

THE PHOENIX PLAZA

INTEGRATED PEST MANAGEMENT, EROSION CONTROL AND LANDSCAPE MANAGEMENT PLAN

GOALS AND SCOPE

The goal of this Plan is to preserve ecological integrity, enhance natural diversity, and protect wildlife while supporting high performance building operations and integration into surrounding landscapes.

The specific goal of the Integrated Pest Management Plan is to manage outdoor pests (plants, insects and/or animals) in a way that protects human health and the surrounding environment and improves economic returns through the most effective, lowest risk option.

The specific goal of the Erosion Control Plan is to prevent erosion and sedimentation, prevent polluting the air with dust or particulate matter, and restore eroded areas.

The specific goal of the Landscape Management Plan is to preserve or restore the property's native habitat, avoid air and groundwater contamination and minimize the energy and water requirements of building landscape maintenance.

This Plan is applicable to all of the property's exterior spaces, including the plaza and landscaped areas.

RESPONSIBLE PARTIES

Under the property's Integrated Pest Management Plan, sanitation is directed by the Cleaning Manager and inspected regularly by the property's pest control contractor.

Structural repairs are directed by the Senior Real Estate Manager and inspected regularly by the property's pest control contractor. The property's pest control contractor is furthermore responsible for inspection, identification and monitoring of pests and for conveying the decision to use chemical pesticides to Building Management as noted above. Once the management team is notified of the decision to use chemical pesticides, the Real Estate Services Administrator is responsible for occupant notification, as described below.

The property's Erosion and Sedimentation Control Plan is directed by the Senior Real Estate Manager.

The property's Landscape Management Plan is directed by the Senior Real Estate Manager.

GUIDANCE FOR RESOURCES AND IMPLEMENTATION

A. OUTDOOR INTEGRATED PEST CONTROL – OVERVIEW

The property maintains a comprehensive Integrated Pest Management (IPM) plan in accordance with standards developed by the US Green Building Council's LEED program. By definition, an IPM program controls and prevents pest activity by utilizing sanitation, inspection, structural repair, safe storage practices, mechanical control techniques, non-chemical pesticides, and chemical pesticides as a last resort. When applying chemical pesticides, "least-toxic" pesticides should be considered first and applied to a specific targeted area with advanced occupant notification.

B. OUTDOOR INTEGRATED PEST CONTROL – SANITATION

Sanitation is a key component of the property's IPM program. On an as needed basis during non-winter weather, exterior entrance ways are manually scrubbed with a GS-37 product only when necessary. The property's plaza area is swept and inspected once per hour during business hours and cleaned with a GS-37 product as needed. Cleaning inspections are continuous by property staff.

The property's exterior trash and recycling storage is located at the loading dock on 2nd Street and is swept and inspected daily and auto scrubbed monthly.

C. OUTDOOR INTEGRATED PEST CONTROL – INSPECTION, IDENTIFICATION AND MONITORING

Pest inspection and identification is conducted by a licensed pest control specialist on a monthly basis in all critical areas; critical areas include the property's trash and recycling storage area, loading dock, entrances, basement areas, etc. All other non-critical areas are inspected on an ongoing basis by the property's facilities and cleaning staff and are inspected by a pest control specialist on an as-needed basis or by request only.

Pest inspection involves the visual inspection of susceptible areas, the placement and inspection of passive insect monitoring devices, and the inspection for evidence of pest presence and/or sites that can be attractive to pests.

D. OUTDOOR INTEGRATED PEST CONTROL - STRUCTURAL REPAIRS

A monthly structural inspection by the property's pest control company is a critical component of the IPM program and is supplemented by ongoing structural inspections by the property's engineering and cleaning staff. Structural repairs focus on sealing and caulking cracks, holes, and voids that harbor pests. Potential pest entry points are immediately sealed with fire-stop sealant, caulk, door sweeps, caulking, or routine repair materials.

E. OUTDOOR INTEGRATED PEST CONTROL - STORAGE

The property does not store any pesticide inventory on-site. Pesticides are procured from a licensed pest control company on an as-needed basis in the prescribed quantity.

F. OUTDOOR INTEGRATED PEST CONTROL – MECHANICAL CONTROLS

Mechanical controls may include the use of snap traps, mechanical multiple rodent traps, and glue traps. These mechanical controls are applied as-needed, without prior notification to building occupants.

