LIVERMORE
CALIFORNIA

PLANNING COMMISSION STAFF REPORT **ITEM NO. 3.1**

DATE: August 12, 2025

TO: Chairperson and Members of the Planning Commission

FROM: Steve Riley, Planning Manager

SUBJECT: Hearing to consider a request to approve development of a new, approximately 225,500 square-foot light industrial building and research and development facility on an approximately 14-acre vacant parcel along West Jack London Boulevard west of the Oaks Business Park. The facility would test and demonstrate commercially viable clean energy through fusion power.

RECOMMENDED ACTION

Staff recommends the Planning Commission adopt resolutions recommending the City Council:

1. Find that the project is exempt under the California Environmental Quality Act section 21080.69, as amended by Senate Bill 131, a project that consists exclusively of a facility for advanced manufacturing, and certify/adopt an Addendum to the SMP 39/40 Environmental Impact Report, in accordance with the California Environmental Quality Act.
2. Approve Planned Development Amendment (PD) 25-002, Vesting Tentative Tract Map (VTTM) 8656/Subdivision (SUB) 25-001, Site Plan Design Review (SPDR) 25-005, and Conditional Use Permit (CUP) 25-002.
3. Direct the Planning Manager to file a Notice of Exemption and Notice of Determination, in accordance with the provisions of the California Environmental Quality Act, subject to project approval.

DECISION TYPE

SUMMARY

On March 25, 2024, Livermore City Council authorized pre-zoning and annexation of unincorporated territory known as SMP 39 and SMP 40 west and south of the Oaks Business Park respectively. The intent of the SMP 39 annexation was to create conditions to establish a campus like environment that would facilitate the development of modern professional offices, research and development facilities, manufacturing operations, experimental and testing laboratories, and related amenities to support Livermore's innovation economy consistent with the City's Climate Action Strategies and City-Wide Strategic Plan. SMP 39 is approximately 52 acres and SMP 40 is approximately 41 acres.

The Pacific Fusion Project (Project), proposed to be on a 14-acre portion of the SMP 39 site along Jack London Boulevard, is the development of a new research and development (R&D) and advanced manufacturing facility to produce, test, and advance the development of a commercially viable approach for providing clean fusion power using established science, practical engineering and affordable manufacturing processes (see Attachment 2 - Location Map). The Project includes constructing and operating an approximately 225,500 square-foot building that requires approval of a Planned Development Industrial Zoning Amendment, Vesting Tentative Tract Map Amendment, Site Plan Design Review, Conditional Use Permit, and associated environmental review.

DISCUSSION

BACKGROUND

On March 25, 2024, Livermore City Council authorized land use changes and annexation of unincorporated territory known as SMP 39 and SMP 40 (see Attachment 1 - Annexation Exhibit). After LAFCo approval on July 11, 2024, both SMP 39 and 40 were formally annexed into the City of Livermore. In addition and concurrently, LAFCo approved moving Livermore's Sphere of Influence boundaries to include SMP 39. City Council concurrently authorized the development of SMP 40 to be subdivided into two parcels to accommodate two industrial tilt-up buildings: one totaling 470,530 square feet and the other 288,750 square feet, which is currently under construction and anticipated to be occupied in early 2026. SMP 39 contemplated 755,000 square feet (sf) of light industrial land uses on 52 acres over 6 parcels. Collectively, these elements constituted the SMP 39/SMP 40 Project, which was evaluated under a single Environmental Impact Report.

PROJECT DESCRIPTION

The Pacific Fusion Project (Project) is the development of a new research and development (R&D) and advanced manufacturing facility to produce, test, and advance the development of a commercially viable approach for providing clean fusion power using established science, practical engineering and affordable manufacturing processes. The Project includes constructing and operating an approximately 225,500 square-foot building, comprised of approximately:

- 35,000 square feet of office and operational support space
- 180,470 square feet of industrial space
- 10,000 square feet of utility space

This proposed light industrial building would have a maximum height of approximately 110 feet to accommodate the pulser and specialized testing equipment. The majority of the building area would be a traditional light industrial office height of 45 feet. The Project’s exterior would be constructed with a combination of tilt up concrete and precast panel or metal panel construction.

