City of Pittsburg
Planning Commission Agenda

August 14, 2018

City Hall Council Chamber
65 Civic Avenue, Pittsburg, CA 94565

Regular Meeting
7:00 P.M.

Planning Commission Members
James Coniglio, Chair
Elissa Robinson, Vice-Chair
Durie Foster, Commissioner
Jeremy Ward, Commissioner
Mark Linde, Commissioner
Sarah Foster, Commissioner
J. Faye Fields, Commissioner

Any member of the public who wishes to address the Commission should complete a Speaker's Card, available on the public counter below the dais. Please note on the card the agenda item number, or, for items not listed on this agenda, a brief description of the issue on which you would like to address the Commission. Give the completed form to the Minutes Clerk or a staff member, who will give the card to the Commission Chair. The Chair will invite the speaker(s) to the podium at the appropriate time during the meeting. Each individual will be given three minutes to address the Commission, unless additional time is allowed as provided for spokespersons. Prior to speaking, each speaker is requested to state his or her name and business and city of residence in a clear and audible tone of voice. For items listed under the "Public Hearings" or "Commission Consideration" portions of this agenda, the public hearing or public comment period will follow a brief presentation on the item by Planning Department staff and/or the project applicant.

A decision by the Planning Commission is not final until the appeal period expires 10 calendar days after the date the decision occurred. The applicant, City Council member(s), City Manager, or any affected person may appeal the denial, approval, recommendation, or any condition of approval of an item within the 10-day appeal period. A completed appeal form and the applicable filing fee must be filed with the City Planner, 65 Civic Avenue, Pittsburg. The appeal form must include the name and address of the appellant and state the reasons for the appeal. The appeal will be set for City Council consideration and appropriate public notification given.

The Commission requests that you refrain from disruptive conduct during the meeting and that you observe the order and decorum of the Council Chamber. Please turn off or set to vibrate all cellular phones, and refrain from making personal, impertinent or slanderous remarks. Boisterous or disruptive behavior while the Commission is in session, and the display of signs in a manner that violates the rights of others or prevents others from watching or fully participating in the Planning Commission meeting is considered counterproductive and will not be tolerated, and the Commission Chair can order any person who engages in such conduct to leave the Council Chamber.

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

DELETIONS, WITHDRAWALS OR CONTINUANCES

COMMENTS FROM THE AUDIENCE

PRESENTATIONS

CONSENT

(All items listed under the "Consent" portion of the agenda are considered routine and are adopted under one motion. Any item appearing as a Consent item on this agenda will be considered separately only upon request from a member of the Planning Commission, staff or public.)

1. Minutes

Meeting Minutes of July 24, 2018

PUBLIC HEARINGS

2. Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR).

This is a continued public hearing on a request for a recommendation to City Council for: 1) adoption of an amendment to the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit; 2) approval of a use permit for a Major Utility; and 3) design review approval of plans to install an energy storage project in three 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation. The project site covers a 12-acre portion of the 35-acre Empire Business Park parcel located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay) District. Assessor's Parcel No. 085-280-010.

3. Consideration of a Resolution Recommending City Council Approval of the Alves Ranch Subdivision and Master Plan, AP-18-1348 (RZ, SUBD, DR).

This is a public hearing on request for a recommendation for City Council approval of an amendment to the previously approved "Alves Ranch Master Plan," including: 1) a zoning map amendment rezoning the site from a combination of RH-P (High Density

Residential with a Master Plan Overlay) and CO-P (Office Commercial with a Master Plan Overlay) Districts to PD (Planned Development) District; 2) a vesting tentative map subdividing the 57.81-acre site to allow for the construction of 346 single family dwelling units, a 12-acre commercial site, and ancillary features; and 3) design review of architectural and landscape plans. The project site is located along the north side of West Leland Road, south of State Route 4. Assessor's Parcel Nos. 097-700-001; 097-700-002; and 097-700-005.

COMMISSION CONSIDERATIONS

4. Consideration of a Resolution Approving Design Review of the Galloway Triplexes Project, AP-17-1294 through 17-1296 (DR).

This is a request for design review approval of plans to construct three-unit apartment buildings on three separate parcels located at 345 W. 10th Street, 172 W. 10th Street, and 463 W. 10th Street, in the M (Mixed Use) District. Assessor’s Parcel Nos. 085-211-004, 085-226-014, 085-241-003.

ZONING ADMINISTRATOR REPORTS

STAFF COMMUNICATIONS

COMMITTEE REPORTS

ADJOURNMENT OF PLANNING COMMISSION MEETING

NOTICE TO PUBLIC

NOTICE TO THE DISABLED AND VISUALLY OR HEARING IMPAIRED

In compliance with the Americans with Disabilities Act, the city of Pittsburg will provide special assistance for disabled citizens. Upon request, an agenda for any meeting shall be made available in appropriate alternative formats. The Council Chamber is equipped with sound amplifier units for use by the hearing impaired. The units operate in conjunction with the Chamber's sound system. You may request the sound amplifier from the City Clerk for personal use during Commission meetings. If you need special assistance to participate in this meeting, or are requesting a specially formatted agenda, please contact the City Clerk at 925-252-4850. Notification 48 hours prior to the meeting will enable the city to make reasonable arrangements to ensure accessibility to this meeting or provide the requested agenda format. (28 CFR 35.102-35.104 ADA Title II)

GENERAL INFORMATION

Copies of the open session agenda packets that are distributed to the Planning Commission are on file in the office of the Planning Department, 65 Civic Avenue, Pittsburg, California, and are available for public inspection, beginning no fewer than 72 hours in advance of the meeting, during normal business hours (8:00 a.m. – 5:00 p.m., Monday through Friday, except city holidays). Additionally, if any reports or documents that are public records are distributed to the Planning Commission fewer than 72 hours before the meeting, those reports and documents will also be available for public inspection in the city's Planning Department and at the Commission meeting. The Pittsburg Library is also provided a full agenda packet for your convenience. As a courtesy, the agenda is also located on the city's website at www.ci.pittsburg.ca.us.

MINUTES
OF A REGULAR MEETING
OF THE
PITTSBURG PLANNING COMMISSION

July 24, 2018

A regular meeting of the Pittsburg Planning Commission was called to order by Chair Coniglio at 7:10 p.m. on Tuesday, July 24, 2018, in the Council Chamber at City Hall, 65 Civic Avenue, Pittsburg, California after convening at 5:00 p.m. for AB1234 Ethics Training.

ROLL CALL

Present: Chair Coniglio, Commissioner Robinson, D. Foster, Ward, Linde, S. Foster, Fields

Staff: City Manager Joe Sbranti, Community Development Director Jill Hecht, City Engineer Richard Abono, Acting Planning Manager/ Secretary Jordan Davis, Deputy City Clerk Amanda McVey

PLEDGE OF ALLEGIANCE

Commissioner Fields led the Pledge of Allegiance.

DELETIONS / WITHDRAWALS / CONTINUANCES

Item number three (3), Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR), was continued to the next regularly scheduled meeting of August 14, 2018.

COMMENTS FROM THE AUDIENCE

There were no comments from the audience.

PRESENTATIONS

1. City Manager's Report

City Manager Joe Sbranti presented the City Manager's Report.

CONSENT

2. Minutes of July 10, 2018

On motion by Commissioner D. Foster seconded by Commissioner Ward to approve the minutes and carried unanimously.

PUBLIC HEARINGS

3. Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR).

A public hearing on a continued public hearing on a request for a recommendation to City Council for: 1) adoption of an amendment to the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit; 2) approval of a use permit for a Major Utility; and 3) design review approval of plans to install an energy storage project in three 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation. The project site covers a 12-acre portion of the 35-acre Empire Business Park parcel located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay) District. Assessor's Parcel No. 085-280-010.

This item was continued to the next regularly scheduled meeting of August 14, 2018.

ZONING ADMINISTRATOR REPORTS

4. Notice of Intent to Exercise Delegated Design Review Authority and Submittal of Adopted Zoning Administrator Resolutions.

The Zoning Administrator submit one notice of intent to exercise delegated design review authority for an exterior color change for the Mar-Ray Motel located at 1989 Railroad Avenue. The Zoning Administrator also submits two resolutions previously approved under the delegated authority (Planning Commission Resolution No. 9918).

Commissioners acknowledged receipt of the notice and previously approved resolutions.

STAFF COMMUNICATIONS

Acting Planning Manager / Secretary Jordan Davis informed the Commissioners that the identification badges they have been issued are required to be worn by the Commissioners and visible anytime they are representing the Planning Commission or conducting city business

COMMITTEE REPORTS

Chair Coniglio stated TRANSPLAN has not met.

Commissioner Robinson provided an update from the Land Use Subcommittee.

Commissioner Ward provided an update from the Pittsburg Recognition Subcommittee

ADJOURNMENT

The meeting was adjourned at 8:30 p.m. to August 14, 2018.

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Jordan Davis, AICP, Acting Secretary

CITY OF PITTSBURG
PLANNING COMMISSION
STAFF REPORT
August 14, 2018

ITEM: **Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR).**

ORIGINATED BY: Kevin Johnson on behalf of Diablo Energy Storage LLC, 5000 Hopyard Road, Suite #480, Pleasanton, CA 94588

SUBJECT: This is a continued public hearing on a request for a recommendation to City Council for: 1) adoption of an amendment to the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit; 2) approval of a use permit for a Major Utility; and 3) design review approval of plans to install an energy storage project in three 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation. The project site covers a 12-acre portion of the 35-acre Empire Business Park parcel located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay) District. Assessor's Parcel No. 085-280-010.

RECOMMENDATION:

Staff recommends that the Planning Commission review the initial study and proposed mitigated negative declaration (MND) for the project and adopt Resolution No. 10095, recommending that the City Council:

1. Adopt an ordinance amending the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit within the IP-O-2 subdistrict, as shown in Attachment 1, Exhibit A; and

2. Adopt a resolution approving a use permit for a "Major Utility", and granting design review approval for Planning Application No. 17-1270, subject to conditions.

BACKGROUND:

On January 20, 2004, the City Council adopted Ordinance No. 04-1214, which established the existing IP-O District, commonly referred to as the 'Empire Business Park Overlay,' applicable to the property, in order to specify permitted, conditionally permitted, and limited uses for the property, as well as development regulations related to maximum building height, maximum lot coverage, front yard setback, and maximum floor area ratio.

On May 21, 2007, the City Council adopted Ordinance No. 07-1284, in conjunction with a comprehensive zoning code update in order to add “religious assembly,” as a conditionally permitted use in multiple overlay districts.

On July 10, 2018 the Planning Commission held a public hearing to consider this application. At that meeting the Commission raised questions related to public safety, specifically regarding the use of lithium ion batteries and an overhead electric tie-line in proximity to residential uses and voted unanimously to continue the public hearing to the July 24, 2018, meeting. On July 24, 2018, the Commission once again continued the public hearing to August 14, 2018, in order to allow staff and the applicant additional time to address questions and concerns raised by the Commission and conduct additional public outreach.

PROJECT DESCRIPTION:

Existing Conditions: The project site consists of a 12-acre portion of the 35-acre site designated as the Empire Business Park. The site fronts Willow Pass Road to the north and is currently vacant. A dilapidated chain-link fence with a barbed wire top currently runs along the northern and eastern site boundaries. A stormwater detention and treatment basin also runs along the northern property boundary parallel to Willow Pass Road within the City right-of-way; however, this area has been illegally filled by unpermitted dumping, and thus is not adequately retaining or treating stormwater. Lastly, overhead power lines run along the northern property boundary, and are the only remaining overhead lines along this stretch of Willow Pass Road/West 10th Street.

Surrounding Land Uses: The project site is surrounded by a mix of light industrial, utility and low-density residential land uses. Adjacent lands north of Willow Pass Road are industrial in use. The portion of the subject parcel to the south of the project site is developed as an approximately 400,000 square foot commercial warehouse-style structure with associated parking and truck loading docks. Adjacent lands to the east of the site consist of a paved commercial entrance road between the project site and a residential subdivision. Adjacent lands to the west of the site include a paved entrance to the industrial development to the south, a graded undeveloped area, and a high voltage electric transmission line corridor, approximately 900 feet wide, which runs north-south through the City, crossing Willow Pass Road.

See Attachment 4, “Project Location Map and Existing Conditions,” for an overview of surrounding uses.

Proposed Project: The purpose of the project is to receive, store, and discharge electric energy from the California Independent System Operator (CAISO) controlled electric grid, including renewable energy produced by existing solar and wind resources in the region. The preliminary layout and conceptual design details of the project are shown on Attachment 2. The facility would receive energy from the existing grid, including energy from renewable resources and store it onsite within batteries. The energy would then be delivered back to the grid as requested by the CAISO including during peak electric

demand, increasing the efficiency of the grid and reducing the need for power generation plants during these times. Energy discharged from the project would go directly into PG&E infrastructure and be distributed as needed. In accordance with the Large Generator Interconnection Agreement between Diablo Energy Storage, PG&E, and CAISO, the project is authorized to interconnect up to 200 megawatts of storage capacity to the PG&E Pittsburg Substation. It should be noted that the proposed project is not a power plant, as it does not produce electric energy as a solar, wind, or fossil-fuel plant would.

The project consists of three, approximately 60,000 square foot, unmanned buildings which would house advanced energy storage technology (e.g. lithium ion batteries) which, together with related control equipment including inverters, transformers, and an onsite electric substation, would be connected via a new electric tie-in line to the existing PG&E substation located approximately 0.6 miles north of the project site (see Attachment 4). The facility would be unoccupied, as it is designed for full remote operation. The entire project site would be secured with seven-foot-tall fencing consisting of six-foot high chain link with a one-foot high security wire top. A controlled access gate would be located at the project site entrance and a second gate would be located near the northwest corner of the site where an existing road would provide for emergency access.

The three proposed buildings would include a modern design with a combination of natural-colored, tilt-up concrete panels or steel frame construction and horizontal metal paneling in a complementary light stone color. The site plan is organized so that the three buildings would be aligned in an east to west direction; outdoor electrical equipment would be screened from view by the eastern-most building, as shown on Sheet C-6 of the Conceptual Site Plan (Attachment 2). The proposed small substation, including an approximately 24-foot wide by 50-foot high H-frame structure with switches, lightning arrestors and metering equipment, would be placed between buildings one and two on the interior of the site (or further west, as allowed under a proposed condition of approval), and fenced in accordance with electric code requirements. This arrangement of buildings and equipment would effectively screen the outdoor equipment from view from the residential uses and provide some sound attenuation. Though outdoor equipment would be visible from Willow Pass Road, a proposed condition of approval would require trees be planted every 40 feet along the north side of the proposed structures, providing additional screening. The service driveway accessing the rear of the buildings would be located along the southern edge of the project site. The site would be graded to provide bio-retention swales around the outer perimeter of the buildings.

The project includes the construction of an electric tie-line to connect to the existing PG&E substation. The area between the project site and the Pittsburg Substation is extensively developed with industrial and utility infrastructure which influences the choice of feasible routes for the tie-line. Three preliminary tie-line routes (as shown in Attachment 2) have been identified: a) west of the fuel oil tank farm (a distance of 6,700 feet); b) along an existing NRG access road through the fuel oil tank farm (a distance of

3,800 feet); and c) east of the fuel oil tank farm (a distance of 5,800 feet). Portions of the line would be overhead and pursuant to a proposed condition of approval, portions of the line would be placed underground. The above ground portion of the tie-line would include an overhead power line atop poles approximately 77 to 95 feet tall; however, a condition of approval would require the line be placed underground from the project site, as well as north of the Willow Pass Road right-of-way to a point no less than 25 feet north of the Willow Pass Road right-of-way.

Sidewalk, curb, and gutter improvements exist at the site frontage. However, the developer has agreed to conditions of approval that would provide significant frontage improvements along Willow Pass Road, including: 1) a row of street trees placed every 40 feet on center along to help screen the project; 2) removal of sediment and re-landscaping of the existing bioretention basin within the City right-of-way; 3) replacement of the existing chain-link fence with a new vinyl-clad fence; 4) undergrounding of existing PG&E overhead power lines along the project frontage and undergrounding as described in the preceding paragraph; 5) repair or replacement of all damaged sidewalk and storm drains; and 6) pavement repair on Willow Pass Road adjacent to the project frontage.

Construction and equipment installation would be expected to take 6 to 12 months including the buildings, outdoor electrical equipment, and site preparation including storm water controls and landscaping. Construction of each of the three buildings may be phased in response to market demands. If phased, project improvements essential for the entire site such as the connection to the City storm water system, the onsite substation, and the electric tie-line, would be installed in the initial phase. The initial phase would include the first building (eastern most building) and related systems.

GENERAL PLAN/CODE COMPLIANCE:

General Plan: The project site is located in the 'West Central Subarea' of the Pittsburg General Plan and would conform to the General Plan policies adopted for this subarea. The project site is designated on the General Plan Land Use map as Business Commercial. This designation is intended to provide sites for a variety of uses including custom manufacturing, limited assembly and light manufacturing. The proposed use, an energy storage project would be consistent with this intent.

General Plan Policy 2-P-77 addresses the project site specifically to, "allow and encourage development of a Business Commercial complex between Willow Pass Road and the BNSF Railroad track, east of the PG&E transmission corridor." The proposed project would implement the intent of this policy. The project would also provide fiscal benefits to the City of Pittsburg, consistent with the goals of the General Plan Economic Development Element, would add to the infrastructure within the City of Pittsburg.

Zoning: The project site's base zone is IP-O (Industrial Park Overlay as specified in Ordinance No. 04-1214, and later amended by Ordinance No. 07-1284) District. The

intent of this overlay district is to ensure that compatible uses are allowed as appropriate according to proximity to residential uses. The overlay district is also intended to assist in the redevelopment of vacant and underutilized parcels along Willow Pass Road with business and commercial service uses, and to provide sites for service oriented commercial and light industrial uses in a landscaped setting.

The proposed use (battery storage plus a substation) fits under the zoning ordinance use classification of “major utility” which is defined, in part, to include major power facilities as well as electrical substations. The applicant is requesting an amendment to the existing IP-O District to allow a “Major Utility” subject to approval of a use permit. The proposed tie lines (i.e. overhead power lines) that would connect the project to the existing PG&E Substation are permitted within the IP-O and IG (General Industrial) districts.

Development Regulations. The proposed project complies with the Property Development Regulations set forth in Attachment 5.

Design Guidelines: In 2010, the Planning Commission adopted Resolution No. 9864 amending the City’s Development Review Design Guidelines (DRDGs). The DRDGs provide a framework for the design review of residential, commercial, and industrial projects. The project as proposed complies with DRDGs as set forth in Attachment 6.

Required Findings - Zoning Amendment: In order to recommend approval of a zoning amendment, the Commission must find (in accordance with PMC sections 18.16.020 and 18.48.030) that:

1. the amendments are consistent with the objectives, policies, general land uses and programs in the General Plan;

2. the land use regulation is compatible with uses and regulations of the land use district for which it is proposed;

3. there is a community need for the change proposed; and

4. the change will be in conformity with the public convenience, general welfare, and good zoning practice.

Required Findings - Limited Overlay District: The procedure for an amendment to an adopted overlay plan is initiated in the same manner as an application for a Zoning Map amendment (in accordance with PMC section 18.74.070). In order to recommend approval of an amendment to the existing limited overlay, the Commission must also find (in accordance with PMC section18.74.060) that the proposed amendment:

1. is necessary because there are special or unique characteristics of the site or improvements that require land use and development regulations that cannot be adequately accommodated or controlled by the base zoning district;

2. conforms to the General Plan; and

3. generally, complies with the land use and development regulations of the base zoning district.

Required Findings - Use Permit: In order to recommend approval of a use permit, the Commission must make findings (PMC section 18.16.040) that the proposed use:

A. is in accord with the objective of this title, the purposes of the land use district in which it is located and is appropriate to the specific location;

B. is not detrimental to the health, safety, and general welfare of the City;

C. will not adversely affect the orderly development of property within the City;

D. will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the City;

E. is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan;

F. will not create a nuisance or enforcement problem within the neighborhood;

G. will not encourage marginal development within the neighborhood;

H. will not create a demand for public services within the City beyond that of the ability of the City to meet in the light of taxation and spending restraints imposed by law; and

I. is consistent with the City's approved funding priorities.

Required Findings - Design Review: In order to recommend approval of a design review application, the Commission must determine (in accordance with PMC section 18.36.220.B) that:

1. the structure conforms with good taste, good design and in general contributes to the character and image of the City as a place of beauty, spaciousness, balance, taste, fitness, broad vistas, and high quality;

2. the structure will be protected against exterior and interior noise, vibrations and other factors that may tend to make the environment less desirable;

3. the exterior design and appearance of the structure is not of inferior quality as to cause the nature of the neighborhood to materially depreciate in appearance and value;

4. the structure is in harmony with proposed developments on land in the general area; and

5. the application conforms with the criteria set forth in any applicable City adopted Design Guidelines.

Environmental: The project is subject to the California Environmental Quality Act (CEQA), and the State CEQA Guidelines (Public Resources Code section 21080). Pursuant to the provisions of the State CEQA Guidelines, an Initial Study was prepared for the project. Based on the analysis in the Initial Study, the Planning Manager determined that potentially significant effects of the project could be lessened through specified mitigations, and subsequently, the Notice of Intent to Adopt a Mitigated Negative Declaration was prepared and distributed to the public on February 9, 2018, for a 30-day review and comment period, in accordance with CEQA Guidelines section 15105(b). The review period was extended to March 23, 2018, to accommodate pubic review.

During the public review period, one comment letter was received from Delta Diablo (see Attachment 11). No deficiencies with the environmental analysis were identified by Delta Diablo, so no changes to the initial study were made in response to the letter; however, a condition of approval has been added to the project to address their general concerns about potential construction impacts to existing wastewater pipeline infrastructure.

Public Notice: On or prior to June 30, 2018, notice of the July 10, 2018, public hearing was published in the East County Times; was posted at City Hall and on the “Public Notices” section of the City’s website; was delivered for posting at the Pittsburg Library; and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the project site, to local service agencies expected to provide services to the facility, and to individuals who had previously filed written request for such notice, in accordance with PMC section 18.14.020 and Government Code sections 65091. At the July 10, 2018 meeting this item was continued to a date certain, July 24, 2017. At the July 24, 2018, meeting the item was once again continued to a date certain, August 14, 2018.

Though not required by law, staff and the applicant have conducted additional public outreach to make the surrounding communities aware of the proposed project. On August 3, 2018, a “Supplemental Notice of Public Hearing,” (Attachment 15) containing additional project information and answers to questions raised during the July 10, 2018 public hearing was mailed to all property owners and current residents of the Harbor Lights and Heritage Pointe Subdivisions. In addition, the supplemental notice was emailed to managers of the respective homeowners’ associations, with a request that the supplemental notice be posted in common areas and forwarded directly to association board members.

ANALYSIS:

Staff believes that the Planning Commission can make all of the necessary findings to recommend approval of the project, subject to conditions. The proposed project would potentially provide a new economic and reliable means of capturing and managing renewable energy, thereby reducing the state and region's reliance of fossil-fueled power plants. In doing so, the project would help stabilize the electric grid and increase the effectiveness of both conventional and renewable energy generation projects. The project would support the achievement of local, state and federal renewable energy goals and state goals for energy storage, reducing emission of greenhouse gases and demand for electrical generation. The project would also provide economic benefits to the City of Pittsburg and the surrounding area through the creation of skilled construction jobs, operation period jobs, and revenues from property and sales taxes. The applicant estimates the project (at full build out) will create 240 jobs during construction, 10 jobs during operations for periodic maintenance and calibration, pay approximately $5 million in property taxes and approximately $0.8 million in sales taxes.

Regional "brownouts" result from PG&E and CAISO needing to reduce power in an area due to straining of the area's electricity system. While the project would not affect the way the PG&E and CALISO respond to brownouts, energy storage facilities, like this project, help PG&E and CAISO reduce strain on the electric grid thus reducing the potential for "brownouts" and can provide local backup power for use when these situations occur, and in the long-term that can be a benefit to local communities.

As previously mentioned, concerns regarding the project were raised during the previous public hearing. These concerns generally centered around public safety, including the safety and specifications of lithium ion batteries as well as potential impacts from overhead power lines, and to a possibly lesser extent, noise and visual impacts associated with the proposed development. The Commission also requested additional information regarding similar projects, their proximity to residential neighborhoods, and their track records for safety in their communities.

In response to the Commission's request, the applicant has submitted detailed information (Attachment 9) regarding the specifications for the batteries, their management system, system layout and fire suppression, major regulatory codes, and standards applicable to the design of the project.

Lithium Ion Batteries and Facilities: Lithium ion batteries are commonly and extensively used technology, and can be found in most, if not all, electric vehicles, as well as in numerous commercial and personal household devices, such as cell phones, laptop computers, cordless power tools, and many other electronic devices which are safely used and stored every day. The project would utilize lithium ion batteries in a stationary (not mobile) application. In a stationary application (i.e. within an enclosed building) the building and related systems must comply with all relevant standards including national electric code and City building codes, including installation of systems to control potential mis-operation of any feature or component of the project including the lithium

ion batteries. The Initial Study (Attachment 8) evaluated the potential impacts of hazardous materials resulting from project operation and concluded there would be no significant impact. The project description and the applicant's response to data requests (Attachments 3 and 9, respectively) provide further detail on lithium ion batteries, the system layout, and fire suppression systems. As noted on page 7 of Attachment 9, "batteries will be enclosed in a building with screened and/or walled off zones in order to isolate the small portion of the system that may be affected from any thermal event. In the case of smoke or fire detection, the system will release a waterless agent such as DuPont FM-200 fire suppression agent to the local area affected and coordinate all air handling and ventilation in the enclosure in accordance with the National Fire Protection Association (NFPA) codes and best practices." It should be noted that all batteries would be required to be maintained within buildings designed and constructed to meet the relevant NFPA and local codes and practices. The eastern-most building would also be located approximately 180 feet from the nearest residence.

The US Department of Energy Global Energy Storage Database lists 39 similar battery storage projects either in operation or approved for construction. The site lists a total of 600 battery storage projects and gives specific details regarding each project. The State of California Energy Commission notes that, "[s]torage is one of several tools that is becoming increasingly important to help manage the grid as California works to transform its energy system to meet its climate goals." In June 2018, San Diego County approved five battery storage projects noting that they would improve grid reliability and integrate more renewables, creating a cleaner, healthier and more sustainable future. Battery storage projects have also been approved recently in Mira Loma and Long Beach, California. The Long Beach project, which when completed will be the largest lithium ion battery storage facility in the world, is located approximately 400 feet from a large residential neighborhood and 1,000 feet from an elementary school.

Fire Protection: The facility would be required to be designed and constructed to comply with all applicable codes in effect at the time of building permit submission. As detailed in Attachment 9, each battery module would be a sealed, finished, and UL listed article installed in battery rack with integrated safety systems to actively monitor current, voltage, and temperature to optimize performance, mitigate potential failures, and prevent upset. Batteries performing out of specification will be immediately taken off line by the automated monitoring system. There would be no venting or release of toxic substances from the individual cells, cell packs, or castings, as the batteries would not be opened for use, maintenance, or other purposes.

The Commission has also previously raised questions regarding the level of input from the Contra Costa County Fire Protection District (CCCFPD) and Contra Costa County Hazardous Materials Programs (HazMat). Staff has reached out to CCCFPD and obtained a letter from the agency (Attachment 12) which notes the project shall be required to comply with section 608 of the California Fire Code for the stationary storage of battery systems, as well as NFPA 855, "Standard for the Installation of Stationary Energy Storage Systems," in addition to general conditions dealing with emergency vehicle access and fire suppression. It should also be noted that prior to issuance of any

building permits, the developer would be required to submit plans to CCCFPD for separate review and approval. The project does not propose utilizing hazardous materials within its operation; however, staff has included a specific condition which would require the developer consult directly with HazMat prior to construction, and, if necessary, establish a Hazard Mitigation Plan.

Noise: A detailed analysis of potential project noise impacts was prepared by LSA Associates (Appendix F of Attachment 8) and includes a discussion of the methodology for measuring noise levels, sound measurements taken around the project site including at the closest residential properties (described above), and the results of a model predicting noise impacts of the project at full operation. The analysis concluded that any potential change in noise levels at residences would be less than significant and imperceptible. The threshold for finding a significant impact would occur has been determined to be an increase in ambient noise levels of 5 dBA L_{eq}. As shown below, noise levels at all points around the project would experience a future noise level increase of less than 5 dBA L_{eq}. It should be noted that a 3.5 dBA L_{eq} increase is barely noticeable and the 2.5 dBA L_{eq} increase predicted is well below this level. The Noise Analysis determined that when the project is in operation the increase in noise to sensitive receptors in the area would be as follows:

1. Residences directly east of project site – 0.5 dBA L_{eq}
2. Residences west of project site – 2.5 dBA L_{eq}
3. Residences south of project site – 0.1 dBA L_{eq}

Electromagnetic Frequencies: The potential cancer risk related to electric and magnetic fields has been studied for several decades. The American Cancer Society (ACS) itself states, “[it’s] not clear exactly how electromagnetic fields…can increase cancer risk…because we are all exposed to different amounts of these fields at different times…” (Attachment 10) ACS notes several large studies looked at the possible effects of extremely low frequency (ELF) magnetic fields on cancer in rats and mice, and notes that most of these studies have found no increase in the risk of any type of cancer, with some studies even finding a reduced risk. Additionally, ACS states studies have generally not found links between ELF exposure and cancer in adults or children, including childhood leukemia.

ACTION REQUIRED:

Move to adopt Resolution No. 10095, recommending City Council approval of: 1) an amendment to the existing Overlay District; 2) a use permit; and 3) design review of plans for the Diablo Energy Storage Project, as conditioned.

ATTACHMENTS:

1. Proposed Resolution No. 10095
1a. Exhibit A – Overlay Zoning Map
2. Project Plans, dated January 12, 2018

3. Project Description
4. Project Location Map and Existing Conditions
5. Development Regulations Consistency Table
6. Design Guidelines Consistency Table
7. Draft Mitigated Negative Declaration
8. Initial Study
9. Applicant Responses to Data Requests, dated July 26, 2018
10. "Power Lines, Electrical Devices and Extremely Low Frequency Radiation" (https://www.cancer.org/cancer/cancer-causes/radiation-exposure/extremely-low-frequency-radiation.html)
11. Delta Diablo Comment Letter, dated March 15, 2018
12. Contra Costa County Fire Protection District Letter, dated August 8, 2018
13. Citizen Comment Letter, dated August 8, 2018
14. Public Hearing Notice & Vicinity Map
15. Supplemental Notice of Public Hearing and Vicinity Map

Prepared by: Joan Lamphier, Consulting Planner

BEFORE THE PLANNING COMMISSION OF THE CITY OF PITTSBURG

In the Matter of:

Resolution Recommending City Council Approval of: 1) an Amendment to a Limited Overlay District; 2) a Use Permit; and 3) Design Review of Plans to Installa180,000-SquareFoot Energy StorageFacility at 701 Willow Pass Road, for "Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR)."	)	Resolution No. 10095

The Planning Commission DOES RESOLVE as follows:

Section 1. Background

A. On September 1, 2017, Diablo Energy Storage LLC, filed Planning Application No. 17-1270, requesting:1) approval an amendment to the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit; 2) approval of a use permit for a Major Utility; and 3) design review approval of plans to install an energy storage project in three 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation.The project site covers a 12-acre portion of the 35-acre Empire Business Park parcel located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay) District. Assessor's Parcel No. 085-280-010.

B. The proposed Diablo Energy Storage is governed by the applicable goals and policies of the Pittsburg General Plan, Pittsburg Municipal Code (PMC), and the City's Design Review and Development Guidelines adopted by Planning Commission through Resolution No. 9864.

C. PMC section 18.16.020 identifies the Planning Commission as the advisory body to the City Council on proposed zoning amendments.Pursuant to PMC section 18.48.030, the Planning Commission shall include written findings to support any recommendation it makes to the City Council to amend the Zoning Ordinance.

D. The project is subject to the California Environmental Quality Act (CEQA), and the State CEQA Guidelines (Public Resources Code section 21080). Pursuant to the provisions of the State CEQA Guidelines, an Initial Study was prepared for theProject. Based on the analysis in that study, the Planning Manager determined that potentially significant effects of the project could be lessened through specified mitigations, and subsequently, a draft Mitigated Negative Declaration (MND) was prepared.

E. On February 9, 2018, a Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) was distributed to the public for a 30-day review, in accordance with CEQA Guidelines section 15105(b). The review period was extended to March 23, 2018 to accommodate public review.Public distribution of the NOI consisted of delivery to

theState Clearinghouse, County Clerk's Office, posting on the City's website, and direct mailing to all interested parties and owners/occupants of properties directly contiguous with the Project, in accordance with CEQA Guidelines section 15072.

F. On March 27, 2018, the Planning Commission continued the public hearing to April 10, 2018.On April 10, 2018, the Planning Commission continued the public hearing to April 24, 2018.On April 24, 2018, the Planning Commission continued the public hearing to May 8, 2018.On May 8, 2018, the Planning Commission continued the public hearing on this request to a date uncertain.

G. On or before June 30, 2018, in accordance with Government Code sections 65090 and 65091, and PMC section 18.14.020.B, C and D, a "Notice of Public Hearing," for the July 10, 2018, public hearing on this item was published in the East County Times; was posted at City Hall; was delivered for posting at the Pittsburg Library; and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the proposed project site, to local service agencies whose services might be affected by this project, and to individuals who had previously filed written request for such notice.

H. On July 10, 2018, the Planning Commission held a public hearing on Planning Application No. 17-1270 (RZ, UP, DR), at which time oral and/or written testimony was considered. Following the public hearing, the Planning Commission moved to continue the public hearing on the item to the July 24, 2018, meeting. On July 24, 2018, the Planning Commission again continued the public hearing, to the August 14, 2018, meeting.

I. Though not required by law, on August 3, 2018, a "Supplemental Notice of Public Hearing," containing additional project information and answers to questions raised during the July 10, 2018 public hearing was mailed to all property owners and current residents of the Harbor Lights and Heritage Pointe Subdivisions. In addition, the supplemental notice was emailed to managers of the respective homeowners' associations, with a request that the supplemental notice be posted in common areas and forwarded directly to association board members.

J. On August 14, 2018, the Planning Commission held a continued public hearing on Planning Application No. 17-1270 (RZ, UP, DR), at which time oral and/or written testimony was considered.

Section 2. Findings

A. Based on the Planning Commission Staff Report entitled, "Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR)," dated August 14, 2018, and based on all the information contained in the Planning Division files on the project, incorporated herein by reference and available for review in the Planning Division located at 65 Civic Avenue in Pittsburg, and based on all written and oral testimony presented at the meeting, the Planning Commission finds that:

1. All recitals above are true and correct and are incorporated herein by reference.

2. The Initial Study and draft Mitigated Negative Declaration for the project were prepared in compliance with Public Resources Code section 21000 et seq. and the Planning Commission has independently reviewed and considered the information contained therein.

Zoning Amendment/Limited Overlay District:

3. The proposed amendment is consistent with the General Plan, specifically policy 2-P-77, in that it willfacilitate the continued development of a business commercial complex between Willow Pass Road and the BNSF Railroad track, east of the PG&E transmission corridor.

4. The proposed land use regulations are compatible with uses and regulations of the land use district for which they are proposed, in that they will permit a light industrial use with limited customer presence and no industrial activities.

5. The proposed amendment to the 'Empire Business Park'IP-O District will allow development of an energy storage projectwhich willsupport California's renewable energy goals byproviding a means of storing electrical energy including renewable energy produced by existing solar and wind resources in the region.

6. The proposed overlay amendment will allow development of a battery storage project to help meet a community and statewide need to reduce greenhouse gas emissions, consistent with Assembly Bill (AB) 32 targets.The specific amendment is needed in Pittsburg because the City's Zoning Ordinance does not currently specify where battery storage facilities are allowed.

7. The proposed overlay amendment will be in conformity with the public convenience and general welfare, in that it will allow development of a battery storage facilitythat will improve the efficiency of the electric grid and help reduce energy costs and greenhouse gas emissions.This project will be in keeping with measuresother jurisdictions have taken to promote sustainable energy production in their communities.

8. The proposed overlay amendment is necessary because there are special or unique characteristics of the site or improvements that require land use and development regulations that cannot be adequately accommodated or controlled by the base zoning district, in that the Zoning Ordinance currently does not have a land use classification for "Battery Storage" projects.This is a new technology which is important in promoting sustainable energy goals by providing a means of storing energy in non-daylight hours.

Use Permit:

9. The project is in accord with the objective of the Zoning Ordinance, the purposes of the land use district in which it is located, and is appropriate to the specific location,

in that the property was designated with an Industrial Park Overlay District, the intent of which is to provide sites in landscaped settings for research and development facilities, and limited warehouse type facilities.The proposed use willbe consistent with this intent.

10. The project will not be detrimental to the health, safety, and general welfare of the City, in that it willhave no impact on air quality, odors, or hazardous materials.The project willbe unmanned and therefore willnot generate traffic.Equipment outside the buildings willbe screened in accordance with the Design Review Guidelines.

11. The project will not adversely affect the orderly development of property within the City, in that the project site is vacant and designated for Industrial Park use.

12. The project will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the City, in that it willadd to the tax base through the development of the property and increased assessed valuation.

13. The project is consistent with the objectives, policies, general land uses and programs specified in the General Plan,in that this site is located in the 'West Central Subarea' of the Pittsburg General Plan and would conform to the General Plan policies adopted for this subarea, specifically Policy 2-P-77,which is intended to encourage development of a Business Commercial complex between Willow Pass Road and the BNSF Railroad track, east of the PG&E transmission corridor.The project would also provide fiscal benefits to the City of Pittsburg, consistent with the goals of the General Plan Economic Development Element.

14. The project will not create a nuisance or enforcement problem within the neighborhood, in that the battery portion of the projectwillbe enclosed within the three buildings, which will also partially screen substation equipment. Further, the noise and vibration assessment prepared for the project has indicated that noise generated from the project would not be noticeable by neighboring residences. Lastly, the use will be required to meet performance standards, as set forth by PMC chapter 18.82, which are intended to address ongoing safety, noise, odor, and maintenance concerns.

15. The project will not encourage marginal development within the neighborhood, in that project would be located on a vacant, infill site, and has been designed to complement and blend in with the existing mixed-use character of the area.

16. The project will not create a demand for public services within the City beyond that of the ability of the City to meet in the light of taxation and spending restraints imposed by law, in that the facility will be unmanned, causing no demand for additional public services.

17. The project is consistent with the City's approved funding priorities, in that there are no public funds associated with this project.

Design Review

18. The project conforms with good taste and design and will not diminish the character and image of the City as a place of beauty, spaciousness, balance, taste, fitness, broad vistas, and high quality, in that it has been designed to complement and respect its relationship with existing industrial uses and the adjacent residential use.

19. The project does not require protection from noise, vibrations, and other factors that may tend to make the environment less desirable for its users because the facility is intended for unmanned operation.

20. The project will not cause the neighborhood to materially depreciate in appearance and value because it is designed to have a utilitarian appearance consistent with the area's industrial zoning.The existing landscaping on the eastern property line will remain in place and provide screening for the residential uses located across the driveway which are also screened by the existing wall.

21. The project will be in harmony with proposed developments on land in the general area, in that there are no projects currently proposed in the immediate vicinity of the site.

22. The project is generallyconsistent with the criteria set forth in the City's Development Review Design Guidelines, in that an attempt has been made to reduce the visual impact of the large building size and significant massing of the three buildings through landscaping and masonry wall screening.Conditions have been included that willrequire: 1)extension of the metal detailing on the building above to the top of the parapet (Guideline IV.f); 2)screening of the outdoor equipment (Guideline IV.d); 3) provision of a cool roof (Guideline VI.D.1.).

B. The staff report entitled, "Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR),"dated August 14, 2018, is referenced hereto as additional support for the findings.

Section 3.Decision

Based on the findings set forth above, the Planning Commission hereby recommends that the City Council:

A. Adopt an ordinance amending Ordinance No. 07-1284, and Ordinance No. 04-1214 by reference,to permit a "Major Utility" subject to a use permit within the IP-O-2portion of the existing Overlay (applicable to assessor's parcel no. 085-280-010), as shown in Exhibit "A" of this resolution; and

B. Adopt a resolutionapproving a use permit and design review for plans to install an energy storage project in three approximately 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation, subject to approval of the overlay district amendment described in section 3.A above, and subject to the following conditions:

Planning Conditions:

1. The project shall be constructed in substantial conformity with the project plans and color and materials board date-stamped January 12, 2018, except as may be hereinafter modified. Any major changes to the project plans shall be subject to review and approval by the City Council at the City Planner's discretion.

2. Any purchase, acquisition, and/or supply of goods and materials, as well as any new or replacement equipment and supplies purchased by Diablo Energy Storage, LLC ("DES") or its contractors, subcontractors, agents or affiliates, in connection with this Project shall be apportioned and paid to and at the applicable sales tax rate in effect for the City as administrated by the California Department of Tax and Fee Administration (CDTFA). At no point may DES or its contractors, subcontractors, agents or affiliates contractually agree to share sales and use taxes from this project with any other city, county or other entity in the State of California, regardless of agreement they might have with another jurisdiction where they have offices or conduct business. The City of Pittsburg will be the sole jurisdiction of record to the transfer of title. DES and its contractors, subcontractors, agents and affiliates shall comply with the Sales and Use Tax Requirements ("Requirements") set forth below and all CDTFA requirements. If the City becomes aware of modifications necessary to such Requirements, City may propose to incorporate new or revised requirements, subject to DES's agreement which shall not be unreasonably withheld, conditioned or delayed. Failure by DES, its contractors, subcontractors, agents or affiliates to comply with this Condition to ensure appropriate taxes are properly paid and passed through to the Citywill result in DES paying a fee equivalent to the taxes which the City would have received had DES, its contractors, subcontractors, agents or affiliates taken such actions to ensure the sales taxes referenced in the first sentence of this subsection are apportioned to the City.

   Sales and Use Tax Requirements:DES/General Contractor and/or future project owners and/or operators, as applicable, shall adhere to the following steps in effort to maximize the City's allocation of sales and use taxes associated with Project construction and operations by taking the following steps:

   - Prior to issuance of a grading or building permit or within 60 days of the effective date of this approval, whichever comes first, the developer shall register with the CDTFA and keep such registration current throughout the operational life of the project.

   - Apply for a Use Tax Direct Pay Permit. Upon receipt of registration, provide a copy to the City and/or their consultant for verification.

   - Self-accrue and payuse taxes in accordance CDFTA requirements.

   - Report local and district use taxes to CDFTA on applicable use tax returns.

- Use Tax-Point of Sale/Use Designation. DES shall require all contractors, subcontractors, agents and affiliates providing building materials and fixtures, such as but not limited to, bulk lumber, concrete, structural steel and pre-fabricated building components to be used in connection with the construction and development of, or incorporated into, the Project, to:

  (a) obtain a Seller's Permit;

  (b) issue a resale certificate to any supplier of material that will allow it to buy property without payment of tax;

  (c) file timely Sales and Use tax returns and report local tax on materials consumed and fixtures sold by the contractor, subcontractor, agent or affiliate based on the sole jobsite location located in the City of Pittsburg;

  (d) elect to obtain a sub permit for the job site of any contract valued at Five Million Dollars ($5,000,000) or more enabling the contractor, subcontractor, agent or affiliate to make a direct allocation of the tax based on the jobsite located in the City of Pittsburg; and

  (e) otherwise designate the Property as the place of use of materials used in the construction of the Project in order to have the full local use tax portion of the sales and use tax distributed directly to the City of Pittsburg.

  (f) DES/General Contractor shall require and instruct each of its subcontractors to cooperate with the City to ensure the local use tax is allocated to City of Pittsburg.

  (g) To assist City in its efforts to ensure that the full amount of such local sales/use tax is allocated to the City, DES/General Contractor shall provide City with a quarterly spreadsheet, which includes a list of all subcontractors, agents or affiliates with contracts in excess of the amount set forth above, a description of all applicable work, and the dollar value of such subcontracts or agreements. City or City's consultant may use the information provided it to contact each contractor, subcontractor, agent or affiliate to determine which may qualify to register the jobsite for allocation of the local use tax to the City of Pittsburg.

  (h) The DESwill lease seven hundred twenty-seven (727) square feet of office space at 160 East 10th Street, Pittsburg California for One Dollar ($1.00) per square foot plus Common Area Maintenance and its portion of utilities from September 1, 2018 until the earlierof: a) 90 days after the commercial operations date of the Projectand DES

establishes an office at the Project site or b) expiration of design review approval.

3. Prior to issuance of a grading or building permit, the Developer shall advise the City Manager in writingof the final tie-line alignment, and all necessary approvals (including but not limited to, easements and encroachment permits). The Developer may elect to utilize City property interests for the construction and operation of the above-ground electric tie line north of the northern boundary of the public right-of-way on Willow Pass Road, if such interests are available. If Developer elects to use utilize such interests the Developer shall enter into an agreement with the City satisfactory to and approved by the City Manager in writing that provides reasonable compensation to the City for the use of such property interests.

4. Prior to issuance of a grading or building permit, the Developer shall submit proof of application for any other permits and/or approvals from other governmental or quasi-governmental agencies having jurisdiction over the Project Site as may be requiredfor construction.

5. Upon approval by the City Planner, the Developer may elect to relocate the proposed substation to that portion of the parcel west of the existing driveway, or immediately east of the existing driveway and west of Building 3. If this portion of the property is utilized, the City Planner reserves the right to require all applicable mitigation measure outlined in Condition of Approval No. 17 be incorporated, along with any other Condition of Approval outlined within this Resolution not already affecting this portion of the property.

6. All tie line towers shall be setback from the center-line of Willow Pass Road, at minimum, a distance equal to the height of the proposed tower or 25 feet from the northern extent of the Willow Pass Road right-of-way, whichever is greater. All towers within 100 feet of the right-of-way shall include landscaping around the base of the tower. All trees removed for tower installation shall be replaced and subject to the City's Tree Preservation Ordinance (PMC Title 18, Article XIX) as applicable.

7. The metal detail on the façade shall be extended above the top of the parapet to assist in visually reducing the perceived mass of each building.Rooftops shall be painted white to create a cool roof effect under any necessary mechanical equipment.

8. The project shall not employ a light source that causes any direct illumination beyond the property lines of the project site (PMC section 18.82.030).

9. The project's operational noise levels shall not exceed 65 dBA beyond the property lines of the project site (PMC section 18.82.040).

10. The project shall not produce an unreasonable, disturbing, or unnecessary emission of odorsthat cause material distress, discomfort or injury to the average person (PMC section 18.82.045).

11. The Developer shall revise the landscaping plan to provide a row of street trees along the northern frontage of the project with spacing every 40-feet on center. New trees shall be a minimum of 15-gallon in size and final placement, quantity, and species shall be subject to review and approval by the Planning Division prior to issuance of a building permit.

12. The developer shall utilize recycled water for all construction activities, including but not limited to dust control measures, to the maximum extent feasible and if available from Delta Diablo. In the event a recycled water line is extended to the project site prior to issuance of the first building permit issued for the project, the developer shall be required to connect to and utilize recycled water for all landscaping.

13. The developer shall remove all sediment form the existing stormwater detention infrastructure within the City right-of-way south of Willow Pass Road along the project frontage and shall provide new landscaping within the detention area. The developer shall also clean out all existing through-sidewalk cross drains and repair as necessary. The developer shall not be required to resize the detention area or provide any additional through drains. The final landscaping plan shall comply with the provisions outlined in Condition No. 10. Maintenance of this facility shall remain with the City of Pittsburg.

14. Prior to the issuance of a building permit, the Developershall submit a detailed landscaping and irrigation plan and other documentation as required by the state model water efficient landscaping ordinance or other local water efficient landscaping ordinance in effect at the time the Developerapplies for a building permit. Prior to issuance of a certificate of occupancy, the Developershall complete and submit all certifications confirming that the landscaping and irrigation were installed in compliance with the approved detailed landscaping and irrigation plan, as required pursuant to the applicable ordinance in effect at the time the Developer applies for a building permit.

15. The developer shall consult directly with the Contra Costa County Hazardous Materials Program prior to construction, and if necessary, establish a Hazard Mitigation Plan.

16. The Developer shall comply with Design Review Guidelines, Appendix A, requiring the screening of all utility box transformers, backflow preventers, meters, junction boxes and other outdoor equipment.

17. The Developer shall remove the existing galvanized chain link fence located along the northern property frontage and replace with new vinyl clad chain link fencing. If feasible, the new fence shall be relocated south of the bioretention area along Willow Pass Road. The final design and location of the fencing shall be subject to approval by the City Planner.

18. The project shall be kept in a good state of repair and the project site shall be kept clean and orderly and free of all weeds, litter, debris, and other refuse at all times (PMC section 18.82.050).

19. The Developershall comply with the following environmental impact mitigation measures which shall be considered the Mitigation Monitoring and Reporting Program.

    a) Measure BIO-1:If the tie-line West Alignment is used, prior to issuance of grading or building permits for the tie-line, the Developer shall provide biological, wetlands and jurisdictional waters survey reports accompanying the final tie-line design demonstrating that facilities and access are designed to minimize disturbance to sensitive plants to the extent practical for safe and efficient construction.Reports provided by the Developer shall be prepared by qualified professionals and shall address federal and state jurisdictional waters and potential for occurrence of Soft salty bird's-beak, Bolander's water hemlock, Delta tule pea, Delta mudwort, Mason's lilaeopsis, Suisun marsh aster based on pedestrian transect surveys for the portion of the West Alignment north of Willow Pass Road including final access routes. The project shall be designed to avoid direct impact to soft salty bird's beak and Mason's lilaeopsis, as well as Bolander's water hemlock, Delta tule pea, Delta mudwort, and Suisun marsh aster. If direct impact to soft salty bird's beak and Mason's lilaeopsis cannot be practically avoided, then the Developer shall consult with USFWS and CDFW to develop a plan for transplanting affected individuals to an appropriate adjacent location.The plan shall be subject to review by USFWS and CDFW and approval by the City prior to the issuance of grading or building permits for the tie-line.If direct impact to Bolander's water hemlock, Delta tule pea, Delta mudwort, or Suisun marsh aster cannot be practically avoided, then the Developer shall submit a plan to the City for transplanting, restoring, or preserving these species including success criteria to offset individuals lost at a ratio of no less than 1:1 and shall obtain approval by the City prior to the issuance of grading or building permits for the tie-line.Project construction shall be monitored by a qualified biologist where construction work is within or adjacent to federal or state jurisdictional waters or wetlands, or locations with State or federally listed plants or State Rare plants. Material revisions to the selected final tie-line alignment routing and structure locations shown and described in the Developer's Project Description shall be subject to approval by the Planning Manager.

    b) Measure BIO-2:If the tie-line West Alignment is used, prior to issuance of grading or building permits for the tie-line, the Developer shall provide a biological survey report prepared by a qualified professional accompanying the final tie-line design addressing potential for occurrence of salt-marsh harvest mouse.The project shall be designed to avoid any Take of salt-marsh harvest mouse under the State ESA.If impact to salt-marsh harvest mouse habitat cannot be practically avoided, then the Developer shall develop a plan for construction to ensure no State ESA Take during construction, and for restoring or preserving habitat for this species at an area ratio of no less than 3 to 1.The plan shall be subject to review by USFWS and CDFW and approval by the City prior to the issuance of grading or building permits for the tie-line.

c) Measure BIO-3:If the tie-line West Alignment is used, a qualified biologist shall conduct a pre-construction survey for western pond turtles no more than 30 days prior to construction in suitable aquatic habitats in and adjacent to the West Alignment work area. A combination of visual and trapping surveys may be performed with authorization from the California Department of Fish and Wildlife. If the species is found near any proposed construction areas, impacts on individuals and their habitat shall be avoided to the extent feasible. If occupied habitat can be avoided, an exclusion zone shall be established around the habitat and clearly marked with temporary fencing for avoidance during construction. If avoidance is not possible and the species is determined to be present in work areas, the biologist with approval from CDFW may capture turtles prior to construction activities and relocate them to nearby, suitable habitat a minimum of 300 feet from the work area. Exclusion fencing should then be installed if feasible to prevent turtles from reentering the work area. Project construction shall be monitored by a qualified biologist where construction work is within or adjacent to occupied western pond turtle habitat.

d) Measure BIO-4:If the tie-line West Alignment is used, prior to issuance of grading or building permits for the tie-line, the Developer shall provide a wetlands and jurisdictional waters survey report accompanying the final tie-line design demonstrating that facilities and access are designed to minimize disturbance to waters and wetlands to the extent practical for safe and efficient construction.Reports provided by the Developer shall be prepared by a qualified professional and shall delineate federal and state jurisdictional waters and wetlands, including verification by USACE for federal wetlands, if present.If disturbance to waters of the US and the state including wetlands cannot be avoided, then such disturbance shall not exceed 0.5-acre long term plus 1.3 acres of short term disturbance, and the Developer shall obtain required authorizations from USACE and CDFW prior to construction.Disturbances to wetlands or riparian vegetation shall be mitigated at a ratio of no less than 3:1 for long term impacts.

e) Measure BIO-5:The Developer shall pay HCP/NCCP mitigation fees consistent with HCP/NCCP requirements.If development is phased such fees, shall be paid prior to the issuance of a grading permit for acreage to be disturbed in such phase.

f) Measure CUL-1:Prior to issuance of a grading permit, the Developer shall provide the City with a historical resources survey report prepared by a professional meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR 61) for the electric tie-line easement.If the survey identifies potentially significant cultural resources within the electric tie-line easement, then a tie-line design shall be provided to the City for approval prior to issuance of a grading permit that demonstrates either: (1) no significant resource would be disturbed by tie-line construction; or (2) any significant resource that cannot be practically avoided would be mitigated through photo-documentation and archival research by a qualified historic archaeologist or architectural historian.

g) Measure CUL-2:Construction shift foremen, excavation equipment operators and other construction workers with responsibility for observing construction excavations shall be trained and instructed by a representative of the Developer or its contractor to be observant for the potential occurrence of archaeological resources in the geologic materials encountered, and shall be instructed and authorized to halt excavation in the area immediately and notify the Project Developer's representativeif such resources are discovered.In the event of a discovery, the Developer or Developer's representative shall promptly notify the City and work in the area shall cease until the discovery is evaluated by a qualified cultural resource specialist.If evaluation by a qualified cultural resource specialist indicates that the discovery may be significant, then excavation in the area shall be continued only as directed by a qualified cultural resource specialist and in a manner allowing for collection of significant resources and information that may otherwise be affected by the Project, including development of a Research Design and Data Recovery Program if needed to mitigate impacts.If cultural artifacts are collected they shall be cataloged and curated with an appropriate institution.A final monitoring report shall be prepared if significant cultural resources are discovered.

h) Measure CUL-3:Construction shift foremen, excavation equipment operators and other construction workers with responsibility for observing construction excavations shall be trained and instructed by a representative of the Developer or its contractor to be observant for the potential occurrence of paleontological resources when excavating on the Site beneath the depth of existing fill, and shall be instructed and authorized to halt excavation in the area immediately and notify the Project Developer's representativeif vertebrate fossils are discovered.In the event of a discovery, the Developer or Developer's representative shall promptly notify the City and work in the area shall cease until the discovery is evaluated by a qualified paleontologist.If evaluation by a qualified paleontologist indicates that the discovery may be significant, then excavation in the area shall be continued only as directed by a qualified paleontologist and in a manner allowing for collection of significant resources and information that may otherwise be affected by the Project.If significant fossils are collected they shall be cataloged and curated with an appropriate institution.A final monitoring report shall be prepared if significant fossils are discovered.

i) Mitigation Measure CUL-4:Construction shift foremen, excavation equipment operators and other construction workers shall be trained and instructed by a representative of the Developer or its contractor to halt work immediately if human remains are observed in the geologic materials encountered.In the event of a discovery, the County coroner shall be notified immediately and work in the area shall cease until the discovery is evaluated and removed in accordance with applicable laws and requirements.

j) Measure NOISE-1:Loud construction work shall be limited to the hours between 8:00 am and 5:00 pm unless otherwise approved by the Planning Manager.

Engineering Conditions:

20. All new electric tie-line equipment south of the northern extent of the Willow Pass Road right-of-way shall be placed underground. The Developer shall also relocate all existing above-ground power lines between the western boundary of the subject parcel and Enterprise Circle with the exception of the eastern-most power pole, underground.

21. The Developer shall complete the following pavement repair: crack sealing, minimum 1.5 inches of asphalt concrete overly, and thermoplastic re-striping of Willow Pass Road along frontage limits.

22. The Developer shall submit an engineer's estimate to the Engineering Division for review and approval together with the initial engineering plans. The engineer's estimate shall include all costs associated with the site development improvements, excluding those costs associated with the construction of the proposed building structures.

23. The Developer shall repair or replace, as deemed necessary, all broken or uneven sidewalks and through-curb drains along the project frontage.

24. The Developer shall provide an initial payment for review of the grading plans with the first grading plan submittal. These fees are based on the engineer's estimated costs for grading, which shall be submitted with the plans. The grading plan check fee is 2.5% of the cost for grading or may be based upon cubic yards of earth disturbance. Payments of 50% of these total fees are due payable with the initial submittal of plans and Engineer's Cost Estimate. These initial payments will be credited towards the final fees as determined at time of issuance of an engineering permit.

25. The Developer shall pay the grading inspection fee to the Engineering Division at the time the grading permit is issued.The grading inspection fee is 3% of the estimated cost of grading. The grading inspection fee may also be based upon an engineer's City-approved estimate of total cubic yards, according to the current schedule of grading fee charges.

26. The Developer shall pay the City of Pittsburg Facilities Reserve Charge (PMC Chapters 13.08, 13.12 and 13.24) (the "FRC") to the Engineering Division, for water and sewer service in the amounts in effect when the Developer obtains a Building Permit. The Developer understands that the current FRC on file, effective August 20, 2005, shall be paid in accordance with the fee schedule approved by Resolution No. 05-10290, and amended by Resolution No. 12-11778, on February 21, 2012, a copy of which is available at the City. The FRC shall be paid to the Engineering Department prior to the issuance of a Building Permit.

27. The Developer shall pay an NPDES plan review (SWPPP Plan) fee to the Engineering Division in the amounts in effect when the Developer obtains a grading

permit. The Developer understands that the current NPDES plan review fee on file, effective September 1, 2010, shall be paid in accordance to the fee schedule approved by Resolution No. 10-11510, a copy of which is available at the City.

28. The Developer shall pay an NPDES inspection deposit (SWPPP Plan) fee to the Engineering Division in the amounts in effect when the Developer obtains a grading permit.The Developer understands that the current NPDES plan review fee on file, effective September 1, 2010, shall be paid in accordance to the fee schedule approved by Resolution No. 10-11510, a copy of which is available at the City.

29. If additional engineering studies are deemed necessary by the City Engineer, i.e. geotechnical, structural, hydraulic, etc., or expedited reviews are requested by the Developer, the Developer shall pay for all costs related to the extra work. The costs may include the preparation of special studies, additional staff time, and/or reviews of the special studies if studies are prepared by the Developer's engineer.

30. The Developer shall submit five (5) copies of the engineering plans, prepared by a registered civil engineer, to include but not be limited to the following:

    - Grading and Drainage Plan;
    - Utilities Plan;
    - Geotechnical Report
    - Engineer's Estimate
    - Stormwater Pollution Prevention Plan (SWPPP); and
    - Offsite Improvements due to Project Impacts.

31. The geotechnical report submitted pursuant to Condition 22 shall substantiatethe design features incorporated into the project including, but not limited to, grading activities, compaction requirements, utility construction, slopes, retaining walls, and roadway sections. The geotechnical report shall be submitted to the Engineering Division for review prior to the approval of any civil plans and issuance of any engineering permits.

32. All grading work shall be done in accordance with the provisions of Chapter 15.88 of the Pittsburg Municipal Code.

33. All site development shall comply with Title 12 (Streets, Sidewalks, and Utilities), Title 13 (Water and Sewers), and Title 15 (Buildings and Construction) of the Pittsburg Municipal Code as determined by the City Engineer. Issuance of a Site Development Permit, including but not limited to grading permits, will be required whereby specific engineering requirements will be made as conditions of approval.

34. All public and pedestrian facilities shall be designed in accordance with Title 24, Handicap Access, and the California Department of State Architect's standards for accessibility compliance.

35. Prior to issuance of a grading permit, the Developer shall submit the following to the Engineering Division for review: a Stormwater Pollution Prevention Plan (SWPPP)

and a copy of the Notice of Intent (NOI), which was submitted to the State Water Resources Control Board. The SWPPP shall identify Best Management Practices (BMPs) appropriate to the uses conducted on-site to effectively prohibit the entry of pollutants into storm water runoff. The SWPPP measures shall also include erosion control measures to prevent soil, dirt, and debris from entering the storm drain system, in accordance with the regulations outlined in CASQA Handbook.

36. Submittal of grading and/or building plans shall be consistent with the approved Stormwater Control Plan. The plans shall include drawings and specifications necessary to implement all measures in the approved Stormwater Control Plan. A copy of a completed "Construction Plan C.3 Checklist", as described in the Stormwater C.3 Guidebook, most current edition shall be included. Grading and/or building permits, shall not be issued until this condition is met to the satisfaction of the Engineering and Planning Divisions.

37. Equipment and materials containing polychlorinated biphenyls (PCBs) and mercury shall be prohibited. These substances accumulate in fish and may cause serious adverse health effects to people and wildlife that eat fish. The City has an obligation to reduce the discharge and control all potential sources of PCBs and Mercury in the environment as mandated in the City's NPDES Stormwater permit Order No. R2-2015-0049.

38. The Developer shall coordinate with Delta Diablo, in accordance with letter dated March 15, 2018, regarding placement of the proposed Tie-Line polesas follows:

    a. Project design plans for access, structures, and the proposed tie-line improvements that may potentially adversely impact Delta Diablo District wastewater pipelines or access shall be submitted to the District and be subject to its favorable review prior to City issuance of approval of the final tie-line route, any grading permit and the start of construction.Design measures shall include:

        i. Fencing and roadway improvements, and gates shall be designed to allow for optimized District access to existing wastewater pipelines during construction and after completion of construction.Project design shall ensure that access to District existing facilities will not be impeded or compromised from current conditions.
        ii. Grading over District pipelines shall not decrease groundsurface cover over existing District pipelines and shall not significantly increase over District pipelines unless approved by the District.
        iii. No structures shall be constructed over existing District pipelines or easements.
        iv. When feasible and practical, all proposed new structures, overhead lines, or underground pipelines shall maintain a minimum of twenty-five feet horizontal distance between the outside edge of the District pipelines and the new improvement.Where not practical, all new improvements shall maintain a minimum of ten feet horizontal distance from the outside edge of the District pipelines.

v. Crossings of District pipelines shall be at perpendicular angles and be designed such that overhead wires do not impede District safe manway access.

Additional Engineering Exactions

39. The property owner shall deliver written approval in a manner acceptable to the Community Development Director, that the owner of the parcel is electing to annex the subject property into the 2005-1 Community Facilities District (CFD 2005-1) for Public Safety Services, prior to the issuance of any building or engineering permits. Community Facilities District 2005-1 is for Public Safety Services, and the fee will provide funding for an increase of police coverage in the area. The rate of the CFD 2005-1 fee is subject to City Council Resolution No. 05-10342.

40. The property owner shall deliver written approval in a manner acceptable to the Community Development Director, that the owner of the parcel is electing to annex the subject property into the 2017-1 Fire Facilities and Fire Safety and Emergency Services Community Facilities District (CFD 2017-1), prior to the issuance of any building or engineering permits. Community Facilities District 2017-1 is for Fire Facilities and Fire Safety and Emergency Services. The rate of the CFD 2017-1 fee is subject to City Council Resolution No. 17-13311.

Standard Conditions

41. The Standard Conditions of Development as adopted by the Pittsburg Planning Commission by Resolution No. 8931 shall apply as conditions of approval for this project as applicable. Where there is a conflict between the Standard Conditions of Development and the project-specific conditions identified in this resolution, the specific conditions of this resolution shall govern.

42. The Developershall comply with all the requirements of the City's Community Development Department, Contra Costa County Fire Protection District (including but not limited to those noted in the letter dated August 8, 2018), and all other applicable local, state and federal agencies. It is the responsibility of the Developerto contact each local, state, or federal agency for requirements that may pertain to this project.

43. Developeragrees to indemnify, defend, and hold harmless the City, its officials, officers, employees, agents and consultants from any and all administrative, legal or equitable actions or other proceedings instituted by any person challenging the validity of this project approval, subsequent project approval, or other action arising out of, or in connection with, this project approval.The parties shall cooperate in defending such action or proceeding.The parties shall use reasonable efforts to select mutually agreeable defense counsel but, if the parties cannot reach agreement, City may select its own legal counsel at Developer's sole cost and expense.Developermay select its own legal counsel to represent Developer's interests at Developer's sole cost and expense.Developershall pay for City's costs of defense, whether directly or by timely reimbursement to City on a monthly basis.

Such costs shall include, but not be limited to, all court costs and attorneys' fees expended by City in defense of any such action or other proceeding, plus staff and City Attorney time spent responding to and defending the claim, action or proceeding.

44. Design review approval will expire on _____, 2021, unless a building permit or grading permit has been issued or a written request for extension is filed with the Planning Division prior to the expiration date and subsequently approved by the City Council. Building or grading permits shall be valid for no more than six months from the date of permit issuance, unless work is commenced and diligently pursued prior to the expiration of the building or grading permit.

Section 4. Effective Date

This resolution shall take effect immediately upon its adoption.

On motion by Commissioner_____, seconded by Commissioner_____, the foregoing resolution was passed and adopted the 14th day of August,2018, by the Planning Commission of the City of Pittsburg, California by the following vote:

AYES:

NAYES:

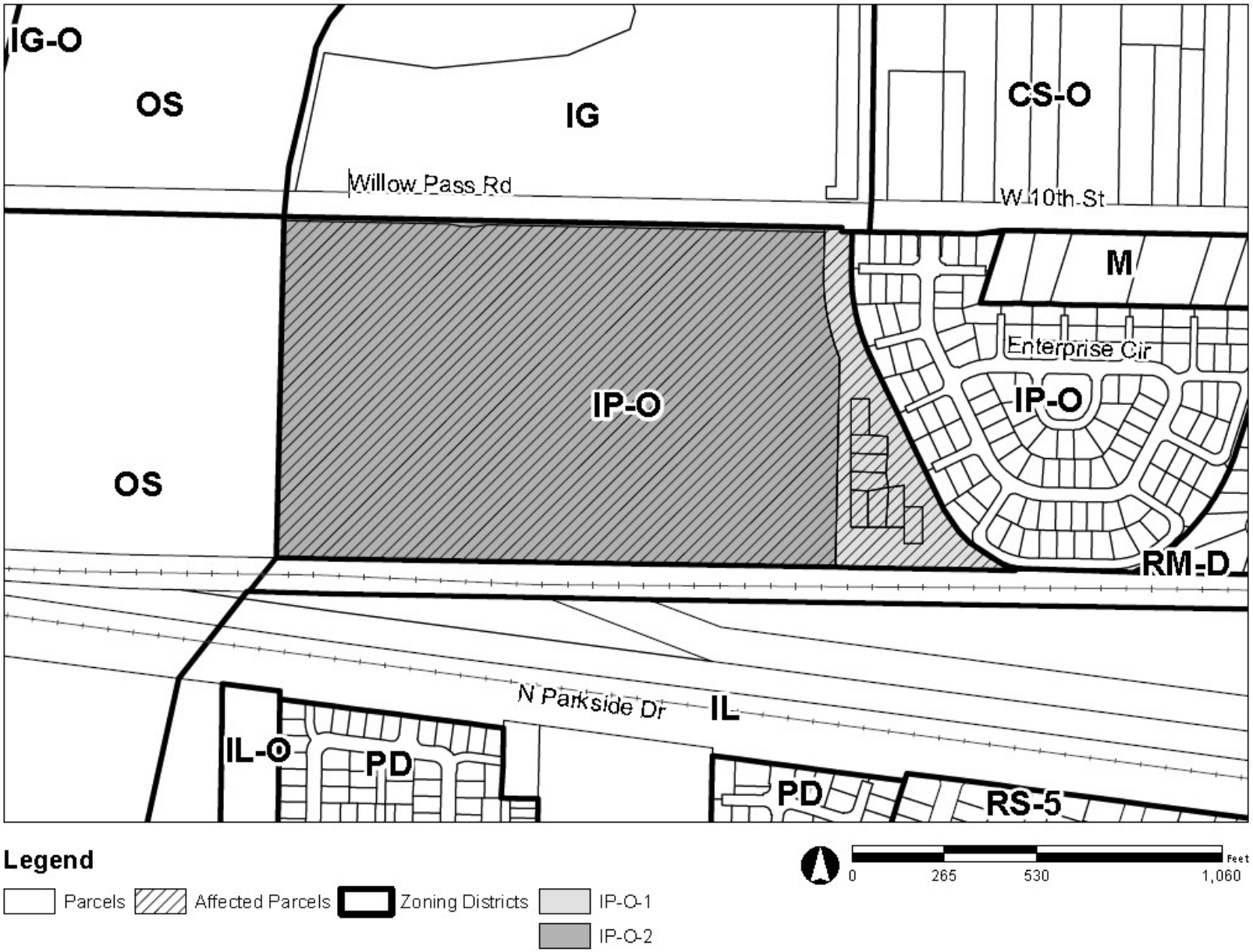
ABSTAIN:

ABSENT:

I hereby certify that the above Resolution No. 10095was adopted by the Planning Commission of the City of Pittsburg on August 14, 2018.

_____
JORDAN DAVIS, AICP, ACTING SECRETARY
PITTSBURG PLANNING COMMISSION

Exhibit A of Resolution No. 10095
OVERLAY ZONING MAP

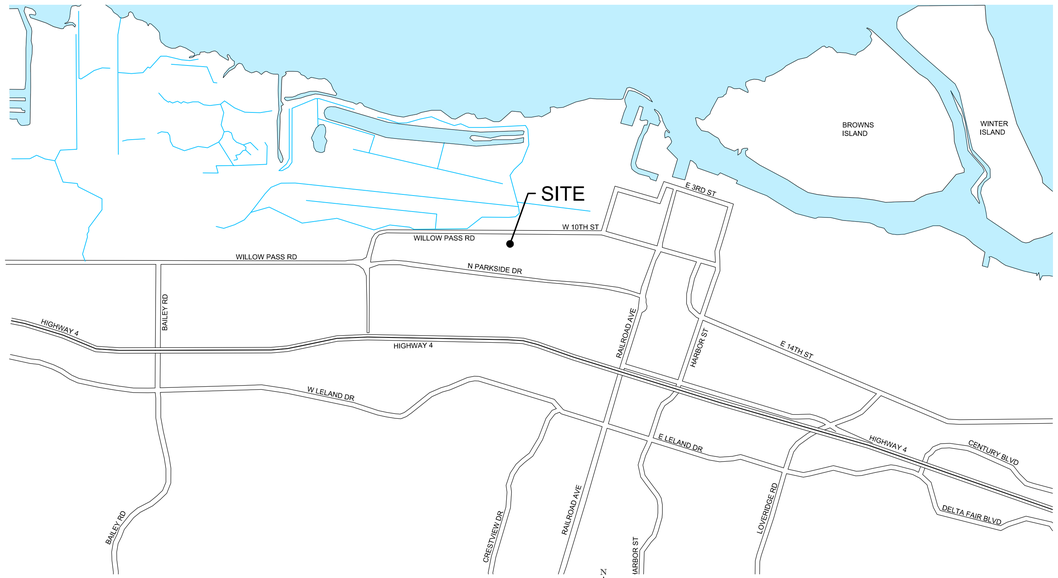


ATTACHMENT 2

PRELIMINARY SITE PLANS

DIABLO ENERGY STORAGE

PITTSBURG, CALIFORNIA



VICINITY MAP

NOT TO SCALE

PROPERTY OWNERS

EMPIRE BUSINESS PARK, LLC
1500 3RD STREET #C
NAPA, CA 94559
PH: 707-255-6540

ENGINEER/CONSULTANT

TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
JSTENGER@TRCSOLUTIONS.COM

APPLICANT

DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5240
FAX: 925-201-5230

DESCRIPTION

THESE PRELIMINARY PLANS INVOLVE THE DEVELOPMENT OF SINGLE-STORY BUILDING SPACE FOR HOUSING BATTERIES AND CONTROL EQUIPMENT, AND ANCILLARY EQUIPMENT INCLUDING INVERTERS AND TRANSFORMERS, AN ELECTRIC SUBSTATION AND ELECTRIC LINE TO THE EXISTING PG&E PITTSBURG SUBSTATION. THE FACILITY WILL BE UNOCCUPIED AND IS DESIGNED FOR FULL REMOTE OPERATION. BECAUSE THE FACILITY WILL NOT BE OCCUPIED, NO POTABLE WATER SYSTEM OR SANITARY SYSTEM IS PROPOSED. NO EXTERIOR LIGHTING IS PROPOSED. EXISTING DRIVEWAY AND PARKING WILL BE USED. THERE WILL BE ROOM FOR PARKING ONSITE FOR OCCASIONAL SITE VISITS.

SITE INFORMATION

STREET ADDRESS:	701 WILLOW PASS ROAD, PITTSBURG, CA
ASSESSOR'S PARCEL NUMBER:	085-280-010
ZONING:	INDUSTRIAL PARK - LIMITED OVERLAY (IP-O)
BUILDING SQUARE FOOTAGE:	(3) 62,000 SF
TOTAL BUILDING SQUARE FOOTAGE:	186,000 SF
PROPOSED LOT AREA (GROSS):	11.85 AC
PROPOSED LOT AREA (NET):	10.44 AC
LOT COVERAGE (EACH BUILDING):	13.33%
LOT COVERAGE (TOTAL):	40%
FLOOR AREA RATIO:	0.40
PERCENT OF LANDSCAPE COVERAGE:	17%
NUMBER OF PROPOSED PARKING:	0
DISTURBED AREA (GRASSLAND AND BARE SOIL):	10.73 AC
DISTURBED AREA (GRASSLAND):	10.41 AC
DISTURBED AREA (BARE SOIL):	0.32 AC
EXISTING IMPERVIOUS AREA:	0 SF
PROPOSED IMPERVIOUS AREA:	205,044 SF

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING TOPOGRAPHIC CONTOUR (1-FT INTERVAL)
- 15 EXISTING TOPOGRAPHIC CONTOUR (5-FT INTERVAL)
- 14 PROPOSED TOPOGRAPHIC CONTOUR (1-FT INTERVAL)
- SS EXISTING SEWER LINE
- EXISTING CHAIN LINK FENCE
- E EXISTING OVERHEAD ELECTRICAL
- TEL EXISTING COMMUNICATION LINE
- PROPOSED CHAIN LINK FENCE
- PROPOSED ELECTRIC LINE
- LIMITS OF GRADING AREA
- EXISTING FIRE HYDRANT
- EXISTING STREET LIGHT
- EXISTING MONITORING WELL
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- PROPOSED POWER POLE
- PROPOSED STORMWATER PIPE
- PROPOSED DITCH (FLOWLINE)
- PROPOSED SHEET FLOW
- 1.6% SLOPE AND DIRECTION
- EXISTING ASPHALT CONCRETE
- EXISTING CONCRETE SURFACE
- PROPOSED CLASS II AGGREGATE BASE
- PROPOSED BIORETENTION BMP
- FMEA FLOOD ZONE AE
- FEMA FLOOD ZONE X (HATCHED)
- (E) EXISTING
- SL STREET LIGHT
- FH FIRE HYDRANT
- DI STORM DRAIN INLET
- PIV/FDC POST INDICATOR VALVE / FIRE DEPARTMENT CONNECTION
- WM WATER METER
- ELECT ELECTRICAL
- JT JOINT TRENCH LINES
- OH OVERHEAD LINES
- SSMH SANITARY SEWER MANHOLE

DRAWING SCHEDULE

C-1	COVER SHEET
C-2	EXISTING BOUNDARIES, EASEMENTS AND FLOODING
C-3	PROPOSED BOUNDARIES AND EASEMENTS
C-4	EXISTING TOPOGRAPHY
C-5	CONCEPTUAL GRADING PLAN
C-6	CONCEPTUAL SITE PLAN
C-7	CONCEPTUAL DRAINAGE PLAN
C-8	CONCEPTUAL LANDSCAPING PLAN
C-9	ELECTRICAL DETAILS
C-10	ROAD, DRAINAGE AND FENCE DETAILS
C-11	CONSTRUCTION PHASING
A-1	TYP. FLOOR PLAN BUILDING 1-2-3
A-2	ROOF PLAN - BUILDING 1-2-3
A-3	BUILDING SECTIONS
A-4	EXTERIOR ELEVATIONS
A-5	EXTERIOR ELEVATIONS ALTERNATE

EARTHWORK QUANTITIES

LIMITS OF GRADING: 8.64 AC

	CUT	FILL
WESTERN BUILDING PAD	1600 CY	2050 CY
CENTRAL BUILDING PAD	1900 CY	2400 CY
EASTERN BUILDING PAD	3300 CY	2800 CY
SUBSTATION PAD	450 CY	875 CY
ROADWAY	1175 CY	275 CY
STORMWATER BMP	845 CY	45 CY
NET CUT (ONSITE):	825 CY	
CLASS II AGG. BASE IMPORT	990 CY	
BIORETENTION MEDIA IMPORT	770 CY	

REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: COVER SHEET

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5240
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. C-1

NOTES:

1. INFORMATION SHOWN ON THIS SHEET IS BASED ON THE ALTA / NSPS LAND TITLE SURVEY PREPARED BY RUGGERI-JENSEN-AZAR DATED APRIL 20, 2017.
2. PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP FOR CONTRA COSTA COUNTY, CALIFORNIA AND INCORPORATED AREAS, MAP NUMBER 06013C0119G, MAP REVISED SEPTEMBER 30, 2015, THE SUBJECT PROPERTY LIES WITHIN ZONE AE (EL 11) – SPECIAL FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATION OR DEPTH; ZONE X (HATCHED) - SPECIAL FLOOD HAZARD AREAS, 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE; AND ZONE X - OTHER AREAS, AREAS OF MINIMAL FLOOD HAZARD.

N

60 ft 0 60 ft 120 ft

SHEET SIZE 24"x36" - SCALE: 1"=60'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: EXISTING BOUNDARIES, EASEMENTS AND FLOODING

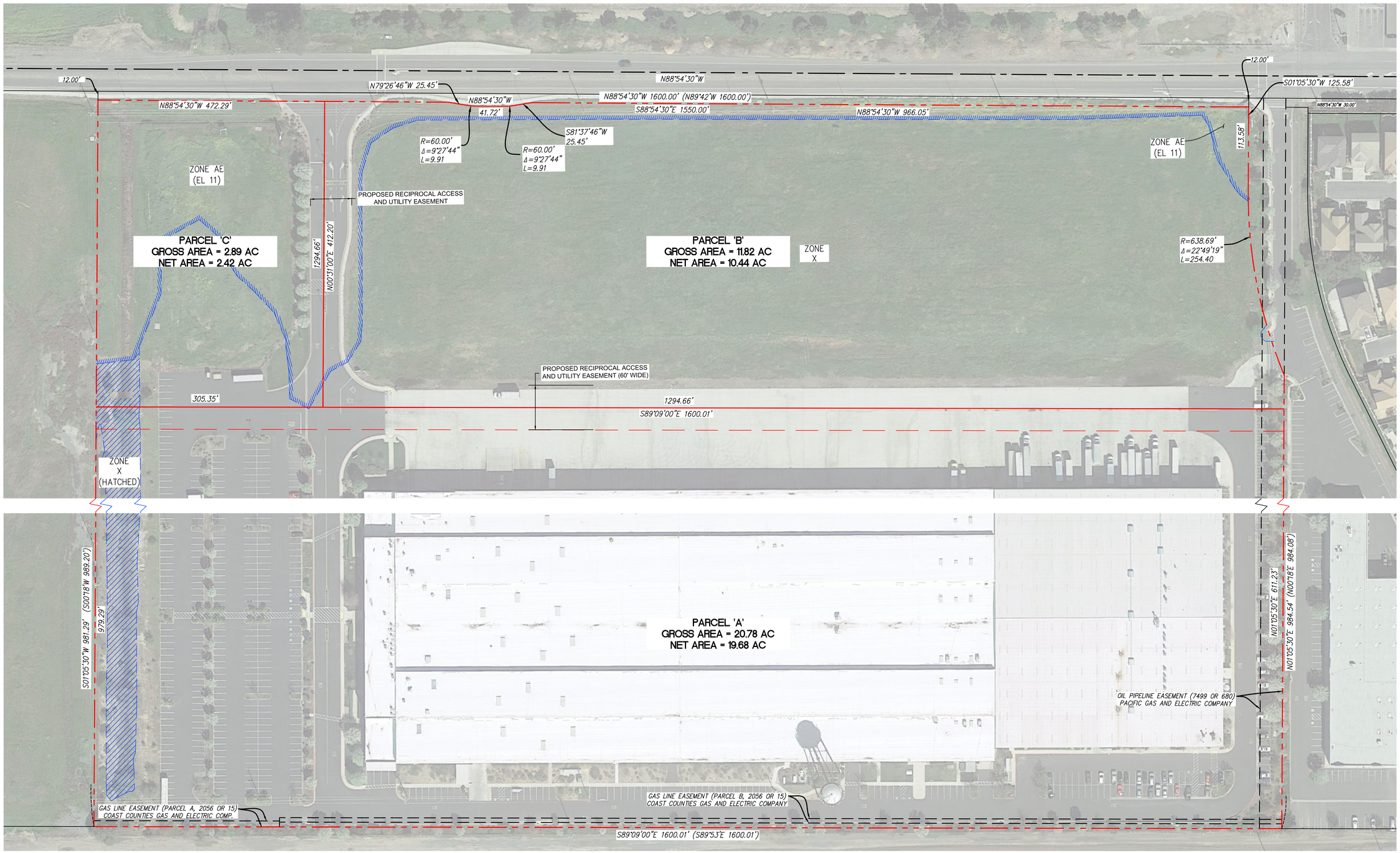
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5249
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. C-2



REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: PROPOSED BOUNDARIES AND EASEMENTS

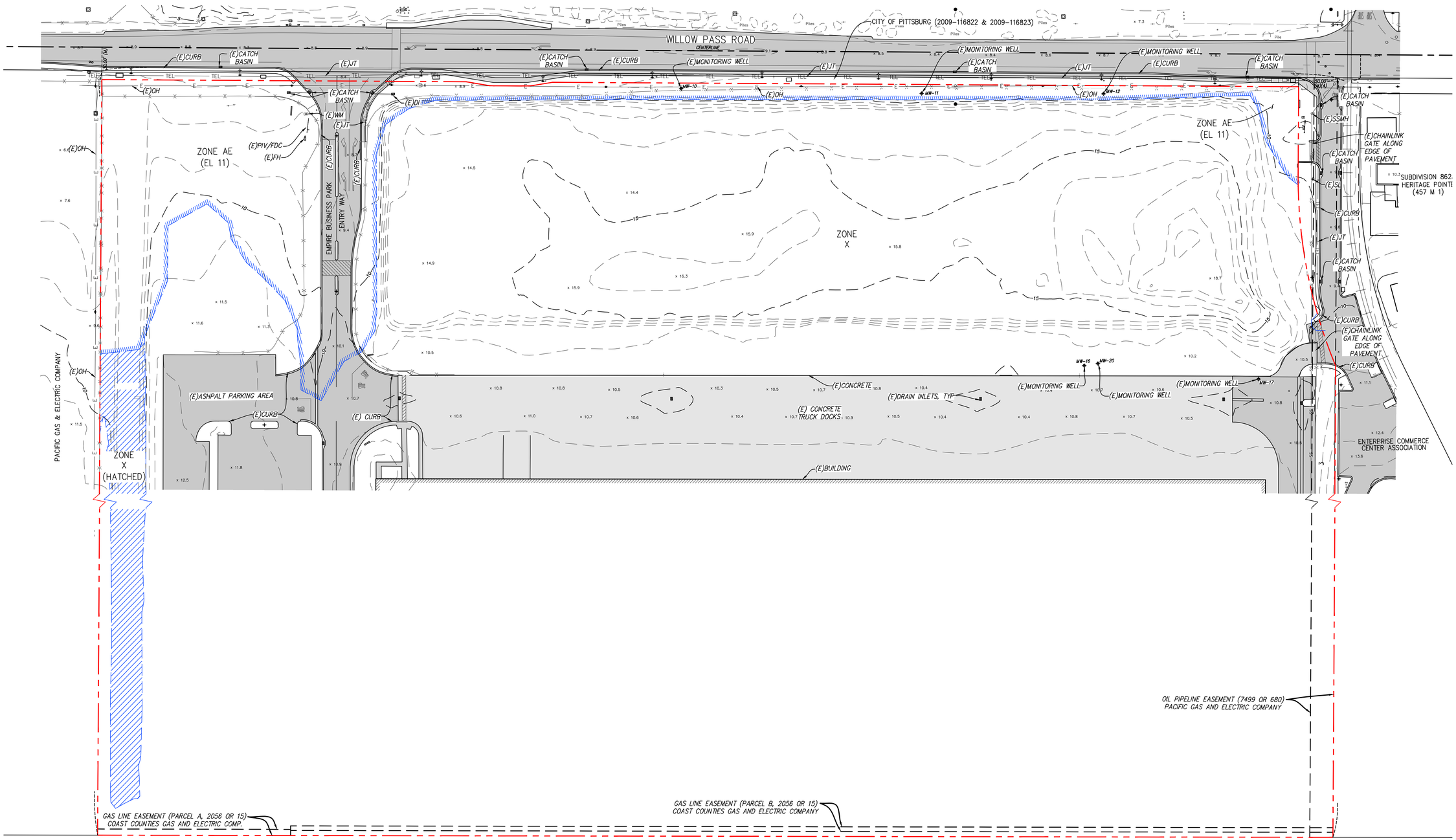
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
TEL: 925-201-6340
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614-5233
PH: 949-697-7469
jstenger@trcsolutions.com

TRC
Results you can rely on

SHEET NO. C-3



REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: EXISTING TOPOGRAPHY

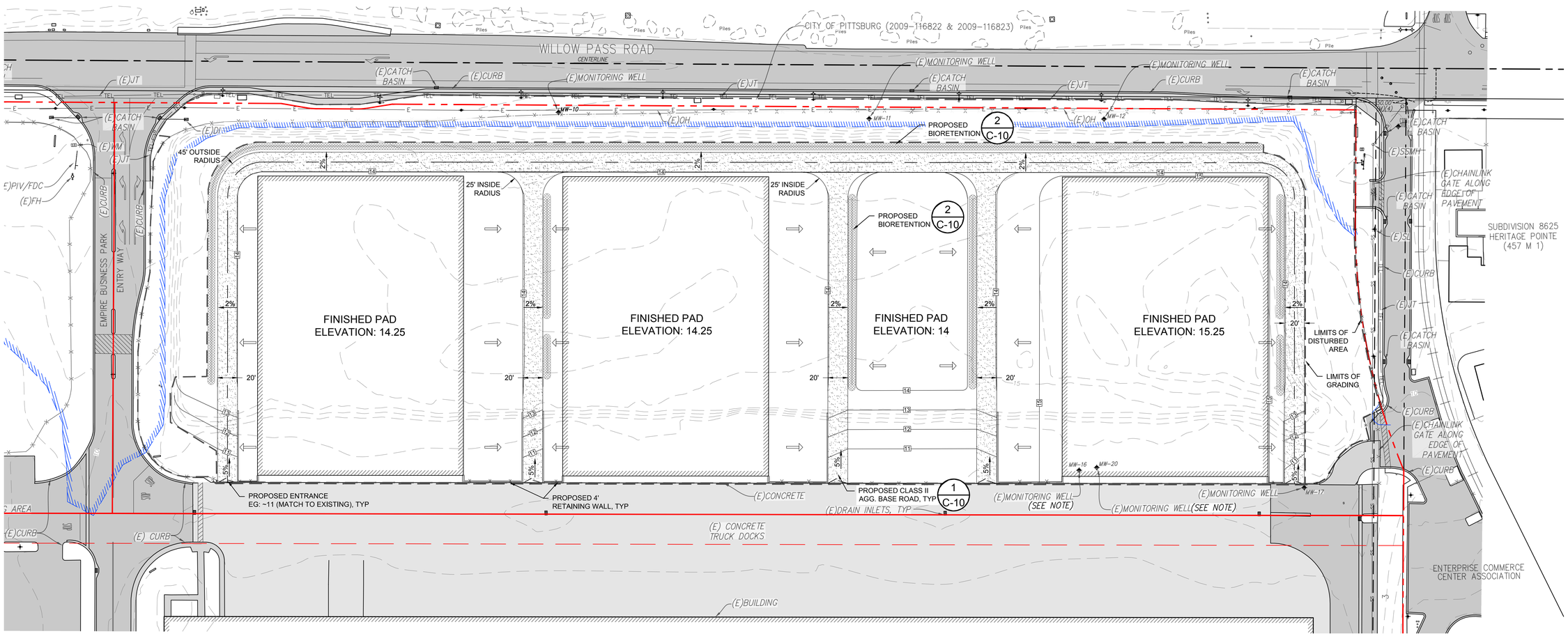
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0540
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CALIFORNIA 92614
PH: 949-697-7169
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. C-4



NOTE: EXISTING MONITORING WELLS TO BE PRESERVED IN PLACE IF NEEDED, AND FINISHED WITH FLUSH COVERS AT BUILDING FLOOR GRADE. ACCESS WILL BE PROVIDED FOR MONITORING AS NEEDED. ALTERNATIVELY, WELLS MAY BE ABANDONED OR RELOCATED IF APPROVED BY DTSC IN CONJUNCTION WITH THE SEPARATE ONGOING MONITORING AND REPORTING PROGRAM INTERACTIONS WITH THE LANDOWNER AND DTSC.

N

50 ft 0 50 ft 100 ft

SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

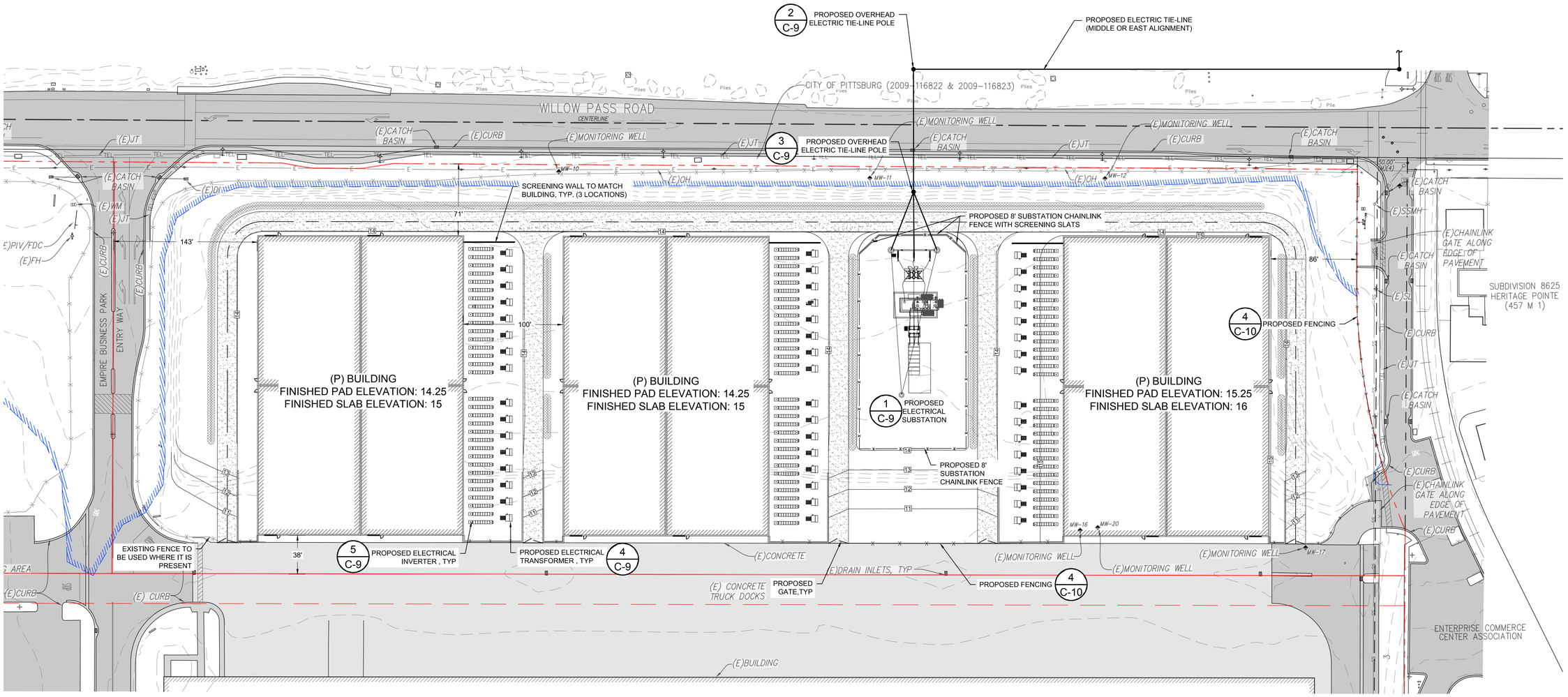
TITLE: CONCEPTUAL GRADING PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7264
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0945
FAX: 925-201-5230

SHEET NO. C-5



REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

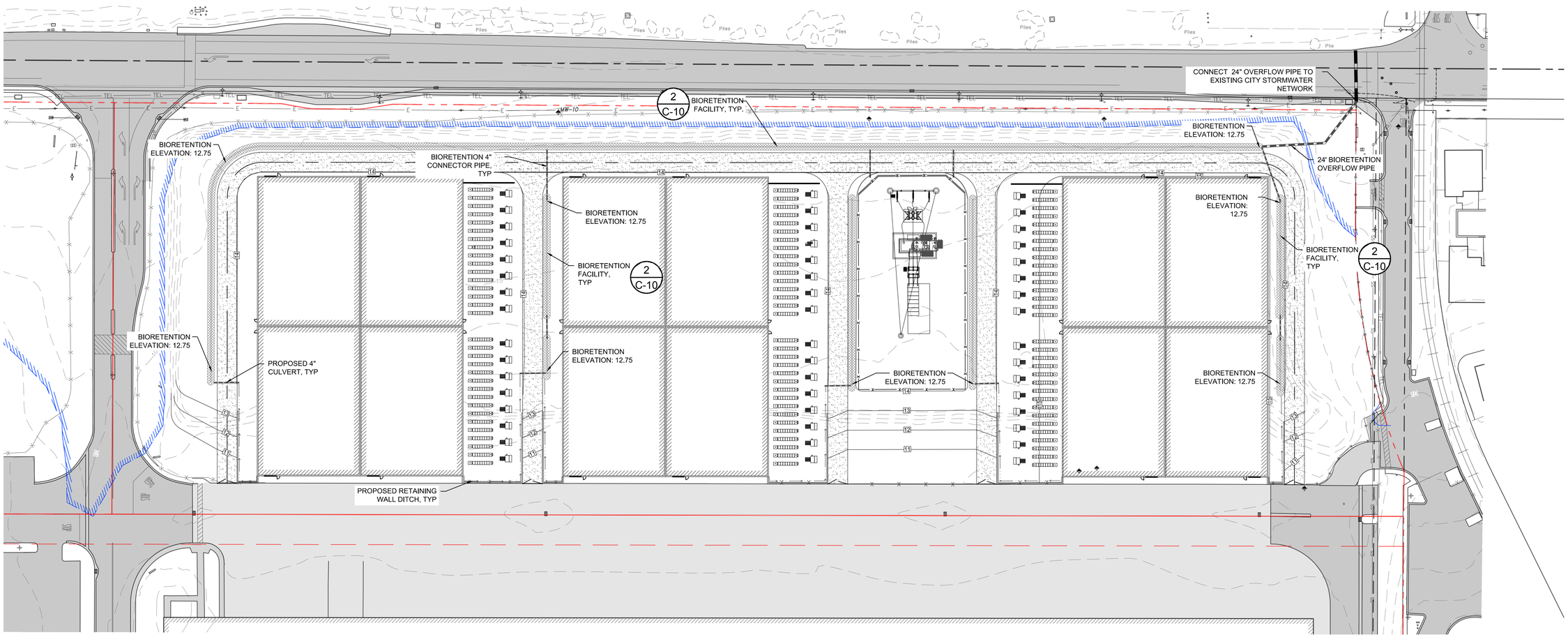
TITLE: CONCEPTUAL SITE PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CALIFORNIA 92614
PH: 949-697-7769
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5588
FAX: 925-201-5230

SHEET NO. C-6



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SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

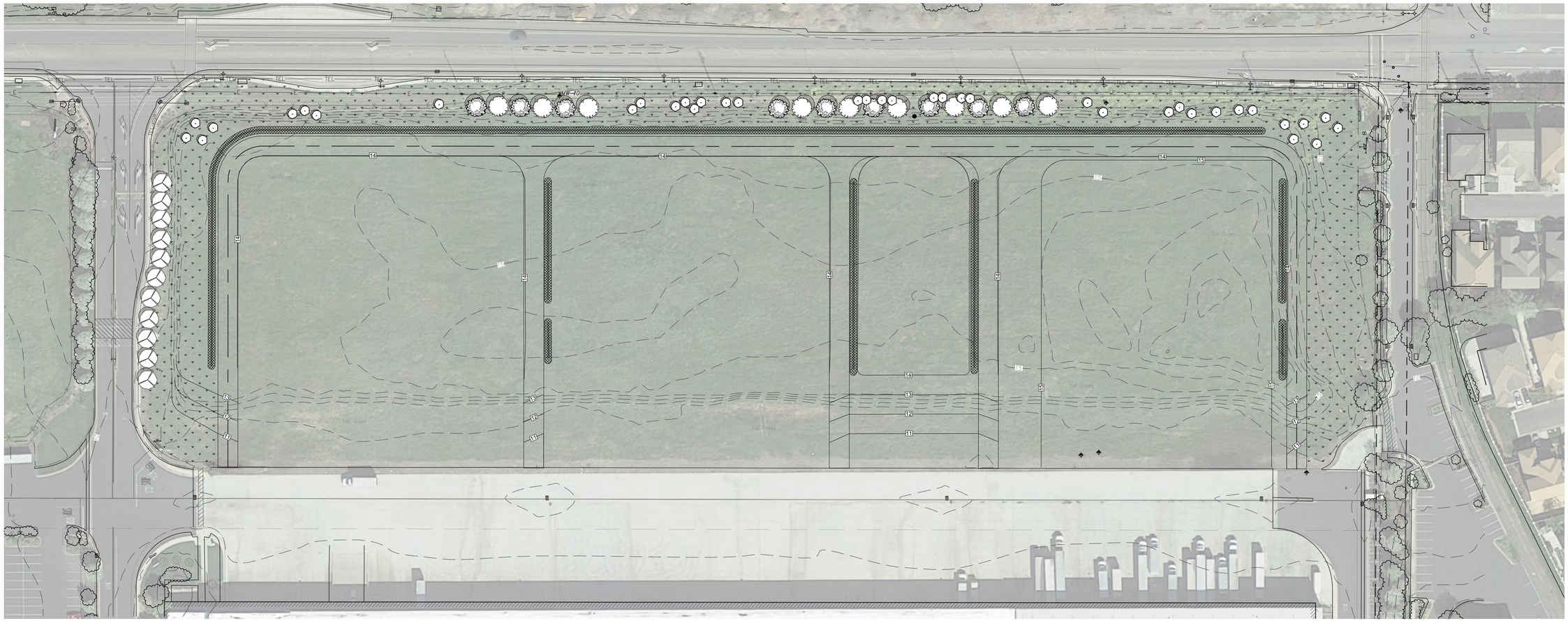
TITLE: CONCEPTUAL DRAINAGE PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
jatenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-6450
FAX: 925-201-5230

SHEET NO. C-7



LANDSCAPE CONCEPT

The landscape concept for Diablo Energy, LLC includes small canopy trees in combination with groups of low to medium height flowering shrubs and ground cover in an arrangement to blend with existing adjacent driveway landscaping, shield views of outdoor electrical equipment and provide a water efficient aesthetic frontage on Willow Pass Road. The suggested plant palette is comprised of drought tolerant species with evergreen foliage. An existing row of trees and driveway edge landscaping at the east side of the site will be left in place. On the west driveway edge, trees and groundcover is proposed to mirror the landscaping plan on the opposite side of the driveway offsite. Clustered trees and shrubs with ground cover is proposed for the Willow Pass frontage.

Two types of tree species are shown - a canopy tree and a flowering accent tree. Suggested trees have evergreen foliage; however an alternative accent tree with deciduous foliage is also included. All suggested trees are listed on the Contra Costa County Landscape Standards as suitable for planting under utility lines (2012).

Site areas: 11.85 acres (net); 10.44 acres (gross)
Total Existing Landscape: 0 sq. ft.
Additional Proposed Landscaped Area: 88,000 sq. ft.
Source of Irrigation Water: City of Pittsburg Potable Water Supply

NOTES:

1. Landscape shall incorporate best management practices for water efficient design consistent with Pittsburg Municipal Code 18.84.310.

2. Automated irrigation controllers shall be provided that utilize daily weather information, evapotranspiration data or soil moisture sensor data, along with other site information, to adjust the irrigation schedule on a daily basis.

3. Irrigation shall be designed and implemented to prevent excessive runoff, overspray or other water waste.

4. Final irrigation system design shall be under the direction of a licensed landscape architect or civil engineer.

5. Planting sizes shall not be less than 15-gallon containers specimens for trees, five-gallon container specimens for shrubs, and one-gallon container specimens for mass planting.

6. Medium bark mulch to a depth of 3 inches will be applied within the planting area for water conservation and weed suppression where live groundcover is not used.

7. Landscaping within the Willow Pass Road right-of-way will be installed and maintained by the Applicant.

8. Water meter shall be located on the property at a location approved to by the City of Pittsburg.

9. All planting areas are designed as a single hydrozone

10. Landscaping layout is conceptual and subject to change during final design.

11. Landscaping installation will be consistent with project construction phasing.

PLANT LEGEND

SYMBOL	TYPE AND FORM	APPROXIMATE QUANTITY	SUGGESTED SPECIES	CONTAINER SIZE	APPROXIMATE MAXIMUM HEIGHT/SPREAD
	Small canopy, broad leaf evergreen tree	11	Species to match existing landscape on west side of driveway	15 gallon	25'/25' 25'/25' 20'/20'
	Small canopy, broad leaf evergreen tree	9	Arbutus unedo (Strawberry Tree), or Rhu lancea (African Sumac), or Eriobotrya deflexa (Bronze Loquat)	15 gallon	25'/25' 25'/25' 20'/20'
	Small, broad leaf evergreen flowering accent tree (alternate species has deciduous foliage)	9	Pyrus kawakamii (Evergreen Pear), or Lagerstroemia indica x fauriei 'Natchez' (Natchez Crape Myrtle)	15 gallon	20'/20' 25'/25'
	Small, broad leaf evergreen shrub	38	Ceanothus griseus horizontalis 'Yankee Point' (Wild Lilac), and Rosmarinus officinalis 'Prostratus' (Dwarf Rosemary), or Rhaphiolepis indica 'Jack Evans' (Indian Hawthorn)	5 gallon	2'-3'/10'-12' 2'/4'-8' 4'-5'/4'
	Groundcover		Water efficient groundcover to be approved in final landscaping plan		
	Bioretention		Species to match existing landscape on west side of driveway		
	Existing Tree / Shrub / Landscape		Species to be approved in final landscaping plan		

N

50 ft 0 50 ft 100 ft

SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

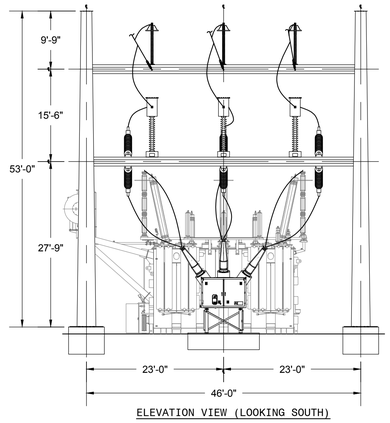
TITLE: CONCEPTUAL LANDSCAPING PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

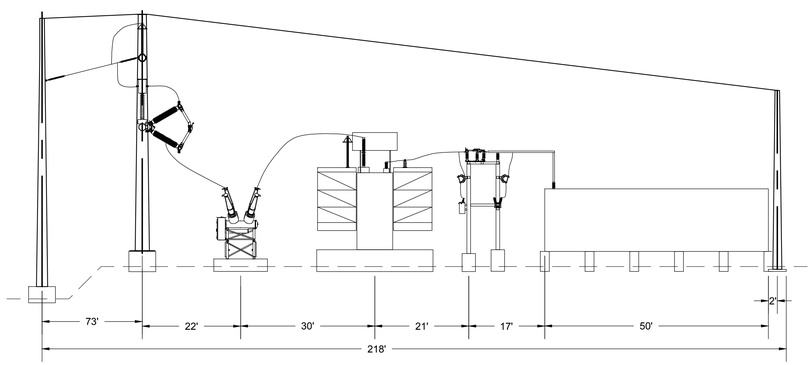
ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949.697.5264
jsitenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-2040
FAX: 925-201-5230

SHEET NO. C-8



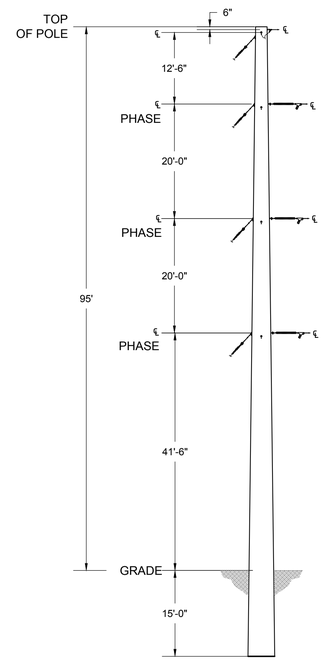
ELEVATION VIEW (LOOKING SOUTH)



ELEVATION VIEW (LOOKING EAST)

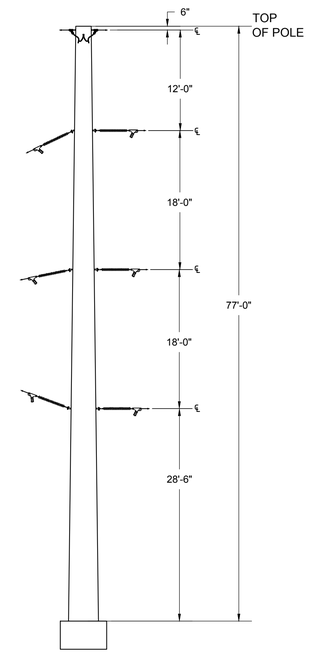
1 SUBSTATION

NOT TO SCALE



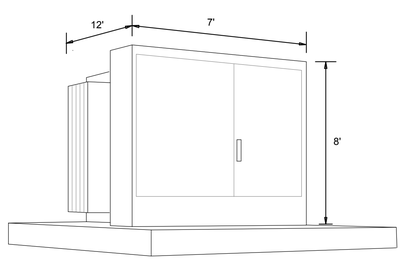
2 OVERHEAD ELECTRIC LINE TURNING POLE

NOT TO SCALE



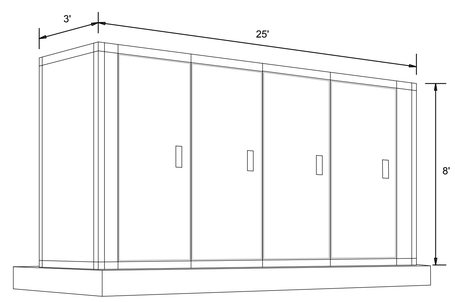
3 DOUBLE DEAD END ELECTRIC LINE POLE

NOT TO SCALE



4 PADMOUNT TRANSFORMER (TYP.)

NOT TO SCALE



5 INVERTER EQUIPMENT ENCLOSURE (TYP.)

NOT TO SCALE

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

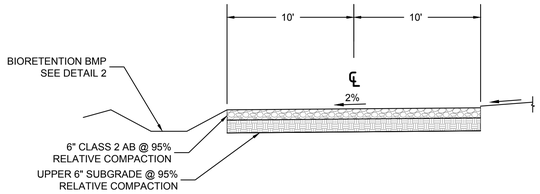
TITLE: ELECTRICAL DETAILS

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CALIFORNIA 92614
PH: 949-727-7169
jstenger@trcsolutions.com

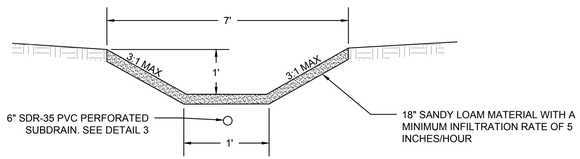
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0345
FAX: 925-201-5230

SHEET NO. C-9



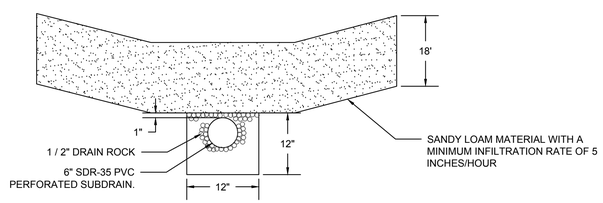
1 CLASS II AGGREGATE BASE SURFACE DRIVEWAY (TYP.)

NOT TO SCALE



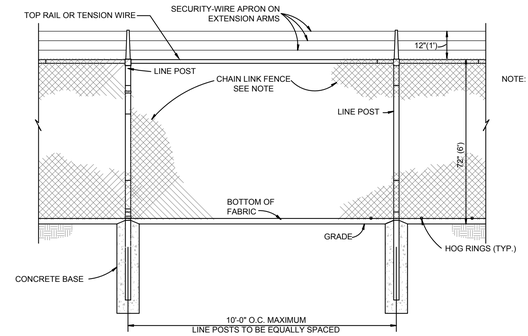
2 BIORETENTION BMP, TYP

NOT TO SCALE



3 6" SUBDRAIN UNDER BIORETENTION FACILITY, TYP

NOT TO SCALE



NOTE: NEW FENCING WILL BE INSTALLED AT THE SITE PERIMETER WHERE EXISTING FENCING DOES NOT OCCUR. EXISTING FENCING WILL BE REPAIRED WITH LIKE DESIGN OR REPLACED WITH NEW FENCING PER DETAIL SHOWN AS NEEDED BASED ON EXISTING FENCE INTEGRITY.

