AGENDA

JANUARY 19, 2016
REGULAR MEETING
CITY COUNCIL
CITY OF YUBA CITY

5:00 P.M. – CLOSED SESSION: BUTTE ROOM
6:00 P.M. – REGULAR MEETING: COUNCIL CHAMBERS

MAYOR	• John Buckland
VICE MAYOR	• Stanley Cleveland, Jr
COUNCILMEMBER	• Preet Didbal
COUNCILMEMBER	• John Dukes
COUNCILMEMBER	• Kash Gill
CITY MANAGER	• Steven Kroeger
CITY ATTORNEY	• Timothy Hayes

1201 Civic Center Blvd
Yuba City CA 95993

Wheelchair Accessible

If you need assistance in order to attend the City Council meeting, or if you require auxiliary aids or services, e.g., hearing aids or signing services to make a presentation to the City Council, the City is happy to assist you. Please contact City offices at 530/822-4817 at least 72 hours in advance so such aids or services can be arranged. ***City Hall TTY: 530-822-4732***

AGENDA
REGULAR MEETING OF THE CITY COUNCIL
CITY OF YUBA CITY
COUNCIL CHAMBERS
JANUARY 19, 2016
5:00 P.M. – CLOSED SESSION
6:00 P.M. – REGULAR MEETING

Materials related to an item on this Agenda submitted to the Council after distribution of the agenda packet are available for public inspection in the City Clerk's office at 1201 Civic Center Blvd., Yuba City, during normal business hours. Such documents are also available on the City of Yuba City's website at www.yubacity.net subject to staff's availability to post the documents before the meeting.

Public Comment:

Any member of the public wishing to address the City Council on any item listed on the closed session agenda will have an opportunity to present testimony to the City Council prior to the City Council convening into closed session. Comments from the public will be limited to three minutes. No member of the public will be allowed to be present once the City Council convenes into closed session. Contact the City Clerk in advance of the closed session either in person at City Hall, by phone 822-4817, or email tlocke@yubacity.net to allow for time for testimony.

Closed Session—Butte Room

A. Confer with labor negotiators Steve Kroeger and Natalie Springer regarding negotiations with the following association: Yuba City Firefighters Local 3793 pursuant to Section 54957.6 of the Government Code.

B. Confer with real property negotiators Steve Kroeger and Diana Langley pursuant to Government Code Section 54956.8 regarding possible sale of the following properties: APN 52-412-013, 625 Clark Avenue, and APN 52-413-013, 833 Bridge Street

Regular Meeting—Council Chambers

Call to Order

Roll Call: _____Mayor Buckland
_____Vice Mayor Cleveland
_____Councilmember Didbal
_____Councilmember Dukes
_____Councilmember Gill

Invocation

Pledge of Allegiance to the Flag

Presentations & Proclamations

1. Police Officer of the Year Proclamation – Isabel Kodani

2. Police Employee of the Year Proclamation – Katelin Snider

3. Public Safety Overview – Police Department

Public Communication

You are welcome and encouraged to participate in this meeting. Public comment is taken on items listed on the agenda when they are called. Public comment on items not listed on the agenda will be heard at this time. Comments on controversial items may be limited and large groups are encouraged to select representatives to express the opinions of the group.

4. Written Requests

Members of the public submitting written requests, at least 24 hours prior to the meeting, will be normally allotted five minutes to speak

5. Appearance of Interested Citizens

Members of the public may address the City Council on items of interest that are within the City's jurisdiction. Individuals addressing general comments are encouraged to limit their statements to three minutes

Public Hearing

6. Consideration of General Plan Amendment, Rezone, and Development Plan to facilitate the development of a 172 multiple family residential complex

Recommendation:

A) Adopt mitigated negative declaration, EA-15-05 that determined that the proposed project will not create any significant environmental impacts

B) Adopt a Resolution re-designating the 8.14-acre property from Medium/Low Density Residential to Medium/High Density Residential plan land use which would increase the permitted residential density from 8-14 units per acre to 12-36 units per acre

C) Introduce an Ordinance rezoning approximately 1.40 acres of the overall 8.14 acre site to the proposed Multiple-Family Residential (R-3) Zone District and waive the first reading

D) Adopt a Resolution approving the Development Plan which would allow for the development of a 172 gated multiple family residential complex

Bid Opening

7. Patrol Vehicles Installation (FB16-05)

Recommendation: Reject the single bid received from Cop Shop of Yuba City, CA and instruct staff to re-bid

Ordinance

8. Stormwater Management and Discharge Control Ordinance

Recommendation: Introduce an Ordinance amending the Stormwater Discharge and Control Ordinance Chapter 21 of Title 4 to comply with the requirements of the City's Phase II Small MS4 NPDES Permit; waive the first reading

9. Establish a Grading Ordinance in the City of Yuba City

Recommendation: Introduce an Ordinance adding Chapter 15 of Title 7 to the City Municipal Code which will regulate and control grading work in the City; waive the first reading

Consent Calendar

All matters listed under Consent Calendar are considered to be routine and can be enacted in one motion. There will be no separate discussion of these items prior to the time that Council votes on the motion unless members of the City Council, staff or public request specific items to be discussed or removed from the Consent Calendar for individual action

10. Minutes of December 15, 2015

Recommendation: Approve the City Council Meeting Minutes of December 15, 2015

11. Fiscal Year 2015-16 Waste Tire Enforcement Grant Application

Recommendation: Adopt a Resolution authorizing Yuba County, as the Lead Agency of the Yuba-Sutter Local Enforcement Agency, to perform Waste Tire Enforcement activities on behalf of the City of Yuba City and submit a Collaborative Application for the Waste Tire Enforcement Grant to CalRecycle for Fiscal Year 2015-16

12. Annual Investment Policy Adoption

Recommendation: Approve Investment Policy as amended

13. Annual Sunsweet Boulevard Community Facilities District 2004-1 Report Pursuant to Government Code Section 53411

Recommendation: Note and File

14. Administration for Landscape and Lighting and Benefit Assessment Districts

Recommendation: Award the one (1) year contract with the possibility of two (2) one (1) year extensions to Willdan Financial Services of Temecula, CA for $16,000 a year plus an additional $4,000 a year for any extras that may arise from the contract. Have the Finance Director approve the extensions

General Items

15. Feather River Air Quality Management District (FRAQMD) Agreement No. VF15-04 – Acceptance of Blue Sky Grant for $48,000 for the Yuba City Bicycle Signal Detection Project 2016

Recommendation: A. Adopt a Resolution authorizing the Public Works Director to execute FRAQMD Agreement No. VF15-04, accepting $48,000 in Blue Sky Grant funds for the Yuba City Bicycle Signal Detection Project 2016 including the necessary budget adjustments outlined in the fiscal impact

B. Authorize the Finance Director to provide a supplemental appropriation from existing unallocated TDA (Transportation

Development Act) funds in the amount of $25,000 to CIP project 911169 (Bicycle Master Plan Implementation)

16. Funding Agreement and Professional Services Agreement with ESA for the preparation of the Bogue/Stewart Master Plan, Sphere of Influence Expansion, Annexation, and Environmental Impact Report (EIR) in the amount of $695,119

Recommendation: A. Authorize the City Manager to sign a Funding Agreement with Newkom Ranch LLC and Bains Revocable Family Trust 2005 for payment of costs associated with preparation of the Master Plan, SOI Expansion, Annexation, and EIR

B. Authorize the City Manager to sign a Professional Services Agreement with ESA to prepare the Master Plan, SOI Expansion, Annexation, and EIR, in an amount not to exceed $695,119, with the finding that it is in the best interest of the City

C. Authorize funding of $98,448 from account 901080 (General Fund Update project) which has a current balance of approximately $579,000

Business from the City Council

17. Annual Sacramento Metro Chamber Capitol to Capitol Legislative Program in Washington DC

Recommendation: Continue participating in the Sacramento Metro Chamber's Annual Cap-to-Cap Legislative Program by sending staff and City Council members to the April 2016 Program

18. City Council Reports

- Councilmember Didbal
- Councilmember Dukes
- Councilmember Gill
- Vice Mayor Cleveland
- Mayor Buckland

Adjournment

Proclamation

of the City Council

Detective Isabel Kodani

2015 Police Officer of the Year

WHEREAS, In service to the Yuba City Police Department for the past 11 years, Detective Isabel Kodani has immeasurably distinguished herself as a diligent, steadying force within our agency. The span of her career has been marked with numerous achievements highlighted, in part, with her service as Detective, Patrol Officer and Crisis Negotiator with YCPD's Hostage Negotiations Team; and

WHEREAS, Detective Kodani is never one to seek personal glory, she strives for successful unit completion of complex criminal investigations. Her focus on team effort, instead of individual achievement, sets the example for others. She will always drop what she is doing to jump in and help wherever there is a need; and

WHEREAS, her expertise with the Multi-Disciplinary Interview Team has earned the respect of her peers, supervisors, Child Protective Services and the Sutter County District Attorney. Her initiative in seeking training and experience has garnered her reputation as a subject matter expert in child abuse, child pornography and molestation cases. Completing 45 MDIT interviews, her compassionate demeanor and ability to develop a rapport with victims, ensures solid investigations are delivered for prosecution. Her tenacity and capable investigative abilities have resulted in numerous felony arrests and convictions. Her efforts have created a safer environment for countless children and made our community a safer place; and.

WHEREAS, Detective Kodani seeks the most difficult cases which is evidenced by her strong initiative to combat fraud related crimes in our community. These arduous, complex and lackluster cases demand tremendous time and sharp focus. What others may see as punishment, Isabel sees as an opportunity to right wrongs committed against vulnerable citizens. Her ability to lead collaborative fraud investigations has resulted in numerous laudatory remarks from the United States Postal Inspector and allied agencies.

NOW, THEREFORE, BE IT RESOLVED that I, John Buckland, Mayor of the City of Yuba City, and on behalf of the entire City Council of the City of Yuba City, do hereby congratulate Isabel Kodani for being awarded Officer of the Year. The City of Yuba City appreciates your service and dedication.

Done on this 19th day of January, 2016 at the City of Yuba City, County of Sutter, State of California.

_____

John Buckland, Mayor

Agenda Item **1**

Proclamation

of the City Council

Katelin Snider

2015 Police Department Employee of the Year

WHEREAS, serving in the capacity of Public Safety Dispatcher II, Katelin has demonstrated unparalleled effectiveness and diligence in upholding the Department's mission and values; and

WHEREAS, all who work with her truly feel she considers them an extension of her family. The trust she fosters with officers leaves no question their safety is her priority. Her tenacity and diligence earned her laudatory comments from her Division Commander and Supervisor when she refused to give up after a 911 hang-up. Feeling something was wrong, she pursued numerous avenues until she got an address. When officers arrived, they found a severely beaten woman who had suffered a significant head wound. Katelin's actions ensured swift medical attention and a safe home to return to for this woman; and

WHEREAS, Katelin has been commended by the Chief of Police for her compassion and professionalism while handling a difficult suicide call. Additionally, she received a Division Commander's Letter of Recognition for her flawless coordination of Police and Fire personnel during a multi-structure fire and evacuation. Her actions ensured swift response of emergency personnel and community organizations to help victims who had lost their homes; and

WHEREAS, she is requested by name annually to teach developmentally challenged students about law enforcement and calling 911. Yuba City High School commended her for an outstanding job and making a difference for students, many of which are scared of police and calling 911. Her evaluations from the Citizen Academy are always excellent; and

WHEREAS, her unwavering work ethic, humble service and positive attitude made her the obvious choice to stand at the head of her peer group this year.

NOW, THEREFORE, BE IT RESOLVED that I, John Buckland, Mayor of the City of Yuba City, and on behalf of the entire City Council of the City of Yuba City, do hereby congratulate Katelin Snider for being awarded the Police Department Employee of the Year.

Done on this 19th day of January, 2016 at the City of Yuba City, County of Sutter, State of California.

_____

John Buckland, Mayor

Agenda Item **2**

Public Safety Overview Presentation
Yuba City Police Department

CITY OF YUBA CITY

Written Requests

Members of the public submitting written requests at least 24 hours prior to the meeting will normally be allotted 5 minutes to speak.

Procedure

When requesting to speak, please indicate your name and the topic and mail to:

City of Yuba City
Attn: City Clerk
1201 Civic Center Blvd
Yuba City CA 95993

Or email to:

Terrel Locke, City Clerk tlocke@yubacity.net

The Mayor will call you to the podium when it is time for you to speak.

CITY OF YUBA CITY

Appearance of Interested Citizens

Members of the public may address the City Council on items of interest that are within the City's jurisdiction. Individuals addressing general comments are encouraged to limit their statements.

Procedure

Complete a Speaker Card located in the lobby and give to the City Clerk. When a matter is announced, wait to be recognized by the Mayor. Comment should begin by providing your name and place of residence. A three minute limit is requested when addressing Council.

- For Items on the Agenda

Public comments on items on the agenda are taken during Council's consideration of each agenda item. If you wish to speak on any item appearing on the agenda, please note the number of the agenda item about which you wish to speak. If you wish to speak on more than one item, please fill out a separate card for each item.

- Items not listed on the Agenda

Public comments on items not listed on the agenda will be heard during the Public Communication portion of the meeting.

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Development Services Department

Presentation By: Arnoldo Rodriguez, AICP, Development Services Director

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Summary

Subject: Consideration of General Plan Amendment, Rezone, and Development Plan to facilitate the development of a 172 multiple family residential complex.

Recommendation:

A. Adopt the mitigated negative declaration, EA-15-05 that determined that the proposed project will not create any significant environmental impacts

B. Adopt a Resolution re-designating the 8.14-acre property from Medium/Low Density Residential to Medium/High Density Residential plan land use which would increase the permitted residential density from 8-14 units per acre to 12-36 units per acre

C. Introduce an Ordinance rezoning approximately 1.40 acres of the overall 8.14 acre site to the proposed Multiple-Family Residential (R-3) Zone District and waive the first reading

D. Adopt a Resolution approving the Development Plan which would allow for the development of a 172 gated multiple family residential complex

Fiscal Impact: The costs for processing the land use entitlements is funded by the payment of the required entitlement fee, a flat rate fee that covers staff costs. Moreover, the development of the project will be subject to the payment of development impact fees as well as building permit fees that will cover future costs incurred by the City.

Purpose:

To amend the General Plan designation and rezone a portion of the subject site to facilitate the development of a 172 multiple family residential complex.

Background

The applicant has filed numerous land use entitlements pertaining to 8.14 acres located on the south side of Lincoln Road approximately 550 feet west of Garden Highway **(Attachment 1)**. The applicant is proposing to develop a 172 multiple family residential complex and all of its amenities including a 1,500 square foot clubhouse, 357 parking spaces, and landscaping on the subject site. More specifically, the request includes:

- ✓ *General Plan Amendment (PA) 15-01:* To re-designate the property from the Medium/Low Density Residential Planned Land Use designation of the City's General Plan to the Medium/High Density Residential designation **(Attachment 2)**;
- ✓ *Rezoning (R) 15-02:* To rezone a portion of the property from the Two-family Residential (R-2) zone district to the Multiple-family Residential (R-3) zone district (Attachment 3); and
- ✓ *Development Plan (DP) Review 15-01:* To develop a 172-unit gated apartment complex, including a clubhouse, parking and landscaping. The project would be developed at 21.1 dwelling units per acre. It is worth noting that Section 8-5.7001(A) of the City of Yuba City Municipal Code requires that multiple family residential complexes in excess of 101 units be considered by the City Council. Thus, the Development Plan is being presented to the Council for consideration.

Development of the site may occur in phases, however this phasing will be predicated by market conditions.

Planning Commission Action:

On December 23, 2005, the Yuba City Planning Commission considered this project. At the public hearing, the Commission heard testimony from city staff and the applicant. The Commission posed numerous questions regarding design, ingress and egress to Lincoln Road, open space, access to City parks, and mass transit. No members of the public spoke. The Planning Commission, by a vote of 7 to 0, recommended that the Council approve the project, subject to compliance with the conditions and mitigation measures.

Project Analysis:

Staff prepared an in-depth analysis relative to the proposed project and its potential impacts in terms of traffic, urban design, open space, parking, lighting, etc. This analysis is provided in Attachment 4 while the Conditions of Project Approval and mitigation measures are outlined in Attachment 5.

Environmental Determination:

An environmental assessment was prepared for this project in accordance with the requirements of the California Environmental Quality Act (CEQA) Guidelines. This process included the distribution of requests for comment from other responsible or affected agencies and interested organizations.

Based upon the attached environmental assessment and the list of identified mitigation measures, staff has determined that there is no evidence in the record that the project may have a significant effect on the environment and recommends adoption of a mitigated negative declaration for this project. The findings of the mitigated negative declaration is that, with the proposed mitigations for air quality, cultural resources and traffic, the 172 unit apartment complex will not create any significant impacts to the neighborhood or vicinity. As a result, the filing of a mitigated negative declaration is appropriate in accordance with the provisions of CEQA. The proposed mitigations are included in the project conditions of approval.

Recommendation:

The appropriateness of the proposed project has been examined with respect to its consistency with goals and policies of the General Plan, its compatibility with surrounding uses, and its avoidance or mitigation of potentially significant adverse environmental impacts. These factors have been evaluated as described above and by the accompanying environmental assessment.

Therefore, staff recommends that the Council conduct a public hearing and after consideration, concur with the Planning Commission's recommendations, which are to:

A. **Environmental:** Adopt Mitigated Negative Declaration EA 15-05 (Attachment 6) determining that with the proposed mitigation measures, the development of the 172-unit apartment complex will not create any significant environmental impacts (Attachment 6).

B. **General Plan Amendment:** Adopt a Resolution re-designating the 8.14-acre property from the Medium/Low Density Residential to the Medium/High Density Residential plan land use which would increase the permitted residential density from 8-14 units per acre to 12-36 units per acre, with the proposal falling midway within that higher range at approximately 21.1 units per acre (Attachment 7). The Medium/High Density Residential designation is the appropriate designation for multiple-family residential uses.

C. **Rezoning:** Introduce an Ordinance that the proposed Multiple-Family Residential (R-3) Zone District is compatible with the Medium/High Density Residential General Plan Designation; waive the first reading (Attachment 8).

D. **Development Plan:** Adopt a Resolution (Attachment 9) that based upon analysis of the Development Plan application and subject to the applicant's compliance with the conditions of approval noted, that the following required findings of Section 8-5.7001(C) of the Municipal Code can be made:

I. The site for the proposed use is adequate in size and shape to accommodate said use, public access, parking and loading, yards, landscaping, and other features required by this chapter.

The 8.14 acre site is of adequate size to accommodate the project. The project's residential density of 21.1 units per acre is the mid-range of the HDR General Plan designation. The project meets all open space requirements, provides off-street parking that exceeds the requirements of the Zoning Regulations, and provides adequate setbacks, landscaping, and fencing from abutting properties that minimize any potential issues. Moreover, the project exceeds the minimum setbacks for multi-story buildings when adjacent to single family homes, while the project conditions will ensure that the project provides sufficient lighting, refuse collection areas, open space, and pedestrian paths.

II. The streets serving the site are adequate to carry the quantity of traffic generated by the proposed use.

The traffic study completed for the project concluded that, with the mitigation measures recommended for the project and the payment of the City's development impact fees for roads, there would be no short-term or long-term significant impacts to traffic in the vicinity.

III. The site design, design of the buildings, and the scale of the project will complement neighboring facilities.

Based on the analysis provided in the staff report, the design of the project adequately considered the impacts on neighboring properties. The project's design provides adequate building setbacks from the property lines, in excess of code requirements, that the sides of buildings facing the single-family residences to the south will be windowless, that no three-story buildings were proposed along the south or east sides, and that there is adequate perimeter landscaping that also reduces the project's appearance to the neighboring homes. Moreover, the proposed six-foot tall masonry wall, with landscaping, will mitigate potential noise while also creating a visually appealing environment.

Alternatives:

Delay, modify, or return to staff for additional analysis.

Attachments:

1. Aerial photo
2. Plan Amendment map
3. Rezone map
4. Project Analysis
5. Mitigation Measures and Conditions of Project Approval
6. Mitigated Negative Declaration, including the traffic impact analysis
7. Resolution (Plan Amendment)
8. Ordinance (Rezone)
9. Resolution (Development Plan)
10. Project site plan, landscaping plan
11. Building elevations

Prepared By:

Arnoldo Rodriguez
Arnoldo Rodriguez
Development Services Director

Submitted By:

Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed By:

Finance RB

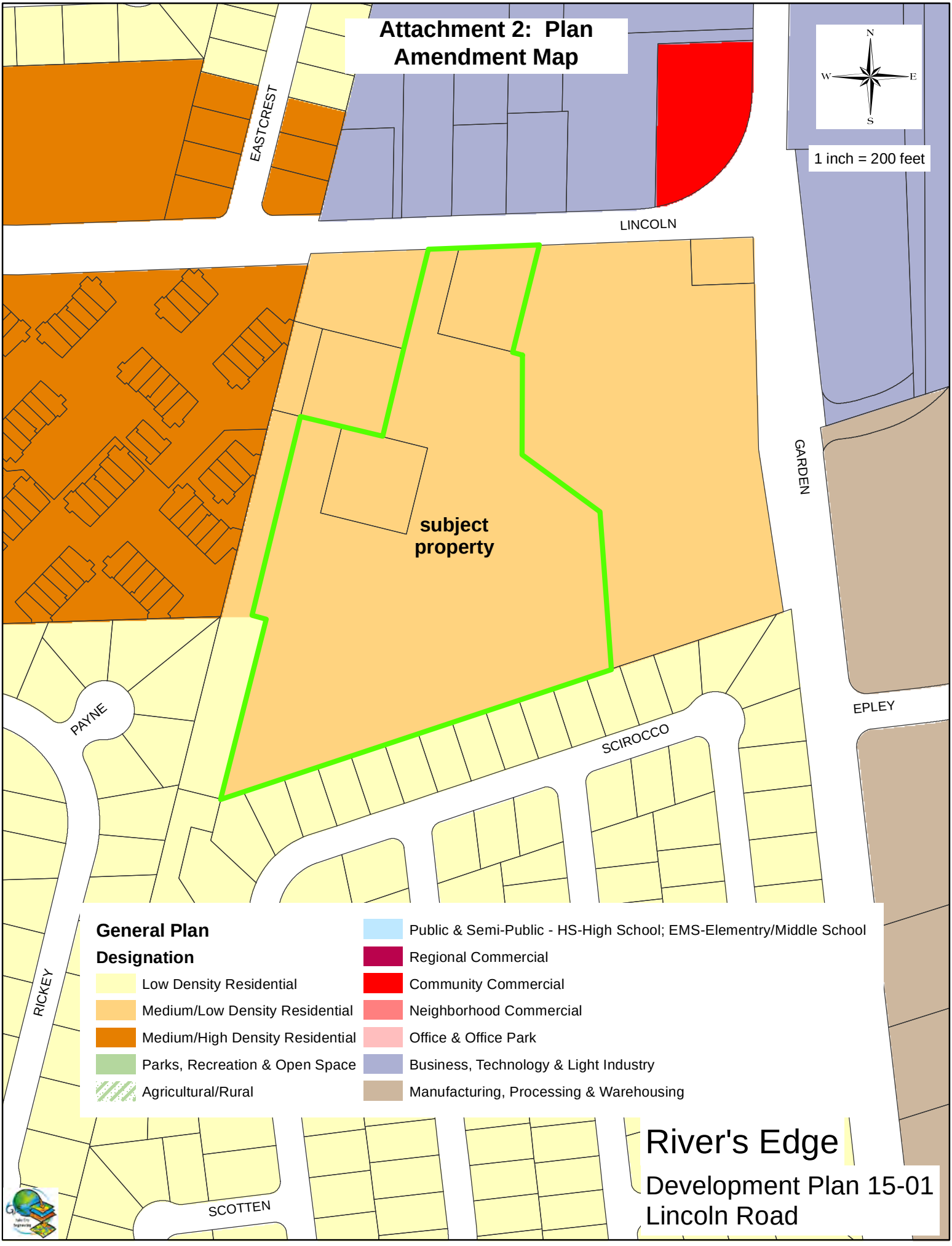
City Attorney TH via email

Attachment 1:
Aerial Photo


Aerial Photo
Lincoln Road
Garden Highway
N
Subject Parcel
(parcel lines are
approximate)

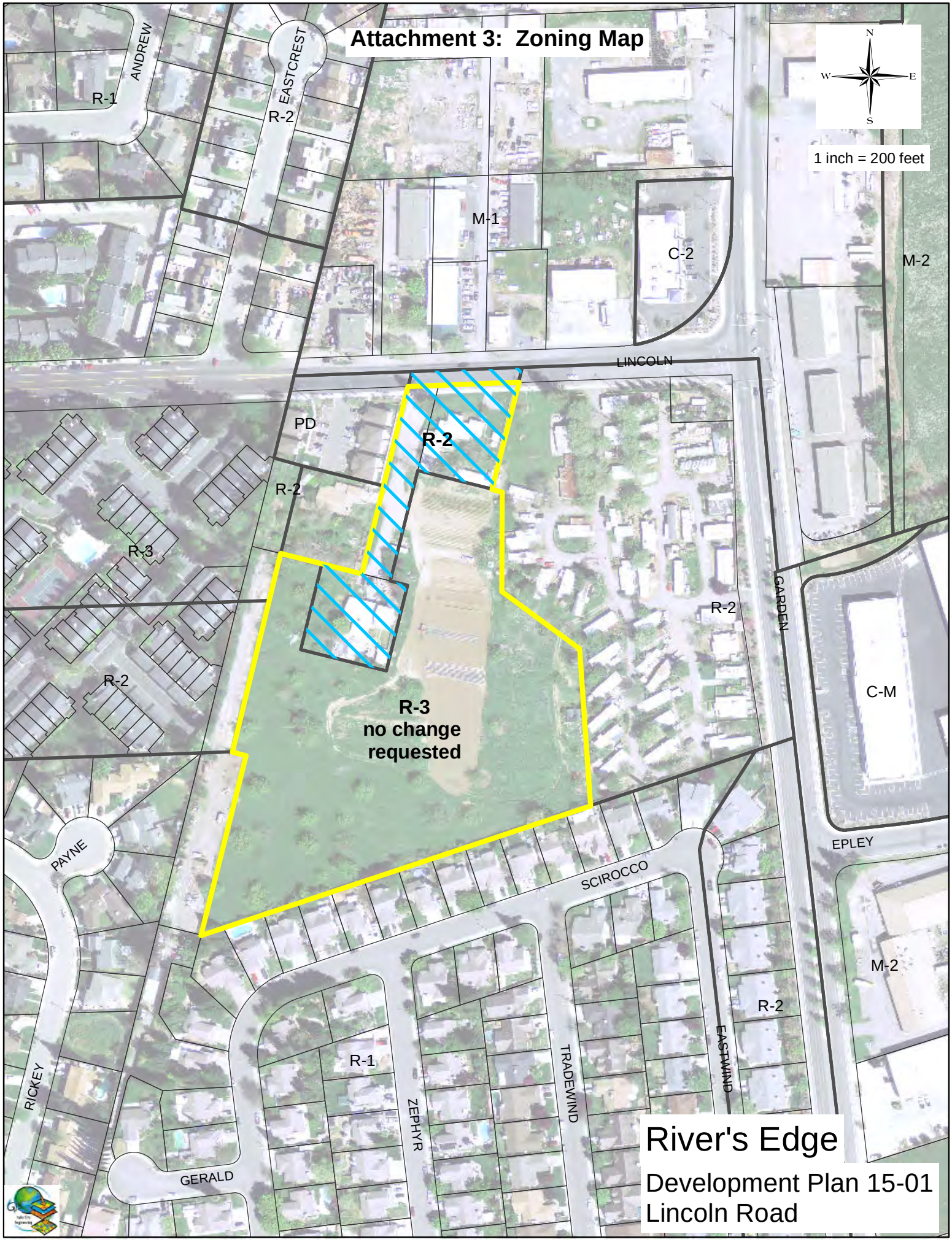
Attachment 2:

Plan Amendment Map


Attachment 2: Plan Amendment Map
N
W
E
S
1 inch = 200 feet
EASTCREST
LINCOLN
GARDEN
EPLEY
SCIROCCO
PAYNE
RICKEY
SCOTTEN
subject property
General Plan Designation
Low Density Residential
Medium/Low Density Residential
Medium/High Density Residential
Parks, Recreation & Open Space
Agricultural/Rural
Public & Semi-Public - HS-High School; EMS-Elementry/Middle School
Regional Commercial
Community Commercial
Neighborhood Commercial
Office & Office Park
Business, Technology & Light Industry
Manufacturing, Processing & Warehousing
River's Edge
Development Plan 15-01
Lincoln Road

Attachment 3:

Rezone Map


Attachment 3: Zoning Map
N
W
E
S
1 inch = 200 feet
R-1
ANDREW
EASTCREST
R-2
M-1
C-2
M-2
LINCOLN
PD
R-2
R-2
R-3
R-2
R-2
GARDEN
C-M
R-3
no change
requested
EPLEY
PAYNE
SCIROCCO
M-2
R-2
R-1
RICKEY
ZEPHYR
TRADEWIND
EASTWIND
GERALD
River's Edge
Development Plan 15-01
Lincoln Road

Attachment 4:
Project Analysis

Attachment 4: Project Analysis

Project Information:

The project consists of:

Table 1: *Project Details*

Location	
South side of Lincoln Road approximately 550 feet west of Garden Highway; Assessor's parcel numbers 54-183-014, 017, and 018	
Unit Configuration	
3-bedroom units	16
2-bedroom units	140
1-bedroom units	16
Total apartments	172
Number of Stories	
3-story buildings	6 (along western property line and interior of the project)
2-story buildings	6
Parking	
Required # of spaces	276
Proposed # of spaces	357 (226 covered, 131 uncovered)
Access	
A single access to the property will be provided via Lincoln Road	

Property Description:

The site is essentially unremarkable; it is flat with no unique topographic features, rock outcroppings, large heritage-type trees, or buildings in excess of 50 years old.

General Plan Designation:

Existing: MDR General Plan land use designation. This designation provides for a residential density range of 6 to 14 residences per acre, providing for various housing types that are typically at a mid-range of residential densities. This includes single-family homes on small lots down to 2,500 square feet in area, duplexes, and mobile home parks. It does not provide for multiple-family housing.

Proposal: HDR General Plan land use designation. This designation provides for the City's highest residential density with a range of 12 to 36 units per acre. This designation is designed for multiple-family projects. The proposed project is a multiple-family project with a density of approximately 21.1 residences per acre.

Zoning Classification:

Existing: The vast majority of the site is currently zoned R-3 (*Multiple Family*); however, a small portion is zoned R-2 (*Two-Family Residential*).

Proposal: To revise the R-2 Zone District portion of the property to the R-3 Zone District. The R-3 Zone District is needed in order to be consistent with the proposed HDR General Plan designation and to accommodate the proposed apartments.

Bordering Uses:

The project is located in southeast Yuba City and surrounded by a range of residential densities, including both single- and multiple-family. Adjacent land uses include:

Table 2: *Bordering Land Uses*	
North:	Lincoln Road with various businesses located across the street
South:	Single-family residential uses line the south property line. The single-family residences consist of a combination of single and two story homes
East:	Gum Tree Mobile Home Park
West:	Two story apartments and a single-family residence are on the northerly portion of the west side. The single-family residence will take its access via the driveway that will serve the project. The remainder of the west side is lined with the former railroad right-of way (abandoned) and two story condominiums

Previous Commission Actions and/or Policies:

There have been no recent actions by the City, sans the Planning Commission action at their December 23, 2015 meeting, regarding this property.

Staff Comments:

General Plan Amendment

The General Plan must be amended to accommodate this proposal given that the existing MDR designation, although intended for residential development, is intended for residences that are not typically as dense as multiple-family uses. The MDR designation permits residential uses ranging in density from 6 to 14 units per acre. This includes very small lot single-family residences, duplexes, mobile home parks, but not multiple-family uses, except possibly lower density condominiums. The General Plan Amendment to reclassify the property to the HDR designation is required to accommodate the proposed density of the project. The HDR designation allows from 12 to 36 residences per acre. This proposal is about mid-range at 21.1 residences per acre.

Because this site is surrounded by a variety of residential configurations, such as single-family, multiple-family, and a mobile home park, the proposed project appears to blend well with neighboring uses. The primary focus of this staff report is to evaluate how well the project fits the site.

It should be noted that one of the issues discussed in the City's Housing Element is the dichotomy between the types of homes built, and the housing needs of the City's population. One of the most common types of dwelling unit constructed in Yuba City has been the detached single-family house with lots at approximately 6,000 square feet in size or greater. While this practice provides for excellent homeowner opportunities, it does not adequately accommodate the people who live in Yuba City that may prefer multiple family units. While apartments do not necessarily equate to affordability, they provide alternative housing options for those not wishing, or unable to own a home.

Rezoning

The rezoning to an R-3 Zone District applies to only a portion of the property that is currently zoned R-2. It should be noted that the vast majority of the site is currently zoned R-3, thus the

Rezone Application only applies to a portion of the site. Similar to the General Plan Amendment, the zoning must be revised to allow the multiple-family project.

Compatibility with Surrounding Uses

Compatibility with neighboring uses is one of the most critical issues that must be considered for this project. As discussed above, the site needs to be designed to be compatible with the neighboring uses.

There is the potential for aesthetic impacts on the neighboring single-family residences located along the south boundary of the project as well as the mobile home park to the east, as neighbors often perceive two story or higher buildings that adjoin them as objectionable. However, the potential impacts to the single-family residences from these neighboring apartments are mitigated through the design of the project. The nearest proposed apartment buildings are two stories (versus three stories in other locations) and are located 75 feet away from the property line of the single-family residences (the minimum required distance is 35 feet). Additionally, the sides of the apartment buildings facing the single-family residences have no windows on those sides. There will be a six-foot high masonry wall constructed along the common property line between the single-family homes and the apartment complex, and the developer will be required to install a 7.5-foot wide landscape buffer along the property line (ordinance minimum is five feet) that will have trees planted at 30-foot intervals. This landscaping, coupled with the six-foot solid masonry wall, should help minimize noise and create an aesthetically pleasing environment.

Regarding the mobile home park along the east side of the project, most of the project apartment buildings will be 72 feet from the property line, with the exceptions of a corner of Building E along Lincoln Road, which will be approximately 18 feet away, and a corner of Building B at the southeast corner of the property, roughly 50 feet away, (minimum of 5 feet required in both cases). There will also be a six-foot high masonry wall and a six-foot wide landscape buffer with trees at 30-foot intervals.

On the west side of the project, the proposed apartment complex is similar to the existing development, sans the proposal calls for three story buildings. Similar to other property lines, a masonry wall and landscape buffer will be required.

It is worth noting that there is an existing single family home along the northwestern most corner of the project. The existing single-family residence will remain and is not part of this project, though it will be served by the driveway that serves the project. The distance between the residence and the proposed multiple-family residences is about 75 feet, whereas the minimum setback is 5 feet.

Traffic:

Traffic Impact Analysis & Trip Generation

A traffic impact analysis was prepared by KD Anderson & Associates, Inc. on November 16, 2015 to evaluate the number of vehicle trips projected to be generated by the proposed project. Applying the factors outlined in the Institute of Traffic Engineers (ITE) Trip Generation Manual, this analysis predicts the number of vehicle trips that will be generated from the proposed project and the direction in which these trips will travel.

The traffic study forecasts that the proposed apartments can be expected to generate an average of approximately 1,139 new vehicle trips per day (VTD) at build-out. The assumption of

6.62 vehicle trips per residence per day is based on national averages for multiple-family residences which is slightly less than conventional single family homes. Of these vehicle trips, it is projected that 88 will occur during the morning (7 to 9 a.m.) peak-hour travel period and 107 will occur during the evening (4 to 6 p.m.) peak- hour travel period, as identified in the following table:

Table 3: *Trip Generation*

		Trips per Unit					
		AM Peak Hour			*PM Peak Hour*		
	Daily Trips	In	Out	Total	In	Out	Total
Dwelling	6.62	20%	80%	0.51%	65%	35%	0.62
172 units	1,139	18	70	88	69	38	107

In an effort to determine local impacts, the study also assessed the project's impacts on six nearby intersections, including:

- State Route 99/Lincoln Road
- Lincoln Road/Jones Road
- Lincoln Road/Bunce Road
- Lincoln Road/Railroad Avenue
- Lincoln Road/new access to the site (T intersection)
- Lincoln Road/Garden Highway

The traffic study disaggregated the directions of travel that the new vehicle trips will take in and out of the apartment complex onto the various roads, as shown in Table 4.

Table 4: *Trip Distribution Assumptions*

Direction	Route	% of Total
North	State Route 99	18%
	Jones Rd	1%
	Bunce Rd	8%
	Railroad Ave	4%
	Garden Highway	39%
West	Lincoln Rd beyond SR 99	11%
South	State Route 99	4%
	Jones Rd	3%
	Railroad Ave	1%
	Garden Highway	11%
Total		**100%**

Project Impacts on Existing Traffic

To summarize the traffic study results, the estimated additional 1,139 VTD generated by the project, will not create any significant impacts to the intersections noted above. The additional a.m. and p.m. peak hour traffic delays caused by the project, may cause additional delays ranging between less than one second and up to four seconds at each intersection. Using the City-adopted criteria for these conditions, none of these delays are considered significant.

Therefore no mitigation measures were identified for the project's impacts on the existing roadway conditions. Moreover, none of the existing un-signaled intersections would need to be signalized as a result of this project nor are their levels of service degraded to below acceptable levels. This includes unsignalized intersections of Lincoln Road/Jones Road, Lincoln Road/Bunce Road, and Lincoln Road/Railroad Avenue. The signalized intersections of Lincoln Road/SR 99 and Lincoln Road/Garden Highway will remain at their present levels of service.

Cumulative Long Term Traffic Impacts

The traffic study also considered the impacts the project will have on these same intersections over the long-term, considered to be "cumulative" impacts. The cumulative impact review considers this project, the existing traffic conditions, and adds the long-term growth of the City based on the General Plan. The traffic study concludes that build-out of the apartment complex will create some potentially significant cumulative impacts.

The traffic study indicates that the un-signalized intersections of Lincoln Road/Jones Road, Lincoln Road/Bunce Road and Lincoln Avenue/Railroad Avenue will have to be signalized at some point in the future. In addition, the Lincoln Road/Garden Highway signalized intersection would need additional improvements in order to stay within an acceptable level of service. The SR 99/Lincoln Road intersection will not need further improvements based on this cumulative impact study.

Long-term, this project would not generate all of the new traffic that will impact these intersections, and because the needed improvements will not be needed for years into the future, the project may only be required to pay its "fair share" of the costs for the new signals, as opposed to installing new signals. Table 5 provides the rational for determining the project's fair share costs.

Table 5: *Fair Share Calculations*

Intersection	**PM Peak Hour Volume**				**Fair Share**
	Existing	*Project Alone*	*Cumulative Plus Project*	*Net Growth*	
Lincoln Rd/Jones Rd	1,213	39	2,519	1,306	**3.0%**
Lincoln Rd/Bunce Rd	1,051	49	2,336	1,285	**3.8%**
Lincoln Rd/Railroad Ave	1,206	52	2,458	1,252	**4.2%**
Lincoln Rd/Garden Hwy	1,776	53	3,672	1,896	**2.8%**

It should be noted that the City's street plans are the product of careful planning that projects traffic capacity needs based on the densities and intensities of planned land uses anticipated at build-out of the planned area. Based upon the project requirements for street dedications, improvements, and contributions to the City's impact fee system, the adjacent streets will provide adequate access to and from the site, while at the same time, affording the community an adequate and efficient circulation system. The mitigation measures (included with the project's conditions) require the payment of the project's fair-share of constructing the signals for the intersections described above. With the payment of those costs, the potential cumulative traffic impacts are reduced to below a level of significance.

Project Access from Lincoln Road

The sole access into the project will be a driveway onto Lincoln Road. The traffic study reviewed the need for a left turn pocket for westbound Lincoln Road traffic that turns left into the project. The study concludes that the need for the left turn lane does not meet the threshold of

significance for existing traffic levels, but that the left turn lane would be justified by the time the project is completed. A mitigation measure is proposed that a westbound left turn lane be provided on Lincoln Road in the initial phase of the project. Signalization of that turn lane is not warranted.

Open Space:

The R-3 Zone District requires a minimum of 200 square feet (sf) of open space per unit, which translates to 34,400 sf for the project. The project will provide approximately double the minimum requirement given that it will provide 69,400 sf. This figure includes the balconies, rear yards, common areas, as well as the 1,500 sf clubhouse.

Though the amount of open space exceeds the minimum requirements, Staff does have a concern over the quality of the open space. While open space enhances the appearance of a development, it also provides for the psychological and physical well-being of residents by offering opportunities for relaxation and exercise. For example, communal open space provides an opportunity for neighbors to socialize, strengthening the sense of community while also allowing individuals to engage in some form of physical activity. It is well-established that open space is connected to public health. Studies show that public health is improved with access to open space, which is increasingly important to combat today's health problems related to stress and sedentary lifestyle.

As evidenced by the open space plan provided, much of the open space is not high quality open space; but rather it is space between buildings and inaccessible areas. The project also does not provide any open space amenities such as a swimming pool, kid's playground, BBQ area(s) or other outdoor activity areas. In light of this, Staff is recommending a condition that would require a playground area, for use by future residents, as part of the project.

Design Review:

There are several levels of design review for this project. Since the site is surrounded on three sides by existing development, visibility of the project from public locations is limited to Lincoln Road along the project's north side. That being the case the primary focus of the design review is for Building E, which fronts on Lincoln Road, as well as the project entrance and landscaping along Lincoln Road. The second part of the design review is for the interior design, which is not highly visible, but is important to the residents and to the City in presenting a positive community image.

Site Design

The project is or may be deficient in landscaping in several locations. The south property line indicates a seven-foot landscape strip to provide a buffer from the neighboring single-family residences. While the code minimum is 5 feet, staff requested 10 feet to provide the needed buffering. Staff and the applicant agreed on a compromise of 7.5 feet. The most recent site plan provides only seven feet. A condition is included that this be widened to 7.5 feet. Note that when the curbs are added the planter area width is further reduced.

At the southeast portion of the site, the south side of Building B abuts a sidewalk and carport. During discussions with the applicant it was agreed that a planter strip would be included to separate the building and sidewalk. The intent is to break up the hard surfaces of the building and sidewalk with landscaping. As the site plan does not indicate this landscape strip, a condition is included to provide a planter strip.

The Zoning Regulations require that for a parking lot of this size, at least 10 percent of it be landscaped. While the project may meet this standard, no calculations have been submitted. A condition is included that requires this ordinance section be met.

Pedestrian Access

Connectivity for pedestrians within the project is important and thus sidewalks are provided along all building frontages. However for the buildings located along the southern half of the east side of the project, a longer walk is necessary for those residents to access the clubhouse and mail area. A condition is included that would require a pedestrian path through the open space area to connect those residents to the clubhouse and mailboxes.

Interior Building Design

While the interior buildings do not need to be the same quality as the highly visible building along the Lincoln Road frontage (Building E), there are some design improvements recommended for the interior buildings. For the building frontages there are windows that are flat against the wall. If a trim is included around the windows or at least if they are inset by several inches, additional relief or shadowing is added to the building for an improved look without significant cost increase. Some of the building elevations that are provided incorrectly depict the shadows. A condition is included that requires all front windows to include treatment to stimulate visual interest.

The ends of the interior buildings do not provide openings, such as windows, and therefore the walls are largely uninterrupted and unarticulated. Some of those walls are highly visible from within the project. These walls should have additional treatment, and a condition is included that requires additional elevation relief.

Another simple feature that can be used to enhance the look of buildings is through the use of lighting. Decorative outdoor light fixtures can help break up large, featureless wall areas. The elevations lack lighting. A condition is provided that requires wall lighting, consistent with the building design, except for wall-packs, which diminish the appearance of a facility. In addition, a condition has been added that requires that pedestrian-scale lighting be spaced appropriately for the fixture to provide lighting levels sufficient that allow people to feel safe.

The mailbox facility is also an important internal feature. Though often an afterthought in building design, it is an important feature that many residents visit on a daily basis. An excellent example of a mailbox facility that serves as a key feature is found in the River Oaks Apartment complex located on the south side of Bogue Road west of Garden Highway. While elevations for the mailbox facility have not been submitted, a condition has been incorporated that it be designed similar to the proposed buildings, in terms of building materials and color.

Front and Entrance Walls

Yards adjacent to a street represent a transitional area between the public corridor and the private and semi-private space of multi-family residential developments. The front yard along Lincoln Road is highly visible to future tenants and passers-by alike. While elevations were not provided, the project proposes that the front yard include a three-foot high masonry wall with three feet of wrought iron attached on top. For a quality look, the wall as well as the pilasters should consist of a decorative durable material capable of withstanding weathering. Materials may include rock or brick, however stucco or block should be avoided. The pilasters should

also have decorative caps on them. There is a condition added that addresses this concern.

Building E (back side that faces Lincoln Road and its sides)

Building E, which abuts Lincoln Road, is the most visible building within the project. Given its prominence, careful consideration of how the building relates towards the street and the use of building materials is imperative to create an inviting, well-designed project. The most visible portion of the building does provide slightly enhanced elevations in comparison to the interior buildings in that several molding strips are added and there is greater color variation. Similarly for the sides, one side provides windows with some fenestration, while the other side lacks windows. Both sides provide additional color treatment in comparison to interior buildings. However, such a highly visible building should provide strong articulation for the three publically visible sides. Both of the side elevations should maintain the same design features as the street side. As a result, additional design features should be incorporated given the building's high visibility. A condition is included that requires the columns on the rear side of the building be surfaced with an alternative material, such as stone or brick, that would match the material used along the front wall. The condition also states that the building's sides be further enhanced with windows or other treatment.

Parking Shade Structures

The proposed shade structures over much of the parking spaces consist of metal columns with a flat metal roof. While it would be preferable to have these structures built of a similar style and material as the apartment buildings, decorative carports may not be cost effective for this project. However, the structures should be a color or colors that match the apartment buildings. There is a condition included to that effect.

Availability of City Services:

All City services, including water, sewer and storm-water drainage are available to this site.

Attachment 5:

Mitigation Measures and Conditions of Project Approval

Attachment 5
Mitigation Measures and Conditions of Project Approval

MITIGATION MEASURES

Air Quality Mitigation Measure 1: Prior to issuance of a building or grading permit obtain a Feather River Air Quality Management District (FRAQMD) approved Fugitive Dust Control Plan.

Air Quality Mitigation Measure 2: Any wood burning devices installed in the project shall meet EPA certification standards as well as FRAQMD regulations.

Cultural Resources Mitigation Measure 1: Should artifacts or unusual amounts of bone or shell be uncovered during demolition or construction activity, all work shall be stopped and a qualified archeologist shall be contacted for on-site consultation. Avoidance measures or appropriate mitigation shall be completed according to California Environmental Quality Act (CEQA) guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archeological Resource Management Reports, which shall be used for guidelines. If the bone appears to be human, California law mandates that the Sutter County Coroner and the Native American Heritage Commission be contacted.

Traffic Mitigation Measure 1: Construct a westbound left turn lane along Lincoln Road. The total length for the turn lane shall be at least 80.0 feet. Improvements are to include all necessary striping, markings, & signage. In addition, the contractor is to place a CalTrans Polymer-modified Type II slurry the full width of Lincoln Road at a length determined by the Public Works Department to adequately facilitate improvements.

Traffic Mitigation Measure 2: To mitigate the impacts from the project on the intersection of Lincoln Road and Jones Road the developer shall contribute 3.0 percent of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $11,190.00.

Traffic Mitigation Measure 3: To mitigate the impacts from the project on the intersection of Lincoln Road and Bunce Road the developer shall contribute 3.8 percent of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $14,174.00.

Traffic Mitigation Measure 4: To mitigate the impacts from the project on the intersection of Lincoln Road and Railroad Avenue the developer shall contribute 4.2 percent of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $15,666.00.

Traffic Mitigation Measure 5: To mitigate the impacts from the project on the intersection of Lincoln Road and Garden Highway the developer shall contribute 2.8% of the total cost for improvements (new traffic signal hardware and rewiring of existing signal) at this intersection. This project's proportional amount is $560.00.

CONDITIONS OF PROJECT APPROVAL

Expiration and Development Impact Fees

1. Approval of Development Plan DP 15-01 shall be null and void without further action if either the project has not been substantially commenced within 2 years of the approval date of the development plan or that a request for an extension of time has been submitted to the City.

2. Development Plan 15-01 is contingent upon the approval of General Plan Amendment 15-01 and Rezone 15-02.

3. *Development Impact Fees.* Impact fees shall be set at the 2015 rate for any building permits issued within one year from the effective date of Development Plan 15-01.

Planning Division

4. The project is a 172-unit apartment complex that shall be constructed per the plans approved by the City Council, except as provided by the conditions below.

5. Prior to the issuance of building permits a lot line adjustment shall be approved by the City and recorded, that either eliminates the interior property lines by creating a single parcel, or the lot lines are adjusted such that all building setbacks are met and there are cross easements for access, parking, maintenance, etc., that meet the satisfaction of the Public Works and Development Services Directors.

6. A communal recreation area shall be provided at a central location on the property, for which the location and design meets the satisfaction of the Development Services Director (Director). This area shall provide for passive and active open space and may include a swimming pool, tot-lot, or play structure. A gazebo or other decorative shade structure, along with a seating area shall also be provided.

7. Trash receptacles shall be located near and distributed throughout common open areas and near community facilities.

8. The mail facility shall incorporate design features, such as materials, colors, roof material, etc., that are consistent with the project's building style.

9. The landscape strip along the south property line shall be a minimum of 7.5 feet in width and shall be landscaped with hedge type plants in addition to the proposed trees.

10. A landscaped strip between Building B at the southeast portion of the project and the sidewalk, to the satisfaction of the Director. The perimeter parking along the south property line may be adjusted to compact parking to accommodate this landscape strip.

11. Ten percent of the parking lot shall be landscaped (Ord. Sec. 8-5.6003.A.).

12. Walkways should be designed to provide convenient access and connections both internally and externally. Walkways should be safe, accessible, well-lit, landscaped and connected to the recreation areas, refuse collection areas, and the clubhouse.

13. The open space area between the two Building B's and Building D, in the southeast portion of the project shall have a pedestrian path that connects between the sidewalk and the clubhouse.

14. The three-foot wall and pilasters along the Lincoln Road frontage shall be of an attractive durable material such as stone or brick, which meets the satisfaction of the Development Services Director. The pilasters shall also have a decorative cap.

15. Fencing along the primary entrance shall be decorative and shall be of an attractive durable material such as stone or brick, which meets the satisfaction of the Development Services Director. The pilasters shall also have a decorative cap.

16. All of the pedestrian entrances along the entrance driveway and the vehicle entrance gate shall have pilasters on either side for which the design is similar to the front wall pilasters.

17. The fence along the entrance driveway shall be constructed of materials and style that is compatible with the front wall, to the satisfaction of the Development Services Director.

18. The buildings shall incorporate color variation, while accent colors shall be used to enhance important building features such as window sashes, mullions and trim.

19. All apartment building end walls that are readily visible shall be further enhanced from the design that was submitted, to the satisfaction of the Development Services Director.

20. All of the windows on the front side of the apartment buildings shall have treatment or a trim added around their perimeter, to the satisfaction of the Development Services Director.

21. Elevations for all sides of the clubhouse building shall be of an equal treatment as the apartment buildings, to the satisfaction of the Development Services Director.

22. Building E, due to its visibility from Lincoln Road, shall be further enhanced, in addition to the conditions above, by the following:

    a. Windows shall be added to the west end wall, while additional vertical articulation shall be added to the east end wall. Those windows shall be trimmed or other treatment added, to the satisfaction of the Development Services Director.

    b. The rear wall (south side) shall be enhanced by adding a non-stucco material along its vertical columns that match or are compatible with the materials used for the front wall, to the satisfaction of the Director.

23. The parking shade structures shall be colored to match the colors of the apartment buildings, to the satisfaction of the Director.

24. Building lighting fixtures shall be decorative and be compatible with the design of the buildings. Wall packs shall not be permitted.

25. Lights shall be residential/pedestrian in scale and be spaced appropriately for the fixture, type of illumination and pole height shall not exceed 18 feet. A lighting plan required by Article 58 of the Zoning Regulations shall be approved prior to the issuance of building permits.

26. The entire site should be well lit, with special attention given unit entries, mail box areas and other common facilities.

27. A variety of plants shall be used on the planting palettes for front yards, courtyards and common open space areas to create an individual identity for each space. Special consideration shall be given to Lincoln Road as well as the primary entrance. This area should include annual plants.

28. Utility and mechanical equipment (e.g. electric and gas meters, electrical panels, transformers and cable and telephone junction boxes, HVAC units) shall be screened from view with landscaping and/or construction that is compatible with the building design.

29. Utility and mechanical equipment shall be oriented away from any building elevation facing a street. When equipment is required to be installed adjacent to the street, it should be placed underground or screened from view.

30. Where trash enclosures abut a parking stall, said parking stall shall provide a minimum width of 11 feet.

31. Trash enclosures should be constructed from the same or similar materials and finishes as adjacent buildings, to the satisfaction of the Director.

32. Building numbers and individual unit numbers should be readily visible, in a consistent location, well lit at night, and compatible with the overall design of the development.

33. Development shall comply with the R-3 Zone District.

34. The identification sign shall be of high quality and compatible with the overall design of the development. The sign shall externally lit or backlit.

Public Works

35. The Developer shall prepare and submit plans for the construction of all improvements including water, sanitary sewer, storm drain facilities, signing, striping and streetlights.

36. Traffic control construction signs shall be installed/erected per City of Yuba City Standards and Details, Caltrans Standards and Details, and the Manual of Uniform Traffic Control Devices. The signs shall be maintained throughout the project duration.

37. All grading operations on the project shall be suspended as directed by the Feather River Air Quality Management District when sustained winds exceed 20 miles per

hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures. An operational water truck shall be onsite at all times to assist in dust control.

38. Onsite dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizer employed to reduce wind blown dust emissions. Incorporate the use of approved non-toxic soil stabilizer according to manufacturers' specifications to all inactive construction areas. Contractor to provide the specifications to the City Inspector.

39. All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free fall distance and fugitive dust emissions.

40. To help contain fugitive dust, construction sites shall be watered down during the construction phase of the project or as directed by the Public Works Department. Water conservation is a priority for the City, and therefore recommends that the contractor monitor their use and obtain water from alternate sources (e.g. agricultural wells) when available.

41. Temporary silt fencing shall be erected during construction and permanent fencing shall be completed prior to occupancy so that transport of construction debris can be retained on-site.

42. Open burning is a source of fugitive gas and particulate emissions, which shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, et. al.) shall be conducted at the project site. Vegetative wastes should be chipped or delivered to waste facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials offsite for disposal by open burning.

43. To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto paved street from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.

44. Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.

45. Provide temporary traffic control as needed, and/or as deemed appropriate by the Public Works Department during all phases of construction to improve traffic flow and to reduce vehicle dust emissions. Effective measures are to enforce vehicle traffic speeds at or below 15 mph and to reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, onsite enforcement, and signage.

46. If any hazardous waste is encountered during the construction of this project, all work shall be immediately stopped and the Sutter County Environmental Health Department, the Fire Department, the Police Department, and the City Inspector

shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.)

47. During construction, the Contractor shall be responsible for controlling noise, odors, dust and debris to minimize impacts on surrounding properties and roadways. Contractor shall be responsible that all construction equipment is equipped with manufacturers approved muffler's baffles. Failure to do so may result in the issuance of an order to stop work.

48. The Developer, at his expense, shall be solely responsible for all quality control associated with the project. The quality control shall include, but is not limited to, the following: survey work, potholing existing utilities, all geotechnical testing, soil reports, concrete testing, asphalt testing, and any other required special testing/inspections. The City will only perform necessary testing to insure compliance.

49. The Developer's Superintendent/Representative shall be onsite when contractor is working and be available to the City's Inspector(s) assigned to the project. The Developer shall be responsible for making sure that the contractor is working from signed improvement plans, signed special provisions, signed storm water pollution prevention plan, and the approved project agreement conditions.

50. The Developer's Superintendent/Representative shall ensure that all private vehicles be either parked off-site or outside of construction areas. All vehicles, construction equipment, and construction material related to the project shall be organized in such a manner to provide emergency vehicle access to the entire project.

51. Sidewalks, within and adjacent to the construction area, shall be kept clean and remain accessible for American Disability Act compliance.

52. Storage of construction material is not allowed in the travel way.

53. On proposed developments that are larger than one acre, provide evidence that a Notice of Intent has been submitted and received by the local Water Quality Control Board for a General Construction Activity Storm Water Permit. Two copies of the project Storm Water Pollution Protection Plan shall be provided to the City.

54. The Developer shall be responsible for implementing the Storm Water Pollution and Prevention Plan (SWPPP) through the use of Best Management Practices (BMP). The Developer shall be responsible for maintaining the SWPPP. The SWPPP shall conform to the provisions in Section 13, "Water Pollution Control," of the Caltrans Standard Specifications for construction of streets and local roads dated 2010, the requirements in the Manuals, and the requirements of the Permits. The Developer shall be responsible to include provisions for SWPPP requirements on the contract documents for the work under the proposed development. These provisions shall direct the successful contractor to develop a SWPPP document per the directions on the Caltrans website at http://www.dot.ca.gov/hq/construc/stormwater/. The Contractor shall submit the SWPPP document within the time lines set forth on the development's special provisions and allow 15 days for the City of Yuba City to review and approve or return the document for revisions. The developer/Contractor shall not start any work until the SWPPP document has been approved by the City of Yuba City. Should the Developer fail to ensure satisfactorily compliance with the

SWPPP, the City Inspector may issue a stop work order until compliance is achieved.

55. Project shall comply with the City's Stormwater Management and Discharge Control Ordinance.

56. The improvement plans for the development of the subject property shall include all measures required to ensure that no drainage runoff resulting from the development of the property flow onto the adjacent residential lands or impede the drainage from those properties. The Engineer of Record shall designate on the plans as to where any retaining walls are required and provide details of all proposed retaining walls. The retaining wall is required where grade differences between the proposed development and the surrounding land is greater than 6" (inches). If retaining walls are required they shall be constructed of concrete or masonry block.

57. A master grading plan for the development shall be submitted to the Public Works Department as part of the improvement plans.

58. The applicant shall submit, to the City for review and approval, a detailed geotechnical investigation prepared by a Civil Engineer registered in the State of California and qualified to perform geotechnical work. The grading plan shall incorporate the recommendations of the approved geotechnical investigation.

59. Prior to beginning construction, the applicant shall obtain a demolition permit from the City for removal of all existing structures on the site.

60. An Improvement Agreement outlining any costs (hot tap, connection fee, fair share contribution, etc.) associated with the development shall be accepted by the City prior to approval of plans.

61. Obtain all necessary approvals from City, State, and Federal agencies, utilities and other effected parties that are required for the project including, but not limited to, the preparation of drawings, studies, reports and permit applications, and payment of fees. Prior to City approval of improvement plans the Developer shall provide evidence, to the satisfaction of the Public Works Department, that all such obligations have been met.

62. The contractor shall obtain an Encroachment Permit from the City prior to performing any work within public rights of way.

63. Where an excavation for a trench and/or structure is 5 feet deep or more, the contractor shall conform to O.S.H.A. requirements. The contractor shall provide a copy of the approved O.S.H.A. permit, and shoring details and calculations prepared by California licensed structural engineer to the Public Works Department.

64. Improvement plans shall be approved by the Yuba City Fire Department.

65. All service laterals (water, sewer, irrigation, fire suppression), along with required meters, are to be shown on the civil improvement plans.

66. All domestic, landscape, and fire service lines shall have reduced pressure backflow preventers.

67. The street trees proposed by the Developer shall be a minimum of 15 gallon in size with a one-inch diameter at breast height. The tree specie(s) shall be a shade type approved by the City Arborist and the Public Works Department.

68. The final improvement plans shall reflect street tree placement so that no interference with streets, streetlights, traffic control signage, and driveways will occur to the satisfaction of the Public Works Department.

69. Special drop inlet frames and grates shall be installed at all drop inlets and junction drop inlets throughout the development area. Cast into the curb back shall be a message “Dump No Waste – Drains to River”. If casting cannot be found that fits the City’s standard drop inlet, then designated markers, approved by the City, shall be installed to the manufacturer’s specifications on the top of curb, or at an appropriate alternative nearby location when no curb is available, at all storm drain inlets in the development area.

70. Required Improvement Plan Notes:

    a. "Any excess materials shall be considered the property of the contractor/owner and shall be disposed of away from the job site in accordance with applicable local, state and federal regulations."

    b. “If any hazardous waste is encountered during the construction of this project, all work shall be immediately stopped and the Sutter County Environmental Health Department, the Fire Department, the Police Department, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.”

    c. "The Contractor(s) shall be required to maintain traffic flow on affected roadways during non-working hours, and to minimize traffic restriction during construction. The Contractor shall be required to follow traffic safety measures in accordance with the Caltrans “Manual of Traffic Safety Controls for Construction and Maintenance Work Zones.” The City of Yuba City emergency service providers shall be notified, at least two working days in advance, of proposed construction scheduled by the contractor(s).”

    d. “Soil shall not be treated with lime or other cementitious material without prior express permission by the Public Works Department.”

    e. All existing well(s), septic tank(s), and service lines shall be destroyed in accordance with the requirements of the Sutter County Environmental Health and Yuba City Building Departments, respectively. Connections shall be made to public sewer and water. The Developer shall pay all applicable fees.

71. Prior to paving, the Developer shall vacuum test all manholes to ensure no leakage will occur.

72. Prior to paving, the Developer shall hydroflush, and televise, all storm drain mains and all sewer mains.

73. Where soil or geologic conditions encountered during grading operations are different from those anticipated in the geotechnical investigation, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic investigation shall be submitted for approval by the Public Works Department. It shall be accompanied by an engineering and geological opinion as to the safety of the site from hazards of settlement and seismic activity.

74. All sidewalks along the City right-of-way shall be free of any non-control joint cracking. In addition, any concrete with cracks, chips, blemishes, and spalling greater than an inch in diameter shall be replaced from control joint to control joint.

75. The contractor shall maintain record drawings of the improvements and keep them on site at all times. When the project is complete, the contractor shall deliver a marked set of plans to the Engineer of Record. The Engineer of Record shall update the improvement plans with the record information. Once the changes have been added to the plans, the Engineer of Record shall submit both an electronic copy (Auto Cad version 2007 or newer) and a hard copy to the City. The City will not accept the completion of the improvements until the electronic copy and hard copy have been submitted.

76. All street lighting shall be dedicated to the City of Yuba City.

77. Construct a westbound left turn lane along Lincoln Road. The total length for the turn lane shall be at least 80.0 feet. Improvements are to include all necessary striping, markings, & signage. {Traffic Mitigation Measure 1} In addition, the contractor is to place a Caltrans Polymer-modified Type II slurry the full width of Lincoln Road at a length determined by the Public Works Department to adequately facilitate improvements.

78. A public utility easement shall be provided along the street frontage extending 10 feet behind the back of the sidewalk.

79. Cross easements over all property not occupied by buildings shall be reserved in deeds for all underground utilities, ingress and egress, parking, drainage, landscaping, and the maintenance thereof to the benefit of all the parcels.

80. Prior to the issuance of a certificate of occupancy, all reduced pressure backflow preventers shall be tested and a back flow preventer certification performed by an AWWA licensed tester shall be submitted to the Public Works Department.

81. Prior to issuance of any certificate of occupancy, all underground utilities, public improvements, and site improvements, including rough grading, shall be completed.

Water Board

82. Comply with the letter from the Central Valley Regional Water Control Board dated November 3, 2015.

County Health

83. The applicant shall provide a signed statement to the Sutter County Environmental Health Division that any abandoned on-site wells and sewage systems have been destroyed in accordance with Sutter County Environmental Health regulations. Sutter County Environmental Health permits shall be obtained prior to the commencement of this work.

84. According to available Sutter County records, at least two of the parcels involved contain existing wells and septic systems. It is probable that there are additional wells and septic systems present but unaccounted for. The parcels with known wells and septic systems are parcel numbers 54-183-011 and 54-183-014. Environmental Health files are not available for the other two parcels involved.

Required Site Plan Notes

85. If archaeological and/or animal fossil material is encountered during project surveying, grading, excavating, or construction, work shall stop immediately.

86. If there are suspected human remains, the Sutter County Coroner shall be immediately contacted. If the remains or other archaeological material is possibly Native American in origin, the Native American Heritage Commission (Phone: 916/653-4082) shall be immediately contacted, and the California Archaeological Inventory hall be contacted to obtain a referral list of recognized archaeologists. An archaeological assessment shall be conducted for the project, the site shall be formally recorded, and recommendations made to the City as to any further site investigation or site avoidance/preservation.

87. If animal fossils are uncovered, the Museum of Paleontology, U.C. Berkeley shall be contacted to obtain a referral list of recognized paleontologists. A paleontologist shall conduct an assessment and, if the paleontologist determines the material to be significant, it shall be preserved.

3 November 2015

Arnoldo Rodriquez
Yuba City Community Development
1201 Civic Center Boulevard
Yuba City, CA 95993

CERTIFIED MAIL
91 7199 9991 7035 8417 6412

COMMENTS TO REQUEST FOR REVIEW FOR THE DP15-01/RZ15-02/GPA15-01/EA15-05 PROJECT, SUTTER COUNTY

Pursuant to the Yuba City Community Development's 19 October 2015 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review* for the DP15-01/RZ15-02/GP15-01/EA15-05 Project, located in Sutter County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments

only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other

action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.

Stephanie Tadlock

Stephanie Tadlock
Environmental Scientist

Attachment 6:

Mitigated negative declaration, including the traffic study

City of Yuba City
Development Services Department
Planning Division

1201 Civic Center Blvd. Yuba City, CA 95993 Phone (530) 822-4700

EA 15-05
For River's Edge Apartments
Initial Study and Mitigated Negative Declaration for
General Plan Amendment 15-01, Rezoning 15-02, Development Plan Review 15-01

Prepared for:

Yuba City Planning Commission
1201 Civic Center Blvd.
Yuba City, CA 95993

Prepared By:

City of Yuba City
Development Services Department
Planning Division
1201 Civic Center Blvd.
Yuba City, CA 95993

December, 2015

City of Yuba City
Development Services Department
Planning Division

1201 Civic Center Blvd. Yuba City, CA 95993 Phone (530) 822-4700

Introduction

This Initial Study has been prepared to identify and assess any anticipated environmental impacts resulting from the proposed general plan amendment from Medium/Low Density Residential designation to Medium-High Density Residential designation, a rezoning from a Two-Family Residential (R-2) Zone District to a Multiple-Family (R-3) Zone District for a portion of the property, and a City Council Development Plan Review for a 172 unit two and three story apartment complex, including a 1,500 square foot club house. The project includes 357 parking spaces (276 required). Most of the parking spaces (226) will be covered by a metal structure that is open on all sides. The remaining 131 parking spaces will be uncovered. The project is also providing at least 200 square feet of open space per residence and required landscaping. Access to the apartment complex is by a single driveway off of Lincoln Road. The 8.14-acre property, identified as Assessor's Parcel Numbers 54-183-014, 017 and 018, is located on the south side of Lincoln Road approximately 550 feet west of Garden Highway.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Pub. Res. Code, Section 21000 *et seq.)* and the State CEQA Guidelines (Title 14 CCR §15000 *et seq*.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to use a previously prepared EIR and supplement that EIR, or prepare a subsequent EIR to analyze at hand. If the agency finds no substantial evidence that the project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of the analysis, it is recognized that the project may have a significant impact on the environment, but that with specific recommended mitigation measures, these impacts shall be reduced to less than significant, a mitigated negative declaration shall be prepared.

In reviewing the site specific information provided for the above referenced project, the City of Yuba City Planning Division has analyzed the potential environmental impacts created by this project and a **mitigated negative declaration** has been prepared for this project.

City of Yuba City
Development Services
Planning Division

1201 Civic Center Blvd. Yuba City, CA 95993 Phone (530) 822-4700

Notice of Declaration

---

1. PROJECT TITLE:

Rivers Edge Apartments: General Plan amendment 15-01, Rezoning15-02, Development Plan15-01:

2. LEAD AGENCY NAME & ADDRESS:

City of Yuba City
Development Services Department, Planning Division
1201 Civic Center Blvd.
Yuba City, CA 95993

3. CONTACT PERSON & PHONE NUMBER:

Arnoldo Rodriguez, Development Services Director
(530) 822-3231
arodrigu@yubacity.net

4. PROJECT LOCATION:

The proposed project is located on 8.14 acres on the south side of Lincoln Road approximately 550 feet west of Garden Highway.

5. ASSESSORS PARCEL NUMBERS:

The property is identified as Assessor's Parcel Numbers 54-183-014, 017 and 018.

6 PROJECT APPLICANT:

Highmark Land Company, LLC
P.O. Box 591
Marysville, CA 95991

7. PROPERTY OWNER:

Highmark Land Company

8. GENERAL PLAN DESIGNATION:

The site is designated Medium/Low Density Residential (MDR), which is proposed to be amended to Medium/High Density Residential (HDR). The MDR designation has a maximum allowed residential density of 14 dwellings per acre. The HDR designation will allow up to 36 dwellings per acre. The project as proposed will have a density of about 21.1 dwellings per acre.

9. ZONE DISTRICT:

The majority of the site is zoned Multiple-Family Residential (R-3) Zone District; the remainder is zoned Two-Family Residential (R-2) Zone District which is proposed to be rezoned to an R-3 Zone District, making the zoning consistent throughout the property and consistent with the General Plan.

10. PROJECT DESCRIPTION:

The proposal has several parts:

1. Amend the General Plan land use designation for the property from Medium-Low Density Residential to Medium-High Density Residential.

2. Amend the zoning for a portion of the property from and R-2 to an R-3 Zone District.

3. Construct a 172 unit multiple family apartment complex on the 8.14-acre property. This is an overall density of about 21.1 residences per acre. The project will consist of 16 three-bedroom units, 140 two-bedroom units and 16 one-bedroom units. The residences are spaced out among 12 buildings, each ranging from 8 to 24 units per building. Ten of the buildings will be two stories in height and there will be two 3-story buildings along the west side of the project.

Also included in the project is a 1,500 square foot clubhouse that is centrally located in the project. Overall the recreation/open space will be provided at an average of at least 200 square feet per residence, which meets the open space requirements of the Zoning Regulations.

There will be 357 parking spaces provided vs. the required 276 spaces. There will be a metal, open sided shade structure over 226 parking stalls and the remaining 131 parking stalls will be uncovered.

Access to the project will be by a single driveway off of Lincoln Avenue. The project will be gated.

Landscaping will be provided throughout the project. The uncovered parking stalls will be shaded in excess of the ordinance requirement (65% at 15 years versus the required 50 percent coverage).

11. SURROUNDING LAND USES & SETTING:

The project is located in southeast Yuba City in a primarily residential area that has both single-family and multiple-family uses nearby:

North: Lincoln Road with various businesses located across the street.

South: Single-family residential uses border the south property line. The single-family residences consist of a combination of one-story and two stories.

East: Mobile home park.

West: Two story apartments and a single-family residence are on the northerly portion of the west side. The single-family residence will take its access off the driveway that will serve the project. The remainder of the west side is lined with the former railroad right-of way (abandoned) and two story condominiums.

. **OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED**
(e.g. permits, financing approval, or participation agreement):

Feather River Air Quality Maintenance District (FRAQMD)
Sutter County Health Department

City of Yuba City
Development Services
Planning Division

Civic Center Blvd. Yuba City, CA

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Greenhouse Gases		Population/Housing
	Agricultural Resources		Hazards and Hazardous Materials		Public Services
X	Air Quality		Hydrology/Water Quality		Recreation
	Biological Resources		Land Use/Planning	X	Transportation/Traffic
X	Cultural Resources		Mineral Resources		Utilities and Service Systems
	Geology/Soils		Noise		Mandatory Findings of Significance

City of Yuba City
Development Services
Planning Division

Civic Center Blvd. Yuba City, CA Phone () -

Determination

On the basis of this initial evaluation:

I find that the proposed project Could Not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✓ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Written comments may be submitted to the Planning Division prior to the Planning Commission hearing, or at the Planning Commission hearing prior to the close of the public hearing.

Submit comments to:

Community Development
Planning Division
Civic Center Blvd.
Yuba City, CA

Initial Study Prepared by:

_____

Denis Cook, Planning Consultant to Yuba City.

The public hearing for this item is scheduled for December 23,2015, at 6:00 P.M. before the Planning Commission and will be held in the City Council Chambers located at 1201 Civic Center Blvd., Yuba City, California.

Evaluation of Environmental Impacts:

) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described below, may be cross referenced).

) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. In this case, a brief discussion should identify the following:

a) Earlier Analysis Used. Identify and state where they are available for review.

b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they addressed site-specific conditions for the project.

) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or

outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

Environmental Impacts and Discussion:

The following section presents the initial study checklist recommended by the California Environmental Quality Act (CEQA) to determine potential impacts of a project. Explanations of all answers are provided following each question and mitigation is recommended, as necessary.

I. AESTHETICS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				**X**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			**X**	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			**X**	

Response to Questions:

a) There are no officially designated scenic vistas in Yuba City; the project would therefore have no adverse effect on an official scenic vista. Three sides of the project are surrounded by existing development so will not be visible from a public location. Only the Lincoln Road side will be visible from the road.

b) The site is unremarkable in that it is flat with no topographic features, rock outcroppings, large heritage type trees or buildings in excess of fifty years old.

c) There is the potential for aesthetic impacts on the neighboring single-family residences located along the south boundary of the project and a mobile home park on the east side of the project as neighbors often perceive two story or higher buildings that adjoin them as objectionable. However, the potential impacts to the single-family residences from these neighboring apartments are mitigated through the design of the project. The nearest apartment buildings are two stories (vs. three stories in other locations) and are located 75 feet away (versus the minimum required distance is 35 feet) plus the distances to the residences that are on the property. The sides of the apartments that face the single-family residences have no windows

on those sides. Also, there will be a six-foot high masonry wall constructed along the property line and there is a 7-foot wide landscape stripe also proposed along the property line (ordinance minimum is five feet) that will have trees planted at 30 foot intervals and will be landscaped.

Regarding the mobile home park along the east side of the project, for the majority of the project the apartment buildings will be 72 feet or more from the property line, with the exceptions being a corner of Building E at the front of the property being 16 feet away and a corner of Buildings B and D at the southeast portion of the property at about 50 feet away (minimum of 5 feet required in both cases). There will also be a six-foot high masonry wall and a six-foot wide (five feet required) landscaping strip with trees at 30 foot intervals.

For both the south and east sides the additional building setbacks, masonry walls and added landscaping should reduce the visual impacts to less than significant.

The uses along the west side of the project are for the most part are similar to the proposal, plus there is or will be masonry walls constructed as well as landscaping and significant distance between the existing and proposed multiple family residences. The exception is an existing single-family residence that will remain and will be served by the driveway that serves the project. However, the distance between the residence and the proposed multiple-family residences is about 75 feet (five feet required). Therefore impacts to residential uses along the west side of the project are considered to be less than significant.

d) The project will have night lit parking along the south property line that could affect the single-family residences on the opposite side and lighting on the east side that could impact the residents of the mobile home park. However, the lighting is limited to 18 feet in height, which is much lower than standard street lighting that line the front of the homes. There will also be a six-foot masonry wall, trees and landscaping along the property line. Therefore the impact from project lighting is expected to be less than significant.

II. AGRICULTURAL RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide			**X**	

Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				**X**
c) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use?				**X**

Response to Questions:

a) The property is located on land that has a soil quality that could support agricultural uses. However, the site is well within the boundaries of the Yuba City urban area, and is surrounded by non-agricultural uses. The property (about 8.14 acres) is of to small a size to be economically farmed. Further, the City and Sutter County General Plans identify this area for urban development, as compared to the vast majority of Sutter County for which agricultural land is protected from urban growth (this was identified in the EIR's for both the Yuba City and Sutter County General Plans). Therefore, this apartment complex, and resulting development of this property will not create a significant impact regarding the loss of agricultural land.

b-c) The property is currently zoned for non-agricultural development; it is not zoned for agricultural uses nor is it under a Williamson Act contract. This is an urban infill project so no agricultural lands are near this property. Therefore this project will not result in the conversion of other agricultural properties to non-agricultural uses.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project?	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b) Violate any air quality standards or contribute substantially to an existing			**X**	

or projected air quality violation?				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			**X**	
d) Expose sensitive receptors to substantial pollutant concentrations?			**X**	
e) Create objectionable odors affecting a substantial number of people?				**X**

Response to Questions:

a-d) The State of California and the federal government have established ambient air quality standards for numerous pollutants, which are referred to as Criteria Pollutants. These standards are categorized as primary standards, designed to safeguard public health, or as secondary standards, intended to protect crops and to mitigate such effects as visibility reduction, soiling, nuisance, and other forms of damage. Air quality is also regulated through emissions limits for individual sources of criteria pollutants, i.e., ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter, and lead.

Pursuant to the California Clean Air Act, the state has adopted air quality standards for the criteria air pollutants that are generally more stringent than the federal standards, particularly for ozone and PM-2.5 (particulate matter, less than 2.5 microns in diameter). Also, the State has adopted ambient air quality standards for some pollutants for which there are no corresponding national standards.

Under the California Clean Air Act and amendments to the Federal Clean Air Act, the United States Environmental Protection Agency (EPA) and the State Air Resources Board are required to classify Air Basins, or portions thereof, as either "attainment" or "non-attainment" for each criteria air pollutant, based on whether or not the national and state standards have been met. Yuba City is located in the Northern Sacramento Valley Air Basin (NSVAB). The NSVAB consists of the northern half of the Central Valley. Air quality monitoring has been conducted in the NSVAB for recent years and the monitoring results have shown that the principal pollutants of the NSVAB, including Yuba City, are ozone and particulate matter.

The Feather River Air Quality Management District (FRAQMD) was created to administer local, state, and federal air quality management programs for Yuba and Sutter Counties. They reviewed this project and determined that due to its small size it does not trigger any specific air quality concerns. However, in order to reduce any possible impacts even further, the FRAQMD recommends that the project incorporate measures to prevent fugitive dust impacts during the construction phase(s) and that no wood burning fireplaces be installed unless they meet EPA certification. The following mitigation measures require that the project obtain a FRAQMD Fugitive Dust Control Plan prior to issuance of building permits and a limitation on fireplaces to

those that meet EPA standards.

Mitigation Measures

Air Quality Mitigation Measure 1: Prior to issuance of a building or grading permit obtain a FRAQMD approved Fugitive Dust Control Plan.

Air Quality Mitigation Measure 2: Any wood burning devices installed in the apartment complex shall meet EPA certification standards.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				**X**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				**X**
c) Have a substantial adverse effect on federally protected wetlands as defined by the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or				**X**

impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources?				**X**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				**X**

Response to Questions:

a) There has been no special status species identified on the site or within the vicinity of the project site. According to the Yuba City General Plan EIR, the only designated special status vegetation species within Yuba City and its Sphere of Influence is the Golden Sunburst, a flowering plant that occurs primarily in the non-native grasslands and is threatened mostly by the conversion of habitat to urban uses. The habitat area for this particular species occurs at the extreme eastern boundary of the Planning Area at the confluence of the Feather and Yuba Rivers. This property does not fall within this area, and no adverse impacts to special status species will occur as a result of this project.

b) As identified in the Yuba City General Plan EIR, there are no riparian habitats or any other sensitive natural communities within the vicinity of the project.

c) There are no federally protected wetlands within the vicinity of the property.

d) Because the project is surrounded by urban development, the proposed project will not interfere substantially with the movement of any native resident or migratory fish or wildlife corridors, or impede the use of native wildlife nursery sites.

e) There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or any other approved local, regional, or state habitat conservation plans within the project vicinity.

V. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical				**X**

resource as defined in §.?				
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §.?		**X**		
c) Directly or indirectly destroy unique paleontological resources or site or unique geologic features?			**X**	
d) Disturb any human remains, including those interred outside of formal cemeteries?		**X**		

Response to Questions:

a) The proposed project will not cause a substantial adverse change to a historical resource, as there are no structures on the site older than 50 years.

b-d) There are no known archaeological resources located on the site. Prior to urbanization the site was likely farmed. Because of the past ground disturbance, it is unlikely that any paleontological or archeological artifacts exist in the area. However, the following mitigation measure will be placed on the project:

Mitigation Measure

Cultural Resources Mitigation Measure 1: Should artifacts or unusual amounts of bone or shell be uncovered during demolition or construction activity, all work shall be stopped and a qualified archeologist shall be contacted for on-site consultation. Avoidance measures or appropriate mitigation shall be completed according to CEQA guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archeological Resource Management Reports, which shall be used for guidelines. If the bone appears to be human, California law mandates that the Sutter County Coroner and the Native American Heritage Commission be contacted.

VI. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake			**X**	

Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault?				
ii) Strong seismic ground shaking?			**X**	
iii) Seismic-related ground failure, including liquefaction?			**X**	
iv) Landslides?				**X**
b) Be located on a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				**X**
c) Be located on expansive soil, as defined in the California Building Code creating substantial risks to life or property?				**X**
d) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				**X**

Response to Questions:

a-b) No active earthquake faults are known to exist in Sutter County, although active faults in the region could produce motion in Yuba City. However, potentially active faults do exist in the Sutter Buttes but those faults are considered small and have not exhibited activity in recent history.

In the event of a major regional earthquake, fault rupture or seismic ground shaking could potentially injure people and cause collapse or structural damage to existing and proposed structures. Ground shaking could potentially expose people and property to seismic-related hazards, including localized liquefaction and ground failure. All new structures are required to adhere to current California Building Code standards. These standards require adequate design, construction and maintenance of structures to prevent exposure of people and structures to major geologic hazards. General Plan Implementing Policies reduce impacts to less than significant.

According to the Environmental Impact Report prepared for the General Plan, due to the flat topography erosion, landslides, and mudflows are not considered to be a significant risk in the City limits or within the Urban Growth Boundary.

c) The extreme southwest corner of the Yuba City Growth Boundary is the only known area with expansive soils. The project site is not located within this area and therefore will not be

impacted by the presence of expansive soils.

d) The project will not require the use of septic tanks or alternative wastewater disposal systems.

VII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				**X**

Response to Questions:

a-b) Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, similar to a greenhouse. The accumulation of GHGs has been implicated as a driving force for Global Climate Change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the climate caused by natural fluctuations and the impact of human activities that alter the composition of the global atmosphere. Both natural processes and human activities emit GHGs. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, the vast majority of the scientific community now agrees that there is a direct link between increased emission of GHGs and long-term global temperature. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. GHG impacts are considered to be exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA).

The project would generate what would be considered a significant amount of GHG if project-related GHG emissions were high enough to be considered a major source by CARB. However, due to the small size of this project, it would not be classified as a major source of greenhouse gas emissions by CARB. Therefore this impact would be considered less than significant.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				**X**
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section and, as a result, would create a significant hazard to the public or the environment?				**X**
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			**X**	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				**X**
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**

Response to Questions:

a-c) The only hazardous materials associated with this project will be those materials associated with construction activities such as solvents, oil and fuel. Provided that legal and proper use and storage is utilized for these materials in accordance with adopted laws, the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of these hazardous materials.

d) The site is not listed on any listings of sites that are contaminated by hazardous wastes.

e) The project is located within two miles of the Sutter County Airport and the Yuba County Airport. Regarding the Yuba County Airport, the project is on the fringe of the two-mile airport influence zone. Within that two-mile area there are six safety zones as well as a large area beyond the safety zones considered to be a review area. Each of the six safety zones has a lessening degree of restrictions, with Zone 6, the Traffic Pattern Zone, the most distant from the runway, being the least restrictive. The project site is in the review area but is well beyond Zone 6. Since Zone 6 has no limitations on residential intensity of use, the project site similarly has no limitations. Therefore there should be no potential for any significant impacts from the Yuba County Airport onto this site or visa versa.

Regarding the Sutter County Airport there are three safety zones, with Zone 3, the Overflight Zone, the most distant from the runway, being the least restrictive. The Overflight Zone is defined as being outside of Safety Zones 1 and 2, but within 5,000 feet of the runway. It is the area overflown by aircraft during normal operations and has a 150-foot height limit above the ground surface. The project is within the Overflight Zone. According to the Land Use Compatibility Guidelines for Safety, multiple-family uses are permitted without density limitations within the Overflight Zone, excepting the 150-foot height limit. The project is well under the 150-foot height limit. Therefore since the project is under the 150-foot height limit, and there are no density restrictions for multiple-family uses, there should be no potential for any significant impacts from the Sutter County Airport onto this site or visa versa.

f) There are no private airstrips located within City limits or the Urban Growth Boundary.

g) The proposed project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Neither the Police or Fire Departments expressed concern over the impacts on any emergency response plans.

IX. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards			**X**	

or waste discharge requirements?				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table?			**X**	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in flooding on- or off-site?			**X**	
d) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted water?			**X**	
e) Otherwise substantially degrade water quality?			**X**	
f) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				**X**
g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				**X**
h) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			**X**	

Response to Questions:

a) The proposed project will not violate any water quality or wastewater discharge requirements. Any runoff associated with construction is addressed in part through General Plan Implementing Policies which require a wide range of developer and City actions involving coordination with the State Regional Water Quality Control Board, protecting waterways, and following Best Management Practices for new construction. Conditions applied to the project require implementation of the Storm Water Pollution and Prevention Plan (SWPPP) through the use of Best Management Practices and maintaining the SWPPP. The project will have the following conditions of approval requested by the Public Works Department that will reduce construction-related impacts to a less-than significant level:

- Temporary silt fencing shall be erected during construction so that transport of construction

debris is reduced and will be retained on-site.

- To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto a paved street from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. Alternatively, a gravel bed may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.
- Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.

b) The project will be served by the City water system, which primarily uses surface water. The City has concluded that it has adequate surface water entitlements from the Feather River, and adequate groundwater supplies are available as a back up, as well as treatment/distribution capacity to accommodate any need associated with the project. The project will be required to pay all applicable fees prior to connecting to City water. The reduced groundwater recharge that could result from the additional impermeable surfaces associated with this project will not be significant due to the small size of the project.

c) The project will drain into the established drainage system located in Lincoln Road, that flows into the Gilsizer Slough, which is managed by the Gilsizer Drainage District. There will also be an on-site storm-water retention system installed that will accommodate an 86th percentile storm (about a two year storm). Therefore the proposed project will not substantially alter the existing drainage pattern of the site or the area. As noted above, all construction must involve use of Best Management Practices and site improvements to collect storm water runoff from the site and help reduce any off-site drainage from occurring other than into the designed drainage system.

d) The existing Gilsizer drainage system was designed and improved to accommodated storm water drainage from the entire area, including this property. Therefore, the proposed project will not create or contribute runoff water that would exceed the capacity of the existing storm water drainage system or provide substantial additional sources of polluted water. The drainage facilities within this area were designed with the assumption that this property would be developed with impermeable surfaces. The project will pay fees to the Gilsizer Drainage District to pay for its fair-share of the use of the drainage system.

The fact that the site is also requesting a general plan amendment and rezoning from commercial to residential will not significantly change the amount of impermeable surface area expected from a small property.

e) The proposed project will not substantially degrade water quality. As noted under item a) above, site development will be required to adhere to the General Plan Implementing Policies cited to ensure that water quality degradation does not occur.

f-h) According to the Federal Emergency Management Agency, Yuba City is considered to be outside of the 100-year flood plain. It is classified as such because of an extensive series of levees and dams along the Feather and Yuba Rivers, which protect the city from potential flooding from river overflow. Recent and ongoing levee improvements will ultimately provide 200-year flood protection from the nearby river systems. Local drainage improvements, principally the Gilsizer

Slough, provide drainage of storm water within much of urban area that prevents localized flooding.

X. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				**X**
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			**X**	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Response to Questions:

a) The project, by its nature, will not physically divide an established community. Instead, it is an infill project for new residences that will be located within an existing residential area.

b) A General Plan amendment and rezoning for this property is requested by the applicant to permit multiple-family residential uses and increase the allowable density of the residential uses for the project. The existing land use designation of Medium-Low Density Residential does not allow multiple-family residential uses, and allows only up to 14 residences per acre. The proposed change to a Medium-High Density Residential designation allows multiple-family residences at density of up to 36 residences per acre. This project is proposed to be mid-way in that range at approximately 21.1 residences per acre.

Amending the allowable land uses to permit a multiple-family use and the increase in density does have the potential to cause additional impacts from increased traffic, impacts on the neighbors, etc. This initial study addresses those physical impacts in the other sections of this study. In regards to the project conflicting with City codes, without the proposed amendments the project would conflict with both the General Plan and Zoning Regulations. However, if the proposed general plan and zone changes are completed, the project will not conflict with the General Plan or the Zoning Regulations. The project is required to meet all other City codes, i.e.

building codes, fire codes.

c) There are currently no adopted habitat conservation plans or natural community conservations plans within City limits or the Urban Growth Boundary.

XI. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				**X**
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				**X**

Response to Questions:

a-b) The proposed project is not expected to impact mineral resources. The project site has no known mineral resource value nor is there opportunity for mineral resource extraction. Since the site is surrounded by residential development a mining activity approved by the City on this site would be very unlikely.

XII. NOISE

Would the project result in:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**	
b) Exposure of persons to or generation			**X**	

of excessive ground borne vibration or ground borne noise levels?				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			**X**	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				**X**
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				**X**

Response to Questions:

a-d) The proposed multiple-family residences are generally not considered to be significant noise generators. Also, the project's design of placing buildings distant from existing single-family and mobile home residences and the use of masonry perimeter walls will further reduce any noise impacts. Therefore there are not expected in any significant way to raise the ambient noise levels in the surrounding residential neighborhood. In other words, adding new residences to a residential area is not expected to create any significant noise impacts.

Short-term noise impacts (and possibly some ground borne vibrations if site compaction is required prior to construction) can be expected resulting from site grading and construction activities. Construction-related noise impacts will be less than significant because adherence to City construction standards is required. These standards limit the hours of operation for construction and use of heavy machinery to daytime hours. Further the construction noise is of limited duration, further limiting any adverse impacts.

e) The project is located within two miles of the Sutter County Airport and the Yuba County Airport. Regarding the Yuba County Airport, the project is on the fringe of the two-mile airport influence zone. Within that two-mile area, there are airport noise contours, which go down to 55 dB CNEL level. The project is well outside of that lowest noise contour, therefore there should be no potential for any significant impacts from the Yuba County Airport onto this site.

Regarding the Sutter County Airport, the project is also outside of any noise contours created by the airport. Therefore since the project is not impacted by airport noise, there should be no potential for any significant impacts from the Sutter County Airport onto this site.

f) There are no private airstrips in Yuba City.

XIII. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				**X**
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				**X**
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				**X**

Response to Questions

a) The proposed project will not induce substantial population growth in an area, since the area is already designated by the General Plan for residential development. It will, however, bring more growth than was anticipated by the General Plan due to the proposed general plan amendment that will increase the anticipated residential densities. Under the existing MDR general plan designation the site would accommodate a maximum of 114 residences (at 14 residences per acre). The project under the proposed general plan amendment will permit the proposed 172 residences, an increase of 58 residences. The impacts associated with this increase in density are addressed in other sections of this study, including traffic, noise, aesthetics, etc. All of those impacts are found to be not significant or mitigations are provided that reduce the impacts to less than significant.

The increase in intensity and the associated construction of the proposed apartment complex is not expected to induce other development in the area. Most of the surrounding area is already built out, and this project will not bring any services to the area that did not previously exist and may have otherwise limited growth in the area.

b-c) As part of the project two single-family residences will be removed. Considering the overall size of the City, it is not expected that the removal of these residences will cause the need for replacement housing, especially considering that 172 residences will replace the houses.

XIV. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?			**X**	
ii) Police protection?			**X**	
iii) Schools?			**X**	
iv) Parks?			**X**	
v) Other public facilities?			**X**	

Response to Questions:

ai-ii) The project site is currently located in the City and is served by the Yuba City Police and Fire Departments. The Yuba City Police Department and Fire Department each received project plans and did not comment on the project. Other than the incremental growth this project brings, the project will not result in any additional need for police or fire protection. The City development impact fees mitigate the incremental change.

aiii) This project will not result in any additional direct need for educational services. The school development impact fees for residences mitigates the incremental increase of new students living in the multiple-family housing.

aiv-v) This project will not result in any direct additional need for parks or other public facilities. The development impact fees collected for new or expanded parks and other City services mitigate the incremental increase in park usage caused by new residences.

XV. RECREATION

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			**X**	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			**X**	

Response to Questions:

a) The 172 new residences that will be constructed as a result of the River's Edge Apartment project will incrementally increase the use of City parks. However, development impact fees for parks and recreation facilities will be paid for each new residence. These fees are utilized for new or expanding City parks and will mitigate any incremental impacts on recreational facilities. Also, the project will provide limited on-site recreation by providing at least 200 square feet of open space per residence, including a 1,500 square foot clubhouse.

b) The River's Edge Apartment complex will have a 1,500 square foot clubhouse and limited open space areas, but this is not expected to mitigate the need for other park space. The park and recreation impact fees mentioned in a) above will mitigate the incremental increase in park use caused by this project to a less than significant level.

XVI. TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		**X**		
b) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
c) Result in inadequate emergency access?			**X**	
d) Result in inadequate parking capacity?				**X**
e) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				**X**

Response to Questions:

a) The proposed 172-unit apartment complex also includes a General Plan Amendment that will change the land use designation, which will intensify the anticipated residential density of the site. As a result the City requested the applicant to have prepared a Traffic Impact Study (See attached Appendix for the full traffic study that was prepared for this project) to determine if the proposed apartments created any potentially significant impacts on the street system. The study included impacts on six nearby intersections:

- State Route 99/Lincoln Road
- Lincoln Road/Jones Road
- Lincoln Road/Bunce Road
- Lincoln Road/Railroad Avenue
- Lincoln Road/new access to the site (T intersection)
- Lincoln Road/Garden Highway.

The traffic study also disaggregated the directions of travel that the new vehicle trips will take in and out of the apartment complex on the various roads, as shown in Table 1.

TABLE 1
TRIP DISTRIBUTION ASSUMPTIONS

DIRECTION	ROUTE	PERCENT OF TOTAL
	SR 99	18%
	Jones Road	1%

North	Bunce Road	8%
	Railroad Avenue	4%
	Garden Highway	39%
West	Lincoln Road beyond SR 99	11%
South	SR 99	4%
	Jones Road	3%
	Railroad Avenue	1%
	Garden Highway	11%
Total		**100%**

The traffic study forecasts that the proposed apartments will generate approximately 1,139 new vehicle trips per day at build-out (the assumption of 6.62 vehicle trips per residence per day is based on national averages for multiple-family residences). Of those, approximately 88 trips will be generated in the a.m. peak hour and 107 will be generated in during the p.m. peak hour.

Project Impacts on Existing Traffic

To summarize the traffic study results, based on present traffic levels, the additional traffic generated by the project will not create any significant impacts on existing traffic at the six intersections during the a.m. or p.m. peak hour. The additional a.m. and p.m. peak hour traffic delays caused by the project versus existing traffic levels would cause additional delays of between less than one second and up to four seconds at each intersection. Using the City adopted criteria for these conditions, none of these delays was considered significant. Therefore no mitigations were needed for the project's impacts on the existing street conditions. None of the un-signaled intersections need to be signalized due to this project nor are their levels of service degraded to below accepted levels. This includes unsignalized intersections of Lincoln Road/Jones Road, Lincoln Road/Bunce Road and Lincoln Road/Railroad Avenue. The signalized intersections of Lincoln Road/SR 99 and Lincoln Road/Garden Highway will also remain at their present levels of service.

Cumulative Longer Term Traffic Impacts

The traffic study also considered the impacts the project would have on these intersections over the long-term, considered to be "cumulative" impacts. The cumulative impact review considers this project, the existing traffic conditions and adds the long-term growth of the City. As a result there are some potentially significant traffic impacts created by the project.

The traffic study indicates that the un-signalized intersections of Lincoln Road/Jones Road, Lincoln Road/Bunce Road and Lincoln Avenue/Railroad Avenue will have to be signalized at some point in the future. It also concluded that the Lincoln Road/Garden Highway signalized intersection would need additional improvements in order to stay within an acceptable level of service. The SR 99/Lincoln Road intersection will not need further improvements based on this cumulative impact study.

Because this project does not create all of the new traffic that will impact these intersections, and because the needed improvements will not be needed for years into the future, the project can only be required to pay its "fair share" of the costs for the new signals. Table 2 provides the

rational for determining the project's fair share costs. With the mitigation measures provided below, the potential cumulative traffic impacts from this project are reduced to below a level of significance.

TABLE 2 FAIR SHARE CALCULATIONS					
Location	**PM Peak Hour Volume**				**Fair Share**
	Existing	**Project Alone**	**Cumulative Plus Project**	**Net Growth**	
Lincoln Rd / Jones Rd	1,213	39	2,519	1,306	3.0%
Lincoln Rd / Bunce Rd	1,051	49	2,336	1,285	3.8%
Lincoln Rd / Railroad Ave	1,206	52	2,458	1,252	4.2%
Lincoln Rd / Garden Hwy	1,776	53	3,672	1,896	2.8%
Based on 172 dwelling units					

Project access from Lincoln Road

The sole access into the project will be a driveway onto Lincoln Road. The traffic study reviewed the need for a left turn pocket for westbound Lincoln Road traffic that turns left into the project. The study concludes that the need for the turn lane does not meet the threshold of significance for existing traffic levels, but that the left turn lane would be justified by the time the project is completed. A mitigation measure is proposed that a westbound left turn lane be provided on Lincoln Road in the initial phase of the project. Signalization of that turn lane is not needed.

Mitigation Measures Needed to Reduce the Impacts to Less than Significant

The traffic study provides mitigation measures that can be applied to the project that will reduce the project's long-term impacts to a level of less than significant. They are:

> **Traffic Mitigation Measure 1**: Construct a westbound left turn lane along Lincoln Road. The total length for the turn lane shall be at least 80.0 feet. Improvements are to include all necessary striping, markings, & signage. In addition, the contractor is to place a CalTrans Polymer-modified Type II slurry the full width of Lincoln Road at a length determined by the Public Works Department to adequately facilitate improvements.

Mitigations for the project's proportionate share of traffic signal mitigation fees (as outlined in the Traffic Impact Analysis for the Aztec Developers; prepared by KD Anderson & Associates, Inc.; dated November 16, 2015) shall be paid prior to issuance of the first certificate of occupancy for the apartments as summarized below:

> **Traffic Mitigation Measure 2:** To mitigate the impacts from the project on the intersection of Lincoln Road and Jones Road the developer shall contribute 3.0% of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $11,190.00

Traffic Mitigation Measure 3: To mitigate the impacts from the project on the intersection of Lincoln Road and Bunce Road the developer shall contribute 3.8% of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $14,174.00.

Traffic Mitigation Measure 4: To mitigate the impacts from the project on the intersection of Lincoln Road and Railroad Avenue the developer shall contribute 4.2% of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $15,666.00.

Traffic Mitigation Measure 5: To mitigate the impacts from the project on the intersection of Lincoln Road and Garden Highway the developer shall contribute 2.8% of the total cost for improvements (new traffic signal hardware and rewiring of existing signal) at this intersection. This project's proportional amount is $560.00.

The impacts caused by the 172 new residences on streets on a citywide basis (beyond these six intersections) is mitigated by the adopted development impact fees for roads that will be paid by the project that are in addition to the costs discussed above.

b) Based on the traffic study discussed in part a) above, there are no dangerous intersections near this project. Of particular note is the left turn movement from westbound Lincoln Road traffic into the apartment complex driveway. The traffic study indicated that it is not necessary but would be needed in the future when more citywide growth increases traffic levels. Traffic Mitigation Measure 1 requires that an 80 foot long left turn lane be constructed as part of the project.

c) The Fire Department and Police Departments have reviewed the project plans and did not express concerns about emergency access to the property. In particular to the single entrance into the project, the Fire Department has determined that it meets all City standards.

d) The project will have adequate parking. There are 357 parking spaces proposed with 276 spaces required, which includes spaces required for the residences and required guest spaces. This results in an excess of 81 parking spaces.

e) The traffic study considered nearby pedestrian, bus and bicycle routes. Sidewalks presently serve most of the area, and eventually sidewalks will be completed throughout the area, so pedestrian access is considered adequate. Yuba-Sutter Transit provides public transportation in Yuba City. There are four bus routes within the City, and two of those routes pass by the project, with nearby stops. The transit service is not at capacity so public transit from the project is considered good. Regarding bicycle routes, both Lincoln Avenue and Railroad Avenue have Class II bike routes.

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Potentially Significant Unless	Less Than Significant Impact	No Impact

		Mitigation Incorporated		
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			**X**	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			**X**	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			**X**	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projected demand in addition to the existing commitments?			**X**	
f) Be served by a landfill with sufficient permitted capacity to accommodate the solid waste disposal needs?			**X**	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			**X**	

Response to Questions:

a-e) The proposed apartments have been evaluated by the Yuba City Public Works Department. They have concluded that the City has adequate water entitlements and treatment/distribution capacity in its water treatment plant; that Yuba City has adequate wastewater collection and wastewater treatment plant capacity; and that the City storm-water collection system and the Gilsizer Slough has adequate capacity to receive the anticipated storm-water. The project applicant will be required to pay all applicable connection fees prior to hooking up to City utilities, which mitigates impacts on all of the City facilities.

f-g) Yuba-Sutter Disposal, Inc. provides solid waste disposal for the area. There is adequate collection and landfill capacity to accommodate the proposed multiple-family housing.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

Does the Project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important example of the major periods of California history or prehistory?			**X**	
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)		**X**		
c) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			**X**	

a) The project site is in an urbanized area with little biological value. Due to the project's location within the urban area the proposed project will not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate an important example of the major periods of California history or prehistory.

b) The project could create a situation with limited individual but cumulatively considerable

impacts that can be considered significant. This is primarily true for the traffic that will be generated by the project. But with the mitigations proposed, the impacts will be reduced to a level of less than significant.

c) The proposed project will create no significant adverse impacts, either directly or indirectly, to residents in the project area. The design of the apartment complex, including significant additional building setbacks and restricting windows from facing towards the existing residents, will minimize any impacts on the neighbors.

Documents Referenced in the Initial Study and/or Incorporated by Reference

The following documents were used to determine the potential for impacts from the proposed project. Compliance with federal, state and local laws is assumed in all projects.

Traffic Impact Analysis for the River's Edge Apartments, prepared by KD Anderson & Associates, Inc., November 16, 2015.

Letter re: Apartment complex from the Feather River Air Quality Control District, November 9, 2015.

Discussion with Ben Moody and Sharon Lydon, Yuba City Public Works staff, regarding the availability of City services to the site, November 30, 2015.

Yuba City General Plan.

Sutter County General Plan.

Yuba City Zoning Regulations.

Feather River Air Quality Management District (FRAQMD) CEQA Significance Thresholds.

Yuba Sutter Transit Route Map.

California Department of Conservation, California Geological Survey. "Fault Zone Activity Map." Alquist-Priolo Earthquake Fault Zones.

California Department of Toxic Substances Control – database.

California Department of Conservation, division of Land Resource Protection Farmland Mapping and Monitoring Program – Sutter County Important Farmland Map.

Federal Emergency Management Agency (FEMA), Flood Insurance Rate Maps.

City of Yuba City Water Master Plan.

City of Yuba City Wastewater Master Plan.

Sutter County Airport Comprehensive Land Use Plan, April, 1994.

Yuba County Airport Land Use Compatibility Plan, Sept., 2010.

APPENDIX

Traffic Impact Analysis

City of Yuba City
MITIGATION MEASURES AND MONITORING PLAN
River's Edge Apartments
General Plan amendment 15-01, Rezoning 15-02, Development Plan Review 15-01
Initial Study and Mitigated Negative Declaration EA 15-05

Impact.≥	Mitigation Measure	Responsible Party	Timing
V. Cultural Resources	**Cultural Resources 1:** Should artifacts or unusual amounts of bone or shell be uncovered during demolition or construction activity, all work shall be stopped and a qualified archeologist shall be contacted for on-site consultation. Avoidance measures or appropriate mitigation shall be completed according to CEQA guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archeological Resource Management Reports, which shall be used for guidelines. If the bone appears to be human, California law mandates that the Sutter County Coroner and the Native American Heritage Commission be contacted.	Developer, Public Works Dept., Community Development Dept.	During construction phase
III. Air Quality	**Air Quality 1**: Prior to issuance of a building or grading permit obtain a FRAQMD approved Fugitive Dust Control Plan. **Air Quality 2**: Any wood burning devices installed in the apartment complex shall meet EPA certification requirements.	Feather River Air Quality Management District	Prior to issuance of building permits.
XVI. Transportation and Traffic	**Traffic 1**: Construct a westbound left turn lane along Lincoln Road. The total length for the turn lane shall be at least 80.0 feet. Improvements are to include all necessary striping, markings, & signage. In addition, the contractor is to place a CalTrans Polymer-modified Type II slurry the full width of Lincoln Road at a length determined by the Public Works	Public Works Department	Work to be completed prior to issuance of first certificate of occupancy.

	Department to adequately facilitate improvements. **Traffic 2:** To mitigate the impacts from the project on the intersection of Lincoln Road and Jones Road the developer shall contribute 2.6% of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $9,698.00. **Traffic 3:** To mitigate the impacts from the project on the intersection of Lincoln Road and Bunce Road the developer shall contribute 3.8% of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $14,174.00. **Traffic 4**: To mitigate the impacts from the project on the intersection of Lincoln Road and Railroad Avenue the developer shall contribute 4.2% of the total cost for the installation of a traffic signal at this intersection. This project's proportional amount is $15,666.00. **Traffic 5:** To mitigate the impacts from the project on the intersection of Lincoln Road and Garden Highway the developer shall contribute 2.8% of the total cost for improvements (new traffic signal hardware and rewiring of existing signal) at this intersection. This project's proportional amount is $560.00.		Fees to be paid prior to issuance of building permits.

TRAFFIC IMPACT ANALYSIS

FOR THE

RIVER'S EDGE APARTMENTS

Yuba City, California

Prepared For:

Aztec Developers
469 Century Park Drive
Yuba City, CA

Prepared By:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

November 16, 2015

Job No. 0660-02

Rivers Edge Apartments Yuba City.rpt

TRAFFIC IMPACT ANALYSIS FOR THE
RIVER'S EDGE APARTMENTS
Yuba City, California

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November 16, 2015

KDA

TRAFFIC IMPACT ANALYSIS FOR THE
RIVER'S EDGE APARTMENTS
Yuba City, California

INTRODUCTION

This report documents **KD Anderson & Associates'** analysis of the traffic impacts associated with the **River's Edge Apartments** in the City of Yuba City, California. This assessment of traffic impacts has been required by the City of Yuba City, and per City staff direction addresses project impacts within the context of all transportation modes. The analysis addresses both current and future background conditions at key intersections providing access to the site and assesses traffic impacts based on adopted General Plan standards for significance. The analysis also describes the project's impact to pedestrian, bicycle and transit facilities.

Project Description

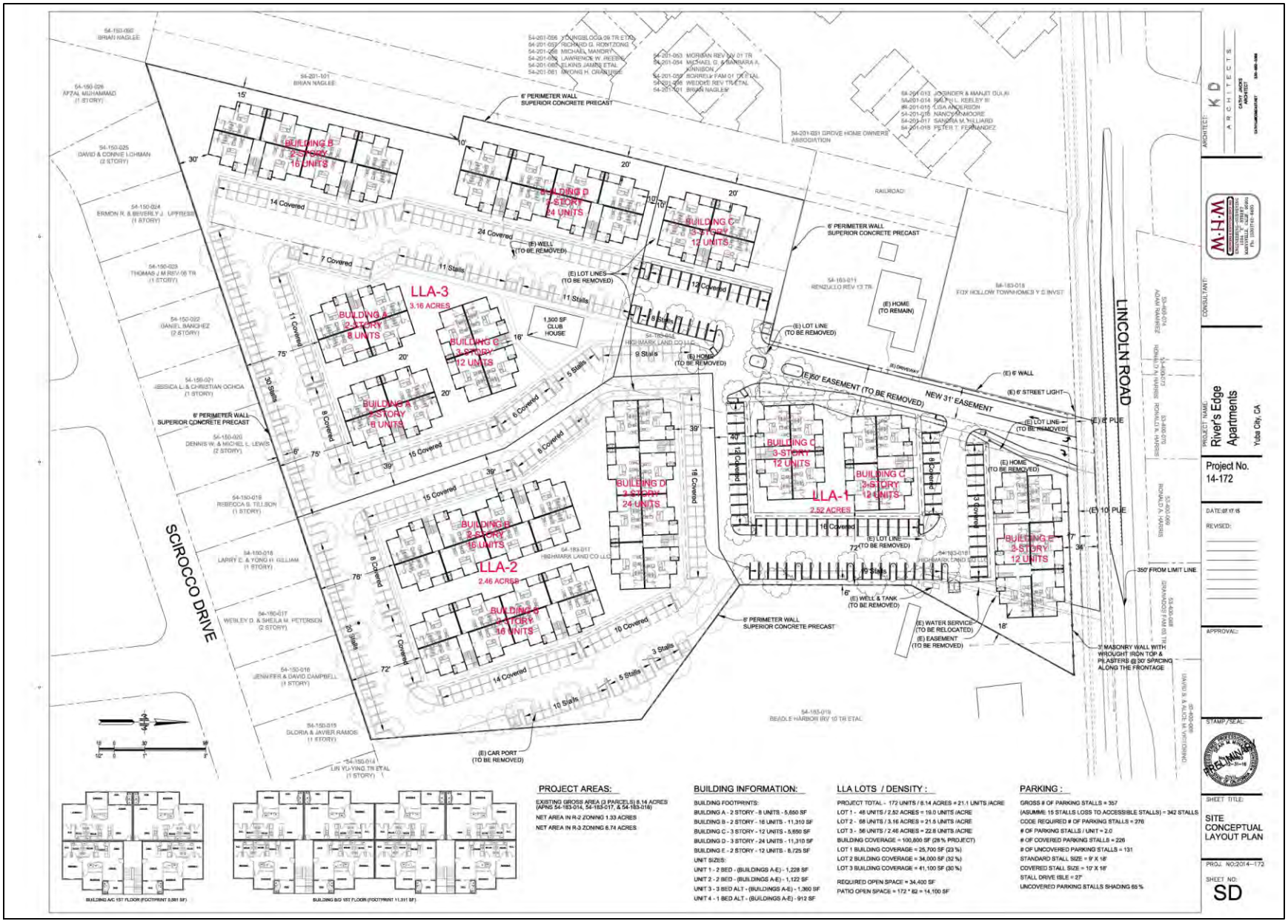
The River's Edge Apartments project will develop 172 residential units on a site located south of Lincoln Road and west of Garden Highway, as noted in Figure 1 (Vicinity Map). Vehicular access to the site will be created at a new driveway on Lincoln Road roughly 550 feet west of the Garden Highway intersection, as noted in Figure 2 (Site Plan).

VICINITY MAP

KD Anderson & Associates, Inc.
Transportation Engineers

0660-02 LT 11/16/2015

figure 1


SCIROCCO DRIVE
LINCOLN ROAD
LLA-1
2.52 ACRES
LLA-2
2.46 ACRES
LLA-3
3.16 ACRES
BUILDING A
2-STORY
8 UNITS
BUILDING B
2-STORY
16 UNITS
BUILDING C
3-STORY
12 UNITS
BUILDING D
3-STORY
24 UNITS
BUILDING E
2-STORY
16 UNITS
1,500 SF CLUB HOUSE
6' PERIMETER WALL SUPERIOR CONCRETE PRECAST
(E) WELL (TO BE REMOVED)
(E) LOT LINES (TO BE REMOVED)
(E) LOT LINE (TO BE REMOVED)
(E) HOME (TO BE REMOVED)
(E) HOME (TO REMAIN)
(E) 30' EASEMENT (TO BE REMOVED)
NEW 31' EASEMENT
(E) 6' WALL
(E) 6' STREET LIGHT
(E) 6' PUE
(E) 10' PUE
(E) WELL & TANK (TO BE REMOVED)
(E) WATER SERVICE (TO BE RELOCATED)
(E) EASEMENT (TO BE REMOVED)
(E) CAR PORT (TO BE REMOVED)
350' FROM LIMIT LINE
3' MASONRY WALL WITH WROUGHT IRON TOP & PILASTERS @ 30' SPACING ALONG THE FRONTAGE
RAILROAD
54-201-031 GROVE HOME OWNERS' ASSOCIATION
54-163-011 RENZULLO REV 03 TR
54-163-018 FOX HOLLOW TOWNHOMES Y D INVST
54-163-017 HIGHMARK LAND CO LLC
54-150-025 DAVID & CONNIE LOHMAN (2 STORY)
54-150-026 AFZAL MUHAMMAD (1 STORY)
54-150-024 ERMON R. & BEVERLY J. UPTREGE (1 STORY)
54-150-023 THOMAS J M REV 06 TR (1 STORY)
54-150-022 DANIEL SANCHEZ (2 STORY)
54-150-021 JESSICA L. & CHRISTIAN OCHOA (1 STORY)
54-150-020 DENNIS W. & MICHEL L. LEWIS (2 STORY)
54-150-019 REBECCA S. TILLSON (1 STORY)
54-150-018 LARRY C. & YONG H. GILLIAM (1 STORY)
54-150-017 WESLEY D. & SHEILA M. PETERSEN (2 STORY)
54-150-016 JENNIFER A DAVID CAMPBELL (1 STORY)
54-150-015 GLORIA & JAVIER RAMOS (1 STORY)
54-150-014 LIN YU-YING TR ETAL (1 STORY)
54-201-101 BRIAN NAGLEE
PROJECT AREAS:
EXISTING GROSS AREA (2 PARCELS) 8.14 ACRES (APNS 54-163-014, 54-163-017, & 54-163-018)
NET AREA IN R-2 ZONING 1.33 ACRES
NET AREA IN R-3 ZONING 6.74 ACRES
BUILDING INFORMATION:
BUILDING FOOTPRINTS:
BUILDING A - 2 STORY - 8 UNITS - 5,650 SF
BUILDING B - 2 STORY - 16 UNITS - 11,310 SF
BUILDING C - 3 STORY - 12 UNITS - 5,650 SF
BUILDING D - 3 STORY - 24 UNITS - 11,310 SF
BUILDING E - 2 STORY - 12 UNITS - 8,725 SF
UNIT SIZES:
UNIT 1 - 2 BED - (BUILDINGS A-E) - 1,228 SF
UNIT 2 - 2 BED - (BUILDINGS A-E) - 1,122 SF
UNIT 3 - 3 BED ALT - (BUILDINGS A-E) - 1,360 SF
UNIT 4 - 1 BED ALT - (BUILDINGS A-E) - 912 SF
LLA LOTS / DENSITY :
PROJECT TOTAL - 172 UNITS / 8.14 ACRES = 21.1 UNITS /ACRE
LOT 1 - 48 UNITS / 2.52 ACRES = 19.0 UNITS /ACRE
LOT 2 - 68 UNITS / 3.16 ACRES = 21.5 UNITS /ACRE
LOT 3 - 56 UNITS / 2.46 ACRES = 22.8 UNITS /ACRE
BUILDING COVERAGE = 100,800 SF (28% PROJECT)
LOT 1 BUILDING COVERAGE = 25,700 SF (23%)
LOT 2 BUILDING COVERAGE = 34,000 SF (32%)
LOT 3 BUILDING COVERAGE = 41,100 SF (30%)
REQUIRED OPEN SPACE = 34,400 SF
PATIO OPEN SPACE = 172 * 82 = 14,100 SF
PARKING :
GROSS # OF PARKING STALLS = 357
(ASUMME 15 STALLS LOSS TO ACCESSIBLE STALLS) = 342 STALLS
CODE REQUIRED # OF PARKING STALLS = 276
OF PARKING STALLS / UNIT = 2.0
OF COVERED PARKING STALLS = 226
OF UNCOVERED PARKING STALLS = 131
STANDARD STALL SIZE = 9' X 18'
COVERED STALL SIZE = 10' X 18'
STALL DRIVE ISLE = 27'
UNCOVERED PARKING STALLS SHADING 65 %
ARCHITECT:
K D ARCHITECTS
CONSULTANT:
M·H·M
PROJECT NAME:
River's Edge Apartments
Yuba City, CA
Project No. 14-172
DATE: 07/7/15
REVISED:
APPROVAL:
STAMP / SEAL:
PRELIMINARY
SHEET TITLE:
SITE CONCEPTUAL LAYOUT PLAN
PROJ. NO: 2014-172
SHEET NO:
SD

SITE PLAN

EXISTING SETTING

This report section describes the facilities that are available today serving vehicular, pedestrian and bicycle traffic and transit users in southern Yuba City, as well as General Plan policies that guide consideration of traffic impacts.

Study Area Circulation System - Roads

Regionally, the River's Edge Apartments will be served by major City streets that link the site with important state highways. State Route 20 (SR 20) and State Route 99 (SR 99) connect Yuba City with the balance of Sutter County and with Butte County to the north, Sacramento County to the south and Yuba County to the east. In the area of the proposed project, access to SR 99 occurs at signalized intersections on Lincoln Road west of the project site and on Garden Highway to the south. SR 20 (Colusa Highway through Yuba City) can be reached via SR 99 and via north-south streets such as Clark Avenue and 2nd Street.

The text which follows provides additional detail regarding the streets included in the study area.

State Route 99 is a major north-south facility that extends from a junction on I-5 in Kern County northerly through the Central-San Joaquin Valley through Sacramento and on across Sutter County to its terminus on SR 36 in Tehama County. In the vicinity of the proposed project SR 99 is a four lane limited access expressway.

Traffic volume information collected by Caltrans indicated that SR 99 carries an Annual Average Daily Traffic (AADT) volume of 23,200 vehicles per day south of the Lincoln Road intersection and 29,000 AADT north of Lincoln Road. Trucks comprise 10% of the daily traffic volume reported on SR 99.

Lincoln Road is an east-west arterial street which traverses southern Yuba City and Sutter County. Lincoln Road begins at an intersection on Clements Road in rural Sutter County and continues easterly for nearly seven miles across SR 99 to its terminus on Garden Highway. Today Lincoln Road is generally a two lane facility with a continuous Two-Way Left-Turn (TWLT) lane in the area west of the project, but portions of the road have been widened to its ultimately planned four lane section as development has occurred. Along the project frontage Lincoln Road has two eastbound through lanes and one westbound through lane. Lincoln Road has standard urban improvements (curb, gutter and sidewalk) in locations where development has occurred, but in other locations the roadway is still bounded by graveled or paved shoulder. A sidewalk exists along the south side of Lincoln Road along the project's frontage. The posted speed limit on Lincoln Road is 35 mph in the area of the project west of Garden Highway.

Traffic counts conducted by the City of Yuba City in 2009 indicated that Lincoln Road carried 8,000 to 10,000 vehicles per day with the lesser volumes reported near Garden Highway and greater volumes counted at points near SR 99. A new count conducted in May 2015 on Lincoln Road along the project frontage totaled 8,500 vehicles per day.

Jones Road is a north-south street that lies midway between the project and SR 99. Jones Road begins in a neighborhood south of Teesdale Road and then extends for a mile to the north across Lincoln Road to Richland Road. Jones Road is a two lane roadway, and a traffic count conducted by the City of Yuba City in 2008 totaled 2,600 vehicles per day north of Lincoln Road.

Bunce Road is a north-south collector street that lies east of Jones Road. Bunce Road originates on Lincoln Road and continues north where it becomes Clark Avenue. Clark Avenue continues north through the remainder of Yuba City across SR 20 to the northern city limits. Bunce Road is a two lane facility. Counts collected by the City in 2009 at the Bunce Road – Clark Avenue connection totaled 9,188 vehicles per day.

Railroad Avenue is a north south collector street that traverses southern Yuba City. Railroad Avenue begins at an intersection on Messick Avenue in rural Sutter County and continues north across Lincoln Road to an intersection on Richland Road. Railroad Avenue is a two lane facility, and the City of Yuba City counted 4,123 vehicles per day on Railroad Avenue north of Lincoln Road in 2008.

Garden Highway is a north-south arterial street that extends for twelve miles from an intersection on SR 99 south of Yuba City to an intersection on 2nd Street near the 5th Street bridge. In the area of the proposed project Garden Highway is a four lane divided facility south of Lincoln Road but narrows to a two lane roadway roughly 300 feet north of the Lincoln Road intersection. In 2009 the section of Garden Highway north of Lincoln Road carried 17,600 vehicles per day, while the volume south of Lincoln Road was reported to be 15,140.

Study Area Circulation System - Intersections

The quality of traffic flow in urban areas is often governed by the operation of key intersections. The following eight intersections have been identified for evaluation in this study.

The **SR 99 / Lincoln Road intersection** is controlled by a traffic signal. The intersection has separate left turn lanes on each approach, and separate right turn lanes are available on the north, east and south legs of the intersection. Each leg has a crosswalk and the intersection has street lights.

The **Lincoln Road / Jones Road intersection** is controlled by an all-way stop. Each Lincoln Road approach has a separate left turn lane. The southbound Jones Road approach has a single lane, and the northbound Jones Road approach has a separate right turn lane. Crosswalks are striped across the west leg of the intersection.

The **Lincoln Road / Bunce Road intersection** is a "tee" intersection controlled by a stop sign on the southbound Bunce Road approach. A left turn lane exists on eastbound Lincoln Road approach, and the TWLT lane continues east of the intersection.

The **Lincoln Road / Railroad Avenue intersection** is controlled by an all-way stop. Each approach has a separate left turn lane and separate right turn lane. Crosswalks are striped across all four legs of the intersection.

The **Garden Highway / Lincoln Road intersection** is controlled by a traffic signal. The intersection has separate left turn lanes on the northbound Garden Highway approach and a separate right turn lane on the southbound approach. The eastbound Lincoln Road approach has dual left turn lanes and a separate right turn lane. The west and south legs of the intersection have crosswalks, and the intersection has street lights.

Standards of Significance: Levels of Service - Methodology

Levels of Service were calculated at study area intersections in order to assess the quality of existing traffic conditions and to provide a basis for analyzing project impacts. "Level of Service" is a qualitative measure of traffic operating conditions whereby a letter grade "A" through "F", corresponding to progressively worsening operating conditions, is assigned to an intersection or roadway segment.

Analysis Methodology for Intersections. The City of Yuba City addresses signalized and un-signalized intersections using the methodology described in the *2010 Highway Capacity Manual* (HCM). HCM techniques base Level of Service on the length of delays experienced by motorists waiting at traffic signals or stop signs. Delay values can be reported as an average value for the overall operation of the intersection in the case of signals and all-way stop controls or for each movement where motorists are required to yield the right of way to other traffic, in the case of side street stops.

Table 1 presents general characteristics associated with each Level of Service grade.

At intersections, Level of Service calculations can reflect average conditions occurring over the breadth of the hour or can be indicative of conditions occurring during the highest volume 15 minute period within that hour. The choice of perspective is made by local agencies as part of their development of standards of significance. This analysis addresses conditions occurring during the peak 15 minutes.

TABLE 1 LEVEL OF SERVICE			
Level of Service	**Signalized Intersection**	**Unsignalized Intersection**	**Roadway (Daily)**
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 2010 Highway Capacity Manual, Transportation Research Board (TRB) Special Report 209.			

Traffic Signal Warrants. The extent to which a traffic signal may be justified is determined based on many factors. From the standpoint of traffic impact analysis, signal warrant criteria contained in the *California Manual of Uniform Traffic Control Devices (CMUTCD)* are employed in order to assess the relative impact of the additional traffic accompanying a development proposal. For this analysis, Warrant 3 (Peak Hour Traffic) has been employed. Variation in warrant requirements occurs based on the design speed of the road (i.e., > 40 mph) and on the location of the intersection (i.e., rural versus urban locations). In this case, urban criteria have been employed. It is important to note that other warrants addressing factors such as pedestrian activity and collision history should be considered before a decision is made to install a traffic signal.

Left Turn Channelization. The American Association of State Transportation and Highway Officials (AASHTO) has identified guidelines for the installation of left turn lanes in their publication *A Policy on Geometric Design of Highways and Streets*. These guidelines, which are presented in their Exhibit 9-75 and Table 2 base the need for a left turn lane on the volume of traffic on the mainline road and the relative percentage of that traffic that turns. These criteria are applicable to intersections where the major street traffic proceeds freely and side street traffic is controlled by stop signs. Analysis of the need for left turn lanes at the project's access on Lincoln Road is a part of the impact evaluation.

TABLE 2
TRAFFIC VOLUMES JUSTIFYING LEFT TURN LANES

Opposing Volume (veh/hr)	Advancing Volume (veh/hr)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40-mph operating speed				
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
200	640	470	350	305
100	720	515	390	340
50-mph operating speed				
800	280	210	165	135
600	350	260	195	170
400	430	320	240	210
200	550	400	300	270
100	615	445	335	295
60-mph operating speed				
800	230	170	125	115
600	290	210	160	140
400	365	270	200	175
200	450	330	250	215
100	505	370	275	240

Source: *A Policy on Geometric Design of Highway and Streets, AASHTO, 2004.*

Existing Traffic Volumes / Levels of Service

Traffic Volume Counts. New a.m. and p.m. peak period intersection traffic counts were made for this study on April 22, 2015. These counts were conducted on days when Yuba City's schools were in session. Intersection turning movement counts were made at study intersections during the periods from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. and the highest hourly traffic volume period within the two hour window was identified as the peak hour.

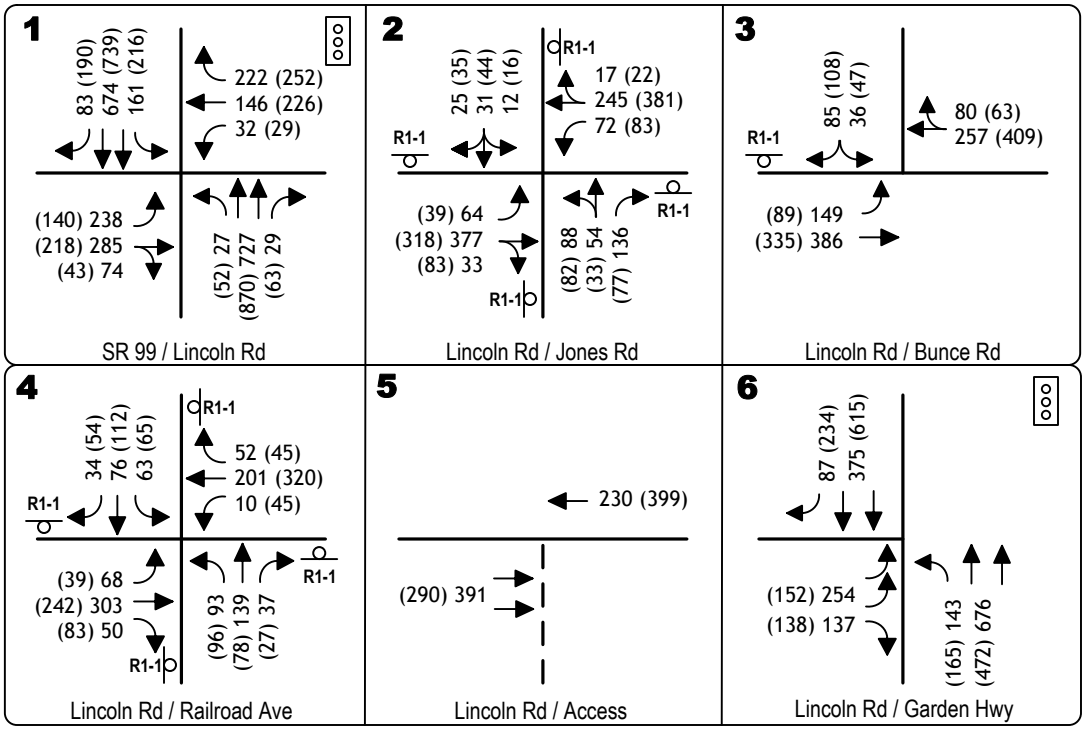
Figure 3 illustrates the intersection turning movement count data recorded for the study intersections. This figure also notes the existing geometric layout of each intersection and the location of traffic controls. This data has been used to determine the operating Level of Service at each intersection.

Intersection Level of Service. Table 3 identifies current intersection Levels of Service at the four study locations. As shown, the overall Level of Service at each location is LOS A or B and all meet the City's LOS D goal for intersections on major streets.

Traffic Signal Warrants. Current peak hour traffic volumes at un-signalized intersections were compared to warrants for signalization. None of these intersections carry traffic volumes which reach the level that satisfy warrants.

TABLE 3
EXISTING INTERSECTION LEVEL OF SERVICE

Intersection	Control	AM Peak Hour		PM Peak Hour		Warrants Met?
		Average Delay (sec/veh)	LOS	Average Delay(sec/veh)	LOS	
SR 99 / Lincoln Road	Signal	36.7	D	36.0	D	-
Lincoln Road / Jones Road	All-Way Stop	30.4	D	25.3	D	No
Lincoln Road / Bunce Road Southbound left+right turn	SB Stop	15.2	C	16.2	C	No
Lincoln Road / Railroad Ave	All-Way Stop	18.4	C	16.5	C	n.a.
Garden Highway / Lincoln Road	Signal	12.9	B	15.1	B	-



EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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Pedestrian Facilities

Sidewalks are available along streets throughout the developed areas of Yuba City, including those neighborhoods in the immediate vicinity of the proposed project. Sidewalks exist on the south side of Lincoln Road from SR 99 to Garden Highway and on the north side with the exception of the property directly across from the proposed project. There are sidewalks on Railroad Avenue and other north-south streets. Sidewalks do not exist on Garden Highway north from a point 300 feet beyond the Lincoln Road intersection.

Bicycle Facilities

Bikeways are defined by the State of California Street and Highways Code as follows:

- Class I bikeways provide a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with cross-flows by motorists minimized (also called a bike path or trail).
- Class II bikeways provide a restricted right-of-way designated for exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted (also called a bike lane).
- Class III bikeways provide a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists (also called a bike route).

The City of Yuba City Bicycle Master Plan (2011) identifies existing and planned bicycle facilities in the area of the proposed project. Class II bicycle lanes exist on Lincoln Road. Class II bicycle lanes also exist on Railroad Avenue north of Lincoln Road.

Public Transit

Yuba-Sutter Transit is the public transit operator for Yuba City, providing many transit options for residents and visitors. Yuba-Sutter Transit currently operates four fixed routes within the City with loops connecting major activity centers, residential neighborhoods, Caltrans Park & Ride facilities, and the City of Marysville. A Dial-A-Ride service is provided for senior citizens, disabled persons, or residents that live beyond one-quarter mile from a fixed-route. Two Yuba-Sutter Transit fixed-routes pass by the site and stop at the Lincoln Road / Garden Highway intersection and at the Lincoln Road / Railroad Avenue intersection. Route 2 links the site with the Alturas-Shasta terminal, while route 5 links the site with the SR 99 corridor and the western SR 20 commercial area. Service outside Yuba City includes a weekday commuter express service to and from Sacramento and Lincoln. A weekday regional service is also provided which includes round trips to and from Live Oak and Wheatland.

GUIDING POLICIES

General Plan

Policies. The Yuba City General Plan includes the following policies relating to traffic and circulation.

Circulation and Street System

5.2-G-1 Promote safe and efficient vehicle circulation.
5.2-G-2 Make efficient use of existing transportation facilities, and, through the arrangement of land uses, improved alternate transportation modes, and provision of more direct routes for pedestrians and bicyclists, strive to reduce the total vehicle-miles traveled per household.
5.2-G-3 Provide fair and equitable means for paying for future street improvements.
5.2-G-4 Coordinate local actions with state and County agencies to ensure consistency.

Traffic Level of Service

5.2-G-5 Maintain acceptable levels of service and ensure that future development and the circulation system are in balance.

Arterial Roadways

5.2-G-6 Design arterial roadways to carry high-volume, higher-speed traffic, thereby minimizing through traffic residential streets. Develop a system of arterial roadways in the form of a grid of four-lane arterials that will distribute traffic evenly and will avoid excessive concentrations of traffic in any given area.
5.2-G-7 Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, prohibiting residential access, and requiring sufficient off-street parking to meet the needs of each project.
5.2-G-8 Provide center turn lanes in areas with existing "front-on" development. Planted medians are preferred in areas without existing front-on development.

Parkways

5.2-G-9 Design parkways to provide attractive, higher-speed, tree-lined roadways with limited access between residential and commercial areas.

Collector and Local Roadways

5.2-G-10 Design and reconfigure collector and local roadways to improve circulation and to connect residential and commercial areas of the City.

IMPLEMENTING POLICIES

Circulation and Street System

5.2-I-1 *Locate arterials and collectors according to the general alignments shown in Figure 5-1. Minor variations from the depicted alignments will not require a General Plan amendment.*

5.2-I-2 *Establish precise alignments and cross-sections based on the General Plan Diagram and Figure 5-1 in order to identify future right-of-way needs. This can be done by adjusting an "official map" that delineates future right-of-way lines.*

5.2-I-3 *Adopt street standards that provide flexibility in design, especially in residential neighborhoods. Revise right of way and pavement standards to reflect adjacent land use and/or anticipated traffic, and permit reduced right of way dimensions where necessary to maintain neighborhood character.*

5.2-I-4 *Require all new developments to provide right-of-way and improvements consistent with street designations on Figure 5-1 and City street section standards.*

5.2-I-5 *Continue to require that new development pays a fair share of the costs of street and other traffic and transportation improvements based on traffic generated and impacts on service levels.*

5.2-I-6 *Require city-wide traffic impact fees on all new development to ensure that transportation improvements keep pace with new development. The objective of this policy is to establish a secure funding source to enable timely construction of traffic improvements. Citywide impact fees have been an extremely successful way of accomplishing infrastructure improvements throughout California. The City intends to ensure that no additional development is approved without a concurrent commitment by the City and/or the developer to construct commensurate transportation improvements, as needed, or to pay appropriate fees in lieu of, to serve the development and maintain acceptable levels of service on roadways and intersections.*

5.2-I-7 *When constructing or modifying roadways, plan for usage of the roadway space by all users, including motor vehicles, transit vehicles, bicyclists, and pedestrians.*

5.2-I-8 *Continue to work with Caltrans to achieve timely construction of programmed freeway and interchange improvements and state highway improvements.*

5.2-I-9 *Work with Caltrans and regional authorities to develop a minimum of four additional traffic lanes of cross-river capacity by the end of the General Plan period. This would be accomplished by a 3rd bridge.*

5.2-I-10 *Work with SACOG to ensure that General Plan amendments are incorporated in the regional traffic model and incorporated into analysis required for Metropolitan Transportation Improvement Plan updates.*

5.2-I-11 *Maintain the street network through a regular maintenance program, repave streets on a regular basis, and require that any pavement that has been damaged or dug up be returned to its original condition, with no bumps or ruts. Street maintenance and repaving programs should be based on current technology and accepted practices to maximize available revenues and improvements.*

Traffic Level of Service

5.2-I-12 *Develop and manage the roadway system to obtain LOS D or better for all major roadways and intersections in the City. This policy does not extend to residential streets (i.e., streets with direct driveway access to homes) or bridges across the Feather River nor does the policy apply to state highways and their intersections, where Caltrans*

policies apply. Exceptions to LOS D policy may be allowed by the City Council in areas, such as downtown, where allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the Council shall be added to the list of exceptions below:

- *SR 20 (SR 99 to Feather River Bridge) – LOS F is acceptable;*
- *SR 20 (Feather River Bridge) – LOS F is acceptable;*
- *Bridge Street (Twin Cities Bridge) – LOS F is acceptable; and*
- *Lincoln Road (New Bridge across the Feather River) – LOS F is acceptable.*

No new development will be approved unless it can be shown that required level of service can be maintained on the affected roadways.

5.2-I-13 Develop and manage residential streets (i.e., streets with direct driveway access to homes) to limit average daily vehicle traffic volumes to 2,500 or less and 85th percentile speeds to 25 miles per hour or less.

5.2-I-14 Require traffic impact studies for all proposed new developments that will generate significant amounts of traffic. Specific thresholds will be based on location and project type, and exceptions may be granted where traffic studies have been completed for adjacent development.

5.2-I-15 Improve intersections as needed to maintain LOS standards and safety on major arterials.

5.2-I-16 Establish and implement additional programs to maintain adequate levels of service at intersections and along roadway segments as circumstances warrant, including the following actions:

- *Collect and analyze traffic volume data on a regular basis and monitor current intersection and roadway segment levels of service on a regular basis. Use this information to update and refine the City's travel forecasting model so that estimates of future conditions are more strongly based upon local travel behavior and trends.*
- *Consider, on a case by case basis, how to shift travel demand away from the peak period, especially in those situations where peak traffic problems result from a few major generators (e.g. outlying employment locations), and how major roadway capital investments can be deferred and/or reallocated to more pressing needs.*
- *Perform routine, ongoing evaluation of the efficiency of the urban street traffic control system, with emphasis on traffic signal timing, phasing and coordination to optimize traffic flow along arterial corridors. Use traffic control systems to balance arterial street utilization (e.g., timing and phasing for turn movements, peak period and off-peak signal timing plans).*

5.2-I-17 Monitor regional/arterial street LOS at regular intervals to determine if the LOS standard is being met, and provide information needed to maintain a calibrated citywide traffic model.

Parkways

5.2-I-18 Develop two parkways along the alignments shown in Figure 5-1. These parkways should have four travel lanes, a planted median, turn pockets where appropriate, Class I or II bicycle lanes, detached sidewalks, and generous planting strips.

5.2-I-19 Prohibit on-street parking along parkways where there is "front-on" development.

5.2-I-20 Require a minimum average distance of one quarter mile between parkway intersections, except in commercial areas or other high volume traffic areas. See also Chapter 4: Community Design policies on parkways.

Collectors and Neighborhood Streets

5.2-I-21 Implement traffic calming measures to slow traffic on local and collector residential streets and prioritize these measures over congestion management. Include roundabouts, traffic circles, and other traffic calming devices among these measures.

5.2-I-22 Provide for greater street connectivity by:

- *Incorporating in subdivision regulations requirements for a minimum number of access points to existing local or collector streets for each development (e.g. at least two access points for every 10 acres of development);*
- *Encouraging circles and roundabouts over signals.*
- *Requiring the bicycle and pedestrian connect ions from cul-de-sacs to nearby public areas and main streets.*
- *Requiring new residential communities undeveloped land planned for urban uses to provide stubs for future connections to the edge of the property line. Where stubs exist on adjacent properties, new streets within the development should connect to these stubs.*

Standards of Significance. The *Yuba City General Plan Draft Environmental Impact Report* applied the following significance thresholds for transportation impacts:

- "If existing LOS is A, B, C, or D for a City roadway segment or intersection, a significant impact would occur if the LOS reaches E or F.
- "If existing LOS is E or F for a City roadway segment or intersection, a significant impact would occur if there is any measurable increase in traffic (defined as at least 10 vehicles in a peak hour).
- "If existing LOS is A, B, C, D, or E for a roadway segment or intersection on SR 20 or SR 99, a significant impact would occur if the LOS reaches F. The exception is SR 20 between SR 99 and Feather River Bridge, at which LOS F is acceptable.
- "If existing LOS is F for a roadway segment or intersection on SR 20 or SR 99, a significant impact would occur if there is any measurable increase in traffic (defined as at least 10 vehicles in a peak hour). The exception is SR 20 between SR 99 and Feather River Bridge, at which LOS F is acceptable."

Significance thresholds for intersections of City roadways were clarified by City staff (Langley pers. comm.). When a City intersection would operate at unacceptable LOS without the proposed project, the project is considered to have a significant impact if the project would exacerbate LOS as follows:

- "Signalized Intersections: The proposed project causes an increase in the average vehicle delay of five seconds or more.

- "All-Way Stop Controlled Intersections: The proposed project causes any increase in the average vehicle delay AND the installation of a traffic signal is warranted at the intersection.

- "Side-Street Stop Controlled Intersections: The proposed project causes any increase in the minor-street movement delay AND the installation of a traffic signal is warranted at the intersection."

PROJECT IMPACTS

The project proposes up to 172 unit apartment units with access to Lincoln Road in the area west of Garden Highway.

Project Characteristics

The characteristics of the project are described in terms of its *Trip Generation* and its *Trip Distribution*.

Trip Generation. The amount of vehicular traffic associated with this project can be estimated based on trip generation rates derived from observation of other similar apartment projects. As shown in Table 4, applying these rates to the proposed project yields a forecast for 1,139 daily trips with 88 occurring during the a.m. peak hour and 107 generated during the p.m. peak hour.

TABLE 4
TRIP GENERATION

Description	Quantity	Trips per Unit						
		Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	Dwelling	6.62	20%	80%	0.51	65%	35%	0.62
	172 du's	1,139	18	70	88	69	38	107

Vehicle Trip Distribution. Having determined the number of vehicle trips that are expected to be generated by the project, it is necessary to identify the directional distribution of project-generated traffic. The Yuba City regional travel demand forecasting model was employed for this purpose, and a "select zone" analysis tracked the routes used by project trips under Year 2035 conditions. The resulting distribution assumptions are shown in Table 5.

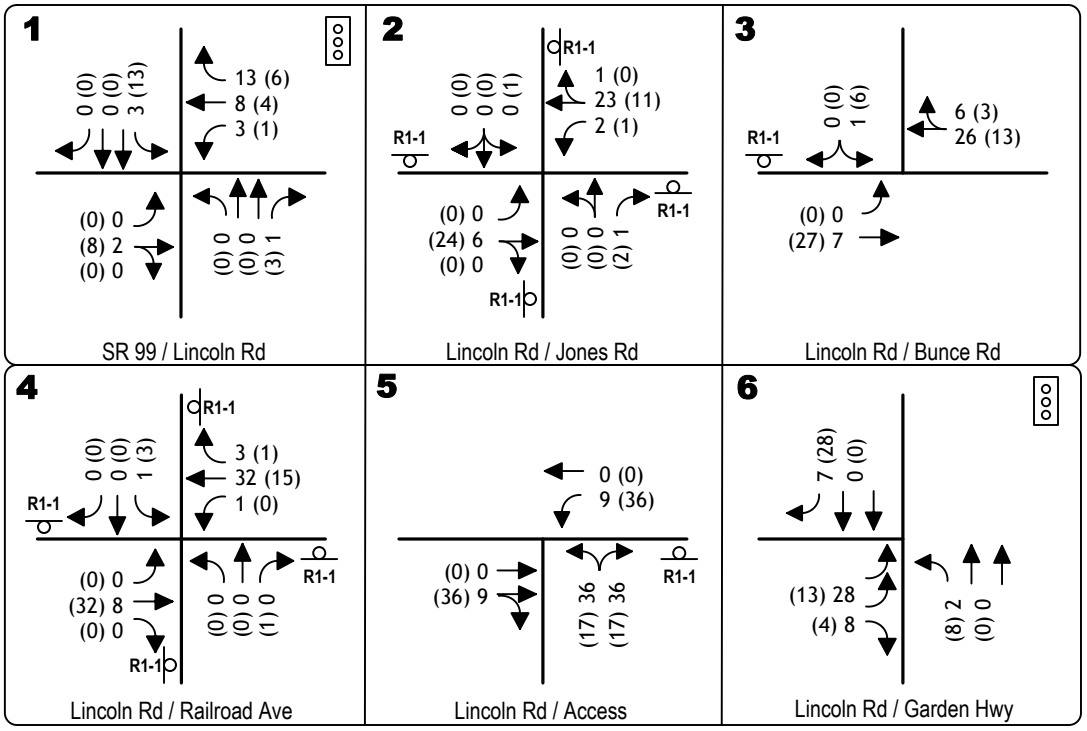
TABLE 5 TRIP DISTRIBUTION ASSUMPTIONS		
Direction	**Route**	**Percent of Total**
North	SR 99	18%
	Jones Road	1%
	Bunce Road – Clark Avenue	8%
	Railroad Avenue	4%
	Garden Highway	39%
West	Lincoln Road beyond SR 99	11%
South	SR 99	4%
	Jones Road	3%
	Railroad Avenue	1%
	Garden Highway	11%
Total		100.00%

Trip Assignment. Project trips were assigned to the local street system based on the regional distribution assumptions identified above. Figure 4 identifies the assignment of project trips through the study intersections.

Existing Plus Project Traffic Conditions and Levels of Service

Figure 5 superimposes project trips onto the current background traffic volumes to create the "Existing Plus Project" condition. Subsequent tables compare the "Existing" and "Existing Plus Project" Levels of Service assuming full project build out.

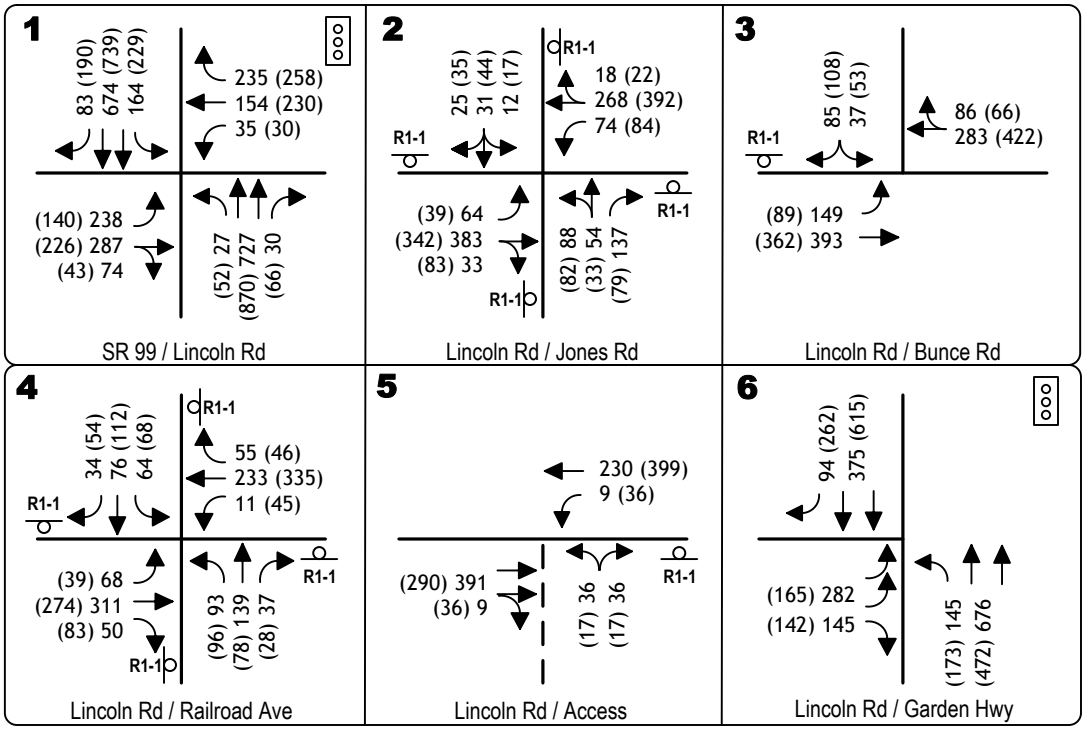
Project Traffic Impacts to Level of Service at Intersections. As shown in Table 6, the addition of project traffic results in Levels of Service that will continue to satisfy the City of Yuba City's LOS D minimum standard at all intersections. The project access on Lincoln Road will operate at LOS C. Thus, because the minimum standard is maintained the project's impact is not significant at these locations.



Legend

XX	AM Peak Hour Volumes
(XX)	PM Peak Hour Volumes
R1-1	Stop Sign
	Signalized Intersection

PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS



EXISTING PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 5

TABLE 6
EXISTING PLUS PROJECT PEAK HOUR
INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour				PM Peak Hour			
		Existing		Existing Plus Project		Existing		Existing Plus Project	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
SR 99 / Lincoln Road	Signal	36.7	D	38.5	D	36.0	D	37.1	D
Lincoln Road / Jones Road	All-Way Stop	30.4	D	33.7	D	25.3	C	29.4	D
Lincoln Road / Bunce Road Southbound left+right turn	SB Stop	15.2	C	15.8	C	16.2	C	17.2	C
Lincoln Road / Railroad Ave	All-Way Stop	18.4	C	20.4	C	16.5	C	18.4	C
Lincoln Road / Site Access NB left+right turn	NB Stop	-	-	14.2	B	-	-	13.4	B
Garden Highway / Lincoln Road	Signal	12.9	B	16.6	B	15.1	B	16.7	C

Bold Values exceed LOS D. **Highlighted Values** are a significant impact

Traffic Signal Warrants. The volume of traffic at each un-signalized study intersection was compared to AASHTO peak hour warrants for signalization, and the results are shown in Table 7. As indicated, the addition of project trips does not result in any location satisfying traffic signal warrants.

TABLE 7
EXISTING PLUS PROJECT TRAFFIC SIGNAL WARRANTS

Intersection	Control	Peak Hour Volume Warrant Satisfied?			
		AM Peak Hour		PM Peak Hour	
		Existing	Existing Plus Project	Existing	Existing Plus Project
Lincoln Road / Jones Road	All-Way Stop	No	No	No	No
Lincoln Road / Bunce Road	SB Stop	No	No	No	No
Lincoln Road / Railroad Ave	All-Way Stop	No	No	No	No
Lincoln Road / Project Access	NB Stop	-	No	-	No

Daily Traffic Volumes. The relative change in traffic volumes accompanying the project can be a useful tool for understanding project effects and considering noise impacts. As noted in Table 8, project trips represent 7% of the current traffic volume on Lincoln Road in the vicinity of the project.

TABLE 8
EXISTING PLUS PROJECT DAILY TRAFFIC VOLUMES

Street	from	to	Daily Traffic Volume			
			Existing	Existing Plus Project		
				Project Alone	Total	% Increase
Lincoln Road	Railroad Avenue	Project	8,500	570	9,070	7%
	Project	Garden Highway	8,500	570	9,070	7%

Access Requirements

Left Turn Lane Criteria. The immediate need for a westbound left turn at the project's access has been evaluated based on AASHTO guidelines. As noted in Table 9, in the pm peak hour there will be 326 "opposing" (i.e., eastbound) vehicles on Lincoln Road at the site access. The advancing volume totals 435 vehicles, of which 8% are left turns into the project. This combination of volumes is close to but does not reach the thresholds identified in this guideline, and interpolation of the data indicates that a separate left turn lane may be justified if the

westbound volume increased by 10% or the eastbound volume was 20% greater. A separate left turn lane on Lincoln Road would be beneficial by the time the project is fully occupied.

TABLE 9
ACCESS TRAFFIC VOLUMES JUSTIFYING LEFT TURN LANE

Opposing Volume (veh/hr)	Advancing Volume (veh/hr)			
	5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
40-mph operating speed				
800	330	240	180	160
600	410	305	225	200
400	510	380	275	245
326	**435**	**435**	-	-
200	640	470	350	305
100	720	515	390	340

Source: *A Policy on Geometric Design of Highway and Streets, AASHTO, 2004.*

Design Issues. Because this portion of Lincoln Road is relatively wide and has second eastbound through lane that is not needed today, a westbound left turn lane can be created without major construction. The length of the westbound left turn lane should be commensurate with the speed of travel on this portion of Lincoln Road, as well as the amount of storage needed for waiting vehicles. The length of a new lane should also reflect the length of the eastbound left turn lane needed at the signalized Garden Highway intersection.

Caltrans HDM guidelines for storage in un-signalized left turn lanes suggest that room be provided for a two minute accumulation of vehicles during the peak hour. In this case the p.m. peak hour volume of 36 vehicles per hour would result in 1-2 cars over a two minute period.

The deceleration distance at left turn lanes can be identified from the Caltrans HDM. Because Lincoln Road ends immediately east of the project, eastbound traffic will already be beginning to slow, and westbound traffic will just be accelerating out of the signalized intersection. In this case, deceleration from 25 mph (i.e., 195 feet) would be adequate. Deceleration can be accommodated in a combination of turn lane and bay taper.

Under short term conditions the 95th percentile queue of traffic in the two eastbound left turn lanes is 90 feet in the a.m. peak hour and 60 feet in the p.m. peak hour.

Based on these criteria the left turn area for the westbound turn lane should be 80 foot long. However, the City may determine that a continuous Two-Way Left-Turn lane is desirable to facilitate access to other properties.

Alternative Transportation Modes

Pedestrian Impacts. While commercial destinations in the vicinity of the project are limited, some project residents may elect to walk to other areas of the community. Sidewalks and crosswalks already exist in the vicinity of the project on Lincoln Road. Sidewalks are generally available on north-south streets such as Jones Road, Bunce Road and Railroad Avenue. While there may be some locations where sidewalks are not available and pedestrians will continue to use paved shoulders, the number of pedestrians added by the project would be relatively small. As a result, the project's impact to pedestrian circulation is not significant.

Bicycle Impacts. Similarly, some project residents may be bicyclists who elect to use that transportation mode to reach Yuba City area destinations. Project bicycle activity would be similar to that associated with other existing apartments in this area. Because class II lanes are available and the number of cyclists is low, the project's bicycle activity is not likely to create an appreciable safety impact on the streets that provide access to the project.

Transit Impacts. The project will likely have some residents who would be interested public transit services. Because the number of additional riders would be unlikely to approach the capacity of existing Yuba – Sutter Transit service and convenient stops already exist by the project, the project's impact is not significant and no additional transit improvements are needed.

CUMULATIVE IMPACTS

Long Term Cumulative Conditions

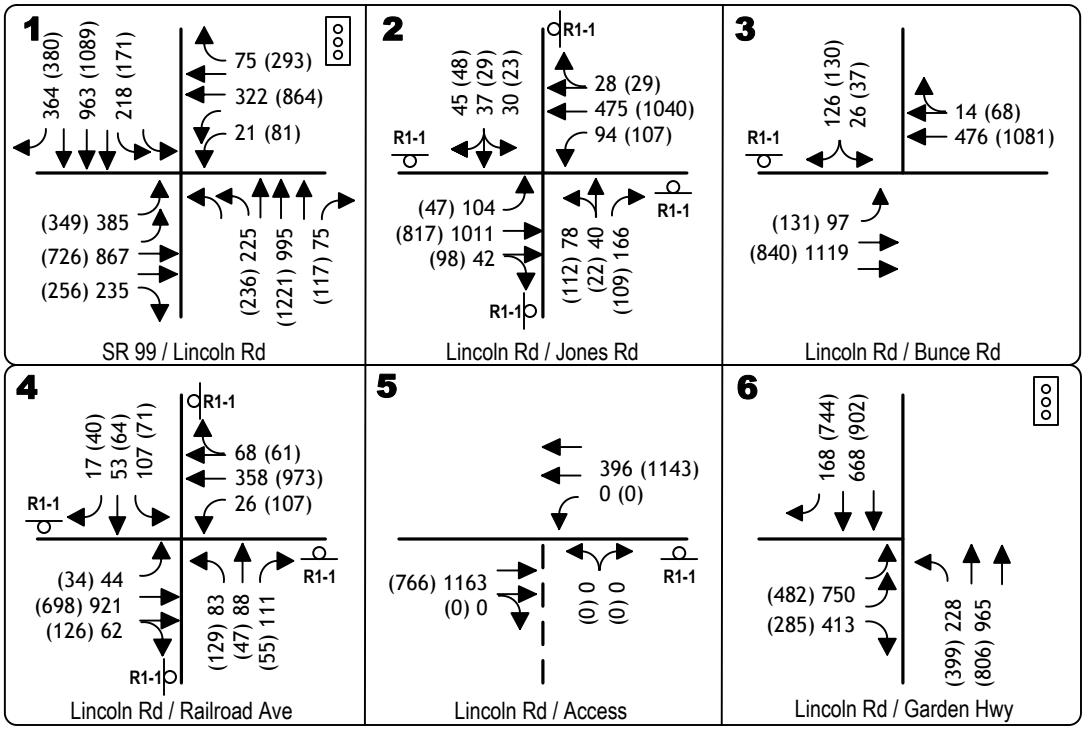
Basis for Long Term Projections. The Year 2035 travel demand forecasting model used for the City of Yuba City General Plan Update EIR and subsequently updated for the El Marguerite EIR traffic study is the basis for the long term cumulative traffic volume forecasts used for this analysis.

The technical approach employed to use model results to create intersection turning movements for study area intersections mimics the approach used for the GPU EIR. The traffic model was run for a cumulative scenario that assumed site development as assumed in the model (i.e., SFR). The trips associated with that assumed use were subtracted to create a No Project condition, and the trips generated by the proposed project were superimposed on the No Project volumes to create the Cumulative Plus Project condition.

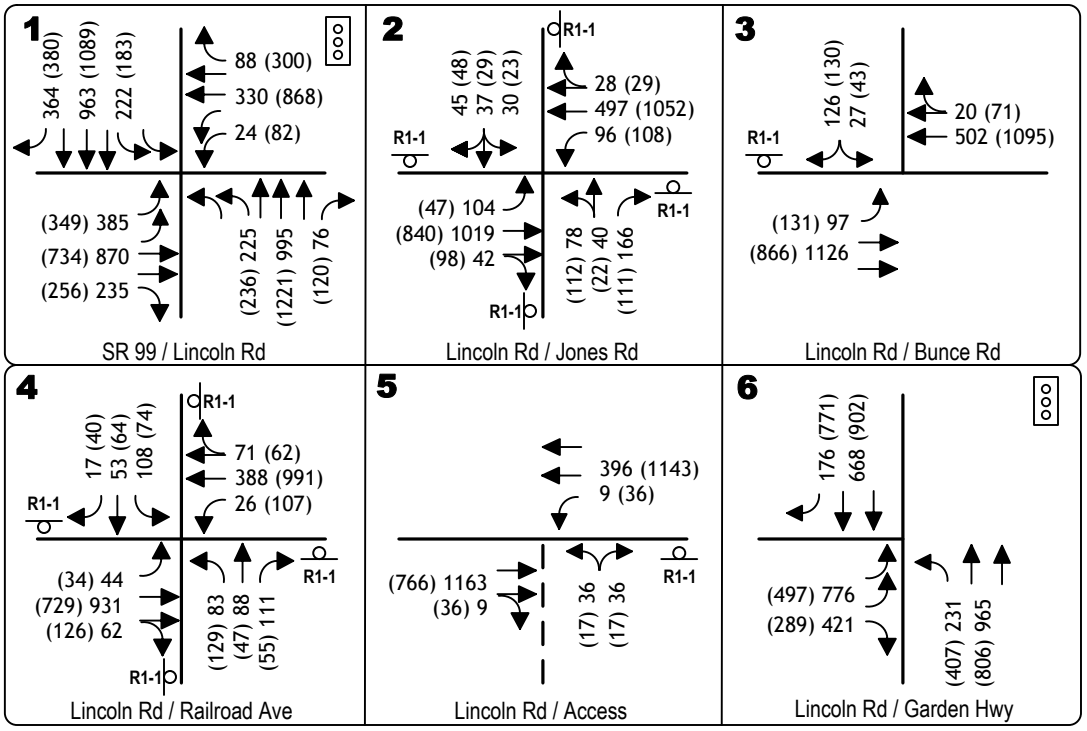
The procedure to forecast intersection turning movements from model data takes an incremental approach. Peak hour traffic model runs were made and the resulting segment volumes were compared to the model's baseline forecasts. The net difference in peak hour volume was determined. These net changes were then added to the current segment volume to create an adjusted future volume. Existing and adjusted cumulative traffic volumes were compared to identify equivalent growth rates for intersection approaches for use in creating intersection turning movement volumes. To create peak hour intersection turning movements, the segment growth factors were applied to observed peak hour volumes and the results were balanced to best approximate conditions on each leg using the methodologies contained in the Transportation Research Board's (TRB's) NCHRP Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design.* This approach reflects the fact that the development of various land uses may affect current travel patterns while adding new traffic, while new roadways may provide alternative routes for existing traffic.

