

IV. Environmental Impact Analysis

G. Hazards and Hazardous Materials

1. Introduction

This section of the Draft EIR analyzes the Project's potential impacts with regard to hazards and hazardous materials. The analysis is based, in part, on the *Phase I Environmental Site Assessment Reports* (Phase I ESAs) prepared separately for the Hillside Campus and the South Campus by Citadel Environmental Services (April 2017) and included as Appendix G of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

The regulations governing the storage and handling of hazardous materials are complex, with a varying degree of overlap associated with existing federal, State, and local programs. In general, applicable laws and regulations are aimed at hazardous materials inventory and emergency response planning, risk planning and accident prevention, employee hazard communication, public notification of potential exposure to specific chemicals, and storage of hazardous materials, including aboveground storage tanks (AST) and underground storage tanks (UST). A description of the major policies and programs regulating hazardous materials storage and handling applicable to activities at the Hillside Campus, South Campus, and in the Project vicinity is provided below.

(1) Hazardous Materials Use, Storage, and Management

(a) Emergency Response and Community Right-to-Know Act (Superfund Amendments and Reauthorization Act, Title III)

In 1986, Congress adopted the Emergency Planning and Community Right-to-Know Act (42 United States Code (USC) Sections 11001–11050) as Title III of the federal Superfund Amendments and Reauthorization Act. The federal Emergency Planning and Community Right-to-Know Act establishes reporting and planning requirements for businesses that handle or store specified hazardous materials. These reports and plans provide federal, State, and local emergency planning and response agencies with

information about the amounts of materials that businesses use, release, and/or spill. They also provide the public with information about potential hazards in their communities.

In California, many of the requirements of the Emergency Planning and Community Right-to-Know Act overlap with regulations adopted under the California Health and Safety Code (HSC), which are discussed below. The Emergency Planning and Community Right-to-Know Act consists of four separate programs, including:

- Planning for emergency response (Sections 301 to 303);
- Reporting leaks and spills (Section 304);
- Reporting hazardous materials inventories (Sections 311 and 312); and
- Annual reporting of total releases of specified “toxic chemicals” (Section 313).

(b) California Health and Safety Code, Chapter 6.95 Hazardous Materials Release Response Plans and Inventory (Section 25500 et seq.)

Businesses in California that handle hazardous materials are required to comply with California Health and Safety Code (HSC) Sections 25500–25519). Basic requirements of hazardous materials planning under the HSC Section 25505 include the development of detailed inventories of the hazardous materials used and stored on-site, a program of employee training for hazardous materials release response, and the identification of emergency contacts and response procedures. HSC Section 25507 specifies the following reporting thresholds for hazardous materials:

- 55 gallons of a liquid;
- 500 pounds of a solid;
- 200 cubic feet of a compressed gas measured at standard temperature and pressure; and
- For radioactives, the quantity for which an emergency plan is required under federal or State regulations.

Any facility that meets the minimum threshold for any of the categories listed above must comply with the reporting requirements and file a business emergency plan with the local administering agency. For the Hillside Campus and South Campus, the local administering agency is the City of Pasadena Fire Department (PFD). A business emergency plan must include a complete inventory of all hazardous materials used and

stored at a site in quantities above the associated thresholds and a program of employee training for hazardous materials releases.

HSC Sections 25531–25543.3 require risk planning and accident prevention provisions for facilities that use or store acutely hazardous materials. Acutely hazardous materials (known as Extremely Hazardous Substances under the Emergency Planning and Community Right-to-Know Act) are defined as any chemical designated as an extremely hazardous substance in the Code of Federal Regulations (CFR), Title 40, Part 355, Appendix A. Under HSC Section 25534, facilities that store or utilize certain types and quantities of hazardous materials may be required to develop Risk Management Plans. Risk Management Plans include management, engineering and safety studies, as well as the construction of physical improvements, if warranted, designed to minimize the potential for hazardous materials accidents and, if an accident does occur, to minimize the impacts of such an event. Risk Management Plans are process-specific rather than project-specific. As such, they focus on the use of hazardous materials in various operations. For processes that use quantities of hazardous materials at or above the thresholds defined by the HSC Sections 25531–25543, a Risk Management Plan must be prepared. Quantity thresholds as defined under the HSC vary for different hazardous constituents. Risk Management Plans are required to be updated every three years for continuing operations or whenever the process changes to the extent that the current Risk Management Plan does not reflect the revised process.

The State Office of Emergency Services has delegated authority to local agencies to administer the HSC Sections 25531 *et seq.* In the City of Pasadena, PFD issues permits for hazardous materials handling, enforces HSC Sections 25500–25519, and administers the applicable sections of the California Fire Code, including Division 8. Because the administering agency is the PFD, Risk Management Plans are required to be filed with the PFD. The PFD administers the requirements of these bills through a combination of the following:

- Fire Department inspections;
- Plan checks;
- Disclosure requirements associated with a business emergency plan; and
- Requirements for the preparation and filing of Risk Management Plans.

Any business handling hazardous materials (as defined in the HSC, Division 20, Chapter 6.95, Section 25000) is required to obtain a local fire department permit, in this case from the PFD, and register the business as a hazardous materials handler.

(c) *Unified Hazardous Waste and Hazardous Materials Management Regulatory Program*

Senate Bill (SB) 1082, which was enacted in 1994, established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The Unified Program consolidates and coordinates the State programs that regulate business and industry's use, storage, handling, and disposal of hazardous materials and hazardous wastes. The federal government and the State require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to submit a business plan to their local Certified Unified Program Agency (CUPA). The Los Angeles County Fire Department (LACoFD) is the CUPA for much of Los Angeles County. However, the PFD is designated as a participating agency and is authorized to implement one or more of the program elements within its jurisdiction. The PFD oversees tank monitoring, installation, removal, and site mitigation, as well as the preparation, submittal, and implementation of a business plan on a yearly basis if a business uses, stores, or manufactures a hazardous material in any amount. The business plan includes an inventory of the hazardous materials and sets forth emergency response plans and procedures to be used in the event of a significant, or threatened significant, release of a hazardous substance.

(d) *Federal and California Occupational Safety and Health Acts*

Federal occupational safety and health regulations also contain provisions with respect to hazardous materials management. The applicable federal law is the Occupational Safety and Health Act of 1970, as amended, which is implemented by the Occupational Safety and Health Administration (OSHA) (29 USC Sections 651–678). Federal Occupational Safety and Health Act requirements, set forth in 29 CFR Section 1910 *et seq.*, are designed to promote worker safety, worker training, and a worker's right-to-know. A major component of the federal regulations is the requirement that employers implement the Occupational Safety and Health Act Hazard Communication Standard to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the Hazard Communication Standard, employers must:

- Obtain material safety data sheets from chemical manufacturers which identify the types and handling requirements of hazardous materials used in given areas;
- Make the material safety data sheets available to their employees;
- Label chemical containers in the workplace;
- Develop and maintain a written hazard communication program; and

- Develop and implement programs to train employees about hazardous materials.

Employers are also required to train a team of employees to appropriate federal Occupational Safety and Health Act–defined levels, to respond to accidental releases of hazardous materials, and, as appropriate, to retain on-call contractors to perform hazardous materials accidental release responses (29 CFR Section 1910.120, Hazardous Waste Operations and Emergency Response Standards).

Since the State of California has a State plan with provisions at least as stringent as those required by the Occupational Safety and Health Act, the U.S. Department of Labor has delegated the authority to administer the Occupational Safety and Health Act regulations to the State. The California Occupational Safety and Health Act program (codified in the California Code of Regulations [CCR], Title 8, or 8 CCR generally and in California Labor Code Sections 6300–6719) is administered and enforced by the Division of Occupational Safety and Health, a unit of California’s Department of Industrial Relations.

The California Occupational Safety and Health Act is similar to the federal program. In addition to the provisions identified above, the California Occupational Safety and Health Act requires employers to implement a comprehensive, written Injury and Illness Prevention Program. An Injury and Illness Prevention Program is an employee safety program that covers the full range of potential workplace hazards, including those associated with hazardous materials.

(e) Safe Drinking Water and Toxic Enforcement Act

The Safe Drinking Water and Toxic Enforcement Act (27 CCR Section 25000 *et seq.*), also known as Proposition 65, was developed to improve public health by reducing the incidence of cancer and adverse reproductive outcomes that might result from exposure to potentially hazardous chemicals. Proposition 65 requires the following:

- The creation of a list of chemicals and substances, and the levels at which they are believed to have the potential to cause cancer or deleterious reproductive effects in humans;
- Restriction of discharges of listed chemicals into known drinking water sources at levels above the regulatory levels of concern;
- Public notification of any unauthorized discharge of hazardous waste;
- A clear and understandable warning given prior to a known and intentional exposure to a listed substance; and

- Establishment of a right of action for private citizens and a separate set of notice requirements for “designated government employees” and counties.

Though Proposition 65 is enforced by the County of Los Angeles Health Officer, the law can also be enforced by State or local government prosecutors (i.e., State Attorney General, County District Attorney, and City Attorney).

(f) California Radiation Control Regulations

The California Radiation Control Regulations (17 CCR Division 1, Chapter 5, Subchapter 4) include standards for the protection against radiation hazards. The Los Angeles County Department of Health Services, on behalf of the State Department of Health Services, has the primary responsibility for administering these standards, which apply to both employers and employees. Standards include procedures regarding the proper use, storage/labeling, training, waste management and disposal, and emergency release of a regulated source of radiation.

(g) Uniform Fire Code

Additional requirements pertaining to hazardous materials management are set forth in the Uniform Fire Code (UFC). The UFC regulates the types, configuration, and quantities of hazardous materials that can be stored within structures. The UFC also regulates the storage of hazardous materials (e.g., storage tanks) in outdoor areas. These regulations are implemented by the PFD through regular inspections of on-site operations and through issuance of notices of violation in cases where storage facilities do not meet code requirements. In addition to regulations governing hazardous materials handling, there are reporting requirements associated with a hazardous materials release. These reporting provisions require, in some instances, notification of the local CUPA (i.e., LACoFD and PFD), the State Office of Emergency Services, and National Response Center, if warranted.

