

CITY OF
FOLSOM
DISTINCTIVE BY NATURE

PLANNING COMMISSION AGENDA
June 20, 2018
CITY COUNCIL CHAMBERS
6:30 p.m.
50 Natoma Street
Folsom, California 95630

CALL TO ORDER PLANNING COMMISSION: Vice Chair John Arnaz, Jennifer Lane, Kevin Mallory, Ross Jackson, Aaron Ralls, Thomas Scott, Chair Justin Raitchel

Any documents produced by the City and distributed to the Planning Commission regarding any item on this agenda will be made available at the Community Development Counter at City Hall located at 50 Natoma Street, Folsom, California and at the table to the left as you enter the Council Chambers. The meeting is available to view via webcast on the City's website the day after the meeting.

PLEDGE OF ALLEGIANCE

CITIZEN COMMUNICATION: The Planning Commission welcomes and encourages participation in City Planning Commission meetings, and will allow up to five minutes for expression on a non-agenda item. Matters under the jurisdiction of the Commission, and not on the posted agenda, may be addressed by the general public; however, California law prohibits the Commission from taking action on any matter which is not on the posted agenda unless it is determined to be an emergency by the Commission.

MINUTES

The minutes of June 6, 2018 will be presented for approval.

NEW BUSINESS

1. **PN 17-368 Revel Folsom Senior Living Planned Development and Conditional Use Permit and Consideration of a Mitigated Negative Declaration**

A Public Hearing to consider a request from Elliott Alta Vista/Wolff Enterprises for approval of a Planned Development Permit and Conditional Use Permit for development and operation of a 166-unit senior living community located on a 6-acre site located on the southeast corner of the intersection of Iron Point Road and Oak Avenue Parkway (APN: 072-2680-011). The zoning classification for the site is C-3 PD and the General Plan land-use designation is RCC. An Initial Study and Mitigated Negative Declaration have been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA). **(Project Planner: Principal Planner, Steve Banks / Applicant: Elliott Alta Vista/Wolff Enterprises)**

2. PN 18-017 Folsom Central Plaza Pad Building Planned Development and Conditional Use Permit and Determination that the Project is Exempt from the California Environmental Quality Act (CEQA)

A Public Hearing to consider a request from Nazareth Retail Holdings/Ottolini & Associates for approval of a Planned Development Permit and Conditional Use Permit for development of an 800 square foot commercial building (Dutch Bros.) with a drive-thru and a 5,000 square foot commercial building (Big O Tires) on a one-acre parcel. The project is categorically exempt from environmental review under section 15332 of the CEQA guidelines (Infill Development Projects). **(Project Planner: Principal Planner, Steve Banks / Applicant: Nazareth Retail Holdings/Ottolini & Associates)**

3. PN 18-200 Folsom Municipal Code Title 17 Amendments and Determination that the Project is Exempt from the California Environmental Quality Act (CEQA)

A Public Hearing to consider a request from the City of Folsom regarding an Ordinance amending certain provisions in Title 17 of the Folsom Municipal Code including Chapter 17.06 (Design Review) relating to projects exempt from design review process, design review submittal requirements, posting of the site, , and expiration and extension of approval; Chapter 17.08 (Zoning Plan and Adoption of Districts) relating to zoning plan content and district application; Section 17.16.020 (Permitted Uses) relating to permitted uses in the R-3 Neighborhood Apartment District; and Section 17.18.020 (Permitted Uses) relating to permitted uses in the R-4 General Apartment District. The ordinance is categorically exempt from environmental review under Section 15061(b)(3) of the California Environmental Quality Act (CEQA) Guidelines. **(Project Planner: Senior Planner, Stephanie Henry)**

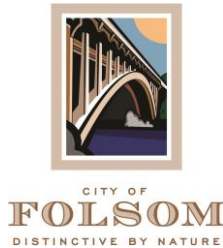
PLANNING COMMISSION / PLANNING MANAGER REPORT

The next Planning Commission meeting is scheduled for **July 18, 2018**. Additional non-public hearing items may be added to the agenda; any such additions will be posted on the bulletin board in the foyer at City Hall at least 72 hours prior to the meeting. Persons having questions on any of these items can visit the Community Development Department during normal business hours (8:00 a.m. to 5:00 p.m.) at City Hall, 2nd Floor, 50 Natoma Street, Folsom, California, prior to the meeting. The phone number is (916) 461-6203 and FAX number is (916) 355-7274.

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in the meeting, please contact the Community Development Department at (916) 461-6203, (916) 355-7274 (fax) or kmullett@folsom.ca.us. Requests must be made as early as possible and at least two-full business days before the start of the meeting.

NOTICE REGARDING CHALLENGES TO DECISIONS

The appeal period for Planning Commission Action: Any appeal of a Planning Commission action must be filed, in writing with the City Clerk's Office no later than ten (10) days from the date of the action pursuant to Resolution No. 8081. Pursuant to all applicable laws and regulations, including without limitation, California Government Code Section 65009 and or California Public Resources Code Section 21177, if you wish to challenge in court any of the above decisions (regarding planning, zoning and/or environmental decisions), you may be limited to raising only those issues you or someone else raised at the public hearing(s) described in this notice/agenda, or in written correspondence delivered to the City at, or prior to, the public hearing



PLANNING COMMISSION MINUTES
June 6, 2018
CITY COUNCIL CHAMBERS
6:30 P.M.
50 Natoma Street
Folsom, CA 95630

CALL TO ORDER PLANNING COMMISSION: Jennifer Lane, Kevin Mallory, Ross Jackson, Aaron Ralls, Thomas Scott, Vice Chair John Arnaz, Chair Justin Raithel

ABSENT: None

CITIZEN COMMUNICATION:

1. Moe Harani addressed the Planning Commission about the new Out of Bounds Brewery, addressing citizen's concerns about the parking situation.

MINUTES: The minutes of May 16, 2018 were approved as submitted.

NEW BUSINESS

1. Folsom 2035 General Plan and Environmental Impact Report

A Public Hearing to consider a request from the City of Folsom for approval of the 2035 General Plan and 2035 General Plan Environmental Impact Report. The General Plan provides the framework for land use decisions in the City of Folsom and includes goals, policies, and programs on a wide range of topics. The 2035 General Plan contains both optional and mandatory elements as required by State Law and each chapter contains goals and implementing policies for the topical area. The Chapters include the following: Introduction (Chapter 1); Land use (Chapter 2); Mobility (Chapter 3); Economic Prosperity (Chapter 4); Housing (Chapter 5- please note there are no changes proposed to this Chapter); Natural and Cultural Resources (Chapter 6); Public Facilities and Services (Chapter 7); Parks and Recreation (Chapter 8); Safety and Noise (Chapter 9); and Implementation (Chapter 10). The Planning Commission will be making a recommendation on the project to the City Council. An Environmental Impact Report (SCH No. 2017082054) has been prepared for the project in accordance with the California Environmental Quality Act. **(Project Planner, Scott A. Johnson, AICP, Planning Manager)**

1. Deborah Grassl addressed the Planning Commission in opposition of the project.
2. Bob Holderness addressed the Planning Commission in favor of the project.
3. Terry Sorensen addressed the Planning Commission in opposition of the project.
4. Will Kempton addressed the Planning Commission in favor of the project.
5. Casey Kempenaar addressed the Planning Commission in opposition of the project.

COMMISSIONER SCOTT MOVED TO RECOMMEND THAT THE CITY COUNCIL APPROVE THE FINAL ENVIRONMENTAL IMPACT REPORT AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE 2035 FOLSOM GENERAL PLAN; AND MOVE TO RECOMMEND THAT THE CITY COUNCIL APPROVE THE 2035 FOLSOM GENERAL PLAN WITH THE FOLLOWING FINDINGS: GENERAL FINDINGS A&B AND CEQA FINDINGS C-H.

COMMISSIONER ARNAZ SECONDED THE MOTION, WHICH CARRIED THE FOLLOWING VOTE:

AYES: JACKSON, SCOTT, ARNAZ, RAITHEL
NOES: LANE, MALLORY, RALLS
ABSTAIN: NONE
ABSENT: NONE

PLANNING MANAGER REPORT

None

RESPECTFULLY SUBMITTED,

Kelly Mullett, SENIOR OFFICE ASSISTANT

APPROVED:

Justin Raithel, CHAIRMAN

PLANNING COMMISSION STAFF REPORT

PROJECT TITLE	Revel Folsom Senior Living Community
PROPOSAL	Request for approval of a Planned Development Permit and Conditional Use Permit for development and operation of a 166-unit senior living community
RECOMMENDED ACTION	Approve, based upon findings and subject to conditions
OWNER/APPLICANT	Elliott Alta Vista/Wolff Enterprises
LOCATION	The 6-acre project site is located on the south side of Iron Point Road, slightly east of the intersection of Iron Point Road and Oak Avenue Parkway
APN	APN No. 072-2680-011
SITE CHARACTERISTICS	The sloped site is currently undeveloped grassland with a mature grove of oaks. Topography of the site ranges from the lowest elevation of approximately 290 feet near the northwest corner up to an elevation of 340 feet near the southeast corner. There is a grove of 32 protected oak trees centrally located within the project site.
GENERAL PLAN DESIGNATION	RCC (Regional Commercial)
ZONING	C-3 PD (General Commercial, Planned Development District)
ADJACENT LAND USES/ZONING	North: Open Space Parcels (C-3 PD) and future CountryHouse at Broadstone Memory Care Community (C-3 PD) with Iron Point Road Beyond

South: Undeveloped Commercially-Zoned Property (C-3 PD) with U.S. Highway 50 Beyond

East: Kaiser Permanente Medical Office Campus (M-L PD) with Commercial Development Beyond

West: Future Oak Avenue Parkway Extension with Commercial Development (C-3 PD) Beyond

PREVIOUS ACTION

City Council certification of the Broadstone Master Plan EIR for 805 acres of development, including the subject 6-acre project site in 1991 and Planning Commission approval of a Tentative Parcel Map and Planned Development Permit for development of a 71,800-square-foot commercial office and retail center (Broadstone Oaks Office/Retail Center) on March 18, 2009

FUTURE ACTION

Issuance of Grading and Building Permits

APPLICABLE CODES

FMC 17.22, Commercial Land Use Zones
FMC 17.38, Planned Development District
FMC 17.57, Parking Requirements
FMC 17.59, Signs
FMC 17.60, Use Permits

ENVIRONMENTAL REVIEW

An Initial Study and Mitigated Negative Declaration have been prepared for the project in accordance with the California Environmental Quality Act (CEQA)

ATTACHED REFERENCE MATERIAL

1. Vicinity Map
2. Preliminary Site Plan, dated April 27, 2018
3. Preliminary Grading and Utility Plan, dated April 27, 2018
4. Preliminary Landscape Plan, dated March 7, 2018
5. Preliminary Access and Circulation Plan, dated April 27, 2018
6. Building Elevations with Renderings, dated March 7, 2018
7. Building Floor Plans and Unit Plans, dated March 10, 2018
8. Project Narrative
9. Parking Survey Evaluation, dated April 27, 2018
10. Parking Assessment, dated May 22, 2018
11. Emergency Vehicle Access Easement Agreement, recorded February 28, 2018
12. Agreement Relating to Future Land Dedication for Oak Avenue Parkway Freeway Interchange Affecting Broadstone Oaks Parcel 2, dated January 23, 2018

13. Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring and Reporting Program, dated May 2018
14. Site Photographs

PROJECT PLANNER

Steve Banks, Principal Planner

BACKGROUND

In 1991, the City Council certified the Broadstone Master Plan EIR for 805 acres of development, including the subject 6-acre project site. The overall Master Plan consisted of approximately 1,092 single-family units, 672 multifamily units, in addition to commercial and office development. The project site has been designated for commercial development since the approval of the Broadstone Unit No. 2 Master Plan in 1991.

On March 18, 2009, the Planning Commission approved a Vesting Tentative Parcel Map and Planned Development Permit for development of a 71,800-square-foot office and retail center (Broadstone Oaks) on a 12.7-acre site (included subject 6-acre parcel) located at the southeast corner of the intersection of Iron Point Road and Oak Avenue Parkway. The Broadstone Oaks project included construction of a bridge crossing to provide access from Iron Point Road across a creek feature to the rear of the property. Subsequently, Maverick Partners West (applicant for the Countryhouse at Broadstone project) obtained the necessary environmental approvals and permits for construction of the bridge crossing. The aforementioned entitlements granted by the Planning Commission expired on March 18, 2011, and as a result, no development activity occurred on the subject property.

On May 4, 2016, the Planning Commission approved a Planned Development Permit and Conditional Use Permit for development and operation of a 45-unit memory care residence (CountryHouse at Broadstone) on a 1.91-acre site located at the southeast corner of the intersection of Iron Point Road and Oak Avenue Parkway. Of note, the CountryHouse at Broadstone project included an access easement requirement to provide access through their project site to allow future access to the current project site. The applicant is in the process of obtaining permits from the City and expects to begin construction of the CountryHouse project later this summer. Construction of the previously mentioned bridge crossing is also expected to begin this summer.

On January 23, 2018, the City Council approved a resolution (Resolution No. 10066) authorizing the City Manager to execute an agreement with Elliott Homes relating to future land dedication for the Oak Avenue Parkway freeway interchange as it relates to Broadstone Oaks Parcel No. 2 (subject property). The purpose of the resolution was to formalize a mutual understanding through a negotiated agreement (Agreement) to better define the extent by which the subject property may be impacted by the need for additional right-of-way for construction of the future Oak Avenue Parkway freeway interchange. The current conceptual design for the future interchange does not show any need for additional right-of-way from the subject property. However, the conceptual westbound off-ramp for the future interchange does come fairly close to the property line for the subject parcel. The Agreement states that the subject property may be required to dedicate additional public right-of-way in the future to accommodate the design of the freeway interchange. However, the Agreement also places limits on the extent of the impacts to the subject property.

As a result of recent interest from developers in providing senior housing opportunities in Folsom, City staff thought it would be helpful to provide an overview of the existing housing market and associated demographic trends. The City currently consists of approximately 27,000 dwelling units comprised of a combination of single family homes, condominiums, apartments, mobile homes, assisted living units, and skilled nursing units. Of the existing 27,000 dwelling units, a total of 1,103 units (3.6%) are dedicated to senior residents including 524 senior apartments (1.9%), 330 assisted living units (1.2%), 150 age-restricted single-family units (0.5%), and 99 skilled nursing units (0.4%). Taking into account the most recently-approved assisted living projects (Countyhouse at Broadstone-45 units, Iron Point Retirement Community-126 units, and Russell Ranch-208 units); the number of senior living units within the City would potentially increase from 1,103 units to 1,482 (5.5% of total housing stock). However, of those units, only a small percentage (1.3%) are age-restricted single-family residential units focused towards active adult living.

Utilizing the most recent information from the United States Census Bureau (2010), the City has 72,203 residents, 14,295 (19.8%) of which are over the age of 55. Between the years 2000 and 2010, the number of residents over the age of 55 in Folsom increased from 8,097 (15.6% of population) to 14,295 (19.8% of population), which translates to an increase of 4.2% over a ten year period. As a point of comparison, the number of residents over the age of 55 in Sacramento County increased from 230,536 (18.8%) in 2000 to 314,188 (22.1%) in 2010. Based on the aforementioned demographic information, it is apparent that the number of senior-aged residents within the City is increasing on a consistent basis, thus the need for senior housing opportunities including age-restrictive active adult communities will continue to grow in the future.

APPLICANT'S PROPOSAL

The applicant, Wolff Enterprises, is requesting approval of a Planned Development Permit and Conditional Use Permit for development of a 166-unit senior living community (Revel Folsom Senior Living) on a 6-acre site located south of Iron Point Road and east of the extension of Oak Avenue Parkway (see Attachment No. 1). The development is intended to be an age-restricted (55+) residential community for active and well senior residents. In addition, the proposed project will be developed in concert with the CountryHouse at Broadstone memory care community located to the north of the Revel Folsom Senior Living site. These two communities will serve to create a senior campus with a variety of contemporary features for seniors of varying acuities.

The proposed project includes 159,000 square feet in two residential buildings and an approximately 22,200 square foot two-story community building. Additional site improvements include underground utilities, drive aisles, parking spaces, emergency vehicle access, sidewalks and walkways, site lighting, site landscaping, a trash/recycling enclosure, retaining walls, and an outdoor patio.

Two residential buildings are proposed on the Revel site, approximately 72,000 square feet and 87,000 square feet in size respectively, with 13 studio units, 99 one bedroom units and 54 two bedroom units (a total of 166 units). Both residential buildings will feature two elevators each and will have conditioned connections to the community building. The proposed buildings are sited around a large courtyard. A mature oak grove located between the residential buildings in the courtyard will be protected and enhanced, serving as the focal point for a variety of outdoor amenities for residents and guests.

Amenities within the community buildings include 3 full service dining venues, a commercial kitchen, a movie theater, an art studio, a beauty salon, a workout facility, a wellness/yoga studio room, a conference meeting room, an outdoor gathering patio, walking trails, and various offices. An elevator will provide access to both levels of the community building. The adjoining residential building will feature a heated saline indoor pool for therapy and exercise.

Access to the project site will be provided by a new driveway on Iron Point Road via a bridge that spans an existing protected creek feature. Driveway access will be provided from the project access driveway to CountyHouse at Broadstone near the driveway's intersection with Iron Point Road. The project driveway features STOP-sign control for vehicles exiting the site and will accommodate right-turns-in and right-turns-out only. Emergency vehicle access is provided around the circumference of the site within the parking lot and inside the courtyard to the rear of the community building. A 22-foot-wide emergency vehicle access is also provided via a connection to the Kaiser facility parking lot. Internal vehicle circulation consists of a private drive aisle around all buildings with a circular turn-around at the main entrance to the community building.

Pedestrian access is facilitated by sidewalks from the entry driveway both easterly and westerly that connect with existing sidewalks along Iron Point Road. An on-site sidewalk is located on the west side of the entrance driveway providing pedestrian access from Iron Point Road to CountryHouse at Broadstone and Revel Folsom Senior Living facilities. In addition to internal pedestrian connections between buildings, courtyard and parking, two trailhead connections are provided to connect with the future City trail along the south edge of the property.

The proposed project includes 135 on-site parking spaces for residents and employees. As discussed below, operations are 365 days a year, 24 hours a day, and 20 staff members will typically be on site at all times with slightly fewer on the overnight shift. While not all staff may drive, at least 115 stalls will be available for residents and guests. There will be regular dedicated transportation for residents daily to a variety of shopping, cultural, medical and entertainment destinations.

The proposed building layout has been designed to preserve the existing oak grove and to fit the form of the existing topography of the site. From the lowest topographic elevation of the site near the west residential building to the highest elevation near the east residential building, each building steps up/down an entire floor height internally to connect with the adjacent building to minimize external grading associated with the project. For example, the west residential building first floor elevation is 305 feet and its second floor elevation is 318 feet. The community building first floor elevation is 318 feet. A connection between buildings is made from the second floor of one building to the first floor of another. A similar connection occurs between the community building and the east residential building.

By using this design approach, the west residential building contains a sunken floor strategically placed to allow for natural light, creating a three story building as viewed from the courtyard and a four story elevation viewed from the opposite side. Averaging the three and four-story portions, the west residential building height averages approximately 46-feet. The east residential building is a four story elevation averaging approximately 48-feet in height. Exterior building materials will include a mix of stone, concrete siding, stucco and wood colored accents. A pitched roof that will serve to hide mechanical wells on the roof for air conditioning equipment.

A staff of approximately 40 full and part time employees will provide high level programming, dining, transportation, maintenance, housekeeping and administrative services to residents of Revel Folsom. Staffing will be split into three shifts with approximately 20 staff on-site at any given time with the exception of the overnight shift. There will be a 24 hour a day staff presence seven days a week in the community building. Meals will be served approximately 12 hours per day every day of the year. A secure entry system will be controlled by magnetic device, with the clubhouse open during business hours and locked thereafter.

The monthly fee will include all utilities (gas heat, electric, water, sewer, trash, cable and wired internet to each unit) and the equivalent of two meals daily. There will be regular dedicated transportation for residents daily to a variety of shopping, cultural, medical and entertainment destinations. Professionals employed by the community will foster a variety of physical, educational, artistic and other resident driven activities seven days a week.

GENERAL PLAN AND ZONING CONSISTENCY

The General Plan land use designation for the project site is RCC (Regional Commercial) and the zoning designation is C-3 PD (General Commercial, Planned Development District). The zoning designation corresponds with the General Plan designation boundary lines. The project is consistent with both the General Plan land use designation and the zoning designation for the site, as senior residential developments are identified as a permitted land use within the zoning designation for this site with approval of a Conditional Use Permit. In addition, the proposed project meets the development requirements established by the Folsom Municipal Code with respect to lot area, lot width, building coverage, and building setbacks.

LAND USE COMPATIBILITY

The proposed project is located on an undeveloped, 6-acre commercially-zoned property situated south of Iron Point Road and east of its intersection with Oak Avenue Parkway within the Broadstone Master Planned Community. The project site is bounded by an oak tree preserve to the north with Iron Point Road, multifamily residential development, and single-family residential development beyond, an open space parcel and undeveloped commercial land to the south with U.S. Highway 50 beyond, a Kaiser Permanente medical office building to the east with commercial development beyond, and the future Oak Avenue Parkway freeway interchange to the west with commercial development beyond.

The Folsom Municipal Code, (Section 17.22.030-2A) requires that senior residential developments obtain a Conditional Use Permit if the use is located within an area with a C-3 (Business and Professional) zoning designation. In this particular case, the applicant is requesting approval of a Conditional Use Permit to develop and operate a 166-unit active senior living community on the subject 6-acre site.

In order to approve this request for a Conditional Use Permit, the Commission must find that the “establishment, maintenance, or operation of the use or building applied for will not, under the circumstances of the particular case, be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood, or to the general welfare of the City.”

In reviewing the request for a Conditional Use Permit, staff took into consideration the compatibility of the proposed land use in relation to the existing land uses in the immediate project vicinity. Potential noise impacts, potential traffic impacts, and potential aesthetic impacts were also analyzed and are addressed within separate sections of this report. As noted earlier, the project site is located on a major arterial roadway (Iron Point Road) and in a development-intensive corridor populated with a mixture of commercial, residential, and retail land uses. The most prominent land uses in the immediate project area are professional office-related and include the Broadstone Business Center, Kaiser Permanente, Broadstone Park Professional Center, CAISO, Micron, and Safe Credit Union. Residential land uses in close proximity to the site include the Vessona Condominiums (approximately 320 feet north across Iron Point Road), the Broadstone Unit No. 2 Subdivision (approximately 470 feet northwest across Iron Point Road and Oak Avenue Parkway), and the approved CountryHouse at Broadstone memory care facility (quasi-residential use) which will share the access drive with the proposed project. Medical-office related land uses in the project vicinity include the aforementioned Kaiser Permanente Medical Office facility and the Kaiser Permanente Surgery Center. The nearest retail commercial development (Folsom Gateway Shopping Center) is located approximately .75 miles to the east of the project site. Additional retail commercial development is located north of Iron Point Road (Palladio at Broadstone), approximately 1 mile east of the project site. Both retail commercial developments include grocery stores and a variety of retail shops.

The project site is situated in a unique location that includes a wide array of land uses including professional offices, medical offices, retail shopping, multi-family apartments, and single-family residences. The proposed Revel Folsom Senior Living Community, which will provide housing for 55+ age adults, will be complementary to the approved CountryHouse at Broadstone Memory Care Community, and existing multi-family and single-family residential land uses located in the immediate project vicinity. In addition, taking into account the unique needs of senior residential facilities, staff has determined that the proposed project is well-situated to take advantage of the services provided by the nearby medical offices and surgery center.

PLANNED DEVELOPMENT PERMIT

The purpose of the Planned Development Permit process is to allow greater flexibility in the design of integrated developments than otherwise possible through strict application of land use regulations. The Planned Development Permit process is also designed to encourage creative and efficient uses of land. In reviewing the applicant's request for approval of a Planned Development Permit, staff considered a variety of factors including existing/proposed development standards, traffic/access/circulation, parking requirements, noise impacts, walls, site lighting, project signage, site landscaping, trash/recycling, grading/drainage, and architecture/design.

Development Standards

The applicant's intent with the subject application is to create a set of development standards that will accommodate development of a two to four-story, 181,200-square-foot senior living community on the 6-acre project site. The design and development standards established by the Folsom Municipal Code (FMC, Section 17.38.090) as part of the Planned Development Permit process indicate that a proposed project must be designed to provide open space, circulation, off-street parking, and other conditions in such a way to form a harmonious, integrated project of sufficient quality. The following table outlines the existing and proposed development standards for the Revel Folsom Senior Living Community:

Revel Folsom Senior Living Community Development Standards Table							
	Lot Area	Lot Width	Building Coverage	Front Yard Setback	Rear Yard Setback	Side Yard Setbacks	Building Height limit
Folsom Municipal Code	NA	NA	NA	NA	12 feet	NA	50 feet (four-stories)
Proposed Project	261,360 s.f	540 feet	20%	70 feet	70 feet	50 feet and 65 feet	50 feet (four-stories)

The proposed project meets or exceeds all development standards established for the subject site by the Folsom Municipal Code (Section 17.22.050). Parking is addressed separately within the parking section of this staff report.

Traffic/Access/Circulation

Existing Roadway Network

Significant roads in the project vicinity include Iron Point Road, Oak Avenue Parkway, McAdoo Drive, and Rowberry Drive.

- Iron Point Road, which is an east-west arterial roadway that extends from Empire Ranch Road to Folsom Boulevard, generally runs parallel to and just north of U.S. Highway 50. In the immediate vicinity of the project site, Iron Point Road is a four-lane, median-divided road with bike lanes and a 45 mph posted speed limit.
- Oak Avenue Parkway is a north-south, four-to-six lane arterial street that has Iron Point Road as its southern terminus. Near Iron Point Road, Oak Avenue Parkway has a 45 mph posted speed limit and two lanes in each direction (plus bike lanes) separated by a landscaped median.
- McAdoo Drive is a north-south roadway that runs from Iron Point Road to Riley Street. McAdoo Drive is a two-lane road with bike lanes and a 35 mph posted speed limit.
- Rowberry Drive is a two-lane residential collector street which connects Iron Point Road with Walden Drive.

Traffic Impacts

The traffic, access, and circulation analysis associated with the proposed project is based on the results of a Traffic Impact Analysis (TIA) that was prepared on February 20, 2018 by Griffin Cove Transportation Consulting, PLLC. The traffic study analyzed traffic operations in the vicinity of the project site under five scenarios: Existing Conditions, Construction Year No Project Conditions, Construction Year Plus Project Conditions, Cumulative No Project Conditions, and Cumulative Plus Project Conditions. Potential impacts of the project were evaluated at three street intersections: Iron Point Road/Oak Avenue Parkway, Iron Point Road/Rowberry Drive, and Iron Point Road/McAdoo Drive.

The proposed Revel Folsom Senior Living project is expected to generate a total of 33 vehicle-trips during the weekday AM peak hour (11 inbound and 22 outbound) and 42 during the weekday PM peak hour trips (23 inbound and 19 outbound). Overall, the proposed project is projected to generate a total of 570 daily vehicle trips. Based on the relatively low volume of vehicle trips

associated with the proposed project, all of the study intersections will operate at acceptable levels of service (LOS B or C) under Construction Year Plus Project Conditions. The STOP-sign-controlled project access intersection will operate at LOS B during the AM peak hour and LOS C in the PM peak hour, but the volume of cars does not meet the minimum requirements necessary to warrant a signal. In addition, no change in level of service (LOS) is projected during the AM or PM peak hour at any of the three study intersections under Cumulative Plus Project Conditions as a result of project-related vehicle trips.

According to the TIA, the project-related impacts at all of the study intersections are less than significant, and no mitigation measures are needed to resolve off-site traffic impacts. It is important to note that the Iron Point Road/Oak Avenue Parkway intersection will operate at LOS D during Cumulative No Project Conditions and Cumulative Plus Project Conditions, which fails to conform to the City's level of service policy (LOS C or better). However, the failure of this intersection to meet the City's level of service policy is not related to impacts associated with the proposed project, thus no mitigation is required.

Project Access and On-Site Circulation

As shown on the submitted site plan, vehicular access to and from the project site is provided by one new driveway located on Iron Point Road. The project driveway, which is proposed to feature STOP-sign control, will be restricted to inbound and outbound right turns to and from Iron Point Road. The CountryHouse at Broadstone Memory Care facility will also take access from the Revel Folsom access driveway. Internal vehicle circulation consists of a private drive aisle that connects to a round-a-bout at the primary entrance to the proposed community building with a loop drive through the parking lot that circles the project buildings.

In addition to intersection level of service described above, the traffic study prepared for the proposed project analyzed the operation and configuration of the project access system in terms of: intersection spacing, turn restrictions, sight distance, queuing, right-turn deceleration lane, pedestrian safety, and bicycle safety. Based on the configuration of the proposed project driveway, the physical characteristics of the access road, and the low volume of vehicle traffic, the study determined that the proposed driveway location conforms to the City's practice regarding intersection spacing. The study also determined that the proposed "right turns only" restriction at the project driveway and Iron Point Road is appropriate; no further turn restrictions are necessary. In terms of sight distance, the study determined that drivers exiting the project site will have adequate sight distance along Iron Point Road so outbound right turns can be made safely.

In relation to minimum driveway throat depth, the City staff determined that the 320-foot access driveway provides adequate stacking for cars queuing to leave the site and the TIA concurred with this assessment. Although City guidelines indicate that only a right-turn taper is considered necessary to serve entering traffic, a right-turn lane is proposed in connection with the CountyHouse at Broadstone and Revel Folsom Senior Living projects. This right-turn lane is considered a desirable feature, as it will increase safety for drivers entering the site.

With regard to pedestrian circulation, the project site plan indicates that Americans with Disabilities Act (ADA) compliant sidewalk ramps will be provided for pedestrians crossing the project access driveway. A marked crosswalk connecting these ramps should be provided to serve those pedestrians. The applicant is proposing to construct a standard sidewalk along the south side of Iron Point Road between the project site and the existing meandering sidewalk located roughly 150 feet

to the east. This will require that the proposed project reach appropriate agreements with the owners of two intervening properties.

An on-site sidewalk flanks the west side of the entrance driveway providing pedestrian access from Iron Point Road to CountryHouse at Broadstone and Revel Folsom Senior Living facilities. In addition, internal pedestrian connections are provided between buildings, courtyard and parking lot. On the south and west edges of the property, two trailhead connections are provided to connect with the future City trail along the south edge of the property. A 20 to 35-foot wide trail easement is within the project's southern boundary for future City trail purposes. The owner/applicant is required to provide the aforementioned trail easement, while the City will be responsible for any future trail construction and association improvements.

On-street ("Class II") bike lanes exist on both sides of Iron Point Road in the vicinity of the proposed project. These lanes should adequately meet the needs of bicyclists, and no additional bicycle facilities are recommended.

To reflect recommendations made in the Traffic Impact Analysis and to further ensure safe travel within the project site, staff recommends that the following measures be implemented (Condition No. 47):

- A "STOP" sign and appropriate pavement markings shall be installed at the project driveway located on Iron Point Road.
- A striped crosswalk shall be provided across the intersection of the project driveway and Iron Point Road.
- The project driveway shall be limited to right-turns-in and right-turns-out only. Appropriate signage and striping shall be provided accordingly.
- A right-turn lane with associated pavement markings shall be installed along the CountryHouse at Broadstone project frontage of Iron Point Road as shown on the submitted site plan.
- The owner/applicant shall construct the bridge crossing that provides access from Iron Point Road across a creek feature to the project site (as shown on submitted site plan). The final design of the bridge crossing shall be subject to review and approval by the Community Development Department.

Primary and secondary emergency vehicle access is provided for the site via the project entry drive and an access agreement/easement (Attachment 11) through the Kaiser facility to the east of the project site. The secondary emergency vehicle access through the Kaiser facility may allow the applicant to reduce the width of the required bridge crossing from 46 feet to 27 feet as emergency responders would now have secondary access to the project site through the Kaiser property. In addition, a 27-foot wide fire department access road is provided from the south parking lot directly into the courtyard with a hammerhead turnaround adjacent to the patio area.

As a part of its review process, the CountryHouse at Broadstone project was reviewed by the Traffic Safety Committee at its February 25, 2016 meeting. As a result of this meeting and City staff working with that project applicant, a design for an acceptable emergency vehicle access route within the landscape median on Iron Point Road was identified and is shown on the Revel Folsom Senior Living project site plan. To ensure that adequate emergency vehicle access is provided to the project site if it is constructed prior to CountyHouse at Broadstone, staff recommends that the same measure be implemented for this project (Condition No. 64):

- An Emergency Vehicle Access (EVA) for fire apparatus shall be installed and maintained to allow immediate left-turn access into the project entrance across the existing median from west-bound Iron Point Road. The design of the EVA shall be approved by both the Fire Code Official and the City Engineer. The EVA shall be a paved surface that can support a gross vehicle weight of 80,000 pounds. The EVA shall have an unobstructed vertical clearance of not less than 13'6".

Oak Avenue Freeway Interchange (Future)

As discussed in the background section of this report, the subject property is located adjacent to the future Oak Avenue Parkway freeway interchange, the final design of which has not been finalized. To better define the extent to which the subject property may be impacted by the future freeway interchange, an Agreement (Attachment 12) was entered into between the property owner and the City. The MOU states that the landowner understands and acknowledges that the City may require the dedication of additional public right-of-way along the western and southern property boundaries to accommodate the final design of the freeway interchange. However, the MOU also states that the additional land dedication will not conflict or disturb any building or structure constructed on the subject property in accordance with approved land entitlements. Additionally, the parking requirement, emergency vehicle access, or general vehicular circulation may not be altered with the land dedication. In accordance with the approved MOU, it is expected that minor encroachments (2-3 feet) could be anticipated with items such as retaining walls, slopes, landscaping, and fencing being altered.

Parking

The Folsom Municipal Code does not include specific parking standards for 55+ active senior residential uses. Standard apartment parking requirements are not appropriate because the following factors cause age-restricted senior complexes to vary in demand and to require less parking: on-site services such as dining, salons and recreation facilities, van/bus shuttle transportation for residents, the number of dwelling units, the number of nursing beds, average age of residents, resident's affluence, and number of employees.

To assist staff with the analysis of the project's parking needs, the applicant was required to provide a parking analysis/justification. A Parking Survey Evaluation for Revel Folsom Senior Living Community was prepared by Ubora Engineering & Planning (Ubora) on April 3, 2018. The Parking Evaluation compared the parking proposed for the Revel Folsom Senior Living Community with other similar facilities in the region as well as to industry standard parking rates using the Institute of Transportation Engineers (ITE) recommendations.

As noted earlier, Revel Folsom proposes to develop approximately 156,000 square feet in two residential buildings, plus an approximately 20,000 square foot two-story community building. The two residential buildings will consist of 13 studio units, 99 one-bedroom units and 54 two-bedroom units. The proposed project includes a total staff of approximately 40 full and part time employees. The employees will be divided into different shifts, with a maximum of 20 employees being present on the project site at any one time excluding shift overlaps. There will be a 24 hour a day staff presence seven days a week in the community.

Parking will be provided for 135 cars on site including 93 standard stalls, 33 compact stalls and 9 ADA accessible stalls. If 20 staff are on site, this would leave at least 115 stalls available for residents and guests. The submitted site plan does not identify any bicycle parking spaces. Staff recommends five bicycle onsite parking spaces be provided in a location that is in close proximity to the building entrance. Condition No. 49 is included to reflect this requirement.

Uborra conducted a parking survey of several other independent living communities in Sacramento County to compare the parking ratio to the percentage of occupied parking stalls. All observations were conducted between 12:30pm and 2:30pm, Tuesday through Thursday, which corresponds to the peak parking demand for developments of this type. (Staff corroborated this timeframe as a valid peak parking demand timeframe by reviewing a paper published by ITE on Senior Housing Trip Generation and Parking Demand.¹ Per the ITE publication, “the peak parking demand occurred during the mid-day between 11:00 AM to 3:00 PM corresponding, in part, with the largest employee shift on-site” with an average peak demand of 0.40 vehicles per dwelling unit for residents, employees, and visitors).

Uborra conducted their parking survey at six facilities. All six maintained parking for less than 0.60 vehicles per unit during working hours. The Revel Folsom Senior Living plans show a 0.81 vehicle to unit ratio (135 spaces/166 units). Only one of the surveyed facilities provided a higher parking stall to unit ratio than the proposed Revel Folsom project, the Park Folsom Senior Retirement Community (255 Wales Drive) which had a vehicle to unit ratio of 0.92.

In addition, Uborra evaluated the proposed project compared to current ITE Parking Generation Rates, 4th edition. - Land Use Code 252 which provides the average and the 85th percentile weekday parking generation rates for “Senior Adult Attached Housing.” Specifically, the ITE Parking Generation publication documents an average peak parking demand ratio of 0.59 parking spaces per unit and an 85th-percentile value of 0.66 parking spaces per unit. Using these parking rates with the 166 proposed dwelling units, the total parking stalls predicted to be occupied for an average weekday is 98 parking stalls with 110 parking stalls being occupied for the 85th percentile.

A second Parking Assessment was prepared by Griffin Cove Transportation Consulting (Griffin Cove), May 22, 2018, and corroborated Uborra’s and staff’s findings. Griffin Cove found that only two jurisdictions in the vicinity of Folsom directly address the issue parking needs of senior independent living facilities. Both of those zoning code requirements from other jurisdictions are lower than the proposed parking supply at the Revel Folsom project (although Sacramento County requires that an equal amount of unimproved overflow parking be provided; if that parking is later

¹ Senior Housing Trip Generation and Parking Demand Characteristics, Stephen B. Corcoran, P.E. (M), for 66th Annual Meeting of ITE, September 1996.

required, the County's parking requirement would exceed the Revel Folsom proposal). Finally, Griffin Cove had performed parking demand studies for two other jurisdictions that revealed lower average parking demand factors than the 0.81 spaces/unit ratio proposed for Revel Folsom. Based on the above analyses, staff has determined that the 135 parking spaces proposed will be sufficient to serve the needs of residents, employees, and visitors.

Noise

Based on the proximity of the project site to Iron Point Road and U.S. Highway 50, and existing commercial land uses to the east and west, acoustical measurements and modeling were prepared by HELIX Environmental Planning, Inc. (HELIX) to analyze potential noise impacts at the proposed Revel Folsom Senior Living project (project) site. The purpose of the noise analysis was to quantify existing noise levels associated with traffic on Iron Point Road and U.S. Highway 50 and to compare those noise levels against the applicable City of Folsom noise standards for acceptable noise exposure at the project site. In addition, noise created by the proposed project, including construction activities and on-site parking/circulation and mechanical equipment noise, were also evaluated in the noise analysis.

Two aspects of Noise are evaluated related to new development, noise directed at the proposed project, and noise caused by the proposed project. As noted previously, the predominant existing noise sources in the vicinity that cause an impact to the project site are from vehicles on Iron Point Road and U.S. Highway 50, as well as background noises from adjacent commercial land uses. Potential noise impacts that might result from Revel Folsom Senior Living community result from construction-related activities and operational activities. Construction-related noise would have a short-term effect, while operational noise would continue throughout the lifetime of the project.

The Noise Element of the City of Folsom General Plan regulates noise emissions from public roadway traffic on new development of residential or other noise sensitive land uses. The Noise Element states that noise from traffic on public roadways shall not exceed 60 CNEL for outdoor use areas and 45 CNEL for interior use areas.

To evaluate such potential noise impacts to the proposed project, HELIX conducted ambient noise measurements to calibrate the predictive noise modeling program that estimates noise levels based on estimated future traffic noise affecting the project site. The model evaluated seven location around the proposed site/buildings that represent residential units closest to roadway noise sources and resident outdoor use areas.

The estimated exterior noise levels for these locations are shown in the table below. The patio area (R7) is estimated to have a noise level of 56.8 CNEL, thus complying with the 60 CNEL noise level standard established by the City for exterior use areas in residential developments. The garden area (R3), at 61.3 CNEL, exceeds the 60 CNEL standard. The applicant has agreed to build a 6-foot-noise barrier around the garden to reduce the noise to acceptable level. Condition No. 51 requires this wall to be added to the project plans and to be constructed.

ESTIMATED EXTERIOR NOISE LEVELS

Receiver	Location	Noise Level (CNEL)
R1	South façade of East Building; 4 th story height	71
R2	South façade of East Building; 1 st story height	68.2
R3	Garden	61.3
R4	South façade of West Building; 1 st story height	65.3
R5	Northeast façade of West Building; 4 th story height	58.5
R6	Northeast façade of West Building; 1 st story height	58
R7	Patio area	56.8

- Source: CadnaA

The walls, windows and roof of the proposed buildings will reduce exterior noise levels by some amount depending on the materials' noise reducing properties. An interior noise level analysis was performed by SLR International Corp. based on the building materials anticipated for use by the applicant in these buildings. Location R1 was evaluated because exterior noise is worst at that location. The calculated interior noise levels are all projected to be at or below the 45 CNEL interior noise standard.

Construction of the Revel Folsom Senior Living community would temporarily increase noise levels in the project vicinity during the construction period, which would take approximately 24 to 30 months. Construction activities, including site clearing, excavation, grading, building construction, and paving, would be considered an intermittent noise impact throughout the construction period of the project. The City's Noise Ordinance excludes construction activities from meeting the General Plan Noise Element standards, provided that all phases of construction are limited to the hours between 7:00 a.m. and 6:00 p.m. on weekdays, and between 8:00 a.m. and 5:00 p.m. on Saturdays. To ensure compliance with the City's Noise Control Ordinance and General Plan Noise Element, staff recommends that hours of construction operation be limited from 7:00 a.m. to 6:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays with no construction permitted on Sundays or holidays. In addition, staff recommends that construction equipment be muffled and shrouded to minimize noise levels. Condition No. 50 is included to reflect these requirements.

Operational noises generated by the proposed project include sounds associated with new vehicle trips, vehicle parking, and mechanical equipment associated with the senior living facility. Persons and activities potentially sensitive to noise in the project vicinity include residents within the Broadstone Unit No. 2 Subdivision to the north and northwest of the project site.

Based on the limited volume of project-generated vehicle trips, vehicle noise exposure would increase only slightly as compared to existing conditions in the project vicinity. Due to the parking lot and building being located over 500 feet to the residences in Broadstone Unit No. 2, north of Iron Point Road, impacts from these operational noise sources are anticipated to be less than significant.

The environmental document prepared for this project (see Environmental Review section of this staff report) estimated that mechanical equipment associated with HVAC equipment would not exceed the City's acceptable noise levels.

Fencing/Walls

While the proposed project will not be fenced or walled for security, decorative fencing and retaining walls, some with tubular steel fencing atop, are proposed. Due to the sloping topography on the site, the landscape plans include three-foot to five-foot rockery retaining walls within the courtyard and landscaped areas. The submitted grading plans include rockery retaining walls along portions of the east, west and north property lines. The west-facing and north facing walls do not exceed 12 feet; the east-facing wall does not exceed nine feet. A 42-inch tubular steel fence is proposed atop the retaining walls. Condition No. 51, discussed under the Noise section above, requires the construction of a six-foot-tall barrier to shield the garden from noise. Staff has determined that the design of the proposed fencing and walls is complimentary to the architecture and design of the proposed building. However, staff does recommend that the final location, design, height, materials, and colors of the walls, fencing, and retaining walls be subject to review and approval by the Community Development Department. Condition No. 52 is included to reflect this requirement.

Site Lighting

The applicant is proposing to use a combination of pole-mounted parking lot lighting, building-attached lighting, and bollard lights along the walkways on the project site. All lighting would be designed to minimize light/glare impacts to the adjacent properties by ensuring that all exterior lighting and pole-mounted parking lot and driveway lighting are to be shielded and directed downward. Light-emitting diode (LED) luminaires would be used for all of the proposed outdoor lighting. No specific lighting designs or locations of bollards have been provided. Staff recommends that the final design of all exterior site lights be subject to review and approval by the Community Development Department. Condition No. 26 is included to reflect these requirements.

Trash/Recycling Enclosure

The proposed project includes a single trash/recycling enclosure, located in the southeast corner of the property. There are two side-by-side enclosures with connecting door, one for the trash/recycling bins and one for the trash compactor. The width of the combined enclosure is approximately 26 feet. The trash/recycling enclosure measures 28 feet in depth while the compactor enclosure is only 19 feet deep. No design details have been provided regarding the materials or colors to be used on the enclosure. Staff recommends that the final location, orientation, design, materials, and colors of the trash/recycling and compacting enclosure be subject to review and approval by the Community Development Department. Condition No. 53 is included to reflect this requirement.

Signage

The proposed project includes a single monument sign that will be located behind the curb on the east side of the project driveway perpendicular to Iron Point Road. The proposed double-sided monument sign, which is 40-inches tall and 10 feet long, is enhanced by two two-foot by four-foot stone pilasters and a decorative trim cap element. These dimensions total a sign area of 33 square feet without the pilasters. The proposed monument sign features a Corten steel plate with water blast letters that identify the project name and address on Iron Point Road. Staff has determined that the design of the proposed monument sign is complementary to the design of the

proposed senior living community buildings.

While no specific standard for an active senior living residential use is identified in the Municipal Code, the Folsom Municipal Code, (Section 17.59.040) identifies the maximum sign area for a freestanding multi-family residential sign as thirty-two square feet with a maximum sign height of six feet. Staff is recommending that the sign be shortened to 9-feet 6-inches to meet code requirements. Condition No. 58 requires this slight reduction in size for the final sign design.

Existing and Proposed Landscaping

The 6-acre sloping site currently includes undeveloped grassland and a stand of oak trees. An Arborist Report and Tree Inventory Summary was prepared by Sierra Nevada Arborists July 21, 2017. The City of Folsom Tree Preservation Ordinance (Chapter 12.16) regulates both the removal of protected trees and the encroachment of construction activities within their driplines. The arborist identified 32 trees which meet the City's standards for preservation, comprised of three species of oaks, Blue Oak, Interior Live Oak and Valley Oak. None of these trees were recommended for removal by the arborist. It is important to acknowledge that the applicant is proposing to preserve all of the protected oak trees on the project site.

The City of Folsom regulates the encroachment of construction activities within driplines of protected trees. Therefore, a tree permit and/or additional development authorization will be required from the City of Folsom prior to the tree encroachment within the proposed project area. The arborist's report recommends that prior to final inspection written verification from an ISA Certified Arborist may be required certifying the approved activities and/or implementation of other Conditions of Approval outlined for the retained trees on the site. Condition No. 34 reflect the City's Tree Preservation Ordinance and ensure the health of the trees:

- Prior to any grading, movement of heavy equipment, approval of improvement plans, or the issuance of any grading or construction permits, a qualified arborist shall be hired by the applicant to monitor activities on site. The arborist will be provided with a copy of the approved site development plans, applicable permits and/or Conditions of Approval that identify those activities regulated by the permit and/or Conditions of Approval.
- The arborist shall supervise the installation of orange construction fencing around the perimeter of the protected zone of all protected trees or groups of trees in or overhanging the project site and the fencing shall be depicted on construction plans as Environmentally Sensitive Area/Protected Trees.
- All construction activities shall be excluded from the protected zones, including but not limited to parking of vehicles or equipment, storage of materials, and discharge of hazardous materials. Such fence shall be removed following construction but prior to installation of landscaping material. Fencing shall enclose the entire protected zone.
- Signs shall be posted on all sides of fences surrounding each tree or trees stating that enclosed tree(s) are to be preserved. The signs shall state the penalty for damage to, or removal of, the protected tree. The number of posted signs required for the site shall be determined by the Planning Director.

- The arborist shall be on site to monitor and observe regulated activities during the course of construction. Therefore, it will be necessary for the project applicant to notify the arborist at least 72 hours in advance of any regulated activities which are scheduled to occur on site so that those activities can be properly monitored and documented for compliance certification. Following the completion of monitored activities, the arborist shall provide the City with a written Certificate of Compliance.

In addition to preserving oak trees on site, the proposed landscape improvements include planting a variety of drought-tolerant trees, shrubs, and groundcover. Among the proposed trees are; Chinese Pistache, Crape Myrtle, California Buckeye, Valley Oak, California Sycamore and Strawberry Tree. Some of the proposed shrubs and groundcovers include Mansanita, Bush Anemone, California Lilac, New Zealand Flax, Carpet Roses, Yarrow, Lantana, Sonoma Sage and California Goldenrod. The preliminary landscape plan meets the City shade requirement (40%) by providing 49.7% shade in the parking lot area within fifteen (15) years. Staff recommends that the final landscape plans be reviewed and approved by the Community Development Department. Condition No. 32 is included to reflect this requirement. In addition, staff recommends that ground-mounted mechanical equipment be shielded by landscaping or trellis-type features. Condition No. 55-4 is included to reflect these requirements.

Grading and Drainage

The preliminary grading plan shows the finished floor grades ranging from 305 feet on the first floor of the West Building to 330 feet on the first floor of the East Building. Surrounding finished grade site elevations range from 335 feet in the southeast corner of the site 303 feet finish grade in the northwest corner of the site. The courtyard ranges from 326 to 330 feet in elevation. As noted earlier, due to the sloping topography on the site, the landscape plans include three-foot to five-foot rockery retaining walls in the courtyard and landscaped areas. The submitted grading plans include rockery retaining walls along portions of the east, west and north property lines. The west-facing and north facing walls do not exceed 12 feet; the east-facing wall does not exceed nine feet.

Development of the project site is anticipated to require moderate movement of soils (including filling and leveling) and the compaction of said materials. The applicant will be required to provide a current geotechnical report before the design of the interior road, parking lot areas, and building foundations are finalized. Condition No. 14 is included to reflect this requirement.

Public storm drainage facilities are provided to accommodate runoff for the surrounding commercial land uses, but no infrastructure currently exists within the project site itself. The nearest storm drainage infrastructure is located adjacent to the site, within the Iron Point Road right-of-way. Because no storm drainage facilities are provided within the project site and topography of the site does not naturally drain toward Iron Point Road, a storm drain system and storm water quality treatment controls are provided on-site as indicated on the submitted grading and utility Plan.

Staff recommends the onsite improvement plans provide for “Best Management Practices” that meet the requirements of the water quality standards of the City’s National Pollutant Discharge Elimination System Permit issued by the State Regional Water Quality Control Board. Condition No. 28 is included to reflect this requirement.

Architecture and Design

As described by the applicant, the architecture of Revel Folsom is inspired by the rich history of the area drawing upon the inspiration of Gold Rush era forms and materials. This is reflected in the large wood elements at the main entry, the wood timbers anchored by stone bases, and the use of a mixture of siding materials. The design utilizes materials, details and roof pitches that pay homage to the structures found in the area by blending pitched roofs with parapets that reflect the forms found in the historic parts of Folsom as well as the more contemporary architecture found nearby.

The natural surroundings have inspired the material and color palette for the buildings. Proposed building materials include stone; a variety of siding types including longboard, lap and board & batten; stucco in shades of white and gray; and an architectural dimensional composition roof in a brown-gray. The colors of the building have been selected to complement the natural colors of the rolling topography throughout the year as the native grasses turn from vibrant green to rich golden brown.

The selected stone for the building contains the grays, browns and golds naturally found in the existing rock and stone outcroppings on the site. The scale, mass and form of the Revel Folsom building provides a transition between the three-story Kaiser medical building raised high on the knoll to the east, the two and three-story attached condominium homes elevated across the street, and the one, two and three-story offices to the west.

Based on the aforementioned description and color elevations and renderings, staff has determined that the proposed building reflects design theme, materials, and colors in keeping with local history and elements of the natural surroundings of the site.

The proposed project is subject to the Broadstone Unit No. 2 Design Guidelines. The Design Guidelines, in respect to overall architectural design concepts, are intended to provide a framework for design, while not restricting creativity. The following are design parameters recommended by the Design Guidelines to ensure a high level quality of development:

- Buildings should be responsive to views from all four elevations
- Building masses should be made human in scale, present varied elevations, and use accent materials to add variety
- Building materials such as tile, stone, glass, metal panels, and concrete should be utilized together to reflect the area's modernity, diversity, and traditions.
- Building entries shall be distinguished with accent materials such as stone, slate, color metal panels, or concrete.

Upon review of the submitted building elevations in association with the color and materials board, staff determined that the design of the proposed building accurately reflects the intent of the Broadstone Unit No. 2 Design Guidelines. Specifically, the proposed project utilizes many unique design features including varied roof shapes and forms, wood accent elements, and a prominent entry. In addition, the proposed building materials, which include extensive use of stone veneer, a variety of siding styles to break up the large building facades, and architectural grade roof tiles, are

consistent with the recommendations of the Design Guidelines. Lastly, the proposed earth tone color scheme blends well with the existing residential and commercial buildings in the project area and with the natural setting of the project site. As a result, staff recommends approval of the applicant's design with the following conditions:

1. This approval is for a one to four-story, 181,200-square foot building associated with the Revel Folsom Senior Living project. The applicant shall submit building plans that comply with this approval.
2. The design, materials, and colors of the proposed Revel Folsom Senior Living Community building shall be consistent with the submitted building elevations, materials samples, and color scheme to the satisfaction of the Community Development Department.
3. Brick pavers, stamped asphalt or another type of colored masonry material (ADA compliant) shall be used to designate pedestrian crosswalks on the project site, in addition to where pedestrian paths cross drive aisles, and shall be incorporated as a design feature at the driveway entrance at Iron Point Road.
4. Roof-mounted mechanical equipment, including satellite dish antennas, shall not extend above the height of the parapet walls. Ground-mounted mechanical equipment shall be shielded by landscaping or trellis type features.
5. Final exterior building and site lighting plans shall be submitted for review and approval by Community Development Department for location, height, aesthetics, level of illumination, glare and trespass prior to the issuance of any building permits. Lighting shall be designed to be shielded and directed downward onto the project site and away from adjacent properties and public rights-of-way. Lighting shall be equipped with a timer or photo condenser.

These recommendations are included in the conditions of approval (Condition No. 55) presented for consideration by the Planning Commission.

Public Service Response

Potential impacts to public services were evaluated by HELIX in the environmental document for the project. That analysis concluded that the proposed project is in an area currently served by urban levels of all services. Public services provided by the City of Folsom in the project area include fire, police, school, library, and park services.

Fire services would likely be the only agency that might see increased service calls from the proposed project residents. The City of Folsom Fire Department provides fire protection and emergency medical services. There are four stations within the City of Folsom. Station 37 is nearest to the project site; it is located at 70 Clarksville Road, approximately 2-miles north of the project site. The Fire Department responds to over 6,000 requests for service annually with an average of 16.4 per day.

HELIX concluded that public services are adequate to serve the needs of the proposed project. Because there are no unique aspects of the project that would increase service demands or render

the current service level to be inadequate, no new public facilities would be necessary to serve the proposed project.

Likewise, when staff had previously analyzed emergency response services to the CountryHouse Memory Care facility proposed to be located on Iron Point Road just north of the Revel Folsom, it was determined by the Fire Chief that the emergency medical service delivery model is equipped to manage the emergency medical service response calls projected to be generated by CountryHouse Memory Care. Based on the availability of service and the appropriate EVA to the site, staff has determined that public service response will not be adversely affected by the project.

ENERGY AND WATER CONSERVATION

To reduce impacts in terms of energy and water consumption, the proposed project is required to meet the 2014 Title 24 Building Envelope Energy Efficiency Standards. The project will be allowed to achieve this performance standard through a combination of measures to reduce energy use for heating, cooling, water heating and ventilation. Because energy use for each different system type (i.e., heating, cooling, water heating, and ventilation) as well as appliances is defined, this method will also easily allow for application of individual measures aimed at reducing the energy use of these devices in a prescriptive manner.

In an effort to address water conservation, the proposed project includes a number of measures aimed at reducing on-site water usage. The proposed project will be designed to achieve an overall water efficient landscape rating utilizing primarily low water use plant materials. The concepts of utilizing plant materials that are compatible in their water use requirements together within the same irrigation zones are to be applied with all planting and irrigation design. In addition, all proposed landscape areas will have automatically controlled irrigation systems that incorporate the use of spray, subsurface in-line emitters, and other high efficiency drip-type systems. To further ensure water conservation is being achieved, the proposed project is required to comply with all State and local rules, regulations, Governor's Declarations, and restrictions including but not limited to: Executive Order B-29-15 issued by the Governor of California on December 1, 2015 relative to water usage and conservation, requirements relative to water usage and conservation established by the State Water Resources Control Board, and water usage and conservation requirements established within the Folsom Municipal Code, (Section 13.26 Water Conservation), or amended from time to time. Condition No. 70 is included to reflect these requirements.

ENVIRONMENTAL REVIEW

Staff has prepared an Initial Study and Mitigated Negative Declaration (Attachment 11) for the project in accordance with the California Environmental Quality Act (CEQA) regulations and determined that with the proposed mitigations, the project will not have a significant effect on the environment. The Mitigated Negative Declaration has been prepared and noticed for public comment on the project, and mitigation measures have been included as Conditions of Approval. To date, no written comments have been received from the public during the Mitigated Negative Declaration public review period (May 31, 2018 to June 20, 2018).

RECOMMENDATION/PLANNING COMMISSION ACTION

MOVE TO ADOPT THE MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM PREPARED FOR THE REVEL FOLSOM SENIOR LIVING COMMUNITY PROJECT (PN 17-368) PER ATTACHMENT 13;

AND

MOVE TO APPROVE A PLANNED DEVELOPMENT PERMIT FOR DEVELOPMENT OF THE REVEL FOLSOM SENIOR LIVING COMMUNITY PROJECT, WHICH INCLUDES A ONE TO FOUR-STORY, 181,200-SQUARE-FOOT BUILDING AS ILLUSTRATED ON ATTACHMENTS 2 THROUGH 7;

AND

MOVE TO APPROVE A CONDITIONAL USE PERMIT TO ALLOW THE REVEL FOLSOM SENIOR LIVING COMMUNITY TO OPERATE AT THE SUBJECT PROPERTY LOCATED AT THE SOUTH OF IRON POINT ROAD EAST OF ITS INTERSECTION WITH OAK AVENUE PARKEWAY (APN NO. 072-2680-011) WITH THE FOLLOWING FINDINGS AND CONDITIONS (NO. 1-69).

GENERAL FINDINGS

- A. NOTICE OF HEARING HAS BEEN GIVEN AT THE TIME AND IN THE MANNER REQUIRED BY STATE LAW AND CITY CODE.
- B. WITH THE PROPOSED AMENDMENTS, THE PROJECT IS CONSISTENT WITH THE GENERAL PLAN, THE ZONING CODE OF THE CITY, AND THE BROADSTONE UNIT NO. 2 MASTER PLAN.

CEQA FINDINGS

- C. A MITIGATED NEGATIVE DECLARATION HAS BEEN PREPARED FOR THE PROJECT IN ACCORDANCE WITH CEQA.
- D. THE PLANNING COMMISSION HAS CONSIDERED THE PROPOSED MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM BEFORE MAKING A DECISION REGARDING THE PROJECT.
- E. ON THE BASIS OF THE WHOLE RECORD BEFORE THE PLANNING COMMISSION, THERE IS NO SUBSTANTIAL EVIDENCE THAT THE PROJECT, AS CONDITIONED, WILL HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT.
- F. THE MITIGATED NEGATIVE DECLARATION REFLECTS THE INDEPENDENT JUDGMENT AND ANALYSIS OF THE CITY OF FOLSOM.

- G. THE MITIGATED NEGATIVE DECLARATION HAS DETERMINED THAT THE PROPOSED PROJECT, AS CONDITIONED AND CONSISTENT WITH THE REQUIRED MITIGATION MONITORING AND REPORTING PROGRAM, WOULD NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT WITH MITIGATION MEASURES.

PLANNED DEVELOPMENT PERMIT FINDINGS

- H. THE PROPOSED PROJECT COMPLIES WITH THE INTENT AND PURPOSES OF CHAPTER 17.38 (PLANNED DEVELOPMENT DISTRICT) OF THE FOLSOM MUNICIPAL CODE AND OTHER APPLICABLE ORDINANCES OF THE CITY AND THE GENERAL PLAN.
- I. THE PROPOSED PROJECT IS CONSISTENT WITH THE OBJECTIVES, POLICIES AND REQUIREMENTS OF THE DEVELOPMENT STANDARDS OF THE CITY.
- J. THE PHYSICAL, FUNCTIONAL AND VISUAL COMPATIBILITY BETWEEN THE PROPOSED PROJECT AND EXISTING AND FUTURE ADJACENT USES AND AREA CHARACTERISTICS IS ACCEPTABLE.
- K. THERE ARE AVAILABLE PUBLIC FACILITIES, INCLUDING BUT NOT LIMITED TO, WATER, SEWER AND DRAINAGE TO ALLOW FOR THE DEVELOPMENT OF THE PROJECT SITE IN A MANNER CONSISTENT WITH THIS PROPOSAL.
- L. THE PROPOSED PROJECT WILL NOT CAUSE UNACCEPTABLE VEHICULAR TRAFFIC LEVELS ON SURROUNDING ROADWAYS, AND THE PROPOSED PROJECT WILL PROVIDE ADEQUATE INTERNAL CIRCULATION, INCLUDING INGRESS AND EGRESS.
- M. THE PROPOSED PROJECT WILL NOT BE DETRIMENTAL TO THE HEALTH, SAFETY AND GENERAL WELFARE OF THE PERSONS OR PROPERTY WITHIN THE VICINITY OF THE PROJECT SITE, AND THE CITY AS A WHOLE.
- N. ADEQUATE PROVISION IS MADE FOR THE FURNISHING OF SANITATION SERVICES AND EMERGENCY PUBLIC SAFETY SERVICES TO THE DEVELOPMENT.
- O. AS CONDITIONED, THE PROPOSED PROJECT WILL NOT CAUSE ADVERSE ENVIRONMENTAL IMPACTS WHICH HAVE NOT BEEN MITIGATED TO AN ACCEPTABLE LEVEL.

CONDITIONAL USE PERMIT FINDING

P. THE ESTABLISHMENT, MAINTENANCE, OR OPERATION OF THE USE OR BUILDING APPLIED FOR WILL NOT, UNDER THE CIRCUMSTANCES OF THE PARTICULAR CASE, BE DETRIMENTAL TO THE HEALTH, SAFETY, PEACE, MORALS, COMFORT AND GENERAL WELFARE OF PERSONS RESIDING OR WORKING IN THE NEIGHBORHOOD OF SUCH PROPOSED USE, OR BE DETRIMENTAL OR INJURIOUS TO PROPERTY AND IMPROVEMENTS IN THE NEIGHBORHOOD, OR TO THE GENERAL WELFARE OF THE CITY BECAUSE THE PROPOSED LAND USE WILL NOT HAVE A NEGATIVE IMPACT.

Submitted,

 PAM JOHNS
 Community Development Director

CONDITIONS

See attached tables of conditions for which the following legend applies.

RESPONSIBLE DEPARTMENT		WHEN REQUIRED	
CD (P) (E) (B) (F)	Community Development Department Planning Division	I	Prior to approval of Improvement Plans
		M	Prior to approval of Final Map
	Engineering Division	B	Prior to issuance of first Building Permit
	Building Division	O	Prior to approval of Occupancy Permit
	Fire Division	G	Prior to issuance of Grading Permit
PW	Public Works Department	DC	During construction
PR	Park and Recreation Department	OG	On-going requirement
PD	Police Department		

**CONDITIONS OF APPROVAL FOR THE REVEL FOLSOM SENIOR LIVING COMMUNITY PROJECT (PN 17-368)
 PLANNED DEVELOPMENT PERMIT AND CONDITIONAL USE PERMIT
 SOUTH OF IRON POINT ROAD AND EAST OF OAK AVENUE PARKWAY**

Mitigation Measure	Condition/Mitigation Measure	When Required	Responsible Department
1.	<p>The applicant shall submit final site development plans to the Community Development Department that shall substantially conform to the exhibits referenced below:</p> <ul style="list-style-type: none"> • Preliminary Site Plan, dated April 27, 2018 • Preliminary Grading and Utility Plan, dated April 27, 2018 • Preliminary Landscape Plan, dated March 7, 2018 • Preliminary Access and Circulation Plan, dated April 27, 2018 • Building Elevations with Renderings, dated March 7, 2018 • Building Floor Plans and Unit Plans, dated March 10, 2018 	B	CD (P)(E)
2.	<p>The project is approved for the development and operation of the Revel Folsom Senior Living Community project, which includes a one to four-story, 181,200-square-foot building. Implementation of the project shall be consistent with the above-referenced items as modified by these conditions of approval.</p> <p>Building plans, and all civil engineering and landscape plans, shall be submitted to the Community Development Department for review and approval to ensure conformance with this approval and with relevant codes, policies, standards and other requirements of the City of Folsom.</p>	I, B	CD (P)(E)(B)
3.	<p>The project approval granted under this staff report shall remain in effect for two years from final date of approval (June 20, 2020). Failure to obtain the relevant building (or other) permits within this time period, without the subsequent extension of this approval, shall result in the termination of this approval.</p>	B	CD (P)
4.	<p>If the Community Development Director finds evidence that conditions of approval for the Revel Folsom Senior Living Community have not been fulfilled or that the use has resulted in a substantial adverse effect on the health, and/or general welfare of users of adjacent or proximate property, or have a substantial adverse impact on public facilities or services, the Director will refer the use permit to the Planning Commission for review. If, upon such review, the Planning Commission finds that any of the above-stated results have occurred, the Commission may modify or revoke the Conditional Use Permit.</p>	OG	CD (P)(B)(E) PW, PR, FD, PD

**CONDITIONS OF APPROVAL FOR THE REVEL FOLSOM SENIOR LIVING COMMUNITY PROJECT (PN 17-368)
 PLANNED DEVELOPMENT PERMIT AND CONDITIONAL USE PERMIT
 SOUTH OF IRON POINT ROAD AND EAST OF OAK AVENUE PARKWAY**

Mitigation Measure	Condition/Mitigation Measure	When Required	Responsible Department
5.	<p>The owner/applicant shall defend, indemnify, and hold harmless the City and its agents, officers and employees from any claim, action or proceeding against the City or its agents, officers or employees to attack, set aside, void, or annul any approval by the City or any of its agencies, departments, commissions, agents, officers, employees, or legislative body concerning the project. The City will promptly notify the owner/applicant of any such claim, action or proceeding, and will cooperate fully in the defense. The City may, within its unlimited discretion, participate in the defense of any such claim, action or proceeding if both of the following occur:</p> <ul style="list-style-type: none"> • The City bears its own attorney's fees and costs; and • The City defends the claim, action or proceeding in good faith <p>The owner/applicant shall not be required to pay or perform any settlement of such claim, action or proceeding unless the settlement is approved by the owner/applicant.</p>	OG	CD (P)(E)(B) PW, PR, FD, PD
6.	<p>The owner/applicant shall be required to participate in a mitigation monitoring and reporting program pursuant to City Council Resolution No. 2634 and Public Resources Code 21081.6. The mitigation monitoring and reporting measures identified in the Mitigated Negative Declaration prepared for this project have been incorporated into these conditions of approval in order to mitigate or avoid significant effects on the environment. These mitigation monitoring and reporting measures are identified with a check mark (✓) in the mitigation measure column.</p>	G, I	CD (P)(E)

DEVELOPMENT COSTS AND FEE REQUIREMENTS

7.	The owner/applicant shall pay all applicable taxes, fees and charges at the rate and amount in effect at the time such taxes, fees and charges become due and payable.	I, B	CD (P)(E)
8.	If applicable, the owner/applicant shall pay off any existing assessments against the property, or file necessary segregation request and pay applicable fees.	B	CD (E)
9.	The City, at its sole discretion, may utilize the services of outside legal counsel to assist in the implementation of this project, including, but not limited to, drafting, reviewing and/or revising agreements and/or other documentation for the project. If the City utilizes the services of such outside legal counsel, the applicant shall reimburse the City for all outside legal fees and costs incurred by the City for such services. The applicant may be required, at the sole discretion of the City Attorney, to submit a deposit to the City for these services prior to initiation of the services. The applicant shall be responsible for reimbursement to the City for the services regardless of whether a deposit is required.	I	CD (P)(E)
10.	If the City utilizes the services of consultants to prepare special studies or provide specialized design review or inspection services for the project, the applicant shall reimburse the City for actual costs it incurs in utilizing these services, including administrative costs for City personnel. A deposit for these services shall be provided prior to initiating review of the improvement plans or beginning inspection, whichever is applicable.	I, B	CD (P)(E)
11.	This project shall be subject to all City-wide development impact fees, unless exempt by previous agreement. This project shall be subject to all City-wide development impact fees in effect at such time that a building permit is issued. These fees may include, but are not limited to, fees for fire protection, park facilities, park equipment, Quimby, Humbug-Willow Creek Parkway, Light Rail, TSM, capital facilities and traffic impacts. The 90-day protest period for all fees, dedications, reservations or other exactions imposed on this project has begun. The fees shall be calculated at the fee rate in effect at the time of building permit issuance.	B	CD (P)(E), PW, PK
12.	The project is subject to the Housing Trust Fund Ordinance, unless exempt by a previous agreement.	B	CD (P)

13.		<p>The owner/applicant agrees to pay to the Folsom-Cordova Unified School District the maximum fee authorized by law for the construction and/or reconstruction of school facilities. The applicable fee shall be the fee established by the School District that is in effect at the time of the issuance of a building permit. Specifically, the owner/applicant agrees to pay any and all fees and charges and comply with any and all dedications or other requirements authorized under Section 17620 of the Education Code; Chapter 4.7 (commencing with Section 65970) of the Government Code; and Sections 65995, 65995.5 and 65995.7 of the Government Code.</p>	B	CD (P)
SITE DEVELOPMENT REQUIREMENTS				
14.		<p>Prior to the issuance of any grading and/or building permit, the owner/applicant shall have a geotechnical report prepared by an appropriately licensed engineer that includes an analysis of site suitability, proposed foundation design for all proposed structures, and roadway and pavement design.</p>	G, B	CD (E)
15.		<p>Public and private improvements, including roadways, curbs, gutters, sidewalks, bicycle lanes and trails, streetlights, underground infrastructure and all other improvements shall be provided in accordance with the current edition of the City of Folsom <u>Standard Construction Specifications</u> and the <u>Design and Procedures Manual and Improvement Standards</u>. All necessary rights-of-way and/or easements shall be dedicated to the City of Folsom for these improvements.</p>	I, B	CD (P)(E)
16.		<p>The applicant/owner shall submit water, sewer and drainage studies to the satisfaction of the Community Development Department and provide sanitary sewer, water and storm drainage improvements with corresponding easements, as necessary, in accordance with these studies and the current edition of the City of Folsom <u>Standard Construction Specifications</u> and the <u>Design and Procedures Manual and Improvement Standards</u>.</p>	I	CD (E)
17.		<p>The improvement plans for the required public and private improvements, including but not limited to frontage improvements for Iron Point Road, the project driveway on Iron Point Road, and the bridge crossing, shall be reviewed and approved by the Community Development Department prior to issuance of a building permit for the project.</p>	B	CD (E)
18.		<p>Final lot and building configurations may be modified to allow for overland release of storm events greater than the capacity of the underground system.</p>	B	CD (E)
19.		<p>The owner/applicant shall coordinate the planning, development and completion of this project with the various utility agencies (i.e., SMUD, PG&E, etc.).</p>	I	CD (P)(E)

20.	The owner/applicant shall be responsible for replacing any and all damaged or hazardous public sidewalk, curb and gutter along the site frontage and/or boundaries, including pre-existing conditions and construction damage, to the satisfaction of the Community Development Department.	O	CD (E)
21.	For any improvements constructed on private property that are not under ownership or control of the owner/applicant, a right-of-entry, and if necessary, a permanent easement shall be obtained and provided to the City prior to issuance of a grading permit and/or approval of improvement plans.	G, I	CD (E)
22.	The on-site water and sewer systems shall be privately owned and maintained. The fire protection system shall be separate from the domestic water system. The fire system shall be constructed to meet the National Fire Protection Association Standard 24. The domestic water and irrigation system shall be metered per City of Folsom <u>Standard Construction Specifications</u> .	I	CD (E)
23.	The owner/applicant shall coordinate the planning, development and completion of this project with the various utility agencies (i.e., SMUD, PG&E, etc.).	I	CD (P)(E)
24.	Any reimbursement for public improvements constructed by the applicant shall be in accordance with a formal reimbursement agreement entered into between the City and the owner/applicant prior to approval of the improvement plans.	I	CD (E)
25.	The owner/applicant shall dedicate a 12.5-foot-wide public utility easement for underground facilities and appurtenances adjacent to all public rights-of-way.	I	CD (E)
26.	Final exterior building and site lighting plans shall be submitted for review and approval by Community Development Department for location, height, aesthetics, level of illumination, glare and trespass prior to the issuance of any building permits. All lighting, including but not limited to free-standing parking lot lights, building-attached lights, and landscape lights shall be designed to be screened, shielded, and directed downward onto the project site and away from adjacent properties and public rights-of-way. The final design of the building-attached lights shall be subject to review and approval by the Community Development Department. Lighting shall be equipped with a timer or photo condenser. In addition, pole-mounted parking lot lights shall utilize a low-intensity, energy efficient lighting method.	I, B	CD (P)
STORM WATER POLLUTION/CLEAN WATER ACT REQUIREMENTS			
27.	The owner/applicant shall be responsible for litter control and sweeping of all paved surfaces in accordance with City standards. All on-site storm drains shall be cleaned immediately before the commencement of the rainy season (October 15).	G, I, B	CD (E)

28.		The storm drain swale or onsite improvement plans shall provide for "Best Management Practices" that meet the requirements of the water quality standards of the City's National Pollutant Discharge Elimination System Permit issued by the State Regional Water Quality Control Board.	G, I, B, O	CD (E)
29.		Erosion and sedimentation control measures shall be incorporated into construction plans. These measures shall conform to the City of Folsom requirements and the County of Sacramento <i>Erosion and Sedimentation Control Standards and Specifications</i> -current edition and as directed by the Community Development Department.	G, I	CD (E)
30.		The proposed development is considered commercial land use and will add over 1 acre of new impervious area to the site; therefore, stormwater quality treatment shall be provided. The City requires developers to utilize the <i>Guidance Manual for On-Site Stormwater Quality Treatment Control Measures</i> (January 2000) ("On-Site Manual") in selecting and designing source control and post-construction facilities to treat runoff from the project.	G, I	CD (E)
LANDSCAPE/TREE PRESERVATION REQUIREMENTS				
31.		The owner/applicant shall be responsible for on-site landscape maintenance throughout the life of the project to the satisfaction of the Community Development Department. Vegetation or planting shall not be less than that depicted on the final landscape plan, unless tree removal is approved by the Community Development Department because the spacing between trees will be too close on center as they mature.	B	CD (P)(E)
32.		Final landscape plans shall be subject to review and approval by the Community Development Department.	I, B	CD (P)(E)

33.		<p>Final landscape plans and specifications for site development shall be prepared by a registered landscape architect and approved by the City Arborist and City staff prior to the approval of improvement plans. Said plans shall include all on-site landscape specifications and details, and shall comply with all State and local rules, regulations, Governor's declarations and restrictions pertaining to water conservation and outdoor landscaping. Landscaping of the parking area shall meet shade requirements as outlined in the Folsom Municipal Code Chapter 17.57. The landscape plans shall comply and implement water efficient requirements as adopted by the State of California (Assembly Bill 1881) (State Model Water Efficient Landscape Ordinance) until such time the City of Folsom adopts its own Water Efficient Landscape Ordinance at which time Owner Applicant shall comply with any new ordinance. Shade and ornamental trees shall be maintained according to the most current American National Standards for Tree Care Operations (ANSI A-300) by qualified tree care professionals. Tree topping for height reduction, sign visibility, light clearance or any other purpose shall not be allowed. Specialty-style pruning, such as pollarding, shall be specified within the approved landscape plans and shall be implemented during a 5-year establishment and training period.</p>	I	CD(P)(E)
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CULTURAL RESOURCE REQUIREMENTS

35.	✓	<p>In the event that buried historic resources are discovered during construction, construction operations shall stop within a 100-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Historic resources could consist of, but are not limited to, stone, wood, or shell artifacts, structural remains, privies, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.</p>	G, I	CD (P)(E)
36.	✓	<p>In the event that archaeological resources are discovered during construction, construction operations shall stop within a 100-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to, excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Archaeological resources could consist of, but are not limited to, stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.</p>	G, I	CD (P)(E)

37.	✓	<p>In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines § 15064.5; Health and Safety Code § 7050.5; Public Resources Code § 5097.94 and § 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:</p> <ol style="list-style-type: none"> 1. There shall be no further excavation or disturbance within a 100-foot radius of the potentially human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98. 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance: <ul style="list-style-type: none"> • The NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 48 hours after being notified by the commission. • The descendant identified fails to make a recommendation. • The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner. 	G, I	CD (P)(E)
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BIOLOGICAL RESOURCE REQUIREMENTS

38.	✓	<p>If construction activities occur during the typical bird nesting season (February 15 through August 31), pre-construction nesting bird surveys shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. An additional survey shall be conducted within 48 hours prior to commencement of construction.</p> <ul style="list-style-type: none"> • If no nests are found, no further mitigation is required. • If active nests are identified in these areas, the City shall coordinate with CDFW to develop measures to avoid disturbance of active nests prior to the initiation of any construction activities, or construction could be delayed until the young have fledged. Avoidance measures may include establishment of a buffer zone and monitoring of the nest by a qualified biologist until the young have fledged the nest and are independent of the site. If a buffer zone is implemented, the size of the buffer zone shall be determined by a qualified biologist in coordination with CDFW and shall be appropriate for the species of bird and nest location. 	G, I CD (E)(P)
39.	✓	<p>Within 14 days prior to start of construction activities, a qualified biologist shall conduct presence/absence surveys for northwestern pond turtle in the un-named tributary to Alder Creek within 200-feet of the project site. If no northwestern pond turtles are observed in the survey area, construction activities may proceed. If northwestern pond turtles are observed in the survey area, no construction activities may commence until an appropriate course of action is established in consultation with CDFW.</p>	G, I CD (E)(P)
40.	✓	<p>Prior to start of construction activities, a qualified biologist or arborist shall supervise the installation of orange construction fencing around the perimeter of the protected zone of all protected trees in or overhanging the project site and the fencing shall be depicted on construction plans as Environmentally Sensitive Area. All construction activities shall be excluded from the protected zones, including but not limited to parking of vehicles or equipment, storage of materials, and discharge of hazardous materials.</p>	G, I CD (E)(P)

AIR QUALITY REQUIREMENTS

		CD (P)(E)(B)
41.	<p>In compliance with Rule 201 of the Sacramento Metropolitan Air Quality Management District (SMAQMD), the applicant/developer of the project shall verify with SMAQMD if a permit is required before equipment capable of releasing emissions to the atmosphere are used at the project site. The applicant/developer shall comply with the approved permit or provide evidence that a permit is not required.</p>	G, I, B
42.	<p>In compliance with Rule 442 of the Sacramento Metropolitan Air Quality Management District (SMAQMD), the applicant/developer of the project shall use architectural coatings that comply with the volatile organic compound content limits specified in the general rule.</p>	G, I, B
43.	<p>Dust generated on the project site shall be controlled by selective watering of exposed areas, especially during clearing and grading operations. All unpaved areas of the project site that are being graded, excavated or used as construction haul roadways shall be sprayed with water as often as is necessary to assure that fugitive dust does not impact nearby properties. Stockpiles of soil or other fine materials being left for periods in excess of one day during site construction shall be sprayed and track walked after stockpiling is complete.</p>	I, B
44.	<p>Paving shall be completed as soon as is practicable to reduce the time that bare surfaces and soils are exposed. In areas where construction is delayed for an extended period of time, the ground shall be revegetated to minimize the generation of dust.</p>	G, I, B
45.	<p>Street sweeping shall be conducted to control dust and dirt tracked from the project site onto any of the surrounding roadways. Construction equipment access shall be restricted to defined entry and exit points to control the amount of soil deposition.</p>	G, I, B

46.	✓	<p>Control of fugitive dust is required by District Rule 403 and enforced by SMAQMD staff. The owner/applicant shall implement the following measures as identified by the SMAQMD:</p> <ul style="list-style-type: none"> • Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. • Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. • Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. • Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). • All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated. 	G, I, B	CD (P)(E)(B)
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52.		Appropriate means of air circulation and provision of fresh air would be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system would meet the criteria of the International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).	B	CD (B)
ARCHITECTURE/SITE DESIGN REQUIREMENTS				
53.		The final location, orientation, design, materials, and colors of the trash/recycling enclosure shall be subject to review and approval by the Community Development Department.	I, B	CD (P)(E)
54.		The final location, height, design, materials, and colors for the proposed walls, fencing, and retaining walls shall be subject to review and approval by the Community Development Department.	I, B	CD (P)(E)

55.		<p>The project shall comply with the following architecture and design requirements:</p> <ol style="list-style-type: none"> 1. This approval is for a one to four-story, 181,200-square foot building associated with the Revel Folsom Senior Living Community project. The applicant shall submit building plans that comply with this approval. 2. The design, materials, and colors of the proposed Revel Folsom Senior Living Community building shall be consistent with the submitted building elevations, materials samples, and color scheme to the satisfaction of the Community Development Department. 3. Brick pavers, stamped asphalt or another type of colored masonry material (ADA compliant) shall be used to designate pedestrian crosswalks on the project site, in addition to where pedestrian paths cross drive aisles, and shall be incorporated as a design feature at the driveway entrance at Iron Point Road. 4. Roof-mounted mechanical equipment, including satellite dish antennas, shall not extend above the height of the parapet walls. Ground-mounted mechanical equipment shall be shielded by landscaping or trellis type features. 5. Final exterior building and site lighting plans shall be submitted for review and approval by Community Development Department for location, height, aesthetics, level of illumination, glare and trespass prior to the issuance of any building permits. Lighting shall be designed to be shielded and directed downward onto the project site and away from adjacent properties and public rights-of-way. Lighting shall be equipped with a timer or photo condenser. 	I, B	CD (P)
56.		<p style="text-align: center;">GRADING REQUIREMENTS</p> <p>Prior to the approval of the final facilities design and the initiation of construction activities, the applicant shall submit an erosion control plan to the City for review and approval. The plan shall identify protective measures to be taken during excavation, temporary stockpiling, any reuse or disposal, and revegetation. Specific techniques may be based upon geotechnical reports, the <u>Erosion and Sediment Control Handbook</u> of the State of California Department of Conservation, and shall comply with all updated City standards.</p>	G, I	CD (E)

SIGN REQUIREMENTS

57.	All signage shall be consistent with the requirements of the <u>Folsom Municipal Code</u> (Section 17.59.040).	B	CD (P)
58.	To meet City of Folsom sign standards, the project monument sign shall not exceed 3-foot 4-inches by 9-foot 6-inches, or 32 square feet.	B	CD (P)
OTHER AGENCY REQUIREMENT			
59.	The owner/applicant shall obtain all required State and Federal permits and provide evidence that said permits have been obtained, or that the permit is not required, subject to staff review and approval of any grading or improvement plan.	G, I	CD (P)(E)
FIRE DEPARTMENT REQUIREMENTS			
60.	The building shall have illuminated addresses visible from the street or drive fronting the property. Size and location of address identification shall be reviewed and approved by the Fire Marshal.	I	FD
61.	Prior to the issuance of any improvement plans or building permits, the Community Development and Fire Departments shall review and approve all detailed design plans for accessibility of emergency fire equipment, fire hydrant flow location, and other construction features.	I, B	FD
62.	Fire Department-approved all-weather emergency access roads shall be provided for every facility or building, when any portion of the facility or any portion of an exterior wall of the first story of a building is located more than 150 feet from fire department vehicle access measured by an approved route around the exterior of the building or facility. (CFC 503.1.1). The Fire Code Official shall approve all alternative materials and methods (AM&M) of construction designs that are at least equivalent to the intent of the provisions of this code requirement. AM&M may include, but are not limited to, fire hose water supply standpipe systems, fire-rated construction separating the building into separate smoke compartments, areas of refuge separated by fire-rated construction, early-warning smoke and fire detection systems, etc.	I, B	FD
63.	Turns on the emergency access driveways and entrances shall be designed to accommodate Fire Department apparatus. Use inside turning radii of 25 feet and outside turning radii of 50 feet.	I, B	FD

64.		An Emergency Vehicle Access (EVA) for fire apparatus shall be installed and maintained to allow immediate left-turn access into the project entrance across the existing median from west-bound Iron Point Road. The design of the EVA shall be approved by both the Fire Code Official and the City Engineer. The EVA shall be a paved surface that can support a gross vehicle weight of 80,000 pounds. The EVA shall have an unobstructed vertical clearance of not less than 13'6".	I, B	FD
65.		The owner/applicant shall provide a sight distance analysis for use of the EVA in consideration of westbound traffic on Iron Point Road.	I, B	FD
66.		All fire protection devices shall be designed to be located on site: fire hydrants, fire department connections, post indicator valves, etc. off-site devices cannot be used to serve the building. A water model analysis that proves the minimum fire flow will be required before any permits are issued. The fire sprinkler riser location shall be inside a Fire Control Room (5' X 7' minimum) with a full-sized 3' -0" door. This room can be a shared with other building utilities. The room shall only be accessible from the exterior.	I, B	FD
67.		All-weather emergency access roads and fire hydrants (tested and flushed) shall be provided before combustible material or vertical construction is allowed on site. All-weather access is defined as 6" of compacted AB from May 1 to September 30 and 2"AC over 6" AB from October 1 to April 30.	I, B	FD
POLICE/SECURITY REQUIREMENT				
68.		<p>The owner/applicant shall consult with the Police Department in order to incorporate all reasonable crime prevention measures. The following security/safety measures shall be required:</p> <ul style="list-style-type: none"> • A security guard shall be on-duty at all times at the site or a six-foot security fence shall be constructed around the perimeter of construction areas. (This requirement shall be included on the approved construction drawings). • Security measures for the safety of all construction equipment and unit appliances shall be employed. • Landscaping shall not cover exterior doors or windows, block line-of-sight at intersections or screen overhead lighting. 	G, I, B	PD

MISCELLANEOUS REQUIREMENTS

69.		<p>The proposed project shall comply with all State and local rules, regulations, Governor's Declarations, and restrictions including but not limited to: Executive Order B-29-15 issued by the Governor of California on April 1, 2015 relative to water usage and conservation, requirements relative to water usage and conservation established by the State Water Resources Control Board, and water usage and conservation requirements established within the <u>Folsom Municipal Code</u>. (Section 13.26 Water Conservation), or amended from time to time.</p>	I, B, OG	CD (P)(E)
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Attachment 1

Vicinity Map

Vicinity Map



CITY OF
FOLSOM



Attachment 2

Preliminary Site Plan, dated April 27, 2018

PLANNED DEVELOPMENT/USE PERMIT

FOR
REVEL FOLSOM

FOLSOM, CALIFORNIA
SITE PLAN

APRIL 27, 2018 SHEET 1 OF 3

SHEET INDEX

- 1 SITE PLAN
- 2 EXISTING CONSTRAINTS PLAN
- 3 GRADING & UTILITY PLAN

DEVELOPER

WOLF ENTERPRISES II, LLC
5710 E. CAMERLACK ROAD, SUITE 100
FOLSOM, CA 95630
TEL: (916) 315-8998

ENGINEER

UBORA ENGINEERING AND PLANNING, INC.
2801 DOUGLAS BLVD., SUITE 285
ROSEVILLE, CA 95661
TEL: (916) 780-2500

PROJECT DATA

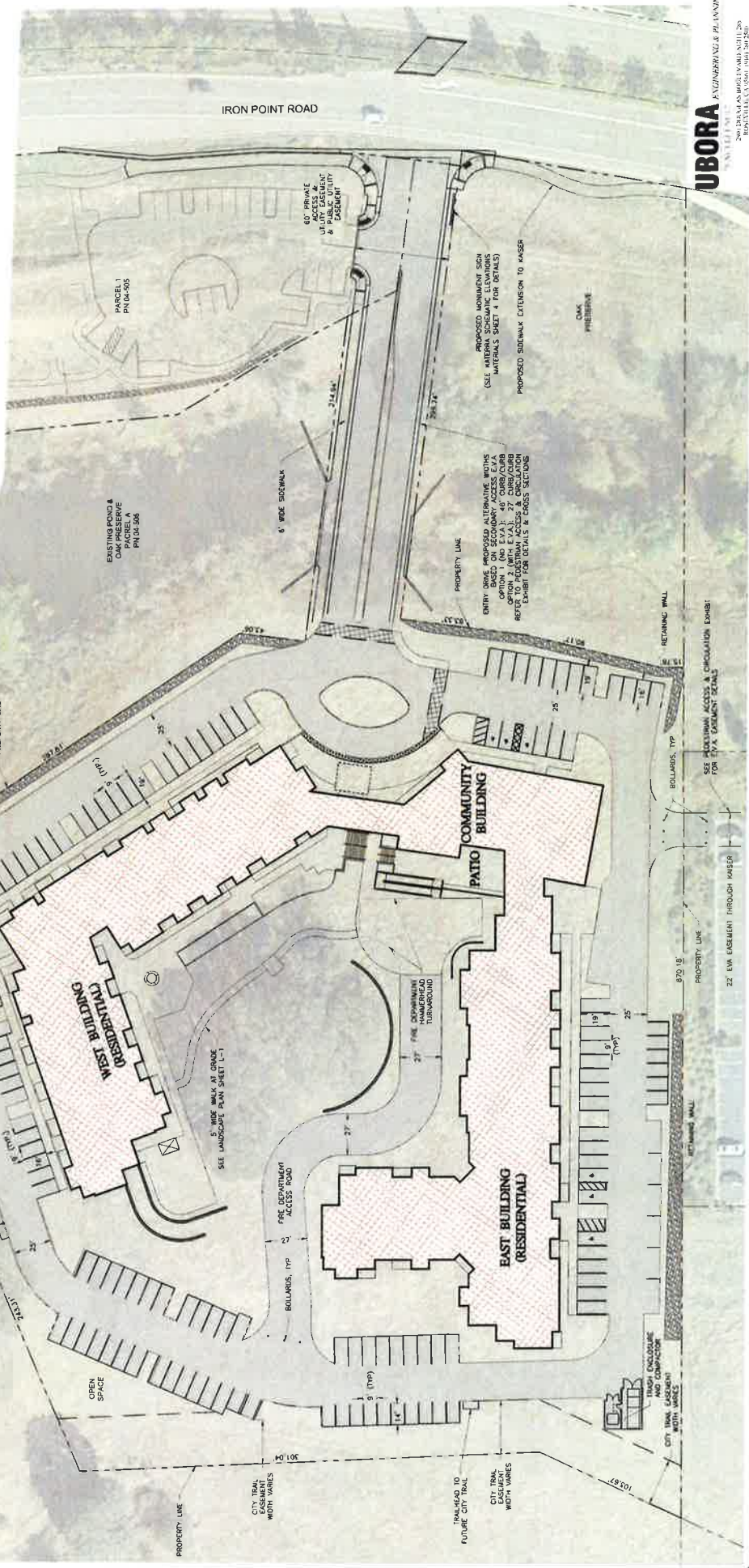
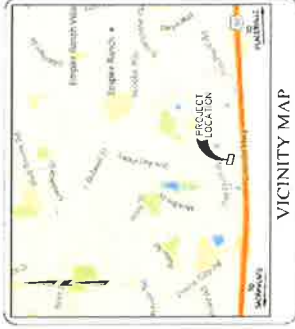
PARCEL: PN 04-505
ASSESSOR'S PARCEL NO.: 072-2680-011
PROPOSED USE: C-3 PD
GENERAL PLAN: HCC
ZONING: C-3 PD

DEVELOPMENT SUMMARY

PARCEL	SITE COVERAGE
6.02 ac.	100.0%
BUILDING COVERAGE	1.20 ac. 20.0%
LANDSCAPE COVERAGE	1.79 ac. 30.0%
OPEN LANDSCAPE/HANDSCAPE	2.79 ac. 46.3%
TOTAL	6.02 ac. 100.0%

PARKING SUMMARY

STANDARD STALL (9'x19')	87
COMPACT STALL (5'x10')	17
ADA ACCESSIBLE PARKING	9
PARALLEL PARKING	6
TOTAL PARKING	135



Attachment 3

Preliminary Grading and Utility Plan, dated April 27, 2018

Attachment 4

Preliminary Landscape Plan, dated March 7, 2018

Attachment 5

**Preliminary Access and Circulation Plan
Dated April 27, 2018**

PEDESTRIAN ACCESS & CIRCULATION EXHIBIT
FOR

REVEL FOLSOM

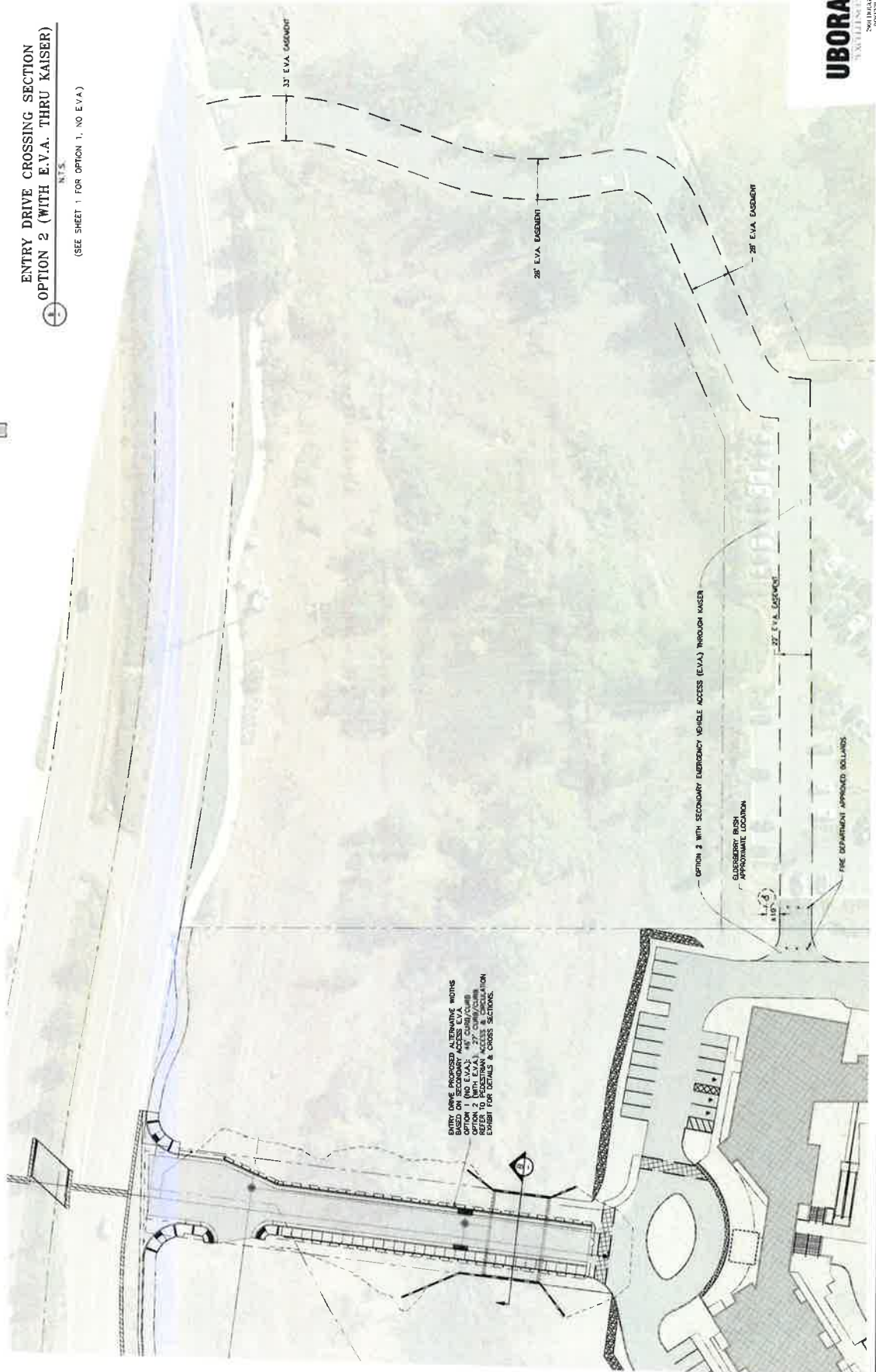
APRIL 27, 2018 SHEET 2 OF 2



ENTRY DRIVE CROSSING SECTION
OPTION 2 (WITH E.V.A. THRU KAISER)

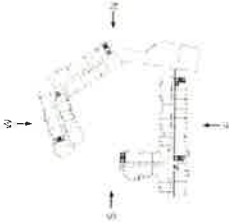
N.T.S.

(SEE SHEET 1 FOR OPTION 1, NO E.V.A.)



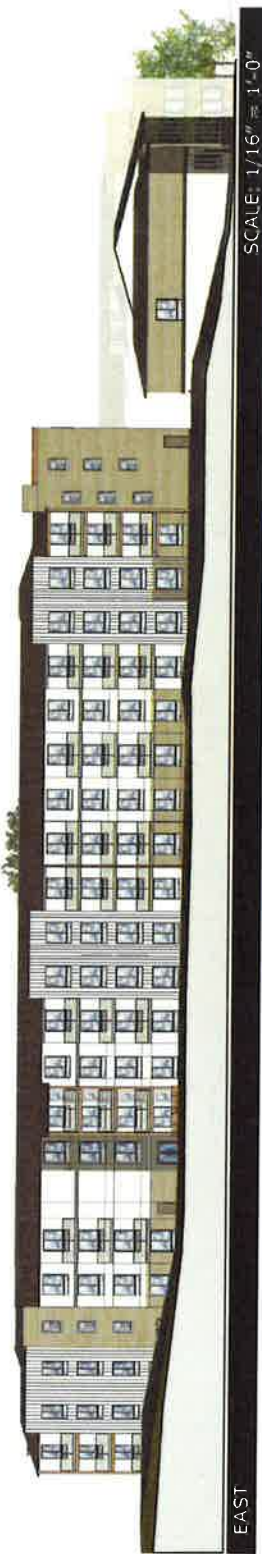
Attachment 6

Building Elevations and Renderings, dated March 7, 2018



377'-0" TO RISE TO PLANE

330'-0" TO FASAD FLOOR

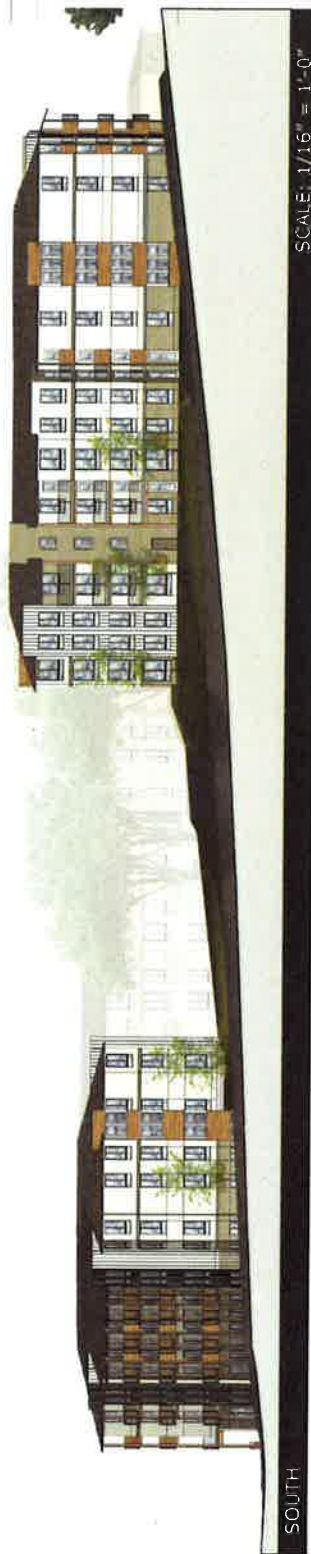


SCALE: 1/16" = 1'-0"

318'-0" TO CLIMBOSSE #4

327'-0" TO FACED TO PRIVATE USE

307'-0" FRESH FLOOR



SCALE: 1/16" = 1'-0"

357'-0" TO RISE TO PLANE

360'-0" TO CLIMBOSSE #4



SCALE: 1/16" = 1'-0"



REVEL FOLSOM
City of Folsom, California

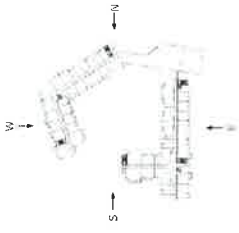
10-A PROJECT NUMBER: 17073 | DATE: 03.22.2013 | © 2013 REVEL COMPANY - ASSOCIATED ARCHITECTS & PLANNERS, INC.



SCHEMATIC ELEVATION | BUILDING I

1

3005 GRANITE AVE, SUITE 140 | GRANITE BAY, CALIFORNIA 95746 | P: 916-743-7000 | WWW.KATERIA.COM



30'-0" TO RISE TO ROOF
300'-0" TO PLATE LINE
LOWRI LEVEL 1F

30'-0" TO RISE TO ROOF
300'-0" TO PLATE LINE
LOWRI LEVEL 1F

SCALE: 1/16" = 1'-0"

NORTH



30'-0" TO RISE TO ROOF
300'-0" TO PLATE LINE
LOWRI LEVEL 1F

30'-0" TO RISE TO ROOF
300'-0" TO PLATE LINE
LOWRI LEVEL 1F

SCALE: 1/16" = 1'-0"

NORTH WEST



SCHEMATIC ELEVATION | BUILDING I

REVEL FOLSOM
City of Folsom, California

2024 PROJECT NUMBER: 11073 | DATE: 01/27/2024 | 8. HOFFER, O'NEILL & ASSOCIATES ARCHITECTURAL PLANNING, INC.



KATERIA

3855 GRANITE LANE, SUITE 100 | GRANITE BAY, CALIFORNIA 95741 | P: 916.775.7270 | WWW.KATERIA.COM



THE WOLF COMPANY



317'-0" TO ROOF
300'-0" TO PLATE LINE
318'-0" SECOND LEVEL FF

SOUTH COURTYARD

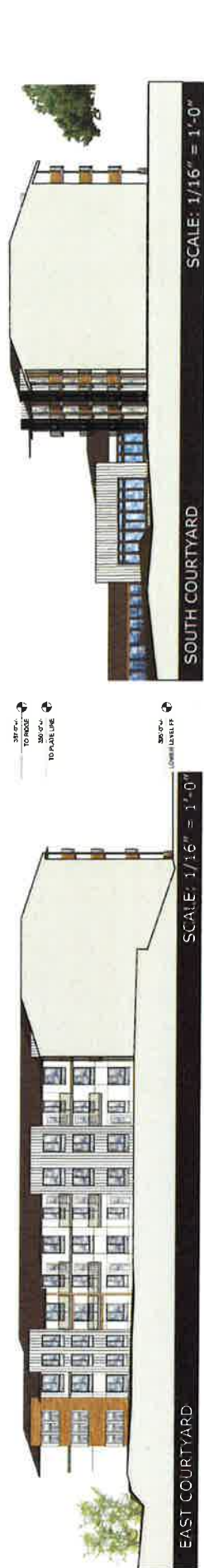
SCALE: 1/16" = 1'-0"



317'-0" TO ROOF
300'-0" TO PLATE LINE
318'-0" SECOND LEVEL FF

WEST COURTYARD

SCALE: 1/16" = 1'-0"



317'-0" TO ROOF
300'-0" TO PLATE LINE
318'-0" SECOND LEVEL FF

EAST COURTYARD

SCALE: 1/16" = 1'-0"

SCHEMATIC ELEVATION | BUILDING I

REVEL FOLSOM
City of Folsom, California

2014 PROJECT NUMBER 11205 | DATE 03/07/2014 | REPRD, DEMORE - ASSOCIATED ARCHITECTURE PLANNERS, INC.

181 NORTH CENTRAL

45 TERRA

1805 GRANITE LAKE DRIVE, SUITE 100 | GRANITE BAY, CALIFORNIA 95746 | P. 916.363.3000 | WWW.45TERRA.COM

8" CMU WITH CEMENT PLASTER FINISH
 8" CMU WITH 2" STONE VENEER OVER 1" MORTAR BED
 CORTEN STEEL PLATE WITH WATER-BLAST LETTERS
 2" PRECAST CONCRETE CAP



FRONT

SIDE



MATERIAL

SCALE: 1/16" = 1'-0"

- 1 TILE ROOF
EAGLE TILE
BEL AIR PROFILE
BROWN GRAY
RANGE
- 2 LONGBOARD SIDING
LIGHT NATIONAL WALNUT
- 3 LAP SIDING
HARDIE PLANK
CEDAR MILL
(OR EQUAL)
PAINTED
SW 7546
PRAIRIE GRASS
- 4 BOARD & BATTEN
HARDIE PANEL
(OR EQUAL)
PAINTED
SW 9183
GOSSAMER VEIL
- 5 TRIM
SW 9183
TIN LIZZIE
- 6 PAINTED STUCCO
SW 9165
GOSSAMER VEIL
- 7 PAINTED STUCCO
SW 7060
ATTITUDE GRAY
- 8 STONE VENEER
ADVOCATE STONE
DARWIN COBBLE

REVEL FOLSOM
 City of Folsom, California

2024 PROJECT NUMBER: 1079 | DATE: 02/28/24 | 11111 PINE DEMOREL ASSOCIATES ARCHITECTS PLANNERS, INC.

SCHEMATIC ELEVATION | MATERIALS

THE VOITTE COMPANY

MATERIA

JIDA
 JERRY D. JAMES & ASSOCIATES
 ARCHITECTS

4

1800 GRANITE LAKE DRIVE, SUITE 200 | LOS ANGELES, CALIFORNIA 90044 | PH: 310.220.7111 | WWW.JIDAARCH.COM



ENTRY OPTION 1



ENTRY OPTION 2

PERSPECTIVES

REVEL FOLSOM
 City of Folsom, California

10-14 PROJECT NUMBER: 10079 | DATE: 03-07-2018 | © JEFFREY DEPUIS & ASSOCIATES ARCHITECTS PLANNERS, INC.



1300 GRANITE LAKE DR. SUITE 200 | GRANITE BAY, CALIFORNIA 95610 | P. 916.953.1700 | WWW.4TERRA.COM





COURTYARD

PERSPECTIVE

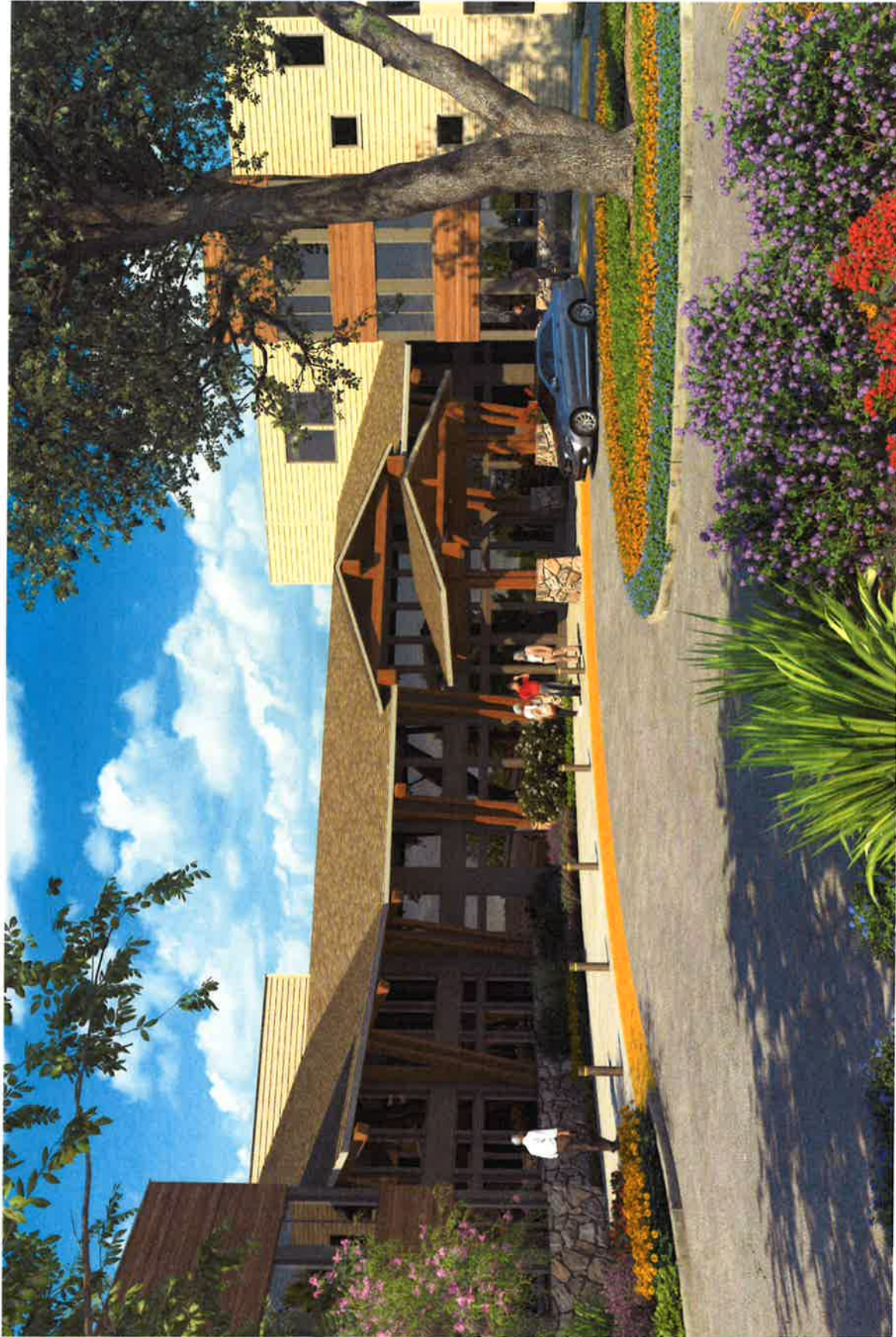
REVEL FOLSOM
 City of Folsom, California
JO-4 PROJECT NUMBER: 17073 | DATE: 03.07.2014 | © JEFFREY DENHAR - ASSOCIATES ARCHITECTS PLANNERS, INC.



3800 GRANITE LANE DRIVE, SUITE 100 | GRANITE BAY, CALIFORNIA 95746 | P: 916-782-7100 | WWW.KATERRA.COM



JEFFREY DENHAR - ASSOCIATES ARCHITECTS PLANNERS, INC.



PERSPECTIVES | MAIN ENTRY VIEW 1

REVEL FOLSOM
City of Folsom, California
JOB PROJECT NUMBER: 15757 | DATE: 04/27/2014 | © JERRY DUNN - ARCHITECTURE ARCHITECTURE PLANNING, INC.





PERSPECTIVES | MAIN ENTRY VIEW 2

REVEL FOLSOM
 City of Folsom, California

JDA PROJECT NUMBER: 15753 | DATE: 04/22/2018 | 8 JEFFREY DRIVE | ASSOCIATES ARCHITECT PLANNERS, INC.

THE WOLFF COMPANY
 CONSULTING ARCHITECTS

KATERA

JDA

8

1000 SHAWWEE LAKE DRIVE, SUITE 100 | GRANITE BAY, CALIFORNIA 95746 | 916.765.0200 | WWW.JDAA.COM



PERSPECTIVES | VIEW FROM ENTRY DRIVE

REVEL FOLSOM
City of Folsom, California
2014 PROJECT NUMBER: 17702 | DATE: 04/27/2018 | © JEFFREY DENNIS & ASSOCIATES ARCHITECTS PLANNERS, INC.



9

1400 GRANITE LAKE DRIVE, SUITE 100 | GRANITE BAY, CALIFORNIA 95614 | TEL: (916) 332-2021 | WWW.JESEPPEY.COM



PERSPECTIVES | VIEW FROM WEST



REVEL FOLSOM
City of Folsom, California

© 2014 PROJECT NUMBER: 10023 | DATE: 04/22/2014 | 1100 WEST COMPANY ASSOCIATES ARCHITECTS IN AMERICA, INC.



KATERA



JDA 10

1000 GRANITE LANE SUITE 2000, SUITE 100 | GRANITE BAY, CALIFORNIA 95628 | P 916.752.2222 | F 916.752.2222 | WWW.JDA10.COM



OUTLINE OF PROPOSED MEMORY CARE BUILDING

PERSPECTIVES | VIEW FROM IRON POINT AND OAK AVENUE INTERSECTION

REVEL FOLSOM

City of Folsom, California

ARCHITECT NUMBER: 1703 | DATE: 03/27/2018 | 11 DEPT. OF PUBLIC WORKS - ASSOCIATED ARCHITECTS & PLANNERS, INC.