4 PROPOSED FENCING

NOT TO SCALE

REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: ROADWAY, DRAINAGE AND FENCE DETAILS

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0945
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
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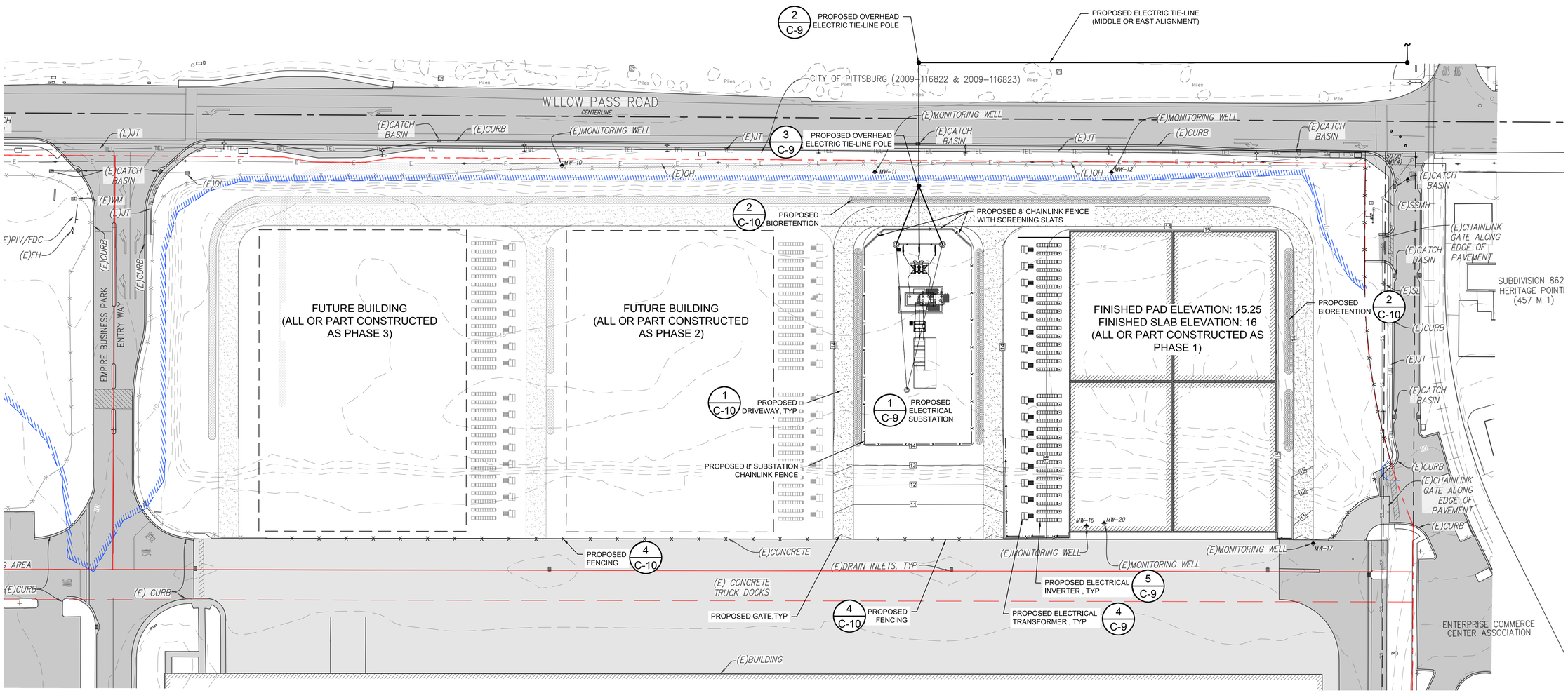
IRVINE, CA 92614
PH: 949-697-7769
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. C-10



SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: CONSTRUCTION PHASING

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-467-7161
jstenger@trcsolutions.com

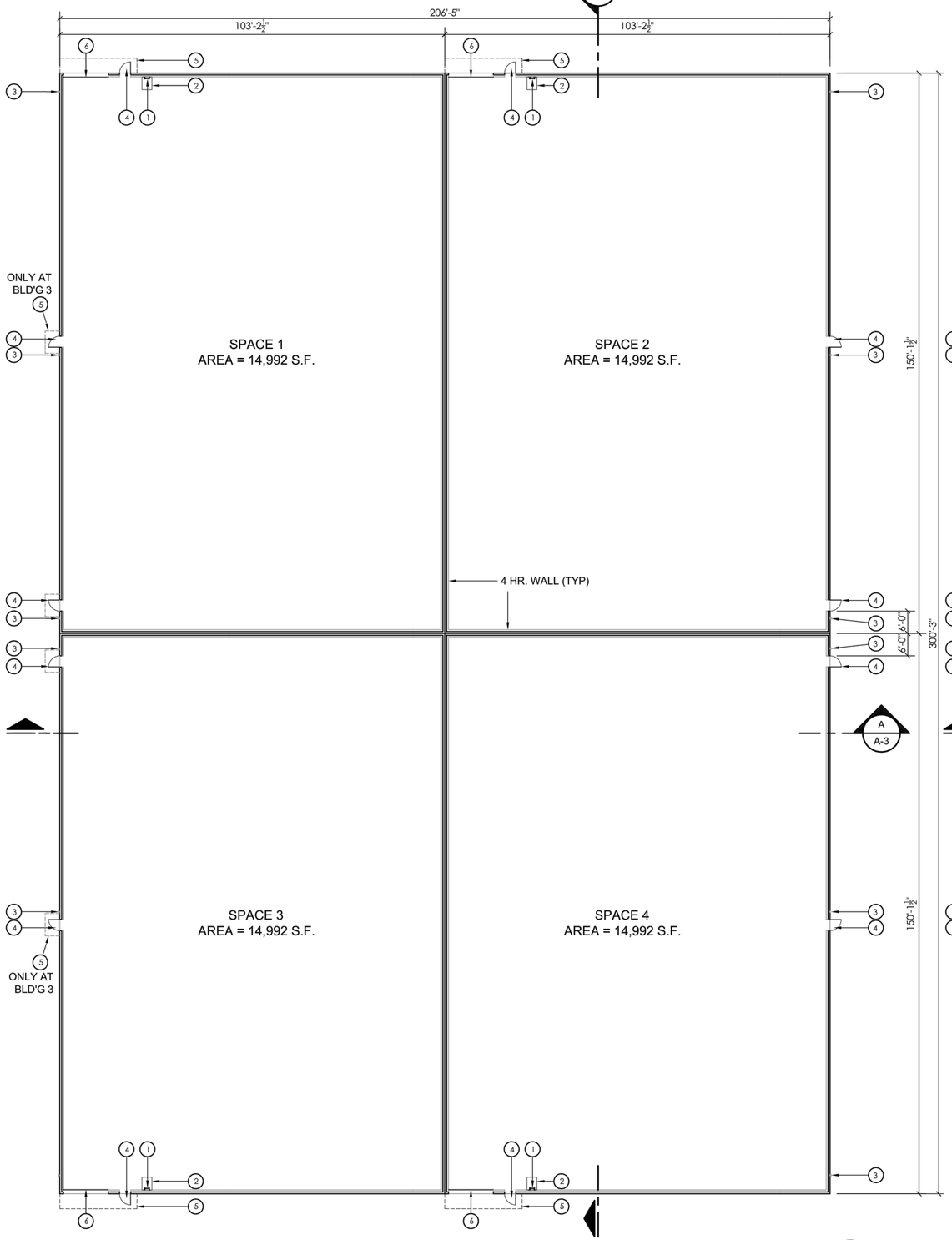
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0345
FAX: 925-201-5230

SHEET NO. C-11

KEY NOTES

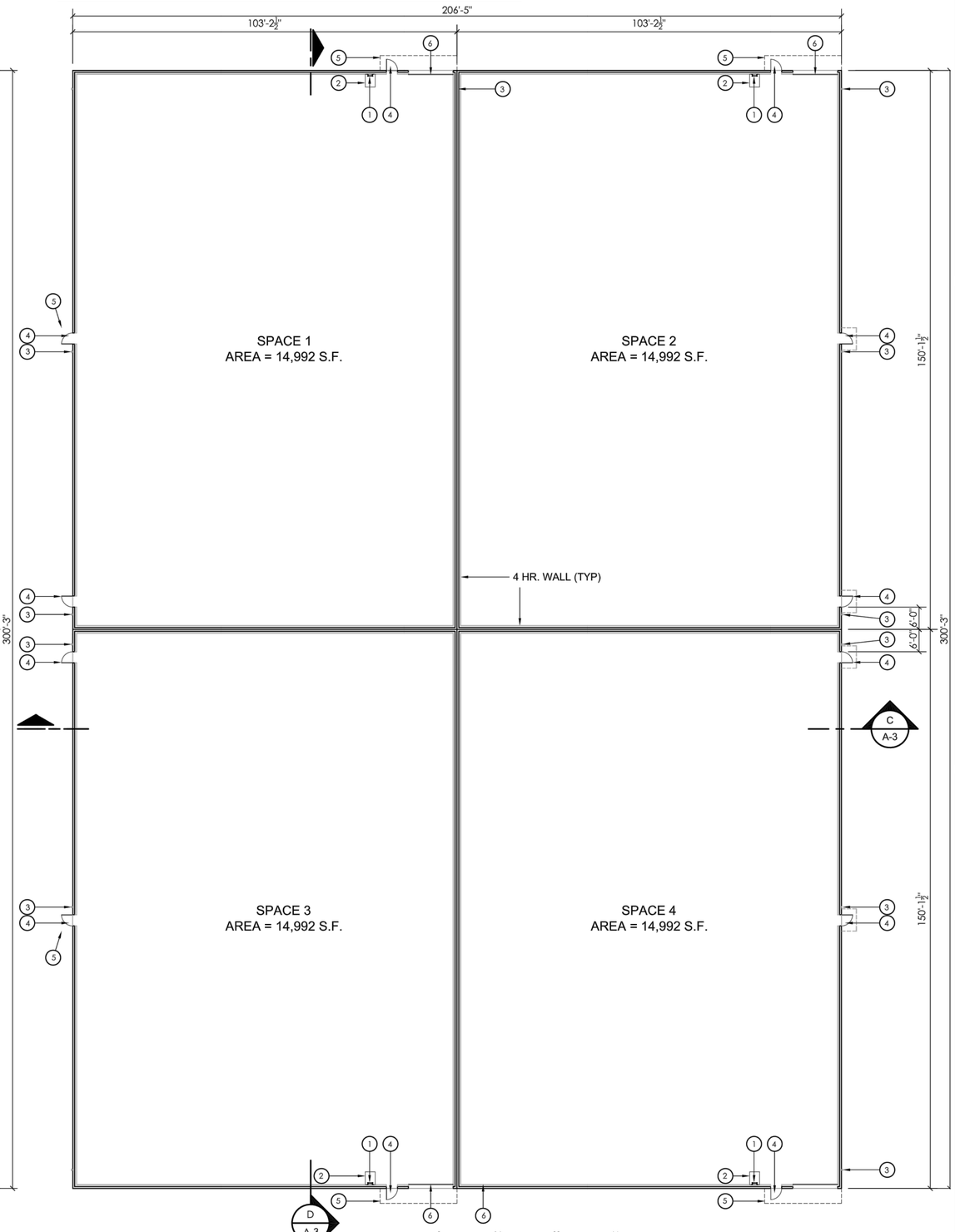
1. ROOF ACCESS LADDER
2. ROOF ACCESS HATCH ABOVE
3. DOWNSPOUT LOCATION
4. METAL DOOR
5. DOOR AWNING PROJECTION
6. 12' x12' METAL ROLL-UP DOOR

CBC Notes:
Occupancy - H-2
Construction - Type B - Sprinkled



TYPICAL FLOOR PLAN - BUILDING - 2 - 3

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



FLOOR PLAN - BUILDING 1

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

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: TYP. FLOOR PLAN BUILDING 1-2-3

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614-5020
PH: 949-697-7169
jstenger@trcsolutions.com

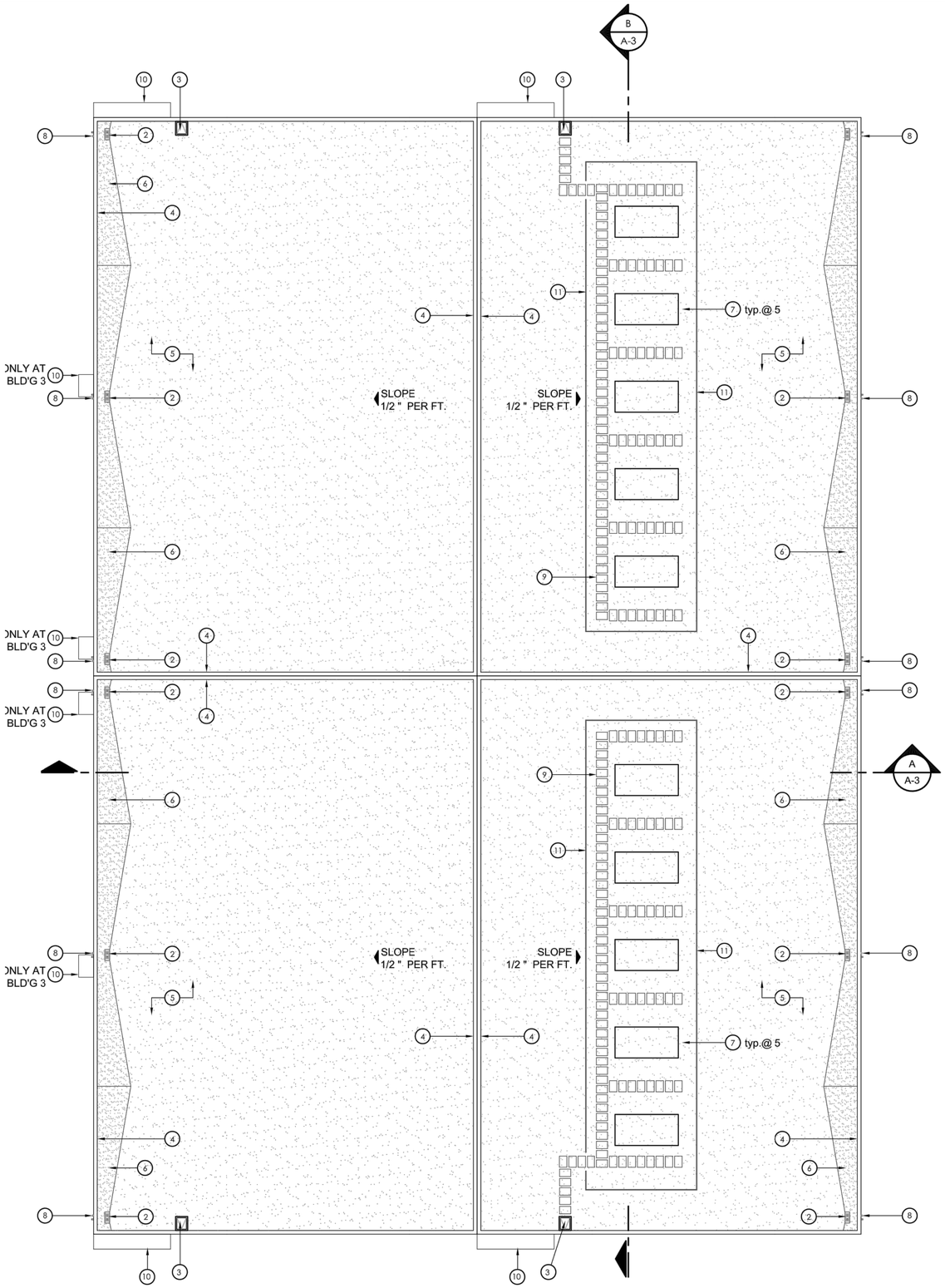
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0540
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. A-1

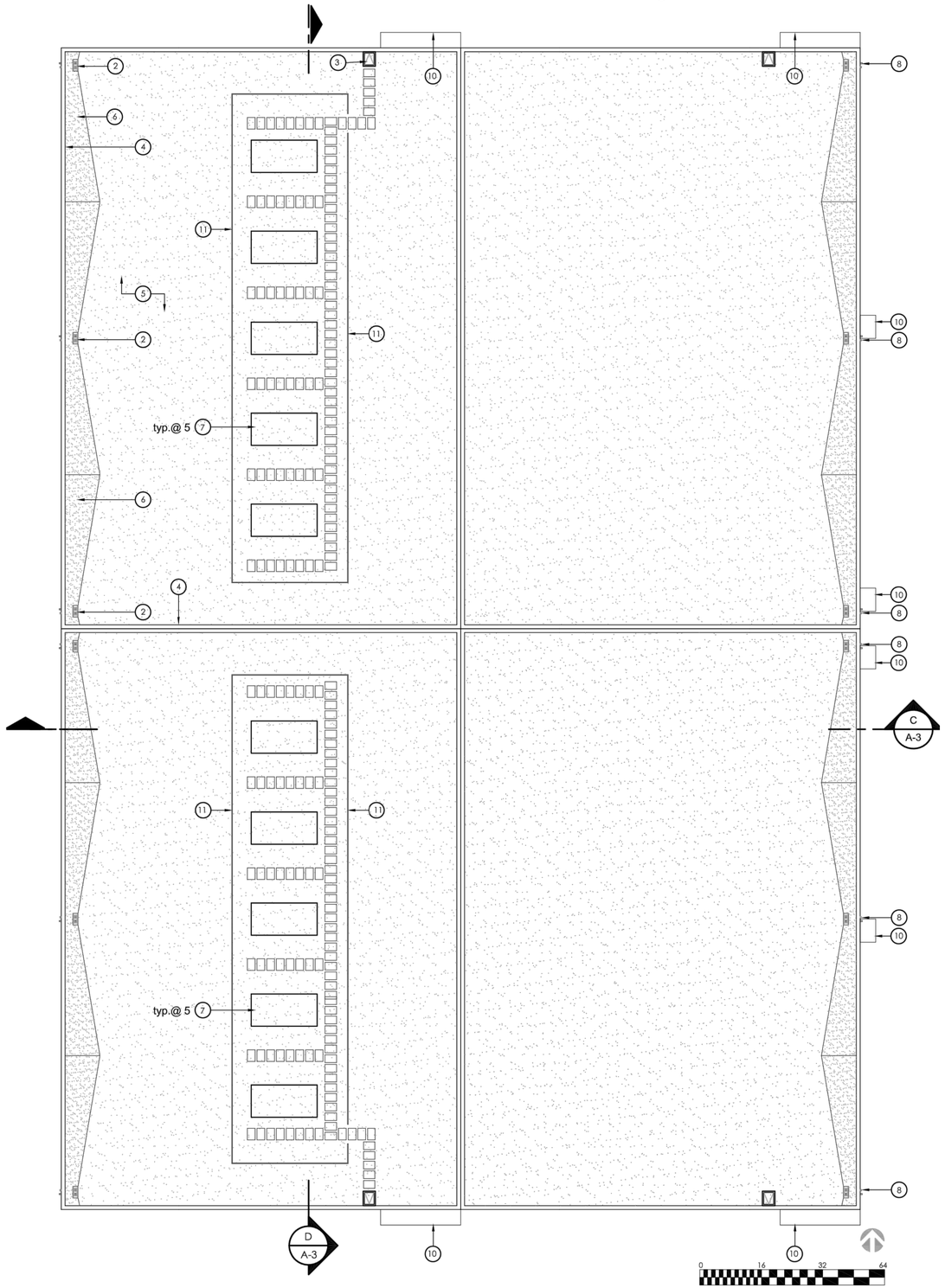
KEY NOTES

1. ROOF ACCESS LADDER
2. ROOF DRAIN AND OVERFLOW
3. ROOF ACCESS HATCH
4. PARAPET WALL
5. BUILT-UP ROOF
6. ROOF CRICKET
7. MECHANICAL UNITS
8. DOWNSPOUT
9. ROOF TRAFFIC PADS
10. DOOR AWNING
11. VENTED METAL MECHANICAL SCREEN SYSTEM



TYPICAL ROOF PLAN - BUILDING 2 - 3

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



ROOF PLAN - BUILDING 1

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

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: ROOF PLAN - BUILDING 1-2-3

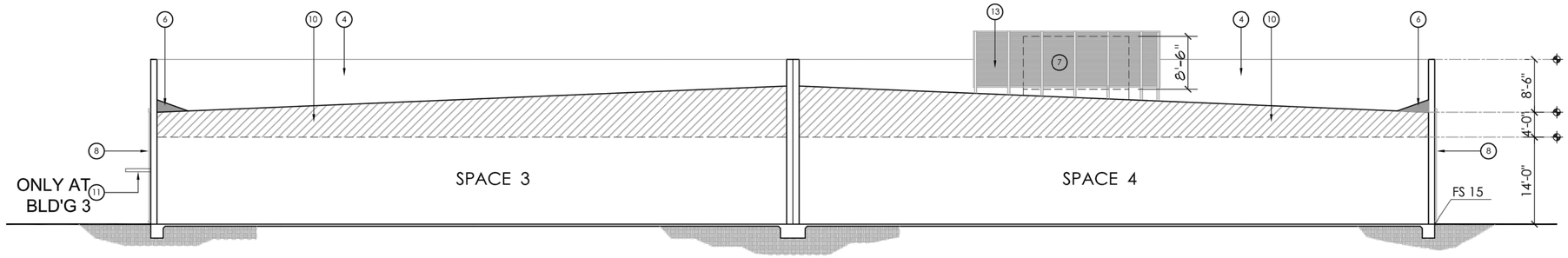
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7769
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD, SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0248
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. A-2

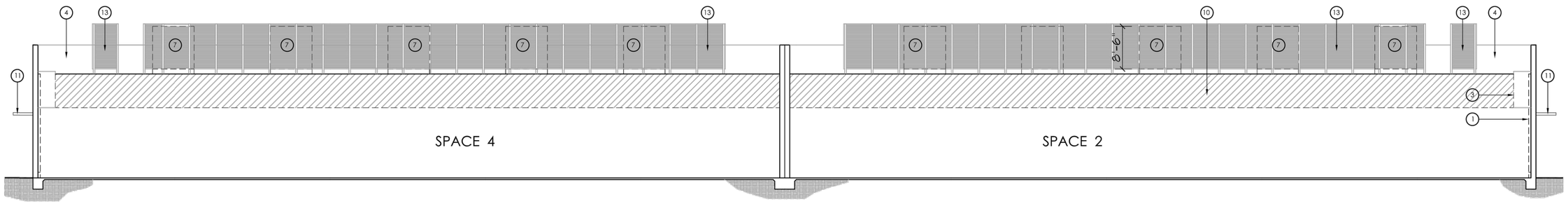


BUILDING SECTION - A - BUILDING 2 - 3

SCALE : 1" = 10'-0"

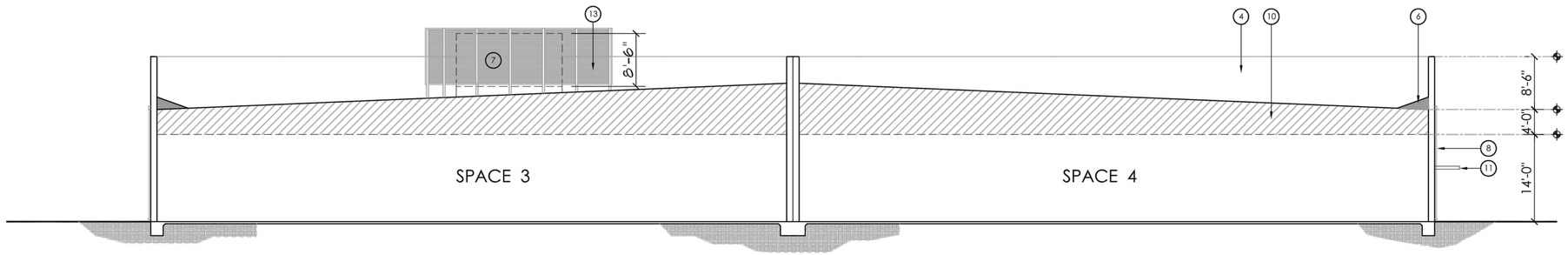
KEY NOTES

1. ROOF ACCESS LADDER
2. ROOF DRAIN AND OVERFLOW
3. ROOF ACCESS HATCH
4. PARAPET WALL
5. ROOF TRAFFIC PADS
6. ROOF CRICKET
7. MECHANICAL UNITS
8. DOWNSPOUT
9. ROOF TRAFFIC PADS
10. STRUCTURE SPACE
11. DOOR AWNING
12. METAL DOOR
13. VENTED METAL MECHANICAL SCREEN SYSTEM



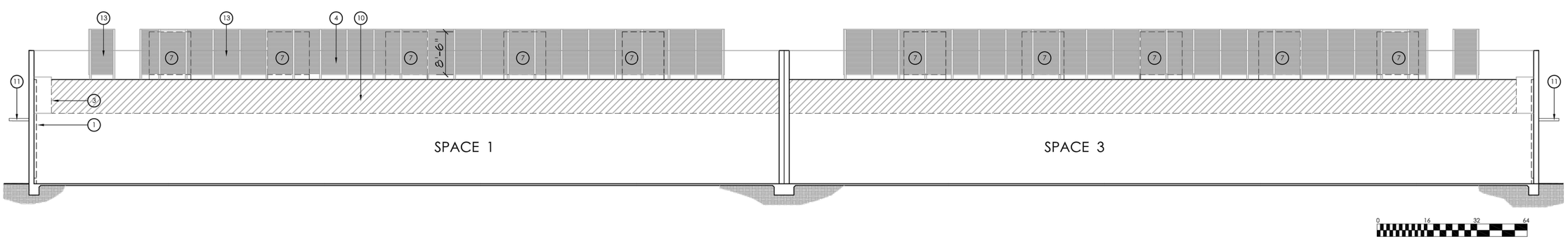
BUILDING SECTION - B - BUILDING - 2 - 3

SCALE : 1" = 10'-0"



BUILDING SECTION - C - BUILDING 1

SCALE : 1" = 10'-0"



BUILDING SECTION - D - BUILDING 1

SCALE : 1" = 10'-0"

REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

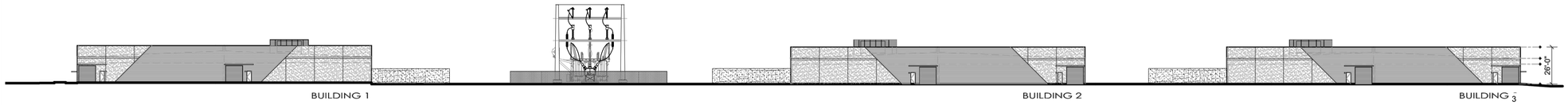
TITLE: BUILDING SECTIONS - BUILDING 1-2-3

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-797-7169
jsteinger@trcsolutions.com

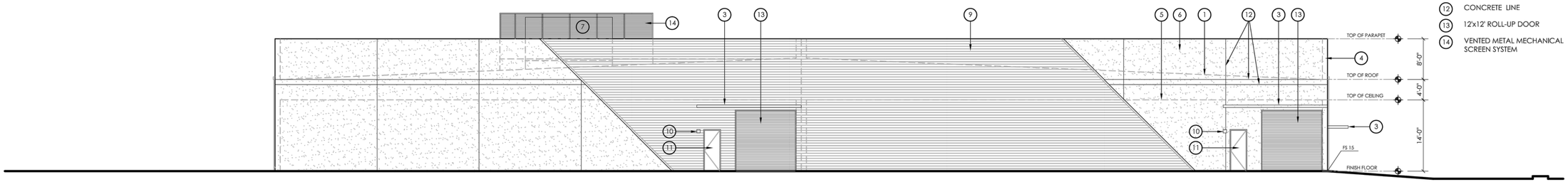
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5548
FAX: 925-201-5230

SHEET NO. A-3



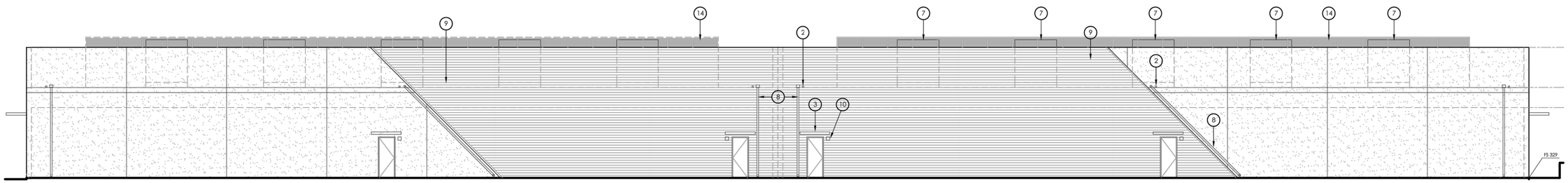
OVERALL - NORTH STREET ELEVATION - BUILDING 1 - 2 - 3

SCALE : 1" = 40'



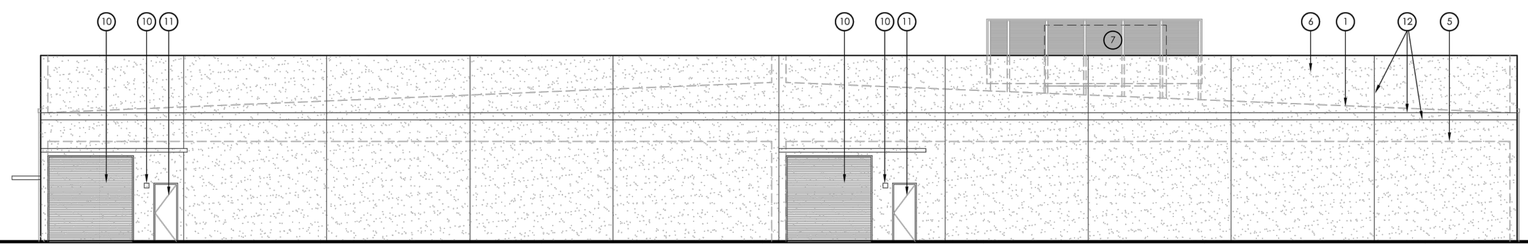
NORTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'



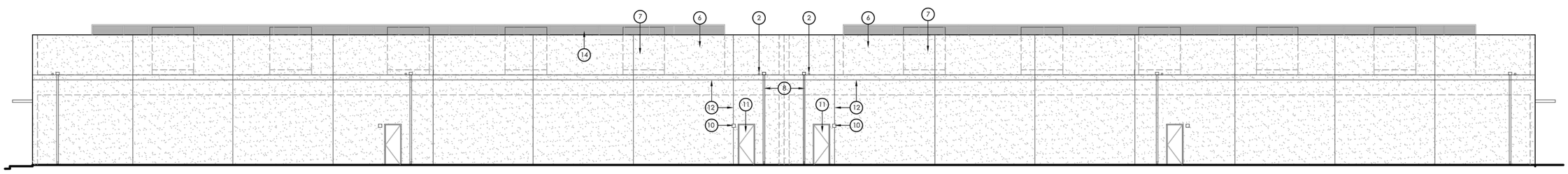
WEST ELEVATION - BUILDING 3 AND EAST ELEVATION - BUILDING - 1

SCALE : 1" = 10'



SOUTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'



WEST ELEVATION - BUILDING 1 -2 / EAST ELEVATION - BUILDING 2 - 3

SCALE : 1" = 10'

KEY NOTES

1. LINE OF ROOF
2. ROOF DRAIN OVERFLOW
3. DOOR AWNING
4. PARAPET WALL
5. TOP OF CEILING
6. TILT UP CONCRETE WALLS
7. MECHANICAL UNITS
8. DOWNSPOUT
9. METAL PANELS
10. LIGHT FIXTURE
11. METAL DOOR
12. CONCRETE LINE
13. 12'x12' ROLL-UP DOOR
14. VENTED METAL MECHANICAL SCREEN SYSTEM

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: EXTERIOR ELEVATIONS

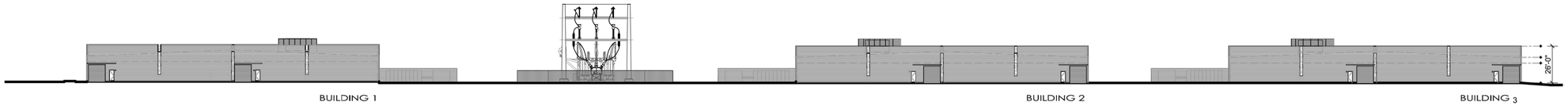
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7214
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0248
FAX: 925-201-5230

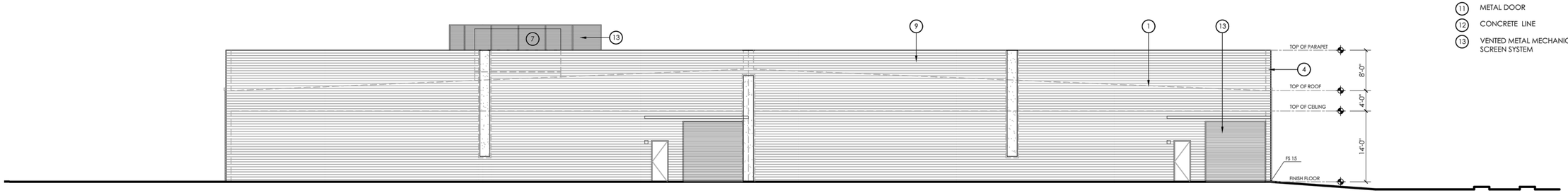
TRC Results you can rely on

SHEET NO. A-4



OVERALL - ALTERNATE - NORTH STREET ELEVATION - BUILDING 1 - 2 - 3

SCALE : 1" = 40'



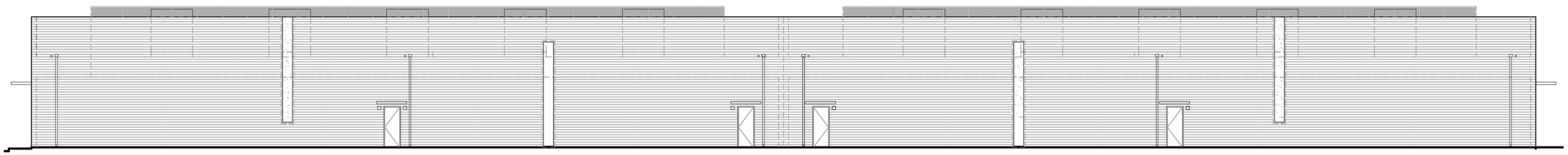
ALTERNATE NORTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'

NOTE: Illustration of alternate building exterior design employing the use of steel framing exterior walls and metal cladding exterior material.

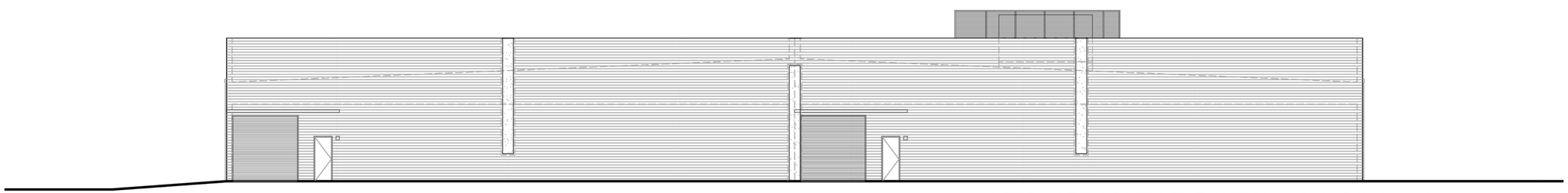
KEY NOTES

1. LINE OF ROOF
2. ROOF DRAIN OVERFLOW
3. DOOR AWNING
4. PARAPET WALL
5. TOP OF CEILING
6. TILT UP CONCRETE WALLS
7. MECHANICAL UNITS
8. DOWNSPOUT
9. SHEET METAL PANELS
10. LIGHT FIXTURE
11. METAL DOOR
12. CONCRETE LINE
13. VENTED METAL MECHANICAL SCREEN SYSTEM



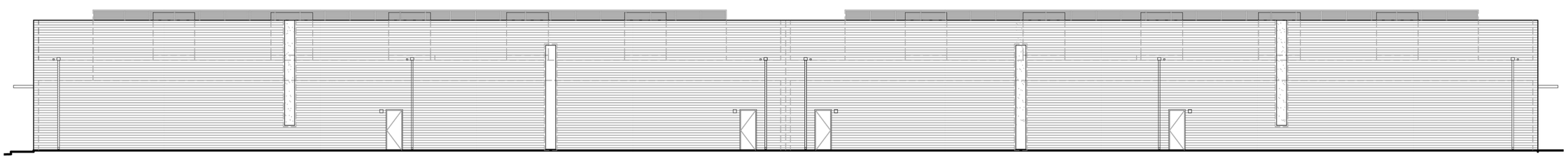
ALTERNATE ELEVATION - BUILDING 1- EAST and BUILDING 3 - WEST

SCALE : 1" = 10'



ALTERNATE SOUTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'



ALTERNATE ELEVATION - BUILDING 2- EAST and WEST

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: EXTERIOR ELEVATIONS ALTERNATE

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #450
PLEASANTON, CA 94588
PH: 925-201-5245
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-727-7169
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. A-5

ATTACHMENT 3

Project Description
Diablo Energy Storage
701 Willow Pass Road
Pittsburg, California 94565

August 2017

Submitted to:
City of Pittsburg
Planning Department
65 Civic Avenue
Pittsburg, CA 94565

Submitted by:

Diablo Energy Storage, LLC
5000 Hopyard Road, Suite 480
Pleasanton, CA 94588

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Attachment 2: Preliminary Site Plans

1.0 INTRODUCTION

Diablo Energy Storage, LLC proposes to install one or more single story buildings on a graded and vacant approximately 12 acre site (Site) representing a portion of an approximate 35 acre parcel (Parcel) located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The Parcel is designated Business Commercial (BC) in the General Plan and zoned Industrial Park-Limited Overlay (IP-O). The proposed use will require a zoning text amendment to amend the IP-O (Industrial Park with a Limited Overlay, Ord. No. 07-1284) District, or the "Empire Business Park Overlay District", such that a "major utility" would be permitted with a use permit. In addition to the zoning text amendment, Diablo Energy Storage, LLC is applying for a conditional use permit, design review and development agreement. A minor subdivision (lot line adjustment or parcel map waiver), or filing of a final map following the current Tentative Parcel Map in Attachment 1, may also be pursued that would divide the Site from the 35 acre Parcel.

The buildings will house advanced energy storage technology (e.g., lithium ion batteries) which, together with related control equipment including inverters, transformers, and a small onsite electric substation, will be connected via a new electric tie-line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg Substation located approximately 0.6 mile north of the Site. The facility will be unoccupied and is designed for full remote operation. Diablo Energy Storage, LLC is the Applicant for development permits and will be the Lessor of the property.

The facility will not generate electricity. Rather, it will provide a service by receiving energy (charging) from the point of interconnection (POI) with the PG&E electric transmission system, storing energy, and then later delivering energy (discharging) back to the POI. The Site is within the East Contra Costa Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area. Two alternate routes being considered for a tie-line to the POI are also within the HCP/NCCP area and a third alternative route being considered extends out of the HCP/NCCP area as described further under the subheading of West Alignment.

The Site is currently vacant with no structures. The Parcel is subject to a Covenant to Restrict Use of Property – Environmental Restriction dated July 27, 2007. Per terms of the Covenant, certain uses and activities on the Parcel are prohibited due to the presence of low concentrations of constituents of concern in ground water. The restrictions prohibit certain uses for the Parcel including raising food, drilling for drinking water, extraction of ground water, schools for persons under 21 years of age, day care centers, residences, and hospitals for humans. The proposed use of the Site is consistent with uses allowed by the Covenant.

The proposed use is compatible with the surrounding area and will have little or no effect on environmental resources or local services given its location on a vacant Site, its unmanned operating profile, and proximity to existing infrastructure. When operating, the proposed use will not create emissions to air, will not require sanitary facilities, and will not require water except to maintain water efficient landscape to meet City requirements.

2.0 PURPOSE

The purpose of the proposed development is to reliably and economically receive, store and discharge electric energy from the California Independent System Operator-controlled electric grid, including renewable energy produced by existing solar and wind resources in the region. The project will interconnect to the CAISO grid at the nearby PG&E's Pittsburg Substation. Construction of the project will:

- Provide a new economic and reliable means of capturing and managing renewable energy;
- Provide economic benefit to the City of Pittsburg, Contra Costa County, the region, and the State, through construction jobs, property and sales taxes, and increased energy efficiency and reliability;
- Help stabilize the electric grid and increase the effectiveness of both conventional and renewable energy generation projects;
- Support the achievement of local, state and federal renewable energy goals; and
- Support State goals for energy storage.

3.0 PROJECT DESCRIPTION

3.1 Location

The Site is located on the south side of Willow Pass Road just west of the point where West 10th Street becomes Willow Pass Road (Figure 1). The Site is Parcel B of the overall 35 acre Parcel as shown in Attachment 1. Photographs of the Site are provided in Figure 2. Preliminary Design Drawings for the project are provided in Attachment 2.

3.2 Design

The batteries will absorb and discharge electrical energy from and to the PG&E-owned and California Independent System Operator-controlled power grid. Batteries will be housed inside the buildings secured in racks arranged in rows with aisles for access. The batteries will be connected in series and in parallel to provide the total energy storage capacity. A Relay and Communications (R&C) room will be provided in the buildings for automated monitoring and managing of the batteries to ensure design performance and system life

Power inverters, medium voltage transformers, and a small onsite electric substation with a transformer will be installed. Conductors in underground conduits will be used to connect the buildings, inverters and transformers. Bi-directional inverters will be used to convert between direct current (DC) power in the battery systems and alternating current (AC) power of the electric grid. Inverters will be outdoor-rated skid mounted systems with equipment in weatherproof enclosures. The preliminary design is for bi directional inverters rated at 480 volts (V) AC, one medium voltage transformer for each one or two inverters, and a high voltage transformer within the onsite substation. Final design will include value engineering and a different number of inverters and transformers may be used. The output from the medium voltage transformers will be aggregated and stepped up to 230 kV by the high voltage transformer at the onsite electric substation.

The substation area will be fenced (in accordance with high voltage electric code requirements) and will include the high voltage transformer, switchgear and an approximately 24-foot wide x 50-

foot high H-frame structure with switches, lightning arrestors and metering equipment. The onsite substation will be connected to the existing PG&E Pittsburg Substation to the north via an overhead 230 kV electric tie-line. The electric tie-line will be constructed, owned and operated by the Applicant or other appropriate entity to a point of change in ownership (POCO) located just outside the Pittsburg Substation. Improvements within the Pittsburg Substation and between the Pittsburg Substation and the POCO will be installed by PG&E, and are within the scope of the environmental review to be conducted by the City.

The facility will be designed and constructed to comply with all applicable codes in effect in the City at the time of building permit submission. Each battery module is a sealed finished UL listed article installed as a component in device (battery rack) containing integrated safety systems to actively monitor electrical current, voltage and temperature to optimize performance, mitigate potential failures, and prevent upset. Batteries performing out of specification will be immediately taken off line by the automated monitoring system. There is no venting or release from the individual cells, cell packs, or casings and the batteries are not opened for use, maintenance, or other purposes. The buildings will be outfitted with fire suppression equipment to meet or exceed applicable fire safety codes and standards. The fire protection plan will include prevention, suppression, isolation methods and materials. At a minimum, this will include: smoke/fire detection sensors; ground fault detection, alarms, and systems for automatic shutdown of all cooling fans and opening of electrical contacts in the battery system; and systems for automatic release of a fire suppression agent appropriate to the battery technology. Typically, such systems use a clean fire suppression agent such as DuPont's FE-25, FM-200, or 3M's Novek 1230, designed specifically for electrical installations to reduce damage to uninvolved equipment. Water sprinkler or mist systems will also be provided as required by the fire code.

The project is designed consistent with low impact development standards and the Contra Costa Clean Water Program Stormwater C.3 Guidebook storm water management requirements. Impermeable surfaces are minimized and include building footprints and concrete pads for the substation and other outdoor electrical equipment. With the exception of landscaping to meet City requirements, other surfaces will be graveled including the onsite driveways since use will be infrequent. The driveways will be constructed with compacted Class 2 gravel surfacing over a compacted subgrade to provide all-weather passage and support for a 74,000 pound load capacity in accordance with Contra Costa County Fire Protection District requirements. No designated parking places are included in the design since the facility is unoccupied and there is existing parking in the Empire Business Park complex as well as space for parking on-site. Outside of the onsite driveways, areas not covered by the buildings or equipment pads will be surfaced with gravel (e.g., ¾-inch drain rock) that will provide for some storm water detention and infiltration.

Sidewalk, curb and gutter exist at the site frontage. Parcel 085-280-010 has an existing paved driveway from Willow Pass Road that will be used by the project. Water-efficient landscaping will be put in place where not already present in accordance with the City landscaping requirements. A Conceptual Landscape Plan is provided in the Preliminary Site Plans in Attachment 2. Landscape water will be obtained from the existing landscape water supply system or a new tie-in to the City water main located in Willow Pass Road. No signage is proposed for the building frontage or site perimeter except the address number. Inside the secured site

perimeter, signage will be provided in accordance with OSHA requirements and other relevant regulatory requirements.

Conceptual architectural renderings are provided in the Preliminary Site Plans in Attachment 2. The architectural design theme is to compliment and be compatible with the existing character of the neighboring industrial buildings. The established buildings in the area are low profile light industrial building types using cementitious and metallic exterior materials. The color palette for the large footprint buildings is in the warm beige range. The proposed architectural design is shown in Sheets A-1 through A-4 of the Preliminary Site Plans and uses tilt-up concrete construction for exterior walls to complement the existing architectural character of neighboring buildings, with colors complimentary to the adjacent buildings. To give a visual and textural interest to the building elevations facing the street, application of a darker beige metal cladding is proposed, complementing the use of metal in the adjacent buildings. The application of exposed roof drainage systems and reveals along the exterior walls provide visual relief and break up the wall surface to smaller modules. Projecting shade elements are included along the street frontage walls above the exterior doors to provide not only shading but also interest as the sun casts shadows along the walls.

Sheet A-5 introduces an alternate design for the buildings. The alternate design would utilize steel framed construction on the exterior walls with metal cladding. The design's vertical recess elements provide for visual relief and reduces the length appearance of the buildings. The Applicant is seeking approval for either architectural scheme, which will allow flexibility as the project further develops.

3.3 Tie-line Routing

The area between the Site and the Pittsburg Substation is extensively developed and industrial and utility infrastructure including bulk fuel oil tanks, railroad alignments, drainage and flood control features, underground gas pipelines, roadways, numerous underground and overhead high voltage electric lines, and other infrastructure. The existing facilities influence feasible routes. Three feasible preliminary alternative tie-line routes have been identified: a) west of the fuel oil tank farm, b) along an existing NRG access road through the fuel oil tank farm, and c) east of the fuel oil tank farm. The routes are described below and are shown in Figure 3. The preliminary tie-line pole locations are provided in Figure 3. Based on preliminary engineering, the poles will be approximately 77 to 95 feet high as shown in Sheet C-9 of the Preliminary Site Plans.

West Alignment

Using this route, the tie-line would extend along the south side of Willow Pass Road approximately 2,000 feet, cross under a series of existing PG&E high voltage lines, then turn north to cross Willow Pass Road and extend approximately 2,100 feet, and then turn northeast and extend approximately 2,500 feet to the POCO. The length of this route is approximately 6,700 feet. This route would require approximately 8 poles and would cross under seven existing PG&E transmission lines. This alignment is outside of the HCP/NCCP area between Willow Pass Road and the point approximately 300 feet southwest of the POI. Use of this alignment may require some surface preparation, or stabilization of existing access routes, to provide access to tie-line structures for construction and maintenance. This alignment is within the East Contra Costa

County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area only where it is located south of Willow Pass Road.

Middle Alignment
Using this route the tie-line would cross Willow Pass Road directly north of the on-site substation and then turn east and extend approximately 550' feet along the north side of Willow Pass Road before turning north and extending along the west side of the existing NRG access road approximately 3,200 feet to the POCO. The length of this route is approximately 3,800 feet. This route would require approximately 12 poles and would cross under nine existing PG&E transmission lines. This alignment is entirely within the HCP/NCCP area.

East Alignment
This route is the same as the Middle Alignment except that after extending approximately 800 feet north along the NRG access road it would turn east and follow an existing drainage ditch approximately 1,400, then turn north for approximately 1,000 feet, then turn west approximately 1,400 feet, and then turn northwest approximately 1,200 feet crossing under the existing PG&E transmission lines just outside the Pittsburg Substation to the POCO. The length of this route is approximately 5,800 feet. This route would require approximately 16 poles and would cross under nine existing PG&E transmission lines. This alignment is entirely within the HCP/NCCP area.

The Applicant is requesting approval to develop the project using any of the alignments, subject to revisions as may be approved by the Planning Manager.

3.4 Construction

Construction and equipment installation is expected to take 6 to 12 months including the buildings, outdoor electrical equipment, and site preparation including stormwater controls and landscaping. Construction staging will occur onsite. Construction may be phased in response to market demands. If phased, project improvements essential for the entire site such as the connection to the City stormwater system, as the onsite substation, and the electric tie-line, will be installed in the initial phase. A phasing plan is included in Sheet C-11 of the Preliminary Site Plans. In general, if phased, a building and related systems would be installed in the initial phase while installation of subsequent building space and related systems would be deferred to a subsequent phase or phases as shown in the table below:

PHASING PLAN	
Initial Phase	**Subsequent Phase(s)**
Initial Phase Site Prep/Grading, Civil, Drainage	Phase related Site Prep/Grading Civil, Drainage
Onsite Substation & HV Electrical	Subsequent Building Space
Initial Building	Batteries & Associated Systems
Batteries & Associated Systems	Inverter Pads, Equipment & Connections
Inverter Pads, Equipment & Connections	
Electric Tie-Line	

The majority of the Site is currently covered with several feet or more of fill dirt and will be graded to be relatively flat-lying with drainage toward the north and east. Final grading plans will be subject to approval by the City. Grading quantities are provided on Sheet C-1 of the Preliminary Site Plans. Class 2 aggregate will be imported to the Site for surfacing the driveways. Crushed rock gravel will be imported for surfacing outside the building and driveway footprints and for building pad preparation.

It is estimated that Site grading and preparation will require the following equipment:

TYPE	QUANTITY
Bulldozer (e.g., CAT D7)	1
Grader (e.g., CAT D7)	1
Scraper (15-30 CY)	2
Water Truck (3,000- 5,000 gal)	1
Self-Propelled Compactor	1
Dump Truck	1
Tractor/Loader/Backhoe (e.g., Case 590)	1
Bobcat	1

Water may be used during construction if needed for dust control and compaction. A non-toxic dust palliative may also be used. If needed, water will be obtained from the City water supply via an existing hydrant on the Parcel or on the Site frontage of Willow Pass Road. Sanitary facilities during construction will be provided by portable self-contained units maintained by a licensed contractor.

Project construction will implement the following measures to control dust emissions during construction in accordance with Bay Area Air Quality Management District requirements:

- Exposed soil areas will be watered two times per day when needed to control dust emissions;
- Haul trucks transporting soil, sand or other loose material offsite will be covered;
- Best Management Practices (BMPs) will be implemented to minimize track-out onto adjacent public streets;
- A 15 mile per hour speed limit will be used for roadways until stabilized with gravel or other treatment to minimize dust; and
- Disturbed surfaces will be stabilized as soon as practical.

Construction is expected to generate up to an estimated 75 construction jobs during peak construction periods. Deliveries of equipment and materials will generate an estimated 5 round trips per day during peak construction periods that will occur throughout the day. Construction wages will contribute to the local and regional economy through direct income, spending and taxes.

The City operates a 10-inch diameter water main located in the westbound lane of Willow Pass Road (personal communication, Hilario Mata. Assistant Director of Public Works, June 23, 2017). Project construction will include a tie-in to the water main if the water supply for landscaping

cannot be obtained from existing infrastructure on the Parcel (e.g., if a separate parcel is created by subdivision, lot line adjustment or parcel map waiver).

Table 1A and 1B, respectively, summarize land areas and habitat types that could be disturbed by project development during construction and long-term. The Applicant is applying for coverage under the HCP/NCCP and will comply with requirements of the HCP/NCCP as applicable including pre-construction surveys. Planning Level Surveys under the HCP/NCCP have been completed on the Site. Tie-line routes north of Willow Pass Road have been surveyed from the public ROW due to access limitations and further studied using high-resolution aerial imagery. If construction is initiated during bird nesting season (February 1 – August 31), a preconstruction nesting bird survey will be conducted by a qualified biologist within 14 days prior to ground disturbance. If an active nest is located, then a qualified biologist will establish a nest buffer surrounding the active nest. Work will not occur in the buffer area until the biologist determines the nest is inactive. The extent of the nest buffers will be based on consideration of the anticipated levels of noise or disturbance, ambient levels of noise and other disturbances, species present, and topographic or other barriers. If construction is halted for more than 14 days, then a nesting bird survey will be completed within 14 days prior to re-initiating of construction work. Pre-construction surveys for protected raptors will also be completed prior to construction in accordance with requirements of the HCP/NCCP.

Results of a biological resources survey conducted for the project indicates that burrowing owl habit does not occur on the project Site. However, because burrowing owl habitat can occur in disturbed and developed areas, it is possible that burrowing owl could move into the area prior to construction. Therefore, in an abundance of caution, a burrowing owl survey will be conducted by a qualified biologist within 14 days prior to ground disturbance. If an occupied burrow is observed within or adjacent to the Site during the nesting season (February 1- August 31) and is determined to contain an active nest, then a buffer will be established surrounding the nest in accordance with CDFW's 2012 *Staff report on Burrowing Owl Mitigation*. No work will occur in the buffer area until the nest is determined to be inactive by a qualified biologist. If occupied burrows are observed within or adjacent to the Site during the non-nesting season (September 1-January 31) or if an occupied burrow is determined to not be a nest burrow during the nesting season, then a buffer will be established around the burrow by a qualified biologist in accordance with CDFW guidelines. If an occupied burrow cannot be avoided (i.e., is within the limits of disturbance), a burrowing owl exclusion plan will be written and submitted to CDFW for approval of passive relocation procedures.

Tie-Line Construction

If the selected alignment is not covered by HCP, then to the extent necessary, studies would be completed to develop a construction plan that would to the greatest extent possible minimize impacts to wetlands (if any). For example, tie-line structures would be placed to avoid wetlands where possible, and needed access routes would be aligned to utilize existing access routes where possible. Based on the surface disturbance estimates shown in Table 1B the total permanent disturbance to presumed wetlands if the West Alignment is used would be less than 0.5 acre so the project would use USACE Nationwide Permit No. 12 for utility infrastructure if it is determined that federally jurisdictional wetlands cannot be practically avoided. Nationwide Permit No. 12 also provides for temporary surface disturbance needed during construction. Coverage under the

Nationwide Permit No. 12 requires a Section 401 water quality certification from the RWQCB. In addition, approval from the California Department of Fish and Wildlife under Section 1600 of the Fish and Game Code may also be required if the West Alignment is used.

3.5 Stabilization of Temporary Disturbances

Disturbed surfaces on the site that are not covered by buildings, equipment or roads will be stabilized with crushed rock as well as landscaping at the site perimeter to meet City requirements. Temporary disturbances from tie-line construction will be stabilized as soon as practical by returning the ground surface to a condition approximating pre-project conditions. Temporary disturbances in Annual Grassland habitat will be stabilize by reseeding with a seed mix subject to approval by the City.

3.6 Operations

The facility will operate year-round and will be available to receive or deliver energy 24 hours a day, 365 days a year. The Site will be secured with a chain link fencing. Existing chain link fencing that occurs on the Site frontage will be repaired or replaced where needed, and new fencing will be installed at the Site perimeter where fencing does not currently exist. The Site will be equipped with security cameras that will be monitored remotely and with alarms and other security as needed. Landscaping will include water-efficient trees, shrubs and groundcover that will provide aesthetics for views from Willow Pass Road. Existing trees and landscaping along the driveway east of the Site (See Figure 2) will provide visual screening between the project and residences to the east. At the west edge of the site, landscaping along the edge of the existing driveway will include trees and ground cover to mirror the existing landscaping on the opposite (offsite) edge of the driveway. Because the facility will be unattended with little vehicle traffic, the Site gates will be designed to be opened and locked manually. The electrical equipment, heating, ventilation, air conditioning, fire protection systems, and security will be automated and monitored remotely. The Site will be unoccupied but visited periodically through the year for equipment inspections, monitoring and testing, and maintenance as needed. Periodically, batteries and various components will be replaced or renewed to ensure optimal operation.

The facility will operate without emissions to air or water. Except for landscape watering to meet City requirements, the facility will use no water. Because the facility will not be manned, no office, break room, sanitary facilities or potable water will be needed. Motion-activated lighting may be used where needed for safety or security such as at access gates and doorways to buildings. If used, lighting would be directed downward and shielded to minimize visibility from offsite.

Storm water treatment in accordance with City requirements will be provided by gravel yard surfacing and bioretention swales as shown in the Preliminary Design Drawings. Outdoor equipment will be sealed or enclosed and will not affect storm water quality.

Outdoor electrical equipment, cooling fans, and HVAC systems will generate low levels of noise during routine operations. Noise levels will be compatible with surrounding land uses and below levels that would conflict with the City's Noise Ordinance (Noise Ordinance Section 9.44.010). The closest sensitive noise receptors are residences located east of the Site. The project is designed with a building at the eastern side that will block electrical equipment noise to these residential

receptors. The facility will be designed comply with the City noise standards as described in the City's General Plan at Section 12, Noise.

At the end of battery life, battery modules will be removed from the battery racks and returned to the manufacturer or their approved recycling partner(s) for dismantling, material processing and recovery. Other waste from Site maintenance will be removed from the Site as part of maintenance work and managed in accordance with applicable regulations. Oil in oil-filled transformers is not routinely handled. Oil filled equipment is operated normally closed and sealed. On infrequent occasions, oil in oil-filled electrical equipment may require filtering or replacement if it becomes contaminated. If oil from oil-filled equipment needs to be replaced, the used oil would be recycled at a licensed offsite recycler.

4.0 PROJECT SCHEDULE

Construction of Phase I (or the complete project if all Phases were constructed concurrently) will be scheduled to begin after receipt of requisite permits and is expected to take approximately 6 - 12 months.

5.0 APPLICANT

The Applicant is Diablo Energy Storage, LLC, a company formed for the sole purpose of developing the project and wholly owned by LSP Generation Holdings, LLC. LSP Generation Holdings, LLC is part of the LS Power Group (LS Power), a privately held, leading independent energy development firm established in 1990 employing approximately 150 professionals. LS Power is well regarded in the development and financial community and in the past 10 years has raised over $17 billion of capital for investments in the energy sector including electric generation, storage, and transmission assets. More information can be found at www.lspower.com.

TABLE 1A
SUMMARY OF TOTAL DISTURBANCE BY PROJECT FEATURE AND HABITAT TYPE
(TOTAL SHORT-TERM PLUS LONG TERM DISTURBANCES)

FEATURE	DISTURBANCE IN HCP/NCCP AREA (AC)	DISTURBANCE OUT OF HCP/NCCP AREA (AC)	HABITAT	COMMENTS
Site Development	10.41	--	Annual Grassland	• Site gross is 11.85 acres including existing surfaced roads. Disturbance is 10.12 Ac.
West Alignment	0.49	0.45	Annual Grassland	• 3 pole sites x 3,500 sf ea. in HCP/NCCP area • 2 stringing sites x 1000 sf ea. in HCP/NCCP area • Access 10' x 900' in HCP/NCCP area • 2 pole sites x 3,500 sf ea. out HCP/NCCP area • Access 10' x 1000' out of HCP/NCCP area
	0.02	--	Urban	• 1 pole site (POCO)(1)
		1.47	Wetland(2)	• 1 or 2 pole sites totaling up to 20,000 sf(3) • 2 stringing sites 1,000 sf ea. • Access 12' x 1000' • Contingency Access 12' x 1,500(4)
Middle Alignment	0.16	--	Urban	• Ten pole sites x 700 sf ea(1)
East Alignment	0.21	--	Urban	• 13 pole sites x 700 sf each(1)

(1) Stringing sites, construction work areas and long-term access that may be used in urban areas not requiring clearing or surface improvement are not included in this table since there would be no ground disturbance. Ground disturbance for poles in urban habitat is estimated based on 15' radius around the pole center point.

(2) Presumed wetland area based on field survey results from other nearby projects, aerial imagery analysis, and visual survey from public rights-of-way due to access constraints. Actual wetland area and disturbed acreage to be determined prior to construction if Project for areas outside of the HCP/NCCP coverage area.

(3) Estimate allows for contingency for final design to determine minimum safe working area at each pole and for jurisdictional wetland conditions to be confirmed by delineation at one or two poles.

(4) Contingency for possible temporary access between tie-line structures B and C if a helicopter is not used for stringing.

TABLE 1B
SUMMARY OF LONG-TERM DISTURBANCE BY PROJECT FEATURE AND HABITAT TYPE

FEATURE	DISTURBANCE IN HCP/NCCP AREA (AC)	DISTURBANCE OUT OF HCP/NCCP AREA (AC)	HABITAT	COMMENTS
Site Development	10.41	--	Annual Grassland	• Site gross is 11.85 acres including existing surfaced roads. Disturbance is 10.12 Ac.
West Alignment	0.05	0.32	Annual Grassland	• 3 pole sites x 700 sf ea. in HCP/NCCP area • 2 pole sites x 700 sf ea. out of HCP/NCCP area • Access 10' x 1,250 out of HCP/NCCP area
	0.02	--	Urban	• 1 pole site (POCO)
		0.38	Wetland(1)	• 1 or 2 pole sites x 700 sf ea. • Access 12' x 1000' • Contingency Access 12' x 250'(2)
Middle Alignment	0.16	--	Urban	• Ten pole sites x 700 sf ea
East Alignment	0.21	--	Urban	• 13 pole sites x 700 sf ea

(1) Presumed wetland area based on field survey results from other nearby projects, aerial imagery analysis, and visual survey from public rights-of-way due to access constraints. Actual wetland area and disturbed acreage to be determined prior to construction if Project for areas outside of the HCP/NCCP coverage area.

(2) Contingency in the event that the vegetated portion of the long term access route to Pole C is found to be wetlands instead of grassland.

\\Sanfran-fs1\gis\GIS_LIB\Diablo_Energy_Storage\mxd\Figure 1_Project Location.mxd

Legend

Diablo Energy, LLC Site

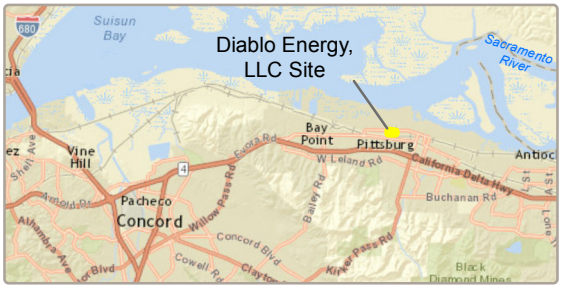


Figure 1: Project Location
Diablo Energy, LLC

N

0 400 800 1,200 Feet

1:9,600

7/14/2017

TRC
Results you can rely on

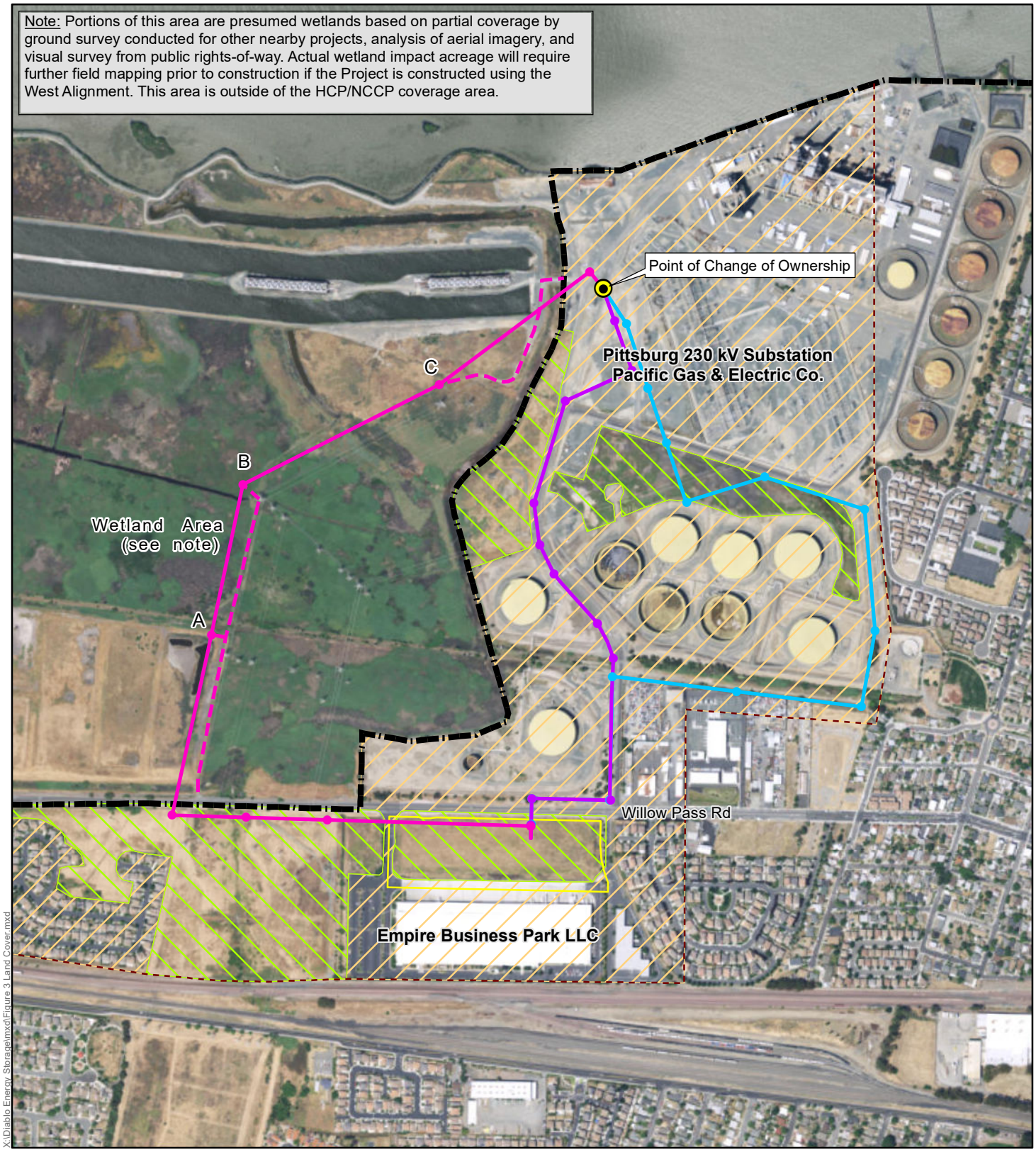
Figure 2: Site Photographs

1) Looking east from west end of the Site.

2) Looking north along the driveway just east of the Site.

3) Looking east on the northern end of the Site.

4) Looking west from the side of the Site.



Legend

- Project Site
- West Alignment
- Middle Alignment
- East Alignment
- Limits of Project Mapping
- HCP Inventory Area
- Preliminary Structure Locations
- Preliminary Access Route
- Annual Grassland
- Urban

Figure 3: Land Cover Map
Diablo Energy Storage, LLC

N

0 400 800 1,200 Feet

1:9,600

8/29/2017

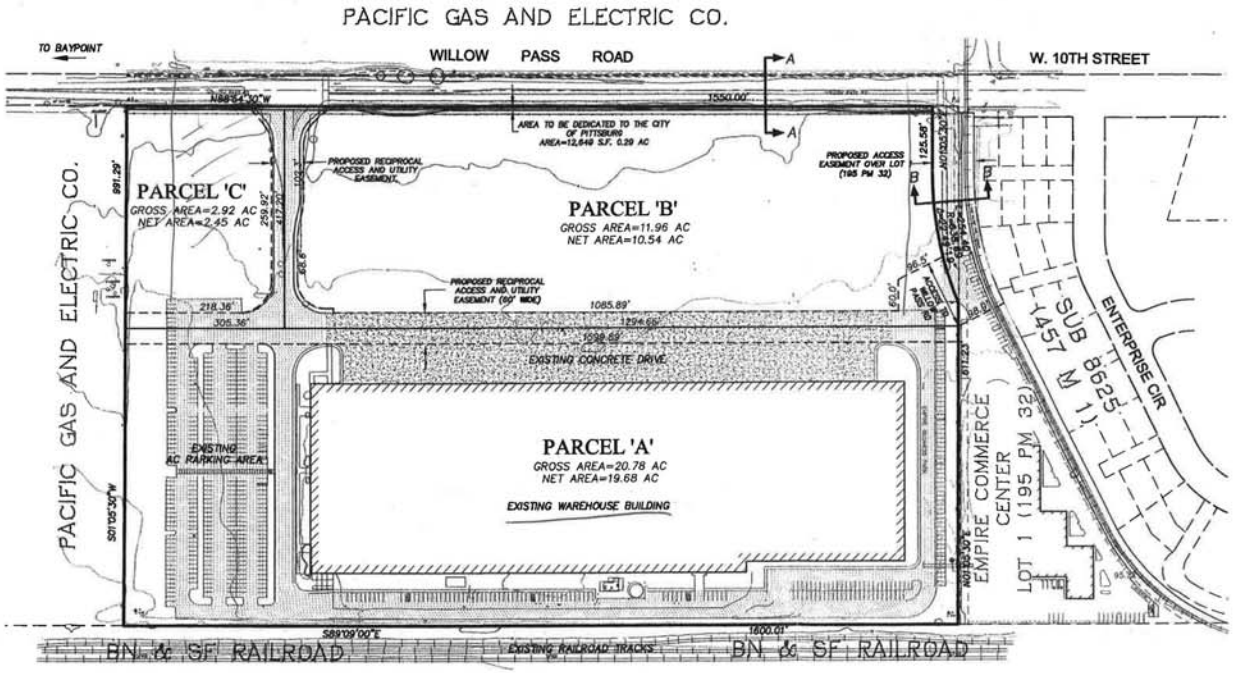
TRC
Results you can rely on

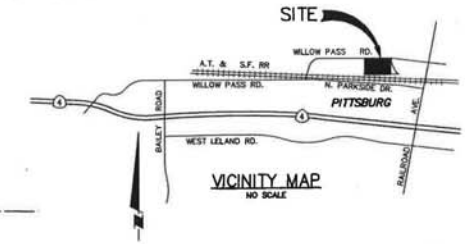
Attachment 1
Tentative Parcel Map

TENTATIVE MAP MINOR SUBDIVISION NO. 677-08

"EMPIRE BUSINESS PARK"

CITY OF PITTSBURG
CONTRA COSTA COUNTY, CALIFORNIA
SCALE: 1" = 100' OCTOBER 2008





VICINITY MAP
NO SCALE

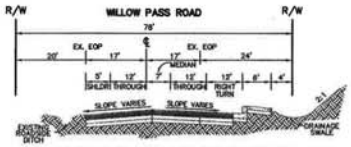
PROJECT SUMMARY

1.	OWNER & DEVELOPER:	DON & LONNE CARR C/O DAVIS & ASSOCIATES 701 WILLOW PASS ROAD PITTSBURG, CA 94565 (925) 432-4714
2.	ENGINEER:	ISAKSON & ASSOCIATES, INC. 2255 YGNACIO VALLEY ROAD #C WALNUT CREEK, CA 94598 (925) 937-9333
3.	PROPERTY ADDRESS:	701 & 753 WILLOW PASS RD.
4.	WATER SUPPLY:	CITY OF PITTSBURG
5.	SEWER SERVICE:	CITY OF PITTSBURG
6.	POWER:	PGE
7.	PHONE SERVICE:	AT&T
8.	CONTOURS:	1' CONTOURS
9.	ASSESSORS PARCEL NO.:	APN. 085-280-009
10.	TOTAL AREA (GROSS)	35.95 ACRES

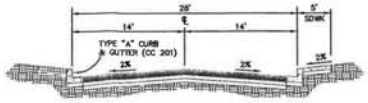
11. 3 PARCELS PROPOSED
PARCEL A-19.68 AC
PARCEL A-10.54 AC
PARCEL A-2.45 AC

LEGEND

PROPOSED	ITEM
	PROJECT BOUNDARY
	RIGHT-OF-WAY LINES
	PROPERTY LINES
	EASEMENT LINES
	EXISTING BUILDING
	PAVEMENT
	CONCRETE



EXISTING WILLOW PASS ROAD
SECTION A-A
NOT TO SCALE



EXISTING ENTRANCE DRIVEWAY
SECTION B-B
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
DAVID ISAKSON
STATE OF CALIFORNIA

SUBDIVISION MS — EMPIRE BUSINESS PARK

TENTATIVE MAP

PITTSBURG — CONTRA COSTA COUNTY — CALIFORNIA

Isakson & Assoc. Inc.
civil engineering & land surveying
2255 Ygnacio Valley Road, Suite C, Walnut Creek, CA 94598 Phone: (925) 937-9333

DATE: 10-30-08	DESIGNED BY: B.L.	DRAWN BY: NGS	CHECKED BY: DGI	JOB NO.: 200836	SHEET 1 OF 1

200836 EMPIRE - TENTATIVE MAP MINOR SUBDIVISION NO. 677-08 10-30-2008

Attachment 2
Preliminary Site Plans

Attachment 4:
Project Location Map and Existing Conditions

Existing view from Willow Pass Road facing southwest.

Attachment5
Property Development RegulationsTable

Diablo Energy Storage, AP-17-1270 (RZ, UP, DR)

Development Regulations: *Overlay District, Ordinance No.04-1214*	**Requirement:**	**Proposed Project:**
Max. Height	40 ft.	26.6 ft. includes 8.6 ft. parapet
Max. FAR	1.0	0.41
Max. Lot Coverage	60%	41%
Min. Lot Area	15,000 sq. ft.	454,766 sq ft. Net area
Min. Lot Width	80 ft.	1250 ft.
Min./Avg. Front Yard Setback	20 ft. min.; 25 ft. or more average	70 ft.
Min. Side Setback	10 ft.	50 ft.
Min. Side Setback (facing street)	25 ft.	N/A
Min. Rear Setback	10 ft.	35 ft.
Min. Site Landscaping	10%	17%
Min. Parking • Major Utility	None	None
Min. Bike Parking • 0 racks/lockers per 0-4 <u>required</u> parking spaces	None	None

Attachment6
Applicable Development Review Design Guidelines
Diablo Energy Storage, AP-17-1270 (RZ, UP, DR)

Design Review Guidelines Section IV. Commercial/Industrial	Meets Guideline?
IV.a: Parking areas should be screened from view from any public right-of-way. Parking areas should be broken up to eliminate vast areas of parking especially along street frontages.	**Yes.** No parking areas would be visible from Willow Pass Road to the north of the site.
IV.b: Provisions should be made for permanent shopping cart corrals in retail shopping centers.	**Not applicable.** The project does not involve a retail shopping center.
IV.c: Existing trees on site should be incorporated into the project site design, unless waived by the City Planner or Planning Commission.	**Not Applicable.** There are no trees on the project site.
IV.d: Developer should elect, at least, one of the schemes provided in Appendix #1 for screening all utility box transformers, backflow preventers, meters, and junction boxes.	**Conditionally.** A condition has been added that would require compliance with this guideline.
IV.e: Projects with many buildings (greater than three) should have a variety of building sizes and masses.	**Not Applicable.** There are only three buildings.
IV.f: Continuous horizontal roof lines should be broken up whenever possible. An expanse should not exceed 50 feet in length unless architecture or size dictate a greater expanse.	**Conditionally.** Given the industrial architecture, large building size and significant massing of each building, strict adherence to this guideline would not make sense. However, visual relief could be provided by extending the metal panel sidingto project above the top of the existing parapet line as shown in the plans (Sheet A-4).
IV.g: Building entries should be designed as a focal point. They should be designed to set the theme or be the primary feature of the building or commercial center.	**Not Applicable.**The building entries are not highlighted. This facility would be unmanned. The entries are for maintenance purpose only.
IV.h: Building elevations visible from public right-of-ways should be addressed in design review and treated appropriately.	**Yes.** The north elevation of the buildings shows some detail to break up the visual mass of the buildings that face the street.

IV.i: A free-standing structure within an existing commercial or industrial center should be architecturally compatible with the center, including but not limited to materials, colors, and architectural elements.	**Yes.** The building form, colors and material would be compatible with the existing industrial warehouse which is located on the southern portion of the Empire Business Park property.
IV.j: All roof mounted equipment should be screened completely from view from all public right-of-ways. A site-line study may be necessary to determine appropriate screening method.	**Yes**. All roof equipment would be screened by the building parapets.
IV.k: All structures including, but not limited to, 'tilt-up' type structures, should have structural reliefs and articulated entries.	**Yes.** The portion of the buildings that face the side streets (east elevation of Building 1 and west elevation f Building 3) show some detail through scoring of the façade. The entries are not articulated because they are not meant to be used as entrances to the building.
IV.l: Exterior fire escapes, stairs and other appurtenances should be designed or treated as integral parts of the building façade.	**Not Applicable.** There are no exterior stairs or other appurtenances.
IV.m: Downspouts should be designed into the façade of the building the color and materials paletteunless architecturally treated.	**Yes.** Downspouts are incorporated into the architecture.
IV.n: Add murals, lattice or some other space-frame type treatment to blank walls visible from public view.	**Yes.** The metal panels on the façade would visually break up the massing of each building. The diagonal orientation of the paneling would maximize this effect.
IV.o: Prototype or 'theme' architecture is discouraged.	**Yes.** The architecture reflects the industrial character of the surrounding area.
IV.p: New or remodeled buildings should be designed to be compatible in design, color and materials with adjacent development.	**Yes.** The color and materials palette reflects the adjacent building to the south of this site.
IV.q: The street-oriented elevations shall be designed so as not to present the appearance of a rear elevation.	**Yes.** The metal scoring of the north elevation wouldprovide some visual interest to the façade.
IV.r: Trash enclosures should include area for collection of recyclables (i.e. space for two 90-gallon containers minimum).	**Not applicable.** There is no onsite waste storage required. When maintenance is done, waste would be removed by the maintenance crew at that time.

Green Building Design Guidelines Section VI.D Commercial/Industrial	
VI.D.1: Roofs should be designed to integrate renewable energy systems and provide a cool urban environment.	**Conditionally.** This is a renewable energy project designed to facilitate the implementation of renewable energy systems, as such, the buildings proposed would not include solar panels; however, building roof tops should be painted white to create a cool roof effect under any necessary mechanical equipment.
VI.D.2: Urban heat island impacts should be minimized.	**Not applicable.**No new parking areas are required/proposed with this project.
VI.D.3: Hardscapes should be constructed with permeable surfaces. Impermeable surfaces may be used if they direct all runoff toward an appropriate permanent infiltration feature.	**Yes.** The project is designed consistent with low impact development standards.
VI.D.4: Design choices should incorporate or prepare for electric vehicle charging or used vegetable oil fueling infrastructure.	**Not Applicable.** This facility wwould be unmanned and therefore no parking is provided for employees.
VI.D.5: Fuel cell technology should be considered where other renewables are infeasible.	**Not Applicable.** This is a renewable energy project designed to facilitate the implementation of renewable energy systems.
VI.D.6: Reclaimed water should be used for as much non-potable water uses as feasible and practical.	**Not Applicable.** Recycled water is not available at this location at this time.
VI.D.7: Large commercial and institutional facilities that are anticipated to employ more than 50 employees should consider providing on-site shops and services for those employees.	**Not Applicable.** There would be no employees at this facility.
VI.D.8: Street side building faces should encourage walking.	**Not Applicable.** The buildings would be set behind a fence to protect the facilities. The landscaping along the property frontage includes a sidewalk (outside of the fenced area) around three sides of the property.
VI.D.9: Secure bicycle parking facilities should be provided for at least 10 percent of expected peak hour trips.	**Not Applicable.** No parking spaces are required/provided since there would be no employees.

CITY OF PITTSBURG
MITIGATED NEGATIVE DECLARATION

Diablo Energy Storage, AP-17-1270 (RZ, UP, DR)

Adopted by the Pittsburg City Council on: _____

Notice is hereby given that the City of Pittsburg finds that no significant effect on the environment, as prescribed by the California Environmental Quality Act of 1970 (CEQA), as amended, will occur for the following proposed project:

Project Proponent: Kevin Johnson, Diablo Energy Storage LLC, 5000 Hopyard Road, Suite #480, Pleasanton, CA 94588

Project Description: This is a request for approval of: 1) an amendment to the existing 'Empire Business Park Overlay' zoning district (Ordinance Nos. 07-1284 and 04-1214; 2) a use permit; and 3) design review of plans to establish a battery storage project on a currently vacant site. The purpose of the proposed development is to reliably receive, store and discharge electric energy from the California Independent System Operator-controlled electric grid, including renewable energy produced by existing solar and wind resources in the region. The project would consist of up to three buildings (each 60,000 square feet) constructed on a graded and vacant approximately 12 acre site, representing a portion of the property designated as the 35 acre Empire Business park. The buildings would house advanced energy storage equipment including inverters, transformers and a small onsite electric substation. The facility would be connected via a new electric tie-in line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg Substation located approximately 0.6 mile north of the site. Three alternative routes are under consideration for the tie-in line to the PG&E Substation. The facility would be unoccupied and is designed for full remote operation.

Project Location: 701 Willow Pass Road, Pittsburg, CA. 94565 (Assessor's Parcel No. 085-280-010)

Finding: The project described above will not have a significant effect on the environment for the reasons stated below.

Statement of Reasons to Support the Finding:

Potentially Significant Impacts: The Initial Study prepared for the project identified potentially significant impacts if the West Tie-in alignment is selected in the following categories: Biological Resources, and Tribal Cultural Resources. However, no significant effects upon the environment would occur as a result of this project because mitigation measures identified in the Initial Study would be incorporated as conditions of approval of the project, if approved, in order to reduce the potentially significant impacts of the project to a less than significant level.

Other: All other impacts in the categories of Aesthetics, Agriculture and Forest Resources, Air Quality, Biological Resources, Geology/Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, and Land Use/Planning, Mineral Resources, Noise,Population/Housing, Public Services, Recreation, Transportation/Traffic, Utilities/Service Systems, and Mandatory Findings of Significance were found to be less than significant. Based on the Initial Study, the Planning Manager has determined that preparation of a Mitigated Negative Declaration is appropriate for the project described above.

Attachments: Initial Study

City of Pittsburg
Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

NOTICE OF INTENT TO CONSIDER ADOPTION OF A MITIGATED NEGATIVE DECLARATION

County Clerk Please Stamp Here

Project Name: **Diablo Energy Storage**
Application No(s).: **AP-17-1270 (UP, DR, RZ, DA)**
Date: **February 9, 2018**

Notice is hereby given that the City of Pittsburg finds that no significant effect on the environment, as prescribed by the California Environmental Quality Act of 1970 (CEQA), as amended, will occur for the following proposed project:

1. Project Proponent: Kevin Johnson, Diablo Energy Storage, LLC., 5000 Hopyard Road, Suite #480, Pleasanton, CA 94588

2. Project Description: This is a request for approval of: 1) an amendment to the existing 'Empire Business Park Overlay' zoning district (Ordinance Nos. 07-1284 and 04-1214; 2) a use permit; and 3) design review of plans to establish a battery storage project on a currently vacant site. The purpose of the proposed development is to reliably receive, store and discharge electric energy from the California Independent System Operator-controlled electric grid, including renewable energy produced by existing solar and wind resources in the region. The project would consist of up to three buildings (each 60,000 square feet) constructed on a graded and vacant approximately 12 acre site, representing a portion of the property designated as the 35 acre Empire Business park. The buildings would house advanced energy storage equipment including inverters, transformers and a small onsite electric substation. The facility would be connected via a new electric tie-in line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg Substation located approximately 0.6 mile north of the site. Three alternative routes are under consideration for the tie-in line to the PG&E Substation. The facility would be unoccupied and is designed for full remote operation.

3. Project Location: 701 Willow Pass Road, Pittsburg, CA. 94565 (Assessor's Parcel No. 085-280-010)

4. Findings: The Initial Study prepared for the project identified potentially significant impacts if the West Tie-in alignment is selected in the following categories: Biological Resources, and Tribal Cultural Resources. Mitigation measures have been identified to reduce each of the potentially significant impacts to a less-than-significant level.

a. All other impacts in the categories of Aesthetics, Agriculture and Forest Resources, Air Quality, Biological Resources, Geology/Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, and Land Use/Planning, Mineral Resources, Noise, Population/Housing, Public Services, Recreation, Transportation/Traffic, Utilities/Service Systems, and Mandatory Findings of Significance were found to be less than significant. Based on the Initial Study, the Planning Manager has determined that preparation of a Mitigated Negative Declaration is appropriate for the project described above.

5. The 35-acre parcel on which the Site occurs is included in the Regional Walter Quality Control Board's (RWQCB's) GeoTracker online data base (Case No. T0601300095) and the Department of Toxic Substance Control (DTSC) Envirostor online database (Case No. 07260001), which both stem from Government Code Section 65962.5. The Geotracker shows that the RWQCB case being closed in October 1997. The Environstor case is open.

6. Initial Study: The Initial Study, proposed Mitigated Negative Declaration, and project plans may be reviewed during normal business hours at the City of Pittsburg Planning Division, located at 65 Civic Avenue, Pittsburg, CA 94565, or on the City's website via the Environmental Review page at http://www.ci.pittsburg.ca.us/index.aspx?page=217. As noted in the Initial Study, background or reference materials related to the Initial Study can be reviewed upon request to the City of Pittsburg Planning Division.

7. Public Review: The 30-day public review and comment period for this environmental determination will begin on Friday, February 9, 2018. Anyone who wishes to comment on the findings of this environmental analysis must submit these comments in writing to Joan Lamphier, Consulting Planner for the City of Pittsburg at the address noted above, by email to JLamphier@ci.pittsburg.ca.us, or by fax to (925) 252-4814. **Comments must be received by 5:00 p.m. on Monday, March 12, 2018**.

8. Notice of Intent to Adopt a Mitigated Negative Declaration: Notice is hereby given that the Pittsburg Planning Commission is tentatively scheduled to consider this proposed Mitigated Negative Declaration at a public hearing scheduled for March 27, 2018, at 7:00 p.m., in the third floor Council Chamber at 65 Civic Avenue in Pittsburg.

   a. This proposed Mitigated Negative Declaration does not signify approval or disapproval of this project by City decision-making bodies. The Planning Commission will consider the proposed Mitigated Negative Declaration together with any comments received during the public review process to determine whether the project will have a significant impact on the environment.

Kristin Pollot, AICP
Planning Manager

California Environmental Quality Act
Initial Study
Diablo Energy Storage Project

February 2018

Prepared For:
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Prepared By:
TRC
17911 Von Karman Avenue, Suite 400
Irvine, CA 92614

California Environmental Quality Act
Initial Study
Diablo Energy Storage Project

February 2018

Prepared For:
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Prepared By:

17911 Von Karman Avenue, Suite 400
Irvine, CA 92614

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APPENDICES

Appendix A	Detailed Project Description
Appendix B	CalEEMod Input and Output Summary
Appendix C	Sensitive Species Occurrences within Three Miles
Appendix D	Noise Technical Report
Appendix E	NAHC Correspondence

List of Acronyms and Abbreviations

Acronym	Name
ABAG	Association of Bay Area Governments
AC	Alternating Current
Applicant	Diablo Energy Storage, LLC
BAAQMD	Bay Area Air Quality Management District
BC	Business Commercial
BCC	USFWS Bird of Conservation Concern
BMPs	Best Management Practices
CaA	Capay Clay
CalEEMod	California Emission Estimator Model
CAISO	California Independent System Operator
CASQA	California Stormwater Quality Association
Cc	Clear Lake Clay
CCCFPD	Contra Costa County Fire Protection District
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Data Base
CO2	Carbon Dioxide
CWA	Clean Water Act
dB	Decibel
DC	Direct Current
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
ESA	Endangered Species Act
FE	Federal Endangered
FEMA	Federal Emergency Management Agency
FT	Federal Threatened
FC	Candidate for Federal Listing
GhG	Greenhouse Gas
GQ	Governmental and Quasipublic
HCP/NCCP	Habitat Conservation Plan/Natural Community Conservation Plan
HVAC	Heating, Ventilation and Air Conditioning
IG	General Industrial
IPaC	Information for Planning and Consultation (USFWS website)
IP-O	Industrial Park-Limited Overlay
Ja	Joice muck
kV	Kilovolts
LUC	land use covenant
mg/L	Milligrams per liter
MRZ	Mineral Resource Zone
NAHC	Native American Heritage Commission
NAVD 88	North American Vertical Datum of 1988
NOx	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
Ob	Omni silty Clay
PG&E	Pacific Gas & Electric Company
PM	Particulate Matter
POI	point of interconnection
QSP	Qualified SWPPP Practitioner

ROGs	Reactive Organic Gasses
RWQCB	Regional Water Quality Control Board
SE	State Endangered
SFP	State-Fully Protected
So	Sycamore silty clay loam
SR	State Route
SSC	Species of Special Concern
ST	State Threatened
SWPPP	Storm Water Pollution Prevention Plan
TCE	tricholorethylene
VHHSZ	Very High Fire Hazard Severity Zone
WL	Watch List Species
Zone AE	100-year flood zone

1.0 INTRODUCTION

1.1 Project Overview

Diablo Energy Storage, LLC (Applicant) has submitted to the City of Pittsburg (City) a request for approvals necessary for development of an approximately 12-acre project site (Site) within an approximately 35 acre parcel (APN 085-280-010) located at 701 Willow Pass Road, Pittsburg, California. One hundred percent of the Site has previously been graded and is currently occupied by paved access routes, maintained bare soil, and non-native grassland. The site is within the Empire Business Park Overlay District and would be leased by the Applicant.

The Applicant proposes to construct one to three single story buildings and associated electrical equipment onsite. The buildings would house advanced energy storage technology (e.g., lithium ion batteries) which, together with related control equipment including inverters, transformers, and a small onsite electric substation, would be connected via a new electric tie-line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg substation located approximately 0.6 mile north of the Site. The facility would be unoccupied and is designed for full remote operation.

The Site is within the East Contra Costa Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area. Two alternate routes being considered for a tie-line to the PG&E Pittsburg substation are also within the HCP/NCCP area and a third alternate route being considered extends out of the HCP/NCCP area.

The parcel is designated Business Commercial (BC) in the General Plan and zoned Industrial Park-Limited Overlay (IP-O). Approvals from the City that would be necessary for the proposed development include: a zoning text amendment to amend the IP-O (Industrial Park With a Limited Overlay, Ord. No. 07-1284) District, or the “empire business park overlay district”, such that a “major utility” would be permitted with a use permit. In addition to the zoning text amendment, Diablo Energy Storage, LLC is applying for a conditional use permit, design review and development agreement. A minor subdivision (lot line adjustment or parcel map waiver), or filing of a final map following a current tentative parcel map may also be pursued that would divide the Site from the existing 35 acre parcel.

1.2 California Environmental Quality Act

The Diablo Energy Storage project approvals being considered constitute a “project” as defined by the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.) and the “CEQA Guidelines” (California Code of Regulations, Title 14, Section 15000 et seq), and is thereby subject to the requirements of CEQA. For purposes of CEQA, the term “project” refers to the whole of an action which has the potential to result in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378). As the principal public agency responsible for approval the Diablo Energy Storage project, the City is the “lead agency” overseeing and administering the CEQA environmental review process.

As set forth in various provisions of the CEQA Statute (e.g., Section 21080), before deciding whether to approve a project, public agencies must consider the potential significant environmental impacts of the project and must identify feasible measures to minimize these impacts. Pursuant to CEQA Guideline Section 15064, if any aspect of the proposed project,

either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, an Environmental Impact Report (EIR) must be prepared.

This Initial Study is a factual document, prepared in conformance with CEQA, and written for the purpose of making the public and decision-makers aware of the potential environmental consequences of the project. For any project impact that is considered potentially "significant," the Initial Study identifies mitigation measures, where feasible, to reduce or avoid the significant effect. Before any action can be taken to approve the Diablo Energy Storage Project, the City must certify that it has reviewed and considered the information in the Initial Study/Proposed Negative Declaration and that this document has been completed in conformity with the requirements of CEQA. Approval of a Negative Declaration does not approve or deny the proposed project.

1.3 Environmental Review

Consistent with CEQA, this Initial Study is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the proposed project and to recommend mitigation measures and/or standard conditions of approval to lessen or eliminate adverse impacts.

This Initial Study/Proposed Negative Declaration is available for public review for thirty days, during which time written comments on the Initial Study may be submitted to:

Kristin Pollot, AICP
Planning Manager
City of Pittsburg
Planning Division
65 Civic Avenue
Pittsburg, CA 94565
kpollot@ci.pittsburg.ca.us

2.0 PROJECT DESCRIPTION

The Site location is shown in Figure 1. The Site constitutes Parcel B of the existing Tentative Parcel Map for APN 085-280-010 as shown in Figure 2. The Site has previously been graded and is mostly covered with several feet of fill dirt. Figure 3 provides representative photographs of the Site and surroundings.

The facility would not generate electricity. Rather, it would provide a service by receiving energy (charging) from the point of interconnection (POI) with the PG&E electric transmission system, storing energy, and then later delivering energy (discharging) back to the POI. Following construction, the proposed use would not create emissions to air, would not require sanitary facilities, and would not require water except to maintain water efficient landscape to meet City requirements.

2.1 Purpose

The purpose of the proposed development is to reliably and economically receive, store and discharge electric energy from the California Independent System Operator (CAISO)-controlled electric grid, including renewable energy produced by existing solar and wind resources in the region. The project would interconnect to the CAISO-controlled grid at the nearby PG&E's Pittsburg Substation. Construction of the project would:

- Provide a new economic and reliable means of capturing and managing renewable energy;
- Provide economic benefit to the City of Pittsburg, Contra Costa County, the region, and the State, through construction jobs, property and sales taxes, and increased energy efficiency and reliability;
- Help stabilize the electric grid and increase the effectiveness of both conventional and renewable energy generation projects;
- Support the achievement of local, state and federal renewable energy goals; and
- Support State goals for energy storage.

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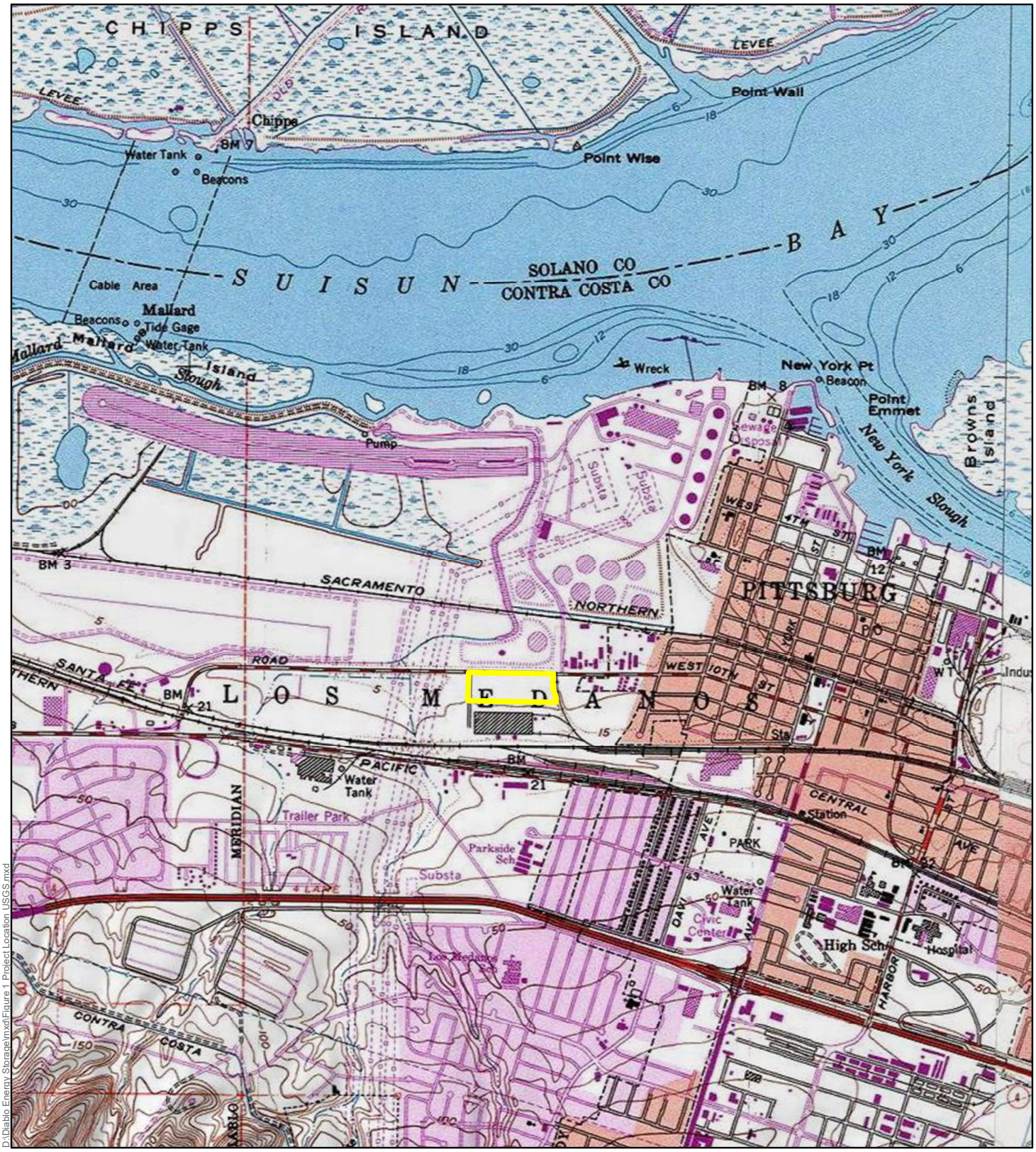

D:\Diablo Energy Storage\mxd\Figure 1 Project Location USGS.mxd

Legend

Project Site

Figure 1: Site Location

Diablo Energy Storage, LLC

N

0 0.5 1 Miles

1:24,000

10/13/2017

TRC Results you can rely on

Figure 2

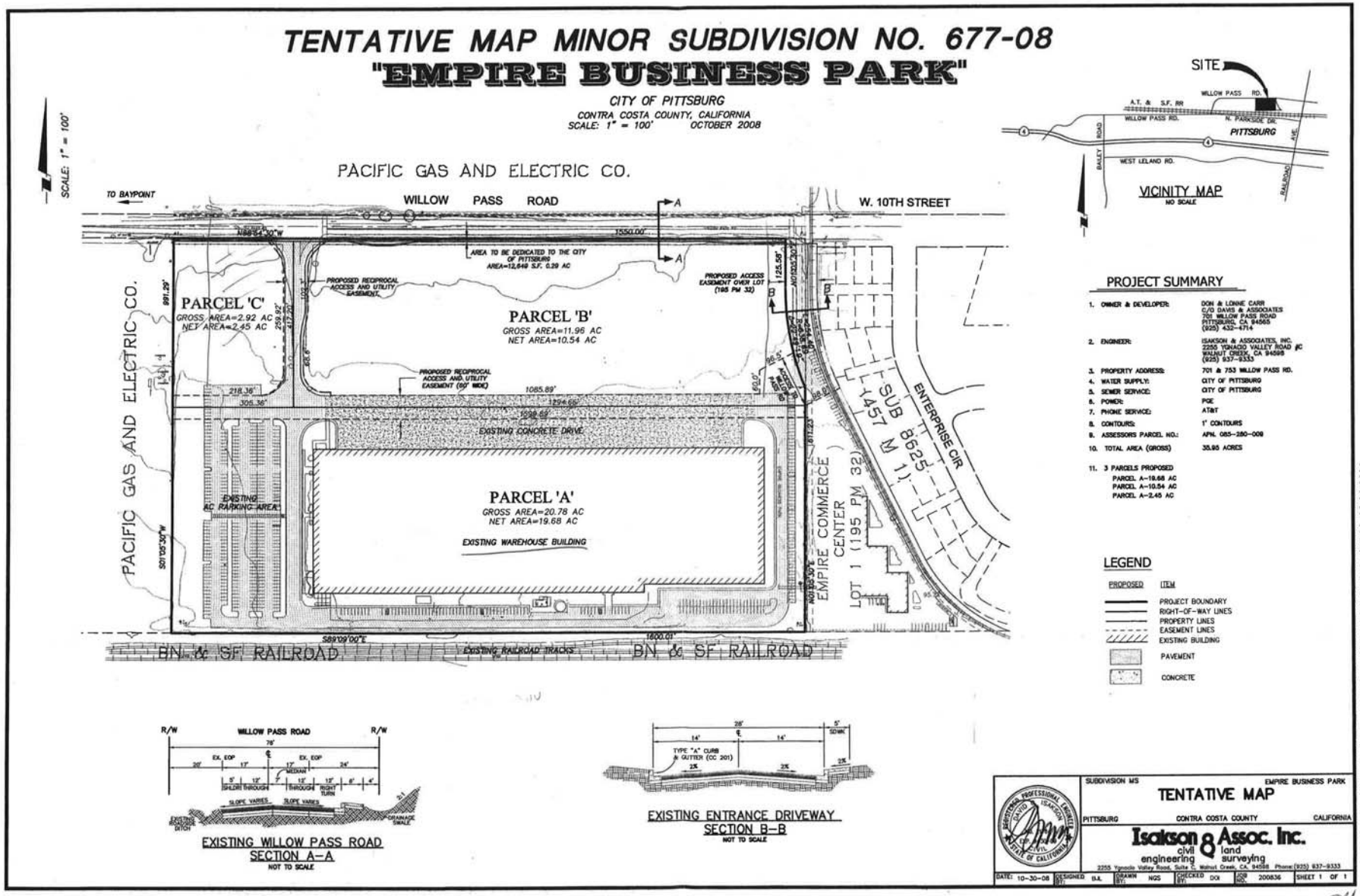
TENTATIVE MAP MINOR SUBDIVISION NO. 677-08
"EMPIRE BUSINESS PARK"
CITY OF PITTSBURG
CONTRA COSTA COUNTY, CALIFORNIA
SCALE: 1" = 100'
OCTOBER 2008
SCALE: 1" = 100'
PACIFIC GAS AND ELECTRIC CO.
TO BAYPOINT
WILLOW PASS ROAD
W. 10TH STREET
PARCEL 'C'
GROSS AREA=2.92 AC
NET AREA=2.45 AC
PARCEL 'B'
GROSS AREA=11.96 AC
NET AREA=10.54 AC
PARCEL 'A'
GROSS AREA=20.78 AC
NET AREA=19.68 AC
EXISTING WAREHOUSE BUILDING
EXISTING CONCRETE DRIVE
EXISTING AC PARKING AREA
PROPOSED RECIPROCAL ACCESS AND UTILITY EASEMENT
PROPOSED ACCESS EASEMENT OVER LOT (195 PM 32)
AREA TO BE DEDICATED TO THE CITY OF PITTSBURG AREA=12,649 S.F. 0.29 AC
EMPIRE COMMERCE CENTER
LOT 1 (195 PM 32)
SUB 8625
(457 M 1)
ENTERPRISE CIR
BN & SF RAILROAD
EXISTING RAILROAD TRACKS
SITE
WILLOW PASS RD.
A.T. & S.F. RR
N. PARKSIDE DR.
PITTSBURG
WEST LELAND RD.
BAILEY ROAD
RAILROAD AVE.
VICINITY MAP
NO SCALE
PROJECT SUMMARY
1. OWNER & DEVELOPER: DON & LONNE CARR C/O DAVIS & ASSOCIATES 701 WILLOW PASS ROAD PITTSBURG, CA 94565 (925) 432-4714
2. ENGINEER: ISAKSON & ASSOCIATES, INC. 2255 YGNACIO VALLEY ROAD #C WALNUT CREEK, CA 94598 (925) 937-9333
3. PROPERTY ADDRESS: 701 & 753 WILLOW PASS RD.
4. WATER SUPPLY: CITY OF PITTSBURG
5. SEWER SERVICE: CITY OF PITTSBURG
6. POWER: PGE
7. PHONE SERVICE: AT&T
8. CONTOURS: 1' CONTOURS
9. ASSESSORS PARCEL NO.: APN. 085-280-009
10. TOTAL AREA (GROSS) 35.95 ACRES
11. 3 PARCELS PROPOSED
PARCEL A-19.68 AC
PARCEL A-10.54 AC
PARCEL A-2.45 AC
LEGEND
PROPOSED ITEM
PROJECT BOUNDARY
RIGHT-OF-WAY LINES
PROPERTY LINES
EASEMENT LINES
EXISTING BUILDING
PAVEMENT
CONCRETE
EXISTING WILLOW PASS ROAD SECTION A-A
NOT TO SCALE
EXISTING ENTRANCE DRIVEWAY SECTION B-B
NOT TO SCALE
SUBDIVISION MS
EMPIRE BUSINESS PARK
TENTATIVE MAP
PITTSBURG
CONTRA COSTA COUNTY
CALIFORNIA
Isakson & Assoc. Inc.
civil engineering
land surveying
2255 Ygnacio Valley Road, Suite C, Walnut Creek, CA 94598 Phone: (925) 937-9333
DATE: 10-30-08
DESIGNED BY: B.L.
DRAWN BY: NGS
CHECKED BY: DGI
JOB NO. 200836
SHEET 1 OF 1
200836 EMPIRE - TENTATIVE MAP MINOR SUBDIVISION NO. 677-08 10-30-2008

Figure 3: Site Photographs

1) Looking east from west end of the Site.

2) Looking north along the driveway east of the Site. Existing trees shield views from closest houses.

3) Looking east on the northern end of the Site.

4) Looking west from the east side of the Site.

5) Looking south along the driveway landscape just offsite, on the west side of existing driveway to be used for project access. West boundary of the site is generally along the driveway centerline. The onsite non-native grassland visible on the left site of the driveway would be developed with landscape to generally mirror that shown in the photo for aesthetics.

6) Looking north along the existing driveway to be used for project access. West boundary of the site is generally along the driveway centerline. The onsite non-native grassland visible on the right side of the driveway would be developed with landscape to generally mirror that shown on the left side of the driveway. Either the tie-line Middle or East Alignment routes, if used, would cut through the existing Tank farm visible in right-background.

7) Looking east down Willow Pass Road along the site frontage. Existing 12kV distribution lines occur adjacent to Willow Pass Road. Existing site fencing is visible at right. Project would install landscaping including trees and groundcover along the site frontage in place of non-native grass.

8) Looking west down willow pass road from west side of the site. The existing PG&E high voltage corridor is visible in the background. The tie-line West Alignment, if used, would extend along Willow Pass Road and beneath the existing transmission lines before turning north to parallel the existing lines to the PG&E Pittsburg Substation.

2.2 Project Design

The Project would develop up to three single-story 60,000 square foot industrial-type buildings for a total of 180,000 square feet of development. Battery systems would be housed inside buildings designed for aesthetic compatibility with the surrounding area. The buildings would have battery storage racks separated by aisles, with relay and communications systems for automated monitoring and managing of the batteries to ensure design performance and system life. Batteries operate with direct current (DC) electricity that must be converted to alternating current (AC) for compatibility with the existing electric grid. Power inverters to convert between AC and DC would be located outside the buildings along with transformers that would step up the voltage. A small onsite substation (Figure 5) with switchgear and an additional transformer would further step-up the voltage to the 230 Kilovolts (kV) needed for compatibility with the voltage of the point of interconnection to the electric grid.

The substation area would be fenced in accordance with high voltage electric code requirements and would include an approximately 24-foot wide x 50-foot high H-frame structure with switches, lightning arrestors and metering equipment. The onsite substation would be connected to the existing PG&E Pittsburg Substation to the north via an overhead 230 kV electric tie-line. A photograph example of poles that would be used to support the 230 kV tie-line are shown in Figure 4, along with photograph example for lattice tower structures that may be needed for a portion of one alignment. The area between the Site and the Pittsburg Substation is extensively developed with industrial and utility infrastructure that prevents a direct tie-line route and limits feasible routes. The Applicant is requesting approval to use any of the following three alignments shown in Figure 5, designed following tight geometric and space constraints through existing infrastructure areas:

- The **West Alignment** would leave the Site westbound on the south side of Willow Pass Road and extend under an existing PG&E high voltage transmission corridor just west of the Site, and then turn north to follow the existing transmission corridor to the Pittsburg substation. This alignment is approximately 6,700 feet long and would require approximately eight support structures. Three of these structure locations may require lattice towers (Figures 4 and 5) where the alignment is alongside the existing PG&E high voltage corridor. The remaining structures would be approximately 77-95 foot high poles similar to the example pole in Figure 4. This alignment is located mostly on highly disturbed land, except for structures near the north end located in habitat that could be wetlands requiring permits from other jurisdictional agencies.
- The **Middle Alignment** heads north from the Site through an existing oil tank farm. This alignment is approximately 3,800 feet long and would require approximately twelve 77-95 foot high support poles located entirely on highly disturbed land.
- The **East Alignment** is the same as the Middle Alignment near the Site but extends around the east side of the existing oil tank farm. The length of this route is approximately 5,800 feet and would require approximately sixteen 77-95 foot high support poles, entirely located on highly disturbed land.

Figure 4: Example Tie-Line Structures

1) This 230 kV pole line is an example of what the project's approximately 77- to 95-foot high tie-line pole structures could look like.

2) If the West Alignment is used, approximately three lattice tower structures similar to that shown here could be required where the tie-line crosses possible wetlands.

