



AGENDA
September 19, 2017
VIDEO

TRANSPORTATION COMMISSION MEETING

7:00 p.m.

City Council Chambers
311 Vernon Street
Roseville, California

- 1. CALL TO ORDER**
- 2. WELCOME - ROLL CALL**
- 3. PLEDGE OF ALLEGIANCE**
- 4. MEETING MINUTES**
 - 4.1. June 20, 2017
- 5. ORAL COMMUNICATIONS**
- 6. CONSENT CALENDAR**
 - 6.1. Adventist Health Shared Services Campus Transportation Systems Management (TSM) Plan
 - 6.2. Home 2 Suites (1900 Freedom Way) Transportation Systems Management (TSM) Plan
 - 6.3. Residence Inn (1850 Freedom Way) Transportation Systems Management (TSM) Plan
- 7. REPORTS/PRESENTATIONS**
 - 7.1. Route M Deviation Requests
 - 7.2. Transit Performance Report - 3rd and 4th Quarters of Fiscal Year 2017
 - 7.3. Alternative Transportation Division Update
- 8. ADJOURNMENT**

Title: June 20, 2017

Meeting Date: 9/19/2017
Item #: 4.1.

ATTACHMENTS:

Description

June 20, 2017 - Draft Minutes



Transportation Commission

Regular Meeting

June 20, 2017 – 7:00 p.m.

Draft Minutes

1. Call to Order

The meeting was called to order at 7:00 p.m. by Commissioner Short.

2. Roll Call

Commissioners Present

Jeff Short – *Chair*
Cynthia Moore – *Vice-Chair*
Joe Horton - *Absent*
Chinnaian Jawahar - *Absent*
David Nelson
Gary Hexom
Sergey Terebkov
Thomas Hipkins – *Youth Commissioner*

Staff Present

Mike Dour, Alternative Transportation Manager
Eileen Bruggeman, Alternative Transportation Analyst II
Michael Christensen, Deputy City Attorney
Debbie Dion, Recording Secretary

3. Pledge of Allegiance

Commissioner Moore led those in attendance in the Pledge of Allegiance.

4. Meeting Minutes

a. May 16, 2017 – Action required

MOTION:

Commissioner Moore made the motion, which was seconded by Commissioner Terebkov to approve the meeting minutes of May 16, 2017.

Ayes: Short, Moore, Hexom, Terebkov, Hipkins
Noes: None
Abstain: Nelson
Absent: Horton, Jawahar

5. Oral Communications

Commissioner Short opened the Public Comment period.

There were no public comments.

Commissioner Short closed the Public Comment period.

6. Consent Calendar

None

7. Special Presentation/Reports

a. Placer County Regional Bikeway Plan Update

Mike Dour, Alternative Transportation Manager, made the presentation.

Commissioner Short opened the Public Comment period.

There were no Public Comments

Commissioner Short closed the Public Comment period.

Staff and Commissioners discussed.

Staff provided this item as informational only. No action required.

b. Game Day Express 2016/17 Report (ACTION REQUIRED)

Eileen Bruggeman, Alternative Transportation Analyst II, made the presentation.

Commissioner Short opened the Public Comment period.

Mike Barnbaum, Ride Downtown 916, addressed the Commission in support of the Game Day Express service.

Commissioner Short closed the Public Comment period.

Staff and Commissioners discussed.

Motion by Commissioner Moore, seconded by Commissioner Hipkins, to accept the staff report.

Ayes: Short, Moore, Nelson, Hexom, Terebkov, Hipkins

Noes: None

Absent: Horton, Jawahar

c. Appointment of 2017 Vice-Chair to the Transportation Commission (ACTION REQUIRED)

Mike Dour, Alternative Transportation Manager, made the presentation.

Commissioner Short opened the Public Comment period.

There were no public comments.

Commissioner Short closed the Public Comment period.

Staff and Commissioners discussed.

Motion by Commissioner Moore, seconded by Commissioner Hexom, to appoint Commissioner Nelson as Vice-Chair for the Transportation Commission to serve until December 31, 2017.

Ayes: Short, Moore, Nelson, Hexom, Terebkov, Hipkins

Noes: None

Absent: Horton, Jawahar

8. Staff and/or Commission Reports/Comments

a. Alternative Transportation Division Update

1. May is Bike Month

2. Roseville Transit Identity

3. Bus Shelter Maintenance
4. Connect Card: Full Launch
5. Novus BoardView Automated Agenda Packet Application
6. Recent Media Coverage

Mike Dour, Alternative Transportation Manager, made the presentation on Items 1, 3, 4, 5, and 6.

Eileen Bruggeman, Alternative Transportation Analyst II, made the presentation on Item 2.

Commissioner Short opened the Public Comment period.

There were no public comments.

Commissioner Short closed the Public Comment period.

Staff and Commissioners discussed.

Staff provided this item as informational only. No action required.

9. Pending Agenda

None

10. Adjournment

MOTION

Commissioner Nelson made the motion, which was seconded by Commissioner Hipkins, to adjourn the meeting.

Ayes: Short, Moore, Nelson, Hexom, Terebkov, Hipkins

Noes: None

Absent: Horton, Jawahar

The meeting was adjourned at 8:07 p.m.

Jeff Short, Chair

Debbie Dion, Recording Secretary



TRANSPORTATION COMMISSION

Title: Adventist Health Shared Services Campus Transportation Systems Management (TSM) Plan

Meeting Date: 9/19/2017
Item #: 5.1.

ATTACHMENTS:

Description

Staff Report



Transportation Commission Meeting

September 19, 2017 – 7:00 p.m.

Consent Calendar

Item 6a: Adventist Health Shared Services Campus Transportation Systems Management (TSM) Plan

Staff Sue Schooley, Alternative Transportation Analyst II/TSM Coordinator

Recommendation

Staff recommends the Transportation Commission approve the TSM Plan for Adventist Health Shared Services Campus.

Background

Eddie Portis and Kenneth Bark, applicant, representing Adventist Health Shared Services Campus, worked in cooperation with the City in preparing a TSM Plan for this project, which is consistent with the TSM Ordinance.

Adventist Health Shared Services Campus is a not-for-profit health care system affiliated with the Seventh Day Adventist Church with the corporate headquarters in Roseville. Adventist Health Shared Services Campus is located at One Adventist Health Way on the east side of Sunrise Blvd. between Eureka Road and Stone Point East Drive, within the North East Roseville Specific Plan area.

Discussion

Adventist Health Shared Services Campus includes a five story, approximately 277,603 square foot office building is located on a 26.6 acre parcel.

Adventist Health Shared Services Campus employs approximately thirteen hundred (1300) people at the Roseville site. The hours of operation for Adventist Health Shared Services Campus are somewhat flexible but are generally open Monday through Friday from 8:00 a.m. to 6:00 p.m. with closing 1 hour before sunset on Fridays. The majority of the employees are professional office workers. Many of the Adventist Health Shared Services Campus employees may commute from the surrounding residential area in Roseville, Rocklin, Lincoln, and Auburn and to a lesser degree from Sacramento and El Dorado County.

Adventist Health Shared Services Campus provides 25 bike lockers for 50 bicycles, and eight bike racks for an additional 16 bike spaces for a total of 66 bicycle parking spaces which is greater than 5% of the total number of employees on site during the maximum shift. These bicycle spaces shall be available for employees who bicycle to work.

Adventist Health Shared Services Campus provides 101 carpool spaces, which is greater than 10% of the total number of parking spaces provided for employees who carpool to work. Of the 101 carpool spaces, Adventist Health Shared Services Campus provides Electric Vehicle charging for 30 EV spaces, six of the spaces have access to the three EV charging ports, with the remaining 24 spaces allotted for future connection.

Adventist Health Shared Services Campus provides 25 Park and Ride spaces near the main entrance along North Sunrise Avenue.

The nearest transit shelter is located on Sunrise Blvd adjacent to the main entrance to Adventist Health Shared Services Campus.

To help encourage bicycling as a viable commute transportation alternative, Adventist Health Shared Services Campus provides a total of six showers (two showers for men, two showers for women and two showers for unisex), with a total of eighteen 18 lockers in non-gender specific locations for employees who use the showers. In an ongoing effort to reduce vehicle trips during the workday, Adventist Health Shared Services Campus has a fitness course and walking path, with walking connections to local restaurants, and retail. Adventist Health Shared Services Campus also has a full service café and on-site health clinic.

The attached TSM Plan has been prepared in compliance with the TSM Ordinance.

Attachment(s)

1. Adventist Health Shared Services Campus TSM Plan

TSM PLAN

Adventist Health Shared Services Campus

One Adventist Health Way

TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PURPOSE

On May 7, 1999, the revised Transportation Systems Management (TSM) Ordinance became effective. The City of Roseville adopted the TSM Ordinance and established the TSM Program for the following purposes:

- A. Reduce peak hour traffic circulation in the City of Roseville by reducing both the number of vehicular trips and the vehicular miles traveled that might otherwise be generated by home-to-work commuting by a minimum of twenty percent (20%).
- B. Increase the efficiency of the existing transportation network and contribute to achieving Level of Service (LOS) C at intersections in the City of Roseville.
- C. Reduce total vehicle emissions in the City of Roseville by reducing the number of vehicular trips that might otherwise be generated by home-to-work commuting.
- D. Cooperate and coordinate with other cities, counties, communities and regional agencies in these endeavors.
- E. Develop a program that secures the participation of local developers, businesses, institutions and public and private agencies to fulfill the purposes expressed herein.

TSM PLAN APPLICABILITY

The TSM Program shall be applicable to every Common Work Location and Major Common Work Location. Additionally, a TSM Plan shall be required as a condition of approval for all development projects, design review permits, tentative subdivisions and conditional use permits which are anticipated to employ fifty (50) or more employees at the Major Common Work Location. In addition, a TSM plan shall be required for any existing development project that employs fifty (50) or more employees at the Major Common Work Location. Since Adventist Health Shared Services Campus will employ approximately thirteen hundred (1300) employees a TSM Plan is therefore required and is presented below.

TSM PLAN AGREEMENT

Upon approval of the TSM Plan, the project owner shall enter into a written agreement with the City obligating the project owner to comply with the TSM Plan. Such agreement shall be recorded, run with the land and bind all successors in interest, and

shall constitute an equitable servitude on the property. Where appropriate, the City may require the agreement to include a provision for enforcement, in the event of breach by the project owner or a successor in interest.

TSM PLAN IMPLEMENTATION

- A. The Site TSM Coordinator shall implement the TSM Plan.
- B. The City shall have the right to enter, upon giving reasonable advance notice, Adventist Health Shared Services Campus to provide information to the Major Project Controller or Site TSM Coordinator pertaining to the TSM Program. The City shall also have the right to reasonably enter Adventist Health Shared Services Campus for inspection of the property and for audit of survey records to determine compliance with a TSM Plan.

ADVENTIST HEALTH SHARED SERVICES CAMPUS OPERATING CHARACTERISTICS

The TSM Plan for Adventist Health Shared Services Campus includes the following operating characteristics:

- A. **Project Description.** Adventist Health Shared Services Campus is a not-for-profit health care system affiliated with the Seventh Day Adventist Church with the corporate headquarters in Roseville. The five story, approximately 277,603 square foot office building is located on a 26.6 acre parcel.

Adventist Health Shared Services Campus is located at One Adventist Health Way on the east side of Sunrise Blvd. between Eureka Road and Stone Point East Drive, within the North East Roseville Specific Plan area.

The nearest transit shelter is located on Sunrise Blvd adjacent to the main entrance to Adventist Health Shared Services Campus.

- B. **Employee Description.** Adventist Health Shared Services Campus employs approximately thirteen hundred (1300) people at the Roseville site.

The hours of operation for Adventist Health Shared Services Campus are somewhat flexible but are generally open Monday through Friday from 8:00 a.m. to 6:00 p.m. with closing 1 hour before sunset on Fridays. The majority of the employees are professional office workers.

Many of the Adventist Health Shared Services Campus employees may commute from the surrounding residential area in Roseville, Rocklin, Lincoln, and Auburn and to a lesser degree from Sacramento and El Dorado County.

- C. **Site Plan.** Please refer to appendix (A) for a site plan of Adventist Health Shared Services Campus depicting the location of the required bicycle facilities and carpool spaces.
1. **Bicycle Facilities.** Adventist Health Shared Services Campus provides twenty five (25) bike lockers for fifty (50) bicycles, and eight (8) bike racks for an additional sixteen (16) bike spaces for a total of sixty-six (66) bicycle parking spaces which is greater than five percent (5%) of the total number of employees on site during the maximum shift. These bicycle spaces shall be available for employees who bicycle to work.
 2. **Preferential Carpool Parking.** Adventist Health Shared Services Campus provides one hundred and one (101) carpool spaces, which is greater than ten percent (10%) of the total number of parking spaces provided for employees who carpool to work. The spaces shall be located for convenient access by the employee and striped "carpool/clean air vehicle." The Site TSM Coordinator shall register carpoolers and shall be responsible for monitoring the use of such spaces.
 3. **Electric Vehicle.** Of the one hundred and one (101) carpool spaces, Adventist Health Shared Services Campus provides Electric Vehicle charging for thirty (30) EV spaces, six (6) of the spaces have access to the three (3) EV charging ports, with the remaining twenty four (24) spaces allotted for future connection.
 4. Adventist Health Shared Services Campus provides twenty-five (25) Park and Ride spaces near the main entrance along North Sunrise Avenue.
- D. **Site TSM Coordinator.** The following named person has been designated as the Site TSM Coordinator:
- Shawna Roach
1075 Creekside Ridge Drive
Roseville, CA 95678
(916) 774-3333
Fax: (916) 783-9146
Roachsl1@ah.org

This information shall be updated and provided in writing to the City Transportation Coordinator during the triennial survey or at any time that there is a change in the Site TSM Coordinator.

SITE TSM COORDINATOR'S RESPONSIBILITIES

The Site TSM Coordinator's responsibilities shall include:

- A. **Posting TSM Information.** Posting by the Site TSM Coordinator in a conspicuous place or places for employees, informational material provided by the City Transportation Coordinator, and other regional rideshare agencies or prepared by the Site TSM Coordinator to encourage alternative transportation

methods. Such informational material shall be kept current and may include, but is not limited to, the following:

1. Current schedules, rates, procedures for obtaining transit passes, and routes of public transit service to the Major Common Work Location.
2. Bicycle route maps.
3. Posters or flyers encouraging the use of ridesharing and referrals to sources of information concerning ridesharing.
4. Information regarding available services that will eliminate vehicle trips.

B. **Marketing the Commuter Rideshare Matchlisting Service.** Annually disseminating to employees, or to new employees when hired, written information provided by the City Transportation Coordinator and/or other regional rideshare agencies regarding regional commuter rideshare match listing services.

C. **Promoting the Emergency Ride Home Program.** The Site TSM Coordinator shall promote the Emergency Ride Home Program. The program provides for the transportation of employees who use alternative transportation modes for home to work commuting in case of a personal, family or other major emergency. The program is designed to help employees get home, child's daycare or school. The Emergency Ride Home is a service provided by the City of Roseville.

D. **Participating in Training Opportunities.** The Site TSM Coordinator will be invited to training events offered by the City's TSM Coordinator. These training events will include information and materials for promoting such programs as Spare the Air, Clean Air Month, Bike Month, and information for implementing alternative transportation promotions. The City believes these training programs will be beneficial to the community and will help Site TSM Coordinators implement their TSM plans. Each Site TSM Coordinator or his/her designee is expected to attend a minimum of two (2) training events per year.

E. **Promoting alternative transportation opportunities.** In addition to the above programs, the Site TSM Coordinator, working in conjunction with the City Transportation Coordinator, shall encourage employers and employees to use alternative transportation. Such alternative transportation promotional opportunities may include, but are not limited to, the following:

1. *In House Carpool Matching Service.* Conduct a survey of all employees in order to identify persons interested in being matched into carpools. Potential carpools are then matched by work address and shift. Such survey can be done on an annual basis and for all new employees interested in ridesharing.
2. *Telecommuting.* Telecommuting which allows employees to work periodically from their home or an off-site location close to home.

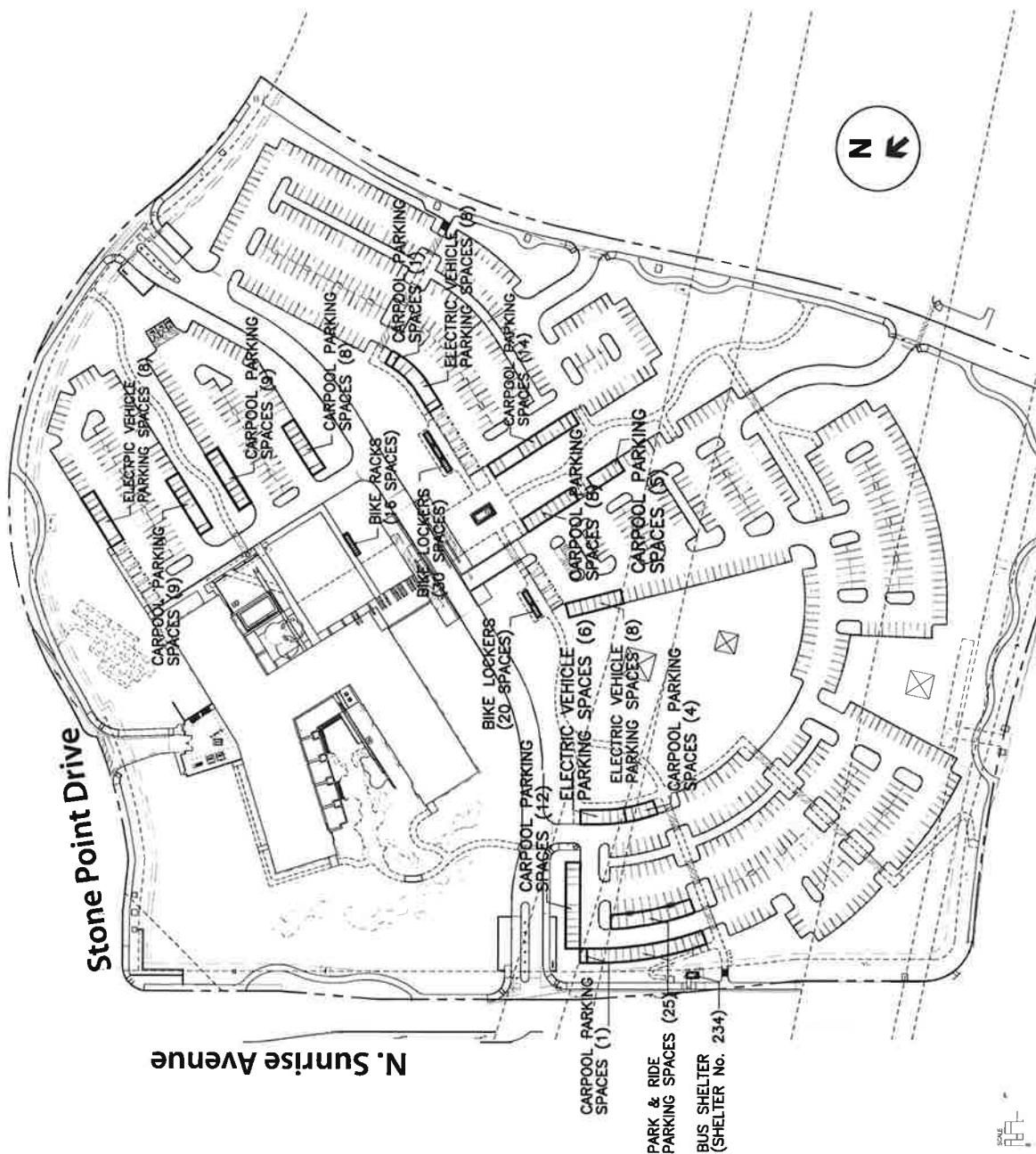
3. Transit pass subsidy. Promoting the use of public transportation by providing to employees on a monthly basis a transit pass subsidy to help offset the cost to the employee. The City Transportation Coordinator will work with the Site TSM Coordinator on promoting public transit and procuring passes.
4. Vanpool program. Promoting vanpooling to employees as a cost effective way to commute to work. The City Transportation Coordinator will work with the Site TSM Coordinator to help implement the vanpool program. Typically, the employees lease a van and the vanpool participants shall cover the operating costs for the van.
5. Variable work hours. Encouraging employers and employees to eliminate commute trips or relocate the commute trip out of the peak period through the use of:
 - a) compressed work weeks (A work schedule for an employee which eliminates at least one round trip commute biweekly. For example, forty hours of work in four ten-hour days or a work plan that allows one day off every other week, known as the nine-eighty plan.);
 - b) staggered work hours involving a shift in the set work hours of all employees at the workplace; and
 - c) flexible work hours involving individually determined work hours within guidelines established by the employer.
6. Showers and lockers. To help encourage bicycling as a viable commute transportation alternative, Adventist Health Shared Services Campus provides at total of six showers (two showers for men, two showers for women and two showers for unisex), with a total of eighteen 18 lockers in non-gender specific locations for employees who use the showers.
7. On-Site Amenities. In an ongoing effort to reduce vehicle trips during the workday, Adventist Health Shared Services Campus has a fitness course and walking path, with walking connections to local restaurants, and retail. Adventist Health Shared Services Campus also has a full service café and on-site health clinic.

