective employees shall be tested for drug and alcohol usage prior to employment. All job applicants shall be informed of this policy at the pre-employment interviews. A copy of this policy shall be available for review by all job applicants. All prospective employees shall be required, prior to being hired by the City, to sign the acknowledgement form, agreeing to abide by the terms of this policy. The City will exclude from employment any job applicant or prospective employee who refuses to abide by the terms of this policy. Any prospective employee whose pre-employment drug and alcohol test results in a confirmed positive and who does not have a medically sufficient explanation (as determined in the sole, but reasonable, discretion of the MRO,) may reapply for employment with the City after six months from the date of such test. If the City hires a prospective employee, the person must have first successfully passed the above-referenced pre-employment drug and alcohol test, and thereafter the person will be subject to all the procedures and requirements for the drug and alcohol testing as set forth in this policy.

In addition, any employee who has taken an extended leave of absence of six months or longer must be retested under this section before returning to work.

- b. **Reasonable suspicion (for cause) testing** - certain supervisors shall be trained to look for behaviors which may indicate drug or alcohol usage. These behaviors include, but are not limited to, direct observation of drug or alcohol used; drug paraphernalia; abnormal or erratic behaviors such as accidents, stealing, or repeated errors on the job; or unsatisfactory time and attendance patterns, any of which are coupled with specific contemporaneous events that indicate probable drug or alcohol use. An employee will be required to ~~provide a urine sample~~ submit to a drug screen testing, as ~~defined-outlined~~ below, when such reasonable suspicion arises and at least one supervisor or manager, and the designated Drug Policy Coordinator, concur that a reasonable suspicion of drug or alcohol use exists. The decision to test for drug or alcohol use by an employee is based on specific contemporaneous, physical behavior, and/or performance indicators. Once the authorized supervisor has determined that a reasonable suspicion exists, and after consent of City Administrator/Manager, testing is to be done immediately.
- c. **Return to duty testing** - if the City returns an employee to duty after the employee has voluntarily sought rehabilitation for drug or alcohol abuse and has successfully completed rehabilitation, such employee shall be entered into a program of unannounced drug and alcohol tests for a predetermined period of time at the sole discretion of the City.
- d. **Post-accident testing** - Post-accident testing will be conducted on employees, officers, officials, and volunteers involved whenever a workplace injury or damage to municipal property occurs. For traffic accidents testing shall be completed even if the accident appears to be the fault of a third party. Such testing will occur as soon as possible, but not later than twelve hours after an accident has occurred.

e. **Random testing** - For public safety reasons all employees who routinely operate vehicles, heavy machinery, or carry firearms as part of their job description must inquire to the prescribing physician whether any work restrictions should be imposed during use of the prescribed drug. The City will make reasonable accommodations for such work restrictions. Any employee failing to inquire about work restrictions or to disclose any restrictions to the Human Resource Director may be subject to discipline.

~~e.~~

3. Employees who are required to hold a Commercial Driver's License (CDL) and drive commercial vehicles as a condition of employment may be tested as a condition of employment and may be tested as required by federal and/or state law.
4. Any drug or alcohol testing shall occur during or immediately after the regular work period of current employees and shall be deemed work time for the purposes of compensation and benefits for current employees.
5. Individuals will be tested on City premises or sent to an outside clinic or testing facility licensed to perform such tests. If an employee is sent to an outside clinic for a "Reasonable Suspicion" test, the employee must be driven to the facility by the supervisor or designee. The employee must then be put on administrative leave until the results of the test are available. The supervisor must make arrangements or help the employee make arrangements to get home without driving.
6. The City shall pay all costs of testing and transportation associated with a test required by the City.
7. All sample collection and testing shall be performed under the following conditions:
 - a. The collection of samples shall be performed under reasonable and sanitary conditions.
 - b. Samples shall be collected and tested with due regard to the privacy of the individual being tested, and in a manner reasonably calculated to prevent substitutions or interference with the collection or testing of reliable samples.
 - c. The collection of samples shall be documented, and the documentation procedures shall include labeling of samples, to reasonably preclude the probability of erroneous identification of test results. An opportunity shall be provided for the employee or prospective employee to provide notification of any information that the person considers to be relevant to the test, including identification of currently or recently used prescriptions or non-prescription drugs or other relevant medical information.
 - d. Sample collection, storage and transportation to the place of testing shall be performed in a manner that reasonably precludes the probability of a sample misidentification, contamination or adulteration.
 - e. Sample testing shall conform to scientifically accepted analytical methods and procedures.

- f. Testing shall include verification or confirmation of any positive initial screening test by gas chromatography, gas chromatography-mass spectroscopy, or other comparably reliable method.
 - g. In the case of urine testing, an employee or prospective employee will submit a split urine sample. A split urine sample shall consist of at least 45 ml of urine. The urine shall be divided into two specimen bottles, with at least 30 ml of urine in one bottle and at least 15 ml of urine in the other. If the test results of the of drugs, the donor of the test shall have 72 hours from the time the person is so notified to request, at the person's option that the 15 ml urine sample be tested for the indicated drugs, the expense of which shall be divided equally between the donor and the City. The test results of both samples may be considered at any subsequent disciplinary hearing.
8. Drug and alcohol testing will be conducted in compliance with federal, state, and local laws, including but not limited to Utah Code Ann. §34-41-104 et seq.
- a. **City action** - Upon receipt of a verified or confirmed positive drug or alcohol test result, which indicates a violation of this policy (and in the case of urine testing after providing the employee or prospective employee notice of the result of the initial test and the option to have the 15 ml urine sample tested), or upon the refusal of any employee or prospective employee to provide a sample, the City may use that test result or refusal as the basis for disciplinary or rehabilitative actions, which may include, but not be limited to, the following as determined by the Human Resource Director and the City Administrator/Manager or Mayor (See Policy 3.1):
 - 1. Termination of employment
 - 2. Refusal to hire a prospective employee.
 - 3. Any other disciplinary measures in conformance with the City's practices, policies, or procedures.
 - 4. Rehabilitation
 - b. **Confidentiality** - The information received from the drug testing results shall be the property of the City. Test results information may be released to the person who has been tested upon written request.
 - c. **Work place rules**
 - 1. Employees who possess, dispense, manufacture, or distribute alcohol, drugs, or drug paraphernalia on City premises or on City time will be subject to disciplinary action, including termination.
 - 2. Employees undergoing prescribed medical treatment with a drug that may alter physical or mental abilities must report that to the Human Resource Director.

3. Any employee convicted of violating a criminal drug statute must notify the City Administrator/Manager within five (5) days of conviction. The City may take appropriate disciplinary or rehabilitative actions as a consequence.
4. No employee may use or be under the influence of drugs or alcohol on the City's premises, in the City's vehicles, or any time the employee is representing the City on City business, except in cases involving a current prescription prescribed in the United States, or over-the-counter drug, taken as prescribed or directed.
5. Employees may continue to work while taking prescription drugs needed for the treatment of an illness, providing the medications prescribed do not affect the employee's ability to perform work safely, as determined by the City. The employee is required to notify North Ogden City any time they are placed on prescription medications that could affect their ability to perform their job functions. A valid prescription does not mean the medication is safe to use in the workplace, and a safety sensitive evaluation may be required if the medication(s) could affect the employee's ability to safely perform their job functions. The employee is responsible for awareness of all cautions associated with the use of prescription drugs.
6. Employees may continue to work while taking non-prescription or over-the-counter drugs needed for the treatment of an illness providing the medications do not affect the employee's ability to perform work safely as determined by the City. Employees must notify North Ogden City when they are taking a non-prescription or over-the-counter drugs. Non-prescription or over-the-counter drugs must be taken in accordance with the manufacturer's dosage recommendations and usage cautions. The employee is responsible for awareness of all cautions associated with the use of these types of medications.

d. Miscellaneous.

1. A copy of the City's Drug and Alcohol Testing Policy shall be distributed to and posted for all employees, and all employees shall be required to acknowledge receiving, reading, and acknowledging the policy. Copies shall be made available to prospective employees.
2. This policy applies to all employees as well as management, City Council, and volunteers. Though no Elected Official may be removed from office for violating this policy, restricting access to city vehicles and equipment shall be implemented
3. Employees wishing assistance with overcoming drug or alcohol abuse may contact their supervisor or the Human Resource Director for information about counseling and rehabilitation programs including, but not limited to the North Ogden City Employee Assistance Program.

- e. **Acknowledgement of policy** - The City shall require each employee to read this policy and sign a form, acknowledging that they have received and read a copy of this policy and agree to abide by its terms as a condition of continued employment. The signed acknowledgment shall be kept in each employee's personnel file.

- f. **Drug and alcohol policy not a contract** - This Drug and Alcohol Testing Policy is the unilateral action of the City and does not constitute an expressed or implied contract with any person affected by or subject to the policy. Neither this policy nor any action taken pursuant to this policy assures or guarantees employment or any terms of employment to any person for any period of time. The City may alter, terminate or make exceptions to this policy at any time, at the City's sole discretion.

RESOLUTION - 2020

A RESOLUTION HONORING THE 100TH ANNIVERSARY OF THE LEAGUE OF WOMEN VOTERS

WHEREAS, The history of women voting in Utah is long and vibrant; and

WHEREAS, On February 14, 1870, Utah school teacher Seraph Young voted in a municipal election under EQUAL Suffrage Laws and is credited with being the first woman to vote in an election in any state or territory America; and

WHEREAS, The U.S. Congress passed the 19th Amendment to the Constitution of the United States on June 4, 1920, guaranteeing American women the right to vote, which was ratified on August 18, 1920; and

WHEREAS, Carrie Chapman Catt, a suffragist and founder of the League of Women Voters, led the state-by-state strategy that resulted in its passage; and

WHEREAS, Carrie Chapman Catt spoke at the Conference of Women Voters held in the Salt Lake Tabernacle on November 17, 1919, and

WHEREAS, the Conference was sponsored by the Utah State Suffrage Council, then presided over by Utah feminists Emmeline B. Wells, Emily S. Richards, and others, and

WHEREAS, the League of Women Voters is a civic group, originally formed to help women take a larger role in public affairs after they won the right to vote; and

WHEREAS, the League of Women Voters has grown to include all citizens, encouraging informed and active participation in government, working to increase understanding of major public policy issues, and influencing public policy through education and advocacy; and

WHEREAS, The League of Women Voters is proud to be nonpartisan, neither supporting nor opposing candidates or political parties at any level of government, but always working on vital issues of concern to members and the public; and

WHEREAS, The League of Women Voters was formed 100 years ago on February 14, 1920.

NOW, THEREFORE, BE IT RESOLVED that the City Council of North Ogden City recognizes the League of Women Voters as an important civic organization working for the welfare of all Utahans.

BE IT FURTHER RESOLVED that the City Council of North Ogden City recognizes the long history of civic engagement by the organization and intent to pursue this work for the next 100 years.

PASSED and ADOPTED this 28th day of January, 2020.

North Ogden City:

S. Neal Berube
North Ogden City Mayor

CITY COUNCIL VOTE AS RECORDED:

	Aye	Nay
Council Member Barker:	___	___
Council Member Stoker:	___	___
Council Member Swanson:	___	___
Council Member Ekstrom:	___	___
Council Member Cevering:	___	___

(In the event of a tie vote of the Council):

Mayor Berube:	___	___
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ATTEST:

S. Annette Spendlove, MMC
City Recorder

Approved as to Form

Jonathan Call

NORTH OGDEN CITY STAFF REPORT

TO: City Council
FROM: Jonathan Call, North Ogden City Manager/Attorney
DATE: 1/22/2020
RE: **UDOT 2600 N. Construction Money Request**

As the Council is aware we are nearing the official start date of the road and intersection improvement project. Since the beginning of the discussion on these projects there have always been three different components.

1. Intersection Project
2. East Leg of the intersection (2600 North)
3. North Leg of the Intersection (400/450 East)

In the past year the first two projects were combined into one project because of the significant overlap of construction work, with UDOT taking the lead. The City has been working with UDOT on the design of this project, but will need to be compensated for that portion of the project which is on the North Ogden City road system. To that end we have received a request from UDOT for \$850,000. The original estimate from Jones and Associates was that this leg of the project would cost \$1,070,000. UDOT has been very cost conscious on this project and made changes to help keep the construction cost low as well as provided the environment, design work, and other components of the project as part of the deal.

In the attached email you can see the reasoning behind the request from UDOT. Staff is suggesting the Council agree to the contribution along with a stipulation that this is the maximum contribution from the City for this project so that UDOT is responsible for any unknowns with their contractor or other providers.

Wasatch Front Regional Council
Ben Wuthrich
295 Jimmy Doolittle Road
Salt Lake City, UT 84416

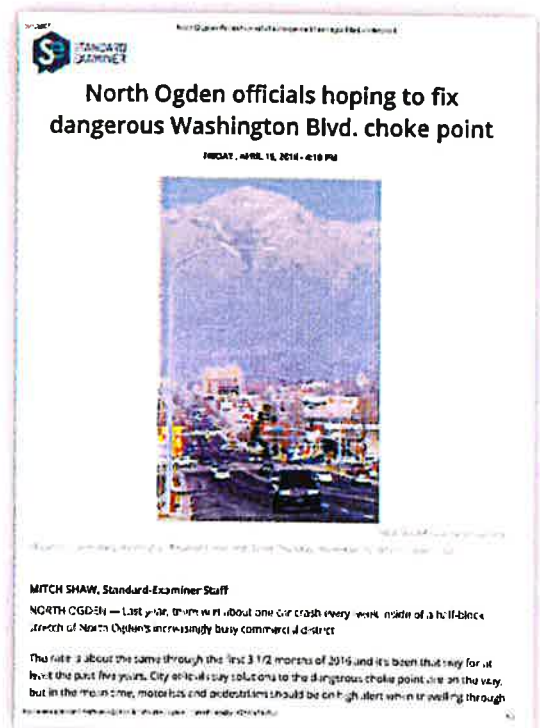
March 1, 2017

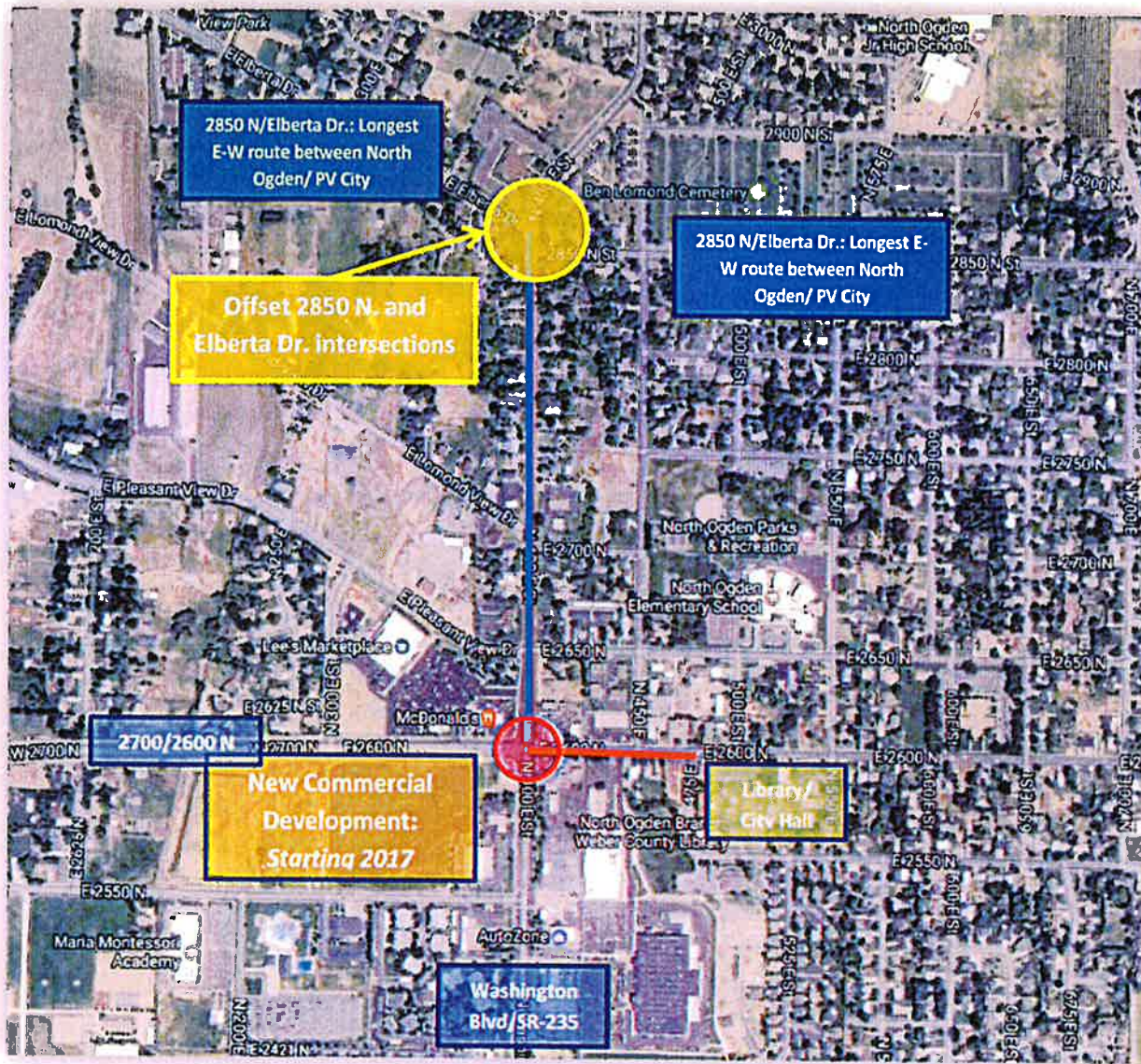
RE: Request for Additional Funds (\$1.35 million) for Project STP O 12 400/450 E Widening Phase I and Withdrawal of 2017 Request for STP Funds For Phase II of This Same Project

Dear Mr. Wuthrich,

Greetings. Thank you for your participation with UDOT and North Ogden City as we work to try and do three inter-related projects in the vicinity of Washington Blvd (aka SR-235 and 400/450 E) and 2600 North (aka 2700 North). This letter is a request for WFRC to please consider granting an additional \$1.35 million in construction funds for the above named project which WFRC approved for partial funding last year. This letter also serves as a withdrawal of our FY 2017 STP request for Phase II of this project, so we can focus resources on completing all projects associated with Phase I.

North Ogden City's main commercial and commuter intersection is Washington Blvd/2600 North, which has an I-15 freeway access further west. There are nearly 35,000 vehicles that pass through this intersection daily, and it is heavily used by residents of North Ogden, Pleasant View, Harrisville, and Ogden. The intersection has two big box stores and multiple smaller commercial developments, with new stores underway. The southern and western legs of the intersection are both 5-lane state highways. Unfortunately, the two state highways end at this intersection, and the two city legs (eastern and northern) both abruptly transition to 2 lane roads out of this intersection. This creates significant stacking issues and congestion on the state highways, because the city roads narrow so abruptly and cars are forced to merge before the intersection (inefficiency) or abruptly after the intersection (dangerous). This intersection has been identified as a dangerous stretch by media reports, and we have been working with UDOT, WFRC, and WACOG to improve this intersection, and traffic flow. *Please see diagram on the following page for details of the three inter-related projects at this intersection.*





Subproject I: Intersection improvements to widen intersection, create dual left turn lanes, and prepare intersection to connect to new lanes on the city legs (east and northern). The dual lefts will encourage more commuter traffic from I-15 to turn left and travel north on 400/450 E. before dispersing to neighborhoods, instead of mostly going east on 2600 N (narrow street). and then dispersing to neighborhoods. Lead: UDOT.

Subproject II: Widen 2600 N. east of Washington Blvd. through commercial area to Library/City Hall at 475 E. Create new EB and WB travel lanes, center turn lane, and bike lanes. This will greatly improve traffic flow through the commercial area, and also improve flow off the state highways and through the intersection, by no longer reducing travel lanes right at the intersection. Lead: North Ogden City.

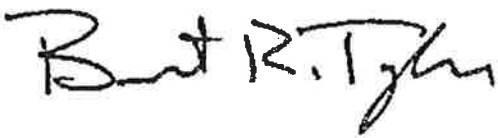
Subproject III: Widen and improve 400/450 E (aka Washington Blvd) north, from 2600 N. to 2850 N: add new NB and SB travel lanes on 400/450 E, a center turn lane, and bike lanes. This will greatly improve traffic flow through the commercial area, especially northbound flow on Washington Blvd. There are thousands of homes in North Ogden and Pleasant View City north of 2600 N. that use Washington Blvd. daily (and thousands more planned on the mountain). Many of these disperse at or before 2850 N/Elberta Dr., a major E-W travel route. This project also includes a re-alignment of the 2850 N/Elberta Dr. intersection, which is currently an offset intersection that creates accident hazards daily as left-turning vehicles must go around each other to make their respective left turns off 400/450 E onto either Elberta Dr. or 2850 N. Lead: WFRC & North Ogden City.

Result: The combined effect of all three subprojects will be to greatly improve commercial and commuter traffic flow through this intersection for the tens of thousands of people who pass through this intersection daily. It will also reduce accidents and dramatically improve safety in this area. It also facilitates the high rate of growth that is occurring in northern North Ogden and Pleasant View cities. We have a unique opportunity with UDOT support to accomplish all three needed projects simultaneously in Spring-Summer 2019.

Request to WFRC: Accomplishing all three projects simultaneously is beyond the capacity of our city finances and we are requesting additional support from WFRC to help us accomplish this combined project in coordination with UDOT. We respectfully request an additional \$1.35 million from WFRC for Phase I of the 400/450 E widening, which is considered "Part III" of the larger intersection improvement project outlined on the previous page. We also request WFRC's support to help advance these funds to construction year 2020, in coordination with UDOT who have tentatively offered to advance them one year further to 2019, if WFRC can advance to 2020.

City and Local Match: North Ogden City and local WACOG funds are providing a total match of \$2.1 million for this piece of the project. Please also see the enclosed breakout of cost across all three phases of this project. You can see that North Ogden City is significantly invested and is contributing over \$2 million itself, a substantial sum from a city of 18,000. We have also lined up over \$2 million in funding from WACOG and \$2 million from UDOT. *WFRC's total requested contribution of \$3.65 million to this project will be leveraged by local and state funds to accomplish an overall project valued at more than \$10 million.*

I sincerely thank you for your consideration of this request.



Brent Taylor
Mayor, North Ogden City

Encls:

1. Estimates of Combined Washington Blvd/2600 N. Projects
2. Updated Cost Estimate-Concept Level for 400/450 Widening Phase I

Enclosure 1 to WFRC Ltr Dtd 3/1/2017		UDOT Participation	WACOG Participation	North Ogden City Participation	WFRC Participation	Notes
<p>Description: <i>Widen and improve the intersection itself; add dual turn lanes & improve flow. Prepare intersection to align to widened city streets on the east and north legs of the intersection.</i></p>						
Subproject I : 2600 N/Washington Blvd Intersection Improvements						
Total ROW & Construction Cost	\$2 million	\$0	\$0	\$0	\$0	UDOT Transportation Commission approved \$2 million in funding for 2017 (ROW) and 2018 (construction). They are willing to delay this project until 2019, to coordinate and align with the other two parts of the overall project. The project will widen and improve the intersection, and will match the two city projects on the north and east. Once this intersection is widened, and the two city streets that exit this intersection are correspondingly widened, the flow of traffic in this area, one of the busiest commercial and commuter intersections of northern Weber County, will be greatly enhanced and improved. Tens of thousands of cars will substantially benefit each day from these improvements.
<p><i>Project Status</i> : A UDOT project</p>						
<p>Description: <i>This segment of the project would widen and improve 2600 N. east from the Washington Blvd. intersection and would add an additional EB and WB lane through City Hall/Library (475 E). This is the most congested segment of 2600 N. and is also the only segment with commercial and government/institutional uses. Widening this area will greatly improve traffic flow through the intersection.</i></p>						
Subproject II: Widen 2600 N. from Washington Blvd. through City Hall (475 E)						
Right of Way: (Total: \$1,530,000)	\$0	\$530,000 Request: +\$400k	\$600,000	\$0	\$0	
Construction (2019 estimate: \$1,069,215)	\$0	\$0	\$1.07 million	\$0	\$0	
<p><i>Project Status</i> : A city project done in close coordination with UDOT (depending on outcome of further discussions with UDOT and analysis of the impacts, the project may be executed as a "betterment" on the UDOT contract for the intersection improvements above).</p>						
<p>WACOG has already approved \$530,000 IN ROW funding. We are requesting an additional \$400,000 in ROW funding. North Ogden City will pay for remaining ROW costs, and all construction costs.</p>						
<p>Description: <i>This segment of the project would widen and improve 400/450 E (aka Washington Blvd.) going north from 2600 N. to 2850 N. This area creates significant stacking issues on Washington Blvd. because the state highway is 5 lanes, but narrows abruptly to 2 lanes on the city portion north of 2600 N. By widening to 5 lanes through 2850 N. we greatly improve flow through the intersection and up the hill, as many cars turn off at 2850 N., because it is the longest continuous E-W route through North Ogden & Pleasant View cities</i></p>						
Subproject III: Widen 400/450 E (aka Washington Blvd) from 2600 N. to 2850 N.						
Total : \$5,704,900 (2019 estimate)	\$0	\$625,000 const. \$1.1 mil ROW	\$400,000	\$2.25 million Request: +\$1.35		WACOG has approved significant ROW funding for this project and for Phase II of this project (widening up to 3100 N) plus \$625,000 in construction funding. WFRC has approved \$2.25 million in funding for this project, and UDOT has tentatively offered to help WFRC advance this to 2019. We respectfully request consideration from WFRC for an additional \$1.35 million in construction funding for this project. North Ogden City will contribute \$400,000 to ROW & Construction.
<p><i>Project Status</i> : A federal/WFRC project for construction done in close coordination with UDOT intersection project above (Part I). ROW funding entirely by the local COG & City. UDOT, city, and WFRC currently discussing best approach to ROW purchase possible combination of environmental study, etc.</p>						
<p>Team Effort : <i>This project has significant funding participation from UDOT, WFRC, WACOG, North Ogden City. Italicized numbers include new requests into WACOG and WFRC (currently approved amounts shown above).</i></p>						
Grand Totals Across all Project Parts	\$2 million	\$2.25 million \$2.65 million	\$2.07 million	\$2.25 million \$3.6 million		

Cost Estimate - Concept Level

Prepared By: Matt Hartvigsen

Date 3/2/2017

Proposed Project Scope: Widen street to 5 lanes including bike lanes, parking on the east, curb and gutter and sidewalk.

	Who owns this facility?	City
Approximate Route Reference Mile Post (BEGIN) =	0.037	(END) = 0.534
Project Length =	0.497 miles	2,624 ft
Current FY Year (Oct-Sept) =	2016	
Assumed Construction FY Year =	2019	
Construction Items Inflation Factor =	1.16	3 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) =	3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) =	3.0%	
Items not Estimated (% of Construction) =	20.0%	
Preliminary Engineering (% of Construction + Incentives) =	8.0%	
Construction Engineering (% of Construction + Incentives) =	10.0%	

2019 Construction Schedule

Construction Items	Cost	Remarks
Public Information Services	\$4,500	
Roadway and Drainage	\$1,512,921	
Traffic and Safety	\$334,520	
Structures	\$100,000	
Environmental Mitigation	\$65,620	
ITS	\$0	
Other Construction Cost	<i>Information Needs to be Provided on Separate Spreadsheet</i>	
	Subtotal	\$2,017,561
	Items not Estimated (20%)	\$403,512
	Construction Subtotal	\$2,421,073
P.E. Cost	P.E. Subtotal =	\$194,640 8%
C.E. Cost	C.E. Subtotal =	\$243,300 10%
Right of Way	Right of Way Subtotal =	\$1,335,955
Utilities	Utilities Subtotal =	\$265,000
Incentives	Incentives Subtotal =	\$11,925
Miscellaneous	Miscellaneous Subtotal =	\$0
<i>This field could be used for those non-construction type projects</i>		

Project Cost Estimate	2016	2019
Concept Report Cost	\$5,000	
Work Prior to an Approved Environmental Document	\$20,000	< Cost not Eligible for Federal Aid
Environmental Document	\$100,000	
P.E.	\$194,600	\$212,600
Right of Way	\$1,336,000	\$1,459,800
Utilities	\$265,000	\$308,200
Construction	\$2,421,100	\$2,816,000
C.E.	\$243,300	\$265,900
Incentives	\$11,900	\$13,800
Aesthetics	0.75% \$18,200	\$21,200
Change Order Contingency	9.00% \$219,500	\$255,300
UDOT Oversight	5.00% \$148,000	\$172,100
Miscellaneous	\$0	\$0
TOTAL	\$4,857,600	\$5,524,900

	2016	2019	Remarks
Utilities - Not Eligible for Federal Reimbursement	\$50,000	\$55,000	

Other Contributing Funding Sources (i.e. Additional Sponsor Funds, Developer, etc.)	2016	2019	Remarks
	\$852,160	\$1,681,682	See attached information regarding WACOG funding
Explain: Sponsor's "total estimated investment" includes funding contributions from North Ogden City and from Weber Area Council of Governments (WACOG) for ROW acquisition and construction.			

Estimated Total Project Cost	2016	2019
	\$5,032,600	\$5,704,900

PROPOSED FEDERAL FUNDS REQUESTED	TOTAL	2016	2019	Remarks
		\$3,734,272	\$3,583,032	\$2.25 million already approved by WFRC; request additional \$1.35 million

Required Matching Funds	TOTAL	2016	2019
		\$271,168	\$260,186

Project Sponsors TOTAL Estimated Investment	2016	2019
	\$1,298,328	\$2,121,868

Jon,

Thank you for your email concerning UDOT's funding deficit of the Washington Blvd @ 2600 North Intersection Project.

UDOT is requesting \$850,000 for the design and construction of the section of 2600 North that is east of the Washington Blvd intersection. This road section is a North Ogden City Road.

I have a number of documents that help describe the progress of this project from the Scoping Study until now and also to justify this funding request.

The attached document ([SR-134 & SR-235 Scoping Study Final.pdf](#)) was completed March 23rd, 2017. This study covers both the UDOT roads (SR-134 & SR-235) and the North Ogden City roads (2600 North & 400 East) at and near the intersection these four roads.

The table below from this Scoping Study shows the costs for the proposed improvements. Since UDOT owns the intersection, the costs for the intersection improvements are included within the two UDOT segments. The combined UDOT segments cost estimate is \$2,732,000 and the city's segments estimate is \$5,217,000. UDOT has funded \$3,000,000 for this project based on this Scoping Study.

PIN: 14408 PROJECT # F-0235(20)3		
PROJECT NAME: SR-235; Intersection Improvements at 2700 North		
Cost Estimate - Concept Level - 2040 Design Year		
	2017	2018
North Leg	\$2,465,000	\$2,567,000
East Leg	\$2,557,000	\$2,650,000
South Leg (UDOT)	\$1,153,000	\$1,202,000
West Leg (UDOT)	\$1,467,000	\$1,530,000
	TOTAL \$7,642,000	TOTAL \$7,949,000
PROPOSED UDOT CONTRIBUTION	TOTAL \$2,620,000	TOTAL \$2,732,000

Based on the results from this study, North Ogden requested an additional \$1.35 Million from Wasatch Front Regional Council. I have attached a copy of that request letter ([N.O. funding request letter to WFRC 3-1-2017.pdf](#)).

On the second page of this WFRC letter, it describes "Subproject II" which is the 2600 North road section east of the Washington Blvd. This paragraph below designates *North Ogden City* as the lead for this section of road.

Subproject II: Widen 2600 N. east of Washington Blvd. through commercial area to Library/City Hall at 475 E. Create new EB and WB travel lanes, center turn lane, and bike lanes. This will greatly improve traffic flow through the commercial area, and also improve flow off the state highways and through the intersection, by no longer reducing travel lanes right at the intersection. Lead: North Ogden City.

The WFRC 3-1-2017 letter also included an "Enclosure 1" that further describes funding and responsibilities of the 3 subprojects. In the notes section for Subproject II, North Ogden City declares that they will "pay for remaining ROW costs, and all construction costs." Under the "Project Status" section, it states that the "project may be executed as a "betterment" on the UDOT contract for the intersection improvements above"

Subproject II: Widen 2600 N. from Washington Blvd. through City Hall (475 E)					<p>Description: This segment of the project would widen and improve 2600 N. intersection and would add an additional EB and WB lane through City Hall/L.I. segment of 2600 N. and is also the only segment with commercial and government. This area will greatly improve traffic flow through the intersection.</p> <p>WACOG has already approved \$530,000 IN ROW funding. We are requesting North Ogden City will pay for remaining ROW costs, and g</p>
Right of Way: (Total: \$1,530,000)	\$0	\$530,000 Request: +\$400k	\$600,000	\$0	
Construction (2019 estimate: \$1,069,215)	\$0	\$0	\$1.07 million	\$0	
<p><i>Project Status:</i> A city project done in close coordination with UDOT (depending on outcome of further discussions with UDOT and analysis of the impacts, the project may be executed as a "betterment" on the UDOT contract for the intersection improvements above).</p>					

At one time, UDOT and North Ogden City planned to combine all the projects and funding into one project for construction. In the fall of 2018, we decided to separate the city and UDOT projects because of environmental document concerns. At that time, we opted to keep the "East Leg" City road project in the UDOT project because of constructability issues. The east leg could not be constructed separately from the intersection. We agreed that the City would acquire the right of way and the hope was that we would be able to cover the construction costs of the east leg within the \$3 million UDOT project budget.

The UDOT project plans are now complete. The Engineers Estimate is \$3,850,140. The majority of the work is on 2600 North on both the UDOT's section and the City's section. The construction, design and utilities cost for the City section is about \$850,000.

Please call if you have any questions,

Thanks,
Dave Adamson, P.E.
 Project Manager
 UDOT Region 1
 (801)781-0545 mobile
 (801)620-1684 office
deadamson@utah.gov



**Engineer's Estimate (Innovative Contracting)
Utah Department of Transportation**

Project Number: F-0235(20)3
 ENGINEER'S ESTIMATE_NORTH OGDEN CITY
 Project Description: SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH
 Concept: INTERSECTION IMPROVEMENT



Engineer's Estimates are UDOT CONFIDENTIAL until the project is awarded and should be kept within the limits of the project team until such time.

Bid Items

Detail	Alt Group	Alt #	Description	Quantity	Unit	Unit Price	Amount
10 - ROADWAY	0	0					
1	015017010		Mobilization	1	Lump	\$ 65,000.00	\$ 65,000.00
2	01540701*		Public Information Services	1	Lump	\$ 1,600.00	\$ 1,600.00
3	01554700*		Traffic Control	1	Lump	\$ 39,000.00	\$ 39,000.00
4	018927010		Reconstruct Catch Basin	3	Each	\$ 2,500.00	\$ 7,500.00
5	018927040		Reconstruct Valve Box	10	Each	\$ 2,700.00	\$ 27,000.00
6	018927050		Reconstruct Manhole	7	Each	\$ 3,000.00	\$ 21,000.00
7	020567015		Granular Borrow (Plan Quantity)	1,388	cu yd	\$ 38.00	\$ 52,744.00
8	022217030		Remove Catch Basin	1	Each	\$ 1,000.00	\$ 1,000.00
9	022217050		Remove Tree	4	Each	\$ 1,200.00	\$ 4,800.00
10	022217080		Remove Fence	55	ft	\$ 8.00	\$ 440.00
11	022217090		Remove Utility Pole	1	ft	\$ 1,000.00	\$ 1,000.00
12	022217110		Remove Concrete Sidewalk	227	sq yd	\$ 10.00	\$ 2,270.00
13	022217115		Remove Concrete Driveway	83	sq yd	\$ 10.00	\$ 830.00
14	022217120		Remove Concrete Curb	462	ft	\$ 5.00	\$ 2,310.00
15	022217125		Remove Concrete Curb and Gutter	924	ft	\$ 5.00	\$ 4,620.00
16	02221712P		Remove Concrete Waterway	93	sq yd	\$ 12.00	\$ 1,116.00
17	02221713P		Remove Concrete Flatwork	114	sq yd	\$ 10.00	\$ 1,140.00
18	022217165		Remove Asphalt Pavement	3,004	sq yd	\$ 9.00	\$ 27,036.00
19	023167020		Roadway Excavation (Plan Quantity)	1,812	cu yd	\$ 27.00	\$ 48,924.00
20	02511701*		Relocate Fire Hydrant	1	Each	\$ 2,000.00	\$ 2,000.00
21	026107386		Drainage Pipe – 18 inch, Smooth, Leak-Resistant	65	ft	\$ 100.00	\$ 6,500.00
22	02610761P		Drainage Pipe – 12 inch, Reinforced Concrete, Leak-Resistant	46	ft	\$ 140.00	\$ 6,440.00
23	02633720D		Concrete Drainage Structure 4 ft wide x 3 ft deep – CB 5	1	Each	\$ 4,500.00	\$ 4,500.00
24	02633722D		Concrete Drainage Structure 4 ft wide x 5 ft deep – CB 5	1	Each	\$ 4,750.00	\$ 4,750.00
25	026357040		Rectangular Grate and Frame – Bicycle Safe	2	Each	\$ 1,500.00	\$ 3,000.00
26	026357045		Rectangular Solid Cover and Frame	1	Each	\$ 1,500.00	\$ 1,500.00
27	027217020		Untreated Base Course (Plan Quantity)	694	cu yd	\$ 50.00	\$ 34,700.00
28	027357010		Micro-Surfacing	9,619	sq yd	\$ 5.00	\$ 48,095.00
29	02737703*		Pavement Soft Spot Repair - Type C (Contingency Item)	124	sq yd	\$ 70.00	\$ 8,680.00

**Engineer's Estimate (Innovative Contracting)
Utah Department of Transportation**

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 ENGINEER'S ESTIMATE_NORTH OGDEN CITY
 Project Description: SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH
 Concept: INTERSECTION IMPROVEMENT



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Bid Items						
30	027417050	HMA – ½ inch		1,137 Ton	\$ 91.00	\$ 103,467.00
31	027657050	Pavement Marking Paint		72 Gallon	\$ 30.00	\$ 2,160.00
32	027687105	Pavement Message (Preformed Thermoplastic)		23 Each	\$ 200.00	\$ 4,600.00
33	027687115	Pavement Message (Preformed Thermoplastic Stop Lines, Crosswalks – 12 inch)		292 ft	\$ 12.00	\$ 3,504.00
34	027717059	Perpendicular/Parallel Pedestrian Access Ramp		5 Each	\$ 3,400.00	\$ 17,000.00
35	027717110	Reconstruct Pedestrian Access Ramp		4 Each	\$ 5,000.00	\$ 20,000.00
36	027767015	Concrete Sidewalk		331 sq yd	\$ 58.00	\$ 19,198.00
37	02776701P	Concrete Curb Type B5 (Back-to-Back)		100 ft	\$ 20.00	\$ 2,000.00
38	027767025	Concrete Curb and Gutter Type B1		732 ft	\$ 23.00	\$ 16,836.00
39	027767045	Concrete Driveway Flared, 7 inch Thick		290 sq ft	\$ 12.00	\$ 3,480.00
40	027767100	Plowable End Section		1 Each	\$ 1,000.00	\$ 1,000.00
						Subtotal: \$ 622,740.00

Detail	Alt Group	Alt #	Description	Quantity	Unit	Unit Price	Amount
30 - LANDSCAPING	0	0					
41	015717030		Silt Fence	602 ft	\$ 5.00	\$ 3,010.00	
42	015717075		Drop-Inlet Barrier – Fiber Roll	23 ft	\$ 20.00	\$ 460.00	
43	015717100		Gutter-Inlet Barrier	5 Each	\$ 80.00	\$ 400.00	
44	029127010		Contractor Furnished Topsoil	1,202 sq yd	\$ 7.50	\$ 9,015.00	
						Subtotal: \$ 12,885.00	

Detail	Alt Group	Alt #	Description	Quantity	Unit	Unit Price	Amount
40 - SIGNING	0	0					
46	028917020		Sign Type A-1	73 sq ft	\$ 40.00	\$ 2,920.00	
47	028917075		Sign Type A-2	23 sq ft	\$ 60.00	\$ 1,380.00	
48	028917270		Remove Sign Less Than 20 Square Feet	14 Each	\$ 75.00	\$ 1,050.00	
49	028917285		Relocate Sign Less Than 20 Square Feet	3 Each	\$ 175.00	\$ 525.00	
50	028917320		Slipbase Sign Base (B3)	13 Each	\$ 400.00	\$ 5,200.00	
51	028917365		Sign Post P3	13 Each	\$ 300.00	\$ 3,900.00	
						Subtotal: \$ 14,975.00	

Contract Amount(Excluding Innovative Contracting, Time and Lane Rental): \$ 650,600.00

Engineer's Estimate (Innovative Contracting)
Utah Department of Transportation

Project Number: F-0235(20)3
ENGINEER'S ESTIMATE_NORTH OGDEN CITY
Project Description: SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH
Concept: INTERSECTION IMPROVEMENT



Engineer's Estimates are UDOT CONFIDENTIAL until the project is awarded and should be kept within the limits of the project team until such time.

Bid Items

Subtotal (Contract Amount):	\$	650,600.00
Innovative Contracting, Time, and Lane Rental	\$	-
Total Bid Items Engineers Estimate:	\$	650,600.00
Bid Amount for Award Consideration:	\$	650,600.00

**Engineer's Estimate (Innovative Contracting)
Utah Department of Transportation**

Project Number: F-0235(20)3
 ENGINEER'S ESTIMATE_NORTH OGDEN CITY
 Project Description: SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH
 Concept: INTERSECTION IMPROVEMENT



Engineer's Estimates are UDOT CONFIDENTIAL until the project is awarded and should be kept within the limits of the project team until such time.

Non-Bid Items

Detail	Alt Group	Alt #	Description	Quantity	Unit Price	Amount
95 - CONSTRUCTION ENGINEERING	0	0				
Number Item Number Description						
00007910* CE				1 Lump	\$ 50,000.00	\$ 50,000.00
					Subtotal:	\$ 50,000.00

Detail	Alt Group	Alt #	Description	Quantity	Unit Price	Amount
96 - ADJUSTING UTILITIES	0	0				
Number Item Number Description						
00007001* Utilities				1 Lump	\$ 25,000.00	\$ 25,000.00
					Subtotal:	\$ 25,000.00

Detail	Alt Group	Alt #	Description	Quantity	Unit Price	Amount
97 - PRELIMINARY ENGINEERING	0	0				
Number Item Number Description						
00007201* PE				1 Lump	\$ 125,000.00	\$ 125,000.00
					Subtotal:	\$ 125,000.00

State Furnished:	\$	-
Adjusting Utilities:	\$	25,000.00
Preliminary Engineering:	\$	125,000.00
Right of Way:	\$	-
Non-Bid Items Total:	\$	200,000.00

Bid Items Total:	\$	650,600.00
Non-Bid Items Total:	\$	200,000.00
Grand Total:	\$	850,600.00

Minus Innovative Contracting, Time and Lane Rental:	\$	-
	\$	850,600.00

MEMO

TO: Nathan Peterson, PE (UDOT Region 1)
FROM: Kordel Braley, PE, PTOE; Austin Feula, PE
DATE: March 23, 2017
SUBJECT: SR-134 and SR-235 Scoping Study

RSG has conducted an analysis of traffic operations proximate to the intersection of the SR-134/2600 North and SR-235/400 East intersection in North Ogden, Utah. The two primary goals of this study are:

1. To determine what improvements are required on 400 East north of SR-134/SR-235 (including the recommended cross section, intersection improvements, and extent).
2. To determine potential alternatives for alleviating congestion at SR-134/2600 North and SR-235/400 East.

1.0 SUMMARY OF KEY FINDINGS

We offer the following summary of key findings based on the analysis presented in this memorandum:

- The SR-134 and SR-235 intersection is projected to operate at LOS E in 2024 and LOS F in 2040 during the PM peak hour with significant queuing if no improvements are made.
- To maintain acceptable operations at this location the following improvements are recommended:
 - By 2024
 - Dual northbound left-turn lanes
 - Build out of east leg of intersection following the City of North Ogden Plans¹
 - Dual eastbound left-turn lanes
 - Reconfiguration of Southbound approach (dual southbound left-turn lanes; conversion of exclusive right-turn lane into a shared through/right lane)
 - Continuation of two lanes northbound along 400 East to 2850 North
 - Additional improvements by 2040
 - Additional eastbound through lane
 - Continuation of two lanes southbound along 400 East from 2850 North to SR-134

¹ Washington Boulevard-2600 N intersection Concept Plan by Jones and Associates

- With these improvements in place it is projected that operations improve to LOS D during both the 2024 and 2040 PM peak hour.
- The UDOT contribution to these improvements is expected to be \$2,439,000 for the 2024 design and \$2,620,000 for the 2040 design.
- At SR-134 and 300 East, volumes will likely be high enough to warrant a signal in the future. UDOT should closely monitor this location and perform a signal warrant once minor leg delays and queues become unacceptable during peak hours.
- Any full access on SR-235 between SR-134 and 2550 North will create less than ideal storage lengths for SR-235 left-turn movements at SR-134 and/or 2550 North.
- When a raised median is installed along SR-134 between 300 East and 400 East a raised median along 400 East between 2600 North and 2650 North should also be installed to prohibit northbound left-turns into Lee's Marketplace.
- Based on AADT estimates for 400 East north of SR-134, 400 East should be widened to a five-lane cross section (two lanes in each direction, with a two-way left-turn lane) north to Elberta Drive. North of Elberta Drive the existing three-lane cross section is sufficient.
- The intersection of Elberta Drive and 400 East should eventually be reconfigured (the offset minimized) to improve safety and operational efficiency.
- Based on AADT estimated and due to numerous uncontrolled accesses, 2550 North (west of SR-235) should be constructed as a three-lane cross-section (one lane in each direction with a two-way left-turn lane). This road would be a good alternative for bicyclists instead of SR-134. Due to moderate speeds and volumes along 2550 North it is recommended that buffered bike lanes are installed to provide sufficient separation between vehicular traffic and bicycles.
- Three severe crashes have been reported in the study area since 2010. A formal operational safety report (OSR) is recommended during the design of these improvements to determine if mitigation measures can improve safety within the study area.

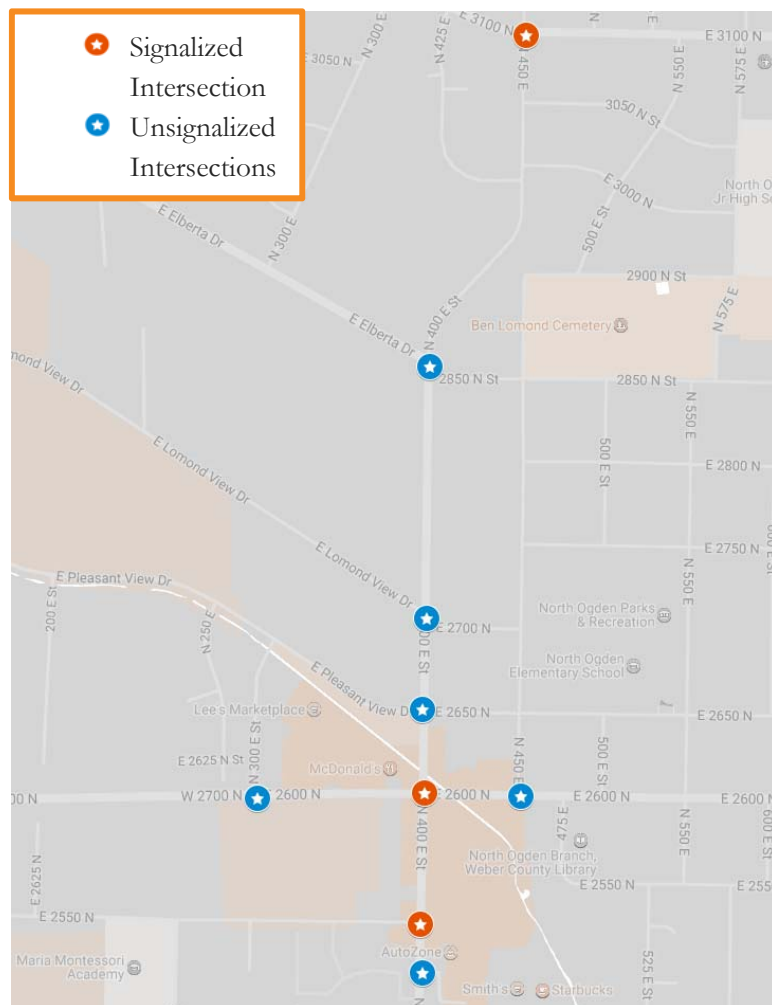


2.0 STUDY AREA

This study evaluates the traffic and related infrastructure impacts at the SR-134 and SR-235 intersection and nearby intersections that affect operations along this UDOT corridor. Additionally, 400 East was analyzed north to 3100 North to determine adequate roadway cross-section through this area. The study area intersections are as follows (and are also presented below in Figure 1):

- 3100 North and 450 East
- 2850 North and 400 East
- 2700 North and 400 East
- 2650 North and 400 East
- **SR-134/2600 North and SR-235/400 East**
- 2550 North and SR-235
- South Smith's and SR-235
- SR-134 and 300 East
- 2600 North and 450 East

FIGURE 1: STUDY AREA



3.0 EXISTING CONDITIONS

3.1 | ROADWAY NETWORK

Within the study area, SR-134 is five-lane roadway (including a two-way left-turn lane) west of SR-235. East of SR-235, 2600 North is a two-lane roadway. 400 East is a three-lane roadway (including a two-way left-turn lane) north of 2600 North. South of 2600 North SR-235 is a five-lane roadway (including a two-way left-turn lane).

The lane configuration at the SR-134 and SR-235 intersection is presented below in Figure 2. The posted speed limits throughout the study are presented below in Table 1.

FIGURE 2: EXISTING LANE CONFIGURATION AT SR-134 AND SR-235

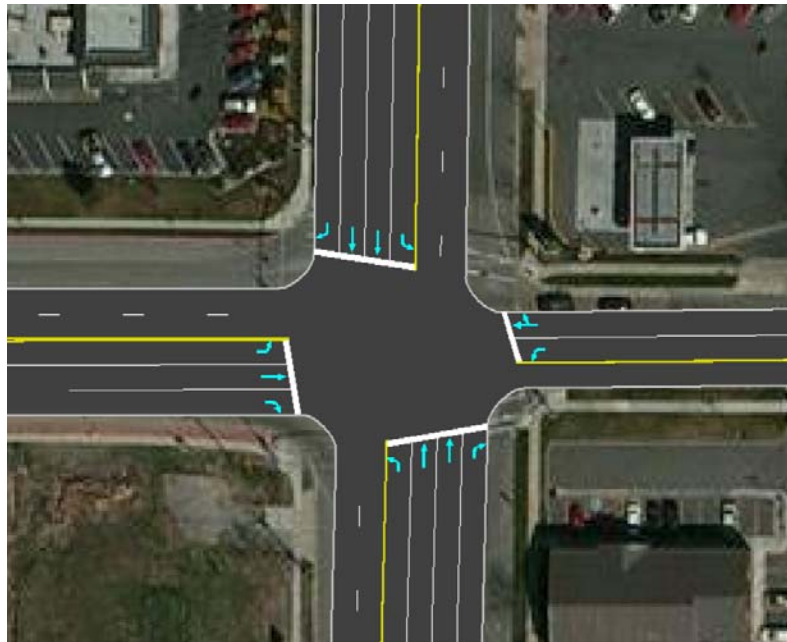


TABLE 1: POSTED SPEED LIMITS

Location	Posted Speed Limit
West of intersection	55 MPH
East of intersection	30 MPH
South of intersection	50 MPH
North of intersection	30 MPH

3.2 | DATA COLLECTION

RSG deployed automatic traffic counters (tube counters) on SR-235, SR-134, and 400 East for 48 hours between November 2 and 3, 2016. From this it was determined that peak hours at the SR-134 and SR-235 intersection were 7:45 AM to 8:45 AM and 5:00 PM to 6:00 PM. RSG collected AM and PM peak hour vehicular and pedestrian count data at all study intersections listed above on Wednesday November 2, 2016. The traffic volumes were seasonally adjusted to average AM and PM peak hour volumes based on UDOT data from a nearby UDOT Continuous Count Stations (CCS) – station 329.