THE WILIT COMPANY



1800 CHINATE CANTON DRIVE SUITE 100 GRANITE BAY, CALIFORNIA 95926 | 916.842.1200 | WWW.KATERRA.COM



JDBA
JAMES D. BARNETT ASSOCIATES
ARCHITECTS & PLANNERS

11

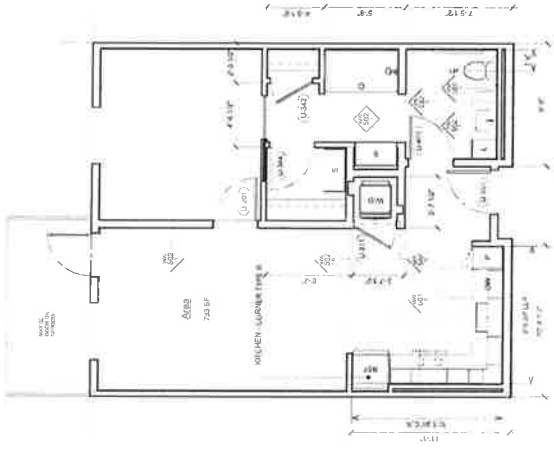
Attachment 7

Building Floor Plans and Unit Plans, dated May 10, 2018

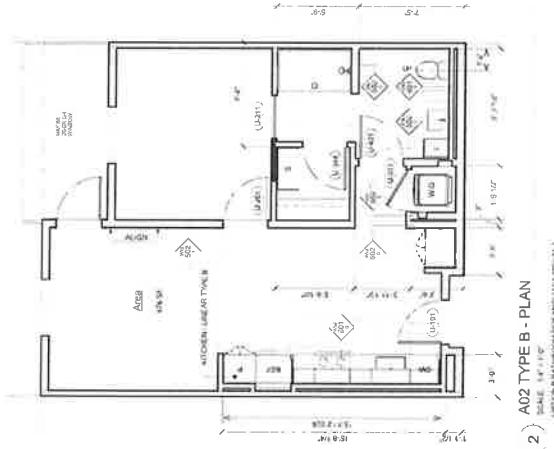


901 15TH AVENUE SUITE 300
SEATTLE WASHINGTON 98104

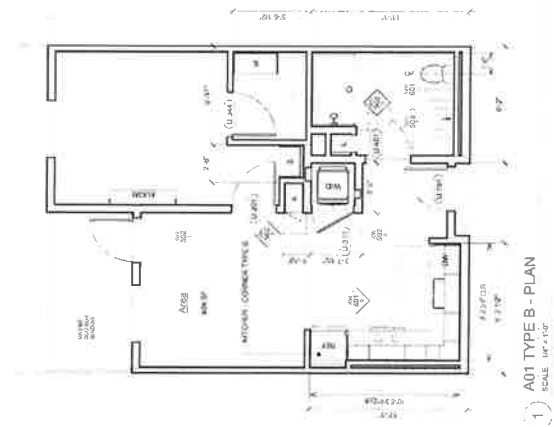
REVEL FOLSOM
11000 N. 15TH AVE
SUITE 100
FOLSOM, CA 95630
TEL: 916.243.8800
WWW.REVELFOLSOM.COM



05 A03 TYPE B - PLAN
SCALE: 1/4" = 1'-0"
OPTION B BATHROOM PER AIS 1171, ROOM 11.2



02 A02 TYPE B - PLAN
SCALE: 1/4" = 1'-0"
OPTION B BATHROOM PER AIS 1171, ROOM 11.1



01 A01 TYPE B - PLAN
SCALE: 1/4" = 1'-0"
OPTION B BATHROOM PER AIS 1171, ROOM 11.1

REVEL FOLSOM

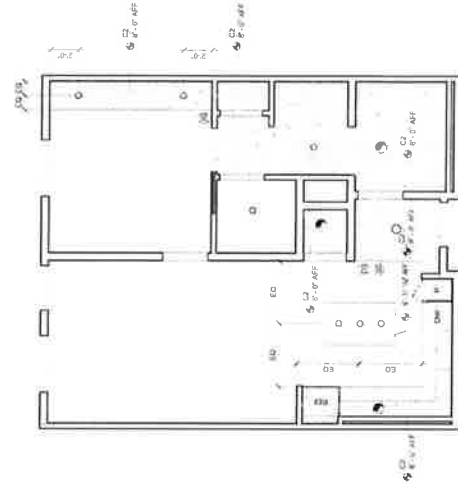
11000 N. 15TH AVE
SUITE 100
FOLSOM, CA 95630

DATE: 03/20/19
DRAWN BY: [Name]
CHECKED BY: [Name]

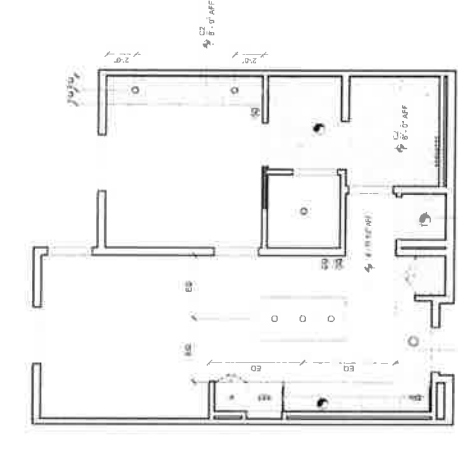
PROJECT: [Name]

REVISIONS

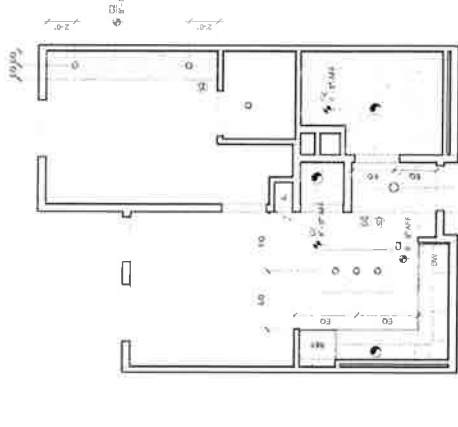
UNIT PLANS
A1.12



06 A03 TYPE B - RCP
SCALE: 1/4" = 1'-0"



04 A02 TYPE B - RCP
SCALE: 1/4" = 1'-0"



03 A01 TYPE B - RCP
SCALE: 1/4" = 1'-0"



KATERRA

801 FT. AUBURN, SUITE 3200
DOWNTOWN, PORTLAND, OR 97204
TEL: 503.281.1111
WWW.KATERRA.COM

REVEL FOLSOM

1000 Reed Road
Folsom, CA 95630

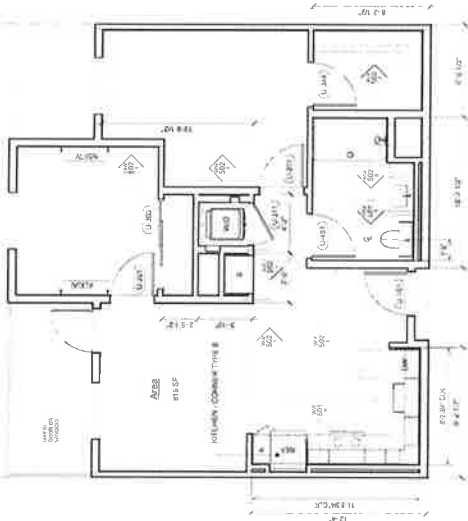
Author: JF
Project Team: JF, DF
Job Number: 00117009
Date: 04/19/18

Revision: _____
Mark: _____ Date: _____ Description: _____

SCALE: 1/8" = 1'-0"
REVEL FOLSOM
04/19/18

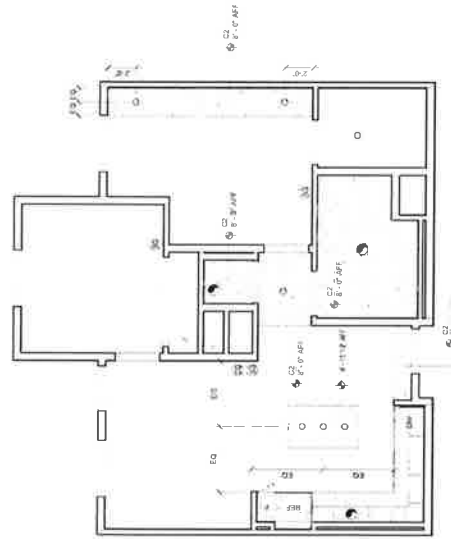
UNIT PLANS
A1.13

- REVISIONS:**
- 1. IMPROVED SYSTEMS/CLING
 - 2. EXPANDED
 - 3. 5" SLAB DOWNLOFT, SURFACE MOUNT, LED AT ENTRY TYP
 - 4. 7" SLAB DOWNLOFT, SURFACE MOUNT, LED AT ENTRY TYP
 - 5. CHANGE FROM PAVEMENT COATING AT ENTRY TYP
 - 6. CHANGE SIGNAGE DETECTOR
 - 7. SIGNAGE DETECTOR



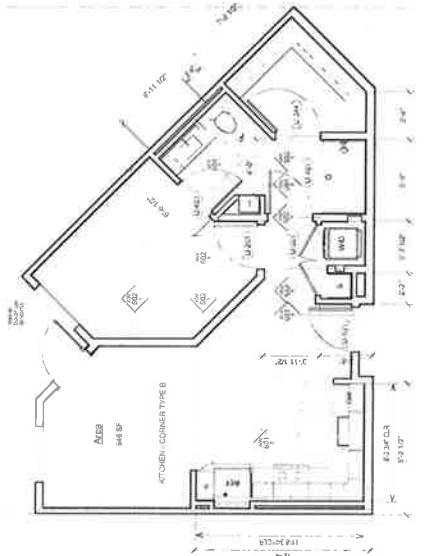
02) B01 TYPE B - PLAN

SCALE: 1/4" = 1'-0"
OPTION B BATHROOM PER ANSI 117.1.106.11.3



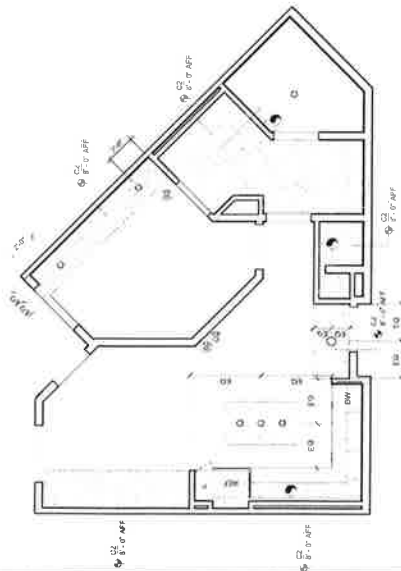
04) B01 TYPE B - RCP

SCALE: 1/4" = 1'-0"



1) A05 TYPE B - PLAN

SCALE: 1/4" = 1'-0"
OPTION B KITCHEN PER ANSI 117.1.106.11.3



3) A05 TYPE B - RCP

SCALE: 1/4" = 1'-0"



303 WEST AVENUE, SUITE 210
 SANTEE, WASHINGTON 98148
 TEL: 206.401.1000
 WWW.KATERRA.COM

REVEL FOLSOM

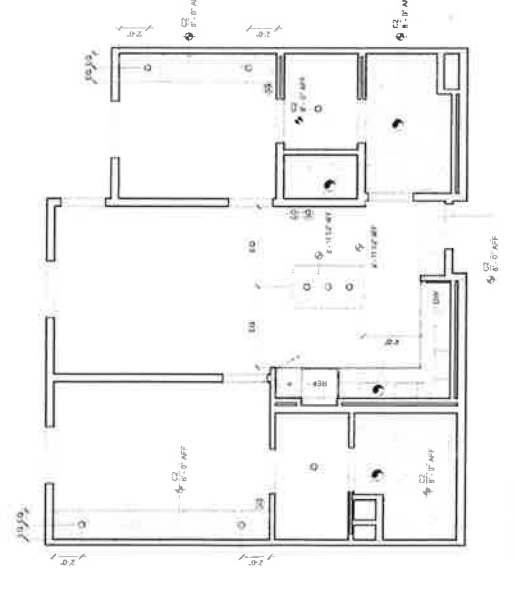
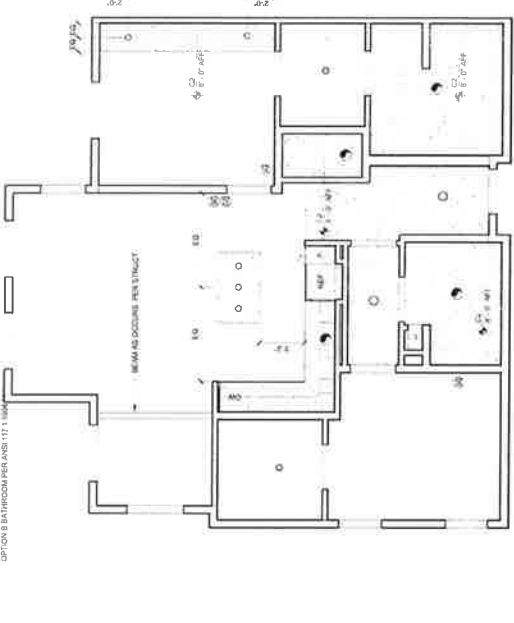
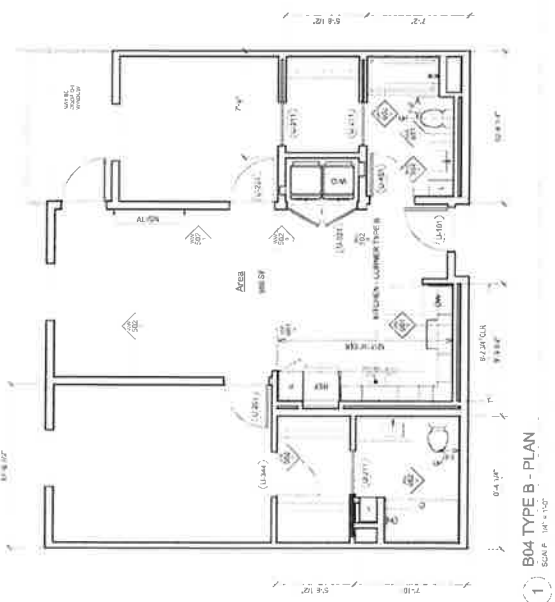
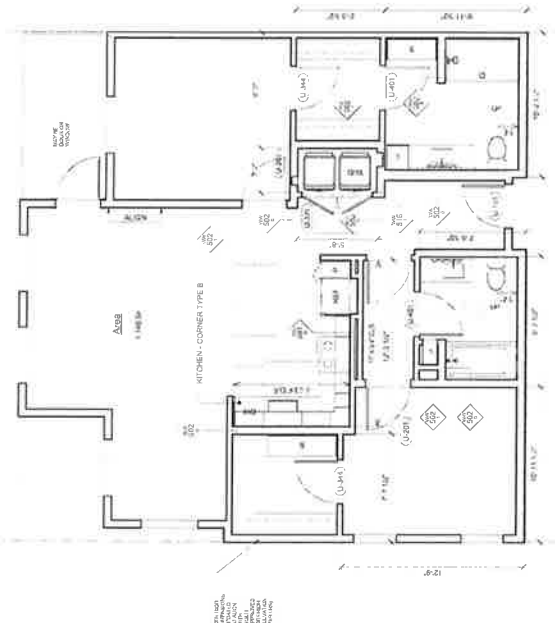
1000 Power Road
 Folsom, CA 95620

Architect: TRC
 Project Name: JC OFF
 AIA Number: 000110027
 Date: 08/10/2018
 Name: Mark, Gary, Christopher

303 WEST AVENUE, SUITE 210
 SANTEE, WASHINGTON 98148
 TEL: 206.401.1000
 WWW.KATERRA.COM

UNIT PLANS
A1.15

- LEGEND**
- DIMENSION SYMBOL OR LINE
 - FINISH POINT
 - FLOOR DOWNGRANT SURFACE MOUNT LIES
 - EXHAUST FAN FAULT/OUT COMBO AT BATHROOM
 - CARBON MONOXIDE DETECTOR
 - SMOKE DETECTOR





811 FIFTH AVENUE, SUITE 510
SEATTLE, WASHINGTON 98104

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REVEL FOLSOM

REVISED FROM 01/14/10

Author: DR
Project Team: JC, DR
Project Number: 08170008
Date: 05/11/11
Revision: MIA Date: 04/20/11

SCHEMATIC DESIGN
REVEL FOLSOM
06/07/11

LEVEL 1 W PLAN
A1.06

LEGEND

- BOUNDARIES**
- STREETS
 - ONE BEDROOM
 - TWO BEDROOMS
- STORIES PER QUARTER**
- ONE BEDROOMS: 2-3% IN UNITS
 - TWO BEDROOMS: 2-3% IN UNITS



UNIT COUNT AND MIX

UNIT	DESIGN	NRSE	QUANTITY	TOTAL UNIT GSF	TOTAL UNIT NRSE	UNIT MIX %
1ST	1000-11A	108	23	13,643 SF	1,364	14%
1ST	1000-11B	108	23	13,643 SF	1,364	14%
1ST	1000-11C	108	23	13,643 SF	1,364	14%
1ST	1000-11D	108	23	13,643 SF	1,364	14%
1ST	1000-11E	108	23	13,643 SF	1,364	14%
1ST	1000-11F	108	23	13,643 SF	1,364	14%
1ST	1000-11G	108	23	13,643 SF	1,364	14%
1ST	1000-11H	108	23	13,643 SF	1,364	14%
1ST	1000-11I	108	23	13,643 SF	1,364	14%
1ST	1000-11J	108	23	13,643 SF	1,364	14%
1ST	1000-11K	108	23	13,643 SF	1,364	14%
1ST	1000-11L	108	23	13,643 SF	1,364	14%
1ST	1000-11M	108	23	13,643 SF	1,364	14%
1ST	1000-11N	108	23	13,643 SF	1,364	14%
1ST	1000-11O	108	23	13,643 SF	1,364	14%
1ST	1000-11P	108	23	13,643 SF	1,364	14%
1ST	1000-11Q	108	23	13,643 SF	1,364	14%
1ST	1000-11R	108	23	13,643 SF	1,364	14%
1ST	1000-11S	108	23	13,643 SF	1,364	14%
1ST	1000-11T	108	23	13,643 SF	1,364	14%
1ST	1000-11U	108	23	13,643 SF	1,364	14%
1ST	1000-11V	108	23	13,643 SF	1,364	14%
1ST	1000-11W	108	23	13,643 SF	1,364	14%
1ST	1000-11X	108	23	13,643 SF	1,364	14%
1ST	1000-11Y	108	23	13,643 SF	1,364	14%
1ST	1000-11Z	108	23	13,643 SF	1,364	14%
1ST	1000-11AA	108	23	13,643 SF	1,364	14%
1ST	1000-11AB	108	23	13,643 SF	1,364	14%
1ST	1000-11AC	108	23	13,643 SF	1,364	14%
1ST	1000-11AD	108	23	13,643 SF	1,364	14%
1ST	1000-11AE	108	23	13,643 SF	1,364	14%
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1ST	1000-11AH	108	23	13,643 SF	1,364	14%
1ST	1000-11AI	108	23	13,643 SF	1,364	14%
1ST	1000-11AJ	108	23	13,643 SF	1,364	14%
1ST	1000-11AK	108	23	13,643 SF	1,364	14%
1ST	1000-11AL	108	23	13,643 SF	1,364	14%
1ST	1000-11AM	108	23	13,643 SF	1,364	14%
1ST	1000-11AN	108	23	13,643 SF	1,364	14%
1ST	1000-11AO	108	23	13,643 SF	1,364	14%
1ST	1000-11AP	108	23	13,643 SF	1,364	14%
1ST	1000-11AQ	108	23	13,643 SF	1,364	14%
1ST	1000-11AR	108	23	13,643 SF	1,364	14%
1ST	1000-11AS	108	23	13,643 SF	1,364	14%
1ST	1000-11AT	108	23	13,643 SF	1,364	14%
1ST	1000-11AU	108	23	13,643 SF	1,364	14%
1ST	1000-11AV	108	23	13,643 SF	1,364	14%
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1ST	1000-11AX	108	23	13,643 SF	1,364	14%
1ST	1000-11AY	108	23	13,643 SF	1,364	14%
1ST	1000-11AZ	108	23	13,643 SF	1,364	14%
1ST	1000-11BA	108	23	13,643 SF	1,364	14%
1ST	1000-11BB	108	23	13,643 SF	1,364	14%
1ST	1000-11BC	108	23	13,643 SF	1,364	14%
1ST	1000-11BD	108	23	13,643 SF	1,364	14%
1ST	1000-11BE	108	23	13,643 SF	1,364	14%
1ST	1000-11BF	108	23	13,643 SF	1,364	14%
1ST	1000-11BG	108	23	13,643 SF	1,364	14%
1ST	1000-11BH	108	23	13,643 SF	1,364	14%
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1ST	1000-11BO	108	23	13,643 SF	1,364	14%
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1ST	1000-11BR	108	23	13,643 SF	1,364	14%
1ST	1000-11BS	108	23	13,643 SF	1,364	14%
1ST	1000-11BT	108	23	13,643 SF	1,364	14%
1ST	1000-11BU	108	23	13,643 SF	1,364	14%
1ST	1000-11BV	108	23	13,643 SF	1,364	14%
1ST	1000-11BW	108	23	13,643 SF	1,364	14%
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1ST	1000-11BY	108	23	13,643 SF	1,364	14%
1ST	1000-11BZ	108	23	13,643 SF	1,364	14%
1ST	1000-11CA	108	23	13,643 SF	1,364	14%
1ST	1000-11CB	108	23	13,643 SF	1,364	14%
1ST	1000-11CC	108	23	13,643 SF	1,364	14%
1ST	1000-11CD	108	23	13,643 SF	1,364	14%
1ST	1000-11CE	108	23	13,643 SF	1,364	14%
1ST	1000-11CF	108	23	13,643 SF	1,364	14%
1ST	1000-11CG	108	23	13,643 SF	1,364	14%
1ST	1000-11CH	108	23	13,643 SF	1,364	14%
1ST	1000-11CI	108	23	13,643 SF	1,364	14%
1ST	1000-11CJ	108	23	13,643 SF	1,364	14%
1ST	1000-11CK	108	23	13,643 SF	1,364	14%
1ST	1000-11CL	108	23	13,643 SF	1,364	14%
1ST	1000-11CM	108	23	13,643 SF	1,364	14%
1ST	1000-11CN	108	23	13,643 SF	1,364	14%
1ST	1000-11CO	108	23	13,643 SF	1,364	14%
1ST	1000-11CP	108	23	13,643 SF	1,364	14%
1ST	1000-11CQ	108	23	13,643 SF	1,364	14%
1ST	1000-11CR	108	23	13,643 SF	1,364	14%
1ST	1000-11CS	108	23	13,643 SF	1,364	14%
1ST	1000-11CT	108	23	13,643 SF	1,364	14%
1ST	1000-11CU	108	23	13,643 SF	1,364	14%
1ST	1000-11CV	108	23	13,643 SF	1,364	14%
1ST	1000-11CW	108	23	13,643 SF	1,364	14%
1ST	1000-11CX	108	23	13,643 SF	1,364	14%
1ST	1000-11CY	108	23	13,643 SF	1,364	14%
1ST	1000-11CZ	108	23	13,643 SF	1,364	14%
1ST	1000-11DA	108	23	13,643 SF	1,364	14%
1ST	1000-11DB	108	23	13,643 SF	1,364	14%
1ST	1000-11DC	108	23	13,643 SF	1,364	14%
1ST	1000-11DD	108	23	13,643 SF	1,364	14%
1ST	1000-11DE	108	23	13,643 SF	1,364	14%
1ST	1000-11DF	108	23	13,643 SF	1,364	14%
1ST	1000-11DG	108	23	13,643 SF	1,364	14%
1ST	1000-11DH	108	23	13,643 SF	1,364	14%
1ST	1000-11DI	108	23	13,643 SF	1,364	14%
1ST	1000-11DJ	108	23	13,643 SF	1,364	14%
1ST	1000-11DK	108	23	13,643 SF	1,364	14%
1ST	1000-11DL	108	23	13,643 SF	1,364	14%
1ST	1000-11DM	108	23	13,643 SF	1,364	14%
1ST	1000-11DN	108	23	13,643 SF	1,364	14%
1ST	1000-11DO	108	23	13,643 SF	1,364	14%
1ST	1000-11DP	108	23	13,643 SF	1,364	14%
1ST	1000-11DQ	108	23	13,643 SF	1,364	14%
1ST	1000-11DR	108	23	13,643 SF	1,364	14%
1ST	1000-11DS	108	23	13,643 SF	1,364	14%
1ST	1000-11DT	108	23	13,643 SF	1,364	14%
1ST	1000-11DU	108	23	13,643 SF	1,364	14%
1ST	1000-11DV	108	23	13,643 SF	1,364	14%
1ST	1000-11DW	108	23	13,643 SF	1,364	14%
1ST	1000-11DX	108	23	13,643 SF	1,364	14%
1ST	1000-11DY	108	23	13,643 SF	1,364	14%
1ST	1000-11DZ	108	23	13,643 SF	1,364	14%
1ST	1000-11EA	108	23	13,643 SF	1,364	14%
1ST	1000-11EB	108	23	13,643 SF	1,364	14%
1ST	1000-11EC	108	23	13,643 SF	1,364	14%
1ST	1000-11ED	108	23	13,643 SF	1,364	14%
1ST	1000-11EE	108	23	13,643 SF	1,364	14%
1ST	1000-11EF	108	23	13,643 SF	1,364	14%
1ST	1000-11EG	108	23	13,643 SF	1,364	14%
1ST	1000-11EH	108	23	13,643 SF	1,364	14%
1ST	1000-11EI	108	23	13,643 SF	1,364	14%
1ST	1000-11EJ	108	23	13,643 SF	1,364	14%
1ST	1000-11EK	108	23	13,643 SF	1,364	14%
1ST	1000-11EL	108	23	13,643 SF	1,364	14%
1ST	1000-11EM	108	23	13,643 SF	1,364	14%
1ST	1000-11EN	108	23	13,643 SF	1,364	14%
1ST	1000-11EO	108	23	13,643 SF	1,364	14%
1ST	1000-11EP	108	23	13,643 SF	1,364	14%
1ST	1000-11EQ	108	23	13,643 SF	1,364	14%
1ST	1000					



801 9TH AVENUE, SUITE 2100
SEATTLE, WASHINGTON 98104

ARCHITECT
1000 1ST AVENUE, SUITE 2000
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REVEL FOLSOM

1000 1ST AVENUE
SEATTLE, WA 98101

Author: JF
Project Team: JF
Architect: JF
Date: 04/17/18
Revision: JF
Notes: JF

SCHEMATIC DESIGN
REVEL FOLSOM
04/17/18

LEVEL 2 W PLAN
A1.07

LEGEND

- STUDIOS
- ONE BEDROOM
- TWO BEDROOM

- STUDIOS 750 - 1,000 SF
- ONE BEDROOMS 350 - 450 SF
- TWO BEDROOMS 450 - 600 SF



UNIT	DESIGN	MSRF	QUANTITY	TOTAL UNIT AREA	TOTAL UNIT MSRF	UNIT MIX %
STUDIO	750-1000 SF	0.25	10	10,000 SF	2,500 MSRF	10%
1 BR	350-450 SF	0.35	20	7,000 SF	2,450 MSRF	28%
2 BR	450-600 SF	0.45	10	4,500 SF	2,025 MSRF	18%
STUDIO	750-1000 SF	0.25	10	10,000 SF	2,500 MSRF	10%
1 BR	350-450 SF	0.35	20	7,000 SF	2,450 MSRF	28%
2 BR	450-600 SF	0.45	10	4,500 SF	2,025 MSRF	18%
STUDIO	750-1000 SF	0.25	10	10,000 SF	2,500 MSRF	10%
1 BR	350-450 SF	0.35	20	7,000 SF	2,450 MSRF	28%
2 BR	450-600 SF	0.45	10	4,500 SF	2,025 MSRF	18%
TOTAL			100	40,000 SF	14,475 MSRF	100%



801 FIFTH AVENUE, SUITE 2420
 SEATTLE, WASHINGTON 98104
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REVEL FOLSOM

100 Park Road
 Folsom, CA 95630

Address: 100 Park Road
 Project Name: REVEL FOLSOM
 City/State: Folsom, CA 95630
 Date: 08/27/18
 Revision: 01
 Mark: Dave
 Description:

SCHEMATIC DESIGN
 REVEL FOLSOM
 08/27/18

LEVEL 4 W /
 LEVEL 2-E PLAN
A1.09

LEGEND

- ISSUING DATE:**
- 08/27/18
 - 09/11/18
 - 10/01/18
- UNIT TYPES:**
- 1 BR
 - 2 BR
 - 3 BR
- UNIT COUNTS:**
- 1 BR: 10 UNITS
 - 2 BR: 10 UNITS
 - 3 BR: 10 UNITS
- PROVIDED: 4% OVERLAP**
- ONE BEDROOM: 50% OF UNITS**
- TWO BEDROOM: 30% OF UNITS**



UNIT	DESIGN	MSF	QUANTITY	TOTAL UNIT GSF	TOTAL UNIT MSF	UNIT MIX %
001	1000-1A	100	10	1000 SF	1000 SF	10%
002	1000-1B	100	10	1000 SF	1000 SF	10%
003	1000-1C	100	10	1000 SF	1000 SF	10%
004	1000-1D	100	10	1000 SF	1000 SF	10%
005	1000-1E	100	10	1000 SF	1000 SF	10%
006	1000-1F	100	10	1000 SF	1000 SF	10%
007	1000-1G	100	10	1000 SF	1000 SF	10%
008	1000-1H	100	10	1000 SF	1000 SF	10%
009	1000-1I	100	10	1000 SF	1000 SF	10%
010	1000-1J	100	10	1000 SF	1000 SF	10%
011	1000-1K	100	10	1000 SF	1000 SF	10%
012	1000-1L	100	10	1000 SF	1000 SF	10%
013	1000-1M	100	10	1000 SF	1000 SF	10%
014	1000-1N	100	10	1000 SF	1000 SF	10%
015	1000-1O	100	10	1000 SF	1000 SF	10%
016	1000-1P	100	10	1000 SF	1000 SF	10%
017	1000-1Q	100	10	1000 SF	1000 SF	10%
018	1000-1R	100	10	1000 SF	1000 SF	10%
019	1000-1S	100	10	1000 SF	1000 SF	10%
020	1000-1T	100	10	1000 SF	1000 SF	10%
021	1000-1U	100	10	1000 SF	1000 SF	10%
022	1000-1V	100	10	1000 SF	1000 SF	10%
023	1000-1W	100	10	1000 SF	1000 SF	10%
024	1000-1X	100	10	1000 SF	1000 SF	10%
025	1000-1Y	100	10	1000 SF	1000 SF	10%
026	1000-1Z	100	10	1000 SF	1000 SF	10%
027	1000-1AA	100	10	1000 SF	1000 SF	10%
028	1000-1AB	100	10	1000 SF	1000 SF	10%
029	1000-1AC	100	10	1000 SF	1000 SF	10%
030	1000-1AD	100	10	1000 SF	1000 SF	10%
031	1000-1AE	100	10	1000 SF	1000 SF	10%
032	1000-1AF	100	10	1000 SF	1000 SF	10%
033	1000-1AG	100	10	1000 SF	1000 SF	10%
034	1000-1AH	100	10	1000 SF	1000 SF	10%
035	1000-1AI	100	10	1000 SF	1000 SF	10%
036	1000-1AJ	100	10	1000 SF	1000 SF	10%
037	1000-1AK	100	10	1000 SF	1000 SF	10%
038	1000-1AL	100	10	1000 SF	1000 SF	10%
039	1000-1AM	100	10	1000 SF	1000 SF	10%
040	1000-1AN	100	10	1000 SF	1000 SF	10%
041	1000-1AO	100	10	1000 SF	1000 SF	10%
042	1000-1AP	100	10	1000 SF	1000 SF	10%
043	1000-1AQ	100	10	1000 SF	1000 SF	10%
044	1000-1AR	100	10	1000 SF	1000 SF	10%
045	1000-1AS	100	10	1000 SF	1000 SF	10%
046	1000-1AT	100	10	1000 SF	1000 SF	10%
047	1000-1AU	100	10	1000 SF	1000 SF	10%
048	1000-1AV	100	10	1000 SF	1000 SF	10%
049	1000-1AW	100	10	1000 SF	1000 SF	10%
050	1000-1AX	100	10	1000 SF	1000 SF	10%
051	1000-1AY	100	10	1000 SF	1000 SF	10%
052	1000-1AZ	100	10	1000 SF	1000 SF	10%
053	1000-1BA	100	10	1000 SF	1000 SF	10%
054	1000-1BB	100	10	1000 SF	1000 SF	10%
055	1000-1BC	100	10	1000 SF	1000 SF	10%
056	1000-1BD	100	10	1000 SF	1000 SF	10%
057	1000-1BE	100	10	1000 SF	1000 SF	10%
058	1000-1BF	100	10	1000 SF	1000 SF	10%
059	1000-1BG	100	10	1000 SF	1000 SF	10%
060	1000-1BH	100	10	1000 SF	1000 SF	10%
061	1000-1BI	100	10	1000 SF	1000 SF	10%
062	1000-1BJ	100	10	1000 SF	1000 SF	10%
063	1000-1BK	100	10	1000 SF	1000 SF	10%
064	1000-1BL	100	10	1000 SF	1000 SF	10%
065	1000-1BM	100	10	1000 SF	1000 SF	10%
066	1000-1BN	100	10	1000 SF	1000 SF	10%
067	1000-1BO	100	10	1000 SF	1000 SF	10%
068	1000-1BP	100	10	1000 SF	1000 SF	10%
069	1000-1BQ	100	10	1000 SF	1000 SF	10%
070	1000-1BR	100	10	1000 SF	1000 SF	10%
071	1000-1BS	100	10	1000 SF	1000 SF	10%
072	1000-1BT	100	10	1000 SF	1000 SF	10%
073	1000-1BU	100	10	1000 SF	1000 SF	10%
074	1000-1BV	100	10	1000 SF	1000 SF	10%
075	1000-1BW	100	10	1000 SF	1000 SF	10%
076	1000-1BX	100	10	1000 SF	1000 SF	10%
077	1000-1BY	100	10	1000 SF	1000 SF	10%
078	1000-1BZ	100	10	1000 SF	1000 SF	10%
079	1000-1CA	100	10	1000 SF	1000 SF	10%
080	1000-1CB	100	10	1000 SF	1000 SF	10%
081	1000-1CC	100	10	1000 SF	1000 SF	10%
082	1000-1CD	100	10	1000 SF	1000 SF	10%
083	1000-1CE	100	10	1000 SF	1000 SF	10%
084	1000-1CF	100	10	1000 SF	1000 SF	10%
085	1000-1CG	100	10	1000 SF	1000 SF	10%
086	1000-1CH	100	10	1000 SF	1000 SF	10%
087	1000-1CI	100	10	1000 SF	1000 SF	10%
088	1000-1CJ	100	10	1000 SF	1000 SF	10%
089	1000-1CK	100	10	1000 SF	1000 SF	10%
090	1000-1CL	100	10	1000 SF	1000 SF	10%
091	1000-1CM	100	10	1000 SF	1000 SF	10%
092	1000-1CN	100	10	1000 SF	1000 SF	10%
093	1000-1CO	100	10	1000 SF	1000 SF	10%
094	1000-1CP	100	10	1000 SF	1000 SF	10%
095	1000-1CQ	100	10	1000 SF	1000 SF	10%
096	1000-1CR	100	10	1000 SF	1000 SF	10%
097	1000-1CS	100	10	1000 SF	1000 SF	10%
098	1000-1CT	100	10	1000 SF	1000 SF	10%
099	1000-1CU	100	10	1000 SF	1000 SF	10%
100	1000-1CV	100	10	1000 SF	1000 SF	10%
101	1000-1CW	100	10	1000 SF	1000 SF	10%
102	1000-1CX	100	10	1000 SF	1000 SF	10%
103	1000-1CY	100	10	1000 SF	1000 SF	10%
104	1000-1CZ	100	10	1000 SF	1000 SF	10%
105	1000-1DA	100	10	1000 SF	1000 SF	10%
106	1000-1DB	100	10	1000 SF	1000 SF	10%
107	1000-1DC	100	10	1000 SF	1000 SF	10%
108	1000-1DD	100	10	1000 SF	1000 SF	10%
109	1000-1DE	100	10	1000 SF	1000 SF	10%
110	1000-1DF	100	10	1000 SF	1000 SF	10%
111	1000-1DG	100	10	1000 SF	1000 SF	10%
112	1000-1DH	100	10	1000 SF	1000 SF	10%
113	1000-1DI	100	10	1000 SF	1000 SF	10%
114	1000-1DJ	100	10	1000 SF	1000 SF	10%
115	1000-1DK	100	10	1000 SF	1000 SF	10%
116	1000-1DL	100	10	1000 SF	1000 SF	10%
117	1000-1DM	100	10	1000 SF	1000 SF	10%
118	1000-1DN	100	10	1000 SF	1000 SF	10%
119	1000-1DO	100	10	1000 SF	1000 SF	10%
120	1000-1DP	100	10	1000 SF	1000 SF	10%
121	1000-1DQ	100	10	1000 SF	1000 SF	10%
122	1000-1DR	100	10	1000 SF	1000 SF	10%
123	1000-1DS	100	10	1000 SF	1000 SF	10%
124	1000-1DT	100	10	1000 SF	1000 SF	10%
125	1000-1DU	100	10	1000 SF	1000 SF	10%
126	1000-1DV	100	10	1000 SF	1000 SF	10%
127	1000-1DW	100	10	1000 SF	1000 SF	10%
128	1000-1DX	100	10	1000 SF	1000 SF	10%
129	1000-1DY	100	10	1000 SF	1000 SF	10%
130	1000-1DZ	100	10	1000 SF	1000 SF	10%
131	1000-1EA	100	10	1000 SF	1000 SF	10%
132	1000-1EB	100	10	1000 SF	1000 SF	10%
133	1000-1EC	100	10	1000 SF	1000 SF	10%
134	1000-1ED	100	10	1000 SF	1000 SF	10%
135	1000-1EE	100	10	1000 SF	1000 SF	10%
136	1000-1EF	100	10	1000 SF	1000 SF	10%
137	1000-1EG	100	10	1000 SF	1000 SF	10%
138	1000-1EH	100	10	1000 SF	1000 SF	10%
139	1000-1EI	100	10	1000 SF	1000 SF	10%
140	1000-1EJ	100	10	1000 SF	1000 SF	10%
141	1000-1EK	100	10	1000 SF	1000 SF	10%
142	1000-1EL	100	10	1000 SF	1000 SF	10%
143	1000-1EM	100	10	1000 SF	1000 SF	10%
144	1000-1EN	100	10	1000 SF	1000 SF	10%
145	1000-1EO	100	10	1000 SF	1000 SF	10%
146	1000-1EP	100	10	1000 SF	1000 SF	10%
147	1000-1EQ	100	10	1000 SF	1000 SF	10%
148	1000-1ER	100	10	1000 SF	1000 SF	10%
149	1000-1ES	100	10			

Attachment 8
Project Narrative

18180.4 Project Narrative

Wolff Company Revel Folsom
2075 Iron Point Road, Folsom, CA
April 6, 2018

Overview:

Wolff Company proposes to construct and operate a luxury senior housing community located on the 6.02 acre site located on Iron Point Road near Oak Avenue Parkway (APN 072-2680-011). The community will be developed in concert with the CountryHouse at Broadstone memory care community located at Iron Point Road and Oak Avenue. These two communities will serve to create a senior campus with a variety of contemporary features for senior of varying acuities.

To be known as Revel Folsom, it will feature approximately 166 residential units contained in two elevator serviced buildings, one four-story and one three/four-story connected to a two-story community building.

A mature oak grove located between the residential buildings will be protected and enhanced, serving as the focal point for a variety of outdoor amenities for residents and guests. Access to the property will be from Iron Point Road via a bridge to be constructed spanning a natural water feature located on the adjacent memory care community.

Revel is intended as an age restricted residential community of active and well elderly. The minimum age for occupancy will be 55 years and older.

Existing Site Condition:

The sloped site is currently undeveloped grassland with a mature grove of oaks. Topography of the site ranges from the lowest elevation of approximately 290 near the northwest corner up to an elevation of 340 near the southeast corner. Sierra Nevada Arborists conducted a tree survey in July 2017 for Wolff and made numerous recommendations to preserve and enhance this tree stand. The oak grove will be a key environmental and physical feature in the common area between the three buildings that comprise the proposed community.

Proposed Development:

Revel Folsom proposes to develop approximately 159,000 square feet in two residential buildings and an approximately 22,200 square foot two-story community building. The two residential buildings are proposed to be approximately 72,000 square feet and 87,000 square feet and will consist of approximately 13 studio units, 99 one bedroom units and 54 two bedroom units. Both residential buildings will feature two elevators each and will have conditioned connections to the community building.

The proposed architectural layout has been designed to preserve the existing oak grove and to fit the form of the existing topography of the site. From the lowest topographic elevation of the site near the west residential building to the highest elevation near the east residential building, each building steps up/down an entire floor height internally to connect with each the adjacent building to minimize external grading associated with the project. For example, the west residential building 1st floor elevation is 305 and its 2nd floor elevation is 318. The community building 1st floor elevation is 318. Connections between buildings is made from the second floor of one building to the first floor of another. Similar connection occurs between the community building and the east

residential building. By using this design approach, the west residential building contains a sunken floor strategically placed to allow for natural light creating a three story building as viewed from the courtyard and four story elevation viewed from the opposite side. Averaging the three and four-story portions the west residential building the height averages approximately 46-feet. The east residential building is a four story elevation averaging approximately 48-feet in height.

The 22,200+/- square foot two level community building will feature floor to ceiling windows and will contain a variety of community features. These will include a casual dining room, formal dining room, private dining room and pub/bistro. Outside dining adjacent to the oak grove will be available during most of the year. A commercial kitchen will prepare meals for all the dining venues every day of the year. Meals will be available to residents on a "dine when you wish" program in the dining venues.

Other features in the community building could include a formal movie theater, art studio and a large spa suite including exercise studio, yoga room, massage room, wellness room and professionally operated salon. There will also be a large entry lobby and a meeting/card room. There will be multiple management offices for staff. An elevator will provide access to both levels of the community building. The adjoining residential building will feature a heated saline indoor pool for therapy and exercise.

Entry will be by magnetic fob, with the clubhouse open during business hours and locked thereafter.

Exterior materials will be a mix of stone, concrete siding, stucco and wood colored accents. There will be a pitched roof that will serve to hid mechanical wells on the roof for air conditioning equipment.

Parking will be provided for 135 cars on site including 93 standard stalls, 33 compact stalls and 9 ADA accessible stalls. With 20 staff on site, not all of which will drive, thus leaving over 115 stalls available for residents and guests. Based on ITE manuals for independent living and developer experience, this should be a sufficient amount to accommodate residents, staff and guests.

Operations:

A staff of approximately 40 full and part time employees will provide high level programming, dining, transportation, maintenance, housekeeping and administrative services to residents of Revel Folsom. Staffing will be split into shifts with approximately 20 staff on-site at any given time. There will be a 24 hour a day staff presence seven days a week in the community. Meals will be served approximately 12 hours per day every day of the year.

The monthly fee will include all utilities (gas heat, electric, water, sewer, trash, cable and wired internet to each unit) and the equivalent of two meals daily. There will be regular dedicated transportation for residents daily to a variety of shopping, cultural, medical and entertainment destinations. Professionals employed by the community will foster a variety of physical, educational, artistic and other resident driven activities seven days a week.

As residents age in place, home health care providers will be available (on a third party basis) to provide a variety of assistance to daily living services to residents that require it. A minority of the units in the buildings (approximately 20%) are designed to be converted later to assisted living licensed units. To meet the requirements of licensing under California Residential Care for the

Elderly (“RCFE”), a number of modifications will need to be made to common areas in that section of the community.

Attachment 9

Parking Survey Evaluation, dated April 27, 2018

**PARKING SURVEY EVALUATION
REVEL FOLSOM SENIOR LIVING COMMUNITY (PN 17-368)**

April 27, 2018

Purpose:

The purpose of this Parking Evaluation is to provide the City of Folsom with a baseline to compare the parking proposed for the Revel Folsom Senior Living Community with other similar facilities in the region as well as to industry standard anticipated parking rates using the Institute of Transportation Engineers (ITE).

Project Background:

Revel Folsom proposes to develop approximately 156,000 square feet in two residential buildings and an approximately 19,000 square foot two-story community building. The two residential buildings will consist of approximately 13 studio units, 99 one bedroom units and 54 two bedroom units. A minority of the units in the buildings (approximately 20%) are designed to be converted later to assisted living licensed units.

A staff of approximately 40 full and part time employees with shifts split, so there will be approximately 20 staff on-site at any given time. There will be a 24 hour a day staff presence seven days a week in the community. Parking will be provided for 135 cars on site including 93 standard stalls, 33 compact stalls and 9 ADA accessible stalls. With 20 staff on site, not all of which will drive, thus leaving over 115 stalls available for residents and guests.

The Revel Community developer has discussed providing shuttle access as well as making arrangements for ride sharing programs to facilitate pick up and deliveries of its residents.

Survey of Oakmont at Creekside (Assisted Living and Memory Care):

Oakmont at Creekside is an assisted living and memory care facility located within the City of Folsom. While Oakmont is not an independent living facility like the Revel project, it is included in this parking evaluation for comparative parking context. The 66 unit facility is a mixed use living facility, with 47 assisted living units and 19 memory care units. The facility has 30 available parking stalls on-site, putting the parking ratio at 0.45:1 (see Table 1.1 below).

Table 1.1 Oakmont at Creekside Parking Summary

Facility Name	Location	Type*	No. of Units	Total # of Parking Stalls	Parking Stall to Unit Ratio (Stalls/Unit)
Oakmont	Folsom	MU	66	30	0.45:1

* Mixed Use (assisted living and memory care)

Survey of Existing Independent Living Facilities:

A parking survey was conducted with several other independent living facilities in Sacramento County to compare the parking ratio to the percentage of occupied parking stalls. The results of the survey are shown in Table 1.2. All observations were conducted between 12:30pm and

2:30pm, Tuesday through Thursday. Per the survey conducted, all six (6) facilities maintain less than 0.6:1 parked cars per unit ratio during working hours. Also, only one (1) facility holds a higher parking stall to unit ratio than the proposed Revel Folsom project.

Table 1.1 Parking Summary

Facility Name	Location	Type*	No. of Units	Total # of Parking Stalls	Parked Cars Observed	Parking Stall to Unit Ratio (Stalls/Unit)	Parked Cars to Units Ratio (Cars/Unit)
Atrium	Carmichael	IL	151	76	49	0.50 : 1	0.32 : 1
Creekside Oaks	Folsom	IL	109	69	48	0.63 : 1	0.44 : 1
Park Folsom	Folsom	IL	90	83	27	0.92 : 1	0.30 : 1
Campus Commons	Sacramento	IL	126	64	49	0.51 : 1	0.39 : 1
Winding Commons	Carmichael	IL	102	78	51	0.76 : 1	0.50 : 1
El Dorado Estates	El Dorado Hills	IL	130	85	71	0.65 : 1	0.55 : 1
Revel Folsom	Folsom	IL	166	135		0.81 : 1	

* Independent Living (IL)

ITE Parking Generation Rates:

The ITE Parking Generation Rates, 4th ed. - Land Use Code 252 provides average and 85th percentile weekday parking generation rates for Senior Adult Attached Housing. Using these parking rates with the 166 proposed dwelling units, the total stalls predicted to be occupied for average weekday is 98 stalls (0.59:1 ratio) and 110 stalls (0.66:1 ratio) for the 85th percentile weekday. Refer to Table 1.2 for the results of the ITE parking generation rates.

Table 1.2 ITE Parking Generation Rates

ITE Vehicle Parking Generation Rates, 4th ed. - Land Use Code 252 (Senior Adult Attached Housing)					
Description/ITE Code	Parking Generation Rates		Proposed Dwelling Units	Total Stalls Occupied in Peak Period	
	Average Weekday	85th Percentile Weekday		Average Weekday	85th Percentile Weekday
	Senior Adult Housing - Attached 252	0.59		0.66	166

SUMMARY:

The survey of similar existing independent living operating facilities within the region and reviewing the ITE parking generation rates indicates that the proposed parking ratio of 0.81 stalls/unit will be adequate to accommodate residents, staff and guests. This proposed parking ratio is greater than the majority of the independent living facilities surveyed; greater than the ITE ratios and almost twice the parking ratio of the Oakmont at Creekside facility.

The project developer has extensive experience operating senior housing independent living facilities. Together with the developer’s experience and the potential for shuttle and ridesharing opportunities for the residents, the Revel Folsom Senior Living project, with their proposed 135 parking stalls, appears to propose sufficient parking.

Attachment 10

Parking Assessment, dated May 22, 2018

Griffin Cove Transportation Consulting, PLLC

TO: Mr. Robert Edgerton
HELIX Environmental Planning, Inc.

FROM: Neal K. Liddicoat, P.E.

DATE: May 22, 2018

SUBJECT: ***Parking Assessment***
Proposed Revel Folsom Senior Living Project - Folsom, California

As requested, Griffin Cove Transportation Consulting, PLLC (GCTC) has completed an assessment of the parking requirements associated with the proposed Revel Folsom Senior Living Project in Folsom, California. The proposed project would be located on a 6.02-acre site in the southeast quadrant of the intersection of Iron Point Road/Oak Avenue Parkway, adjacent to the previously-approved CountryHouse at Broadstone Memory Care facility.

Revel Folsom would consist of 166 age-restricted residential units for active adults at least 55 years of age, including:

- 13 studio units,
- 99 one-bedroom units, and
- 54 two-bedroom units

The project also includes a 22,000-square-foot community building, which would include several dining rooms, a commercial kitchen, a movie theater, an art studio, and a spa suite with exercise room, yoga room, massage room, wellness room, and a professionally-operated salon. The community building will also house offices for staff. A total of 135 parking spaces will be provided, which is equivalent to a parking ratio of 0.81 spaces/unit.

BACKGROUND

The City of Folsom Zoning Code includes no parking requirement for senior independent living facilities such as the Revel Folsom Senior Living Project. This memorandum describes an assessment of the amount of parking needed to serve the proposed project. The evaluation presented here is primarily based on review of the relevant parking requirements established by nearby jurisdictions, information presented in the current edition of the Institute of Transportation Engineers *Parking Generation* manual, and the results of research studies conducted by others.

SUMMARY

A detailed review of zoning code parking requirements for other nearby jurisdictions revealed that Sacramento County (0.5 spaces/unit) and the City of Elk Grove (0.75 spaces/unit) address the parking needs of facilities similar to the Revel Folsom project (0.81 spaces/unit). Both of those jurisdictions require fewer parking spaces than will be provided at the proposed project, although Sacramento County also requires that an additional unimproved area equivalent to 0.5 spaces/unit be set aside for possible later conversion to provide an additional improved parking lot.

The Institute of Transportation Engineers (ITE) has documented parking demand studies for a wide range of land uses, including senior housing projects. The maximum ratio found in those studies (0.67 spaces/unit) is lower than the ratio proposed at the Revel Folsom project.

Two other studies addressing the parking needs of senior independent living facilities were found. Review of those studies revealed that the resulting parking demands were lower than the proposed parking supply at Revel Folsom.

Based on the information summarized above, it was determined that the proposed parking supply of 135 spaces (0.81 spaces/unit) at the Revel Folsom Senior Living project will be adequate to meet the needs of residents, employees, and visitors.

DETAILED PARKING ASSESSMENT

Proposed Parking Supply

The Revel Folsom project proposes to construct 135 parking spaces, including 93 standard stalls, 33 compact stalls, and 9 ADA-accessible handicap stalls. For the proposed 166-unit facility, this parking supply is equivalent to 0.81 spaces/unit.

Zoning Code Review

GCTC reviewed the zoning ordinances of a number of nearby municipalities to determine the senior independent living facility parking requirements in those jurisdictions. Specifically, zoning ordinances for the following jurisdictions were studied, with results indicated in Table 1.

Table 1 Zoning Ordinance Review Summary		
Jurisdiction	Senior Independent Living Parking Requirement?	Notes
Sacramento County	Yes	Rates for elderly or senior citizen residential housing (i.e., active seniors), convalescent hospitals, nursing homes, and intermediate care facilities.
El Dorado County	No	Rate only for long term care facility (1 per 4 beds); Not comparable.
City of Sacramento	No	Rate only for nursing home; Not comparable.
Elk Grove	Yes	Rates for senior independent living facilities, extended care, and hospitals.
Placerville	No	Rates only for rest homes and convalescent hospitals; Not comparable.
Roseville	No	Rates only for senior citizen apartments (no community facilities) and long term care facilities; Not comparable.
Rocklin	No	Rate only for rest homes; Not comparable.
Woodland	No	Rates only for nursing and convalescent homes; Not comparable.
Davis	No	Rates only for rest homes and convalescent homes; Not comparable.

As noted, only two of the local jurisdictions listed have parking requirements for senior independent living facilities. Although some of the other local zoning codes include senior residential land uses, the land use types in those codes are not comparable to the proposed project.

Sacramento County

Table 5.18 of the *Sacramento County Zoning Code* (September 25, 2015) requires that “Elderly or Senior Citizen Housing” projects provide:

0.5 spaces per dwelling unit (fully improved); 0.5 spaces per unit overflow or future parking reserve.

The “overflow parking” requirement stated here is intended to be used “. . . for additional parking for peak demand periods, i.e., Christmas, Easter, Mother’s Day, while maintaining a landscaped atmosphere with usable open space.” Under certain defined circumstances, after the project is complete, the County can require the overflow area to be fully improved for parking use.

The Sacramento County requirement would call for the Revel Folsom project to provide 83 fully-improved parking spaces plus room for 83 additional overflow parking spaces.

Elk Grove

Table 23.58-2 of the Elk Grove Zoning Code defines the following requirement for residential uses defined as “senior products”:

0.5 spaces/unit, plus 0.25 spaces/unit guest parking

Thus, the total parking requirement is 0.75 spaces/unit, which would call for 125 spaces at the Revel Folsom project.

Institute of Transportation Engineers “Parking Generation”

The Institute of Transportation Engineers (ITE) is the primary professional organization for the traffic and transportation engineering community. ITE conducts research aimed at establishing standards and guidelines for a broad range of transportation facilities, including roadways and parking facilities.

Of particular interest here is the ITE document, *Parking Generation* (Fourth Edition, 2010). That publication contains information regarding parking demand associated with a wide range of land uses, including senior housing facilities. The “Senior Adult Housing – Attached” category in the ITE document is described as follows:

Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include limited social or recreational services. However, they generally lack centralized dining and on-site medical facilities. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.

According to this document, senior adult housing centers have the weekday parking demand characteristics summarized in Table 2.

Table 2 Parking Demand Data Summary “Senior Adult Housing – Attached” Institute of Transportation Engineers <i>Parking Generation</i>				
Time Period	No. of Studies	Parking Demand (Parking Spaces/Dwelling Unit)		
		Average Peak Period	85 th -Percentile	Range of Data
Weekday	3	0.59	0.66	0.45 – 0.67
Reference: Institute of Transportation Engineers, <i>Parking Generation</i> , Fourth Edition, 2010.				

As noted, only three sites were studied for this land use. On weekdays, the average peak parking demand found at the three locations studied was 0.59 parking spaces per unit, while the 85th-percentile value (i.e., 85 percent of the values were equal to or lower than this rate) was 0.66 parking spaces per unit. Considering the “range of data” reveals that the highest parking ratio found in these studies was 0.67 parking spaces per unit.

As described earlier, the Revel Folsom project proposes to provide parking at a rate of 0.81 spaces per dwelling unit. This rate exceeds the highest value shown in Table 2.

Applying the maximum ITE value of 0.67 spaces/unit reveals a need for 111 parking spaces, while 135 are proposed.

Other Relevant Studies

To supplement the material presented above, a broader online search was conducted to determine the existence of additional parking demand studies for senior independent living facilities. That search revealed two relevant documents.

City of Vaughan, Ontario Parking Standards Study

The first document was the *Review of Parking Standards Contained Within the City of Vaughan’s Comprehensive Zoning By-Law: Final Report* (IBI Group, March 2010). This report for the City of Vaughan, Ontario, Canada proposed the following base standards for “Residential – Senior Citizen’s Dwelling – Independent”:

- Bachelor/1 Bedroom – 0.6 space/unit,
- 2 Bedrooms – 0.8 space/unit, and
- 3+ Bedrooms – 0.95 space/unit.

Reduced parking requirements were proposed for areas having higher-density development or substantial transit service.

Applying these base rates to the proposed Revel Folsom project indicates a need for 110 parking spaces, which is equivalent to a parking ratio of 0.66 spaces/dwelling unit.

Mountlake Terrace, Washington

The second document addressed the parking needs of a senior independent housing project in the City of Mountlake Terrace, Washington. (Reference: William Popp Associates, *Parking Demand Estimate for Independent Attached Senior Housing*, February 24, 2012.) That study recommended that the proposed 100-unit facility provide 47 parking spaces, a ratio of 0.47 spaces/unit.

Although it is unclear whether the Mountlake Terrace proposal is fully comparable to the Revel Folsom project, this study included some additional information that is applicable to this effort. First, it provided additional information regarding the data included in the ITE *Parking Generation* manual, including a breakdown of the parking data, as shown in Table 3. Attachment A presents the data plot from the ITE document, from which this information was derived.

As shown, when a weighted average is derived, which reflects the number of units at each of the three study sites, the parking demand ratio is found to be 0.61 spaces/unit (compared to the proposed ratio of 0.81 spaces/unit at the Revel Folsom project).

Table 3			
Senior Adult Housing – Attached Parking Demand Data¹			
ITE Site	Number of Dwelling Units	Occupied Parking Stalls	Peak Parking Demand Ratio (Spaces/Unit)
1	40	18	0.45
2	46	29	0.63
3	90	60	0.67
Average			0.59
Weighted Average ²			0.61
Notes:			
¹ Source: Institute of Transportation Engineers, <i>Parking Generation</i> , 4 th Edition, 2010.			
² Weighted relative to number of dwelling units.			

The study also used the ITE data to develop a linear regression equation for use in estimating parking demand for senior independent living centers. Attachment B illustrates the results of that work, which suggests a rate of 0.64 spaces/DU. Applying that ratio indicates a need for 106 parking spaces at Revel Folsom, compared to the 135 spaces proposed.

Finally, the Mountlake Terrace study documented the results of parking demand studies at five “Merrill Gardens” locations, all of which were independent living facilities with no assisted living component. Table 4 summarizes the results of those studies.

As shown, this study suggested that a parking ratio of 0.45 spaces/DU (based on the weighted average) would be adequate to serve the needs of these facilities. At that ratio, Revel Folsom would need only 75 parking spaces.

Table 4			
Parking Demand Data			
Senior Independent Adult Housing – Merrill Gardens¹			
Location	Number of Dwelling Units	Occupied Parking Stalls	Peak Parking Demand Ratio (Spaces/Unit)
Sunwest, California	189	49	0.26
Rohnert Park, California	174	101	0.58
Vacaville, California	157	83	0.53
Sonoma, California	153	78	0.51
Parkview	128	53	0.41
Average			0.46
Weighted Average ²			0.45
Notes:			
¹ Source: William Popp Associates, <i>Parking Demand Estimate for Independent Attached Senior Housing</i> , February 24, 2012.			
² Weighted relative to number of dwelling units.			

CONCLUSION

As described above, most other governmental jurisdictions in the vicinity of Folsom fail to address the parking needs of senior independent living facilities. Only two jurisdictions were found that directly address this issue. Both of those zoning code requirements are lower than the proposed parking supply at the Revel Folsom project (although Sacramento County requires that an equal amount of unimproved overflow parking be provided; if that parking is later required, the County’s parking requirement would exceed the Revel Folsom proposal).

The internationally-recognized Institute of Transportation Engineers has conducted substantial research with regard to parking demand, including specific information concerning the parking needs of senior independent living facilities. That data indicates that the proposed parking supply of 0.81 spaces per unit will adequately serve the needs of residents, employees, and visitors at the proposed project. Specifically, the ITE *Parking Generation* publication documents an average peak parking demand ratio of 0.59 parking spaces per unit and an 85th-percentile value of 0.66 parking spaces per unit. Of the locations where weekday parking demand surveys were conducted, the highest value was 0.67 spaces per unit, which is lower than the proposed parking supply at Revel Folsom.

Finally, parking demand studies performed for two other jurisdictions revealed lower average parking demand factors than the 0.81 spaces/unit ratio proposed for Revel Folsom.

In conclusion, the research documented here indicates that the parking supply proposed at the Revel Folsom Senior Living project will adequately serve the needs of residents, employees, and visitors.

ATTACHMENT A

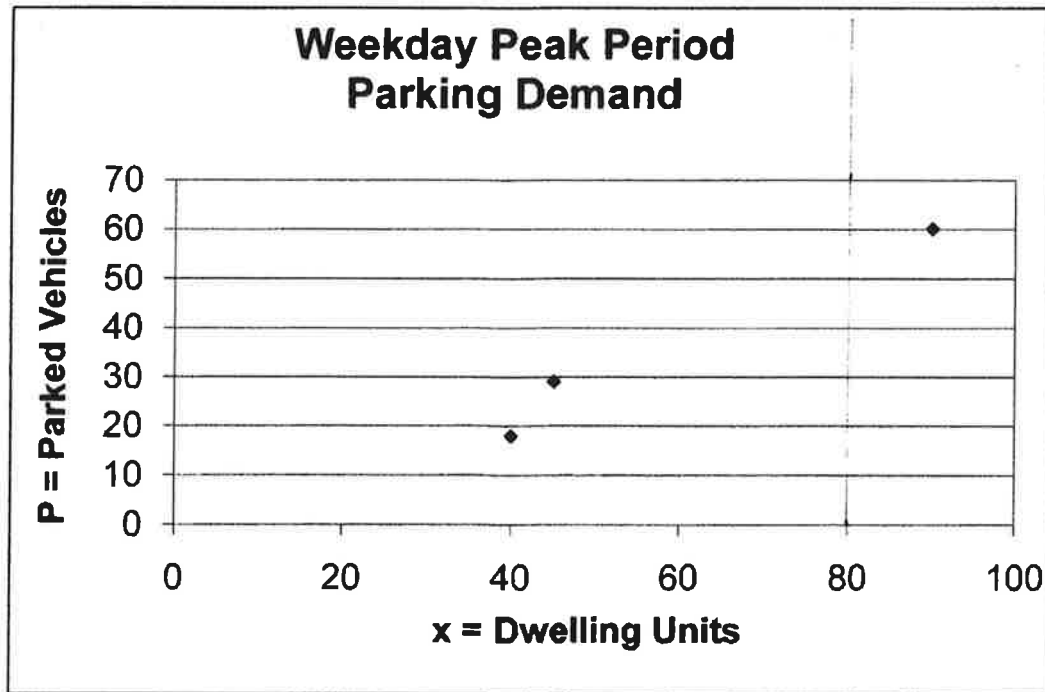
**DATA PLOT
SENIOR ADULT HOUSING – ATTACHED**

(Source: Institute of Transportation Engineers, *Parking Generation*, 4th Edition, 2010.)

Land Use: 252 Senior Adult Housing—Attached

Average Peak Period Parking Demand vs. Dwelling Units On a: Weekday

Statistic	Peak Period Demand
Peak Period	11:00 p.m.–5:00 a.m.
Number of Study Sites	3
Average Size of Study Sites	58 dwelling units
Average Peak Period Parking Demand	0.59 vehicles per dwelling unit
Standard Deviation	0.12
Coefficient of Variation	20%
Range	0.45–0.67 vehicles per dwelling unit
85th Percentile	0.66 vehicles per dwelling unit
33rd Percentile	0.58 vehicles per dwelling unit



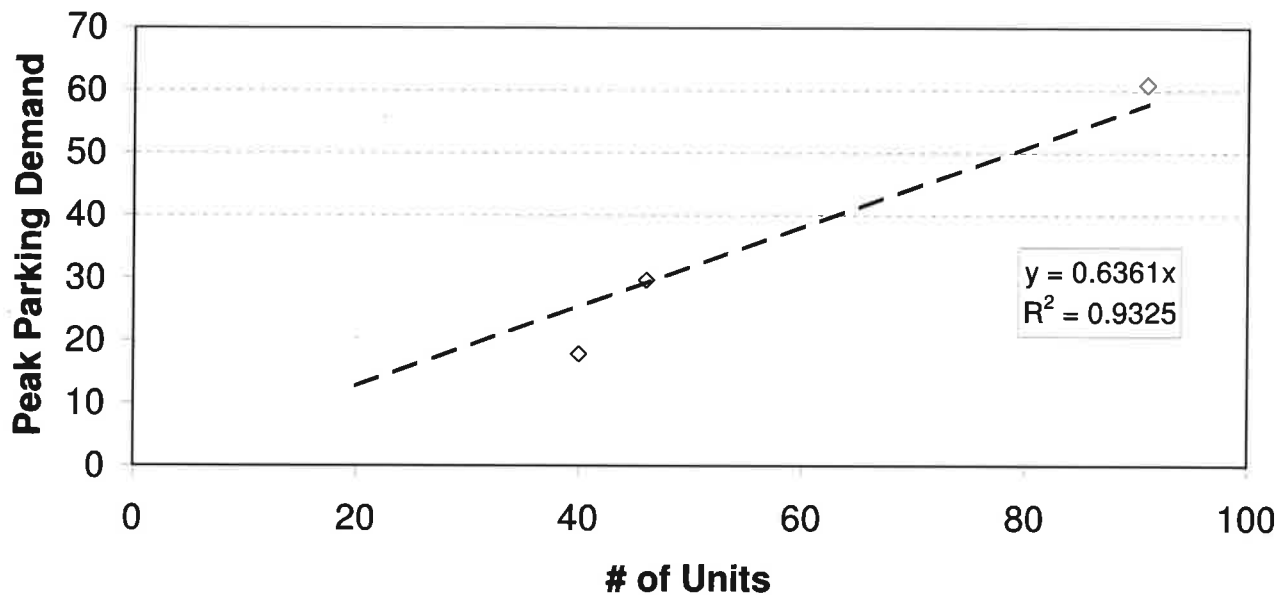
◆ Actual Data Points

ATTACHMENT B

**REGRESSION ANALYSIS
SENIOR ADULT HOUSING – ATTACHED**

*(Source: William Popp Associates, Parking Demand Estimate
for Independent Attached Senior Housing, February 24, 2012.)*

**Peak Parking Demand Independent Senior
Housing -- Attached**
(ITE Parking Generation 4th Ed, LUC 252)



◇ Series1 — —Linear (Series1)

Attachment 11

**Emergency Vehicle Access Easement Agreement
Recorded February 28, 2018**

AGREEMENT FOR EMERGENCY VEHICLE ACCESS EASEMENT

THIS AGREEMENT FOR EMERGENCY VEHICLE ACCESS EASEMENT (this "Agreement") is entered into as of the 26th day of January, 2018 (the "Effective Date"), by and between Kaiser Foundation Health Plan, Inc., a California nonprofit public benefit corporation ("Grantor"), and Maverick West, LLC, a California limited liability company ("Maverick"). Grantor and Maverick are sometimes referred to herein as the "Parties," or individually as a "Party."

RECITALS

A. Grantor is the owner of certain real property located at 2155 Iron Point Road, Folsom, California (APN: 072-1190-086), and generally depicted on Exhibit A, attached hereto (the "Grantor's Property").

B. Maverick is in contract to purchase a parcel of real property located adjacent to Grantor's Property (APN: 072-2680-011), that is also generally depicted on Exhibit A ("Maverick's Property"), and which Maverick intends to develop into a senior housing project.

C. The City of Folsom ("City") has indicated that the development of Maverick's Property will require the City be provided a secondary access route over a portion of Grantor's Property in the location generally depicted on Exhibit A, for emergency vehicles to enter Maverick's Property if the primary access route thereto is blocked.

D. Maverick has requested, and Grantor has agreed to grant to the City, a non-exclusive easement over a portion of Grantor's Property for secondary emergency vehicle access to Maverick's Property, all on the terms and conditions set forth in this Agreement.

AGREEMENT

In reference to Recitals A through D set forth above, and in exchange for the covenants, conditions and promises set forth herein, the Parties hereby agree as follows:

1. Emergency Vehicle Access Easement. Following the City's approval of the form and content thereof, Grantor agrees to grant (or dedicate) to the City a non-exclusive, perpetual easement over a portion of Grantor's Property, for the sole purpose of providing the City (including its employees, agents and contractors) the right of ingress and egress for emergency vehicles to and from Maverick's Property during emergency situations in which such ingress and egress is not available through the primary route of access thereto (the "EVA").

2. Sample EVA. The form and terms of the EVA will be substantially similar to that set forth in the document attached hereto as Exhibit B (the "Sample EVA"); provided, however, Grantor acknowledges that the Sample EVA is subject to modification as required by the City in connection with its approval thereof, provided that the final document shall in any event be in a form reasonably satisfactory to Grantor. The anticipated location of the EVA is generally depicted on Exhibit A; however, the Parties acknowledge that the ultimate dimensions/location of the EVA will be determined by the requirements of applicable law and City.

3. Cooperation; Grant; Costs. Maverick shall be responsible for processing, at its sole cost, any applications with the City that are required to obtain the City's approval of the EVA. Grantor agrees to reasonably cooperate, at no out-of-pocket cost to Grantor, with Maverick's applications and efforts to obtain the City's approval of the EVA. Subject to Grantor's reasonable exercise of its business judgment in approving it, so long as the form of EVA that is approved by the City is substantially similar to the Sample EVA attached hereto and will not result in a material increase in the burden on Grantor or Grantor's Property, Grantor shall promptly execute and deliver to Maverick the approved EVA, in recordable form, following Maverick's request therefor. Maverick shall bear the cost to record the EVA in the Official Records.

4. Indemnity. For purposes of this Agreement, the term "Indemnitees" refers singularly and collectively to Grantor and Grantor's officers, directors, shareholders, members, affiliates, agents, employees, invitees, professional advisors and independent contractors as well as to all persons and entities claiming through any of these persons or entities.

5. Notices. Any notice pursuant to this Agreement shall be given in writing by (a) personal delivery, (b) reputable overnight delivery service with proof of delivery, or (c) certified mail, postage prepaid, to the intended addressee at the address set forth below, or to such other address or to the attention of such other person as the addressee shall have designated by written notice sent in accordance herewith. Any notice so given shall be deemed to have been given upon receipt or refusal to accept delivery.

Grantor: Kaiser Foundation Health Plan, Inc.
1800 Harrison Street, 19th Floor
Oakland, California 94612
Attn: Real Estate Department

Maverick: Maverick West, LLC
1700 Eureka Road, Suite 110
Roseville, CA 95661
Attn: Mr. Jon Tattersall

6. Assignment. Maverick shall have the right to assign this Agreement in connection with the transfer of title to (or the right to acquire title to) Maverick's Property, without Grantor's consent, to any corporation or business entity that controls, is controlled by, or is under common control with, Maverick, or any corporation or business entity that results from a merger or consolidation with Maverick, provided that in the event of such assignment Maverick shall remain responsible to Grantor and the Indemnitees for the full performance of the terms of this Agreement until Grantor is reasonably satisfied that the assignee (i) has expressly assumed Maverick's rights and obligations arising under this Agreement, and (ii) is financially solvent and maintains adequate insurance coverage for its indemnification obligations to Grantor, both to Grantor's commercially reasonable satisfaction, and the Indemnitees under this Agreement, at which time, Grantor agrees to release Maverick from all further obligations arising under this Agreement.

7. Entire Agreement. This Agreement and the documents referenced herein contain the entire agreement between the Parties with respect to the subject matter hereof and shall not be

modified in any manner except by an instrument in writing executed by the parties or their respective successors in interest.

8. Severability. If any term or provision of this Agreement shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement shall not be affected.

9. Waivers. A waiver or breach of covenant or provision in this Agreement shall not be deemed a waiver of any other covenant or provision in this Agreement, and no waiver shall be valid unless in writing and executed by the waiving Party. An extension of time for performance of any obligation or act shall not be deemed an extension of the time for performance of any other obligation or act.

10. Construction. The section headings and captions of this Agreement are, and the arrangement of this instrument is, for the sole convenience of the Parties. The section headings, captions, and arrangement of this instrument do not in any way affect, limit, amplify, or modify the terms and provisions of this Agreement. The singular form shall include plural, and vice versa. This Agreement shall not be construed as if it had been prepared by one of the Parties, but rather as if both Parties have prepared it. Unless otherwise indicated, all references to sections are to this Agreement. All exhibits referred to in this Agreement and attached to it and incorporated in it by this reference.

11. Successors. This Agreement shall inure to the benefit of and shall be binding upon the Parties and their respective heirs, successors, and assigns.

12. Governing Law. This Agreement shall be governed and construed in accordance with California law.

13. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall constitute one and the same instrument. Facsimile (or PDF) signatures to this Agreement shall count the same as originals.

14. Recordation of Memorandum. The Parties agree not to record this Agreement, but each Party hereto agrees to execute a memorandum of agreement in the form attached hereto as Exhibit C (the "Memorandum"), which Maverick may cause to be recorded in the Official Records of Sacramento County, at its sole cost.

[Signature Page Follows]

IN WITNESS WHEREOF, Grantor and Maverick have executed this Agreement as of the date first above written.


GRANTOR:

**Kaiser Foundation Health Plan, Inc., a
California nonprofit public benefit corporation**

By:  2/15/2018
Name: _____
Its: **Terry J. Wood**
Vice President of Real Estate Acquisition
National Facilities Services

MAVERICK:

**Maverick West, LLC, a
California limited liability company**

By: 
Name: J. D. Metcalf
Its: Maverick West, LLC

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF Sacramento

On Feb 23, 2018

before me, Cindie Cornelison

a Notary Public, personally appeared

Jon Tattersall

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Cindie Cornelison



(This area for official notarial seal)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

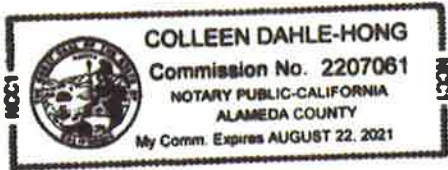
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Alameda)
On Feb. 15, 2018 before me, Colleen Dahle-Hong Notary Public
Date Here Insert Name and Title of the Officer
personally appeared Terry J. Wood
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Colleen Dahle-Hong
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

Corporate Officer — Title(s): _____

Partner — Limited General

Individual Attorney in Fact

Trustee Guardian or Conservator

Other: _____

Signer Is Representing: _____

Signer's Name: _____

Corporate Officer — Title(s): _____

Partner — Limited General

Individual Attorney in Fact

Trustee Guardian or Conservator

Other: _____

Signer Is Representing: _____

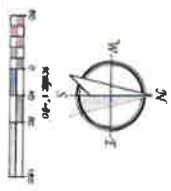
**Exhibit A
Depiction of Grantor's Property
Maverick's Property and
EVA Area**

[See Attached]

ACCESS ROUTE EXHIBIT
FOLSOM MEMORY CARE FACILITY
 CITY OF FOLSOM
 MAVERICK PARTNERS WEST



ALL VEHICLES
 CONSULTING PARKING SPOTS
 MUST REMAIN WITHIN THIS AREA



ACCESS ROUTE EXHIBIT
 DECEMBER 4, 2017

TSD ENGINEERING, INC.
 31 Napaona Street, Suite #100
 Folsom, CA 95630
 Phone: (916) 808-0707
 Fax: (916) 808-0701

**Exhibit B
Sample EVA**

RECORDING REQUESTED BY AND
WHEN RECORDED, RETURN TO:

The City of Folsom

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Exempt from recording fees pursuant to California Government Code Sections 27383 and 6103.
County Transfer tax is \$0.00
City transfer tax is \$0.00

EMERGENCY VEHICLE ACCESS EASEMENT

THIS EMERGENCY VEHICLE ACCESS EASEMENT (this "Agreement") is entered into as of _____, 201_, by and between Kaiser Foundation Health Plan, Inc., a California nonprofit public benefit corporation ("Grantor"), and the City of Folsom, a municipal corporation (the "City").

RECITALS

A. Grantor is the owner of certain real property located in the City of Folsom, Sacramento County, State of California (APN: 072-1190-086), and more particularly described on Exhibit A attached hereto (the "Grantor's Property").

B. By this Agreement, Grantor grants, and City accepts, certain non-exclusive access rights on, over and across that portion of Grantor's Property legally described on Exhibit B, the ("EVA Area") attached hereto, in accordance with the terms and conditions of this Agreement.

AGREEMENT

In reference to Recitals A and B set forth above, and in exchange for the covenants, conditions and promises set forth herein, the parties hereby agree as follows:

1. Grant of Easement. Subject to the terms and conditions set forth in this Agreement, Grantor hereby grants to the City a perpetual, non-exclusive easement (the "EVA Easement") on, over and across the EVA Area for the sole purpose of providing the City (including its employees, agents and contractors) the right of ingress and egress to and from the property served by the EVA Easement (identified on Exhibit B) for emergency vehicles during emergency situations in which the primary route of access to and from that property is not available.

2. Use by City; Suspension During Maintenance and Repair. The City shall have access to the EVA Area twenty-four (24) hours per day, seven (7) days per week. Provided, however, the rights granted to the City hereunder are non-exclusive and Grantor retains the right to grant concurrent easements in Grantor's Property to third-parties and may permit third-parties to use the EVA Area for ingress and egress to and from any property owned by Grantor, including Grantor's Property, so long as such use does not unreasonably interfere with rights of the City

under this Agreement. Further, Grantor shall have the right to suspend the EVA Easement for a reasonable period of time for purpose of performing routine maintenance or repair of the EVA Area upon prior written notice to the City, and while Grantor shall have no responsibility for providing any alternative easement or access rights to the City, Grantor understands and acknowledges the purpose for the EVA Easement and will strive to accommodate City emergency vehicle response during emergency situations whenever the EVA Easement is temporarily suspended as provided herein.

3. EVA Easement Personal to City. The EVA Easement is personal to the City and not for the benefit of any successors or assigns of the City.

4. To the fullest extent permitted by law, the City hereby agrees, at its sole expense and with counsel reasonably acceptable to Grantor, to protect, indemnify, defend and hold the Indemnitees harmless from and against any claim for liabilities, losses, costs, expenses (including reasonable attorneys' fees incurred as a result of such claims or in enforcing this indemnity provision), assessments, fines and penalties of any kind, damages or injuries (collectively, "Claims") arising out of or relating directly or indirectly or otherwise resulting from the use of the EVA by the City or its officers, agents and employees, whose use is expressly permitted by the terms of the EVA; provided, however, that the City shall have no responsibility or liability for any existing or pre-existing conditions with respect to Grantor's Property. This indemnification shall apply regardless of whether liability without fault or strict liability is imposed or sought to be imposed on Indemnitees. This indemnification shall not apply to the extent that (i) the City has agreed (contractually or otherwise) to indemnify the Indemnitees for such Claims to an extent satisfactory to Grantor in the exercise of its reasonably judgment, or (ii) a final judgment of a court of competent jurisdiction establishes that a Claim against one Indemnitee was proximately caused by the willful misconduct of that Indemnitee. In that event, however, this indemnification shall remain valid for all other Indemnitees. Notwithstanding anything to the contrary in this Agreement, the City's obligation to protect, indemnify, defend and hold the Indemnitees harmless as set forth in this Section 4, shall survive the expiration or termination of this Agreement until all Claims against Indemnitees involving any of the indemnified matters are fully, finally and absolutely barred by the applicable statutes of limitations.

5. Maintenance and Repairs. Grantor shall be responsible, at its sole cost and expense, for carrying out all routine maintenance and repair of the EVA Area required for City's use thereof; provided, however, Grantor shall have no obligation under this Agreement to improve or develop the EVA Area in connection with City's use under this Agreement. City shall have no maintenance and repair obligations with respect to the EVA Area, except the obligation to repair any damage to the EVA Area caused by City or its authorized users.

6. Notices. Any notice pursuant to this Agreement shall be given in writing by (a) personal delivery, (b) reputable overnight delivery service with proof of delivery, or (c) certified mail, postage prepaid, to the intended addressee at the address set forth below, or to such other address or to the attention of such other person as the addressee shall have designated by written notice sent in accordance herewith. Any notice so given shall be deemed to have been given upon receipt or refusal to accept delivery.

Grantor: Kaiser Foundation Health Plan
1800 Harrison Street, 19th Floor
Oakland, California 94612
Attn: Real Estate Department

City: _____

A party may change or supplement the addresses given above, or designate additional addresses, for purposes of this Section by giving the other party written notice of the new address in the manner set forth above.

7. Severability. If any term or provision of this Agreement shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement shall not be affected.

8. Covenants Running with the Land. The rights, restrictions and obligations contained in this Agreement shall run with and burden Grantor's Property and shall be binding upon and inure to the benefit of Grantor and Grantor's heirs, successors and assigns, including any party with any interest in Grantor's Property.

9. Governing Law. This Agreement shall be governed and construed in accordance with California law. Any action brought relating to this Agreement shall be held exclusively in a state court in the County of Sacramento.

10. Entire Agreement. This Agreement and the documents referenced herein contain the entire agreement between the Parties to this Agreement and shall not be modified in any manner except by an instrument in writing executed by the parties or their respective successors in interest.

11. Counterparts. This Agreement may be executed in counterpart, by actual or facsimile signature (with originals to be forwarded by first class mail). Each counterpart shall be deemed an original and together shall constitute one and the same instrument.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have entered into this Agreement as of the date first set forth above.

GRANTOR:

**Kaiser Foundation Health Plan, Inc., a
California nonprofit public benefit corporation**

By: _____
Name: _____
Its: _____

CITY:

**City of Folsom, a
municipal corporation**

By: _____
Name: _____
Its: _____

APPROVED AS TO FORM:
_____, City Attorney

By: _____
Name: _____
Its: _____

[Exhibits and notarial acknowledgements to be added prior to execution]

**Exhibit C
Memorandum**

MEMORANDUM OF AGREEMENT
RECORDING REQUESTED BY
AND WHEN RECORDED, MAIL TO:

Maverick West, LLC
1700 Eureka Road, Suite 110
Roseville, CA 95661
Attn: Mr. Jon Tattersall

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement ("Memorandum") is dated as of January 26, 2018 (the "Effective Date"), by and between Kaiser Foundation Health Plan, Inc., a California nonprofit public benefit corporation ("Grantor"), and Maverick West, LLC, a California limited liability company ("Maverick") with reference to the following facts:

1. Grantor and Maverick are parties to an Agreement for Emergency Vehicle Access Easement (the "Agreement"), wherein Grantor agreed to convey an emergency vehicle access easement over a portion of real property owned by Grantor, that is located in Folsom, California (APN: 072-1190-086), and legally described on Exhibit 1, attached hereto (the "Property").

2. The provisions set forth in the Agreement are incorporated into this Memorandum, by this reference. This Memorandum is executed solely for the purpose of giving record notice of the Agreement between the parties, and shall not be deemed to modify or affect the terms of such Agreement.

3. This Memorandum shall become effective on the Effective Date and shall expire upon earlier to occur of (i) the date that the emergency vehicle access easement is recorded against the Property, and (ii) the date that occurs two (2) years after the date of this Memorandum. The termination of this Memorandum shall not be deemed to terminate the Agreement or any then-remaining rights and obligations of the Parties thereunder.


4. This Memorandum, may be signed in identical counterparts and the signature pages and consents, together with appropriate acknowledgments, may be removed from the counterparts and attached to a single counterpart, which shall be considered a fully executed original for all persons and for purposes of recordation hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, this Memorandum has been executed by the Grantor and Developer to be effective on the Effective Date.


GRANTOR:

**Kaiser Foundation Health Plan, Inc., a
California nonprofit public benefit corporation**

By:  2/22/2018
Name: _____
Its: **Terry J. Wood**
Vice President of Real Estate Acquisition
National Facilities Services

MAVERICK:

**Maverick West, LLC, a
California limited liability company**

By: 
Name: J. D. Tatterall
Its: Principal

This instrument is delivered to the Recorder's office in an accommodation, by Stewart Title of California, for physical convenience only. It has not been examined as to its validity, execution or its effect upon title, if any.

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

COUNTY OF Sacramento

On Feb 23, 2018

before me, Cindie Cornelison

a Notary Public, personally appeared

Jon Tattersall

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Cindie Cornelison



(This area for official notarial seal)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

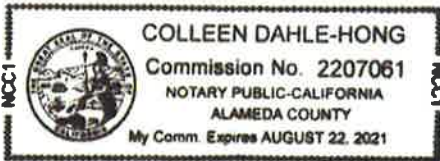
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Alameda)
On Feb. 22, 2018 before me, Colleen Dahle-Hong, Notary Public,
Date Here Insert Name and Title of the Officer
personally appeared Terry J. Wood
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Colleen Dahle-Hong
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____
Document Date: _____ Number of Pages: _____
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Exhibit I
To Memorandum
Legal Description of the Property

The land referred to is situated in the City of Folsom, County of Sacramento, State of California, and is described as follows:

ALL THAT PORTION OF PARCELS 1, 2 & 3, AS SHOWN ON THAT CERTAIN PARCEL MAP FILED FOR RECORD MARCH 21, 2001 IN THE OFFICE OF THE RECORDER OF SACRAMENTO COUNTY IN BOOK 161 OF PARCEL MAPS AT PAGE 1, DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHERLY CORNER OF SAID PARCEL 2; THENCE FROM SAID POINT OF BEGINNING, ALONG THE BOUNDARY THEREOF, AND THEN ALONG THE BOUNDARY OF SAID PARCEL 3, THE FOLLOWING FIFTEEN (15) COURSES: (1) CURVING TO THE LEFT ON AN ARC OF 1553.00 FEET RADIUS, FROM A RADIAL BEARING OF SOUTH 03° 13' 15" WEST, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 87° 13' 16" EAST 23.96 FEET, (2) SOUTH 87° 39' 47" EAST 51.04 FEET, (3) SOUTH 02° 20' 13" WEST 16.29 FEET, (4) CURVING TO THE RIGHT ON AN ARCOF 257.98 FEET RADIUS, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 18° 23' 14" WEST 142.65 FEET, (5) CURVING TO THE LEFT ON AN ARC OF REVERSE CURVATURE WITH A RADIUS OF 264.65 FEET, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 30° 29' 10" WEST 36.48 FEET, (6) CURVING TO THE LEFT ON AN ARC OF COMPOUND CURVATURE WITH A RADIUS OF 153.52 FEET, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 11° 29' 12" WEST 79.72 FEET, (7) SOUTH 65° 39' 08" EAST 159.48 FEET, (8) NORTH 34° 18' 52" EAST 47.54 FEET, (9) NORTH 88° 58' 49" EAST 174.06 FEET, (10) NORTH 37° 04' 15" EAST 107.66 FEET, (11) NORTH 12° 51' 28" EAST 178.45 FEET, (12) SOUTH 75° 28' 46" EAST 191.16 FEET, (13) CURVING TO THE LEFT ON AN ARCOF 1930.00 FEET RADIUS, FROM A RADIAL BEARING OF NORTH 12° 55' 57" EAST, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 76° 48' 16" EAST 17.73 FEET, (14) SOUTH 76° 32' 28" EAST 125.63 FEET, (15) SOUTH 81° 48' 54" EAST 54.59 FEET; THENCE CURVING TO THE RIGHT ON AN ARC OF 999.87 FEET RADIUS, FROM A RADIAL BEARING OF NORTH 79° 13' 51" WEST, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 24° 37' 39" WEST 478.99 FEET; THENCE CURVING TO THE RIGHT ON AN ARCOF 376.97 FEET RADIUS, FROM A RADIAL BEARING OF NORTH 52° 20' 38" WEST, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 56° 12' 53" WEST 239.96 FEET; THENCE CURVING TO THE RIGHT ON AN ARC OF COMPOUND CURVATURE WITH A RADIUS OF 100.00 FEET, SAID ARC BEING SUBTENDED BY A CHORD BEARING SOUTH 81° 13' 55" WEST 22.50 FEET; THENCE SOUTH 87° 41' 25" WEST 147.94 FEET; THENCE NORTH 55° 44' 43" WEST 300.38 FEET; THENCE ALONG THE BOUNDARY OF PARCEL R3 OF SAID MAP THE FOLLOWING FIVE(5) COURSES: (1) NORTH 34° 15' 00" EAST 160.88 FEET, (2) NORTH 65° 39' 08" WEST 135.35 FEET, (3) SOUTH 76° 19' 42" WEST 167.81 FEET, (4) SOUTH 09° 55' 11" WEST 98.63 FEET, (5) SOUTH 52° 20' 33" EAST 129.73 FEET; THENCE SOUTH 37° 42' 00" WEST 49.50 FEET; THENCE NORTH 52° 20' 15" WEST 49.04 FEET; THENCE SOUTH 37° 39' 45" WEST 45.36 FEET; THENCE SOUTH 69° 55' 02" WEST 120.51 FEET; THENCE SOUTH 34° 55' 54" WEST 71.48 FEET; THENCE NORTH 55° 11' 14" WEST 250.89 FEET; THENCE NORTH 80° 04' 31" WEST 53.21 FEET TO THE BOUNDARY OF PARCEL 1 OF SAID MAP; THENCE ALONG THE BOUNDARIES OF PARCELS 1 AND 2 OF SAID MAP NORTH 09° 55' 11" EAST 297.44 FEET; THENCE ALONG THE BOUNDARY OF SAID PARCEL 1 THE FOLLOWING SIX (6) COURSES: (1) SOUTH 80° 04' 49" EAST 333.32 FEET, (2) NORTH 76° 19' 42" EAST 157.86 FEET, (3) CURVING TO THE RIGHT ON AN ARC OF 228.52 FEET RADIUS, FROM A RADIAL BEARING OF NORTH 85° 24' 31" EAST, SAID ARC BEING SUBTENDED BY A CHORD BEARING NORTH 10° 58' 18" EAST 122.62 FEET, (4) CURVING TO THE RIGHT ON AN ARCOF COMPOUND CURVATURE WITH A RADIUS OF 339.65 FEET, SAID ARC BEING SUBTENDED BY A CHORD BEARING NORTH 30° 29' 10" EAST 46.81 FEET, (5) CURVING TO THE LEFT ON AN ARCOF REVERSE CURVATURE WITH A RADIUS OF 182.98 FEET, SAID ARC BEING SUBTENDED BY A CHORD BEARING NORTH 18° 23' 14" EAST 101.18 FEET, (6) NORTH 02° 20' 13" EAST 16.47 FEET TO THE POINT OF BEGINNING; SET FORTH AS PARCEL B ON CERTIFICATE OF COMPLIANCE-LOT LINE ADJUSTMENT RECORDED JULY 10, 2001, IN BOOK 20010710, PAGE 73, OFFICIAL RECORDS.

Attachment 12

Agreement Relating to Future Land Dedication for Oak
Avenue Parkway Freeway Interchange Affecting Broadstone
Oaks Parcel 2, dated January 23, 2018

OFFICIAL BUSINESS
Document entitled to free recording
Government Code Section 6103

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

City Clerk
City of Folsom
50 Natoma Street
Folsom, CA 95630

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

AGREEMENT AFFECTING REAL PROPERTY

This Agreement Affecting Real Property ("Agreement") is entered into this ____ day of _____, 2018, by and between the CITY OF FOLSOM, a municipal corporation ("City") and ELLIOTT ALTA VISTA, LLC, an Arizona limited liability company, ("Landowner"), with respect to the following facts:

A. Landowner is the owner of that certain real property commonly referred to as a portion of Broadstone Unit No. 2, and more particularly described in **Exhibit A** attached hereto and made a part hereof (the "Property"),

B. The Property is adjacent to real property dedicated and planned for the future construction of an interchange that would connect Oak Avenue Parkway with State Highway 50, as generally depicted on **Exhibit B** attached hereto and made a part hereof (the "Oak Avenue Overcrossing and Interchange");

C. The Property is part of and subject to that certain Plat of Broadstone Unit No. 2 subdivision map recorded on March 29, 1994, in Book 231 of Maps, Map No. 7, in the Official Records of Sacramento County (the "1994 Broadstone Map") and that certain Parcel Map No. PN 04-505 recorded on June 23, 2010, in Book 216 of Parcel Maps, Page 2, in the Official Records of Sacramento County (the "2010 Parcel Map");

D. To allow for future adjustments to the area required for the Oak Avenue Interchange to accommodate future interchange design requirements, the 1994 Broadstone Map included the following Note on Page 2 thereof:

"6. Lots 23, 25, 26, 27 and 28 may be required to dedicate additional right of way in the future to accommodate the proposed freeway interchanges."

Similarly, the 2010 Parcel Map included the following Note 3 on Page 2 thereof:

- “3. This Property may be required to dedicate additional right of way in the future to accommodate the proposed freeway interchange per 231 B.M. 7.”

These two Notes, as applied to the Property, are collectively referred to herein as the “Future Dedication Notes.”

E. To facilitate development of the Property and assure Landowner and City that any required future dedications will not conflict with, impair or reduce the development and use of the Property consistent with the land use entitlements approved therefor, City and Landowner desire to confirm and clarify the extent to which the City may exercise its rights under the Future Dedication Notes to require any such additional dedications from the Property.

NOW, THEREFORE, for valuable consideration, including the consideration of benefits from future development and use of the Property contemplated by the Landowner, the City and Landowner hereby agree and confirm their mutual understandings regarding the extent to which the Future Dedication Notes may be applied to require additional dedications from the Property as follows:

1. Accommodating Boundary Adjustments Without Impairing Development. The City acknowledges and agrees that any demands for additional dedication(s) from the Property pursuant to the Future Dedication Notes shall be limited to dedications required to accommodate the final design of the Oak Avenue Overcrossing and Interchange consistent with Section 3 below. Any and all such property required for the Oak Avenue Overcrossing and Interchange shall be transferred in fee title to the City as required by Caltrans, and Landowner agrees to make said transfer by executing a grant deed in the form and at the time requested by the City

2. No Commitment to Land Use Approval. Landowner understands and agrees that the City is entering into this Agreement at the Landowner’s request, and that the City’s accommodation of the Landowner’s request does not represent or guarantee commitment to a specific result or outcome relating to any and all matters associated with the Property, or any regulatory permit or discretionary approval associated with the Property. The parties hereto acknowledge that no unexpired land use entitlement exists for the development of the Property as of the date of this Agreement.

3. Dedication for Additional Right-of-Way Not to Conflict with Property Development. City understands and acknowledges that demands from the City for Landowner to dedicate additional property along the western or southern boundaries of the Property, in addition to areas shown in Exhibit B as proposed interchange rights-of-way, to accommodate the final design of the Oak Avenue Overcrossing and Interchange shall not conflict or disturb any building or structure designed for human occupancy constructed on the Property in accordance with its then-approved land use entitlements, and any requested dedication that would conflict therewith would exceed the City’s authority under the Future Dedication Notes to require such dedication. Additionally, the parking requirement, emergency vehicle access or general internal

vehicular circulation in any land use entitlements approved by the City will not be altered with any future land request except as approved by a court in an eminent domain proceeding. It is anticipated that minor encroachments could be anticipated with items such as retaining walls, slope, landscaping and fencing being altered in the future, and the Landowner agrees to grant to City the aforementioned encroachment without compensation at the City's request. Any sound wall to be constructed in the future will not encroach any closer than 40 feet to the nearest habitable structure. Notwithstanding any provision to the contrary, nothing in this Agreement shall impair or restrict the parties' rights in any eminent domain proceeding.

4. Construction Easements. Landowner agrees to provide construction easement to City over the Property at no cost, if said easement is necessary to construct the Oak Avenue Overcrossing and Interchange, including accessory facilities such as, for example, sound walls and/or retaining walls, provided that the construction easement does not interfere with any building or structure constructed on the Property and the City restores to its prior condition any portion of the Property damaged or disturbed by such work after completion thereof.

5. Access Restriction. Landowner agrees that there shall be no access to the Property along the western and southern boundaries of the Property.

6. Reliance on Understandings. This Agreement is intended to provide assurances to the Landowner and clarify the intent and extent to which the Future Dedication Notes may be exercised by the City to require additional dedications from the Property without the payment of compensation to Landowner. The City and Landowner acknowledge that each party may rely on this Agreement and the assurances pertaining to the scope of the Future Dedication Notes included herein.

7. Covenants Running with the Land. The understandings and acknowledgements under this Agreement shall run with the land for the benefit of the City and the Property and shall be binding on and inure to the benefit of any and all successors in interest thereto, including any and all subsequent purchasers, lenders or encumbrancers of the Property.

8. Authority. Each Party hereby confirms that it is authorized to agree to the terms of this Agreement and the person signing on behalf of such Party is duly authorized to sign for and bind such Party to the terms hereof.

9. Effective Date. This Agreement shall be effective and binding on the Parties and the Property upon full execution and recordation hereof in the Official Records of Sacramento County.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the City and Landowner hereby acknowledge and agree to the terms and provisions of this Agreement as provided above.

CITY:

CITY OF FOLSOM,
a municipal corporation

LANDOWNER:

ELLIOTT ALTA VISTA, LLC,
An Arizona Limited Liability Company

By: _____
Evert Palmer, City Manager

By: _____
Harry C. Elliott, III, President

APPROVED AS TO CONTENT:

By: _____
Pam Johns, Director
Community Development Department

APPROVED AS TO FORM:

By: _____
Steven Wang, City Attorney

ATTEST:

By: _____
Christa Freemantle, City Clerk

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of _____
County of _____

On _____, 2018, before me, _____
(Here insert Name and Title of Officer)

personally appeared _____,
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NOTARY PUBLIC SIGNATURE

NOTARY PUBLIC SEAL

EXHIBIT A

Legal Description of Property

That certain real property located in the City of Folsom, County of Sacramento, State of California, described as follows:

Parcel 2 as shown on "Parcel Map No. PN 04-505" filed in the office of the Reorder of Sacramento County in Book 216 of Parcel Maps, at Page 2.

Together with an easement for Driveway, Utilities and incidental purposes, more particularly described in that certain Driveway & Utility Easement , Construction and Maintenance Agreement, and the terms, conditions and obligations contained therein, recorded in Book 20100623 Page 639, of Official Records.

APN: 072-2680-011

EXHIBIT B

Map of Planned Oak Avenue Parkway Alignment

(see attached)



**BROADSTONE OAKS & PROPOSED
OAK AVE/ HWY 50 INTERCHANGE
FOULSOM, CA**

AUGUST 11, 2010



TSD Engineering, Inc.
Total Site Design

3715 Woodloch Drive, Suite 4110
Folsom, CA 95630
TEL: 916-988-0167 FAX: 916-988-0151

SHEET
1/1

Attachment 13

**Initial Study, Mitigated Negative Declaration, and
Mitigation Monitoring Program, dated May 2018**

Revel Folsom Senior Living Community

Initial Study/Mitigated Negative Declaration

Prepared for:
City of Folsom
Community Development Department
50 Natoma Street
Folsom, CA 95630

Prepared by:
HELIX Environmental Planning, Inc.
11 Natoma Street, Suite 155
Folsom, CA 95630

May 2018 | COF-24

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	PROJECT BACKGROUND.....	1
3.0	PROJECT DESCRIPTION.....	1
3.1	Project Location.....	1
3.2	Project Setting and Surrounding Land Uses.....	2
3.3	Project Characteristics.....	2
	Parking and Circulation.....	3
	Emergency Vehicle Access and Emergency Abatement.....	3
	Operations.....	3
	Utilities.....	3
	Lighting.....	3
	Landscaping.....	3
	Fencing.....	4
	Signage.....	4
3.4	General Plan Land Use Designation and Zoning.....	4
3.5	City Regulation of Urban Development.....	4
	General Plan.....	4
	Zoning Ordinance.....	4
3.6	Other City Regulation of Urban Development.....	5
	Community Development Department Standard Construction Conditions.....	5
	City of Folsom Municipal Code.....	6
4.0	PROJECT OBJECTIVES.....	7
5.0	REQUIRED APPROVALS.....	7
	REQUIRED APPROVALS.....	7
6.0	PREVIOUS RELEVANT ENVIRONMENTAL ANALYSIS.....	8
6.1	City of Folsom General Plan.....	8
6.2	Tiering.....	8
6.3	Incorporation of the Folsom General Plan and East Area Facilities Plan EIRs by Reference....	9
6.4	Summary of Folsom General Plan EIR as Amended by the East Area Facilities Plan EIR.....	9
7.0	ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED.....	11
8.0	DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY).....	12
9.0	ENVIRONMENTAL INITIAL STUDY CHECKLIST.....	13
i.	AESTHETICS.....	14

II.	AGRICULTURE AND FORESTRY RESOURCES	16
III.	AIR QUALITY	18
IV.	BIOLOGICAL RESOURCES.....	25
V.	CULTURAL RESOURCES.....	36
VI.	GEOLOGY AND SOILS.....	48
VII.	GREENHOUSE GAS EMISSIONS.....	52
VIII.	HAZARDS AND HAZARDOUS MATERIALS	56
IX.	HYDROLOGY AND WATER QUALITY	59
X.	LAND USE AND PLANNING	64
XI.	MINERAL RESOURCES.....	66
XII.	NOISE.....	67
XIII.	POPULATION AND HOUSING.....	74
XIV.	PUBLIC SERVICES	75
XV.	RECREATION	77
XVI.	TRANSPORTATION AND TRAFFIC	78
XVII.	TRIBAL CULTURAL RESOURCES.....	86
XVIII.	UTILITIES AND SERVICE SYSTEMS.....	88
XIX.	MANDATORY FINDINGS OF SIGNIFICANCE	91
10.0	MITIGATION MONITORING AND REPORTING PROGRAM	95
11.0	INITIAL STUDY PREPARERS.....	95
12.0	REFERENCES.....	96

LIST OF TABLES

Table 1: Neighboring Land Uses..... 2

Table 2: Summary of Project Features..... 3

Table 3: City of Folsom Municipal Code Regulating Construction and Development 6

Table 4: Sacramento Valley Air Vasin Attainment Status 19

Table 5: Summary of Annual Air Quality Data for Folsom Area Air Quality Monitoring Stations..... 20

Table 6: Estimated Project Construction NO_x Emissions..... 22

Table 7: Estimated Project Cpnstruction PM Emissions 23

Table 8: Historic Resources Withinin 0.25 Mile of Project Site..... 40

Table 9: Previously Recorded Cultural Resource Reports..... 43

Table 10: Global Warming Potential and Atmospheric Lifetimes 53

Table 11: Estimated Annual GHG Emissions from Project Construction 54

Table 12: Estimat4ed Annual GHG Emissions from Project Operation..... 55

Table 13: City of Folsom Munciple Code Sections Regulating the Effects on Hydrology and Water Quality from Urban Development..... 61

Table 14: Ambient Noise Measurement Results..... 69

Table 15: Site Features Included in the Noise Model 70

Table 16: Estimated Exterior Noise Levels 70

Table 17: Expected Interior CNEL Levels with Standard Elements at R1 Reciever (Loudest Receiving Façade) 71

Table 18: Existing + Project Traffic Volumes 71

Table 19: Level of Service Summary Existing Conditions 80

Table 20: Trip Generation Estimate 81

Table 21: Level of Service Summary- Construction Year Plus Project Conditions 83

Table 22: Level of Service Summary Construction year Plus Project Conditions..... 94

LIST OF APPENDICIES

APPENDIX A Figures

APPENDIX B Air Quality Modeling Output Files (CalEEMod)

APPENDIX C Biological Resource Database and Records Search Results

APPENDIX D Geotechnical Investigation Report

APPENDIX E Nosie Technical Reports

APPENDIX F Parking Assessment and Traffic Impact Analysis

APPENDIX G AB 52 Consultation Memo

APPENDIX H Mitigation Monitoring and Reporting Program

1.0 INTRODUCTION

This Initial Study addresses the proposed Revel Folsom senior housing community project (proposed project) and whether it may cause significant effects on the environment. These potential environmental effects are further evaluated to determine whether they were examined in the Folsom General Plan Environmental Impact Report (EIR; 1988) as amended by Code (PRC) §21083.3. This Initial Study focuses on any effects on the environment which are specific to the proposed project and were not analyzed as potentially significant effects in the General Plan EIR as amended by the EIR for the East Area Facilities Plan, or for which substantial new information shows that identified effects would be more significant than described in the previous EIRs. For additional information regarding the relationship between the proposed project and the previous EIRs, see Section 6 of this Initial Study.

The Initial Study is also intended to assess whether any environmental effects of the project are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or by other means [Section 15152(b)(2)] of the California Environmental Quality Act (CEQA) Guidelines. If such revisions, conditions, or other means are identified, they will be identified as mitigation measures (MM).

This Initial Study relies on State CEQA Guidelines Sections 15064 and 15064.4 in its determination of the significance of environmental effects. According to Section 15064, the finding as to whether a project may have one or more significant effects shall be based on substantial evidence in the record, and that controversy alone, without substantial evidence of a significant effect, does not trigger the need for an EIR.

2.0 PROJECT BACKGROUND

The following project specific technical reports quantified analysis and or surveys were used in preparation of this Initial Study and are incorporated by reference:

- Air Quality Analysis: CalEEMod.2016.3.2 Model Input, prepared by HELIX Environmental Planning, Inc. (HELIX).
- Biological reconnaissance of project site for biological resources and trees conducted on March 19, 2018 by HELIX biologists.
- Cultural Resources records search and pedestrian survey, performed by HELIX senior archaeologist, Carrie Wills, on March 26, 2018.
- Geotechnical Report, prepared by Geocon Consultants, Inc. (2017).
- Noise Analysis prepared by HELIX (2018) and SLR (2018).
- Parking Assessment, prepared by Griffin Cove Transportation Consulting (GCTC) (2018a).
- Traffic Impact Analysis, prepared by GCTC (2018b).

3.0 PROJECT DESCRIPTION

3.1 Project Location

The project site consists of a 6.02-acre parcel situated in south/central City of Folsom in northeastern Sacramento County, California (**Figures 1-7 in Appendix A**). The project site is located on the south side

of Iron Point Road, east of the intersection with Oak Avenue Parkway. The street address is currently unnumbered, but the parcel is identified as Assessor's Parcel Number (APN) 072-2680-011.

3.2 Project Setting and Surrounding Land Uses

The project site is currently undeveloped and is bounded by a proposed memory care community and Iron Point Road to the north, commercial and business centers to the east and west, and an undeveloped parcel containing an oak woodland and rolling hills to the south. Multi-family residential development is located north of Iron Point Road and U.S. Highway 50 (US 50) is located approximately 440 feet south of the project site. The more regional setting is primarily characterized by built-out portions of the City to the west, north, and east, including dense commercial business centers, medium to high density residential development, and extensive undeveloped lands south of US 50. Neighboring land uses are summarized in **Table 1**.

Table 1. Neighboring Land Uses

DIRECTION	LAND USE
North	Iron Point Road, residential development, proposed memory care facility
East	Commercial/office buildings
South	Undeveloped land
West	Commercial/office buildings

The sloped site is currently undeveloped grassland with a mature oak grove. Topography of the site ranges from 290± feet to 340± feet above mean sea level (AMSL).

3.3 Project Characteristics

The proposed project includes the construction of a new senior housing facility on the 6.02-acre parcel. The community would be developed in concert with the Country House at Broadstone memory care community, a previously approved project located to the northwest. The project proposes to develop 159,000± square feet in two, four-story residential buildings and a 22,200± square foot two-story community building. The residential buildings would consist of approximately 13 studio units, 99 one-bedroom units and 54 two-bedroom units totaling 166 units. Both residential buildings would feature two elevators each and would have conditioned connections to the community building. The community building would feature a commercial kitchen, dining rooms, offices, a pub/bistro, pool, van and shuttle pickup area, and various programming/activity rooms. All buildings would meet property setback line requirements.

The proposed architectural layout has been designed to preserve the existing oak grove and to fit existing topography to minimize grading. A pitched roof would serve to screen the mechanical heating, ventilation, and air conditioning (HVAC) system.

Additional proposed improvements would include parking, underground utilities, driveways, drive aisles, sidewalks and walkways, lighting, retaining walls, and a trash/recycling enclosure. The project applicant has agreed to construct a 6-foot masonry wall to protect an outdoor use area from highway noise, as outlined in the Noise section of the ISMND. The project features are summarized in **Table 2**.

Table 2. Summary of Project Features

PROJECT FEATURE	UNITS/ SPACES	SITE COVERAGE (ACRES)
Revel Folsom senior housing facility	166	1.23
Parking spaces/paved area	135	2.15
Open landscaped/hardscaped	--	2.64
Total Site Coverage	--	6.02

Source: UBORA Engineering and Planning, Inc. Site Plan (2018).

Parking and Circulation

The proposed project would include a total of 135 surface parking spaces for use by staff members, visitors and residents. Parking would include 93 standard stalls, 33 compact stalls, and nine disabled parking stalls. Pedestrian access would be continuous throughout the project site. A sidewalk is proposed to be extended along Iron Pont Road between the project entry driveway and the existing sidewalk located to the east.

Emergency Vehicle Access and Emergency Abatement

The driveway along the eastern project site boundary would provide emergency vehicle access for the site.

Operations

The facility would be staffed by approximately 40 full and part time employees. Staffing would be split into shifts with approximately 20 staff on-site at any given time.

Utilities

Utility stubs for water, sewer, and electricity would be installed on the project site. Seven fire hydrants are proposed along the outside parking area. Tie-ins to the existing City of Folsom (City) water and sewer lines would be installed. Sewer lines (8-inches in diameter) and water lines (12-inches in diameter) would be installed in the project site.

Lighting

The lighting design includes pole-mounted parking lot lighting, and bollard lights along the walkways on the project site. All lighting would be designed to minimize light/glare impacts to the adjacent properties by ensuring that all exterior lighting and pole-mounted parking lot and driveway lighting be shielded and directed downward. Light-emitting diode (LED) luminaires would be used for all of the proposed outdoor lighting.

Landscaping

The project applicant proposes a landscaping plan that includes a variety of new and retention of existing trees, shrubs, and groundcover. The existing oak grove would be retained, while new shade trees would be placed around the perimeter of the building and parking lot.

Fencing

Nine- to 12-foot rock retaining walls are proposed on portions of the northern and eastern property line. A 3.5-foot metal picket fence would be constructed on the eastern and northwestern property lines. A 6-foot masonry wall would be constructed to protect an outdoor use area from highway noise as outlined in the Noise section of the ISMND.

Signage

One monument sign is proposed at the main access driveway, near the eastern project site boundary.

3.4 General Plan Land Use Designation and Zoning

The City of Folsom is in the process of updating their General Plan and have published a public review draft of the Folsom General Plan 2035 (City of Folsom 2018). The General Plan is a long-term planning document that guides growth and land development in the City. It provides the foundation for establishing community goals and supporting policies, and directs appropriate land uses for all land parcels within the City. Under the current General Plan, the project site is designated as Regional Commercial (RCC) in the City of Folsom General Plan, and the current zoning for the project site is General Commercial, Planned Development District (C-3 PD). A Planned Development Permit and Conditional Use Permit would be required for the proposed development. The Planned Development Permit would be required because the proposed project is sited within a planned development overlay zoning designation. These permits would allow the City to review the site plan and associated project site details to ensure the project meets the standards and requirements beneficial to the City and its residents as defined in Section 17.38.100 of the Zoning Code.

3.5 City Regulation of Urban Development**General Plan**

The City of Folsom updated and adopted its current comprehensive General Plan in October 1988. The General Plan is a long-term planning document that guides growth and land development in the City. It provides the foundation for establishing community goals and supporting policies, and directs appropriate land uses for all land parcels within the City. As previously described, the General Plan land use designation for the project site is RCC, and assisted care facilities are identified as a permitted use with approval of a Conditional Use Permit by the Planning Commission.

Zoning Ordinance

Developed land uses in the City of Folsom are regulated specifically by the City's Zoning Code (Title 17 of the City's Municipal Code), in addition to the other adopted regulations and programs that apply to all proposed development within the City. In more detail than the General Plan, the Zoning Code regulates land uses on a parcel-by-parcel basis throughout the City. In order to achieve this regulation, the City assigns each parcel within the City to a zoning district, such as a district for single-family homes. Regulations for each district apply equally to all properties within the district.

Chapter 17.22 and 17.38 of the Zoning Code outlines use standards for C-3 PD. While all types of commercial activities are permitted in C-3, the purpose of the zone is to designate areas appropriate for heavy commercial activities. Senior residential communities are a permitted land use in this zone, but

only upon the issuance of a minor Conditional Use Permit by the Planning Commission. The PD designation requires a review by the planning commission for design review purposes. The proposed project will require approval of both a Conditional Use Permit and a Planned Development Permit by the Planning Commission. These entitlements may be processed concurrently at the Planning Commission, where possible.

Chapter 17.22 and 17.38 also outlines development standards for C-3 PD which establishes a building height limitation of 50-feet, and allows the building to project over the rear yard (minimum 12-feet), provided that a 14-foot-clear vertical distance from the ground level is maintained.

3.6 Other City Regulation of Urban Development

The City of Folsom further regulates urban development through standard construction conditions and through mitigation, building, and construction requirements set forth in the Folsom Municipal Code. Required of all projects constructed throughout the City, compliance with the requirements of the City's standard conditions and the provisions of the Municipal Code avoids or reduces many potential environmental effects. City procedures to minimize negative environmental effects and disruptions include an analysis of existing features, responsible agency and public input to the design process, engineering and design standards, and construction controls. The activities that mitigate typical environmental impacts to be implemented by the City during the project review, design, and construction phases are described in greater detail below.

Community Development Department Standard Construction Conditions

The City's standard construction requirements are set forth in the City of Folsom, Community Development Standard Construction Specifications updated in April 23, 2015. A summary of these requirements is set forth below and incorporated by reference into the project description. Copies of these documents may be reviewed at the City of Folsom, Community Development Department, 50 East Natoma Street, Folsom, California 95630.

The Department's standard construction specifications are required to be adhered to by any contractor constructing a public or private project within the City.

Use of Pesticides – Requires contractors to store, use, and apply a wide range of chemicals consistent with all local, state, and federal rules and regulations.

Air Pollution Control – Requires compliance with all Sacramento Metropolitan Air Quality Management District (SMAQMD) and City air pollution regulations.

Water Pollution – Requires compliance with City water pollution regulations, including National Pollutant Discharge Elimination System (NPDES) provisions.

Noise Control – Requires that all construction work comply with the Folsom Noise Ordinance (discussed further below), and that all construction vehicles be equipped with a muffler to control sound levels.

Naturally Occurring Asbestos – Requires compliance with all SMAQMD and City air pollution regulations, including preparation and implementation of an Asbestos Dust Mitigation Plan consistent with the requirements of Section 93105 of the State Government Code.

Weekend, Holiday, and Night Work – Prohibits construction work during evening hours, or on Sunday or holidays, to reduce noise and other construction nuisance effects.

Public Convenience – Regulates traffic through the work area, operations of existing traffic signals, roadway cuts for pipelines and cable installation, effects to adjacent property owners, and notification of adjacent property owners and businesses.

Public Safety and Traffic Control – Regulates signage and other traffic safety devices through work zones.

Existing Utilities – Regulates the relocation and protection of utilities.

Preservation of Property – Requires preservation of trees and shrubbery and prohibits adverse effects to adjacent property and fixtures.

Cultural Resources – Requires that contractors stop work upon the discovery of unknown cultural or historic resources, and that an archaeologist be retained to evaluate the significance of the resource and to establish mitigation requirements, if necessary.

Protection of Existing Trees – Specifies measures necessary to protect both ornamental and native oak trees.

Clearing and Grubbing – Specifies protection standards for signs, mailboxes, underground structures, drainage facilities, sprinklers and lights, trees and shrubbery, and fencing. Also requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to control erosion and siltation of receiving waters.

Reseeding – Specifies seed mixes and methods for reseeded of graded areas.

City of Folsom Municipal Code

The City regulates many aspects of construction and development through requirements and ordinances established in the Folsom Municipal Code. These requirements are summarized in **Table 3**, and hereby incorporated by reference into the Project Description as though fully set forth herein. Copies of these documents may be reviewed at the City of Folsom, Office of the City Clerk, 50 East Natoma Street; Folsom, California 95630.

Table 3. City of Folsom Municipal Code Regulating Construction and Development

CODE SECTION	CODE NAME	EFFECT OF CODE
8.42	Noise Control	Establishes interior and exterior noise standards that may not be exceeded within structures, including residences; establishes time periods for construction operations.
8.70	Stormwater Management and Discharge Control	Establishes conditions and requirements for the discharge of urban pollutants and sediments to the storm-drainage system; requires preparation and implementation of Stormwater Pollution Prevention Plans.
9.34	Hazardous Materials Disclosure	Defines hazardous materials; requires filing of a Hazardous Material Disclosure Form by businesses that manufacture, use, or store such materials.

9.35	Underground Storage of Hazardous Substances	Establishes standards for the construction and monitoring of facilities used for the underground storage of hazardous substances, and establishes a procedure for issuance of permits for the use of these facilities.
12.16	Tree Preservation	Regulates the cutting or modification of trees, including oaks and specified other trees; requires a Tree Permit prior to cutting or modification; establishes mitigation requirements for cut or damaged trees.
13.26	Water Conservation	Prohibits the wasteful use of water; establishes sustainable landscape requirements; defines water use restrictions.
14.19	Energy Code	Adopts the California Energy Code, 2010 Edition, published as Part 6, Title 24, C.C.R. to require energy efficiency standards for structures.
14.20	Green Building Standards Code	Adopts the California Green Building Standards Code (CALGreen Code), 2010 Edition, excluding Appendix Chapters A4 and A5, published as Part 11, Title 24, C.C.R. to promote and require the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices.
14.29	Grading Code	Requires a grading permit prior to the initiation of any grading, excavation, fill or dredging; establishes standards, conditions, and requirements for grading, erosion control, stormwater drainage, and revegetation.
14.32	Flood Damage Prevention	Restricts or prohibits uses that cause water or erosion hazards, or that result in damaging increases in erosion or in flood heights; requires that uses vulnerable to floods be protected against flood damage; controls the modification of floodways; regulates activities that may increase flood damage or that could divert floodwaters.

4.0 PROJECT OBJECTIVES

The objective of the proposed project is to develop a senior residential living community with the appropriate supporting facilities and infrastructure in the City of Folsom. The objective of providing the residential development must be achieved while minimizing environmental impacts to the maximum extent practicable and while meeting the requirements of the General Plan, as amended.

5.0 REQUIRED APPROVALS

REQUIRED APPROVALS

A listing and brief description of the regulatory permits and approvals required to implement the proposed project is provided below. This environmental document is intended to address the environmental impacts associated with all the following decision actions and approvals:

- **Conditional Use Permit:** A senior residential community is only permitted within the C-3 District if it complies with special conditions and is approved by the Planning Commission.
- **Planned Development Permit:** Because the proposed project would be sited within a Planned Development overlay zoning designation, the project requires a Planned Development Permit. This designation requires review by the Planning Commission from design review purposes.

The City has the following discretionary powers related to the proposed project:

- **Certification of the environmental document:** The City Council will act as the lead agency as defined by the California Environmental Quality Act (CEQA) and will have authority to determine if the environmental document is adequate under CEQA.
- **Approval of project:** The City Council will consider approval of the project and all entitlements as described above.

California Department of Fish and Wildlife consultation would be required if active nests are found for species protected by the Migratory Bird Treaty Act, as applicable.

6.0 PREVIOUS RELEVANT ENVIRONMENTAL ANALYSIS

6.1 City of Folsom General Plan

The EIR for the City of Folsom General Plan (1988) as amended by approval of the East Area Facilities Plan (1992) provides relevant policy guidance for this environmental analysis. Even though the site is not located within the boundaries of the East Area, the East Area Facilities Plan EIR was designed to update the EIR for the General Plan and the whole city. Thus, the East Area Facilities Plan EIR updated and revised the environmental conclusions of the General Plan EIR so that the East Area Facilities Plan EIR provides the foundation environmental document for evaluating development throughout this part of the City.

6.2 Tiering

“Tiering” refers to the relationship between a program-level EIR (where long-range programmatic cumulative impacts are the focus of the environmental analysis) and subsequent environmental analyses such as the subject document, which focus primarily on issues unique to a smaller project within the larger program or plan. Through tiering a subsequent environmental analysis can incorporate, by reference, discussion that summarizes general environmental data found in the program EIR that establishes cumulative impacts and mitigation measures, the planning context, and/or the regulatory background. These broad-based issues need not be reevaluated subsequently, having been previously identified and evaluated at the program stage.

Tiering focuses the environmental review on the project-specific significant effects that were not examined in the prior environmental review, or that are susceptible to substantial reduction or avoidance by specific revisions in the project, by the imposition of conditions or by other means. Section 21093(b) of the Public Resources Code requires the tiering of environmental review whenever feasible, as determined by the Lead Agency.

In the case of the proposed project, this Initial Study tiers from the EIR for the Broadstone 3 Specific Plan, the EIR for the Empire Ranch Specific Plan, and the EIR for the City of Folsom General Plan as amended by approval of the East Area Facilities Plan. The Folsom General Plan, as amended, is a project that is related to the proposed project and, pursuant to §15152(a) of the State CEQA Guidelines, tiering of environmental documents is appropriate. State CEQA Guidelines §15152(e) specifically provides that:

“[w]hen tiering is used, the later EIRs or Negative Declarations shall refer to the prior EIR and state where a copy of the prior EIR may be examined. The later [environmental document] should state that the Lead Agency is using the tiering concept and that the [environmental document] is being tiered with the earlier EIR.”

The above mentioned EIRs can be reviewed at the following location:

City of Folsom
Community Development Department
50 East Natoma Street
Folsom, CA 95630
Contact: Mr. Steve Banks, Principal Planner
(916) 461-6207

6.3 Incorporation of the Folsom General Plan and East Area Facilities Plan EIRs by Reference

The EIRs for the Folsom General Plan and the East Area Facilities Plan are comprehensive documents. Due to various references to the Folsom General Plan and East Area Facilities Plan EIRs in this proposed project, and to its importance relative to understanding the environmental analysis that has occurred to date with respect to development in the Folsom area, both documents are hereby incorporated by reference pursuant to State CEQA Guidelines Section 15150.

6.4 Summary of Folsom General Plan EIR as Amended by the East Area Facilities Plan EIR

The Folsom General Plan EIR as amended by the EIR for the East Area Facilities Plan analyzed the environmental impacts associated with adoption of the City of Folsom General Plan allowing for development, open space preservation, and provision of services for approximately 13,100 acres of land in and adjacent to the City of Folsom.

Buildout of the area subject to the Folsom General Plan envisions construction of up to 29,290 dwelling units and 2,466 acres of commercial and industrial uses. The Folsom General Plan contemplates the full range of land uses that would constitute a balanced community, including residential uses at a variety of densities, as well as commercial, office, employment, and open space uses. Additionally, public or quasi-public uses are contemplated by the Folsom General Plan, including schools, parks, fire stations, government offices, and other uses.

The East Area Facilities Plan EIR evaluated the environmental impacts associated with the above-described development of the Folsom General Plan planning area on a comprehensive basis, including discussion of the full range of impacts that would occur due to future development.

The East Area Facilities Plan EIR identified Citywide impacts arising from urban development pursuant to the General Plan for the following issue areas:

- Land Use – Conversion of agricultural and grazing lands to urban uses;
- Transportation/Circulation – Levels of Service below City of Folsom, El Dorado County, and Caltrans standards for area streets and highways;
- Air Quality – Air pollutant emissions and concentrations in excess of local, state, and federal thresholds;
- Noise – Increase in roadway noise for existing and future residential areas, and other sensitive uses;
- Visual Resources – Extension of the edge of the metropolitan Sacramento region into an apparently rural area;
- Housing – Lack of low- and moderate- income housing units;
- Biological Resources – Conversion of wildlife habitat and loss of special status species of plants and animals;
- Geology, Soils, and Seismicity – Exposure to seismic hazards, loss of mineral resources, construction on steep slopes, exposure to constrained soils, increase in erosion;
- Hydrology, Flooding, Drainage, and Water Quality – Exposure to localized drainage and flood hazards, and water quality degradation;
- Domestic Water – Demand would exceed supply;
- Sewer – Flow would exceed the capacity of the Folsom interceptor;
- ~~Police Protection Services – Additional, unfunded police officers would be needed;~~
- Fire Protection Services – Additional, unfunded fire personnel and equipment would be needed;
- Schools – School capacities would be exceeded;
- Parks and Recreation – Park facilities would be over capacity;
- Light and Glare – Increase in urban light and glare in Folsom and adjacent El Dorado County;
- Cultural Resources – Loss or degradation of cultural and historic resources; and,
- Library Services – Library facilities would be over capacity.

7.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that may require mitigation to reduce the impact from “Potential Impact” to “Less than Significant” as indicated by the checklist on the following pages. The potential impacts and any potential mitigation required will be addressed in the Environmental Impact Report.

An Initial Study is conducted by a Lead Agency to determine if a project may have a potentially significant effect on the environment (CEQA Guidelines Section 15063). An Environmental Impact Report (EIR) must be prepared if an Initial Study indicates that further analysis is needed to determine whether a significant impact will occur or if there is substantial evidence in the record that a project may have a significant effect on the environment (CEQA Guidelines Section 15064(f)).

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture/Forestry Resources	<input type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards/Hazardous Materials	<input type="checkbox"/> Hydrology/Water Quality
<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input type="checkbox"/> Transportation/Traffic	<input type="checkbox"/> Tribal Cultural Resources	<input type="checkbox"/> Utilities/Service Systems
<input type="checkbox"/> Mandatory Findings of Significance		

8.0 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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 project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an environmental impact report is required.
<input type="checkbox"/>	I find that the proposed project MAY have a “potential impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) 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.
<input type="checkbox"/>	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 pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

Title

9.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

Responses to the following questions and related discussion indicate if the proposed project will have or will potentially have a significant adverse impact on the environment, either individually or cumulatively with other projects. All phases of project planning, implementation, and operation are considered. Mandatory Findings of Significance are located in Section 9.19 below.

- A. "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.
- B. "Less Than Significant With Mitigation" 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 analyses may be cross-referenced).
- C. "Less Than Significant Impact" applies where the project creates no significant impacts, only less than significant impacts.
- D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which 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 would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

I. AESTHETICS

AESTHETICS: Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is currently undeveloped and surrounded by development. A small un-named tributary flowing towards Alder Creek is located directly north of the site, farther north is a proposed senior assisted living facility. Multi-family residences are located further north, across from Iron Point Road. Several office buildings are located west of the site and the future Oak Avenue Parkway Extension while Kaiser Permanente Medical offices and associated parking are located directly east and southeast. The south is almost completely open space with oak groves.

Evaluation of Aesthetics

Question a: No Impact. A scenic vista is defined as a viewpoint that provides expansive view of a highly valued landscape for the benefit of the general public. Neither the project site nor the surrounding areas are considered to be scenic vistas due to the existing development and suburban environment typical of the area. Further, neither the project site, nor views to or from the project site, have been designated an important scenic resource by the City of Folsom or any other public agency. Therefore, construction of the proposed development would not interfere with or degrade a scenic vista. No impacts would occur, and no mitigation would be necessary.

Question b: No Impact. There are no state or locally designated scenic highways in the vicinity of the proposed project. Implementation of the proposed project would not adversely affect scenic resources within a designated scenic highway. No impact would occur, and no mitigation would be necessary.

Question c: Less than Significant Impact. The existing visual character of the area surrounding the project site is primarily defined by commercial, business offices, residential, transportation, and open space. The site is prepared for development consistent with surrounding urban land uses. The project site will be visible by motorists and pedestrians travelling along Iron Point Road and Oak Avenue Parkway. Residence north of Iron Point Road have clear views of the project site and may experience a slightly natural feel from being across an undeveloped lot that faces open space with an un-named tributary and pond. Implementation of the project would result in two, four-story buildings and one,

two-story building with parking areas, and landscaping, altering the exiting visual character to slightly more urban development character of the landscape than is currently experienced by viewers.

While the proposed project would result in a change in visual character on site, the proposed land uses are consistent with the overall urban development of the vicinity, and the proposed developments are expected to integrate into the existing and planned development in the area. A less than significant impact to visual character would occur and no mitigation is necessary.

Question d: Less than Significant Impact. Any new lighting associated with development within the project area would be subject to City standard practices regarding night lighting that would be made a condition of approval of the Planned Development Permit. Consistent with the City's practices, the lighting shall be sited and designed to avoid light spillage and glare on adjacent properties, with timers or photo-electric cells for turning the lights on and off within one-half hour after dusk and one-half hour prior to dawn. Lighting would be low level as necessary for safety and security. The lighting design includes pole-mounted parking lot lighting, and bollard lights along the walkways on the project site. All lighting would be designed to minimize light/glare impacts to the adjacent properties by ensuring that all exterior lighting and pole-mounted parking lot and driveway lighting be shielded and directed downward. Light-emitting diode (LED) luminaires would be used for all of the proposed outdoor lighting. Because existing City practices would limit light spillover and intensity, this would be a less than significant impact, and no mitigation is necessary.

II. AGRICULTURE AND FORESTRY RESOURCES

AGRICULTURE AND FORESTRY RESOURCES:		Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

No agricultural activities or timber management occur on the project site or in adjacent areas and the site is not designated for agricultural or timberland uses. The California Important Farmlands Map prepared for Sacramento County by the California Resources Agency classifies the project site as grazing land surrounded by urban and built up (California Department of Conservation 2016). Urban and built up land is land occupied by structures or infrastructure to accommodate a building density of at least one unit to one and one-half acres, or approximately six structures to 10 acres; grazing land is land on which vegetation is suited to the grazing of livestock (Department of Conservation 2016).

The Natural Resources Conservation Service (NRCS) soil survey report generated for the project site indicates that no Prime or Unique Farmland or Farmland of Statewide Importance occurs on the project site (NRCS 2018).

Evaluation of Agriculture and Forestry Resources

Question a, b: No Impact. The project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide importance (Farmland), pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. The project site is not zoned for agricultural use or enacted

into a Williamson Act contract, no impact would occur, and no mitigation would be necessary for questions a) and b).

Question c, d: No Impact. Because no portion of the City or the project site are zoned for forest land, timberland, or zoned Timberland Production, no impact would occur, and no mitigation would be necessary for questions c) and d).

Question e: Less Than Significant Impact. The project site has been identified as grazing land surrounded by urban and built-up land. This area is considered to be highly disturbed with marginal grazing opportunities due to its proximity to a main road and surrounding urban development. Because no important agricultural resources or activities exist on the project site, impacts would be less than significant, and no mitigation would be necessary.

III. AIR QUALITY

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:		Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Climate in the Folsom area is characterized by hot, dry summers and cold, rainy winters. During summer’s longer daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between Oxides of Nitrogen (NO_x) and Reactive Organic Gasses (ROG), which result in Ozone (O₃) formation. High concentrations of O₃ are reached in the Folsom area due to intense heat, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer. At this time, the greatest pollution problem in the Folsom area is from NO_x.

The City of Folsom lies within the eastern edge of the Sacramento Valley Air Basin (SVAB). The Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for implementing emissions standards and other requirements of federal and state laws in the project area. As required by the California Clean Air Act (CCAA), SMAQMD has published various air quality planning documents as discussed below to address requirements to bring the District into compliance with the federal and state ambient air quality standards. The Air Quality Attainment Plans are incorporated into the State Implementation Plan, which is subsequently submitted to the U.S. Environmental Protection Agency (EPA), the federal agency that administrates the Federal Clean Air Act of 1970, as amended in 1990.

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe, to protect the public health and welfare. These standards are designed to protect people most sensitive to respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. The EPA has established national ambient air quality standards (NAAQS)

for seven air pollution constituents. As permitted by the Clean Air Act, California has adopted more stringent air emissions standards (CAAQS) and expanded the number of regulated air constituents.

The California Air Resources Board (CARB) is required to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An “attainment” designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once. The air quality attainment status of the SVAB, including the City of Folsom, is shown in **Table 4**.

Table 4. Sacramento Valley Air Basin – Attainment Status

POLLUTANT	STATE OF CALIFORNIA ATTAINMENT STATUS	FEDERAL ATTAINMENT STATUS
Ozone	Nonattainment	Nonattainment
Suspended Particulate Matter (PM ₁₀)	Nonattainment	Attainment
Fine Particulate Matter (PM _{2.5})	Attainment	Nonattainment
Carbon Monoxide	Attainment	Attainment/Unclassified
Nitrogen Dioxide	Attainment	Attainment/Unclassified
Lead	Attainment	Attainment/Unclassified
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard
Visibility Reducing Particles	Unclassified	No Federal Standard

Sources: CARB 2017; EPA 2018

The Sacramento County/Sacramento Metropolitan Area portion of the SVAB is currently in nonattainment for federal and/or state ozone, PM₁₀ and PM_{2.5} standards. Concentrations of all other pollutants meet state and federal standards.

Ozone is not emitted directly into the environment, but is generated from complex chemical reactions between ROG, or non-methane hydrocarbons, and NO_x that occur in the presence of sunlight. ROG and NO_x generators in Sacramento County include motor vehicles, recreational boats, other transportation sources, and industrial processes. PM₁₀ and PM_{2.5} arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations and windblown dust.

Air Quality Monitoring

CARB’s air quality monitoring network provides information on ambient concentrations of air pollutants in the SVAB. SMAQMD operates a monitoring station in Folsom, where the air quality data for ozone and PM_{2.5} were obtained. Other data are reported from one additional location in Sacramento County. **Table 5** compares a three-year summary of the highest annual criteria air pollutant emissions collected at these monitoring stations with applicable CAAQS, which are more stringent than the corresponding NAAQS. The concentrations of the pollutants ozone, PM_{2.5}, and PM₁₀ are expected to be fairly representative of the project site, due to the regional nature of these pollutants.

Table 5. Summary of Annual Air Quality Data for Folsom Area Air Quality Monitoring Stations

POLLUTANT	2014	2015	2016
<i>Ozone (O₃) 1-hour: Monitoring location: Folsom – East Natoma Street</i>			
Maximum Concentration (ppm)	0.100	0.114	0.111
Days Exceeding State Standard (1-hr avg. 0.09 ppm)	7	3	6
<i>Ozone (O₃) 8-hour: Monitoring location: Folsom – East Natoma Street</i>			
Maximum Concentration (ppm)	0.085	0.093	0.095
Days Exceeding State Standard (8-hr avg. 0.070 ppm)	35	11	24
Days Exceeding National Standard (8-hr avg. 0.075 ppm)	14	5	13
<i>PM₁₀: Monitoring location: Sacramento – Branch Center Road 2</i>			
Maximum State 24-Hour Concentration (µg/m ³)	46.0	45.0	44.0
Days Exceeding State Standard (Daily Standard 50 µg/m ³)	0	0	0
Maximum Federal 24-Hour Concentration (µg/m ³)	45.0	44.0	45.0
Days Exceeding Federal Standard (Daily Standard 150 µg/m ³)	0	0	0
<i>PM_{2.5}: Monitoring location: Folsom – East Natoma Street</i>			
Maximum National 24-Hour Concentration (µg/m ³)	52.0	38.1	25.7
Days Exceeding National 2006 Standard (Daily Standard 35 µg/m ³)	1.0	1.1	0

*Insufficient data to determine the value

Source: CARB 2018.

As indicated in **Table 5**, ozone standards have been exceeded in Folsom over the past three years. PM_{2.5} federal standards were exceeded in 2014 and 2015. PM₁₀ concentrations have not exceeded state or federal standards in the past three years.

Air Quality Attainment Planning

In order to work towards attainment for ozone, PM₁₀ and PM_{2.5}, the EPA Office of Air Quality Planning & Standards requires that each state containing nonattainment areas develop a written plan for cleaning the air in those areas. The plans developed are called State Implementation Plans (SIP). Through these plans, states outline efforts they will make to try to correct the levels of air pollution and bring their areas back into attainment. The status of air quality attainment planning for the Sacramento area is listed below (SMAQMD 2017):

- 8-Hour O₃.** The Sacramento region was classified by the EPA as a “serious” nonattainment area on June 15, 2004 for the federal 8-hour ozone standard, with an attainment deadline of June 15, 2013. Emission reductions needed to achieve the air quality standard were identified using an air quality modeling analysis. An evaluation of proposed control measures and associated ROG and NO_x emission reductions concluded that no set of feasible controls were available to provide the needed emission reductions before the attainment deadline year. Given the magnitude of the shortfall in emission reductions, and the schedule for implementing new control measures, the earliest possible attainment demonstration year for the Sacramento region is determined to be the “severe” area deadline of 2019. Section 181(b)(3) of the Clean Air Act permits a state to request that the EPA reclassify a nonattainment area to a higher classification and extend the time allowed for attainment. This process is appropriate for areas that must rely on longer-term strategies to achieve the emission reductions needed for attainment. The EPA approved this request on May 5, 2010. In 2013, the region developed an

Ozone Attainment and Reasonable Further Progress Plan. This plan was approved and effective March 2, 2015 and addresses how the region would attain the 1997 8-hour standard.

- **1-Hour O₃.** On May 9, 2011, EPA proposed to determine that California is no longer required to implement or submit a CAA Section 185 fee program for 1-hour ozone as a revision to the SIP for the Sacramento Metro 1-hour ozone nonattainment area. EPA has also taken an “interim final” action to stop sanctions from applying to the Sacramento Metro Area.
- **PM₁₀.** In March 2002, the EPA officially determined that Sacramento County had attained the PM₁₀ standards. In November 2010, the SMAQMD formally requested that the EPA redesignate Sacramento County from nonattainment to attainment for PM₁₀. The EPA approved this request effective October 28, 2013. The SMAQMD additionally adopted a PM₁₀ Maintenance Plan. The first Maintenance Plan showed maintenance from 2012 through 2022. A Second Maintenance Plan will be prepared and submitted by The Sac Metro Air District to demonstrate maintenance for ten additional years, through 2032.
- **PM_{2.5}.** The Sacramento PM_{2.5} nonattainment area designation met the PM_{2.5} NAAQS by December 31, 2011. On May 9, 2012, CARB submitted a request that EPA find the Sacramento region in attainment for the 2006 24-hour PM_{2.5} NAAQS. EPA issued a proposed rule for Determination of Attainment for the Sacramento Nonattainment Area on October 26, 2012 and a final rule for Determination of Attainment on July 15, 2013. EPA used the updated 2010-2012 ambient air quality data for determination and the final rule became effective on August 14, 2013 (SMAQMD 2017) (EPA 2013). On May 10, 2017, the EPA found the area attained the 2006 24-hour NAAQS by the attainment date of December 31, 2015 based on monitoring data for 2013-2015. The 2013 Maintenance Plan and will be updated and submitted in the future based on the clean data finding made by the EPA.
- **CO.** The region is currently designated attainment for 1-hour and 8-hour CO standards. The Maintenance Plan developed for CO in 1996 was revised in 2004 to extend the 1996 CO Maintenance Plan demonstration to 2018.

Evaluation of Air Quality

While the final determination of whether or not a project has a significant effect is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), SMAQMD recommends that its air pollution thresholds be used to determine the significance of project emissions. The criteria pollutant thresholds and various assessment recommendations are contained in SMAQMD’s Guide to Air Quality Assessment in Sacramento County (2009, revised), and are discussed under the checklist questions below.

Question a: Less than Significant Impact. In accordance with SMAQMD’s Guide, construction-generated NO_x and operational-generated ROG and NO_x (all ozone precursors) are used to determine consistency with the Ozone Attainment Plan. The Guide states:

By exceeding the District’s mass emission thresholds for operational emissions of ROG, NO_x, PM₁₀, or PM_{2.5}, the project would be considered to conflict with or obstruct implementation of the District’s air quality planning efforts.

As shown in the discussion for questions b and c below, the project would not exceed construction generated NO_x, PM₁₀, and PM_{2.5} or the operational generated ROG and NO_x thresholds. Impacts would be less than significant and no mitigation would be necessary.

Question b: Less than Significant Impact.

Construction Emissions

Regional Emissions

SMAQMD's Guide includes a construction screening level to determine if a project would exceed the NO_x threshold of significance. However, because the proposed project includes cut-and-fill operations, the NO_x construction screening level is not recommended for use. As such, the California Emissions Estimator Model (CalEEMod) version 2016.3.2 was used to quantify project-generated construction emissions. The analysis methodology, assumptions, and CalEEMod output are provided in **Appendix B**. Construction of the project is anticipated to begin October 2018 and be completed by May 2020.

The SMAQMD does not have a recommended threshold for construction-generated ROG; therefore, the maximum daily emissions of NO_x are analyzed below. As shown in **Table 6**, the proposed project would generate less than significant levels of the ozone precursor NO_x.

Table 6. Estimated Project Construction NO_x Emissions

CONSTRUCTION YEAR	NO_x (lbs./day)
2018	54
2019	15
2020	16
SMAQMD Threshold	85
<i>Threshold exceeded?</i>	<i>No</i>

Source of emissions: CalEEMod output (Appendix B)

Source of threshold: SMAQMD 2018.

Local Emissions

The SMAQMD utilizes the same screening level as the NO_x emission screening level to assist a project proponent or lead agency in determining if PM₁₀ or PM_{2.5} emissions from constructing a project in Sacramento County will exceed the SMAQMD's construction significance thresholds. As with the NO_x screening presented above, because the proposed project includes cut-and-fill operations, the PM₁₀ and PM_{2.5} construction screening level is not recommended for use. As such, CalEEMod was used to quantify project-generated construction emissions as discussed previously.

The maximum daily emissions of PM₁₀ and PM_{2.5} are analyzed below. As shown in **Table 7**, the proposed project would generate less than significant levels of PM₁₀ and PM_{2.5}. Impacts related to construction-generated PM₁₀ and PM_{2.5} emissions would be less than significant.

Table 7. Estimated Project Construction PM Emissions

CONSTRUCTION YEAR	PM₁₀ (lbs./day)	PM_{2.5} (lbs./day)
2018	11	7
2019	2	1
2020	2	1
<i>SMAQMD Threshold</i>	<i>80</i>	<i>82</i>
Threshold exceeded?	No	No

Source of emissions: CalEEMod output (Appendix B).

Source of threshold: SMAQMD 2018.

Operational Emissions

Regional Emissions

SMAQMD provides screening levels to identify when additional analysis is necessary to determine potential significance for operational ROG, NO_x, PM₁₀, or PM_{2.5} emissions. The operational screening levels represent the development size at which the operational emissions thresholds of significance would not be exceeded. The proposed senior housing facility would qualify as the CalEEMod Land Use of a congregate care (assisted living) under the general land use category of residential. According to the screening thresholds, if a proposed congregate care facility is less than 1,540 dwelling units, then the facility would not have the potential to exceed SMAQMD's recommended mass emission thresholds for NO_x or ROG. The PM₁₀ and PM_{2.5} screening level is 3,545 dwelling units. The proposed project would be 166 dwelling units (13 studio units, 99 one bedroom units, and 54 two bedroom units) which is substantially less than the screening thresholds. Therefore, the proposed project would generate less than significant quantities of operational ROG, NO_x, PM₁₀, and PM_{2.5}, and project-specific modeling for operational emissions is not required.

Local Emissions

The primary pollutant of localized concern is mobile-source CO. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Long-distance transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. Under specific meteorological conditions and traffic conditions, CO concentrations at receptors located near roadway intersections may reach unhealthy levels, when combined with background CO levels.

The SMAQMD's two-tiered screening criteria identifies when a project has the potential to contribute to a CO hotspot and if CO dispersion modeling is necessary. According to the first screening tier, the proposed project will result in a less-than-significant impact to air quality for local CO if:

1. Traffic generated by the proposed project will not result in deterioration of intersection level of service (LOS) to LOS E or F; and
2. The project will not contribute additional traffic to an intersection that already operates at LOS E or F.

As detailed in the Traffic Impact Analysis, the proposed project would not result in the deterioration of any intersection to LOS E or F (Griffin Cove Transportation Consulting, PLLC, 2018). Because the first tier of screening criteria is met, there would be no potential for a CO hotspot or exceedance of state or federal CO ambient air quality standard. The impact would be less than significant and no mitigation measures are required.

Question c: Less than Significant Impact. The Sacramento region is in non-attainment for ozone (NO_x and ROG) and particulate matter ($\text{PM}_{2.5}$ and PM_{10}). As discussed above, no exceedance of the District's emission thresholds for criteria pollutants would be expected for the proposed project. The project would not result in a cumulatively considerable net increase in any criteria pollutant. A less than significant impact would result, and no additional mitigation would be necessary.

Question d, e: Less than Significant Impact. Sensitive receptors in the vicinity of the project include nearby residents to the north and adjacent to Iron Point Road and Kaiser Permanente Medical Offices approximately 850 feet directly east of the project site. Other than emissions from vehicle trips by residents, and potential emissions from natural gas used for space heating, no other air emissions or odors would be released during operation of the proposed development. Normal activities associated with operation of the development would not result in the release of any odors or toxic substances into the air. Similarly, emissions of criteria air pollutants during project construction would be expected to be less than significant. Thus, overall air emissions would not expose sensitive receptors to substantial air pollutant concentrations or create objectionable odors. This would be a less than significant impact and no mitigation would be necessary for questions d) and e).

IV. BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES: Would the project:	Potential Impact	Less Than Significant with Mitigation	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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is an undeveloped lot in a pocket of undeveloped land bounded by Iron Point Road, Kaiser Permanente Medical Center, US-50, and commercial buildings. The project site is separated from Iron Point Road to the north and commercial development to the west by an un-named tributary to Alder Creek, and from US-50 to the south by undeveloped land that includes a swale feature that crosses the southwest corner of the project site.

The project site is not associated with any current land use, and historic aerial imagery and topographic maps show no alteration in the use or condition of the property dating back to before 1960 (NETR 2018). The dominant topographic feature in the project site is a hill that slopes downward toward the site boundary in all directions. The site is predominantly annual grassland, with small stands of native oak trees (*Quercus* sp.).

Regulatory Framework Related to Biological Resources

The City of Folsom regulates urban development through standard construction conditions and through mitigation, building, and construction requirements set forth in the Folsom Municipal Code. Required of all projects constructed throughout the City, compliance with the requirements of the City's standard conditions and the provisions of the Municipal Code avoids or reduces many potential environmental effects. No Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan has been approved for the City of Folsom.

State and Federal Endangered Species Acts

Special status species are protected by state and federal laws. The California Endangered Species Act (CESA; California Fish and Game Code Sections 2050 to 2097) protects species listed as threatened and endangered under CESA from harm or harassment. This law is similar to the Federal Endangered Species Act of 1973 (FESA; 16 USC 1531 *et seq.*) which protects federally threatened or endangered species (50 CFR 17.11, and 17.12; listed species) from take. For both laws, take of the protected species may be allowed through consultation with and issuance of a permit by the agency with jurisdiction over the protected species.

California Code of Regulations and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 § 670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by the California Department of Fish and Wildlife (CDFW) for inclusion on the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code. CDFW also designates Species of Special Concern that are not currently listed or candidate species.