(h) Pasadena General Plan Safety Element

The City’s General Plan Safety Element, which was adopted in 2002, addresses public safety risks due to hazardous materials, such as air pollutants, contaminants in drinking water, and leaking USTs. The ultimate objective of the Safety Element is to improve the safety of the community, from the risks listed above, and in that process make the City more sustainable and prosperous. The Safety Element provides goals, policies, and programs aimed at reducing the City’s risk from these hazards, as well as a map of the distribution of hazardous materials sites within the City. Goals are statements that describe the City’s purpose and direction in reducing its hazards. Policies are guidelines that can be implemented to reduce the City’s risk and maximize the community’s emergency

preparedness. Programs are the specific actions that the City has committed to implement over a given number of years to reduce its hazards.

Additionally, PFD monitors the storage of hazardous materials in the City for compliance with local requirements. Specifically, businesses and facilities, which store more than the threshold quantities of hazardous materials as defined in HSC Chapter 6.95, are required to file an Accidental Risk Prevention Program with the PFD. This program includes information, such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations.

(2) Hazardous Waste Generation, Handling, and Disposal

(a) Federal Resource Conservation and Recovery Act and California Hazardous Waste Control Law

The federal Resource Conservation and Recovery Act (RCRA) (42 USC Section 6901 *et seq.*) regulates the generation, transportation (through standards applicable to transporters of hazardous waste), treatment, storage, and disposal of hazardous waste. Under the RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also establishes standards for hazardous waste treatment, storage, and disposal units, which are intended to have hazardous wastes managed in a manner that minimizes present and future threats to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed of at a facility, any treatment, storage, or disposal unit must be permitted under the RCRA.

The RCRA classifies users that generate greater than 1,000 kilograms (approximately 2,205 pounds) per month of non-acutely hazardous waste as “large quantity generators.” Large-quantity generators are subject to the life cycle hazardous waste management requirements of RCRA. RCRA requires large-quantity generators to maintain inspection logs of hazardous storage locations, records of the quantity of hazardous waste being generated and stored on-site, manifests of pick-ups of these wastes from the site by licensed hazardous waste transporters, and records from the licensed treatment/storage/disposal facilities which receive and ultimately treat or dispose of the waste.

The RCRA allows individual states to develop their own programs for the regulation of hazardous waste as long as they are at least as stringent as the federal act. The State of California has developed the California Hazardous Waste Control Law (HSC Section 25100 *et seq.*; 22 CCR Section 66260.1 *et seq.*), which is modeled closely after the RCRA. Unlike the RCRA, the Hazardous Waste Control Law does not recognize a threshold below

which generators are exempt from some or all of the Hazardous Waste Control Law requirements.

The U.S. Environmental Protection Agency (USEPA) has delegated RCRA enforcement to the State of California. Primary authority for the Statewide administration and enforcement of the Hazardous Waste Control Law rests with the California Environmental Protection Agency's (CalEPA) Department of Toxic Substances Control (DTSC). The DTSC has delegated to local agencies the authority to inspect and regulate hazardous waste generators. As previously indicated, PFD is a Unified Program Agency under the Unified Program. The Unified Program consolidates and coordinates the six State programs that regulate business and industry's use, storage, handling, and disposal of hazardous materials and hazardous wastes.

Both the RCRA and the Hazardous Waste Control Law require businesses to prepare biennial hazardous waste reports that identify the nature and quantity of each type of hazardous waste generated and the treatment, disposal method, and facilities used for each waste (40 CFR 262.41(a) and 22 CCR 66262.41). These reports must be submitted to the DTSC.

(b) Federal Occupational Safety and Health Act and California Occupational Safety and Health Act

The federal Occupational Safety and Health Act and California Occupational Safety and Health Act regulations also contain worker safety provisions with respect to routine hazardous waste management operations and emergency responses involving hazardous wastes. The provisions are included in the Hazardous Waste Operations and Emergency Response Standard (29 USC Section 651 *et seq.*; 29 CFR 1910.120; 40 CFR Part 311), which requires a written health and safety program, worker training, emergency response training, medical surveillance, and measures to reduce worker exposure to hazardous waste.

(c) Uniform Fire Code

The UFC regulates hazardous waste storage facilities through regular site inspections by the PFD and through the issuance of notices of violations in cases where storage facilities do not meet code requirements.

(d) Pasadena Municipal Code

Title 8, Chapter 8.80, Handling and Disclosure of Hazardous Materials, of the Pasadena Municipal Code (PMC) is applicable to all businesses in the City that handle hazardous materials. It establishes uniform standards for disclosure, fees, and penalties

associated with the proper handling of hazardous materials. The Pasadena fire chief is empowered to enforce compliance, and the fire department is authorized to clean up or abate the effects of any hazardous materials deposited on public or private property in the City.

(3) Underground Storage Tanks

(a) Resource Conservation and Recovery Act, Subtitle I

In 1984, Congress adopted a national UST regulatory program (42 USC Section 6991 *et seq.*), commonly referred to as Subtitle I of the RCRA. Regulations implementing this program are found at 40 CFR Part 280. Subtitle I authorized the USEPA to issue regulations establishing construction standards for new UST installations (those installed after December 22, 1988), as well as strict standards for:

- Upgrading existing USTs and associated piping;
- New UST installations;
- Corrosion protection for USTs and piping;
- Spill and overfill protection and for USTs that contain substances other than petroleum, secondary containment methods to detect and contain leaks and leak detection for associated piping;
- Leak detection and reporting of releases and corrective actions;
- On-site practices and record keeping;
- UST closure standards; and
- Financial responsibility.

After 1998, all non-conforming tanks were required to be upgraded or closed.

(b) California Code of Regulations and California Health and Safety Code

Prior to the adoption of the federal UST regulatory program, the State of California initiated the regulation of USTs storing hazardous substances in 1983. The State of California has since further defined the federal laws and regulations related to the USTs program. The California HSC, Division 20, Chapter 6.7, governs the UST program and regulates the program in CCR Title 23, Division 3, Chapter 16 and Chapter 18. The various elements regulated by the State's UST program include:

- Registration of USTs;
- Permitting for USTs;
- Establishment of UST construction and operational standards;
- Installation of leak detection systems and/or monitoring of USTs for leakage;
- Establishment of UST closure requirements;
- Licensing of UST contractors;
- Establishment of financial responsibility requirements;
- Release of reporting/corrective action; and
- Enforcement.

The State's UST program has been amended frequently to incorporate the federal requirements. As with the federal standards, the State's UST program required that all tanks have leak detection, corrosion protection, and spill and overflow devices by December 1998. USTs that did not meet the 1998 requirements were required to be immediately retrofitted or removed. One notable difference between the federal and State regulations is that under the State's UST program, the demarcation date between "existing" and "new" USTs is January 1, 1984 (as opposed to December 22, 1988).

Oversight of the Statewide UST program is assigned to the State Water Resources Control Board (SWRCB) (23 CCR Section 2610 *et seq.*). The administration of the UST regulatory and permit program is performed by local agencies. The administration of the UST program within the City is performed by the PFD. The responsibility for oversight of leaking USTs lies with the California Regional Water Quality Control Board (RWQCB)—Los Angeles Region (LARWQCB).

(4) Aboveground Storage Tanks

(a) Aboveground Petroleum Storage Act

In 1989, California established the Aboveground Petroleum Storage Act instituting a regulatory program covering ASTs containing specified petroleum products (HSC Sections 25270–25270.13). The Aboveground Petroleum Storage Act applies to a facility if it has a storage capacity of 10,000 gallons or more or is subject to oil pollution prevention and response requirements under 40 CFR Part 112. Oil pollution prevention requirements must be met if the facility has a cumulative aboveground storage capacity of 1,320 gallons or more of oil and may reasonably be expected to discharge oil in harmful quantities into

navigable waters. DTSC regulations may apply if ASTs contain hazardous waste and are stored longer than 90, 180, or 270 days (depending on other criteria). Each owner or operator of a regulated AST facility must also file biennially a storage statement with the SWRCB. In addition, each owner or operator of a regulated AST must prepare a Spill Prevention Control and Countermeasure Plan in accordance with federal and state requirements (40 CFR Part 112 and HSC Section 25270.5[c]). Compliance is required for facilities that meet the following criteria:

- Total aboveground oil storage capacity exceeds 1,320 gallons; or
- Underground storage capacity for oil exceeds 42,000 gallons, unless the USTs are subject to all the technical requirements of 40 CFR Part 280 or a State program approved under requirements of 40 CFR Part 281.

As noted above, the Spill Prevention Control and Countermeasure Plan is intended to minimize the potential for accidental release of oil or petroleum products into or upon the navigable waters of the United States or adjoining shoreline. Groundwater monitoring may also be required if the tank exterior surface, connecting piping, and the floor directly beneath the tank cannot all be monitored by direct viewing. Notification to the State Office of Emergency Services is required immediately upon discovery of any spill or release of 42 gallons or more of petroleum (HSC Section 25270.8). Currently, the responsibility for inspecting ASTs and ensuring that Spill Prevention Control and Countermeasure Plans have been prepared lies with the RWQCBs.

(b) South Coast Air Quality Management District Rule 1166

The South Coast Air Quality Management District (SCAQMD) Rule 1166 (VOC Emission from Decontamination of Soil) requirements to control the emission of VOCs are applicable when excavating an underground storage tank, transferring piping that stores or has previously stored VOC materials, or excavating or grading soil containing VOC materials. SCAQMD Rule 1166 includes the development and approval of a mitigation plan, notification prior to excavation or grading, monitoring for VOC contamination, and the handling and treatment of VOCs if discovered.

