

Costco Wholesale Project Recirculated Partial Draft EIR

PREPARED FOR
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Ukiah, California 95482

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February 2017



**Costco Wholesale Project
Recirculated Partial Draft Environmental Impact Report
SCH # 2011112025**

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A	Memorandum to Charley Stump, City of Ukiah. Prepared by Dudek. December 16, 2013.
B	Letter to Kier and Wright Civil Engineers & Surveyors, Inc. City of Ukiah Utilities Department. September 20, 2016.
C	Letter to Letter to Kier and Wright Civil Engineers & Surveyors, Inc. Prepared by PG&E. September 9, 2016.
D	Title 24 Performance Certificate of Compliance. Costco Ukiah. December 17, 2013.

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CHAPTER 1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The Costco Wholesale Project (Project) is a proposed Costco Wholesale Warehouse within the City of Ukiah (City). The City, as the lead agency under the California Environmental Quality Act (CEQA), determined that an Environmental Impact Report (EIR) should be prepared. The Notice of Preparation was released on November 7, 2011. The Draft EIR (State Clearinghouse #2011112025) was released on January 30, 2013, for a public review period of 45 days. The City Council of Ukiah certified the Final EIR on December 18, 2013. Following certification of the EIR, the City approved the necessary entitlements for the Project, including rezoning of the Project Site and a Site Development Permit. The City Council then introduced the first reading of Ordinance 1146, rezoning the Project Site to Retail Commercial. On January 15, 2014, the Ordinance was approved by the City Council. The City of Ukiah Planning Commission approved the Site Development Permit on January 22, 2014. The City Council heard an appeal of the Planning Commission's action on March 5, 2014, and upheld the approval of the Site Development Permit.

On June 21, 2016, the Court of Appeals ruled that the Final EIR did not adequately address the potential energy impacts of the project (*Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256). The City Council of Ukiah subsequently set aside the Final EIR on November 16 2016, and directed that the EIR be revised and recirculated to address the Court of Appeal ruling. This document does not revise the EIR in any respect other than the Energy Section (section 3.15) as directed by the Court of Appeal Decision, as the Court of Appeal Decision upheld all other aspects of the EIR. As this document is limited to the Energy Section (section 3.15), pursuant to CEQA Guidelines Section 15088.5, subdivision (c), the DEIR and the FEIR are not being recirculated for public review and comment.

The City of Ukiah, as the lead agency under the California Environmental Quality Act (CEQA), prepared an EIR for the Project and prepared this document, entitled Recirculated Portions of the Draft EIR (RPDEIR).

This Executive Summary includes a summary of environmental impacts and alternatives to the proposed project identified in the Draft EIR, as revised by the Final EIR dated December 2013, and additional energy impact discussion included in the RPDEIR.

1.2 PROJECT DESCRIPTION

The approved Costco Wholesale Project includes the construction of a new Costco Wholesale warehouse, with a maximum size of 148,000 square feet (SF), and a fueling facility on approximately 15.33 acres. The fueling facility will have 16 vehicle fueling positions (with the

capacity to expand to 20 positions in the future). The plans submitted with Costco's building permit application propose a warehouse of 141,125 SF, with a bakery, pharmacy, optical center, hearing aid testing center, food court, photo center, tire center, and fueling facility along with the sale of between 3,800 and 4,000 products. The tire center would be a 5,442 SF attached building with member access through the inside of the main Costco building and would include retail tire sales and a tire installation facility. The fueling facility is separate from the main building site, and would include a 2,816 SF canopy and 16 fueling positions (expandable to 20 positions). The fueling facility occupies approximately 2.37 acres, located in the southeast corner of the site adjacent to US 101. Store hours are anticipated to be 10:00 a.m. to 8:30 p.m. Monday through Friday, 9:30 a.m. to 6:00 p.m. on Saturday, and 10:00 a.m. to 6:00 p.m. on Sunday. Fueling facility hours would be Monday through Friday, 6:00 a.m. to 9:30 p.m., Saturday and Sunday from 6:00 a.m. to 7:00 p.m. Delivery hours will generally occur between 4:00 a.m. and 2:30 p.m. The Costco facility would employ approximately 175 to 200 people.

The Project Site is located in the City of Ukiah, Mendocino County, California. The Project Site consists of at least portions of twelve parcels totaling 15.33 acres (Assessor's Parcel Numbers 180-110-8 through 10, 180-080-57 through 59, and 180-080-62 through 67). The Project Site is bounded by commercial uses (north and south), US 101 (east), and Airport Park Boulevard (west) (Figure 2-2). The Project Site is within the Airport Industrial Park (AIP) Planned Development. The Airport Industrial Park is bounded by Talmage Road to the north, Ukiah Municipal Airport to the west, and US 101 to the east and south.

1.3 ALTERNATIVES TO THE PROPOSED PROJECT

The purpose of the alternatives analysis in an EIR is to describe a range of reasonable alternatives to the project that could feasibly attain the objectives of the project, and to evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6(a)).

Additionally, CEQA Guidelines Section 15126.6 requires consideration of alternatives that could avoid or substantially lessen any significant adverse environmental effects of the proposed project, including alternatives that may be more costly or could otherwise impede the project's objectives. The range of alternatives considered must include those that offer substantial environmental advantages over the proposed project and may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors.

The DEIR analyzes the following alternatives:

- No Project Alternative (Existing Conditions, No Change)
- Reduced Project Size Alternative (No Gas Station)
- Off-site Alternative (West Side Airport Park Blvd.)

The Reduced Project Size Alternative (No Gas Station) was selected as the Environmentally Superior Alternative. However, as discussed in the DEIR (Section 5.5), the significant and unavoidable impacts associated with the project would not be reduced to less than significant by this alternative. In addition, the feasibility of the alternative would have to be determined by the decision making body of the lead agency.

1.4 SUMMARY OF ENVIRONMENTAL IMPACTS

Table 1-1 presents a summary of Project impacts and proposed mitigation measures that would further avoid or minimize potential impacts. It also indicates the level of significance of each environmental impact both before and after the application of the recommended mitigation measure(s). Table 1-1 includes any minor revisions made to mitigation measures as a result of the comments on the Draft EIR.

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
<i>Aesthetics</i>		
Impact 3.1.1: Implementation of the Project would not change the existing visual character or quality of the site and its surroundings.	None required.	LTS
Impact 3.1.2: Implementation of the Project may create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	<p>Measure 3.1.2: : All outdoor light fixtures shall be located, aimed or shielded so as to minimize stray light trespassing across property boundaries. Fixtures shall be full cut-off and nighttime friendly, consistent with LEED goals and Green Globes criteria for light pollution reduction.</p> <p>The project applicant will be required to prepare a photometric plan demonstrating that lighting will not spillover onto adjacent properties. Furthermore, the Project will adhere to all City regulations relating to signage and the shielding of light in order to reduce any potential negative effects from new light sources (per Building Code Sections §3225, §3226, §3227). The revised light plan shall demonstrate an average light level no greater than 4 footcandle (fc) at grade (ground surface), and shall not exceed 10 fc in any location. Light trespass onto adjacent private property shall not exceed 0.2 fc (at the property line). Light trespass onto adjacent public rights of way or private roadway easements shall not exceed 0.2 fc measured at the centerline of the right of way. Pole-mounted parking lot lighting shall be turned off one hour after the store closes. Alternatively, 50% of pole-mounted lighting may be turned off if the City or store operator requests additional security lighting. These standards shall be included in the Project conditions of approval as well as the mitigation monitoring and reporting program.</p>	LTS
Impact 3.1.3: The Project would not contribute to a significant cumulative visual impact.	None required.	LTS
<i>Air Quality</i>		
Impact 3.2.1: Construction activities associated with development of the Project would not generate significant short-term emissions of criteria pollutants.	None required.	LTS
Impact 3.2.2: Operation of the Project would generate significant emissions of criteria air pollutants that could contribute to existing	Measure 3.2.2a: The Project will incorporate sustainability features in building and site design with the goal of reaching a building efficiency rating that is greater than the Title 24 requirement, in order to reduce energy consumption and associated	SU

Table 1-1
Summary of Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
<p>nonattainment conditions and degrade air quality.</p>	<p>GHG emissions. As set forth in the "Project Description," the project will incorporate the following sustainability features:</p> <ul style="list-style-type: none"> • Parking lot light standards are designed to provide even light distribution and use 20% less energy compared to a greater number of fixtures at lower heights. The use of metal halide lamps provide a color corrected white light and a higher level of perceived brightness with less energy than other lamps such as high pressure sodium. • Locally extracted and manufactured building materials will be utilized where feasible. • Pre-manufactured building components, including structural framing and metal panels, are designed to minimize waste during construction. • Pre-manufactured metal wall panels with insulation are designed to conserve energy by increasing R-value and solar reflectivity. Building heat absorption is reduced by a decrease in the thermal mass of the metal wall when compared to a typical masonry block wall. • Reflective roof material will meet the requirements for the USEPA's Energy Star energy efficiency program. Reflective roofs produce lower heat absorption and thereby lower energy usage during the summer months. • Skylights are used on the roof to reduce the need for interior lighting. A "daylight harvesting" system monitors and adjusts the mechanical and lighting systems in order to conserve energy. The system includes the skylights, light monitors, energy efficient lighting fixtures, and associated control systems. On a typical sunny day, fewer than one third of the interior lights are needed. • Tree plantings to reduce summer heat gain within the parking field. • Planting to incorporate a substantial amount of drought tolerant species. • Irrigation system to incorporate the use of deep root watering bubblers for parking lot shade trees to minimize water usage and ensure that water goes directly to the intended planting areas. <p>Measure 3.2.2b: The applicant shall implement the following measures, to the extent feasible and appropriate, to reduce motor vehicle trips and emissions associated with Project operations:</p>	

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Promote the use of alternative fueled vehicles (i.e., CNG, electric, etc.) for Project operations. The applicant shall implement two or more of the following measures: <ul style="list-style-type: none"> ○ Warehouse equipment, including forklifts, will be electric powered. ○ Landscaping equipment will be electric powered. ○ Preferred parking for zero emission vehicles. ○ Retail fueling station will include a CNG refueling station. ○ Customer parking will include a minimum of one (1) electric recharge station. • Provide commute incentives for employees to utilize alternative transportation, such as carpool/vanpool, transit, cycling, or walking. A Costco carpool and alternative transportation manager shall be designated to oversee the implementation of these TDM measures. Costco will provide its employees the following incentives: <ul style="list-style-type: none"> ○ Four carpool parking spaces reserved for Costco employees; ○ Bicycle parking as required by City standards; ○ Employee locker rooms; ○ Rideshare Program, including recognition of rideshare participants at monthly staff meetings and an annual update of rideshare benefits and incentives provided to employees; ○ A Rideshare Bulletin Board to be located in the employee breakroom, which will contain information about the Rideshare Program, transit, bike routes, and other alternate commute information; ○ A Rideshare Newsletter to be published and posted on the Rideshare Bulletin Board on a quarterly basis; ○ Costco employees commuting to work in a rideshare program will be eligible for a guaranteed ride home program in the event of an emergency or unexpected situation (such as unscheduled overtime) on the days they rideshare. ○ The applicant shall increase transit accessibility. Such measures could include the purchase of transit passes for employees. Also, implement Mitigation Measure 3.10.2a. 	

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> The applicant shall improve the pedestrian and bicycle network. Implement Mitigation Measure 3.10.2b a Measure 3.2.2c: Use low VOC architectural coatings and 2c. 	
Impact 3.2.3: Project traffic would not substantially increase localized carbon monoxide concentrations at sensitive receptors in the project vicinity.	None required.	LTS
Impact 3.2.4: Project operation would not create objectionable odors affecting a substantial number of people.	None required.	LTS
Impact 3.2.5: Construction and operation of the Project would result in cumulatively considerable increases of criteria pollutant emissions.	Implement Mitigation Measures 3.2.2a through 3.2.2d.	SU
<i>Urban Decay</i>		
Impact 3.3.1: The Project would not result in long term commercial building vacancies and therefore would not result in increased urban decay conditions.	None required.	LTS
Impact 3.3.2: The Project, in conjunction with other development, would not result in long term commercial building vacancies and therefore would not result in increased urban decay conditions.	None required.	LTS
<i>Geology and Soils</i>		
Impact 3.4.1: The Project could expose people to injury or structures to damage from potential rupture of a known earthquake fault, strong ground shaking, seismic-related ground failure, or landslides.	<p>Measure 3.4.1a (For Seismic Ground Shaking) - Prior to the issuance of a building permit for any portion of the Project site, the Project sponsor shall:</p> <ol style="list-style-type: none"> Submit to the City Building Services Division a site-specific, design level geotechnical investigation prepared for each development parcel by a registered geotechnical engineer. The investigation shall comply with all applicable state and local code requirements and: 	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> a. Include an analysis of the expected ground motions at the site from known active faults using accepted methodologies; b. Determine structural design requirements as prescribed by the most current version of the California Building Code, including applicable City amendments, to ensure that structures can withstand ground accelerations expected from known active faults; c. Determine the final design parameters for walls, foundations, foundation slabs, utilities, roadways, parking lots, sidewalks, and other surrounding related improvements; <ul style="list-style-type: none"> 2. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site specific investigations. 3. The Project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet Building Code requirements, and incorporate all applicable mitigations from the investigation in the structural design plans and shall ensure that all structural plans for the Project meet current Building Code requirements. 4. A registered City geotechnical engineer or third-party registered engineer retained to review the geotechnical reports shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure and all other relevant construction permits. 5. The City shall review all Project plans for grading, foundations, structural, infrastructure and all other relevant construction permits to ensure compliance with the applicable geotechnical investigation and other applicable Code requirements. <p>Measure 3.4.1b (For liquefaction and earthquake induced settlement) – Prior to the issuance of a building permit for any portion of the Project site, the Project sponsor shall:</p> <ul style="list-style-type: none"> 1. Submit to the City a site-specific, design level geotechnical investigation prepared for each building site or installed facility location by a registered geotechnical engineer. The investigation shall comply with all applicable state and local code requirements and: 	

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<ul style="list-style-type: none"> a. Provide site specific engineering requirements for mitigation of liquefiable soils; b. Specify liquefaction mitigations that shall use proven methods, generally accepted by registered engineers, to reduce the risk of liquefaction to a less than significant level such as: <ul style="list-style-type: none"> i. subsurface soil improvement, ii. deep foundations extending below the liquefiable layers, iii. structural slabs designed to span across areas of non-support, iv. soil cover sufficiently thick over liquefaction soil to bridge liquefaction zones, v. dynamic compaction, vi. compaction grouting, vii. jet grouting, viii. mitigation for liquefaction hazards suggested in the California Geological Survey's Geology (CGS) Guidelines for Evaluating and Mitigating Seismic Hazards (CGS Special Publication 117, 1997) including edge containment structures (berms, dikes, sea walls, retaining structures, compacted soil zones), removal or treatment of liquefiable soils, modification of site geometry, lowering the groundwater table, in-situ ground densification, deep foundations, reinforced shallow foundations, and structural design that can withstand predicted displacements. 2. The geotechnical investigation shall evaluate these mitigations and identify the most effective and practicable mitigation methods for inclusion in the Project plans. These identified mitigations shall be reviewed to ensure compliance with the CGS Geology Guidelines related to protection of the public safety from liquefaction. 3. Project plans for foundation design, earthwork, and site preparation shall incorporate all of the mitigations in the site specific investigations. 4. The Project structural engineer shall review the site specific investigations, provide any additional necessary mitigation to meet Building Code requirements, and incorporate all applicable mitigations from the 	

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>investigation in the structural design plans and shall ensure that all structural plans for the Project meet current Building Code requirements.</p> <p>5. A registered City geotechnical engineer or third-party registered engineer retained to review the geotechnical reports shall review each site-specific geotechnical investigation, approve the final report, and require compliance with all geotechnical mitigations contained in the investigation in the plans submitted for the grading, foundation, structural, infrastructure and all other relevant construction permits.</p> <p>6. The City shall review all Project plans for grading, foundations, structural, infrastructure and all other relevant construction permits to ensure compliance with the applicable geotechnical investigation and other applicable Code requirements.</p>	
Impact 3.4.2: Construction of the Project would involve grading and movement of earth, which could expose soils to erosion and result in the loss of topsoil.	None required.	LTS
Impact 3.4.3: The Project could be located on fill soils that are potentially unstable, or that could become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Implement Mitigation Measures 3.4.1a and 3.4.1b.	LTS
Impact 3.4.4: The Project would not make a cumulatively considerable contribution to cumulative effects associated with erosion, topsoil loss or increased exposure to seismic or other risks.	None required.	LTS
<i>Hazards and Hazardous Materials</i>		
Impact 3.5.1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	None required.	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

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Impact 3.5.2: During construction, the Project could create a hazard to the public or the environment through upset or accident conditions involving the release of hazardous materials or hazardous wastes to the environment.	Measure 3.5.2: Hazards Remediation. If contaminated soil and/or groundwater are encountered or suspected contamination is encountered during Project construction activities, work shall be halted in the area, and the type and extent of the contamination shall be identified in accordance with coordination of the overseeing agency (RWQCB, DTSC, and/or MCEHD). A qualified professional, in consultation with regulatory agencies (RWQCB, DTSC, and/or MCEHD) shall then develop an appropriate method to remediate the contamination, and determine the appropriate disposal method of any contaminated soil and/or groundwater. At this time, the available studies suggest that no contaminated soil or groundwater will be found on site. Nevertheless, this mitigation measure would require remediation procedures in the unlikely event that contamination is encountered. Additionally, if required by an overseeing agency, a remediation plan shall be implemented either before or in conjunction with continued Project construction.	LTS
Impact 3.5.3: The Project site is located within an airport land use plan and would not result in a safety hazard for people residing or working in the project area.	None required.	LTS
Impact 3.5.4: The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None required.	LTS
Impact 3.5.5: The Project would not contribute to a significant cumulative impact related to hazards or hazardous materials.	None required.	LTS
<i>Hydrology and Water Quality</i>		
Impact 3.6.1: Project construction activities would disturb surface soils and could cause erosion and the release of sediment and construction related water quality pollutants to receiving waters.	None required.	LTS
Impact 3.6.2: Subsurface excavation during Project construction could require dewatering,	Measure 3.6.2: In the event that construction period dewatering is required, The Project Applicant will coordinate with the City concerning dewatering activities and	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
which may result in a discharge that could adversely affect water quality.	<p>compliance with the provisions in the permit, such as the effluent limitations in the permit, prior to discharge. The applicant will:</p> <ul style="list-style-type: none"> • Submit a Report of Waste Discharge and Application for NPDES Permit along with a feasibility study of reuse of the groundwater to the RWQCB. • Discharge flows only upon receipt of the Discharge Authorization Letter from the RWQCB. 	
Impact 3.6.3: Project construction could require dewatering, but would not result in significant lowering of groundwater levels.	None required.	LTS
Impact 3.6.4: The proposed installation of new impervious surfaces associated with the proposed Costco building and parking lot would result in an increase in impervious surfaces onsite. This could decrease stormwater infiltration and increase stormwater flows, causing downstream flooding, erosion, or sedimentation.	<p>Measure 3.6.4: The Applicant shall prepare and submit to the City engineer and the North Coast Regional Water Quality Control Board for approval a Final Drainage Plan. The Final Drainage Plan shall include design/plan level depiction of the proposed stormwater drainage facilities on site, including the proposed storm drainage system, vegetated swales, and the water quality features. The following measures shall be implemented within the Final Drainage Plan, based on modeled runoff volumes and flow rates specific to with-Project conditions:</p> <ul style="list-style-type: none"> • The applicant shall design, implement, and maintain a stormwater system such that there would be no net increase in project condition downstream peak flows; and/or, with respect to the additional impervious surface area proposed for the project, the [applicant] shall design and implement volume- and/or flow-based Treatment Control Best Management Practices (BMPs) as defined in Attachment 4 (pages 5-6) of the State Water Resources Control Board (SWRCB) small municipal separate storm sewer systems (MS4s) General Permit (Small MS4 General Permit) (SWRCB Order 2003-0005-DWQ). • The Final Drainage Plan is not required to include retention and/or retention features if such features are not necessary to satisfy the above requirements. • Prior to implementation, design drawings and any related documents or specifications with respect to these required mitigation measures shall be submitted to the City of Ukiah and the North Coast Regional Water Quality Control Board. 	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