Legal protection is also provided for wildlife species in California that are identified as "fully protected animals." These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fishes) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. The CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by these species. The CDFW has informed non-federal agencies and private parties that they must avoid take of any fully protected species. However, Senate Bill (SB) 618 (2011) allows the CDFW to issue permits authorizing the incidental take of fully protected species under the CESA, so long as any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900 to 1913) requires all state agencies to use their authority to implement programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use other than changing from one agricultural use to another, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting and Migratory Birds

Nesting birds are protected by state and federal laws. California Fish and Game Code (§3503, 3503.5, and 3800) prohibits the possession, incidental take, or needless destruction of any bird nests or eggs; Fish and Game Code §3511 designates certain bird species “fully protected” (including all raptors), making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. Under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USF §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbance must be reduced or eliminated during the nesting cycle.

City of Folsom Tree Preservation Ordinance

Requirements related to biological resources also include protection of existing trees and specifies measures necessary to protect both ornamental and native oak trees. Chapter 12.16 of the Folsom Municipal Code, the Tree Preservation Ordinance, further regulates the cutting or modification of trees, including oaks and specified other trees; requires a Tree Permit prior to cutting or modification; and establishes mitigation requirements for cut or damaged trees (City of Folsom 2000). The Tree Preservation Ordinance establishes policies, regulations, and standards necessary to ensure that the City will continue to preserve and maintain its “urban forests”. Anyone who wishes to perform “Regulated Activities” on “Protected Trees” must apply for a permit with the City. Regulated activities include:

- Removal of a Protected Tree;
- Pruning/trimming of a Protected Tree; and/or,
- Grading or trenching within the Protected zone.

Protected trees include:

- Native oak trees with a diameter of 6 inches or larger for single trunk trees 20 inches or larger combined diameter of native oak multi-trunk trees;
- Heritage oak trees - native oaks with a trunk diameter of 19 inches or greater and native oaks with a multi-trunk diameter of 38 inches or greater;
- Landmark trees identified individually by the City Council through resolution as being a significant community benefit; and/or,
- Street trees within the tree maintenance strip.

Jurisdictional Waters

Any person, firm, or agency planning to alter or work in “waters of the U.S.,” including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Section 401 requires an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of the CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California. The RWQCB also regulates

discharges of pollutants or dredged or fill material to waters of the State which is a broader definition than waters of the U.S.

Methods

Information used in preparation of this Initial Study comes from the following sources:

- Desktop review of regionally-occurring special-status species and habitats with potential to occur in the project site and/or be affected by the proposed project;
- Biological reconnaissance surveys performed in March 2018;
- U.S. Army Corps of Engineers verification of Nationwide Permit Number 14 for the Broadstone Oaks Crossing project (SPK-2015-00419), dated December 6, 2017;
- U.S. Fish and Wildlife Service Biological Opinion for the Broadstone Oaks Crossing project (08ESMF00-2017-F-0695-1), dated May 19, 2017;
- California Department of Fish and Wildlife Final Lake or Streambed Alteration Agreement Notification Number 1600-2016-0062-R2 for the Broadstone Oaks Crossing project, dated July 21, 2016; and,
- Arborist Report and Tree Inventory Summary for Parcel 072-2680-011, prepared by Sierra Nevada Arborists, dated July 21, 2017.

The results of the biological database and records searches for the project site, as well as a list of species observed during the biological reconnaissance, are compiled in **Appendix C**.

Species were considered to be special-status if they fall into one or more of the following categories:

- Listed as endangered or threatened under the FESA (including candidate species and species proposed for listing);
- Listed as endangered or threatened under the CESA (including candidate species and species proposed for listing);
- Fully Protected under the California Fish and Game Code;
- Designated as a Species of Special Concern by the CDFW; and/or,
- Having a California Rare Plant Rank of 1 or 2.

To determine the potential for special-status species or their habitats to occur in the project site and vicinity, the most current lists of regionally-occurring special-status species known to occur or having the potential to occur on the "Folsom, CA" U.S. Geological Survey 7.5-minute topographic quadrangle were obtained from the following databases: the CNDDDB database maintained by CDFW (CDFW 2018), the California Native Plant Society (CNPS) database (CNPS 2018), and the Information for Planning and Conservation online system maintained by the USFWS (USFWS 2018). These lists were reviewed to determine which of the regionally-occurring special-status species have the potential to occur in the

project site and vicinity and/or be affected by the proposed project (refer to Appendix C for the species lists). The potential for each regionally-occurring special-status species to occur in the project site and vicinity and/or be affected by the proposed project was determined based on a comparison of the life history requirements, known ranges (geographic and/or elevational), and reported occurrences of the special-status species to the habitats on the project site noted during the biological reconnaissance survey as well as other factors such as local knowledge of such species distribution(s) and professional judgement by HELIX biologists.

A biological reconnaissance was conducted by professional biologists Stephen Stringer and George Aldridge, of HELIX, on March 19, 2018, to assess current conditions at the project site, and the current presence/location, and/or extent of biological resources in the project site. The biological reconnaissance survey was accomplished by walking meandering transects through the project site in order to obtain 100 percent visual coverage of the site. Habitats present in the project site were classified based on the dominant plant species present and identifiable at the time of the survey. The site was also reviewed for aquatic features exhibiting characteristics of waters of the U.S. or State, including the presence of hydrophytic vegetation, bed and bank, or depressional topography.

Biological Communities/Land Cover Types

Biological communities/land cover types (hereafter referred to as “habitat types”) present on the project site include annual grassland, blue oak woodland, and valley-foothill riparian. These habitat types are described below. Habitat nomenclature is from the California Wildlife Habitat Relationships System used by the CDFW as referenced on the Internet at: [http://www.dfg.ca.gov/biogeodata/cwhr/wildlife_habitats.asp].

Annual Grassland

Annual grasslands are open grasslands composed primarily of annual species. Germination follows the onset of winter rains; however, growth is slow during cold weather and plants remain low in stature until spring. Grasses flower and set seed by early summer, and large amounts of standing dead thatch are present by mid-summer in the absence of grazing. Heavy grazing favors the growth of summer forbs. The dominant species in this community are non-native grasses and forbs, with a component of native wildflowers that decreases with the level of disturbance. This community often forms the understory of oak woodlands.

Annual grassland on the project site is dominated by soft brome (*Bromus hordeaceus*), medusa head (*Elymus caput-medusae*), silver European hairgrass (*Aira caryophyllea*), long-beak filaree (*Erodium botrys*), wild radish (*Raphanus sativus*), and rose clover (*Trifolium hirtum*). Native forbs present in abundance include Idaho bittercress (*Cardamine oligosperma*), rancher’s fiddleneck (*Amsinckia intermedia*), and miner’s lettuce (*Claytonia perfoliata*). The project site includes 5.16 acres of annual grassland (Figure 3).

Blue Oak Woodland

Blue oak woodland is a generally open canopy of scattered trees, becoming closed in wetter sites. Ground cover is a well-developed carpet of annual grasses and forbs. The canopy is dominated by blue oak (*Quercus douglasii*), with some associated interior live oak (*Quercus wislizeni*), and valley oak (*Quercus lobata*). This community usually intergrades with annual grassland and valley oak woodland.

The project site supports one 0.41-acre mixed stand of oaks at the top of the hill (**Figure 8 in Appendix A**). Land to the south and west of the site supports larger numbers of oaks, especially near the creek.

Valley-Foothill Riparian

Valley foothill riparian is a variable community of trees and shrubs, reaching up to 100-feet tall in mature, climax communities. Dominant tree species in the canopy layer are cottonwoods (*Populus*), sycamore (*Platanus*), and oak (*Quercus*); however, shrub-dominated types can persist indefinitely. In the latter case, the dominant species are woody shrubs such as willow (*Salix* spp.), wild rose (*Rosa californica*), elderberry (*Sambucus nigra*), and Himalayan blackberry (*Rubus armeniacus*). Valley-foothill riparian habitats occur in valleys along low-velocity streams, on coarse, well-watered soils. The transition to upland habitats such as annual grassland, oak woodland, and agriculture is usually abrupt.

The project site includes 0.384 acre of valley-foothill riparian habitat in the proposed driveway connection to Iron Point Road. Dominant species in this area are red willow (*Salix laevigata*), Himalayan blackberry, poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and blue elderberry (*Sambucus nigra*). Herbaceous species in this area include broad-leafed cattail (*Typha latifolia*), willow herb (*Epilobium ciliatum*), blue vervain (*Verbena hastata*), and false loosestrife (*Ludwigia hexapetala*).

Wildlife

The project site provides habitat for disturbance-tolerant wildlife species typical of urban and suburban areas. Most wildlife sightings were immediately off-site in the creek. Species observed using the habitats in the project site include mourning dove (*Zenaida macroura*), acorn woodpecker (*Melanerpes formicivorus*), northern flicker (*Colaptes aurata*), pocket gopher (*Thomomys bottae*), black-tailed jackrabbit (*Lepus californicus*), house finch (*Carpodacus mexicanus*), and black phoebe (*Sayornis nigricans*).

Special-Status Species with Potential to Occur

The CDFW, USFWS, and CNPS lists included a total of 22 regionally-occurring special-status species that were reviewed for the potential to occur on the project site or otherwise be impacted by the proposed project (**Appendix C**). A CNDDB records search showed four special-status species within 1.5-miles of the project site, one of which is restricted to vernal pool habitat which is not present in the project site.

No special-status wildlife species are expected to occur on the project site; however, suitable habitat is present for valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) and northwestern pond turtle (*Actinemys marmorata*), which are known to occur in the region. These species are discussed in the following sections.

Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)

FESA Listing – Threatened

CESA Listing – None

Other – None

Valley elderberry longhorn beetle (VELB) was listed as threatened under the ESA on August 8, 1980. VELB is one of two subspecies of *Desmocerus californicus*. The other subspecies, the California

elderberry longhorn beetle (*Desmocerus californicus californicus*), is found primarily in coastal areas from Mendocino County to San Diego County as well as in the southern Sierra Nevada range. VELB is limited to portions of the Central Valley below 3,000-foot elevation, primarily along Putah Creek in Solano and Yolo Counties, and along the Lower American River in Sacramento County. The range of the VELB extends throughout California's Central Valley and associated foothills from about the 3,000-foot elevation contour on the east to the watershed of the Central Valley on the west. The VELB is dependent on its host plant, elderberry (*Sambucus* sp.), which is a common component of riparian corridors and adjacent upland areas in the Central Valley. VELB occurs most frequently and is most abundant in well-developed riparian zones.

Individual beetles spend most of their lives as solitary larvae, feeding in a chamber inside the stem of a host plant. After 1-2 years, larvae chew an exit hole in the stem, pupate in the feeding chamber, and exit the stem through the hole. Adults mate in the canopy of the host plant in May – June, then die. Exit holes are often the only visible sign that VELB are present in a host plant. Adult VELB rarely disperse more than 165-feet from their larval host plant, so the species has very low potential to colonize patchy habitat.

The CNDDDB contains reported occurrences of VELB within 1.5-miles of the project site; however, no exit holes were observed in the three elderberry shrubs in the project site with stems of at least 1-inch diameter. The project applicant obtained a Biological Opinion from USFWS that authorizes incidental take of VELB that may be present in the stems of the three elderberry shrubs in the project site that provide potentially suitable habitat and are proposed for removal.

Northwestern Pond Turtle (*Actinemys marmorata*)

FESA Listing – None

CESA Listing – None

Other – Species of Special Concern

Northwestern pond turtle is one of two species formerly considered subspecies of western pond turtle (*Actinemys [=Emys] marmorata*). The southwestern pond turtle (*Actinemys pallida*), formerly *Actinemys marmorata pallida*, occurs along the central and southern California coast from Contra Costa county to San Diego County. The northwestern pond turtle, formerly *Actinemys marmorata marmorata*, occurs in northern California from the coast to the western Sierra Nevada. These are the only extant species of freshwater turtle native to California. Northwestern pond turtles are drab brown and lack prominent markings on the carapace and face. Northwestern pond turtle is threatened by competition from introduced red-eared slider turtles (*Trachemys scripta elegans*) as well as by habitat loss, collecting, and human-caused mortality of eggs and hatchlings.

Northwestern pond turtles inhabit slow-moving bodies of freshwater such as low-gradient streams, natural and artificial ponds, and ditches. They require floating or shoreline basking sites such as logs, tree limbs, rocks, and clearings exposed to the sun. Basking sites must be near deeper water or submerged branches that provide hiding places for turtles to escape predators. Breeding turtles require open uplands near water for egg-laying, and nest in dry silt or clay soils. Turtle nests are cryptic, eggs are thin-shelled, and hatchlings spend several months in the nest and nearby uplands after hatching.

The CNDDDB contains reported occurrences of northwestern pond turtle within 1.5-miles of the project site, and the un-named tributary to Alder Creek provides suitable aquatic habitat. Annual grassland in the project site provides suitable nesting habitat.

Migratory Birds and Nesting Birds

While no special-status bird species are expected to nest in the project site, habitat is present on and adjacent to the site for a variety of common bird species that nest in trees and shrubs or on the ground in urban and suburban areas. No bird nests were observed on the project site; however, there is a low probability that birds could occupy the shrubs or nest on the ground in the project site prior to construction. A variety of bird species may use the mature trees adjacent to the site for nesting.

Protected Trees

The tree inventory identified a total of 32 trees meeting the definition of protected trees under the City of Folsom Tree Preservation Ordinance within or overhanging the project site. This total included 27 blue oak, three valley oak, and two interior live oak. All trees were rated as being in “Fair” condition with minor problems. The total diameter of protected trees potentially affected by the project, calculated according to the “extrapolated diameter” method laid out in the Tree Preservation Ordinance, was 541 aggregate diameter inches.

Jurisdictional Waters

Jurisdictional waters in the project site include the un-named tributary to Alder Creek in the proposed driveway connection to Iron Point Road, and a seasonal drainage/swale feature in the southwest corner. The un-named tributary to Alder Creek is a natural watercourse that was likely a seasonal stream under natural hydrological conditions but has become perennial due to urban runoff. A total of 145 linear feet of this stream and associated riparian habitat (0.38-acre) is inside the impact footprint of the proposed driveway.

The seasonal drainage/swale feature originates south of the project site near US-50, and flows northwest to join the un-named tributary to Alder Creek west of the project site. The feature exhibits discernible bed and bank approximately 1-2 feet wide beginning in the corner of the project site, and is a grassy swale upstream of that point. Approximately 35-linear feet of this feature is within the project site, in the extreme southwest corner.

Evaluation of Biological Resources

Question a: Less than Significant with Mitigation Incorporated.

Valley Elderberry Longhorn Beetle

The proposed project would result in the removal of three elderberry shrubs suitable for VELB. The USFWS determined that removal of the elderberry shrubs could result in the harm and mortality of any VELB larvae inhabiting the stems. The USFWS authorized incidental take of all VELB larvae within stems measuring 1-inch or greater diameter on the three elderberry shrubs removed, and determined that this level of take is not likely to result in a substantial adverse effect on VELB with proposed mitigation. The project has implemented mitigation for impacts to VELB through purchase of 12 VELB conservation credits at the USFWS-approved Nicolaus Ranch VELB Conservation Bank in Sacramento County (Nicolaus Ranch VELB Conservation Bank, 2018). No additional mitigation measures are necessary for VELB.

Northwestern Pond Turtle

The proposed project would result in direct and indirect impacts to aquatic and upland habitat suitable for northwestern pond turtle. Construction of the proposed driveway connection to Iron Point Road would impact aquatic habitat in the un-named tributary to Alder Creek, and development of the remainder of the project site would impact upland nesting habitat. Adult turtles present in aquatic or upland habitat might be injured or killed by contact with construction equipment, or be displaced by human presence. Turtle eggs and hatchlings in uplands might be crushed by equipment or workers on foot. Noise, vibration, dust, and other indirect effects of construction and operation of the proposed project might negatively affect habitat quality in lands adjacent to the project site and result in displacement of turtles. Avoidance and minimization measures are required to reduce the potential for adverse effects to northwestern pond turtle adults, eggs, and juveniles. Habitat for northwestern pond turtle is not protected, and no compensatory mitigation is required for loss of suitable habitat.

The following mitigation measure would be implemented to avoid and minimize adverse effects to northwestern pond turtle:

Mitigation Measure BIO-01: Avoid and Minimize Impacts to Northwestern Pond Turtle

Within 14 days prior to start of construction activities, a qualified biologist shall conduct presence/absence surveys for northwestern pond turtle in the un-named tributary to Alder Creek within 200-feet of the project site. If no northwestern pond turtles are observed in the survey area, construction activities may proceed. If northwestern pond turtles are observed in the survey area, no construction activities may commence until an appropriate course of action is established in consultation with CDFW.

Nesting Birds

Common bird species protected by the Migratory Bird Treaty Act (MBTA) and/or Fish and Game Code may nest in or near the project site. All vegetation communities in the project site provide suitable nesting habitat for a variety of common bird species that are protected from disturbance during the nesting season by the MBTA and/or Fish and Game Code. If active nests are present at the time of construction, construction activities may result in injury or death of individual birds (e.g., shrubs or other vegetation containing active nests are removed), or harassment which may cause nesting birds to abandon active nests resulting in the loss of eggs or young. Any harassment, injury, or death of nesting birds, their nestlings, or eggs would be considered a significant impact.

The following mitigation measure would be implemented to avoid and minimize impacts to nesting birds:

Mitigation Measure BIO-02: Avoid and Minimize Impacts to Nesting Birds

If construction activities occur during the typical bird nesting season (February 15 through August 31), pre-construction nesting bird surveys shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. An additional survey shall be conducted within 48 hours prior to commencement of construction.

- If no nests are found, no further mitigation is required.

- If active nests are identified in these areas, the City shall coordinate with CDFW to develop measures to avoid disturbance of active nests prior to the initiation of any construction activities, or construction could be delayed until the young have fledged. Avoidance measures may include establishment of a buffer zone and monitoring of the nest by a qualified biologist until the young have fledged the nest and are independent of the site. If a buffer zone is implemented, the size of the buffer zone shall be determined by a qualified biologist in coordination with CDFW and shall be appropriate for the species of bird and nest location.

With implementation of the above mitigation measures, potential impacts to special-status species and nesting birds would be less than significant and no additional mitigation measures would be required.

Question b: Less than significant with Mitigation Incorporated. The proposed project would result in permanent removal of 0.38-acre of riparian vegetation along the un-named tributary to Alder Creek. The project has obtained a Lake or Streambed Alteration Agreement (LSA) from CDFW for proposed impacts to riparian habitat. The LSA includes general and project-specific conditions for protection of aquatic and riparian resources during construction. With implementation of the conditions of the LSA, potential impacts to riparian habitat would be less than significant.

The project has provided compensatory mitigation for impacts to riparian vegetation through purchase of 0.77 floodplain riparian credits at the CDFW-approved Cosumnes Floodplain Mitigation Bank in Sacramento County (Cosumnes Floodplain Mitigation Bank, 2018). No additional mitigation measures are necessary for riparian habitat and other sensitive natural communities.

Question c: Less than significant with Mitigation Incorporated. The proposed project would result in permanent impacts to 0.26 acre and temporary impacts to 0.087 acre of waters of the U.S. in the un-named tributary to Alder Creek. The project has obtained authorization from USACE for the proposed impacts to the un-named tributary to Alder Creek under Nationwide Permit Number 14. The authorization includes general conditions, regional special conditions, and project-specific conditions to minimize impacts to jurisdictional waters. With implementation of the conditions of the Nationwide Permit, potential impacts to jurisdictional waters would be less than significant.

The project has provided compensatory mitigation for impacts to waters of the U.S. through purchase of 0.77 floodplain riparian credits at the USFWS-approved Cosumnes Floodplain Mitigation Bank in Sacramento County (Cosumnes Floodplain Mitigation Bank, 2018).

All other potentially jurisdictional waters on and adjacent to the project site would be avoided. Runoff of sediment, solvents, fuel, or other hazardous materials from the project site into avoided waters, either during construction or operation of the proposed project, would constitute an adverse effect through reduction of water quality. The project would implement standard construction best management practices (BMPs) to control sediment, erosion, spills, and hazardous materials. With implementation of BMPs, potential impacts to avoided waters would be less than significant.

Question d: Less Than Significant Impact. The project site is primarily surrounded by development with narrow bands of open space separating it from US-50, Iron Point Road, Kaiser Permanente, and an office park. Lands north of Iron Point Road are densely developed, as are lands east of Kaiser Permanente and west of the office park; US-50 is a 6-lane freeway. The project site represents an isolated island of open space with no connectivity to other suitable habitat. No native wildlife nursery sites would be affected.

The proposed driveway connection to Iron Point Road would span the un-named tributary to Alder Creek in an open-bottom culvert that would not impede movement of aquatic animals up- and downstream of the crossing. The project would result in less than significant impacts to the movement of native resident wildlife or impede the use of native wildlife nursery sites, and no mitigation necessary.

Question e: Less Than Significant Impact. A total of 32 trees meeting the definition of protected tree under the City of Folsom tree preservation ordinance are rooted in, or overhang, the project site. The proposed project is designed to avoid ground disturbance inside the protected zone (dripline plus 12-inches) of all protected trees in or overhanging the project site. No trimming, pruning, or removal of protected trees is proposed. Inadvertent incursion of equipment, staging of materials, parking, or discharge of hazardous material in the protected zone of a tree could result in damage to the roots through soil compaction or contamination.

The following mitigation measure would be implemented to avoid and minimize impacts to protected trees:

Mitigation Measure BIO-03: Avoid and Minimize Impacts to Protected Trees

Prior to start of construction activities, a qualified biologist or arborist shall supervise the installation of orange construction fencing around the perimeter of the protected zone of all protected trees in or overhanging the project site and the fencing shall be depicted on construction plans as Environmentally Sensitive Area. All construction activities shall be excluded from the protected zones, including but not limited to parking of vehicles or equipment, storage of materials, and discharge of hazardous materials.

Question f: No Impact. No Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or state habitat conservation plan has been approved for the City of Folsom. Therefore, no impacts to an existing adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan will occur, and no mitigation is necessary.

V. CULTURAL RESOURCES

CULTURAL RESOURCES: Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

State and federal legislation requires the protection of historical and cultural resources. In 1971, President’s Executive Order No. 11593 required that all federal agencies initiate procedures to preserve and maintain cultural resources by nomination and inclusion on the National Register of Historic Places. In 1980, the Governor’s Executive Order No. B-64-80 required that state agencies inventory all “significant historic and cultural sites, structures, and objects under their jurisdiction which are over 50 years of age and which may qualify for listing on the National Register of Historic Places.” Section 15064.5(b)(1) of the CEQA Guidelines specifies that projects that cause “...physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historic resource would be materially impaired” shall be found to have a significant impact on the environment. For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project could impact a resource, it must be determined whether the resource is an historical resource, which is defined as a resource that:

(A) is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and,

(B) Meets any of the following criteria: 1) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; 2) is associated with the lives of persons important in our past; 3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or 4) has yielded, or may be likely to yield, information important in prehistory or history. The City of Folsom Standard Construction Specifications were developed and approved by the City of Folsom in May 2004 and updated in December 2014. They include Article 11 - Cultural Resources, which provides direction on actions to be taken in the event that materials are discovered that may ultimately be identified as a historical or archaeological resource, or human remains (City of Folsom 2014).

Cultural Background

Following is a brief summary providing a context in which to understand the background and relevance of resources that may occur in the general project area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview. Further details can be found in ethnographic studies, mission records, and major published sources.

Southern Maidu

At the time of European contact, the Southern Maidu tribe of California Native Americans, previously referred to as the Nisenan, occupied the project vicinity. The Southern Maidu occupied the drainages of the Yuba, Bear, and American rivers and the lower drainages of the Feather River, bounded by the west bank of the Sacramento River to the west, the crest of the Sierra Nevada to the east, a few miles south of the American River to the south. The northern boundary is not well established due to the Southern Maidu's linguistic similarity with neighboring groups but extended somewhere between the Feather and Yuba rivers (Kroeber 1925; Wilson and Towne 1978).

The Southern Maidu constructed villages on natural rises along streams and rivers ranging in size from three to fifty houses. The houses were typically dome or conical shaped and covered with earth, tule mats, or grasses, and major villages contained a semi-subterranean dance house structure covered by earth, tule, and brush (Wilson and Towne 1978). The Southern Maidu subsistence base varied and included gathering seeds and seasonal plant resources, hunting, and fishing. The Southern Maidu were not dependent on one staple, as their territory provided abundant year-round sources of different food. Acorns were a primary food source and were stored in granaries, in addition to buckeye nuts, digger and sugar pine nuts, and hazelnuts. Ethnographic reports indicate the Southern Maidu obtained large game such as deer, antelope, tule elk, mountain lions, and black bears, by game drives, snares, decoys, deadfalls, and bows and arrows. Rabbits and other small game were hunted with sticks, blunted arrows, traps, snares, nets, fire, and rodent hooks.

The Southern Maidu political organization was centered on the tribelet and each village was governed by a headman who served as an advisor and whose position was typically passed on patrilineally, although some chiefs were chosen by the villagers (Beals 1933; Wilson and Towne 1978). Very little contact existed for the Southern Maidu outside of their tribelet area, and outside contact was typically only for ceremonies, trade, and warfare (Beals 1933). Southern Maidu disposed of their dead by cremation and then burial, usually on the morning after the person died. The deceased person's property would be burned and their house moved or destroyed. After the cremation, the bones and ashes would be gathered and buried in the village cemetery. When a death occurred away from the person's village, they would be cremated where they died and their remains returned to their village to be buried (Wilson and Towne 1978).

Historic Background

The history of the northern Central Valley and Sierra Nevada foothills can be divided into several periods of influence; pertinent historic periods are briefly summarized below.

Spanish Period

The arrival and expansion of the Spanish did not have a significant effect on the Southern Maidu way of life, as contact with the Spanish was limited, and only in the southern edge of their territory. Spanish

exploration of the greater Southern Maidu territory occurred when José Canizares explored the adjacent Plains Miwok territory in 1776. There is no recorded history of any Southern Maidu being removed and forced into the Spanish Mission system as neophytes, unlike their Miwok neighbors (Wilson and Towne 1978). There are numerous accounts of neophytes fleeing the missions, and a series of “Indian Wars” broke out when the Spanish tried to return them to the missions (Johnson 1978). The Southern Maidu received some of the escaped mission neophytes and felt pressure on their southern borders from displaced Miwok villages.

Mexican Period

With the declaration of Mexican independence in 1821, Spanish control of Alta California ended, although little change actually occurred. Political change did not take place until mission secularization in 1834, when Native Americans were released from missionary control and the mission lands were granted to private individuals. Shoup and Milliken (1999) state that mission secularization exposed Native Americans to further exploitation by outside interests, often forcing them into a marginal existence as laborers for large ranchos. Following mission secularization, the Mexican population grew as the native population continued to decline. Anglo-American settlers began to arrive in Alta California during this period and often married into Mexican families, becoming Mexican citizens, which made them eligible to receive land grants. In 1846, on the eve of the U.S.-Mexican War (1846 to 1848), the estimated population of Alta California was 8,000 non-natives and 10,000 Native Americans. However, these estimates have been debated. Cook (1976) suggests the Native American population was 100,000 in 1850; the U.S. Census of 1880 reports the Native American population as 20,385.

European Expansion

Jedediah Smith was the first to explore the Central Valley in 1828, but other fur-trapping expeditions soon followed. In the late 1820s, American trappers, as well as ones from the Hudson’s Bay Company, began establishing camps in the Southern Maidu territory to trap beavers, an occupation that was said to have been peaceful (Wilson and Towne 1978). During this period, Native American populations were declining rapidly, due to an influx of Euro-American diseases. In 1832, a party of trappers from the Hudson’s Bay Company, led by John Work, traveled down the Sacramento River unintentionally spreading a malaria epidemic to Native Californians. This epidemic wiped out much of the Southern Maidu, and survivors moved into the hills. Four years later, a smallpox epidemic decimated local populations, and it is estimated that up to 75 percent of the Southern Maidu population died (Cook 1955).

After the upheaval of the Bear Flag Revolt in 1846, John Sutter sent James Marshall to construct a sawmill in the Sierra Nevada foothills at Coloma in 1847 (Severson 1973). In January of 1848, Marshall discovered gold near the Southern Maidu village of “Culloma”, (Coloma) which marked the start of the Gold Rush. The influx of miners and entrepreneurs increased the population of California, not including Native Californians, from 14,000 to 224,000 in just four years. This, in turn, stimulated commercial growth in the Sacramento Valley as eager entrepreneurs set up businesses to support the miners and mining operations. When the Gold Rush was over, many miners settled in the area and established farms, ranches, and lumber mills.

City of Folsom

The City of Folsom’s history can be traced back to 1847 when William Leidesdorff traveled to the Sacramento area to see the 35,000 acres he had purchased years earlier. Following Leidesdorff’s death

in 1848, US Army Captain Joseph Folsom purchased the land from Leidesdorff's heirs and with the help of Theodore Judah established a town site near the Negro Bar mining spot on the American River. Naming the town Granite City, the original plans were for a railroad terminus although at that time there were no railroad trains in northern California. Folsom died before the first railroad arrived in 1856 but the name of the town was changed Granite City to "Folsom" in his honor.

The town soon began to prosper with new hotels and businesses but the real boost to local economy came with the establishment of Folsom Prison in 1880 and the Folsom Powerhouse in 1895. Plans for Folsom Prison moved forward when the wealthy, Robert Livermore family offered to donate land in exchange for prison labor to build a hydro-electric dam across the American River to power a sawmill. Although the sawmill was never established, the family soon realized that force of the dammed water could be used to provide power to Sacramento and in 1895, Folsom made history when the first long-distance transmission of electricity spanned 22 miles from Folsom to Sacramento.

As Folsom continued to grow in size, bridges were constructed across the American River including the Truss Bridge in 1895 and the Rainbow Bridge in 1919. In 1945, the City of Folsom was incorporated and in 1955, Folsom Dam was constructed to provide hydroelectric power and recreation for the burgeoning local population. In the mid-1960s, Johnny Cash made the City of Folsom famous with his hit single "Folsom Prison Blues" coinciding with a time when the city's economy was centered around the prison. A huge economic boom came to Folsom in 1984 when Intel opened its vast campus and established itself as the largest private employer in the Sacramento area. In the 1990s, Folsom grew rapidly as a suburb community to Sacramento and it continues to grow today as an upscale community.

Record Searches and Pedestrian Survey Results

This section describes the existing cultural resource setting and potential effects from project implementation on the project site and its surrounding area. The results are based on a record search conducted at the North Central Information Center on March 7, 2018 and a pedestrian field survey conducted on March 12, 2018. This section assesses potential impacts related to historic resources, archaeological resources, and human remains.

North Central Information Center Record Search

To determine the presence of cultural and historical resources within the project area and a 0.25-mile radius, a record search was conducted at the North Central Information Center (NCIC) on March 12, 2018. The record search included a review of National Register of Historic Places (NR), the California Register of Historic Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest list, the California State Historic Resources Inventory (HRI) listings for Sacramento County, and the Archaeological Determinations of Eligibility (ADOE). Historic maps were also examined to gain insights into past developments and changes within the project area and its surroundings.

The NCIC results indicate that 32 historic resources have been recorded within the 0.25-mile search radius; one resource was recorded at the northern boundary of the project area (**Table 8**). The 32 historic resources are primarily mining related and include mining ditches, tailings, prospect pits, and quarries but there are also foundations and structures, a 1940s transmission line, foundations, roads, trails, walls and fences and water conveyance systems. One small pre-contact lithic scatter was also recorded within the radius.

The closest recorded site, Rhoads' Branch Ditch (P-34-001480), was recorded as an arch shape at the northern end of the project. A watercourse exists at the northern end of the project area, but map research indicates that this is probably part of a drainage/tributary associated with Alder Creek and not a man-made ditch. The 1944, 1955, 1960 and 1977 topographic maps all show the watercourse depicted by the same topographic map symbol – a blue line with three dots that is the USGS “intermittent stream” map symbol. No portion of the watercourse is depicted with a straight blue line with no dots which is the USGS map symbol for ditches. Additionally, the shape and form of the watercourse appears on the 1952-1966 aerials as a meandering stream not in the more linear shape of a intentionally constructed ditch. In addition, the photographs of the Rhoads' Branch Ditch included with the DPR forms do not look anything like the natural looking watercourse within the northern project area. The ditch photographs show straight, relatively shallow and narrow ditches that would have been the type dug for mining in the mid-1850s. The watercourse within the northern project area is not uniform in size but rather meanders more like a natural stream course. Therefore, it seems unlikely that the watercourse at the northern end of the project area is part of Rhoads' Branch Ditch.

Table 8. Historic Resources within 0.25-Miles of Project Site

RESOURCE NUMBER	AUTHOR; YEAR	TITLE/RESOURCE(S)
P-34-000335	S. Flint, M.L. Manieri S. Pappas, A. Perez, B. Lund, L. Fisher, C. Gross; 1992, 1995, 2012, 2013, 2015. R. Windmiller; 2005 and 2006. M. Lawson 2007. J. Nadolski, K. Lambert; 2004. S.G. Lindstrom, L. Lundemo, M. Panelli, J. Wells, N. Wilson K. Carpenter; 1992. M.A. Peak, 1999. R. Gerry, 1999. M.A. Peak, Oglesby, M. Marine, M. Waters; 1992. K.G.S; 1969. C. Arrington, 2011. T. Pitsenbergen; 2007. AECOM, 2014	Folsom Mining District
P-34-000461	W.A. Shapiro; 1989. M.L. Russo; 1986. J. Dougherty, D. Davis; 1994. R. Windmiller; 1999. M.L. Russo; 1986.	Natomas Ditch

	R. Gerry, M.A. Peak, N. Neuenschwander; 1990. M.A. Peak, J. Oglesby, M. Marine, M. Waters; 1992. D. Jones, E. Montes; 1991. D. McGowan, M.A. Peak Jones & Stokes Associates, Inc.; 1994. S. Pappas; 2010. Caltrans/JRP; 2000 M. Armstrong, D. Price, A. Monastero; 2012.	
P-34-000768	E.H. Derr, J. Dougherty; 1990	Mines/quarries/tailings – mining camp
P-34-000769	E.H. Derr, K. McIvers; 1990	Mines/quarries/tailings – mining camp
P-34-000770	E.H. Derr, K. McIvers; 1990	Mining camp
P-34-000774	E.H. Derr, K. McIvers; 1990. PAR Environmental Services; 1991. W. Pierce; 2014.	Mines/quarries/tailings – mining camp, lithic scatter
P-34-000780	JWD & ET; 1994	Stone fence
P-34-000790	E.H. Derr; 1990	Metal drum
P-34-001480	S.M. Jensen, R. McCann; 2005. R. Windmiller; 2006. S. Pappas, D. Quivey; 2012 E.H. Derr, K. McIvers; 1990. Syda, Shapiro, Ryan, and Thomas; 1990. J. Dougherty; 1994. R. Windmiller; 2006. M. Armstrong, D. Price, A. Monastero; 2012 S. Pappas; 2012. S.M. Jensen, R. McCann S. Pappas, D. Quivey; 2005. S. Pappas, D. Quivey ECORP Consulting, Inc.; 2013. M. Web, S. Pappas ECORP Consutling, Inc., 2015	Rhoads' Branch Ditch
P-34-001800	R. Windmiller, 2006. S. Pappas, M. Wood; 2012	Mines/quarries/tailings
P-34-001801	R. Windmiller, 2006.	Foundations/structure pads

	S. Pappas, D. Quivey ECORP Consulting, Inc; 2013.	
P-34-001802	R. Windmiller, 2006. S. Pappas, D. Quivey ECORP Consulting, Inc; 2013.	Roads/trails/railroad grades
P-34-001803	R. Windmiller, 2006. D. Quivey ECORP Consulting, Inc; 2012.	Mines/quarries/tailings
P-34-001806	R. Windmiller, 2006. S. Pappas, D. Quivey S. Pourfard ECORP; 2012. Consulting, Inc; 2012. S. Pappas, M. Webb; 2014.	Mines/quarries/tailings
P-34-001807	R. Windmiller, 2006. S. Pappas, D. Quivey ECORP; 2013.	Water conveyance system
P-34-001926	R. Windmiller; 2006. D. Quivey, S. Pourfard, ECORP; 2012.	AH06 (Water conveyance system) - drains; AH08 (Dams); AH09 (Mines/quarries/tailings); HP22 (Lake/river/reservoir) - ponds
P-34-002087	R. Windmiller; 2006. D. Quivey, S. Pourfard, ECORP; 2012.	Mines/quarries/tailings
P-34-002088	R. Windmiller;2006. S. Pappas, D. Quivey, ECORP; 2013	Foundations/structure pads
P-34-002089	R. Windmiller; 2006 D. Quivey, S. Pourfard, ECORP; 2012	Mines/quarries/tailings; prospectors pits
P-34-002091	R. Windmiller; 2006 S. Pappas, M. Woods, ECORP; 2012.	Mines/quarries/tailings
P-34-002195	L Westwood; 2008. L. Westwood;2011. K. Long and A Perez; 2012. S. Pappas; 2013.	1940s transmission line
P-34-002281	E.H. Derr, K. McIvers; 1990.	Mines/quarries/tailings
P-34-002287	E.H. Derr; 1990.	Mines/quarries/tailings
P-34-002288	E.H. Derr; 1990.	Pick head embedded in quartz
P-34-002291	J. Dougherty, D. Davis; 1994.	Mines/quarries/tailings

P-34-002292	J. Dougherty, D. Davis; 1994.	Mines/quarries/tailings
P-34-002293	J. Dougherty, D. Davis; 1994.	Mines/quarries/tailings; water conveyance system
P-34-002295	J. Dougherty, D. Davis; 1994.	Mines/quarries/tailings
P-34-002306	J.D. Tordoff, D.G. Noble S. Lindstrom; 1994.	AH02 (Foundations/structure pads); AH06 (Water conveyance system) - including drains; AH07 (Roads/trails/railroad grades); AH08 (Dams); AH09 (Mines/quarries/tailings); AH16 (Other) - hearth remnant; HP22 (Lake/river/reservoir) - pond
P-34-004518	K. Crawford; 2012	Engineering structure
P-34-004667	S. Pappas, ECORP; 2013. L. Westwood, ECORP; 2013 and 2014.	Rhoades Mining District. AH02 (Foundations/structure pads); AH04 (Privies/dumps/trash scatters); AH06 (Water conveyance system); AH07 (Roads/trails/railroad grades); AH08 (Dams); AH09 (Mines/quarries/tailings)
P-34-004757	S. Pappas, D. Quivey, ECORP; 2014	Water conveyance system

Sixteen reports have been prepared within the search radius, two of which included the project area (Table 9).

Table 9. Previously Recorded Cultural Resource Reports

REPORT NUMBER	AUTHOR; YEAR	TITLE
003840	J. Tordoff;1994	Proposed Interchange and Auxiliary Lanes Highway 50
003925	E.H. Derr;1990	The Broadstone Master Plan Project: Final Report
003925B	ASI; 1995	Broadstone II Master Plan
003942	R. Windmiller; 1997	Evaluation of Cultural Resources Willow Springs Development, Folsom, Sacramento County
004521	D. Nove; 1994	HPSR for Proposed Interchange Hwy 50 in Eastern Sacramento County, 03-SAC-50
008736	R. Windmiller; 2006	Carpenter Ranch Cultural Resources Inventory, Folsom, Sacramento County
009185	D. Jones et al; 1991	A Cultural Resources Study for the Folsom East Area Facilities Plan and Portions of the Sewer and Water Line System

009579	C. Losee;2008	Submission Packet FCC Form 621 for existing Telecommunications Facility, Folsom AT&T
011136	L. Billat; 2012	Collocation Submission Packet FCC Form 621
011161	K. Crawford; 2012	Direct APE Historic Architectural Assessment for T-Mobile Candidate SC06934A, Folsom, Sacramento County
011164	C. Wills; 2012	Cultural Resources Record Search and Site Visit for T-Mobile Candidate SC06934A, Folsom, Sacramento County
011408	L. Westwood et al.; 2012	Cultural Resources Testing and Evaluation Report for the Carpenter Ranch Permit Area, Folsom South of US Hwy 50 Specific Plan Project
011728	L Westwood et al.; 2014	Historic Property Treatment Plan for the Non-Backbone Prairie City Road Business Park Permit Area, Folsom South of U.S. Highway 50 Specific Plan Project Sacramento County, California
011894	L. Westwood and K. Knapp; 2014	Finding of Effect Report for the Arcadian Heights APE Folsom South of U.S. Highway 50 Specific Plan Project Sacramento County, California
012049	L. Westwood; 2015	Light Detection and Ranging (LIDAR) data for the Folsom South of U.S. Highway 50 Specific Plan Project. Generated in compliance with Section 4.4 of the approved (August 2013) Historic Property Treatment Plan for the Backbone Infrastructure permit area (SPK-2007-02159).
012053	L. Westwood; 2015	Data Recovery Report for Archaeological Sites in the Backbone Infrastructure Area of Potential Effects, Folsom South of U.S. Highway 50 Specific Plan Project, Sacramento County, California, ECORP Project No. 2005-429.6
012088	L. Westwood and K. Knapp; 2015	Historic Property Treatment for the Non-Backbone Prairie City Road Business Park Permit Area, Folsom South of U.S. Highway 50 Specific Plan Project, Sacramento County, California (ECORP Project No. 2009-

Pedestrian Survey

On March 12, 2018, HELIX Senior Archaeologist, Carrie Wills, M.A., RPA, conducted a pedestrian survey of the proposed project area. The survey consisted of walking 10- to 15-meter transects within the project area, where possible. Ground surface visibility was poor due to the density of the grassy vegetation, trees and wild flowers as well as one area that was covered with water. The project area

exhibited poor visibility as the newly sprouted grassy vegetation was dense and ankle deep in some locations.

A portion of what is believed to be a tributary or part of Alder Creek is noted at the bottom of the hill in the northern portion of the project. In this area there were a few small patches of visible ground surface consisting primarily of mud, sand, and angular rocks. Most of this area was inaccessible due to fallen trees, branches, reedy vegetation, and standing water. There were two areas about mid-way down the hill with stands of oak trees that are visible on the 1952 aerial map. These stands were examined closely but visibility was poor due to very thick, weedy vegetation.

During the course of the pedestrian survey, no pre-contact or historic era resources were discovered.

Review of historic aerial maps dating from 1952 through 1998 and topographic maps dating from 1955 to 1980 indicate there were no structures within or adjacent to the project area. The first structures appear north of what is now Iron Point Road in 1998 but no structures are adjacent to the project area until 2002.

Evaluation of Cultural Resources

Question a: Less than Significant with Mitigation. Review of historic aerial maps dating from 1952 through 1998 and topographic maps dating from 1944 to 1980 indicate there were no structures within or adjacent to the project area. Although no historic-age resources, were discovered during the course of the field survey, there is always the possibility that previously unknown historic resources exist below the ground surface. Therefore, implementation of standard cultural resource construction mitigation (Mitigation Measure CUL-01) would ensure that this impact is less than significant.

Standard Construction Specifications were developed and approved by the City of Folsom on May 25, 2004. They include Article 11 – Cultural Resources, which provides direction on actions to be taken in the event that materials are discovered that may ultimately be identified as a historical or archaeological resource or human remains (City of Folsom 2004).

Mitigation Measure CUL-01: Avoid and minimize impacts to previously unknown historic resources.

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried historic resources. In the event that buried historic resources are discovered during construction, construction operations shall stop within a 100-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Historic resources could consist of, but are not limited to, stone, wood, or shell artifacts, structural remains, privies, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

Question b: Less than Significant with Mitigation. One pre-contact resource, a lithic scatter, has been recorded approximately 150 meters southwest of the project. Therefore, the project area may have

some sensitivity for Native American resources. However, no pre-contact resources were discovered during the field survey. As mentioned above, no historic era buildings or structures have been recorded within the project area dating back to 1944.

It is possible that subsurface excavation activities may encounter previously undiscovered archaeological resources. The implementation of standard cultural resource construction mitigation (Mitigation Measure CUL-2) would ensure that this impact is less than significant.

Mitigation Measure CUL-02: Avoid and minimize impacts to previously unknown archaeological resources.

It is always possible that ground-disturbing activities during project development may uncover previously unknown archaeological resources. In the event that archaeological resources are discovered during construction, construction operations shall stop within a 100-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to, excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Archaeological resources could consist of, but are not limited to, stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.

Question C: No Impact. The proposed project area is not located in an area that is considered likely to have paleontological resources present. Paleontological resources (fossils) are the remains and/or traces of prehistoric life. Fossils are typically preserved in layered sedimentary rocks, and the distribution of fossils is a result of the sedimentary history of the geologic units within which they occur. Vertebrate fossils have been documented in nine different locations within Sacramento County. The finds encompass several hundred specimens, all within the Riverbank Formation. Because of the large number of vertebrate fossils that have been recovered from the Riverbank Formation from Sacramento County and throughout the Central Valley, this formation is considered to have high sensitivity under criteria established by the Society of Vertebrate Paleontology (1995). Likewise, the Mehrten and Lone formations located within the 2035 Plan Evaluation Area may be considered to be sensitive for the presence of paleontological resources. Other geologic formations found in the 2035 Folsom Plan Evaluation Area, such as the Laguna Formation, mine/dredge tailings, and Holocene alluvium along local drainage features, would not be expected to contain fossils.

Fossils of plants, animals, or other organisms of paleontological significance have not been discovered within the project area, nor has the project area been identified as being within any of the areas mentioned above where such discoveries are likely. Review of the *Geologic Map of Sacramento, California* (Gutierrez 2011), indicates the project area is within Gabbro/Metagabbro rock which is igneous rock that does not support fossil formation. Therefore, the project would not result in impacts to paleontological resources or unique geologic features.

Question D: Less than Significant with Mitigation. No human remains are known to exist within the project area nor were there any indications of human remains found during the field survey. However, there is always the possibility that subsurface construction activities associated with the proposed

project, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. Accordingly, this is a potentially significant impact. However, if human remains are discovered, implementation of Mitigation Measure CUL-3 would reduce this potential impact to a less than significant level.

Mitigation Measure CUL-03: Avoid and minimize impacts related to accidental discovery of human remains.

In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines § 15064.5; Health and Safety Code § 7050.5; Public Resources Code § 5097.94 and § 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within a 100-foot radius of the potentially human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance:
 - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.
 - The descendant identified fails to make a recommendation.
 - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

VI. GEOLOGY AND SOILS

GEOLOGY AND SOILS:					
Would the project:		Potential Impact	Less Than Significant with Mitigation	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 Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii.	Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii.	Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv.	Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Be located on a geologic 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Geology and Soils section of this document is based upon the approach, methodology, results, and conclusions outlined in the proposed project’s Geotechnical Investigation report prepared by Geocon Consultants, Inc. (2018). The geotechnical report is included as **Appendix D**.

Geology

The project area is at the base of the western Sierra Nevada foothills, and is underlain by metamorphic rocks. Site geology consists of existing fill within the northern portion of the site north of the pond and Jurassic-age Gopher Ridge Volcanics (Jgo) and Salt Springs Slate bedrock (Jss) (Geocon Consulting 2017).

The Foothill fault system is located along the western slope of the Sierra Nevada, and is the nearest source of seismic activity to the project site. The Bear Mountain Fault, four miles east of Folsom, is a potentially active trace of the Foothills fault system. Although historic seismic activity has been minor

along this fault, the potential for strong ground shaking is present. An earthquake on the Bear Mountain fault could cause bedrock accelerations up to 0.35 g (acceleration of gravity).

The State Division of Mines and Geology has published a map of maximum potential earthquake intensities for California. The project area is within seismic risk Zone 3. A maximum credible earthquake (Richter scale magnitude 6.5) on the Bear Mountain Fault could cause ground shaking of modified Mercalli scale intensity VII or greater, and subsequently cause major damage to structures and injury to people (Folsom, USBR 1992).

The Alquist-Priolo Earthquake Fault Zone Act was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. No active or potentially active faults are located within the project site or in the project vicinity as mapped under the Act (California Department of Conservation 2018).

Soils

Soils on the project site are mapped entirely as an Argonaut-Auburn complex, site elevations range from approximately 340 feet above mean sea level (MSL) (Map Unit 107; NRCS 2016). The permeability of the B horizon is moderately slow, and the soil is well drained. The Argonaut-Auburn complex developed on erosional remnants of the Copper Hill volcanic and metasediments of the Mariposa Formation, which form low-rounded hills. Adequate drainage is imperative to reduce the potential for differential soil movement, detrimental soil expansion, erosion, and subsurface seepage. Care should be taken to properly grade the finished surface around the building after the structure and other improvements are in place, so that drainage water is directed away from building and toward the street or other appropriate drainage facilities. Final soil grade should slope a minimum of 2 percent away from structures (Geocon Consulting 2017).

City Regulation of Geology and Soils

The City of Folsom regulates the effects of soils and geological constraints on urban development primarily through enforcement of the California Building Code, which requires the implementation of engineering solutions for constraints to urban development posed by slopes, soils, and geology. The City has additionally adopted a Grading Code (Folsom Municipal Code Section 14.29) that regulates grading citywide to control erosion, storm water drainage, revegetation, and ground movement.

Evaluation of Geology and Soils

Question a (i): No Impact. There are no active or potentially active faults located within the project site, or in the project vicinity as mapped under the Alquist-Priolo Earthquake Fault Zone Act (Department of Conservation 2018). Because no faults underlie the project site, no impact would result and no mitigation would be necessary.

Question a (ii): Less than Significant Impact. The project area is within seismic risk Zone 3, and a maximum credible earthquake on the Bear Mountain Fault could cause groundshaking of modified Mercalli scale intensity VII or greater, and subsequently cause major damage to structures and injury to people within the project area. While earthquake-induced groundshaking could occur in the project vicinity, historically, seismic activity in the Folsom area has been limited. Further, the proposed project

would be constructed in accordance with standards imposed by the City of Folsom through the Grading Code, and in compliance with California Building Code requirements. Potential impacts would be reduced to levels considered acceptable in the City and region. As a result, the project would not expose people or structures to substantial adverse effects of seismic events. This would be a less than significant impact and no mitigation would be required.

Question a (iii) Less than Significant Impact. Liquefaction is a process by which water-saturated materials, such as soil and sediment, lose strength and fail during strong ground shaking. Liquefaction occurs when granular material is transformed from a solid state into a liquefied state as a consequence of increased water pressure. Liquefaction is most commonly induced by strong ground shaking associated with earthquakes.

Factors that contribute to liquefaction potential include soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Liquefaction can occur where unconsolidated sediments and a high water table coincide. Loose sands and peat deposits are susceptible to liquefaction, while clayey silts, silty clays, and clays deposited in fresh water environments are generally stable under the influence of seismic ground shaking. According to the soils mapping for the site, the Argonaut-Auburn complex soils onsite have a depth to the water table greater than 80 inches (NRCS 2016).

The soils on the project site do not contain the characteristics typical of soils most susceptible to liquefaction, and because the depths to groundwater are more than 80 inches below the ground surface, it is unlikely that the proposed project would be exposed to liquefaction hazards. Further, the proposed project would be constructed in accordance with standards imposed by the City through the Grading Code, and in compliance with California Building Code requirements. Compliance with these regulations would further reduce potential impacts related to liquefaction. Impacts as a result of seismic-related ground failure or liquefaction hazard at the project site would be less than significant and no mitigation would be required.

Question a (iv): Less than Significant Impact. There is a potential that the proposed project could be exposed to the effects of earthquake-induced ground shaking; however, standards imposed by the City of Folsom through the Grading Code, and compliance with California Building Code requirements, would reduce this potential impact to levels considered acceptable in the City and region. Likewise, the moderate potential effects from weak soils and water erosion hazards would be minimized through implementation of these standards. There would be no potential for impacts associated with rupture of a known earthquake fault, and less than significant impacts associated with strong seismic ground shaking, seismic-related ground failure, landslides, soil erosion or loss of topsoil, unstable soils, and expansive soils. Overall impacts would be less than significant and no mitigation would be required.

Question b: Less than Significant Impact. Soils on the project site are well drained; however, have a high runoff potential, which would indicate a higher potential for water erosion. Ground disturbing activities during construction of the project would further increase the potential for soil erosion.

The California Building Code and the City's Grading Code and standard conditions for approval contain requirements to minimize or avoid potential effects from water erosion hazards. As a condition of approval, prior to the issuance of a grading or building permit, the City would require the applicant to prepare a soils report, a detailed grading plan, and an erosion control plan by a qualified and licensed engineer. The soils report would identify soil hazards, including potential impacts from erosion. The City

would be required to review and approve the erosion control plan based on the State of California Department of Conservation's "Erosion and Control Handbook." The erosion control plan would identify protective measures to be implemented during excavation, temporary stockpiling, disposal, and revegetation activities.

Further, projects resulting in one or more acre of ground disturbance require a General Construction Activity Stormwater Permit and a National Discharge Elimination System (NPDES) permit from the State Water Resources Control Board (SWRCB). Use of the permit requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) for approval by the SWRCB. The plan would contain best management practices to reduce potential impacts to water quality during construction of the project. Compliance with the City's regulations, the California Building Code requirements, and implementation of the SWPPP would reduce potential impacts related to soil erosion from water to less than significant and no mitigation would be required.

Question c: Less than Significant Impact. The project site is mapped as Argonaut-Auburn complex (Unit 107), and NRCS does not have information regarding the stability of this soil type (NRCS 2016). The project area is not noted for unstable geologic formations susceptible to landslide, lateral spreading, subsidence, liquefaction, or collapse. Compliance with the City's regulations and the California Building Code would minimize potential impacts from weak or unstable soils. Therefore, impacts related to unstable soils would be less than significant, and no additional mitigation would be necessary.

Question d: Less than Significant Impact. Expansive soils shrink and swell in response to changes in moisture levels. The changes in soil volumes can result in damage to structures including building foundations, and infrastructure, if the project design does not appropriately accommodate the changing soil conditions. The project site is mapped as Argonaut-Auburn complex (Unit 107), and NRCS does not have information regarding the shrink-swell of this soil type (NRCS 2016). The proposed project would be designed to meet seismic safety requirements specified in the California Building Code, including standards to minimize impacts from expansive soils. Therefore, impacts related to the potential hazards of construction on expansive soils would be less than significant, and no mitigation would be required.

Question e: No Impact. The proposed project would be served by a community wastewater system and no on-site wastewater disposal would occur. No significant impacts from or to geophysical features or hazards would occur with implementation of the proposed project and no mitigation is required.

VII. GREENHOUSE GAS EMISSIONS

GREENHOUSE GAS EMISSIONS:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Climate change refers to any significant change in measures of climate, such as average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have recently been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth’s surface; this is attributed to an accumulation of greenhouse gas (GHG) emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth’s surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through fossil fuel combustion in conjunction with other human activities appears to be closely associated with global warming.

GHGs, as defined under California’s Assembly Bill 32 (AB 32), include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by either regulatory bodies, such as CARB, or climate change groups, such as the Climate Registry, as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, or aerosols is provided.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO₂. For example, since CH₄ and N₂O are approximately 25 and 298 times more powerful than CO₂, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO₂ has a GWP of 1). Carbon dioxide equivalent (CO₂e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO₂e. The atmospheric lifetime and GWP of selected GHGs are summarized in **Table 10**.

Table 10. Global Warming Potentials and Atmospheric Lifetimes

GREENHOUSE GAS	ATMOSPHERIC LIFETIME (years)	GLOBAL WARMING POTENTIAL (100-year time horizon)
Carbon Dioxide (CO ₂)	50.0–200.0	1
Methane (CH ₄)	12.0	25
Nitrous Oxide (N ₂ O)	114.0	298
HFC-134a	14	1,430
PFC: Tetrafluoromethane (CF ₄)	50,000.0	7,390
PFC: Hexafluoroethane (C ₂ F ₆)	10,000.0	12,200
Sulfur Hexafluoride (SF ₆)	3,200.0	22,800
Carbon Dioxide (CO ₂)	50.0–200.0	1
Methane (CH ₄)	12.0	25
Nitrous Oxide (N ₂ O)	114.0	298
HFC-134a	14	1,430

HFC: hydrofluorocarbons; PFC: perfluorocarbons

Source: IPCC 2007

Regulatory Framework Relating to Greenhouse Gas Emissions

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is a source of substantial amounts of GHG emissions. The statute states that:

Global warming poses a serious threat to the economic wellbeing, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to help avert these potential consequences, AB 32 established a State goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 16 percent from forecasted emission levels, with further reductions to follow (CARB 2011). In addition, AB 32 required CARB develop a Scoping Plan to help the state achieve the targeted GHG reductions. In 2015, Executive Order (EO) B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in AB 32. As a follow-up to AB 32 and in response to EO-B-30-15, Senate Bill (SB) 32 was passed by the California legislature in 2016 to codify the EO's California GHG emission reduction target of 40 percent below 1990 levels by 2030.

In 2008, CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing VMT and vehicle GHG emissions through fuel and

efficiency measures. These measures would be implemented statewide rather than on a project by project basis. In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets.

The most recent 2017 Climate Change Scoping Plan Update, Proposed Strategy for Achieving California’s 2030 Greenhouse Gas Target, was adopted in December 2017. The Scoping Plan Update establishes a proposed framework for California to meet a 40 percent reduction in GHGs by 2030 compared to 1990 levels. This is the most aggressive climate target in North America and aligns California with the rest of the world in fighting climate change. The Proposed Plan would continue to move California towards a sustainable future while shifting dependence away from fossil fuels. The Plan would build on the Cap-and-Trade Regulation, Low Carbon Fuel Standard program, and continue to increase the use of renewable energy through cleaner cars, trucks and freight movement, and reduce agricultural and waste methane emissions by utilizing it for energy needs. The Proposed Plan also addresses for the first time the GHG emissions from agriculture and forestry sectors along with other natural and working lands of California (CARB2017).

Evaluation of Greenhouse Gas Emissions

Question a: Less than Significant Impact.

Construction

Construction GHG emissions are generated by vehicle engine exhaust from construction equipment, on-road hauling trucks, vendor trips, and worker commuting trips. Construction GHG emissions were calculated by using CalEEMod Version 2016.3.2; the model is described in Section III, Air Quality. Input details are provided in **Appendix B**. The results are output in metric tons of CO₂e (MT CO₂e) for each year of construction. The estimated construction GHG emissions for the project are shown in **Table 11**. The proposed project would generate less than significant levels of the GHGs.

Table 11. Estimated Annual GHG Emissions from Project Construction

YEAR	EMISSIONS (MT CO₂e)
2018	124
2019	395
2020	175
<i>SMAQMD Threshold</i>	<i>1,100</i>
Threshold Exceeded?	No

Source of emissions: CalEEMod output (Appendix B)
 MT CO₂e: metric tons of carbon dioxide equivalent

Operation

Operational GHG emissions for the proposed project are estimated by including purchased electricity; natural gas use for space and water heating; the electricity embodied in water consumption; the energy associated with solid waste disposal; and mobile source emissions. CalEEMod incorporates local energy emission factors and mitigation measures based on the California Air Pollution Control Officers

Association's (CAPCOA's) publication Quantifying Greenhouse Gas Mitigation Measures (CAPCOA 2010) and the California Climate Action Registry General Reporting Protocol (CCAR 2009). CalEEMod data sheets and details of the electricity and water use calculations are included in **Appendix B**. The results of the calculations are shown in **Table 12**. As shown therein, the total operational GHG emissions at buildout of the proposed project are estimated at 976 MT CO₂e/yr which is less than the SMAQMD threshold of significance. Therefore, the project's impacts related to GHG emissions would be less than significant.

Table 12. Estimated Annual GHG Emissions from Project Operation

SOURCE	EMISSIONS (MT CO ₂ e)
Area	3
Energy	282
Mobile	612
Waste	57
Water	22
Total	976
<i>SMAQMD Threshold</i>	<i>1,100</i>
Threshold Exceeded?	No

Source of emissions: CalEEMod output (Appendix B)
MT CO₂e: metric tons of carbon dioxide equivalent

Question b: Less than Significant Impact. In accordance with SMAQMD's Guide, project emissions should be evaluated with respect to consistency with the following plans that have been adopted to reduce GHG emissions:

1. AB 32 and the Scoping Plan; and,
2. The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).

The SMAQMD's recommended thresholds and mitigation measures were developed to show consistency with AB 32 and the Scoping Plan. As discussed in response to Question VII(a) above, project generated emissions would be below the SMAQMD significance threshold. Therefore, the proposed project would be consistent with AB 32 and the Scoping Plan.

The MTP/SCS relies on information from the Sacramento Area Council of Governments (SACOG), including projected growth in the County. The SACOG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by SACOG would be consistent with the MTP/SCS. The project is a senior housing facility that does not extend infrastructure to previously undeveloped areas, nor is the project of a magnitude, either in terms of employment (e.g., construction and leasing/operations) or number of available units, that would cause significant numbers of people to relocate to the area solely for the purpose of being close to the site. Based on these considerations, the project would not induce population growth in the community that exceeds the levels anticipated in plans adopted by the County. Therefore, the project would not exceed SACOG's population, housing, or employment projections. The proposed project is consistent with the MTP/SCS.

VIII. HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS:			Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:	Potential Impact				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site is currently undeveloped and has no past land uses associated with potentially hazardous sites. The schools located nearest to the project site are: Folsom High School, located approximately 0.92-miles west of the project site; Sandra J. Gallardo Elementary School, located approximately 1.20-miles west of the project site; and, Gold Ridge Elementary School, located 0.5-miles north of the project site.

The following databases were reviewed for the project site and surrounding area to identify potential hazardous contamination sites: the U.S. EPA’s Envirofacts website database (EPA 2018); California Department of Toxic Substance Control’s Hazardous Waste and Substances Site List (California Department of Toxic Substances Control 2018); and, the U.S. EPA’s Superfund National Priorities List

(EPA 2018). Based on the results of the databases reviewed, the project site is not listed as a hazardous waste site.

Federal and state laws include provisions for the safe handling of hazardous substances. The federal Occupational Safety and Health Administration (OSHA) administers requirements to ensure worker safety. Construction activity must also be in compliance with the California OSHA regulations (Occupational Safety and Health Act of 1970).

Evaluation of Hazards and Hazardous Materials

Question a, b, c: Less than Significant Impact. No existing hazardous materials have been identified on the project site, and the site has no history of past land uses associated with potentially hazardous sites. Development of the project site from undeveloped to residential land uses would result in an increase in the generation, storage, and disposal of hazardous wastes. During project construction, oil, gasoline, diesel fuel, paints, solvents, and other hazardous materials may be used. If spilled, these substances could pose a risk to the environment and to human health.

Following construction, household hazardous materials such as various cleansers, paints, solvents, pesticides, pool chemicals, and automobile fluids would be expected to be used. The routine transport, use, and disposal of hazardous materials are subject to local, state, and federal regulations to minimize risk and exposure. The potential risk of exposure or impacts from transport, use, and disposal of hazardous materials to schools and other nearby sensitive receptors would be minimized by implementation of the regulations.

Further, the City has set forth its hazardous materials goals and policies in the Hazardous Materials Element of the General Plan. The policies protect the health and welfare of residents of Folsom through management and regulation of hazardous materials in a manner that focus on preventing problems. The potential for risks associated with the accidental release of hazardous materials during routine transport, use, or disposal would be less than significant for questions a) through c).

Question d: No Impact. The project site is not included on the lists of hazardous materials sites compiled by Sacramento County pursuant to Government Code Section 65962.5 (California Department of Toxic Substances Control 2018) or the U.S. EPA (EPA 2018), or the U.S. EPA's Superfund National Priorities List (EPA 2018). Therefore, no significant hazard to the public or environment would result with project implementation. No impact would occur, and no mitigation is necessary.

Question e, f: No Impact. The project site is not located in an Airport Land Use Plan area, and no public or private airfields are within two miles of the project site; therefore, the project would not result in a safety hazard for people residing or working in the project area. No impact would occur, and no mitigation is necessary for questions e) and f).

Question g: Less than Significant Impact. Consistent with the City's Multi-Hazard Emergency Management Plan, the City of Folsom maintains pre-designated emergency evacuation routes along major streets and thoroughfares (City of Folsom 2005). No aspect of the proposed project would modify these streets or preclude their continued use as an emergency evacuation route. The proposed project would not result in an increased concentration of large numbers of persons in any at-risk location, and the proposed project would not have a significant impact on any emergency plans. Thus, no significant impact would occur, and no mitigation would be necessary.

Question h: Less than Significant Impact. The project site is located in the City of Folsom, and it is provided urban levels of fire protection by the City. Therefore, the proposed project would not increase the risk of wildland fires. No significant impact would occur, and no mitigation is necessary.

IX. HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER QUALITY:					
Would the project:		Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j)	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The project site consists of undeveloped land with an oak grove in the middle of the parcel. North of the project is an existing pond and the project site for the proposed Country House at Broadstone memory care community, commercial and business centers to the east and west, and an undeveloped parcel containing an oak woodland and rolling hills to the south.

Precipitation is the only apparent source of surface water for the project site. No developed storm drainage features are constructed on the project site. Because the project site is currently undeveloped, implementation of the project would result in an increase of impervious surface area and channelization of storm water runoff, the rates and volumes of which would increase. However, this is a normal consequence associated with development, and as shown in the preliminary grading plans for the project, the drainage patterns would be designed to not impact adjoining properties. On-site run-off will flow to the underground storm water drainage system. Underground storm water treatment facilities would be installed to capture and treat runoff from the parking area prior to discharge to the open space south of the project site. The project would incorporate standard best management practices (BMP) to maintain existing water quality in accordance with City regulations.

Federal Emergency Management Agency (FEMA) flood insurance rate maps were reviewed for the project's proximity to a 100-year floodplain. The proposed project is on FEMA panel 06067C0119H, effective August 16, 2012. The project site is not located within a 100-year floodplain (FEMA 2012).

The site is not located in an area of important groundwater recharge. Domestic water in the City is provided solely by surface water sources. The City is the purveyor of water to the area in which the project is located.

Regulatory Framework Relating to Hydrology and Water Quality

The City is a signatory to the Sacramento Countywide National Pollutant Discharge Elimination Program (NPDES) permit for the control of pollutants in urban stormwater. Since 1990, the City has been a partner in the Sacramento Stormwater Quality Partnership, along with the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Galt, and Rancho Cordova. These agencies are implementing a comprehensive program involving public outreach, construction and industrial controls (i.e., BMPs), water quality monitoring, and other activities designed to protect area creeks and rivers. This program would be unchanged by the proposed project, and the project would be required to implement all appropriate program requirements.

In addition to these activities, the City maintains the following requirements and programs to reduce the potential impacts of urban development on stormwater quality and quantity, erosion and sediment control, flood protection, and water use. These regulations and requirements would be unchanged by the proposed project.

Standard construction conditions required by the City include:

- *Water Pollution* – requires compliance with City water pollution regulations, including NPDES provisions.
- *Clearing and Grubbing* – specifies protection standards for signs, mailboxes, underground structures, drainage facilities, sprinklers and lights, trees and shrubbery, and fencing. Also requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) to control erosion and siltation of receiving waters.
- *Reseeding* – specifies seed mixes and methods for reseeded of graded areas.

Additionally, the City enforces the following requirements of the Folsom Municipal Code as presented in Table 13.

Table 13. City of Folsom Municipal Code Sections Regulating the Effects on Hydrology and Water Quality from Urban Development

CODE SECTION	CODE NAME	EFFECT OF CODE
8.70	Stormwater Management and Discharge Control	Establishes conditions and requirements for the discharge of urban pollutants and sediments to the storm-drainage system; requires preparation and implementation of Stormwater Pollution Prevention Plans.
13.26	Water Conservation	Prohibits the wasteful use of water; establishes sustainable landscape requirements; defines water use restrictions.
14.20	Green Building Standards Code	Adopts the California Green Building Standards Code (CALGreen Code), 2010 Edition, excluding Appendix Chapters A4 and A5, published as Part 11, Title 24, C.C.R. to promote and require the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices.
14.29	Grading Code	Requires a grading permit prior to the initiation of any grading, excavation, fill or dredging; establishes standards, conditions, and requirements for grading, erosion control, stormwater drainage, and revegetation.
14.32	Flood Damage Prevention	Restricts or prohibits uses that cause water or erosion hazards, or that result in damaging increases in erosion or in flood heights; requires that uses vulnerable to floods be protected against flood damage; controls the modification of floodways; regulates activities that may increase flood damage or that could divert floodwaters.
14.33	Hillside Development	Regulates urban development on hillsides and ridges to protect property against losses from erosion, ground movement and flooding; to protect significant natural features; and to provide for functional and visually pleasing development of the city's hillsides by establishing procedures and standards for the siting and design of physical improvements and site grading.

Source: Folsom Municipal Code July 2011

Evaluation of Hydrology and Water Quality

Questions a, c, d, e, f: Less than Significant Impact. Ground disturbing activities associated with construction of the proposed project, would include additional clearing and grading the project site. Modifications to the existing drainage patterns may result in localized flooding, and an increase in impervious surfaces may result in an increase in the total volume and peak discharges of stormwater runoff which may contribute to downstream erosion and flooding. Construction of the proposed project has the potential to degrade water quality associated with urban runoff. Ground disturbing activities

would expose soil to erosion and may result in the transport of sediments which could adversely affect water quality.

Modifications to the onsite drainage resulting in on-or off-site erosion, pollutants, flooding, and/or otherwise substantially degrade water quality would be a potentially significant impact. The proposed project would be required to comply with various State and local water quality standards which would ensure the proposed project would not violate water quality standards or waste discharge permits, or otherwise substantially degrade water quality. The proposed project would be subject to NPDES permit conditions which include the preparation of a Storm Water Pollution Prevention Plan. As described above, the proposed project would also be subject to all of the City's standard Code requirements, including conditions for the discharge of urban pollutants and sediments to the storm drainage system, and restrictions on uses that cause water or erosion hazards.

Further, prior to the issuance of grading and building permits, the applicant would be required to submit to the City a drainage plan that shows how project BMPs capture storm water runoff during project operations. Compliance with these requirements would ensure that water quality standards and discharge requirements are not violated, and water quality is protected. Impacts would be less than significant and no mitigation would be necessary for questions a), c), d), e), and f).

Question b: Less than Significant Impact. Implementation of the proposed project would not result in the use of groundwater, because domestic water in the City is provided solely from surface water sources from the Folsom Reservoir. While the proposed project would result in additional impervious surfaces on the site that could affect groundwater recharge, the site is not known to be important to groundwater recharge. Further, because the proposed project would not rely on groundwater for domestic water and irrigation purposes, and the site is not an important area of groundwater recharge, the proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or a lowering of the local groundwater table. No significant impacts would occur, and no mitigation would be necessary.

Question g and h: No Impact. Because the project site is located outside of a 100-year floodplain, development of the proposed project would not place persons or structures at risk from flood hazards, nor would it interfere with existing floodway capacity. Thus, no impacts would occur and no mitigation would be necessary for questions g) and h).

Question i: Less than Significant Impact. The proposed project would not expose new development to inundation in the event of the failure of a dam. Should either of the City's two main dams (Folsom Lake and Mormon Island) fail, failure would most likely occur with adequate warning to evacuate residents. The project is required to adhere to City established evacuation plans reviewed by the Reclamation District that establish protocol in the event of the dam failure. With implementation of the evacuation plan, the impact would be less than significant and no mitigation would be necessary.

Question j: Less than Significant Impact. The City of Folsom is located approximately 95-miles from the Pacific Ocean, at elevations ranging from approximately 140 to 828 feet above mean sea level (amsl). Because of this, there would be no possibility of inundation by tsunami. The City is located adjacent to Folsom Lake, a reservoir of the American River impounded by a main dam on the river channel and wing dikes. Areas of the City adjacent to the wing dikes could be adversely affected by a seiche as a result of an earthquake, either through sloshing within a full reservoir or by a massive landslide or earth movement into the lake. Although historic seismic activity has been minor, the potential for strong

ground shaking is present and the possibility exists of a strong earthquake occurring when lake levels are high. This could create a large enough wave to overtop or breach the wing dikes although this is considered to be a remote possibility.

Mudslides and other forms of mass wasting occur on steep slopes in areas having susceptible soils or geology, typically as a result of an earthquake or high rainfall event. Slopes associated with the edges of the building pads are located on the project site; however, City grading standards, including requirements to evaluate slope stability and implement slope stabilizing measures as necessary, would prevent this potential effect. In summary, there would be no potentially significant effect from inundation by seiche, tsunami, or mudflow and no mitigation would be necessary.

X. LAND USE AND PLANNING

LAND USE AND PLANNING:				
Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Land use in the project area is regulated by the City of Folsom through the various plans and ordinances adopted by the City. These include the City of Folsom General Plan and the City of Folsom Municipal Code, including the Zoning Code. The General Plan currently identifies the project site as Regional Commercial (RCC). The current zoning for the project site is General Commercial, Planned Development District (C-3 PD). A Planned Development Permit would be required because the proposed project is sited within a planned development overlay zoning designation. The Planned Development Permit would allow the City to review the site plan and associated project site details to ensure the project meets the standards and requirements beneficial to the City and its residents as defined in Section 17.38.100 of the Zoning Code. Senior residential complexes are a permitted land use in this zone, but only upon the issuance of a minor Conditional Use Permit by the Planning Commission.

Evaluation of Land Use and Planning

Question a: No Impact. Existing residential developments are north of the project the site, and commercial developments and open space is located west, east, and south of the project site. Development of the project site would not physically divide an established community. Therefore, there would be no impact and no mitigation required.

Question b: No Impact. The development standard in the City Municipal Code for Commercial (C-3) allows for the highest intensity commercial activities with no restrictions on lot area, width, or coverage. Building height limitation is 4 stories but not to exceed 50 feet. The development standard for planned development (PD) is that the proposed development project must be designed to provide open space, circulation, off-street parking and other conditions in such a way as to form a harmonious, integrated project of sufficient quality to justify exceptions to the normal regulations of this title. The project would comply with these standards and not conflict with any applicable land use plan, policy, or regulation of

an agency with jurisdiction over the project; therefore, the project would have no impact and require no mitigation.

Question c: No Impact. No Habitat Conservation Plan or Natural Community Conservation Plan has been approved for the project area. Implementation of the proposed project would not conflict with any conservation plan. No impact would occur and no mitigation is necessary.

XI. MINERAL RESOURCES

MINERAL RESOURCES: Would the project:	Potential Impact	Less Than Significant with Mitigation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Folsom area regional geologic structure is defined by the predominantly northwest- to southeast-trending belt of metamorphic rocks and the strike-slip faults that bound them. The structural trend influences the orientation of the feeder canyons into the main canyons of the North and South Forks of the American River. This trend is interrupted where the granodiorite plutons outcrop (north and west of Folsom Lake) and where the metamorphic rocks are blanketed by younger sedimentary layers (west of Folsom Dam) (California Department of Conservation 2016c). The four primary rock divisions found in the area are: ultramafic intrusive, metamorphic, granodiorite intrusive, and volcanic mud flows.

The presence of mineral resources within the City has led to a long history of gold extraction, primarily placer gold. No areas of the City are currently designated for mineral resource extraction.

Evaluation of Mineral Resources

Questions a, b: No Impact. The proposed project is not located in a zone of known mineral or aggregate resources. No active mining operations are present on or near the site. Implementation of the project would not interfere with the extraction of any known mineral resources. Thus, no impacts would result, and no mitigation would be necessary.

XII. NOISE

NOISE: Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed project is located at the southeast corner of the intersection of Iron Point Road and Oak Avenue Parkway in the Broadstone neighborhood. U.S. Route 50 is located approximately 460 feet from the project’s southern boundary. The project proposes development of a 161-unit, age-restricted (55+) senior living community in the estimated 6-acre site. The proposed project, which includes two four-story residential buildings totaling 156,000 square feet and one two-story community building totaling 19,000 square feet, features 11 studio units, 98 one-bedroom units, and 52 two-bedroom units. Amenities within the community building include dining rooms, a commercial kitchen, a movie theater, an art studio, a salon, a wellness room, and offices. Outdoor use areas include an outdoor patio and a garden area. The garden area would be shielded to the south by an approximately 6-foot retaining wall.

Noise-sensitive land uses are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors (receivers) are individual locations that may be affected by noise. Noise-sensitive land uses in the project vicinity include multi-family residences to the north across Iron Point Road.

Data Sources

Potential noise impacts within the project site were quantified based on two separate noise analyses: HELIX Environmental Planning Exterior Noise Analysis (2018) and an SLR Consulting Interior Noise Analysis (2018). The study conducted by HELIX, analyzed potential exterior noise impacts for the entire project, while the SLR report solely analyzed potential interior noise impacts. Both reports summarized below and included in **Appendix E**.

Regulatory Framework

Noise Element

The Noise Element of the City of Folsom General Plan regulates noise emissions from public roadway traffic on new development of residential or other noise sensitive land uses. The Noise Element states that noise from traffic on public roadways shall not exceed 60 CNEL for outdoor use areas and 45 CNEL for interior use areas.

Noise Ordinance

For stationary noise sources, the City has adopted a Noise Ordinance as Section 8.42 of the FMC (City of Folsom 2016). The Noise Ordinance establishes hourly noise level performance standards that are most commonly quantified in terms of the one-hour average noise level (LEQ). Using the limits specified in Table 8.42.040 of the Noise Ordinance, noise levels generated by the project would be significant if they exceeded 50 dBA LEQ from 7 a.m. to 10 p.m. and 45 dBA LEQ from 10 p.m. to 7 a.m. at the residential property boundary.

The City has also established Standard Construction Specifications (City of Folsom 2015). The standard construction specifications are required to be adhered to by any contractor constructing a public or private project within the City. Standards regarding the noise environment are summarized below.

- *Noise Control* – Requires that all construction work comply with the City Noise Ordinance, and that all construction vehicles be equipped with a muffler to control sound levels.
- *Weekend, Holiday, and Night Work* – Prohibits construction work during evening hours, or on Sunday or holidays, to reduce noise and other construction nuisance effects.

Traffic-Related Noise Standards

The Noise Element of the City of Folsom General Plan regulates noise emissions from public roadway traffic on new development of residential or other noise sensitive land uses. The Noise Element states that noise from traffic on public roadways shall not exceed 60 CNEL for outdoor use areas and 45 CNEL for interior use areas.

Terminology

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol LEQ , with a specified duration. The Community Noise Equivalent Level (CNEL) is

a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting.

Noise Modeling Software

Modeling of traffic noise was accomplished using Computer Aided Noise Abatement (CadnaA) version 2018. CadnaA is a model-based computer program developed by *DataKustik* for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed model for the prediction of exterior noise impacts.

Ambient Noise Measurements

Ambient noise measurements were conducted at four on-site locations on March 19, 2018. Measurements were conducted to calibrate the CadnaA noise model based on nearby roadways and to assess the ambient noise environment (M1 through M4). The ambient measurements are shown in **Table 14**.

Table 14: Ambient Noise Measurement Results

Measurement	Location	dBA L_{EQ}	Measurement Length	Traffic Count
M1	South of Iron Point Road	66	15 minutes	308 automobiles, 6 medium trucks, 0 heavy trucks
M2	North-central portion of site	51	10 minutes	N/A
M3	South-central portion of site	55	10 minutes	N/A
M4	North of U.S. Route 50	68	15 minutes	1,237 automobiles, 32 medium trucks, 20 heavy trucks

Source: HELIX 2018.

Noise Analysis

The noise environment in the area of the project site is dominated by traffic noise from vehicles on U.S. Route 50, located approximately 460-feet from the project's southern boundary, and Iron Point Road, located approximately 350-feet from the project's northern boundary (excluding the entrance road boundary). Traffic noise levels from these two roadways are based on traffic volumes provided by the project's Traffic Impact Analysis (Griffin Cove Transportation Consulting 2018) and the California Department of Transportation's (Caltrans) Traffic Census Program (Caltrans 2016). CadnaA was used to calculate the noise levels from traffic along U.S. Route 50 and Iron Point Road at receivers located

throughout the project site. Receivers were placed at various proposed façade and outdoor use locations based on project site plans. The locations of the receivers throughout the project site are shown on **Figure 9 in Appendix A**.

Table 15 shows the proposed features at the project site that were included in the CadnaA noise model. These features would affect on-site noise levels due obstruction and reflection of noise from US Route 50 and Iron Point Road. Local topography adjacent to U.S. Route 50 was not considered in the model. Model results therefore represent a conservative analysis for outdoor use area receivers located at ground level and façade receivers located at first story heights, as any undulations and/or berms may provide some noise attenuation. Micro changes in topography from undulations and/or berms would most likely not provide attenuation at the proposed fourth story façade receiver locations.

Table 15. Site Features Included in the Noise Model

Description	Height
West Building (residential)	48
East Building (residential)	48
Community Building	24

Source: HELIX 2018.

The calculated exterior noise levels at the various receivers are shown in **Table 16**. A significant direct impact would occur if traffic-related noise levels exceed 60 CNEL at the proposed project's designated outdoor use areas. Receivers R3 and R7, located at the proposed garden and patio area, respectively, are at or below the 60 CNEL exterior use threshold, and are therefore in compliance with the standard. Receivers R1, R2, R4, R5, and R6 either fall below the 60 CNEL threshold or are not located within designated outdoor use areas and are therefore not subject to the City's exterior noise threshold.

Table 16. Estimated Exterior Noise Levels

Receiver	Location	Noise Level (CNEL)	Significant?
R1	South façade of East Building; 4 th story height	71	No
R2	South façade of East Building; 1 st story height	68	No
R3	Garden*	60	No
R4	South façade of West Building; 1 st story height	65	No
R5	Northeast façade of West Building; 4 th story height	59	No
R6	Northeast façade of West Building; 1 st story height	58	No
R7	Patio area*	57	No

*Designated outdoor use area.

Source: HELIX 2018.

From an interior noise analysis perspective, SLR (2018) calculated interior noise levels at receiver R1, which is the loudest exterior receiving façade. The calculated interior noise levels are shown in **Table 17**. All expected Interior CNEL levels fall below the 45 CNEL standard.

Table 17: Expected Interior CNEL Levels with Standard Elements at R1 Receiver (Loudest Receiving Façade)

Expected CNEL (dBA) inside L4 Bedrooms (with exposed roof)	Expected CNEL (dBA) inside L4 Living Rooms (with exposed roof)	Expected CNEL (dBA) inside L4 Corner Living Room (with roof)	Expected CNEL (dBA) inside L1-L3 Bedrooms (wall façade only)	Expected CNEL (dBA) inside L1-L3 Living Rooms (wall façade only)
43	43	45	41	44

Note: All interior noise levels are less than significant.

Source: SLR 2018.

The project is expected to generate approximately 570 daily trips (Griffin Cove Transportation Consulting 2018). A general rule of thumb is that a doubling of vehicles would cause a doubling in sound energy (a 3 dBA increase), which would be considered a perceptible, and significant, increase. Daily traffic volumes with and without the added project traffic are shown in **Table 18**. Given the expected project-added increase in traffic, the project would not cause a doubling in traffic on Iron Point Road, Oak Avenue Parkway or other roads in the vicinity, and therefore would not result in a 3 dBA increase.

Table 18. Existing + Project Traffic Volumes

Roadway Segment	Existing ADT	Existing + Project ADT	Change from Existing ADT
Iron Point Road			
Rowberry Drive to Oak Avenue Parkway	24,150	24,350	+200
Oak Avenue Parkway to McAdoo Drive	28,400	28,660	+260
Oak Avenue Parkway			
Iron Point Road to Riley Street	6,625	6,735	+110

ADT=Average Daily Trips

Source: Griffin Cove Transportation Consulting 2018b.

Heating, Ventilation, and Air Conditioning (HVAC)

The project includes the outdoor installation of heating, ventilation, and air conditioning (HVAC) units on the roof of the proposed project building. The units would be located behind a parapet wall of equal or greater height to the HVAC unit, which would provide some noise attenuation. Specific planning information is not available for the HVAC units at this time. Modeling assumed the use of Carrier 16-ton packaged HVAC units (50PG03-16) with a manufacturer's Sound Power Rating of 84.0 dBA SWL, which would be typical for a project of similar size. The total floor area is provided as approximately 135,000 square feet, and normal HVAC planning assumes one ton of HVAC for every 350 square feet of habitable space (ASHRAE Handbook 2012). This equals 386 tons of HVAC or 24 16-ton HVAC units. The simultaneous use of 24 16-ton rooftop HVAC units, with the inclusion of a parapet, would result in a noise level of 35.7 dBA L_{EQ} at the nearest property line. Therefore, noise levels from HVAC units would not exceed the City's day (50 dBA L_{EQ}) and night (45 dBA L_{EQ}) maximum acceptable noise levels; impacts would be less than significant and mitigation measures are not required.

Evaluation of Noise

Question a: Less than Significant with Mitigation Incorporated. A significant direct impact would occur if traffic-related noise levels exceed 60 CNEL at the proposed project's designated exterior use areas or results in noise levels greater than 45 CNEL at the proposed project's interior use areas, and/or results in noise levels greater than 60 CNEL at exterior, designated outdoor use areas. Receivers R3 and R7, located at the proposed garden and patio area, respectively, are at or below the 60 CNEL exterior use threshold, and are therefore in compliance with the standard. Receivers R1, R2, R4, R5, and R6 either fall below the 60 CNEL threshold or are not located within designated outdoor use areas and are therefore not subject to the City's exterior noise threshold. No significant impact is noted for exterior noise levels and mitigation is unwarranted. Modeling conducted by SLR (2018) indicates that all interior spaces are calculated below the 45 CNEL interior use threshold and are therefore in compliance with the standard.

Both Exterior and Interior noise levels meet or fall below the respective thresholds established by the City; a **less than significant level** impact is noted and mitigation is unwarranted.

Question b: Less than Significant Impact. An on-site source of vibration during project construction would be a vibratory roller (primarily used to achieve soil compaction as part of the foundation and paving construction), which is expected to be used within 250-feet of the nearest occupied residence. A vibratory roller creates approximately 0.210 inches per second peak particle velocity (PPV) at a distance of 25-feet. The City does not state specific standards in the General Plan or Municipal Code. Caltrans standards for construction vibration impacts use a criterion of 0.4 inches per second PPV at 25-feet (Caltrans 2017). Using these standards, the approximately 0.210 inches per second PPV vibration impact would be less than what is considered a "severe" impact. Therefore, although vibration may be perceptible by nearby residences, temporary impacts associated with the vibratory roller (and other potential equipment) would be less than significant. No mitigation measures are required.

Question c: Less than Significant Impact. Operational noise from the project (traffic) would not exceed significance thresholds. The project is expected to generate approximately 570 daily trips (Griffin Cove Transportation Consulting 2018b). A general rule of thumb is that a doubling of vehicles would cause a doubling in sound energy (a 3 dBA increase), which would be considered a perceptible, and significant increase. Daily traffic volumes with and without the added project traffic are shown in **Table 18**. Given the expected project-added increase in traffic, the project would not cause a doubling in traffic on Iron

Point Road, Oak Avenue Parkway or other roads in the vicinity, and therefore would not result in a 3 dBA increase. Impacts from off-site traffic noise would be less than significant and mitigation measures are not required.

Question d: Less than Significant Impact. See Question B. The primary temporary increase in ambient noise levels would be generated from construction activities. Construction activities will not exceed standard noise levels in the vicinity.

Questions e, f: No Impact. Since the project site is not located in an area for which an Airport Land Use Compatibility Plan has been prepared, and no public or private airfields are within two miles of the project area, the residents of the proposed project would not be exposed to adverse levels of noise due to aircraft overflight. Therefore, no impact would occur and no mitigation would be necessary for questions e) and f).

XIII. POPULATION AND HOUSING

POPULATION AND HOUSING:			Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:	Potential 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed project includes the construction of a new senior housing facility on a 6.02-acre vacant parcel. The community would be developed in concert with the Country House at Broadstone memory care community, a previously approved project, adjacent to the site. The project would consist of approximately 13 studio units, 99 one-bedroom units, and 54 two-bedroom units.

Evaluation of Population and Housing

Question a: Less than Significant. Implementation of the project would result in the construction of 166 rooms. It is assumed that the majority of the individuals transitioning to the senior housing community and the majority of the employees would be from the area. Existing infrastructure and roads in the area would not be expanded or extended as a result of the project. The proposed project would not induce substantial growth in the City of Folsom. The impact would not be significant and no mitigation would be required.

Question b and c: No Impact. The proposed project would affect a currently undeveloped site that is proposed for development with residential land uses. There are no existing residences on the project site; therefore, neither housing units nor people would be displaced, and no replacement housing would be required. There would be no impact and no mitigation would be necessary for questions b) and c).

XIV. PUBLIC SERVICES

PUBLIC SERVICES:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental 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:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The proposed project is in an area currently served by urban levels of all utilities and services. Public services provided by the City of Folsom in the project area include fire, police, school, library, and park services. The site is served by all public utilities including domestic water, wastewater treatment, and storm water utilities.

The City of Folsom Fire Department provides fire protection services. There are four stations within the City of Folsom. Station 37 is nearest to the project site; it is located at 70 Clarksville Road, approximately 2-miles north of the project site. The Fire Department responds to over 6,000 requests for service annually with an average of 16.4 per day. The City of Folsom Police Department is located at 46 Natoma Street, approximately 3.4-miles north of the project site.

The project site is located within the Folsom Cordova Unified School District, and is within the attendance area for the Gold Ridge Elementary School, Sutter Middle School, and Folsom High School. There are several parks near the project site, including Livermore Community, John Kemp Community Park, and Willow Hills Reservoir Community Park.

The Sacramento Municipal Utilities District (SMUD) would supply electricity to the project site. Pacific Gas & Electric (PG&E) provides natural gas to the area and would provide natural gas to the project site.

The City of Folsom has a program of maintaining and upgrading existing utility and public services within the City. Similarly, all private utilities maintain and upgrade their systems as necessary for public convenience and necessity, and as technology changes.

Evaluation of Public Services

Questions a, b, c, d, e: Less than Significant. The project site is within the urban area of Folsom, and there is no indication that public services are inadequate. Because there are no unique aspects of the project that would increase service demands or render the current service level to be inadequate, no new public facilities would be necessary to serve the proposed project. The impact of the project would be **less than significant** and mitigation would not be necessary.

XV. RECREATION

RECREATION: Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The Folsom Parks and Recreation Department provides and maintains a full range of recreational activities and park facilities for the community. There are several parks near the project site, including the Livermore Community Park, John Kemp Community, and Willow Hills Reservoir Community Park. The facility will include outdoor courtyards and landscaping for use by the residents.

Evaluation of Recreation

Question a: Less than Significant. The employees and residents of the senior housing facility are likely to be relocating from the general area and would not result in a substantial increase in relation to the overall City of Folsom; therefore, the project would not result in a substantial increase in the use or demand for neighborhood or regional parks. Further, the proposed project includes an outside area with courtyards and landscaping for use by residents. Impacts on existing neighborhood and regional parks or other recreational facilities would be **less than significant** and no mitigation is necessary.

Question b: Less than Significant. The proposed project includes construction of an outside area with landscaping for use by the residents. These facilities are for use by the residents of the medical facility and would not be open to the public. Construction and operation of the facilities would not have an adverse impact on the environment, and construction of the proposed project would not require the construction or expansion of other recreational facilities that might have an adverse impact on the environment. The proposed project would not include recreation facilities, nor require the construction or expansion of recreational facilities that might have an adverse impact on the environment. The Impact would be **less than significant** and mitigation would not be necessary.

XVI. TRANSPORTATION AND TRAFFIC

TRANSPORTATION AND TRAFFIC:				
Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Transportation and traffic were evaluated in a project specific parking assessment and traffic impact analysis as attached in **Appendix F** (Source: Griffin Cove Transportation Consulting (GCTC) 2018a and 2018b).

Environmental Setting

Parking and Access

The project site is undeveloped and does not contain existing access to the roadway system. Vehicular access to and from the proposed project would be provided by way of a single STOP-sign-controlled driveway on Iron Point Road, which would be shared with the Country House project. Primarily because of its proximity to Oak Avenue Parkway, the driveway would be restricted to right-turns only, both inbound and outbound. A total of 135 parking stalls are proposed, including 93 standard stalls, 33 compact stalls, and 9 Americans with Disabilities Act (ADA) accessible stalls. For the proposed 166-unit facility, this parking supply is equivalent to 0.81 spaces per unit.

Griffin Cove Transportation Consulting completed an assessment of the parking requirements associated with the proposed project. The City of Folsom Zoning Code. does not include a parking requirement for

senior independent living facilities. Therefore, the assessment included a detailed review of nine neighboring jurisdictions parking requirements. Of the nine jurisdictions, only two addressed the parking needs for facilities similar to the Revel Folsom Senior Living Project. Sacramento County requires 0.5 spaces per unit, while the City of Elk Grove requires 0.75 spaces per unit. The proposed project exceeds the requirements of both jurisdictions with a proposal to include 0.81 parking spaces per unit. Additionally, the Institute of Transportation Engineers conducted substantial research with regards to parking demand for senior independent living facilities. That data indicates the proposed 0.81 parking spaces per unit would adequately serve the proposed development (GCTC 2018a).

Roadway System

Brief descriptions of the key roadways serving the project site are provided below.

Iron Point Road is an east-west arterial roadway that generally runs parallel to and just north of U.S. Highway 50. It extends from Folsom Boulevard on the west to the City limit east of Empire Ranch Road. In the immediate vicinity of the project site, it is a six-lane, median-divided road with bike lanes and a 45 mile per hour (MPH) speed limit.

Oak Avenue Parkway is a north-south, four-to-six lane arterial street that has Iron Point Road as its southern terminus. Near Iron Point Road, Oak Avenue Parkway has a 45 MPH speed limit and two lanes in each direction (plus bike lanes) separated by a landscaped median. Long-term plans call for extending Oak Avenue Parkway to the south, where it would have an interchange with U.S. Highway 50.

McAdoo Drive is a north-south roadway that runs from Iron Point Road on the south to Riley Street on the north. It is a two-lane road with bike lanes and a 35 MPH speed limit that primarily provides access to residential areas. McAdoo Drive meets Iron Point Road at a signal-controlled intersection.

Rowberry Drive is a two-lane residential collector street, which connects Iron Point Road with Walden Drive. Sidewalks are provided along the residential frontages, but no on-street bike lanes are present. Instead, an off-street (Class I) bike path exists along the northwest side of Rowberry Drive, beginning at its intersection with Walden Drive, then curving behind the houses on that side of the street. No speed limit is posted.

Transit, Bicycle, and Pedestrian Facilities

The City maintains a network of pedestrian and bike trails throughout the city, in addition to a network of on-street bike lanes. Pedestrian sidewalks exist on both sides of Iron Point Road near the project site. The project proposes to extend the existing sidewalk to the north of the project site, along Iron Point Road, approximately 150-feet to connect with the existing sidewalk northeast of the site along Iron Point Road.

On street (Class II) bike lanes exist along the project frontage on Iron Point Road. An existing bus stop is located along the north side of Iron Point Road, west of Oak Avenue Parkway.

Airports

No private or public airports are located within the City of Folsom. The nearest public airfield is Mather Airport, located approximately 12-miles southwest of the project site. Cameron Airpark is a public use

airport located approximately 10-miles northeast of the project site. Neither airport is a commercial service airport.

Emergency Access

The City of Folsom identifies most major streets in the city as emergency evacuation routes. No aspect of the proposed project would modify these streets in a way that would preclude their continued use as an emergency evacuation route. The minimum width available for driving or turning movements through the parking lot is 25-feet, to provide sufficient access for fire trucks.

Existing Traffic Volumes

Griffin Cove Transportation Consulting (GCTC) conducted AM and PM peak-period turning movement counts at the three study intersections on January 23, 2018. Data collection was specifically scheduled on a typical school day, to ensure a conservative analysis of traffic operations for the following roadway segments/intersections:

- Iron Point Road/McAdoo Drive;
- Iron Point Road/Oak Avenue Parkway; and,
- Iron Point Road/Rowberry Drive.

Existing Intersection Operations

Existing intersection delay and level of service (LOS) calculated for the study intersections are presented in **Table 19**. The intersection LOS definitions and evaluation criteria are described the “Analysis Methodology” section of the traffic study.

Table 19. Level of Service Summary Existing Conditions

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay	LOS
Iron Point Rd./McAdoo Dr.	Signal	19.8	B	16.4	B
Iron Point Rd./Oak Avenue Pkwy.	Signal	19.8	B	14.8	B
Iron Point Rd./Rowberry Dr.	Signal	16.1	B	21.6	C

Source: Griffin Cove Transportation Consulting (GCTC) 2018b.

Notes:

- ¹ Reference: Transportation Research Board, *Highway Capacity Manual – 6th Edition*, 2016.
- ² Average control delay (seconds per vehicle).
- ³ Level of service.

All study intersections operate at LOS B during both the a.m. and p.m. peak hour, thereby meeting the City’s General Plan policy for acceptable levels of service (under the current General Plan, LOS A, B, and C are considered acceptable, while LOS D, E, and F are considered unacceptable).

Existing Plus Project Conditions

Trip Generation

The AM and PM peak-hour trip generation estimates for the proposed project were developed using information presented in the *Trip Generation Manual* (Institute of Transportation Engineers, Ninth Edition, 2012). The specific land use category is designated “Senior Adult Housing – Attached,” which is described in the ITE document as follows:

Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include limited social or recreational services. . . . Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.

Table 20 summarizes the resulting trip generation estimates for the proposed Revel Folsom Senior Living Project. The proposed project is expected to generate a total of 33 AM peak-hour trips, with 11 inbound and 22 outbound. The PM peak hour trip generation is estimated to be 42 trips, with 23 inbound and 19 outbound. About 570 daily trips are projected, evenly split between inbound and outbound trips.

Table 20. Trip Generation Estimate

Land Use		Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Independent Living ² (166 DU ³)	Trip Rate ⁴	3.44	0.068	0.132	0.200	0.135	0.115	0.250
	Trips	570	11	22	33	23	19	42

Source: Griffin Cove Transportation Consulting (GCTC) 2018b.

Notes:

- ¹ Reference: Institute of Transportation Engineers, *Trip Generation Manual*, Ninth Edition, 2012.
- ² ITE Land Use Code 252 – Senior Adult Housing - Attached.
- ³ Dwelling units.
- ⁴ Trips per dwelling unit.

Trip Distribution and Assignment

The geographic distribution of the project-generated traffic was based on existing traffic patterns in the vicinity of the proposed project, as well as information presented in previous traffic studies for nearby projects. About 45 percent of the project-generated traffic is expected to be oriented to/from the west on Iron Point Road. An additional 35 percent is expected to travel to and from the east, while 20 percent would be oriented to/from the north on Oak Avenue Parkway.

Project Traffic Assignment

The peak-hour traffic volumes generated by the proposed project were added to the “Construction Year No Project” traffic, with the result being the “Construction Year Plus Project” scenario. No changes in intersection lane configurations are assumed, as the City of Folsom has no planned or programmed roadway system improvements at the study intersections.

Intersection Level of Service

Table 21 presents the AM and PM peak hour levels of service at each study intersection under Construction Year Plus Project conditions.

AM Peak Hour

Addition of the project-generated traffic will cause little change in the delay values at the study intersections, and no change in level of service is projected. The project-related incremental increase in delay would range from 0.1 seconds/vehicle to 0.5 seconds/vehicle. The project access intersection would be at LOS B, and would not meet the “Peak Hour” signal warrant. Thus, all of the study intersections would operate at acceptable levels of service and the project-related impact would be less than significant.

PM Peak Hour

The PM peak hour results are somewhat similar to the AM peak hour findings. Again, the levels of service would be unchanged at all three study intersections, and the incremental delay increase directly due to the proposed project would be a maximum of 0.4 seconds/vehicle. The Iron Point Road/Project Access intersection would operate at LOS C; it would have insufficient traffic to meet the minimum requirements of the “Peak Hour” signal warrant. Thus, all four intersections would conform to the City’s level of service standards.

In summary, the project-related impact is projected to be less than significant in the PM peak hour.

Mitigation Measures

The project-related impact at all of the study intersections is less than significant, as described above. Therefore, no off-site mitigation measures are recommended in conjunction with the proposed Revel Folsom Senior Living Project.

Table 21. Level of Service Summary¹ Construction Year Plus Project Conditions

Intersection	Traffic Control	AM Peak Hour				PM Peak Hour							
		Construction Year No Project		Construction Year + Project		Construction Year No Project		Construction Year + Project					
		Delay ²	LOS ³	Signal Warrant? ⁴	Delay	LOS	Signal Warrant?	Delay	LOS	Signal Warrant?			
Iron Point Rd./McAdoo Dr.	Signal	20.2	C	--	20.3	C	--	16.6	B	--	16.6	B	--
Iron Point Rd./Oak Avenue Pkwy.	Signal	22.8	C	--	23.3	C	--	16.2	B	--	16.6	B	--
Iron Point Rd./Rowberry Dr.	Signal	16.5	B	--	16.6	B	--	24.3	C	--	24.4	C	--
Iron Point Rd./Project Access	Side-St. STOP ⁵	--	--	--	11.3	B	No	--	--	--	18.0	C	No

Source: Griffin Cove Transportation Consulting (GTC) 2018b.

Notes:

- 1 Reference: Transportation Research Board, *Highway Capacity Manual – 6th Edition*, 2016.
- 2 Average control delay (seconds per vehicle).
- 3 Level of service.
- 4 “Peak Hour” signal warrant from “Part 4 – Highway Traffic Signals” of the *California Manual on Uniform Traffic Control Devices*, November 7, 2014.
- 5 Delay value represents the worst-case movement/approach.

Evaluation of Transportation and Traffic

Questions a, b: Less than Significant Impact. Under the General Plan, LOS A, B, and C are considered acceptable levels of operation, while LOS D, E, and F are considered unacceptable. Existing plus project intersection delay and LOS were calculated for the study intersections and compared against existing conditions. Under existing conditions, all study intersections operate at LOS B, except for the Iron Point Road and Rowberry Drive, which would operate at LOS C in the PM.

For the construction year without the project, all study intersections would operate at LOS C in the AM, except for the Iron Point Road and Rowberry Drive, which would operate at LOS B. In the PM all study intersections would operate at LOS B, except for Iron Point Road and Rowberry Drive, which would operate at LOS C. This scenario is expected to be the same under the proposed project, with no significant increases in traffic volumes. While implementation of the proposed project would result in a slight increase in traffic volumes at the study intersections, all study intersections would continue to operate at an acceptable LOS. The project would not conflict with City street operational standards, or result in substantial increase in traffic congestion. This would be **less than significant impact**, and no mitigation necessary for questions a) and b).

Question c: No Impact. No private or public airports are located within the City of Folsom. The nearest public airfield is Cameron Airpark, located approximately 8.5-miles from the proposed project. The Mather Airport is located approximately 10-miles southwest of the project site. The proposed project would not result in modification to any air travel route. There would be **no significant impact** and no mitigation would be required.

Question d: Less than Significant Impact. As proposed, the project driveway would be shared with the adjacent Country House at Broadstone Memory Care facility. It would be restricted to right-turns-only, both inbound and outbound, and would be STOP-sign-controlled. An unmarked, dedicated right-turn lane exists on Iron Point Road in front of the project site, and would be slightly improved to allow access to the project driveway. Because there is an existing lane, and improvements would be minor and compatible with existing use of the roadway, the project would result in a **less than significant impact**, and no mitigation would be necessary.

Question e: Less than Significant Impact. Consistent with the City of Folsom's Multi-Hazard Emergency Management Plan, the City maintains pre-designated emergency evacuation routes along major streets and thoroughfares. No aspect of the proposed project would modify these streets or preclude their continued use as an emergency evacuation route. Left-turn access for emergency vehicles only will be provided across the Iron Point Road median. That emergency vehicle access was required as Condition of Approval for the Country House at Broadstone Memory Care project. The emergency access road on the eastside of the buildings has a hammerhead turn, which will provide sufficient access for movement of fire trucks. The plans would be approved by the Fire Department prior to project implementation; therefore, **no significant impact** to fire protection would occur and no mitigation would be necessary.

Question f: Less than Significant Impact. The project would not result in any modification of, or interference with, any existing pedestrian, bicycle, or transit facility. Existing on-street Class II bike lanes on both sides of Iron Point Road were determined to adequately meet the needs of bicyclists near the project. The proposed project would enhance existing pedestrian facilities by connecting a partially existing sidewalk along Iron Point Rd and would improve pedestrian circulation in the area. Because the

project would not result in the modification of any existing facility, and would not result in any interference with such facilities, this would be a **less than significant impact** and no mitigation would be necessary.

XVII. TRIBAL CULTURAL RESOURCES

TRIBAL CULTURAL RESOURCES:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

As amended in 2014, Assembly Bill (AB 52), requires that the City of Folsom (City) provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. Section 21073 of the Public Resources Code (PRC) defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes. For the City of Folsom, these include the following tribes that previously submitted general request letters, requesting such noticing:

- Wilton Rancheria (letter dated July 1, 2015 and received August 24, 2015)
- Ione Band of Miwok Indians (letter dated March 2, 2016)
- United Auburn Indian Community (UAIC) of the Auburn Rancheria (letter dated November 23, 2015)

The purpose of consultation is to identify Tribal Cultural Resources (TCRs) that may be significantly impacted by the proposed Project, and to allow the City to avoid or mitigate significant impacts prior to Project approval and implementation. Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as: Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope),

sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- a) Included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
- b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
- c) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria A and B also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators and can only be identified by a culturally-affiliated tribe, which has been determined under State law to be the subject matter expert for TCRs (ECORP 2018).

City Consultation

On March 13, 2018, the City of Folsom sent project notification letters to the three California Native American tribes named above. The only tribe to respond was the UAIC, who requested consultation on the Project, copies of all existing cultural resources assessments, GIS shapefiles for the Project boundaries, payment for information about TCRs, and a UAIC tribal monitor for the Project.

On May 8, 2018 a meeting was held between City of Folsom representatives and a UAIC tribal archaeologist. The tribal archaeologist performed a pedestrian survey of the project site and found no indications of cultural resources or TCRs. On May 17, 2018 the UAIC requested to conclude consultation for the project with two requested mitigation measures: 1) to allow UAIC to have the opportunity to visit the property once ground disturbance has commenced; and, 2) to require a construction worker cultural sensitivity training regarding tribal resources. The City concluded AB 52 consultation with UAIC in a letter dated May 24, 2018. All information relevant to the City's AB 52 consultation process is documented in **Appendix G**.

Evaluation of Tribal Cultural Resources

Questions a (i), (ii): No Impact. There are no known TCRs located on or immediately adjacent to the project site. The City of Folsom, as the CEQA Lead Agency, notified UAIC, the Wilton Rancheria, and the Lone Band of Miwok Indians on March 13, 2018 about the project and requested their input on any TCRs within the project site and the potential for the project to cause a substantial adverse change to them. The City of Folsom received a single response from the UAIC requesting additional consultation on the proposed project. The UAIC's tribal archaeologist performed a pedestrian survey of the site and found no indications of cultural resources or TCR's. After a review of the totality of information submitted by the tribe (as described above), the thresholds under PRC Section 21074(a)(i)(ii) have not been met and the project would not cause a significant adverse change in significance of a TCR. Therefore, there will be **no impact** to TCRs and no mitigation is necessary (ECORP 2018).

XVIII. UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS:				
Would the project:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Existing utilities on the project site include SMUD for electricity, PG&E underground gas lines, AT&T underground telephone lines, City of Folsom for solid waste disposal, and City of Folsom water and sewer facilities. The City of Folsom employs a design process that includes coordination with potentially affected utilities as part of project development. Identifying and accommodating existing utilities is part of the design process, and utilities are considered when finalizing public project plans. The City of Folsom coordinates with the appropriate utility companies to plan and implement any needed accommodation of existing utilities, including water, sewer, telephone, gas, electricity, and cable television lines. Based on the results of an initial request for comments from the utility providers, all utility services are able to accommodate the proposed project.

Evaluation of Utilities and Service Systems

Questions a, b, e: No Impact. The City of Folsom is responsible for managing and maintaining its wastewater collection system, including 267-miles of pipeline and nine lift stations. This system ultimately discharges into the Sacramento Regional County Sanitation District interceptor sewer system. Wastewater is treated at the Sacramento Regional Wastewater Treatment Plant, located in Elk Grove.

In compliance with the 2006 State Water Resources Control Board (SWRCB) General Waste Discharge Requirements for Sanitary Sewer Systems, the City of Folsom adopted a Sewer System Management Plan on July 28, 2009. The plan outlines how the municipality operates and maintains the collection system, and the reporting of all Sanitary Sewer Overflows (SSO) to the SWRCB's online SSO database. Because the City has sufficient capacity to accommodate any additional demand that could result from implementation of the proposed project, and because the City is in compliance with statutes and regulations related to wastewater collection and treatment, there would be **no impact** and mitigation would not be necessary.

Question c: Less than Significant Impact. Folsom's Public Works Department handles all stormwater management issues for the City, from design and construction of the storm drain system to operation and maintenance, and urban runoff pollution prevention. Stormwater drains would be installed throughout the site, and curb and gutter would be installed along the parking lot to collect stormwater flows and prevent flooding or ponding. Stormwater facilities would need to be expanded to connect to existing stormwater drainage facilities; 12-inch drains would be installed to carry stormwater to the existing storm drain line in Iron Point Road. With implementation of these measures, environmental impacts from expanding the stormwater facilities would be **less than significant** and no mitigation would be necessary.

Question d: Less than Significant Impact.

Water Supply

Folsom's Water Treatment Plant has a capacity of 50 million gallons per day. According to the City of Folsom General Plan Housing Element, the combination of treated and untreated water demands (through the time frame of the Housing Element which is 2021) are not anticipated to exceed the City's current water entitlements of 34,000 acre-feet annually (City of Folsom 2013). Because sufficient supplies are available, no additional facilities would need to be constructed or expanded and impacts would be **less than significant**.

Water Supply and the Drought

While the General Plan identifies sufficient water supplies for build out of projects identified in the General Plan (including the proposed project), the State has been in a severe drought and continued growth in the City has generated concern from many residents. Folsom City Manager, Evert Palmer explained that "Folsom has rights to 34,000 acre-feet of water from Folsom Lake, and consumes less than two percent of the water that passes through Folsom Dam each year. Last year, the City used just over half of its allocated supply. Folsom's new housing demand, including the development south of [US-]50, is also relatively low, comprising just four percent of the planned housing in the entire Sacramento region through 2036" (Newell 2015). Implementation of the project would result in the construction of residential units for an estimated 166 (54 rooms will have two beds). This increase in residents would not result in a substantial increase in water demand on the City.

Question f, g: No Impact. The City of Folsom provides solid waste, recycling, and hazardous materials collection services to its residential and business communities. In order to meet the State mandated 50 percent landfill diversion requirements stipulated under AB 939, the City has instituted several community-based programs. The City offers a door-to-door collection program for household hazardous and electronic waste, in addition to six "drop off" recycling locations within the City.

After processing, solid waste is taken to the Kiefer Landfill, the primary municipal solid waste disposal facility in Sacramento County. The landfill facility sits on a site of 1,084-acres in the community of Sloughhouse. Currently 250-acres, the State permitted landfill is 660-acres in size, and is of sufficient capacity to accommodate the solid waste disposal needs of the City of Folsom. Because the landfill serving the project area is of sufficient capacity to accommodate solid waste needs, there is **no impact** and no mitigation would be necessary.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE:	Potential Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
<p>The lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur. Where prior to commencement of the environmental analysis a project proponent agrees to MMs or project modifications that would avoid any significant effect on the environment or would mitigate the significant environmental effect, a lead agency need not prepare an EIR solely because without mitigation the environmental effects would have been significant (per Section 15065 of the State CEQA Guidelines):</p>				
a) Does the project 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Evaluation of Mandatory Findings of Significance

Question a: Less than Significant. The preceding analysis indicates that the proposed project has the potential to adversely affect biological and cultural resources. See Sections IV and V of this Initial Study for discussion of the proposed project’s potential impacts on these environmental issue areas. With implementation of the mitigation measures identified in those Sections, and compliance with City programs and requirements identified in this report, impacts would be reduced to a **less than significant** level. No significant or potentially significant impacts would remain.

Question b: Less than Significant. While the project would indirectly contribute to cumulative impacts associated with increased urban development in the city and region, these impacts have previously been evaluated by the City and considered in development of the City's General Plan as set forth in this Initial Study. Key areas of concern are discussed in detail below.

Evaluation of cumulative aesthetic impacts: Implementation of the proposed project, with continued cumulative growth within Folsom and implementation of the East Area Folsom Plan and the Folsom South of U.S. Highway 50 Specific Plan, would contribute to the urbanization of the area because the project would involve conversion of an undeveloped area to developed uses. The regional landscape would continue to develop a more urban visual character than is currently experienced by viewers.

By implementing the proposed design elements that tie in the proposed building and landscaping to the adjacent land uses, the proposed project is not expected to substantially contribute to the cumulative impacts on the regional visual character. The surrounding areas are largely already developed, and the project is within an existing mixed-use retail/commercial, residential, and business area with multi-story buildings. The proposed project would not result in significant cumulative impacts to aesthetic resources, and no mitigation measures would be needed.

Evaluation of cumulative biological resources impacts: Implementation of the proposed project, with continued growth within Folsom and implementation of the East Area Folsom Plan and the Folsom South of U.S. Highway 50 Specific Plan, would contribute to continued loss of habitat for biological resources by converting undeveloped area to developed uses. No special status species have the potential to occur in the project site. The project site contains potentially suitable nesting habitat for northwestern pond turtle and common birds protected under the MBTA. Cumulative impacts to northwestern pond turtle and nesting birds may result in an overall effect on the viability of certain species. With implementation of Mitigation Measures BIO-01 and BIO-02, the impacts would be reduced to a less than significant level and potentially cumulative effects would be avoided. The proposed project could directly impact natural communities or protected habitats, including the pond and oak-preserve. With implementation of Mitigation Measure BIO-03, potential impacts to the oak preserve and pond would be minimized. As a result, with implementation of Mitigation Measures BIO-01,-02, and -03 the proposed project would not result in significant cumulative impacts to protected biological resources, and no additional mitigation measures would be needed.

Evaluation of cumulative cultural resources impacts: A database records search was conducted for the project site, including a 0.5-mile buffer area, at the North Central Information Center at Sacramento State University. Additionally, a pedestrian survey was undertaken of the project site by a senior archaeologist. Although no evidence of cultural resources of significance were noted on project site, the City recognizes that sensitive and/or protected resources could be unintentionally discovered during project construction. With implementation of Mitigation Measures CUL-01 through CUL-03, the impacts would be reduced to a less than significant level and potentially cumulative effects would be avoided. As a result, with implementation of prescribed cultural resource Mitigation Measures no significant cumulative impacts to protected cultural resources are noted, and no additional mitigation measures would be needed.

Evaluation of cumulative transportation impacts: Cumulative transportation impacts were evaluated in the traffic impact analysis prepared for the project (Griffin Cove Transportation Consulting 2018b). The year 2035 traffic volumes for Cumulative No Project conditions were derived from traffic forecasts developed as part of the Folsom Sphere of Influence Project. The project's contribution to the

Cumulative No Project traffic conditions were evaluated. The proposed project is expected to generate a total of 33 AM peak-hour trips (11 inbound, 22 outbound). The PM peak hour trip generation is estimated to be 42 trips (23 inbound, 19 outbound). About 570 daily trips are projected, evenly split between inbound and outbound. Overall, the project would not result in a change to the future trip distribution, intersection traffic volumes, and LOS.

Under the Cumulative No Project, Iron Point Road/McAdoo Drive and Iron Point Road/Rowberry Drive would operate at LOS C, which conforms to the City's General Plan standard. Iron Point Road/Oak Avenue Parkway is projected to operate at LOS C, during AM Peak Hour, however would operate at LOS D during PM Peak Hour, which falls short of the City's standard.

Under the proposed project, during AM Peak Hour, no change in level of service is projected, and the study intersections would operate at acceptable levels of service (LOS B or C). The STOP-sign-controlled project access intersection would operate at LOS B, but would fail to meet the minimum requirements of the "Peak Hour" signal warrant. During the PM Peak Hour, the study intersections would continue to operate acceptably at LOS B or C, with the project traffic causing little or no increase in vehicular delay. The project driveway intersection would be at LOS C. Traffic volumes at the driveway intersection would again be insufficient to meet the "Peak Hour" signal warrant requirements. The proposed project would result in less than significant impacts to traffic operations at the study intersection under cumulative conditions. Refer to **Table 22** for the cumulative level of service.

Question c: Less than Significant Impact. Because of site conditions, existing City regulations, and regulation of potential environmental impacts by other agencies, the proposed project would not have the potential to cause substantial adverse effects on human beings as demonstrated in the evaluation contained in this Initial Study.

Table 22. Level of Service Summary¹ Cumulative Plus Project Conditions

Intersection	Traffic Control	AM Peak Hour				PM Peak Hour							
		Construction Year No Project		Construction Year + Project		Construction Year No Project		Construction Year + Project					
		Delay ²	LOS ³	Signal Warrant? ⁴	Delay	LOS	Signal Warrant?	Delay	LOS	Signal Warrant?			
Iron Point Road/McAdoo Drive	Signal	20.2	C	--	20.3	C	--	16.6	B	--	16.6	B	--
Iron Point Road/Oak Avenue Parkway	Signal	22.8	C	--	23.3	C	--	16.2	B	--	16.6	B	--
Iron Point Road/Rowberry Drive	Signal	16.5	B	--	16.6	B	--	24.3	C	--	24.4	C	--
Iron Point Road/Project Access	Side-St. STOP ⁵	--	--	--	11.3	B	No	--	--	--	18.0	C	No

Source: Griffin Cove Transportation Consulting 2018b.

Notes:

- 1 Reference: Transportation Research Board, *Highway Capacity Manual – 6th Edition*, 2016.
- 2 Average control delay (seconds per vehicle).
- 3 Level of service.
- 4 “Peak Hour” signal warrant from “Part 4 – Highway Traffic Signals” of the *California Manual on Uniform Traffic Control Devices*, November 7, 2014.
- 5 Delay value represents the worst-case movement/approach.

10.0 MITIGATION MONITORING AND REPORTING PROGRAM

A Mitigation Monitoring and Reporting Program (MMRP) has been prepared by the City per Section 15097 of the CEQA Guidelines and is presented in **Appendix H**.