Circulation System Assumptions. The traffic volume forecasts made for this analysis include those city-wide circulation system improvements incorporated into the General Plan traffic model and CIP. These include six lanes on SR 99 and completion of Lincoln Road as a 4-lane facility between SR 99 and Garden Highway.

Traffic Volume Forecasts. Peak hour intersection turning movements were created for No Project and Plus Project cumulative conditions. Figure 6 identifies cumulative traffic volumes at study intersections without the project. Project trips were again superimposed onto the No Project condition to create Cumulative Plus Project forecasts shown in Figure 7.



CUMULATIVE NO PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS



CUMULATIVE PLUS PROJECT
TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 7

Cumulative No Project Intersection Level of Service. Table 10 compares cumulative peak hour Levels of Service at study intersections with and without the proposed project assuming the intersection improvements shown in Figures 6 and 7.

As indicated under the No Project condition three (3) study intersections would operate with Levels of Service that exceed the Yuba City minimum LOS D standard.

The **Lincoln Road / Jones Road intersection** will operate at LOS F in the a.m. and p.m. peak hour. This exceeds the City's LOS D minimum. As noted in Table 11, projected traffic volumes satisfy warrants for signalization. The City CIP / fee program does not include a traffic signal at this intersection. Signalization would yield LOS B.

The **Lincoln Road / Bunce Road intersection** will operate at LOS E in the p.m. peak hour. This exceeds the City's LOS D minimum. As noted in Table 11, projected traffic volumes satisfy warrants for signalization. The City CIP / fee program does not include a traffic signal at this intersection. Signalization would yield LOS B.

The **Lincoln Road / Railroad Avenue intersection** will operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour, and both exceed the LOS D minimum. Projected traffic volumes satisfy warrants for signalization. The City CIP / fee program does not include a traffic signal at this intersection. Signalization would yield LOS A.

The **Lincoln Road / Garden Highway intersection** is projected to operate at LOS E during the p.m. peak hour. This exceeds the City's LOS D minimum.

Cumulative No Project Traffic Signal Warrants. The volume of traffic at each un-signalized study intersection was compared to AASHTO peak hour warrants for signalization, and the results are shown in Table 11. As indicated, without the project both the Jones Road and Railroad Avenue intersections carry volumes that satisfy peak hour warrants for signalization.

Cumulative Project Impacts

The relative impact of adding project traffic to the cumulative scenario is considered in this section.

Cumulative Plus Project Intersection Levels of Service. With the addition of project trips the same three intersections that were deficient under the background cumulative condition would continue to exceed LOS D with the project.

The **Lincoln Road / Jones Road intersection** will operate at LOS F in the a.m. and p.m. peak hour. This exceeds the City's LOS D minimum. River's Edge will increase the length of delay and will contribute 37 trips through the intersection during the p.m. peak hour, and this exceeds the 10 trip increment permitted by the City at deficient locations. As a result, the project's cumulative impact is significant. As noted in Table 11, projected traffic volumes satisfy warrants

for signalization, but the City CIP / fee program does not include a traffic signal at this intersection. Signalization would yield LOS B. The project should contribute its fair share to the cost of a future traffic signal.

The **Lincoln Road / Bunce Road** will operate at LOS E in the p.m. peak hour which exceeds the LOS D minimum. As noted in Table 11, projected traffic volumes satisfy warrants for signalization. River's Edge will increase the length of delay and will contribute 45 trips through the intersection during the p.m. peak hour, and this exceeds the 10 trip increment permitted by the City at deficient locations. As a result, the project's cumulative impact is significant. A traffic signal is needed, but the City CIP / fee program does not include a traffic signal at this intersection. Signalization would yield LOS B. The project should contribute its fair share to the cost of a future traffic signal.

The **Lincoln Road / Railroad Avenue intersection** will operate at LOS E in the a.m. peak hour and LOS F in the p.m. peak hour, and both exceed the LOS D minimum. River's Edge will increase the length of delay and will contribute 49 trips through the intersection during the p.m. peak hour, and this exceeds the 10 trip increment permitted by the City at deficient locations. As a result, the project's cumulative impact is significant. As noted in Table 11, projected traffic volumes satisfy warrants for signalization, but the City CIP / fee program does not include a traffic signal at this intersection. Signalization would yield LOS B. The project should contribute its fair share to the cost of a future traffic signal.

The **Lincoln Road / Garden Highway intersection** is projected to operate at LOS E in the p.m. peak hour. River's Edge will increase the length of delay and will contribute 49 trips through the intersection during the p.m. peak hour, and this exceeds the 10 trip increment permitted by the City at deficient locations. As a result, the project's cumulative impact is significant. A separate overlap phase for southbound right turns will improve conditions to LOS C, but the City CIP / fee program does not include this improvement. The project should contribute its fair share to the cost of a future overlap phase at the traffic signal.

All other intersections would operate at LOS D or better, and no specific mitigation is needed.

TABLE 10
CUMULATIVE PLUS PROJECT
PEAK HOUR INTERSECTION LEVELS OF SERVICE

Intersection	Control	AM Peak Hour				PM Peak Hour			
		No Project		Cumulative Plus Project		No Project		Cumulative Plus Project	
		Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
SR 99 / Lincoln Road	Signal	32.2	C	32.4	C	38.2	D	33.4	D
Lincoln Road / Jones Road	All-Way Stop	**58.7**	**F**	**59.1**	**F**	**65.0**	**F**	**65.1**	**F**
	Signal	14.9	B	15.1	B	11.4	B	11.5	B
Lincoln Road / Bunce Road	SB Stop	15.5	C	16.1	C	**35.4**	**E**	**41.6**	**E**
Southbound left+right turn	Signal	7.7	A	7.7	A	10.9	B	10.8	B
Lincoln Road / Railroad Ave	All-Way Stop	**49.6**	**E**	**51.2**	**F**	**62.1**	**F**	**63.4**	**F**
	Signal	19.1	B	19.3	B	17.8	B	17.9	B
Lincoln Road / Site Access NB left+right turn	NB Stop	-	-	30.3	D	-	-	29.7	D
Garden Highway / Lincoln Road	Signal	24.8	C	33.2	C	**59.5**	**E**	**66.2**	**E**
	Overlap	31.1	C	32.4	C	24.7	C	26.5	C

Bold Values exceed LOS D. **Highlighted Values** are a significant impact

TABLE 11
CUMULATIVE PLUS PROJECT TRAFFIC SIGNAL WARRANTS

Intersection	Control	Peak Hour Volume Warrant Satisfied?			
		AM Peak Hour		PM Peak Hour	
		No Project	Cumulative Plus Project	No Project	Cumulative Plus Project
Lincoln Road / Jones Road	All-Way Stop	Yes	Yes	Yes	Yes
Lincoln Road / Bunce Road	SB Stop	Yes	Yes	Yes	Yes
Lincoln Road / Railroad Ave	All-Way stop	Yes	Yes	Yes	Yes
Lincoln Road / Project Access	NB Stop	-	No	-	No

IMPACT / MITIGATION SUMMARY

The section which follows identified those impacts that have been deemed significant under City of Yuba City standards and prescribes mitigation measures to reduce those impacts to a less than significant level.

Existing Plus Project Conditions

As noted in Table 6, the project does not result in any intersection operating with Level of Service that exceeds the City's LOS D minimum. Thus, the project's impacts relating to traffic circulation based on Level of Service are not significant.

The volume of traffic turning left into the site at the new Lincoln Road access approaches the level that justifies a separate westbound left turn lane.

Mitigation 1: Create a westbound left turn lane at the project access on Lincoln Road. The existing roadway should be reconfigured to create a westbound left turn lane in the area that is today used for a second eastbound lane. The lane should be at least 80 feet long.

Cumulative Plus Project Conditions

Four intersections are projected to operate with Level of Service that exceeds the LOS D goal and the project's traffic contribution is significant at these locations. The following mitigation is necessary.

Mitigation 2: Contribute fair share to the cost of signalizing the Lincoln Road / Jones Road intersection. A traffic signal is needed to achieve satisfactory Level of Service. Table 12 notes the project's p.m. peak hour trips through this intersection and calculates "Fair Share" as a percentage of the net new traffic expected at this location in the future.

Mitigation 3: Contribute fair share to the cost of signalizing the Lincoln Road / Bunce Road intersection. A traffic signal is needed to achieve satisfactory Level of Service under Cumulative Plus Project conditions. Table 12 notes the project's trips through this intersection and calculates "Fair Share" as a percentage of the net new traffic expected at this location in the future based on p.m. traffic.

Mitigation 4: Contribute fair share to the cost of signalizing the Lincoln Road / Railroad Avenue intersection. A traffic signal is needed to achieve satisfactory Level of Service under Cumulative Plus Project conditions. Table 12 notes the project's trips through this intersection and calculates "Fair Share" as a percentage of the net new traffic expected at this location in the future based on p.m. traffic.

Mitigation 5: Contribute fair share to the cost of Lincoln Road / Garden Highway intersection improvements. An overlap phase for the southbound left turn lane is needed to achieve satisfactory Level of Service under Cumulative conditions. This work may include new traffic signal hardware and minor re-wiring of the signal. Table 12 notes the project's trips through this intersection and calculates "Fair Share" as a percentage of the net new traffic expected at this location in the future based on p.m. traffic.

Fair Share Calculation

TABLE 12
FAIR SHARE CALCULATION

Location	PM Peak Hour Volume				Fair Share
	Existing	Project Alone	Cumulative Plus Project	Net Growth	
Lincoln Road / Jones Road	1,213	39	2,519	1,306	2.6%
Lincoln Road/ Bunce Road	1,051	49	2,336	1,285	3.8%
Lincoln Road / Railroad Avenue	1,206	52	2,458	1,252	4.2%
Lincoln Road / Garden Highway	1,776	53	3,672	1,896	2.8%
Based on 172 du's.					

APPENDIX

ALL TRAFFIC DATA

0660-02

City of Yuba City
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7309-001 SR 99-Lincoln Road.ppd
Date : 4/22/2015

Unshifted Count = All Vehicles

	SR 99 Southbound					Lincoln Road Westbound					SR 99 Northbound					Lincoln Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	18	148	14	0	180	15	27	32	0	74	3	137	6	0	146	29	24	7	0	60	460	0
07:15	23	163	20	0	206	8	25	64	0	97	4	153	5	0	162	35	39	6	0	80	545	0
07:30	38	155	20	0	213	8	34	50	0	92	4	182	7	0	193	65	64	15	0	144	642	0
07:45	48	163	23	0	234	8	36	69	0	113	9	185	8	0	202	71	99	23	0	193	742	0
Total	127	629	77	0	833	39	122	215	0	376	20	657	26	0	703	200	226	51	0	477	2389	0
08:00	41	197	23	0	261	3	46	56	0	105	6	167	9	0	182	63	73	27	0	163	711	0
08:15	34	159	17	0	210	13	30	47	0	90	8	193	5	0	206	39	49	9	0	97	603	0
08:30	31	145	14	0	190	9	24	44	0	77	6	196	9	0	211	27	28	9	0	64	542	0
08:45	22	178	14	0	214	6	17	52	0	75	7	175	6	0	188	28	40	9	0	77	554	0
Total	128	679	68	0	875	31	117	199	0	347	27	731	29	0	787	157	190	54	0	401	2410	0
16:00	50	201	50	0	301	7	35	53	0	95	11	224	16	0	251	30	49	7	0	86	733	0
16:15	46	134	44	0	224	12	61	57	0	130	16	227	14	0	257	32	61	2	0	95	706	0
16:30	55	193	55	0	303	7	47	57	0	111	8	213	11	0	232	37	51	10	0	98	744	0
16:45	47	147	35	0	229	4	51	66	0	121	16	240	19	0	275	43	48	9	0	100	725	0
Total	198	675	184	0	1057	30	194	233	0	457	51	904	60	0	1015	142	209	28	0	379	2908	0
17:00	46	201	46	0	293	8	58	69	0	135	12	216	17	0	245	26	54	14	0	94	767	0
17:15	68	198	54	0	320	10	70	60	0	140	16	201	16	0	233	34	65	10	0	109	802	0
17:30	44	178	38	0	260	12	64	56	0	132	12	218	16	0	246	24	48	8	0	80	718	0
17:45	46	177	48	0	271	8	39	53	0	100	11	201	17	0	229	33	66	10	0	109	709	0
Total	204	754	186	0	1144	38	231	238	0	507	51	836	66	0	953	117	233	42	0	392	2996	0
Grand Total	657	2737	515	0	3909	138	664	885	0	1687	149	3128	181	0	3458	616	858	175	0	1649	10703	0
Apprch %	16.8%	70.0%	13.2%	0.0%		8.2%	39.4%	52.5%	0.0%		4.3%	90.5%	5.2%	0.0%		37.4%	52.0%	10.6%	0.0%			
Total %	6.1%	25.6%	4.8%	0.0%	36.5%	1.3%	6.2%	8.3%	0.0%	15.8%	1.4%	29.2%	1.7%	0.0%	32.3%	5.8%	8.0%	1.6%	0.0%	15.4%	100.0%	

AM PEAK HOUR	SR 99 Southbound					Lincoln Road Westbound					SR 99 Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	38	155	20	0	213	8	34	50	0	92	4	182	7	0	193	65	64	15	0	144	642
07:45	48	163	23	0	234	8	36	69	0	113	9	185	8	0	202	71	99	23	0	193	742
08:00	41	197	23	0	261	3	46	56	0	105	6	167	9	0	182	63	73	27	0	163	711
08:15	34	159	17	0	210	13	30	47	0	90	8	193	5	0	206	39	49	9	0	97	603
Total Volume	161	674	83	0	918	32	146	222	0	400	27	727	29	0	783	238	285	74	0	597	2698
% App Total	17.5%	73.4%	9.0%	0.0%		8.0%	36.5%	55.5%	0.0%		3.4%	92.8%	3.7%	0.0%		39.9%	47.7%	12.4%	0.0%		
PHF	.839	.855	.902	.000	.879	.615	.793	.804	.000	.885	.750	.942	.806	.000	.950	.838	.720	.685	.000	.773	.909

PM PEAK HOUR	SR 99 Southbound					Lincoln Road Westbound					SR 99 Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	55	193	55	0	303	7	47	57	0	111	8	213	11	0	232	37	51	10	0	98	744
16:45	47	147	35	0	229	4	51	66	0	121	16	240	19	0	275	43	48	9	0	100	725
17:00	46	201	46	0	293	8	58	69	0	135	12	216	17	0	245	26	54	14	0	94	767
17:15	68	198	54	0	320	10	70	60	0	140	16	201	16	0	233	34	65	10	0	109	802
Total Volume	216	739	190	0	1145	29	226	252	0	507	52	870	63	0	985	140	218	43	0	401	3038
% App Total	18.9%	64.5%	16.6%	0.0%		5.7%	44.6%	49.7%	0.0%		5.3%	88.3%	6.4%	0.0%		34.9%	54.4%	10.7%	0.0%		
PHF	.794	.919	.864	.000	.895	.725	.807	.913	.000	.905	.813	.906	.829	.000	.895	.814	.838	.768	.000	.920	.947

ALL TRAFFIC DATA

0660-02

City of Yuba City
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7309-002 Jones Road-Lincoln Road.ppd
Date : 4/22/2015

Unshifted Count = All Vehicles

	Jones Road Southbound					Lincoln Road Westbound					Jones Road Northbound					Lincoln Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	1	2	10	0	13	3	39	3	0	45	12	8	14	0	34	2	45	1	0	48	140	0
07:15	3	10	5	0	18	6	40	5	0	51	28	5	21	0	54	5	53	6	0	64	187	0
07:30	4	8	3	0	15	10	55	3	1	69	26	10	30	0	66	5	86	5	0	96	246	1
07:45	4	5	11	0	20	13	69	5	0	87	30	25	39	0	94	19	124	13	0	156	357	0
Total	12	25	29	0	66	32	203	16	1	252	96	48	104	0	248	31	308	25	0	364	930	1
08:00	2	16	7	0	25	33	70	4	0	107	23	12	45	0	80	23	91	7	0	121	333	0
08:15	2	2	4	0	8	16	51	5	0	72	9	7	22	0	38	17	76	8	0	101	219	0
08:30	1	2	3	0	6	4	52	5	0	61	11	3	16	0	30	4	46	13	0	63	160	0
08:45	2	3	2	0	7	8	35	4	0	47	18	11	15	0	44	8	49	5	0	62	160	0
Total	7	23	16	0	46	61	208	18	0	287	61	33	98	0	192	52	262	33	0	347	872	0
16:00	5	12	6	0	23	28	69	6	0	103	21	7	11	0	39	7	74	22	0	103	268	0
16:15	6	4	13	0	23	23	84	5	0	112	17	7	10	0	34	9	72	19	0	100	269	0
16:30	5	11	8	0	24	18	83	4	0	105	12	8	12	0	32	9	66	19	0	94	255	0
16:45	3	10	6	0	19	20	90	6	0	116	20	6	17	0	43	6	84	15	0	105	283	0
Total	19	37	33	0	89	89	326	21	0	436	70	28	50	0	148	31	296	75	0	402	1075	0
17:00	6	13	3	0	22	27	106	7	0	140	25	11	26	0	62	14	69	22	0	105	329	0
17:15	3	13	14	0	30	24	96	5	0	125	20	12	22	0	54	8	94	28	0	130	339	0
17:30	4	8	12	0	24	12	89	4	0	105	17	4	12	0	33	11	71	18	0	100	262	0
17:45	3	12	15	0	30	29	67	5	0	101	13	8	19	0	40	15	67	19	0	101	272	0
Total	16	46	44	0	106	92	358	21	0	471	75	35	79	0	189	48	301	87	0	436	1202	0
Grand Total	54	131	122	0	307	274	1095	76	1	1446	302	144	331	0	777	162	1167	220	0	1549	4079	1
Apprch %	17.6%	42.7%	39.7%	0.0%		18.9%	75.7%	5.3%	0.1%		38.9%	18.5%	42.6%	0.0%		10.5%	75.3%	14.2%	0.0%			
Total %	1.3%	3.2%	3.0%	0.0%	7.5%	6.7%	26.8%	1.9%	0.0%	35.4%	7.4%	3.5%	8.1%	0.0%	19.0%	4.0%	28.6%	5.4%	0.0%	38.0%	100.0%	

AM PEAK HOUR	Jones Road Southbound					Lincoln Road Westbound					Jones Road Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	4	8	3	0	15	10	55	3	1	69	26	10	30	0	66	5	86	5	0	96	246
07:45	4	5	11	0	20	13	69	5	0	87	30	25	39	0	94	19	124	13	0	156	357
08:00	2	16	7	0	25	33	70	4	0	107	23	12	45	0	80	23	91	7	0	121	333
08:15	2	2	4	0	8	16	51	5	0	72	9	7	22	0	38	17	76	8	0	101	219
Total Volume	12	31	25	0	68	72	245	17	1	335	88	54	136	0	278	64	377	33	0	474	1155
% App Total	17.6%	45.6%	36.8%	0.0%		21.5%	73.1%	5.1%	0.3%		31.7%	19.4%	48.9%	0.0%		13.5%	79.5%	7.0%	0.0%		
PHF	.750	.484	.568	.000	.680	.545	.875	.850	.250	.783	.733	.540	.756	.000	.739	.696	.760	.635	.000	.760	.809

PM PEAK HOUR	Jones Road Southbound					Lincoln Road Westbound					Jones Road Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	3	10	6	0	19	20	90	6	0	116	20	6	17	0	43	6	84	15	0	105	283
17:00	6	13	3	0	22	27	106	7	0	140	25	11	26	0	62	14	69	22	0	105	329
17:15	3	13	14	0	30	24	96	5	0	125	20	12	22	0	54	8	94	28	0	130	339
17:30	4	8	12	0	24	12	89	4	0	105	17	4	12	0	33	11	71	18	0	100	262
Total Volume	16	44	35	0	95	83	381	22	0	486	82	33	77	0	192	39	318	83	0	440	1213
% App Total	16.8%	46.3%	36.8%	0.0%		17.1%	78.4%	4.5%	0.0%		42.7%	17.2%	40.1%	0.0%		8.9%	72.3%	18.9%	0.0%		
PHF	.667	.846	.625	.000	.792	.769	.899	.786	.000	.868	.820	.688	.740	.000	.774	.696	.846	.741	.000	.846	.895

ALL TRAFFIC DATA

0660-02

City of Yuba City
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7309-003 Bunce Road-Lincoln Road.ppd
Date : 4/22/2015

Unshifted Count = All Vehicles

	Bunce Road Southbound					Lincoln Road Westbound					Northbound					Lincoln Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	7	0	9	0	16	0	35	14	0	49	0	0	0	0	0	14	49	0	0	63	128	0
07:15	7	0	10	0	17	0	35	21	0	56	0	0	0	0	0	20	62	0	0	82	155	0
07:30	9	0	17	0	26	0	53	18	0	71	0	0	0	0	0	34	89	0	0	123	220	0
07:45	4	0	22	0	26	0	66	29	0	95	0	0	0	0	0	52	119	0	0	171	292	0
Total	27	0	58	0	85	0	189	82	0	271	0	0	0	0	0	120	319	0	0	439	795	0
08:00	11	0	27	0	38	0	83	15	0	98	0	0	0	0	0	47	95	0	0	142	278	0
08:15	12	0	19	0	31	0	55	18	0	73	0	0	0	0	0	16	83	0	1	100	204	1
08:30	12	0	5	0	17	0	59	7	0	66	0	0	0	0	0	12	53	0	0	65	148	0
08:45	4	0	10	0	14	0	36	9	0	45	0	0	0	0	0	14	49	0	0	63	122	0
Total	39	0	61	0	100	0	233	49	0	282	0	0	0	0	0	89	280	0	1	370	752	1
16:00	9	0	18	0	27	0	90	10	0	100	0	0	0	0	0	17	69	0	0	86	213	0
16:15	12	0	30	0	42	0	87	12	0	99	0	0	0	0	0	14	78	0	0	92	233	0
16:30	9	0	23	0	32	0	89	14	0	103	0	0	0	0	0	12	71	0	0	83	218	0
16:45	10	0	24	0	34	0	93	14	0	107	0	0	0	0	0	16	95	0	0	111	252	0
Total	40	0	95	0	135	0	359	50	0	409	0	0	0	0	0	59	313	0	0	372	916	0
17:00	10	0	31	0	41	0	122	17	0	139	0	0	0	0	0	31	77	0	0	108	288	0
17:15	12	0	29	0	41	0	106	15	0	121	0	0	0	0	0	23	95	0	0	118	280	0
17:30	15	0	24	0	39	0	88	17	0	105	0	0	0	0	0	19	68	0	0	87	231	0
17:45	10	0	24	0	34	0	82	13	0	95	0	0	0	0	0	17	76	0	0	93	222	0
Total	47	0	108	0	155	0	398	62	0	460	0	0	0	0	0	90	316	0	0	406	1021	0
Grand Total	153	0	322	0	475	0	1179	243	0	1422	0	0	0	0	0	358	1228	0	1	1587	3484	1
Apprch %	32.2%	0.0%	67.8%	0.0%		0.0%	82.9%	17.1%	0.0%		0.0%	0.0%	0.0%	0.0%		22.6%	77.4%	0.0%	0.1%			
Total %	4.4%	0.0%	9.2%	0.0%	13.6%	0.0%	33.8%	7.0%	0.0%	40.8%	0.0%	0.0%	0.0%	0.0%	0.0%	10.3%	35.2%	0.0%	0.0%	45.6%	100.0%	

AM PEAK HOUR	Bunce Road Southbound					Lincoln Road Westbound					Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	9	0	17	0	26	0	53	18	0	71	0	0	0	0	0	34	89	0	0	123	220
07:45	4	0	22	0	26	0	66	29	0	95	0	0	0	0	0	52	119	0	0	171	292
08:00	11	0	27	0	38	0	83	15	0	98	0	0	0	0	0	47	95	0	0	142	278
08:15	12	0	19	0	31	0	55	18	0	73	0	0	0	0	0	16	83	0	1	100	204
Total Volume	36	0	85	0	121	0	257	80	0	337	0	0	0	0	0	149	386	0	1	536	994
% App Total	29.8%	0.0%	70.2%	0.0%		0.0%	76.3%	23.7%	0.0%		0.0%	0.0%	0.0%	0.0%		27.8%	72.0%	0.0%	0.2%		
PHF	.750	.000	.787	.000	.796	.000	.774	.690	.000	.860	.000	.000	.000	.000	.000	.716	.811	.000	.250	.784	.851

PM PEAK HOUR	Bunce Road Southbound					Lincoln Road Westbound					Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	10	0	24	0	34	0	93	14	0	107	0	0	0	0	0	16	95	0	0	111	252
17:00	10	0	31	0	41	0	122	17	0	139	0	0	0	0	0	31	77	0	0	108	288
17:15	12	0	29	0	41	0	106	15	0	121	0	0	0	0	0	23	95	0	0	118	280
17:30	15	0	24	0	39	0	88	17	0	105	0	0	0	0	0	19	68	0	0	87	231
Total Volume	47	0	108	0	155	0	409	63	0	472	0	0	0	0	0	89	335	0	0	424	1051
% App Total	30.3%	0.0%	69.7%	0.0%		0.0%	86.7%	13.3%	0.0%		0.0%	0.0%	0.0%	0.0%		21.0%	79.0%	0.0%	0.0%		
PHF	.783	.000	.871	.000	.945	.000	.838	.926	.000	.849	.000	.000	.000	.000	.000	.718	.882	.000	.000	.898	.912

ALL TRAFFIC DATA

0660-02

City of Yuba City
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7309-004 Railroad Avenue-Lincoln Road.ppd
Date : 4/22/2015

Unshifted Count = All Vehicles

	Railroad Avenue Southbound					Lincoln Road Westbound					Railroad Avenue Northbound					Lincoln Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	9	8	3	0	20	1	30	9	0	40	13	7	8	0	28	2	50	6	0	58	146	0
07:15	9	13	5	0	27	1	27	5	0	33	22	16	11	0	49	3	62	8	0	73	182	0
07:30	12	12	7	0	31	3	39	8	0	50	26	30	9	0	65	11	72	10	0	93	239	0
07:45	17	21	8	0	46	3	54	19	0	76	27	50	12	0	89	24	93	10	0	127	338	0
Total	47	54	23	0	124	8	150	41	0	199	88	103	40	0	231	40	277	34	0	351	905	0
08:00	24	29	17	0	70	1	56	15	0	72	23	38	6	0	67	21	69	14	0	104	313	0
08:15	10	14	2	0	26	3	52	10	0	65	17	21	10	0	48	12	69	16	0	97	236	0
08:30	4	12	2	0	18	4	42	9	0	55	19	14	5	0	38	3	49	12	0	64	175	0
08:45	6	8	1	0	15	4	29	3	0	36	9	15	8	0	32	6	44	8	0	58	141	0
Total	44	63	22	0	129	12	179	37	0	228	68	88	29	0	185	42	231	50	0	323	865	0
16:00	16	24	10	0	50	10	82	10	0	102	12	21	6	0	39	4	59	17	0	80	271	0
16:15	18	16	6	0	40	10	82	5	0	97	13	17	13	0	43	9	65	21	0	95	275	0
16:30	15	19	3	0	37	8	79	7	0	94	19	24	8	0	51	5	54	19	0	78	260	0
16:45	9	28	11	0	48	10	75	8	0	93	21	28	9	0	58	11	64	22	0	97	296	0
Total	58	87	30	0	175	38	318	30	0	386	65	90	36	0	191	29	242	79	0	350	1102	0
17:00	14	31	13	0	58	14	102	13	0	129	24	20	7	0	51	10	53	20	0	83	321	0
17:15	15	31	15	0	61	10	83	16	0	109	23	15	6	0	44	10	69	23	0	102	316	0
17:30	27	22	15	0	64	11	60	8	0	79	28	15	5	0	48	8	56	18	0	82	273	0
17:45	15	27	6	0	48	7	68	12	0	87	17	13	6	0	36	6	59	20	0	85	256	0
Total	71	111	49	0	231	42	313	49	0	404	92	63	24	0	179	34	237	81	0	352	1166	0
Grand Total	220	315	124	0	659	100	960	157	0	1217	313	344	129	0	786	145	987	244	0	1376	4038	0
Apprch %	33.4%	47.8%	18.8%	0.0%		8.2%	78.9%	12.9%	0.0%		39.8%	43.8%	16.4%	0.0%		10.5%	71.7%	17.7%	0.0%			
Total %	5.4%	7.8%	3.1%	0.0%	16.3%	2.5%	23.8%	3.9%	0.0%	30.1%	7.8%	8.5%	3.2%	0.0%	19.5%	3.6%	24.4%	6.0%	0.0%	34.1%	100.0%	

AM PEAK HOUR	Railroad Avenue Southbound					Lincoln Road Westbound					Railroad Avenue Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	12	12	7	0	31	3	39	8	0	50	26	30	9	0	65	11	72	10	0	93	239
07:45	17	21	8	0	46	3	54	19	0	76	27	50	12	0	89	24	93	10	0	127	338
08:00	24	29	17	0	70	1	56	15	0	72	23	38	6	0	67	21	69	14	0	104	313
08:15	10	14	2	0	26	3	52	10	0	65	17	21	10	0	48	12	69	16	0	97	236
Total Volume	63	76	34	0	173	10	201	52	0	263	93	139	37	0	269	68	303	50	0	421	1126
% App Total	36.4%	43.9%	19.7%	0.0%		3.8%	76.4%	19.8%	0.0%		34.6%	51.7%	13.8%	0.0%		16.2%	72.0%	11.9%	0.0%		
PHF	.656	.655	.500	.000	.618	.833	.897	.684	.000	.865	.861	.695	.771	.000	.756	.708	.815	.781	.000	.829	.833

PM PEAK HOUR	Railroad Avenue Southbound					Lincoln Road Westbound					Railroad Avenue Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	9	28	11	0	48	10	75	8	0	93	21	28	9	0	58	11	64	22	0	97	296
17:00	14	31	13	0	58	14	102	13	0	129	24	20	7	0	51	10	53	20	0	83	321
17:15	15	31	15	0	61	10	83	16	0	109	23	15	6	0	44	10	69	23	0	102	316
17:30	27	22	15	0	64	11	60	8	0	79	28	15	5	0	48	8	56	18	0	82	273
Total Volume	65	112	54	0	231	45	320	45	0	410	96	78	27	0	201	39	242	83	0	364	1206
% App Total	28.1%	48.5%	23.4%	0.0%		11.0%	78.0%	11.0%	0.0%		47.8%	38.8%	13.4%	0.0%		10.7%	66.5%	22.8%	0.0%		
PHF	.602	.903	.900	.000	.902	.804	.784	.703	.000	.795	.857	.696	.750	.000	.866	.886	.877	.902	.000	.892	.939

ALL TRAFFIC DATA

0660-02

City of Yuba City
All Vehicles on Unshifted
Nothing on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7309-005 Garden Highway-Lincoln Road.ppd
Date : 4/22/2015

Unshifted Count = All Vehicles

	Garden Highway Southbound					Westbound					Garden Highway Northbound					Lincoln Road Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	58	8	0	66	0	0	0	0	0	30	124	0	0	154	40	0	22	0	62	282	0
07:15	0	69	10	0	79	0	0	0	0	0	16	111	0	0	127	56	0	21	0	77	283	0
07:30	0	75	19	0	94	0	0	0	0	0	26	153	0	0	179	64	0	36	0	100	373	0
07:45	0	92	18	0	110	0	0	0	0	0	48	222	0	0	270	83	0	35	0	118	498	0
Total	0	294	55	0	349	0	0	0	0	0	120	610	0	0	730	243	0	114	0	357	1436	0
08:00	0	119	26	0	145	0	0	0	0	0	31	169	0	0	200	51	0	35	0	86	431	0
08:15	0	89	24	0	113	0	0	0	0	0	38	132	0	0	170	56	0	31	0	87	370	0
08:30	0	52	23	0	75	0	0	0	0	0	28	139	0	0	167	38	0	15	0	53	295	0
08:45	0	61	15	0	76	0	0	0	0	0	24	89	0	0	113	41	0	23	0	64	253	0
Total	0	321	88	0	409	0	0	0	0	0	121	529	0	0	650	186	0	104	0	290	1349	0
16:00	0	137	57	0	194	0	0	0	0	0	38	125	0	0	163	39	0	34	0	73	430	0
16:15	0	124	55	0	179	0	0	0	0	0	40	131	0	0	171	52	0	39	0	91	441	0
16:30	0	136	47	0	183	0	0	0	0	0	39	111	0	0	150	35	0	33	0	68	401	0
16:45	0	144	60	0	204	0	0	0	0	0	40	97	0	0	137	40	0	30	0	70	411	0
Total	0	541	219	0	760	0	0	0	0	0	157	464	0	0	621	166	0	136	0	302	1683	0
17:00	0	174	63	0	237	0	0	0	0	0	48	144	0	0	192	38	0	28	0	66	495	0
17:15	0	161	64	0	225	0	0	0	0	0	38	120	0	1	159	39	0	47	0	86	470	1
17:30	0	133	46	0	179	0	0	0	0	0	34	109	0	1	144	36	0	42	0	78	401	1
17:45	0	127	44	0	171	0	0	0	0	0	32	93	0	1	126	34	0	37	0	71	368	1
Total	0	595	217	0	812	0	0	0	0	0	152	466	0	3	621	147	0	154	0	301	1734	3
Grand Total	0	1751	579	0	2330	0	0	0	0	0	550	2069	0	3	2622	742	0	508	0	1250	6202	3
Apprch %	0.0%	75.2%	24.8%	0.0%		0.0%	0.0%	0.0%	0.0%		21.0%	78.9%	0.0%	0.1%		59.4%	0.0%	40.6%	0.0%			
Total %	0.0%	28.2%	9.3%	0.0%	37.6%	0.0%	0.0%	0.0%	0.0%	0.0%	8.9%	33.4%	0.0%	0.0%	42.3%	12.0%	0.0%	8.2%	0.0%	20.2%	100.0%	

AM PEAK HOUR	Garden Highway Southbound					Westbound					Garden Highway Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 07:30 to 08:30																					
Peak Hour For Entire Intersection Begins at 07:30																					
07:30	0	75	19	0	94	0	0	0	0	0	26	153	0	0	179	64	0	36	0	100	373
07:45	0	92	18	0	110	0	0	0	0	0	48	222	0	0	270	83	0	35	0	118	498
08:00	0	119	26	0	145	0	0	0	0	0	31	169	0	0	200	51	0	35	0	86	431
08:15	0	89	24	0	113	0	0	0	0	0	38	132	0	0	170	56	0	31	0	87	370
Total Volume	0	375	87	0	462	0	0	0	0	0	143	676	0	0	819	254	0	137	0	391	1672
% App Total	0.0%	81.2%	18.8%	0.0%		0.0%	0.0%	0.0%	0.0%		17.5%	82.5%	0.0%	0.0%		65.0%	0.0%	35.0%	0.0%		
PHF	.000	.788	.837	.000	.797	.000	.000	.000	.000	.000	.745	.761	.000	.000	.758	.765	.000	.951	.000	.828	.839

PM PEAK HOUR	Garden Highway Southbound					Westbound					Garden Highway Northbound					Lincoln Road Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:30 to 17:30																					
Peak Hour For Entire Intersection Begins at 16:30																					
16:30	0	136	47	0	183	0	0	0	0	0	39	111	0	0	150	35	0	33	0	68	401
16:45	0	144	60	0	204	0	0	0	0	0	40	97	0	0	137	40	0	30	0	70	411
17:00	0	174	63	0	237	0	0	0	0	0	48	144	0	0	192	38	0	28	0	66	495
17:15	0	161	64	0	225	0	0	0	0	0	38	120	0	1	159	39	0	47	0	86	470
Total Volume	0	615	234	0	849	0	0	0	0	0	165	472	0	1	638	152	0	138	0	290	1777
% App Total	0.0%	72.4%	27.6%	0.0%		0.0%	0.0%	0.0%	0.0%		25.9%	74.0%	0.0%	0.2%		52.4%	0.0%	47.6%	0.0%		
PHF	.000	.884	.914	.000	.896	.000	.000	.000	.000	.000	.859	.819	.000	.250	.831	.950	.000	.734	.000	.843	.897

Volumes for: Wednesday, April 22, 2015 City: Yuba City Project #: 15-7310-001
Location: Lincoln Road between Eastcrest Court and Garden Highway 0660-02

Start	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	7	69			4	85				
12:15	4	73			11	60				
12:30	3	61			8	57				
12:45	4	74	18	277	4	76	27	278	45	555
1:00	3	72			3	70				
1:15	3	76			4	66				
1:30	3	58			3	52				
1:45	3	64	12	270	5	64	15	252	27	522
2:00	0	59			1	62				
2:15	3	59			1	80				
2:30	0	94			3	74				
2:45	2	75	5	287	4	58	9	274	14	561
3:00	3	79			6	93				
3:15	5	100			4	83				
3:30	4	62			4	121				
3:45	2	86	14	327	3	59	17	356	31	683
4:00	9	78			5	111				
4:15	9	90			3	98				
4:30	7	76			8	98				
4:45	7	72	32	316	12	98	28	405	60	721
5:00	10	73			12	121				
5:15	16	89			6	111				
5:30	24	74			8	82				
5:45	38	67	88	303	17	82	43	396	131	699
6:00	39	70			18	81				
6:15	32	73			11	74				
6:30	43	71			20	59				
6:45	63	37	177	251	25	78	74	292	251	543
7:00	56	51			39	67				
7:15	83	61			32	64				
7:30	99	56			46	57				
7:45	122	59	360	227	76	51	193	239	553	466
8:00	90	58			63	49				
8:15	94	56			66	46				
8:30	54	51			55	43				
8:45	65	33	303	198	43	46	227	184	530	382
9:00	56	34			48	49				
9:15	47	27			40	35				
9:30	52	32			52	31				
9:45	49	30	204	123	46	32	186	147	390	270
10:00	53	21			44	48				
10:15	48	18			47	19				
10:30	51	11			49	22				
10:45	42	6	194	56	43	25	183	114	377	170
11:00	54	8			65	20				
11:15	58	5			42	7				
11:30	57	2			55	17				
11:45	61	5	230	20	56	7	218	51	448	71
Total	1637	2655	1637	2655	1220	2988	1220	2988	2857	5643
Combined Total	4292		4292		4208		4208		8500	
AM Peak	7:30 AM				7:45 AM					
Vol.	405				260					
P.H.F.	0.830				0.855					
PM Peak		2:30 PM				4:30 PM				
Vol.		348				428				
P.H.F.		0.870				0.884				
Percentage	38.1%	61.9%			29.0%	71.0%				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	238	285	74	32	146	222	27	727	29	161	674	83
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	262	313	81	35	160	244	30	799	32	177	741	91
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	298	433	112	44	298	253	40	1304	623	210	1621	775
Arrive On Green	0.17	0.30	0.30	0.02	0.16	0.16	0.02	0.39	0.39	0.12	0.49	0.49
Sat Flow, veh/h	1774	1428	370	1774	1863	1583	1774	3312	1583	1774	3312	1583
Grp Volume(v), veh/h	262	0	394	35	160	244	30	799	32	177	741	91
Grp Sat Flow(s),veh/h/ln	1774	0	1798	1774	1863	1583	1774	1656	1583	1774	1656	1583
Q Serve(g_s), s	14.4	0.0	19.6	2.0	7.9	15.3	1.7	19.3	1.3	9.8	14.7	3.1
Cycle Q Clear(g_c), s	14.4	0.0	19.6	2.0	7.9	15.3	1.7	19.3	1.3	9.8	14.7	3.1
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	0	545	44	298	253	40	1304	623	210	1621	775
V/C Ratio(X)	0.88	0.00	0.72	0.79	0.54	0.96	0.75	0.61	0.05	0.84	0.46	0.12
Avail Cap(c_a), veh/h	373	0	575	89	298	253	106	1304	623	266	1621	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	0.0	31.1	48.5	38.6	41.7	48.6	24.2	18.8	43.2	16.8	13.8
Incr Delay (d2), s/veh	17.8	0.0	4.2	26.4	1.9	46.2	23.8	2.2	0.2	17.5	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	10.3	1.3	4.2	10.0	1.1	9.2	0.6	5.8	6.9	1.4
LnGrp Delay(d),s/veh	58.4	0.0	35.3	74.9	40.5	87.9	72.3	26.4	18.9	60.6	17.7	14.1
LnGrp LOS	E		D	E	D	F	E	C	B	E	B	B
Approach Vol, veh/h		656			439			861			1009	
Approach Delay, s/veh		44.5			69.6			27.7			24.9	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	43.4	6.5	34.3	6.3	52.9	20.8	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	32.0	5.0	32.0	6.0	41.0	21.0	16.0
Max Q Clear Time (g_c+I1), s	11.8	21.3	4.0	21.6	3.7	16.7	16.4	17.3
Green Ext Time (p_c), s	0.2	5.5	0.0	2.5	0.0	8.2	0.4	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	254	137	143	676	375	87
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	302	163	170	805	446	104
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	536	247	300	2554	1739	778
Arrive On Green	0.16	0.16	0.17	0.72	0.49	0.49
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	302	163	170	805	446	104
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	5.3	6.3	5.7	5.3	4.8	2.3
Cycle Q Clear(g_c), s	5.3	6.3	5.7	5.3	4.8	2.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	536	247	300	2554	1739	778
V/C Ratio(X)	0.56	0.66	0.57	0.32	0.26	0.13
Avail Cap(c_a), veh/h	1374	632	300	2554	1739	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	25.9	24.9	3.3	9.6	9.0
Incr Delay (d2), s/veh	0.9	3.0	2.5	0.3	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	5.6	3.0	2.7	2.4	1.1
LnGrp Delay(d),s/veh	26.4	28.9	27.4	3.6	10.0	9.4
LnGrp LOS	C	C	C	A	B	A
Approach Vol, veh/h	465			975	550	
Approach Delay, s/veh	27.3			7.7	9.9	
Approach LOS	C			A	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		51.0		14.1	15.0	36.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		47.0		26.0	11.0	32.0		
Max Q Clear Time (g_c+I1), s		7.3		8.3	7.7	6.8		
Green Ext Time (p_c), s		4.7		1.8	1.5	2.3		

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	30.4
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	64	377	33	0	72	245	17	0	88	54	136
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	79	465	41	0	89	302	21	0	109	67	168
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	49.7	19.7	14.6
HCM LOS	E	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	62%	0%	100%	0%	100%	0%	18%
Vol Thru, %	38%	0%	0%	92%	0%	94%	46%
Vol Right, %	0%	100%	0%	8%	0%	6%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	136	64	410	72	262	68
LT Vol	88	0	64	0	72	0	12
Through Vol	54	0	0	377	0	245	31
RT Vol	0	136	0	33	0	17	25
Lane Flow Rate	175	168	79	506	89	323	84
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.392	0.327	0.162	0.959	0.19	0.64	0.196
Departure Headway (Hd)	8.056	7.019	7.39	6.821	7.685	7.125	8.397
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	447	512	485	531	467	508	426
Service Time	5.811	4.773	5.138	4.568	5.439	4.878	6.474
HCM Lane V/C Ratio	0.391	0.328	0.163	0.953	0.191	0.636	0.197
HCM Control Delay	15.9	13.2	11.6	55.6	12.2	21.8	13.5
HCM Lane LOS	C	B	B	F	B	C	B
HCM 95th-tile Q	1.8	1.4	0.6	12.5	0.7	4.5	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	12	31	25
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	38	31
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.5
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	18.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	68	303	50	0	10	201	52	0	93	139	37
Peak Hour Factor	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	365	60	0	12	242	63	0	112	167	45
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	24.2	17	14.2
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	93	139	37	68	303	50	10	201	52	63	76
LT Vol	93	0	0	68	0	0	10	0	0	63	0
Through Vol	0	139	0	0	303	0	0	201	0	0	76
RT Vol	0	0	37	0	0	50	0	0	52	0	0
Lane Flow Rate	112	167	45	82	365	60	12	242	63	76	92
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.261	0.367	0.089	0.179	0.749	0.112	0.028	0.525	0.124	0.183	0.208
Departure Headway (Hd)	8.387	7.887	7.187	7.885	7.385	6.685	8.31	7.81	7.11	8.691	8.191
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	456	497	455	489	535	430	460	503	412	438
Service Time	6.147	5.647	4.947	5.638	5.138	4.438	6.069	5.569	4.869	6.458	5.958
HCM Lane V/C Ratio	0.262	0.366	0.091	0.18	0.746	0.112	0.028	0.526	0.125	0.184	0.21
HCM Control Delay	14.1	15.2	10.7	12.4	29.1	10.3	11.3	18.9	10.9	13.4	13.1
HCM Lane LOS	B	C	B	B	D	B	B	C	B	B	B
HCM 95th-tile Q	1	1.7	0.3	0.6	6.3	0.4	0.1	3	0.4	0.7	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	63	76	34
Peak Hour Factor	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	76	92	41
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	12.8
HCM LOS	B

Lane	SBLn3

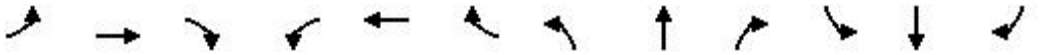
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	149	386	257	80	36	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	175	454	302	94	42	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	396	0	-	0	1154	349
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	805	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1163	-	-	-	218	694
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	440	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1163	-	-	-	185	694
Mov Cap-2 Maneuver	-	-	-	-	296	-
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	374	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1163	-	-	-	496
HCM Lane V/C Ratio	0.151	-	-	-	0.287
HCM Control Delay (s)	8.6	-	-	-	15.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.5	-	-	-	1.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	218	43	29	226	252	52	870	63	216	739	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	147	229	45	31	238	265	55	916	66	227	778	200
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	177	392	77	39	339	288	71	1415	677	259	1766	844
Arrive On Green	0.10	0.26	0.26	0.02	0.18	0.18	0.04	0.43	0.43	0.15	0.53	0.53
Sat Flow, veh/h	1774	1513	297	1774	1863	1583	1774	3312	1583	1774	3312	1583
Grp Volume(v), veh/h	147	0	274	31	238	265	55	916	66	227	778	200
Grp Sat Flow(s),veh/h/ln	1774	0	1810	1774	1863	1583	1774	1656	1583	1774	1656	1583
Q Serve(g_s), s	8.9	0.0	14.5	1.9	13.2	18.1	3.4	24.1	2.7	13.8	15.8	7.4
Cycle Q Clear(g_c), s	8.9	0.0	14.5	1.9	13.2	18.1	3.4	24.1	2.7	13.8	15.8	7.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	0	469	39	339	288	71	1415	677	259	1766	844
V/C Ratio(X)	0.83	0.00	0.58	0.78	0.70	0.92	0.78	0.65	0.10	0.88	0.44	0.24
Avail Cap(c_a), veh/h	226	0	469	97	339	288	145	1415	677	323	1766	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	35.6	53.5	42.2	44.2	52.3	24.9	18.8	46.0	15.7	13.7
Incr Delay (d2), s/veh	18.5	0.0	1.9	27.9	6.4	33.0	16.3	2.3	0.3	19.6	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	7.5	1.2	7.4	10.5	2.0	11.4	1.2	8.2	7.3	3.4
LnGrp Delay(d),s/veh	67.1	0.0	37.4	81.4	48.6	77.2	68.6	27.2	19.1	65.6	16.5	14.4
LnGrp LOS	F		D	F	D	F	F	C	B	F	B	B
Approach Vol, veh/h		421			534			1037			1205	
Approach Delay, s/veh		47.8			64.7			28.9			25.4	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	51.0	6.4	32.5	8.4	62.7	14.9	24.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	40.0	6.0	28.0	9.0	51.0	14.0	20.0
Max Q Clear Time (g_c+I1), s	15.8	26.1	3.9	16.5	5.4	17.8	10.9	20.1
Green Ext Time (p_c), s	0.3	7.6	0.0	2.5	0.0	11.2	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	152	138	165	472	615	234
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	160	145	174	497	647	246
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	485	223	187	2544	1924	861
Arrive On Green	0.14	0.14	0.11	0.72	0.54	0.54
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	160	145	174	497	647	246
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	2.4	4.9	5.5	2.6	5.8	4.8
Cycle Q Clear(g_c), s	2.4	4.9	5.5	2.6	5.8	4.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	485	223	187	2544	1924	861
V/C Ratio(X)	0.33	0.65	0.93	0.20	0.34	0.29
Avail Cap(c_a), veh/h	1569	722	187	2544	1924	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	23.2	25.3	2.6	7.3	7.0
Incr Delay (d2), s/veh	0.4	3.2	46.8	0.2	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2	5.1	1.3	2.9	2.2
LnGrp Delay(d),s/veh	22.5	26.4	72.1	2.8	7.7	7.9
LnGrp LOS	C	C	F	A	A	A
Approach Vol, veh/h	305			671	893	
Approach Delay, s/veh	24.3			20.8	7.8	
Approach LOS	C			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		45.0		12.0	10.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		41.0		26.0	6.0	31.0		
Max Q Clear Time (g_c+I1), s		4.6		6.9	7.5	7.8		
Green Ext Time (p_c), s		2.9		1.2	0.0	4.0		

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	25.3
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	39	318	83	0	83	381	22	0	82	33	77
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	353	92	0	92	423	24	0	91	37	86
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	29.5	28.6	13
HCM LOS	D	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	0%	100%	0%	100%	0%	17%
Vol Thru, %	29%	0%	0%	79%	0%	95%	46%
Vol Right, %	0%	100%	0%	21%	0%	5%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	77	39	401	83	403	95
LT Vol	82	0	39	0	83	0	16
Through Vol	33	0	0	318	0	381	44
RT Vol	0	77	0	83	0	22	35
Lane Flow Rate	128	86	43	446	92	448	106
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.289	0.168	0.086	0.808	0.182	0.816	0.234
Departure Headway (Hd)	8.146	7.06	7.184	6.525	7.106	6.557	7.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	441	507	499	552	504	551	449
Service Time	5.897	4.81	4.929	4.27	4.85	4.3	6.056
HCM Lane V/C Ratio	0.29	0.17	0.086	0.808	0.183	0.813	0.236
HCM Control Delay	14.2	11.2	10.6	31.3	11.4	32.2	13.5
HCM Lane LOS	B	B	B	D	B	D	B
HCM 95th-tile Q	1.2	0.6	0.3	7.9	0.7	8.1	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	16	44	35
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	18	49	39
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.5
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	16.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	39	242	83	0	45	320	45	0	96	78	27
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	41	257	88	0	48	340	48	0	102	83	29
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	15.7	21.4	12.8
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	78	27	39	242	83	45	320	45	65	112
LT Vol	96	0	0	39	0	0	45	0	0	65	0
Through Vol	0	78	0	0	242	0	0	320	0	0	112
RT Vol	0	0	27	0	0	83	0	0	45	0	0
Lane Flow Rate	102	83	29	41	257	88	48	340	48	69	119
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.238	0.182	0.057	0.091	0.528	0.164	0.103	0.685	0.087	0.16	0.259
Departure Headway (Hd)	8.392	7.892	7.192	7.88	7.38	6.68	7.744	7.244	6.544	8.325	7.825
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	454	497	455	489	536	463	500	547	431	459
Service Time	6.148	5.648	4.948	5.628	5.128	4.428	5.49	4.99	4.29	6.077	5.577
HCM Lane V/C Ratio	0.238	0.183	0.058	0.09	0.526	0.164	0.104	0.68	0.088	0.16	0.259
HCM Control Delay	13.8	12.4	10.4	11.4	18.1	10.7	11.4	24.4	9.9	12.7	13.3
HCM Lane LOS	B	B	B	B	C	B	B	C	A	B	B
HCM 95th-tile Q	0.9	0.7	0.2	0.3	3	0.6	0.3	5.2	0.3	0.6	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	65	112	54
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	69	119	57
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	12.5
HCM LOS	B

Lane	SBLn3

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	89	335	409	63	47	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	368	449	69	52	119

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	519	0	-	0	1048	484
Stage 1	-	-	-	-	484	-
Stage 2	-	-	-	-	564	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1047	-	-	-	252	583
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	569	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1047	-	-	-	228	583
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1047	-	-	-	491
HCM Lane V/C Ratio	0.093	-	-	-	0.347
HCM Control Delay (s)	8.8	-	-	-	16.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	238	287	74	35	154	235	27	727	30	164	674	83
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	262	315	81	38	169	258	30	799	33	180	741	91
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	298	430	111	48	298	253	40	1298	621	213	1621	775
Arrive On Green	0.17	0.30	0.30	0.03	0.16	0.16	0.02	0.39	0.39	0.12	0.49	0.49
Sat Flow, veh/h	1774	1430	368	1774	1863	1583	1774	3312	1583	1774	3312	1583
Grp Volume(v), veh/h	262	0	396	38	169	258	30	799	33	180	741	91
Grp Sat Flow(s),veh/h/ln	1774	0	1798	1774	1863	1583	1774	1656	1583	1774	1656	1583
Q Serve(g_s), s	14.4	0.0	19.7	2.1	8.4	16.0	1.7	19.3	1.3	9.9	14.7	3.1
Cycle Q Clear(g_c), s	14.4	0.0	19.7	2.1	8.4	16.0	1.7	19.3	1.3	9.9	14.7	3.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	298	0	541	48	298	253	40	1298	621	213	1621	775
V/C Ratio(X)	0.88	0.00	0.73	0.79	0.57	1.02	0.75	0.62	0.05	0.84	0.46	0.12
Avail Cap(c_a), veh/h	373	0	575	89	298	253	106	1298	621	266	1621	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	0.0	31.3	48.4	38.8	42.0	48.6	24.4	18.9	43.1	16.8	13.8
Incr Delay (d2), s/veh	17.8	0.0	4.5	24.8	2.5	61.4	23.8	2.2	0.2	18.0	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	10.5	1.4	4.5	11.3	1.1	9.2	0.6	5.9	6.9	1.4
LnGrp Delay(d),s/veh	58.4	0.0	35.8	73.2	41.3	103.5	72.3	26.6	19.0	61.1	17.7	14.1
LnGrp LOS	E		D	E	D	F	E	C	B	E	B	B
Approach Vol, veh/h		658			465			862			1012	
Approach Delay, s/veh		44.8			78.4			27.9			25.1	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	43.2	6.7	34.1	6.3	52.9	20.8	20.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	15.0	32.0	5.0	32.0	6.0	41.0	21.0	16.0
Max Q Clear Time (g_c+I1), s	11.9	21.3	4.1	21.7	3.7	16.7	16.4	18.0
Green Ext Time (p_c), s	0.2	5.5	0.0	2.5	0.0	8.2	0.4	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	282	145	145	676	375	94
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	336	173	173	805	446	112
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	586	269	180	2457	1858	831
Arrive On Green	0.17	0.17	0.10	0.69	0.52	0.52
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	336	173	173	805	446	112
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	5.3	6.0	5.7	5.3	4.0	2.1
Cycle Q Clear(g_c), s	5.3	6.0	5.7	5.3	4.0	2.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	586	269	180	2457	1858	831
V/C Ratio(X)	0.57	0.64	0.96	0.33	0.24	0.13
Avail Cap(c_a), veh/h	1515	697	180	2457	1858	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	22.8	26.4	3.6	7.6	7.2
Incr Delay (d2), s/veh	0.9	2.5	55.1	0.4	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.2	5.5	2.7	2.1	1.0
LnGrp Delay(d),s/veh	23.4	25.4	81.5	3.9	7.9	7.5
LnGrp LOS	C	C	F	A	A	A
Approach Vol, veh/h	509			978	558	
Approach Delay, s/veh	24.1			17.7	7.8	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		45.0		14.0	10.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		41.0		26.0	6.0	31.0		
Max Q Clear Time (g_c+I1), s		7.3		8.0	7.7	6.0		
Green Ext Time (p_c), s		4.7		2.0	0.0	2.4		

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	33.7
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	64	383	33	0	74	268	18	0	88	54	137
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	79	473	41	0	91	331	22	0	109	67	169
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	55.7	22.7	14.9
HCM LOS	F	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	62%	0%	100%	0%	100%	0%	18%
Vol Thru, %	38%	0%	0%	92%	0%	94%	46%
Vol Right, %	0%	100%	0%	8%	0%	6%	37%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	137	64	416	74	286	68
LT Vol	88	0	64	0	74	0	12
Through Vol	54	0	0	383	0	268	31
RT Vol	0	137	0	33	0	18	25
Lane Flow Rate	175	169	79	514	91	353	84
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.398	0.336	0.164	0.987	0.197	0.705	0.2
Departure Headway (Hd)	8.182	7.143	7.487	6.918	7.744	7.185	8.575
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	440	502	479	524	463	501	417
Service Time	5.942	4.902	5.241	4.672	5.503	4.944	6.663
HCM Lane V/C Ratio	0.398	0.337	0.165	0.981	0.197	0.705	0.201
HCM Control Delay	16.3	13.5	11.7	62.5	12.4	25.4	13.8
HCM Lane LOS	C	B	B	F	B	D	B
HCM 95th-tile Q	1.9	1.5	0.6	13.4	0.7	5.5	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	12	31	25
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	38	31
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.8
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	68	311	50	0	11	233	55	0	93	139	37
Peak Hour Factor	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	375	60	0	13	281	66	0	112	167	45
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	27.2	20.2	14.6
HCM LOS	D	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	93	139	37	68	311	50	11	233	55	64	76
LT Vol	93	0	0	68	0	0	11	0	0	64	0
Through Vol	0	139	0	0	311	0	0	233	0	0	76
RT Vol	0	0	37	0	0	50	0	0	55	0	0
Lane Flow Rate	112	167	45	82	375	60	13	281	66	77	92
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.268	0.377	0.092	0.183	0.787	0.115	0.031	0.617	0.133	0.191	0.214
Departure Headway (Hd)	8.605	8.105	7.405	8.062	7.562	6.862	8.408	7.908	7.208	8.915	8.415
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	442	482	444	476	520	425	455	496	402	425
Service Time	6.374	5.874	5.174	5.826	5.326	4.626	6.176	5.676	4.976	6.693	6.193
HCM Lane V/C Ratio	0.269	0.378	0.093	0.185	0.788	0.115	0.031	0.618	0.133	0.192	0.216
HCM Control Delay	14.5	15.7	10.9	12.6	33.1	10.5	11.4	22.7	11.1	13.8	13.5
HCM Lane LOS	B	C	B	B	D	B	B	C	B	B	B
HCM 95th-tile Q	1.1	1.7	0.3	0.7	7.1	0.4	0.1	4.1	0.5	0.7	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	64	76	34
Peak Hour Factor	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	77	92	41
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	13.2
HCM LOS	B

Lane	SBLn3

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	149	393	283	86	37	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	175	462	333	101	44	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	434	0	-	0	1197	384
Stage 1	-	-	-	-	384	-
Stage 2	-	-	-	-	813	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1126	-	-	-	205	664
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	436	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1126	-	-	-	173	664
Mov Cap-2 Maneuver	-	-	-	-	287	-
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	368	-

Approach	EB	WB	SB
HCM Control Delay, s	2.4	0	15.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1126	-	-	-	475
HCM Lane V/C Ratio	0.156	-	-	-	0.302
HCM Control Delay (s)	8.8	-	-	-	15.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	1.3

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	391	9	9	230	36	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	471	11	11	277	43	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	482	0	776	241
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	299	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1077	-	350	761
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1077	-	346	761
Mov Cap-2 Maneuver	-	-	-	-	346	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	744	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	476	-	-	1077	-
HCM Lane V/C Ratio	0.182	-	-	0.01	-
HCM Control Delay (s)	14.2	-	-	8.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	140	226	43	30	230	258	52	870	66	229	739	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	147	238	45	32	242	272	55	916	69	241	778	200
Adj No. of Lanes	1	1	0	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	177	394	75	40	339	288	71	1389	664	273	1766	844
Arrive On Green	0.10	0.26	0.26	0.02	0.18	0.18	0.04	0.42	0.42	0.15	0.53	0.53
Sat Flow, veh/h	1774	1524	288	1774	1863	1583	1774	3312	1583	1774	3312	1583
Grp Volume(v), veh/h	147	0	283	32	242	272	55	916	69	241	778	200
Grp Sat Flow(s),veh/h/ln	1774	0	1812	1774	1863	1583	1774	1656	1583	1774	1656	1583
Q Serve(g_s), s	8.9	0.0	15.1	2.0	13.4	18.7	3.4	24.4	2.9	14.6	15.8	7.4
Cycle Q Clear(g_c), s	8.9	0.0	15.1	2.0	13.4	18.7	3.4	24.4	2.9	14.6	15.8	7.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	0	469	40	339	288	71	1389	664	273	1766	844
V/C Ratio(X)	0.83	0.00	0.60	0.80	0.71	0.94	0.78	0.66	0.10	0.88	0.44	0.24
Avail Cap(c_a), veh/h	226	0	469	97	339	288	145	1389	664	339	1766	844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	0.0	35.8	53.5	42.3	44.5	52.3	25.6	19.4	45.6	15.7	13.7
Incr Delay (d2), s/veh	18.5	0.0	2.2	28.6	7.0	38.4	16.3	2.5	0.3	19.7	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	7.8	1.3	7.6	11.2	2.0	11.5	1.3	8.7	7.3	3.4
LnGrp Delay(d),s/veh	67.1	0.0	38.0	82.1	49.3	82.9	68.6	28.1	19.7	65.3	16.5	14.4
LnGrp LOS	E		D	F	D	F	F	C	B	F	B	B
Approach Vol, veh/h		430			546			1040			1219	
Approach Delay, s/veh		48.0			67.9			29.7			25.8	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.9	50.1	6.5	32.4	8.4	62.7	14.9	24.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	21.0	39.0	6.0	28.0	9.0	51.0	14.0	20.0
Max Q Clear Time (g_c+I1), s	16.6	26.4	4.0	17.1	5.4	17.8	10.9	20.7
Green Ext Time (p_c), s	0.3	7.1	0.0	2.5	0.0	11.2	0.1	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		37.1
HCM 2010 LOS		D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	165	142	173	472	615	262
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	174	149	182	497	647	276
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	497	229	186	2534	1916	857
Arrive On Green	0.14	0.14	0.10	0.72	0.54	0.54
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	174	149	182	497	647	276
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	2.6	5.1	5.9	2.7	5.9	5.5
Cycle Q Clear(g_c), s	2.6	5.1	5.9	2.7	5.9	5.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	497	229	186	2534	1916	857
V/C Ratio(X)	0.35	0.65	0.98	0.20	0.34	0.32
Avail Cap(c_a), veh/h	1562	719	186	2534	1916	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	23.1	25.6	2.7	7.4	7.3
Incr Delay (d2), s/veh	0.4	3.1	59.8	0.2	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.6	5.9	1.3	2.9	2.6
LnGrp Delay(d),s/veh	22.5	26.3	85.3	2.9	7.9	8.3
LnGrp LOS	C	C	F	A	A	A
Approach Vol, veh/h	323			679	923	
Approach Delay, s/veh	24.2			25.0	8.0	
Approach LOS	C			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		45.0		12.3	10.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		41.0		26.0	6.0	31.0		
Max Q Clear Time (g_c+I1), s		4.7		7.1	7.9	7.9		
Green Ext Time (p_c), s		3.0		1.2	0.0	4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	29.4
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	39	342	83	0	84	392	22	0	82	33	79
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	380	92	0	93	436	24	0	91	37	88
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	2
HCM Control Delay	36.2	32.4	13.3
HCM LOS	E	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	71%	0%	100%	0%	100%	0%	18%
Vol Thru, %	29%	0%	0%	80%	0%	95%	46%
Vol Right, %	0%	100%	0%	20%	0%	5%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	79	39	425	84	414	96
LT Vol	82	0	39	0	84	0	17
Through Vol	33	0	0	342	0	392	44
RT Vol	0	79	0	83	0	22	35
Lane Flow Rate	128	88	43	472	93	460	107
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.294	0.176	0.087	0.867	0.187	0.851	0.242
Departure Headway (Hd)	8.29	7.202	7.261	6.61	7.207	6.658	8.171
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	498	493	548	497	543	438
Service Time	6.047	4.958	5.009	4.357	4.953	4.403	6.243
HCM Lane V/C Ratio	0.296	0.177	0.087	0.861	0.187	0.847	0.244
HCM Control Delay	14.5	11.5	10.7	38.5	11.6	36.6	13.9
HCM Lane LOS	B	B	B	E	B	E	B
HCM 95th-tile Q	1.2	0.6	0.3	9.5	0.7	9	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	17	44	35
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	19	49	39
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.9
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	18.4
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	39	274	83	0	45	335	46	0	96	78	28
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	41	291	88	0	48	356	49	0	102	83	30
Number of Lanes	0	1	1	1	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	18.1	24.3	13.1
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	78	28	39	274	83	45	335	46	68	112
LT Vol	96	0	0	39	0	0	45	0	0	68	0
Through Vol	0	78	0	0	274	0	0	335	0	0	112
RT Vol	0	0	28	0	0	83	0	0	46	0	0
Lane Flow Rate	102	83	30	41	291	88	48	356	49	72	119
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.244	0.187	0.061	0.092	0.607	0.167	0.105	0.732	0.091	0.171	0.266
Departure Headway (Hd)	8.602	8.102	7.402	7.993	7.493	6.793	7.893	7.393	6.693	8.525	8.025
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	417	442	483	448	481	527	454	488	534	420	447
Service Time	6.365	5.865	5.165	5.748	5.248	4.548	5.647	5.147	4.447	6.286	5.786
HCM Lane V/C Ratio	0.245	0.188	0.062	0.092	0.605	0.167	0.106	0.73	0.092	0.171	0.266
HCM Control Delay	14.1	12.7	10.6	11.6	21.2	10.9	11.6	27.9	10.1	13	13.7
HCM Lane LOS	B	B	B	B	C	B	B	D	B	B	B
HCM 95th-tile Q	0.9	0.7	0.2	0.3	4	0.6	0.3	6	0.3	0.6	1.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	68	112	54
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	72	119	57
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	12.9
HCM LOS	B

Lane	SBLn3

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	89	362	422	66	53	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	98	398	464	73	58	119

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	536	0	-	0	1093	500
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	593	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1032	-	-	-	237	571
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1032	-	-	-	214	571
Mov Cap-2 Maneuver	-	-	-	-	347	-
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	500	-

Approach	EB	WB	SB
HCM Control Delay, s	1.7	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1032	-	-	-	471
HCM Lane V/C Ratio	0.095	-	-	-	0.376
HCM Control Delay (s)	8.9	-	-	-	17.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.7

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	290	36	36	399	17	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	305	38	38	420	18	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	343	0	820	172
Stage 1	-	-	-	-	324	-
Stage 2	-	-	-	-	496	-
Critical Hdwy	-	-	4.14	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.22	-	3.519	3.319
Pot Cap-1 Maneuver	-	-	1213	-	328	842
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1213	-	318	842
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	706	-
Stage 2	-	-	-	-	592	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	462	-	-	1213	-
HCM Lane V/C Ratio	0.077	-	-	0.031	-
HCM Control Delay (s)	13.4	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	385	867	235	21	322	75	225	995	75	218	963	364
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	423	953	258	23	354	82	247	1093	82	240	1058	400
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	509	1144	512	65	687	307	319	1937	645	312	1928	641
Arrive On Green	0.15	0.32	0.32	0.02	0.19	0.19	0.09	0.41	0.41	0.09	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	4759	1583	3442	4759	1583
Grp Volume(v), veh/h	423	953	258	23	354	82	247	1093	82	240	1058	400
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1586	1583	1721	1586	1583
Q Serve(g_s), s	11.9	24.9	13.2	0.7	9.0	4.4	7.0	17.7	3.2	6.8	17.0	20.1
Cycle Q Clear(g_c), s	11.9	24.9	13.2	0.7	9.0	4.4	7.0	17.7	3.2	6.8	17.0	20.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	1144	512	65	687	307	319	1937	645	312	1928	641
V/C Ratio(X)	0.83	0.83	0.50	0.35	0.52	0.27	0.77	0.56	0.13	0.77	0.55	0.62
Avail Cap(c_a), veh/h	654	1310	586	138	779	348	413	1937	645	413	1928	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	31.3	27.4	48.5	36.1	34.2	44.3	22.8	18.5	44.4	22.8	23.7
Incr Delay (d2), s/veh	7.1	4.3	0.8	3.2	0.6	0.5	6.7	1.2	0.4	6.2	1.1	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	12.9	5.8	0.3	4.4	2.0	3.6	7.9	1.5	3.5	7.6	9.5
LnGrp Delay(d),s/veh	48.4	35.6	28.1	51.7	36.7	34.7	51.0	24.0	18.9	50.6	23.9	28.2
LnGrp LOS	D	D	C	D	D	C	D	C	B	D	C	C
Approach Vol, veh/h		1634			459			1422			1698	
Approach Delay, s/veh		37.7			37.1			28.4			28.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	44.7	5.9	36.3	13.3	44.5	18.8	23.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	31.0	4.0	37.0	12.0	31.0	19.0	22.0
Max Q Clear Time (g_c+I1), s	8.8	19.7	2.7	26.9	9.0	22.1	13.9	11.0
Green Ext Time (p_c), s	0.3	8.4	0.0	5.4	0.3	6.9	0.9	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	750	413	228	965	668	168
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	893	492	271	1149	795	200
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1090	501	355	1947	1003	449
Arrive On Green	0.32	0.32	0.20	0.55	0.28	0.28
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	893	492	271	1149	795	200
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	14.4	18.5	8.7	13.0	12.5	6.2
Cycle Q Clear(g_c), s	14.4	18.5	8.7	13.0	12.5	6.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1090	501	355	1947	1003	449
V/C Ratio(X)	0.82	0.98	0.76	0.59	0.79	0.45
Avail Cap(c_a), veh/h	1090	501	355	1947	1003	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	20.3	22.7	9.0	19.9	17.6
Incr Delay (d2), s/veh	5.1	35.2	9.5	1.3	6.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	18.6	5.2	6.6	7.0	3.1
LnGrp Delay(d),s/veh	24.0	55.6	32.1	10.3	26.3	20.8
LnGrp LOS	C	F	C	B	C	C
Approach Vol, veh/h	1385			1420	995	
Approach Delay, s/veh	35.2			14.5	25.2	
Approach LOS	D			B	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		37.0		23.0	16.0	21.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		33.0		19.0	12.0	17.0		
Max Q Clear Time (g_c+I1), s		15.0		20.5	10.7	14.5		
Green Ext Time (p_c), s		6.5		0.0	0.9	1.2		

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	58.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	104	1011	42	0	94	475	28	0	78	40	166
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	128	1248	52	0	116	586	35	0	96	49	205
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	3
HCM Control Delay	72.6	53.7	26.2
HCM LOS	F	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	66%	0%	100%	0%	0%	100%	0%	0%	27%
Vol Thru, %	34%	0%	0%	100%	89%	0%	100%	85%	33%
Vol Right, %	0%	100%	0%	0%	11%	0%	0%	15%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	166	104	674	379	94	317	186	112
LT Vol	78	0	104	0	0	94	0	0	30
Through Vol	40	0	0	674	337	0	317	158	37
RT Vol	0	166	0	0	42	0	0	28	45
Lane Flow Rate	146	205	128	832	468	116	391	230	138
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.466	0.597	0.358	1	1	0.335	1	0.625	0.452
Departure Headway (Hd)	11.521	10.493	10.028	9.525	9.447	10.381	9.879	9.774	11.768
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	313	344	357	383	384	346	367	368	306
Service Time	9.289	8.262	7.825	7.322	7.244	8.16	7.659	7.553	9.539
HCM Lane V/C Ratio	0.466	0.596	0.359	2.172	1.219	0.335	1.065	0.625	0.451
HCM Control Delay	24	27.8	18.4	78.1	77.8	18.3	79.6	27.6	23.9
HCM Lane LOS	C	D	C	F	F	C	F	D	C
HCM 95th-tile Q	2.4	3.7	1.6	11.8	11.9	1.4	11.6	4	2.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	37	45
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	46	56
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	23.9
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	49.6
Intersection LOS	E

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	44	921	62	0	26	358	68	0	83	88	111
Peak Hour Factor	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	53	1110	75	0	31	431	82	0	100	106	134
Number of Lanes	0	1	2	0	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	71.8	31.1	17.7
HCM LOS	F	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	83%	0%	100%	64%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	17%	0%	0%	36%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	88	111	44	614	369	26	239	187	107	53
LT Vol	83	0	0	44	0	0	26	0	0	107	0
Through Vol	0	88	0	0	614	307	0	239	119	0	53
RT Vol	0	0	111	0	0	62	0	0	68	0	0
Lane Flow Rate	100	106	134	53	740	445	31	288	226	129	64
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.3	0.303	0.357	0.137	1	1	0.088	0.769	0.588	0.401	0.19
Departure Headway (Hd)	10.782	10.29	9.602	9.291	8.791	8.673	10.121	9.626	9.375	11.196	10.705
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	334	350	376	386	422	418	355	377	386	322	336
Service Time	8.516	8.024	7.336	7.033	6.533	6.415	7.851	7.356	7.104	8.934	8.443
HCM Lane V/C Ratio	0.299	0.303	0.356	0.137	1.754	1.065	0.087	0.764	0.585	0.401	0.19
HCM Control Delay	18.1	17.4	17.6	13.5	74.6	74	13.8	38.1	24.7	21.3	15.9
HCM Lane LOS	C	C	C	B	F	F	B	E	C	C	C
HCM 95th-tile Q	1.2	1.3	1.6	0.5	12.4	12.4	0.3	6.3	3.6	1.9	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	107	53	17
Peak Hour Factor	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	129	64	20
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	18.9
HCM LOS	C

Lane	SBLn3

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	97	1119	476	14	26	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	114	1316	560	16	31	148

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	576	0	-	0	1454	288
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	886	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	993	-	-	-	121	709
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	363	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	993	-	-	-	107	709
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	321	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	993	-	-	-	520
HCM Lane V/C Ratio	0.115	-	-	-	0.344
HCM Control Delay (s)	9.1	-	-	-	15.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	349	726	256	81	864	193	236	1221	117	171	1089	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	367	764	269	85	909	203	248	1285	123	180	1146	400
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	430	1354	606	136	1052	471	309	1727	575	239	1629	542
Arrive On Green	0.12	0.38	0.38	0.04	0.30	0.30	0.09	0.36	0.36	0.07	0.34	0.34
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	4759	1583	3442	4759	1583
Grp Volume(v), veh/h	367	764	269	85	909	203	248	1285	123	180	1146	400
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1586	1583	1721	1586	1583
Q Serve(g_s), s	11.5	18.7	13.9	2.7	26.7	11.4	7.8	25.9	5.9	5.6	22.9	24.5
Cycle Q Clear(g_c), s	11.5	18.7	13.9	2.7	26.7	11.4	7.8	25.9	5.9	5.6	22.9	24.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	430	1354	606	136	1052	471	309	1727	575	239	1629	542
V/C Ratio(X)	0.85	0.56	0.44	0.62	0.86	0.43	0.80	0.74	0.21	0.75	0.70	0.74
Avail Cap(c_a), veh/h	469	1384	619	188	1094	489	344	1727	575	250	1629	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	26.7	25.3	52.0	36.6	31.2	49.1	30.6	24.2	50.3	31.3	31.8
Incr Delay (d2), s/veh	13.3	0.5	0.5	4.6	7.2	0.6	11.7	3.0	0.9	11.6	2.6	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	9.2	6.1	1.4	14.0	5.1	4.2	11.8	2.7	3.1	10.5	12.0
LnGrp Delay(d),s/veh	60.5	27.2	25.8	56.6	43.7	31.8	60.8	33.5	25.1	61.9	33.9	40.5
LnGrp LOS	E	C	C	E	D	C	E	C	C	E	C	D
Approach Vol, veh/h		1400			1197			1656			1726	
Approach Delay, s/veh		35.7			42.6			37.0			38.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	43.9	8.4	46.1	13.9	41.7	17.7	36.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	37.0	6.0	43.0	11.0	34.0	15.0	34.0
Max Q Clear Time (g_c+I1), s	7.6	27.9	4.7	20.7	9.8	26.5	13.5	28.7
Green Ext Time (p_c), s	0.0	7.5	0.0	11.1	0.1	6.4	0.3	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.2
HCM 2010 LOS	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	482	285	399	806	902	744
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	507	300	420	848	949	783
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	804	370	446	2373	1314	588
Arrive On Green	0.23	0.23	0.25	0.67	0.37	0.37
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	507	300	420	848	949	783
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	11.1	15.0	19.4	8.7	19.2	31.0
Cycle Q Clear(g_c), s	11.1	15.0	19.4	8.7	19.2	31.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	804	370	446	2373	1314	588
V/C Ratio(X)	0.63	0.81	0.94	0.36	0.72	1.33
Avail Cap(c_a), veh/h	1071	493	446	2373	1314	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	30.3	30.7	6.0	22.6	26.3
Incr Delay (d2), s/veh	0.8	7.4	28.4	0.4	2.0	160.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.0	13.0	4.3	9.7	39.7
LnGrp Delay(d),s/veh	29.6	37.7	59.0	6.4	24.5	187.2
LnGrp LOS	C	D	F	A	C	F
Approach Vol, veh/h	807			1268	1732	
Approach Delay, s/veh	32.6			23.8	98.1	
Approach LOS	C			C	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		23.5	25.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		56.0		26.0	21.0	31.0		
Max Q Clear Time (g_c+I1), s		10.7		17.0	21.4	33.0		
Green Ext Time (p_c), s		6.6		2.6	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	59.5
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	65
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	47	817	98	0	107	1040	29	0	112	22	109
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	52	908	109	0	119	1156	32	0	124	24	121
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	3
HCM Control Delay	73.5	70.6	22.2
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	84%	0%	100%	0%	0%	100%	0%	0%	23%
Vol Thru, %	16%	0%	0%	100%	74%	0%	100%	92%	29%
Vol Right, %	0%	100%	0%	0%	26%	0%	0%	8%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	134	109	47	545	370	107	693	376	100
LT Vol	112	0	47	0	0	107	0	0	23
Through Vol	22	0	0	545	272	0	693	347	29
RT Vol	0	109	0	0	98	0	0	29	48
Lane Flow Rate	149	121	52	605	411	119	770	417	111
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.482	0.354	0.142	1	1	0.317	1	1	0.359
Departure Headway (Hd)	11.648	10.531	9.779	9.278	9.092	9.611	9.11	9.056	11.623
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	311	343	367	393	399	375	401	401	310
Service Time	9.38	8.264	7.542	7.041	6.856	7.37	6.868	6.814	9.364
HCM Lane V/C Ratio	0.479	0.353	0.142	1.539	1.03	0.317	1.92	1.04	0.358
HCM Control Delay	24.8	18.9	14.2	76.9	76	16.8	76.1	75.9	20.8
HCM Lane LOS	C	C	B	F	F	C	F	F	C
HCM 95th-tile Q	2.5	1.6	0.5	12	12.1	1.3	12.1	12.2	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	29	48
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	26	32	53
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	20.8
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	62.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	34	698	126	0	107	973	61	0	129	47	55
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	743	134	0	114	1035	65	0	137	50	59
Number of Lanes	0	1	2	0	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	71.7	70.2	20.3
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	65%	0%	100%	84%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	35%	0%	0%	16%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	47	55	34	465	359	107	649	385	71	64
LT Vol	129	0	0	34	0	0	107	0	0	71	0
Through Vol	0	47	0	0	465	233	0	649	324	0	64
RT Vol	0	0	55	0	0	126	0	0	61	0	0
Lane Flow Rate	137	50	59	36	495	382	114	690	410	76	68
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.45	0.157	0.172	0.1	1	0.973	0.3	1	1	0.252	0.218
Departure Headway (Hd)	11.798	11.303	10.609	9.922	9.427	9.183	9.619	9.128	9.019	12.024	11.529
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	306	318	339	362	386	397	376	407	406	300	312
Service Time	9.536	9.041	8.347	7.661	7.165	6.922	7.319	6.828	6.719	9.765	9.271
HCM Lane V/C Ratio	0.448	0.157	0.174	0.099	1.282	0.962	0.303	1.695	1.01	0.253	0.218
HCM Control Delay	23.9	16.1	15.5	13.8	77.4	69.7	16.4	75.9	75.4	18.8	17.5
HCM Lane LOS	C	C	C	B	F	F	C	F	F	C	C
HCM 95th-tile Q	2.2	0.5	0.6	0.3	11.9	11.3	1.2	12.2	12.2	1	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	71	64	40
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	76	68	43
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	17.5
HCM LOS	C