Additionally, RSG quantified approximate 95th percentile queuing for each approach and movement for use in calibrating the micro-simulation models to 2016 peak conditions.

Existing signal timing data were obtained from the UDOT Traffic Operations Center.

4.0 FUTURE CONDITIONS

4.1 | LAND USE ANALYSIS

RSG performed a detailed analysis of anticipated traffic volumes and patterns within the study area by utilizing version 8 of the Wasatch Front travel demand model and by estimating trip generation on the currently undeveloped southwest corner of the SR-134 and SR-235 intersection. After accounting for base year error, traffic volumes were estimated for each link in the study area. Forecast volumes are shown in Table 2.

TABLE 2: ESTIMATED AADT (VEHICLES PER DAY)

Location	Year		
	2016	2024	2040
West of intersection	18,400	20,200	20,000
East of intersection	14,200	14,800	21,800
South of intersection	24,900	27,200	27,500
North of intersection	14,700	19,800	17,700

4.2 | TRIP GENERATION

Trip generation refers to the number of new vehicle trips originating at or destined for a particular development. Through discussions with UDOT Region 1 estimates were developed for the southwest corner, including 20.5 acres of commercial development.

To estimate the number of new vehicle trips for the southwest corner, we examined trip generation rates presented in the Institute of Transportation Engineer's *Trip Generation Manual*.² Shopping Center (Land Use 820) was used as it was found to be the most intense use that would realistically be built at this location. Figure 3 the developable area.

² Institute of Transportation Engineers, *Trip Generation* 9th Edition (Washington, D.C.: Institute of Transportation Engineers, 2012).

FIGURE 3: SOUTHWEST CORNER DEVELOPABLE AREA



The proposed site will generate approximately 210 new vehicle trips during the AM peak hour and approximately 830 new vehicle trips during the PM peak hour when fully built out.

4.3 | FUTURE TRAFFIC PROJECTIONS

Trip generation for the southwest corner was merged with pivoted future traffic volumes from the travel demand model. Where reasonable trip generation rates did not align with the travel demand model a conservative approach was taken by adding the traffic volume to these roadways without subtracting these volumes out of the model estimates. From this, RSG estimated 2024 and 2040 traffic volumes throughout the study area.

4.4 | FUTURE TRAFFIC VOLUMES

Based on the southwest corner trip generation and travel demand model runs RSG developed 2024 and 2040 peak period traffic volumes. Figure 4 through Figure 7 present 2024 and 2040 AM and PM peak hour traffic volumes at key study intersections. See Appendix A for traffic volumes at all study intersections.

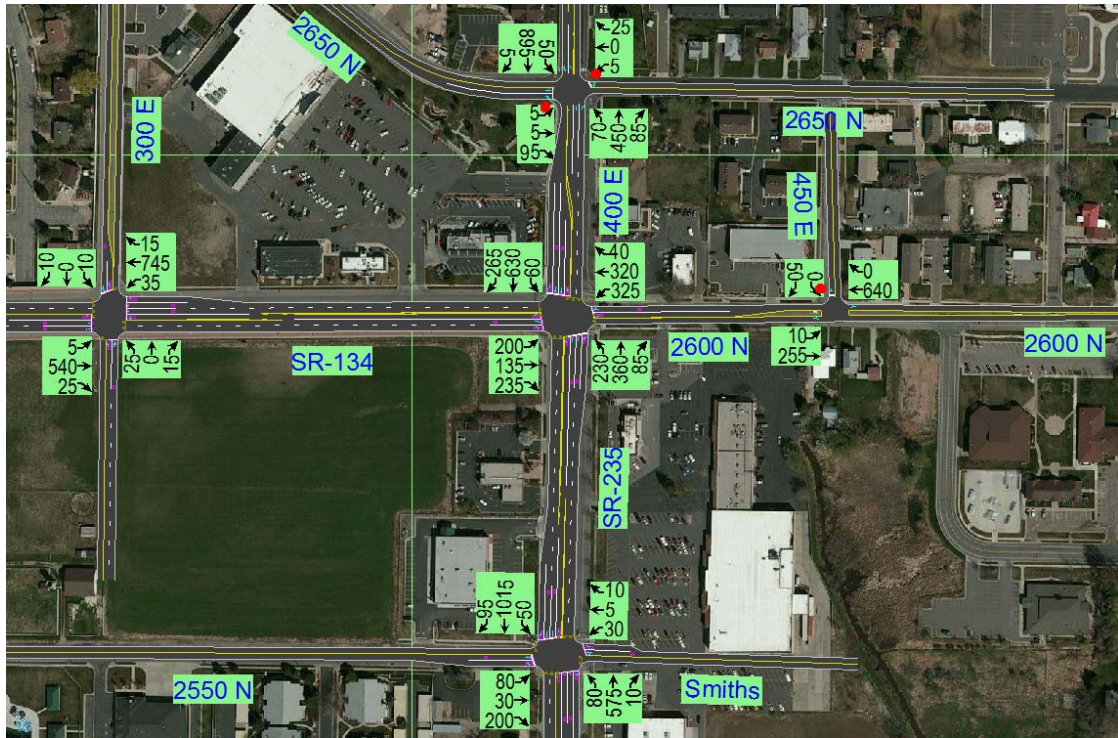


FIGURE 4: 2024 AM PEAK HOUR VOLUMES

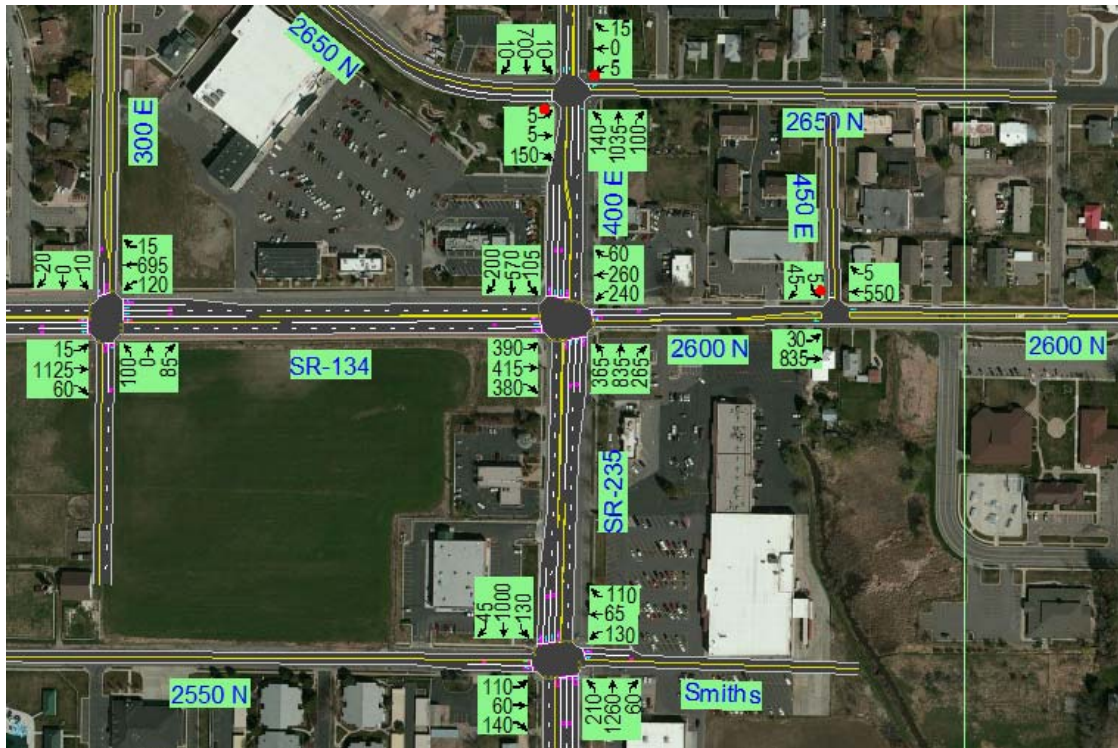


FIGURE 5: 2024 PM PEAK HOUR VOLUMES

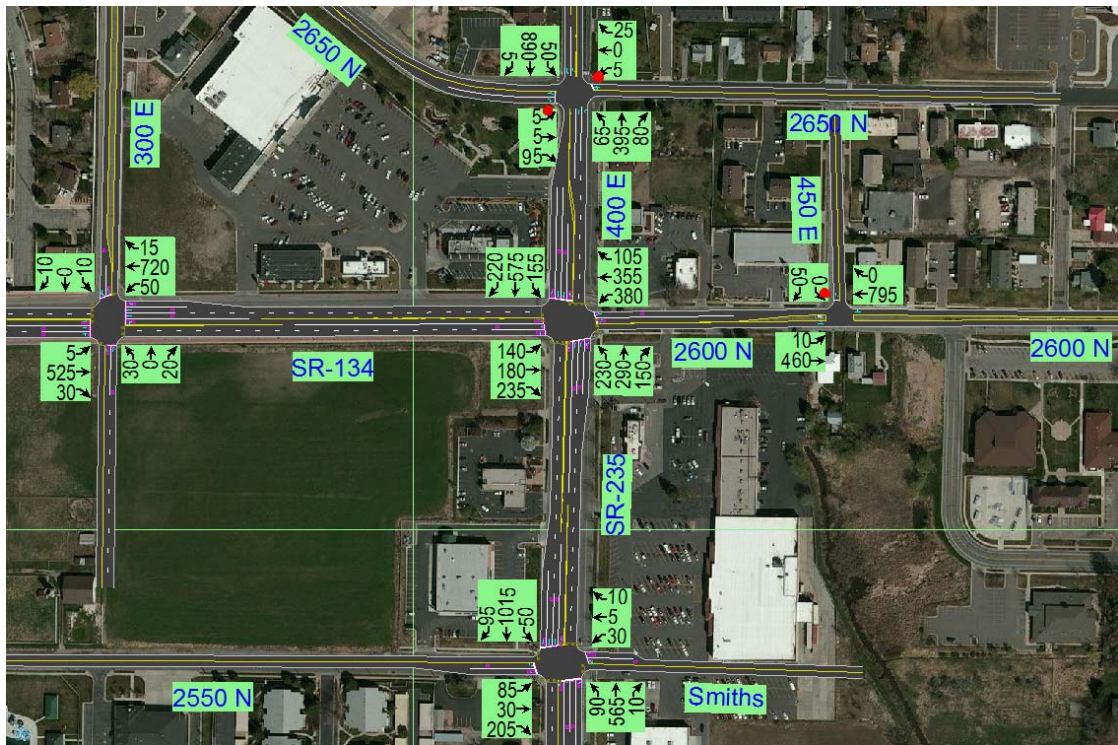


FIGURE 6: 2040 AM PEAK HOUR VOLUMES



FIGURE 7: 2040 PM PEAK HOUR VOLUMES

5.0 OPERATIONAL ANALYSIS

Build alternatives were developed for both near-term (2024) and long-term (2040) improvement packages. The following improvements are recommended by 2024 and 2040:

- 2024
 - Dual northbound left-turn lanes
 - Build out of east leg of intersection following the City of North Ogden Plans³
 - Dual eastbound left-turn lanes
 - Reconfiguration of Southbound approach (dual southbound left-turn lanes; conversion of exclusive right-turn lane into a shared through/right lane)
 - Continuation of two lanes northbound along 400 East to 2850 North
- 2040
 - Additional eastbound through lane
 - Continuation of two lanes southbound along 400 East from 2850 North SR-134

Figure 8 and Figure 9 present concept drawings for near-term and long-term improvements. See Appendix E for more detailed concept drawings.

The following section of this report analyzes the traffic operations of these configurations and compares them to the existing roadway configuration.

³ Washington Boulevard-2600 N intersection Concept Plan by Jones and Associates

FIGURE 8: 2024 CONCEPT DRAWING

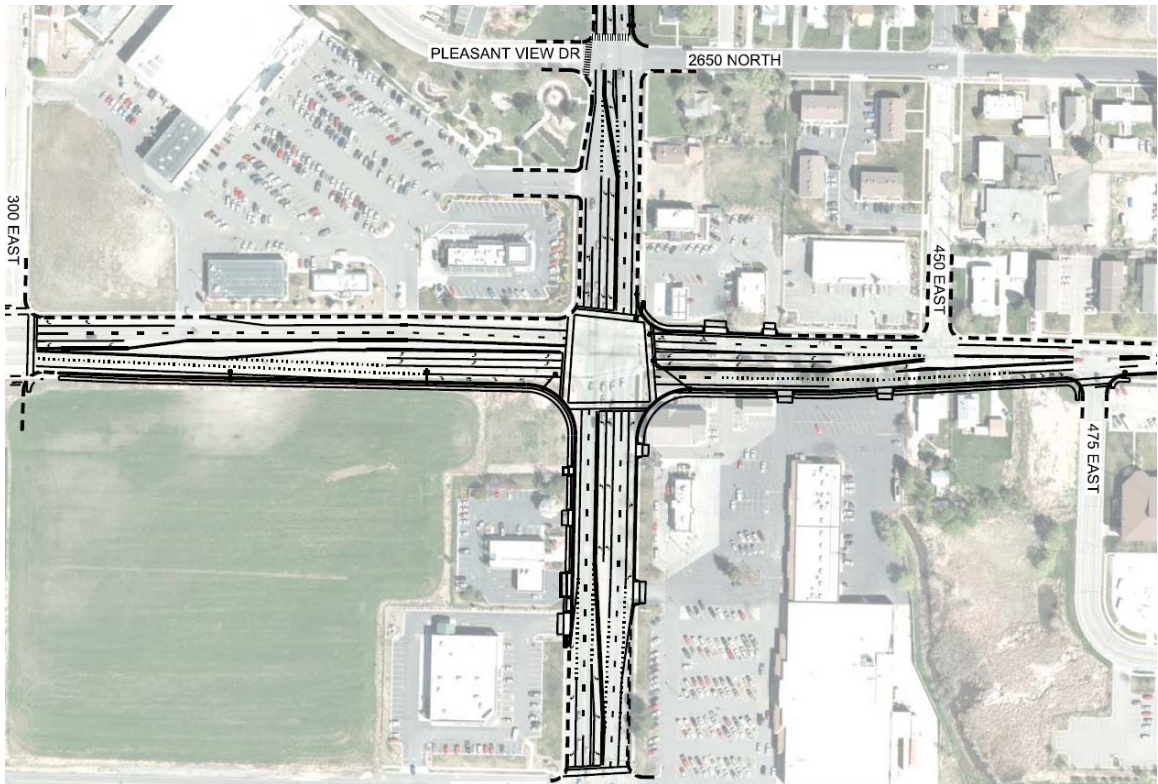
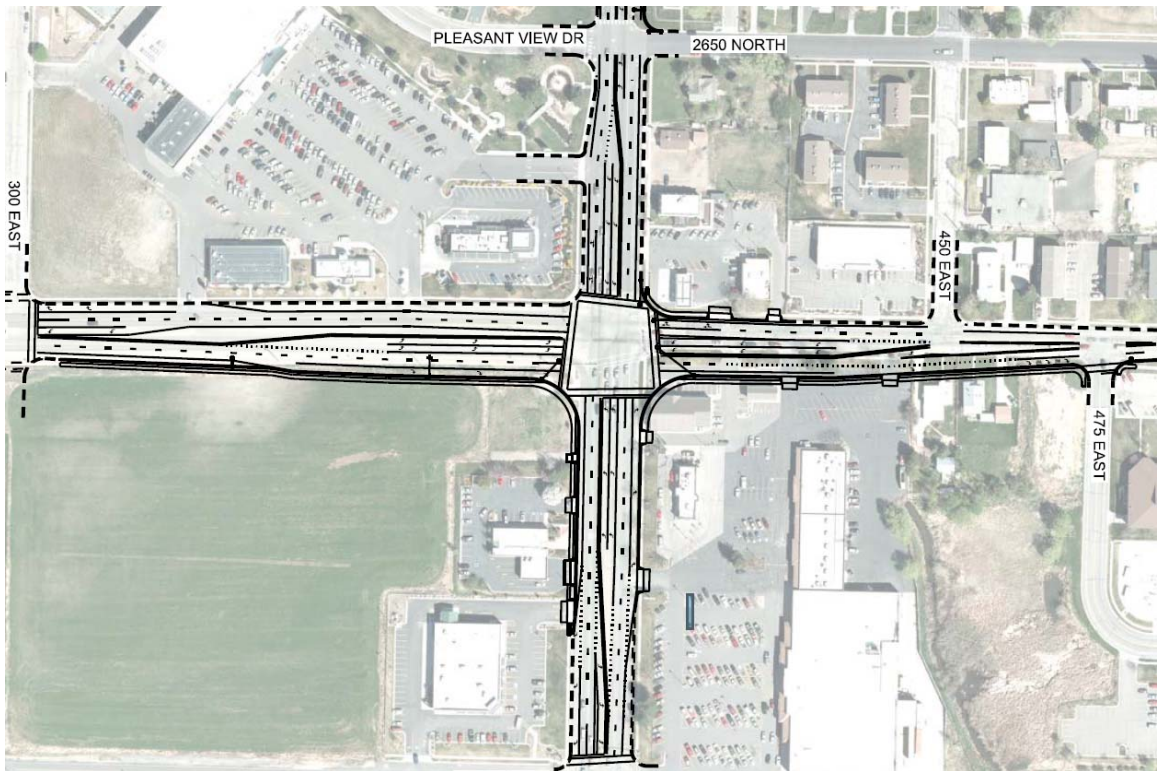


FIGURE 9: 2040 CONCEPT DRAWING



5.1 | TRAFFIC OPERATIONS ANALYSIS METHODOLOGY

Level of Service (LOS) is a qualitative measure describing the operating conditions as perceived by motorists. LOS is calculated using the procedures outlined in the 2010 Highway Capacity Manual (HCM 2010). In addition to traffic volumes, key inputs include the number of lanes at each intersection, traffic control type (signalized or unsignalized), and the traffic signal timing plans.

The HCM 2010 defines six qualitative grades to describe the LOS at an intersection. LOS is based on the average control delay per vehicle. Table 3 shows the various LOS grades and descriptions for signalized and unsignalized intersections.

TABLE 3: LOS CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

LOS	CHARACTERISTICS	UNSIGNALIZED	SIGNALIZED
		TOTAL DELAY (SEC)	TOTAL DELAY (SEC)
A	Little or no delay	≤ 10.0	≤ 10.0
B	Short delays	10.1-15.0	10.1-20.0
C	Average delays	15.1-25.0	20.1-35.0
D	Long delays	25.1-35.0	35.1-55.0
E	Very long delays	35.1-50.0	55.1-80.0
F	Extreme delays	> 50.0	> 80.0

The HCM LOS calculations are deterministic and do not account for the interaction between adjacent intersections. For this reason, RSG has also created a micro-simulation model for each scenario using SimTraffic (Trafficware). As the model results are stochastic, RSG runs the analysis ten times and averages them together. An equivalent LOS is calculated from the micro-simulation model results based on the HCM LOS thresholds discussed in Table 3.

LOS D or better is considered an acceptable level in urbanized areas.

5.2 | OPERATIONAL ANALYSIS FOR 2024 AND 2040 CONDITIONS

Build conditions for 2024 and 2040 were discussed in the previous section. Cycle lengths of 120 seconds were assumed for all scenarios.

Table 4 through Table 7 show the LOS results, input volume, and percent of vehicles served by movement for 2024 and 2040 conditions. As shown in these tables, the intersection of SR-134 and SR-235 is anticipated to operate at LOS F during the PM peak hour in 2040. With the planned near-term and long-term improvements all intersections within the study area are projected to operation at acceptable levels.

See Appendix C for congestion results for all study intersections by movement.

TABLE 4: 2024 AM CONGESTION RESULTS

	AM 2024 No Build				AM 2024 Build			
	Delay / LOS	Input Veh (s)	% of Volume	% of Volume	Delay / LOS	Input Veh (s)	% of Volume	% of Volume
400 E & 2650 N	A	3.2	1724	100	A	5.4	1724	97
SR-235/400 E & SR-134/2600 N	C	28.3	2957	100	C	34.2	2957	98
SR-235 & 2550 N/Smiths	B	11.2	2210	101	B	11.2	2210	99
SR-134 & 300 E	A	6.8	1445	100	A	7.1	1445	99
2600 N & 450 E	A	1.8	984	101	A	0.9	996	98

TABLE 5: 2024 PM CONGESTION RESULTS

	PM 2024 No Build				PM 2024 Build			
	Delay / LOS	Input Veh (s)	% of Volume	% of Volume	Delay / LOS	Input Veh (s)	% of Volume	% of Volume
400 E & 2650 N	A	4.1	2206	94	A	5.9	2206	100
SR-235/400 E & SR-134/2600 N	E	62.9	4185	94	D	43.9	4185	100
SR-235 & 2550 N/Smiths	E	61.2	3364	91	C	26.2	3364	100
SR-134 & 300 E	B	11.9	2260	97	B	13	2260	101
2600 N & 450 E	C	16.7	1469	97	A	1.9	1480	100

TABLE 6: 2040 AM CONGESTION RESULTS

	AM 2040 No Build				AM 2040 Build			
	Delay / LOS	Input Veh (s)	% of Volume	% of Volume	Delay / LOS	Input Veh (s)	% of Volume	% of Volume
400 E & 2650 N	A	3.4	1654	99	A	3.2	1654	99
SR-235/400 E & SR-134/2600 N	C	30.5	3104	100	C	33.6	3104	100
SR-235 & 2550 N/Smiths	B	11.3	2220	100	B	10.6	2220	100
SR-134 & 300 E	A	7	1435	100	A	7.5	1435	101
2600 N & 450 E	A	2.5	1372	100	A	1.2	1388	100

TABLE 7: 2040 PM CONGESTION RESULTS

	PM 2040 No Build				PM 2040 Build			
	Delay / LOS	Input Veh (s)	% of Volume	% of Volume	Delay / LOS	Input Veh (s)	% of Volume	% of Volume
400 E & 2650 N	B	10.5	2072	86	A	4.3	2072	100
SR-235/400 E & SR-134/2600 N	F	100.5	4442	85	D	39.4	4442	101
SR-235 & 2550 N/Smiths	E	78.2	3392	79	C	24.8	3392	101
SR-134 & 300 E	E	56.1	2385	89	B	14.9	2385	100
2600 N & 450 E	E	39.5	2052	90	A	3.9	2069	101



5.3 | QUEUEING AND STORAGE LENGTHS

Where feasible, turn-lane storage lengths were designed to accommodate 95th percentile queues in turn-lanes and adjacent through lanes. This is to allow queued turning vehicles to not spill into adjacent through lanes, and so that turning vehicles can navigate around queued through vehicles. Where nearby intersections and other physical constraints do not allow for optimum storage lengths just turn-lane queues were accommodated. The proposed storage lengths for 2024 and 2040 and 95th percentile queues are shown in Table 8 and Table 9. See Appendix C for 95th percentile queuing for all study intersections.

In all cases, except for the eastbound left movement during the 2024 PM peak period, storage lengths are long enough to accommodate 95th percentile queues. During the infrequent times when the eastbound left queue does exceed the storage distance, vehicles will be able to queue into the large median space at the end of the turn pocket.

TABLE 8: 2024 95TH PERCENTILE QUEUES AND PROPOSED STORAGE LENGTHS (FEET)

SR-134 & SR-235	# lanes	Proposed Storage	AM Peak Hour	PM Peak Hour
EBL	2	280	160	390
EBT	1		240	560
EBR	1		160	310
WBL	2	300	180	140
WBT/WBR	2		170	150
NBL	2	330	150	270
NBT	2		200	410
NBR	1	280	70	140
SBL	2	210	70	120
SBT/SBR	2		290	300
400 East & 2650 North				
NBL	1	80	60	80
SR-235 & 2550 North				
SBL	1	160	50	130
SBT			120	170
SBR	1	140	20	20
SR-134 & 300 East				
WBL	1	140	50	100
WBT			90	110
WBR	1	220	20	20
2600 N & 450 East				
EBL	1	50	20	40



TABLE 9: 2040 95TH PERCENTILE QUEUES AND PROPOSED STORAGE LENGTHS (FEET)

SR-134 & SR-235	# lanes	Proposed Storage	AM Peak Hour	PM Peak Hour
EBL	2	280	110	260
EBT	2		130	320
EBR	1	425	150	230
WBL	2	300	200	190
WBT/WBR	2		210	210
NBL	2	330	160	210
NBT	2		130	320
NBR	1	280	50	150
SBL	2	210	140	160
SBT/SBR	2		290	250
400 East & 2650 North				
NBL	1	70	50	70
SR-235 & 2550 North				
SBL	1	160	50	130
SBT			130	190
SBR	1	140	20	20
SR-134 & 300 East				
WBL	1	140	50	120
WBT			100	110
WBR	1	220	20	20
2600 N & 450 East				
EBL	1	50	30	40

5.4 | COST ESTIMATES

Table 10 presents concept level cost estimates that were developed for both near-term (2024) and long-term (2040) roadway improvement projects. A detailed breakdown of cost estimates can be found in Appendix E.



TABLE 10: CONCEPT LEVEL COST ESTIMATES⁴

LOCATION	2024 IMPROVEMENTS	2040 IMPROVEMENTS
East Leg	\$2,557,000	\$2,557,000
West Leg (UDOT)	\$1,305,000	\$1,467,000
South Leg (UDOT)	\$1,134,000	\$1,153,000
North Leg	\$504,000	\$2,465,000
Total	\$5,500,000	\$7,642,000
UDOT Contribution	\$2,439,000	\$2,620,000

5.5 | SR-134 AND SR-235 SIGNAL PROGRAMING MODIFICATIONS

Due to the unique nature of the SR-134 and SR-235 intersection two additional factors need to be considered when signal plans are developed:

- Lead/lag left-turn phasing must be utilized on all approaches since left-turn truck turning movements overlap due to the confined right-of-way at this location
 - Additionally, when lead/lag phasing is implemented the controller must be formatted to prevent opposing leading and lagging lefts from overlapping.
- Right-turn overlap phasing should not be used. With the installation of raised medians there will likely be a high demand for U-turn movements. These U-turn movements should be allowed and thus overlapping right-turn movements should not be installed.

These modifications were assumed for all Build condition models.

6.0 ADDITIONAL ANALYSIS

The following nearby locations were also analyzed as operations at these locations directly affect operations at the SR-134 and SR-235 intersection.

Results of the following analyses are presented in Appendix D.

6.1 | SR-134 AND 300 EAST

Currently this location is a three-leg intersection with stop control on the north leg. It is proposed for this location to be a major full access to the planned commercial development to the south. Based on this assumption, significant delays and queuing are expected for the stop controlled approaches in the future. Volumes are likely to be high enough during the PM peak well before the land to the south is fully built out to warrant a signal. UDOT should closely monitor this location and perform a signal warrant once minor leg delays and queues become unacceptable during peak hours.

⁴ 2017 dollars

6.2 | SR-235 AND WALGREENS

The intersection of SR-235 and Walgreens (approximately halfway between SR-134 and 2550 North) is currently being considered to be a full-access four-way intersection. This would require a cut in the proposed center raised median between SR-134 and 2550 North and left-turn lanes into Walgreens and the east leg of the intersection.

Significant delays and queuing are expected for the stop controlled approaches at this location.

As discussed previously, the southbound left-turn storage at SR-235 and 2550 North only meets the minimum storage requirement, thus any left-turn for this access will require less than ideal storage lengths for SR-235 left-turn movements.

6.3 | SR-134 AND LEE'S MARKETPLACE

Currently Lee's Marketplace has three direct accesses into the study area; two along SR-134 between 300 and 400 East, and one along 400 East between SR-134 and 2650 North. All accesses are currently stop controlled with all movements allowed. Minimal issues were observed currently at these locations during the PM peak hour.

With the reconstruction of the SR-134 and SR-235 intersection a raised median is likely to be installed on the west leg. This median would prohibit the eastbound left-turn movement along SR-134 into Lee's Marketplace, thus resulting in an increase of northbound left-turns into Lee's Marketplace from 400 East. In 2040 the queue from this northbound left-turn movement is projected to extend back into the SR-134 and SR-235 intersection. To mitigate this issue, the following measures are proposed:

- Allow full-access via the western access to Lee's Marketplace Plaza until the signal is installed at SR-134 and 300 East (eastern access along SR-134 should be right-in/right-out only).
- Once a signal is installed at SR-134 and 300 East promote eastbound left-turns onto 300 East by providing a more direct access between 300 East and the Lee's Marketplace plaza.
- When a raised median is installed along SR-134 between 300 East and 400 East, also install a raised median along 400 East between 2600 North and 2650 North to prohibit northbound left-turns into Lee's Marketplace. This will further promote left turns at 300 East and/or U-turns at SR-235.

6.4 | 400 EAST WIDENING (NORTH OF SR-134)

To determine a desired future cross-section of 400 East (north of SR-134) estimated 2040 AADT were examined (see Figure 10).

FIGURE 10: ESTIMATED 2040 AADT ALONG 400 EAST



Based on the above AADT estimates, 400 East should be widened to a five-lane cross section (two lanes in each direction, with a two-way left-turn lane) north to Elberta Drive. North of Elberta Drive the existing three-lane cross section is sufficient.

6.5 | 2550 NORTH CROSS-SECTION

To determine a desired future cross-section of 2550 North (directly west of SR-235) estimated 2040 AADT were examined. We estimate that the AADT along this section of roadway will be between 5,000 and 10,000 vehicles per day in 2040. Based on this projected volume, and the numerous uncontrolled accesses, we recommend a three-lane cross-section (one lane in each direction with a two-way left-turn lane).

Additionally, due to this roadway having significantly lower speeds and traffic volume than SR-134 we recommend designating this roadway as a bike route. Due to moderate speeds and volumes along this roadway it is recommended that buffered bike lanes are installed to provide sufficient separation between vehicular traffic and bicycles.

6.6 | 400 EAST AND ELBERTA DRIVE/2850 NORTH

Currently Elberta Drive and 2850 North are offset by approximately 90 feet. Consideration should be given to aligning Elberta Drive and 2850 North when the 400 East cross-section improvements are made in order to improve safety and operations.

7.0 SAFETY ANALYSIS

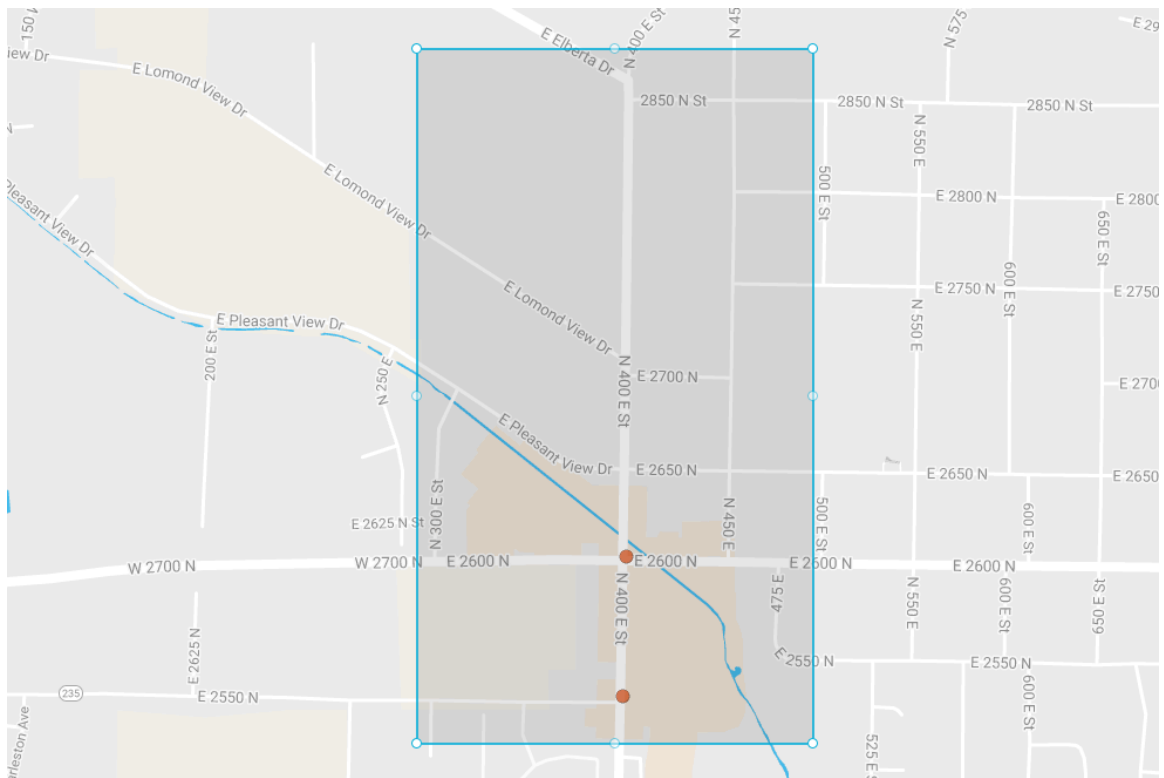
Crash data were obtained from the UDOT Traffic and Safety Division.⁵ A review of the crash data indicates there were three severe crashes reported within the study area from January 1, 2010 through October 31, 2016 (the current period of available data). Details of these three crashes are given below:

⁵ CONFIDENTIAL: Crash data in this report is protected under 23USC409

- At the SR-235 and 2550 North intersection two crashes involved left-turning vehicles that collided with through vehicles.
- At the SR-134 and SR-235 intersection, a through vehicle, traveling at an excessive speed, ran the red light, and collided with an opposing through vehicle.

The crash locations are shown in Figure 11. A formal operational safety report (OSR) is recommended during the design of these improvements to determine if mitigation measures can improve safety within the study area.

FIGURE 11: CRASH LOCATIONS AND SEVERITY (SERIOUS INJURY AND FATAL CRASHES ONLY)⁵



8.0 CONCLUSIONS/RECOMMENDATIONS

We offer the following summary of key findings based on the analysis presented in this memorandum:

- The SR-134 and SR-235 intersection is projected to operate at LOS E in 2024 and LOS F in 2040 during the PM peak hour with significant queuing if no improvements are made.
- To maintain acceptable operations at this location the following improvements are recommended:

- By 2024
 - o Dual northbound left-turn lanes
 - o Build out of east leg of intersection following the City of North Ogden Plans⁶
 - o Dual eastbound left-turn lanes
 - o Reconfiguration of Southbound approach (dual southbound left-turn lanes; conversion of exclusive right-turn lane into a shared through/right lane)
 - o Continuation of two lanes northbound along 400 East to 2850 North
 - Additional improvements by 2040
 - o Additional eastbound through lane
 - o Continuation of two lanes southbound along 400 East from 2850 North to SR-134
- With these improvements in place it is projected that operations improve to LOS D during both the 2024 and 2040 PM peak hour.
 - The UDOT contribution to these improvements is expected to be \$2,439,000 for the 2024 design and \$2,620,000 for the 2040 design.
 - At SR-134 and 300 East, volumes will likely be high enough to warrant a signal in the future. UDOT should closely monitor this location and perform a signal warrant once minor leg delays and queues become unacceptable during peak hours.
 - Any full access on SR-235 between SR-134 and 2550 North will create less than ideal storage lengths for SR-235 left-turn movements at SR-134 and/or 2550 North.
 - When a raised median is installed along SR-134 between 300 East and 400 East a raised median along 400 East between 2600 North and 2650 North should also be installed to prohibit northbound left-turns into Lee's Marketplace.
 - Based on AADT estimates for 400 East north of SR-134, 400 East should be widened to a five-lane cross section (two lanes in each direction, with a two-way left-turn lane) north to Elberta Drive. North of Elberta Drive the existing three-lane cross section is sufficient.
 - The intersection of Elberta Drive and 400 East should eventually be reconfigured (the offset minimized) to improve safety and operational efficiency.
 - Based on AADT estimated and due to numerous uncontrolled accesses, 2550 North (west of SR-235) should be constructed as a three-lane cross-section (one lane in each direction with a two-way left-turn lane). This road would be a good alternative for bicyclists instead of SR-134. Due to moderate speeds and volumes along 2550 North it is recommended that buffered bike lanes are installed to provide sufficient separation between vehicular traffic and bicycles.
 - Three severe crashes have been reported in the study area since 2010. A formal operational safety report (OSR) is recommended during the design of these improvements to determine if mitigation measures can improve safety within the study area.

⁶ Washington Boulevard-2600 N intersection Concept Plan by Jones and Associates



APPENDIX A: TRAFFIC COUNTS



Raw Count Data

Peak Hour Factors

1	3100 N & 450 E North Ogden, UT 11/3/2016 1st Thursday	EB	WB	NB	SB		EB	WB	NB	SB		
		L	3	188	26	24		L	0.75	0.59	0.50	0.50
		T	41	36	104	277		T	0.73	0.53	0.79	0.87
		R	56	10	68	6	839	R	0.67	0.50	0.74	0.75
		Enter	100	234	198	307	839	Appr.				
		Exit	133	68	117	521	839	Int.				
		Peds	0	0	0	2	PHF					
		Peak Hour	7:45 AM - 8:45 AM				0.75					
		2	2850 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	5			23	62	2		L	0.42	0.96	0.74	0.25
T	5			6	225	580		T	0.63	0.50	0.82	0.76
R	136			6	28	4	1082	R	0.83	0.50	0.78	0.50
Enter	146			35	315	586	1082	Appr.				
Exit	35			72	236	739	1082	Int.				
Peds	31			32	33	34	PHF					
Peak Hour												
3	2700 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	3	8	21	3		L	0.75	0.50	0.58	0.25
		T	4	3	307	750		T	0.50	0.75	0.75	0.76
		R	26	10	0	2	1137	R	0.81	0.28	0.00	0.50
		Enter	33	21	328	755	1137	Appr.				
		Exit	7	26	320	784	1137	Int.				
		Peds	1	0	0	0	PHF					
		Peak Hour	7:45 AM - 8:45 AM				0.75					
		4	2650 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	5			7	52	49		L	0.63	0.58	0.93	0.40
T	3			0	313	751		T	0.38	0.00	0.89	0.89
R	83			26	67	5	1361	R	0.86	0.36	0.70	0.42
Enter	91			33	432	805	1361	Appr.				
Exit	119			57	344	841	1361	Int.				
Peds	1			0	0	3	PHF					
Peak Hour	7:45 AM - 8:45 AM				0.83							
5	400 E & Lee's Market North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	1	0	10	14		L	0.25	0.00	0.50	0.58
		T	0	1	0	0		T	0.00	0.25	0.00	0.00
		R	40	42	34	62	204	R	0.83	0.62	0.85	0.97
		Enter	41	43	44	76	204	Appr.				
		Exit	48	73	43	40	204	Int.				
		Peds	0	0	0	0	PHF					
		Peak Hour	7:45 AM - 8:45 AM				0.81					
		6	2600 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	132			312	221	38		L	0.75	0.74	0.88	0.53
T	127			308	279	552		T	0.81	0.89	0.81	0.93
R	222			21	77	208	2497	R	0.85	0.75	0.74	0.88
Enter	481			641	577	798	2497	Appr.				
Exit	242			737	432	1086	2497	Int.				
Peds	1			2	0	2	PHF					
Peak Hour	7:45 AM - 8:45 AM				0.86							
8	2550 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	72	27	56	48		L	0.49	0.68	0.58	0.57
		T	31	5	483	928		T	0.55	0.63	0.94	0.92
		R	186	11	9	81	1937	R	0.48	0.55	0.75	0.65
		Enter	289	43	548	1057	1937	Appr.				
		Exit	88	142	566	1141	1937	Int.				
		Peds	2	8	8	0	PHF					
		Peak Hour	7:45 AM - 8:45 AM				0.80					
		9	South Smiths & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	4			35	4	13		L	0.33	0.67	0.50	0.65
T	1			0	526	1127		T	0.25	0.00	0.87	0.80
R	16			6	28	4	1764	R	0.57	0.75	0.78	1.00
Enter	21			41	558	1144	1764	Appr.				
Exit	42			8	536	1178	1764	Int.				
Peds	0			1	0	1	PHF					
Peak Hour	7:45 AM - 8:45 AM				0.82							
10	2600 N & 300 E North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	6	0	0	12		L	0.75	0.00	0.00	0.60
		T	468	702	0	0		T	0.88	0.95	0.00	0.00
		R	0	13	0	10	1211	R	0.00	0.54	0.00	0.63
		Enter	474	715	0	22	1211	Appr.				
		Exit	480	712	19	0	1211	Int.				
		Peds	0	0	0	2	PHF					
		Peak Hour	7:45 AM - 8:45 AM				0.93					
		11	2600 N & 450 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	9			0	0	0		L	0.45	0.00	0.00	0.00
T	218			594	0	0		T	0.89	0.79	0.00	0.00
R	0			2	0	51	874	R	0.00	0.50	0.00	0.64
Enter	227			596	0	51	874	Appr.				
Exit	218			645	11	0	874	Int.				
Peds	0			0	1	0	PHF					
Peak Hour	7:45 AM - 8:45 AM				0.81							

Raw Count Data

Peak Hour Factors

1	3100 N & 450 E North Ogden, UT 11/3/2016 1st Thursday	EB	WB	NB	SB		EB	WB	NB	SB		
		L	30	84	48	15		L	0.94	0.81	0.67	0.63
		T	51	41	405	218		T	0.71	0.85	0.91	0.80
		R	37	10	110	22	1071	R	0.66	0.63	0.86	0.79
		Enter	118	135	563	255	1071	Appr.				
		Exit	176	111	445	339	1071	Int.				
		Peds	0	1	1	1	PHF					
		Peak Hour	5:00 PM - 6:00 PM				0.88					
		2	2850 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	8			27	152	6		L	0.67	0.75	0.81	0.75
T	5			13	604	387		T	0.42	0.36	0.96	0.84
R	99			6	46	14	1367	R	0.77	0.50	0.88	0.70
Enter	112			46	802	407	1367	Appr.				
Exit	57			179	618	513	1367	Int.				
Peds	6			3	0	1	PHF					
Peak Hour	5:00 PM - 6:00 PM				0.96							
3	2700 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	3	2	28	4		L	0.75	0.50	0.58	0.50
		T	1	0	805	514		T	0.25	0.00	0.97	0.91
		R	22	3	4	3	1389	R	0.92	0.38	0.50	0.75
		Enter	26	5	837	521	1389	Appr.				
		Exit	9	31	811	538	1389	Int.				
		Peds	2	4	0	0	PHF					
		Peak Hour	5:00 PM - 6:00 PM				0.98					
		4	2650 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	5			5	117	10		L	0.63	0.42	0.73	0.83
T	4			2	826	528		T	0.50	0.50	0.97	0.91
R	111			14	80	11	1713	R	0.79	0.58	0.83	0.92
Enter	120			21	1023	549	1713	Appr.				
Exit	94			130	845	644	1713	Int.				
Peds	2			6	0	0	PHF					
Peak Hour	5:00 PM - 6:00 PM				0.96							
5	400 E & Lee's Market North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	4	0	29	11		L	0.50	0.00	0.81	0.69
		T	0	0	0	0		T	0.00	0.00	0.00	0.00
		R	107	50	31	80	312	R	0.69	0.83	0.78	0.77
		Enter	111	50	60	91	312	Appr.				
		Exit	42	109	54	107	312	Int.				
		Peds	0	0	0	0	PHF					
		Peak Hour	5:00 PM - 6:00 PM				0.80					
		6	2600 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	290			229	324	76		L	0.84	0.94	0.91	0.73
T	395			232	707	461		T	0.93	0.85	0.87	0.85
R	361			35	252	126	3488	R	0.88	0.73	0.93	0.81
Enter	1046			496	1283	663	3488	Appr.				
Exit	723			682	1032	1051	3488	Int.				
Peds	1			4	0	13	PHF					
Peak Hour	5:00 PM - 6:00 PM				0.95							
8	2550 N & 400 E North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	60	128	131	125		L	0.68	0.78	0.78	0.78
		T	60	62	1130	878		T	0.68	0.82	0.90	0.98
		R	80	105	56	27	2842	R	0.83	0.67	0.67	0.68
		Enter	200	295	1317	1030	2842	Appr.				
		Exit	241	220	1295	1086	2842	Int.				
		Peds	0	0	0	0	PHF					
		Peak Hour	5:00 PM - 6:00 PM				0.96					
		9	South Smiths & 400 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	4			64	15	37		L	0.50	0.76	0.63	0.84
T	0			1	1237	1037		T	0.00	0.25	0.95	0.96
R	9			56	179	12	2651	R	0.32	0.78	0.93	0.60
Enter	13			121	1431	1086	2651	Appr.				
Exit	216			28	1297	1110	2651	Int.				
Peds	0			0	0	0	PHF					
Peak Hour	5:00 PM - 6:00 PM				0.96							
10	2600 N & 300 E North Ogden, UT 11/2/2016 1st Wednesday			EB	WB	NB	SB		EB	WB	NB	SB
		L	17	0	0	11		L	0.53	0.00	0.00	0.69
		T	1062	675	0	0		T	0.93	0.93	0.00	0.00
		R	0	16	0	19	1800	R	0.00	0.67	0.00	0.68
		Enter	1079	691	0	30	1800	Appr.				
		Exit	1073	694	33	0	1800	Int.				
		Peds	0	0	0	4	PHF					
		Peak Hour	5:00 PM - 6:00 PM				0.98					
		11	2600 N & 450 E North Ogden, UT 11/2/2016 1st Wednesday	EB	WB	NB	SB		EB	WB	NB	SB
L	31			0	0	5		L	0.60	0.00	0.00	0.31
T	775			484	0	0		T	0.97	0.88	0.00	0.00
R	0			5	0	45	1345	R	0.00	0.63	0.00	0.80
Enter	806			489	0	50	1345	Appr.				
Exit	780			529	36	0	1345	Int.				
Peds	1			1	3	7	PHF					
Peak Hour	5:00 PM - 6:00 PM				0.96							

APPENDIX B: 2024 AND 2040 PROJECTED VOLUMES



2024 AM

2040 AM

1 3100 N & 450 E
North Ogden, UT
11/3/2016
1st Thursday

	EB	WB	NB	SB	
L	15	225	45	35	
T	50	45	160	340	
R	70	20	80	15	1100
Enter	135	290	285	390	1100
Exit	165	105	195	635	1100

	EB	WB	NB	SB	
L	15	225	35	35	
T	50	45	140	335	
R	70	20	75	15	1060
Enter	135	290	250	385	1060
Exit	160	95	175	630	1060

2 2850 N & 400 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	5	25	90	0	
T	5	5	315	690	
R	160	5	50	5	1355
Enter	170	35	455	695	1355
Exit	55	100	325	875	1355

	EB	WB	NB	SB	
L	5	25	80	0	
T	5	5	280	685	
R	160	5	40	5	1295
Enter	170	35	400	690	1295
Exit	45	90	290	870	1295

3 2700 N & 400 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	5	10	20	5	
T	5	5	445	885	
R	30	10	0	0	1420
Enter	40	25	465	890	1420
Exit	10	25	460	925	1420

	EB	WB	NB	SB	
L	5	10	20	5	
T	5	5	390	880	
R	30	10	0	0	1360
Enter	40	25	410	885	1360
Exit	10	25	405	920	1360

4 2650 N & 400 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	5	5	70	50	
T	5	0	450	895	
R	95	25	85	5	1690
Enter	105	30	605	950	1690
Exit	140	75	480	995	1690

	EB	WB	NB	SB	
L	5	5	65	50	
T	5	0	395	890	
R	95	25	80	5	1620
Enter	105	30	540	945	1620
Exit	135	70	425	990	1620

6 2600 N & 400 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	200	325	230	60	
T	135	320	360	630	
R	235	40	85	265	2885
Enter	570	685	675	955	2885
Exit	280	815	600	1190	2885

	EB	WB	NB	SB	
L	140	380	230	155	
T	180	355	290	575	
R	235	105	150	220	3015
Enter	555	840	670	950	3015
Exit	485	805	535	1190	3015

8 2550 N & 400 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	80	30	80	50	
T	30	5	575	1015	
R	200	10	10	95	2180
Enter	310	45	665	1160	2180
Exit	90	180	665	1245	2180

	EB	WB	NB	SB	
L	85	30	90	50	
T	30	5	565	1015	
R	205	10	10	95	2190
Enter	320	45	665	1160	2190
Exit	90	190	660	1250	2190

9 South Smiths & 400 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	5	35	5	15	
T	0	0	610	1260	
R	15	5	30	5	1985
Enter	20	40	645	1280	1985
Exit	45	10	620	1310	1985

	EB	WB	NB	SB	
L	5	35	5	15	
T	0	0	640	1235	
R	15	5	30	5	1990
Enter	20	40	675	1255	1990
Exit	45	10	650	1285	1990

10 2600 N & 300 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	5	35	25	10	
T	540	745	0	0	
R	25	15	15	10	1425
Enter	570	795	40	20	1425
Exit	565	780	20	60	1425

	EB	WB	NB	SB	
L	5	50	30	10	
T	525	720	0	0	
R	30	15	20	10	1415
Enter	560	785	50	20	1415
Exit	555	760	20	80	1415

11 2600 N & 450 E
North Ogden, UT
11/2/2016
1st Wednesday

	EB	WB	NB	SB	
L	10	0	0	0	
T	255	640	0	0	
R	0	0	0	50	955
Enter	265	640	0	50	955
Exit	255	690	10	0	955

	EB	WB	NB	SB	
L	10	0	0	0	
T	460	795	0	0	
R	0	0	0	50	1315
Enter	470	795	0	50	1315
Exit	460	845	10	0	1315

2024 PM

2040 PM

	EB	WB	NB	SB	
L	40	105	70	25	
T	60	50	515	295	
R	50	20	135	35	1400
Enter	150	175	720	355	1400
Exit	220	155	575	450	1400

	EB	WB	NB	SB	
L	40	105	60	25	
T	60	50	465	285	
R	50	20	125	35	1320
Enter	150	175	650	345	1320
Exit	210	145	525	440	1320

	EB	WB	NB	SB	
L	10	40	190	5	
T	5	15	760	500	
R	130	5	50	15	1725
Enter	145	60	1000	520	1725
Exit	60	220	775	670	1725

	EB	WB	NB	SB	
L	10	40	175	5	
T	5	15	690	490	
R	130	5	45	15	1625
Enter	145	60	910	510	1625
Exit	55	205	705	660	1625

	EB	WB	NB	SB	
L	5	0	35	5	
T	0	0	1010	670	
R	40	5	5	5	1780
Enter	45	5	1050	680	1780
Exit	10	40	1020	710	1780

	EB	WB	NB	SB	
L	5	0	30	5	
T	0	0	920	660	
R	35	5	5	5	1670
Enter	40	5	955	670	1670
Exit	10	35	930	695	1670

	EB	WB	NB	SB	
L	5	5	140	10	
T	5	0	1035	700	
R	150	15	100	10	2175
Enter	160	20	1275	720	2175
Exit	115	150	1055	855	2175