The Project includes site improvements such as driveway access from West Jack London Boulevard, on-site landscaping and a surface parking lot. The Project would also include public improvements such as the widening of Jack London Boulevard, with median, landscape, lighting, curb and gutter, a Class I Trail along the Project frontage, and new signalized access into the site. Attachment 3 shows the development plans for the Project.

The Pacific Fusion Project includes the following entitlements:

- Planned Development Industrial Zoning Amendment: Amends the height standard to allow up to 110-foot max building height (with conditional use permit) to accommodate interior building clearance for specialized equipment or other design features that support research and development, and experimental lab uses consistent with the purpose of the zone. The amendment also includes removing the provision that limits Warehouse and Distribution Facilities to 20% of the total site (SMP 39) area.
- Vesting Tentative Tract Map (VTTM) Amendment: Modifies the Tentative Tract Map to create an approximately 14-acre parcel on a portion of the SMP 39 Site to accommodate the new research and development facility.
- Site Plan Design Review (SPDR): Ensures the site layout, landscape design, and building architecture complies with the zoning and Industrial Design Standards.
- Conditional Use Permit (CUP): Authorizes a building height up to 110-feet.

PROJECT SITE CONTEXT

The Project Site is approximately 14 acres of vacant, undisturbed grasslands located west of the Oaks Business Park and south of West Jack London Boulevard and the Livermore Municipal Airport. Table 1, below, summarizes the General Plan land use designation, zoning classification, and existing land use on the Project Site and surrounding properties. The Project Site is approximately 800 feet west of the Discovery Drive/West Jack London Boulevard intersection as shown on the Attachment 2 location map.

Table 1: Project Site and Surrounding Land Uses

	General Plan Designation	Zoning Designation	Existing Land Use
North	City of Livermore: Community Facilities – Airport (CF-AIR)	City of Livermore: Airport – Service (AIR- SE)	Livermore Municipal Airport
South	Alameda County: Water Management City of Livermore: Open Space/Sand and Gravel (OSP/S&G)	Alameda County: Agriculture (A) with an overlay permitting quarry operations	Gravel quarries and industrial ponds associated with mining
East	City of Livermore: Low Intensity Industrial (LII)	City of Livermore: Planned Development Industrial (PD-I) 01-003	Oaks Business Park
West	City of Livermore: Low Intensity Industrial (LII)	Planned Development Industrial PD-I-22-001	Primarily vacant
Subject Site	City of Livermore: Low Intensity Industrial (LII)	Planned Development Industrial PD-I-22-001	Vacant

STAFF ANALYSIS

General Plan Land Use

The Project Site is adjacent to and within the City's South Livermore Urban Growth Boundary. The Livermore General Plan designates the site as Low Intensity Industrial. The Low-Intensity Industrial (LII)

designation identifies land uses including manufacturing, warehousing, research and development facilities, and administrative and professional offices. The Project proposes research and development, administrative and professional offices, and manufacturing of specialized components and equipment consistent with the land use designation. The Project is outside of and not subject to the City's I-580 Scenic Corridor policy.

Citywide Strategic Plan

The Citywide Strategic Plan identifies Goals and Strategic Pillars. The Project would support the Pillar - An Economy that Prospers. The Project would provide approximately 250 high-quality jobs at a variety of different levels, from technicians to engineers and scientists. Further, the use would likely act as an emerging industry cluster. When established, the use would likely draw interest from related businesses, vendors, and suppliers wanting to locate in Livermore and near Pacific Fusion and the Labs. This catalyst would initiate additional economic growth.

Climate Action Plan

The Project would help implement the Climate Action Plan. The Climate Action Plan establishes Strategies to: Foster an innovative green economy. The Project is a research and development and advanced manufacturing facility that works towards the commercialization of a new green energy technology (Fusion Energy), consistent with the City's Climate Action Strategy.

Current Zoning Classification and Planned Development Amendment

The Project Site is currently zoned Planned Development Industrial (PD-I) 22-001. The purpose of the zoning district is to provide an environment exclusively for and conducive to the development and protection of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratory and related uses, any similar employment generating high-end industrial users, and to provide for an aesthetically attractive working environment with campus-like grounds, attractive buildings, employee parking, and other amenities appropriate to a mix of office and industrial uses.