Lane	SBLn3

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	131	840	1081	68	37	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	144	923	1188	75	41	143

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1263	0	-	0	1974	631
Stage 1	-	-	-	-	1225	-
Stage 2	-	-	-	-	749	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	546	-	-	-	54	424
Stage 1	-	-	-	-	241	-
Stage 2	-	-	-	-	428	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	546	-	-	-	~ 40	424
Mov Cap-2 Maneuver	-	-	-	-	143	-
Stage 1	-	-	-	-	241	-
Stage 2	-	-	-	-	315	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	35.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	546	-	-	-	295
HCM Lane V/C Ratio	0.264	-	-	-	0.622
HCM Control Delay (s)	13.9	-	-	-	35.4
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	1.1	-	-	-	3.9

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	385	870	235	24	330	88	225	995	76	222	963	364
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	423	956	258	26	363	97	247	1093	84	244	1058	400
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	509	1137	509	71	686	307	319	1933	643	316	1929	642
Arrive On Green	0.15	0.32	0.32	0.02	0.19	0.19	0.09	0.41	0.41	0.09	0.41	0.41
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	4759	1583	3442	4759	1583
Grp Volume(v), veh/h	423	956	258	26	363	97	247	1093	84	244	1058	400
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1586	1583	1721	1586	1583
Q Serve(g_s), s	11.9	25.1	13.2	0.7	9.2	5.3	7.0	17.7	3.3	6.9	17.0	20.1
Cycle Q Clear(g_c), s	11.9	25.1	13.2	0.7	9.2	5.3	7.0	17.7	3.3	6.9	17.0	20.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	509	1137	509	71	686	307	319	1933	643	316	1929	642
V/C Ratio(X)	0.83	0.84	0.51	0.37	0.53	0.32	0.77	0.57	0.13	0.77	0.55	0.62
Avail Cap(c_a), veh/h	654	1274	570	138	743	332	413	1933	643	413	1929	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	31.5	27.5	48.3	36.2	34.6	44.3	22.9	18.6	44.4	22.7	23.7
Incr Delay (d2), s/veh	7.1	4.8	0.8	3.2	0.6	0.6	6.7	1.2	0.4	6.5	1.1	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	13.0	5.9	0.4	4.5	2.4	3.6	7.9	1.5	3.6	7.6	9.5
LnGrp Delay(d),s/veh	48.4	36.3	28.3	51.5	36.8	35.2	51.0	24.1	19.0	50.9	23.9	28.2
LnGrp LOS	D	D	C	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		1637			486			1424			1702	
Approach Delay, s/veh		38.2			37.3			28.5			28.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	44.6	6.1	36.1	13.3	44.5	18.8	23.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	32.0	4.0	36.0	12.0	32.0	19.0	21.0
Max Q Clear Time (g_c+I1), s	8.9	19.7	2.7	27.1	9.0	22.1	13.9	11.2
Green Ext Time (p_c), s	0.3	9.0	0.0	5.0	0.3	7.6	0.9	5.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	776	421	231	965	668	176
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	924	501	275	1149	795	210
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1119	515	244	2035	1371	614
Arrive On Green	0.32	0.32	0.14	0.57	0.39	0.39
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	924	501	275	1149	795	210
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	19.8	25.0	11.0	16.3	14.2	7.5
Cycle Q Clear(g_c), s	19.8	25.0	11.0	16.3	14.2	7.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1119	515	244	2035	1371	614
V/C Ratio(X)	0.83	0.97	1.13	0.56	0.58	0.34
Avail Cap(c_a), veh/h	1119	515	244	2035	1371	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	26.7	34.5	10.7	19.4	17.3
Incr Delay (d2), s/veh	5.2	32.8	96.2	1.1	1.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	23.2	11.9	8.1	7.2	3.5
LnGrp Delay(d),s/veh	30.1	59.5	130.7	11.8	21.1	18.8
LnGrp LOS	C	F	F	B	C	B
Approach Vol, veh/h	1425			1424	1005	
Approach Delay, s/veh	40.5			34.8	20.7	
Approach LOS	D			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		50.0		30.0	15.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		46.0		26.0	11.0	31.0		
Max Q Clear Time (g_c+I1), s		18.3		27.0	13.0	16.2		
Green Ext Time (p_c), s		7.5		0.0	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Intersection	
Intersection Delay, s/veh	59.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	104	1019	42	0	96	497	28	0	78	40	166
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	128	1258	52	0	119	614	35	0	96	49	205
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	3
HCM Control Delay	72.9	54.5	26.4
HCM LOS	F	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	66%	0%	100%	0%	0%	100%	0%	0%	27%
Vol Thru, %	34%	0%	0%	100%	89%	0%	100%	86%	33%
Vol Right, %	0%	100%	0%	0%	11%	0%	0%	14%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	166	104	679	382	96	331	194	112
LT Vol	78	0	104	0	0	96	0	0	30
Through Vol	40	0	0	679	340	0	331	166	37
RT Vol	0	166	0	0	42	0	0	28	45
Lane Flow Rate	146	205	128	839	471	119	409	239	138
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.468	0.6	0.36	1	1	0.343	1	0.651	0.454
Departure Headway (Hd)	11.571	10.543	10.09	9.586	9.509	10.409	9.907	9.805	11.815
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	312	342	356	386	382	345	368	368	306
Service Time	9.341	8.313	7.868	7.365	7.287	8.175	7.673	7.572	9.583
HCM Lane V/C Ratio	0.468	0.599	0.36	2.174	1.233	0.345	1.111	0.649	0.451
HCM Control Delay	24.2	28	18.5	78.3	78	18.5	79.7	29.2	24.1
HCM Lane LOS	C	D	C	F	F	C	F	D	C
HCM 95th-tile Q	2.4	3.7	1.6	11.8	11.9	1.5	11.6	4.4	2.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	37	45
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	37	46	56
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	24.1
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	51.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	44	931	62	0	26	388	71	0	83	88	111
Peak Hour Factor	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	53	1122	75	0	31	467	86	0	100	106	134
Number of Lanes	0	1	2	0	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	72.5	36.6	18
HCM LOS	F	E	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	83%	0%	100%	65%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	17%	0%	0%	35%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	88	111	44	621	372	26	259	200	108	53
LT Vol	83	0	0	44	0	0	26	0	0	108	0
Through Vol	0	88	0	0	621	310	0	259	129	0	53
RT Vol	0	0	111	0	0	62	0	0	71	0	0
Lane Flow Rate	100	106	134	53	748	449	31	312	241	130	64
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.304	0.308	0.362	0.139	1	1	0.088	0.837	0.632	0.41	0.193
Departure Headway (Hd)	10.938	10.446	9.758	9.442	8.942	8.825	10.163	9.668	9.423	11.352	10.861
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	330	345	369	381	411	413	354	377	384	317	331
Service Time	8.671	8.18	7.492	7.184	6.684	6.567	7.894	7.399	7.153	9.088	8.597
HCM Lane V/C Ratio	0.303	0.307	0.363	0.139	1.82	1.087	0.088	0.828	0.628	0.41	0.193
HCM Control Delay	18.4	17.8	17.9	13.7	75.3	74.7	13.9	46.4	27	21.8	16.2
HCM Lane LOS	C	C	C	B	F	F	B	E	D	C	C
HCM 95th-tile Q	1.3	1.3	1.6	0.5	12.3	12.3	0.3	7.7	4.2	1.9	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	53	17
Peak Hour Factor	0.92	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	130	64	20
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	19.3
HCM LOS	C

Lane	SBLn3

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	97	1126	502	20	27	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	114	1325	591	24	32	148

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	614	0	-	0	1493	307
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	891	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	961	-	-	-	114	689
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	361	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	961	-	-	-	100	689
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	510	-
Stage 2	-	-	-	-	318	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	961	-	-	-	502
HCM Lane V/C Ratio	0.119	-	-	-	0.359
HCM Control Delay (s)	9.2	-	-	-	16.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	1.6

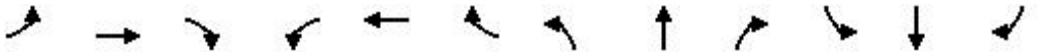
Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1163	9	9	396	36	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	250	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1401	11	11	477	43	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1412	0	1667	706
Stage 1	-	-	-	-	1407	-
Stage 2	-	-	-	-	260	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	479	-	87	378
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	760	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	479	-	85	378
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	743	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	30.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	227	-	-	479	-
HCM Lane V/C Ratio	0.382	-	-	0.023	-
HCM Control Delay (s)	30.3	-	-	12.7	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	1.7	-	-	0.1	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	349	734	256	82	868	300	236	1221	120	183	1089	380
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1743	1863	1863	1743	1863
Adj Flow Rate, veh/h	367	773	269	86	914	316	248	1285	126	193	1146	400
Adj No. of Lanes	2	2	1	2	2	1	2	3	1	2	3	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	9	2	2	9	2
Cap, veh/h	413	1273	569	153	1005	450	275	1503	500	229	1440	479
Arrive On Green	0.12	0.36	0.36	0.04	0.28	0.28	0.08	0.32	0.32	0.07	0.30	0.30
Sat Flow, veh/h	3442	3539	1583	3442	3539	1583	3442	4759	1583	3442	4759	1583
Grp Volume(v), veh/h	367	773	269	86	914	316	248	1285	126	193	1146	400
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1583	1721	1586	1583	1721	1586	1583
Q Serve(g_s), s	7.9	13.4	9.8	1.8	18.7	13.4	5.4	19.0	4.4	4.2	16.6	17.7
Cycle Q Clear(g_c), s	7.9	13.4	9.8	1.8	18.7	13.4	5.4	19.0	4.4	4.2	16.6	17.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	413	1273	569	153	1005	450	275	1503	500	229	1440	479
V/C Ratio(X)	0.89	0.61	0.47	0.56	0.91	0.70	0.90	0.85	0.25	0.84	0.80	0.83
Avail Cap(c_a), veh/h	413	1273	569	229	1038	464	275	1503	500	229	1440	479
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	19.7	18.5	35.1	25.9	24.0	34.2	24.0	19.1	34.6	24.0	24.4
Incr Delay (d2), s/veh	20.4	0.8	0.6	3.2	11.4	4.6	30.0	6.4	1.2	23.5	4.6	15.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	6.7	4.4	0.9	10.7	6.4	3.7	9.2	2.1	2.7	7.8	9.8
LnGrp Delay(d),s/veh	52.9	20.5	19.1	38.3	37.3	28.6	64.2	30.5	20.3	58.1	28.7	40.1
LnGrp LOS	D	C	B	D	D	C	E	C	C	E	C	D
Approach Vol, veh/h		1409			1316			1659			1739	
Approach Delay, s/veh		28.7			35.3			34.7			34.6	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	27.7	7.3	31.0	10.0	26.7	13.0	25.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	23.0	5.0	26.0	6.0	22.0	9.0	22.0
Max Q Clear Time (g_c+I1), s	6.2	21.0	3.8	15.4	7.4	19.7	9.9	20.7
Green Ext Time (p_c), s	0.0	1.9	0.0	7.3	0.0	2.1	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	497	289	407	806	902	771
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	523	304	428	848	949	812
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	813	374	445	2365	1309	586
Arrive On Green	0.24	0.24	0.25	0.67	0.37	0.37
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	523	304	428	848	949	812
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	11.5	15.2	20.0	8.8	19.3	31.0
Cycle Q Clear(g_c), s	11.5	15.2	20.0	8.8	19.3	31.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	813	374	445	2365	1309	586
V/C Ratio(X)	0.64	0.81	0.96	0.36	0.72	1.39
Avail Cap(c_a), veh/h	1068	491	445	2365	1309	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	30.2	31.0	6.1	22.7	26.4
Incr Delay (d2), s/veh	0.9	7.7	33.1	0.4	3.5	184.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	13.2	13.8	4.4	10.0	43.3
LnGrp Delay(d),s/veh	29.7	38.0	64.1	6.5	26.2	210.6
LnGrp LOS	C	D	F	A	C	F
Approach Vol, veh/h	827			1276	1761	
Approach Delay, s/veh	32.7			25.8	111.2	
Approach LOS	C			C	F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		23.8	25.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		56.0		26.0	21.0	31.0		
Max Q Clear Time (g_c+I1), s		10.8		17.2	22.0	33.0		
Green Ext Time (p_c), s		6.6		2.6	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	66.2
HCM 2010 LOS	E

Intersection	
Intersection Delay, s/veh	65.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	47	840	98	0	108	1052	29	0	112	22	111
Peak Hour Factor	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	52	933	109	0	120	1169	32	0	124	24	123
Number of Lanes	0	1	2	0	0	1	2	0	0	0	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	2	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	1	3
HCM Control Delay	73.6	70.7	22.2
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	84%	0%	100%	0%	0%	100%	0%	0%	23%
Vol Thru, %	16%	0%	0%	100%	74%	0%	100%	92%	29%
Vol Right, %	0%	100%	0%	0%	26%	0%	0%	8%	48%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	134	111	47	560	378	108	701	380	100
LT Vol	112	0	47	0	0	108	0	0	23
Through Vol	22	0	0	560	280	0	701	351	29
RT Vol	0	111	0	0	98	0	0	29	48
Lane Flow Rate	149	123	52	622	420	120	779	422	111
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.482	0.361	0.142	1	1	0.321	1	1	0.359
Departure Headway (Hd)	11.659	10.543	9.806	9.305	9.123	9.633	9.132	9.079	11.646
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	310	343	366	392	399	373	405	401	310
Service Time	9.388	8.272	7.558	7.057	6.875	7.38	6.879	6.826	9.379
HCM Lane V/C Ratio	0.481	0.359	0.142	1.587	1.053	0.322	1.923	1.052	0.358
HCM Control Delay	24.8	19.1	14.2	76.9	76.1	16.9	76.1	75.9	20.8
HCM Lane LOS	C	C	B	F	F	C	F	F	C
HCM 95th-tile Q	2.5	1.6	0.5	12	12.1	1.4	12.1	12.2	1.6

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	29	48
Peak Hour Factor	0.92	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	26	32	53
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	20.8
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	63.4
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	34	729	126	0	107	991	62	0	129	47	55
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	776	134	0	114	1054	66	0	137	50	59
Number of Lanes	0	1	2	0	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	74.5	70.4	20.4
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%	66%	0%	100%	84%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	34%	0%	0%	16%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	47	55	34	486	369	107	661	392	74	64
LT Vol	129	0	0	34	0	0	107	0	0	74	0
Through Vol	0	47	0	0	486	243	0	661	330	0	64
RT Vol	0	0	55	0	0	126	0	0	62	0	0
Lane Flow Rate	137	50	59	36	517	393	114	703	417	79	68
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.449	0.157	0.172	0.099	1	0.999	0.305	1	1	0.262	0.218
Departure Headway (Hd)	11.888	11.393	10.699	9.894	9.398	9.161	9.652	9.161	9.053	12.002	11.507
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	305	317	338	361	388	396	375	401	405	298	311
Service Time	9.588	9.093	8.399	7.681	7.185	6.948	7.352	6.861	6.753	9.801	9.306
HCM Lane V/C Ratio	0.449	0.158	0.175	0.1	1.332	0.992	0.304	1.753	1.03	0.265	0.219
HCM Control Delay	23.9	16.2	15.6	13.8	77.5	76.2	16.5	76.1	75.6	19	17.5
HCM Lane LOS	C	C	C	B	F	F	C	F	F	C	C
HCM 95th-tile Q	2.2	0.5	0.6	0.3	11.9	12.1	1.3	12.1	12.2	1	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	74	64	40
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	79	68	43
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	17.6
HCM LOS	C

Lane	SBLn3

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	131	866	1095	71	43	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	144	952	1203	78	47	143

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1281	0	-	0	2006	641
Stage 1	-	-	-	-	1242	-
Stage 2	-	-	-	-	764	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	538	-	-	-	52	417
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	538	-	-	-	~ 38	417
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	308	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	41.6
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	538	-	-	-	279
HCM Lane V/C Ratio	0.268	-	-	-	0.681
HCM Control Delay (s)	14.1	-	-	-	41.6
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	1.1	-	-	-	4.6

Notes

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

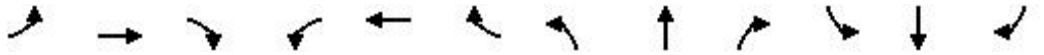
Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	766	36	36	1143	17	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	120	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	806	38	38	1203	18	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	844	0	1502	422
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	677	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	788	-	112	580
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	466	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	788	-	107	580
Mov Cap-2 Maneuver	-	-	-	-	107	-
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	444	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	29.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	181	-	-	788	-
HCM Lane V/C Ratio	0.198	-	-	0.048	-
HCM Control Delay (s)	29.7	-	-	9.8	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	104	1011	42	94	475	28	78	40	166	30	37	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	128	1248	52	116	586	35	96	49	205	37	46	56
Adj No. of Lanes	1	2	0	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1599	67	148	1532	91	306	131	310	148	135	125
Arrive On Green	0.09	0.46	0.46	0.08	0.45	0.45	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	3463	144	1774	3394	202	905	670	1583	253	691	638
Grp Volume(v), veh/h	128	637	663	116	305	316	145	0	205	139	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1827	1575	0	1583	1583	0	0
Q Serve(g_s), s	3.3	14.0	14.1	3.0	5.3	5.3	0.0	0.0	5.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	14.0	14.1	3.0	5.3	5.3	3.2	0.0	5.5	3.2	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.11	0.66		1.00	0.27		0.40
Lane Grp Cap(c), veh/h	167	817	849	148	799	825	437	0	310	408	0	0
V/C Ratio(X)	0.77	0.78	0.78	0.78	0.38	0.38	0.33	0.00	0.66	0.34	0.00	0.00
Avail Cap(c_a), veh/h	383	955	991	230	802	828	683	0	581	664	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.5	10.5	10.5	20.8	8.4	8.4	16.3	0.0	17.2	16.3	0.0	0.0
Incr Delay (d2), s/veh	7.1	3.6	3.5	8.9	0.3	0.3	0.4	0.0	2.4	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.5	7.8	1.8	2.6	2.7	1.7	0.0	2.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	27.6	14.1	14.0	29.7	8.7	8.7	16.7	0.0	19.7	16.8	0.0	0.0
LnGrp LOS	C	B	B	C	A	A	B		B	B		
Approach Vol, veh/h		1428			737			350			139	
Approach Delay, s/veh		15.3			12.0			18.4			16.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.1	7.9	25.4		13.1	8.4	24.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	6.0	25.0		17.0	10.0	21.0
Max Q Clear Time (g_c+I1), s		7.5	5.0	16.1		5.2	5.3	7.3
Green Ext Time (p_c), s		1.5	0.0	5.3		1.7	0.1	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

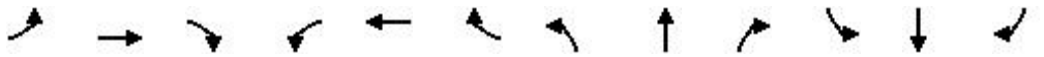
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	97	1119	476	14	26	126
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	114	1316	560	16	31	148
Adj No. of Lanes	1	2	2	0	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	142	2030	1301	37	50	239
Arrive On Green	0.08	0.57	0.37	0.37	0.18	0.18
Sat Flow, veh/h	1774	3632	3607	100	278	1328
Grp Volume(v), veh/h	114	1316	282	294	180	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1845	1615	0
Q Serve(g_s), s	2.0	8.2	3.9	3.9	3.3	0.0
Cycle Q Clear(g_c), s	2.0	8.2	3.9	3.9	3.3	0.0
Prop In Lane	1.00			0.05	0.17	0.82
Lane Grp Cap(c), veh/h	142	2030	655	683	290	0
V/C Ratio(X)	0.80	0.65	0.43	0.43	0.62	0.00
Avail Cap(c_a), veh/h	219	2618	873	910	796	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.7	4.7	7.7	7.7	12.3	0.0
Incr Delay (d2), s/veh	11.3	0.4	0.4	0.4	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.9	2.0	2.0	1.6	0.0
LnGrp Delay(d),s/veh	26.0	5.1	8.1	8.1	14.4	0.0
LnGrp LOS	C	A	A	A	B	
Approach Vol, veh/h		1430	576		180	
Approach Delay, s/veh		6.7	8.1		14.4	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				22.6		9.8	6.6	16.0
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				24.0		16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s				10.2		5.3	4.0	5.9
Green Ext Time (p_c), s				7.5		0.5	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	921	62	26	358	68	83	88	111	107	53	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	53	1110	75	31	431	82	100	106	134	129	64	20
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1386	94	50	1183	223	127	261	222	164	300	255
Arrive On Green	0.04	0.41	0.41	0.03	0.40	0.40	0.07	0.14	0.14	0.09	0.16	0.16
Sat Flow, veh/h	1774	3365	227	1774	2972	561	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	53	583	602	31	255	258	100	106	134	129	64	20
Grp Sat Flow(s),veh/h/ln	1774	1770	1823	1774	1770	1764	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.4	14.1	14.2	0.8	5.0	5.0	2.7	2.5	3.9	3.5	1.5	0.5
Cycle Q Clear(g_c), s	1.4	14.1	14.2	0.8	5.0	5.0	2.7	2.5	3.9	3.5	1.5	0.5
Prop In Lane	1.00		0.12	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	729	751	50	704	702	127	261	222	164	300	255
V/C Ratio(X)	0.71	0.80	0.80	0.62	0.36	0.37	0.79	0.41	0.60	0.79	0.21	0.08
Avail Cap(c_a), veh/h	218	833	858	145	761	758	182	648	551	182	648	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	12.6	12.6	23.5	10.3	10.4	22.3	19.2	19.7	21.7	17.8	17.4
Incr Delay (d2), s/veh	11.8	5.0	4.9	12.0	0.3	0.3	13.5	1.0	2.6	18.4	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.8	8.0	0.6	2.5	2.5	1.8	1.4	1.8	2.5	0.8	0.2
LnGrp Delay(d),s/veh	34.9	17.6	17.5	35.4	10.7	10.7	35.8	20.2	22.4	40.0	18.2	17.5
LnGrp LOS	C	B	B	D	B	B	D	C	C	D	B	B
Approach Vol, veh/h		1238			544			340			213	
Approach Delay, s/veh		18.3			12.1			25.6			31.4	
Approach LOS		B			B			C			C	

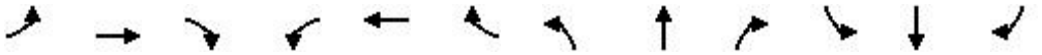
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	10.8	5.4	24.1	7.5	11.9	6.1	23.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	4.0	23.0	5.0	17.0	6.0	21.0
Max Q Clear Time (g_c+I1), s	5.5	5.9	2.8	16.2	4.7	3.5	3.4	7.0
Green Ext Time (p_c), s	0.0	1.0	0.0	4.0	0.0	1.1	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	750	413	228	965	668	168
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	893	492	271	1149	795	200
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1119	515	244	2035	1371	1128
Arrive On Green	0.32	0.32	0.14	0.57	0.39	0.39
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	893	492	271	1149	795	200
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	18.9	24.3	11.0	16.3	14.2	3.3
Cycle Q Clear(g_c), s	18.9	24.3	11.0	16.3	14.2	3.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1119	515	244	2035	1371	1128
V/C Ratio(X)	0.80	0.96	1.11	0.56	0.58	0.18
Avail Cap(c_a), veh/h	1119	515	244	2035	1371	1128
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	26.4	34.5	10.7	19.4	3.8
Incr Delay (d2), s/veh	4.2	28.8	90.6	1.1	1.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	22.3	11.5	8.1	7.2	3.2
LnGrp Delay(d),s/veh	28.8	55.3	125.1	11.8	21.1	4.1
LnGrp LOS	C	F	F	B	C	A
Approach Vol, veh/h	1385			1420	995	
Approach Delay, s/veh	38.2			33.5	17.7	
Approach LOS	D			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		50.0		30.0	15.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		46.0		26.0	11.0	31.0		
Max Q Clear Time (g_c+I1), s		18.3		26.3	13.0	16.2		
Green Ext Time (p_c), s		7.5		0.0	0.0	4.0		

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	817	98	107	1040	29	112	22	109	23	29	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	52	908	109	119	1156	32	124	24	121	26	32	53
Adj No. of Lanes	1	2	0	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	1379	165	152	1668	46	385	46	257	150	91	112
Arrive On Green	0.04	0.43	0.43	0.09	0.47	0.47	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	3183	382	1774	3518	97	1289	283	1583	194	559	688
Grp Volume(v), veh/h	52	505	512	119	581	607	148	0	121	111	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1795	1774	1770	1846	1572	0	1583	1441	0	0
Q Serve(g_s), s	1.1	8.5	8.5	2.5	9.7	9.7	0.0	0.0	2.6	0.1	0.0	0.0
Cycle Q Clear(g_c), s	1.1	8.5	8.5	2.5	9.7	9.7	2.8	0.0	2.6	2.9	0.0	0.0
Prop In Lane	1.00		0.21	1.00		0.05	0.84		1.00	0.23		0.48
Lane Grp Cap(c), veh/h	79	767	778	152	839	875	431	0	257	352	0	0
V/C Ratio(X)	0.66	0.66	0.66	0.78	0.69	0.69	0.34	0.00	0.47	0.32	0.00	0.00
Avail Cap(c_a), veh/h	189	894	907	283	989	1031	866	0	758	842	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	8.4	8.5	16.9	7.7	7.7	14.4	0.0	14.3	14.1	0.0	0.0
Incr Delay (d2), s/veh	8.9	1.4	1.4	8.6	1.7	1.6	0.5	0.0	1.3	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.4	4.4	1.6	4.9	5.3	1.5	0.0	1.2	1.1	0.0	0.0
LnGrp Delay(d),s/veh	26.6	9.9	9.9	25.4	9.4	9.4	14.9	0.0	15.6	14.6	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	B		B	B		
Approach Vol, veh/h		1069			1307			269			111	
Approach Delay, s/veh		10.7			10.9			15.2			14.6	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		10.1	7.2	20.3		10.1	5.7	21.8
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		18.0	6.0	19.0		18.0	4.0	21.0
Max Q Clear Time (g_c+I1), s		4.8	4.5	10.5		4.9	3.1	11.7
Green Ext Time (p_c), s		1.3	0.0	5.7		1.3	0.0	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

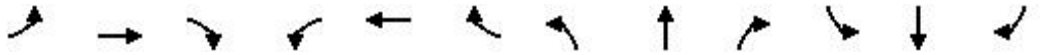
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	131	840	1081	68	37	130
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	144	923	1188	75	41	143
Adj No. of Lanes	1	2	2	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	185	2338	1583	100	59	204
Arrive On Green	0.10	0.66	0.47	0.47	0.16	0.16
Sat Flow, veh/h	1774	3632	3475	213	360	1255
Grp Volume(v), veh/h	144	923	621	642	185	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1825	1623	0
Q Serve(g_s), s	3.6	5.4	13.0	13.1	4.9	0.0
Cycle Q Clear(g_c), s	3.6	5.4	13.0	13.1	4.9	0.0
Prop In Lane	1.00			0.12	0.22	0.77
Lane Grp Cap(c), veh/h	185	2338	828	854	264	0
V/C Ratio(X)	0.78	0.39	0.75	0.75	0.70	0.00
Avail Cap(c_a), veh/h	274	2735	938	967	609	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	3.5	9.9	9.9	17.9	0.0
Incr Delay (d2), s/veh	8.1	0.1	3.0	2.9	3.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.6	6.9	7.1	2.4	0.0
LnGrp Delay(d),s/veh	27.9	3.6	12.9	12.8	21.3	0.0
LnGrp LOS	C	A	B	B	C	
Approach Vol, veh/h		1067	1263		185	
Approach Delay, s/veh		6.9	12.8		21.3	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				33.9		11.4	8.7	25.2
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				35.0		17.0	7.0	24.0
Max Q Clear Time (g_c+I1), s				7.4		6.9	5.6	15.1
Green Ext Time (p_c), s				12.3		0.5	0.1	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	34	698	126	107	973	61	129	47	55	71	64	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	36	743	134	114	1035	65	137	50	59	76	68	43
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	1056	190	145	1358	85	174	254	216	99	175	148
Arrive On Green	0.03	0.35	0.35	0.08	0.40	0.40	0.10	0.14	0.14	0.06	0.09	0.09
Sat Flow, veh/h	1774	2997	540	1774	3382	212	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	36	439	438	114	541	559	137	50	59	76	68	43
Grp Sat Flow(s),veh/h/ln	1774	1770	1767	1774	1770	1825	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.9	9.1	9.1	2.7	11.3	11.3	3.2	1.0	1.4	1.8	1.5	1.1
Cycle Q Clear(g_c), s	0.9	9.1	9.1	2.7	11.3	11.3	3.2	1.0	1.4	1.8	1.5	1.1
Prop In Lane	1.00		0.31	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	58	624	623	145	710	733	174	254	216	99	175	148
V/C Ratio(X)	0.62	0.70	0.70	0.79	0.76	0.76	0.79	0.20	0.27	0.77	0.39	0.29
Avail Cap(c_a), veh/h	166	703	702	207	745	768	207	740	629	207	740	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	11.9	11.9	19.3	11.0	11.0	18.9	16.4	16.6	19.9	18.2	18.1
Incr Delay (d2), s/veh	10.5	2.8	2.8	12.0	4.5	4.3	15.3	0.4	0.7	11.9	1.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.9	4.9	1.8	6.3	6.5	2.3	0.5	0.7	1.2	0.8	0.5
LnGrp Delay(d),s/veh	30.9	14.7	14.7	31.3	15.5	15.4	34.2	16.8	17.2	31.8	19.6	19.1
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		913			1214			246			187	
Approach Delay, s/veh		15.3			16.9			26.6			24.5	
Approach LOS		B			B			C			C	

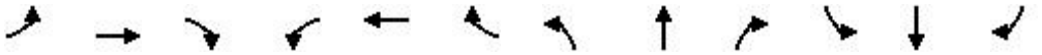
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	9.8	7.5	19.1	8.2	8.0	5.4	21.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	5.0	17.0	5.0	17.0	4.0	18.0
Max Q Clear Time (g_c+I1), s	3.8	3.4	4.7	11.1	5.2	3.5	2.9	13.3
Green Ext Time (p_c), s	0.0	0.7	0.0	3.9	0.0	0.7	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	482	285	399	806	902	744
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	507	300	420	848	949	783
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	804	370	446	2373	1314	958
Arrive On Green	0.23	0.23	0.25	0.67	0.37	0.37
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	507	300	420	848	949	783
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	11.1	15.0	19.4	8.7	19.2	31.0
Cycle Q Clear(g_c), s	11.1	15.0	19.4	8.7	19.2	31.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	804	370	446	2373	1314	958
V/C Ratio(X)	0.63	0.81	0.94	0.36	0.72	0.82
Avail Cap(c_a), veh/h	1071	493	446	2373	1314	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	30.3	30.7	6.0	22.6	12.6
Incr Delay (d2), s/veh	0.8	7.4	28.4	0.4	2.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	13.0	13.0	4.3	9.7	19.3
LnGrp Delay(d),s/veh	29.6	37.7	59.0	6.4	24.5	18.3
LnGrp LOS	C	D	E	A	C	B
Approach Vol, veh/h	807			1268	1732	
Approach Delay, s/veh	32.6			23.8	21.7	
Approach LOS	C			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		23.5	25.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		56.0		26.0	21.0	31.0		
Max Q Clear Time (g_c+I1), s		10.7		17.0	21.4	33.0		
Green Ext Time (p_c), s		6.6		2.6	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	24.7
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	104	1019	42	96	497	28	78	40	166	30	37	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	128	1258	52	119	614	35	96	49	205	37	46	56
Adj No. of Lanes	1	2	0	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1601	66	152	1545	88	305	131	309	147	135	124
Arrive On Green	0.09	0.46	0.46	0.09	0.45	0.45	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1774	3464	143	1774	3404	194	906	670	1583	254	691	638
Grp Volume(v), veh/h	128	642	668	119	319	330	145	0	205	139	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1837	1774	1770	1829	1575	0	1583	1582	0	0
Q Serve(g_s), s	3.3	14.3	14.3	3.1	5.6	5.6	0.0	0.0	5.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	14.3	14.3	3.1	5.6	5.6	3.2	0.0	5.6	3.3	0.0	0.0
Prop In Lane	1.00		0.08	1.00		0.11	0.66		1.00	0.27		0.40
Lane Grp Cap(c), veh/h	167	818	849	152	803	830	435	0	309	406	0	0
V/C Ratio(X)	0.77	0.79	0.79	0.78	0.40	0.40	0.33	0.00	0.66	0.34	0.00	0.00
Avail Cap(c_a), veh/h	380	948	984	228	803	830	679	0	577	659	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.6	10.6	10.6	20.9	8.5	8.5	16.4	0.0	17.4	16.4	0.0	0.0
Incr Delay (d2), s/veh	7.1	3.8	3.7	9.6	0.3	0.3	0.4	0.0	2.5	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	7.6	8.1	1.9	2.7	2.8	1.7	0.0	2.6	1.6	0.0	0.0
LnGrp Delay(d),s/veh	27.8	14.4	14.3	30.5	8.8	8.8	16.9	0.0	19.8	16.9	0.0	0.0
LnGrp LOS	C	B	B	C	A	A	B		B	B		
Approach Vol, veh/h		1438			768			350			139	
Approach Delay, s/veh		15.6			12.2			18.6			16.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.1	8.0	25.6		13.1	8.4	25.2
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	6.0	25.0		17.0	10.0	21.0
Max Q Clear Time (g_c+I1), s		7.6	5.1	16.3		5.3	5.3	7.6
Green Ext Time (p_c), s		1.5	0.0	5.2		1.7	0.1	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

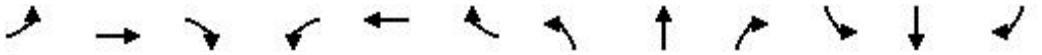
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	97	1126	502	20	27	126
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	114	1325	591	24	32	148
Adj No. of Lanes	1	2	2	0	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	144	2044	1299	53	51	237
Arrive On Green	0.08	0.58	0.37	0.37	0.18	0.18
Sat Flow, veh/h	1774	3632	3560	141	286	1321
Grp Volume(v), veh/h	114	1325	301	314	181	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1838	1615	0
Q Serve(g_s), s	2.1	8.3	4.2	4.2	3.4	0.0
Cycle Q Clear(g_c), s	2.1	8.3	4.2	4.2	3.4	0.0
Prop In Lane	1.00			0.08	0.18	0.82
Lane Grp Cap(c), veh/h	144	2044	663	689	290	0
V/C Ratio(X)	0.79	0.65	0.45	0.46	0.62	0.00
Avail Cap(c_a), veh/h	323	2797	860	894	785	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.8	4.7	7.8	7.8	12.5	0.0
Incr Delay (d2), s/veh	9.3	0.4	0.5	0.5	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.0	2.1	2.2	1.7	0.0
LnGrp Delay(d),s/veh	24.1	5.0	8.2	8.2	14.7	0.0
LnGrp LOS	C	A	A	A	B	
Approach Vol, veh/h		1439	615		181	
Approach Delay, s/veh		6.6	8.2		14.7	
Approach LOS		A	A		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				23.0		9.9	6.7	16.3
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				26.0		16.0	6.0	16.0
Max Q Clear Time (g_c+I1), s				10.3		5.4	4.1	6.2
Green Ext Time (p_c), s				8.3		0.5	0.1	6.1

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	44	931	62	26	388	71	83	88	111	108	53	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	53	1122	75	31	467	86	100	106	134	130	64	20
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1393	93	50	1195	219	127	261	221	166	301	256
Arrive On Green	0.04	0.41	0.41	0.03	0.40	0.40	0.07	0.14	0.14	0.09	0.16	0.16
Sat Flow, veh/h	1774	3368	225	1774	2989	547	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	53	589	608	31	275	278	100	106	134	130	64	20
Grp Sat Flow(s),veh/h/ln	1774	1770	1823	1774	1770	1766	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.5	14.4	14.4	0.9	5.4	5.5	2.7	2.6	3.9	3.5	1.5	0.5
Cycle Q Clear(g_c), s	1.5	14.4	14.4	0.9	5.4	5.5	2.7	2.6	3.9	3.5	1.5	0.5
Prop In Lane	1.00		0.12	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	732	754	50	708	706	127	261	221	166	301	256
V/C Ratio(X)	0.71	0.80	0.81	0.62	0.39	0.39	0.79	0.41	0.60	0.79	0.21	0.08
Avail Cap(c_a), veh/h	216	827	852	144	755	753	180	643	547	180	643	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	12.7	12.7	23.7	10.5	10.5	22.5	19.3	19.9	21.8	17.9	17.5
Incr Delay (d2), s/veh	11.9	5.3	5.2	12.0	0.3	0.4	13.8	1.0	2.6	18.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.9	8.2	0.6	2.7	2.7	1.8	1.4	1.9	2.6	0.8	0.2
LnGrp Delay(d),s/veh	35.2	17.9	17.8	35.7	10.8	10.9	36.2	20.3	22.5	40.6	18.3	17.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	B	B
Approach Vol, veh/h		1250			584			340			214	
Approach Delay, s/veh		18.6			12.2			25.9			31.8	
Approach LOS		B			B			C			C	

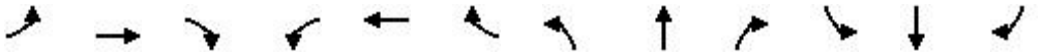
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	10.9	5.4	24.4	7.5	12.0	6.1	23.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	17.0	4.0	23.0	5.0	17.0	6.0	21.0
Max Q Clear Time (g_c+I1), s	5.5	5.9	2.9	16.4	4.7	3.5	3.5	7.5
Green Ext Time (p_c), s	0.0	1.0	0.0	3.9	0.0	1.1	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	776	421	231	965	668	176
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	924	501	275	1149	795	210
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1119	515	244	2035	1371	1128
Arrive On Green	0.32	0.32	0.14	0.57	0.39	0.39
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	924	501	275	1149	795	210
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	19.8	25.0	11.0	16.3	14.2	3.5
Cycle Q Clear(g_c), s	19.8	25.0	11.0	16.3	14.2	3.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1119	515	244	2035	1371	1128
V/C Ratio(X)	0.83	0.97	1.13	0.56	0.58	0.19
Avail Cap(c_a), veh/h	1119	515	244	2035	1371	1128
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	26.7	34.5	10.7	19.4	3.8
Incr Delay (d2), s/veh	5.2	32.8	96.2	1.1	1.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	23.2	11.9	8.1	7.2	3.4
LnGrp Delay(d),s/veh	30.1	59.5	130.7	11.8	21.1	4.2
LnGrp LOS	C	F	F	B	C	A
Approach Vol, veh/h	1425			1424	1005	
Approach Delay, s/veh	40.5			34.8	17.6	
Approach LOS	D			C	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		50.0		30.0	15.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		46.0		26.0	11.0	31.0		
Max Q Clear Time (g_c+I1), s		18.3		27.0	13.0	16.2		
Green Ext Time (p_c), s		7.5		0.0	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	480	98	108	1052	29	112	22	111	23	29	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	52	533	109	120	1169	32	124	24	123	26	32	53
Adj No. of Lanes	1	2	0	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	1238	252	153	1633	45	391	47	260	153	92	114
Arrive On Green	0.04	0.42	0.42	0.09	0.46	0.46	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1774	2930	597	1774	3519	96	1283	286	1583	196	561	692
Grp Volume(v), veh/h	52	321	321	120	588	613	148	0	123	111	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1757	1774	1770	1846	1569	0	1583	1450	0	0
Q Serve(g_s), s	1.1	4.7	4.7	2.4	9.8	9.8	0.0	0.0	2.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	4.7	4.7	2.4	9.8	9.8	2.8	0.0	2.6	2.8	0.0	0.0
Prop In Lane	1.00		0.34	1.00		0.05	0.84		1.00	0.23		0.48
Lane Grp Cap(c), veh/h	80	748	743	153	821	856	438	0	260	359	0	0
V/C Ratio(X)	0.65	0.43	0.43	0.79	0.72	0.72	0.34	0.00	0.47	0.31	0.00	0.00
Avail Cap(c_a), veh/h	193	917	910	290	1013	1057	886	0	777	865	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.2	7.5	7.5	16.4	7.9	7.9	14.0	0.0	13.9	13.7	0.0	0.0
Incr Delay (d2), s/veh	8.7	0.4	0.4	8.5	1.9	1.8	0.5	0.0	1.3	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.3	2.3	1.5	5.0	5.4	1.4	0.0	1.2	1.0	0.0	0.0
LnGrp Delay(d),s/veh	26.0	7.9	7.9	25.0	9.8	9.7	14.4	0.0	15.2	14.2	0.0	0.0
LnGrp LOS	C	A	A	C	A	A	B		B	B		
Approach Vol, veh/h		694			1321			271			111	
Approach Delay, s/veh		9.2			11.1			14.8			14.2	
Approach LOS		A			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		10.0	7.2	19.5		10.0	5.6	21.0
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		18.0	6.0	19.0		18.0	4.0	21.0
Max Q Clear Time (g_c+I1), s		4.8	4.4	6.7		4.8	3.1	11.8
Green Ext Time (p_c), s		1.3	0.0	6.3		1.3	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

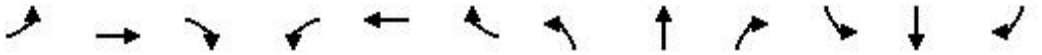
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	131	866	1095	71	43	130
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	144	952	1203	78	47	143
Adj No. of Lanes	1	2	2	0	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	185	2366	1603	104	61	186
Arrive On Green	0.10	0.67	0.48	0.48	0.15	0.15
Sat Flow, veh/h	1774	3632	3468	219	401	1219
Grp Volume(v), veh/h	144	952	630	651	191	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1824	1628	0
Q Serve(g_s), s	3.5	5.5	13.0	13.1	5.0	0.0
Cycle Q Clear(g_c), s	3.5	5.5	13.0	13.1	5.0	0.0
Prop In Lane	1.00			0.12	0.25	0.75
Lane Grp Cap(c), veh/h	185	2366	841	867	249	0
V/C Ratio(X)	0.78	0.40	0.75	0.75	0.77	0.00
Avail Cap(c_a), veh/h	277	2763	947	977	617	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.6	3.4	9.6	9.6	18.2	0.0
Incr Delay (d2), s/veh	7.8	0.1	3.0	2.9	4.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.7	7.0	7.2	2.6	0.0
LnGrp Delay(d),s/veh	27.4	3.5	12.6	12.5	23.1	0.0
LnGrp LOS	C	A	B	B	C	
Approach Vol, veh/h		1096	1281		191	
Approach Delay, s/veh		6.6	12.5		23.1	
Approach LOS		A	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				34.0		10.9	8.7	25.3
Change Period (Y+Rc), s				4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s				35.0		17.0	7.0	24.0
Max Q Clear Time (g_c+I1), s				7.5		7.0	5.5	15.1
Green Ext Time (p_c), s				12.6		0.5	0.1	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	34	729	126	107	991	62	129	47	55	74	64	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	36	776	134	114	1054	66	137	50	59	79	68	43
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	1097	189	145	1396	87	174	250	212	100	172	146
Arrive On Green	0.03	0.36	0.36	0.08	0.41	0.41	0.10	0.13	0.13	0.06	0.09	0.09
Sat Flow, veh/h	1774	3019	521	1774	3383	212	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	36	455	455	114	551	569	137	50	59	79	68	43
Grp Sat Flow(s),veh/h/ln	1774	1770	1771	1774	1770	1825	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.9	9.7	9.7	2.8	11.7	11.7	3.3	1.0	1.5	1.9	1.5	1.1
Cycle Q Clear(g_c), s	0.9	9.7	9.7	2.8	11.7	11.7	3.3	1.0	1.5	1.9	1.5	1.1
Prop In Lane	1.00		0.29	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	57	643	643	145	730	753	174	250	212	100	172	146
V/C Ratio(X)	0.63	0.71	0.71	0.79	0.75	0.76	0.79	0.20	0.28	0.79	0.40	0.29
Avail Cap(c_a), veh/h	162	726	726	202	766	790	202	679	577	202	679	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	12.0	12.0	19.8	11.0	11.0	19.3	16.9	17.1	20.4	18.8	18.6
Incr Delay (d2), s/veh	10.7	2.7	2.7	12.8	4.1	4.0	16.1	0.4	0.7	12.9	1.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.2	5.2	1.8	6.5	6.7	2.4	0.6	0.7	1.3	0.8	0.5
LnGrp Delay(d),s/veh	31.7	14.7	14.7	32.6	15.1	15.0	35.4	17.3	17.8	33.3	20.2	19.7
LnGrp LOS	C	B	B	C	B	B	D	B	B	C	C	B
Approach Vol, veh/h		946			1234			246			190	
Approach Delay, s/veh		15.4			16.7			27.5			25.6	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	9.9	7.6	19.9	8.3	8.0	5.4	22.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	16.0	5.0	18.0	5.0	16.0	4.0	19.0
Max Q Clear Time (g_c+I1), s	3.9	3.5	4.8	11.7	5.3	3.5	2.9	13.7
Green Ext Time (p_c), s	0.0	0.6	0.0	4.3	0.0	0.6	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	497	289	407	806	902	771
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	523	304	428	848	949	812
Adj No. of Lanes	2	1	1	2	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	813	374	445	2365	1309	960
Arrive On Green	0.24	0.24	0.25	0.67	0.37	0.37
Sat Flow, veh/h	3442	1583	1774	3632	3632	1583
Grp Volume(v), veh/h	523	304	428	848	949	812
Grp Sat Flow(s),veh/h/ln	1721	1583	1774	1770	1770	1583
Q Serve(g_s), s	11.5	15.2	20.0	8.8	19.3	31.0
Cycle Q Clear(g_c), s	11.5	15.2	20.0	8.8	19.3	31.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	813	374	445	2365	1309	960
V/C Ratio(X)	0.64	0.81	0.96	0.36	0.72	0.85
Avail Cap(c_a), veh/h	1068	491	445	2365	1309	960
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	30.2	31.0	6.1	22.7	12.6
Incr Delay (d2), s/veh	0.9	7.7	33.1	0.4	3.5	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	13.2	13.8	4.4	10.0	20.9
LnGrp Delay(d),s/veh	29.7	38.0	64.1	6.5	26.2	21.7
LnGrp LOS	C	D	F	A	C	C
Approach Vol, veh/h	827			1276	1761	
Approach Delay, s/veh	32.7			25.8	24.2	
Approach LOS	C			C	C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		60.0		23.8	25.0	35.0		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		56.0		26.0	21.0	31.0		
Max Q Clear Time (g_c+I1), s		10.8		17.2	22.0	33.0		
Green Ext Time (p_c), s		6.6		2.6	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Attachment 7:
Resolution (Plan Amendment)

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY ADOPTING AN AMENDMENT TO THE LAND USE ELEMENT OF THE YUBA CITY GENERAL PLAN FOR FILE NO. PA 15-01.

WHEREAS, Plan Amendment Application No. PA-15-01 has been filed by Highmark Land Company, LLC with the City of Yuba City to amend the land use designation of the City's General Plan, relating to approximately 8.14 acres of property located on the south side of Lincoln Road approximately 550 feet west of Garden Highway, from the Medium-Low Density Residential (MDR) designation to the Medium-High Density Residential (HDR) designation;

WHEREAS, the environmental assessment conducted for the proposed plan amendment resulted in the filing of a mitigated negative declaration;

WHEREAS, on December 23, 2015, the City of Yuba City Planning Commission held a public hearing to consider Plan Amendment Application No. PA-15-01 and associated mitigated negative declaration Environmental Assessment No. 15-05;

WHEREAS, at the same hearing the Planning Commission reviewed related Rezone No. 15-02 seeking to reclassify approximately 1.40 acres of the subject site from the Two-family Residential (R-2) zone district to the Multiple-family Residential (R-3) zone district;

WHEREAS, at that same hearing the Planning Commission reviewed related Development Plan No. 15-01 proposing to develop a 172-unit apartment complex;

WHEREAS, the Yuba City Planning Commission took action to recommend approval of Plan Amendment Application No. PA-15-01, which proposes to amend the planned land use designation for the subject site from the Medium-Low Density Residential (MDR) designation to Medium-High Density Residential (HDR) designation as shown on attached Exhibit A;

WHEREAS the Planning Commission found that the proposed General Plan amendment is in the public interest;

WHEREAS, on January 19, 2016, the Yuba City Council conducted a public hearing to consider Plan Amendment Application No. PA 15-01 and received both oral testimony and written information presented at the hearing regarding the Plan Amendment; and

WHEREAS the City Council of the City of Yuba City considered said recommendations of the City Planning Commission on the matter of redesignating said property and conducted a public hearing on the matter on January 19, 2016, and after review and consideration of the mitigated negative declaration found that the mitigated negative declaration prepared for the project is in conformance with State and local environmental guidelines and adopted said mitigated negative declaration.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Yuba, based upon the testimony and information presented at the hearing and upon review and consideration of the environmental documentation provided, as follows:

1. The Council finds that there is no substantial evidence in the record that Plan Amendment Application No. PA-15-01 may have a significant effect on the environment and hereby adopts the mitigated negative declaration for Environmental Assessment No. EA-15-05.

2. The Council finds the adoption of the proposed plan amendment as recommended by the Planning Commission is in the best interest of the City of Yuba City.

3. The Council of the City of Yuba City hereby adopts Plan Amendment Application No. PA-15-01 amending the General Plan from Medium-Low Density Residential (MDR) designation to Medium-High Density Residential (HDR) as depicted on Exhibit A, attached hereto and incorporated herein by reference.

4. Plan Amendment PA 15-01 shall become effective on June 4, 2016.

The foregoing Resolution was duly and regularly introduced, passed and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on _____ by the following vote:

AYES:

NOES:

ABSENT:

_____
MAYOR

ATTEST:

_____
CITY CLERK

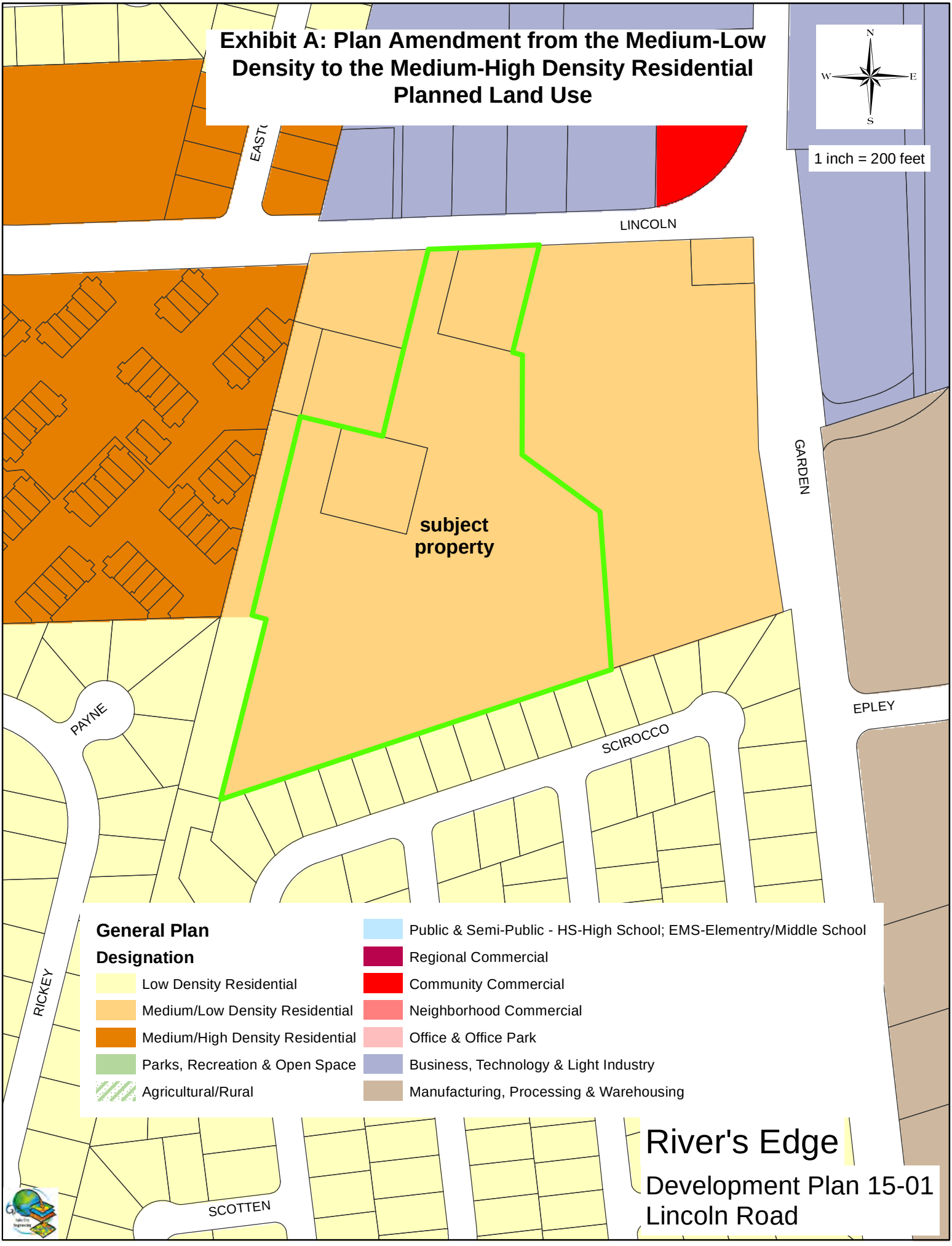


Exhibit A: Plan Amendment from the Medium-Low Density to the Medium-High Density Residential Planned Land Use
N
W
E
S
1 inch = 200 feet
LINCOLN
GARDEN
EPLEY
SCIROCCO
PAYNE
RICKEY
SCOTTEN
subject property
General Plan Designation
Low Density Residential
Medium/Low Density Residential
Medium/High Density Residential
Parks, Recreation & Open Space
Agricultural/Rural
Public & Semi-Public - HS-High School; EMS-Elementry/Middle School
Regional Commercial
Community Commercial
Neighborhood Commercial
Office & Office Park
Business, Technology & Light Industry
Manufacturing, Processing & Warehousing
River's Edge
Development Plan 15-01
Lincoln Road

Attachment 8:

Ordinance (Rezone)

ORDINANCE NO. _____

ORDINANCE OF THE CITY COUNCIL OF THE CITY OF YUBA CITY AMENDING THE ZONING CLASSIFICATION FROM THE TWO-FAMILY RESIDENTIAL (R-2) ZONE DISTRICT TO THE MULTIPLE-FAMILY RESIDENTIAL (R-3) ZONE DISTRICT ON APPROXIMATELY 1.40 ACRES OF PROPERTY

WHEREAS, Rezone Application No. R-15-02 has been filed by Highmark Land Company, LLC with the City of Yuba City to reclassify approximately 1.40 acres of property located on the south side of Lincoln Road approximately 550 feet west of Garden Highway, from the Two-family Residential (R-2) Zone District to the Multiple-family Residential (R-3) Zone District;

WHEREAS, pursuant to the provisions of Article 72, Chapter 8, of the City of Yuba City Municipal Code, the Planning Commission held a public hearing on the 23rd day of December, 2015, to consider Rezone Application No. R-15-01 and related Environmental Assessment No. EA-15-05, during which the Commission considered the environmental assessment and recommended to the Council of the City of Yuba City approval of the rezone application which proposes to amend the City's Zoning Ordinance on real property per Exhibit A from the R-2 (*Two Family Residential*) zone district to the R-3 (*Multiple-Family Residential*) zone district;

WHEREAS, at that same hearing the Commission reviewed related General Plan Amendment No. 15-01 proposing to redesignate the property from the Medium/Low Density Residential Planned Land Use designation of the City's General Plan to the Medium/High Density Residential designation;

WHEREAS, at that same hearing the Commission reviewed related Development Plan No. 15-01 proposing to develop a 172-unit apartment complex; and

WHEREAS, the Council of the City of Yuba City, on the 19th day of January, 2016, received the recommendation of the Planning Commission.

THE CITY COUNCIL OF THE CITY OF YUBA CITY DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. The Planning Commission of the City of Yuba City having heretofore conducted a public hearing on December 23, 2015, on the matter of rezoning of the property as identified in Exhibit A, and at the conclusion of said hearing recommended that the City Council adopt the Mitigated Negative Declaration prepared for the project determining that there are no significant adverse environmental impacts resulting from the project, and recommended City Council approval of the rezoning of said property from the Zoning classification R-2 (*Two Family Residential*) zone district to the R-3 (*Multiple-Family Residential*) zone district.

Section 2. The City Council of the City of Yuba City having considered said recommendations of the City Planning Commission on the matter of the rezoning of said property and conducted a public hearing on the matter on January 19, 2016, and after review and consideration of the Mitigated Negative Declaration found that the Mitigated Negative Declaration prepared for the project is in conformance with State and local environmental guidelines and adopted said Mitigated Negative Declaration.

Section 3. The Council finds the recommended R-3 Zone District is consistent with the Medium-High Density Residential Planned Land Use designation as proposed per General Plan Amendment No. 15-01.

IT IS HEREBY ORDERED, RESOLVED AND DECREED, that the property as depicted in attached Exhibit A made a part hereof by this reference, be rezoned to the R-3 (*Multiple-Family Residential*) zone district.

This ordinance shall be effective June 4, 2016, and, after it is adopted, shall be published as provided by law.

Introduced and read at a regular meeting of the City Council of the City of Yuba City on the _____ day of _____, 2016, and passed and adopted at a regular meeting held on the _____ day of _____, 2016.

AYES:

NOES:

ABSENT:

_____
MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

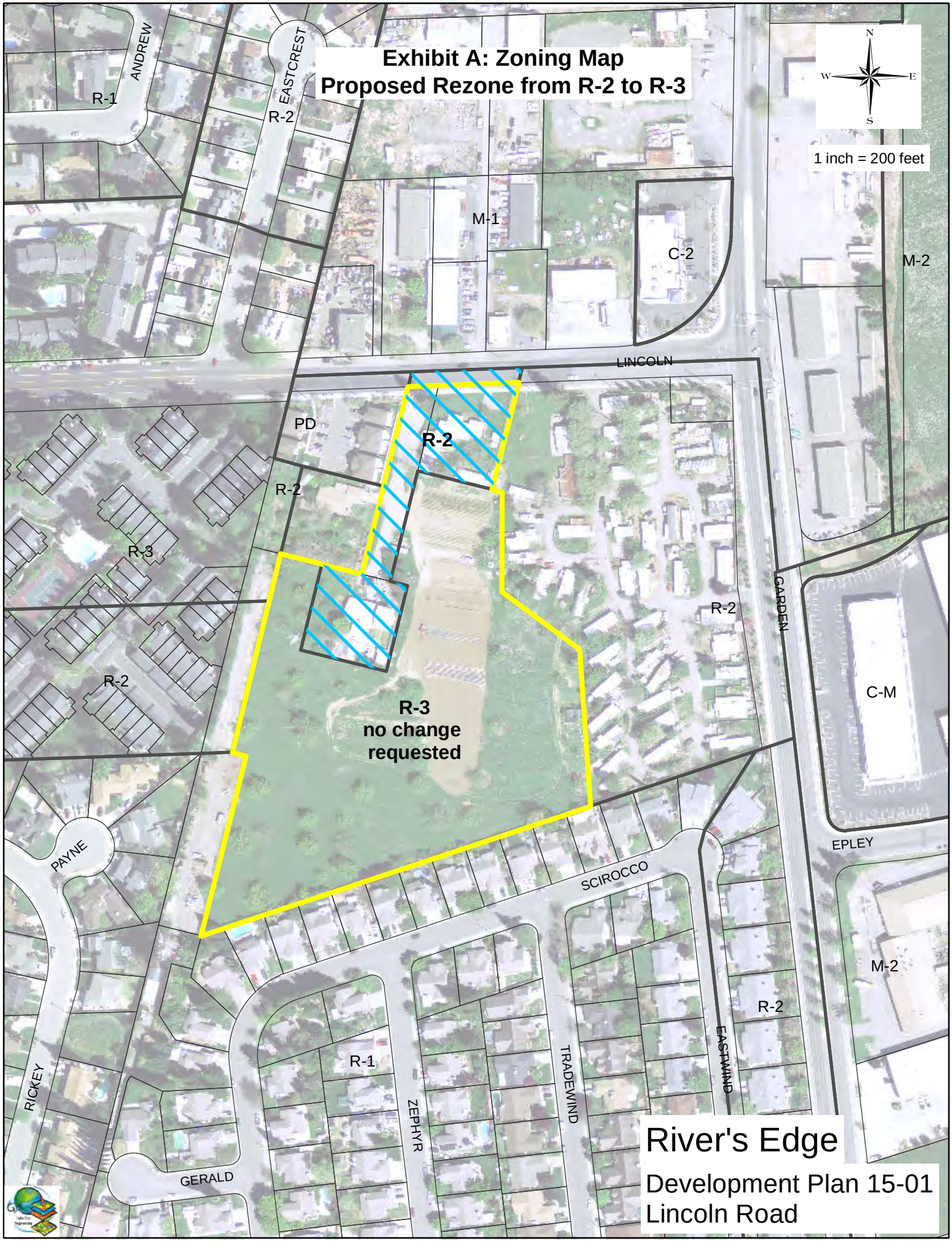


Exhibit A: Zoning Map
Proposed Rezone from R-2 to R-3
N
W
E
S
1 inch = 200 feet
ANDREW
EASTCREST
R-1
R-2
M-1
C-2
M-2
LINCOLN
PD
R-2
R-2
R-3
R-2
R-2
R-3
no change
requested
GARDEN
C-M
EPLEY
PAYNE
SCIROCCO
M-2
R-2
EASTWIND
R-1
TRADEWIND
ZEPHYR
RICKEY
GERALD
River's Edge
Development Plan 15-01
Lincoln Road

Attachment 9:

Resolution (Development Plan)

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY APPROVING A 172 UNIT APARTMENT COMPLEX: DEVELOPMENT PLAN NO. DP 15-01.

WHEREAS, Development Plan No. DP-15-01 has been filed by Highmark Land Company, LLC with the City of Yuba City requesting authorization to develop a 172-unit apartment complex, including a clubhouse, parking and landscaping. The project would be developed at 21.1 dwelling units per acre, on approximately 8.14 acres of property located on the south side of Lincoln Road approximately 550 feet west of Garden Highway;

WHEREAS, the environmental assessment conducted for the proposed development plan resulted in the filing of a mitigated negative declaration;

WHEREAS, Article 70 of Chapter 8 of the City of Yuba City Municipal Code requires that multiple family complexes in excess of 101 units be considered by the City Council.

WHEREAS, on December 23, 2015, the City of Yuba City Planning Commission held a public hearing to consider Development Plan Application No. DP-15-01 and associated mitigated negative declaration Environmental Assessment No. 15-05;

WHEREAS, the Commission conducted public hearings to review the proposed development plan, received testimony from the applicant, invited testimony from the public, and considered the Development Services Department's report recommending approval of the proposed development subject to special permit conditions;

WHEREAS, at that same hearing the Commission reviewed related General Plan Amendment No. 15-01 proposing to redesignate the property from the Medium/Low Density Residential Planned Land Use designation of the City's General Plan to the Medium/High Density Residential designation;

WHEREAS, at the same hearing the Commission reviewed related Rezone No. 15-02 seeking to reclassify approximately 1.40 acres of the subject site from the Two-family Residential (R-2) zone district to the Multiple-family Residential (R-3) zone district;

WHEREAS, no neighbors spoke in opposition or support of the development plan.

WHEREAS, the City Planning Commission considered the proposed development plan relative to the staff report and environmental assessment issued for the project;

WHEREAS, the Yuba City Planning Commission took action to recommend approval of the Development Plan, which proposes a 172-unit apartment complex; and,

Whereas, the Council of the City of Yuba considered said recommendations of the City Planning Commission and conducted a public hearing on the Development Plan on January 19, 2016.

NOW, THEREFORE, BE IT RESOLVED that the City of Yuba City Council hereby finds and determines that there is no substantial evidence in the record to indicate that Development

Plan No. 15-01 may have a significant effect on the environment as identified by the Mitigated Declaration prepared for Environmental Assessment No. 15-05.

BE IT FURTHER RESOLVED by the Council of the City of Yuba, based upon the testimony and information presented at the hearing and upon review and consideration of the environmental documentation provided, as follows:

1. The Council finds that there is no substantial evidence in the record that Development Plan Application No. PA-15-01 may have a significant effect on the environment and hereby adopts the mitigated negative declaration for Environmental Assessment No. EA-15-05.

2. The Council finds the approval of the development plan as recommended by the Planning Commission is in the best interest of the City of Yuba City.

3. The Council finds that the findings as outlined in the staff report presented to the Council may be made.

The foregoing Resolution was duly and regularly introduced, passed and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on _____ by the following vote:

AYES:

NOES:

ABSENT:

_____
MAYOR

ATTEST:

_____
CITY CLERK

Attachment 10:

Project site plan, landscaping plan

BUILDING A/C 1ST FLOOR (FOOTPRINT 5,561 SF)

BUILDING B/D 1ST FLOOR (FOOTPRINT 11,311 SF)

PROJECT AREAS:

EXISTING GROSS AREA (3 PARCELS) 8.14 ACRES
(APNS 54-183-014, 54-183-017, & 54-183-018)

ZONING R-3

OPEN SPACE :

REQUIRED OPEN SPACE:

172 UNITS X 200 SF / UNIT = 34,400 SF

PROVIDED OPEN SPACE:

PATIOS = 172 UNITS X 82 SF / UNIT = 14,100 SF

GENERAL OPEN SPACE = 55,300 SF

PROJECT TOTAL OPEN SPACE = 69,400

BUILDING INFORMATION:

BUILDING FOOTPRINTS:

BUILDING A - 2 STORY - 8 UNITS - 5,650 SF

BUILDING B - 2 STORY - 16 UNITS - 11,310 SF

BUILDING C - 3 STORY - 12 UNITS - 5,650 SF

BUILDING D - 3 STORY - 24 UNITS - 11,310 SF

BUILDING E - 2 STORY - 12 UNITS - 8,725 SF

UNIT SIZES:

UNIT 1 - 2 BED - (BUILDINGS A-E) - 1,228 SF

UNIT 2 - 2 BED - (BUILDINGS A-E) - 1,122 SF

UNIT 3 - 3 BED ALT - (BUILDINGS A-E) - 1,360 SF

UNIT 4 - 1 BED ALT - (BUILDINGS A-E) - 912 SF

LLA LOTS / DENSITY :

DENSITY:

PROJECT TOTAL - 172 UNITS / 8.14 ACRES = 21.1 UNITS /ACRE

LOT 1 - 48 UNITS / 2.52 ACRES = 19.0 UNITS /ACRE

LOT 2 - 56 UNITS / 2.46 ACRES = 22.8 UNITS /ACRE

LOT 3 - 68 UNITS / 3.16 ACRES = 21.5 UNITS /ACRE

COVERAGE:

APARTMENT BUILDINGS TOTAL = 99,200 SF

CLUB HOUSE = 1,500 SF

PARKING COVERS = 43,400

TOTAL COVERAGE = 144,100 SF (41% PROJECT)

LOT 1 TOTAL COVERAGE = 38,400 SF (35%)

LOT 2 TOTAL COVERAGE = 47,000 SF (44%)

LOT 3 TOTAL COVERAGE = 58,700 SF (43%)

PARKING :

CODE REQUIRED NUMBER OF PARKING STALLS:

140 X 1.5 (2BD) + 16 X 1 (1BD) +16 X 2 (3BD) + 18 GUEST = 276

PROJECT PROVIDED:

TOTAL NUMBER OF PARKING STALLS = 357

NUMBER OF ACCESSIBLE PARKING STALLS = 9

NUMBER OF PARKING STALLS / UNIT = 2.0

NUMBER OF COVERED PARKING STALLS = 226

NUMBER OF UNCOVERED PARKING STALLS = 131

PARKING DEMENSIONS:

STANDARD STALL SIZE = 9' X 18'

COVERED STALL SIZE = 10' X 18'

STALL DRIVE ISLE = 27'

UNCOVERED PARKING STALLS SHADING 65%

ARCHITECT:
K D A R C H I T E C T S
CATHY JACKS
ARCHITECT
CATHYJ@KDCONSULTANT.NET
530-682-0306

CONSULTANT:
M·H·M
CIVIL & SURVEYING CONSULTANTS, INC.
ENGINEERING · SURVEYING
1204 A STREET
MARYSVILLE, CALIF. 95901
Ph. (530)742-6485

PROJECT NAME:
River's Edge Apartments
Yuba City, CA

Project No.
14-172

DATE: 11.17.15

REVISED:

APPROVAL:

STAMP/SEAL:

SHEET TITLE:

SITE CONCEPTUAL LAYOUT PLAN

PROJ. NO:2014-172

SHEET NO:

SD

GENERAL NOTES

1. SEE CIVIL DRAWINGS FOR GRADING AND DRAINAGE, SITE UTILITIES AND CONSTRUCTION DETAILS
2. REFER TO DETAILS ON FINAL PLANS
3. ALL PLANTERS TO BE COVERED WITH SHREDDED WOOD FIBER MATERIAL
4. ALL LANDSCAPING SHALL BE IRRIGATED BY AN AUTOMATIC SPRINKLER OR DRIP IRRIGATION SYSTEM
5. REFER TO L4 FOR PLANTING AND STAKING DETAILS
6. PLANTS TO BE BOUND, HEALTHY, VIGOROUS WITH NORMAL TOP AND ROOT SYSTEMS, FREE FROM DISEASE, INSECT PESTS OR INSECT EGGS. PLANTS TO BE GROWN IN SAME OR COLDER CLIMATE ZONE AS PROJECT. NURSERY GROWN STOCK, FRESHLY DUG. NO HEELED IN COLD STORAGE OR COLLECTED STOCK. SPECIES AND SIZE AS INDICATED ON PLANTING LEGEND.
7. HANDLE PLANTS SO THAT THE ROOT BALLS ARE ADEQUATELY PROTECTED FROM BREAKAGE OF ROOTS AND DRYING FROM SUN OR WIND. ENSURE TOPS AND ROOTS OF PLANTS ARE NOT PERMITTED TO DRY OUT. PROTECT FROM DRYING DURING TRANSPORTATION. PROTECT TOPS FROM DAMAGE. DAMAGED PLANTS WILL BE REJECTED. DO NOT PRUNE TREES OR SHRUBS AT NURSERY.
8. EXCAVATE PITS AS NECESSARY AND IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK. PITS TO BE CIRCULAR IN SHAPE WITH VERTICAL SIDES AND AT LEAST 1 FOOT GREATER IN DIAMETER THAN THE BALL DIAMETER. PIT TO BE SUFFICIENT DEPTH TO PROVIDE 6" OF PLANTING SOIL UNDER BALL.
9. PLANT GROUND COVER IN INDIVIDUAL HOLES OF REQUIRED SIZE.
10. SET PLANTS STRAIGHT AND PLUMB AND AT SUCH A LEVEL THAT AFTER SETTLEMENT THAT THEY BEAR THE SAME RELATIONSHIP OF FINISHED GRADE AS THEY DID IN THEIR FORMER SETTING. TAMP SOIL IN PIT TO PREVENT VOIDS. REMOVE ANY BURLAP FROM TOPS OF BALL, BUT NOT SIDES OR BOTTOM.
11. BACKFILL PITS IN TWO COURSES, THOROUGHLY WATER EACH COURSE. AFTER PLANTING IS COMPLETE FLOOD PIT AGAIN SO THAT BACKFILL IS THOROUGHLY SATURATED AND SETTLED.
12. REMOVE DEAD OR DAMAGED BRANCHES FROM PLANTS. THIN DECIDUOUS MATERIAL TO ABOUT TWO-THIRDS OF INITIAL BRANCHING.
13. WATER EACH PLANT A MINIMUM OF ONCE A WEEK UNTIL FINAL ACCEPTANCE.
14. BEGIN MAINTENANCE AFTER EACH PORTION HAS BEEN PLANTED AND CONTINUE UNTIL FINAL ACCEPTANCE
15. REPLACE UNACCEPTABLE MATERIAL WITH MATERIAL IDENTICAL TO ORIGINAL.
16. CONTRACTOR SHALL TEST ALL PLANTING PITS FOR DRAINAGE BY FILLING WITH WATER. ANY PLANTING PIT WHICH DOES NOT DRAIN COMPLETELY IN TWO HOURS OR LESS SHALL HAVE CORRECTIVE DRAINAGE MEASURES IMPLEMENTED. THESE INCLUDE: DRILLING OR AUGURING THROUGH IMPERMEABLE LAYERS TO A FAST DRAINING SOIL LAYER AND BACKFILL WITH SAND, GRAVEL OR OTHER APPROVED MATERIAL. INSTALL DRAINAGE TUBING TO CARRY EXCESS WATER TO NEARBY OUTLET.
17. TREES CLOSER THAN FIVE FEET TO WALKS AND ASPHALT SHALL REQUIRE ROOT BARRIERS INSTALLED PER MANUFACTURER RECOMMENDATIONS.
18. GUARANTEE ALL TREES FOR A PERIOD OF THREE MONTHS. ALL GROUND COVER SHALL BE GUARANTEED FOR A PERIOD OF THIRTY DAYS. THE GUARANTEE PERIOD SHALL COMMENCE UPON APPROVAL OF THE WORK IN TOTAL. ALL PLANT MATERIALS THAI IS NOT HEALTHY SHALL BE REPLACED WITHIN THE GUARANTEE PERIOD.
19. APPLY MULCH TO A DEPTH OF 3" IN ALL PLANTED AREAS. MULCH TO BE UNTREATED 90 PERCENT BARK BASE PRODUCT¿ INCHES TO¾ INCHES COMMONLY KNOWN AS PATHWAY OR MINIATURE COVER. IT IS TO BE UNIFORM IN COLOR, CLEAN, AND FREE OF WEED SEEDS.

SHADING REQUIREMENTS

ALL PARKING LOTS SHALL INCLUDE SHADE TREE PLANTING DESIGNED SO THAT A MINIMUM OF 50% OF THE UNCOVERED PARKING AREA INCLUDING MANEUVERING AREAS IS SHADED BY THE TREE CANOPIES WITHIN 15 YEARS OF PLANTING

OVERALL UNCOVERED PARKING/MANEUVERING AREA = 22,100 S.F. X 50% = 11,000 S.F.
13,600 S.F. SHADE AREA PROVIDED

OPEN SPACE REQUIREMENTS

REQUIRED OPEN SPACE = 200 SF X 172 UNITS = 34,400 SF
PATIO / BALCONY OPNE SPACE = 82 SF X 172 UNITS = 14,100 SF
— — AREAS OF OPEN SPACE PROVIDED = 55,280 SF

LANDSCAPE LEGEND

SYMBOL	SIZE	DESCRIPTION
	15 GALLON	CHINESE PISTACHE-PISTACHIA CHINESIS
	15 GALLON	CALIFORNIA REDWOOD
	15 GALLON	DEODAR CEDAR
	15 GALLON	SUNSET RED MAPLE

SYMBOL	SIZE	DESCRIPTION
	5 GALLON	AGAPANTHUS PETER PAN
	5 GALLON	RHAPHICOLEPIS BALLERINA
	1 GALLON	NANDINA DOMESTICA
	1 GALLON	GAZANIA
	1 GALLON	LAVENDER ENGLISH
	90/10 FESCUE BLUE - SOD	
	1 GALLON	STAR JASMINE @ 6'-0" OC
	SHREDDED WOOD FIBAR ONLY	
	DECOMPOSED GRANITE	

ARCHITECT:
KD
ARCHITECTS
CATHY JACKS
ARCHITECT
CATHYJMDCNCAST.NET
530-682-0366

CONSULTANT:

PROJECT NAME:
River's Edge
Apartments
Yuba City, CA

Project No.
14-172

DATE: 11.17.15

REVISED:

APPROVAL:

STAMP/SEAL:

REGISTERED PROFESSIONAL ENGINEER
SEAN M. MINASIAN
No. 74093
12-31-16
CIVIL
STATE OF CALIFORNIA
PRELIMINARY

SHEET TITLE:
SITE
CONCEPTUAL
LANDSCAPE
PLAN

PROJ. NO:2014-172

SHEET NO:
LP

Attachment 11:
Building Elevations

Rivers Edge Apartments

Building A

Rivers Edge Apartments

Building B

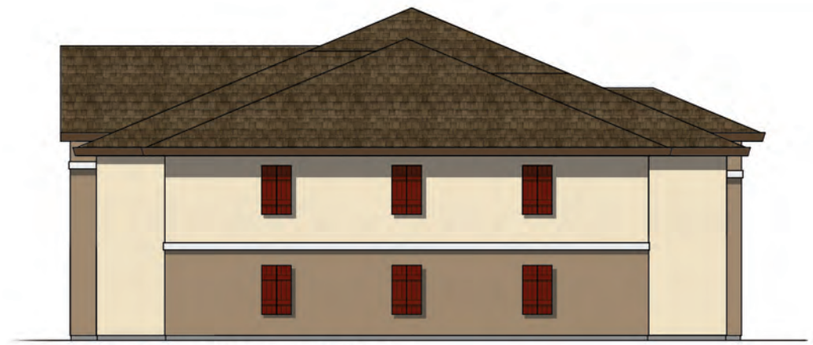
Rivers Edge Apartments

Building C

Rivers Edge Apartments

Building D

FRONT ELEVATION



RIGHT SIDE ELEVATION

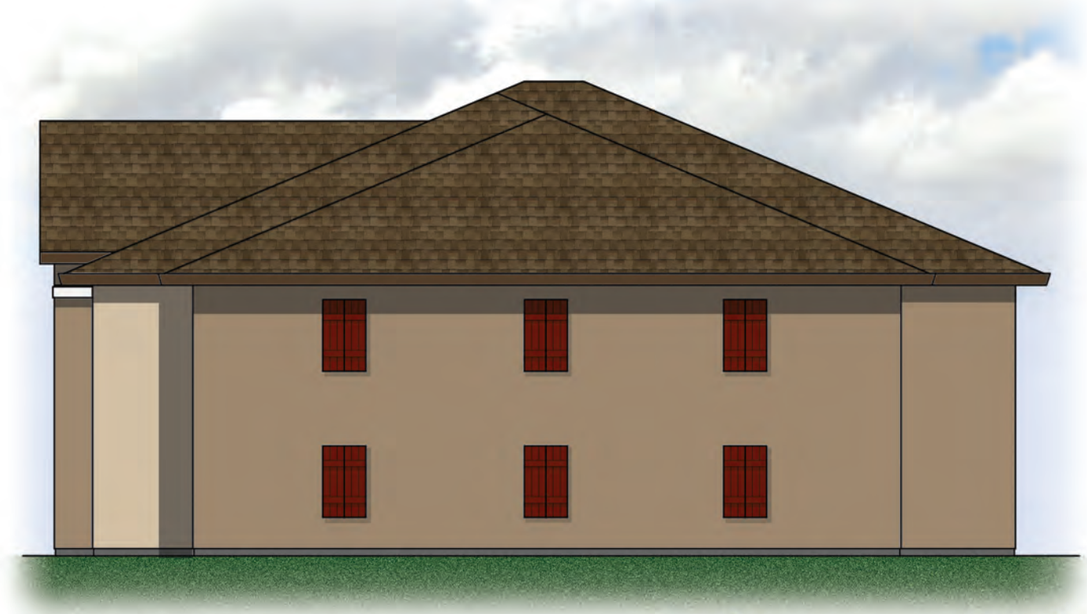
LINCOLN ROAD SIDE ELEVATION

LINCOLN ROAD ELEVATION

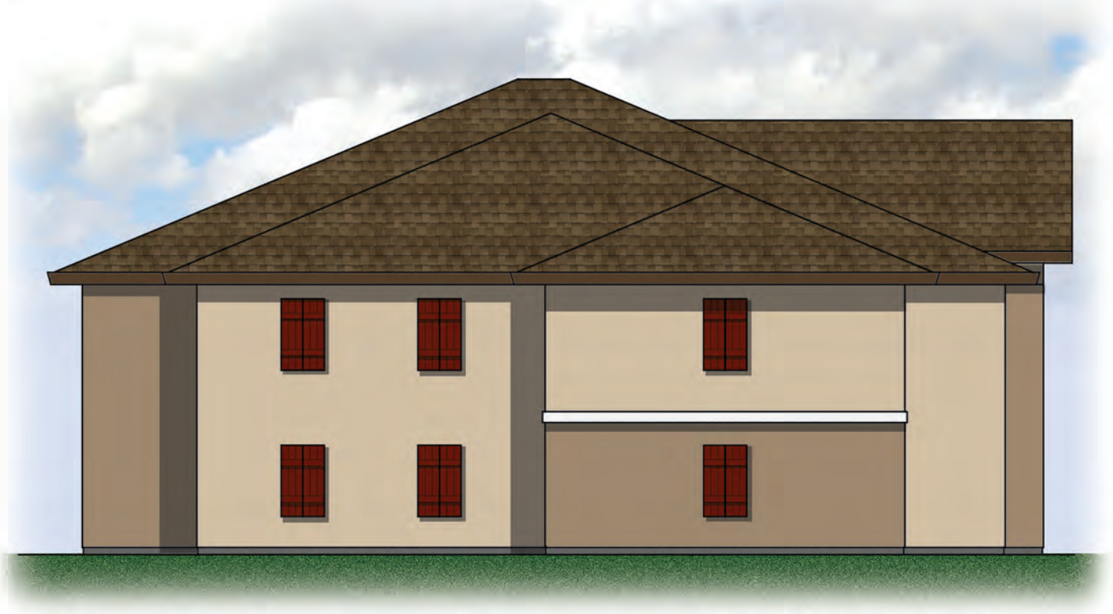
Rivers Edge Apartments

Building E

TYPICAL BACK ELEVATION



TYPICAL NON-VISIBLE ELEVATION



TYPICAL VISIBLE ELEVATION

Rivers Edge Apartments

All Buildings

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Finance Department

Presentation By: Spencer Morrison, Accounting Manager

Summary

Subject: Patrol Vehicles Installation (FB16-05)

Recommendation: Reject the single bid received from Cop Shop of Yuba City, CA and instruct staff to re-bid.