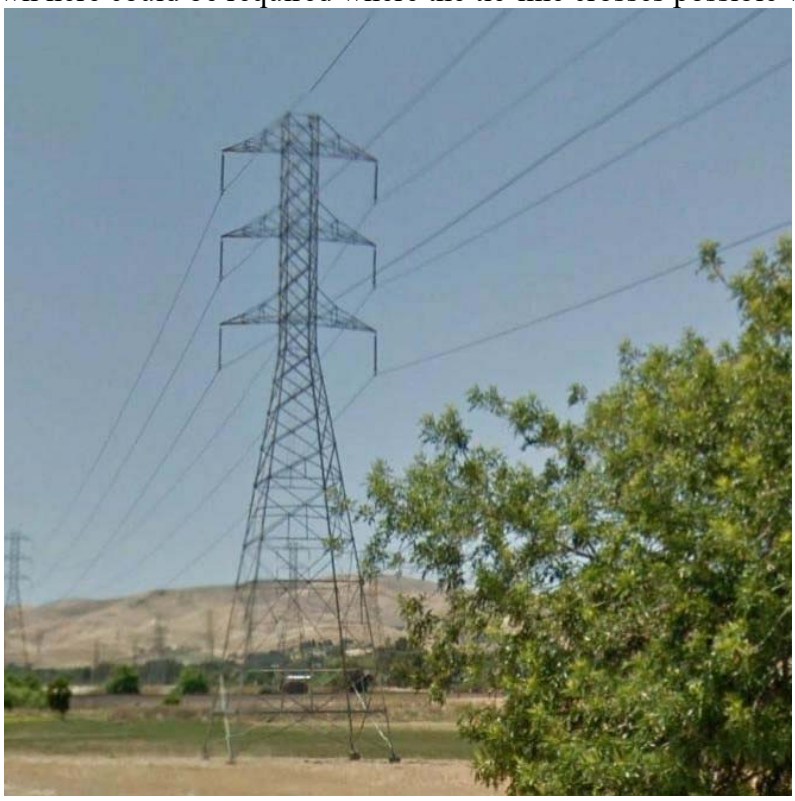

Figure 5: Tie-Line Alternatives
Diablo Energy Storage, LLC

Legend

- Tie-Line Structure (Pole)
- Tie-Line Structure (Pole or Tower)
- West Alignment
- Middle Alignment
- East Alignment
- Project Site
- Proposed Onsite Substation

TRC
Results you can rely on

N

0 400 800 1,200 Feet

1:9,600

2/5/2018

2.3 Construction

Construction and equipment installation is expected to take 6 to 12 months including the buildings, outdoor electrical equipment, and site preparation including stormwater controls and landscaping. Construction staging would occur onsite. Construction may be phased in response to market demands. Final grading and building plans would be subject to approval by the City Engineering Division.

It is estimated that Site grading and preparation would require the following equipment:

TYPE	QUANTITY
Bulldozer (e.g., CAT D7)	1
Grader (e.g., CAT D7)	1
Scraper (15-30 CY)	2
Water Truck (3,000- 5,000 gal)	1
Self-Propelled Compactor	1
Dump Truck	1
Tractor/Loader/Backhoe (e.g., Case 590)	1
Bobcat	1

Sanitary facilities during construction would be provided by portable self-contained units maintained by a licensed contractor.

Project construction would implement the following measures to control dust emissions during construction in accordance with Bay Area Air Quality Management District guidance:

- Water or another non-toxic dust palliative would be used during construction to control dust.
- Exposed soil areas would be watered two times per day when needed to control dust emissions;
- Haul trucks transporting soil, sand or other loose material offsite would be covered;
- Best Management Practices (BMPs) would be implemented to minimize track-out onto adjacent public streets;
- A 15 mile per hour speed limit would be used for roadways until stabilized with gravel or other treatment to minimize dust; and
- Disturbed surfaces would be stabilized as soon as practical.

Construction is expected to generate up to an estimated 75 construction jobs during peak construction periods. Deliveries of equipment and materials would generate an estimated 5 round trips per day during peak construction periods that would occur throughout the day.

2.4 Operations

The facility would operate year-round and would be available to receive or deliver energy 24 hours a day, 365 days a year. The Site would be secured with chain link fencing and equipped with security

cameras, alarms and other security and operational monitoring systems. Landscaping would include water-efficient trees, shrubs and groundcover that would provide aesthetics for views from Willow Pass Road. Existing trees and landscaping along the driveway east of the Site (See Figure 3) would provide visual screening between the project and residences to the east. At the west edge of the site, proposed landscaping along the edge of the existing driveway would include trees and ground cover to mirror the existing landscaping on the opposite (offsite) edge of the driveway. The electrical equipment, heating, ventilation, air conditioning, fire protection systems, and security would be automated and monitored remotely. The Site would be unoccupied but visited periodically through the year for equipment inspections, monitoring and testing, and maintenance as needed. Periodically, batteries and various components would be replaced or renewed to ensure optimal operation.

Storm water treatment in accordance with City requirements would be provided by gravel yard surfacing and bioretention swales as shown in the Preliminary Design Drawings. Outdoor equipment would be sealed or enclosed and would not affect storm water quality.

Outdoor electrical equipment, cooling fans, and HVAC systems would generate low levels of noise during routine operations. The closest sensitive noise receptors are residences located east of the Site. The project is designed with a building at the eastern side that would block electrical equipment noise to these residential receptors. The facility would be designed comply with the noise standards at Section 12 of the General Plan.

At the end of battery life, battery modules would be removed from the battery racks and returned to the manufacturer or their approved recycling partner(s) for dismantling, material processing and recovery. Other waste from Site maintenance would be removed from the Site as part of maintenance work and managed in accordance with applicable regulations. Oil filled equipment is operated closed and sealed.

2.5 Schedule

Construction would be scheduled to begin after receipt of requisite permits and is expected to take approximately 6 -12 months. The full project could be constructed initially or portions of the site could be constructed in phases. The building space at the east end of the Site would be built first to block noise to residences. The Preliminary Site Plans in the detailed project description in Appendix A provide a conceptual phasing plan.

3.0 CEQA INITIAL STUDY CHECKLIST

1. **Project title:** Diablo Energy Storage, LLC

2. **Contact person and phone number:**
   Kristin Pollot
   Planning Manager
   City of Pittsburg
   (925) 252-4941
   kpollot@ci.pittsburg.ca.us

3. **Project location:** 701 Willow Pass Road, Pittsburg, CA 94565

4. **Project sponsor's name and address:**
   Diablo Energy Storage, LLC
   c/o Kevin R. Johnson
   5000 Hopyard Road, Suite 480
   Pleasanton, CA 94588

5. **General plan designation:**
   Business/Commercial

6. **Zoning:** Industrial Park-Limited Overlay (IP-O) ("*Empire Business Park Overlay District" Ord. No. 07-1284)*

7. **Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)**
   A comprehensive Project Description including maps and Preliminary Site Plans is attached to this initial Study as Appendix A.

8. **Surrounding land uses and setting (briefly describe the project's surroundings):**
   Willow Pass Road is adjacent to the north of the Site and lands north of Willow Pass Road are industrial. The adjacent land to the south of the Project Site is developed as an approximately 400,000 square foot commercial warehouse-style structure and associated parking and truck loading docks. Adjacent lands to the east of the Site consist of a paved commercial entrance road between the Project Site and a residential housing tract. Adjacent lands to the west of the Site are comprised of a paved entrance to the commercial development to the south, a graded but undeveloped area, and a high voltage electric transmission line corridor.

   If the Middle or East Alignment of the tie-line were to be constructed, adjacent lands are industrial except that an approximately 1,200 foot long segment of the East tie-line that has adjacent uses including residential and recreational at distances of approximately 100 to 300 feet. If the West Alignment is used for the tie-line, it would be located within and adjacent to an existing high voltage transmission corridor that traverses open space.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)**
    The proposed Project would be required to obtain coverage under the State General NPDES Permit for discharges of stormwater from construction projects. This permit is administered by the Regional Water Quality Control Board and is in place for use by applicants upon filing of a satisfactory Permit Registration Documents.

    If the West Alignment is used for the tie-line, impacts to wetlands may occur that would require

a Fish and Game Code Section 1600 permit from California Department of Fish and Wildlife. In addition, if the West Alignment impacts federally jurisdictional wetlands, then a Clean Water Act (CWA) Section 404 Permit (Nationwide Permit No. 12 for Utilities) would be needed from U.S. Army Corps of Engineers as well as a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board.

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project. Check marks are indicated by the following symbol: ☑

☑	Aesthetics	☐	Agriculture and Forest Resources	☑	Air Quality
☑	Biological Resources	☑	Cultural Resources	☑	Geology/Soils
☑	Greenhouse Gas Emissions	☑	Hazards and Hazardous Materials	☑	Hydrology and Water Quality
☑	Land Use/Planning	☐	Mineral Resources	☑	Noise
☐	Population/Housing	☑	Public Services	☐	Recreation
☑	Transportation/Traffic	☑	Utilities/Service Systems	☑	Mandatory Findings of Significance

3.2 Determination

(To be completed by the Lead Agency) On the basis of this initial evaluation:

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

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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

Prepared By: Joan Lamphier, Project Planner
Reviewed By: Kristin Pollot, Planning Manager

Signature _____ Date 2/7/18.

3.3 Evaluation of Impacts

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
No Impact: *The proposed Project is not located within any scenic vista or scenic resources area designated in the City or County General Plans. Furthermore, neither the proposed Site facilities nor the electric line would be visible from any State- or County-designated Scenic Highway or Scenic Route. Existing uses surrounding the proposed Project include industrial and commercial developments to the north and south, a high voltage electric transmission line corridor to the west, and residential development to the east. Considering these factors, the Project would not impact any scenic vista.*				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
No Impact: *No designated or eligible State scenic highways occur in the vicinity. The nearest State scenic highway is State Route (SR) -24, located approximately 24 miles south of the proposed Project location. The Project area is not visible from SR 24. Therefore, the Project would not affect scenic resources within a State scenic highway corridor. The Site is relatively flat and has been previously graded. There are no rock outcroppings, historic buildings, scenic tree stands or other scenic resources on the Site or electric line route. Considering these factors, there would be no impact to scenic resources.*				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
Less than Significant Impact: *The Site is relatively flat and has been previously graded. Existing uses surrounding the proposed Project include industrial and commercial developments to the north and south, a high voltage electric transmission line corridor to the west, and residential development to the east. Considering these factors, the Project would not impact any scenic vista. The proposed Project features would not be out of scale or out of character with surrounding uses. An existing driveway bordering the east side of the Site is landscaped with non-native trees that would provide visual screening between the Site and the residential development to the east (refer to Figure 2 in the Project Description). Considering these factors, the proposed Project would not degrade the existing visual character or quality of the site and its surroundings. Therefore, the impact would be less than significant. Landscaping that would be completed consistent with City standards in conjunction with the Project would enhance existing visual characteristics of the Site.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐
Less than Significant Impact: *The Project would normally be unoccupied and the design does include new permanent night lighting. Motion-activated lighting may be used where needed for safety or security such as at access gates and doorways to buildings. If used, lighting would be directed downward and shielded to minimize visibility from offsite. As shown in the architectural renderings in Preliminary Site Plans, buildings would be single-story warehouse-type architecture that would not be a substantial source of glare. The electric tie-line would not have night lighting or large planar surfaces that could be a source of glare. Considering these factors, the Project would not create a new source of substantial light or glare that could affect day or nighttime views. Therefore, the impact would be less than significant.*				
II. AGRICULTURE AND FOREST RESOURCES -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
agricultural use?				
No Impact: *No farmlands occur in the vicinity of the proposed Project so no farmlands would be affected by the Project.*				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
No Impact: *No lands zoned for agriculture occur in the vicinity of the proposed Project so no lands zoned for agriculture or under a Williamson Act contract would be affected by the Project.*				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☑
No Impact: *No lands zoned forest land, timberland or timberland production occur in the vicinity of the proposed Project so no lands zoned forest land, timberland or timberland production would be affected by the Project.*				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
No Impact: *No forest lands occur in the vicinity of the proposed Project so no forest lands would be affected by the Project.*				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑
No Impact: *The proposed Project comprises infill development in an urbanized area. The site has been previously graded. Access is via the existing paved Willow Pass Road. There are no farmlands or forest lands in the vicinity of the proposed Project that could be affected. The proposed Project does not include any action that would result in rezoning or conversion of agricultural or forest land. Therefore, there would be no impact.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐

Less than Significant Impact: *The proposed Project would be located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The Project would not conflict with or obstruct implementation of any applicable air quality plan. The Project would not add dwelling units or structures that would generate operational emissions, or add full-time employees that would commute to and from the Projects on a daily basis. The Site would be unoccupied but visited periodically through the year for equipment inspections, monitoring and testing, and maintenance as needed. Operations would not result in emissions to air other than exhaust emissions from vehicle use for these periodic visits. These emissions would be minor considering the small and infrequent level of activity. Therefore, operations emissions would be less than significant.*

Project construction would result in dust and fuel-burning emissions. The BAAQMD significance thresholds for construction activities are provided in the following table along with maximum daily Project construction emissions as estimated by CalEEMod (Appendix B).

Criteria Pollutant	***Average Daily Threshold (pounds)***	***Project Emissions (max pounds/day)***	***Significant?***
Oxides of Nitrogen (NOx)	*54*	*45.9*	*No*
Reactive Organic Gasses (ROGs)	*54*	*5.4*	*No*
Exhaust Particulate Matter (PM10)	*82*	*2.3*	*No*
Exhaust Particulate Matter (PM2.5)	*54*	*2.1*	*No*

Source: BAAQMD CEQA Air Quality Guidelines, Updated May 2017.

The design for Project construction includes applying water to disturbed surfaces as needed to control dust (see Section 3.4 in Appendix A), and this control measure is reflected in the CalEEMod results in the table above. Consistent with BAAQMD guidelines (BAAQMD, 2012), unstabilized surfaces would be watered two times per day if needed. A nontoxic dust palliative may also be used. Furthermore, pursuant to the City Grading Ordinance (Section 15.88.060) during grading, all graded surfaces and materials are required to be wetted, protected or otherwise contained in such a manner as to prevent any nuisance from dust or spillage upon adjoining streets, and equipment and material on the site must be used in such a manner as to avoid excessive dust. Additional measures that would be implemented during construction to conform with grading ordinance requirements for dust control include: stabilizing disturbed surfaces as soon as practical; covering haul trucks transporting soil,

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

sand or other loose materials offsite; use of BMPs to minimize track-out; and implementing a 15 mile per hour speed limit for unstabilized roadways.

Crushed rock would be used to stabilize road surfaces as needed for to meet CCCFPD requirements, and areas that are not graveled or occupied by foundations would be stabilized by re-vegetation, application of a non-toxic soil binder, or other means of stabilization (see Section 3.2 and Preliminary Design Drawings in Appendix A). The design for Project construction includes applying water to disturbed surfaces as needed to control dust. The following requirements as set forth in Title 13 of the California Code of Regulations for diesel-fueled construction equipment would additionally help to ensure that emission levels during construction do not conflict with or obstruct implementation of BAAQMD's air quality plans:

- *Individual diesel truck idling in excess of five consecutive minutes would be prohibited consistent with Title 13 of the California Code of Regulations §2485.*
- *Diesel-power construction equipment would use low-sulfur diesel fuel pursuant to requirements of Title 13 of the California Code of Regulations §2281.*

Construction emissions are temporary and significance thresholds are based on peak daily emissions. Peak daily emissions for the proposed Project would occur during grading when diesel fuel-burning heavy earthmoving equipment is being used. It is estimated that Site grading and preparation would require the following equipment:

TYPE	*QUANTITY*
Bulldozer (e.g., CAT D7)	*1*
Grader (e.g., CAT D7)	*1*
Scraper (15-30 CY)	*2*
Water Truck (3,000- 5,000 gal)	*1*
Self-Propelled Compactor	*1*
Dump Truck	*1*
Tractor/Loader/Backhoe (e.g., Case 590)	*1*
Bobcat	*1*

The Project site has been previously graded and is nearly flat. Estimated grading quantities are provided on Sheet C-1 in the Preliminary Site Plans. The estimated construction emissions are below significance thresholds. Therefore, it is concluded that construction emissions from the proposed project would be below significance thresholds. A summary of the CalEEMod input and output is provided in Appendix B.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☑	☐

Less than Significant Impact: *As described in Response IIIa, construction emissions would be temporary and would not exceed construction-related significance thresholds. Further, the Project would not add residential units or be growth-inducing. The Project would not diminish an existing air quality rule or future compliance requirement. As a result, the Project would*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
not violate any applicable federal or state air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, the impact would be less than significant.				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors*)?*	☐	☐	☑	☐
Less than Significant Impact: *BAAQMD is state and/or federal nonattainment for ozone and fine particulate matter (PM-2.5) and state nonattainment for coarse particulate matter (PM-10). Operation of the proposed Project would not generate notable particulate emissions. The particulate emissions from periodic Site visits would be too negligible to result in a cumulative net increase in PM-10 or PM-2.5 concentrations. Construction emissions would not exceed construction-related significance thresholds. These thresholds were designed to establish the level at which the BAAQMD believes emissions could cause significant environmental impacts under CEQA when considered in conjunction with other sources. The proposed Project would not conflict with any air quality plan or regulation. Considering these factors, the proposed Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant. Therefore, the impact would be less than significant.*				
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
Less than Significant Impact: *Sensitive receptors are land uses that include members of the population that are particularly sensitive to the effects of air pollution such as children and the elderly and people with illnesses. Examples include residences, hospitals, schools, or convalescent homes. The nearest sensitive receptor is a residential community located east of the Site. The proposed Project would operate without pollutant emissions. Construction emissions would be less than significant as described in Response IIIa above. Considering these factors, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the impact would be less than significant.*				
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
Less than Significant Impact: *Project operations would not be a source of odors. Diesel engine emissions during construction may be a potential source of odor, primarily during grading. However, emissions from grading and other construction emissions would be short-term and separation between offsite receptors and diesel fuel burning equipment on the site would result in dissipation of exhaust emissions so that, if odors are detectable offsite, they would not be substantial. Operation of the proposed Project would not be a source of odor emissions. Considering these factors, if odor is detectable offsite, any impact would be less than significant.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☑	☐	☐

Less than Significant With Mitigation Incorporated: *Except for a portion of the tie-line West Alignment, if used, the Project would be located on lands that are 100 percent disturbed and comprised primarily of non-native grassland and urban features that do not provide important habitat for any sensitive species. The Applicant completed a planning survey report to support the Application for coverage under the HCP/NCCP and proposes to comply with the HCP/NCCP for Project features within the HCP/NCCP area including mitigation fees for non-native grassland, and pre-construction surveys for burrowing owl, Swainson's hawk, Golden Eagle and other nesting birds. The portion of the tie-line West Alignment that is outside of the HCP/NCCP area is north of Willow Pass Road (Figure 5) where the ground surface is low and comprised of grassland and wetlands.*

A search of the CNDDB and IPaC databases was conducted to evaluate the potential for occurrence of protected species for the West Alignment as well as the grassland and urbanized areas of the Project footprint. Together, the CNDDB and IPaC databases indicated that 14 special status plant and 24 special status wildlife species have been recorded within a three-mile radius (Appendix C). Based on evaluation of habitat needs and habitats present at or adjacent to Project features, it was determined that none of these species are likely to occur within or adjacent to the Project footprint, except for where the West Alignment is located north of Willow Pass Road. Disturbance along this alignment could include up to 0.38 acre of long-term disturbance and an additional 1.09 acres of short-term (construction) disturbance in possible wetlands, all outside of the HCP/NCCP boundaries. In short term disturbance areas the surface would be stabilized by returning the disturbance to approximate pre-construction conditions. In the low lying portion of the West Alignment, six special status plant species and three special status wildlife species were determined to have at least a moderate potential to occur, as shown in following tables. Pittsburg and surrounding areas are broadly mapped as critical habitat for the Delta smelt. No aspect of the Project is expected to directly or indirectly impact waters providing Delta smelt habitat. Best Management Practices (BMP) measures required during construction under the State General Permit would protect water quality and prevent indirect impacts to this species.

SPECIAL STATUS PLANT SPECIES WITH MODERATE OR GREATER POTENTIAL FOR OCCURRENCE ON OR ADJACENT TO THE WEST ALIGNMENT

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Chloropyron molle ssp. *molle* Soft salty bird's-beak	Fed: CA: CNPS/CRPR:	FE SR 1B.2	Hemiparasitic annual herb. Habitat includes coastal salt marshes and swamps. Blooms June-November. Elevation 0-3 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Cicuta maculata var. *bolanderi* Bolander's water hemlock	Fed: CA: CNPS/CRPR:	None None 2B.1	Perennial herb. Habitat includes marshes and swamps with coastal, fresh, or brackish water. Blooms July-September. Elevation 0-200 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat of within the typical elevation range of this species.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	Fed: CA: CNPS/CRPR:	None None 1B.2	Perennial herb. Habitat includes marshes and swamps with fresh or brackish water. Blooms May-July (August-September). Elevation 0-5 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Limosella australis Delta mudwort	Fed: CA: CNPS/CRPR:	None None 2B.1	Perennial stoloniferous herb. Habitat usually mud banks. Also found in riparian scrub, and marshes and swamps with fresh or brackish waters. Blooms May-August. Elevation 0-3 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Lilaeopsis masonii Mason's lilaeopsis	Fed: CA: CNPS/CRPR:	None SR 1B.1	Perennial rhizomatous herb. Habitat is marshes and swamps with fresh or brackish water, and riparian scrub. Blooms April-November. Elevation 0-10 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Symphyotrichum lentum Suisun marsh aster	Fed: CA: CNPS/CRPR:	None None 1B.2	Perennial rhizomatous herb. Habitat is marshes and swamps with fresh or brackish water. Blooms (April) May-November. Elevation 0-3 meters.	**Moderate Potential**: The project area may be within marsh or wetland habitat of within the typical elevation range of this species.
Federal Designations: FE = Federal Endangered FT=Federal Threatened FC=Candidate for Federal Listing BCC = USFWS Bird of Conservation Concern			**California Rare Plant Ranks (CRPR):** **1A:** Presumed extirpated in California and rare or extinct elsewhere **1B:** Rare, threatened, or endangered in California and elsewhere **2A:** Presumed extirpated in California, but more common elsewhere **2B:** Rare, threatened, or endangered in California, but more common elsewhere **3:** Review list of plants requiring more study **4:** Watch list of plants of limited distribution	
CA State Designations: SE=State Endangered ST= State Threatened SR = State Rare SFP = State-Fully Protected SSC= Species of Special Concern WL = Watch List Species			**California Native Plant Society (CNPS) Threat Code:** **.1:** Seriously threatened in California **.2:** Moderately threatened in California **.3:** Not very threatened in California	

SPECIAL STATUS WILDLIFE SPECIES WITH MODERATE OR GREATER POTENTIAL FOR OCCURRENCE ON OR ADJACENT TO THE WEST ALIGNMENT

Scientific Name Common Name	Status		Habitat Requirements	Potential for Occurrence
Actinemys marmorata Western pond turtle	Fed: CA:	None SSC	Found in slow moving streams, lakes, ponds, and wetlands.	**Moderate Potential**: The project area may include marsh or wetland habitat suitable for this species.
Melospiza melodia maxillaris Suisun song sparrow	Fed: CA:	BCC SSC	Found in the brackish-marsh waters of Suisun Bay. Utilize a matrix of emergent vegetation including bulrush and cattails.	**Moderate Potential**: The project area may include marsh or wetland habitat similar to locations of known occurrences in the vicinity.
Reithrodontomys raviventris Salt-marsh harvest mouse	Fed: CA:	E E; SFP	Found in saline emergent wetlands of San Francisco Bay. Require salt marsh vegetation, primarily pickleweed. Nest in grasses, or utilize abandoned bird nests. Known population adjacent to project area.	**Moderate Potential**: The project area may include marsh or wetland habitat similar to a nearby area with a known SMHM population.
Federal Designations FE = Federal Endangered FT=Federal Threatened FC=Candidate for Federal Listing BCC = USFWS Bird of Conservation Concern				**State Designations:** SE=State Endangered ST= State Threatened SFP = State-Fully Protected SSC= Species of Special Concern WL = Watch List Species

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Of the six special status plant species determined to have a moderate potential to occur, the soft salty bird's beak is the only federally protected species. This plant's habitat includes coastal salt marshes and swamps at elevations of 0 to 3 meters and there are known occurrences within three miles of the Project. The soft salty bird's beak and Mason's lilaeopsis both have State Rare status. Bowlander's water hemlock, Delta tule pea, Delta mudwort and Suisun marsh aster are not protected under the federal or State Endangered Species Acts but are ranked by CNPS as shown. Any of these species are estimated to have a moderate probability to occur in the vicinity of the West Alignment since these species can occur in similar swampy areas and conditions. If the West Alignment is used, the Project could impact these species, if present, through direct disturbance for construction of tie-line structures, access and stringing. If these species are present, the impact of direct disturbance could be significant. However, Mitigation Measure BIO-1 would limit the potential for impact to these species to a less than significant level. The tie-line, by the nature of its design, can have support structure locations modified if needed and, therefore, it is expected that sensitive plants could be avoided or mitigated to a level that is less than significant by				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

implementation of BIO-1.

Of the three special status animal species determined to have a moderate potential to occur, the salt-marsh harvest mouse is the only federally protected species and is Endangered under the federal ESA. This species habitat includes wetlands and marsh vegetation and there are known occurrences within three miles of the Project in terrain similar to that which would be traversed by the West Alignment, if used. The salt-marsh harvest mouse also is Endangered under the State ESA and is designated as a State Fully Protected Species meaning that the State cannot issue a Take permit or otherwise authorize a development project to Take any individual. If the West Alignment is used, the Project could impact this species, if present, through direct disturbance for construction of tie-line structures, access and stringing, and through potential direct impacts from infrequent maintenance vehicle traffic. If this species is present, the impacts of direct disturbance and Project maintenance traffic could result in Take of individuals, which would be significant. However, Mitigation Measure BIO-2 would limit the potential for impact to this species to a less than significant level. The tie-line, by the nature of its design, can have support structure locations modified if needed and, therefore, it is expected that this species could be avoided or mitigated to a level that is less than significant by implementation of BIO-2.

The Suisun song sparrow is a USFWS Bird of Conservation Concern and a State Species of Special Concern. The Project could have the potential to impact this species if the West Alignment is used. The primary impact would be the potential for nest disruption during nesting season. The Project Description commits to pre-construction nesting bird surveys completed by a qualified biologist within 14 days prior to ground disturbance if construction would start during the nesting season (February 1-August 31), and avoidance of active nests with implementation of a buffer zone (see Section 3.4 in Appendix A). Work would not occur in the buffer zone until the biologist determines that the nest is inactive. The extent of the buffers would be based on consideration of the anticipated levels of noise or disturbance, ambient level of noise and other disturbance, if the species is present, and topographic or other barriers. These measures for avoiding impacts to active nests would limit the potential for impact to the Suisun song sparrow to a less than significant level.

The Western pond turtle is not federally protected. It is a State Species of Special Concern. If the West Alignment is used, the Project could impact this species, if present, through direct disturbance for construction of tie-line structures, access and stringing, and through potential direct impacts from infrequent maintenance vehicle traffic. If this species is present, the impacts of direct disturbance and Project maintenance traffic could result in loss of individuals, which could be significant. However, Mitigation Measure BIO-3 would limit the potential for impact to this species to a less than significant level. It is expected that this species could be avoided or mitigated to a level that is less than significant by implementation of BIO-3.

Mitigation Measure BIO-1:
If the tie-line West Alignment is used, prior to issuance of grading or building permits for the tie-line, the Applicant shall provide biological, wetlands and jurisdictional waters survey reports accompanying the final tie-line design demonstrating that facilities and access are

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
designed to minimize disturbance to sensitive plants to the extent practical for safe and efficient construction. Reports provided by the Applicant shall be prepared by qualified professionals and shall address federal and state jurisdictional waters and potential for occurrence of Soft salty bird's-beak, Bolander's water hemlock, Delta tule pea, Delta mudwort, Mason's lilaeopsis, Suisun marsh aster based on pedestrian transect surveys for the portion of the West Alignment north of Willow Pass Road including final access routes. The project shall be designed to avoid direct impact to soft salty bird's beak and Mason's lilaeopsis, as well as Bolander's water hemlock, Delta tule pea, Delta mudwort, and Suisun marsh aster. If direct impact to soft salty bird's beak and Mason's lilaeopsis cannot be practically avoided, then the applicant shall consult with USFWS and CDFW to develop a plan for transplanting affected individuals to an appropriate adjacent location. The plan shall be subject to review by USFWS and CDFW and approval by the City prior to issuance of grading or building permits for the tie-line. If direct impact to Bolander's water hemlock, Delta tule pea, Delta mudwort, or Suisun marsh aster cannot be practically avoided, then the applicant shall submit a plan to the City for transplanting, restoring, or preserving these species including success criteria to offset individuals lost at a ratio of no less than 1:1, and shall obtain approval of the plan from the City prior to issuance of grading or building permits for the tie-line. Project construction shall be monitored by a qualified biologist where construction work is within or adjacent to federal or state jurisdictional waters or wetlands, or locations with State or federally listed plants or State Rare plants. Material revisions to the selected final tie-line alignment routing and structure locations shown and described in the Applicant's Project Description shall be subject to approval by the Planning Manager. ***Mitigation Measure BIO-2:*** *If the tie-line West Alignment is used, prior to issuance of grading or building permits for the tie-line, the Applicant shall provide a biological survey report prepared by a qualified professional accompanying the final tie-line design addressing potential for occurrence of salt-marsh harvest mouse. The project shall be designed to avoid any Take of salt-marsh harvest mouse under the State ESA. If impact to salt-marsh harvest mouse habitat cannot be practically avoided, then the applicant shall develop a plan for construction to ensure no State ESA Take during construction, and for restoring or preserving habitat for this species at an area ratio of no less than 3 to 1. The plan shall be subject to review by USFWS and CDFW and approval by the City prior to issuance of grading or building permits for the tie-line.* ***Mitigation Measure BIO-3:*** *If the tie-line West Alignment is used, a qualified biologist shall conduct a pre-construction survey for western pond turtles no more than 30 days prior to construction in suitable aquatic habitats in and adjacent to the West Alignment work area. A combination of visual and trapping surveys may be performed with authorization from the California Department of Fish and Wildlife. If the species is found near any proposed construction areas, impacts on individuals and their habitat shall be avoided to the extent feasible. If occupied habitat can be avoided, an exclusion zone shall be established around the habitat and clearly marked with temporary fencing for avoidance during construction. If avoidance is not possible and the species is determined to be present in work areas, the biologist with approval from CDFW may capture turtles prior to construction activities and relocate them to nearby, suitable habitat a minimum of 300 feet from the work area. Exclusion fencing should then be installed*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
if feasible to prevent turtles from reentering the work area. Project construction shall be monitored by a qualified biologist where construction work is within or adjacent to occupied western pond turtle habitat. *Considering the above factors, with implementation of Mitigation Measures BIO-1, -2, and -3, the Project would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Therefore, the impact would be less than significant with mitigation.*				
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☑	☐	☐
Less than Significant With Mitigation Incorporated: *Except for a portion of tie-line West Alignment, if used, the Project would be located on lands that are 100 percent disturbed and comprised primarily of non-native grassland and urban features without riparian or other sensitive habitat. The exception is the portion of the tie-line West Alignment that is north of Willow Pass Road (see Figure 5), which is low lying and includes wetland areas. Terrain in this area has been assessed from biology and wetland delineation reports covering portions of the West Alignment and nearby lands and from aerial imagery, with visual confirmation from public rights-of-way due to access limitations. The final design for the West Alignment, if used, including structure locations, pull-site locations, and access, would be developed with a wetland delineation report to delineate wetland presence, minimize impacts on wetlands to the extent practical for safe and efficient construction, and precisely calculate the area of disturbed wetland and riparian habitat. Based on preliminary engineering and evaluations, the Project Description estimates up to 0.38 acre of long-term wetland disturbance and an additional approximately 1.09 acres of short-term wetland disturbance for construction. The Applicant's Project Description commits to temporary tie-line construction disturbances being returned to approximate pre-construction conditions (See Section 3.5 in Appendix A). Direct disturbance to wetlands or riparian vegetation would be significant if not mitigated. Because estimated areas of wetland disturbance are based on preliminary engineering and evaluations, it is possible that marginally higher disturbance area could be found necessary once final designs and evaluations are completed. Mitigation Measure BIO-4 would limit impacts to wetlands and riparian vegetation to a less than significant level.* ***<u>Mitigation Measure BIO-4:</u>*** *If the tie-line West Alignment is used, prior to issuance of grading or building permits for the tie-line, the Applicant shall provide a wetlands and jurisdictional waters survey report accompanying the final tie-line design to demonstrate that facilities and access are designed to minimize disturbance to waters and wetlands to the extent practical for safe and efficient construction, and to precisely calculate the area of disturbed wetland and riparian habitat. Reports provided by the Applicant shall be prepared by a qualified professional and shall*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
delineate federal and state jurisdictional waters and wetlands, including verification by USACE for federal wetlands, if present. If disturbance to waters of the US and the state including wetlands cannot be avoided, then such disturbance shall not exceed 0.5 acre long term plus 1.3 acres of short term disturbance, and the Applicant shall obtain required authorizations from USACE and CDFW prior to construction. Disturbances to wetlands or riparian vegetation shall be mitigated at a ratio of no less than 3:1 for long term impacts. *With the 3:1 mitigation of long term impacts to wetlands or riparian vegetation pursuant to Mitigation Measure BIO-4, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service. Therefore, the impact would be less than significant with mitigation.*				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☑	☐	☐
Less than Significant With Mitigation Incorporated: *Except for a portion of tie-line West Alignment, if used, the Project would be located on lands that are 100 percent disturbed and comprised primarily of non-native grassland and urban features without wetlands or other sensitive habitat. The exception is the portion of the tie-line West Alignment that is north of Willow Pass Road, which is low lying and includes wetland areas. Terrain in this area has been assessed from biology and wetland delineation reports covering portions of the West Alignment and nearby lands and from aerial imagery, with visual confirmation from public rights-of-way due to access limitations. The final design for the West Alignment, if used, including structure locations, pull-site locations and access, would be developed with a wetland delineation report to confirm wetland presence, minimize impacts on wetlands to the extent practical for safe and efficient construction, and precisely calculate the area of disturbed wetland. The Project Description estimates up to 0.38 acre of long-term wetland disturbance and an additional approximately 1.09 acres of short-term wetland disturbance for construction. The Applicant's Project Description commits to temporary tie-line construction disturbances being returned to approximate pre-construction conditions (See Section 3.5 in Appendix A). Direct disturbance to wetlands would be significant if not mitigated. Because estimated areas of wetland disturbance are based on preliminary engineering and evaluations, it is possible that marginally higher disturbance area could be found necessary once final designs and evaluations are completed. Mitigation Measure BIO-4, if implemented, would limit impacts to wetlands vegetation to a less than significant level.* *With the 3:1 mitigation of long term impacts to wetlands pursuant to Mitigation Measure BIO-4, the Project would not have a substantial adverse effect on any* federally protected wetlands as defined by Section 404 of the Clean Water Act. Therefore, the impact would be less than significant with mitigation.				
d) Interfere substantially with the				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☑	☐
Less Than Significant Impact: *The Project is an infill building project located in an urbanized area, with the exception of the tie-line West Alternative if used. No aspect of the Project would interfere with movement of native resident or migratory fish or wildlife species or with native or migratory wildlife corridors or impede the use of native wildlife nursery sites. The tie-line West Alternative is the only possible Project feature that could occur in an area potentially providing a wildlife migratory corridor or native wildlife nursery site. Construction of the tie-line West Alternative could disrupt wildlife migration due to noise and human presence but such disruption would be short-term in any given area and not expected to substantially interfere with wildlife movement. Preconstruction nesting bird surveys and avoidance of active nests are measures included in the Applicant's Project Description (see Section 3.4 in Appendix B) and would ensure that active nests are not adversely affected. The tie-line West Alternative, if used, would be collocated with an existing major high-voltage transmission corridor and would not have any material effect on wildlife movement compared to existing conditions.* *Considering these factors, the Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, the impact would be less than significant.*				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
The Project does not propose removal of any tree protected by ordinance or policy. The Project would not conflict with any local policy or ordinance protecting biological resources.				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☑	☐	☐
The Applicant has submitted an application for coverage under HCP/NCCP and proposes to comply with the HCP/NCCP for Project features within the HCP/NCCP area including mitigation fees for non-native grassland, and pre-construction surveys for burrowing owl, Swainson's hawk, Golden Eagle and other nesting birds (See Section 3.4 in Appendix A). Mitigation Measure BIO-5 would ensure that mitigation fees are paid consistent with HCP/NCCP requirements. ***<u>Mitigation Measure BIO-5:</u>*** *The Applicant shall pay HCP/NCCP mitigation fees consistent with HCP/NCCP requirements. If development is phased, such fees shall be paid prior to issuance of a grading permit for*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
acreage to be disturbed in such phase.				
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?	☐	☑	☐	☐
Less than Significant Impact With Mitigation Incorporated: *A cultural resource records search was conducted through the CHRIS Northwest Information Center. The record search indicated that portions of the Project area were included in cultural resource surveys in 1988, 1995, 1996 and 2001. The first three of these were for water conveyance structures and projects. The last was of the Montezuma Enhancement Site, associated with the Pittsburg and Contra Costa County Power Plants. In addition, there were 18 other surveys that may have included portions of the Project area. These, however, either had little or no fieldwork or were missing maps. The record search additionally revealed that there are no known historic sites within the proposed Project Site or electric tie-line routes. The Project Site is currently vacant with no structures and the majority of the Site is covered by several feet or more of fill dirt. Review of historic aerial photographs from Google Earth imagery shows that the Site was undeveloped prior to placement of fill. Therefore, no historical resources are known to be present and the presence of potential unknown resources is unlikely. Considering these factors, Site development would not change the significance of any historical resource. The electric tie-line routes each are located within and adjacent to an existing power plant site and oil tank farm site and an existing high voltage transmission corridor. The tie-line alignments were not surveyed for potential historic resources for this analysis. However, by its nature, the overhead electric tie line would result in little ground disturbance and, if historic structures or resources were to be present, pole locations could be adjusted to avoid such resources. Furthermore, given the existing industrial setting of the tie-line corridor, if historic structures or resources were to be present on or adjacent to the tie-line corridor, the presence of the tie-line would not result in a substantial adverse change in their significance. Considering these factors, Mitigation Measure CUL-1, if adopted, would ensure that the electric tie-line would not cause a substantial adverse change in the significance of any historical resource.* ***Mitigation Measure CUL-1:*** *Prior to issuance of a grading permit, the Applicant shall provide the City with a historical resources survey report prepared by a professional meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR 61) for the electric tie-line easement. If the survey identifies potentially significant cultural resources within the electric tie-line easement, then a tie-line design shall be provided to the City for approval prior to issuance of a grading permit that demonstrates either: (1) no significant resource would be disturbed by tie-line construction; or (2) any significant resource that cannot be practically avoided would be mitigated through photo-documentation and archival research by a qualified historic archaeologist or architectural historian.*				
b) Cause a substantial adverse change in the significance of an archaeological	☐	☑	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
resource pursuant to section 15064.5?				

Less than Significant Impact With Mitigation Incorporated: *A cultural resource records search was conducted through the California Historical Resources Information System (CHRIS) Northwest Information Center. The record search indicated that portions of the Project area were included in cultural resource surveys in 1988, 1995, 1996 and 2001. The first three of these were for water conveyance structures and projects. The last was of the Montezuma Enhancement Site, associated with the Pittsburg and Contra Costa County Power Plants. In addition, there were 18 other surveys that may have included portions of the Project area. These, however, either had little or no fieldwork or were missing maps. The record search additionally revealed that there are no known archaeological sites within the proposed Project Site or electric tie-line route and that there are no known prehistoric archaeological sites within a one-half mile radius of the Project. A search of the Native American Heritage Commission (NAHC) Sacred Lands File failed to indicate the presence of Native American cultural resources in the Project area. Considering the results of the records search, previous surveys of portions of the Project Area, and NAHC response, there are no known archaeological resources on the Project Site or the potential electric tie-line alignments. The Site is currently vacant with no structures and most of the Site is covered by several feet or more of fill dirt. The West, Middle and East tie-line alignments have been graded by past development including that associated with the existing tank farms, a rail spur, access roads, the existing PG&E switchyard that the tie-line would extend to, and Willow Pass Road that the tie-line would cross. Considering the high degree of disturbance and grading that has occurred at these locations, the ground has been modified such that little or no evidence of preindustrial human cultural activities and/or occupation is likely to remain. Therefore, a ground survey was not conducted for this analysis and would be unlikely to be of any value. Based on aerial imagery analysis, disturbances for the West Alignment if used, could have some areas with more limited disturbance. Mitigation Measure CUL-2, if adopted, would ensure impacts are mitigated to a less than significant level in the event that unknown cultural resources are encountered during construction. Section XVIII of this Initial Study further discusses potential Native American Cultural Resources and the City's outreach to Tribes for input to the environmental review process.*

Mitigation Measure CUL-2: *Construction shift foremen, excavation equipment operators and other construction workers with responsibility for observing construction excavations shall be trained and instructed by a representative of the Applicant or its contractor to be observant for the potential occurrence of archaeological resources in the geologic materials encountered, and shall be instructed and authorized to halt excavation in the area immediately and notify the Project Applicant's representative if such resources are discovered. In the event of a discovery, the Applicant or Applicant's representative shall promptly notify the City and work in the area shall cease until the discovery is evaluated by a qualified cultural resource specialist. If evaluation by a qualified cultural resource specialist indicates that the discovery may be significant, then excavation in the area shall be continued only as directed by a qualified cultural resource specialist and in a manner allowing for collection of significant resources and information that may otherwise be affected by the Project, including development of a Research Design and Data Recovery Program if needed to mitigate impacts. If cultural artifacts are collected they shall be cataloged and curated with an*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
appropriate institution. A final monitoring report shall be prepared and submitted to the City if significant cultural resources are discovered.				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐
Less than Significant Impact With Mitigation Incorporated: *The Project area is relatively flat terrain with no unique geologic features. The native geological materials beneath the Site are mapped as late Pleistocene alluvium (Helley and Lajoie, 1979). These deposits are about 11,500 years old and older and contain late Pleistocene vertebrate and invertebrate fossil faunas. This geologic unit is widespread at low elevations in the San Francisco Bay region and in places can contain localized accumulations of freshwater gastropod (snail) and pelecypods (bivalve mollusc) fossils, and terrestrial vertebrate fossils including camel, bison, horse, sloth and mammoth. While fossils of this age could potentially occur in the native geologic unit that underlies the Site and could potentially be important for their uniqueness and scientific value, it is unlikely that any such fossils would be disturbed by the Project because the Site is almost entirely covered with several feet or more of fill dirt. Construction of Site facilities would include grading, over-excavation and trenching primarily within fill and not substantially penetrate the native geologic material underlying the fill. If excavations do penetrate the natural geologic materials beneath the Site, Mitigation Measure CUL-3, would ensure that unique or scientific values of important fossils are recovered, limiting the potential for impact to a less than significant level.* *The electric tie-line routes occur on engineered soils and lands mapped as Holocene bay mud deposits (Helley and Lajoie, 1979). The oldest deposits of this unit have been dated at about 9,600 years. These materials are known to include locations with fossils of fresh and brackish water gastropods and pelecypods, including molluscian species introduced by humans since the 1800s. These materials are too geologically young to contain unique or important fossils. Therefore, the tie-line would not have the potential to destroy unique paleontological resource.* ***Mitigation Measure CUL-3:*** *Construction shift foremen, excavation equipment operators and other construction workers with responsibility for observing construction excavations shall be trained and instructed by a representative of the Applicant or its contractor to be observant for the potential occurrence of paleontological resources when excavating on the Site beneath the depth of existing fill, and shall be instructed and authorized to halt excavation in the area immediately and notify the Project Applicant's representative if vertebrate fossils are discovered. In the event of a discovery, the Applicant or Applicant's representative shall promptly notify the City and work in the area shall cease until the discovery is evaluated by a qualified paleontologist. If evaluation by a qualified paleontologist indicates that the discovery may be significant, then excavation in the area shall be continued only as directed by a qualified paleontologist and in a manner allowing for collection of significant resources and information that may otherwise be affected by the Project. If significant fossils are collected they shall be cataloged and curated with an appropriate institution. A final monitoring report shall be prepared and submitted to the City if significant fossils are discovered.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☑	☐	☐
Less than Significant Impact With Mitigation Incorporated: *A cultural resource records search was conducted through the CHRIS Northwest Information Center and did not indicate any known burials within one-half mile of the Project area. A search of the NAHC Sacred Lands File failed to indicate the presence of Native American sacred lands in the area. The Site and most of the tie-line alignments are 100 % disturbed and the Site is almost entirely covered with several feet or more of fill dirt. Given that there are no records of Native American sacred lands in the area, no evidence of human remains at the Site, and the area is so heavily disturbed, no impact to human remains is anticipated. Mitigation Measure CUL-4 would ensure that impacts are mitigated to a less than significant level in the event that human remains are encountered unexpectedly during construction.* ***Mitigation Measure CUL-4:*** *Construction shift foremen, excavation equipment operators and other construction workers shall be trained and instructed by a representative of the Applicant or its contractor to halt work immediately if human remains are observed in the geologic materials encountered. In the event of a discovery, the County coroner shall be notified immediately and work in the area shall cease until the discovery is evaluated and removed in accordance with applicable laws and requirements.*				
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
No Impact: *The Project location does not occur in any Alquist-Priolo earthquake fault zone nor does it occur on or cross any known active fault (California Department of Conservation, 2017). Therefore, the Project would have no impact associated with fault rupture. The closest active fault is the Clayton segment of the Clayton-Marsh Creek-Greenville Fault, located approximately four miles southwest of the Site (Jennings and Bryant, 2010).*				
ii) Strong seismic ground shaking?	☐	☐	☑	☐
Less than Significant Impact: *The Coast Ranges mountains that occur southwest of the Site are dissected by a number of regional fault zones associated with the overall San Andreas fault system demarking the intersection of the North American and Pacific tectonic plates. As described in Response (a)(i) above, the closest active fault is the Clayton segment*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
of Clayton-Marsh Creek-Greenville Fault, located approximately four miles southwest of the Site. Other major faults in the region include the Green Valley/Concord Fault (approximately eight miles west), Calaveras Fault (approximately15 miles west), Rogers Creek Fault Zone (approximately 25 miles west), Hayward Fault Zone (approximately 20 miles southwest), and the San Andreas Fault Zone (approximately 40 miles southwest) (Jennings and Bryant, 2010). Deeply buried low angle thrust faults such as the Mount Diablo Thrust Fault also can cause earthquakes in the region. Strong ground motions could occur in the vicinity of the proposed Project from an earthquake on any of these or other regional faults. Strong seismic ground shaking would be a potentially substantial seismic hazard if structures are not appropriately designed. The potential for seismic ground motions to damage structures is typically mitigated through proper design and construction to withstand predicted ground motions. The California Building Code seismic standards are designed to mitigate the potential for people or structures to be exposed to substantial risks from seismically-induced ground motions. Conformance with this code would be assured through the Building Permit process of the City of Pittsburg. Adherence to California Building Code requirements would limit the risk of damage or injury from seismic ground shaking to level that is less than significant.				
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☑	☐
Less than Significant Impact: *Liquefaction can occur when there is a loss of shear strength in saturated granular soils cause by seismically-induced pore water pressures. The loss of shear strength in soils can reduce the ability of the soil to support overlying loads, such as equipment foundations. If liquefaction occurs, the surface structures may settle into the ground or tilt. The liquefaction potential of a site is dependent on characteristics of ground shaking, soil type, soil density, and depth-to- groundwater. The Site is situated in the lowland zone of Pittsburg where shallow geology consists of geologically young unconsolidated sediments and groundwater is relatively shallow. Portions off the potential electric tie-line routes are located within the High Liquefaction Potential hazard area identified in the General Plan. The Site is located outside of the High Liquefaction Potential hazard area identified in the General Plan. The High Liquefaction Potential hazard area identified in the General Plan is based on a regional study performed by the Bay Area Association of Governments published in 1980. A more recent preliminary regional study by the U.S. Geological Survey has identified the potential for liquefaction in the Project area to be high to very high (Knudsen, et al., 2000). This regional study is not based on site-specific information. California Building Code Section 1803.2 would require that a geotechnical investigation be prepared and provided to the City Engineering Division for the proposed Project that would be required to address the potential for liquefaction and identify measures such as appropriate foundation design, structural systems and ground stabilization measures to limit potential liquefaction impacts on Project structures. The California Building Code would require that recommendations of the geotechnical report be incorporated into the final Project design to limit potential liquefaction impacts. The California Building Code is written and administered to preserve and protect public health and safety consistent with State and nationally recognized standards (24 CCR 18941). Compliance with these established requirements would limit the potential for impact to a less than significant level.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
The Project does not propose any structure for human occupancy. Therefore, there would not be a significant risk to people in the event of seismically induced liquefaction. Considering that the proposed facilities would typically be unattended and include no occupied structures, and considering that Project structures would be designed in accordance with recommendations of a geotechnical investigation to limit impacts of liquefaction, the risk of liquefaction to expose people or structures to substantial adverse effects does not pose a significant risk to human health or the environment. Therefore, the risk of liquefaction exposing people or structures to potential substantial adverse effects is less than significant.				
iv) Landslides?	☐	☐	☐	☑
No Impact: *The Project area is nearly flat-lying. There are no substantial slopes in the Project area that could result in a landslide hazard.*				
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
Less Than Significant Impact: *The Project Site and most of the tie-line potential alignments have been previously graded and covered with fill. In addition, the Project area is nearly flat-lying limiting the potential for soil erosion. Construction would occur under the State General Permit with a SWPPP implementing BMPs for erosion control. The General Permit would require that a construction SWPPP be prepared by a Qualified SWPPP Developer and implemented by a Qualified SWPPP Practitioner (QSP). Standard BMPs from the California Stormwater Quality Association (CASQA, 2015) or their equivalents would be required such as scheduling to minimize the term of disturbances (Standard BMP EC-1), Preservation of Existing Vegetation (Standard BMP EC-2), stabilization of disturbed surfaces (Standard BMPs EC-3 through -7), and use of silt fences (Standard BMP SE-1). The SWPPP would be required to address erosion control until it is demonstrated to the Regional Water Quality Control Board that disturbed surfaces are stabilized and a Notice of Termination is accepted. With construction occurring in compliance with the State General Permit, the proposed Project would not result in substantial soil erosion. Considering that the Site is disturbed and covered with fill and that erosion would be controlled in accordance with requirements of the State General Permit, the proposed Project would not result in substantial erosion or loss of topsoil. Therefore, erosion and loss of topsoil impacts would be less than significant.*				
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☑	☐
Less than Significant Impact: *The potential for liquefaction is addressed in Response (a)(iii), above. The proposed Project would not affect or be affected by any other aspect of geologic unit instability including the potential for landslides, lateral spreading, subsidence or collapse. The Project area is relatively flat and proposed grading would not result in any substantial slopes (refer to Conceptual Grading Plan in Sheet C-1 of Attachment 2).*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Therefore, the Project does not have the potential to result in landslides. Lateral spreading is a phenomenon that can occur from seismic shaking or other lateral loading when the ground surface is not laterally supported on one or more sides, for example, on ridge tops or near edges of terraces or cliff faces. The Project area does not have slopes or other laterally unsupported conditions susceptible to lateral spreading. Soil collapse occurs when loosely compacted soils are disturbed by seismic shaking, rewetting, or other activities. California Building Code Section 1803.2 would require that a geotechnical investigation be prepared and provided to the City Engineering Division for the proposed Project that would be required to address potential geologic hazards, including potential for soil collapse, and identify measures such as appropriate foundation design, structural systems and ground stabilization measures to limit potential for impacts on Project structures. The California Building Code would require that recommendations of the geotechnical report be incorporated into the final Project design to limit potential liquefaction impacts. Implementation of recommendations from the geotechnical report for potential soil collapse, if needed, are required to be implemented into the Project final design. Subsidence can occur when pore pressures are reduced in unconsolidated geologic materials below a valley floor due to substantial fluid withdrawal. The Project does not involve substantial extraction of fluids from unconsolidated geologic deposits. Therefore, the Project does not have potential to create subsidence. Considering these factors, and excepting the potential for liquefaction as described in Response (a)(iii), above, the Project would not be located on an unstable geologic unit or cause a unit to become unstable. Therefore, the impact would be less than significant.				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☑	☐
Less than Significant Impact: *Soils in the Project area include Capay Clay (CaA), Clear Lake Clay (Cc) Omni silty Clay (Ob), Sycamore silty clay loam (So), and Joice muck (Ja)(U.S. Department of Agriculture, 2017). Based on average characteristics published by U.S. Department of Agriculture, some of these soils including Omni silty clay and Clear Lake clay may have expansive properties. California Building Code Section 1803.2 would require that a geotechnical investigation be prepared and provided to the City Engineering Division for the proposed Project that would be required to address potential geologic hazards, including potential expansive soil characteristics, and identify measures to limit potential for impacts on Project structures. The California Building Code would require that recommendations of the geotechnical report be incorporated into the final Project design. Implementation of recommendations from the geotechnical report in accordance with the California Building Code would effectively limit impacts of expansive soils to a level that would not pose a substantial hazard. Therefore, considering California Building Code requirements, the potential for adverse impacts from expansive soils is less then significant.*				
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
No Impact: *The Project does not propose use of a septic tank or other wastewater disposal.*				
VII. GREENHOUSE GAS EMISSIONS -- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
Less than Significant Impact: *The proposed project would not generate GhG emissions, with the primary exception being CO2 that would be generated from vehicle and equipment emissions for construction and maintenance activities. Once constructed, the Project would provide a new and reliable means of capturing and managing energy from renewable energy projects such as solar generation and wind generation projects increasing the effectiveness of renewable energy technologies, thereby reducing the dependency on fossil fuel-produced electric energy, providing a long-term GhG benefit. Considering that construction emissions would be short-term and that the proposed Project would operate as an unoccupied facility with only occasional maintenance vehicle trips, GhG emissions would be less than significant both individually and cumulatively.*				
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☑
Less than Significant Impact: *The proposed project would not conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions. Once constructed, the Project would operate without GhG emissions with the exception of minor emissions from occasional maintenance vehicle trips. The Project could be used to store energy from renewable energy projects such as solar generation and wind generation projects, reducing the dependency on fossil fuel-produced electric energy and supporting the achievement of local, state and federal renewable energy goals directed at GhG reduction. The availability of the Project for this use may provide a long-term GhG benefit.*				
VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☑	☐
Less than Significant Impact: *Construction would require the short-term transport, use and/or disposal of hazardous materials such as fuels, lubricants, adhesives, solvents and paints. Storage and use of hazardous materials onsite during construction could create a significant hazard to construction workers, the public or the environment if such materials are not properly contained. Construction would be required to occur under a comprehensive hazard communication program in accordance with 29 CFR 1910 to ensure that construction workers are knowledgeable in the identification and proper handling of hazardous materials to*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
prevent unsafe exposure and to avoid spills. Stormwater BMPs would be required under the State General Permit to prevent contact of hazardous materials with stormwater. Furthermore, the Site would not be open to the public. With these measures, the routine use of hazardous materials for construction would not create a significant hazard to the public or the environment. *Deliveries of bulk fuels, lubricants, batteries, and other hazardous materials to the Site would be subject to Department of Transportation (DOT) regulations at 49 CFR 172 and 173 for hazardous materials transport. These regulations include requirements for hazardous material transport licensing, packaging and containment standards, labeling, and other protection measures to prevent hazardous materials incidents during transport and to facilitate response in the event of a hazardous material accident. Hazardous wastes produced would be minimal and would be required to be transported away from the Site in accordance with these same DOT regulations as well as being managed at all times under requirements of California Code of Regulations Title 22 Division 4.5 for worker training, and storage, shipping and disposal of hazardous waste. With these existing regulations in place, and considering the short term of construction activities, the transport, production, and disposal of hazardous materials associated with facility construction would not create a significant hazard to the public or the environment.* *Operation of the proposed Project would not typically involve handling of hazardous materials. At the end of battery life, battery modules would be removed from the battery racks and returned to the manufacturer or their approved and permitted recycling partner(s) for dismantling, material processing and recovery. Oil that would be present in oil-filled transformers is not routinely handled. The transformers are operated normally closed and sealed. On infrequent occasions, oil in oil-filled transformers may require filtering or replacement if it becomes contaminated. If transformer oil needs to be replaced, the used oil would be recycled at a licensed offsite recycler. Management and transport of replacement batteries and oil, used batteries, and used oil would be subject to the same management and transportation regulations and requirements as described for construction above for safe handling, transport and recycling. With these existing regulations in place, the transport, production, and disposal of hazardous materials associated with facility operations would not create a significant hazard to the public or the environment.*				
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
Less than Significant Impact: *Construction would require the short-term use and transport of hazardous materials as described in Response (a), above. Construction would be required to occur under a comprehensive hazard communication program in accordance with 29 CFR 1910 to ensure that construction workers are knowledgeable in the identification and proper handling of hazardous materials to avoid spills or other upset conditions that could otherwise result in unsafe exposure. The general public would be excluded from the*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
construction Site. Transport of bulk fuels, lubricants, batteries, and other hazardous materials to the Site would be subject to Department of Transportation (DOT) regulations at 49 CFR 172 and 173 including requirements for hazardous material transport licensing, packaging and containment standards, labeling, and other protection measures to prevent hazardous materials incidents during transport and to facilitate response in the event of a hazardous material accident. Considering these factors, construction would not create a significant hazard to the public or the environment due to reasonably foreseeable upset or accident conditions. *Operation of the proposed Project would be subject to 19 CCR Division 2, Chapter 4 requirements to submit and maintain a Hazardous Materials Business Plan and would be subject to periodic inspections by the Certified Unified Program Agency (Contra Costa County Fire Prevention District) for safe operations related to hazardous materials. These regulations require reporting of hazardous materials present in quantities exceeding threshold quantities, worker training, emergency planning preparations to minimize potential hazards of a hazardous material upset, and immediate reporting to 911 and the California Office of Emergency Services of any release or threatened release of hazardous materials that presents a significant present or potential hazard to human health and safety, property or the environment. Oil-filled electrical equipment would be subject to 40 CFR 112 regulations that include comprehensive requirements for preventing releases of oil and for oil spill response preparedness. These regulations include safety measures such as secondary containment for oil-filled equipment, requirements for routine inspections and proper equipment maintenance, personnel training to prevent discharges, site security, oil transfer safety precautions, and oil spill response planning. Batteries would contain integrated safety systems to actively monitor electrical current, voltage and temperature to optimize performance, mitigate potential failures, and prevent upset. Batteries performing out of specification would be immediately taken off line by the automated monitoring system. The facility would be designed and constructed to comply with applicable building, electrical and fire codes. Battery buildings would be outfitted with fire suppression equipment to meet or exceed fire safety codes and standards. As described in the Applicant's Project Description (See Section 3.2 in Appendix A), Fire protection would include prevention, suppression, and isolation methods and materials including: smoke/fire detection sensors; ground fault detection, alarms, and systems for automatic shutdown of cooling fans and opening of electrical contacts in the battery system; and systems for automatic activation of fire suppression systems. Operation of the facility would be remotely monitored on a continuous basis. In addition, the facility would be routinely visited to perform visual inspections. Security would be provided including perimeter fencing and remote video monitoring with pan, tilt and zoom capabilities. These design measures are included to minimize the potential for upset and to immediately respond in the event of an unforeseen upset. Considering these safety systems incorporated into the Project design, and existing regulatory requirements and standards applicable to the Project that are designed to minimize hazardous material upset risks to human health and the environment, the risk of a reasonably foreseeable upset or accident scenario creating a hazard to the public or the environment during operations is less than significant.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
Less than Significant Impact: *There are no existing or proposed schools located within one-quarter mile of the Site. The closest school is the Parkside Elementary School located approximately 0.4 mile south of the Site. The East Alignment passes within 0.1 mile of St Peter Martyr School but there would be no emissions from the project other than de minimis short-term emissions from construction and maintenance that would be less than significant.*				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☑	☐
Less than Significant Impact: *The 35-acre parcel on which the Site occurs is included in both the Regional Water Quality Control Board's (RWQCB's) GeoTracker online database (Case No. T0601300095) and the Department of Toxic Substances Control (DTSC) Envirostor online database (Case no. 07260001), which both stem from Government Code Section 65962.5. The GeoTracker shows the RWQCB case being closed in October 1997. The Environstor case is open. The parcel is listed due to a past release of trichloroethylene (TCE) solvent, a volatile organic compound, in a portion of the parcel located south of the Site. Approximately 40 tons of impacted soil was excavated and removed from the parcel in 2002 under the direction of DTSC. Confirmation soil samples collected after soil removal indicate that soil was removed to the DTSC-approved site-specific removal action goal of 1.7 milligrams per kilogram. Groundwater beneath the Site has been impacted by TCE and its breakdown products as a result of the past release of TCE. Groundwater monitoring is ongoing and the parcel is subject to a land use covenant (Covenant) to restrict use of the property due to the presence of volatile organic compounds in the groundwater under portions of the property, including portions of the Site (DOC-2007-0217233-00). Ongoing groundwater remedial action includes continued monitoring of the natural attenuation process through biennial sampling of an existing groundwater monitoring well network. The possible volatilization and upward movement of volatile organic compounds from groundwater into existing or future buildings is identified in the Covenant as a potential human exposure pathway but for a commercial land use scenario has been determined to have an estimated total excess lifetime cancer risk of less than DTSC's significance threshold of 1 x 10^{-6}. At the time the Covenant was prepared in 2007 the TCE concentration in groundwater was determined to be up to 2.8 milligrams per liter (mg/L). The most recent groundwater monitoring data reviewed for the Site (June 2013) indicates a maximum TCE concentration of 1.7 mg/Kg beneath the Site and a depth to groundwater beneath the Site ranging from approximately 9 to 19 feet below the ground surface. The Covenant prohibits use of the property for any of the following: a residence for human habitation; a hospital for humans; a school for persons under 21 years of age; or a day care center for children. Furthermore, the Covenant prohibits any of the following on the property: raising of food including cattle and*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
food crops; drilling for drinking water without permission from DTSC; extraction of groundwater for purposes other than site remediation or construction dewatering. The proposed use of the Site is consistent with the Covenant and would not create a significant hazard to the public or the environment. Groundwater is not expected to be encountered by construction excavations. Existing monitoring wells onsite would be preserved in place and access would be provided for continued monitoring unless removal of the wells or other arrangements are approved in writing by DTSC in accordance with requirements of the Covenant. Considering these factors, the impact would be less than significant.				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
No Impact: *The Project area is not within an airport land use plan or within two miles of a public or public use airport. The closest airport is in Concord more than seven miles to the southwest.*				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
No Impact: *There is no private airstrip in the vicinity of the Project area. The closest airport is in Concord more than seven miles to the southwest.*				
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☑	☐
Less than Significant Impact: *The proposed Project would not alter any existing public or private through-way. A short term lane closure may be needed to install a water line across Willow Pass Road. If the water line installation is needed, work in the ROW would be under an Encroachment Permit requiring traffic control plan for any lane closures. Because road closure is not anticipated and traffic controls would be implemented, the short potential lane closure would not impair emergency response or otherwise affect any adopted emergency response plan or emergency evacuation plan.*				
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
No Impact: *The proposed Project area is within urbanized lands in the City, and nearby lands are identified by Cal Fire (2017) as a non-Very High Fire Hazard Severity Zone (non-*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VHHSZ). Pursuant to California Fire Code Section 304.1.2, the Applicant would be required to maintain the Site free of vegetation capable of being ignited or endangering property. In addition, the facility would be designed for fire prevention and provided with a fire water supply as described in the Applicant's Project Description (see Section 3.2 in Appendix A). Considering these factors, the risk of wildland fire from the Project would be less than significant.				
IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☑
No Impact: *Construction would occur under the State General Permit with a SWPPP implementing BMPs for protection of water quality. The State General Permit would require that a construction SWPPP be prepared by a Qualified SWPPP Developer and implemented by a Qualified SWPPP Practitioner (QSP). Standard BMPs from the California Stormwater Quality Association (CASQA, 2015) or their equivalents would be required for sediment and other potential pollutants. Under the State General Permit, the SWPPP would need to address water quality BMPs and the permit would require that those BMPs be implemented until it is demonstrated to the Regional Water Quality Control Board that disturbed surfaces are stabilized and a Notice of Termination is accepted. The General Permit requires construction discharges to not violate water quality standards. With adherence to the State General permit and BMPs, no violation of any water quality standard or waste discharge requirement would be expected.* *Discharges from the Project during operations would be required to comply with NPDES Permit CAS612008 (RWQCB, 2015). In conjunction with consideration of the Conditional Use Permit and Design Review, the City would require that the Project include all measures needed to comply with NPDES Permit CAS612008. This permit would require that there is no discharge from the Project other than stormwater and exempted non-stormwater discharges such as air conditioning condensate that do not contain pollutants. Consistent with Low Impact Development standards, the Project design (refer to the Preliminary Design Drawings in Attachment 2) minimizes impermeable surfaces by gravel surfacing of roads and other areas not covered by buildings or equipment foundations. The design incorporates a system of onsite bioretention swales to provide water quality treatment to meet the City's municipal stormwater discharge requirements under NPDES Permit CAS612008. Project facilities would be unattended except for periodic inspections or maintenance and would be secured to preclude public access so there typically would be no generation of trash or debris that could impact stormwater runoff. Other project design features to minimize impacts on water quality consistent with NPDES Permit CAA612008 requirements include:* • *No outdoor storage or work areas are proposed;* • *No outdoor trash collection areas are proposed;* • *No floor drains or interior or exterior wash-down areas are proposed;*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
• *No repair/maintenance bays or fueling areas are proposed;* • *Landscaping irrigation would be designed for efficiency and to promote infiltration and minimize runoff;* • *Landscaping maintenance would minimize use of pesticides and fertilizers;* • *Site storm drain inlets would be stenciled;* • *Avoidance of disturbance to natural water bodies and drainage systems; and* • *Ongoing maintenance of water quality controls and periodic inspections to ensure proper performance.* *The City has an inspection and enforcement program to ensure compliance with requirements of NPDES Permit CAA612008 and would require the Applicant to allow inspections by trained City staff.* *Considering existing requirements of the State General Permit for construction and NPDES Permit CAA612008, BMP's and other measures incorporated in the Project design, and inspection and enforcement measures available to the City, it is not expected that the Project would violate any water quality standards or waste discharge requirements. Therefore, there is no foreseeable impact.*				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
Less than Significant Impact: *Operation of the Project would not typically use water. The Site would be unoccupied. Project construction would require water for dust control and compaction. Water would be supplied from the City water supply. This use would be short-term and would not represent a significant water demand that could substantially deplete groundwater supplies. The Project is designed consistent with Low Impact Development standard such as minimizing impermeable surfaces, and use of gravel surfacing and landscaping where possible instead of hardscape surfaces. Impermeable surfaces are broken into individual areas that would drain through gravel that would help maximize infiltration and to disburse flows, and through bioretention swales that would further slow runoff and facilitate infiltration. No material impact on recharge would be expected.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☑	☐
Less than Significant Impact: *The Project is designed consistent with Low Impact Development standard such as minimizing impermeable surfaces, and use of gravel surfacing and landscaping where possible instead of hardscape surfaces. Impermeable surfaces are broken into individual areas that would drain through gravel that would help maximize infiltration and to disburse flows, and through bioretention swales that would further slow runoff and facilitate infiltration.*				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☑	☐
Less than Significant Impact: *The Project is designed consistent with Low Impact Development standard such as minimizing impermeable surfaces, and use of gravel surfacing and landscaping where possible instead of hardscape surfaces. Impermeable surfaces are broken into individual areas that would drain through gravel that would help maximize infiltration and to disburse flows, and through bioretention swales that would further slow runoff and facilitate infiltration. The project drainage is designed to drain to bioretention swales overflowing to the existing City stormwater network that currently receive runoff from the Site area. The Site would drain toward the northeast through an existing culvert under Willow Pass Road to a City pump station that discharges to a tidally influenced area.*				
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☑	☐
Less than Significant Impact: *The project drainage is designed to maximize infiltration and slow runoff and to drain to the same City stormwater system as current conditions. The Project would be subject to NPDES General Permit conditions including implementation of a SWPPP and BMPs for water quality during construction. The General Permit conditions and limitations are designed to be protective to water quality. Following the General Permit requirements, Project construction would not provide a substantial additional source of polluted runoff. Operations would not result in any substantial sources of polluted runoff due to the enclosure of equipment and facilities. Considering the enclosed nature of Project facilities and other Project factors, and the bioretention swales and other Project design features in accordance with the Stormwater C.3 Compliance Guidebook, operations would not result in a substantial additional source of polluted runoff. Based on these factors, the*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
impact would be less than significant.				
f) Otherwise substantially degrade water quality?	☐	☐	☑	☐
Less than Significant Impact: *The potential to degrade water quality is addressed in Responses 9a, above. As described in that response, the proposed Project would be required to comply with the State General Permit for construction and NPDES Permit CAA612008 during operations, including implementation of BMPs and other design measures to prevent violation of any water quality standard. With BMPs and Project design measures to prevent violation of water quality standards, impacts to water quality would be less than significant.*				
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
No Impact: *The proposed Project does not involve placement of housing. Therefore, no impact would occur.*				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☑	☐
Less Than Significant Impact: *The 100 year flood zone marginally infringes on the west, north and east edges of the Site (FEMA, 2015). Structures on the Site would be outside of the 100 year flood zone boundaries. Structures for portions of the electric tie-line would be located within the 100-year flood zone (Zone AE). FEMA has mapped the base flood elevation as 11 feet above mean sea level as measured using the standard North American Vertical Datum of 1988 (NAVD 88). Considering the relatively flat terrain where the electric tie-line would be located, anticipated low flood velocities would be very low. The negligible cross-sectional area of the electric tie-line structures would not measurably impede, redirect, or otherwise modify flood flows or elevations.*				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☑	☐
No Impact: *Flooding is not a significant hazard for construction because the Site is almost exclusively outside of the mapped 100-year flood plain and because the short duration of construction results in a very low probability of flooding during construction (e.g., a one year construction schedule would have only a one percent chance of experiencing a 100-year flood). Furthermore, while the tie-line would traverse the 100-year flood plain, the relatively flat surrounding terrain would have low flood flow velocities that would provide warning of impending conditions in the unlikely event flooding were to occur during the construction period. Normal flooding also is not a significant hazard for Project operations because Site structures would be located outside the 100-year flood zone and because the proposed*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
facilities are not occupied. Considering these factors, the risk to people or structures from normal flooding would be less than significant. *The Project would not be reliant on any levee for protection from the 100-year flood. Therefore, the risk of flooding due to failure of a levee is less than significant.* *There are no large dams in the immediate vicinity. The Pittsburg General Plan does not include a map of dam inundation hazard areas. The Bay Area Association of Governments published dam inundation hazard map does not show the Project area to be within any dam inundation hazard zone (Bay Area Association of Governments, 2017). Considering this, structures at the Site would not be within the dam inundation hazard zone. Furthermore, the Project does not propose any structure for human occupancy. Considering these factors, the risk to people or structures from dam failure would be less than significant.*				
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☑	☐
No Impact: *The majority of the Project Site including the areas where structures would be built ranges in elevation from approximately 14 to 20 feet above mean sea level (amsl). The Site is located approximately 0.7 mile south of the shoreline of the Sacramento/San Joaquin River delta. It is too high and far from the delta shoreline to be affected by seiche or tsunami. The electric tie-line would extend within approximately 0.25 mile from the shoreline and to near sea-level elevations. The delta water is relatively shallow making it incapable of generating a large seiche. Any foreseeable seiche would be low energy due to the relatively flat terrain and would be unlikely to approach the 100-year annual flood height that the structures would be designed for. Tsunami also is not a material risk. Modeling performed further to the west closer to San Francisco Bay shows that tsunami inundation at this distance from the ocean is not significant (CEMA et al., 2009; ABAG, 2017). For these reasons, seiche or tsunami are not a significant risk for the Project. The Project area is relatively flat and not in any concentrated drainage path from steep sloped areas where mudflows could originate. Therefore, the area not susceptible to mudflows. Based on mapping published by the Association of Bay Area Governments, the Project area is not within any mapped historic landslide, debris flow or earth flow (ABAG, 2017). Considering these factors, the proposed Project would not result in a significant risk due to sieche, tsunami or mudflow.*				
X. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
No Impact: *The Project Site occurs on a portion of an existing privately owned parcel that does not provide any throughway or other public access way. The proposed Project would not result in any physical barrier or feature that could divide an established community.*				
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				

Less than Significant Impact: *The Project area and adjacent lands are in the City of Pittsburg jurisdiction. Existing uses surrounding the proposed Project include industrial and commercial developments to the north and south, a high voltage electric transmission line corridor to the west, and residential development to the east.*

The City of Pittsburg General Plan designates the Project Site as Business Commercial and the Site is zoned Industrial Park Limited Overlay (IP-O). The propose use fits under the zoning code use classification of "major utility" which is defined, in part, to include power generation plants, substations, or similar facilities. The proposed use would require a zoning text amendment to amend the IP-O (Industrial Park with a Limited Overlay, Ord. No. 07-1284) District, or the "Empire Business Park Overlay District" such that a "major utility" would be a permitted with a use permit. In addition to the zoning text amendment, the Applicant is applying for a conditional use permit, design review and development agreement. A minor subdivision (lot line adjustment or parcel map waiver), or filing of a final map following the current Tentative Parcel Map in Attachment 1, may also be pursued that would subdivide the 35 acre parcel.

The zoning text amendment would be consistent with the zoning code provided that the following findings can be made:

- *It is necessary because there are special or unique characteristics of the site or improvements that require land use and development regulations that cannot be adequately accommodated or controlled by the base zoning district;*
- *It conforms to the general plan; and*
- *It generally complies with the land use and development regulations of the base zoning district.*

The zoning text amendment is necessary because the proposed use does not fall within any of the uses contemplated in the zoning code, since the proposed utility scale application of this technology has only recently become feasible due to substantial developments in battery technology, progress in the availability of renewable energy to power the electric grid, and state mandates for energy storage. The proposed project and others like it are designed, in part, to support achievement of State and federal renewable energy goals by providing a means to store excess energy generated at times of the day when wind and solar energy are generated at peak levels. The proposed use would:

- *Provide a new economic and reliable means of capturing and managing renewable energy;*
- *Provide economic benefit to the City, the County, the region, and the State through construction jobs, property and sales taxes and increased energy efficiency and reliability;*
- *Help stabilize the electric grid and increase the effectiveness of both conventional and*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
renewable energy projects; • *Support the achievement of local, State and federal renewable energy goals; and* • *Support the achievement of State goals for energy storage.* *The zoning text amendment would conform to the General Plan. The zoning text amendment would allow for the Project to be permitted consistent with design standards, and if approved the Project would be infill development within the City limits consistent with the General Plan guiding principles. The General Plan establishes that the Business Commercial designation is intended "to provide sites for administrative, financial, business, professional, medical, research and development, and public offices, as well as custom manufacturing, limited assembly, light manufacturing, warehousing and distribution, and support commercial uses." The Project would be consistent with a warehouse type use.* *The purpose of the IP base zoning district is to provide sites in landscaped settings for service-oriented commercial and light industrial uses with limited customer presence and turnover, including industrial office centers, research and development facilities, limited industrial activities (including production and assembly but no raw materials processing or bulk handling), limited and warehouse type retail and commercial activities, and small scale warehouse distribution (Zoning Code Section 18.54.005). The proposed Project would be consistent with this purpose. The zoning text amendment would apply to the "Empire Business Park Overlay District" (Ord. No. 07-1284) and would require a use permit. Site Plan review that would be required for the Project would ensure that the project is compliant with the base zoning of Ord. No. 07-1284.* *The West Alignment of the tie-line would be located on lands designated as Business Commercial and Industrial, and also would follow an existing high voltage transmission corridor through an area designated as Open Space. A short segment where the tie-line would cross an abandoned rail spur is designated Utility/ROW. The West Alignment is zoned Industrial Park Limited Overlay (IP-O), and Open Space, and General Industrial (IG). A short segment crossing the abandoned rail spur is zoned Governmental and Quasipublic (GQ).* *The Middle Alignment of the tie-line would be located on lands designated as Industrial. A short segment where the tie-line would cross an abandoned rail spur is designated Utility/ROW. The Middle Alignment is zoned General Industrial (IG), except a short segment crossing the abandoned rail spur is zoned Governmental and Quasipublic (GQ).* *The East Alignment of the tie-line would be located on lands designated as Industrial and Service Commercial Limited Overlay (CS-O), except a short segment crossing the abandoned rail spur is zoned Governmental and Quasipublic (GQ).* *The electric tie-line fits under the zoning code use of "minor utility" which is defined, in part, to include utilities necessary to support legally established uses and involves only minor facilities or structures such as aboveground distribution or transmission lines. Minor utility use is an allowable use for each of the zoning designations that would be traversed by any of the three potential alignments (Zoning Code section 18.54.010). Therefore, the proposed electric tie-line would be consistent with existing land use zoning.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Pursuant to Pittsburg Municipal Code (PMC) Section 18.74.040, the development regulations applicable to the existing IP-O zoning district encompassing the Site would be adjusted to accommodate the Project as set forth in the Project Description, which shall be deemed to constitute an "overlay plan" as contemplated by PMC Section 18.74.030 and 18.74.050. The Project encompassed by this Initial Study includes the overlay zone text amendment specifying major utility as an allowable use on the Project Site as described above, with Design Review, in the Empire Business Park Overlay District. Setback, lot coverage, landscaping and other requirements specified for this district would remain unchanged, and would accommodate the Project layout as designed. *With adoption of the proposed overlay zone text amendment, the Project would be consistent with the City zoning code. The Project site also is governed by a restrictive land use covenant (LUC) between UPI and DTSC. The proposed Project would be consistent with the LUC as previously described in Response 8.d of this Initial Study.*				
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑
***No Impact**: The Applicant proposes to comply with the East Contra Costa County HCP/NCCP requirements for areas of the Project in the HCP/NCCP area. Planning level surveys have been conducted and the Applicant has submitted an application to the City for coverage under the HCP/NCCP. No other HCP or NCCP is applicable to the Project area. Because the Applicant proposes to comply with the HCP/NCCP requirements, there would be no conflict.*				
XI. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
***No Impact:** The proposed Project would be located in an area classified by the California Department of Conservation as Mineral Resource Zone (MRZ)-1. This designation means that the State has determined adequate information exists to indicate "that no significant mineral deposits are present" or to judge that "little likelihood exists for their presence" (California Department of Conservation, 1996). Therefore, the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State.*				
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑
***No Impact:** No locally-important mineral resource is known to occur in the Project area or delineated to occur in the City's General Plan. Therefore, no impact would occur.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☑	☐	☐

Less Than Significant Impact With Mitigation Incorporated: *According to the City of Pittsburg General Plan Noise Element, substantial existing noise sources in the Project area include trains and street traffic. The General Plan identifies Willow Pass Road as a substantial noise source in the area, with buildout traffic projected to result in noise at up to 79 dB 100 feet from the road, which includes the north edge of the Project Site.*

The City's Noise Ordinance (Section 9.44.010) does not establish numerical noise level limits related to fixed noise sources or construction noise but makes it unlawful for any person to make, continue or cause to be made, or continue any noise which either unreasonably annoys, disturbs, injures or endangers the comfort, repose, health, peace or safety of others, within the limits of the City. The City's Building and Construction Ordinance (Section 15.88.060.A.5) prohibits grading noise, including warming up equipment motors, within 1,000 feet of a residence between the hours of 5:30 p.m and 7 am weekdays, unless otherwise approved by the City Engineer. Relevant General Plan Goals limiting noise for land use compatibility include:

- *Policy 12-P-1 establishes that the maximum exterior noise level considered to be "normally acceptable" for the business commercial land use category is 70 dB.*
- *Policy 12-P-9 establishes that generation of loud noises on construction sites adjacent to existing development should be limited to normal business hours between 8 am and 5 pm.*

Construction would generate noise on the Site consistent with typical construction activities. Heavy equipment and other mechanized equipment and vehicles would be used. Internal combustion engines, mechanized equipment, grading, material handling and other activities would generate noise. The noise levels from construction activities would vary during the different construction tasks, depending upon the activity locations and number and types of activities. Mitigation measure NOISE-1 would ensure that noise generated by construction onsite is controlled consistent with General Plan Policy 12-P-9. In addition, loud construction activities would be further limited to hours dictated by City ordinances including, but not limited to, Section 15.88.060A.5. With the noise ordinance in place, implementation of NOISE-1 would limit construction noise impacts to a less than significant level.

Operation of the Project would not generate loud noise. Low noise levels would be emitted, primarily from outdoor electrical equipment and roof-mounted heating, ventilation and air conditioning motors and fans. The only sensitive noise receptors in the immediate site vicinity are residences located to the east. The facility design includes a building at the east end of the Site to effectively shield those residences from noise generated by electrical equipment. Noise modeling was conducted for Project operations using an assumption of all equipment in operation at the same time. Modeling is outlined in Appendix D and results show that the nighttime noise at the closest residences would be approximately 2.5 dBA

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
above the average nighttime noise hour. Less than 3.0 dBA is not generally discernable so the 2.5 dBA increase would not be significant. Given the low levels of noise emitted and the location of noise generating equipment onsite, the Project would meet the noise level standard of General Plan Policy 12-P-1 at the property lines. Considering these factors, noise impacts from operations at the site would be less than significant. *In addition to the stationary noise sources on-site, the tie-line would have the potential to emit corona noise from the breakdown of air into charged particles in the electric field surrounding the surface of conductor wires. Corona noise levels vary widely based on humidity and other factors. Possible corona noise levels were modeled for the closest residences for each of the possible tie-line routes and results show corona noise levels at the closest residences are less than 25 dBA equivalent continuous level. This sound level is far below baseline noise levels and, therefore, would not be discernable. Therefore, the corona noise at nearest residences would be less than significant.* ***Mitigation Measure NOISE-1:*** *Loud construction work adjacent to development shall be limited to normal business hours between 8:00 am and 5:00 pm.*				
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
Less Than Significant Impact: *Grading may generate localized low-level groundborne vibration and noise but would not generate excessive groundborne vibration or noise due to separation from sensitive receptors. Groundborne vibration and noise is attenuated rapidly with distance and the nearest sensitive receptors are residences to the east located approximately 100 feet or more from substantial grading activities. Considering this distance, groundborne vibration impacts would be less than significant.*				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
Less than Significant Impact: *Construction noise impacts would be short term and, therefore, would not result in a permanent increase of ambient noise. Operation of the Project would not generate loud noise. Low noise levels would be emitted, primarily from outdoor electrical equipment and roof-mounted heating, ventilation and air conditioning motors and fans. Given the low levels of noise emitted and the location of noise generating equipment onsite, the Project design is expected to meet the noise level standard of General Plan Policy 12-P-1 at the property lines. The only sensitive noise receptors in the immediate site vicinity are residences located to the east. The facility design includes a building at the east end of the Site to effectively shield those residences from noise generated by electrical equipment. Considering these factors, long-term noise impacts would be less than significant.*				
d) A substantial temporary or periodic increase in ambient noise levels in the	☐	☐	☑	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
project vicinity above levels existing without the project?				
Less Than Significant Impact With Mitigation Incorporated: *Construction would result in a temporary increase in ambient noise levels as described in Response (a) above. In addition, operations would result in low noise levels expected to be at or below the 70 dB General Plan Policy consistent with limits for the business commercial land use designation as described in Response (a) above. Mitigation measure NOISE-1 would ensure that noise generated by construction is controlled consistent with General Plan Policy 12-P-9. In addition, facility construction and operations would be required to comply with City noise protection ordinances. Because noise levels would be consistent with City standards, the impact would be less than significant.*				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
No Impact: *The Project area is not within an airport land use plan or within two miles of a public or public use airport. The closest airport is in Concord more than seven miles to the southwest.*				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
No Impact: *There is no private airstrip in the vicinity of the Project area. The closest airport is in Concord more than seven miles to the southwest.*				
XIII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
No Impact: *The proposed Project would not generate population growth, either directly or indirectly. It does not propose any housing or commercial development, nor extension of roads or expansion of infrastructure. Construction jobs would be short term and, therefore, would be expected to be filled by the existing regional workforce without inducing long-term growth. During operations, Project facilities would be unoccupied but visited periodically through the year for equipment inspections, monitoring and testing, and maintenance as needed. It is expected that operations positions would be filled with the existing workforce without relocation. Because the proposed Project would not generate new long-term full-time*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
jobs or commercial businesses, construct new housing, or extend existing infrastructure, it is not expected to generate population growth.				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
No Impact: *Existing housing would not be displaced by the construction or operation of the proposed Project. The Site is on land that is currently vacant and undeveloped. Therefore, no impacts would occur.*				
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
No Impact: *No people would be displaced by the construction or operation of the proposed Project. The Site is on land that is currently vacant and undeveloped. Therefore, no impacts would occur.*				
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☑
No Impact: *The proposed Project would be designed and constructed to follow CCCFPD requirements for access, fire water supply, and vegetation management. The final design would be subject to CCCFPD review and approval. The presence of oil in transformers onsite would require submittal of a Hazardous Materials Business Plan on the California Environmental Reporting System with an emergency response plan with emergency coordinator contact information and mechanisms for emergency access to the unoccupied Project Site. Onsite roads would be constructed with a compacted subgrade and compacted gravel surface and would be maintained in a drivable condition for the duration of construction and operations. Access/egress gates would be constructed in compliance with specifications of Contra Costa County Fire Prevention Regulations. California Fire Code Section 304.1.2 would require the Project to be maintained free of vegetation capable of being ignited or endangering property. All electrical systems for the Projects would be required to be constructed in accordance with applicable codes. With adherence to these requirements, the*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Project is not expected to create a capacity or service level problem related to fire protection. No new or modified government facilities would be needed to provide fire protection for the Project. Therefore, there would be no impact.				
Police protection?	☐	☐	☐	☑
No Impact: *The proposed Project would be located in the City of Pittsburg which provides police protection and public safety within the City limits. Construction and operation of the Project would not generate a material demand on police services. The Site would be fenced with controlled access gates that would avoid the need for routine police protection services. Security cameras and alarms would be monitored remotely. Construction and operation of the Projects are not expected to generate population growth. Project facilities would be typically unoccupied during operation. Considering these factors, the proposed Project would not result in an adverse impact on City of Pittsburg Police Department response times, service ratios, or other performance objectives, nor would it result in the need for new or modified police facilities. No new or modified government facilities are needed to provide police protection for the Project. Therefore, there would be no impact.*				
Schools?	☐	☐	☐	☑
No Impact: *As described in Response XIII(a), above, the proposed Project would not generate population growth. Therefore, no new demands on school facilities would occur, and there would be no impact on school capacities, service levels or performance objectives. The proposed Project would not require new or physically altered school facilities. Therefore, there would be no impact.*				
Parks?	☐	☐	☐	☑
No Impact: *As described in Response XIII(a), above, the proposed Project would not generate population growth. Therefore, no new demands on park facilities would occur and there would be no impact on park capacities, service levels or performance objectives. The proposed Project would not require new or physically altered park facilities. Therefore, there would be no impact.*				
Other public facilities?	☐	☐	☐	☑
No Impact: *As described in Response XIII(a), above, the proposed Project would not generate population growth or extend infrastructure. It would not create a substantial new demand for services and would not require new or physically altered public facilities. Therefore, there would be no impact related to new or physically altered government facilities.*				
XV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
No Impact: *As described in Response XIII(a), above, the proposed Project would not generate population growth. Additionally, it would not displace, affect access to, or otherwise*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
physically affect any park or recreational facility. Therefore, no increase or change would occur in the use of any park or recreational facility. Therefore, the proposed Project would not result in or accelerate physical deterioration of any park or recreational facility.				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑
No Impact: *As described in Response XIII(a), above, the proposed Project would not generate population growth. Additionally, it would not displace, affect access to, or otherwise physically affect any existing park or recreational facility nor does it propose any new recreational facility.*				
XVI. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☑	☐
Less than Significant Impact: *As described in Response XIII(a), above, the proposed Project would not generate population growth. Project-related trips would be generated primarily during construction. Following construction, Project facilities would be unattended and visited periodically through the year for equipment inspections, monitoring and testing, and maintenance as needed. These periodic visits during operations represent negligible trip generation.* *Vehicles would access the Site from Willow Pass Road reached primarily via arterial roads from State Highway 4 including California Avenue (Minor Arterial), Railroad Avenue (Major Arterial), West 10th Street (Major Arterial), and Bailey Road (Major Arterial). The various routes available would tend to break up Project-related traffic on the arterial roads between State Highway 4 and Willow Pass Road. Willow Pass Road is a designated Major Arterial. Near the proposed Project it is a two lane paved road with 12 foot travel lanes, paved shoulders, and left turn pockets, within a 60-foot-wide ROW. The Site frontage on Willow Pass Road has sidewalks, curbs and gutters. Willow Pass Road has bus service via Tri Delta Transit with a bus stop east of the Site frontage at Willow Pass Road and Enterprise Circle (Tri Delta Transit, 2017). Willow Pass Road has a bike lane, but it is not marked as such (Reinders, 2017).* *Construction would occur over a six to 12 month period during which the peak number of*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
construction workers is expected to be approximately 75. In addition, deliveries during construction would generate an estimated 5 round trips spread throughout the day during peak construction activities. Construction worker and delivery traffic would incrementally add to existing traffic on Willow Pass Road and other arterial roads between Willow Pass Road and State Highway 4. Willow Pass Road and other arterials that may be used generally do not have existing capacity issues and can accommodate the short term construction traffic trip generation without exceeding the capacity of the existing circulation system (Reinders, 2017). The expected peak hour traffic considering the estimated 75 construction workers for peak activities would be considerably below the 100 peak hour trip threshold at which the City typically requires a detailed traffic analysis. Additionally, Project construction workers are expected to be primarily be from the existing regional workforce currently contributing traffic to regional transportation routes including State Route 4. Considering the relatively low number of trips generated and the expected use of the existing regional workforce, the short term of construction trip generation would not result in a substantial capacity impact on State Highway 4. *If the Project is required to connect to the existing water main in Willow Pass Road, a traffic management plan would be implemented pursuant to encroachment permit requirements from the City. A short-term lane closure may be required but work in the road is limited in scope and would be completed quickly with the road remaining open with traffic control. The nearby bus stop east of the site at Willow Pass Road and Enterprise Circle would not be affected. Construction parking and staging would be off-street on private property where it would not affect access to any public transportation. The proposed Project would not have a substantial effect on mass transit or bicycle transportation since Willow Pass Road would remain open.* *Considering the above analysis, the impact to the existing circulation system would be less than significant.*				
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards standard established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
See Response to XVI, above.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
No Impact: *The proposed Project would not affect any air traffic patterns or levels. There are no airports in the Project vicinity and the Project would not have an effect on any airport or on air travel.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☑	☐
Less than Significant Impact: *The proposed Project does not include any new construction or realignment of existing road facilities. The Site is within an existing parcel and the Project would not require new or modified streets or intersections. The Site would be accessed by an existing paved driveway capable of accommodating anticipated construction trip generation. Willow Pass Road includes a left turn pocket at the driveway location and is straight with clear vision in both directions from the driveway entrance providing an adequate line-of-sight for safe entrance and exit.* *Some construction deliveries to the Site could be oversized or overweight. Vehicles providing deliveries would be subject to size, weight, and load restrictions pursuant to the California Vehicle Code Division 15, including permits for oversize or overweight loads as required by the California Vehicle Code Section 35780 and California Code of Regulations Title 21 Section 1411.1 et seq. Considering existing laws and regulations for limiting hazards of oversize loads, oversize loads during the short duration of construction would not be an incompatible use.* *During operations, the Site would typically be unattended. Considering the low volume of traffic that would be generated by site visits, and the location of the driveway on a straight segment of Willow Pass Road with good visibility, operations would not substantially increase hazards due to design features or incompatible uses.* *Considering these factors, neither construction nor operation would substantially increase hazards due to a design feature or incompatible use.*				
e) Result in inadequate emergency access?	☐	☐	☑	☐
Less than Significant Impact: *The proposed Project would not result in inadequate emergency access. It would not obstruct existing access routes, and onsite access roads and gates would be provided in accordance with CCCFPD requirements. Willow Pass Road would remain open during construction. Lane closure, if any, would be short-term and through passage would be maintained with traffic controls under an encroachment permit from the City. Considering these factors, the impact would be less than significant.*				
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑
XVII. TRIBAL CULTURAL RESOURCES -- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Resources Code section 21074 as either a site, feature, place, cultural landscape, that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☑
No Impact: *A cultural resource records search was conducted through the CHRIS Northwest Information Center. The record search indicated that portions of the Project area were included in cultural resource surveys in 1988, 1995, 1996 and 2001. The first three of these were for water conveyance structures and projects. The last was of the Montezuma Enhancement Site, associated with the Pittsburg and Contra Costa County Power Plants. In addition, there were 18 other surveys that may have included portions of the Project area. These, however, either had little or no fieldwork or were missing maps. The record search additionally revealed that there are no known archaeological or historic sites within the proposed Project Site or electric tie-line potential routes and that there are no known prehistoric archaeological sites within a one-half mile radius of the Project. A search of the NAHC Sacred Lands File failed to indicate the presence of Native American cultural resources in the Project area (Appendix E). As neither the proposed site nor the electric tie-line routes contain any identified archaeological, historic, or tribal cultural resources, as defined in Public Resources Code section 21074, there would be no effect on Tribal Cultural Resources.*				
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☑

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
No Impact: *A cultural resource records search was conducted through the CHRIS Northwest Information Center. The record search indicated that portions of the Project area were included in cultural resource surveys in 1988, 1995, 1996 and 2001. The first three of these were for water conveyance structures and projects. The last was of the Montezuma Enhancement Site, associated with the Pittsburg and Contra Costa County Power Plants. In addition there were 18 other surveys that may have included portions of the Project area. These, however, either had little or no fieldwork or were missing maps. The record search additionally revealed that there are no known archaeological or historic sites within the proposed Project Site or electric tie-line route and that there are no known prehistoric archaeological sites within a one-half mile radius of the Project. A search of the NAHC Sacred Lands File failed to indicate the presence of Native American cultural resources in the Project area. As neither the proposed site nor the electric tie-line potential routes contain any archaeological, historic, or tribal cultural resources, as defined in Public Resources Code section 21074, there would be no effect on Tribal Cultural Resources, and there are no resources determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Consequently, there would be no effect upon such resources.*				
XVIII. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
No Impact: *The proposed Project would not discharge wastewater. No wastewater treatment requirements are applicable. Portable sanitary facilities would be provided on the Site and maintained by a licensed contractor for the term of construction.*				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
Less than Significant Impact: *The proposed Project would not discharge wastewater. The Project water demand would be minimal, consisting of a temporary demand for construction and landscape water for operations. The existing City water supply main in Willow Pass Road is adequate to serve the project without expansion of existing facilities (Mata, 2017). A short tie-in to the main would be required for the project if the project cannot tie into the existing water supply infrastructure on the 35-acre parcel.*				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
Less than Significant Impact: *No new or expanded drainage facilities are required offsite. Drainage from the site would flow to existing catch basins and an existing culvert near the*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
northeast corner of the Site that would convey water beneath Willow Pass Road to an existing pump station with capacity for the anticipated flow. Therefore, there would be no impact.				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
Less than Significant Impact: *Project water demand would be minimal, consisting of a temporary demand for construction and landscape water for operations. The facility would be unattended and does not include sanitary facilities or other water needs other than minimal landscaping to satisfy City landscaping requirements. Water for construction and landscaping would be obtained from the City. Water is available from the City and existing City water entitlements and resources are adequate to serve the project (Mata, 2017).*				
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
No Impact: *The proposed Project would be unattended and would not need waste water services. No potable water or permanent sanitary facilities are proposed. Portable sanitary facilities would be used onsite for construction with regular pumping and maintenance by a licensed contractor. Because there would be no need for wastewater service to the Site, there would be no impact.*				
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
Less than Significant Impact: *Most construction waste streams would consist of recyclable materials such as wood pallets, plastic and paper packaging and scrap metal that can be taken to a waste recycling center. Furthermore, construction would only generate waste for a short period of time. Generation of waste from construction that would need to be landfilled would be limited and would be short-term. The proposed project would be served by Keller Canyon Landfill, which is a class II landfill that accepts municipal solid waste. The landfill has a daily maximum capacity limit of 3500 tons/day and 320 truck trips. Keller Canyon Landfill has 52 million cubic yards of capacity remaining and is projected to have sufficient capacity for another 30 years. Total waste generated by the proposed project during construction and operation would not be substantial relative to the capacity of the landfill therefore, impacts would be less than significant.* *Quantities of non-hazardous and hazardous waste generated by routine operations would be negligible. At the end of battery life, battery modules would be removed from the battery racks and returned to the manufacturer or their approved and permitted recycling partner(s) for dismantling, material processing and recovery.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☑	☐
Less than Significant Impact: *The proposed Project would be required to comply with all relevant statutes and regulations and the Project as proposed would not conflict with any statute or regulation.*				
XIX. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☑	☐	☐
Less than Significant Impact With Mitigation Incorporated: *With the exception of a portion of the tie-line West Alignment, if used, the Project footprint is within non-native grassland and urbanized portions of the HCP/NCCP that do not provide critical habitat. The Project would comply with the HCP/NCCP including mitigation fees and pre-construction surveys to ensure that impacts to affected resources are mitigated. The portion of the tie-line West Alignment that is north of Willow Pass Road includes wetlands that may provide habitat for several protected species. Mitigation Measures BIO-1 through BIO-5, would protect habitat and sensitive species that may occur in that area. These measures include minimization of impacts to the extent feasible and offsetting measures for impacts that cannot be avoided. Permanent impacts in wetland habitat where these species may occur would be approximately 0.38 acres or less. Considering the small area of important habitat that could be affected long term, with implementation of mitigation measures BIO-1 BIO-2, BIO-3, AND BIO-4, the Project would not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, nor reduce the number or restrict the range of a rare or endangered plant or animal. There are no structures on the Project Site and no significant historic or prehistoric resources are known to occur onsite based on a records search and Tribal outreach. Tie-line locations have not been surveyed for cultural resources. Mitigation Measure CUL-1 would require that the tie-line route be surveyed by a qualified professional and that significant resources, if present, be avoided by the tie-line design or, if unavoidable, be mitigated through proper research and documentation. Mitigation Measures CUL-2, CUL-3 and CUL-4 provide for protection of cultural resources in the event of a new discovery. Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 would ensure that impacts to cultural resources would be less than significant in the event cultural resource were to occur in the Project construction area.*				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☑	☐	☐

Less than Significant Impact With Mitigation Incorporated: *As described in preceding sections of this Initial Study checklist, the Project would have no impact on agricultural or forest lands, mineral resources, growth, population, housing, schools, parks, libraries, recreation, or public services, and the Project would not conflict with biological resource conservation plans, air quality protection plans, traffic congestion management plans, or other established environmental plans or policies. The Project would be consistent with the City Zoning ordinance with the adoption of a zoning text amendment such that a major utility would be permitted with a use permit. Because the Project would have no impact or conflict in these topic areas, there is no potential for the Project to have a cumulative effect in these topic areas with other past, current or probable future projects.*

The Project would not affect any designated scenic vista nor would it damage any scenic resources. The Project Site is in an industrial and commercially developed area and would be located on land zoned Industrial Park-Limited Overlay. The possible tie-line routes are through either existing industrial areas or adjacent to an existing major high voltage transmission line corridor. Considering these factors, the cumulative impact on aesthetic resources would be less than significant.

Air quality cumulative impacts are addressed in Section III of this Initial Study checklist and are less than significant.

As described in Section IV of this Initial Study, impacts to biological resources would be limited since, with the exception of a portion of the tie-line West Alignment, if used, the Project is in disturbed and urban habitat and impacts to biological resources would be mitigated through compliance with the HCP/NCCP. For the portion of the tie-line West Alternative where sensitive habitat and sensitive species may occur, Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4 would limit impacts to a less than significant level and compensate for long term impacts with 3:1 habitat compensation for wetlands disturbances. The Applicant's Project Description incorporates HCP/NCCP requirements and Mitigation Measure BIO-5 would require payment of HCP/NCCP mitigation fees to be paid in advance of non-native grassland disturbance. With these measures, impacts to biological resources would be fully mitigated and would not have the potential for significant cumulative effects.

No significant cultural resources are known to occur. Mitigation Measures CUL-1, CUL-2, CUL-3 and CUL-4 would ensure that impacts to cultural resources are mitigated in the event of an unexpected cultural resource discovery so that there are no cumulative impacts.

The Project would have no cumulative impact related to geology or soils. The Project would not impact important mineral resources or unique geologic features. Geologic hazards, by

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
nature, are facility-specific and do not have the potential for cumulative effects. The Project would have no impact on seismic hazards at other locations, and no other reasonably foreseeable project could affect seismic hazards at the site. Therefore, there is no cumulative impact related to seismic shaking. *As described in Section VII of this Initial Study checklist, once constructed, the Project would not generate GhG emissions. The Project could be used to store energy from renewable projects such as solar and wind generation projects, reducing dependency on fossil fuel-produced electric energy and supporting the achievement of local, state and federal renewable energy goals directed at GhG reduction. Considering these factors, the Project would not have cumulative adverse GhG emission impacts.* *As described in Section VIII of this Initial Study checklist, impacts of the Projects related to hazards and hazardous materials would be less than significant. Construction of the Projects would require the use of fuels, lubricants and other hazardous materials typical of construction sites and would be short term. No cumulative impact is anticipated. The facility would be unoccupied and operations would not typically require handling of hazardous materials. The project would be required to comply with all existing laws for safe handling of materials and no cumulative impact is anticipated.* *The Project would not violate any water quality standard or waste discharge requirements or affect water quality. Therefore, there would be no cumulative effect in these areas. There would be no cumulative impact to hydrology because the Site would be designed in accordance with to drain to the same City-maintained system as existing conditions. The grading plan would be subject to review by the City's Building Division and the design includes bioretention swales and other BMPs features in accordance with the Stormwater C.3 Compliance Guidebook.* *Construction noise would be short term and following construction the Project would not be a source of loud noise. The Project is designed with a building at the east end of the site where it would shield the closest sensitive receptors from low levels of noise generated by electrical equipment. The facility would comply with General Plan Policy noise levels. Considering these factors, the cumulative noise impact would be considerable.* *As described in Section XVI of this Initial Study checklist, the Project would generate negligible traffic once construction is complete. No projects or other undertakings have been identified in the Site vicinity that could result in a considerable short term cumulative impact. Following construction, operations would typically be unattended, with routine monitoring and maintenance occurring during occasional site visits (e.g., monthly or less frequent over the long-term), which would be a negligible traffic impact. The Project would not involve new construction or realignment of any roads. The Project would be developed in conformance with all applicable plans, policies, programs, and ordinances related to transportation. Considering these factors, cumulative traffic impacts would be less than significant.* *Considering the factors addressed above, the Project would not have significant cumulative impacts with mitigation incorporated.*				
c) Does the project have environmental effects which will cause substantial	☐	☑	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
adverse effects on human beings, either directly or indirectly?				
Less than Significant Impact With Mitigation Incorporated: *The Project does not have the potential for environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly, other than those addressed in preceding sections of this Initial Study checklist. As described in preceding sections of this Initial Study checklist, the Project would have no impact on agricultural or forest lands, mineral resources, growth, population, housing, schools, parks, libraries, recreation or public services, and the Project would not conflict with zoning, land use, biological resource conservation plans, air quality protection plans, energy plans or policies, transportation, traffic and congestion management plans, or other established environmental plans or policies. The Project would not have substantial adverse effects related to aesthetics, air quality, energy consumption, greenhouse gasses, geology and soils, hazards or hazardous materials, hydrology, water quality, transportation or utilities. With recommended mitigation measures BIO-1 through BIO-5, CUL-1 through CUL-4, and NOISE-1 identified in Sections IV, V, and XII, respectively, of this Initial Study checklist, the Project would have less than significant impacts related to biological resources, cultural resources, and noise. There would be no significant direct, indirect or cumulative impacts with these mitigation measures incorporated.*				

3.4 List of Preparers

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Appendix A

Detailed Project Description

Project Description
Diablo Energy Storage
701 Willow Pass Road
Pittsburg, California 94565

August 2017

Submitted to:
City of Pittsburg
Planning Department
65 Civic Avenue
Pittsburg, CA 94565

Submitted by:

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Attachment 1: Tentative Parcel Map
Attachment 2: Preliminary Site Plans

1.0 INTRODUCTION

Diablo Energy Storage, LLC proposes to install one or more single story buildings on a graded and vacant approximately 12 acre site (Site) representing a portion of an approximate 35 acre parcel (Parcel) located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The Parcel is designated Business Commercial (BC) in the General Plan and zoned Industrial Park-Limited Overlay (IP-O). The proposed use will require a zoning text amendment to amend the IP-O (Industrial Park with a Limited Overlay, Ord. No. 07-1284) District, or the "Empire Business Park Overlay District", such that a "major utility" would be permitted with a use permit. In addition to the zoning text amendment, Diablo Energy Storage, LLC is applying for a conditional use permit, design review and development agreement. A minor subdivision (lot line adjustment or parcel map waiver), or filing of a final map following the current Tentative Parcel Map in Attachment 1, may also be pursued that would divide the Site from the 35 acre Parcel.

The buildings will house advanced energy storage technology (e.g., lithium ion batteries) which, together with related control equipment including inverters, transformers, and a small onsite electric substation, will be connected via a new electric tie-line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg Substation located approximately 0.6 mile north of the Site. The facility will be unoccupied and is designed for full remote operation. Diablo Energy Storage, LLC is the Applicant for development permits and will be the Lessor of the property.

The facility will not generate electricity. Rather, it will provide a service by receiving energy (charging) from the point of interconnection (POI) with the PG&E electric transmission system, storing energy, and then later delivering energy (discharging) back to the POI. The Site is within the East Contra Costa Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area. Two alternate routes being considered for a tie-line to the POI are also within the HCP/NCCP area and a third alternative route being considered extends out of the HCP/NCCP area as described further under the subheading of West Alignment.

The Site is currently vacant with no structures. The Parcel is subject to a Covenant to Restrict Use of Property – Environmental Restriction dated July 27, 2007. Per terms of the Covenant, certain uses and activities on the Parcel are prohibited due to the presence of low concentrations of constituents of concern in ground water. The restrictions prohibit certain uses for the Parcel including raising food, drilling for drinking water, extraction of ground water, schools for persons under 21 years of age, day care centers, residences, and hospitals for humans. The proposed use of the Site is consistent with uses allowed by the Covenant.

The proposed use is compatible with the surrounding area and will have little or no effect on environmental resources or local services given its location on a vacant Site, its unmanned operating profile, and proximity to existing infrastructure. When operating, the proposed use will not create emissions to air, will not require sanitary facilities, and will not require water except to maintain water efficient landscape to meet City requirements.

2.0 PURPOSE

The purpose of the proposed development is to reliably and economically receive, store and discharge electric energy from the California Independent System Operator-controlled electric grid, including renewable energy produced by existing solar and wind resources in the region. The project will interconnect to the CAISO grid at the nearby PG&E's Pittsburg Substation. Construction of the project will:

- Provide a new economic and reliable means of capturing and managing renewable energy;
- Provide economic benefit to the City of Pittsburg, Contra Costa County, the region, and the State, through construction jobs, property and sales taxes, and increased energy efficiency and reliability;
- Help stabilize the electric grid and increase the effectiveness of both conventional and renewable energy generation projects;
- Support the achievement of local, state and federal renewable energy goals; and
- Support State goals for energy storage.

3.0 PROJECT DESCRIPTION

3.1 Location

The Site is located on the south side of Willow Pass Road just west of the point where West 10th Street becomes Willow Pass Road (Figure 1). The Site is Parcel B of the overall 35 acre Parcel as shown in Attachment 1. Photographs of the Site are provided in Figure 2. Preliminary Design Drawings for the project are provided in Attachment 2.

3.2 Design

The batteries will absorb and discharge electrical energy from and to the PG&E-owned and California Independent System Operator-controlled power grid. Batteries will be housed inside the buildings secured in racks arranged in rows with aisles for access. The batteries will be connected in series and in parallel to provide the total energy storage capacity. A Relay and Communications (R&C) room will be provided in the buildings for automated monitoring and managing of the batteries to ensure design performance and system life

Power inverters, medium voltage transformers, and a small onsite electric substation with a transformer will be installed. Conductors in underground conduits will be used to connect the buildings, inverters and transformers. Bi-directional inverters will be used to convert between direct current (DC) power in the battery systems and alternating current (AC) power of the electric grid. Inverters will be outdoor-rated skid mounted systems with equipment in weatherproof enclosures. The preliminary design is for bi directional inverters rated at 480 volts (V) AC, one medium voltage transformer for each one or two inverters, and a high voltage transformer within the onsite substation. Final design will include value engineering and a different number of inverters and transformers may be used. The output from the medium voltage transformers will be aggregated and stepped up to 230 kV by the high voltage transformer at the onsite electric substation.

The substation area will be fenced (in accordance with high voltage electric code requirements) and will include the high voltage transformer, switchgear and an approximately 24-foot wide x 50-

foot high H-frame structure with switches, lightning arrestors and metering equipment. The onsite substation will be connected to the existing PG&E Pittsburg Substation to the north via an overhead 230 kV electric tie-line. The electric tie-line will be constructed, owned and operated by the Applicant or other appropriate entity to a point of change in ownership (POCO) located just outside the Pittsburg Substation. Improvements within the Pittsburg Substation and between the Pittsburg Substation and the POCO will be installed by PG&E, and are within the scope of the environmental review to be conducted by the City.