	EB	WB	NB	SB	
L	5	5	130	10	
T	5	0	940	685	
R	145	15	90	10	2040
Enter	155	20	1160	705	2040
Exit	105	140	960	835	2040

	EB	WB	NB	SB	
L	390	240	365	105	
T	415	260	835	570	
R	380	60	265	200	4085
Enter	1185	560	1465	875	4085
Exit	785	825	1285	1190	4085

	EB	WB	NB	SB	
L	310	335	345	220	
T	525	370	735	485	
R	390	125	350	150	4340
Enter	1225	830	1430	855	4340
Exit	1095	865	1170	1210	4340

	EB	WB	NB	SB	
L	110	130	210	130	
T	60	65	1260	1000	
R	140	110	60	45	3320
Enter	310	305	1530	1175	3320
Exit	250	320	1480	1270	3320

	EB	WB	NB	SB	
L	130	130	235	130	
T	60	65	1205	1015	
R	160	110	60	50	3350
Enter	350	305	1500	1195	3350
Exit	250	350	1445	1305	3350

	EB	WB	NB	SB	
L	5	65	15	40	
T	0	0	1445	1220	
R	10	60	185	10	3055
Enter	15	125	1645	1270	3055
Exit	225	25	1510	1295	3055

	EB	WB	NB	SB	
L	5	65	15	40	
T	0	0	1415	1255	
R	10	60	185	10	3060
Enter	15	125	1615	1305	3060
Exit	225	25	1480	1330	3060

	EB	WB	NB	SB	
L	15	120	100	10	
T	1125	695	0	0	
R	60	15	85	20	2245
Enter	1200	830	185	30	2245
Exit	1220	815	30	180	2245

	EB	WB	NB	SB	
L	15	160	130	10	
T	1135	695	0	0	
R	80	15	110	20	2370
Enter	1230	870	240	30	2370
Exit	1255	845	30	240	2370

	EB	WB	NB	SB	
L	30	0	0	5	
T	835	550	0	0	
R	0	5	0	45	1470
Enter	865	555	0	50	1470
Exit	840	595	35	0	1470

	EB	WB	NB	SB	
L	30	0	0	5	
T	1145	820	0	0	
R	0	5	0	45	2050
Enter	1175	825	0	50	2050
Exit	1150	865	35	0	2050

APPENDIX C: SIMTRAFFIC REPORTS



1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.6	0.2	0.2	2.1	0.5	0.5	0.3	0.0	0.0	3.1	0.4	0.5
Total Delay (hr)	0.0	0.2	0.1	1.9	0.2	0.1	0.2	0.5	0.1	0.1	1.1	0.0
Total Del/Veh (s)	12.1	11.6	6.3	30.9	16.4	8.9	12.6	8.0	6.6	14.8	11.3	7.1
Stop Delay (hr)	0.0	0.1	0.1	1.7	0.1	0.0	0.1	0.2	0.1	0.1	0.7	0.0
Stop Del/Veh (s)	9.9	8.1	5.3	26.8	11.6	6.6	7.8	3.8	3.2	12.1	7.2	5.1
Total Stops	10	32	51	218	33	18	37	77	42	24	197	8
Stop/Veh	0.71	0.67	0.73	0.96	0.75	0.82	0.79	0.36	0.52	0.75	0.57	0.57
Travel Dist (mi)	4.5	15.8	23.1	62.2	12.1	6.2	17.2	71.1	30.0	5.3	59.0	2.3
Travel Time (hr)	0.2	0.7	1.0	4.3	0.6	0.3	0.8	2.9	1.2	0.4	3.1	0.1
Avg Speed (mph)	22	23	24	15	20	22	22	25	25	16	19	20
Fuel Used (gal)	0.1	0.5	0.6	2.1	0.4	0.2	0.5	2.2	0.9	0.2	1.9	0.1
Fuel Eff. (mpg)	33.7	33.7	35.9	28.9	32.3	35.2	33.6	33.0	34.6	28.3	31.1	33.1
HC Emissions (g)	1	2	3	8	2	1	2	85	4	1	8	0
CO Emissions (g)	16	67	78	255	60	26	58	1417	100	42	328	12
NOx Emissions (g)	2	7	9	27	6	3	8	230	13	3	31	1
Vehicles Entered	14	48	69	224	44	22	46	207	79	31	345	13
Vehicles Exited	14	47	70	225	44	22	46	208	79	31	345	13
Hourly Exit Rate	14	47	70	225	44	22	46	208	79	31	345	13
Input Volume	15	50	70	225	45	20	45	214	80	35	340	15
% of Volume	95	94	100	100	97	111	102	97	98	89	101	88
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	1	1	4	1	0	1	3	1	0	3	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.7
Total Delay (hr)	4.5
Total Del/Veh (s)	14.2
Stop Delay (hr)	3.3
Stop Del/Veh (s)	10.4
Total Stops	747
Stop/Veh	0.65
Travel Dist (mi)	309.0
Travel Time (hr)	15.5
Avg Speed (mph)	20
Fuel Used (gal)	9.6
Fuel Eff. (mpg)	32.1
HC Emissions (g)	117
CO Emissions (g)	2459
NOx Emissions (g)	339
Vehicles Entered	1142
Vehicles Exited	1144
Hourly Exit Rate	1144
Input Volume	1154
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	801
Occupancy (veh)	15

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	2.2
Denied Del/Veh (s)	24.2	49.7	42.4	0.1	0.1	0.1	1.9	0.7	0.2	0.2	0.3	5.3
Total Delay (hr)	0.3	0.4	10.5	1.7	0.4	0.4	1.3	0.9	0.1	1.2	0.0	17.1
Total Del/Veh (s)	287.8	438.0	234.1	247.2	357.9	244.0	48.9	8.0	6.4	5.7	6.4	41.2
Stop Delay (hr)	0.3	0.4	10.6	1.7	0.4	0.4	1.2	0.5	0.1	0.2	0.0	15.7
Stop Del/Veh (s)	285.0	438.0	238.0	245.5	355.3	244.2	44.3	4.5	3.8	0.8	2.0	37.8
Total Stops	5	3	143	24	4	6	91	47	8	71	1	403
Stop/Veh	1.25	1.00	0.89	0.96	1.00	1.00	0.97	0.12	0.16	0.09	0.20	0.27
Travel Dist (mi)	0.6	0.5	22.8	4.1	0.6	0.9	22.2	85.4	12.2	249.4	1.6	400.3
Travel Time (hr)	0.4	0.4	13.3	1.9	0.4	0.4	2.1	3.8	0.5	9.8	0.1	33.2
Avg Speed (mph)	2	1	2	2	1	2	11	23	22	25	24	13
Fuel Used (gal)	0.1	0.1	3.4	0.5	0.1	0.1	0.9	2.6	0.3	8.4	0.1	16.6
Fuel Eff. (mpg)	5.8	5.0	6.7	8.2	5.6	7.9	24.9	32.5	36.3	29.8	31.0	24.1
HC Emissions (g)	1	4	71	14	0	2	22	62	8	198	1	384
CO Emissions (g)	26	59	1236	241	10	33	363	1084	140	3746	19	6958
NOx Emissions (g)	2	5	103	24	0	3	47	158	20	546	3	911
Vehicles Entered	4	3	158	24	4	6	92	381	50	748	5	1475
Vehicles Exited	4	3	140	24	4	5	93	381	50	749	5	1458
Hourly Exit Rate	4	3	140	24	4	5	93	381	50	749	5	1458
Input Volume	5	5	160	25	5	5	90	389	50	742	5	1480
% of Volume	76	60	88	95	84	105	104	98	101	101	105	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	7	0	0	0	0	0	0	0	0	7
Density (ft/veh)												287
Occupancy (veh)	0	0	11	2	0	0	2	4	1	10	0	31

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	3.6	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.6	0.2	0.2
Total Delay (hr)	0.1	0.1	0.3	0.2	0.0	0.1	0.1	0.1	0.0	0.9	1.9
Total Del/Veh (s)	47.7	53.6	32.6	67.4	27.3	67.3	20.0	0.7	11.1	3.3	4.4
Stop Delay (hr)	0.1	0.1	0.3	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.9
Stop Del/Veh (s)	45.1	50.3	32.4	65.5	24.0	66.9	18.1	0.1	6.5	0.2	2.1
Total Stops	5	6	32	9	5	8	16	2	2	0	85
Stop/Veh	1.25	1.00	1.00	1.00	1.00	1.00	0.84	0.00	0.50	0.00	0.05
Travel Dist (mi)	0.9	1.2	6.6	0.7	0.4	0.7	1.8	42.7	0.9	228.3	284.0
Travel Time (hr)	0.1	0.1	0.5	0.2	0.1	0.2	0.2	1.6	0.0	9.0	11.9
Avg Speed (mph)	11	9	12	3	7	4	10	27	20	26	24
Fuel Used (gal)	0.0	0.0	0.3	0.1	0.0	0.1	0.1	1.3	0.0	7.8	9.7
Fuel Eff. (mpg)	23.9	23.8	26.2	12.4	24.1	11.8	25.7	32.1	28.0	29.3	29.3
HC Emissions (g)	0	0	1	0	0	0	0	7	0	241	250
CO Emissions (g)	5	6	36	7	2	9	9	203	4	4330	4611
NOx Emissions (g)	0	1	3	0	0	1	1	23	1	666	696
Vehicles Entered	4	6	32	9	5	8	19	472	4	1005	1564
Vehicles Exited	4	6	32	9	5	8	19	472	4	1004	1563
Hourly Exit Rate	4	6	32	9	5	8	19	472	4	1004	1563
Input Volume	5	5	30	10	5	10	20	471	5	1020	1580
% of Volume	84	126	106	88	105	82	96	100	80	98	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											516
Occupancy (veh)	0	0	1	0	0	0	0	2	0	9	12

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.6	3.6	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.0	0.3
Total Delay (hr)	0.1	0.0	0.3	0.0	0.1	0.2	0.2	0.0	0.1	0.4	0.0	1.5
Total Del/Veh (s)	44.4	39.8	12.1	30.8	7.7	9.4	1.8	1.4	6.1	1.7	1.4	3.2
Stop Delay (hr)	0.1	0.0	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.7
Stop Del/Veh (s)	42.6	36.8	11.5	29.1	7.7	6.3	0.1	0.2	3.3	0.0	0.1	1.5
Total Stops	6	4	99	5	27	49	1	0	22	4	0	217
Stop/Veh	1.00	1.00	0.99	1.00	1.00	0.69	0.00	0.00	0.45	0.00	0.00	0.13
Travel Dist (mi)	1.0	0.7	17.2	0.8	4.8	6.0	40.0	7.9	5.1	93.4	0.5	177.6
Travel Time (hr)	0.1	0.1	1.1	0.1	0.2	0.4	1.7	0.4	0.3	3.7	0.0	8.1
Avg Speed (mph)	9	10	17	12	20	14	23	20	19	26	22	22
Fuel Used (gal)	0.0	0.0	0.5	0.0	0.1	0.3	2.0	0.3	0.2	2.9	0.0	6.4
Fuel Eff. (mpg)	24.0	24.6	31.6	28.0	34.1	21.1	20.2	24.8	32.6	32.5	38.0	27.7
HC Emissions (g)	0	0	2	0	1	1	12	2	1	13	0	32
CO Emissions (g)	5	3	78	3	21	72	592	123	21	382	2	1303
NOx Emissions (g)	0	0	7	0	2	8	62	10	3	49	0	142
Vehicles Entered	6	4	99	5	27	70	463	89	48	901	5	1717
Vehicles Exited	6	4	100	5	26	70	463	90	48	903	5	1720
Hourly Exit Rate	6	4	100	5	26	70	463	90	48	903	5	1720
Input Volume	5	5	95	5	25	70	465	85	50	914	5	1724
% of Volume	120	84	105	95	105	100	100	106	96	99	95	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												633
Occupancy (veh)	0	0	1	0	0	0	2	0	0	4	0	8

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.2	1.8	0.7	3.3	4.1	0.4	2.6	2.0	0.1	0.7	5.2	0.4
Total Del/Veh (s)	38.5	42.8	10.2	35.3	42.9	36.3	40.1	19.8	5.0	39.2	28.0	5.6
Stop Delay (hr)	1.9	1.5	0.5	2.8	3.5	0.3	2.3	1.4	0.1	0.6	4.2	0.3
Stop Del/Veh (s)	33.2	36.1	8.2	30.3	36.4	32.1	34.5	13.9	3.5	35.7	22.5	3.8
Total Stops	181	110	179	289	266	32	209	190	44	54	400	151
Stop/Veh	0.89	0.73	0.75	0.86	0.77	0.82	0.88	0.52	0.52	0.89	0.59	0.58
Travel Dist (mi)	34.4	24.8	40.9	32.5	32.5	3.8	29.9	46.7	10.9	5.1	55.3	21.9
Travel Time (hr)	3.2	2.4	2.0	4.6	5.2	0.6	3.6	3.3	0.5	0.9	6.8	1.3
Avg Speed (mph)	11	10	20	7	6	7	8	14	21	6	8	16
Fuel Used (gal)	1.7	1.2	1.4	1.7	1.8	0.2	1.6	2.0	0.4	0.3	3.2	0.8
Fuel Eff. (mpg)	20.8	20.1	28.7	19.1	17.8	19.9	19.1	23.5	29.3	15.9	17.1	27.0
HC Emissions (g)	9	7	10	4	3	0	6	12	3	1	14	5
CO Emissions (g)	632	457	691	255	203	20	375	767	171	78	1031	333
NOx Emissions (g)	37	28	41	21	18	2	29	50	11	5	64	22
Vehicles Entered	201	149	237	334	341	39	232	361	84	60	668	260
Vehicles Exited	202	150	238	335	341	39	230	360	84	60	664	259
Hourly Exit Rate	202	150	238	335	341	39	230	360	84	60	664	259
Input Volume	200	146	235	325	340	40	230	360	85	60	670	265
% of Volume	101	103	101	103	100	97	100	100	99	100	99	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	3	2	2	5	5	1	4	3	1	1	7	1

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	23.5
Total Del/Veh (s)	28.3
Stop Delay (hr)	19.5
Stop Del/Veh (s)	23.4
Total Stops	2105
Stop/Veh	0.70
Travel Dist (mi)	338.7
Travel Time (hr)	34.5
Avg Speed (mph)	10
Fuel Used (gal)	16.3
Fuel Eff. (mpg)	20.7
HC Emissions (g)	75
CO Emissions (g)	5012
NOx Emissions (g)	328
Vehicles Entered	2966
Vehicles Exited	2962
Hourly Exit Rate	2962
Input Volume	2957
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	226
Occupancy (veh)	34

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.7	3.0	0.2	0.2	4.2	0.3	0.0	0.3	0.0	0.0	0.0
Total Delay (hr)	1.0	0.4	1.1	0.4	0.1	0.0	0.4	1.0	0.0	0.2	2.2	0.1
Total Del/Veh (s)	45.1	48.3	19.8	47.5	43.7	5.0	20.2	6.0	1.1	13.1	7.6	4.4
Stop Delay (hr)	0.9	0.4	1.0	0.4	0.1	0.0	0.4	0.6	0.0	0.1	1.0	0.0
Stop Del/Veh (s)	40.9	43.1	17.6	45.0	40.3	4.3	17.7	3.7	0.9	9.0	3.4	1.1
Total Stops	64	25	175	25	5	11	66	122	3	31	174	20
Stop/Veh	0.83	0.83	0.85	0.83	0.83	0.92	0.82	0.21	0.27	0.65	0.16	0.19
Travel Dist (mi)	18.6	7.2	50.5	3.1	0.6	1.3	9.6	70.1	1.3	6.2	136.1	13.6
Travel Time (hr)	1.6	0.7	3.2	0.5	0.1	0.1	0.8	2.8	0.0	0.4	6.3	0.6
Avg Speed (mph)	11	11	17	6	7	18	13	25	28	16	22	21
Fuel Used (gal)	0.7	0.3	1.7	0.2	0.0	0.0	0.3	1.9	0.0	0.3	7.8	0.6
Fuel Eff. (mpg)	25.3	24.8	30.5	16.9	18.2	27.6	32.9	37.5	52.4	19.2	17.4	21.0
HC Emissions (g)	2	1	6	1	0	0	1	10	0	2	60	4
CO Emissions (g)	90	38	236	35	7	13	61	470	6	158	4184	297
NOx Emissions (g)	9	3	22	2	0	1	5	47	1	11	275	22
Vehicles Entered	75	29	204	30	6	12	80	578	11	48	1049	102
Vehicles Exited	76	30	204	30	6	12	79	579	11	48	1049	103
Hourly Exit Rate	76	30	204	30	6	12	79	579	11	48	1049	103
Input Volume	80	30	200	30	5	10	80	575	10	50	1045	95
% of Volume	95	99	102	101	120	123	98	101	110	96	100	108
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	1	3	1	0	0	1	3	0	0	6	1

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	7.0
Total Del/Veh (s)	11.2
Stop Delay (hr)	4.8
Stop Del/Veh (s)	7.8
Total Stops	721
Stop/Veh	0.32
Travel Dist (mi)	318.1
Travel Time (hr)	17.1
Avg Speed (mph)	19
Fuel Used (gal)	13.9
Fuel Eff. (mpg)	22.8
HC Emissions (g)	89
CO Emissions (g)	5594
NOx Emissions (g)	398
Vehicles Entered	2224
Vehicles Exited	2227
Hourly Exit Rate	2227
Input Volume	2210
% of Volume	101
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	520
Occupancy (veh)	17

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.1	3.8	2.3	0.3	2.7	0.1	0.0	0.0	0.1
Total Delay (hr)	0.1	0.1	0.3	0.0	0.0	0.2	0.0	0.0	0.8	0.0	1.5
Total Del/Veh (s)	81.3	24.1	32.4	4.3	9.4	1.2	1.3	6.1	2.1	1.6	2.8
Stop Delay (hr)	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	79.1	23.7	30.4	4.3	8.6	0.0	0.0	3.9	0.1	0.0	1.0
Total Stops	5	14	34	5	3	0	0	10	1	0	72
Stop/Veh	1.00	1.00	0.97	1.00	0.60	0.00	0.00	0.62	0.00	0.00	0.04
Travel Dist (mi)	0.6	1.6	4.0	0.5	1.3	174.8	7.6	2.0	157.2	0.6	350.2
Travel Time (hr)	0.1	0.2	0.5	0.0	0.0	3.8	0.2	0.1	5.0	0.0	10.0
Avg Speed (mph)	4	10	9	19	29	47	41	21	31	26	35
Fuel Used (gal)	0.0	0.1	0.2	0.0	0.0	4.7	0.2	0.1	5.9	0.0	11.3
Fuel Eff. (mpg)	13.8	24.7	22.1	31.8	37.9	37.4	31.4	27.2	26.6	35.7	31.1
HC Emissions (g)	0	0	1	0	0	30	2	1	45	0	79
CO Emissions (g)	7	11	33	4	11	1812	150	33	2863	7	4931
NOx Emissions (g)	0	1	3	0	1	191	10	2	194	0	402
Vehicles Entered	5	14	34	5	5	614	27	16	1266	4	1990
Vehicles Exited	5	14	34	5	5	614	27	16	1265	4	1989
Hourly Exit Rate	5	14	34	5	5	614	27	16	1265	4	1989
Input Volume	5	15	35	5	5	610	30	15	1260	5	1984
% of Volume	95	95	98	105	105	101	91	108	100	80	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											986
Occupancy (veh)	0	0	0	0	0	4	0	0	5	0	10

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.6	0.3	0.2	0.0	0.0	0.0	0.1	0.1	4.0	0.1	0.2
Total Delay (hr)	0.0	1.1	0.0	0.1	1.3	0.0	0.1	0.0	0.0	0.0	2.7
Total Del/Veh (s)	16.9	7.4	2.5	9.2	6.0	3.5	18.2	4.5	13.2	5.7	6.8
Stop Delay (hr)	0.0	0.3	0.0	0.1	0.3	0.0	0.1	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	14.8	2.2	1.4	5.9	1.6	1.0	16.2	4.3	11.7	6.1	2.4
Total Stops	4	153	9	26	176	4	21	13	9	8	423
Stop/Veh	0.80	0.28	0.38	0.74	0.23	0.24	0.88	0.81	0.75	0.80	0.29
Travel Dist (mi)	0.8	82.8	3.6	6.0	131.2	2.9	2.3	1.5	1.4	1.3	233.8
Travel Time (hr)	0.0	2.7	0.1	0.3	5.2	0.1	0.2	0.1	0.1	0.1	9.0
Avg Speed (mph)	18	31	31	20	25	24	11	18	15	19	26
Fuel Used (gal)	0.0	2.8	0.1	0.3	6.7	0.1	0.1	0.0	0.0	0.0	10.3
Fuel Eff. (mpg)	25.0	29.7	33.7	19.4	19.5	20.8	28.8	38.4	31.0	38.8	22.7
HC Emissions (g)	0	27	1	3	60	1	0	0	0	0	93
CO Emissions (g)	21	1999	78	200	4349	85	13	5	5	3	6758
NOx Emissions (g)	1	97	4	10	232	5	1	1	1	0	350
Vehicles Entered	5	546	24	35	760	17	24	16	12	10	1449
Vehicles Exited	5	544	24	34	758	17	24	16	12	10	1444
Hourly Exit Rate	5	544	24	34	758	17	24	16	12	10	1444
Input Volume	5	540	25	35	765	15	25	15	10	10	1445
% of Volume	105	101	97	97	99	111	97	105	117	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											925
Occupancy (veh)	0	3	0	0	5	0	0	0	0	0	9

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.5	0.1	0.4
Total Delay (hr)	0.0	0.1	0.2	0.1	0.5
Total Del/Veh (s)	6.3	1.8	1.3	7.4	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	3.3	0.4	0.1	7.0	0.5
Total Stops	6	5	4	49	64
Stop/Veh	0.60	0.02	0.01	1.00	0.06
Travel Dist (mi)	1.0	27.6	109.1	3.5	141.2
Travel Time (hr)	0.1	1.2	4.0	0.3	5.5
Avg Speed (mph)	17	23	28	14	26
Fuel Used (gal)	0.0	1.4	3.1	0.1	4.7
Fuel Eff. (mpg)	21.1	19.5	34.8	33.3	30.0
HC Emissions (g)	0	9	15	0	25
CO Emissions (g)	15	478	414	18	924
NOx Emissions (g)	1	45	45	2	93
Vehicles Entered	10	287	647	49	993
Vehicles Exited	10	286	648	49	993
Hourly Exit Rate	10	286	648	49	993
Input Volume	10	284	640	50	984
% of Volume	98	101	101	98	101
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					334
Occupancy (veh)	0	1	4	0	5

Total Network Performance

Denied Delay (hr)	3.1
Denied Del/Veh (s)	2.7
Total Delay (hr)	61.8
Total Del/Veh (s)	51.7
Stop Delay (hr)	46.8
Stop Del/Veh (s)	39.1
Total Stops	4837
Stop/Veh	1.12
Travel Dist (mi)	3380.6
Travel Time (hr)	174.9
Avg Speed (mph)	20
Fuel Used (gal)	126.5
Fuel Eff. (mpg)	26.7
HC Emissions (g)	1359
CO Emissions (g)	45191
NOx Emissions (g)	4339
Vehicles Entered	4161
Vehicles Exited	4147
Hourly Exit Rate	4147
Input Volume	19144
% of Volume	22
Denied Entry Before	0
Denied Entry After	7
Density (ft/veh)	400
Occupancy (veh)	172

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	37	96	210	357	87	150	62	188
Average Queue (ft)	8	37	92	53	23	58	17	87
95th Queue (ft)	30	75	186	217	59	114	48	154
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		0	13	0	0	1		0
Queuing Penalty (veh)		0	14	0	0	1		0

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	LTR	L	TR	TR
Maximum Queue (ft)	213	670	221	120	517	224
Average Queue (ft)	18	310	79	60	71	49
95th Queue (ft)	116	759	232	118	368	151
Link Distance (ft)		778	880		1248	1912
Upstream Blk Time (%)		13			0	
Queuing Penalty (veh)		0			1	
Storage Bay Dist (ft)	190			100		
Storage Blk Time (%)		45		9	0	1
Queuing Penalty (veh)		3		35	0	0

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	LTR	L	TR	L
Maximum Queue (ft)	28	75	103	41	21	27
Average Queue (ft)	4	24	21	10	1	2
95th Queue (ft)	20	59	67	30	22	14
Link Distance (ft)		1086	403		431	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	115			100		100
Storage Blk Time (%)		0			0	
Queuing Penalty (veh)		0			0	

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	R	L	TR
Maximum Queue (ft)	50	95	55	69	6	2	51	57
Average Queue (ft)	10	43	14	26	0	0	15	3
95th Queue (ft)	37	75	39	55	4	1	44	25
Link Distance (ft)	915		940		380	380		431
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		215		135			100	
Storage Blk Time (%)								0
Queuing Penalty (veh)								0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	T	R	L	T	T
Maximum Queue (ft)	248	182	144	381	418	277	241	171	56	198	282	266
Average Queue (ft)	114	88	56	187	231	135	103	48	17	45	154	157
95th Queue (ft)	206	156	106	333	373	231	195	126	41	115	246	236
Link Distance (ft)		845	845		462		606	606				380
Upstream Blk Time (%)					0							0
Queuing Penalty (veh)					3							0
Storage Bay Dist (ft)	500			275		300			100	150		225
Storage Blk Time (%)				3	5	0	0	1		0	9	1
Queuing Penalty (veh)				12	18	0	0	1		0	56	4

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	SB
Directions Served	R
Maximum Queue (ft)	157
Average Queue (ft)	54
95th Queue (ft)	106
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	225
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	269	233	78	24	126	169	136	25	79	222	232	90
Average Queue (ft)	73	71	25	6	37	67	34	2	20	59	70	10
95th Queue (ft)	177	173	62	20	84	145	97	13	56	162	179	51
Link Distance (ft)	1295		552			590	590			606	606	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	4	6	0			0				0	2	
Queuing Penalty (veh)	15	12	0			0				0	3	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	R	L	T	TR
Maximum Queue (ft)	63	78	22	26	2	28	7	6
Average Queue (ft)	18	23	3	3	0	6	0	0
95th Queue (ft)	51	58	15	15	2	23	5	5
Link Distance (ft)	640	600					590	590
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			200	50	100	170		
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	30	117	95	51	81	90	27	52	33	32	26
Average Queue (ft)	4	46	38	19	36	52	4	18	10	6	5
95th Queue (ft)	19	89	75	45	71	85	20	45	32	24	19
Link Distance (ft)		800	800		845	845		492	492		648
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			250			125			55	
Storage Blk Time (%)		0				0				0	0
Queuing Penalty (veh)		0				0				0	0

Intersection: 11: 2600 N & 450 E

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	89	40	58
Average Queue (ft)	10	3	26
95th Queue (ft)	48	30	51
Link Distance (ft)	462	888	373
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 179

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Denied Del/Veh (s)	2.1	0.2	0.2	2.0	0.6	0.6	0.3	0.0	0.0	4.8	3.7	3.9
Total Delay (hr)	0.1	0.2	0.2	2.3	0.2	0.1	0.2	0.5	0.2	0.2	1.8	0.1
Total Del/Veh (s)	14.9	15.3	11.1	37.2	15.8	15.8	13.1	8.6	7.1	20.0	18.8	12.6
Stop Delay (hr)	0.0	0.2	0.2	2.1	0.1	0.1	0.1	0.2	0.1	0.2	1.4	0.0
Stop Del/Veh (s)	12.4	11.8	10.1	33.2	11.2	13.1	7.8	4.0	3.4	17.0	14.6	10.5
Total Stops	10	30	48	216	32	16	35	78	44	28	200	10
Stop/Veh	0.77	0.62	0.72	0.96	0.67	0.80	0.81	0.37	0.52	0.82	0.58	0.62
Travel Dist (mi)	4.5	15.7	22.1	60.6	13.0	5.5	16.1	70.1	31.6	5.7	58.2	2.8
Travel Time (hr)	0.2	0.7	1.0	4.6	0.7	0.3	0.7	2.9	1.3	0.4	4.1	0.2
Avg Speed (mph)	21	21	22	14	20	19	22	24	24	14	15	17
Fuel Used (gal)	0.1	0.5	0.7	2.2	0.4	0.2	0.5	2.1	0.9	0.2	2.1	0.1
Fuel Eff. (mpg)	32.5	32.9	33.8	27.7	31.1	33.0	33.5	33.4	35.4	27.3	27.6	30.5
HC Emissions (g)	1	2	3	8	2	1	2	87	4	1	8	0
CO Emissions (g)	17	63	78	254	68	23	51	1412	89	44	347	15
NOx Emissions (g)	2	7	9	26	7	2	7	232	13	3	31	1
Vehicles Entered	13	47	66	220	47	20	42	207	83	34	342	16
Vehicles Exited	13	47	66	217	47	20	42	207	83	33	338	16
Hourly Exit Rate	13	47	66	217	47	20	42	207	83	33	338	16
Input Volume	15	50	70	225	45	20	45	214	80	35	340	15
% of Volume	88	94	94	96	104	101	93	97	103	95	99	108
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	4	0
Density (ft/veh)												
Occupancy (veh)	0	1	1	4	1	0	1	3	1	0	4	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	1.8
Total Delay (hr)	6.0
Total Del/Veh (s)	18.6
Stop Delay (hr)	4.7
Stop Del/Veh (s)	14.6
Total Stops	747
Stop/Veh	0.65
Travel Dist (mi)	305.9
Travel Time (hr)	17.1
Avg Speed (mph)	19
Fuel Used (gal)	9.9
Fuel Eff. (mpg)	30.8
HC Emissions (g)	119
CO Emissions (g)	2460
NOx Emissions (g)	340
Vehicles Entered	1137
Vehicles Exited	1129
Hourly Exit Rate	1129
Input Volume	1154
% of Volume	98
Denied Entry Before	0
Denied Entry After	4
Density (ft/veh)	739
Occupancy (veh)	17

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	2.3	0.0	0.0	0.0	0.1	0.4	0.0	0.4	0.0	3.4
Denied Del/Veh (s)	68.5	80.7	49.8	0.1	0.1	0.2	2.3	4.0	0.1	2.1	0.1	8.3
Total Delay (hr)	0.4	0.6	11.4	1.9	0.7	0.5	2.1	2.9	0.2	3.5	0.1	24.2
Total Del/Veh (s)	351.9	498.0	251.8	275.9	345.4	311.5	87.6	26.5	12.6	17.2	37.2	59.2
Stop Delay (hr)	0.4	0.6	11.6	1.9	0.7	0.5	2.0	2.5	0.2	2.4	0.1	22.8
Stop Del/Veh (s)	349.7	502.0	255.8	274.7	342.9	311.5	82.5	23.3	11.8	11.9	32.6	55.7
Total Stops	5	3	138	23	6	6	89	75	4	93	2	444
Stop/Veh	1.25	0.75	0.85	0.92	0.86	1.00	1.01	0.19	0.08	0.13	0.33	0.30
Travel Dist (mi)	0.5	0.5	22.1	3.8	1.0	0.9	20.8	85.7	11.8	239.8	2.0	388.9
Travel Time (hr)	0.5	0.7	14.6	2.1	0.7	0.6	2.9	6.2	0.6	12.2	0.1	41.2
Avg Speed (mph)	1	1	2	2	1	2	7	15	19	20	15	10
Fuel Used (gal)	0.1	0.2	3.7	0.5	0.2	0.1	1.1	3.2	0.4	8.6	0.1	18.1
Fuel Eff. (mpg)	4.3	3.4	6.0	7.1	5.9	6.3	19.6	26.4	33.6	27.9	26.4	21.5
HC Emissions (g)	4	1	80	12	4	3	23	81	7	204	1	421
CO Emissions (g)	67	26	1359	198	71	53	386	1400	125	3781	20	7485
NOx Emissions (g)	5	1	109	17	5	4	44	182	18	529	3	919
Vehicles Entered	3	4	155	23	6	6	86	388	50	721	6	1448
Vehicles Exited	4	4	138	22	6	5	84	385	50	716	6	1420
Hourly Exit Rate	4	4	138	22	6	5	84	385	50	716	6	1420
Input Volume	5	5	160	25	5	5	90	389	50	742	5	1480
% of Volume	76	80	86	87	126	105	94	99	101	97	126	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	13	0	0	0	0	2	0	3	0	18
Density (ft/veh)												272
Occupancy (veh)	0	1	12	2	1	1	3	6	1	12	0	38

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	3.7	0.2	0.1	0.2	0.1	0.1	0.1	0.0	1.3	0.2	0.2
Total Delay (hr)	0.0	0.1	0.3	0.2	0.1	0.2	0.1	0.7	0.0	0.9	2.7
Total Del/Veh (s)	43.9	88.3	37.5	81.1	73.2	49.7	18.0	5.4	16.5	3.3	6.3
Stop Delay (hr)	0.0	0.1	0.3	0.2	0.1	0.2	0.1	0.6	0.0	0.0	1.7
Stop Del/Veh (s)	41.6	85.3	37.6	79.3	70.2	49.4	15.9	4.5	10.9	0.2	4.0
Total Stops	4	5	32	10	5	11	17	3	3	0	90
Stop/Veh	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.01	0.75	0.00	0.06
Travel Dist (mi)	0.8	1.0	6.6	0.8	0.3	0.8	1.9	42.3	1.0	219.5	275.0
Travel Time (hr)	0.1	0.2	0.6	0.3	0.1	0.2	0.2	2.1	0.1	8.6	12.4
Avg Speed (mph)	10	6	11	3	3	4	11	20	19	26	22
Fuel Used (gal)	0.0	0.1	0.3	0.1	0.0	0.1	0.1	1.6	0.0	7.5	9.7
Fuel Eff. (mpg)	24.0	17.8	25.7	10.6	11.0	13.6	25.1	27.3	30.7	29.1	28.3
HC Emissions (g)	0	0	1	0	0	0	0	7	0	234	243
CO Emissions (g)	5	6	32	8	3	11	10	252	3	4207	4537
NOx Emissions (g)	0	0	3	1	0	1	1	29	1	649	685
Vehicles Entered	4	5	32	10	5	11	20	466	4	965	1522
Vehicles Exited	4	5	32	10	5	11	20	464	4	966	1521
Hourly Exit Rate	4	5	32	10	5	11	20	464	4	966	1521
Input Volume	5	5	30	10	5	10	20	471	5	1020	1580
% of Volume	84	105	106	98	105	113	101	99	80	95	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											536
Occupancy (veh)	0	0	1	0	0	0	0	2	0	9	12

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Denied Del/Veh (s)	0.4	0.3	3.6	0.1	0.1	0.1	0.2	0.6	0.2	0.2	0.0	0.4
Total Delay (hr)	0.0	0.0	0.5	0.1	0.1	0.3	0.8	0.1	0.1	0.6	0.0	2.5
Total Del/Veh (s)	30.0	30.6	17.1	52.5	16.0	13.2	6.3	2.4	7.6	2.3	1.1	5.4
Stop Delay (hr)	0.0	0.0	0.4	0.1	0.1	0.2	0.5	0.0	0.1	0.1	0.0	1.7
Stop Del/Veh (s)	28.3	27.2	16.7	50.9	15.7	9.7	4.1	1.1	4.8	0.5	0.2	3.5
Total Stops	5	5	95	5	26	53	4	1	23	7	0	224
Stop/Veh	1.00	1.00	0.99	1.00	1.00	0.75	0.01	0.01	0.47	0.01	0.00	0.13
Travel Dist (mi)	0.8	0.9	16.3	0.8	4.5	6.3	40.5	7.6	5.1	90.1	0.5	173.4
Travel Time (hr)	0.1	0.1	1.2	0.1	0.3	0.5	2.3	0.4	0.3	3.7	0.0	9.0
Avg Speed (mph)	11	12	15	8	16	12	17	19	17	25	23	20
Fuel Used (gal)	0.0	0.0	0.6	0.0	0.1	0.3	2.1	0.3	0.2	2.8	0.0	6.5
Fuel Eff. (mpg)	28.1	29.5	29.0	21.7	30.4	21.1	19.1	24.9	31.4	32.6	37.9	26.8
HC Emissions (g)	0	0	2	0	1	1	12	2	1	12	0	31
CO Emissions (g)	3	3	83	4	22	62	627	107	22	367	2	1302
NOx Emissions (g)	0	0	7	0	2	8	62	9	3	46	0	138
Vehicles Entered	5	5	95	4	26	71	463	84	48	868	5	1674
Vehicles Exited	5	5	94	5	25	71	461	84	48	867	5	1670
Hourly Exit Rate	5	5	94	5	25	71	461	84	48	867	5	1670
Input Volume	5	5	95	5	25	70	465	85	50	914	5	1724
% of Volume	100	105	99	95	101	102	99	99	96	95	95	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	1	0	1
Density (ft/veh)												571
Occupancy (veh)	0	0	1	0	0	1	2	0	0	4	0	9

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	3.2	2.2	0.9	3.9	4.0	0.4	4.0	2.3	0.1	0.8	4.7	1.5
Total Del/Veh (s)	56.4	51.8	13.8	41.6	41.7	31.6	60.8	22.7	3.7	57.5	26.0	22.0
Stop Delay (hr)	3.0	1.9	0.8	3.5	3.6	0.3	3.6	1.8	0.1	0.8	3.7	1.3
Stop Del/Veh (s)	51.9	44.6	11.6	38.3	37.4	30.1	55.8	17.7	2.4	54.5	20.2	18.0
Total Stops	177	122	202	272	263	35	226	169	35	49	357	156
Stop/Veh	0.86	0.80	0.86	0.81	0.76	0.85	0.97	0.46	0.45	0.92	0.55	0.62
Travel Dist (mi)	34.1	24.3	39.8	31.4	31.6	3.9	29.4	46.2	9.9	4.4	52.1	20.7
Travel Time (hr)	4.2	2.8	2.2	5.1	5.1	0.5	4.9	3.6	0.4	1.0	6.2	2.4
Avg Speed (mph)	8	9	18	6	6	7	6	13	23	4	8	9
Fuel Used (gal)	1.9	1.3	1.4	1.8	1.8	0.2	1.9	2.0	0.3	0.3	3.0	1.0
Fuel Eff. (mpg)	17.6	18.6	27.9	17.7	17.9	21.3	15.7	22.6	29.4	12.8	17.4	21.6
HC Emissions (g)	10	7	10	5	4	0	7	12	3	1	13	3
CO Emissions (g)	711	464	660	274	246	27	460	748	174	79	947	197
NOx Emissions (g)	40	28	39	21	19	2	30	51	10	5	60	14
Vehicles Entered	201	148	232	328	335	40	232	365	78	53	644	250
Vehicles Exited	197	147	231	326	336	40	231	360	78	53	643	248
Hourly Exit Rate	197	147	231	326	336	40	231	360	78	53	643	248
Input Volume	200	146	235	325	340	40	230	360	85	60	670	265
% of Volume	98	101	98	100	99	99	100	100	92	89	96	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	4	3	2	5	5	1	5	4	0	1	6	2

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	27.9
Total Del/Veh (s)	34.2
Stop Delay (hr)	24.2
Stop Del/Veh (s)	29.7
Total Stops	2063
Stop/Veh	0.70
Travel Dist (mi)	327.8
Travel Time (hr)	38.5
Avg Speed (mph)	9
Fuel Used (gal)	17.0
Fuel Eff. (mpg)	19.3
HC Emissions (g)	74
CO Emissions (g)	4986
NOx Emissions (g)	319
Vehicles Entered	2906
Vehicles Exited	2890
Hourly Exit Rate	2890
Input Volume	2957
% of Volume	98
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	265
Occupancy (veh)	38

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.7	3.0	0.2	0.3	4.2	0.4	0.1	0.3	0.0	0.0	0.0
Total Delay (hr)	1.1	0.5	1.2	0.4	0.1	0.0	0.4	1.2	0.0	0.2	1.7	0.1
Total Del/Veh (s)	46.1	52.0	20.8	46.3	47.9	9.5	19.9	7.4	1.2	11.9	5.9	4.1
Stop Delay (hr)	1.0	0.4	1.1	0.4	0.1	0.0	0.4	0.8	0.0	0.1	0.6	0.0
Stop Del/Veh (s)	41.5	46.4	18.5	44.0	44.9	8.6	17.6	5.1	0.9	8.3	2.2	0.8
Total Stops	71	28	179	29	4	10	66	129	2	32	113	12
Stop/Veh	0.86	0.88	0.85	0.88	0.80	1.00	0.84	0.22	0.20	0.65	0.11	0.13
Travel Dist (mi)	19.8	7.5	51.4	3.4	0.5	1.1	9.5	69.7	1.2	6.4	134.2	11.9
Travel Time (hr)	1.8	0.7	3.3	0.6	0.1	0.1	0.8	3.0	0.0	0.4	5.7	0.6
Avg Speed (mph)	11	11	16	6	6	15	13	24	27	16	23	21
Fuel Used (gal)	0.8	0.3	1.7	0.2	0.0	0.0	0.3	2.0	0.0	0.3	7.6	0.6
Fuel Eff. (mpg)	25.1	24.4	30.2	17.0	16.0	25.3	33.3	35.4	56.5	18.9	17.7	20.1
HC Emissions (g)	3	1	7	1	0	0	1	11	0	3	59	5
CO Emissions (g)	95	36	254	38	4	12	59	541	3	176	4137	311
NOx Emissions (g)	9	3	23	3	0	1	5	50	0	11	267	21
Vehicles Entered	81	31	208	32	4	10	78	579	10	49	1022	89
Vehicles Exited	81	31	209	32	4	10	78	575	10	49	1023	89
Hourly Exit Rate	81	31	209	32	4	10	78	575	10	49	1023	89
Input Volume	80	30	200	30	5	10	80	575	10	50	1045	95
% of Volume	102	102	104	108	80	103	97	100	100	98	98	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	1	3	1	0	0	1	3	0	0	6	1

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	6.8
Total Del/Veh (s)	11.2
Stop Delay (hr)	4.9
Stop Del/Veh (s)	8.0
Total Stops	675
Stop/Veh	0.31
Travel Dist (mi)	316.7
Travel Time (hr)	17.0
Avg Speed (mph)	19
Fuel Used (gal)	13.9
Fuel Eff. (mpg)	22.9
HC Emissions (g)	90
CO Emissions (g)	5666
NOx Emissions (g)	393
Vehicles Entered	2193
Vehicles Exited	2191
Hourly Exit Rate	2191
Input Volume	2210
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	523
Occupancy (veh)	17

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.1	0.1	3.8	2.6	0.2	2.7	0.1	0.0	0.0	0.1
Total Delay (hr)	0.1	0.1	0.4	0.0	0.0	0.2	0.0	0.0	0.7	0.0	1.5
Total Del/Veh (s)	122.4	25.8	34.4	3.6	17.2	1.2	1.2	5.5	1.9	1.1	2.8
Stop Delay (hr)	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Stop Del/Veh (s)	120.3	25.4	32.4	3.5	16.0	0.0	0.0	3.7	0.1	0.1	1.2
Total Stops	4	16	36	5	4	1	0	8	1	0	75
Stop/Veh	1.00	1.00	0.97	1.00	1.00	0.00	0.00	0.57	0.00	0.00	0.04
Travel Dist (mi)	0.5	1.9	4.2	0.5	1.3	174.0	8.5	1.7	155.0	0.7	348.3
Travel Time (hr)	0.2	0.2	0.5	0.0	0.1	3.8	0.2	0.1	4.9	0.0	9.9
Avg Speed (mph)	3	10	8	20	26	47	42	21	32	26	35
Fuel Used (gal)	0.0	0.1	0.2	0.0	0.0	4.6	0.3	0.1	5.6	0.0	11.0
Fuel Eff. (mpg)	11.0	25.2	21.2	30.7	34.9	37.5	31.7	28.1	27.6	32.7	31.7
HC Emissions (g)	0	0	1	0	0	30	2	0	43	0	77
CO Emissions (g)	6	12	35	4	14	1772	167	27	2711	8	4754
NOx Emissions (g)	0	1	3	0	1	189	11	2	183	1	391
Vehicles Entered	4	16	36	5	4	611	30	14	1248	6	1974
Vehicles Exited	4	16	36	5	4	612	30	14	1248	6	1975
Hourly Exit Rate	4	16	36	5	4	612	30	14	1248	6	1975
Input Volume	5	15	35	5	5	610	30	15	1260	5	1984
% of Volume	76	108	104	105	84	100	101	95	99	120	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											991
Occupancy (veh)	0	0	1	0	0	4	0	0	5	0	10

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	2.9	0.3	0.2	0.0	0.0	0.0	0.1	0.1	4.1	0.1	0.1
Total Delay (hr)	0.0	1.1	0.0	0.1	1.3	0.0	0.1	0.0	0.1	0.0	2.8
Total Del/Veh (s)	16.0	7.4	2.6	9.5	6.4	4.0	18.4	4.1	18.9	5.1	7.1
Stop Delay (hr)	0.0	0.3	0.0	0.1	0.3	0.0	0.1	0.0	0.1	0.0	0.9
Stop Del/Veh (s)	14.1	2.2	1.5	5.6	1.3	0.7	16.4	3.9	17.4	5.5	2.2
Total Stops	4	155	11	24	132	3	18	11	10	6	374
Stop/Veh	1.00	0.29	0.42	0.69	0.18	0.19	0.78	0.69	0.83	0.67	0.26
Travel Dist (mi)	0.6	81.6	4.0	6.0	130.1	2.8	2.1	1.4	1.5	1.1	231.1
Travel Time (hr)	0.0	2.6	0.1	0.3	5.3	0.1	0.2	0.1	0.1	0.1	9.0
Avg Speed (mph)	18	31	32	20	25	23	11	18	12	19	26
Fuel Used (gal)	0.0	2.8	0.1	0.3	6.6	0.1	0.1	0.0	0.1	0.0	10.2
Fuel Eff. (mpg)	24.4	29.6	31.3	19.9	19.6	21.7	26.8	40.7	27.5	37.7	22.7
HC Emissions (g)	0	27	1	2	55	1	0	0	0	0	88
CO Emissions (g)	19	1994	95	177	3900	69	13	4	6	3	6279
NOx Emissions (g)	1	95	4	10	229	4	1	0	1	0	346
Vehicles Entered	4	537	26	34	745	16	23	15	12	8	1420
Vehicles Exited	4	537	26	34	747	16	23	16	12	9	1424
Hourly Exit Rate	4	537	26	34	747	16	23	16	12	9	1424
Input Volume	5	540	25	35	765	15	25	15	10	10	1445
% of Volume	84	99	105	97	98	105	93	105	117	90	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											924
Occupancy (veh)	0	3	0	0	5	0	0	0	0	0	9

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.1	0.1	0.1	0.3
Total Del/Veh (s)	6.9	1.4	0.4	4.5	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	4.0	0.2	0.0	4.3	0.3
Total Stops	6	0	1	50	57
Stop/Veh	0.67	0.00	0.00	1.00	0.06
Travel Dist (mi)	0.9	26.3	27.5	3.4	58.1
Travel Time (hr)	0.1	1.1	1.0	0.2	2.4
Avg Speed (mph)	16	24	28	16	24
Fuel Used (gal)	0.0	1.4	0.8	0.1	2.3
Fuel Eff. (mpg)	19.8	18.9	34.3	38.1	25.0
HC Emissions (g)	0	10	6	0	17
CO Emissions (g)	17	542	122	13	695
NOx Emissions (g)	1	44	18	1	65
Vehicles Entered	9	274	647	50	980
Vehicles Exited	9	274	648	50	981
Hourly Exit Rate	9	274	648	50	981
Input Volume	10	284	652	50	996
% of Volume	88	97	99	100	98
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					905
Occupancy (veh)	0	1	1	0	2

29: 2600 N Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.5	0.4
Total Delay (hr)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	0.2	0.2	0.6	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0
Total Stops	0	0	0	0
Stop/Veh	0.00	0.00	0.00	0.00
Travel Dist (mi)	9.1	2.1	80.1	91.3
Travel Time (hr)	0.3	0.1	2.9	3.3
Avg Speed (mph)	29	19	29	28
Fuel Used (gal)	0.3	0.0	2.4	2.6
Fuel Eff. (mpg)	34.2	69.8	34.0	34.5
HC Emissions (g)	3	0	23	26
CO Emissions (g)	61	5	501	567
NOx Emissions (g)	9	1	63	72
Vehicles Entered	207	49	634	890
Vehicles Exited	207	49	634	890
Hourly Exit Rate	207	49	634	890
Input Volume	214	50	640	904
% of Volume	97	98	99	99
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				365
Occupancy (veh)	0	0	3	3

Total Network Performance

Denied Delay (hr)	4.7
Denied Del/Veh (s)	4.1
Total Delay (hr)	76.2
Total Del/Veh (s)	63.6
Stop Delay (hr)	61.8
Stop Del/Veh (s)	51.6
Total Stops	4749
Stop/Veh	1.10
Travel Dist (mi)	3316.3
Travel Time (hr)	188.8
Avg Speed (mph)	18
Fuel Used (gal)	128.0
Fuel Eff. (mpg)	25.9
HC Emissions (g)	1393
CO Emissions (g)	45252
NOx Emissions (g)	4337
Vehicles Entered	4147
Vehicles Exited	4100
Hourly Exit Rate	4100
Input Volume	20060
% of Volume	20
Denied Entry Before	0
Denied Entry After	23
Density (ft/veh)	404
Occupancy (veh)	184

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	43	110	217	424	95	175	63	264
Average Queue (ft)	9	39	95	62	24	64	20	105
95th Queue (ft)	32	87	194	277	66	136	52	290
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								1
Queuing Penalty (veh)								0
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		2	15	0	0	2		3
Queuing Penalty (veh)		0	16	1	0	1		1

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	NB	SB
Directions Served	L	TR	LTR	L	T	R	TR
Maximum Queue (ft)	238	738	291	124	764	263	408
Average Queue (ft)	17	347	93	57	137	38	109
95th Queue (ft)	111	799	264	125	632	320	607
Link Distance (ft)		778	868		1245	1245	1912
Upstream Blk Time (%)		15			3		2
Queuing Penalty (veh)		0			6		13
Storage Bay Dist (ft)	190			100			
Storage Blk Time (%)		53		15	1		5
Queuing Penalty (veh)		3		53	1		0

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	NB	NB	SB
Directions Served	L	TR	LTR	L	T	R	L
Maximum Queue (ft)	30	88	116	46	44	43	28
Average Queue (ft)	4	26	25	10	12	9	2
95th Queue (ft)	19	74	88	32	124	113	16
Link Distance (ft)		1086	391		432	432	
Upstream Blk Time (%)					2	2	
Queuing Penalty (veh)					5	5	
Storage Bay Dist (ft)	115			100			100
Storage Blk Time (%)		2			3		
Queuing Penalty (veh)		0			0		

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	TR
Maximum Queue (ft)	40	115	71	71	67	46	74	104
Average Queue (ft)	9	43	18	26	10	8	17	7
95th Queue (ft)	31	84	55	58	103	98	52	61
Link Distance (ft)	908		936		372	372		432
Upstream Blk Time (%)					2	2		
Queuing Penalty (veh)					6	5		
Storage Bay Dist (ft)		215		80			100	
Storage Blk Time (%)				0	2		0	1
Queuing Penalty (veh)				0	2		0	0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	L	T	TR	L	L	T	T
Maximum Queue (ft)	164	176	272	231	188	217	205	189	162	171	246	196
Average Queue (ft)	89	73	114	75	99	125	121	110	86	100	97	60
95th Queue (ft)	148	167	237	157	171	193	179	170	149	159	218	180
Link Distance (ft)			849	849			457	457			601	601
Upstream Blk Time (%)			0	0							1	1
Queuing Penalty (veh)			0	0							3	2
Storage Bay Dist (ft)	350	350			290	290			300	300		
Storage Blk Time (%)		1	0				0				1	1
Queuing Penalty (veh)		1	0				0				3	1