(5) Asbestos

(a) Toxic Substances Control Act

In 1976, the federal Toxic Substances Control Act (TSCA) (15 USC Sections 2601–2671) established a system of evaluation in order to identify chemicals which may pose hazards. TSCA also established a process by which public exposure to hazards may be reduced through manufacturing, distribution, use and disposal restrictions or labeling of

products. Under TSCA (40 CFR Part 763), the USEPA has enacted strict requirements on the use, handling, and disposal of asbestos-containing materials (ACMs). These regulations include the phasing out of friable asbestos and asbestos-containing materials in new construction materials beginning in 1979 (40 CFR Part 763). Friable asbestos may be found in pre-1979 construction. In addition, due to potential adverse health effects in exposed persons, in 1989 the USEPA banned most uses of asbestos in the country. Although most of the ban was overturned in 1991, the current banned product categories include corrugated paper, rollboard, commercial paper, specialty paper, flooring felt, and any new uses. TSCA is enforced by the USEPA through inspections of places in which ACMs are manufactured, processed, and stored and through the assessment of administrative and civil penalties and fines, as well as injunctions against violators.

(b) Resource Conservation and Recovery Act and State Hazardous Waste Control Law

Under the RCRA, asbestos is not regulated as hazardous waste, but under the State Hazardous Waste Control Law, it is considered a “non-RCRA” or “California-only” hazardous waste. CalEPA’s DTSC classifies asbestos-containing materials (ACMs) as hazardous waste if they are friable (e.g., easily crumbled) and contain 1 percent or more asbestos (22 CCR Section 66261.24). Non-friable bulk asbestos-containing waste is considered by the DTSC as nonhazardous regardless of its asbestos content, so it is not subject to regulation under 22 CCR Division 4.5. The DTSC regulates the packaging, on-site accumulation, transportation (through standards applicable to transporters of hazardous waste), and disposal of asbestos when it is a hazardous waste.

(c) Federal and California Occupational Safety and Health Acts

The federal and State Occupational Safety and Health Acts regulate asbestos as it relates to employee safety through a set of general notification requirements and corrective actions to reduce potential exposure levels. The federal Occupational Safety and Health Act Worker Exposure Rule for Asbestos (29 CFR Sections 1910.1001 and 1926.1101) requires certain actions on the part of any employer whose employees are potentially exposed to asbestos fiber levels above the permissible exposure limit (0.2 fiber per cubic centimeter of air, averaged over an 8-hour day). These actions include:

- Corrective measures to reduce exposure levels;
- Notification, including warning signs and labels;
- Controlled access;
- Use of protective equipment;

- Implementation of engineering and housekeeping controls; and
- Employee training programs.

The Occupational Safety and Health Act has established an action level for workplace exposure as well. If an employee could be exposed above the action level, employers must begin compliance activities such as notification, employee training, air monitoring and, in some cases, medical surveillance. In buildings that contain ACMs, levels of airborne asbestos are not expected to reach Occupational Safety and Health Act exposure standards. Nevertheless, the USEPA recommends that building owners inform building occupants of the presence and location of ACMs, even if potential exposure is below the levels identified above. In addition to these regulations, contractors involved in asbestos surveys and removal are required to be certified by the Division of Occupational Safety and Health.

(d) Connelly Act

The Connelly Act (AB 3713; HSC Section 25915 *et seq.*) establishes notification requirements for all owners and employees working within any pre-1979 building known to contain ACMs. Notification could be based upon a survey of ACMs and their locations. The notification requirements of the Connelly Act are enforced by the California Division of Occupational Safety and Health.

(e) National Emission Standards for Hazardous Air Pollutants

The USEPA has established National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 61 Subpart M) that govern the use, removal, and disposal of ACMs as a hazardous air pollutant. NESHAP regulations concern the manufacture, spraying, and fabricating of ACMs, as well as its application, removal, and disposal. NESHAP regulations mandate the removal of friable ACMs before a building is demolished and include notification requirements prior to demolition. The regulations also mandate removal techniques, limit visible emissions of dust to the outside air during removal or renovation, specify disposal procedures, and include provisions governing the packaging and labeling of asbestos wastes. NESHAP regulations are promulgated and enforced by the USEPA. Responsibility for implementing these requirements has been delegated to the State of California, which in turn has delegated the responsibility to the SCAQMD. The SCAQMD implements NESHAP through its Rule 1403, discussed below.

(f) South Coast Air Quality Management District Rule 1403

SCAQMD Rule 1403, Asbestos Emissions from Renovation/Demolition Activities, regulates asbestos as a toxic material and controls the emissions of asbestos from

demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and clean up procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of structures with ACMs, asbestos storage facilities, and waste disposal sites. The requirements under this rule include the following:

- Surveying structures for ACMs;
- Agency notification of intention to remove asbestos;
- ACM removal procedures and time schedules;
- ACM handling and clean up procedures;
- ACM storage, disposal and landfill requirements; and
- Record keeping.

(6) Lead-Based Paint

(a) Federal and California Occupational Safety and Health Acts

Federal Occupational Safety and Health Act requirements, set forth in 29 CFR Section 1910 *et seq.*, are designed to promote worker safety, worker training, and worker right-to-know. Requirements include the following:

- General Industry Respiratory Protection Standard (29 CFR Section 1910.134) for the use of respiratory protection devices intended to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors;
- Lead in General Industry Standard (29 CFR Section 1910.1025), which is applicable to all occupational exposures to lead, except for lead exposures in the construction industry, to protect employees from significant lead exposures and to educate the employees on health hazards associated with lead; and
- General Industry Hazard Communication Standard (29 CFR Section 1910.1200), which is the Occupational Safety and Health Act's general industry hazard communication standard and applies to all employees exposed to chemical and physical hazards in the general industry sector.

The Occupational Safety and Health Act requirements set forth in 29 CFR Section 1926 *et seq.*, are designed to promote safety during construction. These requirements include standards to comprehensively address the issue of evaluating and communicating

chemical and physical hazards to employees in the construction sector (the Construction Industry Hazard Communication Standard [29 CFR Section 1926.59]). This includes construction activities involving the demolition, salvage, removal, alternation, maintenance activities etc. of lead-containing materials and lead contamination/emergency clean up, transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed (the Lead in Construction Standard [29 CFR Section 1926.62]). As with 29 CFR Section 1910.134, the Respiratory Protection in Construction Standard (29 CFR Section 1926.103) is applicable to all employees who are required or choose to wear respiratory protection devices. The intent of the standard is to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. This standard requires the establishment of a written respiratory protection program whenever employees are required or choose to wear respirators.

8 CCR Section 1532.1 is a rule developed by OSHA in 1993 and adopted by the State of California. This rule is comparable to the federal standards described above. While this regulation has been updated several times since 1993, one important difference between it and the federal standard is the additional requirement to notify the Division of Occupational Safety and Health in writing before abating 100 square feet or more of LBP. 17 CCR, Division 1, Chapter 8 requires that all consultants and contractors conducting activities involving LBP or lead hazards be certified. This regulation also defines LBP, lead hazards, and lead clearance criteria. This regulation requires that the California Department of Health Services be notified in writing before all hazard-related testing and hazard mitigation-related abatement activities.

22 CCR Section 66261.24 is the State's version of the requirements for testing of all waste streams prior to disposal.

(b) Safe Drinking Water and Toxic Enforcement Act

The Safe Drinking Water and Toxic Enforcement Act (27 CCR Section 25000 *et seq.*), enacted as Proposition 65, lists lead as a substance known to the State of California to be a reproductive toxin and prohibits a business from knowingly exposing anyone to levels in excess of the "No Significant Risk Level" without first giving "clear and reasonable warning." The No Significant Risk Level is set at five micrograms of lead per day. In addition to providing warning requirements, these codes prohibit discharge to land or water where lead can pass into a source of drinking water.

(7) Polychlorinated Biphenyls (PCBs)

(a) Toxic Substances Control Act

Polychlorinated biphenyls (PCBs) can be found in older transformers and other electrical equipment. Due to their hazardous properties, all aspects of PCBs are strictly regulated by the USEPA under the TSCA. These regulations ban the manufacture of PCBs although the continued use of existing PCB-containing equipment is allowed. Transformer oil containing PCBs at a concentration exceeding 5 parts per million (ppm) is the California-regulated concentration for hazardous waste although PCBs in transformer oil at a concentration up to 50 ppm are currently allowed in transformers in California. PCB-contaminated transformers known or assumed under the TSCA to contain between 50 and 499 ppm of PCBs are also subject to USEPA regulations.¹ The USEPA also requires that commercial property owners with transformers containing more than 500 ppm of PCBs must register the transformer with the local fire department, provide exterior labeling, and remove combustible materials within 5 meters (40 CFR Part 761.30: “Fire Rule”). The TSCA also contains provisions controlling the continued use and disposal of existing PCB-containing equipment.

The disposal of hazardous waste building materials, including PCBs, is also regulated by federal and State laws. The disposal of PCB wastes is regulated by the TSCA (40 CFR Part 761), which contains life cycle provisions similar to those in RCRA.

(b) California Hazardous Waste Control Law

In addition to TSCA, provisions relating to PCBs are contained in the Hazardous Waste Control Law, previously discussed, which lists PCBs as hazardous waste.

(8) Oil Wells

In compliance with Section 3229, Division 3 of the California Public Resources Code, before commencing any work to abandon any well, the owner or operator shall file with the California State Division of Oil, Gas and Geothermal Resources (DOGGR) a written notice of intention to abandon the well (California State DOGGR Form OG108). Abandonment shall not proceed until approval is given by the California State DOGGR. If a written response to the notice of intention is not received from the California State DOGGR within ten working days, the proposed abandonment shall be deemed to have been

¹ U.S. Environmental Protection Agency, *PCBs Questions & Answers*, www3.epa.gov/region9/pcb/faq.html, accessed July 14, 2016.

approved. If abandonment operations have not commenced within one year of receipt of the notice of intention, the notice of intention shall be deemed canceled.

(9) Emergency Response

The City of Pasadena maintains a Citywide emergency response plan, which goes into effect at the onset of a major disaster (e.g., earthquake). The Emergency Management Coordinator maintains the disaster plan and the Director of Emergency Services (City Manager) and the Emergency Operations Center are responsible for implementing the plan in case of a disaster. The Pasadena Police Department (PPD) devises evacuation routes based on the specific circumstance of an emergency. Although the Hillside Campus and South Campus are not in an inundation area, the City of Pasadena has pre-planned evacuation routes, including those set forth in the Devil's Gate Dam Evacuation Plan, Eaton Wash Evacuation Plan, and the Jones Reservoir Evacuation Plan.