Fiscal Impact: none

Purpose:

Purchase and installation of new equipment for the four (4) new police patrol vehicles.

Background:

Four (4) Ford Police Utility Interceptors were purchased earlier this fiscal year by the Police Department. In order to transform the basic vehicle provided by the dealer into a patrol vehicle, extra items need to be installed including light bars, sirens, computers, radios and modems.

The initial budget for patrol vehicles is for the cost of the vehicles as well as the installation of the vehicles.

Analysis:

The Finance staff worked with the Police Department and Fleet Maintenance staff to ensure that the patrol vehicle installation specifications meet the City's requirements. A formal bid was developed and advertised according to the City's ordinances. Five (5) vendors received bid notifications. The following bid was received:

Vendor	Price
Cop Shop Yuba City, CA	$55,623.15

The bid also includes removal of old police equipment from patrol vehicles being replaced. If viable, some of the equipment will be used in the set-up of the new patrol vehicles.

After receipt of only one bid, city staff evaluated the bid specifications again and noticed specific language, "The vendor must be an authorized Federal Signal Service Center", that would limit the quantity of bidders, was not removed as intended. Previously, the majority of products being installed on the vehicles were manufactured by Federal Signal thus making it easier to have an authorized service center. At this point, we are using products from the three major manufacturers making it not necessary to have a specific service center. At this time, staff feels that it is in the best

interest of the city to reject the bid from Cop Shop and re-bid. Staff feels that if we re-bid we will receive more responses and we could properly compare for pricing and performance.

Fiscal Impact:

None.

Alternatives:

1) Do not re-bid and award to current bidder.

Recommendation:

Reject the single bid received from Cop Shop of Yuba City, CA and instruct staff to re-bid.

Prepared By:

/s/Vicky Anderson
Vicky Anderson
Administrative Analyst I

Submitted By:

/s/ Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed By:

Finance	/RB/
Police	/RL/ via email
City Attorney	/TH/ via email

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Public Works Department

Presentation by: Benjamin Moody, Deputy Public Works Director - Engineering

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Summary

Subject: Stormwater Management and Discharge Control Ordinance

Recommendation: Introduce an Ordinance amending the Stormwater Discharge and Control Ordinance, Chapter 21 of Title 4, to comply with the requirements of the City's Phase II Small MS4 NPDES Permit; waive the first reading

Fiscal Impact: Costs associated with the plan check and inspection will be recouped using the existing public improvement plan check and inspection fee structure. For construction costs under two million dollars, plan checks will be charged at two percent (2%) of the construction cost for the work with an additional two percent (2%) for work that requires City inspections

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Purpose:

To update the Stormwater Management and Discharge Control Ordinance to comply with the requirements of the City's State Water Board stormwater permit.

Background:

The City of Yuba City maintains a stormwater conveyance system which collects all water from storm events (stormwater) and drains to the Feather River and Sutter Bypass. This system reduces the effects of localized flooding.

The City of Yuba City is permitted under the Phase II Small Municipal Separate Storm Sewer Systems Permit (Order No. 2013-0001-DWQ), which serves as a National Pollutant Discharge Elimination System Permit (General Permit No. CAS000004) under the Federal Clean Water Act. This permit allows the City to discharge stormwater to the Sutter Bypass and the Feather River which both feed into the Sacramento River. Under the provisions of the permit, the City is required to possess the necessary legal authority to regulate the entry of pollutants and non-stormwater discharges into the City's stormwater conveyance system.

Analysis:

The intent of this Ordinance update is to fulfill the requirements of the City's Phase II Small MS4 NPDES permit which is required by the State and to protect and enhance the water quality of local watercourses and water bodies.

The following major provisions are included in the Ordinance update:

1. Requirements to develop an Erosion and Sediment Control Plan for any earth disturbing, permitted project under one acre
2. Requirements for the development, implementation, and maintenance of a Runoff Control Plan based on the project size.
3. Prohibition of non-exempt discharges of any non-stormwater discharges into any storm drain system, watercourse, natural outlet, creek or channel.

The attached Ordinance reflects the minimum regulations to satisfy the requirements of the City's NPDES permit.

Inspection and enforcement will be provided by a combination of City officials, including Public Works and Development Services staff.

Fiscal Impact:

Costs associated with the plan check and inspection will be recouped using the existing public improvement plan check and inspection fee structure. For construction costs under two million dollars, plan checks will be charged at two percent (2%) of the construction cost for the work with an additional two percent (2%) for work that requires City inspections. Staff will monitor labor related specific costs to determine if any fee structures need to be modified with future council action. Labor costs for the specific review and inspection of projects is anticipated to be cost neutral with the proposed fee structure. However, the additional program implementation and monitoring required by the state discharge permit has had a large increase in stormwater related costs to the City, which the City will need to address in the near future.

Alternatives:

Do not recommend the Ordinance for future approval or provide staff with direction for modifying the proposed Ordinance.

Recommendation:

Introduce an Ordinance updating the Stormwater Discharge and Control Ordinance, Chapter 21 of Title 4, to comply with the requirements of the City's Phase II Small MS4 NPDES Permit; waive the first reading.

Prepared by:

/s/ Manu Dhaliwal
Manu Dhaliwal
Assistant Engineer

Submitted by:

/s/ Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed by:

Department Head	DL
Finance	RB
City Attorney	TH via email

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF YUBA CITY REPEALING CHAPTER 21, TITLE 4, OF THE YUBA CITY MUNICIPAL CODE AND REENACTING CHAPTER 21, TITLE 4 REGARDING STORMWATER MANAGEMENT AND DISCHARGE CONTROL

THE CITY COUNCIL OF THE CITY OF YUBA CITY DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Chapter 21, Title 4 of the Yuba City Municipal Code is hereby repealed.

Section 2. Chapter 21, Title 4 is hereby added to the Yuba City Municipal Code to read as follows:

CHAPTER 21.

STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Sections:

CHAPTER 21.

STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Article 1. General Provisions

Sec. 4-21.01. Title.

This chapter shall be known as the "Stormwater Quality Management and Discharge Control Ordinance" of the City of Yuba City and may be so cited.

Sec. 4-21.02. Findings.

The City Council adopts this ordinance based upon the following findings:

(a) The Federal Clean Water Act, 33 U.S.C. § 1251 et seq., provides for the regulation and reduction of pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System (NPDES) requirements to stormwater and urban runoff discharge into the City storm drain system.

(b) The State Water Resources Control Board ("State Board") is the State water pollution control agency for all purposes of the Clean Water Act pursuant to Section 13160 of the California Water Code. The State Board is authorized by the United States Environmental Protection Agency (USEPA) to administer the NPDES program within the State. The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) provides authority for the State NPDES program, including provisions to issue NPDES permits and waste discharge requirements to regulate discharges of stormwater to waters of the State.

(c) Due to amendments to the Clean Water Act, the USEPA developed a Phase I and a Phase II program requiring municipalities to develop and implement stormwater pollution management programs. Smaller municipalities and contiguous areas with small, but still urban, communities come under the Phase II regulations of the State Board's General Permit for Discharges of Storm Water from Small Municipal Separate Storm Sewer Systems (hereafter called the "Small MS4 General Permit" where MS4 stands for Municipal Separate Storm Sewer System). Yuba City is subject to the Phase II regulations, which requires the submittal of a Notice of Intent (NOI) to seek coverage under the "Small MS4 General Permit."

(d) The Council finds in this regard that the provisions of this chapter are necessary to provide the City with the legal authority necessary to implement and otherwise comply with the requirements of the Small MS4 General Permit and to protect the waters of the United States for the benefit of its people and the environment.

Sec. 4-21.03. Purpose and intent.

The purpose and intent of this chapter is to protect and enhance the water quality of watercourses and water bodies within the incorporated areas of the City in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act, the Small MS4 General Permit, and the City

Stormwater Management Program, by reducing pollutants in stormwater discharges to the maximum extent practicable and by prohibiting non-stormwater discharges from entering the storm drain system.

Sec. 4-21.04. Applicability.

This chapter shall apply to all urbanized areas covered under the Small MS4 General Permit.

Sec. 4-21.05. Responsibility for administration.

The Department of Public Works Director shall administer, implement, and enforce the provisions of this chapter. Any powers granted or duties imposed upon the Director may be delegated by the Director to persons or entities acting in the beneficial interest of or in the employ of the City. In administering this chapter, the Director has the authority to request and require the submittal of information deemed necessary to assess compliance with this chapter and the Small MS4 General Permit.

Sec. 4-21.06. Severability.

The provisions of this chapter are hereby declared to be severable. If any provision, clause, word, sentence, or paragraph of this chapter or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter.

Sec. 4-21.07. Regulatory consistency.

This chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act, the Porter-Cologne Act, the Small MS4 General Permit, and acts amendatory thereof or supplementary thereto, or any applicable implementing regulations.

Sec. 4-21.08. Conflicts.

In the event of any conflict between this chapter and any Federal or State law, regulation, order, or permit, that requirement which establishes the higher standard for public health or safety shall govern. To the extent permitted by law, nothing in this chapter shall preclude enforcement of any other applicable law, regulation, order or permit.

Sec. 4-21.09. Disclaimer of liability.

The standards set forth herein and promulgated pursuant to this chapter are minimum standards; therefore this chapter does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants into waters of the United States caused by said person. This chapter shall not create liability on the part of the City of Yuba City or any agent or employee thereof for any damages that result from any discharger's reliance on this chapter or any administrative decision lawfully made thereunder.

Sec. 4-21.10. Indemnification.

Any discharge which would result in or contribute to a violation of the City's Small MS4 General Permit , either separately, considered or when combined with other discharges, is prohibited. Liability for any such discharge shall be the responsibility of the person(s) causing or responsible for the discharge, and such person(s) shall defend, indemnify, and hold harmless the City against any claim, expense, liability, or payment for injury or damage to any person or property and shall defend, indemnify, and hold harmless the City in any administrative or judicial enforcement or any legal action resulting from such discharge.

Article 2. Definitions

Sec. 4-21.11. Definition of words and phrases.

(a) The following words and phrases when used in this chapter shall have the meanings respectively ascribed to them in this article.

(b) Any term(s) defined in the Small MS4 General Permit, the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act, and acts amendatory thereof or supplementary thereto, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and which are not specifically defined in this Article shall, when used in this chapter, have the same meaning as set forth in said act or regulation.

Sec. 4-21.12. Best management practice.

"Best management practice (BMP)" means schedules of activities, prohibition of practices, general good housekeeping practices, pollution prevention practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to the municipal storm drain system and waters of the United States. Best management practices include but are not limited to: treatment facilities to remove pollutants from stormwater; operating and maintenance procedures; facility management practices to control runoff, spillage or leaks of non-stormwater, waste disposal, and drainage from materials storage; erosion and sediment control practices; and the prohibition of specific activities, practices, and procedures and such other provisions as the City determines appropriate for the control of pollutants.

Sec. 4-21.13. CFR.

"CFR" means the Code of Federal Regulations.

Sec. 4-21.14. City.

"City" means the City of Yuba City, its designated representatives, boards, or commissions.

Sec. 4-21.15. Clean Water Act.

"Clean Water Act" means the Federal Water Pollution Control Act (33 U.S.C. Section 1251 et seq.), and any subsequent amendments thereto.

Sec. 4-21.16. Commercial.

"Commercial" means use types that include the distribution, sale and rental of goods, and the provision of services.

Sec. 4-21.17. Construction activity.

"Construction activity" means any private and public construction project that involves soil disturbing activities including, but not limited to, clearing and grubbing, paving, grading, demolition, utility work, disturbances to ground such as stockpiling, and excavation.

Sec. 4-21.18. Development.

“Development’ means construction, rehabilitation, redevelopment, or reconstruction of any public or private residential project, industrial, commercial, retail, transportation, institutional, or other nonresidential project including public agency projects.

Sec. 4-21.19. Development Runoff Requirements.

“Development runoff requirements” shall mean the provisions in the Small MS4 General Permit that contain design standards or performance criteria to address both the construction and post-construction phase impacts of new projects and redeveloped projects on stormwater quality and quantity.

Sec. 4-21.20. Director.

"Director" means the Department of Public Works Director or the Director's authorized representative.

Sec. 4-21.21. Discharge or Discharge of a Pollutant.

“Discharge” or “Discharge of a Pollutant.” is (a) The addition of any pollutant or combination of pollutants to waters of the United States from any point source, or (b) Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft, which is being used as a means of transportation. The term includes additions of pollutants to waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Sec. 4-21.22. Enforcement officer.

"Enforcement officer" means any City employee or agent of the City with the authority to enforce any provision of this chapter and the authority to make any decision on behalf of the Director required or called for by this chapter.

Sec. 4-21.23. Erosion and Sediment Control Plan

“Erosion and Sediment Control Plan (ESCP)” means a plan prepared to control erosion and prevent the discharge of sediment and construction materials from a construction site.

Sec. 4-21.24. Garbage.

"Garbage" means solid waste from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage and sale of produce.

Sec. 4-21.25. Hazardous materials.

"Hazardous materials" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the environment.

Sec. 4-21.26. Illegal discharge.

"Illegal discharge" or “Illicit Discharge” is any discharge to a municipal separate storm sewer (storm drain) system (MS4) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illegal discharge includes all non-stormwater discharges not composed entirely of stormwater and discharges that are not exempt from prohibition (Section 4-21.60). The term illegal discharge does not include discharges that are regulated by an NPDES permit (other than the Small MS4 General Permit).

Sec. 4-21.27. Illicit connections.

"Illicit connections" is defined as either of the following:

(a) Any drain or conveyance, whether on the surface or subsurface which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system and any collections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by a government agency; or

(b) Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by the City.

Sec. 4-21.28. Incidental Irrigation Runoff.

“Incidental irrigation runoff” shall mean unintended amounts (volume) of runoff, such as unintended, minimal over-spray from sprinklers that escapes the landscaped area of intended use. Water leaving an intended use area is not considered incidental if it is part of the facility design, is due to excessive application, is due to intentional overflow or application, or is due to negligence.

Sec. 4-21.29. Industrial activity.

"Industrial activity" means activities subject to NPDES industrial permits as defined in 40 CFR Section 122.26 (b)(14).

Sec. 4-21.30. Industrial wastes.

"Industrial wastes" means the liquid wastes from industrial manufacturing processes, trade, or business.

Sec. 4-21.31. Local health officer.

"Local health officer" means the Sutter County Health Officer.

Sec. 4-21.32. Low Impact Development

“Low Impact Development (LID).” A sustainable practice that benefits water supply and contributes to water quality protection. LID uses site design and stormwater management to maintain the site’s pre-development runoff rates and volumes. The goal of LID is to mimic a site’s predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

Sec. 4-21.33. National Pollutant Discharge Elimination System permit.

“National Pollutant Discharge Elimination System (NPDES)” is a discharge permit issued by the United States Environmental Protection Agency, the State Water Resources Control Board, or a California Regional Water Quality Control Board pursuant to the Clean Water Act that authorizes discharges to waters of the United States.

Sec. 4-21.34. Natural outlet.

"Natural outlet" means any outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.

Sec. 4-21.35. Non-stormwater discharge.

"Non-stormwater discharge" means any discharge to the storm drain system that is not composed entirely of stormwater.

Sec. 4-21.36. Permit Registration Documents.

“Permit Registration Documents (PRDs)”are the application materials required by the State Water Resources Control Board that includes a notice of intent (NOI) to comply with the terms of the General Permit to Discharge Storm Water Associated with Construction and Ground Disturbing Activities (Order No. 2009-0009-DWQ as amended, General Permit No. CAS000002) or the General Permit to Discharge Storm Water Associated with Industrial Activities (Order No. 2014-057-DWQ, General Permit No. CAS000001)

Sec. 4-21.37. Person.

"Person" means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns.

Sec. 4-21.38. Pollutant.

"Pollutant" means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; nonhazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure (including, but not limited to, sediments, slurries, concrete rinsates, lime, and asphalt); and noxious or offensive matter of any kind, that is discharged to or placed in such a way as to be carried away by stormwater into the storm drains and watercourses of the City.

Sec. 4-21.39. Pollution.

"Pollution" means any water or other liquids containing wastes or other materials in concentrations sufficient to create a nuisance condition by directly or indirectly altering the waters' chemical, physical, or biological integrity. Pollution includes, but is not limited to, any discolored or otherwise aesthetically undesirable waters; waters that are harmful to human life; and wastes that interfere with the beneficial uses of local water courses (agricultural supply; municipal supply; recreation; aesthetic enjoyment; groundwater recharge; preservation and enhancement of fish, wildlife, and other aquatic resources).

Sec. 4-21.40. Porter-Cologne Act.

"Porter-Cologne Act" means the California Porter-Cologne Water Quality Control Act and as amended (California Water Code Section 13000 et seq.).

Sec. 4-21.41. Post Construction Measure Requirements.

“Post Construction Measure Requirements." The requirements of Provision E.12 of the Small MS4 General Permit that contain design standards or performance criteria to address the post-construction phase impacts of new projects and redeveloped projects on stormwater quality and quantity.

Sec. 4-21.42. Premises.

"Premises" means any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Sec. 4-21.43. Receiving water limitation.

"Receiving water limitation" means site specific interpretations of water quality standards from applicable water quality control plans.

Sec. 4-21.44. Regional Board.

"Regional Board" means the California Regional Water Quality Control Board, Central Valley Region.

Sec. 4-21.45. Responsible person.

“Responsible person” shall mean the owner or occupant of any premises or who engages in any activity from which there is or may be a non-stormwater discharge or any person who releases pollutants to the City’s stormwater system.

Sec. 4-21.46. Rubbish.

"Rubbish" means any and all solid waste materials, including, but not limited to, paper, rags, bottles, cans, glass, boxes, packing material, trimmings from lawns, trees and gardens, magazines, books, ashes, and construction debris.

Sec. 4-21.47. Sewage.

"Sewage" means a combination of the municipal wastewater from residences, business buildings, institutions, and industrial establishments, together with such ground, surface, and stormwaters as may be present.

Sec. 4-21.48. Small MS4 General Permit.

“Small MS4 General Permit” is the NPDES general stormwater permit applicable to the City of Yuba City, Water Quality Order No. 2013-0001—DWQ, General Permit No. CAS000004, and any subsequent amendment, reissuance or successor to this NPDES permit.

Sec. 4-21.49. Spill.

"Spill" means any leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, unless permitted or authorized by a regulatory agency.

Sec. 4-21.50. Storm drain system.

"Storm drain system" or “storm drain” includes but is not limited to those publicly owned stormwater drainage conveyance facilities within the City by which stormwater may be collected and/or conveyed to the waters of the United States, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures which are within the City and are not part of a publicly owned treatment works as defined at

40 CFR Section 122.2 or privately owned facilities outletting to waters of the United States or connected to the City storm drain system.

Sec. 4-21.51. Stormwater.

"Stormwater" means stormwater runoff, surface flow and runoff, and drainage consisting entirely of water from weather events such as rain, snow, sleet, or hail.

Sec. 4-21.52. Stormwater Facilities Operation and Maintenance Plan.

"Stormwater Facilities Operation and Maintenance Plan" is a plan identifying the locations and characteristics of stormwater management facilities on a newly developed or redeveloped site and describing maintenance activities, schedules, and responsibilities to ensure the ongoing proper operation of those facilities.

Sec. 4-21.53. Stormwater management facility.

"Stormwater management facility" is any device designated to detain, retain, filter, or infiltrate stormwater.

Sec. 4-21.54. Stormwater Pollution Prevention Plan (SWPPP).

“Stormwater pollution prevention plan (SWPPP)” is a plan to identify sources of pollutants that affect the quality of stormwater discharges and describes and ensures the implementation of practices to reduce pollutants in stormwater discharges.

Sec. 4-21.55. Urban Runoff.

“Urban runoff” is stormwater runoff from an urbanized area including streets and adjacent domestic and commercial properties that carries pollutants of various types into the storm drainage system and receiving waters.

Sec. 4-21.56. Urbanized Area.

Urbanized area” is a densely settled core of census tracts and/or census blocks that have a population of at least 50,000, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core.

Sec. 4-21.57. Watercourse.

"Watercourse" means a channel, ditch, drainage swale, closed pipe system, whether manmade or natural, or depression in which a flow of water occurs, either continuously or intermittently.

Sec. 4-21.58. Waters of the United States.

"Waters of the United States" means surface watercourses and water bodies as defined within 40 CFR Section 122.2 including all natural waterways and definite channels and depressions in the earth that may carry water, even though such waterways may only carry water during rains and storms and may not carry stormwater at and during all times and seasons.

Article 3. Discharge Prohibitions

Sec. 4-21.59. Prohibition of illegal discharges.

It is unlawful to discharge, permit to be discharged or cause to be discharged any non-stormwater discharges into any storm drain system, watercourse, natural outlet, creek or channel except as provided in Section 4-21.60. All discharges other than stormwater must be in compliance with this chapter, state and federal regulations.

The discharge of stormwater from premises or any activity that causes or contributes to a violation of receiving water limitations in the City's NPDES permit is prohibited.

Sec. 4-21.60 . Exemptions.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

(a) Discharges from the following activities will not be considered a significant source of pollutants to the municipal storm drain system and to waters of the United States when properly managed to ensure that no potential pollutants are present, and therefore they shall not be considered illegal discharges unless determined to cause a violation of the provisions of the Porter-Cologne Act, the Federal Clean Water Act, the Small MS4 General Permit, or this chapter:

(1) Water line flushing;
(2) Incidental irrigation runoff from landscaped areas provided the conditions in item (d) of this section are met;
(3) Diverted stream flows;
(4) Rising groundwater;
(5) Uncontaminated groundwater infiltration (as defined at 40 CFR Section 35.2005 (20)) to separate storm sewers;
(6) Uncontaminated pumped groundwater;
(7) Discharges from potable water sources;
(8) Foundation drains;
(9) Air-conditioning condensation;
(10) Springs;
(11) Water from crawl space pumps;
(12) Footing drains;
(13) Lawn watering;
(14) Individual residential car washing;
(15) Flows from riparian habitats and wetlands;
(16) Dechlorinated swimming pool discharges; and

(b) Discharges or flows from fire-fighting activities are excluded from the prohibition of non-stormwater and need only be addressed where they are identified as significant sources of pollutants to waters of the United States.

(c) The prohibition of non-stormwater discharges shall not apply to any discharges regulated under another NPDES permit, waiver or waste discharge order issued to the discharger and administered by the State of California under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that approval has been granted by the City for any discharge to the storm drain system.

(d) Irrigation systems must be designed to conserve water and prevent water leaving the area of application. Persons responsible for controlling irrigation systems shall prevent excessive irrigation runoff by:

1) Detecting and correcting leaks from the irrigation system within 72 hours of discovering the leak;
2) Properly designing and aiming sprinkler heads to only irrigate the planned application area;
3) Not irrigating during precipitation events; and
4) Where recycled water is used for irrigation, designing and managing holding ponds such that no discharge occurs unless it is the result of the 25 year-24 hour storm event. Any releases from holding ponds must be reported to the Regional Water Board and the City of Yuba City within 24 hours of the discharge.

Sec. 4-21.61. Exceptions to otherwise applicable exemptions.

Notwithstanding the exemptions provided for in the previous section above, if the Regional Board or the Director determines that a discharge which is otherwise exempt from the prohibition on discharges causes or significantly contributes to a violation of any receiving water limitation or results in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety, the Director may give written notice to the owner or operator of the facility that the discharge exception shall not apply to the discharge at issue following a 30-day period commencing upon delivery of the notice. Upon expiration of such 30-day period, any such discharge from the noticed facility shall be unlawful. Upon finding that any discharge poses an immediate significant threat to the environment or to public health and safety, the Director may waive the 30-day waiting period and require immediate cessation of the discharge.

Sec. 4-21.62. Solid waste disposal prohibitions.

Except for pollutants lawfully disposed of by way of containers or at a licensed dumping ground, no person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, placed, left, or maintained, in or upon any public or private lot of land or other premises in the City, driveway, parking area, street, alley, sidewalk, business place, component of the storm drain system, or waters of the United States, any refuse, rubbish, garbage, litter or other discarded or abandoned objects, articles, and accumulations, so that the same might be or become a pollutant discharged to water or may cause or contribute to pollution. Wastes properly deposited in streets in proper waste receptacles or pursuant to a City sponsored program for the purposes of collection are exempted from this prohibition.

The occupant or tenant, or in the absence of occupant or tenant, the owner, lessee or proprietor of any premises, residential or commercial, in the City in front of which there is a paved sidewalk shall maintain said sidewalk free of dirt or litter to the maximum extent practicable. Sweepings from said sidewalk, including but not limited to the blowing or sweeping of leaves, grass clippings, or other organic wastes, shall not be swept or otherwise made or allowed to go into the gutter or roadway.

Sec. 4-21.63. NPDES Stormwater discharge general permits

Any person conducting an industrial or construction activity, or other discharger, described in any general stormwater permit addressing such discharges, as may be adopted by the Environmental Protection Agency, State Water Resources Control Board, or the Regional Water Board, shall provide Permit Registration Documents, comply with, and undertake, all other activities required by any general stormwater permit applicable to such discharges.

Proof of compliance with said stormwater general permit may be required in a form acceptable to the Director prior to, or as a condition of, a subdivision map, site plan, building permit, grading permit, or development or improvement agreement, upon inspection of the facility, during any enforcement proceeding or action, or for any other reasonable cause. Prior to issuance of a construction permit or approval of the proposed improvement plans, proof of compliance shall include a copy of the Notice of Intent (NOI), and a stormwater pollution prevention plan (SWPPP) for said activity submitted to the City.

The Director and/or the enforcement officer, may, at any time, inspect facilities and sites subject to general stormwater permits to ensure compliance with the measures outlined in the SWPPP for said facilities and sites and implement enforcement measures as outlined in Article 5 of this chapter.

Article 4. Regulations and Requirements

Sec. 4-21.64. Requirement to prevent, control, and reduce stormwater pollutants.

(a) The Director is authorized to designate as subject activities any activities, operations, or facilities identified as sources or potential sources of pollutant discharges to the City storm drain system, natural surface waters, or watercourses. A subject activity may occur at a stationary facility or it may occur as a mobile activity that takes place at various job sites. The City may require the implementation of best management practices (BMPs) for any of such subject activities that may cause or contribute to pollution or contamination of stormwater, the storm drain system, or waters of the U.S.

(b) All persons engaged in activities which will or may result in pollutants entering the City storm drain system, natural surface waters, or watercourses shall undertake all practicable measures to cease such activities, and/or eliminate or reduce such pollutants. Such activities shall include, but not be limited to, ownership and use of parking lots, gasoline stations, industrial facilities, commercial facilities, ground disturbing activities, and stores fronting City streets. Such persons shall implement BMPs to prevent and/or reduce such pollutants from entering non-stormwater discharges and/or stormwater discharges.

(c) All BMPs shall be protected, inspected, and maintained to ensure continuous and fully effective performance as designed. A maintenance and inspection schedule for both dry and wet season BMPs shall be in writing and a record shall be kept with dates, the BMP inspected or maintained, a

description of any maintenance activity, and the name of the inspector or maintenance foreman. This record shall be made available to the Director upon request.

(d) Whenever the Director finds that a discharge of pollutants is taking place or has occurred that results in or resulted in pollutants entering the City storm drain system or natural surface waters, the Director shall require by written notice to the owner or occupant of the property that the pollution be remediated and the affected property restored within a specified time pursuant to the provisions of this chapter.

(e) The Director shall by written notice require that persons engaged in subject activities and/or owning or operating designated facilities, which may cause or contribute to stormwater pollution, illicit discharges, and/or non-stormwater discharges into the City storm drain system, natural surface waters, or watercourses, to undertake at said person's expense such monitoring and analyses and furnish such reports to the Director as deemed necessary to determine compliance with this chapter.

(f) The City may establish requirements identifying appropriate best management practices to control the volume, rate, and potential pollutant load of stormwater runoff from new development and redevelopment projects as may be appropriate to minimize the generation, transport and discharge of pollutants. The City shall incorporate such requirements in any land use entitlement and construction or building-related permit to be issued relative to such development or redevelopment. The owner and developer shall comply with the terms, provisions, and conditions of such land use entitlements and building permits as required in this chapter.

Sec. 4-21.65. Best management practices for construction and ground disturbing activities.

Any person performing any ground disturbing activities shall implement appropriate best management practices (BMPs) consistent with the California Stormwater Quality Association BMPs or equivalent to prevent the discharge of sediment, construction wastes, or pollutants from construction materials, tools, and equipment from entering into the City storm drain system or natural surface waters. These pollutants may include, but are not limited to, soils, construction wastes, or debris, contaminants from construction materials, tools, and equipment.

(a) Authorization to Review. The City has the authority to review designs and proposals for construction activities and new development and redevelopment sites to determine whether adequate BMPs will be installed, implemented, and maintained during construction and after final stabilization (post-construction).

(b) Erosion and Sediment Control. All construction plans and applications submitted to the City pursuant to any permit application shall consider the potential for erosion and sedimentation at the construction site, and shall include appropriate erosion and sedimentation controls.

(c) Erosion and Sediment Control Plan Requirements:

(1) When required by the City, a project shall have an Erosion and Sediment Control Plan (ESCP) that addresses erosion and sediment control and pollution prevention during the construction phase and final stabilization control measures. The ESCP shall be implemented year round and must be updated to reflect changing conditions on the project site.

(2) Implementation of an approved ESCP by the applicant shall be a condition precedent to the issuance of a grading permit, building permit, or a construction permit for a project subject to this section. Subsequent changes to the ESCP must be submitted to the City for review and approval.

(3) The Director may issue guidance and requirements specifying the content of ESCPs. The City will provide references to current guidance manuals and BMP information on request.

(4) The City shall collect a fee in accordance with the fee schedule to ensure compliance with the ESCP. The fee schedule would be adopted under a separate resolution.

(5) Financial security may be required to ensure that BMPs operate and are maintained during the construction period. Financial security shall consist of an irrevocable letter of credit, cash deposit, or performance bond as determined by the City.

Sec. 4-21.66. Best management practices for new development and redevelopment.

(a) New development and redevelopment projects shall be required to implement post-construction BMPs to control the volume, rate, and potential pollutant load of stormwater runoff, including, but not limited to, requirements to minimize the generation, transport, and discharge of pollutants.

(b) Post Construction BMPs

(1) Prior to and/or during construction, the City may establish controls on the volume and rate of stormwater runoff from new developments and redevelopment as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. These controls may include limits on impervious area or provisions for detention and retention of runoff on-site.

(2) Permanent Structural Controls. The City may require, as a condition of project approval, permanent structural controls designed for the removal of sediment and other pollutants. The selection and design of such controls shall be in accordance with criteria established or recommended by federal, state, or local agencies. Where physical and safety conditions allow, the preferred control measure is to retain drainageways above ground and in as natural a state as possible or other biological methods such as bioretention areas.

(3) The Director may issue design guidelines for post-construction BMPs consistent with the Small MS4 General Permit and may amend the guidelines from time to time in accordance with state and federal laws.

(4) The City shall incorporate such post-construction design guideline requirements in any land use entitlement and construction or building-related permit to be issued relative to such development or redevelopment. The owner and developer shall comply with the terms, provisions and conditions of such land use entitlements and

building permits as required in this chapter. The City shall collect a fee in accordance with the fee schedule to ensure compliance with the post-construction BMPs.

(5) Any permit issued for the construction of a privately-owned post-construction BMP shall be conditioned upon the applicant providing a written acknowledgement of the obligation to maintain the BMP in accordance with the original design capacity and standards. In the event that future improvements negate the need for a privately-owned post-construction BMP, the maintenance obligation may be altered or removed by the Director upon the receipt and review of a document evidencing the removal of such obligation.

(c) Runoff Control Plan Requirements:

(1) For each new development and redevelopment project subject to the development runoff requirements, or where required by the nature and extent of a proposed project and where deemed appropriate by the City, every applicant will submit a runoff control plan and shall implement conditions of approval that reduce stormwater pollutant discharges through the construction, operation and maintenance of source control measures, low impact development design, site design measures, stormwater treatment measures and hydromodification management measures. Increases in runoff shall be managed in accordance with the development runoff requirements.

(2) Implementation of an approved runoff control plan and submittal of an approved stormwater facilities operation and maintenance plan by the applicant shall be a condition precedent to the issuance of a building permit or a construction permit for a project subject to this section. Financial security may be required to ensure that stormwater management facilities operate and are maintained following construction for a period which may be determined by the City. Financial security shall consist of an irrevocable letter of credit, cash deposit, or performance bond as determined by the City.

(3) All stormwater management facilities shall be designed in a manner to minimize the need for maintenance and reduce the chances of failure. All stormwater management facilities shall be maintained according to the approved stormwater facilities operation and maintenance plan. The person(s) or organization(s) responsible for maintenance shall be designated in the plan. Unless a different time period is provided for in the plan, those responsible for maintenance shall inspect the stormwater management facility at least annually. The plan shall also describe how the maintenance costs will be funded. Upon the failure of a responsible person to maintain a stormwater management facility in accordance with this chapter or the plan, the City may perform the maintenance and recover its costs from the responsible person as provided in this Chapter.

(4) For each new development and redevelopment project subject to the development runoff requirements, or where deemed appropriate by the City, access by the City to stormwater management facilities for inspections, as provided in Section 4-21.74, and through such means as may be appropriate, including, but not limited to, legal agreements, recorded covenants or easements, shall be provided by the property owner.

Sec. 4-21.67. Requirement to eliminate illegal discharges.

Notwithstanding the requirements of this chapter, the Director may require by written notice that a person responsible for an illegal discharge immediately, or by a specified date, discontinue the discharge and, if necessary, take measures to eliminate the source of the discharge to prevent the occurrence of future illegal discharges.

Sec. 4-21.68. Prohibition of illicit connections.

(a) It shall be unlawful for any person to establish, use or maintain, or cause to establish, use or maintain, any illicit connection. Illicit connections shall be subject to removal or abatement by the City. This prohibition expressly includes, without limitation, illicit connections made in the past regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

(b) The prohibition set forth in subsection (a) above shall apply to illicit connections in existence at the time this chapter becomes effective. Upon the effective date of this chapter, any person who maintains an illicit connection shall have thirty (30) days to disconnect and discontinue use of such connection or secure approval of such connection.

Sec. 4-21.69. Requirement to eliminate or secure approval for illicit connections.

(a) The Director may require by written notice that a person responsible for an illicit connection to the storm drain system comply with the requirements of this chapter to eliminate or secure approval for the connection by a specified date, regardless of whether or not the connection or discharges to it had been established or approved prior to the effective date of this chapter.

(b) If, subsequent to eliminating a connection found to be in violation of this chapter, the responsible person can demonstrate that an illegal discharge will no longer occur, said person may request City approval to reconnect. The reconnection or reinstallation of the connection shall be at the responsible person's expense.

(c) If any person fails to disconnect an illicit connection upon notification by the Director or enforcement officer, the Director or enforcement officer may direct that such connection be disconnected from the storm drain system. The City may pursue the recovery of costs for such disconnection.

Sec. 4-21.70. Watercourse protection.

Every person owning property through which a watercourse passes, or such person's lessee, shall keep and maintain that part of the watercourse within the property reasonably free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse. The owner or lessee shall not remove healthy bank vegetation beyond that actually necessary for utility and bikeway construction and/or maintenance, flood control, or fire protection, nor remove said vegetation in such a manner as to increase the vulnerability of the watercourse to unnaturally high rates of erosion.

Sec. 4-21.71. Prohibition of spills.

It shall be unlawful for any person to allow a spill to discharge into the municipal storm drain system or any watercourse.

Sec. 4-21.72. Notification of spills.

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the municipal storm drain system, any watercourse, or water of the United States from said facility, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.

(a) In the event of such a release of a hazardous material said person shall immediately notify emergency response officials of the occurrence via emergency dispatch services (911). Said person should also notify the Public Works Department immediately. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City's Public Works Department within three business days of the phone notice.

(b) In the event of a release of nonhazardous materials, said person shall notify the City's Public Works Department, Stormwater Management Program, no later than 5:00 p.m. of the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the City's Public Works Department, Engineering Division, Stormwater Management Program, within three (3) business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three (3) years.

(c) For any discharge subject to the reporting requirements of the State of California Water Code Sections 13271 and 13272, notification in compliance therewith shall constitute sufficient notification for the purposes of this section.

Sec. 4-21.73. Hazardous materials response.

Any person engaged in activities which may result in pollutants entering the municipal storm drain system shall, to the maximum extent practicable, undertake the measures set forth below to reduce the risk of non-stormwater discharge and/or pollutant discharge.

(a) Any business requiring a hazardous materials release response and inventory plan under chapter 6.95 (commencing with Section 25500) of Division 20 of the California Health and Safety Code, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-stormwater discharges and illegal discharges or connections, and requiring the release of pollutants to be reduced to the maximum extent practicable.

(b) Any business requiring a hazardous waste generator contingency plan and emergency procedures pursuant to California Code of Regulations, Title 22, sections 66265.51 to 66265.56, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting

non-stormwater discharges and illegal discharges, and requiring the release of pollutants to be reduced to the maximum extent practicable.

Article 5. Inspection and Monitoring

Sec. 4-21.74. Authority to inspect.

Whenever necessary to make an inspection to enforce any provision of this chapter, or whenever the Director, or enforcement officer, has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this chapter, the Director, and/or the enforcement officer, may enter and inspect such premises (including, but not limited to, facilities, equipment, practices, or operations that may be situated outside the premises or at field sites) at all reasonable times to inspect and copy records related to stormwater compliance to inspect the same for any or all of the following situations, as determined by the Director and/or the enforcement officer:

a) Routine inspections to ensure implementation of BMPs and other requirements of this chapter;
b) Active or potential stormwater discharges;
c) Whenever there is reasonable cause to believe that there exists any condition which constitutes a violation of the provisions of this chapter or the Phase II Stormwater Permit;
d) Actual violations of this chapter or the Phase II Stormwater Permit;
e) Whenever necessary to enforce any of the provisions of this chapter or the Phase II Stormwater Permit; or
f) To perform any duty imposed upon the official by this chapter.

The Director and/or enforcement officer must present proper credentials, and obtain consent from the owner or occupant, to enter. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the City is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry.

Sec. 4-21.75. Authority to sample, establish sampling devices, and test.

Inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this chapter, including but not limited to, random sampling and/or sampling in areas with evidence of stormwater contamination, illegal discharge, non-stormwater discharge to the stormwater conveyance system, or similar factors.

During any inspection as provided herein, the Director or his or her designee may take samples, perform any testing deemed necessary and take photographs to aid in the pursuit of the inquiry or to record site activities. This authority may include the installation of sampling and metering devices on private property, or requiring the person owning or occupying the premises to supply samples. The enforcement officer may require monitoring, analysis and reporting of discharges from any premises to the municipal storm drain system. Upon service of written notice by the enforcement official, the burden, including cost, of these activities, analyses and reports, incurred in complying with the requirement shall, to the extent permitted by law, be borne by the property owner or occupant of the facility or activity for which testing and monitoring has been requested.

Sec. 4-21.76. Requirement to monitor and analyze.

The Director may require by written notice a requirement that any person engaged in any activity and/or owning or operating any facility which may cause or contribute to stormwater pollution, illegal discharges, and/or non-stormwater discharges to the storm drain system or waters of the United States, to undertake at said person's expense such monitoring and analyses and furnish such reports to the City as deemed necessary to determine compliance with this chapter.

Sec. 4-21.77. Requirement to remediate.

Whenever the Director finds that a discharge of pollutants is taking place or has occurred which will result in or has resulted in pollution of stormwater, the storm drain system, or waters of the United States, the Director may require by written notice to the owner of the property and/or the responsible person that the pollution be remediated and the affected property restored at their expense within a specified time pursuant to the provisions of this chapter.

Article 6. Enforcement

Sec. 4-21.78. Violations.

It is unlawful for any person to violate any provision or fail to comply with any of the requirements of this chapter. Causing, permitting, aiding, abetting or concealing a violation of any provision of this chapter shall constitute a violation of this chapter. A violation of the provisions of this chapter shall occur irrespective of the negligence or intent of the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge. A violation of or failure to comply with any of the requirements of this chapter may be charged as either an infraction or a misdemeanor in the discretion of the City attorney.

In addition to any other enforcement powers and/or remedies provided in this chapter, the Director or enforcement officer may issue an order to a person to cease and desist from the discharge, practice, operation or other activity causing or likely to cause a violation of this chapter. At the discretion of the Director or enforcement officer, orders to cease and desist may take the following form:

a) Verbal Warnings, as may be issued during inspections;
b) Warning Letters and Orders to Abate Pollution;
c) Warning Letters with requirements to submit written reports; and
d) Formal violations and legal action as described in this chapter.

Whenever the Director or enforcement officer finds that a person has violated a prohibition or failed to meet a requirement of this chapter, the Director or enforcement officer may order compliance by written notice of violation to the responsible person. Such notice may require, without limitation:

a) The performance of monitoring, analyses and reporting;
b) The elimination of illicit connections or discharges;
c) That violating discharges, practices or operations shall cease and desist;
d) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
e) Payment of a fine to cover administrative and remediation costs; and
f) The implementation or maintenance of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work may be done by the City or a contractor designated by the Director and/or the enforcement officer and the expense thereof shall be charged to the violator pursuant to this chapter. A notice issued under this chapter shall identify the provisions of this chapter which have been violated, shall state the recipient has the right to appeal as set forth in Section 4-21.81 of this chapter.

Said notice shall be served upon recipient by: (1) personal service; (2) deposit in U.S. mail, postage pre-paid for first class delivery; or (3) electronic mail service with confirmation of receipt. Where recipient is the owner of the subject property, the address for notice shall be the address from the most recently issued equalized assessment roll or as otherwise appears in the current records of the county. Where the owner or occupant cannot be located after reasonable efforts, notice of violation shall be deemed delivered after posting on the subject property for a period of ten days.

Sec. 4-21.79. Acts potentially resulting in a violation of the Clean Water Act and/or Porter-Cologne Act.

Any person who violates any provision of this chapter or any provision of any requirement issued pursuant to this chapter, or who discharges waste or wastewater which causes pollution, or who violates any cease and desist order, prohibition, or effluent limitation, may also be in violation of the Federal Clean Water Act and/or the Porter-Cologne Act and may be subject to the sanctions of those acts including civil and criminal penalties. Any enforcement action authorized under this chapter shall also include written notice to the violator of such potential liability.

Sec. 4-21.80. Violation procedure.

Whenever the Director determines that a violation has occurred, or may occur, the violation procedure may follow the City's Administrative Citation Program contained in Chapter 6, Title 1, of the City's Municipal Code or any other procedure authorized by law or the City's Municipal Code in the discretion of the City. In any such action, the City may seek, and the court shall grant, as appropriate, any or all of the following remedies:

a) A temporary and/or permanent injunction.
b) An action for an unlawful business practice pursuant to Business and Professions Code Section 17206;
c) Assessment of the violator for the costs of any investigation, inspection, or monitoring survey which led to the establishment of the violation, and for the reasonable costs of preparing and bringing legal action under this subsection.
d) Costs incurred in removing, correcting, or terminating the adverse effects resulting from the violation.
e) Compensatory damages for loss or destruction to water quality, wildlife, fish and aquatic life. Assessments under this subsection shall be paid to the City to be used exclusively for costs associated with monitoring and establishing stormwater discharge pollution control systems and/or implementing or enforcing the provisions of this chapter.
f) The cost of maintenance and repair of any BMP or stormwater management facility that is not maintained in accordance with the guidebook or the stormwater control plan.

Sec. 4-21.81. Appeal.

Any person may appeal a violation of this chapter in accordance with the applicable provisions of the Yuba City Municipal Code.

Sec. 4-21.82. Stop work orders.

Whenever any work is being done contrary to the provisions of this chapter, the Director or enforcement officer may order the work stopped by notice in writing served on any persons engaged in the doing or causing such work to be done, and any such persons shall forthwith stop such work until authorized by the Director or enforcement officer to proceed with the work.

Sec. 4-21.83. Urgency abatement on private property.

The Director is authorized to require immediate abatement of any violation of this chapter that constitutes an immediate threat to the health, safety or well-being of the public or the environment, or is a violation of a NPDES permit. If any such violation is not abated immediately as directed by the Director, the City is authorized to enter onto private property and to take any and all measures required to remediate the violation. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the City is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry. Any expense related to such remediation undertaken by the City shall be fully reimbursed by the property owner and/or responsible party. Any relief under this section shall not prevent the City from seeking other and further relief authorized under this chapter.

Sec. 4-21.84. Urgency abatement of municipal storm drain system.

The Director is authorized to immediately abate or require the abatement of any illegal discharge or spill into the municipal storm drain system when in the opinion of the enforcement officer it constitutes or threatens to constitute an immediate threat to the public health, safety or wellbeing, or to the environment, or is a violation of a NPDES permit. If any such violation is not abated immediately as directed by the Director or the enforcement officer, the City is authorized to enter onto private property and to take any and all measures required to remediate the violation. In the event the owner or occupant refuses entry after a request to enter and inspect has been made, the City is hereby empowered to seek assistance from any court of competent jurisdiction in obtaining such entry. Any expense related to such remediation undertaken by the City shall be fully reimbursed by the property owner and/or responsible party. Any relief under this section shall not prevent the City from seeking other and further relief authorized under this chapter.

Section 3. This ordinance shall become effective thirty (30) days after its adoption. A summary of this ordinance shall be published once at least five (5) days prior to the adoption of this ordinance and once within fifteen (15) days after its adoption, in the Appeal Democrat, a newspaper of general circulation in the City of Yuba City.

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Introduced and read at a regular meeting of the City Council of the City of Yuba City the 19th day of January, 2016, and adopted at a regular meeting thereof held on the ____ day of _____, 2016.

AYES:

NOES:

ABSENT:

_____
John Buckland, Mayor

ATTEST:

_____
Terrel Locke, City Clerk

APPROVED AS TO FORM

_____
Tim Hayes, City Attorney

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Public Works Department

Presentation by: Benjamin Moody, Deputy Public Works Director - Engineering

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Summary

Subject: Establish a Grading Ordinance in the City of Yuba City

Recommendation: Introduce an Ordinance adding Chapter 15 of Title 7 to the City Municipal Code which will regulate and control grading work in the City; waive the first reading

Fiscal Impact: Costs associated with the plan check and inspection of grading permits will be recouped using the existing public improvement plan check and inspection fee structure. For construction costs under two million dollars, grading permit plan checks will be charged at two percent (2%) of the grading construction cost with an additional two percent (2%) for work that requires City inspections.

Purpose:

To control earthwork grading activities through a permit process in order to comply with the City's stormwater discharge permit.

Background:

To ensure grading activities comply with the City's stormwater permit (Small MS4 Phase II NPDES Order No. 2013-0001-DWQ), and all applicable building requirements, staff is introducing a grading ordinance to standardize a permit process for review and approval prior to start of work. To comply with the state requirements set forth in the City's stormwater discharge permit, it is necessary for the City to regulate grading work.

Currently, large projects that wish to begin work before the approval of building plans are required to obtain a site work permit that necessitates the civil design of the site, including the utility plans for the project. A grading permit would serve a similar function while implementing the additional requirements set forth in the City's stormwater discharge permit.

Analysis:

The proposed ordinance will require the acquisition of a grading permit prior to performing any earthwork or grading activities for non-exempted projects. The issuance and approval of a grading permit will require the submittal of a grading plan and an Erosion and Sediment Control Plan, or a Stormwater Pollution Prevention Plan as determined appropriate.

Erosion & Sediment Control Plans should follow the requirements set forth in the Stormwater Management & Discharge Control Ordinance.

Grading permit exemptions include:

- Minor Construction Projects (Less than 50 cubic yards; depth of cut/fill less than 2 feet;)
- Single family residential lots less than one-half acre (12,780 sf)
- Excavation for swimming pools authorized by a valid building permit
- Agricultural grading operations
- Exploratory excavations less than 350 cubic yards
- Routine cemetery excavations & fills
- Emergency work necessary to protect life or property
- Basement or footing excavations with valid building permit
- Refuse disposal sites
- Repair & maintenance of levees performed by a governmental agency

The introduction of a grading permit will allow customers to begin grading phase work that is typical for large developments before the final development of building plans and the issuance of a building permit. However, grading activities are to comply with State and City requirements.

Fiscal Impact:

Costs associated with the plan check and inspection of grading permits will be recouped using the existing public improvement plan check and inspection fee structure. For construction costs under two million dollars, grading permit plan checks will be charged at two percent (2%) of the grading construction cost with an additional two percent (2%) for work that requires City inspections.

Alternatives:

Do not recommend the Ordinance for future approval or provide staff with direction for modifying the proposed Ordinance.

Recommendation:

Introduce an Ordinance adding Chapter 15 of Title 7 to the City Municipal Code which will regulate and control grading work in the City; waive the first reading.

Prepared by:

/s/ Manu Dhaliwal
Manu Dhaliwal
Assistant Engineer

Submitted by:

/s/ Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed by:

Department Head DL

Finance RB

City Attorney TH via email

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF YUBA CITY

ADDING CHAPTER 15 TO TITLE 7 OF THE YUBA CITY MUNICIPAL CODE REGARDING GRADING, EROSION, AND SEDIMENT CONTROL

THE CITY COUNCIL OF THE CITY OF YUBA CITY DOES HEREBY ORDAIN AS FOLLOWS:

Section 1. Chapter 15 is hereby added to Title 7 of the Yuba City Municipal Code to read as follows:

CHAPTER 15

GRADING

Sections:

CHAPTER 15.

GRADING

Article 1. General Provisions

Sec. 7-15.01. Title.

This chapter shall be known as the grading, erosion, and sediment control ordinance of the City of Yuba City (City), and shall be referred to herein as the “grading ordinance.”

Sec. 7-15.02. Purpose.

The grading ordinance is enacted for the purpose of regulating grading on property within the City to safeguard life, limb, health, property, and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the City's National Pollution Discharge Elimination System (NPDES) Permit No. 5S51M2000094, issued by the California State Water Resources Control Board (SWRCB); and to ensure that the intended use of a graded site within the City limits is consistent with the General plan, any operative specific, community, neighborhood, or master plans and applicable City ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the City.

Sec. 7-15.03. Scope.

The grading ordinance sets forth the rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. The grading ordinance establishes procedures for issuance, administration, and enforcement of permits for such activities. Any grading within the City limits of the City shall conform to provisions of the grading ordinance and other applicable provisions of the City code, including but not limited to, the latest edition of the City's standard specifications for public works construction and the California Department of Transportation Standard Specifications.

Sec. 7-15.04. Responsibility for administration.

The grading ordinance shall be administered for the City by the Development Services Department through the building permit process, or improvement plan process, as applicable.

Sec. 7-15.05. Severability.

The provisions of this chapter are hereby declared to be severable. If any provision, clause, word, sentence, or paragraph of this chapter or the application hereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this chapter.

Sec. 7-15.06. Conflicts.

In the event of any conflict between this chapter and any Federal or State law, regulation, order, or permit, the requirement which establishes the higher standard for public health or safety shall govern. To the extent permitted by law, nothing in this chapter shall preclude enforcement of any other applicable law, regulation, order or permit.

Sec. 7-15.07. Disclaimer of liability.

This chapter shall not create liability on the part of the City or any agent or employee thereof for any damages that result from any reliance on this chapter or any administrative

decision lawfully made thereunder. Neither issuance of grading approval under the provisions of the grading ordinance nor compliance with the provisions hereof or with any conditions imposed in a permit issued hereunder shall relieve any person from responsibility for damage to any person or property or impose any liability upon the City for damage to any person or property.

Sec. 7-15.08. Grading approval required.

Except for the specific exemptions listed hereinafter, no person shall do or permit to be done any grading on any site in the City without first obtaining approval of such grading from the Director in accordance with the provisions of the grading ordinance.

Sec. 7-15.09 Exemptions.

The following grading may be done without obtaining grading approval unless grading approval is required in mitigation monitoring agreements or other conditions of project approval. Exemption from the grading approval requirement shall not be deemed as permission to violate any other provision of this chapter.

(a) Minor construction projects which meet all of the following requirements:
    (1) The volume of material graded is less than fifty (50) cubic yards,
    (2) The depth of cuts and fills is less than two feet,
    (3) Any drainageway is not blocked or obstructed and its stormwater carrying capacities are not modified,
    (4) Slopes are less than ten (10) percent and are not left in an unstable or erodible condition;
(b) Single family residential lots less than one-half acre (12,780 sf) which also meet the requirements of subsection a of this Section;
(c) Excavations in connection with a swimming pool authorized by a valid building permit;
(d) Grading necessary for agricultural operations unless the failure of any cut or fill created by such grading could endanger any structure intended for human or animal occupancy or any public road, or could obstruct any watercourse or drainageway;
(e) Exploratory excavations of less than three hundred fifty (350) cubic yards under the supervision of a geotechnical engineer;
(f) Routine cemetery excavations and fills;
(g) Performance of emergency work necessary to protect life or property when an urgent necessity therefor arises. The person performing such emergency work shall notify the Director promptly of the problem and the work required.
(h) An excavation below finished grade for basements and footings of a building authorized by a valid building permit;
(i) Refuse disposal sites controlled by Title 23, Chapter 15, of the California Code of Regulations;
(j) The repair and maintenance of levees for river and local drainage control performed by a governmental agency.

Sec. 7-15.10. Grading approval.

Grading approval may be issued by the Director in connection with the issuance of a building permit or the approval of improvement plans, or where grading is commenced prior to such issuance or approval, through the issuance of a separate grading permit.

Sec. 7-15.11. Conditions of grading approval.

The conditions of grading approval are as follows:

(a) No grading shall be approved unless the project conforms with the City's General Plan, any operative specific, neighborhood, or master plans, and applicable City ordinances.
(b) Where the California Environmental Quality Act (CEQA) requires the preparation and approval of environmental documents concerning a project which will result in grading for which a grading permit is required under this chapter, no grading shall be approved until all CEQA requirements have been met, including, but not limited to, mitigation measures relating to protection of threatened and endangered species under applicable federal and state endangered species laws.
(c) Where a proposed grading project requires the filing of a tentative map or the intended use requires approval of a discretionary zoning permit or variance, grading may also require approval from the Development Services Department.
(d) Work shall be performed in accordance with the provisions of the grading ordinance.
(e) Grading approval shall be limited to work shown on the grading plans as approved by the Director. The Director may impose any condition deemed necessary to protect the health, safety, and welfare of the public, to prevent the creation of a hazard to public or private property, and/or to assure proper completion of the grading, including, but not limited to, the following:
    (1) Mitigation of adverse environmental impacts as disclosed by any environmental document findings, including, but not limited to, those matters specified in subsection b of this section;
    (2) Improvement of any existing grading to comply with the standards of the grading ordinance;
    (3) Requirements for fencing or other protection of grading which would otherwise be hazardous;
    (4) Requirements for dust, erosion, sediment and noise control, hours of operation and season of work, access roads and haul routes;
    (5) Requirements for safeguarding watercourses, whether natural or manmade, from excessive deposition of sediment or debris. In no case shall deposition of sediment or debris cause an exceedance of applicable water quality standards;
    (6) Assurance that the land area in which grading is proposed and for which habitable structures are proposed is not subject to hazards of land slippage or significant settlement or erosion and that the hazards of flooding can be eliminated or adequately reduced;
    (7) Requirements for safeguarding existing water wells.

Sec. 7-15.12. Scope of approval.

The issuance of grading approval shall not be construed as an approval of any action or condition constituting a violation of the provisions of the grading ordinance or of any other applicable laws, ordinances, rules or regulations.

Sec. 7-15.13. Water obstruction.

No person shall do or permit to be done any grading which may obstruct, impede, or interfere with the natural flow of stormwater, whether such waters are unconfined upon the surface of the land or confined within land depressions, natural drainage ways, unimproved channels, watercourses, improved ditches, channels or conduits, in such manner as to cause flooding where it would not otherwise occur, aggravate any existing flooding condition or cause accelerated erosion except where said grading is in accordance with all applicable laws including, but not limited to, the provisions of the grading ordinance.

Sec. 7-15.14. Levee work.

No person shall excavate or remove any material from or otherwise alter any levee adjacent to any river, creek, bay, or local drainage control channel, without prior approval of the governmental agency or agencies responsible for the operation and/or maintenance of the levee.

Sec. 7-15.15. Construction in the public right-of-way.

No person shall perform any grading work within the right-of-way of a public road or street, or within a public easement, without prior written approval of the Director, and without obtaining a City encroachment permit.

Sec. 7-15.16. Hazards.

Whenever the Director determines that any grading on private property constitutes a condition which could endanger persons or property, or could adversely affect the safety, use or stability of adjacent property, or an overhead or underground utility, or any public way, watercourse or drainage channel, or could adversely affect the water quality of any water bodies or watercourses, the owner of the property upon which the condition is located, or other person or agent in possession or control of said property, upon receipt of notice in writing from the Director, shall, within the period specified therein, stop all work. The Director may require the submission of plans, soil or geological reports, detailed construction recommendations, drainage study or other engineering data prior to and in connection with any work or activity proposed or required to correct such condition.

Article 2. Application for Grading Permit

Sec. 7-15.17. Filing of application for grading permit.

Applications for permits shall be obtained from and filed with the Development Services Department. Each application shall include a plan checking fee, grading plans and a statement of the intended use of the site. Only one application and permit is allowed for grading work to be done on a site. The director shall determine whether the application is complete in accordance with provisions of Article 5, Permit Requirements, of this chapter herein and may require additional information from the applicant before accepting the application as complete. A grading permit is not considered a building permit.

Sec. 7-15.18. Improvement plans in lieu of application for permit.

Where a subdivision improvement plan is being processed in conjunction with either an approved tentative, parcel, or final map; or a development plan is being processed in accordance with the provisions of this code, such plan shall also be considered as an application for grading approval. Such plans shall be reviewed and approved, conditionally approved or denied in accordance with the standards and requirements set forth in the grading ordinance and other applicable city specifications. If an improvement plan or site plan is approved, then a separate grading permit shall not be required. Approval of the improvement plans constitutes approval of the grading work intended.

Sec. 7-15.19. Grading prior to issuance of building permit or approval of improvement plans.

Applications for a permit to allow grading prior to issuance of a building permit or approval of improvement plans shall meet the following requirements:

(a) Preliminary grading plan shall be submitted for review and approval by the Director. This plan shall conform to the requirements of the grading ordinance and any applicable conditions placed on the project as a result of any formal discretionary permit process. The applicant shall acknowledge that any additional grading or revisions to work necessitated by conflicts discovered during the improvement plan check or subsequent construction will be corrected at the applicant's expense.
(b) Both erosion and sediment control plans in accordance with provisions of Article 3 of this chapter, plans and specifications, of the grading ordinance shall be submitted for review and approval by the Director.
(c) Plan check and inspection fee deposit shall be required in the amount of the full plan check fee applicable at the time of submittal in accordance with Section 7-15.70 of this chapter.
(d) No grading permit shall be issued until all applicable CEQA requirements have been met.

Sec. 7-15.20. Referral to other public agencies.

The Director may refer the application to other interested public agencies for their recommendations.

Sec. 7-15.21. Approval from other agencies or owners.

No application for grading approval shall relieve the applicant of responsibility for securing other permits or approvals, including, but not limited to, those specified in Section 7-15.11, subsection b, required for work which is regulated by any other department or other public agency, or for obtaining any easements or authorization for grading on property not owned by the applicant. Proof of applicable public agency permits may be required prior to issuance of grading approval.

Article 3. Required Plans and Approval Process

Sec. 7-15.22. Required Plans.

(a) Grading plans shall be submitted to the Development Service Department. Plans shall include, but shall not limited to:
    a. profiles, cross-sections
    b. topographic maps
    c. Erosion and Sediment Control Plans
    d. accompanying specifications
    e. Runoff Control Plan

(b) The work shall be done in strict compliance with the approved plans and specifications which shall not be changed or altered except in accordance with the provisions of this chapter.

Sec. 7-15.23. Grading plans.

Final grading plans and specifications shall be prepared and signed by a registered civil engineer, except as otherwise provided herein. The Director may waive the requirement that all plans and specifications be prepared and signed by a registered civil engineer if the grading would not endanger the public health, safety, or welfare as determined by the Director and would not involve or require any of the following:

(c) Cuts and fills with a combined total of three hundred fifty (350) cubic yards or more;
(d) An access road serving five or more existing or proposed residences;
(e) A cut or fill that is located so as to cause unduly increased pressure or reduce support upon adjacent structure of property;
(f) The construction of any drainage or sediment control structures, culverts, or facilities or alteration of any existing drainage course;

(g) The creation or aggravation of an unstable slope condition.

Sec. 7-15.24. Erosion and Sediment Control (ESC) Plans

An erosion and sediment control plan (ESC) shall be prepared for all projects to control surface runoff and erosion and to retain sediment on a particular site and prevent pollution of site runoff during the period beginning when any preconstruction- or construction-related grading or soil storage first occurs, until all final improvements and permanent structures are complete. The ESC plan shall be prepared and submitted concurrently with the final grading plan. The ESC plan may be incorporated on the same plan sheet as the final grading plan unless it makes the sheet cluttered, or it may be submitted on a clean separate sheet. The separate sheet shall be drawn clearly and legibly and entitled "erosion and sediment control plan" and shall contain a statement of the purpose of the proposed best management practices to be used.

Sec. 7-15.25. Runoff Control (RCP)

A runoff control plan (RCP) shall be prepared for all projects to control surface runoff and erosion and retain sediment on a particular site after all planned final improvements and/or structures have been installed or erected. The RCP shall be prepared and submitted concurrently with the final grading plan. The RCP shall be titled "Runoff Control Plan." The RCP shall contain a statement of the purpose of the proposed best management practices to be used to secure the project after completion. See Section 4-21.66. of the Stormwater Management and Discharge Control ordinance for RCP guidelines.

Sec. 7-15.26. Modification of approved plans.

Any modifications of an approved final plan shall be submitted in writing to the Director, who shall approve or deny such modification in his or her sole discretion. All necessary soils and geological information and design details shall accompany any proposed modification. Any modification shall be compatible with all subdivision map or land use requirements.

Sec. 7-15.27. General design standards.

Any activities performed under the authority of the grading ordinance, including, but not limited to, grading, excavation, soil storage, soil transportation, erosion and sediment control measures, shall conform to relevant Federal, State, and local standards.

Article 4. Permit Requirements

Sec. 7-15.28. General requirements.

The Director shall issue grading approval if final grading plans satisfy the provisions of the grading ordinance. The Director shall identify the provision, requirement, or condition which has not yet been met or performed by the applicant in the event the issuance of grading approval is denied.

Sec. 7-15.29. Fees.

(a) The applicant shall pay a fee based on the City's Public Improvement Plan Check/Inspection fee per the City's fee schedule as determined by Title 3, Chapter 8 of the Municipal Code to cover the City's costs of reviewing plans, specifications, reports and other materials related to grading approval and performing all engineering services, field investigations, inspections, or other work or services in connection with the issuance of grading approval or to determine or enforce compliance with any requirement or provision set forth in this chapter, or the penalty provisions as set forth in Title 1, Chapter 2 of the Municipal Code. Administrative fees, based on the existing building permit fee structure, may be charged to cover the City's costs as appropriate.

(b) The fee or fees required by subsection (a) shall be established from time to time by resolution of the City Council and shall be paid to the Director either before grading approval is issued or before the issuance of a building permit, or both in accordance with the fee schedule adopted by resolution of the City Council. The director may charge additional fees in any case where the city incurs costs that are not covered by the initial fee payment(s).

(c) If grading work is done in violation of the grading ordinance or does not comply with the terms and conditions of a grading approval issued for such grading, the violator is required to pay the City for all costs actually incurred by the city to inspect or investigate such violation and to perform inspection and plan checking of work required to correct the violation.

Sec. 7-15.30. Submit record construction drawings.

The applicant shall submit to the Director record construction drawings of the final grading plan and erosion and sediment control plans following completion of grading operations.

Sec. 7-15.31. Performance of work – Inspection.

The director or authorized designees may inspect any work done pursuant to the grading ordinance at any time during the course of construction. No person shall be deemed to have complied with the grading ordinance until a final inspection of the work has been made by the Director. As a condition of any grading approval, the applicant shall provide the City a right-of-entry and reasonable access, in accordance with Section 7-15.86 of this chapter, to the site during the performance of all work and for a minimum period of one year after acceptance by the Director of all improvements pursuant to the grading ordinance.

Sec. 7-15.32. Location of property lines.

Prior to any grading work or related activities, the owner must flag all property corners of the parcel of land to be graded. If the property corners are unknown, or whenever the location of a property line or easement or the title thereto is disputed during the application process or during a grading operation, a survey by a licensed land surveyor or civil engineer or other resolution of the title dispute, all at the expense of the applicant, may be required by the Director.

Sec. 7-15.33. Other responsibilities of applicant.

Other responsibilities of applicant include:

(a) Protection of Utilities. The applicant shall be responsible for the prevention of damage to any public utilities or services.
(b) Protection of Adjacent Property. The applicant shall be responsible for the prevention of damage to adjacent property. No person(s) shall excavate on land that is so close to the property line as to endanger any adjoining public street, sidewalk, alley, structure or other public or private property or easement without supporting and protecting such property from any damage which might otherwise result.
(c) Advance Notice. The applicant shall notify the Director at least twenty-four (24) hours prior to the start of work.
(d) Erosion and Sediment Control. It shall be the sole responsibility of the applicant to prevent discharge of sediment from the site, in quantities greater than before the grading occurred, to any watercourse, drainage system, or adjacent property.
(e) Compliance with Stormwater Management and Discharge Control Code. At all times during the preconstruction and construction of any project for which grading approval is issued until all final improvements and permanent structures are complete, the applicant shall fully comply with all applicable requirements of the city's Stormwater Management and Discharge Control Code, set forth in Title 4, Chapter 21 of the Municipal Code.

Sec. 7-15.34. Time limits.

(a) An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the Director is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

(b) Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The Director is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Sec. 7-15.35. Transfer of grading approval.

No approval or permit issued under the grading ordinance may be transferred or assigned in any manner whatsoever, without the express written consent of the Director.

Sec. 7-15.36. Improvement security required.

(a) As a condition for the issuance of grading approval, the Director may require the deposit of an improvement security in an amount deemed sufficient by him or her to assure faithful performance of the grading work in the event of default on the part of the applicant. Said security shall be in a form acceptable to the City.
(b) In the case of subdivisions, the improvement security shall remain in effect until final inspections have been made and all grading work and subdivision improvements have been accepted by the City.
(c) For projects other than subdivisions, the improvement security shall remain in effect until final inspections have been made and all grading work has been accepted by the Director.
(d) In addition to the improvement security, the Director may also require the deposit of maintenance security in an amount deemed sufficient by him or her to guarantee and maintain the grading work performed, to assure the proper functioning of drainage systems and adequate erosion and sedimentation control. Said maintenance security shall be in a form acceptable to the City and shall remain in effect for a period of one year after the date of acceptance of the improvements or grading work, as designated in subsections b and c of this section, or such other periods of time as required by the director.
(e) Any deposit required by the Director pursuant to this Chapter shall be payable to the City.
(f) Upon failure to complete the work, failure to comply with all of the terms of the grading ordinance, or failure of the completed site to function properly to provide proper drainage or erosion and sedimentation control, the City may do the required work, or cause it to be done and collect from the applicant or surety all costs incurred thereto, including administrative and inspection costs. Any unused portion of a deposit shall be refunded to the applicant after deduction by the City of the cost of the work.

Sec. 7-15.37. Appeals.

Any person may appeal a violation of this chapter in accordance with the applicable provisions of the Yuba City Municipal Code.

Article 5. Enforcement.

Sec. 7-15.38. Enforcement official.

The Director or authorized designee shall enforce the provisions of the grading ordinance.

Sec. 7-15.39. Suspension and revocation of grading approval.

The director may suspend or revoke grading approval for good cause. In the event that a suspension or revocation is appealed, no work shall be performed pending appeal except as expressly authorized, in writing, by the director.

Sec. 7-15.40. Stop work order.

(a) Whenever any work is being done in violation of the provisions of the grading ordinance or any other applicable law, ordinance, rule or regulation, the Director may order the work stopped by serving written notice of such violation on any persons engaged in, doing, or causing such work to be done. Any such person shall forthwith stop such work until authorized by the Director to proceed with the work. If there are no persons present on the premises, the notice shall be posted in a conspicuous place. The notice shall state the nature of the violation. Any person violating a stop work order shall be guilty of an infraction.

(b) Upon receipt of or knowledge of the existence of such stop work notice, the person performing the work shall:
   (1) Stop work immediately; and
   (2) Within twenty-four (24) hours, provide the Director with a list of remedies which can be immediately undertaken to bring the work into compliance with this title; and
   (3) Within twenty-four (24) hours after acceptance of such remedies by the Director, undertake at the violator's expense, such action as is necessary to bring the work into compliance with this title.
   (4) If engineering work is required to identify and define the proper course of action, as determined by the Director, such work shall be provided by the violator at no cost to the City.

Sec. 7-15.41. Abatement of unlawfully created conditions.

(a) Any condition in violation of the grading ordinance is declared to be a public nuisance and is subject to abatement. In the event that the Director determines that a violation has created a condition which is of such a nature to be imminently dangerous to the public health, safety or welfare, such condition may be abated in accordance with the procedures of this code. Violations that affect environmentally sensitive locations may be required to return the site of the violation to its natural state.

(b) Any of the following conditions are declared to constitute an imminently dangerous condition:
   (1) When a violation has altered natural drainage patterns and has caused flooding to any downstream or upstream property; or
   (2) When a violation results in a condition which creates a drainage alteration such that upstream or downstream property may be flooded when weather conditions change and the owner, lessee, or licensee of the property on which the violation exists cannot be found; or
   (3) When a violation results in a hazard, requiring immediate correction for the preservation of the public health, safety, or welfare; or
   (4) When a violation results in a discharge or release of significant amounts of sediment which causes or threatens to cause flooding, property damage, or unsafe conditions.
   (5) When a violation results in a significant environmental impact.

(c) The costs incurred by City to abate any nuisance caused by a violation of the grading ordinance shall be assessed against the subject property as a lien or made a personal obligation to the owner of the property as provided in the Nuisance Abatement Code in Title 4, Chapter 8 of the Municipal Code. Such costs may include, but shall not be limited to, the following:
   (1) Engineering and design costs;
   (2) Contractor service bills or public employee wages at cost;
   (3) Administrative overhead and supervision based on twenty (20) percent of all other costs incurred;
   (4) Interest which shall accrue and be billed at the rate of ten (10) percent of all unpaid amounts from the date of billing;
   (5) Attorney fees and costs.

(d) The abatement procedures set forth in this section are cumulative and in addition to any other rights or remedies which are or may be available to city to correct or cause to be corrected any violation of the grading ordinance, or to abate a condition which is otherwise a public nuisance.

Sec. 7-15.42. Infraction.

Any person violating any provision of the grading ordinance shall be guilty of an infraction.

Sec. 7-15.43. Nonexclusive remedies.

The remedies provided herein are not exclusive, and are in addition to any other remedy or penalty provided by law for violation of the grading ordinance.

Sec. 7-15.44. Right of entry.

Whenever necessary to enforce the provisions of the grading ordinance, the Director may enter the premises at all reasonable times to the extent authorized by law to perform any duty imposed by the grading ordinance. If such entry is refused, the Director shall have recourse to every remedy provided by law to secure entry.

Article 6. Definitions

Sec. 7-15.45. Definition of words and phrases.

The following words and phrases when used in this chapter shall have the meanings respectively ascribed to them in this article.

Sec. 7-15.46. Applicant

"Applicant" means any person seeking or receiving grading approval, in accordance with the terms of the grading ordinance, to perform grading after the issuance of a building permit or the approval of improvement plans, or to commence grading prior to such issuance or approval.

Sec. 7-15.47. Best management practices.

"Best management practices (BMP)" means any program, technology, technique, process, siting criteria, operating method, measure or device which controls, prevents, removes or reduces pollution, erosion, and sediment transport, including, but not limited to, any BMP required or implemented under the City's Stormwater Management and Discharge Control ordinance, set forth in Section 4-21 of the City's Municipal Code.

Sec. 7-15.48 City

"City" means the City of Yuba City

Sec. 7-15.49. City Council.

"City Council" means the City Council of the City of Yuba City.

Sec. 7-15.50. Civil engineer.

"Civil engineer" means a professional engineer registered as a civil engineer by the State of California.

Sec. 7-15.51. Compaction.

"Compaction" means the increase of density of a soil or rock fill by mechanical means.

Sec. 7-15.52. Cut.

"Cut (excavation)" means the removal of naturally occurring earth materials by manual or mechanical means, and the conditions resulting therefrom.

Sec. 7-15.53. Director.

"Director" means the director of the Department of Development Services of the City of Yuba City, or his or her designees.

Sec. 7-15.54. Drainage waters.

"Drainage waters" means surface waters which collect, or are accumulated, on the ground and which, by means of drainage ways or water courses, flow off the surface to larger rivers,

streams, or lakes. Such waters shall include, but are not limited to, natural precipitation and irrigation waters.

Sec. 7-15.55. Drainage way.

"Drainage way" means a depression in the earth's surface such as a swale, ravine, gully, slough, draw, hollow, or ditch in which surface water collects for drainage.

Sec. 7-15.56. Earth material.

"Earth material" means any rock, natural soil or fill and/or any combination thereof.

Sec. 7-15.57. Embankment.

"Embankment (fill)" means the deposit of soil, rock or other material placed by artificial means and the conditions resulting therefrom.

Sec. 7-15.58. Encroachment permit.

"Encroachment permit" means a written permit issued by the City of Yuba City Department of Public Works authorizing certain work within a publicly maintained right-of-way.

Sec. 7-15.59. Engineering geologist.

"Engineering geologist" means a registered geologist certified as an engineering geologist by the State of California.

Sec. 7-15.60. Erosion.

"Erosion" means the washing or wearing away and transportation of earth material as a result of the movement of wind, water, or ice.

Sec. 7-15.61. Erosion and sediment control plan.

"Erosion and sediment control plan (ESCP)" consists of a set of BMPs or equivalent measures designed to control surface runoff and erosion, retain sediment on a particular site and prevent pollution of site runoff during the period beginning when any preconstruction or construction related grading or soil storage first occurs, until all final improvements and permanent structures are completed. ESCP requirements are set forth in Title 4. Public Safety, Chapter 21. Stormwater Management and Discharge Control, Section 4-21.65.(c).

Sec. 7-15.62. Excavation.

"Excavation (cut)" means the removal of naturally occurring earth materials by manual or mechanical means, and the conditions resulting therefrom.

Sec. 7-15.63. Existing grade.

"Existing grade" means the elevation of the ground surface at a given point prior to excavating or filling.

Sec. 7-15.64. Fill.

"Fill (embankment)" means the deposit of soil, rock or other materials placed by artificial means and the conditions resulting therefrom.

Sec. 7-15.65. Finish grade.

"Finish grade" means the final grade of the site after excavating or filling which conforms to the approved final grading plan. The finish grade is also the grade at the top of a paved surface.

Sec. 7-15.66. Geologic hazard.

"Geologic hazard" means any condition in naturally occurring earth materials which may endanger life, health or property.

Sec. 7-15.67. Geotechnical engineer.

"Geotechnical engineer" means a civil engineer registered by the State of California who is qualified in the field of soil mechanics and soil engineering and has the authority to use the title "soil engineer."

Sec. 7-15.68. Grade

"Grade" means the vertical location of the ground surface.

Sec. 7-15.69. Grading.

"Grading" means any land excavation or filling or combination thereof, or the removal, plowing under or burial of vegetative groundcover.

Sec. 7-15.70. Grading plan.

"Grading plan" means a plan prepared in accordance with this chapter showing grading and related work.