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	<ul style="list-style-type: none"> Modification of storm drain facilities within the State right-of-way (U.S. 101), may require an encroachment permit, and shall be submitted to the California Department of Transportation. 	
Impact 3.6.5: The proposed Project would include installation of a new refueling station and new impervious surfaces. During Project operation, stormwater runoff from these areas could contain elevated pollutant levels, and could result in increased pollutant loading downstream.	None required.	LTS
Impact 3.6.6: Increase in the impervious surfaces under the proposed Project would not significantly affect groundwater recharge in the Project area.	None required.	LTS
Impact 3.6.7: The Project would not subject people and structures to increased risk of floods from the potential failure of the Coyote Dam at Lake Mendocino.	None required.	LTS
Impact 3.6.8: Project implementation, in conjunction with other foreseeable development in the city, could result in cumulative hydrology and water quality impacts.	Implement Mitigation Measure 3.6.4.	LTS
<i>Land Use and Planning</i>		
Impact 3.7.1: The proposed Project would not physically divide an established community.	None required.	LTS
Impact 3.7.2: The proposed Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	None required.	LTS
Impact 3.7.3: The proposed Project would not conflict with any applicable habitat	None required.	NI

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Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
conservation plan or natural community conservation plan.		
Impact 3.7.4: The proposed Project, in combination with other developments in the vicinity, would not contribute to potential cumulative land use impacts.	None required.	LTS
<i>Noise</i>		
Impact 3.8.1: Construction and grading activities associated with the development of the Project would not increase noise levels at nearby noise-sensitive receptor locations.	None required.	LTS
Impact 3.8.2: Operational activities associated with the Project could increase ambient noise levels at nearby noise-sensitive land uses. This impact would be less than significant.	None required.	LTS
Impact 3.8.3: Traffic associated with operation of the Project would not result in a significant increase in noise exposure on area roadways.	None required.	LTS
Impact 3.8.4: Project operational activities would not expose people working in the Project area to excessive noise levels, for a Project located within an airport land use plan.	None required.	LTS
Impact 3.8.5: Noise associated with the Project in combination with other local development would not result in cumulatively considerable noise increases.	None required.	LTS
<i>Public Services and Utilities</i>		
Impact 3.9.1: Implementation of the Project would not result in the need for new or physically altered police facilities.	None required.	LTS

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Impact 3.9.2: Implementation of the Project would not result in the need for new or physically altered fire and emergency service facilities.	None required.	LTS
Impact 3.9.3: Implementation of the Costco Wholesale warehouse and fuel station project would indirectly increase student enrollment at UUSD schools, but not to the extent that new facilities would be required.	None required.	LTS
Impact 3.9.4: The Project would not result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated, nor would the Project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	None required.	LTS
Impact 3.9.5: Implementation of the Project would not significantly increase the demand for water supply.	None required.	LTS
Impact 3.9.6: The Project would not exceed wastewater treatment requirements or require construction of new wastewater facilities or expansion of existing facilities.	None required.	LTS
Impact 3.9.7: The Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal, and would comply with federal, State, and local statutes and regulations related to solid waste.	None required.	LTS

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Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
Impact 3.9.8: The Costco Wholesale warehouse Project would not exceed existing gas and electric supply or result in wasteful, inefficient, or unnecessary consumption of energy.	None required.	LTS
Impact 3.9.9: The Project would not make a cumulatively considerable contribution to public services and utilities impacts associated with cumulative development in the Project vicinity.	None required.	LTS
<i>Transportation and Traffic</i>		
Impact 3.10.1: Implementation of the Project would increase traffic volumes on area roadways. This impact is potentially significant.	<p>Measure 3.10.1: The City shall construct Talmage Road Interchange improvements, including the provision of two left-turn lanes on the westbound Talmage Road approach to Airport Park Blvd. The improvements include the following components:</p> <ul style="list-style-type: none"> • Closure of the existing stop-controlled US 101 Southbound Off-Ramp right-turn to westbound Talmage Road • All US 101 Southbound Off-Ramp traffic would be redirected to access Talmage Road via a new full access intersection where the current loop ramp connects with Talmage Road so that all off-ramp traffic would utilize the off-loop ramp. • The existing US 101 Southbound Off-Ramp loop would be reconfigured to a more standard 90-degree angle. • The intersection of the loop ramp with Talmage Road would be controlled by a new traffic signal. • Both the eastbound Talmage Road and northbound US 101 Southbound Off-Ramp right- turn lanes will have right-turn overlap phasing, while the westbound Talmage Road approach would include protected left-turn phasing. • The design would also provide for two left-turn lanes on the westbound Talmage Road approach to Airport Park Boulevard, which should extend the entire distance to the adjacent intersection. • Since the left-turn lanes would extend all the way to the intersection, signs 	SU

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Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>and markings on the off-ramp are provided to direct drivers to the correct lane for their destination.</p> <ul style="list-style-type: none"> • Intersection markings should be incorporated that provide guidance so as not to create a trap-lane situation for drivers in the far northbound left lane. • Removal of the existing northbound right-turn overlap phasing at Airport Park Boulevard/Talmage Road. <p>The City shall coordinate with the California Department of Transportation regarding improvements to state facilities. The traffic mitigations shall be completed before Costco is issued a certificate of occupancy. The City shall establish a funding mechanism to pay for the cost of the improvements.</p>	
<p>Impact 3.10.2: Implementation of the Project would conflict with adopted policies, plans, or programs regarding public transit, pedestrian, or bicycle facilities, or otherwise decrease the performance or safety of such facilities.</p>	<p>Measure 3.10.2a: Provide a concrete pad suitable for future location of bus shelter on the northern frontage of the Project site, adjacent to the proposed sidewalk.</p> <p>Measure 3.10.2b: The Project Applicant shall implement the following measures to reduce potential pedestrian impacts associated with the Project:</p> <ul style="list-style-type: none"> • Install sidewalks along the project frontage on Airport Park Boulevard as identified in the project site plan. • Install high visibility crosswalk markings across driveway entrances to the project including the existing cul-de-sac on the north side of the project to increase visibility of pedestrians. • Install ADA compliant curb ramps at driveway crossings and transition points along the project frontage. Also, ensure that the existing curb ramps at the existing cul-de-sac intersection with Airport Park Boulevard are compliant with current ADA standards. • Provide an adequate pedestrian connection from the street frontage and main parking area to the retail store entrance (per Ordinance 1098). <p>Measure 3.10.2c: The Project Applicant shall implement the following measures to reduce potential bicycle impacts associated with the Project:</p> <ul style="list-style-type: none"> • Install Class III bike lanes along the Project frontage on Airport Park Boulevard. • The Project Applicant shall comply with Ordinance 1098, Airport Industrial Park Planned Development, requirements to install the required number of bicycle parking spaces (long-term spaces [bicycle lockers or covered 	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	parking spaces to reduce exposure to the elements and vandalism] for Project employees and short-term spaces for Project patrons and employees [at a convenient location adjacent to the store's primary entry points]). Bicycle racks should be an appropriate design and installed correctly to ensure proper function.	
Impact 3.10.3: Implementation of the Project would increase traffic volumes on area roadways under Near-Term conditions. This impact is potentially significant.	Implement Mitigation Measure 3.10.1	SU
Impact 3.10.4: Implementation of the Project would increase traffic volumes on area roadways under Future (2030) conditions. This impact is potentially significant.	Implement Mitigation Measure 3.10.1	SU
Impact 3.10.5: Under Future plus Project conditions, traffic associated with the Project would contribute to inadequate queuing storage at Talmage Road/Airport Park Blvd. and Talmage Road/US 101 Southbound Off-Ramp. This impact is potentially significant.	Implement Mitigation Measure 3.10.1 Measure 3.10.4: In addition to the planned City-constructed left-turn lane on the westbound approach of Airport Road, the City shall construct a left-turn lane on the eastbound Hastings Avenue approach should be installed at South State Street/Hastings Avenue-Airport Road. Implementation of the recommended improvements at Talmage Road/Airport Park Boulevard would result in acceptable operating conditions during both the a.m. and p.m. peak hours.	SU
<i>Global Climate Change</i>		
Impact 3.11.1: The project could generate GHG emissions that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted to reduce GHG emissions.	The project shall implement Mitigation Measures 3.2.2a through 3.2.2d.	SU
<i>Biological Resources</i>		
Impact 3.12.1: Implementation of the proposed Project may adversely impact special-status species.	Measure 3.12.1: The following measures shall be implemented to reduce potential impacts on nesting birds: 1. If construction-related activities are to occur during the nesting bird season (February 15 through August 31), a qualified biologist shall conduct a preconstruction survey of all potential nesting habitats within 30 days prior	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
	<p>to the start of activities (grubbing, dirt-moving, mobilization, or other construction-related activities) and within 500 feet of construction activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the site shall be resurveyed. The results of these surveys shall be documented in a technical memorandum that shall be submitted to the California Department of Fish and Game (if nesting birds are documented) and the City of Ukiah.</p> <p>2. If an active nest is found during the preconstruction survey, a no-work buffer of 500 feet will be established unless otherwise approved by the California Department of Fish and Game (DFG). The qualified biologist will coordinate with DFG to determine the appropriate nest avoidance, monitoring, and protective measures appropriate for the species and site conditions. In addition to establishment of a no-work buffer, these measures may include daily or spot-check monitoring of the nesting activity as deemed appropriate by DFG.</p> <p>3. If the preconstruction survey indicates that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation is required. Trees and shrubs that have been determined to be unoccupied by birds or that are located more than 500 feet from active nests may be removed (500 feet is the distance regularly recommended by DFG to prevent impacts to active avian nests).</p>	
Impact 3.12.2: Implementation of the proposed Project would not conflict with any local policies or ordinances for the protection of biological resources.	None required.	LTS
Impact 3.12.3: Implementation of the proposed Project would not contribute to a significant cumulative impact to biological resources.	None required.	LTS
<i>Population and Housing</i>		
Impact 3.13.1: The Project would not induce substantial population growth or concentration	None required.	LTS

**Table 1-1
Summary of Impacts and Mitigation Measures**

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
of population in the area, either directly or indirectly.		
Impact 3.13.2: The Project, in conjunction with past, present and reasonably foreseeable projects, would not contribute to a cumulatively considerable effect related to population, or housing.	None required.	LTS
<i>Cultural Resources</i>		
Impact 3.14.1: Implementation of the proposed project could result in a substantial adverse change to historic resources as defined by CEQA Section 15064.5.	None required.	NI
Impact 3.14.2: Ground-disturbing activities associated with implementation of the proposed project could result in the substantial adverse change of previously unknown archaeological or paleontological resources as defined by CEQA Section 15064.5.	Measure 3.14.2: If cultural resources are encountered, all activity in the vicinity of the find shall cease until it can be evaluated by a qualified archaeologist and a Native American representative. Prehistoric archaeological materials might include obsidian and chert flaked- stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist and Native American representative determine that the resources may be significant, they will notify the City of Ukiah. An appropriate treatment plan for the resources should be developed. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources. In considering any suggested mitigation proposed by the archaeologist and Native American representative, the City will determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) will be instituted. Work may proceed in other parts of the project area while mitigation for cultural resources is being carried out.	LTS

Table 1-1
Summary of Impacts and Mitigation Measures

Environmental Impact	Mitigation Measures	Level of Significance After Mitigation
Impact 3.14.3: Ground-disturbing construction associated with implementation of the proposed project could result in damage to previously unidentified human remains.	Measure 3.14.3: If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent, who will help determine what course of action should be taken in dealing with the remains.	LTS
Impact 3.14.4: The Project would not make a cumulatively considerable contribution to cumulative effects to cultural resources.	None required.	LTS
<i>Energy</i>		
Impact 3.15.1: The Project would not result in wasteful, inefficient, or unnecessary consumption of energy; conflict with existing energy standards and regulations; or adversely affect local and regional energy resources or require additional supply, the provision of which could have a substantial impact on the environment.	No additional mitigation measures are required to avoid a potentially significant impact. Implementation of Mitigation Measures 3.2.2 a and b, and Measures 3.10.2 a, b, and c, would further reduce energy consumption.	LTS

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CHAPTER 2 INTRODUCTION

2.1 BACKGROUND

The Costco Wholesale Project (Project) is a proposed Costco Wholesale Warehouse within the City of Ukiah (City). The City, as the lead agency under the California Environmental Quality Act (CEQA), determined that an Environmental Impact Report (EIR) should be prepared. The Notice of Preparation was released on November 7, 2011. The Draft EIR (State Clearinghouse #2011112025) was released on January 30, 2013, for a public review period of 45 days. The City Council of Ukiah certified the Final EIR on December 18, 2013. Following certification of the EIR, the City approved the necessary entitlements for the Project, including rezoning of the Project Site and a Site Development Permit. The City Council then introduced the first reading of Ordinance 1146, rezoning the Project Site to Retail Commercial. On January 15, 2014, the Ordinance was approved by the City Council. The City of Ukiah Planning Commission approved the Site Development Permit on January 22, 2014. The City Council heard an appeal of the Planning Commission's action on March 5, 2014, and upheld the approval of the Site Development Permit.

On June 21, 2016, the Court of Appeals ruled that the Final EIR did not adequately address the potential energy impacts of the project (*Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256). The City Council of Ukiah subsequently set aside the Final EIR on November 16 2016, and directed that the EIR be revised and recirculated to address the Court of Appeal ruling. This document does not revise the EIR in any respect other than the Energy Section (section 3.15) as directed by the Court of Appeal Decision, as the Court of Appeal Decision upheld all other aspects of the EIR. As this document is limited to the Energy Section (section 3.15), pursuant to CEQA Guidelines Section 15088.5, subdivision (c), the DEIR and the FEIR are not being recirculated for public review and comment.

The City of Ukiah, as the lead agency under the California Environmental Quality Act (CEQA), prepared an EIR for the Project and prepared this document, entitled Recirculated Portions of the Draft EIR (RPDEIR).

2.2 COSTCO WHOLESALE PROJECT

The approved Costco Wholesale Project includes the construction of a new Costco Wholesale warehouse, with a maximum size of 148,000 square feet (SF), and a fueling facility on approximately 15.33 acres. The fueling facility will have 16 vehicle fueling positions (with the capacity to expand to 20 positions in the future). The plans submitted with Costco's building permit application propose a warehouse of 141,125 SF, with a bakery, pharmacy, optical center, hearing aid testing center, food court, photo center, tire center, and fueling facility along with the

sale of between 3,800 and 4,000 products. The tire center would be a 5,442 SF attached building with member access through the inside of the main Costco building and would include retail tire sales and a tire installation facility. The fueling facility is separate from the main building site, and would include a 2,816 SF canopy and 16 fueling positions (expandable to 20 positions). The fueling facility occupies approximately 2.37 acres, located in the southeast corner of the site adjacent to US 101. Store hours are anticipated to be 10:00 a.m. to 8:30 p.m. Monday through Friday, 9:30 a.m. to 6:00 p.m. on Saturday, and 10:00 a.m. to 6:00 p.m. on Sunday. Fueling facility hours would be Monday through Friday, 6:00 a.m. to 9:30 p.m., Saturday and Sunday from 6:00 a.m. to 7:00 p.m. Delivery hours will generally occur between 4:00 a.m. and 2:30 p.m. The Costco facility would employ approximately 175 to 200 people.

The Project Site is located in the City of Ukiah, Mendocino County, California. The Project Site consists of at least portions of twelve parcels totaling 15.33 acres (Assessor's Parcel Numbers 180-110-8 through 10, 180-080-57 through 59, and 180-080-62 through 67). The Project Site is bounded by commercial uses (north and south), US 101 (east), and Airport Park Boulevard (west) (Figure 2-2). The Project Site is within the Airport Industrial Park (AIP) Planned Development. The Airport Industrial Park is bounded by Talmage Road to the north, Ukiah Municipal Airport to the west, and US 101 to the east and south.

2.3 PREPARATION OF THE RPDEIR

The RPDEIR contains a new section, 3.15, which includes a separate and distinct discussion of energy consumption and conservation per Appendix F of the CEQA Guidelines. The contents of the Draft EIR are otherwise unchanged.

2.4 PUBLIC REVIEW

A recirculated EIR shall be given the same notice and public review as a Draft EIR (Guidelines Section 15163(c)). Per CEQA Guidelines Section 15088.5(c), "If the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified."

This RPDEIR will be circulated for a period of 45 days for public review and comment, per CEQA Guidelines Section 15087 (CEQA Guidelines 15088.5(d)). The comment period shall be identified in the Notice of Availability for this RPDEIR. Comments may be addressed to:

City of Ukiah
Community Development Department
300 Seminary Avenue
Ukiah, California 94582-5400
Email: planning@cityofukiah.com

As CEQA Guidelines Section 15088.5(f)(2) permits, the City requests reviewers limit the scope of their comments to that material which is addressed within the text of the revised portions and the appendices included in this RPDEIR. The City also requests that reviewers not make new comments on old matters not included in the RPDEIR. Following the close of the public review period, the City of Ukiah shall evaluate comments on environmental issues related to the RPDEIR and prepare written responses to those comments (Guidelines Section 15088). Responses will be provided in a separate document – a Revised Final EIR (Revised FEIR). Pursuant to CEQA Guidelines Section 15088.5(f)(2)(ii), written responses will be prepared only to comments received regarding this RPDEIR.

The Revised FEIR will provide the basis for City decision-makers to consider the environmental implications of the Project as well as possible ways to mitigate any significant environmental impacts. Prior to making a decision on the Project, the City must certify that the Revised FEIR has been completed in compliance with CEQA, was presented to the City's decision-making body and that the decision-making body reviewed and considered the information contained in the Revised FIER prior to approving the Project, and that the Revised FEIR reflects the lead agency's independent judgment and analysis.

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3.15 ENERGY

3.15.1 Introduction

This section addresses the Project’s energy consumption, usage and conservation as per Public Resources Code Section 21100(b)(3) and Appendix F of the CEQA Guidelines. Specifically, CEQA provides that an environmental impact report shall include a detailed statement setting forth all of the following:

Mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy (Public Resources Code Section 21100(b)(3)).

Appendix F of the CEQA Guidelines states that “the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)).” Appendix F includes a list of energy impact possibilities and potential conservation measures “designed to assist in the preparation of an EIR.”

Recent case law has clarified the requirements to satisfy Public Resources Code section 21100(b)(3) and Appendix F, holding that an EIR must quantify energy use during construction and operations, including energy associated with transportation associated with the project, and also consider the availability of measures to reduce reliance on fossil fuels. (*California Clean Energy Committee v. City of Woodland* (2014) 225 Cal.App.4th 173.) Mere reliance on compliance with the California Building Code and other green building requirements is not sufficient to meet an agency’s burden under Appendix F and Public Resources Code section 21100(b)(3); an agency must also consider whether a building should be constructed at all, how large it should be, where it should be located, and whether it should incorporate renewable energy resources. (*Ibid.*)

This section provides an analysis of potential energy usage impacts that would result from the implementation of the Project and identifies mitigation measures.

3.15.2 Environmental Setting

The 15.33-acre site is undeveloped, characterized by ruderal vegetation (non-native grasses). Utility services, including electricity and natural gas, are available to the site (with service from Airport Park Blvd.).

Electric service to the Project site is provided by the City of Ukiah Electric Utility Department, which oversees the procurement and retail sales of electric energy within the City limits. The Department has indicated that service is available to the site (Ukiah 2016). Service is available from a 1500 KVA transformer rated 480/277 Volt, wye, four wire, three phase pad mounted transformer.