11.0 INITIAL STUDY PREPARERS

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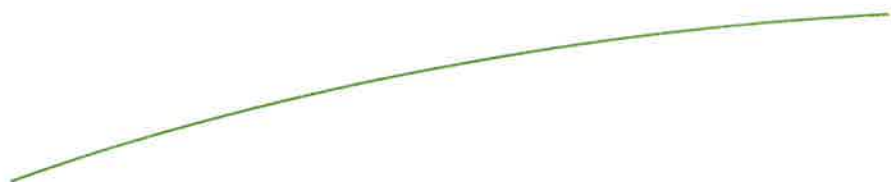
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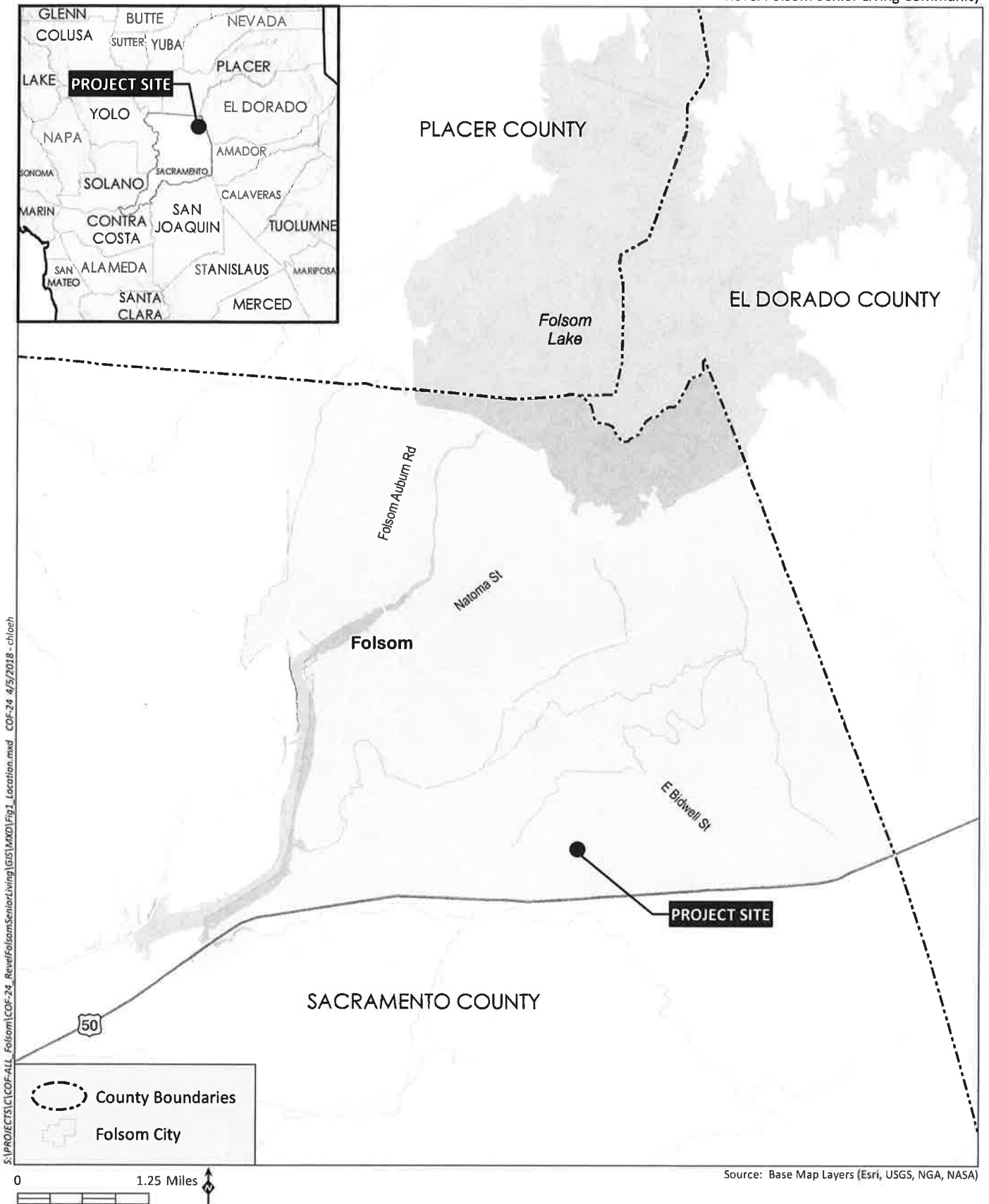
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Appendix A

Figures





S:\PROJECTS\COF-24_Rev\RevelFolsomSeniorLiving\GIS\MXD\Fig1_Location.mxd COF-24 4/5/2018 - chloeh



S:\PROJECTS\COF-ALL_Folsom\COF-24_RevelFolsomSeniorLiving\GIS\MXD\Fig2_Aerial.mxd CMP-01_4/5/2018 - chloeh



DEVELOPMENT SUMMARY

PARCEL	6.02 ac	100.0%
SITE COVERAGE	1.05 ac	17.4%
BUILDING COVERAGE	2.03 ac	33.7%
PAVED AREA COVERAGE	2.79 ac	46.3%
OPEN LANDSCAPE/HARDSCAPE	TOTAL: 6.02 ac	100.0%

PARKING SUMMARY

STANDING STALL (9'x18')	87
COMPACT STALL (8'x10')	21
ADA ACCESSIBLE PARKING	9
PARALLEL PARKING	135
TOTAL PARKING	135

PLANNED DEVELOPMENT/USE PERMIT

**FOR
REVEL FOLSOM
FOLSOM, CALIFORNIA
SITE PLAN
APRIL 6, 2018 SHEET 1 OF 3**

SHEET INDEX

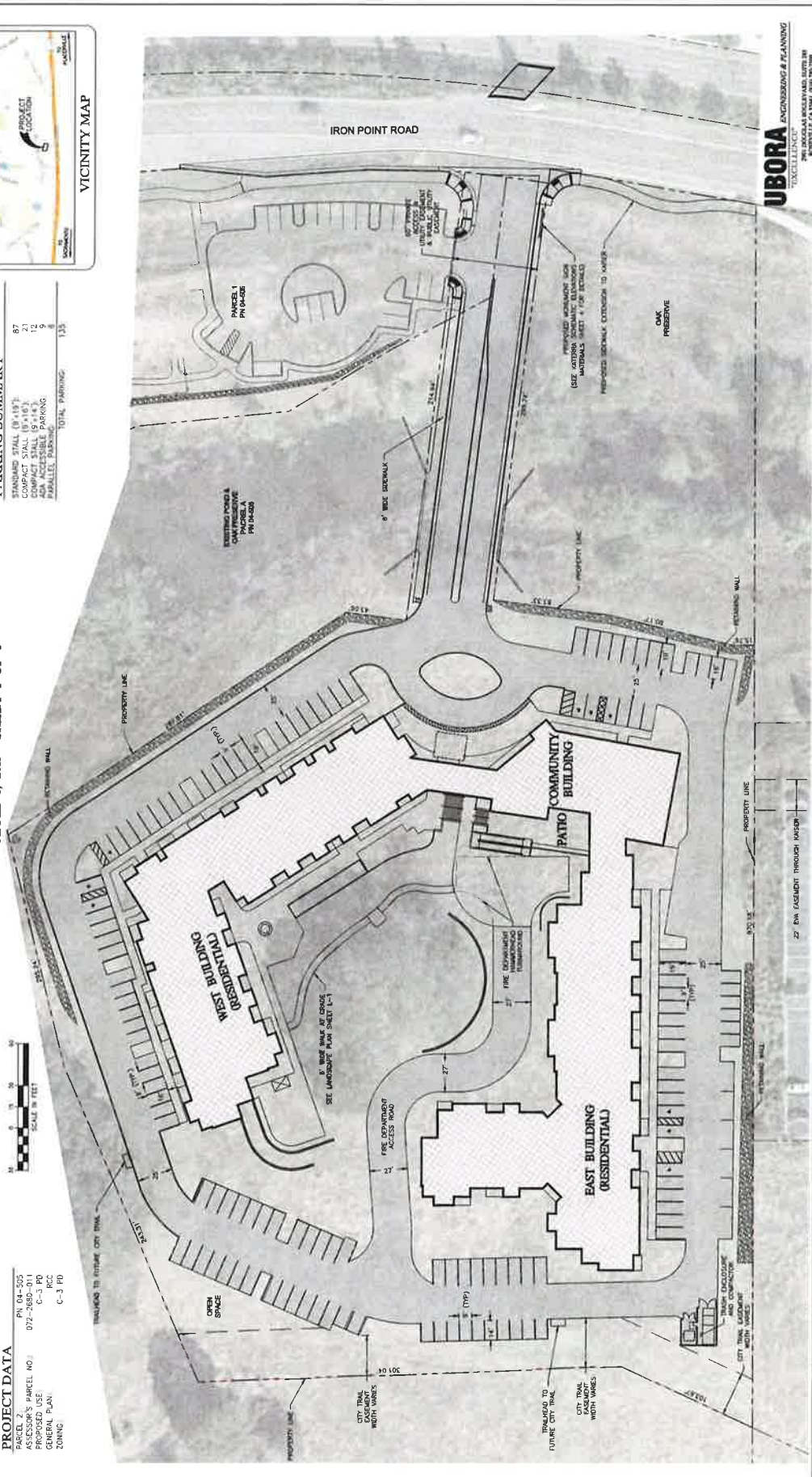
- 1 SITE PLAN
- 2 EXISTING CONSTRAINTS PLAN
- 3 GRADING & UTILITIES PLAN



DEVELOPER
WOLF ENTERPRISES II, LLC
SCOTTSDALE, AZ 85261
TEL: (480) 315-5595

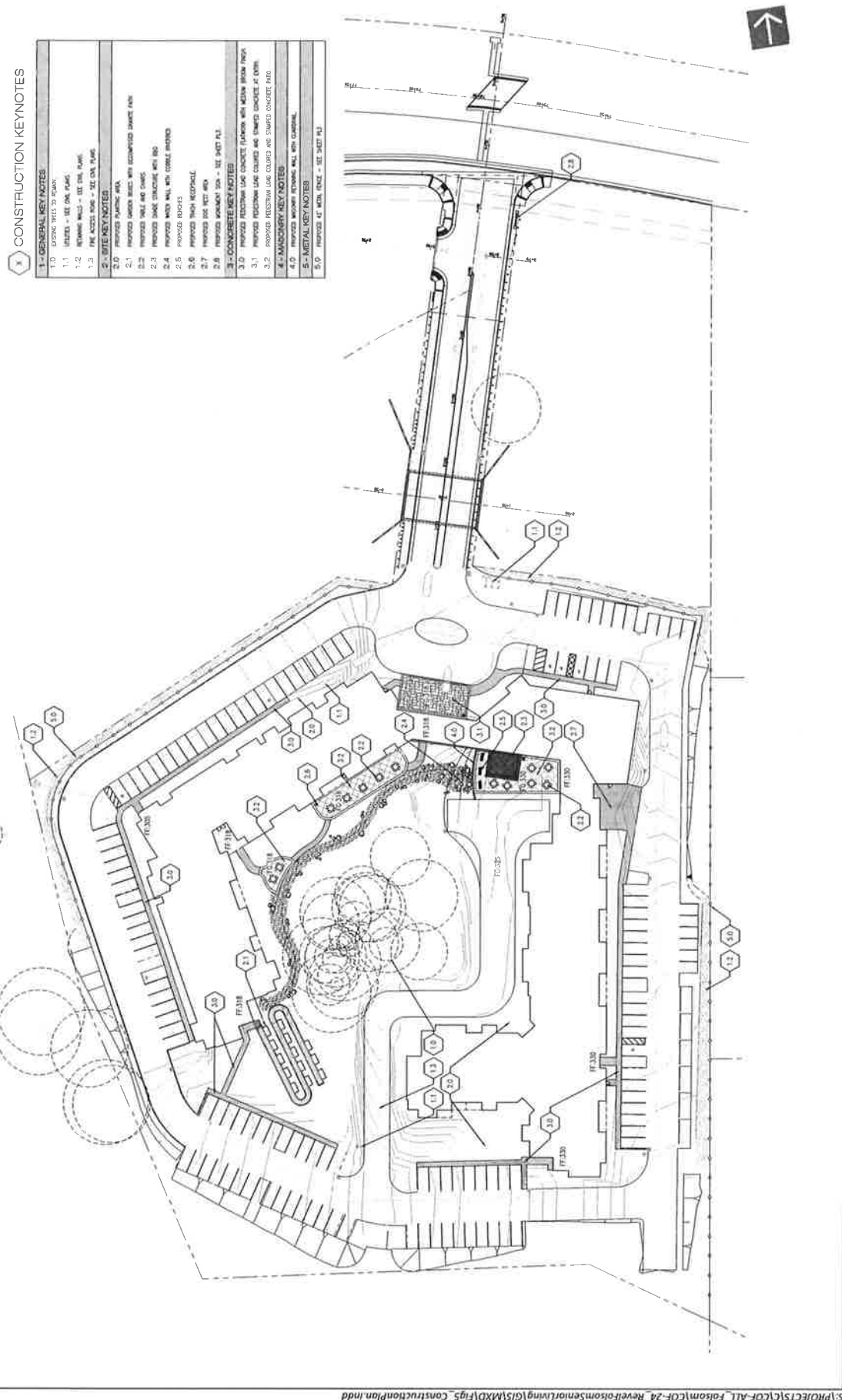
ENGINEER
UBORA ENGINEERING AND PLANNING, INC.
10000 WILSON AVENUE, SUITE 285
ROSENBLUM, CA 95831
TEL: (916) 780-2500

PROJECT DATA
PARCEL 2 PN 04-505
ASSESSOR'S PARCEL NO. 072-2680-011
PROPOSED USE C-3 PD
GENERAL PLAN MCC
ZONING C-3 PD

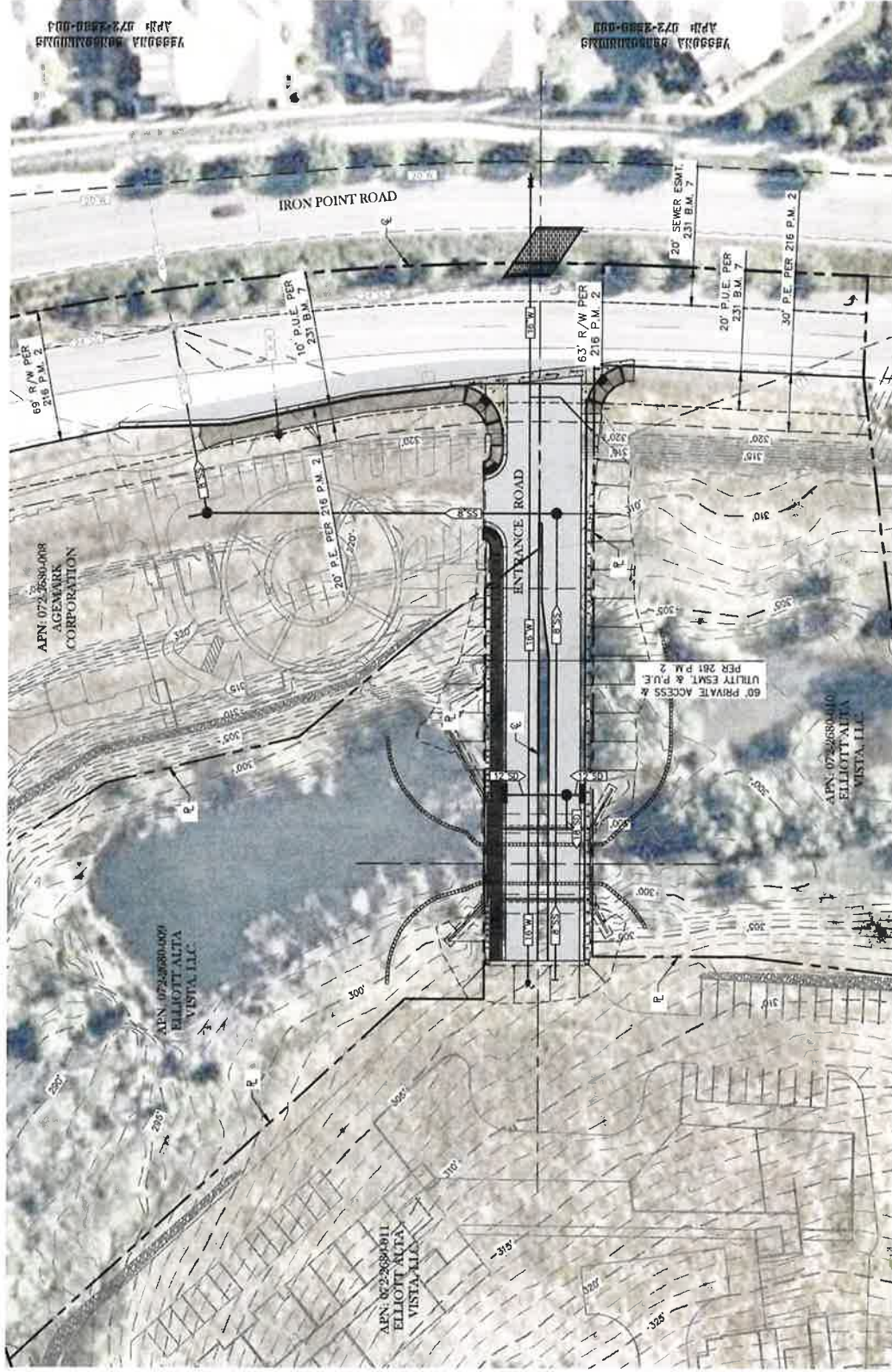


UBORA
EXCELLENCE
ENGINEERING & PLANNING
10000 WILSON AVENUE, SUITE 285
ROSENBLUM, CA 95831
TEL: (916) 780-2500

Source: UBORA Engineering & Planning 2017



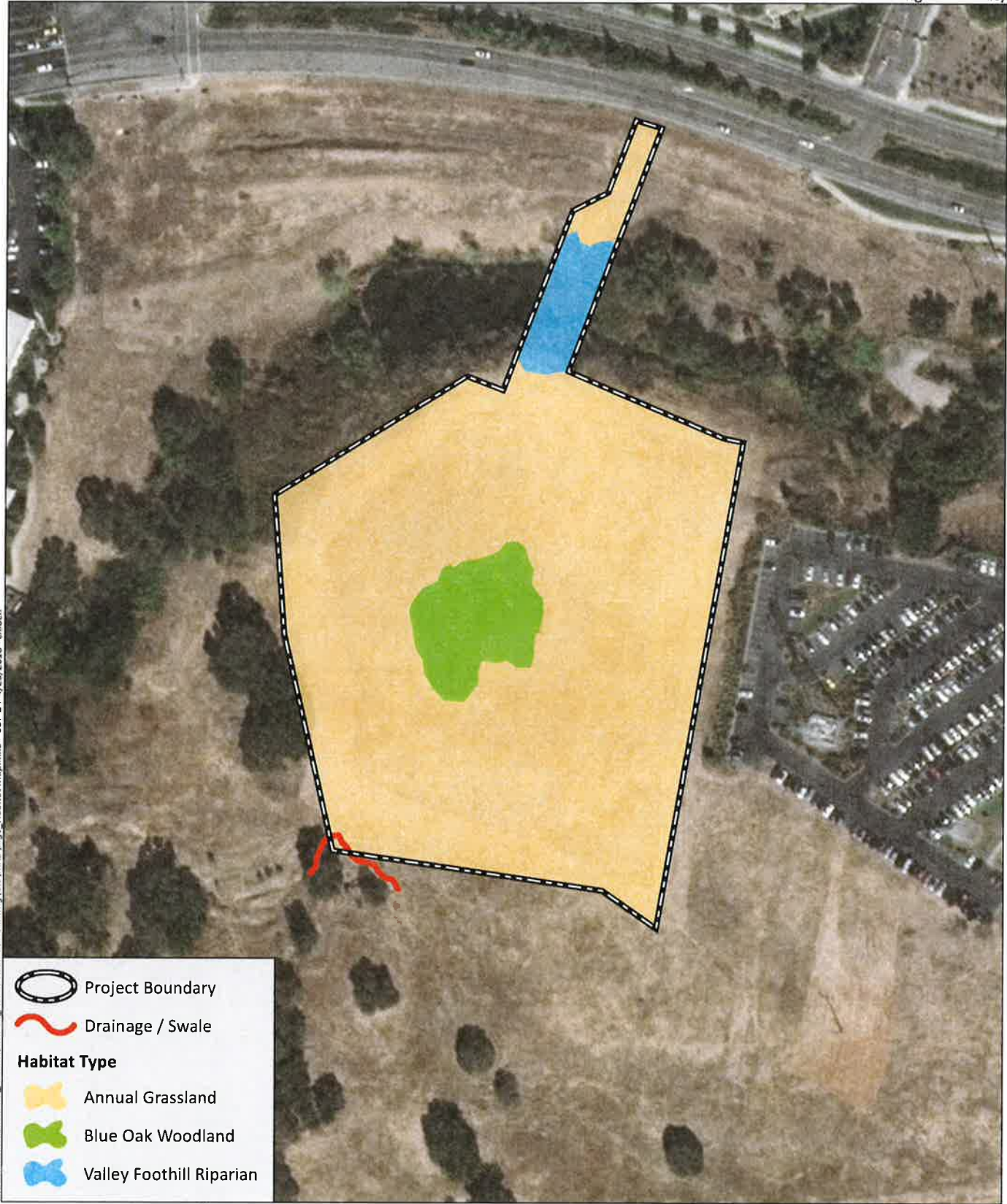
Source: Fuhrman Leamy Land Group 2017



S:\PROJECTS\CF-ALL Folsom\Revel\Revel\SeniorLiving\GIS\MXD\Fig7 FrontageImprovements.indd

Source: TSDEngineering, Inc. 2018

S:\PROJECTS\COF-ALL_Folsom\RevelFolsomSeniorLiving\GIS\MXD\Fig8_Habitat Map.mxd COF-24 4/23/2018 - chloeb



 Project Boundary

 Drainage / Swale

Habitat Type

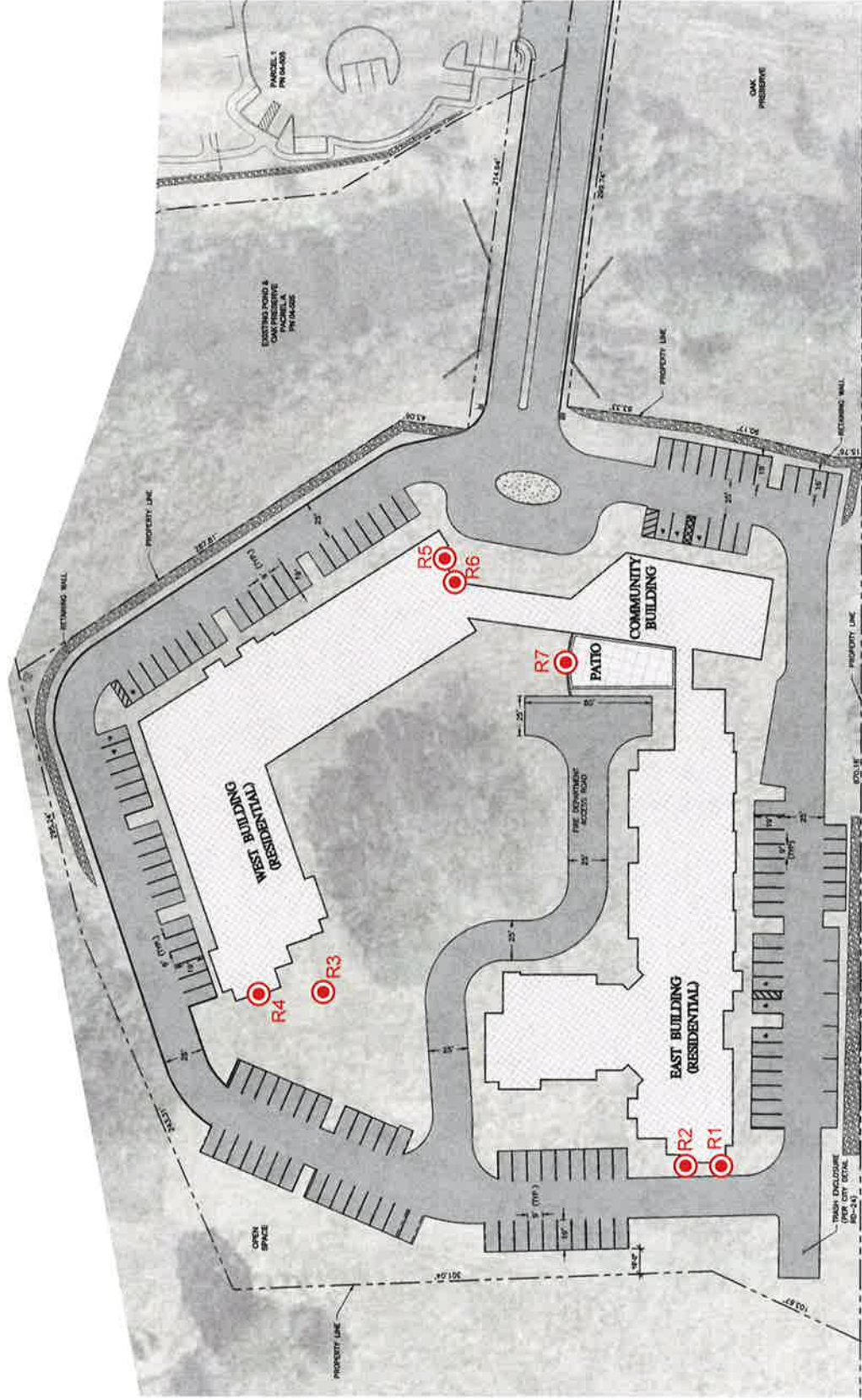
 Annual Grassland

 Blue Oak Woodland

 Valley Foothill Riparian



Source: Base Map Layers (Esri)



S:\PROJECTS\GIS\CF-ALL_Folsom\CF-24_RevelFolsomSeniorLiving\GIS\MXD\Figs_ReceiverLocations.indd

Source: Site Plan UBORA Engineering & Planning



Appendix B

Air Quality Modeling Output Files (CalEEMod)



City of Folsom - Revel Senior Living - Sacramento County, Annual

City of Folsom - Revel Senior Living
Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	133.00	Space	1.20	53,200.00	0
Congregate Care (Assisted Living)	166.00	Dwelling Unit	10.38	166,000.00	443
Other Asphalt Surfaces	39.80	1000sqft	0.91	39,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2020

Utility Company Sacramento Municipal Utility District

CO2 Intensity (lb/MW/hr)	590.31	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
--------------------------	--------	--------------------------	-------	--------------------------	-------

1.3 User Entered Comments & Non-Default Data

City of Folsom - Revel Senior Living - Sacramento County, Annual

Project Characteristics - Construction start date of 10/2018

Operation expected to begin 5/2020

Land Use - 93,000 total paved surfaces (53,200 sqft for 133 parking spaces, 39,800 sqft for other paved surfaces)
 166 dwelling units (13 studio + 99 one-bedroom + 54 two-bedroom units) yields 166,000 sqft

Construction Phase - No demo - vacant site

Grading Oct 2018

Trenching for underground infrastructure

Building starting Dec 2018

Paving lasting 3 days

Coating lasting 10 months

Off-road Equipment - Dozers and scrapers

Off-road Equipment - Mobile crane, pettibone (rough terrain forklift), water truck, skid steer, concrete pump truck, semis & concrete trucks (for deliveries)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - cut 13,800 cy, fill 14,200 cy (yields 400 cy of import for fill)

Architectural Coating - 80% of building exterior will be painted, 80% of default (112,050) yields 89,640 sqft

50 g/L coating assumed

Vehicle Trips - Griffin Cove Transportation Consulting, PLCC TIA: 570 daily trips projected (evenly split between inbound and outbound trips)

Area Coating - 80% of building exteriors painted, default exterior is 112,050, 80% yields 89,640 sqft

50 g/L coating assumed

Energy Use -

Construction Off-road Equipment Mitigation -

Area Mitigation - (already accounted for using low VOC paint, 50 g/L)

Energy Mitigation - CalEEMod is consistent with 2016 Title 24

Water Mitigation - 20% reduction in indoor and outdoor water use- Consistency with CALGreen

Waste Mitigation - Consistency with AB 341

Table Name	Column Name	Default Value	New Value
tbArchitecturalCoating	ConstArea_Residential_Exterior	112,050.00	89,640.00
tbArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tbArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

City of Folsom - Revel Senior Living - Sacramento County, Annual

tblArchitecturalCoating	EF_Parking	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_EF_Residential_Exterior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblAreaCoating	Area_Residential_Exterior	112050	89640
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	200.00
tblConstructionPhase	NumDays	300.00	382.00
tblConstructionPhase	NumDays	30.00	40.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	4/10/2020	5/29/2020
tblConstructionPhase	PhaseEndDate	2/14/2020	5/26/2020
tblConstructionPhase	PhaseEndDate	12/21/2018	11/30/2018
tblConstructionPhase	PhaseEndDate	3/13/2020	5/29/2020
tblConstructionPhase	PhaseEndDate	11/9/2018	10/5/2018
tblConstructionPhase	PhaseStartDate	3/14/2020	8/26/2019
tblConstructionPhase	PhaseStartDate	12/22/2018	12/8/2018
tblConstructionPhase	PhaseStartDate	11/10/2018	10/6/2018
tblConstructionPhase	PhaseStartDate	2/15/2020	5/27/2020
tblConstructionPhase	PhaseStartDate	10/27/2018	10/1/2018
tblGrading	AcresOfGrading	80.00	75.00

City of Folsom - Revel Senior Living - Sacramento County, Annual

tblGrading	MaterialImported	0.00	400.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	2.20	3.43
tblVehicleTrips	SU_TR	2.44	3.43
tblVehicleTrips	WD_TR	2.74	3.43

2.0 Emissions Summary

City of Folsom - Revel Senior Living - Sacramento County, Annual

2.1 Overall Construction
Unmitigated Construction

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2018	0.1196	1.3223	0.7064	1.3500e-003	0.3390	0.0574	0.3965	0.1651	0.0529	0.2179	0.0000	123.3817	123.3817	0.0333	0.0000	124.2153
2019	0.4476	1.7989	1.7123	4.3300e-003	0.1884	0.0594	0.2478	0.0507	0.0554	0.1061	0.0000	393.3130	393.3130	0.0519	0.0000	394.6098
2020	0.3672	0.7456	0.7618	1.9400e-003	0.0843	0.0258	0.1101	0.0227	0.0244	0.0470	0.0000	174.6558	174.6558	0.0223	0.0000	175.2143
Maximum	0.4476	1.7989	1.7123	4.3300e-003	0.3390	0.0594	0.3965	0.1651	0.0554	0.2179	0.0000	393.3130	393.3130	0.0519	0.0000	394.6098

Mitigated Construction

Year	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2018	0.1196	1.3223	0.7064	1.3500e-003	0.1598	0.0574	0.2172	0.0762	0.0529	0.1291	0.0000	123.3815	123.3815	0.0333	0.0000	124.2151
2019	0.4476	1.7989	1.7123	4.3300e-003	0.1884	0.0594	0.2478	0.0507	0.0554	0.1061	0.0000	393.3129	393.3129	0.0519	0.0000	394.6096
2020	0.3672	0.7456	0.7618	1.9400e-003	0.0843	0.0258	0.1101	0.0227	0.0244	0.0470	0.0000	174.6557	174.6557	0.0223	0.0000	175.2143
Maximum	0.4476	1.7989	1.7123	4.3300e-003	0.1884	0.0594	0.2478	0.0762	0.0554	0.1291	0.0000	393.3129	393.3129	0.0519	0.0000	394.6096

City of Folsom - Revel Senior Living - Sacramento County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	29.30	0.00	23.76	37.27	0.00	23.95	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2018	12-31-2018	1.4145	1.4145
2	1-1-2019	3-31-2019	0.4737	0.4737
3	4-1-2019	6-30-2019	0.4744	0.4744
4	7-1-2019	9-30-2019	0.5739	0.5739
5	10-1-2019	12-31-2019	0.7254	0.7254
6	1-1-2020	3-31-2020	0.6696	0.6696
7	4-1-2020	6-30-2020	0.4359	0.4359
		Highest	1.4145	1.4145

City of Folsom - Revel Senior Living - Sacramento County, Annual

**2.2 Overall Operational
Unmitigated Operational**

Category	ROG	NOx	CO	SO2	tons/yr					MT/yr					CO2e		
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4		N2O	
Area	0.7568	0.0199	1.7198	9.0000e-005	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	0.0000	2.8007	2.8007	2.8007	2.7400e-003	0.0000	2.8691
Energy	8.7300e-003	0.0746	0.0317	4.8000e-004	6.0300e-003	6.0300e-003	6.0300e-003	6.0300e-003	6.0300e-003	6.0300e-003	0.0000	280.5301	280.5301	280.5301	0.0112	3.5600e-003	281.8699
Mobile	0.1961	0.8448	2.3293	6.6600e-003	7.2100e-003	0.5458	0.1464	6.7800e-003	0.1532	0.0000	611.3032	611.3032	611.3032	611.3032	0.0315	0.0000	612.0898
Waste					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	30.7470	30.7470	30.7470	1.8171	0.0000	76.1745	
Water					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.8266	20.8195	24.6461	0.0142	8.5300e-003	27.5438	
Total	0.9616	0.9392	4.0808	7.2300e-003	0.5458	0.0227	0.1464	0.0223	0.1686	34.5736	915.4535	950.0271	1.8767	0.0121	1,000.5471		

City of Folsom - Revel Senior Living - Sacramento County, Annual

**2.2 Overall Operational
Mitigated Operational**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	0.7568	0.0199	1.7198	9.0000e-005		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	2.8007	2.8007	2.7400e-003	0.0000	2.8691
Energy	8.7300e-003	0.0746	0.0317	4.8000e-004		6.0300e-003	6.0300e-003		6.0300e-003	6.0300e-003	0.0000	280.5301	280.5301	0.0112	3.5600e-003	281.8699
Mobile	0.1961	0.8448	2.3293	6.6600e-003	0.5458	7.2100e-003	0.5530	0.1464	6.7800e-003	0.1532	0.0000	611.3032	611.3032	0.0315	0.0000	612.0898
Waste						0.0000	0.0000		0.0000	0.0000	23.0603	23.0603	23.0603	1.3628	0.0000	57.1309
Water						0.0000	0.0000		0.0000	0.0000	3.0613	16.6556	19.7169	0.0114	6.8300e-003	22.0351
Total	0.9516	0.9392	4.0808	7.2300e-003	0.5458	0.0227	0.5685	0.1464	0.0223	0.1686	26.1215	911.2896	937.4111	1.4196	0.0104	975.9947

Percent Reduction	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.45	0.45	1.33	24.36	14.06	2.45

3.0 Construction Detail

Construction Phase

City of Folsom - Revel Senior Living - Sacramento County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2018	10/5/2018	5	5	
2	Grading	Grading	10/6/2018	11/30/2018	5	40	
3	Building Construction	Building Construction	12/8/2018	5/26/2020	5	382	
4	Paving	Paving	5/27/2020	5/29/2020	5	3	
5	Architectural Coating	Architectural Coating	8/26/2019	5/29/2020	5	200	
6	Underground Utilities	Trenching	12/1/2018	12/7/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 2.11

Residential Indoor: 336,150; Residential Outdoor: 89,640; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 5,580 (Architectural Coating – sqft)

OffRoad Equipment

City of Folsom - Revel Senior Living - Sacramento County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Skid Steer Loaders	1	8.00	65	0.37
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Grading	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	3	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Building Construction	Rough Terrain Forklifts	1	8.00	100	0.40
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	3	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	3	8.00	46	0.45
Underground Utilities	Excavators	1	8.00	158	0.38

Trips and VMT

City of Folsom - Revel Senior Living - Sacramento County, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Underground Utilities	1	3.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	50.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	159.00	33.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.1205	0.0562	1.0000e-004	6.4400e-003	6.4400e-003	6.4400e-003	5.9300e-003	5.9300e-003	5.9300e-003	0.0000	8.6900	8.6900	2.7100e-003	0.0000	8.7576
Total	0.0114	0.1205	0.0562	1.0000e-004	0.0452	6.4400e-003	0.0516	0.0248	5.9300e-003	0.0308	0.0000	8.6900	8.6900	2.7100e-003	0.0000	8.7576

City of Folsom - Revel Senior Living - Sacramento County, Annual

**3.2 Site Preparation - 2018
Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3127	0.3127	1.0000e-005	0.0000	0.3130
Total	2.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3127	0.3127	1.0000e-005	0.0000	0.3130

Mitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.1205	0.0562	1.0000e-004		6.4400e-003	6.4400e-003		5.9300e-003	5.9300e-003	0.0000	8.6900	8.6900	2.7100e-003	0.0000	3.7576
Total	0.0114	0.1205	0.0562	1.0000e-004	0.0203	6.4400e-003	0.0268	0.0112	5.9300e-003	0.0171	0.0000	8.6900	8.6900	2.7100e-003	0.0000	3.7576

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3127	0.3127	1.0000e-005	0.0000	0.3130
Total	2.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3127	0.3127	1.0000e-005	0.0000	0.3130

3.3 Grading - 2018

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.2807	0.0000	0.2807	0.1367	0.0000	0.1367	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0925	1.0701	0.5265	9.5000e-004	0.0468	0.0468	0.0468	0.0431	0.0431	0.0431	0.0000	86.5444	86.5444	0.0269	0.0000	87.2180
Total	0.0925	1.0701	0.5265	9.5000e-004	0.2807	0.0468	0.3275	0.1367	0.0431	0.1798	0.0000	86.5444	86.5444	0.0269	0.0000	87.2180

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.3 Grading - 2018

Unmitigated Construction Off-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	2.4000e-004	8.2700e-003	2.0900e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.9544	1.9544	1.2000e-004	0.0000	1.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-004	6.5000e-004	6.8600e-003	2.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3900	1.3900	5.0000e-005	0.0000	1.3912
Total	1.1300e-003	8.9200e-003	8.9500e-003	4.0000e-005	1.8900e-003	5.0000e-005	1.9400e-003	5.1000e-004	4.0000e-005	5.5000e-004	0.0000	3.3443	3.3443	1.7000e-004	0.0000	3.3485

Mitigated Construction On-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					0.1263	0.0000	0.1263	0.0615	0.0000	0.0615	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0925	1.0701	0.5265	9.5000e-004	0.0468	0.0468	0.0468	0.0431	0.0431	0.0431	0.0000	86.5443	86.5443	0.0269	0.0000	87.2179
Total	0.0925	1.0701	0.5265	9.5000e-004	0.1263	0.0468	0.1731	0.0615	0.0431	0.1046	0.0000	86.5443	86.5443	0.0269	0.0000	87.2179

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.3 Grading - 2018

Mitigated Construction Off-Site

Category	tons/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	2.4000e-004	8.2700e-003	2.0900e-003	2.0000e-005	4.2000e-004	4.0000e-005	4.6000e-004	1.2000e-004	3.0000e-005	1.5000e-004	0.0000	1.9544	1.9544	1.2000e-004	0.0000	0.0000	1.9573
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-004	6.5000e-004	6.8600e-003	2.0000e-005	1.4700e-003	1.0000e-005	1.4800e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.3900	1.3900	5.0000e-005	0.0000	0.0000	1.3912
Total	1.1300e-003	8.9200e-003	8.9500e-003	4.0000e-005	1.8900e-003	5.0000e-005	1.9400e-003	5.1000e-004	4.0000e-005	5.5000e-004	0.0000	3.3443	3.3443	1.7000e-004	0.0000	0.0000	3.3485

3.4 Building Construction - 2018

Unmitigated Construction On-Site

Category	tons/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Off-Road	6.4500e-003	0.0765	0.0498	9.0000e-005	3.4300e-003	3.4300e-003	3.4300e-003	3.1600e-003	3.1600e-003	3.1600e-003	0.0000	8.0838	8.0838	2.4400e-003	0.0000	0.0000	8.1448
Total	6.4500e-003	0.0765	0.0498	9.0000e-005	3.4300e-003	3.4300e-003	3.4300e-003	3.1600e-003	3.1600e-003	3.1600e-003	0.0000	8.0838	8.0838	2.4400e-003	0.0000	0.0000	8.1448

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.4 Building Construction - 2018
Unmitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4300e-003	0.0343	0.0114	7.0000e-005	1.5400e-003	2.7000e-004	1.8100e-003	4.5000e-004	2.6000e-004	7.0000e-004	0.0000	6.3298	6.3298	4.1000e-004	0.0000	6.3400
Worker	5.6600e-003	4.1100e-003	0.0436	1.0000e-004	9.3400e-003	7.0000e-005	9.4100e-003	2.4800e-003	7.0000e-005	2.5500e-003	0.0000	8.8402	8.8402	3.0000e-004	0.0000	8.8477
Total	7.0900e-003	0.0384	0.0550	1.7000e-004	0.0109	3.4000e-004	0.0112	2.9300e-003	3.3000e-004	3.2500e-003	0.0000	15.1700	15.1700	7.1000e-004	0.0000	15.1878

Mitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	6.4500e-003	0.0765	0.0498	9.0000e-005	3.4300e-003	3.4300e-003	3.4300e-003	3.1600e-003	3.1600e-003	3.1600e-003	0.0000	8.0837	8.0837	2.4400e-003	0.0000	8.1448
Total	6.4500e-003	0.0765	0.0498	9.0000e-005	3.4300e-003	3.4300e-003	3.4300e-003	3.1600e-003	3.1600e-003	3.1600e-003	0.0000	8.0837	8.0837	2.4400e-003	0.0000	8.1448

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.4 Building Construction - 2018
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4300e-003	0.0343	0.0114	7.0000e-005	1.5400e-003	2.7000e-004	1.8100e-003	4.5000e-004	2.6000e-004	7.0000e-004	0.0000	6.3298	6.3298	4.1000e-004	0.0000	6.3400
Worker	5.6600e-003	4.1100e-003	0.0436	1.0000e-004	9.3400e-003	7.0000e-005	9.4100e-003	2.4800e-003	7.0000e-005	2.5500e-003	0.0000	8.8402	8.8402	3.0000e-004	0.0000	8.8477
Total	7.0900e-003	0.0384	0.0550	1.7000e-004	0.0109	3.4000e-004	0.0112	2.9300e-003	3.3000e-004	3.2500e-003	0.0000	15.1700	15.1700	7.1000e-004	0.0000	15.1878

3.4 Building Construction - 2019
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0949	1.1230	0.7843	1.4700e-003		0.0485	0.0485		0.0448	0.0448	0.0000	129.8451	129.8451	0.0398	0.0000	130.8403
Total	0.0949	1.1230	0.7843	1.4700e-003		0.0485	0.0485		0.0448	0.0448	0.0000	129.8451	129.8451	0.0398	0.0000	130.8403

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.4 Building Construction - 2019
Unmitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0206	0.5283	0.1615	1.0700e-003	0.0252	3.7600e-003	0.0290	7.2800e-003	3.6000e-003	0.0109	0.0000	102.5337	102.5337	6.4300e-003	0.0000	102.6944
Worker	0.0839	0.0590	0.6367	1.5400e-003	0.1524	1.1200e-003	0.1535	0.0405	1.0400e-003	0.0416	0.0000	139.3067	139.3067	4.3300e-003	0.0000	139.4150
Total	0.1046	0.5872	0.7981	2.6100e-003	0.1776	4.8800e-003	0.1825	0.0478	4.6400e-003	0.0525	0.0000	241.8404	241.8404	0.0108	0.0000	242.1094

Mitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0949	1.1230	0.7843	1.4700e-003		0.0485	0.0485		0.0448	0.0448	0.0000	129.8449	129.8449	0.0398	0.0000	130.8402
Total	0.0949	1.1230	0.7843	1.4700e-003		0.0485	0.0485		0.0448	0.0448	0.0000	129.8449	129.8449	0.0398	0.0000	130.8402

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.4 Building Construction - 2019

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0206	0.5283	0.1615	1.0700e-003	0.0252	3.7600e-003	0.0290	7.2800e-003	3.6000e-003	0.0109	0.0000	102.5337	102.5337	6.4300e-003	0.0000	102.6944
Worker	0.0839	0.0590	0.6367	1.5400e-003	0.1524	1.1200e-003	0.1535	0.0405	1.0400e-003	0.0416	0.0000	139.3067	139.3067	4.3300e-003	0.0000	139.4150
Total	0.1046	0.5872	0.7981	2.6100e-003	0.1776	4.8800e-003	0.1825	0.0478	4.6400e-003	0.0525	0.0000	241.8404	241.8404	0.0108	0.0000	242.1094

3.4 Building Construction - 2020

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0351	0.4138	0.3072	5.9000e-004		0.0172	0.0172		0.0159	0.0159	0.0000	51.1594	51.1594	0.0160	0.0000	51.5598
Total	0.0351	0.4138	0.3072	5.9000e-004		0.0172	0.0172		0.0159	0.0159	0.0000	51.1594	51.1594	0.0160	0.0000	51.5598

City of Folsom - Revel Senior Living - Sacramento County, Annual

**3.4 Building Construction - 2020
Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6300e-003	0.1943	0.0542	4.3000e-004	0.0101	1.0100e-003	0.0111	2.9300e-003	9.6000e-004	3.8900e-003	0.0000	40.9933	40.9933	2.4300e-003	0.0000	41.0540
Worker	0.0311	0.0211	0.2311	6.0000e-004	0.0613	4.4000e-004	0.0618	0.0163	4.1000e-004	0.0167	0.0000	54.3202	54.3202	1.5400e-003	0.0000	54.3586
Total	0.0377	0.2154	0.2853	1.0300e-003	0.0714	1.4500e-003	0.0729	0.0192	1.3700e-003	0.0206	0.0000	95.3135	95.3135	3.9700e-003	0.0000	95.4125

Mitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	0.0351	0.4138	0.3072	5.9000e-004		0.0172	0.0172		0.0159	0.0159	0.0000	51.1593	51.1593	0.0160	0.0000	51.5598
Total	0.0351	0.4138	0.3072	5.9000e-004		0.0172	0.0172		0.0159	0.0159	0.0000	51.1593	51.1593	0.0160	0.0000	51.5598

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.4 Building Construction - 2020

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6300e-003	0.1943	0.0542	4.3000e-004	0.0101	1.0100e-003	0.0111	2.9300e-003	9.6000e-004	3.8900e-003	0.0000	40.9933	40.9933	2.4300e-003	0.0000	41.0540
Worker	0.0311	0.0211	0.2311	6.0000e-004	0.0613	4.4000e-004	0.0618	0.0163	4.1000e-004	0.0167	0.0000	54.3202	54.3202	1.5400e-003	0.0000	54.9586
Total	0.0377	0.2154	0.2853	1.0300e-003	0.0714	1.4500e-003	0.0729	0.0192	1.3700e-003	0.0206	0.0000	95.3135	95.3135	3.9700e-003	0.0000	95.4125

3.5 Paving - 2020

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	2.0300e-003	0.0211	0.0220	3.0000e-005		1.1300e-003	1.1300e-003		1.0400e-003	1.0400e-003	0.0000	3.0042	3.0042	9.7000e-004	0.0000	3.0285
Paving	2.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.7900e-003	0.0211	0.0220	3.0000e-005		1.1300e-003	1.1300e-003		1.0400e-003	1.0400e-003	0.0000	3.0042	3.0042	9.7000e-004	0.0000	3.0285

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.5 Paving - 2020

Unmitigated Construction Off-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1464	0.1464	0.0000	0.0000	0.1465
Total	8.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1464	0.1464	0.0000	0.0000	0.1465

Mitigated Construction On-Site

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	2.0300e-003	0.0211	0.0220	3.0000e-005	1.1300e-003	1.1300e-003	1.1300e-003	1.0400e-003	1.0400e-003	1.0400e-003	0.0000	3.0042	3.0042	9.7000e-004	0.0000	3.0285
Paving	2.7600e-003				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.7900e-003	0.0211	0.0220	3.0000e-005	1.1300e-003	1.1300e-003	1.1300e-003	1.0400e-003	1.0400e-003	1.0400e-003	0.0000	3.0042	3.0042	9.7000e-004	0.0000	3.0285

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.5 Paving - 2020

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1464	0.1464	0.0000	0.0000	0.1465
Total	8.0000e-005	6.0000e-005	6.2000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.1464	0.1464	0.0000	0.0000	0.1465

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Archit. Coating	0.2299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.0844	0.0847	1.4000e-004	5.9200e-003	5.9200e-003	5.9200e-003	5.9200e-003	5.9200e-003	5.9200e-003	0.0000	11.7450	11.7450	9.9000e-004	0.0000	11.7698
Total	0.2422	0.0844	0.0847	1.4000e-004	5.9200e-003	5.9200e-003	5.9200e-003	5.9200e-003	5.9200e-003	5.9200e-003	0.0000	11.7450	11.7450	9.9000e-004	0.0000	11.7698

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.6 Architectural Coating - 2019
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9500e-003	4.1800e-003	0.0452	1.1000e-004	0.0108	8.0000e-005	0.0109	2.8800e-003	7.0000e-005	2.9500e-003	0.0000	9.8826	9.8826	3.1000e-004	0.0000	9.8903
Total	5.9500e-003	4.1800e-003	0.0452	1.1000e-004	0.0108	8.0000e-005	0.0109	2.8800e-003	7.0000e-005	2.9500e-003	0.0000	9.8826	9.8826	3.1000e-004	0.0000	9.8903
MT/yr																

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Archit. Coating	0.2299					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.0844	0.0847	1.4000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	11.7450	11.7450	9.9000e-004	0.0000	11.7698
Total	0.2422	0.0844	0.0847	1.4000e-004		5.9200e-003	5.9200e-003		5.9200e-003	5.9200e-003	0.0000	11.7450	11.7450	9.9000e-004	0.0000	11.7698
MT/yr																

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.6 Architectural Coating - 2019
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9500e-003	4.1800e-003	0.0452	1.1000e-004	0.0108	8.0000e-005	0.0109	2.8800e-003	7.0000e-005	2.9500e-003	0.0000	9.8826	9.8826	3.1000e-004	0.0000	9.8903
Total	5.9500e-003	4.1800e-003	0.0452	1.1000e-004	0.0108	8.0000e-005	0.0109	2.8800e-003	7.0000e-005	2.9500e-003	0.0000	9.8826	9.8826	3.1000e-004	0.0000	9.8903
MT/yr																

3.6 Architectural Coating - 2020
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Archit. Coating	0.2699					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.0909	0.0989	1.6000e-004	5.9900e-003	5.9900e-003	5.9900e-003	5.9900e-003	5.9900e-003	5.9900e-003	0.0000	13.7876	13.7876	1.0700e-003	0.0000	13.8143
Total	0.2830	0.0909	0.0989	1.6000e-004	5.9900e-003	5.9900e-003	5.9900e-003	5.9900e-003	5.9900e-003	5.9900e-003	0.0000	13.7876	13.7876	1.0700e-003	0.0000	13.8143
MT/yr																

City of Folsom - Revel Senior Living - Sacramento County, Annual

**3.6 Architectural Coating - 2020
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4300e-003	4.3600e-003	0.0478	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.2447	11.2447	3.2000e-004	0.0000	11.2527
Total	6.4300e-003	4.3600e-003	0.0478	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.2447	11.2447	3.2000e-004	0.0000	11.2527

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Archit. Coating	0.2699					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.0909	0.0989	1.6000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	13.7876	13.7876	1.0700e-003	0.0000	13.8142
Total	0.2830	0.0909	0.0989	1.6000e-004		5.9900e-003	5.9900e-003		5.9900e-003	5.9900e-003	0.0000	13.7876	13.7876	1.0700e-003	0.0000	13.8142

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.6 Architectural Coating - 2020
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4300e-003	4.3600e-003	0.0478	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.2447	11.2447	3.2000e-004	0.0000	11.2527
Total	6.4300e-003	4.3600e-003	0.0478	1.2000e-004	0.0127	9.0000e-005	0.0128	3.3800e-003	8.0000e-005	3.4600e-003	0.0000	11.2447	11.2447	3.2000e-004	0.0000	11.2527

3.7 Underground Utilities - 2018
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Off-Road	7.3000e-004	7.7800e-003	8.2300e-003	1.0000e-005	3.8000e-004	3.8000e-004	3.8000e-004	3.5000e-004	3.5000e-004	3.5000e-004	0.0000	1.1843	1.1843	3.7000e-004	0.0000	1.1935
Total	7.3000e-004	7.7800e-003	8.2300e-003	1.0000e-005	3.8000e-004	3.8000e-004	3.8000e-004	3.5000e-004	3.5000e-004	3.5000e-004	0.0000	1.1843	1.1843	3.7000e-004	0.0000	1.1935

City of Folsom - Revel Senior Living - Sacramento County, Annual

**3.7 Underground Utilities - 2018
Unmitigated Construction Off-Site**

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0521	0.0521	0.0000	0.0000	0.0522
Total	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0521	0.0521	0.0000	0.0000	0.0522

Mitigated Construction On-Site

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	7.3000e-004	7.7800e-003	8.2300e-003	1.0000e-005	3.8000e-004	3.8000e-004	3.8000e-004	3.5000e-004	3.5000e-004	3.5000e-004	0.0000	1.1843	1.1843	3.7000e-004	0.0000	1.1935
Total	7.3000e-004	7.7800e-003	8.2300e-003	1.0000e-005	3.8000e-004	3.8000e-004	3.8000e-004	3.5000e-004	3.5000e-004	3.5000e-004	0.0000	1.1843	1.1843	3.7000e-004	0.0000	1.1935

City of Folsom - Revel Senior Living - Sacramento County, Annual

3.7 Underground Utilities - 2018

Mitigated Construction Off-Site

Category	tons/yr											MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0521	0.0521	0.0000	0.0000	0.0000	0.0522
Total	3.0000e-005	2.0000e-005	2.6000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.0521	0.0521	0.0000	0.0000	0.0000	0.0522

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

City of Folsom - Revel Senior Living - Sacramento County, Annual

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Mitigated	0.1961	0.8448	2.3293	6.6600e-003	0.5458	7.2100e-003	0.5530	0.1464	6.7800e-003	0.1532	0.0000	611.3032	611.3032	0.0315	0.0000	612.0898
Unmitigated	0.1961	0.8448	2.3293	6.6600e-003	0.5458	7.2100e-003	0.5530	0.1464	6.7800e-003	0.1532	0.0000	611.3032	611.3032	0.0315	0.0000	612.0898

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Congregate Care (Assisted Living)	570.00	570.00	570.00	1,462,682	1,462,682
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	570.00	570.00	570.00	1,462,682	1,462,682

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-C	H-W or C-W	H-S or C-C	H-O or C-C	Primary	Diverted	Pass-by
Congregate Care (Assisted)	10.00	5.00	5.00	46.50	12.50	41.00	86	11	3
Other Asphalt Surfaces	10.00	5.00	5.00	0.00	0.00	0.00	0	0	0
Parking Lot	10.00	5.00	5.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

City of Folsom - Revel Senior Living - Sacramento County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MIH
Congregate Care (Assisted Living)	0.551662	0.040953	0.203778	0.123762	0.021802	0.005583	0.018466	0.022043	0.002076	0.002280	0.006004	0.000618	0.000971
Other Asphalt Surfaces	0.551662	0.040953	0.203778	0.123762	0.021802	0.005583	0.018466	0.022043	0.002076	0.002280	0.006004	0.000618	0.000971
Parking Lot	0.551662	0.040953	0.203778	0.123762	0.021802	0.005583	0.018466	0.022043	0.002076	0.002280	0.006004	0.000618	0.000971

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.1776	194.1776	9.5400e-003	1.9700e-003	195.0042
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.1776	194.1776	9.5400e-003	1.9700e-003	195.0042
Natural Gas Mitigated	8.7300e-003	0.0746	0.0317	4.8000e-004		6.0300e-003	6.0300e-003		6.0300e-003	6.0300e-003	0.0000	86.3525	86.3525	1.6600e-003	1.5800e-003	86.8656
Natural Gas Unmitigated	8.7300e-003	0.0746	0.0317	4.8000e-004		6.0300e-003	6.0300e-003		6.0300e-003	6.0300e-003	0.0000	86.3525	86.3525	1.6600e-003	1.5800e-003	86.8656

City of Folsom - Revel Senior Living - Sacramento County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	tons/yr			PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
						Fugitive PM10	Exhaust PM10	PM10 Total							
Congregate Care (Assisted Living)	1.61818e+006	8.7300e-003	0.0746	0.0317	4.8000e-004	6.0300e-003	6.0300e-003	6.0300e-003	0.0000	86.3525	1.6600e-003	86.3525	1.6600e-003	1.5800e-003	86.8656
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		8.7300e-003	0.0746	0.0317	4.8000e-004	6.0300e-003	6.0300e-003	6.0300e-003	0.0000	86.3525	1.6600e-003	86.3525	1.6600e-003	1.5800e-003	86.8656

Mitigated

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	tons/yr			PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
						Fugitive PM10	Exhaust PM10	PM10 Total							
Congregate Care (Assisted Living)	1.61818e+006	8.7300e-003	0.0746	0.0317	4.8000e-004	6.0300e-003	6.0300e-003	6.0300e-003	0.0000	86.3525	1.6600e-003	86.3525	1.6600e-003	1.5800e-003	86.8656
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		8.7300e-003	0.0746	0.0317	4.8000e-004	6.0300e-003	6.0300e-003	6.0300e-003	0.0000	86.3525	1.6600e-003	86.3525	1.6600e-003	1.5800e-003	86.8656

City of Folsom - Revel Senior Living - Sacramento County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	706572	189.1919	9.2900e-003	1.9200e-003	189.9973
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	18620	4.9857	2.4000e-004	5.0000e-005	5.0069
Total		194.1776	9.5300e-003	1.9700e-003	195.0042

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	706572	189.1919	9.2900e-003	1.9200e-003	189.9973
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	18620	4.9857	2.4000e-004	5.0000e-005	5.0069
Total		194.1776	9.5300e-003	1.9700e-003	195.0042

6.0 Area Detail

City of Folsom - Revel Senior Living - Sacramento County, Annual

6.1 Mitigation Measures Area

Category	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	0.7568	0.0199	1.7198	9.0000e-005		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	2.8007	2.8007	2.7400e-003	0.0000	2.8691
Unmitigated	0.7568	0.0199	1.7198	9.0000e-005		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	2.8007	2.8007	2.7400e-003	0.0000	2.8691

City of Folsom - Revel Senior Living - Sacramento County, Annual

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0500					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6543					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0525	0.0199	1.7198	9.0000e-005	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	0.0000	2.8007	2.8007	2.7400e-003	0.0000	2.8691
Total	0.7568	0.0199	1.7198	9.0000e-005		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003	0.0000	2.8007	2.8007	2.7400e-003	0.0000	2.8691

City of Folsom - Revel Senior Living - Sacramento County, Annual

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	tons/yr			MT/yr										
					Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Architectural Coating	0.0500					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	0.6543					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	0.0525	0.0199	1.7198	9.0000e-005		9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	2.8007	2.8007	2.8007	2.7400e-003	0.0000	0.0000	2.8691
Total	0.7568	0.0199	1.7198	9.0000e-005		9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	9.4500e-003	2.8007	2.8007	2.8007	2.7400e-003	0.0000	0.0000	2.8691

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

City of Folsom - Revel Senior Living - Sacramento County, Annual

Category	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.7169	0.0114	6.8300e-003	22.0351
Unmitigated	24.6461	0.0142	8.5300e-003	27.5438

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Congregate Care (Assisted Living)	10.8156 / 6.81851	24.6461	0.0142	8.5300e-003	27.5438
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		24.6461	0.0142	8.5300e-003	27.5438

City of Folsom - Revel Senior Living - Sacramento County - Annual

7.2 Water by Land Use

Mitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Congregate Care (Assisted Living)	8.65245 / 5.45481	19.7169	0.0114	6.8300e-003	22.0351
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		19.7169	0.0114	6.8300e-003	22.0351

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

City of Folsom - Revel Senior Living - Sacramento County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.0603	1.3628	0.0000	57.1309
Unmitigated	30.7470	1.8171	0.0000	76.1745

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
		MT/yr			
Congregate Care (Assisted Living)	151.47	30.7470	1.8171	0.0000	76.1745
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		30.7470	1.8171	0.0000	76.1745

City of Folsom - Revel Senior Living - Sacramento County, Annual

8.2 Waste by Land Use

Mitigated

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
Congregate Care (Assisted Living)	113.602	23.0603	1.3628	0.0000	57.1309
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		23.0603	1.3628	0.0000	57.1309

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

City of Folsom - Revel Senior Living - Sacramento County, Winter

City of Folsom - Revel Senior Living
Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	133.00	Space	1.20	53,200.00	0
Congregate Care (Assisted Living)	166.00	Dwelling Unit	10.38	166,000.00	443
Other Asphalt Surfaces	39.80	1000sqft	0.91	39,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2020

Utility Company Sacramento Municipal Utility District

CO2 Intensity (lb/MW/hr)	590.31	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

City of Folsom - Revel Senior Living - Sacramento County, Winter

Project Characteristics - Construction start date of 10/2018
 Operation expected to begin 5/2020

Land Use - 93,000 total paved surfaces (53,200 sqft for 133 parking spaces, 39,800 sqft for other paved surfaces)
 166 dwelling units (13 studio + 99 one-bedroom + 54 two-bedroom units) yields 166,000 sqft

Construction Phase - No demo - vacant site
 Grading Oct 2018

Trenching for underground infrastructure

Building starting Dec 2018

Paving lasting 3 days

Coating lasting 10 months

Off-road Equipment - Dozers and scrapers

Off-road Equipment - Mobile crane, pettibone (rough terrain forklift), water truck, skid steer, concrete pump truck, semis & concrete trucks (for deliveries)

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Grading - cut 13,800 cy, fill 14,200 cy (yields 400 cy of import for fill)

Architectural Coating - 80% of building exterior will be painted, 80% of default (112,050) yields 89,640 sqft
 50 g/L coating assumed

Vehicle Trips - Griffin Cove Transportation Consulting, PLCC TIA: 570 daily trips projected (evenly split between inbound and outbound trips)

Area Coating - 80% of building exteriors painted, default exterior is 112,050, 80% yields 89,640 sqft
 50 g/L coating assumed

Energy Use -

Construction Off-road Equipment Mitigation -

Area Mitigation - (already accounted for using low VOC paint, 50 g/L)

Energy Mitigation - CalEEMod is consistent with 2016 Title 24

Water Mitigation - 20% reduction in indoor and outdoor water use- Consistency with CALGreen

Waste Mitigation - Consistency with AB 341

Table Name	Column Name	Default Value	New Value
tbiArchitecturalCoating	ConstArea_Residential_Exterior	112,050.00	89,640.00
tbiArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tbiArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

City of Folsom - Revel Senior Living - Sacramento County, Winter

tblArchitecturalCoating	EF_Parking	100.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaCoating	Area_EF_Parking	100	50
tblAreaCoating	Area_EF_Residential_Exterior	100	50
tblAreaCoating	Area_EF_Residential_Interior	100	50
tblAreaCoating	Area_Residential_Exterior	112050	89640
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	200.00
tblConstructionPhase	NumDays	300.00	382.00
tblConstructionPhase	NumDays	30.00	40.00
tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	4/10/2020	5/29/2020
tblConstructionPhase	PhaseEndDate	2/14/2020	5/26/2020
tblConstructionPhase	PhaseEndDate	12/21/2018	11/30/2018
tblConstructionPhase	PhaseEndDate	3/13/2020	5/29/2020
tblConstructionPhase	PhaseEndDate	11/9/2018	10/5/2018
tblConstructionPhase	PhaseStartDate	3/14/2020	8/26/2019
tblConstructionPhase	PhaseStartDate	12/22/2018	12/8/2018
tblConstructionPhase	PhaseStartDate	11/10/2018	10/6/2018
tblConstructionPhase	PhaseStartDate	2/15/2020	5/27/2020
tblConstructionPhase	PhaseStartDate	10/27/2018	10/1/2018
tblGrading	AcresOfGrading	80.00	75.00

City of Folsom - Revel Senior Living - Sacramento County, Winter

tblGrading	MaterialImported	0.00	400.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	2.20	3.43
tblVehicleTrips	SU_TR	2.44	3.43
tblVehicleTrips	WD_TR	2.74	3.43

2.0 Emissions Summary

City of Folsom - Revel Senior Living - Sacramento County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2018	4.6859	53.9555	26.7854	0.0491	18.2032	2.5779	20.7811	9.9670	2.3717	12.3387	0.0000	4,951.162 ₀	4,951.162 ₀	1.4942	0.0000	4,988.517 ₁
2019	6.9800	15.0979	15.1266	0.0361	1.6516	0.5399	2.1914	0.4426	0.5092	0.9518	0.0000	3,604.850 ₅	3,604.850 ₅	0.4606	0.0000	3,616.366 ₄
2020	8.6265	15.8823	17.7975	0.0356	1.6515	0.8662	2.1194	0.4426	0.8058	0.9006	0.0000	3,534.479 ₁	3,534.479 ₁	0.7452	0.0000	3,545.722 ₃
Maximum	8.6265	53.9555	26.7854	0.0491	18.2032	2.5779	20.7811	9.9670	2.3717	12.3387	0.0000	4,951.162₀	4,951.162₀	1.4942	0.0000	4,988.517₁

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2018	4.6859	53.9555	26.7854	0.0491	8.2668	2.5779	10.8447	4.5051	2.3717	6.8768	0.0000	4,951.162 ₀	4,951.162 ₀	1.4942	0.0000	4,988.517 ₀
2019	6.9800	15.0979	15.1266	0.0361	1.6516	0.5399	2.1914	0.4426	0.5092	0.9518	0.0000	3,604.850 ₅	3,604.850 ₅	0.4606	0.0000	3,616.366 ₄
2020	8.6265	15.8823	17.7975	0.0356	1.6515	0.8662	2.1194	0.4426	0.8058	0.9006	0.0000	3,534.479 ₁	3,534.479 ₁	0.7452	0.0000	3,545.722 ₃
Maximum	8.6265	53.9555	26.7854	0.0491	8.2668	2.5779	10.8447	4.5051	2.3717	6.8768	0.0000	4,951.162₀	4,951.162₀	1.4942	0.0000	4,988.517₀

City of Folsom - Revel Senior Living - Sacramento County, Winter

2.2 Overall Operational

Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Area	4.2793	0.1591	13.7585	7.2000e-004		0.0756	0.0756		0.0756	0.0756	0.0000	24.6975	24.6975	0.0242	0.0000	25.3012
Energy	0.0478	0.4086	0.1739	2.6100e-003		0.0330	0.0330		0.0330	0.0330		521.5744	521.5744	0.0100	9.5600e-003	524.6739
Mobile	1.0265	4.7874	13.2965	0.0358	3.1043	0.0400	3.1443	0.8302	0.0376	0.8678		3,613.1999	3,618.1999	0.1939		3,623.0464
Total	5.3536	5.3550	27.2289	0.0391	3.1043	0.1486	3.2529	0.8302	0.1462	0.9764	0.0000	4,164.4718	4,164.4718	0.2280	9.5600e-003	4,173.0214

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Area	4.2793	0.1591	13.7585	7.2000e-004		0.0756	0.0756		0.0756	0.0756	0.0000	24.6975	24.6975	0.0242	0.0000	25.3012
Energy	0.0478	0.4086	0.1739	2.6100e-003		0.0330	0.0330		0.0330	0.0330		521.5744	521.5744	0.0100	9.5600e-003	524.6739
Mobile	1.0265	4.7874	13.2965	0.0358	3.1043	0.0400	3.1443	0.8302	0.0376	0.8678		3,613.1999	3,618.1999	0.1939		3,623.0464
Total	5.3536	5.3550	27.2289	0.0391	3.1043	0.1486	3.2529	0.8302	0.1462	0.9764	0.0000	4,164.4718	4,164.4718	0.2280	9.5600e-003	4,173.0214

City of Folsom - Revel Senior Living - Sacramento County, Winter

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	GH4	N2O	CO2e
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/1/2018	10/5/2018	5	5	
2	Grading	Grading	10/6/2018	11/30/2018	5	40	
3	Building Construction	Building Construction	12/8/2018	5/26/2020	5	382	
4	Paving	Paving	5/27/2020	5/29/2020	5	3	
5	Architectural Coating	Architectural Coating	8/26/2019	5/29/2020	5	200	
6	Underground Utilities	Trenching	12/1/2018	12/7/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 2.11

Residential Indoor: 336,150; Residential Outdoor: 89,640; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 5,580 (Architectural Coating – sqft)

OffRoad Equipment

City of Folsom - Revel Senior Living - Sacramento County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Skid Steer Loaders	1	3.00	65	0.37
Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Grading	Excavators	0	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	3.00	89	0.20
Building Construction	Generator Sets	0	3.00	84	0.74
Paving	Pavers	2	3.00	130	0.42
Paving	Rollers	2	3.00	80	0.38
Building Construction	Rough Terrain Forklifts	1	3.00	100	0.40
Grading	Rubber Tired Dozers	2	3.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	0	3.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	3.00	97	0.37
Paving	Paving Equipment	2	3.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	3.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	3.00	247	0.40
Grading	Scrapers	2	3.00	367	0.48
Building Construction	Welders	0	3.00	46	0.45
Underground Utilities	Excavators	1	3.00	158	0.38

Trips and VMT

City of Folsom - Revel Senior Living - Sacramento County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Underground Utilities	1	3.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	50.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	4	159.00	33.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	32.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

**3.2 Site Preparation - 2018
Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Biogenic CO2	NBiogenic CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380	2.5769	2.5769	2.5769	2.3708	2.3708	2.3708	3,831.623 ₉	3,831.623 ₉	3,831.623 ₉	1.1928		3,861.444 ₈
Total	4.5627	48.1988	22.4763	0.0380	18.0663	2.5769	20.6432	9.9307	2.3708	12.3014		3,831.623₉	3,831.623₉	1.1928		3,861.444₈

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0856	0.0651	0.6267	1.3500e-003	0.1369	1.0100e-003	0.1379	0.0363	9.3000e-004	0.0373	133.9731	133.9731	4.6700e-003	134.0898		
Total	0.0856	0.0651	0.6267	1.3500e-003	0.1369	1.0100e-003	0.1379	0.0363	9.3000e-004	0.0373	133.9731	133.9731	4.6700e-003	134.0898		

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380	2.5769	2.5769	2.5769	2.3708	2.3708	2.3708	0.0000	3.831.6239	3.831.6239	1.1928		3.861.4448
Total	4.5627	48.1988	22.4763	0.0380	8.1298	2.5769	10.7067	4.4688	2.3708	6.8396	0.0000	3,831.6239	3,831.6239	1.1928		3,861.4448

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0856	0.0651	0.6267	1.3500e-003	0.1369	1.0100e-003	0.1379	0.0363	9.3000e-004	0.0373	133.9731	133.9731	4.6700e-003	134.0898		
Total	0.0856	0.0651	0.6267	1.3500e-003	0.1369	1.0100e-003	0.1379	0.0363	9.3000e-004	0.0373	133.9731	133.9731	4.6700e-003	134.0898		

3.3 Grading - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					14.0347	0.0000	14.0347	6.8355	0.0000	6.8355			0.0000			0.0000
Off-Road	4.6260	53.5030	26.3264	0.0474	2.3397	2.3397	2.3397	2.1525	2.1525	2.1525	4,769.9444	4,769.9444	1.4850	1.4850		4,807.0681
Total	4.6260	53.5030	26.3264	0.0474	14.0347	2.3397	16.3744	6.8355	2.1525	8.9880	4,769.9444	4,769.9444	1.4850	1.4850		4,807.0681

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.3 Grading - 2018

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0123	0.4163	0.1108	1.0000e-003	0.0218	1.8400e-003	0.0236	5.9600e-003	1.7600e-003	7.7200e-003		106.7881	106.7881	6.6600e-003		106.9546
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0362	0.3482	7.5000e-004	0.0761	5.6000e-004	0.0766	0.0202	5.2000e-004	0.0207		74.4295	74.4295	2.6000e-003		74.4944
Total	0.0599	0.4525	0.4589	1.7500e-003	0.0978	2.4000e-003	0.1002	0.0261	2.2800e-003	0.0284		181.2175	181.2175	9.2600e-003		181.4489

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					6.3156	0.0000	6.3156	3.0760	0.0000	3.0760			0.0000			0.0000
Off-Road	4.6260	53.5030	26.3264	0.0474	2.3397	2.3397	2.3397	2.1525	2.1525	2.1525	0.0000	4,769,944 ₄	4,769,944 ₄	1.4850		4,807,068 ₁
Total	4.6260	53.5030	26.3264	0.0474	6.3156	2.3397	8.6553	3.0760	2.1525	5.2285	0.0000	4,769,944₄	4,769,944₄	1.4850		4,807,068₁

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.3 Grading - 2018

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0123	0.4163	0.1108	1.0000e-003	0.0218	1.8400e-003	0.0236	5.9600e-003	1.7600e-003	7.7200e-003		106.7881	106.7881	6.6600e-003		106.9546
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0362	0.3482	7.5000e-004	0.0761	5.6000e-004	0.0766	0.0202	5.2000e-004	0.0207		74.4295	74.4295	2.6000e-003		74.4944
Total	0.0599	0.4525	0.4589	1.7500e-003	0.0978	2.4000e-003	0.1002	0.0261	2.2800e-003	0.0284		181.2175	181.2175	9.2600e-003		181.4489

3.4 Building Construction - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.8069	9.5617	6.2198	0.0113		0.4283	0.4283		0.3952	0.3952		1,113.851	1,113.851	0.3363		1,122.2579
Total	0.8069	9.5617	6.2198	0.0113		0.4283	0.4283		0.3952	0.3952		1,113.851	1,113.851	0.3363		1,122.2579

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.4 Building Construction - 2018
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1865	4.2880	1.5401	8.1400e-003	0.1986	0.0342	0.2329	0.0572	0.0328	0.0899		859.5179	859.5179	0.0592		860.9988
Worker	0.7560	0.5750	5.5355	0.0119	1.2095	8.8900e-003	1.2184	0.3208	8.2000e-003	0.3280		1,183.4286	1,183.4286	0.0413		1,184.4602
Total	0.9425	4.8630	7.0756	0.0200	1.4082	0.0431	1.4513	0.3780	0.0410	0.4190		2,042.9465	2,042.9465	0.1005		2,045.4590

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.8069	9.5617	6.2198	0.0113		0.4283	0.4283		0.3952	0.3952	0.0000	1,113.8511	1,113.8511	0.3363		1,122.2579
Total	0.8069	9.5617	6.2198	0.0113		0.4283	0.4283		0.3952	0.3952	0.0000	1,113.8511	1,113.8511	0.3363		1,122.2579

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.4 Building Construction - 2018
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1865	4.2880	1.5401	8.1400e-003	0.1986	0.0342	0.2329	0.0572	0.0328	0.0899		859.5179	859.5179	0.0592		860.9988
Worker	0.7560	0.5750	5.5355	0.0119	1.2095	8.8900e-003	1.2184	0.3208	8.2000e-003	0.3290		1,183.4286	1,183.4286	0.0413		1,184.4602
Total	0.9425	4.8630	7.0756	0.0200	1.4082	0.0431	1.4513	0.3780	0.0410	0.4190		2,042.9465	2,042.9465	0.1005		2,045.4590

3.4 Building Construction - 2019
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.7272	8.6054	6.0096	0.0113		0.3714	0.3714		0.3429	0.3429		1,096.7791	1,096.7791	0.3363		1,105.1858
Total	0.7272	8.6054	6.0096	0.0113		0.3714	0.3714		0.3429	0.3429		1,096.7791	1,096.7791	0.3363		1,105.1858

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.4 Building Construction - 2019
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1641	4.0493	1.3425	8.0700e-003	0.1986	0.0293	0.2279	0.0572	0.0280	0.0852	853.3332	853.3332	0.0570	0.0570		854.7582
Worker	0.6858	0.5060	4.9391	0.0115	1.2095	8.6200e-003	1.2181	0.3208	7.9500e-003	0.3288	1,143.210	1,143.210	0.0363	0.0363		1,144.117
Total	0.8499	4.5553	6.2817	0.0196	1.4081	0.0379	1.4460	0.3780	0.0360	0.4140	1,996.543	1,996.543	0.0933	0.0933		1,998.875
lb/day																

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.7272	8.6054	6.0096	0.0113		0.3714	0.3714		0.3429	0.3429	0.0000	1,096.779	1,096.779	0.3363		1,105.185
Total	0.7272	8.6054	6.0096	0.0113		0.3714	0.3714		0.3429	0.3429	0.0000	1,096.779	1,096.779	0.3363		1,105.185
lb/day																

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.4 Building Construction - 2019

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1641	4.0493	1.3425	8.0700e-003	0.1986	0.0293	0.2279	0.0572	0.0280	0.0852		853.3332	853.3332	0.0570		854.7582
Worker	0.6858	0.5060	4.9391	0.0115	1.2095	8.6200e-003	1.2181	0.3208	7.9500e-003	0.3288		1,143.2102	1,143.2102	0.0363		1,144.1174
Total	0.8499	4.5553	6.2817	0.0196	1.4081	0.0379	1.4460	0.3780	0.0360	0.4140		1,996.5434	1,996.5434	0.0933		1,998.8756

3.4 Building Construction - 2020

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.6692	7.8825	5.8522	0.0113		0.3273	0.3273		0.3023	0.3023		1,074.1634	1,074.1634	0.3363		1,082.5712
Total	0.6692	7.8825	5.8522	0.0113		0.3273	0.3273		0.3023	0.3023		1,074.1634	1,074.1634	0.3363		1,082.5712

City of Folsom - Revel Senior Living - Sacramento County, Winter

**3.4 Building Construction - 2020
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1311	3.6976	1.1203	8.0100e-003	0.1986	0.0195	0.2181	0.0572	0.0187	0.0758	847.8106	847.8106	847.8106	0.0534		849.1445
Worker	0.6309	0.4495	4.4451	0.0111	1.2095	8.4100e-003	1.2179	0.3208	7.7500e-003	0.3286	1,108.0527	1,108.0527	1,108.0527	0.0319		1,108.8492
Total	0.7620	4.1471	5.5654	0.0191	1.4081	0.0279	1.4360	0.3780	0.0264	0.4044	1,955.8633	1,955.8633	1,955.8633	0.0852		1,957.9937

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.6692	7.8825	5.8522	0.0113		0.3273	0.3273		0.3023	0.3023	0.0000	1,074.1634	1,074.1634	0.3363		1,082.5712
Total	0.6692	7.8825	5.8522	0.0113		0.3273	0.3273		0.3023	0.3023	0.0000	1,074.1634	1,074.1634	0.3363		1,082.5712

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.4 Building Construction - 2020
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.1311	3.6976	1.1203	8.0100e-003	0.1986	0.0195	0.2181	0.0572	0.0187	0.0758		847.8106	847.8106	0.0534		849.1445
Worker	0.6309	0.4495	4.4451	0.0111	1.2095	8.4100e-003	1.2179	0.3208	7.7500e-003	0.3286		1,108.0527	1,108.0527	0.0319		1,108.8492
Total	0.7620	4.1471	5.5654	0.0191	1.4081	0.0279	1.4360	0.3780	0.0264	0.4044		1,955.8633	1,955.8633	0.0852		1,957.9937

3.5 Paving - 2020
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	1.8427					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.1993	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.5 Paving - 2020

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310	104.5333	104.5333	104.5333	3.0100e-003	104.6084	104.6084
Total	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310	104.5333	104.5333	104.5333	3.0100e-003	104.6084	104.6084

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	1.3566	14.0656	14.6521	0.0228	0.7528	0.7528	0.7528	0.6926	0.6926	0.6926	0.0000	2.207.7334	2,207.7334	0.7140	2.225.5841	2,225.5841
Paving	1.8427				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.1993	14.0656	14.6521	0.0228	0.7528	0.7528	0.7528	0.6926	0.6926	0.6926	0.0000	2,207.7334	2,207.7334	0.7140	2,225.5841	2,225.5841

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.5 Paving - 2020

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084

3.6 Architectural Coating - 2019

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	4.9985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003	0.1288	0.1288	0.1288	0.1288	0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	5.2649	1.8354	1.8413	2.9700e-003	0.1288	0.1288	0.1288	0.1288	0.1288	0.1288		281.4481	281.4481	0.0238		282.0423

City of Folsom - Revel Senior Living - Sacramento County, Winter

**3.6 Architectural Coating - 2019
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.1380	0.1018	0.9940	2.3100e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662	230.0800	230.0800	7.3000e-003	230.0800		230.2626
Total	0.1380	0.1018	0.9940	2.3100e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662	230.0800	230.0800	7.3000e-003	230.0800		230.2626

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	4.9985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003	0.1288	0.1288	0.1288	0.1288	0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423
Total	5.2649	1.8354	1.8413	2.9700e-003	0.1288	0.1288	0.1288	0.1288	0.1288	0.1288	0.0000	281.4481	281.4481	0.0238		282.0423

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.6 Architectural Coating - 2019
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.1380	0.1018	0.9940	2.3100e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662	230.0800	230.0800	7.3000e-003	7.3000e-003		230.2626
Total	0.1380	0.1018	0.9940	2.3100e-003	0.2434	1.7300e-003	0.2452	0.0646	1.6000e-003	0.0662	230.0800	230.0800	7.3000e-003	7.3000e-003		230.2626

3.6 Architectural Coating - 2020
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	4.9985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	5.2407	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.6 Architectural Coating - 2020
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1270	0.0905	0.8946	2.2400e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661	223.0043	223.0043	223.0043	6.4100e-003	223.1646	223.1646
Total	0.1270	0.0905	0.8946	2.2400e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661	223.0043	223.0043	223.0043	6.4100e-003	223.1646	223.1646

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	4.9985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003	0.1109	0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	5.2407	1.6838	1.8314	2.9700e-003	0.1109	0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1270	0.0905	0.8946	2.2400e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661		223.0043	223.0043	6.4100e-003		223.1646
Total	0.1270	0.0905	0.8946	2.2400e-003	0.2434	1.6900e-003	0.2451	0.0646	1.5600e-003	0.0661		223.0043	223.0043	6.4100e-003		223.1646

3.7 Underground Utilities - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.2906	3.1114	3.2920	5.1900e-003		0.1509	0.1509		0.1388	0.1388		522.1830	522.1830	0.1626		526.2471
Total	0.2906	3.1114	3.2920	5.1900e-003		0.1509	0.1509		0.1388	0.1388		522.1830	522.1830	0.1626		526.2471

City of Folsom - Revel Senior Living - Sacramento County, Winter

**3.7 Underground Utilities - 2018
Unmitigated Construction Off-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Worker	0.0143	0.0109	0.1044	2.2000e-004	0.0228	1.7000e-004	0.0230	6.0500e-003	1.5000e-004	6.2100e-003	22.3288	22.3288	22.3288	7.8000e-004		22.3483
Total	0.0143	0.0109	0.1044	2.2000e-004	0.0228	1.7000e-004	0.0230	6.0500e-003	1.5000e-004	6.2100e-003	22.3288	22.3288	22.3288	7.8000e-004		22.3483

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Off-Road	0.2906	3.1114	3.2920	5.1900e-003		0.1509	0.1509		0.1388	0.1388	0.0000	522.1830	522.1830	0.1626		526.2471
Total	0.2906	3.1114	3.2920	5.1900e-003		0.1509	0.1509		0.1388	0.1388	0.0000	522.1830	522.1830	0.1626		526.2471

City of Folsom - Revel Senior Living - Sacramento County, Winter

3.7 Underground Utilities - 2018

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0143	0.0109	0.1044	2.2000e-004	0.0228	1.7000e-004	0.0230	6.0500e-003	1.5000e-004	6.2100e-003	22.3288	22.3288	22.3288	7.8000e-004		22.3483
Total	0.0143	0.0109	0.1044	2.2000e-004	0.0228	1.7000e-004	0.0230	6.0500e-003	1.5000e-004	6.2100e-003	22.3288	22.3288	22.3288	7.8000e-004		22.3483

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

City of Folsom - Revel Senior Living - Sacramento County, Winter

Category	lb/day															
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	1.0265	4.7874	13.2965	0.0358	3.1043	0.0400	3.1443	0.8302	0.0376	0.8678		3,618.199	3,618.199	0.1939		3,623.046
Unmitigated	1.0265	4.7874	13.2965	0.0358	3.1043	0.0400	3.1443	0.8302	0.0376	0.8678		3,618.199	3,618.199	0.1939		3,623.046

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Congregate Care (Assisted Living)	570.00	570.00	570.00	1,462,682	1,462,682
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	570.00	570.00	570.00	1,462,682	1,462,682

4.3 Trip Type Information

Land Use	Miles				Trip %				Trip Purpose %			
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-C	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	10.00	5.00	6.50	46.50	12.50	41.00	46.50	12.50	41.00	86	11	3
Other Asphalt Surfaces	10.00	5.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

City of Folsom - Revel Senior Living - Sacramento County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.551662	0.040953	0.203778	0.123762	0.021802	0.005583	0.018466	0.022043	0.002076	0.002280	0.006004	0.000618	0.000971
Other Asphalt Surfaces	0.551662	0.040953	0.203778	0.123762	0.021802	0.005583	0.018466	0.022043	0.002076	0.002280	0.006004	0.000618	0.000971
Parking Lot	0.551662	0.040953	0.203778	0.123762	0.021802	0.005583	0.018466	0.022043	0.002076	0.002280	0.006004	0.000618	0.000971

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Natural Gas Mitigated	0.0478	0.4086	0.1739	2.6100e-003	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	521.5744	521.5744	521.5744	0.0100	9.5600e-003	524.6739
Natural Gas Unmitigated	0.0478	0.4086	0.1739	2.6100e-003	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	521.5744	521.5744	521.5744	0.0100	9.5600e-003	524.6739

City of Folsom - Revel Senior Living - Sacramento County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use KBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																	
Congregate Care (Assisted Living)	4433.38	0.0478	0.4086	0.1739	2.6100e-003	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330		521.5744	521.5744	0.0100	9.5600e-003	524.6739
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0478	0.4086	0.1739	2.6100e-003	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330		521.5744	521.5744	0.0100	9.5600e-003	524.6739

Mitigated

Land Use	NaturalGas Use KBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																	
Congregate Care (Assisted Living)	4433.38	0.0478	0.4086	0.1739	2.6100e-003	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330		521.5744	521.5744	0.0100	9.5600e-003	524.6739
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0478	0.4086	0.1739	2.6100e-003	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330		521.5744	521.5744	0.0100	9.5600e-003	524.6739

6.0 Area Detail

City of Folsom - Revel Senior Living - Sacramento County, Winter

6.1 Mitigation Measures Area

Category	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	4.2793	0.1591	13.7585	7.2000e-004	0.0756	0.0756	0.0756	0.0756	0.0756	0.0756	0.0000	24.6975	24.6975	0.0242	0.0000	25.3012
Unmitigated	4.2793	0.1591	13.7585	7.2000e-004	0.0756	0.0756	0.0756	0.0756	0.0756	0.0756	0.0000	24.6975	24.6975	0.0242	0.0000	25.3012

City of Folsom - Revel Senior Living - Sacramento County, Winter

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.2739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5853					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4201	0.1591	13.7585	7.2000e-004		0.0756	0.0756		0.0756	0.0756		24.6975	24.6975	0.0242		25.3012
Total	4.2793	0.1591	13.7585	7.2000e-004		0.0756	0.0756		0.0756	0.0756	0.0000	24.6975	24.6975	0.0242	0.0000	25.3012

City of Folsom - Revel Senior Living - Sacramento County, Winter

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.2739					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.5853					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.4201	0.1591	13.7585	7.2000e-004		0.0756	0.0756		0.0756	0.0756		24.6975	24.6975	0.0242		25.3012
Total	4.2793	0.1591	13.7585	7.2000e-004		0.0756	0.0756		0.0756	0.0756	0.0000	24.6975	24.6975	0.0242	0.0000	25.3012

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

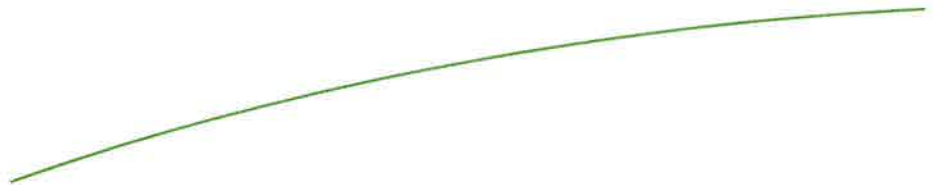
Equipment Type	Number
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11.0 Vegetation



Appendix C

Biological Resources Database and Records Search Results



Potential for Special-Status Species to Occur in the Project Site, and Species Observed in the Project Site

Potential for Special-Status Species to Occur in the Project Site

Species Name	Status*	Potential to Occur and Rationale
<i>Accipiter cooperi</i> Cooper's hawk	--/--/WL	May Occur. Nests in trees in parks and suburban neighborhoods; low sensitivity status.
<i>Actinemys marmorata marmorata</i> northwestern pond turtle	--/--/SSC	May Occur. Inhabits ponds and slow-moving water with basking sites. Suitable habitat occurs immediately adjacent to the project site.
<i>Agelaius tricolor</i> tricolored blackbird	--/SC/--	Will not Occur. Requires enough nesting habitat to support a large colony; insufficient suitable habitat is present in the project site.
<i>Ambystoma californiense</i> California tiger salamander	FT/ST/--	Will not Occur. Breeds in seasonal ponds; perennial ponds support predators such as fish that exclude California tiger salamander.
<i>Antrozous pallidus</i> pallid bat	--/--/SSC	Foraging Only. May roost in oak woodland habitat outside the breeding season; no suitable breeding roost habitat is present in the project site.
<i>Branchinecta conservatio</i> conservancy fairy shrimp	FE/--/--	Will Not Occur. Restricted to vernal pools, which do not occur in the project site.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/--/--	Will Not Occur. Restricted to vernal pools, which do not occur in the project site.
<i>Buteo swainsoni</i> Swainson's hawk	--/ST/--	Foraging Only. No suitable nest trees in the project site; no recorded nest occurrence within 1.5 miles of the project site.
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	FT/--/--	May Occur. Inhabits stems of elderberry (<i>Sambucus</i> spp.) especially in riparian areas. Riparian elderberries occur in the project site.
<i>Downingia pusilla</i> dwarf downingia	--/--/2B.2	Will Not Occur. Restricted to vernal pools, which do not occur in the project site.
<i>Elanus leucurus</i> white-tailed kite	--/--/FP	Foraging Only. Forages in grasslands; no suitable nest trees in the project site.
<i>Falco columbarius</i> merlin	--/--/WL	Foraging Only. Does not breed in California; low sensitivity status.
<i>Hypomesus transpacificus</i> Delta smelt	FT/SE/--	Will Not Occur. Restricted to brackish and freshwater mixing zones in the Delta.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	FE/--/--	Will Not Occur. Restricted to vernal pools, which do not occur in the project site.
<i>Navarretia myersii</i> ssp. <i>myersii</i> pincushion navarretia	--/--/1B.1	Will Not Occur. Restricted to vernal pools, which do not occur in the project site.
<i>Oncorhynchus mykiss irideus</i> steelhead	FT/--/--	Will Not Occur. There is no suitable spawning habitat in the project site, and the un-named

Species Name	Status*	Potential to Occur and Rationale
		creek in the site does not connect to upstream suitable habitat.
<i>Orcuttia viscida</i> Sacramento Orcutt grass	FE/SE/1B.1	Will Not Occur. Restricted to vernal pools, which do not occur in the project site.
<i>Phalacrocorax auritus</i> double-crested cormorant	--/--/WL	Will not Occur. Does not breed in California; present near water bodies large enough to support large fish.
<i>Rana draytonii</i> California red-legged frog	FT/--/SSC	Will not Occur. The project site is outside the known range of the species, which no longer includes the developed portion of Folsom.
<i>Spea hammondi</i> western spadefoot	--/--/SSC	Will not Occur. Breeds in vernal pools and seasonal ponds, which do not occur in the project site.
<i>Taxidea taxus</i> American badger	--/--/SSC	Will Not Occur. Badgers are not tolerant of suburban development, and require relatively large home ranges.
<i>Thamnophis gigas</i> giant garter snake	FT/ST/--	Will not Occur. Inhabits ditches, marshes, and rice fields; the project site is outside the range for this species.

*Status is FESA/CESA/Other State status or CRPR: FE = FESA endangered; FT = FESA threatened; SE = CESA endangered; ST = CESA threatened; SC = CESA candidate; SSC = Species of Special Concern; WL = Watch List; CRPR 1B.1 = rare threatened or endangered in California and elsewhere, highly threatened; CRPR 2B.1 = rare, threatened, or endangered in California but more common elsewhere, moderately threatened.

Species Observed

Plants

Family	Species Name	Common Name	Status*
Native			
Adoxaceae	<i>Sambucus nigra</i>	blue elderberry	--/--/--
Agavaceae	<i>Chlorogalum pomeridianum</i>	soap plant	--/--/--
Anacardiaceae	<i>Toxicodendron diversilobum</i>	poison oak	--/--/--
Apiaceae	<i>Sanicula bipinnatifida</i>	purple sanicle	--/--/--
Asteraceae	<i>Baccharis pilularis</i>	coyote brush	--/--/--
	<i>Holocarpha virgata</i> ssp. <i>virgata</i>	narrow tarplant	--/--/--
Boraginaceae	<i>Amsinckia intermedia</i>	rancher's fiddleneck	--/--/--
Brassicaceae	<i>Cardamine oligosperma</i>	Idaho bittercress	--/--/--
	<i>Thysanocarpus curvipes</i>	lacepod	--/--/--
Cyperaceae	<i>Cyperus eragrostis</i>	tall flatsedge	--/--/--
	<i>Schoenoplectus californicus</i>	California bulrush	--/--/--
Euphorbiaceae	<i>Croton setigerus</i>	dove weed	--/--/--
Fabaceae	<i>Vicia americana</i>	American vetch	--/--/--
Fagaceae	<i>Quercus douglasii</i>	blue oak	--/--/--
	<i>Quercus lobata</i>	valley oak	--/--/--
	<i>Quercus wislizeni</i>	interior live oak	--/--/--
Juncaceae	<i>Juncus dubius</i>	mariposa rush	--/--/--
	<i>Juncus xiphioides</i>	iris-leaved rush	--/--/--
Onagraceae	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	willow herb	--/--/--
Orobanchaceae	<i>Triphysaria eriantha</i> ssp. <i>eriantha</i>	butter 'n' eggs	--/--/--
Phrymaceae	<i>Mimulus guttatus</i>	common monkey-flower	--/--/--
Portulacaceae	<i>Claytonia perfoliata</i> ssp. <i>perfoliata</i>	miner's lettuce	--/--/--
Ranunculaceae	<i>Ranunculus californicus</i>	California buttercup	--/--/--
Rosaceae	<i>Heteromeles arbutifolia</i>	toyon	--/--/--
Rubiaceae	<i>Galium aparine</i>	goosegrass	--/--/--
Salicaceae	<i>Salix laevigata</i>	red willow	--/--/--
Themidaceae	<i>Dichelostemma capitatum</i>	blue dicks	--/--/--
	<i>Triteleia laxa</i>	Ithuriel's spear	--/--/--
Typhaceae	<i>Typha latifolia</i>	broad-leaved cattail	--/--/--
Verbenaceae	<i>Verbena hastata</i>	blue vervain	--/--/--
Non-Native			
Asteraceae	<i>Carduus pycnocephalus</i>	Italian thistle	Moderate
	<i>Cirsium vulgare</i>	bull thistle	Moderate
	<i>Helminthotheca echioides</i>	bristly ox-tongue	Limited

Family	Species Name	Common Name	Status*
	<i>Leontodon saxatilis</i>	lesser hawkbit	N
	<i>Taraxacum officinale</i>	common dandelion	N
Brassicaceae	<i>Brassica nigra</i>	black mustard	Moderate
	<i>Raphanus sativus</i>	wild radish	Limited
Caryophyllaceae	<i>Stellaria media</i>	common chickweed	N
Fabaceae	<i>Trifolium hirtum</i>	rose clover	Limited
Geraniaceae	<i>Erodium botrys</i>	long-beak filaree	N
	<i>Geranium dissectum</i>	cutleaf geranium	Limited
	<i>Geranium molle</i>	crane's bill geranium	N
Lamiaceae	<i>Lamium amplexicaule</i>	henbit	N
Myrsinaceae	<i>Anagallis arvensis</i>	scarlet pimpernel	N
Onagraceae	<i>Ludwigia hexapetala</i>	false loosestrife	High
Poaceae	<i>Aira caryophyllea</i>	silver European hairgrass	N
	<i>Bromus hordeaceus</i>	soft brome	Limited
	<i>Elymus caput-medusae</i>	medusahead	High
Polygonaceae	<i>Rumex crispus</i>	curly dock	Limited
Rosaceae	<i>Rubus armeniacus</i>	Himalayan blackberry	High

*Status for native species is FESA listing/CESA listing/CRPR; Status for non-native species is Cal-IPC invasiveness rating.

Animals

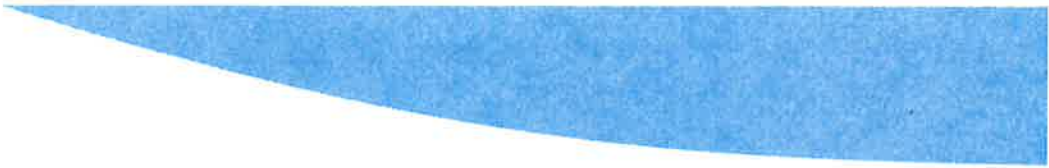
Order/Family	Species Name	Common Name	Status*
Birds			
Accipitriformes			
Accipitridae	<i>Buteo lineatus</i>	red-shouldered hawk	--/--/--
Anseriformes			
Anatidae	<i>Aix sponsa</i>	wood duck	--/--/--
	<i>Anas platyrhynchos</i>	mallard	--/--/--
Ciconiiformes			
Ardeidae	<i>Butorides virescens</i>	green heron	--/--/--
Columbiformes			
Columbidae	<i>Zenaida macroura</i>	mourning dove	--/--/--
Passeriformes			
Corvidae	<i>Aphelocoma californica</i>	California scrub-Jay	--/--/--
Emberizidae	<i>Zonotrichia leucophrys</i>	White-crowned Sparrow	--/--/--
Fringillidae	<i>Carpodacus mexicanus</i>	House Finch	--/--/--

Hiruninidae	<i>Tachycineta bicolor</i>	Tree Swallow	--/--/--
Parulidae	<i>Setophaga coronata</i>	Yellow-rumped Warbler	--/--/--
Tyrannidae	<i>Sayornis nigricans</i>	Black Phoebe	--/--/--
Piciformes			--/--/--
Picidae	<i>Colaptes aurata</i>	northern flicker	--/--/--
	<i>Melanerpes formicivorus</i>	acorn woodpecker	--/--/--

Mammals

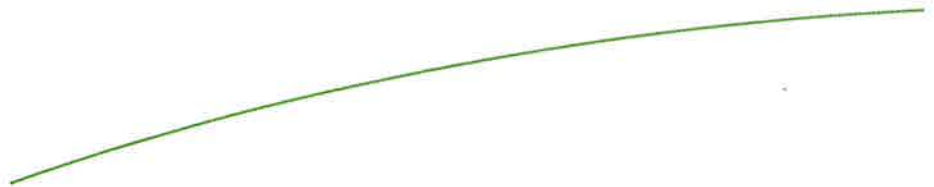
Carnivora			
Canidae	<i>Canis latrans</i>	coyote (scat)	--/--/--
Lagomorpha			
Lepidae	<i>Lepus californicus</i>	black-tailed jackrabbit	--/--/--
Rodentia			
Geomyidae	<i>Thomomys bottae</i>	pocket gopher	--/--/--

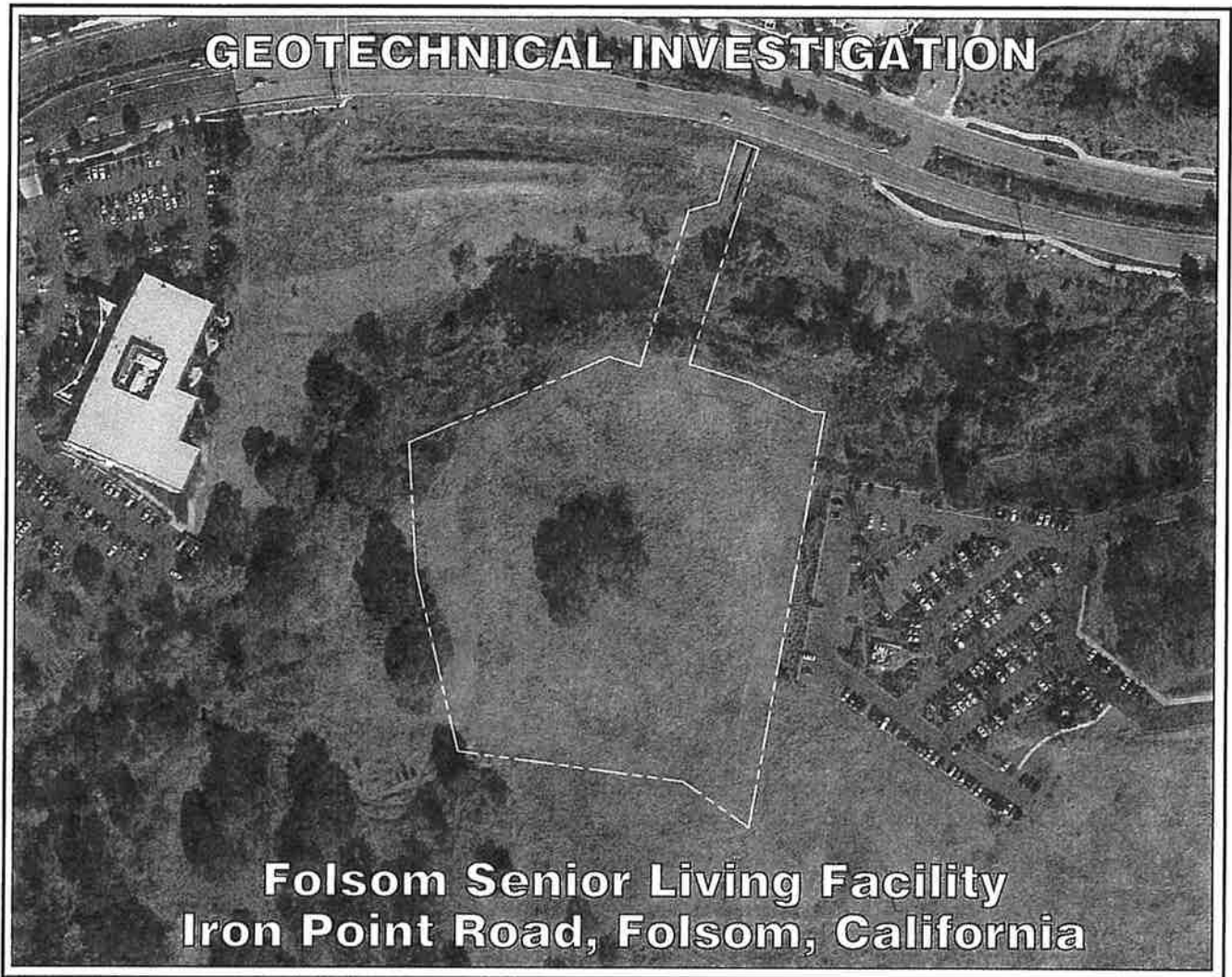
*Status for animals is FESA listing/CESA listing/Other sensitivity.



Appendix D

Geotechnical Investigation Report





PREPARED FOR:

**THE WOLFF COMPANY
6710 E. CAMELBACK ROAD, SUITE 100
SCOTTSDALE, ARIZONA 85251**



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PREPARED BY:

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**GEOCON
CONSULTANTS, INC.**

Geocon Project No.: S1367-05-01

July 2017

GEOCON
CONSULTANTS, INC.

G E O T E C H N I C A L ■ E N V I R O N M E N T A L ■ M A T E R I A L S



Project No. S1367-05-01
July 14, 2017

Allison Emmons
The Wolff Company
6710 E. Camelback Road, Suite 100
Scottsdale, Arizona 85251

Subject: GEOTECHNICAL INVESTIGATION
FOLSOM SENIOR LIVING FACILITY
IRON POINT ROAD
FOLSOM, CALIFORNIA

Dear Ms. Emmons:

In accordance with your authorization, we have prepared this geotechnical investigation report for the subject project located on the south side of Iron Point Road near the Oak Avenue Parkway intersection and north of U.S. Highway 50 in Folsom, California.

The accompanying report presents our findings, conclusions, and recommendations regarding geotechnical aspects of designing and constructing the project as presently proposed. In our opinion, no adverse geotechnical conditions were encountered that would preclude development at the site provided the recommendations contained in this report are incorporated into the design and construction of the project.

Please contact us if you have any questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

Victor M. Guardado, EIT
Staff Engineer

Jeremy J. Zorne, PE, GE
Senior Engineer



TABLE OF CONTENTS

GEOTECHNICAL INVESTIGATION	PAGE
1.0 PURPOSE AND SCOPE	1
2.0 SITE AND PROJECT DESCRIPTION	2
3.0 SOIL AND GEOLOGIC CONDITIONS	2
3.1 Fill (Qf)	3
3.2 Residual Soil (Unmapped)	3
3.3 Gopher Ridge Volcanics and Salt Springs Slate Bedrock – (Jgo and Jss)	3
4.0 GROUNDWATER / SEEPAGE	3
5.0 SEISMICITY AND GEOLOGIC HAZARDS	4
5.1 Surface Fault Rupture	4
5.2 Seismic Hazard Analysis	5
5.3 Liquefaction	6
5.4 Landslides and Slope Stability	6
5.5 Expansive Soil	7
5.6 Soil Corrosion Screening	7
5.7 Naturally Occurring Asbestos (NOA)	7
6.0 CONCLUSIONS AND RECOMMENDATIONS	7
6.1 General	7
6.2 Excavation Characteristics/Rippability	8
6.3 Permanent Cut and Fill Slopes	9
6.4 Materials for Fill	9
6.5 Seepage, Groundwater, and Wet Weather Grading Considerations	10
6.6 Grading	10
6.7 Foundations	12
6.8 Interior Slabs-on-Grade	13
6.9 Retaining Walls and Lateral Loads	14
6.10 Hot Mix Asphalt	15
6.11 Rigid Concrete Pavement	16
6.12 Concrete Flatwork	16
6.13 Drainage	17
7.0 CULVERT FOUNDATION RECOMMENDATIONS	17
7.1 Bottomless Arched Culvert	17
7.2 Box Culverts	18
8.0 FURTHER GEOTECHNICAL SERVICES	19
8.1 Plan and Specification Review	19
8.2 Testing and Observation Services	19
9.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS	20
10.0 REFERENCES	21

FIGURES

- Figure 1, Vicinity Map
- Figure 2, Site Plan/Geologic Map
- Figure 3, Proposed Development Plan
- Figure 4, Regional Geology Map
- Figure 5, Cross-Section A-A'

TABLE OF CONTENTS (Continued)

Photos No. 1 through 6

APPENDIX A

FIELD EXPLORATION

Figure A1, Key to Logs

Figures A2 through A8, Logs of Exploratory Test Pits (TP-1 through TP-7)

APPENDIX B

LABORATORY TESTING PROGRAM

Table B1, Summary of Corrosion Parameters

Table B2, Summary of Expansion Index Test Results

Table B3, R-Value Test Result

Figure B1, Compaction Test Report

GEOTECHNICAL INVESTIGATION

1.0 PURPOSE AND SCOPE

This report presents the results of our geotechnical investigation for the proposed senior living facility located on the south side of Iron Point Road near the Oak Avenue Parkway intersection and north of U.S. Highway 50 in Folsom, California. The approximate location of the project is depicted on the Vicinity Map, Figure 1.

The purpose of our geotechnical investigation was to observe and sample the subsurface conditions encountered at the site and provide conclusions and recommendations relative to the geotechnical aspects of constructing the project as presently proposed.

To prepare this report, we performed the following scope of services:

- Performed a limited geologic and geotechnical literature review to aid in evaluating the geologic and geotechnical conditions present at the site. A list of referenced material is included in Section 10.0 of this report.
- Performed a site reconnaissance to review project limits, determine exploration equipment access, and mark exploratory excavation locations for subsequent utility clearance.
- Notified subscribing utility companies via Underground Service Alert at least 48 hours (as required by law) prior to performing exploratory test pits at the site.
- Performed seven exploratory test pits (TP-1 through TP-7) to depths ranging from approximately 3½ to 10 feet using a rubber-tire John Deere 310L backhoe equipped with an 18-inch-wide bucket with rock teeth.
- Obtained soil and rock samples at periodic intervals from the test pits for classification and subsequent laboratory testing.
- Logged the test pits in accordance with the Unified Soil Classification System (USCS).
- Upon completion, backfilled test pits with the excavated soil and tamped with the backhoe bucket. Compaction testing was not performed.
- Performed laboratory tests on selected soil samples to evaluate pertinent geotechnical parameters.
- Prepared this report summarizing our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing the project as presently proposed.

Details of our field exploration program including test pit logs are presented in Appendix A. Approximate locations of exploratory borings and test pits are shown on the Site Plan/Geologic Map, Figure 2, and Proposed Development Plan, Figure 3. Details of our laboratory testing program and test results are summarized in Appendix B.

2.0 SITE AND PROJECT DESCRIPTION

The overall project site is located on the south side of Iron Point Road near the Oak Avenue Parkway intersection, approximately 0.1 miles north of U.S. Highway 50 in Folsom, California (see Vicinity Map, Figure 1). The site is bounded by a pond and marshy area to the north (Photo 5), an asphalt concrete (AC) paved parking lot Kaiser facility to the east, undeveloped land and U.S. Highway 50 to the south, and undeveloped land to the west. The approximate 6-acre site is currently undeveloped. At the time of our investigation, the site was vegetated with a moderate growth of annual grasses and trees along the perimeter and center.

The *Site Plan* provided by the client, dated June 9, 2017, presents topographic information for the site. Based on the topographic information, site elevations range from approximately 340 feet above mean sea level (MSL) near the Kaiser parking lot and gently slopes downward to the north, west, and south to an elevation of approximately 300 feet MSL at the pond and marshy area within the northern portion of the site. The site is generally a hilltop area with surrounding gentle downward slopes inclined at approximately 11H:1V in the portion south of the pond and marshy area and a slope inclined at approximately 7H:1V across the pond within the northern portion of the site with some locally steeper areas. Current site topography (one-foot contours) is shown on the Site Plan/Geologic Map, Figure 2 and Proposed Development Plan, Figure 3. We did not observe any overt evidence or conditions indicative of slope instability at the time of our field exploration.

We understand that the proposed project consists of constructing two five-story senior living residential buildings (approximately 70,000 and 84,000 square feet) and a 19,000-square foot single-story kitchen/common area building. The buildings will be arranged in a circular fashion encompassing an interior courtyard area. The buildings will likely be of wood- or steel-framed construction supported on conventional shallow foundations with interior concrete slabs-on-grade. Other improvements will likely include underground utility infrastructure, concrete flatwork, and paved parking/driveway areas. Pavement will consist of both asphalt concrete and rigid Portland cement concrete (PCC). The entrance driveway will require an arched culvert or box culvert to span the pond and marshy area to the north of the site. Given the rolling topography of the site, we anticipate site grading will consist of cuts and fills on the order of 10 feet or less. The site configuration and locations of existing and proposed improvements are shown on the Proposed Development Plan, Figure 3.

3.0 SOIL AND GEOLOGIC CONDITIONS

We identified soil conditions by observing and sampling exploratory test pits and reviewing the referenced geologic literature (Section 10.0). Site geology consists of existing fill within the northern portion of the site north of the pond and Jurassic-age Gopher Ridge Volcanics (Jgo) and Salt Springs Slate bedrock (Jss) as shown in the Regional Geology Map, Figure 4. Estimated lateral extent of the fill

is shown on the Site Plan/Geologic Map, Figure 2, and a generalized geologic cross-section is presented as Figure 5. Soil descriptions below include the USCS symbol where applicable.

3.1 Fill (Qf)

In Test Pit TP-7, located in the northern portion of the site between the pond and Iron Point Road, we encountered existing fill up to approximately 7½ feet thick. Based on the conditions encountered in our test pits, the fill material generally consists of a mixture of slate fragments, gravel, cobbles, and boulders varying in dimension with a clayey silt (ML) soil matrix. As shown in Photo 3, boulders ranging in size from 1 foot to approximately 2½ feet were encountered within the fill. We did not observe existing fill in proposed building areas.

3.2 Residual Soil (Unmapped)

Long-term, in-place weathering of bedrock in the project area has produced a mantle of residual soil overlying the bedrock. The residual soil generally consists of clayey silt (ML) with variable amounts of gravel and cobble (Photos 1 and 2). Residual soil also contains varying amounts of plant roots and other decomposed plant organic material. The thickness of the residual soil varies from approximately 1½ to 2½ feet within our test pits.

3.3 Gopher Ridge Volcanics and Salt Springs Slate Bedrock – (Jgo and Jss)

Below the residual soil and fill (where present), bedrock at the site consists of Jurassic-age weathered metavolcanic rock mapped as Gopher Ridge Volcanics and Salt Springs Slate. These formations generally consist of tan to light grayish brown rock that is moderately to highly weathered and fractured (Photo 2), and grayish brown slate that is moderately to highly weathered and fractured, respectively (Photo 6). Clay and silt infilling in the fractures is common. In general, these formations excavate as clayey gravel (GC) with variable amounts of cobble and boulder-sized rock fragments. Weathering generally decreases with depth and moderate to difficult excavation conditions prevail below about 3 to 10 feet into the rock, depending on location. Based on our experience on nearby projects, these formations generally break down to cobble- and small boulder-sized fragments (12 to 30 inches) when excavated; however, zones of less weathered rock are common and are more resistant to breaking down.

Subsurface conditions described here are generalized. The test pit logs (Figures A2 through A8) detail soil/rock type, color, moisture, consistency, and USCS classification of the materials encountered at specific locations and elevations.

4.0 GROUNDWATER / SEEPAGE

We encountered seepage in Test Pit TP-4 at approximately 10 feet (Photo 4) on June 28, 2017. It is likely that the seepage is associated with the adjacent pond just north TP-4.

Review of the California Department of Water Resources Groundwater Information Center (GIC) Interactive Map (2017) indicates the average groundwater depth from the ground surface approximately two miles west of the site is approximately 150 feet MSL. Given the average elevation of the site at 320 feet, groundwater is approximately at a depth of 170 feet at the site.

Based on our experience in the area, we expect perched groundwater/seepage may develop at variable depths generally at the contacts between surficial soils (residual soil and fill, where present) and formational materials (bedrock), especially during winter and spring. Seepage can also occur within formational material based on the degree of weathering, fracturing, jointing, and bedding as was observed in TP-4 at approximately 10 feet during our investigation. Conclusions, recommendations, and construction considerations with respect to seepage are included in subsequent sections of this report. It should be noted that fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors. Depth to groundwater can also vary significantly due to localized pumping, irrigation practices, and seasonal fluctuations.

5.0 SEISMICITY AND GEOLOGIC HAZARDS

5.1 Surface Fault Rupture

The numerous faults in Northern California include active, potentially active, and inactive faults. The criteria for these major groups were developed by the California Geological Survey for the Alquist-Priolo Earthquake Fault Zone (APEFZ) Program (Bryant and Hart, 2007). By definition, an active fault is one that has had surface displacement within the last 11,000 years. A potentially active fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years) but has had no known movement within the past 11,000 years. Faults that have not moved in the last 1.6 million years are considered inactive.

The site is not located within a currently established APEFZ. Based on our reconnaissance, evidence obtained in test pits, and our review of geologic maps and reports, no active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed project is considered low. The site, however, could be subjected to ground shaking in the event of an earthquake on one of the many active Northern California faults.

In order to determine the distance of known active faults within 50 miles of the site, we used the computer program *EQFAULT* (Blake, 2000) and reviewed the 2010 Fault Activity Map of California (Jennings and Bryant, 2010). Results are summarized in Table 5.1.

**TABLE 5.1
REGIONAL FAULT SUMMARY**

Fault Name	Approximate Distance From Site (miles)	Maximum Moment Magnitude (M_w)
Foothills Fault System	2.6	6.5
Great Valley 4	46.3	6.6
Great Valley 3	46.7	6.8
Great Valley 5	47.3	6.5

5.2 Seismic Hazard Analysis

Seismic design of the structures should be performed in accordance with the provisions of the 2016 California Building Code (CBC) (International Code Council, 2016) which is based on the American Society of Civil Engineers (ASCE) publication: *Minimum Design Loads for Buildings and Other Structures* (ASCE 7-10). We used the United States Geological Survey (USGS) web application *US Seismic Design Maps* (<http://geohazards.usgs.gov/designmaps/us/application.php>) to evaluate site-specific seismic design parameters in accordance with the 2016 CBC/ASCE 7-10. Results are summarized in Table 5.2.1. The values presented are for the risk-targeted maximum considered earthquake (MCE_R).

**TABLE 5.2.1
2016 CBC SEISMIC DESIGN PARAMETERS**

Parameter	Value	2016 CBC / ASCE 7-10 Reference
Site Class	C	1613.3.2 / Table 20.3-1
MCE _R Ground Motion Spectral Response Acceleration – Class B (short), S _S	0.474g	Figure 1613.3.1(1) / Figure 22-1
MCE _R Ground Motion Spectral Response Acceleration – Class B (1 sec), S ₁	0.241g	Figure 1613.3.1(2) / Figure 22-2
Site Coefficient, F _A	1.200	Table 1613.3.3(1) / Table 11.4-1
Site Coefficient, F _V	1.559	Table 1613.3.3(2) / Table 11.4-2
Site Class Modified MCE _R Spectral Response Acceleration (short), S _{MS}	0.569g	Eq. 16-37 / Eq. 11.4-1
Site Class Modified MCE _R Spectral Response Acceleration (1 sec), S _{M1}	0.376g	Eq. 16-38 / Eq. 11.4-2
5% Damped Design Spectral Response Acceleration (short), S _{DS}	0.379g	Eq. 16-39 / Eq. 11.4-3
5% Damped Design Spectral Response Acceleration (1 sec), S _{D1}	0.251g	Eq. 16-40 / Eq. 11.4-4

Table 5.2.2 presents additional seismic design parameters for projects with Seismic Design Categories of D through F in accordance with ASCE 7-10 for the mapped maximum considered geometric mean (MCE_G).

TABLE 5.2.2
2016 CBC SITE ACCELERATION DESIGN PARAMETERS

Parameter	Value	ASCE 7-10 Reference
Mapped MCE_G Peak Ground Acceleration, PGA	0.151g	Figure 22-7
Site Coefficient, F_{PGA}	1.200	Table 11.8-1
Site Class Modified MCE_G Peak Ground Acceleration, PGA_M	0.181g	Section 11.8.3 (Eq. 11.8-1)

Conformance to the criteria presented in Tables 5.2.1 and 5.2.2 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and not to avoid structural damage, since such design may be economically prohibitive.

5.3 Liquefaction

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary loss of shear strength due to pore pressure buildup under the cyclic shear stresses associated with earthquakes. Primary factors that trigger liquefaction are: strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction is generally limited to the upper 50 feet of a soil profile. Based on the subsurface conditions encountered at the site, including shallow bedrock and the lack of shallow groundwater, liquefaction potential is not a hazard for the site.

5.4 Landslides and Slope Stability

We did not observe localized slumping, deep-seated slope failures, debris slides/flows, or conditions indicative of active landslides, such as headscarps or toe bulges during our investigation. In addition, we did not observe these features on adjacent properties that may affect the site. The natural slopes (inclinations of approximately 11H:1V and 7H:1V) appear to be performing well without evidence of global instability. Provided that site grading is performed in accordance with the recommendations in this report, we consider the potential for future slope instability to be low.

The stability of cut slopes in metavolcanic bedrock material is generally governed by the degree of weathering and fracturing. Cut slopes may expose localized weak zones or fracture orientation that is prone to sloughing or erosion. We recommend that all cut slopes (if any) be observed by our engineering geologist during grading to determine if adversely oriented bedding planes exist. Recommendations for mitigation, if necessary, can be provided at that time.

5.5 Expansive Soil

Laboratory Expansion Index test results for clayey soils at the site indicate low expansion potential. Mitigation with respect to expansive soils are not necessary for this project.

5.6 Soil Corrosion Screening

Selected soil bulk samples were analyzed for soil corrosion parameters (minimum resistivity, pH, chloride, and sulfate content). Results are presented in Appendix B.

5.7 Naturally Occurring Asbestos (NOA)

Based on the *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California* (CGS Special Report 192, 2006), the site is located in an area mapped as "Moderately Likely to Contain NOA." The predominant rock type present at the site (metamorphosed mafic volcanic rock), which is one of the rock types in which NOA may occur.

A geologic evaluation for the presence of NOA in accordance with Title 17 California Code of Regulations (CCR), Section 93105, subsection (c) is beyond the scope of our current study. However, because of the reported occurrences of NOA in the area, the Sacramento Metropolitan Air Quality Management District (SMAQMD) requires that properties located on the Gopher Ridge Volcanics formation, or soils derived from there, comply with the CARB July 29, 2002, Air Toxic Control Measure (ATCM) for construction, grading, quarrying and surface mining operations that may disturb natural occurrences of asbestos as outlined in 17 CCR 93105 unless a geologic evaluation is performed that demonstrates that NOA is not present. The ATCM generally requires that an Asbestos Dust Mitigation Plan (ADMP) be prepared for projects where NOA may be encountered, which outlines mitigation measures to be employed during and after construction to prevent airborne asbestos dust emissions. In our experience, the cost to perform the geologic evaluation for this project to demonstrate that NOA is not present exceeds the cost to prepare an ADMP and perform the required mitigation measures during construction. We can assist the client with this matter further, upon request.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 General

6.1.1 No soil or geologic conditions were encountered during our investigation that would preclude construction of improvements at the site as planned, provided the recommendations contained in this report are incorporated into the design and construction of the project.

6.1.2 Conclusions and recommendations provided in this report are based on our review of referenced literature, analysis of data obtained from our field exploration, laboratory testing program, and our understanding of the proposed development at this time.

6.1.3 We should review the project plans as they develop further, provide engineering consultation as needed during final design, and perform geotechnical observation and testing services during construction.

6.2 Excavation Characteristics/Rippability

6.2.1 Excavation characteristics will vary at the site depending on location and excavation depths. Table 6.2 summarizes anticipated excavation characteristics in each geologic material identified at the site.

**TABLE 6.2
ANTICIPATED EXCAVATION CHARACTERISTICS**

Geologic Unit ^a	Excavation Characteristics
Fill (Qf)	Existing fill generally consists of a mixture of gravel, cobbles, and boulders with a clayey silty soil matrix (Photo 3). We anticipate moderate excavation effort with conventional, heavy-duty grading equipment. The presence of oversize rock (greater than 6 inches in maximum dimension) will increase excavation difficulty.
Residual Soil (unmapped)	Residual soil generally consists of clayey silt with variable amounts of gravel and cobble (Photos 1 and 2). The residual soil also contains varying amounts of plant roots and other decomposed plant organic material. We anticipate moderate excavation effort with conventional, heavy-duty grading equipment. The presence of oversize rock (greater than 6 inches in maximum dimension) will increase excavation difficulty.
Gopher Ridge Volcanics (Jgo) / Salt Springs Slate (Jss)	Gopher Ridge Volcanics and Salt Springs Slate generally consist of very dense tan to light grayish brown rock that is slightly weathered and fractured (Photo 2), and grayish brown slate that is slightly weathered and fractured, respectively (Photo 6). Clay and silt infilling in the fractures is common. Weathering generally decreases with depth, and moderate to heavy ripping will likely be required at depths of 3 to 10 feet into the rock, depending on location. Use of a dozer-mounted impact ripper may be required for deeper excavations. This formation generally breaks down to cobble- and small boulder-sized fragments (12 to 24 inches) when excavated; however, zones of less weathered rock are common and are more resistant to breaking down. Therefore, large boulder-sized fragments (24 inches and larger) may be generated.
<i>Notes: 1. See Site Plan/Geology Map, Figure 2, for approximate lateral extents of geologic units.</i>	

6.2.2 Temporary excavation slopes must meet Cal-OSHA requirements as appropriate. Trench wall sloping, benching, the use of trench shields, and the placement of trench spoils should conform to the latest applicable Cal-OSHA standards. The contractor should have a Cal-OSHA-approved “competent person” onsite during excavation and pipe placement to evaluate trench conditions and to make appropriate recommendations where necessary. It is the contractor’s responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements.

6.3 Permanent Cut and Fill Slopes

- 6.3.1 Permanent cut and fill slopes should be constructed no steeper than 2H:1V. Cut slopes in formational material may expose localized weak zones or adverse fracture orientation that would be prone to sloughing or erosion. We recommend that all cut slopes (if any) be observed by our engineering geologist during grading to determine if adversely oriented fractures exist. Recommendations for mitigation, if necessary, can be provided at that time.
- 6.3.2 To mitigate potential erosion, slopes should be vegetated as soon as possible and surface drainage should be directed away from the tops of slopes. Placing V-ditches across tops of slopes will aid in reducing the potential for surficial erosion.

6.4 Materials for Fill

- 6.4.1 Excavated soil and rock generated from cut operations at the site are suitable for use as engineered fill in structural areas provided they are examined and selectively placed during grading in accordance with the following recommendations:
- Deleterious material, material with greater than 3% organics, and debris should be exported from the site and not incorporated into structural fill.
 - Fill material in areas with underground utilities, foundations, and areas within 5 feet of slope faces should consist of 6-inch-minus material with a sufficient amount of soil to provide adequate binder to reduce the potential for excavation caving.
 - In other areas (general fill areas without utilities, foundations, and not within 5 feet of slope faces) rock or cementations larger than 6 inches but less than 2 feet in maximum dimension may be used. Rock or cementations greater than 2 feet in maximum dimension should not be used. This material should contain a sufficient amount of soil to fill void spaces between rocks and reduce rock nesting (concentrations of rock with void space).
 - If sufficient soil fill materials are not present at the site to mix with onsite rock material, import of soil fill material will be necessary.
- 6.4.2 Import soil should be primarily granular with a “very low” expansion potential (Expansion Index (EI) less than 20), a Plasticity Index (PI) less than 15, contain sufficient binder to prevent caving when excavated, be free of organic material and construction debris, and not contain rock/cementations larger than 6 inches in greatest dimension.
- 6.4.3 Environmental characteristics and corrosion potential of import soil materials should also be considered. Proposed import materials should be sampled, tested, and approved by Geocon prior to its transportation to the site.

6.5 Seepage, Groundwater, and Wet Weather Grading Considerations

- 6.5.1 Seasonal perched groundwater (seepage) could be present during grading especially if it occurs during winter or spring. Perched groundwater typically develops at the contact between fill/residual soil and formational material and can sometimes be present within fractures of the weathered formational material. Fill/residual soil derived from shallow excavations during perched groundwater conditions will likely need to be aerated/dried to achieve suitable moisture content for compaction. We should evaluate conditions in the field at the time of construction and evaluate the type, level, and extent of mitigation alternatives.
- 6.5.2 If grading commences in winter or spring, or in periods of precipitation, excavated and in-place soils will likely be wet. Earthwork contractors should be aware of the moisture-sensitivity of fine-grained soils that may result in subgrade instability and/or potential compaction difficulties. Earthwork operations in these conditions will likely be difficult with low productivity. Often, a period of at least one month of warm and dry weather is necessary to allow the site to dry sufficiently so that heavy grading equipment can operate effectively. If the construction schedule allows, we highly recommend performing earthwork construction during the seasonal dry months.

6.6 Grading

- 6.6.1 Earthwork operations should be observed and fills tested for recommended compaction and moisture content by a representative of Geocon. All cut slopes should be observed by our engineering geologist to check that conditions do not differ significantly from those anticipated. For example, if adverse bedrock bedding or characteristics such as large boulders are exposed, recommendations to mitigate this condition can be provided at that time.
- 6.6.2 References to relative compaction and optimum moisture content in this report are based on the latest American Society for Testing and Materials (ASTM) D1557 Test Procedure. Structural building pad areas should be considered as areas extending a minimum of 5 feet horizontally beyond the outside dimensions of buildings, including footings and overhangs carrying structural loads.
- 6.6.3 Site preparation should begin with the complete removal of existing surface vegetation, trees, debris, and existing fill (where present) (see Paragraph 6.7.4 for fill removal requirements). Existing trees and similar large vegetation and associated roots larger than 1 inch in diameter should be completely removed. Smaller roots may be left in-place as conditions warrant as evaluated by our representative. Surface vegetation consisting of grasses and other similar vegetation should be removed by stripping to a sufficient depth. We estimate required stripping depths will range from approximately 2 to 4 inches. The actual stripping depth should be determined based on site conditions prior to grading. Material generated during stripping is not suitable for use within 5 feet of structural building pads or engineered fill areas.

- 6.6.4 Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with engineered fill in accordance with the recommendations of this report.
- 6.6.5 In general, where fill will be placed on slopes steeper than 5H:1V, we recommend that horizontal benches angled slightly into the slope be cut into competent formational material or existing fill on the slopes prior to placing fill. Benches should roughly parallel slope contours. These benches should extend at least 2 feet into competent material. In addition, a keyway should be cut into competent material at the base of the fill. In general, keyways should be at least 15 feet wide and extend at least 2 feet into competent material. Bench and keyway criteria may need revision during construction based on the actual materials encountered and grading performed in the field.
- 6.6.6 To reduce potential for differential settlement of planned structures, the cut portion of cut-fill transition building pads, if encountered, should be undercut to at least the depth of the fill, not to exceed 3 feet, and replaced with properly compacted fill soils. The undercut should extend at least 5 feet beyond the structure perimeter.
- 6.6.7 Where rock or other formational material is exposed at finish grade in cut areas, if any, consideration should be given to undercutting at least 3 feet and replacing the material with compacted soil fill to facilitate construction of foundations, landscaping, and shallow improvements.
- 6.6.8 Areas to receive fill, or areas left at-grade should be scarified at least 8 inches, uniformly moisture-conditioned at or above optimum moisture content and compacted to at least 90% relative compaction. Scarification in exposed, hard bedrock areas is not required.
- 6.6.9 Engineered fill should be placed and compacted in horizontal lifts not exceeding 8 inches (loose thickness) and brought to final design elevations. Each lift should be moisture-conditioned at or above optimum moisture content, and compacted to at least 90% relative compaction. Fills containing rocks larger than 6 inches should be placed and proof-rolled under our observation.
- 6.6.10 Fill slopes should be built such that soils are uniformly compacted to at least 90% relative compaction to the face of the completed slope. This will likely require overbuilding the slopes and cutting them back.
- 6.6.11 The top 6 inches of final vehicular pavement subgrade, whether completed at-grade, by excavation, or by filling, should be uniformly moisture-conditioned at or above optimum moisture content and compacted to at least 95% relative compaction. Final pavement subgrade should be finished to a smooth, unyielding surface. We further recommend proof-rolling the

subgrade with a loaded water truck (or similar equipment with high contact pressure) under our observation to verify the stability of the subgrade prior to placing aggregate base (AB).

- 6.6.12 Underground utility trenches should be backfilled with properly compacted material. Pipe bedding, shading, and trench backfill should conform to the requirements of the appropriate utility authority. Soil excavated from trenches should be adequate for use as general backfill above shading provided it does not contain deleterious matter, vegetation or rock/cementations larger than 6 inches in maximum dimension. Trench backfill should be placed in loose lifts not exceeding 12 inches. Lifts should be compacted to a minimum of 90% relative compaction at or above optimum moisture content. Compaction should be performed by mechanical means only; jetting of trench backfill is not recommended.

6.7 Foundations

- 6.7.1 Provided the site is graded in accordance with the recommendations of this report, the proposed buildings may be supported on conventional shallow foundations bearing on undisturbed weathered rock or engineered fill.
- 6.7.2 To reduce potential for seasonal moisture variations beneath buildings, foundations should consist of continuous perimeter strip footings with isolated interior spread footings. Perimeter strip footings should be continuous around the entire perimeter of the structure without breaks or discontinuities. Strip and spread footings should be embedded at least 18 inches below lowest adjacent pad grade.
- 6.7.3 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom of the footing.
- 6.7.4 Shallow foundations may be designed for an allowable bearing capacity of 3,000 pounds per square foot (psf) for dead plus live loads with a one-third increase for transient loads, including wind and seismic.
- 6.7.5 The allowable passive pressure used to resist lateral movement of the footings may be assumed to be equal to a fluid weighing 350 pounds per cubic foot (pcf). The allowable coefficient of friction to resist sliding is 0.35 for concrete against soil. Combined passive resistance and friction may be utilized for design provided that the frictional resistance is reduced by 50%.
- 6.7.6 Foundations designed in accordance with the recommendations above should experience total settlements of approximately 1 inch or less and differential settlements of approximately ½ inch or less over a horizontal distance of approximately 50 feet due to building loads. The majority of the settlement will be immediate and will occur as loads are applied during construction.

- 6.7.7 Continuous footings should be reinforced with at least four No. 4 reinforcement bars, two each placed near the top and bottom of the footing to allow footings to span isolated soil irregularities. The reinforcement recommended above is for soil characteristics only and is not intended to replace reinforcement required for structural considerations. The project structural engineer should evaluate the need for additional reinforcement.
- 6.7.8 Foundations for pole structures such as light poles may be designed using formulae from the 2016 CBC, Section 1807.3. Assuming ½-inch deflection at the ground surface is acceptable, an allowable lateral soil-bearing pressure (CBC parameters S_1 in equation 18-1 and S_3 in equations 18-2 and 18-3) of 300 psf per foot of depth may be used.
- 6.7.9 A Geocon representative should observe all foundation excavations prior to placing reinforcing steel or concrete to verify that the exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.

6.8 Interior Slabs-on-Grade

- 6.8.1 Conventional interior concrete slabs-on-grade are suitable for the building pads prepared as recommended in this report. Slab thickness and reinforcement should be determined by the structural engineer based on anticipated loading. However, at a minimum, slabs should be at least 4 inches thick and reinforced with No. 4 reinforcing bars placed 18 inches on center, each way. Structural requirements may require additional reinforcement or thicker concrete slabs.
- 6.8.2 Migration of moisture through concrete slabs or moisture otherwise released from slabs is not a geotechnical issue. However, for the convenience of the owner, we are providing the following general suggestions for consideration by the owner, architect, structural engineer, and contractor. The suggested procedures may reduce the potential for moisture-related floor covering failures on concrete slabs-on-grade, but moisture problems may still occur even if the procedures are followed. If more detailed recommendations are desired, we recommend consulting a specialist in this field.
- 6.8.3 Where floor coverings are planned, a minimum 10-mil-thick vapor barrier meeting ASTM E1745-97 Class C requirements may be placed directly below the slab, without a sand cushion. To reduce the potential for punctures, a higher quality vapor barrier (15 mil, Class A or B) may be used. The vapor barrier, if used, should extend to the edges of the slab and should be sealed at all seams and penetrations.
- 6.8.4 At least 4 inches of ½- or ¾-inch crushed rock, with no more than 5 percent passing the No. 200 sieve, may be placed below the vapor barrier to serve as a capillary break.

- 6.8.5 The concrete water/cement ratio should be as low as possible. The water/cement ratio should not exceed 0.45 for concrete placed directly on the vapor barrier. Midrange plasticizers could be used to facilitate concrete placement and workability.
- 6.8.6 Proper finishing, curing, and moisture vapor emission testing should be performed in accordance with the latest guidelines provided by the American Concrete Institute, Portland Cement Association, and ASTM.

6.9 Retaining Walls and Lateral Loads

6.9.1 Lateral earth pressures may be used in the design of retaining walls and buried structures. Lateral earth pressures against these facilities may be assumed to be equal to the pressure exerted by an equivalent fluid. The unit weight of the equivalent fluid depends on the design conditions. The following table summarizes the weights of the equivalent fluid based on the different design conditions.

**TABLE 6.9
RECOMMENDED LATERAL EARTH PRESSURES**

Condition	Equivalent Fluid Density
Active	35 pcf
At-rest	55 pcf

- 6.9.2 Unrestrained walls should be designed using the active case. Unrestrained walls are those that are allowed to rotate more than 0.001H (where H is the height of the wall). Walls restrained from movement (such as basement walls) should be designed using the at-rest case. The above soil pressures assume level backfill under drained conditions within an area bounded by the wall and a 1:1 plane extending upward from the base of the wall and into the backfill.
- 6.9.3 Retaining wall foundations with bottoms at least 18 inches below lowest adjacent grade may be designed using the allowable bearing capacity provided in Paragraph 6.7.4 of this report. To resist lateral movement of retaining wall foundations, an allowable passive earth pressure equivalent to a fluid density of 350 pcf for footings or shear keys poured neat against properly compacted engineered fill soils or undisturbed natural soils. This allowable passive pressure is based on the assumption that a horizontal surface extends at least 5 feet or three times the depth of the footing or shear key, whichever is greater, beyond the face of the retaining wall foundation. If this surface is not protected by floor slabs or pavement, the upper 12 inches of material should not be included in the design for lateral resistance. An allowable friction coefficient of 0.35 may be used for resistance to sliding between soil and concrete. Combined

passive resistance and friction may be utilized for design provided that the frictional resistance is reduced by 50%.

6.9.4 Retaining walls should be provided with a drainage system adequate to prevent the buildup of hydrostatic forces and should be waterproofed. Positive drainage for retaining walls should consist of a vertical layer of permeable material positioned between the retaining wall and the soil backfill. The permeable material may be composed of a composite drainage geosynthetic or a natural permeable material such as crushed gravel at least 12 inches thick and capped with at least 12 inches of native soil. A geosynthetic filter fabric should be placed between the gravel and the soil backfill. Provisions for removal of collected water should be provided for either system by installing a perforated drainage pipe along the bottom of the permeable material which leads to suitable drainage facilities.

6.10 Hot Mix Asphalt

6.10.1 We performed Resistance-Value (R-Value) testing on a composite near-surface bulk soil sample (TP-1,2 Bulk) in accordance with California Test Method 301. Our testing resulted in an R-Value of 20.

6.10.2 We recommend the following alternative hot mix asphalt (HMA) pavement sections for design to establish subgrade elevations for pavement areas. The project civil engineer should determine the appropriate Traffic Index (TI) for pavement design. We have provided pavement sections comprised of HMA over Class 2 aggregate base (AB) based on a 20-year service life for various TIs ranging from 5.0 to 7.0. We can provide additional sections based on other TIs if necessary.

**TABLE 6.10
FLEXIBLE PAVEMENT SECTIONS**

	Traffic Index				
	5.0	5.5	6.0	6.5	7.0
HMA, inches	2.5	3.0	3.0	4.0	4.0
AB, inches	8.5	9.0	10.0	11.0	11.5
Total Section Thickness, inches	11.0	12.0	13.0	15.0	15.5

6.10.3 The recommended alternative pavement sections are based on the following assumptions:

1. Pavement subgrade soil has an R-Value of 20.
2. Class 2 AB has a minimum R-Value of 78 and meets the requirements of Section 26 of Caltrans' *Standard Specifications*.
3. Class 2 AB and the top 12 inches of subgrade are compacted to 95% or higher relative compaction at or near optimum moisture content.

- 6.10.4 To reduce the potential for water from landscaped areas migrating under pavement into the AB, consideration should be given to using full-depth curbs in areas where pavement abuts irrigated landscaping. The full-depth curbs should extend at least 6 inches or more into the soil subgrade beneath the AB. Alternatively, modified drop-inlets that contain weep-holes may be used to encourage accumulated water to drain from beneath the pavement.
- 6.10.5 Asphalt pavement section recommendations for driveways and parking areas are based on the design procedures of Caltrans' *Highway Design Manual* (Design Manual), Chapter 600, updated May 7, 2012. It should be noted that most rational pavement design procedures are based on projected street or highway traffic conditions and, hence, may not be representative of vehicular loading that occurs in parking lots and driveways. Pavement proximity to landscape irrigation, reduced traffic speed, and short turning radii increase the potential for pavement distress to occur in parking lots even though the volume of traffic is significantly less than that of an adjacent street. The Design Manual indicates that the resulting pavement sections for parking lots are "minimized to keep initial costs down but are reasonable because additional AC surfacing can be added later, if needed, and generally without incurring traffic hazards or traffic handling problems." It is generally not economically feasible to design and construct the entire parking lot and driveways for the unique loading conditions previously described. Periodic maintenance of the pavement in these areas, therefore, should be anticipated.

6.11 Rigid Concrete Pavement

- 6.11.1 If rigid PCC pavement is used in automobile and truck traffic areas or in front of trash enclosures, we recommend that the concrete be at least 6 inches thick and be underlain by at least 6 inches of Class 2 AB meeting the requirements of Section 26 of Caltrans' *Standard Specifications* and compacted to at least 95% relative compaction. Subgrade soils should be prepared and compacted in accordance with the recommendations of this report.
- 6.11.2 PCC should have a minimum 28-day compressive strength of 3,500 pounds per square inch (psi). Adequate construction and crack control joints should be used to control cracking inherent in concrete construction. It would be advantageous to provide minimal reinforcement, such as No. 3 steel bars placed 18 inches on center in both horizontal directions to help control cracking.