Sec. 7-15.71. Municipal Code

"Municipal Code" means the City of Yuba City Municipal Code.

Sec. 7-15.72. Owner.

"Owner" means the legal owner of the property where the grading work is to be done, as shown on the latest equalized assessment roll in the office of the county assessor.

Sec. 7-15.73. Parcel.

"Parcel (lot)" means the land described as a lot or parcel in a recorded deed or shown as a lot or parcel on a subdivision map or parcel map on file in the Sutter County recorder's office.

Sec. 7-15.74. Permit.

"Permit" means either a building permit, encroachment permit, or a separate grading permit.

Sec. 7-15.75. Person.

"Person" means any person, firm, corporation, or public agency whether principal, agent, employee, or otherwise.

Sec. 7-15.76. Post construction plans.

"Post construction plans" consists of a set of best management practices or equivalent measures designed to control surface runoff and erosion and to retain sediment on a particular site after all final structures and permanent improvements have been erected or installed.

Sec. 7-15.77. Preliminary grading plan.

"Preliminary grading plan" means a plan that shows the proposed grading work in relation to the existing site prepared and submitted with the application for a grading permit.

Sec. 7-15.78. Rainy season.

"Rainy season" means the period of the year during which there is a substantial risk of rainfall. For the purpose of this chapter, the rainy season is defined as from October 1st to April 30th, inclusive.

Sec. 7-15.79. Rough grade.

"Rough grade" means the stage at which the grade approximately conforms to the approved plan.

Sec. 7-15.80. Sediment.

"Sediment" means any material transported or deposited by water, including soil debris or other foreign matter.

Sec. 7-15.81. Site.

"Site" means any lot or parcel of land or combination of contiguous lots or parcels of land, whether held separately or joined together in common ownership or occupancy, where grading is to be performed or has been performed.

Sec. 7-15.82. Slope.

"Slope" means an inclined ground surface the inclination of which may be expressed as the ratio of horizontal distance to vertical distance.

Sec. 7-15.83. Soil.

"Soil" means all earth material of any origin that overlies bedrock and may include the decomposed zone of bedrock which can be excavated readily by mechanical equipment.

Sec. 7-15.84. Vegetation.

"Vegetation" means plant life or total plant cover of an area.

Sec. 7-15.85. Watercourse.

"Watercourse" means any natural or manmade channel in which water flows continuously or intermittently in a definite direction and course, or which is used for the holding, delay or storage of waters, or which functions at any time to convey or store stormwater runoff.

Section 2. This Ordinance shall become effective thirty (30) days after its adoption. A summary of this ordinance shall be published once at least five (5) days prior to the adoption of this ordinance and once within fifteen (15) days after its adoption, in the Appeal Democrat, a newspaper of general circulation in the City of Yuba City.

####

Introduced and read at a regular meeting of the City Council of the City of Yuba City the 19th day of January, 2016, and adopted at a regular meeting thereof held on the ____ day of _____, 2016.

AYES:

NOES:

ABSENT:

_____
John Buckland, Mayor

ATTEST:

_____
Terrel Locke, City Clerk

APPROVED AS TO FORM

_____
Tim Hayes, City Attorney

MINUTES (DRAFT)
REGULAR MEETING OF THE CITY COUNCIL
CITY OF YUBA CITY
COUNCIL CHAMBERS
DECEMBER 15, 2015
5:00 P.M. – CLOSED SESSION
6:00 P.M. – REGULAR MEETING

Closed Session—Butte Room

A. Conferred with labor negotiators Steve Kroeger and Natalie Springer regarding negotiations with the following association: Yuba City Firefighters Local 3793 pursuant to Section 54957.6 of the Government Code.

B. Conferred with real property negotiators Steve Kroeger and Diana Langley pursuant to Government Code Section 54956.8 regarding negotiations regarding possible purchase of the following properties or portions thereof: APN 52-480-001, 640 Sutter Street, Copeland Trust

Regular Meeting—Council Chambers

The City of Yuba City City Council meeting was called to order by Mayor Buckland at 6:02 p.m.

Roll Call

Present: Councilmembers Cleveland, Didbal, Dukes, Gill and Mayor Buckland

Absent: None

Invocation

Councilmember Dukes gave the invocation.

Pledge of Allegiance to the Flag

Councilmember Didbal led the Pledge of Allegiance.

Presentations & Proclamations

1. Habitat for Humanity Presentation

Yuba Sutter Habitat for Humanity Chief Executive Officer Joseph Hale gave a presentation to the Mayor and City Council about the projects and efforts that Habitat for Humanity has provided to the community.

2. Senior Commission Report

Senior Commissioner Richard Dettmer provided a report to the Mayor and City Council on the activities and programs that are being offered to the senior citizens in the community.

Public Communication

3. Written Requests

David Kuhnen of Recycling Industries presented the Mayor, Council, and City Staff with big cookies in honor of the holidays.

4. Appearance of Interested Citizens - None

Public Hearing

5. Proposed Levy of the 2016 Annual Assessment of the Downtown Yuba City Business Improvement District

Mayor Buckland opened the public hearing; hearing no comment he closed the public hearing.

Councilmember Gill moved to adopt **Resolution No. 15-076** confirming the Annual Report for the Yuba City Downtown Business Association and levying the assessment for the Downtown Business Improvement District for calendar year 2016. Councilmember Dukes seconded the motion that passed with a unanimous vote.

Bid Opening

6. Pavement Striping Project 2015 (Award)

Councilmember Dukes moved to Award Contract No. 15-11, Pavement Striping Project 2015, to Chrisp Company in the amount of their bid of $73,534 and Authorize the City Manager to execute the contract on behalf of the City, following approval by the City Attorney. Councilmember Didbal seconded the motion that passed with a unanimous vote.

Consent Calendar

Councilmember Dukes moved to adopt the Consent Calendar as presented. Councilmember Cleveland seconded the motion that passed with a unanimous vote.

7. Minutes of November 17, 2015 & December 1, 2015

Approved the City Council Meeting Minutes of November 17, 2015 and December 1, 2015

8. Tentative Parcel Map 13-02 – Showtime Land Company (Cinemark Yuba City)

Adopted **Resolution No. 15-077** approving the parcel map for Showtime Land Company LLC on West Onstott Frontage Road, rejecting the irrevocable offer of dedication of rights-of-way and easements shown thereon at this time, but reserving the right to accept such offer at any time in the future, and authorizing recordation of the parcel.

9. Submission of Recertification Application for Tree City USA Designation

Adopted **Resolution No. 15-078** authorizing the City to submit an application for recertification to the National Arbor Day Foundation for consideration of the City continuing its designation as a Tree City USA Community

10. Implement the New California Minimum Wage Rate Effective January 1, 2016

Adopted **Resolution No. 15-079** approving the adjustment to the City's salary schedule to comply with the new California wage requirements effective January 1, 2016.

General Items

11. Increase the Reserve Police Officer - Level I & II hourly pay rates

Councilmember Cleveland moved to adopt Resolution No. 15-080 authorizing an increase for the Reserve Police Officer - Level I & II. Councilmember Gill seconded the motion that passed with a unanimous vote.

12. Comprehensive Annual Financial Report (CAFR) and Related Audit Reports for Fiscal Year Ended June 30, 2015

Councilmember Dukes moved to accept the Comprehensive Annual Financial Report (CAFR) and Related Audit Reports for Fiscal Year Ended June 30, 2015. Councilmember Gill seconded the motion that passed with a unanimous vote.

13. Final Financial Report for Fiscal Year Ending June 30, 2015

Noted and Filed the Final Financial Report for the Fiscal Year Ending June 30, 2015

14. Development Impact Fees – Annual Report

The following person spoke:

Dr. Larry Ozeran, Yuba City

Councilmember Gill moved to accept the AB1600 Annual Report and adopt **Resolution No. 15-081** finding that there is a reasonable relationship between current needs for the fees and the purposes for which they were originally collected. Councilmember Didbal seconded the motion that passed with a unanimous vote.

15. Final Adjustment to Development Impact Fees for Residential Development Beginning January 1, 2016

The following person spoke:

Dr. Larry Ozeran, Yuba City

No action - information item only.

Business from the City Council

16. Appointments to City of Yuba City Boards and Commissions

Councilmember Dukes moved to approve the City Council Screening Committee Recommendations for Appointments – Shon Harris to the Planning Commission and Richard Dettmer to the Senior Commission. Councilmember Gill seconded the motion that passed with a unanimous vote.

17. Appointments to City Council Regional Boards and Committees for FY 2015-16

Councilmember Dukes moved to approve the Mayor's Assignments to Regional Boards and Committees for FY 2015-16. Councilmember Gill seconded the motion that passed with a unanimous.

18. City Council Reports

- Vice Mayor Cleveland
- Councilmember Didbal
- Councilmember Gill
- Councilmember Dukes
- Mayor Buckland

Adjournment

Mayor Buckland wished everyone a Merry Christmas and adjourned the Regular Meeting of the City Council of the City of Yuba City at 7:53 p.m.

_____
John Buckland, Mayor

Attest:

_____
Terrel Locke, City Clerk

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Administration

Presentation By: Terrel Locke, Assistant to the City Manager

Summary

Subject: Fiscal Year 2015-16 Waste Tire Enforcement Grant Application

Recommendation: Adopt a Resolution authorizing Yuba County, as the Lead Agency of the Yuba-Sutter Local Enforcement Agency, to perform Waste Tire Enforcement activities on behalf of the City of Yuba City and submit a Collaborative Application for the Waste Tire Enforcement Grant to CalRecycle for Fiscal Year 2015-16

Fiscal Impact: None directly to the City. The Yuba-Sutter LEA estimates receiving funding of $90,000-$105,000 for enforcement activities

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Purpose:

Reduce the number of waste tires going to the landfill for disposal and eliminating the stockpiling of waste tires where public health and safety and the environment may be at risk.

Background:

In 1989, CalRecycle (formerly called the California Integrated Waste Management Board) certified all County Environmental Health Departments to be the Local Enforcement Agencies (LEA) to carry out solid waste permitting, inspection and enforcement activities. Sutter County and Yuba County opted to form a joint local enforcement agency with Yuba County Environmental Health Department being the lead agency. Enforcement activities include the cities of Yuba City, Live Oak, Marysville, and Wheatland, as well as Yuba and Sutter Counties.

The LEA responds to solid waste related complaints, waste tire related complaints and perform solid waste and waste tire facility inspections and enforcement activities in all these areas. These activities are different from Code enforcement activities which respective cities and counties do on their own.

Revenue for the grants is generated from a tire fee on each new tire sold in California.

Analysis:

The Yuba-Sutter LEA, through Yuba County, has one inspector dedicated to Waste Tire Enforcement activities for the bi-county region. The inspector performs 30 – 40 inspections and responds to one or two complaints per month. Inspections are performed every two to three years on tire shops, auto repair shops, farmers, or any business that receives, sells, or stores tires. The businesses are required to keep disposal records for up to three years. The inspector verifies that the business is in compliance with state laws regarding their disposal process and

how many waste and use tires are on hand. Violators are given 30 days to become compliant; if in 30 days they are still in violation, the business is referred to CalRecycle for enforcement (see attached Flow Chart).

The grant pays for the cost of the inspector and inspections at $119 per hour, which includes personnel time, a truck and other equipment, mileage, administration and overhead costs, etc.

Fiscal Impact:

None directly to the City. Jurisdictions with populations equal or less than 900,000 are eligible to receive up to $300,000. The Yuba-Sutter LEA usually budgets for $80,000 to $100,000 per grant cycle and at least 80% of this money gets spent. The Yuba-Sutter LEA received a grant of $103,000 for Waste Tire Enforcement activities for FY 2014-15.

Alternatives:

If the City Council elects not to participate in the collaborative application with the Yuba-Sutter Local Enforcement Agency, it may result in a loss of waste tire enforcement activities within the City boundaries.

Recommendation:

Adopt a Resolution authorizing Yuba County, as the Lead Agency of the Yuba-Sutter Local Enforcement Agency, to perform Waste Tire Enforcement activities on behalf of the City of Yuba City and submit a Collaborative Application for the Waste Tire Enforcement Grant to CalRecycle for Fiscal Year 2015-16.

Attachment:

Tire Enforcement Flow Chart

Prepared By:

Terrel Locke
Terrel Locke
Assistant to the City Manager

Submitted By:

Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed By:

Finance RB

City Attorney TH via email

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY AUTHORIZING THE COUNTY OF YUBA TO PERFORM WASTE TIRE ENFORCEMENT ACTIVITIES ON BEHALF OF THE CITY OF YUBA CITY AND SUBMIT A COLLABORATIVE APPLICATION FOR THE WASTE TIRE ENFORCEMENT GRANT, FISCAL YEAR 2015-16

WHEREAS, Public Resources Code sections 4000 et seq. authorize the Department of Resources Recycling and Recovery (CalRecycle) to administer various Grant Programs (Grant) in furtherance of the State of California's (State) efforts to reduce, recycle and reuse solid waste generated in the State, thereby preserving landfill capacity and protecting public health, health and safety and the environment; and

WHEREAS, funds are allocated and available from the CalRecycle for Grants to cities, counties, and cities and counties with regulatory authority within the City and County government to perform enforcement/compliance and surveillance activities of entities and/or individuals involved with the waste tire industry; and

WHEREAS CalRecycle has been delegated the responsibility for the administration of the Program within the State; and

WHEREAS, in furtherance of this authority CalRecycle is required to establish necessary procedures governing the application, awarding and management of the Grants; and

WHEREAS, procedures established by the State and CalRecycle require each Applicant's governing body to certify by resolution its approval of the submittal of Grant Application to CalRecycle; and

WHEREAS, the County of Yuba has agreed to perform waste tire activities on behalf of the City of Yuba City;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Yuba City hereby authorizes the County of Yuba to submit to the CalRecycle a Collaborative Application for the Waste Tire Enforcement Grant, Fiscal Year 2015-16 on its behalf.

BE IT FURTHER RESOLVED that the County of Yuba is hereby authorized and empowered to execute all Grant-related documents, including, but not limited to, Applications, Payment Requests, Agreements, and Amendments necessary to secure Grant funds and to implement and carry out the purposed specified in the Grant Application.

BE IT FURTHER RESOLVED that the County of Yuba is hereby authorized to conduct waste tire enforcement activities within the jurisdictional boundaries of the City of Yuba City during the term of Fiscal Year 2015-16 Local Government Waste Tire Enforcement Grant.

The foregoing Resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 19th day of January 2016.

AYES:

NOES:

ABSENT:

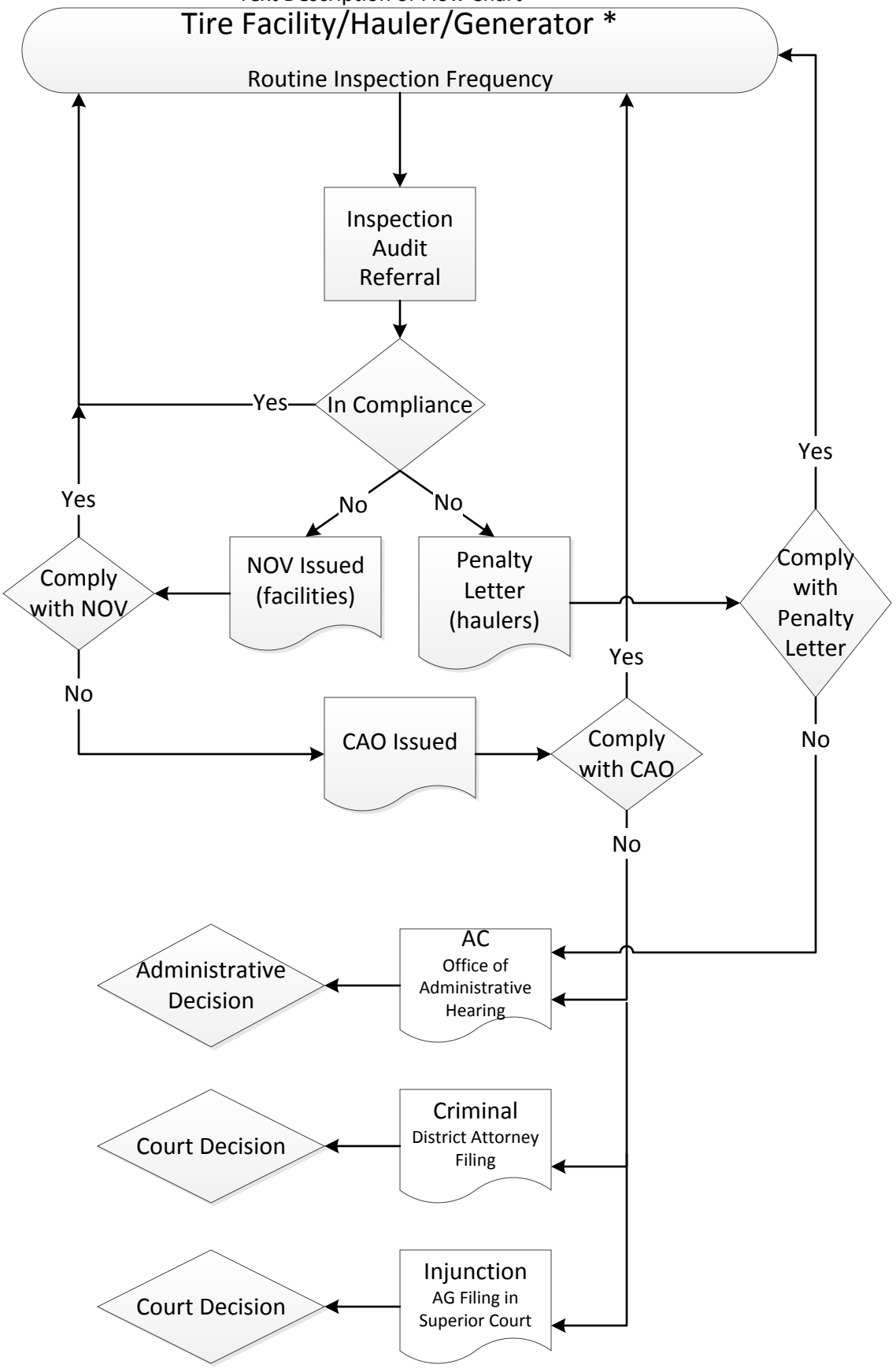
_____
John Buckland, Mayor

ATTEST:

_____
Terrel Locke, City Clerk

TIRE ENFORCEMENT FLOW CHART

Text Description of Flow Chart



*Standard Tire Enforcement Flow Chart- some enforcement actions may vary.
CAO=Cleanup & Abatement Order NOV=Notice Of Violation AC=Administrative Complaint

04/23/2012

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: City Treasurer

Presentation By: Spencer Morrison, City Treasurer

Summary

Subject: Annual Investment Policy Adoption

Recommendation: Approve Investment Policy as amended

Fiscal Impact: None

Purpose:

To review the City's Investment Policy to ensure that it continues to meet statutory requirements and reflects treasury best practices.

Background:

In accordance with the City's Investment Policy ("Policy") and Government Code Section 53646 (a) (1), the Policy is submitted annually to the City Council for review and approval.

Analysis:

As a result of this year's review, several minor changes are proposed to clarify and be more reflective of the Government Code:

Section VII. Suitable and Authorized Investments

- **United States Treasury:** Add *certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest,* and remove, "strips" to be more reflective of the Code;

- **Federal Agency:** Remove "senior debt" as it is not required by the Code;

- **California Obligations**, Local Agency Obligations: Update to state …*rated at least A-1, or the equivalent, short-term; or A or the equivalent, long-term by a NRSRO…*to be consistent with the policy requirements for California and other state obligations*;*

- **Commercial Paper:** Limit the City's investment in the outstanding commercial paper of any one issuer to 10% as required by the Code;

- **Negotiable Certificates of Deposit:** Remove *and Placement Service Certificates of Deposit* as this is no longer required by the Code and is covered in the following paragraph;

- **Placement Service Certificates of Deposit:** Removes *Negotiable Certificates of Deposit* as this is covered in the preceding paragraph and updates the policy to reflect AB 283, which took effect on January 1, 2016, which extends the authorization established by AB 279 for the City to use placement services such as CDARS to invest in FDIC insured certificates of deposit until January 1, 2021.

Fiscal Impact:

None.

Alternatives:

1. Do not approve amendments. If this alternative is chosen, then the City will continue to invest funds using the Investment Policy as adopted April, 2015.
2. Approve with modifications as desired by the Council.

Recommendation:

Staff recommends approval of the Investment Policy as amended.

Attachment:

- *Current Investment Policy with redlines showing proposed changes*

Prepared and Submitted By:

/s/ Spencer Morrison
Spencer Morrison
Accounting Manager/City Treasurer

Reviewed By:

Finance RB

City of Yuba City

Investment Policy

January 1, 2015

TABLE OF CONTENTS

I. PURPOSE

It is the policy of the City of Yuba City to invest public funds in a prudent manner which will provide maximum security while meeting daily cash flow demands and conforming to all statutes governing the investment of public funds. Within these parameters, funds will be invested to optimize investment return.

II. SCOPE

This Investment Policy ("the Policy") shall apply to all financial assets, other than proceeds of debt issues, of the City of Yuba City and the Successor Agency to the Redevelopment Agency of Yuba City (collectively "the City"). These funds are accounted for in the City comprehensive annual financial report and include:

- General Fund
- Special Revenue Funds
- Capital Project Funds
- Enterprise Funds
- Internal Service Funds
- Trust and Agency Funds
- Any new fund created by the governing body, unless specifically exempted by the governing body

This Policy applies to all transactions involving the financial assets and related activity of all the foregoing funds, with the exception of the proceeds of debt issuance. Investment of bond proceeds will be governed by the permitted investment section of bond documents.

III. OBJECTIVES

The City's funds shall be invested in accordance with all applicable City policies, ordinances, and codes, State statutes, and Federal regulations, and in the manner designed to accomplish the following primary objectives, in priority order:

- Preservation of capital and protection of investment principal
- Maintenance of sufficient liquidity to meet anticipated cash flows
- Diversification to avoid incurring unreasonable market risks
- Attainment of a market rate of return
- Conformance with all applicable City ordinances, State statutes and Federal regulations

IV. STANDARD OF CARE

Prudence. The standard of prudence to be used by investment officials shall be the "prudent investor standard" which states:

> *"When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic*

conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency."

Investment officers acting in accordance with written procedures and this Policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and the liquidity and the sale of securities are carried out in accordance with the terms of this Policy.

V. INVESTMENT AUTHORITY AND RESPONSIBILITIES

Delegation of Authority. Authority to manage the investment program is granted to the City Treasurer and derived from the California Government Code Section 53607 and the City of Yuba City Municipal Code Section 3-7.201. The City Treasurer serves as the Chief Investment Officer for the City and the Successor Agency to the Redevelopment Agency of Yuba City, and is authorized to invest or deposit the City's funds in accordance with this Policy, California Government Code Sections 53600 and 53630 et seq., and all other related federal and State laws.

The City Finance Director is responsible for the day-to-day administration and implementation of the Investment Policy.

Internal Controls. An internal control structure shall be established and maintained to ensure that the financial assets of the City are protected from loss, theft or misuse. The internal control structure shall be designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits likely to be derived and (2) the valuation of costs and benefits requires estimates and judgments by management.

Internal controls shall be subject to an annual independent review by an external auditor to assure compliance with policies and procedures. The internal controls shall address the following points:

- Control of collusion
- Separation of transaction authority from accounting and record keeping
- Custodial safekeeping
- Avoidance of physical delivery securities
- Clear delegation of authority to subordinate staff members
- Written confirmation of transactions for investments and wire transfers
- Development of a wire transfer agreement with the lead bank and third-party custodian

Investment Procedures. Written investment procedures for the operation of the investment program shall be established that are consistent with this Policy. The procedures should include reference to:

- Safekeeping
- Master repurchase agreements
- Wire transfer agreements
- Banking service contracts

- Collateral/depository agreements

Such procedures shall include explicit delegation of authority to persons responsible for investment transactions. No person may engage in an investment transaction except as provided under the terms of this Policy and the established procedures set forth.

Ethics and Conflicts of Interest. City employees involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. Employees shall disclose to the City Manager any material interests in financial institutions with which they conduct business. They shall further disclose any personal financial/investment positions that could be related to the performance of the investment portfolio, and they shall refrain from undertaking personal investment transactions with the same individual with whom business is conducted on behalf of the City.

VI. PROVIDERS OF FINANCIAL SERVICES

Authorized Broker/Dealers. A list of broker/dealers from which the City purchases investments directly shall be maintained. It shall be the policy of the City to purchase securities only from those authorized firms. To be eligible, a firm must have minimum capital of $10,000,000 and, at least five years of operation. These may include "primary" dealers, financial firms that have a primary dealer within their holding company structure, or regional dealers. All must qualify under Securities and Exchange Commission (SEC) Rule 15c3-1 (Uniform Net Capital Rule).

All approved broker/dealers must supply the following annually:

(1) Audited financial statements
(2) Proof of Financial Industry Regulatory Authority (FINRA) registration
(3) Proof of State registration

The City may purchase commercial paper from direct issuers even though they are not on the approved broker/dealer list as long as they meet the criteria for commercial paper in the Suitable and Authorized Investments section of this Policy.

An annual review of the minimum capital requirement and registration of qualified financial institutions and broker/dealers will be conducted.

From time to time, the City Treasurer may choose to invest in instruments offered by minority and community financial institutions. In such situations, a waiver to the criteria above may be granted. All terms and relationships will be fully disclosed prior to purchase and will be reported to the appropriate entity on a consistent basis and should be consistent with State or local law. These types of investment purchases should be approved by the City Council in advance.

Contracted Investment Advisor Services. The City Treasurer may engage the services of registered external investment advisors in regard to the City's investment program. The City Treasurer may, by written agreement with investment advisors, delegate the day-to-day placement of investments. Investment advisors shall make all investment decisions and transactions in strict accordance with State law and this Investment Policy**.**

If the City has granted to an outside investment advisor authority to buy or sell securities, the investment advisor may place orders for the execution of such transactions with the broker/dealers of its choice.

Safekeeping and Custody. One or more banks shall be selected to provide safekeeping and custodial services for the City. ~~–~~A Safekeeping Agreement approved by the City shall be executed with each custodian bank prior to utilizing the bank's safekeeping services. Custodian banks will be selected on the basis of their ability to provide services for the City's account and the competitive pricing of their safekeeping~~--~~related services.

The purchase and sale of securities and repurchase agreement transactions shall be settled on a delivery versus payment basis. All securities, except non-negotiable Certificates of Deposit, Money Market Funds, LAIF and CAMP will be delivered by book entry to be held by the City's custodian bank or its Depository Trust Company (DTC) participant account.

VII. SUITABLE AND AUTHORIZED INVESTMENTS

All investments and deposits of the City shall be made in accordance with California Government Code Sections 16429.1, 53600-53609 and 53630-53686. ~~–~~Percentage limits and credit criteria, where listed, are applied at the time of purchase. Credit ratings, where shown, specify the minimum credit rating category required at purchase without regard to +/- or 1, 2, 3 modifiers, if any. In the event a security held by the City is subject to a credit rating change that brings it below the minimum credit ratings specified in this Policy, the City Treasurer will review the security with the course of action to be determined on a case-by-case basis, considering such factors as the reason for the credit rating change, prognosis for recovery or further rate drops, and the market price of the security. ~~–~~The City has further restricted authorized investments to the following:

Government Obligations.

1. ***United States Treasury*** bills, notes, bonds, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest,~~strips~~ with a final maturity not exceeding five years from the date of trade settlement.

2. ***Federal Agency*** ~~–~~or ~~–~~United~~–~~ States~~–~~ government-sponsored~~–~~ enterprise~~ senior debt –~~ obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government sponsored enterprises securities, with a final maturity not exceeding five years from the date of trade settlement. ~~-~~There is no limit to that amount of the City's portfolio that may be invested in Federal Agency or GSE securities, except that the aggregate investment in Federal Agency mortgage-backed securities shall not exceed 20% of the City's total portfolio.

State and Local Agency Obligations.

1. ***California Obligations***.
    a. *State Obligations.* Registered State warrants or treasury notes or bonds of this State, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the State or by a department, board, agency, or authority of the State. Such obligations must have a final maturity not exceeding five years from the date of trade settlement, and rated at least "A-1", or the equivalent, short-term; or "A", or the equivalent, long-term by a Nationally Recognized Statistical Rating Organization (NRSRO) –at the time of trade settlement.
    b. *Local Agency Obligations.* (1) Bonds, notes, warrants, or other evidences of indebtedness of a local agency within this State, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency, or by a department, board, agency, or authority of the local agency with a final maturity not exceeding five years from the date of trade settlement, and rated at least "A-1", or the equivalent, short-term; or "A" or the equivalent, long-term by a NRSRO at the time of trade settlement; and (2) Obligations of the City of Yuba City and the Successor Agency to the Redevelopment Agency of the City of Yuba City, including RDA tax allocation bonds.

2. ***Other 49 state Obligations.*** Registered treasury notes or bonds of any of the other 49 states, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 states, in addition to California. Such obligations must have a final maturity not exceeding five years from the date of trade settlement, and rated at least "A-1", or the equivalent, short-term; or "A", or the equivalent, long-term by a NRSRO at the time of trade settlement.

Supranationals. United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank, with a final maturity not exceeding five years from the trade settlement, and eligible for purchase and sale within the United States. Supranationals shall be rated at least "AA" or the equivalent by a NRSRO at the time of purchase. The aggregate investment in supranationals shall not exceed 30% of the City's total portfolio.

Special Assessment District Obligations. Limited Obligation Improvement Bonds issued by the City of Yuba City related to special assessment districts. –Investment in such obligations requires the approval of the City Council and maturities may extend to 30 years from the date of trade settlement.

Banker's Acceptances. Eligible Banker's Acceptances with a maturity not exceeding 180 days from the date of trade settlement, rated at least "A-1" or the equivalent by a NRSRO, drawn on or accepted by a commercial bank with combined capital and surplus of at least $250 million, whose deposits are insured by the FDIC, and whose senior long-term debt is rated at least "A" or the equivalent by a NRSRO at the time of trade settlement. –The aggregate investment in banker's acceptances shall not exceed 40% of the City's total portfolio.

Commercial Paper. Prime Commercial Paper with a maturity not exceeding 270 days from the date of trade settlement with the highest ranking or of the highest letter and number rating as provided for by a NRSRO. The entity that issues the commercial paper shall meet all of the following conditions in either sub-paragraph A. or sub-paragraph B. below:

A. The entity shall (1) be organized and operating in the United States as a general corporation, (2) have total assets in excess of five hundred million dollars ($500,000,000) and (3) have debt other than commercial paper, if any, that is rated "A" or higher by a NRSRO.

B. The entity shall (1) be organized within the United States as a special purpose corporation, trust, or limited liability company, (2) have program-wide credit enhancements, including, but not limited to, over-collateralization, letters of credit or a surety bond and (3) have commercial paper that is rated "A-1" or higher, or the equivalent, by a NRSRO.

The aggregate investment in commercial paper shall not exceed 25% of the City's total portfolio. The City may purchase. no more than 10% of the outstanding commercial paper of any single issuer.

Negotiable Certificates of Deposit. Negotiable Certificates of Deposit with a maturity not exceeding five years from the date of trade settlement, issued by a nationally or State-chartered bank, a savings association or a federal association, a State or federal credit union, or by a federally licensed or State licensed branch of a foreign bank. Purchases are limited to institutions which have long-term debt rating of at least "A" or the equivalent, by a NRSRO. The aggregate investment in Negotiable Certificates of Deposit and Placement Service Certificates of Deposit shall not exceed 30% of the City's total portfolio.

Bank Deposits. Deposits in FDIC insured financial institutions located in California including, but not limited to, demand deposit accounts, savings accounts, market rate accounts, negotiable order of withdrawal accounts, and non-negotiable certificates of deposits are required to be collateralized as specified under Government Code. Collateral may be waived for any portion that is covered by federal deposit insurance. The amount on deposit shall not exceed the shareholder's equity of any depository bank, nor shall the deposit exceed the total net worth of any institution. In addition, the financial institution must have received a minimum overall satisfactory rating for meeting the needs of California Communities in its most recent evaluation under the Community Reinvestment Act. For non-negotiable certificates of deposit, the maximum maturity is five years from the date of trade settlement and the maximum allocation is 30% of the City's total portfolio.

Placement Service Certificates of Deposit. The City may invest in Placement Service Certificates of Deposit with a "Selected Depository Institution" in accordance with California Government Code Section 53601.8. The aggregate investment in Placement Service Certificates of Deposit and Negotiable Certificates of Deposit shall not exceed 30% of the City's total portfolio. AB 2798<u>3</u>, which takes<u></u>ook effect on January 1, 2014<u>6</u>, authorizes theextends the authorization established by AB 279 for the City to use placement services, such as CDARS, to invest in FDIC insured certificates of deposit until January 1, 2021<u></u>17<u>.</u>, unless modified, at which time the statute will revert back to the current authorization under existing law.

Repurchase Agreements. Repurchase Agreements with a final termination date not exceeding 30 days and collateralized by U.S. Treasury obligations, Federal Agency securities, or Federal Instrumentality securities listed above with the maturity of the collateral not exceeding five years. For the purpose of this section, the term collateral shall mean purchased securities under the terms of the City's Master Repurchase Agreement. The purchased securities shall have a minimum market value including accrued

interest of 102% of the dollar value of the funds borrowed. –The market value of the collateral securities shall be marked-to-the-market daily. All collateral securing Repurchase Agreement must be delivered to the City's custodian bank, or be handled under a tri-party repurchase agreement. –The City or its trustee shall have a perfected first security interest under the Uniform Commercial Code in all securities subject to Repurchase Agreement.

Repurchase Agreements shall be entered into only with broker/dealers who are recognized as Primary Dealers with the Federal Reserve Bank of New York, or with financial firms that have a primary dealer within their holding company structure. –A copy of the City's Master Repurchase Agreement shall be maintained along with a list of the broker/dealers who have executed the same.

Medium-Term Notes. Medium-Term Notes ("Corporate Notes") issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States, with a final maturity not exceeding five years from the trade settlement, and rated at least "A" or the equivalent by a NRSRO at the time of purchase. –The aggregate investment in medium term notes shall not exceed 30% of the City's total portfolio.

Asset Backed Obligations. Any asset backed obligation with a final maturity not exceeding five years from the trade settlement. Eligible securities shall be issued by an issuer having at least "A" or the equivalent rating for the issuer's debt by a NRSRO and rated at least "AA" or the equivalent by an NRSRO. The aggregate investment in asset backed obligations shall not exceed 20% of the City's total portfolio.

Money Market Funds. Money Market Funds registered under the Investment Company Act of 1940 that (1) are "no-load" (meaning no commission or fee shall be charged on purchases or sales of shares); (2) have a constant daily net asset value per share of $1.00; (3) invest only in the securities and obligations authorized in this Policy and (4) have a rating of "AAAm" or the equivalent by at least two NRSROs. –The aggregate investment in money market funds shall not exceed 20% of the City's total portfolio and no more than 10% may be invested in any one Money Market Fund.

Local Government Investment Pools. State of California's Local Agency Investment Fund (LAIF) and shares of beneficial interest issued by a joint powers authority such as the California Asset Management Program (CAMP), as authorized respectively in Government Code Sections 16429.1 and 53601 (p), up to the maximum allowed by the pools.

Due Diligence Requirement. A thorough investigation of an investment pool is required prior to investing and on a continual basis. At a minimum, the following information shall be required for each pool:

- A description of eligible investment securities, and a written statement of investment policy and objectives
- A description of interest calculations, how interest is distributed, and how gains and losses are treated
- A description of how these securities are safeguarded (including the settlement process), and how often these securities are priced and the program audited
- A description of who may invest in the program, how often, and the size of deposits and withdrawals
- A schedule for receiving statements and portfolio listings
- Whether reserves, retained earnings, etc. are utilized by the pool/fund
- A fee schedule, and when and how fees are assessed

- Whether the pool/fund is eligible for bond proceeds and/or will it accept such proceeds

Legislative Changes. Any State of California legislative action that further restricts allowable maturities, investment types or percentage allocations will be incorporated into this Policy and supersede any and all previous applicable language. If the City is holding an investment that is subsequently prohibited by a legislative change, the City may hold that investment until the maturity date to avoid an unnecessary loss.

VIII. INVESTMENT PARAMETERS

Diversification. The City shall diversify the investments within the portfolio to avoid incurring unreasonable risks inherent in over investing in specific instruments, individual financial institutions or maturities. The asset allocation in the portfolio should, however, be flexible depending upon the outlook for the economy, the securities markets, and the City's anticipated cash flow needs. Notwithstanding anything herein to the contrary, no more than 5% of the City's total portfolio may be deposited with or invested in securities issued by one corporate, financial, or municipal issuer with the exception of the U.S. Treasury, federal agency institutions, government sponsored enterprises, and investment pools.

Maximum Maturities. To the extent possible, the City shall attempt to match its investments with anticipated cash flow requirements and known future liabilities. The City will invest in securities maturing within five years from the date of trade settlement. Notwithstanding the five year maturity limitation, the City Council grants its express authority per Government Code Section 53601, to invest in Special Assessment District obligations and obligations of the City of Yuba City and the Successor Agency to the Redevelopment Agency of the City of Yuba City with maturities extending beyond five years.

Sale of Investments Prior to Maturity. The City recognizes that investments occasionally may be sold prior to maturity and measured losses may be desirable in a diversified portfolio as long as such sales are consistent with the overall objectives of the City and the guidelines established by this Policy. Such sales shall be considered within the context of the overall portfolio's return, provided that the sale of a security is in the best long term interest of the City.

IX. EVALUATION OF INVESTMENT PERFORMANCE

The investment portfolio shall be designed to attain a market rate of return throughout budgetary and economic cycles, taking into account prevailing market conditions, risk constraints for eligible securities, and cash flow requirements. An appropriate performance benchmark shall be established against which portfolio performance shall be compared on a regular basis. The selected performance shall be representative of the City's overall investment objectives and liquidity requirements.

X. REPORTING

The City Treasurer shall prepare and present a quarterly investment report to the City Council. This report will include the following elements relative to the investments held at quarter-end:

- Type of Investment
- Issuer of Investment
- Maturity date
- Coupon rate
- Yield to maturity

- Face value
- Market value
- A list of monthly transactions
- A description of investments that are under the management of contracted parties
- A statement of compliance of the City's portfolio with this Policy
- A statement of the City's ability to meet expenditure requirements for the following six months, or an explanation of why sufficient funds may not be available
- Other information regarding the City's portfolio as appropriate

XI. POLICY REVIEW AND ADOPTION

This Investment Policy shall be submitted annually to the City Council for adoption. The Policy shall be reviewed at least annually to ensure its consistency with the overall objectives of the City and its relevance to current law and financial and economic trends. Any modifications made thereto must be approved by the City Council.

GLOSSARY OF SELECTED TERMS*

Benchmark
A passive index used to compare the performance, relative to risk and return, of an investor's portfolio.

Cash Flow
A comparison of cash receipts (revenues) to required payments (debt service, operating expenses, etc.).

CDARS
The Certificate of Deposit Account Registry Service: a convenient way for safety-conscious investors to earn interest and access FDIC insurance on certificates of deposit larger than the $250,000 FDIC limit.

Credit Rating
Various alphabetical and numerical designations used by institutional investors, Wall Street underwriters, and commercial rating companies to give relative indications of bond and note creditworthiness. –Standard & Poor's and Fitch Ratings use the same system, starting with their highest rating, of AAA, AA, A, BBB, BB, B, CCC, CC, C, and D for default. –Moody's Investors Service uses Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, and D. Each of the services use pluses (+), minuses (-), or numerical modifiers to indicate steps within each category. The top four letter categories are considered investment grade ratings.

Credit Risk
The chance that an issuer will be unable to make scheduled payments of interest and principal on an outstanding obligation. Another concern for investors is that the market's perception of a corporation's credit will cause the market value of a security to fall, even if default is not expected.

Duration
A measure of the timing of cash flows to be received from a security that provides the foundation for a measure of the interest rate sensitivity of a bond. –Duration is an elasticity measure and represents the percentage change in price divided by the percentage change in interest rates. A high duration measure indicates that for a given level of movement in interest rates, prices of securities will vary considerably.

FDIC
The Federal Deposit Insurance Corporation (FDIC) is an independent agency created by the Congress to maintain stability and public confidence in the nation's financial system by insuring deposits, examining and supervising financial institutions for safety and soundness and consumer protection, and managing receiverships.

Fiduciary
An individual who holds something in trust for another and bears liability for its safekeeping.

Liquidity
The ease with which an investment may be converted to cash, either by selling it in the secondary market or by demanding its repurchase pursuant to a put or other prearranged agreement with the issuer or another party.

Liquidity Risk
The chance that a security, sold prior to maturity, will be sold at a loss of value. For a local agency, the liquidity risk of an individual investment may not be as critical as how the overall liquidity of the portfolio allows the agency to meet its cash needs.

Market Risk

The chance that the value of a security will decline as interest rates rise. In general, as interest rates fall, prices of fixed income securities rise. –Similarly, as interest rates rise, prices fall. –Market risk also is referred to as systematic risk or risk that affects all securities within an asset class similarly.

Maturity
The stated date on which all or a stated portion of the principal amount of a security becomes due and payable.

Net Present Value
An amount that equates future cash flows with their value in present terms.

Par Amount or Par Value
The principal amount of a note or bond which must be paid at maturity. Par, also referred to as the "face amount" of a security, is the principal value stated on the face of the security. A par bond is one sold at a price of 100 percent of its principal amount.

Pooled Investment
A market institution authorized under various sections of state law that represents the combined deposits of more than one local agency and pays returns based upon each local agency's share of investment in the pool.

Portfolio
The combined holdings of all investment assets held by an investor.

Principal Amount
The face amount or par amount of a bond or issue of bonds payable on stated dates of maturity.

Put
The ability of a holder of an investment security to sell at a specified time and for a specified price the security back to the issuer or prior holder.

Return
The principal plus interest on an investment or portfolio of investments. In certain unfavorable market environments or due to risk factors, income derived from principal and interest may be less than the original amount invested.

Risk
The uncertainty of maintaining the principal or interest associated with an investment due to a variety of factors.

Yield
For the purposes of this publication, return and yield are synonymous.

*Excerpted from Understanding Public Investment Reporting - A Handbook For Local Elected Officials, California Debt and Investment Advisory Commission, 2003.

GLOSSARY OF INVESTMENT INSTRUMENTS*

Asset-Backed Securities
Securities that are supported by pools of assets, such as installment loans or leases, or by pools of revolving lines of credits. Asset-backed securities are structured as trusts in order to perfect a security interest in the underlying assets.

Bank Note
A senior, unsecured, direct obligation of a bank or U. S. branch of a foreign bank.

Banker's Acceptance
Normally, a short-term bill of exchange that is accepted as payment by banks engaged in financing trade of physical assets or merchandise.

Bond
A debt obligation of a firm or public entity. A bond represents the agreement to repay the debt in principal and, typically, in interest on the principal.

Callable Security
An investment security that contains an option allowing the issuer to retire the security prior to its final maturity date.

Certificate of Deposit
A short-term, secured deposit in a financial institution that usually returns principal and interest to the lender at the end of the loan period. Certificates of Deposit (CDs) differ in terms of collateralization and marketability. Those appropriate to public agency investing include:

Negotiable Certificates of Deposit
Generally, short term debt instruments that usually pay interest and are issued by a bank, savings or federal association, state or federal credit union, or state-licensed branch of a foreign bank. The majority of negotiable CDs mature within six months while the average maturity is two weeks. Negotiable CDs are traded in a secondary market and are payable upon order to the bearer or initial depositor (investor).

Non-Negotiable Certificates of Deposit
CDs that carry a penalty if redeemed prior to maturity. A secondary market does exist for these non-negotiable CDs, but include a transaction cost that reduces returns to the investor. Non-negotiable CDs issued by banks and savings and loans are insured by the Federal Deposit Insurance Corporation up to the amount of $250,000, including principal and interest. Amounts deposited above this amount may be secured with other forms of collateral through an agreement between the investor and the issuer. Collateral may include other securities including Treasuries or agency securities such as those issued by the Federal National Mortgage Association.

Commercial Paper
A short-term, unsecured promissory note issued by a large corporation.

Corporate Notes and Bonds
Debt instruments, typically unsecured, issued by corporations, with original maturities in most cases greater than one year and less than ten years.

Federal Agency and Instrumentality Obligations
Obligations issued by a government-sponsored entity or a federally regulated institution.

Mortgage Pass-Through Obligations
Securities that are created when residential mortgages (or other mortgages) are pooled together and undivided interests or participations in the stream of revenues associated with the mortgages are sold.

Municipal Notes, Bonds, and Other Obligations
Obligations issued by state and local governments to finance capital and operating expenses.

Notes
Debt obligations of a firm or public entity, usually maturing in less than ten years.

Repurchase Agreements
From the perspective of a local agency, the short term, often overnight, purchase of securities with an agreement to resell the securities at an agreed upon price.

Reverse Repurchase Agreements
Differs from a repurchase agreement in the sense that a reverse repurchase agreement is an agreement to sell securities in return for cash with an agreement to repurchase the securities at an agreed upon price.

State and Local Investment Pools
The combined deposits of state and local agencies organized and operated by a state treasurer or a local official. These pools operate much like a mutual fund, with local agencies investing money together in order to increase efficiency and reduce costs.

State Notes, Bonds, and Warrants
Obligations of the State of California or another state government with different maturity lengths.

Supranationals
International financial institutions that are generally established by agreements among nations, with member nations contributing capital and participating in management. Supranational bonds finance economic and infrastructure development and support environmental protection, poverty reduction, and renewable energy around the globe.

Zero-Interest Bond
A bond on which interest is not payable until maturity (or earlier redemption), but compounds periodically to accumulate to a stated maturity amount. Zero-interest bonds are typically issued at a discount and repaid at par upon maturity.

*Excerpted from Understanding Public Investment Reporting - A Handbook For Local Elected Officials, California Debt and Investment Advisory Commission, 2003.

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Finance Department

Presentation By: Spencer Morrison, Accounting Manager

Summary

Subject: Annual Sunsweet Boulevard Community Facilities District 2004-1 Report Pursuant to Government Code Section 53411

Recommendation: Note and File

Fiscal Impact: Information item only

Purpose:

Each year, per the government code, the Finance Department must report the background and current status of the Sunsweet Boulevard Community Facilities District 2004-1.

Background:

In accordance with Government Code Section 53411, a report concerning the Sunsweet Boulevard Community Facilities District 2004-1 is required to be filed annually with the City Council. This staff report serves to fulfill the requirement. The report must address the following items:

1. **The amount of funds collected and expended –** On May 12, 2005, the City issued $3,250,000 in Community Facilities District Bonds. Of this amount, $2,705,904 was placed into the project fund. The entire $2,705,904 has been expended on the project. Special tax assessments were placed on the properties within the district in 2005 and the amount collected for calendar year 2015, as of December 31, is $275,500 in assessments and no delinquencies. These funds will be used to pay debt service.

2. **The status of the project required or authorized to be funded –** The project as defined by the "List of Authorized Facilities" (that was adopted as part of the resolution forming the district) is complete, including related improvements (traffic signal at Highway 99 and connector road to Walton Avenue on the south side of Sunsweet), with a Notice of Completion dated July, 2007.

Fiscal Impact:

Informational item only.

Alternatives:

Not Applicable.

Recommendation:

Note and file the annual Sunsweet Boulevard Community Facilities District 2004-1 Report pursuant to Government Code Section 53411.

Prepared By:

Spencer Morrison
Spencer Morrison
Accounting Manager

Submitted By:

Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed By:

Finance RB

City Attorney TH via email

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Finance Department

Presentation By: Spencer Morrison, Accounting Manager

Summary

Subject: Administration for Landscape and Lighting and Benefit Assessment Districts

Recommendation: Award the one (1) year contract with the possibility of two (2) one (1) year extensions to Willdan Financial Services of Temecula, CA for $16,000 a year plus an additional $4,000 a year for any extras that may arise from the contract. Have the Finance Director approve the extensions.

Fiscal Impact: $20,000 Various Account numbers (attached)

Purpose:

To obtain a qualified firm to provide the administration for 24 Landscape and Lighting and Benefit Assessment Districts.

Background:

The City solicited proposals for a firm to provide professional consulting, assessment engineering and levy administration services for the Landscape and Lighting and Benefit Assessment Districts. The City has contracted this professional service for several years and desires to continue to ensure that we receive accurate, legally compliant, and efficient collection of these revenues while staff focuses on their core responsibilities.

Analysis:

Finance Department developed specifications and scoring guidelines for this service. A formal proposal was developed and eight (8) vendors received notifications. The City received three (3) responses.

Each proposal was scored on the following criteria:

Evaluation Criteria	Points
Competence	30
Professional Qualifications	30
Availability	30
Fair and Reasonable Cost	10

Proposal scoring sheets were prepared by the Finance Department and the proposals were scored by a member of the Finance Department and the Public Works Department. The committee and staff were notified of the results and concur with the recommendation.

The vendors submitting proposals and their scores are as follows:

Vendor	Score	Price
Willdan Financial Services Temecula, CA	175 points	$16,000
NBS San Francisco, CA	167 points	$32,500
SCI Consulting Group Fairfield, CA	161 points	$17,737

Fiscal Impact:

$20,000 Various Account numbers (attached)

Alternatives:

1) Reject the proposals
2) Selection of alternate proposal
3) Request new proposal process
4) Do not award

Recommendation:

Award the one (1) year contract with the possibility of two (2) one (1) year extensions to Willdan Financial Services of Temecula, CA for $16,000 a year plus an additional $4,000 a year for any extras that may arise from the contract. Have the Finance Director approve the extensions.

Prepared By:

/s/ Vicky Anderson
Vicky Anderson
Administrative Analyst I

Submitted By:

/s/Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed By:

Finance /RB/

Public Works /DL/

City Attorney /TH/ via email

Landscape and Lighting and Benefits Assessment District

Account Number	Name	Zone
6110-62733	N Stabler	A #1
6120-62733	Garden Highway	B #1
6130-62733	Town Center	A #2
6140-62733	Palisades	A #3
6150-62733	Regency Park	A #4
6160-62733	South Park	A #5
6161-62733	South Park	B #5
6162-62733	Wheeler Estates	C #5
6164-62733	Richland Ranch	
6165-62733	Walton Station	E #5
6166-62733	Park Vista	G#5
6167-62733	Phalla Estates	H #5
6168-62733	Masera Ranch	I #5
6182-62733	Landscape Maintenance 5	J
6183-62733	Harter #6	A
6184-62733	Commercial #6	B
6190-62733	Landscape Lighting District #5	K
6195-62733	Tierra Buena	
6710-62733	Walton Streetlights	

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Public Works Department

Presentation by: Ben Moody, Deputy Public Works Director

Summary

Subject: Feather River Air Quality Management District (FRAQMD) Agreement No. VF15-04 – Acceptance of Blue Sky Grant for $48,000 for the Yuba City Bicycle Signal Detection Project 2016

Recommendation: A. Adopt a Resolution authorizing the Public Works Director to execute FRAQMD Agreement No. VF15-04, accepting $48,000 in Blue Sky Grant funds for the Yuba City Bicycle Signal Detection Project 2016 including the necessary budget adjustments outlined in the fiscal impact

B. Authorize the Finance Director to provide a supplemental appropriation from existing unallocated TDA (Transportation Development Act) funds in the amount of $25,000 to CIP project 911169 (Bicycle Master Plan Implementation)

Fiscal Impact: Total Project Estimate - $73,000 broken down as follows:
$48,000 – FRAQMD Agreement No. VF15-04
$25,000 – Account No. 911169 (Bicycle Master Plan Implementation)

Purpose:

To secure grant funds to promote bike activities and implement the City's Bicycle Master Plan.

Background:

Under the Blue Sky Program, FRAQMD annually solicits proposals for projects that will: 1) reduce air pollution emission from motor vehicles, 2) implement transportation control measures, or 3) establish public education programs that support and do not duplicate any of the District's efforts. The selected projects are funded through motor vehicle registration fees collected by FRAQMD.

City Council approved the project application at the September 15, 2015 meeting. The City has previously received grant funding from the Blue Sky Program and has been very successful in meeting the goals of the program. These grants have helped the City towards implementation of the Bicycle Master Plan.

Analysis:

In September 2015, FRAQMD issued a Request for Proposals for FY 15/16, in which $200,000 was available for allocation to projects. After review of the Bicycle Master Plan and consultation with the Bicycle Advisory Committee, staff prepared the following project proposal:

- Yuba City Bicycle Signal Detection Project 2016 – Provides for the installation of Bike Detection Loops along Queens Avenue at the intersections of Stabler Lane and Gray Avenue (see attached Exhibit).

Following Council approval of the project application at the September 15, 2015 meeting, staff moved forward with the application process.

FRAQMD received several project proposals from various bi-county agencies. In December 2015, a review of all proposals was conducted. The City of Yuba City was chosen to be awarded a total of $48,000 for the project. The City has until December 31, 2016 to implement the project.

Fiscal Impact:

The total estimated project cost for the Yuba City Bicycle Signal Detection Project 2016 is $73,000. With the execution of the Agreement, the City will receive $48,000 in Blue Sky Program funds from FRAQMD. The remaining $25,000 will come from TDA funds through Account No. 911169 (Bicycle Master Plan Implementation).

Staff requests a revenue budget adjustment of $48,000 for the revenue associated with the grant, along with a supplemental appropriation of the grant funds, $48,000, plus $25,000 in unallocated TDA (Transportation Development Act) funds, to Account No. 911169 (Bicycle Master Plan Implementation) to cover the estimated cost of the project.

Alternatives:

1. Do not accept the grants.
2. Reduce the scope of work within the guidelines of the grant agreements to reduce the City's contribution to the projects.

Recommendation:

A. Adopt a Resolution authorizing the Public Works Director to execute FRAQMD Agreement No. VF15-04, accepting $48,000 in Blue Sky Grant funds for the Yuba City Bicycle Signal Detection Project 2016 including the necessary budget adjustments outlined in the fiscal impact.

B. Authorize the Finance Director to provide a supplemental appropriation from existing unallocated TDA (Transportation Development Act) funds in the amount of $25,000 to CIP project 911169 (Bicycle Master Plan Implementation).

Prepared by:

/s/ Gurtej Bhattal
Gurtej Bhattal
Assistant Engineer

Submitted by:

/s/ Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed by:

Finance RB

City Attorney TH via email

RESOLUTION NO. _____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF YUBA CITY AUTHORIZING EXECUTION OF FRAQMD AGREEMENT NO. VF15-04 WITH FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT FOR THE YUBA CITY BICYCLE SIGNAL DETECTION PROJECT 2016.

BE IT RESOLVED AND ORDERED BY THE CITY COUNCIL OF THE CITY OF YUBA CITY AS FOLLOWS:

That the Public Works Director is hereby authorized and directed to execute on behalf of the City of Yuba City FRAQMD Agreement No. VF15-04 between the City of Yuba City and Feather River Air Quality Management District for the Yuba City Bicycle Signal Detection Project 2016.

That a copy of said Agreement is on file for reference.

The foregoing resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 19th day of January 2016.

AYES:

NOES:

ABSENT:

_____
MAYOR

ATTEST:

_____
CITY CLERK

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT
Serving Sutter and Yuba Counties

541 Washington Avenue
Yuba City, CA 95991
(530) 634-7659
FAX (530) 634-7660
www.fraqmd.org

Christopher D. Brown, AICP
Air Pollution Control Officer

December 30, 2015

Diana Langley
Public Works Director
City of Yuba City
1201 Civic Center Blvd.
Yuba City, CA 95993

RE: VF15-04 BLUE SKY GRANT AGREEMENT

Dear Diana Langley,

Feather River Air Quality Management District (District) has enclosed two copies of the Agreement VF15-04. Please sign both copies and return to the District at the address above. If you have any questions, please call me at (530) 634-7659 ext 210.

Sincerely,

Sondra Spaethe
Air Quality Planner

Enclosures: (2) VF15-04

File: Chron

AGREEMENT FOR USE OF MOTOR-VEHICLE REGISTRATION SURCHARGE FEES

FRAQMD Agreement No. VF15-04

This Agreement, dated December 7, 2015, is between the City of Yuba City ("Participant"), a political subdivision of the State of California, and the Feather River Air Quality Management District ("FRAQMD"), a body corporate and politic and a public agency of the State of California.

RECITALS

A. Participant proposes the Bicycle Signal Detection Project.

B. As part of its effort to reduce local air pollution from motor vehicles, FRAQMD is willing to fund a portion of this work from revenues it may receive under Chapter 7 of Part 5 of Division 26 (commencing with section 44220) of the Health and Safety Code, subject to the terms and conditions herein.

TERMS AND CONDITIONS

1. FRAQMD shall pay to Participant a total amount not to exceed **$48,000.00**, within thirty days of receiving Participant's written invoice for the work described in section 2. Payment shall be made exclusively from revenues as specified in section B above, and is conditioned upon such revenues being available. Participant may submit partial invoices as work is completed throughout the term of the Agreement.

2. Participant shall use the funds paid under section 1 solely for the Bicycle Signal Detection Project, as further described in Exhibit A, which is attached to this agreement and made part of it.

3. Participant shall include mention of FRAQMD's Blue Sky Program as a funding source for the Bicycle Signal Detection Project in all press releases, advertisements and other public outreach for the Bicycle Signal Detection Project. Participant shall provide FRAQMD notification of all such outreach prior to publication.

4. Participant shall submit a final "Project Evaluation" report that details the results of the Bicycle Signal Detection Project as further described in said Exhibit A, **with the final invoice,** within 90 days of project completion, but no later than March 31, 2017.

5. Participant acknowledges that in order to comply with Chapter 7 of Part 5 of Division 26 (commencing with Section 44220) of the Health and Safety Code the funds paid under section 1 must be used solely to reduce air pollution from motor vehicles, and for related planning, monitoring, enforcement, and technical studies necessary to implement the California Clean Air Act of 1988. Participant agrees to use all funds paid hereunder for such purposes.

6. Participant shall complete the work described in paragraph 2 by **December 31, 2016**. If all or a portion of the work described in paragraph 2 is not complete, the funding allocated to the

incomplete portion shall revert to back to the FRAQMD. Further, Participant shall refund to FRAQMD any funds paid hereunder which are not expended solely for the work described in paragraph 2, together with accrued interest, within 30 days of FRAQMD's written demand therefore.

7. If Participant requires an amendment to the agreement either to extend the grant beyond December 31, 2016, to complete the work described in paragraph 2, or for any other reason, then an extension request must be received by the FRAQMD no later than November 1, 2016.

8. Participant agrees to indemnify, defend (upon FRAQMD's written request), protect, and hold harmless FRAQMD and FRAQMD's officers, employees, and agents against all liabilities, claims, demands, damages, and costs (including reasonable attorneys' fees and litigation costs through final appeal) that arise in any way from acts or omissions by Participant or Participant's officers, employees, or agents while performing under this agreement. Participant's obligation under this section covers but is not limited to liabilities, claims, demands, damages, and costs arising from injury to, or death of, any person and from damage to, or destruction of, any property. Participant's obligation under this section will survive this agreement.

9. If Participant materially breaches this agreement, then FRAQMD may demand in writing that the breach be cured. If, within ten days after receiving such demand, Participant has failed to cure the breach to FRAQMD's reasonable satisfaction, then FRAQMD may give Participant written notice of termination. Upon such termination, Participant must submit to FRAQMD a final written report prepared in accordance with section 3 and must return to FRAQMD all funds paid under section 1 which have not been expended on the Bicycle Signal Detection Project. As used in this section, "material breach" includes but is not limited to Participant's use of funds paid under section 1 in a manner inconsistent with Chapter 7. FRAQMD's failure to insist on strict performance of this agreement, or to exercise any right or remedy upon breach of this agreement, shall not constitute a waiver of such performance, right, or remedy. No waiver is binding unless in writing, signed by FRAQMD.

10. Participant acknowledges that FRAQMD's sole responsibility concerning the Bicycle Signal Detection Project described in section 2 is to contribute a portion of the program costs. FRAQMD has no responsibility for, or control over, development, implementation, and promotion of the Bicycle Signal Detection Project.

11. All correspondence regarding this agreement, including invoices, payments, and notices, shall be directed to the following persons at the following addresses and phone numbers:

City of Yuba City:
Diana Langley, Public Works Director
City of Yuba City
1201 Civic Center Blvd.
Yuba City, CA 95993
(530) 822-4792

FRAQMD:
Christopher D. Brown, AICP, Air Pollution Control Officer
Feather River Air Quality Management District
541 Washington Avenue
Yuba City, California 95991
(530) 634-7659

If written, correspondence shall be sent either by personal delivery (including overnight delivery service) or by U. S. Mail, postage prepaid, and shall be considered delivered when actually received.

12. For a period of three years after final payment to Participant, this agreement shall be subject to the examination and audit of the State Auditor or independent auditor selected by FRAQMD, whether at FRAQMD's request or as part of any audit of FRAQMD, and Participant shall retain copies of all documents and records pertinent to this agreement for such period.

13. This agreement reflects the contributions of both parties and accordingly the provisions of Civil Code section 1654 shall not apply in interpreting this Agreement.

14. This agreement shall be interpreted and applied in accordance with California law. If any conflict arises between sections 1 through 13 and Exhibit A, then sections 1 through 13 shall govern. Any litigation concerning it shall be brought in the Superior Court of Sutter County. The prevailing party in any such litigation shall be entitled to recover reasonable attorneys' fees in addition to any other relief to which it may be entitled.

15. This agreement sets forth the parties' entire understanding regarding the matters set forth in sections 1 through 14. It supersedes all prior agreements and representations, written and oral, and may be modified only by a written agreement signed by Participant and FRAQMD.

APPROVED FOR LEGAL FORM

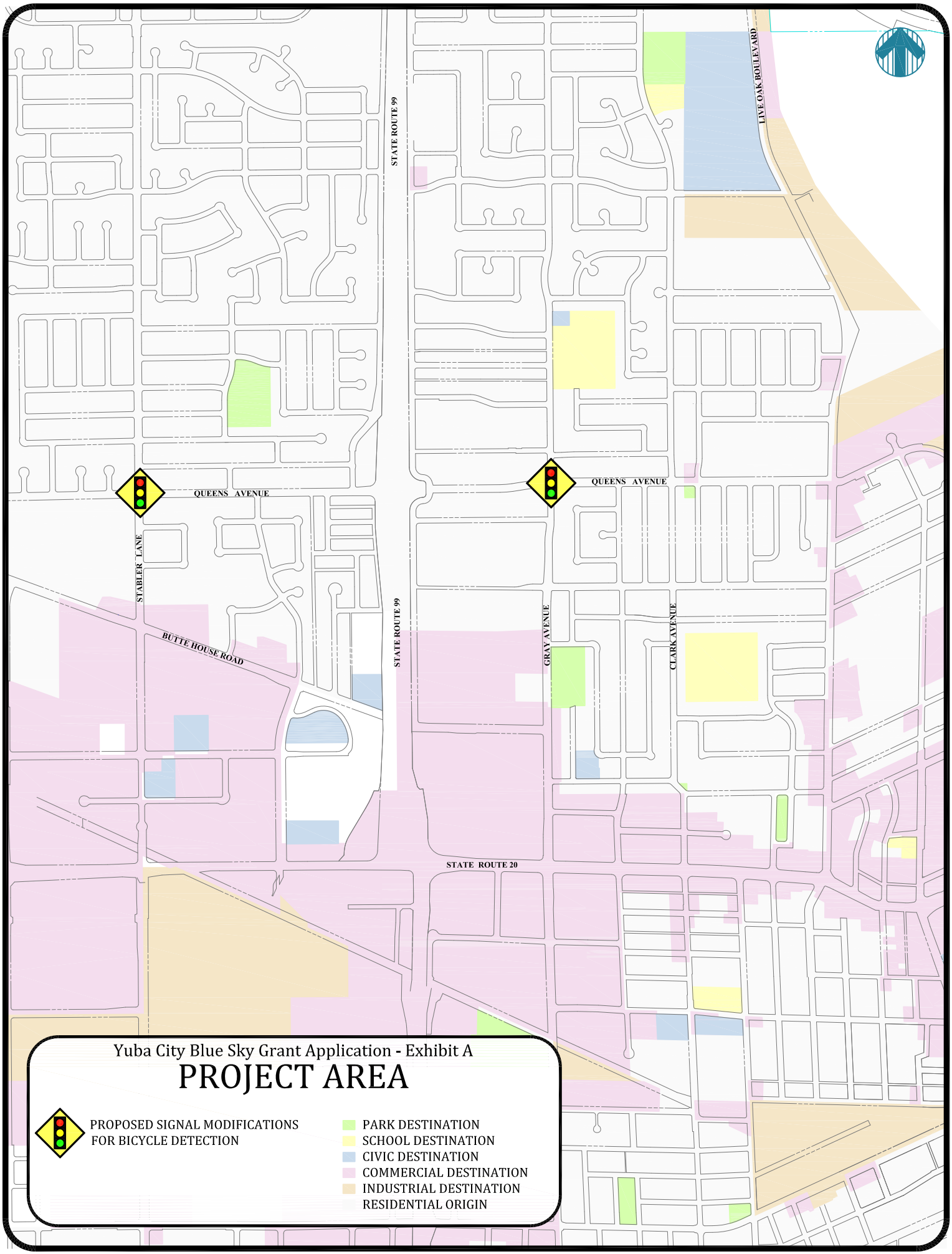
By: _____
District Counsel

FEATHER RIVER AIR QUALITY
MANAGEMENT DISTRICT

By: _____
Christopher D. Brown, AICP, APCO

CITY OF YUBA CITY

By: _____
Diana Langley, Public Works Director



Yuba City Blue Sky Grant Application - Exhibit A

PROJECT AREA

PROPOSED SIGNAL MODIFICATIONS FOR BICYCLE DETECTION

- PARK DESTINATION
- SCHOOL DESTINATION
- CIVIC DESTINATION
- COMMERCIAL DESTINATION
- INDUSTRIAL DESTINATION
- RESIDENTIAL ORIGIN

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Development Services Department

Presentation by: Arnoldo Rodriguez, Development Services Director

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Summary

Subject: Funding and Professional Services Agreement with ESA for the preparation of the Bogue/Stewart Master Plan, Sphere of Influence Expansion, Annexation, and Environmental Impact Report (EIR)

Recommendation:

A. Authorize the City Manager to sign a Funding Agreement with Newkom Ranch LLC and Bains Revocable Family Trust 2005 for payment of costs associated with preparation of the Master Plan, SOI Expansion, Annexation, and EIR
B. Authorize the City Manager to sign a Professional Services Agreement with ESA to prepare the Master Plan, SOI Expansion, Annexation, and EIR, in an amount not to exceed $695,119, with the finding that it is in the best interest of the City
C. Authorize using funding of $98,448 from account 901080 (General Fund Update project) which has a current balance of approximately $579,000

Fiscal Impact: Newkom Ranch LLC and Bains Revocable Family Trust 2005 will pay $596,671 of the $695,119 Professional Services Agreement with ESA, and any City staff time, for the preparation of the Master Plan, SOI Expansion, Annexation, and EIR. The City will pay $98,448 to ESA for the costs associated with the expanded SOI boundary adjustment, since this expanded area is being added at the City's request. The $98,448, plus City staff time related with the expanded area would be reimbursed to the City as vacant property as the expanded area is developed

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Purpose:

To commission the preparation of a Master Plan and Sphere of Influence Expansion.

Background:

In early 2014, the Developer approached the City for the ultimate development of the Bogue/Stewart project area, located immediately south of the City's existing Sphere of Influence (SOI). After assessing the project proponents' initial request, City staff enlarged the proposed SOI Expansion area to include all of the property between Bogue Road and Stewart Road, east of Walton Avenue east to the Feather River, an area comprised of approximately 752 acres (**Attachment 1, Vicinity Map)**. However, it should be noted that a SOI Expansion does not identify the official jurisdictional boundaries of a city, but rather designates the outermost physical boundary and service area of a city acting as a benchmark for future annexation decisions. Moreover, all annexations, the act of

adding territory to a city or district, must first be recognized by the Sutter County Local Agency Formation Commission (LAFCO). The preparation of the Master Plan and Environmental Impact Report (EIR) serve as the initial step in such a process. Upon completion of the Master Plan and certification of the EIR, the Developer and the City would engage Sutter County and LAFCO for potential annexation.

Expanding the Sphere of Influence:

By enlarging the proposed Sphere of Influence (SOI) Expansion beyond the area originally proposed by the Developer, the City would be better able to address wide-ranging infrastructure, housing, employment, environmental, fiscal, and community challenges associated with accommodating growth. Planning at this scale allows the City to design and phase infrastructure improvements that are more efficient and cost effective. Staff can also address mobility within and across the expanded area, and within shopping centers, neighborhoods, and open spaces by comprehensively planning roadways, high-quality open spaces, and safe walking and biking connections for all users. Creating a Master Plan for the 752 acre area also allows the City and developers to better plan for a diversity of housing and commercial opportunities that better meet the needs of current and future residents and businesses. Moreover, the expanded SOI minimizes the potential to create county islands or city peninsulas and allows for enhanced emergency response services.

Streamlining Permitting Process and the EIR:

Based upon current California Environmental Quality Act (CEQA) regulations and case law, the preparation of an EIR to analyze potential environmental impacts associated with implementation of the Master Plan, SOI Expansion, and Annexation would provide the best avenue for achieving the goals of streamlining subsequent project reviews while providing for an effective universal mitigation strategy to avoid, minimize, and/or rectify potential adverse environmental impacts; subsequent development projects that are appropriately identified in the Master Plan may rely upon the environmental analysis contained in the EIR. This accelerates the environmental review process for individual projects as the project specific environmental review need only analyze those potential environmental effects associated with the project that were not identified and analyzed in the EIR.

Due to the size and scope of the project, Staff determined that an EIR is necessary in order for the project to proceed. As required by the City's adopted Growth Policies, the Developer will be required to pay for all costs associated with preparation of the necessary documents and the processing of any applicable land use entitlements. Moreover, pursuant to the General Plan, Environmental Science Associates (ESA) will prepare a Fiscal Study designed to identify the impact of the expanded SOI and potential development on the City's existing General Fund (and other funds), at the level of service anticipated for the project.

While the subject project includes an expansion of the City's SOI, a Master Plan, and an Annexation, greater attention will be given to the properties controlled by the Developer to allow for expedited project level review for future projects. For properties located outside of the area controlled by the Developer, additional review and consideration may be necessary at the time the property owner(s) elect to annex the property into the City and/or a project for development is submitted.

Analysis:

In consultation with the Developer and outside agencies, Staff issued a Request for Proposals (RFP) for preparation of a Master Plan, SOI Expansion, EIR, and Annexation for the project. Six

firms submitted proposals. Staff, in partnership with the applicant, evaluated and ranked the proposals according to criteria provided in the RFP. Staff and the Developer's representative interviewed project teams from four of the firms and determined that ESA's proposal was outstanding in terms of cost effectiveness and professionalism of presentation. Based on this determination, Staff recommends that the City enter into a Professional Services Agreement with ESA for preparation of the Master Plan, EIR, and documentation for the SOI Expansion and ultimate Annexation of the project area.

Fiscal Impact:

Newkom Ranch LLC and Bains Revocable Family Trust 2005 will pay $596,671 of the $695,119 Professional Services Agreement with ESA (Attachment 2), and any City staff time, for the preparation of the Master Plan, SOI Expansion, Annexation, and EIR. The City will pay $98,448 to ESA for the costs associated with the expanded SOI boundary adjustment, which has been added at the City's request. The $98,448, plus City staff time, would be reimbursed to the City as vacant property in the expanded area is developed. The Funding Agreement with Newkom Ranch LLC and Bains Revocable Family Trust 2005 (Attachment 3) guarantees that the applicant will maintain as a deposit with the City a 20 percent reserve of the remaining contract amount, with the balance not to fall below 10 percent of the original contract amount. In the event that the applicant fails to provide timely payment, the City has the authority to terminate the agreement with ESA. Additionally, the applicant has agreed to provide the City with a standby letter of credit for half of the contract amount to further secure the contract with the consultant. Staff does not anticipate having to use the letter of credit, which would be called upon only in the event that the applicant failed to pay for work already performed by ESA or any of its sub-consultants.

In addition to the $596,671 that will be paid by the applicant (plus City staff time), the City will pay $98,448 to ESA for the costs associated with the expanded SOI boundary adjustment which was added at the City's request. The $98,448, plus City staff time, would be reimbursed to the City as vacant property in the expanded area is developed.

Alternatives:

Delay, modify, or reject the Funding Agreement and/or the Professional Services Agreement and direct Staff accordingly.

Recommendation:

A. Authorize the City Manager to execute a Funding Agreement with Newkom Ranch LLC and Bains Revocable Family Trust 2005, plus City staff time for payment of costs associated with preparation of the Master Plan, SOI Expansion, Annexation, and Environmental Impact Report.

B. Authorize the City Manager to execute a Professional Services Agreement with ESA to prepare the Master Plan, SOI Expansion, Annexation, and Environmental Impact Report, in an amount not to exceed $695,119, with the finding that it is in the best interest of the City.

C. Authorize using funding of $98,448 from account 901080 (General Fund Update project) which has a current balance of approximately $579,000

Prepared by: Submitted by:

/s/ Arnoldo Rodriguez
Arnoldo Rodriguez, AICP
Development Services Director

/s/ Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed by:

Department Head	AR
Finance	RB
City Attorney	TH via email

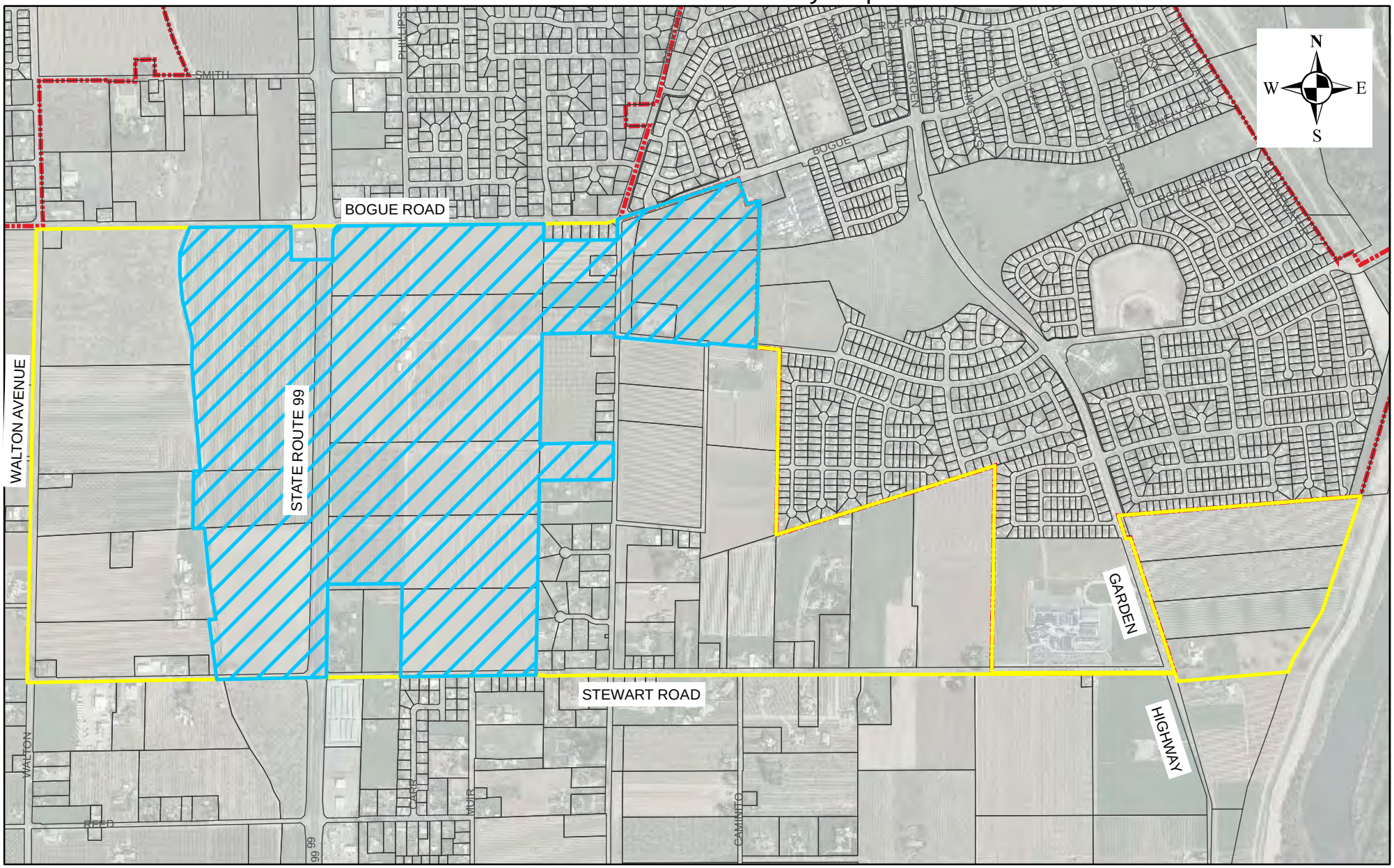
Attachments:

1. Vicinity Map
2. Professional Services Agreement with ESA
3. Funding Agreement with Newkom Ranch LLC and Bains Revocable Family Trust 2005

Attachment 1:

Vicinity Map

Attachment 1: Vicinity Map



Potential Sphere of Influence Expansion

Project Applicant

City recommended expanded area

1 inch = 1,200 feet

Attachment 2:

Professional Services Agreement with ESA

AGREEMENT FOR PROFESSIONAL SERVICES

This Agreement is made and entered into as of _____, by and between the City of Yuba City, a municipal corporation ("City") and ESA ("Consultant").

RECITALS

A. Consultant is specially trained, experienced and competent to perform the special services which will be required by this Agreement; and

B. Consultant possesses the skill, experience, ability, background, certification and knowledge to provide the services described in this Agreement on the terms and conditions described herein; and

C. City desires to retain Consultant to render professional services as set forth in this Agreement.

AGREEMENT

1. Scope of Services. The Consultant shall furnish the following services in a professional manner per the following:

See Attached Scope of Services
(Exhibit A)

2. Time of Performance. The services of Consultant are to commence upon execution of this Agreement and shall continue until all authorized work is completed and approved by the City. Finalization shall be completed at the direction of the City of Yuba City.

3. Compensation. Compensation to be paid to Consultant shall be in accordance with the Schedule of Charges set forth in Exhibit A, which is attached hereto and incorporated herein by reference. In no event shall Consultant's compensation exceed _____without additional written authorization from the City. Payment by City under this Agreement shall not be deemed a waiver of defects, even if such defects were known to the City at the time of payment.

4. Method of Payment. Consultant shall submit monthly billings to City describing the work performed during the preceding month. Consultant's invoices shall include a brief description of the services performed, the date the services were performed, the number of hours spent and by whom, and a description of any reimbursable expenses. City shall pay Consultant not later than 30 days after approval of the monthly invoice by City staff. When

payments made by the City equal 90% of the maximum fee provided for in this Agreement, no further payments shall be made until the final work under this Agreement has been accepted by City.

5. Extra Work. At any time during the term of this Agreement, City may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by City to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from City.

6. Termination. This Agreement may be terminated by the City immediately for cause or by either party without cause upon fifteen days written notice of termination. Upon termination, Consultant shall be entitled to compensation for services performed up to the effective date of termination. Such compensation is subject to the conditions of Section 4 of this agreement.

7. Ownership of Documents. All plans, studies, documents and other writings prepared by and for Consultant, its officers, employees, agents and subcontractors in the course of implementing this Agreement, except working notes and internal documents, shall become the property of the City upon payment to Consultant for such work, and the City shall have the sole right to use such materials in its discretion without further compensation to Consultant or to any other party. Consultant shall, at Consultant's expense, provide such reports, plans, studies, documents and other writings to City upon request.