The Department maintains and operates the local electric distribution system and the Lake Mendocino Hydroelectric Plant. The City is a member of the Northern California Power Agency (NCPA), which is a joint powers agency of 15 member communities and districts in Northern and Central California. NCPA’s energy sources includes hydroelectric, geothermal, and natural gas.

The City of Ukiah Utilities Department includes an unusually high percentage of renewable energy sources compared to the state average. Ukiah’s 2011 energy supply included 49% eligible renewable sources, compared to a 2010 statewide average of 14%. The “Energy Content Label” for the City (as provided to the State of California) is provided in Table 3.15-1, below, and shows the above-average amounts of renewable geothermal and hydroelectric power used in the City.

**Table 3.15-1
2011 California Energy Content**

Energy Resources	Ukiah 2011 Fuel Mix (Actual)	2010 CA Power Mix**
Eligible Renewable	49.3%	14.0%
-- Biomass & waste	0.0%	2.0%
-- Geothermal	40.1%	5.0%
-- Small hydroelectric	9.1%	2.0%
-- Solar	0.0%	0.0%
-- Wind	0.0%	5.0%
Coal	0.0%	7.0%
Large Hydroelectric	25.1%	11.0%
Natural Gas	0.1%	42.0%
Nuclear	0.0%	14.0%
Other	0.0%	0.0%
Unspecified sources of power*	25.5%	12.0%
TOTAL	100.0%	100.0%

* “Unspecified sources of power” means electricity from transactions that are not traceable to specific generation sources.

** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year. [Subtotals may not add up due to rounding.]

Source: California Energy Commission, <http://www.energy.ca.gov/sb1305/labels/index.html>, October 2012

Large hydroelectric energy, while not considered an “eligible” renewable source for purposes of the California Renewable Portfolio, is nevertheless a clean energy source, and at 25% is a substantial component of Ukiah’s energy mix.

The 2011 Power Content Label data represent the environmental conditions at the time of the NOP (the environmental baseline). 2014 Power Content Label data is now available, which shows the City’s renewable content remaining steady at 49% (CEC 2015). As a result of 2014 drought conditions, large hydroelectric power has declined as a percentage, but remains higher in Ukiah than the California average.

Table 3.15-2
2014 California Energy Content

Energy Resources	Ukiah 2011 Fuel Mix (Actual)	2010 CA Power Mix**
Eligible Renewable	49.0%	20.0%
-- Biomass & waste	0.0%	3.0%
-- Geothermal	46.0%	4.0%
-- Small hydroelectric	3.0%	1.0%
-- Solar	0.0%	4.0%
-- Wind	0.0%	8.0%
Coal	0.0%	6.0%
Large Hydroelectric	8.0%	6.0%
Natural Gas	19.0%	45.0%
Nuclear	0.0%	9.0%
Other	0.0%	0%
Unspecified sources of power*	24.0%	14.0%
TOTAL	100.0%	100.0%

* “Unspecified sources of power” means electricity from transactions that are not traceable to specific generation sources.

** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.

Source: California Energy Commission, December 2015

Natural gas service is also available to the Project site. Natural gas is provided by the Pacific Gas and Electric Company (PG&E). PG&E serves as the City’s primary natural gas utility, providing natural gas for residential, commercial, industrial, and government customers. PG&E has confirmed that service is available and will be provided to the Project (PG&E 2016).

3.15.3 Relevant Plans, Policies, and Ordinances

Federal

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2010, fuel economy standards were set at 27.5 miles per gallon for new passenger cars and 23.5 miles per gallon for new light trucks. Fuel economy is

determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the act includes other provisions related to energy efficiency:

- Renewable fuel standard (RFS) (Section 202)
- Appliance and lighting efficiency standards (Sections 301–325)
- Building energy efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum (Section 202, RFS). The U.S. Environmental Protection Agency (EPA) is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act of 2007 (EISA), the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of greenhouse gas (GHG) emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of our nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces (EPA 2015).

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

EPA and NHTSA Joint Rule for Vehicle Standards

On April 1, 2010, the EPA and the National Highway Traffic Safety Administration (NHTSA) announced a joint final rule to establish a national program consisting of new standards for light-duty vehicles model years 2012 through 2016. The joint rule is intended to reduce GHG emissions and improve fuel economy. The EPA promulgated the first-ever national GHG emissions standards under the Clean Air Act, and NHTSA promulgated Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This final rule follows the EPA and Department of Transportation’s joint proposal on September 15, 2009, and is the result of the President Obama’s May 2009 announcement of a national program to reduce GHGs and improve fuel economy. The final rule became effective on July 6, 2010 (EPA and NHTSA 2010).

The EPA GHG standards require new passenger cars, light-duty trucks, and medium-duty passenger vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide (CO₂) per mile in model year 2016, equivalent to 35.5 mpg if the automotive industry were to meet this CO₂ level through fuel economy improvements alone. The CAFE standards for passenger cars and light trucks will be phased in between 2012 and 2016, with the final standards equivalent to 37.8 mpg for passenger cars and 28.8 mpg for light trucks, resulting in an estimated combined average of 34.1 mpg. Together, these standards will cut GHG emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program. The rules will simultaneously reduce GHG emissions, improve energy security, increase fuel savings, and provide clarity and predictability for manufacturers (EPA and NHTSA 2010).

In August 2012, the EPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (EPA and NHTSA 2012). These standards will reduce motor vehicle GHG emissions to 163 grams of CO₂ per mile, which is equivalent to 54.5 mpg if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025. A portion of these improvements, however, will likely be made through improvements in air-conditioning leakage and through use of alternative refrigerants, which would not contribute to fuel economy. The first phase of the CAFE standards (for model years 2017 to 2021) are projected to require, on an average industry fleet-wide basis, a range from 40.3 to 41.0 mpg in model year 2021. The second phase of the CAFE program (for model years 2022 to 2025) is projected to require, on an average industry fleet-wide basis, a range from 48.7 to 49.7 mpg in model year 2025. The second phase of standards has not been finalized due to the statutory requirement that NHTSA set average

fuel economy standards not more than five model years at a time. The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including the following:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles
- Incentives for hybrid technologies for large pickups and for other technologies that achieve high fuel economy levels on large pickups
- Incentives for natural gas vehicles
- Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standards' test procedures

State

Title 24 of the California Code of Regulations

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, included in Title 24. The efficiency standards apply to new construction of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in Title 24 guidelines. The standards are updated periodically to allow consideration and possible incorporation of new energy-efficiency technologies and methods. The premise for the standards is that energy-efficient buildings require less electricity, natural gas, and other fuels. The Title 24, Part 6, standards are updated every three years. The most recent amendments to Title 24, Part 6, referred to as the 2016 standards, will become effective on January 1, 2017 and will apply to the Project. The previous amendments were referred to as the 2013 standards and are currently effective. The 2013 standards are 21.8% and 16.8% more efficient for electricity and natural gas in non-residential construction as compared to the 2008 standards. The 2016 standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The standards include efficiency improvements to the residential standards for attics, walls, water heating, and lighting and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1 2013 national standards. Title 24 also includes Part 11, known as California's Green Building Standards (CALGreen). The CALGreen standards took effect in January 2011, and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-

rise residential, and state-owned buildings, as well as schools and hospitals. The mandatory standards require:

- 20% mandatory reduction in indoor water use;
- 50% of construction and demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented per the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements through more strict water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements through even more strict water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 30% cement reduction, and cool/solar reflective roofs.

The 2013 CALGreen Code went into effect on July 1, 2014. There are a number of important updates in the 2013 code, such as: (1) an extensive update of California's Energy Code; (2) updated CALGreen-requirements for non-residential building alterations and additions; and (3) new plumbing code provisions pertaining to greywater and rainwater catchments.

Senate Bill 1368

On September 29, 2006, Governor Arnold Schwarzenegger signed into law Senate Bill 1368 (Perata, Chapter 598, Statutes of 2006). The law limits long-term investments in baseload generation by the state's utilities to those power plants that meet an emissions performance standard jointly established by the CEC and the CPUC.

The CEC has designed regulations that:

- Establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 pounds CO₂ per megawatt-hour. This would encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of GHGs;
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the CEC website. This would facilitate public awareness of utility

efforts to meet customer needs for energy over the long-term while meeting the state’s standards for environmental impact; and

- Establish a public process for determining the compliance of proposed investments with the emissions performance standard (EPS) (Perata, Chapter 598, Statutes of 2006).

Assembly Bill 1493

Adopted in 2002 by the state legislature, Assembly Bill (AB) 1493 (“Pavley” regulations) required that the California Air Resources Board (CARB) develop and adopt, no later than January 1, 2005, regulations to achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles.

The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005 and was denied by the EPA in March 2008. That decision was based on a finding that California’s request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet “compelling and extraordinary conditions.”

The EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. On September 24, 2009, CARB adopted amendments to the Pavley regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California’s commitment to a nationwide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB’s September 2009 amendments will allow for California’s enforcement of the Pavley rule while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles.

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22% in 2012 and about 30% in 2016, all while improving fuel efficiency and reducing motorists’ costs.

Executive Order S-1-07

Issued on January 18, 2007, Executive Order S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO₂-equivalent (CO₂E) grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted

the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste. In addition, the Low Carbon Fuel Standard would drive the availability of plug-in hybrid, battery electric, and fuel-cell power motor vehicles. The Low Carbon Fuel Standard is anticipated to lead to the replacement of 20% of the fuel used in motor vehicles with alternative fuels by 2020.

Truck and Bus Regulation, On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

On December 12, 2008, CARB approved the Truck and Bus Regulation to significantly reduce particulate matter (PM), and oxides of nitrogen (NO_x) emissions from existing diesel vehicles operating in California. Amendments to this regulation were approved by CARB on April 25, 2014.

The regulation applies to nearly all diesel fueled, dual-fueled, or alternative diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned and for privately and publicly owned school buses. The purpose of this regulation is to reduce emissions of diesel PM, NO_x, and other criteria pollutants from in-use diesel-fueled vehicles.

Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Starting January 1, 2012, heavier trucks were required to meet the engine model year schedule shown in Table 3.15-3. Fleets that comply with the schedule must install the best available PM filter on 1996 model year and newer engines and replace the vehicle 8 years later. Trucks with 1995 model year and older engines must be replaced starting in 2015. Replacements with a 2010 model year or newer engines meet the final requirements, but owners can also replace with used trucks that have a future compliance date on the schedule. For example, a replacement with a 2007 model year engine complies until 2023. By 2023, all trucks and buses must have 2010 model year engines with few exceptions. No reporting is required if complying with this schedule (CARB 2014).

**Table 3.15-3
Compliance Schedule by Engine Model Year for Vehicles with a
GVWR 26,000 Pounds or Less**

Engine Model Year	Requirements for Heavier Trucks from January 1
Pre-1994	No requirements until 2015, then 2010 engine or better
1994–1995	No requirements until 2016, then 2010 engine or better
1996–1999	PM filter from 2012 to 2020, then 2010 engine or better
2000–2004	PM filter from 2013 to 2021, then 2010 engine or better
2005–2006	PM filter from 2014 to 2022, then 2010 engine or better
2007–2009*	No requirements until 2023, then 2010 engine or better
2010*	Meets final requirement

Source: CARB 2014

* Must have had a PM filter by January 1, 2014, if not originally equipped.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). To improve air quality, CARB will propose new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The zero-emissions vehicles (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

Executive Order B-16-12

Governor Brown issued Executive Order S-16-12 on March 23, 2012. The Executive Order requires that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It orders CARB, the CEC, the CPUC, and other relevant agencies work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve the following by 2015:

- The state's major metropolitan areas will be able to accommodate ZEVs, each with infrastructure plans and streamlined permitting;
- The state's manufacturing sector will be expanding ZEV and component manufacturing;
- The private sector's investment in ZEV infrastructure will be growing; and
- The state's academic and research institutions will be contributing to ZEV research, innovation and education.

CARB, the CEC, and CPUC, are also directed to establish benchmarks to help achieve the following goals by 2020:

- The state's ZEV infrastructure will be able to support up to one million vehicles;
- The costs of ZEV will be competitive with conventional combustion vehicles;
- ZEVs will be accessible to mainstream consumers;

- There will be widespread use of ZEVs for public transportation and freight transport;
- Transportation sector GHG emissions will be falling as a result of the switch to ZEVs;
- Electric vehicle charging will be integrated into the electricity grid; and
- The private sector’s role in the supply chain for ZEV component development and manufacturing will be expanding.

Benchmarks are also to be established to help achieve the following goals by 2025:

- Over 1.5 million ZEVs will be on California roads and their market share will be expanding;
- Californians will have easy access to ZEV infrastructure;
- The ZEV industry will be a strong and sustainable part of California’s economy; and
- California’s clean, efficient vehicles will annually displace at least 1.5 billion gallons of petroleum fuels.

On a statewide basis, the Executive Order establishes a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050.

Cap-and-Trade Program

To achieve the goals of AB 32, the *Climate Change Scoping Plan: A Framework for Change* included an early action to develop a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system. The cap-and-trade regulation, which is a key element of California’s climate plan, took effect in January 2012 and compliance obligation began in January 2013. The cap-and-trade program sets a statewide limit on sources responsible for 85% of California’s GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest-cost options to reduce emissions. The first phase of the cap-and-trade regulation included electricity generated in and imported into California, large combustion sources (i.e., generally those emitting more than 25,000 MT CO₂E per year), and certain industrial sectors. The second phase added providers of transportation fuels and other combustion fuels (e.g., natural gas, propane) to the cap-and-trade program. The regulation requires that emissions generated by these facilities and combustion of fuels be reduced over time under a declining “cap.”

Renewable Energy Sources

Established in 2002 under Senate Bill (SB) 1078, and accelerated by SB 107 (2006) and SB 2 (2011), California’s Renewables Portfolio Standard obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33% of their electricity from

renewable energy sources by 2020. Eligible renewable resources are defined in the 2013 Renewables Portfolio Standard (RPS) to include biodiesel; biomass; hydroelectric and small hydro (30 megawatts or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal, landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and other renewables that may be defined later. Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California Independent System Operator to those markets, pursuant to a specified process.

As described in Section 3.15.2, the Ukiah Electric Utilities Department has a higher-than-average renewable portfolio for California energy service providers. In 2012, the environmental baseline for the Project, Ukiah’s eligible renewable sources accounted for 49.3% of electric, well beyond the 2020 objective. This percentage fell to 49.0% in 2014, due to decreased production in small hydroelectric (CEC 2015). However, with increased geothermal production and an easing of the recent drought, Ukiah can reasonably be expected to exceed the 2030 goal of 50% eligible renewables within the next couple of years.

Local

Ukiah General Plan

The Ukiah General Plan includes an Energy Element (City of Ukiah 1995). The Energy Element includes eight goals:

- EG-1** Create land use patterns which facilitate the conservation of energy.
- EG-2** Improve the efficiency of energy use within the private transportation system.
- EG-3** Improve the efficiency of energy use within the City’s and County’s vehicle fleet.
- EG-4** Maximize on-site energy use, especially in new developments.

- EG-5** Site design shall incorporate shade trees for energy conservation.
- EG-6** Promote energy efficiency features in the design of all new structures and in the retrofitting of existing structures.
- EG-7** Educate residents and businesses about the importance of energy efficiency.
- EG-8** Manage existing energy resources to meet increased demands and explore the use of new energy efficient technologies.

3.15.4 Impacts and Mitigation Measures

Thresholds of Significance

Neither the CEQA Guidelines nor Public Resources Code Section 21100(b)(3) provide a specific thresholds for impacts associated with energy consumption. However, Appendix F of the CEQA Guidelines (14 CCR 15000 et seq.) provides guidance for evaluating whether a development project may result in significant impacts with regard to energy. Based on Appendix F of the CEQA Guidelines, a project could have a significant impact on energy conservation if the project would:

- a. Result in wasteful, inefficient, or unnecessary consumption of energy.
- b. Conflict with existing energy standards and regulations.
- c. Adversely affect local and regional energy resources or require additional supply, the provision of which could have a substantial impact on the environment.

In addition, feasible opportunities to conserve energy or to use alternative fuels or energy systems should be considered.

Impact Analysis

Would the proposed project result in the wasteful, inefficient, and unnecessary consumption of energy?

Construction Energy Usage

Project construction will require grading, utility installation, foundation construction, building construction, paving, and landscaping installation. All construction is typical for the region and building type, and the Project site does not include unusual circumstances that would require unusually high energy usage. Some import of fill, approximately 9600 cubic yards (CY) will be required in order to allow gravity flow of water and sewer, as opposed to pumping and/or

installing extremely deep lines below surface grade – both of which would be more energy intensive in the long-term, compared to gravity flow.

The building system is pre-engineered metal (see Draft EIR pp. 2-8 to 2-9). The metal building system contains 80% recycled content and is itself 100% recyclable. The project design team estimates that by designing a metal warehouse, fewer building materials are consumed in construction compared to full height masonry.¹ Considered within the context of all construction materials, including 1000 truck trips for fill and 280 truck trips for the slab and foundation, the overall reduction in haul truck trips is 8.5% as compared to a full height masonry building.² In addition, building material deliveries would be reduced by 71.5% (50 truck trips for a pre-engineered metal building with a concrete masonry unit [CMU] foundation versus 175 truck trips for an all-CMU structure). Therefore, fewer fossil fuels are consumed in transportation, due to the need for less material, under the project as opposed to a more conventional design. It is further noted that these material trips are well below the standard CalEEMod assumptions for construction emissions for a typical project of similar size.³

In addition, locally extracted and manufactured building materials will be utilized where feasible. Pre-manufactured building components, including structural framing and metal panels, are designed to minimize waste during construction.

These building features and construction methods are included in the Project Description (Section 2.4.2) and Mitigation Measure 3.2.2a.

Based on the air quality calculations for Project construction contained in Section 3.2, and using standard fuel consumption estimates⁴, construction would require 97,455 gallons of diesel fuel and 34,815 gallons of gasoline. This includes all off-road construction equipment, hauling, vendor, and worker trips over a 300-working day construction period, as shown in Table 3.15-4. For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it is anticipated to be relatively minor compared to normal building operations. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Natural gas would not be used during construction.

¹ Personal communication, Joseph Welch, MulvannyG2 Architecture, September 26, 2014.

² Ibid.

³ For purposes of air emissions, CalEEMod assumes 67 one-way vendor trips per construction day, or 33.5 round trips per day. Construction was assumed to last 300 days, a conservative estimate which likely exceeds the actual construction time.

⁴ Fuel usage is estimated using the CalEEMod output for CO₂, and a kgCO₂/gallon conversion factor, as cited in the *U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program*, <http://www.eia.gov/oiaf/1605/coefficients.html>, accessed 8/26/14.

As described above, the building design incorporates energy efficient construction features, resulting in fewer truck trips compared to a similar project using standard masonry construction. Project construction would not result in the wasteful, inefficient, and unnecessary consumption of energy.

**Table 3.15-4
Construction Fuel Consumption**

Phase	Source	CalEEMod CO ₂ (MT/yr)	Fuel Type	Factor (kgCO ₂ /gal)*	Gallons
Site Preparation	Offroad Equip	36.27	Diesel	10.15	3,573.40
Year 1	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	1.16	Gas	8.91	130.19
Grading	Offroad Equip	147.69	Diesel	10.15	14,550.74
Year 1	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	3.86	Gas	8.91	433.22
Building Construction	Offroad Equip	403.1	Diesel	10.15	39,714.29
Year 2	Hauling	0	Diesel	10.15	0.00
	Vendor	166.02	Diesel	10.15	16,356.65
	Worker	220.81	Gas	8.91	24,782.27
Building Construction	Offroad Equip	146.58	Diesel	10.15	14,441.38
Year 2	Hauling	0	Diesel	10.15	0.00
	Vendor	60.5	Diesel	10.15	5,960.59
	Worker	78.58	Gas	8.91	8,819.30
Paving	Offroad Equip	26.46	Diesel	10.15	2,606.90
Year 2	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	1.89	Gas	8.91	212.12
Architectural Coating	Offroad Equip	2.55	Diesel	10.15	251.23
Year 2	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	3.9	Gas	8.91	437.71
Total Gallons:			Diesel		97,455.17
			Gas		34,814.81

Energy Conserving Features of the Proposed Project

The Project Description includes a list of “Sustainable Building Features” that are intended to “conserve energy and natural resources” (Draft EIR p. 2-8). These features are listed below.