TRANSPORTATION COMMUTER SURVEY REPORT REQUIRED

The City Transportation Coordinator shall prepare and distribute a survey report form to the Major Project Controller for the purpose of demonstrating the effectiveness of the Adventist Health Shared Services Campus TSM Plan. The Major Project Controller shall conduct the survey and submit the transportation commuter survey report to the City Transportation Coordinator no later than April 1. The transportation commuter survey shall be conducted every five years, beginning in the year 2018.

16 BR – Bike Racks
50 BL – Bike Lockers
101 CP – Carpool Spaces
30 EV – Electric Vehicle
1 BS – Bus Shelter

APPENDIX A
Adventist Health Shared
Services Campus
One Adventist Health Way





TRANSPORTATION COMMISSION

Title: Home 2 Suites (1900 Freedom Way) Transportation Systems Management (TSM) Plan

Meeting Date: 9/19/2017
Item #: 5.2.

ATTACHMENTS:

Description

Staff Report



Transportation Commission Meeting

September 19, 2017 – 7:00 p.m.

Consent Calendar

Item 6b: Home 2 Suites (1900 Freedom Way) Transportation Systems Management (TSM) Plan

Staff Sue Schooley, Alternative Transportation Analyst II/TSM Coordinator

Recommendation

Staff recommends the Transportation Commission approve the TSM Plan for Home 2 Suites.

Background

Daryl Walter and Lance Berrey, applicant, representing Home 2 Suites, worked in cooperation with the City in preparing a TSM Plan for this project, which is consistent with the TSM Ordinance.

Parcels 49A and 49B of the North Central Roseville Specific Plan are located at the southeast corner of Blue Oaks Blvd. and Washington Blvd., adjacent to the on-ramp to southbound Highway 65 (see location map below). Although Home 2 Suites does not employ 50 or more employees it is part of a larger project, Parcels 49A and 49B, which was designed to employ more than 50 employees, therefore, a TSM plan is required for Home 2 Suites.

Discussion

Home 2 Suites is a single building, 4-story, 105 room hotel with 58,446 square feet on approximately 4 acres located on the north side of Freedom Way (1900 Freedom Way), adjacent to Highway 65 and is part of the North Central Roseville Specific Plan Parcels 49A and 49B.

Home 2 Suites employs approximately 25 people, which includes management, housekeeping and maintenance employees. Due to the nature of the business (hotel), some of the employees will work the evening shift as they have staff on site 24 hours a day, seven days a week. The majority of the employees will commute to the Home 2 Suites from the surrounding areas of Roseville, Rocklin, Lincoln, and Citrus Heights and to a lesser degree from Folsom and Sacramento.

Home 2 Suites provides eight Class II bike racks outside; and, a secure room inside the hotel that will accommodate three indoor wall mounted bike racks. These 11 bike parking spaces are greater than 5% of the total number of employees and also complies with the Green Building Code. These bicycle spaces shall be available for employees who bicycle to work.

Home 2 Suites provides 11 carpool spaces, which is 10% of the total number of parking spaces and complies with the Green Building Code. Home 2 Suites provides seven Electric Vehicle charging units and each unit has one port.

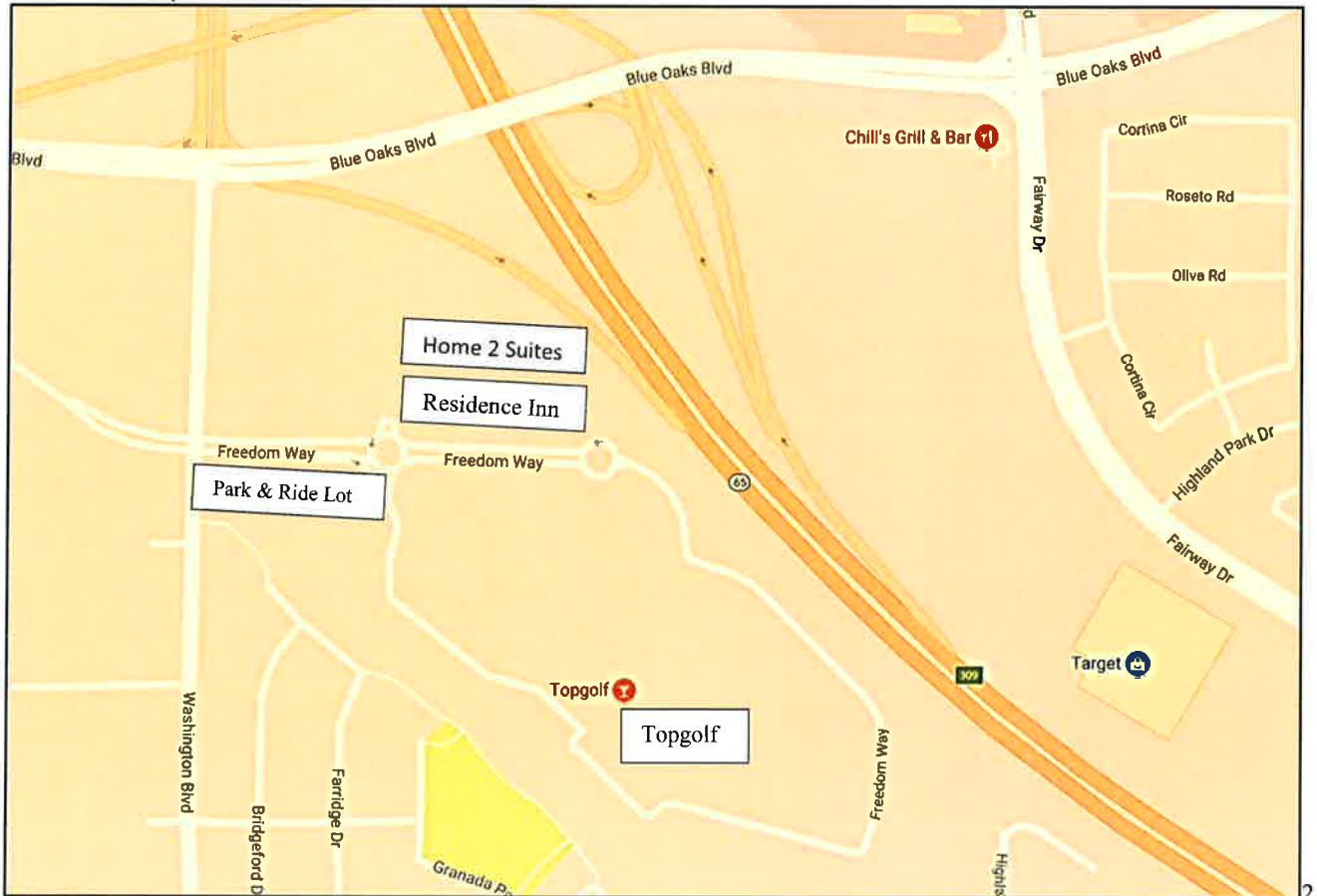
As part of the development of Parcel 49, a 25-space Park and Ride Lot will be constructed for the public and employees of Parcel 49 including Home 2 Suites. The Park and Ride spaces shall be located just east of Washington Blvd and south of Freedom Way. There is also a sidewalk from the Park and Ride area to the transit stop adjacent to the property as mentioned above.

The nearest transit stop will be located adjacent to Parcel 49 on north bound Washington Blvd just south of Freedom Way adjacent to the Park & Ride Lot.

To help encourage bicycling as a viable commute transportation alternative, Home 2 Suites will have six lockers for men and six lockers for women. In an ongoing effort to reduce vehicle trips during the workday, Home 2 Suites employees can use the fitness center, ATM and coffee cart.

The attached TSM Plan has been prepared in compliance with the TSM Ordinance.

Location Map:



Attachment(s)

1. Home 2 Suites TSM Plan

TSM PLAN

Home 2 Suites

1900 Freedom Way

TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PURPOSE

On May 7, 1999, the revised Transportation Systems Management (TSM) Ordinance became effective. The City of Roseville adopted the TSM Ordinance and established the TSM Program for the following purposes:

- A. Reduce peak hour traffic circulation in the City of Roseville by reducing both the number of vehicular trips and the vehicular miles traveled that might otherwise be generated by home-to-work commuting by a minimum of twenty percent (20%).
- B. Increase the efficiency of the existing transportation network and contribute to achieving Level of Service (LOS) C at intersections in the City of Roseville.
- C. Reduce total vehicle emissions in the City of Roseville by reducing the number of vehicular trips that might otherwise be generated by home-to-work commuting.
- D. Cooperate and coordinate with other cities, counties, communities and regional agencies in these endeavors.
- E. Develop a program that secures the participation of local developers, businesses, institutions and public and private agencies to fulfill the purposes expressed herein.

TSM PLAN APPLICABILITY

The TSM Program shall be applicable to every Common Work Location and Major Common Work Location. Additionally, a TSM Plan shall be required as a condition of approval for all development projects, design review permits, tentative subdivisions and conditional use permits which are anticipated to employ fifty (50) or more employees at the Major Common Work Location. In addition, a TSM plan shall be required for any existing development project that employs fifty (50) or more employees at the Major Common Work Location. Although Home 2 Suites will only employ twenty five (25) people, it is part of a larger work location, North Central Roseville Specific Plan Parcels 49A and 49B that was designed to employ more than fifty (50) employees. Therefore, a TSM Plan is required and is presented below.

TSM PLAN AGREEMENT

Upon approval of the TSM Plan, the project owner shall enter into a written agreement with the City obligating the project owner to comply with the TSM Plan. Such agreement shall be recorded, run with the land and bind all successors in interest, and shall constitute an equitable servitude on the property. Where appropriate, the City may require the agreement to include a provision for enforcement, in the event of breach by the project owner or a successor in interest.

TSM PLAN IMPLEMENTATION

- A. The Site TSM Coordinator shall implement the TSM Plan.
- B. The City shall have the right to enter, upon giving reasonable advance notice, Home 2 Suites to provide information to the Major Project Controller or Site TSM Coordinator pertaining to the TSM Program. The City shall also have the right to reasonably enter Home 2 Suites for inspection of the property and for audit of survey records to determine compliance with a TSM Plan.

HOME 2 SUITES OPERATING CHARACTERISTICS

The TSM Plan for Home 2 Suites includes the following operating characteristics:

- A. **Project Description.** Home 2 Suites is located on the north side of Freedom Way, adjacent to Highway 65 as part of the North Central Roseville Specific Plan Parcels 49A and 49B. Home 2 Suites is a single building, 4-story, 105 room hotel with 58,446 square feet on approximately 4 acres.

The nearest transit stop will be located adjacent to Parcel 49 on north bound Washington Blvd just south of Freedom Way.
- B. **Employee Description.** Home 2 Suites employs approximately twenty five (25) people, which includes management, housekeeping and maintenance employees. Due to the nature of the business, hotel, some of the employees will work the evening shift as they have staff on site 24 hours a day, seven days a week. The majority of the employees will commute to the Home 2 Suites from the surrounding areas of Roseville, Rocklin, Lincoln, and Citrus Heights and to a lesser degree from Folsom and Sacramento.
- C. **Site Plan.** Please refer to appendix (A) and (A-1) for the site plans of Home 2 Suites depicting the location of the required bicycle facilities and carpool spaces.
 - 1. **Bicycle Facilities.** Home 2 Suites provides eight (8) Class II bike racks outside; and, a secure room inside the hotel that will accommodate three (3) indoor wall mounted bike racks. These eleven (11) bike parking spaces are greater than five percent (5%) of the total number of employees and also complies with the Green Building Code. These bicycle spaces shall be available for employees who bicycle to work.

2. **Preferential Carpool Parking.** Home 2 Suites provides eleven (11) carpool spaces, which is ten percent (10%) of the total number of parking spaces. The spaces shall be located for convenient access by the employee and striped "carpool/clean air vehicle/EV" to comply with the Green Building Code. The Site TSM Coordinator shall register carpoolers and shall be responsible for monitoring the use of such spaces.
3. **Electric Vehicle.** Home 2 Suites provides seven (7) Electric Vehicle charging units and each unit has one port.
4. **Park and Ride Spaces.** As part of the development of Parcel 49, the project will provide twenty five (25) Park and Ride spaces for the public and employees of Parcel 49 including The Home2 Suites. The Park and Ride spaces shall be located just east of Washington Blvd and south of Freedom Way. There is also a sidewalk from the Park and Ride area to the transit stop adjacent to the property as mentioned above.

D. **Site TSM Coordinator.** The following named person has been designated as the Site TSM Coordinator:

Don Cape
4255 Dean Martin Drive, Suite J
Las Vegas, NV 89103
doncape@tharaldsonco.com
(702) 385-4982

This information shall be updated and provided in writing to the City Transportation Coordinator during the triennial survey or at any time that there is a change in the Site TSM Coordinator.

SITE TSM COORDINATOR'S RESPONSIBILITIES

The Site TSM Coordinator's responsibilities shall include:

- A. **Posting TSM Information.** Posting by the Site TSM Coordinator in a conspicuous place or places for employees, informational material provided by the City Transportation Coordinator, and other regional rideshare agencies or prepared by the Site TSM Coordinator to encourage alternative transportation methods. Such informational material shall be kept current and may include, but is not limited to, the following:
 1. Current schedules, rates, procedures for obtaining transit passes, and routes of public transit service to the Major Common Work Location.
 2. Bicycle route maps.
 3. Posters or flyers encouraging the use of ridesharing and referrals to sources of information concerning ridesharing.
 4. Information regarding available services that will eliminate vehicle trips.

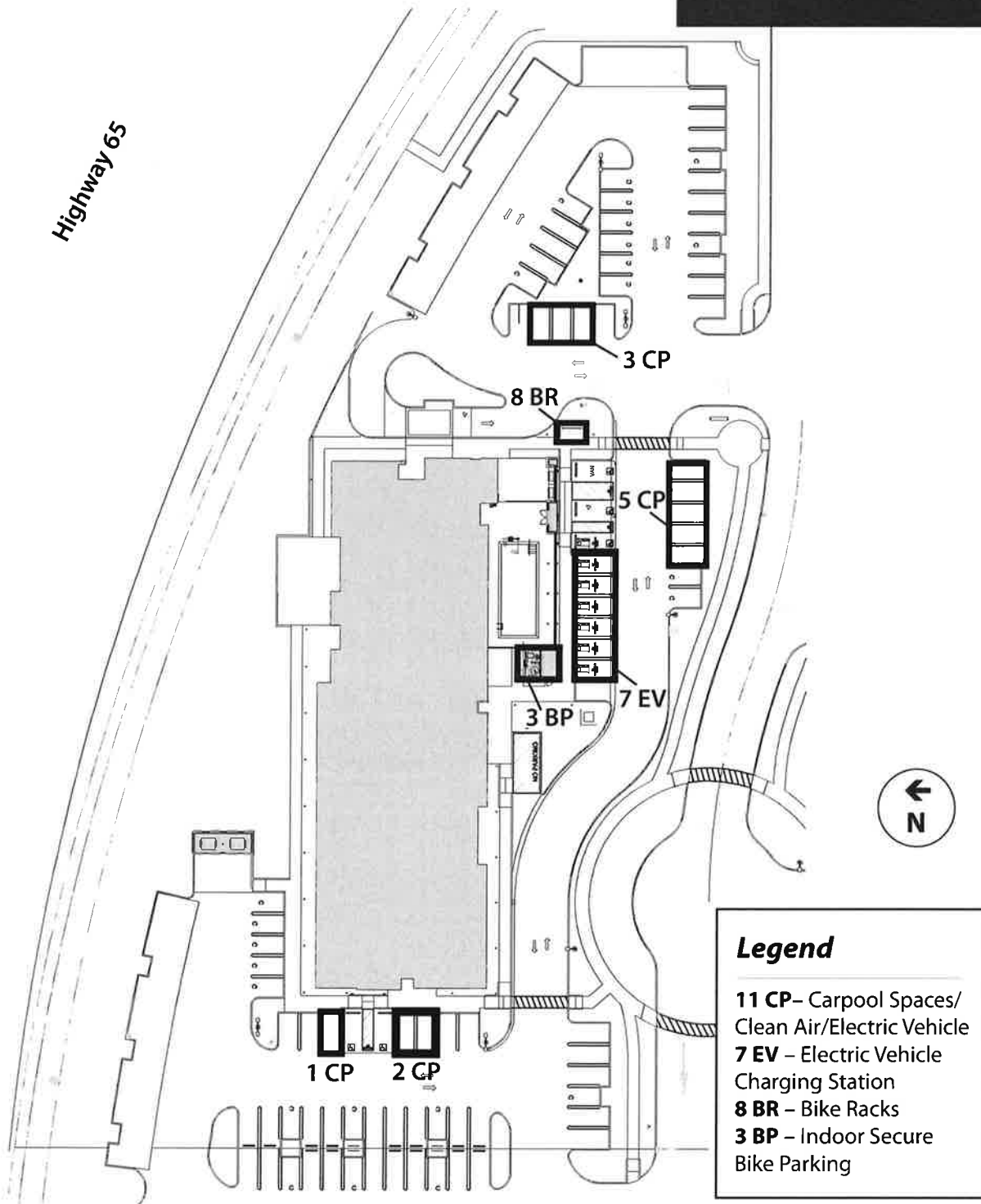
- B. **Marketing the Commuter Rideshare Matchlisting Service.** Annually disseminating to all tenants and employees, or to new tenants and employees when hired, written information provided by the City Transportation Coordinator and/or other regional rideshare agencies regarding regional commuter rideshare match listing services.
- C. **Promoting the Emergency Ride Home Program.** The Site TSM Coordinator shall promote the Emergency Ride Home Program. The program provides for the transportation of employees who use alternative transportation modes for home to work commuting in case of a personal, family or other major emergency. The program is designed to help employees get home, child's daycare or school. The Emergency Ride Home is a service provided by the City of Roseville.
- D. **Participating in Training Opportunities.** The Site TSM Coordinator will be invited to training events offered by the City's TSM Coordinator. These training events will include information and materials for promoting such programs as Spare the Air, Clean Air Month, Bike Month, and information for implementing alternative transportation promotions. The City believes these training programs will be beneficial to the community and will help Site TSM Coordinators implement their TSM plans. Each Site TSM Coordinator or his/her designee is expected to attend a minimum of two (2) training events per year.
- E. **Promoting alternative transportation opportunities.** In addition to the above programs, the Site TSM Coordinator, working in conjunction with the City Transportation Coordinator, shall encourage employers and employees to use alternative transportation. Such alternative transportation promotional opportunities may include, but are not limited to, the following:
1. *In House Carpool Matching Service.* Conduct a survey of all employees in order to identify persons interested in being matched into carpools. Potential carpoolers are then matched by work address and shift. Such survey can be done on an annual basis and for all new employees interested in ridesharing.
 2. *Telecommuting.* Telecommuting which allows employees to work periodically from their home or an off-site location close to home.
 3. *Transit pass subsidy.* Promoting the use of public transportation by providing to employees on a monthly basis a transit pass subsidy to help offset the cost to the employee. The City Transportation Coordinator will work with the Site TSM Coordinator on promoting public transit and procuring passes.
 4. *Vanpool program.* Promoting vanpooling to employees as a cost effective way to commute to work. The City Transportation Coordinator will work with the Site TSM Coordinator to help implement the vanpool program. Typically, the employees lease a van and the vanpool participants shall cover the operating costs for the van.