* Licensing of Intellectual Property. This Agreement creates a nonexclusive and perpetual license for City to copy, use, modify, reuse, or sublicense any and all copyrights, designs, and other intellectual property embodied in plans, specifications, studies, drawings, estimates, and other documents or works of authorship fixed in any tangible medium of expression, including but limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data"). Consultant shall require all subcontractors to agree in writing that City is granted a non-exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement. Consultant represents and warrants that Consultant has the legal right to license any and all Documents & Data. Consultant makes no such representation and warranty in regards to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the City. City shall not be limited in any way in its use of the Documents & Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at City's sole risk.

Confidentiality. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written

information, and other Documents & Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of City, be used by Consultant for any purposes other than the performance of the services under this Agreement. Nor shall such materials be disclosed to any person or entity not connected with the performance of the services under this Agreement. Nothing furnished to Consultant, which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use City's name or insignia, photographs relating to project for which Consultant's services are rendered, or any publicity pertaining to the Consultant's services under this Agreement in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of City.

8. Consultant's Books and Records:

   a. Consultant shall maintain any and all ledgers, books of accounts, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant to this Agreement.
   b. Consultant shall maintain all documents and records which demonstrated performance under this Agreement for a minimum period of three (3) years, or for any longer period required by law, from the date of termination or completion of this Agreement.
   c. Any records or documents required to be maintained pursuant to this Agreement shall be made available for inspection or audit, at any time during regular business hours, upon written request by the City Administrator, City Attorney, City Auditor or a designated representative of these officers. Copies of such documents shall be provided to the City for inspection at City Hall when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at Consultant's address indicated for receipt of notices in this Agreement.
   d. Where City has reason to believe that such records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, City may, by written request by any of the above named officers, require that custody of the records be given to the City and that the records and documents be maintained in City Hall. Access to such records and documents shall be granted to any party authorized by Consultant, Consultant's representatives, or Consultant's successor-in-interest.

9. Independent Contractor. It is understood that Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and shall not act as an agent or employee of the City. Consultant shall obtain no rights to retirement benefits or other benefits which accrue to City's employees, and Consultant hereby expressly waives any claim it may have to any such rights.

   Consultant is not a designated employee within the meaning of the Political Reform Act because Consultant:

   a. Will conduct research and arrive at conclusions with respect to his/her rendition of information, advice, recommendation or counsel independent of the control and direction of the City or of any City official, other than normal agreement monitoring; and

   b. Possesses no authority with respect to any City decision beyond rendition of information, advice, recommendation or counsel. (FPPC Reg. 18700(B)(2).)

10. Interest of Consultant. Consultant (including principals, associates and professional employees) covenants and represents that it does not now have any investment or interest in real property and shall not acquire any interest, direct or indirect, in the area covered by this Agreement or any other source of income, interest in real property or investment which would be affected in any manner or degree by the performance of Consultant's services hereunder. Consultant further covenants and represents that in the performance of its duties hereunder no person having any such interest shall perform any services under this Agreement.

11. Professional Ability of Consultant. City has relied upon the professional training and ability of Consultant to perform the services hereunder as a material inducement to enter into this Agreement. Consultant shall therefore provide properly skilled professional and technical personnel to perform all services under this Agreement. All work performed by Consultant under this Agreement shall be in accordance with applicable legal requirements and shall meet the standard of quality ordinarily to be expected of competent professionals in Consultant's field of expertise.

13. Compliance with Laws. Consultant shall use the standard of care in its profession to comply with all applicable federal, state and local laws, codes, ordinances and regulations.

14. Licenses. Consultant represents and warrants to City that it has all licenses, permits, qualifications, insurance and approvals of whatsoever nature, which are legally required of Consultant to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and

expense, keep in effect or obtain at all times during the term of this Agreement, any licenses, permits, insurance and approvals which are legally required of Consultant to practice its profession. Consultant shall maintain a City of Yuba City business license.

14. Indemnity. Consultant agrees to defend, indemnify and hold harmless the City, its officers, officials, agents, employees and volunteers from and against any and all claims, demands, actions, losses, damages, injuries, and liability, direct or indirect (including any and all costs, including attorney fees and expenses in connection therein), arising out of the performance of this Agreement in whole or in part by any negligent act or omission of the Consultant, or anyone directly or indirectly employed by the Consultant or anyone for whose acts the Consultant may be liable, or its failure to comply with any of its obligations contained in this Agreement, except for any such claim arising out of the sole negligence or willful misconduct of the City, its officers, agents, employees or volunteers. With respect to claims related to professional liability, in the event of concurrent or joint negligence of City and Consultant, liability for any and all claims, losses, damages or expenses to persons and /or property which arise out of the terms and conditions of this Agreement shall be apportioned under the principles of comparative negligence.

15. Insurance Requirements. Consultant, at Consultant's own cost and expense, shall procure and maintain, for the duration of the contract, necessary insurance policies as described in Exhibit B.

16. Notices. Any notice required to be given under this Agreement shall be in writing and either served personally or sent prepaid, first class mail. Any such notice shall be addressed to the other party at the address set forth below. Notice shall be deemed communicated within 48 hours from the time of mailing if mailed as provided in this section.

If to City	Arnoldo Rodriguez Development Services Department City of Yuba City 1201 Civic Center Blvd Yuba City, CA 95993 (530) 822-3231
If to Consultant:	Daniel Dameron Director, Community Development ESA 2600 Capitol Avenue Sacramento, CA 95816 (916) 564-4500

17. Entire Agreement. This Agreement constitutes the complete and exclusive statement of Agreement between the City and Consultant. All prior written and oral communications, including correspondence, drafts, memoranda, and representations, are superseded in total by this Agreement.

18. Amendments. This Agreement may be modified or amended only by a written document executed by both Consultant and City and approved as to form by the City Attorney.

19. Assignment and Subcontracting. The parties recognize that a substantial inducement to City for entering into this Agreement is the professional reputation, experience and competence of Consultant. Assignments of any or all rights, duties or obligations of the Consultant under this Agreement will be permitted only with the express consent of the City. Consultant shall not subcontract any portion of the work to be performed under the Agreement without the written authorization of the City. If City consents to such subcontract, Consultant shall be fully responsible to City for all acts or omissions of the subcontractor. Nothing in this Agreement shall create any contractual relationship between City and subcontractor nor shall it create any obligation on the part of the City to pay or to see to the payment of any monies due to any such subcontractor other than as otherwise is required by law.

20. Waiver. Waiver of a breach or default under this Agreement shall not constitute a continuing waiver of a subsequent breach of the same or any other provision under this Agreement.

21. Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.

22. Controlling Law Venue. This Agreement and all matters relating to it shall be governed by the laws of the State of California and any action brought relating to this Agreement shall be held exclusively in a state court in the County of Sutter.

23. Litigation Expenses and Attorneys' Fees. If either party to this Agreement commences any legal action against the other party arising out of this Agreement, the prevailing party shall be entitled to recover its reasonable litigation expenses, including court costs, expert witness fees, discovery expenses, and attorneys' fees.

24. Mediation. The parties agree to make a good faith attempt to resolve any disputes arising out of this Agreement through mediation prior to commencing litigation. The parties shall mutually agree upon the mediator and shall divide the costs of mediation equally. If the parties are unable to agree upon a

mediator, the dispute shall be submitted to JAMS/ENDISPUTE ("JAMS") or its successor in interest. JAMS shall provide the parties with the names of five qualified mediators. Each party shall have the option to strike two of the five mediators selected by JAMS and thereafter the mediator remaining shall hear the dispute. If the dispute remains unresolved after mediation, either party may commence litigation.

25. Execution. This Agreement may be executed in several counterparts, each of which shall constitute one and the same instrument and shall become binding upon the parties when at least one copy hereof shall have been signed by both parties hereto. In approving this Agreement, it shall not be necessary to produce or account for more than one such counterpart.

26. Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and to bind each respective party.

27. Prohibited Interest. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, City shall have the right to rescind this Agreement without liability. For the term of this Agreement, no member, officer or employee of City, during the term of his or her service with City, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising there from.

28. Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subcontractor, employee or applicant for employment because of race, religion, color, national origin, handicap, ancestry, sex or age. Such non- discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of City's Affirmative Action Plan or other related programs or guidelines currently in effect or hereinafter enacted.

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

CITY OF YUBA CITY: **CONSULTANT:**

By:_____ By _____

Arnoldo Rodriguez
City of Yuba City
Director, Development Services Dept.

Daniel Dameron
Director, ESA

Attachments: Exhibit A – Scope of Services
Exhibit B - Insurance Requirements
Exhibit C - Workers' Compensation Exemption

Scope of Work

The following scope of work is for ESA to support the City of Yuba City in preparing the Newkom Ranch Master Plan and EIR, and to assist with the Sphere of Influence (SOI) changes and annexation. We understand the entire Newkom Ranch Master Plan area is generally bounded by Bogue Road to the north, Levee Road to the east, Stewart Road to the south, and Walton Avenue to the west. The area located along Highway 99 (east and west) will be referred to as the Newkom/Kells East area. More detailed information, technical studies, and planning has been done for the Newkom/Kells East area; therefore, the Master Plan and EIR will address this area at a greater level of detail. No infrastructure studies or any other technical studies have been completed, and less information is available, for the remaining Plan area, and only half of this area has proposed land use changes. As such, the Master Plan will be more conceptual for this area, and the environmental analysis will be less detailed. This area will be referred to as the SOI Expansion area.

Task 1: Project Start Up

Task 1.1: Obtain Data

The ESA Team will identify and compile pertinent studies, land use plans, traffic plans, EIRs, GIS data, and other data that will be necessary to inform the Master Plan and EIR preparation process. It is anticipated that the City staff can either directly provide the reports, or identify appropriate resources or contacts where this information can be obtained. The ESA Team will identify any potential data gaps and work with the City to address those gaps.

The ESA Team will also create a geospatial database in ArcGIS 10 to store, analyze, and map all data provided by the City and data readily available and obtained by ESA to prepare the Master Plan and EIR. The GIS data base will be added to throughout the process to allow for efficient storage, analysis and mapping of data. Additionally, ESA will provide the City with all map documents, graphics, and the associated database for its continued use and future updating upon completion of the project, and will coordinate with the City to ensure that all data and mapping are easily transferable and comply with City standards.

Task 1.2: Attend Kick-Off Meeting

At the outset of the project, the ESA Team and City staff will hold a kick-off meeting in order to: 1) discuss the City's objectives for the work program; 2) review the scope of work and schedule to assure a common understanding of project deliverables, methodologies, expected outcomes, and responsibilities; 3) review protocols for communications with City staff and the applicant/ landowners, regular management/progress meetings/calls, staff working sessions, and review of work products; 4) Review the proposed land use plan as provided by the City; 5) identify and begin to prioritize the major issues to be addressed as part of the planning effort; and 6) identify and compile pertinent studies, plans, environmental documents, GIS data and other available information relevant to the project.

As part of this kick-off working session, the ESA Team and City staff will conduct a field tour of the Master Plan site to facilitate an understanding of the area's

unique character, relationship of the land use plan to the property, a common discussion of important planning issues, and enable all participants to benefit from City staff's insights and perspectives. At the City's discretion, the project applicant may participate in the field tour.

Task 1 – Deliverables

- List of data needs
- Geospatial database in ArcGIS 10
- Kick-Off Meeting notes
- Land Use Plan (from City)

Task 2: Foundation Documents

Task 2.1: Prepare Supporting Plans and Components

Based on the land use plan and Mobility Plan provided by the City, the ESA Team will prepare a series of technical plans and components to support the Master Plan. As stated in the RFP, the applicant will be providing infrastructure master plans for the Newkom/Kells East area. It is assumed these master plans will address water, wastewater, storm drain, and other public utilities such as electrical, natural gas, and telecommunications and will be prepared concurrent with this task. It is anticipated that the utility master plans will include a phasing program (if applicable). It is assumed that there will not be any infrastructure master plans prepared for the SOI Expansion Area, and the Master Plan and will not include this information. The ESA Team will meet with City staff prior to beginning this task to ensure there is a common understanding of the City's objectives for each of the components.

Task 2.1.1: Review Mobility Plan

The ESA Team will review the Mobility Plan previously prepared for the Newkom/Kells East area to ensure it will support the proposed land use plan. The ESA Team will make any recommendations for changes, if necessary. The ESA Team will identify the existing roadways in the SOI Expansion area, but will not define the internal roadway system.

Task 2.1.2: Prepare Development Standards

The ESA Team will identify and prepare appropriate zoning and development standards for the City's use in implementing the Master Plan. These standards will be tailored to the mix of land uses that are anticipated to include housing, retail and office for the Plan area. These zoning and development standards will address elements such as permitted uses, development density/intensity, building setbacks and height limitations, and parking requirements. It is assumed that the City's existing Zoning Ordinance will effectively function as a base for these standards, and the ESA Team will work with staff to identify what exceptions and deviations may be appropriate for the Master Plan

Task 2.1.3: Prepare Design Guidelines

Design Guidelines will be prepared to provide direction for the design of individual development projects and public improvements within the plan area. The ESA Team will prepare a working outline for City staff review and input identifying the key components to be included within the Design Guidelines. While the final structure will be defined as part of the planning process, it is anticipated that the Design Guidelines may address:

- Design intent and objectives
- Streetscape design
- Landscaping
- Site planning
- Architectural form, massing, and design treatments
- Access, circulation, and parking

- Pedestrian and bicycle circulation
- Edge treatments and buffering
- Walls and fences
- Screening
- Lighting
- Signage
- Grading
- Green design considerations

The Design Guidelines will be structured to provide design professionals, property owners, elected and appointed officials, and City staff with clear expectations for design of development within the Master Plan area. The guidelines will be developed to balance certainty with an appropriate level of flexibility. Design intent and objectives will be clearly stated and required (standards) and suggested (guidelines) solutions identified that achieve the intent. Where appropriate, performance-based criteria will be defined to provide flexibility and encourage creativity. In addition, opportunities to structure the Design Guidelines to facilitate the streamlined review of projects that comply with the design intent, standards and guidelines will be explored with City staff.

The Newkom Ranch Master Plan Design Guidelines will build upon and supplement the Yuba City Design Guidelines.

Task 2.1.4: Prepare Financing Plan

The ESA Team will prepare a Financing Plan for Newkom Ranch Master Plan that describes the cost, timing, financing mechanisms, and ultimate funding responsibilities for major capital improvements needed to serve the project. The Financing Plan will also provide a framework designed to understand the relative cost burden placed on the ultimate property owner (e.g. home owner), and a fee comparison to see how project fees differ compared to similar approved projects.

Development of the Financing Plan will require the following data points from the City and/or applicant:

- Proposed land use plan by parcel, by density category, and by phase (Phase 1 versus Buildout). This scope assumes that only the Newkom/Kells East area will be included in the financing plan since detailed infrastructure master plans will not be prepared for the SOI Expansion area.
- Understanding of development product types.
- Forecasted sales prices for different land use types.
- Demographics of anticipated households (e.g. persons per household) and commercial employment densities.
- Confirmation of all infrastructure and public facility categories that will be included in the financing plan.
- Engineering costs, by phase, for proposed backbone improvements related to Roads, Water, Sewer, Drainage, and public facilities (parks, schools, etc.).
- Understanding of any City Special Assessment and Community Facilities District Financing Program Policies.
- Identification of current fee programs, including the capital improvement program, adopted level of service standard, and/or nexus study as well as current rates.

Task 2.1.5: Phased Fiscal Analysis

The City's General Plan requires that new development pay its proportionate share of costs, including park maintenance and library services. Under this task, the ESA Team would prepare a Fiscal Study designed to identify the impact of the Project (to include Newkom Ranch and the Kells East Property as one component of analysis (Newkom/Kells East area), and new development in the SOI (SOI Expansion area) as a separate

component) on the City's existing General Fund at the levels of service anticipated for the Project. Preparation of a Public Review Fiscal Study would include the following steps:

- Budget Analysis that identifies General Fund costs impact categories based on a case-study method versus average-cost multiplier method.
- Identification of proportionate cost share for operations and maintenance (O/M) of any onsite public facilities that are designed to also serve other projects or areas (i.e. a fire station).
- Identification of revenue assumptions, including property tax but also other potential revenue sources, such as a sales tax revenue calculation for the proposed project.
- Development of phased absorption (analyzing impacts as the Project develops). This scope of work presumes that the Project proponent will provide an anticipated absorption schedule for the Project.
- Creation of a technical model analyzing the annual impact on the City General Fund.
- Should the Project result in a negative fiscal impact to the General Fund, identification of one or more funding mechanisms to neutralize the impact.

Development of a phased fiscal study will require the following data points from the City and/or Project Applicant:

- Absorption schedule, by land use type, for the Newkom/Kells East property (Project Applicant). The schedule should differentiate between single-family units, multifamily units, retail building sq. ft., office building sq. ft., and industrial building sq. ft.
- List of all Assessor Parcel Numbers (APNs) included in the Newkom/Kells East property, as well as permission to access recent property tax statements (Project Applicant)
- Current estimated assessed value for all parcels in the SOI Expansion area portion of the Project that are expected to develop (City).

Task 2 – Deliverables

- Comments on the Mobility Plan (electronic copy)
- Administrative Draft Development Standards and Design Guidelines (electronic copy)
- Final Development Standards and Design Guidelines (electronic copy)
- Internal Administrative Draft Financing Plan (electronic copy)
- Administrative Draft Financing Plan (electronic copy)
- Public Review Draft Financing Plan (electronic copy)
- Administrative Draft Fiscal Analysis (electronic copy)
- Draft Phased Fiscal Analysis (electronic copy)
- Final Phased Fiscal Analysis (electronic copy)

Task 3: Master Plan

Based on the land use plan provided by the City, the ESA Team will prepare a Master Plan document. This effort will be largely supported by the information and plans identified in the preceding tasks. The various steps for preparation of the Master Plan are outlined below.

Task 3.1: Prepare Working Outline

The ESA Team will work with City staff to develop a working outline that outlines the content and organization of the Master Plan. The outline will help to specify the format, general content, areas of concern, and overall approach to be used in preparing the Master Plan. The Master Plan will be consistent with the City's adopted growth policies for the SOI and master plans. We anticipate more detail to be provided for the Newkom/Kells East

area in the Master Plan since there is a more detailed land use plan available than the SOI Expansion Area. We anticipate that the Master Plan will include the following chapters:

- **Introduction**: Purpose, Master Plan Description, relevant plans affecting the Plan Area, update process and plan organization.
- **Project Vision and Objectives**: Priorities, intent, vision and objectives of the Master Plan.
- **Land Use**: Land use plan, table, designations and key concepts.
- **Mobility Systems**: Vehicular, pedestrian, bicycle, and transit infrastructure and programs including complete streets and goods movement.
- **Parks and Open Space**: Parks, recreation facilities and trails.
- **Resource Management**: Open space and natural resource areas; agricultural land; vegetative resources; wildlife habitats; endangered species; soils, topography, and geology; hydrology; groundwater; stormwater management; cultural resources; climate change; air quality; renewable resources conservation; and alternative energy.
- **Public Services**: Fire protection, law enforcement, schools, libraries, general governmental services, and solid waste/recycling services.
- **Utilities**: Water, recycled water, wastewater, storm drain, energy, and telecommunications.
- **Implementation, Financing, and Phasing**: Programs that will be required in order for the Master Plan to be implemented, financing approach, and sequencing of the project.
- **Development Standards**: Permitted uses, development density/intensity, building setbacks and height limitations, and parking requirements.
- **Design Guidelines**: Design intent and objectives; streetscape design; landscaping; site planning; architectural form, massing, and design treatments; access, circulation, and parking; pedestrian and bicycle circulation; edge treatments and buffering; walls and fences; screening; lighting; signage; grading; and green design considerations.

Task 3.2: Prepare Administrative Draft Master Plan

Using the final plans and supporting components prepared in Task 3.1 above, the ESA Team will prepare an Administrative Draft Master Plan for Newkom Ranch, which will build upon the approved working outline.

Text will generally be limited to that necessary to clearly explain intent and enhance understanding of critical issues, constraints, opportunities and objectives. The focus will be to create a Master Plan that is user friendly, technically proficient, legally-adequate, easily navigated, understandable, and that furthers implementation. Text will be supplemented with photographs/graphics to ensure concepts, standards and their physical results are clearly understood.

The effectiveness of the Master Plan in achieving its vision is related to the development of a proactive and supportable program of implementation actions. As part of preparation of the Newkom Ranch Master Plan, the ESA Team will review the proposed Master Plan to ensure internal consistency with the General Plan.

Task 3.3 Prepare Public Review Draft Master Plan

It is anticipated that the ESA Team will meet with City staff to review the Administrative Draft Master Plan. Based on one set of consolidated comments from the City staff, the ESA Team will prepare a Public Review Draft Master Plan. The Public Review

Draft Master Plan will be available to the public for 45 days, concurrent with the Draft Environmental Impact Report

Task 3.4: Prepare Public Hearing Draft Master Plan

Based on public comments received and City staff direction, the ESA Team will prepare a Public Hearing Draft Master Plan that will be presented to the Planning Commission and City Council for adoption.

Task 3.5: Prepare Final Master Plan

Based on comments received at the Planning Commission hearing and the City Council adoption hearing, the ESA Team will prepare a final Newkom Ranch Master Plan.

Task 3.6: General Plan Amendment

The ESA Team will amend the City's General Plan to include the extended Sphere of Influence (SOI) boundary and change the underlying land use designations from Sutter County General Plan to the Yuba City General Plan land use designations. Based on conversations with City staff, no policy changes are anticipated and only map changes will be made.

Task 3.7: Pre-Zoning

The ESA Team will prepare the appropriate documentation to pre-zone selected portions of the Newkom Ranch Master Plan area to be consistent with the amended General Plan. The portions to be pre-zoned are likely the Newkom/Kells East area only.

Task 3 – Deliverables

- Working Outline (electronic copy)
- Administrative Draft Master Plan (electronic copy)
- Public Review Draft Master Plan (4 copies each and electronic copy)
- Public Hearing Master Plan (8 copies each and electronic copy)
- Final Master Plan (8 copies each and electronic copy)
- Draft General Plan Amendment (maps only) (electronic copy)
- Final General Plan Amendment (maps only) (electronic copy)
- Draft Pre-Zoning documents (electronic copy)
- Final Pre-Zoning documents (electronic copy)

Task 4: EIR

During the environmental review phase, the ESA Team will prepare an EIR analyzing the potential environmental impacts of the Newkom/Kells East Master Plan, development of the SOI Expansion area, changing the City's SOI boundary, and annexation of the project site. The EIR will be designed to meet the requirements of CEQA and to streamline future City development and public works projects that are consistent with the Newkom Ranch Master Plan. The CEQA document will be prepared to establish the framework for future tiering with the intent of providing streamlining opportunities for implementation of the Newkom Ranch/Kells Ranch East Master Plan vision. The EIR will also provide as much environmental clearance as possible for approval of development entitlements both within the Newkom/Kells East area and the SOI Expansion area.

The environmental analysis would provide a program-level analysis for the entirety of the proposed Newkom Ranch Master Plan area, along with a project-level analysis of the Newkom/Kells East area. It is anticipated that more detailed information would be known about the Newkom/Kells East area such as the roadway network, number of residential units and type of housing, square footage of non-residential uses, and infrastructure requirements. However, for

lands within the SOI Expansion area proposed for development, the ESA Team would work with the project applicants and the City to develop an adequate development envelope that can be used in the EIR to environmentally clear as much development as possible.

ESA understands a PSR/PR may be required for intersection improvements on SR 99 necessary to accommodate project access. To support the PSR/PR to be prepared by MHM, Inc., the ESA Team will prepare a stand-alone memorandum that identifies environmental impacts associated with the Newkom/Kells East area within the Caltrans right-of-way. Data for this memorandum will be drawn from the analysis contained in the EIR, tailored to satisfy Caltrans CEQA processes. The ESA Team assumes impacts within the Caltrans right-of-way that would result from the proposed intersection improvements would not affect significant biological or cultural resources, Caltrans would not require a biological document beyond a Natural Environment Study (Minimal Impact) (NES MI), and additional environmental analysis beyond that included in the EIR for the Newkom/Kells East Master Plan's impacts would not be required.

The environmental setting discussion for each environmental issue area will be based on technical studies and guidance documents prepared for the project as part of development of the Master Plan. All technical studies prepared for the Newkom Ranch Master Plan will be incorporated both directly and by reference in the EIR.

The impact analysis will identify the significance of identified impacts before and after mitigation. Thresholds of significance will be used to assess the significance of each specific impact. This scope of work assumes the City will either provide ESA with applicable City thresholds of significance or ESA will use the thresholds included in Appendix G of the CEQA Guidelines. If an impact is determined to be significant prior to mitigation, the analysis will recommend feasible mitigation measures. If possible, the mitigation measures will be folded into the Newkom Ranch Master Plan as policies to enable the Master Plan to function as a "self-mitigating" document. However, ESA recognizes that residual impacts may remain for the Newkom/Kells East area, or may be necessary to address impacts resulting from development of the SOI Expansion area, a change in the SOI boundary, or an annexation action that cannot be addressed by providing additional policies or reviewing proposed policy language. In those cases, ESA would recommend feasible mitigation measures to reduce impacts to the greatest extent possible.

In order to provide a "range of reasonable alternatives" to the Newkom/Kells East area and SOI Expansion area, as required by CEQA Guidelines section 15126.6, this scope of work assumes the analysis of up to three project alternatives, including the required No Project or existing General Plan Alternative and two other alternatives considered in the preparation of the Newkom Ranch Master Plan. The alternatives analysis will qualitatively compare the environmental effects of the Newkom Ranch Master Plan alternatives to the City's preferred land use plan.

The EIR will be objective, accurate and free of jargon so that the information it contains is accessible to decision makers and the public. Graphics consisting of maps, drawings and photographs will be provided to the City in a consistent format throughout the report. They will clearly and accurately depict the project and present environmental data where such data are better understood through photographs and/or drawings.

Scope of Work

This scope of work assumes preparation of the following work products: an Administrative Draft Notice of Preparation (NOP); Final NOP; Notice of Completion(s) (NOC); Administrative Draft EIR (ADEIR); Screencheck Draft EIR; Draft EIR (DEIR); Administrative Final EIR (AFEIR); Final EIR (FEIR); Mitigation Monitoring Plan (MMP); and Findings of Fact and Statement of Overriding Considerations, if necessary. All of these products are described below.

Task 4.1: NOP

ESA will prepare an NOP. Because the EIR is anticipated to cover all environmental topics identified in the CEQA Guidelines Appendix G, ESA proposes to prepare only an NOP without an attached Initial Study checklist. The NOP will include a map of the project site and a brief description of the Newkom/Kells East and SOI Expansion area which will be expanded during preparation of the ADEIR. The NOP will identify the environmental those issues that require further study in the EIR. ESA will respond to one round of comments by the City.

Once finalized, ESA will distribute 15 copies of the NOP along with a Notice of Completion (NOC) to the State Clearinghouse to start the required 30-day public review period. The EIR Project Director and Project Manager will attend the scoping meeting and provide a brief overview of the CEQA process, if requested by City staff.

Task 4.2: Administrative Draft EIR

ESA will prepare an Administrative Draft EIR that will contain the following sections: Summary, Introduction, Project Description, Environmental Analysis, Alternatives, Growth Inducement, and Other CEQA Required Considerations.

Environmental Analysis

The technical sections of the ADEIR will describe the environmental setting, applicable regulations, and environmental impacts (including cumulative impacts). Thresholds of significance (or significance criteria) will be determined in coordination with the City.

To reduce or eliminate any significant adverse impacts identified during the analysis, the ADEIR will recommend feasible mitigation measures. It is intended that the mitigation measures will be identified early in the process to enable them to be evaluated and included as policies for the Newkom Ranch Master Plan, if possible. In this manner, the Newkom Ranch Master Plan can function as a "self-mitigating" document. However, ESA recognizes that residual impacts may remain for which further mitigation is required and/or overriding considerations must be established.

Aesthetics and Visual Resources

The analysis of aesthetic impacts of the project will be qualitative and will discuss the project as a whole. Development proposed within the Newkom/Kells East area and the SOI Expansion area will be evaluated for its potential to adversely impact the existing visual character in the area and create a change in light and glare conditions. The EIR will identify relevant physical and visual features (e.g., views) that contribute significantly to community character and describe any changes that could occur associated with implementation of new Master Plan policies.

Agricultural Resources

The EIR will address the conversion of agricultural lands and undeveloped areas to urban uses and the compatibility of proposed land uses with adjacent existing land uses. Types of agricultural crops produced in the area will be described based on information provided by the project applicant

and/or City. Cumulative loss of agricultural lands near Yuba City and within Sutter County will be discussed and evaluated.

Air Quality

ESA will prepare an air quality section that meets the requirements of CEQA, the California Air Resources Board (CARB), and the Feather River Air Quality Management District (FRAQMD). ESA will describe the existing setting in the Sacramento Valley Air Basin, and, where relevant, in and around the project area, based on available information from the FRAQMD. ESA will present and summarize criteria air pollutant emissions from mobile, stationary, and area sources, including analysis of $PM_{2.5}$. The most recent CalEEMod computer model will be utilized to model air quality emissions. ESA will evaluate the potential for carbon monoxide (CO) 1-hour and 8-hour standard violations for intersections projected to operate at LOS E or worse. The analysis will be conducted using CARB's CALINE4 model and will be based on traffic information – turning volumes and levels of service – developed for the traffic study. The analysis will differentiate between air emissions generated by development in the Newkom/Kells East area and development in the SOI Expansion area. ESA will prepare a CO hot spot analysis at up to three intersections along SR 99 if traffic volumes indicate such an analysis is warranted.

Health Risks: ESA will evaluate the potential for health risk impacts associated with diesel particulate matter (DPM) associated with construction equipment. ESA will also evaluate the project's operational health risks resulting from the project's potential to generate DPM and other toxic air contaminants (TACs) associated with vehicle trips and stationary sources, such as heavy industrial uses. The evaluation of health risks will largely be qualitative. The PCAPCD requires quantitative health risk assessments to be prepared for any project with sensitive receptors (residences, etc.) within 500-feet of freeways that have an average daily trip (ADT) of 50,000 or greater. Based on existing ADT, it is not anticipated that a quantitative health risk analysis is required; therefore, it is not proposed as part of this scope of work.

GHGs/Global Climate Change

ESA will evaluate the proposed project for potential effects of the project on the generation of greenhouse gases and its correlative contributions to global climate change and relationship to the goals of Assembly Bill 32 (AB 32). Construction and operational emission resulting from implementation of the Newkom Ranch Master Plan will be quantified and GHG emission reduction strategies will be identified. Although the FRAQMD has not established thresholds of significance for GHGs, ESA will work with FRAQMD and the City to identify a threshold.

Biological Resources

The EIR will describe the biological resources that exist within the Newkom Ranch Master Plan Area. ESA anticipates conducting a field site visit to conduct a reconnaissance-level biological review of the Newkom/Kells East area. However, ESA will not conduct a field visit/reconnaissance-level biological review of the SOI Expansion area. ESA will review the California Natural Diversity Database (CNDDB) for recorded observations of special status plant and animal species at or in the vicinity of the Master Plan Area boundaries and describe existing habitats. Existing City ordinances will be presented along with information about the Yuba-Sutter Regional Conservation Plan, if available. This analysis will not include a formal wetland delineation or protocol level surveys for sensitive species for either the Newkom/Kells East or the SOI Expansion areas.

Cultural Resources

Existing archeological and historic resources in the City that could be affected by future development will be identified. Any potential historic or archeological site previously recorded in the Plan area will be identified based on the results of a records search at the Northeast Information Center. ESA anticipates conducting a field site visit to conduct a reconnaissance-level archaeological review of the Newkom/Kells East area site. However, a reconnaissance-level archaeological review of the SOI Expansion area is not proposed. The cultural resources section will include a prehistoric, ethnographic, and historic setting for the Master Plan area and descriptions and evaluations of any known cultural resources within these areas.

This section will include a discussion of potentially significant impacts to cultural resources including tribal cultural resources (see Public Resources Code section 21074). ESA will coordinate with the Native American Heritage Commission (NAHC) and support the City's consultation with relevant Native American tribes, consistent with the requirements of PRC section 21080.3. ESA would consult with the NAHC and request a Sacred Lands search. Based on the outcome of that search and outreach lists provided by the NAHC, ESA would conduct outreach to Most Likely Descendants (MLD) as identified by the NAHC. Outreach to the MLDs would offer the opportunity to consult with the City of Yuba City regarding potentially significant tribal cultural resources that could be affected by the proposed project. AB 52 defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources (PRC section 21074(a)(1)).

ESA does not propose to participate in meetings with local Tribes during the consultation process.

If the proposed project could impact tribal cultural resources, mitigation measures will be developed consistent with PRC section 21084.3 and in consultation with all California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the proposed project and have been identified by the City as requesting consultation for such projects. ESA will address potentially significant impacts to cultural and tribal cultural resources. Results from records searches, tribal consultations, site reconnaissance, and technical studies will be utilized to evaluate potentially significant impacts to cultural and tribal cultural resources. ESA will assess the potential for the project to result in adverse impacts on historical, archeological, or paleontological resources or human remains. If appropriate, mitigation measures that address unanticipated discovery of subsurface cultural resources will be included. In the event that cultural resources that could qualify as historical resources pursuant to CEQA are discovered during the site survey, ESA would coordinate with the City and submit a scope of work and cost estimate to perform the requisite work to fully evaluate these resources. ESA would proceed with that work effort only upon written authorization from the City.

Energy Demand and Conservation

ESA will prepare an energy chapter for the Newkom Ranch Master Plan. The chapter will address the State CEQA Guidelines Appendix F Energy Conservation guidelines by evaluating whether the project would avoid or reduce inefficient, wasteful, or unnecessary energy consumption. The section will include an energy impacts evaluation for the project's construction and operational energy use. The analysis of energy impacts will be consistent with guidance provided in Appendix F and the

California Clean Energy Committee v. City of Woodland decision. Construction and operational energy use estimates will be made based on construction equipment required to build the project, HVAC systems anticipated within the Master Plan Area, transportation energy, and building energy usage.

Geology and Soils

The EIR will provide a summary of the existing geology, geologic hazards, soil types, and mineral resources present on or near the project site based on information contained in the Yuba City General Plan and Sutter County General Plan and other widely available industry sources. Potential effects resulting from seismic events (earthquakes) will be described. Proposed Newkom Ranch Master Plan policies will be discussed, as well, to mitigate any potential impacts.

Hazards and Hazardous Materials

The EIR will characterize the type and level of known hazardous material sites in the vicinity of the project site. ESA will search the California Department of Toxic Substances Control Site Mitigation and Brownfields Reuse Program Database, the Central Valley Regional Water Quality Control Board site cleanup list, and leaking underground storage tank list, among others. The EIR will describe existing and planned uses that could create hazards for existing or future workers and residents during construction and operation, including the use of pesticides and herbicides from past agricultural uses. The EIR will describe the types of hazardous materials that might be used by project construction and/or operation and how federal, state and local laws and regulations protect people and the environment from risks associated with those materials.

Hydrology and Water Quality

The project applicant has retained MHM, Inc. to perform a hydrologic/hydraulic assessment. ESA will incorporate the findings and address the impacts identified in MHM's assessment. It is anticipated that MHM's assessment will include an evaluation of proposed onsite detention basins and other proposed drainage infrastructure, improvements to Gilsizer Slough, and the use of pervious pavement onsite to minimize runoff generated by development of the Newkom Ranch Master Plan. It is anticipated the MHM assessment will provide a summary of existing groundwater recharge, surface flows, flooding, and associated water quality within the Newkom/Kells East area only. It is assumed MHM will discuss pre- and post-project discharge rates and volumes and water surface elevation data for local drainages for the 10- and 100-year flood events. ESA will coordinate with MHM as necessary to gather information required for the environmental analysis and clarify impacts. It is expected that ESA would convert MHM's hydrologic/hydraulic assessment into an EIR section. It is assumed that no technical studies that include information on hydrology, storm drainage, flooding, etc. will be provided for the SOI Expansion area. Therefore, ESA will incorporate general information from readily available sources into the EIR. It is not anticipated that ESA will develop new or supplemental information or data regarding the hydrologic/hydraulic assessment, drainage infrastructure, groundwater resources, discharge rates and volumes, or water quality.

ESA will augment the EIR section with a discussion about flooding, including the Newkom/Kells East area's compliance with Senate Bill 5 (SB 5) and performance measures that may be necessary for the SOI Expansion area.

Land Use Compatibility

Key issues to be addressed in the land use chapter include rural/urban interface, General Plan Amendment, SOI expansion, annexation, consistency with applicable adopted plans, zoning, and compatibility with adjacent land uses, including both active agricultural and rural residential uses. The land use chapter of the EIR will be presented as an informational chapter, without an impact discussion. As part of the land use analysis, the proposed Newkom Ranch Master Plan's consistency with local land use plans will be addressed.

When the proposed land use plan for the Newkom/Kells East area has been prepared and the development assumptions for the SOI Expansion area has been established by the project applicant and City, the ESA Team will review it to determine if an Urban Decay Analysis will be necessary. The exact amount and type of commercial uses proposed in the plan area will help determine if an Urban Decay Analysis is warranted (see **Additional Considerations**).

Noise

Noise monitoring will be performed at up to ten locations within the City and County to identify representative noise levels at various locations within and near the project site. One of the noise samples will be conducted for a 24-hour time period, while the other samples will be short term, taken over a 10- to 15-minute time period. Existing 24-hour noise levels will be calculated for the various roadway segments in the City and County using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic counts from the traffic study prepared for the proposed project. Roadway noise modeling will be based on traffic data provided by Fehr & Peers in the traffic report. The analysis of operational noise impacts will address future noise levels within the City based on an increase in traffic levels.

Population, Employment, and Housing

The EIR will describe the existing population, employment, and housing setting and recent trends for the County. The EIR will describe the potential "holding capacity," or ultimate population, under the proposed Newkom/Kells East area. The potential holding capacity for the SOI Expansion area will be established in consultation with the City and project applicant. The holding capacity will be compared to existing population data. Data gathered during the Financing Plan (Task 2.1.4) will be used to the maximum extent possible. ESA will calculate the potential growth in employment under the Newkom Ranch Master Plan and will describe this growth within the context of total employment growth in the region. A brief analysis of the potential effects on housing and the City's jobs/housing balance will also be included.

Public Services

The EIR will summarize existing public services (this includes police and fire protection, parks, schools,) in the City and will identify service providers. Information from the Yuba City Police Department, Yuba City Fire Department, Yuba City Unified School District, and Yuba City Parks and Recreation Department will be gathered. The EIR will address potential additional demands on public services resulting from the increase in population and employment. Based on population and employment projections for the Master Plan Area, and level of service standards for service providers, the EIR will estimate the increase in demand on service providers. The EIR will evaluate the extent to which the increased demand on these services could result in physical environmental effects, such as the construction of new facilities, to serve the proposed project.

Public Utilities

The EIR will summarize existing public utilities (this includes water, wastewater, solid waste, electricity and natural gas) in the City and will identify service providers. The EIR will address potential additional demands on public utilities resulting from the increase in population and employment, and the analysis will separate demands generated by the Newkom/Kells East area and development that could occur within the SOI Expansion area. The EIR analysis will qualitatively evaluate any future facilities needs based on the infrastructure master plans developed for the Newkom/Kells area.

Water

Tully & Young will accomplish the following tasks related to the water supply analysis.

Initial Approach Strategy Development

The purpose of this task is to discuss and define a desired approach to the preparation of the WSA elements. Primary points to discuss would be proposed project water use elements (water demands) and anticipated water supply portfolio elements (e.g. City surface water and groundwater sources, and use of recycled water, if applicable). This task will include review by the ESA Team of proposed project elements, initial estimates of proposed project-specific water demand, phone conversations, and meetings. A kickoff meeting with the City, as well as a second meeting with the development proponent, is anticipated. This task will also include necessary data collection and relevant research to build the foundational information for developing the WSA. Because of the timing of this WSA, this task will also include strategy discussions with the City to understand coordination and concurrence with the City's 2015 Urban Water Management Plan (UWMP) (due to the State by July 1, 2016), and to discuss the City's strategy for supply characterization following the 2015 water right curtailments.

Water Demand and Supply Characterization

The purpose of this task is to derive projected water demands for the Project and all existing and planned future uses served by the City (as required by Water Code §10910 et. seq). This task will also characterize the City water supplies anticipated to meet the proposed project-specific demands and those of existing customers, other planned projects, and anticipated City growth (as may be defined in the City's General Plan as applicable). This task will also involve close coordination with the City's efforts and materials associated with preparing the 2015 UWMP.

Demand elements will include: (1) defining and using unit demand factors to determine proposed project demands in concurrence with those being used for the 2015 UWMP; (2) using the 2010 and 2015 UWMPs and other City documents to characterize future demands to the year 2040; (3) adjusting potential future uses that are identified as varying from the 2010 UWMP estimates to be consistent with the 2015 UWMP; and (4) identifying potential changes from the most recent available City General Plan regarding timing of growth, habitat planning, and overall population.

For the proposed project, appropriate unit water demand factors for each type of dwelling unit and associated non-residential land uses will be developed based on information previously developed and published by the City and as recognized in the 2010 UWMP (or as otherwise being developed for use in the 2015 UWMP), and other City reports and readily available data. The unit water demand factors will then be applied to the proposed project-specific land uses to derive a proposed project-specific water demand estimate. Unique proposed project attributes, such as pre-defined residential landscaping, use of native landscaping, and other factors will be used to refine the land-use specific demand factors as appropriate to reflect unique proposed project attributes (e.g. median strips may be landscaped

with native plants that have little or no water demand after being established).

Additional planned growth as documented in applicable City General Plan documents will also be reviewed and updated as necessary to provide an estimate for additional future water demand beyond the proposed project and other defined planned projects.

The ESA Team will also work closely with the City to understand existing demands and forecast the future demand of existing City customers as should be underway for the 2015 UWMP.

The ESA Team will document the water supplies that are planned for meeting the projected demands based on characterizations recently completed for the 2010 UWMP (or being developed for the 2015 UWMP), as identified in other readily available City documents, and as necessarily needing modification/refinement based upon hydrologic conditions in 2014 and 2015. Close coordination with the City, the City's wholesale water supplier (e.g., North Yuba Water District and the California Department of Water Resources), and the development proponent will be required to assure supplies are correctly reflected in the WSA and to assure consistency with the 2015 UMWP. Primary supplies for the proposed project will be provided by the City as either potable or recycled water. Characterization of the reliability of these supplies will be as directed by the City.

In addition, the ESA Team will evaluate the current water used to meet existing demands on the proposed project-specific lands – if any – to understand the role existing supplies will have in the water supply portfolio.

The ESA Team will participate in all communications necessary to ensure the strategies to serve the proposed project are well understood and sufficiently documented. This will include two work sessions with City staff at their office.

Sufficiency Analysis

The ESA Team will assess the sufficiency of planned water supplies to serve the proposed project based on the information developed in the Initial Approach and Water Demand and Supply Characterization. The analysis of future conditions will include determinations of whether sufficient water exists for the proposed project for conditions at least 20 years into the future. Using representations of supplies from the Water Demand and Supply Characterization along with other pertinent data, the analysis will look at demand and supply conditions under normal, single dry and multiple dry year conditions. A key step of this task will be to assure consistency with the 2015 UWMP, which will likely be adopted prior to the WSA (the WSA may reference the 2015 UWMP as applicable).

The ESA Team will develop conclusions regarding the sufficiency of the supply as needed to satisfy the requirements of CWC §10910. These conclusions will be discussed with the City and the development proponent and further adjusted to assure reliability representations are consistent with the City's capabilities to serve.

Prepare SB 610 WSA Document

The ESA Team will prepare a compliant WSA based upon the substantive and procedural requirements of CWC §10910 et seq. that incorporates all relevant data, as well as the findings from the Sufficiency Analysis. The WSA will be written from the perspective of the City, which will be the water purveyor for the proposed project.

This task will include preparing an administrative draft WSA; a public draft WSA for public review, hearing and adoption; and a final adopted WSA reflecting any changes to the public draft WSA. Extensive interaction with the City and the development proponent is anticipated during

drafting to assure the WSA adequately represents the proposed project and strategies for supplying water, and that the WSA appropriately concurs with the 2015 UWMP.

Based on the findings of the WSA along with the infrastructure master plans, the EIR will analyze the existing and planned water supply. The existing water infrastructure, including the water treatment plant and conveyance and storage facilities that serve the Master Plan Area as well as the City will also be described and evaluated for capacity to serve future development based on information provided in the WSA.

Wastewater

Existing wastewater infrastructure within the vicinity of the project site will be described based on information presented in County master plan documents, if available. Existing and planned sewer conveyance infrastructure will be described based on information included in the wastewater master plan for the Newkom/Kells East area. ESA will present the current demand at the wastewater treatment plant, as well as the current and planned treatment capacity to determine the ability of the treatment plant to accept flows from the Plan area.

Solid Waste

For solid waste, the amount of waste that could be generated by the Newkom Ranch Master Plan land uses will be quantified and a discussion of existing landfills will be included.

Electric and Gas Service

ESA will contact the electric and gas services providers for information concerning existing and planned energy infrastructure and sources that would serve the project site. To the extent that demand factors are available from the service providers, the EIR will quantify estimated energy use for the Plan area. This information will be summarized in the Draft EIR and will be discussed with the service providers to determine whether there is sufficient supply and whether additional, offsite infrastructure would be required to serve the proposed project.

Transportation and Circulation

Fehr & Peers will accomplish the following tasks related to the transportation analysis.

Data Collection

The ESA Team will collect the following data:

- Existing AM (7 – 9) and PM (4 – 6) peak period traffic counts at the intersections listed in Task 3 (including vehicles, bicycles, and pedestrians) while schools are in session. At selected locations (i.e., key intersections along SR 99, Bogue Road, Walton Avenue, and Garden Highway), counts will also include heavy vehicle percentages
- Existing traffic controls, lane configurations, posted speed limits, crosswalks, and other relevant information at study intersections
- Existing traffic signal timings at signalized study intersections to be collected from the City of Yuba City and Caltrans
- Existing transit services (including schedules, bus stops, shelters/benches, and transit routes)
- Existing bicycle and pedestrian facilities
- Project site plan in AutoCAD format

Existing Conditions Analysis

The following 32 intersections will be studied under the weekday AM and PM peak hours:

1. SR 99/SR 20
2. SR 99/Sunsweet Boulevard
3. SR 99/Bridge Street
4. SR 99/Franklin Road
5. SR 99/Hunn Road
6. SR 99/Richland Road
7. SR 99/Lincoln Road
8. SR 99/Smith Road

9. SR 99/Bogue Road
10. SR 99/Stewart Road
11. SR 99/Reed Road
12. SR 99/Walnut Avenue
13. SR 99/Barry Road
14. Walton Avenue/Bridge Street
15. Walton Avenue/Franklin Road
16. Walton Avenue/Richland Road
17. Walton Avenue/Lincoln Road
18. Walton Avenue/Bogue Road
19. Walton Avenue/Stewart Road
20. Walton Avenue/Reed Road
21. Lincoln Road/Phillips Road
22. Lincoln Road/Railroad Avenue
23. Lincoln Road/Garden Highway
24. Bogue Road/Phillips Road
25. Bogue Road/Railroad Avenue
26. Bogue Road/Garden Highway
27. Phillips Road/Smith Road
28. Stewart Road/Wallace Drive
29. Stewart Road/Muir Road
30. Stewart Road/Railroad Avenue
31. Stewart Road/Garden Highway
32. Garden Highway/Shanghai Bend Road

The ESA Team will analyze all intersections along SR 99 using a SimTraffic micro-simulation model. SimTraffic accounts for the effects of vehicular queuing on adjacent intersection operations, traffic signal timing/progression plans, pedestrian/bicycle travel, and other influences that can affect delay and queuing. The model will be calibrated to existing conditions based on travel time data, peak hour volumes, and observed maximum queue lengths. The field-measured peak hour factors will be used. Data regarding truck percentages will be entered into the model based on field measurements. Per standard practice, an average of ten runs with different random seed values will be used to yield reported results.

In addition to intersections on SR 99, up to ten intersections located within Yuba City will also be included in the SimTraffic model. The chosen intersections will either be those located closest to SR 99 (whose operations could be affected by the highway) or those that are otherwise congested, in which micro-simulation is the preferred analysis tool. Synchro will be used to analyze the remaining intersections based on methods described in the *Highway Capacity Manual* (Transportation Research Board, 2010). At all study intersections, the average delay and level of service (LOS) will be reported for the AM and PM peak hours.

In addition, the peak hour warrant for consideration of a traffic signal (as specified in the 2014 CA MUTCD) will be evaluated at unsignalized study intersections.

As part of this task, the ESA Team will prepare the following exhibits:

- Existing roadway network and number of travel lanes
- AM and PM peak hour segment volumes
- Existing peak hour traffic volumes, lane configurations, and traffic controls at study intersections
- Existing bicycle facilities within and adjacent to the Master Plan area
- Existing pedestrian facilities within and adjacent to the Master Plan area
- Existing transit stops and routes within the study area

It should be noted that our initial planning support work consisted of documenting existing traffic conditions on SR 99 at Bogue Road and Stewart Road. Thus, we have counted at these locations and have completed analysis of them. The cost estimate has been modified accordingly.

Impact Significance Criteria
The ESA Team will develop significance criteria for purposes of determining project-specific and cumulatively considerable project impacts using policies from the Yuba City General Plan, Caltrans policies, and previously developed policies for other City of Yuba City projects.

Existing Plus Project Conditions
The traffic study would include both analysis of the Newkom/Kells East area land uses as well as the proposed SOI Expansion area. The tasks described below incorporate both scenarios.

The ESA Team will develop AM and PM peak hour forecasts using the City of Yuba City base year travel demand model and other methods for the following scenarios:

- Existing Plus Newkom/Kells East
- Existing Plus SOI Buildout

As part of the El Margarita Master Plan in early 2014, Fehr & Peers updated the model from a 2004-2005 base year to a 2014 base year. The updated model reflects land use and roadway network improvements associated with 2014 conditions. The model was validated to Caltrans standards within the El Margarita Master Plan study area.

The following steps will be taken to develop the existing plus project AM and PM peak hour forecasts for the each analysis scenario:

1. Estimate project's gross and external vehicle trip generation using the MXD model, which incorporates rates published in *Trip Generation* (Institute of Transportation Engineers, 2012). The MXD model was prepared by Fehr & Peers and several academic researchers to develop a state-of-the-art mixed-use trip generation model for the United States Environmental Protection Agency (EPA). It estimates the percentage of trips that remain internal to a project site as well as external transit, walk, and vehicle mode splits. The model is based on surveys of residents and employees in 240 mixed-use projects in six major metropolitan areas (Sacramento, Houston, Boston, Atlanta, Portland, and Seattle) in the United States. The MXD model considers a variety of project attributes including project density, mix of uses, surrounding land uses, expected household size, vehicle ownership, and transit service. The MXD model has been used extensively in EIRs throughout California.

2. Add proposed project land uses and roadways to the base year version of the Yuba City travel demand model. Compare model's estimates of new project trips with MXD estimates, and make adjustments, if necessary, such that City's model matches the MXD estimates.

3. Calculate the net change in traffic associated with the project by comparison the "with project" model from step 2 to the original base year model. Add the net change in traffic to the existing volumes to yield "Existing Plus Project" forecasts.

This approach offers three important advantages over traditional methods (i.e., project trips are simply layered on top of existing volumes):

- It more accurately predicts internal trip-making between complementary land uses.
- It allows for the redistribution of background travel patterns in response to new shopping and employment opportunities in the southern area of the City.
- It accounts for shifts in existing travel patterns in response to new roadway connections.

The ESA Team will re-analyze all study intersections under "Existing Plus Newkom Ranch" and "Existing Plus SOI Buildout" conditions. The analysis will include up to six new intersections within or adjacent to the Master Plan area (locations to be

determined once Master Plan circulation network is developed). Similar to existing conditions, average delay and LOS will be reported for all intersections. The peak hour warrant for consideration of a traffic signal (as specified in the 2014 CA MUTCD) will be evaluated at unsignalized study intersections.

The ESA Team will analyze project impacts on the roadway, bicycle, pedestrian, and transit systems using the significance criteria. For significant impacts, the ESA Team will propose mitigation measures to improve the level of significance. Each mitigation measure will identify the specific action necessary, responsibility for implementation, and the expected level of significance after mitigation.

As part of this task, the ESA Team will prepare the following exhibits:

- Proposed project roadway network and number of travel lanes
- Net change in AM and PM peak hour traffic volumes resulting from each scenario (i.e., a proxy for a trip distribution exhibit)
- Existing Plus Project AM and PM peak hour segment volumes (both scenarios)
- Existing Plus Project peak hour traffic volumes, lane configurations, and traffic controls at study intersections (both scenarios)

Cumulative Conditions

The ESA Team will use the City of Yuba City 2030 travel demand model to develop AM and PM peak hour traffic forecasts for the following scenarios:

- No Project – Assumes no new development within the Master Plan area
- Newkom Ranch – Assumes the proposed land uses and roadway network associated with Newkom Ranch
- SOI Buildout – Assumes the proposed land uses and roadway network associated with buildout of the SOI

The ESA Team will confirm with City staff which roadway network improvements (i.e., new roadways, widening, intersection improvements, etc.) should be assumed within the study area.

The ESA Team will re-analyze all study intersections under each scenario. The analysis will include up to six new intersections within or adjacent to the Master Plan area (locations to be determined once Master Plan circulation network is developed). The average delay and LOS will be reported for all intersections. The peak hour warrant for consideration of a traffic signal (as specified in the 2014 CA MUTCD) will be evaluated at unsignalized study intersections for each scenario.

The ESA Team will analyze project impacts on the roadway, bicycle, pedestrian, and transit systems using the significance criteria for each scenario. For cumulatively considerable impacts, the ESA Team will propose mitigation measures to improve the level of significance. Each mitigation measure will identify the specific action necessary, responsibility for implementation, and level of significance after mitigation. A discussion of the project's consistency with relevant City of Yuba City policies relating to circulation will be provided.

Internal Circulation

The ESA Team will estimate the average daily traffic (ADT) on internal roadways for purposes of helping to size infrastructure. They will also summarize and depict intersection locations and operations under near-term and cumulative conditions based on the "plus project" analysis results for each scenario. An exhibit will be prepared to illustrate the proposed internal circulation system, and any further recommendations to enhance it.

VMT Estimates
The ESA Team will estimate the Newkom Ranch and SOI buildout average daily Vehicle Miles of Travel (VMT) under both existing and cumulative (2030) conditions. The ESA Team will coordinate with the project team regarding the most appropriate methodology to use to develop these estimates. The VMT estimates can be used as input in the GHG analysis.

Phasing Analysis
The purpose of a phasing analysis is to determine when certain on-site or off-site improvements are triggered. This may include the timing of off-site mitigation measure responsibility, the timing of a new roadway connection, and evaluation of internal traffic levels for an interim condition. As part of the advanced planning work, a limited amount of phasing analysis was completed to understand how much development could occur prior to improvements being required at SR 99/Bogue Road intersection. The ESA Team will document those conclusions in the study.

This task also consists of a limited amount of new phasing analysis. The ESA Team will review operations at all study intersections bounded by Walton Avenue on the west, Garden Highway on the east, Bogue Road on the north, and Stewart Road on the south. The ESA Team will identify which of the 12 intersections within this geographic area should be studied based on their operations under various existing and cumulative scenarios. In addition, the ESA Team will identify and study those off-site intersections, which were identified as significant impacts (in which a certain percentage of development causes the impact versus an exacerbation of an existing deficiency).

The ESA Team will then work with the project team to analyze what improvements would be triggered during the first phase of project development. The specific land use and roadway network assumptions associated with this phase will be determined through coordination with the project team. The ESA Team will also collaborate with the project team regarding a potential year associated with buildout of the first phase of development and then make needed adjustments to background traffic forecasts to represent the particular year. The identified study intersections will then be analyzed for this phase.

As part of this task, the ESA Team will prepare the following exhibits:

- Recommended roadway connections and traffic controls/lane configurations at study intersections for initial phase of development
- Timing for off-site mitigation measure implementation

Alternatives Analysis
The ESA Team will prepare a qualitative evaluation of up to two (2) project alternatives. This will consist of a trip generation comparison and an assessment of the relative change in impacts that may be associated with each alternative.

Task 4.3: Screencheck EIR

The ESA Team will incorporate City staff comments on the Administrative Draft EIR based on a single set of consolidated comments and submit a Screencheck Draft EIR to the City. We expect that the comments and outcomes from the City's review will direct revisions to the ADEIR. We have further assumed that no new technical studies will be prepared and that technical studies will not need to be substantially revised based on changes to the project or pre-approved assumptions.

Task 4.4: Draft EIR

ESA will incorporate City staff comments on the Screencheck Draft EIR based on a single set of consolidated comments, and submit a final Public Draft EIR to the City for distribution for a 45-day

public comment period. We expect that the comments will direct revisions to the Screencheck DEIR, and we have assumed that the comments will be primarily editorial in nature.

ESA will file 15 copies of the Summary and 15 CDs of the entire document (as preferred by the State Clearinghouse) and an NOC with the State Clearinghouse.

We assume that City staff will prepare a Notice of Availability (NOA) to accompany the Draft EIR. We also assume the City will distribute the EIR to interested stakeholders, contiguous property owners, and/or publish the NOA in a newspaper of general circulation in the area affected by the proposed project.

Task 4.5: Administrative Final EIR

The Final EIR will be prepared in conformance with CEQA Guidelines section 15132. The administrative final EIR (AFEIR) will include a summary of text changes to the Draft EIR, list of commenters, responses to comments received on the Draft EIR, and a Mitigation Monitoring Plan (MMP).

Written comments received during the 45-day public review of the DEIR will be responded to by the EIR team and responses to all comments included in the AFEIR. Master Responses will be developed for comments that address major, repetitive comments on the document. Master responses aid in minimizing repetitive responses and help to streamline the FEIR.

The MMP will only identify additional mitigation measures identified in the DEIR, and will not include a recitation of Master Plan policies used as part of the "self mitigating" aspect of the project. The MMP will identify mitigation implementation responsibility, implementation timing, and reporting procedures.

It is assumed that the City will provide the ESA with one consolidated set of comments on the AFEIR. Comments will then be incorporated into the Final EIR.

Task 4.6: Final EIR

Following receipt of comments from the City on the AFEIR, ESA will incorporate appropriate revisions and prepare a Final EIR, NOC and NOA.

Task 4.7: Findings of Fact and Statement of Overriding Considerations

ESA will prepare the Findings of Fact and Statement of Overriding Considerations for the proposed project, if necessary. These documents will follow Yuba City's typical format. The Statement of Overriding Considerations will be based on information contained in the Administrative Record for the EIR, unless otherwise supplemented by relevant social, legal, economic, financial, or other technical information provided by the applicant or City.

Task 4 – Deliverables

- Draft NOP (electronic only);
- Final INOP (2 hardcopy + electronic; 15 hardcopy for delivery to State Clearinghouse);
- Administrative Draft EIR (electronic only);
- Screencheck Draft EIR (2 hardcopy + electronic);
- Draft EIR (5 hardcopy + electronic; 15 hardcopy for delivery to State Clearinghouse);
- Stand-alone memorandum to support PSR/PR (electronic only);
- Administrative Final EIR (electronic only);
- Final EIR for publication (up to 5 bound hardcopy + one CD attached to the inside back cover of each volume);
- Findings of Fact and Statement of Overriding Considerations (5 hardcopy + electronic); and
- NOC(s).

Task 5: SOI Changes and Annexation

In order to extend the Sphere of Influence (SOI) boundary south to Stewart Road, and to annex the Newkom Ranch Master Plan area, the ESA Team, as required by LAFCO, will: (1) prepare a Municipal Service Review (MSR) and SOI Update; (2) assist with the SOI amendment and annexation processes; (3) prepare a Plan for Services to support the annexation process.

The MSR and SOI Update will be used by LAFCO as a tool to help identify and address municipal service issues in the context of amending the City's SOI. The area to be covered by the MSR/SOI Update includes the City's proposed Spheres of Influence extending south to Stewart Road. The City's currently adopted MSR needs to be updated to include more up to date information, the full SOI contemplated by Yuba City, and any new legislative requirements. As a result, the existing MSR/SOI Update will need to be updated.

Planning assistance for the City's SOI amendment and the annexation will include application preparation and processing. To support the annexation process, LAFCO requires that a Plan for Services be prepared. The Plan for Services will include information documenting that the range and level of services currently available within the Newkom Ranch Master Plan area can be maintained by the City.

The MSR/SOI Update and Plan for Services will be based upon existing information, plans, studies, and environmental analysis generated as part of the Newkom Ranch Master Plan and EIR. All work will be prepared in accordance with Sections 56430 and 56653 of the California Government Code, the Municipal Service Review Guidelines prepared by the State Office of Planning and Research, and Sutter LAFCO Policies and Procedures.

Task 5.1: MSR/SOI Update and Plan for Services

Task 5.1.1: Prepare Administrative Draft MSR and SOI Update

ESA will prepare an Administrative Draft MSR/SOI Update for review by the City and Sutter LAFCO staff. Based on State regulations and the existing MSR, it is anticipated that the MSR/SOI Update will include the following sections:

- **Introduction** identifying the purpose of the MSR/SOI Update, a summary of MSR and SOI requirements, and an overview of the document organization.
- **Growth and Population** presents information on the present and projected service area population and describes land uses and significant growth areas.
- **Infrastructure** analyzes the sufficiency of services to serve present and projected needs of the area based on current and projected population growth.
- **Financing Constraints and Opportunities** evaluates the finance plans, joint finance projects and revenue sources.
- **Cost Avoidance Opportunities** examines current practices, overlapping services, the transfer of costs to the public and inter-agency cooperation for the prospect of cost avoidance.
- **Rate Restructuring** considers the current rate structure, including an analysis of frequency of rate updates.
- **Opportunities for Shared Facilities** examines currently shared resources, facilities, personnel, and systems, as well as opportunities for expanded sharing.
- **Government Structure Options** reviews alternatives, such as formation and reorganization of new agencies and private sector opportunities. It also reviews previous

restructuring efforts, as well as opportunities for and obstacles for restructuring.

- **Evaluation of Management Efficiencies** reviews the current management structure, communication, and efficiency.
- **Local Accountability and Governance** analyzes the governing body, selection process, participation levels and public access and interest.
- **Sphere of Influence Recommendations** reviews the SOI boundaries to determine whether any changes to the boundary should be made.
- **Determinations** provide determinations with respect to the analysis factors described above in this section.

Task 5.1.2: Prepare Draft MSR and SOI Update

The ESA Team will prepare a Draft MSR/SOI Update for review by the City and Sutter LAFCO Commission based upon comments received on the Administrative Draft document.

Task 5.1.3: Prepare Final MSR and SOI Update

The ESA Team will prepare a Final MSR/SOI Update for review by the City and Sutter LAFCO Commission based upon comments received on the Draft document.

Task 5.2: SOI Expansion and Annexation Planning Assistance

The ESA Team will assist in the SOI Amendment and Newkom Ranch annexation processes. Assistance includes preparing the application requesting the SOI amendment and annexation to Yuba City, as well as the documents that the application requires. This scope of work *does not* assume the ESA Team will prepare the legal description, generate any mailing labels, do any mailings, prepare a map of the project, or pay any fees.

Task 5.3: Plan for Services

Task 5.3.1: Administrative Draft Plan for Services

The ESA Team will prepare an Administrative Draft Plan for Services for review by the City and Sutter LAFCO staff. It is anticipated that the Plan for Services will provide information documenting that the range and level of services currently available in the Newkom Ranch Master Plan area will be maintained by Yuba City. The Plan for Services will cover:

- Water
- Wastewater
- Storm Drainage
- Dry Utilities
- Streets
- Parks and Recreation
- Police
- Fire

It is anticipated that information for the Plan for Services will be from the Newkom Ranch Master Plan, Infrastructure Master Plans, and EIR analysis.

Task 5.3.2: Draft Plan for Services

The ESA Team will prepare a Draft Plan for Services for review by the Sutter LAFCO Commission based upon comments received on the Administrative Draft document.

Task 5.3.3: Final Plan for Services

The ESA Team will prepare a Final Plan for Services based upon direction received from the Sutter LAFCO Commission's review of the Draft document.

Task 5 – Deliverables

- Administrative Draft MSR/SOI Update (electronic copy)

- Draft MSR/SOI Update (electronic copy)
- Final MSR/SOI Update (electronic copy and 4 hard copies)
- Administrative Draft Plan for Services (electronic copy)
- Draft Plan for Services (electronic copy)
- Final Plan for Services (electronic copy and 4 hard copies)

Task 6: Project Management and Meetings

Task 6.1: Landowner Outreach

The ESA Team will prepare materials, attend, and facilitate up to three meetings with the landowners to review and obtain input on the supporting technical studies and Master Plan.

Task 6.2: Communication with City Staff

The ESA Team will hold regular meetings and calls with City staff throughout the planning process. The ESA Team will coordinate with the City to establish regularly scheduled project management calls. It is anticipated that these calls will occur on a bi weekly basis lasting one-half hour throughout the planning process. The primary intent of these calls will be for staff and the ESA Team to regularly and efficiently check in on project progress and schedule. The calls also provide an opportunity to discuss issues that have arisen and share ideas.

The ESA Team will hold working sessions with City staff (and other relevant participants) at key milestones of the Master Plan and EIR process to review work products and collaboratively work through issues, options, and solutions. Subject to City staff concurrence, this scope of work has identified the following working sessions:

- Kick off Meeting (1 meeting);
- Review draft of Mobility Plan (3 meetings/conference calls)
- Review draft of development standards and design guidelines (2 meetings/conference calls);
- Review draft of financing plans (3 meetings/conference calls)
- Review Administrative Draft Master Plan (1 meeting/conference call)
- EIR Scoping Meeting (1 meeting);
- Coordination and review of EIR (4 meetings/conference calls).
- Pre-application meeting with Yuba City, Sutter County, and Sutter LAFCO to discuss the SOI amendment; annexation of Newkom Ranch Master Plan area; the overall structure and approach to the MSR/SOI Update and Plan for Services. (1 meeting)
- Review comments on the Administrative Draft MSR/SOI Plan and Plan for Services. (1 meeting/conference call)
- Review the submittal for completeness Application meeting with City and Sutter LAFCO. (1 meeting)

Task 6.3: Public Hearings

The ESA Team will prepare materials for, attend, and make presentations at one Planning Commission hearing and up to two City Council hearings. The budget assumes that the ESA Team Project Manager will attend all three hearings, and the EIR lead, traffic lead, and WSA lead will attend one City Council hearing each. In addition, the ESA Team will attend up to three Sutter LAFCO Commission hearings on approval of the MSR/SOI Update and Plan for Services.

Task 6 – Deliverables

- Facilitate up to three (3) meetings with landowners and prepare meeting notes
- Bi weekly calls lasting one-half hour each with City staff

Scope of Work

- Attend/participate up to twenty-two (22) meetings/conference calls with City staff and prepare meeting notes
- Facilitate one (1) Scoping Meeting
- Attend up to three (3) public hearings
- Attend up to two LAFCO Commission hearings to approve the MSR/SOI Update, approve annexation of Newkom Ranch Master Plan into the City, and potentially a Protest Hearing for the Inhabited City Annexation which will be held in the event that a protest to annexation occurs.

Additional Considerations

When the proposed land use plan for the Newkom Ranch Master Plan has been finalized with commercial square footage determined, the ESA Team will review it to determine if an Urban Decay Analysis will be necessary as part of this project. The exact amount and type of commercial uses proposed in the plan area will help determine if an Urban Decay Analysis is warranted.

Exhibit B
Professional Services Agreement
Insurance Requirements

I. **Workers' Compensation Coverage**. Consultant shall maintain Workers' Compensation Insurance for his/her employees in accordance with the laws of the State of California and Employers Liability Insurance in an amount not less than one million dollars ($1,000,000) per accident for bodily injury and/or disease. In addition, Consultant shall require each subcontractor to similarly maintain Workers' Compensation Insurance in accordance with the laws of the State of California and Employers Liability Insurance in an amount not less than one million dollars ($1,000,000) per accident for bodily injury and/or disease for all of the subcontractor's employees. Any notice of cancellation or non-renewal of all Workers' Compensation policies must be received by the City at least thirty (30) days prior to such change. The insurer shall agree to waive all rights of subrogation against City, its officers, agents, employees and volunteers for losses arising from work performed by Consultant for City. This provision shall not apply if Consultant has no employees performing work under this Agreement. If the Consultant has no employees for the purposes of this Agreement, Consultant shall sign the "Certificate of Exemption from Workers' Compensation Insurance" which is attached hereto as Exhibit C.

II. **General Liability Coverage**. Consultant shall maintain commercial general liability insurance in an amount not less than one million dollars ($1,000,000) per occurrence for bodily injury, personal injury and property damage. If a commercial general liability insurance form or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit.

III. **Automobile Liability Coverage**. Consultant shall maintain automobile liability insurance covering bodily injury and property damage for all activities of the Consultant arising out of or in connection with the work to be performed under this Agreement, including coverage for owned, hired and non-owned vehicles, in an amount of not less than one million dollars ($1,000,000) combined single limit for each occurrence.

IV. **Professional Liability Coverage**. Consultant shall maintain professional errors and omissions liability insurance for protection against claims alleging negligent acts, errors or omissions which may arise from Consultant's operations under this Agreement, whether such operations are by the Consultant or by its employees, subcontractors, or sub-consultants. The amount of this insurance shall not be less

than one million dollars ($1,000,000) on a claims-made annual aggregate basis, or a combined single-limit per occurrence basis.

V. **Endorsements**. Each general liability and automobile liability insurance policy shall be with insurers possessing a current A.M. Best's rating of no less than A:VII and shall be endorsed with the following specific language or equivalent:

A. The City, its elected or appointed officers, officials, employees, agents and volunteers are to be covered as additional insured with respect to liability arising out of work performed by or on behalf of the Consultant, including materials, parts or equipment furnished in connection with such work or operations. Conforms to ISO CG 2009 and CG 2037 10 01. Both are required.

B. This policy shall be considered primary insurance as respects to the City, its elected or appointed officers, officials, employees, agents and volunteers. Any insurance maintained by the City, including any self-insured retention the City may have, shall be considered excess insurance only and shall not contribute with it.

C. This insurance shall act for each insured and additional insured as though a separate policy had been written for each, except with respect to the limits of liability of the insuring company.

D. The insurer waives all rights of subrogation against the City, its elected or appointed officers, officials, employees or agents.

E. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its elected or appointed officers, officials, employees, agents or volunteers.

F. The insurance provided by this policy shall not be suspended, voided, canceled, or reduced in coverage except after thirty (30) days written notice has been received by the City.

VI. **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions must be declared to and approved by the City. At the City's option, Consultant shall demonstrate financial capability for payment of such deductibles or self-insured retention's.

VII. **Certificates of Insurance**. Consultant shall provide certificates of insurance with original endorsements to City, as evidence of the insurance coverage required herein. Certificates of such insurance shall be filed with the City on or before commencement of performance of this agreement. Current certification of insurance shall be kept on file with the City at all times during the term of this Agreement.

Exhibit C
Certificate of Exemption From
Workers' Compensation Insurance

I hereby certify that in the performance of the work for which the Agreement is entered into, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of the State of California.

Executed on this _____day of _____, 200__, at Yuba City, California.

By:_____ Title:_____
]

[Add Consultant's name and title]

Attachment 3:

Funding Agreement with the Developer

FUNDING AGREEMENT FOR STAFF COSTS AND

CONSULTING CONTRACT FOR PREPARATION

OF THE BOGUE AND STEWART ROADS MASTER PLAN, EXPANSION OF THE CITY'S SPHERE OF INFLUENCE, ANNEXATION, AND ENVIRONMENTAL IMPACT REPORT

THIS AGREEMENT is made and entered into this ____ day of _____. 2016, by and between the City of Yuba City, a municipal corporation ("CITY") and Newkom Ranch LLC and Bains Revocable Family Trust 2005 ("DEVELOPER").

W I T N E S S E T H

WHEREAS, DEVELOPER has an interest in certain real property located in Sutter County and, in conjunction with the preparation of the proposed Bogue and Stewart Roads Master Plan, expansion of the City's Sphere of Influence (SOI), Annexation, and Environmental Impact Report (EIR) (collectively referred to as the "Project Entitlements"); and

WHEREAS, the DEVELOPER has requested that the CITY to enter into a contract with professional consultants to prepare the Project Entitlements; and

WHEREAS, in response to that request the CITY, subject to DEVELOPER funding the costs as set forth below, wishes to enter into a consulting contract for such work with ESA (Consultants), as identified in the Consulting Contract and Scope of Work and set forth in **Exhibit A ("Consultant Contract")**, which is attached hereto and incorporated herein by reference, in accordance with the terms thereof; and

WHEREAS, the DEVELOPER shall be responsible for funding the Developer Costs set forth in **Exhibit B ("Developer Costs")** relating to the estimated costs for the preparation of the Project Entitlements; and

WHEREAS, after assessing the DEVELOPER'S initial request, City staff enlarged the proposed SOI Expansion area to include all of the property between Bogue Road and Stewart Road, east of Walton Avenue east to the Feather River, an area comprised of approximately 752 acres; and

WHEREAS, the CITY shall be responsible for the "City Cost" set forth in **Exhibit B ("City Cost")** relating to the preparation of the Project Entitlements given that the Master Plan, expansion of the City's Sphere of Influence, Annexation, and environmental document covers a land area greater than the area controlled by said DEVELOPER; and

WHEREAS, the DEVELOPER shall be responsible for funding CITY staff time for staff time related to the preparation of the Project Entitlements, inclusive of direct and indirect costs; and

WHEREAS, DEVELOPER has been provided the opportunity to review and comment on the proposed Developer Costs and City Costs for the proposed Consulting Contract between the ESA and CITY for preparation of the Project Entitlements; and

WHEREAS, to facilitate the planning and environmental review of the proposed Master Plan while maintaining the professional independence of Consultants, except for the City Costs, DEVELOPER desires to reimburse CITY for all reasonable costs incurred by CITY in connection with the Consulting Contract;

NOW, THEREFORE, CITY and DEVELOPER agree as follows:

1. DEVELOPER shall reimburse City for the "Developer Costs". CITY shall provide DEVELOPER with invoices for the work performed by Consultants ("Consultant Invoices") which invoices shall show tasks performed, persons performing the work, hourly rates, total billing charge and remaining balance of contract. DEVELOPER shall address to CITY any questions regarding any Consultant Invoice as soon as possible but in no event more than ten (10) days after receipt. CITY shall investigate with Consultant any issues raised by DEVELOPER and adjustments shall be made by City where appropriate.

2. DEVELOPER shall reimburse CITY for CITY staff time related to the preparation of the Master Plan, expansion of the SOI, Annexation, and environmental documents, inclusive of direct and indirect costs, for CITY staff time related to the DEVELOPER'S project as identified in **Exhibit C** of this agreement.

3. CITY shall provide DEVELOPER with invoices for the work performed by CITY staff ("City Invoices") which invoices shall show tasks performed, persons performing the work, hourly rates, and total billing charge. DEVELOPER shall address to CITY any questions regarding any City Invoice as soon as possible but in no event more than ten (10) days after receipt. CITY shall investigate any issues raised by DEVELOPER and adjustments shall be made by City where appropriate.

4. DEVELOPER shall reimburse the CITY at the full cost for CITY staff time per **Exhibit D (Full Cost Recovery Hourly Rates)** which may be amended from time to time, for CITY staff time related to the DEVELOPER'S project. For CITY staff time dedicated for those areas located outside of the DEVELOPER'S project area, CITY staff time would be reimbursed to the CITY as vacant property in the area is developed.

5. CITY shall submit monthly Consultant Invoices and City Invoices to DEVELOPER, at the address specified in Paragraph 20 herein. DEVELOPER shall provide payment to CITY within fifteen (15) days of the date on the invoice. If DEVELOPER fails to provide timely payments in full, CITY may, after ten (10) days written notice to DEVELOPER, direct CITY staff to stop work under and/or terminate the Consulting Contract. In addition, CITY may cease further processing of the Master Plan, SOI expansion, Annexation, environmental documents and other entitlements for the property.

6. DEVELOPER shall make a payment of twenty percent (20%) of the City approved Consulting Contract costs after execution of the contracts but prior to a Notice to Proceed being issued to the Consultant by the CITY.

7. DEVELOPER will maintain a balance with the City of 20 percent of the amount remaining in the Consulting Contract. In no event shall the amount of the deposit fall below ten percent (10%) of the Consulting contract amount, including any increases as provided in Section 10 below.

8. Prior to the Notice to Proceed being issued to the Consultant, DEVELOPER shall provide to CITY a standby letter of credit of an amount equal to fifty percent (50%) of the total amount of the Developer Costs in a form approved by the CITY. The letter of credit shall be valid for the entire length of the Consulting Contract. CITY may call the letter of credit in the event DEVELOPER fails to pay Consultant Invoices. Upon completion and/or termination of the Consulting Contract and payment in full of all outstanding Consultant Invoices, CITY shall return the irrevocable letter of credit to DEVELOPER.

9. In the event CITY and Consultant propose to amend the Scope of Work, resulting in an increase in the total contract price of the Consulting Contract, CITY shall provide DEVELOPER with a Revised Scope of Work and associated cost estimate for DEVELOPER to review and approve. DEVELOPER's payment obligation under this Agreement shall be modified in accordance with any revised Scope of Work and associated cost estimate that DEVELOPER has approved in writing.

10. The parties hereto understand that all budget estimates are preliminary in nature and that from time to time, the budget may be revised. The parties agree that the budget amount may be revised over time and such revisions may be incorporated in addenda to the approved Consulting Contract(s).

11. CITY shall provide DEVELOPER with one copy of draft environmental documents prior to release for public review and prior to preparation of the

final environmental documents. DEVELOPER shall have the right to review the environmental documents and to address to the CITY written comments regarding the technical or legal adequacy of the documents. CITY will review DEVELOPER comments and, if appropriate, incorporate those comments into the environmental documents prior to release to the public and prior to preparation of the final environmental documents. DEVELOPER acknowledges that the final decision regarding the contents of the environmental documents shall rest with the CITY in its exercise of its independent judgment.

12. The DEVELOPER and the CITY acknowledge that a reimbursement agreement shall be included as part of the Master Plan. Said agreement shall specify the amount and timing of reimbursements that will be made to the DEVELOPER and/or CITY as vacant property in the Master Plan area develops with urban uses.

13. The DEVELOPER understands and agrees that nothing herein is intended to limit the discretion of the CITY approving the Master Plan or any of the Project Entitlements or to require that the CITY will incorporate proposed land use designations beneficial to or desired by the DEVELOPER. Further, the DEVELOPER understands that the work to be performed by any consultant on the Master Plan, SOI Expansion, Annexation, Environmental Impact Report, and pursuant to any agreements entered into with consultants by the CITY, will be done in accordance with CITY direction, that the CITY will ultimately determine the content, analysis, and conclusions of all the documents, including but not limited to the Master Plan, SOI Expansion, Environmental Impact Report related documents or plans, and that there is no assurance to the DEVELOPER that any final recommendation or approval made in connection with the processing of the Master Plan, if approved by the CITY, will benefit the DEVELOPERS. Nothing in the Agreement shall in any way commit or obligate the CITY to approve any master plan, any of the Project Entitlements, or any particular development project or application. The CITY'S employees, staff and consultants shall work directly for the CITY and be responsible only to the CITY. Any documents prepared or complied by CITY staff or consultants under contract with the CITY relating to the Master Plan, SOI Expansion, and/or Environmental Impact Report shall be and remain the property of the CITY.