The facility will be designed and constructed to comply with all applicable codes in effect in the City at the time of building permit submission. Each battery module is a sealed finished UL listed article installed as a component in device (battery rack) containing integrated safety systems to actively monitor electrical current, voltage and temperature to optimize performance, mitigate potential failures, and prevent upset. Batteries performing out of specification will be immediately taken off line by the automated monitoring system. There is no venting or release from the individual cells, cell packs, or casings and the batteries are not opened for use, maintenance, or other purposes. The buildings will be outfitted with fire suppression equipment to meet or exceed applicable fire safety codes and standards. The fire protection plan will include prevention, suppression, isolation methods and materials. At a minimum, this will include: smoke/fire detection sensors; ground fault detection, alarms, and systems for automatic shutdown of all cooling fans and opening of electrical contacts in the battery system; and systems for automatic release of a fire suppression agent appropriate to the battery technology. Typically, such systems use a clean fire suppression agent such as DuPont's FE-25, FM-200, or 3M's Novek 1230, designed specifically for electrical installations to reduce damage to uninvolved equipment. Water sprinkler or mist systems will also be provided as required by the fire code.

The project is designed consistent with low impact development standards and the Contra Costa Clean Water Program Stormwater C.3 Guidebook storm water management requirements. Impermeable surfaces are minimized and include building footprints and concrete pads for the substation and other outdoor electrical equipment. With the exception of landscaping to meet City requirements, other surfaces will be graveled including the onsite driveways since use will be infrequent. The driveways will be constructed with compacted Class 2 gravel surfacing over a compacted subgrade to provide all-weather passage and support for a 74,000 pound load capacity in accordance with Contra Costa County Fire Protection District requirements. No designated parking places are included in the design since the facility is unoccupied and there is existing parking in the Empire Business Park complex as well as space for parking on-site. Outside of the onsite driveways, areas not covered by the buildings or equipment pads will be surfaced with gravel (e.g., ¾-inch drain rock) that will provide for some storm water detention and infiltration.

Sidewalk, curb and gutter exist at the site frontage. Parcel 085-280-010 has an existing paved driveway from Willow Pass Road that will be used by the project. Water-efficient landscaping will be put in place where not already present in accordance with the City landscaping requirements. A Conceptual Landscape Plan is provided in the Preliminary Site Plans in Attachment 2. Landscape water will be obtained from the existing landscape water supply system or a new tie-in to the City water main located in Willow Pass Road. No signage is proposed for the building frontage or site perimeter except the address number. Inside the secured site

perimeter, signage will be provided in accordance with OSHA requirements and other relevant regulatory requirements.

Conceptual architectural renderings are provided in the Preliminary Site Plans in Attachment 2. The architectural design theme is to compliment and be compatible with the existing character of the neighboring industrial buildings. The established buildings in the area are low profile light industrial building types using cementitious and metallic exterior materials. The color palette for the large footprint buildings is in the warm beige range. The proposed architectural design is shown in Sheets A-1 through A-4 of the Preliminary Site Plans and uses tilt-up concrete construction for exterior walls to complement the existing architectural character of neighboring buildings, with colors complimentary to the adjacent buildings. To give a visual and textural interest to the building elevations facing the street, application of a darker beige metal cladding is proposed, complementing the use of metal in the adjacent buildings. The application of exposed roof drainage systems and reveals along the exterior walls provide visual relief and break up the wall surface to smaller modules. Projecting shade elements are included along the street frontage walls above the exterior doors to provide not only shading but also interest as the sun casts shadows along the walls.

Sheet A-5 introduces an alternate design for the buildings. The alternate design would utilize steel framed construction on the exterior walls with metal cladding. The design's vertical recess elements provide for visual relief and reduces the length appearance of the buildings. The Applicant is seeking approval for either architectural scheme, which will allow flexibility as the project further develops.

3.3 Tie-line Routing

The area between the Site and the Pittsburg Substation is extensively developed and industrial and utility infrastructure including bulk fuel oil tanks, railroad alignments, drainage and flood control features, underground gas pipelines, roadways, numerous underground and overhead high voltage electric lines, and other infrastructure. The existing facilities influence feasible routes. Three feasible preliminary alternative tie-line routes have been identified: a) west of the fuel oil tank farm, b) along an existing NRG access road through the fuel oil tank farm, and c) east of the fuel oil tank farm. The routes are described below and are shown in Figure 3. The preliminary tie-line pole locations are provided in Figure 3. Based on preliminary engineering, the poles will be approximately 77 to 95 feet high as shown in Sheet C-9 of the Preliminary Site Plans.

West Alignment

Using this route, the tie-line would extend along the south side of Willow Pass Road approximately 2,000 feet, cross under a series of existing PG&E high voltage lines, then turn north to cross Willow Pass Road and extend approximately 2,100 feet, and then turn northeast and extend approximately 2,500 feet to the POCO. The length of this route is approximately 6,700 feet. This route would require approximately 8 poles and would cross under seven existing PG&E transmission lines. This alignment is outside of the HCP/NCCP area between Willow Pass Road and the point approximately 300 feet southwest of the POI. Use of this alignment may require some surface preparation, or stabilization of existing access routes, to provide access to tie-line structures for construction and maintenance. This alignment is within the East Contra Costa

County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area only where it is located south of Willow Pass Road.

Middle Alignment
Using this route the tie-line would cross Willow Pass Road directly north of the on-site substation and then turn east and extend approximately 550' feet along the north side of Willow Pass Road before turning north and extending along the west side of the existing NRG access road approximately 3,200 feet to the POCO. The length of this route is approximately 3,800 feet. This route would require approximately 12 poles and would cross under nine existing PG&E transmission lines. This alignment is entirely within the HCP/NCCP area.

East Alignment
This route is the same as the Middle Alignment except that after extending approximately 800 feet north along the NRG access road it would turn east and follow an existing drainage ditch approximately 1,400, then turn north for approximately 1,000 feet, then turn west approximately 1,400 feet, and then turn northwest approximately 1,200 feet crossing under the existing PG&E transmission lines just outside the Pittsburg Substation to the POCO. The length of this route is approximately 5,800 feet. This route would require approximately 16 poles and would cross under nine existing PG&E transmission lines. This alignment is entirely within the HCP/NCCP area.

The Applicant is requesting approval to develop the project using any of the alignments, subject to revisions as may be approved by the Planning Manager.

3.4 Construction

Construction and equipment installation is expected to take 6 to 12 months including the buildings, outdoor electrical equipment, and site preparation including stormwater controls and landscaping. Construction staging will occur onsite. Construction may be phased in response to market demands. If phased, project improvements essential for the entire site such as the connection to the City stormwater system, as the onsite substation, and the electric tie-line, will be installed in the initial phase. A phasing plan is included in Sheet C-11 of the Preliminary Site Plans. In general, if phased, a building and related systems would be installed in the initial phase while installation of subsequent building space and related systems would be deferred to a subsequent phase or phases as shown in the table below:

PHASING PLAN	
Initial Phase	**Subsequent Phase(s)**
Initial Phase Site Prep/Grading, Civil, Drainage	Phase related Site Prep/Grading Civil, Drainage
Onsite Substation & HV Electrical	Subsequent Building Space
Initial Building	Batteries & Associated Systems
Batteries & Associated Systems	Inverter Pads, Equipment & Connections
Inverter Pads, Equipment & Connections	
Electric Tie-Line	

The majority of the Site is currently covered with several feet or more of fill dirt and will be graded to be relatively flat-lying with drainage toward the north and east. Final grading plans will be subject to approval by the City. Grading quantities are provided on Sheet C-1 of the Preliminary Site Plans. Class 2 aggregate will be imported to the Site for surfacing the driveways. Crushed rock gravel will be imported for surfacing outside the building and driveway footprints and for building pad preparation.

It is estimated that Site grading and preparation will require the following equipment:

TYPE	QUANTITY
Bulldozer (e.g., CAT D7)	1
Grader (e.g., CAT D7)	1
Scraper (15-30 CY)	2
Water Truck (3,000- 5,000 gal)	1
Self-Propelled Compactor	1
Dump Truck	1
Tractor/Loader/Backhoe (e.g., Case 590)	1
Bobcat	1

Water may be used during construction if needed for dust control and compaction. A non-toxic dust palliative may also be used. If needed, water will be obtained from the City water supply via an existing hydrant on the Parcel or on the Site frontage of Willow Pass Road. Sanitary facilities during construction will be provided by portable self-contained units maintained by a licensed contractor.

Project construction will implement the following measures to control dust emissions during construction in accordance with Bay Area Air Quality Management District requirements:

- Exposed soil areas will be watered two times per day when needed to control dust emissions;
- Haul trucks transporting soil, sand or other loose material offsite will be covered;
- Best Management Practices (BMPs) will be implemented to minimize track-out onto adjacent public streets;
- A 15 mile per hour speed limit will be used for roadways until stabilized with gravel or other treatment to minimize dust; and
- Disturbed surfaces will be stabilized as soon as practical.

Construction is expected to generate up to an estimated 75 construction jobs during peak construction periods. Deliveries of equipment and materials will generate an estimated 5 round trips per day during peak construction periods that will occur throughout the day. Construction wages will contribute to the local and regional economy through direct income, spending and taxes.

The City operates a 10-inch diameter water main located in the westbound lane of Willow Pass Road (personal communication, Hilario Mata. Assistant Director of Public Works, June 23, 2017). Project construction will include a tie-in to the water main if the water supply for landscaping

cannot be obtained from existing infrastructure on the Parcel (e.g., if a separate parcel is created by subdivision, lot line adjustment or parcel map waiver).

Table 1A and 1B, respectively, summarize land areas and habitat types that could be disturbed by project development during construction and long-term. The Applicant is applying for coverage under the HCP/NCCP and will comply with requirements of the HCP/NCCP as applicable including pre-construction surveys. Planning Level Surveys under the HCP/NCCP have been completed on the Site. Tie-line routes north of Willow Pass Road have been surveyed from the public ROW due to access limitations and further studied using high-resolution aerial imagery. If construction is initiated during bird nesting season (February 1 – August 31), a preconstruction nesting bird survey will be conducted by a qualified biologist within 14 days prior to ground disturbance. If an active nest is located, then a qualified biologist will establish a nest buffer surrounding the active nest. Work will not occur in the buffer area until the biologist determines the nest is inactive. The extent of the nest buffers will be based on consideration of the anticipated levels of noise or disturbance, ambient levels of noise and other disturbances, species present, and topographic or other barriers. If construction is halted for more than 14 days, then a nesting bird survey will be completed within 14 days prior to re-initiating of construction work. Pre-construction surveys for protected raptors will also be completed prior to construction in accordance with requirements of the HCP/NCCP.

Results of a biological resources survey conducted for the project indicates that burrowing owl habit does not occur on the project Site. However, because burrowing owl habitat can occur in disturbed and developed areas, it is possible that burrowing owl could move into the area prior to construction. Therefore, in an abundance of caution, a burrowing owl survey will be conducted by a qualified biologist within 14 days prior to ground disturbance. If an occupied burrow is observed within or adjacent to the Site during the nesting season (February 1- August 31) and is determined to contain an active nest, then a buffer will be established surrounding the nest in accordance with CDFW's 2012 *Staff report on Burrowing Owl Mitigation*. No work will occur in the buffer area until the nest is determined to be inactive by a qualified biologist. If occupied burrows are observed within or adjacent to the Site during the non-nesting season (September 1-January 31) or if an occupied burrow is determined to not be a nest burrow during the nesting season, then a buffer will be established around the burrow by a qualified biologist in accordance with CDFW guidelines. If an occupied burrow cannot be avoided (i.e., is within the limits of disturbance), a burrowing owl exclusion plan will be written and submitted to CDFW for approval of passive relocation procedures.

Tie-Line Construction

If the selected alignment is not covered by HCP, then to the extent necessary, studies would be completed to develop a construction plan that would to the greatest extent possible minimize impacts to wetlands (if any). For example, tie-line structures would be placed to avoid wetlands where possible, and needed access routes would be aligned to utilize existing access routes where possible. Based on the surface disturbance estimates shown in Table 1B the total permanent disturbance to presumed wetlands if the West Alignment is used would be less than 0.5 acre so the project would use USACE Nationwide Permit No. 12 for utility infrastructure if it is determined that federally jurisdictional wetlands cannot be practically avoided. Nationwide Permit No. 12 also provides for temporary surface disturbance needed during construction. Coverage under the

Nationwide Permit No. 12 requires a Section 401 water quality certification from the RWQCB. In addition, approval from the California Department of Fish and Wildlife under Section 1600 of the Fish and Game Code may also be required if the West Alignment is used.

3.5 Stabilization of Temporary Disturbances

Disturbed surfaces on the site that are not covered by buildings, equipment or roads will be stabilized with crushed rock as well as landscaping at the site perimeter to meet City requirements. Temporary disturbances from tie-line construction will be stabilized as soon as practical by returning the ground surface to a condition approximating pre-project conditions. Temporary disturbances in Annual Grassland habitat will be stabilize by reseeding with a seed mix subject to approval by the City.

3.6 Operations

The facility will operate year-round and will be available to receive or deliver energy 24 hours a day, 365 days a year. The Site will be secured with a chain link fencing. Existing chain link fencing that occurs on the Site frontage will be repaired or replaced where needed, and new fencing will be installed at the Site perimeter where fencing does not currently exist. The Site will be equipped with security cameras that will be monitored remotely and with alarms and other security as needed. Landscaping will include water-efficient trees, shrubs and groundcover that will provide aesthetics for views from Willow Pass Road. Existing trees and landscaping along the driveway east of the Site (See Figure 2) will provide visual screening between the project and residences to the east. At the west edge of the site, landscaping along the edge of the existing driveway will include trees and ground cover to mirror the existing landscaping on the opposite (offsite) edge of the driveway. Because the facility will be unattended with little vehicle traffic, the Site gates will be designed to be opened and locked manually. The electrical equipment, heating, ventilation, air conditioning, fire protection systems, and security will be automated and monitored remotely. The Site will be unoccupied but visited periodically through the year for equipment inspections, monitoring and testing, and maintenance as needed. Periodically, batteries and various components will be replaced or renewed to ensure optimal operation.

The facility will operate without emissions to air or water. Except for landscape watering to meet City requirements, the facility will use no water. Because the facility will not be manned, no office, break room, sanitary facilities or potable water will be needed. Motion-activated lighting may be used where needed for safety or security such as at access gates and doorways to buildings. If used, lighting would be directed downward and shielded to minimize visibility from offsite.

Storm water treatment in accordance with City requirements will be provided by gravel yard surfacing and bioretention swales as shown in the Preliminary Design Drawings. Outdoor equipment will be sealed or enclosed and will not affect storm water quality.

Outdoor electrical equipment, cooling fans, and HVAC systems will generate low levels of noise during routine operations. Noise levels will be compatible with surrounding land uses and below levels that would conflict with the City's Noise Ordinance (Noise Ordinance Section 9.44.010). The closest sensitive noise receptors are residences located east of the Site. The project is designed with a building at the eastern side that will block electrical equipment noise to these residential

receptors. The facility will be designed comply with the City noise standards as described in the City's General Plan at Section 12, Noise.

At the end of battery life, battery modules will be removed from the battery racks and returned to the manufacturer or their approved recycling partner(s) for dismantling, material processing and recovery. Other waste from Site maintenance will be removed from the Site as part of maintenance work and managed in accordance with applicable regulations. Oil in oil-filled transformers is not routinely handled. Oil filled equipment is operated normally closed and sealed. On infrequent occasions, oil in oil-filled electrical equipment may require filtering or replacement if it becomes contaminated. If oil from oil-filled equipment needs to be replaced, the used oil would be recycled at a licensed offsite recycler.

4.0 PROJECT SCHEDULE

Construction of Phase I (or the complete project if all Phases were constructed concurrently) will be scheduled to begin after receipt of requisite permits and is expected to take approximately 6 - 12 months.

5.0 APPLICANT

The Applicant is Diablo Energy Storage, LLC, a company formed for the sole purpose of developing the project and wholly owned by LSP Generation Holdings, LLC. LSP Generation Holdings, LLC is part of the LS Power Group (LS Power), a privately held, leading independent energy development firm established in 1990 employing approximately 150 professionals. LS Power is well regarded in the development and financial community and in the past 10 years has raised over $17 billion of capital for investments in the energy sector including electric generation, storage, and transmission assets. More information can be found at www.lspower.com.

TABLE 1A
SUMMARY OF TOTAL DISTURBANCE BY PROJECT FEATURE AND HABITAT TYPE
(TOTAL SHORT-TERM PLUS LONG TERM DISTURBANCES)

FEATURE	DISTURBANCE IN HCP/NCCP AREA (AC)	DISTURBANCE OUT OF HCP/NCCP AREA (AC)	HABITAT	COMMENTS
Site Development	10.41	--	Annual Grassland	• Site gross is 11.85 acres including existing surfaced roads. Disturbance is 10.12 Ac.
West Alignment	0.49	0.45	Annual Grassland	• 3 pole sites x 3,500 sf ea. in HCP/NCCP area • 2 stringing sites x 1000 sf ea. in HCP/NCCP area • Access 10' x 900' in HCP/NCCP area • 2 pole sites x 3,500 sf ea. out HCP/NCCP area • Access 10' x 1000' out of HCP/NCCP area
	0.02	--	Urban	• 1 pole site (POCO)[1]
		1.47	Wetland[2]	• 1 or 2 pole sites totaling up to 20,000 sf[3] • 2 stringing sites 1,000 sf ea. • Access 12' x 1000' • Contingency Access 12' x 1,500[4]
Middle Alignment	0.16	--	Urban	• Ten pole sites x 700 sf ea[1]
East Alignment	0.21	--	Urban	• 13 pole sites x 700 sf each[1]

[1] Stringing sites, construction work areas and long-term access that may be used in urban areas not requiring clearing or surface improvement are not included in this table since there would be no ground disturbance. Ground disturbance for poles in urban habitat is estimated based on 15' radius around the pole center point.

[2] Presumed wetland area based on field survey results from other nearby projects, aerial imagery analysis, and visual survey from public rights-of-way due to access constraints. Actual wetland area and disturbed acreage to be determined prior to construction if Project for areas outside of the HCP/NCCP coverage area.

[3] Estimate allows for contingency for final design to determine minimum safe working area at each pole and for jurisdictional wetland conditions to be confirmed by delineation at one or two poles.

[4] Contingency for possible temporary access between tie-line structures B and C if a helicopter is not used for stringing.

TABLE 1B
SUMMARY OF LONG-TERM DISTURBANCE BY PROJECT FEATURE AND HABITAT TYPE

FEATURE	DISTURBANCE IN HCP/NCCP AREA (AC)	DISTURBANCE OUT OF HCP/NCCP AREA (AC)	HABITAT	COMMENTS
Site Development	10.41	--	Annual Grassland	• Site gross is 11.85 acres including existing surfaced roads. Disturbance is 10.12 Ac.
West Alignment	0.05	0.32	Annual Grassland	• 3 pole sites x 700 sf ea. in HCP/NCCP area • 2 pole sites x 700 sf ea. out of HCP/NCCP area • Access 10' x 1,250 out of HCP/NCCP area
	0.02	--	Urban	• 1 pole site (POCO)
		0.38	Wetland(1)	• 1 or 2 pole sites x 700 sf ea. • Access 12' x 1000' • Contingency Access 12' x 250'(2)
Middle Alignment	0.16	--	Urban	• Ten pole sites x 700 sf ea
East Alignment	0.21	--	Urban	• 13 pole sites x 700 sf ea

(1) Presumed wetland area based on field survey results from other nearby projects, aerial imagery analysis, and visual survey from public rights-of-way due to access constraints. Actual wetland area and disturbed acreage to be determined prior to construction if Project for areas outside of the HCP/NCCP coverage area.

(2) Contingency in the event that the vegetated portion of the long term access route to Pole C is found to be wetlands instead of grassland.

\\Sanfran-fs1\gis\GIS_LIB\Diablo_Energy_Storage\mxd\Figure 1_Project Location.mxd

Legend

Diablo Energy, LLC Site

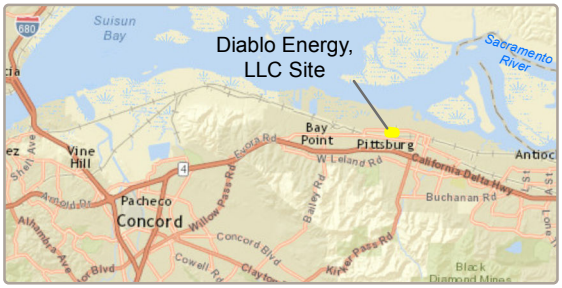


Figure 1: Project Location
Diablo Energy, LLC

N

0 400 800 1,200 Feet

1:9,600

7/14/2017

TRC
Results you can rely on

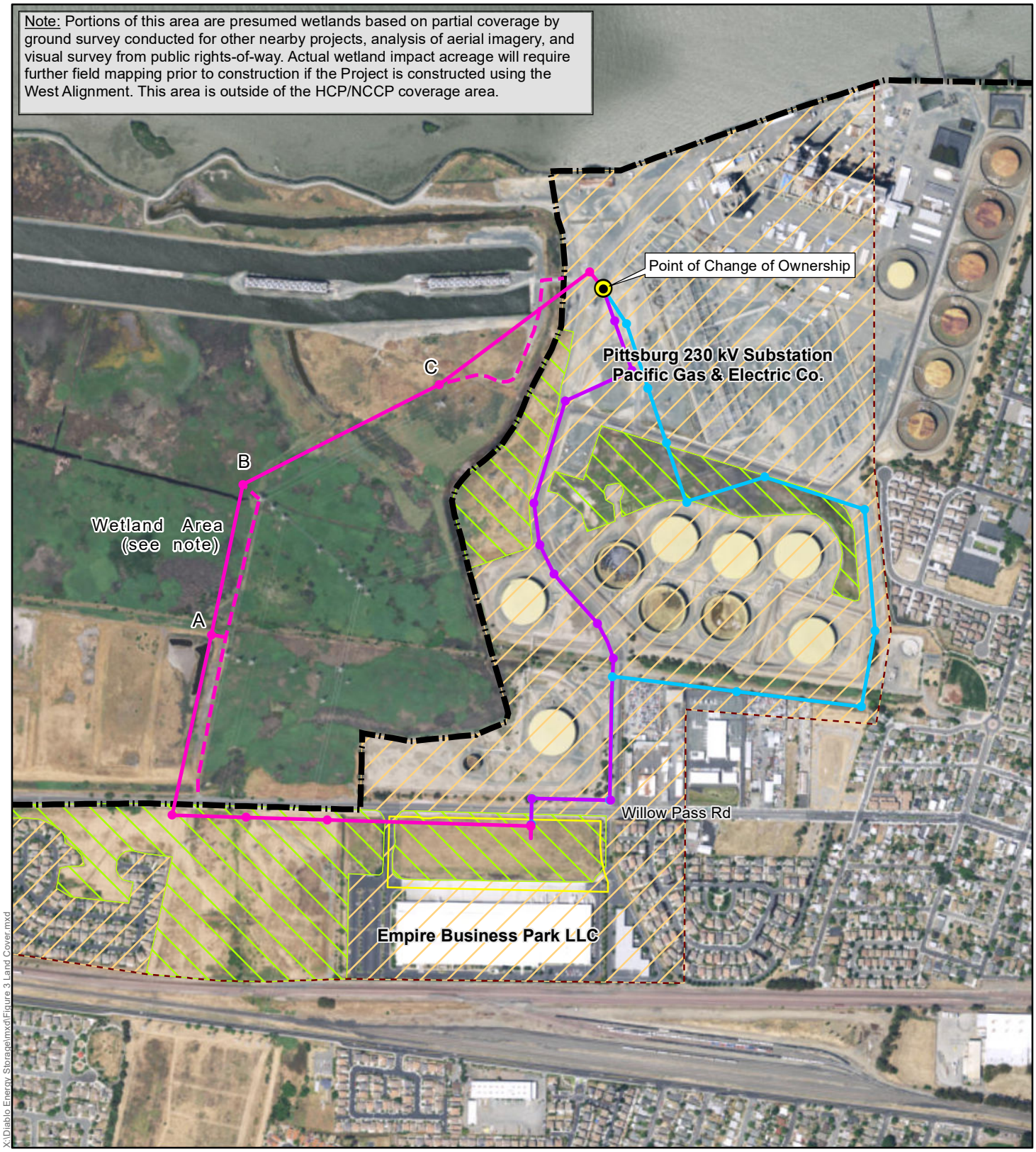
Figure 2: Site Photographs

1) Looking east from west end of the Site.

2) Looking north along the driveway just east of the Site.

3) Looking east on the northern end of the Site.

4) Looking west from the side of the Site.



Legend

- Project Site
- West Alignment
- Middle Alignment
- East Alignment
- Limits of Project Mapping
- HCP Inventory Area
- Preliminary Structure Locations
- Preliminary Access Route
- Annual Grassland
- Urban

Figure 3: Land Cover Map
Diablo Energy Storage, LLC

N

0 400 800 1,200 Feet

1:9,600

8/29/2017

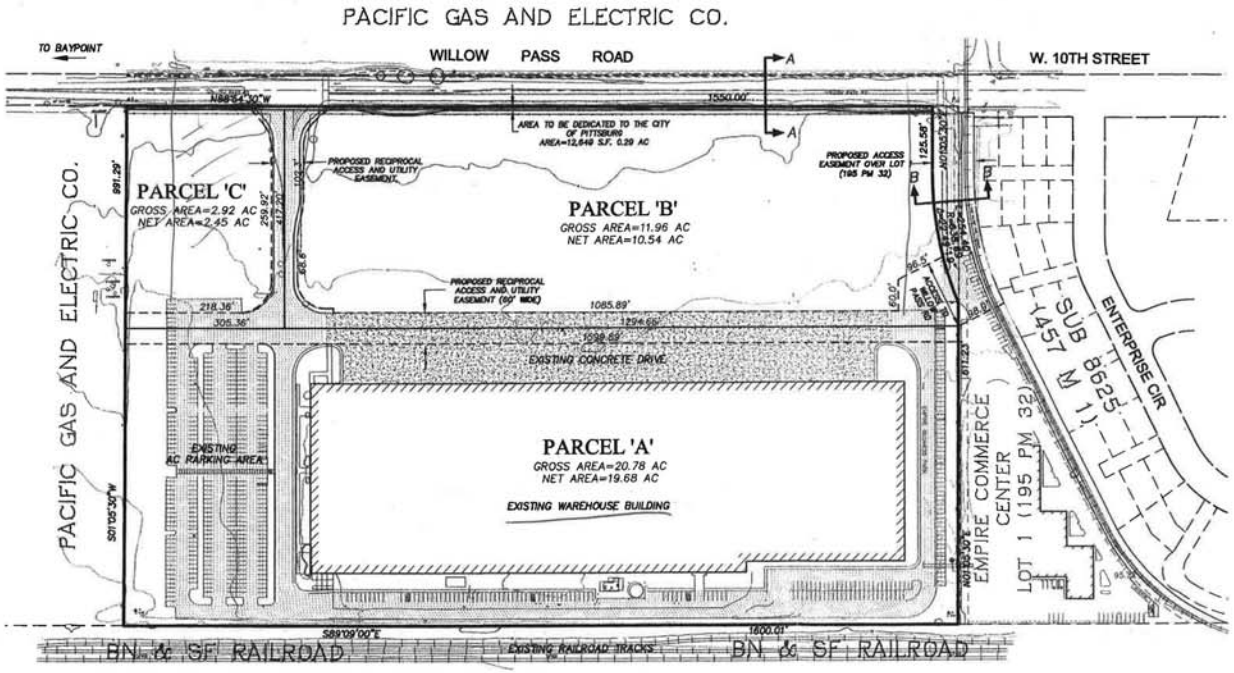
TRC
Results you can rely on

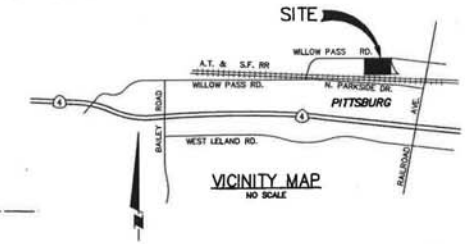
Attachment 1
Tentative Parcel Map

TENTATIVE MAP MINOR SUBDIVISION NO. 677-08

"EMPIRE BUSINESS PARK"

CITY OF PITTSBURG
CONTRA COSTA COUNTY, CALIFORNIA
SCALE: 1" = 100' OCTOBER 2008





VICINITY MAP
NO SCALE

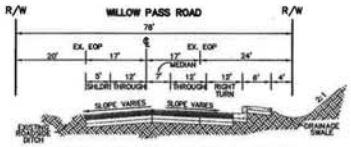
PROJECT SUMMARY

1.	OWNER & DEVELOPER:	DON & LONNE CARR C/O DAVIS & ASSOCIATES 701 WILLOW PASS ROAD PITTSBURG, CA 94565 (925) 432-4714
2.	ENGINEER:	ISAKSON & ASSOCIATES, INC. 2255 YGNACIO VALLEY ROAD #C WALNUT CREEK, CA 94598 (925) 937-9333
3.	PROPERTY ADDRESS:	701 & 753 WILLOW PASS RD.
4.	WATER SUPPLY:	CITY OF PITTSBURG
5.	SEWER SERVICE:	CITY OF PITTSBURG
6.	POWER:	PGE
7.	PHONE SERVICE:	AT&T
8.	CONTOURS:	1' CONTOURS
9.	ASSESSORS PARCEL NO.:	APN. 085-280-009
10.	TOTAL AREA (GROSS)	35.95 ACRES

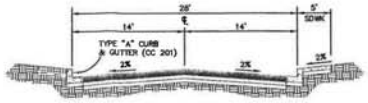
11. 3 PARCELS PROPOSED
PARCEL A-19.68 AC
PARCEL A-10.54 AC
PARCEL A-2.45 AC

LEGEND

PROPOSED	ITEM
	PROJECT BOUNDARY
	RIGHT-OF-WAY LINES
	PROPERTY LINES
	EASEMENT LINES
	EXISTING BUILDING
	PAVEMENT
	CONCRETE



EXISTING WILLOW PASS ROAD
SECTION A-A
NOT TO SCALE



EXISTING ENTRANCE DRIVEWAY
SECTION B-B
NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
DAVID ISAKSON
STATE OF CALIFORNIA

SUBDIVISION MS — EMPIRE BUSINESS PARK

TENTATIVE MAP

PITTSBURG — CONTRA COSTA COUNTY — CALIFORNIA

Isakson & Assoc. Inc.
civil engineering & land surveying
2255 Ygnacio Valley Road, Suite C, Walnut Creek, CA 94598 Phone: (925) 937-9333

DATE: 10-30-08	DESIGNED BY: B.L.	DRAWN BY: NGS	CHECKED BY: DGI	JOB NO.: 200836	SHEET 1 OF 1

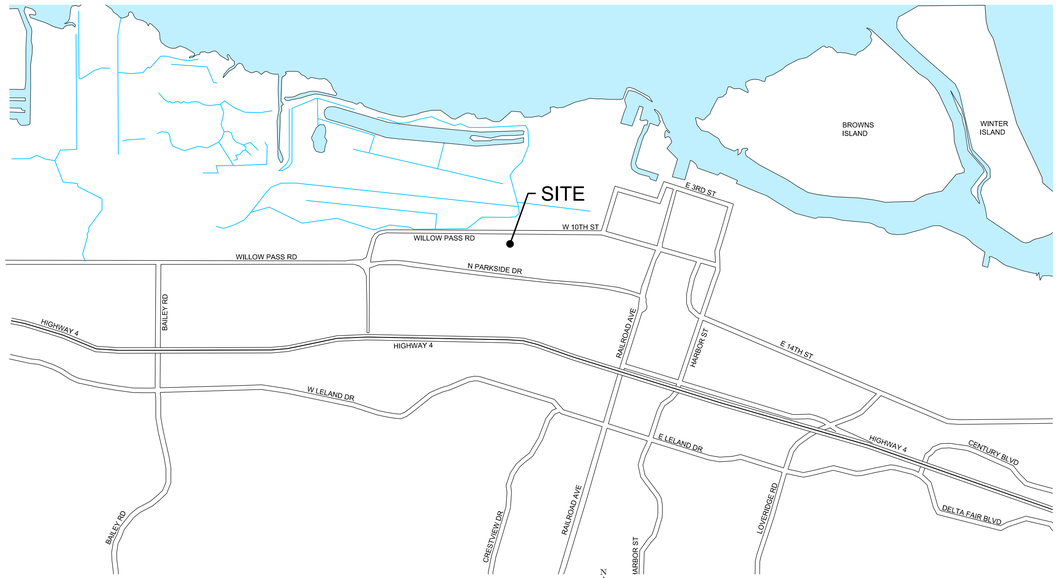
200836 EMPIRE - TENTATIVE MAP MINOR SUBDIVISION NO. 677-08 10-30-2008

Attachment 2
Preliminary Site Plans

PRELIMINARY SITE PLANS

DIABLO ENERGY STORAGE

PITTSBURG, CALIFORNIA



VICINITY MAP

NOT TO SCALE

PROPERTY OWNERS

EMPIRE BUSINESS PARK, LLC
1500 3RD STREET #C
NAPA, CA 94559
PH: 707-255-6540

ENGINEER/CONSULTANT

TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
JSTENGER@TRCSOLUTIONS.COM

APPLICANT

DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5240
FAX: 925-201-5230

DESCRIPTION

THESE PRELIMINARY PLANS INVOLVE THE DEVELOPMENT OF SINGLE-STORY BUILDING SPACE FOR HOUSING BATTERIES AND CONTROL EQUIPMENT, AND ANCILLARY EQUIPMENT INCLUDING INVERTERS AND TRANSFORMERS, AN ELECTRIC SUBSTATION AND ELECTRIC LINE TO THE EXISTING PG&E PITTSBURG SUBSTATION. THE FACILITY WILL BE UNOCCUPIED AND IS DESIGNED FOR FULL REMOTE OPERATION. BECAUSE THE FACILITY WILL NOT BE OCCUPIED, NO POTABLE WATER SYSTEM OR SANITARY SYSTEM IS PROPOSED. NO EXTERIOR LIGHTING IS PROPOSED. EXISTING DRIVEWAY AND PARKING WILL BE USED. THERE WILL BE ROOM FOR PARKING ONSITE FOR OCCASIONAL SITE VISITS.

SITE INFORMATION

STREET ADDRESS:	701 WILLOW PASS ROAD, PITTSBURG, CA
ASSESSOR'S PARCEL NUMBER:	085-280-010
ZONING:	INDUSTRIAL PARK - LIMITED OVERLAY (IP-O)
BUILDING SQUARE FOOTAGE:	(3) 62,000 SF
TOTAL BUILDING SQUARE FOOTAGE:	186,000 SF
PROPOSED LOT AREA (GROSS):	11.85 AC
PROPOSED LOT AREA (NET):	10.44 AC
LOT COVERAGE (EACH BUILDING):	13.33%
LOT COVERAGE (TOTAL):	40%
FLOOR AREA RATIO:	0.40
PERCENT OF LANDSCAPE COVERAGE:	17%
NUMBER OF PROPOSED PARKING:	0
DISTURBED AREA (GRASSLAND AND BARE SOIL):	10.73 AC
DISTURBED AREA (GRASSLAND):	10.41 AC
DISTURBED AREA (BARE SOIL):	0.32 AC
EXISTING IMPERVIOUS AREA:	0 SF
PROPOSED IMPERVIOUS AREA:	205,044 SF

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING TOPOGRAPHIC CONTOUR (1-FT INTERVAL)
- 15 EXISTING TOPOGRAPHIC CONTOUR (5-FT INTERVAL)
- 14 PROPOSED TOPOGRAPHIC CONTOUR (1-FT INTERVAL)
- SS EXISTING SEWER LINE
- EXISTING CHAIN LINK FENCE
- E EXISTING OVERHEAD ELECTRICAL
- TEL EXISTING COMMUNICATION LINE
- PROPOSED CHAIN LINK FENCE
- PROPOSED ELECTRIC LINE
- LIMITS OF GRADING AREA
- EXISTING FIRE HYDRANT
- EXISTING STREET LIGHT
- EXISTING MONITORING WELL
- EXISTING DRAIN INLET
- EXISTING MANHOLE
- PROPOSED POWER POLE
- PROPOSED STORMWATER PIPE
- PROPOSED DITCH (FLOWLINE)
- PROPOSED SHEET FLOW
- 1.6% SLOPE AND DIRECTION
- EXISTING ASPHALT CONCRETE
- EXISTING CONCRETE SURFACE
- PROPOSED CLASS II AGGREGATE BASE
- PROPOSED BIORETENTION BMP
- FMEA FLOOD ZONE AE
- FEMA FLOOD ZONE X (HATCHED)
- (E) EXISTING
- SL STREET LIGHT
- FH FIRE HYDRANT
- DI STORM DRAIN INLET
- PIV/FDC POST INDICATOR VALVE / FIRE DEPARTMENT CONNECTION
- WM WATER METER
- ELECT ELECTRICAL
- JT JOINT TRENCH LINES
- OH OVERHEAD LINES
- SSMH SANITARY SEWER MANHOLE

DRAWING SCHEDULE

C-1	COVER SHEET
C-2	EXISTING BOUNDARIES, EASEMENTS AND FLOODING
C-3	PROPOSED BOUNDARIES AND EASEMENTS
C-4	EXISTING TOPOGRAPHY
C-5	CONCEPTUAL GRADING PLAN
C-6	CONCEPTUAL SITE PLAN
C-7	CONCEPTUAL DRAINAGE PLAN
C-8	CONCEPTUAL LANDSCAPING PLAN
C-9	ELECTRICAL DETAILS
C-10	ROAD, DRAINAGE AND FENCE DETAILS
C-11	CONSTRUCTION PHASING
A-1	TYP. FLOOR PLAN BUILDING 1-2-3
A-2	ROOF PLAN - BUILDING 1-2-3
A-3	BUILDING SECTIONS
A-4	EXTERIOR ELEVATIONS
A-5	EXTERIOR ELEVATIONS ALTERNATE

EARTHWORK QUANTITIES

LIMITS OF GRADING: 8.64 AC

	CUT	FILL
WESTERN BUILDING PAD	1600 CY	2050 CY
CENTRAL BUILDING PAD	1900 CY	2400 CY
EASTERN BUILDING PAD	3300 CY	2800 CY
SUBSTATION PAD	450 CY	875 CY
ROADWAY	1175 CY	275 CY
STORMWATER BMP	845 CY	45 CY
NET CUT (ONSITE):	825 CY	
CLASS II AGG. BASE IMPORT	990 CY	
BIORETENTION MEDIA IMPORT	770 CY	

REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: COVER SHEET

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5240
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. C-1

NOTES:

1. INFORMATION SHOWN ON THIS SHEET IS BASED ON THE ALTA / NSPS LAND TITLE SURVEY PREPARED BY RUGGERI-JENSEN-AZAR DATED APRIL 20, 2017.
2. PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP FOR CONTRA COSTA COUNTY, CALIFORNIA AND INCORPORATED AREAS, MAP NUMBER 06013C0119G, MAP REVISED SEPTEMBER 30, 2015, THE SUBJECT PROPERTY LIES WITHIN ZONE AE (EL 11) – SPECIAL FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATION OR DEPTH; ZONE X (HATCHED) - SPECIAL FLOOD HAZARD AREAS, 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE; AND ZONE X - OTHER AREAS, AREAS OF MINIMAL FLOOD HAZARD.

N

60 ft 0 60 ft 120 ft

SHEET SIZE 24"x36" - SCALE: 1"=60'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: EXISTING BOUNDARIES, EASEMENTS AND FLOODING

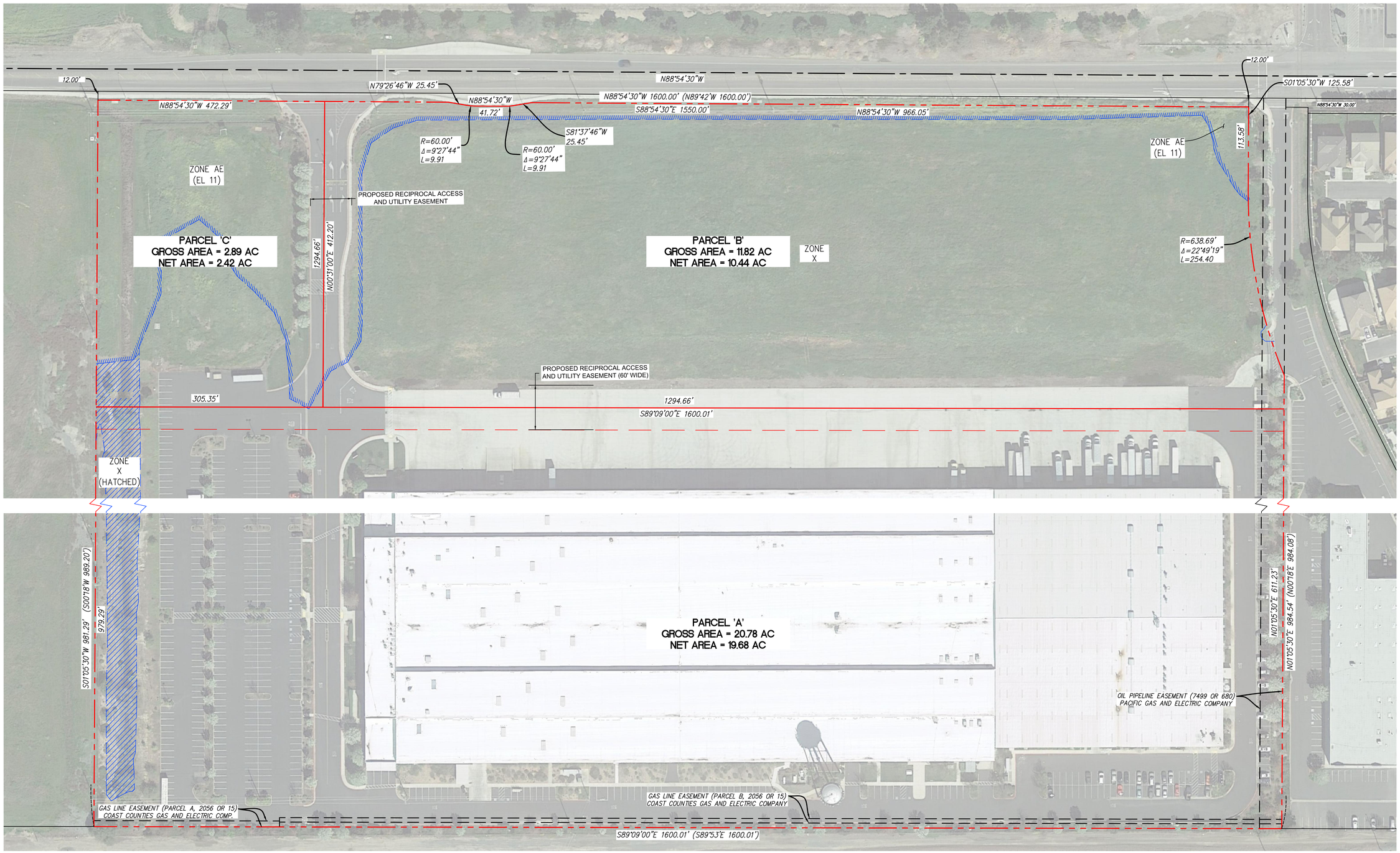
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5249
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. C-2



REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: PROPOSED BOUNDARIES AND EASEMENTS

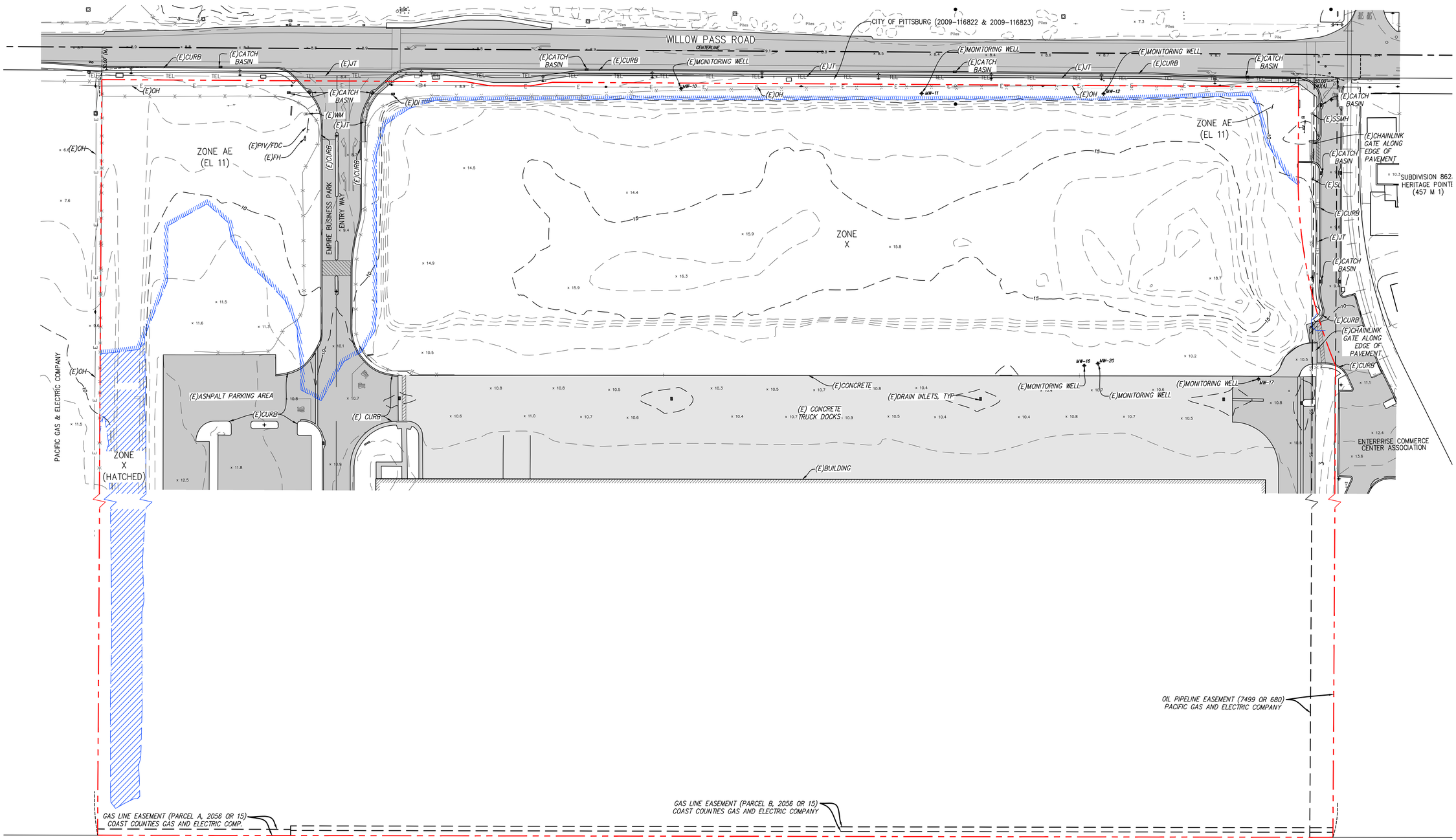
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
TEL: 925-201-6340
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614-5233
PH: 949-697-7469
jstenger@trcsolutions.com

TRC
Results you can rely on

SHEET NO. C-3



REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

TITLE: EXISTING TOPOGRAPHY

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0540
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CALIFORNIA 92614
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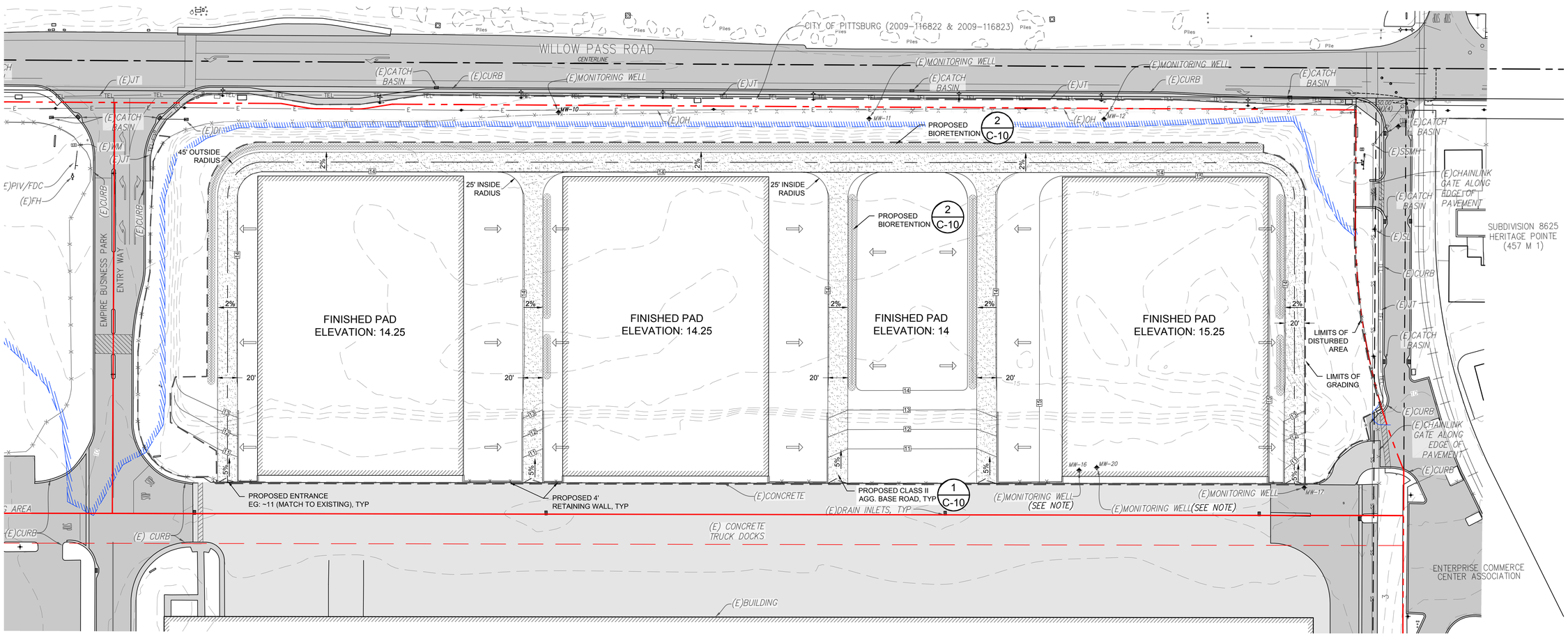
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. C-4



NOTE: EXISTING MONITORING WELLS TO BE PRESERVED IN PLACE IF NEEDED, AND FINISHED WITH FLUSH COVERS AT BUILDING FLOOR GRADE. ACCESS WILL BE PROVIDED FOR MONITORING AS NEEDED. ALTERNATIVELY, WELLS MAY BE ABANDONED OR RELOCATED IF APPROVED BY DTSC IN CONJUNCTION WITH THE SEPARATE ONGOING MONITORING AND REPORTING PROGRAM INTERACTIONS WITH THE LANDOWNER AND DTSC.

N

50 ft 0 50 ft 100 ft

SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	UPDATE TRC ADDRESS	VL	SH	JS

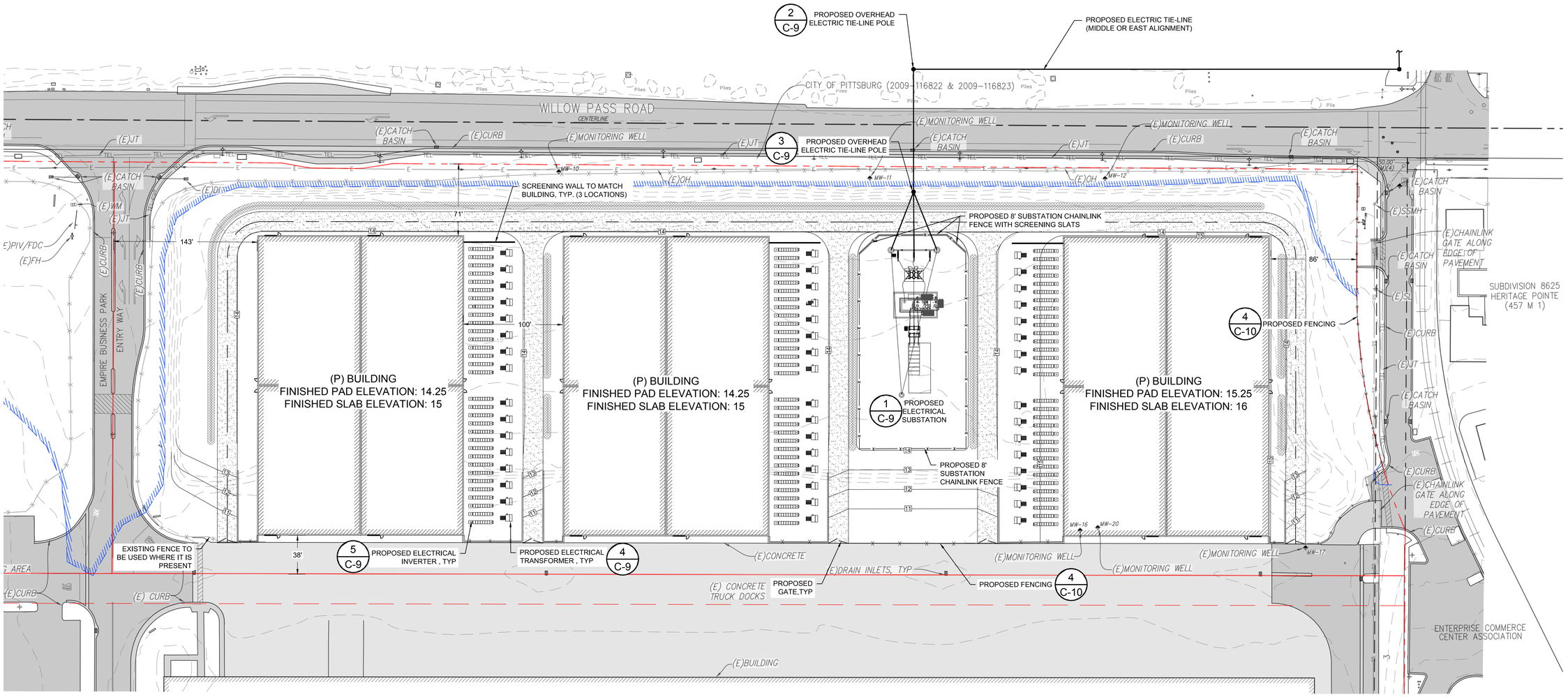
TITLE: CONCEPTUAL GRADING PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7264
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0945
FAX: 925-201-5230

SHEET NO. C-5



REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

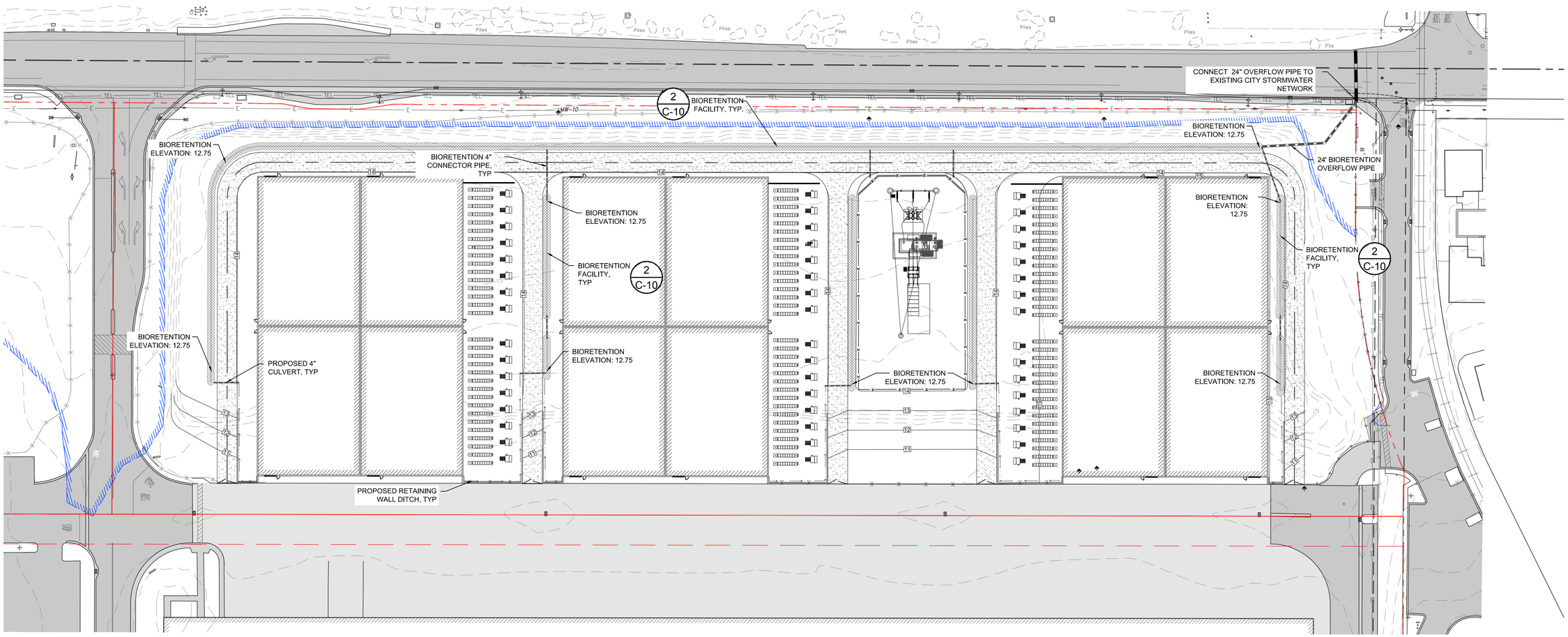
TITLE: CONCEPTUAL SITE PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CALIFORNIA 92614
PH: 949-697-7769
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5588
FAX: 925-201-5230

SHEET NO. C-6



N

50 ft 0 50 ft 100 ft

SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

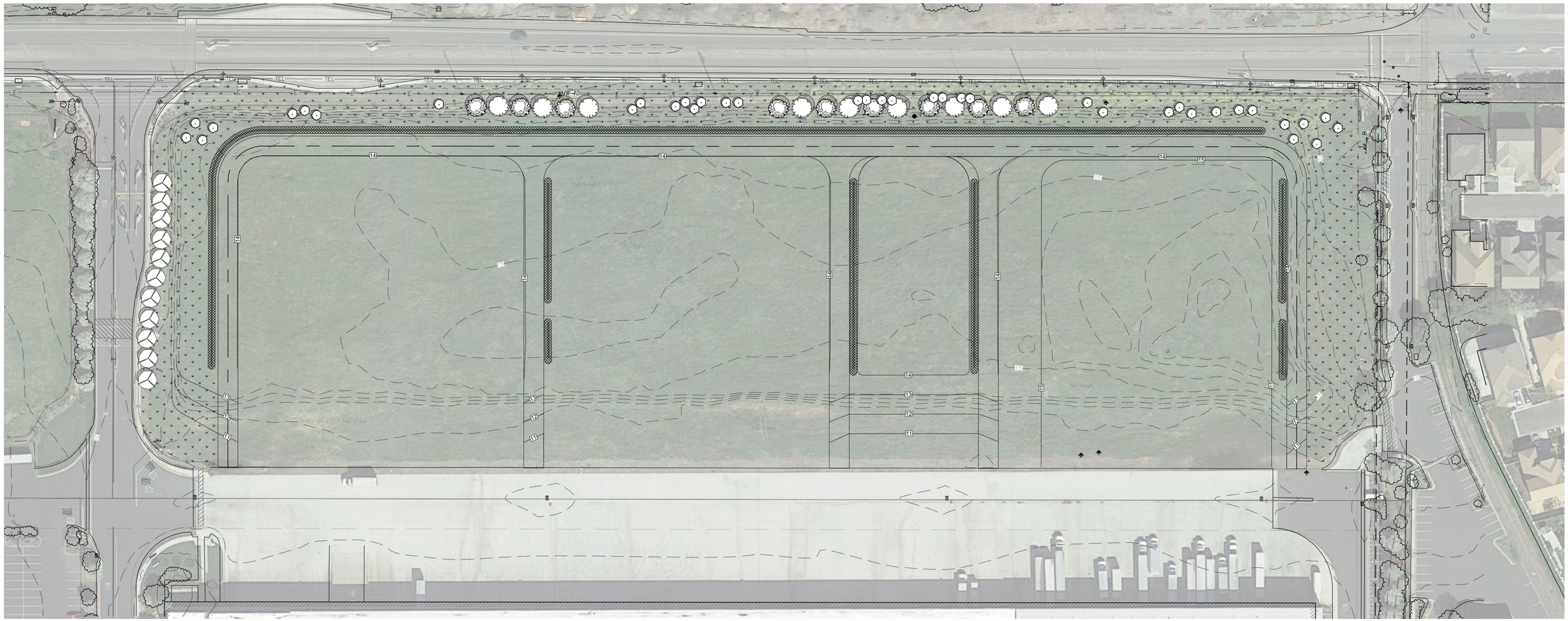
TITLE: CONCEPTUAL DRAINAGE PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7169
jatenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-6450
FAX: 925-201-5230

SHEET NO. C-7



LANDSCAPE CONCEPT

The landscape concept for Diablo Energy, LLC includes small canopy trees in combination with groups of low to medium height flowering shrubs and ground cover in an arrangement to blend with existing adjacent driveway landscaping, shield views of outdoor electrical equipment and provide a water efficient aesthetic frontage on Willow Pass Road. The suggested plant palette is comprised of drought tolerant species with evergreen foliage. An existing row of trees and driveway edge landscaping at the east side of the site will be left in place. On the west driveway edge, trees and groundcover is proposed to mirror the landscaping plan on the opposite side of the driveway offsite. Clustered trees and shrubs with ground cover is proposed for the Willow Pass frontage.

Two types of tree species are shown - a canopy tree and a flowering accent tree. Suggested trees have evergreen foliage; however an alternative accent tree with deciduous foliage is also included. All suggested trees are listed on the Contra Costa County Landscape Standards as suitable for planting under utility lines (2012).

Site areas: 11.85 acres (net); 10.44 acres (gross)
Total Existing Landscape: 0 sq. ft.
Additional Proposed Landscaped Area: 88,000 sq. ft.
Source of Irrigation Water: City of Pittsburg Potable Water Supply

NOTES:

1. Landscape shall incorporate best management practices for water efficient design consistent with Pittsburg Municipal Code 18.84.310.

2. Automated irrigation controllers shall be provided that utilize daily weather information, evapotranspiration data or soil moisture sensor data, along with other site information, to adjust the irrigation schedule on a daily basis.

3. Irrigation shall be designed and implemented to prevent excessive runoff, overspray or other water waste.

4. Final irrigation system design shall be under the direction of a licensed landscape architect or civil engineer.

5. Planting sizes shall not be less than 15-gallon containers specimens for trees, five-gallon container specimens for shrubs, and one-gallon container specimens for mass planting.

6. Medium bark mulch to a depth of 3 inches will be applied within the planting area for water conservation and weed suppression where live groundcover is not used.

7. Landscaping within the Willow Pass Road right-of-way will be installed and maintained by the Applicant.

8. Water meter shall be located on the property at a location approved to by the City of Pittsburg.

9. All planting areas are designed as a single hydrozone

10. Landscaping layout is conceptual and subject to change during final design.

11. Landscaping installation will be consistent with project construction phasing.

PLANT LEGEND

SYMBOL	TYPE AND FORM	APPROXIMATE QUANTITY	SUGGESTED SPECIES	CONTAINER SIZE	APPROXIMATE MAXIMUM HEIGHT/SPREAD
	Small canopy, broad leaf evergreen tree	11	Species to match existing landscape on west side of driveway	15 gallon	25'/25' 25'/25' 20'/20'
	Small canopy, broad leaf evergreen tree	9	Arbutus unedo (Strawberry Tree), or Rhu lancea (African Sumac), or Eriobotrya deflexa (Bronze Loquat)	15 gallon	25'/25' 25'/25' 20'/20'
	Small, broad leaf evergreen flowering accent tree (alternate species has deciduous foliage)	9	Pyrus kawakamii (Evergreen Pear), or Lagerstroemia indica x fauriei 'Natchez' (Natchez Crape Myrtle)	15 gallon	20'/20' 25'/25'
	Small, broad leaf evergreen shrub	38	Ceanothus griseus horizontalis 'Yankee Point' (Wild Lilac), and Rosmarinus officinalis 'Prostratus' (Dwarf Rosemary), or Rhaphiolepis indica 'Jack Evans' (Indian Hawthorn)	5 gallon	2'-3'/10'-12' 2'/4'-8' 4'-5'/4'
	Groundcover		Water efficient groundcover to be approved in final landscaping plan		
	Bioretention		Species to match existing landscape on west side of driveway		
	Existing Tree / Shrub / Landscape		Species to be approved in final landscaping plan		

N

50 ft 0 50 ft 100 ft

SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

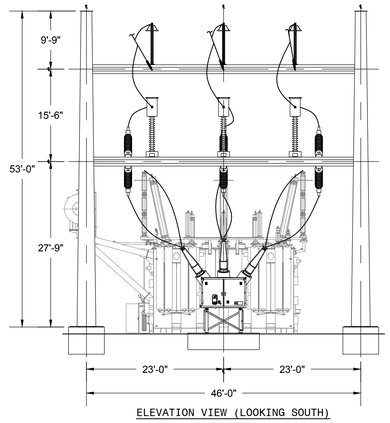
TITLE: CONCEPTUAL LANDSCAPING PLAN

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

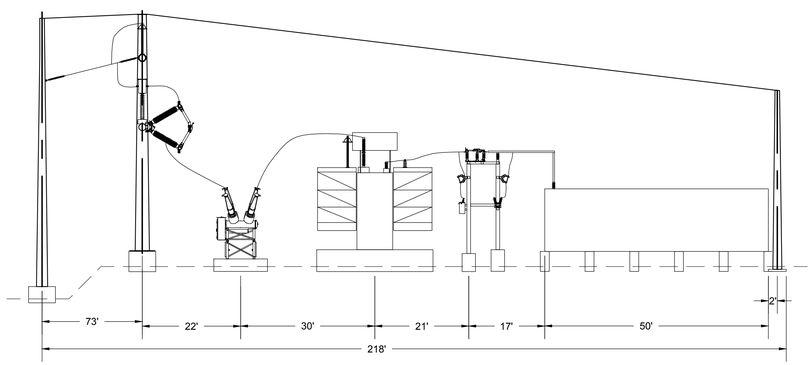
ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949.697.5264
jsitenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-2040
FAX: 925-201-5230

SHEET NO. C-8



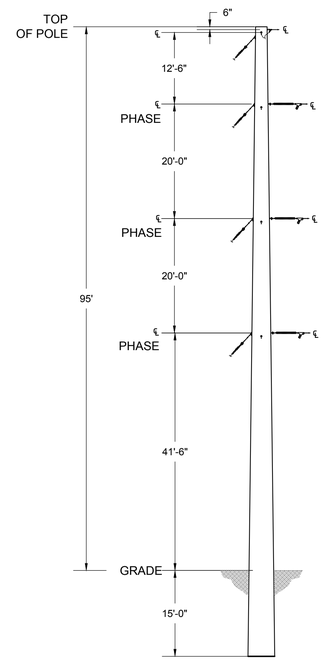
ELEVATION VIEW (LOOKING SOUTH)



ELEVATION VIEW (LOOKING EAST)

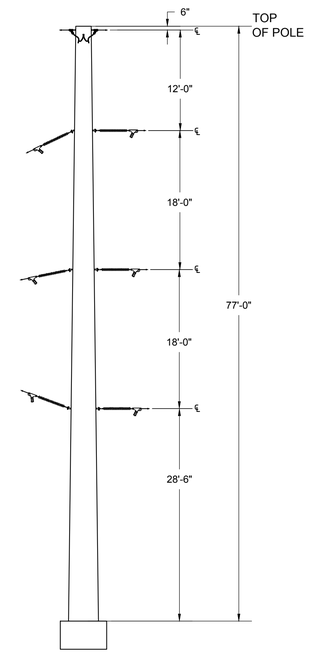
1 SUBSTATION

NOT TO SCALE



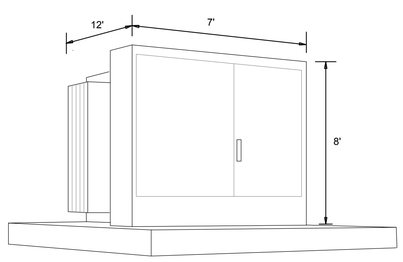
2 OVERHEAD ELECTRIC LINE TURNING POLE

NOT TO SCALE



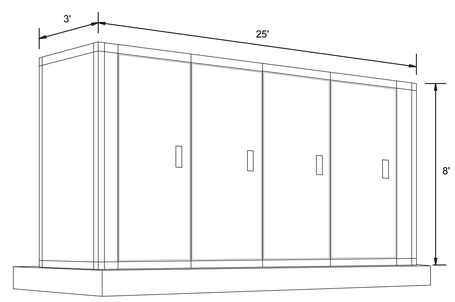
3 DOUBLE DEAD END ELECTRIC LINE POLE

NOT TO SCALE



4 PADMOUNT TRANSFORMER (TYP.)

NOT TO SCALE



5 INVERTER EQUIPMENT ENCLOSURE (TYP.)

NOT TO SCALE

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

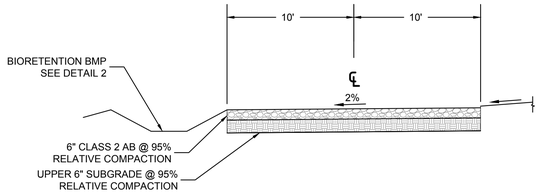
TITLE: ELECTRICAL DETAILS

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CALIFORNIA 92614
PH: 949-727-7169
jstenger@trcsolutions.com

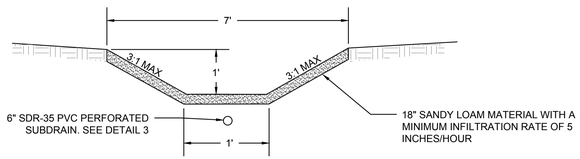
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0345
FAX: 925-201-5230

SHEET NO. C-9



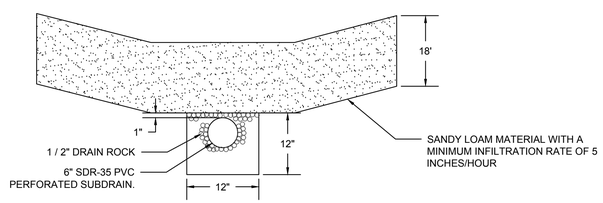
1 CLASS II AGGREGATE BASE SURFACE DRIVEWAY (TYP.)

NOT TO SCALE



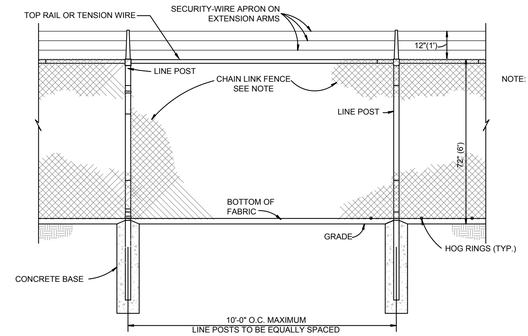
2 BIORETENTION BMP, TYP

NOT TO SCALE



3 6" SUBDRAIN UNDER BIORETENTION FACILITY, TYP

NOT TO SCALE



NOTE: NEW FENCING WILL BE INSTALLED AT THE SITE PERIMETER WHERE EXISTING FENCING DOES NOT OCCUR. EXISTING FENCING WILL BE REPAIRED WITH LIKE DESIGN OR REPLACED WITH NEW FENCING PER DETAIL SHOWN AS NEEDED BASED ON EXISTING FENCE INTEGRITY.

4 PROPOSED FENCING

NOT TO SCALE

REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: ROADWAY, DRAINAGE AND FENCE DETAILS

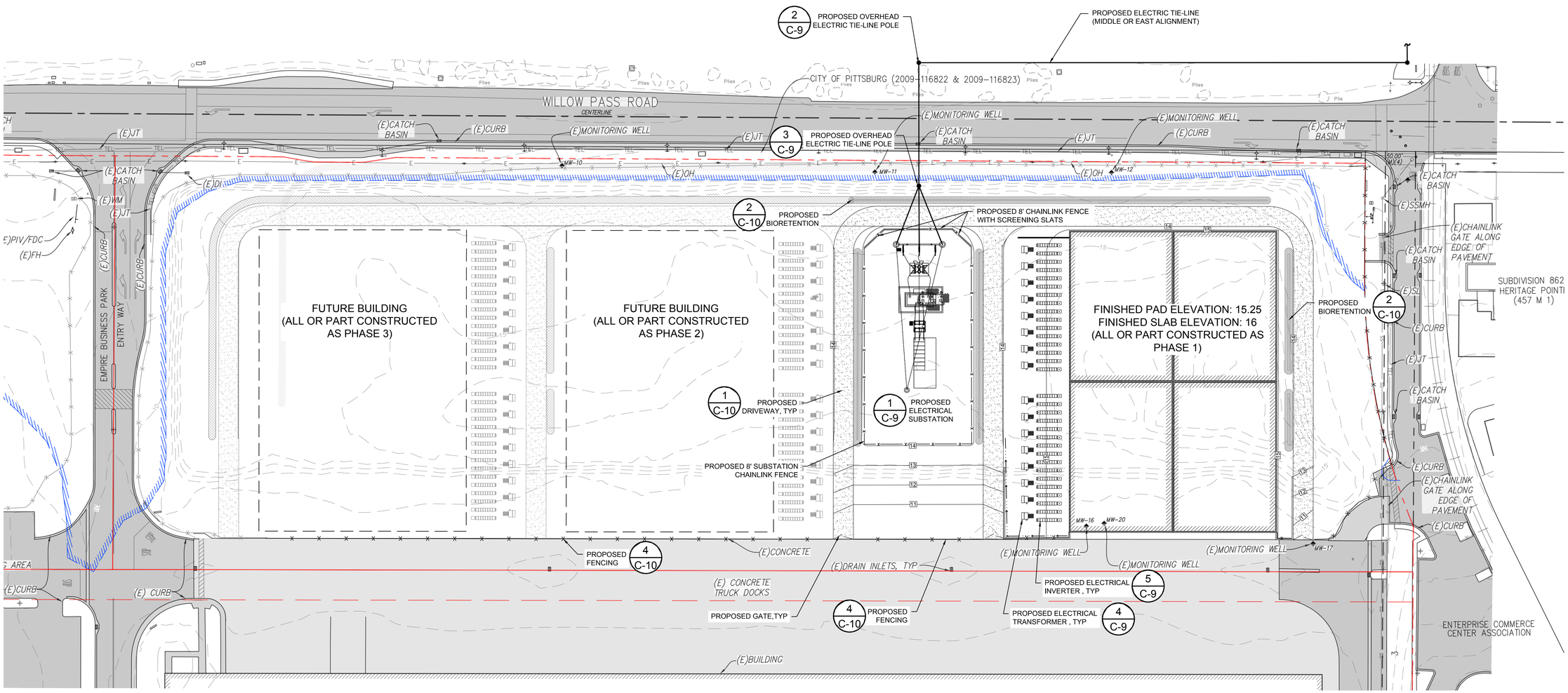
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0945
FAX: 925-201-5230

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7769
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. C-10



SHEET SIZE 24"x36" - SCALE: 1"=50'

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: CONSTRUCTION PHASING

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-467-7161
jstenger@trcsolutions.com

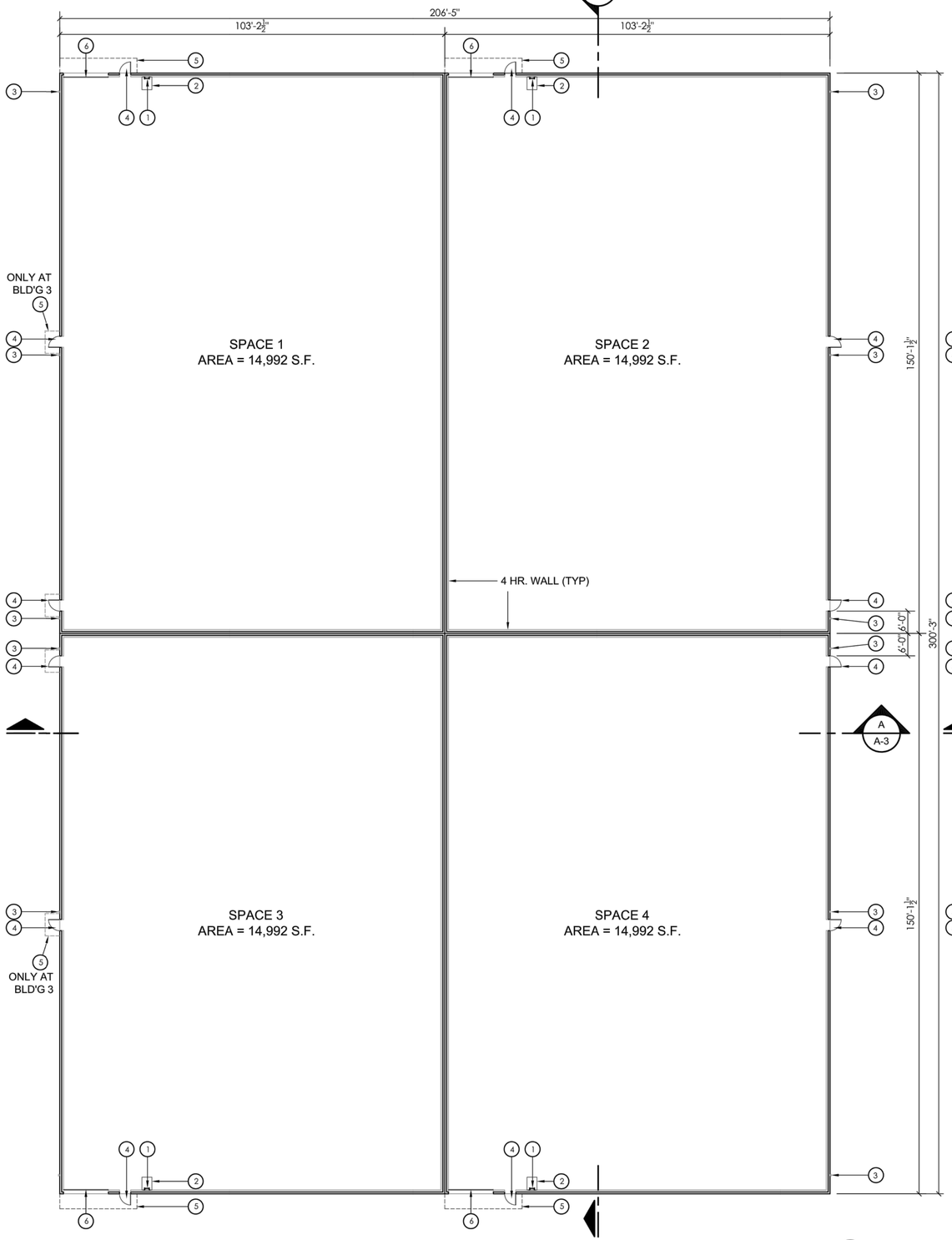
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0345
FAX: 925-201-5230

SHEET NO. C-11

KEY NOTES

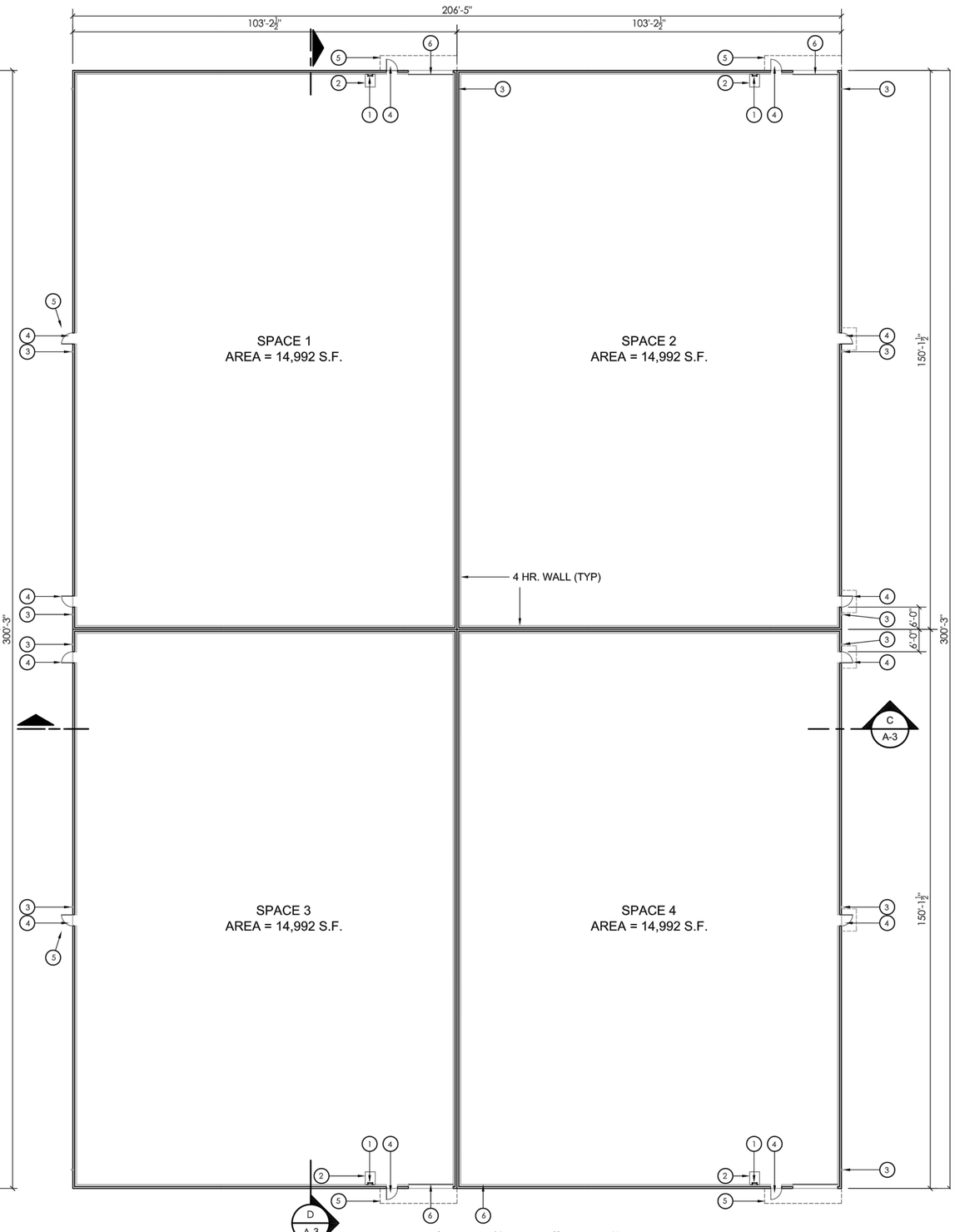
1. ROOF ACCESS LADDER
2. ROOF ACCESS HATCH ABOVE
3. DOWNSPOUT LOCATION
4. METAL DOOR
5. DOOR AWNING PROJECTION
6. 12' x12' METAL ROLL-UP DOOR

CBC Notes:
Occupancy - H-2
Construction - Type B - Sprinkled



TYPICAL FLOOR PLAN - BUILDING - 2 - 3

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



FLOOR PLAN - BUILDING 1

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

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: TYP. FLOOR PLAN BUILDING 1-2-3

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614-5020
PH: 949-697-7169
jstenger@trcsolutions.com

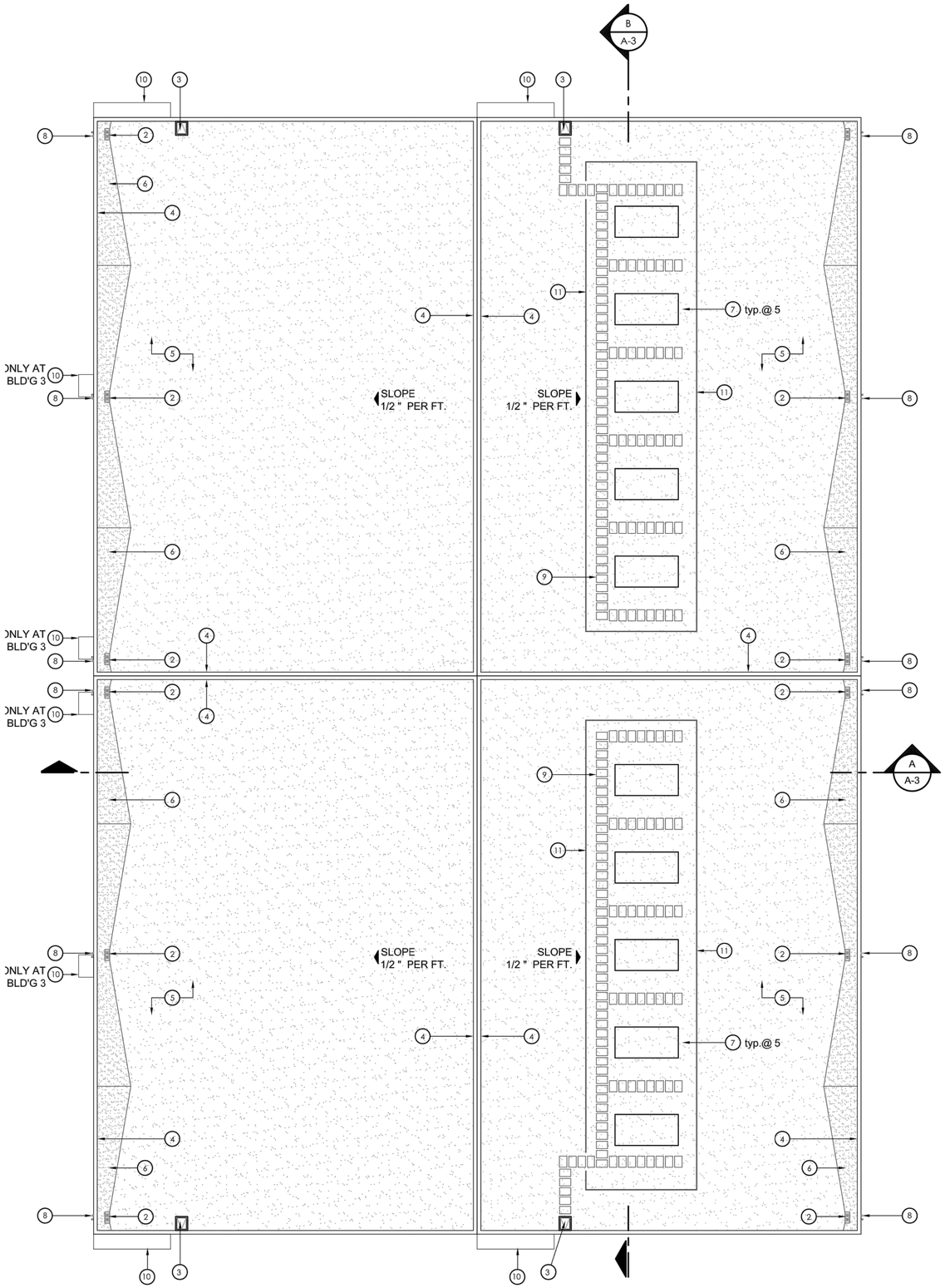
OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0540
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. A-1

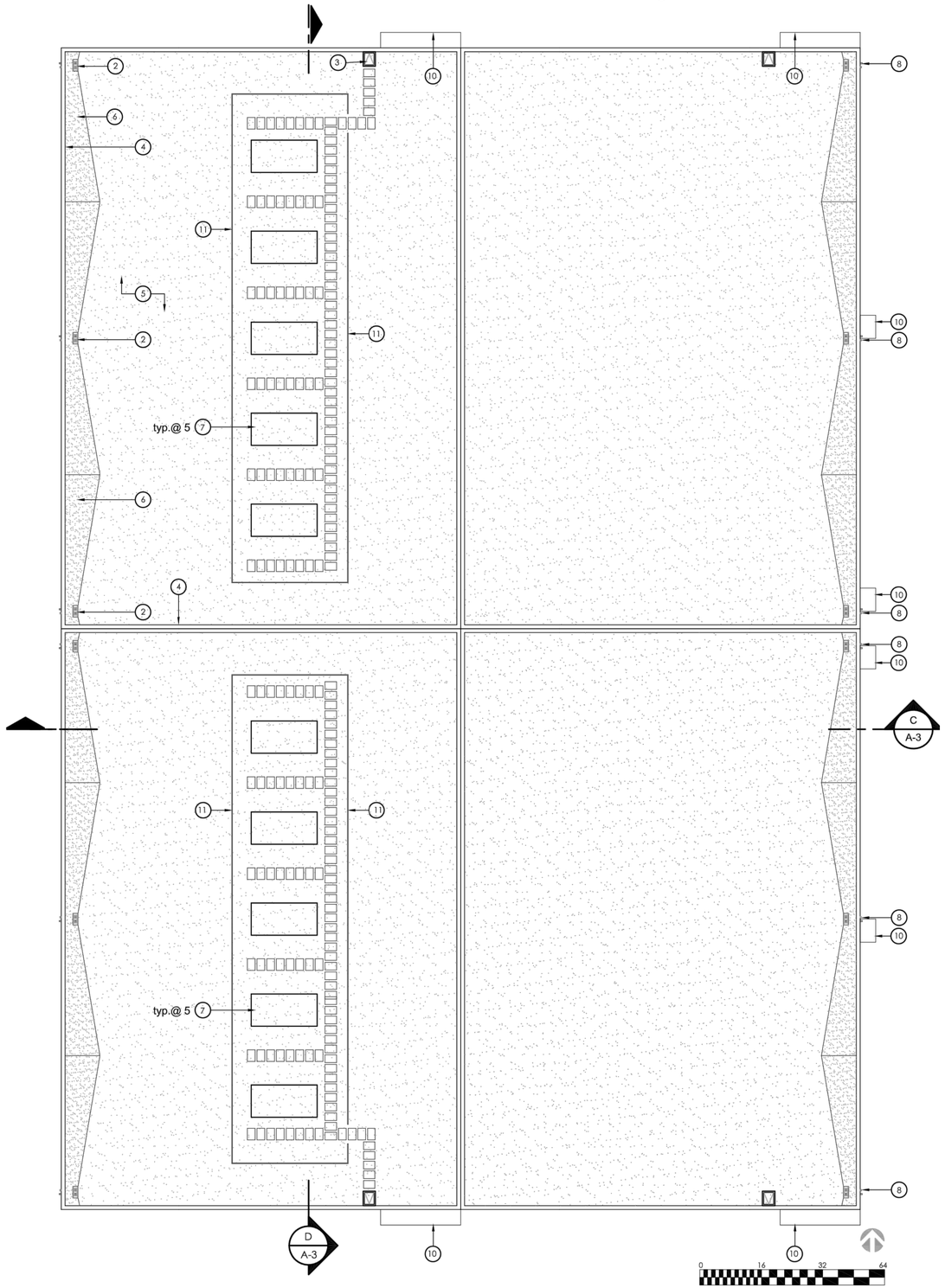
KEY NOTES

1. ROOF ACCESS LADDER
2. ROOF DRAIN AND OVERFLOW
3. ROOF ACCESS HATCH
4. PARAPET WALL
5. BUILT-UP ROOF
6. ROOF CRICKET
7. MECHANICAL UNITS
8. DOWNSPOUT
9. ROOF TRAFFIC PADS
10. DOOR AWNING
11. VENTED METAL MECHANICAL SCREEN SYSTEM



TYPICAL ROOF PLAN - BUILDING 2 - 3

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



ROOF PLAN - BUILDING 1

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

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: ROOF PLAN - BUILDING 1-2-3

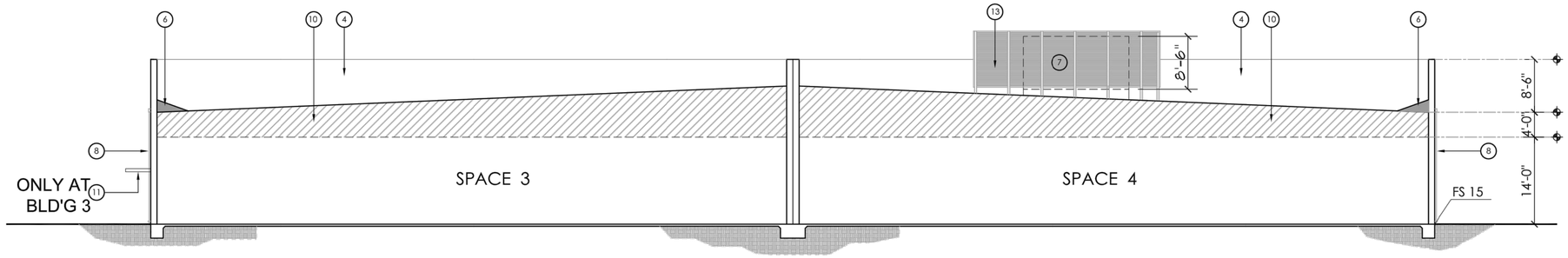
PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
PH: 949-697-7769
jstenger@trcsolutions.com

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD, SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0248
FAX: 925-201-5230

TRC Results you can rely on

SHEET NO. A-2

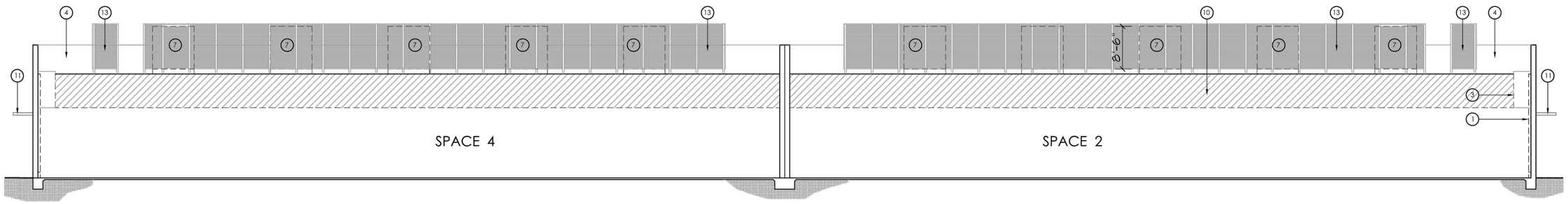


BUILDING SECTION - A - BUILDING 2 - 3

SCALE : 1" = 10'-0"

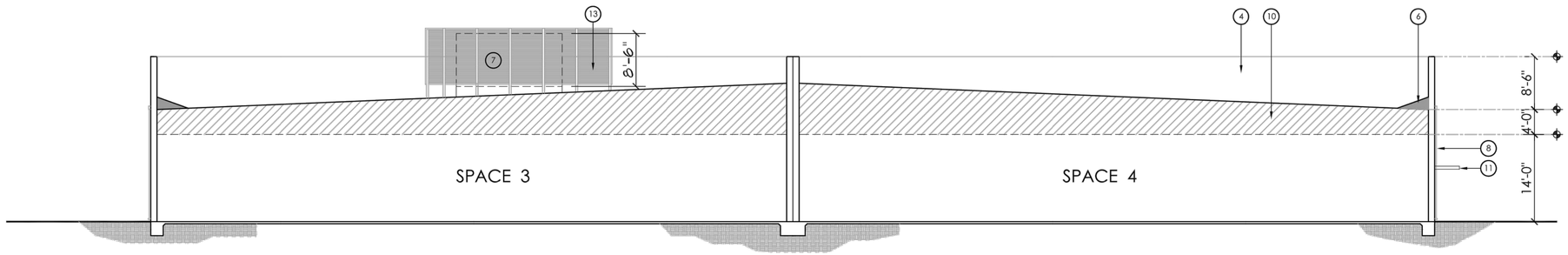
KEY NOTES

1. ROOF ACCESS LADDER
2. ROOF DRAIN AND OVERFLOW
3. ROOF ACCESS HATCH
4. PARAPET WALL
5. ROOF TRAFFIC PADS
6. ROOF CRICKET
7. MECHANICAL UNITS
8. DOWNSPOUT
9. ROOF TRAFFIC PADS
10. STRUCTURE SPACE
11. DOOR AWNING
12. METAL DOOR
13. VENTED METAL MECHANICAL SCREEN SYSTEM



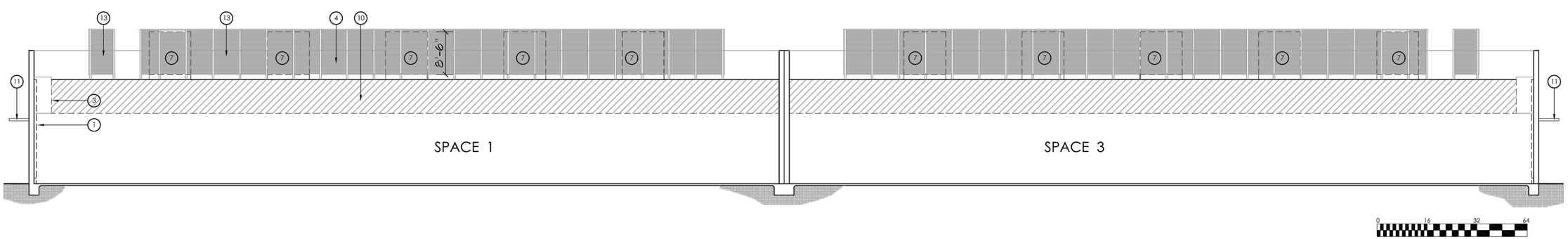
BUILDING SECTION - B - BUILDING - 2 - 3

SCALE : 1" = 10'-0"



BUILDING SECTION - C - BUILDING 1

SCALE : 1" = 10'-0"



BUILDING SECTION - D - BUILDING 1

SCALE : 1" = 10'-0"

REV	DATE	DESCRIPTION	BY	CHKD	APP
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: BUILDING SECTIONS - BUILDING 1-2-3

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
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jsteinger@trcsolutions.com

OWNER/APPLICANT:
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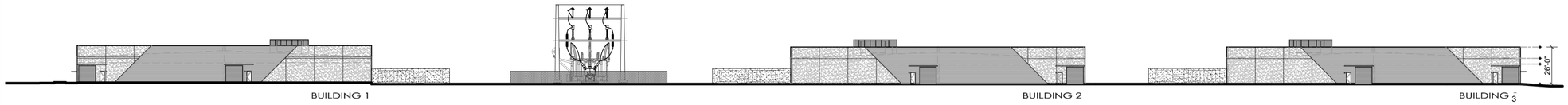
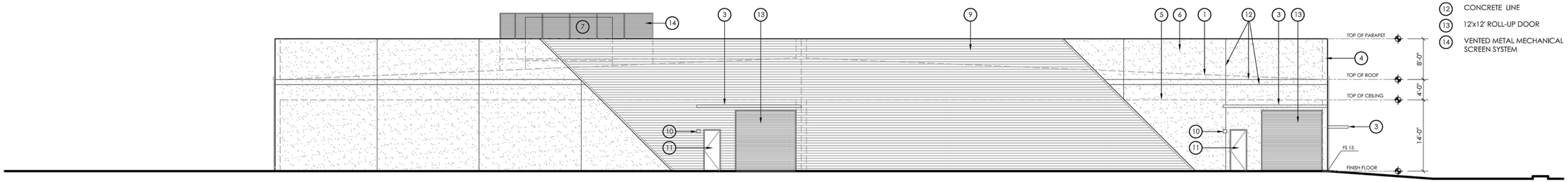
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-5548
FAX: 925-201-5230

SHEET NO. A-3



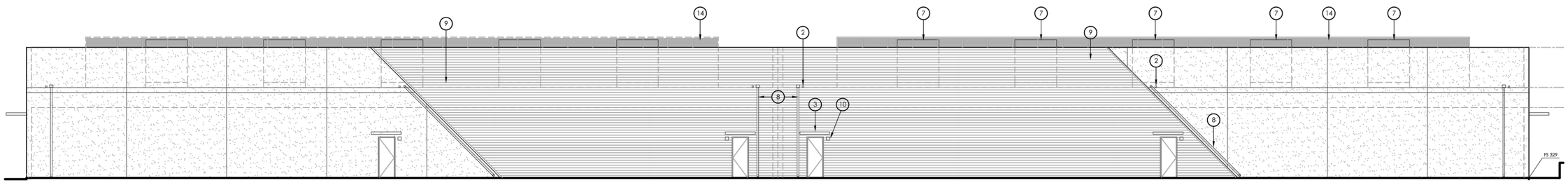
OVERALL - NORTH STREET ELEVATION - BUILDING 1 - 2 - 3

SCALE : 1" = 40'



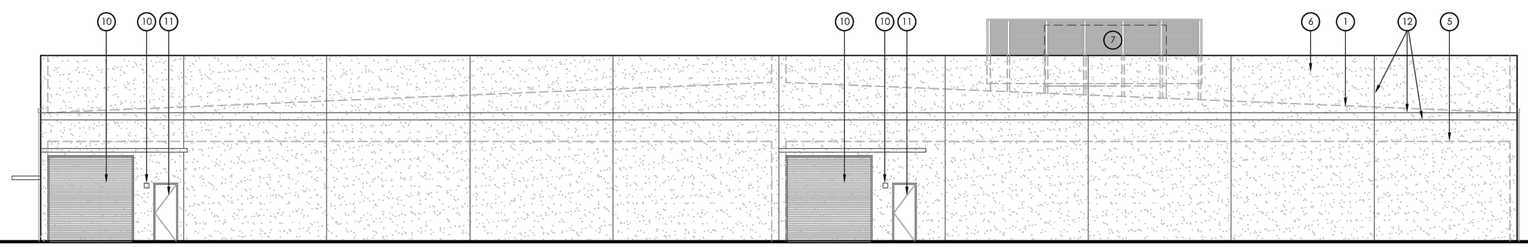
NORTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'



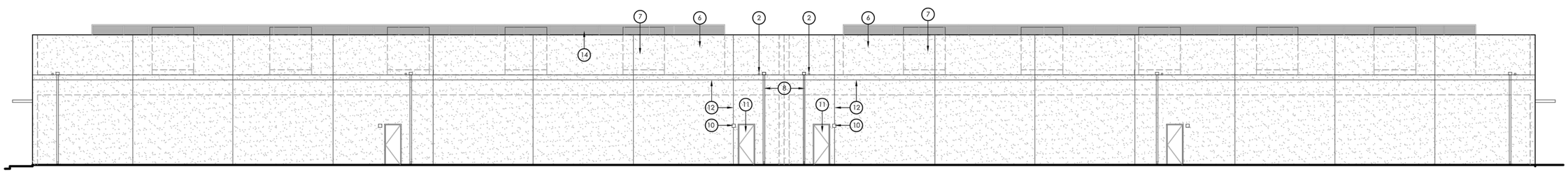
WEST ELEVATION - BUILDING 3 AND EAST ELEVATION - BUILDING - 1

SCALE : 1" = 10'



SOUTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'



WEST ELEVATION - BUILDING 1 -2 / EAST ELEVATION - BUILDING 2 - 3

SCALE : 1" = 10'

KEY NOTES

1. LINE OF ROOF
2. ROOF DRAIN OVERFLOW
3. DOOR AWNING
4. PARAPET WALL
5. TOP OF CEILING
6. TILT UP CONCRETE WALLS
7. MECHANICAL UNITS
8. DOWNSPOUT
9. METAL PANELS
10. LIGHT FIXTURE
11. METAL DOOR
12. CONCRETE LINE
13. 12'x12' ROLL-UP DOOR
14. VENTED METAL MECHANICAL SCREEN SYSTEM

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: EXTERIOR ELEVATIONS

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

ENGINEER:
TRC SOLUTIONS, INC
17911 VON KARMAN AVENUE, SUITE 400
IRVINE, CA 92614
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jstenger@trcsolutions.com

OWNER/APPLICANT:
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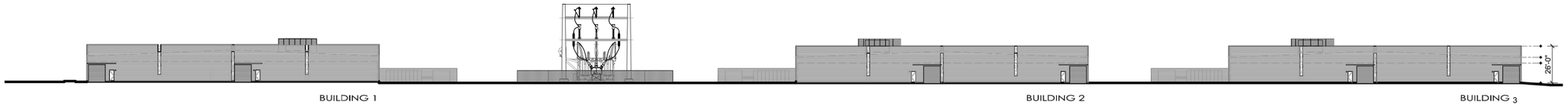
5000 HOPYARD ROAD SUITE #480
PLEASANTON, CA 94588
PH: 925-201-0248
FAX: 925-201-5230

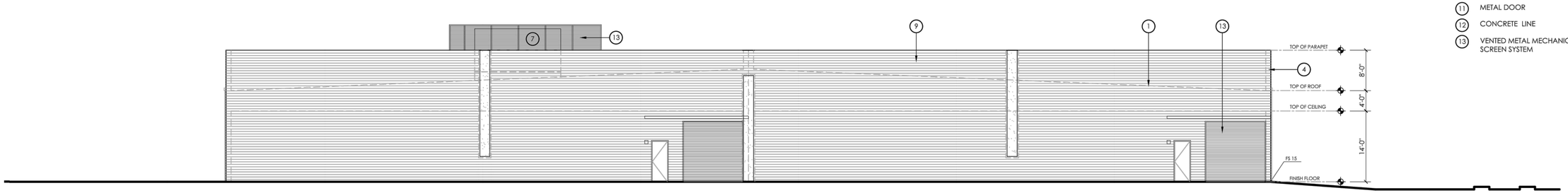
TRC Results you can rely on

SHEET NO. A-4



OVERALL - ALTERNATE - NORTH STREET ELEVATION - BUILDING 1 - 2 - 3

SCALE : 1" = 40'



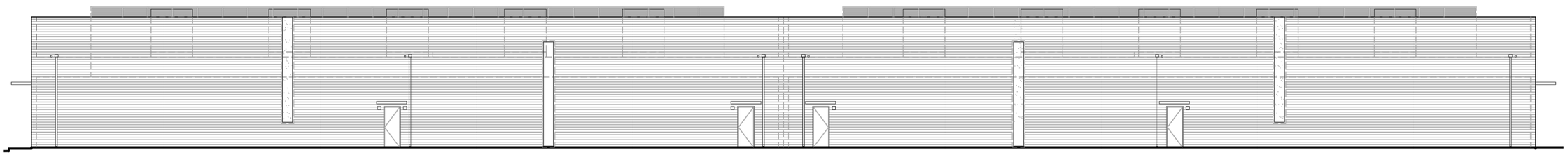
ALTERNATE NORTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'

NOTE: Illustration of alternate building exterior design employing the use of steel framing exterior walls and metal cladding exterior material.

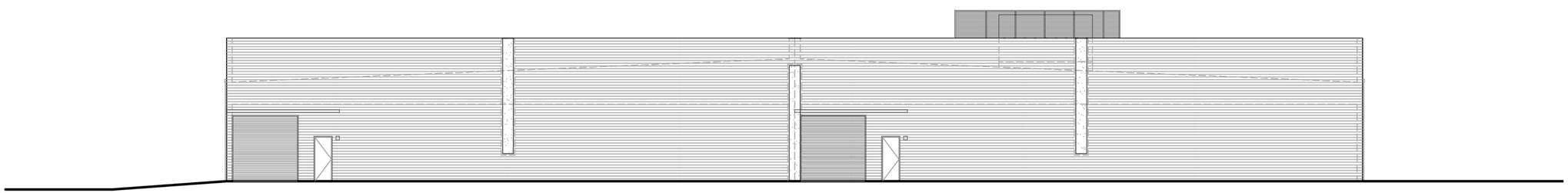
KEY NOTES

1. LINE OF ROOF
2. ROOF DRAIN OVERFLOW
3. DOOR AWNING
4. PARAPET WALL
5. TOP OF CEILING
6. TILT UP CONCRETE WALLS
7. MECHANICAL UNITS
8. DOWNSPOUT
9. SHEET METAL PANELS
10. LIGHT FIXTURE
11. METAL DOOR
12. CONCRETE LINE
13. VENTED METAL MECHANICAL SCREEN SYSTEM



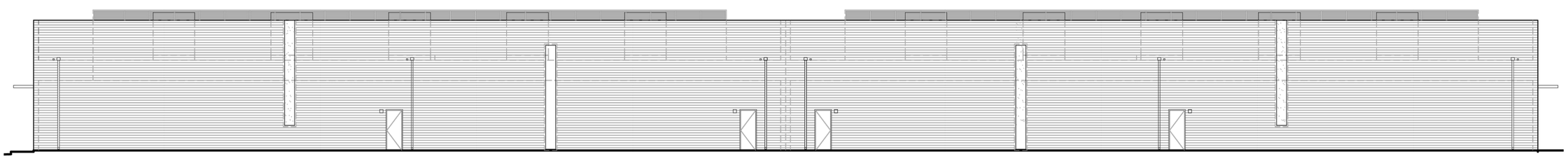
ALTERNATE ELEVATION - BUILDING 1- EAST and BUILDING 3 - WEST

SCALE : 1" = 10'



ALTERNATE SOUTH ELEVATION - BUILDING 2 -3 - 1 (REVERSE)

SCALE : 1" = 10'



ALTERNATE ELEVATION - BUILDING 2- EAST and WEST

REV	DATE	DESCRIPTION	BY	CHKD	APP.
0	08/29/17	INITIAL SUBMITTAL TO CITY OF PITTSBURG	VL	SH	JS
1	01/12/18	MINOR DESIGN UPDATES INCORPORATED	VL	SH	JS

TITLE: EXTERIOR ELEVATIONS ALTERNATE

PROJECT: DIABLO ENERGY STORAGE
APN 085-280-010
701 WILLOW PASS ROAD, PITTSBURG, CA

OWNER/APPLICANT:
DIABLO ENERGY STORAGE, LLC
5000 HOPYARD ROAD SUITE #450
PLEASANTON, CA 94588
PH: 925-201-5245
FAX: 925-201-5230

ENGINEER:
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IRVINE, CA 92614
PH: 949-727-7169
jstenger@trcsolutions.com

TRC Results you can rely on

SHEET NO. A-5

Appendix B

CalEEMod Input and Output Summary

DIABLO ENERGY STORAGE PROJECT
WORST-CASE PEAK DAILY CONSTRUCTION EMISSIONS

The Diablo Energy Storage Project (Project) is proposed for construction in the City of Pittsburg, California, within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD).