(10) Fire Hazards

The California Fire Code is contained within Part 9 of Title 24, California Building Standards Code, of the CCR. Fire safety requirements outlined in the California Fire Code include the installation of fire sprinklers in all high-rise buildings, the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas, and the establishment of fire resistance standards for fire doors, building materials, and particular types of construction. The City of Pasadena adopted the California Fire Code with specific amendments.²

b. Existing Conditions

(1) Historical and Current Uses of the Project Site

The historical and current land uses within the Hillside Campus and South Campus were identified to assess their environmental conditions or potential to present concerns relative to the presence of hazards and/or the handling of hazardous materials. These environmental conditions fall under three specific categories identified in the American Society for Testing and Materials (ASTM) Standard of Practice E1527-13:

- A Recognized Environmental Condition (REC), means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a

² City of Pasadena Planning and Community Development Department, www.ci.pasadena.ca.us/PermitCenter/Codes_and_Regulations/, accessed July 14, 2016.

property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.

- A controlled recognized environmental condition (CREC) is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by a regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).
- A Historical Recognized Environmental Condition (HREC) is a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, activity and use limitations, institutional controls, or engineering controls).

(a) Historical Uses

(i) Hillside Campus

According to the Phase I ESA prepared for the Hillside Campus, a review of historical sources, including aerial photographs, building permits, fire insurance maps, city directories, and topographic maps, showed that the Hillside Campus was undeveloped as late as 1894. Two small streams appeared traversing in an east-west trajectory by 1938. Portions of the Ellwood Building and the South Building were developed in 1976. The Ellwood Building was extended in 1990. The Annex Building and the Sinclair Pavilion were constructed in 2001. The Hillside Campus has been occupied by the ArtCenter since 1976.

(ii) South Campus

The Phase I ESA prepared for the South Campus referred to the parcels along South Arroyo Parkway as the East Lot and the parcels along South Raymond Avenue as the West Lot.

East Lot

According to the Phase I ESA, a review of historical sources, including aerial photographs, building permits, fire insurance maps, city directories, and topographic maps, showed that the East Lot was undeveloped in 1888 with railroad tracks to the west. A Union Warehouse and an oil warehouse occupied the East Lot by 1889. By 1890, the Union Warehouse was operated as orange packing and general storage. The Union Warehouse was occupied by the San Gabriel Valley Essential Oil Companies Works by 1903 with railroad spur tracks developed to connect to the warehouse platform; the oil warehouse appeared demolished. A small area of the northern portion of the East Lot was occupied by the Pasadena Ice Company, which installed three 10,000-gallon water tanks and one 300-gallon crude oil UST located within the boundary of the East Lot. The Pasadena Ice Company also occupied the adjoining property north of the East Lot.

By 1910, the configuration of the Pasadena Ice Company was changed and extended further south toward the center of the East Lot. The 300-gallon crude oil UST was no longer depicted; however, an area of fuel oil USTs was shown. By 1931, the configuration of the Pasadena Ice Company was further changed and the structure, built in 1926, was occupied by California Consumers Company, Pasadena Ice Division. The area of fuel oil USTs was no longer depicted. The southern portion of the East Lot appeared developed with additional buildings; the buildings were occupied for bluing manufacturing, tool and implement storage, paint shop, and iron storage.

By 1950, the southern portion of the East Lot was also occupied by California Consumers Corporation for bluing manufacturing, preparation, lunch room, restrooms, and oil and paint storage. By 1961, the southern portion of the East Lot was generally operated as containers storage, preparations, process plants, freezer rooms, lunchroom, restrooms, and oil and paint storage. Several of these structures were replaced by new structures and a parking lot by 1977. The current 1111 Building, which includes two subterranean levels, was developed in 1982.

Historic occupants of the East Lot include the Union Warehouse and oil warehouse in 1889 and 1890; San Gabriel Valley Essential Oil Companies Works in 1903; the Pasadena Ice Company in 1910; bluing manufacturing, tool and implement storage, paint shop, and iron storage in 1931; and California Consumers Corporation from 1931 to at least 1971. Historic occupants of the 1111 Building include various professional office tenants since 1985 with the Arroyo Dialysis as a tenant by 2006.

Although no records of the removal of the 300-gallon crude oil UST or the fuel oil USTs were found during the Phase I ESA, the East Lot has been developed with the

current 1111 Building with two subterranean levels, which would have likely encountered the USTs during development. Accordingly, these would represent a HREC.

West Lot

Historical occupants of the parcel located at 870 South Raymond Avenue (870 Parcel) include the following:

- 1890 (Sanborn Map): Pasadena Gas and Electric Light Company was depicted on the map with various structures, including two 6,000-gallon USTs of crude petroleum and two gas holders/gasometers with capacities 6,000 and 30,000 cubic feet.
- 1903 (Sanborn Map): Pasadena Consolidated Gas Company was depicted in the area formerly occupied by the Pasadena Gas and Electric Light Company with the two 6,000-gallon USTs replaced with three 7,000-gallon crude oil tanks set in a brick pit.
- 1910 (Sanborn Map): Pasadena Consolidated Gas Company structure appeared to have been demolished and replaced by several structures for a lumberyard, as well as hay, storage, and stable structures.
- 1931 (Sanborn Map): Los Angeles Gas and Electric Corporation was depicted in the area formerly occupied by Pasadena Consolidated Gas Company with two large gas holders.
- 1950 (Sanborn Map): The two large gas holders identified above were depicted as being part of the Southern California Gas Company.
- 1979–1995 (Building Permits and City Directory): Building permits showed that the 870 Building was constructed for Digitran in 1979 with the city directories identifying Digitran Company on-site in 1980, Bretcourt Property Management Inc. in 1985, Bectin Dickinson in 1988, Best Impressions Copy Service in 1990, and Hertz Claim Management in 1995.
- 1995 (Environmental Reports): According to the Removal Action Workplan (RAW) prepared in September 2011 and made available on Envirostor,³ the United States Postal Service (USPS) occupied this parcel between 1995 and 2010.

³ *EnviroStor is DTSC's data management system for tracking its cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further.*

As further discussed in Subsection 2.b(7)(b)(i) below, a voluntary remediation of soil contamination was conducted at this parcel, which resulted in a DTSC determination that the parcel has been restored to conditions acceptable for the proposed redevelopment of this portion of the South Campus. Accordingly, the closed status of the remediation at this parcel is considered a HREC.

Historical occupants of the 888 Parcel include the following:

- 1903 (Sanborn Map): A dwelling unit was depicted in the central portion of the parcel.
- 1910 (Sanborn Map): Pasadena Construction Company was depicted as a lumberyard with several structures for office, stable, shed, and woodworking.
- 1931 (Sanborn Map): Three small structures occupied by the Pasadena Settlement Association were located south of the gas holders identified within the 870 Parcel described above. This parcel was also depicted as being occupied by the Pasadena Water Department as a pipe yard with several structures for pipe storage, truck storage, refuse cutter, garbage incinerator, and a shed.
- 1950 (Sanborn Map): The area formerly occupied by the Pasadena Settlement Association was depicted as a playground and occupied by the Pasadena RD (i.e., Refuse Disposal) Department.
- 1951 (Building Permit): Building permits showed that the 888 Building was constructed for the City of Pasadena as a refuse disposal loading dock.
- 1961 (Sanborn Map): The Pasadena Refuse Disposal Department was depicted to occupy this parcel.
- 1976–1981 (City Directory and Building Permit): City directories identified Digitran Company on-site in 1976 with building permits showing Digitran on-site in 1981.
- 1995 (Environmental Reports): According to the Removal Action Workplan (RAW) prepared in September 2011 and made available on Envirostor, the USPS occupied this parcel between 1995 and 2010.

As further discussed in Subsection 2.b(7)(b)(i) below, a voluntary remediation of soil contamination was conducted at this parcel, which resulted in a DTSC determination that the parcel has been restored to conditions acceptable for the proposed redevelopment of this portion of the South Campus. Accordingly, the closed status of the remediation at this parcel is considered a HREC.

Historical occupants of the 950 Parcel include the following:

- 1931 (Sanborn Map): This parcel, similar to the 888 Parcel, was also depicted as being occupied by the Pasadena Water Department as a pipe yard with several structures for pipe storage, truck storage, refuse cutter, garbage incinerator, and a shed.
- 1950 (Sanborn Map): The California Institute of Technology (Caltech) was shown occupying this parcel as a cooperative wind tunnel. Three structures were depicted as part of the Caltech property, including the main building (tunnel unit, power unit, work shop, office), machine shop, and oil and paint storage.
- 1965–2006 (City Directories): City directories identified the following businesses on-site: California Consumers Corporation and Maghead Laboratories in 1965; various cold storage companies in 1966; Park-O-Matic in 1975; and Distinctive Appliances Corporation, or DACOR from 1980 to 2006.

Historical occupants of the 988 Parcel in the area of the current surface parking lot in the southernmost portion of the West Lot include the following:

- 1888–1889 (Sanborn Maps): This parcel was depicted with a small structure occupied by the Pasadena Fruit Crystalling Company with various rooms, including packing room, prepping room, offices, loading platforms, and drying room (with processes that included stove heat, steam jackets, and copper kettles).
- 1890 (Sanborn Maps): Philbrook and Stetson was depicted on the map as occupying the Pasadena Fruit Crystalling Company building a third of the time manufacturing Boston baked beans.
- 1894 (Sanborn Maps): F.F Stetson Preserving Works was depicted on the map as occupying the structure previously used by the Pasadena Fruit Crystalling Company and Philbrook and Stetson.
- 1903 (Sanborn Map): The structure in this parcel had been replaced and occupied by the Pasadena Canning Company. The main structure was depicted with various rooms, including preparing room, cooking room, packing room, receiving room, syrup room, office, and warehouse. One 50-gallon gasoline UST and one 70-gallon crude oil UST were shown along South Raymond Avenue northwest of the main structure. Several structures for storage, sheds, and stables were shown north of the USTs along South Raymond Avenue.
- 1910 (Sanborn Map): The Pasadena Canning Company structure had been replaced; however, the new structure was still occupied by the same company.

The USTs were no longer depicted, but a fuel oil UST appeared to have been installed.

