



CITY OF VACAVILLE

COMMUNITY DEVELOPMENT DEPARTMENT

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VIA EMAIL

April 14, 2023

Community Development Department
Planning Division

Dinkar Bhatia
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New York, NY 11306
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SUBJECT: MENARD BATTERY ENERGY STORAGE SYSTEM (BESS) AND RECREATIONAL FACILITY PROJECT – PRELIMINARY REVIEW COMMENTS
7050 Leisure Town Road (APNs 0106-280-020)
Preliminary Review (File No. 23-020)

Dear Dinkar,

Thank you for submitting preliminary plans for the proposed Menard Battery Energy Storage System (BESS) and Recreational Facility Project to be located on the former Gibson Canyon Wastewater Treatment Plant at 7050 Leisure Town Road (APN 0106-280-020). The Project Review Committee (PRC) has completed its review of the submittal has prepared the following comments to assist your team with preparing a formal application. Please keep in mind that the following comments are based on a review of preliminary plans, and comments and/or conditions may be modified or added based on subsequent, more detailed plans or proposals. These are not final comments or conditions.

PLANNING

1. The preliminary plans show the project is located within the Public/Institutional and Public Facilities General Plan and Zoning designations. Other adjoining General Plan designations and zoning districts are Open Space and partial residential designations. In the event the boundary of the project changes and it encroaches into these designations, additional entitlements/approvals will be required.
2. Development Review Process and Associated Fees – The proposal would require the following applications: (1) General Plan Amendment; (2) Zoning Ordinance Text Amendment; (3) Development Agreement; (4) Airport Area of Influence Review; (5) Conditional Use Permit; (6) Design Review; and (7) Environmental Assessment. Please note, the City has not yet determined the type of environmental assessment for this project, this will be confirmed once a formal development application and technical studies are submitted. The application and submittal requirements are attached for your review (Attachment 1). The decision-making authority for the project is the City Council after obtaining a recommendation from the Planning Commission.



Planning Application Fees:

▪ General Plan Amendment.....	\$16,081
▪ Zoning Ordinance Text Amendment	\$15,038
▪ Development Agreement	\$5,303
▪ Airport Area of Influence Review	\$2,265
▪ Conditional Use Permit.....	\$9,043
▪ Design Review	\$8,418
▪ Environmental Assessment.....	15%*
▪ Application intake/maintenance	\$177
▪ Multiple application credit	-\$4,697
Total Planning Application Fees	\$51,628 **

**Please note the Environmental Assessment fee is 15% of the contract price for the consultant to prepare the assessment.*

***Please note the above fees are an estimate based on the project as proposed and are valid until June 30, 2023, and do not include the cost of the Environmental Assessment fee. Fees are subject to change and additional fees may apply.*

3. General Plan Amendment – The General Plan designation of Public/Institutional is for public or semi-public uses that provide service to the community. The proposed project is not a public or semi-public use that provides service to the community; therefore a General Plan Amendment is required to consider a private energy storage facility in the Public/institutional General Plan designation.

4. Zoning Ordinance Text Amendment – The City’s Land Use and Development Code doesn’t include “Battery Energy Storage System” as a use. The closest use in our Code is “Alternative Energy Storage”, which is not allowed in the current Public Facilities (PF) zoning district. Therefore, the formal application will need to include a request to amend the City’s Zoning Ordinance to allow “Alternative Energy Facilities” as conditionally permitted within the PF district. The formal application must include the proposed text changes to Chapter 14.09.090 (Public and Semi-Public Zoning Districts) of the Code, including any supplemental standards specific to this type of project.

5. Development Agreement – The proposed project would include additional improvements or monetary compensation for City recreational facilities in excess of typical City standards. Therefore, pursuant to Section 14.17.010.050 (General Provisions – Applicability) of the Code, the formal application will need to include a request for a Development Agreement. The City would need to retain additional legal counsel to assist with the preparation and negotiations of the Development Agreement. Once a formal application is submitted, we will solicit a scope for this additional work. At a minimum, your formal application will need to include a \$10,000 deposit made payable to the City of Vacaville for future work.



6. Airport Area of Influence Review – The City’s Land Use and Development Code requires the City to refer any applications that include General Plan or Zoning amendments requests, to the Solano County Airport Land Use Commission (ALUC) for a consistency review/hearing.