6.12 Concrete Flatwork

- 6.12.1 Sidewalk, curb, gutter, and driveway encroachments within City of Folsom right-of-way should be designed and constructed in accordance with the latest City of Folsom improvement standards, as applicable.
- 6.12.2 Onsite concrete flatwork, such as pedestrian walks, patios, and courtyards, should be underlain by at least 4 inches of Class 2 AB compacted to at least 95% relative compaction at or near optimum moisture content. Prior to placing the AB, the top 6 inches of soil subgrade soil

should be uniformly moisture-conditioned at or above optimum moisture content and compacted to 95% relative compaction.

- 6.12.3 Adequate construction and crack control joints should be used to control cracking inherent in concrete construction. Assuming flatwork is 4 inches thick, we recommend using a maximum control joint spacing of 8 feet in each direction. It would be advantageous to provide reinforcement, such as No. 3 reinforcing bars placed 24 inches on center in both horizontal directions to help control cracking.

6.13 Drainage

- 6.13.1 Adequate drainage is imperative to reduce the potential for differential soil movement, detrimental soil expansion, erosion, and subsurface seepage. Care should be taken to properly grade the finished surface around the building after the structure and other improvements are in place, so that drainage water is directed away from building and toward the street or other appropriate drainage facilities. Final soil grade should slope a minimum of 2% away from structures.

- 6.13.2 Experience has shown that even with these provisions, subsurface seepage may develop in areas where no such water conditions existed prior to site development. This is particularly true where a substantial increase in surface water infiltration has resulted from an increase in landscape irrigation.

7.0 CULVERT FOUNDATION RECOMMENDATIONS

A bottomless arched culvert or reinforced concrete box culvert is planned for roadway access to the site from Iron Point Road.

7.1 Bottomless Arched Culvert

- 7.1.1 Arched culvert foundation construction and culvert installation should be performed by contractors experienced with the pre-engineered product used. Installation methods and procedures should conform to manufacturer specifications.
- 7.1.2 Foundations for the arched culvert should bear entirely on undisturbed weathered rock. Given the presence of existing fill on the north side of the drainage, this may require localized deepening. We recommend that culvert foundations be embedded at least 2 feet into firm, undisturbed soil/rock or 2 feet below the drainage channel invert elevation, whichever is shallower. Our representative should verify footing embedment depth in the field during construction.

7.1.3 Footings meeting the above recommendations may be designed using an allowable bearing capacity of 3,000 psf for dead plus live loads. This value may be increased by one-third when considering transient loads due to wind, seismic forces or vehicle loads. The weight of foundation concrete below grade may be disregarded in sizing computations. Footing reinforcement should be designed by the culvert manufacturer or the project structural engineer, as appropriate.

7.1.4 Foundation excavations will likely require dewatering. Wing-wall back-drainage should conform to manufacturer specifications. Areas behind pre-cast wingwalls shall be sufficiently excavated to allow clear placement of wingwalls and anchors. Backfill material behind wingwalls and above the culvert should conform to manufacturer specifications. It is likely that onsite soil will not meet manufacturer specifications and imported materials will be necessary.

7.2 Box Culverts

7.2.1 Alternatively, planned crossing may consist of pre-cast or cast-in-place box culverts. Recommendations contained in this report are intended to be used to aid in selection of box culvert type and design of associated head walls and wing walls.

7.2.2 Culvert excavation bottoms should be cleaned of loose and saturated materials to expose firm, undisturbed native soil/rock as evaluated by our representative. Where competent soils are not encountered, overexcavation and replacement with engineered fill or stabilization may be required. Specific mitigation recommendations can be provided in the field at the time of construction.

7.2.3 Foundations for box culvert head walls and wing walls may consist of reinforced concrete spread footings comprised of strip footings at least 2 feet wide. Embedment depth of footings should be at least 2 feet into firm, undisturbed soil/rock or 2 feet below the drainage channel invert elevation, whichever is shallower. Our representative should evaluate footing embedment depth in the field on a case-by-case basis during construction. If suitable soils are not encountered within the recommended minimum embedment depth, footings may need to be deepened.

7.2.4 Foundations meeting the above recommendations may be designed using an allowable bearing capacity of 3,000 psf for dead plus live loads. This value may be increased by one-third when considering transient loads due to wind, seismic forces or temporary vehicle loads. The weight of foundation concrete below grade may be disregarded in sizing computations. Footing reinforcement should be designed by the project structural engineer.

- 7.2.5 Passive pressure used to resist lateral movement of footings may be assumed to be equivalent fluid weight of 350 pcf. The coefficient of friction to resist sliding is 0.35 for concrete against soil. Combined passive resistance and friction may be utilized for design provided frictional resistance is reduced by 50%.
- 7.2.6 Abutment wall backfill should consist of free-draining crushed rock or sand with less than 10% passing the No. 200 sieve. Geocon should sample, test, and approve proposed backfill materials prior to construction. Provided free-draining crushed rock is used for backfill, abutment walls should be designed using an active lateral earth pressure equal to an equivalent fluid pressure of 40 pcf. This pressure assumes the walls are unrestrained, have a level backfill, no surcharge, and a drained backfill condition. Therefore, wall back-drains or weepholes should be provided. Wall back-drains may consist of a continuous permeable backfill system. This system requires considerable quantities of permeable material but requires less compactive effort for wall backfilling. Alternatively, the use of pre-manufactured drainage composite may be utilized if approved by the project engineer and Geocon.

8.0 FURTHER GEOTECHNICAL SERVICES

8.1 Plan and Specification Review

- 8.1.1 Geocon should review the foundation and grading plans prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

8.2 Testing and Observation Services

- 8.2.1 The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered are similar to those anticipated during design. If we are not retained for these services, we cannot assume any responsibility for other's interpretation of our recommendations.

9.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous materials was not part of the scope of services provided by Geocon.

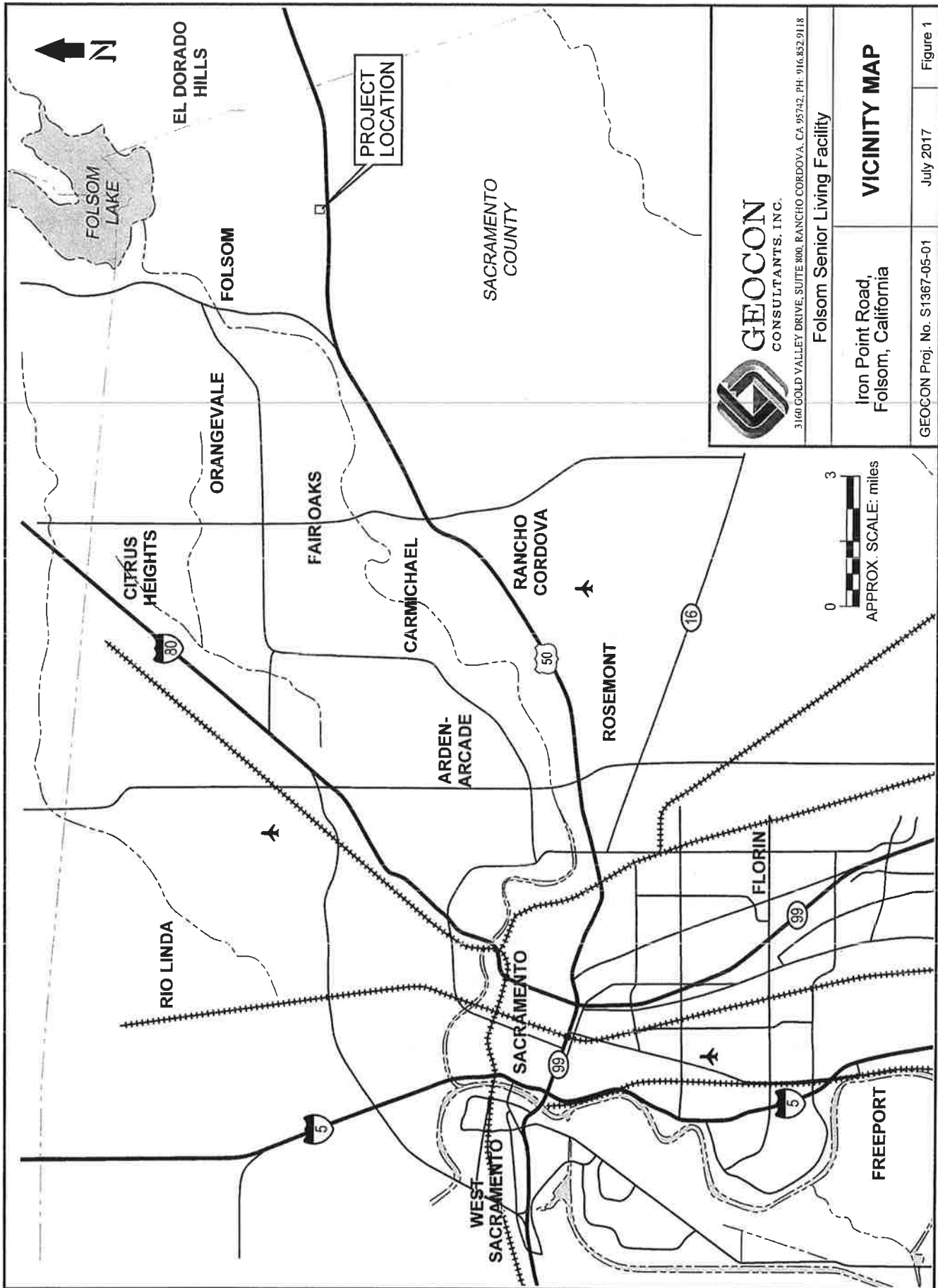
This report is issued with the understanding that it is the responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the design team for the project and incorporated into the plans and specifications, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

The recommendations contained in this report are preliminary until verified during construction by representatives of our firm. Changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Additionally, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated partially or wholly by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices used in the area at this time. No warranty is provided, either express or implied.

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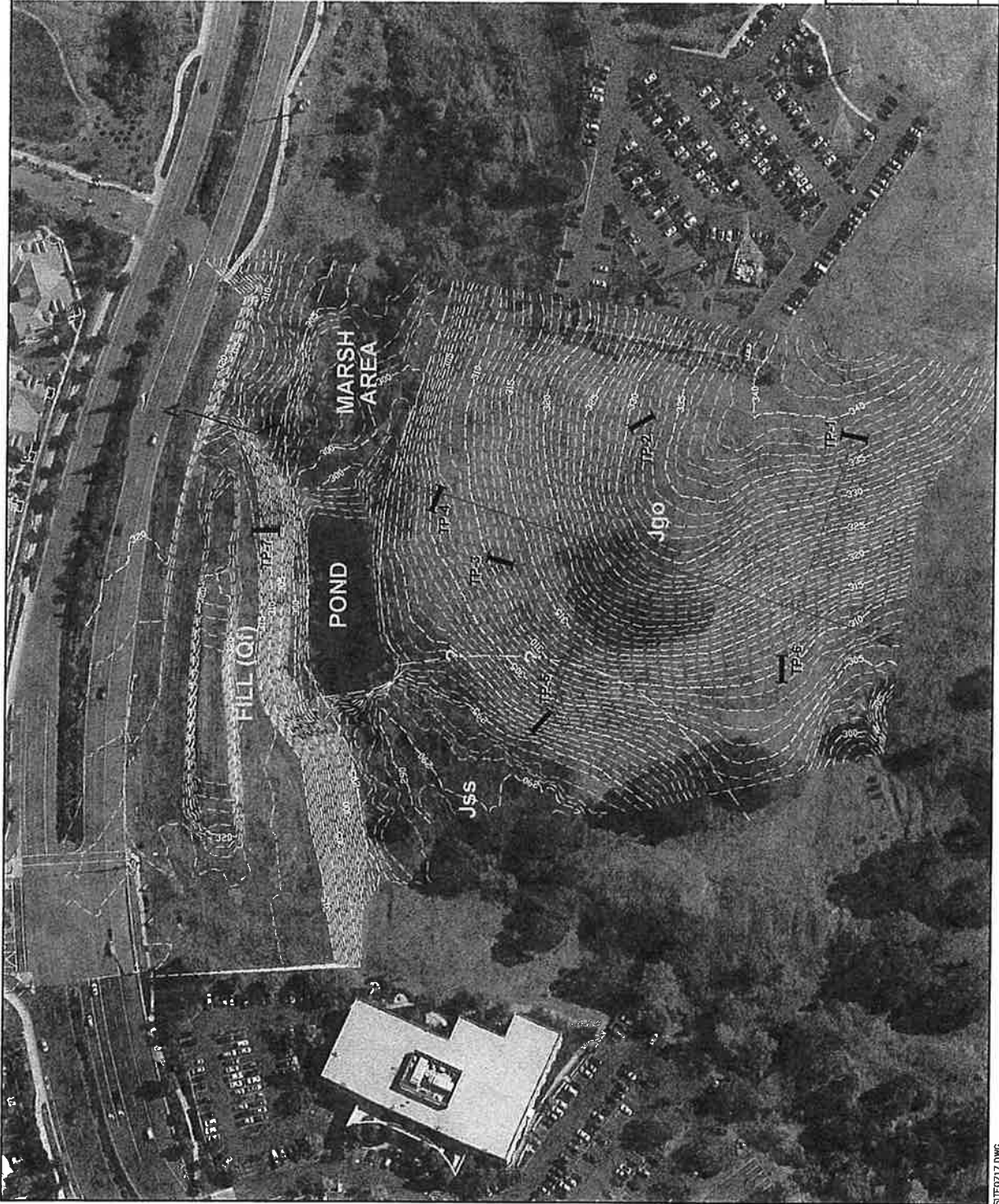
Folsom Senior Living Facility

Iron Point Road,
Folsom, California






GEOCON Proj. No. S1367-05-01

July 2017

Figure 1



LEGEND:

-  Approximate Test Pit Location
-  Approximate Geologic Contact
-  Salt Springs Slate
-  Gopher Ridge Volcanics
-  Fill

Note:
 Cross-section A-A' is shown on Figure 5.



GEOCON
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Folsom Senior Living Facility

**SITE PLAN/
 GEOLOGIC MAP**

Iron Point Road,
 Folsom, California

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July 2017

Figure 2



LEGEND:

Approximate Test Pit Location
 TP-1

Proposed Development Boundary



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Folsom Senior Living Facility

**PROPOSED
 DEVELOPMENT
 PLAN**


Iron Point Road
 Folsom, California


GEOCON Proj. No. S1367-06-01

July 2017




Figure 3

LEGEND:

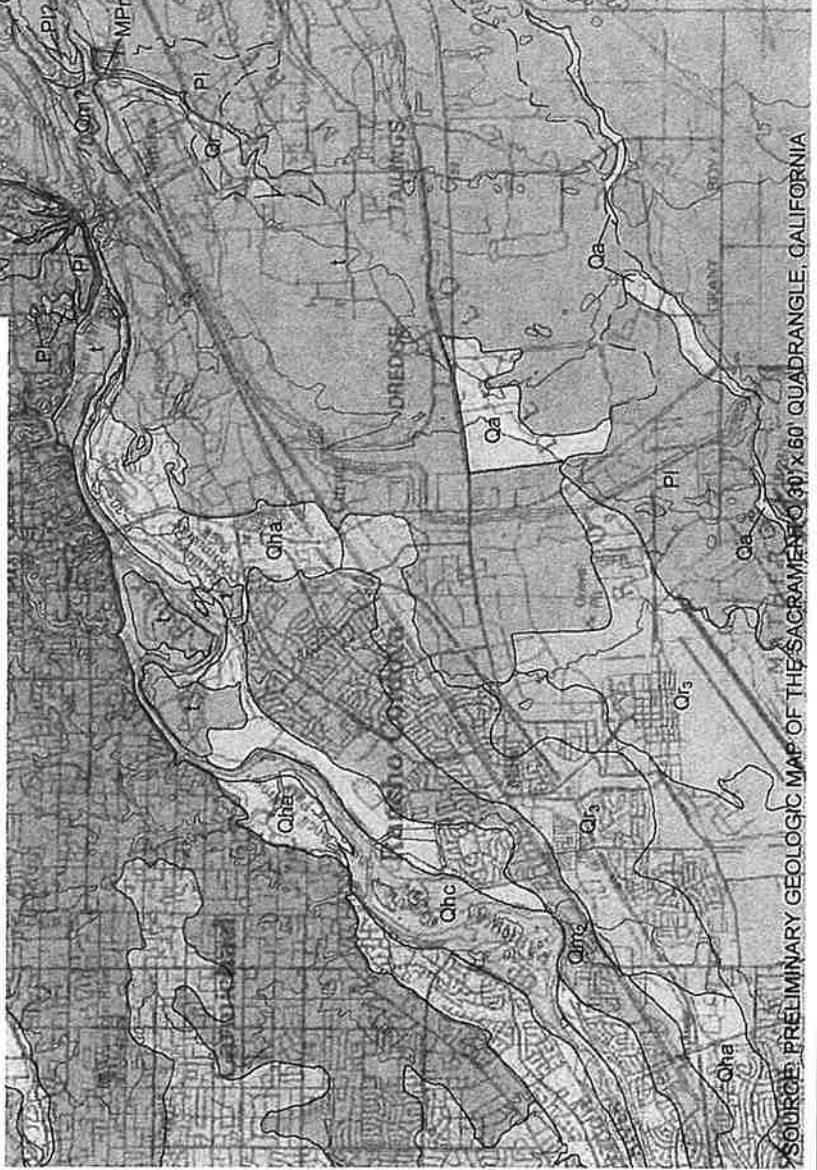
 Salt Spring Slate

 Gopher Ridge Volcanics

Foothill Melange

	mv	sp	sa
	mvs	py	is
	ms	gb	is

- mv - Metavolcanic rock
- mvs - Metasedimentary and metavolcanic rock, undivided
- ms - Metasedimentary rock
- sp - Serpentine and peridotite
- sa - Serpentine and amphibole, interlayered
- py - Pyroxenite and metapyroxenite
- pg - Pyroxenite and gabbro
- gb - Gabbro and metagabbro
- is - Limestone



SOURCE: PRELIMINARY GEOLOGIC MAP OF THE SACRAMENTO 30' X 60' QUADRANGLE, CALIFORNIA



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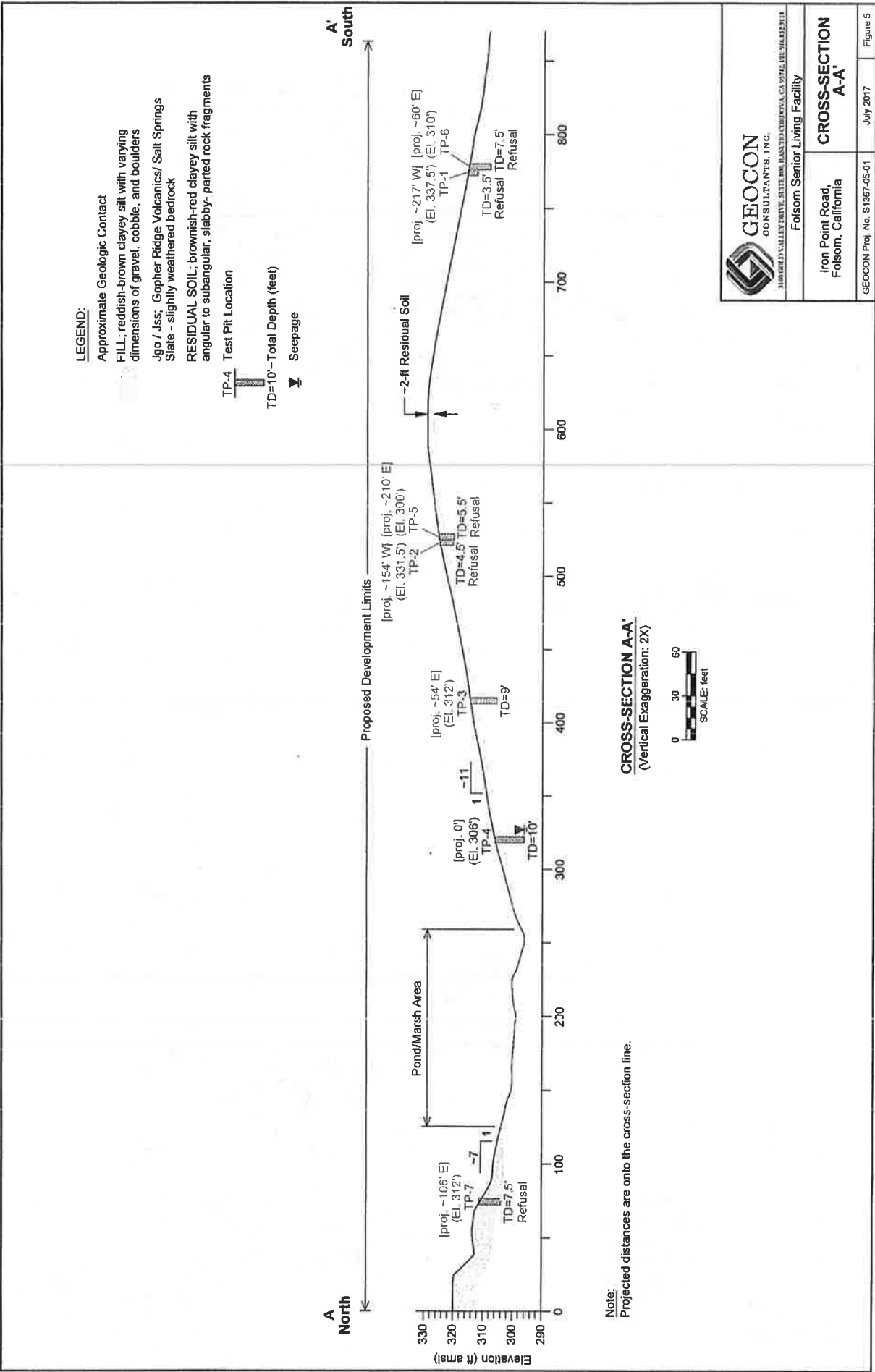
Iron Point Road,
Folsom, California

**REGIONAL
GEOLOGY MAP**

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Figure 4



 300 RED VALLEY DRIVE, SUITE 200, SAN DIEGO, CALIFORNIA, CA 92108, TEL: 619.437.9111	Folsom Senior Living Facility	
	Iron Point Road, Folsom, California	CROSS-SECTION A-A'
GEOCON Proj. No. S1957-05-01		July 2017
		Figure 5

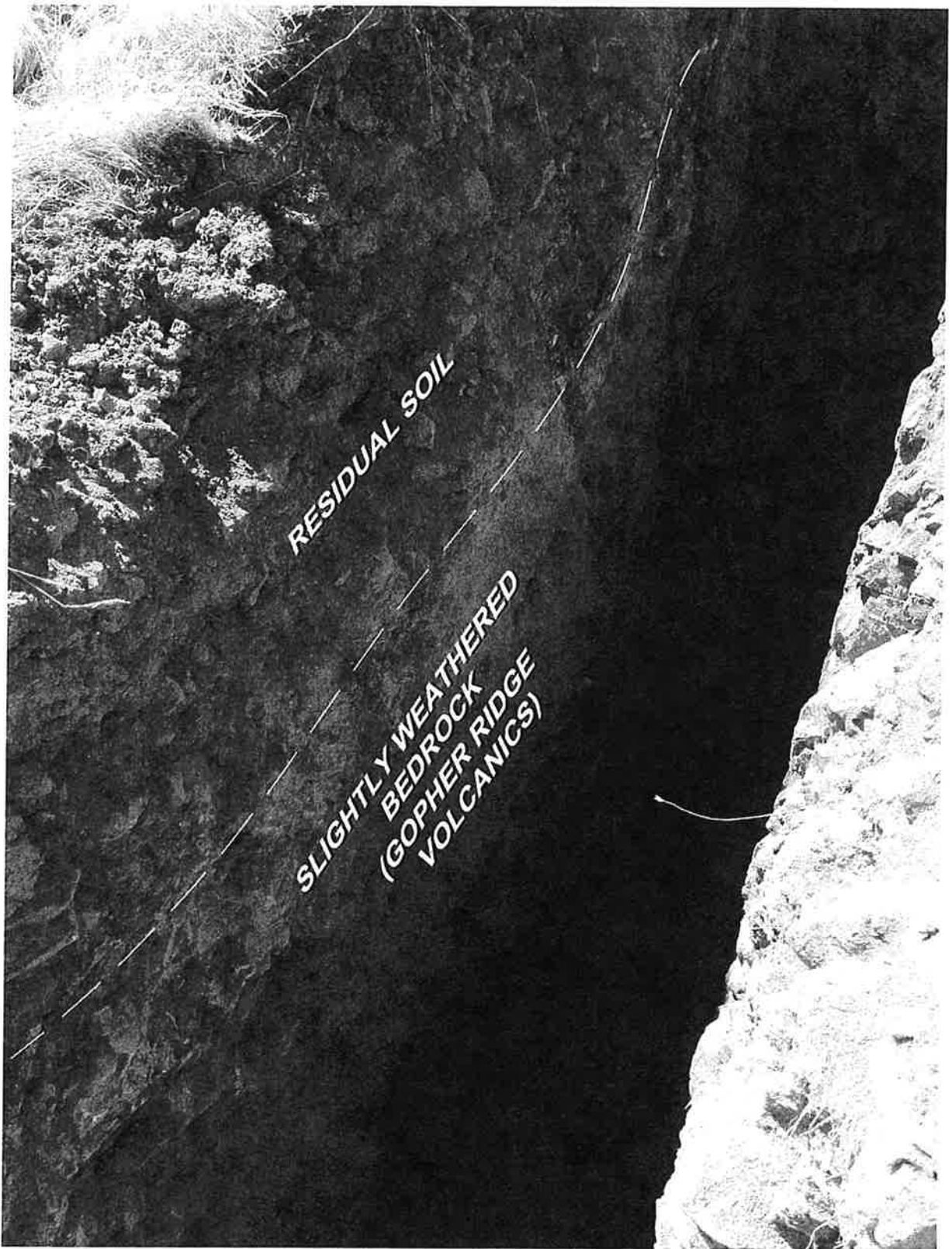


Photo No.1 Typical transition between residual soil and bedrock - Test Pit TP-3



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PHOTO No. 1

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Photo No.2 Typical excavated material - Test Pit TP-3



Photo No.3 Oversized material - dimensions varied across site - Test Pit TP-7



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PHOTOS No. 2 & 3

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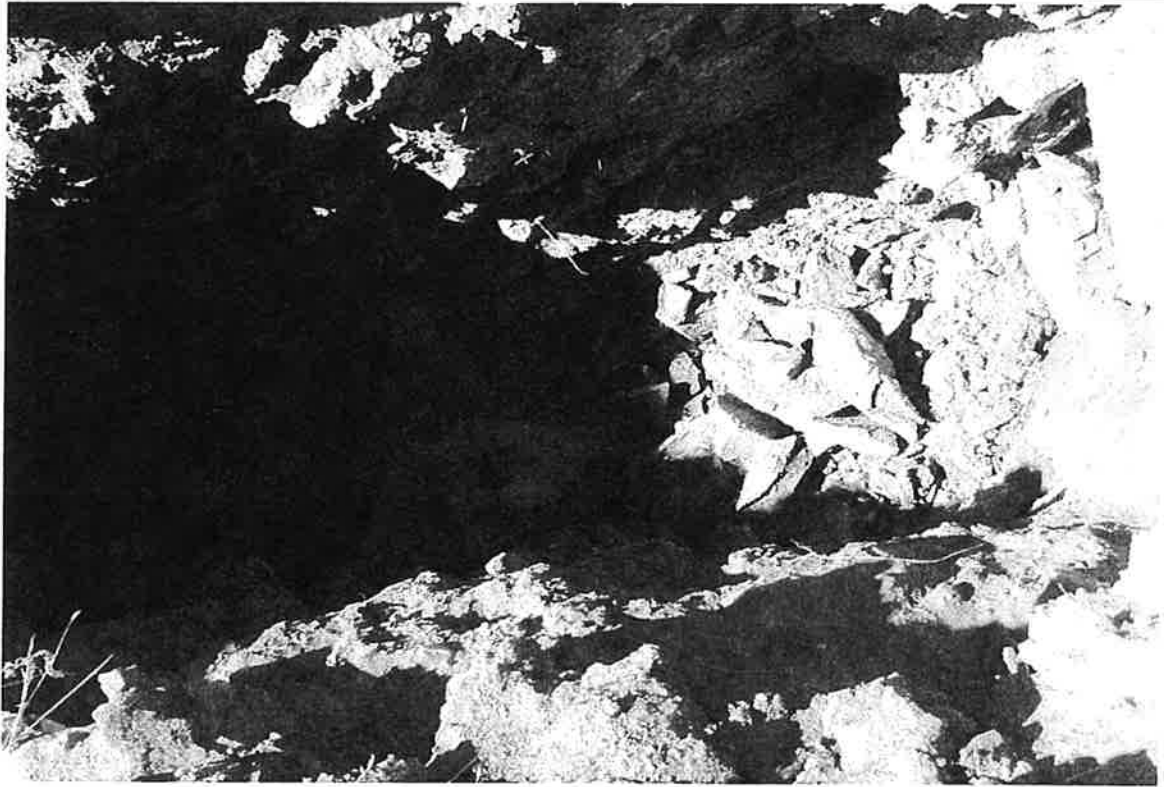


Photo No.4 Seepage in Test Pit TP-4 near pond and marsh area



Photo No.5 Existing pond on northern portion of site (June 2017)



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PHOTOS No. 4 & 5

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Photo No.6 Excavated salt springs slate - Test Pit TP-5



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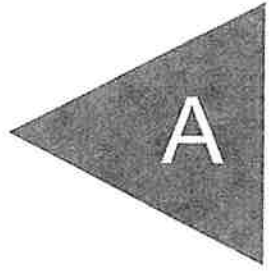
Iron Point Road,
Folsom, California

PHOTO No. 6

GEOCON Proj. No. S1367-05-01

July 2017

APPENDIX



APPENDIX A

FIELD EXPLORATION

Our geotechnical field exploration program was performed on June 28, 2017, and consisted of excavating seven exploratory test pits (TP-1 through TP-7) at the approximate locations shown on the Site Plan/Geologic Map, Figure 2, and Proposed Development Plan, Figure 3.

Exploratory test pits were performed using a John Deere 310L backhoe equipped with an 18-inch-wide bucket with rock teeth. Bulk samples were obtained from the test pits. Upon completion, the test pits were backfilled with the excavated material and tamped down with the backhoe bucket.

Subsurface conditions encountered in the exploratory test pits were visually examined, classified and logged in general accordance with the ASTM Practice for Description and Identification of Soils (Visual-Manual Procedure D2488-90). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, excavation characteristics, and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing. A Key to Logs is presented as Figure A1 and logs of test pits (TP-1 through TP-7) are presented as Figures A2 through A8.

UNIFIED SOIL CLASSIFICATION

MAJOR DIVISIONS		TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW
		GRAVELS WITH OVER 12% FINES	GP
		GRAVELS WITH OVER 12% FINES	GM
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW
		SANDS WITH OVER 12% FINES	SM
		SANDS WITH OVER 12% FINES	SC
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS	ML
		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, SILTS WITH SANDS AND GRAVELS, LEAN CLAYS	CL
		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY	OL
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS	MH
		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	CH
		ORGANIC CLAYS OR CLAYS OF MEDIUM TO HIGH PLASTICITY	OH
	HIGHLY ORGANIC SOILS	PEAT AND OTHER HIGHLY ORGANIC SOILS	PT

BEDDING SPACING DESCRIPTIONS

THICKNESS/SPACING	DESCRIPTOR
GREATER THAN 10 FEET	MASSIVE
3 TO 10 FEET	VERY THICKLY BEDDED
1 TO 3 FEET	THICKLY BEDDED
3/4-INCH TO 1 FOOT	MODERATELY BEDDED
1/2-INCH TO 3/4-INCH	THINLY BEDDED
1/4-INCH TO 1/2-INCH	VERY THINLY BEDDED
LESS THAN 1/4-INCH	LAMINATED

STRUCTURE DESCRIPTIONS

CRITERIA	DESCRIPTION
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST 1/2-INCH THICK	STRATIFIED
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN 1/2-INCH THICK	LAMINATED
BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING	FISSURED
FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED	SLICKENSIDED
COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALLER ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN	BLOCKY
INCLUSION OF SMALL POCKETS OF DIFFERENT SOIL, SUCH AS SMALL LENSES OF SAND SCATTERED THROUGH A MASS OF CLAY	LENSED
SAME COLOR AND MATERIAL THROUGHOUT	HOMOGENOUS

CEMENTATION/INDURATION DESCRIPTIONS

FIELD TEST	DESCRIPTION
CRUMBLES OR BREAKS WITH HANDLING OR LITTLE FINGER PRESSURE	WEAKLY CEMENTED/INDURATED
CRUMBLES OR BREAKS WITH CONSIDERABLE FINGER PRESSURE	MODERATELY CEMENTED/INDURATED
WILL NOT CRUMBLE OR BREAK WITH FINGER PRESSURE	STRONGLY CEMENTED/INDURATED

IGNEOUS/METAMORPHIC ROCK STRENGTH DESCRIPTIONS

FIELD TEST	DESCRIPTION
MATERIAL CRUMBLES WITH BARE HAND	WEAK
MATERIAL CRUMBLES UNDER BLOWS FROM GEOLOGY HAMMER	MODERATELY WEAK
1/2-INCH INDENTATIONS WITH SHARP END FROM GEOLOGY HAMMER	MODERATELY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH ONE BLOW FROM GEOLOGY HAMMER	STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH COUPLE BLOWS FROM GEOLOGY HAMMER	VERY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH MANY BLOWS FROM GEOLOGY HAMMER	EXTREMELY STRONG

IGNEOUS/METAMORPHIC ROCK WEATHERING DESCRIPTIONS

DEGREE OF DECOMPOSITION	FIELD RECOGNITION	ENGINEERING PROPERTIES
SOIL	DISCOLORED, CHANGED TO SOIL, FABRIC DESTROYED	EASY TO DIG
COMPLETELY WEATHERED	DISCOLORED, CHANGED TO SOIL, FABRIC MAINLY PRESERVED	EXCAVATED BY HAND OR RIPPING (Saprolite)
HIGHLY WEATHERED	DISCOLORED, HIGHLY FRACTURED, FABRIC ALTERED AROUND FRACTURES	EXCAVATED BY HAND OR RIPPING, WITH SLIGHT DIFFICULTY
MODERATELY WEATHERED	DISCOLORED, FRACTURES, INTACT ROCK-NOTICEABLY WEAKER THAN FRESH ROCK	EXCAVATED WITH DIFFICULTY WITHOUT EXPLOSIVES
SLIGHTLY WEATHERED	MAY BE DISCOLORED, SOME FRACTURES, INTACT ROCK-NOT NOTICEABLY WEAKER THAN FRESH ROCK	REQUIRES EXPLOSIVES FOR EXCAVATION, WITH PERMEABLE JOINTS AND FRACTURES
FRESH	NO DISCOLORATION, OR LOSS OF STRENGTH	REQUIRES EXPLOSIVES

IGNEOUS/METAMORPHIC ROCK JOINT/FRACTURE DESCRIPTIONS

FIELD TEST	DESCRIPTION
NO OBSERVED FRACTURES	UNFRACTURED/UNJOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1 TO 3 FOOT INTERVALS	SLIGHTLY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 4-INCH TO 1 FOOT INTERVALS	MODERATELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1-INCH TO 4-INCH INTERVALS WITH SCATTERED FRAGMENTED INTERVALS	INTENSELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT LESS THAN 1-INCH INTERVALS; MOSTLY RECOVERED AS CHIPS AND FRAGMENTS	VERY INTENSELY FRACTURED/JOINTED

BORING/TRENCH LOG LEGEND

	PENETRATION RESISTANCE					
	SAND AND GRAVEL			SILT AND CLAY		
— No Recovery	RELATIVE DENSITY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)	CONSISTENCY	BLOWS PER FOOT (SPT)	BLOWS PER FOOT (MOD-CAL)
— Shelby Tube Sample 3" O.D.	VERY LOOSE	0 - 4	0 - 6	VERY SOFT	0 - 2	0 - 3
— Bulk Sample	LOOSE	5 - 10	7 - 16	SOFT	3 - 4	4 - 6
— SPT Sample 2" O.D., 1.4" I.D.	MEDIUM DENSE	11 - 30	17 - 48	MEDIUM STIFF	5 - 8	7 - 13
— Modified California Sample 3" O.D., 2.4" I.D.	DENSE	31 - 50	49 - 79	STIFF	9 - 15	14 - 24
— Groundwater Level (At Completion)	VERY DENSE	OVER 50	OVER 78	VERY STIFF	16 - 30	25 - 48
— Groundwater Level (Seepage)				HARD	OVER 30	OVER 48
					OVER 48	OVER 4.0

*NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE LAST 12 INCHES OF AN 18-INCH DRIVE

MOISTURE DESCRIPTIONS

FIELD TEST	APPROX. DEGREE OF SATURATION, S (%)	DESCRIPTION
NO INDICATION OF MOISTURE; DRY TO THE TOUCH	S < 25	DRY
SLIGHT INDICATION OF MOISTURE	25 < S < 50	DAMP
INDICATION OF MOISTURE; NO VISIBLE WATER	50 < S < 75	MOIST
MINOR VISIBLE FREE WATER	75 < S < 100	WET
VISIBLE FREE WATER	100	SATURATED

QUANTITY DESCRIPTIONS

APPROX. ESTIMATED PERCENT	DESCRIPTION
< 5%	TRACE
5 - 10%	FEW
11 - 25%	LITTLE
26 - 50%	SOME
> 50%	MOSTLY

GRAVEL/COBBLE/BOULDER DESCRIPTIONS

CRITERIA	DESCRIPTION
PASS THROUGH A 3-INCH SIEVE AND BE RETAINED ON A NO. 4 SIEVE (#4 TO 3")	GRAVEL
PASS A 12-INCH SQUARE OPENING AND BE RETAINED ON A 3-INCH SIEVE (3"-12")	COBBLE
WILL NOT PASS A 12-INCH SQUARE OPENING (>12")	BOULDER

LABORATORY TEST KEY

CP - COMPACTION CURVE (ASTM D1557)	R - R-VALUE (CTM 301)
CR - CORROSION ANALYSIS (CTM 422, 643, 417)	SE - SAND EQUIVALENT (CTM 217)
DS - DIRECT SHEAR (ASTM D3080)	TXCU - CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D4767)
EI - EXPANSION INDEX (ASTM D4829)	TXUU - UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D2850)
GSA - GRAIN SIZE ANALYSIS (ASTM D422)	UC - UNCONFINED COMPRESSIVE STRENGTH (ASTM D2166)
MC - MOISTURE CONTENT (ASTM D2216)	
PI - PLASTICITY INDEX (ASTM D4318)	



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KEY TO LOGS

Figure A1







DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	TEST PIT TP1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>6/28/17</u>				
					ENG./GEO. <u>Victor Guardado</u>					
					EQUIPMENT <u>310L-Backhoe</u>					
					DRILLER <u>Bill Thompson</u>					
					HAMMER TYPE <u>18" Bucket w/ rock teeth</u>					
MATERIAL DESCRIPTION										
0	TP-1 Bulk			CL-ML	RESIDUAL SOIL Damp, reddish brown, Clayey SILT with some sand and rock fragments					
1					- layer of lean to fat clay					
2				GC	GOPHER RIDGE VOLCANICS Moderately weathered Metavolcanic Rock: excavates as hard, tannish brown, Clayey GRAVEL and fractured rock with some clay and silt infilling					
3					REFUSAL AT 3.5 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL					

Figure A2, Log of Test Pit, page 1 of 1



SAMPLE SYMBOLS		
<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE
		 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.








DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	TEST PIT TP2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>6/28/17</u>				
					ENG./GEO. <u>Victor Guardado</u> EQUIPMENT <u>310L-Backhoe</u>		DRILLER <u>Bill Thompson</u> HAMMER TYPE <u>8" Bucket w/ rock teeth</u>			
MATERIAL DESCRIPTION										
0	TP-2 Bore			CL-ML	RESIDUAL SOIL Damp, reddish brown, Clayey SILT with some sand and rock fragments					
1					- becomes tan to light brown					
2				GC	GOPHER RIDGE VOLCANICS Slightly to moderately weathered Metavolcanic Rock: excavates as hard, tannish grayish brown, Clayey GRAVEL and fractured rock with some clay and silt infilling					
3										
4										
					EXCAVATION TERMINATED AT 4.5 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL					

Figure A3, Log of Test Pit, page 1 of 1

IN PROGRESS S1367-05-01 IRON POINT SENIOR LIVING.GPJ 07/13/17



SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE
			... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.









DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	TEST PIT TP3		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>6/28/17</u>				
					ENG./GEO. <u>Victor Guardado</u>	DRILLER <u>Bill Thompson</u>				
					EQUIPMENT <u>310L-Backhoe</u>	HAMMER TYPE <u>18" Bucket w/ rock teeth</u>				
MATERIAL DESCRIPTION										
0	TP-3 Bulk			CL-ML	RESIDUAL SOIL Damp to moist, brownish red, clayey SILT with some sand and angular to sub-angular rock fragments					
1					- becomes light grayish brown					
2				GC	GOPHER RIDGE VOLCANICS Slightly weathered Metavolcanic Rock: excavates as hard, light grayish brown, Clayey GRAVEL and fractured rock with some clay and silt infilling					
3					- becomes moist					
4										
5										
6										
7										
8										
9					TEST PIT TERMINATED AT 9 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL					

Figure A4, Log of Test Pit, page 1 of 1



SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE
			... DRIVE SAMPLE (UNDISTURBED)
			... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.








DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	TEST PIT TP4			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>6/28/17</u>					
					ENG./GEO. <u>Victor Guardado</u>	DRILLER <u>Bill Thompson</u>					
					EQUIPMENT <u>310L-Backhoe</u>	HAMMER TYPE <u>18" Bucket w/ rock teeth</u>					
MATERIAL DESCRIPTION											
0				CL-ML	RESIDUAL SOIL Hard, damp, brownish red, Clayey SILT with small to medium rock fragments - PP = 4.5						
1											
2					- increasing rock size						
3				GC	GOPHER RIDGE VOLCANICS Slightly weathered Metavolcanic Rock: excavates as hard, light grayish brown, Clayey GRAVEL and fractured rock with some clay and silt infilling						
4											
5											
6											
7											
8					- large chunk of quartz encountered						
9					- becomes moist to wet, increasing clayey content						
10					- seepage at 10 feet						
					TEST PIT TERMINATED AT 10 FEET SEEPAGE AT 10 FEET BACKFILLED WITH EXCAVATED MATERIAL						

Figure A5, Log of Test Pit, page 1 of 1

IN PROGRESS S1367-05-01 IRON POINT SENIOR LIVING.GPJ 07/13/17



SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE
	... DRIVE SAMPLE (UNDISTURBED)		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.









DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	TEST PIT TP5		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>6/28/17</u>				
					ENG./GEO. <u>Victor Guardado</u>	DRILLER <u>Bill Thompson</u>				
					EQUIPMENT <u>310L-Backhoe</u>	HAMMER TYPE <u>18" Bucket w/ rock teeth</u>				
MATERIAL DESCRIPTION										
0	TP-5 LOG			CL-ML	RESIDUAL SOIL Damp, brownish red, clayey SILT with some sand and few angular to sub-angular rock fragments, roots					
1					- becomes grayish brown					
2				GC	SALT SPRINGS SLATE Slightly weathered Metavolcanic Rock: excavates as hard, grayish brown, Clayey GRAVEL and moderate to abundant slabby-parted slate with some clay and silt infilling					
3										
4										
5										
REFUSAL AT 5.5 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL										

Figure A6, Log of Test Pit, page 1 of 1



SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE
			... DRIVE SAMPLE (UNDISTURBED)
			... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.








DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	TEST PIT TP6			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>6/28/17</u>					
					ENG./GEO. <u>Victor Guardado</u>	DRILLER <u>Bill Thompson</u>					
					EQUIPMENT <u>310L-Backhoe</u>	HAMMER TYPE <u>" Bucket w/ rock teeth</u>					
MATERIAL DESCRIPTION											
0	TP-6 Bulk			CL-ML	RESIDUAL SOIL Damp, brownish red, Clayey SILT with some sand and cobbles with max dimension of 22", roots						
1					- becomes grayish light brown						
2				GC	GOPHER RIDGE VOLCANICS Slightly to moderately weathered Metavolcanic Rock: excavates as hard, grayish light brown, Clayey GRAVEL and fractured rock with some clay and silt infilling						
3					- increasing amount of rock fragments						
4											
5											
6											
7											
					REFUSAL AT 7.5 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL						

Figure A7, Log of Test Pit, page 1 of 1

IN PROGRESS S1367-05-01 IRON POINT SENIOR LIVING.GPJ 07/13/17



SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE
			... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	TEST PIT TP7		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
				SOIL CLASS (USCS)	ELEV. (MSL.)				
MATERIAL DESCRIPTION									
0	TP-7 BULK			CL-ML	FILL Damp, reddish brown, clayey SILT with varying dimension of gravel, cobbles, and boulders up to 30" - excavation takes place of slope face				
1									
2									
3						- slate fragments			
4						- some blue-green clayey soil chunks			
5									
6									
7				GC	- becomes hard				
					REFUSAL AT 7.5 FEET NO GROUNDWATER ENCOUNTERED BACKFILLED WITH EXCAVATED MATERIAL				

Figure A8, Log of Test Pit, page 1 of 1

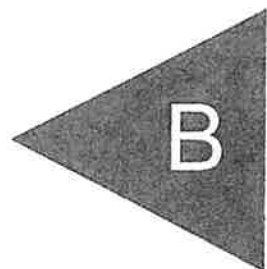
IN PROGRESS S1367-05-01 IRON POINT SENIOR LIVING.GPJ 07/13/17



SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CIUNK SAMPLE
			... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

APPENDIX



**APPENDIX B
LABORATORY TESTING PROGRAM**

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected soil samples were tested for their corrosion potential, expansion potential, resistance value (R-value), and moisture-density relationship. Laboratory test results are presented herein.

**TABLE B1
SUMMARY OF CORROSION PARAMETERS
CALIFORNIA TEST METHODS 643, 417, AND 422**

Sample No.	Sample Depth (ft.)	pH	Minimum Resistivity (ohm-cm)	Chloride (ppm)	Sulfate (ppm)
TP-2 Bulk	0 – 3	5.69	3,480	0.9	6.6

*Caltrans considers a site corrosive to foundation elements if one or more of the following conditions exist for the representative soil samples at the site:

- The pH is equal to or less than 5.5.
- The resistivity is equal to or less than 1,000 ohm-cm.
- Chloride concentration is equal to or greater than 500 parts per million (ppm).
- Sulfate concentration is equal to or greater than 2,000 ppm.

According to the 2016 California Building Code Section 1904.1 which refers to the durability requirements of American Concrete Institute (ACI) 318 (Chapter 4), Type II cement may be used where soluble sulfate levels in soil are below 2,000 ppm.

**TABLE B2
EXPANSION INDEX TEST RESULTS
ASTM D4829**

Sample Number	Depth (feet)	Moisture Content (%)		Expansion Index	Classification*
		Before Test	After Test		
TP-3,5,6 Bulk	0-3	9.9	20.7	28	Low

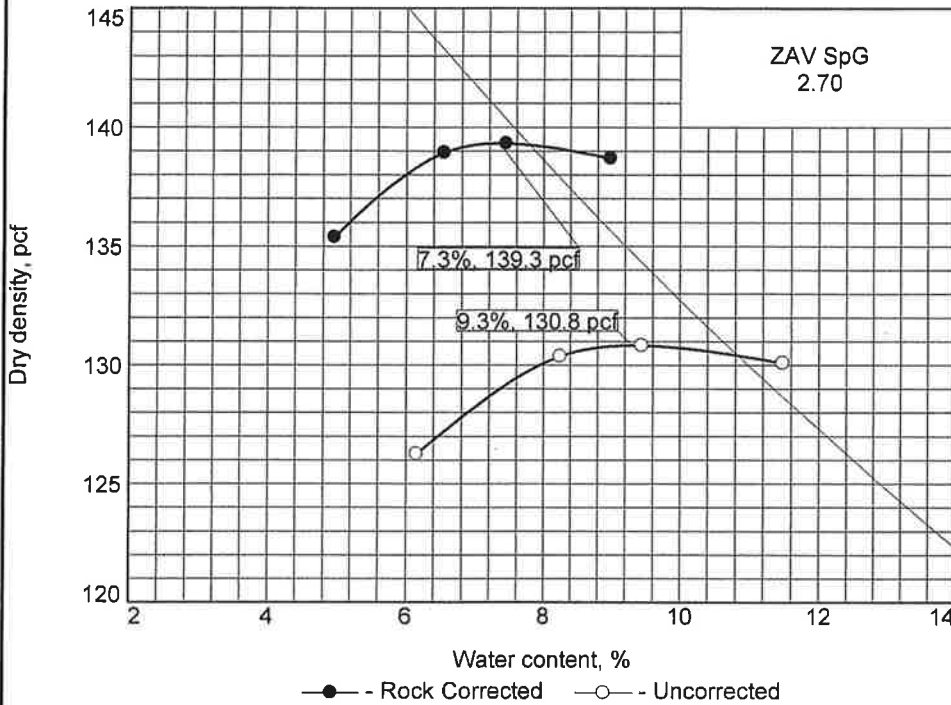
*Expansion Potential Classification per ASTM D4829.

**TABLE B3
SUMMARY OF R-VALUE TEST RESULTS**

Sample ID	Depth (feet)	Sample Description	R-Value
TP-1,2 Bulk	0-3	Reddish brown, clayey silt	20

COMPACTION TEST REPORT

Curve No.
1



Test Specification:
 ASTM 1557 Method A 2017
 ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Preparation Method _____

Hammer Wt. _____ **10.00** _____

Hammer Drop _____ **18** _____

Number of Layers _____ **5** _____

Blows per Layer _____ **25** _____

Mold Size _____ **0.03327 cu. ft.** _____

Test Performed on Material

Passing _____ **#4** _____ **Sieve** _____

NM _____ **LL** _____ **PI** _____

Sp.G. (ASTM D 854) _____ **2.7** _____

%>#4 _____ **24.5** _____ **%<No.200** _____

USCS _____ **AASHTO** _____

Date Sampled _____

Date Tested _____ **7/5/17** _____

Tested By _____ **JA** _____

TESTING DATA

	1	2	3	4	5	6
WM + WS	4068.0	4175.0	4206.0	4234.0		
WM	2045.4	2045.4	2045.4	2045.4		
WW + T #1	2176.0	2289.0	2648.0	2476.0		
WD + T #1	2058.8	2127.2	2462.0	2250.9		
TARE #1	155.8	165.7	492.4	290.8		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	5.0	6.5	7.4	9.0		
DRY DENSITY	135.4	138.9	139.3	138.7		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 139.3 pcf	130.8 pcf	Red brown, silty lean clay with gravel
Optimum moisture = 7.3 %	9.3 %	
Project No. S1367-05-01 Client: The Wolff Company Project: Folsom Senior Living Facility - Iron Point Road ○ Sample Number: TP-1,2 Bulk		Remarks: Checked by: Victor Guardado Title: Staff Engineer
GEOCON CONSULTANTS, INC.		Figure B1



Appendix E

Noise Technical Reports



May 25, 2018

Subject: Revel Folsom Senior Living Community – Exterior Noise Modeling Results

HELIX Environmental Planning, Inc. (HELIX) has performed an analysis on potential exterior noise impacts at the proposed Revel Folsom Senior Living Community (project) site. This letter summarizes the modeling used to assess the potential exterior noise impacts and the results of the model.

PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

The proposed project is located at the southeast corner of the intersection of Iron Point Road and Oak Avenue Parkway in the Broadstone neighborhood. U.S. Route 50 is located approximately 460 feet from the project's southern boundary. The project proposes development of a 161-unit, age-restricted (55+) senior living community in the estimated 6-acre site (APN 072-2680-011). The proposed project, which includes two four-story residential buildings totaling 156,000 square feet and one two-story community building totaling 19,000 square feet, features 11 studio units, 98 one-bedroom units, and 52 two-bedroom units. Amenities within the community building include dining rooms, a commercial kitchen, a movie theater, an art studio, a salon, a wellness room, and offices. Outdoor use areas include an outdoor patio and a garden area. The garden area would be shielded to the south by an approximately 6-foot retaining wall.

Access to the project site would be provided by a new driveway on Iron Point Road via a bridge that spans an existing natural water feature. The proposed project includes 133 on-site parking spaces for residents and employees. Additional site improvements include underground utilities, drive aisles, sidewalks and walkways, site lighting, site landscaping, a trash/recycling enclosure, retaining walls, and an outdoor patio.

Noise-sensitive land uses are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors (receivers) are individual locations that may be affected by noise. Noise-sensitive land uses in the project vicinity include multi-family residences to the north across Iron Point Road.

TERMINOLOGY

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ} , with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an

added 5 dBA weighting, and noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting.

NOISE MODELING SOFTWARE

Modeling of traffic noise was accomplished using Computer Aided Noise Abatement (CadnaA) version 2018. CadnaA is a model-based computer program developed by *DataKustik* for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed model for the prediction of exterior noise impacts.

AMBIENT NOISE MEASUREMENTS

Ambient noise measurements were conducted at four on-site locations during the afternoon of March 19, 2018. Measurements were conducted to calibrate the CadnaA noise model based on nearby roadways and to assess the ambient noise environment (M1 through M4). The ambient measurements are shown in **Table 1** and the approximate location for each measurement is shown in **Attachment 1**.

Table 1
AMBIENT NOISE MEASUREMENT RESULTS

Measurement	Location	dBA L _{EQ}	Measurement Length	Traffic Count
M1	South of Iron Point Road	65.7	15 minutes	308 automobiles, 6 medium trucks, 0 heavy trucks
M2	North-central portion of site	50.6	10 minutes	N/A
M3	South-central portion of site	55.4	10 minutes	N/A
M4	North of U.S. Route 50	67.5	15 minutes	1,237 automobiles, 32 medium trucks, 20 heavy trucks

NOISE STANDARDS

Traffic-Related Noise Standards

The Noise Element of the City of Folsom General Plan regulates noise emissions from public roadway traffic on new development of residential or other noise sensitive land uses. The Noise Element states that noise from traffic on public roadways shall not exceed 60 CNEL for outdoor use areas and 45 CNEL for interior use areas. (Note: Interior noise modeling has been conducted by an interior acoustical firm and summarized under separate cover (SLR Consulting 2018).

EXTERIOR NOISE ANALYSIS AND IMPACTS

Exterior Noise Exposure in Excess of Standards

The noise environment in the area of the project site is dominated by traffic noise from vehicles on U.S. Route 50, located approximately 460 feet from the project’s southern boundary, and Iron Point Road, located approximately 350 feet from the project’s northern boundary (excluding the entrance road boundary). Traffic noise levels from these two roadways are based on traffic volumes provided by the project’s Traffic Impact Analysis (Griffin Cove Transportation Consulting 2018) and the California Department of Transportation’s (Caltrans) Traffic Census Program (Caltrans 2016). CadnaA was used to calculate the noise levels from traffic along U.S. Route 50 and Iron Point Road at receivers located throughout the project site. Receivers were placed at various proposed façade and outdoor use locations based on project site plans. The locations of the receivers throughout the project site are shown on **Attachment 1**.

Table 2 shows the proposed features at the project site that were included in the CadnaA noise model. These features would affect on-site noise levels due obstruction and reflection of noise from US Route 50 and Iron Point Road. Area topography was considered in the model, however topographic data for a berm immediately adjacent to U.S. Route 50 were not available. Model results therefore represent a conservative analysis for outdoor use area receivers located at ground level and façade receivers located at first story heights, as the berm may provide some noise attenuation. The berm would most likely not provide attenuation at the fourth story façade receiver locations.

Table 2
SITE FEATURES INCLUDED
IN THE NOISE MODEL

Description	Height ¹
West Building (residential)	48
East Building (residential)	48
Community Building	24

¹ Building heights estimated from standard building heights (a single building story was assumed to be 12 feet tall).

The calculated noise levels at the various receivers are shown in **Table 3**. A significant direct impact would occur if traffic-related noise levels exceed 60 CNEL at the proposed project’s designated outdoor use areas. Receivers R3 and R7, located at the proposed garden and patio area, respectively, are at or below the 60 CNEL exterior use threshold, and are therefore in compliance with the standard. Receivers R1, R2, R4, R5, and R6 either fall below the 60 CNEL threshold or are not located within designated outdoor use areas and are therefore not subject to the City’s exterior noise threshold. No significant impact is noted for exterior noise levels and mitigation is unwarranted.

Table 3
ESTIMATED EXTERIOR NOISE LEVELS

Receiver	Location	Noise Level (CNEL)
R1	South façade of East Building; 4 th story height	71
R2	South façade of East Building; 1 st story height	68
R3	Garden	60
R4	South façade of West Building; 1 st story height	65
R5	Northeast façade of West Building; 4 th story height	59
R6	Northeast façade of West Building; 1 st story height	58
R7	Patio area	57

Source: CadnaA

Project-Generated Transportation Noise

The project is expected to generate approximately 570 daily trips (Griffin Cove Transportation Consulting 2018). A general rule of thumb is that a doubling of vehicles would cause a doubling in sound energy (a 3 dBA increase), which would be considered a perceptible, and significant increase. Daily traffic volumes with and without the added project traffic are shown in **Table 4**. Given the expected project-added increase in traffic, the project would not cause a doubling in traffic on Iron Point Road, Oak Avenue Parkway or other roads in the vicinity, and therefore would not result in a 3 dBA increase. Impacts from off-site traffic noise would be less than significant and mitigation measures are not required.

Table 4
EXISTING + PROJECT TRAFFIC VOLUMES

Roadway Segment	Existing ADT	Existing + Project ADT	Change from Existing ADT
Iron Point Road			
Rowberry Drive to Oak Avenue Parkway	24,150	24,350	200
Oak Avenue Parkway to McAdoo Drive	28,400	28,660	260
Oak Avenue Parkway			
Iron Point Road to Riley Street	6,625	6,735	110

ADT = Average Daily Trips

Source: Griffin Cove Transportation Consulting 2018.

CONCLUSIONS

Exterior noise levels are not expected to exceed the City’s 60 CNEL exterior noise levels at any of the proposed project’s designated outdoor use areas. Consequently, no significant impact is noted in relation to exterior noise and mitigation is unwarranted.

Attachments:

Attachment 1: Receiver Locations

REFERENCES

California Department of Transportation (Caltrans). 2017. 2016 Traffic Volumes on California State Highways.

Griffin Cove Transportation Consulting. 2018. Draft Traffic Impact Analysis Revel Folsom Senior Living Project. February 20.

SLR Consulting. 2018. Revel Folsom Senior Living Technical Memorandum (Interior Noise Analysis). May 10.

May 22, 2018

Mark Kaminski
Wolff Company
6710 E. Camelback Road, Suite 100
Scottsdale, AZ 85251

mkamiski@awolff.com
480.406.6818

Re: CEQA Noise Study
Revel Folsom Senior Living
Folsom, CA

TECHNICAL MEMORANDUM

1. INTRODUCTION

This Technical Memorandum presents the results of our analysis of the CEQA noise study and window glazing analysis to document and quantify expected exterior to interior noise reduction levels, as well as interior levels due to nearby road and highway traffic, for residential units at the Revel Folsom Senior Living project in Folsom, CA. The site is currently located within 500-ft. of U.S. Highway 50, to the south, and within 400-ft. of Iron Point Road, to the north, both which dominate the environmental noise at this site.

A CEQA environmental impact assessment (dated May 18, 2018) has been performed by Helix Environmental Planning, Inc. (Helix) and has determined that a large portion of the proposed site falls above a 60 dBA CNEL (Community Noise Equivalent Level). As such, building façade elements are required by local Code to reduce exterior noises to 45 dBA CNEL within the habitable spaces. Results of our analyses are given herein.

2. HELIX NOISE ANALYSIS AND DISCUSSION

General

As stated above, Helix has conducted a noise study for the proposed site as part of their draft CEQA report. The draft report indicates that noise levels were estimated at various locations on the site using traffic count data (Giffin Cove Transportation & Caltrans) as inputs to a 3D computer modeling program (CadnaA version 2018). SLR has extensive experience with this software program. The report indicates that on-site sound level measurements were collected for use in their analysis and to calibrate their acoustical model. The Helix analysis did include general topology around the site, minus a berm adjacent to U.S 50 to the south for which topology was not available. The Helix report would be a conservative estimate of noise levels, and levels with the berm topology may result in slightly lower noise levels (< 2 dBA). The Helix model did include proposed building heights and geometry.

Helix Analysis Results

Table 3 of the Helix report shows the results of their analysis. Results from the Helix analysis are as follows:

Receiver	Location	Noise Level (CNEL)	Significant Impact?
R1	South Façade of East Building; 4 th story	71	Yes*
R2	South Façade of East Building; 1 st story	68.2	Yes*
R3	Garden (Outdoor Area)	61.3	Yes*
R4	South Façade of West Building; 1 st story	65.3	Yes*
R5	Northeast façade of West Building; 4 th story	58.5	Yes*
R6	Northeast façade of West Building; 1 st story	58	Yes*
R7	Patio area	56.8	No

* Less than significant impact with incorporation of Mitigation Measure NOI-01.

Helix also included information regarding future (projected) Average Daily Trips (ADT) for the site based on project traffic. Helix correctly indicates that a doubling of traffic (ADT) could theoretically increase the noise level by 3 dBA. However, their calculations did not indicate the expected dB increase based on their projected ADT for future levels. Our calculations indicate no more than a 0.1 dB increase over current, which would not be perceivable by any people.

3. SLR ANALYSIS AND DISCUSSION

Using the Helix model resultant CNEL levels and sound frequency spectrums, based on SLR similar projects with a dominant traffic noise (both highway & surface streets), a computer spreadsheet based model was created to help determine the resultant interior noise levels of typical units at the proposed project. Typical living room and bedroom sizes, likely interior absorption characteristics, and percent areas of the façade elements were collected and used in our calculations. The model utilizes 1/3-octave band transmission loss data of façade elements and exterior sound levels (50 Hz to 10k Hz) to calculate estimated interior noise levels.

Based on information from Wolff, the following are the estimated acoustical performance ratings of the building façade elements:

1. Roof Structure – STC 50 or greater
2. Windows – STC 28 (based on 1/2" insulating glass – 1/8" g-1/4" as-1/8" g)
3. Exterior façade – STC 48 or greater (5/8" gyp, 2x6 framing, R-19, 1/2" plywood, 3-coat stucco, hardie accents, stone bases)

Typical Bedrooms will be approximately 11'-6" (w) x 10'-6" (d) x 9' (h) and typical Living Rooms will be approximately 11' (w) x 14' (d) x 9' (h). Bedroom windows are anticipated to be approximately 20 s.f. or 25 s.f. and Living Room windows are anticipated to be approximately 30 s.f. A Living Room corner unit with one window on each side was also included in our analysis.

Table 1 – Expected Interior CNEL Levels with Standard Glazing & Façade Elements at Loudest Exterior Receiving Façade (71 dBA CNEL at R1 location from Helix)

STC	OITC	Expected CNEL (dBA) inside L4 Bedrooms (with exposed roof)	Expected CNEL (dBA) inside L4 Living Rooms (with exposed roof)	Expected CNEL (dBA) inside L4 Corner Living Room (w/ roof)	Expected CNEL (dBA) inside L1 – L3 Bedrooms (wall façade only)	Expected CNEL (dBA) inside L1 – L3 Living Rooms (wall façade only)
28	26	42.6	43.1	44.9	41.3	44.0

As shown in Table 1, the calculated maximum code CNEL of 45 dB(A) is met for the loudest exterior location, as calculated by Helix. Other locations around the project site should be lower in interior level (i.e., quieter) due to lower predicted exterior CNEL levels by Helix. Therefore, no improvements or modifications should be necessary to meet the code 45 dB(A) CNEL interior requirement utilizing the Wolff Company standard façade elements.

4. CONCLUSION

Review and analysis of the draft Helix report and the outdoor to indoor transmission were made for the proposed Revel Folsom Senior Living project in Folsom, California. The Helix calculated CNEL sound levels were estimated to range from 56.8 dB(A) to 71 dB(A) CNEL at the receiver locations in the CEQA report. From SLR's analysis, no improvements or modification to the standard construction elements should be required to meet the Code CNEL requirement. The calculated interior sound levels will be below the 45 dB(A) CNEL criterion.

This concludes our Technical Memorandum. Please contact me if you have any questions.

Sincerely,

SLR International Corporation



Matthew S. Kinch, P.E.
Senior Engineer

MSK/mk

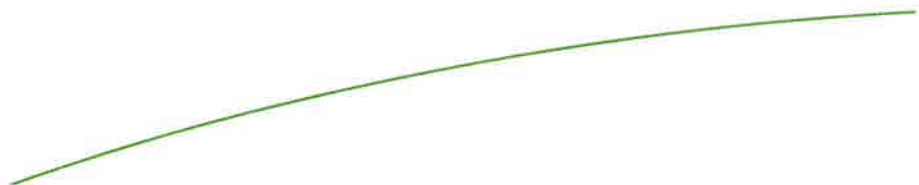
SLR Technical Memo - The Wolff Co - Revel Folsom - CEQA Noise - 05-22-2018.docx

Enc



Appendix F

Parking Assessment and Traffic Impact Analysis



Griffin Cove Transportation Consulting, PLLC

TO: Mr. Robert Edgerton
HELIX Environmental Planning, Inc.

FROM: Neal K. Liddicoat, P.E.

DATE: May 22, 2018

SUBJECT: ***Parking Assessment***
Proposed Revel Folsom Senior Living Project - Folsom, California

As requested, Griffin Cove Transportation Consulting, PLLC (GCTC) has completed an assessment of the parking requirements associated with the proposed Revel Folsom Senior Living Project in Folsom, California. The proposed project would be located on a 6.02-acre site in the southeast quadrant of the intersection of Iron Point Road/Oak Avenue Parkway, adjacent to the previously-approved CountryHouse at Broadstone Memory Care facility.

Revel Folsom would consist of 166 age-restricted residential units for active adults at least 55 years of age, including:

- 13 studio units,
- 99 one-bedroom units, and
- 54 two-bedroom units

The project also includes a 22,000-square-foot community building, which would include several dining rooms, a commercial kitchen, a movie theater, an art studio, and a spa suite with exercise room, yoga room, massage room, wellness room, and a professionally-operated salon. The community building will also house offices for staff. A total of 135 parking spaces will be provided, which is equivalent to a parking ratio of 0.81 spaces/unit.

BACKGROUND

The City of Folsom Zoning Code includes no parking requirement for senior independent living facilities such as the Revel Folsom Senior Living Project. This memorandum describes an assessment of the amount of parking needed to serve the proposed project. The evaluation presented here is primarily based on review of the relevant parking requirements established by nearby jurisdictions, information presented in the current edition of the Institute of Transportation Engineers *Parking Generation* manual, and the results of research studies conducted by others.

SUMMARY

A detailed review of zoning code parking requirements for other nearby jurisdictions revealed that Sacramento County (0.5 spaces/unit) and the City of Elk Grove (0.75 spaces/unit) address the parking needs of facilities similar to the Revel Folsom project (0.81 spaces/unit). Both of those jurisdictions require fewer parking spaces than will be provided at the proposed project, although Sacramento County also requires that an additional unimproved area equivalent to 0.5 spaces/unit be set aside for possible later conversion to provide an additional improved parking lot.

The Institute of Transportation Engineers (ITE) has documented parking demand studies for a wide range of land uses, including senior housing projects. The maximum ratio found in those studies (0.67 spaces/unit) is lower than the ratio proposed at the Revel Folsom project.

Two other studies addressing the parking needs of senior independent living facilities were found. Review of those studies revealed that the resulting parking demands were lower than the proposed parking supply at Revel Folsom.

Based on the information summarized above, it was determined that the proposed parking supply of 135 spaces (0.81 spaces/unit) at the Revel Folsom Senior Living project will be adequate to meet the needs of residents, employees, and visitors.

DETAILED PARKING ASSESSMENT

Proposed Parking Supply

The Revel Folsom project proposes to construct 135 parking spaces, including 93 standard stalls, 33 compact stalls, and 9 ADA-accessible handicap stalls. For the proposed 166-unit facility, this parking supply is equivalent to 0.81 spaces/unit.

Zoning Code Review

GCTC reviewed the zoning ordinances of a number of nearby municipalities to determine the senior independent living facility parking requirements in those jurisdictions. Specifically, zoning ordinances for the following jurisdictions were studied, with results indicated in Table 1.

Table 1 Zoning Ordinance Review Summary		
Jurisdiction	Senior Independent Living Parking Requirement?	Notes
Sacramento County	Yes	Rates for elderly or senior citizen residential housing (i.e., active seniors), convalescent hospitals, nursing homes, and intermediate care facilities.
El Dorado County	No	Rate only for long term care facility (1 per 4 beds); Not comparable.
City of Sacramento	No	Rate only for nursing home; Not comparable.
Elk Grove	Yes	Rates for senior independent living facilities, extended care, and hospitals.
Placerville	No	Rates only for rest homes and convalescent hospitals; Not comparable.
Roseville	No	Rates only for senior citizen apartments (no community facilities) and long term care facilities; Not comparable.
Rocklin	No	Rate only for rest homes; Not comparable.
Woodland	No	Rates only for nursing and convalescent homes; Not comparable.
Davis	No	Rates only for rest homes and convalescent homes; Not comparable.

As noted, only two of the local jurisdictions listed have parking requirements for senior independent living facilities. Although some of the other local zoning codes include senior residential land uses, the land use types in those codes are not comparable to the proposed project.

Sacramento County

Table 5.18 of the *Sacramento County Zoning Code* (September 25, 2015) requires that “Elderly or Senior Citizen Housing” projects provide:

0.5 spaces per dwelling unit (fully improved); 0.5 spaces per unit overflow or future parking reserve.

The “overflow parking” requirement stated here is intended to be used “. . . for additional parking for peak demand periods, i.e., Christmas, Easter, Mother’s Day, while maintaining a landscaped atmosphere with usable open space.” Under certain defined circumstances, after the project is complete, the County can require the overflow area to be fully improved for parking use.

The Sacramento County requirement would call for the Revel Folsom project to provide 83 fully-improved parking spaces plus room for 83 additional overflow parking spaces.

Elk Grove

Table 23.58-2 of the Elk Grove Zoning Code defines the following requirement for residential uses defined as “senior products”:

0.5 spaces/unit, plus 0.25 spaces/unit guest parking

Thus, the total parking requirement is 0.75 spaces/unit, which would call for 125 spaces at the Revel Folsom project.

Institute of Transportation Engineers “Parking Generation”

The Institute of Transportation Engineers (ITE) is the primary professional organization for the traffic and transportation engineering community. ITE conducts research aimed at establishing standards and guidelines for a broad range of transportation facilities, including roadways and parking facilities.

Of particular interest here is the ITE document, *Parking Generation* (Fourth Edition, 2010). That publication contains information regarding parking demand associated with a wide range of land uses, including senior housing facilities. The “Senior Adult Housing – Attached” category in the ITE document is described as follows:

Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include limited social or recreational services. However, they generally lack centralized dining and on-site medical facilities. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.

According to this document, senior adult housing centers have the weekday parking demand characteristics summarized in Table 2.

Table 2				
Parking Demand Data Summary				
“Senior Adult Housing – Attached”				
Institute of Transportation Engineers <i>Parking Generation</i>				
Time Period	No. of Studies	Parking Demand (Parking Spaces/Dwelling Unit)		
		Average Peak Period	85 th -Percentile	Range of Data
Weekday	3	0.59	0.66	0.45 – 0.67
Reference: Institute of Transportation Engineers, <i>Parking Generation</i> , Fourth Edition, 2010.				

As noted, only three sites were studied for this land use. On weekdays, the average peak parking demand found at the three locations studied was 0.59 parking spaces per unit, while the 85th-percentile value (i.e., 85 percent of the values were equal to or lower than this rate) was 0.66 parking spaces per unit. Considering the “range of data” reveals that the highest parking ratio found in these studies was 0.67 parking spaces per unit.

As described earlier, the Revel Folsom project proposes to provide parking at a rate of 0.81 spaces per dwelling unit. This rate exceeds the highest value shown in Table 2.

Applying the maximum ITE value of 0.67 spaces/unit reveals a need for 111 parking spaces, while 135 are proposed.

Other Relevant Studies

To supplement the material presented above, a broader online search was conducted to determine the existence of additional parking demand studies for senior independent living facilities. That search revealed two relevant documents.

City of Vaughan, Ontario Parking Standards Study

The first document was the *Review of Parking Standards Contained Within the City of Vaughan’s Comprehensive Zoning By-Law: Final Report* (IBI Group, March 2010). This report for the City of Vaughan, Ontario, Canada proposed the following base standards for “Residential – Senior Citizen’s Dwelling – Independent”:

- Bachelor/1 Bedroom – 0.6 space/unit,
- 2 Bedrooms – 0.8 space/unit, and
- 3+ Bedrooms – 0.95 space/unit.

Reduced parking requirements were proposed for areas having higher-density development or substantial transit service.

Applying these base rates to the proposed Revel Folsom project indicates a need for 110 parking spaces, which is equivalent to a parking ratio of 0.66 spaces/dwelling unit.

Mountlake Terrace, Washington

The second document addressed the parking needs of a senior independent housing project in the City of Mountlake Terrace, Washington. (Reference: William Popp Associates, *Parking Demand Estimate for Independent Attached Senior Housing*, February 24, 2012.) That study recommended that the proposed 100-unit facility provide 47 parking spaces, a ratio of 0.47 spaces/unit.

Although it is unclear whether the Mountlake Terrace proposal is fully comparable to the Revel Folsom project, this study included some additional information that is applicable to this effort. First, it provided additional information regarding the data included in the ITE *Parking Generation* manual, including a breakdown of the parking data, as shown in Table 3. Attachment A presents the data plot from the ITE document, from which this information was derived.

As shown, when a weighted average is derived, which reflects the number of units at each of the three study sites, the parking demand ratio is found to be 0.61 spaces/unit (compared to the proposed ratio of 0.81 spaces/unit at the Revel Folsom project).

Table 3			
Senior Adult Housing – Attached Parking Demand Data¹			
ITE Site	Number of Dwelling Units	Occupied Parking Stalls	Peak Parking Demand Ratio (Spaces/Unit)
1	40	18	0.45
2	46	29	0.63
3	90	60	0.67
Average			0.59
Weighted Average ²			0.61
Notes:			
¹ Source: Institute of Transportation Engineers, <i>Parking Generation</i> , 4 th Edition, 2010.			
² Weighted relative to number of dwelling units.			

The study also used the ITE data to develop a linear regression equation for use in estimating parking demand for senior independent living centers. Attachment B illustrates the results of that work, which suggests a rate of 0.64 spaces/DU. Applying that ratio indicates a need for 106 parking spaces at Revel Folsom, compared to the 135 spaces proposed.

Finally, the Mountlake Terrace study documented the results of parking demand studies at five “Merrill Gardens” locations, all of which were independent living facilities with no assisted living component. Table 4 summarizes the results of those studies.

As shown, this study suggested that a parking ratio of 0.45 spaces/DU (based on the weighted average) would be adequate to serve the needs of these facilities. At that ratio, Revel Folsom would need only 75 parking spaces.

Table 4			
Parking Demand Data			
Senior Independent Adult Housing – Merrill Gardens¹			
Location	Number of Dwelling Units	Occupied Parking Stalls	Peak Parking Demand Ratio (Spaces/Unit)
Sunwest, California	189	49	0.26
Rohnert Park, California	174	101	0.58
Vacaville, California	157	83	0.53
Sonoma, California	153	78	0.51
Parkview	128	53	0.41
Average			0.46
Weighted Average ²			0.45
Notes:			
¹ Source: William Popp Associates, <i>Parking Demand Estimate for Independent Attached Senior Housing</i> , February 24, 2012.			
² Weighted relative to number of dwelling units.			

CONCLUSION

As described above, most other governmental jurisdictions in the vicinity of Folsom fail to address the parking needs of senior independent living facilities. Only two jurisdictions were found that directly address this issue. Both of those zoning code requirements are lower than the proposed parking supply at the Revel Folsom project (although Sacramento County requires that an equal amount of unimproved overflow parking be provided; if that parking is later required, the County’s parking requirement would exceed the Revel Folsom proposal).

The internationally-recognized Institute of Transportation Engineers has conducted substantial research with regard to parking demand, including specific information concerning the parking needs of senior independent living facilities. That data indicates that the proposed parking supply of 0.81 spaces per unit will adequately serve the needs of residents, employees, and visitors at the proposed project. Specifically, the ITE *Parking Generation* publication documents an average peak parking demand ratio of 0.59 parking spaces per unit and an 85th-percentile value of 0.66 parking spaces per unit. Of the locations where weekday parking demand surveys were conducted, the highest value was 0.67 spaces per unit, which is lower than the proposed parking supply at Revel Folsom.

Finally, parking demand studies performed for two other jurisdictions revealed lower average parking demand factors than the 0.81 spaces/unit ratio proposed for Revel Folsom.

In conclusion, the research documented here indicates that the parking supply proposed at the Revel Folsom Senior Living project will adequately serve the needs of residents, employees, and visitors.

ATTACHMENT A

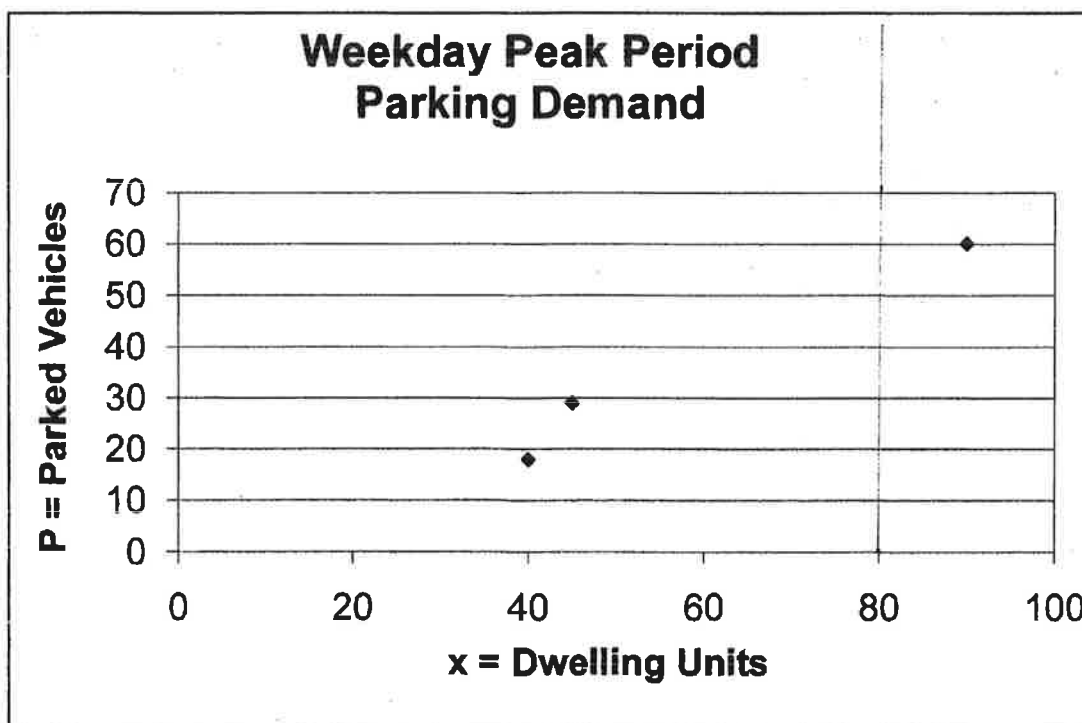
**DATA PLOT
SENIOR ADULT HOUSING – ATTACHED**

(Source: Institute of Transportation Engineers, *Parking Generation*, 4th Edition, 2010.)

Land Use: 252 Senior Adult Housing—Attached

Average Peak Period Parking Demand vs. Dwelling Units On a Weekday

Statistic	Peak Period Demand
Peak Period	11:00 p.m.—5:00 a.m.
Number of Study Sites	3
Average Size of Study Sites	58 dwelling units
Average Peak Period Parking Demand	0.59 vehicles per dwelling unit
Standard Deviation	0.12
Coefficient of Variation	20%
Range	0.45–0.67 vehicles per dwelling unit
85th Percentile	0.66 vehicles per dwelling unit
33rd Percentile	0.58 vehicles per dwelling unit



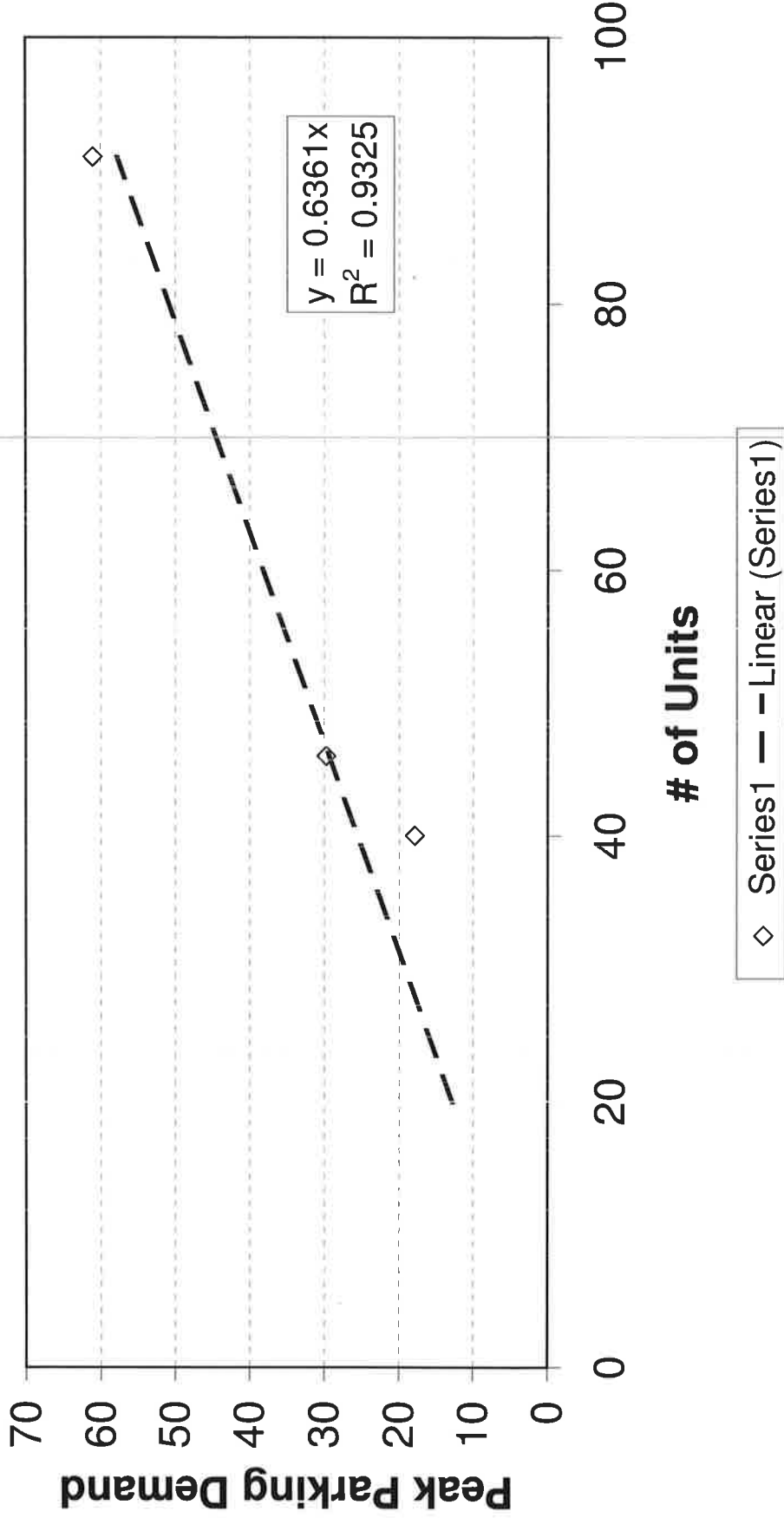
◆ Actual Data Points

ATTACHMENT B

**REGRESSION ANALYSIS
SENIOR ADULT HOUSING – ATTACHED**

**(Source: William Popp Associates, *Parking Demand Estimate
for Independent Attached Senior Housing*, February 24, 2012.)**

Peak Parking Demand Independent Senior Housing -- Attached (ITE Parking Generation 4th Ed, LUC 252)



Draft
Traffic Impact Analysis

Revel Folsom
Senior Living Project
Folsom, California

Prepared For
HELIX Environmental Planning, Inc.
&
City of Folsom
Community Development Department

Prepared By
Griffin Cove Transportation Consulting, PLLC

February 20, 2018

TABLE OF CONTENTS

Executive Summary.....	i
Introduction	1
Existing Conditions	8
Construction Year No Project Conditions	12
Construction Year Plus Project Conditions	17
Cumulative Conditions Analysis	23
Project Access Analysis.....	31

Appendix A

Existing Conditions – Level of Service Calculation Worksheets

Appendix B

Related Projects Trip Generation Summary

Appendix C

Construction Year No Project – Level of Service Calculation Worksheets

Appendix D

Construction Year Plus Project – Level of Service Calculation Worksheets

Appendix E

Cumulative No Project – Level of Service Calculation Worksheets

Appendix F

Cumulative Plus Project – Level of Service Calculation Worksheets

LIST OF TABLES

Table 1 – Level of Service Definitions – Signalized Intersections5
Table 2 – Level of Service Definitions – Unsignalized Intersections6
Table 3 – Level of Service Summary – Existing Conditions11
Table 4 – Related Projects 12 - 14
Table 5 – Level of Service Summary – Construction Year No Project Conditions16
Table 6 – Trip Generation Estimate.....18
Table 7 – Level of Service Summary – Construction Year Plus Project Conditions21
Table 8 – Level of Service Summary – Cumulative No Project Conditions26
Table 9 – Level of Service Summary – Cumulative Plus Project Conditions30

LIST OF FIGURES

Figure ES-1 – Access System Recommendations.....	v
Figure 1 – Project Location	2
Figure 2 – Project Site Plan	4
Figure 3 – Existing Transportation System.....	9
Figure 4 – Peak Hour Traffic Volumes – Existing Conditions	10
Figure 5 – Peak Hour Traffic Volumes – Construction Year No Project Conditions	15
Figure 6 – Project Trip Distribution	19
Figure 7 – Peak Hour Traffic Volumes – Construction Year + Project Conditions.....	20
Figure 8 – Peak Hour Traffic Volumes – Cumulative No Project Conditions.....	25
Figure 9 – Project Trip Distribution – Cumulative Conditions.....	27
Figure 10 – Peak Hour Traffic Volumes – Cumulative + Project Conditions	29
Figure 11 – Access System Recommendations.....	35
Figure 12 – Proposed Transportation System	36

EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Revel Folsom Senior Living Project in Folsom, California. The proposed project would consist of 166 age-restricted residential units for active adults. It would be located on a 6.02-acre site in the southeast quadrant of the intersection of Iron Point Road/Oak Avenue Parkway, adjacent to the previously-approved CountryHouse at Broadstone Memory Care facility. Vehicular access will be via a single driveway on Iron Point Road, which would be shared with the CountryHouse project.

The study evaluates weekday AM and PM peak hour traffic operations in the vicinity of the project site under the following scenarios:

- Existing Conditions,
- Construction Year No Project Conditions,
- Construction Year Plus Project Conditions,
- Cumulative No Project Conditions, and
- Cumulative Plus Project Conditions.

Impacts of the project were evaluated at three key existing intersections in the immediate vicinity of the project site. In addition, a detailed analysis of the project's proposed access system was conducted.

Existing Conditions

- AM Peak Hour: All of the study intersections operate at acceptable levels of service; all are at LOS B.
- PM Peak Hour: All of the study intersections again operate at acceptable levels of service (LOS B or C).

Construction Year No Project Conditions

- The traffic associated with 31 previously-approved (or reasonably foreseeable) developments was added to the study area roadway system to evaluate traffic operations under Construction Year No Project conditions.
- AM Peak Hour: All of the intersections will continue to operate at acceptable levels of service. Two of the study intersections will operate at LOS C (Iron Point Road/McAdoo Drive and Iron Point Road/Oak Avenue Parkway). Iron Point Road/Rowberry Drive will continue to operate at LOS B.
- PM Peak Hour: No change in LOS is projected. The intersection of Iron Point Road/Rowberry Drive is projected to operate at LOS C, while the other two study locations will be at LOS B. All three intersections will operate acceptably under the City of Folsom level of service policy.

Construction Year Plus Project Conditions

- The proposed project is expected to generate a total of 33 AM peak-hour trips (11 inbound, 22 outbound). The PM peak hour trip generation is estimated to be 42 trips (23 inbound, 19 outbound). About 570 daily trips are projected, evenly split between inbound and outbound.
- AM Peak Hour: No change in level of service is projected, and all of the study intersections will operate at acceptable levels of service (LOS B or C). The STOP-sign-controlled project access intersection will operate at LOS B, but will fail to meet the minimum requirements of the “Peak Hour” signal warrant.
- PM Peak Hour: The study intersections will continue to operate acceptably at LOS B or C, with the project traffic causing little or no increase in vehicular delay. The project driveway intersection will be at LOS C. Traffic volumes at the driveway intersection will again be insufficient to meet the “Peak Hour” signal warrant requirements.
- The project-related impacts at all of the study intersections are less than significant, and no mitigation measures are needed to resolve off-site traffic impacts.

Cumulative No Project Conditions

- The cumulative conditions analysis reflects the level of development anticipated in the City of Folsom and throughout the Sacramento region through the year 2035. The traffic volume projections employed in this analysis are based on information presented in the environmental documentation for the Folsom Plan Area.
- The following major transportation system improvements are reflected in the future year traffic forecasts used in this analysis:
 - Construction of a new interchange at U.S. Highway 50/Oak Avenue Parkway,
 - Construction of the U.S. Highway 50/Empire Ranch Road interchange, and
 - Addition of a third through lane in both directions on Iron Point Road (where necessary).
- In addition, the traffic projections reflect completion of all roadway system improvements within the Folsom Plan Area Specific Plan, as well as the regional transportation system improvements identified in the SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).
- AM Peak Hour: All three study intersections are expected to operate at LOS C, which conforms to the City’s General Plan standard.
- PM Peak Hour: Iron Point Road/Oak Avenue Parkway is projected to operate at LOS D, which falls short of the City’s standard. As in the AM peak hour, Iron Point Road/McAdoo Drive and Iron Point Road/Rowberry Drive will be at LOS C, which is acceptable under City of Folsom policies.

Cumulative + Project Conditions

- AM Peak Hour: All of the study intersections will operate acceptably under the City of Folsom level of service standard, as they will continue to be at LOS C. Further, the project-related impact on vehicular delay will be minimal. The project access intersection will operate at LOS B, but will have insufficient traffic to meet the minimum requirements of the “Peak Hour” signal warrant.
- PM Peak Hour: No change in level of service is projected at any of the study intersections. Although Iron Point Road/Oak Avenue Parkway is projected to be at LOS D, the project-related incremental increase in vehicular delay will be less than the City’s significance threshold of 5.0 seconds/vehicle. The Iron Point Road/Project Driveway intersection will be at LOS C; it will not meet the requirements of the “Peak Hour” signal warrant.
- The project-related impact is less than significant, and no mitigation measures are recommended.

Project Access Analysis

- A single STOP-sign controlled vehicular access point will serve project-generated traffic. It will be located on Iron Point Road, and will be shared with the previously-approved CountryHouse at Broadstone Memory Care facility. The driveway will be restricted to inbound and outbound right turns.
- The project access intersection will operate at acceptable levels of service under both construction year and cumulative conditions.
- Because the driveway intersection has insufficient traffic to meet the minimum requirements of the “Peak Hour” warrant, it should be controlled by a STOP sign on the driveway approach.
- The driveway location conforms to City of Folsom practice regarding intersection spacing.
- Drivers exiting the project site will have adequate sight distance along Iron Point Road, so outbound right turns can be made safely.
- The proposed “right turns only” restriction at the driveway is appropriate; no further turn restrictions are necessary.
- Adequate throat depth is proposed at the driveway.
- Although City of Folsom guidelines indicate that only a right-turn taper is considered necessary to serve entering traffic, a full-width right-turn lane is proposed in connection with the proposed project and the adjacent CountryHouse at Broadstone project. This is desirable, as it will increase safety for entering drivers.
- The project site plan indicates that Americans with Disabilities Act (ADA) compliant sidewalk ramps will be provided for pedestrians crossing the project access driveway. A marked crosswalk connecting these ramps should be provided to serve those pedestrians.
- The City of Folsom will require that the proposed project construct a standard sidewalk along the south side of Iron Point Road between the project site and the existing meandering sidewalk

located roughly 150 feet to the east. This will require that the proposed project reach appropriate agreements with the owners of two intervening properties.

- On-street (“Class II”) bike lanes exist on both sides of Iron Point Road in the vicinity of the proposed project. These lanes should adequately meet the needs of bicyclists, and no additional bicycle facilities are recommended.
- Figure ES-1 illustrates the access system recommendations.

OAK AVENUE PARKWAY

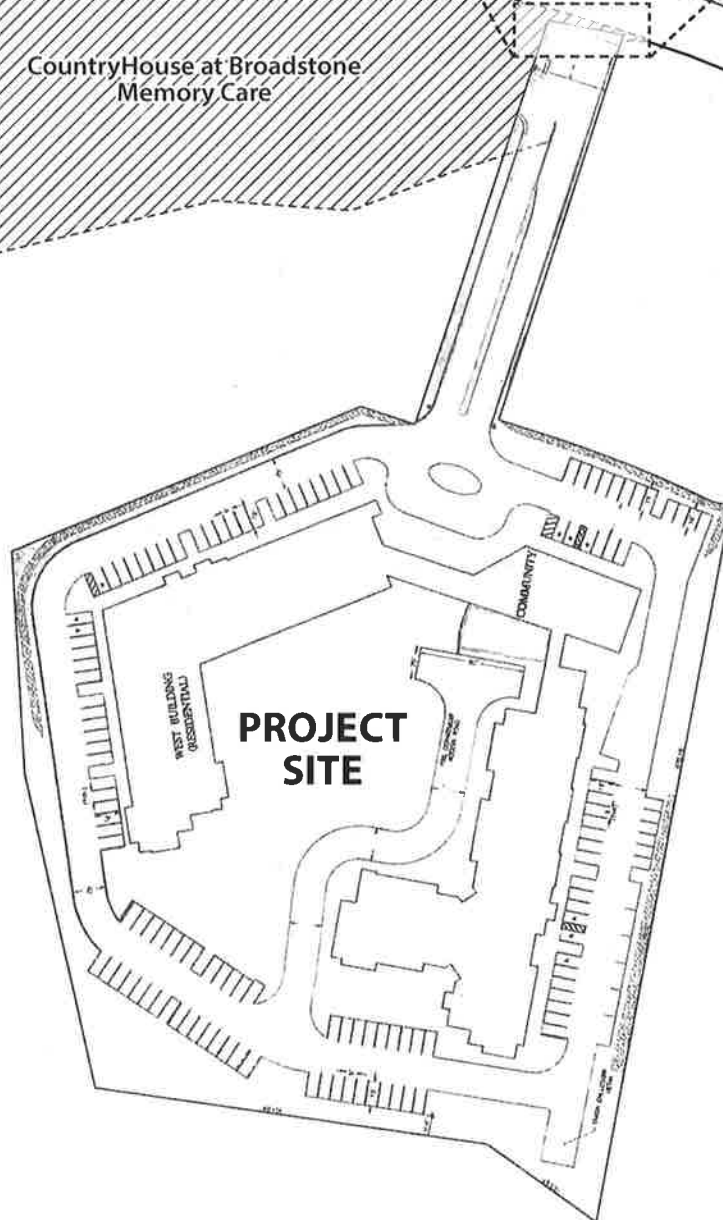
- STOP-sign control on project driveway
- Right turns in and out only
- Adequate sight distance
- Adequate throat depth
- Provide right-turn lane, as proposed
- Provide marked crosswalk across driveway

Emergency Vehicle Access
(CountryHouse at Broadstone –
Condition of Approval No. 62)

IRON POINT ROAD

CountryHouse at Broadstone
Memory Care

OAK AVENUE PARKWAY
FUTURE EXTENSION



NOT TO SCALE

INTRODUCTION

This study addresses the traffic impacts associated with the proposed Revel Folsom Senior Living Project in Folsom, California. The proposed project would consist of 166 age-restricted residential units for active adults. It would be located on a 6.02-acre site in the southeast quadrant of the intersection of Iron Point Road/Oak Avenue Parkway, adjacent to the previously-approved CountryHouse at Broadstone Memory Care facility. Vehicular access will be via a single driveway on Iron Point Road, which would be shared with the CountryHouse project.

As directed by City of Folsom staff, this study analyzed detailed traffic operations under the following scenarios:

- Existing Conditions,
- Construction Year No Project Conditions,
- Construction Year Plus Project Conditions,
- Cumulative No Project Conditions, and
- Cumulative Plus Project Conditions.

Impacts of the project were evaluated at three key existing intersections in the immediate vicinity of the project site. In addition, a detailed analysis of the project's proposed access system was conducted.

This report presents the analysis procedures as well as the findings and recommendations resulting from the evaluation.

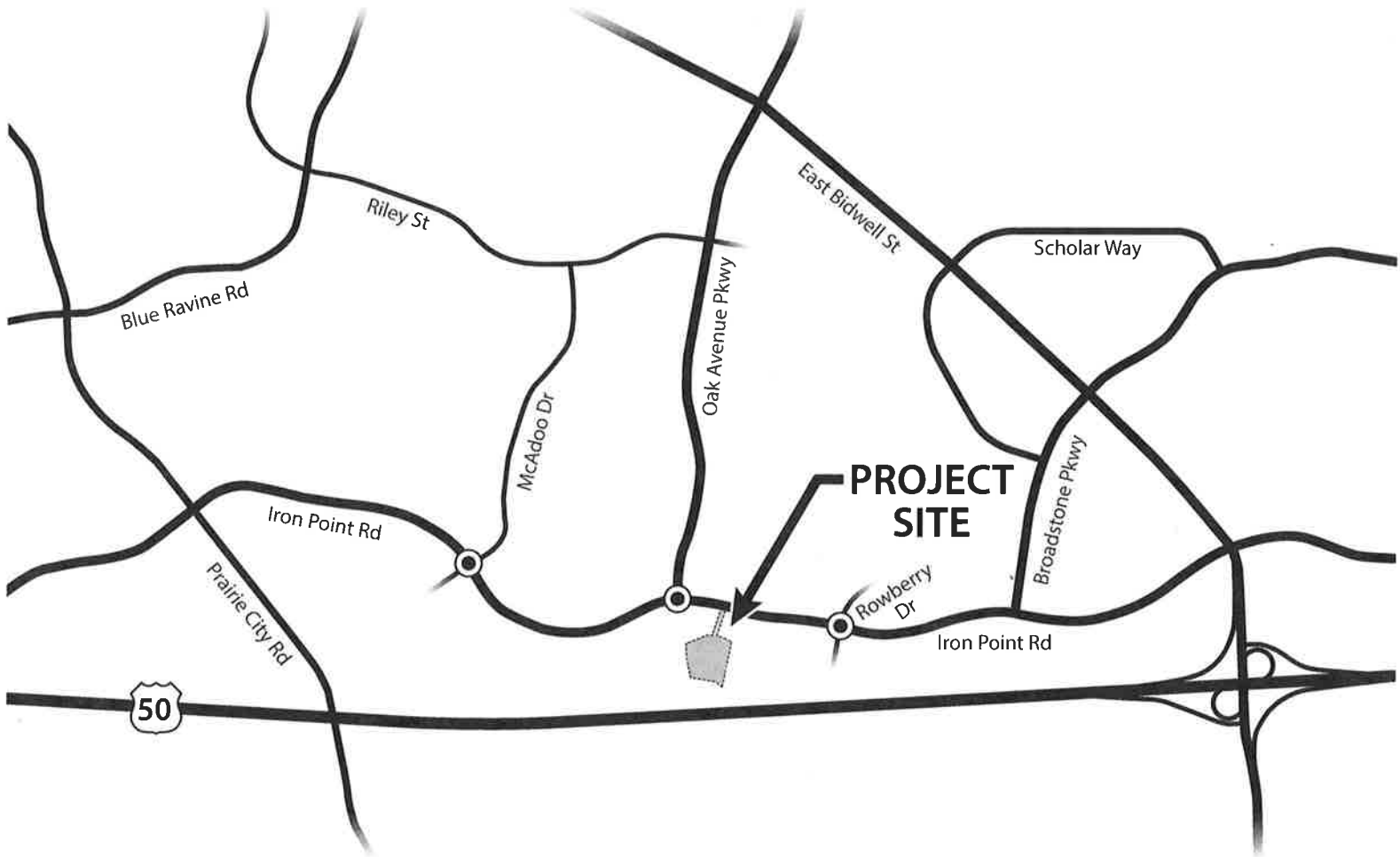
Project Description

According to information supplied by the project applicant, the proposed project would be a luxury senior housing community for "active and well elderly." The minimum age of residents will be 55 years. The proposed project would consist of 166 individual units, including:

- 13 studio units,
- 99 one-bedroom units, and
- 54 two-bedroom units.

The project also includes a 22,000-square-foot community building, which would include several dining rooms, a commercial kitchen, a movie theater, art studio, and a spa suite with exercise room, yoga room, massage room, wellness room, and a professionally-operated salon. The community building will also house offices for staff. A total of 133 parking spaces will be provided.

As illustrated on Figure 1, the proposed project is to be located in the southeast quadrant of the intersection of Iron Point Road/Oak Avenue Parkway, adjacent to the CountryHouse at Broadstone Memory Care facility.




Study Intersection



NOT TO SCALE

PROJECT LOCATION

FIGURE 1

Vehicular access to and from the proposed project would be provided at a single right-turn-only driveway on Iron Point Road, which will be shared with the adjacent CountryHouse project. In addition, left-turn access for emergency vehicles only will be provided across the Iron Point Road median. That emergency vehicle access was required as Condition of Approval No. 62 for the CountryHouse at Broadstone Memory Care project, which is presented here:

- An Emergency Vehicle Access (EVA) for fire apparatus shall be installed and maintained to allow immediate left-turn access into the project entrance across the existing median from west-bound Iron Point Road. The design of the EVA shall be approved by both the Fire Code Official and the City Engineer. The EVA shall be a paved surface that can support a gross vehicle weight of 80,000 pounds. The EVA shall have an unobstructed vertical clearance of not less than 13'6".

Figure 2 presents the proposed project site plan.

Study Area

Based on discussions with City of Folsom staff, the off-site impacts of the proposed project were evaluated at the following intersections:

- Iron Point Road/McAdoo Drive,
- Iron Point Road/Oak Avenue Parkway, and
- Iron Point Road/Rowberry Drive.

Analysis Methodology

In accordance with the analysis procedures generally accepted in the City of Folsom, the following techniques were employed in conducting this study.

Intersection Operations

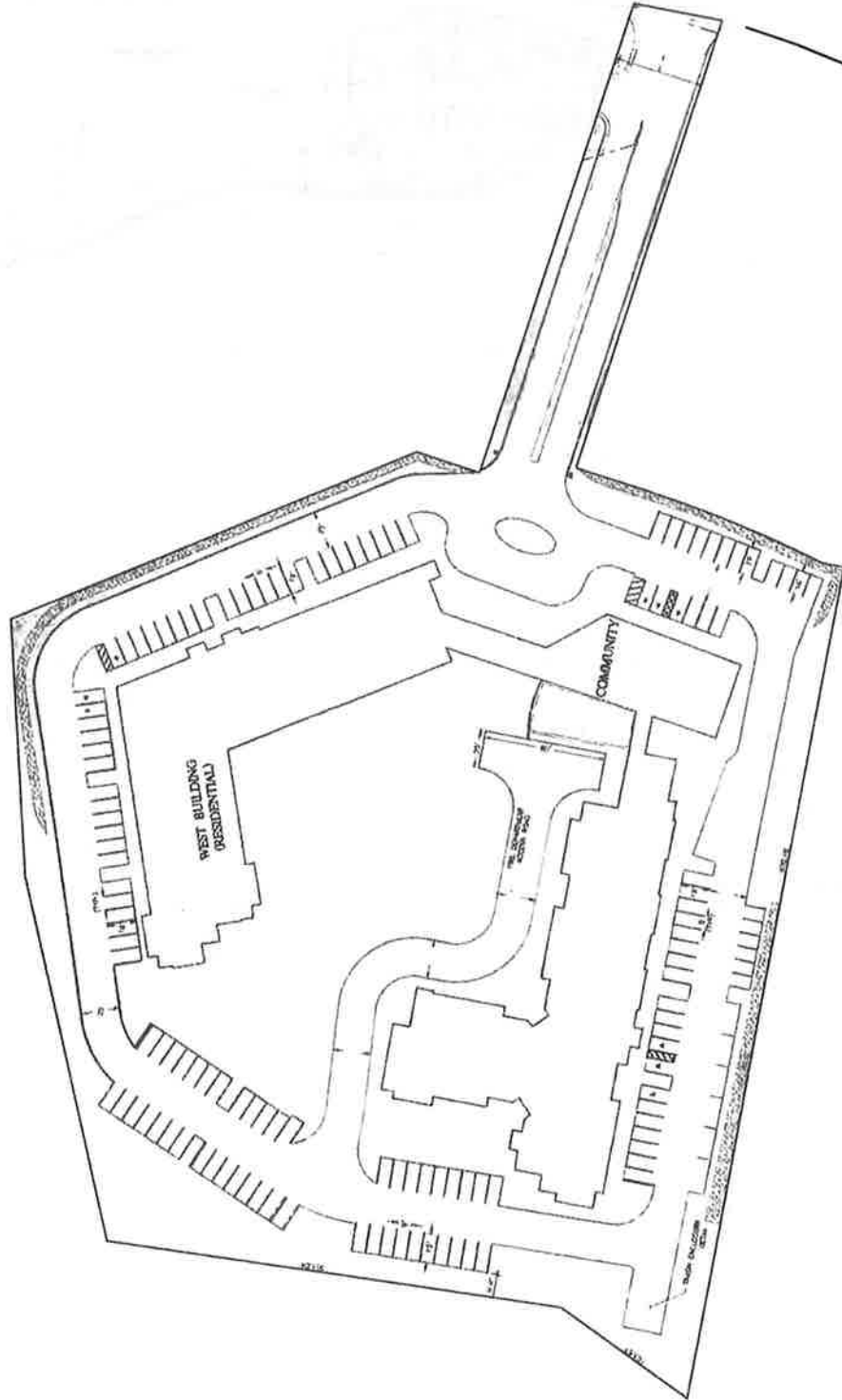
Intersection operations are typically described in terms of level of service (LOS), which is reported on a scale from LOS A (representing free-flow conditions) to LOS F (which represents substantial congestion and delay). The level of service designations are based on a quantitative calculation of average vehicular delay at the intersection. The specific approach to estimating delay is based on procedures documented in the *Highway Capacity Manual – 6th Edition* (Transportation Research Board, November 2016).

Signalized Intersections

The signalized study intersections were analyzed using the “operational analysis” methodology presented in Chapter 16 of the *Highway Capacity Manual – 6th Edition (HCM)*. This methodology determines signalized intersection level of service by comparing the “average control delay per vehicle” to the thresholds shown in Table 1. Control delay represents the delay directly associated with the traffic signal. For this analysis, the level of service calculations were performed using the *HCS7* software package, which implements the intersection analysis procedures documented in the current version of the *HCM*.

OAK AVENUE PARKWAY
FUTURE EXTENSION

IRON POINT ROAD



NOT TO SCALE

PROJECT SITE PLAN

FIGURE 2

Table 1 Level of Service Definitions Signalized Intersections		
Level of Service	Description	Average Control Delay (Seconds/Vehicle)
A	Very low delay. Most vehicles do not stop	≤ 10.0
B	Slight delay. Generally good signal progression.	10.1 – 20.0
C	Increased number of stopped vehicles. Fair signal progression.	20.1 - 35.0
D	Noticeable congestion. Large proportion of vehicles stopped.	35.1 – 55.0
E	Operating conditions at or near capacity. Frequent cycle failure.	55.1 - 80.0
F	Oversaturation. Forced or breakdown flow. Extensive queuing.	> 80.0
Reference: Transportation Research Board, <i>Highway Capacity Manual – 6th Edition</i> , 2016.		

Unsignalized Intersections

The analysis of the unsignalized project access intersection was conducted using the method documented in Chapter 19 of the *HCM*. This method calculates average control delay for each minor movement but, in the case of “two-way-STOP-control” intersections (such as the study location), not for the intersection as a whole. For unsignalized intersections, control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Level of service results reported for this intersection are based upon the average control delay per vehicle for the worst-case minor movement, based on the criteria set forth in Table 2. In this case, the outbound right-turn movement from the driveway to Iron Point Road is the critical maneuver. The unsignalized study intersection was also analyzed using the *HCS7* software package, which performs level of service calculations in accordance with the current *HCM* procedures.

The unsignalized intersection analysis also considered whether the study location would meet the minimum requirements for installation of a traffic signal. The need for installation of a traffic signal at a given location is judged relative to a defined set of traffic signal “warrants.” The warrants applied in the State of California were established by Caltrans, based on essentially similar requirements documented in the *Manual on Uniform Traffic Control Devices* (MUTCD) published by the Federal Highway Administration (FHWA). The current signal warrants are documented in “Part 4 – Highway Traffic Signals” of the *California Manual on Uniform Traffic Control Devices*, dated November 7, 2014. Nine such warrants have been defined, although not all warrants are relevant to each case. This analysis was conducted using Warrant 3, the “Peak Hour” signal warrant.

Table 2 Level of Service Definitions Unsignalized Intersections		
Level of Service	Description	Average Control Delay (Seconds/Vehicle)
A	Little or no conflicting traffic for minor movements.	≤ 10.0
B	Drivers on minor movements begin to notice absence of available gaps.	10.1 – 15.0
C	Drivers on minor movements begin to experience delays waiting for adequate gaps.	15.1 – 25.0
D	Queuing occurs on minor movements due to a reduction in available gaps.	25.1 – 35.0
E	Extensive minor movement queuing due to insufficient gaps.	35.1 – 50.0
F	Insufficient gaps of adequate size to allow minor movement traffic demand to be accommodated.	> 50.0
Reference: Transportation Research Board, <i>Highway Capacity Manual – 6th Edition</i> , 2016.		

Sight Distance

To ensure that drivers will be able to exit the site safely at the project access location, a stopping sight distance analysis was conducted using parameters documented in *A Policy on Geometric Design of Highways and Streets* (American Association of State Highway and Transportation Officials, 6th Edition, 2011) and the *Caltrans Highway Design Manual* (California Department of Transportation, March 7, 2014).

Queuing/Storage Length

To minimize the potential for queuing problems at the project driveway, the minimum recommended throat depth (MRTD) at the project access point was calculated using the probability-based methodology accepted by the City of Folsom. The intent of this analysis is to ensure that outbound vehicles have enough stacking distance, so that internal circulation aisles are not blocked. This minimizes the possibility that inbound vehicles will queue back onto the street. The queue length estimates considered here were developed within the intersection level of service calculation process, as described above.

Evaluation Criteria

Policy 17.17 of the *City of Folsom General Plan* identifies the minimum acceptable level of service for traffic operations at signalized intersections in the City. Specifically, this policy states:

The City should strive to achieve at least a traffic Level of Service “C” throughout the City. During the course of Plan buildout it may occur that temporarily higher Levels of Service result where roadway improvements have not been adequately phased as

development proceeds. However, this situation will be minimized based on annual traffic studies and monitoring programs.

The City has defined appropriate standards of significance to reflect this policy, including criteria that address situations where the intersection level of service is worse than LOS C under “no project” conditions. Those standards of significance are as follows:

- If the “no project” level of service is LOS C or better and the project-generated traffic causes the intersection level of service to degrade to worse than LOS C (i.e., LOS D, E, or F), then the proposed project must implement mitigation measures to return the intersection to LOS C or better.
- If the “no project” level of service is worse than LOS C (i.e., LOS D, E, or F) and the project-generated traffic causes the overall average delay value at the intersection to increase by five seconds or more, then the proposed project must implement mitigation measures to improve the intersection to the “no project” condition or better. It is not necessary to improve the intersection to LOS C.
- If the “no project” level of service is worse than LOS C (i.e., LOS D, E, or F) and the project-generated traffic causes the overall average delay value at the intersection to increase by less than five seconds, then the traffic impact is considered less than significant and no mitigation is required.

At the STOP-sign-controlled project access intersection, a significant impact is defined to occur if the project-generated traffic is sufficient to cause the intersection to operate at worse than LOS C (as described above), while also meeting the minimum traffic volume requirements associated with the “Peak Hour” signal warrant, as defined in the *California Manual on Uniform Traffic Control Devices*.

EXISTING CONDITIONS

This section describes the roadway network serving the proposed project, as well as existing traffic operations at the key intersections in the vicinity of the project site.

Key Roadways

The existing transportation system in the vicinity of the project site is illustrated on Figure 3. Shown there are the traffic lanes on the adjacent roadways, as well as existing facilities for pedestrians and bicyclists. Brief descriptions of the key roadways serving the project site are provided below.

Iron Point Road is an east-west arterial roadway that generally runs parallel to and just north of U.S. Highway 50. It extends from Folsom Boulevard on the west to the City limit east of Empire Ranch Road. In the immediate vicinity of the project site, it is a six-lane, median-divided road with bike lanes and a 45 MPH speed limit.

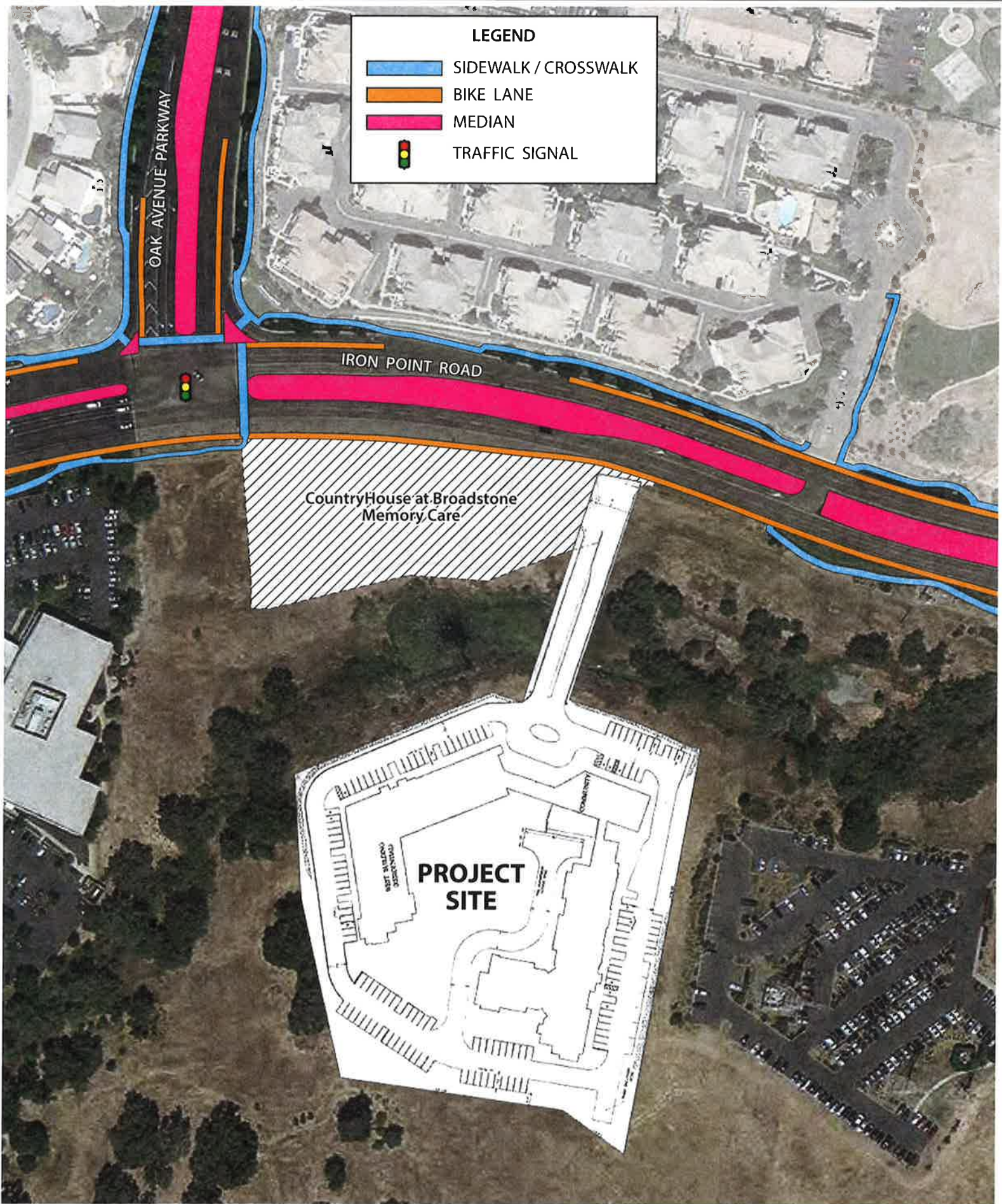
Oak Avenue Parkway is a north-south, four-to-six lane arterial street that has Iron Point Road as its southern terminus. Near Iron Point Road, Oak Avenue Parkway has a 45 MPH speed limit and two lanes in each direction (plus bike lanes) separated by a landscaped median. Long-term plans call for extending Oak Avenue Parkway to the south, where it will have an interchange with U.S. Highway 50.

McAdoo Drive is a north-south roadway that runs from Iron Point Road on the south to Riley Street on the north. It is a two-lane road with bike lanes and a 35 MPH speed limit that primarily provides access to residential areas. McAdoo Drive meets Iron Point Road at a signal-controlled intersection.

Rowberry Drive is a two-lane residential collector street, which connects Iron Point Road with Walden Drive. Sidewalks are provided along the residential frontages, but no on-street bike lanes are present. Instead, an off-street (Class I) bike path exists along the northwest side of Rowberry Drive, beginning at its intersection with Walden Drive, then curving behind the houses on that side of the street. No speed limit is posted.

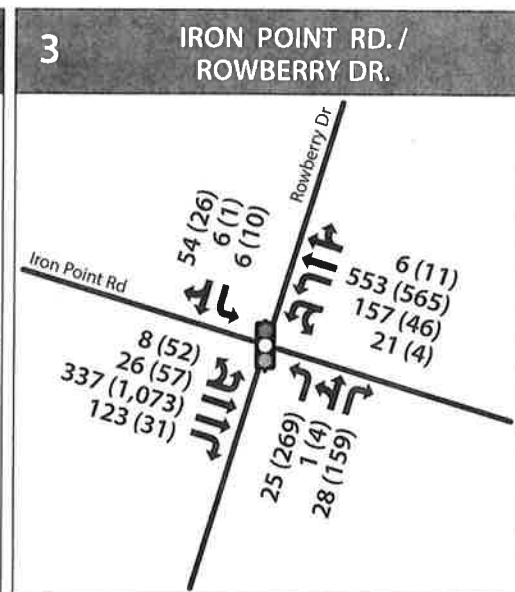
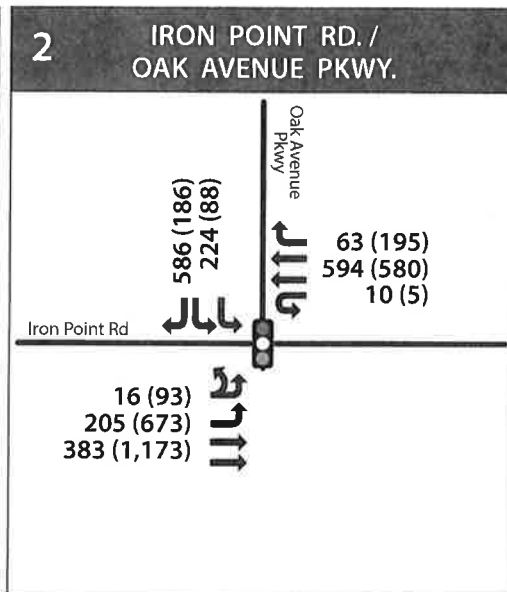
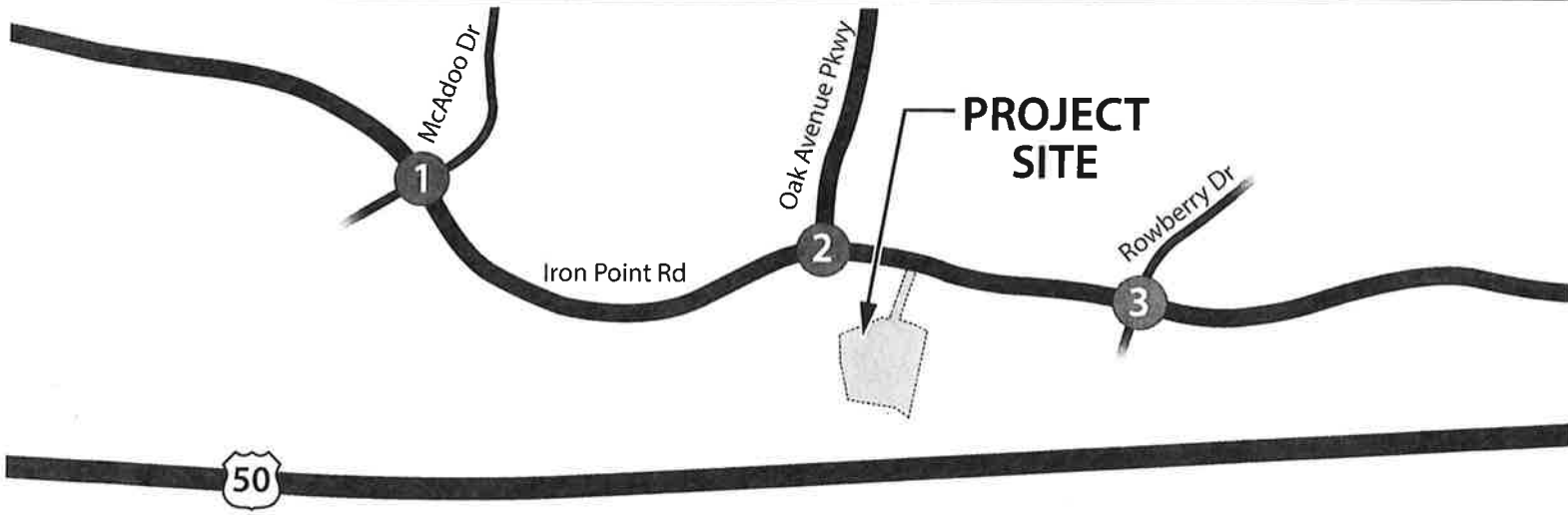
Existing Traffic Volumes

Griffin Cove Transportation Consulting (GCTC) conducted AM and PM peak-period turning movement counts at the three study intersections on Tuesday, January 23, 2018. Data collection was specifically scheduled on a typical school day, to ensure a conservative analysis of traffic operations. The peak-hour traffic volumes and existing intersection lane configurations are shown on Figure 4.



EXISTING TRANSPORTATION SYSTEM

FIGURE 3



LEGEND

(###) AM (PM) PEAK HOUR TRAFFIC VOLUMES

TURN LANE

TRAFFIC SIGNAL



NOT TO SCALE

PEAK HOUR TRAFFIC VOLUMES
EXISTING CONDITIONS

FIGURE 4

Existing Intersection Level of Service

Table 3 summarizes the AM and PM peak hour levels of service at the existing study intersections. Appendix A contains the technical calculation sheets.

AM Peak Hour

All of the study intersections operate at acceptable levels of service under the City’s adopted guideline (i.e., LOS C or better). Specifically, all three locations operate at LOS B.

PM Peak Hour

In the PM peak hour, all of the study intersections again operate at acceptable levels of service. In this case, two of the three locations are at LOS B while Iron Point Road/Rowberry Drive is at LOS C.

Table 3 Level of Service Summary¹ Existing Conditions					
Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay	LOS
Iron Point Rd./McAdoo Dr.	Signal	19.8	B	16.4	B
Iron Point Rd./Oak Avenue Pkwy.	Signal	19.8	B	14.8	B
Iron Point Rd./Rowberry Dr.	Signal	16.1	B	21.6	C

Notes:
¹ Reference: Transportation Research Board, *Highway Capacity Manual – 6th Edition*, 2016.
² Average control delay (seconds per vehicle).
³ Level of service.

CONSTRUCTION YEAR NO PROJECT CONDITIONS

This section documents traffic operations in the anticipated construction year for the proposed Revel Folsom Senior Living Project, excluding the traffic generated by the project itself. This scenario includes the traffic associated with other previously-approved (or reasonably foreseeable) developments throughout the City of Folsom, as identified by City staff.

Related Projects

To develop a meaningful estimate of “construction year” traffic conditions, Griffin Cove Transportation Consulting estimated the volume of peak-hour traffic to be generated by a number of related projects in the vicinity of the proposed project, as directed by City of Folsom staff. The specific land use assumptions for each of the related projects were confirmed with City of Folsom staff prior to initiating the detailed analyses. Table 4 lists the 31 projects included in this analysis scenario.

As summarized in Appendix B, the related projects listed below will generate a total of about 6,100 AM peak hour trips and 8,600 PM peak hour trips. Where possible, the related project trips were distributed and assigned to the City of Folsom road network in accordance with information presented in previous traffic analyses conducted within the city. Of course, not all of the related project-generated trips will pass through the study area for this analysis. Furthermore, based on discussions with City staff, it was determined that only limited development would be complete in the Folsom Plan Area (i.e., the annexation area south of Highway 50) within the construction year time frame.

Table 4			
Related Projects¹			
Project	Land Use	Size	Location
Folsom Pointe Highway Commercial	Highway Commercial Center ²		East side of East Bidwell St., south of Iron Point Rd.
Broadstone Park Professional Center	Office	15,000 SF ^{3,4}	South side of Iron Point Road east of McAdoo Drive
Palladio at Broadstone	Retail	220,000 SF ⁴	Bounded by Iron Point Rd., East Bidwell St. and Broadstone Pkwy.
Island at Parkshore	Residential	273 DU	Southwest of Parkshore Dr. in Silverbrook Island area
Broadstone Crossing Parcel 1	Three Restaurants	22,230 SF	Southwest quadrant of Iron Point Road/Cavitt Drive
La Collina dal Lago	Single-Family Residential	30 DU ⁶	East Natoma Street west of Blue Ravine Road/Green Valley Road
Empire Ranch	Single-Family Residential	200 DU ⁶	East Natoma Street east of Blue Ravine Road/Green Valley Rd.
Montara Grove	Office	32,000 SF	South side of East Natoma Street at Prison Road
Masjid Bilal Mosque	Church and School	31,668 SF	Southeast corner of Sibley Street/Levy Road
Psychiatric Services Unit Office & Treatment Facility	Medical Facility	17,395 SF	California State Prison - Sacramento

Table 4 Related Projects¹			
Project	Land Use	Size	Location
Folsom Women's Facility	Correctional Facility	403 Female Offenders	Folsom State Prison
Treehouse West Commercial Center	Retail	3,595 SF	Southwest Quadrant of Iron Point Road and Barnhill Drive
701 Bidwell Street Commercial Center	Office & Retail	7,791 SF	701 Bidwell Street
Parkway Villages H1 & H2	Single-Family Residential	16 DU	North side of Silberhorn Drive, west of Golf Links Drive
Superior Self Storage	Self-Storage Facility	124,310 SF	7700 Folsom-Auburn Road
Harvest Subdivision	Single-Family Residential	116 DU	North Side of East Natoma Street across from Bowen Drive
Russell Ranch Subdivision	Single-Family Residential	875 DU	Folsom Plan Area (East)
Mangini Ranch Phase 1 Subdivision	Single-Family Residential	826 DU	Folsom Plan Area (West)
Mangini Ranch Phase 2 Subdivision	Single-Family/ Multi-Family Residential	545 DU 356 DU 901 Total DU	Folsom Plan Area (West)
Hillsborough Subdivision	Single-Family Residential	2,103 DU	Folsom Plan Area (Central)
Veranda Subdivision	Single-Family Residential	63 DU	Southwest quadrant of East Natoma Street/Golf Links Drive/Bonhill Drive
Broadstone Apartments	Multi-Family Residential	293DU	Southwest corner - Broadstone Parkway and Cavitt Drive
Bidwell Pointe Apartments	Multi-Family Residl. Live-Work Units Commercial	140 DU 7 Units 800 SF	125 East Bidwell Street
Iron Point Retirement Community	Assisted Living	126 DU	Iron Point Road, south side near Rowberry Drive
The Pique at Iron Point Apartments	Multi-Family Residential	327 DU	Iron Point Road between Serpa Way and Carpenter Hill Rd.
Cresleigh Ravine/Campus at Iron Point	Single-Family and Multi-Family Residential	53 SF 230 MF	Willard Drive at Iron Point Rd.
CountryHouse at Broadstone	Memory Care Facility	36,668 SF (45 DU/47 Beds)	Southeast quadrant of Iron Point Road/Oak Avenue Parkway
Parkway Apartments	Low-Income, Multi-Family Residential	72 DU	Southwest quadrant of Blue Ravine Road/Oak Avenue Parkway
Quick Quack	Car Wash	3,599 SF	Southeast quadrant of Iron Point Road/Cavitt Drive
Prospect Ridge	Single-Family Residential	35 DU	535 Levy Road

Table 4 Related Projects¹			
Project	Land Use	Size	Location
Folsom Heights	Single-Family Residl. Multi-Family Residl. General Commercial	402 DU 128 DU 128,500 SF	Southwest quadrant of U.S. Highway 50 and Sacramento/El Dorado County line
Notes: ¹ Reference: City of Folsom, Community Development Department ² Three unbuilt pads (two restaurants and one retail building). ³ Square feet. ⁴ Approximate unoccupied square footage. ⁵ Dwelling units. ⁶ Approximate number of unbuilt dwelling units.			