5. Variable work hours. Encouraging employers and employees to eliminate commute trips or relocate the commute trip out of the peak period through the use of:
 - a) compressed work weeks (A work schedule for an employee which eliminates at least one round trip commute biweekly. For example, forty hours of work in four ten-hour days or a work plan that allows one day off every other week, known as the nine-eighty plan.);
 - b) staggered work hours involving a shift in the set work hours of all employees at the workplace; and
 - c) flexible work hours involving individually determined work hours within guidelines established by the employer.
6. Lockers. To help encourage bicycling as a viable commute transportation alternative, Home 2 Suites will have six (6) lockers for men and six (6) lockers for women.
7. On-Site Amenities. In an ongoing effort to reduce vehicle trips during the workday, Home 2 Suites employees can use the fitness center, ATM and coffee cart.

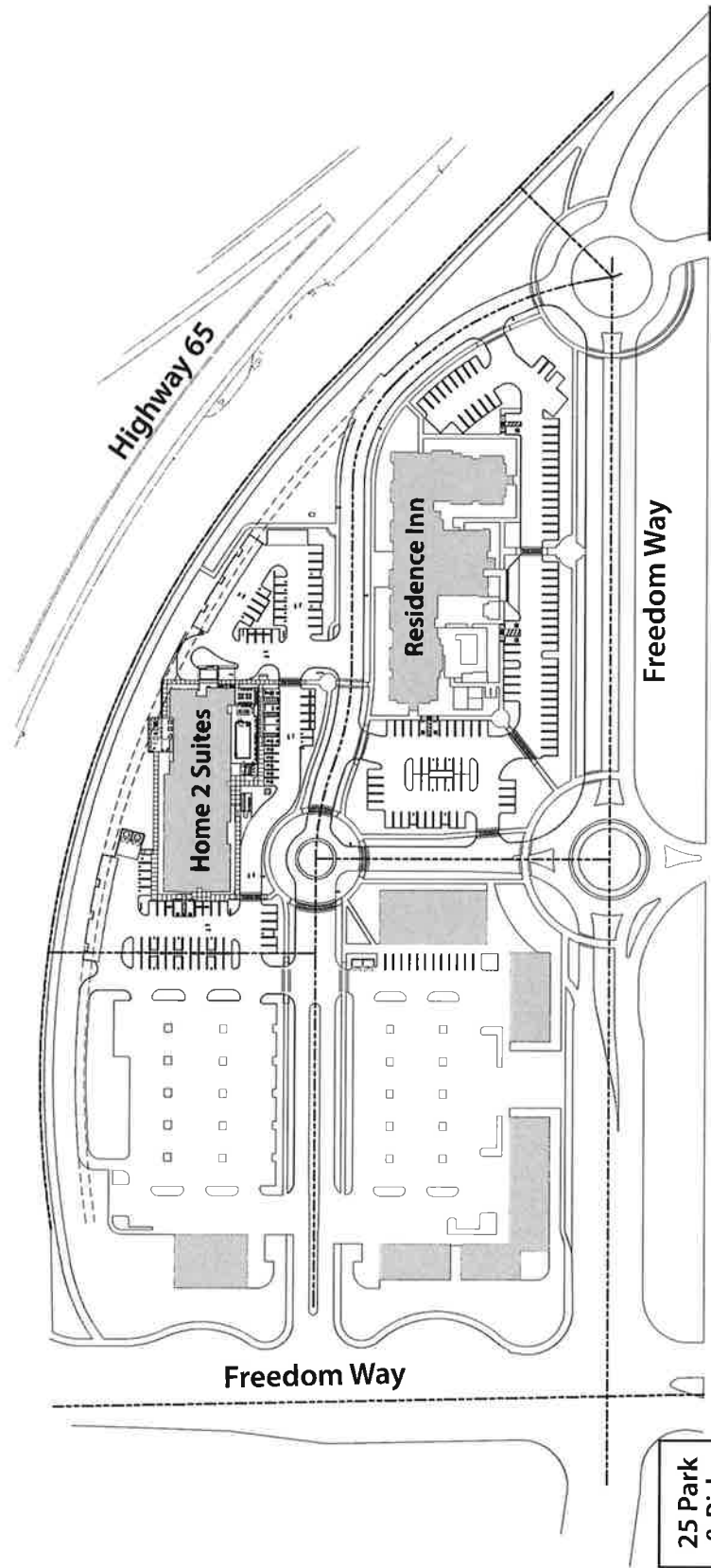
TRANSPORTATION COMMUTER SURVEY REPORT REQUIRED

The City Transportation Coordinator shall prepare and distribute a transportation commuter survey report form to the Site TSM Coordinator for the purpose of demonstrating the effectiveness of the Home 2 Suites TSM Plan. The Site TSM Coordinator shall conduct the survey and submit the transportation commuter survey report to the City Transportation Coordinator no later than April 1. The transportation survey shall be conducted every five years, beginning in the year 2018.

Appendix A
Home 2 Suites
1900 Freedom Way



**Appendix A-1
Parcel 49 A & B
Site Plan
With Park & Ride Spaces**



**25 Park
& Ride
Spaces** ←



TRANSPORTATION COMMISSION

Title:

Residence Inn (1850 Freedom Way) Transportation Systems Management (TSM)
Plan

Meeting Date: 9/19/2017

Item #: 5.3.

ATTACHMENTS:

Description

Staff Report



Transportation Commission Meeting

September 19, 2017 – 7:00 p.m.

Consent Calendar

Item 6c: Residence Inn (1850 Freedom Way) Transportation Systems Management (TSM) Plan

Staff Sue Schooley, Alternative Transportation Analyst II/TSM Coordinator

Recommendation

Staff recommends the Transportation Commission approve the TSM Plan for Residence Inn.

Background

Lance Berrey and Daryl Walter, applicant, representing Residence Inn, worked in cooperation with the City in preparing a TSM Plan for this project, which is consistent with the TSM Ordinance.

Parcels 49A and 49B of the North Central Roseville Specific Plan are located at the southeast corner of Blue Oaks Blvd. and Washington Blvd., adjacent to the on-ramp to southbound Highway 65 (see location map below). Although the Residence Inn does not employ 50 or more employees it is part of a larger project, Parcels 49A and 49B, which was designed to employ more than 50 employees, therefore, a TSM plan is required for the Residence Inn.

Discussion

Residence Inn is a single building, 4-story, 104 room hotel with 77,975 square feet on approximately 4 acres located on the north side of Freedom Way (1850 Freedom Way) and is part of the North Central Roseville Specific Plan Parcels 49A and 49B.

Residence Inn employs approximately 25 people, which includes management, housekeeping and maintenance employees. Due to the nature of the business (hotel), some of the employees will work the evening shift as they have staff on site 24 hours a day, seven days a week. The majority of the employees will commute to the Residence Inn from the surrounding areas of Roseville, Rocklin, Lincoln, and Citrus Heights and to a lesser degree from Folsom and Sacramento.

Residence Inn provides six Class II bike racks outside; and, a secure room inside the hotel that will accommodate eight wall mounted bike racks. These 14 bike parking spaces are greater than 5% of the total number of employees and also complies with the Green Building Code. These bicycle spaces shall be available for employees who bicycle to work.

Residence Inn provides 11 carpool spaces, which is 10% of the total number of parking spaces and complies with the Green Building Code. Residence Inn provides three Electric Vehicle charging units and each unit has one port.

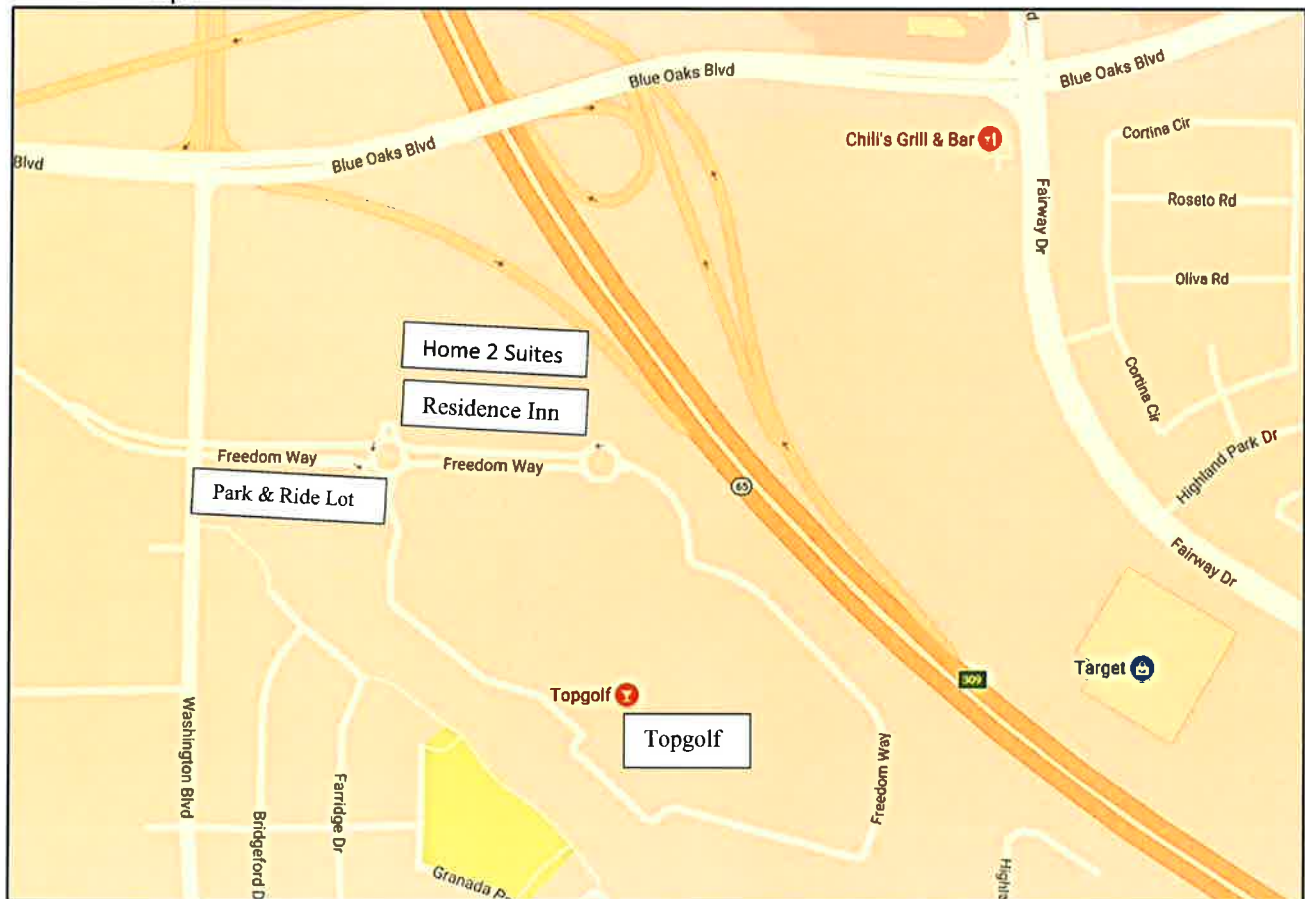
As part of the development of Parcel 49, a 25-space Park and Ride Lot will be constructed for the public and employees of Parcel 49 including the Residence Inn. The Park and Ride spaces shall be located just east of Washington Blvd and south of Freedom Way. There is also a sidewalk from the Park and Ride area to the transit stop adjacent to the property as mentioned above.

The nearest transit stop will be located adjacent to Parcel 49 on north bound Washington Blvd just south of Freedom Way adjacent to the Park & Ride Lot.

To help encourage bicycling as a viable commute transportation alternative, Residence Inn will have five lockers for men and five lockers for women. In an ongoing effort to reduce vehicle trips during the workday, Residence Inn employees can use the fitness center and the coffee cart.

The attached TSM Plan has been prepared in compliance with the TSM Ordinance.

Location Map:



Attachment(s)

1. Residence Inn TSM Plan

TSM PLAN Residence Inn 1850 Freedom Way

TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PURPOSE

On May 7, 1999, the revised Transportation Systems Management (TSM) Ordinance became effective. The City of Roseville adopted the TSM Ordinance and established the TSM Program for the following purposes:

- A. Reduce peak hour traffic circulation in the City of Roseville by reducing both the number of vehicular trips and the vehicular miles traveled that might otherwise be generated by home-to-work commuting by a minimum of twenty percent (20%).
- B. Increase the efficiency of the existing transportation network and contribute to achieving Level of Service (LOS) C at intersections in the City of Roseville.
- C. Reduce total vehicle emissions in the City of Roseville by reducing the number of vehicular trips that might otherwise be generated by home-to-work commuting.
- D. Cooperate and coordinate with other cities, counties, communities and regional agencies in these endeavors.
- E. Develop a program that secures the participation of local developers, businesses, institutions and public and private agencies to fulfill the purposes expressed herein.

TSM PLAN APPLICABILITY

The TSM Program shall be applicable to every Common Work Location and Major Common Work Location. Additionally, a TSM Plan shall be required as a condition of approval for all development projects, design review permits, tentative subdivisions and conditional use permits which are anticipated to employ fifty (50) or more employees at the Major Common Work Location. In addition, a TSM plan shall be required for any existing development project that employs fifty (50) or more employees at the Major Common Work Location. Although Residence Inn will only employ twenty five (25) people, it is part of a larger work location, North Central Roseville Specific Plan Parcels 49A and 49B that was designed to employ more than fifty (50) employees. Therefore, a TSM Plan is required and is presented below.

TSM PLAN AGREEMENT

Upon approval of the TSM Plan, the project owner shall enter into a written agreement with the City obligating the project owner to comply with the TSM Plan. Such agreement shall be recorded, run with the land and bind all successors in interest, and shall constitute an equitable servitude on the property. Where appropriate, the City may require the agreement to include a provision for enforcement, in the event of breach by the project owner or a successor in interest.

TSM PLAN IMPLEMENTATION

- A. The Site TSM Coordinator shall implement the TSM Plan.
- B. The City shall have the right to enter, upon giving reasonable advance notice, Residence Inn to provide information to the Major Project Controller or Site TSM Coordinator pertaining to the TSM Program. The City shall also have the right to reasonably enter Residence Inn for inspection of the property and for audit of survey records to determine compliance with a TSM Plan.

RESIDENCE INN OPERATING CHARACTERISTICS

The TSM Plan for Residence Inn includes the following operating characteristics:

- A. **Project Description.** Residence Inn is located on the north side of Freedom Way just east of Spirit Way as part of the North Central Roseville Specific Plan Parcels 49A and 49B. Residence Inn is a single building, 4-story, 104 room hotel with 77,975 square feet on approximately 4 acres.

The nearest transit stop will be located adjacent to Parcel 49 on north bound Washington Blvd just south of Freedom Way.
- B. **Employee Description.** Residence Inn employs approximately twenty five (25) people, which includes management, housekeeping and maintenance employees. Due to the nature of the business, hotel, some of the employees will work the evening shift as they have staff on site 24 hours a day, seven days a week. The majority of the employees will commute to the Residence Inn from the surrounding areas of Roseville, Rocklin, Lincoln, and Citrus Heights and to a lesser degree from Folsom and Sacramento.
- C. **Site Plan.** Please refer to appendix (A) and (A-1) for the site plans of Residence Inn depicting the location of the required bicycle facilities and carpool spaces.
 - 1. **Bicycle Facilities.** Residence Inn provides six (6) Class II bike racks outside; and, a secure room inside the hotel that will accommodate eight (8) wall mounted bike racks. These fourteen (14) bike parking spaces are greater than five percent (5%) of the total number of employees and also complies with the Green Building Code. These bicycle spaces shall be available for employees who bicycle to work.

2. **Preferential Carpool Parking.** Residence Inn provides eleven (11) carpool spaces, which is ten percent (10%) of the total number of parking spaces. The spaces shall be located for convenient access by the employee and striped "carpool/clean air vehicle/EV" to comply with the Green Building Code. The Site TSM Coordinator shall register carpoolers and shall be responsible for monitoring the use of such spaces.
3. **Electric Vehicle.** Residence Inn provides three (3) Electric Vehicle charging units and each unit has one port.
4. **Park and Ride Spaces.** As part of the development of Parcel 49, the project will provide twenty five (25) Park and Ride spaces for the public and employees of Parcel 49 including The Residence Inn. The Park and Ride spaces shall be located just east of Washington Blvd and south of Freedom Way. There is also a sidewalk from the Park and Ride area to the transit stop adjacent to the property as mentioned above.

D. **Site TSM Coordinator.** The following named person has been designated as the Site TSM Coordinator:

Don Cape
4255 Dean Martin Drive, Suite J
Las Vegas, NV 89103
dcape@diversfieldgrp.com
(702) 385-4982

This information shall be updated and provided in writing to the City Transportation Coordinator during the triennial survey or at any time that there is a change in the Site TSM Coordinator.

SITE TSM COORDINATOR'S RESPONSIBILITIES

The Site TSM Coordinator's responsibilities shall include:

- A. **Posting TSM Information.** Posting by the Site TSM Coordinator in a conspicuous place or places for employees, informational material provided by the City Transportation Coordinator, and other regional rideshare agencies or prepared by the Site TSM Coordinator to encourage alternative transportation methods. Such informational material shall be kept current and may include, but is not limited to, the following:
 1. Current schedules, rates, procedures for obtaining transit passes, and routes of public transit service to the Major Common Work Location.
 2. Bicycle route maps.
 3. Posters or flyers encouraging the use of ridesharing and referrals to sources of information concerning ridesharing.
 4. Information regarding available services that will eliminate vehicle trips.