Mechanical traps that use bait blocks will only be used on the exterior of the building. These traps will be fully enclosed and will remain locked at all times unless being serviced by the pest control contractor. Use of exterior baited traps requires occupant notification as outlined in this Plan.

G. OUTDOOR INTEGRATED PEST CONTROL - DECISION TO USE PESTICIDES

Following the proper identification of pests and their habitats, threshold factors are considered. Threshold point of pests varies from industry to industry and after determining the pest population and threshold, further pest control action may not be warranted.

When pest populations exceed the thresholds, the decision to use pesticides depends on the determination whether the pests can be controlled from non-pesticide measures such as exclusion, building repair, mechanical controls, sanitation, and human behavior adjustments. When the decision is made to use pesticides, a non-chemical pesticide will first be considered for use.

H. OUTDOOR INTEGRATED PEST CONTROL - NON-CHEMICAL PESTICIDES

When sanitation, structural repairs and mechanical controls prove insufficient, the management team firsts attempt to treat pests with those non-chemical pesticides that the EPA has exempted from the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act under FIFRA Section 25B. These non-chemical pesticides are applied as-needed, without prior notification to building occupants.

I. OUTDOOR INTEGRATED PEST CONTROL - LEAST TOXIC CHEMICAL PESTICIDES

When sanitation, structural repairs, mechanical controls, and non-chemical pesticides have proven to be ineffective in pest remediation, the management team calls upon a licensed pest control company to apply a "least toxic" chemical pesticide to a targeted area for a specific pest species.

Least toxic pesticides are defined as pesticide products that meet San Francisco's Tier 3 hazard screening criteria (least hazardous). The version of the hazard screening list current at the time this Plan was authored is included in Appendix A.

Non-rodent pesticides are also considered to be least toxic pesticides even if they exceed San Francisco's Tier 3 criteria, provided that they are used in self-contained bait stations and placed in inaccessible locations.

Rodent baits are not considered to be least toxic under any circumstances. Rodent baits must be solid blocks placed in locked outdoor dispensers. Rodent bait application requires universal notification as outlined below.

J. OUTDOOR INTEGRATED PEST CONTROL - CHEMICAL PESTICIDES OTHER THAN LEAST-TOXIC

When all other IPM methods, including non-chemical pesticides and least-toxic pesticides have been exhausted, a non-least toxic chemical pesticide can be applied. All chemical pesticides should be applied to a specific targeted area with advanced occupant notification when possible.

K. OUTDOOR INTEGRATED PEST CONTROL - UNIVERSAL NOTIFICATION OF CHEMICAL PESTICIDE APPLICATION

A critical component of the property's IPM plan is a "Universal Notification" strategy to provide tenants with at least 72 hours of advanced notice prior to any pesticide application, other than least-toxic pesticides or non-rodent pesticides in self-enclosed bait stations, applied in the building or on the surrounding project grounds. Universal notification is communicated to tenant representatives via email. The notice includes a description of the property's IPM program and a list of all pesticides that may be used as part of the IPM program; the name, address and telephone number of the contact person of the building; and a statement that the contact person maintains the product label and material safety data sheet (MSDS) of each pesticide used by the building, that the label or MSDS is available for review upon request, and that the contact person is available for information and comment.

In addition to tenant notification, the management team provides 72 hours of advanced notice to the property's cleaning staff, facilities staff, security staff, and contractors.

L. OUTDOOR INTEGRATED PEST CONTROL - EMERGENCY APPLICATION OF CHEMICAL PESTICIDES

When it is determined that an emergency application of non-least toxic, chemical pesticides must be made due to an infestation or an otherwise rapidly growing pest population, the management team will, as-needed, authorize an emergency application provided that there is universal notification to all of the above parties no more than 24 hours following a pesticide application.

M. OUTDOOR INTEGRATED PEST CONTROL - ANNUAL REVIEW OF PEST CONTROL METHODS

On an annual basis a review of all pesticides, control measures, and areas of activity is conducted. The plan is reviewed for its effectiveness in controlling pests as well as its effectiveness in reducing overall chemical, economical, and risk concerns. The IPM plan is updated and renewed as needed.