7. CEQA – At this time, staff cannot determine whether the project will have significant impacts. However, due to the sensitive nature of the site and anticipated public interest, we recommend that an Environmental Impact Report be prepared. Once a formal application is submitted, the City would request scopes of work from various consultants to further evaluate potential environmental clearance paths and make a final determination regarding the appropriate environmental document and cost for this project. All costs associated with the environmental review process must be funded by the Applicant. The assessment will rely on technical studies to determine the types of impacts. These studies may be prepared by your own consultant or by the CEQA consultant that you will fund under a separate contract with the City. Reports that your team prepares will be peer-reviewed by the City’s CEQA consultant and any changes or revisions will be funded by your team.
 - a. Archaeological Report
 - b. Biological surveys and constraints analysis
 - c. Cultural Resources
 - d. Geotechnical/Soils Report
 - e. Wetland delineation
 - f. Phase 1 Environmental Assessment; and Phase 2 if deemed necessary.
 - g. Battery Component Specifications
 - h. Air Quality Assessment
 - i. Public Health Screening
 - j. Visual simulations depicting the site pre- and post-construction from public streets, adjoining land uses, and other sensitive vantage points.
 - k. Acoustical Analysis in a format consistent with the criteria established in the Noise Element of the General Plan.
 - l. Safety Analysis to address the safe operations of the facility, a response plan for accidents, and to ensure the project does not have the potential to create an unsafe environment for the nearby rural residential neighborhoods.

8. CEQA Filing Fee – In addition to the above-mentioned fees, the California Department of Fish and Wildlife (CDFW) and Solano County require a separate fee when filing a Notice of Determination (NOD) for EIRs in accordance with the California Environmental Quality Act (CEQA). The additional fee is \$2,538.00. Should the project be approved, the fee must be submitted within five (5) days of the approval in order to properly file the NOD with Solano County. The filing fee is subject to increase on January 1, 2024.



9. Setbacks – The Code requires a minimum creek dedication of 40 feet, measured from the top of stable bank, as determined by the City Engineer. No buildings or structures shall be allowed within the 40-foot stable top of bank area. All other setbacks will be determined through the Planning review process to ensure appropriate project-based buffers for the facility.
10. Pre-Application Meeting – A pre-application meeting is required prior to submitting your formal application. The purpose of the pre-application meeting is to ensure all required items will be included in the formal submittal packet, and to avoid incompleteness. This benefits the project proponent, and the City, and ensures a more streamlined development review process. As you put the project scope together, staff would be happy to meet with you along the way to ensure all required and relevant information is being provided.

PLANNING DESIGN COMMENTS

Typically, projects in Vacaville must comply with a series of City design requirements. Staff's expectation is that the project will be a well-designed facility with high-quality site and exterior building designs. The City's design requirements include:

11. Lighting – The formal submittal must identify the location of all proposed lighting for the project on a preliminary photometric plan to determine the intensity of lighting methods for dimming during non-use hours. Any parking area or entrance gates should have motion sensor lighting with poles not to exceed 8 ft. in height. Lighting fixtures shall be provided on the landscape plan to ensure proposed trees do not conflict with lighting.
12. Fencing/Walls – The formal application must include information about perimeter fencing or walls that would be installed with the project. Masonry walls must consist of a decorative design such as split-faced CMU and pre-cast with faux stone designs. Non-masonry fencing should be a tubular steel design with ornamental features such as rings or bushings.
13. Recreational Component – The City has not yet determined whether the proposed recreational facility is appropriate for this location. Should the current proposal be supported by the City, then the formal application would need to include more detail about the proposed improvements, which must comply with City standards for parking, lighting, and landscaping.
14. Frontage Improvements – The formal submittal must identify any frontage improvements along Leisure Town Road that are needed to serve the future emergency fire access road and existing access road.
15. Stable Bank – The formal submittal must identify the preliminary location of the top of stable bank along the creek, as supported by a Geotechnical Report.



16. PG&E Consultation – The formal submittal must include communications or correspondence with Pacific Gas and Electric indicating their consent or approval of the preliminary concept.

PUBLIC WORKS

17. Show existing and proposed grading for the project site. Include cross-sections for areas with significant grade differences. Provide “Project Post-Best Management Practices” for cleaning stormwater before it enters the public system.
18. Show all service connections and connections to existing utilities and all proposed layouts of future utilities. Include how the proposed sports complex and the water utility control room on the battery storage site will be served. Plans shall also show all existing City utilities in Leisure Town Road at the south end of the project limits.
19. Show the project’s property boundaries and 100 feet on either side of the project boundaries, existing easements (including PG&E), street improvements, and both sides of the street (including right-of-way).
20. All bridges and roads must be designed to support an H-20 structural loading. Please provide detail and a cross-section of existing and proposed site access roads and bridges.
21. A state-protected 3-inch diameter HDPE groundwater extraction conveyance pipeline and monitoring wells exist within the southern project limits and shall be protected in place. The facilities shall be shown on the plans and be considered with the project design. The applicant shall also dedicate, as an easement to the City, access to the protected 3-inch diameter HDPE groundwater extraction conveyance pipeline and monitoring wells prior to the approval of any encroachment permit associated with the project.
22. The project site does not contain any water or sewer to serve future development. The existing facilities are located within Leisure Town Road. Any type of development would need to extend these facilities to the subject site for future use and would be responsible for the full cost of improvements.
23. The following apply to Gibson Canyon Creek within the project limits:
 - a. Gibson Canyon Creek shall be dedicated to the City in fee at the discretion of the City Engineer prior to issuance of any encroachment permit for the site. The City shall maintain Gibson Canyon Creek.
 - b. A geotechnical report to determine the location of the stable top of bank of Gibson Canyon Creek will be required with the first submittal of improvement plans and shall be approved prior to issuance of any Public Works encroachment permit. The Applicant