The Project is expected to take 6 to 12 months to construct. During construction, the Grading Phase is expected to produce the maximum daily construction emissions. Therefore, peak daily construction emissions have been estimated based upon construction activities during the Grading Phase.

The Grading Phase is expected to include approximately 15 total work days taking place over approximately three weeks. Diesel exhaust is assumed to emit no more than Tier 2 equipment. Disturbed surfaces that are not stabilized will be watered twice per day, or other equally effective palliative will be used, and ground cover will be replaced as soon as reasonably possible. The following equipment was included in the emission calculation:

- 1x Bulldozer (247 Horsepower [HP]) @ 6 hours per day
- 1x Grader (187 HP) @ 6 hours per day
- 2x Scrapers (367 HP each) @ 6 hours per day
- 1x Water Truck (402 HP) @ 6 hours per day
- 1x Self- Propelled Compactor (80 HP) @ 6 hours per day
- 1x Dump truck (402 HP each) @ 6 hours per day
- 1x Tractor/Loader/Backhoe (97 HP) @ 6 hours per day
- 1x Bobcat (65 HP) @ 6 hours per day

Emissions were calculated using the California Emissions Estimator Model (CalEEMod), version 2016.3.1 in accordance with BAAQMD guidance. The calculated peak daily emissions are provided below.

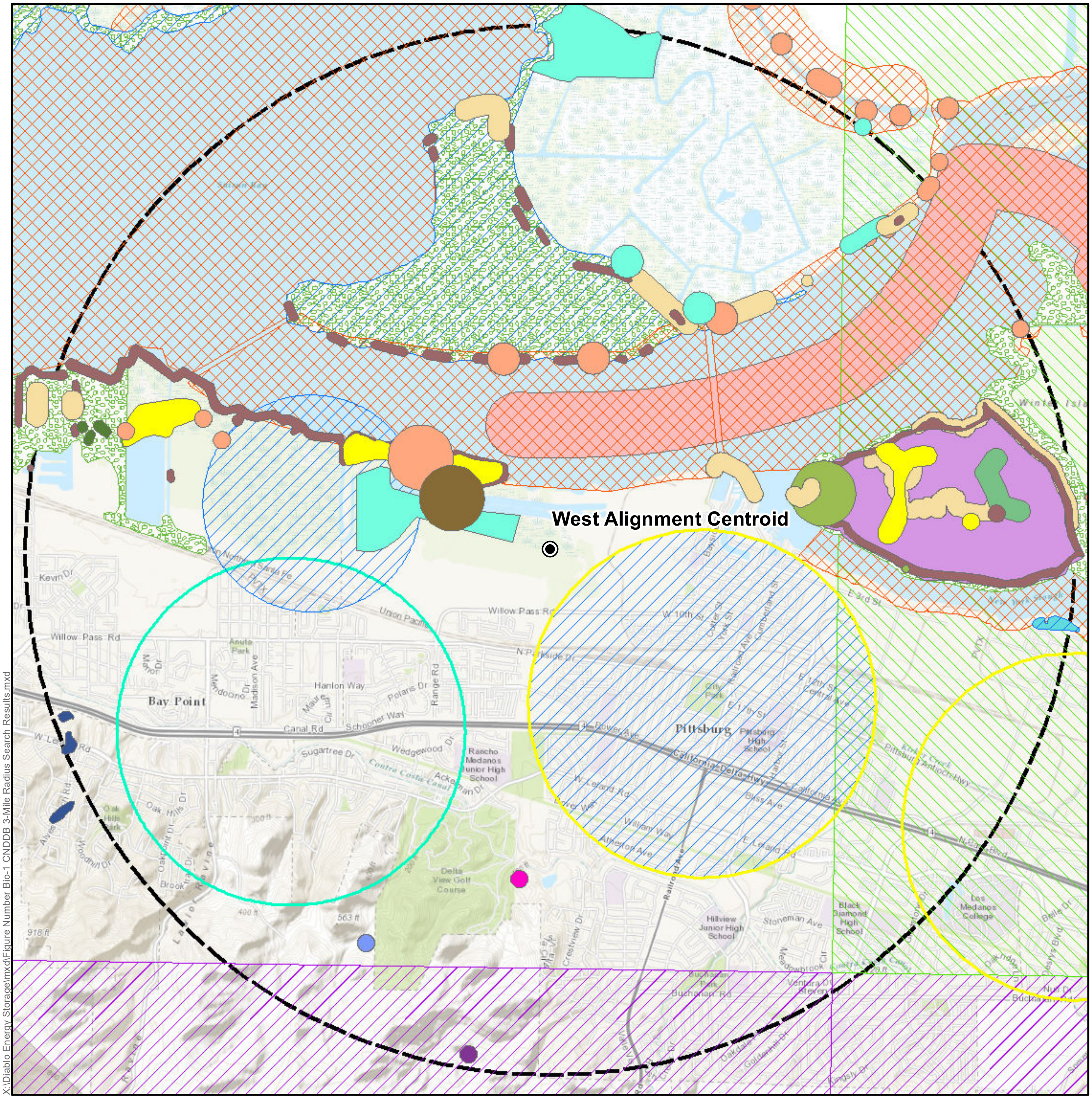
Peak Daily Emissions (pounds per day)

	ROG	CO	NOx	SO2	Fugitive PM10	Exhaust PM10	Fugitive PM2.5	Exhaust PM2.5
Emissions	5.4	34.3	45.9	0.1	3.8	2.3	1.5	2.1
Thresholds[1]	54	None	54	None	None	82	None	54
Significant?	No	NA	No	NA	NA	No	NA	No

[1] Source: BAAQMD, *CEQA Guidelines*, May 2017, http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

Appendix C

Sensitive Species Occurrences within Three Miles



X:\Diablo Energy Storage\mxd\Figure Number Bio-1 CNDDB 3-Mile Radius Search Results.mxd

- West Alignment Centroid
- CNDDB 3-Mile Radius

CNDDB Occurrences

- Alameda whipsnake
- Antioch Dunes evening-primrose
- Bolander's water-hemlock
- California black rail
- California least tern
- California red-legged frog
- California tiger salamander
- Coastal Brackish Marsh
- Contra Costa wallflower
- Delta mudwort
- Delta tule pea
- Lange's metalmark butterfly
- Mason's lilaeopsis
- Suisun Marsh aster
- Suisun song sparrow
- big tarplant
- burrowing owl
- longfin smelt
- round-leaved filaree
- salt-marsh harvest mouse
- saltmarsh common yellowthroat
- soft salty bird's-beak
- steelhead - Central Valley DPS
- western bumble bee
- western pond turtle

Figure Number BIO-1
CNDDB 3-Mile Radius Search
West Tie-Line Alignment
Diablo Energy Storage, LLC

TRC Results you can rely on

N

0 1 2 Miles

1:52,000

8/29/2017

SPECIAL STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Amsinckia grandiflora Large-flowered fiddleneck	Fed: CA: CNPS:	FE SE 1B.1	Annual herb. Habitat includes cismontane woodland, and valley and foothill grassland. Blooms (March) April-May. Elevation 270-550 meters.	**No Potential:** Typical habitat not present in the project area. Species known from higher elevations and different vegetation communities than present in the project area.
Blepharizonia plumosa Big tarplant	Fed: CA: CNPS:	None None 1B.1	Annual herb. Habitat includes clay soils in valley and foothill grassland. Blooms July-October. Elevation 30-505 meters.	**No Potential:** Typical habitat not present within the project area. Species known from higher elevations and different vegetation communities than present in the project area.
California macrophylla Round-leaved filaree	Fed: CA: CNPS:	None None 1B.2	Annual herb. Habitat includes clay soils in cismontane woodland, and valley and foothill grassland. Elevation 15-1200 meters.	**No Potential:** Typical habitat not present within the project area. Species known from higher elevations and different vegetation communities than present in the project area.
Chloropyron molle ssp. *molle* Soft salty bird's-beak	Fed: CA: CNPS:	FE SR 1B.2	Hemiparasitic annual herb. Habitat includes coastal salt marshes and swamps. Blooms June-November. Elevation 0-3 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Cicuta maculata var. *bolanderi* Bolander's water hemlock	Fed: CA: CNPS:	None None 2B.1	Perennial herb. Habitat includes marshes and swamps with coastal, fresh, or brackish water. Blooms July-September. Elevation 0-200 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat of within the typical elevation range of this species.
Erysimum capitatum var. *angustatum* Contra Costa wallflower	Fed: CA: CNPS:	FE SE 1B.1	Perennial herb. Habitat includes inland dunes. Blooms March-July. Elevation 3-20 meters.	**Low Potential**: Inland dunes are not present. Project area elevations are generally at or below the low end of the range for this species.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	Fed: CA: CNPS:	None None 1B.2	Perennial herb. Habitat includes marshes and swamps with fresh or brackish water. Blooms May-July (August-September). Elevation 0-5 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.

Limosella australis Delta mudwort	Fed: CA: CNPS:	None None 2B.1	Perennial stoloniferous herb. Habitat usually mud banks. Also found in riparian scrub, and marshes and swamps with fresh or brackish waters. Blooms May-August. Elevation 0-3 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Lasthenia conjugens Contra Costa goldfields	Fed: CA: CNPS: CRPR:	FE None 1B.1	Annual herb. Habitat is mesic areas including cismontane woodland, alkaline playas, valley and foothill grassland, and vernal pools. Blooms March-June. Elevation 0-470 meters.	**Low Potential**: Habitat typical of this species is not present.
Lilaeopsis masonii Mason's lilaeopsis	Fed: CA: CNPS:	None SR 1B.1	Perennial rhizomatous herb. Habitat is marshes and swamps with fresh or brackish water, and riparian scrub. Blooms April-November. Elevation 0-10 meters.	**Moderate Potential**: The project area may include marsh or wetland habitat within the typical elevation range of this species.
Neostapfia colusana Colusa grass	Fed: CA: CNPS:	FT SE 1B.1	Annual herb. Habitat is vernal pools (typically large). Blooms May-August. Elevation 5-200 meters.	**Low Potential**: Habitat typical of this species is not present. Elevation of project area below the typical range for this species.
Oenothera deltoides ssp. *howellii* Antioch dunes evening-primrose	Fed: CA: CNPS:	FE SE 1B.1	Perennial herb. Habitat is inland dunes. Blooms March-September. Elevation 0-30 meters.	**No Potential**: No dune habitat is present in the project area.
Sidalcea keckii Keck's checkerbloom	Fed: CA: CNPS:	FE None 1B.1	Annual herb. Habitat soil often clay or serpentinite. Habitat is cismontane woodland, and valley and foothill grassland. Blooms April-May (June). Elevation 75-650 meters.	**No Potential:** Typical habitat not present within the project area. Species known from higher elevations than the project area.
Symphyotrichum lentum Suisun marsh aster	Fed: CA: CNPS:	None None 1B.2	Perennial rhizomatous herb. Habitat is marshes and swamps with fresh or brackish water. Blooms (April) May-November. Elevation 0-3 meters.	**Moderate Potential**: The project area may be within marsh or wetland habitat of within the typical elevation range of this species.
Federal Designations: FE = Federal Endangered FT=Federal Threatened FC=Candidate for Federal Listing BCC = USFWS Bird of Conservation Concern			**California Rare Plant Ranks (CRPR):** **1A:** Presumed extirpated in California and rare or extinct elsewhere **1B:** Rare, threatened, or endangered in California and elsewhere **2A:** Presumed extirpated in California, but more common elsewhere **2B:** Rare, threatened, or endangered in California, but more common elsewhere	

	3: Review list of plants requiring more study **4:** Watch list of plants of limited distribution
CA State Designations: SE=State Endangered ST= State Threatened SR = State Rare SFP = State-Fully Protected SSC= Species of Special Concern WL = Watch List Species	**California Native Plant Society (CNPS) Threat Code:** **.1:** Seriously threatened in California **.2:** Moderately threatened in California **.3:** Not very threatened in California

References

California Native Plant Society, Rare Plant Program. 2017. *Inventory of Rare and Endangered Plants of California* (online edition, v8-03 0.39). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org (Accessed 8/31/17).

California Department of Fish and Wildlife. 2017. *California Natural Diversity Database, Rarefind*. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx (Accessed 8/31/17).

U.S. Fish and Wildlife Service. 2017. *Information for Planning and Consultation* (IPaC). https://ecos.fws.gov/ipac/location/YGJLIYJGHZGKHPZYQLTSNZMSNA/resources (Accessed 8/31/17).

SPECIAL STATUS WILDLIFE WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Fishes				
Oncorhynchus mykiss irideus Steelhead – Central Valley DPS	Fed: CA:	FT None	These include all populations in the Sacramento/San Joaquin River system and its delta. Found in cool, clear, fast-flowing waters, and are the most physiologically tolerant to of the salmonids.	**No Potential:** The project area does not contain appropriate aquatic habitat.
Hypomesus transpacificus Delta smelt	Fed: CA:	FT SE	Spawn in shallow fresh, or slightly brackish, waters. Found from Suisun Bay upwards through the Sacramento/San Joaquin River Delta.	**No Potential:** The project area does not contain the appropriate aquatic or open water estuarine habitat.
Spirinchus thaleichthys Longfin smelt	Fed: CA:	FC ST	Spend adult life in bays, estuaries, and nearshore coastal areas. Migrate to freshwater rivers to spawn. Found in mid-water to near the bottom following prey movement.	**No Potential:** The project area does not contain the appropriate aquatic or open water estuarine habitat.
Insects				
Elaphrus viridis Delta green ground beetle	Fed: CA:	FT None	To date found only in the greater Jepson Prairie area of Solano County. Preferred habitat appears to be a grassland-playa pool matrix.	**No Potential:** The project area does not contain the required habitat, and is outside of the known range of this species.
Apodemia mormo langei Lange's metalmark butterfly	Fed: CA:	FE None	To date is found only along the southern bank of the Sacramento-San Joaquin River in the Antioch sand dunes of Contra Costa County. All life stages occur near the host plant, which is buckwheat.	**Low Potential**: Dune habitat is not present in the Project area.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	Fed: CA:	FT None	Found on the host plant, which is red or blue elderberry, along streams and rivers in riparian forests.	**Low Potential:** The project area may contain the host elderberry plant however, the area is outside of the known range of this species.

Bombus occidentalis Western bumblebee	Fed: CA:	None None	Rare. Found in temperate regions such as meadows and prairies with an abundance of flowers.	**Low Potential**: The project area does not include typical habitat for this species.
Callophrys mossii bayensis San Bruno elfin butterfly	Fed: CA:	FE None	Habitat includes the rocky outcrops and cliffs in coastal scrub along the San Francisco peninsula. Live along north-facing slopes within the fog belt. Dependent on the host plant, *Sedum spathulifolium.*	**No Potential:** The project area does not contain the required habitat, and is outside of the known range of this species.
Invertebrates				
Branchinecta lynchi Vernal pool fairy shrimp	Fed: CA:	FT None	Require vernal pools or other seasonal wetlands that experience a drying cycle. Cysts may persist for years within the soil.	**Low Potential**: The project area may include seasonal wetland habitat but vernal habitat, if present, is anthropogenic and likely of low habitat value.
Lepidurus packardi Vernal pool tadpole shrimp	Fed: CA:	FE None	Require vernal pools or other seasonal wetlands that experience a drying cycle. Cysts may persist for years within the soil.	**Low Potential**: The project area may include marsh or wetland habitat of unknown quality, and composition. Likely presence of vernal pool habitat low.
Branchinecta conservatio Conservancy fairy shrimp	Fed: CA:	FE None	Require large, cool vernal pools with moderately turbid water. Hatch during the fall rainy season.	**No Potential**: The project area does not include typical habitat for this species.
Amphibians				
Ambystoma californiense California tiger salamander	Fed: CA:	FT ST	Require seasonal wetlands for breeding, and upland grassland areas with burrows for shelter and habitat as adults. Migrations correspond to the rain season in fall.	**Low Potential**: The project area does not is not conducive to providing the upland habitat needs for this species.
Rana draytonii California red-legged frog	Fed: CA:	FT SSC	Found in humid forests, woodlands, grasslands, coastal scrub and streamsides with plant cover. Usually in the lowlands or foothills.	**None**: The project area does not include typical habitat for this species.
Reptiles				
Actinemys marmorata Western pond turtle	Fed: CA:	None SSC	Found in slow moving streams, lakes, ponds, and wetlands.	**Moderate Potential**: The project area may include marsh or wetland habitat suitable for this species.

Masticophis lateralis euryxanthus Alameda whipsnake	Fed: CA:	FT ST	Found in chaparral habitats including northern coastal sage scrub and coastal sage. Utilize rock outcrops, rock crevices, and mammal burrows for hunting and shelter.	**No Potential:** The project area does not contain the required habitat, and is outside of the known range of this species.
Thamnophis gigas Giant garter snake	Fed: CA:	FT ST	Found in marshes, sloughs, drainage canals, irrigation ditches (rice fields), and slow moving creeks. Prefers vegetation next to water for basking and hunting, primarily tule grass.	**No Potential:** The project area does not contain the required habitat, and is outside of the known range of this species.
Birds				
Athene cunicularia Burrowing owl	Fed: CA:	BCC SSC	Utilize burrows created by ground squirrels, prairie dogs, or gopher tortoises. Require open vegetated habitats such as grassland or deserts. Can be found in abandoned urban areas.	**Low Potential:** Planning Survey results show the Project Site does not provide burrowing owl habitat. Some burrowing owl individuals could occur along the tie-line alignments, including urbanized areas
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	Fed: CA:	BCC SSC	Require tall, emergent, and herbaceous wetlands. Utilize salt marshes east of the Carquinez Strait.	**Low Potential**: The project area may include marsh or wetland, but is outside of known range of this species.
Laterallus jamaicensis coturniculus California black rail	Fed: CA:	BCC ST; SFP	Utilize salt marshes, freshwater marshes, and wet meadows. Leaves the marsh during high tides, and requires dense vegetation to hide from predators within.	**Low Potential**: Area surrounded by anthropogenic disturbance and this species is highly secretive and cryptic. Vegetation in the Project area is not conducive to cover needed by this species.
Melospiza melodia maxillaris Suisun song sparrow	Fed: CA:	BCC SSC	Found in the brackish-marsh waters of Suisun Bay. Utilize a matrix of emergent vegetation including bulrush and cattails.	**Moderate Potential**: The project area may include marsh or wetland similar to locations of known occurrences in the vicinity.
Rallus obsoletus obsoletus California Ridgway's (clapper) rail	Fed: CA:	FE SE; SFP	Require the tidal marshes of the San Francisco Bay estuary. Forage on the open mud flats, and nest in dense marsh vegetation.	**Low Potential**: The project area may include marsh or wetland foraging habitat. Nesting requirements not anticipated to be met by the project area.
Sternula antillarum browni California least tern	Fed: CA:	FE SE; SFP	Require beaches, mudflats, or sand dunes that are near shallow estuaries or lagoons. Areas are often large and flat.	**No Potential**: Typical habitat requirements not met by the project area.

Mammals				
Reithrodontomys raviventris Salt-marsh harvest mouse	Fed: CA:	FE SE; SFP	Found in saline emergent wetlands of San Francisco Bay. Require salt marsh vegetation, primarily pickleweed. Nest in grasses, or utilize abandoned bird nests. Known population adjacent to project area.	**Moderate Potential**: The project area may include marsh or wetland habitat similar to a nearby area with a known SMHM population.
Vulpes macrotis mutica San Joaquin kit fox	Fed: CA:	FE ST	Habitat includes open desert, creosote bush flats, and sand dunes. Most individuals found in areas with less than 20 percent vegetation cover.	**No Potential:** The project area does not contain the required habitat, and is outside of the known range of this species.
Federal Designations FE = Federal Endangered FT=Federal Threatened FC=Candidate for Federal Listing BCC = USFWS Bird of Conservation Concern				**State Designations:** SE=State Endangered ST= State Threatened SFP = State-Fully Protected SSC= Species of Special Concern WL = Watch List Species

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Appendix D

Noise Technical Report

NOISE AND VIBRATION IMPACT ANALYSIS

DIABLO ENERGY STORAGE PROJECT

CITY OF PITTSBURG, CALIFORNIA

LSA

January 2018

NOISE AND VIBRATION IMPACT ANALYSIS

DIABLO ENERGY STORAGE PROJECT

CITY OF PITTSBURG, CALIFORNIA

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January 2018

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LIST OF ABBREVIATIONS AND ACRONYMS

µin/sec	microinches per second
µPa	micropascal
ADT	average daily traffic
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	decibels
dBA	A-weighted decibels
EPA	United States Environmental Protection Agency
FHWA	Federal Highway Administration
ft	foot/feet
FTA	Federal Transit Administration
HP	horsepower
HVAC	heating, ventilation, and air conditioning
Hz	Hertz
in/sec	inches per second
L_{dn}	day-night average noise level
L_{eq}	equivalent continuous sound level
L_{max}	maximum instantaneous noise level
LSA	LSA Associates, Inc.
L_V	velocity in decibels
mi	miles
N/A	not applicable
PPV	peak particle velocity
project	Diablo Energy Storage Project
RCNM	Roadway Construction Noise Model
RMS	root-mean-square (velocity)
sf	square feet
Spec.	specification
VdB	vibration velocity decibels
VMS	variable message sign
V_{ref}	reference velocity amplitude

EXECUTIVE SUMMARY

This noise and vibration impact analysis has been prepared to evaluate the potential noise and vibration impacts and mitigation measures associated with the proposed Diablo Energy Storage Project located in the City of Pittsburg, California.

The proposed Diablo Energy Storage Project and associated discretionary actions collectively are the "project" assessed in this noise and vibration impact analysis. The project proposes to install one to three single-story buildings on a graded and vacant approximately 12 acre site representing a portion of an approximately 35 acre parcel located at 701 Willow Pass Road. The buildings would house advanced energy storage technology (e.g. lithium batteries) which together with related control equipment including inverters, transformers and a small on-site electric substation, would be connected via a new tie-line to the existing PG&E substation located approximately 0.6 miles north of the project site.

This report discusses the characteristics of noise, the way in which it is measured, the physiological effects of noise, and provides a definition of acoustical terms. It also discusses vibration and human response to different levels of ground-borne and vibration. The report also summarizes federal, state and local standards and regulation regarding acceptable noise levels for specified land uses including residential use.

The existing sources of noise in the project civility include traffic noise from Willow Pass Road to the north industrial uses and the existing rail line to the south, and corona noise from the overhead power lines. Sound levels in the project vicinity were documented by noise measurements taken at five locations shown in Figure 3, including one at the property line of each of the three residential developments in the vicinity of the project site. As shown in Table I, the range of existing noise levels for these properties is 45.9 to 64.2 dBA L_{eq}.

The impact analysis evaluates the potential noise impacts that could occur during project construction including vibration impacts. It also characterizes the potential noise impacts during project operation and potential corona noise from the proposed overhead tin-in line that would connect to the existing PG&E substation.

CONSTRUCTION NOISE IMPACT SUMMARY

Construction is undertaken in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated on the project site. Therefore, the noise levels vary as construction progresses. The composite noise level of the pieces of equipment during construction would be up to 89 dBA L_{eq} at a distance of 50 ft from the construction area. It is expected that noise levels at the residences 80 feet to the east would approach 85 dBA L_{eq}, construction impacts at residences 1,325 feet to the west would approach 61 dBA Leq, and construction impacts at residences 1,040 feet to the south would approach 63 dBA Leq. While construction-related short-term noise levels have the

potential to be higher than existing ambient noise levels in the project area today, the noise impacts would no longer occur once project construction is completed.

With the requirement of the project to comply with hours of operation restrictions outlined in the City of Pittsburg Municipal Code and the policies related to construction in the Noise Element of the General Plan, construction noise impacts would be reduced to the greatest extent feasible and would not cause a substantial impact to surrounding sensitive uses.

OPERATIONS NOISE IMPACT SUMMARY

Noise impacts associated with the long-term operation of the project must comply with the standards presented in the City's Noise Element, described above. A potential impact would occur if the noise impacts associated with operation of the proposed project increase existing ambient noise levels by 5 dBA L_{eq} or more.

Energy Storage Facility Noise Impact Summary

In order to calculate the expected impacts due to long-term operational stationary source activities, the software SoundPlan was used. SoundPlan is a noise modeling program that allows 3-D calculations to be made taking into account topography, ground attenuation, and shielding from structures and walls. More specifically, this also includes the existing wall that runs north-south and is located east of the project site and west of the existing single-family homes. It is expected that this wall will provide some reduction associated with the sources that are located closer to ground level, however, the wall has the potential to provide less reduction for elevated sources such as rooftop HVAC equipment. The eastern-most building would provide significant reduction from sources associated with the middle and western-most buildings.

Following the completion of all construction phases, the results of the analysis for each sensitive area in the vicinity of the project would be as follows:

- Residences East of Project Site: The existing average nighttime noise level is 57.9 dBA L_{eq}. With the implementation of the project, noise level impacts generated by the project would be 48.9 dBA L_{eq} resulting in composite noise level of 58.4 dBA L_{eq} with an overall increase of 0.5 dBA L_{eq}.

- Residences West of Project Site: The existing average nighttime noise level is 45.9 dBA L_{eq}. With the implementation of the project, noise level impacts generated by the project would be 44.5 dBA L_{eq} resulting in composite noise level of 48.1 dBA L_{eq} with an overall increase of 2.5 dBA L_{eq}.

- Residences South of Project Site: The existing average nighttime noise level is 61.8 dBA Leq. With the implementation of the project, noise level impacts generated by the project would be 46.1 dBA Leq resulting in composite noise level of 61.9 dBA Leq with an overall increase of 0.1 dBA Leq.

- Sidewalk North of Project Site: The existing average daytime noise level is 64.2 dBA Leq. With the implementation of the project, noise level impacts generated by the project would be 65.6 dBA Leq resulting in composite noise level of 68.0 dBA Leq with an overall increase of 3.8 dBA Leq.

These results show that the noise levels at all points around the project site would experience a future noise level increase less than 5 dBA; thus the project would not result in an impact to the existing sensitive receptors.

Corona Noise Impact Summary

In addition to the stationary sources on-site, the proposed project has the potential to create corona, or electro-static noise, along the proposed tie-in lines. The audible noise from the corona noise effect was calculated based on the Bonneville Power Administration (BPA) method provided in the Electric Power Research Institute (EPRI) Transmission Line Reference Book – 115 – 230 kV Compact Line Design. The results show that the noise level contributions at the nearest residences would be highly dependent on weather conditions, however, the potential corona noise levels would be very quiet, less than 20 dBA Leq, which would likely to be masked by existing ambient noise from other sources in the vicinity of the sensitive uses.

LOCATION AND DESCRIPTION

PROJECT LOCATION AND SURROUNDING USES

The project site is located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The Parcel is designated Business Commercial (BC) in the City of Pittsburg General Plan[1] and is zoned Industrial Park-Limited Overlay (IP-O). The proposed use would require a zoning text amendment to amend the IPO (Industrial Park with a Limited Overlay, Ord. No. 07-1284) District, or the "Empire Business Park Overlay District," such that a "major utility" would be permitted with a use permit. The proposed project site is currently vacant and undeveloped. Figure 1 indicates the project location, and Figure 2 is the project site plan.

The following describes the adjacent land uses:

- **North:** Willow Pass Road, existing tank farm, undeveloped land
- **East:** Existing single-family homes
- **South:** Existing industrial uses, existing rail line
- **West:** Vacant land with multiple over-head high-voltage power lines, and single-family homes farther west

PROJECT DESCRIPTION

The project proposes to install between one and three single-story buildings on a graded and vacant approximately 12 acre site as shown in Figure 2. The project may be constructed in one or more phases. For the purposes of this analysis, noise impacts were analyzed for three phases:

- Phase 1: Eastern-most building, associated transformers, inverters and rooftop-HVAC as well the substation and electric tie line.
- Phase 2: The addition of the middle building with associated transformers, inverters and rooftop-HVAC.
- Phase 3: The addition of the western-most building with associated transformers, inverters and rooftop-HVAC.

[1] City of Pittsburg, 2001. *General Plan Pittsburg 2020: A Vision for the 21st Century.* November.

The buildings would house advanced energy storage technology (e.g., lithium ion batteries) which, together with related control equipment including inverters, transformers, and a small onsite electric substation, would be connected via a new electric tie-line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg Substation located approximately 0.6 mile north of the Site. The facility would be unoccupied and is designed for full remote operation. Diablo Energy Storage, LLC is the Applicant for development permits and would be the Lessee of the property.

The facility would not generate electricity. Rather, it would provide a service by receiving energy (charging) from the point of interconnection (POI) with the PG&E electric transmission system, storing energy, and then later delivering energy (discharging) back to the POI. The Site is within the East Contra Costa Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) area. Two alternate routes being considered for a tie-line to the POI are also within the HCP/NCCP area, and a third alternative route being considered extends out of the HCP/NCCP area as described further under the subheading of West Alignment. The Site is currently vacant with no structures.

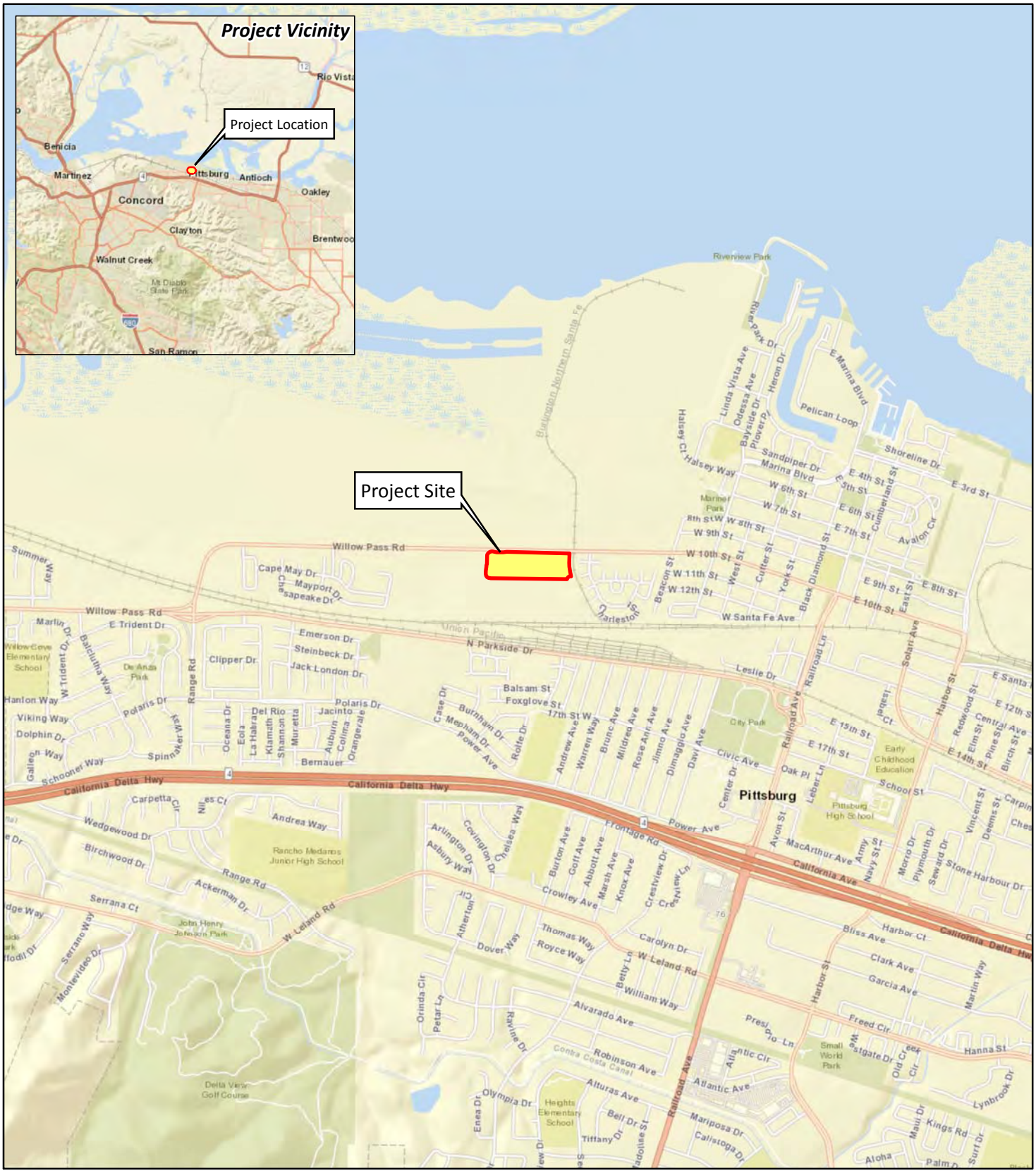

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FIGURE 1

N

0 1000 2000
FEET

SOURCE: ESRI World Streetmap.

I:\LPD1702\GIS\Maps\Noise\Figure 1_Location Map.mxd (11/10/2017)

Diablo Energy Storage Facility
Pittsburg, Contra Costa County, California

Location Map

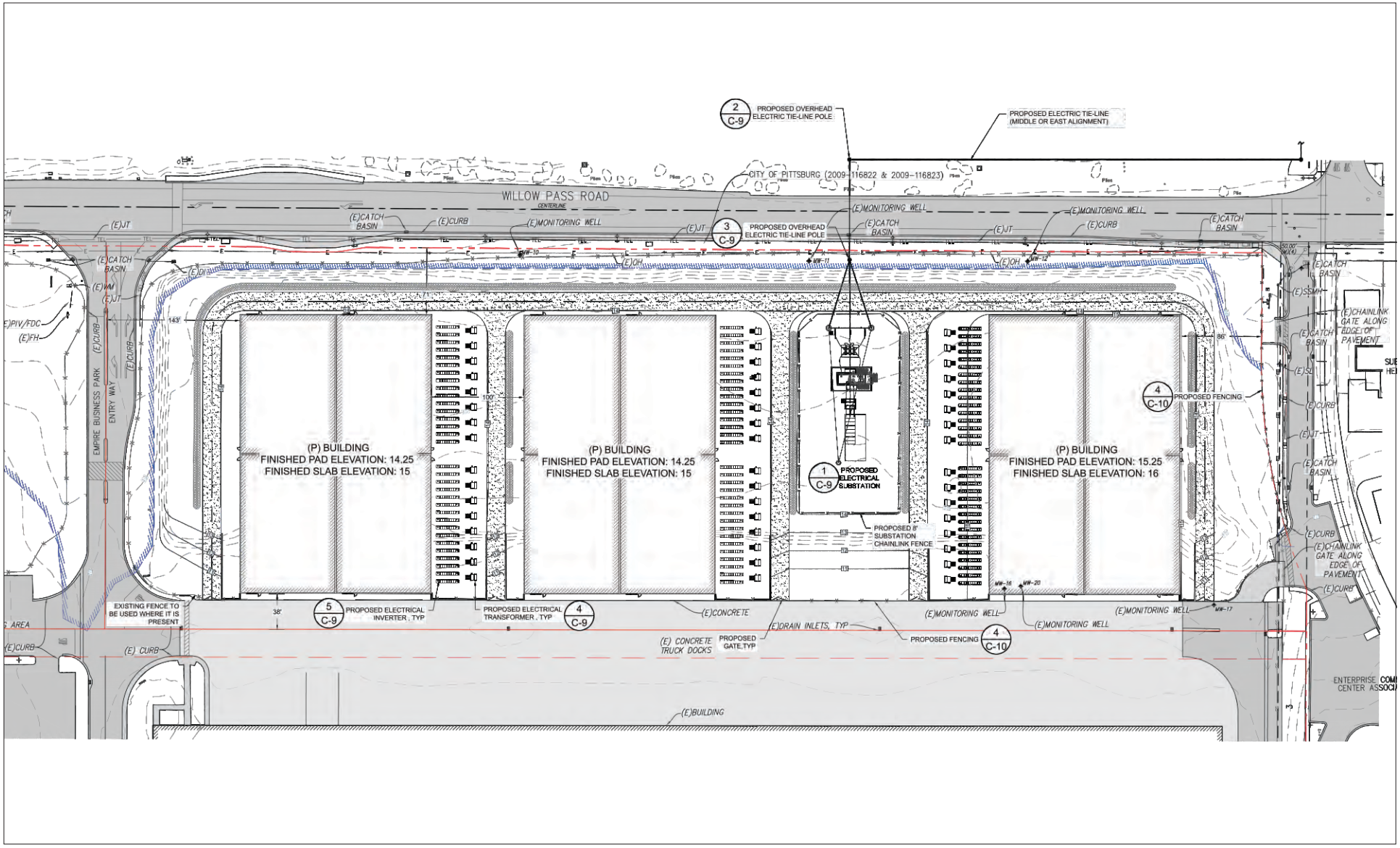

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FIGURE 2

0 75 150
FEET

SOURCE: TRC Solutions, Inc. (8/29/17)

Diablo Energy Storage Facility
Pittsburg, Contra Costa County, California

Site Plan

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METHODOLOGY

Evaluation of noise and vibration impacts associated with the project includes the following:

- Determination of the short-term construction noise and vibration impacts on off-site noise-sensitive uses;
- Determination of the long-term noise and vibration impacts from on-site stationary noise sources at the existing off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce long-term noise and vibration impacts, if any, from all sources.

CHARACTERISTICS OF SOUND

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units (e.g., inches or pounds) decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) is 10 times more intense than 1 dB, 20 dB is 100 times more intense than 1 dB, and 30 dB is 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations) the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source (noise in a relatively flat environment with absorptive vegetation) decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours), and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered a potentially impact.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear (the threshold of pain). A sound level of 160–165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed area. Table A lists definitions of acoustical terms, and Table B shows common sound levels and their sources.

Table A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of measurement that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted, unless reported otherwise.)
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1%, 10%, 50%, and 90% of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 PM to 10:00 PM and after the addition of 10 dBA to sound levels occurring in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 PM and 7:00 AM.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time; usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris 1991).

Table B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	—
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	—
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	—
Near Freeway Auto Traffic	70	Moderately Loud	—
Average Office	60	Quiet	One-half as loud
Suburban Street	55	Quiet	—
Light Traffic; Soft Radio Music in Apartment	50	Quiet	One-quarter as loud
Large Transformer	45	Quiet	—
Average Residence without Stereo Playing	40	Faint	One-eighth as loud
Soft Whisper	30	Faint	—
Rustling Leaves	20	Very Faint	—
Human Breathing	10	Very Faint	Threshold of Hearing
—	0	Very Faint	—

Source: Compiled by LSA (2015).

FUNDAMENTALS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 vibration velocity decibels (VdB) or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 feet (ft) from the vibration source, although there are

examples of ground-borne vibration causing interference out to distances greater than 200 ft (FTA 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, both construction of a project and freight train operations on railroad tracks could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise. Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for heavy duty construction processes (e.g., blasting and pile driving) to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2006). Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS is best for characterizing human response to building vibration, and PPV is used to characterize potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$$L_v = 20 \log_{10} [V/V_{ref}]$$

Where L_v is the VdB, "V" is the RMS velocity amplitude, and "V_{ref}" is the reference velocity amplitude, or 1 x 10^{-6} inches/second (in/sec) used in the United States. Table C illustrates human response to various vibration levels, as described in the *Transit Noise and Vibration Impact Assessment* (FTA 2006).

Table C: Human Response to Different Levels of Ground-Borne Noise and Vibration

Vibration Velocity Level	Noise Level		Human Response
	Low-Frequency[1]	Mid-Frequency[2]	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound usually inaudible; mid-frequency sound excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level annoying. Low-frequency noise acceptable for sleeping areas; mid-frequency noise annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise annoying for sleeping areas; mid-frequency noise annoying even for infrequent events with institutional land uses such as schools and churches.

Source: *Transit Noise and Vibration Impact Assessment* (FTA 2006).
[1] Approximate noise level when vibration spectrum peak is near 30 Hz.
[2] Approximate noise level when vibration spectrum peak is near 60 Hz.
dBA = A-weighted decibels Hz = Hertz
FTA = Federal Transit Administration VdB = vibration velocity decibels

Factors that influence ground-borne vibration and noise include the following:

- **Vibration Source.** Vehicle suspension, wheel types and condition, railroad track/roadway surface, railroad track support system, speed, transit structure, and depth of vibration source
- **Vibration Path.** Soil type, rock layers, soil layering, depth to water table, and frost depth
- **Vibration Receiver.** Foundation type, building construction, and acoustical absorption

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of ground-borne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock.

Experience with ground-borne vibration indicates: (1) vibration propagation is more efficient in stiff, clay soils than in loose, sandy soils; and (2) shallow rock seems to concentrate the vibration energy close to the surface and can result in ground-borne vibration problems at large distances from a railroad track. Factors including layering of the soil and the depth to the water table can have significant effects on the propagation of ground-borne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

REGULATORY SETTING

FEDERAL REGULATIONS

Vibration standards included in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* (FTA 2006) are used in this analysis for ground-borne vibration impacts on human annoyance, as shown in Table D. The criteria presented in Table D account for variation in project types as well as the frequency of events, which differ widely among projects. It is intuitive that when there will be fewer events per day, it should take higher vibration levels to evoke the same community response. This is accounted for in the criteria by distinguishing between projects with frequent and infrequent events, in which the term "occasional events" is defined as between 30 and 70 events per day.

Table D: Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 µin/sec)			Ground-Borne Noise Impact Levels (dB re 20 µPa)		
	Frequent[1] Events	Occasional[2] Events	Infrequent[3] Events	Frequent[1] Events	Occasional[2] Events	Infrequent[3] Events
Category 1: Buildings where low ambient vibration is essential for interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[5]	N/A[5]	N/A[5]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Source: *Transit Noise and Vibration Impact Assessment* (FTA 2006).
[1] Frequent events are defined as more than 70 events per day.
[2] Occasional events are defined as between 30 and 70 events per day.
[3] Infrequent events are defined as fewer than 30 events per day.
[4] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
[5] Vibration-sensitive equipment is not sensitive to ground-borne noise.

µin/sec = microinches per second
µPa = micropascals
dB = decibels
dBA = A-weighted decibels
FTA = Federal Transit Administration
HVAC = heating, ventilation, and air conditioning
VdB = vibration velocity decibels

The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table E lists the potential vibration building damage criteria associated with construction activities, as suggested in the *Transit Noise and Vibration Impact Assessment* (FTA 2006).

FTA guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 in/sec in PPV) (FTA 2006) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a nonengineered timber

and masonry building, the construction building vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

Table E: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)	Approximate L_V (VdB)[1]
Reinforced concrete, steel, or timber (no plaster)	0.50	102
Engineered concrete and masonry (no plaster)	0.30	98
Non-engineered timber and masonry buildings	0.20	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: *Transit Noise and Vibration Impact Assessment* (FTA 2006).
[1] RMS vibration velocity in decibels (VdB) re 1 µin/sec.
µin/sec = inches per second
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

STATE REGULATIONS

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the *State Noise Insulation Standard*, it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses. The City has adopted and modified the State's land use compatibility guidelines, as discussed below.

LOCAL REGULATIONS

City of Pittsburg General Plan Noise Element

The Noise Element, Section 12 of the General Plan (2004), contains a description of various noise level increases and their respective perception, specifically at residential uses, in terms of potential impacts:A one (1) dBA change or less is not perceptible.

- A three (3) dBA change is considered barely perceptible

- A five (5) dBA change is considered noticeable, thus often resulting in a potential impact.

As presented in Policy 12-P-7, noise control at the source through site design and other techniques is required for new development.

Policy 12-P-9 limits the generation of loud noises on construction sites to the hours between 8:00 a.m. and 5:00 p.m.

Policy 12-P-10 limits truck traffic to appropriate truck routes and requires consideration of the restriction of truck traffic travel times in sensitive areas.

City of Pittsburg Municipal Code

The City of Pittsburg's Noise Ordinance (Title 9 - Public Peace, Safety and Morals, Chapter 9.44 - Noise, Section 9.44.010) prohibits the use of pile drivers, pneumatic hammers, and similar equipment between the hours of 10:00 p.m. and 7:00 a.m., but does not establish noise-level limits related to fixed noise sources or construction noise.

The City's Building and Construction Ordinance (Title 15 – Buildings and Construction, Chapter 15.88 – Grading, Erosion and Sediment Control, Section 15.88.060.A.5) prohibits grading noise, including warming of equipment motors, within 1,000 feet of a residence between the hours of 5:30 p.m. and 7:00 a.m. weekdays, unless other hours are approved by the City Engineer.

The City's Performance Standards For All Uses (Title 18 – Zoning, Chapter 18.82 – Noise, Section 18.82.040B) states that no construction event or activity occurring on any site adjoining a lot located in an R, residential PD or GQ district shall generate loud noises in excess of 65 decibels measured at the property line, except between the hours of 8:00 a.m. and 5:00 p.m.

City of Pittsburg Vibration Standards

The City of Pittsburg does not have established specific vibration impact criteria; therefore, during construction the FTA criteria presented above will be utilized to assess potential damage and human annoyance.

EXISTING SETTING

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The existing noise environment includes traffic noise from Willow Pass Road to the north, industrial uses and the existing rail line to the south and southeast, and corona noise from the existing powerlines. Noise from motor vehicles is generated by engine vibrations, interaction between tires and the road, and exhaust systems. Noise associated with the neighboring industrial uses is generated by heavy tuck movements, loading dock activities, forklift operations and other parking lot activities.

SENSITIVE LAND USES IN THE PROJECT VICINITY

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, hospitals, childcare facilities, and senior housing. The closest sensitive receptors would be single-family residences approximately 80 feet east of the project site. These residential uses have an existing 8-foot high wall along the western property line. There are also existing residences to the west and south. The distances to these communities are 1,300 and 1,050 feet, respectively.

EXISTING NOISE LEVEL MEASUREMENTS

Noise levels at the project site are dominated by traffic on the surrounding streets and rail line as well as the existing industrial use activities. In order to assess the existing noise conditions in the project study area. Three long-term measurements were gathered from October 27 to October 29, 2017 as well as two (2) 15-minute short-term noise measurements on October 27, 2017. The locations of the noise measurements are shown on Figure 3, with the results shown in Table F, and the survey sheets are shown in Appendix A.

EXISTING AIRCRAFT NOISE

Airport related noise levels are primarily associated with aircraft engine noise made while aircraft are taking off, landing, or running their engines while still on the ground. The closest airport to the project site is the Buchanan Field Airport (CCR) located approximately 8.8 miles to the southwest in Contra Costa County. According to the Buchanan Field Noise Program, the project is located outside of the airport's influence area. Aircraft flyovers may be audible at the project site; however, no portion of the project site lies within the 65 dBA CNEL noise contours of the airport.

Table F: Existing Noise Level Measurements

Location	Description	Range of Daytime Noise Levels (dBA L_{eq})	Range of Nighttime Noise Levels (dBA L_{max})
LT-1	Southeast corner of proposed project site near existing single-family residences.	51.2 – 62.3	53.0 – 62.8
LT-2	Approximately 1,200 feet west of the proposed project site and 50 feet south of Willow Pass Road.	58.4 – 70.0	51.8 – 64.3
LT-3	Approximately 1,750 feet southwest of the proposed project site and 55 feet south of North Parkside Drive.	62.1 – 69.0	55.8 – 67.8
ST-1	Approximately 630 feet southeast of the project site, near the existing industrial uses.	55.9	-
ST-2	Approximately 250 feet west of the project site, near the existing parking lot.	49.0	-

Source: LSA, October 27-29, 2017
dBA = A-weighted decibel
L_{eq} = average noise level
L_{max}=maximum noise level

LSA

LEGEND

Project Site

Noise Monitoring Number and Location

LT-1

0 200 400

FEET

SOURCE: Google Maps Satellite (2016).

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FIGURE 5

Diablo Energy Storage Facility
Pittsburg, Contra Costa County, California

Noise Monitoring Locations

PROJECT NOISE AND VIBRATION IMPACTS

Noise levels on and in the vicinity of the project site would change as a result of the proposed project. Potential noise impacts associated with the project include noises created during construction and operation of the project.

SHORT-TERM CONSTRUCTION NOISE IMPACTS

Two types of short-term noise impacts would occur during project construction. The first type would be from construction crew commutes and the transport of construction equipment and materials to the project site which would incrementally raise noise levels on access roads leading to the project site. The pieces of heavy equipment for grading and construction activities would be moved on site, would remain for the duration of each construction phase, and would not add to the daily traffic volume in the project vicinity. Willow Pass Road would be used to access the project site. Although there would be high single-event noise exposure potential at a maximum level of 75 dBA L_{max} at 50 ft due to truck pass-bys, the effect on longer-term (hourly or daily) ambient noise levels would be small when compared to existing hourly and daily traffic volumes. Because construction-related vehicle trips would not approach the hourly and daily traffic volumes mentioned above, traffic noise would not increase by 3 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the project site would not cause an impact.

The second type of short-term noise impact is related to noise generated during site preparation, grading, building construction, architectural coating, and paving on the project site. The site preparation phase is expected to take approximately 60 days. After site preparation is complete, the remaining construction activities are expected to generate barely perceptible noise impacts to surrounding uses.

Construction is undertaken in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated on the project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table G lists the maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 ft between the equipment and a noise receptor. Typical operating cycles for these types of construction equipment may involve 1 to 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings.

In addition to the reference maximum noise level, the usage factor provided in Table G is utilized to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10\log(U.F.) - 20\log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period

E.L. = noise emission level of the particular piece of equipment at a reference distance of 50 ft

U.F. = usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time

D = distance from the receiver to the piece of equipment

Table G: Typical Maximum Construction Equipment Noise Levels (Lmax)

Type of Equipment	Acoustical Usage Factor	Suggested Maximum Sound Levels for Analysis (dBA L_{max} at 50 ft)
Bulldozer	40	85
Grader	40	85
Scraper	40	85
Water Truck	20	82
Compactor	20	80
Dump Truck	40	84
Loader	40	80
Bobcat	40	80

Source: Federal Highway Administration, *Highway Construction Noise Handbook* (2006).
dBA = A-weighted decibel
ft = feet
L_{max} = maximum noise level

Each piece of construction equipment operates as an individual point source. Utilizing the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq\ (composite) = 10 * \log_{10}\left(\sum_{1}^{n} 10^{\frac{Ln}{10}}\right)$$

The composite noise level of the pieces of equipment during construction would be 89 dBA L_{eq} at a distance of 50 ft from the construction area.

Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq\ (at\ distance\ X) = Leq\ (at\ 50\ feet) - 20 * \log_{10}\left(\frac{X}{50}\right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA while halving the distance would increase noise levels by 6 dBA. It is expected that noise levels at the residences 80 feet to the east would approach 85 dBA L_{eq}, construction impacts at residences 1,325 feet to the west would approach 61 dBA Leq, and construction impacts at residences 1,040 feet to the south would approach 63 dBA Leq. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the project area today, the noise impacts would no longer occur once project construction is completed.

With the requirement of the project to comply with hours of operations restriction in the Noise Ordinance and the policies related to construction in the Noise Element of the General Plan, construction noise impacts would be reduced to the greatest extent feasible and not cause a substantial impact to surrounding sensitive uses.

SHORT-TERM CONSTRUCTION VIBRATION IMPACTS

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and will assess the potential for building damages using vibration levels in PPV (in/sec) because vibration levels calculated in RMS are best for characterizing human response to building vibration while vibration level in PPV is best used to characterize potential for damage. As shown in Table E, the FTA guidelines indicate that a vibration level up to 102 VdB (an equivalent to 0.5 in/sec in PPV) (FTA 2006) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

Table H shows the PPV and VdB values at 25 feet from the construction vibration source. As shown in Table H, bulldozers and other heavy-tracked construction equipment (vibratory rollers) generate approximately 87 VdB of ground-borne vibration when measured at 25 feet, based on the Transit Noise and Vibration Impact Assessment (FTA 2006). This level of ground-borne vibration levels could result in potential annoyance to residences and workers located adjacent to the project site, but would not cause any damage to the buildings. Construction vibration, similar to vibration from other sources, would not have any significant effects on outdoor activities (e.g., those outside of residences and commercial/office buildings in the project vicinity). Outdoor site preparation for the project is expected to use a bulldozer and loaded truck. The greatest levels of vibration are anticipated to occur during the site preparation phase. After the site preparation phase, all other construction phases will result in lower vibration levels because heavy tracked equipment will not be in use.

Table H: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft.	
	PPV (in/sec)	L_V (VdB)[1]
Vibratory Roller	0.210	94
Large Bulldozer[2]	**0.089**	**87**
Loaded Trucks	**0.076**	**86**
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Sources: *Transit Noise and Vibration Impact Assessment* (FTA 2006).
[1] RMS vibration velocity in decibels (VdB) is 1 µin/sec.
[2] Equipment shown in **bold** is expected to be used on site.
µin/sec = micro-inches per second
ft = feet
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project boundary (assuming the construction equipment would be used at or near the project boundary) because vibration impacts occur normally within the buildings. The formula for vibration transmission is provided below.

$$L_v dB\ (D) = L_v dB\ (25\ ft) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

For typical construction activity, the equipment with the highest vibration generation potential is the large bulldozer, which would generate 87 VdB at 25 ft. The closest residential structure from the project site is approximately 80 ft. from the project construction boundary. The closest industrial building from the project site from is approximately 135 ft. to the south. Utilizing the information in Table H, the closest residences would experience vibration levels of up to 72 VdB (0.016 PPV [in/sec]). The closest industrial building to the south of the project site would experience vibration levels of 65 VdB (0.007 PPV [in/sec]). This range of vibration levels from construction equipment or activity would be below the FTA 94 VdB (0.2 in/sec PPV) threshold and would not exceed the 80 VdB threshold for residences due to infrequent events, thus resulting in no impact to surrounding uses.

LONG-TERM AIRCRAFT NOISE IMPACTS

The project would develop an energy facility within the City, and would not contribute to any aircraft activity. There currently is no airport located within the city. The closest airport to the project site is the Buchanan Field Airport (CCR) located approximately 8.8 miles to the southwest in Contra Costa County. According to the Buchanan Field Noise Program, the project site is located outside of the airport's influence area. Therefore, no measurable long-term aircraft or airport noise impacts would occur.

LONG-TERM STATIONARY NOISE IMPACTS

Noise impacts associated with the long-term operation of the project must comply with the standards presented in the City's Noise Element, described above. A potential impact could occur if

the noise impacts associated with operation of the proposed project increase existing noise levels by 5 dBA L_{eq} or more. Noise associated with the project includes the energy facility and corona noise.

In order to calculate the expected impacts due to long-term operational stationary source activities, the software SoundPlan was used. SoundPlan is a noise modeling program that allows 3-D calculations to be made taking into account topography, ground attenuation, and shielding from structures and walls. More specifically, this also includes the existing wall that runs north-south and is located east of the project site and west of the existing single-family homes. It is expected that this wall will provide some reduction associated with the sources that are located closer to ground level, however, the wall has the potential to provide less reduction for elevated sources such as rooftop HVAC equipment. Similarly, once the eastern-most building is constructed, it will provide significant reduction from sources associated with the middle and western-most building. Within the model, the noise library allows for the input of many noise sources and calculates the composite noise levels experienced at any receptor necessary. The results from any calculation can be presented both in both tabular and graphic formats.

The proposed operations assumed in this analysis were based on conversations with the project engineer and are conservative in nature (i,e. all operations are occurring simultaneously). A description of the sources measured and their respective sound pressure level at a distance of 10 feet included in the analysis, which represent the loudest noise hour when the greatest amount of equipment is in operation, is as follows:

- 48 (3 groups of 16) – 5.6 megawatt transformers that have a sound pressure noise level of 70.3 dBA L_{eq}.
- 96 (3 groups of 32) – 2.8 megawatt inverters that have a sound pressure noise level of 74.5 dBA L_{eq}.
- 30 (3 groups of 10) rooftop HVAC Units that have a sound pressure noise level of 73.3 dBA L_{eq}.
- 2 HVAC units within the substation that have a sound pressure noise level of 58.7 dBA L_{eq}.
- 1 generator step-up transformer within the substation with a reference sound pressure level of 80.9 dBA L_{eq}.

In order to remain conservative, it is assumed that all equipment above operating simultaneously for the duration of the entire hour.

Table I shows the results of the SoundPlan noise modeling for each phase of project development. The results show that the noise levels at all points around the project site would experience noise level impacts that would increase the existing measured noise level by less than 5 dBA; thus the project would not result in an impact to the existing sensitive receptors. A graphic showing the results of the SoundPlan modeling during full site operations is provided in Figure 4.

Table I: Project Operations – All Sources

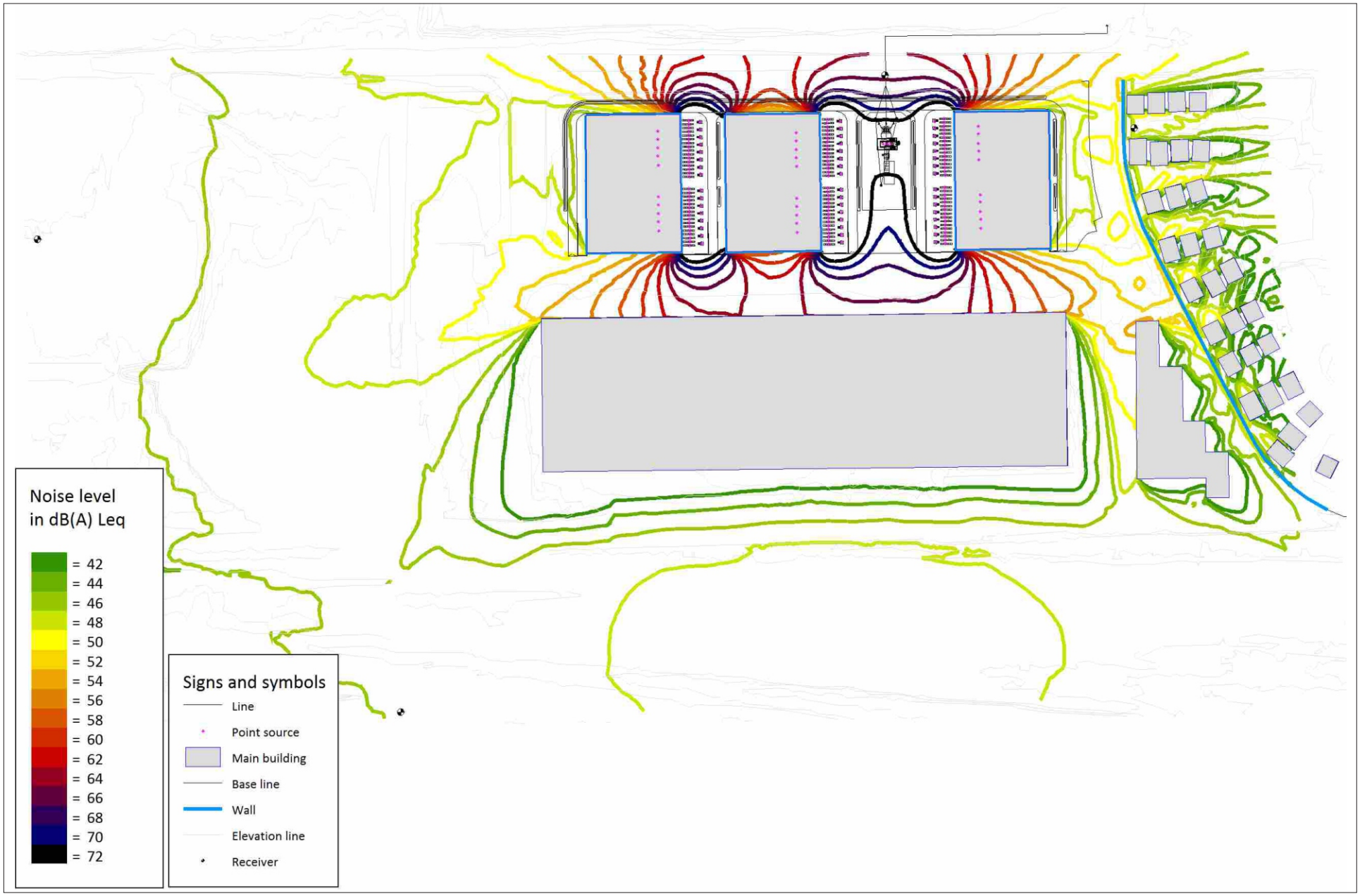
Receiver Location	Existing Average Noise Hour (dBA Leq)[1]	Phase 1		Phase 2		Full Operations	
		Noise Impact From Project Operations (dBA Leq)	Future Noise Level / Noise Level Increase (dBA L_{eq})	Noise Impact From Project Operations (dBA Leq)	Future Noise Level / Noise Level Increase (dBA L_{eq})	Noise Impact From Project Operations (dBA Leq)	Future Noise Level / Noise Level Increase (dBA L_{eq})
R-1 Residences East of Site	57.9[1]	47.6	58.3 / 0.4	48.6	58.4 / 0.5	48.9	58.4 / 0.5
R-2 Residences West of Site	45.9[1]	43.4	47.7 / 2.0	42.9	47.5 / 1.8	44.5	48.1 / 2.5
R-3 Residences South of Site	61.8[1]	43.6	61.9 / 0.1	44.7	61.9 / 0.1	46.1	61.9 / 0.1
R-4 Northern Property Line	64.2[2]	62.9	66.6 / 2.4	63.3	66.8 / 2.6	65.6	68.0 / 3.8

Source: LSA. January 2018..

1. The average nighttime noise hour was taken from existing measurements provided in Table F above. In the case of R-2, existing noise levels were propagated based on distance from Willow Pass Road.
2. The average daytime noise hour was taken from existing measurements provided in Table F above given the use of the sidewalk to the north of the project is expected to occur during daytime hours and is an active use.

dBA = A-weighted decibels

L_{eq} = equivalent continuous level



LSA

FIGURE 4

Diablo Energy Storage Facility
Pittsburg, Contra Costa County, California

Future Operational Impacts

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Corona Noise

The proposed project electric tie line has the potential to create corona, or electro-static noise, along the proposed tie-in lines. The audible noise from the corona noise effect was calculated based on the Bonneville Power Administration (BPA) method provided in the Electric Power Research Institute (EPRI) Transmission Line Reference Book – 115 – 230 kV Compact Line Design. The equation used to calculate the audible noise from the corona noise effect is based on median fair weather, rainy weather, and heavy rain conditions and for less than three sub-conductors in each conductor (bundle) as provided below.

Equation: P = 55 log d + 120 log g + Alt./300 – 115.4 – 11.4 log D

Where: P = the audible noise in dBA above 20 µPA.

d = the sub-conductor diameter in centimeter (cm).

g = the maximum gradient in kilo-volts/centimeter (kV/cm).

Alt. = the altitude above sea level in meters.

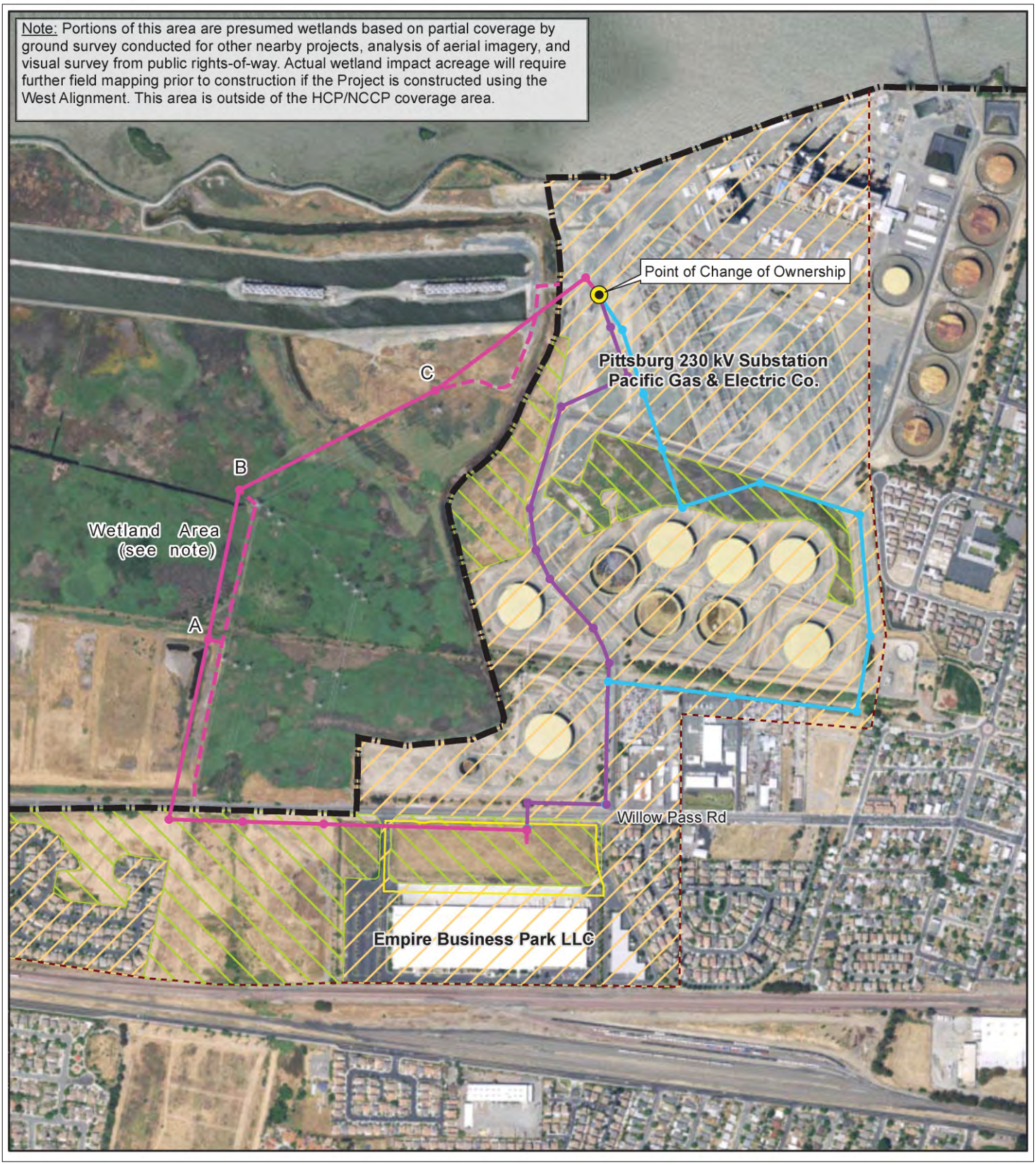
D = the distance from the phase to the measuring point in meters.

Table J shows the results of the corona noise calculations for each potential tie-in alignment. The results show that the noise level contributions at the nearest residences would be highly dependent on weather conditions and the potential corona noise levels would be very quiet, less than 20 dBA Leq, which would likely to be masked by existing ambient noise from other sources in the vicinity of the sensitive uses.

Table J: Corona Noise Contributions – dBA Leq

Alignment / Address of Nearest Receptor	Distance to Nearest Receptor (feet)	Noise Level (dBA) for Median Fair Weather Conditions	Noise Level (dBA) for Rainy Weather Conditions[1]	Noise Level (dBA) for Heavy Rain Conditions[2]
Reference / 10 feet from Alignment	10	Not Audible	21.0	24.5
West Alignment / 127 Mayport Court	250	Not Audible	12.0	15.5
Middle Alignment / 114 Prosperity Court	130	Not Audible	15.0	18.5
East Alignment / 1000 Beacon Street	110	Not Audible	16.0	19.5

Source: LSA. January 2018.
[1] The audible noise level for median fair weather conditions is 25 dBA less than rainy weather conditions.
[2] The audible noise level for heavy rain conditions is 3.5 dBA higher than rainy weather conditions.
dBA = A-weighted decibels
L_{eq} = equivalent continuous level



LSA

LEGEND

- Project Site
- West Alignment
- Middle Alignment
- East Alignment

N

0 400 800
FEET

SOURCE: TRC Solutions, Inc.

FIGURE 5

Diablo Energy Storage Facility
Pittsburg, Contra Costa County, California

Off-site Tie-in Alignments

I:\LPD1702\G\Figure 5_Off-site Tie-in Alignments.cdr (11/10/2017)

RESULTS SUMMARY

As described herein, the proposed project would result in increased noise levels in the project vicinity due to temporary construction activities, however those increases would cease after construction is completed. Noise associated with long-term operations or corona noise would not create an impact to surrounding noise sensitive receptors. With the requirement of the project to comply with hours of operations restriction in the Noise Ordinance and the policies related to construction in the Noise Element of the General Plan, construction noise impacts would be reduced to the greatest extent feasible and not cause a substantial impact to surrounding sensitive uses.

REFERENCES

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_____. 2007. Municipal Code, Code of Ordinance. Website: http://www.codepublishing.com/CA/Pittsburg/ (Accessed January 2018).

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Federal Transit Administration (FTA). 2006. Office of Planning and Environment. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. August.

Harris, Cyril M., editor. 1991. *Handbook of Acoustical Measurements and Noise Control*, Third Edition.

United States Environmental Protection Agency (EPA). 1978. *Protective Noise Levels, Condensed Version of EPA Levels Document*, EPA 550/9-79-100. November.

LIST OF PREPARERS

J.T. Stephens, Author, Senior Noise Specialist

Mr. Stephens holds a B.S. in Acoustical Engineering from Purdue University. He is a Senior Acoustical Specialist at LSA with over 13 years of experience in preparing noise studies. Mr. Stephens is primarily responsible for the preparation of noise studies for a variety of projects. He is proficient in the use of the FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108), Traffic Noise Model (TNM) 2.5, RCNM, Insul, and SoundPlan noise prediction software. Mr. Stephens is also responsible for performing noise monitoring surveys using a variety of Larson Davis sound level meters.

Amy Fischer, Principal-In-Charge.

Ms. Fischer has a B.S. in Environmental Policy Analysis from the University of Nevada, Reno. With 17 years of experience, Ms. Fischer serves as a Noise Principal, is qualified to conduct analyses for a variety of projects, is the technical lead on noise impact analyses documents, and oversees the research and preparation of technical reports.

APPENDIX A

NOISE MONITORING SURVEY SHEETS

Noise Measurement Survey – 24 HR

Project Number: LPD1702
Project Name: Diablo Energy

Test Personnel: JT / Kaitlin
Equipment: Quest Noise Pro DLX

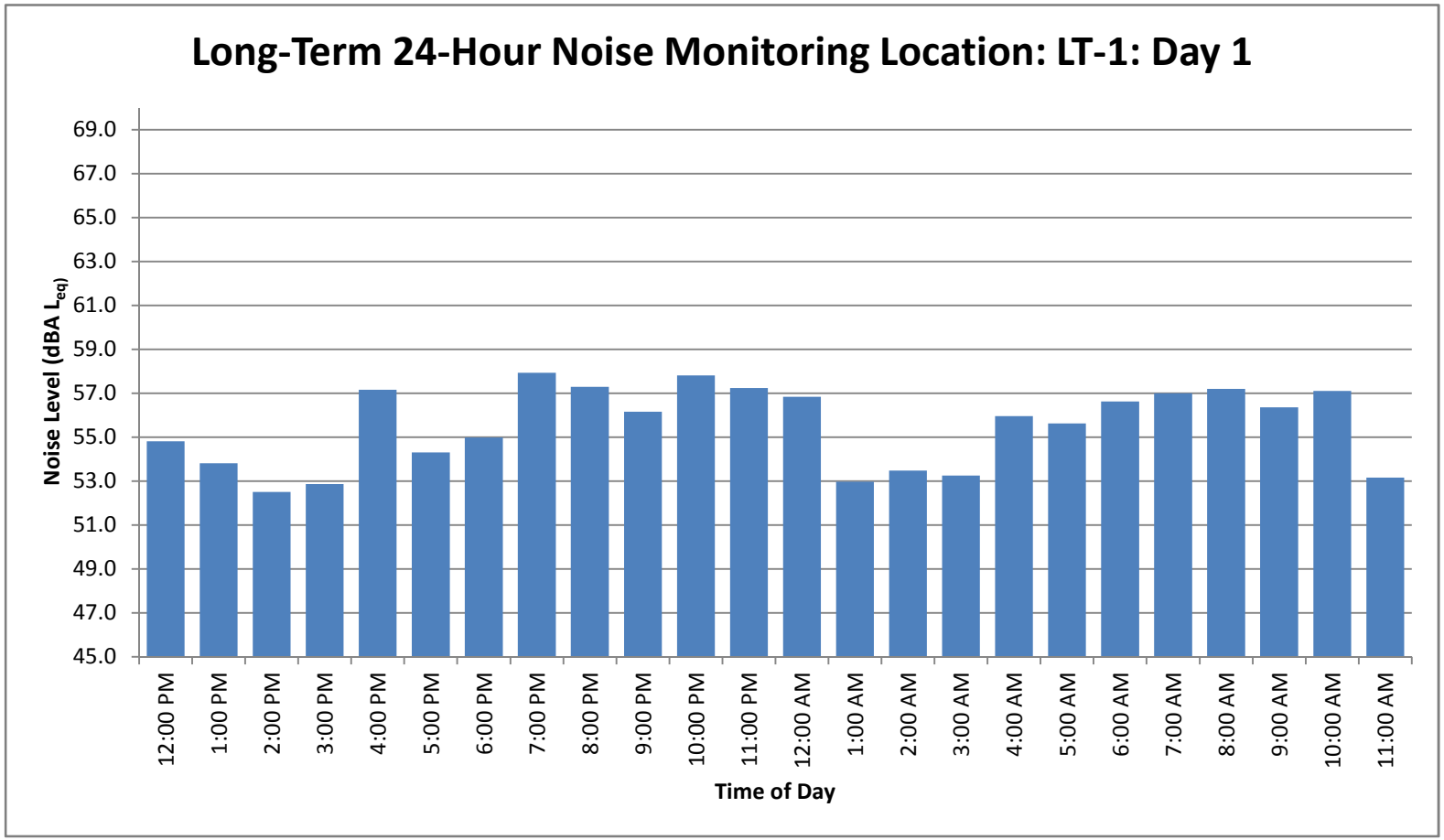
Site Number: LT-1 Date: 10/27-10/30/17

Time: From 12 pm To 1 pm

Site Location: SE Corner of the Proposed Project Site

Primary Noise Sources: Activities at the existing distribution center, traffic on Willow Pass Road, Trains

Comments: Serial Number: NXF 100112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63.0
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55.0
53.0
51.0
49.0
47.0
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1:00 PM
2:00 PM
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5:00 PM
6:00 PM
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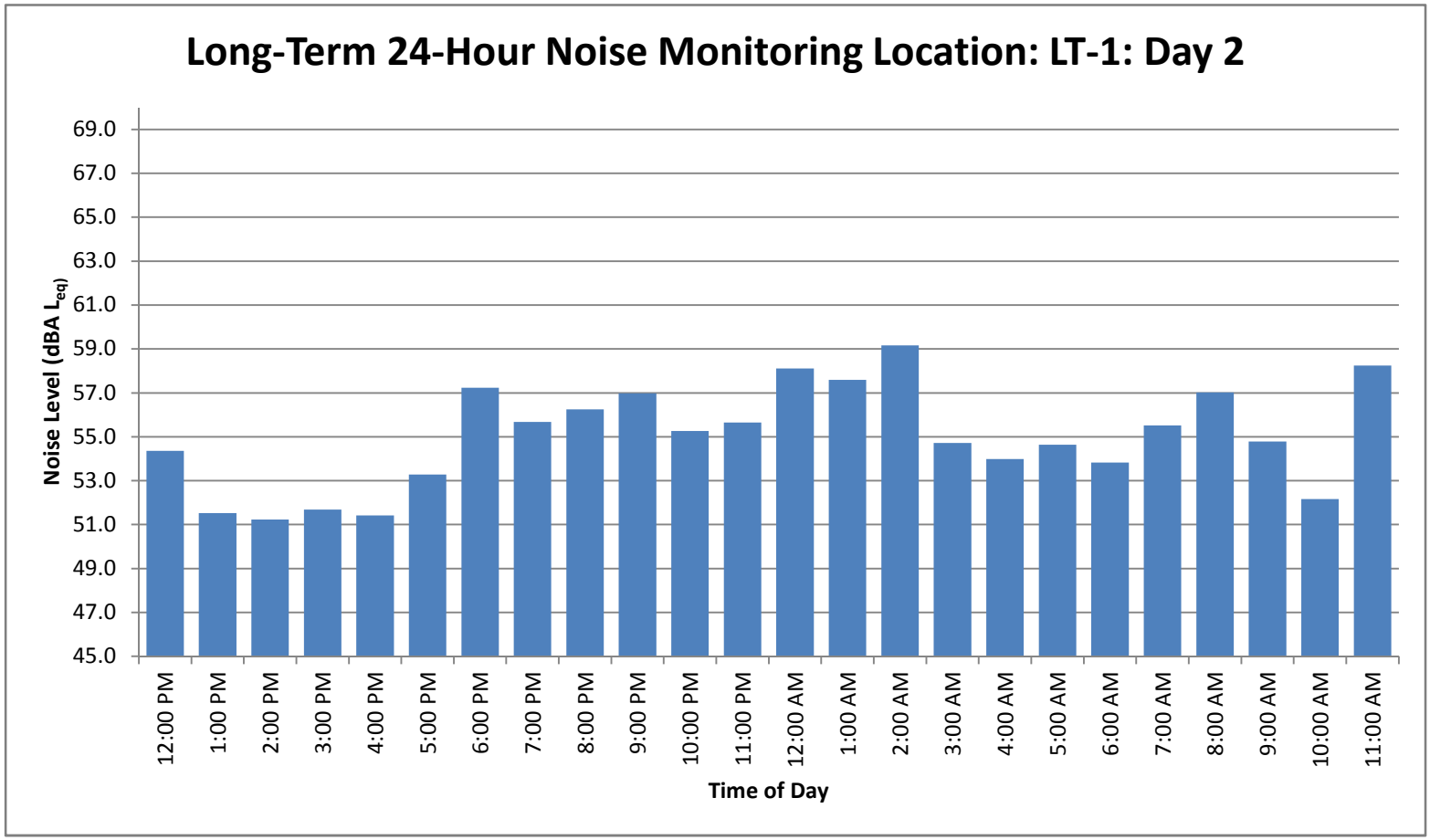
Time of Day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Noise Level (dBA L_{eq})
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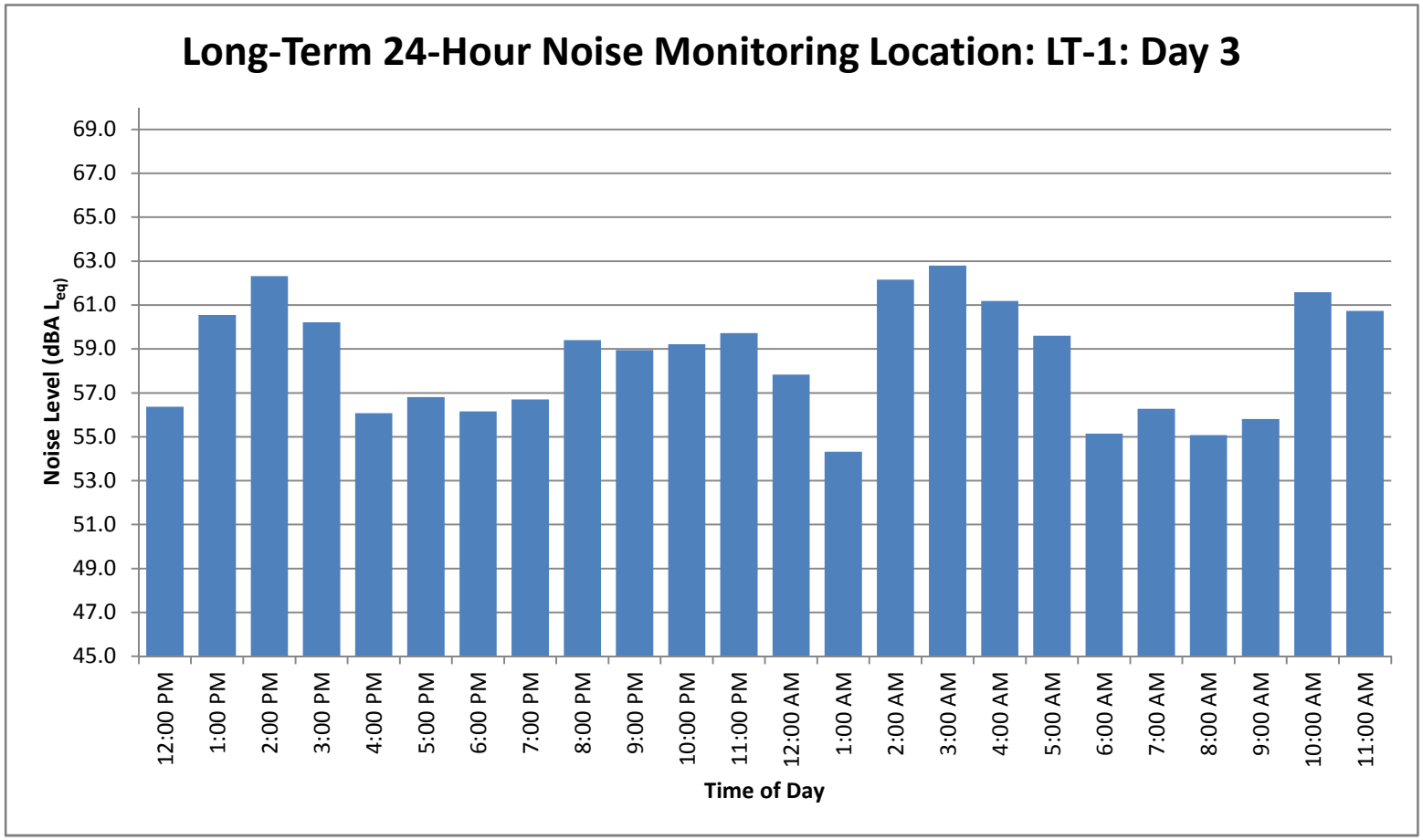
Time of Day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Noise Level (dBA L_{eq})
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55.0
53.0
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5:00 PM
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7:00 PM
8:00 PM
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11:00 AM
Time of Day

Noise Measurement Survey – 24 HR

Project Number: LPD1702
Project Name: Diablo Energy

Test Personnel: JT / Kaitlin
Equipment: Quest Noise Pro DLX

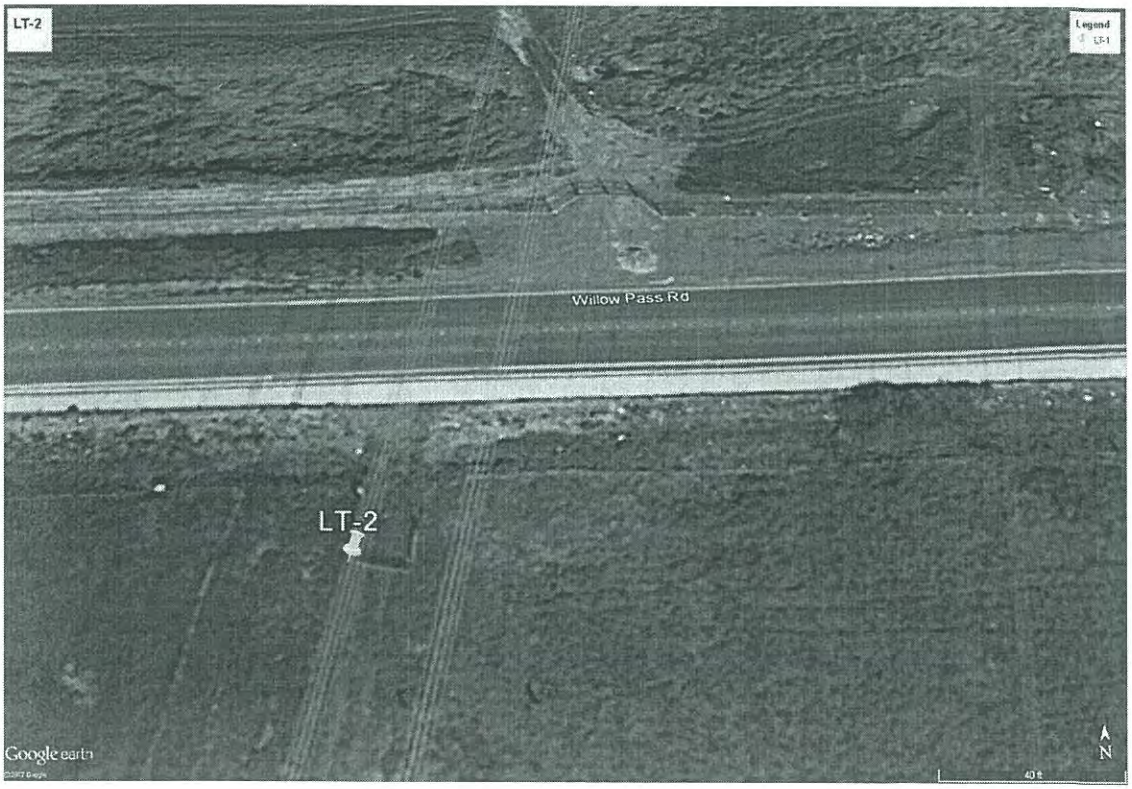
Site Number: LT-2 Date: 10/27-10/30/17

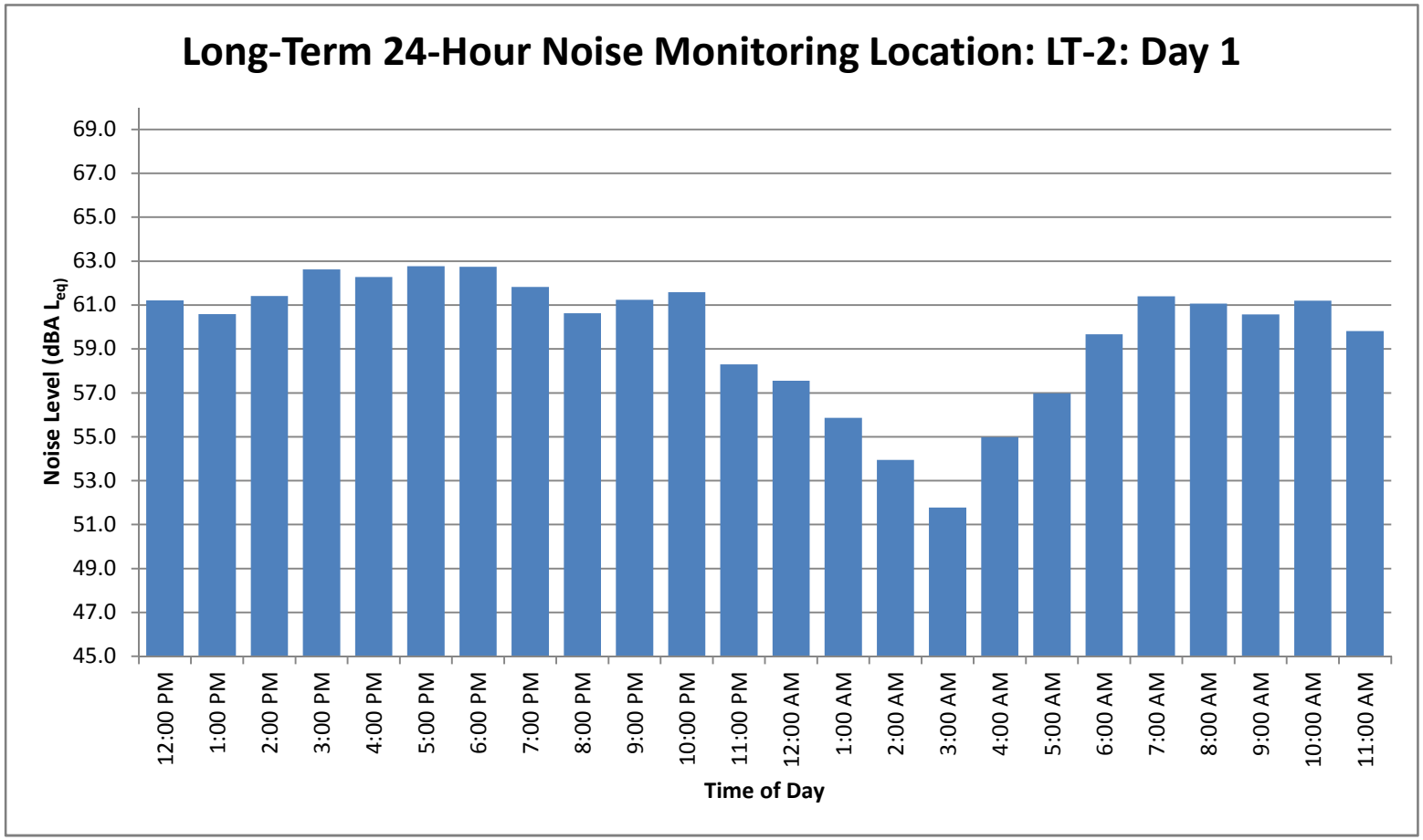
Time: From 12 pm To 1:10 pm

Site Location: West of the Proposed Project Site, south of Willow Pass Road

Primary Noise Sources: Traffic on Willow Pass Road, Corona Noise

Comments: Serial Number: NXG060 1AA

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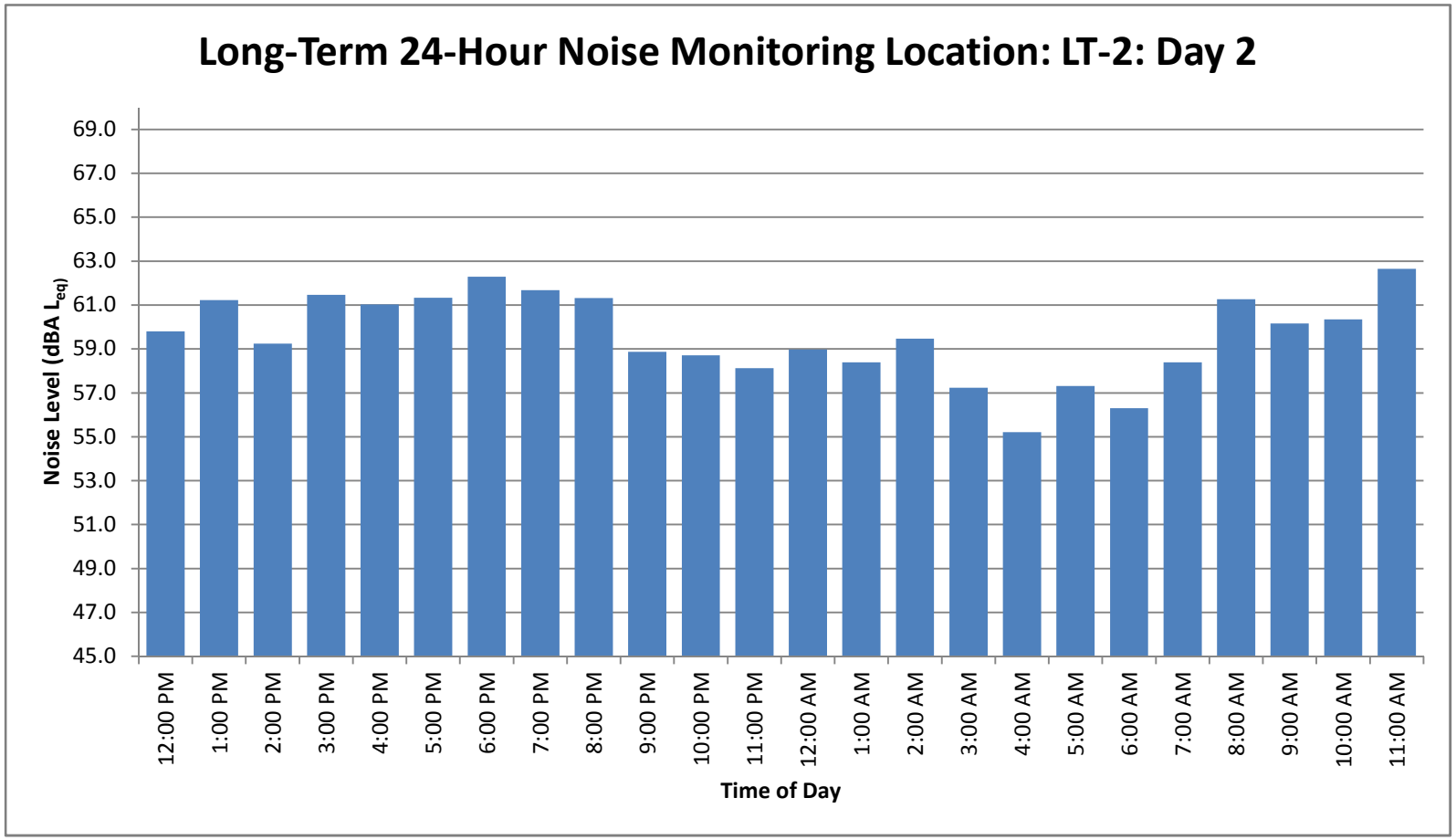
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Noise Level (dBA L_{eq})
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49.0
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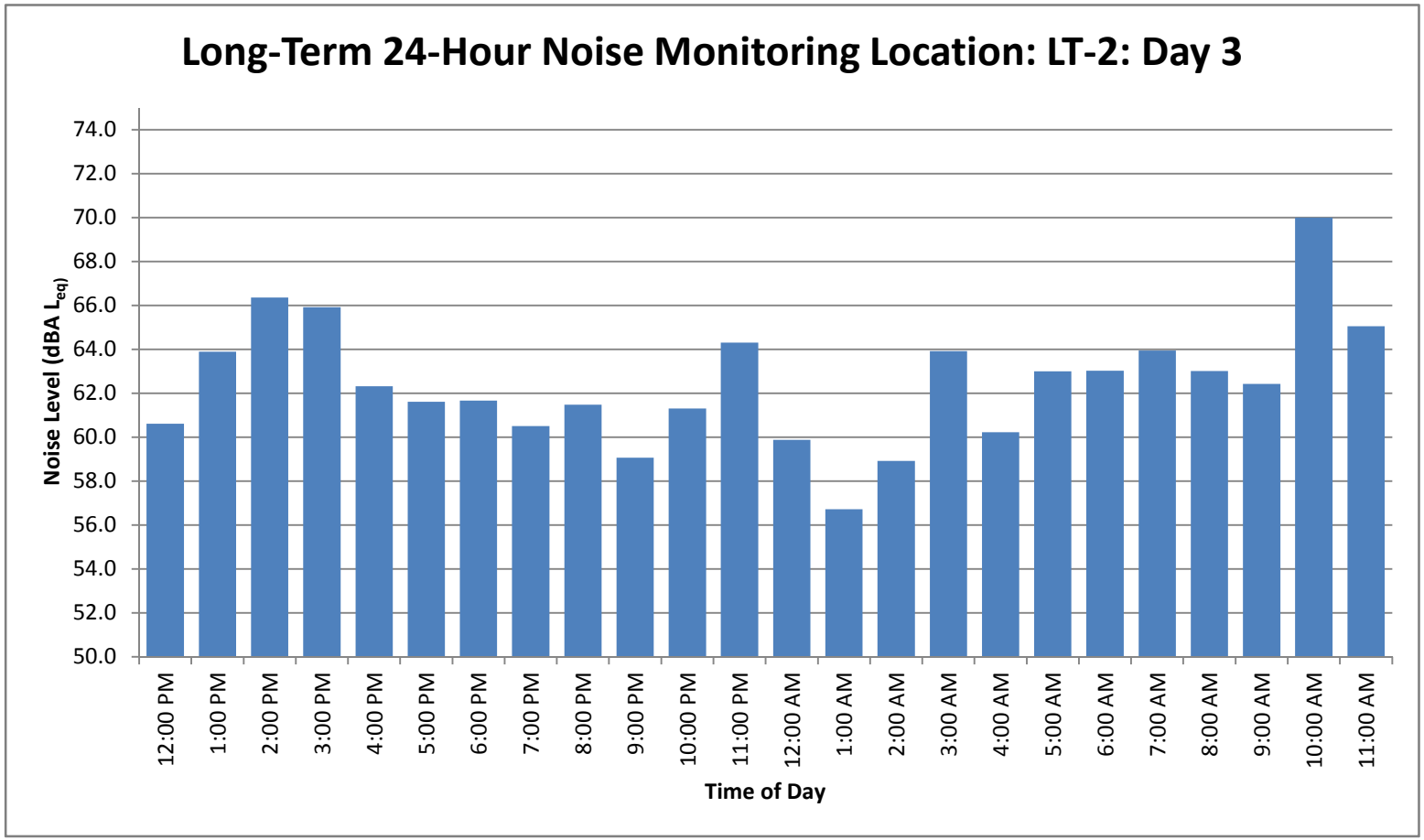
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Time of Day

Noise Measurement Survey – 24 HR

Project Number: LPD1702
Project Name: Diablo Energy

Test Personnel: JT / Kaitlin
Equipment: Quest Noise Pro DLX

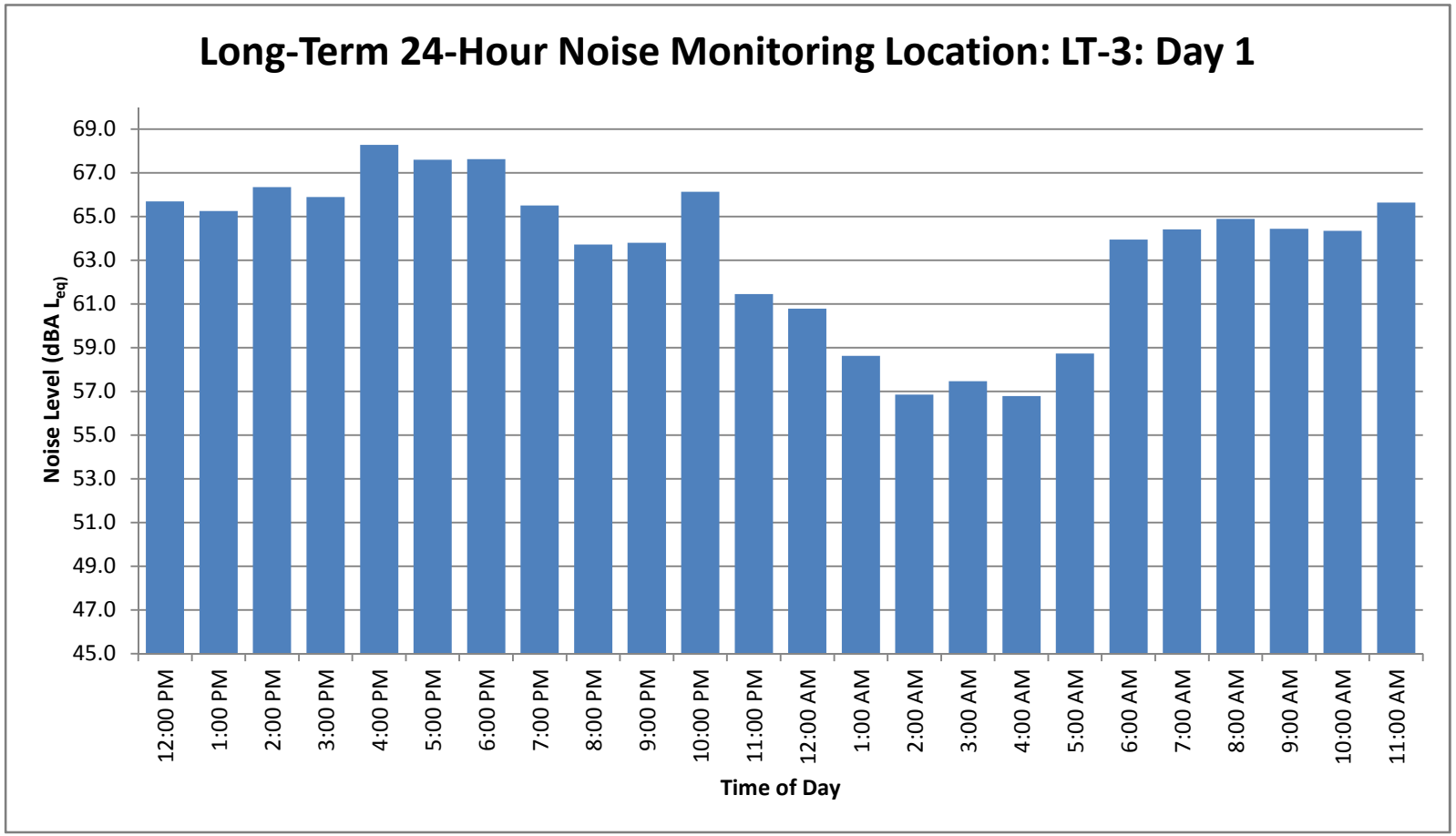
Site Number: LT-3 Date: 10/27-10/30/17

Time: From 12 pm To 1:23pm

Site Location: Southwest of the Proposed Project Site, south of Parkside Drive

Primary Noise Sources: Traffic on Parkside Drive, Corona Noise

Comments: Serial Number: NXU070024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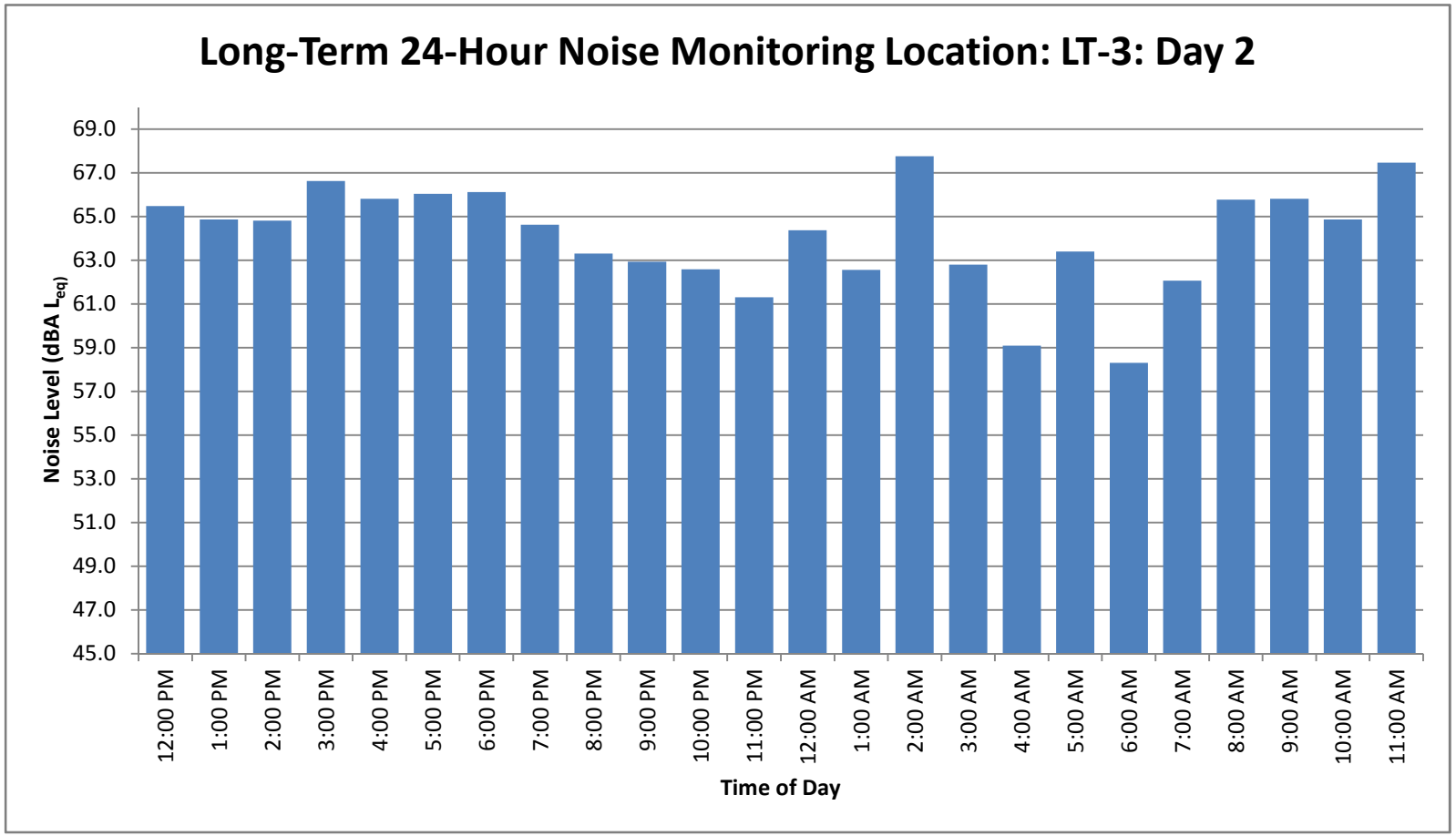
Time of Day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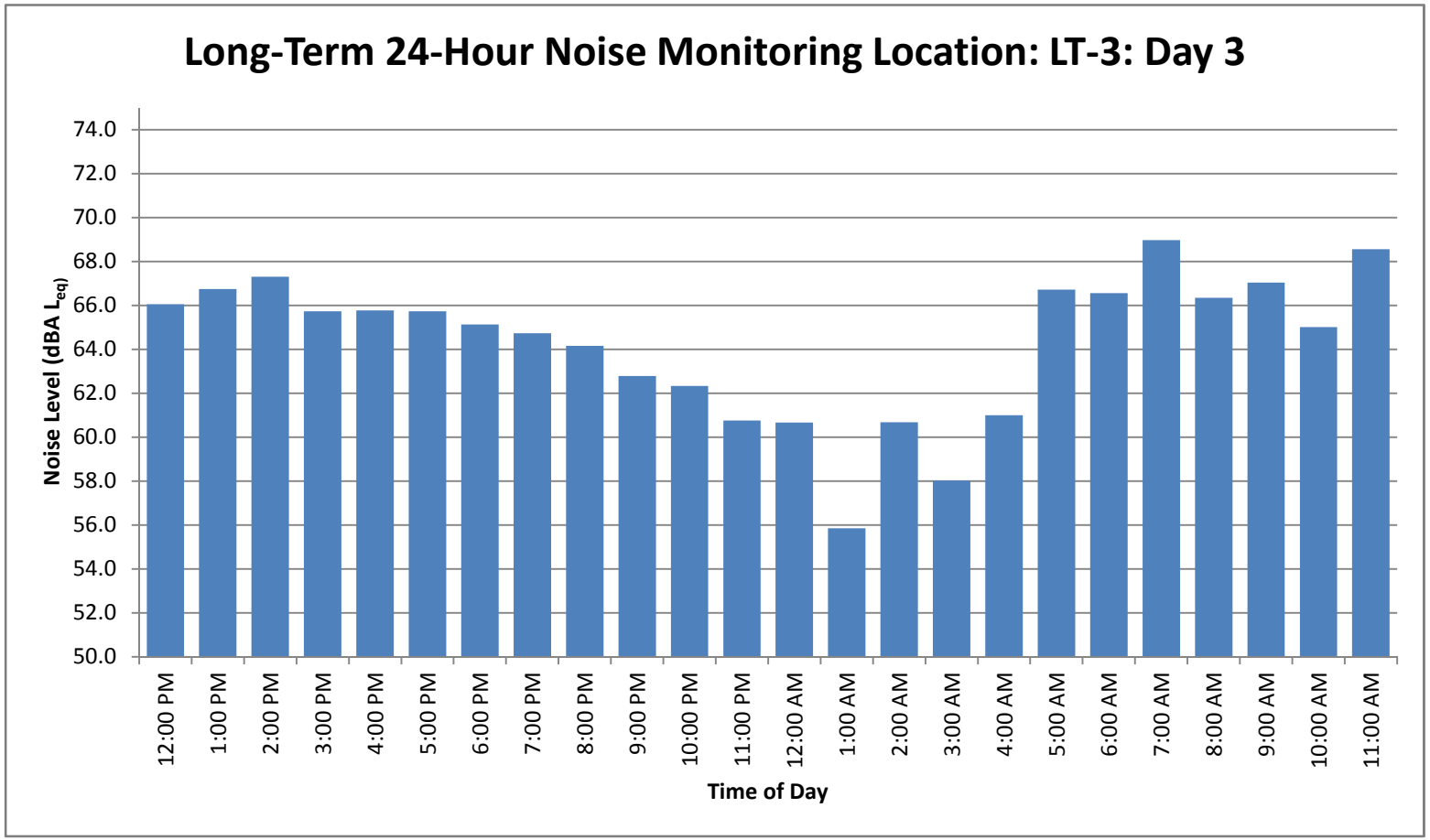
Time of Day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Time of Day

Noise Measurement Survey

Project Number: LPD1702
Project Name: Diablo Energy

Test Personnel: JT Stephens
Equipment: LD LxT

Site Number: ST-1 Date: 10/27/17

Time: From 1:21p To 1:34p.

Site Location: SE Corner of Existing Industrial Building
Along fence line. Close to single-Family Homes

Primary Noise Sources: Forklift operations / back-up beeper
trains

Comments: 9'-10' high prop. line fence.
Forklift pass-by 64-66dBA
Backup beeper 61 dBA when near door

Adjacent Roadways: Existing Rail Line

File:	64
L_{eq}	55.9
L_{max}	69.3
L_{min}	37.9
L_{2} 5	63.2
L_{8} 10	60.3
L_{25} 33.3	52.3
L_{50}	49.7
L_{90} 66.6	43.4
L_{99} 90	39.3

Atmospheric Conditions	
Average Wind Velocity (mph)	0.9
Maximum Wind Velocity (mph)	1.9
Temperature (F)	87.2
Relative Humidity (%)	21

Noise Measurement Survey

Project Number: LPD1702
Project Name: Diablo Energy

Test Personnel: JT Stephens
Equipment: LD LxT

Site Number: ST-2 Date: 10/27/17

Time: From 1:44p To

Site Location: West of project site, NW corner of existing parking lot

Primary Noise Sources: Truck and Vehicle movements
Loading Dock Activities / Forklift.
Traffic on Willow Pass Rd (faint)
Airplanes

Comments: ~ 20 dock @ building.

Adjacent Roadways: Willow Pass Rd.