N. DECISION MATRIX

The following table summarizes the classification of pesticides and baits, along with the universal communication and logging requirements:

Product or Technique	Considerations	Pesticide Application Log Entry	Communication Requirements
Non-chemical pesticide application	Determine if active ingredient is listed on SF Hazard Screening Criteria List	Optional	None
Mechanical Traps	None	Optional	None
Non-rodent pesticides in self-contained bait stations in inaccessible locations	Inaccessible is defined as a locked or otherwise secured location	Yes	Optional
Pesticides on SF Tier 3 List (least toxic)	Determine if active ingredient is listed on SF Hazard Screening Criteria List	Yes	Optional
Pesticides on SF Tier 1 or 2 (non-least toxic)	Only to be used when least toxic has failed or in an emergency	Yes	Universal Notification as described in this Plan
Rodent baits	Never considered least-toxic, can only be used in solid blocks in locked, outdoor dispensers	Yes	Universal Notification as described in this Plan
Second-generation rodenticides, such as "single feed" blocks	Are never to be used if building is adjacent to a wetland, parkland or other area where wildlife may be affected	Yes	Universal Notification as described in this Plan

O. EROSION AND SEDIMENTATION CONTROL – ONGOING LANDSCAPE OPERATIONS

The property has a limited quantity of exposed topsoil as the overwhelming majority of the site's topsoil is covered by granite pavers, bricks and/or vegetation.

As a best practice to prevent wind and water erosion from landscaped areas, the soil level in the building's planters is maintained 4-6 inches below the lip of the planters. The property also maintains adequate vegetation and mulch coverage in the planter beds year-round.

P. EROSION AND SEDIMENTATION CONTROL – CONSTRUCTION ACTIVITIES

As a best practice, the management team includes erosion and sedimentation control in all future construction plans. As a component of this plan, topsoil is either protected on-site or moved off-site to a controlled environment.



When topsoil is exposed during a project, best practices call for the use of erosion control blankets during dry periods and waterproof tarps during expected periods of rain or snow. Tarps shall be positioned to direct rainfall into the sewer system.

When topsoil must be stockpiled on-site, the soil shall be stockpiled away from areas with heavy water flow and further contained by a silt fence and waterproof tarp.

When topsoil is moved off-site for storage, best practices call for soil tests to identify any potential contaminants prior to storage.

As a best practice, all construction plans are required to identify potential site pollutants in advance and to develop and implement a written site plan to minimize these pollutants. At a minimum, each construction plan shall contain the following clauses:

1. Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion & sediment control measures shall be implemented to control or treat the sediment source.
2. The project personnel or contractor shall provide dust control and protect adjacent streets from accumulations of soil by installation and maintenance of temporary exit pad.
3. Sediment and erosion measures to be inspected daily by contractor or project personnel. Sediment will be removed as necessary to ensure efficient operation of the facility during and after construction.
4. Contractor or project personnel are responsible for monitoring downstream conditions throughout the construction period and clearing any debris and sediment accumulation caused by the construction.
5. All disturbed areas to be replanted or otherwise covered as soon as construction phases permit.
6. The contractor or project personnel shall be required to incorporate all temporary and permanent erosion control measures into the project at the earliest practicable time during demolition and construction. The erosion control measures detailed herein shall be continued until the permanent drainage facilities have been constructed and until the grass on planted plots and slopes is sufficiently established to be an effective erosion deterrent. The sediment removed from control structures shall be evenly distributed outside construction limits at locations specified by the management team. Disposed sediment shall be permanently grassed.
7. Construction exit/entrance shall be maintained throughout construction.
8. No trucks or vehicles shall leave the site with muddy tires or with any substance that will damage or stain adjacent properties or public right-of-way.

9. Silt fence shall meet the requirements of applicable local, state or district, or federal regulations of the USEPA, whichever is more stringent.
10. The escape of sediment from the site shall be prevented by the installation of erosion control measures prior to, or concurrent with land disturbing activities.
11. Construction contracts will include a written plan that addresses a means with which to minimize pollution from asphalts, glues, adhesives, paints, curing compounds, hydraulic oil/fluids, diesel fuel, kerosene, gasoline, antifreeze and/or coolants.

Q. LANDSCAPE MANAGEMENT PLAN – DESIGN

Best management practices call for a high performance landscaping design that incorporates native or adaptive vegetation to preserve ecological integrity, enhance natural diversity, protect wildlife, minimize energy waste, minimize water waste and minimize the need for fertilizer.