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	TR
Maximum Queue (ft)	86	81	104	328	316
Average Queue (ft)	20	29	21	180	199
95th Queue (ft)	66	65	68	287	298
Link Distance (ft)				372	
Upstream Blk Time (%)				1	
Queuing Penalty (veh)				12	
Storage Bay Dist (ft)	300	210	210		210
Storage Blk Time (%)				5	7
Queuing Penalty (veh)				29	27

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	309	240	82	32	106	223	185	20	63	157	164	30
Average Queue (ft)	94	79	29	6	35	63	37	1	17	37	45	6
95th Queue (ft)	215	194	66	23	77	157	119	10	45	112	120	21
Link Distance (ft)	1289		546			590	590			601	601	
Upstream Blk Time (%)						0						
Queuing Penalty (veh)						0						
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	4	6	0	0		1	1			0	0	
Queuing Penalty (veh)	16	13	0	0		1	0			0	0	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	T	R	L	T	TR
Maximum Queue (ft)	77	74	20	23	14	2	2	29	2	8
Average Queue (ft)	18	26	3	3	0	0	0	6	0	0
95th Queue (ft)	54	59	15	16	5	3	2	22	2	5
Link Distance (ft)	639	600			1500	1500			590	590
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			200	50			100	170		
Storage Blk Time (%)					0					
Queuing Penalty (veh)					0					

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	30	111	84	55	90	110	30	60	37	31	17
Average Queue (ft)	3	47	37	18	31	52	2	15	9	6	2
95th Queue (ft)	18	88	72	45	77	96	15	45	32	23	11
Link Distance (ft)		800	800		849	849		486	486		641
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			160			125			55	
Storage Blk Time (%)						0				0	
Queuing Penalty (veh)						0				0	

Intersection: 11: 2600 N & 450 E

Movement	EB	WB	SB
Directions Served	L	TR	LR
Maximum Queue (ft)	35	21	53
Average Queue (ft)	5	1	23
95th Queue (ft)	24	11	44
Link Distance (ft)		185	352
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	0		
Queuing Penalty (veh)	0		

Intersection: 29: 2600 N

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 227

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.8	0.3	0.2	2.0	0.3	0.3	0.0	0.0	0.0	3.3	0.3	0.3
Total Delay (hr)	0.2	0.2	0.1	0.5	0.2	0.0	0.3	2.0	0.4	0.2	0.9	0.1
Total Del/Veh (s)	15.0	11.8	5.9	16.5	11.6	6.7	16.1	14.2	11.9	27.1	10.6	7.3
Stop Delay (hr)	0.1	0.1	0.1	0.4	0.1	0.0	0.2	0.9	0.2	0.2	0.5	0.0
Stop Del/Veh (s)	12.5	8.3	4.8	13.8	8.3	5.7	8.4	6.0	5.6	24.7	6.8	5.4
Total Stops	32	39	40	90	37	14	63	266	74	22	154	19
Stop/Veh	0.80	0.64	0.75	0.85	0.67	0.67	0.91	0.52	0.61	0.92	0.53	0.59
Travel Dist (mi)	13.2	19.7	17.5	28.9	15.1	5.6	26.7	189.3	47.1	4.1	49.4	5.5
Travel Time (hr)	0.6	0.9	0.7	1.6	0.7	0.2	1.2	8.4	2.1	0.4	2.5	0.3
Avg Speed (mph)	21	23	24	19	22	23	22	23	23	12	20	20
Fuel Used (gal)	0.4	0.6	0.5	0.9	0.5	0.2	0.8	5.6	1.4	0.2	1.6	0.2
Fuel Eff. (mpg)	33.2	33.5	35.6	32.1	32.8	35.7	34.2	33.6	34.6	26.0	31.0	33.7
HC Emissions (g)	2	3	2	4	2	1	3	24	6	1	7	1
CO Emissions (g)	49	77	59	119	67	21	80	562	134	30	292	28
NOx Emissions (g)	6	9	7	13	7	2	11	78	18	2	27	2
Vehicles Entered	39	59	53	104	54	20	68	507	121	24	288	32
Vehicles Exited	39	60	52	104	54	21	68	509	121	24	289	32
Hourly Exit Rate	39	60	52	104	54	21	68	509	121	24	289	32
Input Volume	40	60	50	105	50	20	70	571	135	25	295	35
% of Volume	98	100	105	99	108	105	97	89	89	96	98	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	1	1	1	1	0	1	8	2	0	3	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	5.0
Total Del/Veh (s)	12.9
Stop Delay (hr)	2.9
Stop Del/Veh (s)	7.5
Total Stops	850
Stop/Veh	0.61
Travel Dist (mi)	422.1
Travel Time (hr)	19.6
Avg Speed (mph)	22
Fuel Used (gal)	12.7
Fuel Eff. (mpg)	33.3
HC Emissions (g)	55
CO Emissions (g)	1518
NOx Emissions (g)	181
Vehicles Entered	1369
Vehicles Exited	1373
Hourly Exit Rate	1373
Input Volume	1457
% of Volume	94
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	626
Occupancy (veh)	19

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.8	0.1	0.0
Total Delay (hr)	0.2	0.3	3.2	2.5	1.3	0.4	0.8	0.9	0.0	0.0	0.5	0.0
Total Del/Veh (s)	94.4	177.3	88.5	233.1	302.0	226.8	15.8	4.5	3.7	17.9	3.9	4.5
Stop Delay (hr)	0.2	0.3	3.3	2.5	1.3	0.4	0.5	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	91.8	175.1	89.7	232.5	300.2	228.4	10.6	0.1	0.1	14.1	0.2	2.1
Total Stops	10	7	130	37	15	6	128	6	0	3	3	3
Stop/Veh	1.11	1.00	0.98	0.95	1.00	1.00	0.71	0.01	0.00	0.75	0.01	0.21
Travel Dist (mi)	1.3	1.0	19.6	6.3	2.5	1.0	46.4	180.4	12.1	1.4	173.8	5.0
Travel Time (hr)	0.3	0.4	4.0	2.8	1.3	0.4	2.4	7.0	0.5	0.1	6.5	0.2
Avg Speed (mph)	5	3	5	2	2	2	19	26	25	20	27	25
Fuel Used (gal)	0.1	0.1	1.3	0.8	0.4	0.1	1.4	5.3	0.3	0.0	5.7	0.2
Fuel Eff. (mpg)	13.1	9.4	14.6	8.0	6.8	8.2	32.8	34.2	37.4	30.0	30.4	31.1
HC Emissions (g)	0	0	3	1	1	0	6	24	1	0	30	1
CO Emissions (g)	18	13	218	96	41	14	125	588	28	7	990	28
NOx Emissions (g)	1	1	15	5	2	1	18	77	4	1	113	3
Vehicles Entered	9	7	130	37	14	6	177	699	47	4	497	14
Vehicles Exited	9	7	130	37	15	6	178	698	46	4	497	14
Hourly Exit Rate	9	7	130	37	15	6	178	698	46	4	497	14
Input Volume	10	5	130	40	15	5	190	785	50	5	500	15
% of Volume	92	133	100	92	100	126	94	89	92	84	99	93
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	4	3	1	0	2	7	0	0	6	0

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	10.3
Total Del/Veh (s)	22.3
Stop Delay (hr)	8.6
Stop Del/Veh (s)	18.7
Total Stops	348
Stop/Veh	0.21
Travel Dist (mi)	450.9
Travel Time (hr)	25.9
Avg Speed (mph)	17
Fuel Used (gal)	15.8
Fuel Eff. (mpg)	28.6
HC Emissions (g)	68
CO Emissions (g)	2166
NOx Emissions (g)	242
Vehicles Entered	1641
Vehicles Exited	1641
Hourly Exit Rate	1641
Input Volume	1750
% of Volume	94
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	345
Occupancy (veh)	26

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.3	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.3	0.0	0.0	0.5	0.0	1.1
Total Del/Veh (s)	34.8	10.8	23.3	10.0	1.1	0.7	32.0	2.7	2.7	2.4
Stop Delay (hr)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	32.8	10.7	23.2	7.9	0.0	0.0	27.7	0.2	0.3	0.7
Total Stops	4	42	4	22	0	0	3	0	0	75
Stop/Veh	1.00	0.98	1.00	0.67	0.00	0.00	0.75	0.00	0.00	0.04
Travel Dist (mi)	0.9	8.8	0.3	3.0	85.3	0.5	1.1	174.3	1.4	275.7
Travel Time (hr)	0.1	0.5	0.0	0.2	3.2	0.0	0.1	6.7	0.1	10.8
Avg Speed (mph)	13	19	8	15	27	23	15	26	25	26
Fuel Used (gal)	0.0	0.3	0.0	0.1	2.6	0.0	0.0	5.7	0.0	8.8
Fuel Eff. (mpg)	28.9	33.4	25.9	31.8	33.0	42.3	28.9	30.7	34.9	31.5
HC Emissions (g)	0	1	0	0	12	0	0	29	0	43
CO Emissions (g)	4	32	1	11	297	1	4	843	5	1198
NOx Emissions (g)	0	4	0	1	44	0	1	103	1	154
Vehicles Entered	4	42	4	32	912	5	4	680	6	1689
Vehicles Exited	4	43	4	32	912	5	4	681	5	1690
Hourly Exit Rate	4	43	4	32	912	5	4	681	5	1690
Input Volume	5	40	5	35	1017	5	5	686	5	1802
% of Volume	84	108	84	91	90	105	84	99	105	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)										569
Occupancy (veh)	0	0	0	0	3	0	0	7	0	11

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.6	0.5	3.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.1	0.0	0.5	0.1	0.1	0.3	1.0	0.0	0.0	0.3	0.0	2.4
Total Del/Veh (s)	46.1	40.6	10.9	49.1	22.1	9.2	3.7	1.2	14.5	1.6	0.7	4.1
Stop Delay (hr)	0.0	0.0	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.9
Stop Del/Veh (s)	44.1	36.8	10.2	47.4	22.2	4.1	0.1	0.1	11.8	0.1	0.0	1.6
Total Stops	4	4	151	5	15	80	32	0	6	1	0	298
Stop/Veh	1.00	1.00	0.99	1.00	1.00	0.65	0.03	0.00	0.67	0.00	0.00	0.14
Travel Dist (mi)	0.7	0.8	26.2	0.8	2.7	10.7	83.7	7.9	1.0	74.3	1.2	210.0
Travel Time (hr)	0.1	0.1	1.6	0.1	0.2	0.8	4.1	0.4	0.1	2.9	0.1	10.3
Avg Speed (mph)	9	11	18	8	14	14	21	20	13	26	23	21
Fuel Used (gal)	0.0	0.0	0.8	0.0	0.1	0.5	4.6	0.3	0.0	2.3	0.0	8.8
Fuel Eff. (mpg)	25.0	26.7	31.9	22.2	28.6	19.7	18.1	24.9	28.8	32.7	39.0	23.8
HC Emissions (g)	0	0	3	0	0	2	24	2	0	11	0	43
CO Emissions (g)	3	4	126	4	11	117	1170	138	4	309	4	1891
NOx Emissions (g)	0	0	11	0	1	15	148	10	0	39	0	227
Vehicles Entered	4	4	151	5	15	122	958	90	9	697	11	2066
Vehicles Exited	4	4	152	4	15	122	958	89	9	697	11	2065
Hourly Exit Rate	4	4	152	4	15	122	958	89	9	697	11	2065
Input Volume	5	5	150	5	15	140	1066	100	10	700	10	2206
% of Volume	80	84	101	76	102	87	90	89	92	100	107	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												498
Occupancy (veh)	0	0	1	0	0	1	4	0	0	3	0	10

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0
Total Delay (hr)	5.3	5.5	1.6	5.0	6.5	1.4	9.9	22.3	3.3	2.1	7.2	0.4
Total Del/Veh (s)	49.0	42.1	14.6	72.8	77.5	78.7	111.8	108.5	51.7	70.2	44.8	6.4
Stop Delay (hr)	4.2	4.0	1.2	4.6	5.8	1.3	8.6	18.7	2.6	1.9	6.1	0.2
Stop Del/Veh (s)	38.9	30.9	11.3	67.7	70.0	73.4	96.9	91.0	40.2	65.7	38.0	4.4
Total Stops	370	330	258	282	281	66	522	1185	347	111	464	148
Stop/Veh	0.94	0.70	0.67	1.15	0.94	1.06	1.64	1.60	1.50	1.05	0.80	0.74
Travel Dist (mi)	66.1	76.1	65.6	23.4	27.3	6.0	40.5	92.6	29.7	8.7	47.6	16.5
Travel Time (hr)	7.4	7.5	3.7	5.9	7.4	1.6	11.3	24.8	4.4	2.4	8.6	1.1
Avg Speed (mph)	9	10	18	4	4	4	4	4	7	4	6	15
Fuel Used (gal)	3.5	3.9	2.4	1.9	2.2	0.5	3.8	8.8	1.9	0.8	3.3	0.6
Fuel Eff. (mpg)	18.8	19.6	27.1	12.5	12.2	12.4	10.7	10.5	15.7	11.3	14.5	25.8
HC Emissions (g)	14	17	17	3	2	0	6	17	5	2	9	4
CO Emissions (g)	953	1167	1135	235	199	42	419	1200	328	116	629	237
NOx Emissions (g)	72	84	68	19	16	3	42	116	35	9	48	17
Vehicles Entered	380	460	378	239	293	60	313	721	228	104	572	199
Vehicles Exited	385	458	378	237	290	61	313	722	227	104	573	200
Hourly Exit Rate	385	458	378	237	290	61	313	722	227	104	573	200
Input Volume	390	457	380	240	294	60	365	855	265	105	574	200
% of Volume	99	100	99	99	98	101	86	84	86	99	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	7	7	4	6	7	2	11	25	4	2	9	1

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	70.3
Total Del/Veh (s)	62.9
Stop Delay (hr)	59.4
Stop Del/Veh (s)	53.0
Total Stops	4364
Stop/Veh	1.08
Travel Dist (mi)	500.1
Travel Time (hr)	86.1
Avg Speed (mph)	6
Fuel Used (gal)	33.6
Fuel Eff. (mpg)	14.9
HC Emissions (g)	97
CO Emissions (g)	6661
NOx Emissions (g)	529
Vehicles Entered	3947
Vehicles Exited	3948
Hourly Exit Rate	3948
Input Volume	4185
% of Volume	94
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	91
Occupancy (veh)	86

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1	0.5	3.0	0.2	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.5	3.0	0.6	0.6	3.8	10.6	10.0	15.3	0.1	0.0	0.0
Total Delay (hr)	2.0	1.1	0.5	2.5	1.4	1.5	3.8	35.9	0.9	0.8	3.1	0.1
Total Del/Veh (s)	60.8	69.2	13.1	68.8	81.1	48.6	77.8	118.1	62.5	22.1	10.7	4.7
Stop Delay (hr)	1.8	1.0	0.4	2.3	1.3	1.4	3.1	29.9	0.7	0.6	1.6	0.0
Stop Del/Veh (s)	56.9	64.2	11.4	63.7	74.8	44.7	63.9	98.5	47.9	17.1	5.6	1.8
Total Stops	114	56	114	139	70	137	280	1464	58	100	251	13
Stop/Veh	0.98	0.98	0.84	1.07	1.09	1.21	1.59	1.34	1.07	0.76	0.24	0.30
Travel Dist (mi)	28.2	13.8	33.3	13.5	6.7	11.9	21.3	130.1	6.5	16.8	130.9	5.7
Travel Time (hr)	3.0	1.6	1.8	3.0	1.7	2.1	5.0	42.1	1.4	1.4	7.0	0.3
Avg Speed (mph)	10	9	19	5	4	6	5	3	6	12	19	20
Fuel Used (gal)	1.2	0.6	1.1	1.0	0.6	0.8	1.7	12.8	0.5	1.0	7.9	0.3
Fuel Eff. (mpg)	22.9	22.3	31.0	13.0	12.0	14.5	12.2	10.1	13.5	16.9	16.5	19.4
HC Emissions (g)	4	2	5	3	1	3	4	9	1	6	60	2
CO Emissions (g)	151	73	199	180	92	183	267	1006	66	417	4096	147
NOx Emissions (g)	14	6	18	13	6	13	25	94	6	30	276	10
Vehicles Entered	114	56	135	128	63	112	173	1066	53	131	1023	44
Vehicles Exited	114	56	135	128	63	112	173	1045	52	132	1022	43
Hourly Exit Rate	114	56	135	128	63	112	173	1045	52	132	1022	43
Input Volume	110	60	140	130	65	110	210	1278	60	130	1026	45
% of Volume	103	93	97	98	97	102	82	82	87	101	100	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	2	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	3	2	2	3	2	2	4	39	1	1	7	0

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	4.0
Denied Del/Veh (s)	4.6
Total Delay (hr)	53.5
Total Del/Veh (s)	61.2
Stop Delay (hr)	44.3
Stop Del/Veh (s)	50.7
Total Stops	2796
Stop/Veh	0.89
Travel Dist (mi)	418.6
Travel Time (hr)	70.5
Avg Speed (mph)	6
Fuel Used (gal)	29.6
Fuel Eff. (mpg)	14.1
HC Emissions (g)	99
CO Emissions (g)	6877
NOx Emissions (g)	512
Vehicles Entered	3098
Vehicles Exited	3075
Hourly Exit Rate	3075
Input Volume	3364
% of Volume	91
Denied Entry Before	0
Denied Entry After	2
Density (ft/veh)	132
Occupancy (veh)	66

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	12.9	11.1	0.4	33.1	4.3	0.0	0.0	0.0	61.8
Denied Del/Veh (s)	0.2	0.3	680.6	667.5	87.1	82.1	84.6	0.0	0.0	0.0	72.8
Total Delay (hr)	1.4	3.0	9.1	13.5	0.9	60.1	5.2	0.3	0.8	0.0	94.3
Total Del/Veh (s)	1280.0	895.1	908.1	1805.1	219.7	159.6	111.9	24.8	2.3	1.8	117.7
Stop Delay (hr)	1.4	3.0	9.1	13.5	0.9	52.0	4.3	0.2	0.0	0.0	84.4
Stop Del/Veh (s)	1276.0	891.8	909.0	1803.5	206.4	138.1	92.3	22.7	0.1	0.2	105.4
Total Stops	4	12	26	28	21	1264	122	27	0	0	1504
Stop/Veh	1.00	1.00	0.72	1.04	1.40	0.93	0.73	0.69	0.00	0.00	0.52
Travel Dist (mi)	0.4	1.2	2.6	2.2	4.2	369.1	46.0	4.7	153.2	1.2	584.8
Travel Time (hr)	1.4	3.0	22.0	24.7	1.4	100.7	10.7	0.4	5.0	0.1	169.5
Avg Speed (mph)	0	0	0	0	4	5	7	11	31	25	5
Fuel Used (gal)	0.3	0.7	5.1	5.7	0.4	30.1	3.5	0.2	6.2	0.1	52.4
Fuel Eff. (mpg)	1.3	1.7	0.5	0.4	10.5	12.3	13.2	19.8	24.7	23.4	11.2
HC Emissions (g)	0	0	0	1	0	37	7	1	49	0	97
CO Emissions (g)	22	51	269	303	43	3813	641	105	3268	27	8544
NOx Emissions (g)	0	1	3	3	2	225	37	6	209	2	489
Vehicles Entered	4	12	28	25	15	1343	166	38	1214	10	2855
Vehicles Exited	1	4	26	9	14	1249	158	38	1216	10	2725
Hourly Exit Rate	1	4	26	9	14	1249	158	38	1216	10	2725
Input Volume	5	10	65	60	15	1445	185	40	1225	10	3060
% of Volume	21	40	40	15	93	86	86	96	99	98	89
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	40	35	1	110	15	0	0	0	201
Density (ft/veh)											91
Occupancy (veh)	1	3	9	14	1	68	6	0	5	0	108

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	2.5	0.5	0.4	0.1	0.0	0.0	0.2	0.2	4.3	0.1	0.3
Total Delay (hr)	0.1	4.2	0.1	0.6	1.0	0.0	0.9	0.3	0.1	0.0	7.3
Total Del/Veh (s)	19.6	13.4	5.9	19.0	5.5	3.1	32.0	11.6	29.4	5.2	11.9
Stop Delay (hr)	0.1	1.5	0.0	0.5	0.4	0.0	0.8	0.3	0.1	0.0	3.6
Stop Del/Veh (s)	14.1	4.7	2.9	15.3	1.9	1.1	28.7	10.8	27.7	5.4	5.8
Total Stops	12	371	20	99	128	4	88	72	7	15	816
Stop/Veh	0.86	0.33	0.34	0.87	0.19	0.27	0.86	0.81	0.78	0.79	0.37
Travel Dist (mi)	2.1	169.4	8.8	19.3	112.9	2.5	9.3	8.3	1.1	2.4	336.2
Travel Time (hr)	0.1	7.4	0.4	1.3	4.4	0.1	1.3	0.6	0.1	0.1	15.9
Avg Speed (mph)	16	23	25	15	25	24	7	13	10	19	21
Fuel Used (gal)	0.1	5.7	0.3	1.1	5.8	0.1	0.5	0.3	0.0	0.1	14.0
Fuel Eff. (mpg)	27.2	30.0	29.9	17.9	19.5	21.2	17.7	27.9	23.7	37.6	24.1
HC Emissions (g)	1	42	3	9	52	1	2	1	0	0	112
CO Emissions (g)	40	3051	200	654	3784	77	134	73	6	7	8027
NOx Emissions (g)	2	160	9	33	199	4	10	5	1	1	424
Vehicles Entered	14	1114	58	112	660	14	100	88	9	19	2188
Vehicles Exited	14	1116	58	112	661	15	100	88	9	19	2192
Hourly Exit Rate	14	1116	58	112	661	15	100	88	9	19	2192
Input Volume	15	1125	60	120	709	15	100	85	10	20	2260
% of Volume	92	99	97	93	93	98	100	103	88	95	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											523
Occupancy (veh)	0	7	0	1	4	0	1	1	0	0	16

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.4	0.0	0.0	0.2	0.6
Denied Del/Veh (s)	0.2	0.1	2.3	4.1	0.5	18.2	1.6
Total Delay (hr)	0.1	0.8	3.6	0.0	0.3	1.9	6.7
Total Del/Veh (s)	8.3	3.5	23.6	22.4	235.7	144.6	16.7
Stop Delay (hr)	0.0	0.2	3.1	0.0	0.3	1.9	5.4
Stop Del/Veh (s)	4.3	0.7	19.9	18.7	234.6	145.0	13.7
Total Stops	17	40	134	2	4	44	241
Stop/Veh	0.57	0.05	0.24	0.33	1.00	0.94	0.17
Travel Dist (mi)	2.9	77.5	92.6	1.0	0.3	3.2	177.5
Travel Time (hr)	0.2	3.7	7.1	0.1	0.3	2.3	13.6
Avg Speed (mph)	15	21	14	13	1	2	14
Fuel Used (gal)	0.1	3.7	3.5	0.0	0.1	0.6	8.0
Fuel Eff. (mpg)	21.4	20.7	26.6	27.0	3.8	5.6	22.1
HC Emissions (g)	1	20	12	0	0	0	33
CO Emissions (g)	33	912	429	5	5	44	1429
NOx Emissions (g)	4	108	40	0	0	2	155
Vehicles Entered	29	793	551	6	4	47	1430
Vehicles Exited	29	793	548	6	4	44	1424
Hourly Exit Rate	29	793	548	6	4	44	1424
Input Volume	30	835	550	5	5	45	1469
% of Volume	97	95	100	120	84	98	97
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							139
Occupancy (veh)	0	4	7	0	0	2	13

Total Network Performance

Denied Delay (hr)	67.0
Denied Del/Veh (s)	41.3
Total Delay (hr)	253.1
Total Del/Veh (s)	153.6
Stop Delay (hr)	210.1
Stop Del/Veh (s)	127.5
Total Stops	11292
Stop/Veh	1.90
Travel Dist (mi)	4470.1
Travel Time (hr)	462.6
Avg Speed (mph)	11
Fuel Used (gal)	222.0
Fuel Eff. (mpg)	20.1
HC Emissions (g)	872
CO Emissions (g)	47114
NOx Emissions (g)	3718
Vehicles Entered	5631
Vehicles Exited	5482
Hourly Exit Rate	5482
Input Volume	27113
% of Volume	20
Denied Entry Before	0
Denied Entry After	203
Density (ft/veh)	174
Occupancy (veh)	396

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	62	79	102	80	124	288	59	168
Average Queue (ft)	23	38	46	31	45	139	19	79
95th Queue (ft)	52	69	82	63	112	239	51	136
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)	0	0	0	0	0	12		0
Queuing Penalty (veh)	0	0	0	0	0	9		0

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	168	388	302	113	161	23	56
Average Queue (ft)	17	113	112	52	8	2	4
95th Queue (ft)	106	335	285	95	84	12	24
Link Distance (ft)		778	880		1248		1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	190			100		100	
Storage Blk Time (%)		15		2			
Queuing Penalty (veh)		2		14			

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	L	L	TR
Maximum Queue (ft)	26	56	34	42	26	5
Average Queue (ft)	4	20	4	12	3	0
95th Queue (ft)	19	42	21	33	15	3
Link Distance (ft)		1086	403			1248
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	115			100	100	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	R	L	TR
Maximum Queue (ft)	41	120	50	75	251	44	36	22
Average Queue (ft)	10	51	13	33	5	2	6	1
95th Queue (ft)	33	91	40	63	76	44	26	16
Link Distance (ft)	915		940		380	380		431
Upstream Blk Time (%)					0	0		
Queuing Penalty (veh)					0	0		
Storage Bay Dist (ft)		215		135			100	
Storage Blk Time (%)								0
Queuing Penalty (veh)								0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	T	R	L	T	T
Maximum Queue (ft)	433	486	223	395	480	325	647	657	220	217	319	307
Average Queue (ft)	237	247	101	229	293	317	613	604	160	109	189	184
95th Queue (ft)	398	412	185	433	522	370	693	728	293	210	285	270
Link Distance (ft)		845	845		462		606	606				380
Upstream Blk Time (%)					12		30	19				0
Queuing Penalty (veh)					75		218	142				1
Storage Bay Dist (ft)	500			275		300			100	150		225
Storage Blk Time (%)	1	0		10	24	9	53	25	5	3	16	3
Queuing Penalty (veh)	2	0		33	59	39	192	65	19	25	99	11

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	SB
Directions Served	R
Maximum Queue (ft)	208
Average Queue (ft)	57
95th Queue (ft)	135
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	225
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	311	192	418	110	350	627	630	215	128	195	206	30
Average Queue (ft)	135	56	197	83	319	578	567	89	52	83	97	6
95th Queue (ft)	259	147	395	142	463	725	736	260	101	169	181	22
Link Distance (ft)	1295		552			590	590			606	606	
Upstream Blk Time (%)			1			43	29					
Queuing Penalty (veh)			0			327	221					
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	18	0	42	5	1	76	60	0		0	3	
Queuing Penalty (veh)	27	0	48	9	5	160	37	0		0	1	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	T	R	L	TR
Maximum Queue (ft)	283	607	219	74	1515	1515	220	69	1
Average Queue (ft)	100	472	175	19	950	929	138	20	0
95th Queue (ft)	301	780	288	67	1907	1906	312	52	1
Link Distance (ft)	640	600			1500	1500			590
Upstream Blk Time (%)		59			31	28			
Queuing Penalty (veh)		0			0	0			
Storage Bay Dist (ft)			200	50			100	170	
Storage Blk Time (%)		40	54	0	66	44			
Queuing Penalty (veh)		24	36	3	10	82			

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	78	294	238	110	100	128	29	149	79	29	33
Average Queue (ft)	12	138	93	50	32	58	3	61	38	6	8
95th Queue (ft)	47	242	182	89	77	112	18	115	67	22	25
Link Distance (ft)		800	800		845	845		492	492		648
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			250			125			55	
Storage Blk Time (%)		3				0				0	0
Queuing Penalty (veh)		1				0				0	0

Intersection: 11: 2600 N & 450 E

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	286	532	212
Average Queue (ft)	41	121	72
95th Queue (ft)	160	541	241
Link Distance (ft)	462	888	373
Upstream Blk Time (%)	0	4	5
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 1999

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.8	0.2	0.2	2.1	0.3	0.3	0.0	0.0	0.0	3.3	0.4	0.4
Total Delay (hr)	0.2	0.2	0.1	0.5	0.2	0.0	0.4	2.6	0.6	0.2	1.0	0.1
Total Del/Veh (s)	15.2	12.1	6.0	17.6	11.8	7.3	17.8	16.0	14.7	28.7	11.6	7.5
Stop Delay (hr)	0.1	0.1	0.1	0.5	0.1	0.0	0.2	1.1	0.3	0.2	0.6	0.1
Stop Del/Veh (s)	12.7	8.7	5.0	14.9	8.7	6.3	9.0	7.2	7.4	26.0	7.6	5.7
Total Stops	33	40	34	96	34	15	74	327	96	23	168	22
Stop/Veh	0.82	0.65	0.74	0.86	0.62	0.71	0.97	0.57	0.70	0.96	0.57	0.61
Travel Dist (mi)	13.4	20.3	15.3	30.4	15.1	5.8	29.5	211.3	52.9	4.2	50.4	6.0
Travel Time (hr)	0.7	0.9	0.6	1.7	0.7	0.3	1.4	9.7	2.5	0.4	2.7	0.3
Avg Speed (mph)	21	23	24	19	22	23	21	22	22	12	19	20
Fuel Used (gal)	0.4	0.6	0.4	1.0	0.5	0.2	0.9	6.1	1.5	0.2	1.6	0.2
Fuel Eff. (mpg)	33.5	33.8	35.3	31.6	32.8	34.6	34.5	34.6	35.1	25.1	31.0	33.9
HC Emissions (g)	2	3	2	4	2	1	4	25	6	1	7	1
CO Emissions (g)	49	81	52	127	67	21	77	517	126	32	293	30
NOx Emissions (g)	6	9	6	13	7	2	11	75	18	2	27	3
Vehicles Entered	40	60	46	110	54	21	76	565	136	24	294	35
Vehicles Exited	40	61	46	110	54	21	75	565	136	24	294	36
Hourly Exit Rate	40	61	46	110	54	21	75	565	136	24	294	36
Input Volume	40	60	50	105	50	20	70	571	135	25	295	35
% of Volume	100	101	92	105	108	105	107	99	101	96	100	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	1	1	2	1	0	1	10	2	0	3	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.4
Total Delay (hr)	6.0
Total Del/Veh (s)	14.4
Stop Delay (hr)	3.5
Stop Del/Veh (s)	8.4
Total Stops	962
Stop/Veh	0.65
Travel Dist (mi)	454.5
Travel Time (hr)	21.7
Avg Speed (mph)	21
Fuel Used (gal)	13.5
Fuel Eff. (mpg)	33.8
HC Emissions (g)	56
CO Emissions (g)	1473
NOx Emissions (g)	178
Vehicles Entered	1461
Vehicles Exited	1462
Hourly Exit Rate	1462
Input Volume	1457
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	566
Occupancy (veh)	22

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.3	0.2	0.1	0.2	0.3	0.0	0.0	0.0	0.3	0.1	0.1
Total Delay (hr)	0.3	0.3	3.0	4.5	2.4	0.6	0.8	0.8	0.0	0.0	0.6	0.0
Total Del/Veh (s)	113.4	169.1	78.4	403.5	578.3	407.3	15.7	3.6	0.5	21.6	4.1	4.8
Stop Delay (hr)	0.3	0.3	3.0	4.5	2.4	0.6	0.6	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	110.7	167.2	79.4	403.2	577.5	408.4	10.6	0.1	0.0	16.5	0.3	1.6
Total Stops	10	6	137	39	14	5	136	4	0	3	5	3
Stop/Veh	1.00	1.00	0.99	0.98	0.93	1.00	0.70	0.01	0.00	0.75	0.01	0.20
Travel Dist (mi)	1.4	0.8	20.6	6.1	2.3	0.8	49.7	202.9	12.5	1.4	174.4	5.5
Travel Time (hr)	0.4	0.3	3.8	4.7	2.5	0.6	2.6	7.6	0.5	0.1	6.6	0.2
Avg Speed (mph)	4	3	5	1	1	1	19	27	27	19	27	25
Fuel Used (gal)	0.1	0.1	1.3	1.2	0.6	0.2	1.6	6.4	0.3	0.1	5.7	0.2
Fuel Eff. (mpg)	11.9	9.4	15.6	5.0	3.6	5.0	31.5	31.9	37.3	27.0	30.4	31.5
HC Emissions (g)	0	0	4	1	0	0	6	31	2	0	30	1
CO Emissions (g)	20	10	224	118	56	16	154	1045	53	8	989	31
NOx Emissions (g)	1	1	15	6	2	1	23	117	5	1	114	3
Vehicles Entered	10	6	137	39	14	5	190	789	48	4	498	15
Vehicles Exited	10	5	137	30	12	4	189	786	48	4	498	15
Hourly Exit Rate	10	5	137	30	12	4	189	786	48	4	498	15
Input Volume	10	5	130	40	15	5	190	785	50	5	500	15
% of Volume	103	95	105	75	80	84	99	100	96	84	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	4	5	2	1	3	8	0	0	7	0

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	13.3
Total Del/Veh (s)	27.0
Stop Delay (hr)	11.7
Stop Del/Veh (s)	23.8
Total Stops	362
Stop/Veh	0.20
Travel Dist (mi)	478.5
Travel Time (hr)	29.9
Avg Speed (mph)	16
Fuel Used (gal)	17.8
Fuel Eff. (mpg)	26.9
HC Emissions (g)	77
CO Emissions (g)	2724
NOx Emissions (g)	290
Vehicles Entered	1755
Vehicles Exited	1738
Hourly Exit Rate	1738
Input Volume	1750
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	344
Occupancy (veh)	30

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.1	0.8	0.0	0.0	0.5	0.0	1.6
Total Del/Veh (s)	46.3	10.7	6.8	11.7	2.8	0.4	31.7	2.7	2.0	3.3
Stop Delay (hr)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	44.3	10.7	6.9	7.8	0.0	0.0	26.9	0.2	0.2	0.7
Total Stops	4	40	4	27	14	0	3	0	0	92
Stop/Veh	1.00	1.00	1.00	0.73	0.01	0.00	0.75	0.00	0.00	0.05
Travel Dist (mi)	0.9	8.3	0.3	3.5	96.0	0.5	1.1	174.7	1.4	286.7
Travel Time (hr)	0.1	0.4	0.0	0.3	4.0	0.0	0.1	6.7	0.1	11.7
Avg Speed (mph)	11	19	15	14	24	23	15	26	25	25
Fuel Used (gal)	0.0	0.2	0.0	0.1	3.8	0.0	0.0	5.7	0.0	10.0
Fuel Eff. (mpg)	25.3	33.9	40.2	25.2	25.1	33.7	26.2	30.7	33.1	28.5
HC Emissions (g)	0	1	0	0	17	0	0	29	0	47
CO Emissions (g)	4	31	1	18	616	4	6	844	6	1530
NOx Emissions (g)	0	3	0	3	94	0	1	104	1	206
Vehicles Entered	4	40	4	36	1021	5	4	683	6	1803
Vehicles Exited	4	40	4	37	1019	5	4	683	6	1802
Hourly Exit Rate	4	40	4	37	1019	5	4	683	6	1802
Input Volume	5	40	5	35	1017	5	5	686	5	1802
% of Volume	84	100	84	105	100	105	84	100	126	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)										566
Occupancy (veh)	0	0	0	0	4	0	0	7	0	12

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.4	0.5	3.6	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	0.6	0.1	0.0	0.5	1.8	0.1	0.0	0.3	0.0	3.6
Total Del/Veh (s)	56.9	60.3	13.3	62.3	7.5	12.3	6.1	2.8	18.5	1.7	1.1	5.9
Stop Delay (hr)	0.1	0.1	0.5	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	1.1
Stop Del/Veh (s)	54.8	57.0	12.7	60.4	7.4	5.2	0.2	0.1	16.1	0.1	0.1	1.8
Total Stops	5	5	150	5	15	93	50	2	6	3	0	334
Stop/Veh	0.83	1.00	0.99	1.00	0.94	0.67	0.05	0.02	0.67	0.00	0.00	0.15
Travel Dist (mi)	0.9	0.8	25.7	0.9	2.7	12.3	95.7	9.1	1.0	74.4	1.2	224.8
Travel Time (hr)	0.1	0.1	1.7	0.1	0.1	1.0	5.3	0.5	0.1	2.9	0.1	12.1
Avg Speed (mph)	7	7	17	8	20	13	18	19	12	26	23	19
Fuel Used (gal)	0.0	0.0	0.9	0.0	0.1	0.6	5.0	0.4	0.0	2.2	0.0	9.4
Fuel Eff. (mpg)	20.1	20.3	29.5	21.9	34.2	20.7	19.1	24.1	28.5	33.2	39.1	24.0
HC Emissions (g)	0	0	4	0	0	2	24	2	0	10	0	43
CO Emissions (g)	6	5	142	4	9	89	1256	114	4	306	4	1939
NOx Emissions (g)	0	0	13	0	1	13	143	11	0	38	0	221
Vehicles Entered	6	5	149	5	15	138	1070	100	9	696	11	2204
Vehicles Exited	6	5	150	5	15	138	1070	100	9	699	11	2208
Hourly Exit Rate	6	5	150	5	15	138	1070	100	9	699	11	2208
Input Volume	5	5	150	5	15	140	1066	100	10	700	10	2206
% of Volume	120	105	100	95	102	98	100	100	92	100	107	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												423
Occupancy (veh)	0	0	2	0	0	1	5	0	0	3	0	12

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	11.1	8.1	2.1	3.2	2.8	0.4	6.6	8.3	0.5	1.6	5.8	1.6
Total Del/Veh (s)	101.0	62.2	19.0	49.3	33.1	20.0	64.1	34.0	7.5	56.7	35.2	29.1
Stop Delay (hr)	9.9	6.3	1.6	3.0	2.5	0.3	5.6	5.3	0.2	1.5	4.6	1.4
Stop Del/Veh (s)	90.0	48.4	14.6	46.4	29.6	19.0	54.5	21.9	3.0	53.3	28.3	24.7
Total Stops	456	418	292	210	206	50	380	604	138	96	412	153
Stop/Veh	1.15	0.90	0.74	0.89	0.67	0.78	1.03	0.69	0.53	0.92	0.70	0.76
Travel Dist (mi)	67.1	76.1	67.7	22.9	28.3	6.2	45.8	108.3	33.0	8.2	47.1	16.1
Travel Time (hr)	13.2	10.0	4.3	4.1	3.8	0.6	8.1	11.2	1.7	2.0	7.2	2.3
Avg Speed (mph)	5	8	16	6	7	10	6	10	19	4	7	7
Fuel Used (gal)	5.0	4.5	2.6	1.4	1.4	0.2	3.2	5.9	1.4	0.7	2.9	0.9
Fuel Eff. (mpg)	13.4	17.1	26.1	16.7	19.8	26.0	14.3	18.5	24.3	12.3	16.0	18.3
HC Emissions (g)	15	15	17	3	4	1	10	24	9	2	9	2
CO Emissions (g)	1059	1041	1152	205	218	38	634	1514	638	147	647	155
NOx Emissions (g)	79	80	69	14	17	3	52	127	41	10	48	12
Vehicles Entered	388	459	392	234	306	63	361	861	259	101	578	198
Vehicles Exited	386	463	391	234	306	64	360	860	259	102	577	198
Hourly Exit Rate	386	463	391	234	306	64	360	860	259	102	577	198
Input Volume	390	457	380	240	294	60	365	855	265	105	574	200
% of Volume	99	101	103	98	104	106	99	101	98	97	101	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	13	10	4	4	4	1	8	11	2	2	7	2

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	52.1
Total Del/Veh (s)	43.9
Stop Delay (hr)	42.4
Stop Del/Veh (s)	35.7
Total Stops	3415
Stop/Veh	0.80
Travel Dist (mi)	526.7
Travel Time (hr)	68.6
Avg Speed (mph)	8
Fuel Used (gal)	30.0
Fuel Eff. (mpg)	17.5
HC Emissions (g)	112
CO Emissions (g)	7449
NOx Emissions (g)	552
Vehicles Entered	4200
Vehicles Exited	4200
Hourly Exit Rate	4200
Input Volume	4185
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	148
Occupancy (veh)	69

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.5	2.9	6.7	6.7	10.0	0.2	0.1	0.2	0.0	0.0	0.0
Total Delay (hr)	1.9	1.3	0.6	4.0	2.2	2.2	1.9	6.1	0.1	1.2	3.1	0.1
Total Del/Veh (s)	61.8	73.1	15.8	107.0	120.7	69.1	32.3	17.1	5.4	33.5	10.7	5.3
Stop Delay (hr)	1.8	1.2	0.5	3.8	2.1	2.1	1.6	3.6	0.0	1.0	1.7	0.0
Stop Del/Veh (s)	58.0	68.0	14.0	101.2	113.6	64.4	26.7	10.1	2.7	28.7	6.0	2.2
Total Stops	107	61	116	151	79	156	195	524	21	125	227	13
Stop/Veh	0.96	0.97	0.82	1.11	1.18	1.36	0.92	0.41	0.38	0.95	0.22	0.30
Travel Dist (mi)	26.7	14.9	34.5	13.8	6.8	11.9	25.7	156.8	6.8	16.8	133.7	5.8
Travel Time (hr)	2.9	1.8	2.0	4.8	2.6	3.0	2.7	10.1	0.3	1.8	7.2	0.3
Avg Speed (mph)	9	8	18	3	3	4	9	16	21	9	19	20
Fuel Used (gal)	1.2	0.7	1.1	1.5	0.8	1.0	1.0	5.1	0.2	1.1	8.0	0.3
Fuel Eff. (mpg)	22.6	21.3	30.2	9.4	8.8	11.7	25.2	30.9	41.0	15.5	16.6	19.1
HC Emissions (g)	4	2	5	2	1	2	3	21	1	6	61	2
CO Emissions (g)	139	80	206	188	96	177	207	1203	44	431	4199	154
NOx Emissions (g)	13	7	18	13	6	13	16	96	4	29	277	10
Vehicles Entered	108	61	140	132	64	112	209	1272	55	130	1038	44
Vehicles Exited	110	61	140	133	65	113	209	1270	55	129	1038	44
Hourly Exit Rate	110	61	140	133	65	113	209	1270	55	129	1038	44
Input Volume	110	60	140	130	65	110	210	1278	60	130	1026	45
% of Volume	100	101	100	102	100	103	100	99	92	99	101	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	3	2	2	5	2	3	3	10	0	2	7	0

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.9
Total Delay (hr)	24.8
Total Del/Veh (s)	26.2
Stop Delay (hr)	19.6
Stop Del/Veh (s)	20.7
Total Stops	1775
Stop/Veh	0.52
Travel Dist (mi)	454.2
Travel Time (hr)	39.6
Avg Speed (mph)	12
Fuel Used (gal)	22.0
Fuel Eff. (mpg)	20.7
HC Emissions (g)	111
CO Emissions (g)	7123
NOx Emissions (g)	503
Vehicles Entered	3365
Vehicles Exited	3367
Hourly Exit Rate	3367
Input Volume	3364
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	226
Occupancy (veh)	39

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	7.4	7.7	0.0	0.3	0.1	0.0	0.0	0.0	15.5
Denied Del/Veh (s)	0.1	0.1	429.2	449.3	2.1	0.6	1.9	0.0	0.0	0.0	18.1
Total Delay (hr)	0.6	0.9	14.4	5.4	0.1	1.6	0.1	0.6	0.8	0.0	24.6
Total Del/Veh (s)	529.7	362.8	1082.0	477.6	14.5	4.0	2.8	50.2	2.3	1.8	28.8
Stop Delay (hr)	0.6	0.9	14.5	5.4	0.0	0.0	0.0	0.6	0.0	0.0	22.0
Stop Del/Veh (s)	527.4	361.9	1084.5	477.2	10.9	0.0	0.0	48.0	0.1	0.1	25.8
Total Stops	4	9	28	48	11	2	2	39	1	0	144
Stop/Veh	1.00	1.00	0.58	1.17	0.79	0.00	0.01	0.93	0.00	0.00	0.05
Travel Dist (mi)	0.5	1.1	3.8	4.0	4.1	416.0	52.8	5.3	156.0	1.3	644.8
Travel Time (hr)	0.6	0.9	22.0	13.3	0.2	10.3	1.5	0.8	5.1	0.1	54.7
Avg Speed (mph)	1	1	0	1	26	41	37	7	31	25	16
Fuel Used (gal)	0.2	0.2	5.1	3.2	0.1	12.2	1.7	0.3	6.2	0.1	29.4
Fuel Eff. (mpg)	3.4	4.3	0.7	1.2	33.6	34.0	30.5	16.4	25.0	25.8	21.9
HC Emissions (g)	0	0	1	1	1	94	15	2	49	0	163
CO Emissions (g)	12	22	284	202	50	6298	1103	110	3249	25	11355
NOx Emissions (g)	0	1	5	6	4	462	64	6	209	2	758
Vehicles Entered	4	9	40	40	14	1462	186	42	1237	10	3044
Vehicles Exited	4	8	29	32	14	1462	186	42	1235	10	3022
Hourly Exit Rate	4	8	29	32	14	1462	186	42	1235	10	3022
Input Volume	5	10	65	60	15	1445	185	40	1225	10	3060
% of Volume	84	80	45	54	93	101	101	106	101	98	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	22	22	0	0	0	0	0	0	44
Density (ft/veh)											249
Occupancy (veh)	1	1	15	6	0	10	1	1	5	0	39

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	2.3	0.5	0.4	0.1	0.0	0.0	0.2	0.1	4.1	0.2	0.3
Total Delay (hr)	0.1	4.7	0.1	0.7	1.2	0.0	0.9	0.3	0.1	0.0	8.3
Total Del/Veh (s)	20.7	14.9	6.5	22.4	6.2	3.7	32.9	12.2	26.5	5.3	13.0
Stop Delay (hr)	0.1	1.7	0.1	0.6	0.4	0.0	0.8	0.3	0.1	0.0	4.1
Stop Del/Veh (s)	15.0	5.5	3.2	18.4	1.9	0.9	29.7	11.4	25.0	5.6	6.4
Total Stops	12	408	22	105	142	3	90	70	10	17	879
Stop/Veh	0.80	0.36	0.37	0.89	0.20	0.20	0.87	0.80	0.83	0.85	0.38
Travel Dist (mi)	2.2	172.2	8.9	20.3	124.3	2.7	9.4	8.0	1.5	2.5	351.9
Travel Time (hr)	0.2	8.1	0.4	1.4	5.0	0.1	1.3	0.6	0.2	0.1	17.4
Avg Speed (mph)	15	22	24	14	25	24	7	13	10	19	20
Fuel Used (gal)	0.1	5.9	0.3	1.1	6.3	0.1	0.5	0.3	0.1	0.1	14.8
Fuel Eff. (mpg)	27.4	29.2	29.2	18.0	19.7	20.8	17.6	27.3	24.7	36.5	23.8
HC Emissions (g)	1	43	3	8	54	1	2	1	0	0	113
CO Emissions (g)	39	3083	212	614	3818	76	132	72	7	9	8063
NOx Emissions (g)	2	162	9	34	218	4	9	5	1	1	446
Vehicles Entered	15	1133	59	116	715	15	101	87	12	20	2273
Vehicles Exited	15	1134	59	116	716	15	101	87	12	20	2275
Hourly Exit Rate	15	1134	59	116	716	15	101	87	12	20	2275
Input Volume	15	1125	60	120	709	15	100	85	10	20	2260
% of Volume	98	101	99	96	101	98	101	102	117	100	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											479
Occupancy (veh)	0	8	0	1	5	0	1	1	0	0	17

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.1	0.0	0.0	0.2	0.1	0.1
Total Delay (hr)	0.1	0.6	0.1	0.0	0.0	0.1	0.8
Total Del/Veh (s)	6.3	2.4	0.4	0.1	35.4	4.6	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Stop Del/Veh (s)	2.4	0.2	0.0	0.0	33.2	4.3	0.4
Total Stops	16	5	1	0	4	46	72
Stop/Veh	0.52	0.01	0.00	0.00	1.00	1.00	0.05
Travel Dist (mi)	3.0	80.9	24.1	0.2	0.3	3.1	111.6
Travel Time (hr)	0.2	3.6	0.9	0.0	0.1	0.2	4.9
Avg Speed (mph)	17	23	28	20	6	15	23
Fuel Used (gal)	0.1	4.2	0.7	0.0	0.0	0.1	5.2
Fuel Eff. (mpg)	20.8	19.3	33.4	63.7	19.5	36.5	21.6
HC Emissions (g)	1	26	6	0	0	0	33
CO Emissions (g)	41	1324	125	0	2	16	1507
NOx Emissions (g)	4	130	17	0	0	1	153
Vehicles Entered	31	829	568	4	4	46	1482
Vehicles Exited	31	830	568	4	4	46	1483
Hourly Exit Rate	31	830	568	4	4	46	1483
Input Volume	30	835	561	5	5	45	1480
% of Volume	104	99	101	80	84	103	100
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							438
Occupancy (veh)	0	4	1	0	0	0	5

29: 2600 N Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.2
Total Delay (hr)	0.1	0.0	0.1	0.2
Total Del/Veh (s)	0.4	0.3	0.6	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0
Total Stops	0	0	0	0
Stop/Veh	0.00	0.00	0.00	0.00
Travel Dist (mi)	32.8	5.2	70.8	108.8
Travel Time (hr)	1.2	0.3	2.5	4.0
Avg Speed (mph)	27	19	29	28
Fuel Used (gal)	1.1	0.1	2.1	3.2
Fuel Eff. (mpg)	31.0	67.0	33.9	33.7
HC Emissions (g)	12	0	21	34
CO Emissions (g)	253	10	460	724
NOx Emissions (g)	36	1	58	95
Vehicles Entered	743	118	561	1422
Vehicles Exited	743	118	560	1421
Hourly Exit Rate	743	118	560	1421
Input Volume	745	120	555	1420
% of Volume	100	98	101	100
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				299
Occupancy (veh)	1	0	2	4

Total Network Performance

Denied Delay (hr)	17.1
Denied Del/Veh (s)	10.3
Total Delay (hr)	137.3
Total Del/Veh (s)	80.4
Stop Delay (hr)	105.1
Stop Del/Veh (s)	61.6
Total Stops	8035
Stop/Veh	1.31
Travel Dist (mi)	4757.2
Travel Time (hr)	305.9
Avg Speed (mph)	16
Fuel Used (gal)	194.9
Fuel Eff. (mpg)	24.4
HC Emissions (g)	1047
CO Emissions (g)	53665
NOx Emissions (g)	4316
Vehicles Entered	5896
Vehicles Exited	5867
Hourly Exit Rate	5867
Input Volume	28545
% of Volume	21
Denied Entry Before	0
Denied Entry After	44
Density (ft/veh)	257
Occupancy (veh)	289

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	56	79	103	68	125	334	62	170
Average Queue (ft)	23	35	47	29	52	170	19	85
95th Queue (ft)	51	68	82	60	125	295	52	150
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		0	0	0	0	18		0
Queuing Penalty (veh)		0	0	0	0	13		0