File:	65
L_{eq}	49.0
L_{max}	62.1
L_{min}	40.3
L_{2} ~~5~~	52.8
L_{8} ~~10~~	51.5
L_{25} ~~33.3~~	48.9
L_{50}	47.5
L_{90} ~~66.6~~	46.2
L_{99} ~~90~~	43.2

Atmospheric Conditions	
Average Wind Velocity (mph)	1.0
Maximum Wind Velocity (mph)	3.0
Temperature (F)	87.4
Relative Humidity (%)	21%

Appendix E

NAHC Correspondence

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
Fax (916) 373-5471

May 30, 2017

Howard Higgins
TRC Environmental

Sent by Email: hhiggins@trcsolutions.com
Number of Pages: 2

RE: Diablo Project, Honker Bay, Contra Costa County

Dear Mr. Higgins:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. **Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE**.

I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. **By contacting all those on the list, your organization will be better able to respond to claims of failure to consult.** If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: Sharaya.souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst

Native American Heritage Commission
Native American Contacts
5/30/2017

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside , CA 94062
amahmutsuntribal@gmail.com
(650) 851-7489 Cell
(650) 851-7747 Office
(650) 332-1526 Fax

Ohlone/Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister , CA 95024
ams@indiancanyon.org
(831) 637-4238

Ohlone/Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791
Milpitas , CA 95036
muwekma@muwekma.org
(408) 314-1898
(510) 581-5194

Ohlone / Costanoan

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden , CA 95236
canutes@verizon.net
(209) 887-3415

Ohlone/Costanoan
Northern Valley Yokuts
Bay Miwok

The Ohlone Indian Tribe
Andrew Galvan
P.O. Box 3152
Fremont , CA 94539
chochenyo@AOL.com
(510) 882-0527 Cell

(510) 687-9393 Fax

Ohlone/Costanoan
Bay Miwok
Plains Miwok
Patwin

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street
Elk Grove , CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office

(916) 683-6015 Fax

Miwok

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code

This list is only applicable for contacting local Native Americans with regard to cultural resources assessments for the updated contact list for Diablo Project, Honker Bay, Contra Costa County.

City of Pittsburg

Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

December 11, 2017

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street
Elk Grove, CA 95624

Subject: **AB 52 Tribal Consultation for the Diablo Energy Storage Project**

Raymond Hitchcock:

The City of Pittsburg has received a request for formal notice of and information on proposed projects within the geographic area of the City's jurisdiction from your tribe per Public Resources Code, Section 21080.3.1(b). In accordance with Public Resources Code, Section 21080.3.1(d), the City of Pittsburg is hereby providing formal notification to your tribe of the Diablo Energy Storage Project.

In September 2017, Diablo Energy Storage LLC submitted an application requesting a Conditional Use Permit, Zoning Text Amendment and Design Review for a Battery Storage Project. The applicant proposes to install up to three single story buildings on a graded and vacant approximately 12 acre site representing a portion of an approximately 35 acre parcel located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The proposed project would also include a tie in line to the existing PG&E Substation. Three alternative routes are shown on the attached project location map.

If your tribe would like to consult on this project, please submit a request for consultation to the City at the following address:

Kristin Pollot, Planning Manager
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Per Public Resources Code, Section 21080.3.1(d), a request for consultation must be submitted within 30 days of receipt of this letter.

If you have any questions, please contact me at (925) 252-4043 or via e-mail at KPollot@ci.pittsburg.ca.us.

Sincerely,

Kristin Pollot,
Planning Manager

Attachment: Project Location Map

City of Pittsburg

Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

December 13, 2017

North Valley Yakuts Tribe
Katherine Erolinda Perez, Chairperson
P. O. Box 717
Linden, CA 95236

Subject: **AB 52 Tribal Consultation for the Diablo Energy Storage Project**

Katherine Erolinda Perez:

The City of Pittsburg has received a request for formal notice of and information on proposed projects within the geographic area of the City's jurisdiction from your tribe per Public Resources Code, Section 21080.3.1(b). In accordance with Public Resources Code, Section 21080.3.1(d), the City of Pittsburg is hereby providing formal notification to your tribe of the Diablo Energy Storage Project.

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City of Pittsburg
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Pittsburg, CA 94565

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If you have any questions, please contact me at (925) 252-4043 or via e-mail at KPollot@ci.pittsburg.ca.us.

Sincerely,

Kristin Pollot,
Planning Manager

Attachment: Project Location Map

City of Pittsburg

Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

December 13, 2017

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P. O. Box 28
Hollister, CA 95024

Subject: **AB 52 Tribal Consultation for the Diablo Energy Storage Project**

Ann Marie Sayers:

The City of Pittsburg has received a request for formal notice of and information on proposed projects within the geographic area of the City's jurisdiction from your tribe per Public Resources Code, Section 21080.3.1(b). In accordance with Public Resources Code, Section 21080.3.1(d), the City of Pittsburg is hereby providing formal notification to your tribe of the Diablo Energy Storage Project.

In September 2017, Diablo Energy Storage LLC submitted an application requesting a Conditional Use Permit, Zoning Text Amendment and Design Review for a Battery Storage Project. The applicant proposes to install up to three single story buildings on a graded and vacant approximately 12 acre site representing a portion of an approximately 35 acre parcel located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The proposed project would also include a tie in line to the existing PG&E Substation. Three alternative routes are shown on the attached project location map.

If your tribe would like to consult on this project, please submit a request for consultation to the City at the following address:

Kristin Pollot, Planning Manager
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Per Public Resources Code, Section 21080.3.1(d), a request for consultation must be submitted within 30 days of receipt of this letter.

If you have any questions, please contact me at (925) 252-4043 or via e-mail at KPollot@ci.pittsburg.ca.us.

Sincerely,

Kristin Pollot,
Planning Manager

Attachment: Project Location Map

City of Pittsburg

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65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

December 13, 2017

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irene Zwierlein, Chairperson
789 Canada Road
Woodside, CA 94062

Subject: **AB 52 Tribal Consultation for the Diablo Energy Storage Project**

Irene Zwierlein:

The City of Pittsburg has received a request for formal notice of and information on proposed projects within the geographic area of the City's jurisdiction from your tribe per Public Resources Code, Section 21080.3.1(b). In accordance with Public Resources Code, Section 21080.3.1(d), the City of Pittsburg is hereby providing formal notification to your tribe of the Diablo Energy Storage Project.

In September 2017, Diablo Energy Storage LLC submitted an application requesting a Conditional Use Permit, Zoning Text Amendment and Design Review for a Battery Storage Project. The applicant proposes to install up to three single story buildings on a graded and vacant approximately 12 acre site representing a portion of an approximately 35 acre parcel located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The proposed project would also include a tie in line to the existing PG&E Substation. Three alternative routes are shown on the attached project location map.

If your tribe would like to consult on this project, please submit a request for consultation to the City at the following address:

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Pittsburg, CA 94565

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Sincerely,

Kristin Pollot,
Planning Manager

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December 13, 2017

The Ohlone Indian Tribe
Andrew Galvin
P. O. Box 3152
Fremont, CA 94539

Subject: **AB 52 Tribal Consultation for the Diablo Energy Storage Project**

Andrew Galvin:

The City of Pittsburg has received a request for formal notice of and information on proposed projects within the geographic area of the City's jurisdiction from your tribe per Public Resources Code, Section 21080.3.1(b). In accordance with Public Resources Code, Section 21080.3.1(d), the City of Pittsburg is hereby providing formal notification to your tribe of the Diablo Energy Storage Project.

In September 2017, Diablo Energy Storage LLC submitted an application requesting a Conditional Use Permit, Zoning Text Amendment and Design Review for a Battery Storage Project. The applicant proposes to install up to three single story buildings on a graded and vacant approximately 12 acre site representing a portion of an approximately 35 acre parcel located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The proposed project would also include a tie in line to the existing PG&E Substation. Three alternative routes are shown on the attached project location map.

If your tribe would like to consult on this project, please submit a request for consultation to the City at the following address:

Kristin Pollot, Planning Manager
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Per Public Resources Code, Section 21080.3.1(d), a request for consultation must be submitted within 30 days of receipt of this letter.

If you have any questions, please contact me at (925) 252-4043 or via e-mail at KPollot@ci.pittsburg.ca.us.

Sincerely,

Kristin Pollot,
Planning Manager

Attachment: Project Location Map

City of Pittsburg

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December 13, 2017

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P. O. Box 360791
Milpitas, CA 95036

Subject: **AB 52 Tribal Consultation for the Diablo Energy Storage Project**

Rosemary Cambra:

The City of Pittsburg has received a request for formal notice of and information on proposed projects within the geographic area of the City's jurisdiction from your tribe per Public Resources Code, Section 21080.3.1(b). In accordance with Public Resources Code, Section 21080.3.1(d), the City of Pittsburg is hereby providing formal notification to your tribe of the Diablo Energy Storage Project.

In September 2017, Diablo Energy Storage LLC submitted an application requesting a Conditional Use Permit, Zoning Text Amendment and Design Review for a Battery Storage Project. The applicant proposes to install up to three single story buildings on a graded and vacant approximately 12 acre site representing a portion of an approximately 35 acre parcel located at 701 Willow Pass Road, Pittsburg, California (APN 085-280-010). The proposed project would also include a tie in line to the existing PG&E Substation. Three alternative routes are shown on the attached project location map.

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Kristin Pollot, Planning Manager
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

Per Public Resources Code, Section 21080.3.1(d), a request for consultation must be submitted within 30 days of receipt of this letter.

If you have any questions, please contact me at (925) 252-4043 or via e-mail at KPollot@ci.pittsburg.ca.us.

Sincerely,

Kristin Pollot,
Planning Manager

Attachment: Project Location Map

Diablo Energy Storage

Responses to 7/21/18 City of Pittsburg data request (Joan Lamphier) re: Diablo Energy Storage

July 26, 2018

Request

Please provide specs on the proposed batteries including safety, cooling, ventilation, back up and redundant back up system. Please include manufacturer, model, MSDS and volatility.

Response

Introduction

Grid-tied Lithium Ion battery energy storage technology is a mature technology, with hundreds of projects online worldwide providing a wide range of grid services, well known and understood configurations.

The U.S. Department of Energy and Sandia National Laboratories' Global Energy Storage Database shows over 400 currently operational projects totaling over 1,200 Megawatts of rated power deployed world-wide using Lithium-Ion technology. Approximately 200 of these projects are greater than 1 MW. The grid-scale Lithium-Ion battery technology to be used by Diablo is by far the most widely deployed and commercially proven class of electrochemical storage technology[1].

The Diablo Energy Storage battery components are comprised of multiple identical sections that consist of standardized equipment manufactured in high volumes today for both stationary battery systems (like Diablo) and the automotive electric vehicle markets. Top tier suppliers such as Samsung, LG Chem, BYD and others all have production capacity today exceeding 1 GWh per year, much of which goes to electric vehicle markets that demand the highest safety and quality of their designs.

All systems for this project has previously been used in the United States in existing energy storage projects at the MW scale in recent years, including over 400 MWh installed in 2016/2017 in California for emergency procurements related to the Aliso Canyon gas leak. The deployment of stationary utility scale energy storage systems is accelerating in California and other markets. For example Pacific Gas and Electric Company recently announced the award of four new lithium ion battery projects to be located in Northern California representing over 567 MW of storage capacity. [2]

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[1] (http://www.energystorageexchange.org)

[2] Pacific Gas and Electric Advice Letter 5322-E, June 29, 2018

Selection of final equipment configurations, systems and vendors will be made during the detailed design phase of the project. This response is based on designs of representative vendors and equipment in use in similar projects today.

This response provides the following information:

- Batteries and DC Block Safety
- Battery Management System
- System Layout and Fire Suppression
- MSDS Safety Data Sheets

Batteries and DC Block Safety

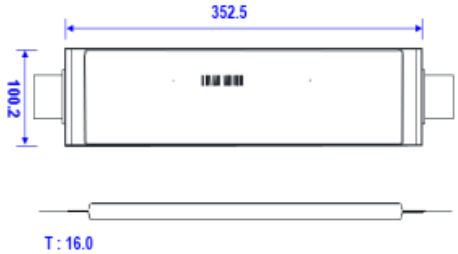
The proposed facility will use lithium-ion battery technology, using one of the safest sub-chemistries of lithium-ion technology, such as Lithium Iron Phosphate (LFP), Lithium Manganese Oxide (LMO), or Nickel Manganese Cobalt (NMC) batteries. The battery technology selection criterion requires low energy dissipation in even a worst-case failure, and a mature battery management system and protective hardware. At the battery cell level, protective hardware shall include design features including fuses and overcharge safety devices, and physical design to prevent fires or sudden discharge from drop, puncture, or crush events.

Battery cells are installed in racks that include a battery protection unit with higher power fuses and DC contactors for isolating problem batteries, and battery management software that monitors temperatures, cell voltages and currents, and will prevent the inverter from charging or discharging when a battery is not performing within its design envelope.

The following table shows the technical build-up of the planned battery system components using LG Chem batteries and battery management hardware.

System Build-Up			
Component	**Appearance**	**Description**	**Energy**
Cell		J Series	235Wh
Module		Module model: 3P	9.9kWh
Rack		1 Rack= 17 modules + 1 BPU Dimension(mm): 520(W) x 930(D) x 2,200(H)	168kWh
Battery Protection Unit (BPU)		DF2 BPU	N/A
Battery Bank BMS		Control all the Rack BMS Interface between Battery Racks and Section Controller.	N/A

Figure 1: ESS Build-up with LG Chem lithium-ion batteries.

Battery Cell
Appearance

Cell Features
-Stacking & Folded Cell(LG CHEM Inherent Patent) -Long Cycle Life -Reinforced Safety (Safety Reinforced Separator) -High energy density -Low Self-discharge rate -Wide Temperature Range

Battery Module –M48189P3B& M48126P2B
Appearance
Module Features
Built in BMS for self-diagnostic and balancing Flexible power and energy ratio Easy to integrate(19" standard rack compatible) Efficient dimension to maximize Energy density

Figure 2: Example Cell and Battery Module Specifications (source: LG Chem)

Battery modules will be placed in an appropriately designed battery rack, and each rack includes a battery protection unit, such as shown below. The main components are the Rack BMS, circuit breaker, relay, voltage sensor, and current sensor.

Components	Function
Rack BMS	Communicates with Module BMS and Battery Section Controller
FUSE	Protect from over current
Fan Relay	Fan On/Off
Pre-charge Relay	Prevents inrush current when the contactor to the inverter is closed
Contactor	Switch rack circuit
Noise filter	Reduce noise
Insulation block	Insulation

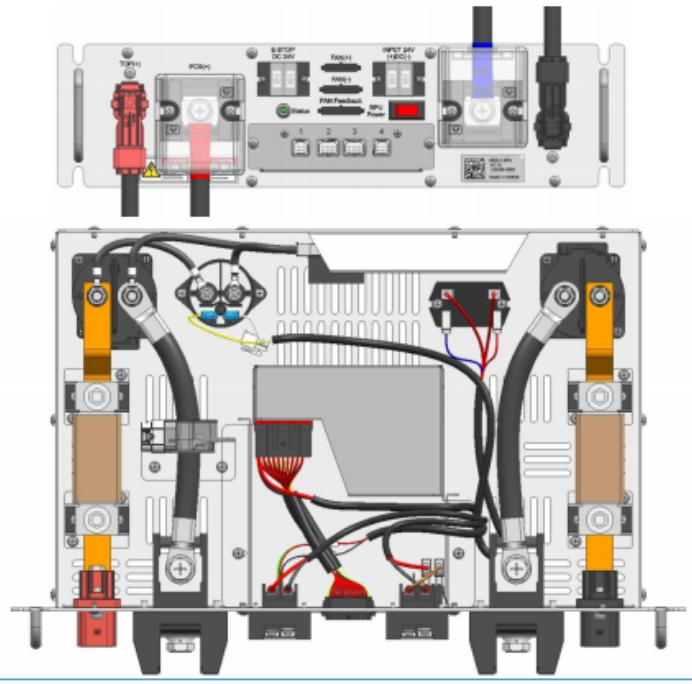


Figure 3: Battery Protection Unit example

Battery Management System

The Battery Management System is a distributed system that includes sensors on every module, and data is collected and passed to section controllers for each inverter, as well as passed up to the system's master controller for operator and customer use. The diagram below shows the communications architecture, and it is expected that the system will utilize industry standard protocols such as CAN and Modbus over TCP/IP.

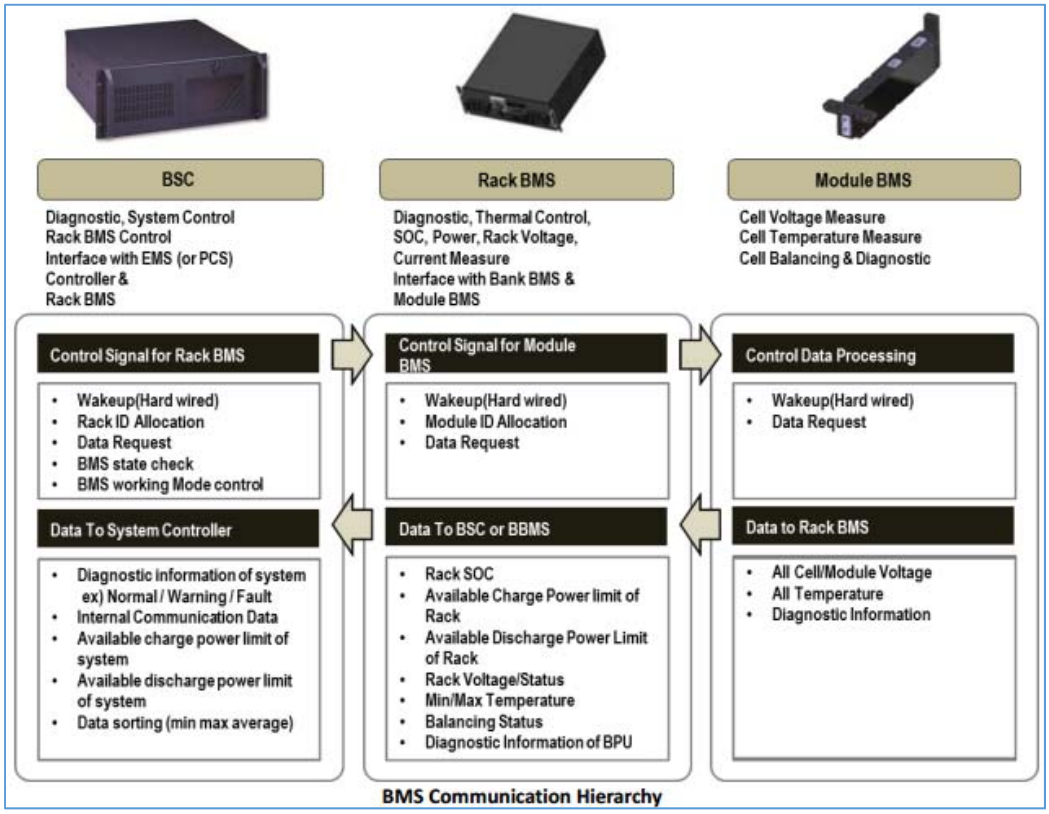


Figure 4: Battery Management System communications hierarchy

The battery management system must come from the battery manufacturer, and will be uniquely tuned to their specific technology. After the inherent safety of the cell and module design, the BMS includes contactors that can open in the case of inappropriate power flows. The battery protection unit should prevent this from ever occurring through the first level of control system safety, which limits power commands to the inverter controllers to prevent over charge or over discharge of batteries long before any of the hardware is pushed into an operation that might result in fire. The block diagram for this critical software safety feature is shown below for one vendor:

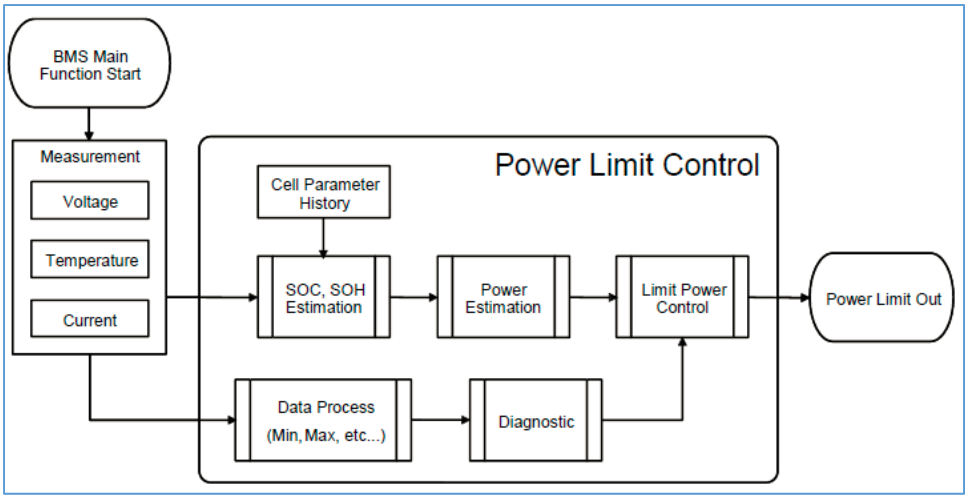


Figure 5: Example block diagram for power limiting and system diagnostics

System Layout and Fire Suppression

Each block of batteries will be housed in an enclosure with all necessary battery management hardware and software, protective devices, and fire suppression equipment for safe operation under any conditions. Batteries will be enclosed in a building with screened and/or walled off zones in order to isolate the small portion of the system that may be affected from any thermal event. In the case of smoke or fire detection, the system will release a waterless agent such as DuPont FM-200 fire suppression agent to the local area affected, and coordinate all air handling and ventilation in the enclosure in accordance with the NFPA codes and best practices.

Waterless fire suppression agents such as FM-200 or FE-25 are considered superior for battery systems due to the following factors: their effectiveness compared to alternatives, their environmental friendliness, and the damage to electronics and electrical equipment from water-based suppression would be massive if used on a battery system. Over 100,000 FM-200 fire suppression systems are presently installed in over 70 countries. Applications range from computer and electronic suites to military vehicles. The fire suppression agent is stored as a liquid inside of pressurized cylinders. When discharged, the liquid flows through a piping network into the protected area, where it vaporizes. The amount of gas delivered from each nozzle is carefully controlled to deliver the proper amount of suppression agent to each protected area. These chemicals are typically classified as HFCs, or hydrofluorocarbons, which are considered environmentally benign, and were actually introduced to facilitate the phase-out of ozone depleting CFCs, HCFCs, and Halons. FM-200 is currently the only HFC product approve for fire protection in Germany, a country known for its tough environmental standards.

DuPont's FE-25 is also a common choice for lithium-ion battery systems similar to the one proposed here, and is used in Southern California Edison's 32 MWh facility in Tehachapi and many others. FE-25 is very similar, but is considered more harmful to humans than FM-200, and is only appropriate for un-manned areas. Regarding safety, exhaustive testing has been conducted to assess the safety of FM-200, and there is a comprehensive toxicity database available from the supplier. The compound is safe enough that it is used as a propellant in pharmaceutical inhalers that dispense asthma medications.

The following table lists the major regulatory codes and standards applicable to the design of the Project:

Regulations & Standards	Compliance
Inverter, Converter, Controllers & Interconnection System Equipment	UL 1741
Interconnecting Distributed Resources with Electric Power Systems	IEEE 1547
Communication	FCC Part 15B Class A
National Electric Code	The system will conform to NEC guidelines applicable at the time of construction, ANSI/NFPA 70 with regards to wire sizing, fuses, and circuit breakers.
Harmonic Control in Electrical Power Systems	IEEE 519
Signage of Hazardous Materials for Emergency Response	NFPA 704
Product Safety Signs and Labels	ANSI Z535
Transformer Standards	ANSI C57
Surge Withstand Capabilities	ANSI C37
Battery Cell safety	UL1642, IEC62133, EN62133, UN38.3
Battery Module safety	UL1973, UN38.3

Manufacturer Safety Data Sheet (MSDS)

MSDS for Samsung SDI Mega E1 cell attached.

SAMSUNG SDI
150-20, GONGSE-RO GIHEUNG-GU, YONGIN-SI, GYEONGGI-DO, S. KOREA (446-577)
E mail : dohyun.joo@samsung.com
http://www.samsungsdi.com

TECHNICAL DOCUMENT

No. of Document	**SSES-M24-TD-XXXXX**
Revision	**A**
Theme/Topic	**Cell MSDS**
Product Description	**BATTERY ENERGY STRORAGE SYSTEM**
Platform/Type	**MegaE1 (94Ah Cell)**
Specification	**MegaE1 cell**
Date of Issue	**4th Feb. 2016**

This document contains information that is the property of SAMSUNG SDI Co., Ltd., and is furnished for the sole purpose of the internal validation and test of product. This test report will become invalid with any unauthorized modification of this document.

Cell MSDS

1. Product and Company Identification USA, EU

Important Note: As a solid, manufactured article, exposure to hazardous ingredients is not expected with normal use. This battery is an article pursuant to 29 CFR 1910.1200 and, as such, is not subject to the OSHA Hazard Communication Standard requirement. The information contained in this Material Safety Data Sheet contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

Commercial product name
MODEL CM0940R0003A (94Ah capacity)

Use of the substance/preparation
Lithium-Ion battery

Company/undertaking identification

Manufacturer
SAMSUNG SDI Co. LTD
428-5 Gongse-dong, Giheung-gu, Yongin-si,
Gyeonggi-do, 446-577 Korea
Telephone: ++82 31 210 8535
Telefax: ++82 31 210 8289

Contact person: Euiryong Bang

Telephone:

Responsible Department: Development Team

Responsible for the safety data sheet: er.bang@samsung.com

Further Information
Battery-System: Lithium-Ion (Li-ion)
Voltage: 3.68V
Anode (negative electrode): based on intercalation graphite
Cathode (positive electrode): based on lithiated metal oxide (Cobalt, Nickel, Manganese)

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Remark:

The information and recommendations set forth are made in good faith and believed to be accurate as of the date of preparation. SAMSUNG SDI Co., Ltd. makes no warranty, expressed or implied, with respect to this information and disclaims all liabilities from reliance on it.

2. Hazards Identification USA

Route(s) of Entry
There is no hazard when the measures for handling and storage are followed.

Signs and Symptoms of Exposure
In case of cell damage, possible release of dangerous substances and a flammable gas mixture.

OSHA Hazard Communication: This material is not considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

Carcinogenicity (NTP):	Not listed
Carcinogenicity (IARC):	Not listed
Carcinogenicity (OSHA):	Not listed

Special hazards for human health and environment
There is no hazard when the measures for handling and storage are followed.
In case of cell damage, possible release of dangerous substances and a flammable gas mixture.

2. Hazards Identification USA, EU

Explication of special hazards for human health and environment
Not classified as dangerous according to directive 1999/45/EEC
There is no hazard when the measures for handling and storage are followed.
In case of cell damage, possible release of dangerous substances and a flammable gas mixture.

SAMSUNG SDI

3. Composition/information on ingredients USA, EU

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	EU-Classification
215-154-6	1307-96-6	Cobalt oxide	< 30 %	Xn, N R22435053
215-202-6	1313-13-9	Manganese dioxide	< 30 %	Xn R20/22
215-215-7	1313-99-1	Nickel oxide	< 30 %	Carc. Cat. 1, T R49-43-48/23--53
231-153-3	7440-44-0	Carbon	10 - 30 %	
		Electrolyte (*)	10 - 20 %	Carc. Cat. 3, C, R10-34-40-43
	24937-79-9	Polyvinylidene fluoride (PVdF)	< 10 %	
231-072-3	7429-90-5	Aluminium foil	2 - 10 %	
231-159-6	7440-50-8	Copper foil	2 - 10 %	
		Aluminium and inert materials	5 - 10 %	

Full text of each relevant R phrase can be found in heading 16.

Further Information

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For information purposes:
(*) Main ingredients: Lithium hexafluorophosphate, organic carbonates

Because of the cell structure the dangerous ingredients will not be available if used properly.
During charge process a lithium graphite intercalation phase is formed.

Mercury content:	Hg < 0.1mg/kg
Cadmium content:	Cd < 1mg/kg
Lead content:	Pb: < 10mg/kg

4. First Aid Measures USA, EU

General information
The following first aid measures are required only in case of exposure to interior battery components after damage of the external battery casing.
Undamaged, closed cells do not represent a danger to the health.

After inhalation
Ensure of fresh air. Consult a physician.

After contact with skin
In case of contact with skin wash off immediately with plenty of water.
Consult a physician.

After contact with eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion
Drink plenty of water.
Call a physician immediately.

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5. Fire Fighting Measures USA, EU

Suitable extinguishing media
Cold water and dry powder in large amount are applicable.
Use metal fire extinction powder or dry sand if only few cells are involved.

Special hazards arising from the chemical
May form hydrofluoric acid if electrolyte comes into contact with water.
In case of fire, the formation of the following flue gases cannot be excluded:
Hydrogen fluoride (HF), Carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.
Additional information
If possible, remove cell(s) from fire fighting area. If heated above 125°C, cell(s) can explode/vent. Cell is not flammable but internal organic material will burn if the cell is incinerated.

6. Accidental Release Measures USA, EU

Personal precautions
Use personal protective clothing.
Avoid contact with skin, eyes and clothing.
Avoid breathing fume and gas.

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Environmental precautions
Do not discharge into the drains/surface waters/groundwater.
Methods for cleaning up/taking up
Take up mechanically and send for disposal.

7. Handling and Storage USA, EU

Handling

Advice on safe handling
Avoid short circuiting the cell. Avoid mechanical damage of the cell. Do not open or disassemble.
Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage rooms and vessels
Storage at room temperature (approx. 20°C) at approx. 20-50% of the nominal capacity
(OCV approx. 3.5-3.7 V).
Keep in closed original container.

8. Exposure Controls/Personal Protection Exposure limit values Exposure limits USA

8. Exposure controls/personal protection Exposure limit values Exposure limits (EH40) EU

CAS-No.	Chemical name	ml/m³	mg/m³	F/ml	Category	Origin
7440-44-0	Graphite, respirable	- -	4 -		TWA (8 h) STEL (15 min)	WEL WEL

Additional advice on limit values
During normal charging and discharging there is no release of product.

Occupational exposure controls
No specific precautions necessary.

Protective and hygiene measures
When using do not eat, drink or smoke. Wash hands before breaks and after work.

Respiratory protection
No specific precautions necessary.

Hand protection
No specific precautions necessary.

Eye protection
No specific precautions necessary.

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Skin protection
No specific precautions necessary.

.

9. Physical and Chemical Properties USA, EU

Appearance

Form:	Solid
Color:	Various
Odor:	Odorless

Important health, safety and environmental information

Test method	
pHValue:	n.a.
Flash point:	n.a
Lower explosion limits:	n.a.
Vapour pressure:	n.a.
Density:	n.a.
Water solubility:	Insoluble
Ignition temperature:	n.a.

10. Stability and Reactivity USA, EU

Stability
Stable

Conditions to avoid
Keep away from open flames, hot surfaces and sources of ignition. Do not puncture, crush or incinerate.

Materials to avoid
No materials to be especially mentioned.

Hazardous decomposition products
In case of open cells, there is the possibility of hydrofluoric acid and carbon monoxide release.

Possibility of Hazardous Reactions
Will not occur

Additional information
No decomposition if stored and applied as directed.

11. Toxicological Information USA, EU

Empirical data on effects on humans
If appropriately handled and if in accordance with the general hygienic rules, no damages to health have become known.

12. Ecological Information USA, EU

Further information

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Ecological injuries are not known or expected under normal use. Do not flush into surface water or sanitary sewer system.

13. Disposal Considerations USA, EU

Advice on disposal
For recycling consult manufacturer.

Contaminated packaging
Disposal in accordance with local regulations.

14. Transport Information USA, EU

US DOT 49 CFR 172.101

Proper shipping name
Lithium-ion batteries

ID Number:	UN3480
Hazard Class or Division:	9
Packing group:	II
Label:	9

Land transport (ADR/RID)

UN number:	3480
ADR/RID class:	9
Classification code:	M4
Warning plate	
Hazard label:	9

ADR/RID packing group:	II
Limited quantity:	LQ 0
Tunnel restriction code:	E
Description of the goods	Lithium-ion batteries

Other applicable information (land)
LQ 0: No exemption under the conditions of 3.4.2.
Transport category: 2

Marine transport

UN number:	3480
IMDG code:	9
Marine pollutant:	No
Hazard label:	9

IMDG packing group:	II

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EmS:		F-A, S-I
Limited quantity:	None	
Description of the goods		Lithium-ion batteries

Air transport

UN/ID number:		3480
ICAO/IATA-DGR:		9
Hazard label:		9

ICAO packing group:		II
Limited quantity Passenger:		-
IATA-packing instructions - Passenger:		965
IATA-max. quantity - Passenger:	5 kg G	
IATA-packing instructions - Cargo:	965	
IATA-max. quantity - Cargo:		35 kg G
Description of the goods		Lithium-ion batteries

Other applicable information

Lithium equivalent:	35.1g
Wh-rating per cell:	346 Wh

15. Regulatory Information USA

U.S. Regulations

National Inventory TSCA
SAMSUNG SDI certifies that all chemical components of the Model CM0940R0003A (94 Ah capacity) Lithium-Ion Battery are listed on the US EPA TSCA 8(b) Inventory or are exempt from listing.

SARA
To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

15. Regulatory information EU

Labeling

Hazardous components which must be listed on the label
As an article the product does not need to be labeled in accordance with EC directives or respective national laws.

EU regulatory information

1999/13/EC (VOC):	0 %

16. Other Information USA

Hazardous Materials Information Label (HMIS)
Health: 0
Flammability: 0
Physical Hazard: 0

This document contains information that is the property of SAMSUNG SDI Co., Ltd., and is furnished for the sole purpose of the internal validation and test of product. This test report will become invalid with any unauthorized modification of this document.

NFPA Hazard Ratings
Health: 0
Flammability: 0
Reactivity: 0
Unique Hazard:

16. Other Information EU

Full text of R-phrases referred to under sections 2 and 3

R10	Flammable.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitization by skin contact.
R48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R49	May cause cancer by inhalation.
R50	Very toxic to aquatic organisms.
R53	May cause long-term adverse effects in the aquatic environment.

Further Information USA, EU
Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult package leaflet and expert information), but to release of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations. "(n.a. = not applicable; n.d. = not determined)"

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.

SAMSUNG SDI

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ATTACHMENT 10

Power Lines, Electrical Devices and Extremely Low Frequency Radiation

What is extremely low frequency (ELF) radiation?

Radiation is the emission or sending out of energy from any source. X-rays are an example of radiation, but so is the light that comes from the sun and the heat that is constantly coming off our bodies.

When talking about radiation and cancer, many people think of specific kinds of radiation such as x-rays or the radiation in nuclear reactors. But these are not the only types of radiation that concern us when we think about radiation risks to human health.

Radiation exists across a spectrum from very high-energy (also referred to as high-frequency) radiation to very low-energy (or low-frequency) radiation. This is sometimes referred to as the **electromagnetic spectrum**.

Examples of high-energy radiation include x-rays and gamma rays. They, as well as some higher energy ultraviolet (UV) rays, are classified as **ionizing radiation**, which means that they have enough energy to remove an electron from (ionize) an atom. Ionizing radiation can damage the DNA inside cells, which can lead to mutations and the uncontrolled cell growth we know as cancer.

Extremely low frequency (ELF) radiation is at the low-energy end of the electromagnetic spectrum and is a type of **non-ionizing radiation**. Non-ionizing radiation has enough energy to move atoms around or make them vibrate, but not enough to directly damage DNA. ELF radiation has even lower energy than other types of non-ionizing radiation like radiofrequency radiation, visible light, and infrared.

With most types of radiation, the electric and magnetic fields are coupled. Because they act as one, they are considered together as an electromagnetic field (EMF). But with ELF radiation, the magnetic field and the electrical field can exist and act independently, so

they are often studied separately. Typically, we use the term “magnetic field” to indicate ELF radiation from a magnetic field, while we use “electric field” to mean ELF radiation from an electric field.

The possible link between electromagnetic fields and cancer has been a subject of controversy for several decades. It's not clear exactly how electromagnetic fields, a form of low-energy, non-ionizing radiation, can increase cancer risk. Plus, because we are all exposed to different amounts of these fields at different times, the issue has been hard to study.

Electric and magnetic fields

All radiation on the electromagnetic spectrum is produced by the interactions of 2 forces, referred to as **fields**. Radiation has both an electric field and a magnetic field.

Electric fields are the forces acting on charged particles (parts of atoms), like electrons or protons, which cause them to move. Electric current is simply the flow of electrons produced by an electric field. The strength of an electric field is often expressed as volts per meter (V/m) or, for stronger fields, as kilovolts per meter (kV/m), where a kilovolt is 1000 volts.

A **magnetic field** is created when charged particles are in motion. The strength of a magnetic field can be expressed in many different units, including tesla (T), microtesla (µT or one millionth of a tesla), and gauss (G), where one G equals 100 µT.

How are people exposed to ELF radiation?

Generating, transmitting, distributing, and using electricity all expose people to ELF radiation. Power lines, household wiring, and any device that uses electricity can generate ELF radiation. Thus any electric device, from refrigerators and vacuum cleaners to televisions and computer monitors (when they are on) are sources of ELF radiation. Even electric blankets expose people to ELF radiation.

How much electromagnetic radiation you are exposed to depends on the strength of the electromagnetic field, your distance from the source of the field, and the length of time you are exposed. The highest exposure occurs when the person is very close to a source putting out a strong field and stays there for a long period.

Does ELF radiation cause cancer?

Researchers use 2 main types of studies to try to figure out if something causes cancer.

- **Lab studies:** In lab studies, animals are exposed to different levels of the substance (sometimes at extremely high levels) to see if this exposure causes tumors or other health problems. Researchers might also expose normal human cells in a lab dish to see if this causes the types of changes that are seen in cancer cells. It's not always clear that the results from these types of studies directly apply to humans, but lab studies are a good way to find out if an exposure might possibly cause cancer.
- **Studies in people:** Other types of studies look at cancer rates in different groups of people. Such a study might compare the cancer rate in an exposed group to the rate in a group with lower exposures, or to a group not exposed at all. Sometimes the exposed group's cancer rate is compared to the cancer rate in the general population. But it can be hard to know what the results of these studies mean, because many other factors might affect the results. For example, people are typically exposed to many substances other than the one being studied, and these other exposures could affect the results.

In most cases neither type of study provides conclusive evidence on its own, so researchers usually look at both lab-based and human studies when trying to figure out if something can cause cancer.

Studies in the lab

Several large studies have looked at the possible effects of ELF magnetic fields on cancer in rats and mice. These studies expose the animals to magnetic fields much stronger than what people are normally exposed to at home, with fields ranging from 2 to 5000 microtesla (µT). Most of these studies have found no increase in the risk of any type of cancer. In fact, the risk of some types of cancer was actually lower in the animals exposed to the ELF radiation. One study did show an increased risk of tumors that start in thyroid cells, called C-cells, in male rats at some exposures. This increased risk was not seen in female rats or in mice, and was not seen at the highest field strength. These inconsistencies, and the fact that these findings were not consistently seen in the other studies, make it hard for scientists to conclude that the observed increased risk of tumors is from the ELF radiation.

Other studies in mice and rats have looked specifically for increases in leukemia and lymphoma as a result of exposure to ELF radiation, but these studies have also not found a link.

Studies in people

Studying the effects of ELF radiation in people can be hard, for many reasons:

Exposure to ELF radiation is very common, so it's not possible to compare people who are exposed with people who aren't exposed. Instead, studies try to compare people exposed at higher levels with people exposed at lower levels.

It is very hard to determine how much ELF radiation a person has been exposed to, especially over a long period. As far as we know, the effects of ELF radiation do not add up over time, and there is no test that can measure how much exposure a person has had.

Researchers can get a snapshot of ELF exposures by having a person wear a device that records their exposure levels over hours or days. Or, researchers can measure the magnetic or electrical field strength in a person's home or workplace settings.

Other options include estimating exposure based on the wiring configuration of someone's workplace/home or on its distance from power lines. But these methods result in exposure estimates that have a lot of uncertainty and that can produce biased estimates of total exposure. They typically do not account for a person's ELF exposures while in other places, they don't measure ELF exposures in every location that person has ever lived or worked over their lifetime. As a result, there are no good ways to accurately estimate someone's long-term exposure, which is what matters most when looking for possible effects on cancer risk.

In children

- A number of studies have looked at a possible link between ELF radiation from **magnetic fields** in the home and childhood leukemia (/cancer/leukemia-in-children.html), with mixed results. Still, when the findings from these studies are combined, a small increase in risk is seen for children at the highest exposure levels compared to those with the lowest exposure levels. Studies looking at the effect of ELF *electric fields* on childhood leukemia have not found a link.

Studies have generally not found any strong links between ELF electric or magnetic fields and other types of childhood cancers.

In adults

Although several studies have looked at possible links between ELF exposures in adults and cancer, most have not found a link.

What expert agencies say

Several national and international agencies study different exposures in the environment to determine if they can cause cancer. (Something that causes cancer or helps cancer grow is called a *carcinogen*.) The American Cancer Society looks to these organizations to evaluate the risks based on evidence from laboratory, animal, and human research studies.

Based on animal and human evidence like the examples above, some expert agencies have evaluated the cancer-causing nature of ELF radiation.

The **International Agency for Research on Cancer (IARC)** is part of the World Health Organization (WHO). One of its major goals is to identify causes of cancer. In 2002, IARC considered the evidence for ELF magnetic and electric fields separately:

- It found “limited evidence” in humans for the carcinogenicity of ELF *magnetic* fields in relation to childhood leukemia, with “inadequate evidence” in relation to all other cancers. It found “inadequate evidence” for the carcinogenicity of ELF magnetic fields based on studies in lab animals.
- It found “inadequate evidence” for the carcinogenicity of ELF *electric* fields in humans.

Based on this assessment, IARC has classified ELF *magnetic* fields as “possibly carcinogenic to humans.” It has classified ELF *electric* fields as “not classifiable as to their carcinogenicity to humans.”

In 1999, the US **National Institute of Environmental Health Sciences (NIEHS)** described the scientific evidence suggesting that ELF exposure poses a health risk as “weak,” but noted that it cannot be recognized as entirely safe, and considered it to be a “possible” human carcinogen.

How can I avoid exposure to ELF radiation?

It’s not clear that exposure to ELF radiation is harmful, but there are things you can do to lower your exposure if you are concerned. Your exposure is based on the strength of the ELF radiation coming from each source, how close you are to each, and how long you spend in the field.

The NIEHS recommends that people concerned about their exposure to EMF (and ELF radiation) find out where their major EMF sources are and move away from them or limit the time spent near them. For example, moving even an arm’s length away from a source can dramatically lower exposure to its field.

Power lines

People who are concerned about ELF radiation exposure from high-power electrical lines should keep in mind that the intensity of any exposure goes down significantly as you get farther away from the source. On the ground, the strength of the electromagnetic field is highest directly under the power line. As you get farther away, you are exposed to less and less, with the level eventually matching normal home background levels. The electromagnetic field directly under a power line is typically in the range of what you could be exposed to when using certain household appliances.

If you are concerned about your exposure to electromagnetic sources around you (including power lines), you can measure the field strength with a device called a *gaussmeter*.

Written by Additional resources References

The American Cancer Society medical and editorial content team

(/cancer/acs-medical-content-and-news-staff.html)Our team is made up of doctors and master's-prepared nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

Last Medical Review: April 11, 2017 | Last Revised: April 18, 2017

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (/about-us/policies/content-usage.html).

MORE IN CANCER A-Z

Cancer Basics

Cancer Causes

Breast Cancer

Colon and Rectal Cancer

Skin Cancer

Lung Cancer

Prostate Cancer

View All Cancer Types

Delta Diablo
A CALIFORNIA SPECIAL DISTRICT

March 15, 2018

Ms. Joan Lamphier, Consulting Planner
City of Pittsburg
65 Civic Avenue
Pittsburg, CA 94565

SUBJECT: INITIAL STUDY AND DRAFT MITIGATED NEGATIVE DECLARATION FOR THE DIABLO ENERGY STORAGE PROJECT, PITTSBURG, APN 085-280-080

Dear Ms. Lamphier:

Thank you for providing Delta Diablo (the District) with the opportunity to review the subject initial study / draft Mitigated Negative Declaration (IS/MND). The IS/MND includes review of environmental impacts for a proposed unoccupied battery storage facility with onsite substation located at 701 Willow Pass Road, Pittsburg by Diablo Energy Storage, LLC. We understand the proposed project includes construction of up to three buildings on a vacant portion of the 35-acre Empire Business Park. The buildings will house advanced energy storage equipment including inverters, transformers and an onsite electric substation. The facility will be connected via a new electric tie-in line to the existing Pacific Gas & Electric Company (PG&E) Pittsburg Substation located approximately 0.6 mile north of the site. Three alternative routes are under consideration for the tie-in line. The IS/ Draft MND is for the approval of the project design, a zoning amendment, and a use permit. The following are our comments:

The District owns and operates wastewater conveyance pipelines within and adjacent to the alternative overhead tie-line alignments depicted in Figure 5 of the IS/MND. See Figure 1, attached, for general location of District pipelines. The proposed East Alignment and Middle Alignment, as depicted in Figure 5, will impede the District's ability to access, operate, and maintain these critical wastewater pipelines which serve the City of Pittsburg and the community of Bay Point unless appropriate mitigation measures are included in the design. The proposed West Alignment may impede the District's ability to access, operate, and maintain the pipelines unless appropriate mitigation measures are included in the design.

It is recognized that IS/MND plans are preliminary and subject to change based on final engineering design. As such, it is not possible for the District to provide detailed comments on the IS/MND plans to ensure the reliable operation and maintenance of the existing wastewater pipelines. Therefore, the District requests the following general mitigation:

1) Project design plans for access, structures, and the proposed tie-line improvements that may potentially adversely impact District wastewater pipelines or access shall be

submitted to the District and be subject to its favorable review prior to City design approval and the start of construction. Design measures shall include:

a. Fencing, roadway improvements, and gates shall be designed to allow for optimized District access to existing wastewater pipelines during construction and after completion of construction. Project design shall ensure that access to District existing facilities will not be impeded or compromised from current conditions.

b. Grading over District pipelines shall not decrease ground surface cover over existing District pipelines and shall not significantly increase cover over District pipelines unless approved by the District.

c. No structures shall be constructed over existing District pipelines or easements.

d. When feasible and practical, all proposed new structures, overhead lines, or underground pipelines which parallel the existing District pipelines shall maintain a minimum of twenty-five feet horizontal distance between the outside edge of the District pipelines and the new improvement. Where not practical, all new improvements shall maintain a minimum of ten feet horizontal distance from the outside edge of the District pipelines.

e. Crossings of District pipelines shall be at perpendicular angles and be designed such that overhead wires do not impede District safe manway access.

The District has no comments on the proposed zoning amendment or use permit. The project applicant may contact the District directly for records related to existing District pipelines and easements in the project area. Please contact me at patriciac@deltadiablo.org or (925) 756-1939 if you have any questions.

Sincerely,

Patricia Chapman
Associate Engineer

PEC:drb

Attachment

cc: Thanh Vo, Acting Engineering Services Director, Delta Diablo
Amanda Wong Roa, Environmental Programs Manager, Delta Diablo
District File No. DEV.02-DEVDOC-00015207
Chron File

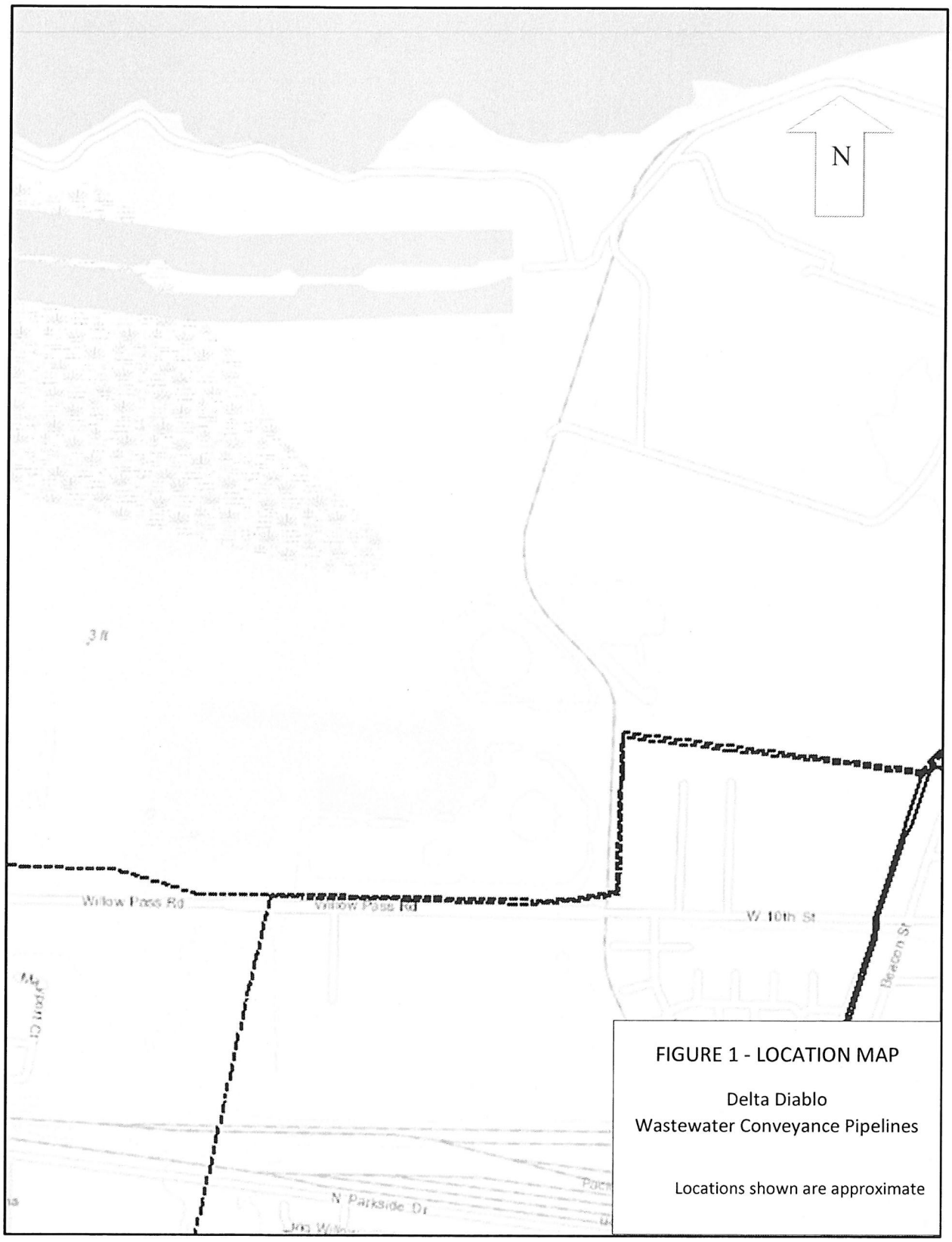

FIGURE 1 - LOCATION MAP

Delta Diablo
Wastewater Conveyance Pipelines

Locations shown are approximate

Contra Costa County Fire Protection District

August 8, 2018

Mr. Lamphier
City of Pittsburg
Planning Division
65 Civic Avenue
Pittsburg, CA 94565

Subject: Diablo Energy Storage
701 Willow Pass Rd. Pittsburg, CA
Project # AP-17-1270
CCCFPD Project No.: P-2018-03964

Dear Mr. Lamphier:

We have reviewed the development plan to establish an energy storage and distribution complex, H2 occupancy, consisting of 3 buildings of 62,000 square feet (each) of unknown type construction at the subject location. My comments are general in nature due to the lack of information on the project.

The following is required for Fire District approval in accordance with the 2016 California Fire Code (CFC), the 2016 California Building Code (CBC), the 2016 California Residential Code (CRC), and Local and County Ordinances and adopted standards:

1. Access must comply with Fire District requirements.

   Provide emergency apparatus access roadways with all-weather (paved) driving surfaces of not less than 20-feet unobstructed width, and not less than 13 feet 6 inches of vertical clearance, to within 150 feet of travel distance to all portions of the exterior walls of every building. Access shall have a minimum outside turning radius of 45 feet, and must be capable of supporting the imposed fire apparatus loading of 37 tons. Access roadways shall not exceed 20% grade. Grades exceeding 16% shall be constructed of grooved concrete per the attached Fire District standard. (503) CFC

   Aerial Fire Apparatus Access is required where the vertical distance between grade plane and the highest roof surface exceeds 30 feet as measured in accordance with Appendix D, Section 105 of the 2016 CFC. Aerial access roads shall have a minimum unobstructed width of 26 feet, exclusive of shoulders, in the immediate vicinity of the building or portion thereof. At least one of the required routes shall be located within a minimum of 15 feet and a maximum of 30 feet from the building, and shall be positioned parallel to one entire side of the building. Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and building.

2. Access roadways of **less than 28-feet** unobstructed width shall have signs posted or curbs painted red with the words ***NO PARKING – FIRE LANE*** clearly marked. (22500.1) CVC, (503.3) CFC

   Access roadways of **28 feet or greater, but less than 36-feet** unobstructed width shall have ***NO PARKING – FIRE LANE*** signs posted, allowing for parking on one side only or curbs painted red with the words ***NO PARKING – FIRE LANE*** clearly marked. *Parking is permitted only on the side of the road that does not have hydrants.* (22500.1) CVC, (503.3) CFC

3. The project as proposed may require the installation of an approved Fire District turnaround. Dead-end emergency apparatus access roadways in excess of 150 feet in length shall be provided with approved provisions for the turning around of Fire District apparatus. Contact the Fire District for approved designs. (503.2.5) CFC

4. Provide a striping and signage plan.

5. Access gates for Fire District apparatus shall be a minimum of 20-feet wide. Access gates shall slide horizontally or swing inward and shall be located a minimum of 30 feet from the street. Electrically operated gates shall be equipped with a Knox Company key-operated switch. Manually operated gates shall be equipped with a non-casehardened lock or approved Fire District lock. Contact the Fire District for information on ordering the key-operated switch. (D103.5) CFC.

6. Comply with section 608 of the California Fire Code for the stationary storage of battery systems.

7. Contact the Fire District to schedule a meeting with the Fire Marshal for planning purposes prior to any submittals to the District.

8. Comply with NFPA 855, Standard for the Installation of Stationary Energy Storage Systems.

9. The developer shall provide an adequate and reliable water supply for fire protection with a minimum fire flow of 3375 GPM. Required flow must be delivered from not more than 4 hydrants flowing simultaneously for a duration of 180 minutes while maintaining 20-pounds residual pressure in the main. (507.1), (B105) CFC

10. The developer shall provide hydrants of the East Bay type and comply with section 507 and Appendix B of the California Fire code.

11. The developer shall submit a minimum of two (2) copies of full size, scaled site improvement plans indicating all existing or proposed hydrant locations, fire apparatus access, elevations of building, size of building and type of construction for review and approval prior to obtaining a building permit. ***Final placement of hydrants shall be determined by this office.*** (501.3) CFC

12. ***Emergency apparatus access roadways and hydrants shall be installed, in service, and inspected by the Fire District prior to construction or combustible storage on site.*** (501.4) CFC

    Note: A temporary aggregate base or asphalt grindings roadway is not considered an all-weather surface for emergency apparatus access. The first lift of asphalt

concrete paving shall be installed as the minimum roadway material and must be engineered to support the designated gross vehicle weight of 37 tons.

13. The developer shall provide traffic signal pre-emption systems (Opticom) on any new or modified traffic signals installed with this development. (21351) CVC

14. Flammable or combustible liquid storage tanks shall ***not*** be located on the site without obtaining approval and necessary permits from the Fire District. (3401.4) CFC

15. The developer shall submit a minimum of two (2) complete sets of building plans and specifications of the subject project, including plans for any of the following required deferred submittals, to the Fire District for review and approval ***prior to*** construction to ensure compliance with minimum requirements related to fire and life safety. Plan review and inspection fees shall be submitted at the time of plan review submittal. (105.4.1) CFC, (901.2) CFC, (107) CBC

    - Private underground fire service water mains
    - Fire sprinklers
    - Standpipe
    - Fire alarm
    - Aboveground/underground flammable/combustible liquid storage tanks
    - Special suppression systems
    - Provide safety during construction. (Ch.33) CFC

Our preliminary review comments shall not be construed to encompass the complete project. Additional plans and specifications may be required after further review.

If you have any questions regarding this matter, please contact this office at (925) 941-3300.

Sincerely,

Todd Schiess
Fire Inspector I

cc: Kevin Johnson
5000 Hopyard Rd. Ste #480
Pleasanton, CA 94588
kjohnson@lspower.com

Robert Marshall
Fire Marshal
Contra Costa County Fire Protection District

File: 701 WILLOW PASS RD-PLN-P-2018-03964

608

City of Pittsburg

Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

1ST PROJECT REFERRAL & REQUEST FOR COMMENTS/CONDITIONS

Project Name:	**Diablo Energy Storage**
Project No: AP-17-1270	**Application Type:** UP, DR, RZ, DA
Project Description: This is an application by Kevin Johnson of Diablo Energy Storage, requesting approval of a: 1) rezoning to amend an existing overlay district in order to allow a "Major Utility" use, subject to approval of a use permit; 2) development agreement to allow an extended term of project approval; 3) use permit for a "Major Utility;" and 4) design review of up to three 60,000 sq. ft. (approximate) storage buildings and a fenced in substation with a 50-ft tall H-frame structure to mount necessary equipment. The project is located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay, Ordinance No. 07-1284) District. APN: 085-280-010	
Applicant:	Kevin Johnson, Diablo Energy Storage, LLC
Mailing Address:	5000 Hopyard Rd., Ste #480, Pleasanton, CA 94588
Phone: 925-201-5240	**E-mail:** kjohnson@lspower.com

Instructions for the Referral Agency:

Plans for the project identified above may be viewed or downloaded at:
https://drive.google.com/drive/folders/0Byye8vVzWKjESWdzQWhubGtHbUk?usp=sharing

Please review these plans and provide this office with your feedback on availability of services/potential design or code conflicts/requirements for additional permits and recommended conditions of project approval.

Deadline for Comments:

Please submit your comments no later than October 2, 2017.

Comments should be sent to Joan Lamphier at the mailing address noted above, through e-mail at JLamphier@ci.pittsburg.ca.us , or by fax at: (925) 252-4814. If you have any questions regarding this project, please call Joan Lamphier at 415-868-0293. A list of referral agencies for this project is provided on the back of this sheet.

RECEIVED
AUG 07 2018
CONTRA COSTA FIRE DISTRICT

P-2018-039164 PLN

Jordan Davis

To: Jordan Davis
Subject: FW: Diablo Energy Storage Project

From: J Hagler [redacted]
Sent: Wednesday, August 08, 2018 8:19 AM
To: Joan Lamphier
Subject: Diablo Energy Storage Project

Hello Joan,

I have three homes in the neighborhood next to the proposed site for the Diablo Energy Storage Project. I just have one question concerning the power or transmission lines from the Storage Area to/from the plant and or other locations if those lines will be underground? Above ground transmission lines are unsightly and detract from the views. Often above ground transmission lines are found in poorer neighborhoods and poorer retail\business areas which add to the run down look of nieghboorhoods and surrounding streets to/from the neighborhood.

Please advise and I look forward to the public hearing on August 14th.

Thank you,

Jeff Hagler

[redacted]

City of Pittsburg
Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the **PLANNING COMMISSION** of the City of Pittsburg will conduct a public hearing on:

DATE: **July 10, 2018**
TIME: **7:00 p.m.**
PLACE: **City Council Chamber at City Hall**
65 Civic Avenue, Pittsburg, California

Concerning the following matter:

Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR).

This is a continued public hearing on a request for a recommendation to City Council for: 1) adoption of an amendment to the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit; 2) approval of a use permit for a Major Utility; and 3) design review approval of plans to install an energy storage project in three 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation. The project site covers a 12-acre portion of the 35-acre Empire Business Park parcel located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay) District. Assessor's Parcel No. 085-280-010.

PROJECT PLANNER: Joan Lamphier, (415) 868-9093, or jlamphier@ci.pittsburg.ca.us

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Why am I receiving this notice? You are receiving this notice because you have either previously requested notifications from the Planning Division, or a project has been proposed in your neighborhood and all property owners within a minimum 300-foot radius of the project site are required to be notified under the Pittsburg Municipal Code.

Where can I get more information about this project?
The complete file for this project is available for public inspection at the Planning Division, weekdays during the hours of 8:00 AM to 12:00 PM and 1:00 PM to 5:00 PM. You can also find out more about the project by contacting the project planner listed above.

What can I do if I have comments on the project?
Comments or objections to the project can be made by writing or through oral testimony during the public hearing. Written comments citing the project name may be emailed to the project planner listed above, or may be mailed or delivered to: Pittsburg Planning Division, 65 Civic Avenue, Pittsburg, CA 94565. You may also register your comments or objections by attending the public hearing on the date and time listed above.

Pursuant to Section 65009 of the California Government Code, if you challenge this matter in court, you may be limited to those issues you or someone else raised at the public hearing described in this notice, or in written correspondence on the matter delivered to this agency at, or prior to the public hearing. Any written correspondence delivered to the Planning Division before the hearing body's action on the matter will become a part of the administrative record.

JORDAN DAVIS, AICP, ACTING SECRETARY
PITTSBURG PLANNING COMMISSION

Project Title: Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR)
Location: 701 Willow Pass Road, APN: 085-280-010.

City of Pittsburg
Community Development Department - Planning Division
65 Civic Avenue
Pittsburg, CA 94565

NOTICE OF PUBLIC HEARING

City of Pittsburg
Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

SUPPLEMENTAL NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the **PLANNING COMMISSION** of the City of Pittsburg will conduct a continued public hearing on:

DATE: **August 14, 2018**
TIME: **7:00 p.m.**
PLACE: **City Council Chamber at City Hall**
65 Civic Avenue, Pittsburg, California

Concerning the following matter:

Consideration of a Resolution Recommending City Council Approval of the Diablo Energy Storage Project, AP-17-1270 (RZ, UP, DR).

This is a continued public hearing on a request for a recommendation to City Council for: 1) adoption of an amendment to the existing 'Empire Business Park' Overlay Zoning District (Ord. Nos. 07-1284 and 04-1214) to allow a "Major Utility" use subject to a use permit; 2) approval of a use permit for a Major Utility; and 3) design review approval of plans to install an energy storage project in three 60,000 sq. ft. buildings with related accessory equipment and tie-line to an existing PG&E substation. The project site covers a 12-acre portion of the 35-acre Empire Business Park parcel located at 701 Willow Pass Road in the IP-O (Industrial Park Overlay) District. Assessor's Parcel No. 085-280-010. On July 10, 2018, the Planning Commission opened the public hearing, took public testimony, and continued the public hearing to the July 24, 2018, meeting. On July 24, 2018, the Planning Commission continued to the public hearing to August 14, 2018.

PROJECT PLANNER: Joan Lamphier, (415) 868-9093, or jlamphier@ci.pittsburg.ca.us

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Additional Project Information

What is the Diablo Energy Storage Project?

The purpose of the proposed development is to receive, store, and discharge electric energy from the California Independent System Operator (CAISO)-controlled electric grid, including renewable energy produced by solar and wind resources in the region. Battery storage projects like the one proposed are anticipated to help reduce emissions statewide, as they reduce the reliance on fossil fuel power plants. Operation of the project is not expected to produce any air or water emissions.

The project consists of three, approximately 60,000 square foot, buildings which would house lithium ion batteries connected through an electric tie-line to an existing PG&E substation approximately 0.6 miles north of the project site. Lithium ion batteries are commonly used technology in electric vehicles currently on the road today, as well as laptop computers, smart phones, and cordless power tools. The National Fire Protection Association has established standards for the design and operation of these types of facilities, which the project would be subject to.

What type of environmental review has been conducted for the proposed project?

The City has conducted an environmental review of the project as required by the California Environmental Quality Act (CEQA) to identify and analyze potential environmental impacts resulting from the proposed project. A Mitigated Negative Declaration (MND) has been prepared. A Notice of Intent to adopt an MND was mailed to all property owners within 300 feet of the proposed project on February 7, 2018.

Did the environmental review identify any potential significant environmental impacts?

The environmental review prepared for the project identified potentially significant impacts related to Biological Resources and Cultural Resources on the portion of the project north of Willow Pass Road. Mitigation measures have been identified to reduce each of the potentially significant impacts to a less than significant level. All other potential impacts, including but not limited to Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Public Services, and Transportation/Traffic, were found to be less than significant.

How many construction jobs will the project provide?

The project would provide approximately 240 construction jobs. The applicant has proposed an agreement with the local building and construction trades unions, which would include hiring as many Pittsburg residents as possible who are members of local building trades unions.

How long would construction take?

The project would be constructed in phases in response to market demand. Construction of the first building, related substation, and the tie-line to the PG&E substation would take approximately 6-12 months.

What are the noise impacts from this project?

A Noise Analysis was prepared for this project as part of the environmental review. The Noise Analysis determined that project operation there would result in a slight, but not noticeable, increase in noise levels at some residences located near the project site. Temporary noise impacts would result from construction of the project.

Why am I receiving this notice?

You are receiving this notice because you own or occupy a residential property in the surrounding area, and the City of Pittsburg and the applicant are conducting additional public outreach to inform nearby residents about the proposed project.

What can I do if I have comments on the project?

Comments or objections to the project can be made by writing or through oral testimony during the public hearing. Written comments citing the project name may be emailed to the project planner or may be mailed or delivered to: Pittsburg Planning Division, 65 Civic Avenue, Pittsburg, CA 94565. You may also register your comments or objections by attending the public hearing on the date and time listed above.

Pursuant to Section 65009 of the California Government Code, if you challenge this matter in court, you may be limited to those issues you or someone else raised at the public hearing described in this notice, or in written correspondence on the matter delivered to this agency at, or prior to the public hearing. Any written correspondence delivered to the Planning Division before the hearing body's action on the matter will become a part of the administrative record.

Where can I get additional information regarding this project?

Additional information (including project plans, Initial Study, draft Mitigated Negative Declaration, etc.) prepared for the project can be found at the following link: http://bit.ly/diablo-energy

The complete file for this project is available for public inspection at the Planning Division at Pittsburg City Hall, 65 Civic Avenue in Pittsburg, weekdays during the hours of 8:00 AM to 12:00 PM and 1:00 PM to 5:00 PM. You can also find out more about the project by contacting the Planning Division.

If you have additional questions, please contact:

Jordan Davis, Acting Planning Manager
(925) 252-4015
jdavis@ci.pittsburg.ca.us

JORDAN DAVIS, AICP, ACTING SECRETARY
PITTSBURG PLANNING COMMISSION

CITY OF PITTSBURG
PLANNING COMMISSION
STAFF REPORT
August 14, 2018

ITEM: **Consideration of a Resolution Recommending City Council Approval of the Alves Ranch Subdivision and Master Plan, AP-18-1348 (RZ, SUBD, DR).**

ORIGINATED BY: Mandy Leung, on behalf of William Lyon Homes, Inc., 2603 Camino Ramon, Ste. 450, San Ramon, CA 94583

SUBJECT: This is a public hearing on request for a recommendation for City Council approval of an amendment to the previously approved "Alves Ranch Master Plan," including: 1) a zoning map amendment rezoning the site from a combination of RH-P (High Density Residential with a Master Plan Overlay) and CO-P (Office Commercial with a Master Plan Overlay) Districts to PD (Planned Development) District; 2) a vesting tentative map subdividing the 57.81-acre site to allow for the construction of 346 single family dwelling units, a 12-acre commercial site, and ancillary features; and 3) design review of architectural and landscape plans. The project site is located along the north side of West Leland Road, south of State Route 4. Assessor's Parcel Nos. 097-700-001; 097-700-002; and 097-700-005.

RECOMMENDATION:

Staff recommends that the Planning Commission move to continue this public hearing to August 21, 2018.

BACKGROUND:

Staff is recommending a continuance of this item. The additional time will allow staff and the applicant to prepare a more complete presentation of the item to the Planning Commission, ensure the item receives appropriate attention and time for discussion and public comment, and to adhere to publishing timelines critical to final City Council action for approval.

PROJECT DESCRIPTION:

Not applicable.

GENERAL PLAN/CODE COMPLIANCE:

Public Notice: On Friday, August 3, 2018, in accordance with Government Code sections 65090 and 65091, and PMC section 18.14.020.B, C and D, a "Notice of Public Hearing," for the August 8, 2018, public hearing on this item was published in the East

County Times; was posted at City Hall; was delivered for posting at the Pittsburg Library; and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the proposed project site, to local service agencies whose services might be affected by this project, and to individuals who had previously filed written request for such notice.

ANALYSIS:

Not applicable.

ACTION REQUIRED:

Move to continue the public hearing to August 14, 2018.

ATTACHMENTS:

1. Public Hearing Notice & Vicinity Map

Prepared by: Jordan Davis, AICP, Acting Planning Manager

City of Pittsburg
Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the **PLANNING COMMISSION** of the City of Pittsburg will conduct a public hearing on:

DATE: **August 14, 2018**
TIME: **7:00 p.m.**
PLACE: **City Council Chamber at City Hall**
65 Civic Avenue, Pittsburg, California

Concerning the following matter:

Consideration of a Resolution Recommending City Council Approval of the Alves Ranch Subdivision and Master Plan, AP-18-1348 (RZ, SUBD, DR).

This is a public hearing on request for a recommendation for City Council approval of an amendment to the previously approved "Alves Ranch Master Plan," including: 1) a zoning map amendment rezoning the site from a combination of RH-P (High Density Residential with a Master Plan Overlay) and CO-P (Office Commercial with a Master Plan Overlay) Districts to PD (Planned Development) District; 2) a vesting tentative map subdividing the 57.81-acre site to allow for the construction of 346 single family dwelling units, a 12-acre commercial site, and ancillary features; and 3) design review of architectural and landscape plans. The project site is located along the north side of West Leland Road, south of State Route 4. Assessor's Parcel Nos. 097-700-001; 097-700-002; and 097-700-005.

PROJECT PLANNER: Jordan Davis, (925) 252-4015 or jdavis@ci.pittsburg.ca.us

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Why am I receiving this notice? You are receiving this notice because you have either previously requested notifications from the Planning Division, or a project has been proposed in your neighborhood and all property owners within a minimum 300-foot radius of the project site are required to be notified under the Pittsburg Municipal Code.

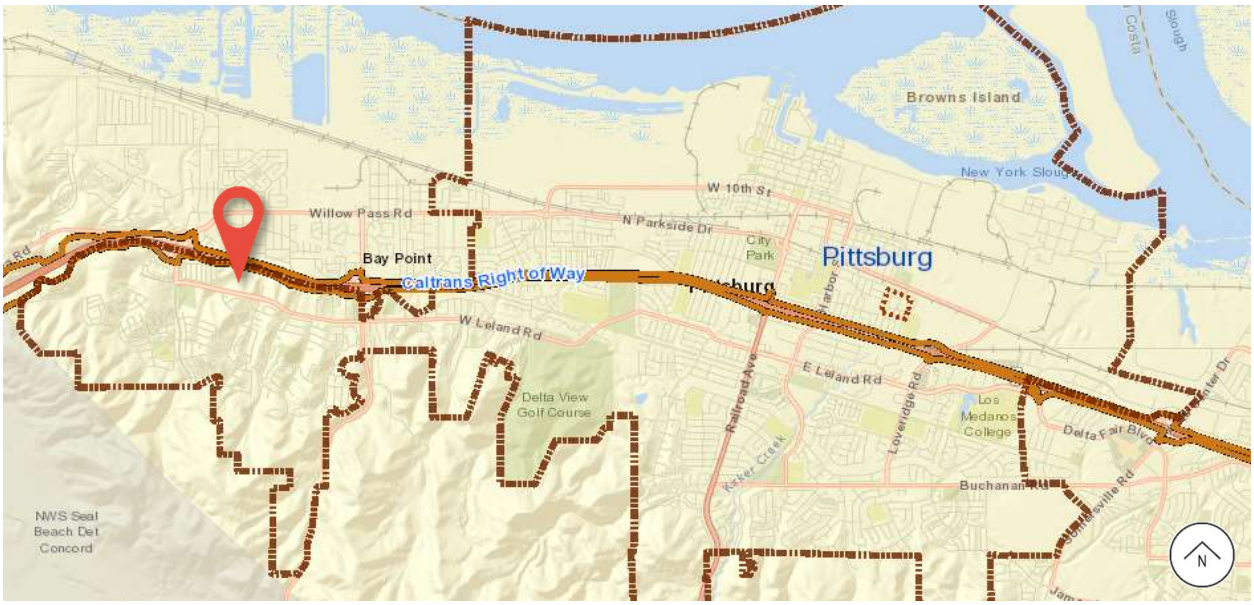
Where can I get more information about this project?
The complete file for this project is available for public inspection at the Planning Division, weekdays during the hours of 8:00 AM to 12:00 PM and 1:00 PM to 5:00 PM. You can also find out more about the project by contacting the project planner listed above.

What can I do if I have comments on the project?
Comments or objections to the project can be made by writing or through oral testimony during the public hearing. Written comments citing the project name may be emailed to the project planner listed above, or may be mailed or delivered to: Pittsburg Planning Division, 65 Civic Avenue, Pittsburg, CA 94565. You may also register your comments or objections by attending the public hearing on the date and time listed above.

Pursuant to Section 65009 of the California Government Code, if you challenge this matter in court, you may be limited to those issues you or someone else raised at the public hearing described in this notice, or in written correspondence on the matter delivered to this agency at, or prior to the public hearing. Any written correspondence delivered to the Planning Division before the hearing body's action on the matter will become a part of the administrative record.

JORDAN DAVIS, ACTING SECRETARY
PITTSBURG PLANNING COMMISSION

Project Title: Alves Ranch Subdivision, AP-18-1348 (RZ, SUBD, DR)
Location: North side of West Leland Road, south of State Route 4.
APNs: 097-700-001; 097-700-002; and 097-700-005.



City of Pittsburg

Community Development Department - Planning Division
65 Civic Avenue
Pittsburg, CA 94565

NOTICE OF PUBLIC HEARING

CITY OF PITTSBURG
PLANNING COMMISSION
STAFF REPORT
August 14, 2018

ITEM: **Consideration of a Resolution Approving Design Review of the Galloway Triplexes Project, AP-17-1294 through 17-1296 (DR).**

ORIGINATED BY: Gwen Bertolami, Bertolami Engineering, 1941 Oak Park Boulevard, Suite 20, Pleasant Hill, CA 94523, on behalf of Galloway Properties, LLC, 2344 Cobalt Lane, Brentwood, CA 94513

SUBJECT: This is a request for design review approval of plans to construct three-unit apartment buildings on three separate parcels located at 345 W. 10th Street, 172 W. 10th Street, and 463 W. 10th Street, in the M (Mixed Use) District. Assessor's Parcel Nos. 085-211-004, 085-226-014, 085-241-003.

RECOMMENDATION:

Staff recommends that the Commission adopt Resolution No. 10084, approving Planning Application Nos. 17-1294 through 17-1296, subject to conditions.

BACKGROUND:

On November 16, 2017, the applicant filed a request for design review approval of plans to construct four-unit apartment buildings on the properties referenced above. The applications included a request to reduce the off-street parking requirement from 1.5 spaces per unit to one space per unit. On January 23, 2018, the Planning Commission reviewed the proposed projects and requested that they be redesigned as three-unit apartment buildings with the required off-street parking. On April 24, 2018, the Commission reviewed a three-unit conceptual design prepared by the applicant. This design provided the required parking and divided the units into two separate buildings to reduce building volume and massing. The Commission was supportive of the design and suggested that the applicant submit complete plans for their consideration.

PROJECT DESCRIPTION:

Existing Conditions: The project sites are located roughly 600 feet apart and range between 5,994 and 6,250 square feet in size. The W. 10th Street corridor between Beacon Street and Black Diamond Street is mostly residential with a few neighborhood and service commercial uses. Approximately 30% of the residential uses along this corridor are multi-family. This includes three duplexes, six small multi-plexes (3-6 units), and five large multi-plexes (7 or more units).

See Attachments 5 and 6 for a map of surrounding land uses and photos of each project site.

Proposed Projects: The proposed projects use the same design with slight modifications to accommodate the configuration of each site. Each project consists of three, two-bedroom, market-rate apartment units, as well as related site improvements including drive aisles, parking, landscaping, walkways, and lighting. The units range from 1,090 to 1,142 square feet and include one or more covered parking spaces, one and one-half bathrooms, kitchen, dining area, living room, laundry area, and private deck ranging from 67 to 76 square feet. The buildings feature a traditional architectural design, characterized horizontal wood and shingle siding, many windows, and multiple reliefs to provide building articulation and visual interest. Each site would provide a single vehicular entrance from W. 10th Street.

See Attachments 2 through 4 for Project Plans.

GENERAL PLAN/CODE COMPLIANCE:

General Plan: The project sites are in the 'Downtown Subarea' of the General Plan and have a land use designation of 'Mixed Use'. In the Downtown Subarea, the 'Mixed Use' designation allows for residential development at densities ranging from 12 to 30 dwelling units per acre. The proposed multi-family projects have residential densities of approximately 21 to 22 dwelling units per acre and are therefore consistent with the density envisioned for the area. As shown in Attachment 7, the proposed projects are also consistent with the applicable General Plan goals and policies.

Zoning: The project sites are located within the 'M (Mixed Use) District'. Multi-family residential is permitted within the M District, subject to design review approval by the Planning Commission. Pittsburg Municipal Code (PMC) section 18.53.030(C) states that residential developments without commercial components shall be regulated by the property development regulations specified in the 'best-fit' zoning of either the RM-D or RH-D District, as determined by the Planning Commission.

The RM-D and RH-D districts allow for residential densities of up to 17 and 29 dwelling units per acre, respectively. Since there are five existing fourplexes along W. 10th Street between Beacon Street and Black Diamond Street that are built at a density of 27 or more dwelling units per acre, staff believes that the RH-D property development regulations are most appropriate for the project sites. As shown in Attachment 8, the proposed projects would meet the RH-D property development regulations, including parking.

Design Guidelines: The proposed projects are subject to the City's Development Review Design Guidelines (DRDG), adopted by the Planning Commission through Resolution No. 9864. As shown in Attachment 9, the proposed projects are consistent with the City's DRDGs, except for DRDG III.a, VI.C.1, VI.C.6, and VI.C.7. The proposed project would be consistent with those guidelines if conditions are added requiring the

developer to: 1) screen all air conditioning equipment from view; 2) provide a 'cool roof' for each building; and 3) provide on-site bicycle parking for at least one bicycle per dwelling unit.

Required Findings: Design review approval for the projects can be granted by the Planning Commission only after the Commission makes a determination that the proposed projects are consistent with PMC section 18.36.220 (B), which is summarized below:

A. the structures conform with good taste, good design and in general contribute to the character and image of the city as a place of beauty, spaciousness, balance, taste, fitness, broad vistas, and high quality;

B. the structures will be protected against exterior and interior noise, vibrations and other factors that may tend to make the environment less desirable;

C. the exterior design and appearance of the structures are not of inferior quality as to cause the nature of the neighborhood to materially depreciate in appearance and value;

D. the structures are in harmony with proposed developments on land in the general area; and

E. the applications conform with the criteria set forth in any applicable city-adopted design guidelines.

Environmental: The proposed projects are categorically exempt from the requirements of the California Environmental Quality Act (CEQA) under Class 32, "In-Fill Development Projects," of the state CEQA Guidelines, section 15332.

Public Notice: Although not required by the PMC, on or prior to August 3, 2018, notice of the August 14, 2018, public meeting to consider design review of the proposed project was posted at City Hall, the Pittsburg Library, and on the "Public Notices" section of the City's website; was delivered for posting at the Pittsburg Library; and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the proposed project site, to local service agencies expected to provide services to the site, and to individuals who had previously filed written request for such notice.

ANALYSIS:

As shown in Attachment 7, the proposed projects are consistent with applicable goals and policies contained within the General Plan. Most notably, the proposed projects are consistent with Housing Element Goal G-1, which encourages the City to foster

development of a variety of housing types, densities, and prices to balance the City's housing stock and meet Pittsburg's regional fair share housing needs for people of all income levels. According to the 2012-2016 American Community Survey 5-Year Estimates, Pittsburg's housing stock is primarily single-family (75.8%). Duplexes comprise about 1.3% of the housing stock; 3 or 4 unit apartments make up 4.6%; 5 to 9 unit apartments – 4.8%; and apartments with ten or more units are 10.8% of the housing stock. The proposed projects would increase the share of 3 or 4 unit apartment complexes in the City.

The site layouts and building designs would also help reduce crime, as the proposals are consistent with multiple crime prevention through environmental design (CPTED) principles. Specifically, the proposed project layouts provide natural surveillance, due to the number of windows overlooking the street and drive aisles. The layouts also naturally control access by providing single entry points from W. 10th Street.

Further, staff believes that the proposed projects feature a high-quality design, with apartment sizes and amenities that would make the apartments desirable. The proposed projects would eliminate three long-standing vacant parcels which contribute toward blighted conditions in the neighborhood. With the adoption of several conditions of approval related to screening of utilities, cool roofs, and bicycle parking, the projects would also be consistent with the applicable DRDGs. With the inclusion of these conditions, staff believes that the Commission can make the required findings to grant design review approval for the proposed projects.

ACTION REQUIRED:

In order to approve the projects as recommended, the Commission must move to adopt Resolution No. 10084 approving Planning Application Nos.17-1294 through 17-1296, subject to conditions.

ATTACHMENTS:

1. Proposed Resolution No. 10084
2. Project Plans for 345 W. 10th Street
3. Project Plans for 172 W. 10th Street
4. Project Plans for 463 W. 10th Street
5. Map of Surrounding Uses
6. Site Photos
7. Applicable General Plan Goals and Policies
8. Property Development Regulations Table
9. Development Review Design Guidelines
10. Public Meeting Notice

Prepared by: Hector J. Rojas, AICP, Senior Planner

Attachment 1

BEFORE THE PLANNING COMMISSION OF THE CITY OF PITTSBURG

In the Matter of:

Resolution Granting Design Review Approval of Architectural and Site Development Plans to Construct Three-Unit Apartment Buildings at 345, 172, and 463 W. 10th Street, for "Galloway Triplexes, AP-17-1294 through AP-17-1296 (DR)."	)	Resolution No. 10084

The Planning Commission DOES RESOLVE as follows:

Section 1. Background

A. On November 16, 2017, Gwen Bertolami of Bertolami Engineering, filed Planning Application Nos. 17-1294 through 17-1296, requesting design review approval of plans to construct four-unit apartment buildings on three separate vacant parcels located at 345 W. 10th Street, 172 W. 10th Street, and 463 W. 10th Street in the M (Mixed Use) District. Assessor's Parcel Nos. 085-211-004, 085-226-014, 085-241-003.

B. On January 23, 2018, the Planning Commission reviewed the proposed projects and requested that they be redesigned as three-unit apartment buildings with the required off-street parking.

C. On April 24, 2018, the Commission reviewed a three-unit conceptual design prepared by the applicant. This design provided the required parking and divided the units into two separate buildings to reduce building volume and massing. The Commission was supportive of the design.

D. On July 2, 2018, the applicant requested design review approval of plans to construct three-unit apartment buildings on the properties referenced above.

E. The proposed projects are governed by the applicable goals and policies of the Pittsburg General Plan, the Pittsburg Municipal Code (PMC), and the City's Design Review and Development Guidelines adopted by Planning Commission through Resolution No. 9864.

F. Although not required by the PMC, on or prior to August 3, 2018, notice of the August 14, 2018, public meeting to consider design review of the proposed projects was posted at City Hall, the Pittsburg Library, near the proposed project sites, and on the "Public Notices" section of the City's website; was delivered for posting at the Pittsburg Library; and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the proposed

project site, to local service agencies expected to provide services to the site, and to individuals who had previously filed written request for such notice.

G. The projects are categorically exempt from the requirements of the California Environmental Quality Act (CEQA) under Class 32, “In-Fill Development Projects” of the state CEQA Guidelines, section 15332.

H. On August 14, 2018, the Planning Commission held a meeting on Planning Application Nos. 17-1294 through 17-1296, at which time oral and/or written testimony was considered.

Section 2. Findings

A. Based on the Planning Commission Staff Report entitled, “Consideration of a Resolution Approving Design Review of the Galloway Triplexes Project, AP-17-1294 through AP-17-1296 (DR),” and based on all the information contained in the Planning Division files on the projects, incorporated herein by reference and available for review in the Planning Division located at 65 Civic Avenue in Pittsburg, and based on all written and oral testimony presented at the meeting, the Planning Commission finds that:

1. All recitals above are true and correct and are incorporated herein by reference.

2. The proposed projects: 1) are consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and best-fit regulations; 2) occur within city limits on project sites of no more than five acres substantially surrounded by urban uses; 3) are located on sites that have no value as habitat for endangered, rare or threatened species; 4) will not result in any significant effects relating to traffic, noise, air quality, or water quality; and 5) can be adequately served by all required utilities and public services.

3. PMC section 18.53.030(C) states that residential developments without commercial components shall be regulated by the property development regulations specified in the ‘best-fit’ zoning of either the RM-D or RH-D District, as determined by the Planning Commission. The RM-D and RH-D districts allow for residential densities of up to 17 and 29 dwelling units per acre, respectively. Since there are five existing fourplexes along W. 10th Street between Beacon Street and Black Diamond Street that are built at a density of 27 or more dwelling units per acre, the Commission finds that the RH-D property development regulations are most appropriate and shall govern development of each project site.

4. The structures conform with good taste, good design and in general contribute to the character and image of the city as a place of beauty, spaciousness, balance, taste, fitness, broad vistas, and high quality, in that they feature a traditional

architectural design, characterized horizontal wood and shingle siding, many windows, and multiple reliefs to provide building articulation and visual interest. The proposed projects will also result in the development of long-standing vacant parcels, which contribute to blight within the neighborhood.

5. The projects would be protected against exterior and interior noise, vibrations and other factors that may tend to make the environment less desirable, in that the proposed structures will be required to comply with all applicable building and fire codes.

6. The exterior design and appearance of the structures is not of inferior quality as to cause the nature of the neighborhood to materially depreciate in appearance, in that they feature a traditional architectural design, characterized horizontal wood and shingle siding, many windows, and multiple reliefs to provide building articulation and visual interest.

7. The structures are in harmony with proposed developments on land in the general area, in that they will continue the residential land use pattern prevalent within the Downtown Subarea of the General Plan.

8. The proposed projects will conform with the city's adopted Development Review Design Guidelines (DRDGs) if conditions are added requiring the developer to: 1) screen all air conditioning equipment from view; 2) provide a 'cool roof' for each building; and 3) provide on-site bicycle parking for at least one bicycle per dwelling unit.

B. The staff report entitled, "Consideration of a Resolution Approving Design Review of the Galloway Triplexes Project, AP-17-1294 through AP-17-1296 (DR)," dated August 14, 2018, is referenced hereto as additional support for the findings.

Section 3. Decision

Based on the findings set forth above, the Planning Commission hereby approves Planning Application Nos. 17-1294 through 17-1296, subject to the following conditions:

Design Review:

1. Conformity with Plans. The projects shall be constructed in substantial conformity with the project plans date stamped July 2, 2018, except as hereinafter may be modified.

2. Exterior Colors. A different building exterior color scheme shall be provided for each site. The color schemes shall be reviewed and approved by the Planning Division prior to issuance of an engineering or building permit.

3. Utility Equipment Screening. All utility equipment, including utility boxes, transformers, meters, and junction boxes shall be undergrounded whenever possible. All air conditioning units (in private and common areas) and utility equipment which cannot be

undergrounded shall be substantially screened from public view by way of a permanent screen or appropriately sized plant material (City of Pittsburg DRDG II.h and III.a). The final method and design of the screening shall be reviewed and approved by the Planning and Engineering Divisions prior to issuance of an engineering or building permit.

4. Cool Roof. Each building shall provide a cool roof for reduction of heat island effect. The cool roof shall meet the minimum solar reflectance requirements discussed under CalGreen Residential Voluntary Measure A4.106 (see 2016 California Green Building Standards Code, Part 11).

5. Bicycle Parking. Each site shall provide on-site bicycle parking for at least one bicycle per dwelling unit. Acceptable parking facilities shall be conveniently reached from the street and may include, but not limited to: a) covered, lockable enclosures with permanently anchored racks for bicycles; b) lockable bicycle rooms with permanently anchored racks; or c) lockable, permanently anchored bicycle lockers.

6. Lighting. The applicant shall ensure each site is provided with adequate area lighting for safety purposes. In addition to the lighting shown on the project plans, the applicant shall provide an appropriate number of light fixtures in and around the parking area of each site. The proposed site lighting shall be reviewed and approved by the Planning and Building Divisions prior to issuance of an engineering or building permit.

7. Fencing. The applicant shall replace all existing perimeter fencing consistent with the fence design shown on the project plans. The fencing shall comply with the standards set forth in PMC section 18.84.205 and shall be reviewed and approved by the Planning and Building Divisions prior to issuance of an engineering or building permit.

8. Crime Free Multi-Housing Program. The developer and any subsequent property owners shall participate in the Crime Free Multi-Housing Program offered by the Pittsburg Police Department.

<u>Engineering Fees:</u>

9. Improvement and Grading Plan Review Fees. The developer shall provide an initial payment for review of the grading and/ or improvement plans with the first submittals for each site. These fees are based on the Engineer's estimated costs for site improvements and grading, which shall be submitted with the plans. The Improvement Plan Check fee is 6% of the cost of the improvements. The Grading Plan Check Fee is 2.5% of the cost for grading, or may be based upon cubic yards of earth disturbance. A payment of 50% of the total fees are to be paid with the initial submittal of plans and Engineer's Cost Estimate. These initial payments will be credited towards the final fees as determined at time of issuance of an engineering permit.

10. Improvement and Grading Inspection Fees. The developer shall pay the Improvement and/or Grading Inspection Fee(s) to the Engineering Division at the time of the Grading or Single Parcel Development Permit is issued for each site. The current Improvement

Inspection Fee is 5.75% of the estimated cost for improvements. The Grading Inspection Fee is 3% of the estimated cost of Grading. The Grading Inspection Fee may also be based upon an approved Engineer's Estimate of total cubic yards, according to the current schedule of Grading Fee Charges.

11. Facility Reserve Charge. The developer shall pay the City of Pittsburg Facilities Reserve Charge (PMC Chapters 13.08, 13.12 and 13.24) (the "FRC") to the Engineering Division, for water and sewer service in the amounts in effect when the developer obtains a Building Permit for each site. The developer understands that the current FRC on file, effective August 20, 2005, shall be paid in accordance with the fee schedule approved by Resolution No. 05-10290, and amended by Resolution No. 12-11778, on February 21, 2012, a copy of which is available at the City. The FRC shall be paid to the Engineering Division prior to the issuance of a Building Permit.

12. Local Traffic Mitigation Fee. The developer shall pay the Local Transportation Mitigation Fee (PMC Chapter 15.90) (the "LTMF") amount in effect when the developer obtains a Building Permit for each site. The developer understands that the LTMF is reviewed and adjusted annually to the current Construction Cost Index (CCI) and may be increased at the City Council's discretion based on revised cost estimates for roadway and transit facilities and other factors that demonstrate an increase is needed to offset traffic impacts caused by new development. The LTMF is calculated by dividing the total fee share of improvement costs by the total number of Dwelling Unit Equivalencies ("DUE") in the City, as described in PMC Chapter 15.90 and the Pittsburg Local Transportation Mitigation Fee Program Update, copies of which are available from the City. Fees shall be paid prior to issuance of a Building Permit.

13. Pittsburg Regional Transportation-Development Impact Mitigation Fee. The developer shall pay the Pittsburg Regional Transportation-Development Impact Mitigation Fee (PMC Chapter 15.103) (the "PRTDIM") amount in effect when the developer obtains a Building Permit for each site. The RTDIM will be automatically increased or decreased on January 1 of each year based on the percent change in the Engineering News-Record Construction Costs Index – San Francisco Bay Area between September 1 and September 1 of the preceding two calendar years. Fees shall be paid prior to issuance of a Building Permit. If no Building Permit is required, then the fees are payable in the amount in effect when the project commences pursuant to PMC Section 15.103.

14. GIS update. The developer shall pay $0.05/sf for non-residential uses and $100 per dwelling unit to the Engineering Division at the time of the issuance of the Site Development Permit for each site to update the City's Geographic Information System.

15. Supplemental Studies. If additional engineering studies are deemed necessary by the City Engineer, i.e. geotechnical, structural, hydraulic, etc., or expedited reviews are requested by the developer, the developer shall pay for all costs related to the extra work. The costs may include the preparation of special studies, additional staff time, and/or reviews of the special studies if studies are prepared by the developer's engineer.

Engineering Submittals:

16. Improvement Plans. For each site, the developer shall submit to the City's Engineering Division, for review and comment, five (5) copies of the engineering plans, prepared by a registered civil engineer, to include but not be limited to the following:

    a. Site Plan
    b. Grading and Drainage Plan
    c. Utilities Plan
    d. Landscaping and Irrigation Plan
    e. Erosion and Sedimentation Control Plan
    f. Offsite Improvements due to Project Impacts

21. Geotechnical Report. For each site, the developer shall submit to the Engineering Division, a current geotechnical report that substantiates the design features incorporated into this project including, but not limited to, grading activities, compaction requirements, utility construction, slopes, retaining walls, and roadway sections. The geotechnical report shall be submitted to the Engineering Division for review prior to the approval of any civil plans and issuance of any Engineering permits.

22. Engineer's Estimate. The developer shall submit an Engineer's Estimate to the Engineering Division for review and approval, with the first plans submittal for each site. These estimates shall include all costs associated with the site development improvements, excluding those costs associated with the construction of the building structures themselves.

General Engineering Conditions

23. Grading Work. All grading work shall be done in accordance with the provisions of Chapter 15.88 of the Pittsburg Municipal Code.

24. Site Development. All site development shall comply with Title 12 (Streets, Sidewalks, and Utilities), Title 13 (Water and Sewers), and Title 15 (Buildings and Construction) of the Pittsburg Municipal Code as determined by the City Engineer. Issuance of a Site Development Permit will be required whereby specific engineering requirements will be made as conditions of approval.

25. Pedestrian Facilities. All public and pedestrian facilities shall be designed in accordance with Title 24, Handicap Access, and the California Department of State Architect's standards for accessibility compliance.

General NPDES Conditions:

26. BMPs. The developer shall incorporate long-term best management practices (BMPs) for the reduction or elimination of storm water pollutants at each site. The project design shall incorporate wherever feasible, the following long term BMPs to limit pollutant

generation, discharge, and runoff. Such source control design measures may include:

- Incorporating landscaping that minimizes irrigation and runoff, promotes surface infiltration where possible, minimizes the use of pesticides and fertilizers, and incorporates appropriate sustainable landscaping practices.

- Providing covered trash, food waste, and compactor enclosures.

- Use pavers for walkways and other appropriate hardscape surfaces as an option to buyers to minimize impervious areas.

- Minimizing the amount of directly connected impervious surface area.

- Stencil all storm drains with “No Dumping, Drains to Delta” permanent markings.

- Constructing concrete driveway weakened plane joins at angles to assist in directing run-off to landscaped/pervious areas prior to entering the street curb and gutter.

Utilities:

27. Backflow Prevention. For each site, the developer shall provide a backflow preventer for water service at the property line. The portion of water service beyond the property line shall be privately maintained.

28. Separate Meters. For each site, the developer shall provide a separate meter for irrigation use with the backflow preventer.

29. Adequate Capacity: For each site, the developer shall evaluate the existing, receiving storm, sewer, and water facilities for adequate capacity and provide the results to the City to identify any service or supply problems.

    The developer shall provide appropriate water service, adequately sized to meet the domestic and fire protection demands for each site. The developer shall also provide appropriate sanitary sewer, adequately sized to accommodate the wastewater demand for each site. The cost for installation of additional facilities required to be constructed to accommodate each site shall be borne by the developer.

30. Facility Design. The design and construction of storm drain, water, and sewer facilities shall be in accordance with Section 17.28.020 of the Pittsburg municipal Code.

31. Underground Utilities. In accordance with PMC12.36.130 Underground utilities for new construction, the developer shall ensure that all utility service laterals and equipment (including, but not limited to, electric, communication and cable television lines) installed in and for the purpose of supplying service to any other new construction or use shall be installed underground on the property to be served, and from the property to be served to the point of connection with the utility’s distribution facilities, in accordance with utility

filed rules as approved by the California Public Utilities Commission.

Additional Engineering Exactions:

32. Annexation to CFD 2005-1. Community Facilities District 2005-1 is for Public Safety Services, the fee will provide funding for an increase of police coverage in the area. The rate of the CFD 2005-1 fee is subject to City Council Resolution No. 05-10342. The developer shall deliver written approval in a manner acceptable to the Community Development Director, that the owner of the parcel is electing to annex the subject property into the 2005-1 Community Facilities District (CFD 2005-1) for Public Safety Services, prior to the issuance of any building or engineering permits.

33. Annexation to CFD 2007-1. Community Facilities District 2007-1 is for Park Maintenance. The rate of the CFD 2007-1 fee is subject to City Council Resolution No. 07-10698. The developer shall deliver written approval in a manner acceptable to the Community Development Director, that the owner of the parcel is electing to annex the subject property into the 2007-01 Park Maintenance Community Facilities District (CFD 2007-1), prior to the issuance of any building or engineering permits.

34. Annexation to CFD 2017-1. Community Facilities District 2017-1 is for Fire Safety Services. Developer is subject to annex into said district at the time the district is created and approved by City Council. The developer shall deliver written approval in a manner acceptable to the Community Development Director, that the owner of the parcel is electing to annex the subject property into the 2017-1 Fire Safety Services Community Facilities District (CFD 2017-1), prior to issuance or final of any building or engineering permits.

Additional Engineering Conditions:

35. Flood Zone Accommodation. The project sites are located within Flood Zone AE (FIRM Panel 06095C0695F). The Developer cannot build within the flood zone without raising the finished floor elevation of each site a minimum of one foot above the base flood elevation.

36. Driveways. Developer shall provide ADA-compliant driveways in accordance with the most current City standard details.

Standard Conditions:

37. Other Agency Requirements. The developer shall comply with all the requirements of the Community Development Department, Contra Costa County Fire Protection District, Delta Diablo Sanitation District, and all other applicable local, state and federal agencies.

38. Standard Conditions of Development. The Standard Conditions of Development as adopted by the Pittsburg Planning Commission by Resolution No. 8931 shall apply as conditions of approval for this project as applicable. Where there is conflict between the

Standard Conditions of Development and the specific conditions of approval specified in this resolution, the specific conditions of this Resolution No. 10061 shall govern.

39. Indemnification. Developer agrees to indemnify, defend, and hold harmless the City, its officials, officers, employees, agents and consultants from any and all administrative, legal or equitable actions or other proceedings instituted by any person challenging the validity of this project approval, subsequent project approval, or other action arising out of, or in connection with, this project approval. The parties shall cooperate in defending such action or proceeding. The parties shall use reasonable efforts to select mutually agreeable defense counsel but, if the parties cannot reach agreement, City may select its own legal counsel at developer’s sole cost and expense. Developer may select its own legal counsel to represent developer’s interests at developer’s sole cost and expense. Developer shall pay for City's costs of defense, whether directly or by timely reimbursement to City on a monthly basis. Such costs shall include, but not be limited to, all court costs and attorneys' fees expended by City in defense of any such action or other proceeding, plus staff and City Attorney time spent responding to and defending the claim, action or proceeding.

40. The Developer or their subcontractor(s) shall record with the California Board of Equalization a nexus or additional location within the City of Pittsburg to ensure any and all sales tax paid shall be recorded and paid to the City of Pittsburg. Developer or subcontractors shall add a new location to an existing account or ensure the seller of goods and materials subject to sales tax have registered a location within the City of Pittsburg with the Board of Equalization.

41. Expiration of Approval. This design review approval will expire on August 14, 2021, unless a building permit or grading permit has been issued for purposes of construction of this project, or a written request for an extension is filed with the Planning Division prior to the expiration date and is subsequently approved by the Planning Commission. The approval shall be valid for no more than six months from the date of permit issuance, unless work is commences and diligently pursued prior to the expiration of the permit.

Section 4. Effective Date

This resolution shall take effect immediately upon its adoption.

On motion by Commissioner _____, seconded by Commissioner _____, the foregoing resolution was passed and adopted the 14th day of August, 2018, by the Planning Commission of the City of Pittsburg, California by the following vote:

AYES:

NAYES:

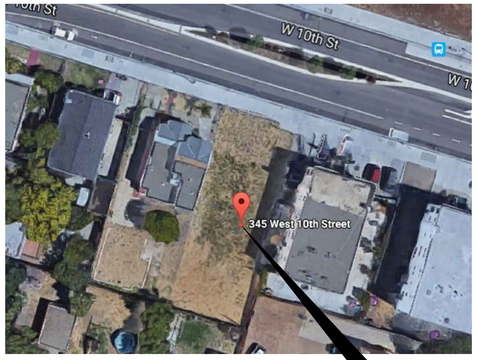
ABSTAIN:

ABSENT:

I hereby certify that the above Resolution No. 10084 was adopted by the Planning Commission of the City of Pittsburg on August 14, 2018.

_____
JORDAN DAVIS, AICP, SECRETARY
PITTSBURG PLANNING COMMISSION

345 WEST 10TH STREET

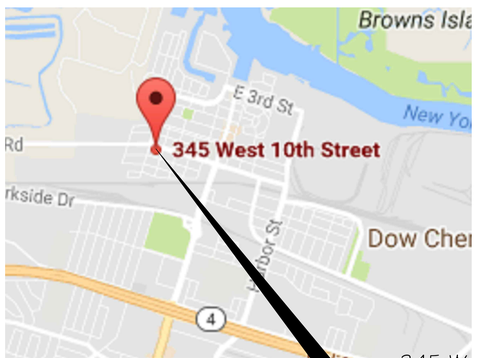


AERIAL VIEW

AREA OF WORK

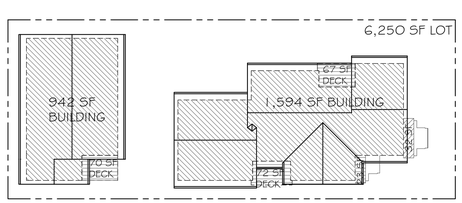
BUILDING 2

BUILDING 1



VICINITY MAP

345 W 10TH ST
PITTSBURG, CA 94565



LOT COVERAGE

2,536 SF BUILDING

197 SF DECKS & ROOFS >2'-6"

2733 SF TOTAL LOT COVERAGE

2733 SF (COVERAGE) / 6,250 SF (LOT) = 0.43728 = 43.73%

SCOPE OF WORK

NEW MULTI-FAMILY HOUSING UNITS CONSISTING OF:
1 (EA) 2-BEDROOM / 1 ½ BATH TOWNHOUSE AND
2 (EA) 2-BEDROOM / 1 BATH FLATS.

SITE DATA

APN	085-211-004-8
ZONE	M (DEVELOPED AS RHD)
OCCUPANCY CLASSIFICATION	R2/U
CONSTRUCTION TYPE	V-B
LOT SIZE	6,250 SF

CODES & STANDARDS

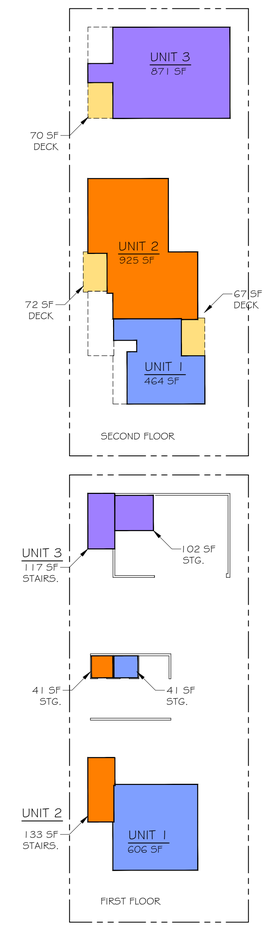
2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA RESIDENTIAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA ENERGY EFFICIENCY STANDARDS
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
CITY OF PITTSBURG ORDINANCES

SHEET INDEX

CS-1 COVER SHEET
CS-2 SITE PLAN
CS-3 CONTEXTUAL MAP
A1.1 ELEVATIONS - BLDG 1
A1.2 COLOR RENDERINGS
A1.3 ELEVATIONS - BLDG 2
A1.4 COLOR RENDERINGS
A2.1 SECTIONS
A3.1 FLOOR & ROOF PLANS
A3.2 DOOR & WINDOW SCHEDULES

PROJECT DATA

	BUILDING	UNIT 1	UNIT 2	UNIT 3
GENERAL PLAN	DOWNTOWN			
ZONING	M			
LOT SIZE	6,250 S.F.			
LOT WIDTH	50'-0"			
PROJECT DENSITY	3 DWELLING UNITS			
TOTAL BUILDING AREA (INCLUDING STORAGE)	3,300 SF TOTAL	1,111 SF	1,099 SF	1090 SF
F.A.R.	N/A			
STORIES	2			
HEIGHT	28'-4"			
% LOT COVERAGE	43.73%			
% LANDSCAPED AREA	21%			
% COMMON SPACE	180 SF = 2.88%			
% PRIVATE OPEN SPACE	209 SF = 3.34%	67 SF	72 SF	70 SF
TOTAL IMPERVIOUS SURFACE AREA	4,938 S.F.			
COVERED PARKING	4 TOTAL	1.33	1.33	1.33
UNCOVERED PARKING	1	0	0	0



BUILDING AREA

#	REVISIONS	BY

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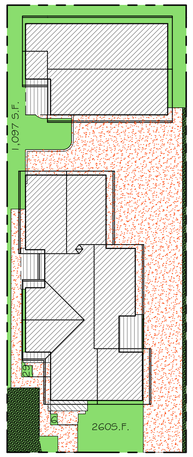
(925) 448-2875

COVER SHEET
345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-1



BULDING & OVERHANGS >2'-6"
IMPERVIOUS PAVING
PERVIOUS SURFACE
PERVIOUS PAVERS

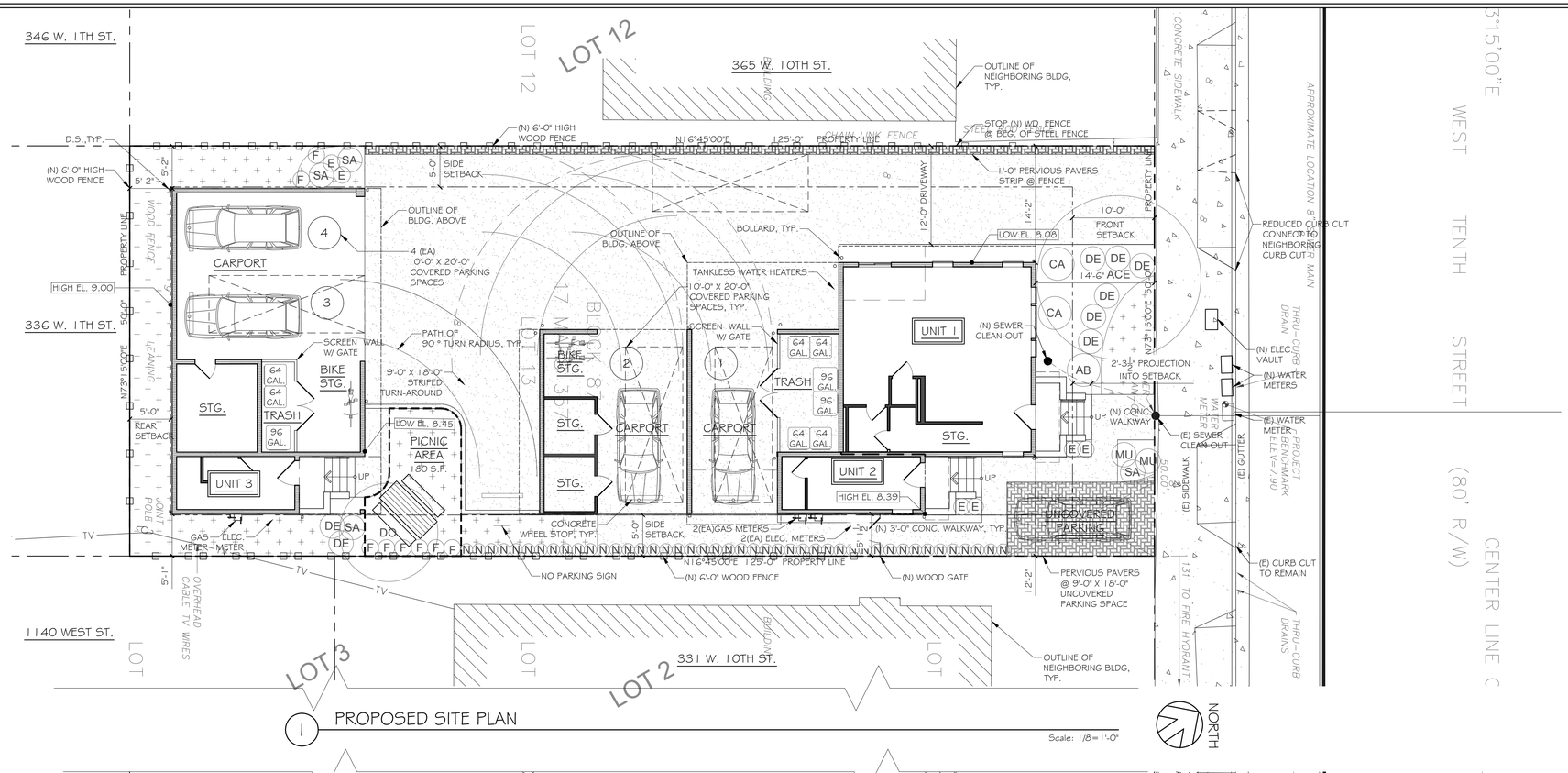
20% LOT = MIN. PERVIOUS REQ'D.