- Parking lot light standards are designed to provide even light distribution and use 20% less energy compared to a greater number of fixtures at lower heights. The use of metal

halide lamps provide a color corrected white light and a higher level of perceived brightness with less energy than other lamps such as high pressure sodium.

- New building materials are typically extracted and manufactured within the region.
- Pre-manufactured building components, including structural framing and metal panels, are designed to minimize waste during construction. Pre-manufactured metal wall panels with insulation are designed to conserve energy by increasing R-value and solar reflectivity. Building heat absorption is reduced by a decrease in the thermal mass of the metal wall when compared to a typical masonry block wall.
- Reflective roof material will meet the requirements for the USEPA’s Energy Star energy efficiency program. Reflective roofs produce lower heat absorption and thereby lower energy usage during the summer months.
- Triple glazed skylights are used on the roof to reduce the need for interior lighting. A “daylight harvesting” system monitors and adjusts the mechanical and lighting systems in order to conserve energy. The system includes the skylights, light monitors, energy efficient lighting fixtures, and associated control systems. On a typical sunny day, fewer than one third of the interior lights are needed.
- Tree plantings are planned to reduce summer heat gain within the parking field.
- Proposed planting incorporate a substantial amount of drought tolerant species.
- The proposed irrigation system incorporates the use of deep root watering bubblers for parking lot shade trees to minimize water usage and ensure that water goes directly to the intended planting areas.

These sustainable features in the Project Description are also reiterated in Mitigation Measure 3.2.2a to ensure that implementation of these measures is enforceable and monitored. The building construction methods, and their effects on energy usage, are discussed above.

With regards to the “daylight harvesting” system described above, the Proposed Project includes over 200 skylights placed strategically throughout the metal roof. Photo sensors are placed at various locations on the roof as well as inside a number of skylights to accurately measure the amount of natural light entering the building. This program allows lights to automatically shut off when they are not needed. Interior warehouse lighting is reduced from 100% to 66% to 33% to 0%, based on daylight contribution through the skylights. Daylight is measured by exterior and interior photo sensors. The daylighting program has the potential to reduce several hundreds of kilowatt hours compared to the energy load of a typical wholesale warehouse.

The draft Title 24 (California Code of Regulations) compliance report for the project indicates that the above features, plus efficient internal heating and cooling, will result in a building energy

performance that is 12% more efficient than the Title 24 performance standards (Title 24 Performance Certificate of Compliance, dated 12/17/13, included as **Appendix D** of the RPDEIR). As such, the Project would reduce its energy demands well below minimum compliance with state and federal energy standards, including Title 24 of the California Code of Regulations.

Additional measures intended to reduce employee vehicle trips were incorporated into the Final EIR as part of Mitigation Measure 3.2.2b. These trip reduction measures, driven by the project's potential air quality and GHG impacts, have the effect of reducing the consumption of transportation fuels. Improvements to the bicycle and pedestrian network, incorporated into Mitigation Measures 3.2.2b and 3.10.2b and 3.10.2c, also have the effect of reducing transportation fuels.

Operational Energy Usage: Site and Structures

As discussed in Section 3.9 (Impact 3.9.8, page 3.9-14), the Project would consume electricity in the approximate amount of 2.44 million kilowatt hours per year (kWh). This estimate is based on Costco's standard 148,000 SF retail warehouse.⁵ The proposed building size is less than the standard configuration, at 141,125 SF. This reduction in size was made due to environmental constraints at the Project site, but may result in additional energy savings.

In addition to annual energy usage, the estimated electrical peak demand of 800 kilowatts (kW) is lower than similar Costco warehouses. Table 3.15-5 shows the peak demand for similar Costco stores. The stores are similar in size (although somewhat larger than the proposed Project) and peak temperatures. Note that the typical peak demand for large commercial buildings ranges from 600 to 1000 kW.⁶

**Table 3.15-5
Comparative Energy Usage**

Costco Store	Peak Electrical Demand in 2015 (kW)	Natural Gas Usage, Daily Peak in 2015 (therms)	Natural Gas Usage Year 2015 (therms)	Store Size (SF)	Year Store Built
Ukiah (estimated)	800	312	53,860	141,125	2017 – 2018
Rohnert Park	910	225	52,226	156,778	2002
Chico	996	231.25	42,227	160,320	2007
Woodland	872	334	53,860	154,682	2008
Lodi	953	271	56,726	148,871	2011

Source: T.E. Inc. September 2, 2016

⁵ See Draft EIR, page 3.9-14.

⁶ Mel Grande, Ukiah Utilities Department, personal communication, December 9, 2016.

Estimated natural gas usage for the Project is a maximum of 312 therms daily and 53,860 annually.⁷ As shown in Table 3.15-5, this is similar to other Costco stores.

The Project Description includes features, described in Section 3.15.1, to conserve energy. In addition, the proposed design includes a Heat-Reclaim system, which captures heat from the refrigeration lines and uses it to heat water for the building. Consistent with CalGreen requirements (described in Section 3.15.2), the Project includes high efficiency restroom water fixtures, which result in a water savings of 40% beyond the building standard. Reduced water usage results in a reduction in energy usage, due to the energy needed to pump, clean, and distribute potable water.

Operational Energy Usage: Transportation

Transportation fuel consumption was calculated using the same methodology described for construction. The air quality model analysis presented in the Section 3.2 was used in conjunction with U.S. Energy Information Administration factors. Table 3.15-6 shows the resulting fuel usage, both before and after the implementation of Mitigation Measures identified in this EIR:

**Table 3.15-6
Transportation Fuels, Project Operations**

Operations					
<i>Scenario</i>	<i>Source</i>	<i>CalEEMod CO₂ (MT/yr)</i>	<i>Fuel Type¹</i>	<i>Factor (kgCO₂/gal)</i>	<i>Gallons</i>
Unmitigated	Mobile	8557.87	Gas	8.91	960,479
Mitigated	Mobile	7789.95	Gas	8.91	874,293
Total % Reduction in Gallons of Gas With Mitigation					8.97%

Notes:

¹ Calculation conservatively assumes all fuel types as gasoline (no diesel, biodiesel, electric, or other energy sources assumed).

² The reductions in fuel usage due to mitigation are based on implementation of the employee commuter incentives in Measure 3.2.2b, and transportation measures 3.10.2a, b, and c.

Source: ESA, August 2014.

Mitigation Measures adopted for air quality and transportation impacts would also have the effect of reducing energy consumption. Mitigation Measure 3.2.2b requires an employee trip reduction program, which encompasses vanpools and ride sharing. Mitigation Measures 3.10.2a, 3.10.2b, and 3.10.2c, address improvement of transit, pedestrian, and bicycle modes, respectively. These measures, combined, result in an estimated 8.97% savings in transportation energy (see Table 3.15-6, above). This calculated savings does not include additional savings from reducing the trip lengths of Mendocino County Costco members who currently drive to Santa Rosa or even more distant Costco warehouses. The 8.97% savings is likely an underestimate as only some of the measures in Mitigation Measures 3.2.2b, 3.10a, b, and c were quantified; additional reduction will likely be achieved through implementation of the additional conservation measures.

⁷ 1 therm equals approximately 100,000 British Thermal Units (BTU).

Based on the economic analysis of the Project prepared for the City of Ukiah, approximately 17% of the shopping trips to the Project are replacing trips that would otherwise be made to Santa Rosa or Rohnert Park (Dudek 2013). The proposed Project location is based on both the overall population and the presence of existing Costco members in the Project vicinity. Due to the difficulty of accurately identifying all reduced or shortened trips from existing Costco members, these fuel savings were not applied. However, it is clear from Costco membership data that the Proposed Project would substantially reduce fuel consumption for many existing Costco members. It has been suggested that there may be some benefit in eliminating individual departments within the proposed Costco Wholesale Warehouse, such as the bakery, pharmacy, optical center, hearing aid testing center, or food court. Eliminating these departments would likely reduce the locational efficiency of the Project, described above. If, for example, an optical center was not included, a potential visitor would either make an additional trip (to an optical center) or may travel to the nearest full-service store (such as Rohnert Park).

As discussed above, the Project would not consume a greater amount of energy in its operational phase than similar retail projects. Project operations would not result in the wasteful, inefficient, and unnecessary consumption of energy.

Would the project conflict with existing energy standards and regulations?

Section 3.15.2, above, describes the regulatory framework for energy usage and conservation at the federal, state, and local level. For building projects, Title 24 (California Code of Regulations) is of particular importance, as it sets standards for energy performance.

The draft Title 24 compliance report for the Project indicates that the proposed warehouse building energy performance would be 12% more efficient than the Title 24 performance standards (Title 24 Performance Certificate of Compliance, dated 12/17/13, included as Appendix D of the RPDEIR). As such, the Project would exceed applicable state standards.

The Ukiah General Plan includes goals and policies related to energy. General Plan consistency is discussed in Section 3.7. The analysis finds that the Project would not conflict with applicable environmental policies (see Table 3.7-1).

Would the project adversely affect local and regional energy resources or require additional supply, the provision of which could have a substantial impact on the environment?

This discussion includes the impact of the Project on existing energy resources, energy infrastructure and the consideration of renewable energy sources.

As described in Section 3.9, Utilities and Services, no additional energy infrastructure is required to serve the Project site. Utility providers have considered the energy demand of the proposed

Project and have confirmed that they have sufficient capacity to serve the Project. The City of Ukiah Electric Utilities Department notes that service “will be provided from existing distribution facilities” and that the “system has capacity for the project now and future expansions in the area (City of Ukiah 2016).” PG&E confirms that they will serve the Project, and the project utility connections must meet PG&E’s Gas and Electric Service Requirements Manual and PG&E Engineering Standards (PG&E 2016).

In addition, on-site renewable energy sources have been considered. The Project would include pre-wiring and an engineered roof to allow for future solar energy panels. It is Costco standard practice to determine the feasibility of installation of rooftop solar at the time of the completion of warehouse construction and beginning of operation (anticipated build out year is 2017). Factors evaluated by Costco include cost of the solar system, tax incentives, rebates or incentives from the electricity provider, how much power the system will produce and the utility cost of electricity. For the Ukiah Costco warehouse, it is estimated that rooftop solar would only contribute to approximately 25% of the building electricity needs. In contrast, as noted above, Ukiah’s 2011 energy supply included 49% eligible renewable sources and an additional 25% from large hydroelectric – approximately 75% from renewable sources. Thus, renewable energy sources provide the vast majority of the Project’s energy demand. Moreover, as demonstrated above, the Project’s energy demand can be fully met with existing sources; no additional fossil fuels will need to be added to the energy mix to accommodate the Project demand.

The other potential source of on-site energy, small wind energy, is infeasible, as the Project site is within the Airport Influence Area of the Ukiah Municipal Airport (which included restrictions on tall structures).

Mitigation Measures

As described above, Mitigation Measures to reduce or avoid impacts to air quality and the transportation system would also reduce the consumption of energy, for which there is no significant energy use or energy consumption impact as determined above. These mitigation measures are repeated below, and the energy implications discussed.

Measure 3.2.2a The project will incorporate sustainability features in building and site design with the goal of reaching a building efficiency rating that is greater than the Title 24 requirement, in order to reduce energy consumption and associated GHG emissions. As set forth in the “Project Description,” the project will incorporate the following sustainability features:

- Parking lot light standards are designed to provide even light distribution and use 20% less energy compared to a greater number of fixtures at lower heights. The use of metal halide lamps provide a

color corrected white light and a higher level of perceived brightness with less energy than other lamps such as high pressure sodium.

- Locally extracted and manufactured building materials will be utilized where feasible.
- Pre-manufactured building components, including structural framing and metal panels, are designed to minimize waste during construction.
- Pre-manufactured metal wall panels with insulation are designed to conserve energy by increasing R-value and solar reflectivity. Building heat absorption is reduced by a decrease in the thermal mass of the metal wall when compared to a typical masonry block wall.
- Reflective roof material will meet the requirements for the USEPA’s Energy Star energy efficiency program. Reflective roofs produce lower heat absorption and thereby lower energy usage during the summer months.
- Skylights are used on the roof to reduce the need for interior lighting. A “daylight harvesting” system monitors and adjusts the mechanical and lighting systems in order to conserve energy. The system includes the skylights, light monitors, energy efficient lighting fixtures, and associated control systems. On a typical sunny day, fewer than one third of the interior lights are needed.
- Tree plantings to reduce summer heat gain within the parking field.
- Planting to incorporate a substantial amount of drought tolerant species.
- Irrigation system to incorporate the use of deep root watering bubblers for parking lot shade trees to minimize water usage and ensure that water goes directly to the intended planting areas.

Mitigation Measure 3.2.2a reiterates the “sustainable building features” included in the Project Description to ensure proper implementation and monitoring. These sustainability features would result in lower energy use, which in turn reduces both on-site (area sources) and off-site (electricity generation) emissions of criteria air pollutants and greenhouse gases. Higher insulation values and reflective building materials (panels and roofing) reduce the demand for heating and air conditioning. Similarly, use of trees reduces the need for air conditioning in the summer by shading the buildings and reducing ambient temperatures of hardscape surfaces (streets and parking lots). Reduced need for lighting, both exterior (by reducing light pollution) and interior (by using the daylight harvesting system) reduces electricity demand. Drought

resistant landscaping and water-efficient irrigation reduced demand for water, which in turn reduces energy used to pump, treat, and deliver water.

Measure 3.2.2b The applicant shall implement the following measures, to the extent feasible and appropriate, to reduce motor vehicle trips and emissions associated with project operations:

- Promote the use of alternative fueled vehicles and equipment (i.e., CNG, electric, etc.) for project operations. The applicant shall implement two or more of the following measures:
 - Warehouse equipment, including forklifts, will be electric powered.
 - Landscaping equipment will be electric powered.
 - Preferred parking for zero emission vehicles.
 - Retail fueling station will include a CNG refueling station.
 - Customer parking will include a minimum of one (1) electric recharge station.
- Provide commute incentives for employees to utilize alternative transportation, such as carpool/vanpool, transit, cycling, or walking. A Costco carpool and alternative transportation manager shall be designated to oversee the implementation of these TDM measures. Costco will provide its employees the following incentives:
 - Four carpool parking spaces reserved for Costco employees;
 - Bicycle parking as required by City standards;
 - Employee locker rooms;
 - Rideshare Program, including recognition of rideshare participants at monthly staff meetings and an annual update of rideshare benefits and incentives provided to employees;
 - A Rideshare Bulletin Board to be located in the employee breakroom, which will contain information about the Rideshare Program, transit, bike routes, and other alternate commute information;
 - A Rideshare Newsletter to be published and posted on the Rideshare Bulletin Board on a quarterly basis;
 - Costco employees commuting to work in a rideshare program will be eligible for a guaranteed ride home program in the event of an emergency or unexpected situation (such as unscheduled overtime) on the days they rideshare.

- The applicant shall increase transit accessibility. Such measures could include the purchase of transit passes for employees. Also, implement Mitigation Measure 3.10.2a.
- The applicant shall improve the pedestrian and bicycle network. Implement Mitigation Measure 3.10.2b and 2c.

Mitigation Measures 3.2.2b reduces consumption of petroleum fuels by increasing the use of electrical equipment for Project maintenance and operations, encouraging employees and customers to use electric vehicles, rideshare, use alternative transportation modes including transit, bicycle, or walking.

Measure 3.10.2a Provide a concrete pad suitable for future location of bus shelter on the northern frontage of the project site, adjacent to the proposed sidewalk.

Mitigation Measure 3.10.2a further encourages use of transit, as opposed to single occupancy vehicles by moving the local transit stop closer to the project site. Note that it is the responsibility, and intent, of MTA to install the bus shelter. Thus Measure 3.10.2a is written to require the construction of the concrete pad for MTA's use.

Measure 3.10.2b The project applicant shall implement the following measures to reduce potential pedestrian impacts associated with the project:

- Install sidewalks along the project frontage on Airport Park Boulevard as identified in the project site plan.
- Install high visibility crosswalk markings across driveway entrances to the project including the existing cul-de-sac on the north side of the project to increase visibility of pedestrians.
- Install ADA compliant curb ramps at driveway crossings and transition points along the project frontage. Also, ensure that the existing curb ramps at the existing cul-de-sac intersection with Airport Park Boulevard are compliant with current ADA standards.
- Provide an adequate pedestrian connection from the street frontage and main parking area to the retail store entrance (per Ordinance 1098).⁸

⁸ The currently effective Master Plan for the Site – Ordinance No. 1173 (effective November 11, 2016) reinstated Ordinance No, 1098 and repealed Ordinance No. 1146 which rezoned the Costco Site.

Measure 3.10.2c The Project applicant shall implement the following measures to reduce potential bicycle impacts associated with the Project:

- Install Class III bike lanes along the project frontage on Airport Park Boulevard.
- The Project Applicant shall comply with Ordinance 1098, Airport Industrial Park Planned Development, requirements to install the required number of bicycle parking spaces (long-term spaces [bicycle lockers or covered parking spaces to reduce exposure to the elements and vandalism] for project employees and short-term spaces for project patrons and employees [at a convenient location adjacent to the store’s primary entry points]). Bicycle racks should be an appropriate design and installed correctly to ensure proper function.

Mitigation Measures 3.10.2b and 3.10.2c would improve bicycle and pedestrian circulation in the project vicinity to encourage a reduction in vehicle use, and a corresponding reduction of transportation fuels.

Level of Significance After Mitigation

The energy saving features of the Project, including those listed in Mitigation Measure 3.2.2a, result in a building that exceeds California’s Title 24 standards by 12%. Construction energy usage would be reduced due to the choice of building materials (which also feature a high recycled material content). The mitigation measures described in Section 3.15.4 would result in an estimated 8.97% savings in operational transportation energy. Based on this information, the Project would result in lower energy consumption and would not result in inefficient, wasteful, or unnecessary consumption of energy. Therefore, additional mitigation measures beyond those discussed above, are not required.

3.15.5 References

California Air Resources Board (CARB). 2014. “Truck and Bus Regulation, On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation.” <http://www.arb.ca.gov/msprog/onrdiesel/documents/FSRegSum.pdf>. August 29, 2014. Accessed July 29, 2015.

California Energy Commission (CEC). 2012. 2011 Power Content Label. City of Ukiah. http://www.energy.ca.gov/sb1305/labels/2011_index.html.

CEC. 2015. 2014 Power Content Label. City of Ukiah. <http://www.energy.ca.gov/sb1305/labels/index.html>.

City of Ukiah 2016. Utilities Department. Letter to Kier and Wright Civil Engineers & Surveyors, Inc. September 20, 2016.

Dudek. 2013. Memorandum to Charley Stump, City of Ukiah. December 16, 2013

PG&E. 2016. Letter to Kier and Wright Civil Engineers & Surveyors, Inc. September 9, 2016.

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CHAPTER 4 EIR PREPARERS

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APPENDIX A

*Memorandum to Charley Stump, City of Ukiah
Prepared by Dudek, December 16, 2013*

MEMORANDUM

To: Charley Stump, Community Development Director, City of Ukiah
From: Brian Grattidge
Subject: Costco Wholesale Project, City Council Hearing Comments
Date: December 16, 2013
cc:
Attachment(s):

This memo provides additional information for the City Council regarding issues raised at the City Council Hearing for the proposed Costco Wholesale Project Final Environmental Impact Report (FEIR) and Rezoning on December 4, 2013. The first section of this memo addresses a letter from William Kopper, with attachments, dated December 4, 2013 and hand-delivered to the City Council toward the very end of the public hearing. The second section of this memo addresses verbal comments raised regarding the Reduced Project (No Gas Station) Alternative / Environmentally Superior Alternative. The information in this memo has been provided by members of the City of Ukiah's environmental consultants, including ESA, W-Trans, Remy Moose Manley LLP, and Dudek. Additional technical information was provided by City staff.