- 1931 (Sanborn Map): The parcel had been redeveloped with a new building that was U-shaped with the opening to the west with a railway spur entering the parcel at the opening. The structure was depicted with various rooms, including dust mop manufacturing, fruit canning room, canned fruit warehouse, box storage, office, and truck storage. A boiler was depicted in the fruit canning room; however, no UST was shown on the map.
- 1950 (Sanborn Map): The California Consumers Corporation was depicted as occupying the same structure as Process Plant No. 3 with an additional maintenance building north of the main structure, which was shown with various rooms, including processing areas, caste storage, casing room, freezing units, fruit and produce processing, cooler rooms, and lumber storage and woodworking. An elevated conveyor was depicted extending from the casing room northward, then eastward across the railway tracks, and continuing onto the East Lot.
- 1970s (Building Permits and Aerial Photographs): Review of the building permits indicates that the maintenance building, food processing building, and freezer rooms described above were demolished in 1972 and replaced with a temporary surface parking lot. A permit for an approved surface parking lot was issued in 1976. Review of historical aerial photographs confirmed the removal of a large commercial/industrial structure from the parcel and the development of parking lots.

As further discussed in Subsection 2.b(7)(b) below, a data gap has been identified related to the unknown status or conditions of these USTs.

(b) Current Uses

(i) Hillside Campus

The Hillside Campus is an irregularly shaped 155.95-acre site, approximately 75 percent of which is undeveloped. The developed area within the Hillside Campus consists of two large parking areas known as the South Lot and North Lot, a guest parking lot, and four existing buildings, including the Ellwood Building, the South Building, the Sinclair Pavilion, and the Annex Building. The Ellwood Building, which was built as a bridge building spanning over MacMinn Drive (the main road on-campus) and the campus' hilly, canyon terrain, is a two-story building used for academic and administrative uses. The South Building is a one-story building used for maintenance and operations. The Sinclair Pavilion is a one-story building that varies in height up to 24 feet and is used as a campus amenity/outdoor lounge. The Annex Building is a two-story building used for temporary academic and administrative uses.

(ii) South Campus

The South Campus consists of five rectangular parcels bisected by the Metro Gold Line and totaling 6.68 acres. The parcels along South Raymond Avenue are located west of the Metro Gold Line, and the parcel on the northwestern corner of South Arroyo Parkway and East Glenarm Street is located immediately to the east of the rail line. The 870 Parcel is the northernmost parcel within the South Campus and is developed with a two-story building (870 Building) that varies in height up to 39 feet and supports academic uses. The 888 Parcel is developed with a one-story building (888 Building) used for shop space and parking. The 950 Parcel is developed with a building (950 Building) comprised of up to three stories and used for academic and administrative uses. The 988 Parcel at the northeastern corner of South Raymond Avenue and Glenarm Street is a parking lot. The parcel located at 1111 South Arroyo Parkway at the northwestern corner of South Arroyo Parkway and East Glenarm Street, just north of the terminus of SR-110, is developed with a six-story building (1111 Building) used for academic and administrative uses, as well as office space currently leased by third parties.

(2) Hazardous Materials Use and Storage

As part of the Phase I ESA, the Hillside Campus and South Campus were inspected for current chemical and hazardous waste storage and handling practices. Limited quantities of hazardous materials are used on-site for janitorial and building maintenance purposes, as well as for ArtCenter's use as part of its academic programs.

(a) Hillside Campus

The following presents a list of observed hazardous materials/chemicals used at the Hillside Campus:

- Several flammable cabinets in the model shop/tool crib located on Level 2 of the Ellwood Building. Chemicals within the cabinets include resins, urethane, and clear coats. Additional chemicals neatly stored on shelves include, but are not limited to, gloss, adhesive, sprays, glues, and silicone base.
- Several flammable cabinets in two spray rooms located on Level 2 of the Ellwood Building. The smaller room includes seven small spray booths, and the larger room includes two large spray booths. The spray booths were reportedly permitted by the SCAQMD; however, information reviewed on the SCAQMD database indicates that the spray booth permits are currently inactive. Chemicals within the cabinets include acetone, resins, urethanes, paints, alcohol, oils, primers, thinners, and spray paints.

- Two 55-gallon and one 35-gallon hazardous waste drums in the two spray rooms located on Level 2 of the Ellwood Building. The hazardous waste in these drums is transported off-site every six to eight weeks by a hazardous waste collection and recycling company.
- Storage of 3D printing binders in the 3D Printing Lab located on Level 2 of the Ellwood Building. The used binders are recycled.
- Several 25-gallon and 10-gallon containers of film developer and fixers in the Photo Lab on Level 1 of the Ellwood Building.
- Storage of solutions and cleaning supplies, as well as fixers, developers, replenishers, and bleach in the Chemical Mixing Room.
- Two silver recovery systems in the Photo Labs (one in the Color Photo Lab and one in the Black and White Photo Lab) on Level 1 of the Ellwood Building. The silver waste is transported off-site three to four times a year by a company who recycles silver and maintains and services the systems on a regular basis.
- Water treatment chemicals for the cooling tower in the mechanical room on the basement level of the Ellwood Building.
- One hydraulic elevator and one cable traction elevator in the Ellwood Building. The elevators are serviced once a month or on an as-needed basis.
- Two 182-pound compressed gas containers in the Server Room for the Sapphire Clean-Agent Fire Suppression System.
- Nine 55-gallon steel drums on the roof of the Ellwood Building. The drums are attached to four systems for the collection of dust from woodworking activities.
- Numerous five-gallon containers of paints neatly stacked on shelves in the South Building.
- Two pad-mounted flammable cabinets in the exterior of the South Building. Chemicals within the cabinets include gasoline for golf carts and gardening tools.
- Two small propane tanks in the exterior of the facilities storage building.

(b) South Campus

The following presents a list of observed hazardous materials/chemicals used at the South Campus:

(i) 870 Building

- One hydraulic elevator, which is serviced monthly.
- A flammable cabinet in the print shop chemical storage area on the first floor. Chemicals in the cabinet include, but are not limited to, acetone, spirits, alcohols, turpentine, screen wash, degreasers.
- Storage of stain removers, water-based degreasers, screen wash, ammonia, and other chemicals on the concrete floor of the print shop chemical storage area on the first floor. No leaks or staining was noted on the floor; however; many of the containers appear with hard water stains or product residues on the containers.
- One 55-gallon drum of ferric chloride for printmaking process and a 5-gallon container of nitric acid on a pallet in the print shop chemical storage area on the first floor.
- Five 30-gallon steel drums for flammable solid waste and liquid waste in three studio spaces storage areas throughout the building. Small flammable cabinets in these areas include paints, spray paints, resins, and cleaning agents.

(ii) 888 Building

- Three 55-gallon steel drums and one 30-gallon steel drum of waste along the southwest exterior of the structure. According to the hazardous waste labels, the drums contain aerosols, solids (absorbents contaminated with oils), flammable solids, and gasoline wastes.
- A dust collection system in the woodshop area on the ground floor. The system is connected to one container that is disposed of on an as-needed basis.

(iii) 950 Building

- One hydraulic elevator, which is serviced monthly.
- Several 1-gallon and 5-gallon containers of paint in the main electrical room.
- Storage of paint in the facilities storage room on the first floor.
- One flammable cabinet with spray paints and solvents in the facilities storage room on the first floor.
- Four flammable cabinets with acetone, strippers, thinners, spray paints, resins, and sealers in the studio spaces (for graduates) storage area.

- Two 55-gallon steel drums of waste and a smaller container for used/oily rags in the studio spaces storage area for paint and solvent waste.
- Water treatment chemicals for the cooling towers on the roof.

(iv) 1111 Building

- One flammable cabinet with two 5-gallon containers of gas on Level P2.
- Several 5-gallon containers of paints in an enclosed janitorial storage area on Level P2 for building maintenance.
- One flammable cabinet with several 1-gallon and 5-gallon containers of paints, enamels, and thinners on Level P1.
- Biohazardous containers at the Arroyo Dialysis Center. The bio-hazardous waste (blood lines, needles) are transported off-site twice a week.
- One 55-gallon steel drum and two smaller containers of waste in the rack room (for drying paintings) on the sixth floor. The 55-gallon steel drum contains paint and solvent waste, and the smaller containers contain used/oily rags.
- Three cable traction elevators, which are serviced twice a month or on an as-needed basis.
- Water treatment chemicals for the cooling towers on the roof.

(3) Hazardous Waste Generation, Handling, and Disposal

As described above, small amounts of chemicals for janitorial and building maintenance purposes, as well as for ArtCenter's use as part of its academic programs, are currently used within the Hillside Campus and South Campus. The hazardous wastes associated with the use of these chemicals currently generated on-site are taken from the campuses by a licensed contractor to be managed at licensed waste treatment, disposal, or recycling facilities that are permitted to receive the applicable waste.

(4) Underground and Aboveground Storage Tanks

As part of the Phase I ESA, the Hillside Campus and South Campus were inspected for the presence of USTs and ASTs.

(a) Hillside Campus

No USTs were identified at Hillside Campus. An emergency generator with a 40-gallon diesel belly tank was identified on the basement level of the Ellwood Building.

While the mechanical room is located on the basement level, the area is also exposed to the exterior due to the topography of the Hillside Campus. An additional emergency generator with a 20- to 25-gallon diesel belly tank was also identified in the electrical room on Level 1 of the Ellwood Building. These emergency generators are maintained monthly. No leaks or staining was observed in the areas of the emergency generators.

Two exterior emergency generators were identified to the northwest of the Ellwood Building. One of the generators is fueled by natural gas. The other generator is dual-fueled by natural gas and propane; this generator is connected to two 500-gallon liquid propane gas (LPG) tanks. Similarly, these emergency generators are maintained monthly. No leaks or staining was observed in the areas of the emergency generators or LPG tanks.

(b) South Campus

Although no USTs were identified at South Campus, no record of the removal of the two USTs (50-gallon gasoline UST and 70-gallon crude oil UST) depicted on the 1903 Sanborn Map within the 988 Parcel was found during the Phase I ESA. Consequently, a data gap⁴ has been identified related to the unknown status or conditions of these USTs. However, the Phase I ESA prepared for the South Campus determined that the most significant potential sources for on-site contamination have been identified by other means during the investigation for the Phase I ESA.