shall dedicate, as an easement to the City, 40-ft from the stable top of bank on both sides of Gibson Canyon Creek. Dedication shall occur prior to the approval of any encroachment permit. The final limits of the creek dedication shall be approved by the City Engineer and shall be determined during the improvement plan review process.

- c. No buildings or structures shall be allowed within the 40-foot stable top of bank area.
- d. The City Engineer shall have final discretion and approval of the design of any and all improvements within the easement.
- e. Creek Access:
 - Access to both sides of the creek is required. The applicant shall either demonstrate that the existing bridge can support an H-20 structural loading or provide a structure to support such loading.
 - Each side of the creek shall have an all-weather access road within the 40-foot stable top of bank area with the first phase of the development.

24. The Applicant shall clarify future ownership and maintenance of the proposed sports complex and clarify whether a new parcel is proposed to be created for the complex.
25. The Applicant shall clarify ownership of the parcel(s) during and after the completion of operations.
26. The project proposes accessing Leisure Town Road through APN No. 0106-280-060. The Applicant shall provide access rights across APN No. 0106-280-060 prior to the approval of any encroachment permit.
27. The project shall install a driveway on Leisure Town Road in accordance with the City of Vacaville's standards.

BUILDING

28. Has PG&E formally reviewed and approved the proposed interconnection?
29. A substation is reflected on the site plan. Has PG&E agreed to have the substation privately maintained? Or will PG&E have jurisdiction?
30. Has the California Public Utilities Commission (CPUC) been contacted to determine if there are any CPUC permitting requirements?
31. The creek is bounded by Flood Zone AE, as is on the east side of the property. Careful attention should be given to ensure that the battery pads and access roads are elevated above the BFE.



32. Are the containers housing the battery storage systems specifically designed for this type of use?
33. The formal submittal shall define the objects and label "PCS" shown on the plans. These items are provided along the access roads, and each appears intended to serve two double rows of battery storage racks.
34. When the structure is submitted for Building plan check, the battery storage racks must be designed and detailed for wind and seismic per ASCE7-16 13.6. Utility lines shall be provided with adequate flexibility to accommodate anticipated differential movement. [ASCE7 13.6.9]
35. The recreational facility and associated parking lot are only outlined in the provided plans. Full plans must be developed for the recreational facility; when constructed the design shall comply with all codes in force at the time of construction. Likely items to address include restrooms, sized per plumbing code requirements and compliant with CBC 11B accessibility. The site will require accessible routes and interconnection per CBC 11B. Similarly, parking must address accessible parking spaces and CALGreen requirements for EV and clean air spaces, etc.
36. No electrical drawings were submitted, preventing analysis of electrical components, battery array feeders, conductors, and conduit, and interconnection with the grid. At building submittal, provide sheets stamped and signed by the responsible engineer.
37. Provide assessments of the weight capacity of the two bridges.
38. Please dimension the widths of the access roads, detail any improvements provided. This may include structural section of the road and gate systems.
39. Provide details of the proposed fire detection and/or suppression systems. These will require separate Fire Department plan reviews and permits.
40. Please provide additional information regarding construction type, occupancy, floor area, etc. This should also include plans for any control structure.

FIRE

41. The formal submittal must include information on the specific type of batteries, and provide all cut sheets, manufacturer's instructions, and approved listings.
42. The formal application must disclose the recommended separation between the units per the manufacturer's instructions/requirements.