Best management practices call for a phased transition to 100% native and adaptive vegetation. When selecting new plant material, the management team will work with the landscape vendor to identify and plant native/adaptive plantings based on “Landscape Plants for the Arizona Desert” published by the Arizona Water Users Association or “Landscape Plants for Dry Regions” by Warren Jones and Charles Sacamano.

R. NOXIOUS SPECIES

Best practices call for the avoidance of noxious species. Weeding of noxious species is accomplished with minimal soil disruption.

S. LANDSCAPE MANAGEMENT PLAN – MAINTENANCE

Best management practices for landscaping call for the use of environmentally friendly equipment, fertilizers, watering techniques and waste cleanup.

Best management practices call for the use of maintenance equipment with the smallest environmental impact in regards to energy use, water use, noise, emissions and soil compaction.

The property’s exterior maintenance equipment consists of equipment owned and maintained by building ownership and equipment owned and maintained by third party service providers. The property’s exterior and hardscape management plan is applicable to all of the property’s equipment regardless of ownership.

Best management practices call for the replacement of maintenance equipment only at the end of its useful life. All maintenance purchases shall consider the expected life of the new equipment to be purchased as well as the equipment’s environmental impact in regards to energy use, water use, noise, emissions and soil compaction.

Best practices call for a concerted effort to use organic fertilizers rather than chemical fertilizers. Best practices calls for fertilizer to only be stored off-site and only brought on-site when deemed necessary by the property's landscaper. At no time shall chemical fertilizers be used within 25 feet of any waterway.

Best management practices call for annual soil testing to identify the specific nutrients that are required for the landscaping plan. Nitrogen shall never be applied more than three times per year or in quantities greater than 250 pounds per acre. As a best management practice fertilizers should be targeted around the rooting zone or at the base of specific plants. Best practices call for the use of slow-release fertilizers rather than "weed and feed" products.

The property's irrigation system is comprised of drip irrigation and high-efficiency sprinklers. To prevent the utility waste and potential erosion associated with excessive watering, the irrigation system is outfitted with a web-based Tucor Controller and operated only by a trained landscaper.

T. LANDSCAPE MANAGEMENT PLAN – LANDSCAPING WASTE

The property shall minimize landscape waste by requiring landscape service providers to mulch or compost all landscaping waste.

U. PROTECTION FROM CHEMICAL RUNOFF

Best practices for protection against chemical runoff (gasoline, oil, antifreeze, salts, etc.) include strategies to keep cars off of unpaved areas while maintaining grease traps in garage drains. Best management practices include regular inspections of storm drains to prevent clogs or occlusions.

PERFORMANCE MEASUREMENT

The building has established numeric performance metrics to assess how actual outcomes and sustainability performance for each component of this plan will be measured and tracked over time.

On an annual basis the management team will calculate the percentage of compliant pest control expenditures (by dollar amount) during the previous year. A minimum of 100% of the property's expenditures shall be compliant with this plan.

On an annual basis the management team will calculate the percentage of exterior construction activity (by dollar amount) that complied with the property's erosion and sedimentation control plan during the previous year. 100% of the property's expenditures shall be compliant.

On an annual basis the management team will calculate the percentage of landscape waste (by volume) that was diverted from the waste stream via mulching or composting. 100% of the property's landscape waste shall be diverted.

On an annual basis the management team will calculate the percentage of chemical fertilizer (by weight) that complied with the property's landscaping plan during the previous year. A minimum of 20% of the property's expenditures shall be compliant with this plan.

QUALITY ASSURANCE , QUALITY CONTROL PROCESSES

At least once per week the management team will conduct an exterior inspection to evaluate the continued efficacy of this plan.

The Responsible Party will meet with all relevant vendors on an annual basis to review the requirements of this Plan and ensure that performance metrics will be met. Furthermore, this Plan will be included as an exhibit to all service contracts related to exterior maintenance. Performance results will be recorded in the LEED Compliance Log.

On an annual basis the management team will convene to discuss the continued viability of the performance metrics as effective measurements of the plan's successful implementation.

PLAN APPROVAL



Terry Loo
Senior Real Estate Manager
The Phoenix Plaza

APPENDIX A

Products Screened by the Integrated Pest Management Program,
City and County of San Francisco



APPENDIX B

Commercially Available Native Plants