Planned Roadway System Improvements

Consultation with the City of Folsom Traffic Engineer revealed that the City has no planned or programmed road improvements at any of the study intersections. Therefore, the study intersection lane configurations for the “construction year” traffic analyses are identical to existing conditions.

Construction Year No Project Traffic Volumes

The peak-hour traffic generated by the related projects listed above was added to the road system in the vicinity of the project site to develop a “Construction Year No Project” traffic scenario. Figure 5 illustrates the result of adding the traffic associated with the related projects to the existing traffic volumes for both the AM and PM peak hours.

Intersection Level of Service

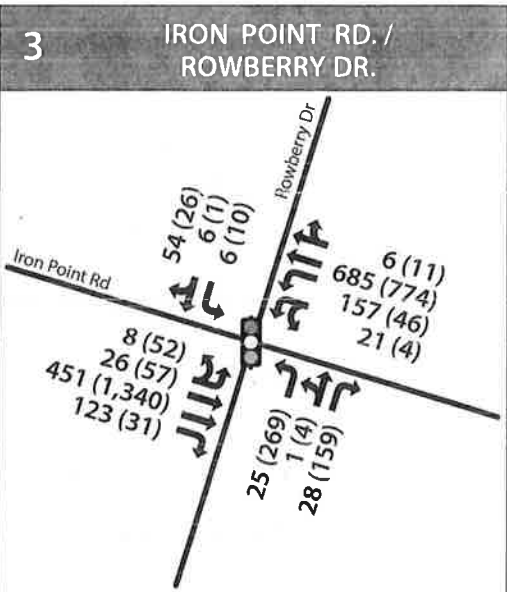
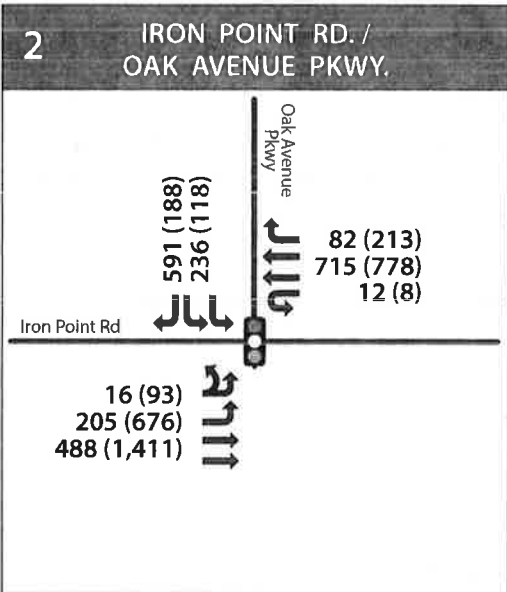
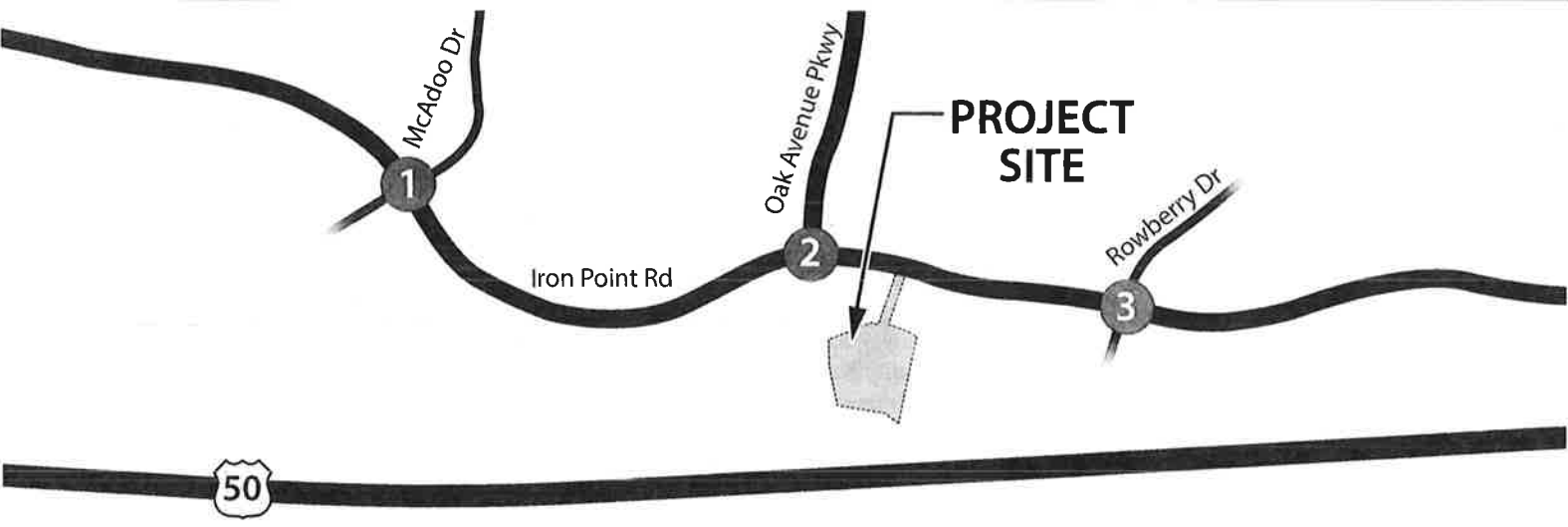
Table 5 summarizes the results of the level of service calculations for the study intersections under Construction Year No Project conditions. Appendix C contains the technical calculations.

AM Peak Hour

All of the intersections will conform to the City’s level of service standard. Upon addition of the related projects traffic, two of the study intersections will operate at LOS C (Iron Point Road/McAdoo Drive and Iron Point Road/Oak Avenue Parkway). Iron Point Road/Rowberry Drive will continue to operate at LOS B.

PM Peak Hour

In the PM peak hour, no change in LOS is projected relative to Existing Conditions. Iron Point Road’s intersections at McAdoo Drive and Oak Avenue Parkway will continue to operate at LOS B, while Iron Point Road/Rowberry Drive will be at LOS C. All three locations will operate acceptably under City of Folsom policies.



LEGEND

(###) AM (PM) PEAK HOUR TRAFFIC VOLUMES

TURN LANE

TRAFFIC SIGNAL

NOT TO SCALE

**PEAK HOUR TRAFFIC VOLUMES
CONSTRUCTION YEAR NO PROJECT**

FIGURE 5

Table 5					
Level of Service Summary¹					
Construction Year No Project Conditions					
Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay	LOS
Iron Point Rd./McAdoo Dr.	Signal	20.2	C	16.6	B
Iron Point Rd./Oak Avenue Pkwy.	Signal	22.8	C	16.2	B
Iron Point Rd./Rowberry Dr.	Signal	16.5	B	24.3	C
Notes: ¹ Reference: Transportation Research Board, <i>Highway Capacity Manual – 6th Edition</i> , 2016. ² Average control delay (seconds per vehicle). ³ Level of service.					

CONSTRUCTION YEAR PLUS PROJECT CONDITIONS

This section documents the impacts of the proposed project on traffic conditions in the assumed construction year. To evaluate off-site impacts, the volume of traffic generated by the proposed project was estimated and that traffic was assigned to the adjacent street system. The levels of service at the study intersections were then analyzed for the weekday AM and PM peak hours.

Project Description

As noted above, the proposed Revel Folsom Senior Living Project would be located in the southeast quadrant of the intersection of Iron Point Road/Oak Avenue Parkway, adjacent to the previously-approved CountryHouse at Broadstone Memory Care facility. It will consist of 166 age-restricted residential units serving active adults 55 years of age and greater. The project also includes a community building housing a commercial kitchen, dining areas, offices for staff, and various other amenities. A total of 133 parking spaces will be provided.

Vehicular access to and from the proposed project would be provided by way of a single STOP-sign-controlled driveway on Iron Point Road, which would be shared with the CountryHouse project. Primarily because of its proximity to Oak Avenue Parkway, the driveway would be restricted to right-turns only, both inbound and outbound. This means that drivers approaching the site from the east on Iron Point Road will be required to make a U-turn at Iron Point Road/Oak Avenue Parkway. Similarly, exiting drivers desiring to travel to the west will need to make a U-turn after departing the site.

In addition, left-turn access for emergency vehicles only will be provided across the Iron Point Road median. That emergency vehicle access was required as Condition of Approval No. 62 for the CountryHouse at Broadstone Memory Care project.

Trip Generation

The AM and PM peak-hour trip generation estimates for the proposed project were developed using information presented in the *Trip Generation Manual* (Institute of Transportation Engineers, Ninth Edition, 2012). The specific land use category is designated “Senior Adult Housing – Attached,” which is described in the ITE document as follows:

Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing and active adult communities. These developments may include limited social or recreational services. . . . Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.

Table 6 summarizes the resulting trip generation estimates for the proposed Revel Folsom Senior Living Project. The proposed project is expected to generate a total of 33 AM peak-hour trips, with 11 inbound and 22 outbound. The PM peak hour trip generation is estimated to be 42 trips, with 23 inbound and 19 outbound. About 570 daily trips are projected, evenly split between inbound and outbound trips.

Table 6 Trip Generation Estimate¹								
Land Use		Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Independent Living ² (166 DU ³)	Trip Rate ⁴	3.44	0.068	0.132	0.200	0.135	0.115	0.250
	Trips	570	11	22	33	23	19	42
Notes: ¹ Reference: Institute of Transportation Engineers, <i>Trip Generation Manual</i> , Ninth Edition, 2012. ² ITE Land Use Code 252 – Senior Adult Housing - Attached. ³ Dwelling units. ⁴ Trips per dwelling unit.								

Trip Distribution

The geographic distribution of the project-generated traffic was based on existing traffic patterns in the vicinity of the proposed project, as well as information presented in previous traffic studies for nearby projects. About 45 percent of the project-generated traffic is expected to be oriented to/from the west on Iron Point Road. An additional 35 percent is expected to travel to and from the east, while 20 percent will be oriented to/from the north on Oak Avenue Parkway. The trip distribution is illustrated on Figure 6.

Project Traffic Assignment

The peak-hour traffic volumes generated by the proposed project were added to the “Construction Year No Project” traffic, with the result being the “Construction Year Plus Project” scenario. Those estimated traffic volumes are shown on Figure 7, which also illustrates the assumed intersection lane configurations. No changes in intersection lane configurations are assumed, as the City of Folsom has no planned or programmed roadway system improvements at the study intersections.

Intersection Level of Service

Table 7 presents the AM and PM peak hour levels of service at each study intersection under Construction Year Plus Project conditions. Appendix D contains the technical calculation worksheets.

AM Peak Hour

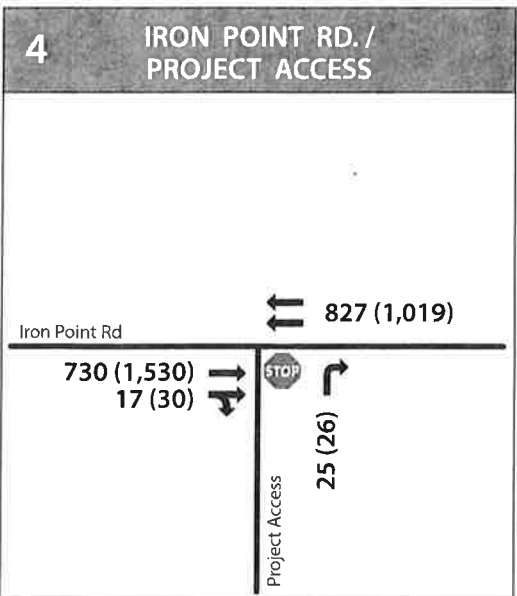
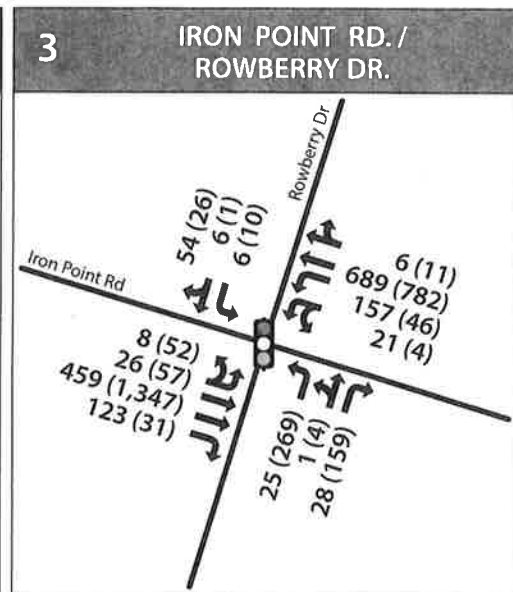
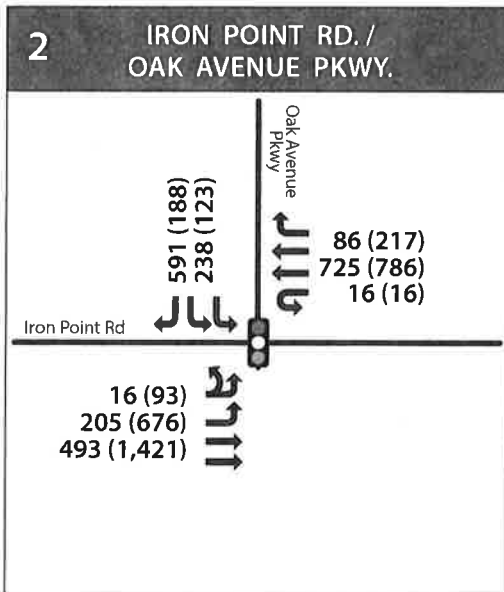
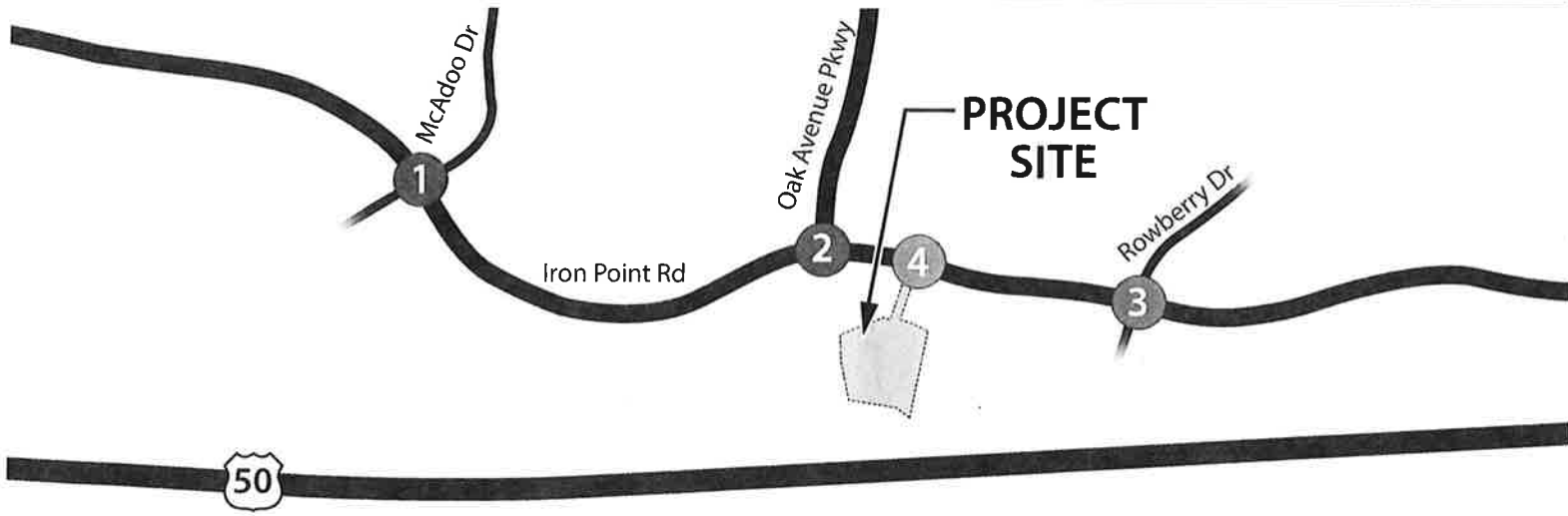
Addition of the project-generated traffic will cause little change in the delay values at the study intersections, and no change in level of service is projected. The project-related incremental increase in delay will range from 0.1 seconds/vehicle to 0.5 seconds/vehicle. The project access intersection will be at LOS B, and will not meet the “Peak Hour” signal warrant. Thus, all of the study intersections will operate at acceptable levels of service and the project-related impact will be less than significant.



NOT TO SCALE

PROJECT TRIP DISTRIBUTION

FIGURE 6



LEGEND

(###) AM (PM) PEAK HOUR TRAFFIC VOLUMES

TURN LANE

TRAFFIC SIGNAL

STOP SIGN



**PEAK HOUR TRAFFIC VOLUMES
CONSTRUCTION YEAR + PROJECT**

FIGURE 7

Table 7 Level of Service Summary¹ Construction Year Plus Project Conditions													
Intersection	Traffic Control	AM Peak Hour						PM Peak Hour					
		Construction Year No Project			Construction Year + Project			Construction Year No Project		Construction Year + Project			
		Delay ²	LOS ³	Signal Warrant? ⁴	Delay	LOS	Signal Warrant?	Delay	LOS	Signal Warrant?	Delay	LOS	Signal Warrant?
Iron Point Rd./McAdoo Dr.	Signal	20.2	C	--	20.3	C	--	16.6	B	--	16.6	B	--
Iron Point Rd./Oak Avenue Pkwy.	Signal	22.8	C	--	23.3	C	--	16.2	B	--	16.6	B	--
Iron Point Rd./Rowberry Dr.	Signal	16.5	B	--	16.6	B	--	24.3	C	--	24.4	C	--
Iron Point Rd./Project Access	Side-St. STOP ⁵	--	--	--	11.3	B	No	--	--	--	18.0	C	No

Notes:
¹ Reference: Transportation Research Board, *Highway Capacity Manual – 6th Edition*, 2016.
² Average control delay (seconds per vehicle).
³ Level of service.
⁴ “Peak Hour” signal warrant from “Part 4 – Highway Traffic Signals” of the *California Manual on Uniform Traffic Control Devices*, November 7, 2014.
⁵ Delay value represents the worst-case movement/approach.

PM Peak Hour

The PM peak hour results are somewhat similar to the AM peak hour findings. Again, the levels of service will be unchanged at all three study intersections, and the incremental delay increase directly due to the proposed project will be a maximum of 0.4 seconds/vehicle. The Iron Point Road/Project Access intersection will be at LOS C; it will have insufficient traffic to meet the minimum requirements of the "Peak Hour" signal warrant. Thus, all four intersections will conform to the City's level of service standards.

In summary, the project-related impact is projected to be less than significant in the PM peak hour.

Mitigation Measures

The project-related impact at all of the study intersections is less than significant, as described above. Therefore, no off-site mitigation measures are recommended in conjunction with the proposed Revel Folsom Senior Living Project.

CUMULATIVE CONDITIONS ANALYSIS

This section describes the results of the analysis of study area traffic operations under cumulative conditions in the weekday AM and PM peak hours. This analysis reflects the level of development anticipated throughout the City of Folsom (including the Folsom Plan Area Specific Plan (FPASP) annexation area) and the entire Sacramento region, through the year 2035. The traffic volume projections were based on a modified version of the SACMET travel demand forecasting model developed and maintained by the Sacramento Area Council of Governments (SACOG).

Analyses are presented for two scenarios: Cumulative No Project conditions and Cumulative Plus Project conditions, reflecting the addition of the traffic generated by the proposed project to the “no project” volumes. To ensure consistency with other ongoing or recently-conducted traffic analyses in Folsom, the future year traffic forecasts employed in this analysis are based on information developed in connection with the traffic analysis for the FPASP annexation process. The FPASP traffic analysis is presented in the environmental documentation for the annexation project. (Reference: AECOM and RMC Water and Environmental, *Public Draft EIR/EIS – Folsom South of U.S. 50 Specific Plan Project*, June 2010.)

Planned Roadway Improvements

Between now and the year 2035, a variety of major transportation system improvements will be implemented in the Folsom area. These improvements, which are reflected in the future year traffic forecasts used in this analysis, include the following:

- Construction of a new interchange at U.S. Highway 50/Oak Avenue Parkway,
- Construction of the U.S. Highway 50/Empire Ranch Road interchange, and
- Addition of the third through lane in both directions on Iron Point Road (where necessary).

In addition, the traffic projections reflect completion of all roadway system improvements within the Folsom Plan Area Specific Plan, as well as the regional transportation system improvements identified in the SACOG Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS).

The planned construction of the new freeway interchange at Oak Avenue Parkway will alter traffic flow patterns in the study area. This shift in traffic is reflected in the traffic volume forecasts employed in this analysis.

Land Use Forecasts

The travel demand forecasts developed for the FPASP annexation project, which serve as the basis for the future traffic volumes used in this analysis, assumed the following land uses in the FPASP area:

- 1,477 acres of residential uses (10,210 residential dwelling units),
- 363 acres of office/business/professional and retail/commercial uses,
- 301 acres of schools and City parks, and
- 1,053 acres of open space.

Although the FPASP land use plan has since been amended, the future year traffic projections are still considered to be valid.

In addition, the future year land use estimates for the Sacramento region included in the SACMET travel demand forecasting model were assumed.

Cumulative No Project Conditions

Figure 8 illustrates the Cumulative No Project peak hour traffic volumes employed in this study. Also shown are the intersection lane configurations assumed for cumulative conditions. Based on information presented in the FPASP traffic analysis, the following intersection improvements were assumed:

- Iron Point Road/Oak Avenue Parkway
 - A third eastbound and westbound through lane,
 - Dual westbound left-turn lanes,
 - A dedicated eastbound right-turn lane,
 - Two southbound through lanes, and
 - A northbound approach with dual left-turn lanes, two through lanes, and a dedicated right-turn lane.
- Iron Point Road/Rowberry Drive
 - A third eastbound and westbound through lane.

In addition, as noted above, construction of a new U.S. Highway 50 interchange at Oak Avenue Parkway is expected to occur in this time frame. In conjunction with that major improvement, Oak Avenue Parkway will be extended to the south from Iron Point Road with two through lanes in each direction.

Intersection Level of Service

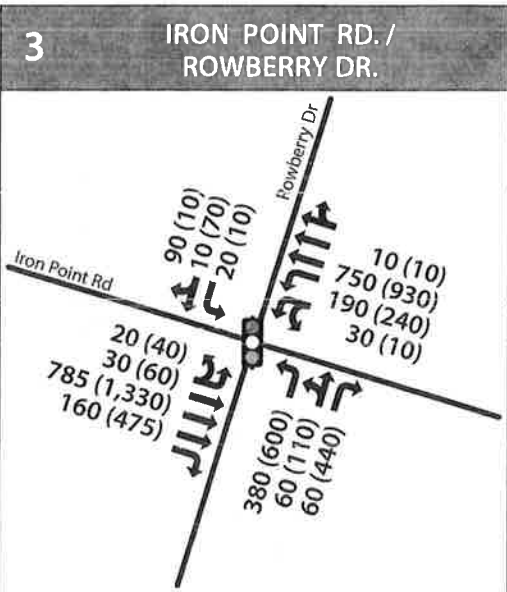
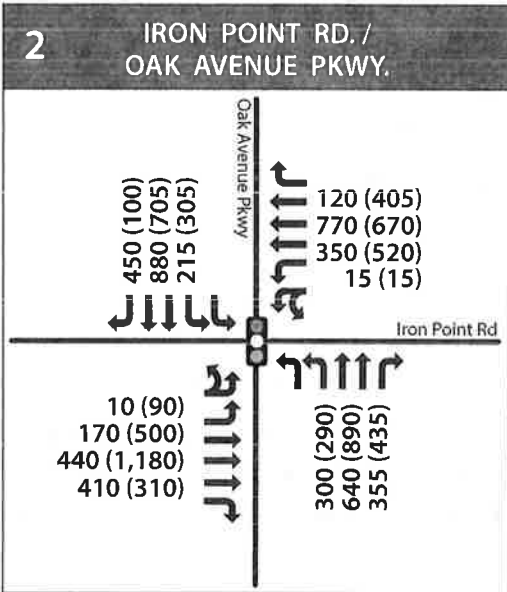
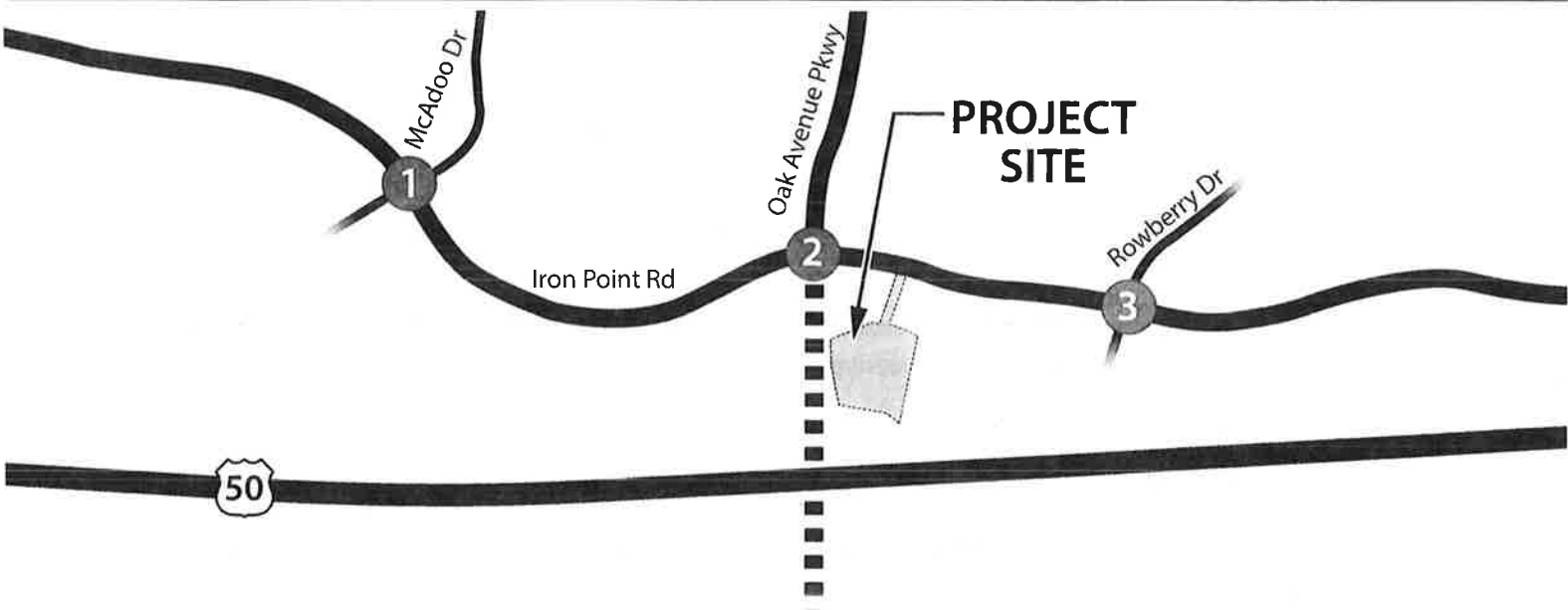
Table 8 summarizes the AM and PM peak hour intersection level of service results for Cumulative No Project conditions. The technical calculation worksheets are presented in Appendix E.

Weekday AM Peak Hour

All three study intersections are expected to operate at LOS C, which conforms to the City's General Plan standard.

Weekday PM Peak Hour

In the PM peak hour, Iron Point Road/Oak Avenue Parkway is projected to operate at LOS D, which falls short of the City's standard. As in the AM peak hour, Iron Point Road/McAdoo Drive and Iron Point Road/Rowberry Drive will be at LOS C, which is acceptable under City of Folsom policies.



LEGEND

- ### (###) AM (PM) PEAK HOUR TRAFFIC VOLUMES
- TURN LANE
- TRAFFIC SIGNAL
- FUTURE ROAD



**PEAK HOUR TRAFFIC VOLUMES
CUMULATIVE NO PROJECT**

FIGURE 8

Table 8 Level of Service Summary¹ Cumulative No Project Conditions					
Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Delay ²	LOS ³	Delay	LOS
Iron Point Rd./McAdoo Dr.	Signal	21.9	C	21.7	C
Iron Point Rd./Oak Avenue Pkwy.	Signal	30.9	C	46.4 ⁵	D
Iron Point Rd./Rowberry Dr.	Signal	24.6	C	32.9	C
Notes: ¹ Reference: Transportation Research Board, <i>Highway Capacity Manual – 6th Edition</i> , 2016. ² Average control delay (seconds per vehicle). ³ Level of service. ⁴ Shaded cell denotes unacceptable level of service.					

Cumulative (2035) Plus Project Conditions

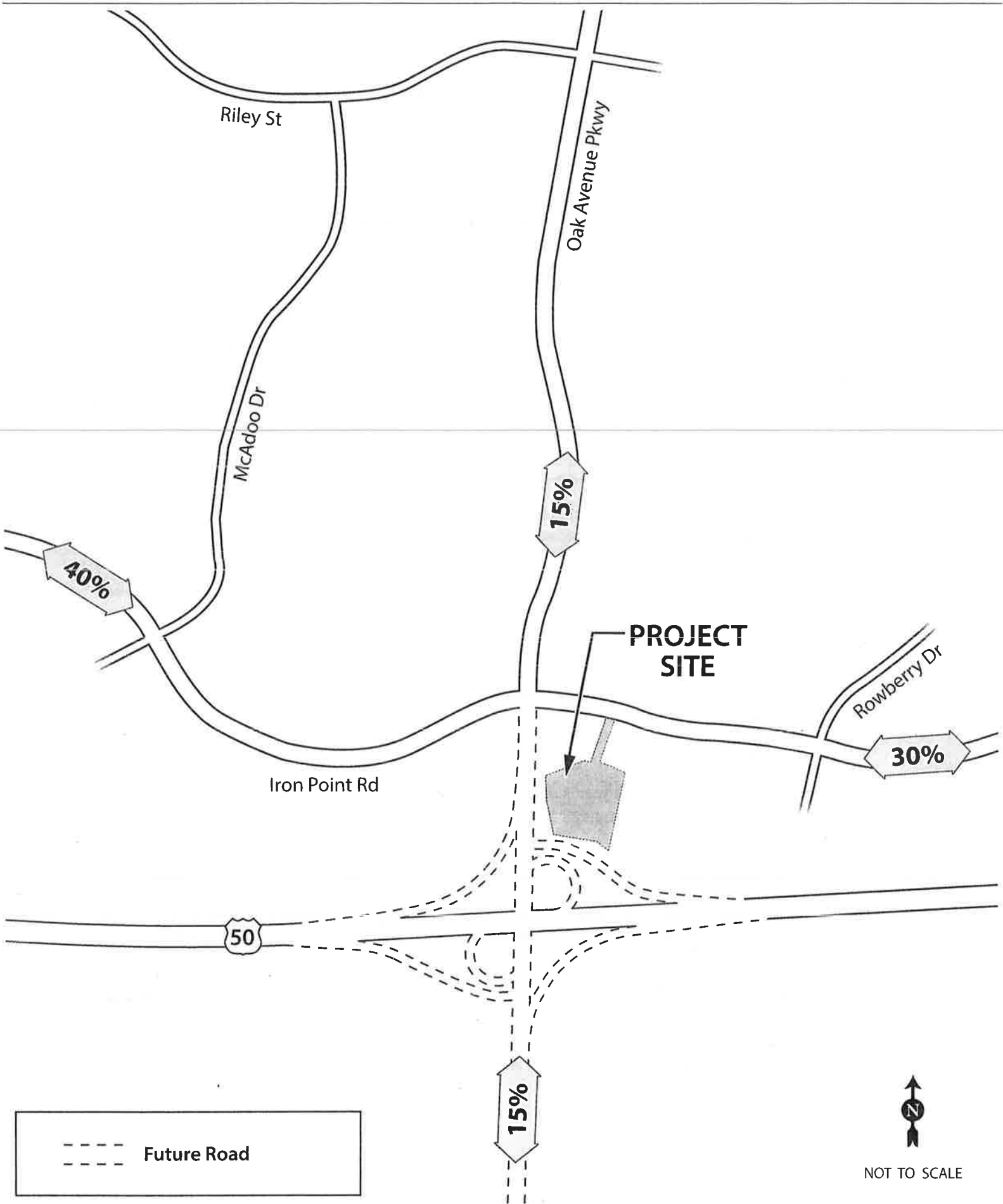
The following sections address the effects of adding the project-generated traffic to the Cumulative No Project volumes derived above.

Project Trip Generation

As described in the “construction year” conditions section, the proposed project is expected to generate 33 AM peak hour trips (11 inbound and 22 outbound) and 42 PM peak hour trips (23 inbound and 19 outbound).

Project Trip Distribution

With construction of the U.S. Highway 50/Oak Avenue Parkway freeway interchange in close proximity to the project site and extension of Oak Avenue Parkway to the south into the FPASP area, project-related traffic patterns are expected to change somewhat. Figure 9 illustrates the project trip distribution for cumulative conditions. Fifteen percent of the project-generated traffic is projected to be oriented to and from the south on the new extension of Oak Avenue Parkway, while an additional fifteen percent will travel to and from the north on that road. Forty percent of the project traffic will be oriented to/from the west on Iron Point Road, with thirty percent to and from the east.



**PROJECT TRIP DISTRIBUTION
CUMULATIVE CONDITIONS**

FIGURE 9

Intersection Traffic Volumes

Using the project trip generation and trip distribution information described above, the project-related trips were assigned to the future road network and added to the Cumulative No Project volumes. The Cumulative Plus Project traffic volumes for the weekday AM and PM peak hours are illustrated on Figure 10.

Intersection Level of Service

Table 9 presents the results of the intersection level of service analysis for the Cumulative Plus Project scenario. Appendix F contains the level of service calculation worksheets.

Weekday AM Peak Hour

As under Cumulative No Project conditions, all of the study intersections will operate acceptably under the City of Folsom level of service standard, as they will continue to be at LOS C. Further, the project-related impact on vehicular delay will be minimal – a maximum of 0.3 seconds/vehicle. The project access intersection will operate at LOS B and will have insufficient traffic to meet the minimum requirements of the “Peak Hour” signal warrant.

In summary, the project’s cumulative impact is considered less than significant in the AM peak hour.

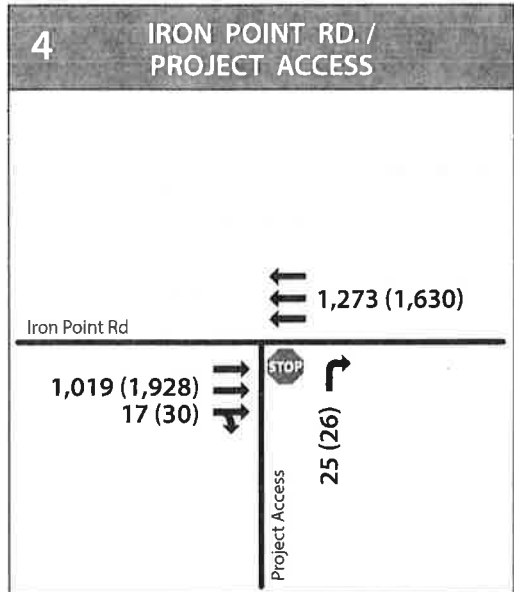
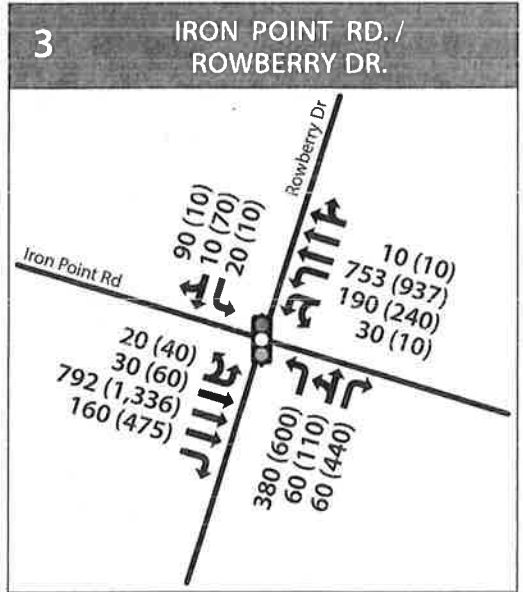
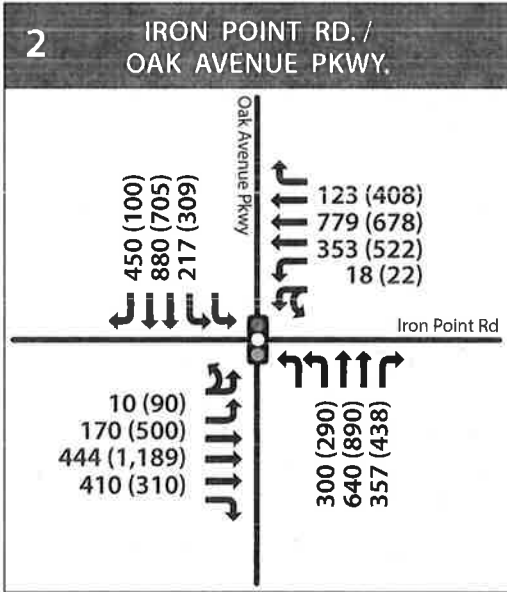
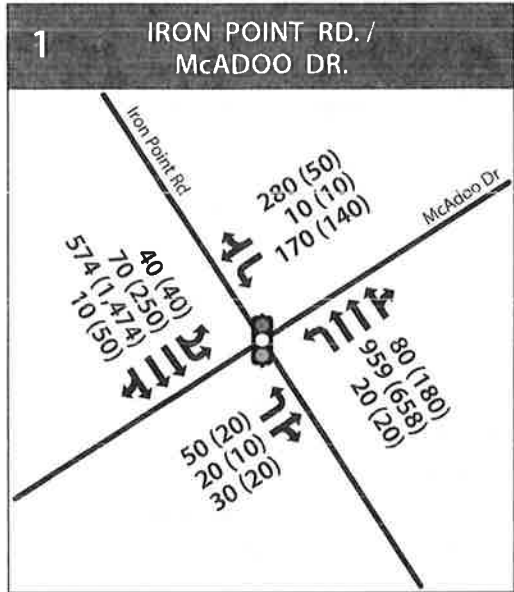
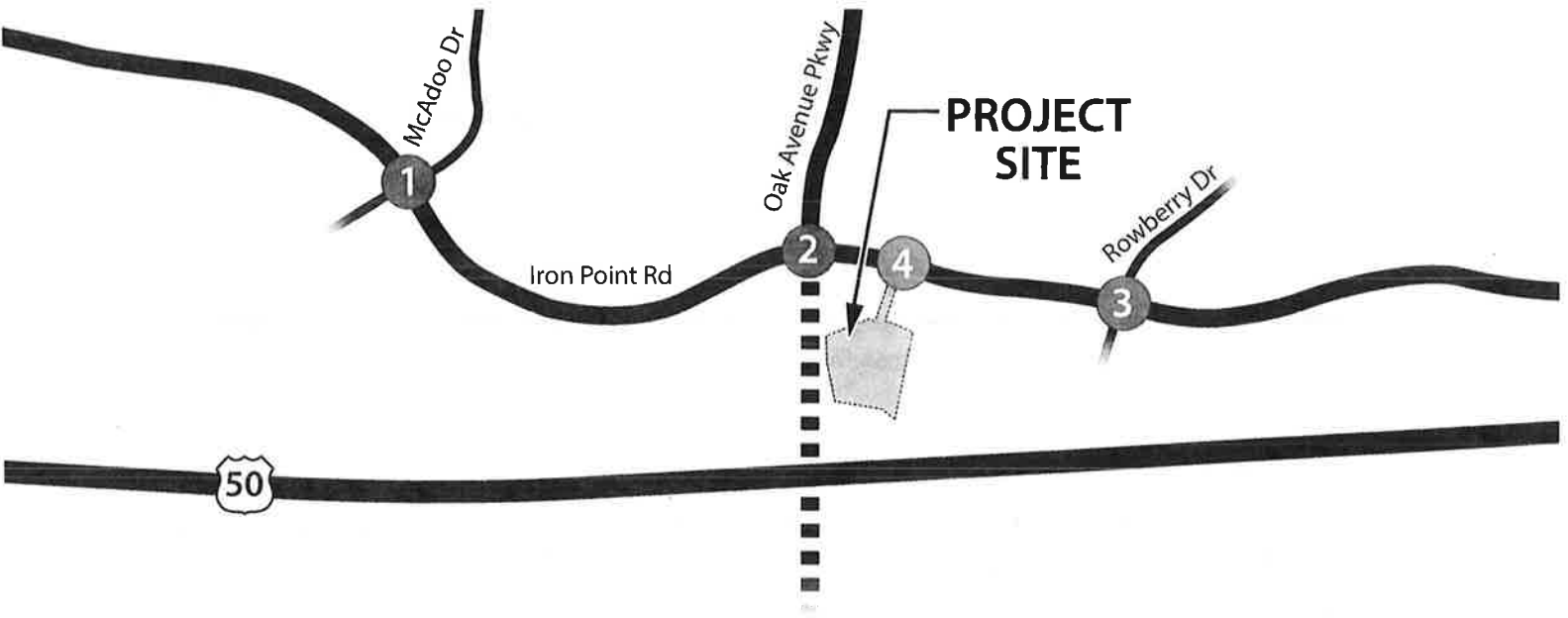
Weekday PM Peak Hour

Addition of the project-generated traffic would result in no change in level of service at any of the study intersections. The Iron Point Road intersections at McAdoo Drive and Rowberry Drive will continue to operate at acceptable levels of service (LOS C). Although Iron Point Road/Oak Avenue Parkway is projected to be at an unacceptable LOS D, the project-related incremental increase in vehicular delay (0.8 seconds/vehicle) will be less than the City’s significance threshold of 5.0 seconds/vehicle. Consequently, the project’s impact is considered less than significant at that location. The project access intersection will be at LOS C, and it will not meet the requirements of the “Peak Hour” signal warrant.

As in the AM peak hour, the project’s impact is considered less than significant.

Mitigation Measures

As described above, in both peak-hour periods, the Revel Folsom Senior Living Project is expected to result in less-than-significant impacts to traffic operations at the study intersections under cumulative conditions. Although one study intersection is projected to fall short of the City’s level of service standard in the PM peak hour, the project-related incremental increase in delay at that location is less than the City’s adopted significance threshold of 5.0 seconds/vehicle. The other study intersections will operate at acceptable levels of service, even with the addition of project-generated traffic. Therefore, no off-site mitigation measures are recommended.



LEGEND

- ### (###) AM (PM) PEAK HOUR TRAFFIC VOLUMES
- Turn Lane Symbol: TURN LANE
- Traffic Signal Symbol: TRAFFIC SIGNAL
- Stop Sign Symbol: STOP SIGN
- Future Road Symbol: FUTURE ROAD

↑ N
NOT TO SCALE

PEAK HOUR TRAFFIC VOLUMES
CUMULATIVE + PROJECT

FIGURE 10

Table 9													
Level of Service Summary¹													
Cumulative Plus Project Conditions													
Intersection	Traffic Control	AM Peak Hour						PM Peak Hour					
		Cumulative No Project			Cumulative + Project			Cumulative No Project			Cumulative + Project		
		Delay ²	LOS ³	Signal Warrant? ⁴	Delay	LOS	Signal Warrant?	Delay	LOS	Signal Warrant?	Delay	LOS	Signal Warrant?
Iron Point Rd./McAdoo Dr.	Signal	21.9	C	--	22.0	C	--	21.7	C	--	21.8	C	--
Iron Point Rd./Oak Avenue Pkwy.	Signal	30.9	C	--	31.2	C	--	46.4 ⁵	D	--	47.2	D	--
Iron Point Rd./Rowberry Dr.	Signal	24.6	C	--	24.6	C	--	32.9	C	--	33.0	C	--
Iron Point Rd./Project Access	Side-St. STOP ⁶	--	--	--	13.1	B	No	--	--	--	23.9	C	No

Notes:

- 1 Reference: Transportation Research Board, *Highway Capacity Manual – 6th Edition*, 2016.
- 2 Average control delay (seconds per vehicle).
- 3 Level of service.
- 4 "Peak Hour" signal warrant from "Part 4 – Highway Traffic Signals" of the *California Manual on Uniform Traffic Control Devices*, November 7, 2014.
- 5 Delay value represents the worst-case movement/approach.
- 6 Shaded cell denotes unacceptable level of service.

PROJECT ACCESS ANALYSIS

This section describes the analysis of the proposed project's vehicular access system. As described below, a single driveway would be provided to serve the needs of project traffic.

Project Access Plan

As proposed, the project driveway would be shared with the adjacent CountryHouse at Broadstone Memory Care facility. It would be restricted to right-turns-only, both inbound and outbound, and would be STOP-sign-controlled.

Access Analysis

Analyses were performed to address the operation and configuration of the project access driveway. Those analyses addressed:

- Intersection level of service,
- Driveway traffic control (i.e., STOP sign or traffic signal),
- Intersection spacing,
- Sight distance,
- Turn restrictions,
- Queuing/Minimum Recommended Throat Depth,
- Right-turn deceleration lanes,
- Pedestrian safety, and
- Bicycle safety.

Intersection Level of Service

Intersection level of service calculations were performed for the project access intersection for both Construction Year Plus Project and Cumulative Plus Project Conditions. As described earlier, the intersection would operate at acceptable levels of service under all scenarios analyzed. Under the Construction Year Plus Project scenario, it would be at LOS B in the AM peak hour and LOS C in the PM peak hour. Under Cumulative Plus Project conditions, similar levels of service would prevail.

Driveway Traffic Control

This section considers how traffic should be controlled at the project access location, including whether traffic-signal control or STOP-sign control would be preferable. The level of service tables presented earlier (i.e., Tables 7 and 9) summarized the results of signal warrant analyses for the project access intersection. As shown there, the intersection would have insufficient traffic to warrant installation of a signal under either Construction Year Plus Project or Cumulative Plus Project conditions.

Thus, STOP-sign control on the driveway approach to Iron Point Road will be appropriate for the project access intersection.

Intersection Spacing

The centerline of the project driveway would be approximately 600 feet east of the centerline of Oak Avenue Parkway. This spacing conforms to City of Folsom practice and is, therefore, considered acceptable.

Sight Distance

Iron Point Road has a posted speed limit of 45 MPH adjacent to the proposed project. Furthermore, the most recent radar speed survey conducted on that street (September 2010) indicated that the 85th-percentile speed was 49 MPH (i.e., 85 percent of drivers were traveling at or below 49 MPH) and the average speed was 44 MPH.

Based on criteria established in *A Policy on Geometric Design of Highways and Streets* (American Association of State Highway and Transportation Officials, 2011), a 45 MPH travel speed calls for 360 feet of clear stopping sight distance. In recognition of the 85th-percentile speed cited above, this analysis has assumed a design speed of 50 MPH, which requires 425 feet of clear sight distance for vehicles turning right from the project access driveway to Iron Point Road.

Field investigations at the driveway location indicated that drivers making an outbound right turn and looking to the west will be able to see past Oak Avenue Parkway. Thus, they will have well over 600 feet of clear sight distance, which is equivalent to the minimum sight distance for speeds in excess of 60 MPH. Consequently, adequate sight distance is available and this maneuver can be made safely.

Turn Restrictions

Due primarily to the proximity of the project driveway to Oak Avenue Parkway, the driveway is proposed to be restricted to right-turns-only, both inbound and outbound. This restriction is appropriate and no further limitations are necessary. (As described earlier, an emergency-vehicle-only access will be provided across the Iron Point Road median, which will allow those vehicles to make a left turn into the project site.)

Minimum Recommended Throat Depth

The minimum recommended throat depth (MRTD) for outbound traffic under “Cumulative Plus Project” conditions was estimated at the proposed project driveway. Adequate throat depth is necessary on the internal roadways to provide enough stacking distance for exiting vehicles so that the first on-site driveway or cross street is not blocked. This minimizes the possibility of entering vehicles queuing back onto the public streets.

An analysis was conducted to determine the expected “95th-percentile” queue length (i.e., there is a 95 percent probability that the actual queue at the driveway will be equal to or shorter than the projected queue). Specifically, the MRTD was derived from the *Highway Capacity Manual* intersection capacity calculations. That analysis found that, given the relatively low project trip generation, the queue would rarely exceed one vehicle. Review of the project site plan indicates that roughly 50 feet of throat depth will be provided, which will typically be adequate to accommodate two vehicles. Therefore, adequate throat depth is proposed at the project driveway.

Right-Turn Deceleration Lanes

The following guidelines are typically used in the City of Folsom for consideration of the need for right-turn deceleration lanes or tapers at private driveways located on roads with travel speeds of 45 miles per hour or greater, such as Iron Point Road:

- If the peak-hour right-turn volume into a private driveway is projected to be less than 10 vehicles per hour, no improvements are necessary.
- If the right-turn volume into a private driveway is projected to be 10 - 50 vehicles per hour, a right-turn deceleration taper should be constructed.
- If the right-turn volume into a private driveway is projected to be more than 50 vehicles per hour, a right-turn deceleration lane should be constructed.

Although the City has not formally adopted these guidelines, they are consistent with standards used by other jurisdictions in the area. Applying these guidelines to the proposed project access location on Iron Point Road indicates that a right-turn taper is needed to serve entering traffic. The project site plan indicates that a right-turn lane is proposed in conjunction with the project, which exceeds the City's guideline. Having a right-turn lane, as proposed, will increase safety for motorists entering the site, particularly as traffic volumes increase in the future.

Pedestrian Safety

Potential pedestrian safety issues that might arise in connection with the proposed project were also considered. The project site plan indicates that Americans with Disabilities Act (ADA) compliant sidewalk ramps will be provided for pedestrians at the project access intersection. A marked crosswalk connecting these ramps should be provided to serve pedestrians crossing the driveway.

In addition, the City of Folsom will require that the proposed project construct a standard sidewalk along the south side of Iron Point Road between the project site and the existing meandering sidewalk located roughly 150 feet to the east. Doing so will require that the project proponent reach appropriate agreements with two intervening landowners to allow construction on their property, but this is considered to be feasible.

These added amenities will safely serve the needs of pedestrians in the area.

Bicycle Safety

On-street ("Class II") bike lanes exist on both sides of Iron Point Road in the vicinity of the project site. These lanes should adequately meet the needs of bicyclists in the vicinity of the project, and no additional bicycle facilities are recommended.

Access System Recommendations

Key findings and recommendations resulting from the access analysis described above include the following:

- The project driveway will operate at an acceptable level of service under all conditions analyzed.

- STOP-sign control should be employed at the project driveway.
- The project driveway is appropriately spaced from other intersections along Iron Point Road.
- The driveway will have adequate sight distance for exiting drivers.
- No additional turn restrictions are necessary at the driveway; the proposed right-turns-only limitation is appropriate.
- The site plan provides adequate throat depth at the driveway.
- Although only a right-turn taper for entering traffic is called for by the City's guidelines, a right-turn lane is proposed in connection with the project. Provision of a right-turn lane will exceed the City's guidelines, and will increase safety for entering drivers.
- A marked crosswalk should be provided to serve pedestrians crossing the project driveway at Iron Point Road.

These findings and recommendations are illustrated on Figure 11.

Transportation System Recommendations

Figure 12 illustrates the proposed transportation system in the immediate vicinity of the project site, including the future lane configurations at the Iron Point Road/Pak Avenue Parkway intersection. As described above, the City of Folsom will require that the proposed project construct a standard sidewalk along the south side of Iron Point Road between the project site and the existing sidewalk located a short distance to the east. Figure 12 also illustrates the proposed sidewalk to be constructed by the CountryHouse at Broadstone Memory Care facility, along that project's Iron Point Road frontage.

OAK AVENUE PARKWAY

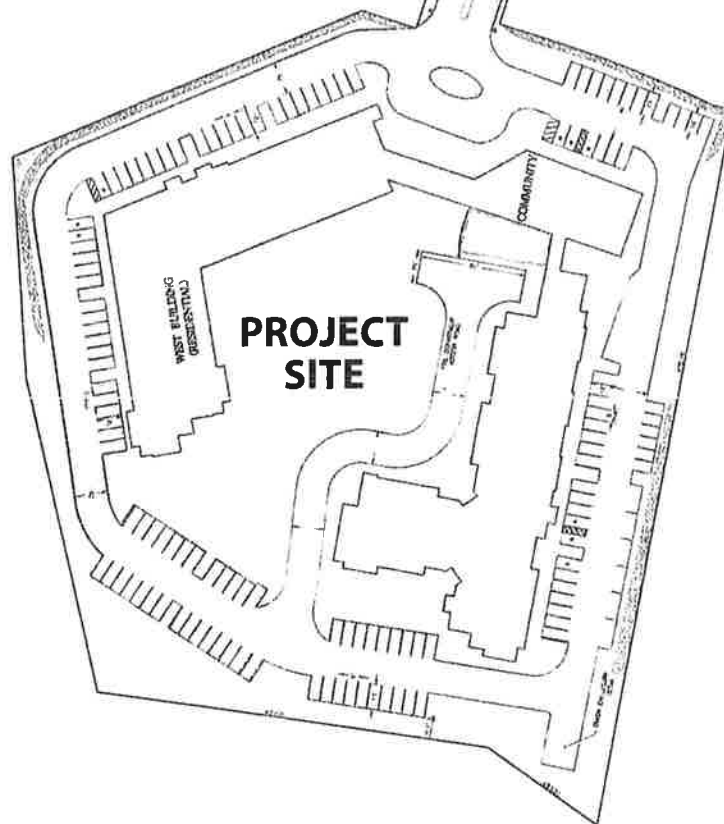
- STOP-sign control on project driveway
- Right turns in and out only
- Adequate sight distance
- Adequate throat depth
- Provide right-turn lane, as proposed
- Provide marked crosswalk across driveway

Emergency Vehicle Access
(CountryHouse at Broadstone –
Condition of Approval No. 62)

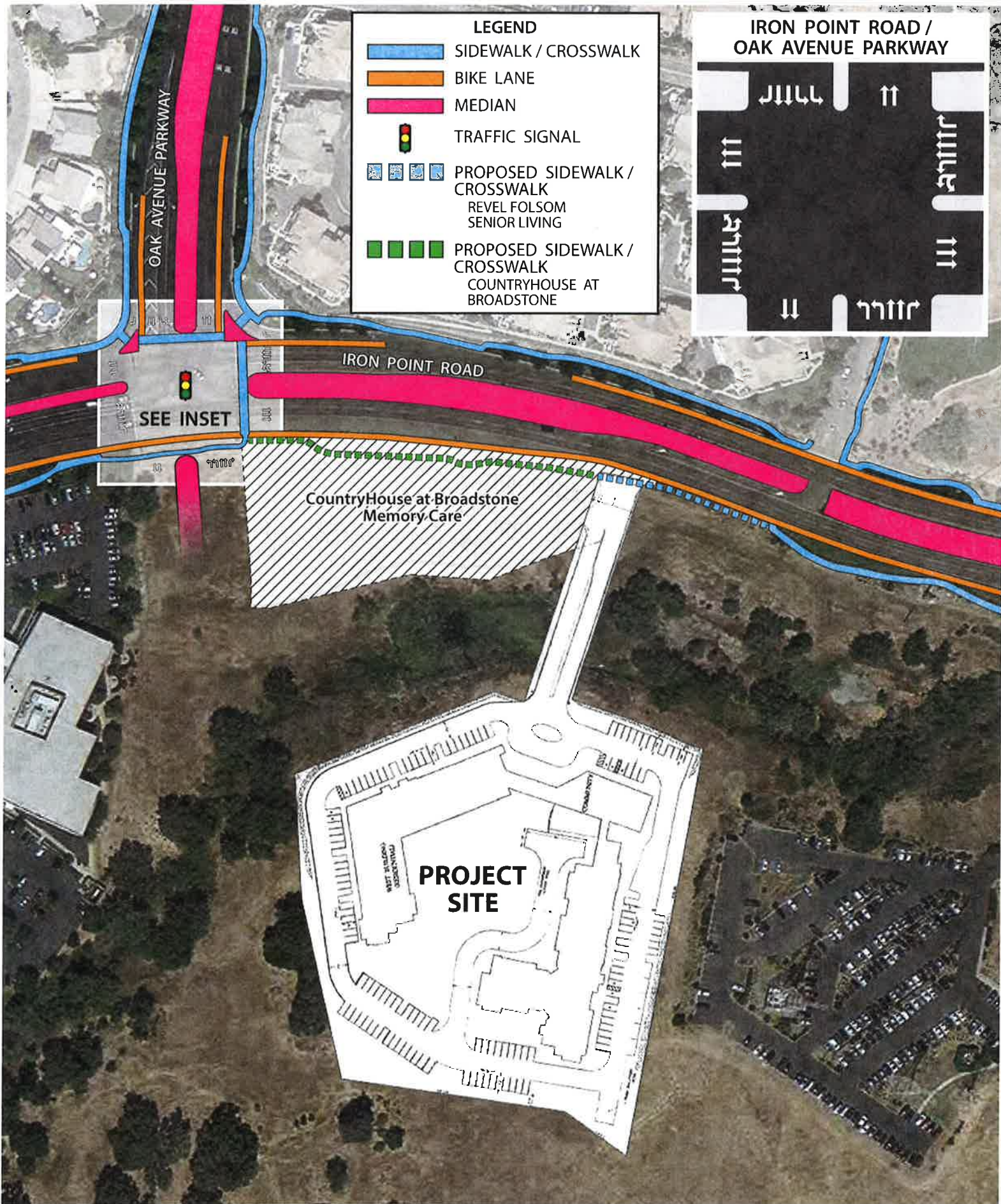
IRON POINT ROAD

CountryHouse at Broadstone
Memory Care

OAK AVENUE PARKWAY
FUTURE EXTENSION



NOT TO SCALE

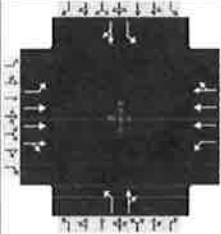


PROPOSED TRANSPORTATION SYSTEM

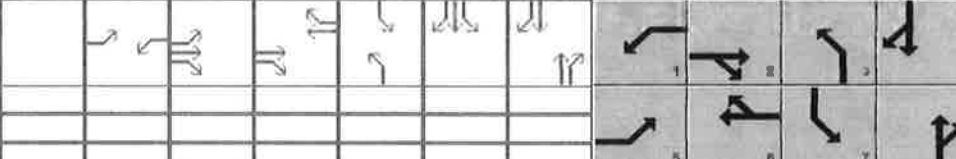
FIGURE 12

APPENDIX A
EXISTING CONDITIONS
LEVEL OF SERVICE CALCULATION WORKSHEETS

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.84	
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - Existing - AM.xus			
Project Description	Existing - AM Peak Hour					

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	140	796	8	10	978	24	62	16	18	69	12	222

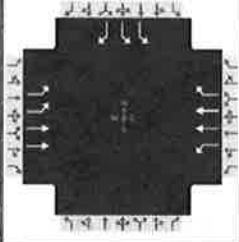
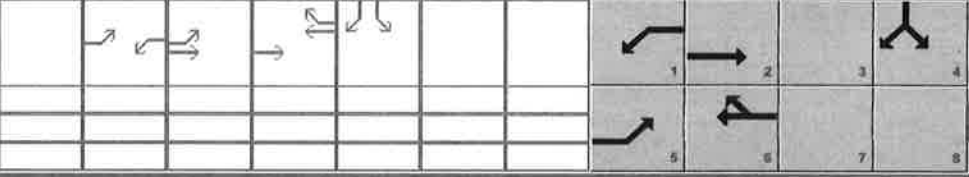
Signal Information											
Cycle, s	58.4	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	11.9	26.9	5.9	20.9	8.5	16.9	8.7	17.1
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g_s), s	7.3	9.5	2.4	13.5	4.4	3.1	4.6	11.8
Green Extension Time (g_e), s	0.1	0.3	0.0	2.3	0.0	0.4	0.0	0.4
Phase Call Probability	0.93	1.00	0.18	1.00	0.70	1.00	0.74	1.00
Max Out Probability	0.47	1.00	1.00	0.26	1.00	0.06	1.00	0.05

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	167	639	318	12	799	394	74	40		82	279	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1860	1781	1870	1846	1781	1708		1781	1598	
Queue Service Time (g_s), s	5.3	7.5	7.5	0.4	11.5	11.5	2.4	1.1		2.6	9.8	
Cycle Queue Clearance Time (g_c), s	5.3	7.5	7.5	0.4	11.5	11.5	2.4	1.1		2.6	9.8	
Green Ratio (g/C)	0.12	0.38	0.38	0.02	0.27	0.27	0.06	0.20		0.06	0.21	
Capacity (c), veh/h	211	1404	698	27	1018	502	106	349		112	332	
Volume-to-Capacity Ratio (X)	0.791	0.455	0.456	0.444	0.785	0.785	0.693	0.116		0.732	0.840	
Back of Queue (Q), ft/ln (95 th percentile)	97.1	116	114.4	8.2	194	191.6	45.2	17.9		54.8	159.6	
Back of Queue (Q), veh/ln (95 th percentile)	3.8	4.6	4.6	0.3	7.6	7.7	1.8	0.7		2.2	6.3	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d_1), s/veh	25.0	13.7	13.7	28.5	19.7	19.7	26.9	18.9		26.9	22.2	
Incremental Delay (d_2), s/veh	2.5	0.1	0.2	4.2	0.5	1.0	3.0	0.1		6.3	4.0	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	27.6	13.8	13.9	32.8	20.2	20.7	29.9	19.0		33.2	26.2	
Level of Service (LOS)	C	B	B	C	C	C	C	B		C	C	
Approach Delay, s/veh / LOS	15.9		B	20.5		C	26.1		C	27.8		C
Intersection Delay, s/veh / LOS	19.8						B					

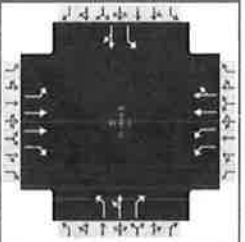
Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency				Duration, h	0.25										
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other										
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.93										
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1 > 7:00										
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - Existing - AM.xus												
Project Description	Existing - AM Peak Hour														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				221	383		10	594	63				224		586
Signal Information															
Cycle, s	60.7	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase				5	2	1	6					4			
Case Number				2.0	4.0	2.0	3.0					9.0			
Phase Duration, s				11.0	23.4	6.0	18.5					31.2			
Change Period, (Y+R _c), s				5.0	5.0	5.0	5.0					5.0			
Max Allow Headway (MAH), s				3.0	2.9	3.0	2.9					3.2			
Queue Clearance Time (g _s), s				6.0	7.5	2.4	12.3					24.1			
Green Extension Time (g _e), s				0.1	0.8	0.0	1.1					2.1			
Phase Call Probability				0.98	1.00	0.17	1.00					1.00			
Max Out Probability				1.00	1.00	0.21	0.09					0.00			
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				5	2		1	6	16				7		14
Adjusted Flow Rate (v), veh/h				238	412		11	639	3				241		630
Adjusted Saturation Flow Rate (s), veh/h/ln				1730	1781		1781	1781	1610				1730		1610
Queue Service Time (g _s), s				4.0	5.5		0.4	10.3	0.1				2.6		22.1
Cycle Queue Clearance Time (g _c), s				4.0	5.5		0.4	10.3	0.1				2.6		22.1
Green Ratio (g/C)				0.10	0.30		0.02	0.22	0.22				0.43		0.43
Capacity (c), veh/h				341	1082		29	790	357				1496		696
Volume-to-Capacity Ratio (X)				0.697	0.380		0.368	0.809	0.009				0.161		0.905
Back of Queue (Q), ft/ln (95 th percentile)				74.3	87.6		7.5	175.6	1.4				35.8		269.9
Back of Queue (Q), veh/ln (95 th percentile)				2.9	3.4		0.3	6.9	0.1				1.4		10.8
Queue Storage Ratio (RQ) (95 th percentile)				0.00	0.00		0.00	0.00	0.00				0.00		0.00
Uniform Delay (d ₁), s/veh				26.5	16.6		29.5	22.4	18.4				10.5		16.1
Incremental Delay (d ₂), s/veh				3.0	0.1		2.9	1.1	0.0				0.0		1.9
Initial Queue Delay (d ₃), s/veh				0.0	0.0		0.0	0.0	0.0				0.0		0.0
Control Delay (d), s/veh				29.5	16.7		32.4	23.5	18.4				10.5		17.9
Level of Service (LOS)				C	B		C	C	B				B		B
Approach Delay, s/veh / LOS				21.4		C	23.6		C	0.0			15.9		B
Intersection Delay, s/veh / LOS				19.8						B					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS															
Bicycle LOS Score / LOS															

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1> 7:00		
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - Existing - AM.xus				
Project Description	Existing - AM Peak Hour						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	34	337	123	178	553	6	25	1	28	6	6	54

Signal Information			
Cycle, s	45.5	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

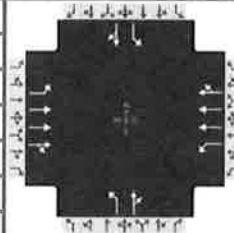
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	6.8	15.0	9.5	17.7		10.1		10.8
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0		3.1		3.2
Queue Clearance Time (g _s), s	2.9	5.9	4.3	8.1		2.8		3.6
Green Extension Time (g _e), s	0.0	1.1	0.0	1.4		0.0		0.0
Phase Call Probability	0.36	1.00	0.91	1.00		0.51		0.58
Max Out Probability	1.00	0.66	1.00	0.34		0.00		0.01

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	36	355	129	187	295	294	26	1	29	6	63	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1781	1449	1730	1870	1863	1781	1870	1610	1781	1610	
Queue Service Time (g _s), s	0.9	3.9	3.5	2.3	6.1	6.1	0.6	0.0	0.8	0.1	1.6	
Cycle Queue Clearance Time (g _c), s	0.9	3.9	3.5	2.3	6.1	6.1	0.6	0.0	0.8	0.1	1.6	
Green Ratio (g/C)	0.04	0.22	0.22	0.10	0.28	0.28	0.11	0.11	0.11	0.13	0.13	
Capacity (c), veh/h	71	783	318	345	523	521	201	211	181	229	207	
Volume-to-Capacity Ratio (X)	0.502	0.453	0.407	0.544	0.564	0.564	0.131	0.005	0.163	0.028	0.305	
Back of Queue (Q), ft/ln (95 th percentile)	16.1	57.5	41.5	36.4	91.3	89.6	9.6	0.4	10.7	2.2	23.1	
Back of Queue (Q), veh/ln (95 th percentile)	0.6	2.3	1.7	1.4	3.6	3.6	0.4	0.0	0.4	0.1	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	21.4	15.4	15.2	19.5	14.0	14.0	18.2	17.9	18.2	17.3	18.0	
Incremental Delay (d ₂), s/veh	2.0	0.2	0.3	0.5	0.5	0.5	0.1	0.0	0.2	0.0	0.3	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	23.4	15.5	15.5	20.0	14.5	14.5	18.3	17.9	18.4	17.4	18.3	
Level of Service (LOS)	C	B	B	B	B	B	B	B	B	B	B	
Approach Delay, s/veh / LOS	16.1	B		15.8	B		18.3	B			18.2	B
Intersection Delay, s/veh / LOS	16.1			16.1			B			B		

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.25
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1 > 7:00
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - Existing - PM.xus		
Project Description	Existing - PM Peak Hour				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	243	1603	57	15	830	53	28	6	11	31	21	77

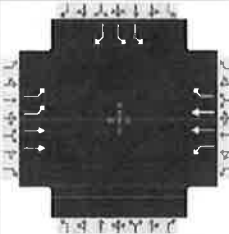
Signal Information				Signal Diagram											
Cycle, s	59.6	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	15.4	32.2	6.1	22.9	6.9	14.2	7.1	14.3
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	10.2	16.8	2.5	10.4	3.0	2.5	3.1	5.4
Green Extension Time (g _e), s	0.3	6.8	0.0	7.5	0.0	0.1	0.0	0.1
Phase Call Probability	0.99	1.00	0.23	1.00	0.39	0.92	0.42	0.92
Max Out Probability	0.01	0.19	1.00	0.07	1.00	0.01	1.00	0.17

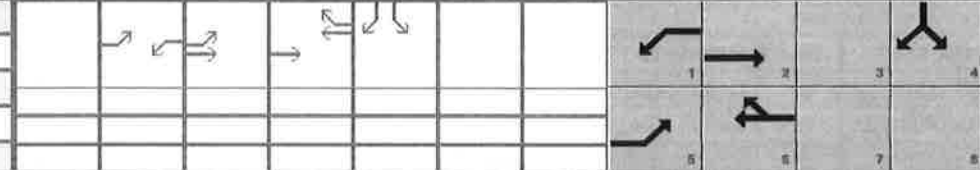
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	256	1172	576	16	625	304	29	18		33	103	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1836	1781	1870	1811	1781	1675		1781	1639	
Queue Service Time (g _s), s	8.2	14.8	14.8	0.5	8.4	8.4	1.0	0.5		1.1	3.4	
Cycle Queue Clearance Time (g _c), s	8.2	14.8	14.8	0.5	8.4	8.4	1.0	0.5		1.1	3.4	
Green Ratio (g/C)	0.17	0.46	0.46	0.02	0.30	0.30	0.03	0.15		0.04	0.16	
Capacity (c), veh/h	310	1706	837	34	1127	545	58	258		62	257	
Volume-to-Capacity Ratio (X)	0.824	0.687	0.687	0.459	0.555	0.558	0.511	0.069		0.523	0.402	
Back of Queue (Q), ft/ln (95 th percentile)	146.4	210.2	206.2	10.8	138.9	134	19	8.8		20.8	53.6	
Back of Queue (Q), veh/ln (95 th percentile)	5.8	8.3	8.2	0.4	5.5	5.4	0.7	0.3		0.8	2.1	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	23.7	12.8	12.8	28.9	17.5	17.5	28.4	21.6		28.3	22.6	
Incremental Delay (d ₂), s/veh	2.1	0.3	0.5	3.5	0.2	0.3	2.6	0.0		2.5	0.4	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	25.8	13.1	13.4	32.4	17.6	17.8	30.9	21.6		30.8	23.0	
Level of Service (LOS)	C	B	B	C	B	B	C	C		C	C	
Approach Delay, s/veh / LOS	14.8		B	17.9		B	27.4		C	24.9		C
Intersection Delay, s/veh / LOS	16.4						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95	
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - Existing - PM.xus			
Project Description	Existing - PM Peak Hour					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	766	1173		5	580	195				88		186

Signal Information											
Cycle, s	52.6	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap EW	On								
Force Mode	Fixed	Simult. Gap N/S	On								

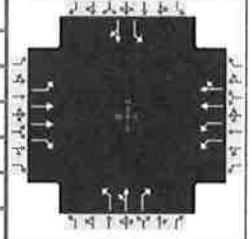
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				9.0
Phase Duration, s	20.1	33.3	4.4	17.7				14.9
Change Period, (Y+R _c), s	5.0	5.0	4.0	5.0				5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9				3.2
Queue Clearance Time (g _s), s	13.4	16.0	2.2	10.3				7.9
Green Extension Time (g _e), s	1.7	4.7	0.0	2.4				0.3
Phase Call Probability	1.00	1.00	0.07	1.00				0.99
Max Out Probability	0.01	0.03	0.09	0.70				0.08

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2		1	6	16				7		14
Adjusted Flow Rate (v), veh/h	806	1235		5	611	0				93		196
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1692		1781	1781	1610				1730		1610
Queue Service Time (g _s), s	11.4	14.0		0.2	8.3	0.0				1.2		5.9
Cycle Queue Clearance Time (g _c), s	11.4	14.0		0.2	8.3	0.0				1.2		5.9
Green Ratio (g/C)	0.29	0.54		0.01	0.24	0.24				0.19		0.19
Capacity (c), veh/h	995	1822		15	856	387				647		301
Volume-to-Capacity Ratio (X)	0.810	0.678		0.350	0.713	0.000				0.143		0.650
Back of Queue (Q), ft/ln (95 th percentile)	168.8	144.5		3.6	134.3	0				18.2		86.5
Back of Queue (Q), veh/ln (95 th percentile)	6.6	5.7		0.1	5.3	0.0				0.7		3.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00	0.00				0.00		0.00
Uniform Delay (d ₁), s/veh	17.4	8.8		26.0	18.3	0.0				17.9		19.8
Incremental Delay (d ₂), s/veh	0.6	0.3		5.1	1.4	0.0				0.0		0.9
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0	0.0				0.0		0.0
Control Delay (d), s/veh	18.0	9.1		31.0	19.7	0.0				17.9		20.7
Level of Service (LOS)	B	A		C	B					B		C
Approach Delay, s/veh / LOS	12.6		B	19.8		B	0.0			19.8		B
Intersection Delay, s/veh / LOS	14.8						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.25
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.91
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1 > 7:00
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - Existing - PM.xus		
Project Description	Existing - PM Peak Hour				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	109	1073	31	46	565	11	269	4	159	10	1	26

Signal Information				Signal Diagram											
Cycle, s	66.4	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	10.7	30.0	8.0	27.3		18.1		10.3
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9		3.1		3.2
Queue Clearance Time (g _s), s	6.3	22.1	2.9	10.9		12.4		3.1
Green Extension Time (g _e), s	0.0	2.8	0.0	0.0		0.7		0.0
Phase Call Probability	0.89	1.00	0.61	1.00		1.00		0.53
Max Out Probability	1.00	0.04	1.00	1.00		0.02		0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	120	1179	34	51	317	316	296	4	175	11	30	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1757	1900	1887	1810	1900	1610	1810	1619	
Queue Service Time (g _s), s	4.3	20.1	0.9	0.9	8.9	8.9	10.4	0.1	6.5	0.4	1.1	
Cycle Queue Clearance Time (g _c), s	4.3	20.1	0.9	0.9	8.9	8.9	10.4	0.1	6.5	0.4	1.1	
Green Ratio (g/C)	0.09	0.38	0.38	0.05	0.34	0.34	0.20	0.20	0.20	0.08	0.08	
Capacity (c), veh/h	155	1360	605	161	639	634	358	376	319	144	129	
Volume-to-Capacity Ratio (X)	0.775	0.867	0.056	0.314	0.497	0.497	0.825	0.012	0.548	0.076	0.230	
Back of Queue (Q), ft/ln (50 th percentile)	46.2	178.4	7	9.2	83.9	83.6	104.2	1.3	56.3	3.8	10.5	
Back of Queue (Q), veh/ln (50 th percentile)	1.8	7.1	0.3	0.4	3.4	3.3	4.2	0.1	2.3	0.2	0.4	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	29.8	19.2	13.2	30.7	17.6	17.6	25.6	21.4	24.0	28.3	28.7	
Incremental Delay (d ₂), s/veh	3.1	0.9	0.0	0.4	0.2	0.2	1.9	0.0	0.5	0.1	0.3	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	32.9	20.1	13.2	31.1	17.8	17.8	27.4	21.4	24.5	28.4	29.0	
Level of Service (LOS)	C	C	B	C	B	B	C	C	C	C	C	
Approach Delay, s/veh / LOS	21.1	C		18.8	B		26.3	C			28.9	C
Intersection Delay, s/veh / LOS	21.6						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

APPENDIX B

RELATED PROJECTS TRIP GENERATION SUMMARY

**Table B-1
Approved Projects Trip Generation Summary¹
Revel Folsom Senior Living Project**

Project	Land Use	Size	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Folsom Pointe Highway Commercial	Highway Commercial Center ²		115	103	218	141	107	248
Broadstone Park Professional Center	Office	15,000 SF ^{3,4}	20	3	23	4	18	22
Palladio at Broadstone	Retail	220,000 SF ⁴	115	50	165	250	300	550
Island at Parkshore	Single-Family Residential	273 DU ⁵	51	153	204	172	101	273
Broadstone Crossing Parcel 1	Hotel Three Restaurants	114 Rooms 22,230 SF	74	62	136	163	112	275
La Collina dal Lago	Single-Family Residential	30 DU ⁶	6	17	23	19	11	30
Empire Ranch	Single-Family Residential	200 DU ⁶	37	113	150	126	74	200
Montara Grove	Office	32,000 SF	44	6	50	8	40	48
Masjid Bilal Mosque	Church and School	31,668 SF	53	47	100	41	43	84
Psychiatric Services Unit Office – California State Prison - Sacramento	Medical Facility	17,395 SF	46	6	52	7	30	37
Folsom Women's Facility	Correctional Facility	403 Offenders	28	14	42	6	17	23
Treehouse West Commercial Center	Retail	3,595 SF	5	5	10	4	6	10
701 Bidwell St. Commercial Center	Office & Retail	7,791 SF	11	1	12	2	10	12
Parkway Villages H1 & H2	Single-Family Residential	16 DU	3	9	12	10	6	16
Superior Self Storage	Self-Storage Facility	124,310 SF	9	8	17	16	16	32
Harvest Subdivision	Single-Family Residential	116 DU	22	65	87	73	43	116
Russell Ranch Subdivision	Single-Family Residential	875 DU	164	492	656	551	324	875
Mangini Ranch Phase 1 Subdivision	Single-Family Residential	826 DU	155	465	620	520	306	826
Mangini Ranch Phase 2 Subdivision	Single-Family Multi-Family	545 SF DU 356 MF DU	130	427	557	457	257	714
Hillsborough Subdivision	Single-Family Residential	2,103 DU	394	1,183	1,577	1,325	778	2,103

**Table B-1
Approved Projects Trip Generation Summary¹
Revel Folsom Senior Living Project**

Project	Land Use	Size	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Veranda Subdivision	Single-Family Residential	63 DU	12	35	47	40	23	63
Broadstone Apartments	Multi-Family Residential	300 DU	31	122	153	121	65	186
Bidwell Pointe Apartments	Multi-Family Resid'l. Live-Work Units Commercial	140 DU 7 Units 800 SF	21	58	79	58	39	97
Iron Point Retirement Community	Assisted Living	126 DU	13	12	25	18	17	35
The Pique at Iron Point Apartments	Multi-Family Residential	327 DU	33	134	167	132	71	203
Cresleigh Ravine/Campus at Iron Point	Single-Family Multi-Family	53 SF DU 230 MF DU	33	124	157	126	70	196
Country House at Broadstone Memory Care Facility	Assisted Living	45 DU	5	3	8	7	7	14
Parkway Apartments	Low-Income, Multi-Family Residential	72 DU	7	30	37	29	16	45
Quick Quack	Car Wash	3,599 SF	--	--	--	34	32	66
Prospect Ridge	Single-Family Resid'l.	35 DU	7	19	26	22	13	35
Folsom Heights	Single-Family Resid'l. Multi-Family Resid'l. General Commercial	402 DU 128 DU 128,500 SF	282	410	692	642	515	1,157
		TOTAL	1,926	4,176	6,102	5,124	3,467	8,591

Notes:

¹ Reference: Institute of Transportation Engineers, *Trip Generation Manual*, Ninth Edition, 2012.

² Three unbuilt pads (two restaurants and one retail building).

³ Square feet.

⁴ Approximate unoccupied square footage.

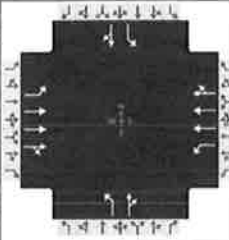
⁵ Dwelling units.

⁶ Approximate number of unbuilt units.

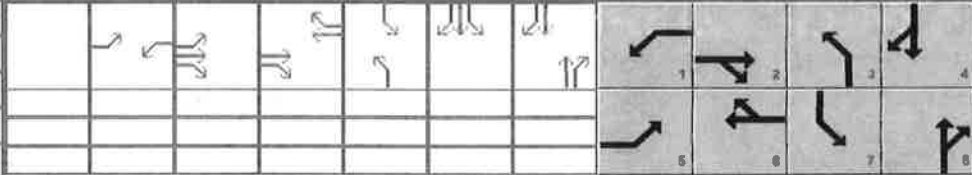
APPENDIX C

**CONSTRUCTION YEAR NO PROJECT
LEVEL OF SERVICE CALCULATION WORKSHEETS**

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.84	
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - CY No Proj - AM.xus			
Project Description	Construction Year No Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	140	901	8	10	1104	24	62	16	18	69	12	222

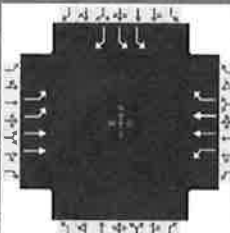
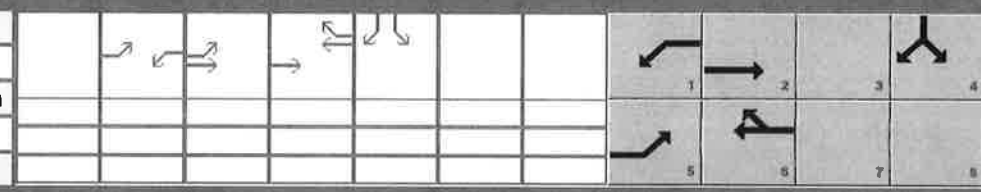
Signal Information											
Cycle, s	62.7	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	12.4	30.3	5.9	23.8	8.6	17.7	8.8	17.9
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	7.7	11.0	2.4	15.9	4.6	3.2	4.8	12.5
Green Extension Time (g _e), s	0.1	0.0	0.0	2.9	0.0	0.4	0.0	0.4
Phase Call Probability	0.95	1.00	0.19	1.00	0.72	1.00	0.76	1.00
Max Out Probability	0.24	1.00	1.00	0.24	1.00	0.07	1.00	0.02

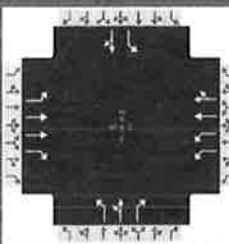
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	167	722	360	12	899	444	74	40		82	279	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1861	1781	1870	1849	1781	1708		1781	1598	
Queue Service Time (g _s), s	5.7	9.0	9.0	0.4	13.9	13.9	2.6	1.2		2.8	10.5	
Cycle Queue Clearance Time (g _c), s	5.7	9.0	9.0	0.4	13.9	13.9	2.6	1.2		2.8	10.5	
Green Ratio (g/C)	0.12	0.40	0.40	0.01	0.30	0.30	0.06	0.20		0.06	0.21	
Capacity (c), veh/h	210	1507	750	27	1123	555	103	346		108	329	
Volume-to-Capacity Ratio (X)	0.795	0.479	0.480	0.448	0.801	0.801	0.718	0.117		0.760	0.847	
Back of Queue (Q), ft/ln (95 th percentile)	106	140.8	138.8	8.9	226.7	224	51.8	19.8		56	172.9	
Back of Queue (Q), veh/ln (95 th percentile)	4.2	5.5	5.6	0.4	8.9	9.0	2.0	0.8		2.2	6.8	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	26.9	13.9	13.9	30.6	20.2	20.2	29.1	20.4		29.0	24.0	
Incremental Delay (d ₂), s/veh	2.6	0.1	0.2	4.3	0.5	1.1	5.0	0.1		4.1	3.4	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	29.5	14.0	14.0	35.0	20.8	21.3	34.1	20.5		33.1	27.4	
Level of Service (LOS)	C	B	B	C	C	C	C	C		C	C	
Approach Delay, s/veh / LOS	16.1		B	21.1		C	29.3		C	28.7		C
Intersection Delay, s/veh / LOS	20.2						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				


HCS7 Signalized Intersection Results Summary

General Information					Intersection Information											
Agency					Duration, h	0.25										
Analyst	NKL	Analysis Date	2/1/2018		Area Type	Other										
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour		PHF	0.93										
Urban Street	Iron Point Rd.	Analysis Year	Construction Year		Analysis Period	1 > 7:00										
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - CY No Proj - AM.xus													
Project Description	Construction Year No Project															
Demand Information					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h					221	488		12	715	82				236		591
Signal Information																
Cycle, s	67.5	Reference Phase	2													
Offset, s	0	Reference Point	Begin													
Uncoordinated	Yes	Simult. Gap E/W	On													
Force Mode	Fixed	Simult. Gap N/S	On													
Timer Results					EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					5	2	1	6				4				
Case Number					2.0	4.0	2.0	3.0				9.0				
Phase Duration, s					11.0	27.1	6.3	22.4				34.2				
Change Period, (Y+R _c), s					5.0	5.0	5.0	5.0				5.0				
Max Allow Headway (MAH), s					3.0	2.9	3.0	2.9				3.2				
Queue Clearance Time (g _s), s					6.5	9.9	2.5	15.8				27.0				
Green Extension Time (g _e), s					0.0	0.1	0.0	1.5				2.1				
Phase Call Probability					0.99	1.00	0.21	1.00				1.00				
Max Out Probability					1.00	1.00	0.30	0.07				0.00				
Movement Group Results					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					5	2		1	6	16				7		14
Adjusted Flow Rate (v), veh/h					238	525		13	769	2				254		635
Adjusted Saturation Flow Rate (s), veh/h/ln					1730	1781		1781	1781	1610				1730		1610
Queue Service Time (g _s), s					4.5	7.9		0.5	13.8	0.1				3.0		25.0
Cycle Queue Clearance Time (g _c), s					4.5	7.9		0.5	13.8	0.1				3.0		25.0
Green Ratio (g/C)					0.09	0.33		0.02	0.26	0.26				0.43		0.43
Capacity (c), veh/h					307	1164		34	916	414				1494		695
Volume-to-Capacity Ratio (X)					0.773	0.451		0.379	0.840	0.005				0.170		0.914
Back of Queue (Q), ft/ln (95 th percentile)					99.3	128		9.9	229.4	1				44.5		317.2
Back of Queue (Q), veh/ln (95 th percentile)					3.9	5.0		0.4	9.0	0.0				1.8		12.7
Queue Storage Ratio (RQ) (95 th percentile)					0.00	0.00		0.00	0.00	0.00				0.00		0.00
Uniform Delay (d ₁), s/veh					30.1	17.9		32.7	23.8	18.7				11.8		18.0
Incremental Delay (d ₂), s/veh					10.5	0.1		2.6	1.5	0.0				0.0		3.1
Initial Queue Delay (d ₃), s/veh					0.0	0.0		0.0	0.0	0.0				0.0		0.0
Control Delay (d), s/veh					40.6	18.0		35.3	25.3	18.7				11.8		21.1
Level of Service (LOS)					D	B		D	C	B				B		C
Approach Delay, s/veh / LOS					25.1		C	25.5		C	0.0			18.4		B
Intersection Delay, s/veh / LOS					22.8						C					
Multimodal Results					EB			WB			NB			SB		
Pedestrian LOS Score / LOS																
Bicycle LOS Score / LOS																

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.95	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - CY No Proj - AM.xus			
Project Description	Construction Year No Project					

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	34	451	123	178	685	6	25	1	28	6	6	54

Signal Information											
Cycle, s	45.5	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

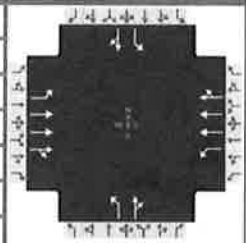
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	6.8	15.0	9.5	17.7		10.1		10.8
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0		3.1		3.2
Queue Clearance Time (g _s), s	2.9	7.5	4.3	9.9		2.8		3.6
Green Extension Time (g _e), s	0.0	1.5	0.0	2.0		0.0		0.0
Phase Call Probability	0.36	1.00	0.91	1.00		0.51		0.58
Max Out Probability	1.00	0.63	1.00	0.22		0.00		0.01

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	36	475	129	187	364	363	26	1	29	6	63	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1781	1449	1730	1870	1865	1781	1870	1610	1781	1610	
Queue Service Time (g _s), s	0.9	5.5	3.5	2.3	7.9	7.9	0.6	0.0	0.8	0.1	1.6	
Cycle Queue Clearance Time (g _c), s	0.9	5.5	3.5	2.3	7.9	7.9	0.6	0.0	0.8	0.1	1.6	
Green Ratio (g/C)	0.04	0.22	0.22	0.10	0.28	0.28	0.11	0.11	0.11	0.13	0.13	
Capacity (c), veh/h	71	783	318	345	523	521	201	211	181	229	207	
Volume-to-Capacity Ratio (X)	0.502	0.607	0.407	0.544	0.697	0.697	0.131	0.005	0.163	0.028	0.305	
Back of Queue (Q), ft/ln (95 th percentile)	16.1	80.6	41.5	36.4	118.5	116.3	9.6	0.4	10.7	2.2	23.1	
Back of Queue (Q), veh/ln (95 th percentile)	0.6	3.2	1.7	1.4	4.7	4.7	0.4	0.0	0.4	0.1	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	21.4	16.0	15.2	19.5	14.7	14.7	18.2	17.9	18.2	17.3	18.0	
Incremental Delay (d ₂), s/veh	2.0	0.3	0.3	0.5	0.6	0.6	0.1	0.0	0.2	0.0	0.3	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	23.4	16.3	15.5	20.0	15.3	15.3	18.3	17.9	18.4	17.4	18.3	
Level of Service (LOS)	C	B	B	B	B	B	B	B	B	B	B	
Approach Delay, s/veh / LOS	16.5	B		16.3	B		18.3	B		18.2	B	
Intersection Delay, s/veh / LOS	16.5						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

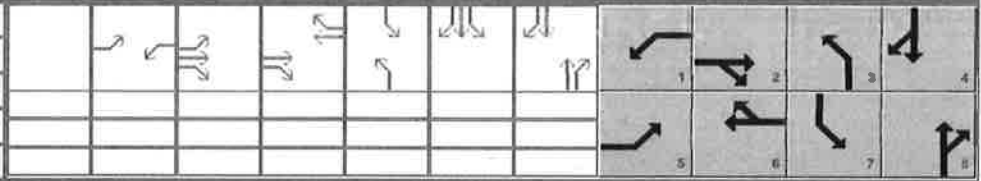
HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.25
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1 > 7:00
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - CY No Proj - PM.xus		
Project Description	Construction Year No Project				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	243	1844	57	15	1031	53	28	6	11	31	21	77

Signal Information			
Cycle, s	66.8	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

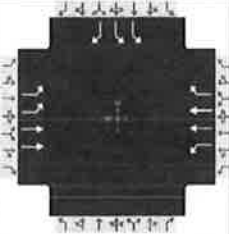


Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	16.5	38.8	6.3	28.6	7.1	14.4	7.3	14.6
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	11.3	20.4	2.6	13.1	3.1	2.6	3.2	5.8
Green Extension Time (g _e), s	0.3	9.5	0.0	10.5	0.0	0.1	0.0	0.1
Phase Call Probability	0.99	1.00	0.25	1.00	0.42	0.94	0.45	0.94
Max Out Probability	0.01	0.20	1.00	0.07	1.00	0.01	1.00	0.31

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	256	1340	661	16	767	374	29	18		33	103	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1840	1781	1870	1821	1781	1675		1781	1639	
Queue Service Time (g _s), s	9.3	18.4	18.4	0.6	11.1	11.1	1.1	0.6		1.2	3.8	
Cycle Queue Clearance Time (g _c), s	9.3	18.4	18.4	0.6	11.1	11.1	1.1	0.6		1.2	3.8	
Green Ratio (g/C)	0.17	0.51	0.51	0.02	0.35	0.35	0.03	0.14		0.03	0.14	
Capacity (c), veh/h	306	1896	933	34	1325	645	56	236		61	234	
Volume-to-Capacity Ratio (X)	0.836	0.707	0.708	0.466	0.579	0.580	0.525	0.076		0.539	0.440	
Back of Queue (Q), ft/ln (95 th percentile)	170.4	251.4	247.8	12.2	187.2	181	21.7	10.4		23.9	63.5	
Back of Queue (Q), veh/ln (95 th percentile)	6.7	9.9	9.9	0.5	7.4	7.2	0.9	0.4		0.9	2.5	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	26.7	12.7	12.7	32.4	17.5	17.5	31.8	24.9		31.7	26.2	
Incremental Delay (d ₂), s/veh	2.3	0.3	0.6	3.7	0.1	0.3	2.8	0.1		2.7	0.5	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	29.1	12.9	13.2	36.1	17.7	17.8	34.6	25.0		34.5	26.7	
Level of Service (LOS)	C	B	B	D	B	B	C	C		C	C	
Approach Delay, s/veh / LOS	14.8	B		18.0	B		31.0	C		28.5	C	
Intersection Delay, s/veh / LOS	16.6						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1 > 7:00	
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - CY No Proj - PM.xus			
Project Description	Construction Year No Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	769	1411		8	778	213				118		188

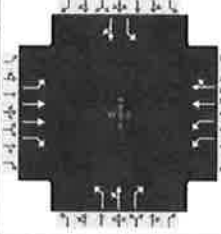
Signal Information															
Cycle, s	61.1	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				9.0
Phase Duration, s	22.2	41.3	4.8	23.9				15.0
Change Period, ($Y+R_c$), s	5.0	5.0	4.0	5.0				5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9				3.2
Queue Clearance Time (g_s), s	15.4	21.4	2.3	14.6				9.2
Green Extension Time (g_e), s	1.8	7.0	0.0	4.3				0.4
Phase Call Probability	1.00	1.00	0.13	1.00				1.00
Max Out Probability	0.01	0.03	0.16	0.48				0.11

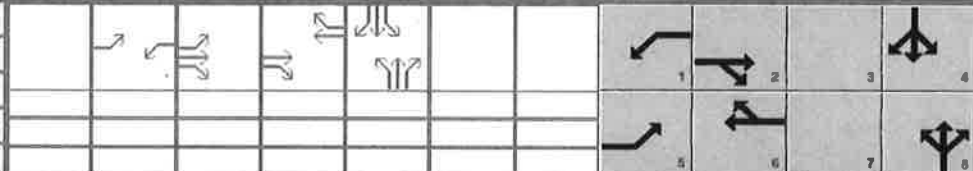
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2		1	6	16				7		14
Adjusted Flow Rate (v), veh/h	809	1485		8	819	0				124		198
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1692		1781	1781	1610				1730		1610
Queue Service Time (g_s), s	13.4	19.4		0.3	12.6	0.0				1.9		7.2
Cycle Queue Clearance Time (g_c), s	13.4	19.4		0.3	12.6	0.0				1.9		7.2
Green Ratio (g/C)	0.28	0.59		0.01	0.31	0.31				0.16		0.16
Capacity (c), veh/h	974	2012		23	1104	499				564		262
Volume-to-Capacity Ratio (X)	0.831	0.738		0.361	0.742	0.000				0.220		0.754
Back of Queue (Q), ft/ln (95 th percentile)	208.4	202.5		6.1	203.9	0				31.6		113.4
Back of Queue (Q), veh/ln (95 th percentile)	8.2	8.0		0.2	8.0	0.0				1.2		4.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00	0.00				0.00		0.00
Uniform Delay (d_1), s/veh	20.6	8.9		29.9	18.9	0.0				22.2		24.4
Incremental Delay (d_2), s/veh	0.7	0.4		3.5	1.3	0.0				0.1		1.7
Initial Queue Delay (d_3), s/veh	0.0	0.0		0.0	0.0	0.0				0.0		0.0
Control Delay (d), s/veh	21.3	9.3		33.4	20.2	0.0				22.3		26.1
Level of Service (LOS)	C	A		C	C					C		C
Approach Delay, s/veh / LOS	13.5		B	20.3		C	0.0			24.6		C
Intersection Delay, s/veh / LOS	16.2						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.91	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - CY No Proj - PM.xus			
Project Description	Construction Year No Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	109	1340	31	50	774	11	269	4	159	10	1	26

Signal Information											
Cycle, s	83.5	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	12.0	42.8	8.6	39.3		21.0		11.1
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9		3.1		3.2
Queue Clearance Time (g _s), s	7.4	33.4	3.3	16.5		15.2		3.4
Green Extension Time (g _e), s	0.1	4.3	0.0	0.0		0.7		0.0
Phase Call Probability	0.94	1.00	0.72	1.00		1.00		0.61
Max Out Probability	0.49	0.02	1.00	1.00		0.01		0.00

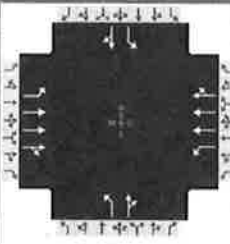
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	120	1473	34	55	432	430	296	4	175	11	30	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1757	1900	1890	1810	1900	1610	1810	1619	
Queue Service Time (g _s), s	5.4	31.4	1.0	1.3	14.5	14.5	13.2	0.2	8.2	0.5	1.4	
Cycle Queue Clearance Time (g _c), s	5.4	31.4	1.0	1.3	14.5	14.5	13.2	0.2	8.2	0.5	1.4	
Green Ratio (g/C)	0.08	0.45	0.45	0.04	0.41	0.41	0.19	0.19	0.19	0.07	0.07	
Capacity (c), veh/h	153	1638	729	152	782	778	347	364	308	133	119	
Volume-to-Capacity Ratio (X)	0.785	0.899	0.047	0.362	0.553	0.553	0.853	0.012	0.567	0.083	0.250	
Back of Queue (Q), ft/ln (50 th percentile)	60.6	289.5	8	13.3	144.2	143.5	143.2	1.7	75.8	5.1	13.9	
Back of Queue (Q), veh/ln (50 th percentile)	2.4	11.6	0.3	0.5	5.8	5.7	5.7	0.1	3.0	0.2	0.6	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	37.5	21.1	12.8	38.9	18.7	18.7	32.7	27.4	30.6	36.1	36.6	
Incremental Delay (d ₂), s/veh	3.6	0.9	0.0	0.5	0.5	0.5	3.6	0.0	0.6	0.1	0.4	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	41.1	22.0	12.8	39.4	19.2	19.3	36.3	27.4	31.3	36.2	37.0	
Level of Service (LOS)	D	C	B	D	B	B	D	C	C	D	D	
Approach Delay, s/veh / LOS	23.2	C		20.5	C		34.4	C			36.8	D
Intersection Delay, s/veh / LOS	24.3						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

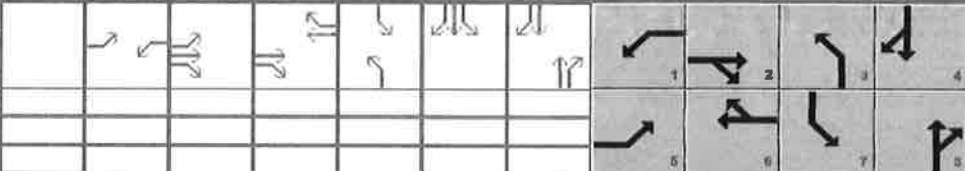
APPENDIX D

**CONSTRUCTION YEAR PLUS PROJECT
LEVEL OF SERVICE CALCULATION WORKSHEETS**

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.84	
Urban Street	Iron Point Rd.	Analysis Year	2018	Analysis Period	1 > 7:00	
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - CY + Proj - AM.xus			
Project Description	Construction Year + Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	140	906	8	10	1114	24	62	16	18	69	12	222

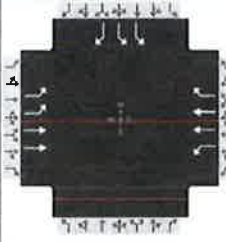
Signal Information															
Cycle, s	63.0	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	12.4	30.5	5.9	24.0	8.6	17.8	8.8	18.0
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	7.7	11.0	2.4	16.1	4.6	3.2	4.9	12.6
Green Extension Time (g _e), s	0.1	0.0	0.0	3.0	0.0	0.4	0.0	0.4
Phase Call Probability	0.95	1.00	0.19	1.00	0.73	1.00	0.76	1.00
Max Out Probability	0.25	1.00	1.00	0.25	1.00	0.07	1.00	0.02


Movement Group Results	EB			WB			NB			SB			
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow Rate (v), veh/h	167	726	362	12	907	448	74	40		82	279		
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1862	1781	1870	1849	1781	1708		1781	1598		
Queue Service Time (g _s), s	5.7	9.0	9.0	0.4	14.1	14.1	2.6	1.2		2.9	10.6		
Cycle Queue Clearance Time (g _c), s	5.7	9.0	9.0	0.4	14.1	14.1	2.6	1.2		2.9	10.6		
Green Ratio (g/C)	0.12	0.40	0.40	0.01	0.30	0.30	0.06	0.20		0.06	0.21		
Capacity (c), veh/h	210	1514	753	27	1130	558	102	346		108	328		
Volume-to-Capacity Ratio (X)	0.795	0.480	0.480	0.448	0.803	0.803	0.720	0.117		0.762	0.848		
Back of Queue (Q), ft/ln (95 th percentile)	106.8	142	140	9	230	227.7	52.4	19.9		56.4	174.2		
Back of Queue (Q), veh/ln (95 th percentile)	4.2	5.6	5.6	0.4	9.1	9.1	2.1	0.8		2.2	6.9		
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		
Uniform Delay (d ₁), s/veh	27.1	13.9	13.9	30.8	20.3	20.3	29.2	20.5		29.2	24.1		
Incremental Delay (d ₂), s/veh	2.6	0.1	0.2	4.3	0.6	1.3	5.3	0.1		4.1	3.6		
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Control Delay (d), s/veh	29.7	14.0	14.0	35.1	20.9	21.5	34.5	20.6		33.3	27.7		
Level of Service (LOS)	C	B	B	D	C	C	C	C		C	C		
Approach Delay, s/veh / LOS	16.1	B		21.2	C		29.6	C			29.0	C	
Intersection Delay, s/veh / LOS	20.3						C						

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.93	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - CY + Proj - AM.xus			
Project Description	Construction Year + Project					

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	221	493		16	725	86				238		591

Signal Information											
Cycle, s	67.8	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

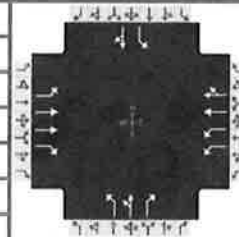
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				9.0
Phase Duration, s	11.0	26.9	6.7	22.5				34.3
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0				5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9				3.2
Queue Clearance Time (g _s), s	6.6	10.0	2.6	16.1				27.1
Green Extension Time (g _e), s	0.0	0.0	0.0	1.4				2.1
Phase Call Probability	0.99	1.00	0.28	1.00				1.00
Max Out Probability	1.00	1.00	0.47	0.14				0.00

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2		1	6	16				7		14
Adjusted Flow Rate (v), veh/h	238	530		17	780	0				256		635
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1781		1781	1781	1610				1730		1610
Queue Service Time (g _s), s	4.6	8.0		0.6	14.1	0.0				3.1		25.1
Cycle Queue Clearance Time (g _c), s	4.6	8.0		0.6	14.1	0.0				3.1		25.1
Green Ratio (g/C)	0.09	0.32		0.02	0.26	0.26				0.43		0.43
Capacity (c), veh/h	306	1148		44	920	416				1493		695
Volume-to-Capacity Ratio (X)	0.776	0.462		0.394	0.847	0.000				0.171		0.914
Back of Queue (Q), ft/ln (95 th percentile)	100.4	132		13	238.5	0				45.3		319.3
Back of Queue (Q), veh/ln (95 th percentile)	4.0	5.2		0.5	9.4	0.0				1.8		12.8
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00	0.00				0.00		0.00
Uniform Delay (d ₁), s/veh	30.2	18.3		32.6	23.9	0.0				11.8		18.1
Incremental Delay (d ₂), s/veh	10.8	0.1		2.1	2.6	0.0				0.0		3.2
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0	0.0				0.0		0.0
Control Delay (d), s/veh	41.1	18.4		34.7	26.5	0.0				11.8		21.3
Level of Service (LOS)	D	B		C	C					B		C
Approach Delay, s/veh / LOS	25.4		C	26.7		C	0.0			18.6		B
Intersection Delay, s/veh / LOS	23.3						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1 > 7:00		
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - CY + Proj - AM.xus				
Project Description	Construction Year + Project						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	34	459	123	178	689	6	25	1	28	6	6	54

Signal Information			
Cycle, s	45.5	Reference Phase	2
Offset, s	0	Reference Point	Begin
Uncoordinated	Yes	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

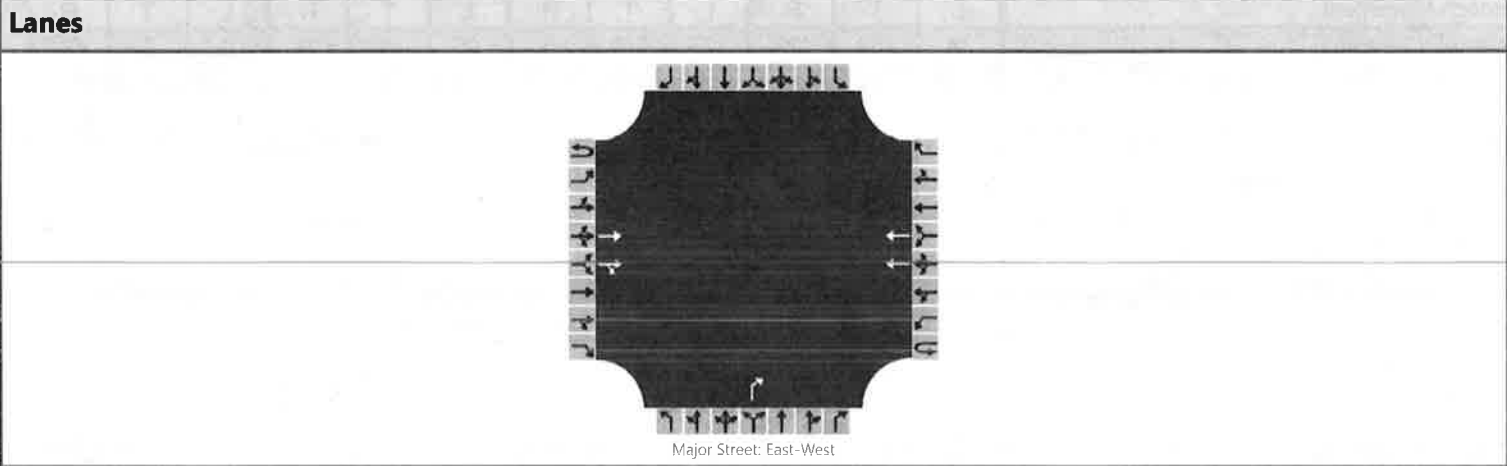
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	6.8	15.0	9.5	17.7		10.1		10.8
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0		3.1		3.2
Queue Clearance Time (g _s), s	2.9	7.6	4.3	10.0		2.8		3.6
Green Extension Time (g _e), s	0.0	1.5	0.0	2.0		0.0		0.0
Phase Call Probability	0.36	1.00	0.91	1.00		0.51		0.58
Max Out Probability	1.00	0.65	1.00	0.23		0.00		0.01

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	36	483	129	187	366	365	26	1	29	6	63	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1781	1449	1730	1870	1865	1781	1870	1610	1781	1610	
Queue Service Time (g _s), s	0.9	5.6	3.5	2.3	8.0	8.0	0.6	0.0	0.8	0.1	1.6	
Cycle Queue Clearance Time (g _c), s	0.9	5.6	3.5	2.3	8.0	8.0	0.6	0.0	0.8	0.1	1.6	
Green Ratio (g/C)	0.04	0.22	0.22	0.10	0.28	0.28	0.11	0.11	0.11	0.13	0.13	
Capacity (c), veh/h	71	783	318	345	523	521	201	211	181	229	207	
Volume-to-Capacity Ratio (X)	0.502	0.617	0.407	0.544	0.701	0.701	0.131	0.005	0.163	0.028	0.305	
Back of Queue (Q), ft/ln (95 th percentile)	16.1	82.3	41.5	36.4	119.2	117	9.6	0.4	10.7	2.2	23.1	
Back of Queue (Q), veh/ln (95 th percentile)	0.6	3.2	1.7	1.4	4.7	4.7	0.4	0.0	0.4	0.1	0.9	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	21.4	16.0	15.2	19.5	14.7	14.7	18.2	17.9	18.2	17.3	18.0	
Incremental Delay (d ₂), s/veh	2.0	0.4	0.3	0.5	0.6	0.6	0.1	0.0	0.2	0.0	0.3	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	23.4	16.4	15.5	20.0	15.3	15.3	18.3	17.9	18.4	17.4	18.3	
Level of Service (LOS)	C	B	B	B	B	B	B	B	B	B	B	
Approach Delay, s/veh / LOS	16.6	B		16.3	B		18.3	B		18.2	B	
Intersection Delay, s/veh / LOS	16.6						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	NKL	Intersection	Iron Pt. Rd./Proj Access
Agency/Co.		Jurisdiction	Folsom, CA
Date Performed	2/6/2018	East/West Street	Iron Point Rd.
Analysis Year	AM	North/South Street	Project Access
Time Analyzed	Construction Yr + Project	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Revel Folsom Senior Living		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume, V (veh/h)			730	17			827					25				
Percent Heavy Vehicles (%)												2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

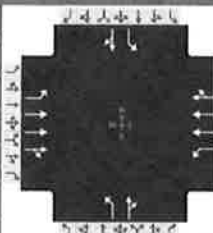
Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

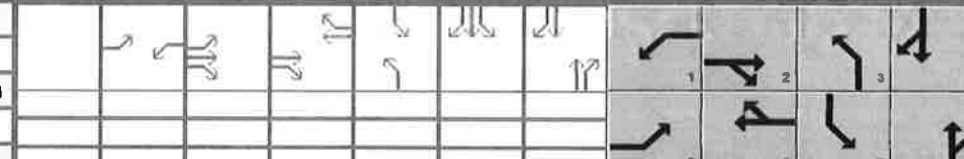
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)																	27
Capacity, c (veh/h)																	594
v/c Ratio																	0.05
95% Queue Length, Q ₉₅ (veh)																	0.1
Control Delay (s/veh)																	11.3
Level of Service, LOS																	B
Approach Delay (s/veh)													11.3				
Approach LOS													B				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - CY + Proj - PM.xus			
Project Description	Construction Year + Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	243	1854	57	15	1039	53	28	6	11	31	21	77

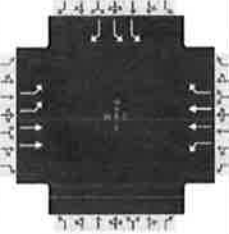
Signal Information											
Cycle, s	67.1	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	16.5	39.1	6.3	28.9	7.1	14.4	7.3	14.6
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	11.3	20.6	2.6	13.3	3.1	2.6	3.2	5.9
Green Extension Time (g _e), s	0.3	9.6	0.0	10.6	0.0	0.1	0.0	0.1
Phase Call Probability	0.99	1.00	0.25	1.00	0.42	0.94	0.46	0.94
Max Out Probability	0.01	0.21	1.00	0.08	1.00	0.01	1.00	0.31

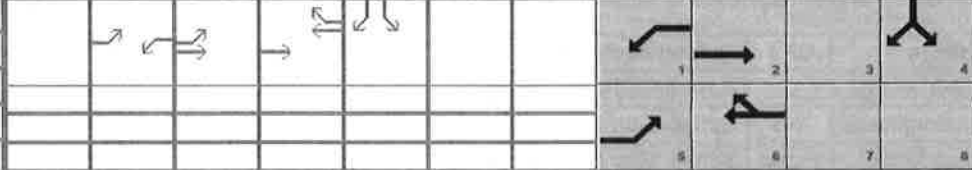
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	256	1347	664	16	773	377	29	18		33	103	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1840	1781	1870	1822	1781	1675		1781	1639	
Queue Service Time (g _s), s	9.3	18.5	18.6	0.6	11.2	11.3	1.1	0.6		1.2	3.9	
Cycle Queue Clearance Time (g _c), s	9.3	18.5	18.6	0.6	11.2	11.3	1.1	0.6		1.2	3.9	
Green Ratio (g/C)	0.17	0.51	0.51	0.02	0.36	0.36	0.03	0.14		0.03	0.14	
Capacity (c), veh/h	306	1903	936	34	1332	649	56	235		60	234	
Volume-to-Capacity Ratio (X)	0.836	0.708	0.710	0.467	0.580	0.581	0.525	0.076		0.539	0.442	
Back of Queue (Q), ft/ln (95 th percentile)	171.1	253.2	249.8	12.3	189	182.7	21.8	10.4		24	64	
Back of Queue (Q), veh/ln (95 th percentile)	6.7	10.0	10.0	0.5	7.4	7.3	0.9	0.4		0.9	2.5	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	26.9	12.6	12.7	32.6	17.5	17.5	32.0	25.1		31.9	26.3	
Incremental Delay (d ₂), s/veh	2.3	0.3	0.6	3.7	0.1	0.3	2.8	0.1		2.8	0.5	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	29.2	12.9	13.3	36.2	17.7	17.8	34.8	25.1		34.6	26.8	
Level of Service (LOS)	C	B	B	D	B	B	C	C		C	C	
Approach Delay, s/veh / LOS	14.9	B		18.0	B		31.1	C			28.7	C
Intersection Delay, s/veh / LOS	16.6						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1 > 7:00	
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - CY + Proj - PM.xus			
Project Description	Construction Year + Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	769	1421		16	786	217				123		188

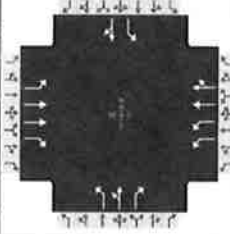
Signal Information											
Cycle, s	60.8	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6				4
Case Number	2.0	4.0	2.0	3.0				9.0
Phase Duration, s	22.1	40.4	5.5	23.7				15.0
Change Period, (Y+R _c), s	5.0	5.0	4.0	5.0				5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9				3.2
Queue Clearance Time (g _s), s	15.3	22.2	2.6	14.7				9.1
Green Extension Time (g _e), s	1.8	7.1	0.0	4.0				0.4
Phase Call Probability	1.00	1.00	0.25	1.00				1.00
Max Out Probability	0.01	0.03	0.39	0.56				0.11

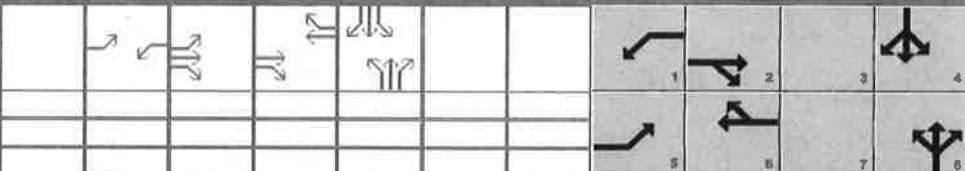
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2		1	6	16				7		14
Adjusted Flow Rate (v), veh/h	809	1496		17	827	0				129		198
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1692		1781	1781	1610				1730		1610
Queue Service Time (g _s), s	13.3	20.2		0.6	12.7	0.0				2.0		7.1
Cycle Queue Clearance Time (g _c), s	13.3	20.2		0.6	12.7	0.0				2.0		7.1
Green Ratio (g/C)	0.28	0.58		0.02	0.31	0.31				0.16		0.16
Capacity (c), veh/h	975	1968		44	1097	496				566		264
Volume-to-Capacity Ratio (X)	0.831	0.760		0.387	0.755	0.000				0.229		0.751
Back of Queue (Q), ft/ln (95 th percentile)	206.8	213.1		11.2	207.1	0				32.7		112.5
Back of Queue (Q), veh/ln (95 th percentile)	8.1	8.4		0.4	8.2	0.0				1.3		4.5
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00		0.00	0.00	0.00				0.00		0.00
Uniform Delay (d ₁), s/veh	20.5	9.5		29.2	19.0	0.0				22.1		24.2
Incremental Delay (d ₂), s/veh	0.7	0.4		2.1	1.7	0.0				0.1		1.6
Initial Queue Delay (d ₃), s/veh	0.0	0.0		0.0	0.0	0.0				0.0		0.0
Control Delay (d), s/veh	21.2	9.9		31.3	20.7	0.0				22.2		25.9
Level of Service (LOS)	C	A		C	C					C		C
Approach Delay, s/veh / LOS	13.9		B	20.9		C	0.0			24.4		C
Intersection Delay, s/veh / LOS	16.6						B					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.91	
Urban Street	Iron Point Rd.	Analysis Year	Construction Year	Analysis Period	1 > 7:00	
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - CY + Proj - PM.xus			
Project Description	Construction Year + Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	109	1347	31	50	782	11	269	4	159	10	1	26

Signal Information															
Cycle, s	84.0	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	12.1	43.2	8.6	39.7		21.1		11.1
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9		3.1		3.2
Queue Clearance Time (g _s), s	7.5	33.8	3.3	16.7		15.3		3.5
Green Extension Time (g _e), s	0.1	4.3	0.0	0.0		0.7		0.0
Phase Call Probability	0.94	1.00	0.72	1.00		1.00		0.61
Max Out Probability	0.51	0.02	1.00	1.00		0.01		0.00

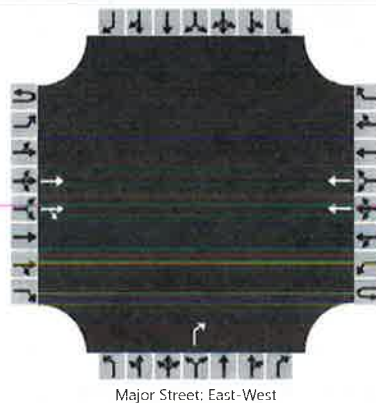
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	120	1480	34	55	437	435	296	4	175	11	30	
Adjusted Saturation Flow Rate (s), veh/h/ln	1810	1809	1610	1757	1900	1891	1810	1900	1610	1810	1619	
Queue Service Time (g _s), s	5.5	31.8	1.0	1.3	14.7	14.7	13.3	0.2	8.3	0.5	1.5	
Cycle Queue Clearance Time (g _c), s	5.5	31.8	1.0	1.3	14.7	14.7	13.3	0.2	8.3	0.5	1.5	
Green Ratio (g/C)	0.08	0.45	0.45	0.04	0.41	0.41	0.19	0.19	0.19	0.07	0.07	
Capacity (c), veh/h	153	1645	732	151	786	782	346	363	308	132	119	
Volume-to-Capacity Ratio (X)	0.785	0.900	0.047	0.363	0.556	0.556	0.854	0.012	0.567	0.083	0.250	
Back of Queue (Q), ft/ln (50 th percentile)	61.2	292.4	8	13.4	146.6	145.9	144.5	1.7	76.4	5.1	14	
Back of Queue (Q), veh/ln (50 th percentile)	2.4	11.7	0.3	0.5	5.9	5.8	5.8	0.1	3.1	0.2	0.6	
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	37.8	21.2	12.8	39.1	18.8	18.8	32.9	27.6	30.9	36.4	36.8	
Incremental Delay (d ₂), s/veh	3.8	0.9	0.0	0.5	0.5	0.5	3.8	0.0	0.6	0.1	0.4	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	41.6	22.1	12.8	39.7	19.3	19.3	36.7	27.6	31.5	36.5	37.2	
Level of Service (LOS)	D	C	B	D	B	B	D	C	C	D	D	
Approach Delay, s/veh / LOS	23.3	C		20.5	C		34.7	C			37.0	D
Intersection Delay, s/veh / LOS	24.4						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	NKL	Intersection	Iron Pt. Rd./Proj Access
Agency/Co.		Jurisdiction	Folsom, CA
Date Performed	2/6/2018	East/West Street	Iron Point Rd.
Analysis Year	PM	North/South Street	Project Access
Time Analyzed	Construction Yr + Project	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Revel Folsom Senior Living		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	0	0	
Configuration			T	TR			T					R					
Volume, V (veh/h)			1530	30			1019					26					
Percent Heavy Vehicles (%)												2					
Proportion Time Blocked																	
Percent Grade (%)											0						
Right Turn Channelized			No				No				No					No	
Median Type/Storage			Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)																	
Critical Headway (sec)																	
Base Follow-Up Headway (sec)																	
Follow-Up Headway (sec)																	

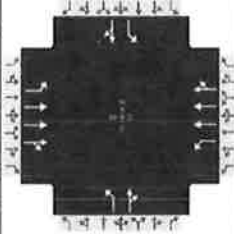
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												28					
Capacity, c (veh/h)												305					
v/c Ratio												0.09					
95% Queue Length, Q ₉₅ (veh)												0.3					
Control Delay (s/veh)												18.0					
Level of Service, LOS												C					
Approach Delay (s/veh)												18.0					
Approach LOS												C					

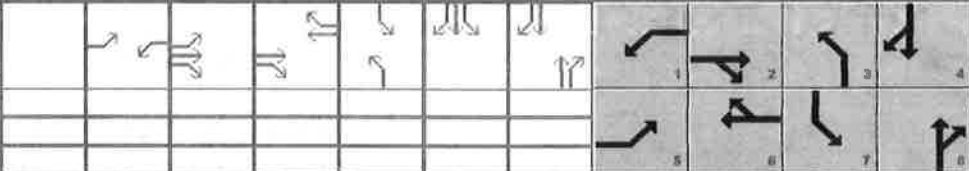
APPENDIX E

**CUMULATIVE NO PROJECT
LEVEL OF SERVICE CALCULATION WORKSHEETS**

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.84	
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - Cumul No Proj - AM.xus			
Project Description	Cumulative No Project					

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	110	570	10	20	950	80	50	20	30	170	10	280

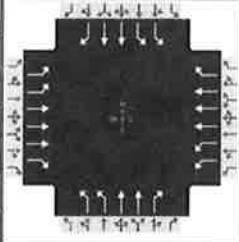

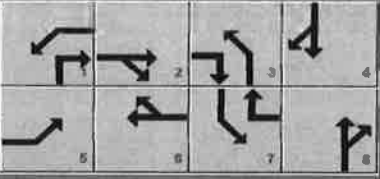
Signal Information															
Cycle, s	61.5	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	10.8	26.2	6.7	22.1	8.2	15.0	13.6	20.4
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	6.4	7.7	2.8	14.7	4.0	3.9	8.8	14.8
Green Extension Time (g _e), s	0.0	1.3	0.0	2.5	0.0	0.5	0.1	0.6
Phase Call Probability	0.89	1.00	0.33	1.00	0.64	1.00	0.97	1.00
Max Out Probability	1.00	1.00	1.00	0.17	1.00	0.15	0.29	0.02

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	131	461	229	24	829	398	60	60		202	345	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1853	1781	1870	1793	1781	1688		1781	1593	
Queue Service Time (g _s), s	4.4	5.7	5.7	0.8	12.6	12.7	2.0	1.9		6.8	12.8	
Cycle Queue Clearance Time (g _c), s	4.4	5.7	5.7	0.8	12.6	12.7	2.0	1.9		6.8	12.8	
Green Ratio (g/C)	0.09	0.35	0.35	0.03	0.28	0.28	0.05	0.16		0.14	0.25	
Capacity (c), veh/h	167	1291	640	48	1041	499	92	274		250	400	
Volume-to-Capacity Ratio (X)	0.783	0.357	0.358	0.492	0.796	0.796	0.644	0.217		0.810	0.864	
Back of Queue (Q), ft/ln (95 th percentile)	83.8	92.2	90.7	16.1	211.7	204.9	38.8	30.8		130.1	206.6	
Back of Queue (Q), veh/ln (95 th percentile)	3.3	3.6	3.6	0.6	8.3	8.2	1.5	1.2		5.1	8.1	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	27.3	15.1	15.1	29.5	20.6	20.6	28.6	22.4		25.7	22.0	
Incremental Delay (d ₂), s/veh	3.2	0.1	0.1	2.9	0.6	1.3	2.8	0.1		4.4	4.8	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	30.5	15.1	15.2	32.4	21.2	21.8	31.4	22.5		30.0	26.9	
Level of Service (LOS)	C	B	B	C	C	C	C	C		C	C	
Approach Delay, s/veh / LOS	17.6		B	21.6		C	27.0		C	28.0		C
Intersection Delay, s/veh / LOS	21.9						C					

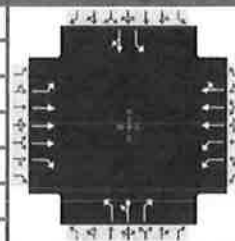
Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency				Duration, h	0.25										
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other										
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.93										
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1 > 7:00										
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - Cumul No Proj - AM.xus												
Project Description	Cumulative No Project														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h				180	440	410	365	770	120	300	640	355	215	880	450
Signal Information															
Cycle, s	82.1	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase				5	2	1	6	3	8	7	4				
Case Number				2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0				
Phase Duration, s				11.5	18.1	16.4	23.1	13.8	36.1	11.5	33.7				
Change Period, (Y+R _c), s				5.0	5.0	5.0	5.0	4.0	5.0	4.0	5.0				
Max Allow Headway (MAH), s				3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
Queue Clearance Time (g _s), s				6.5	15.1	11.0	14.4	9.4	14.3	7.3	24.9				
Green Extension Time (g _e), s				0.1	0.0	0.4	3.6	0.4	0.0	0.2	3.7				
Phase Call Probability				0.99	1.00	1.00	1.00	1.00	1.00	0.99	1.00				
Max Out Probability				1.00	1.00	0.46	0.05	0.04	1.00	0.49	0.20				
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h				194	473	441	392	828	129	323	688	382	231	946	484
Adjusted Saturation Flow Rate (s), veh/h/ln				1730	1698	1610	1730	1698	1610	1730	1781	1610	1730	1781	1610
Queue Service Time (g _s), s				4.5	7.1	13.1	9.0	12.4	4.9	7.4	12.2	12.3	5.3	19.3	22.9
Cycle Queue Clearance Time (g _c), s				4.5	7.1	13.1	9.0	12.4	4.9	7.4	12.2	12.3	5.3	19.3	22.9
Green Ratio (g/C)				0.08	0.16	0.28	0.14	0.22	0.31	0.12	0.38	0.52	0.09	0.35	0.35
Capacity (c), veh/h				274	814	451	482	1120	501	415	1347	833	315	1245	563
Volume-to-Capacity Ratio (X)				0.707	0.581	0.979	0.815	0.739	0.258	0.777	0.511	0.458	0.733	0.760	0.860
Back of Queue (Q), ft/ln (95 th percentile)				84.4	126.4	453.7	177.1	210.7	77.2	137.5	204.6	169.1	99.8	298.9	329.4
Back of Queue (Q), veh/ln (95 th percentile)				3.3	5.0	18.1	7.0	8.3	3.1	5.4	8.1	6.8	3.9	11.8	13.2
Queue Storage Ratio (RQ) (95 th percentile)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh				36.9	31.9	29.3	34.3	29.8	21.2	35.1	19.7	12.5	36.3	23.7	24.8
Incremental Delay (d ₂), s/veh				1.6	0.7	36.6	4.7	0.4	0.1	1.2	0.1	0.1	1.2	0.4	4.0
Initial Queue Delay (d ₃), 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
Control Delay (d), s/veh				38.4	32.6	65.9	39.0	30.2	21.3	36.3	19.8	12.7	37.6	24.1	28.8
Level of Service (LOS)				D	C	E	D	C	C	D	B	B	D	C	C
Approach Delay, s/veh / LOS				46.9	D		31.9	C		21.7	C		27.3	C	
Intersection Delay, s/veh / LOS				30.9						C					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS															
Bicycle LOS Score / LOS															

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.25
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.95
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1> 7:00
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - Cumul No Proj - AM.xus		
Project Description	Cumulative No Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	50	785	160	220	750	10	380	60	60	20	10	90

Signal Information				Signal Diagram											
Cycle, s	66.0	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

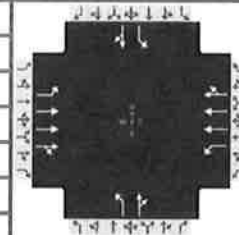
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	8.1	18.6	11.3	21.9		22.0		14.0
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9		3.0		3.2
Queue Clearance Time (g _s), s	3.9	12.1	6.3	10.2		16.2		6.0
Green Extension Time (g _e), s	0.0	1.5	0.1	0.0		0.9		0.1
Phase Call Probability	0.62	1.00	0.99	1.00		1.00		0.90
Max Out Probability	1.00	0.32	1.00	1.00		0.00		0.38

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	53	826	63	232	534	266	400	63	63	21	105	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1698	1449	1730	1870	1857	1781	1870	1610	1781	1610	
Queue Service Time (g _s), s	1.9	10.1	2.4	4.3	8.2	8.2	14.2	1.7	1.7	0.7	4.0	
Cycle Queue Clearance Time (g _c), s	1.9	10.1	2.4	4.3	8.2	8.2	14.2	1.7	1.7	0.7	4.0	
Green Ratio (g/C)	0.05	0.21	0.21	0.10	0.26	0.26	0.26	0.26	0.35	0.14	0.14	
Capacity (c), veh/h	84	1052	299	332	956	475	460	483	570	243	220	
Volume-to-Capacity Ratio (X)	0.630	0.785	0.211	0.698	0.559	0.560	0.870	0.131	0.111	0.087	0.479	
Back of Queue (Q), ft/ln (95 th percentile)	37.6	168.8	33.1	75.9	146.3	145.9	234.8	30.2	24.7	12.1	64.9	
Back of Queue (Q), veh/ln (95 th percentile)	1.5	6.6	1.3	3.0	5.8	5.8	9.2	1.2	1.0	0.5	2.6	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	30.9	24.8	21.7	28.9	21.3	21.4	23.4	18.8	14.3	24.9	26.3	
Incremental Delay (d ₂), s/veh	2.9	0.9	0.1	1.0	0.4	0.9	2.0	0.0	0.0	0.1	0.6	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	33.8	25.7	21.9	29.9	21.8	22.3	25.5	18.8	14.4	25.0	26.9	
Level of Service (LOS)	C	C	C	C	C	C	C	B	B	C	C	
Approach Delay, s/veh / LOS	25.9	C		23.7	C		23.3	C		26.6	C	
Intersection Delay, s/veh / LOS	24.6						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.25
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.84
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1 > 7:00
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - Cumul No Proj - PM.xus		
Project Description	Cumulative No Project				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	290	1465	50	20	650	180	20	10	20	140	10	50