PD-I 22-001 permits an assortment of light and medium industrial uses such as research and development facilities, advanced manufacturing, professional and administrative offices and experimental laboratories and supportive uses. The Pacific Fusion Project incorporates all four uses into one facility.

The applicant is proposing to amend the PD-I 22-001 height standard to allow up to 110-foot max building height (which also requires a conditional use permit) to accommodate interior building clearance for specialized equipment or other design features that support research and development, and experimental lab uses consistent with the purpose of the zone. The height standard would not add additional stories, or intensify the use, The additional height simply provides clear space for specialized equipment and machinery to support manufacturing and research and development of new technologies through a conditional use permit.

The zoning amendment also includes removing the provision that limits Warehouse and Distribution Facilities to 20% of the total site area to further facilitate the build out of the remainder of SMP 39 and respond to market conditions (Attachment 9 – Exhibit B Planned Development Industrial Amendment

with redlines showing the proposed changes).

Vesting Tentative Tract Amendment 8656 Subdivision

The Project entitlements include a Vesting Tentative Tract Map Amendment for SMP 39 in conformance with Part 10 of the Livermore Development Code (and Government Code and the Subdivision Map Act, by reference).

The proposed Vesting Tentative Tract Map (VTTM) Amendment, which covers all 52 acres of SMP 39, would revise the previous VTTM to adjust the parcel sizes of 6 lots. The parcels originally ranged in size from approximately 5.75 acres to approximately 11.76 acres and are now proposed to range in size from approximately 5 acres to approximately 14 acres (Attachment 3 – Development Plans).

The VTTM would require the developer to dedicate 29 feet of public right of way and construct the widening of Jack London Boulevard, from two lanes to four with landscaped median, consistent with the City's Standard Details. The median includes 26 California Sycamore trees. Access to the entirety of SMP 39 would be via four new 40-foot-wide driveways from West Jack London Boulevard. The eastern access into Pacific Fusion will be signalized consistent with the City's Standard details whereas the western drive into Pacific Fusion would be designed as "right in-right out" driveway.

The City maintains an Active Transportation Plan (ATP) that identifies existing and proposed required trails and bike lanes throughout the City, and identifies key locations for new bicycle lanes and trail segments, in order to promote connectivity and encourage use of alternative modes of transportation. The VTTM also requires the developer to build a Class 1A, separated trail along the project frontage as part of the West Jack London Boulevard widening, consistent with the ATP, the proposed asphalt trail is 8 feet wide and located within a 38.5' trail easement, which includes two-foot shoulders, street trees, landscaping, and a bio retention area. The developer will also be required to construct an on-street Class 2 bike trail on the south side of Jack London along the project frontage, similar to the existing bike trail east of the project site. The bike trail will be separated from the travel lane with a 4-foot painted buffer.

Site Plan and Design Review

The Site Plan Design Review (SPDR) 25-005 ensures the Project Site layout, landscape design, and building architecture complies with Livermore Development Code and the City's Design Standards and Guidelines.

A conceptual site plan for SMP 39 was included in the original entitlement package approved by Council in March 2024. The concept plan shows the potential square footage that was necessary for the Draft EIR to analyze potential traffic, noise, and other environmental impacts. SPDR 25-005 revises this conceptual plan as described below in the Parking, Landscape and Architecture sections. An Addendum to the 2024 SMP 39/40 addendum was prepared as described in the Environmental Determination section below.

Development Standards

Planned Development – Industrial (PD-I) 22-001 establishes industrial development standards that regulate height, lot coverage (i.e., what percentage of the lot is covered by the building), and setbacks for all sites within the PD-I zoning designation. The Project complies with the development standards for

PD-I 22-001 as described below.