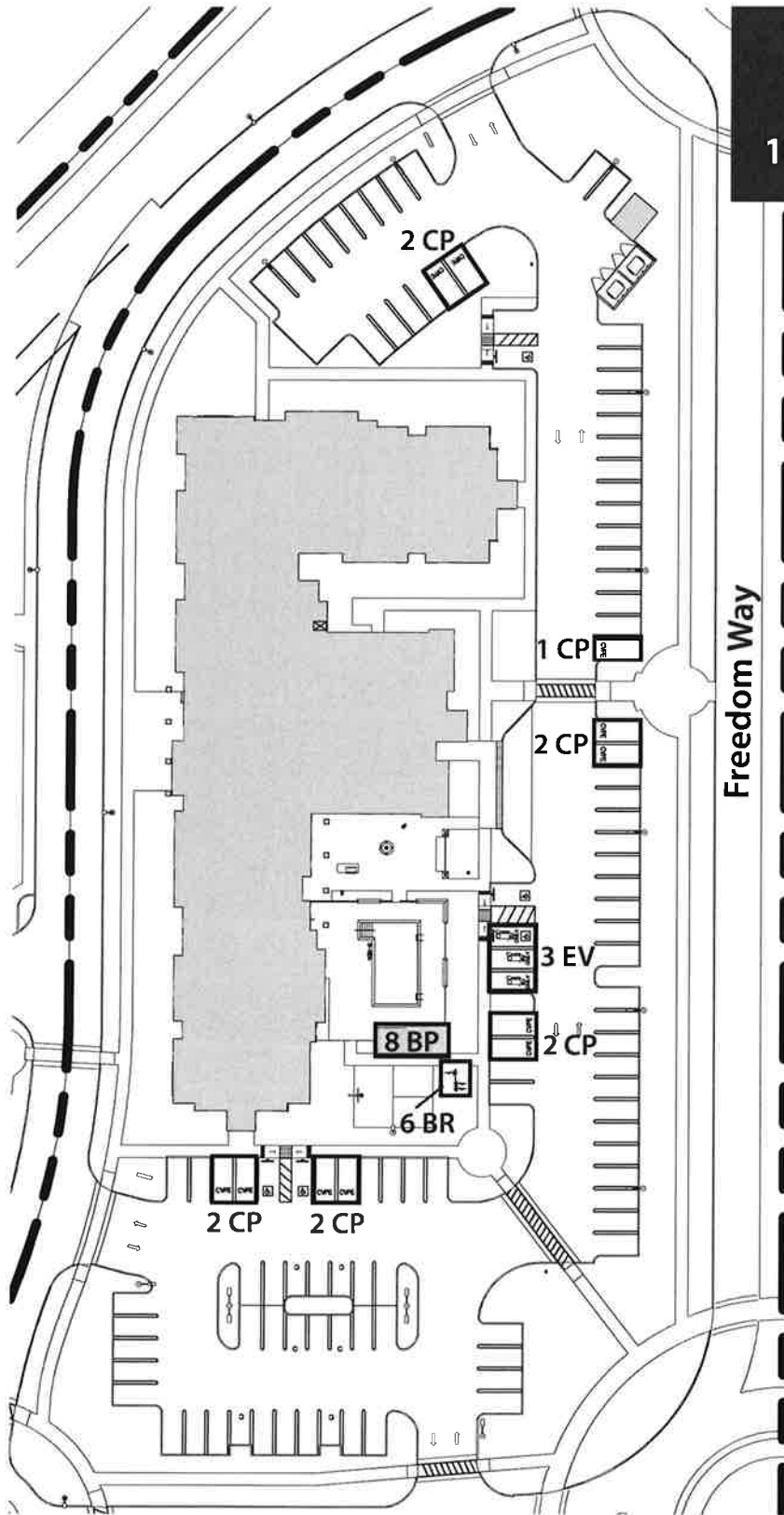
- B. **Marketing the Commuter Rideshare Matchlisting Service.** Annually disseminating to all tenants and employees, or to new tenants and employees when hired, written information provided by the City Transportation Coordinator and/or other regional rideshare agencies regarding regional commuter rideshare match listing services.
- C. **Promoting the Emergency Ride Home Program.** The Site TSM Coordinator shall promote the Emergency Ride Home Program. The program provides for the transportation of employees who use alternative transportation modes for home to work commuting in case of a personal, family or other major emergency. The program is designed to help employees get home, child's daycare or school. The Emergency Ride Home is a service provided by the City of Roseville.
- D. **Participating in Training Opportunities.** The Site TSM Coordinator will be invited to training events offered by the City's TSM Coordinator. These training events will include information and materials for promoting such programs as Spare the Air, Clean Air Month, Bike Month, and information for implementing alternative transportation promotions. The City believes these training programs will be beneficial to the community and will help Site TSM Coordinators implement their TSM plans. Each Site TSM Coordinator or his/her designee is expected to attend a minimum of two (2) training events per year.
- E. **Promoting alternative transportation opportunities.** In addition to the above programs, the Site TSM Coordinator, working in conjunction with the City Transportation Coordinator, shall encourage employers and employees to use alternative transportation. Such alternative transportation promotional opportunities may include, but are not limited to, the following:
1. *In House Carpool Matching Service.* Conduct a survey of all employees in order to identify persons interested in being matched into carpools. Potential carpoolers are then matched by work address and shift. Such survey can be done on an annual basis and for all new employees interested in ridesharing.
 2. *Telecommuting.* Telecommuting which allows employees to work periodically from their home or an off-site location close to home.
 3. *Transit pass subsidy.* Promoting the use of public transportation by providing to employees on a monthly basis a transit pass subsidy to help offset the cost to the employee. The City Transportation Coordinator will work with the Site TSM Coordinator on promoting public transit and procuring passes.
 4. *Vanpool program.* Promoting vanpooling to employees as a cost effective way to commute to work. The City Transportation Coordinator will work with the Site TSM Coordinator to help implement the vanpool program. Typically, the employees lease a van and the vanpool participants shall cover the operating costs for the van.

5. Variable work hours. Encouraging employers and employees to eliminate commute trips or relocate the commute trip out of the peak period through the use of:
 - a) compressed work weeks (A work schedule for an employee which eliminates at least one round trip commute biweekly. For example, forty hours of work in four ten-hour days or a work plan that allows one day off every other week, known as the nine-eighty plan.);
 - b) staggered work hours involving a shift in the set work hours of all employees at the workplace; and
 - c) flexible work hours involving individually determined work hours within guidelines established by the employer.
6. Lockers. To help encourage bicycling as a viable commute transportation alternative, Residence Inn will have five (5) lockers for men and five (5) lockers for women.
7. On-Site Amenities. In an ongoing effort to reduce vehicle trips during the workday, Residence Inn employees can use the fitness center and the coffee cart.

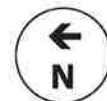
TRANSPORTATION COMMUTER SURVEY REPORT REQUIRED

The City Transportation Coordinator shall prepare and distribute a transportation commuter survey report form to the Site TSM Coordinator for the purpose of demonstrating the effectiveness of the Residence Inn TSM Plan. The Site TSM Coordinator shall conduct the survey and submit the transportation commuter survey report to the City Transportation Coordinator no later than April 1. The transportation survey shall be conducted every five years, beginning in the year 2018.

Appendix A Residence Inn 1850 Freedom Way



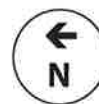
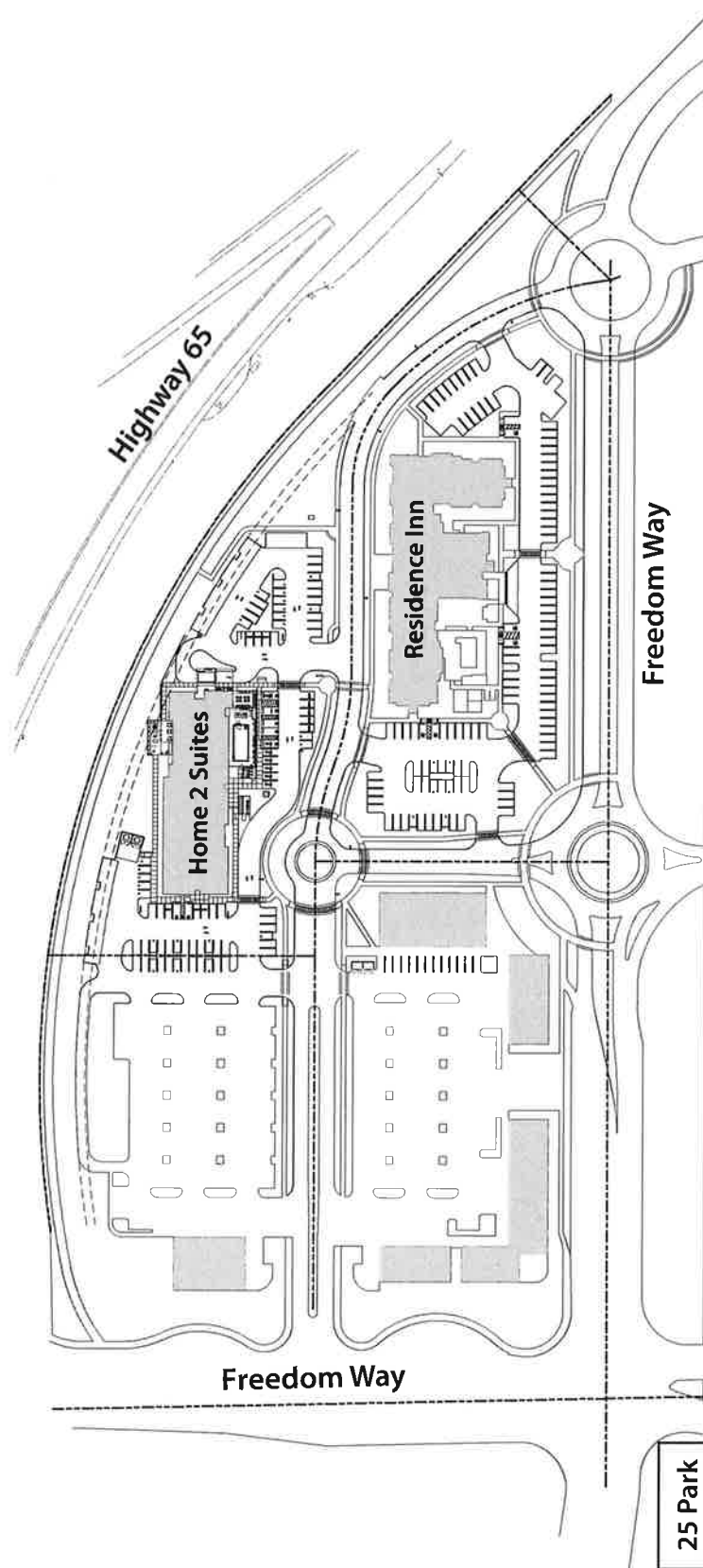
Freedom Way



Legend

- 11 CP** – Carpool Spaces/
Clean Air/Electric Vehicle
- 3 EV** – Electric Vehicle
Charging Station
- 6 BR** – Bike Racks
- 8 BP** – Indoor Secure
Bike Parking

**Appendix A-1
Parcel 49 A & B
Site Plan
With Park & Ride Spaces**



**25 Park
& Ride
Spaces** ←

Title: Route M Deviation Requests

Meeting Date: 9/19/2017
Item #: 6.1.

ATTACHMENTS:

Description

Staff Report



Transportation Commission Meeting

September 19, 2017 – 7:00 p.m.

Special Presentations/Reports

Item 7a. Route M Deviation Requests

Staff Eileen Bruggeman, Alternative Transportation Analyst

Recommendation

In 2016 the City initiated service changes to Local Routes M, D and I, including a new deviated segment for Route M. At that time the Transportation Commission directed staff to return at a later date with an update regarding requests for Route M deviations. This report provides that information. No action is required.

Background

Route M provides hourly transit service along Pleasant Grove Boulevard between the Galleria shopping center and West Roseville, including the Fairway Drive corridor. Route M is one of the three (3) most heavily used routes in Roseville (Routes A and B being the others). These routes (A, B and M) operate until almost 10 p.m. Monday through Friday, which is longer than the other Local routes that typically end service prior to 6:30 p.m.

In order to be successful, local transit systems must enable easy and convenient transfers between routes. This includes transfers between the multiple Roseville Transit local routes, and also transfers to connecting routes provided by Placer County Transit (at Galleria and Louis Orlando Transit Center) and Sacramento Regional Transit (at Louis Orlando). To successfully complete a transfer it is important that the bus arrivals and departures of both transit systems are coordinated, and the buses are able to adhere to the schedules.

In 2015, staff observed that Route M was experiencing delays. The Route M delays were causing issues with the ability of passengers to transfer between routes. As a result, staff initiated changes to local transit routes in order to reduce the delays being experienced by Route M. The process for modifying the routes included an extensive public outreach campaign with on-board and City website requests for passenger input, a public workshop on January 19, 2016, and consideration by the Transportation Commission on February 16, 2016. The final route changes were implemented in August 2016 and included:

- Route M was modified to eliminate service to the U-shaped area along Junction Boulevard, Woodcreek Oaks Boulevard and Country Club Drive with service to the Heritage Oaks Apartments. Except, Route M (westbound from Galleria) would offer deviations to this U-shaped area after 6:30 p.m. for purposes of providing workers whose shifts end in the evening to provide a safe and convenient means to return home. See Attachment 1 for a map of Route M.
- Route I was eliminated.
- Route D was modified to provide service to the area west of Woodcreek Oaks Boulevard along Junction Boulevard and Baseline Road. Route D was also extended north of Blue Oaks Boulevard to Eskaton Village at Diamond Creek Boulevard.

At the time of the changes, the Transportation Commission requested that staff return with an update on the Route M deviations after a period of use.

Discussion

During the eleven (11) month period of August 2016 through June 2017, the City received a total of 151 deviation requests for Route M. As noted above, these requests are for evening runs after 6:30 p.m. Monday through Friday along the U-shaped area shown on Attachment 1. Additional statistics regarding the Route M deviations are provided below:

- There were an average of 14 requests per month
- 45 requests during the 6:30 p.m. run
- 75 requests during 7:30 p.m. run
- 27 requests during 8:30 p.m. run
- 4 requests during 9:30 p.m. (final run of the day)

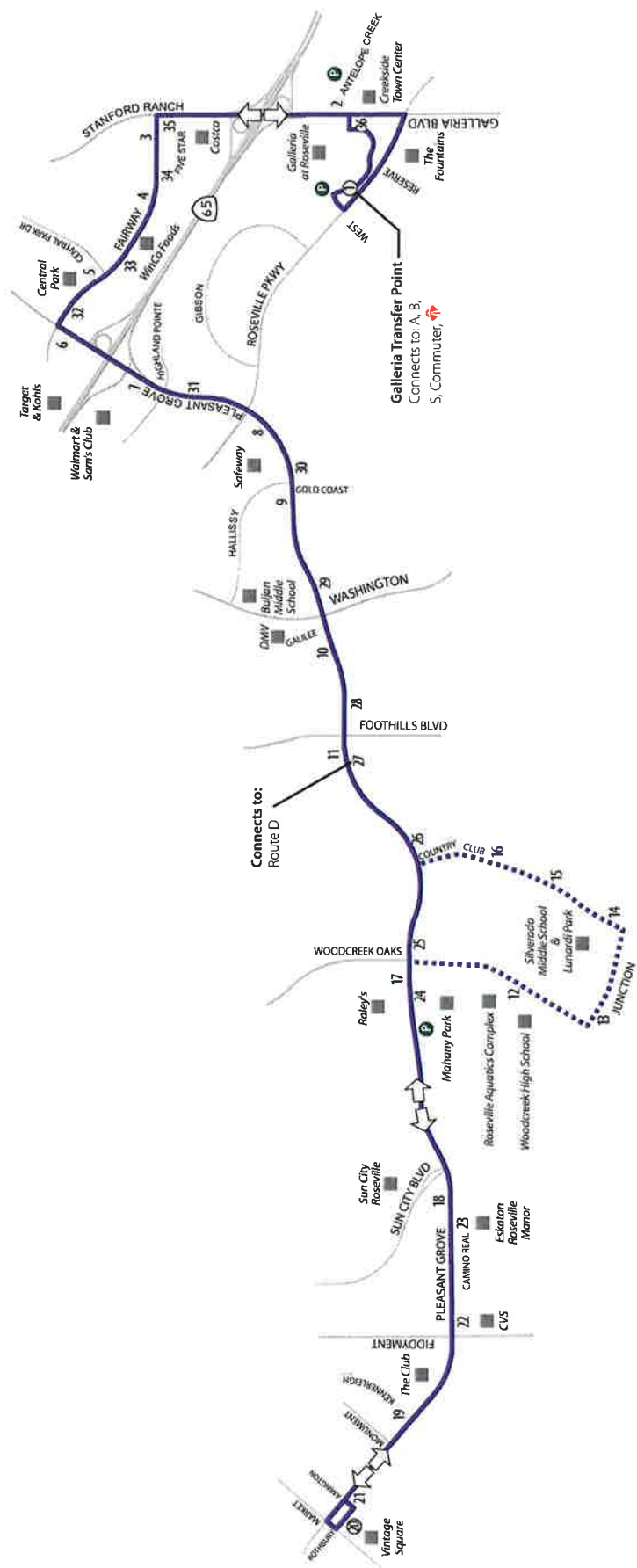
On time performance of Route M to the Galleria transfer point has improved. Most significantly, when traffic is at its heaviest there was a 28% improvement going from 68% in December 2015 to almost 88% in December 2016 on time arrival at the Galleria transfer point. Achieving 88% on time performance is closer to the desired performance standard of 95% on time arrivals. This has provided much improved reliability that better facilitates transfers and the overall transit experience.

Roseville Transit staff is always looking at opportunities to improve the transit experience for our customers while providing an efficient and cost effective service. We will continue to monitor the changes to Routes M, D and I over time. We will also evaluate these routes through the Short Range Transit Plan update process that will begin this fall. This will include a presentation on the findings of the Short Range Transit Plan to the Transportation Commission.

Attachments:

1. Map of Route M including deviation area

Attachment 1



Legend

- 1 Bus Stop
- ① Timed Stop
- Placer County Transit
- Park & Ride Lot
- Popular destinations
- Route deviation by request

Title: Transit Performance Report - 3rd and 4th Quarters of Fiscal Year 2017

Meeting Date: 9/19/2017
Item #: 6.2.

ATTACHMENTS:

Description

Staff Report

Transportation Commission Meeting

September 19, 2017 – 7:00 p.m.

Special Presentations/Reports

Item 7b: Transit Performance Report – 3rd and 4th Quarters of Fiscal Year 2017

Staff: Eileen Bruggeman, Alternative Transportation Analyst

Recommendation

Staff requests that the Transportation Commission accept the Transit Performance Report for the 3rd and 4th Quarters of Fiscal Year 2017.

Background

Per State and federal law, transit agencies are required to establish performance standards. The standards are contained in the Short Range Transit Plan (developed every 5-7 years) and approved by the Placer County Transit Planning Agency (PCTPA) Board. The City Council then adopts the Short Range Transit Plan (SRTP) containing the performance standards, and provides direction to staff regarding implementation of the goals contained in the SRTP. These goals and standards are a method for the Council, the Transportation Commission, and staff to evaluate the performance of the City's transit services each quarter, and at the end of each fiscal year.

Discussion

Overall, the key performance measurements (KPMs) for services in Fiscal Year 2017 (FY17) remained stable in comparison to the same time period during FY16. Ridership during the first half of FY17 in comparison to FY16 continues to decrease overall. The percent decrease in FY17 in comparison to FY16 was 7.6%, or approximately 29,700 trips. This reduction is primarily due to Local ridership (decreased 13.8%, almost 30,000 trips) and secondarily to Dial-A-Ride with a decrease of 3.7% or close to 1,100 trips. These decreases were offset by a 1.0% increase in Commuter ridership.

Roseville Transit in FY17 to date (Attachment 1) has experienced:

- An overall decrease of 7.6% in ridership in comparison to FY16 (Attachment 2), primarily driven by a decrease in ridership on Local service;
- Fare revenue overall is 5% higher than FY16 due to increase in support from the West Roseville Specific Plan for transit operations and fare revenue from Game Day Express;
- Vehicle Revenue Hours are relatively unchanged; and
- Total operating expenses are also relatively unchanged (\$5,281,236 vs. \$5,286,524 in FY16); resulting in
- Slightly higher fare box recovery ratio of 23.2% in comparison to 22.1% at the end of last year.

Measurements for safety and service, such as preventable accidents per service mile and all accidents per service mile, were not met this fiscal year, however, miles between road calls exceeded the standards.

Goal 1 – Service Efficiency: Service efficiency is typically rated by farebox recovery and cost per passenger (a.k.a. the subsidy per trip) for the overall system and for each service type.

Farebox Recovery Ratio: The farebox recovery ratio provides a means of evaluating the overall costs to the fare revenues for all services provided, as well as for each service individually.

The system-wide fare recovery ratio for the first half of the fiscal year is 23.2%, as noted above.

The fare recovery ratio for Dial-A-Ride (DAR) services finished the year at 8.1%, the same as last year. There was decreased ridership (down 3.7% or approximately 1,100 trips in comparison to last fiscal year), leading to lower fare revenue (\$103,788 this year, in comparison to \$108,760 last year). However, that was offset by lower vehicle revenue hours, lower miles, lower operational costs, all resulting in the stable recovery ratio for DAR.

The Commuter service fare recovery ratio during FY17 increased slightly, from 79.4% at the end of FY16 to 81.1% at the end of FY17. Total ridership increased 1.0% or about 1,300 trips. For reporting purposes Game Day Express (service between Roseville and the Golden One Center for Kings basketball games) ridership, operational costs, vehicle revenue hours and fare revenue are incorporated into Commuter data for the 2nd and 3rd quarters. As noted in a previous performance report inclusion of the Game Day Express data slightly improves the Commuter statistics.

As noted above Local ridership decreased in FY17 as compared to FY16, resulting in lower collected passengers fares. However, total operational revenue increased in FY17 primarily due to increased support from the West Roseville Specific Plan. As a result, the farebox recovery ratio for Local services increased slightly from 13.2% to 13.8%.

Staff will begin shortly to work with the consultant selected by Placer County Transportation Planning Agency (PCTPA) to prepare the next Short Range Transit Plan. It is anticipated the plan will evaluate a variety of recommendations for efficiency and ridership improvements.

Subsidy per Trip: The total subsidy for all service trips provides yet another means to measure service efficiency and effectiveness. Subsidy per trip is calculated based on operational expenses, less fare revenue, and divided by ridership. Not only do costs impact the subsidy calculations, overall ridership is a key factor. If ridership is up and costs are fixed when compared to the previous quarter or fiscal year, then the subsidy per trip will be lower.