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	T	R	L	TR
Maximum Queue (ft)	116	374	479	114	137	9	20	61
Average Queue (ft)	12	108	178	51	6	0	2	5
95th Queue (ft)	66	305	490	97	60	5	12	31
Link Distance (ft)		778	868		1245	1245		1912
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	190			100			100	
Storage Blk Time (%)		15		2				0
Queuing Penalty (veh)		2		13				0

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	LTR	L	T	L
Maximum Queue (ft)	26	45	29	44	136	28
Average Queue (ft)	4	19	4	13	5	3
95th Queue (ft)	18	40	19	34	81	17
Link Distance (ft)		1086	391		432	
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)	115			100		100
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	TR
Maximum Queue (ft)	72	120	50	102	169	82	36	36
Average Queue (ft)	11	53	15	39	9	3	7	2
95th Queue (ft)	44	96	41	77	86	48	28	26
Link Distance (ft)	908		936		372	372		432
Upstream Blk Time (%)					0			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)		215		80			100	
Storage Blk Time (%)		0		0	0			0
Queuing Penalty (veh)		0		2	0			0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	L	T	TR	L	L	T	T
Maximum Queue (ft)	368	455	625	424	143	158	180	175	244	383	531	488
Average Queue (ft)	223	226	338	139	78	95	101	87	138	173	262	199
95th Queue (ft)	361	427	557	312	130	147	158	149	225	319	440	382
Link Distance (ft)			849	849			457	457			601	601
Upstream Blk Time (%)			0	0							0	0
Queuing Penalty (veh)			2	0							1	0
Storage Bay Dist (ft)	350	350			290	290			300	300		
Storage Blk Time (%)	4	2	10						0	0	5	1
Queuing Penalty (veh)	16	10	40						0	1	20	3

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	NB	SB	SB	SB	SB
Directions Served	R	L	L	T	TR
Maximum Queue (ft)	206	117	260	330	312
Average Queue (ft)	53	57	45	205	206
95th Queue (ft)	135	100	141	308	300
Link Distance (ft)				372	
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				3	
Storage Bay Dist (ft)	300	210	210		210
Storage Blk Time (%)			0	7	8
Queuing Penalty (veh)			0	43	34

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	293	220	495	110	349	482	436	194	149	182	190	31
Average Queue (ft)	138	59	281	84	116	216	181	22	67	78	89	7
95th Queue (ft)	250	152	538	149	264	405	353	107	126	163	173	23
Link Distance (ft)	1289		546			590	590			601	601	
Upstream Blk Time (%)			9			0	0					
Queuing Penalty (veh)			0			0	0					
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	18	0	57	3	2	10	5	0	0	0	2	
Queuing Penalty (veh)	28	1	64	7	12	24	4	0	1	0	1	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	T	TR
Maximum Queue (ft)	138	615	225	39	20	22	94	42	2
Average Queue (ft)	40	438	66	9	1	1	31	1	0
95th Queue (ft)	137	765	224	32	13	11	77	26	2
Link Distance (ft)	639	600			1500			590	590
Upstream Blk Time (%)		50							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)			200	50		100	170		
Storage Blk Time (%)		77	0	0	0		0	0	
Queuing Penalty (veh)		46	0	2	0		0	0	

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	123	333	260	121	125	138	31	127	86	34	24
Average Queue (ft)	14	152	105	57	42	61	3	60	39	7	6
95th Queue (ft)	61	271	212	102	98	118	18	106	71	24	18
Link Distance (ft)		800	800		849	849		486	486		641
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			160			125			55	
Storage Blk Time (%)		5			0	0				0	0
Queuing Penalty (veh)		1			0	0				0	0

Intersection: 11: 2600 N & 450 E

Movement	EB	EB	EB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	36	42	11	16	61
Average Queue (ft)	13	1	0	1	24
95th Queue (ft)	38	20	7	11	48
Link Distance (ft)		457	457	185	352
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	50				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 29: 2600 N

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 394

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.8	0.2	0.2	2.1	0.6	0.6	0.3	0.0	0.0	3.2	0.4	0.4
Total Delay (hr)	0.1	0.2	0.1	1.7	0.2	0.0	0.1	0.4	0.1	0.1	1.1	0.0
Total Del/Veh (s)	12.3	11.0	5.8	26.5	12.4	6.6	12.9	7.6	6.2	14.8	11.2	6.9
Stop Delay (hr)	0.0	0.1	0.1	1.5	0.1	0.0	0.1	0.2	0.1	0.1	0.7	0.0
Stop Del/Veh (s)	10.3	7.5	4.8	22.6	8.0	4.3	8.2	3.5	3.0	12.0	7.1	5.0
Total Stops	11	32	50	218	30	16	27	68	37	28	198	9
Stop/Veh	0.73	0.60	0.68	0.94	0.67	0.73	0.84	0.35	0.50	0.80	0.56	0.56
Travel Dist (mi)	4.8	17.6	24.0	63.5	12.5	6.0	11.9	65.7	28.0	6.0	59.6	2.7
Travel Time (hr)	0.2	0.8	1.0	4.1	0.6	0.3	0.5	2.6	1.1	0.4	3.1	0.1
Avg Speed (mph)	22	23	24	16	22	23	22	25	25	17	19	20
Fuel Used (gal)	0.1	0.5	0.7	2.1	0.4	0.2	0.4	2.0	0.8	0.2	1.9	0.1
Fuel Eff. (mpg)	35.0	33.9	35.3	29.7	32.7	35.4	33.8	33.1	34.9	29.6	31.1	34.3
HC Emissions (g)	1	2	3	8	2	1	2	83	4	1	9	0
CO Emissions (g)	17	69	85	258	62	24	41	1373	91	40	343	14
NOx Emissions (g)	2	8	10	27	6	3	5	221	12	3	31	1
Vehicles Entered	14	52	72	229	45	22	31	192	73	35	348	16
Vehicles Exited	14	53	72	230	45	22	31	193	73	35	350	16
Hourly Exit Rate	14	53	72	230	45	22	31	193	73	35	350	16
Input Volume	15	50	70	225	45	20	35	190	75	35	335	15
% of Volume	95	106	102	102	99	111	89	101	98	101	105	108
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	1	1	4	1	0	1	3	1	0	3	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.7
Total Delay (hr)	4.2
Total Del/Veh (s)	13.1
Stop Delay (hr)	3.0
Stop Del/Veh (s)	9.4
Total Stops	724
Stop/Veh	0.63
Travel Dist (mi)	302.3
Travel Time (hr)	14.8
Avg Speed (mph)	21
Fuel Used (gal)	9.4
Fuel Eff. (mpg)	32.3
HC Emissions (g)	115
CO Emissions (g)	2417
NOx Emissions (g)	329
Vehicles Entered	1129
Vehicles Exited	1134
Hourly Exit Rate	1134
Input Volume	1109
% of Volume	102
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	835
Occupancy (veh)	15

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	2.4	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	2.8
Denied Del/Veh (s)	79.9	66.9	53.4	0.1	0.1	0.1	2.5	1.0	2.4	0.2	0.3	7.0
Total Delay (hr)	0.3	0.5	14.1	2.2	0.6	0.6	1.6	1.4	0.1	1.2	0.0	22.6
Total Del/Veh (s)	408.4	361.9	319.3	296.0	415.5	408.5	70.6	14.1	11.6	5.7	5.0	56.7
Stop Delay (hr)	0.3	0.5	14.4	2.2	0.6	0.6	1.5	1.0	0.1	0.1	0.0	21.3
Stop Del/Veh (s)	409.6	364.7	324.9	294.7	413.0	409.0	66.2	10.6	8.8	0.7	1.1	53.5
Total Stops	4	4	121	26	5	5	84	56	8	69	1	383
Stop/Veh	1.33	0.80	0.76	0.96	1.00	1.00	1.01	0.16	0.20	0.09	0.25	0.27
Travel Dist (mi)	0.4	0.6	21.0	4.3	0.8	0.9	19.8	76.6	9.5	253.1	1.5	388.3
Travel Time (hr)	0.4	0.6	17.3	2.4	0.6	0.6	2.4	4.0	0.5	10.0	0.1	38.9
Avg Speed (mph)	1	1	1	2	1	1	8	19	20	25	24	11
Fuel Used (gal)	0.1	0.1	4.2	0.6	0.2	0.2	0.9	2.5	0.3	8.5	0.0	17.6
Fuel Eff. (mpg)	3.9	4.0	5.0	7.1	5.0	5.5	21.8	30.4	34.0	29.9	30.3	22.1
HC Emissions (g)	2	4	80	16	2	2	21	61	7	190	1	386
CO Emissions (g)	32	57	1337	265	41	34	347	1058	113	3627	21	6934
NOx Emissions (g)	2	4	102	23	3	2	41	150	16	525	3	872
Vehicles Entered	3	4	152	26	5	5	82	343	40	750	4	1414
Vehicles Exited	2	4	130	24	4	5	82	343	40	753	4	1391
Hourly Exit Rate	2	4	130	24	4	5	82	343	40	753	4	1391
Input Volume	5	5	160	25	5	5	80	345	40	735	5	1410
% of Volume	38	80	81	95	84	105	102	99	101	102	84	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	9	0	0	0	0	0	0	0	0	9
Density (ft/veh)												247
Occupancy (veh)	0	1	15	2	1	1	2	4	0	10	0	36

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.7	0.1	0.1	0.1	0.1	0.2	0.1	0.0	1.2	0.2	0.1
Total Delay (hr)	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.0	0.9	1.9
Total Del/Veh (s)	34.9	55.9	22.9	74.5	51.8	71.9	20.0	0.8	9.3	3.3	4.5
Stop Delay (hr)	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.9
Stop Del/Veh (s)	32.6	52.2	22.8	72.5	48.8	71.3	18.1	0.2	5.0	0.1	2.2
Total Stops	5	5	28	9	5	10	17	3	3	0	85
Stop/Veh	1.25	1.00	0.97	1.00	1.00	1.00	0.85	0.01	0.60	0.00	0.06
Travel Dist (mi)	0.9	1.1	5.9	0.7	0.4	0.8	1.9	37.4	1.3	227.6	277.9
Travel Time (hr)	0.1	0.1	0.4	0.2	0.1	0.2	0.2	1.4	0.1	8.9	11.7
Avg Speed (mph)	13	9	14	3	4	3	10	27	21	26	24
Fuel Used (gal)	0.0	0.0	0.2	0.1	0.0	0.1	0.1	1.2	0.0	7.7	9.5
Fuel Eff. (mpg)	27.2	23.7	28.8	11.0	15.0	11.0	25.7	32.0	30.2	29.4	29.4
HC Emissions (g)	0	0	1	0	0	0	0	6	0	227	235
CO Emissions (g)	4	6	26	8	3	12	9	182	6	4091	4349
NOx Emissions (g)	0	1	3	1	0	1	1	21	1	625	653
Vehicles Entered	4	5	28	9	5	10	20	414	5	995	1495
Vehicles Exited	4	5	29	9	5	10	20	414	5	994	1495
Hourly Exit Rate	4	5	29	9	5	10	20	414	5	994	1495
Input Volume	5	5	30	10	5	10	20	414	5	1014	1516
% of Volume	84	105	96	88	105	103	101	100	100	98	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											528
Occupancy (veh)	0	0	0	0	0	0	0	1	0	9	12

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.4	3.5	0.1	0.1	0.2	0.0	0.0	0.2	0.1	0.0	0.3
Total Delay (hr)	0.0	0.0	0.4	0.1	0.1	0.2	0.2	0.0	0.1	0.4	0.0	1.5
Total Del/Veh (s)	31.5	29.3	16.5	37.3	9.7	9.3	1.8	1.2	5.5	1.7	1.0	3.4
Stop Delay (hr)	0.0	0.0	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.8
Stop Del/Veh (s)	29.3	25.6	16.1	35.7	9.7	6.2	0.1	0.2	2.7	0.0	0.0	1.8
Total Stops	4	5	95	6	24	46	2	1	20	3	0	206
Stop/Veh	1.00	1.00	0.99	1.00	1.00	0.72	0.00	0.01	0.42	0.00	0.00	0.13
Travel Dist (mi)	0.8	0.8	16.4	1.0	4.3	5.4	35.2	6.7	5.1	93.0	0.6	169.3
Travel Time (hr)	0.1	0.1	1.2	0.1	0.2	0.4	1.5	0.3	0.3	3.6	0.0	7.8
Avg Speed (mph)	12	12	15	10	19	14	23	20	19	26	23	22
Fuel Used (gal)	0.0	0.0	0.5	0.0	0.1	0.3	1.9	0.3	0.2	2.8	0.0	6.2
Fuel Eff. (mpg)	29.0	26.6	30.0	25.1	33.1	19.8	18.9	23.2	33.7	32.9	39.2	27.3
HC Emissions (g)	0	0	2	0	1	1	12	2	1	13	0	32
CO Emissions (g)	3	5	75	5	20	78	619	120	20	367	2	1313
NOx Emissions (g)	0	0	7	0	2	8	60	9	3	47	0	137
Vehicles Entered	4	5	95	6	24	63	411	77	48	895	6	1634
Vehicles Exited	4	5	95	6	24	63	410	78	48	895	6	1634
Hourly Exit Rate	4	5	95	6	24	63	410	78	48	895	6	1634
Input Volume	5	5	95	5	25	65	410	80	50	909	5	1654
% of Volume	80	105	100	114	97	97	100	97	96	98	114	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												655
Occupancy (veh)	0	0	1	0	0	0	2	0	0	4	0	8

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.4	0.2	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay (hr)	1.3	2.3	0.7	3.8	4.0	1.0	3.3	2.2	0.3	1.8	5.6	0.4
Total Del/Veh (s)	34.6	41.5	10.3	35.2	36.8	33.3	49.8	27.6	6.7	42.9	31.6	6.1
Stop Delay (hr)	1.2	1.9	0.6	3.2	3.2	0.9	2.9	1.7	0.2	1.6	4.5	0.2
Stop Del/Veh (s)	30.2	34.3	8.2	29.6	29.5	28.1	44.4	21.5	5.2	38.5	25.9	4.2
Total Stops	127	143	183	326	270	84	221	177	96	140	396	134
Stop/Veh	0.91	0.72	0.75	0.85	0.70	0.76	0.94	0.61	0.66	0.92	0.63	0.63
Travel Dist (mi)	23.7	32.9	41.6	36.9	36.3	10.7	29.6	36.7	18.9	12.8	51.2	17.7
Travel Time (hr)	2.1	3.1	2.1	5.2	5.3	1.5	4.2	3.2	1.0	2.3	7.0	1.1
Avg Speed (mph)	11	10	20	7	7	7	7	11	20	6	7	16
Fuel Used (gal)	1.1	1.6	1.5	1.9	1.9	0.5	1.7	1.7	0.7	0.8	3.1	0.7
Fuel Eff. (mpg)	21.5	20.2	28.1	19.1	19.3	20.7	17.5	21.8	28.6	15.3	16.4	26.6
HC Emissions (g)	7	9	11	4	3	1	6	9	4	2	13	4
CO Emissions (g)	450	604	717	282	215	57	389	605	291	153	892	268
NOx Emissions (g)	26	37	43	24	19	5	29	39	18	12	57	18
Vehicles Entered	138	197	241	379	385	109	229	284	146	150	627	211
Vehicles Exited	139	198	242	381	385	110	231	284	146	152	627	212
Hourly Exit Rate	139	198	242	381	385	110	231	284	146	152	627	212
Input Volume	140	193	235	380	382	105	230	290	150	155	626	220
% of Volume	99	103	103	100	101	105	100	98	97	98	100	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	3	2	5	5	1	4	3	1	2	7	1

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	26.6
Total Del/Veh (s)	30.5
Stop Delay (hr)	22.1
Stop Del/Veh (s)	25.4
Total Stops	2297
Stop/Veh	0.73
Travel Dist (mi)	349.0
Travel Time (hr)	38.1
Avg Speed (mph)	9
Fuel Used (gal)	17.2
Fuel Eff. (mpg)	20.3
HC Emissions (g)	73
CO Emissions (g)	4924
NOx Emissions (g)	327
Vehicles Entered	3096
Vehicles Exited	3107
Hourly Exit Rate	3107
Input Volume	3104
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	205
Occupancy (veh)	38

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.7	2.9	0.2	0.2	4.3	0.1	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	1.1	0.5	1.1	0.4	0.1	0.0	0.5	0.8	0.0	0.2	2.4	0.1
Total Del/Veh (s)	45.4	49.7	18.9	49.5	49.6	5.4	18.0	5.1	1.0	13.0	8.0	4.4
Stop Delay (hr)	1.0	0.4	1.0	0.4	0.1	0.0	0.4	0.5	0.0	0.1	1.1	0.0
Stop Del/Veh (s)	41.1	44.2	16.7	47.0	46.0	4.5	15.6	3.1	0.8	8.7	3.6	1.2
Total Stops	71	29	176	25	4	9	74	106	2	34	190	21
Stop/Veh	0.82	0.88	0.86	0.86	0.80	1.00	0.81	0.19	0.20	0.65	0.18	0.23
Travel Dist (mi)	21.0	8.0	50.2	3.0	0.5	1.0	11.2	68.9	1.2	6.8	137.0	12.1
Travel Time (hr)	1.9	0.7	3.1	0.5	0.1	0.1	0.8	2.5	0.0	0.4	6.5	0.6
Avg Speed (mph)	11	11	17	6	6	18	14	27	27	16	21	21
Fuel Used (gal)	0.8	0.3	1.6	0.2	0.0	0.0	0.3	1.8	0.0	0.4	8.0	0.6
Fuel Eff. (mpg)	25.2	24.3	30.6	16.7	18.0	26.7	35.3	39.1	53.6	18.2	17.2	20.7
HC Emissions (g)	3	1	7	1	0	0	1	9	0	3	61	4
CO Emissions (g)	99	41	248	35	5	10	65	410	4	186	4274	281
NOx Emissions (g)	10	4	23	2	0	1	5	45	0	12	280	20
Vehicles Entered	85	32	203	29	5	9	91	555	10	52	1057	92
Vehicles Exited	85	32	204	29	5	9	90	555	10	52	1055	91
Hourly Exit Rate	85	32	204	29	5	9	90	555	10	52	1055	91
Input Volume	85	30	205	30	5	10	90	565	10	50	1045	95
% of Volume	100	106	100	97	100	92	100	98	100	105	101	96
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	1	3	1	0	0	1	3	0	0	6	1

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	7.0
Total Del/Veh (s)	11.3
Stop Delay (hr)	4.9
Stop Del/Veh (s)	7.9
Total Stops	741
Stop/Veh	0.33
Travel Dist (mi)	321.0
Travel Time (hr)	17.3
Avg Speed (mph)	19
Fuel Used (gal)	14.1
Fuel Eff. (mpg)	22.8
HC Emissions (g)	90
CO Emissions (g)	5658
NOx Emissions (g)	402
Vehicles Entered	2220
Vehicles Exited	2217
Hourly Exit Rate	2217
Input Volume	2220
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	514
Occupancy (veh)	17

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.1	0.1	4.4	3.3	0.2	2.6	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.1	0.3	0.0	0.0	0.2	0.0	0.0	0.8	0.0	1.5
Total Del/Veh (s)	74.6	19.5	28.3	4.6	13.4	1.1	1.4	5.7	2.2	1.5	2.6
Stop Delay (hr)	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	72.4	19.2	26.4	4.6	12.6	0.0	0.0	3.6	0.1	0.1	0.9
Total Stops	4	18	32	5	3	0	0	9	0	0	71
Stop/Veh	1.00	1.00	0.97	1.00	0.75	0.00	0.00	0.53	0.00	0.00	0.04
Travel Dist (mi)	0.5	2.1	3.7	0.6	1.3	179.9	8.7	2.1	155.9	0.8	355.6
Travel Time (hr)	0.1	0.2	0.4	0.0	0.0	3.9	0.2	0.1	5.0	0.0	10.0
Avg Speed (mph)	5	12	9	19	28	47	42	21	31	26	36
Fuel Used (gal)	0.0	0.1	0.2	0.0	0.0	4.8	0.3	0.1	5.9	0.0	11.4
Fuel Eff. (mpg)	15.5	27.7	23.8	31.9	37.0	37.5	30.7	25.6	26.4	30.6	31.2
HC Emissions (g)	0	0	1	0	0	31	3	1	45	0	81
CO Emissions (g)	5	12	27	4	9	1844	183	39	2883	11	5017
NOx Emissions (g)	0	1	2	0	1	196	11	3	195	1	411
Vehicles Entered	4	18	32	5	4	632	30	17	1239	6	1987
Vehicles Exited	4	17	32	5	4	631	30	17	1241	6	1987
Hourly Exit Rate	4	17	32	5	4	631	30	17	1241	6	1987
Input Volume	5	15	35	5	5	640	30	15	1236	5	1989
% of Volume	76	115	92	105	84	99	101	115	100	120	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											983
Occupancy (veh)	0	0	0	0	0	4	0	0	5	0	10

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.2	0.3	0.2	0.0	0.0	0.0	0.1	0.1	4.3	0.1	0.1
Total Delay (hr)	0.0	1.2	0.0	0.1	1.2	0.0	0.1	0.0	0.0	0.0	2.8
Total Del/Veh (s)	20.0	8.0	2.9	9.5	6.0	3.4	17.4	4.2	13.4	5.1	7.0
Stop Delay (hr)	0.0	0.4	0.0	0.1	0.3	0.0	0.1	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	17.7	2.6	1.4	6.2	1.6	1.4	15.3	4.0	12.0	5.3	2.6
Total Stops	3	165	11	37	169	5	25	14	6	8	443
Stop/Veh	1.00	0.31	0.38	0.77	0.23	0.42	0.83	0.74	0.75	0.73	0.31
Travel Dist (mi)	0.5	81.6	4.3	8.3	128.3	2.1	2.8	1.8	0.9	1.3	231.9
Travel Time (hr)	0.0	2.7	0.1	0.4	5.1	0.1	0.3	0.1	0.1	0.1	9.0
Avg Speed (mph)	17	30	30	20	25	24	11	18	14	19	26
Fuel Used (gal)	0.0	2.8	0.1	0.4	6.6	0.1	0.1	0.0	0.0	0.0	10.3
Fuel Eff. (mpg)	25.9	29.0	31.7	19.5	19.5	21.0	28.2	39.8	30.2	38.2	22.6
HC Emissions (g)	0	27	1	4	59	1	0	0	0	0	93
CO Emissions (g)	14	2004	106	273	4245	67	18	5	3	3	6738
NOx Emissions (g)	1	96	5	14	227	3	1	1	0	0	348
Vehicles Entered	3	536	29	47	738	12	30	19	7	11	1432
Vehicles Exited	3	537	29	48	740	12	30	19	8	11	1437
Hourly Exit Rate	3	537	29	48	740	12	30	19	8	11	1437
Input Volume	5	525	30	50	740	15	30	20	10	10	1435
% of Volume	63	102	97	96	100	79	100	96	78	110	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											925
Occupancy (veh)	0	3	0	0	5	0	0	0	0	0	9

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.7	0.1	0.5
Total Delay (hr)	0.0	0.3	0.5	0.2	1.0
Total Del/Veh (s)	8.2	1.8	2.3	12.5	2.5
Stop Delay (hr)	0.0	0.1	0.1	0.2	0.3
Stop Del/Veh (s)	5.2	0.4	0.5	12.0	0.9
Total Stops	6	9	22	49	86
Stop/Veh	0.60	0.02	0.03	0.98	0.06
Travel Dist (mi)	0.9	48.1	134.9	3.5	187.4
Travel Time (hr)	0.1	2.1	5.2	0.3	7.7
Avg Speed (mph)	15	23	27	11	25
Fuel Used (gal)	0.0	2.5	3.9	0.1	6.5
Fuel Eff. (mpg)	19.8	19.2	35.0	28.4	28.7
HC Emissions (g)	0	16	18	0	34
CO Emissions (g)	15	801	477	21	1314
NOx Emissions (g)	1	78	53	2	134
Vehicles Entered	9	517	800	50	1376
Vehicles Exited	9	518	800	50	1377
Hourly Exit Rate	9	518	800	50	1377
Input Volume	10	516	795	50	1372
% of Volume	88	100	101	100	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					239
Occupancy (veh)	0	2	5	0	8

Total Network Performance

Denied Delay (hr)	3.8
Denied Del/Veh (s)	3.1
Total Delay (hr)	70.5
Total Del/Veh (s)	56.8
Stop Delay (hr)	55.0
Stop Del/Veh (s)	44.3
Total Stops	5036
Stop/Veh	1.13
Travel Dist (mi)	3427.9
Travel Time (hr)	186.0
Avg Speed (mph)	19
Fuel Used (gal)	130.2
Fuel Eff. (mpg)	26.3
HC Emissions (g)	1343
CO Emissions (g)	45151
NOx Emissions (g)	4269
Vehicles Entered	4298
Vehicles Exited	4297
Hourly Exit Rate	4297
Input Volume	19560
% of Volume	22
Denied Entry Before	0
Denied Entry After	9
Density (ft/veh)	377
Occupancy (veh)	182

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	35	85	208	260	68	127	73	189
Average Queue (ft)	10	38	93	43	18	55	20	87
95th Queue (ft)	33	70	183	165	50	105	50	153
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		0	12	0		1		0
Queuing Penalty (veh)		0	14	0		0		0

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	LTR	L	TR	TR
Maximum Queue (ft)	208	824	288	122	613	273
Average Queue (ft)	16	413	97	58	101	46
95th Queue (ft)	120	935	274	122	500	134
Link Distance (ft)		778	880		1248	1912
Upstream Blk Time (%)		26			0	
Queuing Penalty (veh)		0			2	
Storage Bay Dist (ft)	190			100		
Storage Blk Time (%)		56		13	0	1
Queuing Penalty (veh)		3		46	0	0

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	LTR	L	TR	L
Maximum Queue (ft)	32	68	108	46	25	25
Average Queue (ft)	4	20	24	10	2	2
95th Queue (ft)	20	50	84	37	32	14
Link Distance (ft)		1086	403		431	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	115			100		100
Storage Blk Time (%)		0		0	0	
Queuing Penalty (veh)		0		0	0	

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	R	L	TR
Maximum Queue (ft)	42	120	65	61	15	5	56	42
Average Queue (ft)	9	44	14	24	1	0	14	3
95th Queue (ft)	33	89	44	51	11	3	42	24
Link Distance (ft)	915		940		380	380		431
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		215		135			100	
Storage Blk Time (%)		0						0
Queuing Penalty (veh)		0						0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	T	R	L	T	T
Maximum Queue (ft)	171	232	148	384	460	289	268	183	108	219	309	300
Average Queue (ft)	73	112	57	213	269	153	102	44	33	101	158	160
95th Queue (ft)	136	200	106	379	429	263	205	120	76	209	263	248
Link Distance (ft)		845	845		462		606	606				380
Upstream Blk Time (%)					1							0
Queuing Penalty (veh)					10							0
Storage Bay Dist (ft)	500			275		300			100	150		225
Storage Blk Time (%)				5	8	1		1	0	5	10	1
Queuing Penalty (veh)				26	35	2		2	0	41	66	6

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	SB
Directions Served	R
Maximum Queue (ft)	171
Average Queue (ft)	51
95th Queue (ft)	106
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	225
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	275	233	86	20	109	163	118	15	118	230	236	85
Average Queue (ft)	82	70	24	5	40	54	34	1	22	65	78	11
95th Queue (ft)	191	170	62	19	83	122	89	9	70	171	184	52
Link Distance (ft)	1295		552			590	590			606	606	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	5	4	1			0				0	2	
Queuing Penalty (veh)	19	10	0			0				0	3	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	L	TR
Maximum Queue (ft)	78	63	22	28	12	25	8
Average Queue (ft)	19	21	3	3	1	6	0
95th Queue (ft)	55	52	15	16	13	22	6
Link Distance (ft)	640	600			1500		590
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200	50		170	
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	30	117	96	56	75	100	30	58	42	26	24
Average Queue (ft)	3	48	42	24	36	53	4	20	12	4	5
95th Queue (ft)	18	92	80	50	68	87	20	50	36	19	19
Link Distance (ft)		800	800		845	845		492	492		648
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			250			125			55	
Storage Blk Time (%)		0				0				0	0
Queuing Penalty (veh)		0				0				0	0

Intersection: 11: 2600 N & 450 E

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	124	192	78
Average Queue (ft)	14	15	29
95th Queue (ft)	68	117	59
Link Distance (ft)	462	888	373
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 285

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Denied Del/Veh (s)	1.9	0.2	0.2	2.1	0.5	0.5	0.3	0.0	0.0	3.5	1.9	0.5
Total Delay (hr)	0.0	0.2	0.2	2.1	0.2	0.1	0.1	0.4	0.1	0.2	1.6	0.1
Total Del/Veh (s)	13.7	13.4	11.1	33.3	17.5	8.4	12.4	7.6	6.7	19.5	17.3	22.0
Stop Delay (hr)	0.0	0.1	0.2	1.9	0.2	0.0	0.1	0.2	0.1	0.2	1.2	0.1
Stop Del/Veh (s)	11.5	10.0	10.0	29.4	13.1	6.0	7.9	3.6	3.4	16.7	13.2	19.5
Total Stops	10	29	50	220	31	17	29	65	42	29	190	10
Stop/Veh	0.77	0.59	0.71	0.95	0.69	0.77	0.83	0.35	0.55	0.78	0.58	0.59
Travel Dist (mi)	4.4	16.1	22.9	63.2	12.3	6.2	13.0	62.1	28.6	6.2	55.5	2.9
Travel Time (hr)	0.2	0.7	1.0	4.5	0.6	0.3	0.6	2.5	1.2	0.5	3.6	0.2
Avg Speed (mph)	22	22	22	14	19	22	22	25	25	15	16	13
Fuel Used (gal)	0.1	0.5	0.7	2.2	0.4	0.2	0.4	1.8	0.8	0.2	1.9	0.1
Fuel Eff. (mpg)	32.8	33.4	33.8	28.6	30.5	33.9	34.0	33.8	35.2	27.2	28.5	28.1
HC Emissions (g)	1	2	3	8	2	1	2	79	4	1	8	0
CO Emissions (g)	17	71	83	266	66	24	38	1274	79	45	329	14
NOx Emissions (g)	2	7	9	27	6	3	5	213	11	4	29	1
Vehicles Entered	13	48	68	229	45	22	34	184	74	36	326	17
Vehicles Exited	13	48	67	226	44	22	35	184	75	37	322	17
Hourly Exit Rate	13	48	67	226	44	22	35	184	75	37	322	17
Input Volume	15	50	70	225	45	20	35	190	75	35	335	15
% of Volume	88	96	95	100	97	111	101	97	100	106	96	115
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	3	0
Density (ft/veh)												
Occupancy (veh)	0	1	1	4	1	0	1	2	1	0	3	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	1.2
Total Delay (hr)	5.4
Total Del/Veh (s)	17.5
Stop Delay (hr)	4.3
Stop Del/Veh (s)	13.9
Total Stops	722
Stop/Veh	0.65
Travel Dist (mi)	293.3
Travel Time (hr)	15.9
Avg Speed (mph)	19
Fuel Used (gal)	9.4
Fuel Eff. (mpg)	31.2
HC Emissions (g)	110
CO Emissions (g)	2304
NOx Emissions (g)	318
Vehicles Entered	1096
Vehicles Exited	1090
Hourly Exit Rate	1090
Input Volume	1109
% of Volume	98
Denied Entry Before	0
Denied Entry After	3
Density (ft/veh)	783
Occupancy (veh)	16

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.5	0.0	0.0	0.0	0.1	0.3	0.0	0.4	0.0	1.3
Denied Del/Veh (s)	19.9	16.0	11.1	0.1	0.3	0.2	2.7	2.7	1.3	2.1	0.3	3.4
Total Delay (hr)	0.3	0.3	5.1	1.3	0.4	0.2	1.5	2.3	0.1	3.1	0.0	14.7
Total Del/Veh (s)	278.2	229.6	107.9	188.7	301.6	160.8	67.4	23.5	10.2	15.5	4.6	37.4
Stop Delay (hr)	0.3	0.3	5.1	1.3	0.4	0.2	1.4	2.1	0.1	2.3	0.0	13.5
Stop Del/Veh (s)	275.2	228.9	109.3	186.5	297.9	160.3	63.7	21.3	9.7	11.2	1.0	34.5
Total Stops	5	4	159	25	5	5	74	36	4	62	1	380
Stop/Veh	1.25	0.80	0.94	1.00	1.00	1.00	0.92	0.10	0.10	0.09	0.17	0.27
Travel Dist (mi)	0.6	0.7	24.6	4.0	0.8	0.8	19.0	75.5	9.3	239.2	1.9	376.5
Travel Time (hr)	0.4	0.4	6.6	1.5	0.4	0.3	2.2	5.1	0.5	11.8	0.1	29.1
Avg Speed (mph)	2	2	4	3	2	3	9	16	20	21	24	14
Fuel Used (gal)	0.1	0.1	1.9	0.4	0.1	0.1	0.9	2.8	0.3	8.6	0.1	15.3
Fuel Eff. (mpg)	7.2	7.4	12.6	9.8	7.3	10.8	22.0	27.2	34.8	27.9	30.9	24.7
HC Emissions (g)	2	3	45	9	5	2	17	66	5	205	1	360
CO Emissions (g)	36	37	833	166	68	37	283	1150	84	3799	24	6518
NOx Emissions (g)	3	3	86	18	5	4	34	158	12	536	3	863
Vehicles Entered	4	4	166	24	5	5	78	342	39	720	6	1393
Vehicles Exited	4	4	163	23	4	5	76	338	39	713	6	1375
Hourly Exit Rate	4	4	163	23	4	5	76	338	39	713	6	1375
Input Volume	5	5	160	25	5	5	80	345	40	735	5	1410
% of Volume	76	80	102	91	84	105	95	98	98	97	126	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	2	0	0	0	0	1	0	3	0	6
Density (ft/veh)												369
Occupancy (veh)	0	0	6	1	0	0	2	5	0	11	0	28

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.7	0.0	0.1
Total Delay (hr)	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.4	0.0	0.5	1.4
Total Del/Veh (s)	36.7	43.1	15.6	29.4	40.0	12.5	20.2	3.6	10.9	1.7	3.4
Stop Delay (hr)	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.0	0.0	0.9
Stop Del/Veh (s)	35.1	39.2	15.5	27.4	36.4	11.8	18.3	3.0	7.4	0.1	2.1
Total Stops	4	5	29	11	5	10	16	2	2	0	84
Stop/Veh	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.00	0.40	0.00	0.06
Travel Dist (mi)	0.8	1.1	6.0	0.8	0.4	0.8	1.7	37.6	1.1	225.4	275.6
Travel Time (hr)	0.1	0.1	0.4	0.1	0.1	0.1	0.2	1.7	0.1	8.4	11.1
Avg Speed (mph)	12	11	17	7	6	11	10	22	20	27	25
Fuel Used (gal)	0.0	0.0	0.2	0.0	0.0	0.0	0.1	1.3	0.0	7.7	9.4
Fuel Eff. (mpg)	25.7	26.0	32.2	20.8	19.3	24.8	24.7	28.6	30.8	29.3	29.2
HC Emissions (g)	0	0	1	0	0	0	0	6	0	242	250
CO Emissions (g)	3	5	24	5	2	7	9	214	5	4631	4906
NOx Emissions (g)	0	0	3	0	0	1	1	24	1	660	690
Vehicles Entered	4	5	29	11	5	10	19	414	5	991	1493
Vehicles Exited	4	5	29	11	5	10	18	412	5	991	1490
Hourly Exit Rate	4	5	29	11	5	10	18	412	5	991	1490
Input Volume	5	5	30	10	5	10	20	414	5	1014	1516
% of Volume	84	105	96	107	105	103	91	100	100	98	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											717
Occupancy (veh)	0	0	0	0	0	0	0	2	0	8	11

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.4	3.7	0.1	0.1	0.2	0.1	0.4	0.1	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	0.2	0.1	0.0	0.2	0.5	0.1	0.1	0.2	0.0	1.5
Total Del/Veh (s)	47.3	41.5	7.5	35.2	4.9	10.1	4.3	3.3	7.0	0.9	0.7	3.2
Stop Delay (hr)	0.1	0.1	0.2	0.1	0.0	0.1	0.3	0.0	0.1	0.0	0.0	0.9
Stop Del/Veh (s)	45.4	38.0	7.0	32.9	4.6	6.8	2.3	2.1	4.6	0.0	0.0	2.0
Total Stops	4	6	99	6	29	46	5	2	21	5	0	223
Stop/Veh	1.00	1.00	0.99	1.00	1.00	0.70	0.01	0.03	0.42	0.01	0.00	0.13
Travel Dist (mi)	0.7	1.0	16.9	1.2	5.1	5.8	35.6	6.8	5.3	92.0	0.6	171.0
Travel Time (hr)	0.1	0.1	1.0	0.1	0.2	0.4	1.9	0.4	0.3	3.4	0.0	7.9
Avg Speed (mph)	9	10	20	12	22	13	19	17	18	27	23	22
Fuel Used (gal)	0.0	0.0	0.5	0.0	0.1	0.3	1.9	0.3	0.2	2.8	0.0	6.2
Fuel Eff. (mpg)	22.8	24.7	32.8	27.2	35.7	20.8	18.5	23.0	31.9	33.2	38.5	27.5
HC Emissions (g)	0	0	2	0	1	1	12	2	1	14	0	33
CO Emissions (g)	3	4	76	6	20	69	634	110	24	435	2	1385
NOx Emissions (g)	0	0	7	0	2	8	59	9	3	48	0	138
Vehicles Entered	4	6	99	6	28	66	414	78	50	889	6	1646
Vehicles Exited	4	6	100	6	28	66	412	78	50	889	6	1645
Hourly Exit Rate	4	6	100	6	28	66	412	78	50	889	6	1645
Input Volume	5	5	95	5	25	65	410	80	50	909	5	1654
% of Volume	80	126	105	114	113	102	101	97	100	98	114	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												720
Occupancy (veh)	0	0	1	0	0	0	2	0	0	3	0	8

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.0	2.6	1.1	4.4	4.2	0.7	4.2	1.7	0.2	2.4	4.4	1.4
Total Del/Veh (s)	50.0	48.1	16.8	41.1	37.7	23.5	63.4	21.6	4.2	55.6	25.6	23.2
Stop Delay (hr)	1.9	2.2	0.9	4.0	3.7	0.6	3.9	1.3	0.1	2.3	3.4	1.2
Stop Del/Veh (s)	45.9	41.4	14.1	37.5	33.3	21.5	58.8	16.3	2.9	52.1	19.8	19.1
Total Stops	128	154	206	311	288	83	234	152	80	148	352	142
Stop/Veh	0.88	0.79	0.86	0.81	0.73	0.78	0.98	0.52	0.53	0.94	0.57	0.64
Travel Dist (mi)	24.5	31.3	40.7	36.2	36.3	10.1	29.5	36.6	19.2	12.8	49.0	18.2
Travel Time (hr)	2.8	3.4	2.4	5.8	5.4	1.1	5.2	2.7	0.9	2.9	5.8	2.2
Avg Speed (mph)	9	9	17	6	7	9	6	13	22	4	8	8
Fuel Used (gal)	1.3	1.6	1.6	2.1	1.9	0.4	1.9	1.6	0.6	1.0	2.7	0.8
Fuel Eff. (mpg)	18.5	19.0	24.8	17.6	18.7	24.5	15.4	23.2	29.9	13.0	18.5	22.6
HC Emissions (g)	7	9	12	5	5	1	7	9	5	3	11	2
CO Emissions (g)	526	626	812	320	280	66	477	582	323	209	795	142
NOx Emissions (g)	29	37	47	24	22	5	30	39	19	13	49	10
Vehicles Entered	143	189	237	377	387	104	235	290	152	156	613	219
Vehicles Exited	142	189	239	378	387	105	236	289	152	156	614	220
Hourly Exit Rate	142	189	239	378	387	105	236	289	152	156	614	220
Input Volume	140	193	235	380	382	105	230	290	150	155	626	220
% of Volume	102	98	102	100	101	100	102	100	102	101	98	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	3	3	2	6	5	1	5	3	1	3	6	2

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	29.4
Total Del/Veh (s)	33.6
Stop Delay (hr)	25.6
Stop Del/Veh (s)	29.2
Total Stops	2278
Stop/Veh	0.72
Travel Dist (mi)	344.4
Travel Time (hr)	40.7
Avg Speed (mph)	8
Fuel Used (gal)	17.6
Fuel Eff. (mpg)	19.6
HC Emissions (g)	76
CO Emissions (g)	5158
NOx Emissions (g)	324
Vehicles Entered	3102
Vehicles Exited	3107
Hourly Exit Rate	3107
Input Volume	3104
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	271
Occupancy (veh)	41

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.8	0.7	3.0	0.2	0.2	3.9	0.1	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	1.1	0.4	1.2	0.4	0.1	0.0	0.5	0.8	0.0	0.2	1.7	0.1
Total Del/Veh (s)	44.4	50.5	21.1	48.1	47.7	5.7	21.8	5.2	1.1	13.4	5.9	4.0
Stop Delay (hr)	1.0	0.4	1.1	0.4	0.1	0.0	0.5	0.5	0.0	0.1	0.7	0.0
Stop Del/Veh (s)	40.1	45.0	19.1	45.7	44.0	4.9	19.3	3.1	0.9	9.9	2.3	0.9
Total Stops	71	26	175	26	4	10	75	112	3	31	119	16
Stop/Veh	0.83	0.84	0.85	0.87	0.80	0.83	0.85	0.20	0.25	0.69	0.11	0.17
Travel Dist (mi)	20.5	7.3	50.1	3.1	0.5	1.2	10.8	70.8	1.4	5.9	135.9	12.6
Travel Time (hr)	1.8	0.7	3.2	0.5	0.1	0.1	0.9	2.6	0.1	0.4	5.9	0.6
Avg Speed (mph)	11	11	16	6	6	17	12	27	28	15	23	21
Fuel Used (gal)	0.8	0.3	1.7	0.2	0.0	0.0	0.3	1.9	0.0	0.3	7.8	0.6
Fuel Eff. (mpg)	25.4	24.6	29.8	16.8	17.2	27.2	32.8	38.0	53.8	18.2	17.4	20.3
HC Emissions (g)	3	1	7	1	0	0	1	10	0	2	62	5
CO Emissions (g)	100	38	248	31	6	12	68	472	4	168	4319	307
NOx Emissions (g)	9	3	23	2	0	1	5	49	1	10	278	21
Vehicles Entered	84	30	204	29	5	12	88	570	12	45	1041	95
Vehicles Exited	83	30	203	30	5	12	88	571	12	45	1042	95
Hourly Exit Rate	83	30	203	30	5	12	88	571	12	45	1042	95
Input Volume	85	30	205	30	5	10	90	565	10	50	1045	95
% of Volume	97	99	99	101	100	123	98	101	120	90	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	1	3	1	0	0	1	3	0	0	6	1

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.3
Total Delay (hr)	6.5
Total Del/Veh (s)	10.6
Stop Delay (hr)	4.7
Stop Del/Veh (s)	7.6
Total Stops	668
Stop/Veh	0.30
Travel Dist (mi)	320.3
Travel Time (hr)	16.9
Avg Speed (mph)	19
Fuel Used (gal)	14.0
Fuel Eff. (mpg)	22.8
HC Emissions (g)	91
CO Emissions (g)	5771
NOx Emissions (g)	403
Vehicles Entered	2215
Vehicles Exited	2216
Hourly Exit Rate	2216
Input Volume	2220
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	524
Occupancy (veh)	17

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.1	3.8	2.6	0.3	2.8	0.0	0.0	0.0	0.2
Total Delay (hr)	0.1	0.1	0.3	0.0	0.0	0.2	0.0	0.0	0.6	0.0	1.4
Total Del/Veh (s)	75.8	19.8	31.5	4.1	10.7	1.2	1.4	5.6	1.9	1.1	2.5
Stop Delay (hr)	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	73.6	19.5	29.4	3.9	9.7	0.0	0.0	3.7	0.1	0.0	1.0
Total Stops	4	15	34	6	4	0	0	9	1	0	73
Stop/Veh	1.00	1.00	0.97	1.00	0.80	0.00	0.00	0.56	0.00	0.00	0.04
Travel Dist (mi)	0.5	1.8	3.9	0.6	1.3	182.9	9.6	1.9	154.2	0.8	357.6
Travel Time (hr)	0.1	0.2	0.5	0.0	0.0	4.0	0.3	0.1	4.8	0.0	10.0
Avg Speed (mph)	5	12	9	19	29	47	41	21	32	27	36
Fuel Used (gal)	0.0	0.1	0.2	0.0	0.0	4.9	0.3	0.1	5.5	0.0	11.2
Fuel Eff. (mpg)	15.9	27.6	22.1	31.0	35.5	37.3	30.6	28.0	27.8	32.8	32.0
HC Emissions (g)	0	0	1	0	0	32	3	0	41	0	78
CO Emissions (g)	5	10	35	5	15	1930	188	29	2590	11	4817
NOx Emissions (g)	0	1	3	0	1	201	12	2	179	1	400
Vehicles Entered	4	15	34	6	5	642	34	15	1228	6	1989
Vehicles Exited	4	15	35	6	4	643	34	16	1228	6	1991
Hourly Exit Rate	4	15	35	6	4	643	34	16	1228	6	1991
Input Volume	5	15	35	5	5	640	30	15	1236	5	1989
% of Volume	76	102	101	126	84	100	114	108	99	120	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											987
Occupancy (veh)	0	0	0	0	0	4	0	0	5	0	10

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	3.8	0.2	0.2	0.0	0.0	0.0	0.1	0.1	4.1	0.1	0.1
Total Delay (hr)	0.0	1.2	0.0	0.1	1.4	0.0	0.1	0.0	0.0	0.0	3.0
Total Del/Veh (s)	15.6	8.1	3.7	9.3	6.7	4.4	16.6	4.2	15.9	7.2	7.5
Stop Delay (hr)	0.0	0.4	0.0	0.1	0.3	0.0	0.1	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	13.2	2.6	2.1	5.1	1.3	0.8	14.6	4.0	14.4	7.7	2.4
Total Stops	3	167	14	37	143	3	22	14	9	8	420
Stop/Veh	1.00	0.32	0.47	0.70	0.19	0.20	0.76	0.74	0.82	0.80	0.29
Travel Dist (mi)	0.5	80.0	4.5	9.3	131.2	2.7	2.6	1.7	1.3	1.2	235.2
Travel Time (hr)	0.0	2.7	0.2	0.5	5.3	0.1	0.2	0.1	0.1	0.1	9.3
Avg Speed (mph)	19	30	29	20	25	23	11	18	14	17	25
Fuel Used (gal)	0.0	2.7	0.1	0.5	6.6	0.1	0.1	0.0	0.0	0.0	10.3
Fuel Eff. (mpg)	25.5	29.2	31.1	19.7	19.9	22.0	28.4	40.0	29.3	36.1	22.9
HC Emissions (g)	0	27	1	4	54	1	0	0	0	0	88
CO Emissions (g)	17	1984	103	275	3822	64	14	4	5	4	6292
NOx Emissions (g)	1	94	5	16	226	4	1	1	1	0	348
Vehicles Entered	3	527	30	53	748	15	28	19	11	10	1444
Vehicles Exited	3	526	30	52	749	15	29	19	11	10	1444
Hourly Exit Rate	3	526	30	52	749	15	29	19	11	10	1444
Input Volume	5	525	30	50	740	15	30	20	10	10	1435
% of Volume	63	100	100	103	101	98	97	96	107	100	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											890
Occupancy (veh)	0	3	0	0	5	0	0	0	0	0	9

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.0	0.0	0.1	0.0
Total Delay (hr)	0.0	0.3	0.1	0.1	0.5
Total Del/Veh (s)	8.4	2.0	0.4	4.9	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
Stop Del/Veh (s)	5.1	0.3	0.0	4.6	0.3
Total Stops	6	4	1	49	60
Stop/Veh	0.60	0.01	0.00	0.98	0.04
Travel Dist (mi)	0.9	48.4	34.6	3.3	87.2
Travel Time (hr)	0.1	2.2	1.3	0.2	3.8
Avg Speed (mph)	15	22	27	15	23
Fuel Used (gal)	0.0	2.7	1.0	0.1	3.8
Fuel Eff. (mpg)	19.2	18.2	33.3	37.4	22.8
HC Emissions (g)	0	18	8	0	27
CO Emissions (g)	15	950	182	13	1161
NOx Emissions (g)	1	86	25	1	114
Vehicles Entered	10	519	814	49	1392
Vehicles Exited	10	519	814	49	1392
Hourly Exit Rate	10	519	814	49	1392
Input Volume	10	516	811	50	1388
% of Volume	98	101	100	98	100
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0
Density (ft/veh)					575
Occupancy (veh)	0	2	1	0	4

29: 2600 N Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.2	0.2
Denied Del/Veh (s)	0.0	0.0	0.7	0.4
Total Delay (hr)	0.0	0.0	0.2	0.2
Total Del/Veh (s)	0.3	0.3	0.8	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0
Total Stops	0	0	0	0
Stop/Veh	0.00	0.00	0.00	0.00
Travel Dist (mi)	18.1	2.8	100.9	121.8
Travel Time (hr)	0.6	0.1	3.7	4.5
Avg Speed (mph)	28	19	28	28
Fuel Used (gal)	0.5	0.0	3.0	3.6
Fuel Eff. (mpg)	33.0	68.8	33.9	34.1
HC Emissions (g)	7	0	31	38
CO Emissions (g)	135	5	640	780
NOx Emissions (g)	19	0	83	103
Vehicles Entered	412	63	798	1273
Vehicles Exited	412	63	799	1274
Hourly Exit Rate	412	63	799	1274
Input Volume	416	60	795	1271
% of Volume	99	105	100	100
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				270
Occupancy (veh)	1	0	4	4

Total Network Performance

Denied Delay (hr)	2.4
Denied Del/Veh (s)	2.0
Total Delay (hr)	65.3
Total Del/Veh (s)	52.0
Stop Delay (hr)	51.6
Stop Del/Veh (s)	41.1
Total Stops	4908
Stop/Veh	1.09
Travel Dist (mi)	3398.7
Travel Time (hr)	178.9
Avg Speed (mph)	19
Fuel Used (gal)	128.2
Fuel Eff. (mpg)	26.5
HC Emissions (g)	1364
CO Emissions (g)	45724
NOx Emissions (g)	4380
Vehicles Entered	4351
Vehicles Exited	4339
Hourly Exit Rate	4339
Input Volume	20847
% of Volume	21
Denied Entry Before	0
Denied Entry After	9
Density (ft/veh)	437
Occupancy (veh)	177

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	41	114	215	359	69	148	74	268
Average Queue (ft)	8	38	93	59	20	58	21	101
95th Queue (ft)	31	90	191	244	53	112	56	279
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								1
Queuing Penalty (veh)								0
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		1	15	0	0	1		2
Queuing Penalty (veh)		0	15	1	0	0		1

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	T	R	TR	
Maximum Queue (ft)	143	620	209	120	430	169	381	
Average Queue (ft)	13	195	63	49	80	41	94	
95th Queue (ft)	79	592	221	110	477	376	588	
Link Distance (ft)		780	868		1243	1243	1912	
Upstream Blk Time (%)		5			2	0	2	
Queuing Penalty (veh)		0			4	0	12	
Storage Bay Dist (ft)	190			100				
Storage Blk Time (%)		22		10	0		4	
Queuing Penalty (veh)		1		30	0		0	