Several of these comments were previously addressed in the Memorandum dated November 26, 2013, to Kim Jordan, City of Ukiah, from Brian Grattidge. This is noted where appropriate.

KOPPER LETTER

Planned Improvements to U.S. 101 and Talmage Road interchange

The issue of the independent utility of the proposed U.S. 101/Talmage Interchange Improvements, which has been considered by the City Council separate from the proposed Costco project, was addressed by City staff at the Hearing of December 4, 2013 (incorporated here by reference). The City Council has undertaken a design, funding, and environmental review process for the proposed improvements. While the proposed improvements would provide a feasible means to mitigate a potentially significant impact related to project traffic, the improvements are necessary to address future traffic deficiencies, with or without the proposed project. This need has been documented in the analysis done for the improvements, as well as the Costco Final EIR, November 2013, SCH#2011112025, the Final EIR for the proposed (but not

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approved) Walmart Expansion, SCH#2010032042, 2005 Mendocino Council of Governments Route 101 Corridor Interchange Study, and the Ukiah Valley Area Plan prepared by Mendocino County.

Airport Industrial Park Specific Plan

The 1980 specific plan (adopted in 1981) referenced by Mr. Kopper was superseded by later plans and ordinances, as documented in a separate correspondence by the City of Ukiah Community Development Department. Therefore, no further responses to Mr. Kopper's comments regarding consistency with the 1980 specific plan are necessary, as the plan is no longer in effect.

Noise (letter prepared by the Acoustics and Vibration Group)

Many of these comments are addressed in the Memorandum dated November 26, 2013, to Kim Jordan, City of Ukiah. This is noted where appropriate, below.

Comment 1.

The commenter is correct that the greater distance and shielding of the Comfort Inn and Suites in question would result in less existing and projected noise levels than the Hampton Inn Hotel and Fairfield Inn. Commenter suggests there may be some reflected noise from other buildings in the area, but does not provide any support for this statement.

Comment 2.

Contrary to the commenter's assertion that roadway noise would result in greater noise impacts at the 3rd hotel based on the lower existing noise levels, the human response to noise (as represented in the FICON thresholds presented in the DEIR) is more sensitive as ambient noise increases. The commenter acknowledges that the existing traffic noise at the Comfort Inn would be lower than the Hampton Inn Hotel and Fairfield Inn due to distance and shielding, but does not seem to apply the same assumptions to the project traffic noise. A lower existing ambient noise would not change the actual increment of noise increase.

Comment 3.

See the November 26, 2013 memo pages 13, 14, and 16 regarding the Caltrans traffic noise methodology.

Comment 4.

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See the November 26, 2013 memo pages 13, 14, and 16 regarding the Caltrans traffic noise methodology.

Comment 5.

See the November 26, 2013 memo page 15 regarding noise monitoring.

Comment 6.

See the November 26, 2013 memo page 15 regarding tonal content.

Comment 7.

See the November 26, 2013 memo pages 12 and 15 regarding interior noise measurements. In addition, the City of Ukiah (personal communication via email with David Willoughby, Building Official with the City of Ukiah, December 9, 2013) provided additional construction information regarding each of the hotels in question, specifically that each is less than 15 years old and has double-paned glass installed. This information supports the assumptions included in the FEIR for exterior-to-interior noise reduction.

Comment 8.

The complete traffic study is included as an appendix to the DEIR. All public records act requests made to the City of Ukiah regarding this project, to date, have been responded to.

Comment 9.

See the November 26, 2013 memo page 16 regarding the 3 dBA noise increase.

Comment 10.

See the November 26, 2013 memo page 16 regarding noise model calibration and validity of results. Although more project delivery truck trips would occur in the early morning hours than during the peak hour, the traffic noise analysis accounts for all vehicles on the modeled roadways, not just those associated with the project.

Comment 11.

Comment noted. Several revisions were made to the traffic noise model assumptions of the DEIR and were noted and included in the FEIR. These pertained to speed limits on several

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roadways and a slight adjustment to account for the distance between the face of the Hampton Inn Hotel and Fairfield Inn rooms to the Airport Park Blvd centerline.

Comment 12.

See the November 26, 2013 memo pages 13 and 16 regarding the traffic noise modeling.

Comment 13.

See the November 26, 2013 memo pages 11 and 12 regarding the interior noise levels at the Hampton Inn Hotel and Fairfield Inn.

Comment 14.

See responses to #7, #11, and #13 above. Traffic noise compatibility for affected land uses was assessed based on the Maximum Allowable Noise Exposure Transportation Noise Sources standards included in the City General Plan, as well as the interior Title 24 standard. This analysis addresses all vehicles on the modeled roadways, not just those associated with the project, to provide context for the incremental increase in noise from the project traffic.

Comment 15.

See response #14 above.

Comment 16.

As described in the FEIR, the likelihood of all non-transportation activities described in the DEIR occurring simultaneously is not high and would be a speculative scenario. However, if this were to occur, due to the logarithmic nature of sound, the loudest activities described would mask the noise of many of the other activities. If two sound levels differ by 4 to 9 dBA, 1 dBA should be added to the higher number. The example in the FEIR included a summation of back-up beepers predicted to generate 43 dBA Leq at the nearest receptor and leaf blowers 37 dBA Leq, with a cumulative noise level of 44 dBA Leq, which would be less than ambient noise at sensitive noise receptors. It should also be noted that these noise levels are based on attenuation by distance only and do not account for intervening terrain or structures, which could attenuate noise by an additional 3 dBA for the first row of buildings and 1.5 dBA for additional rows of buildings per the Caltrans TeNS.

Comment 17.

See response #16 above.

Comment 18.

Construction of the project would result in short-term, temporary noise that would be limited to the less noise-sensitive daytime hours. Ambient noise levels were determined by noise monitoring at different locations, with Leq and/or CNEL values included in the DEIR. It should also be noted that the noise levels included in the DEIR are based on attenuation by distance only and do not account for intervening terrain or structures, which could attenuate noise by an additional 3 dBA for the first row of buildings and 1.5 dBA for each additional row of buildings per the Caltrans TeNS.

Comment 19.

Construction activities have been analyzed in the DEIR noise impacts. It is anticipated that short-term traffic noise would increase. The City's standards for construction noise allow normal construction activity within business hours. Certain restrictions are required for residential land use within a certain distance of the site, a condition which does not apply to the proposed project.

Comment 20.

As noted by the commenter, loading docks typically have multiple sources of noise at varying distances. In determining the noise of a loading dock over time, pieces of equipment could move closer or further away from the noise meter, which could result in increased and decreased noise levels, respectively, that would factor into the hourly Leq. The reference loading dock noise level used in the DEIR does not represent the noise level of just one piece of equipment or activity, but rather the cumulative noise of the loading dock activities and equipment. The commenter states that different noise levels (whether greater or lesser noise levels is not specified) have been collected by monitoring at different loading docks but does not provide justification for the assertion that the DEIR reference noise levels are not accurate.

Comment 21.

See the November 26, 2013 memo page 17 regarding delivery truck vibration.

Traffic (letter prepared by Smith Engineering and Management)

Comments regarding date of traffic counts (I35-2, I35-3, I35-4, I35-5)

These comments are a repeat of previous comments to which responses have already been provided.

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Additional response: It should be noted that traffic volumes at any location can vary by 5 to 10 percent from day to day. Traffic volumes collected in February 2010 which were used in the analysis were compared with subsequent traffic counts collected in September 2012. The 2010 counts were 8 to 11 percent higher than the 2012 counts. Considering time of year, results, and mitigation measures identified, it was our professional opinion that the collection of new data and re-analysis of operational conditions would produce similar results. Therefore, the premise of these comments is rejected.

Comments regarding trip generation rates (I35-6)

This comment is a repeat of a previous comment to which a response was already provided.

The newer comment fails to acknowledge our assessment of and response to the previous comments and the following conclusions, which are repeated here:

The suggestion that the trip generation should have been based solely on the surveys from the Eureka store is rejected for the following reasons:

- *The rate used is at the high end of the surveyed rate from the ITE Trip Generation Manual*
- *Surrounding population densities may indicate that the utilized rate is already conservative (i.e., on the high end).*
- *It is common transportation planning practice to utilize as many surveyed uses as possible in selecting a trip generation rate and to avoid the use of rates based on single store surveys.*

It is our professional opinion that the trip rates used for the DEIR were conservative and appropriate and are not likely to undercount traffic generation.

Comments regarding pass-by traffic (I35-7)

This comment is a repeat of a previous comment to which a response was already provided.

No new responses are necessary.

Comments regarding Pass-by Traffic (I35-8)

This comment is a repeat of a previous comment to which a response was already provided.

We disagree with the reasoning and accounting of the numbers and conclusions in the comments. For the reasons explained in our previous responses and the responses to the comments above in

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this memo, in our professional opinion, the process which was used to determine pass-by trips at the study intersections was appropriate and applied correctly. In addition, other conservative assumptions were used in the trip generation methodology, which may actually overstate project traffic volumes. Therefore, in our opinion, no re-analysis is necessary.

Comments regarding Southbound off-ramp Queuing (I35-9 through I35-14)

These comments simply repeat previous comments to which responses were already provided. The following response was provided in a memo responding to the 11-18-13 Kopper letter. This response, in our professional opinion, resolves the queuing issue raised in the comments:

The DEIR assumed a storage of 600 feet for the southbound to westbound ramp. Analysis of the Existing plus Project scenario indicated that the expected queue would exceed 600 feet and a significant impact was identified. Analysis of the Near Term plus Project scenario also indicated that the expected queue would exceed 600 feet and a significant impact was identified. The mitigation measure to address this impact was the modification of the interchange ramps which are now under design with Caltrans cooperation. Per the EIR's recommended mitigation monitoring program, a certificate of occupancy would not be granted to the Costco building until the ramp improvements are completed.

The DEIR calculated the "theoretical queue" based on the southbound to westbound ramp volume. The southbound to westbound ramp and the southbound to eastbound ramp join at a point approximately 730 feet from the Talmage Road intersection. It is likely that the queue length may extend further than estimated in the DEIR since some of the traffic on the southbound to eastbound ramp would be trapped on the ramp where there is one lane.

The Smith letter incorrectly assumes these volumes are completely additive. Theoretically, once traffic destined for the southbound to eastbound loop ramp get past the point 730 feet away from Talmage Road, they would have no queues blocking their path. Assuming that the queue would be additive beyond the 730 foot point, queues were estimated for this extended scenario. Following is summary of the queue estimates:

Existing plus Project

DEIR original estimate: 1,037 ft.

Smith estimate: 1,325 ft.

Potential extended queue: 1,125 ft.

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The “gore point” (the triangular point where the ramp and the freeway lanes split) of the ramp is located 1,225 feet from Talmage Road. Therefore, under the Existing plus Project condition, all queued vehicles would be stored on the ramp.

Near Term plus Project

DEIR original estimate: 1,192 ft.

Smith estimate: 1,525 ft.

Potential extended queue: 1,325 ft.

With the “gore point” of the ramp located 1,225 feet from Talmage Road, under the Near Term plus Project condition, vehicles would queue beyond the storage of the ramp. Beyond the ramp, there is transition area and an 8-10 foot shoulder. There may be occasions when vehicles extend onto the freeway mainline by 1-2 vehicles.

Based on these results, there would be no changes to the impacts and recommendations of the traffic section and mitigation monitoring program. The queuing condition is still identified in the EIR as a significant impact. The proposed mitigation, if approved, would still not grant a certificate of occupancy until the interchange modifications are completed, eliminating the queuing impact.

Comments Regarding Talmage Queuing (I35-15)

This comment is a repeat of a previous comment to which a response has already been provided.

The additional comments make further contentions regarding driveway blockage due to queuing. At most signalized intersections in commercial areas, queuing at intersections tends to block driveways. These queues dissipate quickly, which allow for driveway access. City standards do not exist to regulate these conditions. In our professional opinion, there is no further discussion needed on this issue as it is not considered a significant adverse environmental impact.

Comments Regarding Interchange Design (I35-16 through I35-20)

This comment is a repeat of a previous comment to which a response has already been provided.

The status of the interchange design, design exceptions, and the ongoing meetings with Caltrans on the progress of the design have been well covered during the hearing process. The impacts relating to the interchange were identified as significant and unavoidable in the DEIR. Through the hearings, it has been made clear that the project will not be granted a certificate of occupancy until the interchange improvements are complete. To be completed, the design will need to get final approval from Caltrans. The interchange is also subject to its own independent environmental review process as it is a project with independent utility and need outside of the Costco project.

Comments (I35-20 through I35-24)

These comments have been previously responded to, but are summarized here. The U.S. 101 / Talmage interchange project is discussed on page 1 of this memorandum. As discussed in the FEIR, the proposed Walmart Expansion Project was denied by the City of Ukiah Planning Commission and is not a reasonably foreseeable cumulative project for purposes of CEQA. As discussed in the FEIR, the proposed rezoning is a required entitlement of the proposed project, and the effects of this are analyzed in the project impact analysis. The effects of the rezoning are not separate from the proposed project, but are integral to its implementation.

Comments Regarding Highway 101 Off-ramp (I35-25)

This comment is a repeat of a previous comment to which a response has already been provided.

The comment notes that “the failure to analyze collision data on the off ramp deprives City officials of a key piece of information.” The commenter’s assumption is incorrect. The DEIR did analyze collisions at this location. It was previously noted that one additional year of data is extremely unlikely to reverse any patterns identified by the previous 5 years of data. In our opinion, the City has received adequate information on this issue upon which to base a conclusion of this information’s effect on the analysis.

Comments regarding Caltrans approval and project approval have been well covered in hearings.

Comments Regarding Emergency Access (I35-26)

This comment is a repeat of a previous comment to which a response has already been provided.

The new comments about limited width beneath the Talmage overcrossing are unsupported. As Caltrans has final authority over the design of the ramp, it will presumably meet Caltrans standards for shoulders. Caltrans has not identified any concern to date that it will be infeasible to do so for this particular ramp.

Comments Regarding Bicycles and Pedestrians (I35-27)

This comment is a repeat of a previous comment to which a response has already been provided.

There is a traffic signal at Airport Park/Talmage which will serve pedestrian and bicycle crossings. Note that the potential for additional bicycle and pedestrian trips generated by the project on the US 101 interchange is negligible, for the reasons explained in the EIR, the primary of which is that the type of shopping needs that Costco serves are largely bulk goods for which pedestrian or bicycle transport tend to be infeasible.

Comments Regarding Distribution (I35-28)

This comment is a repeat of a previous comment to which a response was already provided. The most recent response was provided in a memo responding to the 11-18-13 Kopper letter, which is restated in the following paragraphs. In our professional opinion, this response resolves the comments, especially when combined with the recent public testimony by Steve Weinberger at the hearing of 12-4-13:

The comment has requested the actual data and computational steps that produced the trip distribution assumptions in Table 3.10-8. The Excel file used to determine these assumptions was previously emailed to Mr. Kopper's office on November 18th, 2013, but is described here.

Census track population densities were obtained for areas within the Market area. The market area was divided into zones. A route of travel was then determined for each zone based on shortest travel time. The population densities for each zone was then added using the census track information and then percent of total population within the market area was calculated. The results of the calculations showed the following:

Ukiah Trip Distribution

	Population 2009	%
101 North	14558	34%
Talmage Road East	2875	7%
State Street North	9497	22%
Gobbi Street East	2309	5%
Babcock Lane North	112	1%
Waugh Lane North	305	1%
Mill Street East	298	1%
Gobbi Street West	3108	7%
Mill Street West	3108	7%
State Street South	2059	5%
Washington Street West	1000	2%
101 South	3375	8%
Total	42603	100%

Air Quality (letter prepared by Autumn Wind Associates, Inc.)

Comment I.

Commenter is correct – a 15% passby rate was used in CalEEMod. This is the normal default setting and was not adjusted upwards in order to provide a more conservative analysis (see discussion below).

Comment II.

Commenter's assertion that overestimating the mileage on diverted trips represents a significant new impact. Given the uncertainty in actual trip lengths, the EIR essentially constructs a worst case scenario. The assertion that the trip lengths for some trips, with correspondingly lower vehicular air emissions, represents a new impact is not correct. It is likely that the actual mileage, and vehicular air emissions, will be lower than the EIR estimates. This would represent a reduction of a previously identified significant impact.

Comment III.

Commenter questions the use of the CalEEMod model default trip lengths, including the use of the Urban Home-Shopping trip of 7.3 miles for Mendocino County trips. As noted in the FEIR, the longest trip lengths in the model were used for each category of trip in order to ensure a conservative analysis. The commenter (as shown in the last sentence on page 7) seems to confuse maximum trip length with average trip length. The average trip lengths represent the total mileage for all visitors, divided by the number of individual trips. Thus, a 7.3 average trip length may represent a shopper who travels 3 miles, and one who travels 11 miles. The most distance heavily populated residential areas in the City of Ukiah are less approximately 3 miles from the Costco (and several areas are much closer). The market area, as disclosed in the EIR, and discussed by several commenters on the DEIR, is much larger. However, it makes intuitive sense that most of the shoppers for a store, even a regional store, will be in or adjacent to the community in which that store is located. In addition, the closest shoppers are the most likely to make a single-purpose trip to the store, as opposed to linking trips (making more than one stop in the project area, for those who have travelled further). Thus, the longest default average in the model is used.

Other commenters have suggested that an average geographic distance, or even the maximum geographic distance, to the edge of the market area should be used. This does not take into account population density and the location of potential shoppers. Finally, and most importantly,

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approximately 17% of the project trips would be redirected from the existing Santa Rosa and Rohnert Park stores.¹ Given that the Santa Rosa store is approximately 60 miles from Ukiah, a trip originating in Ukiah to the proposed Ukiah store location that would otherwise have gone to Santa Rosa or Rohnert Park would have a net reduction of 60 miles. For example, an existing trip from Willits to the Santa Rosa Costco, compared to the proposed project site would be reduced from 90 miles to 30 miles.

Given the enormous technical and financial difficulty in modeling each and every trip origin and destination within the market area, the most realistic and supportable assumption was to use the maximum default trip length in the air quality model. In addition, the lower standard modeling assumption of 15% for the pass-by rate was used, rather than the 37% used for the traffic model.

Comment IV.

See above. Commenter recommends use of a 33, 44 or 66 mile average trip length but does not offer evidence demonstrating that this would be clearly more reasonable than the assumptions used in the model.

Comment V.

See above.

Comment VI.

Commenter is correct, “13” is a misprint in the final. CalEEMod uses a combination of primary, diverted, and passby trips to determine VMT. All of which were based on the longest available defaults, as described above.

Noise (letter prepared by Dale LaForest & Associates)

The memorandum dated November 26, 2013, addresses the majority of expressed concerns, including exterior and interior noise at the Hampton Inn Hotel and Fairfield Inn (pages 11, 12, 16, and 17), single event noise (page 14), sound frequency (page 15), and City transient lodging noise standards (page 17).

In addition, the City of Ukiah (personal communication via email with David Willoughby, Building Official with the City of Ukiah, December 9, 2013) provided additional construction

¹ This is based on a 21% leakage figure used in the Urban Decay Analysis (ALH 2012) for the Santa Rosa and Rohnert Park stores with an 80% recapture rate.

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information regarding each of the hotels in question, specifically that each is less than 15 years old and has double-paned glass installed. This information supports the assumptions included in the FEIR for exterior-to-interior noise reduction.