In general, the total subsidy for all trips increased from \$10.55 in FY16 to \$11.24 in FY18. Local service experienced the greatest increase in subsidies per trip as shown in Attachment 1, increasing from \$12.34 in FY16 to \$14.29 in FY17. The subsidy per DAR trip decreased slightly (\$0.49 per trip), going from \$40.82 per trip in FY16, to \$40.33 average subsidy per trip in FY17. The subsidy per Commuter trip also decreased slightly from \$1.20 to \$1.14 subsidy per trip in FY17.

Transit Mode	Average Subsidy Per Trip		
	FY16	FY17	Change
All Services	\$10.55	\$11.24	\$0.69
Dial-A-Ride	\$40.82	\$40.33	(\$0.49)
Commuter	\$1.20	\$1.14	(\$0.06)
Local	\$12.34	\$14.29	\$1.95

Goal 2 - Service Effectiveness – Service effectiveness is rated by total ridership and the number of passengers trips provided for each vehicle revenue hour (PTVRH). The PTRVH measurement remained relatively consistent when compared with the previous fiscal year. Overall, Roseville Transit carried 7.1 passengers per revenue hour in FY17, which is down from 7.6 during the previous fiscal year.

Goal 3 - Service Quality – Service quality is measured by the number of preventable and non-preventable accidents per 1,000 miles traveled, on-time performance, the number of passenger complaints per trip provided, and the number of road calls per mile traveled.

The average number of all accidents (preventable and non-preventable) did not meet standards in FY17. However, number of road calls between miles meets and well exceeds the standards established for Roseville Transit.

There were a higher number of accidents determined to be preventable during FY17 (overall number of accidents 39, and of those 23 were preventable accidents) resulting in 1 accident per 39,101 miles which does not meet the performance standard of 1 accident per 50,000 miles or greater. In comparison in FY16 there were an overall number of 19 accidents of which 11 were preventable.

During this last year there has been throughout the transit industry difficulty hiring and retaining quality drivers which in turn leads to increase number of accidents. There are provisions in the next transit and call center operations contract that will assist in addressing driver shortages and improving collision avoidance that are anticipated will improve meeting of safety standards.

On-time performance remains good system-wide. The number of passenger complaints received also meets the established standards for DAR and Local service type.

Attachments:

1. FY17 Performance Report 4th Quarter – Year End
2. FY16 Performance Report 4th Quarter – Year End
3. FY17 Local Services Ridership by Route

FY16/17 All Services Quarterly Performance Report

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
Farebox Ratio for All Services					
Total Expenses - All Services	\$1,329,845	\$1,319,403	\$1,360,856	\$1,271,132	\$5,281,236
Total Fares - All Services	\$302,759	\$303,451	\$313,202	\$304,735	\$1,224,146
FY16/17 Combined Farebox Ratio for All Services	22.8%	23.0%	23.0%	24.0%	23.2%
FY15/16 Combined Farebox Ratio for All Services	22.0%	21.6%	23.4%	21.3%	22.1%
Percent Difference	0.8%	1.4%	-0.4%	2.7%	1.1%
Subsidy per Trip (All Services)					
Total Expenses - All Services	\$1,329,845	\$1,319,403	\$1,360,856	\$1,271,132	\$5,281,236
Less Fares (All Services)	\$302,759	\$303,451	\$313,202	\$304,735	\$1,224,146
Divided by Ridership (All Services)	\$1,027,086	\$1,015,952	\$1,047,655	\$966,397	\$4,057,090
FY16/17 Total Subsidy for All Service Trips	\$10.86	\$11.44	\$11.78	\$10.92	\$11.24
FY15/16 Total Subsidy for All Service Trips	\$9.98	\$10.75	\$10.30	\$11.22	\$10.55
Subsidy Increase/Decrease from Previous Year	\$0.88	\$0.69	\$1.48	-\$0.30	\$0.69
Total Ridership for All Services					
FY16/17 Quarter	94,604	88,825	88,940	88,513	360,882
FY15/16 Quarter	102,740	97,319	95,841	94,695	390,595
Total Ridership Increase/Decrease	-7.9%	-8.7%	-7.2%	-6.5%	-7.6%
Passenger Trips per VRH (All Services) Standard 8/VRH					
Total Ridership	94,604	88,825	88,940	88,513	360,882
Divided by Total Vehicle Revenue Hours (VRH)	12,653	12,656	12,902.6	12,757	50,969
Total Passenger Trips per Vehicle Revenue Hour	7.5	7.0	6.9	6.9	7.1
Preventable Accident Standard <1/50,000					
Total Service Miles (All Services)	229,765	223,781	222,146	223,624	899,316
Divided by Total Preventable Accidents	8	2	5	8	23
Total Service Miles per Preventable Accident	28,721	111,891	44,429	27,953	39,101
All Accidents Standard < 1/25,000					
Total Service Miles (All Services)	229,765	223,781	222,146	223,624	899,316
Divided by Total Accidents	11	7	11	10	39
Total Service Miles per Accident	20,888	31,969	20,195	22,362	23,059
Maintenance Standard > 1/10,000 miles between Road Calls					
Total Service Miles (All Services)	229,765	223,781	222,146	223,624	899,316
Divided by All Road Calls (average)	9	7	8	8	32
Total Service Miles per Road Calls	25,529	31,969	27,768	27,953	28,104

Report prepared based on data available as of the date presented to Transportation Commission.
Minor modifications may occur as revised financial or ridership data becomes available.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
DAR Farebox >15%					
Total Expenses - All Services	\$1,329,845	\$1,319,403	\$1,360,856	\$1,271,132	\$5,281,236
Percentage of DAR Service Hours to Total Contract Service Hours	23.50%	23.36%	25.00%	24.31%	24.04%
Total Expenses - DAR Service	\$317,286	\$302,509	\$322,926	\$306,708	\$1,249,428
DAR Fare Revenue	\$22,707	\$25,908	\$26,684	\$28,489	\$103,788
FY16/17 DAR Farebox Ratio	7.2%	8.6%	8.3%	9.3%	8.3%
FY15/16 DAR Farebox Ratio	7.6%	9.2%	7.8%	8.6%	8.3%
DAR Subsidy					
Total Expenses - DAR Service	\$317,286	\$302,509	\$322,926	\$306,708	\$1,249,428
Less DAR Fare Revenue	\$22,707	\$25,908	\$26,684	\$28,489	\$103,788
Total Subsidy	\$294,579	\$276,601	\$296,242	\$278,219	\$1,145,640
Divided by DAR Ridership	7,180	6,794	7,057	7,377	\$28,408
Subsidy per DAR Passenger	\$41.03	\$40.71	\$41.98	\$37.71	\$40.33
Last Year Quarter	\$40.38	\$41.03	\$40.91	\$40.95	\$40.82
Subsidy Increase/Decrease from Previous Year	\$0.65	-\$0.32	\$1.07	-\$3.24	-\$0.49
DAR Ridership					
FY16/17RIDERSHIP	7,180	6,794	7,057	7,377	28,408
FY15/16 RIDERSHIP	7,411	7,325	7,337	7,432	29,505
Ridership % Increase/Decrease	-3.1%	-7.25%	-3.8%	-0.7%	-3.7%
DAR Passenger Trips per VRH Standard >3.0					
DAR Ridership	7,180	6,794	7,057	7,377	28,408
Divided by DAR Vehicle Revenue Hours (VRH)	2,893	2,803	2,972	2,974	11,642
DAR Passenger Trips per Vehicle Revenue Hour	2.5	2.4	2.4	2.5	2.4
Last Year Quarter	2.4	2.4	2.3	2.5	2.4
DAR Ridership per DAR Complaint Standard <1/3000					
DAR Ridership	7,180	6,794	7,057	7,377	28,408
Number of Complaints	3	2	0	6	11
Divided by Substantiated Complaints	2	1	0	2	5
DAR Ridership per Substantiated Complaint	3,590	6,794	0	3,689	5,682
Last Year Quarter	7,411	7,325	7,337	3,716	9,835
DAR On Time Performance					
1st Month of Quarter	98.1%	98.9%	98.6%	98.2%	98.4%
2nd Month of Quarter	98.0%	98.2%	98.5%	99.2%	98.5%
3rd Month of Quarter	99.0%	98.2%	99.1%	97.9%	98.5%
Avg On-Time Performance (%)	98.4%	98.42%	98.7%	98.4%	98.5%
Last Year Quarter	98.7%	98.30%	99.0%	98.2%	98.6%

Report prepared based on data available as of the date presented to Transportation Commission.
Minor modifications may occur as revised financial or ridership data becomes available.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
Commuter Farebox Standard >75%					
Total Expenses - All Services	\$1,329,845	\$1,319,403	\$1,360,856	\$1,271,132	\$5,281,236
Percentage of Commuter Service Hours to Total Contract Service Hours	15.90%	15.72%	16.00%	15.93%	15.89%
Total Expenses - Commuter Service	\$209,233	\$206,960	\$219,754	\$201,889	\$837,836
Commuter Fare Revenue	\$168,005	\$168,593	\$177,880	\$164,659	\$679,137
FY16/17 Farebox Ratio	80.3%	81.46%	80.9%	81.6%	81.1%
FY15/16 Farebox Ratio	77.70%	74.10%	91.80%	75.00%	79.40%
Commuter Subsidy Standard <\$3.00 per trip					
Total Expenses - Commuter Service	\$209,233	\$206,960	\$219,754	\$201,889	\$837,836
Less Commuter Fare Revenue	\$168,005	\$168,593	\$177,880	\$164,659	\$679,137
Divided by Commuter Ridership	\$41,228	\$38,367	\$41,874	\$37,230	\$158,699
Subsidy per Commuter Trip	35,826	34,020	35,974	33,953	139,773
Last Year Quarter	\$1.15	\$1.13	\$1.16	\$1.10	\$1.14
Last Year Quarter	\$1.29	\$1.64	\$0.44	\$1.48	\$1.20
Commuter Ridership Standard > 2% Increase					
Current Quarter	35,826	34,020	35,974	33,953	139,773
Last Year Quarter	35,309	31,769	35,779	35,544	138,401
Ridership Increase/Decrease	1.5%	7.09%	0.5%	-4.5%	1.0%
Commuter Passenger Trips per VRH Standard > 8.0					
Commuter Ridership	35,826	34,020	35,974	33,953	139,773
Divided by Commuter Vehicle Revenue Hours (VRH)	1,589	1,663	1,715	1,607	6,574
Commuter Passenger Trips per Vehicle Revenue Hour	22.5	20.5	21.0	21.1	21.3
Last Year Quarter	22.6	21.4	23.6	22.5	22.5
Comm. Ridership per Comm. Complaint Standard <1/5000					
Commuter Ridership	35,826	34,020	35,974	33,953	139,773
Number of Complaints	15	16	14	9	54
Divided by Substantiated Complaints	3	9	6	1	19
Commuter Ridership per Substantiated Complaint	11,942	3,780	5,996	33,953	7,356
Last Year Quarter	17,655	4,538	5,111	17,772	7,689
Commuter On Time Performance					
1st Month of Quarter	93.1%	94.83%	90.67%	94.06%	93.2%
2nd Month of Quarter	92.7%	93.10%	93.1%	94.69%	93.4%
3rd Month of Quarter	92.2%	92.15%	94.9%	94.30%	93.4%
Avg On-Time Performance (%)	92.7%	93.36%	92.9%	94.4%	93.3%
Last Year Quarter	92.1%	87.90%	93.4%	94.2%	91.9%

Report prepared based on data available as of the date presented to Transportation Commission.
Minor modifications may occur as revised financial or ridership data becomes available.

prepared 9/8/2017

FY16/17 Local Fixed Route Quarterly Performance Report

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
Local Fixed Route Farebox Standard >15%					
Total Expenses - All Services	\$1,329,845	\$1,319,403	\$1,360,856	\$1,271,132	\$5,281,236
Percentage of FR Service Hours to Total Contract Service Hours	61%	61%	59%	60%	60.1%
Total Expenses - Fixed Route Services	\$803,325	\$809,935	\$818,176	\$762,535	\$3,193,972
Local Fixed Route Fare Revenue	\$112,112	\$109,000	\$108,677	\$111,090	\$440,879
Fixed Route Farebox Ratio	14.0%	13.46%	13.3%	14.6%	13.8%
Last Year Quarter	13.4%	13.7%	13.0%	12.7%	13.2%
Local Fixed Route Subsidy Standard <\$5.00 per trip					
Total Expenses - Fixed Route Services	\$803,325	\$809,935	\$818,176	\$762,535	\$3,193,972
Less Local Fixed Route Fare Revenue	\$112,112	\$109,000	\$108,677	\$111,090	\$440,879
Total Subsidy	\$691,213	\$700,935	\$709,499	\$651,445	\$2,753,093
Divided by Fixed Route Ridership	51,598	48,011	45,909	47,183	192,701
Subsidy per Fixed Route Trip	\$13.40	\$15	\$15.45	\$13.81	\$14.29
Last Year Quarter	\$11.33	\$11.90	\$12.72	\$13.62	\$12.34
Local Fixed Route Ridership Standard > 2% Increase					
Current Quarter	51,598	48,011	45,909	47,183	192,701
Last Year Quarter	60,020	58,225	52,725	51,719	222,689
Ridership Increase/Decrease	-14.0%	-17.54%	-12.9%	-8.8%	-13.5%
Local Fixed Route Passenger Trips Per VRH Standard > 8.0					
Local Fixed Route Ridership	51,598	48,011	45,909	47,183	192,701
Divided by FR Vehicle Revenue Hours (VRH)	8,171	8,190	8,215	8,176	32,753
FR Passenger Trips per Vehicle Revenue Hour	6.3	5.9	5.6	5.8	5.9
Last Year Quarter	7.3	7.2	6.5	6.3	6.8
Local FR Ridership per FR Complaint Standard <1/5000					
Local Fixed Route Ridership	51,598	48,011	45,909	47,183	192,701
Number of Complaints	9	6	14	22	51
Divided by Substantiated Complaints	4	2	3	11	20
Fixed Route Ridership per Substantiated Complaint	12,900	24,006	15,303	4,289	9,635
Last Year Quarter	8,574	19,408	13,181	25,860	13,918
Local Fixed Route On Time Performance					
1st Month of Quarter	89.0%	89.12%	92.2%	91.3%	90.4%
2nd Month of Quarter	88.3%	88.86%	91.3%	87.5%	89.0%
3rd Month of Quarter	89.1%	87.50%	89.6%	89.2%	88.8%
Avg On-Time Performance (%)	88.8%	88.49%	91.1%	89.3%	89.4%
Last Year Quarter	91.3%	84.60%	86.8%	87.8%	87.6%

Report prepared based on data available as of the date presented to Transportation Commission.
Minor modifications may occur as revised financial or ridership data becomes available.

FY15/16 All Services Quarterly Performance Report

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
Farebox Ratio for All Services					
Total Expenses - All Services	\$1,314,065	\$1,334,614	\$1,288,025	\$1,349,820	\$5,286,524
Total Fares - All Services	\$288,992	\$289,200	\$301,537	\$288,204	\$1,167,934
FY15/16 Combined Farebox Ratio for All Services	22.0%	21.7%	23.4%	21.4%	22.1%
FY14/15 Combined Farebox Ratio for All Services	21.4%	21.8%	21.4%	23.4%	22.0%
Percent Difference	0.6%	-0.1%	2.0%	-2.0%	0.1%
Subsidy per Trip (All Services)					
Total Expenses - All Services	\$1,314,065	\$1,334,614	\$1,288,025	\$1,349,820	\$5,286,524
Less Fares (All Services)	\$288,992	\$289,200	\$301,537	\$288,204	\$1,167,934
	\$1,025,073	\$1,045,414	\$986,487	\$1,061,616	\$4,118,590
Divided by Ridership (All Services)	102,740	97,319	95,841	94,695	390,595
FY15/16 Total Subsidy for All Service Trips	\$9.98	\$10.74	\$10.29	\$11.21	\$10.54
FY14/15 Total Subsidy for All Service Trips	\$10.12	\$10.00	\$10.33	\$10.06	\$10.13
Subsidy Increase/Decrease from Previous Year	-\$0.14	\$0.74	-\$0.04	\$1.15	\$0.41
Total Ridership for All Services					
FY15/16 Quarter	102,740	97,319	95,841	94,695	390,595
FY14/15 Quarter	103,479	97,419	97,615	99,025	397,538
Total Ridership Increase/Decrease	-0.7%	-0.1%	-1.8%	-4.4%	-1.7%
Passenger Trips per VRH (All Services) Standard 8/VRH					
Total Ridership	102,740	97,319	95,841	94,695	390,595
Divided by Total Vehicle Revenue Hours (VRH)	12,885	12,708	12,774	12,778	51,145
Total Passenger Trips per Vehicle Revenue Hour	8.0	7.7	7.5	7.4	7.6
Preventable Accident Standard <1/50,000					
Total Service Miles (All Services)	234,582	229,681	231,105	233,984	929,352
Divided by Total Preventable Accidents	2	2	5	2	11
Total Service Miles per Preventable Accident	117,291	114,841	46,221	116,992	84,487
All Accidents Standard < 1/25,000					
Total Service Miles (All Services)	234,582	229,681	231,105	233,984	929,352
Divided by Total Accidents	4	3	8	4	19
Total Service Miles per Accident	58,646	76,560	28,888	58,496	48,913
Maintenance Standard > 1/10,000 miles between Road Calls					
Total Service Miles (All Services)	234,582	229,681	231,105	233,984	929,352
Divided by All Road Calls (average)	6	5	7	6	24
Total Service Miles per Road Calls	39,097	45,936	33,015	38,997	38,723

Report prepared based on data available as of the date presented to Transportation Commission.
Minor modifications may occur as revised financial or ridership data becomes available.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
DAR Farebox >15%					
Total Expenses - All Services	\$1,314,065	\$1,334,614	\$1,288,025	\$1,349,820	\$5,286,524
Percentage of DAR Service Hours to Total Contract Service Hours	24.91%	25.34%	25.50%	24.60%	25.09%
Total Expenses - DAR Service	\$323,865	\$330,830	\$325,467	\$332,901	\$1,313,063
DAR Fare Revenue	\$24,601	\$30,301	\$25,326	\$28,532	\$108,760
FY15/16 DAR Farebox Ratio	7.6%	9.2%	7.8%	8.6%	8.3%
FY14/15 DAR Farebox Ratio	8.9%	8.9%	7.0%	9.5%	8.9%
DAR Subsidy					
Total Expenses - DAR Service	\$323,865	\$330,830	\$325,467	\$332,901	\$1,313,063
Less DAR Fare Revenue	\$24,601	\$30,301	\$25,326	\$28,532	\$108,760
Divided by DAR Ridership	\$299,264	\$300,529	\$300,141	\$304,369	\$1,204,303
Total Subsidy	7,411	7,325	7,337	7,432	29,505
Subsidy per DAR Passenger	\$40.38	\$41.03	\$40.91	\$40.95	\$40.82
Last Year Quarter	\$38.04	\$37.19	\$40.39	\$38.29	\$38.46
Subsidy Increase/Decrease from Previous Year	\$2.34	\$3.84	\$0.52	\$2.66	\$2.36
DAR Ridership					
FY15/16 RIDERSHIP	7,411	7,325	7,337	7,432	29,505
FY14/15 RIDERSHIP	7,665	7,623	7,356	7,556	30,200
Ridership % Increase/Decrease	-3.3%	-3.9%	-0.3%	-1.6%	-2.3%
DAR Passenger Trips per VRH Standard >3.0					
DAR Ridership	7,411	7,325	7,337	7,432	29,505
Divided by DAR Vehicle Revenue Hours (VRH)	3,096	3,080	3,126	3,030	12,332
DAR Passenger Trips per Vehicle Revenue Hour	2.4	2.4	2.3	2.5	2.4
Last Year Quarter	2.6	2.6	2.4	2.4	2.5
DAR Ridership per DAR Complaint Standard <1/3000					
DAR Ridership	7,411	7,325	7,337	7,432	29,505
Number of Complaints	2	1	2	3	8
Divided by Substantiated Complaints	0	0	1	2	3
DAR Ridership per Substantiated Complaint	7,411	7,325	7,337	3,716	9,835
Last Year Quarter	7,665	7,623	3,678	7,551	7,550
DAR On Time Performance					
1st Month of Quarter	98.6%	98.7%	99.4%	98.4%	98.8%
2nd Month of Quarter	98.7%	98.0%	98.6%	98.4%	98.4%
3rd Month of Quarter	98.7%	98.2%	98.8%	97.9%	98.4%
Avg On-Time Performance (%)	98.7%	98.3%	99.0%	98.2%	98.5%
Last Year Quarter	98.7%	98.3%	98.8%	98.8%	98.7%