An emergency generator with a 55-gallon day tank was identified on Level P1 at the 1111 Building. However, this emergency generator is currently not being used by ArtCenter; it was originally installed by a former tenant. Two additional emergency generators are located in an enclosure west of the 1111 Building and on the roof of the 950 Building. The generator near the 1111 Building has an 85-gallon day tank, while the generator on the roof of the 950 Building has a belly tank of approximately 200 gallons. These generators are serviced annually. No leaks or staining was observed in the area of these emergency generators.

(5) Asbestos-Containing Materials and Lead-Based Paint

(a) Hillside Campus

Based on the construction dates for the buildings on the Hillside Campus, ACMs and lead-based paint were likely used in the construction of the Ellwood Building and the South Building. A survey for ACMs or lead-containing materials was not conducted as part of the

⁴ A data gap is a lack of or inability to obtain information despite good faith efforts to gather such information.

Phase I ESA prepared for the Hillside Campus. However, in accordance with SCAQMD Rule 1403, ArtCenter would be required to conduct a comprehensive asbestos survey prior to demolition or building renovation/expansion.

(b) South Campus

Based on the construction dates for the buildings on the South Campus, ACMs were likely used in the construction of all of the buildings on-site, while lead-based paints were likely used within the 888 Building and the 950 Building. A survey for ACMs or lead-containing materials was not conducted as part of the Phase I ESA for the South Campus. However, in accordance with SCAQMD Rule 1403, ArtCenter would be required to conduct a comprehensive asbestos survey prior to building renovation and improvements.

(6) Polychlorinated Biphenyls

As part of the Phase I ESA, the Hillside Campus and South Campus were inspected for the presence of transformers that may contain PCBs.

(a) Hillside Campus

One pad-mounted transformer was identified by the Annex Building. Several dry-type transformers were identified throughout the Hillside Campus. The transformers appear in good condition, and the dry-type transformers do not use oils that may contain PCBs.

(b) South Campus

No pad- or pole-mounted transformers were observed on the South Campus. However, several dry-type transformers were observed throughout the South Campus. These transformers appear in good condition and do not use oils that may contain PCBs.

(7) Hazardous Materials Database Search

(a) Hillside Campus

The Hillside Campus was identified as a RCRA Small Quantity Generator (SQG)⁵ in 1987. However, according to the results of the EDR⁶ database records search, no

⁵ RCRA-SQG is a database of small quantity generators (i.e., facilities that generate between 100 kilograms (kg) and 1,000 kg of hazardous waste per month) that generate, transport, store, treat, and/or dispose of hazardous waste as defined by the RCRA.

⁶ EDR is an information source for regulatory agency database records.

violations were reported. The Hillside Campus was identified on the Emissions Inventory Data (EMI)⁷ database between 1987 and 2001 for hydrocarbon gas and reactive organic gas emissions less than 6 tons per year. No violations were reported.

The Hillside Campus was also identified on the Hazardous Waste Information System (HAZNET)⁸ database as a generator of various hazardous wastes, including the following:

- Aqueous solution in 1993;
- Liquids with pH less than or equal to 2.0 in 1993 and 1994;
- Unspecified solvent mixture from 1993 to 2010;
- Liquids with chromium (VI) and other inorganic solid waste in 1994;
- Photochemicals/preprocessing waste in 1994 and 1996;
- PCBs or material containing PCBs in 1996;
- Oxygenated solvents from 1996 to 2006;
- Liquids with halogenated organic compounds in 2000; unspecified organic liquid mixture in 2002;
- Other organic solids from 2002 to 2014; and
- Paint sludge from 2008 to 2014.

(b) South Campus

(i) 870 and 888 Parcels

The 870 parcel was identified on the EnviroStor and Voluntary Cleanup Program databases as part of the Southern California Gas Company (SoCalGas)/Pasadena Manufactured Gas Plant (MGP) along with the adjacent properties west of the parcel at 815 and 859 South Raymond Avenue. According to EDR, the facility was occupied by gas companies in the early 1890s, for the production of manufactured gas made from coal and

⁷ EMI is a collection of toxics and criteria emissions data by the California Air Resources Board and local air pollution agencies.

⁸ HAZNET includes facility and manifest data for sites that file hazardous waste manifests with the DTSC.

oil. The byproducts were tars, oils, sludge, lampblack, etc. Bectin-Dickson was identified on the historical UST database. No information or description was provided for the listing.

A review of information provided by EDR regarding nearby properties was also conducted to evaluate for potential on-site vapor encroachment condition (VEC) concerns from off-site sources. According to EDR, the 870 and 888 parcels, as part of the Southern California Gas Company/Pasadena Manufactured Gas Plant, were identified on the Envirostor database and as a voluntary cleanup site. According to EDR, a Removal Action Completion Report (RACR) and a request for closure were submitted in June 2014. DTSC issued a Site Certification on September 2, 2014. According to DTSC, the RACR documented the implementation of the October 2011 Removal Action Workplan (RAW) for remediation of soil vapor contaminated mostly with trichloroethylene (TCE) and perchloroethylene (PCE) from previous operations at these parcels. The soil vapor extraction (SVE) system operated from April 2012 through May 2014. Soil vapor sampling results indicated that the levels of TCE and PCE in the majority of samples were non-detect (ND) or below California Human Health Screening Levels (CHHSLs) for residential land uses. According to DTSC, all of the SVE wells have been properly abandoned. Based on the confirmation soil gas sampling data, DTSC determined that these parcels have been restored to conditions acceptable for the proposed redevelopment of this portion of the South Campus. The closed status of the remediation at these parcels is considered a HREC.

(ii) 950 Parcel

The 950 parcel was identified on the HAZNET database. DACOR was identified as having generated other organic solids, other inorganic solid waste, oil-containing waste, and tank bottom waste between 1996 and 2000. ArtCenter was identified as having generated unspecified oil-containing waste and asbestos-containing waste in 2003 and unspecified solvent mixture from 2003 to 2013.

(iii) 1111 Parcel

The 1111 parcel was identified on several databases. Parkway Chiropractic was identified as a RCRA-SQG in 1992 and on the HAZNET database for generating photochemicals/photoprocessing waste from 1993 to 1994. According to EDR, no violations were reported. Pacific Life Inc. was also identified on the HAZNET database as a generator of aqueous solution in 2001.

(iv) Summary of Review of Database Search Results

The Phase I ESA determined that based on a review of the database search results identified above, any reported release incidents or use of hazardous materials that would

represent RECs at the two campuses or a source of release that would be likely to contribute to a VEC were not identified.

(8) Fire Hazards

The Hillside Campus is located in a Very High Fire Hazard Severity Zone established by the PFD.⁹ The South Campus is located within a densely developed urban area with no large areas of forests, grasslands, or dense native vegetation. All trees within the South Campus are regularly pruned and maintained.

(9) Past and Current Use of Adjacent Hazardous Waste Sites

(a) Hillside Campus

The property at 3800 East Glenoaks Boulevard is identified as Scholl Canyon Inactive Disposal Site and Scholl Canyon Landfill. According to information provided by GeoTracker,¹⁰ there are two landfills southwest of the Hillside Campus. One of the landfills is inactive, approximately 0.6 mile southwest of the Hillside Campus and currently occupied by the Scholl Canyon Golf and Tennis Club. The inactive landfill was a public landfill that accepted non-liquid household and commercial refuse and inert solid fill between 1960 and 1976 and is owned by the City of Glendale. The active Scholl Canyon Landfill (SCLF) adjoins the Hillside Campus to the southwest and has operated since 1961. The SCLF accepts only non-hazardous solid and inert wastes, and the wastes have been placed within the confines of Scholl Canyon. A low-permeability barrier, consisting of a mixture of cement and bentonite keyed into bedrock, and an alluvial groundwater extraction system, were installed in 1987 across Scholl Canyon near the toe of the landfill (near the southwest corner of the landfill). Additional bedrock extraction wells were installed in 1998. The current groundwater-monitoring network consists of 10 wells near the barrier with one well located near the southwestern property boundary and two off-site wells further to the west. The barrier and the extraction and monitoring wells are located approximately 1 mile southwest of the Hillside Campus. The system is situated along the western boundary of the landfill due to topography of the area, which slopes generally to the southwest. Groundwater flow at the landfill is to the west. Flint Peak, the highest point in the area, is located just north of the landfill and approximately 0.5 mile west-southwest of the Hillside

⁹ Pasadena Fire Department, *Fire Hazard Severity Zone*, July 1, 2008.

¹⁰ GeoTracker is the SWRCB's internet-accessible database system used by the SWRCB, RWQCBs, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from USTs. This system consists of a relational database, on-line compliance reporting features, a geographical information system (GIS) interface and other features that are utilized by the SWRCB, RWQCBs, local agencies, regulated industry, and the public to input, manage, or access compliance and regulatory tracking data.

Campus. Due to the topography of the area, the inactive and active landfills are not expected to have adversely affected the Hillside Campus.

(b) South Campus

The City of Pasadena Power Plant located at 72 East Glenarm Street, approximately 90 feet south of the Site, was identified on several databases including the EnviroStor, LUST, and Voluntary Cleanup Program (VCP) databases. According to information provided by EDR, a fuel oil leak was discovered during subsurface monitoring in September 1988. The case was completed and closed by the LARWQCB on April 15, 1997. In addition, the City of Pasadena Power Plant entered into a voluntary cleanup agreement in October 2013 to remove dioxin in the soil. A “No Further Action” letter was issued by DTSC on March 5, 2014.

The City of Pasadena Water and Power at 45 East Glenarm Street, approximately 80 feet west of the South Campus, was identified as a RCRA Large Quantity Generator (LQG) of corrosive waste and lead. According to EDR, no violations were found.