LANDSCAPING (PERVIOUS) / LOT = PERVIOUS PROVIDED
1392 S.F. (PERVIOUS) / 6250 SF (LOT) = 0.2227 (PERVIOUS PROVIDED)
= 22.27% PERVIOUS PROVIDED

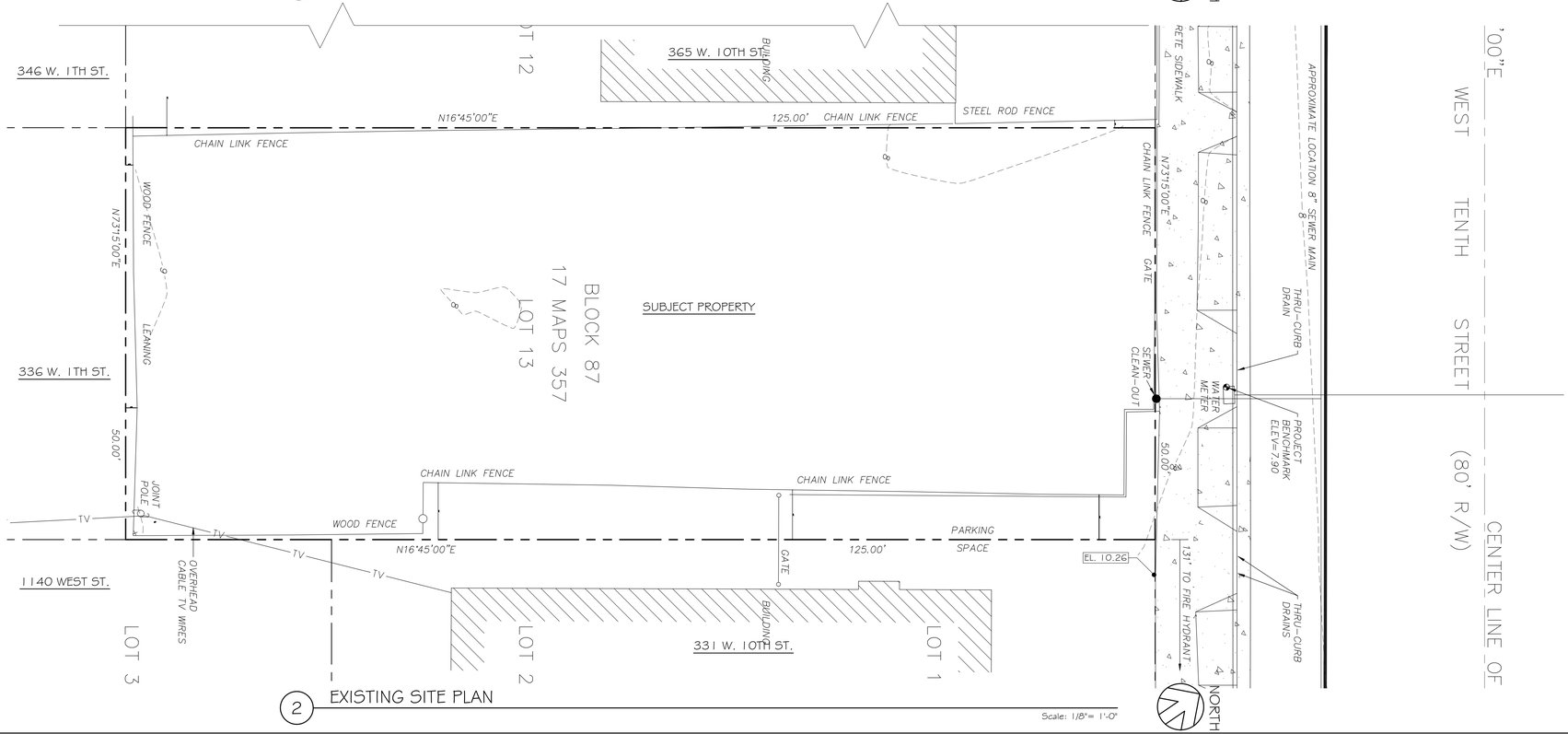
22.27% = > 20% = COMPLIES

LOT - PERVIOUS = IMPERVIOUS
6,250 S.F. - 1,392 S.F. = 4,858 S.F. IMPERVIOUS

3 IMPERVIOUS CALCULATIONS
N.T.S.



1 PROPOSED SITE PLAN
Scale: 1/8"= 1'-0"



2 EXISTING SITE PLAN
Scale: 1/8"= 1'-0"

#	REVISIONS	BY

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SITE PLAN
345 WEST 10TH STREET
PITTSBURG, CA 94565-2428

REGISTERED PROFESSIONAL ENGINEER
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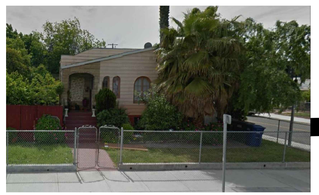
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-2

345 W 10TH STREET

392 W 10TH ST
NTS

384 W 10TH ST
NTS



395 W 10TH ST
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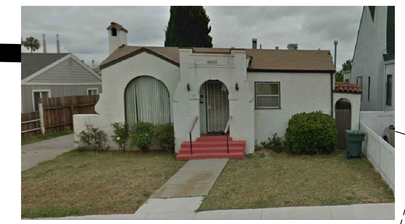

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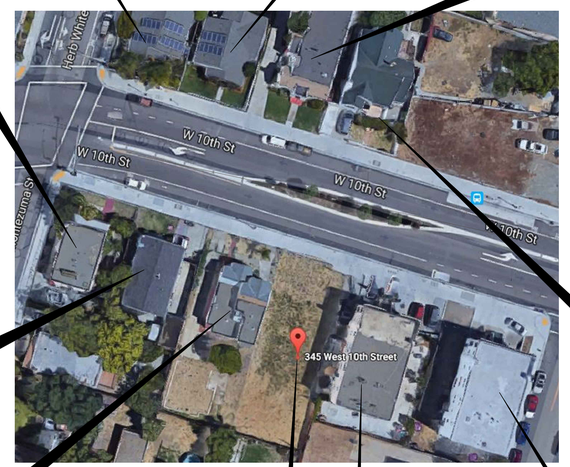

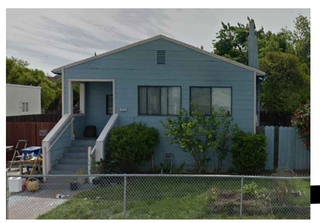

373 W 10TH ST
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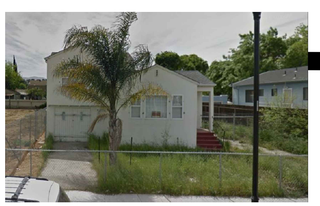
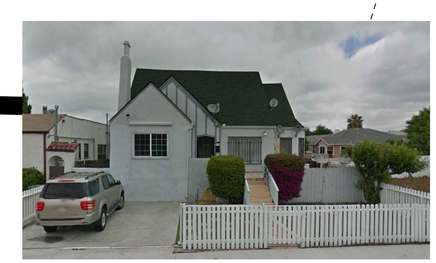


365 W 10TH
NTS



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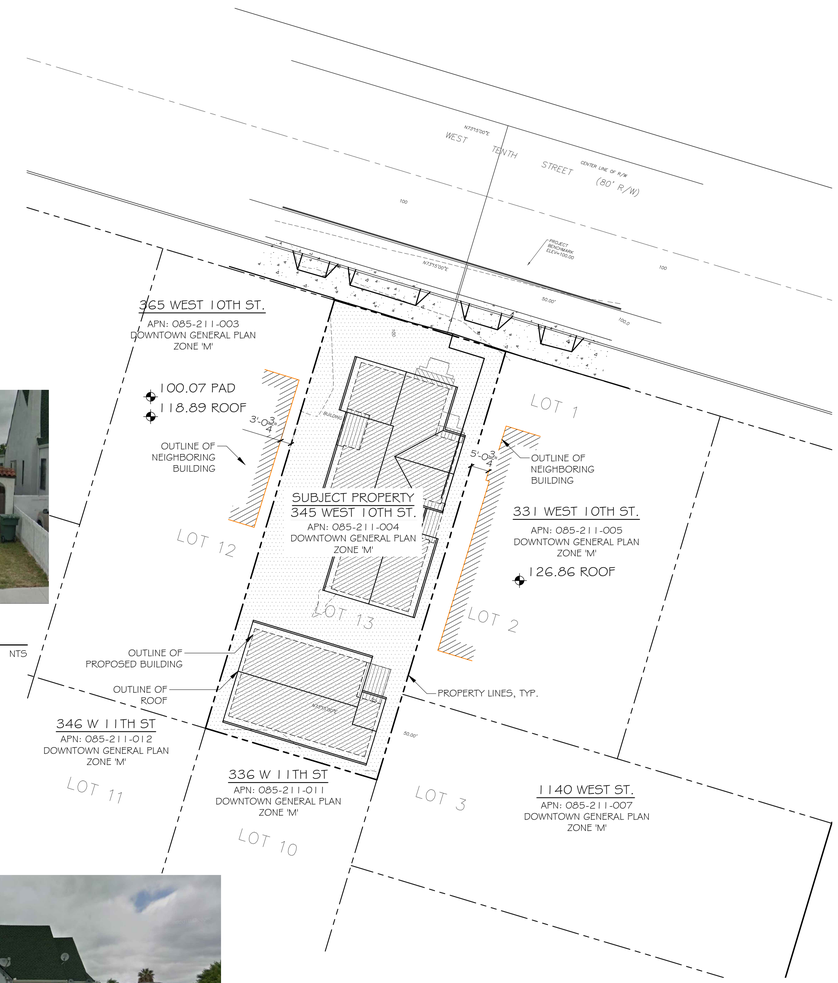
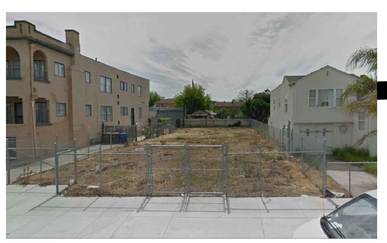


1 345 W 10TH SREET - CONTEXTUAL MAP
1'=20'-0"



345 W 10TH - SUBJECT PROPERTY
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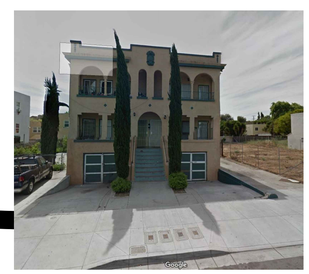

331 W 10TH ST
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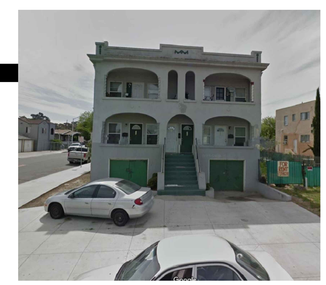

2119 MARSH
NTS

#	REVISIONS	BY

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CONTEXTUAL MAP
345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
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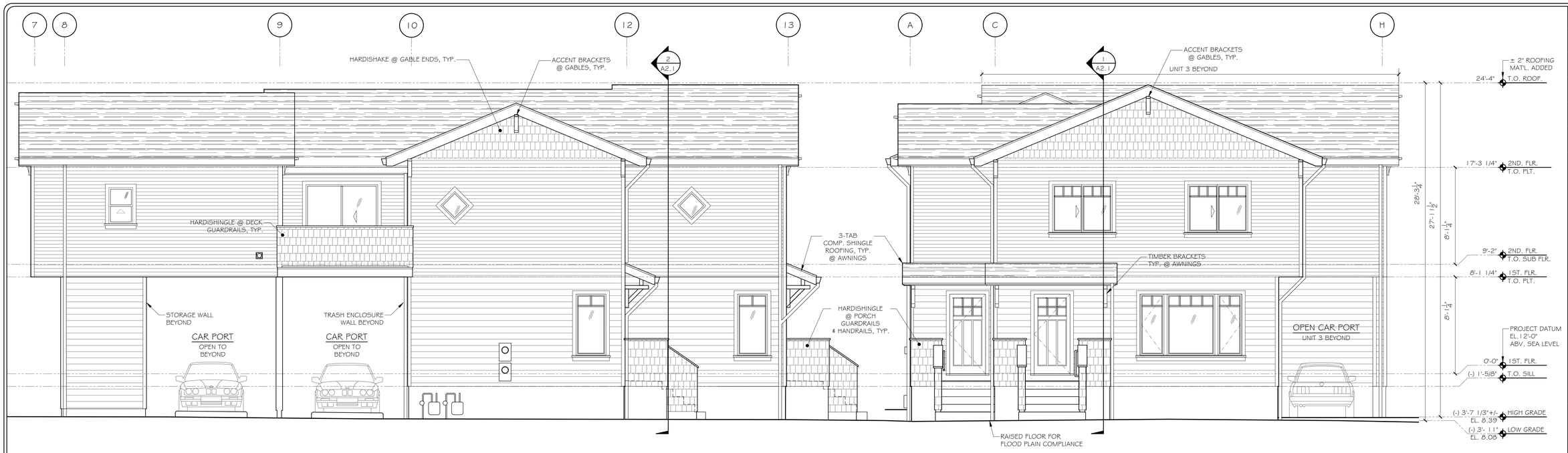
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-3

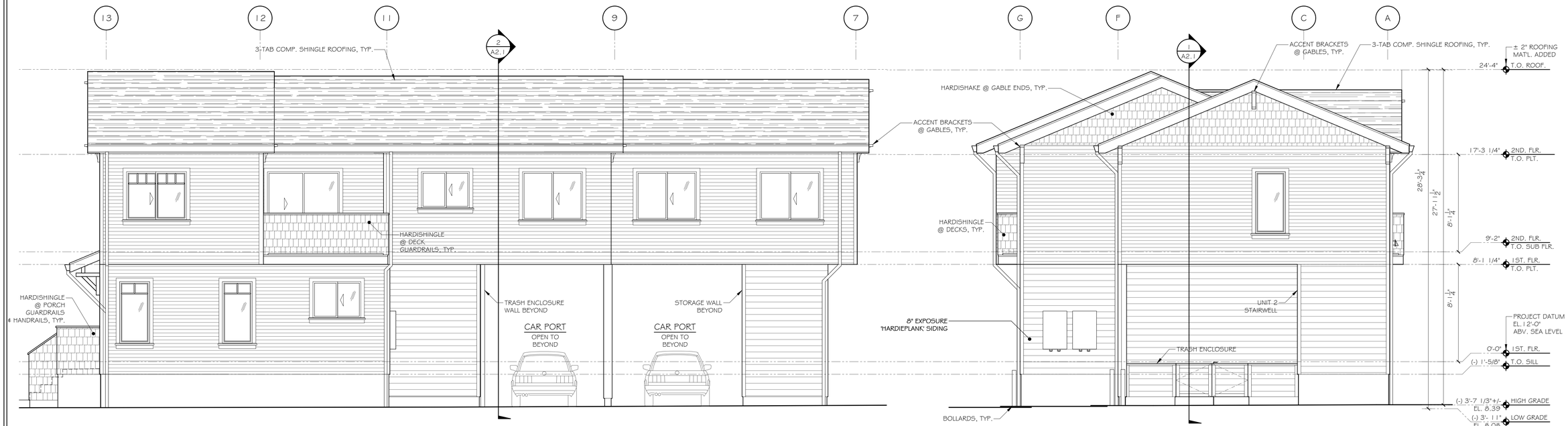


4 EAST ELEVATION - BLDG 1

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

3 NORTH ELEVATION - BLDG 1

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



2 WEST ELEVATION - BLDG 1

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

1 SOUTH ELEVATION - BLDG 1

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

#	REVISIONS	BY

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ELEVATIONS - BLDG 1

345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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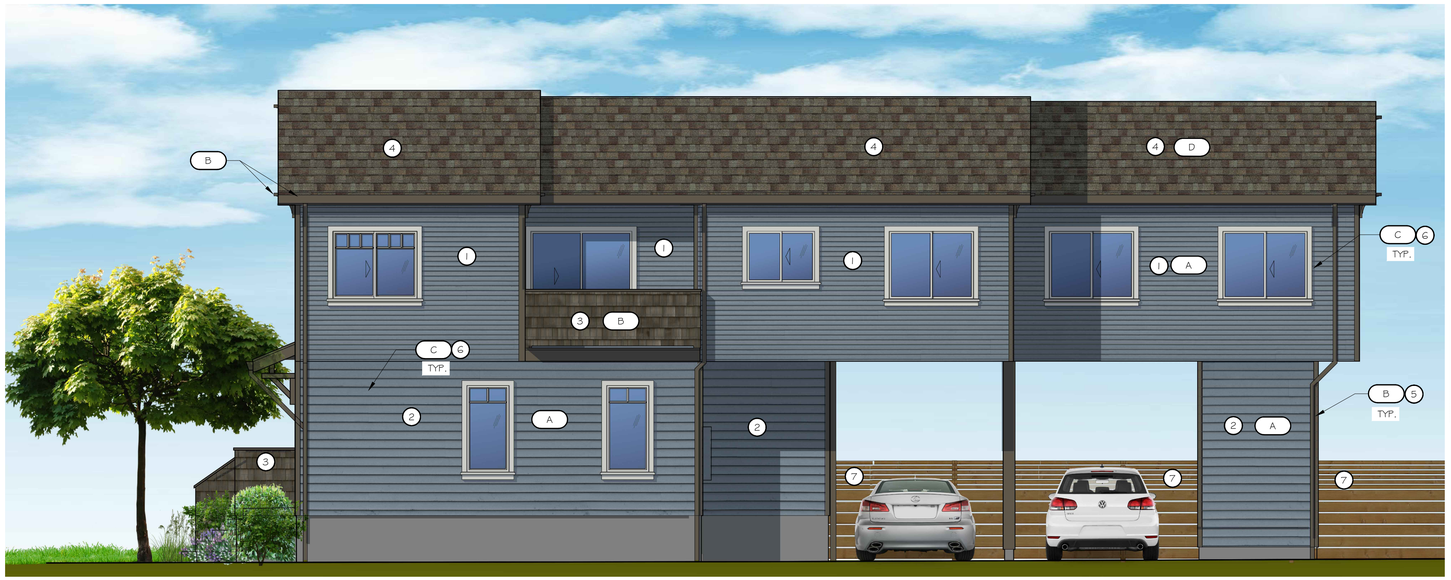
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.1



4 WEST ELEVATION - BLDG 1

Scale: NOT TO SCALE

3 NORTH ELEVATION - BLDG 1

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

2 SOUTH ELEVATION - BLDG 1

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

1 EAST ELEVATION - BLDG 1

Scale: NOT TO SCALE

MATERIALS LEGEND

1. 5" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
2. 8" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
3. HARDIE SHINGLE STRAIGHT EDGE PANEL
4. OWENS CORNING COMPOSITION SHINGLE
5. 5/4 HARDI TRIM BOARDS - SMOOTH
6. 5/4 HARDI TRIM BOARDS - SMOOTH
7. (N) WOOD FENCE, STAINED

COLOR LEGEND

A	KELLY-MOORE KM4874 'OYSTER BAY'	LAP SIDING
B	KELLY-MOORE KM4582 'BEAVER PELT'	SHINGLE SIDING & CORNER TRIM @ SHINGLES, FENCES, RAILINGS, RAKES, BRACES, & GUTTERS
C	KELLY-MOORE KMW56 'ORCA WHITE'	WINDOW, DOOR TRIM, & CORNER TRIM @ LAP SIDING
D	OWENS CORNING 'DRIFTWOOD'	ROOF SHINGLES
E	HAMPTON BAY BPM1691BLK	LIGHTING

#	REVISIONS	BY

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ELEVATIONS - BLDG 1
345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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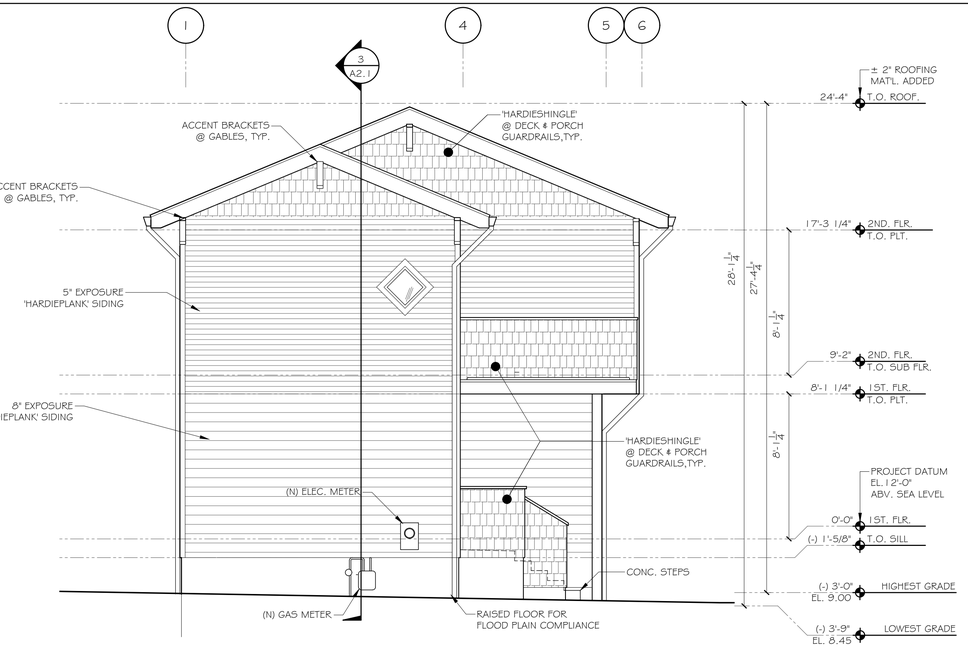
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.2

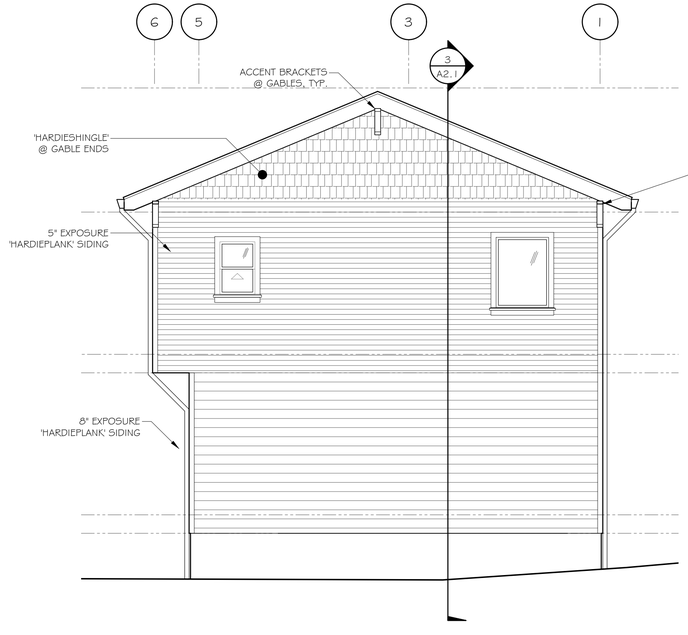
4 NORTH ELEVATION - BLDG 2

1/4"= 1'-0



3 EAST ELEVATION - BLDG 2

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



2 WEST ELEVATION - BLDG 2

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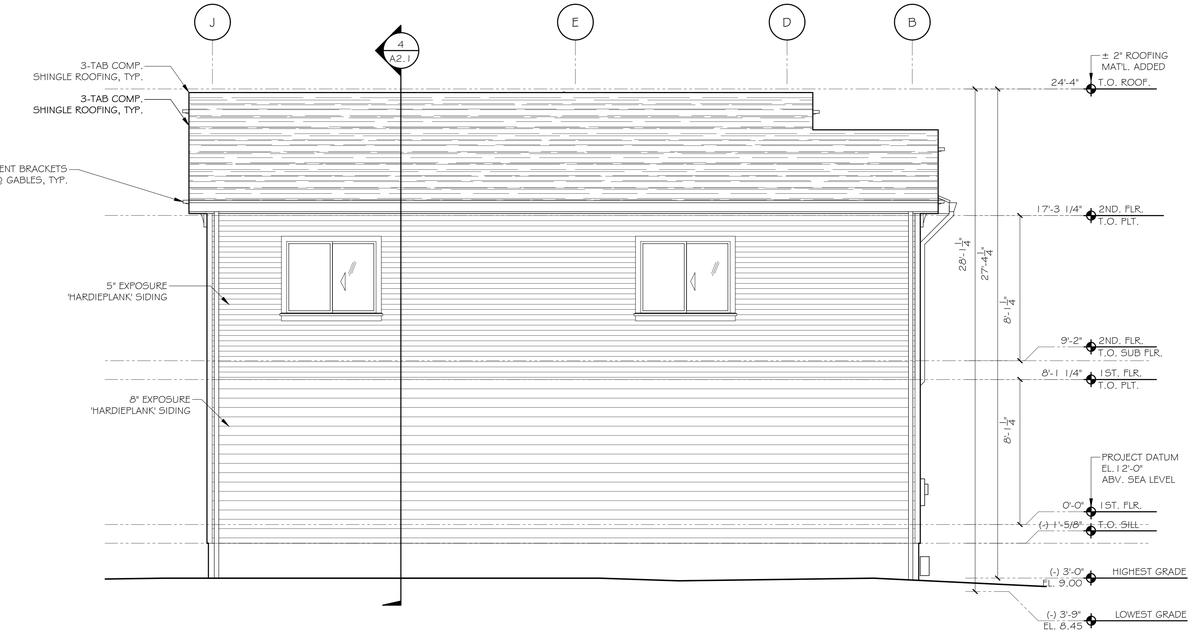

1 SOUTH ELEVATION - BLDG 2

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

#	REVISIONS	BY

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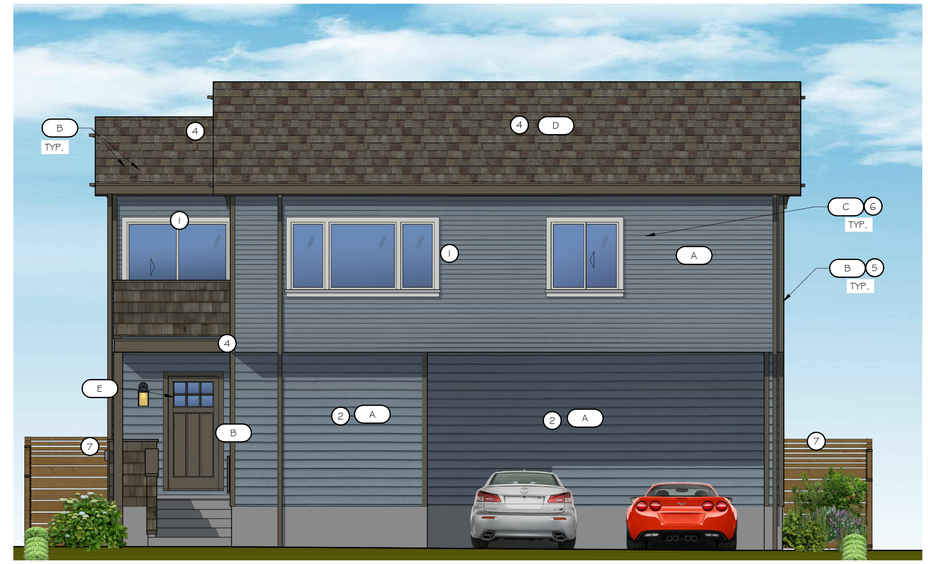
ELEVATIONS - BLDG 2
345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.3

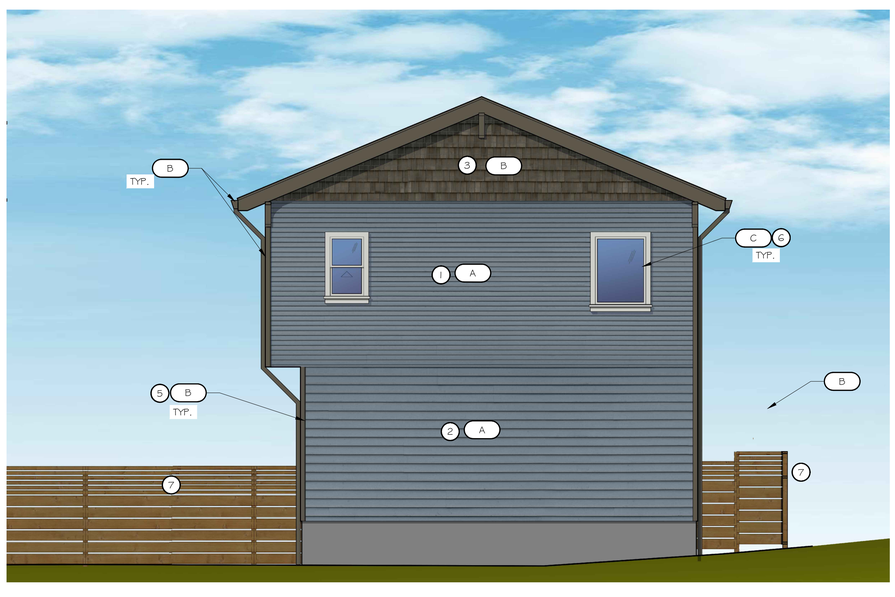
4 WEST ELEVATION BLDG 2

Scale: NOT TO SCALE



3 NORTH ELEVATION - BLDG 2

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



2 SOUTH ELEVATION - BLDG 2

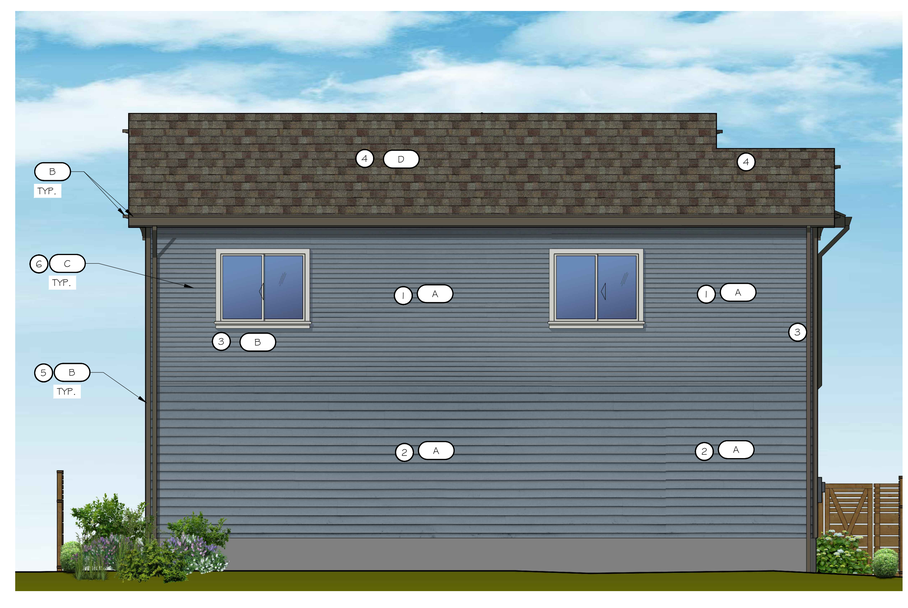
Scale: 1/4"= 1'-0"

MATERIALS LEGEND

1. 5" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
2. 8" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
3. HARDIE SHINGLE STRAIGHT EDGE PANEL
4. OWENS CORNING COMPOSITION SHINGLE
5. 4/4 HARDI TRIM BOARDS - SMOOTH
6. 5/4 HARDI TRIM BOARDS - SMOOTH
7. (N) WOOD FENCE, STAINED

COLOR LEGEND

A	KELLY-MOORE KM4874 'OYSTER BAY'	LAP SIDING
B	KELLY-MOORE KM4582 'BEAVER PELT'	SHINGLE SIDING & CORNER TRIM @ SHINGLES, FENCES, RAILINGS. RAKES, BRACES, & GUTTERS
C	KELLY-MOORE KMW56 'ORCA WHITE'	WINDOW, DOOR TRIM, & CORNER TRIM @ LAP SIDING
D	OWENS CORNING 'DRIFTWOOD'	ROOF SHINGLES
E	HAMPTON BAY BPM1691BLK	LIGHTING



1 EAST ELEVATION - BLDG 2

Scale: NOT TO SCALE

#	REVISIONS	BY

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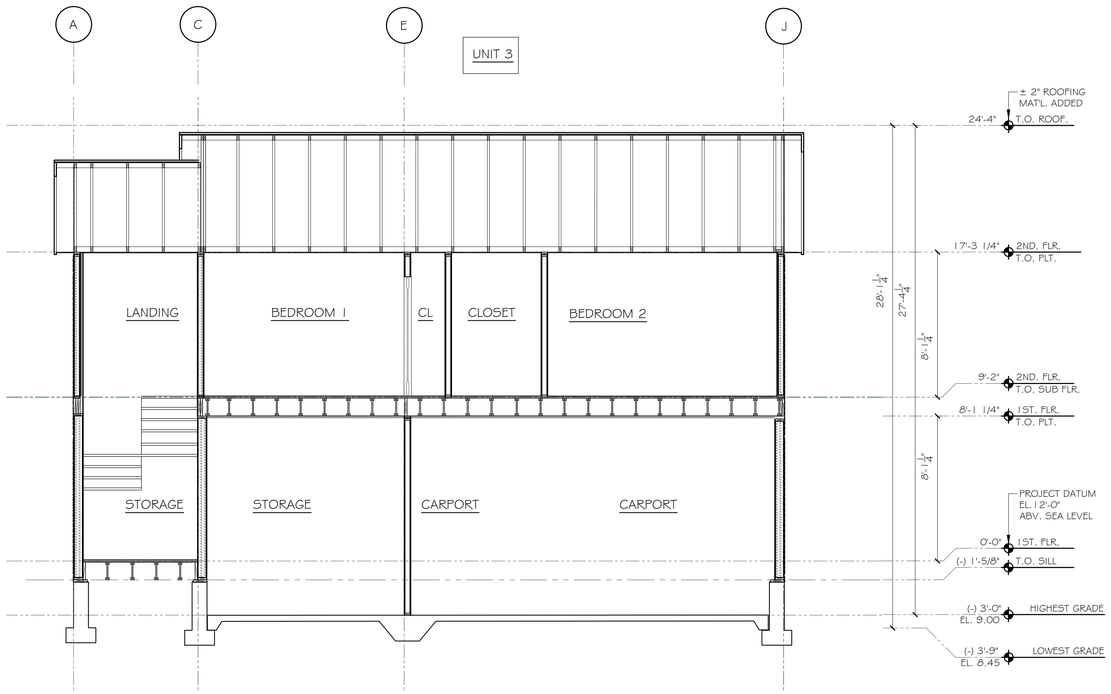
ELEVATIONS - BLDG 2
345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

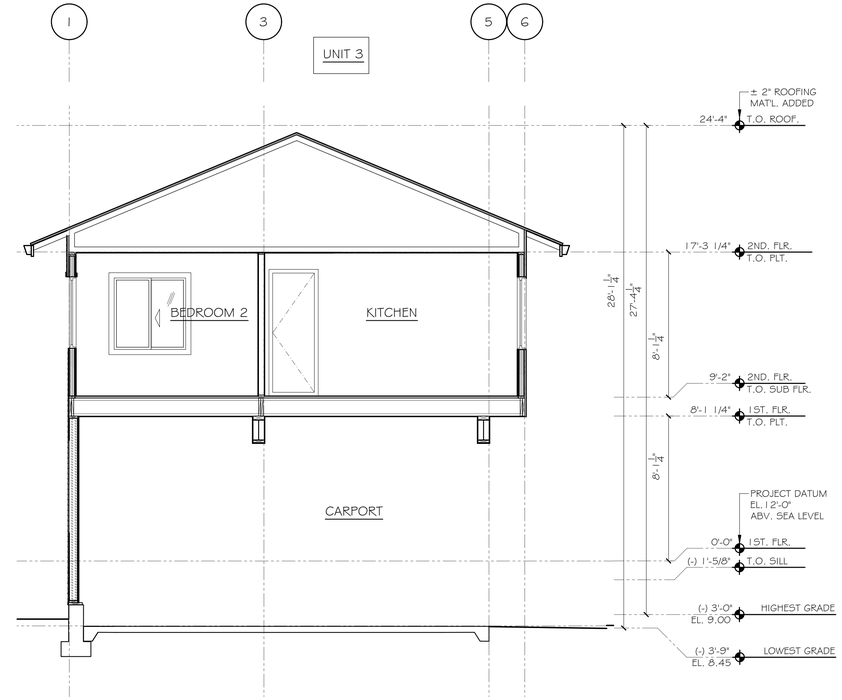
REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.4



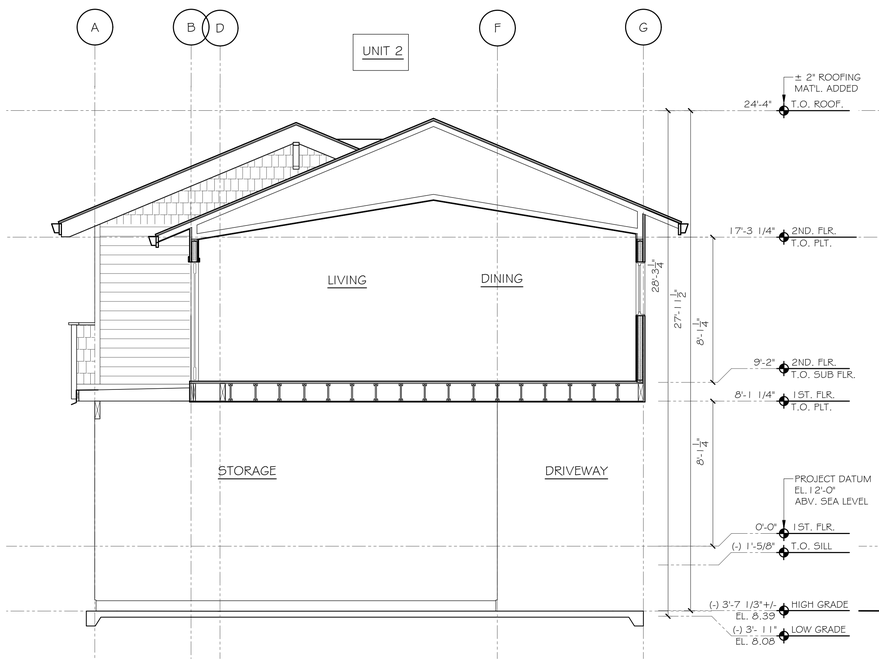
3 SECTION THROUGH UNIT 3, BLDG 2

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



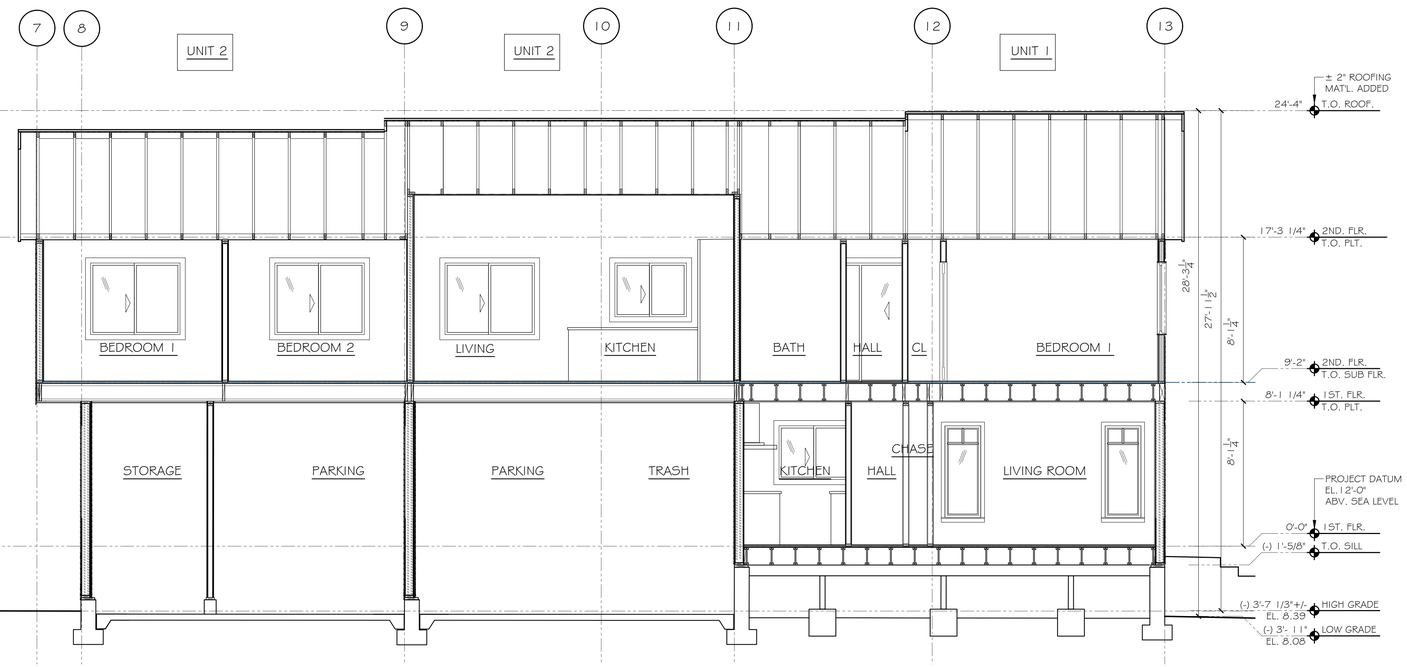
2 SECTION THROUGH UNIT 3, BLDG 2

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



4 SECTION THROUGH UNIT 1 & 2, BLDG 1

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



1 LONGITUDINAL SECTION UNIT 1 & 2, BLDG 1

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

#	REVISIONS	BY

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SECTIONS
345 WEST 10TH STREET
PITTSBURG, CA 94565-2417

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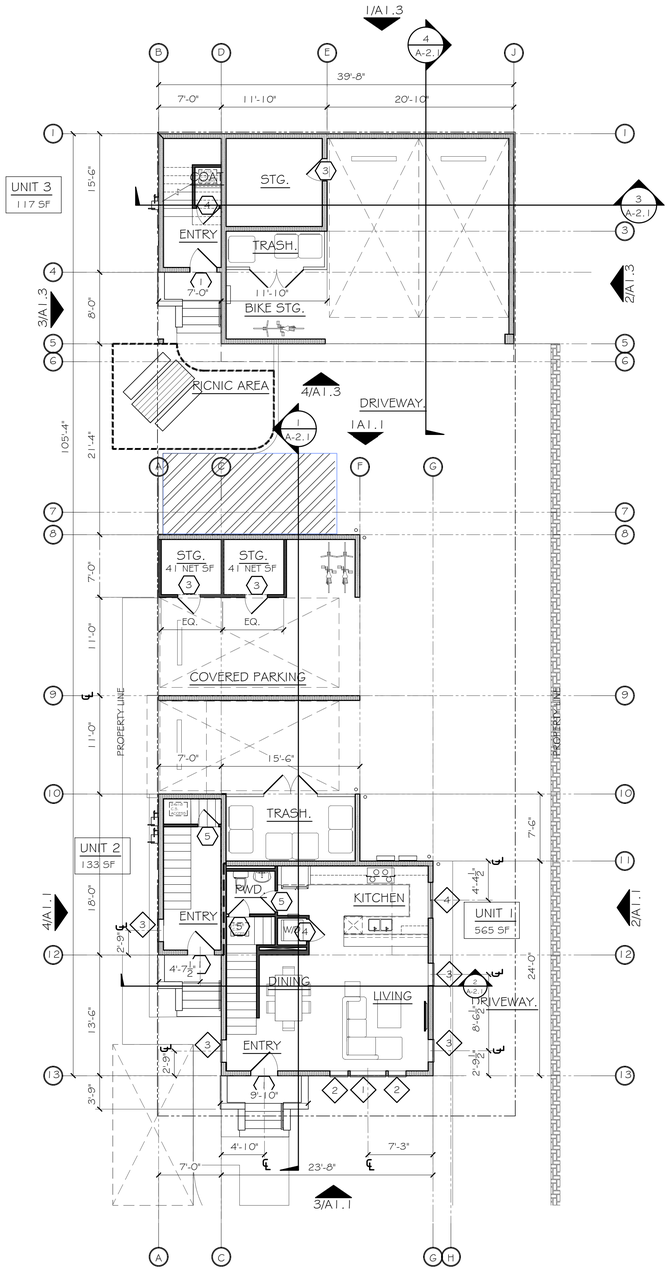
DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A2.1

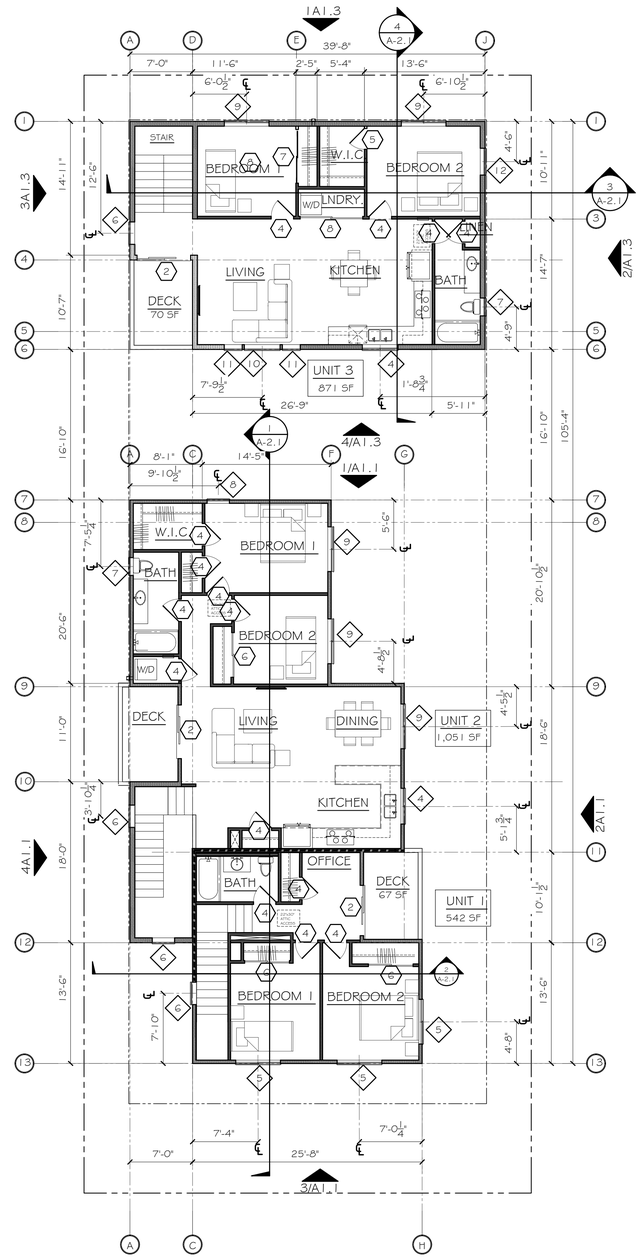
WALL TYPE LEGEND

I	2X4 2/ 1/2" GWB
II	4 1/2" SIPS
III	6 1/2" SIPS
IV	2X4 1-HR WALL



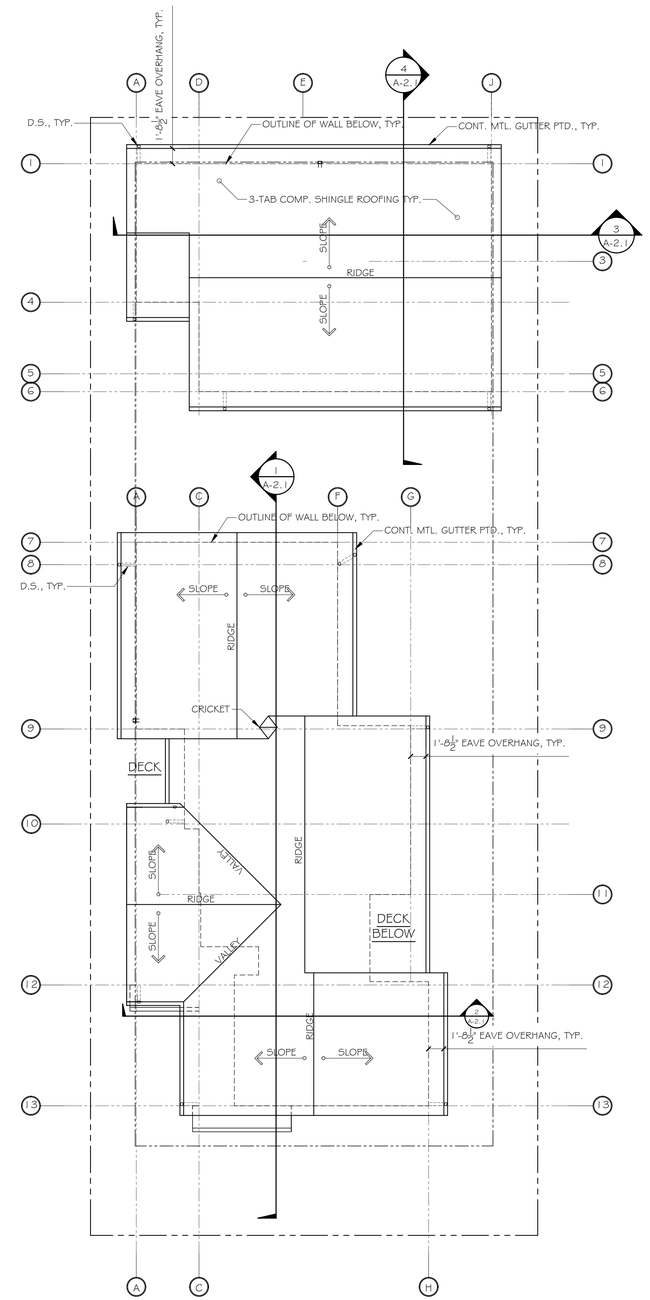
1 PROPOSED 1ST FLOOR PLAN

Scale: 1/8"=1'-0"



2 PROPOSED 2ND FLOOR PLAN

Scale: 1/8"=1'-0"



3 PROPOSED ROOF PLAN

Scale: 1/8"=1'-0"

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FLOOR & ROOF PLANS

345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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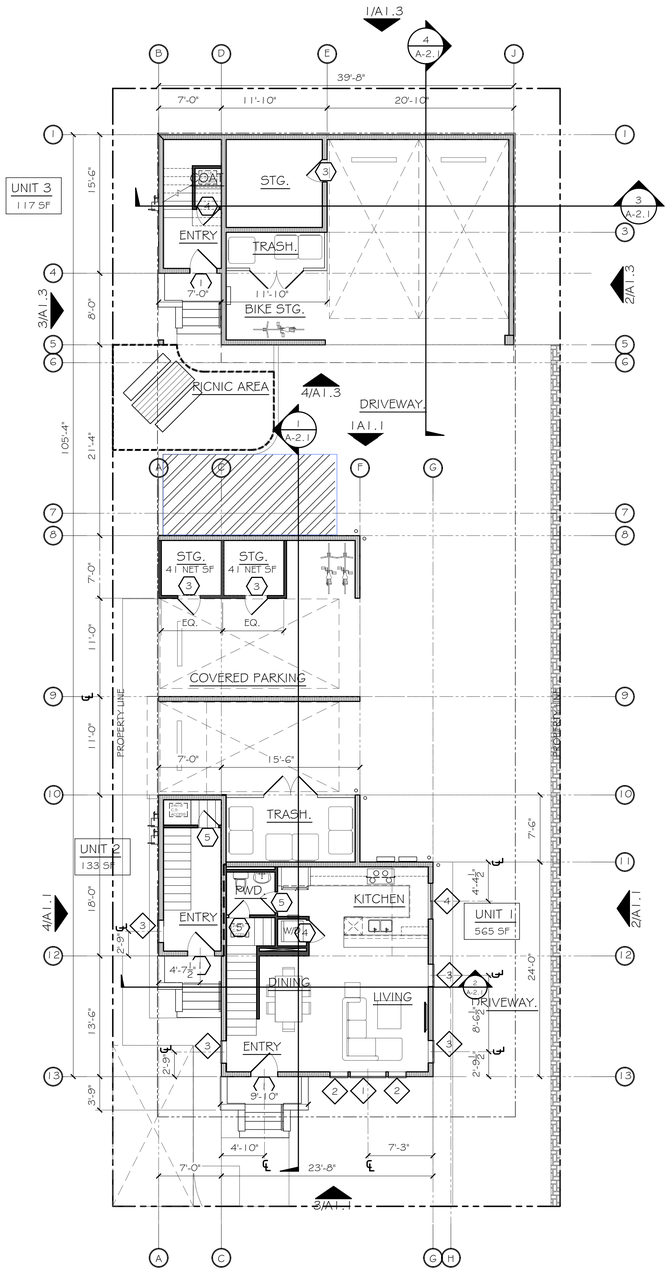
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A3.1

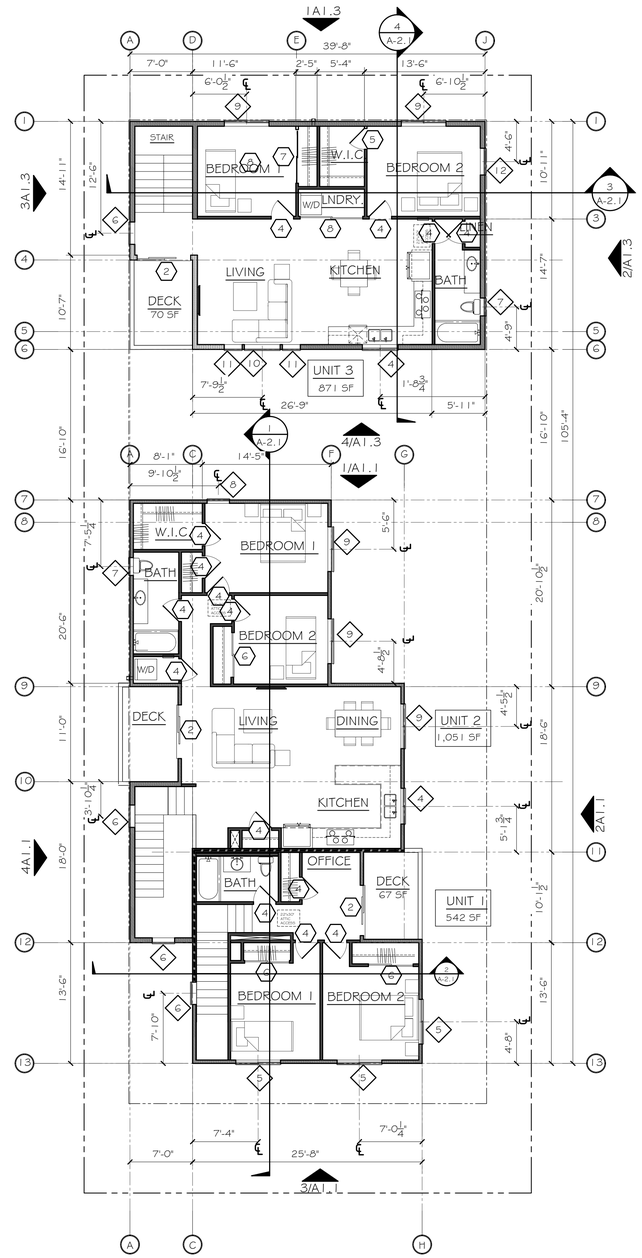
WALL TYPE LEGEND

I	2X4 2/ 1/2" GWB
II	4 1/2" SIPS
III	6 1/2" SIPS
IV	2X4 1-HR WALL



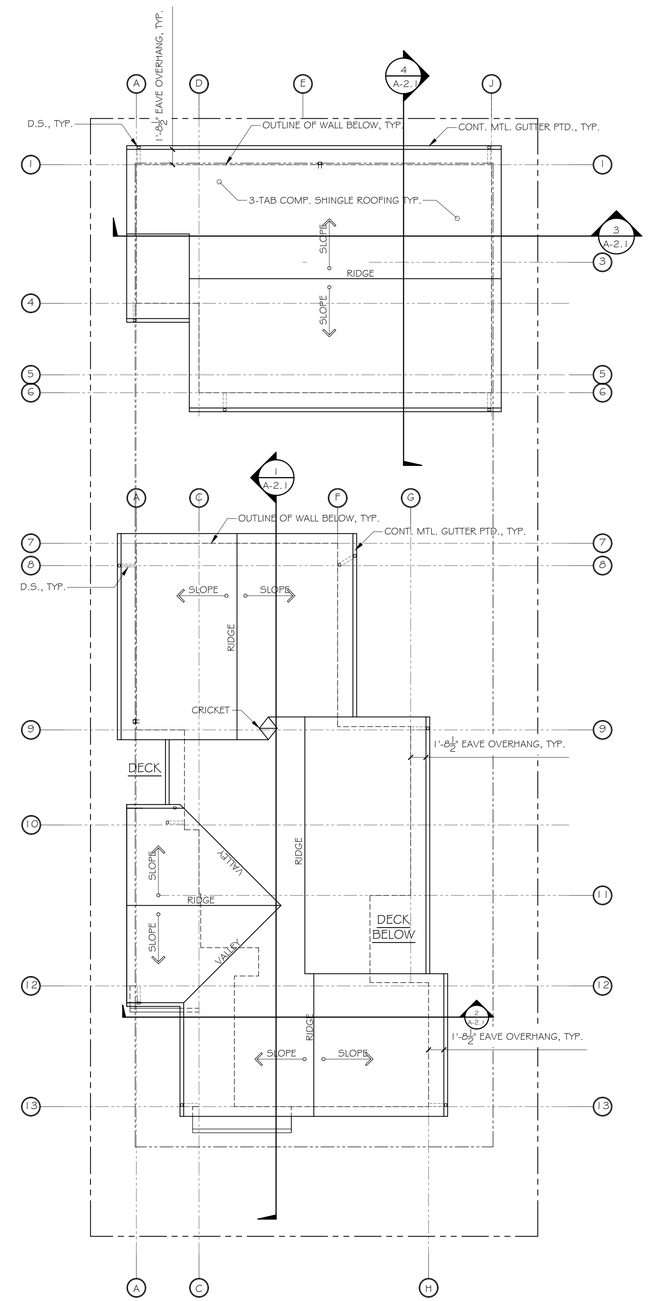
1 PROPOSED 1ST FLOOR PLANS

Scale: 1/8"=1'-0"



2 PROPOSED 2ND FLOOR PLANS

Scale: 1/8"=1'-0"



3 PROPOSED ROOF PLANS

Scale: 1/8"=1'-0"

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FLOOR & ROOF PLANS

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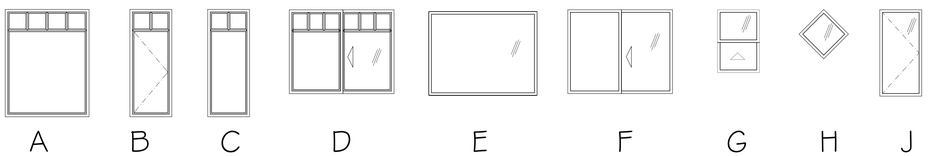
DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A3.1

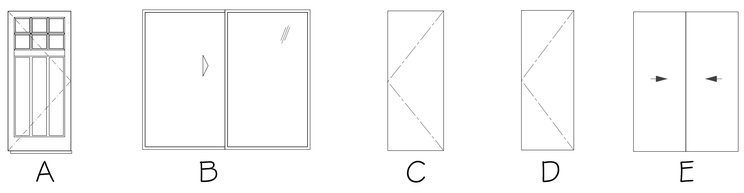
PROPOSED WINDOW SCHEDULE V.I.F. WINDOWS BY OWNER/ INSTALLED BY CONTRACTOR								
WINDOW	WINDOW SIZE			WINDOW TYPE	QTY	GLAZING		EGRESS	NOTES
#	W	x	H			U-VALUE	TEMPERED		ALL WINDOWS ARE MILGARD MONTECITO SERIES VINYL WINDOWS
1	4'-0"	x	5'-0"	A	1				FIXED (MULLION ON TOP)
2	2'-0"	x	5'-0"	B	2				CASEMENT (MULLION ON TOP)
3	2'-6"	x	5'-0"	A	4				FIXED (MULLION ON TOP)
4	4'-0	x	3'-0"	F	3				SLIDER
5	5'-0"	x	4'-0"	D	3			EGRESS	SLIDER (MULLION ON TOP)
6	1'-6"	x	1'-6"	H	4				FIXED
7	2'-0"	x	3'-0"	G	2		TEMPERED		SINGLE HUNG
8	2'-6"	x	5'-0"	E	1				FIXED
9	5'-0"	x	4'-0"	F	5			EGRESS	SLIDER
10	4'-0"	x	4'-0"	E	1				FIXED
11	2'-0"	x	4'-0"	J	2				CASEMENT
12	3'-0	x	4'-0"	E	1				FIXED



1 WINDOW TYPES

NTS

PROPOSED DOOR SCHEDULE V.I.F. DOORS BY OWNER/INSTALLED BY CONTRACTOR									
DOOR		DOOR SIZE			DOOR TYPE	QTY	GLAZING		COMMENTS	NOTES
#		W	x	H			U-VALUE	TEMPERED		
1		3'-0"	x	6'-8"	A	3			EXTERIOR WITH/STRP	S/C WOOD
2		6'-0"	x	6'-8"	B	3		TEMPERED	EXTERIOR WITH/STRP	SLIDING GLASS DOOR
3		3'-0"	x	6'-8"	C	3			EXTERIOR	S/C WOOD
4		2'-6"	x	6'-8"	D	17	-			H/C WOOD
5		2'-4"	x	6'-8"	D	4				H/C WOOD
6		5'-0"	x	6'-8"	E	3				H/C WOOD BI-PASS
7		6'-0"	x	6'-8"	E	1				H/C WOOD BI-PASS
8		7'-0"	x	6'-8"	E	1				H/C WOOD BI-PASS



1 DOOR TYPE

NTS

# REVISIONS	BY

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DOOR & WINDOW SCHEDULES
345 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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DATE	07/02/2018
SCALE	AS SHOWN
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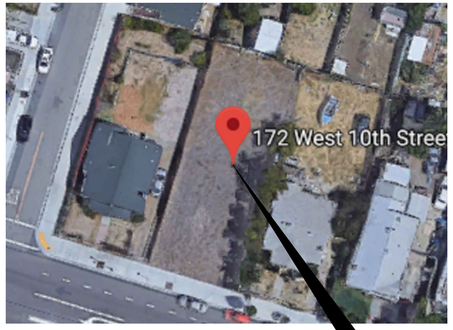
DWG FILE	
SHEET	A3.2

172 WEST 10TH STREET

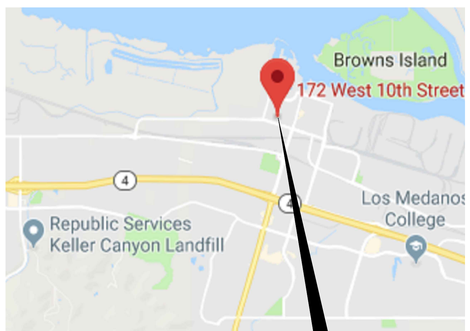


AERIAL VIEW

AREA OF WORK

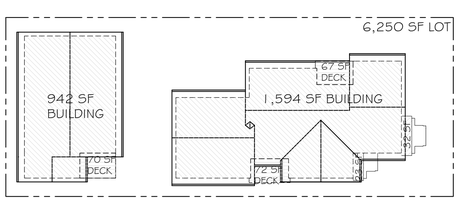
BUILDING 2

BUILDING 1



VICINITY MAP

172 W 10TH ST
PITTSBURG, CA 94565



LOT COVERAGE

2,536 SF BUILDING
197 SF DECKS & ROOFS >2'-6"
2,733 SF TOTAL LOT COVERAGE

2,733 SF (COVERAGE) / 6,250 SF (LOT) = 0.43728 = 43.73%

SCOPE OF WORK

NEW MULTI-FAMILY HOUSING UNITS CONSISTING OF:
1 (EA) 2-BEDROOM / 1 ½ BATH TOWNHOUSES AND
2 (EA) 2-BEDROOM / 1 BATH FLATS.

SITE DATA

APN	085-226-014-0
ZONE	M (DEVELOPED AS RHD)
OCCUPANCY CLASSIFICATION	R2/U
CONSTRUCTION TYPE	V-B
LOT SIZE	6,250 SF

CODES & STANDARDS

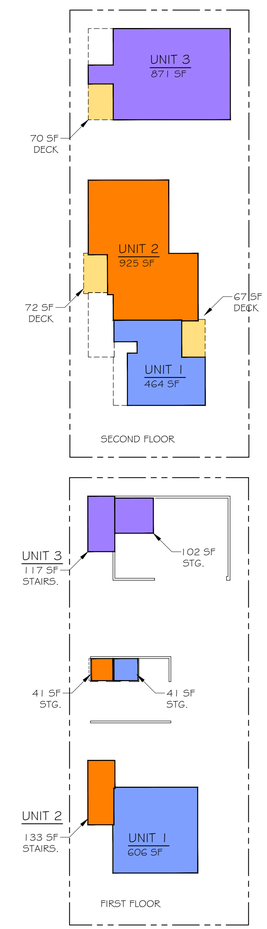
2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA RESIDENTIAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA ENERGY EFFICIENCY STANDARDS
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
CITY OF PITTSBURG ORDINANCES

SHEET INDEX

CS-1 COVER SHEET
CS-2 SITE PLAN
CS-3 CONTEXTUAL MAP
A1.1 ELEVATIONS - BLDG 1
A1.2 COLOR RENDERINGS - BLDG 1
A1.3 ELEVATIONS - BLDG 2
A1.4 COLOR RENDERINGS - BLDG 2
A2.1 SECTIONS
A3.1 FLOOR & ROOF PLANS
A3.2 DOOR & WINDOW SCHEDULES

PROJECT DATA

	BUILDING	UNIT 1	UNIT 2	UNIT 3
GENERAL PLAN	DOWNTOWN			
ZONING	M			
LOT SIZE	6,250 S.F.			
LOT WIDTH	50'-0"			
PROJECT DENSITY	3 DWELLING UNITS			
TOTAL BUILDING AREA (INCLUDING STORAGE)	3,300 SF TOTAL	1,111 SF	1,099 SF	1,090 SF
F.A.R.	N/A			
STORIES	2			
HEIGHT	28'-2"			
% LOT COVERAGE	43.73%			
% LANDSCAPED AREA	21%			
% COMMON SPACE	180 SF = 2.88%			
% PRIVATE OPEN SPACE	209 SF = 3.34%	67 SF	72 SF	70 SF
TOTAL IMPERVIOUS SURFACE AREA	4,938 SF			
COVERED PARKING	4 TOTAL	1.33	1.33	1.33
UNCOVERED PARKING	1	0	0	0



BUILDING AREA

#	REVISIONS	BY

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COVER SHEET
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
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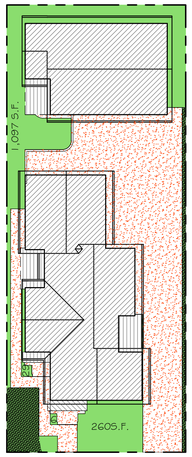
DWG FILE	
SHEET	CS-1



BULDING & OVERHANGS >2'-6"
IMPERVIOUS PAVING
PERVIOUS SURFACE
PERVIOUS PAVERS

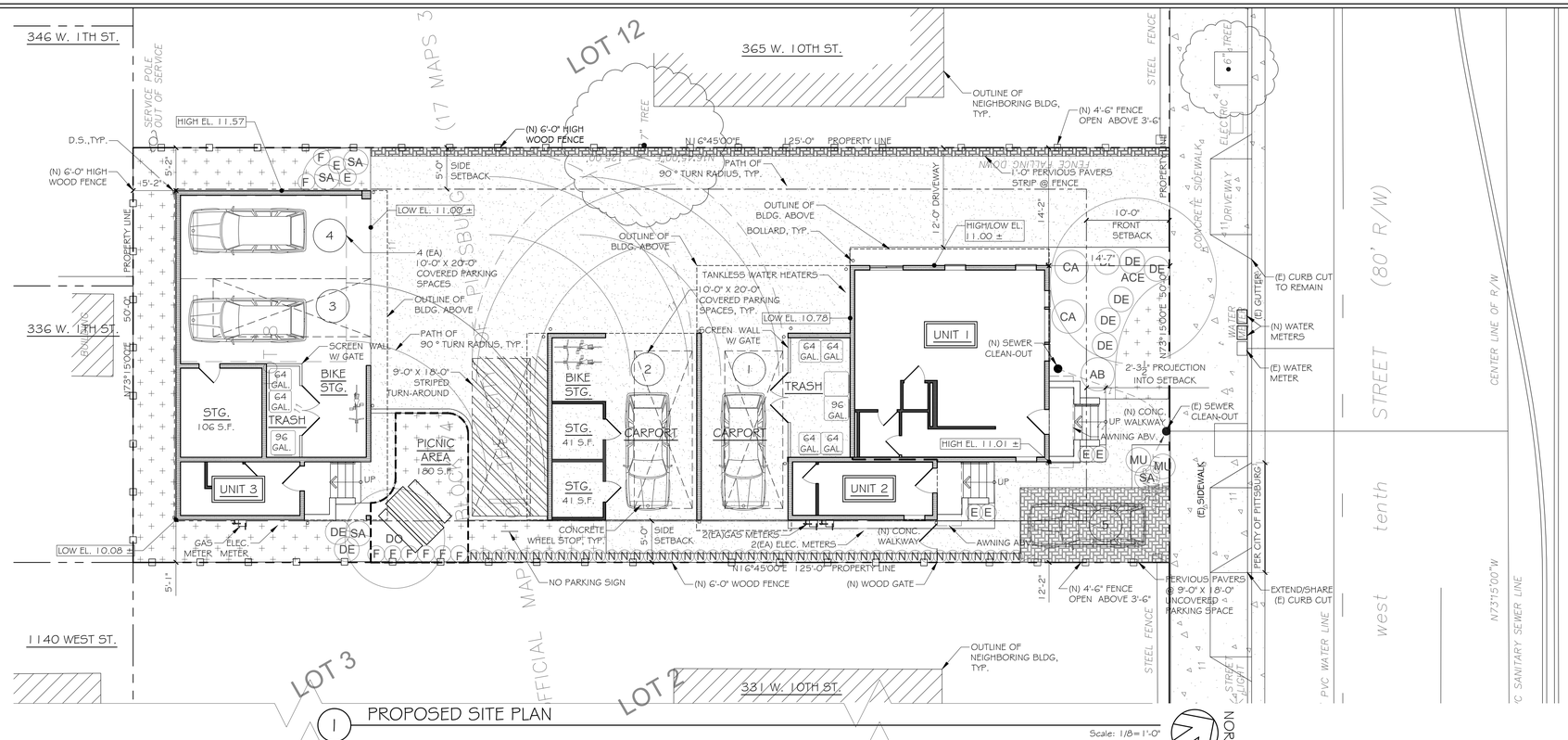
20% LOT = MIN. PERVIOUS REQ'D.

LANDSCAPING (PERVIOUS) / LOT = PERVIOUS PROVIDED
1392 S.F. (PERVIOUS) / 6250 SF (LOT) = 0.2227 (PERVIOUS PROVIDED)
= 22.27% PERVIOUS PROVIDED

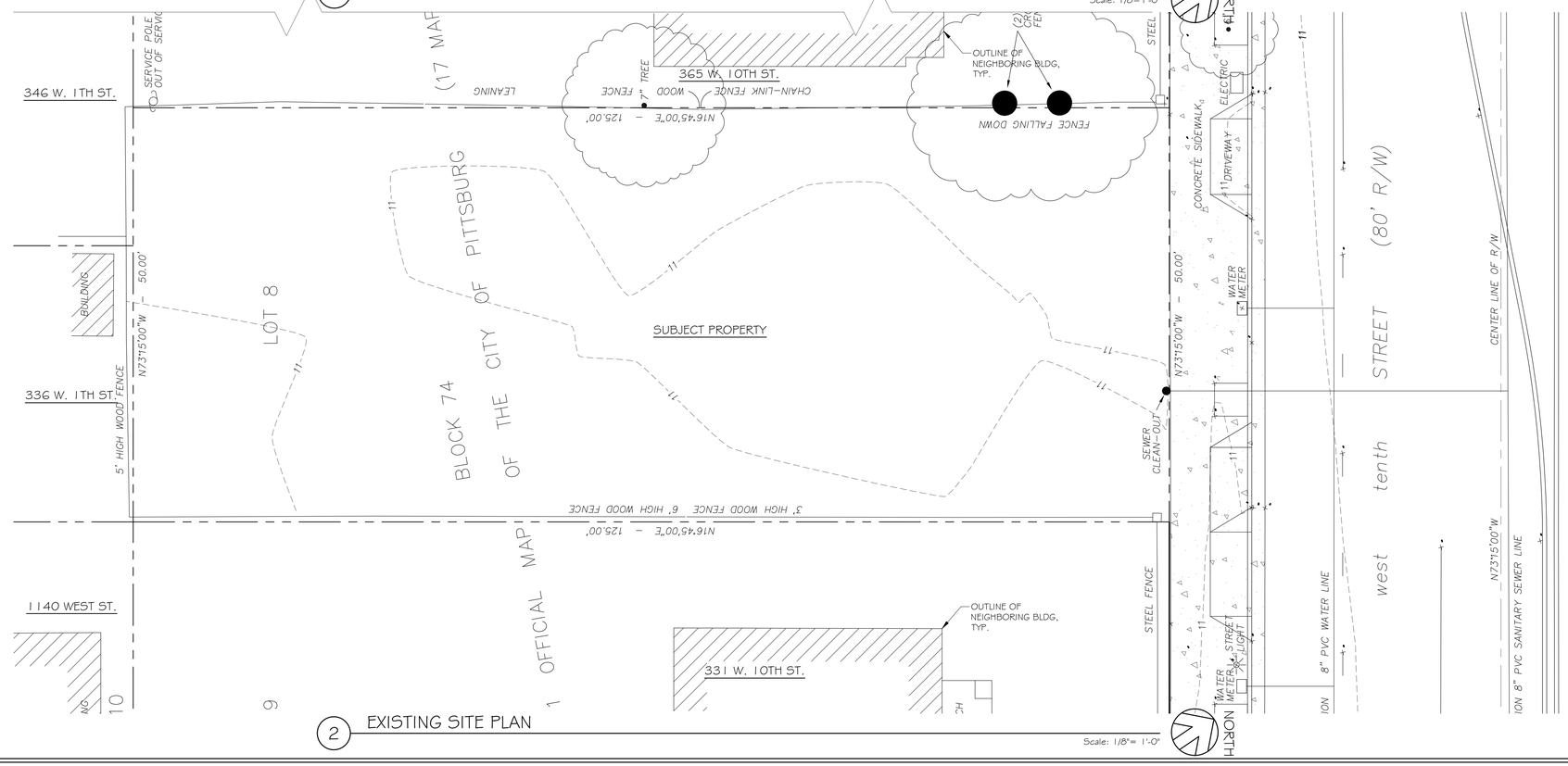
22.27% = > 20% = COMPLIES

LOT - PERVIOUS = IMPERVIOUS
6,250 S.F. - 1,392 S.F. = 4,858 S.F. IMPERVIOUS

3 PERVIOUS CALCULATIONS
N.T.S.



1 PROPOSED SITE PLAN



2 EXISTING SITE PLAN

#	REVISIONS	BY

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SITE PLAN
172 WEST 10TH STREET
PITTSBURG, CA 94565-2428

REGISTERED PROFESSIONAL ENGINEER
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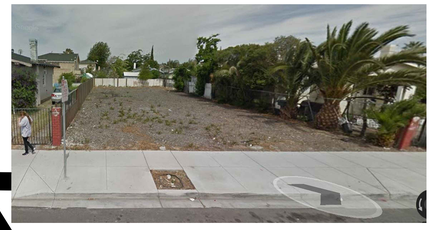
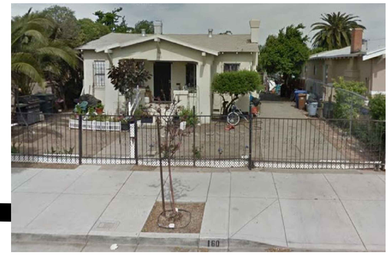
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-2

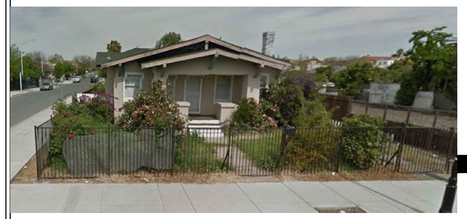
172 WEST 10TH STREET



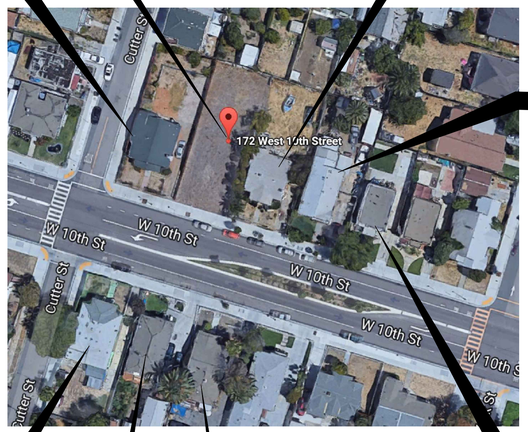
172 W 10TH ST - SUBJECT PROPERTY
NTS



160 W 10TH ST
NTS



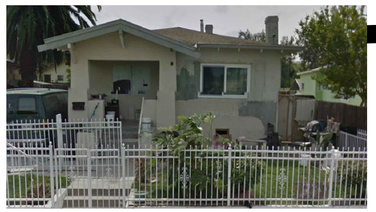
190 W 10TH ST
NTS



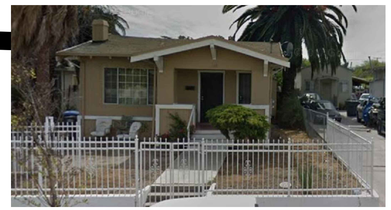
144 W 10TH ST
NTS

191 W 10TH
NTS

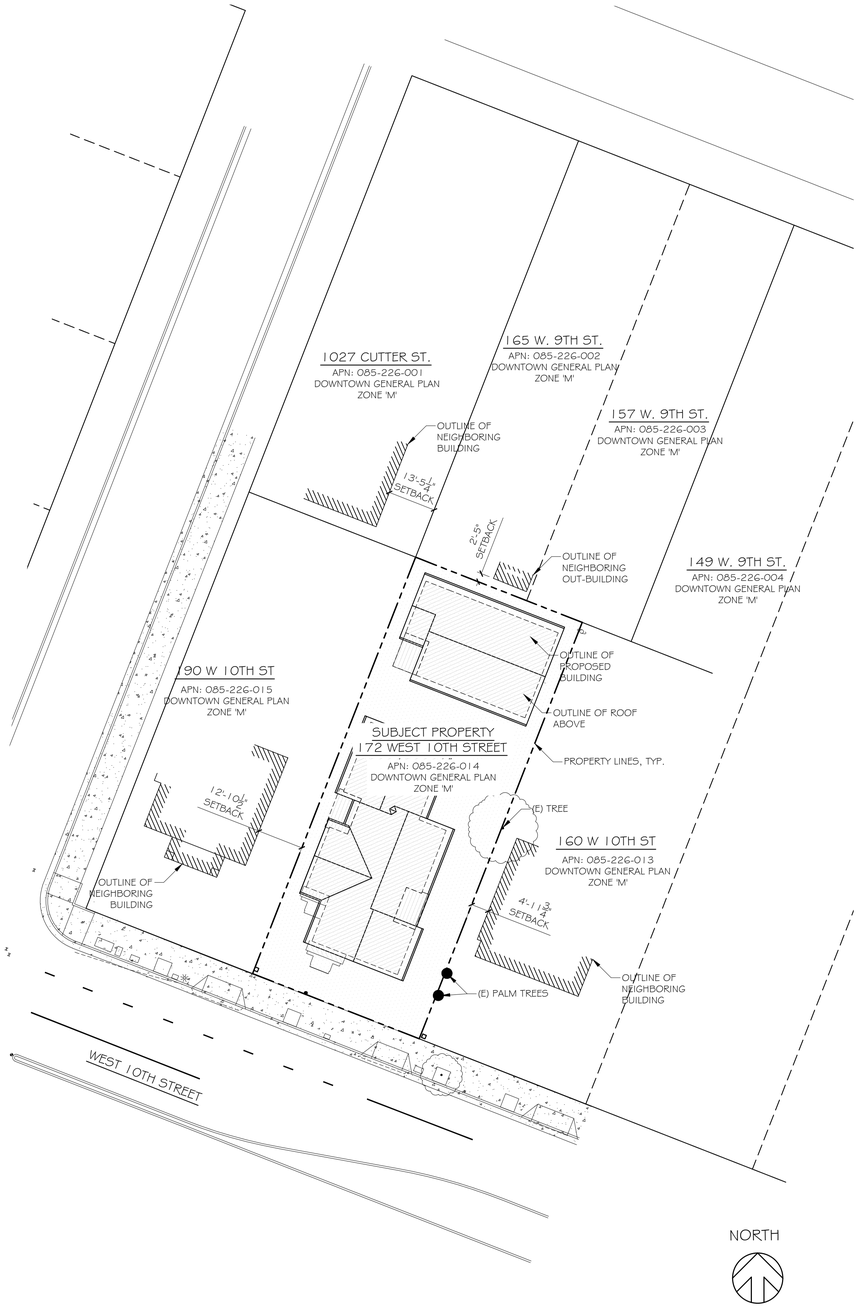
141 W 10TH ST
NTS



171 W 10TH
NTS



173 W 10TH ST
NTS



1 172 WEST 10TH STREET - CONTEXT MAP
Scale: 1"= 20'-0"

#	REVISIONS	BY

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CONTEXTUAL MAP
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

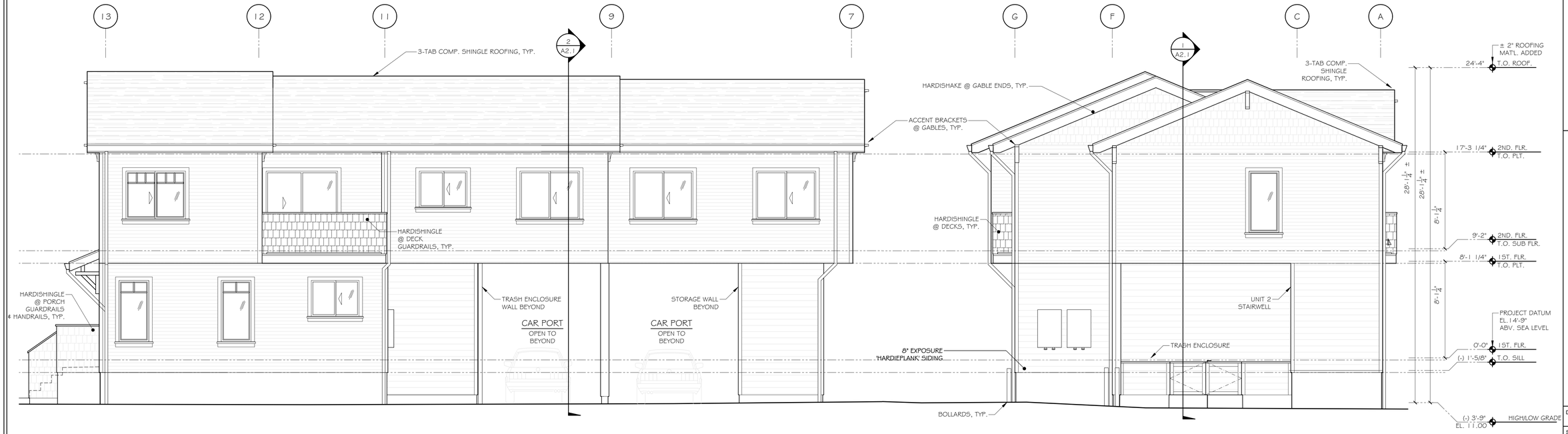
DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-3

4 WEST ELEVATION (UNITS 1 & 2) BLDG 1

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

3 SOUTH ELEVATION (UNITS 1 & 2) BLDG 1

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



2 EAST ELEVATION (UNITS 1 & 2) BLDG 1

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

1 NORTH ELEVATION (UNITS 1 & 2) BLDG 1

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

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ELEVATIONS BLDG 1
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.1

4 WEST ELEVATION

Scale: NOT TO SCALE

3 NORTH ELEVATION

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

MATERIALS LEGEND

1. 5" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
2. 8" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
3. HARDIE SHINGLE STRAIGHT EDGE PANEL
4. OWENS CORNING COMPOSITION SHINGLE
5. 5/4 HARDI TRIM BOARDS - SMOOTH
6. 4/4 HARDI TRIM BOARDS - SMOOTH
7. (N) WOOD FENCE, STAINED

COLOR LEGEND

A	KELLY-MOORE KM4874 'OYSTER BAY'	LAP SIDING
B	KELLY-MOORE KM4582 'BEAVER PELT'	SHINGLE SIDING & CORNER TRIM @ SHINGLES, FENCES, RAILINGS, RAKES, BRACES, & GUTTERS
C	KELLY-MOORE KMW56 'ORCA WHITE'	WINDOW, DOOR TRIM, & CORNER TRIM @ LAP SIDING
D	OWENS CORNING 'DRIFTWOOD'	ROOF SHINGLES
E	HAMPTON BAY BPM1691BLK	LIGHTING

2 SOUTH ELEVATION

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

1 EAST ELEVATION

Scale: NOT TO SCALE

#	REVISIONS	BY

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ELEVATIONS BLDG 1
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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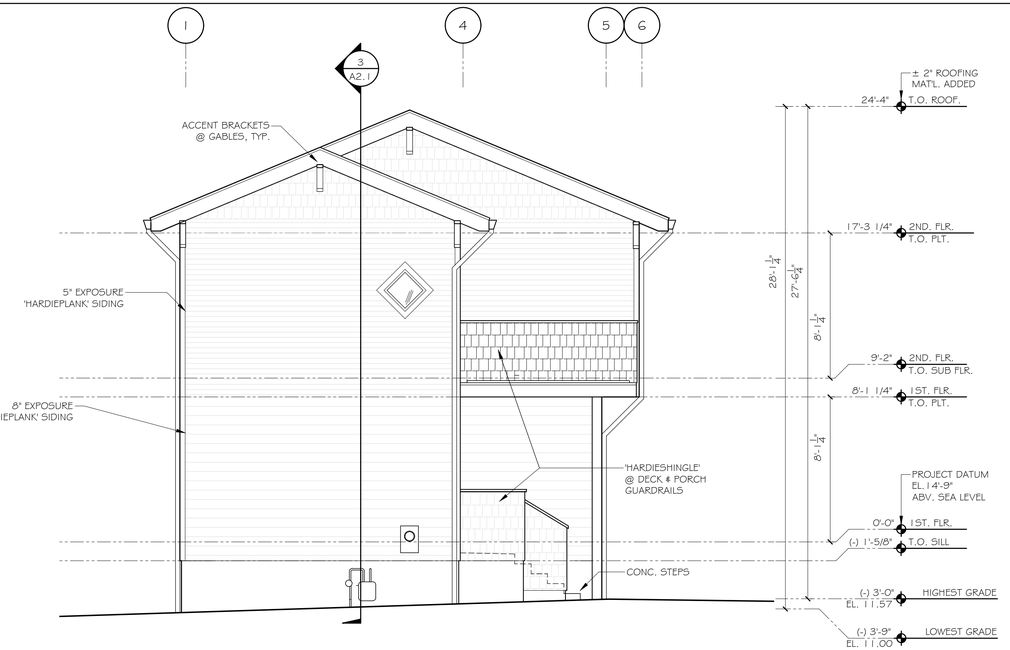
DATE	7/2/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.2

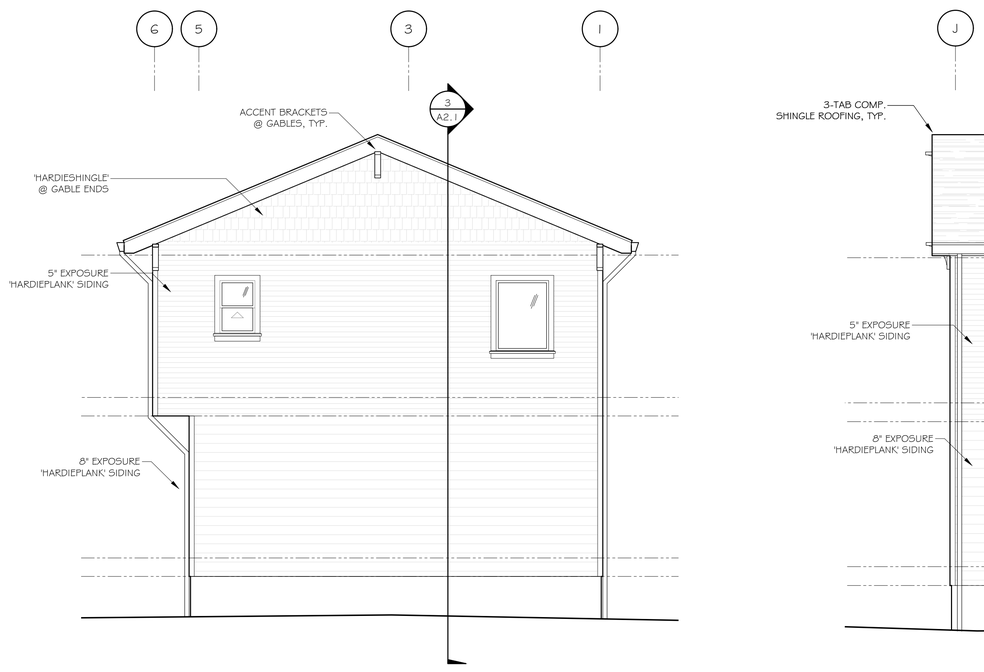
4 SOUTH ELEVATION (UNIT 3) BLDG 2

1/4"= 1'-0



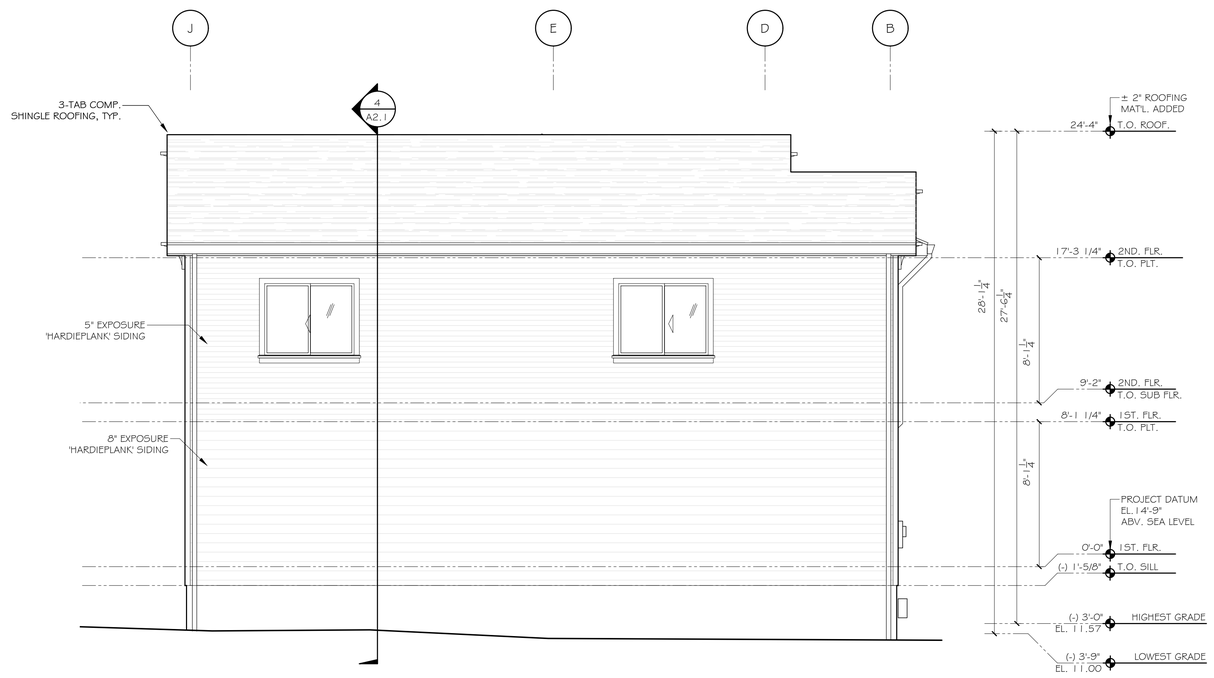
3 WEST ELEVATION (UNIT 3) BLDG 2

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



2 EAST ELEVATION (UNIT 3) BLDG 2

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



1 NORTH ELEVATION (UNIT 3) BLDG 2

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

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ELEVATIONS BLDG 2
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

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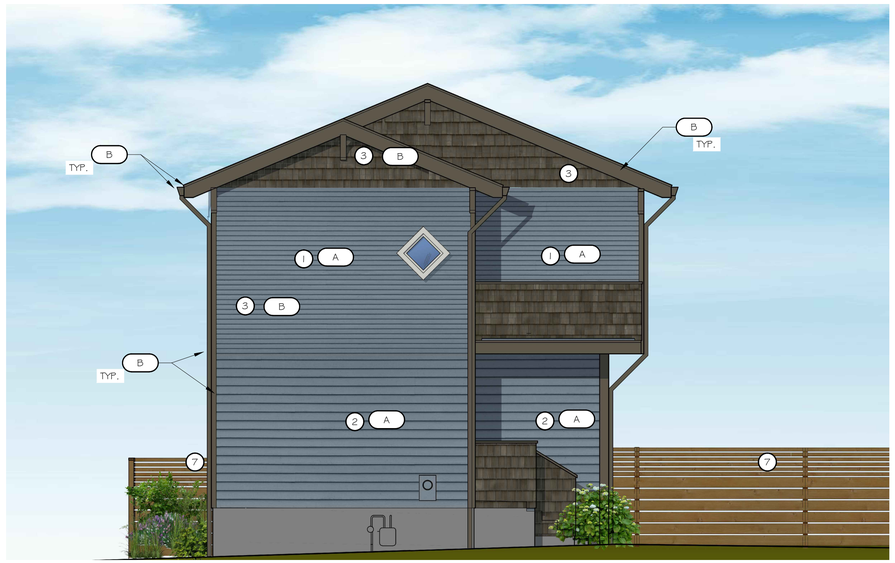
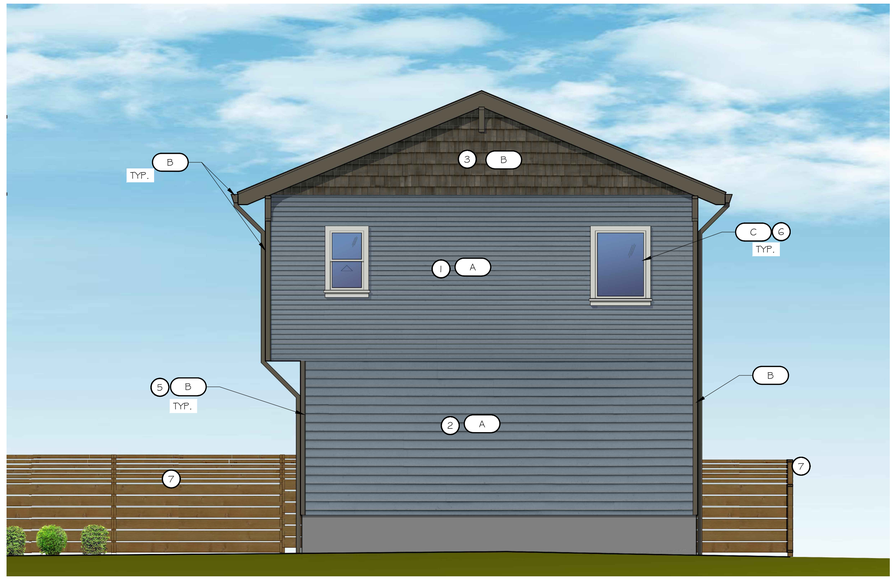
DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.3



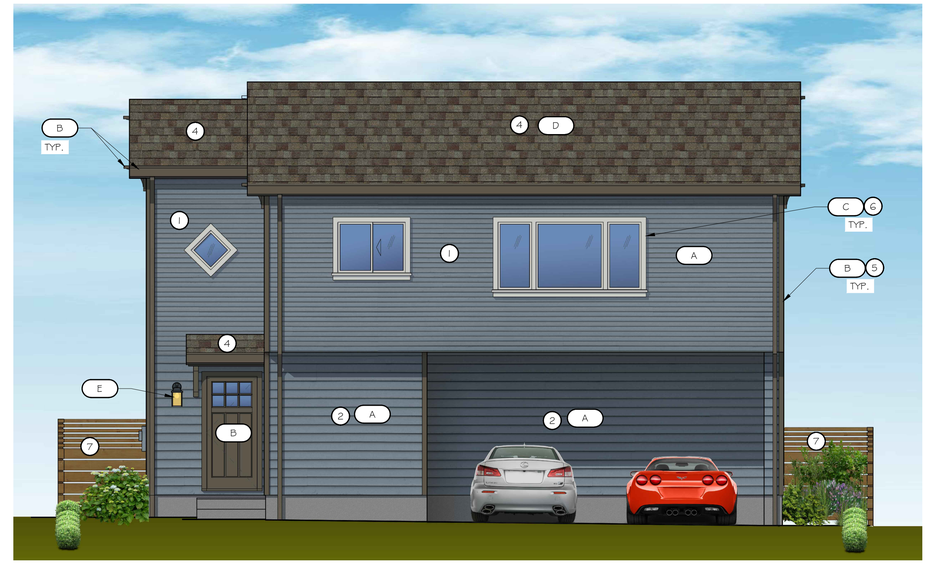
4 WEST ELEVATION

Scale: NOT TO SCALE



2 SOUTH ELEVATION

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



3 NORTH ELEVATION

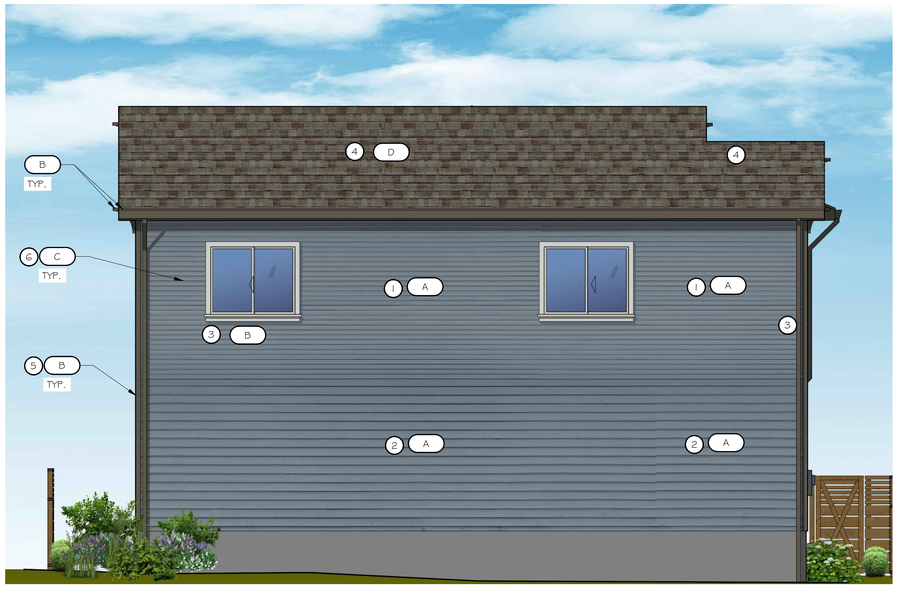
Scale: 1/4"= 1'-0"

MATERIALS LEGEND

1. 5" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
2. 8" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
3. HARDIE SHINGLE STRAIGHT EDGE PANEL
4. OWENS CORNING COMPOSITION SHINGLE
5. 5/4 HARDI TRIM BOARDS - SMOOTH
6. 5/4 HARDI TRIM BOARDS - SMOOTH
7. (N) WOOD FENCE, ~~STAINED~~
8. (E) WOOD FENCE, STAINED

COLOR LEGEND

A	KELLY-MOORE KM4874 'OYSTER BAY'	LAP SIDING
B	KELLY-MOORE KM4582 'BEAVER PELT'	SHINGLE SIDING & CORNER TRIM @ SHINGLES, FENCES, RAILINGS. RAKES, BRACES, & GUTTERS
C	KELLY-MOORE KMW56 'ORCA WHITE'	WINDOW, DOOR TRIM, & CORNER TRIM @ LAP SIDING
D	OWENS CORNING 'DRIFTWOOD'	ROOF SHINGLES
E	HAMPTON BAY BPM169 BLK	LIGHTING



1 EAST ELEVATION

Scale: NOT TO SCALE

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ELEVATIONS BLDG 2
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
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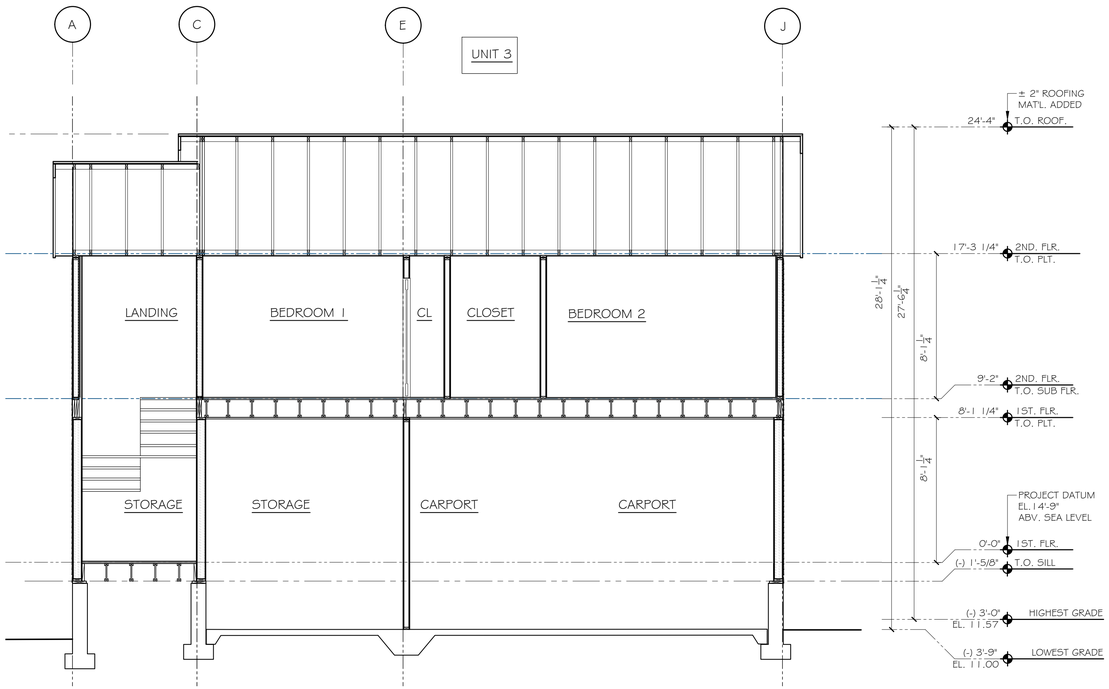
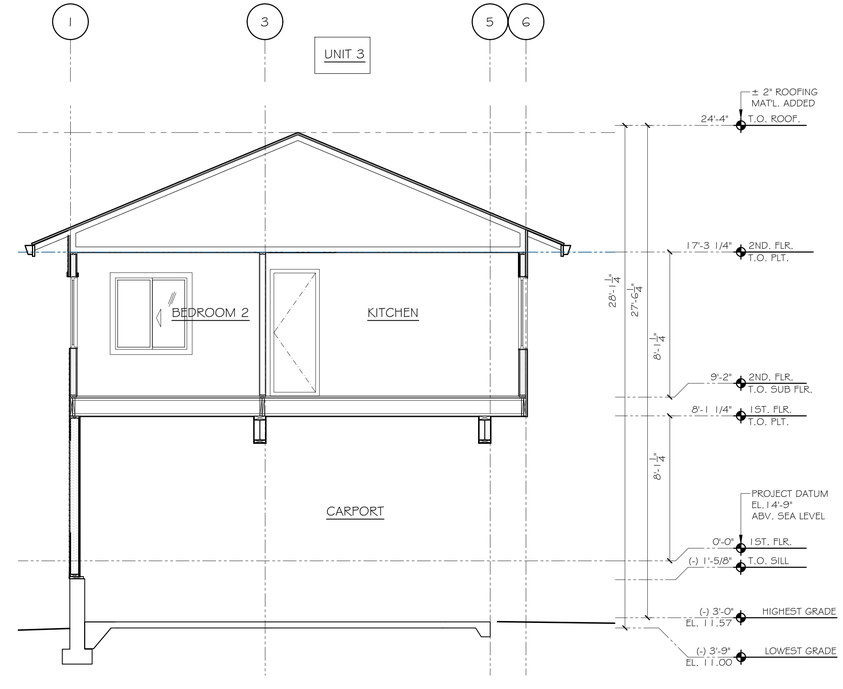
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	7/2/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.4



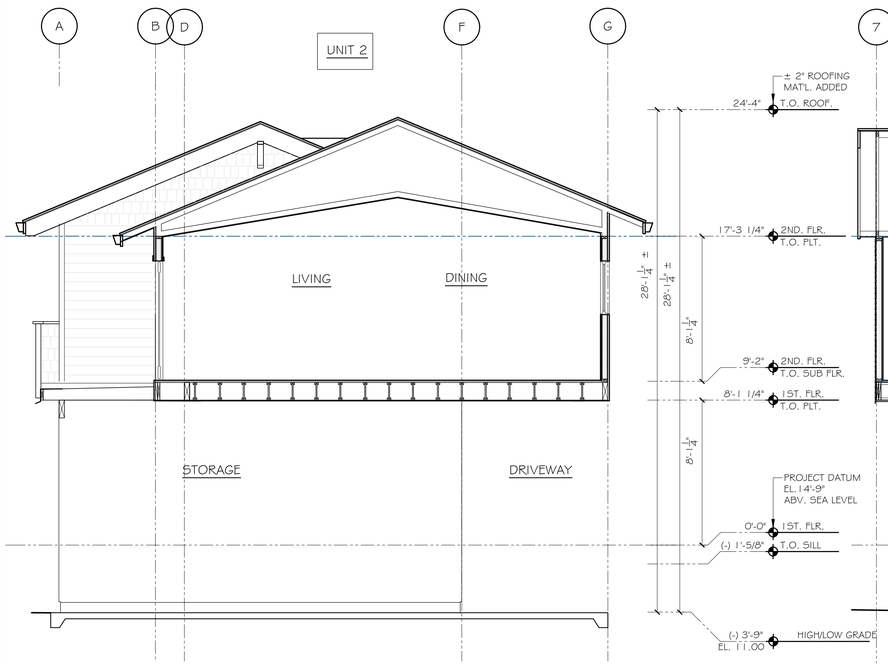
3 SECTION THROUGH UNIT #3, BLDG 2

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



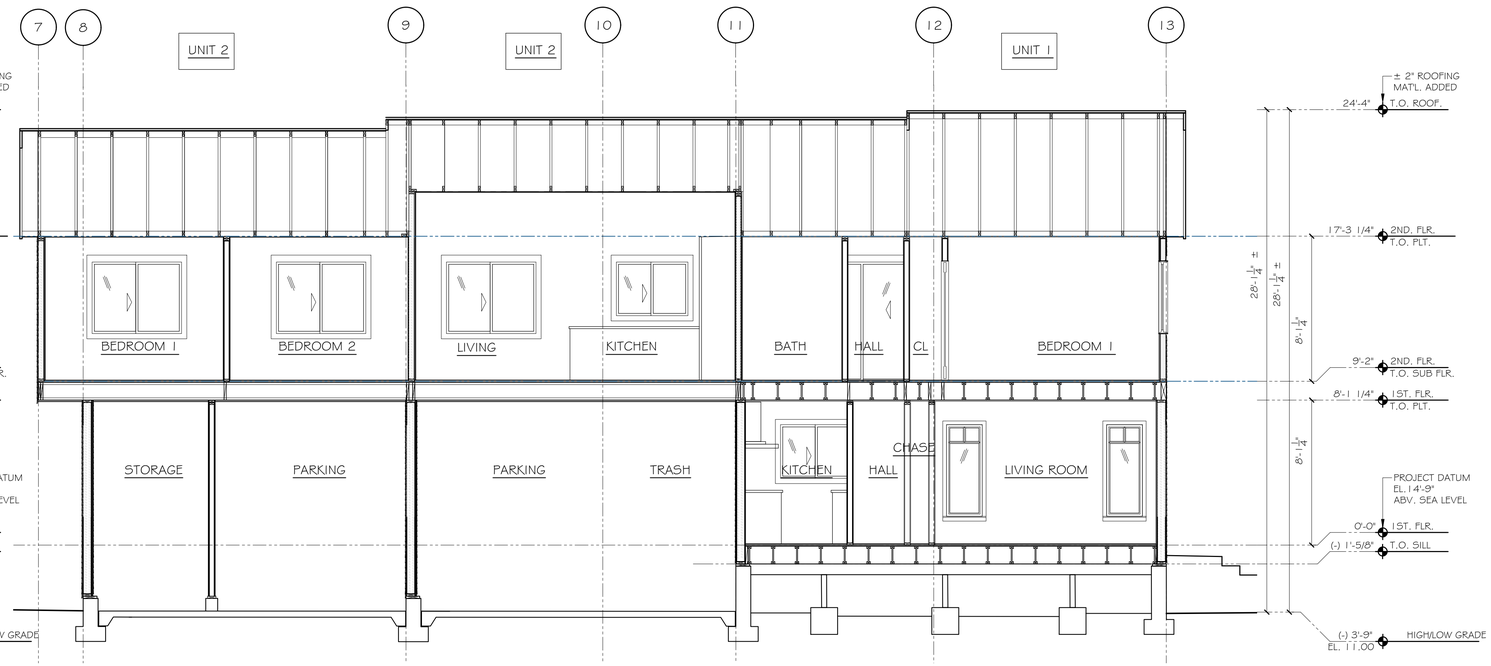
2 SECTION THROUGH UNIT 3, BLDG 2

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



4 SECTION THROUGH UNIT 2, BLDG 1

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



1 LONGITUDINAL SECTION FOR UNIT 1 &2, BLDG 1

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

# REVISIONS	BY

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SECTIONS
172 WEST 10TH STREET
PITTSBURG, CA 94565-2417

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No. C76060
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CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
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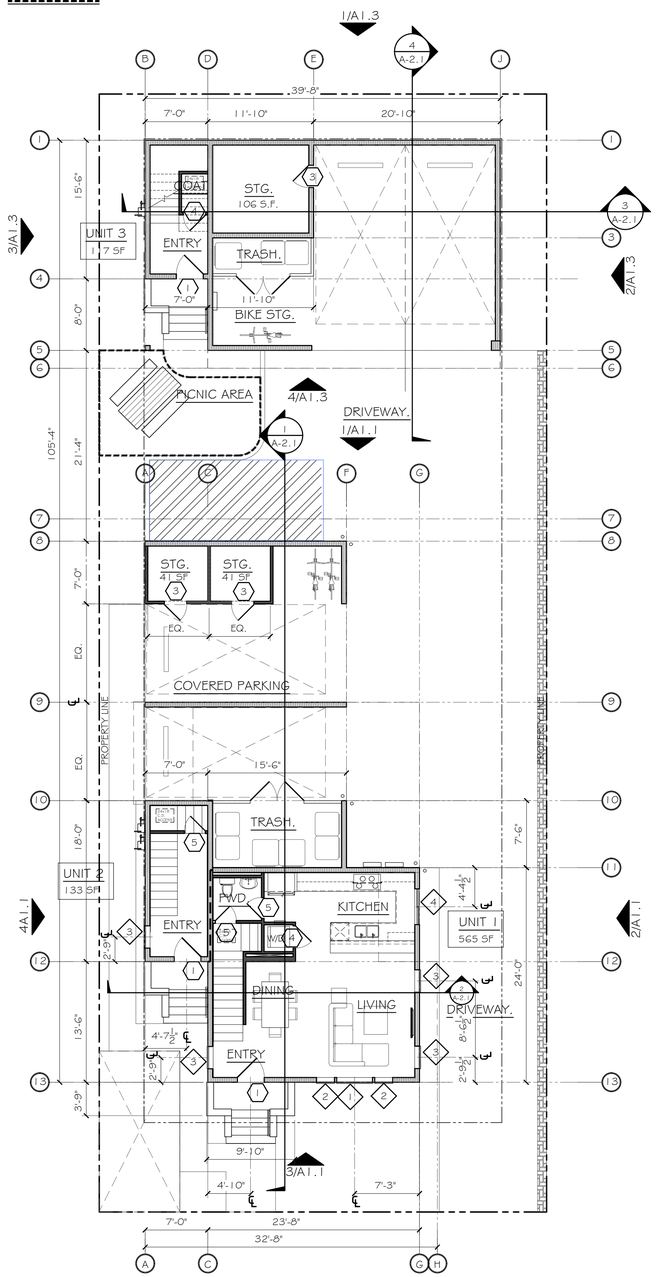
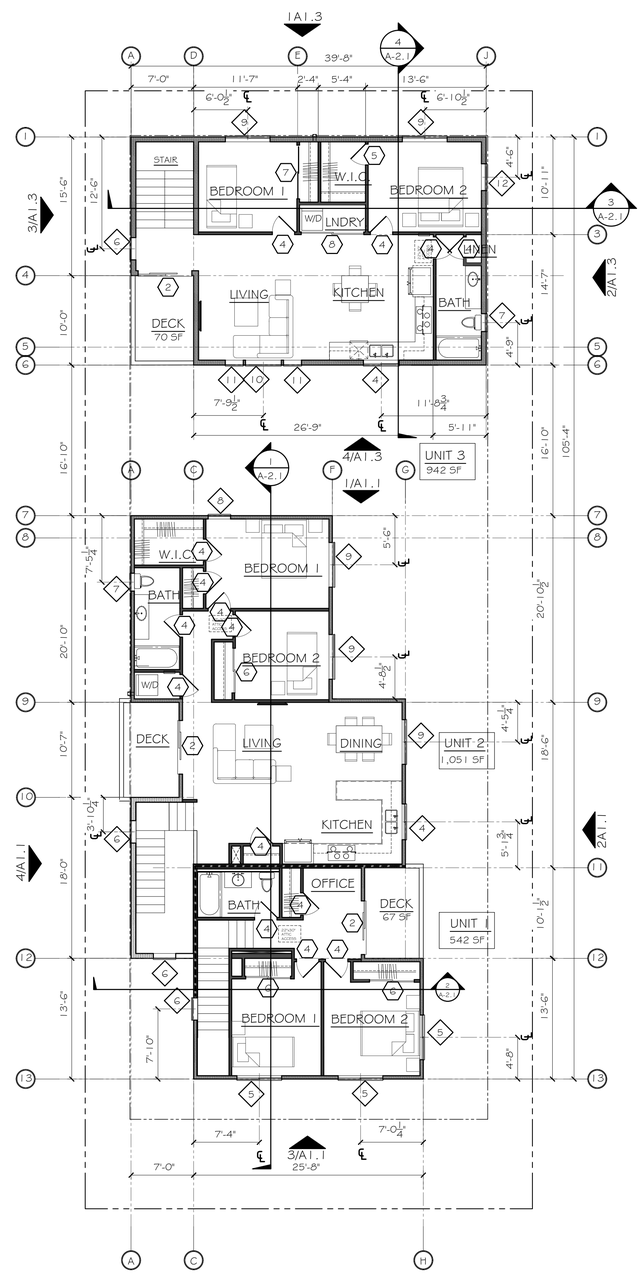
DWG FILE	
SHEET	A2.1

WALL TYPE LEGEND

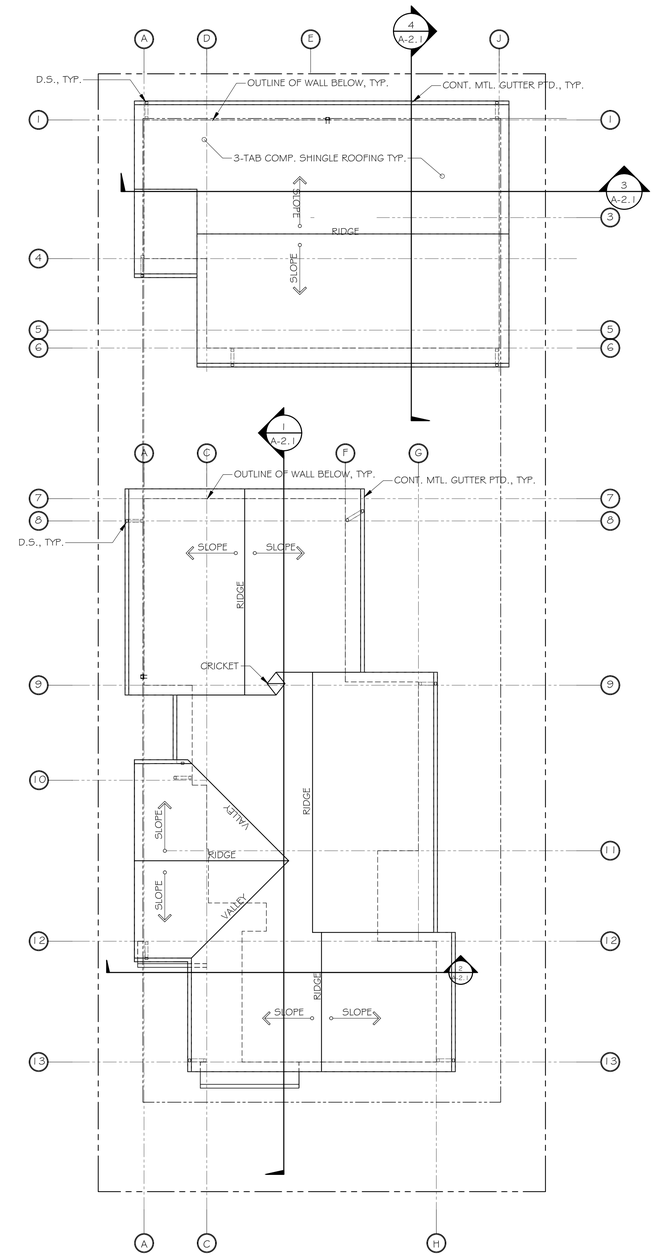
- I — 2X4 2/½" GWB
- II — 4 ⅛" SIPS
- III — 6 ⅛" SIPS
- IV — 2X4 1-HR WALL



1 PROPOSED 1ST FLOOR PLANS
Scale: 1/8"=1'-0"



2 PROPOSED 2ND FLOOR PLANS
Scale: 1/8"=1'-0"



3 PROPOSED ROOF PLANS
Scale: 1/8"=1'-0"

# REVISIONS	BY

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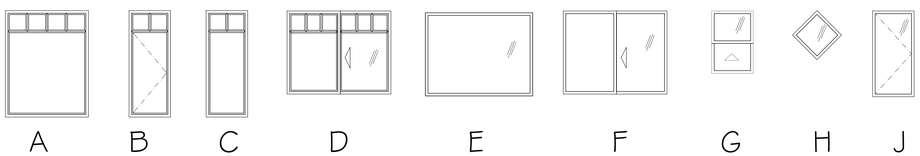
FLOOR & ROOF PLANS
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A3.1

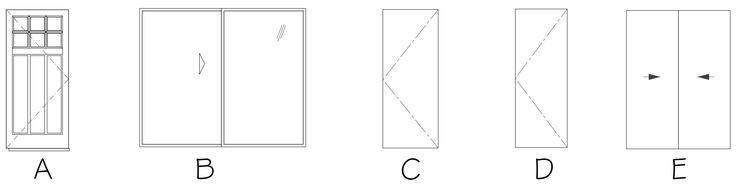
PROPOSED WINDOW SCHEDULE V.I.F. WINDOWS BY OWNER/ INSTALLED BY CONTRACTOR								
WINDOW	WINDOW SIZE			WINDOW TYPE	QTY	GLAZING		EGRESS	NOTES
#	W	x	H			U-VALUE	TEMPERED		ALL WINDOWS ARE MILGARD MONTECITO SERIES VINYL WINDOWS
1	4'-0"	x	5'-0"	A	1				FIXED (MULLION ON TOP)
2	2'-0"	x	5'-0"	B	2				CASEMENT (MULLION ON TOP)
3	2'-6"	x	5'-0"	A	4				FIXED (MULLION ON TOP)
4	4'-0	x	3'-0"	F	3				SLIDER
5	5'-0"	x	4'-0"	D	3			EGRESS	SLIDER (MULLION ON TOP)
6	1'-6"	x	1'-6"	H	4				FIXED
7	2'-0"	x	3'-0"	G	2		TEMPERED		SINGLE HUNG
8	2'-6"	x	5'-0"	E	1				FIXED
9	5'-0"	x	4'-0"	F	5			EGRESS	SLIDER
10	4'-0"	x	4'-0"	E	1				FIXED
11	2'-0"	x	4'-0"	J	2				CASEMENT
12	3'-0	x	4'-0"	E	1				FIXED



1 WINDOW TYPES

NTS

PROPOSED DOOR SCHEDULE V.I.F. DOORS BY OWNER/INSTALLED BY CONTRACTOR									
DOOR		DOOR SIZE			DOOR TYPE	QTY	GLAZING		COMMENTS	NOTES
#		W	x	H			U-VALUE	TEMPERED		
1		3'-0"	x	6'-8"	A	3			EXTERIOR WITH/STRP	S/C WOOD
2		6'-0"	x	6'-8"	B	3		TEMPERED	EXTERIOR WITH/STRP	SLIDING GLASS DOOR
3		3'-0"	x	6'-8"	C	3			EXTERIOR	S/C WOOD
4		2'-6"	x	6'-8"	D	17	-			H/C WOOD
5		2'-4"	x	6'-8"	D	4				H/C WOOD
6		5'-0"	x	6'-8"	E	3				H/C WOOD BI-PASS
7		6'-0"	x	6'-8"	E	1				H/C WOOD BI-PASS
8		7'-0"	x	6'-8"	E	1				H/C WOOD BI-PASS



1 DOOR TYPE

NTS

#	REVISIONS	BY

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DOOR & WINDOW SCHEDULES
172 WEST 10TH STREET
PITTSBURG, CA 94565-2415

REGISTERED PROFESSIONAL ENGINEER
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CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A3.2

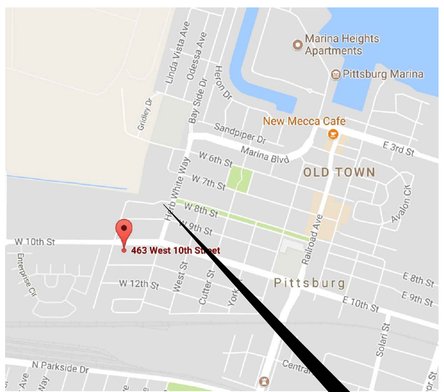
463 WEST 10TH STREET

AERIAL VIEW

AREA OF WORK

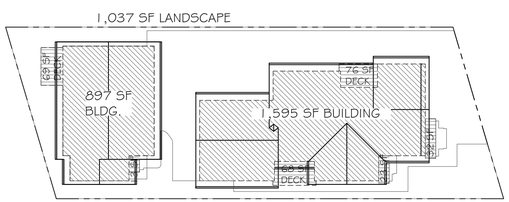
BUILDING 2

BUILDING 1



VICINITY MAP

463 W 10TH ST



2773 SF COVERAGE / 5994 SF LOT = 0.4626 LOT COVERAGE =46.26%

LOT COVERAGE

BUILDING

DECKS & ROOF OVERHANGS > 2'-6"

SCOPE OF WORK

NEW MULTI-FAMILY HOUSING UNITS CONSISTING OF:
1 (EA) 2-BEDROOM / 1 $\frac{1}{2}$ BATH TOWNHOUSE AND
2 (EA) 2-BEDROOM / 1 BATH FLATS.