Development Criteria	Amended PD-I 22-001 Standard	Proposed	Analysis
Height			
Maximum height with a Condition Use Permit	110 feet, or the height permitted under FAA regulations – Part 77, whichever is more restrictive	110 feet	Complies subject to Conditional Use Permit
Setbacks from Property Lines			
Front setback	40-feet on West Jack London Boulevard	45 feet	Complies
Side setbacks	None	West – 200 feet East – 300 feet	Complies
Parking Setback	5 foot landscaped setback	7 feet	Complies
Rear setback	None	35 feet	Complies
Lot Coverage			
Lot coverage	45 percent maximum	37%	Complies

Parking

The Livermore Development Code requires one parking space per 300 square feet for Office uses and one parking space per 1,200 square feet of Industrial uses per Table 4.6 – Automobile Parking Requirements. The Project proposes 35,000 square feet of office space and 180,470 square feet requiring a total of 268 vehicle parking stalls. A total of 268 vehicle parking stalls would be provided at the Project Site, therefore meeting the requirement. Of the total parking spaces, 81 spaces will be EV capable and 54 will be EV ready. The 268 parking stalls would be located to the east of the proposed building. The loading docks are located on the west side of the building.

In addition, the Project would provide 28 bicycle parking spaces (14 inside and 14 outside), which exceeds the requirement of 27 spaces. The bicycle parking is located near the entrance on the northeast corner and on the interior of the building. *Landscape Design*

The site plan includes landscape design to support and complement the building architecture and the surrounding industrial area. The proposed planting plan includes a variety of trees, shrubs, and groundcovers that are distributed throughout the site and around the proposed buildings – consistent with the Livermore Design Standards and Guidelines (DSG) section 4.D.3.

Tree species include a mixture of evergreen and deciduous trees including Brisbane Box, California Sycamore, Chinese Pistache, Sunburst Honey Locust, Hardy Red Oleander, and Fruitless Olive. Three of these species are California Native Trees.

Shrub species include a mixture of evergreen and deciduous shrubs including Lavender Cotton, Upright Rosemary, Peninsular Manzanita, and more.

Groundcover species include a mixture of species including Island Alum Root, Fort Night Lily, and Chapparal Clematis. Six of the shrub and groundcover species are pollinators.

All the proposed planting would be low water usage consistent with the Water Efficient Landscape Ordinance, Livermore Municipal Code 13.25.

The Project provides screening for loading docks with trees and shrubs that will screen loading docks from the properties to the south and west. This is consistent with the screening provisions for service areas per the Livermore Design Standard and Guidelines 4.D.3.3.

Development Code Table 4.12, Required Interior Parking Lot Landscaping describes the minimum parking lot landscaping required based on the number of parking spaces. The Project Site meets this standard by providing at or above 16 percent of the parking area in landscaped area. Development Code Table 4.13, Required Shade Trees, requires 16 trees per gross site area acre, minus building coverage. The Project Site includes 155 trees on the parcel, which exceeds the minimum requirement of 154 trees. All proposed trees are 24-inch box size, exceeding The Livermore Development Code requirement that 20 percent of the trees be planted at 24-inch box size.

An 8-foot tall, wrought iron fence is proposed along the southern and western property lines, as well as a gate along the western entrance, for security and screening. The storage tanks in the southwestern corner will generally be screened by fencing and landscaping.

Therefore, the landscape design is also consistent with the Industrial Design Standards and Guidelines including providing a hierarchy of plantings and minimum planting size requirements.

Architecture

Architecture is primarily concrete tilt-up panels with smooth finishes, with aluminum storefront framing and tempered glass at building entrances and office areas.

The majority of the buildings would be up to approximately 43 feet in height, except for the portion of the building proposed to be up to 110 feet in height as described in the Conditional Use Permit section below. Vertical parapets extend periodically above the primary roof line, as do a series of horizontal and vertical score lines. Together, these details break up the building wall planes, consistent with Design Standards and Guidelines section 4.C.2.

The roof parapets are conditioned to screen future roof-mounted equipment from public view in compliance with Development Code section 4.05.040.B. The building's roofline and wall plane design are also consistent with the Livermore Design Standards and Guidelines for Building Design, which require changes in wall planes or varying height and changes in building materials and colors.

Building colors proposed for the building are a variety of grays along the horizontal bands and the vertical wall sections encompassing the parapets are a darker blue. Proposed window glazing is blue. These design details are consistent with the surrounding buildings at the Oaks Business Park as well as Design Standards and Guidelines section 4.C.2.1, establishing a sense of base, middle, and top of the building.