There are 40 properties within 0.125 mile and up-gradient or cross-gradient of the South Campus that are listed on the Historical Dry Cleaners database. According to EDR, the closest property on the Historical Dry Cleaners database was located at 971 South Raymond Avenue, approximately 86 feet southwest of the South Campus, and was occupied by a Chinese/oriental/hand laundry facility from 1921 to 1937. An additional property was identified at 893 South Raymond Avenue, approximately 87 feet north-northwest of the South Campus, and was occupied by National Carpet Works as a carpet cleaner in 1921. According to the Sanborn Maps, this property was occupied by the Los Angeles Gas and Electric Corporation by 1931. An additional property was identified at 953 South Raymond Avenue, approximately 103 feet west and up-gradient of the South Campus, and was occupied by Bryte’s Rug Works as a carpet cleaner between 1932 and 1942. According to the Sanborn Maps, no chemicals were indicated at the property, and this property was occupied as a chair manufacturer by 1950. Additional properties identified on the database are greater than 380 feet from the South Campus and are unlikely to have adversely affected the South Campus.

There are 17 properties within 0.125 mile and up-gradient or cross-gradient of the South Campus that are listed on the Historical Gas Station database. The closest property identified by EDR is the property located at 2172 South Arroyo Parkway, approximately 93 feet south-southeast and down-gradient of the South Campus; this property was occupied as a gasoline station by Gordy’s Service Station in 1956, Ken’s for Service in 1961, and McNett’s Stations in 1965. This listing is likely an error due to the address. An additional property was identified at 953 South Raymond Avenue, approximately 103 feet

west and up-gradient of the South Campus, and was occupied by Modern Auto Body and Paint Shop between 2004 and 2009. An additional property was identified at 811 South Raymond Avenue, approximately 105 feet north-northwest and up-gradient of the South Campus, and was occupied by California Auto Imports in 2008. These two properties (Modern Auto Body and Paint Shop and California Auto Imports) were unlikely to have USTs at their properties. Additional properties located 124 and 140 feet southeast of the South Campus were occupied as automobile repair shops. A gasoline station was identified at 155 East Glenarm Street, approximately 152 feet southeast of the South Campus, and was occupied by Anderson in 1951, Union Oil Company between 1956 and 1961, and Unocal Dealers in 1999. This property is currently occupied by a 76 Gas Station. Additional properties identified on the database are greater than 190 feet from the South Campus and are unlikely to have adversely affected the South Campus.

(10) Other Site Conditions

(a) Radioactive Man-Made Materials

Many public and private office buildings in the U.S. have self-luminescent tritium exit signs that contain radioactive materials. While these do not constitute a recognized environmental condition, the exit signs must be properly identified to ensure proper handling and disposal practices. Such exit signs were observed at the Hillside Campus and South Campus during the Site reconnaissance.

(b) Wells, Cisterns, and Sumps

No wells or cisterns were visually observed during the site reconnaissance for the Phase I ESAs or reported to be historically present on the Hillside Campus and South Campus. No sumps were identified at the Hillside Campus. However, at the South Campus, one sump was observed on the lower basement level at the 950 Building, and three sumps were observed at 1111 Building. One of the sumps at 1111 Building is on Level P1 and is maintained by Arroyo Dialysis Center (tenant). The sump pump was installed on Level P1 due to the building not being leveled and did not connect to City pipes/drains. The remaining sumps at the 1111 Building is on Level P2 and are maintained by ArtCenter. The water from the sumps is pumped to the street.

(c) Other Chemical Storage Containers

No wastewater or grease interceptors were visually observed during the site reconnaissance for the Phase I ESAs or reported to be historically present at the Hillside Campus and South Campus. However, at the South Campus, four 5-gallon neutralization tanks for filtering paint-related waste were observed by the sinks in the studio spaces

storage area and the print shop chemical storage area in the 870 Building. The tanks are maintained regularly.

3. Environmental Impacts

a. Methodology

To evaluate potential impacts relative to hazards and hazardous materials, Phase I ESAs were prepared for the two ArtCenter Campuses. The Phase I ESAs are included as Appendix G of this Draft EIR. In accordance with ASTM Standard E1527-13, the analysis of the potential impacts regarding hazards and hazardous material was based on a property and adjacent site reconnaissance, interviews with key personnel, a review of historical use information about the Hillside Campus and South Campus, and a review of regulatory agency records. Recommendations regarding the construction and operation of the Project are based on these results.

The Phase I ESAs were prepared in accordance with the requirements of ASTM Standard E1527-13 and include the following: (1) a review of aerial photographs, Sanborn Maps, city directories, and topographic maps; (2) a review of the EDR Database Report; (3) interviews with regulatory officials and personnel associated with the Hillside Campus and South Campus; (4) a site reconnaissance; and (5) a Vapor Encroachment Assessment.

b. Thresholds of Significance

Based on Appendix G of the State CEQA Guidelines, a Project would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- 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 create a significant hazard to the public or the environment;

- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the project results in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, the project results in a safety hazard for people residing or working in the project area;
- Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

With regard to the questions from Appendix G of the CEQA Guidelines related to airports and private airstrips, as discussed in the Initial Study for the Project, neither the Hillside Campus nor the South Campus is located within 2 miles of a public airport, public use airport, or private airstrip. Accordingly, the Project would not result in a safety hazard for people residing or working in the vicinity of an airport or a private airstrip.

In addition, with regard to the question related to an adopted emergency response plan or emergency evacuation plan, as discussed in the Initial Study for the Project, the proposed improvements would not place permanent physical barriers on any existing public streets. Project construction would primarily take place within the boundaries of the Hillside Campus and South Campus, and while road closures during construction are not anticipated, temporary lane closures on the public streets adjoining the South Campus, in particular, may be required. During such times, standard safety precautions would be implemented to ensure emergency access is maintained. Furthermore, to ensure compliance with the City's zoning, building, and fire codes, ArtCenter would be required to submit appropriate plans for City review prior to the issuance of a building permit. Adherence to these requirements would ensure that the Project would not have a significant impact on emergency response and evacuation plans. As a result, less-than-significant impacts would occur as a result of the Project.

Similarly, with regard to the question related to wildland fires, the Initial Study determined that while the South Campus is located in a highly urbanized area not prone to wildland fires, the Hillside Campus is located in a Very High Fire Hazard Zone. Compliance with all applicable City Fire Code requirements related to fire protection in a Very High Fire Hazard Severity Zone, as well as other relevant fire safety regulations, would minimize wildfire hazards and associated impacts. Routine landscape maintenance would be conducted on the developed portions of the campus to minimize fire hazards. Furthermore, ArtCenter has a comprehensive emergency preparedness plan, which

includes routine fire drills and evacuation procedures to be followed in the event of an emergency, such as a fire. Accordingly, impacts with respect to wildland fires would be less than significant.

Therefore, no significant impacts with respect to these topics would occur, and no further investigation and analysis is provided in this EIR for these issues.

c. Project Design Features

No specific project design features are proposed with regard to hazards and hazardous materials.

d. Analysis of Project Impacts

Impact G-1: The Project would involve the routine transport, use, and/or disposal of hazardous materials or wastes and, as a result, has the potential to create a potential hazard to the public, including schools, or the environment, through the potential release of hazardous materials or emissions into the environment. Compliance with regulatory requirements and implementation of the proposed mitigation measure would reduce potential impacts to less than significant levels.

Within the South Campus, the Project would include renovations to existing buildings, demolition of existing buildings and surface parking, construction of new buildings for student housing, development of outdoor quad areas, and construction of a campus Cycleway and mobility hub.

(1) Construction Impacts

During demolition and building construction, fuel and oils associated with the operation of construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners, could be used, handled, and stored on the Hillside Campus and South Campus. The use, handling, and storage of these materials could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people, schools within 0.25 of a mile, and the environment to hazardous materials.

(a) Hillside Campus

The Hillside Campus is surrounded by sensitive uses, consisting primarily of residences. However, improvements within the Hillside Campus would be limited to the demolition of the Annex Building, enclosure of the Sinclair Pavilion, expansion of the South Building, installation of PV cells and canopies at the North Lot and South Lot, and

modifications to campus access. Accordingly, construction improvements within the Hillside Campus are not anticipated to involve extensive excavation and grading and the use of heavy equipment. During construction, all potentially hazardous materials would be used and stored in accordance with manufacturers' instructions. In addition, applicable laws and regulations are aimed at establishing specific guidelines regarding risk planning and accident prevention, protection from exposure to specific chemicals, and the proper storage of hazardous materials.

With regard to asbestos, based on the age of the buildings, asbestos or ACMs may be present. Thus, in accordance with SCAQMD Rule 1403, ArtCenter would be required to conduct a comprehensive asbestos survey prior to demolition or building renovation/expansion. In the event that ACMs are found within areas proposed for demolition or renovation/expansion, suspect materials would be removed by a certified asbestos abatement contractor in accordance with applicable regulations prior to building disturbance. Therefore, potential impacts related to ACMs would be less than significant.

Similarly, lead-based paint may also be present based on the age of existing buildings. In the event that lead-based paint is found within areas proposed for demolition or building renovation/expansion, suspect materials would be removed in accordance with procedural requirements and regulations, including those established by the Toxic Substances Control Act, 29 CFR Sections 1910 and 1926 *et seq.*, and Titles 8 and 17 of the CCR, for the proper removal and disposal of lead-based paint prior to disturbance activities. Example procedural requirements include the use of respiratory protection devices while handling lead-containing materials, containment of lead or materials containing lead on the site or location at which construction activities are performed, and certification of all consultants and contractors conducting activities involving lead-based paint or lead hazards. With compliance with relevant regulations and requirements, potential impacts related to lead-based paint would be less than significant.

In addition, prior to demolition of the Annex Building, the pad-mounted transformer observed near the building would be removed and disposed of in accordance with applicable regulations (40 CFR Part 761). As a result, potential impacts related to PCBs would be less than significant.

Compliance with all applicable federal, State, and local requirements concerning the use, storage, and management of hazardous materials and the generation, handling, and disposal of hazardous waste would effectively reduce the potential for Project construction activities to expose people to a substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, impacts related to the use, storage, and management of hazardous materials

and the generation, handling, and disposal of hazardous waste during construction would be less than significant, and no mitigation measures are required.