SITE DATA

APN	085-241-003-4
ZONE	M (DEVELOPED AS RHD)
OCCUPANCY CLASSIFICATION	R2/U
CONSTRUCTION TYPE	V-B
LOT SIZE	5,994 SF

CODES & STANDARDS

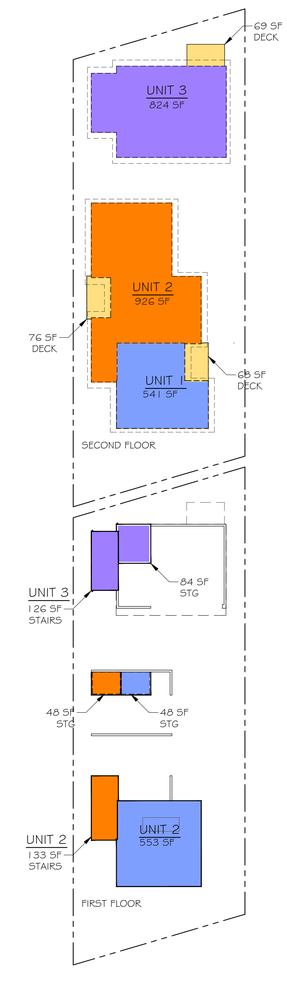
2016 CALIFORNIA BUILDING CODE
2016 CALIFORNIA RESIDENTIAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA ENERGY EFFICIENCY STANDARDS
2016 CALIFORNIA FIRE CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
CITY OF PITTSBURG ORDINANCES

SHEET INDEX

CS-1 COVER SHEET
CS-2 SITE PLAN
CS-3 CONTEXTUAL MAP
A1.1 ELEVATIONS - BLDG 1
A1.2 COLOR RENDERINGS - BLDG 1
A1.3 ELEVATIONS - BLDDG 1
A1.4 COLOR RENDERINGS - BLDG 2
A2.1 SECTIONS
A3.1 FLOOR & ROOF PLANS
A3.2 WINDOW & DOOR SCHEDULES

PROJECT DATA

	BUILDING	UNIT 1	UNIT 2	UNIT 3
GENERAL PLAN	DOWNTOWN			
ZONING	M			
LOT SIZE	5,994 S.F.			
LOT WIDTH	47'-11 1/2"			
PROJECT DENSITY	3 DWELLING UNITS			
TOTAL BUILDING AREA (INCLUDING STORAGE)	3,283 SF	1,142 SF	1,107 SF	1,034 SF
F.A.R.	N/A			
STORIES	2			
HEIGHT	26'-3"			
% LOT COVERAGE	46.26%			
% LANDSCAPED AREA	23%			
% COMMON SPACE	135 SF = 2.25%			
% PRIVATE OPEN SPACE	244 SF = 4.07%	68 SF	76 SF	69 SF
TOTAL IMPERVIOUS SURFACE AREA	4,569 SF			
COVERED PARKING	4	1.33	1.33	1.33
UNCOVERED PARKING	1	0	0	0



BUILDING AREA

#	REVISIONS	BY

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COVER SHEET
463 WEST 10TH STREET
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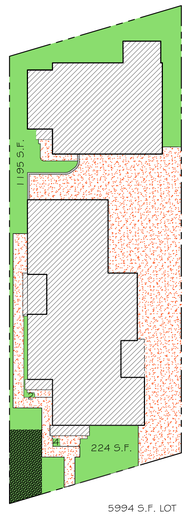
SHEET	CS-1



5994 S.F. LOT

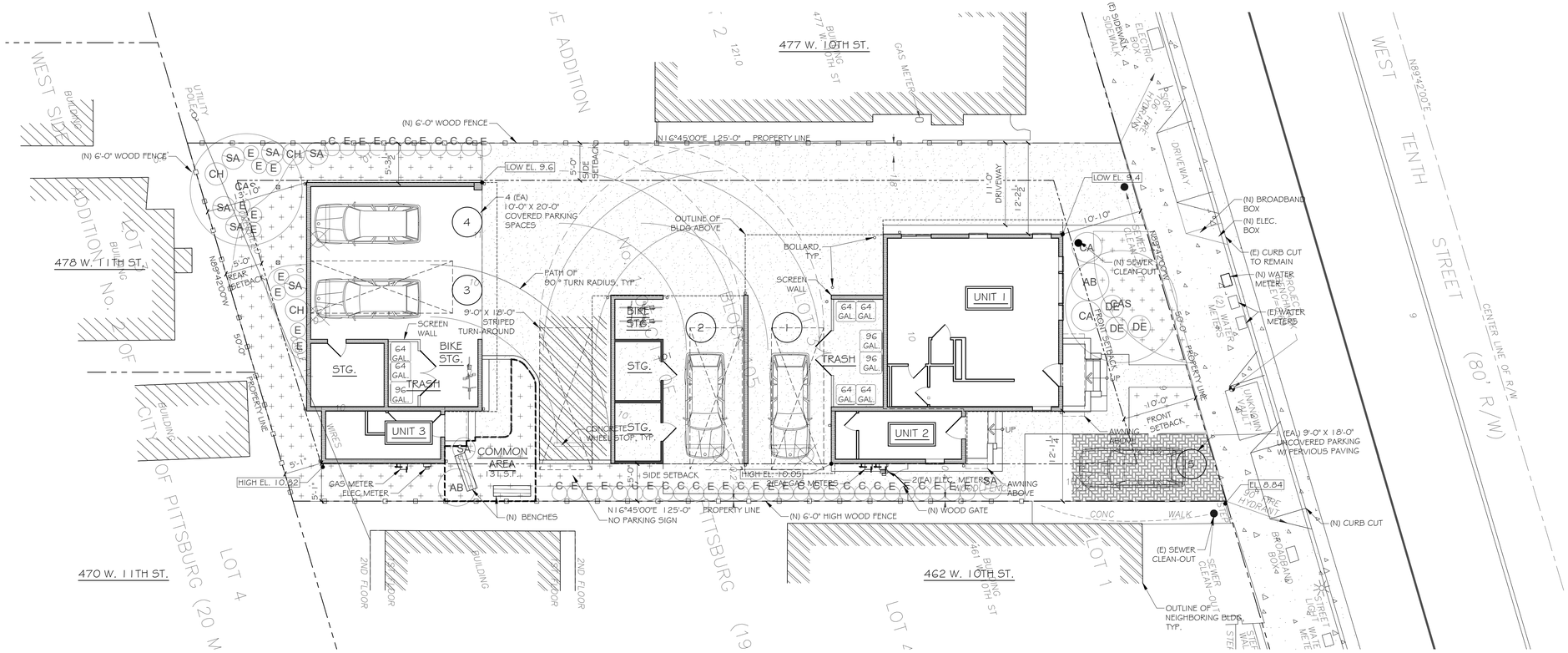
BULDING & ROOF OVER 2'-6"
IMPERVIOUS PAVING
PERVIOUS SURFACE
PERVIOUS PAVERS

20% LOT = MIN. PERVIOUS REQ'D.
PERVIOUS / LOT = PERVIOUS PROVIDED
1425 S.F. (PERVIOUS) / 5994 SF (LOT) = 0.2377 (PERVIOUS PROVIDED)
= 23.77% PERVIOUS PROVIDED

23.77% = > 20% = COMPLIES

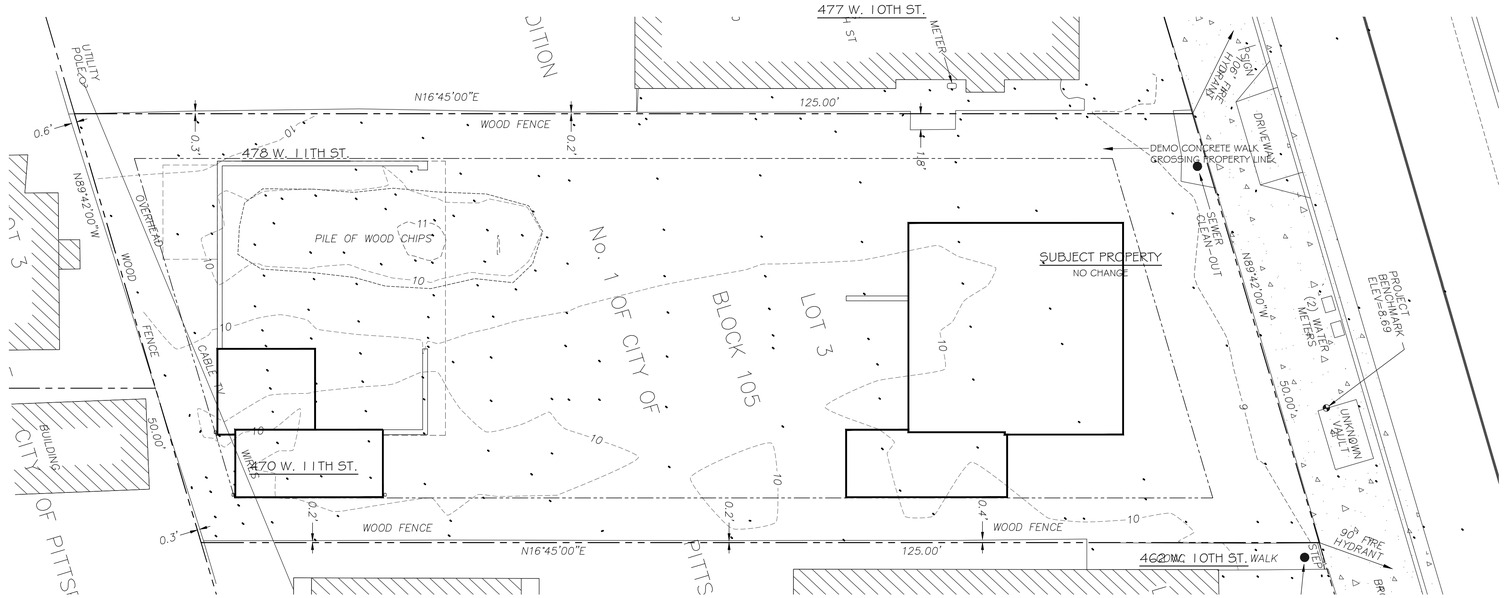
LOT - PERVIOUS = IMPERVIOUS
5,994 S.F. - 1,425 S.F. = 4,569 S.F. IMPERVIOUS

3 IMPERVIOUS CALCULATIONS
N.T.S.



1 PROPOSED SITE PLAN
Scale: 1/8" = 1'-0"

NORTH



2 EXISTING SITE PLAN
Scale: 1/8" = 1'-0"

NORTH

#	REVISIONS	BY

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SITE PLAN
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
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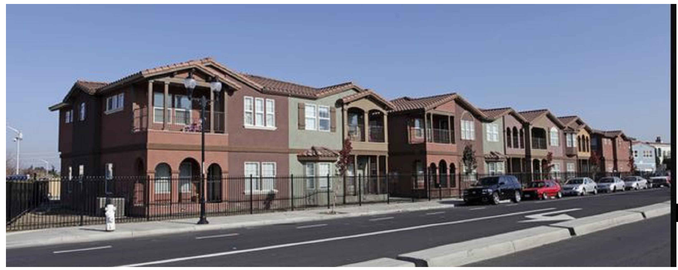
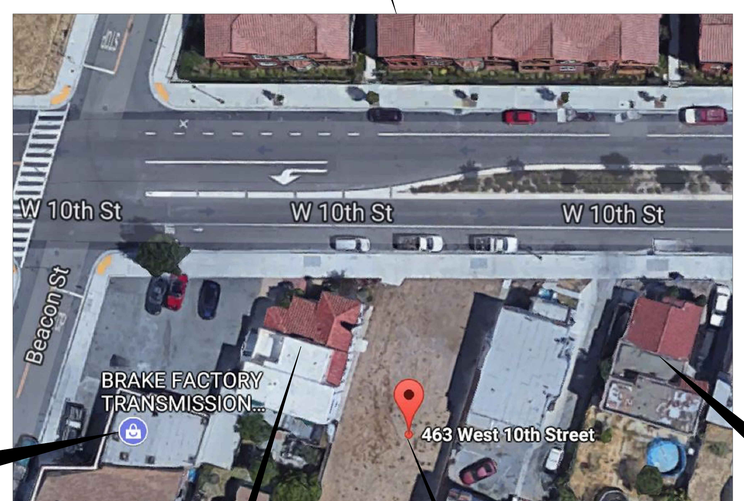
CIVIL
STATE OF CALIFORNIA

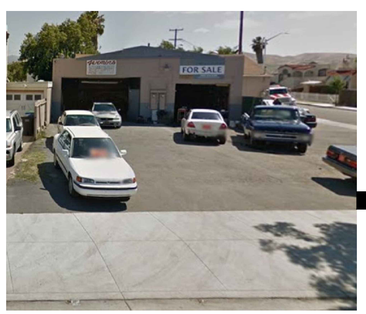
DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-2

463 W 10TH STREET

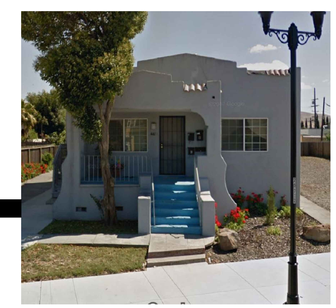


1051 BEACON ST. & 470 WEST 10TH ST.
NTS

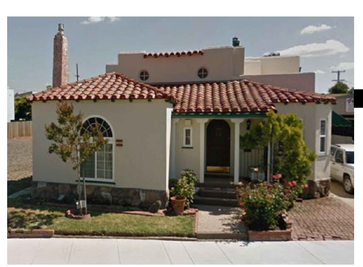




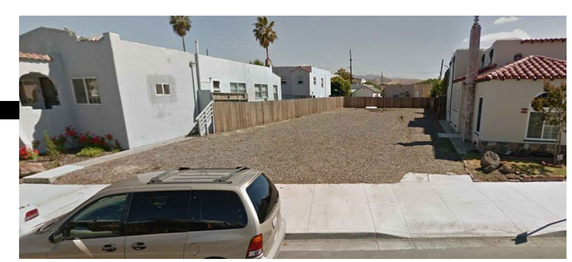
487 W 10TH
NTS



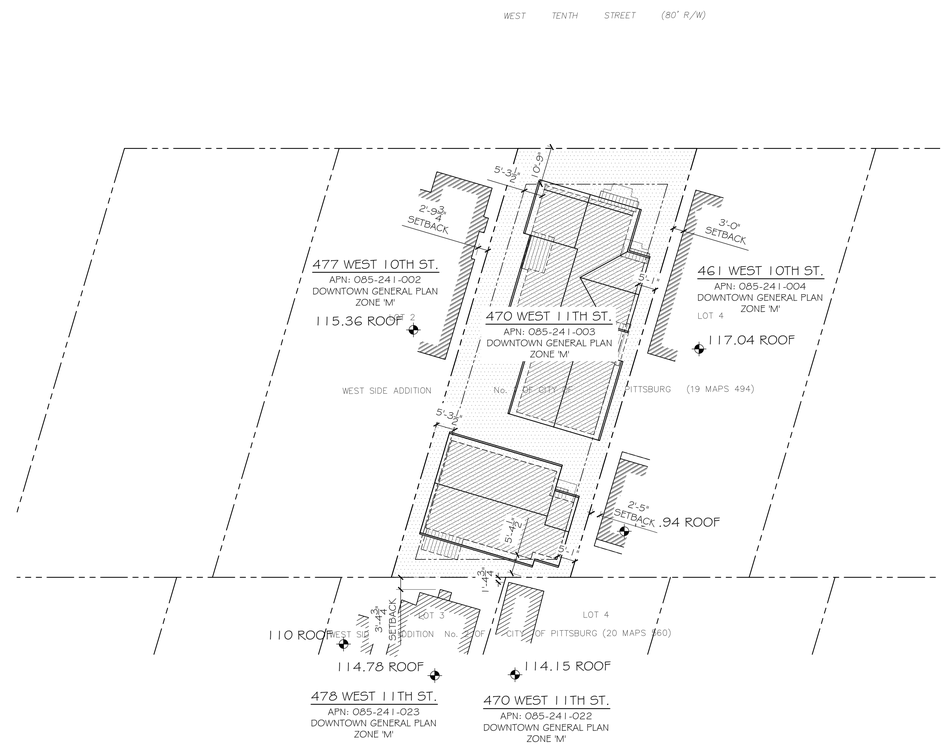
461 W 10TH ST
NTS



477 W 10TH
NTS



463 W 10TH ST - SUBJECT PROPERTY
NTS



1 463 WEST 10TH ST. - CONTEXTUL MAP
Scale: 1"= 10'-0"

# REVISIONS	BY

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CONTEXTUL MAP
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

REGISTERED PROFESSIONAL ENGINEER
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No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

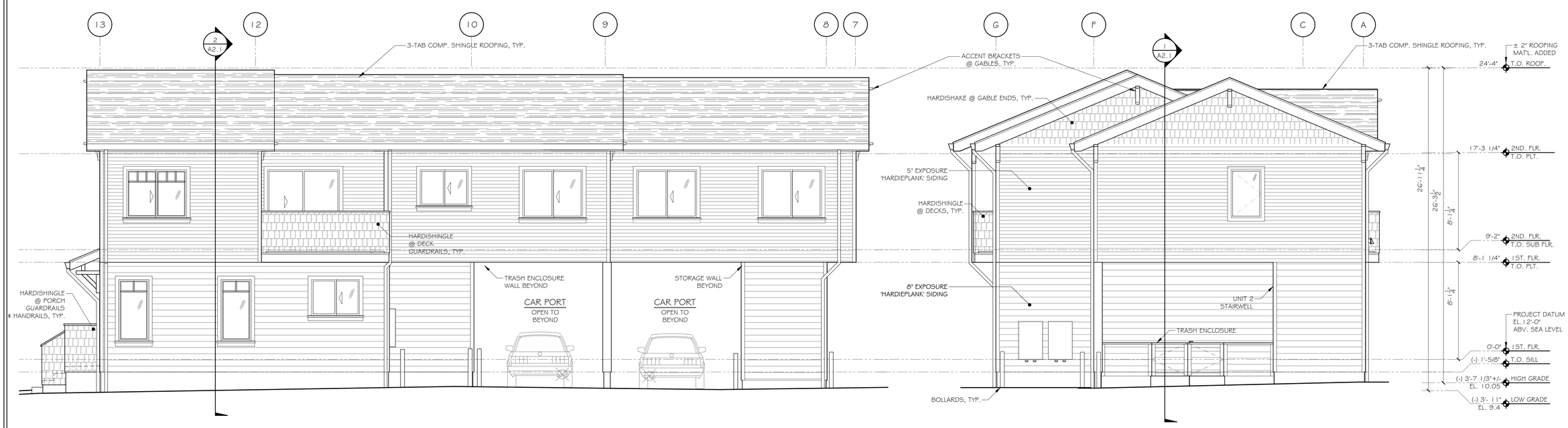
DATE	07/02/18
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	CS-3

4 EAST ELEVATION (UNITS 1 & 2) - BLDG 1

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

3 NORTH ELEVATION (UNITS 1 & 2) - BLDG 1

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



2 WEST ELEVATION (UNITS 1 & 2) - BLDG 1

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

1 SOUTH ELEVATION (UNITS 1 & 2) - BLDG 1

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

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ELEVATIONS - BLDG 1

463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

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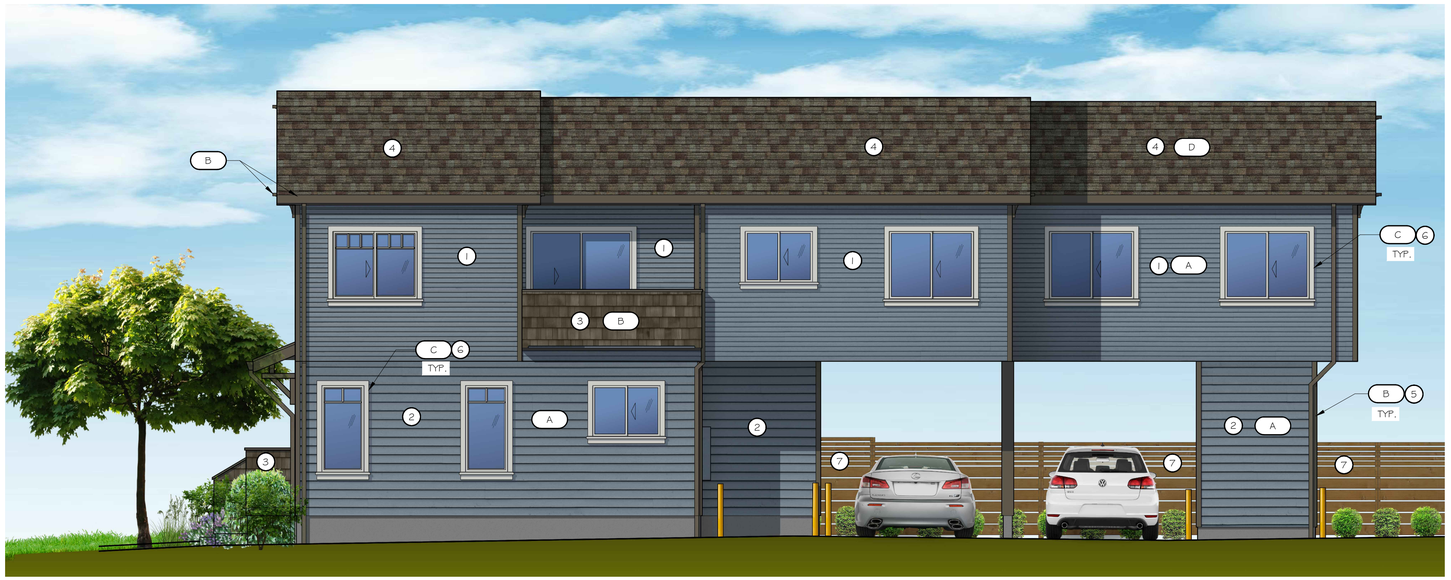
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.1

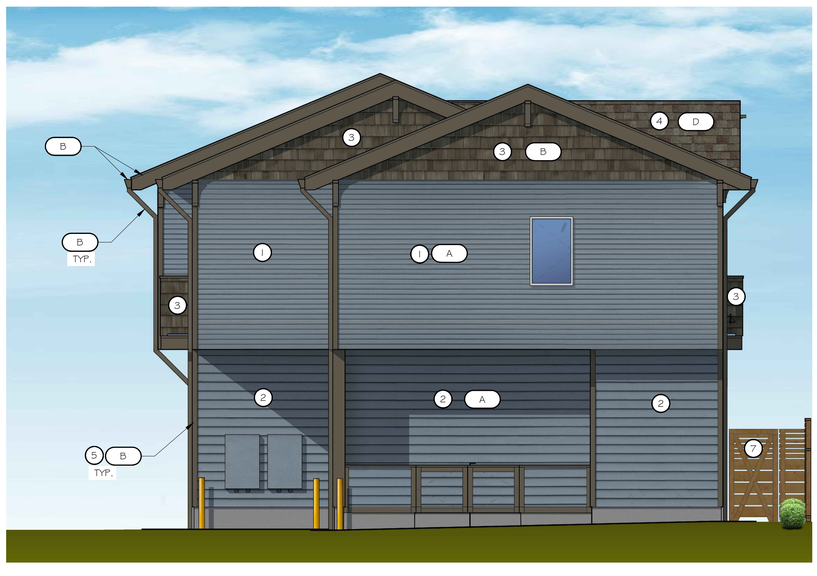


4 WEST ELEVATION - BLDG 1

Scale: NOT TO SCALE

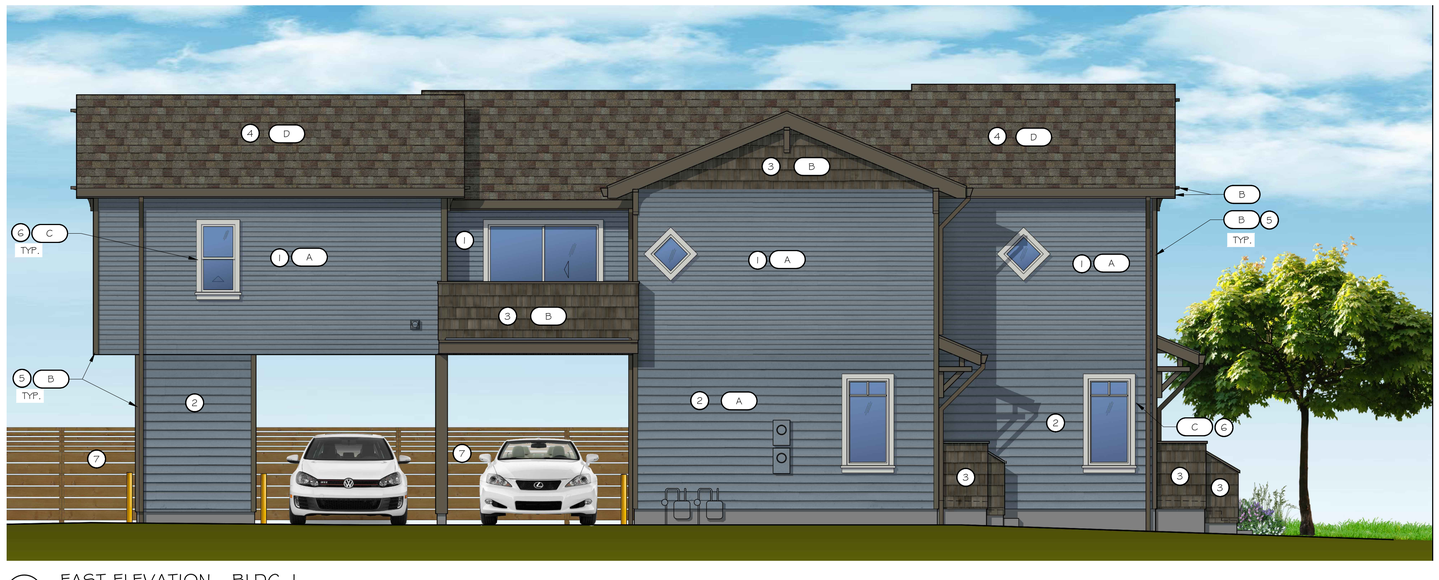
3 NORTH ELEVATION - BLDG 1

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



2 SOUTH ELEVATION - BLDG 1

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



1 EAST ELEVATION - BLDG 1

Scale: NOT TO SCALE

MATERIALS LEGEND

1. 5" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
2. 8" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
3. HARDIE SHINGLE STRAIGHT EDGE PANEL
4. OWENS CORNING COMPOSITION SHINGLE
5. 5/4 HARDI TRIM BOARDS - SMOOTH
6. 4/4 HARDI TRIM BOARDS - SMOOTH
7. (N) WOOD FENCE, STAINED

COLOR LEGEND

A	KELLY-MOORE KM4874 'OYSTER BAY'	LAP SIDING
B	KELLY-MOORE KM4582 'BEAVER PELT'	SHINGLE SIDING & CORNER TRIM @ SHINGLES, FENCES, RAILINGS, RAKES, BRACES, & GUTTERS
C	KELLY-MOORE KMW56 'ORCA WHITE'	WINDOW, DOOR TRIM, & CORNER TRIM @ LAP SIDING
D	OWENS CORNING 'DRIFTWOOD'	ROOF SHINGLES
E	HAMPTON BAY BPM1G91BLK	LIGHTING

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COLOR RENDERINGS - BLDG 1
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

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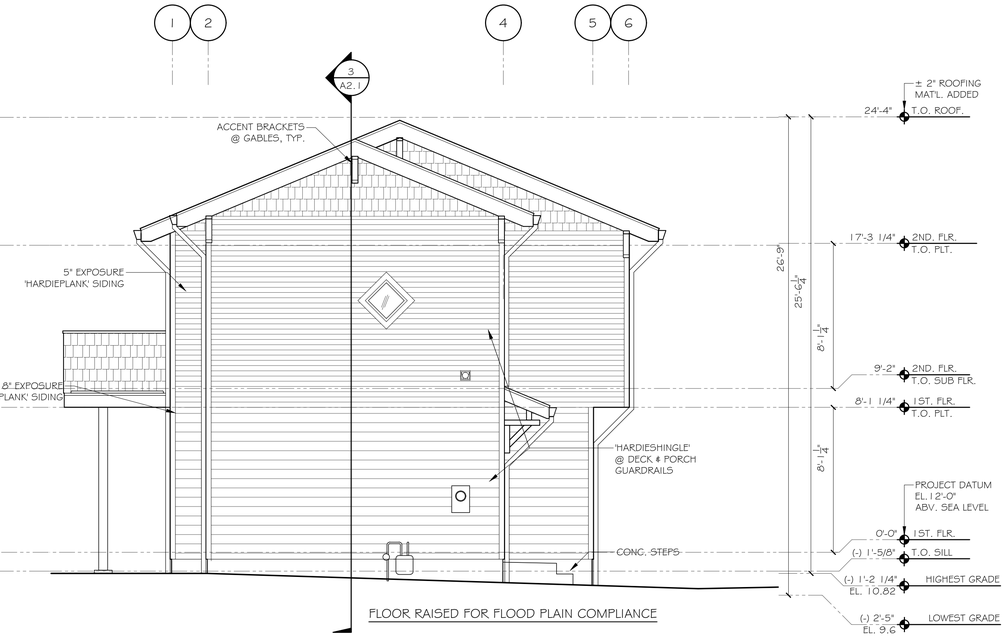
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.2

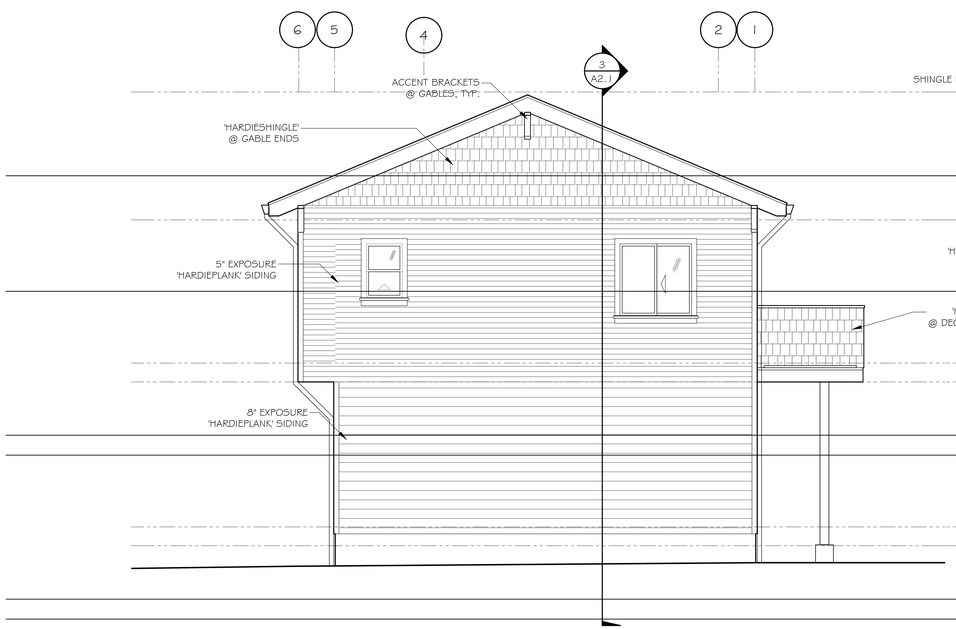
4 NORTH ELEVATION (UNIT 3) - BLDG 2

1/4"= 1'-0



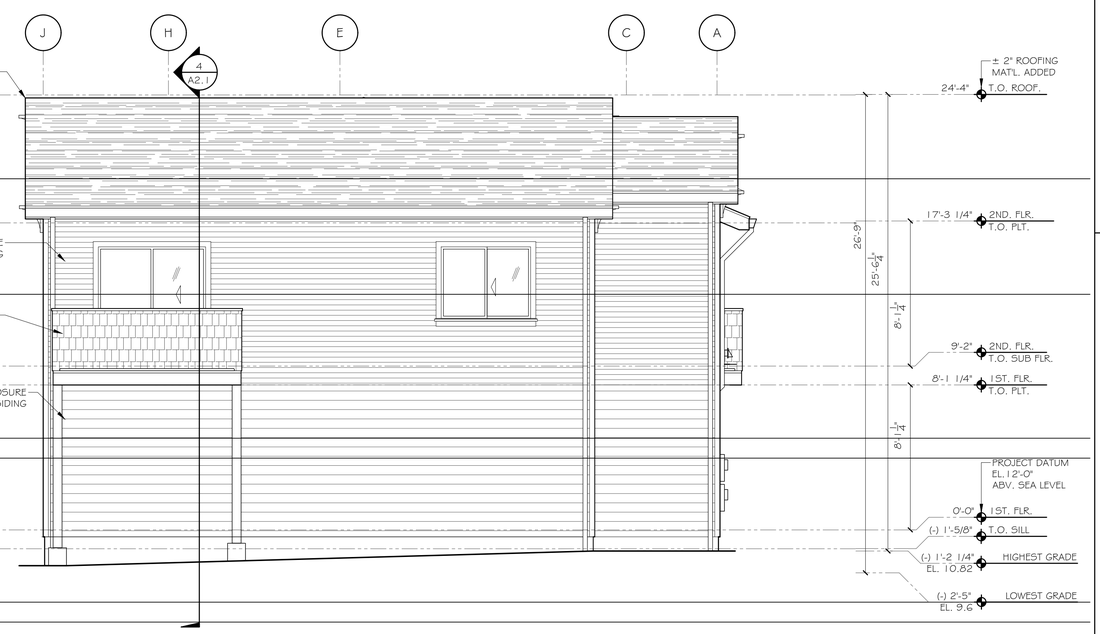
3 EAST ELEVATION (UNIT 3) - BLDG 2

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



2 WEST ELEVATION (UNIT 3) - BLDG 2

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



1 SOUTH ELEVATION (UNIT 3) - BLDG 2

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

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ELEVATIONS - BLDG 2
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

REGISTERED PROFESSIONAL ENGINEER
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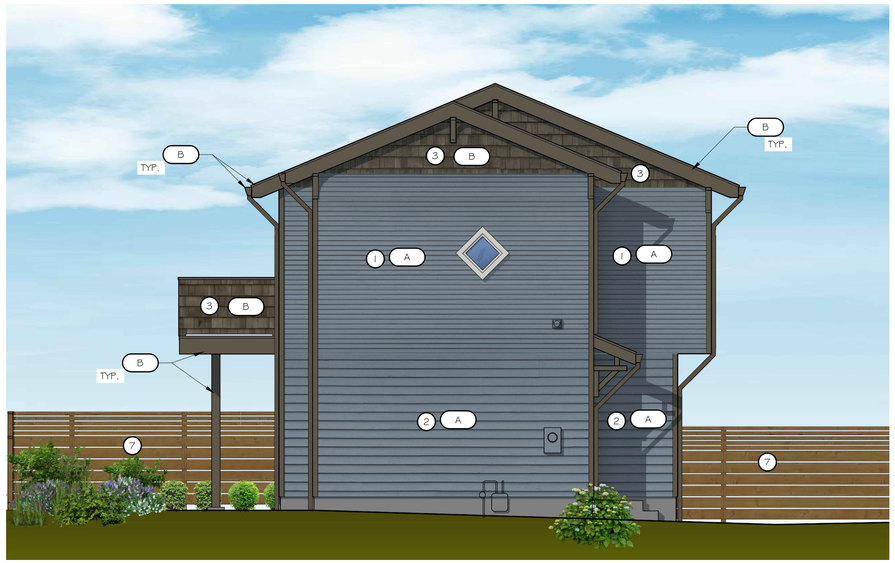
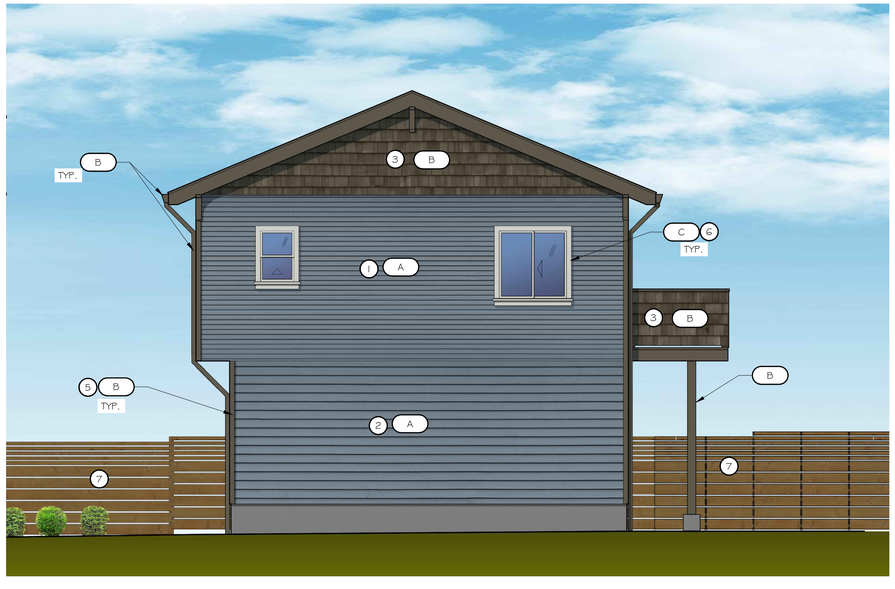
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.3



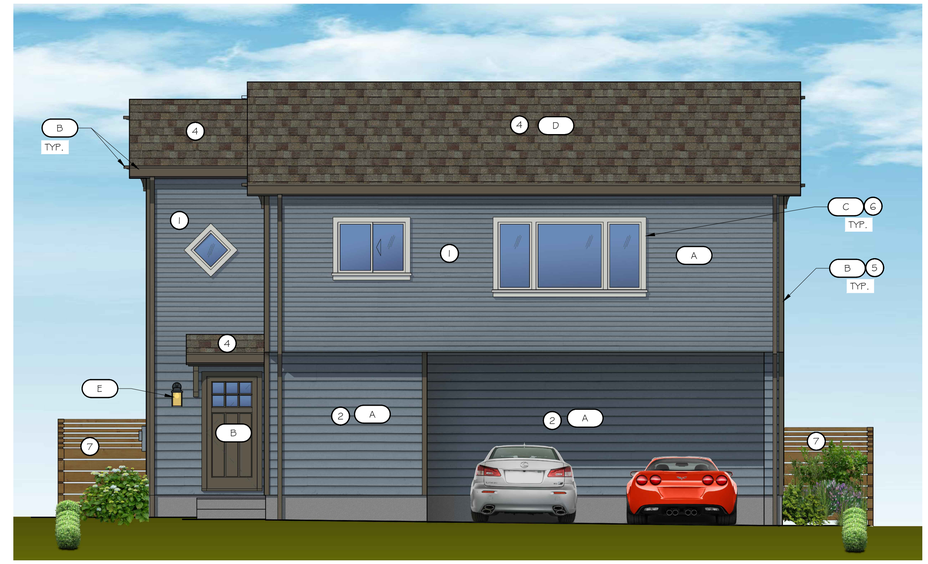
4 WEST ELEVATION - BLDG 2

Scale: NOT TO SCALE



2 SOUTH ELEVATION - BLDG 2

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



3 NORTH ELEVATION - BLDG 2

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

MATERIALS LEGEND

1. 5" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
2. 8" EXPOSURE HARDIPLANK LAP SIDING - SMOOTH
3. HARDIE SHINGLE STRAIGHT EDGE PANEL
4. OWENS CORNING COMPOSITION SHINGLE
5. 5/4 HARDI TRIM BOARDS - SMOOTH
6. 5/4 HARDI TRIM BOARDS - SMOOTH
7. (N) WOOD FENCE, STAINED

COLOR LEGEND

A	KELLY-MOORE KM4874 'OYSTER BAY'	LAP SIDING
B	KELLY-MOORE KM4582 'BEAVER PELT'	SHINGLE SIDING & CORNER TRIM @ SHINGLES, FENCES, RAILINGS, RAKES, BRACES, & GUTTERS
C	KELLY-MOORE KMW56 'ORCA WHITE'	WINDOW, DOOR TRIM, & CORNER TRIM @ LAP SIDING
D	OWENS CORNING 'DRIFTWOOD'	ROOF SHINGLES
E	HAMPTON BAY BPM1691BLK	LIGHTING

1 EAST ELEVATION - BLDG 2

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

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COLOR RENDERINGS - BLDG 2
463 WEST 10TH STREET
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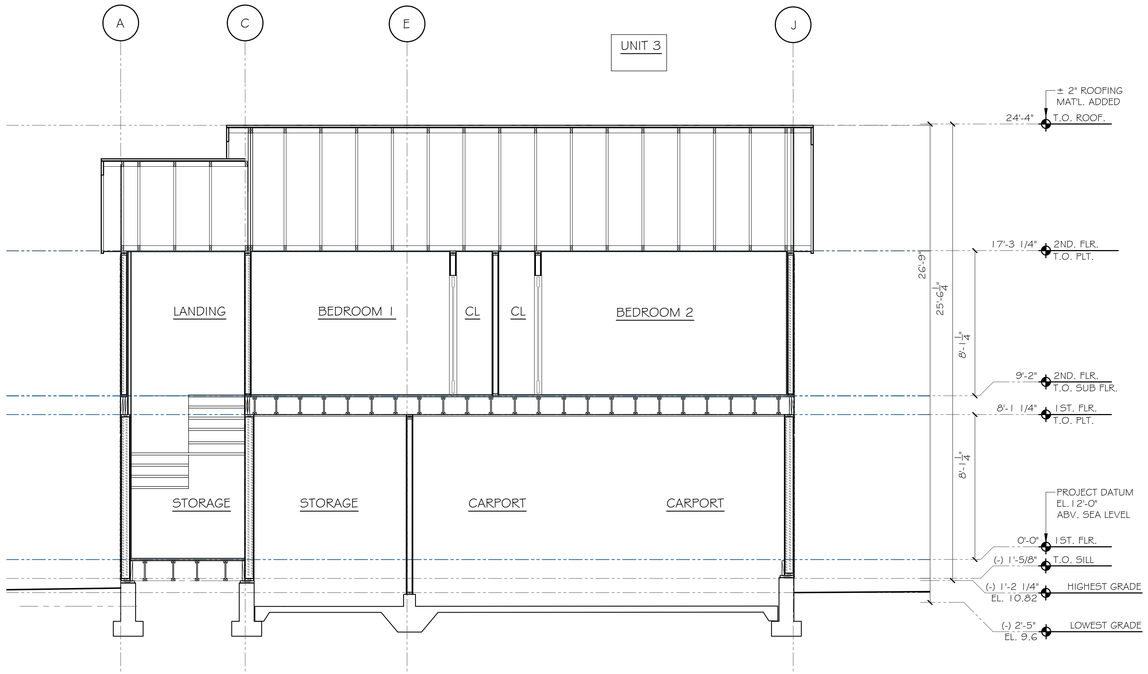
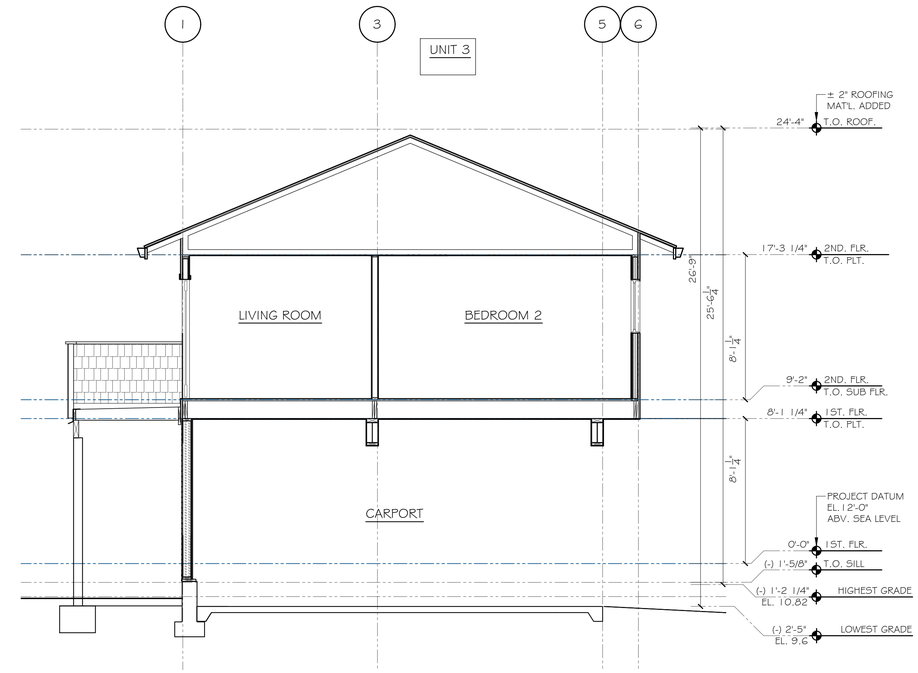
DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A1.4



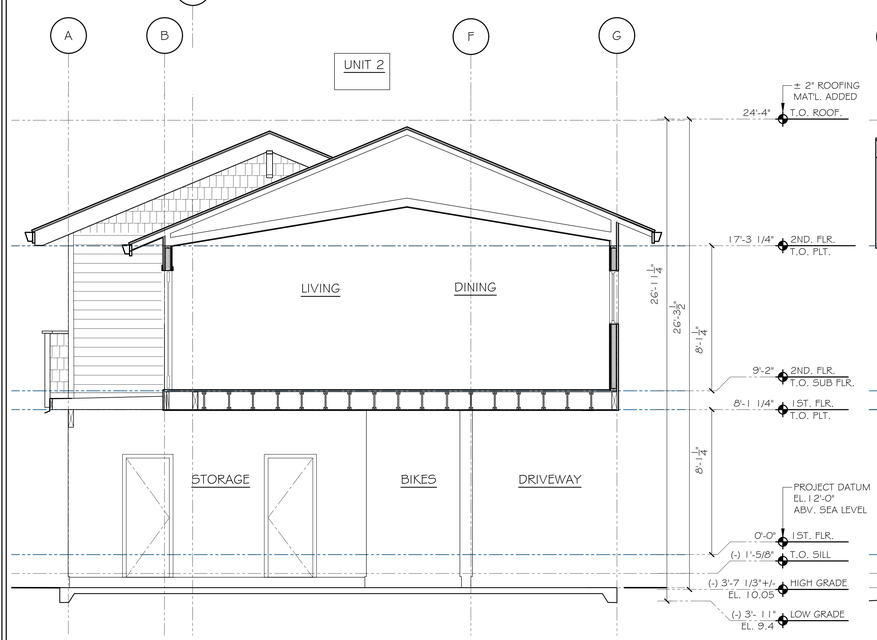
3 SECTION THROUGH UNIT #3, BLDG 2

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



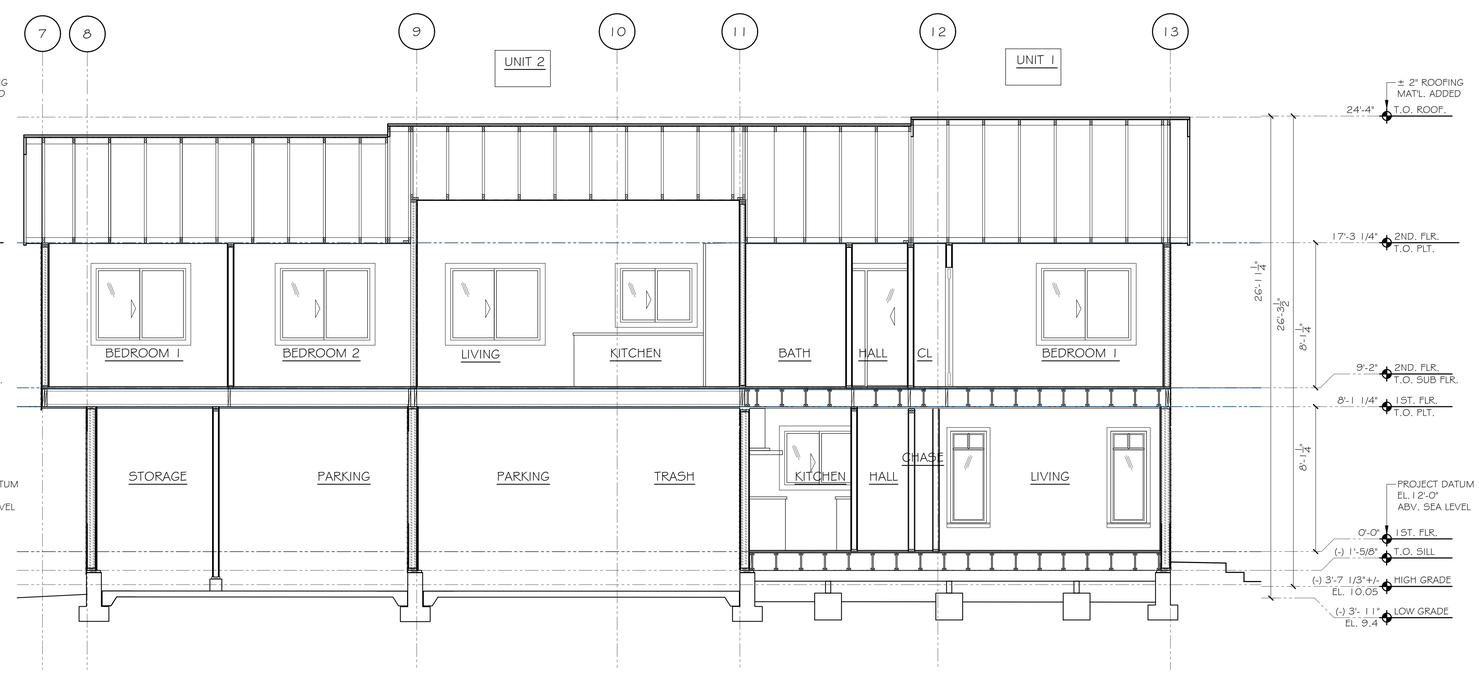
2 SECTION THROUGH UNIT 3, BLDG 2

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



4 SECTION THROUGH UNIT 2, BLDG 1

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



1 LONGITUDINAL SECTION FOR UNIT 1 &2, BLDG 1

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

# REVISIONS	BY

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SECTIONS
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

REGISTERED PROFESSIONAL ENGINEER
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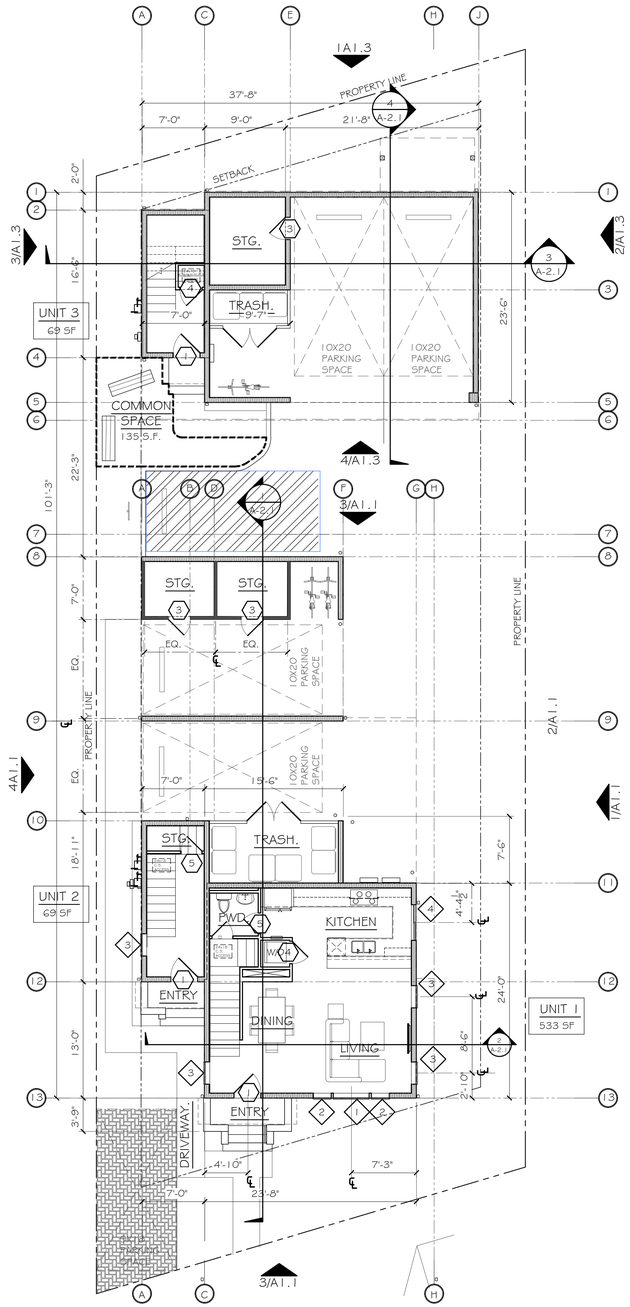
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A2.1

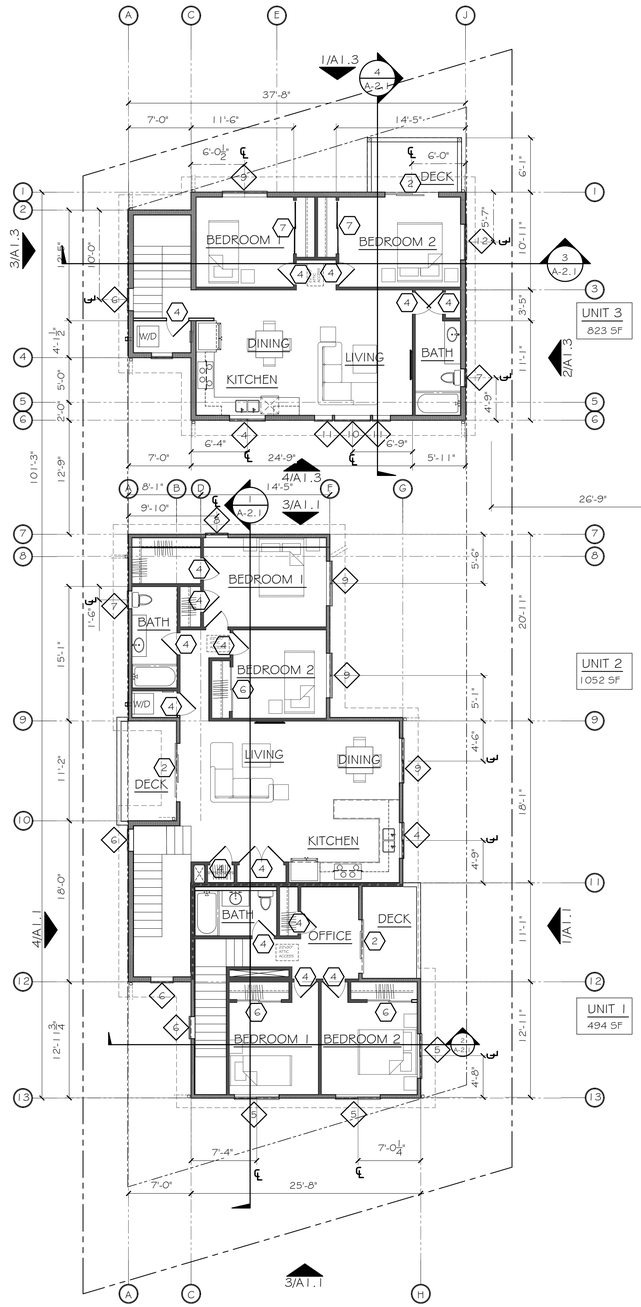
WALL TYPE LEGEND

I	2X4 2 1/2" GWB
II	4 1/2" SIPS
III	6 1/2" SIPS
IV	2X4 1-HR WALL



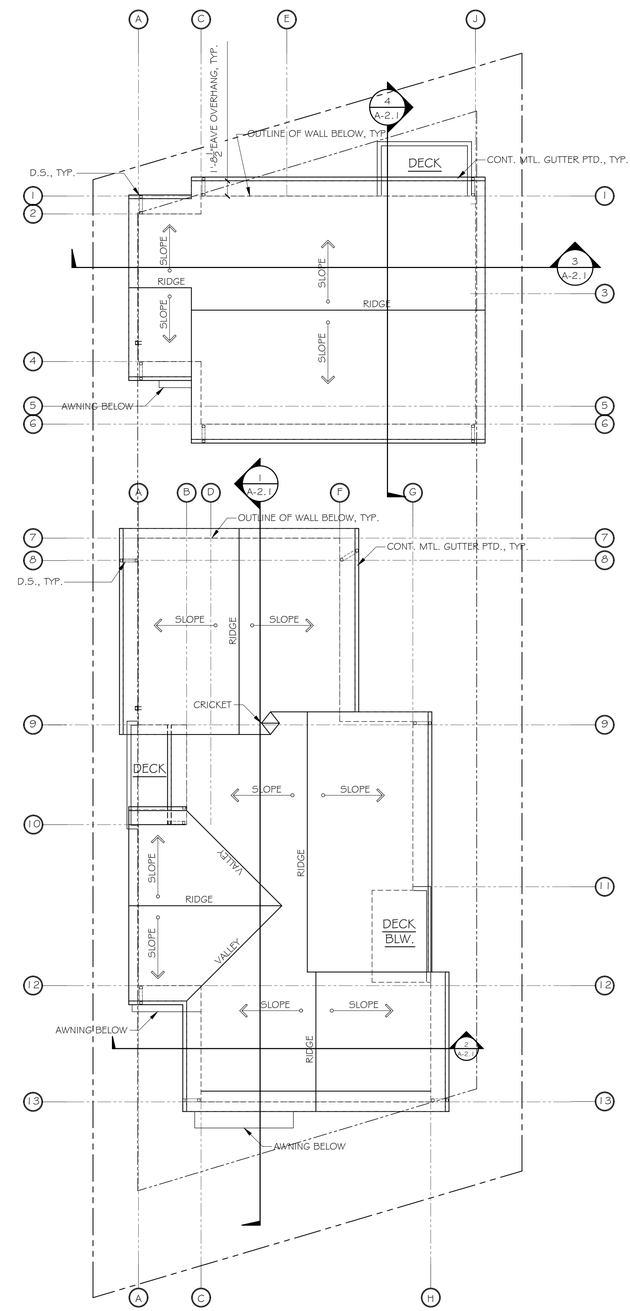
1 PROPOSED FIRST FLOOR PLANS

Scale: 1/8"=1'-0"



2 PROPOSED SECOND FLOOR PLANS

Scale: 1/8"=1'-0"



3 PROPOSED ROOF PLANS

Scale: 1/8"=1'-0"

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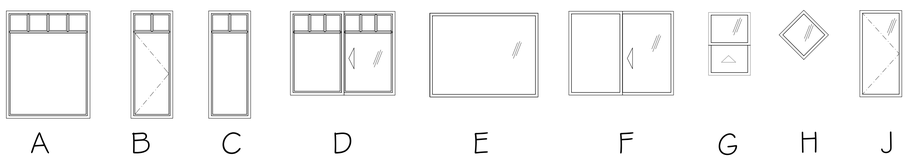
FLOOR & ROOF PLANS
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

REGISTERED PROFESSIONAL ENGINEER
GWEN MARIE BERTOLAMI
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A3.1

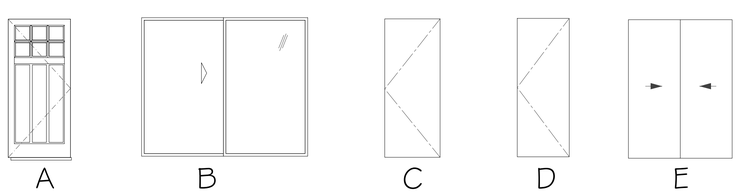
PROPOSED WINDOW SCHEDULE V.I.F. WINDOWS BY OWNER/ INSTALLED BY CONTRACTOR								
WINDOW	WINDOW SIZE			WINDOW TYPE	QTY	GLAZING		EGRESS	NOTES
#	W	x	H			U-VALUE	TEMPERED		ALL WINDOWS ARE MILGARD MONTECITO SERIES VINYL WINDOWS
1	4'-0"	x	5'-0"	A	1				FIXED (MULLION ON TOP)
2	2'-0"	x	5'-0"	B	2				CASEMENT (MULLION ON TOP)
3	2'-6"	x	5'-0"	A	4				FIXED (MULLION ON TOP)
4	4'-0	x	3'-0"	F	3				SLIDER
5	5'-0"	x	4'-0"	D	3			EGRESS	SLIDER (MULLION ON TOP)
6	1'-6"	x	1'-6"	H	4				FIXED
7	2'-0"	x	3'-0"	G	2		TEMPERED		SINGLE HUNG
8	2'-6"	x	4'-0"	J	1				CASEMENT
9	5'-0"	x	4'-0"	F	4			EGRESS	SLIDER
10	4'-0"	x	4'-0"	E	1				FIXED
11	2'-0"	x	4'-0"	J	2				CASEMENT
12	4'-0	x	4'-0"	F	1				SLIDER



2 WINDOW TYPES

NTS

PROPOSED DOOR SCHEDULE V.I.F. DOORS BY OWNER/INSTALLED BY CONTRACTOR									
DOOR		DOOR SIZE			DOOR TYPE	QTY	GLAZING		COMMENTS	NOTES
#		W	x	H			U-VALUE	TEMPERED		
1		3'-0"	x	6'-8"	A	3			EXTERIOR WITH/STRP	S/C WOOD
2		6'-0"	x	6'-8"	B	3		TEMPERED	EXTERIOR WITH/STRP	SLIDING GLASS DOOR
3		2'-6"	x	6'-8"	C	3			EXTERIOR	S/C WOOD
4		2'-6"	x	6'-8"	D	18	-			H/C WOOD
5		2'-4"	x	6'-8"	D	4				H/C WOOD
6		5'-0"	x	6'-8"	E	3				H/C WOOD BI-PASS
7		6'-0"	x	6'-8"	E	2				H/C WOOD BI-PASS



1 DOOR TYPES

NTS

#	REVISIONS	BY

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SCHEDULES
463 WEST 10TH STREET
PITTSBURG, CA 94565-2417

REGISTERED PROFESSIONAL ENGINEER
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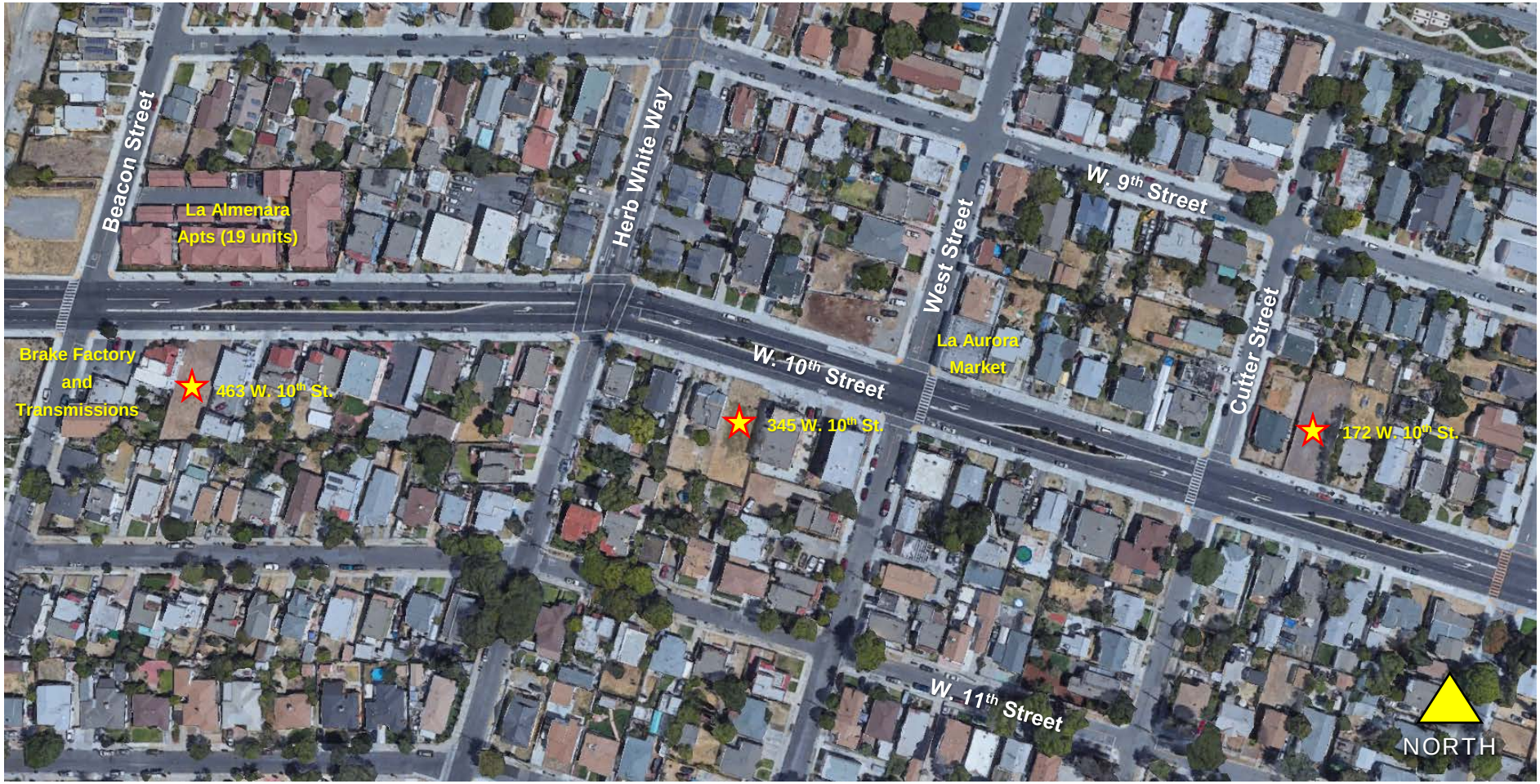
No. C76060
EXP. 6-30-20
CIVIL
STATE OF CALIFORNIA

DATE	07/02/2018
SCALE	AS SHOWN
DRAWN BY	SL
DWG FILE	
SHEET	A3.2

Attachment 5
Map of Surrounding Uses
Galloway Triplexes, AP-17-1294 through -1296 (DR)

Project Sites

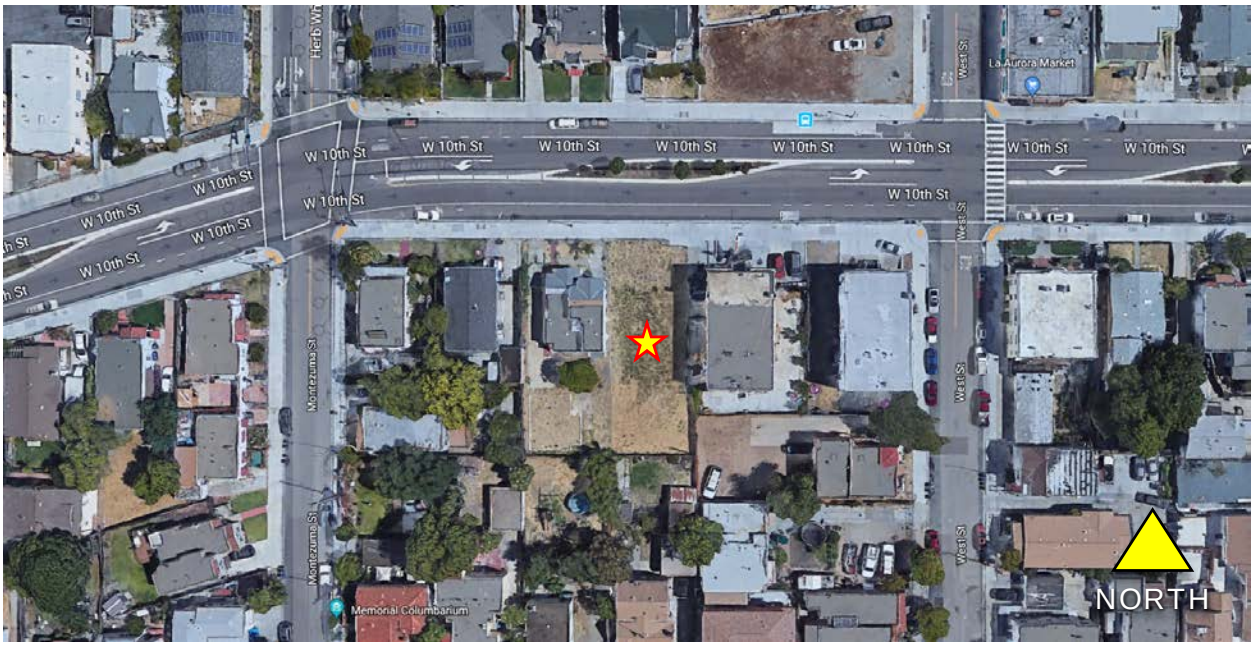


Attachment 5
Map of Surrounding Uses
Galloway Triplexes, AP-17-1294 through -1296 (DR)

Project Sites **Income-Restricted Developments** **¼ mile radius of 345 W. 10th Street site**

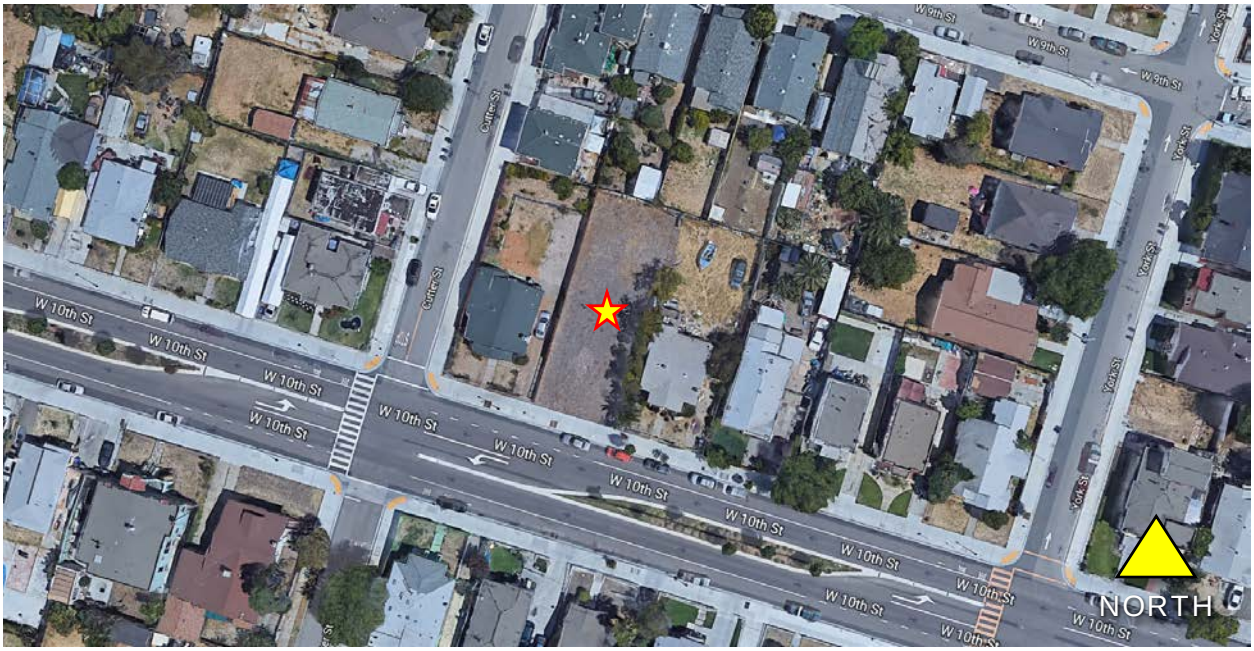
Attachment 6
Site Photos
Galloway Triplexes, AP-17-1294 through -1296 (DR)

★ 345 W. 10th Street, AP-17-1294 (DR)



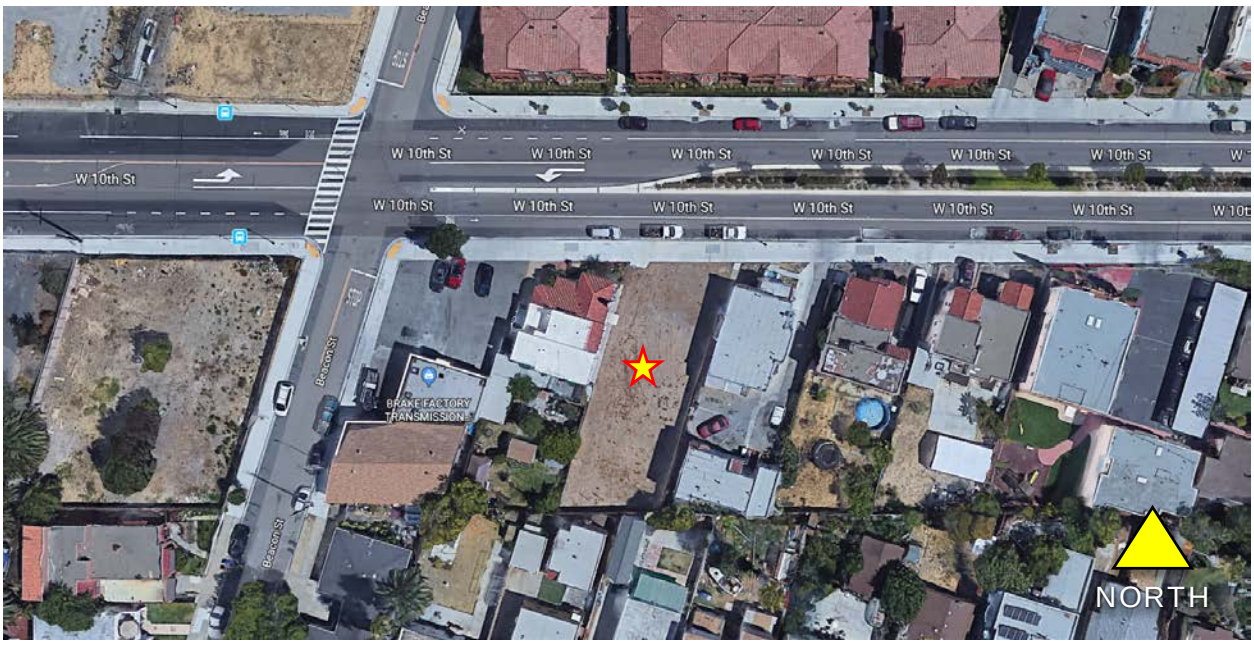
Above: Aerial close-up of vacant site at 345 W. 10th Street
Below: Street view of same site

★ 172 W. 10th Street, AP-17-1295 (DR)



Above: Aerial close-up of vacant site at 172 W. 10th Street
Below: Street view of same site

☆ 463 W. 10th Street, AP-17-1296 (DR)



Above: Aerial close-up of vacant site at 463 W. 10th Street
Below: Street view of same site

Attachment 7
Applicable General Plan Goals and Policies
Galloway Triplexes, AP-17-1294 through -1296 (DR)

General Plan Goal/Policy	Analysis
Land Use Element:	
2-G-1: Maintain a compact urban form within the City's projected municipal boundary. Ensure that hillside lands not environmentally suitable for development are maintained as open space.	**Consistent.** The proposed projects would be constructed on infill parcels located downtown.
2-G-5: Promote a diversity of housing types, including opportunities for hillside estate development, as well as smaller lot, infill, and high-density housing.	**Consistent.** The proposed projects would construct triplexes on each infill parcel.
2-P-7: During development review, consider project compatibility with existing surrounding land uses. Ensure that sensitive uses—such as residences, schools, and parks—are not subject to hazardous or unhealthy conditions.	**Consistent.** The W. 10th Street corridor between Beacon Street and Black Diamond Street is mostly residential with a few neighborhood and service commercial uses. Approximately 30% of the residential uses along this corridor are multi-family. This includes three duplexes, six small multi-plexes (3-6 units), and five large multi-plexes (7 or more units).
2-P-15: Ensure minimum residential densities, in accordance with the ranges stipulated in this Plan.	**Consistent.** The project sites are in the 'Downtown Subarea' of the General Plan and have a land use designation of 'Mixed Use'. In the Downtown Subarea, the designation allows for residential development at densities ranging from 12 to 30 dwelling units per acre. The proposed multi-family projects have residential densities of approximately 21 to 22 dwelling units per acre, and are therefore consistent with the density envisioned for the area.
Growth Management:	
3-G-1: Manage the City's growth to balance development of housing options and job opportunities, protection of open space and habitat areas, construction of transportation improvements, and preservation of high quality public facilities.	**Consistent.** The proposed projects would be developed on infill parcels which would help protect open space and leverage existing infrastructure.
3-G-5: Ensure that new residential, commercial and industrial growth within the Voter-Approved Urban Limit Line pays its share of the costs for the construction of facilities needed to serve that growth.	**Consistent.** The proposed projects would be required to pay all building permit and impact fees associated with residential development.
3-P-1: Allow urban and suburban development only in areas where public facilities and infrastructure (police, fire, parks, water, sewer, storm drainage, and community facilities) are available or can be provided.	**Consistent.** The project sites are in areas with existing infrastructure.

3-P-2: Prior to project approval, ensure that the existing and planned transportation system will have adequate capacity to accommodate new urban development.	**Consistent.** The project sites are within walking distance of several bus stops and are also within biking distance of the Pittsburg Center BART Station, which is planned to open in the next couple of months.
3-P-12: Adopt and update development mitigation programs that collect fees to mitigate transportation impacts to both local and regional transportation facilities.	**Consistent.** The proposed projects would be required to pay all building permit and impact fees associated with residential development.
3-P-17: As part of development approval, ensure that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects and on any roadways that are impacted as a result of new development. (Transportation Policy 7-P-34)	**Consistent.** The proposed projects would be constructed on infill parcels adjacent to existing bicycle and pedestrian facilities. W. 10th Street has Class II bike lanes and sidewalks in each direction. Additionally, a condition of approval would require installation of on-site bicycle facilities for each project.
Downtown Element (West 10th Street Neighborhoods)	
5-P-19: Encourage high-density residential development in Downtown neighborhoods, according to the density standards in Table 5-1. Ensure that the development program for the W. 10th Street neighborhoods provides for at least 755 housing units, which is the minimum total of units that can be built under densities designated by the General Plan.	**Consistent.** In the Downtown Subarea, the 'Mixed Use' General Plan designation allows for residential development at densities ranging from 12 to 30 dwelling units per acre. The proposed multi-family projects have residential densities of approximately 21 to 22 dwelling units per acre and are therefore consistent with the density envisioned for the area.
5-P-24: Improve streetscaping along W. 10th Street with a landscaped median, wide sidewalks, pedestrian amenities and street trees.	**Consistent.** Front yards would be heavily landscaped and would include two street trees along the each of the project frontages. It should be noted that the City of Pittsburg has completed streetscape improvements along W. 10th Street including the landscaped median and sidewalks mentioned in this policy.
Transportation Element	
7-G-15: Encourage walking as a regular means of transportation for people who live within a half-mile walk of school, work, or routine shopping destinations.	**Consistent.** The proposed projects would encourage walking because they will be constructed within a half-mile distance of schools, transit, parks, community centers, and commercial areas.
7-P-2: Use the adopted Regional and Local Transportation Impact Mitigation Fee ordinances to ensure that all new development pays an equitable pro-rata share of the cost of transportation improvements.	**Consistent.** The proposed projects would be required to pay all building permit and impact fees associated with residential development.
7-P-34: As part of development approval, ensure that safe and contiguous routes for pedestrians and bicyclists are provided within new development projects and on any roadways that are impacted as a result of new development.	**Consistent.** The proposed projects would include walkways separated from vehicular driveways to promote safe access for users.

7-P-45: During review of development projects, encourage secure bicycle facilities and other alternative transportation facilities at employment sites, public facilities, and multi-family residential complexes.	**Conditionally consistent.** A proposed condition of approval would require installation of secure on-site bicycle facilities for each project.
Resource Conservation Element	
9-G-11: Reduce the number of motor vehicle trips and emissions accounted to Pittsburg residents and encourage land use and transportation strategies that promote use of alternatives to the automobile for transportation, including bicycling, bus transit, and carpooling.	**Consistent.** The proposed projects are expected to have lower rates of VMT (vehicle miles travelled) because they would place higher densities near schools, transit, parks, community centers, and commercial areas.
Health and Safety Element	
10-P-39: Strive to maintain a ratio of 1.8 sworn police officers per 1,000 residents.	**Conditionally consistent.** A proposed condition of approval would require the project site be annexed into the public safety community facilities district (CFD).
Public Facilities Element	
11-G-2: Continue to implement water conservation policies to ensure adequate supplies of water in the future.	**Consistent.** The proposed project is required to meet the 2016 California Green Building Standards Code, Part 11. Residential Mandatory Measures sections 4.303 and 4.304 require water conserving plumbing fixtures and fittings and water efficient landscaping.
11-G-6: Continue reduction and recycling efforts within the City to divert increasingly larger portions of the waste stream from local landfills.	**Consistent.** The proposed project includes outdoor areas which are sized to allow storage of solid waste, recyclable waste, and green waste bins for each dwelling unit.
11-G-7: Manage solid waste so that State diversion goals are met.	
11-P-18: Ensure that new residential, commercial, and industrial development equitably share costs associated with providing wastewater services to areas of urban expansion within the Planning Area.	**Consistent.** The proposed projects would be required to pay all building permit and impact fees associated with residential development.
11-P-23: Encourage builders to incorporate interior and exterior storage areas for recyclables into new or remodeled residential, commercial, and industrial structures.	**Consistent.** The proposed project includes outdoor areas which are sized to allow storage of solid waste, recyclable waste, and green waste bins for each dwelling unit.
Noise Element	
12-P-5: Require that applicants for new noise-sensitive development, such as schools, residences, and hospitals, in areas subject to noise generators producing noise levels greater than 65 dB CNEL, obtain the services of a professional acoustical engineer to provide a technical analysis and design of mitigation measures.	**No conflict.** The project sites are not located near significant sources of noise.
Housing Element	

Housing Goal I: Foster development of a variety of housing types, densities, and prices to balance the City's housing stock and to meet Pittsburg's regional fair share housing needs for people of all income levels.	**Consistent.** According to the 2012-2016 American Community Survey (ACS) 5-Year Estimates, Pittsburg's housing stock is primarily single-family (75.8%). Duplexes comprise about 1.3% of the housing stock; 3 or 4 unit apartments make up 4.6%; 5 to 9 unit apartments – 4.8%; and apartments with ten or more units are 10.8% of the housing stock. The proposed projects will increase the share of 3 or 4 unit apartments in the City. Since the projects consist of two-bedroom units, they are considered affordable by design.
Housing Goal V: Enhance the visual quality of Pittsburg's residential neighborhoods.	**Consistent.** The proposed projects would eliminate three long-standing vacant parcels which contribute toward blighted conditions in the neighborhood.
P-1.4: Support the construction of multi-family housing in close proximity to transit, arterials, shopping, and public services.	**Consistent.** The project sites are within a half-mile distance of schools, transit, parks, community centers, and commercial areas.
P-1.6: Meet Pittsburg's fair share regional housing needs [allocation].	**Consistent.** The proposed projects would contribute nine market-rate units towards the City's RHNA.
P-5.1: Enhance the quality and variety of new home designs and home additions to ensure an attractive living environment.	**Consistent.** The proposed projects feature attractive building designs, landscaping, and other site improvements which would enhance the curb appeal along the W. 10th Street corridor.
P-5.2: Enhance the built environment through citywide landscaping efforts including the installation of street trees that will grow to create a street tree canopy along roadways and sidewalks	**Consistent.** Twenty percent of each site would be landscaped, and two street trees would be planted along the each of the project frontages.

Attachment 8
Property Development Regulations Table
Galloway Fourplexes, AP-17-1294 through -1296 (DR)

Development Regulations: *M Mixed-Use/RH-D (Downtown High Density Residential) District*	**Requirement:**	**AP-17-1294** 345 W. 10th St.	**AP-17-1295** 172 W. 10th St.	**AP-17-1296** 463 W. 10th St.
Max. Density (min. lot area per unit):	1,500 sq. ft.	6,250 s.f. (4.166 units)	6,250 s.f. (4.166 units)	5,994 s.f. (3.996 units)
Max. Height:	40 ft.	28'-4"	28'-2"	26'-3"
Max. Lot Coverage:	80%	43.73%	43.73%	46.26%
Minimum Yards:				
Front:	10 ft.	> 14 ft.	> 14 ft.	> 10 ft.
Side (Left)	5 ft.	> 5 ft.	> 5 ft.	> 5 ft.
Side (Right)	5 ft.	> 5 ft.	> 5 ft.	> 5 ft.
Rear:	5 ft.	> 5 ft.	> 5 ft.	> 5 ft.
Minimum Site Landscaping:	20%	21%	21%	23%
Minimum Private Storage Area:	200 ft^3/unit	328-816 ft^3/unit	328-816 ft^3/unit	384-672 ft^3/unit
Minimum Private Open Space:	60 ft^2/unit	67-72 ft^2/unit	67-72 ft^2/unit	68-76 ft^2/unit
Laundry Facilities:	Laundry area in each unit or a common laundry area with one washer/dryer for ea. five units or fractional	Laundry area in each unit	Laundry area in each unit	Laundry area in each unit
Parking Required (1.5 spaces/unit):	5 spaces (3 covered)	5 spaces (4 covered)	5 spaces (4 covered)	5 spaces (4 covered)

Attachment 9
Development Review Design Guidelines
Galloway Fourplexes, AP-17-1294 through -1296 (DR)

Design Review Guideline	Meets Guideline?
I.a: Reliefs and architectural treatments should be provided on all building elevations (360 degree architecture), i.e. 2”x4” (wood or styrofoam/stucco) window and door reveal treatment on all building elevations.	**Yes.** All building sides contain similar architectural treatments and articulation.
I.b: Provide concrete and/or tile roof material. Architectural grade composition material may be used if rake treatment is included or roof pitch, greater than 4:12 is used.	**Yes.** The proposed projects include composition shingles on roofs with a 5:12 pitch.
I.c: Each dwelling unit should be provided with complete front yard and corner-side yard xerophytic landscaping and automatic irrigation.	**Yes.** The proposed landscaping meets the standards set forth in PMC Section 18.84.310.
I.d: Required front yards should vary in depth unless otherwise stated for a proposed PD (Planned Development) district.	**Not applicable.** This guideline is intended to apply to residential structures built in new subdivisions.
I.e: Decorative masonry walls should be provided between all arterial streets and future homes.	**Not applicable.** No masonry walls will be constructed as part of these projects.
I.f: Roof slopes should be considered greater than 4:12 unless inappropriate for architectural style (i.e. Ranch Style, etc.).	**Yes.** The proposed projects include composition shingles on roofs with a 5:12 pitch.
I.g: Provide articulated garage doors on all garages.	**Not applicable.** No garage doors are proposed as part of these projects.
I.h: Garage doors designs should not be duplicated. Not less than four styles should be used in a subdivision.	
I.i: Side-on garages are recommended intermittently through-out the subdivision (70’ wide lots or greater).	
I.j: Garage frontage should not occupy more than 60% of allowable lot frontage.	

I.k: Provide board-onboard fencing on all side yards and rear yards (excluding side yards and rear yards adjacent to major thoroughfares), unless a view corridor is to be maintained.	**Yes.** Six-foot-high wooden fencing will be installed along side and rear yards.
I.l: The architectural treatments (such as sidings, shingles, window and door trims) established on the front facades of each of the approved house designs shall be carried around to the sides and rear elevations of the buildings, except that masonry veneer treatments at the base of a structure need be carried only partly around the side elevations, to either the adjoining fence line or the closest interior right angle joint.	**Yes.** All building sides contain similar architectural treatments and articulation.
III.a: A/C units should be substantially screened from view by way of a permanent screen or appropriately sized plant material.	**Conditionally.** A proposed condition of approval requires the developer to screen all A/C equipment.
III.b: Detached carports and/or garages should have the same roof material and roof pitch as the main dwelling units.	**Not Applicable.** No detached carports and/or garages are proposed as part of these projects.
III.c: Projects with many buildings (greater than three) should provide a variety of building sizes and masses resulting in varying elevations from a streetscape perspective.	**Not applicable.** Each project site involves only one building.
III.d: Bus stops should share the same architectural theme as that of the dwelling units.	**Not applicable.** The proposed projects do not propose additional bus stops, as there are eight existing bus stops within ¼ mile.
III.e: Parking lots should not dominate area adjacent to public streets. Structures and parking should be interspersed creating pockets of parking and variety from a streetscape point of view.	**Yes.** In order to reduce the visual impact of parking areas, all resident parking will be located at the interior of each site.

Green Building Design Guideline	Meets Guideline?
VI.C.1: For residential buildings without solar energy systems, roof surface should be covered with a green/living roof (> 50% of roof surface) or with a cool roof.	**Conditionally.** A proposed condition of approval would require the new residential buildings include cool roof.
VI.C.2: Uncovered rooftop expanses greater than 200 s.f. should be designed to be strong enough to support green roofs, community gardens, raised beds, and be accessible to occupants for gardening purposes.	**Not applicable.** The proposed projects include sloped roofs which do not provide space for community gardens.
VI.C.3: Roofs should have solar hot water systems (panels), solar photovoltaic panels or low-profile wind energy generation turbines and should include a sustainable plan for maintenance of such systems. Roofs should be covered with a cool roof under the energy generation structures. Roof segments that are uncovered by energy systems should host raised bed garden space or greenhouses, a green/living roof, or cool roof surfaces.	**Not applicable.** A proposed condition of approval would require the new residential buildings include cool roof.
VI.C.4: Parking lot impacts should be minimized. Outdoor parking lots with more than 20 spaces and solar access over 75% or more of its surface area should install renewable energy systems on carport structures. Urban heat island impacts should be minimized through the use of shading (parking lot trees) or paving material design choices. Recommended choices include renewable energy systems on carport structures, shade trees, underground parking, and open-grid pavement systems.	**Not applicable.** The parking areas in each of the project sites contain only four spaces.
VI.C.5: Electric vehicle (EV) charging units should be made available to tenants with electric vehicles. The parking spaces with charging units should be clearly marked with signs designating them for assigned tenants or electric vehicle use only.	**Not applicable.** This guideline is intended to apply to larger multifamily developments where a considerable percentage of tenants are expected to drive EVs.

VI.C.6: Pedestrian and bicycle paths should provide safe, visible, and unobstructed bicycle and pedestrian access between facilities, from facility entrances to bicycle and pedestrian routes (sidewalks and bicycle lanes), through parking lots, and between facilities and existing or planned bicycle and pedestrian routes.	**Conditionally.** A proposed condition of approval would require the developer to install four bicycle storage racks on each project site.
VI.C.7: Convenient, visible, and secure bicycle storage facilities should be available on site, sufficient to accommodate demand of residents and guests.	
VI.C.8: Outdoor design and features should maximize landscaping water conservation.	**Yes.** The proposed landscaping meets the standards set forth in PMC Section 18.84.310.

City of Pittsburg

Community Development Department – Planning Division
65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

NOTICE OF PUBLIC MEETING

NOTICE IS HEREBY GIVEN that the **Planning Commission** of the City of Pittsburg will conduct a public meeting on:

DATE: **August 14, 2018**
TIME: **7:00 p.m.**
PLACE: **City Council Chamber at City Hall**
65 Civic Avenue, Pittsburg, California

Concerning the following matter:

Consideration of a Resolution Approving Design Review of the Galloway Triplexes Project, AP-17-1294 through AP-17-1296 (DR).

This is an application by Bertolami Engineering requesting design review approval of plans to construct three-unit apartment buildings on three separate vacant parcels located at 345 W. 10th Street, 172 W. 10th Street, and 463 W. 10th Street in the M (Mixed Use) District. APNs: 085-211-004, 085-226-014, and 085-241-003. The applicant had previously requested approval of four-unit apartment buildings at each site, but was directed by the Planning Commission to reduce the size of each building.

PROJECT PLANNER: Hector Rojas, (925) 252-4043 or hrojas@ci.pittsburg.ca.us

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Why am I receiving this notice? You are receiving this notice because you have either previously requested notifications from the Planning Division, or a project has been proposed in your neighborhood and all property owners within a minimum 300-foot radius of the project site are being notified.

Where can I get more information about this project?
The complete file for this project is available for public inspection at the Planning Division, weekdays during the hours of 8:00 AM to 12:00 PM and 1:00 PM to 5:00 PM. You can also find out more about the project by contacting the project planner listed above.

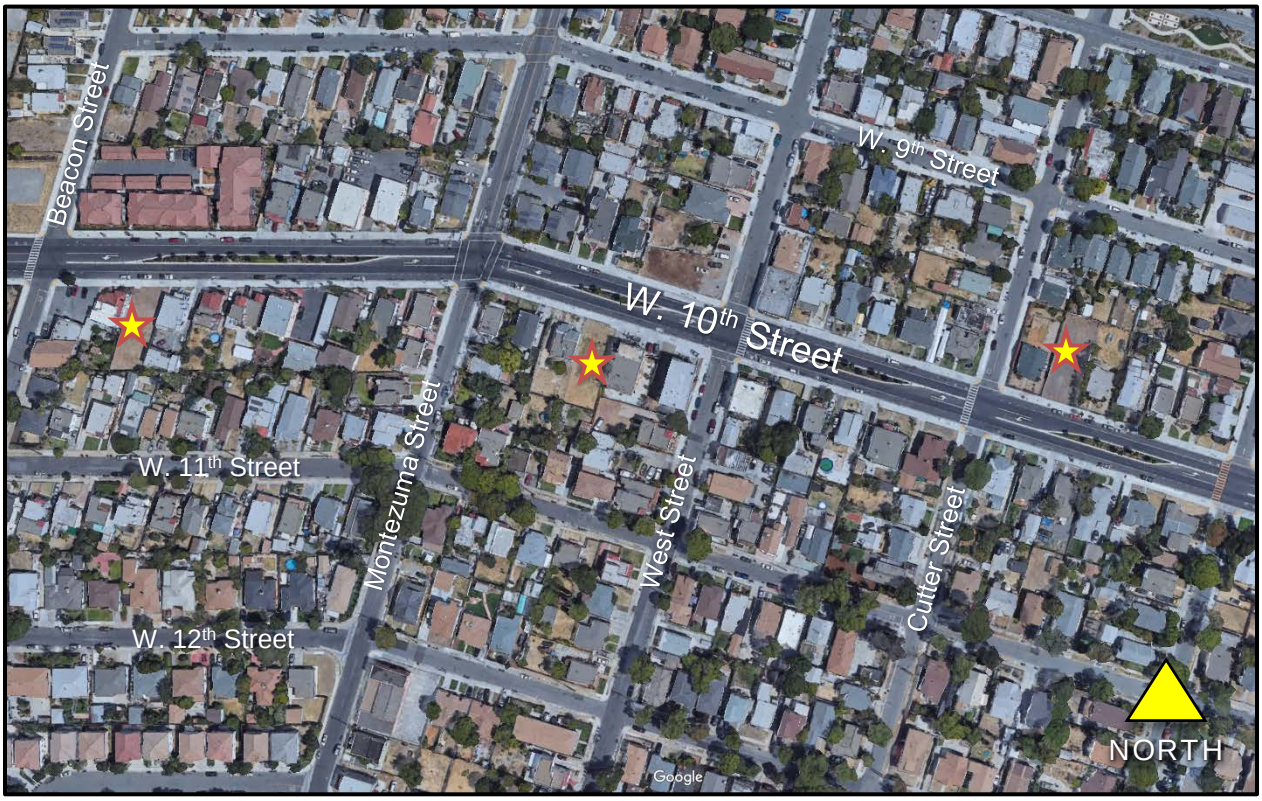
What can I do if I have comments on the project?
Comments or objections to the project can be made by writing or through oral testimony during the public meeting. Written comments citing the project name may be emailed to the project planner listed above, or may be mailed or delivered to: Pittsburg Planning Division, 65 Civic Avenue, Pittsburg, CA 94565. You may also register your comments or objections by attending the public meeting on the date and time listed above.

Pursuant to Section 65009 of the California Government Code, if you challenge this matter in court, you may be limited to those issues you or someone else raised at the public meeting described in this notice, or in written correspondence on the matter delivered to this agency at, or prior to the public meeting. Any written correspondence delivered to the Planning Division before the hearing body's action on the matter will become a part of the administrative record.

JORDAN DAVIS, AICP, SECRETARY
PITTSBURG PLANNING COMMISSION

Project Title: Galloway Triplexes, AP-17-1294 through AP-17-1296 (DR)
Location: 345 W. 10th Street, 172 W. 10th Street, and 463 W. 10th Street,
APNs: 085-211-004, 085-226-014, and 085-241-003

Project Locations



City of Pittsburg
Community Development Department - Planning Division
65 Civic Avenue
Pittsburg, CA 94565

NOTICE OF PUBLIC MEETING