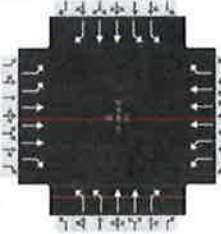
Signal Information				Signal Phases											
Cycle, s	73.6	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	21.3	38.9	6.9	24.5	6.9	14.3	13.5	20.9
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	15.8	21.0	3.0	14.2	3.0	3.4	8.7	4.7
Green Extension Time (g _e), s	0.5	8.1	0.0	5.3	0.0	0.0	0.1	0.1
Phase Call Probability	1.00	1.00	0.39	1.00	0.39	0.93	0.97	1.00
Max Out Probability	0.00	0.11	1.00	0.54	1.00	0.01	0.24	0.06

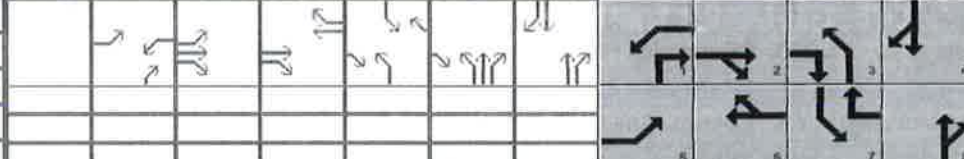
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	345	1209	594	24	682	306	24	36		167	71	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1837	1781	1870	1661	1781	1670		1781	1626	
Queue Service Time (g _s), s	13.8	19.0	19.0	1.0	12.1	12.2	1.0	1.4		6.7	2.7	
Cycle Queue Clearance Time (g _c), s	13.8	19.0	19.0	1.0	12.1	12.2	1.0	1.4		6.7	2.7	
Green Ratio (g/C)	0.22	0.46	0.46	0.03	0.27	0.27	0.03	0.13		0.12	0.22	
Capacity (c), veh/h	394	1723	846	47	993	441	47	210		206	350	
Volume-to-Capacity Ratio (X)	0.875	0.702	0.702	0.511	0.687	0.695	0.511	0.170		0.808	0.204	
Back of Queue (Q), ft/ln (95 th percentile)	239.6	278.5	272.5	19.9	215.8	200.3	19.9	24.2		134.5	43	
Back of Queue (Q), veh/ln (95 th percentile)	9.4	11.0	10.9	0.8	8.5	8.0	0.8	1.0		5.3	1.7	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	27.7	15.8	15.8	35.4	24.3	24.4	35.4	28.8		31.8	23.7	
Incremental Delay (d ₂), s/veh	2.5	0.2	0.4	3.2	0.7	1.8	3.2	0.1		4.7	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	30.1	16.0	16.2	38.6	25.0	26.2	38.6	28.9		36.5	23.8	
Level of Service (LOS)	C	B	B	D	C	C	D	C		D	C	
Approach Delay, s/veh / LOS	18.3		B	25.7		C	32.8		C	32.7		C
Intersection Delay, s/veh / LOS	21.7						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.93	
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1 > 7:00	
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - Cumul No Proj - PM.xus			
Project Description	Cumulative No Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	590	1180	310	535	670	405	290	890	435	305	705	100

Signal Information											
Cycle, s	95.2	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

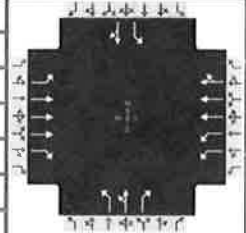
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	25.2	30.0	21.0	25.8	14.7	30.2	14.0	29.5
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g _s), s	18.8	25.3	17.8	22.8	10.4	27.2	10.9	21.1
Green Extension Time (g _e), s	1.4	0.0	0.0	0.0	0.4	0.0	0.0	3.4
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.00	1.00	1.00	1.00	0.08	1.00	1.00	0.21

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	634	1269	333	575	720	435	312	957	468	328	758	108
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1610	1730	1698	1610	1730	1781	1610	1730	1781	1610
Queue Service Time (g _s), s	16.8	23.3	15.5	15.8	12.3	20.8	8.4	25.2	22.1	8.9	19.1	5.1
Cycle Queue Clearance Time (g _c), s	16.8	23.3	15.5	15.8	12.3	20.8	8.4	25.2	22.1	8.9	19.1	5.1
Green Ratio (g/C)	0.21	0.26	0.38	0.17	0.22	0.32	0.11	0.26	0.43	0.11	0.26	0.26
Capacity (c), veh/h	735	1337	604	581	1111	520	390	944	697	363	916	414
Volume-to-Capacity Ratio (X)	0.863	0.949	0.552	0.990	0.649	0.837	0.800	1.014	0.671	0.903	0.827	0.260
Back of Queue (Q), ft/ln (95 th percentile)	282	408.4	235.3	358.4	216.4	383.8	162.4	531.6	313.8	215.5	320	84
Back of Queue (Q), veh/ln (95 th percentile)	11.1	16.1	9.4	14.1	8.5	15.4	6.4	20.9	12.6	8.5	12.6	3.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	36.2	34.5	23.4	39.5	33.9	29.9	41.2	35.0	21.6	42.1	33.4	28.1
Incremental Delay (d ₂), s/veh	1.2	14.0	0.6	34.6	1.1	10.9	2.6	32.9	2.0	24.3	1.8	0.1
Initial Queue Delay (d ₃), 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
Control Delay (d), s/veh	37.4	48.5	24.1	74.1	35.0	40.8	43.8	67.9	23.6	66.4	35.2	28.3
Level of Service (LOS)	D	D	C	E	C	D	D	F	C	E	D	C
Approach Delay, s/veh / LOS	41.7	D		49.4	D		51.6	D		43.1	D	
Intersection Delay, s/veh / LOS	46.4						D					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - Cumul No Proj - PM.xus				
Project Description	Cumulative No Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	100	1330	475	250	930	10	600	110	440	10	70	10

Signal Information				Signal Phases							
Cycle, s	99.3	Reference Phase	2	EB		WB		NB		SB	
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	12.4	36.8	14.5	38.9		33.7		14.3
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0		3.1		3.0
Queue Clearance Time (g _s), s	7.8	27.6	9.4	16.0		26.6		6.3
Green Extension Time (g _e), s	0.0	4.2	0.2	0.0		2.1		0.0
Phase Call Probability	0.95	1.00	1.00	1.00		1.00		0.93
Max Out Probability	0.75	0.24	1.00	1.00		0.13		0.38

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	105	1400	237	263	661	329	411	337	463	11	84	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1698	1449	1730	1870	1860	1781	1812	1610	1781	1829	
Queue Service Time (g _s), s	5.8	25.6	13.2	7.4	14.0	14.0	21.1	16.1	24.6	0.5	4.3	
Cycle Queue Clearance Time (g _c), s	5.8	25.6	13.2	7.4	14.0	14.0	21.1	16.1	24.6	0.5	4.3	
Green Ratio (g/C)	0.07	0.32	0.32	0.10	0.34	0.34	0.29	0.29	0.39	0.09	0.09	
Capacity (c), veh/h	132	1629	463	332	1278	635	515	524	621	166	171	
Volume-to-Capacity Ratio (X)	0.795	0.859	0.511	0.792	0.517	0.518	0.796	0.642	0.746	0.063	0.493	
Back of Queue (Q), ft/ln (95 th percentile)	124.1	388.4	194.3	152.2	250.5	246.6	357.5	278.2	351.7	10.5	88.4	
Back of Queue (Q), veh/ln (95 th percentile)	4.9	15.3	7.8	6.0	9.9	9.9	14.1	11.0	14.1	0.4	3.5	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	45.2	31.7	27.5	43.9	26.1	26.1	32.6	30.8	26.3	41.1	42.8	
Incremental Delay (d ₂), s/veh	6.9	2.0	0.3	6.1	0.2	0.3	3.9	0.5	2.4	0.1	0.8	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	52.1	33.6	27.8	50.0	26.3	26.5	36.5	31.3	28.7	41.1	43.6	
Level of Service (LOS)	D	C	C	D	C	C	D	C	C	D	D	
Approach Delay, s/veh / LOS	34.0		C	31.3		C	32.1		C	43.3		D
Intersection Delay, s/veh / LOS	32.9						C					

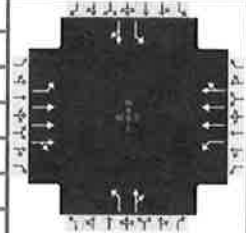
Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

APPENDIX F

**CUMULATIVE PLUS PROJECT
LEVEL OF SERVICE CALCULATION WORKSHEETS**

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.84		
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - Cumul + Proj - AM.xus				
Project Description	Cumulative + Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	110	574	10	20	959	80	50	20	30	170	10	280

Signal Information				Signal Phases							
Cycle, s	61.8	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

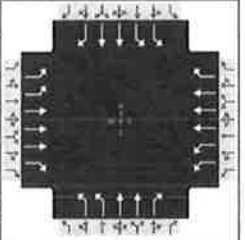
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	10.8	26.4	6.7	22.3	8.2	15.0	13.7	20.5
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	6.4	7.7	2.8	14.8	4.0	3.9	8.8	14.8
Green Extension Time (g _e), s	0.0	1.3	0.0	2.5	0.0	0.5	0.1	0.6
Phase Call Probability	0.89	1.00	0.34	1.00	0.64	1.00	0.97	1.00
Max Out Probability	1.00	1.00	1.00	0.18	1.00	0.15	0.29	0.02

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	131	465	231	24	836	401	60	60		202	345	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1853	1781	1870	1794	1781	1688		1781	1593	
Queue Service Time (g _s), s	4.4	5.7	5.7	0.8	12.8	12.8	2.0	1.9		6.8	12.8	
Cycle Queue Clearance Time (g _c), s	4.4	5.7	5.7	0.8	12.8	12.8	2.0	1.9		6.8	12.8	
Green Ratio (g/C)	0.09	0.35	0.35	0.03	0.28	0.28	0.05	0.16		0.14	0.25	
Capacity (c), veh/h	167	1298	643	48	1048	503	92	273		250	399	
Volume-to-Capacity Ratio (X)	0.783	0.358	0.359	0.492	0.798	0.798	0.645	0.218		0.810	0.866	
Back of Queue (Q), ft/ln (95 th percentile)	84.4	93.1	91.6	16.2	214	207.5	39	31		130.6	207.9	
Back of Queue (Q), veh/ln (95 th percentile)	3.3	3.7	3.7	0.6	8.4	8.3	1.5	1.2		5.1	8.2	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	27.4	15.0	15.0	29.6	20.6	20.6	28.7	22.5		25.8	22.2	
Incremental Delay (d ₂), s/veh	3.3	0.1	0.1	2.9	0.7	1.4	2.8	0.1		4.5	5.0	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	30.7	15.1	15.2	32.5	21.3	22.0	31.5	22.6		30.2	27.2	
Level of Service (LOS)	C	B	B	C	C	C	C	C		C	C	
Approach Delay, s/veh / LOS	17.6	B		21.7	C		27.1	C		28.3	C	
Intersection Delay, s/veh / LOS	22.0						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.93		
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - Cumul + Proj - AM.xus				
Project Description	Cumulative + Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	180	444	410	371	779	123	300	640	357	217	880	450

Signal Information				Signal Diagram											
Cycle, s	82.5	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

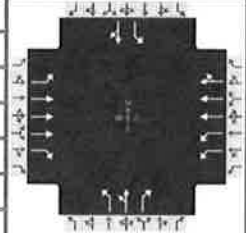
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	11.5	18.2	16.6	23.3	13.9	36.1	11.6	33.8
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g _s), s	6.5	15.2	11.2	14.6	9.5	14.4	7.4	25.1
Green Extension Time (g _e), s	0.1	0.0	0.4	3.6	0.4	0.0	0.2	3.7
Phase Call Probability	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	1.00	1.00	0.54	0.05	0.04	1.00	0.53	0.20

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	194	477	441	399	838	132	323	688	384	233	946	484
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1610	1730	1698	1610	1730	1781	1610	1730	1781	1610
Queue Service Time (g _s), s	4.5	7.2	13.2	9.2	12.6	5.1	7.5	12.3	12.4	5.4	19.4	23.1
Cycle Queue Clearance Time (g _c), s	4.5	7.2	13.2	9.2	12.6	5.1	7.5	12.3	12.4	5.4	19.4	23.1
Green Ratio (g/C)	0.08	0.16	0.28	0.14	0.22	0.31	0.12	0.38	0.52	0.09	0.35	0.35
Capacity (c), veh/h	274	814	450	487	1128	504	414	1344	834	317	1244	562
Volume-to-Capacity Ratio (X)	0.707	0.587	0.980	0.819	0.742	0.262	0.778	0.512	0.460	0.736	0.761	0.860
Back of Queue (Q), ft/ln (95 th percentile)	85	128.4	456.1	182	213.7	79.5	138.1	205.9	171.2	101.5	301.1	331.5
Back of Queue (Q), veh/ln (95 th percentile)	3.3	5.1	18.2	7.2	8.4	3.2	5.4	8.1	6.8	4.0	11.9	13.3
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d ₁), s/veh	37.0	32.1	29.5	34.4	29.9	21.2	35.2	19.8	12.6	36.5	23.8	25.0
Incremental Delay (d ₂), s/veh	1.6	0.8	36.8	5.1	0.4	0.1	1.2	0.1	0.1	1.4	0.4	4.1
Initial Queue Delay (d ₃), 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
Control Delay (d), s/veh	38.7	32.9	66.3	39.5	30.3	21.3	36.4	20.0	12.7	37.9	24.2	29.1
Level of Service (LOS)	D	C	E	D	C	C	D	B	B	D	C	C
Approach Delay, s/veh / LOS	47.1	D		32.1	C		21.8	C		27.6	C	
Intersection Delay, s/veh / LOS	31.2						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	AM Peak Hour	PHF	0.95		
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1> 7:00		
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - Cumul + Proj - AM.xus				
Project Description	Cumulative + Project						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	50	792	160	220	753	10	380	60	60	20	10	90

Signal Information											
Cycle, s	66.2	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

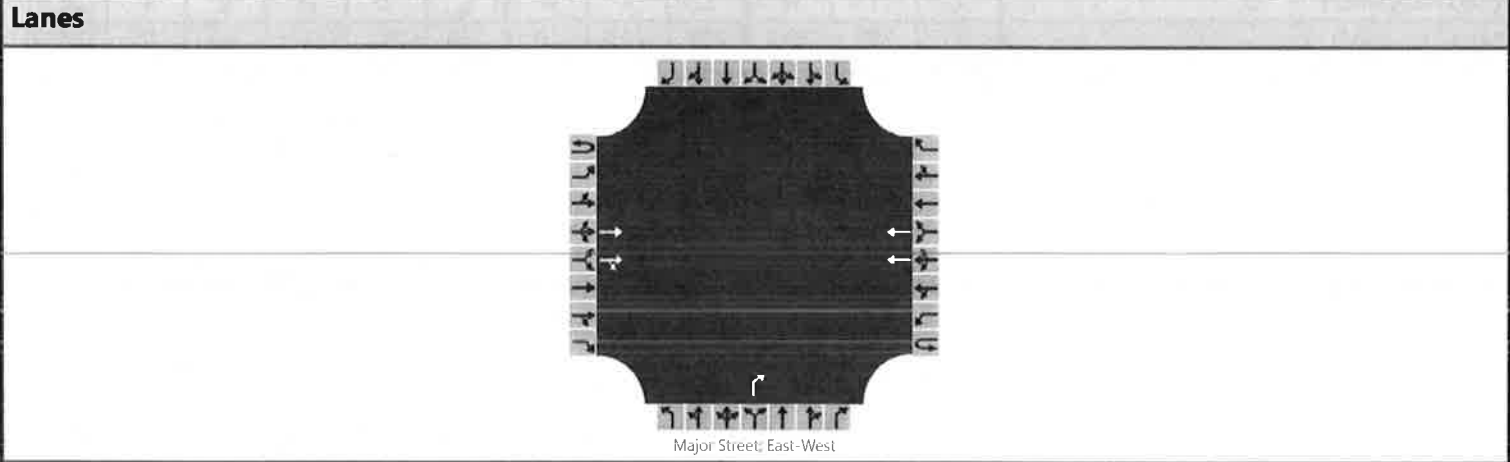
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	8.1	18.8	11.3	22.0		22.1		14.0
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	2.9	3.0	2.9		3.0		3.2
Queue Clearance Time (g_s), s	3.9	12.3	6.3	10.3		16.2		6.0
Green Extension Time (g_e), s	0.0	1.5	0.1	0.0		0.9		0.1
Phase Call Probability	0.62	1.00	0.99	1.00		1.00		0.90
Max Out Probability	1.00	0.33	1.00	1.00		0.00		0.38

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	53	834	63	232	536	267	400	63	63	21	105	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1698	1449	1730	1870	1857	1781	1870	1610	1781	1610	
Queue Service Time (g_s), s	1.9	10.3	2.4	4.3	8.2	8.3	14.2	1.7	1.7	0.7	4.0	
Cycle Queue Clearance Time (g_c), s	1.9	10.3	2.4	4.3	8.2	8.3	14.2	1.7	1.7	0.7	4.0	
Green Ratio (g/C)	0.05	0.21	0.21	0.10	0.26	0.26	0.26	0.26	0.35	0.14	0.14	
Capacity (c), veh/h	83	1059	301	331	961	477	460	483	570	243	219	
Volume-to-Capacity Ratio (X)	0.631	0.787	0.210	0.699	0.559	0.559	0.870	0.131	0.111	0.087	0.480	
Back of Queue (Q), ft/ln (95 th percentile)	37.7	171.3	33.2	76.1	147.5	147.1	236	30.4	24.8	12.2	65.1	
Back of Queue (Q), veh/ln (95 th percentile)	1.5	6.7	1.3	3.0	5.8	5.9	9.3	1.2	1.0	0.5	2.6	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d_1), s/veh	31.0	24.8	21.7	29.0	21.3	21.4	23.5	18.9	14.4	25.0	26.4	
Incremental Delay (d_2), s/veh	2.9	1.0	0.1	1.0	0.4	0.9	2.0	0.0	0.0	0.1	0.6	
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	33.9	25.8	21.8	30.0	21.8	22.3	25.5	18.9	14.4	25.1	27.0	
Level of Service (LOS)	C	C	C	C	C	C	C	B	B	C	C	
Approach Delay, s/veh / LOS	26.0	C		23.8	C		23.4	C			26.7	C
Intersection Delay, s/veh / LOS	24.6						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	NKL	Intersection	Iron Pt. Rd./Proj Access
Agency/Co.		Jurisdiction	Folsom, CA
Date Performed	2/6/2018	East/West Street	Iron Point Rd.
Analysis Year	AM	North/South Street	Project Access
Time Analyzed	Cumulative + Project	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Revel Folsom Senior Living		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume, V (veh/h)			1019	17			1273					25				
Percent Heavy Vehicles (%)												2				
Proportion Time Blocked																
Percent Grade (%)											0					
Right Turn Channelized			No				No				No					No
Median Type/Storage																

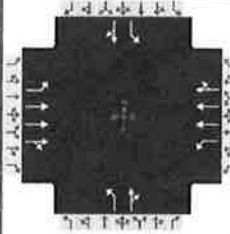
Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

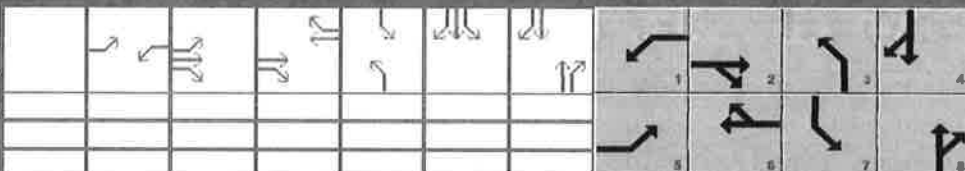
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												27				
Capacity, c (veh/h)												470				
v/c Ratio												0.06				
95% Queue Length, Q ₉₅ (veh)												0.2				
Control Delay (s/veh)												13.1				
Level of Service, LOS												B				
Approach Delay (s/veh)											13.1					
Approach LOS											B					

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.84	
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1 > 7:00	
Intersection	Iron Point Rd./McAdoo Dr.	File Name	Iron Point-McAdoo - Cumul + Proj - PM.xus			
Project Description	Cumulative + Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	290	1474	50	20	658	180	20	10	20	140	10	50

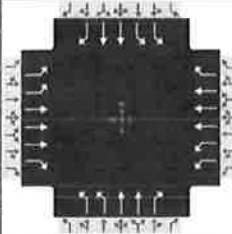
Signal Information											
Cycle, s	73.8	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0
Phase Duration, s	21.3	39.1	6.9	24.7	6.9	14.3	13.6	20.9
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.2	3.0	3.2
Queue Clearance Time (g _s), s	15.8	21.2	3.0	14.4	3.0	3.4	8.7	4.7
Green Extension Time (g _e), s	0.5	8.2	0.0	5.3	0.0	0.0	0.1	0.1
Phase Call Probability	1.00	1.00	0.39	1.00	0.39	0.93	0.97	1.00
Max Out Probability	0.00	0.12	1.00	0.55	1.00	0.01	0.24	0.07

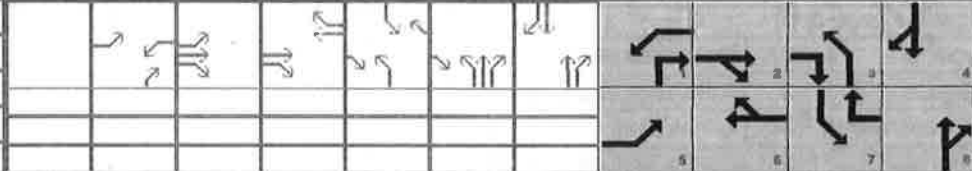
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	345	1216	598	24	688	309	24	36		167	71	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1870	1837	1781	1870	1663	1781	1670		1781	1626	
Queue Service Time (g _s), s	13.8	19.1	19.2	1.0	12.2	12.4	1.0	1.4		6.7	2.7	
Cycle Queue Clearance Time (g _c), s	13.8	19.1	19.2	1.0	12.2	12.4	1.0	1.4		6.7	2.7	
Green Ratio (g/C)	0.22	0.46	0.46	0.03	0.27	0.27	0.03	0.13		0.12	0.22	
Capacity (c), veh/h	394	1727	848	47	997	443	47	210		206	350	
Volume-to-Capacity Ratio (X)	0.875	0.704	0.705	0.511	0.690	0.698	0.511	0.170		0.808	0.204	
Back of Queue (Q), ft/ln (95 th percentile)	239.9	280.9	274.5	20	218.4	203	20	24.3		134.9	43.2	
Back of Queue (Q), veh/ln (95 th percentile)	9.4	11.1	11.0	0.8	8.6	8.1	0.8	1.0		5.3	1.7	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Uniform Delay (d ₁), s/veh	27.8	15.9	15.9	35.5	24.3	24.4	35.5	28.9		31.8	23.8	
Incremental Delay (d ₂), s/veh	2.5	0.2	0.4	3.2	0.8	2.0	3.2	0.1		4.8	0.1	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (d), s/veh	30.2	16.1	16.3	38.7	25.2	26.4	38.7	29.0		36.7	23.9	
Level of Service (LOS)	C	B	B	D	C	C	D	C		D	C	
Approach Delay, s/veh / LOS	18.4	B		25.8	C		32.9	C		32.8	C	
Intersection Delay, s/veh / LOS	21.8						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency				Duration, h	0.25	
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other	
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.93	
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1> 7:00	
Intersection	Iron Point Rd./Oak Aven...	File Name	Iron Point-Oak Ave. Pkwy. - Cumul + Proj - PM.xus			
Project Description	Cumulative + Project					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	590	1189	310	544	678	408	290	890	438	309	705	100

Signal Information															
Cycle, s	95.2	Reference Phase	2												
Offset, s	0	Reference Point	Begin												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												

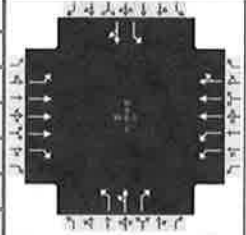
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6	3	8	7	4
Case Number	2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phase Duration, s	25.2	30.0	21.0	25.8	14.7	30.2	14.0	29.5
Change Period, ($Y+R_c$), s	5.0	5.0	5.0	5.0	4.0	5.0	4.0	5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Queue Clearance Time (g_s), s	18.8	25.5	18.0	22.8	10.4	27.2	11.1	21.1
Green Extension Time (g_e), s	1.4	0.0	0.0	0.0	0.4	0.0	0.0	3.4
Phase Call Probability	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Max Out Probability	0.00	1.00	1.00	1.00	0.08	1.00	1.00	0.21

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	634	1278	333	585	729	439	312	957	471	332	758	108
Adjusted Saturation Flow Rate (s), veh/h/ln	1730	1698	1610	1730	1698	1610	1730	1781	1610	1730	1781	1610
Queue Service Time (g_s), s	16.8	23.5	15.5	16.0	12.4	20.8	8.4	25.2	22.3	9.1	19.1	5.1
Cycle Queue Clearance Time (g_c), s	16.8	23.5	15.5	16.0	12.4	20.8	8.4	25.2	22.3	9.1	19.1	5.1
Green Ratio (g/C)	0.21	0.26	0.38	0.17	0.22	0.32	0.11	0.26	0.43	0.11	0.26	0.26
Capacity (c), veh/h	735	1337	604	581	1111	520	390	944	697	363	916	414
Volume-to-Capacity Ratio (X)	0.863	0.956	0.552	1.006	0.656	0.844	0.800	1.014	0.676	0.915	0.827	0.260
Back of Queue (Q), ft/ln (95 th percentile)	282	415.9	235.3	373.6	219.1	389.1	162.6	531.5	316.9	221.3	320	83.8
Back of Queue (Q), veh/ln (95 th percentile)	11.1	16.4	9.4	14.7	8.6	15.6	6.4	20.9	12.7	8.7	12.6	3.4
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d_1), s/veh	36.2	34.6	23.4	39.6	34.0	30.0	41.2	35.0	21.6	42.2	33.4	28.1
Incremental Delay (d_2), s/veh	1.2	15.2	0.6	38.9	1.1	11.4	2.6	32.9	2.1	26.5	1.8	0.1
Initial Queue Delay (d_3), 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
Control Delay (d), s/veh	37.4	49.8	24.1	78.6	35.1	41.4	43.8	67.9	23.8	68.7	35.2	28.3
Level of Service (LOS)	D	D	C	F	D	D	D	F	C	E	D	C
Approach Delay, s/veh / LOS	42.5	D		51.2	D		51.6	D		43.9	D	
Intersection Delay, s/veh / LOS	47.2						D					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency				Duration, h	0.25		
Analyst	NKL	Analysis Date	2/1/2018	Area Type	Other		
Jurisdiction	Folsom, CA	Time Period	PM Peak Hour	PHF	0.95		
Urban Street	Iron Point Rd.	Analysis Year	2035	Analysis Period	1 > 7:00		
Intersection	Iron Point Rd./Rowberry...	File Name	Iron Point-Rowberry Dr. - Cumul + Proj - PM.xus				
Project Description	Cumulative + Project						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	100	1336	475	250	937	10	600	110	440	10	70	10

Signal Information				Signal Diagram							
Cycle, s	99.6	Reference Phase	2								
Offset, s	0	Reference Point	Begin								
Uncoordinated	Yes	Simult. Gap E/W	On								
Force Mode	Fixed	Simult. Gap N/S	On								

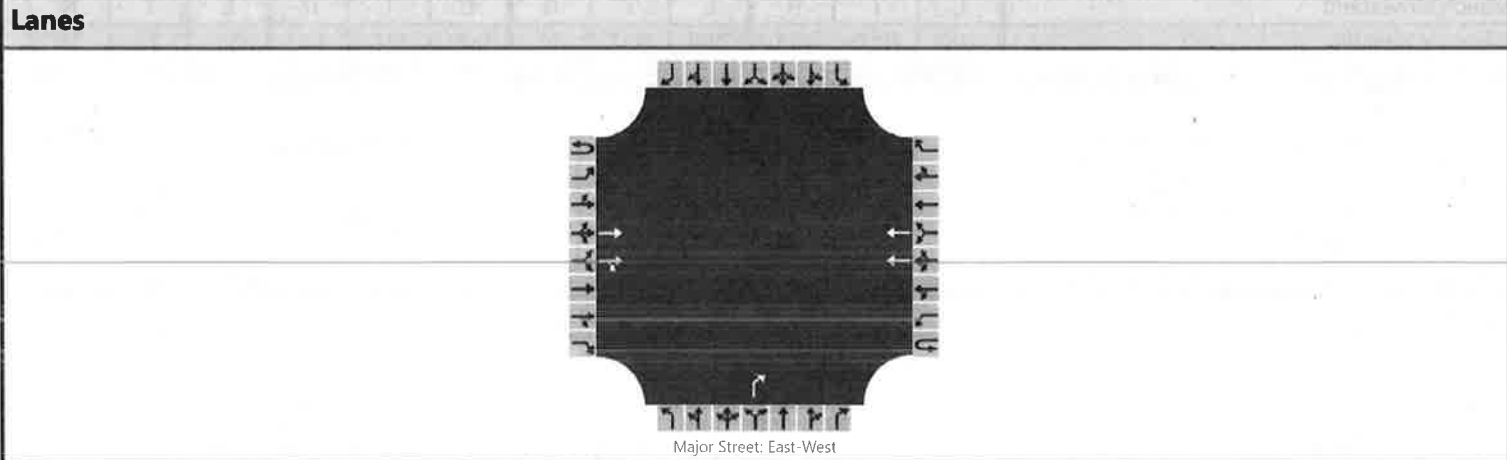
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2	1	6		8		4
Case Number	2.0	3.0	2.0	4.0		9.0		10.0
Phase Duration, s	12.4	37.0	14.6	39.1		33.8		14.3
Change Period, (Y+R _c), s	5.0	5.0	5.0	5.0		5.0		5.0
Max Allow Headway (MAH), s	3.0	3.0	3.0	3.0		3.1		3.0
Queue Clearance Time (g _s), s	7.8	27.8	9.4	16.2		26.7		6.4
Green Extension Time (g _e), s	0.0	4.2	0.2	0.0		2.1		0.0
Phase Call Probability	0.95	1.00	1.00	1.00		1.00		0.93
Max Out Probability	0.77	0.25	1.00	1.00		0.13		0.38

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (v), veh/h	105	1406	237	263	666	331	411	337	463	11	84	
Adjusted Saturation Flow Rate (s), veh/h/ln	1781	1698	1449	1730	1870	1860	1781	1812	1610	1781	1829	
Queue Service Time (g _s), s	5.8	25.8	13.2	7.4	14.2	14.2	21.2	16.2	24.7	0.5	4.4	
Cycle Queue Clearance Time (g _c), s	5.8	25.8	13.2	7.4	14.2	14.2	21.2	16.2	24.7	0.5	4.4	
Green Ratio (g/C)	0.07	0.32	0.32	0.10	0.34	0.34	0.29	0.29	0.39	0.09	0.09	
Capacity (c), veh/h	132	1634	465	332	1281	637	515	524	620	166	170	
Volume-to-Capacity Ratio (X)	0.795	0.860	0.509	0.792	0.520	0.520	0.797	0.643	0.747	0.063	0.494	
Back of Queue (Q), ft/ln (95 th percentile)	124.5	391	194.3	152.7	252.7	248.8	358.2	278.9	353.1	10.5	88.6	
Back of Queue (Q), veh/ln (95 th percentile)	4.9	15.4	7.8	6.0	9.9	10.0	14.1	11.0	14.1	0.4	3.5	
Queue Storage Ratio (RQ) (95 th percentile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Uniform Delay (d ₁), s/veh	45.4	31.7	27.5	44.0	26.2	26.2	32.7	30.9	26.4	41.2	42.9	
Incremental Delay (d ₂), s/veh	7.1	2.0	0.3	6.2	0.2	0.4	4.0	0.5	2.4	0.1	0.8	
Initial Queue Delay (d ₃), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh	52.4	33.8	27.8	50.3	26.4	26.6	36.7	31.4	28.9	41.3	43.8	
Level of Service (LOS)	D	C	C	D	C	C	D	C	C	D	D	
Approach Delay, s/veh / LOS	34.1		C	31.4		C	32.2		C	43.5		D
Intersection Delay, s/veh / LOS	33.0						C					

Multimodal Results	EB	WB	NB	SB
Pedestrian LOS Score / LOS				
Bicycle LOS Score / LOS				

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	NKL	Intersection	Iron Pt. Rd./Proj Access
Agency/Co.		Jurisdiction	Folsom, CA
Date Performed	2/6/2018	East/West Street	Iron Point Rd.
Analysis Year	PM	North/South Street	Project Access
Time Analyzed	Cumulative + Project	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Revel Folsom Senior Living		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	0	2	0		0	0	1		0	0	0
Configuration			T	TR			T					R				
Volume, V (veh/h)			1928	30			1630					26				
Percent Heavy Vehicles (%)												2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

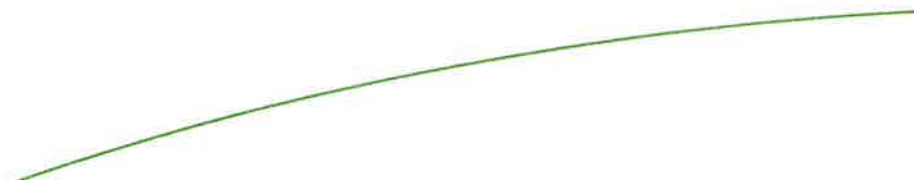
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)												28				
Capacity, c (veh/h)												219				
v/c Ratio												0.13				
95% Queue Length, Q ₉₅ (veh)												0.4				
Control Delay (s/veh)												23.9				
Level of Service, LOS												C				
Approach Delay (s/veh)													23.9			
Approach LOS													C			



Appendix G

AB 52 Consultation Memo



24 May 2018

Robert Edgerton, AICP CEP
HELIX Environmental Planning, Inc.
11 Natoma Street, Suite 155
Folsom, CA 95630

RE: Tribal Consultation Record for Compliance with Assembly Bill 52 and CEQA for the Revel Senior Living Project (Project), City of Folsom

Dear Robert:

The California Environmental Quality Act (CEQA), as amended in 2014 by Assembly Bill 52 (AB 52), requires that the City of Folsom (City) provide notice to any California Native American tribes that have requested notice of projects subject to CEQA review and consult with tribes that responded to the notice within 30 days of receipt with a request for consultation. Section 21073 of the Public Resources Code (PRC) defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes. For the City of Folsom, these include the following tribes that previously submitted general request letters, requesting such noticing:

- Wilton Rancheria (letter dated July 1, 2015 and received August 24, 2015)
- Ione Band of Miwok Indians (letter dated March 2, 2016)
- United Auburn Indian Community (UAIC) of the Auburn Rancheria (letter dated November 23, 2015)

The purpose of consultation is to identify Tribal Cultural Resources (TCRs) that may be significantly impacted by the proposed Project, and to allow the City to avoid or mitigate significant impacts prior to Project approval and implementation. Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- a) included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
- b) included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or

- c) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria A and B also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators and can only be identified by a culturally-affiliated tribe, which has been determined under State law to be the subject matter expert for TCRs.

CEQA requires that the City initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures. Therefore, in accordance with the requirements summarized above, the City carried out, or attempted to carry out, tribal consultation for the Project. The methods and results of tribal consultation are summarized below, and a copy of the complete non-confidential administrative record is provided in Attachment A.

Within 14 days of initiating CEQA review for the Project, on March 13, 2018, the City sent Project notification letters to the three California Native American tribes named above, which had previously submitted general consultation request letters pursuant to 21080.3.1(d) of the PRC. Each tribe was provided a brief description of the Project and its location, the contact information for the City's authorized representative, and a notification that the tribe has 30 days to request consultation. The 30-day response period concluded on April 14, 2018.

As a result of the initial notification letters, only one tribe responded to the opportunity to consult on the Project: the UAIC, as described below. Neither the Ione Band of Miwok Indians, nor Wilton Rancheria, responded within the 30-day response window, nor, therefore, no consultation with either tribe was required or carried out with those tribes under CEQA.

On March 26, 2018, UAIC responded to the City's letter by email, requesting consultation on the Project, copies of all existing cultural resources assessments, GIS shapefiles for the Project boundaries, payment for information about TCRs, and a UAIC tribal monitor for the Project. UAIC also provided general comments about the presence of TCRs in the vicinity of the Project area, and requested mitigation measures for the Project. However, before adopting any mitigation measures, the City engaged in consultation with UAIC in order to first determine the presence of TCRs in the Project area that could be significantly impacted. Only after such conclusions are drawn by the City through consultation can mitigation be considered under CEQA.

Therefore, on April 6, 2018, within 30 days of receiving the response, the City initiated consultation with UAIC. The City invited the tribe to a consultation meeting and Project orientation at the City offices on April 24, 2018. The City also provided an electronic copy of the cultural resources documentation and shapefiles for the Project, as requested.

On April 23, 2018, the City contacted the tribe to confirm the meeting; however, the tribe responded to say that staff failed to take note of the meeting on their calendar and asked to reschedule. The meeting was ultimately held on May 8, 2018 at the Project location. The meeting was attended by UAIC tribal archaeologist Charles Hutchinson, City Planner Steve Banks, CEQA consultant Robert Edgerton, engineer Dave Berry, the applicant's representative, Dan Nethelsotto, and tribal consultation consultant Lisa Westwood.

After a tailgate meeting to review the Project's purpose and scope, as well as a review of the cultural resources and permitting carried out to date, Mr. Hutcheson stated that the tribe's primary concern is the interface of the Project area and the drainage on its northern boundary. He performed a pedestrian survey of the entire length of the Project area along the drainage, inspecting the ground surface and topography throughout. Mr. Hutcheson stated that he did not find any indications of cultural resources or TCRs and had no concerns regarding the Project. He said that he would discuss his findings with the tribe's cultural committee, and asked that the City follow up with him later in the week to obtain written comments and closure to the consultation.

After a follow-up, on May 17, 2018, Mr. Hutcheson notified the City of its request to conclude consultation for the project, with two requested mitigation measures in place: 1) to allow UAIC to have the opportunity to visit the property once ground disturbance has commenced; and 2) to require a construction worker cultural sensitivity training regarding tribal resources. The city terminated consultation with UAIC on May 24, 2018.

After a review of the totality of information submitted by the tribe (as described above), the thresholds under PRC Section 21074(a)(1) have not been met and the project would not cause a significant adverse change in significance of a TCR. Therefore, there will be no impact to TCRs and in the event of an unanticipated discovery during Project construction, mitigation measures in the CEQA document regarding unanticipated discovery shall apply. Should the City choose to incorporate the two recommendations from UAIC above outside of the CEQA process, doing so would be an additional good faith effort to minimize impacts to TCRs that may be unearthed during project construction activities.

If you have any questions, you may reach me by phone at (916) 782-9100 or by email at LWestwood@ecorpconsulting.com.

Sincerely,



Lisa Westwood, RPA
Director of Cultural Resources

Attachment A: Non-Confidential Tribal Consultation Record

ATTACHMENT A

Non-Confidential Tribal Consultation Record

AB 52 Summary – Revel Senior Living

March 13, 2018: City mailed the initial notices to UAIC, Lone, and Wilton. The 30-day response window expired on April 13, 2018.

March 26, 2018: UAIC replied by email to accept consultation and requested copies of cultural reports, shapefiles, and a tribal monitor.

April 6, 2018: City sent the initiation of consultation letter, and scheduled a meeting with UAIC on April 24 at 10am.

April 13, 2018: the 30-day response window closed, and neither Lone nor Wilton responded.

April 17, 2018: UAIC emailed the City to acknowledge receipt of the initiation letter and said they will review the info. UAIC did not acknowledge or confirm the April 24 meeting, however.

April 23, 2018: City sent a reminder email to UAIC to confirm. UAIC replied that they didn't catch the date and didn't get it on the calendar, so they need to reschedule.

May 8, 2018: Meeting and tour were held with UAIC, the City, consultants, and applicant at the project location.

May 17, 2018: UAIC provided comments by email and requested that consultation be concluded.

May 24, 2018: City terminated consultation in writing.



Wilton Rancheria

CITY OF FOLSOM
CITY CLERK'S DEPARTMENT

9728 Kent Street
Elk Grove, CA 95624
Phone: (916) 683-6000
Facsimile: (916) 683-6015
Email: tribaloffice@wiltonrancheria-nsn.gov

2015 AUG 24 PM 1:18

July 1, 2015

City of Folsom
50 Natoma Street
Folsom, CA 95630

RE: California Environmental Quality Act Public Resources Code section 21080.3, subd. (b)
Request for Formal Notification of Proposed Projects Within the Wilton Rancheria
Tribe's Geographic Area of Traditional and Cultural Affiliation

Dear City of Folsom,

Wilton Rancheria ("Tribe") is a federally-recognized Tribe as listed in the Federal Register, Vol. 74, No. 132, p. 33468-33469, as "Wilton Rancheria of Wilton, California". The Tribe's Service Delivery Area ("SDA") as listed in the Federal Register, Vol. 78, No. 176, p. 55731, is Sacramento County. However, the Tribe's traditional and culturally affiliated territory spans from Sacramento County to portions of the surrounding Counties. The Tribe is concerned about development and projects that have potential to impact resources that are of cultural and environmental significance to the tribe. As of the date of this letter, in accordance with Public Resources Code Section 21080.3.1, subd. (b), Wilton Rancheria, which is traditionally and culturally affiliated with the geographic area within your agency's jurisdiction, requests formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq.

Pursuant to Public Resources Code section 21080.3.1, subd. (b), and until further notice, we hereby designate the following person as the tribe's lead contact person for purposes of receiving notices of proposed projects from your agency:

Steven Hutchason
Executive Director
Environmental Resources Department
9728 Kent Street
Elk Grove California, 95624
(916) 683-6000 Ext. 2006
(916) 683-6015
shutchason@wiltonrancheria-nsn.gov

We request that all notices be sent via certified U.S. Mail with return receipt and an electronic copy also be sent via email to the email address above as well as tribaloffice@wiltonrancheria-nsn.gov.

In order for your agency to be in compliance, the Tribe will request consultation, when necessary, following the receipt and review of the information your agency provides. This requirement is defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to mitigate any project impacts a specific project may cause to tribal cultural resources.

Other regulations and statutes that apply to the Wilton Rancheria Tribal Consultation include, but are not limited to:

- Senate Bill 18,
- Section 106 of the National Historic Preservation Act,
- Native American Graves Protection and Repatriation Act,
- American Indian Religious Freedom Act,
- Archaeological Resources Protection Act, and
- Executive Order 13175- Consultation and Coordination with Indian Tribal Governments: Section 5 (b) To the extent practicable and permitted by law, no agency shall promulgate any regulation that has tribal implication, that imposes substantial direct compliance costs on Indian tribal governments, and that is not required by statute, unless: (1) funds necessary to pay the direct costs incurred by the Indian tribal government or the tribe in complying with the regulation are provided by the federal government.

If you have any questions or need additional information, please contact our lead contact person listed. We look forward to establishing a successful working relationship between your agency and our Tribe.

Sincerely,



Raymond "C" Hitchcock
Chairman

CC. California Native American Heritage Commission



Ione Band of Miwok Indians

A Federally Recognized Sovereign Tribe

2 March 2016

City of Folsom
Community Development Dept.
David Miller Director
50 Natoma St.
Folsom Calif. 95630

RE: Formal Request for Tribal Consultation Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subs. (b), (d) and (e) for City of Folsom

Dear , Mr. Miller

This letter constitutes a formal request for tribal consultation for the first phase of planning under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)) for the mitigation of potential project impacts to tribal cultural and environmental resources for the above referenced project. The Ione Band of Miwok Indians requests formal notice and information for all projects within your agency's jurisdiction.

The Ione Band of Miwok Indians requests consultation on the following topics listed below, which shall be included in consultation if requested (Public Resources Code section 21080.3.2, subd. (a)):

- Alternatives to the project
- Recommended mitigation measures
- Significant effects of the project

The Ione Band of Miwok Indians also requests consultation on the following discretionary topics listed below (Public Resources Code section 21080.3.2, subd. (a)):

- Type of environmental review necessary
 - Significance of tribal cultural resources, including any regulations, policies or standards used by your agency to determine significance of tribal cultural resources
 - Significance of the project's impacts on tribal cultural resources
 - Project alternatives and/or appropriate measures for preservation or mitigation that we may recommend, including, but not limited to:
- (1) Avoidance and preservation of the resources in place, pursuant to Public Resources Code section 21084.3, including, but not limited to, planning and construction, geotechnical tests, utility location, and pedestrian surveys to avoid harming the resources (including water, endangered tribal plant resources, and endangered animal resources), and to protect the cultural and natural context, or planning greenspace, parks or other open space, to incorporate the resources with culturally appropriate protection and management criteria;



Lone Band of Miwok Indians

A Federally Recognized Sovereign Tribe

(2) Treating the resources with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resources, including but not limited to the following:

- Protecting the cultural character and integrity of the resource
- Protecting the traditional use of the resource
- Protecting the confidentiality of the resource

(3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places

(4) Protecting the resource

Additionally, the Lone Band of Miwok Indians would like to receive any cultural resources assessments or other assessments that have been completed on all or part of the project's potential "area of project effect" (APE), including, but not limited to:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response
 - Notification of whether the probability is low, moderate, or high that cultural resources are located in the APE
 - Notification if a records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE
 - Notification if a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present
2. The results of any archaeological inventory survey that was conducted, including:
 - Any report that may contain site forms, site significance, and suggested mitigation measures
 - All information regarding site locations, Native American human remains, and associated funerary objects; such information should be placed in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.



Ione Band of Miwok Indians

A Federally Recognized Sovereign Tribe

3. The results of any Sacred Lands File (SFL) check conducted through the Native American Heritage Commission. The request form can be found at <http://www.dot.ca.gov/hq/env/cultural///templates> under Compliance Document Templates. Click on the link *Sacred Lands Inventory Form* to download the pdf. USGS 7.5- minute quadrangle name, township, range, and section are required for the search.
4. Any ethnographic studies conducted for any area including all or part of the potential APE
5. Any geotechnical reports regarding all or part of the potential APE

We would like to remind your agency that CEQA Guidelines section 15126.4, subdivision (b)(3) states that preservation-in-place is the preferred manner of mitigating impacts to archaeological sites. Section 15126.4, subd. (b)(3) of the CEQA Guidelines has been interpreted by the California Court of Appeal to mean that "feasible preservation in place must be adopted to mitigate impacts to historical resources of an archaeological nature unless the lead agency determines that another form of mitigation is available and provides superior mitigation of impacts." *Madera Oversight Coalition v. County of Madera* (2011) 199 Cal.App.4th 48, disapproved on other grounds, *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439.

The Ione Band of Miwok Indians expects to begin consultation within 30 days of your receipt of this letter. Please contact the Cultural Committee of the Ione Band of Miwok Indians.

Thank you.

Sincerely,

Randy Yonemura
Cultural Committee Chair
P.O. Box 699
9252 Bush St., Suite 2
Plymouth, CA 95669
Tel. (209) 245-5800
Email: Randy_yonemura@yahoo.com



Daniel Miller

MIWOK United Auburn Indian Community
MAIDU of the Auburn Rancheria

Gene Whitehouse
Chairman

John L. Williams
Vice Chairman

Danny Rey
Secretary

Brenda Adams
Treasurer

Calvin Moman
Council Member

November 23, 2015

City of Folsom Representative
50 Natoma Street
Folsom, CA 95630

RE: AB 52 Notification Request, California Environmental Quality Act Public Resources Code section 21080.3, subd. (b) Request for Formal Notification of Proposed Projects within the United Auburn Indian Community (UAIC) of the Auburn Rancheria's Geographic Area of Traditional and Cultural Affiliation

Dear City of Folsom Representative:

In accordance with Public Resources Code Section 21080.3.1, subd. (b), The United Auburn Indian Community (UAIC) of the Auburn Rancheria, which is traditionally and culturally affiliated with a geographic area within your agency's geographic area of jurisdiction, requests formal notice of and information on proposed projects for which your agency will serve as a lead agency under the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.

Enclosed with this letter is a copy of a map that depicts the ancestral territory that the UAIC is traditionally and culturally affiliated with. UAIC's traditionally and culturally affiliated geographic area is supported by, and has been developed through, multiple lines of evidence including oral tradition, history, ethnography, geography, linguistic, kinship, biology, archaeology, anthropology, folklore, other relevant information and expert opinion, and Congressional action through the Auburn Indian Restoration Act of 1994 (H.R. 4228 [103rd]).

Pursuant to Public Resources Code section 21080.3.1, subd. (b), and until further notice, we hereby designate the following person as the tribe's lead contact person for purposes of receiving notices of proposed projects from your agency:

Lead Contact:
Gene Whitehouse,
Chairman
10720 Indian Hill Road
Auburn, CA 95603
916-883-2320

Copies to:
Jason Camp
Tribal Historic Preservation Officer
10720 Indian Hill Road
Auburn, CA 95603
(530) 883-2320
jcamp@auburnrancheria.com

Marcos Guerrero
Cultural Resources Manager
10720 Indian Hill Road
Auburn, CA 95603
(530) 883-2364
mguerrero@auburnrancheria.com

We request that all notices be sent via certified U.S. Mail with return receipt and that your notices specify a lead contact person for your agency. Following receipt and review of the information your agency provides, within the 30-day period outlined in Public Resources Code section 21080.3.1, subd. (d), the UAIC may request consultation, as defined by Public Resources Code section 21080.3.1, subd. (b), pursuant to Public Resources Code section 21080.3.2 to discuss issues including the type of environmental review to be conducted, project alternatives, significant effects of the project and mitigation measures for any project impacts (direct, indirect and cumulative) a specific project may cause to tribal cultural resources.

For your information, UAIC's policy is to be present during project cultural resource surveys, including initial pedestrian surveys, to identify tribal cultural resources. UAIC's policy is also to be provided all existing cultural resource assessments, including the request for and results of any records search that may have been conducted prior to the initial survey or consultation meeting. Finally, UAIC's general policy is preservation in place and avoidance of tribal cultural resources, and any subsurface testing or data recovery must not occur without first consulting with UAIC and receiving UAIC's written consent.

We recommend that your agency retain this correspondence in your permanent files. If you have any questions or need additional information, please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or by email at mguerrero@auburnrancheria.com.

Sincerely,



Gene Whitehouse,
Chairman

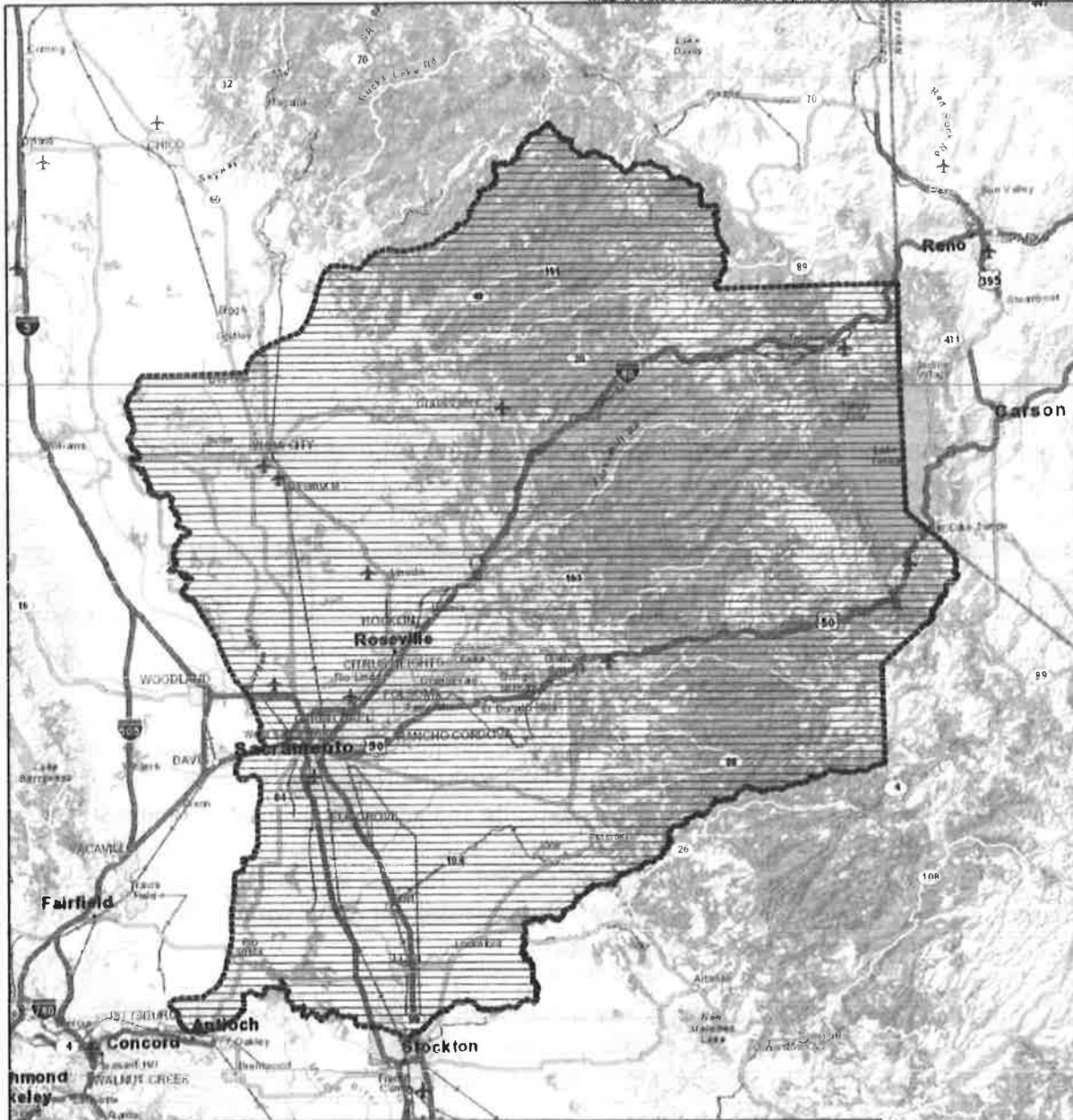
CC: Jason Camp, THPO
Marcos Guerrero, CRM
Cynthia Gomez, NAHC

UAIC Geographic Area of Traditional and Cultural Affiliation

(for the purposes of California AB 52)

This area includes all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano, and Yolo counties.

Map Created on 10/28/2015 by the UAIC Tribal Preservation Department



Legend



UAIC Geographic Area of Traditional and Cultural Affiliation*

0 5 10 20 Miles



* The UAIC Geographic Area of Traditional and Cultural Affiliation boundary line is dashed to indicate that the boundary may change as affiliated resources are discovered or added, for example Valley and Sierra Miwok territory extends farther south.

This map is no substitute for direct consultation with UAIC prior to considering any proposed project or commencing any archaeological activities in or around sensitive areas.

Note: While we make every effort to identify Tribal Cultural Resources that exist within the UAIC Geographic Area of Traditional and Cultural Affiliation, it is highly probable that there are additional, older sites that we have not yet identified due to restricted access or other reasons or that agricultural or construction activities have distributed burials and cultural materials beyond the previously known boundaries of these sites. Even if these materials are in a disturbed condition, they still retain cultural value to UAIC and should be respected and protected. Because of this, thorough survey with a qualified Native American Monitor to confirm site boundaries and search for unknown sites is critical. This survey should be conducted after consultation with the Tribe and prior to the final determination of the type of environmental document to be used.



CITY OF
FOLSOM
DISTINCTIVE BY NATURE

March 13, 2018

Randy Yonemura, Cultural Committee Chair
Ione Band of Miwok Indians
PO Box 699
Plymouth Street, Suite 2
Plymouth, CA 95669

RE: Notice of Opportunity to Consult for the Revel Senior Living Project (PN 17-368), Folsom, CA

Dear Mr. Yonemura:

The Community Development Department of the City of Folsom initiated environmental review under the California Environmental Quality Act (CEQA) for the Revel Senior Living project. The proposed project includes the construction of a new senior housing facility on a 6.02-acre parcel at the southeastern corner of the intersection of Iron Point Road and Oak Avenue Parkway in Folsom. The project proposes to develop 158,400± square feet in two, four-story residential buildings, a 22,000± square foot two-story community building, parking, underground utilities, driveways, drive aisles, sidewalks and walkways, lighting, retaining walls, and a trash/recycling enclosure. The proposed layout has been designed to preserve the existing oak grove and to fit existing topography to minimize grading and ground disturbance. A project location map and detailed project description are enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(b) of the California Public Resources Code (PRC), we are responding to your request to be notified of projects in our jurisdiction that will be reviewed under CEQA. Your name was provided to us as the point of contact for your tribe. We are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(b) of the PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this project. Please send your written response to my attention at the City of Folsom, 50 Natoma Street, Folsom, CA 95630, or by email to sbanks@folsom.ca.us. In your response, please reference the Revel Senior Living Project (PN 17-368).

Respectfully,



Steven Banks, Principal Planner
Community Development Department, City of Folsom

PROJECT DESCRIPTION

Project Location

The project site consists of a 6.02-acre parcel situated in south/central City of Folsom in northeastern Sacramento County, California (**Figure 1**). The project site is located on the south side of Iron Point Road, east of the intersection with Oak Avenue Parkway. The street address is currently unnumbered, but the parcel is identified as Assessor's Parcel Number (APN) 072-2680-011.

Project Setting and Surrounding Land Uses

The project site is currently undeveloped and is bounded by a proposed memory care community and Iron Point Road to the north, commercial and business centers to the east and west, and an undeveloped parcel containing an oak woodland and rolling hills to the south. Multi-family residential development is located north of Iron Point Road, and U.S. Highway 50 (US 50) is located approximately 440 feet south of the project site. The more regional setting is primarily characterized by built-out portions of the City to the west, north, and east, including dense commercial business centers, medium to high density residential development, and extensive undeveloped lands south of US 50. Neighboring land uses are summarized in **Table 1**.

Table 1. Neighboring Land Uses

DIRECTION	LAND USE
North	Iron Point Road, residential development, proposed memory care facility
East	Commercial/office buildings
South	Undeveloped land
West	Commercial/office buildings

The sloped site is currently undeveloped grassland with a mature oak grove. Topography of the site ranges from 290± feet to 340± feet above mean sea level (AMSL).

Project Characteristics

The proposed project includes the construction of a new senior housing facility on the 6.02-acre parcel. The community would be developed in concert with the Country House at Broadstone memory care community, a previously approved project located to the northwest. The project proposes to develop 158,400± square feet in two, four-story residential buildings and a 22,000± square foot two-story community building. The residential buildings would consist of approximately 13 studio units, 99 one bedroom units and 54 two bedroom units. Both residential buildings would feature two elevators each and would have conditioned connections to the community building. The community building would feature a commercial kitchen, dining rooms, offices, a pub/bistro, pool, van and shuttle pickup area, and various programming/activity rooms. All buildings would meet property setback line requirements.

The proposed architectural layout has been designed to preserve the existing oak grove and to fit existing topography to minimize grading. A pitched roof would serve to screen the mechanical heating, ventilation, and air conditioning (HVAC) system.

Additional proposed improvements would include parking, underground utilities, driveways, drive aisles, sidewalks and walkways, lighting, retaining walls, and a trash/recycling enclosure. The project features are summarized in **Table 2**.

Table 2. Summary of Project Features

PROJECT FEATURE	UNITS/ SPACES	SITE COVERAGE (ACRES)
Revel Folsom senior housing facility	166	1.23
Parking spaces/paved area	133	2.15
Open landscaped/hardscaped	--	2.64
Total Site Coverage	--	6.02
Source: UBORA Engineering and Planning, Inc. Site Plan (October 2017)		

Parking and Circulation

The proposed project would include a total of 133 surface parking spaces for use by staff members, visitors and residents. Parking would include 114 standard stalls, 10 compact stalls, and nine disabled parking stalls. Pedestrian access would be continuous throughout the project site. The existing sidewalk to the north of the project site, along Iron Point Road, would be extended approximately 150 feet to connect with the existing sidewalk northeast of the site.

Emergency Vehicle Access and Emergency Abatement

The driveway along the eastern project site boundary would provide emergency vehicle access for the site.

Operations

The facility would be staffed by approximately 40 full and part time employees. Staffing would be split into shifts with approximately 20 staff on-site at any given time.

Utilities

Utility stubs for water, sewer, and electricity would be installed on the project site. Seven fire hydrants are proposed along the outside parking area. Tie-ins to the existing City of Folsom (City) water and sewer lines would be installed. Sewer lines (8 inches in diameter) and water lines (12 inches in diameter) would be installed in the project site.

Lighting

The lighting design includes pole-mounted parking lot lighting, and bollard lights along the walkways on the project site. All lighting would be designed to minimize light/glare impacts to the adjacent properties by ensuring that all exterior lighting and pole-mounted parking lot and driveway lighting be shielded and directed downward. Light-emitting diode (LED) luminaires would be used for all of the proposed outdoor lighting.

Landscaping

The project applicant proposes a landscaping plan that includes a variety of new and retention of existing trees, shrubs, and groundcover. The existing oak grove would be retained, while new shade trees would be placed around the perimeter of the building and parking lot.

Fencing

Nine- to 12-foot rock retaining walls are proposed on portions of the northern and eastern property line. A 3.5-foot metal picket fence would be constructed on the eastern and northwestern property lines.

Signage

One monument sign is proposed at the main access driveway, near the eastern project site boundary.

General Plan Land Use Designation and Zoning

The project site is designated as Regional Commercial (RCC) in the City of Folsom General Plan, and the current zoning for the project site is General Commercial, Planned Development District (C-3 PD). A Planned Development Permit and Conditional Use Permit would be required for the proposed development. The Planned Development Permit would be required because the proposed project is sited within a planned development overlay zoning designation. These permits would allow the City to review the site plan and associated project site details to ensure the project meets the standards and requirements beneficial to the City and its residents as defined in Section 17.38.100 of the Zoning Code.

REQUIRED APPROVALS

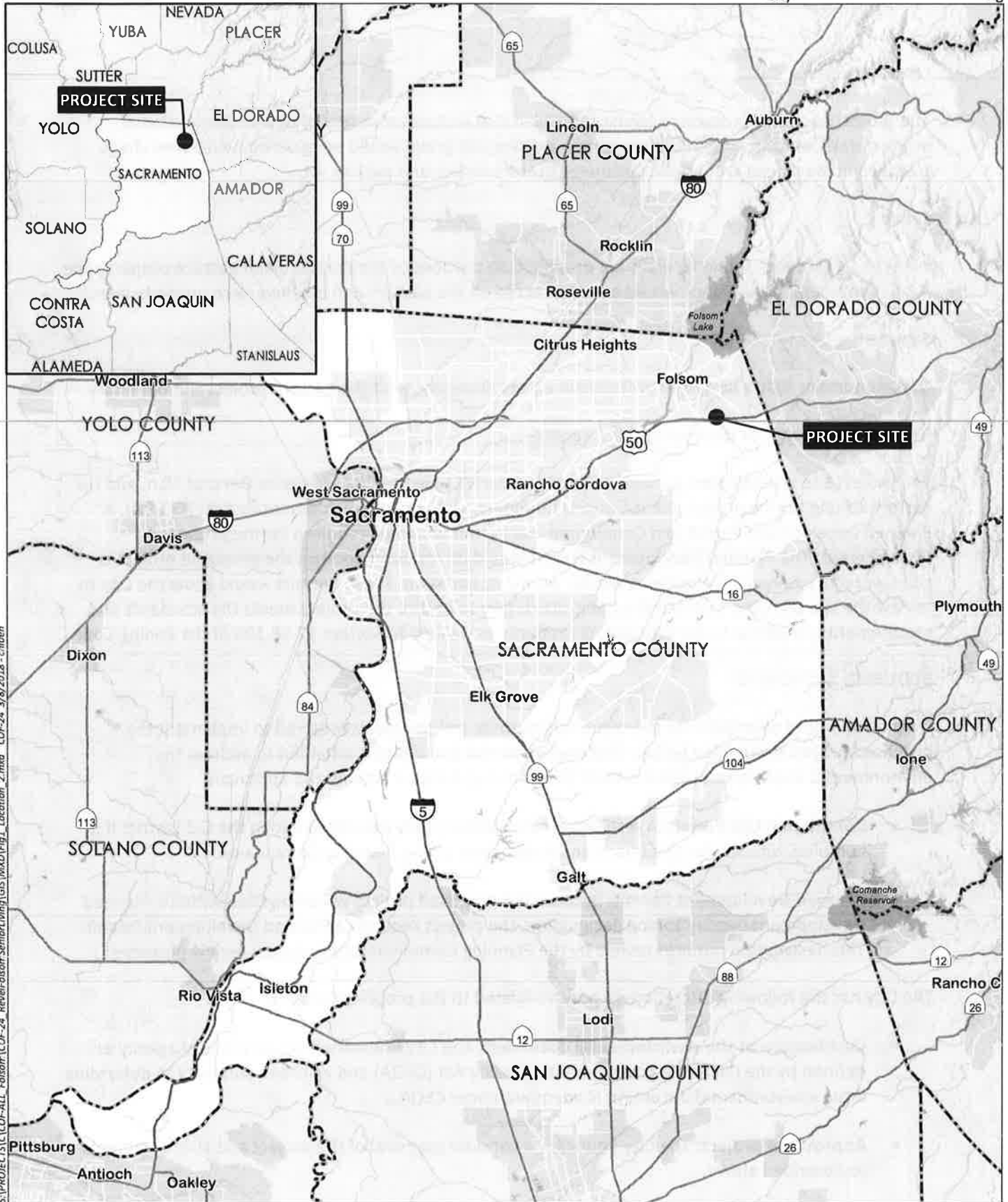
A listing and brief description of the regulatory permits and approvals required to implement the proposed project is provided below. This environmental document is intended to address the environmental impacts associated with all the following decision actions and approvals:

- **Conditional Use Permit:** A residential care facility is only permitted within the C-3 District if it complies with special conditions and is approved by the Planning Commission.
- **Planned Development Permit:** Because the proposed project would be sited within a Planned Development overlay zoning designation, the project requires a Planned Development Permit. This designation requires review by the Planning Commission from design review purposes.

The City has the following discretionary powers related to the proposed project:

- **Certification of the environmental document:** The City Council will act as the lead agency as defined by the California Environmental Quality Act (CEQA) and will have authority to determine if the environmental document is adequate under CEQA.
- **Approval of project:** The City Council will consider approval of the project and all entitlements as described above.

California Department of Fish and Wildlife consultation would be required if active nests are found for species protected by the Migratory Bird Treaty Act, as applicable.



S:\PROJECTS\COF-ALL - Folsom\COF-24 - Revel\Folsom SeniorLiving\GIS\MXD\Fig1_Location_2.mxd COF-24 3/8/2018 - chloeh

Source: Base Map Layers (Esri, USGS, NGA, NASA)

Landscaping

The project applicant proposes a landscaping plan that includes a variety of new and retention of existing trees, shrubs, and groundcover. The existing oak grove would be retained, while new shade trees would be placed around the perimeter of the building and parking lot.

Fencing

Nine- to 12-foot rock retaining walls are proposed on portions of the northern and eastern property line. A 3.5-foot metal picket fence would be constructed on the eastern and northwestern property lines.

Signage

One monument sign is proposed at the main access driveway, near the eastern project site boundary.

General Plan Land Use Designation and Zoning

The project site is designated as Regional Commercial (RCC) in the City of Folsom General Plan, and the current zoning for the project site is General Commercial, Planned Development District (C-3 PD). A Planned Development Permit and Conditional Use Permit would be required for the proposed development. The Planned Development Permit would be required because the proposed project is sited within a planned development overlay zoning designation. These permits would allow the City to review the site plan and associated project site details to ensure the project meets the standards and requirements beneficial to the City and its residents as defined in Section 17.38.100 of the Zoning Code.

REQUIRED APPROVALS

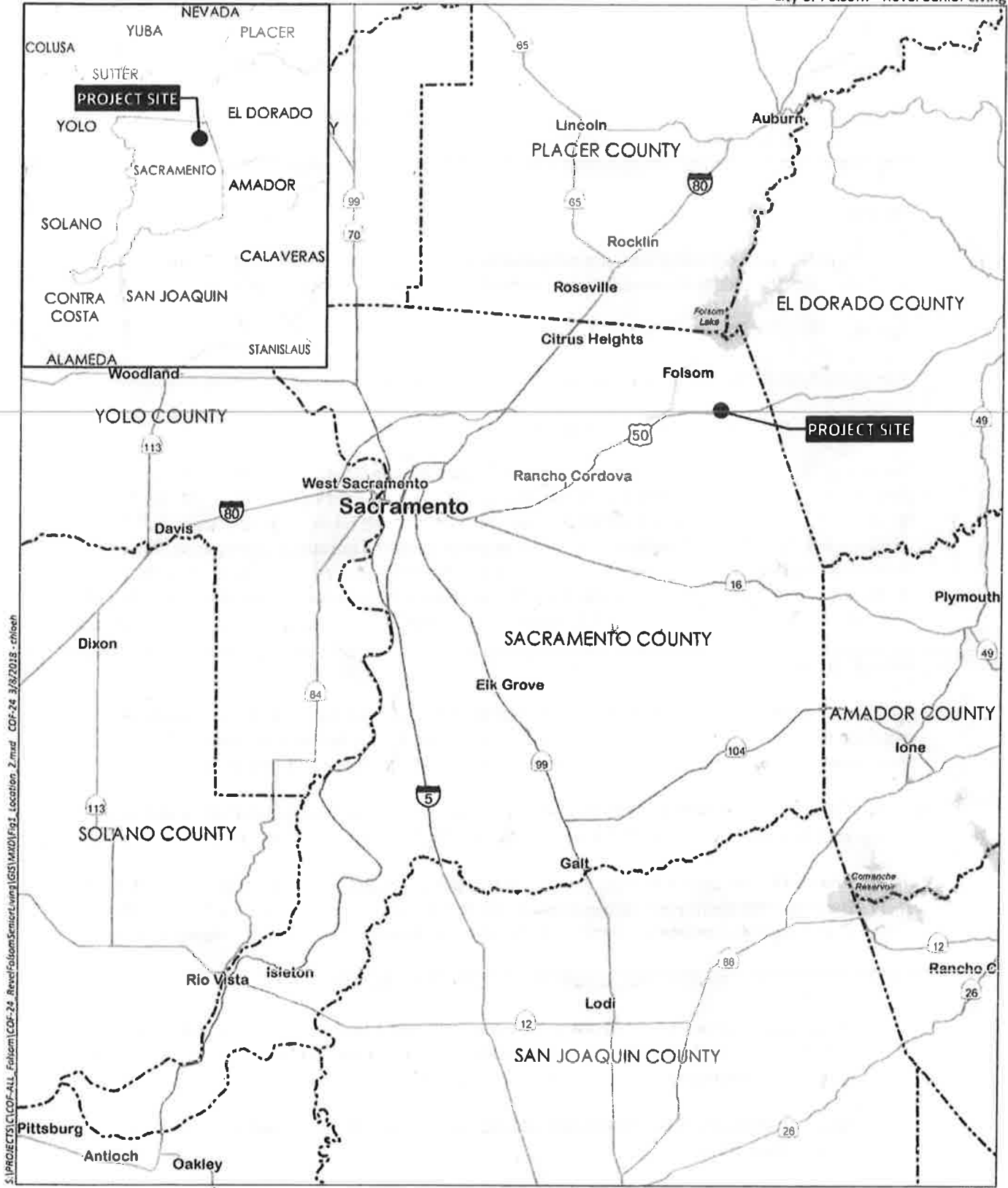
A listing and brief description of the regulatory permits and approvals required to implement the proposed project is provided below. This environmental document is intended to address the environmental impacts associated with all the following decision actions and approvals:

- **Conditional Use Permit:** A residential care facility is only permitted within the C-3 District if it complies with special conditions and is approved by the Planning Commission.
- **Planned Development Permit:** Because the proposed project would be sited within a Planned Development overlay zoning designation, the project requires a Planned Development Permit. This designation requires review by the Planning Commission from design review purposes.

The City has the following discretionary powers related to the proposed project:

- **Certification of the environmental document:** The City Council will act as the lead agency as defined by the California Environmental Quality Act (CEQA) and will have authority to determine if the environmental document is adequate under CEQA.
- **Approval of project:** The City Council will consider approval of the project and all entitlements as described above.

California Department of Fish and Wildlife consultation would be required if active nests are found for species protected by the Migratory Bird Treaty Act, as applicable.



S:\PROJECTS\CIDOF-ALL_Folsom\CIDOF-24_RevelFolsomSeniorLiving\GIS\Map01\Fig1_Location_2.mxd COF-24 3/9/2018 - chloeh

Source: Base Map Layers (Esri, USGS, NGA, NASA)



CITY OF
FOLSOM
DISTINCTIVE BY NATURE

March 13, 2018

Gene Whitehouse, Chairman
United Auburn Indian Community
10720 Indian Hill Road
Auburn, CA 95603

RE: Notice of Opportunity to Consult for the Revel Senior Living Project (PN 17-368), Folsom, CA

Dear Chairman Whitehouse:

The Community Development Department of the City of Folsom initiated environmental review under the California Environmental Quality Act (CEQA) for the Revel Senior Living project. The proposed project includes the construction of a new senior housing facility on a 6.02-acre parcel at the southeastern corner of the intersection of Iron Point Road and Oak Avenue Parkway in Folsom. The project proposes to develop 158,400± square feet in two, four-story residential buildings, a 22,000± square foot two-story community building, parking, underground utilities, driveways, drive aisles, sidewalks and walkways, lighting, retaining walls, and a trash/recycling enclosure. The proposed layout has been designed to preserve the existing oak grove and to fit existing topography to minimize grading and ground disturbance. A project location map and detailed project description are enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(b) of the California Public Resources Code (PRC), we are responding to your request to be notified of projects in our jurisdiction that will be reviewed under CEQA. Your name was provided to us as the point of contact for your tribe. We are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(b) of the PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this project. Please send your written response to my attention at the City of Folsom, 50 Natoma Street, Folsom, CA 95630, or by email to sbanks@folsom.ca.us. In your response, please reference the Revel Senior Living Project (PN 17-368).

Respectfully,

A handwritten signature in black ink, appearing to read 'S. Banks', with a large, stylized flourish at the end.

Steven Banks, Principal Planner
Community Development Department, City of Folsom

cc: Jason Camp; Marcos Guerrero



CITY OF
FOLSOM
DISTINCTIVE BY NATURE

March 13, 2018

Wilton Rancheria
Environmental Resources Department
9728 Kent Street
Elk Grove, CA 95624

RE: Notice of Opportunity to Consult for the Revel Senior Living Project (PN 17-368), Folsom, CA

Dear Mr. Hutchason:

The Community Development Department of the City of Folsom initiated environmental review under the California Environmental Quality Act (CEQA) for the Revel Senior Living project. The proposed project includes the construction of a new senior housing facility on a 6.02-acre parcel at the southeastern corner of the intersection of Iron Point Road and Oak Avenue Parkway in Folsom. The project proposes to develop 158,400± square feet in two, four-story residential buildings, a 22,000± square foot two-story community building, parking, underground utilities, driveways, drive aisles, sidewalks and walkways, lighting, retaining walls, and a trash/recycling enclosure. The proposed layout has been designed to preserve the existing oak grove and to fit existing topography to minimize grading and ground disturbance. A project location map and detailed project description are enclosed for your information.

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Respectfully,

A handwritten signature in black ink, appearing to read 'S. Banks', written over the word 'Respectfully,'.

Steven Banks, Principal Planner
Community Development Department, City of Folsom

From: [Steven Banks](#)
To: [Lisa Westwood](#)
Subject: FW: AB 52 Consultation for the Revel Senior Living Project (PN 17-368)
Date: Tuesday, April 03, 2018 11:06:56 AM

FYI

From: Cheryl Neider <cneider@auburnrancheria.com>
Sent: Monday, March 26, 2018 3:09 PM
To: Steven Banks <sbanks@folsom.ca.us>
Cc: Matthew Moore <mmoore@auburnrancheria.com>; Marcos Guerrero <mguerrero@auburnrancheria.com>; Melodi McAdams <mmcadams@auburnrancheria.com>
Subject: AB 52 Consultation for the Revel Senior Living Project (PN 17-368)

Dear Steven Banks,

Thank you for your letter received on 3/16/2018 (Revel Senior Living). I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments, as well as requests for and results of, any records searches that may have been conducted;
- GIS SHP files for the proposed project's APE;
- A UAIC Tribal Monitor for this project.

There are Tribal Cultural Resources, which are also historic resources, within the vicinity of the project area. Please be advised that UAIC's strong preference is to preserve Tribal Cultural Resources in place and avoid them when possible. In order to protect these resources, following recommendations should be incorporated into any mitigation measures that are developed for the project:

- UAIC tribal representatives should be allowed to observe and participate in all cultural resource surveys, including initial pedestrian surveys for the project.
- If tribal cultural resources are identified within the project area, tribal monitors must be present for all ground disturbing activities.
- Subsurface testing and data recovery must not occur without first consulting with UAIC and receiving UAIC's written consent.

Additional information about the nature and location of the Tribal Cultural Resources can be obtained via a Records Search Request of the UAIC Tribal Historical Resources Information System (THRIS). If you are interested in this record search, please let us know and we will provide a copy of the program description and fee schedule.

Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and we look forward to working with you to ensure that tribal cultural resources are protected. Marcos Guerrero, UAIC Cultural Resources Manager, will be UAIC's point of contact for this consultation. Please contact Mr. Guerrero by phone at (530) 883-

2364 or email at mguerrero@auburnrancheria.com to begin the consultation process.

Sincerely,
Cherilyn

Cherilyn Neider

Administrative Assistant
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

Nothing in this e-mail is intended to constitute an electronic signature for purposes of ~~the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15, U.S.C. §§ 7001 to 7006~~ or the Uniform Electronic Transactions Act of any state or the federal government unless a specific statement to the contrary is included in this e-mail.



CITY OF
FOLSOM
DISTINCTIVE BY NATURE

April 6, 2018

Gene Whitehouse, Chairman
United Auburn Indian Community
10720 Indian Hill Road
Auburn, California 95603

RE: Initiation of Consultation on the Revel Folsom Senior Living Project, Folsom, CA

Dear Chairman Whitehouse:

On March 13, 2018, the City of Folsom formally notified you of an opportunity to consult under AB 52 for the proposed Revel Folsom Senior Living Project. On March 26, 2018, we received a response from Cherilyn Neider, indicating the tribe's desire to consult with us regarding potential impacts to Tribal Cultural Resources associated with the proposed project. We look forward to consulting with the United Auburn Indian Community during this process.


In accordance with AB 52 and Section 21080.3.1(e) of the California Public Resources Code, we are hereby initiating consultation with you. We would like to invite you to a project orientation meeting on Tuesday, April 24th at 10:00 a.m. to discuss the project and determine the best way to continue consultation. The office of Planning Services is located on the second floor of the Folsom City Hall building at 50 Natoma Street in the City of Folsom. Additional contact information can be found on our website, <https://www.folsom.ca.us/>.

If you or your representatives are unable to attend, please contact me to schedule an alternate date. In addition, if you are not able to personally participate in the consultation, I respectfully request that you provide me with a written delegation of authority to those who will consult with us on your behalf.

Lastly, in her correspondence to us on March 26, Ms. Neider requested electronic copies of the existing cultural resource assessments and shapefiles of the project boundary. The City will be emailing the aforementioned files to you on Friday, April 6th.

We look forward to consulting with you. In the meantime, if you have questions, you may contact me in care of the City of Folsom, Community Development Department, 50 Natoma Street, Folsom, CA 95630. You may also reach me by email at sbanks@folsom.ca.us.

Respectfully


Steve Banks, Principal Planner
Community Development Department
City of Folsom

cc: Jason Camp; Marcos Guerrero

AB 52 Tribal Consultation Meeting Roster

Project: Revel Senior Living

Meeting Date: May 8, 2018

Meeting Time: 10:00am

Facilitator: City of Folsom, Steve Banks

Location: Project location, 2005 Iron Point Road

Name	Representing	Email Address
Lisa Westwood	ECORP	LWestwood@ecorpsolutions.com
DAVID BERRY	UBORA ENG	DAVE@UBORA.ING.COM
DAN NEWMAN	WOLFF	dnewman@wolff.com
Chuck Hoffman	WALC	chuckhoffman@walc.com
ROBERT EDGERTON	HELIX	ROBERT@HELIXEPI.COM

AGENDA

City of Folsom and United Auburn Indian Community Initial Consultation Meeting for the Revel Senior Living Project

Date: May 8, 2018

Time: 10:00 am

Location: Project area, 2005 Iron Point Road

Meeting Objective: for the City to share project information with the tribe and receive information from the tribe about potential impacts to tribal cultural resources, so that the City can make an informed decision.

Overall Goal: to make a decision about the project in a manner that is mindful of, and takes into consideration, impacts to tribal cultural resources.

Introductions

Project Orientation and Overview

- Purpose and Need for the Proposed Project
- Project Description
- Anticipated Environmental Review under CEQA
- Anticipated Project Schedule

Anticipated Efforts to Identify Cultural Resources

- Records Search and Pedestrian Survey
- Status of Documentation

Questions and Discussion

- Any Known Traditional Cultural Resources in the Proposed Project Area?
- Any Concerns from the Tribe?

Action Items

From: Charles Hutcheson
To: [Robert Edgerton](#)
Cc: [Lisa Westwood](#); "Steven Banks"; [Matthew Moore](#); [Marcos Guerrero](#); [Cherilyn Neider](#)
Subject: RE: Folsom Revel (reminder)
Date: Thursday, May 17, 2018 11:06:33 AM
Attachments: [4 Mitigation Measures CEQA Discoveries PostGroundDist SiteVisit.docx](#)
[5 Mitigation Measures CEQA Construction Worker Awareness Training.docx](#)
[Worker Awareness Brochure.pdf](#)

Robert,

Thank you for taking the time to visit the site. We would like to close consultation on this project with the following mitigation measures in place:

1. UAIC to have the opportunity to visit the site once ground disturbance has commenced,
2. Construction worker cultural sensitivity training.

I have attached UAIC's preferred language for these measures, as well as a brochure we have used in the past for sensitivity traing.

Thank you!

Sincerely,
Charles Hutcheson
Archaeologist
Tribal Historic Preservation Department
United Auburn Indian Community of the Auburn Rancheria
10720 Indian Hill Road
Auburn, CA 95603

From: Robert Edgerton [mailto:RobertE@helixepi.com]
Sent: Wednesday, May 16, 2018 1:41 PM
To: Charles Hutcheson <chutcheson@auburnrancheria.com>
Cc: Lisa Westwood (Lwestwood@ecorpconsulting.com) <Lwestwood@ecorpconsulting.com>; 'Steven Banks' <sbanks@folsom.ca.us>
Subject: RE: Folsom Revel (reminder)

Hi, Chuck –

Just thought I would check-in to see if you could (please) provide me with a status update of your pending information regarding Folsom Revel Senior Living. Thank you, Robert

From: Robert Edgerton
Sent: Thursday, May 10, 2018 10:19 AM
To: chutcheson@auburnrancheria.com
Cc: Lisa Westwood (Lwestwood@ecorpconsulting.com) <Lwestwood@ecorpconsulting.com>; Steven Banks <sbanks@folsom.ca.us>

Subject: Folsom Revel (reminder)

Hi, Chuck –

Thank you again for taking time to meet with the project team and the City earlier this week at the Folsom Revel project site. We found the meeting most informative. Please accept this email as a friendly reminder that you mentioned transmitting a request to the City for UAIC to visit the site following initial/rough grading to check soil conditions. The City is looking forward to receiving your request at your earliest convenience. Attached please find the sign-in sheet from the meeting (in case you don't already have a copy). Thank you, Robert

Robert Edgerton, AICP CEP

Principal Planner

HELIX Environmental Planning, Inc.

11 Natoma Street, Suite 155

Folsom, CA 95630

916.365.8713 tel

916.709.2302 cell

RobertE@helixepi.com

helixepi.com | [LinkedIn](#) | [Facebook](#) | [Twitter](#)

Nothing in this e-mail is intended to constitute an electronic signature for purposes of the Electronic Signatures in Global and National Commerce Act (E-Sign Act), 15, U.S.C. §§ 7001 to 7006 or the Uniform Electronic Transactions Act of any state or the federal government unless a specific statement to the contrary is included in this e-mail.

Post-Ground Disturbance Site Visit Mitigation Measure

A minimum of seven days prior to beginning earthwork or other soil disturbance activities, the applicant shall notify the CEQA lead agency representative of the proposed earthwork start-date, in order to provide the CEQA lead agency representative with time to contact the United Auburn Indian Community (UAIC). A UAIC tribal representative shall be invited to inspect the project site, including any soil piles, trenches, or other disturbed areas, within the first five days of ground breaking activity. During this inspection, a site meeting of construction personnel shall also be held in order to afford the tribal representative the opportunity to provide tribal cultural resources awareness information. If any tribal cultural resources, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains are encountered during this initial inspection or during any subsequent construction activities, work shall be suspended within 100 feet of the find, and the project applicant shall immediately notify the CEQA lead agency representative. The project applicant shall coordinate any necessary investigation of the site with a UAIC tribal representative, a qualified archaeologist approved by the City, and as part of the site investigation and resource assessment the archeologist shall consult with the UAIC and provide proper management recommendations should potential impacts to the resources be found by the CEQA lead agency representative to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the CEQA lead agency representative by the qualified archaeologist. Possible management recommendations for tribal cultural resources, historical, or unique archaeological resources could include resource avoidance or, where avoidance is infeasible in light of project design or layout or is unnecessary to avoid significant effects, preservation in place or other measures. The contractor shall implement any measures deemed by CEQA lead agency representative staff to be necessary and feasible to avoid or minimize significant effects to the cultural resources, including the use of a Native American Monitor whenever work is occurring within 100 feet of the find.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**



The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at
530-883-2394

<https://www.auburnrancheria.com/>

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603



Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.
2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archaeologist or tribal monitor of the find.
3. Under NO circumstances will any contractor or employee collect the archaeological material.
4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.
5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.
6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.





CITY OF
FOLSOM
DISTINCTIVE BY NATURE

May 24, 2018

Gene Whitehouse, Chairman
United Auburn Indian Community
10720 Indian Hill Road
Auburn, California 95603

RE: Conclusion of Consultation on the Revel Folsom Senior Living Project, Folsom, CA

Dear Chairman Whitehouse:

On March 13, 2018, the City of Folsom formally notified the United Auburn Indian Community of an opportunity to consult under AB 52 for the proposed Revel Senior Living Project. On March 26, 2018, we received an email response from the tribe, indicating the desire to consult with us regarding potential impacts to tribal cultural resources. Therefore, on April 6, 2018, we initiated consultation with you and hosted a tour of the project area with your representative on May 8, 2018. The field meeting included a discussion of the project, type of environmental review under CEQA, alternatives under consideration, avoidance areas within the project design, and the results of technical studies to date. The tribal representative was afforded an opportunity to walk the entire project location. No information about TCRs in the project area was provided to the City during the field visit.

On May 17, 2018, the tribe requested that consultation be concluded, and that the tribe have the opportunity to visit the property once ground disturbance has commenced, and requested that a construction worker awareness training be provided. After a review of the totality of information submitted by the tribe and in light of the definitions in Section 21074(a) of the Public Resources Code (PRC), the City made a determination that the proposed project will not have an impact on tribal cultural resources. Therefore, in accordance with PRC Section 21080.3.2(b)(1) of the California Public Resources Code, we hereby conclude consultation with the United Auburn Indian Community on this project. On behalf of the City, I thank you for your consultation.

Respectfully,

A handwritten signature in dark ink, appearing to read 'S. Banks', is written over a light-colored, possibly embossed or faded, signature line.

Steven Banks, Principal Planner
Community Development Department
City of Folsom

cc: Marcos Guerrero, Jason Camp



Appendix H

Mitigation Monitoring and Reporting Program



MITIGATION MONITORING AND REPORTING PROGRAM REVEL FOLSOM SENIOR LIVING COMMUNITY

Purpose of Mitigation Monitoring and Reporting Program: The California Environmental Quality Act (CEQA), Public Resources Code Section 21081.6, requires that a Mitigation Monitoring and Reporting Program (MMRP) be established upon completing findings. CEQA stipulates that “the public agency shall adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.”

This MMRP has been prepared in compliance with Section 21081.6 of CEQA to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the project, as required. A table (attached) has been prepared to assist the responsible parties in implementing the MMRP. The table identifies individual mitigation measures, monitoring/mitigation timing, the responsible person/agency for implementing the measure, and space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the Initial Study and Mitigated Negative Declaration.

The City of Folsom is the lead agency for the project under CEQA and shall administer and implement the MMRP. The City is responsible for review of all monitoring reports, enforcement actions, and document disposition. The City shall rely on information provided by the project site observers/monitors (e.g., construction manager, project manager, biologist, archaeologist, etc.) as accurate and up-to-date and shall provide personnel to field check mitigation measure status, as required.

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**MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST FOR THE
REVEL FOLSOM SENIOR LIVING COMMUNITY**

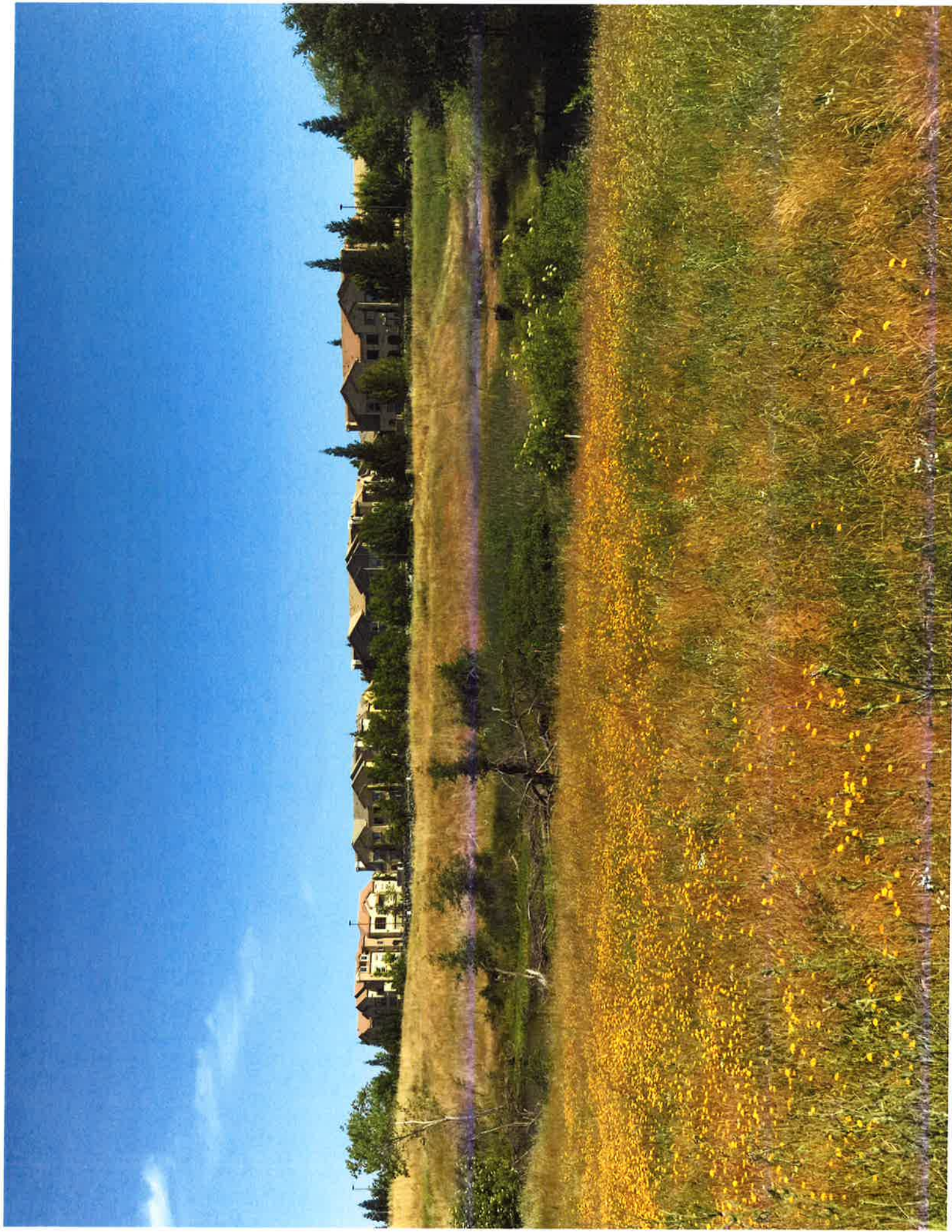
Mitigation Measure	Monitoring / Mitigation Timing	Reporting / Responsible Party	Verification of Compliance	
			Initials	Date
BIOLOGICAL RESOURCES				
<p>MM BIO-01: Avoid and minimize impacts to northwestern pond turtles.</p> <p>Within 14 days prior to start of construction activities, a qualified biologist shall conduct presence/absence surveys for northwestern pond turtle in the un-named tributary to Alder Creek within 200-feet of the project site. If no northwestern pond turtles are observed in the survey area, construction activities may proceed. If northwestern pond turtles are observed in the survey area, no construction activities may commence until an appropriate course of action is established in consultation with California Department of Fish and Wildlife (CDFW).</p>	<p>Prior to construction – this mitigation measure shall be included in all project conditions of approval and implemented 14 days prior to the start of construction activities.</p>	<p>City of Folsom; Construction Contractor</p>		
<p>MM BIO-02: Avoid and minimize impacts to nesting birds</p> <p>If construction activities occur during the typical bird nesting season (February 15 through August 31), pre-construction nesting bird surveys shall be conducted by a qualified biologist on the project site and within a 500-foot radius of proposed construction areas, where access is available, no more than 14 days prior to the initiation of construction. An additional survey shall be conducted within 48 hours prior to commencement of construction.</p> <ul style="list-style-type: none"> If no nests are found, no further mitigation is required. If active nests are identified in these areas, the City shall coordinate with CDFW to develop measures to avoid disturbance of active nests prior to the initiation of any construction activities, or construction could be delayed until the young have fledged. Avoidance measures may include establishment of a buffer zone and monitoring of the nest by a qualified biologist until the young have fledged the nest and are independent of the site. If a buffer zone is implemented, the size of the buffer zone shall be determined by a qualified biologist in coordination with CDFW and shall be appropriate for the species of bird and nest location. 	<p>Prior to construction if construction is initiated between February 15 through August 31; this measure shall be included in all project conditions of approval and implemented 14 days prior to the start of construction activities.</p>	<p>City of Folsom; Construction Contractor</p>		
<p>MM BIO-03: Avoid and Minimize Impacts to Protected Trees</p> <p>Prior to start of construction activities, a qualified biologist or arborist shall supervise the installation of orange construction fencing around the perimeter of the protected zone of</p>	<p>Prior to construction; this measure shall be included in all project conditions of approval</p>	<p>City of Folsom; Construction Contractor</p>		

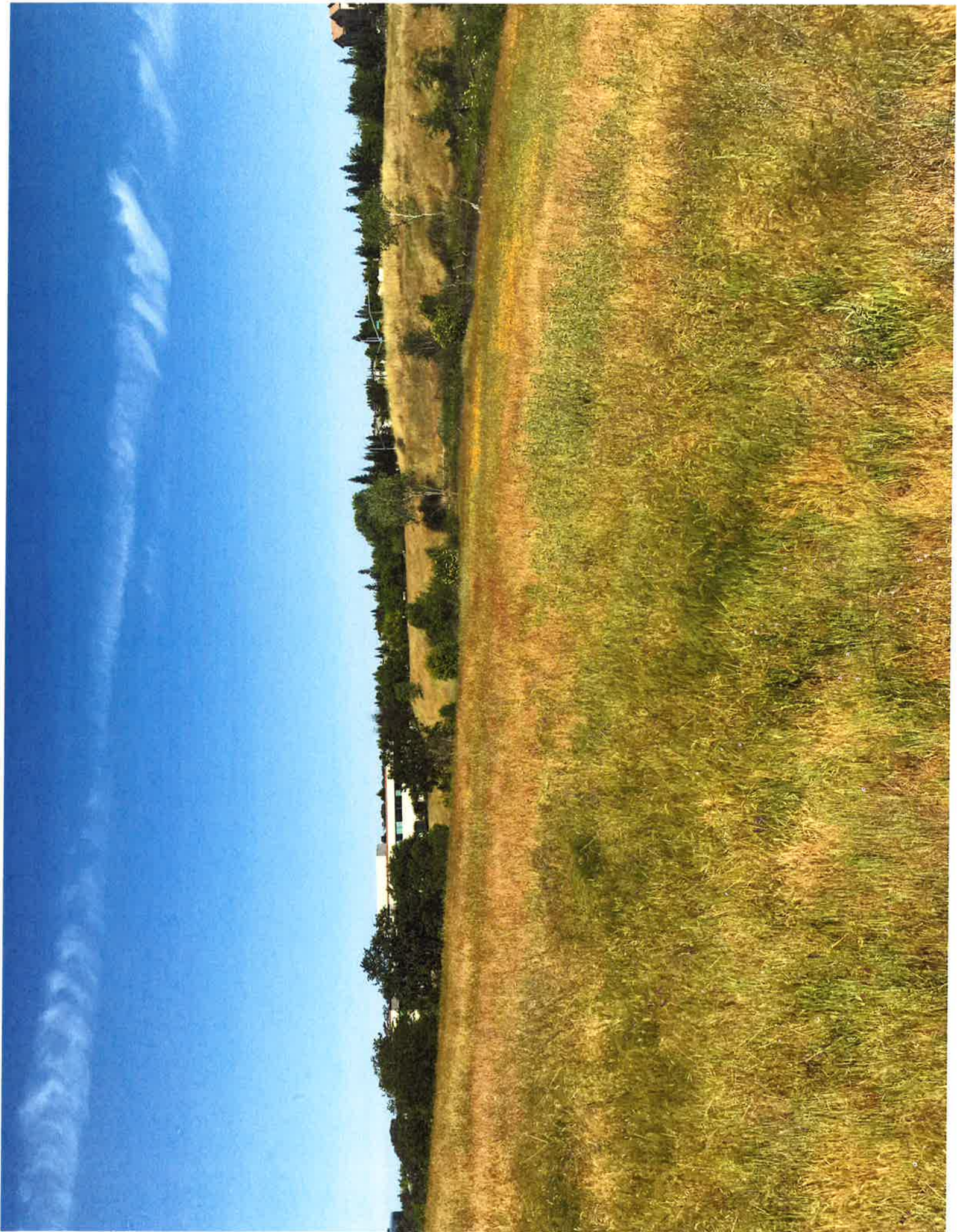
<p>all protected trees in or overhanging the project site and the fencing shall be depicted on construction plans as Environmentally Sensitive Area. All construction activities shall be excluded from the protected zones, including but not limited to parking of vehicles or equipment, storage of materials, and discharge of hazardous materials.</p>	<p>and implemented prior to the start of construction activities. Construction plans shall identify ESAs; protected zones will be maintained during construction activities.</p>		
<p>CULTURAL RESOURCES</p>			
<p>MM CUL-01: Avoid and minimize impacts to previously unknown historic resources.</p> <p>It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried historic resources. In the event that buried historic resources are discovered during construction, construction operations shall stop within a 100-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Historic resources could consist of, but are not limited to, stone, wood, or shell artifacts, structural remains, privies, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and evaluated for significance in terms of CEQA criteria.</p>	<p>Prior to and during demolition and construction – this mitigation measure shall be included in all construction documents for implementation during construction.</p>	<p>City of Folsom; Archeologist or Qualified Cultural Resource Monitor; and Construction Contractor</p>	
<p>MM CUL-02: Avoid and minimize impacts to previously unknown archaeological resources.</p> <p>It is always possible that ground-disturbing activities during demolition and construction may uncover previously unknown archaeological resources. In the event that archaeological resources are discovered during demolition or construction, construction operations shall stop within a 100-foot radius of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The archaeologist shall make recommendations concerning appropriate measures that will be implemented to protect the resources, including but not limited to, excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Archaeological resources could consist of, but are not limited to, stone, bone, wood, or shell artifacts or features, including hearths. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate Department of Parks and Recreation (DPR) 523</p>	<p>Prior to and during demolition and construction – this mitigation measure shall be included in all construction documents for implementation during construction.</p>	<p>City of Folsom; Archeologist or Qualified Cultural Resource Monitor; and Construction Contractor</p>	

<p>forms and evaluated for significance in terms of CEQA criteria.</p> <p>MM CUL-03: Avoid and minimize impacts related to accidental discovery of paleontological resources and/or human remains.</p> <p>In the event of the accidental discovery or recognition of any paleontological resources and/or human remains, CEQA Guidelines § 15064.5; Health and Safety Code § 7050.5; Public Resources Code § 5097.94 and § 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:</p> <ol style="list-style-type: none"> 1. There shall be no further excavation or disturbance within a 100-foot radius of the potentially human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98. 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendant or on the project site in a location not subject to further subsurface disturbance: <ul style="list-style-type: none"> o The NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 48 hours after being notified by the commission. o The descendant identified fails to make a recommendation. o The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner. 	<p>Prior to and during construction – this mitigation measure shall be included in all construction documents for implementation during construction.</p>	<p>City of Folsom; Archeologist and/or Qualified Cultural Resource Monitor; and Construction Contractor.</p>	
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Attachment 14
Site Photographs







PLANNING COMMISSION STAFF REPORT

PROJECT TITLE	Folsom Central Plaza Pad Buildings
PROPOSAL	Request for approval of a Planned Development Permit for development of an 800-square-foot commercial building with a drive-thru and a 5,000 square foot commercial building and a Conditional Use Permit for the operation of the drive-thru facility on a one-acre parcel within the existing Walmart-anchored “Folsom Central Plaza” shopping center.
RECOMMENDED ACTION	Approve, based upon findings and subject to conditions
OWNER/APPLICANT	Nazareth Retail Holdings/Ottolini & Associates
LOCATION	1000 Riley Street
SITE CHARACTERISTICS	The one-acre parcel on which the two buildings are proposed to be located is a part of the 13.8-acre Folsom Central Plaza Shopping Center. The site fronts on Riley Street and is bordered by Lembi Drive and Glenn Drive. The site is flat and fully developed as a shopping center, including parking, landscaping, and other features.
GENERAL PLAN DESIGNATION	Central Commercial Mixed-Use District (CCD)
ZONING	C-2 PD (Central Business, Planned Development District)
ADJACENT LAND USES/ZONING	North: Riley Street with Commercial Development (C-2 PD) Beyond South: Commercial Development (C-2 PD) with Single-Family Residential Development Beyond

East: Commercial Development (C-2 PD)
with Glenn Drive Beyond

West: Commercial Development (C-2 PD)
with Lembi Drive Beyond

PREVIOUS ACTION

Approval of a Tentative Parcel Map, Conditional Use Permit, and Planned Development Permit Modification for development of a 4,200-square-foot commercial pad building with drive-thru in 2012 (PN 12-283), Approval of a Planned Development Permit Modification for the design and color scheme of a proposed 4,200-square-foot commercial pad building with drive-thru in 2014 (PN 14-009)

FUTURE ACTION

Issuance of Grading and Building Permits

APPLICABLE CODES

FMC 17.22, Commercial Land Use Zones
FMC 17.38, Planned Development District
FMC 17.57, Parking Requirements
FMC 17.59, Signs
FMC 17.60, Use Permits

ENVIRONMENTAL REVIEW

The project is categorically exempt under Section 15332 (a) through (e) Infill Development Projects of the California Environmental Quality Act (CEQA).

ATTACHED REFERENCE MATERIAL

1. Vicinity Map
2. Preliminary Overall Site Plan, dated December 22, 2017
3. Preliminary Site Plan, dated December 22, 2017
4. Preliminary Grading and Drainage Plan, dated December 22, 2017
5. Preliminary Utility Plan, dated December 22, 2017
6. Preliminary Landscape Plan, dated December 22, 2017
7. Building Elevations, dated December 22, 2017
8. Building Renderings, dated December 22, 2017
9. Floor Plans, dated December 22, 2017
10. Transportation Impact Study, dated May 9, 2018
11. Applicant's Parking Analysis Discussion and Table, dated June 11, 2018
12. Griffin Cove Parking Memorandum, dated June 12, 2018
13. Transpo Group Traffic/Parking Analysis, December, 2015
14. CEQA Exemption Letter, dated May 19, 2018
15. Site Photographs

PROJECT PLANNER

Steve Banks, Principal Planner

BACKGROUND

The 29.7-acre retail development, commonly referred to as the Folsom Central Plaza Shopping Center, is bound by Riley Street to the north, Glenn Drive to the east, Lembi Drive to the west, and residential development to the south. The shopping center includes three large commercial buildings (Walmart, 24-Hour Fitness, 99-Cent Store) inter-mixed with three smaller multi-tenant buildings with various retail, office and restaurant tenants. The center also includes four free-standing pad buildings located adjacent to Riley Street. The Folsom Central Plaza Shopping Center includes a total of ten parcels, eight of which are owned by Nazareth Retail Holdings and two that are independently owned by Walmart and Chevron respectively.

The following is a summary of approvals to date for the entire shopping center:

- In 1990, the Planning Commission approved a Tentative Parcel Map, Planned Development Permit, Conditional Use Permit, and Sign Variance for development of the 307,935-square-foot Walmart Central shopping center. Subsequently, the buildings within the Walmart Central shopping center were constructed along with associated site improvements.
- In 2006, the Architectural Review Commission approved a Commercial Design Review application for exterior repainting of the Walmart Central shopping center (with the exception of the Walmart store and the Chevron service station).
- In 2008, the Planning Commission approved a Tentative Parcel Map and Planned Development Permit Modification for development of a 3,000-square-foot pad building within the parking lot area of the Walmart Central shopping center. Unfortunately, development of the 3,000-square-foot pad building never commenced and the entitlements expired.
- On April 21, 2010, the Planning Commission approved a Planned Development Permit Modification for development a 27,310-square-foot addition to the existing Walmart store.
- On April 20, 2011, the Planning Commission approved a Planned Development Permit Extension for development of a 27,310-square-foot addition to the existing Walmart store. Construction and site improvements associated with the Walmart expansion project were completed in November of 2012.
- On January 16, 2012, the Planning Commission approved a Tentative Parcel Map, Planned Development Permit, and Conditional Use Permit for development of a 4,200-square-foot commercial pad building with drive-thru, implementation of a new color scheme for the existing shopping center buildings, and the addition/modification of monument signs for the shopping center. The Final Parcel Map was subsequently recorded resulting in creation of the subject parcel.

- On March 19, 2014, the Planning Commission approved a Planned Development Permit Modification for the design and color scheme for the previously approved 4,200-square-foot commercial pad building with drive-thru. The aforementioned entitlements expired on March 19, 2016 with no development occurring.

APPLICANT'S PROPOSAL

The applicant, Ottolini & Associates on behalf of Nazareth Retail Holdings, is requesting approval of a Planned Development Permit and Conditional Use Permit for development of two individual pad buildings on a one-acre parcel situated within the Folsom Central Plaza Shopping Center located at 1000 Riley Street. The first proposed pad building, which is 800 square feet in size and includes a drive-thru component, will be occupied by Dutch Brothers Coffee. Dutch Bros Coffee is proposed to have a drive-thru lane with the capacity to hold approximately 17 vehicles. The second proposed pad building, which is 5,000 square feet in size, will be occupied by Big O Tires.

In addition to the two proposed retail pad buildings, the proposed project includes 20 on-site parking spaces¹ including 5 parking bay spaces located within the Big O Tire building. Additional site improvements include underground utilities, perimeter drive aisles, pedestrian walkways, site lighting, site landscaping, and a trash/recycling enclosure.

GENERAL PLAN AND ZONING CONSISTENCY

The General Plan land use designation for the project site is CCD (Community Commercial Mixed-Use District) and the zoning classification is C-2 PD (Central Business, Planned Development District). The zoning district corresponds with the General Plan land use designation. The proposed project is consistent with both the General Plan land use and zoning designations, as retail and commercial uses are identified as a permitted land use in the zoning district for this site. However, the proposed project is required to obtain approval of a Conditional Use Permit for operation of the drive-thru component associated with the 800 square foot pad building. The proposed project will not conflict with any known applicable plans or policies by agencies with jurisdiction over the project. In addition, the proposed project meets all of the development requirements set forth in the Folsom Municipal Code, (Section 17.22.050) including but not limited to building setbacks and building height.

LAND USE COMPATIBILITY/SITE CONSIDERATIONS

The proposed 5,000 square foot commercial building (for Big O Tires) and the 800 square-foot commercial building with drive-thru (for Dutch Bros Coffee) are situated on a single parcel located within the Folsom Central Plaza Shopping Center. The project site is bounded by Riley Street to the north with commercial development beyond, commercial development to the south with single-family residential development beyond, commercial development to the east with Glenn Drive beyond, and commercial development to the west with Lembi Drive beyond.

As described previously within this report, the shopping center is fully developed with commercial buildings, driveways, drive aisles, parking, site lighting, site landscaping, trash/recycling enclosures, and monument signs. The site on which the proposed new buildings are located currently consists only of parking, landscaping, and drive aisles.

¹ See detailed discussion of parking later in this report.

FMC Section 17.22.030 dictates that drive-thru facilities associated with restaurants/fast food businesses located within a Central Business, Planned Development District (C-2 PD), and not contiguous to U.S. Highway 50 or not within 1,500 feet of a freeway interchange/overcrossing, are required to obtain approval of a Conditional Use Permit from the Planning Commission. In this particular case, the applicant is requesting approval of a Conditional Use Permit to operate a coffee/beverage establishment with a drive-thru facility. In order to approve this request for a Conditional Use Permit, the Commission must find that the “establishment, maintenance, or operation of the use or building applied for will not, under the circumstances of the particular case, be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood, or to the general welfare of the City.”

In reviewing the request for a Conditional Use Permit, staff took into consideration the compatibility of the proposed land use in relation to the existing land uses in the immediate project vicinity and potential noise impacts associated with the proposed project. As described previously, the project site is located in an existing parking lot area of a fully developed retail-commercial shopping center (Folsom Central Plaza). Significant retail uses in the project area include Walmart, Kohl’s, and Walgreens. Folsom Central Plaza also includes a number of sit-down restaurant uses including Tokyo Sushi, Waffle Barn, and Dickey’s Barbeque Pit. In addition, there are a number of fast-food restaurants with drive-thru facilities located close to the project site, including McDonald’s and Wendy’s. Based on the predominance of retail commercial development (including restaurant-related uses) in project vicinity, staff’s conclusion is that the proposed coffee/beverage use with a drive-thru facility is compatible with existing surrounding land uses.

Potential noise impacts associated with the proposed project include noise generated by speakers associated with the drive-thru facility (no speakers planned at this time) and pneumatic-powered tools, driven by compressed air, which are used to remove/replace tires in the tire store bays. The proposed project would also generate new noise typically associated with automobile activities including: car engines starting, vehicles idling, opening/closing doors, honking horns, and music from car stereos.

Those land uses most sensitive to noise impacts associated with the project are single-family residential neighborhoods to the south (approximately 500 feet to the nearest residence) of the project site across Lembi Street, and the high school and middle school to the northwest (approximately 450 feet to the nearest buildings).

There is currently a significant amount of ambient noise in the vicinity of the project site, due in large part to traffic-related noise associated with Riley Street, Glenn Drive, and East Bidwell Street. Based on the existing ambient noise levels, the significant distance between the project and residential uses, and screening of the project by existing commercial buildings within the shopping center, staff has determined that automobile activity associated with the proposed project will not have a significant noise-related impact on nearby uses.

The proposed project includes drive-thru facilities located on the north side of coffee/beverage restaurant building and the east side of the proposed 5,000 square foot tire store building. As noted earlier within this section, the drive-thru location will not have any speakers or automated sound system for taking orders. All customer orders within the drive-thru lane and at the drive-thru window are taken by an employee in person. In the event that speakers or an automated audio

ordering system are installed in the future at the drive-thru location, and consistent with previous drive-thru restaurant approvals, staff recommends that the drive-thru speaker systems not emit volumes greater than 50 decibels at a distance of 25 feet, and at no time shall any speaker system be audible above daytime ambient noise levels beyond the property lines of the site. Condition No. 40 is included to reflect these requirements. Based on the factors discussed in this section, staff does not anticipate that the drive-thru facility will have a significant impact in terms of noise.

The proposed project also includes a tire store with five service bays. Compressors used to power pneumatic tools, and the tools themselves, will create intermittent noise. Based on the level of existing ambient noise, the significant distance to nearby residences and schools, the expected hours of operation (8:00 a.m. to 6:00 p.m.), and the intervening commercial structures, staff does not anticipate that the noise associated with the tire store will have a significant impact.

Development of the proposed project will include construction of a 5,000 square foot commercial building, and an 800 square-foot commercial building with drive-thru and implementation of associated site improvements. Construction activities are expected to lead to short-term noise impacts. To minimize these short-term noise impacts, staff recommends that construction hours be restricted to the hours of 7:00 a.m. to 6:00 p.m. on weekdays, 8:00 a.m. to 5:00 p.m. on Saturdays, with no Sunday or Holiday construction allowed (except interior tenant improvements). In addition, staff recommends construction equipment be muffled and shrouded to minimize noise levels. Condition No. 39 is included to reflect these requirements.

Development Standards

The Folsom Municipal Code, (Section 17.13) has established development standards for development within the Central Commercial, Planned Development District relative to rear yard building setbacks, side yard building setbacks, and maximum building height. The following table outlines the proposed development standards and the required development standards:

Folsom Central Plaza Pad Buildings Development Standards Table							
	Lot Area	Lot Width	Building Coverage	Front Yard Setback	Rear Yard Setback	Side Yard Setbacks	Building Height limit
C-2 Standard	NA	NA	NA	NA	12 feet	5 feet	50 feet
Proposed Project	0.85 Acres	200 feet	15%	45 feet	40 feet	30 feet and 55 feet	24 feet and 28 feet

In reviewing the submitted site plan and building elevations, and as shown on the development standards table above, staff has determined that the proposed project meets all of the required development standards established for the C-2 zoning district.

Traffic/Access/Circulation

Existing Roadway Network:

The subject one-acre project site in the Folsom Central Plaza Shopping Center is generally located at the southeast quadrant of the intersection of Riley Street and Lembi Drive. Access to the entire shopping center is currently provided by four driveways on Riley Street, three driveways on Glenn Drive, and two driveways on Lembi Drive. The proposed one-acre site will be accessed via two

existing driveways on Riley Street. Significant roads in the project vicinity include Riley Street, Glenn Drive, and Lembi Drive.

Traffic Impacts:

A Traffic Impact Analysis (TIA) was prepared by Traffic Works on May 9, 2018 to evaluate vehicle trip-related impacts. The traffic impact analysis evaluated traffic operations at the two shopping center driveways associated with the proposed project parcel, as well as the intersections of Riley Street/Lembi Drive and Riley Street/Glenn Drive. The analysis addressed the following scenarios: Existing Conditions, Background Conditions (including other approved, but not yet built, projects) and Background Plus Project Conditions. The proposed development is anticipated to generate 1,564 Daily trips, 135 AM peak hour trips, and 121 PM peak hour trips. The addition of project-generated traffic will not change the study intersections levels of service from the background conditions. The overall incremental delay value associated with the project traffic (2.4-4.8 seconds) is less than the City's significance criterion of 5.0 seconds/vehicle at all studied intersections. Therefore, the project's impact is considered less than significant.

Project Access and On-Site Circulation:

As noted earlier in this report, the proposed project includes development of a 5,000 square foot commercial building and an 800 square-foot commercial building with drive-thru within the parking lot area adjacent to Riley Street. Primary access to the project site is provided by two existing driveways located on Riley Street. Pedestrian access is facilitated by an existing sidewalk along Riley Street and proposed interior pedestrian walkways. The proposed project does not include modifications to any of the existing driveways that provide access to the shopping center. However, the project does propose modifications to the configuration of existing interior drive aisles, parking, and landscape medians situated within the parking lot area.

The Traffic Impact Analysis evaluated on-site traffic as it relates to possible impacts to adjacent Riley Street. The analysis found that the on-site circulation system would operate efficiently with no anticipated impact on traffic on the adjacent streets from internal queuing at the coffee/beverage drive-thru. However, staff recommends that "KEEP CLEAR" (CAMUTCD Section 3B.17) markings facing northbound traffic are placed in the area immediately in front of the drive-thru exit (south of Riley Street at the west driveway). These markings will ensure the travel ways remain clear and improve overall operations at this location. Condition No. 26 is included to reflect this requirement.

Drive-Thru Queuing:

In addition, the TIA for this project evaluated any potential queuing issues likely at the proposed coffee/beverage drive-thru and determined that the proposed stacking lane length for 17 cars is adequate to accommodate the 95th percentile peak queuing demand. The TIA includes both a theoretically calculated "confidence factor" of expected queue length and a queuing study prepared for a Dutch Brothers coffee shop in Elk Grove. The theoretical queuing calculations show that the queue length estimate from the 95 percent confidence factor is 17 vehicles, which is consistent with the proposed drive-through stacking capacity of 17 vehicles with additional throat space at the beginning of the drive-through entrance.

To further evaluate potential queuing issues associated with a Dutch Bros. coffee shop in particular, City staff reviewed the Elk Grove study for a Dutch Brothers prepared by KD Anderson & Assoc., February 16, 2016. The queuing analysis prepared for the Elk Grove Dutch Brothers compared

queuing at three existing Dutch Brothers locations in the vicinity and determined that the longest 95th percentile observed queues were 12 vehicles during the AM peak hour and 6 vehicles during the PM peak hour, with the longest queue observed at any of the three locations at 14 vehicles. As discussed previously in this staff report, the proposed Dutch Bros. would provide space to queue up to 17 vehicles without encroaching onto the internal drive aisles of the retail parking lot. The proposed drive-thru length is deemed adequate based on both studies of other sites and the theoretical distribution method calculated in the TIA.

Pedestrian Access and Circulation:

The TIA also reviewed and evaluated safe pedestrian access to/from the nearby high school and middle school campuses. Sidewalks are present on both sides of Riley Street along the project site and along the middle school and high school campus frontages. Marked pedestrian crossings are provided in both the north-south and east-west directions with all necessary equipment and fixtures required to serve the needs of pedestrians at the intersection of Riley Street and East Bidwell Street, which is a primary pedestrian access intersection to both the Sutter Middle School and the Folsom Lake High School campuses. While pedestrian access to/from the schools to the shopping center is provided with all necessary safety measures, the installation of crosswalk markings at both project driveways would improve pedestrian access to the project site and this improvement is therefore recommended. Pedestrian circulation is proposed from the sidewalk on Riley Street to Dutch Brothers via a marked crosswalk across the drive-thru exit. Pedestrians would cross immediately in front of cars already stopped at the drive-thru pick-up window. Once pedestrians have crossed onto the Dutch Brother's site, a sidewalk connection is provided directly to the tire shop office door. Crosswalks and pathways are also provided in the design to connect directly to Building 1010 to the east and southerly to the remainder of buildings within the center. Condition 27 also requires a crosswalk across the entry/exit drives, as recommended for safety in the TIA.

Parking

Development of the proposed project will result in a cumulative loss in the total number of parking spaces located within the Folsom Central Plaza Shopping Center by replacing the existing parking lot area with a combination of new buildings, drive aisles, parking, a drive-thru aisle, and site landscaping. The project site currently contains 78 parking spaces. Once the proposed buildings, landscaping, and other site improvements have been constructed, this same area will contain 20 parking spaces, resulting a net loss of 58 parking spaces. In evaluating parking associated with the proposed project, staff took into consideration existing parking within the shopping center, existing parking requirements for the shopping center, current utilization of parking spaces within the shopping center, parking demands associated with the proposed project, and the proposed project's consistency with the parking requirements of the Folsom Municipal Code.

The Folsom Central Plaza Shopping Center, which includes eight parcels owned by Nazareth Retail Holdings and one parcel owned by Walmart, includes 1,631 parking spaces (Walmart/860 parking spaces and Nazareth Retail/771 parking spaces). When the Folsom Central Plaza Shopping Center was approved in 1990, a reciprocal access and parking easement was recorded on the Parcel Map for the project. The reciprocal access and parking easement allows for the common use of all driveways, drive aisles, and parking spaces located within the shopping center.

The Folsom Central Plaza Shopping Center includes a mixture of commercial retail, restaurant, fitness, and office-related users with the most notable tenants being Walmart and 24-Hour Fitness. The applicant has provided a parking summary and table that outlines each of the existing uses

within the shopping center and their associated parking requirement (Attachment 11) per the Folsom Municipal Code (FMC Section 17.57.040). City staff validated the parking information provided by the applicant and determined that the shopping center currently has a minimum parking requirement of 1,497 parking spaces. Based on the supply of parking spaces within the shopping center (1,631 parking spaces), staff has determined that the shopping center currently has a surplus of 142 parking spaces.

In reviewing parking associated with the proposed project, City staff conducted a review of the utilization of existing parking within the Folsom Central Plaza Shopping Center. Specifically, staff evaluated parking space usage in the parking lot areas in closest proximity to the project site and under the ownership of the Nazareth Retail Group (excludes Walmart parcel). Parking space counts in the shopping center were conducted during the AM peak hour (7:00 to 9:00 a.m.), midday (12:00 to 1:00 p.m.), and PM peak hour (4:00 to 6:00 p.m.) on multiple weekdays to ensure accuracy. The results of the parking space counts indicated that the subject parking lot area is 17% utilized (133 cars/771 parking spaces) during the AM peak hour, 37% utilizing during the midday (289/771), and 40% utilized (308/771) during the PM peak hour. Based on the aforementioned information, it is apparent that the existing parking lot areas within the Folsom Central Plaza Shopping Center are currently underutilized.

The proposed project includes development of an 800-square-foot coffee store with drive thru (Dutch Bros.) and a 5,000-square-foot tire store (Big O Tires). The coffee store, which does not have any interior dining area available to the public, includes a walk-up window and three outdoor tables. The Folsom Municipal Code (FMC, Section 17.57.040) requires eating establishments that are located within a shopping center to provide one parking spaces per two hundred square feet of floor area. Based on this information, the proposed coffee store would be required to provide four parking spaces. It is important to note that approximately 80% of the customers utilized the drive-thru, whereas only 20% are customers use the walk-up window (consumer information provided by applicant).

Based on the unique site design of the proposed coffee store where there is no indoor seating provided, City staff consulted a traffic/parking study (Traffic Impact Analysis, Transpo Group, December-2015) that was performed recently for Dutch Brothers Coffee at a different location in Folsom. The aforementioned study determined that the peak parking demand for a typical Dutch Brothers Coffee store is 7 parking spaces. This parking figure represents the parking demand created by both employees and patrons. The applicant for the proposed project indicated that Dutch Brothers Coffee typically has 4-5 employees in the store at any one time. Based on this information, staff has determined that the more conservative parking estimate of 7 parking spaces should be applied to the coffee store component of the proposed project.

The proposed project also includes a 5,000-square-foot tire store. The Folsom Municipal Code does not specifically address parking requirements for tire stores and similar uses. As a result, staff consulted the Institute for Traffic Engineers Parking Generation Manual (ITE, 4th Edition, 2010) to determine what the appropriate parking requirement should be. The Parking Generation Manual indicated that an appropriate parking requirement for a tire store is one parking space per two hundred and fifty square feet of floor area. Based on this information, staff has determined that 20 parking spaces (5,000 square feet/250 square feet equal 20 parking spaces). When combining the coffee store and tire center together, the total on-site parking requirement is 27 parking spaces.

As mentioned previously, there are currently 1,631 parking spaces located within the Folsom Central Plaza Shopping Center whereas 1,489 parking spaces are required. The proposed project will result in the net loss of 58 parking spaces (78 parking spaces eliminated/20 parking spaces added), bringing the total number of available parking spaces in the shopping center down to 1,573. The proposed project is required to provide 27 on-site parking spaces, bringing the number of required parking spaces within the shopper center up to 1,516. Based on this information, staff has determined that the proposed project exceeds the parking requirements of the Folsom Municipal Code by providing 1,573 parking spaces whereas 1,516 parking spaces are required.

Site Lighting

The applicant is proposing to utilize the existing freestanding parking lot pole-lights to illuminate the proposed site. In the event that additional parking lot lighting is required following review of the site photometric plan, staff recommends that new parking lot pole-lights match the design and lighting specifications of the existing parking lot pole-lights. Condition No. 21 is included to reflect this requirement. The elevations and plans for the commercial buildings include a combination of wall-mounted lights and landscape lighting. The design and location of these elements are discussed under the architecture/design section of this report.

Signage

The applicant is proposing to utilize walls signs on each of the pad buildings respectively. The 5,000-square-foot pad building will feature two primary wall signs that read “BIG O Tires” and three secondary wall signs that read “Brakes”, “Tires”, and “Alignment”. The 800-square-foot pad building will feature two wall signs that read “Dutch Bros” and two logos that display a windmill design. The applicant has not provide specific design details (size, materials, colors, etc.) for the aforementioned wall signs with the subject application. Signage is subject to the sign criteria established for the Folsom Central Plaza Shopping Center to ensure uniformity and consistency of signage for the entire development. Staff recommends that all future signs for the project comply with the FMC and the Sign Criteria established for the Folsom Central Plaza Shopping Center. In addition, staff recommends that the applicant obtain a sign permit for all future wall signs. Condition No. 46 is included to reflect these requirements.

Grading and Drainage

The project site is currently developed with parking, drive aisles, site lighting, and landscaping, thus the project will not introduce any significant amount of new impervious surface to the project site. As part of the project, the applicant is proposing to direct storm-water runoff into the existing drainage facilities with the Folsom Central Plaza Shopping Center. Additional grading will be necessary to bring the curb grades, parking areas, and building pads to the required elevations to provide positive drainage for the site. Staff recommends the applicant provide a complete geotechnical report before the design of site and building foundations are finalized. Condition No. 12 is included to reflect this requirement.

Existing and Proposed Landscaping

The Folsom Central Plaza Shopping Center site includes a variety of landscaping along the frontage of adjacent streets as well as within landscape medians located within the parking lot area. Existing landscaping includes a variety of trees, shrubs, and groundcover. The applicant is proposing remove some existing landscaping and trees and to install additional landscape materials around the two proposed commercial buildings.

The site plan for the proposed project will require the removal of four mature parking lot trees. The preliminary landscape plans require the planting of 23 new trees around the buildings, and in the parkway and parking lot. The plans provide for a variety of trees including Crape Myrtle, London Plane, European Hackberry and Maple. The proposed landscape plan meets the City shade requirement by providing 50% shade coverage (40% required) in the parking lot area within fifteen (15) years. Staff would like to note that the preliminary landscape plan includes a tree species (London Plane) that is disease-prone and not well suited for planting within the local area. As a result, staff recommends that the final landscape plan be reviewed and approved by the Community Development Department to ensure appropriate plant and landscape materials are selected and planted. Condition No. 30 is included to reflect this requirement.

In addition to trees, the preliminary landscape plans include a wide variety of shrubs, groundcovers and vines. Some existing turf south of the sidewalk along Riley Street will be removed and replaced with groundcover. The existing turf between the Riley Street curb and the sidewalk will be protected in place. Yellow trumpet vines will be used to screen the walls of the trash enclosure.

Upon reviewing the submitted site plan, staff noted that the lights of the cars in the drive-thru will be facing oncoming (eastbound) traffic on Riley Street. The landscape plans provide for the installation of Dwarf Yedda Hawthorn shrubs and groundcover the entire length of the drive-thru lane adjacent to Riley Street. This type of shrub reaches heights of 3 to 4 feet and can be trimmed to form a hedge that can easily screen oncoming cars from the lights of the cars in the drive-thru lane.

Also potentially visible to eastbound traffic on Riley Street will be the interior of the tire shop bays. No specific plantings or walls are provided on the submitted plans to screen this view other than low to medium-height landscaping along the Dutch Brothers Coffee drive-thru. As a result, staff recommends that freestanding vines be planted between the drive-thru lane and the parking area of the tire shop to provide a "green screen". Condition No. 33 is included to reflect this requirement.

Architecture/Design

Big O Tires Building:

The applicant has presented a building design for the tire service building based on certain architectural concepts present in the existing center such as the corner pilasters set at a 45-degree angle to the corners of the building, the stone wainscoting along the bottom of the building, and the metal structures at entrances. The applicant has presented a building with horizontal and vertical relief from flat walls. The parapet conceals the roof-mounted mechanical equipment. The materials are repeated on all four sides of the building.

The use of a stone wainscoting around the base of the building will serve to tie the building in with a design scheme present on the Walmart building and the remaining buildings within the shopping center. The stone wainscoting material is "Coronado Fieldstone, Foxhill Blend," which matches the stone type present in the rest of the shopping center. This will create a common, similar theme that will unify the overall design elements of the center. The applicant has been conscientious about providing a design that presents a well-articulated and visually interesting view from the Riley frontage (northern exposure) that includes stone and clear glass windows, in addition to color variation.

The color palette for the building consists of a saturated earth-tone red “Vintage Pottery,” gray and beige tones, “Bay Warf” and “Perfect Greige,” and cream-tone beige color “Canvas Cloth.” The darker “Bay Warf” is used at the entrance to draw the eye and make finding the office door easier. The predominant color of the building above the wainscoting but below the roofline will be “Canvas Cloth” on the large flat surfaces. The vertical relief lines are “Vintage Pottery” and this color serves to frame the lighter surfaces. A line of “Perfect Greige” caps the top of the parapet wall and serves to stop the upward path of the eye. The vertical, horizontal and corner lines are planted on to the vertical surface and project out from the vertical surface approximately 5 inches to provide a shadow line and relief.