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	T	R	L	TR
Maximum Queue (ft)	34	68	72	40	43	36	25	2
Average Queue (ft)	4	19	19	9	8	5	2	0
95th Queue (ft)	20	47	54	28	98	74	13	2
Link Distance (ft)		1074	391		432	432		1243
Upstream Blk Time (%)					1			
Queuing Penalty (veh)					3			
Storage Bay Dist (ft)	115			100			100	
Storage Blk Time (%)		0			2			
Queuing Penalty (veh)		0			0			

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	42	69	61	67	54	45	60	30	43
Average Queue (ft)	9	36	17	23	5	4	15	2	2
95th Queue (ft)	36	58	44	51	63	61	47	17	19
Link Distance (ft)	896		936		371	371		432	432
Upstream Blk Time (%)					1	1			
Queuing Penalty (veh)					2	2			
Storage Bay Dist (ft)		215		80			100		
Storage Blk Time (%)				0	1		0		
Queuing Penalty (veh)				0	1		0		

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	TR	L	L	T
Maximum Queue (ft)	142	120	155	126	188	202	227	231	226	171	187	177
Average Queue (ft)	68	44	88	58	81	112	138	138	131	86	98	76
95th Queue (ft)	120	97	143	117	146	181	209	207	204	154	167	146
Link Distance (ft)			849	849				457	457			588
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350	350			420	290	290			300	300	
Storage Blk Time (%)								0				0
Queuing Penalty (veh)								0				0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	R	L	L	T	TR
Maximum Queue (ft)	149	62	155	201	304	331
Average Queue (ft)	41	23	70	58	167	195
95th Queue (ft)	105	49	134	140	266	304
Link Distance (ft)	588				371	371
Upstream Blk Time (%)					0	0
Queuing Penalty (veh)					1	0
Storage Bay Dist (ft)		300	210	210		
Storage Blk Time (%)	0		0	0	3	
Queuing Penalty (veh)	0		0	0	5	

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	292	242	80	33	115	155	114	20	60	185	181	38
Average Queue (ft)	87	79	28	5	40	50	32	2	18	39	47	7
95th Queue (ft)	205	189	65	23	91	120	86	11	46	126	131	24
Link Distance (ft)	1289		546			590	590			588	588	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	4	6	0		0	0				0	1	
Queuing Penalty (veh)	15	12	0		0	0				0	1	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	T	L	T	TR
Maximum Queue (ft)	68	70	25	23	3	3	27	10	9
Average Queue (ft)	17	25	3	3	0	0	7	0	0
95th Queue (ft)	50	57	16	17	3	3	24	7	6
Link Distance (ft)	639	600			1500	1500		590	590
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			200	50			170		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	30	110	114	60	113	129	26	50	37	30	21
Average Queue (ft)	2	44	47	23	36	56	3	17	11	6	3
95th Queue (ft)	15	84	89	50	86	106	17	43	35	22	13
Link Distance (ft)		800	800		849	849		486	486		641
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			160			125			55	
Storage Blk Time (%)					0	0				0	
Queuing Penalty (veh)					0	0				0	

Intersection: 11: 2600 N & 450 E

Movement	EB	EB	EB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	38	20	3	26	50
Average Queue (ft)	6	2	0	1	23
95th Queue (ft)	27	23	3	14	46
Link Distance (ft)		457	457	185	352
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	50				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 29: 2600 N

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 107

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.5	0.2	0.2	2.0	0.4	0.3	0.0	0.0	0.0	3.2	0.3	0.4
Total Delay (hr)	0.2	0.2	0.1	0.5	0.2	0.0	0.2	1.3	0.3	0.1	0.8	0.1
Total Del/Veh (s)	14.9	11.7	5.6	16.0	10.9	5.6	13.3	11.3	9.3	19.3	9.8	5.9
Stop Delay (hr)	0.1	0.1	0.1	0.4	0.1	0.0	0.1	0.5	0.1	0.1	0.5	0.0
Stop Del/Veh (s)	12.4	8.2	4.5	13.3	7.6	4.5	6.7	4.6	4.0	16.9	6.1	4.0
Total Stops	32	40	38	94	33	13	38	181	51	23	145	20
Stop/Veh	0.80	0.69	0.72	0.87	0.63	0.68	0.83	0.44	0.52	0.92	0.51	0.57
Travel Dist (mi)	13.1	19.1	17.4	29.6	14.1	5.1	17.6	149.7	37.9	4.3	48.2	6.0
Travel Time (hr)	0.6	0.8	0.7	1.6	0.6	0.2	0.8	6.3	1.6	0.3	2.4	0.3
Avg Speed (mph)	21	23	25	19	22	24	23	24	24	15	20	21
Fuel Used (gal)	0.4	0.6	0.5	0.9	0.4	0.1	0.5	4.4	1.1	0.2	1.5	0.2
Fuel Eff. (mpg)	33.3	33.7	35.1	32.2	33.3	35.1	34.3	34.1	35.3	27.7	31.5	33.9
HC Emissions (g)	2	3	2	4	2	1	2	19	5	1	7	1
CO Emissions (g)	47	75	57	124	58	20	52	442	104	30	277	29
NOx Emissions (g)	6	8	7	13	6	2	7	61	14	2	25	3
Vehicles Entered	40	57	52	107	51	18	44	404	97	25	281	35
Vehicles Exited	39	57	52	107	52	19	45	404	97	25	281	35
Hourly Exit Rate	39	57	52	107	52	19	45	404	97	25	281	35
Input Volume	40	60	50	105	50	20	60	520	125	25	285	35
% of Volume	98	95	105	102	104	95	75	78	78	100	99	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	1	1	2	1	0	1	6	2	0	2	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	3.8
Total Del/Veh (s)	11.1
Stop Delay (hr)	2.2
Stop Del/Veh (s)	6.5
Total Stops	708
Stop/Veh	0.58
Travel Dist (mi)	362.1
Travel Time (hr)	16.4
Avg Speed (mph)	22
Fuel Used (gal)	10.8
Fuel Eff. (mpg)	33.6
HC Emissions (g)	48
CO Emissions (g)	1316
NOx Emissions (g)	154
Vehicles Entered	1211
Vehicles Exited	1213
Hourly Exit Rate	1213
Input Volume	1375
% of Volume	88
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	752
Occupancy (veh)	16

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.9	0.3	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.4	0.1	0.0
Total Delay (hr)	0.2	0.1	1.3	1.5	0.7	0.1	0.6	0.6	0.0	0.0	0.5	0.0
Total Del/Veh (s)	57.5	86.4	34.8	133.9	168.4	120.3	14.4	3.6	2.9	13.2	3.8	4.0
Stop Delay (hr)	0.2	0.1	1.3	1.5	0.7	0.1	0.4	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	55.1	83.2	35.1	132.7	165.8	120.9	9.8	0.0	0.1	9.0	0.2	1.2
Total Stops	11	5	130	40	15	4	97	1	0	3	2	3
Stop/Veh	1.00	1.00	0.98	0.98	0.94	1.00	0.70	0.00	0.00	0.60	0.00	0.19
Travel Dist (mi)	1.6	0.8	19.7	6.8	2.6	0.7	35.9	141.2	8.8	1.7	171.0	5.6
Travel Time (hr)	0.2	0.1	2.1	1.8	0.8	0.2	1.8	5.3	0.4	0.1	6.4	0.2
Avg Speed (mph)	7	5	9	4	3	4	20	27	25	21	27	25
Fuel Used (gal)	0.1	0.0	0.9	0.6	0.3	0.1	1.1	4.1	0.2	0.1	5.6	0.2
Fuel Eff. (mpg)	17.6	15.6	22.4	12.1	10.3	13.1	33.1	34.3	37.3	30.1	30.6	32.0
HC Emissions (g)	0	0	3	1	0	0	4	19	1	0	29	1
CO Emissions (g)	20	7	182	83	34	9	96	452	18	8	950	29
NOx Emissions (g)	1	0	13	5	2	1	14	60	3	1	109	3
Vehicles Entered	11	5	131	40	15	4	137	546	34	5	489	16
Vehicles Exited	11	5	132	40	15	4	137	546	34	5	490	16
Hourly Exit Rate	11	5	132	40	15	4	137	546	34	5	490	16
Input Volume	10	5	130	40	15	5	175	714	45	5	490	15
% of Volume	113	95	102	99	100	84	78	76	76	105	100	107
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	2	2	1	0	2	5	0	0	6	0

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	5.7
Total Del/Veh (s)	14.1
Stop Delay (hr)	4.4
Stop Del/Veh (s)	10.9
Total Stops	311
Stop/Veh	0.21
Travel Dist (mi)	396.3
Travel Time (hr)	19.5
Avg Speed (mph)	20
Fuel Used (gal)	13.2
Fuel Eff. (mpg)	30.1
HC Emissions (g)	61
CO Emissions (g)	1888
NOx Emissions (g)	214
Vehicles Entered	1433
Vehicles Exited	1435
Hourly Exit Rate	1435
Input Volume	1649
% of Volume	87
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	460
Occupancy (veh)	19

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.6	0.0	1.0
Total Del/Veh (s)	37.1	11.5	18.2	12.0	0.9	0.4	24.0	3.0	2.8	2.5
Stop Delay (hr)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.3
Stop Del/Veh (s)	35.1	11.5	18.2	9.9	0.0	0.1	20.1	0.4	0.2	0.8
Total Stops	4	36	5	17	0	0	3	7	0	72
Stop/Veh	1.00	1.00	1.00	0.77	0.00	0.00	0.75	0.01	0.00	0.05
Travel Dist (mi)	0.9	7.5	0.4	2.1	66.3	0.4	1.2	172.8	1.6	253.0
Travel Time (hr)	0.1	0.4	0.0	0.2	2.4	0.0	0.1	6.7	0.1	9.9
Avg Speed (mph)	12	19	9	14	27	22	16	26	24	25
Fuel Used (gal)	0.0	0.2	0.0	0.1	2.0	0.0	0.0	5.6	0.1	8.0
Fuel Eff. (mpg)	26.5	33.4	27.1	30.4	33.4	39.3	26.4	30.9	32.2	31.5
HC Emissions (g)	0	1	0	0	10	0	0	28	0	40
CO Emissions (g)	5	28	1	9	234	1	6	832	7	1124
NOx Emissions (g)	0	3	0	1	32	0	1	100	1	139
Vehicles Entered	4	36	5	22	709	4	4	675	6	1465
Vehicles Exited	4	36	5	22	710	4	4	675	6	1466
Hourly Exit Rate	4	36	5	22	710	4	4	675	6	1466
Input Volume	5	35	5	30	926	5	5	676	5	1691
% of Volume	84	103	105	73	77	84	84	100	126	87
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)										617
Occupancy (veh)	0	0	0	0	2	0	0	7	0	10

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.5	0.5	3.5	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	2.9	0.1	0.2	0.2	0.6	0.0	0.0	0.9	0.0	5.2
Total Del/Veh (s)	49.4	79.0	69.3	102.9	36.4	8.7	2.8	1.2	11.0	4.8	5.8	10.5
Stop Delay (hr)	0.1	0.1	2.9	0.1	0.2	0.1	0.0	0.0	0.0	0.5	0.0	4.1
Stop Del/Veh (s)	47.2	75.1	69.4	101.3	36.5	4.5	0.1	0.1	7.5	2.5	3.7	8.2
Total Stops	5	6	151	5	16	64	10	0	5	57	2	321
Stop/Veh	1.00	1.20	0.99	1.00	1.00	0.62	0.01	0.00	0.56	0.08	0.20	0.18
Travel Dist (mi)	0.8	0.9	25.8	0.8	2.9	8.8	63.7	5.5	1.0	72.9	1.1	184.2
Travel Time (hr)	0.1	0.1	4.1	0.2	0.3	0.6	3.0	0.3	0.1	3.4	0.1	12.2
Avg Speed (mph)	8	6	7	5	11	14	21	20	15	21	18	15
Fuel Used (gal)	0.0	0.0	1.4	0.1	0.1	0.5	3.6	0.2	0.0	2.3	0.0	8.2
Fuel Eff. (mpg)	22.2	17.9	18.6	15.3	25.5	19.5	17.9	23.5	29.7	32.2	36.9	22.4
HC Emissions (g)	0	0	3	0	0	2	20	2	0	9	0	37
CO Emissions (g)	5	6	171	4	14	106	997	103	4	279	4	1694
NOx Emissions (g)	0	0	13	0	1	13	116	7	1	35	0	188
Vehicles Entered	4	5	151	5	16	101	733	63	9	683	10	1780
Vehicles Exited	5	5	147	5	16	101	733	63	9	683	10	1777
Hourly Exit Rate	5	5	147	5	16	101	733	63	9	683	10	1777
Input Volume	5	5	145	5	15	130	972	90	10	685	10	2072
% of Volume	100	105	101	95	108	78	75	70	92	100	98	86
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												419
Occupancy (veh)	0	0	4	0	0	1	3	0	0	3	0	12

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.3	0.6	0.6	0.1	0.0
Total Delay (hr)	10.2	22.3	2.8	7.5	8.4	2.5	9.6	26.0	7.0	5.4	6.4	0.3
Total Del/Veh (s)	127.0	148.3	28.6	81.6	76.4	73.1	154.3	183.9	103.9	86.7	46.5	7.2
Stop Delay (hr)	8.8	19.1	2.2	6.7	7.2	2.2	8.8	23.7	6.4	5.0	5.4	0.2
Stop Del/Veh (s)	109.3	126.6	22.2	73.1	65.5	64.5	140.5	167.3	93.9	80.8	39.4	4.9
Total Stops	497	912	366	367	385	132	410	941	464	255	425	126
Stop/Veh	1.71	1.68	1.03	1.12	0.97	1.06	1.82	1.85	1.90	1.14	0.86	0.82
Travel Dist (mi)	48.5	86.2	61.3	31.3	36.6	11.9	27.9	62.7	31.0	18.2	40.4	12.7
Travel Time (hr)	11.7	24.6	4.9	8.6	9.7	3.0	10.6	27.8	8.3	6.1	7.6	0.9
Avg Speed (mph)	4	4	13	4	4	4	3	2	4	3	5	15
Fuel Used (gal)	4.1	8.1	2.9	2.8	3.0	0.9	3.3	8.4	2.8	1.9	2.9	0.5
Fuel Eff. (mpg)	11.9	10.7	21.0	11.2	12.1	12.6	8.5	7.4	11.2	9.7	13.7	24.2
HC Emissions (g)	8	10	17	4	3	1	4	10	5	3	9	3
CO Emissions (g)	621	950	1196	302	257	78	339	838	328	213	614	195
NOx Emissions (g)	51	77	78	26	22	7	32	76	34	17	47	15
Vehicles Entered	284	520	352	318	385	120	216	488	238	218	489	153
Vehicles Exited	277	510	353	314	382	120	217	489	237	219	491	153
Hourly Exit Rate	277	510	353	314	382	120	217	489	237	219	491	153
Input Volume	310	562	390	335	405	125	345	758	350	220	492	150
% of Volume	89	91	91	94	94	96	63	64	68	100	100	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	12	25	5	9	10	3	11	28	8	6	8	1

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	108.6
Total Del/Veh (s)	100.5
Stop Delay (hr)	95.6
Stop Del/Veh (s)	88.5
Total Stops	5280
Stop/Veh	1.36
Travel Dist (mi)	468.8
Travel Time (hr)	123.8
Avg Speed (mph)	4
Fuel Used (gal)	41.6
Fuel Eff. (mpg)	11.3
HC Emissions (g)	77
CO Emissions (g)	5931
NOx Emissions (g)	480
Vehicles Entered	3781
Vehicles Exited	3762
Hourly Exit Rate	3762
Input Volume	4442
% of Volume	85
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	63
Occupancy (veh)	124

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1	1.5	7.6	0.7	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.6	3.0	0.6	0.6	3.7	40.8	37.8	69.9	0.0	0.0	0.1
Total Delay (hr)	2.5	1.2	0.7	2.1	1.2	1.3	4.5	42.4	1.0	0.5	2.6	0.1
Total Del/Veh (s)	66.3	72.0	15.5	55.7	62.9	41.1	121.0	203.3	110.1	15.2	9.4	4.1
Stop Delay (hr)	2.3	1.1	0.6	1.9	1.0	1.2	4.0	38.6	0.9	0.4	1.4	0.0
Stop Del/Veh (s)	62.3	66.4	13.3	50.9	56.7	37.9	107.7	185.1	95.9	10.9	5.2	1.6
Total Stops	132	59	135	126	64	126	235	1075	39	66	186	14
Stop/Veh	0.98	1.00	0.82	0.94	0.97	1.14	1.75	1.43	1.15	0.55	0.19	0.27
Travel Dist (mi)	32.6	14.3	40.1	14.1	7.0	11.8	15.9	87.0	4.0	15.4	127.2	6.6
Travel Time (hr)	3.7	1.7	2.3	2.6	1.4	1.9	6.5	52.1	1.8	1.1	6.5	0.3
Avg Speed (mph)	9	9	18	5	5	7	3	2	3	14	20	20
Fuel Used (gal)	1.5	0.7	1.3	1.0	0.5	0.7	2.0	14.2	0.5	0.9	7.9	0.3
Fuel Eff. (mpg)	22.3	21.7	30.2	14.7	14.0	15.8	8.1	6.1	7.6	17.3	16.1	19.2
HC Emissions (g)	4	2	6	3	1	3	3	6	1	6	62	3
CO Emissions (g)	166	73	232	184	96	181	228	937	52	438	4320	181
NOx Emissions (g)	15	6	21	13	7	13	19	66	4	29	279	12
Vehicles Entered	132	58	162	133	66	110	130	710	33	120	990	51
Vehicles Exited	133	58	163	132	66	110	129	702	32	121	991	51
Hourly Exit Rate	133	58	163	132	66	110	129	702	32	121	991	51
Input Volume	130	60	160	130	65	110	235	1223	60	130	1038	50
% of Volume	102	96	102	101	102	100	55	57	53	93	95	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	2	13	1	0	0	0
Density (ft/veh)												
Occupancy (veh)	4	2	2	3	1	2	5	45	1	1	7	0

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	10.1
Denied Del/Veh (s)	13.4
Total Delay (hr)	59.9
Total Del/Veh (s)	78.2
Stop Delay (hr)	53.4
Stop Del/Veh (s)	69.7
Total Stops	2257
Stop/Veh	0.82
Travel Dist (mi)	375.9
Travel Time (hr)	82.0
Avg Speed (mph)	5
Fuel Used (gal)	31.4
Fuel Eff. (mpg)	12.0
HC Emissions (g)	99
CO Emissions (g)	7087
NOx Emissions (g)	483
Vehicles Entered	2695
Vehicles Exited	2688
Hourly Exit Rate	2688
Input Volume	3392
% of Volume	79
Denied Entry Before	0
Denied Entry After	16
Density (ft/veh)	122
Occupancy (veh)	72

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	14.7	11.2	2.3	177.8	24.1	0.0	0.0	0.0	230.1
Denied Del/Veh (s)	0.1	0.1	824.6	716.9	556.0	455.0	457.6	0.0	0.0	0.0	274.8
Total Delay (hr)	1.6	2.7	7.6	14.9	1.0	96.4	9.6	0.1	0.7	0.0	134.6
Total Del/Veh (s)	1397.8	898.0	947.8	2443.9	391.0	360.7	270.1	11.7	2.0	1.2	198.5
Stop Delay (hr)	1.5	2.7	7.6	14.9	1.0	92.5	9.1	0.1	0.0	0.0	129.5
Stop Del/Veh (s)	1394.9	895.3	946.7	2441.7	385.5	346.0	256.4	9.7	0.1	0.1	191.0
Total Stops	4	11	21	20	12	846	92	20	0	0	1026
Stop/Veh	1.00	1.00	0.72	0.91	1.33	0.88	0.72	0.50	0.00	0.00	0.42
Travel Dist (mi)	0.4	1.1	1.9	1.5	2.4	253.4	34.5	5.0	153.6	1.2	454.9
Travel Time (hr)	1.6	2.8	22.4	26.1	3.4	279.3	34.6	0.3	4.9	0.0	375.4
Avg Speed (mph)	0	0	0	0	2	2	3	17	31	26	3
Fuel Used (gal)	0.4	0.7	5.2	6.0	0.8	68.7	8.7	0.2	6.0	0.0	96.7
Fuel Eff. (mpg)	1.0	1.6	0.4	0.2	3.0	3.7	4.0	24.8	25.6	29.3	4.7
HC Emissions (g)	0	0	0	0	0	12	3	1	48	0	66
CO Emissions (g)	22	47	264	304	50	4312	634	91	3165	21	8911
NOx Emissions (g)	0	1	2	2	1	136	23	6	198	1	371
Vehicles Entered	3	11	22	19	9	938	126	40	1219	10	2397
Vehicles Exited	1	4	19	3	8	847	118	40	1220	10	2270
Hourly Exit Rate	1	4	19	3	8	847	118	40	1220	10	2270
Input Volume	5	10	65	60	15	1415	185	40	1261	10	3065
% of Volume	21	40	29	5	53	60	64	101	97	98	74
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	42	37	6	469	64	0	0	0	618
Density (ft/veh)											67
Occupancy (veh)	2	3	8	15	1	101	10	0	5	0	145

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.3	18.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9
Denied Del/Veh (s)	84.8	58.5	57.2	0.1	0.0	0.2	0.2	0.2	4.3	0.1	32.2
Total Delay (hr)	0.5	27.5	1.2	0.9	1.1	0.0	1.5	1.1	0.2	0.0	34.0
Total Del/Veh (s)	125.0	92.3	52.9	23.9	6.9	3.4	39.3	34.7	78.1	5.3	56.1
Stop Delay (hr)	0.5	22.5	0.9	0.7	0.5	0.0	1.4	1.0	0.2	0.0	27.7
Stop Del/Veh (s)	115.0	75.5	41.5	19.8	2.9	1.0	35.5	33.1	76.6	5.5	45.7
Total Stops	17	1057	80	113	133	3	118	94	8	15	1638
Stop/Veh	1.13	0.99	1.01	0.85	0.22	0.21	0.86	0.86	0.80	0.79	0.75
Travel Dist (mi)	2.1	159.3	11.8	22.8	101.9	2.5	12.7	10.1	1.2	2.4	326.8
Travel Time (hr)	0.9	48.7	2.8	1.7	4.1	0.1	2.0	1.5	0.3	0.1	62.2
Avg Speed (mph)	4	5	8	14	25	25	6	7	5	19	8
Fuel Used (gal)	0.3	15.2	1.0	1.3	5.3	0.1	0.8	0.6	0.1	0.1	24.6
Fuel Eff. (mpg)	8.2	10.5	12.3	17.3	19.3	21.0	15.7	17.7	14.6	37.6	13.3
HC Emissions (g)	0	26	2	10	47	1	3	2	0	0	93
CO Emissions (g)	31	2282	194	771	3419	76	199	132	6	7	7116
NOx Emissions (g)	2	143	11	39	180	4	14	9	1	1	404
Vehicles Entered	14	1064	78	131	591	14	137	108	9	19	2165
Vehicles Exited	14	1034	77	131	590	14	136	108	10	19	2133
Hourly Exit Rate	14	1034	77	131	590	14	136	108	10	19	2133
Input Volume	15	1135	80	160	709	15	130	110	10	20	2385
% of Volume	92	91	96	82	83	92	105	98	98	95	89
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	61	4	0	0	0	0	0	0	0	65
Density (ft/veh)											195
Occupancy (veh)	1	30	2	2	4	0	2	1	0	0	42

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.2	2.1	0.0	0.3	2.1	4.8
Denied Del/Veh (s)	0.4	0.7	9.5	9.5	411.8	176.1	9.2
Total Delay (hr)	0.1	1.8	11.3	0.1	0.6	6.7	20.6
Total Del/Veh (s)	16.4	6.5	49.6	43.2	1119.6	671.4	39.5
Stop Delay (hr)	0.1	0.8	8.7	0.1	0.6	6.7	16.9
Stop Del/Veh (s)	11.5	2.8	38.3	34.8	1118.3	671.4	32.5
Total Stops	17	100	531	4	2	30	684
Stop/Veh	0.61	0.10	0.65	0.57	1.00	0.83	0.36
Travel Dist (mi)	2.8	96.9	136.1	1.1	0.1	2.0	239.0
Travel Time (hr)	0.2	5.6	18.0	0.1	1.0	8.9	33.8
Avg Speed (mph)	12	18	9	9	0	0	8
Fuel Used (gal)	0.1	4.8	6.8	0.1	0.2	2.1	14.1
Fuel Eff. (mpg)	19.4	20.0	20.1	21.7	0.5	1.0	16.9
HC Emissions (g)	1	22	11	0	0	0	34
CO Emissions (g)	27	998	655	4	12	112	1809
NOx Emissions (g)	4	131	55	0	0	2	192
Vehicles Entered	28	984	811	6	2	34	1865
Vehicles Exited	28	982	801	6	1	22	1840
Hourly Exit Rate	28	982	801	6	1	22	1840
Input Volume	30	1148	820	5	5	45	2052
% of Volume	94	86	98	120	21	49	90
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	2	0	1	9	12
Density (ft/veh)							62
Occupancy (veh)	0	5	16	0	1	7	29

Total Network Performance

Denied Delay (hr)	265.4
Denied Del/Veh (s)	154.5
Total Delay (hr)	375.6
Total Del/Veh (s)	232.1
Stop Delay (hr)	334.5
Stop Del/Veh (s)	206.7
Total Stops	12297
Stop/Veh	2.11
Travel Dist (mi)	4115.4
Travel Time (hr)	774.1
Avg Speed (mph)	8
Fuel Used (gal)	285.4
Fuel Eff. (mpg)	14.4
HC Emissions (g)	768
CO Emissions (g)	45111
NOx Emissions (g)	3386
Vehicles Entered	5473
Vehicles Exited	5265
Hourly Exit Rate	5265
Input Volume	28032
% of Volume	19
Denied Entry Before	0
Denied Entry After	711
Density (ft/veh)	135
Occupancy (veh)	509

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	64	86	100	66	123	224	64	181
Average Queue (ft)	23	36	46	27	29	109	18	75
95th Queue (ft)	52	70	80	56	78	189	48	138
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		0	0	0	0	6		0
Queuing Penalty (veh)		0	0	0	0	4		0

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	TR	L	TR
Maximum Queue (ft)	42	188	199	103	41	24	49
Average Queue (ft)	8	59	73	45	2	2	4
95th Queue (ft)	31	158	199	89	30	13	25
Link Distance (ft)		778	880		1248		1912
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	190			100		100	
Storage Blk Time (%)		3		1			0
Queuing Penalty (veh)		0		4			0

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	SB	SB
Directions Served	L	TR	LTR	L	L	TR
Maximum Queue (ft)	30	49	30	45	30	56
Average Queue (ft)	4	18	4	10	3	5
95th Queue (ft)	20	41	20	31	16	56
Link Distance (ft)		1086	403			1248
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	115			100	100	
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	LTR	L	T	R	L	TR
Maximum Queue (ft)	321	230	61	74	84	6	54	243
Average Queue (ft)	66	86	16	31	3	0	5	37
95th Queue (ft)	352	227	53	61	62	3	30	204
Link Distance (ft)	915		940		380	380		431
Upstream Blk Time (%)					0			0
Queuing Penalty (veh)					0			3
Storage Bay Dist (ft)		215		135			100	
Storage Blk Time (%)	2	9						4
Queuing Penalty (veh)	3	1						0

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	TR	L	T	T	R	L	T	T
Maximum Queue (ft)	525	871	860	395	482	325	647	656	220	220	384	359
Average Queue (ft)	456	742	531	333	406	320	621	621	190	171	220	207
95th Queue (ft)	670	1052	1108	493	574	365	639	648	279	253	394	360
Link Distance (ft)		845	845		462		606	606				380
Upstream Blk Time (%)		23	8		24		44	35			4	0
Queuing Penalty (veh)		146	51		215		320	249			34	0
Storage Bay Dist (ft)	500			275		300			100	150		225
Storage Blk Time (%)	3	46		18	43	4	76	24	28	33	8	2
Queuing Penalty (veh)	16	143		88	146	13	264	86	101	218	47	8

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	SB
Directions Served	R
Maximum Queue (ft)	178
Average Queue (ft)	47
95th Queue (ft)	111
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	225
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	411	244	369	110	350	622	624	215	99	174	189	30
Average Queue (ft)	158	73	163	77	318	603	597	79	35	66	75	7
95th Queue (ft)	324	188	305	140	473	616	624	249	80	137	151	22
Link Distance (ft)	1295		552			590	590			606	606	
Upstream Blk Time (%)						64	52					
Queuing Penalty (veh)						473	390					
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	24	0	35	6	1	88	78	0		0	1	
Queuing Penalty (veh)	42	1	39	13	7	208	47	0		0	0	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	NB	NB	SB
Directions Served	LTR	LT	R	L	T	T	R	L
Maximum Queue (ft)	247	606	214	74	1515	1515	220	61
Average Queue (ft)	98	464	187	12	1365	1358	171	14
95th Queue (ft)	276	803	270	54	1944	1964	320	42
Link Distance (ft)	640	600			1500	1500		
Upstream Blk Time (%)		63			67	66		
Queuing Penalty (veh)		0			0	0		
Storage Bay Dist (ft)			200	50			100	170
Storage Blk Time (%)		19	64	0	85	71		
Queuing Penalty (veh)		11	43	1	13	132		

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	194	766	765	138	121	140	27	177	192	38	36
Average Queue (ft)	39	525	497	61	41	62	3	88	66	9	9
95th Queue (ft)	161	1019	1021	108	94	119	18	156	147	31	28
Link Distance (ft)		800	800		845	845		492	492		648
Upstream Blk Time (%)		33	23								
Queuing Penalty (veh)		0	0								
Storage Bay Dist (ft)	170			250			125			55	
Storage Blk Time (%)	0	53				1				1	0
Queuing Penalty (veh)	0	9				0				0	0

Intersection: 11: 2600 N & 450 E

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	448	852	337
Average Queue (ft)	89	402	174
95th Queue (ft)	316	1028	431
Link Distance (ft)	462	888	373
Upstream Blk Time (%)	1	13	27
Queuing Penalty (veh)	7	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 3598

1: 400 E/450 E & 3100 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.6	0.2	0.2	2.1	0.3	0.2	0.0	0.0	0.0	3.1	0.3	0.4
Total Delay (hr)	0.2	0.2	0.1	0.5	0.2	0.0	0.3	2.1	0.4	0.2	0.8	0.1
Total Del/Veh (s)	13.8	11.8	5.7	16.8	11.5	6.1	15.9	14.3	12.6	24.0	10.2	6.2
Stop Delay (hr)	0.1	0.1	0.1	0.4	0.1	0.0	0.1	0.9	0.2	0.1	0.5	0.0
Stop Del/Veh (s)	11.3	8.3	4.7	14.2	8.0	5.3	8.1	6.4	6.1	21.5	6.5	4.4
Total Stops	32	42	36	90	34	14	54	281	79	23	148	22
Stop/Veh	0.76	0.67	0.71	0.86	0.65	0.70	0.93	0.53	0.63	0.92	0.53	0.59
Travel Dist (mi)	14.0	20.8	16.9	28.7	14.2	5.5	22.5	195.8	47.8	4.2	47.7	6.2
Travel Time (hr)	0.7	0.9	0.7	1.6	0.6	0.2	1.0	8.7	2.1	0.3	2.4	0.3
Avg Speed (mph)	22	23	25	19	22	23	22	22	22	13	20	21
Fuel Used (gal)	0.4	0.6	0.5	0.9	0.4	0.2	0.6	5.7	1.3	0.2	1.5	0.2
Fuel Eff. (mpg)	33.3	34.1	35.5	32.0	33.7	35.4	34.7	34.6	35.6	26.2	31.1	34.6
HC Emissions (g)	2	3	2	4	2	1	3	23	5	1	7	1
CO Emissions (g)	53	82	56	117	61	19	56	488	110	32	280	32
NOx Emissions (g)	6	9	7	12	6	2	9	71	16	2	25	3
Vehicles Entered	42	62	50	104	51	20	57	526	122	24	278	36
Vehicles Exited	42	63	51	104	51	20	58	526	123	24	279	36
Hourly Exit Rate	42	63	51	104	51	20	58	526	123	24	279	36
Input Volume	40	60	50	105	50	20	60	520	125	25	285	35
% of Volume	105	105	103	99	102	100	97	101	99	96	98	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	1	1	1	2	1	0	1	9	2	0	2	0

1: 400 E/450 E & 3100 N Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	5.0
Total Del/Veh (s)	12.9
Stop Delay (hr)	2.9
Stop Del/Veh (s)	7.5
Total Stops	855
Stop/Veh	0.61
Travel Dist (mi)	424.1
Travel Time (hr)	19.7
Avg Speed (mph)	22
Fuel Used (gal)	12.5
Fuel Eff. (mpg)	33.9
HC Emissions (g)	53
CO Emissions (g)	1387
NOx Emissions (g)	169
Vehicles Entered	1372
Vehicles Exited	1377
Hourly Exit Rate	1377
Input Volume	1375
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	624
Occupancy (veh)	20

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.4	0.1	0.1
Total Delay (hr)	0.1	0.2	1.0	1.8	0.7	0.2	0.7	0.7	0.0	0.0	0.5	0.0
Total Del/Veh (s)	58.1	109.1	27.5	154.2	199.6	138.0	14.2	3.3	0.5	14.4	3.6	3.8
Stop Delay (hr)	0.1	0.2	1.0	1.7	0.7	0.2	0.5	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	55.9	105.6	27.2	153.1	197.3	138.8	9.4	0.1	0.0	10.2	0.2	1.4
Total Stops	8	6	128	40	12	4	120	3	1	4	3	3
Stop/Veh	1.00	1.00	1.00	0.98	0.92	0.80	0.67	0.00	0.02	0.67	0.01	0.18
Travel Dist (mi)	1.2	0.9	19.0	6.7	2.1	0.7	45.8	184.8	13.2	1.9	167.8	5.6
Travel Time (hr)	0.2	0.2	1.7	2.0	0.8	0.2	2.3	6.9	0.5	0.1	6.3	0.2
Avg Speed (mph)	7	4	11	3	3	3	20	27	27	21	27	25
Fuel Used (gal)	0.1	0.1	0.8	0.6	0.2	0.1	1.4	5.7	0.4	0.1	5.6	0.2
Fuel Eff. (mpg)	17.9	13.8	24.5	11.0	9.0	11.1	32.0	32.2	37.2	29.1	30.2	31.1
HC Emissions (g)	0	0	3	1	0	0	6	28	2	0	30	1
CO Emissions (g)	11	10	154	81	30	9	139	910	52	11	977	28
NOx Emissions (g)	1	1	12	5	2	1	21	103	5	1	109	3
Vehicles Entered	8	6	127	40	12	4	174	719	51	6	480	16
Vehicles Exited	8	6	128	39	12	4	176	716	51	6	478	17
Hourly Exit Rate	8	6	128	39	12	4	176	716	51	6	478	17
Input Volume	10	5	130	40	15	5	175	714	45	5	490	15
% of Volume	82	114	98	97	80	84	101	100	113	126	98	113
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	0	0	2	2	1	0	2	7	0	0	6	0

2: 400 E & Elberta Dr/2850 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	5.9
Total Del/Veh (s)	12.7
Stop Delay (hr)	4.5
Stop Del/Veh (s)	9.6
Total Stops	332
Stop/Veh	0.20
Travel Dist (mi)	449.9
Travel Time (hr)	21.4
Avg Speed (mph)	21
Fuel Used (gal)	15.1
Fuel Eff. (mpg)	29.7
HC Emissions (g)	72
CO Emissions (g)	2411
NOx Emissions (g)	263
Vehicles Entered	1643
Vehicles Exited	1641
Hourly Exit Rate	1641
Input Volume	1649
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	480
Occupancy (veh)	21

3: 400 E & Lomond View Dr/2700 N Performance by movement

Movement	EBL	EBR	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.3	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.5	0.0	0.0	0.3	0.0	1.1
Total Del/Veh (s)	33.9	7.1	5.1	12.4	2.1	0.4	19.5	1.4	1.6	2.3
Stop Delay (hr)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Stop Del/Veh (s)	32.4	7.1	5.1	8.7	0.0	0.0	16.4	0.1	0.3	0.5
Total Stops	5	37	4	21	4	0	3	0	0	74
Stop/Veh	1.00	1.00	1.00	0.68	0.00	0.00	0.60	0.00	0.00	0.04
Travel Dist (mi)	0.9	7.6	0.3	2.9	87.9	0.5	1.3	168.9	1.4	271.7
Travel Time (hr)	0.1	0.4	0.0	0.2	3.5	0.0	0.1	6.2	0.1	10.6
Avg Speed (mph)	12	21	16	13	25	23	17	27	25	26
Fuel Used (gal)	0.0	0.2	0.0	0.1	3.3	0.0	0.0	5.5	0.0	9.3
Fuel Eff. (mpg)	27.6	35.5	39.6	25.3	26.5	33.8	28.2	30.5	30.5	29.1
HC Emissions (g)	0	1	0	0	15	0	0	30	0	46
CO Emissions (g)	3	23	1	15	515	4	8	996	9	1573
NOx Emissions (g)	0	3	0	2	78	0	1	103	1	189
Vehicles Entered	5	37	4	31	936	5	5	657	5	1685
Vehicles Exited	4	37	4	31	937	5	5	658	5	1686
Hourly Exit Rate	4	37	4	31	937	5	5	658	5	1686
Input Volume	5	35	5	30	926	5	5	676	5	1691
% of Volume	84	106	84	102	101	105	105	97	105	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)										753
Occupancy (veh)	0	0	0	0	4	0	0	6	0	11

4: 400 E & 2650 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.7	0.4	3.6	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.4	1.4	0.1	0.0	0.1	0.0	2.5
Total Del/Veh (s)	40.0	36.0	6.1	37.8	6.6	10.5	5.2	2.4	16.6	0.8	0.6	4.3
Stop Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	37.9	32.6	5.4	35.9	6.6	4.0	0.1	0.1	14.6	0.0	0.0	1.0
Total Stops	4	5	144	4	15	85	25	1	5	0	0	288
Stop/Veh	1.00	1.00	0.99	1.00	1.00	0.64	0.03	0.01	0.62	0.00	0.00	0.14
Travel Dist (mi)	0.8	0.8	24.6	0.7	2.7	11.9	87.6	8.7	0.9	72.1	1.0	211.7
Travel Time (hr)	0.1	0.1	1.3	0.1	0.1	0.9	4.7	0.5	0.1	2.6	0.0	10.5
Avg Speed (mph)	10	10	21	10	21	13	19	19	12	27	24	21
Fuel Used (gal)	0.0	0.0	0.7	0.0	0.1	0.6	4.7	0.4	0.0	2.2	0.0	8.8
Fuel Eff. (mpg)	25.7	25.5	33.0	26.0	35.4	21.0	18.7	23.3	28.5	32.6	38.7	24.1
HC Emissions (g)	0	0	3	0	0	2	24	2	0	11	0	43
CO Emissions (g)	3	4	120	3	8	99	1251	121	5	355	4	1973
NOx Emissions (g)	0	0	11	0	1	13	139	11	0	39	0	217
Vehicles Entered	4	5	144	4	15	133	986	95	8	676	9	2079
Vehicles Exited	4	5	144	4	15	132	986	95	8	676	9	2078
Hourly Exit Rate	4	5	144	4	15	132	986	95	8	676	9	2078
Input Volume	5	5	145	5	15	130	972	90	10	685	10	2072
% of Volume	80	105	99	76	102	102	101	106	82	99	88	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												539
Occupancy (veh)	0	0	1	0	0	1	5	0	0	3	0	10

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Delay (hr)	6.8	8.8	2.4	4.6	3.8	0.8	4.9	7.0	1.1	3.5	4.7	1.1
Total Del/Veh (s)	75.9	54.6	22.0	48.9	34.0	23.7	49.6	32.2	10.8	57.0	33.8	27.2
Stop Delay (hr)	6.0	6.9	1.8	4.3	3.3	0.8	4.1	4.6	0.6	3.3	3.8	1.0
Stop Del/Veh (s)	67.2	43.1	16.7	45.3	29.7	21.6	41.4	21.1	6.5	53.6	27.6	23.7
Total Stops	334	520	295	298	279	104	323	538	206	210	343	109
Stop/Veh	1.03	0.90	0.76	0.88	0.69	0.81	0.90	0.68	0.58	0.94	0.69	0.73
Travel Dist (mi)	54.7	96.5	66.2	32.9	37.8	12.7	43.9	96.7	44.9	17.7	39.3	11.9
Travel Time (hr)	8.5	11.3	4.6	5.9	5.1	1.4	6.4	9.6	2.8	4.2	5.8	1.7
Avg Speed (mph)	6	9	15	6	7	9	7	10	16	4	7	7
Fuel Used (gal)	3.7	5.6	3.0	2.0	1.9	0.5	2.8	5.2	1.8	1.4	2.4	0.6
Fuel Eff. (mpg)	14.9	17.1	22.3	16.4	19.7	24.4	15.9	18.7	24.3	12.3	16.6	19.8
HC Emissions (g)	15	26	19	5	5	1	10	23	11	4	8	2
CO Emissions (g)	1006	1778	1298	306	293	90	659	1455	759	294	566	114
NOx Emissions (g)	71	126	83	22	23	6	51	115	51	19	38	8
Vehicles Entered	316	574	384	336	403	129	349	775	353	219	487	147
Vehicles Exited	317	573	383	338	403	128	350	772	354	218	487	146
Hourly Exit Rate	317	573	383	338	403	128	350	772	354	218	487	146
Input Volume	310	562	390	335	405	125	345	758	350	220	492	150
% of Volume	102	102	98	101	100	102	101	102	101	99	99	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	8	11	5	6	5	1	6	10	3	4	6	2

6: SR-235/400 E & SR-134/2600 N Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	49.6
Total Del/Veh (s)	39.4
Stop Delay (hr)	40.6
Stop Del/Veh (s)	32.3
Total Stops	3559
Stop/Veh	0.78
Travel Dist (mi)	555.1
Travel Time (hr)	67.3
Avg Speed (mph)	8
Fuel Used (gal)	30.9
Fuel Eff. (mpg)	18.0
HC Emissions (g)	129
CO Emissions (g)	8618
NOx Emissions (g)	614
Vehicles Entered	4472
Vehicles Exited	4469
Hourly Exit Rate	4469
Input Volume	4442
% of Volume	101
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	164
Occupancy (veh)	67

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.6	3.0	0.6	0.8	3.7	0.2	0.1	0.3	0.0	0.0	0.1
Total Delay (hr)	2.7	1.3	0.9	2.7	1.8	1.3	2.2	5.9	0.1	1.3	3.4	0.1
Total Del/Veh (s)	70.9	83.1	20.7	73.9	91.0	42.0	33.6	17.0	5.5	34.8	11.8	5.2
Stop Delay (hr)	2.5	1.2	0.8	2.5	1.6	1.2	1.9	3.6	0.0	1.1	2.0	0.0
Stop Del/Veh (s)	66.4	77.4	18.3	68.8	84.5	38.2	28.0	10.3	2.8	30.2	6.8	2.1
Total Stops	140	61	144	137	80	136	221	501	25	125	251	13
Stop/Veh	1.03	1.05	0.89	1.04	1.14	1.21	0.92	0.40	0.41	0.93	0.24	0.27
Travel Dist (mi)	32.8	13.6	39.5	13.5	7.2	11.7	29.3	152.9	7.4	16.9	132.6	6.2
Travel Time (hr)	3.9	1.8	2.5	3.2	2.0	1.9	3.2	9.8	0.4	1.9	7.6	0.3
Avg Speed (mph)	9	8	16	4	4	6	9	16	21	9	17	19
Fuel Used (gal)	1.5	0.7	1.3	1.1	0.6	0.8	1.2	5.0	0.2	1.1	7.9	0.3
Fuel Eff. (mpg)	21.7	20.3	29.3	12.4	11.1	15.5	24.9	30.8	40.1	15.5	16.8	19.6
HC Emissions (g)	4	2	6	3	1	3	4	21	1	6	57	2
CO Emissions (g)	170	74	234	177	101	174	227	1186	51	417	3897	149
NOx Emissions (g)	15	6	21	13	7	13	17	95	4	29	264	11
Vehicles Entered	134	56	160	129	68	110	238	1238	61	132	1030	47
Vehicles Exited	133	56	161	129	68	111	238	1241	60	132	1036	47
Hourly Exit Rate	133	56	161	129	68	111	238	1241	60	132	1036	47
Input Volume	130	60	160	130	65	110	235	1223	60	130	1038	50
% of Volume	102	93	101	99	105	101	101	101	100	101	100	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	4	2	2	3	2	2	3	10	0	2	8	0

8: SR-235 & 2550 N/Smiths Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.4
Total Delay (hr)	23.8
Total Del/Veh (s)	24.8
Stop Delay (hr)	18.5
Stop Del/Veh (s)	19.4
Total Stops	1834
Stop/Veh	0.53
Travel Dist (mi)	463.6
Travel Time (hr)	38.6
Avg Speed (mph)	12
Fuel Used (gal)	21.6
Fuel Eff. (mpg)	21.4
HC Emissions (g)	109
CO Emissions (g)	6857
NOx Emissions (g)	495
Vehicles Entered	3403
Vehicles Exited	3412
Hourly Exit Rate	3412
Input Volume	3392
% of Volume	101
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	228
Occupancy (veh)	38

9: SR-235 & 2421 N/South Smiths Performance by movement

Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	7.2	7.5	0.0	0.3	0.1	0.0	0.0	0.0	15.1
Denied Del/Veh (s)	0.1	0.1	412.2	436.3	2.1	0.6	2.0	0.0	0.0	0.0	17.5
Total Delay (hr)	0.4	0.6	16.3	6.5	0.1	1.6	0.1	0.4	0.9	0.0	26.8
Total Del/Veh (s)	364.3	202.7	1154.0	552.9	17.5	3.8	2.8	32.5	2.5	1.9	31.3
Stop Delay (hr)	0.4	0.6	16.4	6.5	0.1	0.0	0.0	0.3	0.0	0.0	24.3
Stop Del/Veh (s)	362.5	202.5	1159.1	554.0	14.4	0.0	0.0	29.9	0.1	0.2	28.4
Total Stops	4	11	24	53	10	2	3	36	1	0	144
Stop/Veh	1.00	1.00	0.47	1.26	0.77	0.00	0.02	0.90	0.00	0.00	0.05
Travel Dist (mi)	0.5	1.3	4.2	4.1	3.7	415.7	49.9	4.9	159.2	1.0	644.6
Travel Time (hr)	0.4	0.7	23.7	14.1	0.2	10.2	1.5	0.5	5.3	0.0	56.6
Avg Speed (mph)	1	2	0	1	24	42	36	9	30	24	16
Fuel Used (gal)	0.1	0.2	5.5	3.4	0.1	12.2	1.6	0.3	6.6	0.0	30.0
Fuel Eff. (mpg)	4.4	7.2	0.8	1.2	32.3	34.2	30.7	18.3	24.0	25.4	21.5
HC Emissions (g)	0	0	0	1	1	93	14	1	52	0	163
CO Emissions (g)	9	20	296	201	54	6194	1033	104	3476	19	11405
NOx Emissions (g)	0	1	5	6	4	461	60	6	225	1	769
Vehicles Entered	4	11	43	40	13	1459	176	39	1262	8	3055
Vehicles Exited	4	11	31	34	13	1461	176	39	1263	8	3040
Hourly Exit Rate	4	11	31	34	13	1461	176	39	1263	8	3040
Input Volume	5	10	65	60	15	1415	185	40	1261	10	3065
% of Volume	84	110	48	57	87	103	95	98	100	78	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	20	22	0	0	0	0	0	0	42
Density (ft/veh)											235
Occupancy (veh)	0	1	17	7	0	10	1	1	5	0	42

10: SR-134 & 300 E Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	2.4	0.4	0.5	0.1	0.0	0.1	0.2	0.2	4.1	0.1	0.3
Total Delay (hr)	0.1	5.4	0.2	1.1	1.3	0.0	1.3	0.4	0.1	0.0	10.0
Total Del/Veh (s)	21.6	16.9	10.2	24.4	6.6	3.9	34.9	12.8	31.1	5.5	14.9
Stop Delay (hr)	0.1	2.3	0.1	0.9	0.4	0.0	1.1	0.4	0.1	0.0	5.4
Stop Del/Veh (s)	16.0	7.1	5.4	19.6	2.2	1.0	31.4	11.9	29.5	6.0	8.1
Total Stops	11	458	34	142	144	3	113	90	9	18	1022
Stop/Veh	0.79	0.40	0.42	0.85	0.20	0.23	0.86	0.78	0.90	0.86	0.42
Travel Dist (mi)	2.1	173.5	12.2	29.1	123.2	2.3	12.0	10.6	1.2	2.6	369.0
Travel Time (hr)	0.2	8.7	0.6	2.1	5.0	0.1	1.7	0.9	0.1	0.1	19.7
Avg Speed (mph)	15	20	20	14	25	24	7	12	9	19	19
Fuel Used (gal)	0.1	5.9	0.4	1.6	6.2	0.1	0.7	0.4	0.1	0.1	15.6
Fuel Eff. (mpg)	27.4	29.2	31.2	18.2	19.9	21.4	16.8	26.3	24.4	36.3	23.7
HC Emissions (g)	1	42	3	11	52	1	3	2	0	0	115
CO Emissions (g)	40	2987	219	812	3704	64	177	109	5	7	8125
NOx Emissions (g)	2	155	10	48	213	4	13	8	1	1	453
Vehicles Entered	14	1143	81	166	703	13	130	115	10	21	2396
Vehicles Exited	14	1142	81	166	704	13	130	115	10	21	2396
Hourly Exit Rate	14	1142	81	166	704	13	130	115	10	21	2396
Input Volume	15	1135	80	160	709	15	130	110	10	20	2385
% of Volume	92	101	101	104	99	85	100	104	98	105	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)											424
Occupancy (veh)	0	9	1	2	5	0	2	1	0	0	19

11: 2600 N & 450 E Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.1	1.5	0.1	0.0	0.2	0.3	2.3
Total Del/Veh (s)	12.3	4.7	0.6	0.2	136.9	24.4	3.9
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.2	0.3	0.6
Stop Del/Veh (s)	5.4	0.3	0.0	0.0	134.9	24.2	1.1
Total Stops	24	69	2	0	5	44	144
Stop/Veh	0.80	0.06	0.00	0.00	1.00	0.98	0.07
Travel Dist (mi)	3.0	115.0	35.7	0.3	0.3	3.0	157.3
Travel Time (hr)	0.2	5.9	1.3	0.0	0.2	0.4	8.1
Avg Speed (mph)	13	20	27	19	2	7	19
Fuel Used (gal)	0.2	6.2	1.1	0.0	0.1	0.1	7.7
Fuel Eff. (mpg)	19.7	18.5	32.6	58.8	6.5	20.8	20.5
HC Emissions (g)	1	34	8	0	0	0	44
CO Emissions (g)	32	1760	198	0	5	21	2017
NOx Emissions (g)	4	189	26	0	0	2	221
Vehicles Entered	30	1160	839	7	5	44	2085
Vehicles Exited	30	1160	840	7	5	44	2086
Hourly Exit Rate	30	1160	840	7	5	44	2086
Input Volume	30	1148	837	5	5	45	2069
% of Volume	101	101	100	140	105	98	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							265
Occupancy (veh)	0	6	1	0	0	0	8