A few additional responses are included below:

1. The commenter cites California insulation standards of an STC rating of at least 50 for exterior walls and roof-ceiling assemblies and an STC rating of at least 30 for windows, which are greater than those assumed in the FEIR. Based on this information, as well as the information regarding the age and construction of the hotel provided by the City, it is likely that the exterior-to-interior noise estimate provided in the FEIR is overly conservative and interior noise could be less than that provided in the FEIR.
2. It is interesting that the commenter suggests the STC rating method of analysis is inaccurate and that the OITC should be used instead, when the California Green Building Standards cited previously by the commenter specifies STC rating standards for building acoustical control. In addition, roof noise is primarily a consideration for aircraft flyover noise rather than traffic noise based on the directional noise exposure.
3. Several revisions were made to the traffic noise model assumptions of the DEIR and were noted and included in the FEIR. These pertained to speed limits on several roadways and a slight adjustment to account for the distance between the face of the Hampton Inn Hotel and Fairfield Inn rooms to the Airport Park Blvd centerline. As summarized in the FEIR, the baseline noise either increased or decreased slightly on the revised roadways depending on the corrected speed limit. Contrary to the commenter's assertion, however, the incremental change in noise would not change along the roadways, nor would the significance conclusions.

Visual Impacts (letter prepared by Dale LaForest & Associates)

Comment 1 (page 4).

Mr. LaForest argues that the visual simulations provided in the FEIR, in response to requests by several commenters, do not fully characterize the visual effects of the proposed project. These simulations were prepared by a professional architect based on project plans provided by the architect. This disagreement is noted for the Council's consideration.

Mr. LaForest also notes that the proposed fuel station lacks a landscaped berm east of the site. This is incorrect.

Comment 2 (page 6)

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Mr. LaForest's understanding that CEQA requires particular visual presentations is incorrect. The DEIR included site photographs and renderings of the proposed project, in support of the written analysis. The FEIR included visual simulations at five and fifteen years after project implementation.

Comment 3 (page 7)

Mr. LaForest argues that modifying Mitigation Measure 3.1.2 in response to comments received during the DEIR review period requires recirculation. This argument is not supported by the CEQA statute, guidelines, and caselaw.

Mr. LaForest's assertion that lighting at the project site would result in a significant hazard to motorists on U.S. 101 is unsupported, as discussed in the FEIR, the November 26, 2013 memorandum, and elsewhere in this memorandum.

Comment 4 (page 9)

The commenter is directed to the FEIR and to page 9 of the November 26, 2013 memorandum regarding visual analysis and the General Plan status of U.S. 101.

Comment 5 (page 10)

As noted in the FEIR, comparing the CEQA baseline descriptions and impact conclusions between different projects in different geographic settings, analyzed by different lead agencies, is problematic.

Mr. LaForest states that the mountains to the west, presumably as seen from U.S. 101, are of high visual quality. This may be true, but the mountains are part of the distant background, and would not be obstructed by the project. The character and quality of the foreground (vacant graded site containing only ruderal vegetation), the middleground (other commercial development, a dumping site for concrete riprap, and an airport), the relationship of the viewer to the site (a mix of commuters, residents, and tourists), and the time of exposure (low), were all considered in the EIR to reach the conclusion of a less-than-significant impact. By the logic of the commenter, all urban development within the Ukiah Valley would have a significant and unavoidable visual impact, as the Coast Range is visible from most locations within the Valley. However, mere visibility of a new project is not now and has never been the required threshold for a significance finding for aesthetic impacts under CEQA.

Comment 6 (page 10)

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The DEIR uses the framework of the General Plan and any state or federal designations to determine if the project site is within a “scenic vista” and finds that it does not. However, the special status of the U.S. 101 as a scenic corridor and visual “gateway” to the City is disclosed and considered in the DEIR.

Comment 7 (page 11)

Mr. LaForest argues that the project landscaping would be so effective as to block the distant mountain ridges from sight. This is in contrast with statements made in his letter of March 15, 2013, that the landscaping is inadequate to screen the project site. The visual simulations in the FEIR, as well as the simulations prepared by the commenter, do not support this conclusion.

Comment 8 (page 12)

Mr. LaForest reiterates his argument that the effect of the proposed project, which would comply with AIP landscaping, site, and building design guidelines, is comparable to a junk yard. This comment was addressed in the FEIR. CEQA analysis should, and this case does, consider that all forms of development are not equal, and that any visual change must be assessed by a variety of factors (described here and in the EIR) and is not innately significant under CEQA.

Mr. LaForest then states that the proposed landscaping, as shown in the visual simulations, would not sufficiently screen the site, despite having previously stated that the proposed trees would obscure the ridgeline of the Coastal Range to the west.

Comment 9 (page 15)

In contrast to Mr. LaForest’s comments, the EIR does in fact disclose the visual change that would occur as a result of the project. A sufficient CEQA analysis does rely on whether not “beauty is in the eye of the beholder” (as stated in the comment) but considers the character and quality of the site, the degree of change, and the sensitivity and nature of the viewers, in order to provide objectivity in the face of the commenter’s belief that “all visual judgments are personal opinions.”

In addition, with regards to interpretations of the General Plan, and the meaning of a “gateway,” it is the function of the City’s elected officials (Council) to interpret the City’s General Plan and make determinations regarding consistency.

Comments 10 and 11 (page 17)

Memorandum

Subject: Costco Wholesale Project FEIR

These comments have been previously addressed in the FEIR. Mr. LaForest's disagreement with the conclusions of the FEIR are noted, and will be considered by the lead agency decision makers (the City Council).

Comments 11 and 12 (page 18)

The EIR preparers do not agree with the commenter's assertion that the project area is "largely undisturbed." The site itself has been graded for previous agricultural use, and all vegetation removed. Utility structures (boxes and pipe connections) have been placed on the site. The Airport Industrial Park is served by a complete roadway network and is at over 50% buildout. The property west of the project site is used for storage of broken concrete (rip-rap). The vegetation shown in the commenter's photographs was likely planted within the right of way for U.S. 101 as landscaping. The drainage ditch adjacent to the project site was constructed as part of U.S. 101 and is not part of the pre-development landscape.

Nevertheless, this difference of opinion is noted and will be considered by the City Council.

Comment 14 (page 19)

The commenter states the DEIR lacks substantial evidence, because it did not include visual simulations. This comment is addressed in the FEIR and in the November 26, 2013 memorandum. The commenter characterizes his own visual simulations as an effort to "document, analyze, and finally simulate" the visual effects of the proposed project, while the FEIR visual simulations are dismissed by the commenter as "unsubstantiated opinions and unsupported conclusions." This difference of opinion is noted, and will be considered by the City Council. However, it should be reiterated that visual simulations are not required under CEQA for an adequate aesthetic analysis. The simulations included in the FEIR were provided in response to public interest and are merely supplemental information that does not change the conclusions of significance reached in the DEIR.

Comment 15 (page 19)

The visual impacts of the parking lot has been addressed (see FEIR). Mr. LaForest also compares the proposed visual effects to the existing Walmart. It should be noted that the Walmart landscaping lacks several of the features identified in the proposed project. Mr. LaForest notes that the conifers used by Walmart are insufficient to properly screen the parking lot. However, Mr. Kopper (for whom Mr. LaForest has prepared his comments), stated in his letter of November 19, 2013, that coniferous trees should be *required* to adequately screen the proposed Costco parking lot. It is for this reason that the proposed landscaping contains a mix of trees, as well as berming and shrubs. The proposed landscaping palette is consistent with City guidelines

Memorandum

Subject: Costco Wholesale Project FEIR

prepared by local experts on trees which provide the best shading, visual screening, and maintenance characteristics in the Ukiah area. Final design of the landscaping will be considered by the Planning Commission.

Comment 16 (page 22)

The past practices of other Costco stores are not relevant to the EIR analysis of this particular proposal. Rather, the EIR must address the unique circumstances, and the characteristics of this project as proposed.

In his letter of March 15, 2013, Mr. LaForest states that the lack of a wall at the parking lot will create significant impacts related to parking lot headlights.” The FEIR noted that this position is unsubstantiated. It should be further noted that a wall, in this particular setting, would likely create its own potentially significant impacts, as compared to the proposed project.

Commenter restates previously submitted comments. These comments are noted, and the environmental issues raised were addressed in the Final EIR.

Comment 17 (page 25)

Impact 3.1.2 identifies a potentially significant impact related to light and glare. This is not in dispute. Mitigation Measure 3.1.2 provides a performance standard for the final lighting standard. Compliance with Title 24, per the effective date of building plan application, is a requirement. The City may not approve construction that does not comply with the California Building Code (which Title 24 is a part of). Arguments that the preliminary plans considered in the EIR should already comply with these standards miss an important aspect of CEQA – that changes in the project (mitigation) may be required to reduce potentially significant impacts to a less-than-significant have been addressed in the FEIR.

Comment 18 (page 26)

This comment has been addressed in the FEIR. On page 30, the commenter states that “this is not a common nighttime event,” in regards to parking lots adjacent to highways. The City believes this is incorrect. The parking lot, and any sightlines to vehicle headlights (which, as explained in the FEIR would be sufficiently obscured by the landscaping) would be parallel to the freeway, and drivers would not stare directly into oncoming headlights. In fact, in the normal two-way traffic on U.S. 101, it is much more likely to result in oncoming headlights being directed at a driver. This situation is neither unusual nor significant.

Comment 19 (page 31)

Memorandum

Subject: Costco Wholesale Project FEIR

Mitigation Measure 3.1.2 provides that lighting on U.S. 101 would be an extremely low level (0.2 footcandle maximum).

Comment 20 (page 34)

The fixture types and lighting levels specified by Mitigation Measure 3.1.2 must be demonstrated in the final photometric plan submitted by the applicant and reviewed by the lead agency prior to building permit approval. The DEIR found a potentially significant impact based on the preliminary lighting plans and specified appropriate and feasible mitigation that would reduce the impact to a less than significant level.

Comment 21 and 22 (page 35)

The City of Ukiah has historically used a qualitative threshold for site lighting (for example, see Walmart Expansion EIR, SCH#2010032042). Due to comments received on the DEIR, the City modified the proposal to provide additional performance criteria to ensure that the purpose of the measure, to minimize light trespass, would be achieved. The City believes that the 0.5 footcandle level proposed is insufficient to ensure the safety and convenience of shoppers at the site. The City recognizes that total lumens is a method recommended by ISDA (a research and advocacy organization without jurisdiction), but is not aware of a lead agency in the area that has successfully implemented a lighting ordinance using this method.

Comment 23 (page 36)

Regarding visual effects from the westerly view, the proposed site plan complies with the AIP 1098 visual and design standards to have the main building on the street side (which is the west side), to provide perimeter landscaping, and locate, to the extent possible, the parking lot behind the main building (the east side). In addition, as stated by the commenter, the number of viewers (an important consideration in determining visual impacts) is both far lower, and far less sensitive (as trips within the Airport Industrial Park are almost entirely work commute or shopping in nature).

Comment 24 (page 37)

As described in the FEIR, a reverse layout Alternative would neither significantly reduce an impact identified in the DEIR nor comply with the AIP Ordinance 1098 design standards. Therefore, it was appropriately excluded from consideration.

Comment 25 (page 38)

This comment is a reiteration and summation of previous comments. No further responses are required.

Landscape Shading Impacts (letter prepared by Dale LaForest & Associates)

Commenter reiterates concerns raised in his DEIR comment letters. GHG emissions are quantified in the EIR, and feasible mitigation measures identified. As the impact would remain significant and unavoidable due to the amount of mobile emissions, a Statement of Overriding Consideration is required should the lead agency approve the project.

Please see Master Response #2 regarding shading and the “urban heat island effect.” The urban heat island is a regional effect, particularly associated with large urban areas (denser and larger areas than the City of Ukiah). Nevertheless, it has been considered in the EIR.

THE REDUCED PROJECT SIZE (NO GAS STATION) ALTERNATIVE

At the public hearings of November 21 and December 4, 2013, several comments were made regarding the No Gas Station Alternative. This Alternative is identified in the EIR as the Environmentally Superior Alternative, as it would reduce traffic and associated impacts (air quality, GHG, and noise). It also potentially reduced the amount of impervious area (although there is nothing prohibiting the applicant from using this area for additional parking in the absence of a fuel station), and the elimination of a potential source of water quality impacts.

However, it must also be noted that this alternative would not avoid any of the significant impacts associated with the proposed project. Information regarding the change in vehicle traffic for the Reduced Project Size (No Gas Station) Alternative is provided below.

The EIR clearly identifies this alternative as environmentally superior, as it is the only alternative, other than the No Project alternative, that would reduce several potential impacts. As noted, these reductions fail to reduce those impacts to less than significant. It is arguable whether or not any of the reductions could be seen as “substantial,” as the impacts of the alternative are much closer to the proposed project alternative than to the No Project alternative.

Trip Generation

The trip generation for a new Costco Wholesale warehouse without a Costco fuel station was estimated. The trip generation evaluation is based on a maximum 148,000 square foot warehouse only. The estimated number of trips related to exclusive gas station trip purposes were determined based on surveys gathered other Costco stores with fueling facilities. This information was provided by Kittleson & Associates.

Memorandum

Subject: Costco Wholesale Project FEIR

Project trip generation estimates are presented in **Table 1**. As shown, the project's total trip generation is projected to be 7,876 new trips per weekday. Of these, 9 are expected during the a.m. peak hour, and 527 are expected during the p.m. peak hour. The p.m. peak hour trip generation represents an approximate 25 percent reduction from the original estimates which included the gas station.

**TABLE 1
PROJECT TRIP GENERATION SUMMARY**

Land Use	Size	Daily		A.M. Peak Hour			P.M. Peak Hour				
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Costco Station	12 vfp Gas 148 ksf	66.6	9,856	0.89	132	94	38	6.76	1,000	491	509
Additional Positions	Gas 8 vfp	168.56	1,348	12.16	97	50	47	13.87	111	55	56
Estimated Gas Trips			-3,328	-220	-139	-81	-274	-137	-137		
Sub-total			7,876	-	9	5	4	-	837	409	428
Pass-by Trips			n/a	37%	-	-	-	37%	-310	-151	-159
Total Trips			7,876	-	9	6	3	-	527	258	269

Note: vfp = vehicle fueling positions, ksf = thousand square feet

SOURCE: ITE, *Trip Generation*, 8th Edition, 2008; Kittleson Associates, Costco Trip Generation Database

Impacts without Gas Station

Traffic

The impacts of trip generation changes were assessed on the operating conditions at the Talmage Road interchange. Specifically, the queuing in the southbound off-ramp which was one of the factors in determining the previous significant impacts was re-evaluated.

Under Existing plus Project conditions with the Costco and no gas station, the p.m. peak hour queues would extend to approximately 990 to 1,070 feet which would exceed the 600 feet of storage. Therefore, these impacts would still be considered significant and the same mitigation measures would apply. Under Near Term plus Project conditions with the Costco and no gas station, the p.m. peak hour queues would extend to approximately 1,140 to 1,260 feet which would exceed the 600 feet of storage. Therefore, these impacts would also still be considered significant and the same mitigation measures would apply.

Air Quality and GHG

The average daily trip reduction is approximately 30%. Applying this to the project air emissions (DEIR Table 3.2-5) would result in NO_x emissions of 128 lbs/day, PM 10 emissions of 4002 lbs/day, and PM_{2.5} emissions of 400 lbs/day. GHG emissions would be reduced to approximately 6152 MT/yr (with mitigation). All of these of these emission levels would remain significantly higher than the identified thresholds of significance.

Environmentally Superior Alternative

The above information is consistent with the FEIR – among the “project” alternatives (excluding No Project); the Reduced Size Alternative is the environmentally superior alternative, as it would reduce several significant impacts. Whether or not this alternative is feasible (given economic, social, and environmental factors), and offers a substantial environmental benefit, is to be determined by the decision making body of the lead agency.

APPENDIX B

*Letter to Kier and Wright
Civil Engineers & Surveyors, Inc.
City of Ukiah Utilities Department,
September 20, 2016*



September 20, 2016

Brandon Magann
Kier & Wright Civil Engineers & Surveyors, Inc.
2580 Collier Canyon Rd.
Livermore, CA 94551

RE: Costco Ukiah, 1825 Airport Park Blvd.

Dear Brandon,

In response to your email and attached letter dated September 15, 2016, the City of Ukiah Electric Utility will be the serving agency providing electric service to Costco Ukiah located at 1825 Airport Park Blvd., Ukiah, CA. Service will be provided from existing distribution facilities located on the property and adjacent right-of- ways. The electric system has capacity for the project now and future expansions in the area. The cost to provide electric service will be in accordance with City code approved by the Ukiah City Council.

Upon receipt of the building permit application by the Electric Department, the electric service design and a cost estimate will be prepared. At this time, a letter outlining project responsibilities, deposit requirements and the detailed electric service design will be provided. The standard time to review the project plans and provide a letter of responsibilities is 3 weeks.

Estimated costs must be paid at the City of Ukiah Building Department before any work by the City commences. The City will reconcile the account at the end of the project and present either a refund or an invoice for any additional cost.

The electric service will be supplied from a 1500 KVA transformer rated 480/277 Volt, wye, four wire, three phase pad mounted transformer. As with most electric utilities, Ukiah Electric has standardized transformer sizes to reduce outages and to optimize efficiency. As such, the maximum power delivery for this class of service (and your proposed 3000 amp service) is 1800 amps continuous.

Please contact my office should there be any questions.

Sincerely,

Jimmy Lozano
Electric Engineering Technician
City of Ukiah

CC: Mel Grandi, Electric Utility Director
City of Ukiah Building & Planning Department



COSTCO WHOLESALE
ELECTRICAL SERVICE AVAILABILITY LETTER

KIER & WRIGHT
Civil Engineers & Surveyors, Inc.

Kier & Wright
2850 Collier Canyon Road
Livermore, CA 94551

9-15-16

Attn: City of Ukiah
Re: Costco Ukiah
1825 Airport Park Blvd
Subject: Electrical Service Availability

Dear City of Ukiah:

We are in the process of evaluating the above-referenced site for the development of a retail / whole-sale warehouse facility. The standard electrical service load is 277 / 480 volt, 3-phase, four wires, 3,000 amps. [For Canada projects, the standard electrical service load is 600/347 volt, 3-phase, four wires, 2,500 amps] [For all other countries, verify electrical service availability.]

Please indicate the availability of your utility services by checking the applicable item below and en-closing a plan showing location, size and / or depth of existing and / or future facilities. Also, please identify any applicable design, construction, inspection, connection, usage, or frontage fees related to this service, and indicate the availability of any potential energy rebate programs of which we may take advantage. Please attach such additional documentation as necessary to clearly explain these items.

Please sign and return one copy, to include a specific description of who will provide transformers, (please provide cut-sheet if transformer is supplied by service provider) to my attention.

Should you require any additional information, please contact me. Thank you for your cooperation.

Sincerely,

Brandon Magann, Project Assistant



COSTCO WHOLESALE
ELECTRICAL SERVICE AVAILABILITY LETTER

KIER & WRIGHT
Civil Engineers & Surveyors, Inc.

We the undersigned:

- Have facilities available to serve the project.
 Have no facilities available to serve the project.
 Will have facilities available to serve this project by _____, 20__.
 Design of facilities to be completed by _____, 20__.
 Construction of facilities to be completed by _____, 20__.
 Applications will be reviewed by _____.
 Estimated turnaround time for reviews is 3 weeks after receipt of application.
 This site will require looped service.
 This site will not require looped service.

By: Jimmy Lozano Title:
Electric Engineering Technician

Phone: (707) 467-5774

- *3 weeks after receipt of final plans and drawings
** 20 working days upon completion of developer requirements
*** Building permit application will be reviewed by City of Ukiah Electric.