14. DEVELOPER agrees to defend, indemnify and hold harmless CITY, its officers, agents and employees, from any and all claims, damages, liability or actions arising out of or connected with this Agreement or the contracts with the Consultants for the work funded by this Agreement, except to the extent such liabilities are caused by actions of the City.

15. Upon completion, including any termination, of the Consulting Contract and payment to Consultants of all amounts to be paid there under, any remaining monies owed CITY by DEVELOPER shall be paid immediately upon demand by CITY.

16. This Agreement is not intended (and shall not be deemed) to create any relationship of partnership, joint venture or agency between DEVELOPER and CITY.

17. This Agreement is made and entered into for the sole protection and benefit of DEVELOPER and CITY and their successors and assigns. No other person, including without limitation, the Consultants, shall have any third party beneficiary rights, express or implied, by virtue of DEVELOPER and CITY entering into this Agreement.

18. This Agreement shall be binding upon the heirs, successors, and executors, administrators and assigns of the respective parties hereto.

19. All notices, requests for payment and other communications to be given to any party hereunder shall be in writing and shall be personally delivered or sent by certified mail, return receipt requested, or sent by telecopy, with written or oral confirmation of receipt thereof, addressed or electronically mailed (email) to the respective parties as follows:

CITY OF YUBA CITY, a Municipal Corporation	DEVELOPER(S), AGENT FOR DEVELOPER(S)
City of Yuba City Attn: Arnoldo Rodriguez Development Services Director 1201 Civic Center Blvd. Yuba City, California 95993 Email: arodriguez@yubacity.net	Sean Minard, PE, PLS MHM Incorporated 1204 E Street, PO Box B Marysville, CA 95901-0053 Email: sminard@mhm-inc.com

or to other such address as either party may from time to time designate by notice to the other given in accordance with this Paragraph. Notice shall be complete upon receipt, if personally delivered; within three (3) days, if mailed; or upon written or oral confirmation of receipt, if by email.

20. If any party brings an action to enforce or interpret any of the terms or conditions hereof, the prevailing party shall be entitled to recover its reasonable attorney's fees.

21. This Agreement may be signed in identical counterparts.

IN WITNESS WHEREOF, the City of Yuba City, a municipal corporation, has authorized the execution of this Agreement in duplicate by its City Manager and attested to by its

City Clerk under the authority of the City Council of the City of Yuba City on the ____ day of _____, 2016 and DEVELOPER have caused this Agreement to be executed.

CITY OF YUBA CITY, a municipal Corporation.

BY:_____

ATTEST:

BY:_____
Terrel Locke, City Clerk

DEVELOPER, AGENT FOR DEVELOPER(S)

BY:_____

Newkom Ranch LLC

BY:_____

Bains Revocable Family Trust 2005

Scope of Work

The following scope of work is for ESA to support the City of Yuba City in preparing the Newkom Ranch Master Plan and EIR, and to assist with the Sphere of Influence (SOI) changes and annexation. We understand the entire Newkom Ranch Master Plan area is generally bounded by Bogue Road to the north, Levee Road to the east, Stewart Road to the south, and Walton Avenue to the west. The area located along Highway 99 (east and west) will be referred to as the Newkom/Kells East area. More detailed information, technical studies, and planning has been done for the Newkom/Kells East area; therefore, the Master Plan and EIR will address this area at a greater level of detail. No infrastructure studies or any other technical studies have been completed, and less information is available, for the remaining Plan area, and only half of this area has proposed land use changes. As such, the Master Plan will be more conceptual for this area, and the environmental analysis will be less detailed. This area will be referred to as the SOI Expansion area.

Task 1: Project Start Up

Task 1.1: Obtain Data

The ESA Team will identify and compile pertinent studies, land use plans, traffic plans, EIRs, GIS data, and other data that will be necessary to inform the Master Plan and EIR preparation process. It is anticipated that the City staff can either directly provide the reports, or identify appropriate resources or contacts where this information can be obtained. The ESA Team will identify any potential data gaps and work with the City to address those gaps.

The ESA Team will also create a geospatial database in ArcGIS 10 to store, analyze, and map all data provided by the City and data readily available and obtained by ESA to prepare the Master Plan and EIR. The GIS data base will be added to throughout the process to allow for efficient storage, analysis and mapping of data. Additionally, ESA will provide the City with all map documents, graphics, and the associated database for its continued use and future updating upon completion of the project, and will coordinate with the City to ensure that all data and mapping are easily transferable and comply with City standards.

Task 1.2: Attend Kick-Off Meeting

At the outset of the project, the ESA Team and City staff will hold a kick-off meeting in order to: 1) discuss the City's objectives for the work program; 2) review the scope of work and schedule to assure a common understanding of project deliverables, methodologies, expected outcomes, and responsibilities; 3) review protocols for communications with City staff and the applicant/ landowners, regular management/progress meetings/calls, staff working sessions, and review of work products; 4) Review the proposed land use plan as provided by the City; 5) identify and begin to prioritize the major issues to be addressed as part of the planning effort; and 6) identify and compile pertinent studies, plans, environmental documents, GIS data and other available information relevant to the project.

As part of this kick-off working session, the ESA Team and City staff will conduct a field tour of the Master Plan site to facilitate an understanding of the area's

unique character, relationship of the land use plan to the property, a common discussion of important planning issues, and enable all participants to benefit from City staff's insights and perspectives. At the City's discretion, the project applicant may participate in the field tour.

Task 1 – Deliverables

- List of data needs
- Geospatial database in ArcGIS 10
- Kick-Off Meeting notes
- Land Use Plan (from City)

Task 2: Foundation Documents

Task 2.1: Prepare Supporting Plans and Components

Based on the land use plan and Mobility Plan provided by the City, the ESA Team will prepare a series of technical plans and components to support the Master Plan. As stated in the RFP, the applicant will be providing infrastructure master plans for the Newkom/Kells East area. It is assumed these master plans will address water, wastewater, storm drain, and other public utilities such as electrical, natural gas, and telecommunications and will be prepared concurrent with this task. It is anticipated that the utility master plans will include a phasing program (if applicable). It is assumed that there will not be any infrastructure master plans prepared for the SOI Expansion Area, and the Master Plan and will not include this information. The ESA Team will meet with City staff prior to beginning this task to ensure there is a common understanding of the City's objectives for each of the components.

Task 2.1.1: Review Mobility Plan

The ESA Team will review the Mobility Plan previously prepared for the Newkom/Kells East area to ensure it will support the proposed land use plan. The ESA Team will make any recommendations for changes, if necessary. The ESA Team will identify the existing roadways in the SOI Expansion area, but will not define the internal roadway system.

Task 2.1.2: Prepare Development Standards

The ESA Team will identify and prepare appropriate zoning and development standards for the City's use in implementing the Master Plan. These standards will be tailored to the mix of land uses that are anticipated to include housing, retail and office for the Plan area. These zoning and development standards will address elements such as permitted uses, development density/intensity, building setbacks and height limitations, and parking requirements. It is assumed that the City's existing Zoning Ordinance will effectively function as a base for these standards, and the ESA Team will work with staff to identify what exceptions and deviations may be appropriate for the Master Plan

Task 2.1.3: Prepare Design Guidelines

Design Guidelines will be prepared to provide direction for the design of individual development projects and public improvements within the plan area. The ESA Team will prepare a working outline for City staff review and input identifying the key components to be included within the Design Guidelines. While the final structure will be defined as part of the planning process, it is anticipated that the Design Guidelines may address:

- Design intent and objectives
- Streetscape design
- Landscaping
- Site planning
- Architectural form, massing, and design treatments
- Access, circulation, and parking

- Pedestrian and bicycle circulation
- Edge treatments and buffering
- Walls and fences
- Screening
- Lighting
- Signage
- Grading
- Green design considerations

The Design Guidelines will be structured to provide design professionals, property owners, elected and appointed officials, and City staff with clear expectations for design of development within the Master Plan area. The guidelines will be developed to balance certainty with an appropriate level of flexibility. Design intent and objectives will be clearly stated and required (standards) and suggested (guidelines) solutions identified that achieve the intent. Where appropriate, performance-based criteria will be defined to provide flexibility and encourage creativity. In addition, opportunities to structure the Design Guidelines to facilitate the streamlined review of projects that comply with the design intent, standards and guidelines will be explored with City staff.

The Newkom Ranch Master Plan Design Guidelines will build upon and supplement the Yuba City Design Guidelines.

Task 2.1.4: Prepare Financing Plan

The ESA Team will prepare a Financing Plan for Newkom Ranch Master Plan that describes the cost, timing, financing mechanisms, and ultimate funding responsibilities for major capital improvements needed to serve the project. The Financing Plan will also provide a framework designed to understand the relative cost burden placed on the ultimate property owner (e.g. home owner), and a fee comparison to see how project fees differ compared to similar approved projects.

Development of the Financing Plan will require the following data points from the City and/or applicant:

- Proposed land use plan by parcel, by density category, and by phase (Phase 1 versus Buildout). This scope assumes that only the Newkom/Kells East area will be included in the financing plan since detailed infrastructure master plans will not be prepared for the SOI Expansion area.
- Understanding of development product types.
- Forecasted sales prices for different land use types.
- Demographics of anticipated households (e.g. persons per household) and commercial employment densities.
- Confirmation of all infrastructure and public facility categories that will be included in the financing plan.
- Engineering costs, by phase, for proposed backbone improvements related to Roads, Water, Sewer, Drainage, and public facilities (parks, schools, etc.).
- Understanding of any City Special Assessment and Community Facilities District Financing Program Policies.
- Identification of current fee programs, including the capital improvement program, adopted level of service standard, and/or nexus study as well as current rates.

Task 2.1.5: Phased Fiscal Analysis

The City's General Plan requires that new development pay its proportionate share of costs, including park maintenance and library services. Under this task, the ESA Team would prepare a Fiscal Study designed to identify the impact of the Project (to include Newkom Ranch and the Kells East Property as one component of analysis (Newkom/Kells East area), and new development in the SOI (SOI Expansion area) as a separate

component) on the City's existing General Fund at the levels of service anticipated for the Project. Preparation of a Public Review Fiscal Study would include the following steps:

- Budget Analysis that identifies General Fund costs impact categories based on a case-study method versus average-cost multiplier method.
- Identification of proportionate cost share for operations and maintenance (O/M) of any onsite public facilities that are designed to also serve other projects or areas (i.e. a fire station).
- Identification of revenue assumptions, including property tax but also other potential revenue sources, such as a sales tax revenue calculation for the proposed project.
- Development of phased absorption (analyzing impacts as the Project develops). This scope of work presumes that the Project proponent will provide an anticipated absorption schedule for the Project.
- Creation of a technical model analyzing the annual impact on the City General Fund.
- Should the Project result in a negative fiscal impact to the General Fund, identification of one or more funding mechanisms to neutralize the impact.

Development of a phased fiscal study will require the following data points from the City and/or Project Applicant:

- Absorption schedule, by land use type, for the Newkom/Kells East property (Project Applicant). The schedule should differentiate between single-family units, multifamily units, retail building sq. ft., office building sq. ft., and industrial building sq. ft.
- List of all Assessor Parcel Numbers (APNs) included in the Newkom/Kells East property, as well as permission to access recent property tax statements (Project Applicant)
- Current estimated assessed value for all parcels in the SOI Expansion area portion of the Project that are expected to develop (City).

Task 2 – Deliverables

- Comments on the Mobility Plan (electronic copy)
- Administrative Draft Development Standards and Design Guidelines (electronic copy)
- Final Development Standards and Design Guidelines (electronic copy)
- Internal Administrative Draft Financing Plan (electronic copy)
- Administrative Draft Financing Plan (electronic copy)
- Public Review Draft Financing Plan (electronic copy)
- Administrative Draft Fiscal Analysis (electronic copy)
- Draft Phased Fiscal Analysis (electronic copy)
- Final Phased Fiscal Analysis (electronic copy)

Task 3: Master Plan

Based on the land use plan provided by the City, the ESA Team will prepare a Master Plan document. This effort will be largely supported by the information and plans identified in the preceding tasks. The various steps for preparation of the Master Plan are outlined below.

Task 3.1: Prepare Working Outline

The ESA Team will work with City staff to develop a working outline that outlines the content and organization of the Master Plan. The outline will help to specify the format, general content, areas of concern, and overall approach to be used in preparing the Master Plan. The Master Plan will be consistent with the City's adopted growth policies for the SOI and master plans. We anticipate more detail to be provided for the Newkom/Kells East

area in the Master Plan since there is a more detailed land use plan available than the SOI Expansion Area. We anticipate that the Master Plan will include the following chapters:

- **Introduction**: Purpose, Master Plan Description, relevant plans affecting the Plan Area, update process and plan organization.
- **Project Vision and Objectives**: Priorities, intent, vision and objectives of the Master Plan.
- **Land Use**: Land use plan, table, designations and key concepts.
- **Mobility Systems**: Vehicular, pedestrian, bicycle, and transit infrastructure and programs including complete streets and goods movement.
- **Parks and Open Space**: Parks, recreation facilities and trails.
- **Resource Management**: Open space and natural resource areas; agricultural land; vegetative resources; wildlife habitats; endangered species; soils, topography, and geology; hydrology; groundwater; stormwater management; cultural resources; climate change; air quality; renewable resources conservation; and alternative energy.
- **Public Services**: Fire protection, law enforcement, schools, libraries, general governmental services, and solid waste/recycling services.
- **Utilities**: Water, recycled water, wastewater, storm drain, energy, and telecommunications.
- **Implementation, Financing, and Phasing**: Programs that will be required in order for the Master Plan to be implemented, financing approach, and sequencing of the project.
- **Development Standards**: Permitted uses, development density/intensity, building setbacks and height limitations, and parking requirements.
- **Design Guidelines**: Design intent and objectives; streetscape design; landscaping; site planning; architectural form, massing, and design treatments; access, circulation, and parking; pedestrian and bicycle circulation; edge treatments and buffering; walls and fences; screening; lighting; signage; grading; and green design considerations.

Task 3.2: Prepare Administrative Draft Master Plan

Using the final plans and supporting components prepared in Task 3.1 above, the ESA Team will prepare an Administrative Draft Master Plan for Newkom Ranch, which will build upon the approved working outline.

Text will generally be limited to that necessary to clearly explain intent and enhance understanding of critical issues, constraints, opportunities and objectives. The focus will be to create a Master Plan that is user friendly, technically proficient, legally-adequate, easily navigated, understandable, and that furthers implementation. Text will be supplemented with photographs/graphics to ensure concepts, standards and their physical results are clearly understood.

The effectiveness of the Master Plan in achieving its vision is related to the development of a proactive and supportable program of implementation actions. As part of preparation of the Newkom Ranch Master Plan, the ESA Team will review the proposed Master Plan to ensure internal consistency with the General Plan.

Task 3.3 Prepare Public Review Draft Master Plan

It is anticipated that the ESA Team will meet with City staff to review the Administrative Draft Master Plan. Based on one set of consolidated comments from the City staff, the ESA Team will prepare a Public Review Draft Master Plan. The Public Review

Draft Master Plan will be available to the public for 45 days, concurrent with the Draft Environmental Impact Report

Task 3.4: Prepare Public Hearing Draft Master Plan

Based on public comments received and City staff direction, the ESA Team will prepare a Public Hearing Draft Master Plan that will be presented to the Planning Commission and City Council for adoption.

Task 3.5: Prepare Final Master Plan

Based on comments received at the Planning Commission hearing and the City Council adoption hearing, the ESA Team will prepare a final Newkom Ranch Master Plan.

Task 3.6: General Plan Amendment

The ESA Team will amend the City's General Plan to include the extended Sphere of Influence (SOI) boundary and change the underlying land use designations from Sutter County General Plan to the Yuba City General Plan land use designations. Based on conversations with City staff, no policy changes are anticipated and only map changes will be made.

Task 3.7: Pre-Zoning

The ESA Team will prepare the appropriate documentation to pre-zone selected portions of the Newkom Ranch Master Plan area to be consistent with the amended General Plan. The portions to be pre-zoned are likely the Newkom/Kells East area only.

Task 3 – Deliverables

- Working Outline (electronic copy)
- Administrative Draft Master Plan (electronic copy)
- Public Review Draft Master Plan (4 copies each and electronic copy)
- Public Hearing Master Plan (8 copies each and electronic copy)
- Final Master Plan (8 copies each and electronic copy)
- Draft General Plan Amendment (maps only) (electronic copy)
- Final General Plan Amendment (maps only) (electronic copy)
- Draft Pre-Zoning documents (electronic copy)
- Final Pre-Zoning documents (electronic copy)

Task 4: EIR

During the environmental review phase, the ESA Team will prepare an EIR analyzing the potential environmental impacts of the Newkom/Kells East Master Plan, development of the SOI Expansion area, changing the City's SOI boundary, and annexation of the project site. The EIR will be designed to meet the requirements of CEQA and to streamline future City development and public works projects that are consistent with the Newkom Ranch Master Plan. The CEQA document will be prepared to establish the framework for future tiering with the intent of providing streamlining opportunities for implementation of the Newkom Ranch/Kells Ranch East Master Plan vision. The EIR will also provide as much environmental clearance as possible for approval of development entitlements both within the Newkom/Kells East area and the SOI Expansion area.

The environmental analysis would provide a program-level analysis for the entirety of the proposed Newkom Ranch Master Plan area, along with a project-level analysis of the Newkom/Kells East area. It is anticipated that more detailed information would be known about the Newkom/Kells East area such as the roadway network, number of residential units and type of housing, square footage of non-residential uses, and infrastructure requirements. However, for

lands within the SOI Expansion area proposed for development, the ESA Team would work with the project applicants and the City to develop an adequate development envelope that can be used in the EIR to environmentally clear as much development as possible.

ESA understands a PSR/PR may be required for intersection improvements on SR 99 necessary to accommodate project access. To support the PSR/PR to be prepared by MHM, Inc., the ESA Team will prepare a stand-alone memorandum that identifies environmental impacts associated with the Newkom/Kells East area within the Caltrans right-of-way. Data for this memorandum will be drawn from the analysis contained in the EIR, tailored to satisfy Caltrans CEQA processes. The ESA Team assumes impacts within the Caltrans right-of-way that would result from the proposed intersection improvements would not affect significant biological or cultural resources, Caltrans would not require a biological document beyond a Natural Environment Study (Minimal Impact) (NES MI), and additional environmental analysis beyond that included in the EIR for the Newkom/Kells East Master Plan's impacts would not be required.

The environmental setting discussion for each environmental issue area will be based on technical studies and guidance documents prepared for the project as part of development of the Master Plan. All technical studies prepared for the Newkom Ranch Master Plan will be incorporated both directly and by reference in the EIR.

The impact analysis will identify the significance of identified impacts before and after mitigation. Thresholds of significance will be used to assess the significance of each specific impact. This scope of work assumes the City will either provide ESA with applicable City thresholds of significance or ESA will use the thresholds included in Appendix G of the CEQA Guidelines. If an impact is determined to be significant prior to mitigation, the analysis will recommend feasible mitigation measures. If possible, the mitigation measures will be folded into the Newkom Ranch Master Plan as policies to enable the Master Plan to function as a "self-mitigating" document. However, ESA recognizes that residual impacts may remain for the Newkom/Kells East area, or may be necessary to address impacts resulting from development of the SOI Expansion area, a change in the SOI boundary, or an annexation action that cannot be addressed by providing additional policies or reviewing proposed policy language. In those cases, ESA would recommend feasible mitigation measures to reduce impacts to the greatest extent possible.

In order to provide a "range of reasonable alternatives" to the Newkom/Kells East area and SOI Expansion area, as required by CEQA Guidelines section 15126.6, this scope of work assumes the analysis of up to three project alternatives, including the required No Project or existing General Plan Alternative and two other alternatives considered in the preparation of the Newkom Ranch Master Plan. The alternatives analysis will qualitatively compare the environmental effects of the Newkom Ranch Master Plan alternatives to the City's preferred land use plan.

The EIR will be objective, accurate and free of jargon so that the information it contains is accessible to decision makers and the public. Graphics consisting of maps, drawings and photographs will be provided to the City in a consistent format throughout the report. They will clearly and accurately depict the project and present environmental data where such data are better understood through photographs and/or drawings.

Scope of Work

This scope of work assumes preparation of the following work products: an Administrative Draft Notice of Preparation (NOP); Final NOP; Notice of Completion(s) (NOC); Administrative Draft EIR (ADEIR); Screencheck Draft EIR; Draft EIR (DEIR); Administrative Final EIR (AFEIR); Final EIR (FEIR); Mitigation Monitoring Plan (MMP); and Findings of Fact and Statement of Overriding Considerations, if necessary. All of these products are described below.

Task 4.1: NOP

ESA will prepare an NOP. Because the EIR is anticipated to cover all environmental topics identified in the CEQA Guidelines Appendix G, ESA proposes to prepare only an NOP without an attached Initial Study checklist. The NOP will include a map of the project site and a brief description of the Newkom/Kells East and SOI Expansion area which will be expanded during preparation of the ADEIR. The NOP will identify the environmental those issues that require further study in the EIR. ESA will respond to one round of comments by the City.

Once finalized, ESA will distribute 15 copies of the NOP along with a Notice of Completion (NOC) to the State Clearinghouse to start the required 30-day public review period. The EIR Project Director and Project Manager will attend the scoping meeting and provide a brief overview of the CEQA process, if requested by City staff.

Task 4.2: Administrative Draft EIR

ESA will prepare an Administrative Draft EIR that will contain the following sections: Summary, Introduction, Project Description, Environmental Analysis, Alternatives, Growth Inducement, and Other CEQA Required Considerations.

Environmental Analysis

The technical sections of the ADEIR will describe the environmental setting, applicable regulations, and environmental impacts (including cumulative impacts). Thresholds of significance (or significance criteria) will be determined in coordination with the City.

To reduce or eliminate any significant adverse impacts identified during the analysis, the ADEIR will recommend feasible mitigation measures. It is intended that the mitigation measures will be identified early in the process to enable them to be evaluated and included as policies for the Newkom Ranch Master Plan, if possible. In this manner, the Newkom Ranch Master Plan can function as a "self-mitigating" document. However, ESA recognizes that residual impacts may remain for which further mitigation is required and/or overriding considerations must be established.

Aesthetics and Visual Resources

The analysis of aesthetic impacts of the project will be qualitative and will discuss the project as a whole. Development proposed within the Newkom/Kells East area and the SOI Expansion area will be evaluated for its potential to adversely impact the existing visual character in the area and create a change in light and glare conditions. The EIR will identify relevant physical and visual features (e.g., views) that contribute significantly to community character and describe any changes that could occur associated with implementation of new Master Plan policies.

Agricultural Resources

The EIR will address the conversion of agricultural lands and undeveloped areas to urban uses and the compatibility of proposed land uses with adjacent existing land uses. Types of agricultural crops produced in the area will be described based on information provided by the project applicant

and/or City. Cumulative loss of agricultural lands near Yuba City and within Sutter County will be discussed and evaluated.

Air Quality

ESA will prepare an air quality section that meets the requirements of CEQA, the California Air Resources Board (CARB), and the Feather River Air Quality Management District (FRAQMD). ESA will describe the existing setting in the Sacramento Valley Air Basin, and, where relevant, in and around the project area, based on available information from the FRAQMD. ESA will present and summarize criteria air pollutant emissions from mobile, stationary, and area sources, including analysis of $PM_{2.5}$. The most recent CalEEMod computer model will be utilized to model air quality emissions. ESA will evaluate the potential for carbon monoxide (CO) 1-hour and 8-hour standard violations for intersections projected to operate at LOS E or worse. The analysis will be conducted using CARB's CALINE4 model and will be based on traffic information – turning volumes and levels of service – developed for the traffic study. The analysis will differentiate between air emissions generated by development in the Newkom/Kells East area and development in the SOI Expansion area. ESA will prepare a CO hot spot analysis at up to three intersections along SR 99 if traffic volumes indicate such an analysis is warranted.

Health Risks: ESA will evaluate the potential for health risk impacts associated with diesel particulate matter (DPM) associated with construction equipment. ESA will also evaluate the project's operational health risks resulting from the project's potential to generate DPM and other toxic air contaminants (TACs) associated with vehicle trips and stationary sources, such as heavy industrial uses. The evaluation of health risks will largely be qualitative. The PCAPCD requires quantitative health risk assessments to be prepared for any project with sensitive receptors (residences, etc.) within 500-feet of freeways that have an average daily trip (ADT) of 50,000 or greater. Based on existing ADT, it is not anticipated that a quantitative health risk analysis is required; therefore, it is not proposed as part of this scope of work.

GHGs/Global Climate Change

ESA will evaluate the proposed project for potential effects of the project on the generation of greenhouse gases and its correlative contributions to global climate change and relationship to the goals of Assembly Bill 32 (AB 32). Construction and operational emission resulting from implementation of the Newkom Ranch Master Plan will be quantified and GHG emission reduction strategies will be identified. Although the FRAQMD has not established thresholds of significance for GHGs, ESA will work with FRAQMD and the City to identify a threshold.

Biological Resources

The EIR will describe the biological resources that exist within the Newkom Ranch Master Plan Area. ESA anticipates conducting a field site visit to conduct a reconnaissance-level biological review of the Newkom/Kells East area. However, ESA will not conduct a field visit/reconnaissance-level biological review of the SOI Expansion area. ESA will review the California Natural Diversity Database (CNDDB) for recorded observations of special status plant and animal species at or in the vicinity of the Master Plan Area boundaries and describe existing habitats. Existing City ordinances will be presented along with information about the Yuba-Sutter Regional Conservation Plan, if available. This analysis will not include a formal wetland delineation or protocol level surveys for sensitive species for either the Newkom/Kells East or the SOI Expansion areas.

Cultural Resources

Existing archeological and historic resources in the City that could be affected by future development will be identified. Any potential historic or archeological site previously recorded in the Plan area will be identified based on the results of a records search at the Northeast Information Center. ESA anticipates conducting a field site visit to conduct a reconnaissance-level archaeological review of the Newkom/Kells East area site. However, a reconnaissance-level archaeological review of the SOI Expansion area is not proposed. The cultural resources section will include a prehistoric, ethnographic, and historic setting for the Master Plan area and descriptions and evaluations of any known cultural resources within these areas.

This section will include a discussion of potentially significant impacts to cultural resources including tribal cultural resources (see Public Resources Code section 21074). ESA will coordinate with the Native American Heritage Commission (NAHC) and support the City's consultation with relevant Native American tribes, consistent with the requirements of PRC section 21080.3. ESA would consult with the NAHC and request a Sacred Lands search. Based on the outcome of that search and outreach lists provided by the NAHC, ESA would conduct outreach to Most Likely Descendants (MLD) as identified by the NAHC. Outreach to the MLDs would offer the opportunity to consult with the City of Yuba City regarding potentially significant tribal cultural resources that could be affected by the proposed project. AB 52 defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources (PRC section 21074(a)(1)).

ESA does not propose to participate in meetings with local Tribes during the consultation process.

If the proposed project could impact tribal cultural resources, mitigation measures will be developed consistent with PRC section 21084.3 and in consultation with all California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the proposed project and have been identified by the City as requesting consultation for such projects. ESA will address potentially significant impacts to cultural and tribal cultural resources. Results from records searches, tribal consultations, site reconnaissance, and technical studies will be utilized to evaluate potentially significant impacts to cultural and tribal cultural resources. ESA will assess the potential for the project to result in adverse impacts on historical, archeological, or paleontological resources or human remains. If appropriate, mitigation measures that address unanticipated discovery of subsurface cultural resources will be included. In the event that cultural resources that could qualify as historical resources pursuant to CEQA are discovered during the site survey, ESA would coordinate with the City and submit a scope of work and cost estimate to perform the requisite work to fully evaluate these resources. ESA would proceed with that work effort only upon written authorization from the City.

Energy Demand and Conservation

ESA will prepare an energy chapter for the Newkom Ranch Master Plan. The chapter will address the State CEQA Guidelines Appendix F Energy Conservation guidelines by evaluating whether the project would avoid or reduce inefficient, wasteful, or unnecessary energy consumption. The section will include an energy impacts evaluation for the project's construction and operational energy use. The analysis of energy impacts will be consistent with guidance provided in Appendix F and the

California Clean Energy Committee v. City of Woodland decision. Construction and operational energy use estimates will be made based on construction equipment required to build the project, HVAC systems anticipated within the Master Plan Area, transportation energy, and building energy usage.

Geology and Soils

The EIR will provide a summary of the existing geology, geologic hazards, soil types, and mineral resources present on or near the project site based on information contained in the Yuba City General Plan and Sutter County General Plan and other widely available industry sources. Potential effects resulting from seismic events (earthquakes) will be described. Proposed Newkom Ranch Master Plan policies will be discussed, as well, to mitigate any potential impacts.

Hazards and Hazardous Materials

The EIR will characterize the type and level of known hazardous material sites in the vicinity of the project site. ESA will search the California Department of Toxic Substances Control Site Mitigation and Brownfields Reuse Program Database, the Central Valley Regional Water Quality Control Board site cleanup list, and leaking underground storage tank list, among others. The EIR will describe existing and planned uses that could create hazards for existing or future workers and residents during construction and operation, including the use of pesticides and herbicides from past agricultural uses. The EIR will describe the types of hazardous materials that might be used by project construction and/or operation and how federal, state and local laws and regulations protect people and the environment from risks associated with those materials.

Hydrology and Water Quality

The project applicant has retained MHM, Inc. to perform a hydrologic/hydraulic assessment. ESA will incorporate the findings and address the impacts identified in MHM's assessment. It is anticipated that MHM's assessment will include an evaluation of proposed onsite detention basins and other proposed drainage infrastructure, improvements to Gilsizer Slough, and the use of pervious pavement onsite to minimize runoff generated by development of the Newkom Ranch Master Plan. It is anticipated the MHM assessment will provide a summary of existing groundwater recharge, surface flows, flooding, and associated water quality within the Newkom/Kells East area only. It is assumed MHM will discuss pre- and post-project discharge rates and volumes and water surface elevation data for local drainages for the 10- and 100-year flood events. ESA will coordinate with MHM as necessary to gather information required for the environmental analysis and clarify impacts. It is expected that ESA would convert MHM's hydrologic/hydraulic assessment into an EIR section. It is assumed that no technical studies that include information on hydrology, storm drainage, flooding, etc. will be provided for the SOI Expansion area. Therefore, ESA will incorporate general information from readily available sources into the EIR. It is not anticipated that ESA will develop new or supplemental information or data regarding the hydrologic/hydraulic assessment, drainage infrastructure, groundwater resources, discharge rates and volumes, or water quality.

ESA will augment the EIR section with a discussion about flooding, including the Newkom/Kells East area's compliance with Senate Bill 5 (SB 5) and performance measures that may be necessary for the SOI Expansion area.

Land Use Compatibility

Key issues to be addressed in the land use chapter include rural/urban interface, General Plan Amendment, SOI expansion, annexation, consistency with applicable adopted plans, zoning, and compatibility with adjacent land uses, including both active agricultural and rural residential uses. The land use chapter of the EIR will be presented as an informational chapter, without an impact discussion. As part of the land use analysis, the proposed Newkom Ranch Master Plan's consistency with local land use plans will be addressed.

When the proposed land use plan for the Newkom/Kells East area has been prepared and the development assumptions for the SOI Expansion area has been established by the project applicant and City, the ESA Team will review it to determine if an Urban Decay Analysis will be necessary. The exact amount and type of commercial uses proposed in the plan area will help determine if an Urban Decay Analysis is warranted (see **Additional Considerations**).

Noise

Noise monitoring will be performed at up to ten locations within the City and County to identify representative noise levels at various locations within and near the project site. One of the noise samples will be conducted for a 24-hour time period, while the other samples will be short term, taken over a 10- to 15-minute time period. Existing 24-hour noise levels will be calculated for the various roadway segments in the City and County using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic counts from the traffic study prepared for the proposed project. Roadway noise modeling will be based on traffic data provided by Fehr & Peers in the traffic report. The analysis of operational noise impacts will address future noise levels within the City based on an increase in traffic levels.

Population, Employment, and Housing

The EIR will describe the existing population, employment, and housing setting and recent trends for the County. The EIR will describe the potential "holding capacity," or ultimate population, under the proposed Newkom/Kells East area. The potential holding capacity for the SOI Expansion area will be established in consultation with the City and project applicant. The holding capacity will be compared to existing population data. Data gathered during the Financing Plan (Task 2.1.4) will be used to the maximum extent possible. ESA will calculate the potential growth in employment under the Newkom Ranch Master Plan and will describe this growth within the context of total employment growth in the region. A brief analysis of the potential effects on housing and the City's jobs/housing balance will also be included.

Public Services

The EIR will summarize existing public services (this includes police and fire protection, parks, schools,) in the City and will identify service providers. Information from the Yuba City Police Department, Yuba City Fire Department, Yuba City Unified School District, and Yuba City Parks and Recreation Department will be gathered. The EIR will address potential additional demands on public services resulting from the increase in population and employment. Based on population and employment projections for the Master Plan Area, and level of service standards for service providers, the EIR will estimate the increase in demand on service providers. The EIR will evaluate the extent to which the increased demand on these services could result in physical environmental effects, such as the construction of new facilities, to serve the proposed project.

Public Utilities

The EIR will summarize existing public utilities (this includes water, wastewater, solid waste, electricity and natural gas) in the City and will identify service providers. The EIR will address potential additional demands on public utilities resulting from the increase in population and employment, and the analysis will separate demands generated by the Newkom/Kells East area and development that could occur within the SOI Expansion area. The EIR analysis will qualitatively evaluate any future facilities needs based on the infrastructure master plans developed for the Newkom/Kells area.

Water

Tully & Young will accomplish the following tasks related to the water supply analysis.

Initial Approach Strategy Development

The purpose of this task is to discuss and define a desired approach to the preparation of the WSA elements. Primary points to discuss would be proposed project water use elements (water demands) and anticipated water supply portfolio elements (e.g. City surface water and groundwater sources, and use of recycled water, if applicable). This task will include review by the ESA Team of proposed project elements, initial estimates of proposed project-specific water demand, phone conversations, and meetings. A kickoff meeting with the City, as well as a second meeting with the development proponent, is anticipated. This task will also include necessary data collection and relevant research to build the foundational information for developing the WSA. Because of the timing of this WSA, this task will also include strategy discussions with the City to understand coordination and concurrence with the City's 2015 Urban Water Management Plan (UWMP) (due to the State by July 1, 2016), and to discuss the City's strategy for supply characterization following the 2015 water right curtailments.

Water Demand and Supply Characterization

The purpose of this task is to derive projected water demands for the Project and all existing and planned future uses served by the City (as required by Water Code §10910 et. seq). This task will also characterize the City water supplies anticipated to meet the proposed project-specific demands and those of existing customers, other planned projects, and anticipated City growth (as may be defined in the City's General Plan as applicable). This task will also involve close coordination with the City's efforts and materials associated with preparing the 2015 UWMP.

Demand elements will include: (1) defining and using unit demand factors to determine proposed project demands in concurrence with those being used for the 2015 UWMP; (2) using the 2010 and 2015 UWMPs and other City documents to characterize future demands to the year 2040; (3) adjusting potential future uses that are identified as varying from the 2010 UWMP estimates to be consistent with the 2015 UWMP; and (4) identifying potential changes from the most recent available City General Plan regarding timing of growth, habitat planning, and overall population.

For the proposed project, appropriate unit water demand factors for each type of dwelling unit and associated non-residential land uses will be developed based on information previously developed and published by the City and as recognized in the 2010 UWMP (or as otherwise being developed for use in the 2015 UWMP), and other City reports and readily available data. The unit water demand factors will then be applied to the proposed project-specific land uses to derive a proposed project-specific water demand estimate. Unique proposed project attributes, such as pre-defined residential landscaping, use of native landscaping, and other factors will be used to refine the land-use specific demand factors as appropriate to reflect unique proposed project attributes (e.g. median strips may be landscaped

with native plants that have little or no water demand after being established).

Additional planned growth as documented in applicable City General Plan documents will also be reviewed and updated as necessary to provide an estimate for additional future water demand beyond the proposed project and other defined planned projects.

The ESA Team will also work closely with the City to understand existing demands and forecast the future demand of existing City customers as should be underway for the 2015 UWMP.

The ESA Team will document the water supplies that are planned for meeting the projected demands based on characterizations recently completed for the 2010 UWMP (or being developed for the 2015 UWMP), as identified in other readily available City documents, and as necessarily needing modification/refinement based upon hydrologic conditions in 2014 and 2015. Close coordination with the City, the City's wholesale water supplier (e.g., North Yuba Water District and the California Department of Water Resources), and the development proponent will be required to assure supplies are correctly reflected in the WSA and to assure consistency with the 2015 UMWP. Primary supplies for the proposed project will be provided by the City as either potable or recycled water. Characterization of the reliability of these supplies will be as directed by the City.

In addition, the ESA Team will evaluate the current water used to meet existing demands on the proposed project-specific lands – if any – to understand the role existing supplies will have in the water supply portfolio.

The ESA Team will participate in all communications necessary to ensure the strategies to serve the proposed project are well understood and sufficiently documented. This will include two work sessions with City staff at their office.

Sufficiency Analysis

The ESA Team will assess the sufficiency of planned water supplies to serve the proposed project based on the information developed in the Initial Approach and Water Demand and Supply Characterization. The analysis of future conditions will include determinations of whether sufficient water exists for the proposed project for conditions at least 20 years into the future. Using representations of supplies from the Water Demand and Supply Characterization along with other pertinent data, the analysis will look at demand and supply conditions under normal, single dry and multiple dry year conditions. A key step of this task will be to assure consistency with the 2015 UWMP, which will likely be adopted prior to the WSA (the WSA may reference the 2015 UWMP as applicable).

The ESA Team will develop conclusions regarding the sufficiency of the supply as needed to satisfy the requirements of CWC §10910. These conclusions will be discussed with the City and the development proponent and further adjusted to assure reliability representations are consistent with the City's capabilities to serve.

Prepare SB 610 WSA Document

The ESA Team will prepare a compliant WSA based upon the substantive and procedural requirements of CWC §10910 et seq. that incorporates all relevant data, as well as the findings from the Sufficiency Analysis. The WSA will be written from the perspective of the City, which will be the water purveyor for the proposed project.

This task will include preparing an administrative draft WSA; a public draft WSA for public review, hearing and adoption; and a final adopted WSA reflecting any changes to the public draft WSA. Extensive interaction with the City and the development proponent is anticipated during

drafting to assure the WSA adequately represents the proposed project and strategies for supplying water, and that the WSA appropriately concurs with the 2015 UWMP.

Based on the findings of the WSA along with the infrastructure master plans, the EIR will analyze the existing and planned water supply. The existing water infrastructure, including the water treatment plant and conveyance and storage facilities that serve the Master Plan Area as well as the City will also be described and evaluated for capacity to serve future development based on information provided in the WSA.

Wastewater

Existing wastewater infrastructure within the vicinity of the project site will be described based on information presented in County master plan documents, if available. Existing and planned sewer conveyance infrastructure will be described based on information included in the wastewater master plan for the Newkom/Kells East area. ESA will present the current demand at the wastewater treatment plant, as well as the current and planned treatment capacity to determine the ability of the treatment plant to accept flows from the Plan area.

Solid Waste

For solid waste, the amount of waste that could be generated by the Newkom Ranch Master Plan land uses will be quantified and a discussion of existing landfills will be included.

Electric and Gas Service

ESA will contact the electric and gas services providers for information concerning existing and planned energy infrastructure and sources that would serve the project site. To the extent that demand factors are available from the service providers, the EIR will quantify estimated energy use for the Plan area. This information will be summarized in the Draft EIR and will be discussed with the service providers to determine whether there is sufficient supply and whether additional, offsite infrastructure would be required to serve the proposed project.

Transportation and Circulation

Fehr & Peers will accomplish the following tasks related to the transportation analysis.

Data Collection

The ESA Team will collect the following data:

- Existing AM (7 – 9) and PM (4 – 6) peak period traffic counts at the intersections listed in Task 3 (including vehicles, bicycles, and pedestrians) while schools are in session. At selected locations (i.e., key intersections along SR 99, Bogue Road, Walton Avenue, and Garden Highway), counts will also include heavy vehicle percentages
- Existing traffic controls, lane configurations, posted speed limits, crosswalks, and other relevant information at study intersections
- Existing traffic signal timings at signalized study intersections to be collected from the City of Yuba City and Caltrans
- Existing transit services (including schedules, bus stops, shelters/benches, and transit routes)
- Existing bicycle and pedestrian facilities
- Project site plan in AutoCAD format

Existing Conditions Analysis

The following 32 intersections will be studied under the weekday AM and PM peak hours:

1. SR 99/SR 20
2. SR 99/Sunsweet Boulevard
3. SR 99/Bridge Street
4. SR 99/Franklin Road
5. SR 99/Hunn Road
6. SR 99/Richland Road
7. SR 99/Lincoln Road
8. SR 99/Smith Road

9. SR 99/Bogue Road
10. SR 99/Stewart Road
11. SR 99/Reed Road
12. SR 99/Walnut Avenue
13. SR 99/Barry Road
14. Walton Avenue/Bridge Street
15. Walton Avenue/Franklin Road
16. Walton Avenue/Richland Road
17. Walton Avenue/Lincoln Road
18. Walton Avenue/Bogue Road
19. Walton Avenue/Stewart Road
20. Walton Avenue/Reed Road
21. Lincoln Road/Phillips Road
22. Lincoln Road/Railroad Avenue
23. Lincoln Road/Garden Highway
24. Bogue Road/Phillips Road
25. Bogue Road/Railroad Avenue
26. Bogue Road/Garden Highway
27. Phillips Road/Smith Road
28. Stewart Road/Wallace Drive
29. Stewart Road/Muir Road
30. Stewart Road/Railroad Avenue
31. Stewart Road/Garden Highway
32. Garden Highway/Shanghai Bend Road

The ESA Team will analyze all intersections along SR 99 using a SimTraffic micro-simulation model. SimTraffic accounts for the effects of vehicular queuing on adjacent intersection operations, traffic signal timing/progression plans, pedestrian/bicycle travel, and other influences that can affect delay and queuing. The model will be calibrated to existing conditions based on travel time data, peak hour volumes, and observed maximum queue lengths. The field-measured peak hour factors will be used. Data regarding truck percentages will be entered into the model based on field measurements. Per standard practice, an average of ten runs with different random seed values will be used to yield reported results.

In addition to intersections on SR 99, up to ten intersections located within Yuba City will also be included in the SimTraffic model. The chosen intersections will either be those located closest to SR 99 (whose operations could be affected by the highway) or those that are otherwise congested, in which micro-simulation is the preferred analysis tool. Synchro will be used to analyze the remaining intersections based on methods described in the *Highway Capacity Manual* (Transportation Research Board, 2010). At all study intersections, the average delay and level of service (LOS) will be reported for the AM and PM peak hours.

In addition, the peak hour warrant for consideration of a traffic signal (as specified in the 2014 CA MUTCD) will be evaluated at unsignalized study intersections.

As part of this task, the ESA Team will prepare the following exhibits:

- Existing roadway network and number of travel lanes
- AM and PM peak hour segment volumes
- Existing peak hour traffic volumes, lane configurations, and traffic controls at study intersections
- Existing bicycle facilities within and adjacent to the Master Plan area
- Existing pedestrian facilities within and adjacent to the Master Plan area
- Existing transit stops and routes within the study area

It should be noted that our initial planning support work consisted of documenting existing traffic conditions on SR 99 at Bogue Road and Stewart Road. Thus, we have counted at these locations and have completed analysis of them. The cost estimate has been modified accordingly.

Impact Significance Criteria
The ESA Team will develop significance criteria for purposes of determining project-specific and cumulatively considerable project impacts using policies from the Yuba City General Plan, Caltrans policies, and previously developed policies for other City of Yuba City projects.

Existing Plus Project Conditions
The traffic study would include both analysis of the Newkom/Kells East area land uses as well as the proposed SOI Expansion area. The tasks described below incorporate both scenarios.

The ESA Team will develop AM and PM peak hour forecasts using the City of Yuba City base year travel demand model and other methods for the following scenarios:

- Existing Plus Newkom/Kells East
- Existing Plus SOI Buildout

As part of the El Margarita Master Plan in early 2014, Fehr & Peers updated the model from a 2004-2005 base year to a 2014 base year. The updated model reflects land use and roadway network improvements associated with 2014 conditions. The model was validated to Caltrans standards within the El Margarita Master Plan study area.

The following steps will be taken to develop the existing plus project AM and PM peak hour forecasts for the each analysis scenario:

1. Estimate project's gross and external vehicle trip generation using the MXD model, which incorporates rates published in *Trip Generation* (Institute of Transportation Engineers, 2012). The MXD model was prepared by Fehr & Peers and several academic researchers to develop a state-of-the-art mixed-use trip generation model for the United States Environmental Protection Agency (EPA). It estimates the percentage of trips that remain internal to a project site as well as external transit, walk, and vehicle mode splits. The model is based on surveys of residents and employees in 240 mixed-use projects in six major metropolitan areas (Sacramento, Houston, Boston, Atlanta, Portland, and Seattle) in the United States. The MXD model considers a variety of project attributes including project density, mix of uses, surrounding land uses, expected household size, vehicle ownership, and transit service. The MXD model has been used extensively in EIRs throughout California.

2. Add proposed project land uses and roadways to the base year version of the Yuba City travel demand model. Compare model's estimates of new project trips with MXD estimates, and make adjustments, if necessary, such that City's model matches the MXD estimates.

3. Calculate the net change in traffic associated with the project by comparison the "with project" model from step 2 to the original base year model. Add the net change in traffic to the existing volumes to yield "Existing Plus Project" forecasts.

This approach offers three important advantages over traditional methods (i.e., project trips are simply layered on top of existing volumes):

- It more accurately predicts internal trip-making between complementary land uses.
- It allows for the redistribution of background travel patterns in response to new shopping and employment opportunities in the southern area of the City.
- It accounts for shifts in existing travel patterns in response to new roadway connections.

The ESA Team will re-analyze all study intersections under "Existing Plus Newkom Ranch" and "Existing Plus SOI Buildout" conditions. The analysis will include up to six new intersections within or adjacent to the Master Plan area (locations to be

determined once Master Plan circulation network is developed). Similar to existing conditions, average delay and LOS will be reported for all intersections. The peak hour warrant for consideration of a traffic signal (as specified in the 2014 CA MUTCD) will be evaluated at unsignalized study intersections.

The ESA Team will analyze project impacts on the roadway, bicycle, pedestrian, and transit systems using the significance criteria. For significant impacts, the ESA Team will propose mitigation measures to improve the level of significance. Each mitigation measure will identify the specific action necessary, responsibility for implementation, and the expected level of significance after mitigation.

As part of this task, the ESA Team will prepare the following exhibits:

- Proposed project roadway network and number of travel lanes
- Net change in AM and PM peak hour traffic volumes resulting from each scenario (i.e., a proxy for a trip distribution exhibit)
- Existing Plus Project AM and PM peak hour segment volumes (both scenarios)
- Existing Plus Project peak hour traffic volumes, lane configurations, and traffic controls at study intersections (both scenarios)

Cumulative Conditions

The ESA Team will use the City of Yuba City 2030 travel demand model to develop AM and PM peak hour traffic forecasts for the following scenarios:

- No Project – Assumes no new development within the Master Plan area
- Newkom Ranch – Assumes the proposed land uses and roadway network associated with Newkom Ranch
- SOI Buildout – Assumes the proposed land uses and roadway network associated with buildout of the SOI

The ESA Team will confirm with City staff which roadway network improvements (i.e., new roadways, widening, intersection improvements, etc.) should be assumed within the study area.

The ESA Team will re-analyze all study intersections under each scenario. The analysis will include up to six new intersections within or adjacent to the Master Plan area (locations to be determined once Master Plan circulation network is developed). The average delay and LOS will be reported for all intersections. The peak hour warrant for consideration of a traffic signal (as specified in the 2014 CA MUTCD) will be evaluated at unsignalized study intersections for each scenario.

The ESA Team will analyze project impacts on the roadway, bicycle, pedestrian, and transit systems using the significance criteria for each scenario. For cumulatively considerable impacts, the ESA Team will propose mitigation measures to improve the level of significance. Each mitigation measure will identify the specific action necessary, responsibility for implementation, and level of significance after mitigation. A discussion of the project's consistency with relevant City of Yuba City policies relating to circulation will be provided.

Internal Circulation

The ESA Team will estimate the average daily traffic (ADT) on internal roadways for purposes of helping to size infrastructure. They will also summarize and depict intersection locations and operations under near-term and cumulative conditions based on the "plus project" analysis results for each scenario. An exhibit will be prepared to illustrate the proposed internal circulation system, and any further recommendations to enhance it.

VMT Estimates
The ESA Team will estimate the Newkom Ranch and SOI buildout average daily Vehicle Miles of Travel (VMT) under both existing and cumulative (2030) conditions. The ESA Team will coordinate with the project team regarding the most appropriate methodology to use to develop these estimates. The VMT estimates can be used as input in the GHG analysis.

Phasing Analysis
The purpose of a phasing analysis is to determine when certain on-site or off-site improvements are triggered. This may include the timing of off-site mitigation measure responsibility, the timing of a new roadway connection, and evaluation of internal traffic levels for an interim condition. As part of the advanced planning work, a limited amount of phasing analysis was completed to understand how much development could occur prior to improvements being required at SR 99/Bogue Road intersection. The ESA Team will document those conclusions in the study.

This task also consists of a limited amount of new phasing analysis. The ESA Team will review operations at all study intersections bounded by Walton Avenue on the west, Garden Highway on the east, Bogue Road on the north, and Stewart Road on the south. The ESA Team will identify which of the 12 intersections within this geographic area should be studied based on their operations under various existing and cumulative scenarios. In addition, the ESA Team will identify and study those off-site intersections, which were identified as significant impacts (in which a certain percentage of development causes the impact versus an exacerbation of an existing deficiency).

The ESA Team will then work with the project team to analyze what improvements would be triggered during the first phase of project development. The specific land use and roadway network assumptions associated with this phase will be determined through coordination with the project team. The ESA Team will also collaborate with the project team regarding a potential year associated with buildout of the first phase of development and then make needed adjustments to background traffic forecasts to represent the particular year. The identified study intersections will then be analyzed for this phase.

As part of this task, the ESA Team will prepare the following exhibits:

- Recommended roadway connections and traffic controls/lane configurations at study intersections for initial phase of development
- Timing for off-site mitigation measure implementation

Alternatives Analysis
The ESA Team will prepare a qualitative evaluation of up to two (2) project alternatives. This will consist of a trip generation comparison and an assessment of the relative change in impacts that may be associated with each alternative.

Task 4.3: Screencheck EIR

The ESA Team will incorporate City staff comments on the Administrative Draft EIR based on a single set of consolidated comments and submit a Screencheck Draft EIR to the City. We expect that the comments and outcomes from the City's review will direct revisions to the ADEIR. We have further assumed that no new technical studies will be prepared and that technical studies will not need to be substantially revised based on changes to the project or pre-approved assumptions.

Task 4.4: Draft EIR

ESA will incorporate City staff comments on the Screencheck Draft EIR based on a single set of consolidated comments, and submit a final Public Draft EIR to the City for distribution for a 45-day

public comment period. We expect that the comments will direct revisions to the Screencheck DEIR, and we have assumed that the comments will be primarily editorial in nature.

ESA will file 15 copies of the Summary and 15 CDs of the entire document (as preferred by the State Clearinghouse) and an NOC with the State Clearinghouse.

We assume that City staff will prepare a Notice of Availability (NOA) to accompany the Draft EIR. We also assume the City will distribute the EIR to interested stakeholders, contiguous property owners, and/or publish the NOA in a newspaper of general circulation in the area affected by the proposed project.

Task 4.5: Administrative Final EIR

The Final EIR will be prepared in conformance with CEQA Guidelines section 15132. The administrative final EIR (AFEIR) will include a summary of text changes to the Draft EIR, list of commenters, responses to comments received on the Draft EIR, and a Mitigation Monitoring Plan (MMP).

Written comments received during the 45-day public review of the DEIR will be responded to by the EIR team and responses to all comments included in the AFEIR. Master Responses will be developed for comments that address major, repetitive comments on the document. Master responses aid in minimizing repetitive responses and help to streamline the FEIR.

The MMP will only identify additional mitigation measures identified in the DEIR, and will not include a recitation of Master Plan policies used as part of the "self mitigating" aspect of the project. The MMP will identify mitigation implementation responsibility, implementation timing, and reporting procedures.

It is assumed that the City will provide the ESA with one consolidated set of comments on the AFEIR. Comments will then be incorporated into the Final EIR.

Task 4.6: Final EIR

Following receipt of comments from the City on the AFEIR, ESA will incorporate appropriate revisions and prepare a Final EIR, NOC and NOA.

Task 4.7: Findings of Fact and Statement of Overriding Considerations

ESA will prepare the Findings of Fact and Statement of Overriding Considerations for the proposed project, if necessary. These documents will follow Yuba City's typical format. The Statement of Overriding Considerations will be based on information contained in the Administrative Record for the EIR, unless otherwise supplemented by relevant social, legal, economic, financial, or other technical information provided by the applicant or City.

Task 4 – Deliverables

- Draft NOP (electronic only);
- Final INOP (2 hardcopy + electronic; 15 hardcopy for delivery to State Clearinghouse);
- Administrative Draft EIR (electronic only);
- Screencheck Draft EIR (2 hardcopy + electronic);
- Draft EIR (5 hardcopy + electronic; 15 hardcopy for delivery to State Clearinghouse);
- Stand-alone memorandum to support PSR/PR (electronic only);
- Administrative Final EIR (electronic only);
- Final EIR for publication (up to 5 bound hardcopy + one CD attached to the inside back cover of each volume);
- Findings of Fact and Statement of Overriding Considerations (5 hardcopy + electronic); and
- NOC(s).

Task 5: SOI Changes and Annexation

In order to extend the Sphere of Influence (SOI) boundary south to Stewart Road, and to annex the Newkom Ranch Master Plan area, the ESA Team, as required by LAFCO, will: (1) prepare a Municipal Service Review (MSR) and SOI Update; (2) assist with the SOI amendment and annexation processes; (3) prepare a Plan for Services to support the annexation process.

The MSR and SOI Update will be used by LAFCO as a tool to help identify and address municipal service issues in the context of amending the City's SOI. The area to be covered by the MSR/SOI Update includes the City's proposed Spheres of Influence extending south to Stewart Road. The City's currently adopted MSR needs to be updated to include more up to date information, the full SOI contemplated by Yuba City, and any new legislative requirements. As a result, the existing MSR/SOI Update will need to be updated.

Planning assistance for the City's SOI amendment and the annexation will include application preparation and processing. To support the annexation process, LAFCO requires that a Plan for Services be prepared. The Plan for Services will include information documenting that the range and level of services currently available within the Newkom Ranch Master Plan area can be maintained by the City.

The MSR/SOI Update and Plan for Services will be based upon existing information, plans, studies, and environmental analysis generated as part of the Newkom Ranch Master Plan and EIR. All work will be prepared in accordance with Sections 56430 and 56653 of the California Government Code, the Municipal Service Review Guidelines prepared by the State Office of Planning and Research, and Sutter LAFCO Policies and Procedures.

Task 5.1: MSR/SOI Update and Plan for Services

Task 5.1.1: Prepare Administrative Draft MSR and SOI Update

ESA will prepare an Administrative Draft MSR/SOI Update for review by the City and Sutter LAFCO staff. Based on State regulations and the existing MSR, it is anticipated that the MSR/SOI Update will include the following sections:

- **Introduction** identifying the purpose of the MSR/SOI Update, a summary of MSR and SOI requirements, and an overview of the document organization.
- **Growth and Population** presents information on the present and projected service area population and describes land uses and significant growth areas.
- **Infrastructure** analyzes the sufficiency of services to serve present and projected needs of the area based on current and projected population growth.
- **Financing Constraints and Opportunities** evaluates the finance plans, joint finance projects and revenue sources.
- **Cost Avoidance Opportunities** examines current practices, overlapping services, the transfer of costs to the public and inter-agency cooperation for the prospect of cost avoidance.
- **Rate Restructuring** considers the current rate structure, including an analysis of frequency of rate updates.
- **Opportunities for Shared Facilities** examines currently shared resources, facilities, personnel, and systems, as well as opportunities for expanded sharing.
- **Government Structure Options** reviews alternatives, such as formation and reorganization of new agencies and private sector opportunities. It also reviews previous

restructuring efforts, as well as opportunities for and obstacles for restructuring.

- **Evaluation of Management Efficiencies** reviews the current management structure, communication, and efficiency.
- **Local Accountability and Governance** analyzes the governing body, selection process, participation levels and public access and interest.
- **Sphere of Influence Recommendations** reviews the SOI boundaries to determine whether any changes to the boundary should be made.
- **Determinations** provide determinations with respect to the analysis factors described above in this section.

Task 5.1.2: Prepare Draft MSR and SOI Update

The ESA Team will prepare a Draft MSR/SOI Update for review by the City and Sutter LAFCO Commission based upon comments received on the Administrative Draft document.

Task 5.1.3: Prepare Final MSR and SOI Update

The ESA Team will prepare a Final MSR/SOI Update for review by the City and Sutter LAFCO Commission based upon comments received on the Draft document.

Task 5.2: SOI Expansion and Annexation Planning Assistance

The ESA Team will assist in the SOI Amendment and Newkom Ranch annexation processes. Assistance includes preparing the application requesting the SOI amendment and annexation to Yuba City, as well as the documents that the application requires. This scope of work *does not* assume the ESA Team will prepare the legal description, generate any mailing labels, do any mailings, prepare a map of the project, or pay any fees.

Task 5.3: Plan for Services

Task 5.3.1: Administrative Draft Plan for Services

The ESA Team will prepare an Administrative Draft Plan for Services for review by the City and Sutter LAFCO staff. It is anticipated that the Plan for Services will provide information documenting that the range and level of services currently available in the Newkom Ranch Master Plan area will be maintained by Yuba City. The Plan for Services will cover:

- Water
- Wastewater
- Storm Drainage
- Dry Utilities
- Streets
- Parks and Recreation
- Police
- Fire

It is anticipated that information for the Plan for Services will be from the Newkom Ranch Master Plan, Infrastructure Master Plans, and EIR analysis.

Task 5.3.2: Draft Plan for Services

The ESA Team will prepare a Draft Plan for Services for review by the Sutter LAFCO Commission based upon comments received on the Administrative Draft document.

Task 5.3.3: Final Plan for Services

The ESA Team will prepare a Final Plan for Services based upon direction received from the Sutter LAFCO Commission's review of the Draft document.

Task 5 – Deliverables

- Administrative Draft MSR/SOI Update (electronic copy)

- Draft MSR/SOI Update (electronic copy)
- Final MSR/SOI Update (electronic copy and 4 hard copies)
- Administrative Draft Plan for Services (electronic copy)
- Draft Plan for Services (electronic copy)
- Final Plan for Services (electronic copy and 4 hard copies)

Task 6: Project Management and Meetings

Task 6.1: Landowner Outreach

The ESA Team will prepare materials, attend, and facilitate up to three meetings with the landowners to review and obtain input on the supporting technical studies and Master Plan.

Task 6.2: Communication with City Staff

The ESA Team will hold regular meetings and calls with City staff throughout the planning process. The ESA Team will coordinate with the City to establish regularly scheduled project management calls. It is anticipated that these calls will occur on a bi weekly basis lasting one-half hour throughout the planning process. The primary intent of these calls will be for staff and the ESA Team to regularly and efficiently check in on project progress and schedule. The calls also provide an opportunity to discuss issues that have arisen and share ideas.

The ESA Team will hold working sessions with City staff (and other relevant participants) at key milestones of the Master Plan and EIR process to review work products and collaboratively work through issues, options, and solutions. Subject to City staff concurrence, this scope of work has identified the following working sessions:

- Kick off Meeting (1 meeting);
- Review draft of Mobility Plan (3 meetings/conference calls)
- Review draft of development standards and design guidelines (2 meetings/conference calls);
- Review draft of financing plans (3 meetings/conference calls)
- Review Administrative Draft Master Plan (1 meeting/conference call)
- EIR Scoping Meeting (1 meeting);
- Coordination and review of EIR (4 meetings/conference calls).
- Pre-application meeting with Yuba City, Sutter County, and Sutter LAFCO to discuss the SOI amendment; annexation of Newkom Ranch Master Plan area; the overall structure and approach to the MSR/SOI Update and Plan for Services. (1 meeting)
- Review comments on the Administrative Draft MSR/SOI Plan and Plan for Services. (1 meeting/conference call)
- Review the submittal for completeness Application meeting with City and Sutter LAFCO. (1 meeting)

Task 6.3: Public Hearings

The ESA Team will prepare materials for, attend, and make presentations at one Planning Commission hearing and up to two City Council hearings. The budget assumes that the ESA Team Project Manager will attend all three hearings, and the EIR lead, traffic lead, and WSA lead will attend one City Council hearing each. In addition, the ESA Team will attend up to three Sutter LAFCO Commission hearings on approval of the MSR/SOI Update and Plan for Services.

Task 6 – Deliverables

- Facilitate up to three (3) meetings with landowners and prepare meeting notes
- Bi weekly calls lasting one-half hour each with City staff

Scope of Work

- Attend/participate up to twenty-two (22) meetings/conference calls with City staff and prepare meeting notes
- Facilitate one (1) Scoping Meeting
- Attend up to three (3) public hearings
- Attend up to two LAFCO Commission hearings to approve the MSR/SOI Update, approve annexation of Newkom Ranch Master Plan into the City, and potentially a Protest Hearing for the Inhabited City Annexation which will be held in the event that a protest to annexation occurs.

Additional Considerations

When the proposed land use plan for the Newkom Ranch Master Plan has been finalized with commercial square footage determined, the ESA Team will review it to determine if an Urban Decay Analysis will be necessary as part of this project. The exact amount and type of commercial uses proposed in the plan area will help determine if an Urban Decay Analysis is warranted.

Exhibit B

Newkom Ranch Master Plan and EIR Cost Estimate Detail

Revised 1/11/16

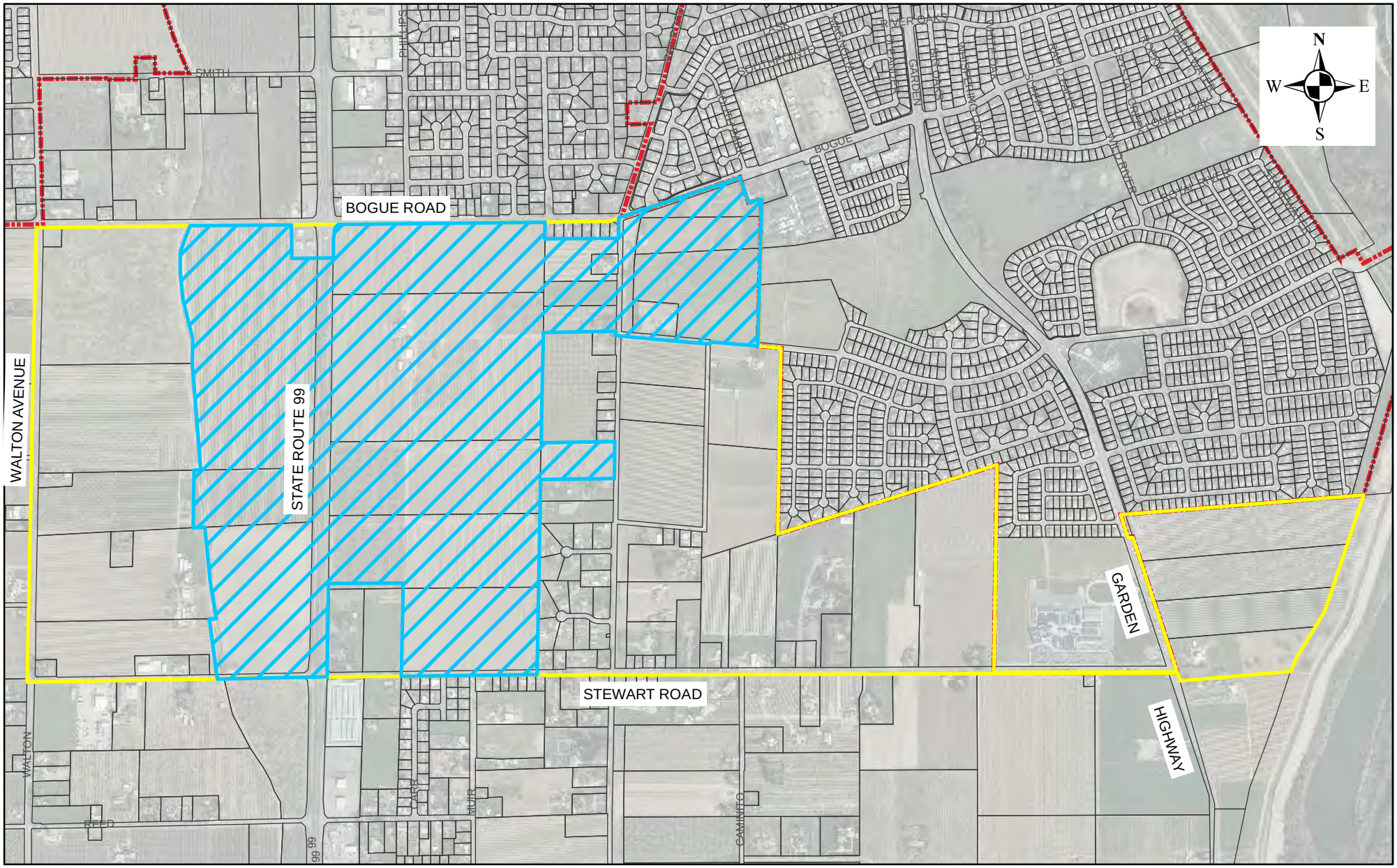
		Environmental Science Associates																							
		Labor Effort																							
	ESA staff:	Dan Dameron, Project Manager	Harriet Ross, Project Planner	Brian Boxer, CEQA Director	Christina Erwin, CEQA Manager	Cori Resha	Matt Pruter	LeChi Huynh	Erich Fischer, Director/Biologist	Robert Eckard	Todd Gordon	Matt Pruter	Kathy Anderson	Tim Rimpo	Matt Morales	Stan Armstrong	Rebecca Allen	GIS	Graphics	Administrative/Word Processing	ESA HOURS	ESA COSTS	SUBCONSULTANT COSTS	TOTAL COSTS	DEVELOPER COST	CITY COST
Employee category bill rate: ($/hr)		$200	$180	$220	$150	$120	$95	$115	$190	$110	$110	$90	$110	$195	$130	$100	$190	$120	$95	$85						
TASKS:		(Hours per person per task)																								
1	**Project Start Up**																					**$4,920**	**$0**	**$4,920**	**$4,920**	**$0**
1.1	**Obtain Data**		4				8											8			20	$2,440		$2,440	$2,440	$0
1.2	**Attend Kick-Off Meeting**	4	6		4																14	$2,480		$2,480	$2,480	$0
2	**Foundation Documents**																					**$47,200**	**$56,000**	**$103,200**	**$92,080**	**$11,120**
2.1	**Prepare Supporting Plans and Components**		8				16											10			34	$4,160		$4,160	$0	$4,160
2.1.1	**Prepare Mobility Plan**	8	8				8											8			32	$4,760		$4,760	$2,800	$1,960
2.1.2	**Prepare Development Standards**	16	30				44											12	24		126	$16,500		$16,500	$14,000	$2,500
2.1.3	**Prepare Design Guidelines**	16	30				44											12	24		126	$16,500		$16,500	$14,000	$2,500
2.1.4	**Prepare Financing Plan**	6	10																		16	$3,000	$25,000	$28,000	$28,000	$0
2.1.5	**Prepare Fiscal Analysis**	6	6																		12	$2,280	$31,000	$33,280	$33,280	$0
3	**Master Plan**																					**$92,020**	**$0**	**$92,020**	**$81,220**	**$10,800**
3.1	**Prepare Working Outline**	4	6				12														22	$3,020		$3,020	$3,020	$0
3.2	**Prepare Administrative Draft Master Plan**	32	58				144											20	24	24	302	$37,240		$37,240	$32,000	$5,240
3.3	**Prepare Public Review Draft Master Plan**	16	30				80											12	16	14	168	$20,350		$20,350	$19,000	$1,350
3.4	**Prepare Public Hearing Draft Master Plan**	12	12				50											6	8	4	92	$11,130		$11,130	$10,000	$1,130
3.5	**Prepare Final Master Plan**	4	6				30											4	4	4	52	$5,930		$5,930	$5,000	$930
3.6	**General Plan Amendment**	4	8				30											20			62	$7,490		$7,490	$6,200	$1,290
3.7	**Pre-Zoning**	4	8				36											10			58	$6,860		$6,860	$6,000	$860
4	**Environmental Impact Report**																					**$203,345**	**$130,490**	**$333,835**	**$272,468**	**$61,368**
4.1	**Initial Study and NOP**			4	4	16													4	2	30	$3,950		$3,950	$3,555	$395
4.2	**Administrative Draft EIR**		16	16	38													16	16	24	126	$17,580		$17,580	$15,822	$1,758
	Introduction			1	2	2															5	$760		$760	$684	$76
	Summary			1	2	8															11	$1,480		$1,480	$1,332	$148
	Project Description			1	4	8															13	$1,780		$1,780	$1,602	$178
	Land Use and Planning			1	2	36															39	$4,840		$4,840	$3,800	$1,040
	Agricultural Resources			1	2		32														35	$3,560		$3,560	$3,204	$356
	Population and Housing			1	2		22														25	$2,610		$2,610	$2,349	$261
	Growth Inducement & Urban Decay			1	2	20															23	$2,920		$2,920	$2,628	$292
	Visual Quality			1	2	4	32														39	$4,040		$4,040	$3,200	$840
	Public Services			1	2		50														53	$5,270		$5,270	$4,743	$527
	Utilities and Infrastructure			1	2					44											47	$5,360		$5,360	$4,824	$536
	Water Supply Assessment			1	2					8											11	$1,400	$35,300	$36,700	$36,700	$0
	Transportation and Circulation			1	2		8														11	$1,280	$60,000	$61,280	$56,280	$5,000
	Air Quality			1	2									16	68	20					107	$14,480		$14,480	$13,032	$1,448
	Climate Change			1	2									6	30						39	$5,590		$5,590	$5,031	$559
	Noise			1	2										16	60					79	$8,600		$8,600	$7,740	$860
	Geology, Soils, and Seismicity			1	2	8					24										35	$4,120		$4,120	$3,708	$412
	Hazards/Hazardous Materials			1	2	8					30										41	$4,780		$4,780	$4,302	$478
	Hydrology, Drainage and Water Quality			1	2					24											27	$3,160		$3,160	$2,500	$660
	Biological Resources			1	2			34	6												43	$5,570		$5,570	$5,013	$557
	Cultural Resources			1	2								62				12				77	$9,620		$9,620	$8,658	$962
	Energy and Mineral Resources			1	2						22					18					43	$4,740		$4,740	$4,266	$474
	Alternatives		12	4	8		24	4		4			2	2	4	12					76	$9,750		$9,750	$9,000	$750
	Other CEQA Considerations			1	2		12														15	$1,660		$1,660	$1,494	$166

Newkom Ranch Master Plan and EIR Cost Estimate Detail

Revised 1/11/16

		Environmental Science Associates																						
		Labor Effort																						
ESA	ESA staff:	Dan Dameron, Project Manager	Harriet Ross, Project Planner	Brian Boxer, CEQA Director	Christina Erwin, CEQA Manager	Cori Resha	Matt Pruter	LeChi Huynh	Erich Fischer, Director/Biologist	Robert Eckard	Todd Gordon	Matt Pruter	Kathy Anderson	Tim Rimpo	Matt Morales	Stan Armstrong	Rebecca Allen	GIS	Graphics	Administrative/Word Processing	ESA HOURS	ESA COSTS	SUBCONSULTANT COSTS	TOTAL COSTS	DEVELOPER COST	CITY COST
Employee category bill rate: ($/hr)		$200	$180	$220	$150	$120	$95	$115	$190	$110	$110	$90	$110	$195	$130	$100	$190	$120	$95	$85						
4.3 **Screencheck Draft EIR**				12	40	16	32	12		12	12		8	2	12	4		12	8	24	206	$25,090	$18,000	$43,090	$22,581	$20,509
4.4 **Draft EIR**				4	24	8	16			4			4	2	4			4	4	16	90	$10,970	$11,610	$22,580	$9,873	$12,707
4.5 **Administrative Final EIR**			6	8	32	32	16	6		12	6		6	4	12	16		2	4	16	178	$22,250	$5,580	$27,830	$20,025	$7,805
4.6 **Final EIR**				4	18	28	8	2		2			2	1	4	8			2	8	87	$10,755		$10,755	$9,680	$1,076
4.7 **Prepare Findings/SOC**				4	6	30															40	$5,380		$5,380	$4,842	$538
5 **SOI Changes and Annexation**																						**$39,660**	**$0**	**$39,660**	**$36,060**	**$3,600**
5.1 **MSR/SOI Update and Plan for Services**																					0					
5.1.1 **Prepare Admin Draft MSR and SOI Update**		4	16				76											12		8	116	$13,020		$13,020	$11,000	$2,020
5.1.2 **Prepare Draft MSR and SOI Update**		4	8				36											6		4	58	$6,720		$6,720	$5,800	$920
5.1.3 **Prepare Final MSR and SOI Update**			6				20											2		2	30	$3,390		$3,390	$2,800	$590
5.2 **SOI Expansion and Annex. Planning Assist.**		4	10				26														40	$5,070		$5,070	$5,000	$70
5.3 **Plan for Services**																					0	$0		$0		
5.3.1 **Administrative Draft Plan for Services**		4	16				30											4		2	56	$7,180		$7,180	$7,180	$0
5.3.2 **Draft Plan for Services**			8				14											2		2	26	$3,180		$3,180	$3,180	$0
5.3.3 **Final Plan for Services**			2				6													2	10	$1,100		$1,100	$1,100	$0
6 **Project Management and Meetings**																						**$80,310**	**$6,810**	**$87,120**	**$80,370**	**$6,750**
6.1 **Landowner Outreach**		24	24															6	6		60	$10,410		$10,410	$10,410	$0
6.2 **Communication with City Staff**		100	124	14	54	12															304	$54,940	$6,810	$61,750	$55,000	$6,750
6.3 **Public Hearings**		30	30	8	12																80	$14,960		$14,960	$14,960	$0
TOTAL ESA LEVEL OF EFFORT (Hours)		302	508	100	286	236	962	58	6	110	94	0	84	33	150	138	12	188	144	156	3567					
TOTAL ESA LABOR COSTS ($)		$60,400	$91,440	$22,000	$42,900	$28,320	$91,390	$6,670	$1,140	$12,100	$10,340	$0	$9,240	$6,435	$19,500	$13,800	$2,280	$22,560	$13,680	$13,260		**$467,455**	**$193,300**	**$660,755**	**$567,118**	**$93,638**
DIRECT EXPENSES																										
Printing																						$3,000		$3,000	$2,580	$420
Mileage/Vehicle Rental/Fuel/Per Diem																						$1,500	$1,550	$3,050	$2,623	$427
Maps/Supplies/Photos/GPS Unit Use																						$500		$800	$688	$112
Communications/Postage/Delivery																						$500		$500	$430	$70
Records Search																						$800		$800	$688	$112
Misc																						$200	$9,450	$9,650	$8,299	$1,351
Subtotal Direct Expenses																						*$6,500*	$11,000	*$17,500*	$15,050	$2,450
ADMINISTRATIVE FEE (8% ON SUBCONSULTANTS AND EXPENSES)																						*$16,864*		*$16,864*	*$14,503*	*$2,361*
TOTAL DIRECT EXPENSES																						**$34,364**		**$34,364**	**$29,553**	**$4,811**
TOTAL COSTS (LABOR AND EXPENSES)																						**$501,819**	**$193,300**	**$695,119**	**$596,671**	**$98,448**

Exhibit C: Project Area



Potential Sphere of Influence Expansion

Project Applicant

City recommended expanded area

1 inch = 1,200 feet

Exhibit D of Funding Agreement

Full Cost Recovery Hourly Rates

(Rates are approximate; hourly)

Development Services Department	Hourly Rate
Arnoldo Rodriguez, Director	$139
Vacant, Principal Planner	$90
Terry Kopp, DSD Technician II	$54

Public Works Department	Hourly Rate
Diana Langley, Director	$174
Ben Moody, Deputy Director	$129

Fire Department	Hourly Rate
Pete Daley, Chief	$177
Jim Mathews, Fire Marshall	$110

Finance Department	Hourly Rate
Robin Bertagna, Director	$164

Community Services Department	Hourly Rate
Brad McIntire, Director	$125

Police Department	Hourly Rate
Robert Landon, Chief	$217

Economic Development	Hourly Rate
Darin Gale, Manager	$134

CITY OF YUBA CITY
STAFF REPORT

Date: January 19, 2016

To: Honorable Mayor & Members of the City Council

From: Administration

Presentation by: Darin Gale, Economic Growth & Public Affairs

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Summary

Subject: Annual Sacramento Metro Chamber Capitol to Capitol Legislative Program in Washington DC

Recommendation: Continue participating in the Sacramento Metro Chamber's Annual Cap-to-Cap Legislative Program by sending staff and City Council members to the April 2016 Program

Fiscal Impact: $4,000 fee per participant which includes lodging, meals and transportation

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Purpose:

To represent the City's interests at the federal level through a joint and cooperative effort with region agencies.

Background:

The City of Yuba City and Sutter County have a joint interest in monitoring actions of State and Federal agencies impacting flood protection in the Yuba City basin, pursuing administrative and legislative alternatives to proposed actions, and seeking funding opportunities whenever possible. In prior years, the City partnered with Sutter County for the services of a lobbying firm to represent our interests in Washington D.C. In 2011, the City did not renew the contract.

For the past six years the City of Yuba City has participated in the Sacramento Metro Chamber's Annual Legislative Program to advocate at the federal level on local and regional issues by sending the Mayor, Vice Mayor and a staff member with the delegation. This annual trip includes over 300 community and business leaders from the entire six-county Sacramento region and provides the City an opportunity to have the entire region supporting local Yuba City and Yuba-Sutter issues.

Key policy issues of the Legislative Program continue to be funding for flood control improvements throughout the region. In 2015 a third Councilmember was asked to participate due to his role as Chair of the Sutter Buttes Flood Control Agency.

Analysis:

Currently the City does not contract with a State or Federal lobbyist but is using City staff to monitor legislative issues which has saved the City approximately $63,000 annually. Through the Cap to Cap Program and other lobbying efforts, we have been able to successfully advocate

for a variety of issues including receiving federal authorization of the West Feather River Levee Project and securing $35 million in flood control funding.

Fiscal Impact:

The $4,000 fee per participant includes lodging, meals and transportation.

Alternatives:

Do not attend the 2016 Cap to Cap Program and consider hiring a federal lobbyist.

Recommendation:

Continue participating in the Sacramento Metro Chamber's Annual Cap-to-Cap Legislative Program by sending staff and council members to the April 2016 Program.

Prepared By:

/s/ Darin E. Gale
Darin E. Gale
Economic Growth and Public Affairs

Submitted By:

/s/ Steven C. Kroeger
Steven C. Kroeger
City Manager

Reviewed By:

Finance RB

CITY OF YUBA CITY

City Council Reports

- Councilmember Cleveland
- Councilmember Didbal
- Councilmember Gill
- Vice Mayor Buckland
- Mayor Dukes

Adjournment