43. Provide Materials Safety Data Sheet (MSDS) sheet for the batteries.
44. The formal submittal must include additional information on the three (3) proposed water tanks. Please note, due to the amount of water that may be needed at this location, the Vacaville Fire Department is requesting a water supply that is tied into the City's water system. The project plans must show the location of this connection.
45. The Fire Department does not support the proposed method for transporting water to the site during construction activities. The formal submittal must identify a water supply connection to the City's existing facilities for construction activities.
46. The formal submittal must include more information on the Planned Substation Area, including types of items to be stored within the enclosure, access for emergency services, and the site of the storage area.
47. The formal submittal must include more information about the water utility control room, including the purpose of this building, and methods for emergency services to access the room. In addition, the submittal must include information on the control building and what will be housed in the building, and the switchgear building and what will be housed in the building.
48. Plans must include a sheet that shows the proposed fire hydrant placement for review by the Vacaville Fire Department. Fire hydrants are required per CFC Section 507 and CFC Appendix C.
49. Plans show two access points from Leisure Town Road. The formal submittal must show the roadway width and must demonstrate their design can support the required 80,000 lbs. load in accordance with CFC 503.2.3. Access roads must be installed prior to any construction. Access roads must comply with CFC Section 503, Title 19, and CFC Appendix D.
50. Plans show two bridges. Provide the dimensions for both proposed bridges. These bridges must be able to support 80,000 lbs. for fire apparatus. Both bridges must be installed prior to any onsite construction. Bridges must comply with CFC 503.2.6
51. The formal application must identify how wide is the access through all three proposed gates.
52. Project description mentions temporary access via an existing paved road. Fire needs to confirm this temporary access can support up to 80,000 lbs. and the dimensions for this temporary access. Fire will need to respond to possible fires and medical calls during the construction of this project.



53. Provide the dimensions of the proposed battery storage racks. Please confirm whether the proposed racks will be enclosed. Enclosure information must be provided with the application.
54. Provide a sheet showing access/egress in all directions and down all drive aisles using the turning information for the Vacaville Fire Department's Truck.
55. The formal submittal must address water supply and fire protection requirements per NFPA 855 and the CFC, as confirmed by an independent Fire Protection Engineer.
56. Provide a plan for maintaining this area per CFC 1207.5.7 including the additional weed abatement requirements per Vacaville Municipal Code (VMC) Section 15.20.271.040.G.
57. Please confirm the maintenance and ownership responsibilities for the remaining 52 acres, including the responsibility for weed abatement requirements per VMC Section 15.20.271.040.G.
58. Provide all information that is needed to show compliance with CFC Section 1207 and NFPA 855.
59. This project must demonstrate compliance with the California Fire Code (CFC), as it is amended and adopted by the City of Vacaville, the National Fire Protection Association Standards (NFPA), and Title 19.
60. Per the project description this project is designed to be in operation for 20+ years, after completion of operations, most of the project's electrical equipment would be removed and recycled. The formal application must explain what will happen to the remaining items left at the site and who will continue to maintain the site.
61. Construction documents are required per NFPA 855 section 4.2 and CFC Section 1207.
62. A Commissioning Plan, Commissioning testing, and commissioning report is required per NFPA 855 section 6.1.4 and CFC section 1207.2 prior to final fire clearance can be granted.
63. Provide the Vacaville Fire Department with an emergency operation plan for the site per NFPA 855 section 4.3.2.1.
64. Provide a plan for facility staff training per NFPA 855 section 4.3.2.2.
65. The formal submittal must include information to confirm whether any of the conditions are present under NFPA Section 4.1.4.1 (Hazard Mitigation Analysis). If any of the conditions are



present, then the project will be required to prepare a Hazard Mitigation Analysis in accordance with NFPA Section 4.1.4.

66. Signage is required per NFPA 855 section 4.7.4 and CFC Section 1207.4.8.
67. Provide information on vehicle impact protection per NFPA 855 section 4.7.5
68. Provide information on site security NFPA 855 section 4.7.6 and CFC section 1207.4.9.
69. Need to determine if fire explosion testing will be required for this project per NFPA 855 section 9.1.5
70. Will this system have the potential to release toxic and highly toxic gas during charging, discharging, and normal use conditions? Please see CFC Section 1207.4.7.
71. Provide more information on the proposed fire detection systems and fire suppression systems that will be built into each container per the “project operations”. These systems must be installed per NFPA 855 and the CFC.

PARKS AND RECREATION

72. What type of vehicles would access the battery storage site and how often?
73. What type of monitoring/noticing does the state require for these types of facilities?
74. Why couldn't that secondary emergency egress road be the primary access point for the battery storage facility?
75. Any sports complex drawings should be labeled as “Study”, “Draft” or “Preliminary”. If the Sports complex is ultimately advanced in this location, site programming would need to be vetted by staff in our department first, then by the Parks and Recreation Commission.

We look forward to the official submittal of the application. Please make sure the submittal includes a response to the preliminary comments. To avoid an initial incompleteness determination, please make sure all the items identified on the submittal checklists (attached) are prepared and submitted. I'm happy to confirm the necessity of the submittal items if you have any uncertainties. If you have any questions or if you would like to meet regarding this letter, please do not hesitate to contact me at (707) 449-5364 or by email at albert.enault@cityofvacaville.com.



Sincerely,

Allyson Behrend For
ALBERT ENAULT,
Senior Planner

cc Erin Morris, Community development Director
Don Burrus, Economic Development Director
Andria Borba, Assistant City Attorney

Attachments:

1. Application Form and Submittal Checklists
2. Required Findings for Approval