APPENDIX C

*Letter to Letter to Kier and Wright
Civil Engineers & Surveyors, Inc.
Prepared by PG&E, September 9, 2016*

Pacific Gas and Electric Company
Service Planning Department
Area 7/Ukiah Division

2641 North State St
Ukiah, CA. 95482
Phone: 707-468-3914



September 9, 2016

Costco Wholesale Corporation
C/o Kier & Wright Civil Engineers and Surveyors
2850 Collier Canyon Rd
Livermore, CA 94551

Re: Costco on Airport Park Blvd. , Ukiah Ca. PG&E Notification # TBD, Electric PM# TBD, Gas PM # TBD

Dear Adam,

PG&E will serve the above referenced property with gas and/or electric service provided The Applicant meets all requirements of the California Public Utilities Commission (CPUC) Gas and Electric Tariffs, PG&E Engineering Standards, PG&E Requirements for Service Manual ("The Greenbook", www.pge.com/greenbook), and pays to PG&E all necessary payments as determined by PG&E and allowed by the CPUC Tariffs.

New gas and electric services must be installed according to PG&E's Gas and Electric Service Requirements Manual (The Greenbook, www.pge.com/greenbook), PG&E Engineering Standards, and the California Public Utilities Commission (CPUC) Gas or Electric Tariffs. PG&E engineering responsibilities are scheduled when your information is complete and approved, and is subject to available time, resources, and other priority or previously scheduled work. Contracts and payments due are prepared after Engineering is complete and approved. PG&E construction responsibilities are: scheduled when all documents and any necessary payments and required easements have been received and processed by PG&E, your service requirements and locations are complete and have been final inspected by the authority having jurisdiction, and are subject to available time, resources, and previously scheduled, priority, or emergency work. Please discuss this information with your project team. If you have any questions, please call me at (707) 468-3959, or you may email at r8mq@pge.com.

Sincerely,

Ray Meyer
Senior New Business Representative
PG&E Ukiah Service Planning Department

APPENDIX D

*Title 24 Performance Certificate of Compliance
Costco Ukiah, December 17, 2013*

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 1 of 3) **PERF-1C**

Project Name <i>Costco - Ukiah</i>			Date <i>12/17/2013</i>
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>CA Climate Zone 02</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Relocatable - indicate	<input type="checkbox"/> specific climate zone	<input type="checkbox"/> all climates
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration

STATEMENT OF COMPLIANCE
 This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author

Name <i>Paal Ryan</i>	Signature
Company <i>TE Inc.</i>	Date <i>12/17/2013</i>
Address <i>830 N Riverside Drive</i>	Phone <i>425 463 3753</i>
City/State/Zip <i>Renton, WA 98004</i>	

The Principal Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the energy efficiency requirements contained in sections 110, 116 through 118, and 140 through 149 of Title 24, Part 6. Please check one:

ENV. LTG. MECH.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Principal Envelope Designer

Name <i>Shawn Ronning</i>	Signature
Company <i>MulvannyG2 Architecture</i>	Date
Address <i>1110 112th Ave NE Suite 500</i>	License #
City/State/Zip <i>Bellevue, Washington 98004</i>	Phone <i>425 463 2000</i>

Principal Mechanical Designer

Name <i>Paal Ryan</i>	Signature
Company <i>TE Inc</i>	Date
Address <i>830 N Riverside Dr</i>	License #
City/State/Zip <i>Renton, Washington 98057</i>	Phone <i>425 970 3753</i>

Principal Lighting Designer

Name <i>Joel G. Mortenson</i>	Signature
Company <i>TE Inc</i>	Date
Address <i>830 N Riverside Dr</i>	License #
City/State/Zip <i>Renton, Washington 98057</i>	Phone <i>425 970 3753</i>

INSTRUCTIONS TO APPLICANT COMPLIANCE & WORKSHEETS (check box if worksheets are included)

<input checked="" type="checkbox"/> ENV-1C	Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MECH-1C	Certificate of Compliance. Required on plans.
<input checked="" type="checkbox"/> LTG-1C	Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MECH-2C	Air/Water Side/Service Hot Water & Pool Requirements.
<input checked="" type="checkbox"/> LTG-2C	Lighting Controls Credit Worksheet.	<input checked="" type="checkbox"/> MECH-3C	Mechanical Ventilation and Reheat.
<input type="checkbox"/> LTG-3C	Indoor Lighting Power Allowance.	<input checked="" type="checkbox"/> MECH-5C	Mechanical Equipment Details.

PERFORMANCE CERTIFICATE OF COMPLIANCE

(Part 2 of 3)

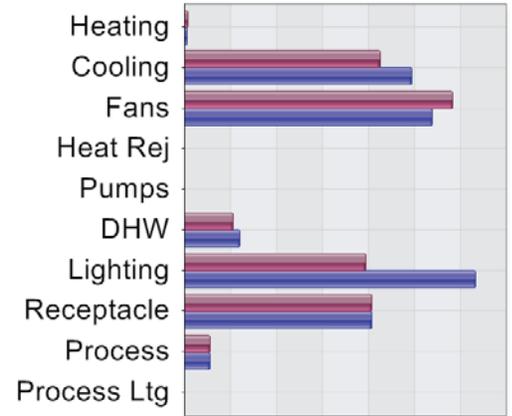
PERF-1C

Project Name
Costco - Ukiah

Date
12/17/2013

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

Energy Component	Standard Design	Proposed Design	Compliance Margin
Space Heating	1.29	1.60	-0.31
Space Cooling	98.71	85.00	13.71
Indoor Fans	107.81	116.56	-8.75
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.00	0.00
Domestic Hot Water	23.99	21.17	2.83
Lighting	126.76	78.74	48.02
Receptacle	81.50	81.50	0.00
Process	10.97	10.97	0.00
Process Lighting	0.00	0.00	0.00
TOTALS	451.04	395.53	55.50



Percent better than Standard 12.3 % (12.6 % excluding process)

NOT FOR PERMIT USE - SEE PART 3

GENERAL INFORMATION

Building Orientation	(SE) 135 deg	Conditioned Floor Area	138,666	sqft.
Number of Stories	1	Unconditioned Floor Area	0	sqft.
Number of Systems	19	Conditioned Footprint Area	141,029	sqft.
Number of Zones	9	Natural Gas Available On Site	Yes	

	Orientation	Gross Area	Glazing Area	Glazing Ratio
Front Elevation	(SE)	8,356 sqft.	0 sqft.	0.0 %
Left Elevation	(SW)	5,145 sqft.	0 sqft.	0.0 %
Rear Elevation	(NW)	16,967 sqft.	0 sqft.	0.0 %
Right Elevation	(NE)	10,833 sqft.	0 sqft.	0.0 %
Total		41,301 sqft.	0 sqft.	0.0 %
Roof		141,029 sqft.	6,210 sqft.	4.4 %

	Standard	Proposed	Prescriptive Values for Comparison only. See LTG-1C for allowed LPD.
Prescriptive Lighting Power Density	1.581 W/sqft.	1.042 W/sqft.	
Prescriptive Envelope TDV Energy	5,533,810	8,047,690	

Remarks:

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3)

ENV-1C

Project Name Costco - Ukiah			Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah		Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
	<input type="checkbox"/> Unconditioned Spaces		
<input type="checkbox"/> Skylight Area for Large Enclosed Space ≥ 8000 ft ² (If checked include the ENV-4C with submittal)			
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input checked="" type="checkbox"/> Overall Envelope	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS					INSULATION								
Tag/ID	Assembly Type	Area (ft ²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring ³	Interior R-Value	Interior Furring ³	Joint Appendix 4	Condition Status	Pass	Fail ²
1	Wall	3,099	(N)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
2	Door	9	(N)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
3	Door	21	(N)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
4	Wall	5,305	(N)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
5	Door	24	(N)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
6	Door	87	(N)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
7	Wall	3,913	(E)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
8	Door	128	(E)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
9	Door	270	(E)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
10	Wall	6,522	(E)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID	Fenestration Type	Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail ²
1	Skylight	4,800	(N)	0.630	NFRC	0.460	NFRC	<input type="checkbox"/>	New	<input type="checkbox"/>	<input type="checkbox"/>
2	Skylight	1,410	(N)	0.600	NFRC	0.590	NFRC	<input type="checkbox"/>	New	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3)

ENV-1C

Project Name Costco - Ukiah			Date 12/17/2013		
Project Address Airport Park Blvd. Ukiah		Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a	

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces	<input type="checkbox"/> Unconditioned Spaces
<input type="checkbox"/> Skylight Area for Large Enclosed Space ≥ 8000 ft ² (If checked include the ENV-4C with submittal)			
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input checked="" type="checkbox"/> Overall Envelope	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS					INSULATION								
Tag/ID	Assembly Type	Area (ft ²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring ³	Interior R-Value	Interior Furring ³	Joint Appendix 4	Condition Status	Pass	Fail ²
11	Wall	3,278	(S)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
12	Door	71	(S)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
13	Door	84	(S)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
14	Wall	4,557	(S)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
15	Door	34	(S)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
16	Door	332	(S)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
17	Wall	3,786	(W)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
18	Door	178	(W)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
19	Wall	8,374	(N)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
20	Door	48	(N)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID	Fenestration Type	Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail ²
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3)

ENV-1C

Project Name Costco - Ukiah			Date 12/17/2013		
Project Address Airport Park Blvd. Ukiah		Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a	

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces	<input type="checkbox"/> Unconditioned Spaces
<input type="checkbox"/> Skylight Area for Large Enclosed Space ≥ 8000 ft ² (If checked include the ENV-4C with submittal)			
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input checked="" type="checkbox"/> Overall Envelope	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS					INSULATION								
Tag/ID	Assembly Type	Area (ft ²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring ³	Interior R-Value	Interior Furring ³	Joint Appendix 4	Condition Status	Pass	Fail ²
21	Wall	631	(SW)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
22	Door	32	(SW)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
23	Door	216	(SW)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
24	Wall	302	(SW)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
25	Roof	134,819	(N)	0.098	R-19					4.2.7-A5	New	<input type="checkbox"/>	<input type="checkbox"/>
26	Slab	141,029	(N)	0.730	None					4.4.7-A1	New	<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID	Fenestration Type	Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail ²
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE

(Part 1 of 3)

LTG-1C

Project Name
Costco - Ukiah

Date
12/17/2013

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Installation Certificate, LTG-1- INST (Retain a copy and verify form is completed and signed.) **Field Inspector**

Certificate of Acceptance, LTG-2A and LTG-3A (Retain a copy and verify form is completed and signed.) **Field Inspector**

A separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces Installed Lighting Power listed on this Lighting Schedule is only for:

CONDITIONED SPACE **UNCONDITIONED SPACE**

The actual indoor lighting power listed below includes all installed permanent and portable lighting systems in accordance with §146(a).

Only for offices: Up to the first 0.2 watts per square foot of portable lighting shall not be required to be included in the calculation of actual indoor lighting power density in accordance with the Exception to §146(a). All portable lighting in excess of 0.2 watts per square foot is totaled below.

Luminaire (Type, Lamps, Ballasts)		Installed Watts								
A	B	C	D	E		F	G	H		
None or Item Tag	Complete Luminaire Description ¹ (i.e, 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballasts)		Watts per Luminaire ¹	How wattage Was determined		Number of Luminaires	Installed Watts (D X F)	Field Inspector ²		
				CEC Default From NA8	According To §130(d or e)			Pass	Fail	
A/A1	210w Metal Halide Mag		226.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	113,000	<input type="checkbox"/>	<input type="checkbox"/>	
C	(2) 4 ft Fluorescent T8 Energy Savings Elec		54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	216	<input type="checkbox"/>	<input type="checkbox"/>	
D/E	4 ft LED		59.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	72	4,248	<input type="checkbox"/>	<input type="checkbox"/>	
D/E	(4) 4 ft Fluorescent T8 Energy Savings Elec		118.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	53	6,254	<input type="checkbox"/>	<input type="checkbox"/>	
HA (R)	(4) 8 ft Fluorescent T8 Rapid Start HO		247.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	59	14,573	<input type="checkbox"/>	<input type="checkbox"/>	
J	(2) 32w Linear Fluorescent T5 Elec		58.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	58	<input type="checkbox"/>	<input type="checkbox"/>	
J	(2) 4 ft Fluorescent T8 Energy Savings Elec		54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13	702	<input type="checkbox"/>	<input type="checkbox"/>	
J, M	(2) 4 ft Fluorescent T8 Energy Savings Elec		54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	378	<input type="checkbox"/>	<input type="checkbox"/>	
J/M	(2) 32w Linear Fluorescent T5 Elec		58.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	25	1,450	<input type="checkbox"/>	<input type="checkbox"/>	
K	(3) 4 ft Fluorescent T8 Energy Savings Elec		79.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	632	<input type="checkbox"/>	<input type="checkbox"/>	
N	(1) 18w Compact Fluorescent Quad 4 Pin		25.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	100	<input type="checkbox"/>	<input type="checkbox"/>	
Q	(4) 4 ft Fluorescent T8 Energy Savings Elec		118.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16	1,888	<input type="checkbox"/>	<input type="checkbox"/>	
T	8ft LED strip light pendant		77.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20	1,540	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Installed Watts Page Total:							145,039			
Building total number of pages:			Installed Watts Building Total (Sum of all pages)							
			Enter into LTG-1C Page 4 of 4				145,039			

1. Wattage shall be determined according to Section 130 (d and e). Wattage shall be rating of light fixture, not rating of bulb.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name <i>Costco - Ukiah</i>		Date <i>12/17/2013</i>	
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>2</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	<i>135 deg</i>		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>DHW Heater</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Gas Fired DHW Boiler</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>4</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>199,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>94 %</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Main Sales AC-7-17</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>11</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>203,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>78% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>271,400 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>11.4 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name <i>Costco - Ukiah</i>		Date <i>12/17/2013</i>	
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>2</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	<i>135 deg</i>		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Tire Sales AC-4</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>96,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>81% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>85,400 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>12.6 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Pharmacy AC-1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>48,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>38,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>12.7 SEER / 15.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name <i>Costco - Ukiah</i>		Date <i>12/17/2013</i>	
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>2</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION			
Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces <input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	<i>135 deg</i>		

HVAC SYSTEM DETAILS		FIELD INSPECTION ENERGY CHECKLIST	
Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Office AC-2</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>48,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>38,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>12.7 SEER / 15.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment ²		FIELD INSPECTION ENERGY CHECKLIST	
Equipment ²	Inspection Criteria	Pass	Fail – Describe Reason ²
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Optical AC-5</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>51,200 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>21,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 10.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name <i>Costco - Ukiah</i>		Date <i>12/17/2013</i>	
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>2</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION			
Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces <input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	<i>135 deg</i>		

HVAC SYSTEM DETAILS		FIELD INSPECTION ENERGY CHECKLIST	
Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>EDP AC-6</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>0 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>14,700 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 11.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment ²		FIELD INSPECTION ENERGY CHECKLIST	
Equipment ²	Inspection Criteria	Pass	Fail – Describe Reason ²
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Locker Room AC-32</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>49,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>82% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>54,400 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 12.6 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name <i>Costco - Ukiah</i>		Date <i>12/17/2013</i>	
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>2</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	<i>135 deg</i>		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Hearing Aid Center AC-33</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>0 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>14,700 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 11.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Food Service AC-3</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>203,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>213,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>11.8 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 3 of 4) MECH-1C

Project Name *Costco - Ukiah* Date *12/17/2013*

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the applicable boxes by all acceptance tests that apply and listed all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems. The NA number designates the Section in the Appendix of the Nonresidential Reference Appendices Manual that describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:

Systems Acceptance: Before occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance.

Systems Acceptance: Before occupancy permit is granted. All newly installed HVAC equipment must be tested using the Acceptance Requirements.

The MECH-1C form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked. The equipment requiring testing, person performing the test (Example: HVAC installer, TAB contractor, controls contractor, PE in charge of project) and what Acceptance test must be conducted. The following checked-off forms are required for **ALL** newly installed equipment. In addition a Certificate of Acceptance forms shall be submitted to the building department that certifies plans, specifications, installation, certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title-24 Part 6. The building inspector must receive the properly filled out and signed forms before the building can receive final occupancy.

TEST DESCRIPTION		MECH-2A	MECH-3A	MECH-4A	MECH-5A	MECH-6A	MECH-7A	MECH-8A	MECH-9A	MECH-10A	MECH-11A
Equipment Requiring Testing or Verification	Qty.	Outdoor Ventilation For VAV & CAV	Constant Volume & Single-Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Control Ventilation DCV	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
<i>YHD300F4RXA--DA</i>	<i>11</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>YHC092F4RXA--D6</i>	<i>1</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>YHC036E4RXA--D0</i>	<i>2</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>4YCC3024B1064A</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>4TCC3018A1000A</i>	<i>2</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>YHC060F4RXA--D0</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<i>YHD210F4RXA--D1</i>	<i>1</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AIR SYSTEM REQUIREMENTS

(Part 1 of 2)

MECH-2C

Project Name Costco - Ukiah	Date 12/17/2013
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Item or System Tags (i.e. AC-1, RTU-1, HP-1)	Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)			
		Main Sales AC-7-17	Tire Sales AC-4	Pharmacy AC-1
Number of Systems		11	1	1

MANDATORY MEASURES	Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)			
	T-24 Sections			
Heating Equipment Efficiency	112(a)	78% AFUE	81% AFUE	80% AFUE
Cooling Equipment Efficiency	112(a)	11.4 EER	12.6 EER	12.7 SEER / 15.0 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	Required	Required	Required
Natural Ventilation	121(b)	No	Yes	No
Mechanical Ventilation	121(b)	32,523 cfm	439 cfm	0 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	Yes	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)		n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	n/a	n/a	Conditioned / 8.0

PRESCRIPTIVE MEASURES

Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	2,233,000 Btu/hr	96,000 Btu/hr	48,000 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	2,891,018 Btu/hr	69,604 Btu/hr	41,192 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	Fixed Temp (Integrated)	Fixed Temp (Integrated)	No Economizer
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating ¹	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS

(Part 1 of 2)

MECH-2C

Project Name Costco - Ukiah	Date 12/17/2013
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Item or System Tags (i.e. AC-1, RTU-1, HP-1)	Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)			
		Office AC-2	Optical AC-5	EDP AC-6
Number of Systems		1	1	1

MANDATORY MEASURES	Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)			
	T-24 Sections			
Heating Equipment Efficiency	112(a)	80% AFUE	80% AFUE	n/a
Cooling Equipment Efficiency	112(a)	12.7 SEER / 15.0 EER	13.0 SEER / 10.0 EER	13.0 SEER / 11.0 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	Required	Required	n/a
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	0 cfm	0 cfm	0 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	Conditioned / 8.0	Conditioned / 8.0	Conditioned / 8.0

PRESCRIPTIVE MEASURES

Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	48,000 Btu/hr	51,200 Btu/hr	0 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	41,131 Btu/hr	22,110 Btu/hr	15,329 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	No Economizer	No Economizer	No Economizer
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating ¹	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS

(Part 1 of 2)

MECH-2C

Project Name Costco - Ukiah	Date 12/17/2013
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Item or System Tags (i.e. AC-1, RTU-1, HP-1)	Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)			
		Locker Room AC-32	Hearing Aid Center AC-33	Food Service AC-3
Number of Systems		1	1	1

MANDATORY MEASURES	Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)			
	T-24 Sections			
Heating Equipment Efficiency	112(a)	82% AFUE	n/a	80% AFUE
Cooling Equipment Efficiency	112(a)	13.0 SEER / 12.6 EER	13.0 SEER / 11.0 EER	11.8 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	Required	n/a	Required
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	0 cfm	0 cfm	2,400 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	No	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	n/a	Conditioned / 8.0	Conditioned / 8.0

PRESCRIPTIVE MEASURES

Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	49,000 Btu/hr	0 Btu/hr	203,000 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	50,981 Btu/hr	15,757 Btu/hr	205,151 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	Fixed Temp (Integrated)	No Economizer	Fixed Temp (Integrated)
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating ¹	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

WATER SIDE SYSTEM REQUIREMENTS

(Part 2 of 2)

MECH-2C

Project Name

Costco - Ukiah

Date

12/17/2013

WATER ² SIDE SYSTEMS: Chillers, Towers, Boilers, Hydronic Loops			
Item or System Tags (i.e. AC-1, RTU-1, HP-1) ¹			
Number of Systems			
Indicate Page Reference on Plans or Specification ²			
MANDATORY MEASURES	T-24 Sections		
Equipment Efficiency	112(a)		
Pipe Insulation	123		

PRESCRIPTIVE MEASURES

Cooling Tower Fan Controls	144(a & b)		
Cooling Tower Flow Controls	144(h)		
Variable Flow System Design	144(h)		
Chiller and Boiler Isolation	144(j)		
CHW and HHW Reset Controls	144(j)		
WLHP Isolation Valves	144(j)		
VSD on CHW, CW & WLHP Pumps>5HP	144(j)		
DP Sensor Location	144(j)		

- The proposed equipment need to match the building plans schedule or specifications. If a requirement is not applicable, put "N/A" in the column next to applicable section.
- For each chiller, cooling tower, boiler, and hydronic loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column next to applicable section.