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FY15/16 Commuter Quarterly Performance Report

Attachment 2
Page 3 of 4

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
Commuter Farebox Standard >75%					
Total Expenses - All Services	\$1,314,065	\$1,334,614	\$1,288,025	\$1,349,820	\$5,286,524
Percentage of Commuter Service Hours to Total Contract Service Hours	15.56%	14.97%	15.13%	15.70%	15.34%
Total Expenses - Commuter Service	\$204,782	\$200,670	\$191,536	\$210,359	\$807,348
Commuter Fare Revenue	\$159,083	\$148,632	\$175,773	\$157,683	\$641,171
FY15/16 Farebox Ratio	77.7%	74.1%	91.8%	75.0%	79.4%
FY14/15 Farebox Ratio	78.1%	87.6%	80.2%	81.8%	81.9%
Commuter Subsidy Standard <\$3.00 per trip					
Total Expenses - Commuter Service	\$204,782	\$200,670	\$191,536	\$210,359	\$807,348
Less Commuter Fare Revenue	\$159,083	\$148,632	\$175,773	\$157,683	\$641,171
Divided by Commuter Ridership	\$45,700	\$52,038	\$15,763	\$52,676	\$166,177
	35,309	31,769	35,779	35,544	138,401
Subsidy per Commuter Trip	\$1.29	\$1.64	\$0.44	\$1.48	\$1.20
Last Year Quarter	\$1.31	\$0.69	\$1.16	\$1.12	\$1.07
Commuter Ridership Standard > 2% Increase					
Current Quarter	35,309	31,769	35,779	35,544	138,401
Last Year Quarter	34,323	31,523	32,712	33,304	131,862
Ridership Increase/Decrease	2.9%	0.8%	9.4%	6.7%	4.94%
Commuter Passenger Trips per VRH Standard > 8.0					
Commuter Ridership	35,309	31,769	35,779	35,544	138,401
Divided by Commuter Vehicle Revenue Hours (VRH)	1,565	1,488	1,515	1,580	6,147
Commuter Passenger Trips per Vehicle Revenue Hour	22.6	21.4	23.6	22.5	22.5
Last Year Quarter	23.4	22.6	22.9	21.2	22.5
Comm. Ridership per Comm. Complaint Standard <1/5000					
Commuter Ridership	35,309	31,769	35,779	35,544	138,401
Number of Complaints	6	12	12	8	38
Divided by Substantiated Complaints	2	7	7	2	18
Commuter Ridership per Substantiated Complaint	17,655	4,538	5,111	17,772	7,689
Last Year Quarter	17,162	5,254	8,178	11,101	8,791
Commuter On Time Performance					
1st Month of Quarter	92.0%	88.2%	92.6%	95.2%	92.0%
2nd Month of Quarter	93.8%	88.0%	94.6%	93.5%	92.5%
3rd Month of Quarter	90.4%	87.4%	93.0%	93.9%	91.2%
Avg On-Time Performance (%)	92.1%	87.9%	93.4%	94.2%	91.9%
Last Year Quarter	82.7%	79.3%	83.8%	89.8%	83.9%

Report prepared based on data available as of the date presented to Transportation Commission.
Minor modifications may occur as revised financial or ridership data becomes available.

prepared 9/12/2017

FY15/16 Local Fixed Route Quarterly Performance Report

Local Fixed Route Farebox Standard >15% Total Expenses - All Services Percentage of FR Service Hours to Total Contract Service Hours Local Fixed Route Fare Revenue	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year To Date
	\$1,314,065 59.53%	\$1,334,614 59.69%	\$1,288,025 59.37%	\$1,349,820 59.70%	\$5,286,524 59.6%
	\$785,417	\$803,114	\$771,022	\$806,561	\$3,166,114
	\$105,260	\$110,256	\$100,484	\$102,076	\$418,077
	13.4%	13.7%	13.0%	12.7%	13.2%
Fixed Route Farebox Ratio Last Year Quarter	11.9%	12.0%	12.8%	13.6%	12.6%
Local Fixed Route Subsidy Standard <\$5.00 per trip Total Expenses - Fixed Route Services Less Local Fixed Route Fare Revenue Divided by Fixed Route Ridership	\$785,417	\$803,114	\$771,022	\$806,561	\$3,166,114
	\$105,260	\$110,256	\$100,484	\$102,076	\$418,077
	\$680,158	\$692,857	\$670,537	\$704,484	\$2,748,037
	60,020	58,225	52,725	51,719	222,689
	\$11.33	\$11.90	\$12.72	\$13.62	\$12.34
Subsidy per Fixed Route Trip Last Year Quarter	\$11.56	\$11.49	\$11.71	\$11.42	\$11.55
Local Fixed Route Ridership Standard > 2% Increase Current Quarter Last Year Quarter Ridership Increase/Decrease	60,020	58,225	52,725	51,719	222,689
	61,491	58,279	57,548	58,615	235,933
	-2.4%	-0.1%	-8.4%	-11.8%	-5.7%
Local Fixed Route Passenger Trips Per VRH Standard > 8.0 Local Fixed Route Ridership Divided by FR Vehicle Revenue Hours (VRH) FR Passenger Trips per Vehicle Revenue Hour Last Year Quarter	60,020	58,225	52,725	51,719	222,689
	8,224	8,140	8,133	8,169	32,665
	7.3	7.2	6.5	6.3	6.8
	7.4	7.0	7.2	7.2	7.2
Local FR Ridership per FR Complaint Standard <1/5000 Local Fixed Route Ridership Number of Complaints Divided by Substantiated Complaints Fixed Route Ridership per Substantiated Complaint Last Year Quarter	60,020	58,225	52,725	51,719	222,689
	14	8	9	4	35
	7	3	4	2	16
	8,574	19,408	13,181	25,860	13,918
	61,491	14,571	19,183	58,615	33,705
Local Fixed Route On Time Performance 1st Month of Quarter 2nd Month of Quarter 3rd Month of Quarter Avg On-Time Performance (%) Last Year Quarter	90.5%	84.8%	88.3%	86.8%	87.6%
	97.8%	86.2%	86.3%	86.9%	89.3%
	85.5%	82.7%	85.8%	89.7%	85.9%
	91.3%	84.6%	86.8%	87.8%	87.6%
	80.7%	85.2%	87.9%	89.8%	85.9%

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Attachment 3

16/17 FIXED ROUTE RIDERSHIP BY ROUTE																	
A1	A2	B1	B2	C	D	E	F	G	I*	L	M	R AM	R PM	S	Total	Adj. Total	
Total	32139	18340	19821	28314	2171	18277	2302	1553	2757	929	17643	28462	5168	4775	4322	186973	191798.5
	50,479		48,135														
% of Total	17.19%	9.81%	10.60%	15.14%	1.16%	9.78%	1.23%	0.83%	1.47%	0.50%	9.44%	15.22%	2.76%	2.55%	2.31%	100.00%	
	27.00%		25.74%														

15/16 FIXED ROUTE RIDERSHIP BY ROUTE																	
A1	A2	B1	B2	C	D	E	F	G	I	L	M	R AM	R PM	S	Total	Adj. Total	
Total	39167	20623	23104	34406	2939	10590	3334	2682	4088	11441	18663	33557	4808	4945	4178	218525	222688.4
% of Total	17.92%	9.44%	10.57%	15.74%	1.34%	4.85%	1.53%	1.23%	1.87%	5.24%	8.54%	15.36%	2.20%	2.26%	1.91%	100.00%	
	27.36%		26.32%														

14/15FIXED ROUTE RIDERSHIP BY ROUTE																		
A1	A2	B1	B2	C	D	E	F	G	I	L	M	R AM	R PM	S	SC*	Total	Adj. Total	
Total	42799	22520	25809	38143	3751	10004	983	1054	4546	10277	18439	39778	5943	5695	3790	52	233583	235931.7
% of Total	18.14%	9.55%	10.94%	16.17%	1.59%	4.24%	0.42%	0.45%	1.93%	4.36%	7.82%	16.86%	2.52%	2.41%	1.61%	0.02%	99.00%	
	27.69%		27.11%															

*discontinued routes

Title: Alternative Transportation Division Update

Meeting Date: 9/19/2017
Item #: 6.3.

ATTACHMENTS:

Description

Staff Report

Transportation Commission Meeting September 19, 2017 – 7:00 p.m. Reports and Updates

Item 8a. Alternative Transportation Division Update

Staff Mike Dour, Alternative Transportation Manager

Recommendation

This item is provided to update the Transportation Commission on the activities of the Alternative Transportation Division and other transportation related items of the region, no action is needed.

Congestion Mitigation Air Quality (CMAQ) Grant Applications

CMAQ is a federal funding program that provides funds for projects that help reduce congestion and improve air quality by reducing vehicle emissions. Common CMAQ-funded projects are those that provide for alternative means of transportation (eg, bicycling, walking, etc.) as well as projects that help traffic flow more smoothly to reduce vehicle idling time (eg, Intelligent Transportation System projects).

CMAQ funds are allocated to each state and then to each metropolitan planning organization (MPO) within the state. The Sacramento Area Council of Governments (SACOG) is our region's MPO. SACOG has a memorandum of understanding (MOU) with the Placer County Transportation Planning Agency (PCTPA) which transfers authority to PCTPA for distributing Placer County's share of CMAQ funds.

PCTPA typically divides the CMAQ funds into two categories: 75% as fair share, and 25% as discretionary. Fair share funds are distributed to member agencies based on population. For the 2020/22 three-year CMAQ cycle, the fair share funds available to Roseville total \$4,390,109. The City Council recently recommended that we allocate the CMAQ funds as follows:

Downtown Class I Trail (inc. Rube Nelson and Library Bridge)	\$1,390,109
Downtown Main Pedestrian Bridge	\$2,000,000
Washington/All American Roundabout	\$1,000,000
Total	\$4,390,109

In addition to the above CMAQ allocations, the City Council also directed staff to move \$375,241 in CMAQ funds from the Harding to Royer Segment 3 Trail project to the Dry Creek Greenway Trail project. The Harding to Royer Segment 3 project will now be constructed entirely with local transportation funds, with construction anticipated in summer 2018. The CMAQ for the Dry Creek Greenway Trail project will supplement other construction funds identified for that project, with construction anticipated in summer 2021.

The CMAQ discretionary funds are allocated to State Implementation Plan (SIP) programs such as SECAT (Sacramento Emergency Clean Air and Transportation) and Spare the Air. The remaining discretionary funds were allocated on a competitive (project merit) basis. Due to their location along major transportation corridors, the following discretionary projects were funded:

Colfax I-80/SH 174 Roundabout	\$800,000
Highway 49 Sidewalks	\$2,000,000
Total	\$2,800,000

Roundabout at Washington Boulevard/All America Drive

The Washington Boulevard/All America Drive intersection currently provides primary access to the fairgrounds. The existing intersection design is not sufficient to handle traffic associated with larger events at the fairgrounds. This can result in traffic concerns on Washington Boulevard and in the surrounding residential neighborhood.

Placer County, in conjunction with Placer Valley Tourism, is considering a redesign and further development of the Placer County Fair Grounds property that is anticipated to increase traffic volumes on All America City Boulevard. As a result, the City has been working with Placer County to identify possible improvements to address the increased traffic. The proposed improvements being considered include a new traffic signal and primary fair entrance at the intersection of Junction Boulevard and Vallejo Avenue. In addition, a multi-lane roundabout proposed as an alternative to a new traffic signal at the intersection. The roundabout project could include the following components (shown in attached Project Alternatives Exhibits):

1. Realignment of the Lincoln Street approach on the southeast side of the intersection;
2. Multiuse pathways to connect the existing bike lanes;
3. Sidewalks with improved crosswalks through the intersection; and
4. Raised median islands on Washington Boulevard approaching the intersection.

The proposed roundabout improvements have the potential to reduce potential conflicts between vehicles, increase safety and accessibility for bicyclists and pedestrians, reduce vehicle emissions, and improve corridor aesthetics. The next steps in the roundabout design process would include:

- Public outreach, preliminary design and environmental documentation
- Transportation review of environmental document
- City Council review and approval of environmental document
- Final design
- Construction

The time frame for the roundabout design is still being developed, but we anticipate that the Transportation Commission review of the preliminary design and environmental document could be within one year. In addition to Roseville's CMAQ allocation of \$1,000,000, Placer County will also be contributing \$1,000,000 in CMAQ funding to the project. We are in the process of identifying additional funds of approximately \$500,000 that would complete the project funding.

SB 1

The Road Repair and Accountability Act of 2017 (SB1), adopted May 17, 2017, provides the first significant, stable, and on-going increase in state transportation funding in more than two decades. The Legislature has increased revenues and expanded the California Transportation Commission's (CTC) role to provide transparent oversight and accountability for transportation infrastructure investments. CTC and other state agencies have developed SB1 funding programs and milestones as shown on the attachment. City staff is now in the process of investigating opportunities to apply for funding and will keep the Transportation Commission informed of progress in future meetings.

Roseville Bikefest

Saturday, September 23

9 a.m. – Noon

Mahany Park

Bring your bicycle and helmet to Bikefest, a free family bike safety event. Enjoy bike obstacle courses, riding demonstrations, helmet fittings, and free bicycle safety checks from local bike shops. Kids will receive bike-related prizes and have a chance to win a bicycle! (see attached flier)

Ready Set Ride

Ready Set Ride is a regional promotion through SACOG that encourages individuals to reboot their commute by walking, biking, taking transit, teleworking, or ridesharing from Oct 22-28. Participants can make a pledge, log trips at ReadySetRideChallenge.com for a chance to win great prizes, earn virtual badges, and challenge friends and co-workers. (see attached flier)

Attachments:

1. Preliminary Roundabout Layout
2. SB 1 Funding Milestones
3. Bikefest Flyer
4. Ready Set Ride Handout



CITY OF ROSEVILLE
Department of Public Works

CMAQ 'Fair Share' Funds
Application:

Washington Boulevard & All America City
Boulevard Roundabout Project

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ATTACHMENTS:

- Project Alternatives Exhibits
- Technical Memorandum for Traffic Analysis

City of Roseville
Public Works Department
CMAQ Proposal

I. Project Title: Washington Boulevard and All America City Boulevard Roundabout Project (CMAQ “Fair Share” Funds)

II. Project Description:

The City of Roseville (City) is proposing to construct improvements at the intersection of Washington Boulevard and All America City Boulevard in the area north of downtown in the City of Roseville. Washington Boulevard follows the alignment of former State Highway 65 and is a four-lane arterial roadway with Class 2 bike lanes connecting downtown Roseville to residential, commercial, industrial and recreation areas in north Roseville. Pedestrian sidewalks are provided on the east side of Washington Boulevard only. All America City Boulevard and Lincoln Street are two-lane local streets and are stop controlled at the intersection with Washington Boulevard. All America City Boulevard provides direct access to Bradford Woodbridge Fundamental Elementary School and the Placer County Fair Grounds. Lincoln Street runs along the west side of the nearby Union Pacific Railroad Tracks and approaches the intersection with Washington Boulevard at a skewed angle less than 30 degrees. Additional surrounding land uses include residential areas and commercial developments. The proposed project includes the following components (shown in attached Project Alternatives Exhibits):

1. Construction of a multi-lane roundabout to control vehicle movements through the intersection.
2. Realignment of the Lincoln Street approach on the southeast side of the intersection.
3. Construction of multiuse pathways to connect the existing bike lanes and sidewalks with improved crosswalks through the intersection.
4. Construction of raised median islands on Washington Boulevard approaching the intersection.

III. Discussion of justification and need for project including how project will reduce vehicle emissions:

Planned developments on the Placer County Fair Grounds property are anticipated to increase traffic volumes on All America City Boulevard to the point that additional traffic controls are warranted at the intersection of Washington Boulevard and All America City Boulevard. A multi-lane roundabout is proposed as an alternative to a new traffic signal at the intersection to reduce potential conflicts between vehicles, increase safety and accessibility for bicyclists and pedestrians, reduce vehicle emissions, and improve corridor aesthetics.

IV. Project Schedule by Phase (e.g., environmental, preliminary engineering, construction) including expected date project will be open to the public:

Phase Schedule:

Environmental Documents
Engineering
Beginning of Construction
End of Construction
Open to the public

Date:

January 2018 – October 2018
October 2018 – March 2019
June 2019
December 2019
December 2019

V. Amount of CMAQ Funds Requested, including what portion will be from jurisdiction's 'fair share' and what portion will be from 'discretionary', if any:

Amount of CMAQ 'Fair Share' funds requested:	\$ 1,000,000
Amount of CMAQ 'Discretionary' funds requested:	\$ 0

VI. Amount of Local Match provided, including sources:

The City of Roseville will utilize Placer County and TDA funds for the local match.

VII. Total Cost of Project:

The estimated cost of this project totals roughly \$2,438,000.

The cost breakdown is as follows:

Project Cost Estimate

MOBILIZATION	\$ 122,000
TRAFFIC CONTROL	\$ 77,000
DEMOLITION & RELOCATIONS	\$ 219,000
ROADWAY	\$ 616,000
PCC SIDEWALK & CURB & GUTTER	\$ 178,000
LANDSCAPE/IRRIGATION	\$ 28,000
SIGNING & STRIPING	\$ 20,000
ELECTRICAL & LIGHTING	\$ 80,000
CONSTRUCTION MANAGEMENT / INSPECTION	\$ 261,000
DESIGN	\$ 435,000
CONTINGENCY	\$ 402,000
Total:	\$ 2,438,000

VIII. Calculation of air quality benefit/emission reduction using most recent Air Resources Board methodology:

• **Pedestrian Facilities Improvements:**

Pedestrian-friendly routes and facilities reduce emissions when auto trips are replaced by walking. We are proposing to create pedestrian friendly routes designed to promote alternative transportation modes by improving the pedestrian network. The proposed project will construct pedestrian improvements consisting of concrete sidewalks along the roadways and improved pedestrian crossings at the intersection as described above. As a result, the proposed improvements would decrease auto trips and reduce vehicle emissions in the project and surrounding areas.