Public Art

The applicant is proposing public art on site in compliance with Livermore Municipal Code Chapter 12.50. Concepts for the art piece, which will be located on the north elevation of the 110-foot portion of the building facing Jack London, include fabricated metal, mosaic tile, or a painted mural depicting the science occurring within the building. The public art will be reviewed and approved by the Arts Commission prior to Building Permit issuance.

Conditional Use Permit for Increased Height and Livermore Airport Compatibility

A Conditional Use Permit (CUP) is required by the Planned Development Industrial zoning district to increase the building height to a maximum of 110 feet. This will accommodate interior building clearance requirements, specialized equipment or other design features that support research and development and/or experimental lab uses consistent with the intent and purpose of this district, upon providing a minimum 40-foot setback from street rights-of-way. The Project includes a request for a CUP to accommodate the equipment required for operational purposes.

The purpose of the PD-I 22-001 is to provide an environment exclusively for and conducive to the development of modern professional and administrative facilities, research institutions, manufacturing operations, experimental and testing laboratories and related facilities. The Pacific Fusion Project proposes to construct and operate modern professional and administrative facilities, research and manufacturing operations, and an experimental and testing laboratory. These facilities are consistent with the purpose and permitted uses established in the zoning district and the City's strategic goals.

The Project's proposed use requires additional clearance to support a pulse system designed to demonstrate and test the production and effectiveness of fusion energy. The proposed building design would add volume to support this pulse system and machinery needed to operate and maintain it. The additional height would not include additional stories or square footage, just indoor clear space. Therefore, the CUP would comply with the zoning, as amended.

Due to proximity to the Livermore Municipal Airport, the SMP 39/SMP 40 Project was reviewed by the City Airport Commission and Alameda County Airport Land Use Commission (ALUC) on October 2, 2023, and October 9, 2023, respectively. The Project Site is within Airport Safety Zone 6, as identified in the Airport Land Use Compatibility Plan (ALUCP), which permits office, research and development, and warehouse and distribution uses. PD-I 22-001 (if amended) allows heights up 110 feet with a CUP, subject to Federal Aviation Administration (FAA) Part 77 regulations.

On May 12, 2025, the ALUC staff determined that the Project is compatible with the ALUCP (Attachment 4). Similarly, City of Livermore Airport Staff determined that the Project is consistent with the original 2024 SMP 39 approval that was reviewed and recommended for approval by the City Airport Commission subject to the conditions set forth in the attached Conditions of Approval (Attachment 8 – Exhibit A Conditions of Approval). These conditions include avigation easements, airport in vicinity deed notifications, requiring the applicant to file a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA), and interior building noise consistent with Title 24 requirements.

ENVIRONMENTAL DETERMINATION

As described in the Environmental Resolution, the Project is exempt from the California Environmental

Quality Act (CEQA) under section 21080.69, as amended by Senate Bill 131, a project that consists exclusively of a facility for advanced manufacturing. The proposed Project will lead to the commercialization of a technology (fusion) that would minimize the use of carbon-emitting resources for electricity generation. It is not a technology available today or required by any law, regulation, or governmental agency. The Project will pilot and test the manufacturing, assembly, and performance of core components, with the goal to scale up for commercial fusion power generation facilities in the future. The Project will lead to advancements that include improvements in manufacturing processes and systems that are often referred to as “smart” or “intelligent” manufacturing systems, which integrate computational predictability and operational efficiency.

Additionally, in 2024, the City Council certified an Environmental Impact Report for the SMP 39/40 projects (2024 EIR). The EIR analyzed the impacts of the SMP 39/40 project at full buildout. As described in the Environmental Resolution, an Addendum to the 2024 EIR was prepared for the Project (Attachment 6). Although the Project differs from what was analyzed in the 2024 EIR, with a change in allowable height and use limitations and revised parcel size and layout, the Addendum finds that more severe impacts beyond those analyzed in the 2024 EIR would not occur as a result of the Project. For these reasons, no new EIR is required, and the Project meets all requirements of the California Environmental Quality Act, per CEQA Guidelines section 15164.

ATTACHMENTS

1. Annexation Exhibit
2. Location Map
3. Development Plans
4. ALUC Staff Determination
5. Resolution - Environmental
6. Exhibit A - Pacific Fusion Addendum
7. Resolution - Project
8. Exhibit A - Conditions of Approval
9. Exhibit B - Planned Development Amendment

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