Service Hot Water, Pool Heating			
Item or System Tags (i.e. WH-1, WHP, DHW, etc...) ¹	DHW Heater		
Number of Systems	4		
Indicate Page Reference on Plans or Schedule ²			
MANDATORY MEASURES	T-24 Sections		

SERVICE HOT WATER

Certified Water Heater	111, 113(a)	Intellihot I-200	
Water Heater Efficiency	113(b)	94 %	
Service Water Heating Installation	113(c)	Controls Req.	
Pipe Insulation	123	Required	

POOL AND SPA

Pool and Spa Efficiency and Control	114(a)	n/a	
Pool and Spa Installation	114(b)	n/a	
Pool Heater – No Pilot Light	115(c)	n/a	
Spa Heater – No Pilot Light	115(d)	n/a	
Pipe Insulation	123	n/a	

- The Proposed equipment needs to match the building plans schedule or specifications. If a requirement is not applicable, put "N/A" in the column next to applicable section.
- For each water heater, pool heater and domestic water loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name
Costco - Ukiah

Date
12/17/2013

MECHANICAL VENTILATION (§121(b)2)								REHEAT LIMITATION (§144(d))					
A	AREA BASIS			OCCUPANCY BASIS			H	I	VAV MINIMUM				
	B	C	D	E	F	G			J	K	L	M	N
Zone/System	Condition Area (ft ²)	CFM per ft ²	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft ²	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
Main Sales	130,090	0.25	32,523				32,523	32,523					
Main Sales AC-7-17						Total	32,523	32,523					
Tire Sales	2,780	0.25	695				695	439					256
Tire Sales AC-4						Total	695	439					
Pharmacy	1,116	0.30	335				335	0					335
Pharmacy AC-1						Total	335	0					
Office	1,040	0.15	156				156	0					156
Office AC-2						Total	156	0					
Optical	450	0.15	68				68	0					68
Optical AC-5						Total	68	0					
EDP	109	0.15	16				16	0					16
EDP AC-6						Total	16	0					
Locker Room	1,475	0.15	221				221	0					221
Locker Room AC-32						Total	221	0					
HAC	206	0.15	31				31	0					31
Totals										Column I Total Design Ventilation Air			

C	Minimum ventilation rate per Section §121, Table 121-A.
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.
K	Condition area (ft ²) x 0.4 CFM / ft ² ; or
L	Maximum of Columns H, J, K, or 300 CFM
M	This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.
N	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name
Costco - Ukiah

Date
12/17/2013

MECHANICAL VENTILATION (§121(b)2)								REHEAT LIMITATION (§144(d))					
A	AREA BASIS			OCCUPANCY BASIS			VAV MINIMUM						
	B	C	D	E	F	G	H	I	J	K	L	M	N
Zone/System	Condition Area (ft ²)	CFM per ft ²	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft ²	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
<i>Hearing Aid Center AC-33</i>						<i>Total</i>	<i>31</i>	<i>0</i>					
<i>Food Service</i>	<i>1,400</i>	<i>0.15</i>	<i>210</i>				<i>210</i>	<i>2,400</i>					
<i>Food Service AC-3</i>						<i>Total</i>	<i>210</i>	<i>2,400</i>					
Totals									Column I Total Design Ventilation Air				

C	Minimum ventilation rate per Section §121, Table 121-A.
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.
K	Condition area (ft ²) x 0.4 CFM / ft ² ; or
L	Maximum of Columns H, J, K, or 300 CFM
M	This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.
N	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL EQUIPMENT DETAILS

(Part 1 of 2)

MECH-5C

Project Name
Costco - Ukiah

Date
12/17/2013

CHILLER AND TOWER SUMMARY

Equipment Name	Type	Qty.	Efficiency	Tons	PUMPS			
					Qty.	GPM	BHP	Pump Control

DHW / BOILER SUMMARY

System Name	Type	Distribution	Qty.	Rated Input	Vol. (Gals.)	Energy Factor or RE	Standby Loss or Pilot	Tank Ext. R-Value	Status
<i>Intellihot I-200</i>	<i>Large Gas</i>	<i>Kitchen Pipe Ins</i>	<i>4</i>	<i>199,900</i>	<i>60</i>	<i>0.94</i>	<i>1.90 %</i>	<i>n/a</i>	<i>New</i>

MULTI-FAMILY CENTRAL WATER HEATING DETAILS

Hot Water Pump				Hot Water Piping Length (ft)			
Control	Qty.	HP	Type	In Plenum	Outside	Buried	Add ½" Insulation
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

CENTRAL SYSTEM RATINGS

System Name	Type	Qty.	HEATING			COOLING		Status
			Output	Aux. kW	Efficiency	Output	Efficiency	
<i>YHD300F4RXA--DA</i>	<i>Packaged DX</i>	<i>11</i>	<i>203,000</i>	<i>0.0</i>	<i>78% AFUE</i>	<i>271,400</i>	<i>11.4 EER</i>	<i>New</i>
<i>YHC092F4RXA--D6</i>	<i>Packaged DX</i>	<i>1</i>	<i>96,000</i>	<i>0.0</i>	<i>81% AFUE</i>	<i>85,400</i>	<i>12.6 EER</i>	<i>New</i>
<i>YHC036E4RXA--D0</i>	<i>Packaged DX</i>	<i>2</i>	<i>48,000</i>	<i>0.0</i>	<i>80% AFUE</i>	<i>38,900</i>	<i>12.7 SEER / 15.0 EER</i>	<i>New</i>
<i>4YCC3024B1064A</i>	<i>Packaged DX</i>	<i>1</i>	<i>51,200</i>	<i>0.0</i>	<i>80% AFUE</i>	<i>21,000</i>	<i>13.0 SEER / 10.0 EER</i>	<i>New</i>
<i>4TCC3018A1000A</i>	<i>Packaged DX</i>	<i>2</i>		<i>0.0</i>	<i>n/a</i>	<i>14,700</i>	<i>13.0 SEER / 11.0 EER</i>	<i>New</i>
<i>YHC060F4RXA--D0</i>	<i>Packaged DX</i>	<i>1</i>	<i>49,000</i>	<i>0.0</i>	<i>82% AFUE</i>	<i>54,400</i>	<i>13.0 SEER / 12.6 EER</i>	<i>New</i>
<i>YHD210F4RXA--D1</i>	<i>Packaged DX</i>	<i>1</i>	<i>203,000</i>	<i>0.0</i>	<i>80% AFUE</i>	<i>213,900</i>	<i>11.8 EER</i>	<i>New</i>

CENTRAL SYSTEM FAN SUMMARY

System Name	Fan Type	Economizer Type	SUPPLY FAN		RETURN FAN	
			CFM	BHP	CFM	BHP
<i>YHD300F4RXA--DA</i>	<i>Constant Volume</i>	<i>Fixed Temp (Integrated)</i>	<i>10,000</i>	<i>7.50</i>	<i>none</i>	
<i>YHC092F4RXA--D6</i>	<i>Constant Volume</i>	<i>Fixed Temp (Integrated)</i>	<i>2,400</i>	<i>1.00</i>	<i>none</i>	
<i>YHC036E4RXA--D0</i>	<i>Constant Volume</i>	<i>No Economizer</i>	<i>1,200</i>	<i>1.00</i>	<i>none</i>	
<i>4YCC3024B1064A</i>	<i>Constant Volume</i>	<i>No Economizer</i>	<i>600</i>	<i>0.50</i>	<i>none</i>	
<i>4TCC3018A1000A</i>	<i>Constant Volume</i>	<i>No Economizer</i>	<i>600</i>	<i>0.50</i>	<i>none</i>	
<i>YHC060F4RXA--D0</i>	<i>Constant Volume</i>	<i>Fixed Temp (Integrated)</i>	<i>2,400</i>	<i>1.00</i>	<i>none</i>	
<i>YHD210F4RXA--D1</i>	<i>Constant Volume</i>	<i>Fixed Temp (Integrated)</i>	<i>7,000</i>	<i>7.50</i>	<i>none</i>	

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL**ENV-MM**

Project Name

Costco - Ukiah

Date

12/17/2013

DESCRIPTION**Building Envelope Measures:**

- §118(a): Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
- §118(c): All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
- §118(f): The opaque portions of framed demising walls in nonresidential buildings shall have insulation with an installed R-value of no less than R-13 between framing members.
- §117(a): All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
- §116(a) 1: Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
- §116(a) 2: Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
- §116(a) 3: Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
- §116(b): Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).

LIGHTING MANDATORY MEASURES: NONRESIDENTIAL**LTG-MM**Project Name
*Costco - Ukiah*Date
*12/17/2013***Indoor Lighting Measures:****§131(d): Shut-off Controls**

- For every floor, all interior lighting systems shall be equipped with a separate automatic control to shut off the lighting.
1. This automatic control shall meet the requirements of Section 119 and may be an occupancy sensor, automatic time switch, or other device capable of automatically shutting off the lighting.
 2. Override for Building Lighting Shut-off: The automatic building shut-off system is provided with a manual, accessible override switch in sight of the lights. The area of override is not to exceed 5,000 square feet.

§119(h): Automatic Control Devices Certified: All automatic control devices specified are certified, all alternate equipment shall be certified and installed as directed by the manufacturer.

§111: Fluorescent Ballast and Luminaires Certified: All fluorescent fixtures specified for the project are certified and listed in the Directory. All installed fixtures shall be certified.

§131(a): Individual Room/Area Controls: Each room and area in this building is equipped with a separate switch or occupancy sensor device for each area with floor-to-ceiling walls.

§131(b): Uniform Reduction for Individual Rooms: All rooms and areas greater than 100 square feet and more than 0.8 watts per square foot of lighting load shall be controlled with bi-level switching for uniform reduction of lighting within the room.

§131(c): Daylight Area Control: All rooms with windows and skylights that are greater than 250 square feet and that allow for the effective use of daylight in the area shall have 50% of the lamps in each daylit area controlled by a separate switch; or the effective use of daylight cannot be accomplished because the windows are continuously shaded by a building on the adjacent lot. Diagram of shading during different times of the year is included on plans.

§131(c): Display Lighting. Display lighting shall be separately switched on circuits that are 20 amps or less.6.

Outdoor Lighting Measures:

§130(c)1: Mandatory lighting power determination for medium base sockets without permanently installed ballasts

§132(a): All permanently installed luminaires with lamps rated over 100 Watts either have a lamp efficacy of at least 60 lumens per Watt or are controlled by a motion sensor.

§132(b): All Luminaires with lamps rated greater than 175 Watts in hardscape area, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements.

§132(c)1: All permanently installed outdoor lighting meets the control requirements listed.

§132(c): Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements listed.

CERTIFICATE OF COMPLIANCE (SIGN LIGHTING) (Part 1 of 4) **SLTG-1C**

Project Name <i>Costco - Ukiah</i>	Date <i>12/17/2013</i>
---------------------------------------	---------------------------

Project Address
Airport Park Blvd. Ukiah, CA 95482

Location of Sign	<input type="checkbox"/> Outdoor Signs	<input type="checkbox"/> Indoor Signs	
Phase of Construction	<input checked="" type="checkbox"/> New Signs	<input type="checkbox"/> Sign Alterations	
Type of Lighting Control	<input type="checkbox"/> New Lighting Controls	<input type="checkbox"/> Replaced Lighting Controls	<input type="checkbox"/> Not Installing Lighting Controls

This Certificate of Compliance includes the following components (check all that apply)
 Mandatory Measures (Lighting Controls) Maximum Allowed Lighting Power Specific Lighting Sources

1. Certificate of Compliance Declaration Statement (this may be a C10, C45 or other eligible person)

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under the Division 3 of the California Business and Professions Code to accept responsibility for the lighting design.
- This Certificate of Compliance identifies the lighting features and performance specifications required for compliance with Title-24, Parts 1 and 6 of the California Code of Regulations.
- The design features represented on this Certificate of Compliance are consistent with the information provided to document this design on the other applicable compliance forms, worksheets, calculations, plans, and specifications submitted to the enforcement agency for approval with this building permit application.

Name <i>Joel G. Mortenson</i>	Signature
----------------------------------	-----------

Company <i>TE Inc</i>	Phone <i>425 970 3753</i>
--------------------------	------------------------------

Address <i>830 N Riverside Dr</i>	License # (may be contractor's lic #)
--------------------------------------	---------------------------------------

City/State/Zip <i>Renton , Washington 98057</i>	Date
--	------

2. Installation Certificate (to be signed by responsible person after installation)

Permit number (Enforcement Agency Use)	Check by/Date (Enforcement Agency Use)
---	---

Installation Declaration statement

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under the Division 3 of the Business and Professional Code to accept responsibility for construction, or an authorized representative of the person responsible for construction.
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I certify that the requirements detailed on this Certificate of Compliance have been met.
- I will ensure that a completed, signed copy of this Installation Certificate shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy.

Company Name

Responsible Person's Name	Responsible Person's Signature
---------------------------	--------------------------------

License # (may be contractor's lic #)	Date Signed	Position With Company
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CERTIFICATE OF COMPLIANCE (SIGN LIGHTING)

(Part 2 of 4)

SLTG-1C

Project Name

Costco - Ukiah

Date

12/17/2013

3. Mandatory Sign Lighting Controls

NOTES:

- The Mandatory Measures (sign lighting controls) are required for compliance with the sign lighting Standards. The same responsible person may install both the sign and the sign lighting controls, or a different responsible person may install the sign lighting controls than the responsible person installing the sign.
- If the person responsible for installing the sign is not also responsible for the sign lighting controls, then the owner of the sign, general contractor, or architect shall be responsible to have the sign lighting controls installed.
- If more than one person has responsibility for compliance, each person shall prepare and sign a Certificate of Compliance and an Installation Certificate applicable to the portion of construction for which they are responsible; alternatively, the person with chief responsibility for construction shall prepare and sign the Certificate of Compliance Declaration Statement for the entire construction.

3a. Statements of Responsibility:

The person signing the Certificate of Compliance Declaration Statement shall check Yes or No for all of the following statements:

1	I have responsibility for installing the sign lighting controls <input type="checkbox"/> Yes, complete parts 3a and 3b of this form <input type="checkbox"/> No, complete part 3a of this form
2	There are no existing sign lighting controls and I will be installing compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No
3	There are no existing sign lighting controls and someone else will be responsible to install compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No
4	There are existing sign lighting controls that do not comply with the applicable provision of §119 and §133 and I will be installing compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No
5	There are existing sign lighting controls that do not comply with the applicable provision of §119 and §133 and someone else will be responsible to install compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No

3b. Mandatory Sign Lighting Controls

The person signing the Certificate of Compliance Declaration Statement shall answer all of the following questions if they are responsible for complying with the sign lighting control requirements.

If there are construction documents, indicate where on the building plans the mandatory measures (sign lighting control) note block can be located:

1	§133(a)1. All indoor sign lighting is controlled with an automatic time switch control that complies with the applicable requirements of §119.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
2	§133(a)1 and 2. All outdoor sign lighting is controlled with an automatic time switch control plus a photo control, or an outdoor astronomical time switch, that comply with the applicable requirements of §119.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception to §133(a)2. Outdoor signs in tunnels or large covered areas that require illumination during daylight hours.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
3	§133(a)3. All outdoor signs are controlled with a dimmer that provides the ability to automatically reduce sign power by a minimum of 65 percent during nighttime hours.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception 1 to §133(a)3. Signs illuminated for less than one hour per day during daylight hours.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception 2 to §133(a)3. Outdoor signs in tunnels or large covered areas that require illumination during daylight hours.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception 3 to §133(a)3. Only metal halide, high pressure sodium, cold cathode, or neon lamps used for illuminating signs or parts of signs.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
4	§133(a)4. An Electronic Message Center (EMC) having a new connected lighting power load greater than 15 kW has a control installed capable of reducing the lighting power by a minimum of 30 percent when receiving a demand response signal that is sent out by the local utility.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception to §133(a)4. EMC required by a health or life safety statute, ordinance, or regulation, including but not limited to exit signs and traffic signs.		Y <input type="checkbox"/>	NA <input type="checkbox"/>

Field Inspector Notes:

MECHANICAL MANDATORY MEASURES: NONRESIDENTIAL**MECH-MM**Project Name
*Costco - Ukiah*Date
*12/17/2013***Equipment and System Efficiencies**

- §111: Any appliance for which there is a California standard established in the Appliance Efficiency Regulations will comply with the applicable standard.
- §115(a): Fan type central furnaces shall not have a pilot light.
- §123: Piping, except that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC equipment, shall be insulated in accordance with Standards Section 123.
- §124: Air handling duct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of the CMC Standards.

Controls

- §122(e): Each space conditioning system shall be installed with one of the following:
- 1A. Each space conditioning system serving building types such as offices and manufacturing facilities (and all others not explicitly exempt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an accessible manual override that allows operation of the system during off-hours for up to 4 hours. The time switch shall be capable of programming different schedules for weekdays and weekends and have program backup capabilities that prevent the loss of the device's program and time setting for at least 10 hours if power is interrupted; or
 - 1B. An occupancy sensor to control the operating period of the system; or
 - 1C. A 4-hour timer that can be manually operated to control the operating period of the system.
2. Each space conditioning system shall be installed with controls that temporarily restart and temporarily operate the system as required to maintain a setback heating and/or a setup cooling thermostat setpoint.
- §122(g): Each space conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 square feet shall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided with isolation devices, such as valves or dampers that allow the supply of heating or cooling to be setback or shut off independently of other isolation areas; and shall be controlled by a time control device as described above.
- §122(c): Thermostats shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to authorized personnel.
- §122(b): Heat pumps shall be installed with controls to prevent electric resistance supplementary heater operation when the heating load can be met by the heat pump alone
- §122(a&b): Each space conditioning system shall be controlled by an individual thermostat that responds to temperature within the zone. Where used to control heating, the control shall be adjustable down to 55 degrees F or lower. For cooling, the control shall be adjustable up to 85 degrees F or higher. Where used for both heating and cooling, the control shall be capable of providing a deadband of at least 5 degrees F within which the supply of heating and cooling is shut off or reduced to a minimum.

Ventilation

- §121(e): Controls shall be provided to allow outside air dampers or devices to be operated at the ventilation rates as specified on these plans.
- §122(f): All gravity ventilating systems shall be provided with automatic or readily accessible manually operated dampers in all openings to the outside, except for combustion air openings.
- §121(f): Ventilation System Acceptance. Before an occupancy permit is granted for a newly constructed building or space, or a new ventilating system serving a building or space is operated for normal use, all ventilation systems serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance

Service Water Heating Systems

- §113(c) Installation
3. Temperature controls for public lavatories. The controls shall limit the outlet Temperature to 110° F.
 2. Circulating service water-heating systems shall have a control capable of automatically turning off the circulating pump when hot water is not required.