Project Information:

Inputs	Total	Units	Text Comments
Funding Dollars (Funding)	\$1,000,000	dollars	
Effectiveness Period (Life)	20	year	Ridesharing: Enter 1 year. Pedestrian: Enter 20 years.
<i>Inputs for Trips Eliminated</i>			
Auto Trips (T) eliminated	200	trips one-way/week	The number of auto trips eliminated per week to and from workplace (for ridesharing) or to and from activity center (for pedestrian projects).
Length (L) of Auto Trips eliminated	1	miles one direction/trip	Default (16 mi.) is for ridesharing projects and equals the average distance from home to work. Pedestrian projects should use the average distance of auto trip to adjacent activity center -- one mile is suggested. This is the average distance of pedestrian trips.
Weeks (W)	50	weeks (of operation)/ year	If trips eliminated (T) is based on employee numbers that exclude workers on sick leave, vacations, etc. then (W) equals 52. Otherwise, (W) typically equals 50.
<i>Inputs for Trips Added</i>			
Adjustment (A) for Auto Access Trips to transit, vanpools, and carpools Note: No adjustment is made on Length (L) of Auto Trips	1.0		Adjustment (A) equals the portion of employees who do NOT drive to transit, vanpools, or carpools. Default 0.7 equals the adjustment (A) for areas with average transit use. Use 0.6 for high transit use (i.e., commute transit mode split >10%). Use 1.0 if Method 2 was used to determine Auto Trips (T) eliminated. Use 1.0 for pedestrian projects.

eliminated because access trip length is an insignificant portion of annual VMT reduced.			
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Emission Factor Inputs for Auto Travel: (Table 3 - 20 year Project)

		Units		Units
	Auto Trip End Factor		Auto VMT Factor	
ROG Factor	0.353	grams/trip	0.119	grams/mile
NOx Factor	0.162	"	0.130	"
PM _{2.5} Factor	0.004	"	0.087	"

AIR QUALITY COST-EFFECTIVENESS CALCULATIONS:

$$\text{Annual Auto Trips Reduced} = W * T * A \quad \text{Units}$$

$$50 * 200 * 1.0 = 10,000 \text{ trips/year}$$

$$\text{Annual Auto VMT Reduced} = W * T * L$$

$$50 * 200 * 1.0 = 10,000 \text{ miles/year}$$

$$\begin{aligned} \text{Annual Emission Reductions (ROG, NO}_x\text{, and PM}_{2.5}\text{)} &= \\ &[(\text{Annual Auto Trips Reduced}) * (\text{Auto Trip End Factor}) \\ &+ (\text{Annual Auto VMT Reduced}) * (\text{Auto VMT Factor})] / 454 \\ \text{ROG} &= [(10,000 * 0.353) + (10,000 * 0.119)] / 454 = 10.40 \text{ lbs/year} \\ \text{NO}_x &= [(10,000 * 0.162) + (10,000 * 0.130)] / 454 = 6.43 \text{ lbs/year} \\ \text{PM}_{2.5} &= [(10,000 * 0.004) + (10,000 * 0.087)] / 454 = 2.00 \text{ lbs/year} \\ \text{Total:} &= 18.83 \text{ lbs/year} \end{aligned}$$

• **Roundabouts:**

Calculations for the estimated daily emissions in ROG, NO_x and PM_{2.5} are based on comparing the emissions resulting from the installation of a roundabout to the emissions resulting from installation of a traffic signal. The attached Technical Memorandum for the Washington Boulevard/All America City Boulevard/Lincoln Street Traffic Analysis conducted by Fehr & Peers, dated August 24, 2017, provides the estimated traffic operations for a roundabout and a traffic signal at the intersection and comparative emissions for each proposed operation. Compared to the installation of a traffic signal, the roundabout would result in the following reductions in daily emissions:

- ROG: 9.6 percent fewer kilograms per day than a traffic signal.
- NO_x: 4.1 percent fewer kilograms per day than a traffic signal.

Reductions in PM_{2.5} attributed to the installation of a roundabout were not estimated as there would be no significant change to the vehicular distance traveled through the intersection with a roundabout compared to a traffic signal. However, a reduction in PM_{2.5} could result from the project due to the rerouting of vehicles through the neighborhood to avoid the increased side street delay associated with the traffic signal.

Annual Emission Reductions (ROG, NO_x, and PM_{2.5}) =
 (Daily Emissions Signal – Daily Emissions Roundabout)*365*2.20

ROG	=	(0.470 - 0.425)*365*2.20	=	36.14	lbs/year
NO_x	=	(3.790-3.635)*365*2.20	=	124.46	lbs/year
PM_{2.5}	=	(Not Calculated)*365*2.20	=	<u>N/A</u>	lbs/year
Total:				160.60	lbs/year

- **Cost-Effectiveness for all Project Elements Combined:**

Annual Emission Reductions

Facility	ROG(lb/yr)	NO _x (lb/yr)	PM _{2.5} (lb/yr)	Total(lb/yr)
Pedestrian	10.40	6.43	2.00	18.83
Roundabout	36.14	124.46	N/A	160.60
Grand Total	46.54	130.89	2.00	179.43

Capital Recovery Factor (Table 8)

The Capital Recovery Factor is based on the project life of the improvements. The pedestrian improvements and roundabout improvements are both assumed to have a 20 year life.

$$\text{Capital Recovery Factor (CRF)} = \frac{(1+i)^n (i)}{(1+i)^n - 1} = 0.07$$

where: i = discount rate (assume 3 percent)
 n = project life (20.00 years)

Cost-Effectiveness of Funding Dollars

$$= (\text{CRF} * \text{Funding}) / (\text{ROG} + \text{NO}_x + \text{PM}_{2.5})$$

$$0.07 * \$1,000,000 / 179.43 \text{ lb} = \$390.12/\text{lb}$$

Emissions Reduced in Kilograms per Day

The Federal Highway Administration requests that emission reductions from CMAQ projects be reported as kilograms/day. The conversion is:

$$(\text{lbs per year}) / [(2.2) * (365)] = \text{kilograms/day}$$

$$179.43 \text{ lbs per year} / [(2.2) * (365)] = \mathbf{0.223 \text{ kg/day}}$$

- **Projected Project Outcome:**

The National Cooperative Highway Research Program (NCHRP) has quantified the safety benefits of a roundabout compared to other types of intersections. Roundabouts have a demonstrated ability to reduce injuries by 76% and all crashes by 35%¹.

Completion of these improvements will provide for a safer intersection for all roadway users, improve traffic operations, reduce pollution and fuel use, and provide an opportunity for a more aesthetically pleasing intersection when compared to a standard intersection with a traffic signal.

1 - NCHRP Report 572: Roundabouts in the United States. National Cooperative Highway Research Program, TRB, NAS, Washington, D.C., 2007.

IX. Anticipated involvement of low-income and minority community members in the project as well as how the project may impact these community members:

Washington Boulevard is a main arterial in the City of Roseville that connects lower income and minority neighborhoods in the downtown area to employment centers, schools, parks and recreational areas in north Roseville. All America City Boulevard provides direct access to Bradford Woodbridge Fundamental Elementary School where 83% of students are eligible for the Free or Reduced Price School Meals program. By making the intersection of Washington Boulevard and All America City Boulevard safer for all users and reducing delay for vehicles, the project will benefit low-income and minority community members and all the residents who live in the area. Residents of the impacted neighborhoods and the school will be targeted for public outreach efforts during the project development.

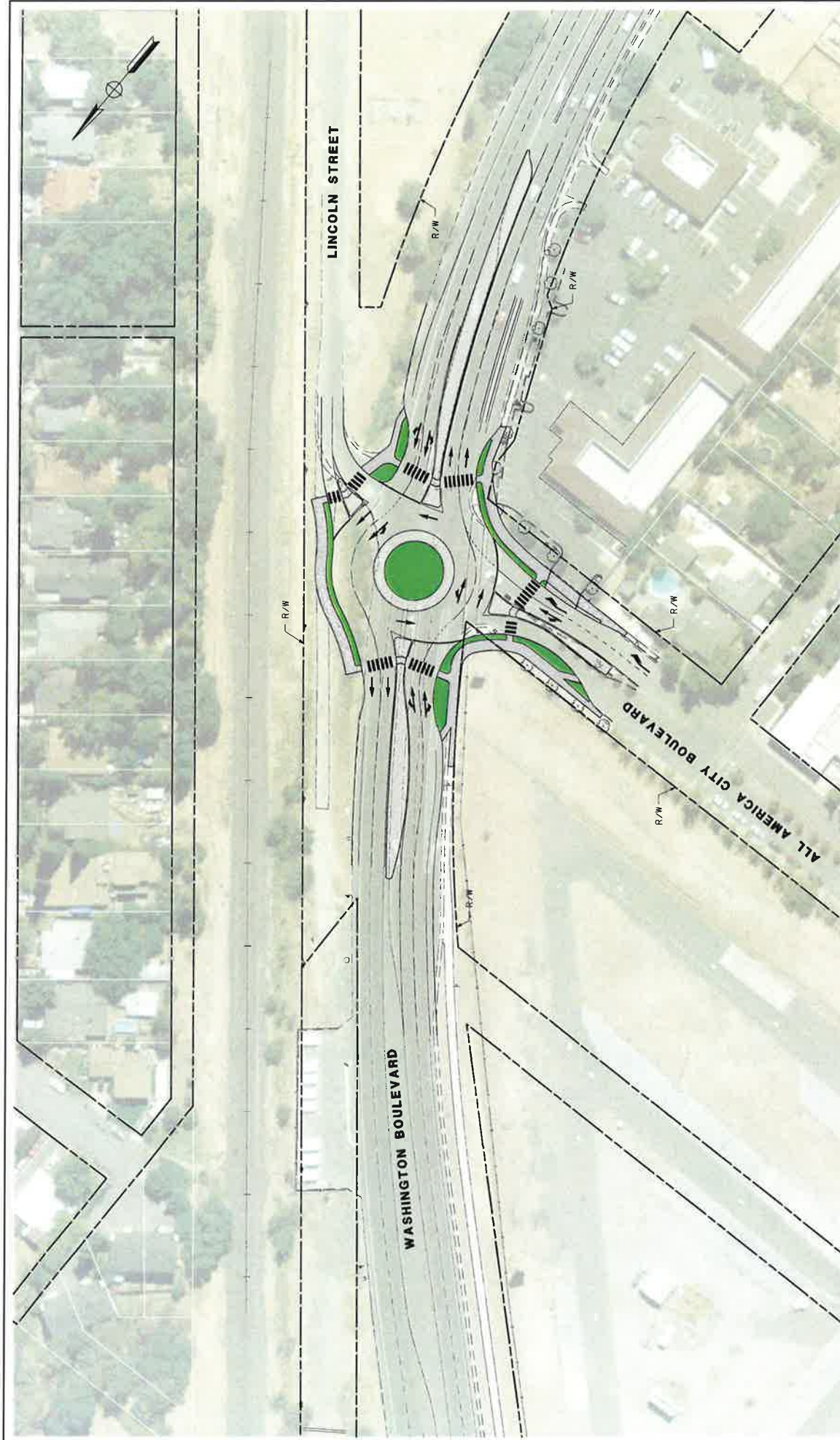
Respectfully Submitted,

Rhon Herndon
Public Works Director, City of Roseville

ATTACHMENTS

PROJECT ALTERNATIVE EXHIBIT

TRAFFIC ANALYSIS TECHNICAL MEMORANDUM



**WASHINGTON BOULEVARD &
ALL AMERICA CITY BOULEVARD ROUNDABOUT
GEOMETRIC LAYOUT - ALTERNATIVE 1**



0 20 40
SCALE: 1"=40'

DATE: JULY, 2017

TECHNICAL MEMORANDUM

Date: August 24, 2017
To: Raul Cervantes – City of Roseville & Zach Siviglia – Mark Thomas
From: John Gard, P.E. – Fehr & Peers
Subject: ***Washington Boulevard/All America City Boulevard/Lincoln Street Traffic Analysis***

RS17-xxxx

This memorandum presents our analysis of existing and cumulative (Year 2035) traffic operations and emissions at the Washington Boulevard/All America City Boulevard/Lincoln Street intersection under existing traffic control and with a roundabout. As requested by the City, this analysis focuses exclusively on traffic operations and does not evaluate any geometric or safety considerations.

Existing Conditions

Figure 1 provides a map showing the location of the subject intersection. The following describes its connecting roadways:

Washington Boulevard is an important four-lane north-south arterial that connects north Roseville and Downtown. It provides access to a number of schools, businesses, residential areas, and the adjacent Placer County Fairgrounds. The subject intersection marks the transition between a higher-speed (45-mph speed limit) roadway to the north, and a slower speed (35-mph speed limit) roadway to the south. Washington Boulevard features a gradual horizontal curve approaching and departing the intersection that creates a skewed alignment with its cross streets.

All America City Boulevard is an east-west two-lane street that provides access to the Placer County Fairgrounds, Woodbridge Elementary School, and various residences and businesses.

Lincoln Street extends southeasterly as a two-lane street from Washington Boulevard to connect with Sierra Boulevard (i.e., crooked bridge over the Union Pacific Railroad tracks). Lincoln Street provides access to Old Town Roseville as well as residences and schools (including Roseville High School) located to the east along Sierra Boulevard.

Figure 1 displays the existing lane configurations and traffic controls that are present at the subject intersection. As shown, it features stop signs on the All America City Boulevard and Lincoln Street approaches. Dedicated northbound and southbound left-turn lanes are provided on Washington Boulevard.

Figure 1 also displays the existing weekday AM and PM peak hour traffic volumes at the intersection. The AM peak hour occurs from 8 to 9 AM when traffic levels spike due to parents arriving and departing to drop off students at Woodbridge Elementary School located just west of the intersection. Between 8:45 and 9:00 AM, the intersection becomes congested as shown in the photos below.

The PM peak hour occurs from 4:45 to 5:45 PM, when there is less traffic on All America City Boulevard (compared to the AM peak hour) but more through traffic on Washington Boulevard.

Special events at Placer County Fairgrounds (e.g., Strawberry Festival, racing at All America Speedway, County Fair, etc.) also result in spikes in traffic at this intersection.



Image 1: View of frequent northbound and southbound left-turning vehicles, which cause delays to traffic on All America City Boulevard (AM Peak Hour)



Image 2: Vehicular queuing (approximately four vehicles waiting in each of the left and shared through/right lanes) on the All America City Boulevard approach to Washington Boulevard (AM Peak Hour)

Field observations revealed moderate levels of pedestrian and bicycle travel along Washington Boulevard. Sidewalks are present on the west side of Washington Boulevard, but not the east side. Crosswalks are not provided across Washington Boulevard at the intersection.



Image 3: Photo of pedestrian on west side of Washington Boulevard waiting to cross All America City Boulevard

Existing Conditions with Proposed Roundabout

The conceptual layout of the proposed roundabout would feature two circulating lanes along with double lane entry/exits on the Washington Boulevard approaches, and single lane entry/exits on the Lincoln Street approach. The All America City Boulevard approach would be designed to include a shared left/through lane and a dedicated right-turn lane entering the roundabout and a single exit lane. Crosswalks would be provided on all approaches.

Table 1 compares existing AM and PM peak hour traffic operations with side-street stop control and with a roundabout (refer to Appendix A for technical calculations).

TABLE 1					
Existing Traffic Operations at Washington Boulevard/All America City Boulevard/Lincoln Street Intersection – Existing Configuration Versus Proposed Roundabout					
Movement ¹	Control Type	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds) ³	Level of Service (LOS)	Average Delay (seconds) ³	Level of Service (LOS)
Existing Configuration ¹					
Eastbound Left-Turn	Stop	55	F	61	F
Eastbound Through/Right	Stop	14	B	38	E
Westbound Left/Through/Right	Stop	11	B	15	C
Southbound Left-Turn	Yield	10	B	16	C
Northbound Left-Turn	Yield	10	A	10	B
Overall	-	3	A	2	A
Proposed Roundabout ²					
Northbound Approach	Yield	7	A	11	B
Southbound Approach	Yield	7	A	7	A
Eastbound Approach	Yield	8	A	8	A
Westbound Approach	Yield	5	A	10	B
Overall	-	7	A	9	A
Notes:					
1. Existing configuration analyzed using 2010 Highway Capacity Manual (HCM). Note that HCM 6 th Edition Update (released in early 2017) did not materially change unsignalized intersection methodology.					
2. Proposed roundabout analyzed using Sidra software based on HCM 6 th edition update methodology. HCM 6 th edition includes more reasonable roundabout capacities than 2010 HCM based on new research.					
3. Delay values rounded to the nearest second. Since 10 seconds is the transition from LOS A to B, in some instances, 10 seconds corresponds to LOS A, while in other instances, it corresponds to LOS B.					

Table 1 shows that the eastbound left-turn movement currently operates at LOS F during the AM and PM peak hours. However, overall delay at the intersection is low because the vast majority of all approaching traffic are through vehicles that experience no delay.

With the proposed roundabout in place, delays would be comparable on all approaches, which implies through traffic would incur more delay while side-street approaches would incur less. Overall operations would at LOS A during both peak hours.

Cumulative Conditions with Proposed Roundabout

The City of Roseville maintains a travel demand model that produces AM and PM peak hour traffic forecasts for the Year 2035. That model was used to develop forecasts at the study intersection.

A variety of seasonal and special events currently occurs on the Placer County Fairgrounds property. These events, which typically occur outside of normal weekday AM and PM peak hours of travel, can influence traffic flows at the subject intersection. Due to their infrequent nature and the diversity of event types/sizes and start/end times, they were not considered in the existing conditions analysis. Similarly, existing events and any future planned special events are also not considered in the cumulative forecasts or operations analysis due to their speculative nature.

Figure 2 displays the cumulative (2035) weekday AM and PM peak hour traffic forecasts at the intersection. This figure indicates that the cumulative two-way through traffic volume on Washington Boulevard is anticipated to increase by 35 and 25 percent, respectively over the existing AM and PM peak hour volumes. However, the PM peak hour will continue to carry greater overall traffic flows.

Table 2 compares cumulative (2035) traffic operations during the AM and PM peak hours with operations that would result with the proposed roundabout (refer to Appendix A for technical calculations). This table reveals the following key conclusions:

Existing Configuration

- Intersection capacity would be exceeded and side-street approaches would experience substantial delays and queuing.
- The lack of available gaps for motorists desiring to turn onto Washington Boulevard could result selecting shorter/inadequate gaps due to frustration or diverting to other routes.
- With new development planned along Lincoln Street, increased levels of pedestrian activity are expected. Installation of a marked crosswalk across Washington Boulevard to accommodate these pedestrian flows would not be advisable for the current intersection configuration.

TABLE 2					
Cumulative (2035) Traffic Operations at Washington Boulevard/All America City Boulevard/Lincoln Street Intersection – Existing Configuration Versus Proposed Roundabout					
Movement ¹	Control Type	AM Peak Hour		PM Peak Hour	
		Average Delay (seconds) ³	Level of Service (LOS)	Average Delay (seconds) ³	Level of Service (LOS)
Existing Configuration ¹					
Eastbound Left-Turn	Stop	> 300 ⁴	F	> 300 ⁴	F
Eastbound Through/Right	Stop	18	C	> 300 ⁴	F
Westbound Left/Through/Right	Stop	> 300 ⁴	F	20	C
Southbound Left-Turn	Yield	21	C	72	F
Northbound Left-Turn	Yield	11	B	12	B
Overall	-	- ⁴	F	- ⁴	F
Proposed Roundabout ²					
Northbound Approach	Yield	14	B	42	E
Southbound Approach	Yield	9	A	12	B
Eastbound Approach	Yield	11	B	20	C
Westbound Approach	Yield	11	B	16	C
Overall	-	11	B	26	D
Notes:					
1. Existing configuration analyzed using 2010 Highway Capacity Manual (HCM). Note that HCM 6 th Edition Update (released in early 2017) did not materially change unsignalized intersection methodology.					
2. Proposed roundabout analyzed using Sidra software based on HCM 6 th edition update methodology. HCM 6 th edition includes more reasonable roundabout capacities than 2010 HCM based on new research.					
3. Delay values rounded to the nearest second. Since 10 seconds is the transition from LOS A to B, in some instances, 10 seconds corresponds to LOS A, while in other instances, it corresponds to LOS B.					
4. "> 300 seconds" implies volume inputs exceeds capacity of movement and software program is not able to develop accurate delay estimates. LOS F results occur.					

Proposed Roundabout

- The roundabout would operate at an overall LOS B during the AM peak hour and LOS D during the PM peak hour.¹
- The northbound approach would operate at LOS E during the PM peak hour with considerable queues. The following is recommended to reduce delays and queuing on this approach should cumulative traffic growth reach levels projected by the City's model:
 - Install conduit to provide future electrical connection to enable signalization of eastbound approach (or lighting, CCTV, etc.).²

Comparison of Emissions

The City of Roseville recognizes that some type of operational enhancement will ultimately be necessary at the subject intersection. The City's long-range development plan currently assumes a traffic signal will be installed. Therefore, it is appropriate to compare vehicular emissions associated with the proposed roundabout versus a traffic signal. As shown in Appendix A, the roundabout would result in the following reductions in daily emissions:

- ROG: 9.6 percent fewer kilograms per day than a traffic signal.
- NOx: 4.1 percent fewer kilograms per day than a traffic signal.

Conclusions

Implementation of a roundabout at the Washington Boulevard/All America City Boulevard/Lincoln Street intersection provides a number of advantages over maintaining the current side-street stop control configuration, as listed below:

- Decreased delays and vehicular queuing on side-street approaches.
- Improved pedestrian environment to better accommodate travel by non-auto modes.
- Aesthetic enhancement that signifies the transition of Washington Boulevard from a higher speed arterial to a lower speed downtown street.

The above improvements are in addition to the safety and geometric enhancements that the roundabout would provide. We hope this information is helpful. Please call or e-mail with any questions or comments.