Typically, a trash enclosure is in the rear area of a project or is located in a corner or other out of the way location. In this case, the enclosure is to the right of the entrance into the new tire shop building along the newly added drive aisle facing the existing parking lot. In order to provide a more appealing façade, the applicant has proposed to screen the enclosure with vines, as described previously in the Landscaping section of this report.

Based on the aforementioned factors, staff has determined that the proposed design and color scheme of the Big O. Tires building is reasonably compatible with the design elements and color scheme utilized on the adjacent Folsom Central Plaza Shopping Center.

Dutch Bros. Coffee Building

Some design elements proposed for the coffee/beverage drive-thru building tie into the overall design of the shopping center while the color scheme is representative of the Dutch Brothers brand. The design includes a wainscoting along the base of the building made of brick “Westport Used.” Metal horizontal awnings and painted surfaces “BSX Silver Metallic” reflect the metals used on other buildings in the center. The design is flat roofed which ties into the center as opposed to many Dutch Brothers buildings that incorporate pitched rooflines. The color scheme includes “Dutch Brothers Blue” and grays, “Dutch Brothers Gray” and “Westminster Gray.”

The rectangular building mass includes a tower element in the northwest corner and a horizontal plain cutting through the building and the tower at ceiling height to create exterior shade for the patio on the south side of the building and for the drive-thru window on the north side of the building. This creates both vertical and horizontal articulation through massing and addresses the need for shade on the patio. The two side elevations and the front (west) elevation include a variety of materials and colors. Staff recommends that similar attention be paid to the rear (east) elevation that faces inward towards the tire shop building. Although this east-facing facade does include a blue parapet and brick column, the remainder of the elevation is all gray. Staff recommends that the brick wainscoting be included on this side of the building to create a base for the building similar to the other three elevations. Condition 28-5 is included to insure the wainscot is provided on all elevations.

Based on the aforementioned factors, staff has determined that the proposed Dutch Brothers building design including the modification proposed by City Staff is reasonably compatible with the massing and some of the architectural elements of the Folsom Central Plaza shopping center while the colors reflect the brand of the building’s occupant, Dutch Brothers. As a result, staff recommends approval of the applicant’s design for the two proposed buildings with the following conditions:

1. This approval is for a one-story, 800-square-foot building (Dutch Bros.) and a one-story, 5000-square foot building (Big O Tires) associated with the Folsom Central Plaza Pad Buildings project. The applicant shall submit building plans that comply with this approval.
2. The design, materials, and colors of the proposed Folsom Central Plaza Pad Buildings project shall be consistent with the submitted building elevations, materials samples, and color scheme to the satisfaction of the Community Development Department.
3. Roof-mounted mechanical equipment, including satellite dish antennas, shall not extend above the height of the parapet walls. Ground-mounted mechanical equipment shall be shielded by landscaping or trellis type features.
4. Final exterior building and site lighting plans shall be submitted for review and approval by Community Development Department for location, height, aesthetics, level of illumination, glare and trespass prior to the issuance of any building permits. Lighting shall be designed to be shielded and directed downward onto the project site and away from adjacent properties and public rights-of-way. Lighting shall be equipped with a timer or photo condenser.
5. The owner/applicant shall include brick wainscoting on the rear side of the Dutch Bros. building to create a base for the building similar to the other three elevations. This shall be reflected on the final architectural plans, which shall be submitted to the Community Development Department for review and approval.

ENERGY AND WATER CONSERVATION

To reduce impacts in terms of energy and water consumption, the proposed project is required to meet the 2014 Title 24 Building Envelope Energy Efficiency Standards. The project will be allowed to achieve this performance standard through a combination of measures to reduce energy use for heating, cooling, water heating and ventilation. Because energy use for each different system type (i.e., heating, cooling, water heating, and ventilation) as well as appliances is defined, this method will also easily allow for application of individual measures aimed at reducing the energy use of these devices in a prescriptive manner.

In an effort to address water conservation, the proposed project includes a number of measures aimed at reducing on-site water usage. The proposed project will be designed to achieve an overall water efficient landscape rating utilizing primarily low water use plant materials. The concepts of utilizing plant materials that are compatible in their water use requirements together within the same irrigation zones are to be applied with all planting and irrigation design. In addition, all proposed landscape areas will have automatically controlled irrigation systems that incorporate the use of spray, subsurface in-line emitters, and other high efficiency drip-type systems. To further ensure water conservation is being achieved, the proposed project is required to comply with all State and local rules, regulations, Governor's Declarations, and restrictions including but not limited to: Executive Order B-29-15 issued by the Governor of California on December 1, 2015 relative to water usage and conservation, requirements relative to water usage and conservation established by the State Water Resources Control Board, and water usage and conservation requirements established within the Folsom Municipal Code, (Section 13.26 Water Conservation), or amended from time to time. Condition No. 71 is included to reflect these requirements.

ENVIRONMENTAL ANALYSIS

In reviewing the submitted development application, City staff determined that the proposed project was eligible for categorical exemption under Section 15332 In-Fill Development of the California Environmental Quality Act (CEQA) Guidelines. In order to be eligible for this particular exemption, a project must satisfy five specific criteria established within Section 15332. The first criterion is that the project must be consistent with the General Plan land use designation, applicable General Plan policies, the Zoning designation, and the applicable Zoning Regulations. The second criterion is that the proposed project must be located within the City limits on a project site of no more than five acres substantially surrounded by urban uses. The third criterion states that the proposed development has no value as habitat for endangered, rare, or threatened species. The fourth criterion requires that the project would not result in any significant effects relating to traffic, noise, air quality, or water quality. The fifth criterion is that the project site can adequately be served by all required utilities and public services. Staff has determined that the proposed project satisfies each of the aforementioned criteria.

In reviewing the submitted development application, City staff also evaluated whether any of the exceptions to exemptions (location, cumulative impacts, significant effect, scenic highways, hazardous waste sites, and historic resources) identified within Section 15300.2 of the California Environmental Quality Act (CEQA) Guidelines are applicable to the proposed project. Upon review of the proposed project, staff determined that none of the exceptions in Section 15300.2 of the CEQA Guidelines apply to the use of the categorical exemption in this case.

RECOMMENDATION/PLANNING COMMISSION ACTION

MOVE TO APPROVE A PLANNED DEVELOPMENT PERMIT AND CONDITIONAL USE PERMIT FOR DEVELOPMENT OF AN 800 SQUARE FOOT COMMERCIAL BUILDING WITH A DRIVE-THRU AND A 5,000 SQUARE FOOT COMMERCIAL BUILDING ON A ONE-ACRE PARCEL AS ILLUSTRATED ON ATTACHMENT 2 WITH THE FOLLOWING FINDINGS AND CONDITIONS OF APPROVAL (NO. 1-46).

GENERAL FINDINGS

- A. NOTICE OF HEARING HAS BEEN GIVEN AT THE TIME AND IN THE MANNER REQUIRED BY STATE LAW AND CITY CODE.
- B. THE PROJECT IS CONSISTENT WITH THE GENERAL PLAN AND ZONING CODE OF THE CITY.

CEQA FINDINGS

- C. THE PROJECT IS CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW UNDER SECTION 15332 OF THE CEQA GUIDELINES, IN-FILL DEVELOPMENT PROJECTS.
- D. THE CUMULATIVE IMPACT OF SUCCESSIVE PROJECTS OF THE SAME TYPE IN THE SAME PLACE, OVER TIME IS NOT SIGNIFICANT IN THIS CASE.
- E. NO UNUSUAL CIRCUMSTANCES EXIST TO DISTINGUISH THE PROPOSED PROJECT FROM OTHERS IN THE EXEMPT CLASS.

PLANNED DEVELOPMENT PERMIT FINDINGS

- F. THE PROPOSED PROJECT COMPLIES WITH THE INTENT AND PURPOSES OF CHAPTER 17.38 (PLANNED DEVELOPMENT DISTRICT) OF THE FOLSOM MUNICIPAL CODE AND OTHER APPLICABLE ORDINANCES OF THE CITY AND THE GENERAL PLAN.
- G. THE PROPOSED PROJECT IS CONSISTENT WITH THE OBJECTIVES, POLICIES AND REQUIREMENTS OF THE DEVELOPMENT STANDARDS OF THE CITY.
- H. THE PHYSICAL, FUNCTIONAL AND VISUAL COMPATIBILITY BETWEEN THE PROPOSED PROJECT AND EXISTING AND FUTURE ADJACENT USES AND AREA CHARACTERISTICS IS ACCEPTABLE.
- I. THERE ARE AVAILABLE PUBLIC FACILITIES, INCLUDING BUT NOT LIMITED TO, WATER, SEWER AND DRAINAGE TO ALLOW FOR THE DEVELOPMENT OF THE PROJECT SITE IN A MANNER CONSISTENT WITH THIS PROPOSAL.
- J. THE PROPOSED PROJECT WILL NOT CAUSE UNACCEPTABLE VEHICULAR TRAFFIC LEVELS ON SURROUNDING ROADWAYS, AND THE PROPOSED PROJECT WILL PROVIDE ADEQUATE INTERNAL CIRCULATION, INCLUDING INGRESS AND EGRESS.
- K. THE PROPOSED PROJECT WILL NOT BE DETRIMENTAL TO THE HEALTH, SAFETY AND GENERAL WELFARE OF THE PERSONS OR PROPERTY WITHIN THE VICINITY OF THE PROJECT SITE, AND THE CITY AS A WHOLE.
- L. ADEQUATE PROVISION IS MADE FOR THE FURNISHING OF SANITATION SERVICES AND EMERGENCY PUBLIC SAFETY SERVICES TO THE DEVELOPMENT.
- M. THE PROPOSED PROJECT WILL NOT CAUSE ADVERSE ENVIRONMENTAL IMPACTS WHICH HAVE NOT BEEN MITIGATED TO AN ACCEPTABLE LEVEL.

CONDITIONAL USE PERMIT FINDING

- N. THE ESTABLISHMENT, MAINTENANCE, OR OPERATION OF THE USE OR BUILDING APPLIED FOR WILL NOT, UNDER THE CIRCUMSTANCES OF THE PARTICULAR CASE, BE DETRIMENTAL TO THE HEALTH, SAFETY, PEACE, MORALS, COMFORT AND GENERAL WELFARE OF PERSONS RESIDING OR WORKING IN THE NEIGHBORHOOD OF SUCH PROPOSED USE, OR BE DETRIMENTAL OR INJURIOUS TO PROPERTY AND IMPROVEMENTS IN THE NEIGHBORHOOD, OR TO THE GENERAL WELFARE OF THE CITY BECAUSE THE PROPOSED LAND USE WILL NOT HAVE A NEGATIVE IMPACT.

Submitted,



PAM JOHNS
Community Development Director

CONDITIONS

See attached tables of conditions for which the following legend applies.

RESPONSIBLE DEPARTMENT		WHEN REQUIRED	
CD	Community Development Department	I	Prior to approval of Improvement Plans
NS	Neighborhood Services Department	M	Prior to approval of Final Map
(P)	Planning Division	B	Prior to issuance of first Building Permit
(E)	Engineering Division	O	Prior to approval of Occupancy Permit
(B)	Building Division	G	Prior to issuance of Grading Permit
(F)	Fire Division		
PW	Public Works Department	DC	During construction
PR	Park and Recreation Department	OG	On-going requirement
PD	Police Department		

**CONDITIONS OF APPROVAL FOR FOLSOM CENTRAL PLAZA PAD BUILDINGS
 PLANNED DEVELOPMENT PERMIT AND
 CONDITIONAL USE PERMIT
 (PN 18-017)**

Mitigation Measure		When Required	Responsible Department
	GENERAL REQUIREMENTS		
1.	<p>The applicant shall submit final site development plans to the Community Development Department that shall substantially conform to the exhibits referenced below:</p> <ul style="list-style-type: none"> • Preliminary Overall Site Plan, dated December 22, 2017 • Preliminary Site Plan, dated December 22, 2017 • Preliminary Grading and Drainage Plan, dated December 22, 2017 • Preliminary Utility Plan, dated December 22, 2017 • Preliminary Landscape Plan, dated December 22, 2017 • Building Elevations, dated December 22, 2017 • Building Renderings, dated December 22, 2017 • Floor Plans, dated December 22, 2017 <p>This Conditional Use Permit, and Planned Development Permit are approved for the development of a 800-square-foot coffee/beverage commercial building with drive thru and a 5,000-square-foot commercial pad building. Modifications may be made to the above-referenced plans to respond to site-specific conditions of approval as set forth herein.</p>	B	CD (P)(E)
2.	<p>All civil engineering and landscape plans, shall be submitted to the Community Development Department for review and approval to ensure conformance with this approval and with relevant codes, policies, standards and other requirements of the City of Folsom.</p>	I, B	CD (P)(E)(B)
3.	<p>This project approval granted under this staff report shall remain in effect for two years from final date of approval (June 20, 2020). Failure to obtain the relevant permits within this time period, without the subsequent extension of this approval, shall result in the termination of this approval.</p>	B	CD (P)

**CONDITIONS OF APPROVAL FOR FOLSOM CENTRAL PLAZA PAD BUILDINGS
 PLANNED DEVELOPMENT PERMIT AND
 CONDITIONAL USE PERMIT
 (PN 18-017)**

Mitigation Measure		When Required	Responsible Department
4.	<p>The owner/applicant shall defend, indemnify, and hold harmless the City and its agents, officers and employees from any claim, action or proceeding against the City or its agents, officers or employees to attack, set aside, void, or annul any approval by the City or any of its agencies, departments, commissions, agents, officers, employees, or legislative body concerning the project. The City will promptly notify the owner/applicant of any such claim, action or proceeding, and will cooperate fully in the defense. The City may, within its unlimited discretion, participate in the defense of any such claim, action or proceeding if both of the following occur:</p> <ul style="list-style-type: none"> • The City bears its own attorney's fees and costs; and • The City defends the claim, action or proceeding in good faith <p>The owner/applicant shall not be required to pay or perform any settlement of such claim, action or proceeding unless the settlement is approved by the owner/applicant.</p>	OG	CD (P)(E), NS (B) PW, PR, FD, PD
DEVELOPMENT COSTS AND FEE REQUIREMENTS			
5.	The owner/applicant shall pay all applicable taxes, fees and charges at the rate and amount in effect at the time such taxes, fees and charges become due and payable.	I, B	CD (P)(E)
6.	If applicable, the owner/applicant shall pay off any existing assessments against the property, or file necessary segregation request and pay applicable fees.	M	CD (E)
7.	If the City utilizes the services of consultants to prepare special studies or provide specialized design review or inspection services for the project, the applicant shall reimburse the City for actual costs it incurs in utilizing these services, including administrative costs for City personnel. A deposit for these services shall be provided prior to initiating review of the Parcel Map, improvement plans, or beginning inspection, whichever is applicable.	M, I	CD (P)(E)

**CONDITIONS OF APPROVAL FOR FOLSOM CENTRAL PLAZA PAD BUILDINGS
 PLANNED DEVELOPMENT PERMIT AND
 CONDITIONAL USE PERMIT
 (PN 18-017)**

Mitigation Measure		When Required	Responsible Department
8.	This project shall be subject to all City-wide development impact fees, unless exempt by previous agreement. This project shall be subject to all City-wide development impact fees in effect at such time that a building permit is issued. These fees may include, but are not limited to, fees for fire protection, park facilities, park equipment, Quimby, Humbug-Willow Creek Parkway, Light Rail, TSM, capital facilities and traffic impacts. The fees shall be calculated at the fee rate in effect at the time of building permit issuance.	B	CD (P)(E), PW, PK
9.	The City, at its sole discretion, may utilize the services of outside legal counsel to assist in the implementation of this project, including, but not limited to, drafting, reviewing and/or revising agreements and/or other documentation for the project. If the City utilizes the services of such outside legal counsel, the applicant shall reimburse the City for all outside legal fees and costs incurred by the City for such services. The applicant may be required, at the sole discretion of the City Attorney, to submit a deposit to the City for these services prior to initiation of the services. The applicant shall be responsible for reimbursement to the City for the services regardless of whether a deposit is required.	I	CD (P) (E)
10.	The owner/applicant agrees to pay to the Folsom-Cordova Unified School District the maximum fee authorized by law for the construction and/or reconstruction of school facilities. The applicable fee shall be the fee established by the School District that is in effect at the time of the issuance of a building permit. Specifically, the owner/applicant agrees to pay any and all fees and charges and comply with any and all dedications or other requirements authorized under Section 17620 of the Education Code; Chapter 4.7 (commencing with Section 65970) of the Government Code; and Sections 65995, 65995.5 and 65995.7 of the Government Code.	B	CD (P)
11.	The project is subject to the Housing Trust Fund Ordinance, unless exempt by a previous agreement.	B	CD (P)

SITE DEVELOPMENT REQUIREMENTS

		G, B	CD (E)
12.	Prior to the issuance of any grading and/or building permit, the owner/applicant shall have a geotechnical report prepared by an appropriately licensed engineer that includes an analysis of site suitability, proposed foundation design for all proposed structures, and roadway and pavement design.		CD (E)
13.	Public and private improvements, including roadways, curbs, gutters, sidewalks, bicycle lanes and trails, streetlights, underground infrastructure and all other improvements shall be provided in accordance with the current edition of the City of Folsom <u>Standard Construction Specifications</u> and the <u>Design and Procedures Manual and Improvement Standards</u> .	M, I, B	CD (P)(E)
14.	The applicant/owner shall submit water, sewer and drainage studies to the satisfaction of the Community Development Department and provide sanitary sewer, water and storm drainage improvements with corresponding easements, as necessary, in accordance with these studies and the current edition of the City of Folsom <u>Standard Construction Specifications</u> and the <u>Design and Procedures Manual and Improvement Standards</u> .	I	CD (E)
15.	The public improvements including the frontage landscaping and irrigation along Riley Street shall be completed to the satisfaction of the Community Development Department prior to issuance of a Certificate of Occupancy for the project.	I	CD (E)
16.	The on-site water and sewer systems for the project shall be privately owned and maintained. The fire protection system shall be separate from the domestic water system. The fire system shall be constructed to meet the National Fire Protection Association Standard 24. The domestic water and irrigation system shall be metered per City of Folsom <u>Standard Construction Specifications</u> .	I	CD (E)
17.	The owner/applicant shall be responsible for replacing any and all damaged or hazardous public sidewalk, curb and gutter, and/or bicycle trail facilities along the site frontage and/or boundaries, including pre-existing conditions and construction damage, to the satisfaction of the Community Development Department.	O	CD (E)
18.	For any improvements constructed on private property that is not under ownership or control of the owner/applicant, a right-of-entry, and if necessary, a permanent easement shall be obtained and provided to the City prior to issuance of a grading permit and/or approval of improvement plans.	G, I	CD (E)
19.	Final location, size, and orientation of trash/recycling enclosures shall be approved by the Community Development Department.	I	CD (P)(E)

20.	The owner/applicant shall coordinate the planning, development and completion of this project with the various utility agencies (i.e., SMUD, PG&E, etc.).	I	CD (P)(E)
21.	Final exterior building and site lighting plans shall be submitted for review and approval by Community Development Department for location, height, aesthetics, level of illumination (photometrics), glare and trespass prior to the issuance of any building permits. Lighting shall be designed to be shielded and directed downward onto the project site and away from adjacent properties and public rights-of-way. Lighting shall be equipped with a timer or photo condenser. In addition, pole-mounted parking lot lights shall utilize a low-intensity, energy efficient lighting method and be no more than 20 feet in height.	I, B	CD (P)
STORM WATER POLLUTION/CLEAN WATER ACT REQUIREMENTS			
22.	The owner/applicant shall be responsible for litter control and sweeping of all paved surfaces in accordance with City standards. All on-site storm drains shall be cleaned immediately before the commencement of the rainy season (October 15).	G, I, B	CD (E)
23.	The storm drain improvement plans shall provide for “Best Management Practices” that meet the requirements of the water quality standards of the City’s National Pollutant Discharge Elimination System Permit issued by the State Regional Water Quality Control Board.	G, I, B, O	CD (E)
24.	Erosion and sedimentation control measures shall be incorporated into construction plans. These measures shall conform to the City of Folsom requirements and the County of Sacramento <i>Erosion and Sedimentation Control Standards and Specifications</i> -current edition and as directed by the Community Development Department.	G, I	CD (E)
PARKING AND CIRCULATION REQUIREMENTS			
25.	The owner/applicant shall provide a minimum of 20 parking spaces (includes 5 parking spaces located in the Big O Tire tire bay area) in the area included in this approval, per the approved site plan.	I, B	CD (E)
26.	To assure there are no project traffic impacts on adjacent streets from internal queuing, the owner/applicant shall provide “KEEP CLEAR” (CAMUTCD Section 3B.17) markings facing northbound traffic in the area immediately in front of the drive-thru exit (south of Riley Street at the west driveway). These markings will ensure the travel ways remain clear and improve overall operations at this location.	I, B	CD (E)
27.	To provide safe pedestrian access to/from the schools to the shopping center the owner/applicant shall install crosswalk markings at both project driveways on Riley Street.	I, B	CD (E)

ARCHITECTURE/DESIGN REQUIREMENTS

28.		<p>The project shall comply with the following architecture and design requirements:</p> <ol style="list-style-type: none"> 1. This approval is for a one-story, 800-square-foot building (Dutch Bros.) and a one-story, 5000-square foot building (Big O Tires) associated with the Folsom Central Plaza Pad Buildings project. The applicant shall submit building plans that comply with this approval. 2. The design, materials, and colors of the proposed Folsom Central Plaza Pad Buildings project shall be consistent with the submitted building elevations, materials samples, and color scheme to the satisfaction of the Community Development Department. 3. Roof-mounted mechanical equipment, including satellite dish antennas, shall not extend above the height of the parapet walls. Ground-mounted mechanical equipment shall be shielded by landscaping or trellis type features. 4. Final exterior building and site lighting plans shall be submitted for review and approval by Community Development Department for location, height, aesthetics, level of illumination, glare and trespass prior to the issuance of any building permits. Lighting shall be designed to be shielded and directed downward onto the project site and away from adjacent properties and public rights-of-way. Lighting shall be equipped with a timer or photo condenser. 5. The owner/applicant shall include brick wainscoting on the rear side of the Dutch Bros. building to create a base for the building similar to the other three elevations. This shall be reflected on the final architectural plans which shall be submitted to the Community Development Department for review and approval. 	B	CD (P)(E)
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LANDSCAPE/LIGHTING REQUIREMENTS

29.		<p>The owner/applicant shall be responsible for on-site landscape maintenance throughout the life of the project to the satisfaction of the Community Development Department. Vegetation or planting shall not be less than that depicted on the final landscape plan, unless tree removal is approved by the Community Development Department because the spacing between trees will be too close on center as they mature.</p>	B	CD (P)(E)
30.		<p>Final landscape plans and specifications for site development shall be prepared by a registered landscape architect and approved by the City Arborist or City staff prior to the approval of improvement plans. Said plans shall include all on-site landscape specifications and details. Landscaping of the parking area shall meet shade requirements as outlined in the <u>Folsom Municipal Code Chapter 17.57</u>. The landscape plans shall comply and implement water efficient requirements as adopted by the State of California (Assembly Bill 1881) until such time the City of Folsom adopts its own Water Efficient Landscape Ordinance. Shade and ornamental trees shall be maintained according to the most current American National Standards for Tree Care Operations (ANSI A-300) by qualified tree care professionals. Tree topping for height reduction, sign visibility, light clearance or any other purpose shall not be allowed. Specialty-style pruning, such as pollarding, shall be specified within the approved landscape plans and shall be implemented during a 5-year establishment and training period.</p>	I	CD(P)(E)
31.		<p>Any new pole-mounted parking lot lights shall match the design and lighting specifications of the existing pole-mounted parking lot lights. (See also COA #21)</p>	I, B	CD (P)(E)
32.		<p>Future lighting details including but not limited to wall-mounted lighting and landscape lighting be subject to review and approval by the Planning Commission as part of the future Planned Development Permit Modification.</p>	I, B	CD (P)(E)
33.		<p>The owner/applicant shall install free-standing vines planted between the drive-thru lane and the parking area of the tire shop to provide a "green screen". Final plans shall be subject to review and approval by the Community Development Department.</p>	I	CD(P)(E)

AIR QUALITY REQUIREMENT

34.		In compliance with Rule 201 of the Sacramento Metropolitan Air Quality Management District (SMAQMD), the applicant/developer shall verify with SMAQMD if a permit is required before equipment capable of releasing emissions to the atmosphere are used at the project site. The applicant/developer shall comply with the approved permit or provide evidence that a permit is not required.	I, B	CD (P)(E) NS (B)
35.		In compliance with Rule 442 of the Sacramento Metropolitan Air Quality Management District (SMAQMD), the applicant/developer shall use architectural coatings that that comply with the volatile organic compound content limits specified in the general rule.	I, B	CD (P)(E) NS (B)
36.		Dust generated on the project site shall be controlled by selective watering of exposed areas, especially during clearing and grading operations. All unpaved areas of the project site that are being graded, excavated or used as construction haul roadways shall be sprayed with water as often as is necessary to assure that fugitive dust does not impact nearby properties. Stockpiles of soil or other fine materials being left for periods in excess of one day during site construction shall be sprayed and track walked after stockpiling is complete.	I, B	CD (P)(E) NS (B)
37.		Paving shall be completed as soon as is practicable to reduce the time that bare surfaces and soils are exposed. In areas where construction is delayed for an extended period of time, the ground shall be revegetated to minimize the generation of dust.	I, B	CD (P)(E) NS (B)
38.		Street sweeping shall be conducted to control dust and dirt tracked from the project site onto any of the surrounding roadways. Construction equipment access shall be restricted to defined entry and exit points to control the amount of soil deposition.	I, B	CD (P)(E) NS (B)
NOISE REQUIREMENTS				
39.		Compliance with Noise Control Ordinance and General Plan Noise Element shall be required. Hours of construction operation shall be limited from 7:00 a.m. to 6:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays with no Sunday or Holiday construction allowed (except interior tenant improvements). Construction equipment shall be muffled and shrouded to minimize noise levels.	G, I, B	CD (P)(E)
40.		In the event that speakers or an automated audio ordering system are installed in the future at the drive-thru location, the drive-thru speaker systems shall not emit volumes greater than 50 decibels at a distance of 25 feet, and at no time shall any speaker system be audible above daytime ambient noise levels beyond the property lines of the site.	OG	CD (P)

GRADING REQUIREMENTS

41.	The owner/applicant shall locate and remediate all antiquated mine shafts, drifts, open cuts, tunnels and water conveyance or impoundment structures existing on the project site, with specific recommendations for the sealing, filling or removal of each that meet all applicable health, safety, and engineering standards. Recommendations shall be prepared by an appropriately licensed engineer or geologist. All remedial plans shall be reviewed and approved by the City.	G, I	CD (E)
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CULTURAL RESOURCE REQUIREMENT

42.	If any archaeological, cultural, or historical resources or artifacts, or other features are discovered during the course of construction anywhere on the project site, work shall be suspended in that location until a qualified professional archaeologist assesses the significance of the discovery and provides consultation with the Folsom Historical Society, City staff, and the Historic Preservation League. Appropriate mitigation as recommended by the archaeologist and the Historical Society representative shall be implemented. If agreement cannot be met, the Planning Commission shall determine the appropriate implementation method.	G, I	CD (E)
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OTHER AGENCY REQUIREMENT

43.	The owner/applicant shall obtain all required State and Federal permits and provide evidence that said permits have been obtained, or that the permit is not required, subject to staff review and approval of any grading or improvement plan.	G, I	CD (P)(E)
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FIRE DEPARTMENT REQUIREMENTS

44.	Prior to the issuance of any improvement plans, the Community Development and Fire Departments shall review and approve all detailed design plans for accessibility of emergency fire equipment, fire hydrant flow location, and other construction features.	I, B	FD
45.	The building shall have illuminated addresses visible from the street or drive fronting the property. Size and location of address identification shall be reviewed and improved by the Fire Marshal.	I	FD

MISCELLANEOUS REQUIREMENTS

46.	All future signs for the project comply with the <u>FMC</u> and the Sign Criteria established for the Folsom Central Plaza Shopping Center. In addition, the owner/applicant shall obtain a sign permit for all future wall signs.	B	CD (B)
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Attachment 1

Vicinity Map

Vicinity Map



FOLSOM



Attachment 2

Preliminary Overall Site Plan, dated December 22, 2017

Attachment 3

Preliminary Site Plan, dated December 22, 2017



**OTTOLINI
&
ASSOCIATES
ARCHITECTS**

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RANCHO CORDOVA, CA 95670
916.852.8313 phone
916.852.8941 fax

PROJECT FILE

WALMART CENTRAL

1000 RILEY STREET
FOLSOM, CA 95630

CONSULTANT

SHEET TITLE

SITE PLAN

ISSUE REVISIONS	
NO.	DATE
1	10/15/11
2	11/15/11
3	12/15/11
4	01/15/12
5	02/15/12
6	03/15/12
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Attachment 4

**Preliminary Grading and Drainage Plan
Dated December 22, 2017**

Attachment 5

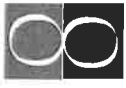
Preliminary Utility Plan, dated December 22, 2017

Attachment 6

Preliminary Landscape Plan, dated December 22, 2017

Attachment 7

Building Elevations, dated December 22, 2017



OTTOLINI & ASSOCIATES ARCHITECTS
 3035 Prospect Park Drive Suite 190
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 916 852-8313 phone
 916 852-8941 fax

PROJECT TITLE

WALMART CENTRAL

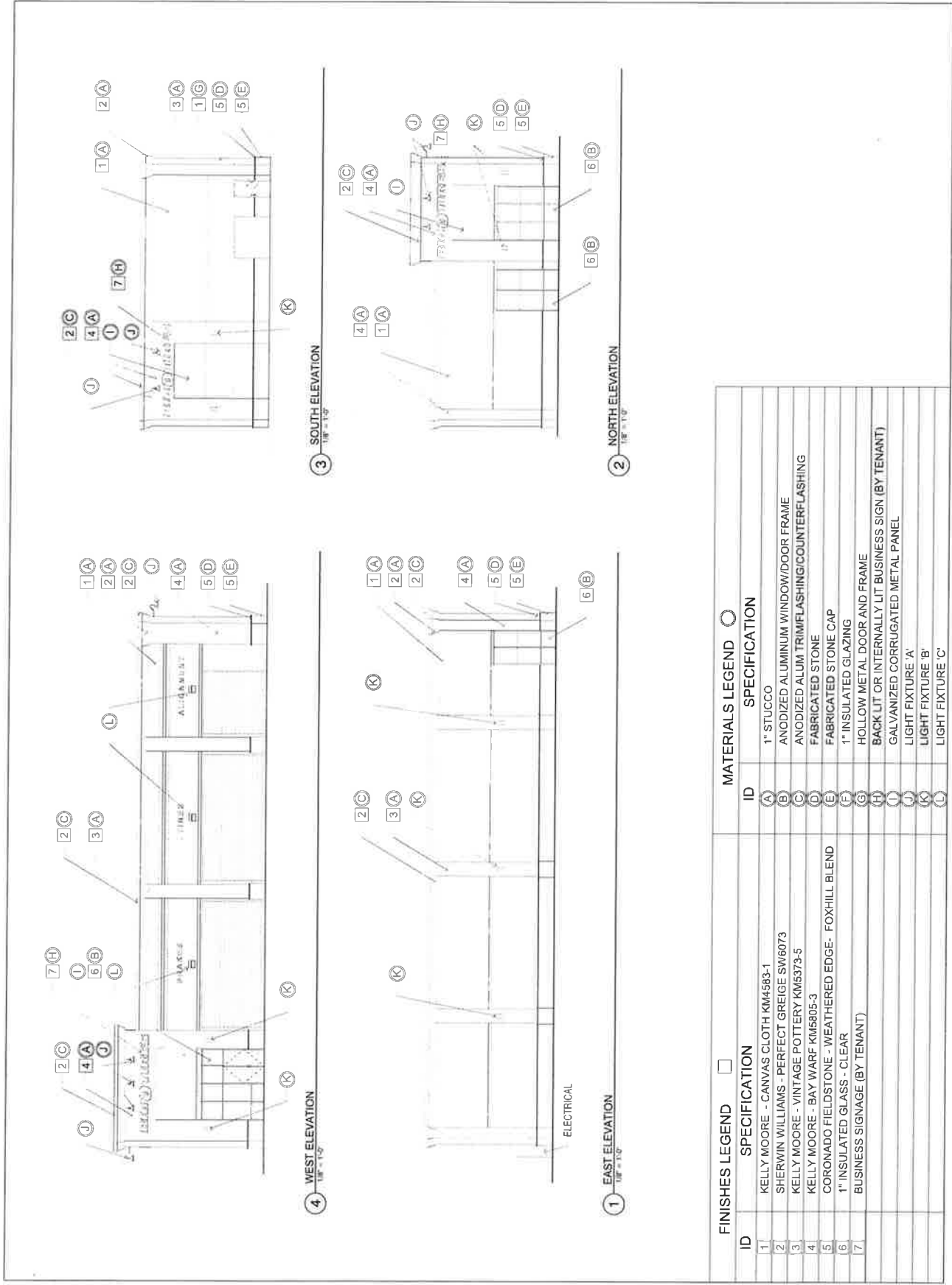
1000 RILEY STREET
 FOLSOM, CA 95650

CONTRACT NO.

SHEET TITLE
BIG O TIRES ELEVATIONS BUILDING 'A'

DATE	DESCRIPTION	BY	CHK'D BY

PROJECT NUMBER
 SHEET NUMBER
A-4.1



FINISHES LEGEND		MATERIALS LEGEND	
ID	SPECIFICATION	ID	SPECIFICATION
1	KELLY MOORE - CANVAS CLOTH KM4583-1	A	1" STUCCO
2	SHERWIN WILLIAMS - PERFECT GREIGE SW6073	B	ANODIZED ALUMINUM WINDOW/DOOR FRAME
3	KELLY MOORE - VINTAGE POTTERY KM5373-5	C	ANODIZED ALUM TRIMFLASHING/COUNTERFLASHING
4	KELLY MOORE - BAY WARF KM5805-3	D	FABRICATED STONE
5	CORONADO FIELDSTONE - WEATHERED EDGE- FOXHILL BLEND	E	FABRICATED STONE CAP
6	1" INSULATED GLASS - CLEAR	F	1" INSULATED GLAZING
7	BUSINESS SIGNAGE (BY TENANT)	G	HOLLOW METAL DOOR AND FRAME
		H	BACK LIT OR INTERNALLY LIT BUSINESS SIGN (BY TENANT)
		I	GALVANIZED CORRUGATED METAL PANEL
		J	LIGHT FIXTURE 'A'
		K	LIGHT FIXTURE 'B'
		L	LIGHT FIXTURE 'C'



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PROJECT TITLE

WALMART CENTRAL

1000 RILEY STREET
 FOLSOM, CA 95650

DATE: 08/11/11

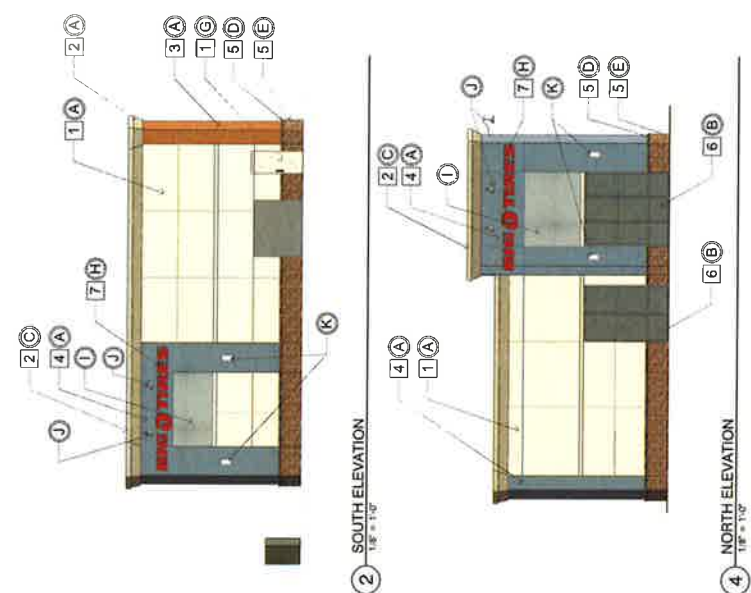
SHEET TITLE
BIG O TIRES ELEVATIONS - COLOR BUILDING 'A'

ISSUE REVISIONS

NO.	DATE	DESCRIPTION

PROJECT NUMBER
 SHEET NUMBER

A-4.2



FINISHES LEGEND		MATERIALS LEGEND	
ID	SPECIFICATION	ID	SPECIFICATION
1	KELLY MOORE - CANVAS CLOTH KM4583-1	(A)	1" STUCCO
2	SHERWIN WILLIAMS - PERFECT GREIGE SW6073	(B)	ANODIZED ALUMINUM WINDOW/DOOR FRAME
3	KELLY MOORE - VINTAGE POTTERY KM5373-5	(C)	ANODIZED ALUM TRIM/FLASHING/COUNTERFLASHING
4	KELLY MOORE - BAY WARE KM5805-3	(D)	FABRICATED STONE
5	CORONADO FIELDSTONE - WEATHERED EDGE- FOXHILL BLEND	(E)	FABRICATED STONE CAP
6	1" INSULATED GLASS - CLEAR	(F)	1" INSULATED GLAZING
7	BUSINESS SIGNAGE (BY TENANT)	(G)	HOLLOW METAL DOOR AND FRAME
		(H)	BACK LIT OR INTERNALLY LIT BUSINESS SIGN (BY TENANT)
		(I)	GALVANIZED CORRUGATED METAL PANEL
		(J)	LIGHT FIXTURE 'A'
		(K)	LIGHT FIXTURE 'B'
		(L)	LIGHT FIXTURE 'C'



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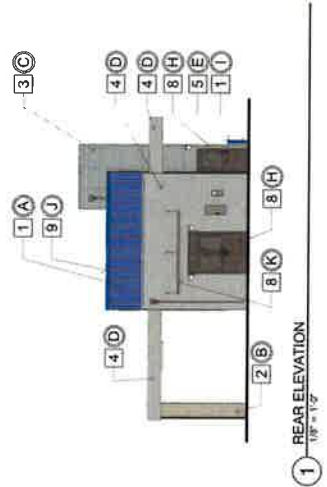
WALMART CENTRAL
 1000 RILEY STREET
 FOLSOM, CA 95690
 CONSULTANT

SHEET TITLE
DUTCH BROS. ELEVATIONS - COLOR BUILDING 'B'

NO.	DATE	DESCRIPTION	BY	CHECKED
1	01/11/2017	ISSUE FOR PERMITS	MM	MM
2	01/11/2017	ISSUE FOR PERMITS	MM	MM
3	01/11/2017	ISSUE FOR PERMITS	MM	MM
4	01/11/2017	ISSUE FOR PERMITS	MM	MM
5	01/11/2017	ISSUE FOR PERMITS	MM	MM
6	01/11/2017	ISSUE FOR PERMITS	MM	MM
7	01/11/2017	ISSUE FOR PERMITS	MM	MM
8	01/11/2017	ISSUE FOR PERMITS	MM	MM
9	01/11/2017	ISSUE FOR PERMITS	MM	MM
10	01/11/2017	ISSUE FOR PERMITS	MM	MM

NOT TO SCALE
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 ALL MATERIALS ARE TO BE SUPPLIED BY THE CONTRACTOR
 ALL MATERIALS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
 PROJECT NUMBER
 SHEET NUMBER

A-4.4



FINISHES LEGEND		MATERIALS LEGEND	
ID	SPECIFICATION	ID	SPECIFICATION
1	DUTCH BROTHERS BLUE	(A)	VERTICAL RIB STEEL SIDING, AEP SPAN PERCEPTION PC10-12
2	WESTPORT USED	(B)	BRICK VENEER, MUTUAL MATERIALS SLIM BRICK
3	BSX SILVER METALIC 4-BSX-30	(C)	ALUMINUM COMPOSITE PANEL, APOLIC
4	WESTMINSTER GRAY LARGE	(D)	HORIZONTAL SIDING, NEWTECHWOOD ULTRA-SHIELD SHADOWLINE US31
5	STAINLESS STEEL	(E)	SERVICE TRAY
6	1" INSULATED GLASS - CLEAR	(F)	1" INSULATED GLAZING LOW E
7	BUSINESS SIGNAGE (BY TENANT)	(G)	BACK LIT OR INTERNALLY LIT BUSINESS SIGN (BY TENANT)
8	DUTCH BROTHERS GREY	(H)	METAL INSULATED DOOR
9	RGB LED ROPE LIGHTING	(I)	6" BOLLARD
		(J)	TOP OF PARAPET LIGHTING
		(K)	STEEL LOUVERED CANOPY

Attachment 8

Building Renderings, dated December 22, 2017



**OTTOLINI
&
ASSOCIATES
ARCHITECTS**
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916 852-8941 fax

PROJECT NAME

**WALMART
CENTRAL**

1000 RILEY STREET
FOLSOM, CA 95680

CONSULTANT

SHEET TITLE
RENDERING

ISSUING VISIONS		
No.	Date	Description
1	10/11/11	Issue for Review
2	10/11/11	Issue for Review
3	10/11/11	Issue for Review
4	10/11/11	Issue for Review
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16	10/11/11	Issue for Review
17	10/11/11	Issue for Review
18	10/11/11	Issue for Review
19	10/11/11	Issue for Review
20	10/11/11	Issue for Review

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AGENCIES. THE ARCHITECT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AGENCIES. THE ARCHITECT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AGENCIES.

PROJECT NUMBER

1430011222

SHEET NUMBER

A-0.1



Attachment 9

Floor Plans, dated December 17, 2017



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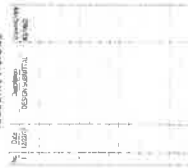
PROJECT TITLE

WALMART CENTRAL

1000 RILEY STREET
 FOLSOM, CA 95630

COMMITMENT

SHEET TITLE
BIG O TIRES FLOOR PLAN BUILDING 'A'



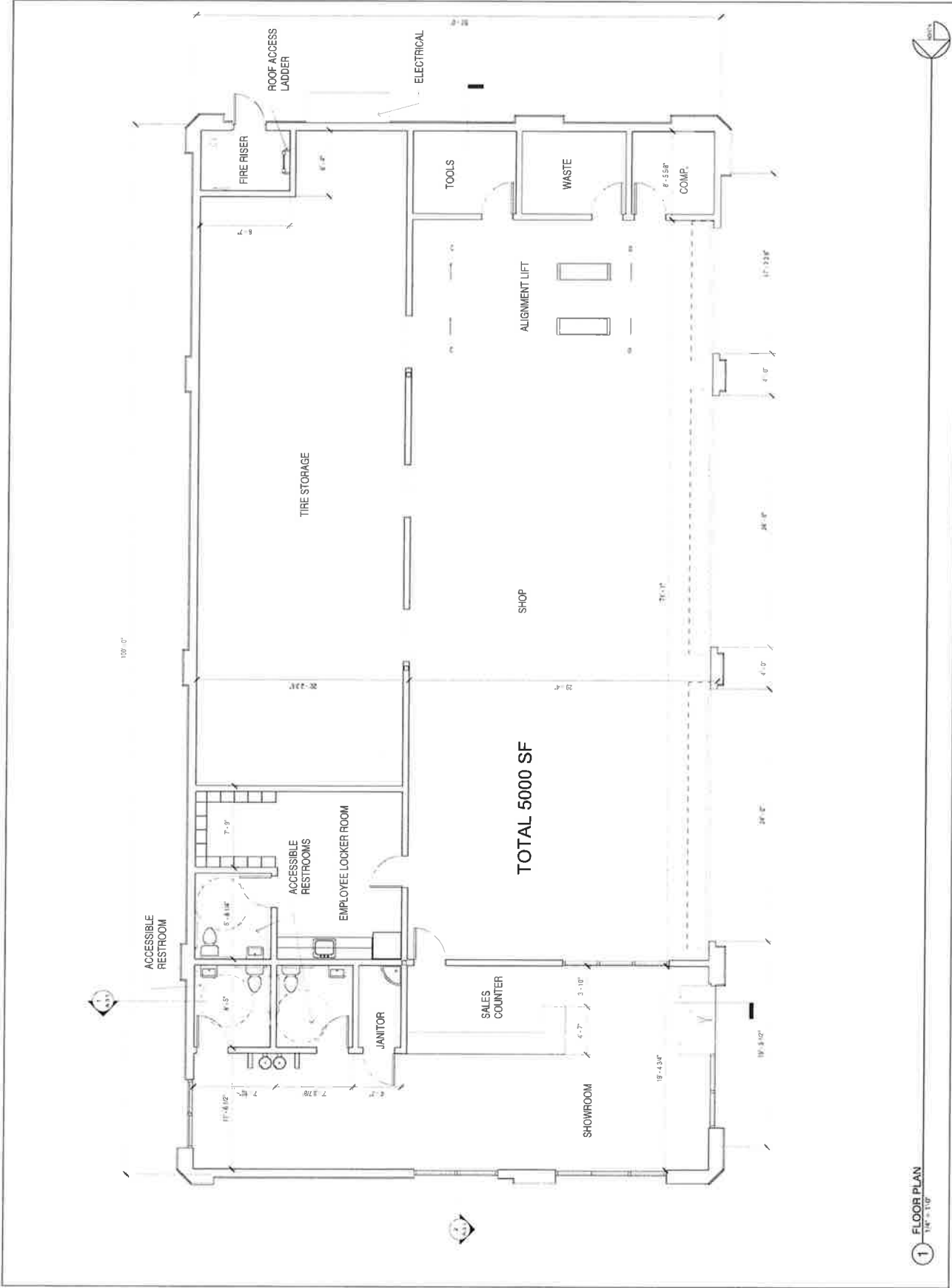
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

PROJECT NUMBER

REVISION

SHEET NUMBER

A-2.1



1 FLOOR PLAN
 1/4" = 1'-0"



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916 852-8841 fax

**WALMART
CENTRAL**
1000 RILEY STREET
FOLSOM, CA 95630
CONSULTANT

SHEET TITLE
**DUTCH BROS.
FLOORPLAN
BUILDING 'B'**

ISSUE/REVISIONS	
No.	Description
1	ISSUE FOR PERMITTING

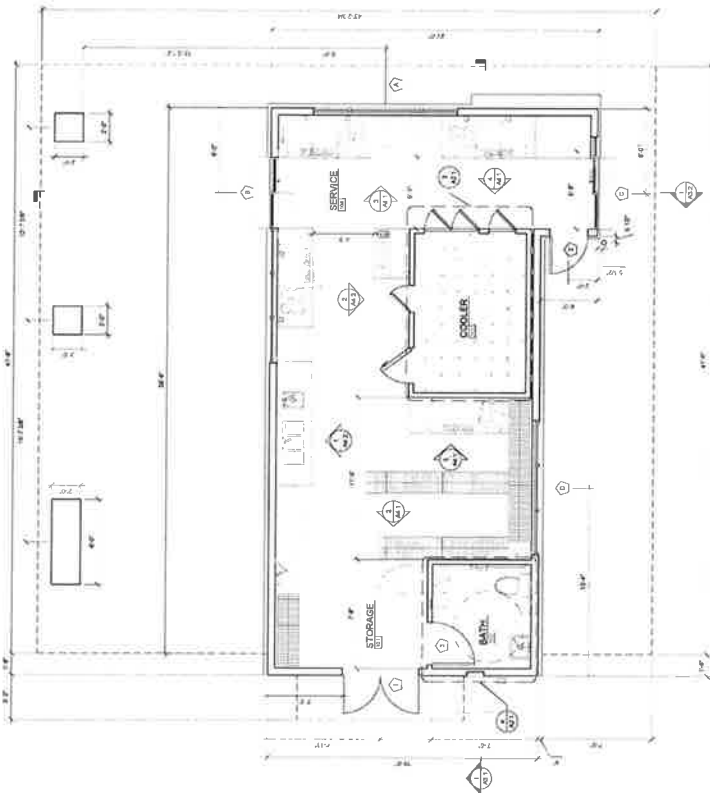
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE JOB
AND SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE
DIMENSIONS OF THE ACTUAL CONSTRUCTION. THE
CONTRACTOR SHALL VERIFY ALL DIMENSIONS OF THE
CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE
DIMENSIONS SHOWN ON THE DRAWINGS. THE
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL
DIMENSIONS OF THE ACTUAL CONSTRUCTION.

PROJECT NUMBER
N210001222

SHEET NUMBER
A-2.1

GENERAL NOTES

1. SEE THE PERMITTING REQUIREMENTS FOR ALL APPLICABLE CODES AND ORDINANCES. ALL APPLICABLE CODES AND ORDINANCES SHALL BE APPLIED TO THIS PROJECT.
2. PROVIDE DOOR SCHEDULE PER E.C. ALL DOOR SCHEDULES SHALL BE APPLIED TO THE PROJECT. ALL DOOR SCHEDULES SHALL BE APPLIED TO THE PROJECT. ALL DOOR SCHEDULES SHALL BE APPLIED TO THE PROJECT.
3. PROVIDE WINDOW SCHEDULE PER E.C. ALL WINDOW SCHEDULES SHALL BE APPLIED TO THE PROJECT. ALL WINDOW SCHEDULES SHALL BE APPLIED TO THE PROJECT. ALL WINDOW SCHEDULES SHALL BE APPLIED TO THE PROJECT.
4. PROVIDE FINISH SCHEDULE PER E.C. ALL FINISH SCHEDULES SHALL BE APPLIED TO THE PROJECT. ALL FINISH SCHEDULES SHALL BE APPLIED TO THE PROJECT. ALL FINISH SCHEDULES SHALL BE APPLIED TO THE PROJECT.
5. REFER TO DOOR AND WINDOW SCHEDULES ON SHEET 'A-1'.



DIMENSION FLOOR PLAN
SCALE: 1/4" = 1'-0"

Attachment 10

Transportation Impact Study, dated May 9, 2018

TRANSPORTATION IMPACT STUDY

for

1000 Riley Street Retail Project

May 9, 2018

PREPARED FOR:

Nazareth Retail Development, LLC

PREPARED BY:



TRAFFIC WORKS, LLC
400 Plaza Drive, Suite 145, Folsom, CA 95630
916.242.8990
www.Traffic-Works.com

YOUR QUESTIONS ANSWERED QUICKLY

Why did you perform this study?

This Transportation Impact Study evaluates the potential traffic impacts associated with a proposed retail development on Riley Street in Folsom, CA. This study of potential transportation impacts was undertaken for planning purposes and to determine what traffic controls or other mitigations may be needed to reduce potential impacts, if any are identified.

What does the project consist of?

The project includes an 800 square foot drive-through coffee shop (Dutch Brothers) and a 5,000 square foot tire shop (Big O Tires) on individual pads. The project site is located on the south side of Riley Street east of Lembi Drive within the Folsom Central Plaza shopping center located at 1000 Riley Street in Folsom, CA.

How much traffic will the project generate?

The proposed development is anticipated to generate **1,564** Daily trips, **135** AM peak hour trips, and **121** PM peak hour trips.

Are there any Off-Site traffic impacts?

The addition of project generated traffic will not change the study intersection levels of service from the background conditions. The overall incremental delay value associated with the project traffic is less than the City's significance criterion of 5.0 seconds/vehicle at all studied intersections. Therefore the project's impact is considered less-than-significant.

Are there any On-Site Traffic impacts?

The on-site circulation system will operate efficiently with no anticipated impact on traffic on the adjacent streets from internal queuing at the coffee shop drive-thru. However, "KEEP CLEAR" (CAMUTCD Section 3B.17) markings facing northbound traffic are highly recommended in the area immediately in front of the drive-thru exit (south of Riley Street at the west driveway). These markings will ensure the travel ways remain clear and improve overall operations at this location.

Are there any Queuing issues likely at proposed coffee shop drive-thru?

The proposed stacking lane length for 17 cars will easily accommodate the 95th percentile peak queuing demand.

Are any improvements recommended?

- “KEEP CLEAR” (CA MUTCD Section 3B.17) markings facing northbound traffic should be installed in the area immediately in front of the drive-thru exit (south of Riley Street at the west driveway) to insure no blocking issues develop.
- Crosswalk markings should be installed at both the east and west project driveways to improve pedestrian access to the project site.

LIST OF FIGURES

1. Study Area
2. Site Plan
3. Existing Lane Configurations and Controls
4. Existing Traffic Volumes
5. Background Traffic Volumes
6. Project Trips
7. Background Plus Project Traffic Volumes

LIST OF APPENDICES

- A. Existing Conditions LOS Calculations
- B. Peak Hour Warrant Worksheets
- C. Intersection Queuing Analysis
- D. Approved List of Projects Trip Generation
- E. Background Conditions LOS Calculations
- F. Reference Dutch Brothers Traffic Study
- G. Background Plus Project Conditions LOS Calculations

INTRODUCTION

This report presents the results of the Transportation Impact Study completed for a proposed retail project in Folsom, California. The project site is located on the south side of Riley Street east of Lembi Drive within the Folsom Central Plaza shopping center located at 1000 Riley Street in Folsom, CA. The project includes an 800 square foot drive-through “Dutch Brothers” coffee shop and a 5,000 square foot “Big O Tires” retail building on individual pads.

Study Area and Evaluated Scenarios

The project location and study intersections are shown in **Figure 1** and the site plan is provided in **Figure 2**. Based on discussions with City of Folsom staff, the following intersections were evaluated in accordance with the standards set forth by the City:

- Lembi Drive / Riley Street
- Glenn Drive / Riley Street
- West Driveway/Riley Street (Existing driveway immediately west of the site on Riley Street)
- East Driveway/Riley Street (Existing driveway immediately east of the site on Riley Street)

The potential impacts of the project were evaluated in accordance with the standards set forth by the City of Folsom. The study includes analysis of both the weekday AM and Mid-Afternoon peak hours as these are the periods of time in which peak traffic conditions are anticipated to occur. As requested by City of Folsom staff, the following scenarios were evaluated:

- Existing Conditions
- Background Conditions (including other approved, but not yet built, projects)
- Background Plus Project Conditions

In addition to the potential off-site impacts, the project’s main access points were also investigated in detail for their ability to provide safe and efficient operations with respect to the proposed drive-thru operations.

Analysis Methodology

Traffic conditions at the study intersections were evaluated using level of service (LOS) analysis. LOS is a qualitative term commonly used by transportation practitioners to measure and describe the operational characteristics of intersections, roadway segments, and other facilities. This term equates seconds of delay per vehicle at intersections to letter grades “A” through “F” with “A” representing optimum conditions and “F” representing breakdown or over capacity flows.

Signalized Intersections

The signalized study intersections were analyzed using the “operational analysis” methodology presented in Chapter 18 of the Highway Capacity Manual (HCM), 2010, which uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Control delay is the amount of delay that is attributed to the particular traffic control device at the intersection, and includes delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 1** summarizes the relationship between average delay per vehicle and LOS for signalized intersections. This method evaluates each intersection in isolation and the effects of vehicle queue spillback are not fully described in the analysis results.

Unsignalized Intersections

The analysis of unsignalized study intersections was performed using the methodology documented in Chapter 19 of the HCM 2010. This methodology is applicable for Two-Way STOP Control (TWSC) intersections and is defined by the worst movement delay. The complete methodology is established in the Highway Capacity Manual (HCM), 2010, published by the Transportation Research Board. **Table 1** also presents the delay thresholds for each level of service grade at un-signalized intersections.

Level of service calculations were performed for the study intersections using the Synchro 10 software package with analysis and results reported in accordance with the 2010 HCM methodology.

Table 1: Level of Service Definition for Intersections

Level of Service	Brief Description	Un-signalized Intersections (average delay/vehicle in seconds)	Signalized Intersections (average delay/vehicle in seconds)
A	Free flow conditions.	< 10	< 10
B	Stable conditions with some affect from other vehicles.	>10 to <15	>10 to <20
C	Stable conditions with significant affect from other vehicles.	>15 to <25	>20 to <35
D	High density traffic conditions still with stable flow.	>25 to <35	>35 to <55
E	At or near capacity flows.	>35 to <50	>55 to <80
F	Over capacity conditions.	> 50	> 80

Source: Highway Capacity Manual (2010), Fifth Edition

Level of Service Policy

The Transportation & Circulation Element (Policy 17.17) of the current “*City of Folsom General Plan*” establishes minimum level of service criteria for traffic operations at signalized intersections in the City. The current Level of Service policy states:

“The City should strive to achieve at least a traffic Level of Service “C” throughout the City. During the course of Plan Buildout it may occur that temporarily higher Levels of Service result where roadway improvements have not been adequately phased as development proceeds. However, this situation will be minimized based on annual Traffic Studies and Monitoring Programs (TSM).”

The City has defined appropriate standards of significance to reflect this policy, including criteria that address situations where the signalized intersection level of service is worse than LOS C under “no project” conditions. Those standards of significance are as follows:

- If the “no project” level of service is LOS C or better and the project-generated traffic causes the signalized intersection level of service to degrade to worse than LOS C (i.e., LOS D, E, or F), then the proposed project must implement mitigation measures to return the intersection to LOS C or better.
- If the “no project” level of service is worse than LOS C (i.e., LOS D, E, or F) and the project generated traffic causes the overall average delay value at the signalized intersection to increase by five seconds or more, then the proposed project must implement mitigation measures to improve the intersection to the “no project” condition or better. It is not necessary to improve the signalized intersection to LOS C.
- If the “no project” level of service is worse than LOS C (i.e., LOS D, E, or F) and the project generated traffic causes the overall average delay value at the signalized intersection to increase by less than five seconds, then the traffic impact is considered less-than-significant and no mitigation is required.

The City’s General Plan Policy did not establish any minimum level of service criteria for unsignalized intersections. However, for this analysis, as recommended by the City staff, we generally utilized the same standards stated above for signalized intersections for evaluating the project impacts on STOP controlled study intersections. Thus, a significant impact would occur if the project generated traffic were sufficient enough to cause the intersection to meet the minimum requirements associated with the “Peak Hour” signal warrant, in addition to the overall intersection delay and level of service criteria stated above for signalized locations.

Sight Distance

A sight distance (line of sight) analysis was conducted for the project driveways using the methodology documented in *A Policy on Geometric Design of Highways and Streets* (American Association of State Highway and Transportation Officials, 2010).

EXISTING CONDITIONS

This section describes the existing conditions for the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities.

Roadway Facilities

A brief description of the key roadways in the study area is provided below.

Riley Street is an arterial that runs from the Folsom Historic District to Oak Avenue Parkway. Near the project site, Riley Street is a four lane roadway with a center two-way left turn lane (TWLTL) and traffic signals at major intersections. Sidewalks are provided on both sides of Riley Street, and Folsom Stage Line has bus stops serving Route 10 about 250 feet south of East Bidwell Street (north/west of the project site). The posted speed limit is 35 mph within the project area.

East Bidwell Street is an east-west arterial that runs from Riley Street to east of Blue Ravine Road. Near the site, the roadway has two travel lanes in each direction. East Bidwell Street provides access between Highway 50 and Riley Street. The speed limit along East Bidwell Street near the project site is 35 MPH.

Glenn Drive is an arterial street adjacent to the project site (Folsom Central Plaza) that runs from Folsom Boulevard to Wales Drive. South of Riley Street, it has four lanes plus a center turn lane (TWLTL) and bike lanes, while north of there it is generally a two-lane road (plus turn lanes, but without bike lanes). Glenn Drive has a 40 MPH speed limit south of Riley Street and a 30 MPH speed limit between Riley Street and East Bidwell Street.

Lembi Drive is a residential collector adjacent to the project site that runs from Riley Street to Sibley St. The speed limit along Lembi Drive is 25 MPH.

Pedestrian and Bicycle Facilities

Sidewalks are present on both sides of Riley Street and on the majority of City streets throughout the study area. Class II Bike lanes exist adjacent to the project site on Riley Street, on Glenn Drive, and to west of the project on Lembi Drive.

Transit Service

Folsom Stage Line Route 10 provides weekday service along Riley Street in the study area. It connects to Light Rail service at Iron Point Station and Historic Folsom Station; and with the RT bus service Line 24 at Main and Madison Avenues. There is a designated Route 10 stop located within 500 feet of the project site on Riley Street.

Traffic Volumes

Existing traffic volumes were determined by conducting new video counts at the study intersections. The counts were conducted on an average mid-week day, April 11, 2018. The existing lane configurations and intersection controls are shown in **Figure 3**, attached and the existing peak hour intersection traffic volumes are shown in **Figure 4**, attached.

Intersection Level of Service

Level of service calculations were performed using the existing traffic volumes, lane configurations, and traffic controls. The results are presented in **Table 2** and the calculation sheets are provided in **Appendix A**, attached.

Table 2: Existing Conditions Intersection Level of Service Summary

Intersection	Intersection	AM Peak		Mid-Afternoon Peak	
	Control	LOS	Delay ²	LOS	Delay
Riley Street / Lembi Drive	Side Street STOP ¹	A	4.7	A	5.8
Riley Street/ West Driveway	Side Street STOP	A	0.3	A	0.3
Riley Street/ East Driveway	Side Street STOP	A	2.5	D ³	32.0
Riley Street/Glenn Drive	Signal	C	24.7	D	36.0

Notes:

1. Overall Intersection delay and level of service is shown for minor street stop (TWSC) controlled intersections
2. Delay shown is the average control delay for the intersection (Seconds/Vehicle)
3. Shaded cells denotes unacceptable level of service

Weekday AM Peak Hour

All the study intersections operate at overall LOS “C” or better during the AM Peak Hour. At unsignalized intersections, the overall intersection delay and level of service is reported to determine conformity with the City’s General Plan Transportation Circulation Policy. Individual movements may operate at worse levels of service at minor stop controlled intersections.

Weekday Mid-Afternoon Peak Hour

The Riley Street/East Driveway and Riley Street/Glenn Drive intersections currently operate at overall LOS “D”, not conforming to the City’s General Plan Transportation Circulation Policy. Individual movements may operate at worse levels of service at minor stop controlled intersections.

Peak Hour Signal Warrant

For this study, the potential need for signalization is assessed on the basis of the Peak Hour signal warrant (Warrant 3) described in the current edition of the *California Manual on Uniform Traffic Control Devices* (CMUTCD). As the existing conditions have below the threshold traffic volumes, none of the unsignalized intersections in the study area meet warrants for signalization. The existing conditions peak-hour warrant sheets are provided in **Appendix B**, attached.

Queuing Conditions at Riley Street/Glenn Drive Intersection

The effects of vehicle queuing were analyzed and the 95th percentile queue lengths are reported for the intersection of Riley Street and Glenn Drive. The 95th percentile queue length represents a condition where 95 percent of the time during the peak hour, traffic volumes will be less than or equal to the queue length determined by the analysis. The queuing results were obtained by performing SimTraffic micro-simulation and summarizing the recorded micro-simulation results from multiple intervals and multiple runs. Queues that exceed the turn pocket length can create potentially hazardous conditions by blocking or disrupting through traffic in adjacent travel lanes. However, at most signalized intersections these potentially hazardous queues are generally associated with only left turn movements.

Table 3: Existing Conditions Queuing Summary - Riley Street/Glenn Drive Intersection

Intersection Movement	95th Percentile Queue Length (feet)		
	Link Distance	AM Peak	Mid-Afternoon Peak
EBL	240	131	262
WBL	192	109	216
NBL	175	92	171
SBL	122	118	159
Note: Shaded cells indicate locations where the queue length exceeds the link distance by 20 feet or more			

As shown in **Table 3**, all the left turn movement queues at the Riley Street/Glenn Drive intersection exceed dedicated storage bay lengths under existing conditions except for the northbound left turn movement. The queue spill over at these left turns is approximately one

vehicle in the Mid-Afternoon peak hour. However, it should be noted that the queue spill over from the southbound left turn lane is not considered a potential blockage of the upstream southbound through lane as the left turn vehicles can extend into the existing two way left turn lane (TWLTL). Also, the queue spillover from the eastbound left turn lane is not considered a potential blockage of the upstream eastbound through lane as the left turn vehicles can extend into the upstream acceleration lane. Detailed results of the queuing analysis are provided in **Appendix C**, attached.

The 95th percentile queue from field observations at this intersection also indicated a two vehicle spill over from westbound left turn storage lane, which can cause potential blockage of the upstream westbound through lane.

BACKGROUND CONDITIONS

This section describes background traffic conditions. Background conditions are defined as conditions anticipated “near the time of completion of the proposed project”. Traffic volumes for background conditions comprise volumes from the existing traffic counts plus traffic generated by other approved developments in the vicinity of the site, which would also add traffic to the study intersections.

Background Traffic Volumes

Peak hour trip generation was estimated for the most recent list of approved projects provided by City staff. A comparison of the estimate showed a minimal difference in the overall background traffic trip generation compared to a recent traffic study prepared for the proposed “Folsom Bidwell Pointe” mixed-use development in the project vicinity. In consultation with City Staff, to minimize the effort of developing new background traffic distribution and assignment for the updated list, the same background traffic assignment from “Folsom Bidwell Pointe” was used to develop the background traffic volumes for this study, which otherwise would have minimal or no change in overall forecast volumes on the study network.

The list of other approved projects provided by City staff is presented in **Table 4** and the background traffic trip generation estimate is provided in **Appendix D**, attached.

The peak hour background trips obtained from the above referenced study were added to the existing AM and Mid-Afternoon peak hours to develop the background traffic volumes. It should be noted that the background PM peak hour trips were added to the existing Mid-Afternoon peak hour traffic to develop background Mid-Afternoon peak hour volumes due to lack of mid-day trip generation rates for the approved land uses and for a more conservative analysis. The background peak hour intersection traffic volumes are shown in **Figure 5**, attached.

Table 4: List of Approved Projects

Project	Land Use	Size	Location
Folsom Pointe Highway Commercial	Highway Commercial Center ²		East side of East Bidwell St., south of Iron Point Rd.
Broadstone Park Professional Center	Office	15,000 SF ^{3,4}	South side of Iron Point Road east of McAdoo Drive
Palladio at Broadstone	Retail	220,000 SF ⁴	Bounded by Iron Point Road, East Bidwell Street, and Broadstone Parkway
Island at Parkshore	Residential	273 DU	Southwest of Parkshore Dr. in Silverbrook Island area
Broadstone Crossing Parcel ¹	Three Restaurants	22,230 SF	Southwest quadrant of Iron Point Road/Cavitt Drive
La Collina dal Lago	Single-Family Residential	30 DU ⁶	East Natoma Street west of Blue Ravine Road/Green Valley Road
Empire Ranch	Single-Family Residential	200 DU ⁶	East Natoma Street east of Blue Ravine Road/Green Valley Rd.
Montara Grove	Office	32,000 SF	South side of East Natoma Street at Prison Road
Masjid Bilal Mosque	Church and School	31,668 SF	Southeast corner of Sibley Street/Levy Road
Psychiatric Services Unit Office & Treatment Facility	Medical Facility	17,395 SF	California State Prison - Sacramento
Folsom Women's Facility	Correctional Facility	403 Female Offenders	Folsom State Prison
Treehouse West Commercial Center	Retail	3,595 SF	Southwest Quadrant of Iron Point Road and Barnhill Drive
701 Bidwell Street Commercial Center	Office & Retail	7,791 SF	701 Bidwell Street
Parkway Villages H1 & H2	Single-Family Residential	16 DU	North side of Silberhorn Drive, west of Golf Links Drive
Superior Self Storage	Self-Storage Facility	124,310 SF	7700 Folsom-Auburn Road
Harvest Subdivision	Single-Family Residential	116 DU	North Side of East Natoma Street across from Bowen Drive
Russell Ranch Subdivision	Single-Family Residential	875 DU	Folsom Plan Area (East)
Mangini Ranch Phase 1 Subdivision	Single-Family Residential	826 DU	Folsom Plan Area (West)
Mangini Ranch Phase 2 Subdivision	Single-Family/ Multi-Family Residential	545 DU 356 DU 901 Total DU	Folsom Plan Area (West)

Project	Land Use	Size	Location
Hillsborough Subdivision	Single-Family Residential	2,103 DU	Folsom Plan Area (Central)
Veranda Subdivision	Single-Family Residential	63 DU	Southwest quadrant of East Natoma Street/Golf Links Drive/ Bonhill Drive
Broadstone Apartments	Multi-Family Residential	293 DU	Southwest corner - Broadstone Parkway and Cavitt Drive
Bidwell Pointe Apartments	Multi-Family Residential	140 DU	125 East Bidwell Street
Iron Point Retirement Community	Assisted Living	126 DU	Iron Point Road, south side near Rowberry Drive
The Pique at Iron Point Apartments	Multi-Family Residential	327 DU	Iron Point Road between Serpa Way and Carpenter Hill Rd.
Cresleigh Ravine/Campus at Iron Point	Single-Family and Multi-Family Residential	53 SF 230 MF	Willard Drive at Iron Point Rd.
CountryHouse at Broadstone	Memory Care Facility	36,668 SF (45 DU/47 Beds)	Southeast quadrant of Iron Point Road/Oak Avenue Parkway
Parkway Apartments	Low-Income, Multi-Family Residential	72 DU	Southwest quadrant of Blue Ravine Road/Oak Avenue Parkway
Quick Quack	Car Wash	3,599 SF	Southeast quadrant of Iron Point Road/Cavitt Drive
Prospect Ridge	Single-Family Residential	35 DU	535 Levy Road
Folsom Heights	Single-Family Residl. Multi-Family Residl. General Commercial	402 DU 128 DU 128,500 SF	Southwest quadrant of U.S. Highway 50 and Sacramento/El Dorado County line
Notes: 1 Reference: City of Folsom, Community Development Department 2 Three unbuilt pads (two restaurants and one retail building). 3 Square feet. 4 Approximate unoccupied square footage. 5 Dwelling units. 6 Approximate number of unbuilt dwelling units.			

Planned Roadway Improvements

There are no planned improvements proposed to the roadways in the project vicinity or the study intersections. Thus, there would be no change in the background condition lane configurations or intersection controls compared to what exists today.

Level of Service Analysis

Level of service calculations were performed using the background condition traffic volumes, lane configurations, and traffic controls. The results are presented in **Table 5** and the calculation sheets are provided in **Appendix E**, attached.

Table 5: Background Conditions Level of Service Summary

Intersection	Intersection	AM Peak		Mid-Afternoon Peak	
	Control	LOS	Delay ²	LOS	Delay
Riley Street / Lembi Drive	Side Street STOP ¹	A	5.7	A	7.0
Riley Street/ West Driveway	Side Street STOP	A	0.3	A	0.4
Riley Street/ East Driveway	Side Street STOP	A	2.7	E ³	44.2
Riley Street/Glenn Drive	Signal	C	26.2	D	40.6

Notes:

1. Overall Intersection delay and level of service is shown for minor street stop (TWSC) controlled intersections
2. Delay shown is the average control delay for the intersection (Seconds/Vehicle)
3. Shaded cells denote the unacceptable level of service

Weekday AM Peak Hour

All the study intersections continue to operate at overall LOS “C” or better during the AM Peak Hour under background conditions. Individual movements may operate at worse levels of service at minor stop controlled intersections.

Weekday Mid-Afternoon Peak Hour

The Riley Street/East Driveway and Riley Street/Glenn Drive intersections will continue to operate at unacceptable LOS “E” and LOS “D” conditions respectively, not conforming to the City’s General Plan Transportation Circulation Policy. Again, it is recognized that individual movements will operate at worse levels of service at minor stop-controlled intersections.

Peak Hour Signal Warrant

As the background conditions have below the threshold traffic volumes, none of the unsignalized intersections in the study area meet the warrants for signalization. The background conditions peak-hour warrant sheets are provided in **Appendix B**, attached.

Queuing Conditions at Riley Street/Glenn Drive Intersection

As shown in **Table 6**, all the left turn movement queues at the Riley Street/Glenn Drive intersection exceed the dedicated storage bay lengths under background conditions. The queue spill over at each left turn lane is approximately two vehicles in the Mid-Afternoon peak hour.

However, the queue extensions from the southbound, northbound and eastbound left turn lanes are not considered a potential blockage of their respective upstream through lanes as the northbound and southbound left turn vehicles can extend into their respective existing two way left turn lane (TWLTL), and the eastbound left turn vehicles can extend into the upstream acceleration lane. The westbound left turn lane queue spill can cause potential blockage of the upstream westbound through lane. Detailed calculations are provided in **Appendix C**, attached.

Table 6: Background Conditions Queuing Summary - Riley Street/Glenn Drive Intersection

Intersection Movement	95th Percentile Queue Length (feet)		
	Link Distance.	AM Peak	Mid-Afternoon Peak
EBL	240	124	281
WBL	192	121	239
NBL	175	106	195
SBL	122	134	160

Note: Shaded cells indicate locations where the queue lengths exceeds the link storage by 20 feet or more

PROJECT EVALUATION

Project Description

The project location is shown in **Figure 1** and the site plan is provided in **Figure 2**. The proposed project includes an 800 square foot drive-through “Dutch Brothers” coffee shop and a 5,000 square foot “Big O Tires” retail building on individual pads. The proposed coffee shop will include a single window with one-way traffic circulation in a counter-clockwise pattern.

Trip Generation

Trip generation rates for the proposed tire shop were obtained from the *Trip Generation Manual, 9th Edition*, published by the Institute of Transportation Engineers (ITE). The Tire Center (Land Use 848) rates were utilized.

ITE Land Use 938 is a similar to the proposed Dutch Brothers coffee kiosk model from the *ITE Trip Generation Manual*. However, the trip rates published in the *ITE Trip Generation Manual* are from a very limited number of surveyed sites with a high variance in the trip rates. Recently, KD Anderson & Associates, Inc. prepared a similar study for a proposed Dutch Brothers coffee shop in the City of Elk Grove and surveyed three Dutch Brothers sites in greater Sacramento region to derive more accurate trip generation rates. The survey indicated that the trip generation for this type of coffee shop model was highly dependent on the Average Daily Traffic on the adjacent

street. The average trip rates derived from the survey came out to be 3.35 trips per thousand vehicles in the AM peak hour and 1.5 trips per thousand vehicles in the PM peak hour. Details of this above referenced study are included in **Appendix F**.

As these survey sites resemble the local conditions, we have employed the custom trip generation rates for the proposed coffee shop. However, due to lack of trip generation data for the Mid-Afternoon peak hour and similar type of setting where Middle School and High School campuses are nearby, the PM trip rate from the above referenced survey was taken and doubled to present the more accurate trip generation forecast for the Mid-Afternoon peak hour. **Table 7** provides the AM Peak Hour and Mid-Afternoon Peak hour trip generation calculations for the proposed project. The adjacent street traffic data was obtained from the City’s Traffic Data. As the latest available traffic data in this region was from 2011, a growth factor of 1.1 was applied to the traffic data to better reflect the existing conditions.

Table 7: Trip Generation Estimates

Land Use	Variable	Size	Daily			A.M. Peak			Mid-Afternoon Peak		
			Trips In	Trips Out	Total	Trips In	Trips Out	Total	Trips In	Trips Out	Total
Drive-Thru Coffee Shop	1000 AST ² /Sq.Ft	35/800	720	720	1,440 ¹	61	56	117	51	54	105
Tire Centre	Sq.Ft	5,000	62	62	124	9	9	18	7	9	16
Total			782	782	1,564	70	65	135	58	63	121

Notes:
1. Daily trips were estimated using ITE Land Use 938 Weekday trip rates for Average 1000 Sq.Ft Gross Floor Area.
2. AST stands for Adjacent Street Traffic.

As shown in **Table 7**, the proposed project is anticipated to generate a total of **1,564** Daily trips, **135** AM peak hour trips, and **121** PM peak hour trips.

Trip Distribution and Assignment

Traffic generated by the project was distributed to the road network based on the location of the project, major activity centers, and local roadway connections. The following trip distribution percentages were used for distributing the project traffic from the Tire Center for both the AM and PM peak hours:

- 45% travelling to/from the west via Riley Street
- 5% travelling to/from the south via Lembi Drive
- 10% travelling to/from the north via Glenn Drive
- 10% traveling to/from the south via Glenn Drive

- 30% traveling to/from the east via Riley Street

For the project traffic from coffee shop, the same distribution percentages were used for the AM peak hour but the following trip distribution was used for the Mid-Afternoon peak hour:

- 70% travelling to/from the west via Riley Street
- 5% travelling to/from the north via Glenn Drive
- 5% traveling to/from the south via Glenn Drive
- 20% traveling to/from the east via Riley Street

Project generated trips were assigned to the adjacent roadway system based on the distribution outlined above and the existing project driveway configurations. The project trip assignment is shown on **Figure 6**, attached.

Site Access Review

Two access points via existing driveways on Riley Street are proposed for this development as shown on **Figure 2**. While the project driveway located on the west side of the project site is a three legged intersection, the driveway located to the east is opposite the Kohl's driveway and forms a four-way intersection. Traffic exiting the project at both locations will be controlled by a STOP sign.

Sight Distance: An Intersection Sight Distance (ISD) line of sight analysis was conducted at the project driveways to check the adequacy of the sight lines when exiting the project site using the methodology documented in *A Policy on Geometric Design of Highways and Streets (American Association of State Highway and Transportation Officials, 2010)*.

Based on criteria established in the AASHTO document, using a 40 MPH travel speed (5 mph above the posted speed), the required Intersection Sight Distance is 445 feet for the worst case left-turn from stop maneuver.

West Driveway: Field investigations at the west project driveway location revealed no significant limitations on sight distance for drivers entering or exiting the project site. Looking west, exiting drivers have clear sight distance all the way to E. Bidwell Street, almost 800 feet away. The westbound left turn maneuvers into the site also have more than adequate clear visibility. To the east, a tree and light pole are located within the sight triangle, however, the canopy height of the tree is well above 8 feet and there is no significant obstruction or "picket fence" effect. More than adequate clear sight distance is available looking to the east, almost 700 feet. Thus, more than adequate sight distance is available for entering and exiting drivers in both directions.

East Driveway: Observations at the east driveway location also revealed no significant limitations on sight distance for drivers entering or exiting the project site. Looking west, exiting drivers have clear sight distance all the way to Dennis restaurant past Lembi Drive, almost 700 ft. To the east, drivers have a clear sight distance all the way to Glenn Drive, almost 900 feet away.

Right-turn Deceleration Lanes or Tapers: With a posted speed limit of 35 MPH on Riley Street, the guidelines set by the City for right-turn deceleration lane installation do not apply to the project driveways.

Pedestrian/Bicycle Access: Sidewalks are present on both sides of Riley Street along the project frontage and in the vicinity of project. Class II bike lanes exist adjacent to the project site on Riley Street, Glenn Drive, and to west of the project on Lembi Drive.

Pedestrian Access to/from the site to school campuses: The availability of safe pedestrian access to the proposed project was also considered. As mentioned above, sidewalks are present on both sides of Riley Street along the project site and along the middle school and high school campus frontages. Marked pedestrian crossings are provided in both the north-south and east-west directions with all necessary equipment and fixtures required to serve the needs of pedestrians at the intersection of Riley Street and E. Bidwell Street, which is a primary pedestrian access intersection to both the Sutter Middle School and the Folsom Lake High School campuses. Crossing E. Bidwell Street in the south direction and traversing along the south side sidewalk on Riley Street provides safe pedestrian access with designated pedestrian crossings along Riley Street to the Folsom Central Plaza Shopping Center and the project site. However, the installation of crosswalk markings at both project driveways would improve pedestrian access to the project site and this improvement is therefore recommended.

Onsite Circulation Access: The on-site circulation system will operate efficiently with no impact to traffic on the adjacent streets due to internal queuing or drive-thru operations.

As shown in the site plan, **Figure 2**, the drive-through facility will be located as deeply into the site as possible, approximately 165 feet, or 9 car lengths from Riley Street to the back of the drive-thru lane.

The queue stacking lane will also be separated from the adjacent parking areas and the proposed tire center by a raised concrete island prohibiting cut-through into the storage lane.

The drive-thru exit is located fairly close to Riley Street given the site location. However, during field observations, no significant queuing problems were observed at the west driveway due to its geographical location in the shopping plaza and the limited development area using this driveway. No major queuing or potential blockage issues are anticipated at the west driveway.

However, since more than 90% of the project traffic will exit from the drive-thru, “KEEP CLEAR” (CA MUTCD Section 3B.17) markings facing northbound traffic are recommended in front of the drive-thru exit to insure no blocking issues develop.

Queuing Analysis for Drive-Thru Lane

The site plan shows a single drive-through lane 315 feet long measured from the pick-up window to the beginning of the drive-thru lane (edge of travel lane on the internal road) with a queuing space for 17 vehicles.

Online research for maximum queue length information for similar coffee shops revealed a survey conducted by Spack Consulting of St. Louis Park, Minnesota. The survey included the trip generation and queue length observations for 26 drive-through coffee shop sites located in the states of Minnesota and Kansas. The report summarizing the results from the surveyed 26 sites was published online www.countingcars.com. The survey results from these sites indicated the following statistics:

- The average maximum observed queue of 11 vehicles
- The range of observed maximum queues was 3 to 16 vehicles
- The 85th percentile queue was 13 vehicles (85 percent of the observed maximum queuing was equal to or fewer than this value).

With an 85th percentile maximum queue of 13 vehicles, the data suggests that coffee shops with drive-through lanes should be able to accommodate at least 260 feet of vehicle stacking during the AM peak hour.

As a second check for queue length adequacy during peak hour operations, M/M/1 stochastic queuing methodology was employed to estimate the 95 percent confidence factor queue length (or 95th percentile queue length) for the proposed Dutch Brothers coffee shop.

Methodology

The procedure employed in this queuing analysis is a single-channel queuing model with Poisson arrivals and exponential service-times (M/M/1 model or simple stochastic queuing). The model is considered stable only if $\lambda < \mu$, where λ is the average arrival rate and μ is the average service rate. If, on average, arrivals happen faster than service completions the queue will grow indefinitely long and the system will not have a stationary distribution. The stationary distribution is the limiting distribution for large values of t .

This statistical analysis, which is routinely used for estimating queue lengths for drive-through lanes, is based on two key factors:

Average Arrival Rate, λ – The average arrival rate represents the number of vehicles entering the drive-through lane during the analysis period (i.e., the AM peak hour). The trip generation estimate provides this factor, which is stated in vehicles per unit of time (typically, vehicles per hour). As this is a drive-through only kiosk, 100 percent of the vehicles will pass through the drive-through lane. So the peak hour arrival rate, λ is 61 vph.

Average Service Rate, μ - This factor represents the capacity of the drive-through lane, again in terms of vehicles per hour. It was mentioned in the study that Dutch Brothers maintains statistics on customers served and the data indicated an average service rate of 50 seconds per customer or 72 vph.

Various performance measures can be computed explicitly for the M/M/1 queue. ρ represents the average proportion of time which the server is occupied.

$$\rho = \frac{\lambda}{\mu};$$

Where ρ = traffic intensity (or serving time intensity)
 λ = mean arrival rate per hour
 μ = mean service rate per hour

The average vehicle queue in the drive through lane can be calculated as follows:

$$E(n) = \frac{\rho}{1 - \rho};$$

Thus the average queue in the drive-through lane is 6 vehicles.

In order to estimate the probability of exactly 'n' vehicles in the drive-through lane the following formula is used:

$$P(n) = \rho^n(1 - \rho);$$

Where n = number of vehicles

The following formula calculates the 95% expected vehicle queue 'n' using the cumulative probabilities:

$$\sum_{n=0}^{n=\infty} P(n) \geq 0.95;$$

As shown in **Table 8**, the queue length estimate from the 95 percent confidence factor is 17 vehicles, which is consistent with the proposed drive-through stacking capacity of 17 vehicles with additional throat space at the beginning of the drive-through entrance.

The proposed drive-thru length is deemed adequate based on both studies of other sites and the Poisson distribution method.

Table 8: Poisson Distribution Dutch Brothers Drive-Thru Queue

n	P(n)	$\Sigma P(n)$	Probability
0	0.153	0.153	15%
1	0.129	0.282	28%
2	0.110	0.392	39%
3	0.093	0.485	48%
4	0.079	0.563	56%
5	0.067	0.630	63%
6	0.056	0.687	69%
7	0.048	0.735	73%
8	0.041	0.775	78%
9	0.034	0.809	81%
10	0.029	0.839	84%
11	0.025	0.863	86%
12	0.021	0.884	88%
13	0.018	0.902	90%
14	0.015	0.917	92%
15	0.013	0.930	93%
16	0.011	0.940	94%
17	0.009	0.949	95%

BACKGROUND PLUS PROJECT CONDITIONS

Traffic Volumes

Background Plus Project traffic volumes were developed by adding the project generated trips (**Figure 6**) to the background traffic volumes (**Figure 5**) and are shown on **Figure 7**, attached. The Background Plus Project condition Peak Hour Factors (PHF) and travel patterns were assumed to remain the same as background conditions.

Intersection Level of Service Analysis

Table 9 presents the level of service analysis summary for the “Background Plus Project” scenario. Detailed calculation sheets are provided in **Appendix G**, attached.

Table 9: Background Plus Project Conditions Level of Service Summary

Intersection	Intersection	AM Peak		Mid-Afternoon Peak	
	Control	LOS	Delay ²	LOS	Delay
Riley Street / Lembi Drive	Side Street STOP ¹	A	7.1	A	8.6
Riley Street/ Project Access # 1 (west)	Side Street STOP	A	1.2	A	1.4
Riley Street/ Project Access # 2 (east)	Side Street STOP	A	3.9	E ³	49.0
Riley Street/Glenn Drive	Signal	C	27.7	D	42.6

Notes:

1. Worst Case minor movement delay is shown for minor street stop (TWSC) controlled intersections
2. Delay shown is the average control delay for the intersection (Seconds/Vehicle)
3. Shaded cells denotes the unacceptable level of service.

Weekday AM Peak Hour

In the AM peak hour, the addition of the project traffic will result in a relatively small increase in the overall delay at the study intersections with no change in the level of service. All the study intersections operate at an acceptable LOS “C” or better, confirming to the City’s General Plan Transportation Circulation Policy.

Weekday Mid-Afternoon Peak Hour

In the Mid-Afternoon peak hour, the addition of the project traffic will again result in a relatively small increase in the overall delay at the study intersections with no change in the level of service. The Riley Street/ West Driveway intersection will continue to operate at unacceptable LOS “E” conditions, with a projected increase in average vehicular delay of 4.8 seconds. The Riley Street/Glenn Drive will continue to operate at LOS “D”, with a projected increase in average vehicular delay of 2.0 seconds. The overall incremental delay value from the project traffic is less than the City’s significance criterion of 5.0 seconds/vehicle at these intersections. Therefore the project’s impact is considered less than significant.

Peak Hour Signal Warrant

Signal warrant analysis for the Background Plus Project conditions indicates that the addition of project traffic would not warrant signalization at any of the unsignalized intersections. The background conditions peak-hour warrant sheets are provided in **Appendix B**, attached.

Queuing Conditions at Riley Street/Glenn Drive Intersection

As shown in **Table 10**, all the left turn movement queues at Riley Street/Glenn Drive intersection exceed the dedicated storage bay lengths under background plus conditions. The queue spill over from all the left turn storages lanes is approximately two vehicles in the Mid-Afternoon peak

hour. The project traffic does not substantially increase queuing compared to the background conditions (no project).

Table 10: Project Conditions Queuing Summary - Riley Street/Glenn Drive Intersection

Intersection Movement	95th Percentile Queue Length (feet)		
	Link Distance	AM Peak	Mid-Afternoon Peak
EBL	240	160	298
WBL	192	125	226
NBL	160	116	187
SBL	122	133	156

Note: Shaded cells indicate locations where the queue lengths exceeds the link storage by 20 feet or more

Project Impacts and Recommended Mitigation Measures

All the study intersections continue to operate at the same levels of service under Background Plus Project conditions compared to Background Conditions and the project-related incremental delay will be less than the City’s significance standards. Therefore the project’s impact is considered less than significant. No off-site mitigation measures are needed with the proposed project.

RECOMMENDATIONS

The following is a list of our key findings and recommendations:

- “KEEP CLEAR” (CA MUTCD Section 3B.17) markings facing northbound traffic should be installed in the area immediately in front of the drive-thru exit (south of Riley Street at the west driveway) to insure no blocking issues develop.
- Crosswalk markings should be installed at both the west and east project driveways to improve pedestrian access to the project site.

Attachment 11

Applicant's Parking Analysis Discussion and Table
Dated June 11, 2018



June 11, 2018

WalMart Central Parking Analysis Discussion:

WalMart Central Shopping Center is comprised of a mixture of retail, restaurant and office spaces. For this analysis, we have identified 302,484 s.f. of building area and 10,592 s.f. of garden products, requiring 1,516 spaces with the following allocations:

• Retail	276,747	1,383.93 spaces
• Restaurant	13,765	68.825 spaces
• Office (Non-Retail or Restaurant)	11,972	59.83 spaces (54 with reduction)
○ 1004-1 Goodwill Xpress	1,380	
○ 1004-5 M G Radii, DDS	1,920	
○ 1008-4 Laboratory Corp	2,572	
○ 1012-3 Vacant Office	1,100	
○ 1016-1 Western Dental	5,000	
• Garden Sales Area	10,591	10.59 spaces

Per the Municipal Code, 17.57.040 (5) the interior hallways leading to Offices are not required to count toward the parking computation. When calculated at 90% of the non-retail or restaurant area, the total parking count can be reduced to 54 spaces, (-6 spaces), to a revised total of 1,516 spaces. ($11,972 \times .9 = 10,774$, $10,774/200 = 53.9$ spaces, round to 54)

The site plan currently shows 1,573 spaces provided, which provides a surplus of 57 parking stalls.

Accessible Parking Analysis:

Per 2016 CBC, Table 11B-208.2, for a parking field with 1,573 spaces, 2% of the spaces are required to be accessible, or 31.46 (32) spaces. The parking field shows 55 accessible spaces, which requires 9 Van accessible spaces, and our parking layout shows 21 van accessible spaces.

Conclusion: The parking field as shown complies with the City of Folsom Parking requirements, and the CBC accessible parking requirements.

See attached parking matrix.

In answer to questions from Steve Banks regarding Dutch Bros Coffee:

80% of Business is through the Drive Thru Lane

20% of Business is Walk-up, usually for customers already on site.

OTTOLINI & ASSOCIATES ARCHITECTS

Attachment 12

Griffin Cove Parking Memorandum, dated June 12, 2018

Griffin Cove Transportation Consulting, PLLC

TO: Mr. Steven Banks, Principal Planner
City of Folsom, Community Development Department

FROM: Neal K. Liddicoat, P.E.

DATE: June 12, 2018

SUBJECT: ***Parking Assessment***
Proposed Dutch Bros./Big O Tires Project - Folsom, California

As requested, Griffin Cove Transportation Consulting, PLLC (GCTC) has completed an assessment of the parking requirements associated with the proposed Dutch Bros./Big O Tires project in Folsom, California. The proposed project would be located on a one-acre parcel within the existing Folsom Central Plaza Shopping Center at 1000 Riley Street. The proposed project would consist of the following:

- Dutch Bros. Coffee – 785 square feet (SF), and
- Big O Tires – 5,000 SF.

In addition, the project proposes to provide twenty on-site parking spaces, including five spaces within the Big O Tires building.

EXISTING PARKING SUPPLY

A recent count indicates that 771 parking spaces are located within the Folsom Central Plaza Shopping Center. Combined with the existing 860 spaces within the adjoining Wal-Mart Central parking lot, a total of 1,631 parking spaces are currently available to patrons and employees within those two centers. Because reciprocal parking agreements exist between the two centers, this entire supply is available to all customers and employees of both centers.

PROJECT PARKING IMPACT

Construction of the proposed project will result in elimination of 78 parking spaces. Considering the 20 spaces to be constructed as part of the project, a net loss of 58 parking spaces is envisioned. Thus, the adjusted total parking supply within the shopping centers will be 1,573 spaces.

PARKING ASSESSMENT

The project architect, Ottolini & Associates, performed a parking analysis, in which the parking requirements of each land use within the centers was determined, based on pertinent requirements within the City of Folsom Zoning Code. That analysis concluded that the Zoning Code requires a total of 1,516 spaces to meet the needs of the two centers combined. We have reviewed this analysis and concur with its results.

The parking supply that will remain following completion of the proposed project (i.e., 1,573 spaces) will exceed the City's Zoning Code requirement by 57 spaces. Therefore, a surplus of parking will continue to be available. Further, field observations reveal that substantial parking surpluses currently exist, as the actual parking demand is lower than the Zoning Code requirement.

In conclusion, the assessment documented here indicates that the parking supply proposed in conjunction with the Dutch Bros./Big O Tires project will adequately serve the needs of patrons and employees at the existing Folsom Central Plaza and Wal-Mart Central shopping centers.

Attachment 13

**Transpo Group Traffic/Parking Analysis
Dated December-2015**

Table 9. Opening Year 2016 with Project Peak Hour Levels of Service

Intersection	Control	Opening Year				Opening Year plus Project				Change	
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM
		LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²		
1. Riley Street/East Bidwell Street	Signal	A	10.0	A	5.7	A	10.1	A	5.7	0.1	0.0
2. Coloma Street/East Bidwell Street	2-Way Stop	F	103.8	F	458.2	F	108.7	F	465.7	4.9	7.5
3. Glenn Drive/East Bidwell Street	Signal	B	12.1	B	13.3	B	12.2	B	13.3	0.1	0.0

¹ Level of Service, based on the Highway Capacity Manual, 2010 (HCM 2010).
² Delay as measured in seconds/vehicle

As shown in Table 9, the Coloma Street/East Bidwell Street continues to operate at LOS F during both the AM and PM peak hours with the project. With the addition of the project, 4.9 and 7.5 seconds would be added to the AM and PM peak hours respectively, resulting in a significant project impact during the PM peak hour. All other study area intersections are forecast to operate at satisfactory LOS C or better during the AM and PM peak hours in the Opening Year 2016 With-Project condition. Therefore, the Coloma Street/East Bidwell Street intersection is expected to be impacted in the Opening Year 2016 with project condition as the project would increase the delay more than 5.0 seconds during the PM peak hour.

A stop sign in the westbound direction would mitigate the significant project impact during the PM peak hour. This would result in an all-way-stop controlled intersection. The existing northbound right turn movement would remain an unrestricted free right turn.

Implementation of this mitigation measure would result in an overall intersection delay of 24.2 seconds and LOS C. The delay on all approaches would also improve to LOS D or better. The impacted southwest approach would improve to 12.7 sec/veh (LOS B).

Parking Analysis

As noted in the project description, the project would be a drive-through coffee stand. Therefore, most of the patrons would not park, but would simply pick up their coffee at the drive-through and leave the site. According to the previously referenced *Dutch Brothers Traffic Characteristics Summary, October 5, 2015* by Transpo Group, the project would generate a peak on-site parking demand of 7 spaces. The peak parking demand represents both employees and patrons.

The existing shopping center has a parking supply of approximately 239 spaces (inclusive of regular, handicapped, and reserved DMV spaces). To provide a conservative analysis, the existing parking space count does not include those spaces located behind the retail buildings. Parking surveys were collected at the existing shopping center to identify the peak parking demand of the center. The surveys were collected on Tuesday, November 17, 2015 from 8:00 a.m. to 5:00 p.m. The parking survey data is provided in Appendix D. The peak parking demand identified during the survey was 111 parked vehicles, leaving 128 available spaces.

Construction of the project would result in a loss of approximately 10 parking spaces, thereby reducing the available spaces to 118. As noted above, the peak parking demand for the Dutch Bros coffee stand would be approximately 7 spaces, leaving a parking surplus of 111 parking spaces. Therefore, there would be adequate spaces in the existing shopping center to accommodate the proposed Dutch Bros coffee stand.

Attachment 14

CEQA Exemption Letter, dated May 19, 2018



NAZARETH
ENTERPRISES, INC.

May 19, 2018

Mr. Steve Banks, Planning
City of Folsom
Community Development Department
50 Natoma Street
Folsom, CA 95630

Re: Planning Department Application No. 18-017
Walmart Central Plaza, 1000 Riley Street, Folsom 95630
Request for Class 32 CEQA Exemption

Dear Mr. Banks:

Per your request, the following memorandum is a brief overview of the proposed project and a detail of the enumerated criteria for its inclusion as exempt under the Class 32 "Infill" Categorical Exemption (CEQA Guideline Section 15332).

Project Overview

The proposed project is for the development of an 800sf and 5,000sf single story pad buildings, to be located on a single, less than 1-acre parcel (APN 071-0690-062), within the Walmart Central Shopping Center, at 1000-1016 Riley Street, Folsom. The smaller building is a Dutch Bros Coffee store and the larger building is a Big O Tire shop. The proposed project constitutes an increase of less than 4% over the existing square footage. The site was previously permitted for a similar scheme: a new 4,200sf retail pad building with drive thru (Folsom PN 14-009), but the project was abandoned by the previous owners.

The existing shopping center buildings were built in or about 1992. All of the existing building's exterior design have a common theme, which have, over the years, been updated to include several color scheme and finish material changes. The exteriors of the Dutch Bros Coffee and the Big O Tires buildings represent the corporate designs for materials and colors for those building. The exterior of the Big O Tires building, however, will also incorporate some design features from the existing buildings within the shopping center.

The proposed project site's current zoning is C2-PD; and, its Current General Plan designation is: Central Business District, Planned Development. The proposed project is consistent with its neighboring properties, and the instant application does not seek a change in either zoning or General Plan designations.

Class 32 Exemption Criteria

The Class 32 “Infill” Categorical Exemption (CEQA Guideline Section 15332), hereafter the “Class 32 Exemption”, was enacted to exempt infill developments within urbanized areas that meet certain criteria. The class consists of environmentally benign infill projects that are consistent with the local General Plan and Zoning requirements.

The proposed project meets each of the Class 32 Exemption criteria, as detailed below.

- a. The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.**

As detailed above, the proposed project is consistent with the General Plan Map designation and its policies, goals and objectives. The proposed project is similarly consistent with the current zoning district and will be developed pursuant to the development requirements of the zoning ordinance. No request is being made to change the zoning or General Plan.

- b. The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.**

The project site is within the City limits, is comprised of a single parcel of less than 1 acre, within the Walmart Central shopping center. The project site is immediately surrounded by similar commercial retail properties, in addition to some single family homes to its south and west.

- c. The project site has no value as habitat for endangered, rare or threatened species.**

The project site was previously developed as paved parking, located within the perimeter of the Walmart Central Shopping Center, along Riley Street. There are no known endangered, rare or threatened species on the small project site, as the site was developed for commercial uses.

- d. Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.**

The previously submitted Traffic Impact Study was conducted by Traffic Works, LLC, which showed neither On-Site nor Off-Site significant impacts to traffic. The report offered two (2) minor recommendations: the painting/stripping installation of crosswalk for pedestrian access and “Keep Clear” markings at the area at the project site.

- e. The site can be adequately served by all required utilities and public services.**



The proposed project site is currently served by existing public services and utilities.

It is of interest to note that there are no exceptions to the Class 32 Exemption being requested. As such, we respectfully submit that the proposed project is in compliance with each of the critical components set forth in CEQA Guideline Section 15332, and is therefore an ideal candidate for exemption approval under the Class 32 Exemption.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Ohayon', with a long horizontal stroke extending to the right.

Michael Ohayon
Director of Asset Management

Attachment 15

Site Photographs







DATE: May 4, 2018

TO: Planning Commission

FROM: Community Development Department

SUBJECT: **ORDINANCE NO. _____ – AN ORDINANCE OF THE CITY OF FOLSOM AMENDING CERTAIN PROVISIONS IN TITLE 17 OF THE FOLSOM MUNICIPAL CODE INCLUDING CHAPTER 17.06 REGARDING DESIGN REVIEW; CHAPTER 17.08 REGARDING ZONING PLAN AND ADOPTION OF DISTRICTS; SECTION 17.16.020 REGARDING PERMITTED USES IN THE R-3 NEIGHBORHOOD APARTMENT; AND SECTION 17.18 .020 REGARDING PERMITTED USES IN THE R-4 GENERAL APARTMENT DISTRICT**

BACKGROUND/ISSUE

The proposed amendments to the Folsom Municipal Code are being brought forward as part of staff's ongoing efforts to improve the clarity and effectiveness of the City's zoning code by addressing inconsistencies, improving procedures, correcting minor errors, and improving ambiguous or ineffective standards. These specific issues and corresponding amendments were identified by City staff, the community, as well as customers of the Community Development Department.

The proposed amendments affect four Title 17 zoning chapters of the Folsom Municipal Code: Chapter 17.06 (Design Review), Chapter 17.08 (Zoning Plan and Adoption of Districts), Chapter 17.16 (Neighborhood Apartment District), and Chapter 17.18 (General Apartment District) of the Zoning Code.

Proposed amendments are summarized below and included in Attachment 1.

Revisions to Chapter 17.06 (Design Review)

Section 17.06.050 – Projects Exempt from Design Review Process

- Add an exemption to minor residential modifications for minor additions of 120 square feet or less in size.

Section 17.06.060 – Design Review Submittal Requirements

- Remove the design review requirement to submit a copy of all entitlements for subject property.
- Remove the design review requirement to submit a copy of all required federal and state permits.

Section 17.06.070 - Posting of the Site

- Change the manner in which design review decisions will be made available to the public. Specifically, change from a project site decision posting process to a website posting process.

Section 17.06.100 – Expiration and Extension of Approval

- Extend the design review approval period from six months to two years.

Revision to Chapter 17.08 (Zoning Plan and Adoption of Districts)

- Add language to the zoning plan to include primary areas and subareas as established in Chapter 17.52, Historic District.

Revision to Chapter 17.16.020 (Neighborhood Apartment District)

- Clarify that three- or four family dwelling units and apartments, not to exceed four units per lot are permitted in the R-3 zone.

Revisions to Chapter 17.18.020 (General Apartment District)

- Clarify that multiple dwellings, group dwelling units, and apartments are permitted in the R-4 zone.

POLICY/RULE

Under Section 17.68.040 of the FMC, amendments to the FMC require review by the Planning Commission and a recommendation to the City Council (except for amendments to Chapter 17.52, which are reviewed by the Historic District Commission pursuant to FMC Section 17.52.120). Under Section 2.12 of the City Charter, amendments to the FMC require review and approval by the City Council.

ANALYSIS

The proposed amendments to the FMC are being brought forth as part of staff’s ongoing efforts to improve the clarity and effectiveness of the City’s zoning code. In crafting this particular Ordinance, staff was focused on two primary goals:

1. Making small revisions to Chapter 17.06 (Design Review) in order to streamline the design review process (both for staff and applicants) and improve transparency to the public.
2. Cleaning up several chapters (17.08, 17.16 and 17.18) of the zoning code where both staff and applicants have identified discrepancies in the code where the precise language in the code regarding permitted uses is ambiguous or inconsistent with the intended uses.

Chapter 17.06 (Design Review)

The proposed design review amendments are designed to streamline aspects of the design review process, as well as provide additional flexibility in code application. The table below summarizes the proposed design review code revisions along with the corresponding reason for the proposed amendments.

Summary: Proposed Chapter 17.06 (Design Review) Revisions		
Code Section	Proposed Modification	Reason for Change
<u>Section 17.06.050</u>	Exempt residential additions of 120 square feet or less from design review.	Reduces regulatory requirements placed on small residential additions resulting in cost savings for applicants and reducing delays in City’s permitting process.

<u>Section 17.06.060</u>	Remove design review requirement to submit copies of entitlements and federal and state permits.	Eliminates the requirement to submit unnecessary documents that, under the provision of “other material and information,” can still be requested by the Community Development Director and/or Planning Commission if deemed necessary.
<u>Section 17.06.070</u>	Change the manner in which design review decisions will be made available to the public. Specifically, changes from a project site decision posting process to a website posting process.	Provides better transparency of design review projects and decisions by posting the project information and the design review determination on the City’s website. In addition, this modification reduces the amount of staff time required for posting, since the project site will only require the initial posting. This proposal is also in accordance with the City’s sustainability goals of reducing greenhouse gas emissions.
<u>Section 17.06.100</u>	Extend the design review approval period from six months to two years.	Provides project applicants with greater flexibility for project timelines.

Chapter 17.08 (Zoning Plan and Adoption of Districts)

Staff is proposing to add the language “primary areas, and subareas” to Section 17.08.030 (Zoning Plan - Content) and Section 17.08.050 (Districts –Applications) as part of a housekeeping measure. The purpose of this proposed amendment is simply to clarify and recognize that, in addition to the various “zoning districts” designated in Chapter 17.10 of the zoning code, the provisions and regulations of Title 17 also apply to the “primary areas and subareas,” as designated in Chapter 17.52 (Historic District). These housekeeping changes are made in association with a broader change to Chapter 17.52, which will be reviewed by the Historic District Commission. However, pursuant to section 17.68.040, these changes to Chapter 17.08 must be reviewed by the Planning Commission instead of the Historic District Commission.

Section 17.16.020 (R-3 Neighborhood Apartment District)

Under Section 17.16.010 (Intent), the intent of the Neighborhood Apartment District zoning designation is to designate areas in the City where homes and small apartments are desirable uses. Despite that clearly stated intent, Section 17.16.020 (Permitted Uses) currently states that three-or four-family dwellings and apartments (not to exceed four units per lot) are not permitted in the R-3 zones. It is staff’s conclusion that this was an inadvertent error. Thus, the proposed amendment to this section of the code simply corrects this error, eliminating the existing inconsistency. The proposed amendment clarifies that three or four family dwellings and apartments, not to exceed four units per lot, are permitted uses in the R-3 zone, which is consistent with the intent of the zoning designation.

Section 17.18.020 (R-4 General Apartment District)

Under Section 17.18.010 (Intent), the intent of the General Apartment District zoning designation is to designate areas in the City where group dwellings and apartments are logical and desirable uses. Despite

the clearly stated intent of Section 17.18.010, the following section, Section 17.18.020 (Permitted Uses), does not specifically list apartments and/or group dwellings as permitted uses. Furthermore, the default permitted uses in R-1, R-2 and R-3 that are permitted in R-4 also do not capture group dwellings and/or apartments (large than 4 units) as permitted uses.

“Apartment house” is defined by Section 17.02.060 as “any building or portion thereof which is designed and built for occupancy by three or more families.” Similarly, “multiple family dwelling” is defined by Section 17.02.150 as “a building designed and/or used to house three or more families, living independently of each other, including all necessary employees of each such family.” The term “group dwellings” is not defined in the FMC, but it is used in section 17.18.010. In order to clarify the allowed uses in the General Apartment District and to eliminate confusion in the application of other portions of Chapter 17.18, the following definition is proposed for “group dwellings”: *Group Dwelling means one of a group of two or more detached buildings, each of which is used as a dwelling and one or more of which has a site without a frontage to a public road.*

Under the proposed revisions to Section 17.18.020, clarifications regarding intent and permitted uses will be achieved by defining “group dwellings” and by specifically listing group dwellings, multiple family dwellings, and apartments as permitted uses in the R-4 zone. Specifically, the proposed amendment clarifies that multiple family dwellings, group dwellings, and apartment houses are permitted uses in the R-4 zone, which is consistent with the intent of the zoning designation and existing uses throughout the City in R-4 zones.

In summary, the proposed Ordinance brings forth common sense modifications that improve the design review process, eliminate existing errors and resolve several existing ambiguities regarding permitted uses in designated zoning classifications.

ENVIRONMENTAL REVIEW

The project is categorically exempt from environmental review under Section 15061(b)(3), Review for Exemption, of the California Environmental Quality Act (CEQA) Guidelines.

ATTACHMENTS

1. Ordinance No. _____ - An Ordinance of the City of Folsom Amending Certain Provisions in Title 17 of the Folsom Municipal Code Including Chapter 17.06 Regarding Design Review; Chapter 17.08 Regarding Zoning Plan and Adoption of Districts; Section 17.16.020 Regarding Permitted Uses in the R-3 Neighborhood Apartment District; and Section 17.18.020 Regarding Permitted Uses in the R-4 General Apartment District (Redline)
2. Ordinance No. _____ - An Ordinance of the City of Folsom Amending Certain Provisions in Title 17 of the Folsom Municipal Code Including Chapter 17.06 Regarding Design Review; Chapter 17.08 Regarding Zoning Plan and Adoption of Districts; Section 17.16.020 Regarding Permitted Uses in the R-3 Neighborhood Apartment District; and Section 17.18.020 Regarding Permitted Uses in the R-4 General Apartment District (Clean Copy)

RECOMMENDATION/PLANNING COMMISSION ACTION

MOVE TO RECOMMEND CITY COUNCIL APPROVAL OF ORDINANCE NO. _____ - AN

ORDINANCE OF THE CITY OF FOLSOM AMENDING CERTAIN PROVISIONS IN TITLE 17 OF THE FOLSOM MUNICIPAL CODE INCLUDING CHAPTER 17.06 REGARDING DESIGN REVIEW; CHAPTER 17.08 REGARDING ZONING PLAN AND ADOPTION OF DISTRICTS; SECTION 17.16.020 REGARDING PERMITTED USES IN THE R-3 NEIGHBORHOOD APARTMENT DISTRICT; AND SECTION 17.18.020 REGARDING PERMITTED USES IN THE R-4 GENERAL APARTMENT DISTRICT PER ATTACHMENT 2 WITH THE FOLLOWING FINDINGS:

GENERAL FINDINGS

- A. NOTICE OF HEARING HAS BEEN GIVEN AT THE TIME AND IN THE MANNER REQUIRED BY STATE LAW AND CITY CODE.
- B. THE ORDINANCE IS CONSISTENT WITH THE GENERAL PLAN OF THE CITY.

CEQA FINDING

- C. THE ORDINANCE IS CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW UNDER SECTION 15061(B)(3) REVIEW FOR EXEMPTION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) GUIDELINES.

Respectfully Submitted,



Pam Johns
Community Development Director

Attachment 1

Ordinance No. _____ - An Ordinance of the City of Folsom Amending Certain Provisions in Title 17 of the Folsom Municipal Code Including Chapter 17.06 Regarding Design Review; Chapter 17.08 Regarding Zoning Plan and Adoption of Districts; Section 17.16.020 Regarding Permitted Uses in the R-3 Neighborhood Apartment District; and Section 17.18.020 Regarding Permitted Uses in the R-4 General Apartment District (Redline)

ORDINANCE NO.

**AN ORDINANCE OF THE CITY OF FOLSOM
AMENDING CERTAIN PROVISIONS IN TITLE 17 OF THE FOLSOM MUNICIPAL
CODE INCLUDING CHAPTER 17.06 REGARDING DESIGN REVIEW; CHAPTER
17.08 REGARDING ZONING PLAN AND ADOPTION OF DISTRICTS; SECTION
17.16.020 REGARDING PERMITTED USES IN THE R-3 NEIGHBORHOOD
APARTMENT DISTRICT; AND SECTION 17.18 .020 REGARDING PERMITTED
USES IN THE R-4 GENERAL APARTMENT DISTRICT**

The City Council of the City of Folsom does hereby ordain as follows:

SECTION 1: PURPOSE

The purpose of this Ordinance is to:

- A. Amend certain provisions in Chapter 17.06 of the Folsom Municipal Code related to Design Review as follows:
- i. Amend Section 17.06.050, Projects Exempt From Design Review Process, to exempt residential additions of 120 square feet or less from design review in order to reduce regulatory requirements for project applicants and to reduce delays in the City's permitting process; and
 - ii. Amend Section 17.06.060, Design Review Submittal Requirements, to eliminate the requirement that project applicants submit copies of all entitlements granted for the subject property by the city, including conditions of approval and environmental documentation, and to eliminate the requirement that project applicants submit copies of all required state and federal permits, in order to eliminate the submission of unnecessary documents which can still be requested by staff pursuant to other sections of the code if necessary; and
 - iii. Amend Section 17.06.070, Posting of the Site, to change the way notice of a design review decision is posted, in order to require that the design review decision is posted on the City's website instead of being posted on the project site to improve transparency, reduce staff time, and help reduce greenhouse gas emissions; and
 - iv. Amend Section 17.06.100, Expiration and Extension of Approval, to extend the life of design review approvals from six months to two years in order to provide project applicants with greater flexibility for project timelines.

- B. Amend Section 17.08.030 of the FMC, Zoning Plan – Content, to clarify that primary area designations and subarea designations are part of the zoning plan.
- C. Amend Section 17.16.020 of the FMC, R-3 Neighborhood Apartment District, to clarify that three-or-four family dwellings and apartments (not to exceed four units per lot) are permitted within the R-3 Neighborhood Apartment District in order to comport with the intent of the Neighborhood Apartment District; and
- D. Amend Section 17.18.020 of the FMC, R-4 General Apartment District, to clarify that apartments larger than four units and group dwellings are permitted within the R-4 General Apartment District in order to comport with the intent of the General Apartment District.

SECTION 2: AMENDMENT TO CODE

Section 17.06.050 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.050 Projects exempt from design review process.

The following types of projects are considered exempt from the design review process under this chapter:

- A. All structures located within the area of the historic district which shall follow the guidelines of said district and be subject to design review process under Section 17.52.300;
- B. Any development proposals located in the RMH zoning district;
- C. Residential additions and exterior modifications that do not require a building permit;
- D. Minor residential modifications including but not limited to: replacement of existing roof materials, replacement of existing windows and doors, changes to exterior building colors, additions of 120 square feet or less, patio covers and trellises, privacy fencing and walls, aboveground spas and hot tubs, and outdoor cooking facilities. (Ord. 1109 § 2 (part), 2008)

SECTION 3: AMENDMENT TO CODE

Section 17.06.060 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.060 Design review submittal requirements.

The applicant shall file the following information with the community development department for review by the community development director or the planning commission:

- A. Completed and signed application form including applicant's name, address, telephone number, and agent authorization from the property owner if the applicant is not the property owner;
- B. Application fee as established by resolution of the city council;

~~C.—A copy of all entitlements granted for the subject property by the city, including conditions of approval and the environmental documentation;~~

~~D.—A copy of all required state and federal permits;~~

~~CE.~~ Site plan;

~~DE.~~ Building elevations and design plan;

~~EG.~~ Material samples and color board;

~~FH.~~ Recent photographs of the project site taken within thirty days prior to the submittal which accurately depict the project location;

~~GI.~~ Other material and information as requested by the community development director and/or the planning commission. (Ord. 1109 § 2 (part), 2008)

SECTION 4: AMENDMENT TO CODE

Section 17.06.070 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.070 Posting of the site.

A. Upon application for design review of a project, the project site shall be posted five calendar days prior to the community development department director or planning commission review, with a notice, eleven inches by seventeen inches in size and visible to the public, indicating the project description and the time and place of the meeting or staff review.

B. Notice for design review of a project that either requires, or is part of a submittal that requires, public hearing shall also be given in accordance with the Folsom Municipal Code and state planning law.

C. Once a decision is issued pursuant to Section 17.06.090, a notice shall be posted on the City's website project site not less than ten calendar days, ~~eleven inches by seventeen inches in size and visible to the public,~~ stating the decision and the right to file an appeal under Section 17.06.110. (Ord. 1109 § 2 (part), 2008)

SECTION 5: AMENDMENT TO CODE

Section 17.06.100 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.100 Expiration and extension of approval.

A. A design review approval shall be null and void unless the applicant submits a complete application for a building permit within two years ~~six months~~ of the approval.

B. The community development director or the planning commission, in exercising their design review authorities under this chapter, may extend an approval for an additional six months for minor projects (projects subject to Section 17.06.040) and one year for major projects (projects subject to Section 17.06.030) upon receipt of a written request accompanied

by a fee established by resolution of the city council. Requests for approval extension must be received ~~within six months of before~~ the original approval expires. (Ord. 1109 § 2 (part), 2008)

SECTION 6: AMENDMENT TO CODE

Section 17.08.030 of the Folsom Municipal Code is hereby amended to read as follows:

17.08.030 Zoning plan—Content.

The zoning plan consists of the establishment of various districts, primary areas, and subareas within some, all, or none of which shall it be lawful, and within some, all or none of which it shall be unlawful to erect, construct, alter, move, locate or maintain certain buildings or to carry on certain trades or occupations or conduct certain uses of land or of buildings; within which the height and bulk of future buildings shall be limited; within which certain open spaces shall be required about future buildings and consisting further of appropriate additional regulations to be enforced in such districts, primary areas, and subareas, all as set forth in this title. (Prior code § 3101.03)

SECTION 7: AMENDMENT TO CODE

Section 17.08.050 of the Folsom Municipal Code is hereby amended to read as follows:

17.080.050 Districts-Application

The classes of districts, primary areas and subareas and certain combinations thereof as designated in Chapters 17.10 and 17.52 and the regulations pertaining thereto are applied to the land areas, and the land areas designated therein shall be subject to the provisions and regulations of this title. (Prior code § 3103.01)

SECTION 8: AMENDMENT TO CODE

Section 17.16.020 of the Folsom Municipal Code is hereby amended to read as follows:

17.16.020 Permitted uses.

The following uses shall be permitted in the R-3 district:

A. Uses as permitted in the R-1 and R-2 districts except:

1. Standard single-family detached dwelling units;

~~2. Three or four family dwellings and apartments, not to exceed four units per lot;~~

~~23.~~ Small family day care homes, unless in single-family detached dwelling units; and

~~34.~~ Large family day care homes, unless in single-family detached dwelling units and with an administrative permit issued pursuant to Chapter 5.100;

B. Three or four family dwellings and apartments, not to exceed four units per lot;

CB. Boarding and lodging houses;

DC. Private garages, or parking lots uncovered and screened by suitable walls or planting, when operated by or in conjunction with a permitted use;

ED. Incidental and accessory buildings and uses on the same lot with and necessary for the operation of any permitted use;

FE. Advertising signs pertaining directly to a permitted nonresidential use on the property, and not to exceed one sign of a maximum area of six square feet for any such use;

GF. Emergency shelters in accordance with Chapter 17.108. (Ord. 1218 § 11, 2015; Ord. 1144 § 3 (part), 2011; Ord. 904 § 2 (part), 1999; prior code § 3107.02)

SECTION 9: AMENDMENT TO CODE

Section 17.18.020 of the Folsom Municipal Code is hereby amended to read as follows:

17.18.020 Permitted uses.

The following uses shall be permitted in the R-4 district:

A. Multiple family dwellings;

B. Group dwellings. For purposes of this Chapter, a “group dwelling” means one of a group of two or more detached buildings, each of which is used as a dwelling and one or more of which has a site without a frontage to a public road;

C. Apartments;

B-D. Uses as permitted in the R-1, R-2, and R-3 districts except the following:

1. Standard single-family detached dwelling units;
2. Small family day care homes, unless in single-family detached dwelling units;
3. Large family day care homes, unless in single-family detached dwelling units and with an administrative permit issued pursuant to Chapter 5.100;

EB. Uses for which use permits are required in the R-1, R-2, and R-3 districts;

FC. Parks, playgrounds, public and private schools, churches, and religious institutions, libraries, day care centers and public utility buildings;

GD. Emergency shelters in accordance with Chapter 17.108. (Ord. 1218 § 16, 2015; Ord. 1144 § 3 (part), 2011; Ord. 904 § 2 (part), 1999; prior code § 3108.02)

SECTION 10: SCOPE

Except as set forth in this ordinance, all other provisions of the Folsom Municipal Code shall remain in full force and effect.

SECTION 11: SEVERABILITY

If any section, subsection, clause, phrase, or portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof, irrespective of the fact that any one or more sections, subsections, clauses, phrases or portions be declared invalid or unconstitutional.

SECTION 12: EFFECTIVE DATE

This ordinance shall become effective thirty (30) days from and after its passage and adoption, provided it is published in full or in summary within twenty (20) days after its adoption in a newspaper of general circulation.

This ordinance was introduced and the title thereof read at the regular meeting of the City Council on _____, 2018, and the second reading occurred at the regular meeting of the City Council on _____, 2018.

On a motion by Council Member _____, seconded by Council Member _____, the foregoing ordinance was passed and adopted by the City Council of the City of Folsom, State of California, this ____ day of _____, 2018 by the following vote, to wit:

- AYES: Council Member(s)
- NOES: Council Member(s)
- ABSENT: Council Member(s)
- ABSTAIN: Council Member(s)

Stephen E. Miklos, MAYOR

ATTEST:

Christa Freemantle, CITY CLERK

Attachment 2

Ordinance No. _____ - An Ordinance of the City of Folsom Amending Certain Provisions in Title 17 of the Folsom Municipal Code Including Chapter 17.06 Regarding Design Review; Chapter 17.08 Regarding Zoning Plan and Adoption of Districts; Section 17.16.020 Regarding Permitted Uses in the R-3 Neighborhood Apartment District; and Section 17.18.020 Regarding Permitted Uses in the R-4 General Apartment District (Clean Copy)

ORDINANCE NO.

**AN ORDINANCE OF THE CITY OF FOLSOM
AMENDING CERTAIN PROVISIONS IN TITLE 17 OF THE FOLSOM MUNICIPAL
CODE INCLUDING CHAPTER 17.06 REGARDING DESIGN REVIEW; CHAPTER
17.08 REGARDING ZONING PLAN AND ADOPTION OF DISTRICTS; SECTION
17.16.020 REGARDING PERMITTED USES IN THE R-3 NEIGHBORHOOD
APARTMENT DISTRICT; AND SECTION 17.18 .020 REGARDING PERMITTED
USES IN THE R-4 GENERAL APARTMENT DISTRICT**

The City Council of the City of Folsom does hereby ordain as follows:

SECTION 1: PURPOSE

The purpose of this Ordinance is to:

- A. Amend certain provisions in Chapter 17.06 of the Folsom Municipal Code related to Design Review as follows:
- i. Amend Section 17.06.050, Projects Exempt From Design Review Process, to exempt residential additions of 120 square feet or less from design review in order to reduce regulatory requirements for project applicants and to reduce delays in the City's permitting process; and
 - ii. Amend Section 17.06.060, Design Review Submittal Requirements, to eliminate the requirement that project applicants submit copies of all entitlements granted for the subject property by the city, including conditions of approval and environmental documentation, and to eliminate the requirement that project applicants submit copies of all required state and federal permits, in order to eliminate the submission of unnecessary documents which can still be requested by staff pursuant to other sections of the code if necessary; and
 - iii. Amend Section 17.06.070, Posting of the Site, to change the way notice of a design review decision is posted, in order to require that the design review decision is posted on the City's website instead of being posted on the project site to improve transparency, reduce staff time, and help reduce greenhouse gas emissions; and
 - iv. Amend Section 17.06.100, Expiration and Extension of Approval, to extend the life of design review approvals from six months to two years in order to provide project applicants with greater flexibility for project timelines.

- B. Amend Section 17.08.030 of the FMC, Zoning Plan – Content, to clarify that primary area designations and subarea designations are part of the zoning plan.
- C. Amend Section 17.16.020 of the FMC, R-3 Neighborhood Apartment District, to clarify that three-or-four family dwellings and apartments (not to exceed four units per lot) are permitted within the R-3 Neighborhood Apartment District in order to comport with the intent of the Neighborhood Apartment District; and
- D. Amend Section 17.18.020 of the FMC, R-4 General Apartment District, to clarify that apartments larger than four units and group dwellings are permitted within the R-4 General Apartment District in order to comport with the intent of the General Apartment District.

SECTION 2: AMENDMENT TO CODE

Section 17.06.050 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.050 Projects exempt from design review process.

The following types of projects are considered exempt from the design review process under this chapter:

- A. All structures located within the area of the historic district which shall follow the guidelines of said district and be subject to design review process under Section 17.52.300;
- B. Any development proposals located in the RMH zoning district;
- C. Residential additions and exterior modifications that do not require a building permit;
- D. Minor residential modifications including but not limited to: replacement of existing roof materials, replacement of existing windows and doors, changes to exterior building colors, additions of 120 square feet or less, patio covers and trellises, privacy fencing and walls, aboveground spas and hot tubs, and outdoor cooking facilities. (Ord. 1109 § 2 (part), 2008)

SECTION 3: AMENDMENT TO CODE

Section 17.06.060 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.060 Design review submittal requirements.

The applicant shall file the following information with the community development department for review by the community development director or the planning commission:

- A. Completed and signed application form including applicant's name, address, telephone number, and agent authorization from the property owner if the applicant is not the property owner;
- B. Application fee as established by resolution of the city council;
- C. Site plan;

- D. Building elevations and design plan;
- E. Material samples and color board;
- F. Recent photographs of the project site taken within thirty days prior to the submittal which accurately depict the project location;
- G. Other material and information as requested by the community development director and/or the planning commission. (Ord. 1109 § 2 (part), 2008)

SECTION 4: AMENDMENT TO CODE

Section 17.06.070 of the Folsom Municipal Code is hereby amended to read as follows:

17.06.070 Posting of the site.

- A. Upon application for design review of a project, the project site shall be posted five calendar days prior to the community development department director or planning commission review, with a notice, eleven inches by seventeen inches in size and visible to the public, indicating the project description and the time and place of the meeting or staff review.
- B. Notice for design review of a project that either requires, or is part of a submittal that requires, public hearing shall also be given in accordance with the Folsom Municipal Code and state planning law.
- C. Once a decision is issued pursuant to Section 17.06.090, a notice shall be posted on the City's website not less than ten calendar days, stating the decision and the right to file an appeal under Section 17.06.110. (Ord. 1109 § 2 (part), 2008)

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- B. The community development director or the planning commission, in exercising their design review authorities under this chapter, may extend an approval for an additional six months for minor projects (projects subject to Section 17.06.040) and one year for major projects (projects subject to Section 17.06.030) upon receipt of a written request accompanied by a fee established by resolution of the city council. Requests for approval extension must be received before the original approval expires. (Ord. 1109 § 2 (part), 2008)

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Section 17.08.030 of the Folsom Municipal Code is hereby amended to read as follows:

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The zoning plan consists of the establishment of various districts, primary areas, and subareas within some, all, or none of which shall it be lawful, and within some, all or none of which it shall be unlawful to erect, construct, alter, move, locate or maintain certain buildings or to carry on certain trades or occupations or conduct certain uses of land or of buildings; within which the height and bulk of future buildings shall be limited; within which certain open spaces shall be required about future buildings and consisting further of appropriate additional regulations to be enforced in such districts, primary areas, and subareas, all as set forth in this title. (Prior code § 3101.03)

SECTION 7: AMENDMENT TO CODE

Section 17.08.050 of the Folsom Municipal Code is hereby amended to read as follows:

17.080.050 Districts-Application

The classes of districts, primary areas and subareas and certain combinations thereof as designated in Chapters 17.10 and 17.52 and the regulations pertaining thereto are applied to the land areas, and the land areas designated therein shall be subject to the provisions and regulations of this title. (Prior code § 3103.01)

SECTION 8: AMENDMENT TO CODE

Section 17.16.020 of the Folsom Municipal Code is hereby amended to read as follows:

17.16.020 Permitted uses.

The following uses shall be permitted in the R-3 district:

- A. Uses as permitted in the R-1 and R-2 districts except:
 - 1. Standard single-family detached dwelling units;
 - 2. Small family day care homes, unless in single-family detached dwelling units; and
 - 3. Large family day care homes, unless in single-family detached dwelling units and with an administrative permit issued pursuant to Chapter 5.100;
- B. Three or four family dwellings and apartments, not to exceed four units per lot;
- C. Boarding and lodging houses;
- D. Private garages, or parking lots uncovered and screened by suitable walls or planting, when operated by or in conjunction with a permitted use;
- E. Incidental and accessory buildings and uses on the same lot with and necessary for the operation of any permitted use;

F. Advertising signs pertaining directly to a permitted nonresidential use on the property, and not to exceed one sign of a maximum area of six square feet for any such use;

G. Emergency shelters in accordance with Chapter 17.108. (Ord. 1218 § 11, 2015; Ord. 1144 § 3 (part), 2011; Ord. 904 § 2 (part), 1999; prior code § 3107.02)

SECTION 9: AMENDMENT TO CODE

Section 17.18.020 of the Folsom Municipal Code is hereby amended to read as follows:

17.18.020 Permitted uses.

The following uses shall be permitted in the R-4 district:

- A. Multiple family dwellings
- B. Group dwellings. For purposes of this Chapter, a “group dwelling” means one of a group of two or more detached buildings, each of which is used as a dwelling and one or more of which has a site without a frontage to a public road;
- C. Apartments;
- D. Uses as permitted in the R-1, R-2, and R-3 districts except the following:
 - 1. Standard single-family detached dwelling units;
 - 2. Small family day care homes, unless in single-family detached dwelling units;
 - 3. Large family day care homes, unless in single-family detached dwelling units and with an administrative permit issued pursuant to Chapter 5.100;
- E. Uses for which use permits are required in the R-1, R-2, and R-3 districts;
- F. Parks, playgrounds, public and private schools, churches, and religious institutions, libraries, day care centers and public utility buildings;
- G. Emergency shelters in accordance with Chapter 17.108. (Ord. 1218 § 16, 2015; Ord. 1144 § 3 (part), 2011; Ord. 904 § 2 (part), 1999; prior code § 3108.02)

SECTION 10: SCOPE

Except as set forth in this ordinance, all other provisions of the Folsom Municipal Code shall remain in full force and effect.

SECTION 11: SEVERABILITY

If any section, subsection, clause, phrase, or portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof, irrespective of the fact that any one or more sections, subsections, clauses, phrases or portions be declared invalid or unconstitutional.

SECTION 12: EFFECTIVE DATE

This ordinance shall become effective thirty (30) days from and after its passage and adoption, provided it is published in full or in summary within twenty (20) days after its adoption in a newspaper of general circulation.

This ordinance was introduced and the title thereof read at the regular meeting of the City Council on _____, 2018, and the second reading occurred at the regular meeting of the City Council on _____, 2018.

On a motion by Council Member _____, seconded by Council Member _____, the foregoing ordinance was passed and adopted by the City Council of the City of Folsom, State of California, this ____ day of _____, 2018 by the following vote, to wit:

AYES: Council Member(s)
NOES: Council Member(s)
ABSENT: Council Member(s)
ABSTAIN: Council Member(s)

Stephen E. Miklos, MAYOR

ATTEST:

Christa Freemantle, CITY CLERK