29: 2600 N Performance by movement

Movement	EBT	EBR	WBT	All
Denied Delay (hr)	0.0	0.0	0.2	0.2
Denied Del/Veh (s)	0.1	0.0	0.7	0.3
Total Delay (hr)	0.2	0.0	0.2	0.4
Total Del/Veh (s)	0.7	0.6	0.9	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0
Total Stops	0	0	0	0
Stop/Veh	0.00	0.00	0.00	0.00
Travel Dist (mi)	45.1	7.7	104.7	157.5
Travel Time (hr)	1.7	0.4	3.9	6.0
Avg Speed (mph)	26	19	28	27
Fuel Used (gal)	1.7	0.1	3.1	4.8
Fuel Eff. (mpg)	27.3	66.1	34.1	32.6
HC Emissions (g)	16	0	30	46
CO Emissions (g)	376	13	632	1022
NOx Emissions (g)	60	1	81	142
Vehicles Entered	1023	175	829	2027
Vehicles Exited	1024	175	828	2027
Hourly Exit Rate	1024	175	828	2027
Input Volume	1016	170	825	2011
% of Volume	101	103	100	101
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				201
Occupancy (veh)	2	0	4	6

Total Network Performance

Denied Delay (hr)	16.2
Denied Del/Veh (s)	9.3
Total Delay (hr)	129.5
Total Del/Veh (s)	71.6
Stop Delay (hr)	98.0
Stop Del/Veh (s)	54.2
Total Stops	8252
Stop/Veh	1.27
Travel Dist (mi)	4864.2
Travel Time (hr)	301.7
Avg Speed (mph)	17
Fuel Used (gal)	197.7
Fuel Eff. (mpg)	24.6
HC Emissions (g)	1094
CO Emissions (g)	55664
NOx Emissions (g)	4491
Vehicles Entered	6253
Vehicles Exited	6254
Hourly Exit Rate	6254
Input Volume	30060
% of Volume	21
Denied Entry Before	0
Denied Entry After	42
Density (ft/veh)	270
Occupancy (veh)	285

Intersection: 1: 400 E/450 E & 3100 N

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	55	79	99	94	119	311	57	189
Average Queue (ft)	23	36	47	29	40	150	19	78
95th Queue (ft)	50	67	82	65	103	260	49	141
Link Distance (ft)		1763		1460		1912		902
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		200	
Storage Blk Time (%)		0	0	0	0	14		0
Queuing Penalty (veh)		0	0	0	0	9		0

Intersection: 2: 400 E & Elberta Dr/2850 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB
Directions Served	L	TR	LTR	L	T	R	L	TR
Maximum Queue (ft)	71	230	258	109	116	13	24	53
Average Queue (ft)	9	61	77	48	4	1	3	4
95th Queue (ft)	44	174	228	92	63	6	15	25
Link Distance (ft)		780	868		1243	1243		1912
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	190			100			100	
Storage Blk Time (%)		4		1				0
Queuing Penalty (veh)		1		8				0

Intersection: 3: 400 E & Lomond View Dr/2700 N

Movement	EB	EB	WB	NB	SB	SB	SB
Directions Served	L	TR	LTR	L	L	T	TR
Maximum Queue (ft)	28	51	28	39	23	2	3
Average Queue (ft)	4	17	4	12	3	0	0
95th Queue (ft)	20	39	19	34	15	2	3
Link Distance (ft)		1074	391			1243	1243
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	115			100	100		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 4: 400 E & 2650 N

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	47	85	48	87	55	10	33	5	6
Average Queue (ft)	8	41	12	33	2	0	6	0	0
95th Queue (ft)	32	69	37	66	33	8	25	5	4
Link Distance (ft)	896		936		371	371		432	432
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		215		80			100		
Storage Blk Time (%)				0	0				
Queuing Penalty (veh)				2	0				

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	L	T	TR	L	L	T
Maximum Queue (ft)	290	345	377	345	277	197	216	232	242	217	336	439
Average Queue (ft)	165	144	236	196	131	110	129	136	129	116	129	225
95th Queue (ft)	254	258	338	306	232	174	198	210	209	185	232	349
Link Distance (ft)			849	849				457	457			588
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)	350	350			420	290	290			300	300	
Storage Blk Time (%)	0	0	0					0		0	0	2
Queuing Penalty (veh)	0	0	2					0		0	0	8

Intersection: 6: SR-235/400 E & SR-134/2600 N

Movement	NB	NB	SB	SB	SB	SB
Directions Served	T	R	L	L	T	TR
Maximum Queue (ft)	365	218	187	190	252	274
Average Queue (ft)	162	70	104	81	161	179
95th Queue (ft)	287	149	166	150	241	257
Link Distance (ft)	588				371	371
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		300	210	210		
Storage Blk Time (%)	0	0	0	0	2	
Queuing Penalty (veh)	1	0	1	0	5	

Intersection: 8: SR-235 & 2550 N/Smiths

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	T	R	L	T	T	R
Maximum Queue (ft)	484	244	487	110	349	433	395	196	172	237	239	27
Average Queue (ft)	175	76	218	77	131	205	173	25	67	90	98	6
95th Queue (ft)	395	197	426	145	278	382	337	111	130	186	191	22
Link Distance (ft)	1289		546			590	590			588	588	
Upstream Blk Time (%)			1									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)		125		85	200			190	200			145
Storage Blk Time (%)	25	0	47	2	3	10	6	0	0	0	2	
Queuing Penalty (veh)	43	1	52	4	16	25	4	0	1	1	1	

Intersection: 9: SR-235 & 2421 N/South Smiths

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	T	TR
Maximum Queue (ft)	132	615	225	42	14	30	80	24	1
Average Queue (ft)	32	507	99	8	0	2	25	1	0
95th Queue (ft)	125	769	279	29	12	14	61	18	1
Link Distance (ft)	639	600			1500			590	590
Upstream Blk Time (%)		59							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)			200	50		100	170		
Storage Blk Time (%)		92	0	0					
Queuing Penalty (veh)		56	0	3					

Intersection: 10: SR-134 & 300 E

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	87	313	301	140	123	135	30	152	106	37	22
Average Queue (ft)	12	156	143	74	42	61	3	76	46	6	7
95th Queue (ft)	51	263	251	124	102	119	16	130	85	24	20
Link Distance (ft)		800	800		849	849		486	486		641
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	170			160			125			55	
Storage Blk Time (%)		5		0	0	0				0	0
Queuing Penalty (veh)		1		0	0	0				0	0

Intersection: 11: 2600 N & 450 E

Movement	EB	EB	EB	WB	SB
Directions Served	L	T	T	TR	LR
Maximum Queue (ft)	48	112	37	43	116
Average Queue (ft)	16	6	2	2	34
95th Queue (ft)	44	66	36	19	90
Link Distance (ft)		457	457	185	352
Upstream Blk Time (%)		0			
Queuing Penalty (veh)		0			
Storage Bay Dist (ft)	50				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	2	0			

Intersection: 29: 2600 N

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 249

APPENDIX D: ADDITIONAL ANALYSIS



5: 400 E & Lee's Market Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	2.0	0.4	2.7	0.8	0.0	6.2
Total Del/Veh (s)	127.2	48.1	25.1	9.0	3.7	2.1	10.3
Stop Delay (hr)	0.2	2.0	0.4	1.5	0.2	0.0	4.4
Stop Del/Veh (s)	125.5	47.9	20.8	5.1	1.2	1.1	7.3
Total Stops	5	149	57	232	125	54	622
Stop/Veh	1.00	0.99	0.90	0.21	0.16	0.70	0.29
Travel Dist (mi)	0.5	16.7	3.4	59.2	27.0	2.8	109.6
Travel Time (hr)	0.2	2.7	0.6	5.0	1.7	0.2	10.5
Avg Speed (mph)	3	6	6	12	16	14	10
Fuel Used (gal)	0.1	1.0	0.2	3.7	1.4	0.1	6.4
Fuel Eff. (mpg)	8.9	17.3	14.8	16.0	19.7	25.2	17.0
HC Emissions (g)	0	3	0	17	8	0	29
CO Emissions (g)	8	190	25	991	440	18	1672
NOx Emissions (g)	0	13	4	100	42	3	160
Vehicles Entered	4	149	63	1084	760	77	2137
Vehicles Exited	5	149	62	1084	761	77	2138
Hourly Exit Rate	5	149	62	1084	761	77	2138
Input Volume	5	145	65	1140	755	80	2190
% of Volume	105	103	95	95	101	96	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0
Density (ft/veh)							142
Occupancy (veh)	0	3	1	5	2	0	10

Intersection: 5: 400 E & Lee's Market

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	359	239	272	142	50
Average Queue (ft)	97	149	91	36	35
95th Queue (ft)	271	271	261	121	58
Link Distance (ft)	586	193	193	125	
Upstream Blk Time (%)	0	10	5	2	
Queuing Penalty (veh)	0	61	33	18	
Storage Bay Dist (ft)					25
Storage Blk Time (%)				2	7
Queuing Penalty (veh)				7	26

7: SR-235 & Walgreens Performance by movement

Movement	EBL	WBL	NBL	NBT	SBL	SBT	All
Denied Delay (hr)	4.3	0.6	0.0	0.1	0.0	0.0	5.0
Denied Del/Veh (s)	309.1	44.9	0.4	0.1	0.2	0.0	6.3
Total Delay (hr)	11.2	6.7	0.3	3.2	0.3	1.2	22.8
Total Del/Veh (s)	958.8	474.7	21.6	8.0	19.9	3.5	29.1
Stop Delay (hr)	11.2	6.7	0.2	1.1	0.2	0.2	19.8
Stop Del/Veh (s)	962.1	475.6	17.1	2.9	17.2	0.7	25.2
Total Stops	16	38	45	224	40	44	407
Stop/Veh	0.38	0.75	0.88	0.16	0.82	0.04	0.14
Travel Dist (mi)	1.5	2.1	3.0	83.8	3.3	82.7	176.4
Travel Time (hr)	15.5	7.4	0.4	5.7	0.4	4.1	33.6
Avg Speed (mph)	0	0	7	15	8	20	6
Fuel Used (gal)	3.6	1.8	0.2	4.3	0.2	5.5	15.6
Fuel Eff. (mpg)	0.4	1.2	17.1	19.5	15.1	15.0	11.3
HC Emissions (g)	0	0	0	22	1	42	66
CO Emissions (g)	180	101	23	1300	53	2801	4458
NOx Emissions (g)	2	3	3	118	6	203	335
Vehicles Entered	36	48	50	1425	49	1199	2807
Vehicles Exited	29	41	50	1424	49	1199	2792
Hourly Exit Rate	29	41	50	1424	49	1199	2792
Input Volume	50	50	50	1452	50	1210	2863
% of Volume	58	82	100	98	98	99	98
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	14	2	0	0	0	0	16
Density (ft/veh)							102
Occupancy (veh)	11	7	0	6	0	4	29

Intersection: 7: SR-235 & Walgreens

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LT	R	L	T	TR	L	T	TR
Maximum Queue (ft)	272	268	250	187	74	260	241	62	101	114
Average Queue (ft)	238	101	162	32	26	99	66	23	16	18
95th Queue (ft)	325	306	300	173	63	268	220	52	63	70
Link Distance (ft)	257	257	258	258		238	238		270	270
Upstream Blk Time (%)	66	36	24	9		3	1			
Queuing Penalty (veh)	0	0	0	0		24	7			
Storage Bay Dist (ft)					50			50		
Storage Blk Time (%)					3	12		3	2	
Queuing Penalty (veh)					24	6		18	1	

10: New Development/300 E & SR-134 Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	42.7	37.6	0.7	0.3	81.5
Denied Del/Veh (s)	2.4	0.5	0.4	0.1	0.0	0.1	1164.2	1207.6	60.1	47.8	118.2
Total Delay (hr)	0.1	1.2	0.0	2.0	0.6	0.0	23.0	1.7	10.3	3.0	41.9
Total Del/Veh (s)	7.5	3.7	1.2	42.6	2.9	2.5	1425.2	177.2	845.3	539.6	64.3
Stop Delay (hr)	0.1	0.1	0.0	1.8	0.0	0.0	23.1	1.7	10.3	3.0	40.1
Stop Del/Veh (s)	5.6	0.3	0.1	38.2	0.1	0.2	1431.8	175.3	845.7	538.9	61.5
Total Stops	31	10	4	160	1	1	18	37	38	27	327
Stop/Veh	0.55	0.01	0.05	0.93	0.00	0.06	0.31	1.09	0.86	1.35	0.14
Travel Dist (mi)	8.4	175.9	12.5	29.4	121.8	2.7	3.4	2.8	4.1	2.1	363.1
Travel Time (hr)	0.4	4.6	0.4	3.1	4.2	0.1	65.8	39.4	11.2	3.4	132.5
Avg Speed (mph)	24	40	34	10	29	25	0	2	0	1	7
Fuel Used (gal)	0.3	5.7	0.3	1.9	6.2	0.1	15.2	9.1	2.7	0.8	42.4
Fuel Eff. (mpg)	30.9	30.6	35.9	15.8	19.6	20.5	0.2	0.3	1.5	2.5	8.6
HC Emissions (g)	2	56	3	12	54	1	0	1	1	0	131
CO Emissions (g)	176	4170	248	867	3859	76	735	468	170	59	10830
NOx Emissions (g)	9	212	12	50	221	5	5	4	5	2	524
Vehicles Entered	55	1156	82	168	695	16	40	33	40	20	2305
Vehicles Exited	55	1156	83	169	694	16	36	31	27	14	2281
Hourly Exit Rate	55	1156	83	169	694	16	36	31	27	14	2281
Input Volume	55	1135	80	160	709	15	130	110	45	20	2460
% of Volume	100	102	103	106	98	105	28	28	60	70	93
Denied Entry Before	0	0	0	0	0	0	2	1	0	0	3
Denied Entry After	0	0	0	0	0	0	92	79	4	2	177
Density (ft/veh)											162
Occupancy (veh)	0	4	0	3	4	0	23	2	10	3	51

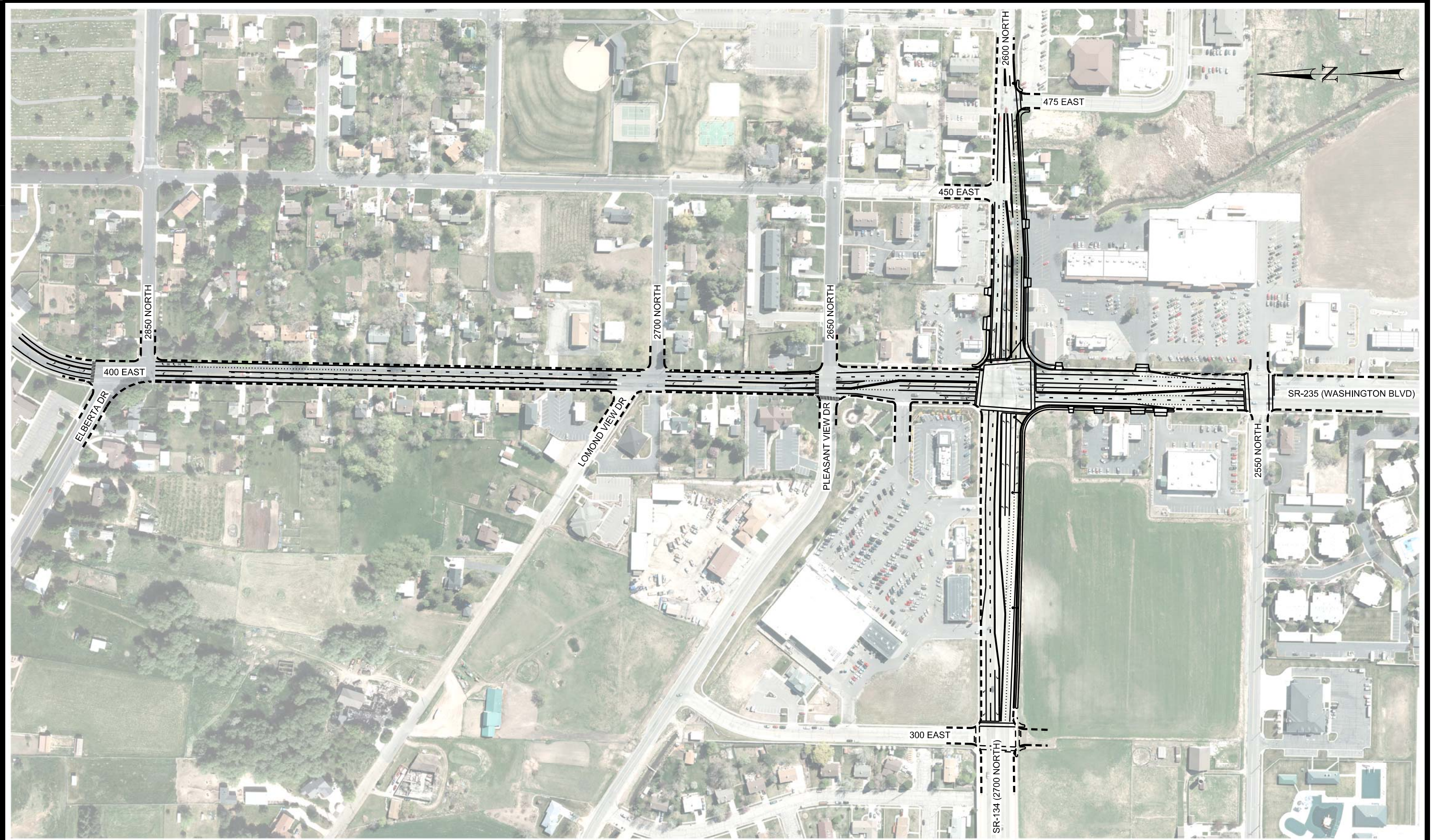
Intersection: 10: New Development/300 E & SR-134

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	65	40	73	214	33	97	11	501	501	79	592
Average Queue (ft)	19	5	7	96	2	3	0	489	448	69	289
95th Queue (ft)	49	72	60	186	41	99	5	530	671	91	676
Link Distance (ft)		800	800		848	848		486	486		641
Upstream Blk Time (%)						0		92	86		15
Queuing Penalty (veh)						0		0	0		0
Storage Bay Dist (ft)	170			250			125			55	
Storage Blk Time (%)		1		1						88	0
Queuing Penalty (veh)		0		2						18	0

APPENDIX E: COST ESTIMATES AND DESIGN DRAWINGS



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FOR INFORMATION ONLY

DESIGN YEAR 2024

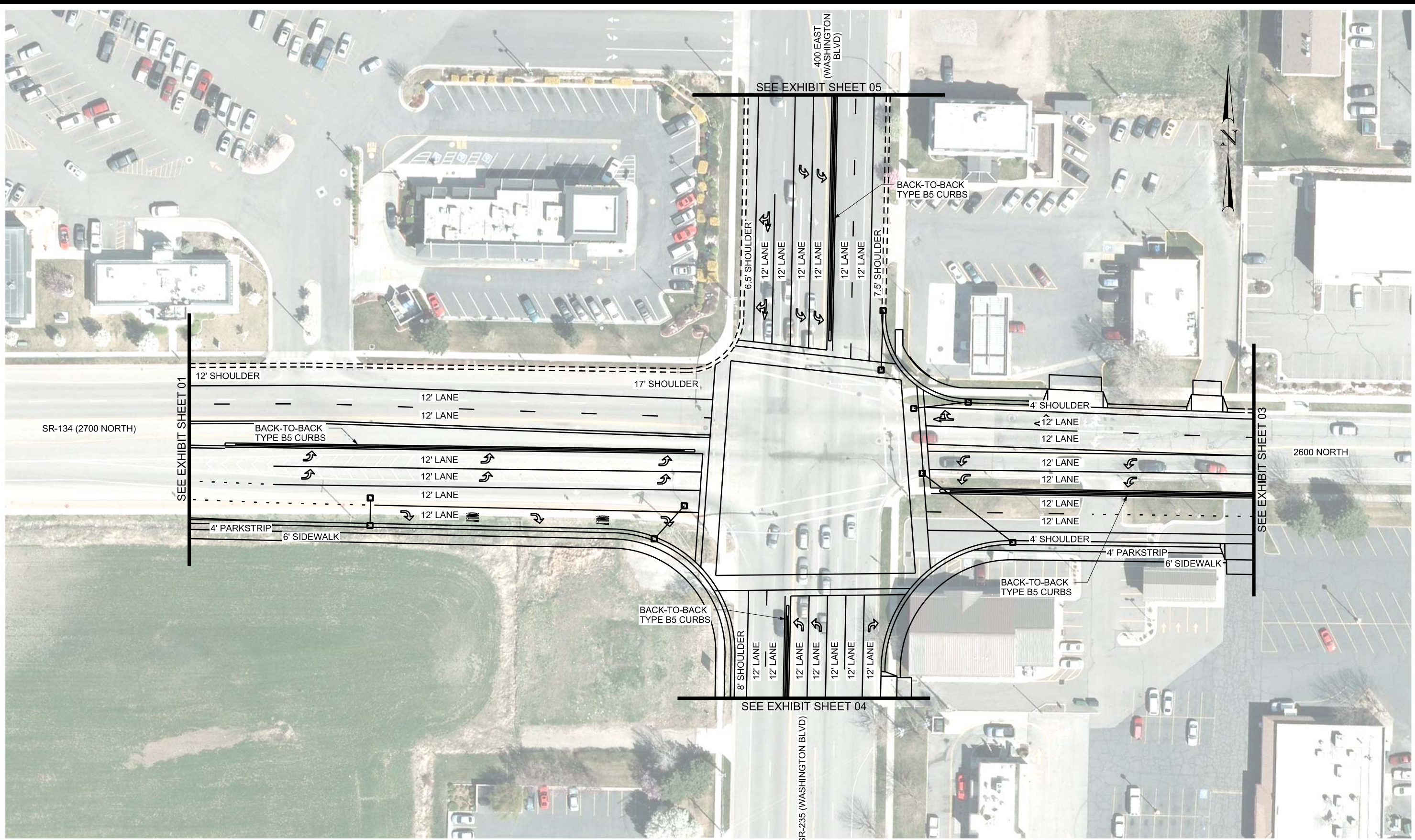
PROJECT NO. F-0235(20)3 PIN: 14408

SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH

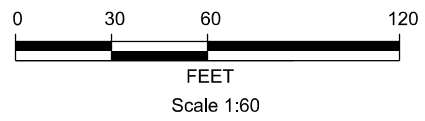
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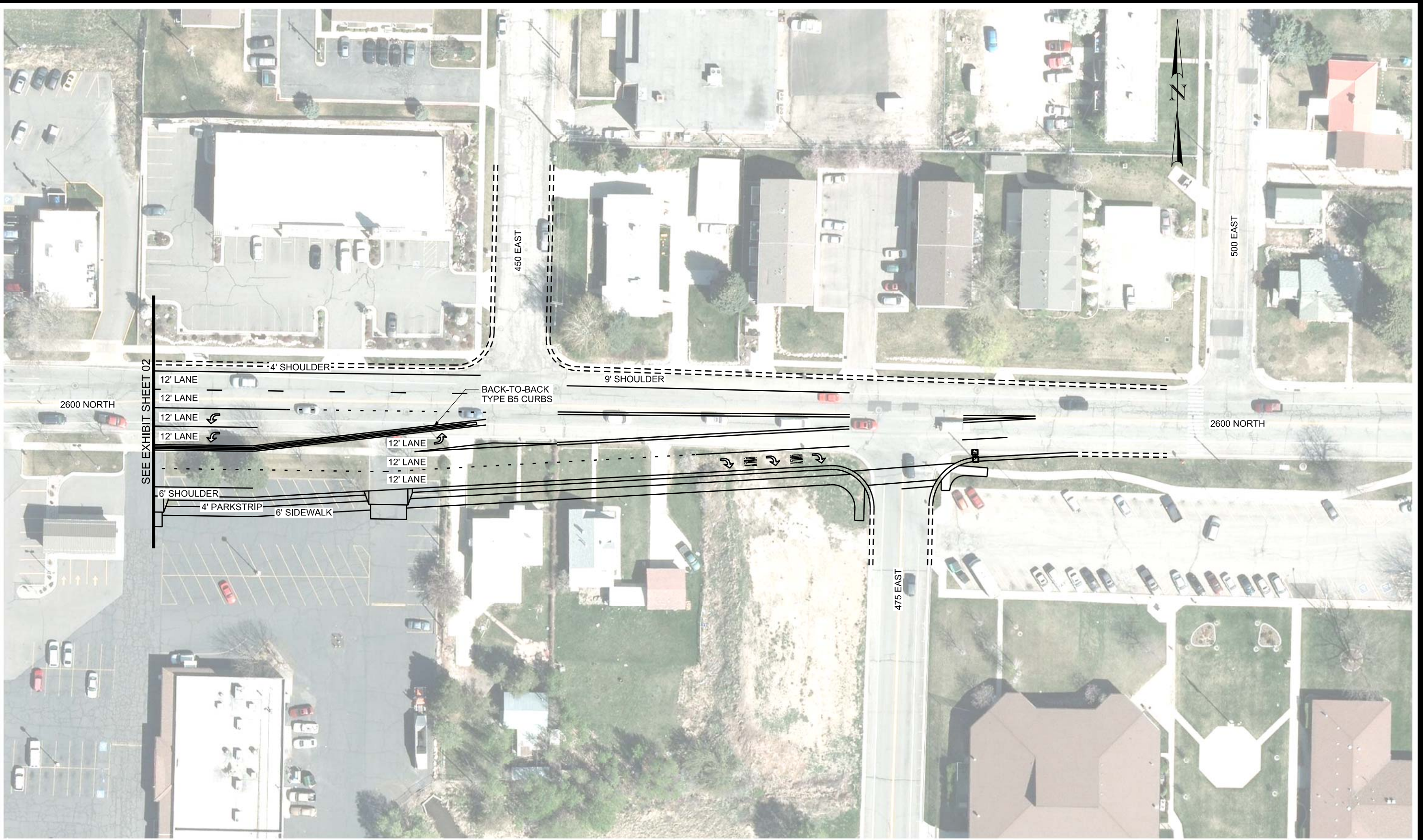
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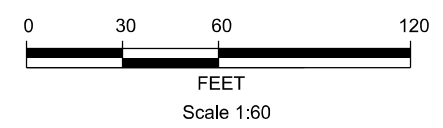
SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH

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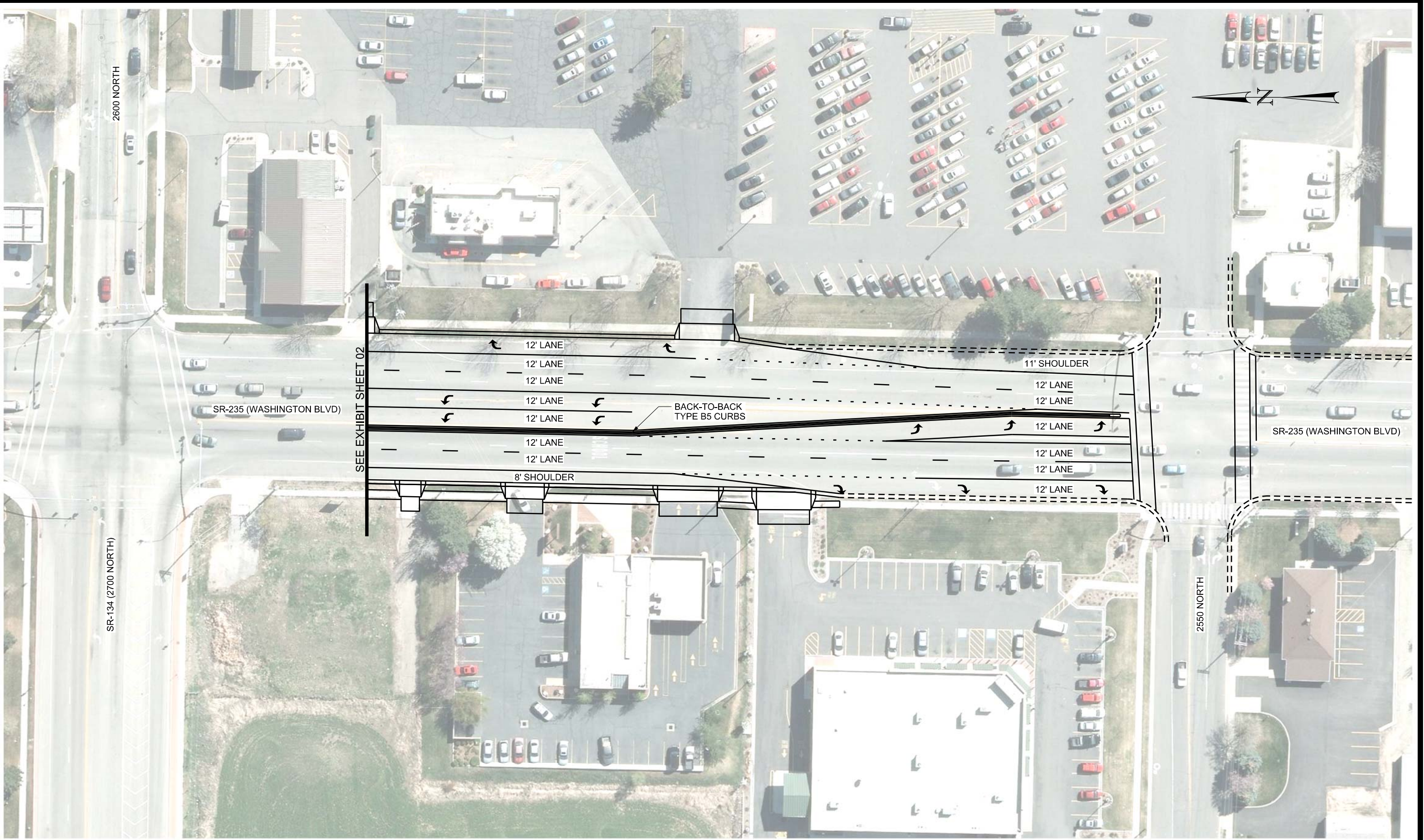
DESIGN YEAR 2024

PROJECT NO. F-0235(20)3 PIN: 14408

SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH

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SEE EXHIBIT SHEET 02

12' LANE
12' LANE
12' LANE
12' LANE
12' LANE
12' LANE
8' SHOULDER

BACK-TO-BACK
TYPE B5 CURBS

11' SHOULDER
12' LANE
12' LANE
12' LANE
12' LANE
12' LANE

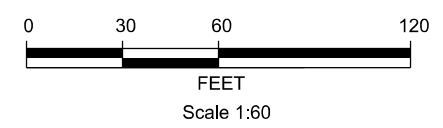
SR-235 (WASHINGTON BLVD)

SR-235 (WASHINGTON BLVD)

SR-134 (2700 NORTH)

SR-2550 NORTH

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DESIGN YEAR 2024

Page 324

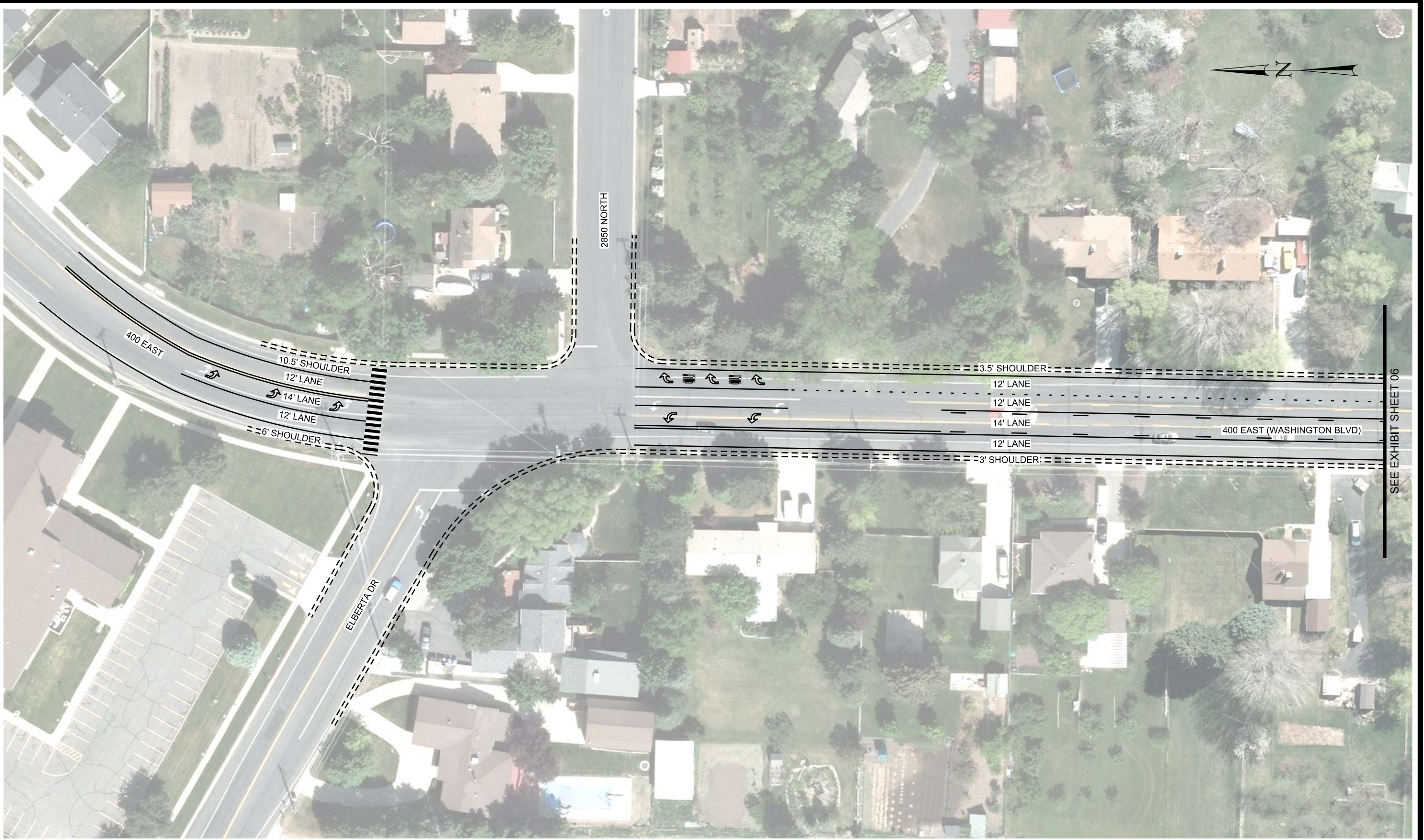
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SR-235; INTERSECTION
IMPROVEMENTS AT 2700 NORTH

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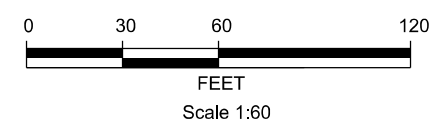
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SEE EXHIBIT SHEET 06

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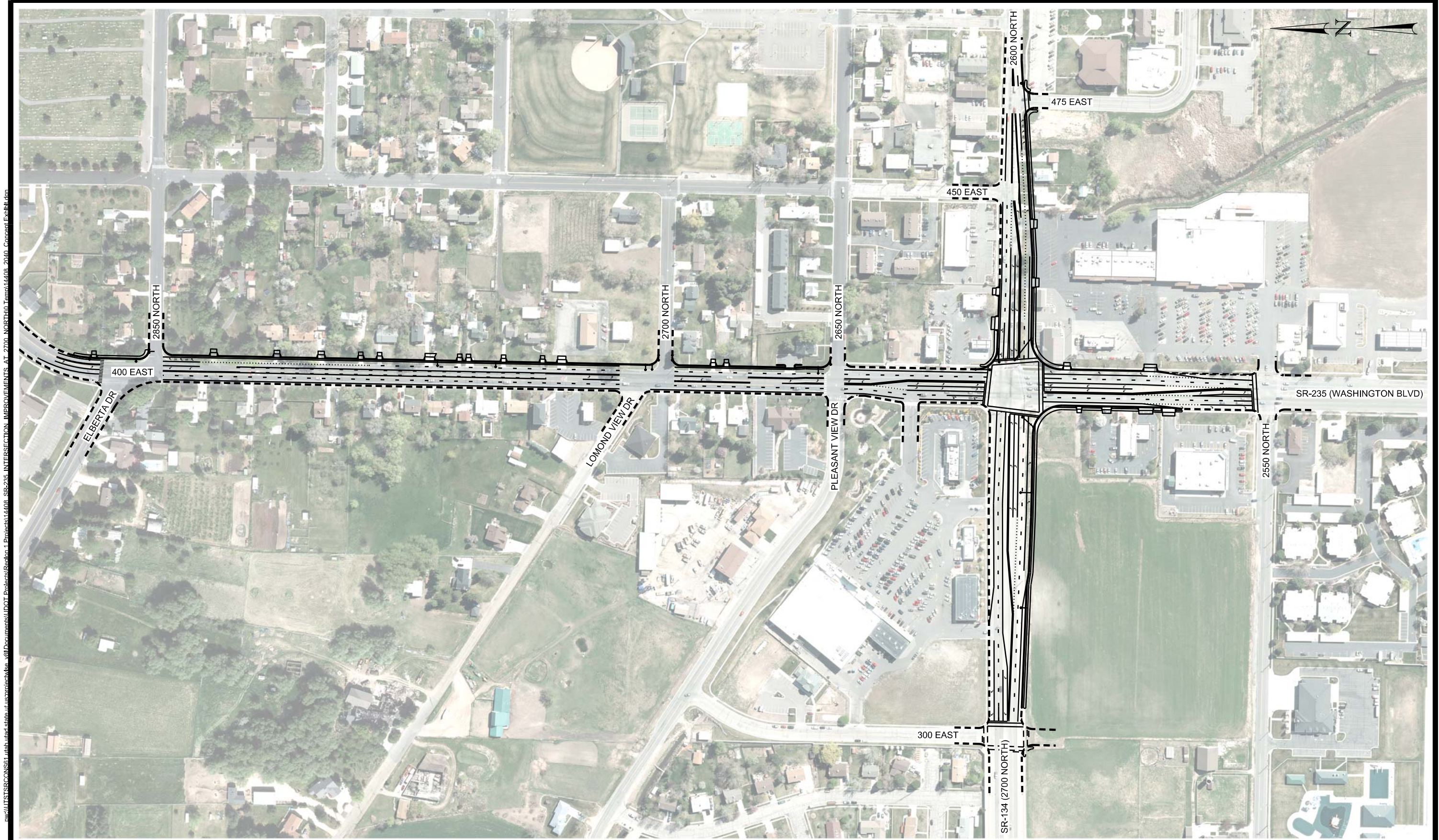


DESIGN YEAR 2024

Page 327

PROJECT NO. F-0235(20)3	PIN: 14408
SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH	

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DESIGN YEAR 2040

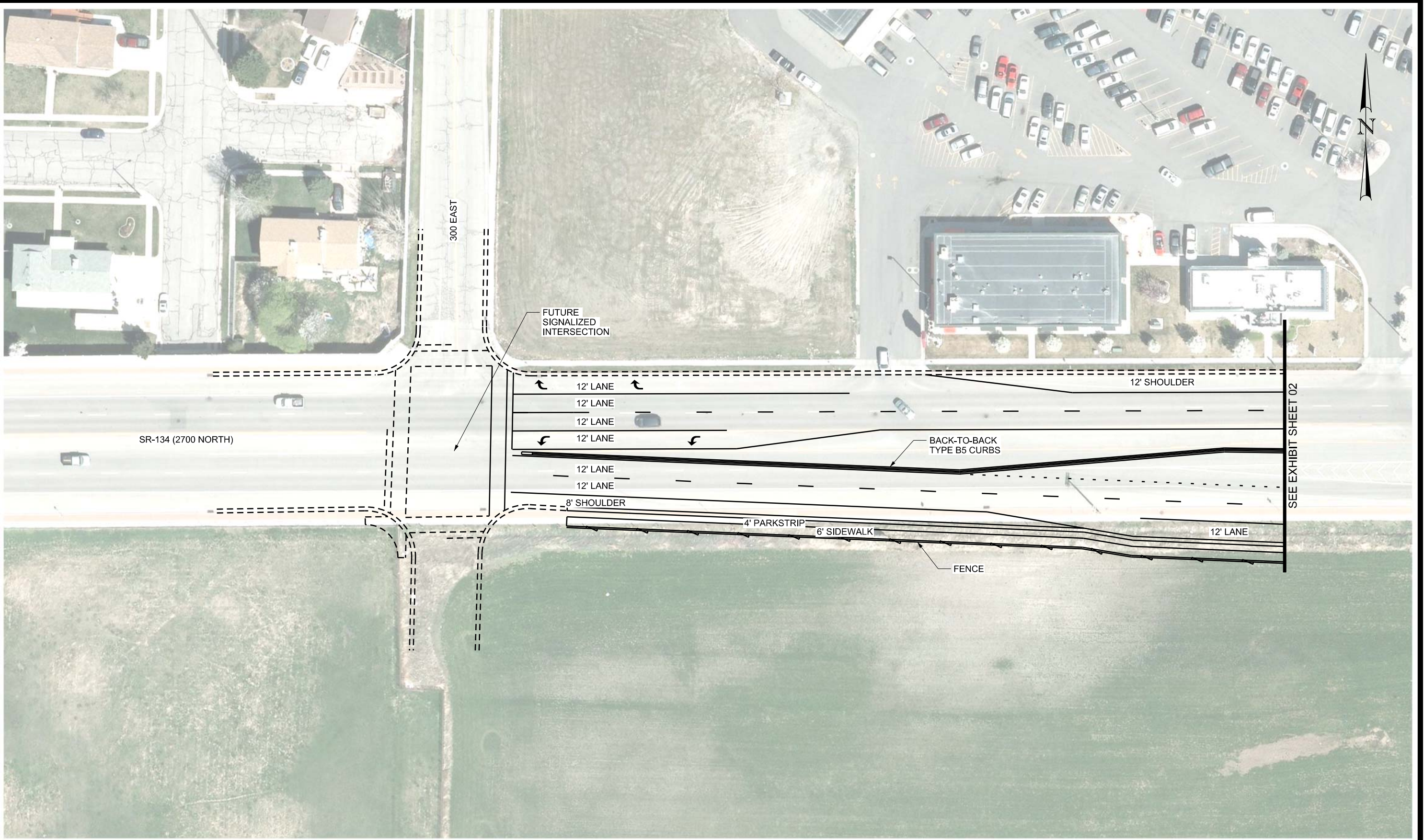
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 SR-235; INTERSECTION
 IMPROVEMENTS AT 2700 NORTH

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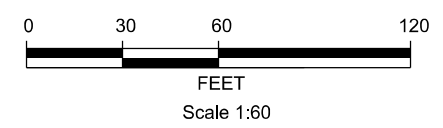
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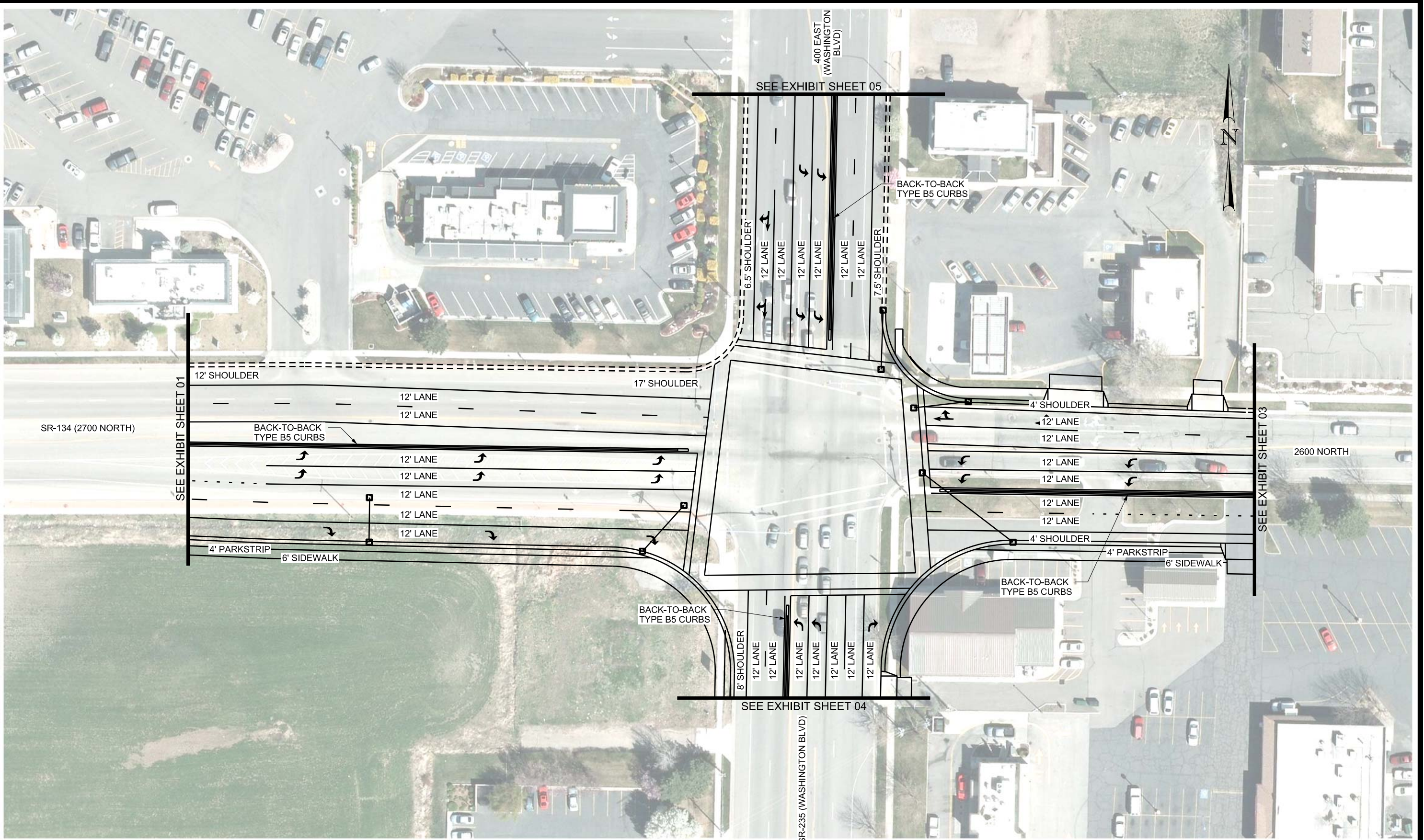


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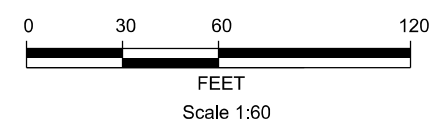
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SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH	

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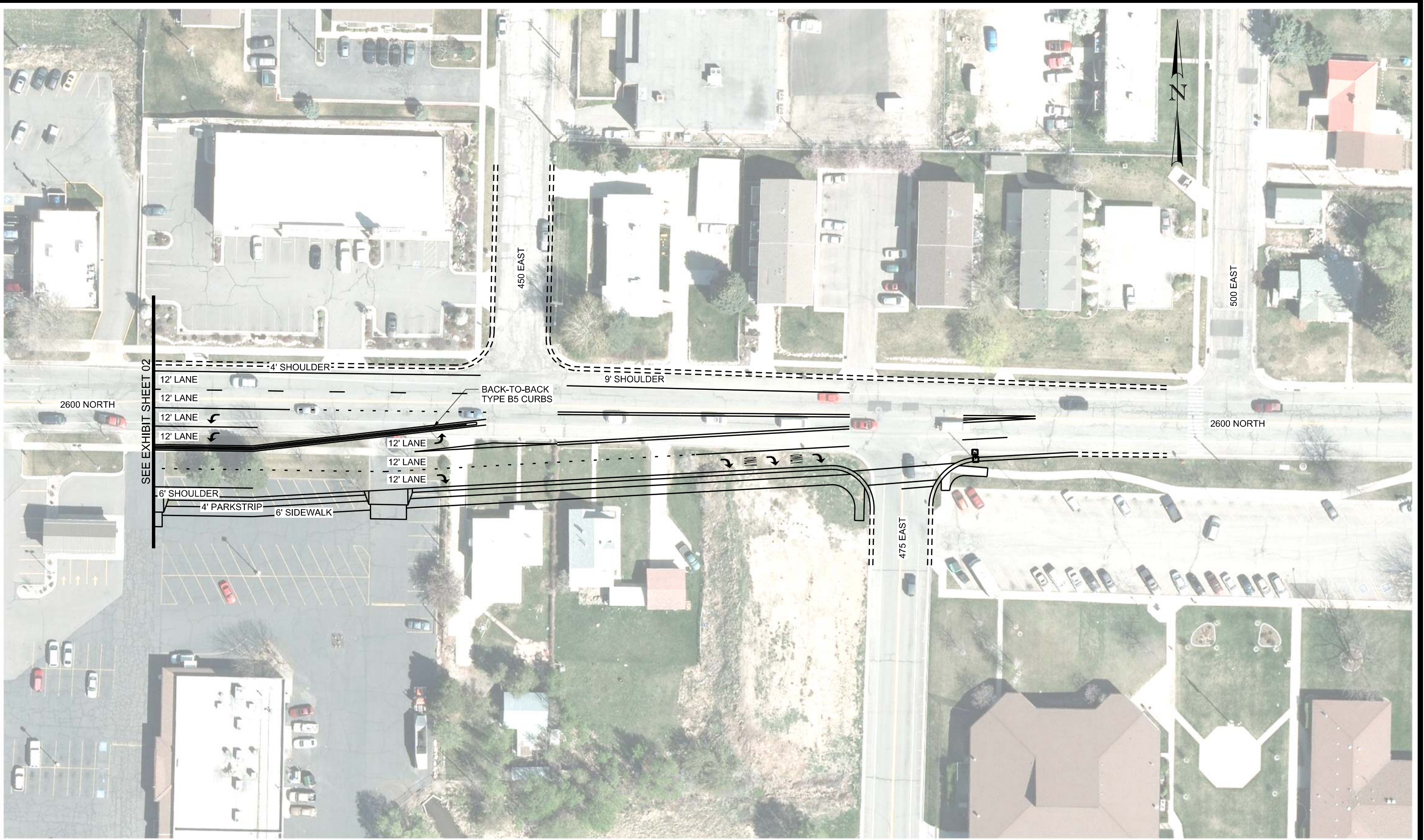


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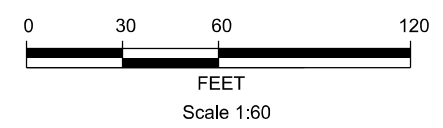
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SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH
PIN: 14408