¹ The City does not have a LOS policy for roundabouts. However, the resulting delay of 31 seconds would correspond to a LOS C condition for a signalized intersection, which the City considers acceptable.

² Signalization of the eastbound approach would enable the flow of vehicles on this approach to be stopped, thereby providing more capacity for the northbound approach to reduce queuing and delays.



Figure 1

Peah Hour Turning Volumes -
Existing Conditions





Figure 2

Peah Hour Turning Volumes - Cumulative Conditions



Appendix A – Technical Calculations

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↰			↰		↰	↰		↰	↰	↰
Traffic Vol, veh/h	58	3	37	0	0	6	36	711	2	164	848	77
Future Vol, veh/h	58	3	37	0	0	6	36	711	2	164	848	77
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	0	-	-	255	-	240
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	60	3	39	0	0	6	38	741	2	171	883	80

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1680	2053	452	1612	2052	381	888	0	0	748	0	0
Stage 1	1230	1230	-	822	822	-	-	-	-	-	-	-
Stage 2	450	823	-	790	1230	-	-	-	-	-	-	-
Critical Hdwy	7.52	6.52	6.92	7.52	6.52	6.92	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	3.31	3.51	4.01	3.31	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	62	55	558	70	56	620	765	-	-	863	-	-
Stage 1	190	250	-	336	389	-	-	-	-	-	-	-
Stage 2	561	388	-	352	250	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 50	42	553	52	42	615	762	-	-	859	-	-
Mov Cap-2 Maneuver	129	109	-	52	42	-	-	-	-	-	-	-
Stage 1	180	199	-	318	368	-	-	-	-	-	-	-
Stage 2	525	367	-	257	199	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	38.7	10.9	0.5	1.5
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	762	-	-	129	424	615	859	-	-
HCM Lane V/C Ratio	0.049	-	-	0.468	0.098	0.01	0.199	-	-
HCM Control Delay (s)	10	-	-	55.4	14.4	10.9	10.2	-	-
HCM Lane LOS	A	-	-	F	B	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.1	0.3	0	0.7	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
9: Washington Blvd & All America City Blvd/Lincoln St

TIS
Existing Conditions-PM Peak Hour

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			↰		↰	↱		↰	↱	↰
Traffic Vol, veh/h	18	2	26	0	0	15	33	1348	2	158	930	39
Future Vol, veh/h	18	2	26	0	0	15	33	1348	2	158	930	39
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	0	-	-	255	-	240
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	19	2	27	0	0	16	34	1404	2	165	969	41

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2079	2783	494	2299	2782	713	974	0	0	1411	0	0
Stage 1	1303	1303	-	1479	1479	-	-	-	-	-	-	-
Stage 2	776	1480	-	820	1303	-	-	-	-	-	-	-
Critical Hdwy	7.52	6.52	6.92	7.52	6.52	6.92	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	3.31	3.51	4.01	3.31	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	31	19	524	21	19	377	710	-	-	484	-	-
Stage 1	171	231	-	133	190	-	-	-	-	-	-	-
Stage 2	359	189	-	337	231	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	21	12	520	12	12	374	707	-	-	482	-	-
Mov Cap-2 Maneuver	83	13	-	12	12	-	-	-	-	-	-	-
Stage 1	162	151	-	126	180	-	-	-	-	-	-	-
Stage 2	326	179	-	206	151	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	47	15	0.2	2.3
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	707	-	-	83	137	374	482	-	-
HCM Lane V/C Ratio	0.049	-	-	0.226	0.213	0.042	0.341	-	-
HCM Control Delay (s)	10.4	-	-	60.6	38.2	15	16.3	-	-
HCM Lane LOS	B	-	-	F	E	C	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	0.8	0.1	1.5	-	-

MOVEMENT SUMMARY

Site: 1 [RAB Existing AM]

Roundabout with 1 & 2-lane approaches and circulating road
 MUTCD (FHWA 2009) example number: 3C-4
 Roundabout Guide (TRB 2010) example number: A-3
 Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
NB South: Washington Blvd											
3	L2	38	1.0	0.346	6.6	LOS A	1.8	44.5	0.44	0.32	34.3
8	T1	741	1.0	0.346	6.6	LOS A	1.8	44.5	0.44	0.32	34.3
18b	R3	2	1.0	0.346	6.6	LOS A	1.8	44.5	0.44	0.32	33.0
Approach		780	1.0	0.346	6.6	LOS A	1.8	44.5	0.44	0.32	34.3
WB SouthEast: Lincoln St											
3bx	L3	1	1.0	0.012	5.4	LOS A	0.0	1.0	0.55	0.45	28.9
3ax	L1	1	1.0	0.012	5.4	LOS A	0.0	1.0	0.55	0.45	28.1
18ax	R1	6	1.0	0.012	5.4	LOS A	0.0	1.0	0.55	0.45	27.8
Approach		8	1.0	0.012	5.4	LOS A	0.0	1.0	0.55	0.45	28.0
SB North: Washington Blvd											
7a	L1	171	1.0	0.421	6.7	LOS A	2.6	66.7	0.19	0.07	33.4
4	T1	883	1.0	0.421	6.7	LOS A	2.6	66.7	0.19	0.07	34.1
14	R2	80	1.0	0.421	6.7	LOS A	2.6	66.7	0.19	0.07	33.3
Approach		1134	1.0	0.421	6.7	LOS A	2.6	66.7	0.19	0.07	33.9
EB West: All American City Blvd											
5	L2	60	1.0	0.112	7.7	LOS A	0.4	9.5	0.62	0.62	26.5
12a	R1	3	1.0	0.112	7.7	LOS A	0.4	9.5	0.62	0.62	25.9
12	R2	39	1.0	0.077	8.2	LOS A	0.3	6.5	0.64	0.64	26.6
Approach		102	1.0	0.112	7.9	LOS A	0.4	9.5	0.63	0.63	26.5
All Vehicles		2025	1.0	0.421	6.7	LOS A	2.6	66.7	0.31	0.20	33.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [RAB Existing PM]

Roundabout with 1 & 2-lane approaches and circulating road
MUTCD (FHWA 2009) example number: 3C-4
Roundabout Guide (TRB 2010) example number: A-3
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Washington Blvd											
3	L2	34	1.0	0.611	10.8	LOS B	4.6	116.2	0.57	0.41	32.4
8	T1	1404	1.0	0.611	10.8	LOS B	4.6	116.2	0.57	0.41	32.4
18b	R3	2	1.0	0.611	10.8	LOS B	4.6	116.2	0.57	0.41	31.1
Approach		1441	1.0	0.611	10.8	LOS B	4.6	116.2	0.57	0.41	32.4
SouthEast: Lincoln St											
3bx	L3	1	1.0	0.044	9.6	LOS A	0.1	3.5	0.72	0.72	27.7
3ax	L1	1	1.0	0.044	9.6	LOS A	0.1	3.5	0.72	0.72	27.0
18ax	R1	16	1.0	0.044	9.6	LOS A	0.1	3.5	0.72	0.72	26.7
Approach		18	1.0	0.044	9.6	LOS A	0.1	3.5	0.72	0.72	26.8
North: Washington Blvd											
7a	L1	165	1.0	0.434	6.9	LOS A	2.8	70.5	0.19	0.07	33.4
4	T1	969	1.0	0.434	6.9	LOS A	2.8	70.5	0.19	0.07	34.0
14	R2	41	1.0	0.434	6.9	LOS A	2.8	70.5	0.19	0.07	33.2
Approach		1174	1.0	0.434	6.9	LOS A	2.8	70.5	0.19	0.07	33.9
West: All American City Blvd											
5	L2	19	1.0	0.045	8.3	LOS A	0.1	3.7	0.66	0.66	26.4
12a	R1	2	1.0	0.045	8.3	LOS A	0.1	3.7	0.66	0.66	25.8
12	R2	27	1.0	0.051	7.4	LOS A	0.2	4.2	0.63	0.63	26.8
Approach		48	1.0	0.051	7.8	LOS A	0.2	4.2	0.65	0.65	26.6
All Vehicles		2680	1.0	0.611	9.0	LOS A	4.6	116.2	0.41	0.26	32.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection

Int Delay, s/veh 92.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖	↗	↖
Traffic Vol, veh/h	60	5	40	30	5	50	40	1145	5	340	966	90
Future Vol, veh/h	60	5	40	30	5	50	40	1145	5	340	966	90
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	0	-	-	255	-	240
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	63	5	42	31	5	52	42	1193	5	354	1006	94

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2407	3006	513	2503	3004	609	1011	0	0	1203	0	0
Stage 1	1720	1720	-	1284	1284	-	-	-	-	-	-	-
Stage 2	687	1286	-	1219	1720	-	-	-	-	-	-	-
Critical Hdwy	7.52	6.52	6.92	7.52	6.52	6.92	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	3.31	3.51	4.01	3.31	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	~ 17	13	509	~ 15	14	441	687	-	-	581	-	-
Stage 1	94	144	-	176	236	-	-	-	-	-	-	-
Stage 2	406	235	-	193	144	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 5	505	~ 6	~ 5	437	684	-	-	579	-	-
Mov Cap-2 Maneuver	~ -36	78	-	~ 6	~ 5	-	-	-	-	-	-	-
Stage 1	88	56	-	165	221	-	-	-	-	-	-	-
Stage 2	326	220	-	62	56	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		\$ 2932.2	0.4	5
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	684	-	-	-	314	14	579	-	-
HCM Lane V/C Ratio	0.061	-	-	-	0.149	6.324	0.612	-	-
HCM Control Delay (s)	10.6	-	-	-	18.5	2932.2	20.5	-	-
HCM Lane LOS	B	-	-	-	C	F	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5	12.1	4.1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 105.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖	↗	
Traffic Vol, veh/h	70	30	30	20	5	40	35	1580	10	360	1267	50
Future Vol, veh/h	70	30	30	20	5	40	35	1580	10	360	1267	50
Conflicting Peds, #/hr	5	0	5	0	0	0	5	0	0	5	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	75	-	-	-	-	-	0	-	-	255	-	240
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	73	31	31	21	5	42	36	1646	10	375	1320	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2978	3809	670	3160	3804	838	1325	0	0	1661	0	0
Stage 1	2075	2075	-	1729	1729	-	-	-	-	-	-	-
Stage 2	903	1734	-	1431	2075	-	-	-	-	-	-	-
Critical Hdwy	7.52	6.52	6.92	7.52	6.52	6.92	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.52	5.52	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.51	4.01	3.31	3.51	4.01	3.31	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	~ 6	~ 4	402	~ 5	~ 4	312	522	-	-	388	-	-
Stage 1	~ 56	96	-	93	143	-	-	-	-	-	-	-
Stage 2	301	142	-	142	96	-	-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 1	0	399	0	0	309	520	-	-	386	-	-
Mov Cap-2 Maneuver	73	~ 3	-	0	0	-	-	-	-	-	-	-
Stage 1	~ 52	~ 3	-	86	133	-	-	-	-	-	-	-
Stage 2	232	132	-	-	~ 3	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 2613.5	19.9	0.3	15.5
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	520	-	-	73	6	309	386	-	-
HCM Lane V/C Ratio	0.07	-	-	0.999	10.417	0.219	0.972	-	-
HCM Control Delay (s)	12.4	-	-	202.9	5425.9	19.9	72.1	-	-
HCM Lane LOS	B	-	-	F	F	C	F	-	-
HCM 95th %tile Q(veh)	0.2	-	-	5.2	9.5	0.8	11.2	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

MOVEMENT SUMMARY

Site: 1 [RAB Cumulative AM]

Roundabout with 1 & 2-lane approaches and circulating road

MUTCD (FHWA 2009) example number: 3C-4

Roundabout Guide (TRB 2010) example number: A-3

Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Washington Blvd											
3	L2	42	1.0	0.652	13.9	LOS B	5.4	134.9	0.76	0.81	31.0
8	T1	1193	1.0	0.652	13.9	LOS B	5.4	134.9	0.76	0.81	31.0
18b	R3	5	1.0	0.652	13.9	LOS B	5.4	134.9	0.76	0.81	29.8
Approach		1240	1.0	0.652	13.9	LOS B	5.4	134.9	0.76	0.81	31.0
SouthEast: Lincoln St											
3bx	L3	31	1.0	0.192	10.6	LOS B	0.6	16.2	0.72	0.72	26.8
3ax	L1	5	1.0	0.192	10.6	LOS B	0.6	16.2	0.72	0.72	26.1
18ax	R1	52	1.0	0.192	10.6	LOS B	0.6	16.2	0.72	0.72	25.9
Approach		89	1.0	0.192	10.6	LOS B	0.6	16.2	0.72	0.72	26.2
North: Washington Blvd											
7a	L1	354	1.0	0.559	9.0	LOS A	4.3	108.6	0.36	0.18	32.0
4	T1	1006	1.0	0.559	9.0	LOS A	4.3	108.6	0.36	0.18	32.8
14	R2	94	1.0	0.559	9.0	LOS A	4.3	108.6	0.36	0.18	32.2
Approach		1454	1.0	0.559	9.0	LOS A	4.3	108.6	0.36	0.18	32.6
West: All American City Blvd											
5	L2	63	1.0	0.159	10.8	LOS B	0.5	13.1	0.73	0.73	25.7
12a	R1	5	1.0	0.159	10.8	LOS B	0.5	13.1	0.73	0.73	25.1
12	R2	42	1.0	0.114	11.6	LOS B	0.4	9.2	0.75	0.75	25.5
Approach		109	1.0	0.159	11.1	LOS B	0.5	13.1	0.74	0.74	25.6
All Vehicles		2892	1.0	0.652	11.2	LOS B	5.4	134.9	0.56	0.49	31.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 1 [RAB Cumulative PM]

Roundabout with 1 & 2-lane approaches and circulating road

MUTCD (FHWA 2009) example number: 3C-4

Roundabout Guide (TRB 2010) example number: A-3

Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
NB South: Washington Blvd											
3	L2	36	1.0	0.956	42.0	LOS E	20.2	509.6	1.00	1.53	22.5
8	T1	1646	1.0	0.956	42.0	LOS E	20.2	509.6	1.00	1.53	22.4
18b	R3	10	1.0	0.956	42.0	LOS E	20.2	509.6	1.00	1.53	21.8
Approach		1693	1.0	0.956	42.0	LOS E	20.2	509.6	1.00	1.53	22.4
WB SouthEast: Lincoln St											
3bx	L3	22	1.0	0.227	16.1	LOS C	0.7	18.2	0.82	0.83	25.2
3ax	L1	5	1.0	0.227	16.1	LOS C	0.7	18.2	0.82	0.83	24.6
18ax	R1	43	1.0	0.227	16.1	LOS C	0.7	18.2	0.82	0.83	24.4
Approach		71	1.0	0.227	16.1	LOS C	0.7	18.2	0.82	0.83	24.7
SB North: Washington Blvd											
7a	L1	391	1.0	0.691	12.1	LOS B	7.3	183.3	0.43	0.21	30.8
4	T1	1377	1.0	0.691	12.1	LOS B	7.3	183.3	0.43	0.21	31.5
14	R2	54	1.0	0.691	12.1	LOS B	7.3	183.3	0.43	0.21	30.9
Approach		1823	1.0	0.691	12.1	LOS B	7.3	183.3	0.43	0.21	31.3
EB West: All American City Blvd											
5	L2	76	1.0	0.360	20.2	LOS C	1.2	31.4	0.85	0.91	23.5
12a	R1	33	1.0	0.360	20.2	LOS C	1.2	31.4	0.85	0.91	23.0
12	R2	33	1.0	0.129	16.9	LOS C	0.4	9.9	0.83	0.83	24.0
Approach		141	1.0	0.360	19.5	LOS C	1.2	31.4	0.85	0.89	23.5
All Vehicles		3727	1.0	0.956	26.0	LOS D	20.2	509.6	0.71	0.85	26.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 2010). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

	Peak Hour Emissions (kg/h)			
	Roundabout		Signal	
	ROG	NOx	ROG	NOx
Existing AM	0.036	0.309	0.04	0.324
Existing PM	0.049	0.418	0.054	0.434

	Daily Emissions (kg/day)			
	Roundabout		Signal	
	ROG	NOx	ROG	NOx
Existing	0.425	3.635	0.47	3.79

Results produced using SIDRA Intersection 7.0 Software

Notes:

1. Roundabout travel distance is slightly greater than signal due to less direct routing.
2. Daily values estimated assuming AM and PM values are 20% of daily (typical for traffic conditions).

Senate Bill 1 Funding Milestones

Updated August 16, 2017

SB 1 State-wide Competitive Funding Grants						
Opportunities for SACOG Members: direct funding; regional coordination; input on guidelines						
Eligible Applicants: Cities, Counties, Local Special Districts, SACOG						
Grant	Annual \$	Draft Guidelines Available	Final Guidelines Adopted	Applications Due	Adoption/ Funding Decision	SACOG Contact
Sustainable Transportation Planning Grants	\$25M	Closed	August 2017	October 2017	December 2017	Sharon Sprowls (916) 340-6235
Climate Adaptation Planning Grants (one time funding)	\$20M	Closed	August 2017	October 2017	December 2017	Raef Porter (916) 340-6261
Transit Intercity Rail Capital Program	\$245M	August 2017	October 2017	January 2018	May 2018	Matt Carpenter (916) 340-6276
Trade Corridor Enhancement Account	\$300M	December 2017	January 2018	February 2018	May 2018	Matt Carpenter (916) 340-6276
Congested Corridors Program	\$250M	October 2017	December 2017	February 2018	May 2018	Hilda Iorga (916) 340-6244
State Active Transportation Program 2019*	\$100M	January 2018	March 2018	June 2018	TBD	Victoria Cacciatore (916) 340-6214
Local Partnership Program	\$200M	August 2017	October 2017	March 2018	June 2018	Jose Luis Caceres (916) 340-6218
Commuter Rail	\$19M	Eligible applicants: Intercity rail and commuter rail operators Milestone information not currently available				
Intercity Rail	\$19M					

*Assumption based on previous year's timeline

SB 1 State-wide Formula Funds

Opportunities for SACOG Members: regional coordination; input on guidelines

Grant	Annual \$	Draft Guidelines Available	Final Guidelines Adopted	Applications Due	Adoption/ Funding Decision	SACOG Contact
Local Streets & Roads	\$1.5B	Closed	August 2017	September 2017	October 2017	Jose Luis Caceres (916) 340-6218
2018 State Transportation Improvement Program	\$103M	Closed	August 2017	October 2017	March 2018	Hilda Iorga (916) 340-6244
State Highway Maintenance & Rehabilitation (SHOPP, bridges/culverts, advance mitigation)	\$1.93B	Closed	June 2017	January 2018	March 2018	Matt Carpenter (916) 340-6276
State Transit Assistance: flexible*	\$250M	Closed	September 2017	N/A	November 2017	Caroline Payne (916) 320-6232
State Transit Assistance: capital*	\$105M	Closed	September 2017	N/A	November 2017	Caroline Payne (916) 320-6232
Transportation Asset Management Plan	N/A	Closed	August 2017	N/A	March 2018	Matt Carpenter (916) 340-6276
Freeway Service Patrol	\$25M	Milestone information not currently available				Barbara VaughanBechtold (916) 320-6226
Workforce Development Assistance	\$5M					Matt Carpenter (916) 340-6276
Parks & Agricultural Programs	\$108M					Renee DeVere-Okie (916) 320-6219

*Assumption based on previous year's timeline

Event brought to you by the City of Roseville Public Works – Alternative Transportation, City of Roseville Electric Utility, City of Roseville Safe Routes to School, Dairy Queen, Kaiser Permanente, Kiwanis Club of Roseville, PSOMAS, Roller King, and Roseville Elks Lodge #2248

Roseville Bikefest



SATURDAY, SEPTEMBER 23
9 a.m. – Noon
Mahany Park

Bring your bicycle and helmet to Roseville's free family bike safety event! Kids will enjoy bike obstacle courses and riding demonstrations. Get in gear for the school year and be sure your children are riding safely. Receive complimentary helmet fittings and bicycle safety check-ups. All kids receive bike-related prizes and have a chance to win a bicycle!



roseville.ca.us/bikefest





Commute Challenge

**MAKE A PLEDGE, LOG TRIPS, EARN PRIZES.
OCTOBER 22-28**

SIGN UP AT READYSETRIDECHALLENGE.COM