(b) South Campus

The South Campus is in proximity (i.e., within 0.25 of a mile) to several sensitive uses, including single-family residences to the southwest, multi-family residences to the east, and Blair High School to the southeast. During construction, the potential for encountering two small USTs (50-gallon gasoline UST and 70-gallon crude oil UST depicted on the 1903 Sanborn Map) and impacted soils exists due to the lack of removal and closure documentation for these USTs at the 988 Parcel. If encountered during construction, this would create a potential hazard to the construction workers and the public and would be considered a significant impact related to the potential release of hazardous materials or emissions into the environment and would be considered a REC. Therefore, a mitigation measure has been identified below, involving the preparation of a soil management plan (SMP), to ensure that potential impacts associated with the removal of potentially contaminated soils and hazardous wastes would be less than significant.

During demolition and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and, therefore, would require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people, residences, schools, and the environment to hazardous materials. However, Project construction would occur in compliance with all applicable federal, State, and local requirements concerning the use, storage, and management of hazardous materials and the generation, handling, and disposal of hazardous waste.

With regard to asbestos, based on the age of the buildings, asbestos or ACMs may be present. Thus, in accordance with SCAQMD Rule 1403, the Applicant would be required to conduct a comprehensive asbestos survey prior to demolition, subject to approval by the City of Pasadena Building and Safety Division. In the event that ACMs are found within areas proposed for demolition, suspect materials would be removed by a certified asbestos abatement contractor in accordance with applicable regulations. Therefore, potential impacts related to ACMs would be less than significant.

LBP may also be present on the Hillside Campus and South Campus based on the age of existing buildings. In the event that LBP is found within areas proposed for demolition, suspect materials would be removed in accordance with procedural requirements and regulations, including those established by the Toxic Substances Control Act, 29 CFR Sections 1910 and 1926 *et seq.*, and Titles 8 and 17 of the CCR, for the

proper removal and disposal of LBP prior to demolition activities. Example procedural requirements include the use of respiratory protection devices while handling lead-containing materials, containment of lead or materials containing lead on the site or location at which construction activities are performed, and certification of all consultants and contractors conducting activities involving LBP or lead hazards. With compliance with relevant regulations and requirements, potential impacts related to LBP would be less than significant.

Compliance with all applicable federal, State, and local requirements concerning the use, storage, and management of hazardous materials and the generation, handling, and disposal of hazardous waste (beyond the potential USTs within the 988 Parcel) would effectively reduce the potential for Project construction activities to expose people to a substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, impacts related to the use, storage, and management of hazardous materials and the generation, handling, and disposal of hazardous waste during construction would be less than significant, and no additional mitigation measures would be required.

(2) Operational Impacts

Operation of the Project would involve the continued use of hazardous materials by ArtCenter at both the Hillside Campus and South Campus and limited use of potentially hazardous materials typical of those used in residential, commercial/restaurants, and office uses, including cleaning agents, paints, pesticides, and other materials used for landscaping.

In addition, ArtCenter proposes to install a compressed natural gas (CNG) fueling facility near the new Commuter Services and Facilities Hub of the expanded South Building at the Hillside Campus or within the Mobility Hub area at the South Campus. Although CNG is a flammable gas, it has a narrow flammability range, making it an inherently safe fuel. Moreover, strict safety standards (e.g., National Fire Protection Association, NFPA 52: Vehicular Natural Gas Fuel Systems Code) make CNG vehicles as safe as gasoline-powered vehicles. In the event of a spill or accidental release, CNG poses no threat to land or water and is non-toxic. CNG also disperses quickly, minimizing ignition risk relative to gasoline. Reported incidents of fires are related to vehicular engine failures and not the use of natural gas.¹¹ Furthermore, a central plant is proposed within a portion of the two-story podium below the housing levels of the 988 Building. The central plant would be

¹¹ U.S. Environmental Protection Agency, *Clean Alternative Fuels: Compressed Natural Gas*, March 2002; National Fire Protection Association, *NFPA 52: Vehicular Natural Gas Fuel Systems Code*, 2016 Edition.

fueled by a combination of electricity with some natural gas (e.g., for water heating) and would include chillers, pumps, boilers, and miscellaneous piping vessels. Other heating and cooling equipment would be located on the roof of the 988 Building and would include, but not be limited to, cooling towers, PV panels, and air handling units.

All potentially hazardous materials would be used, stored, and disposed of in accordance with manufacturers' specifications and handled in compliance with applicable standards and regulations. Any risks associated with these materials would be adequately reduced to a less-than-significant level through compliance with these standards and regulations. Therefore, as the Project would comply with applicable regulations and would not expose persons or schools to substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards, impacts associated with the use and storage of these hazardous substances during operation of the Project would be less than significant, and no mitigation measures are required.

With implementation of the Project, it is anticipated that hazardous waste-generating activities could incrementally increase, particularly at the South Campus, due to the introduction of new commercial and institutional uses and student housing. As is the case under existing conditions, activities involving the handling and disposal of hazardous wastes at both the Hillside Campus and South Campus would occur in compliance with all applicable federal, State, and local requirements concerning the handling and disposal of hazardous waste. Furthermore, hazardous wastes would continue to be properly stored and conveyed to licensed waste treatment, disposal, or recycling facilities. Therefore, with compliance with relevant regulations and requirements, operational activities would not expose people or schools to a substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard associated with hazardous waste in excess of regulatory standards. Thus, impacts associated with hazardous waste generation, handling, and disposal during operation of the Project would be less than significant, and no mitigation measures are required.

As no asbestos, ACMs, or lead-based paint would be used during Project construction or operation, buildout of the Project would not expose persons to friable asbestos or lead-based paint. As a result, Project operation would not expose people to substantial risk resulting from the release or explosion of a hazardous material, or from exposure to a health hazard, in excess of regulatory standards. Thus, no impact associated with asbestos, ACMs, and lead-based paint would occur.

Similarly, the new electrical systems to be installed as part of the Project would not contain PCBs. Therefore, during operation of the Project, maintenance of such electrical systems would not expose people to PCBs. As such, operation of the Project would not expose people to substantial risk resulting from the release or explosion of a hazardous

material, or from exposure to a health hazard, in excess of regulatory standards. Therefore, no human exposure to PCBs would occur as a result of Project implementation.

Impact G-2: The Project would be located on sites that are included on a list of hazardous materials sites to create a significant hazard to the public or the environment. Compliance with regulatory requirements and implementation of the proposed mitigation measure would reduce potential impacts to less than significant levels.

According to the Phase I ESAs prepared for the Hillside Campus and the South Campus and as presented in Subsection 2.b(7) above, both campus locations were identified on a number of lists of hazardous materials sites. However, as identified above, the Phase I ESA did not identify any potential concerns regarding hazardous materials or hazardous waste beyond those related to the development of the 988 Parcel. As discussed under Impact G-1 above, a data gap exists within regard to the West Lot USTs identified in the 1903 and 1910 Sanborn Maps. With this data gap, construction at the 988 Parcel has the potential to result in the release of hazardous materials or emissions into the environment in the event that USTs and associated impacted soils are encountered. However, a mitigation measure has been identified below to address this data gap and ensure that potential impacts associated with encountering contaminated soils and hazardous wastes would be less than significant. Therefore, the Project would not create a significant hazard to the public or the environment.

4. Cumulative Impacts

a. Construction

Development in accordance with the General Plan would result in infill development and intensification of land uses within the City. During construction, the Project and each development project under the General Plan buildout would involve the use of hazardous materials, such as fuels, lubricants, paints, solvents, and greases in construction equipment and coatings used in construction. However, the materials anticipated to be used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short-term in nature.

Grading and excavation in infill areas may expose construction workers and the public to known or potentially unknown hazardous materials in the soil. However, as with the Project, contaminated areas would be required to be remediated prior to construction activities and implementation of such development project under the General Plan buildout. Additionally, any unknown contamination discovered during excavation would require

halting of all construction activities and remediation. Remediation would prevent exposure of people and the environment to these hazards.

Development projects under the General Plan buildout may involve demolition of older buildings that contain ACMs, lead-based paint, or PCBs, resulting in potential exposure to these hazardous materials of workers or persons living in the area. However, as with the Project, each development project under the General Plan buildout would be required to comply with applicable regulations pertaining to the abatement and protection from exposure to ACMs, lead-based paint, and PCBs. Compliance with the existing regulations would ensure cumulative impacts related to hazardous materials and hazardous wastes during construction are less than significant.

b. Operation

Development projects under the General Plan buildout would increase the number of residents and businesses within the City, resulting in an increase in the number of hazardous materials being transported, used, and stored, and the number of people being exposed to these materials. These land use changes may result in impacts related to the emission or handling of hazardous materials near schools and other sensitive receptors.

Implementation of the Project, in combination with other development projects under the General Plan buildout, would have the potential to increase the risk for accidental releases of hazardous materials. Each of the development projects under the General Plan buildout would require evaluation for potential threats, including those associated with the use, storage, and/or disposal of hazardous materials, ACMs, lead-based paint, and PCBs, to ensure public safety and minimize impacts to sensitive receptors in the Project vicinity and would be required to comply with all applicable local, State, and federal laws, rules and regulations. Because environmental safety issues related to hazardous materials are largely site-specific, this evaluation would occur on a case-by-case basis for each individual project affected, in conjunction with development proposals on these properties. Therefore, with adherence to such regulations, cumulative impacts with regard to hazards and hazardous materials during Project operation would be less than significant.

5. Mitigation Measures

In addition to the regulatory compliance measures set forth above, the following mitigation measure is included to ensure that potential impacts related to hazards and hazardous materials would be less than significant:

Mitigation Measure G-1: A Soil Management Plan shall be prepared and implemented by ArtCenter to establish the protocol for management

of environmental conditions that may be encountered during construction, including soil contamination, as well as underground features, such as the potential USTs.

6. Level of Significance After Mitigation

The SMP, as set forth in Mitigation Measure G-1 above, would assist with the grading and management of soils excavated across the 988 Parcel and would provide guidance for geophysical surveys and response actions in the event unknown or undiscovered subsurface features are encountered during construction at the 988 Parcel. With implementation of Mitigation Measure G-1, Project-level and cumulative impacts related to hazards and hazardous materials would be less than significant.