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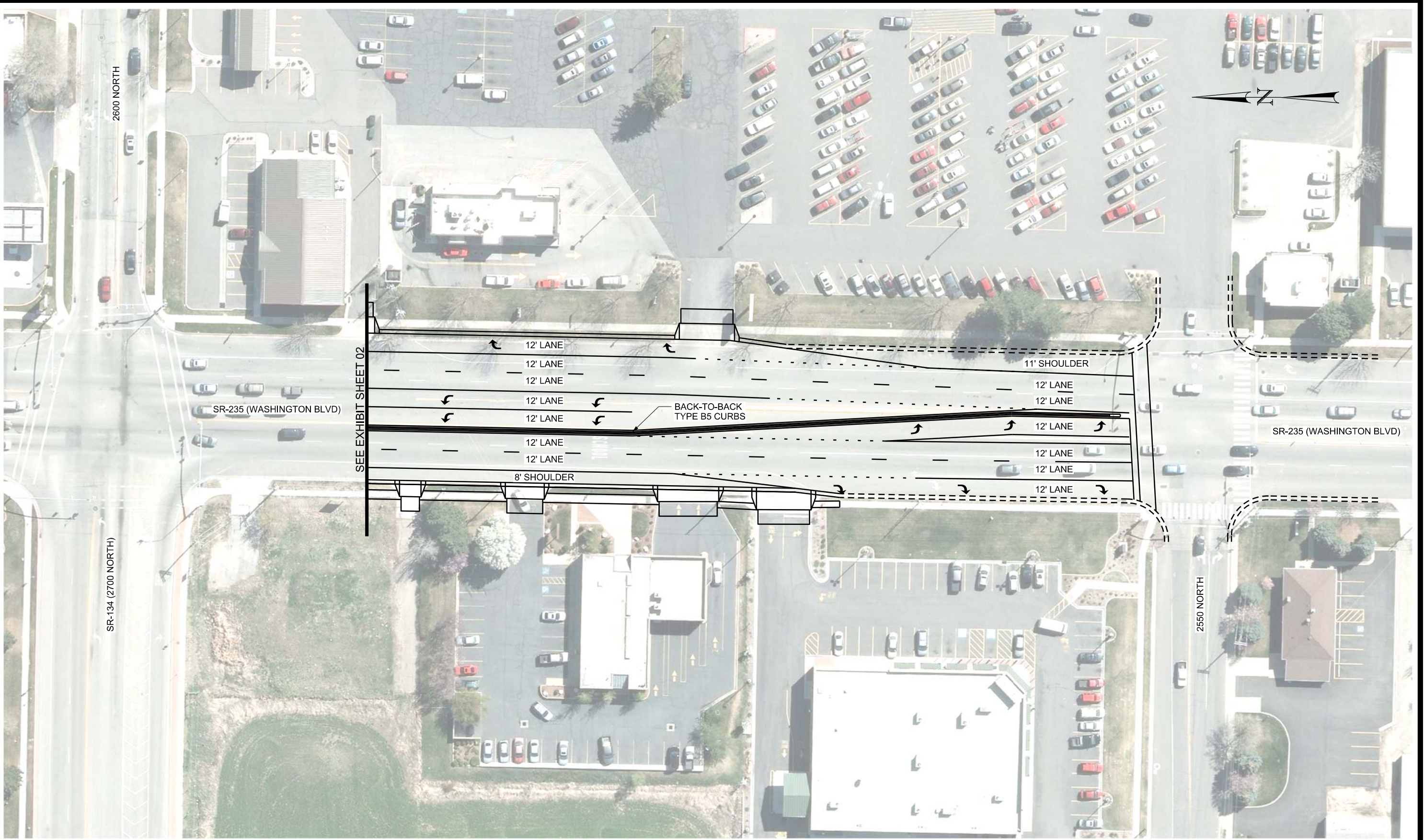


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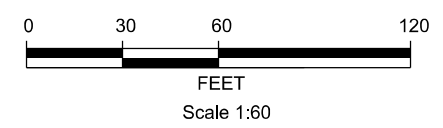
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SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH	

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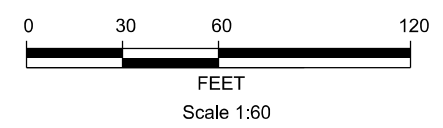
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**SR-235; INTERSECTION
 IMPROVEMENTS AT 2700 NORTH**

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DESIGN YEAR 2040

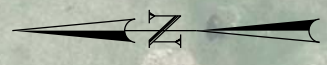
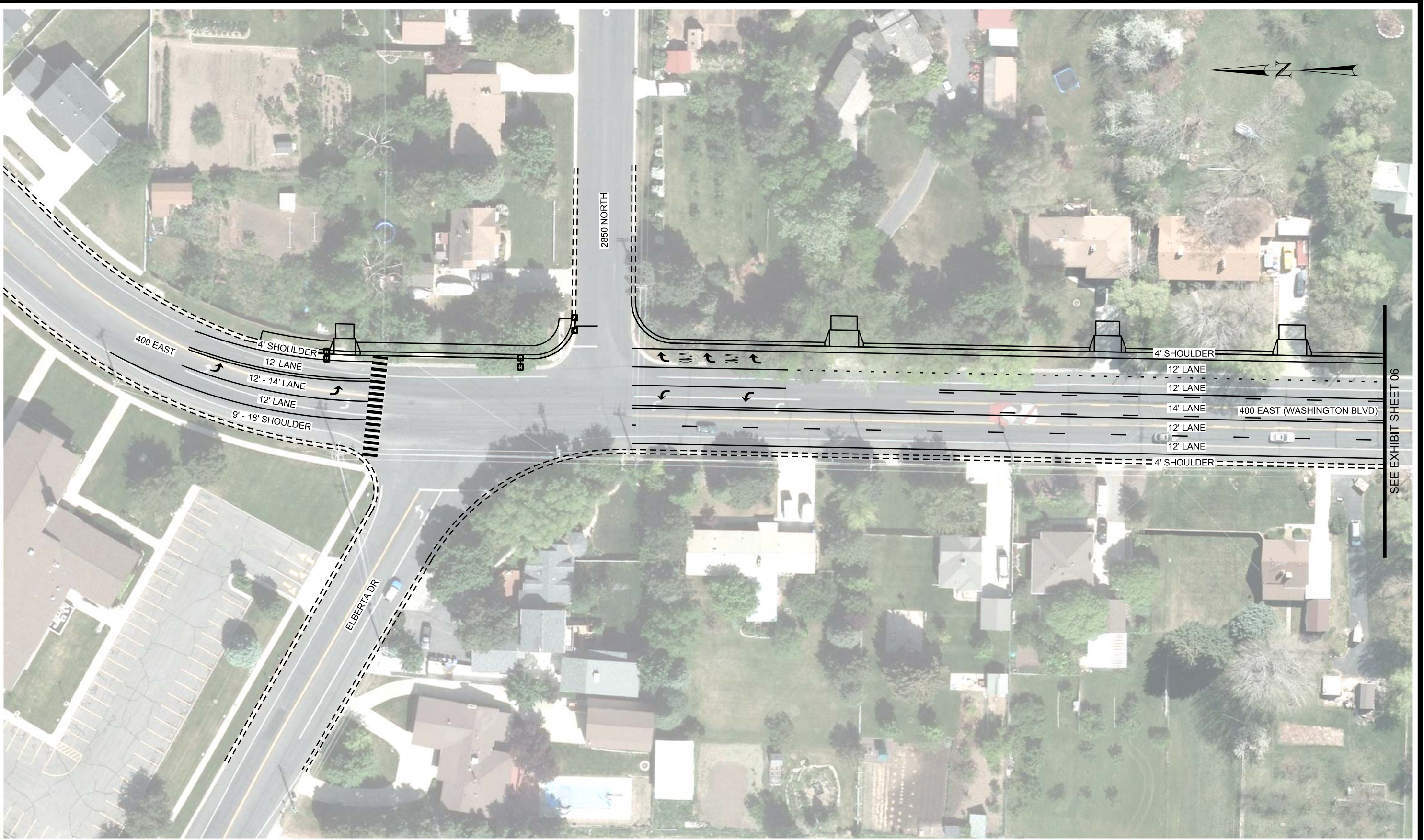
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PROJECT NO. F-0235(20)3 PIN: 14408
SR-235; INTERSECTION
IMPROVEMENTS AT 2700 NORTH

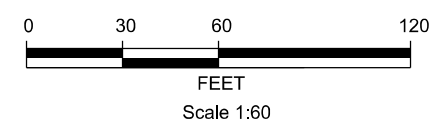
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DESIGN YEAR 2040

Page 335

PROJECT NO. F-0235(20)3 PIN: 14408

SR-235; INTERSECTION IMPROVEMENTS AT 2700 NORTH

SHEET NO. 07

PIN: 14408 PROJECT # F-0235(20)3
PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level - 2024 Design Year

	2017	2018
North Leg	\$504,000	\$528,000
East Leg	\$2,557,000	\$2,650,000
South Leg (UDOT)	\$1,134,000	\$1,183,000
West Leg (UDOT)	\$1,305,000	\$1,361,000
	TOTAL \$5,500,000	TOTAL \$5,722,000

PROPOSED UDOT CONTRIBUTION	TOTAL \$2,439,000	TOTAL \$2,544,000
-----------------------------------	--------------------------	--------------------------

PIN: 14408 PROJECT # F-0235(20)3
PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level - 2040 Design Year

	2017	2018
North Leg	\$2,465,000	\$2,567,000
East Leg	\$2,557,000	\$2,650,000
South Leg (UDOT)	\$1,153,000	\$1,202,000
West Leg (UDOT)	\$1,467,000	\$1,530,000
	TOTAL \$7,642,000	TOTAL \$7,949,000

PROPOSED UDOT CONTRIBUTION	TOTAL \$2,620,000	TOTAL \$2,732,000
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**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date 12/14/2016

Proposed Project Scope: Add East Bound Dual Left Turn lanes at the SR-134/SR-235 Intersection on the west leg for the design year 2024.

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$2,000	
Roadway and Drainage	\$494,693	
Traffic and Safety	\$135,625	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$632,318
	Items not Estimated (20%)	\$126,464
	Construction Subtotal	\$758,782
P.E. Cost	P.E. Subtotal	\$60,813 8%
C.E. Cost	C.E. Subtotal	\$57,013 7.5%
Right of Way	Right of Way Subtotal	\$321,681
Utilities	Utilities Subtotal	\$30,000
Incentives	Incentives Subtotal	\$1,386
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$61,000	\$63,000
Right of Way	\$322,000	\$331,000
Utilities	\$30,000	\$32,000
Construction	\$759,000	\$797,000
C.E.	\$57,000	\$59,000
Incentives	\$1,000	\$1,000
Aesthetics	0.75% \$6,000	\$6,000
Change Order Contingency	9.00% \$69,000	\$72,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$1,305,000	\$1,361,000

PROPOSED COMMISSION REQUEST	TOTAL \$1,305,000	TOTAL \$1,361,000
------------------------------------	--------------------------	--------------------------

Project Assumptions/Risks

- | | |
|---------|----------|
| 1 _____ | 8 _____ |
| 2 _____ | 9 _____ |
| 3 _____ | 10 _____ |
| 4 _____ | 11 _____ |
| 5 _____ | 12 _____ |
| 6 _____ | 13 _____ |
| 7 _____ | 14 _____ |

Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$74,000.00	\$74,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$37,000.00	\$37,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$8,000.00	\$8,000.00	Usually 1% of construction
015720020	Dust Control and Watering	143	1000 gal	\$25.00	\$3,575.00	
020560005	Borrow (Plan Quantity)	914	cu yd	\$16.00	\$14,624.00	
020560015	Granular Borrow (Plan Quantity)	1,829	cu yd	\$25.00	\$45,725.00	(30" thick)
022210080	Remove Fence	750	ft	\$4.00	\$3,000.00	
	Remove Concrete Sidewalk	458	sq yd	\$15.00	\$6,875.00	
	Remove Concrete Driveway	0	sq yd	\$12.50	\$0.00	
	Remove Curb and Gutter	825	ft	\$2.50	\$2,062.50	
023160020	Roadway Excavation (Plan Quantity)	2,866	cu yd	\$10.00	\$28,660.00	
027210020	Untreated Base Course (Plan Quantity)	488	cu yd	\$33.00	\$16,104.00	(8" thick)
027410050	HMA - 1/2 Inch	955	Ton	\$75.00	\$71,625.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	5	Ton	\$700.00	\$3,500.00	Tack Coat
027710017	Concrete Curb Type B5	586	ft	\$15.00	\$8,790.00	
027710025	Concrete Curb and Gutter Type B1	750	ft	\$16.00	\$12,000.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	1	Each	\$2,500.00	\$2,500.00	
027760010	Concrete Sidewalk	4,600	sq ft	\$7.00	\$32,200.00	
027760038	Concrete Driveway Flared, 6 inch Thick	0	sq ft	\$10.00	\$0.00	
027760050	Concrete Driveway Flared, 7 inch Thick	0	sq ft	\$12.00	\$0.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P		Ton			Flush Coat
027870010	Bonded Wearing Course - Type A	10,348	sq yd	\$8.00	\$82,782.22	1" thick
	Right-of-Way Fence	750	ft	\$15.00	\$11,250.00	
Roadway Subtotal					\$465,473	
Drainage						
018920010	Reconstruct Catch Basin	3	Each	\$2,500.00	\$7,500.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	3	Each	\$5,000.00	\$15,000.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	84	ft	\$80.00	\$6,720.00	
Drainage Subtotal					\$29,220	
PI						
013150010	Public Information Services	1	Lump	\$2,000.00	\$2,000	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	5,525	ft	\$3.00	\$16,575.00	
027650040	Remove Pavement Message	42	Each	\$85.00	\$3,570.00	
027650050	Pavement Marking Paint	42	gal	\$25.00	\$1,050.00	
027680105	Pavement Message (Preformed Thermoplastic)	13	Each	\$300.00	\$3,900.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	30	Each	\$300.00	\$8,950.00	
	Sign	4	each	\$300.00	\$1,200.00	
028910270	Remove Sign Less Than 20 Square Feet	4	Each	\$95.00	\$380.00	
Signals						
02892001D	Traffic Signal System	1	Lump	\$100,000.00	\$100,000.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$135,625	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	0	Lump	\$0.00	\$0.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	0	Lump	\$0.00	\$0.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Relocate Phone	0	Lump	\$0.00	\$0.00	
	Relocate Power Pole	2	Each	\$15,000.00	\$30,000.00	
Utilities Subtotal					\$30,000	
Right-of-way						
	non-Urban/Suburban Residential	0	Each	\$0.00	\$0.00	
	non-Urban/Suburban Commercial	9,553	sq ft	\$30.00	\$286,590.00	
	non-Urban/Suburban Farm	0	Each	\$0.00	\$0.00	
	Temporary Construction Easement	11,697	sq ft	\$3.00	\$35,091.00	
Right-of-Way Subtotal					\$321,681	
Incentives						
	00000601* Pavement Smoothness Incentive		Lump			
	00000602* Hot Mix Asphalt (HMA) Incentive	1	Lump	\$1,217.63	\$1,217.63	
	00000603* Stone Matrix Asphalt (SMA) Incentive		Lump			
	00000604* Open Graded Surface Course Incentive		Lump			
	00000605* Bonded Wearing Course Incentive	1	Lump	\$167.92	\$167.92	
	00000606* Early Completion - Time		Cal'd			
	00000607* Lane Rental Incentive		Hours			
	00000608* Miscellaneous Incentive		Lump			
Incentives Subtotal					\$1,386	

**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date 12/14/2016

Proposed Project Scope: Add West Bound Dual Left Turn lanes at the SR-134/SR-235 Int on the East Leg for the design years 2024 & 2040.

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$1,700	
Roadway and Drainage	\$536,455	
Traffic and Safety	\$27,026	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$565,181
	Items not Estimated (20%)	\$113,036
	Construction Subtotal	\$678,217
P.E. Cost	P.E. Subtotal	\$54,417 8%
C.E. Cost	C.E. Subtotal	\$51,016 7.5%
Right of Way	Right of Way Subtotal	\$1,655,595
Utilities	Utilities Subtotal	\$50,000
Incentives	Incentives Subtotal	\$1,999
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$54,000	\$56,000
Right of Way	\$1,656,000	\$1,705,000
Utilities	\$50,000	\$53,000
Construction	\$678,000	\$712,000
C.E.	\$51,000	\$53,000
Incentives	\$2,000	\$2,000
Aesthetics	0.75% \$5,000	\$5,000
Change Order Contingency	9.00% \$61,000	\$64,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$2,557,000	\$2,650,000

PROPOSED COMMISSION REQUEST	TOTAL \$2,557,000	TOTAL \$2,650,000
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Project Assumptions/Risks

- | | |
|---------|----------|
| 1 _____ | 8 _____ |
| 2 _____ | 9 _____ |
| 3 _____ | 10 _____ |
| 4 _____ | 11 _____ |
| 5 _____ | 12 _____ |
| 6 _____ | 13 _____ |
| 7 _____ | 14 _____ |

Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$66,000.00	\$66,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$33,000.00	\$33,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$6,000.00	\$6,000.00	Usually 1% of construction
015720020	Dust Control and Watering	203	1000 gal	\$25.00	\$5,075.00	
020560005	Borrow (Plan Quantity)	1,245	cu yd	\$16.00	\$19,920.00	
020560015	Granular Borrow (Plan Quantity)	2,639	cu yd	\$25.00	\$65,975.00	(30" thick)
022210080	Remove Fence	0	ft	\$4.00	\$0.00	
	Remove Concrete Sidewalk	427	sq yd	\$15.00	\$6,400.00	
	Remove Concrete Driveway	2,485	sq yd	\$12.50	\$31,062.50	
	Remove Curb and Gutter	1,160	ft	\$2.50	\$2,900.00	
023160020	Roadway Excavation (Plan Quantity)	4,134	cu yd	\$10.00	\$41,340.00	
027210020	Untreated Base Course (Plan Quantity)	704	cu yd	\$33.00	\$23,232.00	(8" thick)
027410050	HMA - 1/2 Inch	1,378	Ton	\$75.00	\$103,350.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	6	Ton	\$700.00	\$4,200.00	Tack Coat
027710017	Concrete Curb Type B5	806	ft	\$15.00	\$12,090.00	
027710025	Concrete Curb and Gutter Type B1	1,000	ft	\$16.00	\$16,000.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$2,500.00	\$5,000.00	
027760010	Concrete Sidewalk	4,670	sq ft	\$7.00	\$32,690.00	
027760038	Concrete Driveway Flared, 6 inch Thick	290	sq ft	\$10.00	\$2,900.00	
027760050	Concrete Driveway Flared, 7 inch Thick	2,195	sq ft	\$12.00	\$26,340.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P	0	Ton	\$0.00	\$0.00	Flush Coat
027870010	Bonded Wearing Course - Type A	7,466	sq yd	\$8.00		1"(thick)
Roadway Subtotal					\$504,675	
Drainage						
018920010	Reconstruct Catch Basin	3	Each	\$2,500.00	\$7,500.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	3	Each	\$5,000.00	\$15,000.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	116	ft	\$80.00	\$9,280.00	
Drainage Subtotal					\$31,780	
PI						
013150010	Public Information Services	1	Lump	\$1,700.00	\$1,700	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	2,260	ft	\$3.00	\$6,780.00	
027650040	Remove Pavement Message	15	Each	\$85.00	\$1,260.83	
027650050	Pavement Marking Paint	33	gal	\$25.00	\$825.00	
027680105	Pavement Message (Preformed Thermoplastic)	13	Each	\$300.00	\$3,900.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	37	Each	\$300.00	\$11,100.00	
	Sign	8	Each	\$300.00	\$2,400.00	
028910270	Remove Sign Less Than 20 Square Feet	8	Each	\$95.00	\$760.00	
Signals						
02892001D	Traffic Signal System	0	Lump	\$0.00	\$0.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$27,026	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	1	Lump	\$10,000.00	\$10,000.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	1	Lump	\$20,000.00	\$20,000.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Relocate Phone	1	Lump	\$5,000.00	\$5,000.00	
	Relocate Parking Lot Lighting	1	Each	\$15,000.00	\$15,000.00	
Utilities Subtotal					\$50,000	
Right-of-way						
	non-Urban/Suburban Residential	40,100	Each	\$30.00	\$1,203,000.00	
	non-Urban/Suburban Commercial	14,500	sq ft	\$30.00	\$435,000.00	
	TCE	5,865	sq ft	\$3.00	\$17,595.00	
Right-of-Way Subtotal					\$1,655,595	
Incentives						
00000601*	Pavement Smoothness Incentive		Lump			
00000602*	Hot Mix Asphalt (HMA) Incentive	1	Lump	\$1,756.95	\$1,756.95	
00000603*	Stone Matrix Asphalt (SMA) Incentive		Lump			
00000604*	Open Graded Surface Course Incentive		Lump			
00000605*	Bonded Wearing Course Incentive	1	Lump	\$242.20	\$242.20	
00000606*	Early Completion - Time		Cal'd			
00000607*	Lane Rental Incentive		Hours			
00000608*	Miscellaneous Incentive		Lump			
Incentives Subtotal					\$1,999	

**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date 12/14/2016

Proposed Project Scope: Add North Bound Dual Left Turn lanes at the SR-134/SR-235 Intersection on the South Leg for the design year 2024.

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$1,500	
Roadway and Drainage	\$367,385	
Traffic and Safety	\$141,710	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$510,595
	Items not Estimated (20%)	\$102,119
	Construction Subtotal	\$612,714
P.E. Cost	P.E. Subtotal	\$49,017 8%
C.E. Cost	C.E. Subtotal	\$45,954 7.5%
Right of Way	Right of Way Subtotal	\$260,403
Utilities	Utilities Subtotal	\$105,000
Incentives	Incentives Subtotal	\$0
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$49,000	\$50,000
Right of Way	\$260,000	\$268,000
Utilities	\$105,000	\$110,000
Construction	\$613,000	\$644,000
C.E.	\$46,000	\$47,000
Incentives	\$0	\$0
Aesthetics	0.75% \$5,000	\$5,000
Change Order Contingency	9.00% \$56,000	\$59,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$1,134,000	\$1,183,000

PROPOSED COMMISSION REQUEST	TOTAL \$1,134,000	TOTAL \$1,183,000
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Project Assumptions/Risks

1	8
2	9
3	10
4	11
5	12
6	13
7	14

Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$58,000.00	\$58,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$29,000.00	\$29,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$6,000.00	\$6,000.00	Usually 1% of construction
015720020	Dust Control and Watering	23	1000 gal	\$25.00	\$575.00	
020560005	Borrow (Plan Quantity)	0	cu yd	\$16.00	\$0.00	
020560015	Granular Borrow (Plan Quantity)	397	cu yd	\$25.00	\$9,925.00	(30" thick)
	Remove Concrete Sidewalk	2,100	sq yd	\$15.00	\$31,500.00	
	Remove Concrete Driveway	3,664	sq yd	\$12.50	\$45,800.00	
	Remove Curb and Gutter	745	ft	\$2.50	\$1,862.50	
023160020	Roadway Excavation (Plan Quantity)	622	cu yd	\$10.00	\$6,220.00	
027210020	Untreated Base Course (Plan Quantity)	106	cu yd	\$33.00	\$3,498.00	(8" thick)
027410050	HMA - 1/2 Inch	208	Ton	\$75.00	\$15,600.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	1	Ton	\$700.00	\$700.00	Tack Coat
027710017	Concrete Curb Type B5	1,076	ft	\$15.00	\$16,140.00	
027710025	Concrete Curb and Gutter Type B1	870	ft	\$16.00	\$13,920.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$2,500.00	\$5,000.00	
027760010	Concrete Sidewalk	3,300	sq ft	\$7.00	\$23,100.00	
027760038	Concrete Driveway Flared, 6 inch Thick	0	sq ft	\$10.00	\$0.00	
027760050	Concrete Driveway Flared, 7 inch Thick	3,664	sq ft	\$12.00	\$43,968.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P	0	Ton	\$0.00	\$0.00	Flush Coat
027870010	Bonded Wearing Course - Type A	6,922	sq yd	\$8.00	\$55,376.89	1"(thick)
Roadway Subtotal					\$367,385	
Drainage						
018920010	Reconstruct Catch Basin	0	Each	\$2,500.00	\$0.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	0	Each	\$5,000.00	\$0.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	0	ft	\$80.00	\$0.00	
Drainage Subtotal					\$0	
PI						
013150010	Public Information Services	1	Lump	\$1,500.00	\$1,500	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	3,690	ft	\$3.00	\$11,070.00	
027650040	Remove Pavement Message	63	Each	\$85.00	\$5,355.00	
027650050	Pavement Marking Paint	27	gal	\$25.00	\$675.00	
027680105	Pavement Message (Preformed Thermoplastic)	21	Each	\$300.00	\$6,300.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	51	Each	\$300.00	\$15,150.00	
	Sign	8	Each	\$300.00	\$2,400.00	
028910270	Remove Sign Less Than 20 Square Feet	8	Each	\$95.00	\$760.00	
Signals						
02892001D	Traffic Signal System	1	Lump	\$100,000.00	\$100,000.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$141,710	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	0	Lump	\$0.00	\$0.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	0	Lump	\$0.00	\$0.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Wood Power Pole	1	Each	\$15,000.00	\$15,000.00	
	Steel Power Pole	1	Each	\$90,000.00	\$90,000.00	
	Relocate Phone	0	Lump	\$0.00	\$0.00	
Utilities Subtotal					\$105,000	
Right-of-way						
	non-Urban/Suburban Residential	0	Each	\$0.00	\$0.00	
	non-Urban/Suburban Commercial	7,973	sq ft	\$30.00	\$239,190.00	
	non-Urban/Suburban Farm	0	Each	\$0.00	\$0.00	
	Temporary Construction Easement	7,071	sq ft	\$3.00	\$21,213.00	
Right-of-Way Subtotal					\$260,403	
Incentives						
	00000601* Pavement Smoothness Incentive		Lump			
	00000602* Hot Mix Asphalt (HMA) Incentive		Lump			
	00000603* Stone Matrix Asphalt (SMA) Incentive		Lump			
	00000604* Open Graded Surface Course Incentive		Lump			
	00000605* Bonded Wearing Course Incentive		Lump			
	00000606* Early Completion - Time		Cal'd			
	00000607* Lane Rental Incentive		Hours			
	00000608* Miscellaneous Incentive		Lump			
Incentives Subtotal					\$0	

**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date: 12/14/2016

Proposed Project Scope: Add an additional North Bound Through lane at the SR-134/SR-235 Int. on the North Leg for the design year 2024.

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$1,000	
Roadway and Drainage	\$252,631	
Traffic and Safety	\$75,315	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$328,946
	Items not Estimated (20%)	\$65,789
	Construction Subtotal	\$394,735
P.E. Cost	P.E. Subtotal	\$31,579 8%
C.E. Cost	C.E. Subtotal	\$29,605 7.5%
Right of Way	Right of Way Subtotal	\$7,950
Utilities	Utilities Subtotal	\$0
Incentives	Incentives Subtotal	\$0
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$32,000	\$33,000
Right of Way	\$8,000	\$8,000
Utilities	\$0	\$0
Construction	\$395,000	\$415,000
C.E.	\$30,000	\$31,000
Incentives	\$0	\$0
Aesthetics	0.75% \$3,000	\$3,000
Change Order Contingency	9.00% \$36,000	\$38,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$504,000	\$528,000

PROPOSED COMMISSION REQUEST	TOTAL \$504,000	TOTAL \$528,000
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Project Assumptions/Risks

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Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$40,000.00	\$40,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$20,000.00	\$20,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$4,000.00	\$4,000.00	Usually 1% of construction
015720020	Dust Control and Watering	6	1000 gal	\$25.00	\$150.00	
020560005	Borrow (Plan Quantity)	0	cu yd	\$16.00	\$0.00	
020560015	Granular Borrow (Plan Quantity)	91	cu yd	\$25.00	\$2,275.00	(30" thick)
022210080	Remove Fence	0	ft	\$4.00	\$0.00	
	Remove Concrete Sidewalk	19	sq yd	\$15.00	\$291.67	
	Remove Concrete Driveway	0	sq yd	\$12.50	\$0.00	
	Remove Curb and Gutter	130	ft	\$2.50	\$325.00	
023160020	Roadway Excavation (Plan Quantity)	143	cu yd	\$10.00	\$1,430.00	
027210020	Untreated Base Course (Plan Quantity)	25	cu yd	\$33.00	\$825.00	(8" thick)
027410050	HMA - 1/2 Inch	48	Ton	\$75.00	\$3,600.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	1	Ton	\$700.00	\$700.00	Tack Coat
027710017	Concrete Curb Type B5	720	ft	\$15.00	\$10,800.00	
027710025	Concrete Curb and Gutter Type B1	172	ft	\$16.00	\$2,752.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	1	Each	\$2,500.00	\$2,500.00	
027760010	Concrete Sidewalk	120	sq ft	\$7.00	\$840.00	
027760038	Concrete Driveway Flared, 6 inch Thick	0	sq ft	\$10.00	\$0.00	
027760050	Concrete Driveway Flared, 7 inch Thick	0	sq ft	\$12.00	\$0.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P	0	Ton	\$0.00	\$0.00	Flush Coat
027870010	Bonded Wearing Course - Type A	18,388	sq yd	\$8.00	\$147,102.22	1"(thick)
Roadway Subtotal					\$238,791	
Drainage						
018920010	Reconstruct Catch Basin	2	Each	\$2,500.00	\$5,000.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	1	Each	\$5,000.00	\$5,000.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	48	ft	\$80.00	\$3,840.00	
Drainage Subtotal					\$13,840	
PI						
013150010	Public Information Services	1	Lump	\$1,000.00	\$1,000	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	9,920	ft	\$3.00	\$29,760.00	
027650040	Remove Pavement Message	81	Each	\$85.00	\$6,885.00	
027650050	Pavement Marking Paint	27	gal	\$25.00	\$675.00	
027680105	Pavement Message (Preformed Thermoplastic)	76	Each	\$300.00	\$22,800.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	23	Each	\$300.00	\$6,900.00	
	Sign	21	Each	\$300.00	\$6,300.00	
028910270	Remove Sign Less Than 20 Square Feet	21	Each	\$95.00	\$1,995.00	
Signals						
02892001D	Traffic Signal System	0	Lump	\$0.00	\$0.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$75,315	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	0	Lump	\$0.00	\$0.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	0	Lump	\$0.00	\$0.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Relocate Phone	0	Lump	\$0.00	\$0.00	
Utilities Subtotal					\$0	
Right-of-way						
	Urban/Suburban Residential	0	sq ft	\$0.00	\$0.00	
	Urban/Suburban Commercial	0	sq ft	\$0.00	\$0.00	
	non-Urban/Suburban Residential	0	Each	\$0.00	\$0.00	
	non-Urban/Suburban Commercial	215	sq ft	\$30.00	\$6,450.00	
	non-Urban/Suburban Farm	0	Each	\$0.00	\$0.00	
	Temporary Construction Easement	500	sq ft	\$3.00	\$1,500.00	
Right-of-Way Subtotal					\$7,950	
Incentives						
00000601*	Pavement Smoothness Incentive		Lump			
00000602*	Hot Mix Asphalt (HMA) Incentive		Lump			
00000603*	Stone Matrix Asphalt (SMA) Incentive		Lump			
00000604*	Open Graded Surface Course Incentive		Lump			
00000605*	Bonded Wearing Course Incentive		Lump			
00000606*	Early Completion - Time		Cal'd			
00000607*	Lane Rental Incentive		Hours			
00000608*	Miscellaneous Incentive		Lump			
Incentives Subtotal					\$0	

**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date: 12/14/2016

Proposed Project Scope: Add East Bound Dual Left Turn lanes at the SR-134/SR-235 Intersection on the west leg for the design year 2040.

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$2,000	
Roadway and Drainage	\$510,763	
Traffic and Safety	\$135,425	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$648,188
	Items not Estimated (20%)	\$129,638
	Construction Subtotal	\$777,826
P.E. Cost	P.E. Subtotal	\$62,337 8%
C.E. Cost	C.E. Subtotal	\$58,441 7.5%
Right of Way	Right of Way Subtotal	\$461,481
Utilities	Utilities Subtotal	\$30,000
Incentives	Incentives Subtotal	\$1,386
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$62,000	\$64,000
Right of Way	\$461,000	\$475,000
Utilities	\$30,000	\$32,000
Construction	\$778,000	\$817,000
C.E.	\$58,000	\$60,000
Incentives	\$1,000	\$1,000
Aesthetics	0.75% \$6,000	\$6,000
Change Order Contingency	9.00% \$71,000	\$75,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$1,467,000	\$1,530,000

PROPOSED COMMISSION REQUEST	TOTAL \$1,467,000	TOTAL \$1,530,000
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Project Assumptions/Risks

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| 1 _____ | 8 _____ |
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Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$76,000.00	\$76,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$38,000.00	\$38,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$8,000.00	\$8,000.00	Usually 1% of construction
015720020	Dust Control and Watering	143	1000 gal	\$25.00	\$3,575.00	
020560005	Borrow (Plan Quantity)	914	cu yd	\$16.00	\$14,624.00	
020560015	Granular Borrow (Plan Quantity)	1,829	cu yd	\$25.00	\$45,725.00	(30" thick)
022210080	Remove Fence	750	ft	\$4.00	\$3,000.00	
	Remove Concrete Sidewalk	458	sq yd	\$15.00	\$6,875.00	
	Remove Concrete Driveway	0	sq yd	\$12.50	\$0.00	
	Remove Curb and Gutter	825	ft	\$2.50	\$2,062.50	
023160020	Roadway Excavation (Plan Quantity)	2,866	cu yd	\$10.00	\$28,660.00	
027210020	Untreated Base Course (Plan Quantity)	488	cu yd	\$33.00	\$16,104.00	(8" thick)
027410050	HMA - 1/2 Inch	955	Ton	\$75.00	\$71,625.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	5	Ton	\$700.00	\$3,500.00	Tack Coat
027710017	Concrete Curb Type B5	1,624	ft	\$15.00	\$24,360.00	
027710025	Concrete Curb and Gutter Type B1	750	ft	\$16.00	\$12,000.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	0	Each	\$2,500.00	\$0.00	
027760010	Concrete Sidewalk	4,600	sq ft	\$7.00	\$32,200.00	
027760038	Concrete Driveway Flared, 6 inch Thick	0	sq ft	\$10.00	\$0.00	
027760050	Concrete Driveway Flared, 7 inch Thick	0	sq ft	\$12.00	\$0.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P	0	Ton	\$0.00	\$0.00	Flush Coat
027870010	Bonded Wearing Course - Type A	10,348	sq yd	\$8.00	\$82,782.22	1" thick
	Right-of-Way Fence	750	ft	\$15.00	\$11,250.00	
Roadway Subtotal					\$481,543	
Drainage						
018920010	Reconstruct Catch Basin	3	Each	\$2,500.00	\$7,500.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	3	Each	\$5,000.00	\$15,000.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	84	ft	\$80.00	\$6,720.00	
Drainage Subtotal					\$29,220	
PI						
013150010	Public Information Services	1	Lump	\$2,000.00	\$2,000	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	5,525	ft	\$3.00	\$16,575.00	
027650040	Remove Pavement Message	42	Each	\$85.00	\$3,570.00	
027650050	Pavement Marking Paint	34	gal	\$25.00	\$850.00	
027680105	Pavement Message (Preformed Thermoplastic)	13	Each	\$300.00	\$3,900.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	30	Each	\$300.00	\$8,950.00	
	Sign	4	each	\$300.00	\$1,200.00	
028910270	Remove Sign Less Than 20 Square Feet	4	Each	\$95.00	\$380.00	
Signals						
02892001D	Traffic Signal System	1	Lump	\$100,000.00	\$100,000.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$135,425	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	0	Lump	\$0.00	\$0.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	0	Lump	\$0.00	\$0.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Relocate Phone	0	Lump	\$0.00	\$0.00	
	Relocate Power Pole	2	Each	\$15,000.00	\$30,000.00	
Utilities Subtotal					\$30,000	
Right-of-way						
	non-Urban/Suburban Residential	0	Each	\$0.00	\$0.00	
	non-Urban/Suburban Commercial	14,213	sq ft	\$30.00	\$426,390.00	
	non-Urban/Suburban Farm	0	Each	\$0.00	\$0.00	
	Temporary Easement	11,697	sq ft	\$3.00	\$35,091.00	
Right-of-Way Subtotal					\$461,481	
Incentives						
	00000601* Pavement Smoothness Incentive	0	Lump	\$0.00	\$0.00	
	00000602* Hot Mix Asphalt (HMA) Incentive	1	Lump	\$1,217.63	\$1,217.63	
	00000603* Stone Matrix Asphalt (SMA) Incentive	0	Lump	\$0.00	\$0.00	
	00000604* Open Graded Surface Course Incentive	0	Lump	\$0.00	\$0.00	
	00000605* Bonded Wearing Course Incentive	1	Lump	\$167.92	\$167.92	
	00000606* Early Completion - Time	0	Cal'd	\$0.00	\$0.00	
	00000607* Lane Rental Incentive	0	Hours	\$0.00	\$0.00	
	00000608* Miscellaneous Incentive	0	Lump	\$0.00	\$0.00	
Incentives Subtotal					\$1,386	

**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date 12/14/2016

Proposed Project Scope: Add North Bound Dual Left Turn lanes at the SR-134/SR-235 Intersection on the South Leg for the design year 2040

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$1,500	
Roadway and Drainage	\$367,385	
Traffic and Safety	\$141,710	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$510,595
	Items not Estimated (20%)	\$102,119
	Construction Subtotal	\$612,714
P.E. Cost	P.E. Subtotal	\$49,017 8%
C.E. Cost	C.E. Subtotal	\$45,954 7.5%
Right of Way	Right of Way Subtotal	\$278,943
Utilities	Utilities Subtotal	\$105,000
Incentives	Incentives Subtotal	\$0
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$49,000	\$50,000
Right of Way	\$279,000	\$287,000
Utilities	\$105,000	\$110,000
Construction	\$613,000	\$644,000
C.E.	\$46,000	\$47,000
Incentives	\$0	\$0
Aesthetics	0.75% \$5,000	\$5,000
Change Order Contingency	9.00% \$56,000	\$59,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$1,153,000	\$1,202,000

PROPOSED COMMISSION REQUEST	TOTAL \$1,153,000	TOTAL \$1,202,000
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Project Assumptions/Risks

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|---------|----------|
| 1 _____ | 8 _____ |
| 2 _____ | 9 _____ |
| 3 _____ | 10 _____ |
| 4 _____ | 11 _____ |
| 5 _____ | 12 _____ |
| 6 _____ | 13 _____ |
| 7 _____ | 14 _____ |

Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$58,000.00	\$58,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$29,000.00	\$29,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$6,000.00	\$6,000.00	Usually 1% of construction
015720020	Dust Control and Watering	23	1000 gal	\$25.00	\$575.00	
020560005	Borrow (Plan Quantity)	0	cu yd	\$16.00	\$0.00	
020560015	Granular Borrow (Plan Quantity)	397	cu yd	\$25.00	\$9,925.00	(30" thick)
	Remove Concrete Sidewalk	2,100	sq yd	\$15.00	\$31,500.00	
	Remove Concrete Driveway	3,664	sq yd	\$12.50	\$45,800.00	
	Remove Curb and Gutter	745	ft	\$2.50	\$1,862.50	
023160020	Roadway Excavation (Plan Quantity)	622	cu yd	\$10.00	\$6,220.00	
027210020	Untreated Base Course (Plan Quantity)	106	cu yd	\$33.00	\$3,498.00	(8" thick)
027410050	HMA - 1/2 Inch	208	Ton	\$75.00	\$15,600.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	1	Ton	\$700.00	\$700.00	Tack Coat
027710017	Concrete Curb Type B5	1,076	ft	\$15.00	\$16,140.00	
027710025	Concrete Curb and Gutter Type B1	870	ft	\$16.00	\$13,920.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	2	Each	\$2,500.00	\$5,000.00	
027760010	Concrete Sidewalk	3,300	sq ft	\$7.00	\$23,100.00	
027760038	Concrete Driveway Flared, 6 inch Thick	0	sq ft	\$10.00	\$0.00	
027760050	Concrete Driveway Flared, 7 inch Thick	3,664	sq ft	\$12.00	\$43,968.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P	0	Ton	\$0.00	\$0.00	Flush Coat
027870010	Bonded Wearing Course - Type A	6,922	sq yd	\$8.00	\$55,376.89	1"(thick)
Roadway Subtotal					\$367,385	
Drainage						
018920010	Reconstruct Catch Basin	0	Each	\$2,500.00	\$0.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	0	Each	\$5,000.00	\$0.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	0	ft	\$80.00	\$0.00	
Drainage Subtotal					\$0	
PI						
013150010	Public Information Services	1	Lump	\$1,500.00	\$1,500	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	3,690	ft	\$3.00	\$11,070.00	
027650040	Remove Pavement Message	63	Each	\$85.00	\$5,355.00	
027650050	Pavement Marking Paint	27	gal	\$25.00	\$675.00	
027680105	Pavement Message (Preformed Thermoplastic)	21	Each	\$300.00	\$6,300.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	51	Each	\$300.00	\$15,150.00	
	Sign	8	Each	\$300.00	\$2,400.00	
028910270	Remove Sign Less Than 20 Square Feet	8	Each	\$95.00	\$760.00	
Signals						
02892001D	Traffic Signal System	1	Lump	\$100,000.00	\$100,000.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$141,710	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	0	Lump	\$0.00	\$0.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	0	Lump	\$0.00	\$0.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Wood Power Pole	1	Each	\$15,000.00	\$15,000.00	
	Steel Power Pole	1	Each	\$90,000.00	\$90,000.00	
	Relocate Phone	0	Lump	\$0.00	\$0.00	
Utilities Subtotal					\$105,000	
Right-of-way						
	non-Urban/Suburban Residential	0	Each	\$0.00	\$0.00	
	non-Urban/Suburban Commercial	8,591	sq ft	\$30.00	\$257,730.00	
	non-Urban/Suburban Farm	0	Each	\$0.00	\$0.00	
	Temporary Construction Easement	7,071	sq ft	\$3.00	\$21,213.00	
Right-of-Way Subtotal					\$278,943	
Incentives						
00000601*	Pavement Smoothness Incentive		Lump			
00000602*	Hot Mix Asphalt (HMA) Incentive		Lump			
00000603*	Stone Matrix Asphalt (SMA) Incentive		Lump			
00000604*	Open Graded Surface Course Incentive		Lump			
00000605*	Bonded Wearing Course Incentive		Lump			
00000606*	Early Completion - Time		Cal'd			
00000607*	Lane Rental Incentive		Hours			
00000608*	Miscellaneous Incentive		Lump			
Incentives Subtotal					\$0	

**PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North
Cost Estimate - Concept Level**

Prepared By: AECOM

Date: 12/14/2016

Proposed Project Scope: Add North and South Bound Through Lanes at the SR-134/SR-235 Int on the North Leg for the design year 2040

Approximate Route Reference Mile Post (BEGIN) =	(END) =
Project Length = 0.000 miles	ft
Current FY Year (July-June) = 2017	
Assumed Construction FY Year = 2018	
Construction Items Inflation Factor = 1.05	1 yrs for inflation
Assumed Yearly Inflation for Engineering Services (PE and CE) (%/yr) = 3.0%	
Assumed Yearly Inflation for Right of Way (%/yr) = 3.0%	
Items not Estimated (% of Construction) = 20.0%	
Preliminary Engineering (% of Construction + Incentives) = 8.0%	
Construction Engineering (% of Construction + Incentives) = 7.5%	

Construction Items	Cost	Remarks
Public Information Services	\$2,800	
Roadway and Drainage	\$883,701	
Traffic and Safety	\$58,932	
Structures	\$0	
Environmental Mitigation	\$0	
ITS	\$0	
	Subtotal	\$945,433
	Items not Estimated (20%)	\$189,087
	Construction Subtotal	\$1,134,520
P.E. Cost	P.E. Subtotal	\$90,941 8%
C.E. Cost	C.E. Subtotal	\$85,257 7.5%
Right of Way	Right of Way Subtotal	\$859,662
Utilities	Utilities Subtotal	\$180,000
Incentives	Incentives Subtotal	\$2,243
Miscellaneous	Miscellaneous Subtotal	\$0

Cost Estimate (ePM screen 505)	2017	2018
P.E.	\$91,000	\$94,000
Right of Way	\$860,000	\$885,000
Utilities	\$180,000	\$189,000
Construction	\$1,135,000	\$1,192,000
C.E.	\$85,000	\$88,000
Incentives	\$2,000	\$2,000
Aesthetics	0.75% \$9,000	\$9,000
Change Order Contingency	9.00% \$103,000	\$108,000
UDOT Oversight	\$0	\$0
Miscellaneous	\$0	\$0
TOTAL	\$2,465,000	\$2,567,000

PROPOSED COMMISSION REQUEST	TOTAL \$2,465,000	TOTAL \$2,567,000
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Project Assumptions/Risks

- | | |
|---------|----------|
| 1 _____ | 8 _____ |
| 2 _____ | 9 _____ |
| 3 _____ | 10 _____ |
| 4 _____ | 11 _____ |
| 5 _____ | 12 _____ |
| 6 _____ | 13 _____ |
| 7 _____ | 14 _____ |

Roadway and Drainage

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Roadway						
012850010	Mobilization	1	Lump	\$110,000.00	\$110,000.00	Usually 7-10% of construction
015540005	Traffic Control	1	Lump	\$55,000.00	\$55,000.00	Usually 3-5% of construction
01557001*	Maintenance of Traffic	1	Lump	\$11,000.00	\$11,000.00	Usually 1% of construction
015720020	Dust Control and Watering	165	1000 gal	\$25.00	\$4,125.00	
020560005	Borrow (Plan Quantity)	0	cu yd	\$16.00	\$0.00	
020560015	Granular Borrow (Plan Quantity)	2,960	cu yd	\$25.00	\$74,000.00	(30" thick)
020560025	Granular Backfill Borrow (Plan Quantity)	0	cu yd	\$0.00	\$0.00	
022210080	Remove Fence	0	ft	\$4.00	\$0.00	
	Remove Concrete Sidewalk	141	sq yd	\$15.00	\$2,108.33	
	Remove Concrete Driveway	965	sq yd	\$12.50	\$12,065.28	
	Remove Curb and Gutter	2,686	ft	\$2.50	\$6,715.00	
023160020	Roadway Excavation (Plan Quantity)	4,638	cu yd	\$10.00	\$46,380.00	
027210020	Untreated Base Course (Plan Quantity)	790	cu yd	\$33.00	\$26,070.00	(8" thick)
027410050	HMA - 1/2 Inch	1,546	Ton	\$75.00	\$115,950.00	(8" thick)
027480040	Emulsified Asphalt CSS-1	7	Ton	\$700.00	\$4,900.00	Tack Coat
027710017	Concrete Curb Type B5	716	ft	\$15.00	\$10,740.00	
027710025	Concrete Curb and Gutter Type B1	2,686	ft	\$16.00	\$42,976.00	
027710059	Perpendicular/Parallel Pedestrian Access Ramp	7	Each	\$2,500.00	\$17,500.00	
027760010	Concrete Sidewalk	1,240	sq ft	\$7.00	\$8,680.00	
027760038	Concrete Driveway Flared, 6 inch Thick	4,472	sq ft	\$10.00	\$44,720.00	
027760050	Concrete Driveway Flared, 7 inch Thick	741	sq ft	\$12.00	\$8,892.00	
027710100	Plowable End Section	2	Each	\$600.00	\$1,200.00	
027850075	Emulsified Asphalt HFMS-2P	0	Ton	\$0.00	\$0.00	Flush Coat
027870010	Bonded Wearing Course - Type A	20,797	sq yd	\$8.00	\$166,379.56	1"(thick)
Roadway Subtotal					\$769,401	
Drainage						
018920010	Reconstruct Catch Basin	13	Each	\$2,500.00	\$32,500.00	
022210030	Remove Catch Basin	0	Each	\$550.00	\$0.00	
	Catch Basin	13	Each	\$5,000.00	\$65,000.00	
026101386	18 Inch Irrigation/Storm Drain, Class C, smooth	210	ft	\$80.00	\$16,800.00	
Drainage Subtotal					\$114,300	
PI						
013150010	Public Information Services	1	Lump	\$2,800.00	\$2,800	Usually 0.25% of construction

Traffic, Safety & ITS

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Traffic						
027650030	Remove Pavement Message	8,859	ft	\$3.00	\$26,577.00	
027650040	Remove Pavement Message	81	Each	\$85.00	\$6,885.00	
027650050	Pavement Marking Paint	83	gal	\$25.00	\$2,075.00	
027680105	Pavement Message (Preformed Thermoplastic)	26	Each	\$300.00	\$7,800.00	
027680110	Pavement Message (Preformed Thermoplastic Stop Line, Crosswalks - 12 inch)	24	Each	\$300.00	\$7,300.00	
	Sign	21	Each	\$300.00	\$6,300.00	
028910270	Remove Sign Less Than 20 Square Feet	21	Each	\$95.00	\$1,995.00	
Signals						
02892001D	Traffic Signal System	0	Lump	\$0.00	\$0.00	
Lighting						
16525001D	Highway Lighting System	0	Lump	\$0.00	\$0.00	
Traffic and Safety Subtotal					\$58,932	
ITS						
135530035	1D Conduit	0	ft	\$0.00	\$0.00	
	CCTV System	0	Lump	\$0.00	\$0.00	
ITS Subtotal					\$0	

Structures

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Bridges						
	New Structure	0	sq ft	\$0.00	\$0.00	Assumed LxW (deck area)
Walls						
	Retaining Wall	0	Sq ft	\$0.00	\$0.00	Assumed LxH (wall area)
Sign Structures						
	Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
	Remove Overhead Sign	0	Lump	\$0.00	\$0.00	
	Remove Existing Overhead Sign Structure	0	Lump	\$0.00	\$0.00	
Hydraulics						
	Extend Box Culvert	0	ft	\$0.00	\$0.00	
	New Box Culvert	0	Lump	\$0.00	\$0.00	
Geotech						
	Geotech Report	0	Lump	\$0.00	\$0.00	
	Drilling	0	Lump	\$0.00	\$0.00	
Structures Subtotal					\$0	

Environmental and Landscaping

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Environmental						
	Wetland Mitigation	0	Lump	\$0.00	\$0.00	
	Noise Wall	0	ft	\$0.00	\$0.00	
Temporary Erosion Control						
015710030	Silt Fence	0	ft	\$0.00	\$0.00	
	Erosion Control Supervisor	0	Lump	\$0.00	\$0.00	
	Check Dams	0	Each	\$0.00	\$0.00	
Landscaping						
029110010	Wood Fiber Mulch	0	Acre	\$0.00	\$0.00	
029120010	Contractor Furnished Topsoil	0	sq yd	\$0.00	\$0.00	
029120050	Strip, Stockpile, and Spread Topsoil (Plan Quantity)	0	sq yd	\$0.00	\$0.00	
029220010	Drill Seed	0	Acre	\$0.00	\$0.00	
029220030	Broadcast Seed	0	Acre	\$0.00	\$0.00	
Environmental Mitigation Subtotal					\$0	

Utilities, Right of Way, and Incentives

PIN: 14408 PROJECT # F-0235(20)3 PROJECT NAME: SR-235; Intersection Improvements at 2700 North

Item #	Item	Quantity	Units	Price	Cost	Remarks
Utilities						
	Relocate Water/Irrigation/Sewer Lines	0	Lump	\$0.00	\$0.00	
	Relocate Gas Line	0	Lump	\$0.00	\$0.00	
	Relocate Power Line	0	Lump	\$0.00	\$0.00	
	Relocate Fiber Optic	0	Lump	\$0.00	\$0.00	
	Relocate Phone	0	Lump	\$0.00	\$0.00	
	Relocate Power Pole	12	Each	\$15,000.00	\$180,000.00	
Utilities Subtotal					\$180,000	
Right-of-way						
	non-Urban/Suburban Residential	0	Each	\$0.00	\$0.00	
	non-Urban/Sub Commercial/Residential	26,946	sq ft	\$30.00	\$808,380.00	
	non-Urban/Suburban Farm	0	Each	\$0.00	\$0.00	
	Temporary Construction Easement	17,094	sq ft	\$3.00	\$51,282.00	
Right-of-Way Subtotal					\$859,662	
Incentives						
	Pavement Smoothness Incentive		Lump			
00000601*	Hot Mix Asphalt (HMA) Incentive	1	Lump	\$1,971.15	\$1,971.15	
00000603*	Stone Matrix Asphalt (SMA) Incentive		Lump			
00000604*	Open Graded Surface Course Incentive		Lump			
00000605*	Bonded Wearing Course Incentive	1	Lump	\$271.73	\$271.73	
00000606*	Early Completion - Time		Cal'd			
00000607*	Lane Rental Incentive		Hours			
00000608*	Miscellaneous Incentive		Lump			
Incentives Subtotal					\$2,243	